

LOG NO: 09-28	RD.
ACTION:	
FILE NO:	

REPORT OF DIAMOND DRILLING

ON THE

KLAW ONE AND KLAW TWO CLAIM GROUPS

(Klaw One Group - Klaw 2, Klaw 5, Klaw 7 and Klaw 8)
(Klaw Two Group - Klaw 3, Klaw 4, Klaw 6 and Klaw 9)

N.T.S. 93 N/1 & 2

OMINECA MINING DIVISION

SITUATED AT CO-ORDINATES: 55 ° 15' N
124 ° 30' W

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,314

BY: TERRY CAMPBELL

AUGUST, 1990

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SUMMARY:

The Klaw One and Klaw Two groups of claims were staked by Noranda personnel in 1987 to cover an area of gold anomalous heavy metal concentrate samples. Encouraging soil copper-gold geochemistry and geophysical surveys led to the planning and completion of 6 diamond drill holes, totalling 619.90 metres. The work completed in the late fall of 1989 was contracted to J.T. Thomas Diamond Drilling of Smithers, B.C. The drilling intersected zones of anomalous copper values but the highest grade section was only 3900 ppm Cu over 3.5 metres in hole CH-89-09. The core is stored at the campsite located on the Klaw 9 claim.

INTRODUCTION:

The Chuchi Lake Project lies within the Quesnel Trough where several new Cu-Au prospects are presently being evaluated. The most notable to date is the Mount Milligan Project, where a joint venture between Continental Gold Corp. and B.P. Resources has reportedly outlined greater than 400 million tons of 0.22% Cu and 0.016 oz/ton Au. Other similar projects in the area include the TAS (Noranda-Black Swan), the Max (City Resources) and the Windy (Big Bar-Placer Dome).

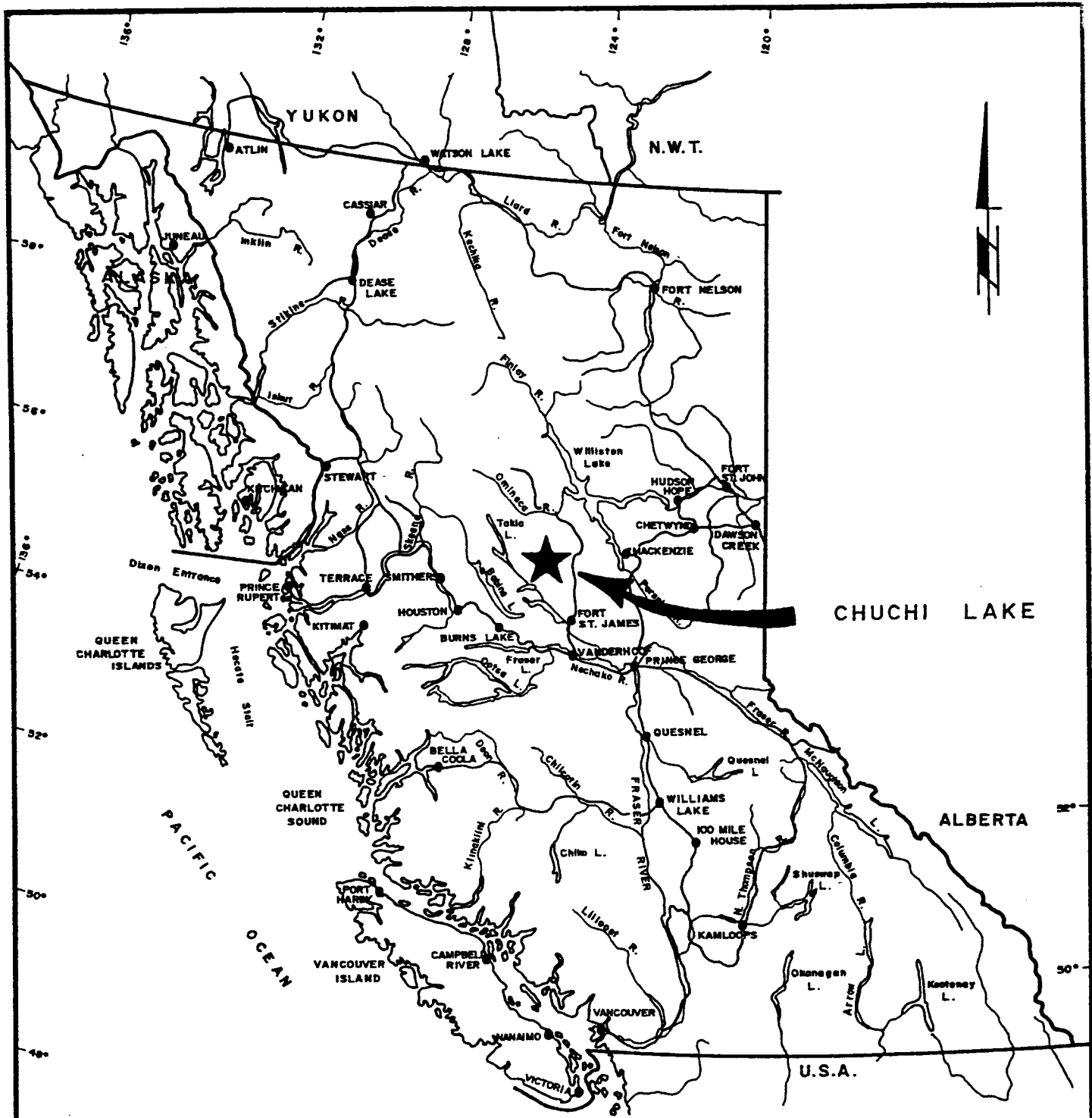
The property was staked in the fall of 1987 to cover the drainage areas of several streams with numerous gold and copper anomalies. Pan concentrate for gold up to 37,000 ppb and copper silt anomalies up to 1400 ppm have been identified throughout the area.

Geochemical and geophysical surveys were completed on the Chuchi property during the 1988 and 1989 field seasons. This report describes the drilling program completed in the autumn of 1989.

LOCATION & ACCESS:

The claims are located along the north shore of Chuchi Lake, approximately 180 kilometres northwest of Prince George. (Figure 1)

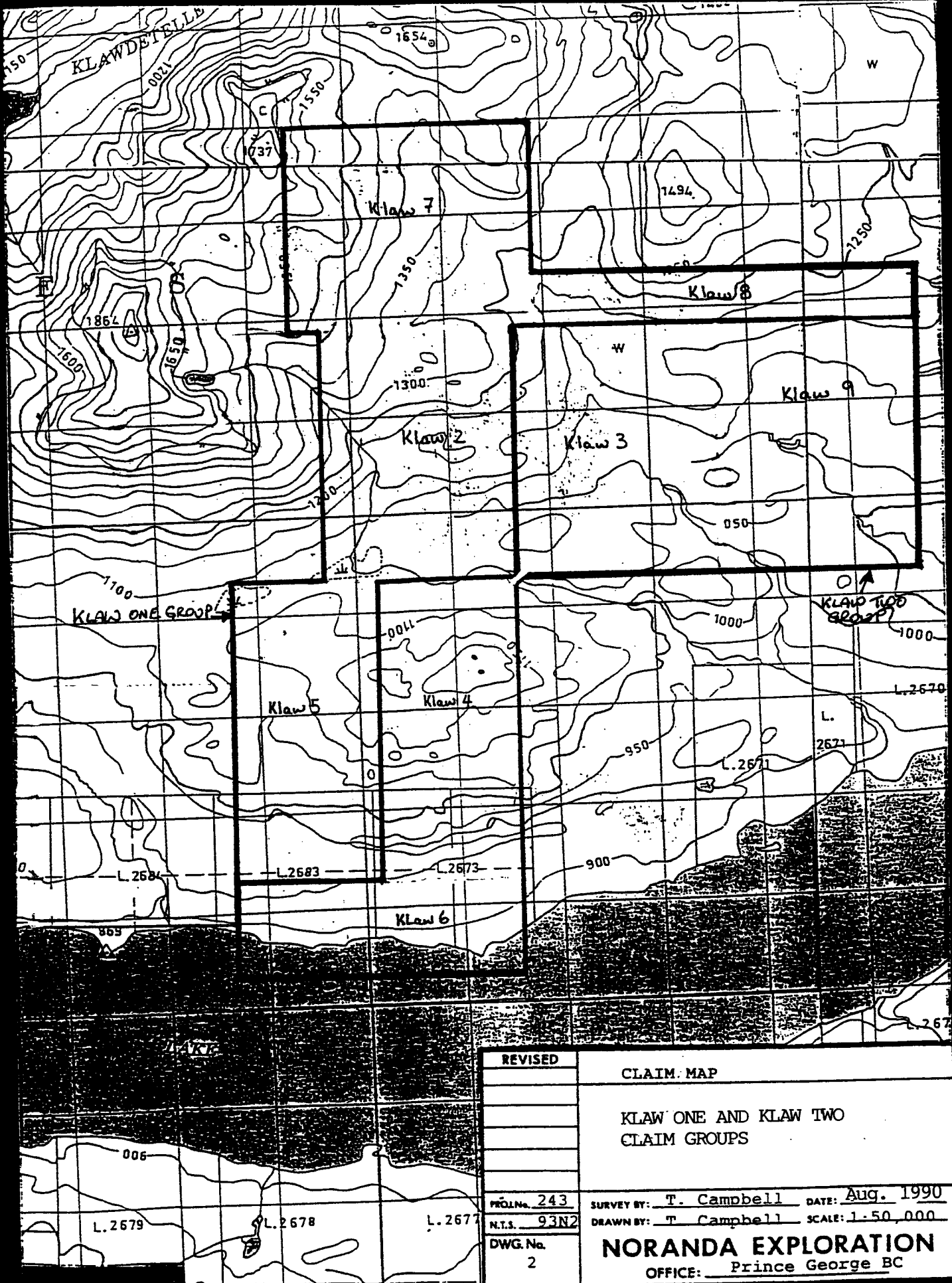
Access to the property is via the Indata-Germansen forest service road, off of the all-weather Germansen road from Fort St. James. The Indata-Germansen road is presently only accessible during the summer. There has been recent logging on most of the property. Roads and clear cuts provide excellent access to most parts of the property. (Figure 2)



0 100 200 KILOMETRES
SCALE: 1:8,000,000

REVISED	CHUCHI LAKE PROJECT	
	LOCATION MAP	
PROJ.No. 243	SURVEY BY: G. Maxwell	DATE: Feb/89
N.T.S. 93 N1	DRAWN BY: S.K.B.	SCALE: 1:8,000,000
DWG.No. 1	NORANDA EXPLORATION	
	OFFICE: PRINCE GEORGE, B.C.	

VANGAL 11927



REVISED	CLAIM. MAP
	KLAW ONE AND KLAW TWO CLAIM GROUPS
PROJ. No. 243	SURVEY BY: T. Campbell DATE: Aug. 1990
N.T.S. 93N2	DRAWN BY: T. Campbell SCALE: 1:50,000
DWG. No. 2	NORANDA EXPLORATION OFFICE: Prince George BC

CLAIM STATISTICS:

<u>NAME</u>	<u>RECORD #</u>	<u># UNITS</u>	<u>GROUP NAME</u>	<u>RECORD DATE</u>	<u>OWNER</u>
KLAW 2	011348	20	Klaw One	Dec. 3/89	Norex
KLAW 3	011349	20	Klaw Two	Dec. 3/89	Norex
KLAW 4	011350	18	Klaw Two	Dec. 2/89	Norex
KLAW 5	009196	18	Klaw One	Nov. 25/87	Norex
KLAW 6	009197	12	Klaw Two	Nov. 25/87	Norex
KLAW 7	011351	12	Klaw One	Dec. 4/89	Norex
KLAW 8	009494	7	Klaw One	June 28/88	Norex
KLAW 9	009493	20	Klaw Two	June 28/88	Norex

TOPOGRAPHY & VEGETATION:

The area is characterized by low rolling glacial topography, including pine flats, outcrop ridges and knobs and low swampy valleys. Elevations range from 868 meters on Chuchi Lake to 1200 meters.

Vegetation consists of mature stands of spruce, pine and balsam, which has been logged off in many areas on the property. Undergrowth is mainly small cedar, alder and devil's club.

REGIONAL GEOLOGY:

The most recent published information on regional geology is by Paterson, I.A., 1974 G.S.C. Paper 74-1, part B and by Garnett, J.A., 1978; Geology and Mineral Occurrences of the Southern Hogem Batholith.

The Chuchi claim group lies in a broad northwest trending package of rocks known as the Quesnel trough. These include Upper Triassic to Lower Jurassic volcanics and sediments (Takla Group), which have been intruded by the Hogem Batholith and numerous other felsic to mafic stocks, ranging in age from Triassic to Cretaceous.

The volcanic rocks include massive to porphyritic andesite and basaltic flows. The sedimentary package includes argillites, greywackes and conglomerates.

DIAMOND DRILLING:

Six diamond drill holes, 619.90 metres, were contracted to and completed in the late fall of 1989 by J. T. Thomas Diamond Drilling of Smithers, B. C. The holes were completed by an Acker MP-5 diamond drill; drill road construction and moves were accomplished using a D-6 cat. The core is stored at the camp site located on the Klaw 9 claim.

Holes CH-89-01 to CH-89-03 totalling 314.18 metres were targeted to test an area of strong copper soil geochem and coincident high to medium chargeability and resistivity on the extreme north of the property.

HOLE NO: CH-89-01

TARGET: IP anomaly and strong geochem anomaly

LOCATION: 11700N, 10400E

AZIMUTH: 180 degrees

ELEVATION: 1195 metres

DIP: -45 degrees

FINAL DEPTH: 100.88 metres

LOG: (m)	DESCRIPTION
0 - 4.27	Overburden
4.27-23.50	Biotite Hornblende Feldspar Porphyry: trace to 3% py
23.50-39.41	Altered Biotite Hornblende Feldspar Porphyry: trace-8% py
39.41-43.09	Biotite Hornblende Feldspar Porphyry
43.09-62.48	Altered Biotite Hornblende Feldspar Porphyry: trace-5% py, trace-5% cpy includes 43.09-48.72: 2-10% py, trace cpy
62.48-66.35	Biotite Hornblende Feldspar Porphyry: trace-1% py
66.35-73.92	Altered Biotite Hornblende Feldspar Porphyry: trace-10% py, trace cpy includes 72.85-72.89: massive cpy
73.92-76.77	Biotite Hornblende Feldspar Porphyry: trace-1% py
76.77-100.88	Altered Biotite Hornblende Feldspar Porphyry: trace-3% py
100.88	End of hole

CONCLUSIONS: The IP and geochem anomaly can be explained most likely by a 20 metre section of trace-5% pyrite and trace-5% chalcopyrite and another 8 metre section of trace-10% pyrite and trace chalcopyrite. Overall, the hole would appear to contain 1-2% pyrite throughout with some sections enriched in chalcopyrite.

HOLE NO: CH-89-02

TARGET: IP anomaly and strong geochem anomaly.
LOCATION: 11600N, 10400E
AZIMUTH: 180 degrees ELEVATION: 1172 metres
DIP: -45 degrees FINAL DEPTH: 101.50 metres

LOG: (m)	DESCRIPTION
0-6.1	Overburden
6.1-41.2	Altered Hornblende Feldspar Porphyry (Volcanic) trace-3% py, trace po includes 37.25-41.20: 1-4% py, trace po
41.20-45.85	Hornblende Feldspar Porphyry: trace-1% py
45.85-101.50	Altered Hornblende Feldspar Porphyry: trace-2% py, trace po
101.50	End of hole

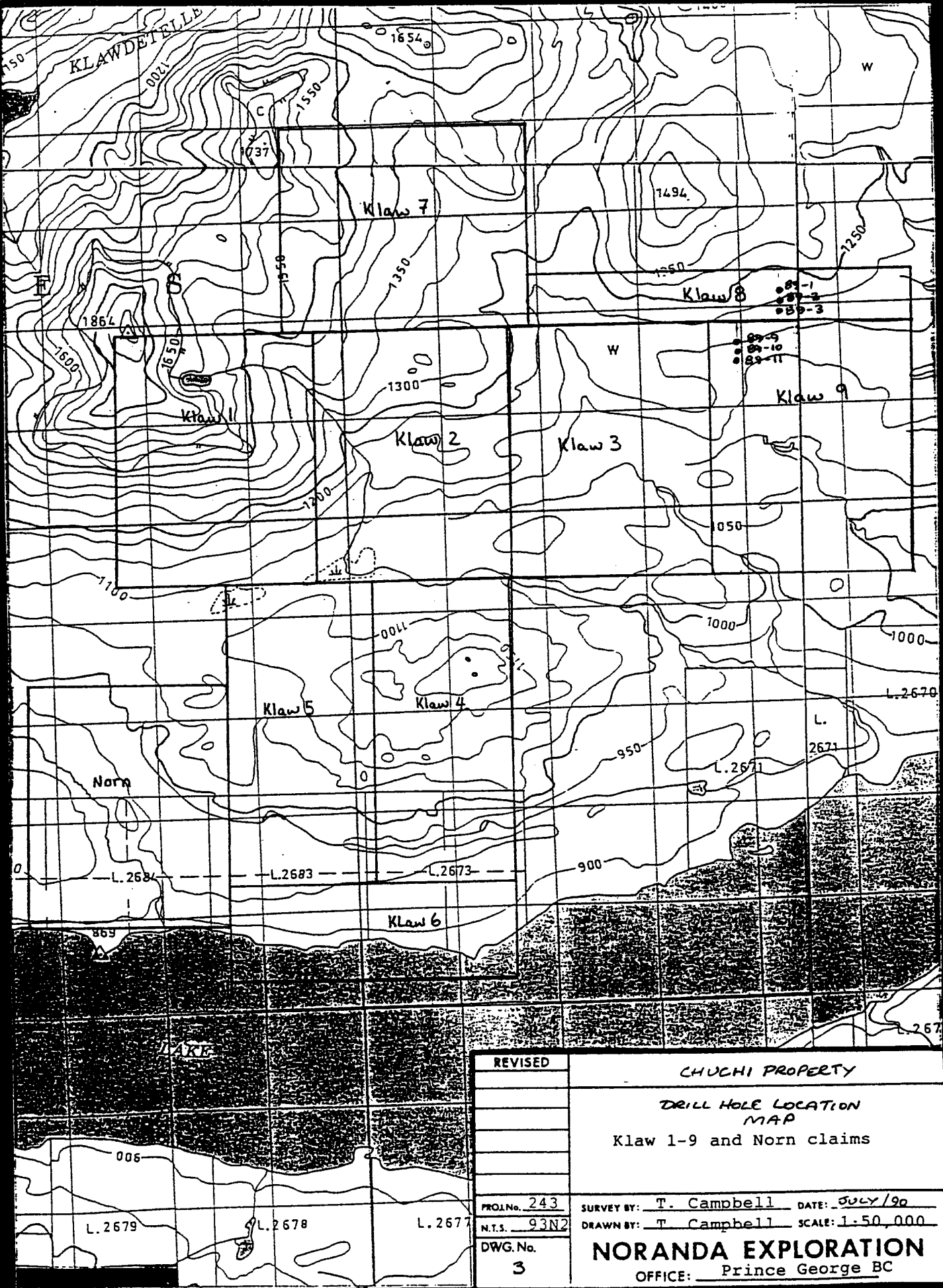
CONCLUSIONS: Disseminated pyrite throughout hole, possibly explains the IP target, but no chalcopyrite encountered.

HOLE NO: CH-89-03

TARGET: IP anomaly and strong geochem anomaly
LOCATION: 11500N, 10400E
AZIMUTH: 180 degrees ELEVATION: 1160 metres
DIP: -45 degrees FINAL DEPTH: 111.80 metres

LOG: (m)	DESCRIPTION
0-12.19	Overburden
12.19-32.31	Altered Hornblende Feldspar Porphyry (Volcanic) trace-1% py
32.31-34.90	Andesite
34.90-58.60	Altered Hornblende Feldspar Porphyry: trace py
58.60-61.60	Feldspar Porphyry: trace py
61.60-65.53	Altered Feldspar Porphyry
65.53-66.58	Andesite
66.58-111.80	Altered Feldspar Porphyry: trace-1% py
111.80	End of Hole

CONCLUSIONS: Very poor sulphides in hole, not enough to explain IP or geochem. Copper geochem may be a result of downhill dispersion.



REVISED	CHUCHI PROPERTY	
	DRILL HOLE LOCATION MAP	
	Klaw 1-9 and Norn claims	
PROJ. No. 243	SURVEY BY: T. Campbell	DATE: July/90
N.T.S. 93N2	DRAWN BY: T. Campbell	SCALE: 1:50,000
DWG. No. 3	NORANDA EXPLORATION OFFICE: Prince George BC	

Holes CH-89-09 to CH-89-11, totalling 305.72 metres, were drilled along L10,000E to test IP, resistivity and IP soil geochem anomalies. The holes cross the contact between the Takla volcanics and the intrusive rocks.

HOLE NO: CH-89-09

TARGET: IP & resistivity anomaly

LOCATION: 11200N, 10000E

AZIMUTH: 180 degrees

ELEVATION: 1130 meters

DIP: -45 degrees

FINAL DEPTH: 102.11 meters

LOG: (m)	DESCRIPTION
0-15.15	Overburden
15.15-32.75	Diorite
32.75-33.09	Feldspar Porphyry (Volcanic)
33.09-71.15	Diorite
	36.88-37.10 5-10% cpy, tr-2% py
71.15-72.20	Mafic Diorite 3-10% py, tr cpy
72.20-86.65	Diorite
	80.86-81.14 5-10% py, tr-1% cpy
86.65-87.70	Mafic Diorite 5-15% py & cpy
87.70-102.11	Diorite
102.11	End of Hole

CONCLUSIONS: This target is situated in low swampy ground where soil geochem isn't useful. Several 1-2 metre sections of higher grade copper mineralization were intersected within a more mafic portion of the diorite.

Significant Results:

Sample #	Interval (m)	Width (m)	Cu (ppm)
36940	84.20-87.70	3.5	3900

No significant Au results.

HOLE NO: CH-89-10

TARGET: IP & Geochem anomaly
LOCATION: 11,100N, 10,000E
AZIMUTH: 180 degrees ELEVATION: 1140 meters
DIP: -45 degrees FINAL DEPTH: 100.28 meters

LOG: (m)	DESCRIPTION
0-7.4	Overburden
7.4-76.01	Diorite
	20.12-21.95 tr-2% py, cpy
	39.85-40.40 15-20% py
	66.0-66.80 tr-4% py, tr po
76.01-77.90	Feldspar Porphyry
77.90-95.42	Mafic Diorite
	83.48-84.30 tr-5% py, tr po
	87.74-88.09 tr-3% py, tr cpy
95.42-100.28	Biotite Feldspar Porphyry
100.28	End of Hole

CONCLUSIONS: Several short sections of strong sulphide mineralization was intersected to explain the IP anomaly. Traces of chalcopyrite in narrow sections may explain the copper soil anomaly in this area.

HOLE NO: CH-89-11

TARGET: IP & geochem resistivity
LOCATION: 11,000N, 10,000E
AZIMUTH: 180 degrees ELEVATION: 1160 meters
DIP: -45 degrees FINAL DEPTH: 103.33 meters

LOG: (m)	DESCRIPTION
0-8.3	Overburden
8.3-37.69	Diorite
	29.18-29.36 3-10% py, 1-2% po
	30.20-30.70 1-3% py
37.69-103.33	Potassic Altered Diorite
103.33	End of Hole

CONCLUSIONS: Poor sulphides, not enough to explain moderate IP anomaly.

CONCLUSIONS:

The most significant intersection was encountered in Hole CH-89-09, 3.5 metres of 3900 ppm copper. Some of the other holes cut slightly elevated copper values over wider sections.

RECOMMENDATIONS:

Drill test the other coincident IP and soil geochem targets.

REFERENCES:

Campbell, T.D., 1989: Geological & Geochemical Report on the Chuchi Property (Klaw 1 to 9 and Norn Claims).

Campbell, T.D., Bradish, L., 1990: Geological, Geophysical and Geochemical Report on the Chuchi B Group (Klaw 5, 6, and Norn Claims).

Garnet, J.A., 1978: Geology and Mineral Occurrences of the Southern Hogem Batholith.

Paterson, I.A., 1974: G.S.C. Paper 74-1, Part B.

APPENDIX I
STATEMENT OF COSTS
KLAU ONE GROUP

A.	WAGES:	
	Geology - 5 md @ \$165/day	\$ 990.00
	Cook - 5 md @ \$150/day	\$ 750.00
	Core Splitter - 5 md @ \$105/day	\$ 525.00
	Camp person - 5 md @ \$105/day	\$ 525.00
B.	FOOD, ACCOMMODATION, TRANSPORTATION:	
	36 md @ \$50/day	\$ 1,800.00
C.	DRILLING:	
	Contractor	\$15,237.73
	Analysis	\$ 813.70
D.	REPORT PREPARATION:	
	Author	\$ 100.00
	Drafting	\$ 150.00
	Typing	\$ 50.00
		<u>\$20,941.43</u>

APPENDIX I
STATEMENT OF COSTS
KLAU TWO GROUP

A.	WAGES:		
	Geology - 4 md @ \$165/day	\$	660.00
	Cook - 4 md @ \$150/day	\$	600.00
	Core Splitter - 4 md @ \$105/day	\$	420.00
	Camp Person - 4 md @ \$105/day	\$	420.00
B.	FOOD, ACCOMMODATION, TRANSPORTATION:		
	32 md @ \$50/day	\$	1,600.00
C.	DRILLING:		
	Contractor	\$14,827.42	
	Analysis	\$	947.60
D.	REPORT PREPARATION:		
	Author	\$	100.00
	Drafting	\$	150.00
	Typing	\$	50.00
			<u>\$19,775.02</u>

APPENDIX II
STATEMENT OF QUALIFICATIONS

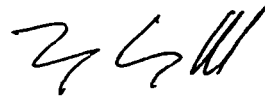
Terry Campbell

APPENDIX II

STATEMENT OF QUALIFICATIONS

I, Terrence Campbell, of Prince George, Province of British Columbia, do hereby certify that:

1. I am a geologist residing at 6634 Essex Crescent, Prince George, British Columbia.
2. I am a 1985 graduate of the University of British Columbia, B.Sc. (Geology).
3. I am a member in good standing of the British Columbia Yukon Chamber of Mines.
4. I presently hold the position of Field Geologist with Noranda Exploration Company, Limited (no personal liability) and have been in their employ since 1986.



Terrence Campbell

ANALYTICAL METHOD

DESCRIPTIONS FOR GEOCHEMICAL ASSESSMENT REPORTS

(revised: 1986)

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

Preparation of Samples

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

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

Analysis of Samples

Decomposition of a 0.200 g sample is done with concentrated perchloric and nitric acid (3:1), digested for 5 hours at reflux temperature. Pulps of rock or core are weighed out at 0.2 g or less depending on the matrix of the rock, and twice as much acid is used for decomposition than that is used for silt or soil.

The concentrations of Ag, Cd, Co; Cu, Fe, Mn, Mo, Ni, Pb, V and Zn (all from the group A elements of the fee schedule) can be determined directly from the digest (dissolution) with an atomic absorption spectrometer (AA). A Varian-Techtron Model AA-5 or Model AA-475 is used to measure elemental concentrations.

Elements Requiring Specific Decomposition Method

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

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

Barium - Ba: 0.1 g sample is decomposed with conc. perchloric, nitric and hydrofluoric acid. Atomic absorption using a nitrous oxide-acetylene flame determines Ba from the aqueous solution.

Bismuth - Bi: 0.2 g - 0.3 g is digested with 2.0 mL of perchloric 70% and 1.0 mL of conc. nitric acid. Bismuth is determined directly from the digest into the flame of the AA instrument c/w EDL.

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

Magnesium - Mg: 0.05 g - 0.10 g sample is digested with 4 mL perchloric/nitric acid (3:1). An aliquot is taken to reduce the concentration to within the range of atomic absorption. The AA-475 with a nitrous oxide flame determines Mg from the aqueous solution.

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

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

LOWEST VALUES REPORTED IN PPM

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

APPENDIX IV

DRILL LOGS

NORANDA EXPLORATION CO. LTD.
DIAMOND DRILL LOG

PAGE : 1

PROPERTY : CHUCHI LAKE
HOLE No. : CH-89-01
Grid System :
Collar Eastings : 10400.000
Collar Northings : 11700.000
Collar Elevations : 1195.000
Collar Bearing : 180.00
Grid Baseline : 90.00

Collar Inclination : -45.00
Grid Bearing : 180.00
Final Depth : 100.88
Claim No. :

Logged by : C.T.Roney
Date : OCT. 5, 1989 - OCT. 6, 1989
Downhole Survey : Acid Test
Drilled By : J.T.THOMAS
Core Size : NQ

INTERVAL(m)			MAJOR/MINOR UNITS	DESCRIPTION	SAMPLE NUMBER	INTERVAL(m)		SAMPLE WIDTH	GEOCHEMICAL SAMPLES	
FROM	TO	FROM				TO	Cu ppm		Au ppb	
0.00	4.27	OB								
0.00	4.27	CAS		Casing (Overburden)						
4.27	100.88	BHFP		BIOTITE-HORNBLEND-FELDSPAR PORPHYRY light to med. green colour med. to coarse gr. 20-45% feld xl, range <1-7mm, av 1-3mm 2-10% bio xl tr± py v.f.dissm. w spotly areas of 1% qtz-cb str w minor epid CA 20-30 med. magnetic, tr-1% mag f.dissm. 80-90% recovery 4.27-12.80 v.v.h. fractured, & blockly few fractures infilled w qtz- cb & ep str 13.47-13.90 v.h. fractured/brecciated w qtz-cb & ep str/vnlts 39.41-43.09 few K-spar str/vnlts, minor hem staining 41.30 10cm sand/clay seam 65.84 5cm sand/clay seam	36701	12.04	15.04	3.00	136	5
					36702	23.20	26.20	3.00	142	5
23.50	25.20	1AB		Qtz-Cb & Ep Alt'n zone, abundant qtz-cb vnlts/vns, ep alt'n of feld xl 24.07 fault gouge CA 60 24.16 ss CA 60 b/w two faults v.h.altered not as magnetic tr-2% py v.f.dissm.	36703	29.40	32.40	3.00	82	5
30.13	32.77	1Ba		Ep zone, replacing feld xl as well as rest of rk, 5-30% ep in cb-qtz str/vnlts v.fractured CA 25-30/55-65, as well as irregular hairline fractures tr-2% py, blebs to f.dissm. ass w vnlts contact gradational top & bottom	36704	32.40	35.40	3.00	140	5
32.77	38.40	1ca		K-spar vnlts, few qtz-cb vnlts along frac	36705	35.40	38.40	3.00	154	5

WORANDA EXPLORATION CO. LTD.
DIAMOND DRILL LOG

PROPERTY : CHUCHI LAKE
HOLE No. : CH-89-01

PAGE : 2

INTERVAL(m)		MAJOR/MINOR UNITS	DESCRIPTION	SAMPLE NUMBER	INTERVAL(m)		SAMPLE WIDTH	GEOCHEMICAL SAMPLES	
FROM	TO				FROM	TO		Cu ppm	Au ppb
38.40	39.41	1Cb	tures , ser/fuchsite in few fractures fractures CA 30/60 blue colour to core (Labradorite?) tr-5% py, in blebs & f.dissm.	36706	38.40	40.40	2.00	142	5
			K-spar Dyke w ep ep replacing some feld xl	36707	40.40	43.90	3.50	90	5
43.09	48.72	1BCae	3-8% py v.f.dissm., minor in cubes form slightly magnetic (po,mag)	36708	43.90	46.10	2.20	184	60
			Ep & K-spar Alt'n zone v.h.altered zone, core has lost most of original texture, ep alt'n increases downward in section, K-spar vnltz though out, hem staining, numerous qtz-cb str/ vnltz, contact is gradational at tp & bt , 2-10% py, tr cpy,v.f.dissen. & blebs & also in str	36709	46.10	49.10	3.00	134	5
			44.87-45.04 qtz-cb vn fg, ss, on either side of vn CA 70, 2-6% py blebs & f.dissm., tr-1% cpy blebs						
			46.58 fault w fg & ss CA 20						
48.72	62.48	1Ab	47.13-47.20 qtz vn w fault on either end CA 70, 2-8% py, tr cpy	36710	49.10	52.10	3.00	350	5
			Cb vn/vnltz w minor qtz ep alteration, not magnetic	36711	52.10	55.10	3.00	560	5
			tr-5% py	36712	55.10	58.10	3.00	112	5
				36713	58.10	62.10	4.00	108	5
				36714	62.10	65.10	3.00	104	5
				36715	65.10	68.10	3.00	124	5
66.35	73.92	1Bae	Ep Alteration high w cb-ep-qtz str/vnltz K-spar vnltz	36716	68.10	71.10	3.00	198	5
			numerous fractures infill w str/vnltz most of core is in small pieces, weakly magnetic, minor hem staining	36717	71.10	73.92	2.82	650	5
			tr-10% py, most is v.f.dissm. w minor blebs , contact at bt is a fracture w cb & py CA 20	36718	73.92	76.77	2.85	154	5
			70.90-70.99 fault gouge w cb str CA 20						
			72.85-72.89 massive cpy w minor py w cb-qtz vn inside						
76.77	100.28	1Ba	Ep Alt'n zone	36719	76.77	79.80	3.83	300	5

NORANDA EXPLORATION CO. LTD.
DIAMOND DRILL LOG

PROPERTY : CHUCHI LAKE
HOLE No. : CH-89-01

PAGE : 3

INTERVAL(m)		MAJOR/MINOR UNITS	DESCRIPTION	SAMPLE NUMBER	INTERVAL(m)		SAMPLE WIDTH	GEOCHEMICAL SAMPLES	
FROM	TO				FROM	TO		Cu PPM	Au PPB
			ep replacing feld xl as well as the	36720	79.80	82.80	3.00	206	5
			ground mass, weakly magnetic, few	36721	82.80	85.80	3.00	78	5
			K-spar str, cb-gtz vnlts in fractures	36722	85.80	88.80	3.00	144	5
			tr-3% py v.f.dissm., less sulphides as	36723	88.80	91.80	3.00	270	5
			you near bt	36724	91.80	94.80	3.00	590	5
				36725	94.80	97.80	3.00	390	5
			<u>BOH 100.88m</u>	36726	97.80	100.80	3.00	128	5

NORANDA EXPLORATION CO. LTD.
DIAMOND DRILL LOG

PROPERTY : CHUCHI LAKE
HOLE No. : CH-89-02
Grid System :
Collar Eastings : 10400.000
Collar Northings : 11600.000
Collar Elevations : 1172.000
Collar Bearing : 180.00
Grid Baseline : 90.00

Collar Inclination : -45.00
Grid Bearing : 180.00
Final Depth : 101.50
Claim No. :

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Logged by : C.T. RONEY
Date : OCT. 7, 1989 - OCT. 9, 1989
Downhole Survey : Acid Test
Drilled By : J.T. THOMAS
Core Size : NQ

INTERVAL(m)		MAJOR/MINOR UNITS	DESCRIPTION	SAMPLE NUMBER	INTERVAL(m)		SAMPLE WIDTH	GEOCHEMICAL SAMPLES	
FROM	TO				FROM	TO		Cu ppm	Au ppb
0.00	6.10	OB	Casing (Overburden)						
0.00	6.10	CAS							
6.10	101.50	HPP	NORNBLEND-FELDSPAR PORPHYRY light to med. green colour med. to coarse gr. 10-40% feld xl., range <1-8mm, av 1-4mm 1-10% horn xl., tr-2% biotite med. to strongly magnetic, more highly altered zones less magnetic minor sections of ep, K-spar, cb, & qtz alteration ep has replaced some horn, & feld xl numerous fractures, some infilled w cb- qtz str/vnlts tr-1% py, v.f.dissm. w few blebs <3mm 85-90% recovery tp 20m of core very blockly 6.10-19.70 v.h.weathered & fractured za 14.60-17.00 v.v.h.fractured w cb-qtz str /vnlts, tr-5% py, f.dissm. & in str 25.10-25.30 numerous cb vnlts, rk little more mafic 26.50-30.20 3-8% py spotly, tr mag(po?), increase in ep 31.40-37.25 few cb-ep-qtz vnlts CA 30-40 tr sulphides (py?) 42.34-45.85 few irregular fractures, in- filled w ep-cb str/vnlts CA 30-40, 1-4% mag, tr-2% py 70.30-78.45 h.ep zone w numerous cb str 84.12-84.65 qtz-cb vnlts CA 50, few off set by fractures(8mm), 3-5% py v.f. dissm.	36727	14.33	17.35	3.02	216	5

MORANDA EXPLORATION CO. LTD.
DIAMOND DRILL LOG

PROPERTY : CHUCHI LAKE
HOLE No. : CH-89-02

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INTERVAL(m)		MAJOR/MINOR UNITS	DESCRIPTION	SAMPLE NUMBER	INTERVAL(m)		SAMPLE WIDTH	GEOCHEMICAL SAMPLES	
FROM	TO				FROM	TO		Cu ppm	Au ppb
19.81	22.60	1GB	Highly Qtz & Ep Altered	36728	19.81	22.86	3.05	48	5
			2-5% py at tp decreasing down section	36729	22.86	25.90	3.04	50	5
			v.rusty, near bt increase in ep vnltz						
25.30	25.39	1Ha	Highly Carbonated zone, h.weathered						
25.39	25.47	1H	Cb Vein	36730	25.90	28.90	3.00	252	5
			* area were rods broke off	36731	28.90	31.90	3.00	64	5
30.90	31.40	1Bgc	Ep Alt'n zone						
			h.altered rk, original texture gone						
			tr-5%py,po v.f.dissm. w few blebs						
			tr cpy ass w K-spar						
37.25	41.20	1CBG	K-spar, Ep, & Qtz Alt'n zone	36732	37.25	39.25	2.00	630	5
			1-4% py, tr po w spotly section up to 8%	36733	39.25	41.20	1.95	580	5
			tr cpy ass w K-spar						
41.20	42.34	1M	Mafic zone, v.h.magnetic, tr py, tr cpy	36734	41.20	42.34	1.14	16	5
				36735	42.34	45.85	3.51	122	5
45.85	50.60	1BGCa	Ep, Qtz, K-spar Alteration	36736	45.85	49.00	3.15	248	5
			few qtz-ep-cb str/vnlts, tr-2% py few	36737	49.00	52.00	3.00	280	5
			large blebs 5-8% py ass w h.altered rk						
			tr cpy ass w K-spar, tr mag xl						
50.60	51.35	1B	H. Ep zone w couple blebs/str py	36738	52.00	55.00	3.00	212	5
				36739	55.00	58.00	3.00	16	5
				36740	58.00	61.00	3.00	44	5
				36741	61.00	64.00	3.00	40	5
				36742	64.00	67.00	3.00	370	5
				36743	67.00	70.00	3.00	152	5
				36744	70.00	73.00	3.00	76	5
				36745	73.00	75.50	2.50	370	5
73.52	75.50	1CA	H. K-spar & Cb alteration, numerous cb	36746	75.50	78.50	3.00	190	5
			vnlts CA 20-30 tr-2% py v.f.dissm.	36747	78.50	81.50	3.00	22	5
			tr cpy ass w K-spar	36748	81.50	84.50	3.00	96	5
				36749	84.50	87.50	3.00	300	5
84.65	101.50	1B	V.H. Ep zone w irregular fracture infill	36750	87.50	90.50	3.00	244	5
			qtz-ep-cb, minor K-spar str, tr-3% py	36751	90.50	93.50	3.00	160	5
			few qtz-ep-cb vnlts CA 20-30/60-80	36752	93.50	96.50	3.00	300	5
				36753	96.50	99.00	2.50	660	5
			<u>EON 101.50m</u>	36754	99.00	101.50	2.50	270	5

NORANDA EXPLORATION CO. LTD.
DIAMOND DRILL LOG

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PROPERTY : CHUCHI LAKE
HOLE No. : CH-89-03
Grid System :
Collar Eastings : 10400.000
Collar Northings : 11500.000
Collar Elevations : 1160.000
Collar Bearing : 180.00
Grid Baseline : 90.00

Collar Inclination : -45.00
Grid Bearing : 180.00
Final Depth : 111.80
Claim No. :

Logged by : C.T.ROWNEY
Date : OCT. 9, 1989 - OCT. 10, 1989
Downhole Survey : Acid Test
Drilled By : J.T.THOMAS
Core Size : NQ

INTERVAL(m)		MAJOR/MINOR UNITS	DESCRIPTION	SAMPLE NUMBER	INTERVAL(m)		SAMPLE WIDTH	GEOCHEMICAL SAMPLES	
FROM	TO				FROM	TO		Cu ppm	Au ppb
0.00	12.19	OB							
0.00	12.19	CAS	Casing (Overburden)						
12.19	32.31	HFP	HORNBLEND-FELDSPAR PORPHYRY (ALTERED)	36755	22.10	25.30	3.20	980	5
			med. to coarse gr. med. to light green colour 5-45% feld, range (1-10mm, av 1-5mm tr-10% horn feld, & horn xl have been partly replaced by ep & cb ep in sections from str to 30cm, most 10 cm, few qtz-ep-cb str/vnlts CA 25-30 numerous hairline irregular fractures infilled w cb v.magnetic except for ep zones, tr-2% mag xl v.f.dissm. tr py v.f.dissm. 95% recovery, except for tp 2m were it is 55-60%, core broken up & sand seams 22.60-24.10 few py (1-4%) str ass w ep- cb str 28.65-31.75 as above	36756	28.59	31.76	3.17	122	5
32.31	34.90	AND	ANDESITE						
			fine gr., except for few feld xl med. green colour v.magnetic few K-spar xl & str numerous cb-ep str/vnlts 90-95% recovery						
34.90	58.60	HFP	HORNBLEND-FELDSPAR PORPHYRY (ALTERED)	36757	34.90	37.70	2.80	16	5
			dark green colour, med. to coarse gr. some ep replacement of feld xl around vnlts	36758	37.70	40.61	2.91	40	5

HORANDA EXPLORATION CO. LTD.
DIAMOND DRILL LOG

PROPERTY : CHUCHI LAKE
HOLE No. : CH-89-03

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INTERVAL(m)		MAJOR/MINOR UNITS	DESCRIPTION	SAMPLE NUMBER	INTERVAL(m)		SAMPLE WIDTH	GEOCHEMICAL SAMPLES	
FROM	TO				FROM	TO		Cu ppm	Au ppb
40.61	47.91	9b	K-spar str, cb-ep str/vnlts few contain str of py h.magnetic, tr-1% mag xl 98% recovery	36759	40.61	43.65	3.04	26	5
			K-SPAR DYKE	36760	43.65	46.65	3.00	66	5
			pinkish green colour	36761	46.65	49.65	3.00	72	5
			w ep alteration	36762	49.65	52.65	3.00	36	5
			few relict pieces of HPP in dyke	36763	52.65	55.65	3.00	30	5
			not magnetic	36764	55.65	58.60	2.95	12	5
			tr-1% py diss.						
58.60	65.53	FP	FELDSPAR PORPHYRY light to dark green colour, massive fine to med. gr. 20-40% feld xl h.magnetic	36765	58.60	61.60	3.00	16	5
			minor cb-ep str, minor shearing w them tr py v.f.dissm. 85-95% recovery						
61.60	65.53	1Ba	H. Ep zone w numerous ep-gtz-cb vnlts 64.65 qtz-cb va lcm wide	36766	61.60	64.60	3.00	56	5
				36767	64.60	66.60	2.00	42	5
65.53	66.58	AND	ANDESITE med. to dark green colour, massive fine to med. gr. numerous qtz-cb str/vnlts CA 55-65 slightly magnetic tr py, v.f.dissm. 95% recovery						
66.58	111.80	FP	FELDSPAR PORPHYRY (ALTERED) med. to dark green colour fine to med. gr. h.magnetic, numerous qtz-ep-cb vnlts minor K-spar str tr py						
66.58	75.51	1Bca	V. Ep zone w ep-gtz-cb vnlts, minor K-spar str	36768	66.58	69.60	3.00	66	5
				36769	69.60	72.60	3.00	92	5
			80-90% recovery	36770	72.60	75.60	3.00	44	5
75.51	78.55	1Ha	H. Cb zone, as well numerous vnlts/vn CA 20-30, which infill fracture as well	36771	75.51	78.55	2.95	52	5

MORANDA EXPLORATION CO. LTD.
DIAMOND DRILL LOG

PROPERTY : CHUCHI LAKE
HOLE No. : CH-89-03

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INTERVAL(m)		MAJOR/MINOR UNITS	DESCRIPTION	SAMPLE NUMBER	INTERVAL(m)		SAMPLE WIDTH	GEOCHEMICAL SAMPLES	
FROM	TO				FROM	TO		Cu ppm	Au ppb
78.55	111.80	1Bc	tr-4t py rk appear to have been weak sheared core v. blockly						
			Ep Alteration w minor K-spar alteration	36772	78.55	81.55	3.00	140	5
			qtz-ep-cb vnltz/str	36773	81.55	84.55	3.00	82	5
			tr-1t py	36774	84.55	87.55	3.00	490	5
			v. minor hematite staining in qtz-cb str at 100.30	36775	87.55	90.55	3.00	144	5
			86.56 sand seam	36776	90.55	93.55	3.00	224	5
				36777	93.55	96.55	3.00	174	5
				36778	96.55	99.55	3.00	92	5
			<u>EOH 111.80m</u>	36779	99.55	101.80	2.25	128	5

NORANDA EXPLORATION CO. LTD.
DIAMOND DRILL LOG

PROPERTY : CHUCHI LAKE

SOLE No. : CH-89-09

Grid System :

Collar Eastings : 10000.000

Collar Northings : 11200.000

Collar Elevations : 1130.000

Collar Bearing : 180.00

Grid Baseline : 90.00

Collar Inclination : -45.00

Grid Bearing : 180.00

Final Depth : 102.11

Claim No. :

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Logged by : C.T. ROWEY

Date : OCT. 20, 1989 - OCT. 20, 1989

Downhole Survey : Acid Test

Drilled By : J.T. THOMAS

Core Size : NQ

INTERVAL(m)		MAJOR/MINOR UNITS	DESCRIPTION	SAMPLE NUMBER	INTERVAL(m)		SAMPLE WIDTH	GEOCHEMICAL SAMPLES	
FROM	TO				FROM	TO		Cu ppm	Au ppb
0.00	15.15	OB							
0.00	12.80	CAS	Casing (Overburden)						
12.80	15.15	BOB	Boulders (Granitic, Volcanic)						
15.15	32.75	DIO	DIORITE	36917	15.15	18.20	3.05	102	3
			greyish-green colour	36918	18.20	21.20	3.00	88	4
			med. to coarse gr., h.magnetic	36919	21.20	24.20	3.00	134	5
			numerous fractures, CA 20-30/60-70						
			some of the fractures appear to have						
			minor movement on them						
			minor qtz-cb vnlts w ep & K-spar alter-						
			ation ass w them						
			few K-spar dykes/vn (1-3cm, CA 30-50						
			some iron staining in few fractures						
			tr py, tr po ass w fractures						
23.77	25.10	3Ba	Ep Alt'n zone, little colour unit w ep	36920	24.20	27.20	3.00	86	4
			& qtz-cb str, blockly	36921	27.20	30.20	3.00	74	6
29.59	30.78	3C	K-spar Altered zone, reddish colour	36922	30.20	33.20	3.00	60	5
			to rk, iron staining in fractures						
32.75	33.09	FP	FELDSPAR PORPHYRY						
			med. green colour, fine to med. gr.						
			not magnetic, couple qtz-cb vnlts w ep						
			alteration, minor hem in fractures						
			can see relict feld sl which have been						
			altered by ep						
			recovery 100%						
33.09	102.11	DIO	DIORITE	36923	33.20	36.20	3.00	108	6
			light to med. greyish-green colour						
			fine to coarse gr., med. to strongly						
			magnetic, recovery 90-98%						
			numerous fractures CA 20-30/60-70						
			minor movement on few fractures						
			minor hem staining ass w fractures						

NORANDA EXPLORATION CO. LTD.
DIAMOND DRILL LOG

PROPERTY : CHUCHI LAKE
HOLE No. : CH-89-89

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INTERVAL(m)		MAJOR/MINOR UNITS	DESCRIPTION	SAMPLE NUMBER	INTERVAL(m)		SAMPLE WIDTH	GEOCHEMICAL SAMPLES	
FROM	TO				FROM	TO		Cu ppm	Au ppb
			few qtz-cb str w minor ep K-spar & ep ass w fractures (tr py small granitic dyke 2cm wide CA 05 at 33.70 55.01-55.02 fault CA 70 w K-spar, ep, & qtz-cb on either side of it, tr-2% py 79.51-79.67 Mafic Diorite, tr py 93.00 downwards there is an increase in in ep alteration w tr-1% py ass w it 94.91-95.43 Monzonite/Granodiorite dyke						
36.10	37.10	3Ca	Abundant K-spar Alt'n in vns & qtz-cb vnlt, rk in small pieces	36924 36925	36.20 39.20	39.20 42.20	3.00 3.00	690 38	8 2
			36.88-37.10 Cu staining (Malachite & Azurite), 5-12% cpy, tr-2% py, core v.rusty						
39.31	42.66	6a	Monzonite Dyke fine to med. gr., light greyish colour not magnetite, no sulphides few fractures infilled w qtz-cb & minor hem recovery 95-98% contacts gradational	36926 36927 36928 36929 36930 36931 36932	42.20 45.20 48.20 51.20 54.20 57.20 60.20	45.20 48.20 51.20 54.20 57.20 60.20 63.20	3.00 3.00 3.00 3.00 3.00 3.00 3.00	118 380 54 108 196 128 320	3 5 1 4 2 4 12
63.00	65.30	3Cb	Abundant K-spar Alteration, w ep tr-1% py v.v.f.dissm.	36933	63.20	66.20	3.00	152	6
65.30	66.01	3K	Biotite Rich Zone		66.20	69.20	3.00	98	6
66.01	71.25		Py cubes (<1-mm) ass w fractures & qtz-cb vnlt	36934 36935	66.20 69.20	69.20 72.20	3.00 3.00	98 280	6 7
71.25	72.20	3H	Mafic Diorite greyish-black colour, fine gr. h.magnetic, recovery 99% numerous hairline fractures infill w py & qtz-cb, as well larger fractures have ep & K-spar 3-10% py, tr cpy, tr po	36936 36937	72.20 75.20	75.20 78.20	3.00 3.00	162 224	6 4
77.13	77.87	6bc	Monzonite/Granodiorite Dyke med. gr., light greyish color numerous hairline fractures infill w ep as well as K-spar alteration at tp & bt contacts sharp	36938	78.20	81.20	3.00	370	3

NORANDA EXPLORATION CO. LTD.
DIAMOND DRILL LOG

PROPERTY : CHUCHI LAKE
HOLE No. : CH-89-09

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INTERVAL(m)		MAJOR/MINOR UNITS	DESCRIPTION	SAMPLE NUMBER	INTERVAL(m)		SAMPLE WIDTH	GEOCHEMICAL SAMPLES	
FROM	TO				FROM	TO		Cu ppm	Au ppb
80.86	81.14	3Mab	Mafic Diorite, numerous qtz-cb vnltz, w ep, 5-10% py diss. & str,	36939	81.20	84.20	3.00	450	4
			tr-1% cpy, tr po diss.	36940	84.20	87.70	3.50	3900	14
86.65	87.70	3Ma	Mafic Diorite, numerous qtz-cb str, 5-15% sulphides, diss. & str of	36941	87.70	90.70	3.00	380	8
			py, cpy, w v.minor po 86.64-86.71 fault zone CA 55, fg, ss	36942	90.70	93.70	3.00	300	3
93.58	94.70	3Bc	H. Ep zone w k-spar, h.brecciated, tr-1% py.	36943	93.70	96.70	3.00	960	3
				36944	96.70	99.70	3.00	220	2
				36945	99.70	102.11	2.41	170	4
			BOH 102.11m						

NORANDA EXPLORATION CO. LTD.
DIAMOND DRILL LOG

PROPERTY : CHUCHI LAKE
HOLE No. : CH-89-10
Grid System :
Collar Eastings : 10000.000
Collar Northings : 11100.000
Collar Elevations : 1140.000
Collar Bearing : 180.00
Grid Baseline : 90.00

Collar Inclination : -45.00
Grid Bearing : 180.00
Final Depth : 100.28
Claim No. :

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Logged by : C.T. RONEY
Date : OCT. 21, 1989 - OCT. 21, 1989
Downhole Survey : Acid Test
Drilled By : J.T. THOMAS
Core Size : NQ

INTERVAL(m)		MAJOR/MINOR UNITS	DESCRIPTION	SAMPLE NUMBER	INTERVAL(m)		SAMPLE WIDTH	GEOCHEMICAL SAMPLES	
FROM	TO				FROM	TO		Cu ppm	Au ppb
0.00	7.40	OB							
0.00	7.32	CAS	Casing (Overburden)						
7.32	7.40	BOU	Boulders (Granitic)						
7.40	76.01	DIO	DIORITE	36946	7.40	10.40	3.00	118	4
			med. to dark greenish-black colour med. to coarse gr., h. magnetic recovery 90-95%						
			numerous qtz-cb vnlt w ep & minor hem & K-spar, tr py small zones of potassic alteration						
7.97	9.37	3Db	Potassic Altered Zone, w minor ep	36947	10.40	13.40	3.00	92	3
10.45	28.53	3M/bca	Mafic Diorite	36948	13.40	16.40	3.00	62	4
			- dark greenish-black colour	36949	16.40	19.40	3.00	114	6
			fine to med. gr., scattered ep altera- tion usually in vnlt	36950	19.40	22.40	3.00	190	14
			15.88 a 5cm K-spar va CA 70	36951	22.40	25.40	3.00	218	10
			20.12-21.90 scattered py vnlt & diss. average 2%	36952	25.40	28.40	3.00	194	3
			21.25-21.98 15% py w tr cpy qtz-cb vn(25.40) 1cm wd CA 55	36953	28.40	31.40	3.00	108	8
28.53	43.20	3M/3/d	Alterating small units of Mafic Diorite & Diorite	36954	31.40	34.40	3.00	124	2
			scattered potassic alteration	36955	34.40	36.85	2.45	234	29
			39.85-40.45 ep altered zone w py str ass w qtz-cb vnlt 1-20% py	36956	36.85	39.35	2.50	168	4
			40.05-40.30 K-spar va	36957	39.35	43.20	3.85	114	1
			40.39-40.63 qtz-cb va w 5% py						
			40.50-40.70 qtz-cb va w tr py						
			41.33-41.45 K-spar va						
43.20	46.50	6ab	Granodiorite dyke	36958	43.20	46.50	3.30	6	2
			w scattered qtz-cb vnlt, minor ep alt'n						
			46.12-46.39 strong ep alt'n w tr py weak K-spar alt'n throughout						

HORANDA EXPLORATION CO. LTD.
DIAMOND DRILL LOG

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PROPERTY : CHUCHI LAKE
HOLE No. : CH-89-10

INTERVAL(m)		MAJOR/MINOR UNITS	DESCRIPTION	SAMPLE NUMBER	INTERVAL(m)		SAMPLE WIDTH	GEOCHEMICAL SAMPLES	
FROM	TO				FROM	TO		Cu ppm	Au ppb
46.50	54.63	3Mab	Mafic Diorite	36959	46.50	49.50	3.00	46	10
			dark greenish-black colour, fine gr.	36960	49.50	52.50	3.00	208	29
			qtz-cb vnlt/vns w ep CA 30/70	36961	52.50	55.50	3.00	180	2
			48.46-49.50 qtz-cb vn w tr py blebs	36962	55.50	58.50	3.00	270	7
			49.50-50.00 fault zone CA 30 , fg, ss	36963	58.50	61.50	3.00	270	5
			abundant qtz-cb str w tr py	36964	61.50	64.50	3.00	186	1
			50.90-51.93 fault zone CA 30 , fg, ss						
			abundant qtz-cb vnlt v hem						
			w minor ep alt'n, 1-5% py						
			ass w fractures						
			52.50-52.73 fault zone CA 25 fg, ss						
			53.10-54.63 increase in ep alt'n						
62.93	64.03	7a	Fault zone CA 80 , fg , ss	36965	64.50	67.50	3.00	212	4
			numerous qtz-cb vnlt, tr-3% py cubes						
			ass w h.brecciated & qtz-cb vnlt						
64.92	71.34	3Mba	Mafic Diorite	36966	67.50	70.50	3.00	166	6
			see description above	36967	70.50	73.50	3.00	196	2
			65.67-66.00 fault zone CA 65, fg , ss						
			abundant qtz-cb vnlt						
			tr-6% py diss. ass w vnlt						
			66.00-71.34 increase in ep alt'n						
			66.00-66.00 tr-4% py, tr po						
			ass w ep & qtz-cb vnlt						
			67.60-68.10 numerous frac-						
			tures, w qtz-cb						
			str, tr-1% py &						
			1-3% py						
73.44	73.93	3Acb	Alt'n zone w qtz-cb vnlt, tr-15 py	36968	73.50	76.50	3.00	134	2
			as well K-spar alt'n w minor ep						
76.01	77.90	FP	PELDSPAR PORPHYRY	36969	76.50	79.50	3.00	70	2
			med. to dark green colour						
			med. gr., v. slightly magnetic						
			h. fractured w numerous irregular						
			hairline fractures						
			qtz-cb vnlt & ep infilling most fract-						
			ures ep has replaced most of the field xl						
			tr py , recovery 90%						
			gradational contact, small shear at bt						
77.90	95.42	DIO	DIORITE (Mafic)	36970	79.50	82.50	3.00	92	23

NORANDA EXPLORATION CO. LTD.
DIAMOND DRILL LOG

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PROPERTY : CHUCHI LAKE
HOLE No. : CH-89-10

INTERVAL(m)		MAJOR/MINOR UNITS	DESCRIPTION	SAMPLE NUMBER	INTERVAL(m)		SAMPLE WIDTH	GEOCHEMICAL SAMPLES	
FROM	TO				FROM	TO		Cu ppm	Au ppb
			dark greenish-black colour med. to coarse grained, med. magnetic numerous fractures most infilled w qtz- cb vnlt & minor ep & k-spar tr-1% py, tr po, ass w ep/qtz-cb vnlt recovery 85-90%						
81.10	86.15	3A	87.70-88.09 qtz-cb vn CA 70, w tr-3% py & (tr cpy Zone of Abundant Qtz-Cb Vnlt & Shearing	36971	82.50	85.50	3.00	52	5
			81.10-81.35 fault zone, tr-1% py, fg	36972	85.50	88.50	3.00	34	6
			81.52-81.99 fault zone, CA 60, fg, ss, clay minerals, numerous qtz-cb vnlt w str of py(1-2%)						
			83.48-84.30 fault zone CA 40, ss, fg, numerous qtz-cb vnlt, tr-5% py, tr po minor hem						
88.09	94.50	3Kec	Biotite Rich Zone	36973	88.50	91.50	3.00	56	1
			88.80-91.50 hem staining w minor k-spar	36974	91.50	94.50	3.00	114	4
94.50	95.42	3C	k-spar Atl'n	36975	94.50	97.50	3.00	188	3
95.42	100.28	BFP	BIOTITE-FELDSPAR PORPHYRY dark greyish-green clour med. to coarse grained, h. magnetic 20-40% feld xl minor ep alt'n of feld xl few fractures appear to have movement tr py, minor cb vnlt, recovery 98% appear to be grading back into diorite near the bt	36976	97.50	100.28	2.78	160	4
			BOH 100.28m						

MORANDA EXPLORATION CO. LTD.
DIAMOND DRILL LOG

PROPERTY : CHUCHI LAKE
HOLE No. : CH-89-11
Grid System :
Collar Eastings : 10000.000
Collar Northings : 11000.000
Collar Elevations : 1160.000
Collar Bearing : 180.00
Grid Baseline : 90.00

Collar Inclination : -45.00
Grid Bearing : 180.00
Final Depth : 103.33
Claim No. :

PAGE : 1

Logged by : C.T. RONEY
Date : OCT. 21, 1989 - OCT. 22, 1989
Downhole Survey : Acid Test
Drilled By : J.T. THOMAS
Core Size : WQ

INTERVAL(m)		MAJOR/MINOR	DESCRIPTION	SAMPLE NUMBER	INTERVAL(m)		SAMPLE WIDTH	GEOCHEMICAL SAMPLES	
FROM	TO	UNITS			FROM	TO		Cu ppm	Au ppb
0.00	8.30	OB							
0.00	6.71	CAS	Casing (Overburden)						
6.71	8.30	BOD	Boulders (Granitic, Volcanic)						
8.30	103.33	GAB	GABBRO	36977	8.30	11.30	3.00	80	1
			dark greyish-green to grey colour	36978	11.30	14.30	3.00	132	2
			med. to coarse gr., h. magnetic	36979	14.30	17.30	3.00	96	1
			few fracture w are mainly infilled with qtz-cb vnlt						
			few qtz-cb vnlt/str w minor ep & K-spar alt'n, tr hem staining						
			tr py, tr po, recovery 90-95%						
			8.30-8.45 potassic dyke						
			10.17-10.46 potassic dyke w K-spar & qtz						
			11.46-11.80 potassic dyke w ep alt'n						
			14.66-14.74 K-spar vn w ep alt'n CA 50						
			14.85-14.90 K-spar vn w ep alt'n CA 50						
			30.20-30.70 vnlt of py ass w qtz-cb vnlt as there is 1-2% py, & tr po f. diss.						
15.10	16.05	6bc	Granodiorite dyke w ep & K-spar alt'n	36980	17.30	20.30	3.00	24	3
				36981	20.30	23.30	3.00	54	2
20.68	20.98	6	Granodiorite dyke						
23.05	23.53	6	Granodiorite dyke	36982	23.30	26.30	3.00	40	3
				36983	26.30	29.10	2.80	68	2
				36984	29.10	32.31	3.21	86	1
29.18	29.36	7ae	Fault Zone CA 75, fg, ss, brecciated qtz-cb vnlt, 3-10% py, 1-2% po in str, blebs						
29.86	29.95	7ae	Fault Zone CA 88, fg, ss, abundant qtz vnlt, 1-5% py, tr po	36985	32.31	35.30	2.99	28	2
35.26	35.80	6bc	Granodiorite dyke	36986	35.30	38.30	3.00	134	4
			heavy ep alt'n & minor K-spar						
37.69	103.33	4Dcba	Gabbro w potassic alt'n zone	36987	38.30	41.30	3.00	196	6
			black to light grey colour	36988	41.30	44.30	3.00	92	1

NORANDA EXPLORATION CO. LTD.
DIAMOND DRILL LOG

PROPERTY : CHUCHI LAKE
HOLE No. : CH-89-11

PAGE : 2

INTERVAL(m)		MAJOR/MINOR DRITS	DESCRIPTION	SAMPLE NUMBER	INTERVAL(m)		SAMPLE WIDTH	GEOCHEMICAL SAMPLES	
FROM	TO				FROM	TO		Cu ppm	Au ppb
			med. to coarse gr., med. to h. magnetic	36989	44.30	47.30	3.00	76	4
			few K-spar vnlt & ep vnlt	36990	47.30	50.30	3.00	88	1
			potassic alt'n for 0-75%	36991	50.30	53.30	3.00	88	3
			53.30-56.00 increase in ep alt'n	36992	53.30	56.30	3.00	90	2
			72.60-83.30 more ep & K-spar alt'n zone	36993	56.30	59.30	3.00	242	10
			72.84-73.35 fault zone CA 35	36994	59.30	62.30	3.00	118	9
			abundant qtz-cb & ep vnlt	36995	62.30	65.30	3.00	110	5
			tr py	36996	65.30	68.30	3.00	140	5
			75.43-76.08 highly ep zone	36997	68.30	71.30	3.00	70	4
			75.57-75.89 fault zone CA 60	36998	71.30	74.30	3.00	186	4
			fg, ss, numerous qtz-cb vnlt	36999	74.30	77.30	3.00	86	3
			as well ep abundant	37000	77.30	80.30	3.00	258	2
			77.30-77.70 ep alt'n zone w K-spar w	36301	80.30	83.30	3.00	186	4
			78.65-79.30 minor qtz-cb vnlt	36302	83.30	86.30	3.00	228	3
			79.65-80.04 "	36303	86.30	89.30	3.00	152	7
			80.28-80.76 "	36304	89.30	92.30	3.00	186	12
			82.28-82.48 "	36305	92.30	95.30	3.00	124	4
			82.60-83.30 "	36306	95.30	98.30	3.00	200	8
			84.25-85.60 zone of ep alt'n w numerous qtz-cb vnlt, tr-lt py	36307	98.30	101.30	3.00	108	7
			95.24-95.35 K-spar vn w ep alt'n	36308	101.30	103.33	2.03	78	5
			102.95-103.15 potassic, K-spar, & minor ep w tr-lt py						
			<u>END 103.33m</u>						

APPENDIX V
CORE GEOCHEMICAL RESULTS

NORANDA VANCOUVER LABORATORY

PROPERTY/LOCATION: CHUCHI

CODE : 8910-035

Project No. : 243
 Material : 26 CORES &
 Remarks : 1 ROCK

Sheet: 1 of 1
 Geol.: C.R

Date rec'd: OCT. 17
 Date compl: NOV. 07

Values in PPM, except where noted.

T. T. No.	SAMPLE No.	Cu	PPB Au
2	CORE 36701	136	5
3	36702	142	5
4	36703	82	5
5	36704	140	5
6	36705	154	5
7	36706	142	5
8	36707	90	5
9	36708	184	50
10	36709	134	5
11	36710	350	5
12	36711	560	5
13	36712	112	5
14	36713	108	5
15	36714	104	5
16	36715	124	5
17	36716	198	5
18	36717	650	5
19	36718	154	5
20	36719	300	5
21	36720	206	5
22	36721	78	5
23	36722	144	5
24	36723	270	5
25	36724	590	5
26	36725	390	5
27	CORE 36726	128	5

RECEIVED
 NOV - 9 1989
 RECEIVED

file

Chuchi Lk. (CR)

ACME ANALYTICAL LABORATORIES LTD.

DATE RECEIVED: OCT 25 1989

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

PHONE (604) 253-3158

FAX (604) 253-1716

DATE REPORT MAILED:

Nov 1/89

GEOCHEMICAL/ASSAY CERTIFICATE

- SAMPLE TYPE: Core; AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

SIGNED BY... D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Noranda Exploration Co. Ltd. PROJECT ~~8910-040-243~~ FILE # 89-4482 Page 1

SAMPLE#	Cu %	Au* PPB
036727 DR	.02	1
036728 DR	.01	1
036729 DR	.01	29
036730 DR	.03	1
036731 DR	.01	1
036732 DR	.06	1
036733 DR	.06	1
036734 DR	.01	12
036735 DR/036736 DR	.01	1
036737 DR	.03	1
036738 DR	.02	10
036739 DR	.01	8
036740 DR	.01	1
036741 DR	.01	3
036742 DR	.04	2
036743 DR	.02	1
036744 DR	.01	1
036745 DR	.04	4
036746 DR	.02	2
036747 DR	.01	2
036748 DR	.01	1
036749 DR	.03	1
036750 DR	.03	1
036751 DR	.02	1
036752 DR	.03	1
036753 DR	.07	1
036754 DR	.03	1
036755 DR	.10	1
036756 DR	.01	1
036757 DR	.01	3
036758 DR	.01	2
036759 DR	.01	1
036760 DR	.01	2
036761 DR	.01	1
036762 DR	.01	1
036763 DR	.01	5

SAMPLE#	Cu %	Au* PPB
036764 DR	.01	5
036765 DR	.01	2
036766 DR	.01	1
036767 DR	.01	2
036768 DR	.01	2
036769 DR	.01	1
036770 DR	.01	5
036771 DR	.01	5
036772 DR	.02	6
036773 DR	.01	1
036774 DR	.05	3
036775 DR	.02	85
036776 DR	.03	3
036777 DR	.02	4
036778 DR	.01	1
036779 DR	.02	2

T. T.
No.

SAMPLE
No.

Cu

8911-006
Pg. 2 of 4

65	36889	148
66	36890	216
67	36891	46
68	36892	192
69	36893	460
70	36894	530
71	36895	610
72	36896	270
73	36897	132
74	36899	370
75	36900	1500
76	36901	3300
77	36902	1300
78	36903	430
79	36904	104
80	36905	86
81	36906	90
82	36907	148
83	36908	206
84	36909	98
85	36910	32
86	36911	94
87	36912	78
88	36913	114
89	36914	9300
90	36915	154
91	36916	52
92	36917	102
93	36918	88
94	36920	86
95	36921	74
96	36922	60
97	36923	108
98	36924	690
99	36925	38
100	CHECK NL-6	54
101	36926	118
102	36927	380
103	36929	108
104	36930	196
105	36931	128
106	DR 036932	320

T. T. No.	SAMPLE No.	Cu
107	DR 036933	152
108	36934	98
109	36935	280
110	36936	162
111	36937	224
112	36938	54
113	36938 A	370
114	36939	450
115	36940	3900
116	36941	380
117	36942	300
118	36943	960
119	36944	220
120	36945	170
121	36946	118
122	36947	92
123	36948	62
124	36949	114
125	36950	190
126	36951	218
127	36952	194
128	36953	108
129	36954	124
130	36955	234
131	36956	168
132	36957	114
133	36958	6
134	36959	46
135	36960	208
136	36961	180
137	36962	270
138	36963	270
139	36964	186
140	36965	212
141	36966	166
142	36967	196
143	36968	134
144	36969	70
145	36970	92
146	36971	52
147	36972	34
148	36973	56
149	36974	114
150	CHECK NL-6	56
151	36975	188
152	36976	160

SAMPLE# AU*
ppb

036889 DR	1
036890 DR	3
036891 DR	2
036892 DR	2
036893 DR	4
036894 DR	3
036895 DR	4
036896 DR	1
036897 DR	2

SAMPLE#	AU*
	ppb
036899 DR	3
036900 DR	26
036901 DR	40
036902 DR	23
036903 DR	6
036904 DR	2
036905 DR	4
036906 DR	4
036907 DR	4
036908 DR	3
036909 DR	4
036910 DR	5
036911 DR	2
036912 DR	2
036913 DR	6
036914 DR	66
036915 DR	6
036916 DR	2
036917 DR	3
036918 DR	4
036920 DR	4
036921 DR	6
036922 DR	5
036923 DR	6
036924 DR	8
036925 DR	2
036926 DR	3
036927 DR	5
036929 DR	4
036930 DR	2
036931 DR	4
036932 DR	12
036933 DR	6
036934 DR	6
036935 DR	7
036936 DR	6

SAMPLE#	AU* ppb
036937 DR	4
036938 DR	1
036938 DR (A)	3
036939 DR	4
036940 DR	14
036941 DR	8
036942 DR	3
036943 DR	3
036944 DR	2
036945 DR	4
036946 DR	4
036947 DR	3
036948 DR	4
036949 DR	6
036950 DR	14
036951 DR	10
036952 DR	3
036953 DR	8
036954 DR	2
036955 DR	29
036956 DR	4
036957 DR	1
036958 DR	2
036959 DR	10
036960 DR	29
036961 DR	2
036962 DR	7
036963 DR	5
036964 DR	1
036965 DR	4
036966 DR	6
036967 DR	2
036968 DR	2
036969 DR	2
036970 DR	23
036971 DR	5

SAMPLE#	AU* ppb
036972 DR	6
036973 DR	1
036974 DR	4
036975 DR	3
036976 DR	4

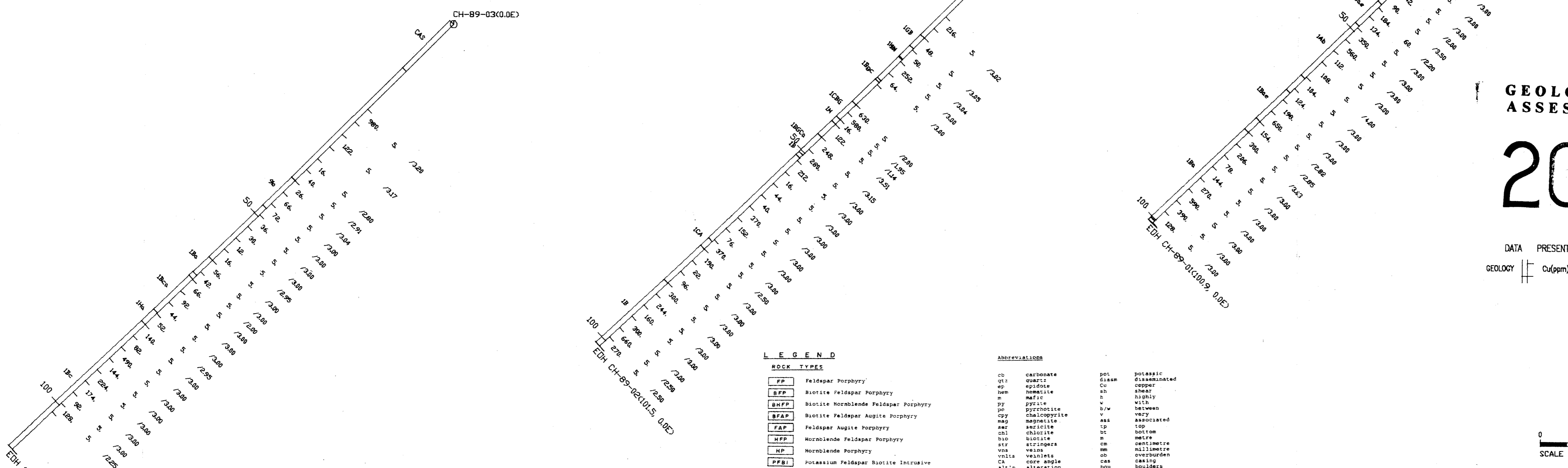
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11450N 11500N 11550N 11600N 11650N 11700N

1200ELEV 1200ELEV

1150ELEV 1150ELEV

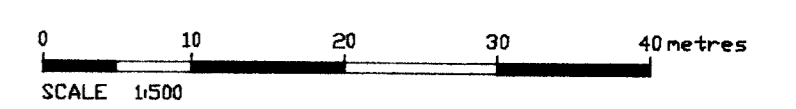
1100ELEV 1100ELEV



GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,314

DATA PRESENTATION
GEOLOGY Cu(ppm) Au(ppb) / Width(M)



LEGEND

- ROCK TYPES**
- FP Feldspar Porphyry
 - BFP Biotite Feldspar Porphyry
 - MBFP Biotite Hornblende Feldspar Porphyry
 - AFAP Biotite Feldspar Augite Porphyry
 - FAP Feldspar Augite Porphyry
 - HFP Hornblende Feldspar Porphyry
 - HP Hornblende Porphyry
 - PPBI Potassium Feldspar Biotite Intrusive
 - FPBP Potassium Feldspar Biotite Porphyry
 - FPBP Potassium Feldspar Biotite Porphyry
 - AND Andesite
 - DIO Diorite
 - GAB Gabbro
 - GNA Granite
 - GRDIO Granodiorite/Monzonite
 - Fault
 - Mafic Dyke
 - S-Spar Dyke

Abbreviations

- | | | | |
|-------|----------------|-------|--------------|
| cb | carbonate | pot | potassic |
| qtz | quartz | dis | dissiminated |
| ep | epidote | Cu | copper |
| hem | hematite | as | arsenic |
| m | mafic | n | highly |
| py | pyrite | v | with |
| py | pyroxenite | b/w | between |
| oxy | oxalopyrite | v | very |
| mag | magnetite | ass | associated |
| mf | malachite | top | top |
| chl | chlorite | bt | bottom |
| bio | biotite | metre | metre |
| str | stirlingite | cm | centimetre |
| ve | vein | mm | millimetre |
| vnt | veinlets | ob | overburden |
| con | conglomerate | cas | casings |
| alt'n | alteration | bou | boulders |
| sil | silicification | rk | rock |
| fg | faul gauge | EDH | end of hole |
| ss | silicified | | |

qtz=cb quartz-carb veins/vn
K=sp potassium feldspar
pot potassic
maf mafic

If capitalized they are the main alteration
or member of that sub-unit.



REVISED	CHUCHI LAKE		
	CHUCHI GRID		
	D.D.H. CH-89-01,02,03		
	Vertical Section 10,400E Looking West		
	FILE : CH89S-8		
PROJ. No. 243	DRAWN BY: C. T. B.	DATE: OCT. 1989	
MTS. 92M/A2	CHKD BY: (GSE/AutoCADSK.B)	SCALE: 1 : 500	
DWG. No.	NORANDA EXPLORATION		
	OFFICE: MINN. GEOME. INC.		

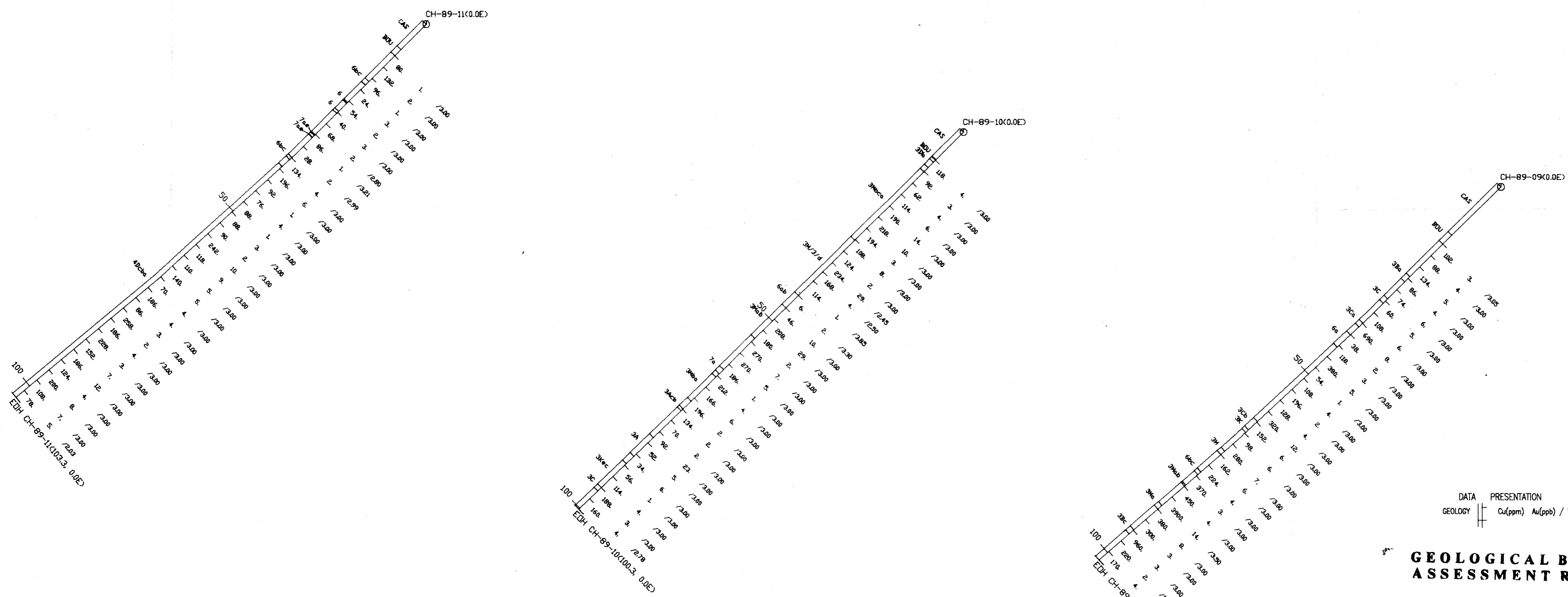
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10550N 11000N 11050N 11100N 11150N 11200N

1150ELEV 1150ELEV

1100ELEV 1100ELEV

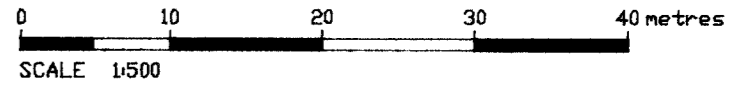
1050ELEV 1050ELEV



DATA PRESENTATION
GEOLOGY Cu(ppm) Au(ppb) / Width(M)

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

20,314



LEGEND

ROCK TYPES	
FP	Feldspar Porphyry
BFP	Biotite Feldspar Porphyry
BHFP	Biotite Hornblende Feldspar Porphyry
BAFP	Biotite Feldspar Augite Porphyry
FAP	Feldspar Augite Porphyry
HFP	Hornblende Feldspar Porphyry
HP	Hornblende Porphyry
PFBI	Potassium Feldspar Biotite Intrusive
PFBP	Potassium Feldspar Biotite Porphyry
KFBP	Potassium Feldspar Biotite Porphyry
AND	Andesite
DIO	Diorite
GAB	Gabbro
GRA	Granite
GRDIO	Granodiorite/Monzonite
F	Fault
M-DYX	Mafic Dyke
K-DYX	K-Spar Dyke

Abbreviations

cb	carbonate	pos	potassic
qtz	quartz	dis	disseminated
epi	epidote	cu	copper
amf	amphibole	sl	slender
m	mafic	h	highly
py	pyrite	u	unit
pyr	pyroxene	b/w	between
ch	chlorite	wt	with
cal	calcite	ass	associated
mag	magnetite	top	top
chl	chlorite	bt	bottom
bio	biotite	m	metre
am	amphibole	cm	centimetre
ms	microcline	mm	millimetre
vol	volcanic	ob	overburden
ca	calcium	cs	covering
alt'n	alteration	bu	buried
sil	silicification	rk	rock
fg	fault gouge	end	end of hole
ss	slickensides		

qtz-cb quartz-carb volts/vn
k-spar potassium feldspar
pos potassic
maf mafic

If capitalized, they are the main alteration
or number of that sub-unit.

REVISED	CHUCHI LAKE	
	CHUCHI GRID	
	D.D.H. CH-89-09,10,11	
	Vertical Section 10,000E Looking West	
	FILE : CH89S-4	
PROJ. No. 243	SURVEY BY C. T. R.	DATE OCT. 1989
NTS. 52N/12P	DRAWN BY GMS/A.L./CAD/S.K.B.	SCALE 1:500
DWG. No.	NORANDA EXPLORATION	
	OFFICE: <u> </u> <u> </u> <u> </u>	