GEOLOGICAL, GEOCHEMICAL and DIAMOND DRILLING

REPORT

ON THE

SPECOGNA-MUCHALAT PROPERTY

NTS: 92E/16 W
ALBERNI MINING DIVISION

NORANDA EXPLORATION COMPANY, LIMITED
(No Personal Liability)

REPORT BY: RICK KEMP
GRAHAM GILL

NOVEMBER, 1993

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1.0 EXECUTIVE SUMMARY

The purpose of this report is to document drilling, mapping and soil geochem fieldwork conducted on the Specogna-Muchalat Property. The Specogna-Muchalat property is a Zn-Pb-Ag-Au volcanogenic massive sulphide prospect located in the northern part of Vancouver Island 35 km from Gold River (Alberni Mining Division; NTS 92E/16; lat 49°55'; long 126°20'). The property is underlain by metamorphosed sediments and volcanics of the Devonian Sicker Group and Cretaceous Granites of the Coast Plutonic Complex. Massive sulphide float was discovered by E. Specogna south of the Muchalat River and named the Dragon Showing.

During May 5 to July 6th an integrated program of detailed mapping and soil geochem was conducted and followed by a two hole 301.4 m diamond drill program. Mapping defined stratigraphic relationships as a north striking steeply-dipping succession of felsic and mafic volcanics overlain by sediments and limestone. A semimassive sulphide showing was discovered and named the Falls Showing. Diamond drilling was directed at testing the down-dip potential of the Falls Showing and did not intersect significant mineralization. Soil geochem results indicate local elevated areas of Zn (>100ppm) and Cu (40ppm) over stratigraphy both south and north of the main showing stratigraphy.

It is recommended the property be further assessed with a diamond drill program directed at the on-strike potential of the showing stratigraphy and additional mapping and ground geophysics be conducted over the strata south of the Falls Showing.

2.0 PURPOSE

This report documents fieldwork conducted on the Specogna-Muchalat property in 1993 and is submitted to fulfill assessment reporting requirements.

3.0 BACKGROUND

3.1 Introduction

The Specogna-Muchalat property is a Zn-Pb-Ag-Au massive sulphide prospect near Gold River on Vancouver Island. The 1993 exploration program consisted of diamond drilling (2 holes, 301.4 m), detailed mapping (1:5000), and soil sampling (128 samples). Mapping was conducted in conjunction with soil sampling and helped develop the basic geological framework on the property. During the mapping program a semi-massive pyrite-pyrrhotite-sphalerite-galena showing was discovered and termed the Falls Showing as it lies on top of a waterfall (the north showing is located 30m north). The showing became the focus of a diamond drill program where two flat holes were drilled from the base of the falls to test the down-dip potential of the Falls Showing semi-massive sulphide mineralization.

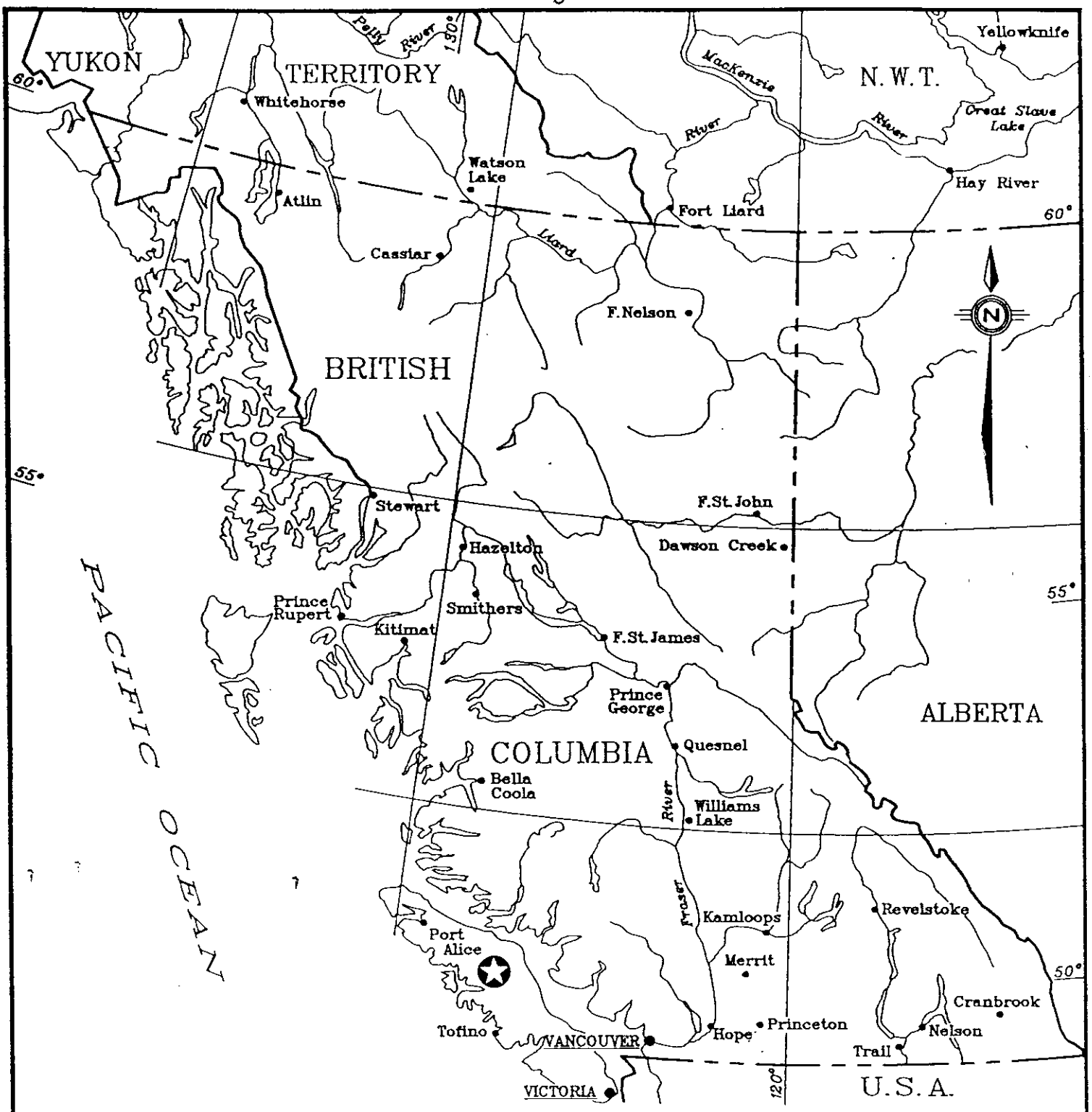
3.2 Location and Access

The Specogna-Muchalat property is located 35 km north-northwest of Gold River, Vancouver Island in the Alberni Mining Division (NTS 92E/16; lat 49°55'; long 126°20'; Figure 1). Access is by highway #28 to Gold River then by logging roads to the property. The terrain is moderate to rugged with many areas requiring careful planning and ropes to traverse safely. Much of the lower elevation areas have been logged off as clear-cuts and have dramatically increased bedrock exposure.

3.3 PREVIOUS WORK

Prior to 1992 very little systematic exploration had been conducted on the Specogna-Muchalat Property. Records indicate showings on and near the property host up to 5.8% Cu, 6.6% Zn, and 2.3% Pb within Sicker Group stratigraphy. Northeast of the property some work was conducted on the Maybee "A" claim (R.J. Lightle, 1990).

In 1992 an airborne Mag-Radiometric-EM survey was conducted over the Specogna-Muchalat property. Initial mapping was carried out in the fall of 1992 to follow-up resistivity anomalies.



REVISED	**SPECOGNA**
	LOCATION MAP
PROJ. No.	SURVEY BY: DATE: JUNE 1991
K.T.S.	DRAWN BY: J.SERWIN (ACAD) SCALE:
DWG. No. Fig 1	NORANDA EXPLORATION
	OFFICE: VANCOUVER

3.4 TENURE

The Specogna-Muchalat property comprises 474 contiguous units of modified grid claims and four units of two post claims as shown in Figure 2. A Statement of Costs is provided in Appendix II. The property originally consisted of the Dragon, Dragon 2,3,4 claims and was optioned to Noranda Exploration Co. Ltd. (NOREX) by E. Specogna of Specogna Minerals Inc. Additional claims were subsequently stated by NOREX. Pertinent claim data is listed below:

NAME	# UNITS	RECORD NO.	EXPIRY DATE
ANGELA	20	310454	20 JUN 1994
BRADLY	16	312840	25 AUG 1995
CANDICE	8	312843	26 AUG 1995
CLIGNON	20	310453	12 JUN 1994
CONUMA 1	16	310417	20 JUN 1994
CONUMA 2	16	310419	20 JUN 1994
DRAGON	18	309275	05 MAY 1994
DRAGON 2	18	310420	19 JUN 1994
DRAGON 3	18	310424	19 JUN 1994
DRAGON 4	18	310429	20 JUN 1994
DUS	20	310497	20 JUN 1994
FEDORA	20	310496	20 JUN 1994
FELKEN	20	310495	20 JUN 1994
FLY 1	16	310416	14 JUN 1994
FLY 2	16	310418	14 JUN 1994
JEROMY	16	312841	25 AUG 1995
KEMP 1	1	310456	21 JUN 1994
KEMP 2	1	310461	21 JUN 1994
KEMP 3	1	311091	05 JUL 1994
KEMP 4	1	311090	05 JUL 1994
MINO	16	310415	20 JUN 1994
MUCH 1	12	311005	25 JUN 1994
MUCH 2	12	311006	24 JUN 1994
MUCH 3	18	311007	24 JUN 1994
MUCH 4	20	311008	26 JUN 1994
OLIVER	20	312842	26 AUG 1995
PAN	18		
PLUG	16	312839	25 AUG 1995
POT	18		
SUSAN	8	312844	26 AUG 1995
SWAH #2	20	311004	28 JUN 1994
TOL 1	10	311001	28 JUN 1994
TOL 2	10	311002	29 JUN 1994
TOL 3	16	311003	29 JUN 1994
TRINCO	20	310455	12 JUN 1994

• The expiry dates as listed will be in effect upon approval of this work.

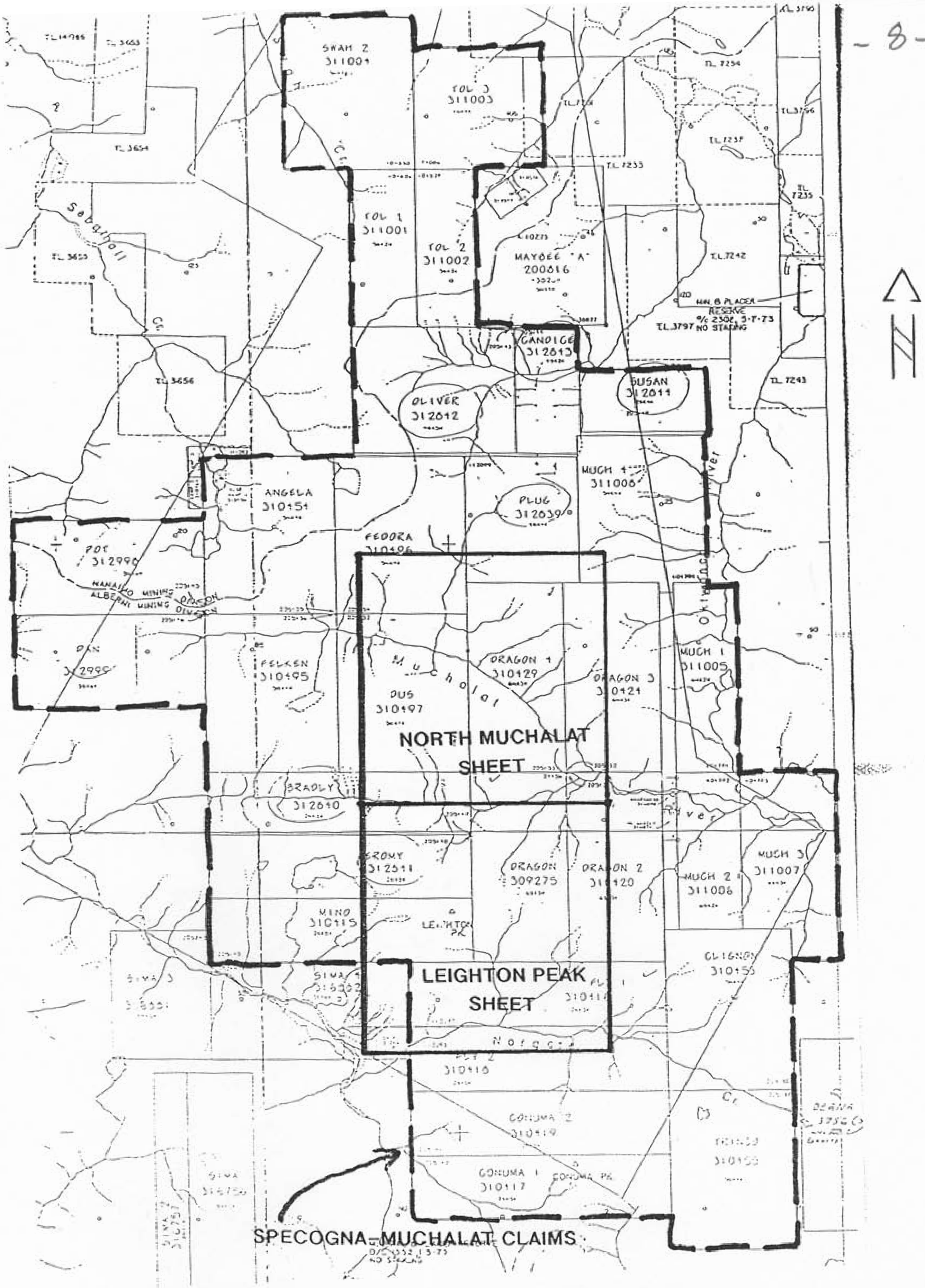


Fig 2 Claim Location Map (1:100,000 Scale)

3.0 GEOLOGY

3.1 Regional Geology

The region is underlain by Jurassic-Cretaceous intrusions of the coast plutonic complex and a north-south trending belt of Paleozoic Sicker Group sediments/volcanics and Triassic Karmutsen Basalts. Locally the rocks have been metamorphosed to upper greenschist - subamphibolite facies.

3.2 Property Geology

The property was mapped at 1:5000 scale using chain, compass and altimeter for control.

The Specogna-Muchalat property is underlain by a north-south striking steeply dipping succession of felsic/mafic volcanics and sediments of the Paleozoic Sicker Group and by massive basalts and diorite bodies of the Triassic Karmutsen Formation. Map units are described below in ascending stratigraphic order:

Unit Descriptions

Sicker Group (Paleozoic)

Unit 1: Felsic Volcanic Extrusive-Intrusive Complex; Unit 1 rocks are the stratigraphically lowest mapped and are characterized by a massive, white weathering appearance and siliceous nature. The unit varies from aphyric and spherulitic (1a) to quartz-feldspar phyric (1b) to feldspar phyric (1c). Local quartz eyes toward the base are a conspicuous light blue colour and <1 to 2 mm in diameter.

Unit 2: Mafic Volcanics; Unit 2 rocks are massive, fine-grained and dark green weathering. The andesitic rocks are interpreted as fine-grained massive flows and locally as sills.

Unit 3: Felsic Volcanics; Unit 3 is characterized by massive to moderately cleaved aphyric to feldpar-quartz phyric and lapilli bearing units. Unit 3 rocks include aphyric massive rocks similar to unit 1a and volcaniclastic tuffs, lapilli tufs and rare agglomeratic lapilli tuffs. Volcaniclastic rocks are dominantly monolithic and exhibit tight interfolded beds locally.

Unit 4: Sediments; Unit 4 is a weakly to moderately cleaved, poorly bedded package of biotitic tuffaceous(?) sediments.

Unit 5: Chert; Unit 5 is a 5 to 10 cm thick bedded grey chert unit interlaminated

with silty beds of unit 4. Chert outcrops in the north portion of the Leighton Peak Sheet associated with limestone beds of unit 6.

Unit 6: Limestone; Unit 6 is massive, fine-medium grained buff weathering limestone. Typically nonfossiliferous though locally may host thin fossil bearing beds.

Karmutsen Formation (Triassic)

Unit 7: Mafic Volcanics and Diorite; Unit 7 is characterized by fresh-looking massive fine-grained flows that overlie limestones of Unit 6 and are also characterized by fine-medium intrusions (dykes and sills) interpreted a feeder dykes to the stratigraphically higher flows.

Coast Intrusive Complex (Cretaceous to Jurassic)

Unit 8: Diorite and Granite; Unit 8 includes fresh-looking granites and diorites, locally xenolithic.

Structure

Structurally the Sicker Group sedimentary-volcanic package is a dominantly steeply dipping, approximate north-south striking succession characterized by a penetrative cleavage fabric. Bedding cleavage relationships are unclear. On the Leighton Peak Sheet the stratigraphy shows a pronounced thickening without a significant change in dip. The thickening is interpreted as primary and may define a sub-basin or hinge zone.

Alteration

Alteration is dominantly quartz-sericite assemblages within the felsic volcanic strat. Quartz alteration is manifested as stockwork veinlet and as pervasive silicification. Sericite alteration is disseminated along cleavage plane. In the sedimentary units (and mafic units?) biotite ± garnet is characteristic. Alteration is discussed in more detail in section 5.1.

Mineralization

Mineralization consists of massive fine-medium grained sphalerite-pyrite-galena boulders (dragon float), semimassive fine-grained pyrite-pyrrhotite-sphalerite-galena in outcrop (Falls and North Showings) and local disseminated to stringer type fine-medium grained pyrite-sphalerite-galena mineralization

Grab samples from the Falls Showing returned values of up to 3.9% Zn, 0.78% Pb and 2.3g/t Au. Grab samples from the North Showing returned values of up to 11.2% Zn, 0.18% Pb and 4.3g/t Au.

4.0 GEOCHEMISTRY

4.1 Soil Geochemistry

Compass and chain flagged lines were established as east-west traverse lines approximately 250 m apart for a soil geochem survey over a felsic - sedimentary contact package to detect anomalous base metal soil geochemistry.

Line were established to traverse the coast range diorite and the felsics stratigraphically below the felsic-sediment contact of interest. Samples were collected at 25 m intervals. No base line was established due to irregular topography. Soil samples were collected from the lower B to upper C soil horizon to depths of 10 to 40 centimetres with a mattock and placed in Kraft soil bags. Sample preparation and analysis was completed at the Noranda Delta Laboratory. Analytical procedures described under Appendix I.

A total of 275 samples were collected of which 128 were submitted for analysis (125 soil and three silt). Zinc and copper soil results are plotted on Figures 5 through 8 with geochemical results attached under Appendix III.

Results of the 1993 geochemical survey indicate local Zn anomalies on both the North Muchalat and Leighton Peak 1:5000 mapsheets (Figures 5 and 7 respectively). On North Muchalat in the southern area a 150 to 200 m by 500 area of >100 ppm Zn is roughly defined while to the north a 300 by 25 to 150 m area of >100 ppm Zn straddles the projection of a felsic-sedimentary contact. On the Leigthton Peak Sheet, a poorly defined Zn anomaly 100 by 50 m lies in the southern area of sampling. Copper anomalies (>40 ppm), on the North Muchalat Sheet (Figures 6 and 8), up to 400m by 25 to 200m are interpreted to be underlain by a felsic volcanic-sedimentary contact. On the Leighton Peak Sheet a 400 m by 50 to 100 m >40 ppm Cu anomaly is situated near and over(?) a felsic volcanic - limestone contact. Threshold values for copper and silt were based on a visual inspection of the data.

5.0 DIAMOND DRILLING

5.1 Introduction

During June 27 to July 6th, 1993 a two hole NQ size coring program was conducted for a total of 301.4 m. Both holes were collared approximately 100 m below the Falls Showing to test the down dip potential of semi-massive pyrite-pyrrhotite-sphalerite-galena mineralization (Figure 4). The first hole (NSP93-01) was collared at 260° azimuth with a 0° dip and had a final length of 114.6 m. The second hole (NSP93-2) was collared less than ten metres away at an azimuth of 226° and 0° dip with a final length of 186.8 m. Drilling was conducted by Cancor. Holes were left plugged and all casing was pulled.

5.2 Results

No significant base metal intersections were intersected. Both holes intersected strong biotite ± garnet alteration and weak base metal mineralization downdip of the Falls Showing. The holes intersected steeply dipping felsic lapilli tuffs, mafic lapilli tuffs, limestone and biotite-rich sediments(?). Alteration is locally pervasive and made primary lithological identification difficult. Elevated base metal intervals included sections with up to 3049 ppm Zn and 1123 ppm Cu (see appendix V for drill logs, sections and analysis).

Part of the core is stored at Cancor in Courtenay, and part at Noranda warehouse in Delta T.K.

6.0 CONCLUSIONS

Based on the work completed on the Specogna-Muchalat property from May 3 to July 6th of 1993 , the following conclusions can be made:

1. The central portion of the claim group is underlain by Sicker Group sediments and volcanics that strike north-south, dip steeply east and west and top west.

2. The Falls Showing is a semi-massive pyrite-pyrrhotite-sphalerite-galena VMS type showing.

3. Drilling tested the downdip potential of the Falls Showing and did not intersect significant base metal or sulphide concentrations.

4. Soil Geochemistry detected local areas of anamalous Zn (>100ppm) and Cu (>40 ppm) associated with a sediment-felsic volcanic contact along strike of that that appears to host the Falls Showing mineralization.

7.0 RECOMMENDATIONS

It is recommended a follow-up drill program be conducted to test the Falls Showing stratigraphy both along strike to the north and south. Ground geophysics (mag, IP) detailed mapping and lithogeochemical sampling are recommended over an area south of the showing to trace the stratigraphy in more detail and to follow-up soil geochem anomalies.

8.0 REFERENCES

Robertson, K.A., 1993. Combined Airborne Magnetic, Electromagnetic, Radiometric and VLF-EM Report on the Muchalat Property. Assessment Report (un-numbered)

APPENDIX I

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Richard Kemp, of the City of Vancouver, Province of British Columbia, do hereby certify that:

1) I am a geologist, residing at #111 - 2455 York Avenue, Vancouver, B.C.

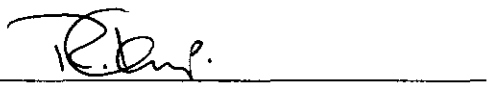
2) I am a graduate of the Haileybury School of Mines (1974) Mining Technician Diploma and hold a B.Sc. Geology degree from Lakehead University (1981).

3) I have worked in mineral exploration in Canada and internationally since 1974 as a mining technician and since 1981 as a geologist.

4) The work described in this report was conducted under my supervision and I have prepared this report based on the field observations of those contracted by Noranda Exploration Company, Limited.

5) I have been continuously employed by Noranda Exploration Company, Limited since 1982.

6) I have no interest in the property nor do I expect to receive any.



Richard Kemp

STATEMENT OF QUALIFICATIONS
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I, D. Graham Gill of the City of Vancouver, Province of British Columbia, hereby certify that:

I am a geologist residing at 5442 - 7th Avenue, Delta, B.C.

I have graduated from the University of British Columbia in 1983 with a BSc in geology.

I have worked in mineral exploration since 1979.

I have been a temporary employee with Noranda Exploration Company, Limited since May, 1979 and a permanent employee since November, 1987.

D. Graham Gill

APPENDIX II

STATEMENT OF COSTS

A. Soil/Silt Geochem Survey

1) May 5 to May 18th, 1993; 12.5 days; Dave and Mike Heino at $650/day (all inclusive - salaries, meals, accomodation, travel). Total Cost $ 8125

2) May 5 to May 18th, 1993; 12.5 days; 128 samples analyzed for 28 element ICP; $13.50/sample. Total Cost $ 1728

Sub total $ 9853

B. Geological Mapping Survey

1) May 3 to May 29th; 46 man days;
G. Gill 23 days @ $255/day
T. Walde 18 days @ $260/day
R. Kemp 5 days @ $305/day
Total Cost $12070

2) Accomodation and Meals Total Cost $ 2888

3) Transportation
Trucks $462
Helicopter $900
Total Cost $ 1362

Sub total $16320

C. Diamond Drill Program (June 27 to July 4th, 1993)

1) Contract Costs (300 m at $70/m) Total Cost $15621

2) Supervision and Logging (R. Kemp @ $375/day) Total Cost $ 2440

3) Assays 45 @ 13.50 ea Total Cost $ 607

4) Meals and Accomodation Total Cost $ 924

5) Transportation (Helicopter) Total Cost $ 4137

Sub total $23729

D. Report: Writing- 2 days at $375/day
Drafting- 1 day at $225/day
Typing- 1 day at $150/day Total Cost $ 1125

GRAND TOTAL $51027

APPENDIX III

ANALYTICAL PROCEDURES

ANALYTICAL PROCEDURE

Soils, Silts, Rocks

Samples are dried and screened to -80 mesh. Rock samples are pulverized to -120 mesh. A 0.2 gram sample is digested with 3 ml of $HClO_4/HNO_3$ (4 to 1 ratio) at 203°C for four hours, and diluted to 11 ml with water. A Leeman PS 3000 is used to determine elemental contents by I.C.P. Note that the major oxide elements and Ba, Be, Ce, Ga, La and Li are rarely dissolved completely from geological materials with this acid dissolution method.

For Au analyses, a 10.0 gram sample of -80 mesh material is digested with aqua regia and determination made by A.A.

Heavy Mineral Concentrates

The entire concentrate is digested in aqua regia solution, and elemental concentrations of Au, Ag, Cu, Pb, and Zn are determined by A.A.

APPENDIX IV

CERTIFICATES OF ANALYSIS

FILE 34 Resamp
Copy to R. King.

NORANDA DELTA LABORATORY

Geochemical Analysis

Project Name & No.: SPECOGNA – 134 Geol.: G.G Date received: MAY. 13 LAB CODE: 9305–015
Material: 3 Silts, 125 Soils Sheet: 1 of 4 Date completed: MAY. 25
Remarks: * Sample screened @ –35 MESH (0.5 mm)
¤ Organic, Δ Humus, S Sulfide

Au – 10.0 g sample digested with aqua–regia and determined by A.A. (D.L. 5 PPB)
ICP – 0.2 g sample digested with 3 ml $HClO_4/HNO_3$ (4:1) at 203 °C for 4 hours diluted to 10 ml with water. Leeman PS3000 ICP determined elemental contents.
N.B. The major oxide elements and Ba, Be, Ce, La, Li, Ga are rarely dissolved completely from geological materials with this acid dissolution method.

T.T. No.	SAMPLE No.	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm
	279 – A silt	5	0.2	4.08	364	735	1.3	5	2.26	1.5	60	20	30	129	4.40	0.61	23	12	1.56	942	6	0.07	44	0.09	33	61	0.46	127	357
	B silt	5	0.2	4.12	189	615	1.4	5	2.44	0.7	60	13	24	110	3.74	0.70	21	11	1.40	747	4	0.07	36	0.08	19	55	0.37	112	179
5	C	5	0.2	2.61	3	45	0.2	5	1.02	0.3	33	4	20	10	3.38	0.15	9	4	0.68	359	1	0.07	10	0.03	5	65	0.62	183	37
6	D	5	0.2	1.76	2	35	0.2	5	0.44	0.3	23	1	16	3	1.42	0.16	6	2	0.16	256	1	0.03	2	0.03	2	30	0.71	130	18
7	E	5	0.2	1.42	2	34	0.2	5	0.33	0.2	19	1	21	2	2.72	0.09	4	2	0.08	250	1	0.02	2	0.02	2	31	0.86	270	19
8	F	5	0.2	1.24	2	24	0.2	5	0.24	0.2	14	1	30	1	3.65	0.06	3	1	0.05	273	1	0.02	3	0.02	2	25	0.93	379	19
9	G	5	0.2	2.18	3	24	0.2	5	0.46	0.2	20	1	19	3	2.51	0.10	4	2	0.14	210	1	0.03	3	0.02	2	39	0.89	272	20
10	H	5	0.2	1.22	5	29	0.2	5	0.22	0.3	14	2	16	6	3.88	0.14	3	2	0.12	192	1	0.02	3	0.02	2	14	0.47	196	20
11	I	5	0.2	1.47	3	38	0.2	5	0.33	0.2	17	1	26	7	4.64	0.07	5	2	0.12	240	1	0.02	3	0.02	2	25	0.70	280	19
12	K	5	0.4	2.93	2	43	0.2	5	0.30	0.4	18	1	27	18	6.81	0.16	5	3	0.18	181	1	0.03	5	0.04	3	22	0.91	336	29
13	L	5	0.4	1.74	2	27	0.2	5	0.16	0.2	14	1	16	9	5.58	0.13	5	3	0.19	135	1	0.02	4	0.04	2	15	0.59	303	25
14	M	5	0.2	2.38	2	42	0.2	5	0.38	0.2	19	1	17	9	5.79	0.19	5	3	0.32	266	1	0.03	4	0.03	4	28	0.83	293	28
15	N	5	0.2	1.42	6	31	0.2	5	0.15	0.2	20	1	28	20	4.32	0.13	6	3	0.21	221	2	0.02	7	0.03	6	11	0.98	410	21
16	O	5	0.2	1.54	4	26	0.2	5	0.24	0.2	15	1	24	23	3.61	0.07	4	2	0.15	139	3	0.02	5	0.06	2	17	0.78	239	23
17	P	5	0.2	1.87	5	33	0.2	5	0.32	0.2	18	1	30	11	5.09	0.09	4	2	0.13	230	2	0.02	5	0.04	2	27	0.87	338	28
18	Q	5	0.2	4.49	2	77	0.3	5	0.92	0.2	33	4	20	18	3.29	0.15	9	6	0.50	268	2	0.05	9	0.05	4	42	0.44	126	41
19	R	5	0.2	2.89	3	26	0.2	5	0.53	0.2	25	2	23	12	5.16	0.08	7	3	0.26	219	1	0.05	5	0.03	3	37	0.57	187	27
20	S	5	0.2	4.60	2	41	0.3	5	0.56	0.3	28	3	24	28	4.84	0.10	7	5	0.33	272	1	0.05	6	0.05	5	32	0.58	199	41
21	T	5	0.2	2.65	6	88	0.5	5	1.50	0.7	44	12	22	36	3.59	0.14	13	6	0.84	576	1	0.10	14	0.07	5	55	0.41	132	57
	U	5	0.2	4.15	2	75	0.4	5	1.03	0.5	40	8	19	44	3.50	0.12	11	5	0.65	418	1	0.07	12	0.08	3	41	0.37	122	53
23	V	5	0.2	2.82	2	39	0.2	5	0.47	0.3	27	1	21	15	4.55	0.10	7	4	0.21	197	1	0.04	3	0.04	3	37	0.64	224	26
24	279 – W	5	0.2	3.95	2	39	0.2	5	0.70	0.3	31	3	26	20	5.03	0.10	7	4	0.47	288	1	0.06	8	0.05	3	42	0.66	204	37
25	280 – V	5	0.2	4.11	2	123	0.5	5	1.46	0.7	49	14	15	56	4.00	0.25	13	7	1.19	679	1	0.12	15	0.08	5	57	0.44	140	61
26	280 – W	5	0.2	3.67	2	129	0.5	5	1.88	0.5	49	16	15	69	4.22	0.28	14	7	1.29	716	1	0.15	17	0.08	6	75	0.45	141	69
27	281 – A	5	0.2	3.71	5	136	0.5	5	1.80	0.5	48	15	14	64	4.19	0.27	13	7	1.28	728	1	0.14	17	0.08	5	75	0.44	140	64
28	B	5	0.2	3.57	2	78	0.3	5	0.71	0.4	32	4	18	34	3.33	0.10	9	4	0.37	251	1	0.06	10	0.07	2	38	0.39	126	38
29	C	5	0.2	6.08	3	121	0.9	5	0.82	0.4	41	9	16	76	3.87	0.12	14	5	0.56	319	1	0.06	15	0.07	5	39	0.35	143	48
30	D	5	0.6	5.67	2	34	0.4	5	0.52	0.4	30	4	22	43	4.33	0.07	9	3	0.31	214	1	0.04	7	0.07	3	25	0.39	142	36
31	E	25	0.2	4.32	2	64	0.3	5	0.55	0.2	30	3	26	33	5.91	0.13	9	5	0.38	269	2	0.05	7	0.05	4	32	0.71	213	39
32	F	5	0.2	8.33	2	37	0.3	5	0.48	0.2	33	2	30	34	5.16	0.11	8	6	0.30	222	1	0.05	7	0.08	5	28	0.54	173	37
33	G	10	0.2	4.68	2	36	0.3	5	0.68	0.2	33	3	25	31	5.11	0.09	10	4	0.42	316	1	0.07	8	0.06	2	41	0.62	179	33
34	H	5	0.2	5.22	2	29	0.3	5	0.67	0.2	32	3	22	28	4.72	0.09	7	5	0.44	296	1	0.07	7	0.05	2	42	0.56	178	36
35	I	5	0.2	6.09	2	55	0.3	5	0.61	0.2	36	5	17	38	3.23	0.09	10	3	0.48	271	1	0.05	9	0.09	2	31	0.34	107	34
36	J	5	0.4	5.30	2	46	0.2	5	0.51	0.2	26	2	24	35	4.27	0.08	6	4	0.34	228	1	0.05	7	0.07	3	23	0.52	156	31
37	281 – K	5	0.2	6.29	2	52	0.3	5	0.51	0.2	30	2	30	31	4.82	0.07	8	5	0.29	198	1	0.05	7	0.07	5	25	0.52	155	30

11/06 GP

T.T. No.	SAMPLE No.	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm
38	281 – L	5	0.4	9.03	2	37	0.4	5	0.40	0.2	30	3	24	62	3.68	0.06	8	3	0.28	179	1	0.04	7	0.11	5	16	0.30	100	28
39	M	5	0.6	6.32	2	47	0.3	5	0.48	0.2	31	3	23	48	4.04	0.08	9	4	0.32	199	1	0.04	7	0.09	5	20	0.42	138	35
40	N	5	0.4	3.46	170	243	1.0	5	0.87	0.3	55	15	23	55	4.32	0.33	18	10	0.71	867	4	0.04	15	0.07	26	32	0.37	117	126
41	P	5	1.2	3.59	110	301	1.1	5	0.53	0.2	57	10	19	63	3.90	0.40	24	8	0.49	512	5	0.03	10	0.05	18	25	0.38	113	94
42	Q	5	0.2	4.22	49	1573	0.7	5	0.25	0.2	33	1	20	53	4.83	0.19	13	9	0.75	434	2	0.03	6	0.06	13	15	0.68	267	63
43	U	5	0.6	3.59	148	306	0.9	5	1.01	0.2	55	8	21	42	3.95	0.42	20	10	0.82	650	5	0.04	14	0.07	29	34	0.40	108	106
44	281 – V	5	0.4	2.98	139	151	0.4	5	0.35	0.2	37	1	14	22	3.47	0.25	14	3	0.21	220	4	0.03	6	0.05	5	22	0.46	131	39
45	282 – A	5	0.2	1.40	16	115	0.3	5	0.22	0.2	31	1	8	5	0.87	0.24	12	1	0.10	184	1	0.02	3	0.02	2	19	0.40	53	17
46	B silt	5	0.4	3.55	199	252	1.1	5	1.39	0.9	57	15	17	94	3.21	0.20	19	8	0.46	1754	4	0.05	15	0.12	26	41	0.26	87	284
47	282 – C	5	0.2	2.63	55	130	0.4	5	0.52	0.2	34	2	15	30	3.00	0.19	11	5	0.33	391	2	0.03	7	0.05	5	25	0.39	104	54
	283 – A	5	0.2	1.64	2	43	0.2	5	0.23	0.2	16	1	17	2	2.92	0.09	3	2	0.08	172	1	0.02	2	0.03	2	23	0.82	289	20
51	B	5	0.2	0.82	3	44	0.2	5	0.08	0.2	21	1	5	3	0.60	0.15	8	2	0.05	161	1	0.02	3	0.02	2	12	0.38	59	14
52	C	5	0.2	2.26	2	68	0.2	5	0.45	0.3	22	1	18	11	3.31	0.27	5	3	0.42	233	2	0.04	6	0.04	9	29	0.82	244	29
53	E	5	0.2	5.77	2	42	0.2	5	0.53	0.2	27	3	25	26	5.10	0.10	7	4	0.43	254	1	0.05	8	0.05	5	27	0.50	148	38
54	F	5	0.2	2.95	2	55	0.2	5	0.85	0.2	35	4	23	17	4.65	0.11	7	3	0.56	353	1	0.07	10	0.04	3	45	0.51	161	32
55	G	5	0.2	4.45	2	25	0.2	5	0.59	0.2	31	1	25	17	4.78	0.07	9	3	0.28	233	1	0.06	5	0.04	2	40	0.60	206	28
56	H	5	0.2	4.00	2	26	0.2	5	0.38	0.2	21	1	29	18	5.83	0.08	5	3	0.16	190	1	0.04	5	0.05	2	28	0.79	267	28
57	I	5	0.2	2.52	2	46	0.2	5	0.58	0.2	27	1	23	8	3.85	0.12	6	4	0.28	254	1	0.04	7	0.04	2	46	0.78	274	32
58	J	5	0.2	3.17	2	46	0.2	5	0.47	0.2	24	1	23	15	5.54	0.13	6	5	0.23	226	5	0.04	5	0.04	4	34	0.74	242	31
59	K	5	0.2	3.25	3	30	0.2	5	0.40	0.2	23	1	26	14	6.30	0.09	6	3	0.19	173	5	0.03	6	0.05	6	31	0.64	223	28
60	L	5	0.2	2.85	2	31	0.2	5	0.36	0.2	22	1	21	13	5.66	0.14	6	4	0.18	171	4	0.03	6	0.05	5	25	0.77	256	30
61	M	5	0.2	2.23	2	29	0.2	5	0.48	0.2	25	1	17	10	4.52	0.14	7	4	0.32	233	2	0.03	3	0.04	2	32	0.65	216	34
62	N	5	0.2	3.75	2	38	0.2	5	0.41	0.2	24	1	30	14	5.21	0.09	7	5	0.16	238	1	0.04	5	0.05	2	34	0.71	229	31
63	O	5	0.4	3.79	2	35	0.2	5	0.60	0.2	27	2	28	17	5.92	0.13	7	4	0.36	245	1	0.05	6	0.05	2	38	0.59	192	35
64	283 – P	5	0.2	9.41	2	19	0.3	5	0.53	0.2	39	2	37	31	6.61	0.08	7	4	0.31	203	1	0.05	7	0.07	3	33	0.57	205	30
65	284 – A	5	0.4	2.90	18	44	0.3	5	1.00	0.2	42	1	21	13	6.50	0.12	14	7	0.12	390	1	0.02	7	0.06	9	28	0.84	212	57
66	B	10	0.2	1.35	6	17	0.4	5	1.63	0.2	58	1	5	4	0.88	0.08	20	2	0.04	482	1	0.02	3	0.02	2	12	0.30	57	16
67	C	5	0.2	0.50	2	13	0.2	5	0.04	0.2	33	1	2	1	0.29	0.07	14	1	0.03	242	1	0.01	2	0.01	2	3	0.31	17	12
68	D	5	0.2	0.76	2	13	0.3	5	0.03	0.2	52	1	3	2	1.46	0.04	24	1	0.04	203	1	0.01	2	0.01	2	3	0.22	43	22
	E	5	0.2	2.91	2	162	0.2	5	0.04	0.2	24	1	3	2	2.44	0.33	11	2	0.23	353	1	0.02	1	0.03	2	5	0.43	97	34
70	F	5	0.2	7.86	2	138	0.6	5	0.11	0.2	27	14	13	3	6.44	0.75	15	11	1.40	876	1	0.02	17	0.08	13	18	0.49	294	82
71	G	5	0.4	3.24	2	136	0.4	5	0.21	0.2	37	2	8	6	4.08	0.44	15	6	0.30	330	1	0.03	4	0.05	5	20	0.49	137	28
72	H	5	0.2	2.82	2	81	0.2	5	0.16	0.2	30	1	6	3	3.52	0.34	13	2	0.21	229	1	0.02	3	0.05	2	17	0.42	114	21
73	I	5	0.2	2.64	2	63	0.2	5	0.11	0.2	30	1	5	1	3.13	0.28	13	3	0.20	404	1	0.02	1	0.04	2	14	0.48	108	19
74	J	5	0.2	0.35	2	11	0.2	5	0.01	0.2	22	1	3	1	0.88	0.09	10	1	0.03	80	1	0.01	1	0.03	2	2	0.15	24	6
75	K	5	0.2	1.79	2	35	0.2	5	0.18	0.2	30	1	10	1	3.71	0.20	12	2	0.13	243	1	0.02	2	0.03	2	17	0.65	182	15
76	L	5	0.2	1.15	2	74	0.2	5	0.04	0.2	20	1	3	1	0.71	0.39	9	1	0.05	150	1	0.02	1	0.01	2	5	0.22	25	11
77	M	35	0.2	2.66	2	97	0.3	5	0.33	0.2	28	1	10	2	2.29	0.45	10	3	0.21	207	1	0.03	2	0.03	3	33	0.57	124	20
78	284 – N	5	0.2	2.02	2	294	0.3	5	0.02	0.2	33	1	2	1	0.96	0.85	15	3	0.09	320	1	0.03	1	0.03	2	5	0.24	26	16
79	LH1 – 000	5	0.2	5.20	2	34	0.4	5	0.59	0.2	33	3	29	31	6.20	0.14	9	6	0.36	231	1	0.04	8	0.07	6	44	0.55	160	43
80	LH1 – 25W	5	0.2	4.07	14	145	0.7	5	1.93	0.6	53	20	18	116	4.05	0.16	18	11	0.69	1010	3	0.07	24	0.13	9	53	0.40	110	97
81	50	5	0.4	3.97	13	158	0.7	5	1.85	0.5	51	21	18	130	4.03	0.17	17	11	0.66	944	2	0.08	26	0.14	7	56	0.39	103	113
82	75	5	0.2	3.82	14	176	0.6	5	2.04	0.5	49	21	19	128	4.36	0.17	16	10	0.76	966	3	0.08	26	0.12	7	49	0.41	115	110
83	100	5	0.4	3.69	10	160	0.6	5	1.76	0.6	49	21	18	128	3.93	0.16	16	10	0.69	1077	2	0.07	23	0.13	8	44	0.38	106	102
84	LH1 – 125W	5	0.2	4.04	10	142	0.7	5	1.54	0.5	50	20	19	128	4.08	0.13	17	10	0.70	776	4	0.07	25	0.11	7	42	0.39	110	103

T.T. No.	SAMPLE No.	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm
85	LH1 – 150W	10	0.2	3.60	14	171	0.6	5	1.47	0.4	48	19	18	126	4.11	0.13	16	9	0.68	990	2	0.07	23	0.12	8	41	0.38	106	95
86	175	5	0.4	3.90	14	141	0.7	5	1.88	0.4	51	20	17	111	3.89	0.14	16	10	0.59	1099	2	0.06	24	0.13	10	47	0.35	96	106
87	200	5	0.2	1.79	3	83	0.2	5	0.64	0.2	30	1	10	12	1.11	0.16	8	2	0.11	171	1	0.03	5	0.04	2	23	0.51	79	19
88	225	5	0.4	2.88	7	86	0.3	5	0.54	0.2	34	1	18	31	3.91	0.12	11	6	0.22	133	2	0.03	7	0.10	2	20	0.48	122	36
89	LH1 – 250W	5	0.2	3.69	13	136	0.7	5	1.36	0.4	50	18	18	93	3.90	0.13	16	9	0.52	1516	3	0.05	20	0.14	9	35	0.36	99	87
90	LH1 – 275W	5	0.2	1.17	2	166	0.2	5	1.10	0.2	30	1	14	7	1.57	0.06	7	2	0.03	168	1	0.02	4	0.02	2	22	0.44	95	15
91	LH1 – 300W	5	0.2	2.10	4	34	0.3	5	1.30	0.2	39	1	20	9	3.42	0.05	11	8	0.17	145	1	0.02	5	0.04	2	37	0.66	217	33
92	LH2 – 000	20	0.2	4.22	2	25	0.2	5	0.53	0.2	23	1	49	35	9.00	0.10	4	4	0.29	170	1	0.04	8	0.06	5	30	1.26	413	33
93	25	5	0.2	7.37	2	25	0.3	5	0.81	0.2	30	5	36	47	4.60	0.11	6	4	0.53	273	1	0.05	12	0.06	4	48	0.48	143	39
94	LH2 – 75W	5	0.2	4.61	6	32	0.4	5	1.40	0.2	44	2	20	54	3.09	0.08	14	7	0.23	106	1	0.06	13	0.05	9	32	0.38	74	70
	LH2 – 100W	5	0.4	5.45	4	38	0.6	5	1.63	0.2	47	3	21	43	2.76	0.07	15	8	0.24	100	1	0.08	18	0.06	9	39	0.39	64	80
96	125	5	0.4	3.81	9	57	0.5	5	1.58	0.2	47	1	19	20	3.00	0.12	16	8	0.27	140	5	0.06	10	0.05	9	37	0.48	118	63
97	150	5	0.2	4.55	6	41	0.6	5	1.63	0.2	50	2	17	32	2.78	0.09	18	8	0.25	114	3	0.07	13	0.05	8	36	0.40	77	67
98	200	5	0.2	5.33	2	31	0.3	5	0.87	0.2	38	5	23	29	4.84	0.15	10	5	0.61	298	2	0.05	11	0.06	6	43	0.51	129	42
101	LH2 – 225W	5	0.2	4.84	2	57	0.5	5	0.58	0.2	31	4	29	31	5.61	0.20	9	9	0.48	272	2	0.04	9	0.05	5	31	0.60	163	58
102	LH2 – 250W	5	0.2	2.60	2	55	0.3	5	0.23	0.2	24	1	11	7	4.74	0.23	9	4	0.13	173	3	0.02	2	0.04	3	19	0.58	153	34
103	275	5	0.2	5.28	2	95	0.4	5	0.31	0.2	28	3	17	33	4.07	0.28	9	8	0.37	258	1	0.03	6	0.04	2	20	0.38	106	44
104	300	5	0.2	3.95	2	59	0.4	5	0.45	0.2	28	2	18	22	6.11	0.17	10	4	0.41	238	2	0.04	7	0.06	3	25	0.49	123	46
105	325	5	0.2	2.78	2	98	0.3	5	0.18	0.2	23	1	6	6	3.90	0.33	10	2	0.19	169	1	0.02	2	0.02	2	15	0.40	105	29
106	LH2 – 375W	5	0.4	2.44	8	180	0.3	5	0.77	0.2	35	5	31	19	4.98	0.14	13	7	0.36	528	1	0.01	10	0.08	4	10	0.34	104	61
107	LH2 – 400W	10	0.4	4.31	8	122	0.5	5	1.08	0.2	41	9	23	24	3.82	0.05	18	5	0.19	1036	1	0.02	10	0.13	9	18	0.31	66	50
108	425	5	0.4	2.45	23	212	0.5	5	2.22	1.1	48	16	13	69	3.65	0.09	20	6	0.28	1747	1	0.08	27	0.13	7	40	0.29	49	94
109	450	5	0.2	2.74	23	301	0.6	5	2.43	0.8	49	15	13	43	3.33	0.12	20	9	0.41	1802	2	0.07	22	0.17	9	41	0.30	52	91
110	475	5	0.2	2.57	16	166	0.5	5	2.00	0.5	47	13	18	23	3.30	0.10	19	7	0.26	1747	1	0.07	14	0.18	8	39	0.35	63	78
111	LH2 – 500W	5	0.2	2.39	13	196	0.6	5	2.29	0.6	53	13	18	24	2.96	0.08	24	8	0.30	2289	1	0.07	16	0.13	7	41	0.33	52	63
112	LH2 – 525W	5	0.8	6.88	2	32	0.8	5	1.72	0.2	69	19	21	17	2.92	0.08	42	6	0.07	1304	1	0.04	13	0.16	10	84	0.37	51	65
113	LH3 – 000	5	0.2	3.90	22	46	0.8	5	1.51	0.2	55	11	14	52	3.39	0.09	21	10	0.32	922	3	0.04	18	0.07	9	31	0.38	67	92
114	25	5	0.4	2.16	13	48	0.4	5	1.10	0.2	43	3	17	24	3.24	0.07	16	6	0.23	347	2	0.03	12	0.04	5	23	0.48	116	50
115	50	5	0.4	2.28	13	42	0.4	5	0.96	0.2	39	8	20	21	3.92	0.08	13	8	0.52	882	1	0.02	9	0.06	8	27	0.40	90	51
	LH3 – 75W	5	0.2	3.12	2	104	0.2	5	0.12	0.2	26	1	3	3	3.04	0.30	12	4	0.13	126	1	0.02	1	0.03	2	13	0.22	57	16
117	LH3 – 100W	5	0.4	3.29	9	53	1.1	6	1.23	0.5	52	10	17	14	2.98	0.08	18	14	2.85	1631	1	0.12	16	0.09	8	49	0.32	75	90
118	125	5	0.2	3.26	7	98	1.0	5	0.91	1.6	52	18	18	23	3.26	0.05	25	12	6.58	3431	1	0.02	37	0.14	10	25	0.25	83	140
119	150	5	0.2	3.19	9	102	0.7	5	0.88	1.2	39	16	16	17	3.25	0.07	14	8	6.01	3088	1	0.02	17	0.14	12	21	0.26	89	154
120	175	5	0.6	3.18	12	143	0.8	6	1.16	0.9	43	15	16	35	2.99	0.08	16	14	4.35	1870	2	0.03	24	0.11	11	30	0.23	67	112
121	LH3 – 200W	5	0.6	2.33	9	59	0.5	5	1.63	0.2	45	4	33	15	5.17	0.08	14	7	0.59	691	2	0.02	9	0.08	10	55	0.70	209	72
122	LH3 – 225W	5	0.2	3.47	19	76	1.2	5	0.54	5.0	53	16	1	17	2.09	0.04	26	12	14.82	2680	1	0.02	40	0.12	2	11	0.15	91	174
123	275	5	0.4	2.90	18	87	1.0	5	1.27	3.6	49	15	2	20	2.06	0.06	36	16	12.52	2778	1	0.03	53	0.13	2	20	0.16	68	112
124	300	5	0.4	2.49	7	61	0.6	5	1.34	0.5	51	11	13	19	4.19	0.11	26	14	2.47	1158	8	0.02	16	0.13	54	54	0.28	94	101
125	325	5	0.6	2.41	18	81	0.7	5	1.94	2.5	55	13	10	24	2.32	0.06	26	12	6.01	3399	2	0.06	52	0.09	11	51	0.24	50	119
126	LH3 – 350W	5	0.2	2.51	9	55	0.7	5	1.30	0.6	45	5	25	12	3.04	0.07	21	10	2.06	1973	2	0.03	17	0.07	5	41	0.45	114	62
127	LH3 – 375W	5	0.2	2.36	3	78	0.4	5	0.66	0.2	32	1	17	16	3.68	0.08	10	8	0.42	129	2	0.02	6	0.03	3	36	0.60	183	35
128	400	5	0.2	6.78	5	130	0.6	5	0.54	0.2	33	4	22	88	4.67	0.11	9	9	0.64	224	4	0.04	14	0.08	8	18	0.38	135	64
129	425	5	0.2	1.26	2	392	0.2	5	0.18	0.2	19	1	5	23	1.17	0.14	6	1	0.09	110	2	0.02	4	0.02	2	14	0.32	134	10
130	LH3 – 450W	5	0.2	1.21	6	253	0.2	5	0.23	0.2	17	1	12	18	2.45	0.11	4	2	0.11	195	5	0.02	4	0.02	2	24	0.60	216	15
131	DH93 – 1	10	0.2	3.36	129	396	1.0	6	1.54	0.3	59	15	35	72	3.96	0.40	18	10	1.21	820	4	0.08	27	0.07	19	57	0.39	119	174

T.T. No.	SAMPLE No.	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sr ppm	Ti %	V ppm	Zn ppm
132	DH93 – 2	25	0.2	4.05	339	675	1.4	6	1.97	0.8	69	18	26	115	4.29	0.67	24	12	1.37	975	8	0.07	37	0.09	35	49	0.41	118	320
133	3	5	0.2	2.72	8	81	0.4	5	1.55	0.2	44	9	16	28	4.20	0.20	11	5	0.78	587	2	0.10	11	0.06	2	61	0.41	161	61
134	DH93 – 4	10	0.2	3.22	13	104	0.5	5	2.07	0.2	48	6	15	44	2.87	0.14	14	8	0.52	360	2	0.08	14	0.06	5	48	0.39	86	80

APPENDIX V

DRILL LOGS, SECTIONS AND ANALYSIS

EQUITY ENGINEERING LTD.

DRILL LOG

PROJECT: SPECOGNA. #~~134~~ 117	GROUND ELEV.: 430m.
HOLE NO.: NSP 93-1	BEARING: 260° Az.
LOCATION: HEADWALL OF Discovery creek AT Junction with FALLS CREEK 4984E 4995N	DIP: FLAT.
	TOTAL LENGTH: 114.6 m.
LOGGED BY: KEMP.	HORIZONTAL PROJECT
DATE: June 28 193.	VERTICAL PROJECT
CONTRACTOR: CANCOR Drilling	**ALTERATION SCALE**
CORE SIZE: BDBGM.	
DATE STARTED: June 28 193.	
DATE COMPLETED: June 30 193.	**TOTAL SULPHIDE SCALE**
DIP TESTS: NONE.	
COMMENTS	LEGEND

absent

slight

moderate

intense

traces only

< 1%

1% – 3%

3% – 10%

> 10%

PAGE 1 OF 8 | PROJECT: Specogna Option #134 | HOLE NO. NSP93-1

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACTURE INTENSITY	% VEIN QTZ.
				0.0 - 4.4 Felsic LAP. TUFF. Grey/blue color. V. Hard, Silic Smeared & Flattened Lapilli. SER. ALT'D Along Fract. FRAG. coarsens towards 4.4m. Py/Po FRACT control. 0.5 to <1.0%							
				4.4 - 8.2 MAFIC Intrusive dyke. Upper contact @ 37° to CA. Lower Contact Broken.							
				8.2 - 29.5 Felsic LAPILLI TUFF. White to grey-blue color. lapilli ill defined, wispy texture, stretched and ghost like frag. outline. Garnet porphyroblasts 1-2mm flesh-Pink color. aggregates along banding fract. or as discrete porphyroblasts. Felsite dykes randomly intrude. V. Hard, silicified & locally. sericite altd along fract. 17.1-17.7 Felsite dyke. Upper contact 50° to CA. Lower contact 50° to CA. 23.9-24.4 Felsite dyke. @ 14.2m Foliation AT 20° to CA. Py/Po FRACT control. to <1% From 17.8-29.5 30% by Volume Felsite intrusive & 70% Felsic Volc. Good Sericite altd. 26.2-26.8							
				29.5 - 43.7 MAFIC LAPILLI TUFF Grey-Brown color. Marked increase in Biotite. (Biotite alteration) Unit V. Hard. & Siliceous. White lapilli frags defined due to color contrast of Qtz rich-Poor layers. contact with felsic lap tuff sharp & well defined. Marked decrease in Py-Po to local tr amts. 42.5 - 43.0 felsite dyke 43.2 - 43.6 " " Foliation @ 29.5 = 45° to CA. " @ 40.4 = 45° to CA.							

PAGE 2 OF 8 | PROJECT: Specogna Option #134, | HOLE NO. NSP93-1

MINERALIZATION DESCRIPTION	TOTAL SULPHIDES	SAMPLES FROM	TO	WIDTH	SAMPLE NUMBER	ASSAYS
		0.0	1.0	1.0	476-A	
		1.0	2.0	1.0	-B	
		2.0	3.0	1.0	-C	
		3.0	4.4	1.4	476-D	
		8.2	9.0	1.2	476-E	
		9.0	11.0	2.0	-F	
		11.0	14.0	3.0	-G	
		14.0	15.0	1.0	-H	
		15.0	17.0	2.0	-I	
		17.0	19.0	2.0	-J	
		19.0	21.0	2.0	-K	
		21.0	23.0	2.0	-L	
		23.0	25.0	2.0	-M	
		25.0	27.0	2.0	-N	
		27.0	28.0	1.0	-O	
		28.0	29.5	1.5	476-P	
		29.5	31.5	2.0	476-Q	
		31.5	32.5	1.0	-R	
		36.0	37.0	1.0	-S	
		40.5	41.5	1.0	476-T	

PROJECT: Spearsgrass option #134.

HOLE NO. NSP93-1

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACTURE INTENSITY	% VEIN QTZ.
				43.7-47.6 Felsic Rhyolite Flow? Unit is Blue in color. Lacks. FRAGS - NO biotite. Local Sericite altd along fract. V. Hard, V. Siliceous 44.5-44.6 Breccia frags, Angular, in siliceous matrix. 45.8-46.0 Felsite intrusive 46.1-47.3 " " < Tr - Pyrite along Fract.								
				47.6-53.3 Qtz-Biotite Ricin Sediment. 47.6-51.5 Qtz-Bi Gneiss, swirled distrupted & contorted. 51.5-53.3 Increase in Biotite Brown in color. Foliation @ 52.0m = 25° to CA.								
				53.3-57.3 Limestone White to grey-blue with black fractures, reacts to HCl. Upper contact @ 53.5m = 40° to CA lower contact @ 57.3m = 35° to CA 53.5-55.7 LMST w Pb/Zn along fractures @ 54.1-54.2 & 55.1, 0.5 to <1% 55.7-56.2 Dolomite/QV? V. Siliceous 56.2-56.6 LMST w <1% Zn along fract. 56.6-57.3 Dolomite/QV? V. Siliceous								
				57.3-78.0 Biotite Rich Sediment Brown in color with bleaching and Sericite alteration along hairline fract. Unit contains finely dissem Py (Po) .5 to <1% 58.8-62.8 F.g. Py (Po) Cpy to 0.5%. 60.5-60.9 coarse grained felsite dike w rafts - xenoliths of Biotite sed - sericitized hosting Py Cpy Tr to 0.5% at 61.4m								

PROJECT:

HOLE NO.

MINERALIZATION DESCRIPTION	TOTAL SULPHIDES	SAMPLES FROM	TO	WIDTH	SAMPLE NUMBER	ASSAYS Cu	Pb	Zn	Ag
		51.5	53.2	2.0	476-U	197	5	121	0.1
		53.2	55.2	2.0	476-V	188	76	3099	0.4
		55.2	57.3	2.0	476-W	30	23	499	0.2
		57.3	59.3	2.0	477-A	286	<2	114	0.3
		59.3	61.3	2.0	477-B	572	<2	88	0.5
		61.3	63.3	2.0	477-C	356	<2	93	0.3
		63.3	65.3	2.0	477-D	29	2	78	<.1

PROJECT: Specogna Option #134

HOLE NO. NSP93-1

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACTURE INTENSITY	% VEIN QTZ.
				57.3-78.0 cont'd Foliation @ 67.5m = 35° to CA.							
				62.8-65.3 small blue Qtz eyes. - Sericite alteration becomes stronger by 65.7 - green in color lacking Brown biotite							
				72.5-74.5 noted increase in - silicification, lack of Biotite limit becomes marbled & swirled with Qtz rich knots. & Fractures holding Py Po to <1%. Foliation @ 71.6m = 60° to CA							
				74.5-76.7 Intrusive dyke green, micolor hosting 1mm Anhedral phenocrysts. Foliation 76.2m = 45° CA.							1
				76.7-78.0 Sericite altered to green color - No biotite Py (Po) to 0.5% fault gouge @ 77.3 @ 57° to C.A.							
				78.0-83.0 Limestone							
				Upper contact 78m = 50° to CA							
				lower contact 82.6m = 30° to CA							
				@ 82.3 .5% Zn along fract.							
				Cpy <1% AT lower contact along fract. Mi silicified margins to Lmst.							
				82.6-83.0 VFG & silicified							
				83.0-96.8 Biotite Rich Sed,							
				SA 57.3-74.5.							
				83.0-84.7 Bi rich Tr Py.							
				84.7-86.2 " " sericite altd							
				86.2-87.3 " " Mi. sub bedded to Embedded white phenocrysts							
				87.3-96.8 Bi rich with sericite + injections of Qtz rich layers. providing gneissic texture							
				TR Cpy @ 89.6 Py Po <1%							
				Foliation 83.2m = 40° to CA							
				86.0m = 30° to CA							
				95.2m = 45° to CA							

PROJECT:

HOLE NO.

MINERALIZATION DESCRIPTION	TOTAL SULPHIDES	SAMPLES FROM	TO	WIDTH	SAMPLE NUMBER	ASSAYS Cu	Pb	Zn	Ag
						1			
		82.2	83.0	0.8	477E	1123	295	1+1M	2.3
		89.2	90.2	1.0	477-E	97	<2	89	<.1

PAGE OF | PROJECT: Specogna. #134 | HOLE NO. NS093-1

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACTURE INTENSITY	% VEIN QTZ.
				96.8-99.7 Thinly laminated and banded white-grey green unit. Fine grained, V. Siliceous & contorted bedding. Wisps and seams of Py/Po <1%, Tr Cpy.							
				99.7-104.1 Bi rich sed. gneissic texture due to Qtz rich & poor layers. Numerous injection of felsite and granitic dykes. PATCHY to wispy sericite alteration Py/Po to 0.5%, Tr Cpy.							
				104.1-106.5 MAFIC dyke local Qtz rich injections with Tr Py Po upper contact 5° to CA lower contact 65° to CA							
				106.5-114.6 COAST Intrusive. border phase w/ XENOLITHS of Bi rich caught up in coarse grained Diorite host							
				114.6 E.O.H.							

PAGE OF | PROJECT: Specogna Optun #134 | HOLE NO. NS093-1

MINERALIZATION DESCRIPTION	TOTAL SULPHIDES	SAMPLES FROM	TO	WIDTH	SAMPLE NUMBER	ASSAYS				
		96.8	97.8	1.0	477-G					

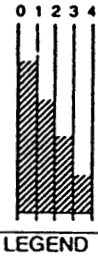
DRILL LOG

PROJECT: SPECOGNA #~~V-4~~ 117	GROUND ELEV.: 430 m.
HOLE NO.: NSP 93-2.	BEARING: 226°
LOCATION: HEADWALL of Discovery Creek. AT Junction with Falls Creek. 4992E 4970N	DIP: FLAT.
	TOTAL LENGTH: 186.8 m.
LOGGED BY: Kemp.	HORIZONTAL PROJECT
DATE: July. 6 /93.	VERTICAL PROJECT
CONTRACTOR: CANCOR.	
CORE SIZE: BDBGM.	
DATE STARTED: July 1, 1993.	
DATE COMPLETED: July. 6, 1993.	
DIP TESTS: NONE.	

ALTERATION SCALE

absent
slight
moderate
intense

TOTAL SULPHIDE SCALE



traces only
< 1%
1% – 3%
3% – 10%
> 10%

COMMENTS

LEGEND

PAGE 1 OF 3 | PROJECT: Specogna Option #134 | NSP93-2 HOLE NO.

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACTURE INTENSITY	% VEIN QTZ.
				0-2.3 Silicified Sed. Reddish brown - v. layed w. 1mm-2mm gnt porphyroblasts. Sericite - chlorite Alt'd along Fract.							
				2.3-9.7 MAFIC Dyke. . Upper contact. 32° to CA Lower contact 35° to CA							
				9.7-18.1 Felsic Volcanic Fragmental V. Hard, white to blue color, silicified - randomly orientated fract. Lower contact. 30° to CA FRAGS tightly packed.							
				18.1-106.7 - Felsic Volcanic - Rhyolitic. Lacks lapilli frags. Blue in color. . V. Hard, V. Siliceous. Small gnt porphyroblasts rutted to 2mm. Sericite alteration along fractures. provide greenish hue. with Trace Py/Po locally. Foliation 31.1m = 28° to CA. 35.6m = 40° to CA 48.8m = 38° to CA 63.0m = 25° to CA 68.0m = 30° to CA 74.0m = 20° to CA 73.2-80.2 Mafic Intrusive dyke. Upper contact = 45° to CA Lower contact = 45° to CA 91.8-92.1 Felsite dyke Upper contact at 25° to CA. 105.2-106.7 felsite dyke Upper contact 30° to CA							

PAGE 2 OF 3 | PROJECT: Specogna Option #134 | NSP93-2 HOLE NO.

MINERALIZATION DESCRIPTION	TOTAL SULPHIDES	SAMPLES FROM	TO	WIDTH	SAMPLE NUMBER	ASSAYS Cu	Pb	Zn		
		12.3	14.3	2.0	477-H					
		20.1	22.1	2.0	-I					
		25.0	27.0	2.0	-J					
		31.0	33.0	2.0	-K					
		37.0	39.0	2.0	-L					
		42.8	44.8	2.0	-M					
		47.3	49.3	2.0	-N					
		53.9	55.9	2.0	-O					
		61.3	63.3	2.0	-P					
		68.0	70.0	2.0	-Q					
		80.2	82.2	2.0	-R					
		87.0	89.0	2.0	-S					
		94.0	96.0	2.0	-T					
		100.0	102.0	2.0	-U					
		106.0	108.0	2.0	477-V					
		113.7	115.7	2.0	478-A					
		121.3	123.3	2.0	-B					
		126.2	128.2	2.0	-C					
		133.0	135.0	2.0	-D					
		140.5	142.5	2.0	-E					
		146.1	148.1	2.0	-F					
		152.4	154.4	2.0	-G					
		158.5	160.5	2.0	-H					
		164.8	166.8	2.0	-I					
		171.9	173.4	1.5	-J					
		178.0	180.0	2.0	478-K					

PAGE 3 OF 3 | PROJECT: Specogna Option #134 | HOLE NO. NSP93-2

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION A	B	C	D	E	FRACTURE INTENSITY	% VEIN QTZ.
				106.7-129.0 Altered felsic Volc. Bleached to greenish-red hue to totally altered to white-cream color, faint ghost like lapilli frags.							
				117.6-129.0 sericitized densely healed fractures. 0.5 to < 1% Py along fracs.							
				foliation 108.2m = 38° to CA							
				129.0-146.1 Felsic Volcanic - Rhyolite SA. 18.1-106.7							
				146.1-186.8 Anthophylite - Altered border phase to Coast Intrusive? Unit is white in color with white bladed radiating x11 growth and form (Anthophylite?) unit is V. Hard. & V. Silicious locally. sericitized-Dolomitized Lmst?							
				151.6-152.2 XENOLITH of Biotite Sed - silicified brown in color. bleached and ghosty contacts.							
				158.9-159.7 granitic dyke.							
				163.1-186.8 disscem. Po (Py?) as discrete grains up to 0.5%							
				186.8 EOH							

PAGE 4 OF 4 | PROJECT: Specogna Option #134 | HOLE NO. NSP93-2

MINERALIZATION DESCRIPTION	TOTAL SULPHIDES	SAMPLES FROM	TO	WIDTH	SAMPLE NUMBER	ASSAYS				

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604) 253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Speogna (RK) CORE

Noranda Exploration Co. Ltd. (Lab) PROJECT 9307-017 134 File # 93-1425 Page 1

Delta Laboratory, 1 - 755, Delta BC V4G 1A6

SAMPLE#	Mo 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	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
476A	2	29	<2	37	<.1	6	1	274	1.36	37	<5	<2	5	3	<.2	<2	<2	<2	.16	.008	27	15	.05	33	.02	<2	.33	.01	.13	1	4
476B	1	24	3	91	<.1	4	<1	365	1.99	46	<5	<2	5	4	.3	<2	<2	<2	.26	.008	28	4	.07	40	.03	6	.52	.01	.16	1	1
476C	1	31	8	69	<.1	2	1	319	1.52	71	<5	<2	5	5	.2	<2	<2	<2	.69	.009	24	5	.06	37	.04	3	.39	.01	.15	1	1
476D	3	184	6	56	.1	11	10	382	2.57	3252	<5	<2	5	13	.4	<2	<2	8	1.84	.011	16	26	.16	29	.07	74	.74	.03	.12	1	5
476E	3	27	11	203	.1	4	<1	211	1.37	43	<5	<2	5	3	.5	<2	<2	2	.27	.008	17	6	.05	38	.08	7	.34	.01	.17	1	2
RE 476E	3	26	13	204	.1	5	<1	206	1.36	41	<5	<2	5	3	.7	<2	<2	2	.27	.008	17	6	.05	36	.08	5	.34	.01	.17	1	3
476F	3	15	13	255	<.1	10	2	403	1.77	230	<5	<2	4	6	.5	<2	<2	11	.58	.010	22	24	.28	31	.04	2	.57	.01	.14	2	2
476G	3	20	6	181	<.1	14	2	502	1.87	145	<5	<2	4	11	.3	<2	<2	9	.83	.010	23	44	.28	24	.03	3	.58	.01	.14	<1	1
H	2	10	6	110	<.1	3	<1	311	1.43	44	<5	<2	5	7	.4	<2	<2	<2	.46	.005	26	4	.04	24	.02	4	.31	.01	.13	<1	2
I	3	11	5	74	<.1	6	1	311	1.54	175	<5	<2	5	6	<.2	<2	<2	<2	.35	.005	30	5	.05	23	.03	4	.35	.01	.14	1	1
476J	7	13	30	344	.1	6	<1	401	1.74	42	<5	<2	6	7	2.4	<2	<2	2	.46	.007	19	24	.07	35	.08	7	.49	.02	.12	1	2
476K	4	10	10	152	<.1	5	<1	405	1.52	172	<5	<2	7	6	.5	<2	<2	<2	.36	.006	23	6	.06	29	.07	4	.47	.03	.13	3	2
476L	4	17	9	192	<.1	5	1	331	1.50	396	<5	<2	6	7	.6	2	<2	<2	.42	.004	25	6	.05	27	.04	4	.38	.02	.14	1	2
476M	4	15	10	179	.1	7	1	294	1.46	178	<5	<2	5	7	.6	<2	<2	<2	.43	.003	19	27	.05	33	.08	7	.64	.03	.13	2	2
476N	2	19	16	158	.3	6	2	488	2.02	58	<5	<2	4	9	.6	<2	<2	<2	.39	.002	17	5	.32	39	.03	5	.67	.02	.16	1	4
476O	2	25	66	588	.6	<1	1	109	1.32	34	<5	<2	4	4	2.7	<2	<2	<2	.17	.003	18	5	.02	52	.01	4	.19	.02	.14	1	8
476P	4	27	11	490	.5	7	1	159	1.67	3	<5	<2	3	6	1.9	<2	<2	<2	.33	.004	13	21	.08	41	.03	5	.47	.05	.14	1	7
476Q	2	23	10	230	.3	3	2	645	3.31	4	<5	<2	4	17	1.2	<2	<2	6	.33	.005	13	6	.83	68	.14	4	1.51	.04	.50	2	6
476R	2	2	<2	94	<.1	10	<1	394	1.95	2	<5	<2	4	32	.2	<2	<2	11	.19	.002	19	10	.80	116	.10	8	1.22	.03	.37	1	1
476S	2	4	2	109	.1	8	4	518	2.44	<2	<5	<2	4	21	<.2	<2	<2	16	.36	.004	15	25	.86	44	.17	7	1.44	.05	.46	1	1
476T	1	2	8	62	<.1	8	2	336	2.64	<2	<5	<2	6	4	<.2	<2	<2	26	.19	.016	20	21	.36	36	.16	3	.76	.03	.43	1	1
476U	22	197	5	121	.1	96	17	1562	3.87	5	<5	<2	2	66	.2	<2	<2	68	.79	.019	6	20	2.96	846	.28	4	4.13	.10	2.42	3	6
476V	2	188	76	3049	.4	243	64	3722	1.61	13	<5	<2	<2	173	16.9	<2	<2	41	20.10	.067	15	5	5.99	328	.06	21	.93	.01	.57	<1	4
476W	1	30	23	499	.2	24	<1	1664	.29	6	<5	<2	<2	144	2.5	<2	<2	5	11.82	.032	9	2	3.99	98	.04	55	1.32	.03	.06	<1	3
477A	4	286	<2	114	.3	61	18	1997	3.89	6	<5	<2	<2	40	.6	<2	<2	50	.87	.015	4	22	3.15	728	.28	7	3.75	.08	1.97	2	6
477B	3	572	<2	88	.5	58	18	1518	3.91	2	<5	<2	<2	56	.5	<2	<2	56	.31	.018	2	21	2.36	776	.22	6	3.34	.07	1.44	3	11
C	1	356	<2	93	.3	45	12	1214	4.23	<2	<5	<2	<2	30	<.2	<2	<2	55	.16	.019	3	31	2.41	202	.23	5	3.36	.05	1.56	3	15
D	<1	29	2	78	<.1	50	13	1338	3.85	<2	<5	<2	<2	53	<.2	<2	<2	32	.22	.028	5	15	2.00	906	.21	3	2.91	.05	1.31	2	3
E	4	1123	295	1111	2.3	184	44	1645	1.39	8	<5	<2	<2	86	8.6	<2	3	20	9.12	.036	9	3	2.93	174	.06	31	1.03	<.01	.08	2	4
477F	3	97	<2	89	<.1	11	12	442	3.86	<2	<5	<2	2	25	.5	<2	<2	88	.34	.019	3	25	1.90	859	.25	<2	2.60	.06	1.70	<1	4
477G	89	185	<2	33	.2	11	9	270	2.86	<2	<5	<2	4	22	<.2	<2	<2	57	.80	.027	3	11	.77	188	.16	3	1.20	.05	.23	3	5
477H	3	29	2	57	.1	2	<1	443	1.79	57	<5	<2	5	10	<.2	<2	<2	3	.65	.009	18	4	.14	31	.07	<2	.59	.01	.15	1	2
477I	3	13	3	45	<.1	3	<1	232	1.71	24	<5	<2	5	8	.2	<2	<2	2	.35	.008	13	16	.04	32	.08	5	.50	.01	.16	1	1
477J	2	7	<2	74	<.1	6	<1	252	1.78	3	<5	<2	4	7	.2	<2	<2	3	.48	.005	17	6	.05	29	.06	<2	.50	.01	.14	1	1
477K	2	15	<2	49	<.1	4	1	358	1.23	139	<5	<2	4	17	<.2	<2	<2	<2	.78	.005	24	4	.03	33	.03	<2	.41	.01	.20	2	2
477L	2	5	4	83	<.1	5	<1	252	1.31	<2	<5	<2	4	17	<.2	<2	<2	<2	.56	.005	20	13	.03	37	.05	2	.43	.01	.18	1	1
477M	3	6	3	86	<.1	6	<1	239	1.14	<2	<5	<2	4	10	.2	<2	<2	<2	.42	.005	20	5	.03	26	.06	3	.42	.01	.16	1	5
STANDARD C/AU-R	18	61	38	126	6.9	68	28	1081	3.96	40	21	7	36	51	18.7	14	19	56	.50	.086	36	57	.88	185	.09	34	1.88	.05	.15	12	490

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 FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: CORE AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: JUL 8 1993 **DATE REPORT MAILED:** July 12/93 **SIGNED BY** .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Mo 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	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
477N	2	29	8	181	.1	4	<1	306	2.20	4	<5	<2	5	42	1.0	<2	<2	<2	1.26	.008	25	4	.04	56	.02	2	.62	.01	.26	2	3
477O	4	5	<2	124	<.1	3	1	235	1.11	<2	<5	<2	5	9	.3	<2	<2	<2	.39	.005	24	14	.02	34	.05	5	.32	.01	.17	1	1
477P	2	21	5	74	<.1	3	<1	240	1.22	13	<5	<2	5	13	.2	<2	<2	<2	.41	.007	20	4	.02	32	.05	3	.36	.01	.17	1	2
477Q	2	16	3	144	<.1	2	<1	268	1.33	47	<5	<2	5	5	<.2	<2	<2	<2	.22	.004	23	4	.02	30	.03	2	.29	.01	.17	2	1
477R	4	19	19	57	<.1	2	<1	277	1.04	12	<5	<2	5	27	.6	<2	<2	<2	.82	.005	21	18	.05	43	.03	<2	.32	.01	.20	1	1
477S	3	17	7	52	<.1	2	<1	364	1.59	25	<5	<2	5	12	.7	<2	<2	<2	.47	.005	27	5	.03	39	.02	3	.34	.01	.19	2	1
477T	3	4	2	57	<.1	1	<1	204	1.39	<2	<5	<2	4	9	.2	<2	<2	<2	.31	.003	18	5	.04	34	.05	<2	.41	.02	.15	2	<1
477U	4	8	6	214	.1	3	1	223	1.30	<2	<5	<2	4	7	.5	<2	<2	4	.36	.006	15	18	.06	36	.07	2	.38	.01	.17	2	3
RE 477U	4	8	2	216	.1	2	1	240	1.40	3	<5	<2	4	7	.5	<2	<2	4	.38	.007	15	18	.06	38	.07	3	.39	.01	.17	1	4
	2	10	<2	118	<.1	3	<1	295	1.69	4	<5	<2	6	16	.6	<2	<2	2	.67	.004	16	6	.75	61	.09	2	1.05	.02	.25	2	3
STANDARD C/AU-R	18	60	38	124	6.7	65	28	993	3.96	42	17	7	36	52	18.1	14	21	56	.51	.086	36	57	.90	185	.09	34	1.88	.06	.15	12	470

Sample type: CORE. Samples beginning 'RE' are duplicate samples.

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE Specogna (RK)

Noranda Exploration Co. Ltd. (Lab) PROJECT 9307-019 134 File # 93-1443

Delta Laboratory, 1 - 755, Delta BC V4G 1A6

SAMPLE#	Mo 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	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
478A	2	8	35	65	<.1	4	2	597	1.89	8	<5	<2	7	14	<.2	<2	<2	9	.67	.004	16	7	.94	55	.17	7	1.24	.03	.19	<1	2
478B	3	5	87	63	<.1	7	2	552	1.82	2	<5	<2	5	41	.3	<2	<2	3	1.31	.014	20	8	.52	39	.01	7	.51	.03	.16	<1	2
478C	3	8	48	76	<.1	9	1	446	1.78	3	<5	<2	6	28	<.2	<2	<2	3	1.15	.008	24	28	.30	36	.01	5	.57	.03	.13	<1	1
478D	35	18	28	83	.1	7	1	292	1.26	25	<5	<2	5	12	.3	<2	<2	4	.94	.010	23	8	.14	98	.05	6	.44	.03	.11	1	2
478E	10	12	18	94	<.1	8	2	356	1.54	80	<5	<2	5	11	.2	<2	<2	6	.66	.015	25	8	.21	67	.08	6	.61	.04	.12	1	1
478F	3	22	15	66	.1	8	2	493	.70	26	<5	<2	<2	50	<.2	2	<2	3	1.83	.021	5	24	.25	2463	.03	1710	.53	.01	.08	<1	2
478G	1	34	11	19	.2	3	2	2776	.55	22	<5	<2	<2	167	<.2	<2	<2	5	20.58	.029	4	4	.11	667	.03	658	.42	.02	.06	1	4
478H	3	13	16	26	.1	6	1	382	.64	2	<5	<2	6	32	<.2	<2	<2	4	2.46	.011	12	7	.10	316	.06	20	.61	.05	.10	2	2
478I	2	10	3	12	.4	28	3	524	.55	<2	<5	<2	<2	39	.4	2	<2	5	25.82	.031	7	7	.03	185	.03	258	.62	.01	.04	1	2
478J	1	12	8	14	.4	24	4	330	.77	3	<5	<2	<2	59	.9	<2	<2	6	20.92	.027	7	6	.03	37	.04	18	.77	.01	.04	1	5
478K	1	8	5	64	.2	14	2	253	.39	3	<5	<2	<2	57	.9	<2	<2	6	24.96	.029	7	5	.02	16	.04	533	1.37	<.01	.02	<1	4
STANDARD C/AU-R	18	56	38	128	6.6	67	29	1080	3.96	40	20	6	36	53	17.5	14	19	55	.50	.085	36	56	.89	189	.09	34	1.88	.06	.14	13	470

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 FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: CORE AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUL 9 1993 **DATE REPORT MAILED:** July 13/93 **SIGNED BY** C. Leong ...D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

CORE

NORANDA EXPLORATION COMPANY, LIMITED 0476

White - Office
Yellow - Field

LAB _____ PROJECT NO. 134 PROPERTY Specoyna N.T.S. _____

CERT. NO. _____ GRID REFERENCE Drillhole NSP93-1 DATE 7/8/93

SAMPLE REPORT

SAMPLE #	DESCRIPTION	TYPE	WIDTH	ASSAYS			CO-ORDINATES		SAMPLER
A	0.0 - 1.0 Felsic LAP. Tuff .5% Py Fract.	Core	1.0						RK
B	1.0 - 2.0 " "		1.0						
C	2.0 - 3.0 " "		1.0						
D	3.0 - 4.4 " "		1.4						
E	8.2 8.2 - 9.0 " "		0.8						
F	9.0 - 11.0 " "		2.0						
G	11.0 - 14.0 " "		3.0						
H	14.0 - 15.0 " "		1.0						
I	15.0 - 17.0 " "		2.0						
J	17.0 - 19.0 " "		2.0						
K	19.0 - 21.0 " "		2.0						
L	21.0 - 23.0 " "		2.0						
M	23.0 - 25.0 " "		2.0						
N	25.0 - 27.0 " "		2.0						
O	27.0 - 28.0 " "		1.0						
P	28.0 - 29.5 " "		1.5						
Q	29.5 - 31.5 MAFIC LAP Tuff.		2.0						
R	31.5 - 32.5 "		1.0						
S	36.0 - 37.0 "		1.0						
T	40.5 - 41.5 "		1.0						
U	51.5 - 53.2 "		1.7						
V	53.2 - 55.2 Limestone.		2.0						
W	55.2 - 57.3 Limestone.		2.1						

NORANDA EXPLORATION COMPANY, LIMITED 0477

White - Office
Yellow - Field

LAB _____ PROJECT NO. 134 PROPERTY Spracogna N.T.S. _____

CERT. NO. _____ GRID REFERENCE DDH NSP93-1, NSP93-2 DATE 7/8/93

SAMPLE REPORT

SAMPLE #	DESCRIPTION	TYPE	M WIDTH	ASSAYS			CO-ORDINATES		SAMPLER
A	57.3 - 59.3 NSP-1 Bi Sed Tr - 0.5% CPy	core	2.0						RK
B	59.3 - 61.3 " " Tr - 0.5% CPy	"	2.0						"
C	61.3 - 63.3 " " Tr - 0.5% CPy	"	2.0						
D	63.3 - 65.3 " " Bleu Qtz Eyes	"	2.0						
E	82.2 - 83.0 " Limestone <1% ZN, CPy	"	0.8						
F	89.2 - 90.2 " Bi Gneiss Tr - 0.5% CPy	"	1.0						
G	96.8 - 97.8 " Bi Gneiss Tr - 0.5% Pb, CPy	"	1.0						
H	12.3 - 14.3 NSP-2 Felsic Volc. Freq Tr Py		2.0						
I	20.1 - 22.1 " Felsic Volc. TR Py FRACT		2.0						
J	25.0 - 27.0 " TR Py FRACT.		2.0						
K	31.0 - 33.0 " TR Py FRACT.		2.0						
L	37.0 - 39.0 " TR - <1.5% Py FRACT.		2.0						
M	42.8 - 44.8 " TR Py FRACT		2.0						
N	47.3 - 49.3 " 0.5% Py FRACT		2.0						
O	53.9 - 55.9 " TR - <0.5% Py FRACT.		2.0						
P	61.3 - 63.3 " TR Py FRACT		2.0						
Q	68.0 - 70.0 " 0.5% Py FRACT.		2.0						
R	80.2 - 82.2 " 0.5 to <1% Py FRACT		2.0						
S	87.0 - 89.0 " 0.5% Py FRACT.		2.0						
T	94.0 - 96.0 " TR Py.		2.0						
U	100 - 102.0 " TR Py.		2.0						
V	106 - 108.0 SER. Alt'd Fels Frag. 0.5% Py.	V	2.0						
W									

NORANDA EXPLORATION COMPANY, LIMITED 0478

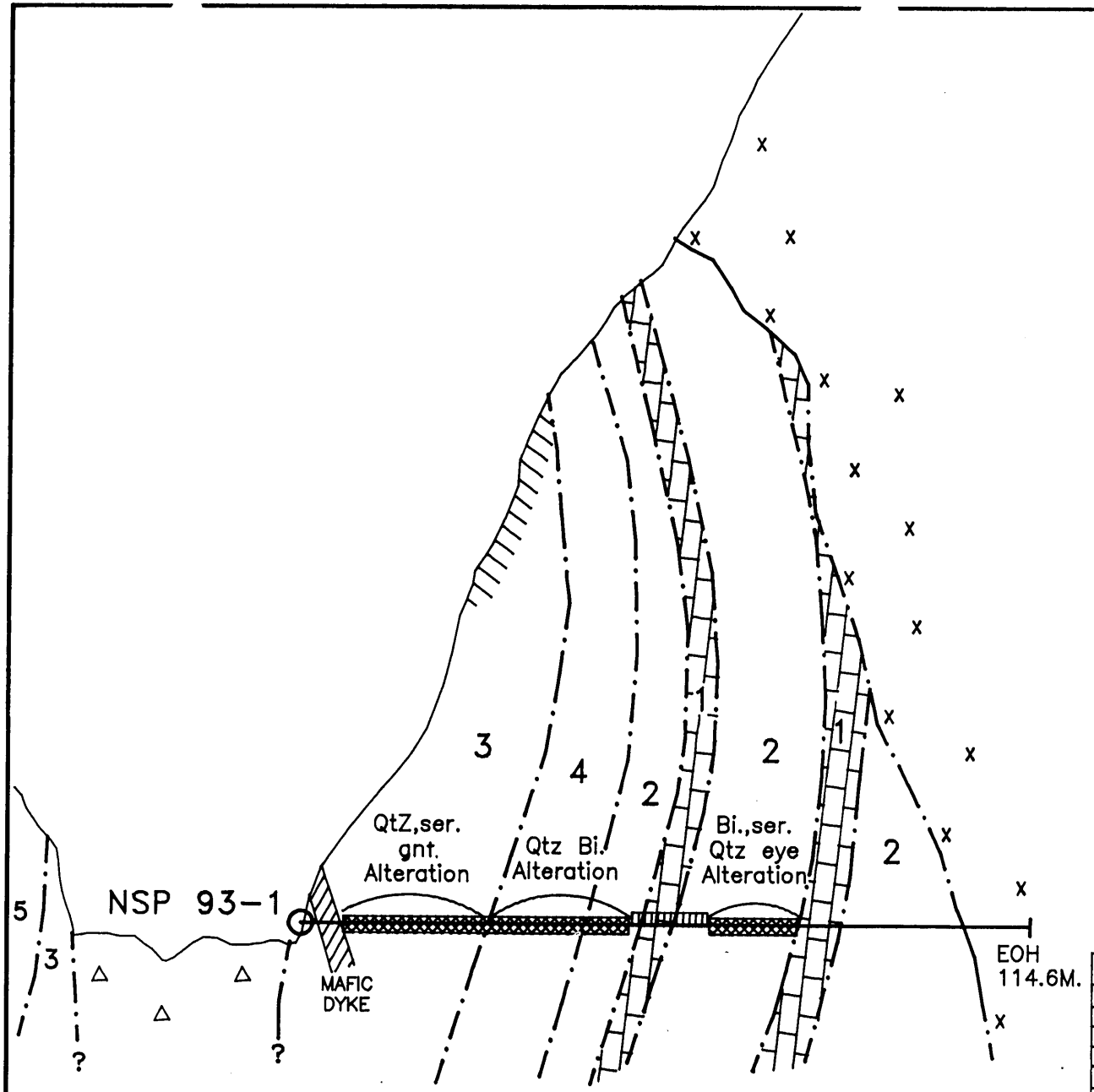
W Office
Yellow - Field

LAB _____ PROJECT NO. 134 PROPERTY Spectacle Option N.T.S. _____

CERT. NO. _____ GRID REFERENCE NSP93-2 DATE 7/8/93

SAMPLE REPORT

SAMPLE #	DESCRIPTION	TYPE	WIDTH (m)	ASSAYS			CO-ORDINATES		SAMPLER
A	113.7 - 115.7 Felsic Volc TR-0.5% Py	Core	2.0						RC
B	121.3 - 123.3 " 0.5% Py		2.0						
C	126.2 - 128.2 " 0.5 - 1% Py		2.0						
D	133.0 - 135.0 " 0.5 - 1% Py		2.0						
E	140.5 - 142.5 " TR - 0.5% Py		2.0						
F	146.1 - 148.1 White Anthophyllite Unit TR-0.5% Py		2.0						
G	152.4 - 154.4 White Anthophyllite & other Unit TR Py		2.0						
H	158.5 - 160.5 " " + Granite dykes. TR Po		2.0						
I	164.8 - 166.8 " " Po TR - 0.5% diss		2.0						
J 171.9	171.9 - 173.4 " " TR Po		1.5						
K	178.0 - 180.0 White Anthophyllite TR Po		2.0	10%	biegh silica	veins			
L									
M									
N									
O									
P									
Q									
R									
S									
T									
U									
V									
W									



LEGEND

JURASSIC

x x x ISLAND INTRUSIVE

PALEOZOIC

1 BUTTLE LAKE LIMESTONE

2 QUARTZ BIOTITE SED./TUFF

3 FELSIC LAPILLI TUFF

4 MAFIC LAPILLI TUFF

5 MAFIC VOLCANICS

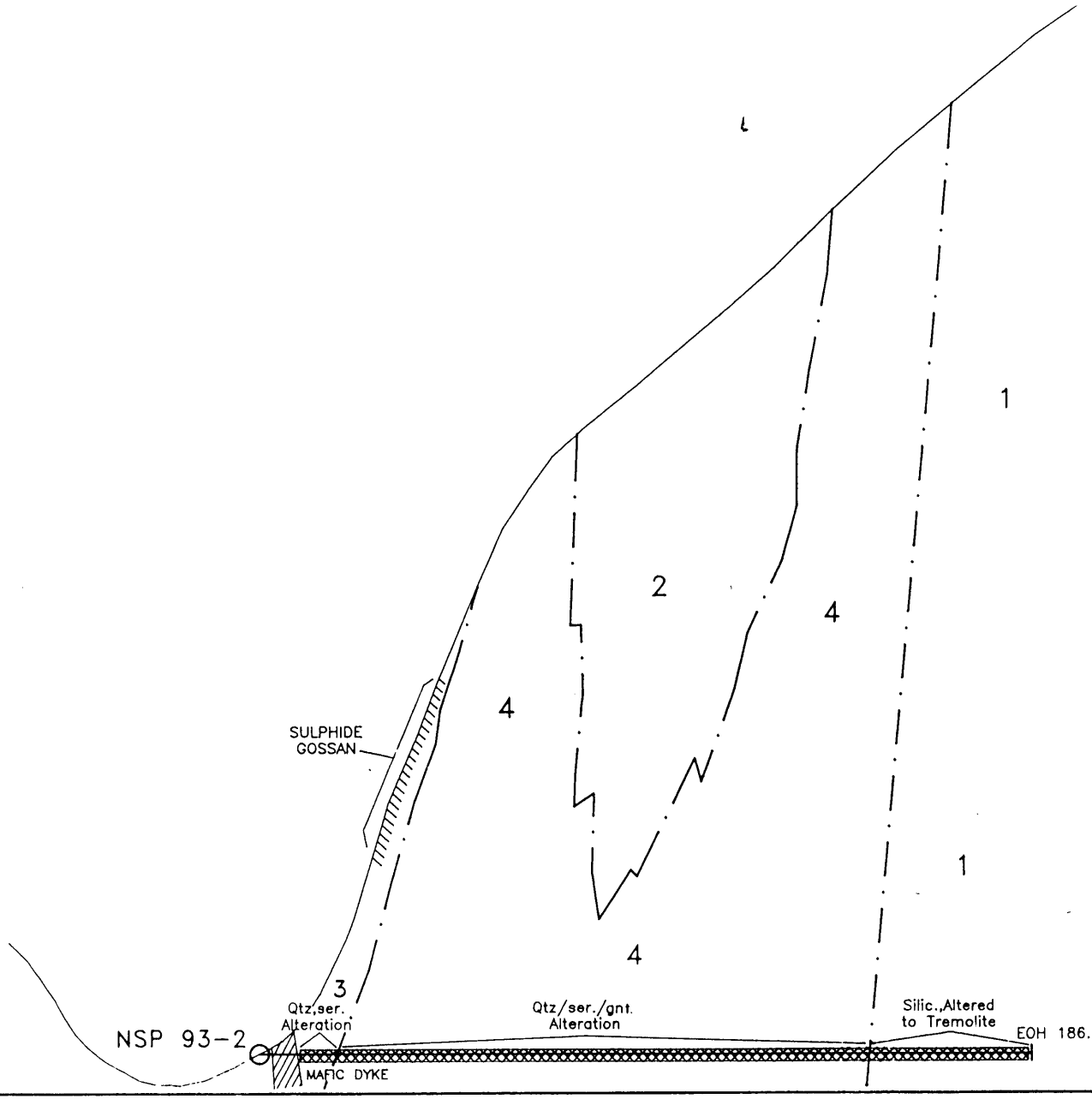
ELEVATES BASE METAL VALUES

SULPHIDE GOSSAN

TALUS, VALLEY FILL

10 5 0 10 20 30 40M.

REVISED	SPECOGNA OPTION
	DDH NSP 93-1
PROJ. No. 117	SURVEY BY RK DATE JULY 93
N.T.S.	DRAWN BY GM SCALE 1:1000
DWG No. dwgno	NORANDA EXPLORATION OFFICE: VANCOUVER



LEGEND

PALEOZOIC

1. BUTTLE LAKE LIMESTONE
2. QUARTZ BIOTITE SED./TUFF
3. FELSIC LAPILLI TUFF
4. RHYOLITIC FLOW

10 5 0 10 20 30 40M.

REVISED	SPECOGNA OPTION
	DDH NSP 93-2
	VIEW LOOKING SOUTHEAST
PROJ. No. 117	SURVEY BY: RK DATE: JULY 93
N.T.S.	DRAWN BY: GM SCALE: 1:1000
DWG No. dwgno	NORANDA EXPLORATION ?
	OFFICE: VANCOUVER

690000 E
5532500 N

694000 E
5532500 N

690000 E
5528500 N

Muchalat River

South Fork Muchalat River

3/10424
309275
3/10424
3/10420

N

Legend

CRETACEOUS - JURASSIC

8 — COAST RANGE INTRUSIVES

Granitic to diorritic fine to medium grained equigranular xenolithic within 500m of contacts with older volcanic/ sedimentary strata.

TRIASSIC KARMUTSAN

7 — MAFIC VOLCANICS AND DIORITE

Massive, fine-grained basaltic rocks interpreted as thick flows and minor dykes.

DEVONIAN SICKER GROUP

6 — LIMESTONE UNIT

Massive to interlaminated with limy siltstone beds. Typically fine to medium grained, sucrosic, generally non-fossiliferous.

5 — CHERT UNIT

Massive 1 to 5 cm thick bedded grey chert associated with silty units.

4 — SEDIMENTARY UNIT

Weakly to moderately cleaved, biotitic, massive to bedded tuffaceous(?) wacke and siltstone.

3 — FELSIC VOLCANICS

Undifferentiated volcaniclastic felsic rocks including tuffs, lapilli tuffs and agglomeratic lapilli tuffs.

2 — MAFIC VOLCANICS

Massive, fine-grained andesitic flows and sills.

FELSIC EXTRUSIVE-INTRUSIVE COMPLEX

1a | 1b | 1c — Massive, aphyric to quartz or fledspar phyric, locally spheralitic, locally flow-banded(?).

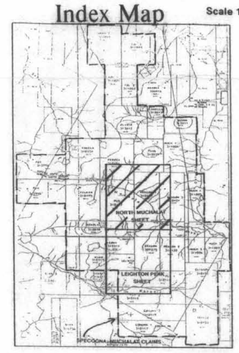
- 1a aphyric
- 1b quartz + feldspar phyric characterized by (1-2 mm quartz eyes.
- 1c fledspar phyric

Key

- Outcrop
- Geological Contact (Defined, Approximate)
- Bedding (Strike with Dip Direction and Attitude)
- Cleavage (Strike with Dip Direction and Attitude)
- Logging, Skidder Roads
- Diamond Drill Hole Location and Trace

Index Map

Scale 1:100,000



Metres 100 50 0 100 200 300 400 Metres

GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,125

REVISED	SPECOGNA
	North Muchalat
	GEOLOGY
	NSPECDWG.DWG
PROJ.No. 134	SURVEY BY: G.Gill, R.Kemp, M.Gray DATE: November 1993
N.T.S.	DRAWN BY: R.Fenton (AutoCAD) SCALE: 1 : 5000
DWG.No. Fig 3	NORANDA EXPLORATION COMPANY, LIMITED OFFICE: Vancouver

690000 E
5528500 N

690000 E
5524500 N

694000 E
5524500 N

N

Legend

CRETACEOUS - JURASSIC

8 — COAST RANGE INTRUSIVES

Granitic to dioritic fine to medium grained equigranular xenolithic within 500m of contacts with older volcanic/ sedimentary strata.

TRIASSIC KARMUTSAN

7 — MAFIC VOLCANICS AND DIORITE

Massive, fine-grained basaltic rocks interpreted as thick flows and minor dykes.

DEVONIAN SICKER GROUP

6 — LIMESTONE UNIT

Massive to interlaminated with limy siltstone beds. Typically fine to medium grained, sucrosic, generally non-fossiliferous.

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Massive, fine-grained andesitic flows and sills.

FELSIC EXTRUSIVE-INTRUSIVE COMPLEX

1a | 1b | 1c

Massive, aphyric to quartz or fledspar phyric, locally spheralitic, locally flow-banded(?).

1a aphyric

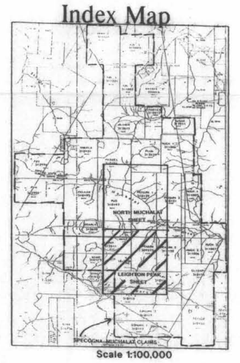
1b quartz + feldspar phyric characterized by (1-2 mm quartz eyes.

1c fledspar phyric

Key

- Outcrop
- Geological Contact (Defined, Approximate)
- Bedding (Strike with Dip Direction and Attitude)
- Cleavage (Strike with Dip Direction and Attitude)
- Logging, Skidder Roads
- Diamond Drill Hole Location and Trace

Index Map



Scale 1:100.000

Metres 100 50 0 100 200 300 400 Metres

GEOLOGICAL BRANCH
ASSESSMENT REPORT

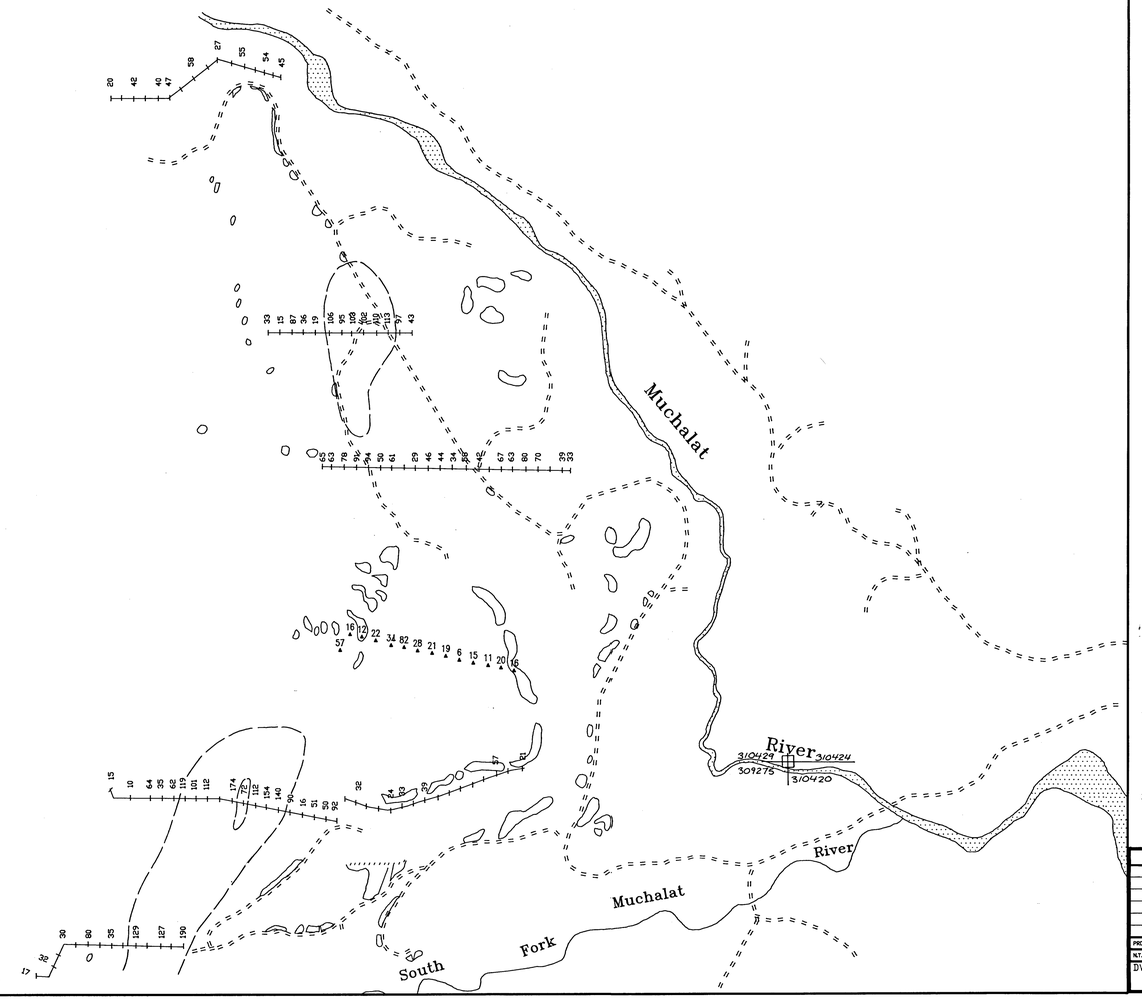
23,125

REVISED	SPECOGNA
	Leighton Peak
	GEOLOGY
	NSPECDWG.DWG
PROJ.No. 134	SURVEY BY. G.Gill, R.Kemp, M.Gray DATE. November 1993
N.T.S.	DRAWN BY. R.Fenton (AutoCAD) SCALE. 1 : 5000
DWG.No. Fig 4	NORANDA EXPLORATION COMPANY, LIMITED
	OFFICE. Vancouver

690000 E
5532500 N

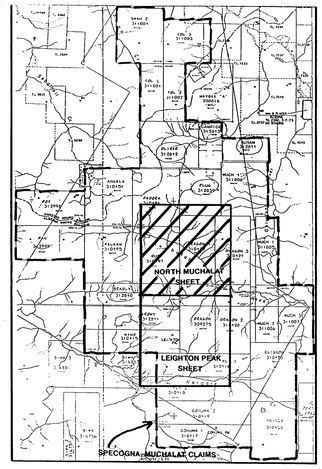
694000 E
5532500 N

690000 E
5528500 N



N

Index Map



Scale 1:100,000

Key

- Outcrop
- Geological Contact (Defined, Approximate)
- Bedding (Strike with Dip Direction and Attitude)
- Cleavage (Strike with Dip Direction and Attitude)
- Logging, Skidder Roads
- Diamond Drill Hole Location and Trace
- Grid Soil Geochemistry - Zn (ppm)
- Traverse Soil Geochemistry - Zn (ppm)
- > 100 ppm Zn Contour

GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,125

Metres 100 50 0 100 200 300 400 Metres

REVISED

SPECOGNA

North Muchalat

Zn SOIL GEOCHEMISTRY (ppm)

File : SPECGEON.DWG

PROJ.No. 134
N.T.S.
DWG.NO. Fig 5

SURVEY BY: G.Gill, R.Kemp, M.Gray — DATE: November 1993
DRAWN BY: R.Fenton (AutoCAD) — SCALE: 1 : 5000

NORANDA EXPLORATION COMPANY, LIMITED
OFFICE: Vancouver

690000 E
5528500 N

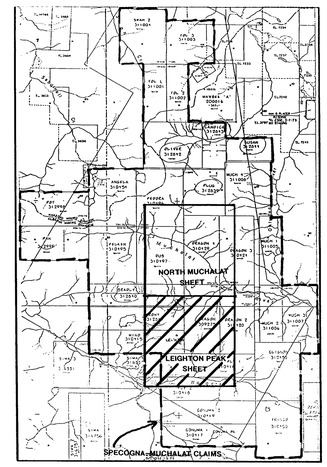
694000 E
5524500 N

690000 E
5524500 N

Norgate River

N

Index Map



Scale 1:100,000

Key

- Outcrop
- Geological Contact (Defined, Approximate)
- Bedding (Strike with Dip Direction and Attitude)
- Cleavage (Strike with Dip Direction and Attitude)
- Logging, Skidder Roads
- Diamond Drill Hole Location and Trace
- Grid Soil Geochemistry - Zn (ppm)
- Traverse Soil Geochemistry - Zn (ppm)
- > 100 ppm Zn Contour

GEOLOGICAL BRANCH ASSESSMENT REPORT

23,125

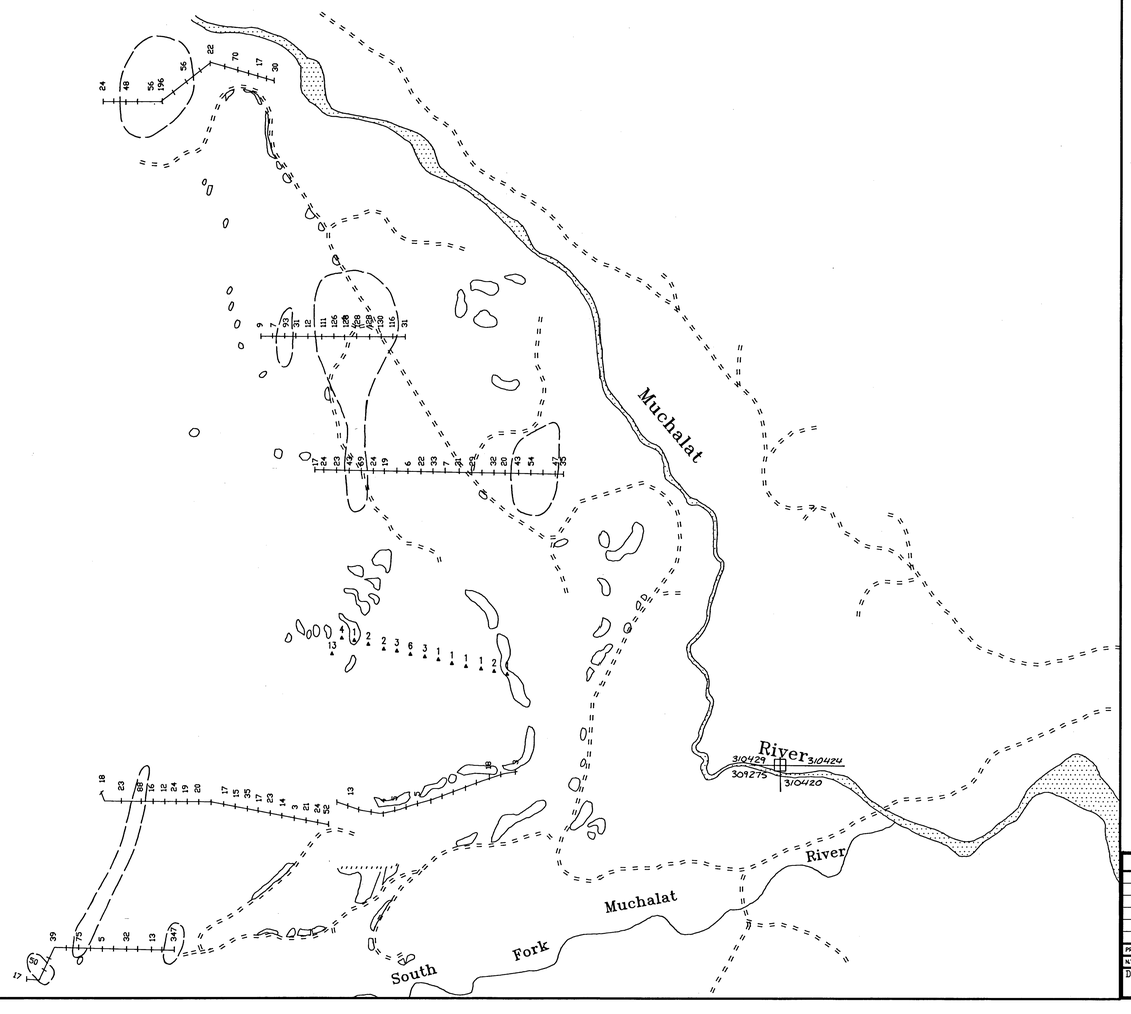
Metres 100 50 0 100 200 300 400 Metres

REVISED	SPECOGNA
	Leighton Peak
	Zn SOIL GEOCHEMISTRY (ppm)
	File : SPECGEOS.DWG
PROJ.No. 134	SURVEY BY: G.GIBL, R.Kemp, M.Gray DATE: November 1993
N.T.S.	DRAWN BY: R.Fenton (AutoCAD) SCALE: 1 : 5000
DWG.No. Fig 6	NORANDA EXPLORATION COMPANY, LIMITED
	OFFICE: Vancouver

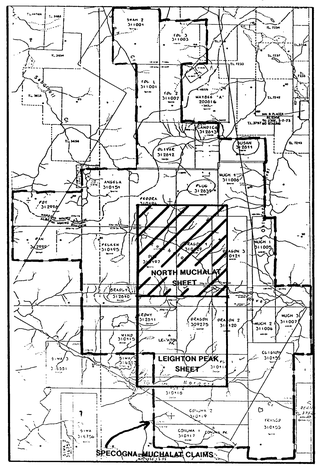
690000 E
5532500 N

694000 E
5532500 N

690000 E
5528500 N



Index Map



Scale 1:100,000

Key

- Outcrop
- Geological Contact (Defined, Approximate)
- Bedding (Strike with Dip Direction and Attitude)
- Cleavage (Strike with Dip Direction and Attitude)
- Logging, Skidder Roads
- Diamond Drill Hole Location and Trace
- Grid Soil Geochemistry - Cu (ppm)
- Traverse Soil Geochemistry - Cu (ppm)
- >40 ppm Cu Contour

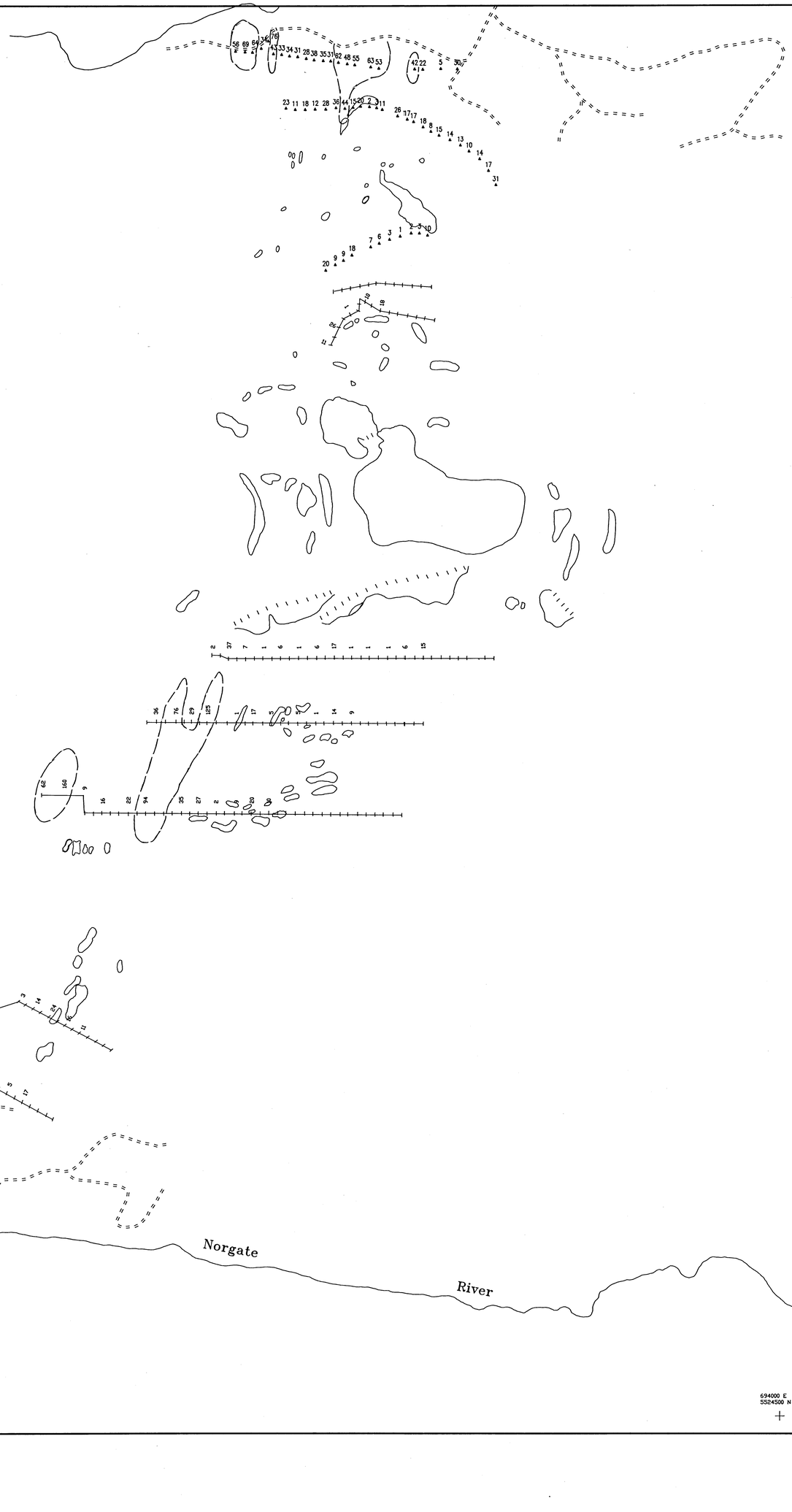
GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,125

Metres 100 50 0 100 200 300 400 Metres

REVISED	SPECOGNA
	North Muchalat
	Cu SOIL GEOCHEMISTRY (ppm)
	File : SPECGEON.DWG
PROJ.No. 134	SURVEY BY: G.Gill, R.Kemp, M.Gray DATE: November 1993
N.T.S.	DRAWN BY: R.Fenton (AutoCAD) SCALE: 1 : 5000
DWG.No. Fig 7	NORANDA EXPLORATION COMPANY, LIMITED
	OFFICE: Vancouver

690000 E
5528500 N

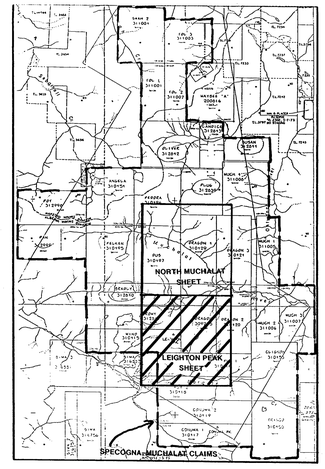


690000 E
5524500 N

694000 E
5524500 N

N

Index Map



Scale 1:100,000

Key

- Outcrop
- Geological Contact (Defined, Approximate)
- Bedding (Strike with Dip Direction and Attitude)
- Cleavage (Strike with Dip Direction and Attitude)
- Logging, Skidder Roads
- Diamond Drill Hole Location and Trace
- Grid Soil Geochemistry - Cu (ppm)
- Traverse Soil Geochemistry - Cu (ppm)
- > 40 ppm Cu Contour

GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,125

Metres 100 50 0 100 200 300 400 Metres

REVISED	SPECOGNA
	Leighton Peak
	Cu SOIL GEOCHEMISTRY (ppm)
	File : SPECGEOS.DWG
PROJ.No. 134	SURVEY BY. G.Gill, R.Kemp, M.Gray DATE. November 1993
N.T.S.	DRAWN BY. R.Fenton (AutoCAD) SCALE. 1 : 5000
DWG.No. Fig 8	NORANDA EXPLORATION COMPANY, LIMITED
	OFFICE. Vancouver