MAP NO.: 116 A 4

ASSESSMENT REPORT X
PROSPECTUS
CONFIDENTIAL X
OPEN FILE

DOCUMENT NO: 092794
MINING DISTRICT: Dawson
TYPE OF WORK: Geology, Geochemistry

REPORT FILED UNDER: Noranda Exploration Company Ltd.

DATE PERFORMED: July 1-21, 1989

DATE FILED: January 12, 1990

LOCATION: **LAT.:** 64° 09'N

LONG.: 137° 36'W

AREA: Lee Creek

VALUE $: 12,800.00

CLAIM NAME & NO.: IDA 1-23 YA 89419-41
IDA 24,25 YB 23631-32
ORO 1-28 YA 88924-51

WORK DONE BY: J. Duke

WORK DONE FOR: Noranda Exploration Company Ltd.

DATE TO GOOD STANDING:

REMARKS: #19 IDA Gold mineralization occurs disseminated within Cretaceous granodioritic to monzonitic intrusive rock and hornfelsed sediments near the intrusive. It is also locally remobilized into faults and late-stage fracture-filling quartz-veining. Prospecting, hand trenching and chip sampling resulted in gold values of up to 0.144 oz\ton.

092794

REPORT ON 1989 FIELD ACTIVITIES

on the

IDA - ORO CLAIMS

DAWSON MINING DISTRICT

Yukon Territory

N.T.S.: 116 A/4

Latitude: 64 09'N

Longitude: 137 36'W

Owned & Operated by: Noranda Exploration Co. Ltd.

(No Personal Liability)

Author: Jesse L. Duke

This report has been examined by the Geological Evaluation Unit under Section 53 (4) Yukon Quartz Mining Act and is allowed as representation work in the amount of $ 12,800.00.

Regional Manager, Exploration and Geological Services for Commissioner of Yukon Territory.

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SUMMARY

Gold mineralization occurs disseminated within Cretaceous granodioritic to monzonitic intrusive rock and hornfelsed sediments near the intrusive. It is also locally remobilized into faults and late stage fracture-filling quartz veining

A ten day program of prospecting,sampling, hand trenching, and chip sampling was completed in July, 1989 by a three man crew. Some old trenches and outcrops that returned erratic results from previous sampling were resampled. Ten hand trenches were dug to test encouraging results from grab and chip samples collected in 1988. The best assay results from this program was 0.144 oz/ton Au and 0.117 oz/ton Au both over 1 metre and testing the same structure 25m apart. Chip sampling along the ridge on the South Zone returned an average gold content of 505ppb over 65 metres. This includes one five metre interval that ran 3820 ppb Au. Chip sampling on the North Zone returned an average value of 276ppb Au over 95 metres, with a best value of 440ppb Au over 5 metres.

Repeated sampling of selected outcrop on the property have produced highly variable results suggesting there may be an erratic distribution of gold. Bulk sampling would be required to properly define the grade.

However the lack of access and rugged terrain make drill testing in this area expensive.

CHAPTER ONE: INTRODUCTION

1-1: Introductory Statement

The IDA 1-23 and ORO 1-28 claims were staked by Noranda Exploration Company Limited in 1987 to cover a low-grade bulk tonnage gold target. Previously known low grade gold mineralization was confirmed by a brief sampling program in 1987. Additional sampling in 1988 defined an arsenic-antimony-gold soil anomaly 300-500m wide and 1000 metres long. Several grab and chip samples on the property returned significant gold values (up to 10,105 ppb Au). In 1989 a 10 day program of hand trenching, chip sampling, and prospecting was undertaken.

1-2: Location and Access

The property is located 90 kilometres east of Dawson City midway between Aussie and Hamilton Creeks (NTS 116 A/4, Lat. 64 09'N, Long. 137 36'W). Access is by helicopter from Dawson City. The nearest road is 32 km west of the property near Noranda's Brewery Creek property.

1-3: Physiography and Vegetation

The IDA-ORO claims lie within the southern Ogilvie Mountains, a moderately rugged series of ranges affected by local alpine glaciation. Most peaks are less than 1830 metres high. Valleys are typically well developed with numerous marshes and swamps. Elevation on the claim group ranges from a high of 1790 metres to 1300 metres in the valleys.

The claims lie above treeline over rugged cliffs and steep talus-covered slopes. Lichen, grasses and stunted willows

make up most of the vegetation.

1-4: Claim History

The property was initially staked as the IDA claims (120 units) in 1979 by Rio Tinto Canadian Exploration Limited (Rio Canex), to cover mercury, arsenic and antimony silt anomalies obtained by a GSC survey. A short field program followed. Then during 1980 to 1981 they undertook a program of geological mapping, soil sampling, hand blast trenching, and rock chip sampling. No further work was done by Rio Canex and the claims lapsed in 1986.

Noranda Exploration Company Limited staked the ORO 1-28 in February 1987 and the IDA 1-23 claims in July 1987. The IDA 24 and 25 were added in August 1989. A summary of current claim status appears below:

CLAIMS	RECORD No.	STAKED	ANNIVERSARY
IDA 1-23	YA89419-41	15/7/89	20/2/94
ORO 1-28	YA88924-51	18/2/87	20/2/94
IDA 24,25	YB23631-32	12/8/89	10/9/90

1-5: 1989 Work Program

A 10 day program was undertaken in 1989 between July 11 and July 21 to follow up results obtained in the 1988 program. 10 short hand trenches were dug. A total of 218 chip samples and 21 grab samples were collected. Hand trenches were targeted on gold mineralization identified in grab samples and chip samples in 1988. Other chip sampling was performed to test the continuity and grade of gold mineralization across previously identified zones. The grab samples were obtained during prospecting for additional mineralized

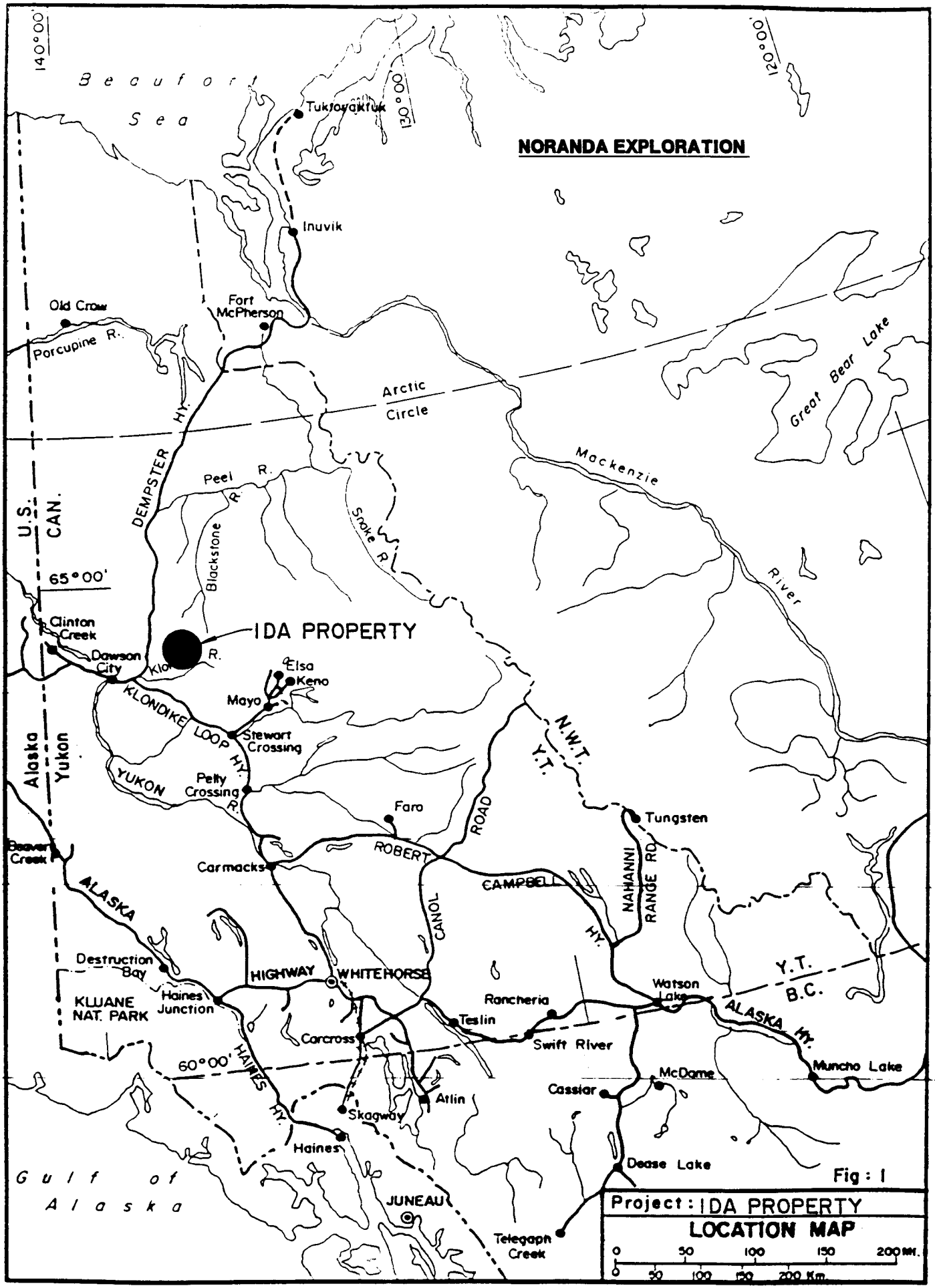
zones on the property. The work was performed by the following personnel:

J. Duke Geologist

R. Young Geological Assistant

B. Bark Field Assistant

Helicopter support was furnished by Frontier Helicopters from a machine stationed on contract nearby.

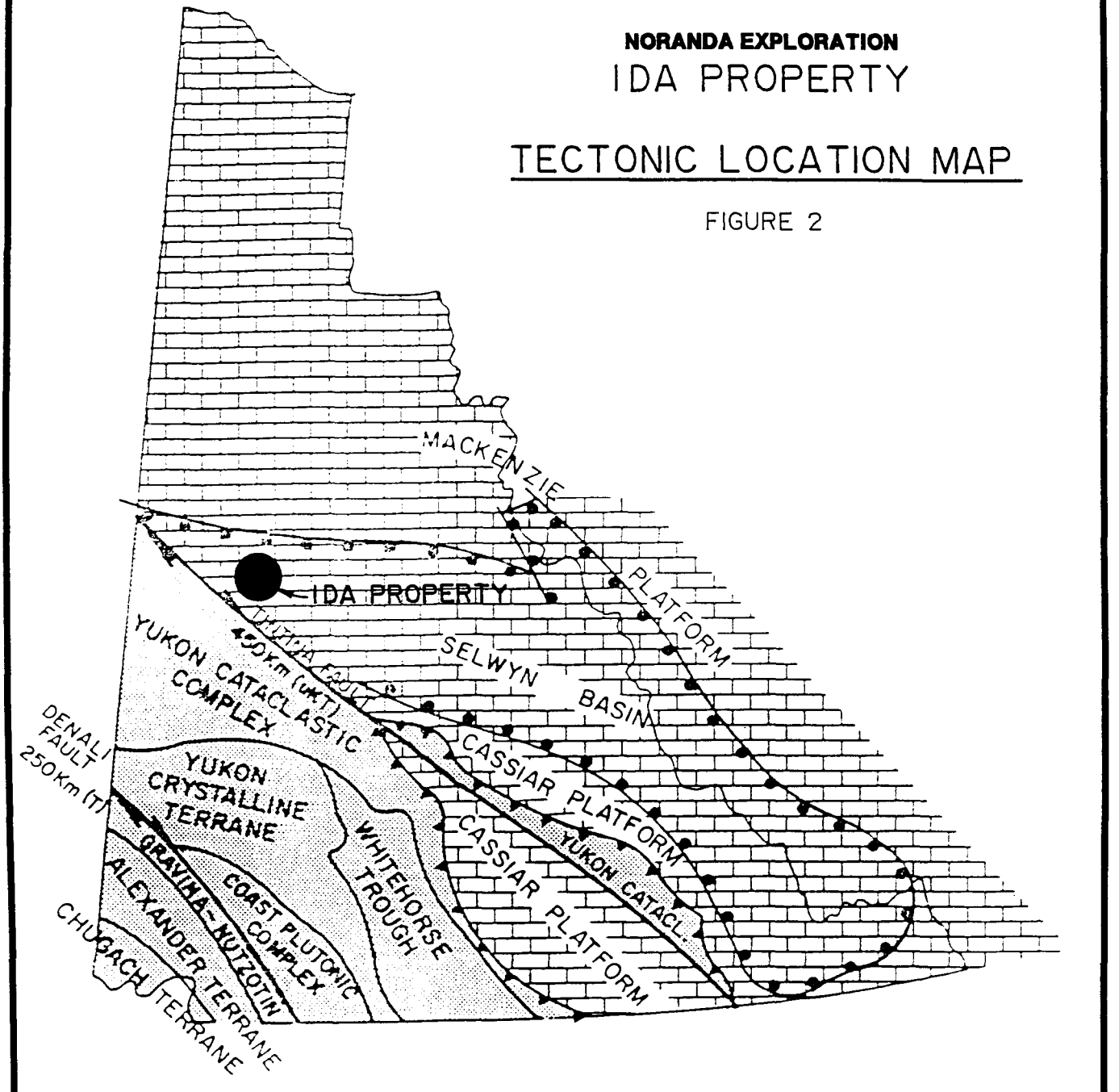

NORANDA EXPLORATION
IDA PROPERTY
Beaufort Sea
Tuktoyaktuk
Inuvik
Old Crow
Fort McPherson
Porcupine R.
Arctic Circle
Great Bear Lake
Mackenzie River
DEMPSTER HY.
Peel R.
Blackstone R.
Snake R.
U.S.
CAN.
65°00'
Clinton Creek
Dawson City
Klondike R.
Elsa
Keno
Mayo
KLONDIKE LOOP HY.
Stewart Crossing
YUKON
Pelly Crossing R.
Alaska
Yukon
Faro
ROBERT CAMPBELL HY.
ROAD
N.W.T.
Y.T.
Tungsten
NAHANNI RANGE RD.
Beaver Creek
Carmacks
ALASKA HIGHWAY
CANOL
Destruction Bay
KLUANE NAT. PARK
Haines Junction
WHITEHORSE
Rancheria
Watson Lake
Y.T.
B.C.
ALASKA HY.
Teslin
Carcross
Swift River
60°00'
HAINES HY.
Atlin
McDame
Muncho Lake
Cassiar
Skagway
Haines
Dease Lake
Gulf of Alaska
JUNEAU
Telegaph Creek
Fig : 1
Project : IDA PROPERTY
LOCATION MAP
0 50 100 150 200 MI.
0 50 100 150 200 Km.
VANCAL 11828

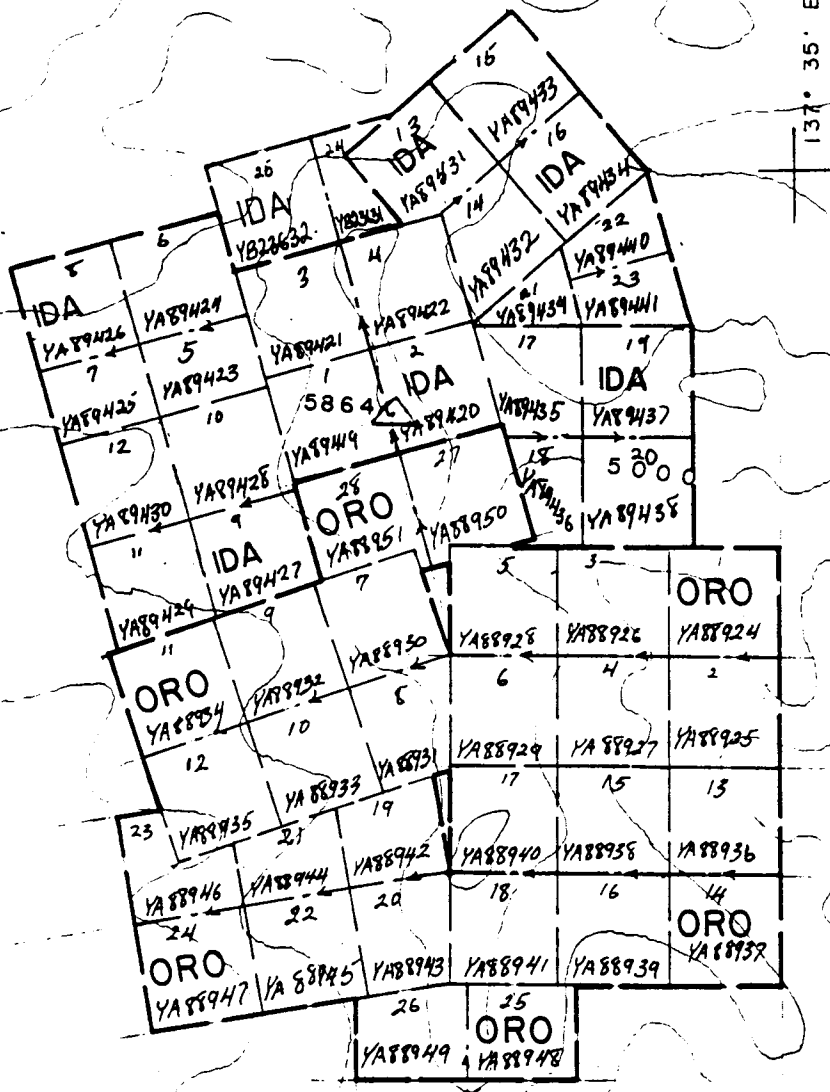
NORANDA EXPLORATION

IDA PROPERTY

TECTONIC LOCATION MAP

FIGURE 2





NORANDA EXPLORATION

IDA PROPERTY

CLAIM LOCATION MAP

Scale: 1 : 10000	Tech: J. Duke	Date: December 1989
Project No.: 318	Drawn By:	Figure No.: 3

CHAPTER TWO: GEOLOGY

2-1: Regional Geology

The property lies within rocks of the Selwyn Basin. The basin is dominated by fine-grained clastic rocks and chert Proterozoic to Paleozoic in age. It includes the Road River Formation which occurs in the region of the IDA property. This is a sequence of shales, black cherty argillites, cherts and chert-pebble conglomerates Ordovician to Silurian in age. Cretaceous stocks and batholiths, mostly monzonite to granodiorite in composition, intrude Selwyn Basin strata in a number of localities.

TABLE OF FORMATIONS

TERTIARY

Quartz-feldspar porphyry

CRETACEOUS

Biotite granodiorite and biotite quartz monzonite to hornblende syenite

Keno Hill Quartzite

CARBONIFEROUS-PERMIAN

Limestone, shale, chert, conglomerate

DEVONIAN-MISSISSIPPIAN

Earn Group: chert pebble conglomerate

ORDOVICIAN AND SILURIAN

Road River Formation: interbedded chert, argillite, quartzite and conglomerate

PRECAMBRIAN AND LATER

Grit Unit: quartzite, sandstone, conglomerate, mafic metavolcanics

2-2: Property Geology

The claims are underlain by three units of the Road River Formation. From youngest to oldest these consist of:

UNIT A: Interbedded black and brown siltstone, mudstone, and shale with minor sandstone and limestone. Most beds are less than 30cm thick except for some shale beds what are up to 4m thick. This unit is about 50m to 100m thick.

UNIT B: Black and grey chert with minor shale and mudstone. The contact between units A and B is gradational. Unit B appears to be about 150m thick.

UNIT C: This is a turbidite sequence of interbedded sandstone, siltstone, mudstone and minor chert. Beds average 10-30cm in thickness but may vary between 1cm and 20m thick. The contact with Unit B is gradational.

The Road River Formation has been intruded by several small stocks and related dykes of Cretaceous biotite-hornblende monzonite. A few quartz-feldspar porphyry dykes Cretaceous or younger in age have intruded east-west trending structures on the property.

Sedimentary rocks adjacent to the intrusives have been thermally metamorphosed creating a hornfels aureole. The hornfels is typically bleached, fine-grained and silicified. Silica veinlets ranging from hairline to 1 metre are found throughout the hornfels zone. It is within this zone low grade gold values have been

obtained.

Landsat images reveal a 3km wide circular feature bordering on the south end of the claim block. Two east-west and two northeast-southwest trending lineaments and one north-south trending lineament have also been indentified crossing the property. Field mapping has identified several east-west faults cutting the mineralized hornfels zones. These east-west trending structures probably act as important controls for the tourmaline breccias and associated gold mineralization. The north-trending structures appear to have offset mineralization in the north end of the property (around trenches 89-1 to 89-3).

CHAPTER THREE: GEOCHEMISTRY

Chip samples were collected across 1 metre in the hand trenches and mostly across 5 metres on the ridges. About 1 to 2 kg of material for a 1 metre chip and 4 kg of material for a 5 metre chip sample were shipped to Acme Analytical Laboratories Ltd. in Vancouver. Gold was analysed by Atomic Absorbtion for the 5 metre ridge chip samples and by Fire Assay for trench samples. ICP results from a Aqua-regia digestion was obtained for silver and arsenic. The complete results given in the appendix. Selected results are also on Figures 4 to 16.

CHAPTER FOUR: MINERALIZATION

Several gold, arsenic, mercury and antimony soil anomalies have been identified on the property. Rio Canex found one of these soil anomalies (North Zone) where sampled outcrops had an average gold content of 0.3 g/t with a best value of 3.0 g/t gold over 10m.

Noranda Exploration re-examined some of the mineralization identified by Rio Canex. Prospecting found some additional zones not previously identified. Chip samples in hornfels ranged from nil to 5060 ppb Au over 1 metre and 1820 ppb over 3 metres. A series of continuous chip samples over a length of 46.5m, mostly in hornfels ranged from 0.10 - 2.06 g/t Au. The overall weighted average for this section was 0.46 g/t Au. Sample results were often not consistent with what Rio Canex reported.

In 1989, 10 hand trenches were sampled to test significant gold results obtained in 1988. Also a program of resampling was undertaken to confirm and better define the extent of the gold mineralization.

Five metre continuous chip samples taken across the North Zone returned values mostly less than what was obtained in earlier sampling. The best result was 600ppb Au over 5 metres. Over 95 metres an average of 276ppb Au was obtained. In the South Zone, one 5m chip across tourmaline-bearing and quartz-veined altered hornfels returned 3820ppb Au. This sample is included within a 65 metre section averaging 505ppb Au.

Significant results was obtained in the first two hand trenches. These tested a sample taken in 1988 which returned 10.1gmt gold over 1.5m. Assays from careful resampling across the mineralized structure returned .143 oz/ton in trench 1 and .117

oz/ton in trench 2, both across 1 metre. The two trenches are 25m apart and test the same 15cm wide vein of strongly oxidized chalcopyrite and arsenopyrite. The vein is within an east-west trending structure cutting altered biotite quartz monzonite near a contact with hornfelsed sediments. The intrusive generally shows elevated gold values relative to the hornfels in these first two trenches. The intrusive rock in trench 1 averages 1.5gmt Au over the 2 metres either side of the vein. Detailed maps of the trenches are provided in Figures 4 and 5.

In the South Zone, one 5 metre chip sample returned 3820ppb Au in tourmaline and arsenopyrite bearing altered hornfels cut by clear late-stage quartz veinlets. It is not certain what the gold is associated with here, however the quartz veining is associated with elevated gold values nearby (South Zone Ridge chip samples #123291 to #123294) and is the likely source. The gold-bearing sample is located in a saddle cut by an east-west trending structure.

A model of mineralization at the IDA as indicated by field observations follows: Trenches 890-1 and 89-2 show the intrusive altered, silicified and mineralized near its margins accompanied by elevated gold values in the nearby hornfelsed sediments. Faulting has locally remobilized sulphides and gold along fractures. In the North and South Zones mineralization within hornfels is also locally remobilized along fractures from a buried intrusive source. Most of the intrusive rock exposed is unaltered. The contact at trenches 89-1 and 89-2 was the only one where altered and mineralized intrusive was observed. Two other key intrusive-mineralized hornfels contacts show evidence of faulting

(tourmaline-bearing breccias), and the intrusive is quite fresh at these locations (near samples R54039 and R53976, either side of the main intrusive body on the property).

Therefore the likely source of the mineralization in the North and South Zones is a buried mineralized margin of the intrusive which has caused some low grade replacement in hornfels and some higher grade remobilization along faults and in late-stage quartz stockworks.

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

Low grade mineralization has been identified in silicified and altered intrusive rock, in hornfelsed sedments around the intrusive and along east-west trending structures cutting mineralized sections of the intrusive and hornfelsed rock.

The 1989 program attempted to better define the extent and grade of mineralization within two gold-bearing hornfels zones. The existence of this mineralization was confirmed but grades were generally less than 0.5gmt Au. Previous sampling of these same areas by Rio Canex and Noranda have returned inconsistent results. In addition hand trenching over the best targets identified by previous sampling was disappointing. The best results were obtained in trenches 89-1 and 89-2 which returned 0.143 oz/ton Au and 0.117 oz/ton Au respectively. It appears the extensive low grade gold mineralization has been locally remobiled into late-stage quartz stockworks and along east-west trending structures.

The high variability in results from the property suggest a sampling problem. It is possible there is an erratic distribution of coarse gold in the mineralized zone. Bulk sampling and a metallic sieve analysis may be required to accurately assess overall grades.

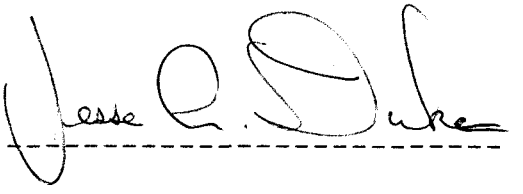
Sampling and prospecting has been limited to the few accessible ridges on the property. Extensive talus cover has prevented examination of much of the property. So far follow-up work has focussed on low-grade mineralization within the hornfels and along faults near the ridges.

Good potential remains for economic mineralization on the property. Future efforts should focus on locating late-stage quartz

stockworks within the hornfels and altered intrusive rock. Low grade mineralization in the North and South Zones may have higher grades at depth where contact with the intrusive rock is likely to be. Drilling would be required to test this possibility.

Lack of accessibility and the rugged nature of the terrain would necessitate expensive hand-blasting and helicopter-supported drilling to properly test the targets on the property. Results to date do not justify this expense at this time.

Respectfully Submitted by:



Jesse L. Duke

Geologist

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Geologist

ASSESSMENT COST STATEMENT

1) LABOUR

a) FIELD:

J. Duke	Geologist	July 11-21	$ 2000.
R. Young	Assistant	July 11-21	$ 1500.
B. Bark	Assistant	July 11-21	$ 1500.

b) OFFICE:

J. Duke	Geologist	5 days	$ 1000.

TOTAL LABOUR: $ 6000.

2) GEOCHEMISTRY AND ASSAYS

a) Assays (118 X $15.00 each): $ 1770.

b) Rock sample geochem for Ag, As, Au (127 samples): $ 1905.

TOTAL GEOCHEM: $ 3675.

3) TRANSPORTATION

a) Helicopter Support (Frontier Helicopters, 7 hours): $ 4000.

b) Transportation (Truck rental and fuel): $ 500.

c) Sample freight (Canadian Airlines): $ 400.

TOTAL TRANSPORTATION: $ 4900.

4) CAMP SUPPORT

30 mandays @ $50./day: $ 1500.

5) OFFICE EXPENSES (drafting, printing, etc.): $ 400.

TOTAL $16475.

STATEMENT OF QUALIFICATIONS

I, Jesse L. Duke of the City of Whitehorse, Yukon Territory, do hereby certify that:

1. I have been an employee of Noranda Exploration Company Limited (no personal liability) in Whitehorse since April, 1988.

2. I an a graduate of the University of Alaska with a B.Sc. in geology.

3. I am a member of the Yukon Professional Geoscientist Society, The Geological Association of Canada and the Association of Exploration Geochemists.

4. I supervised work on the IDA/ORO claims during 1989.

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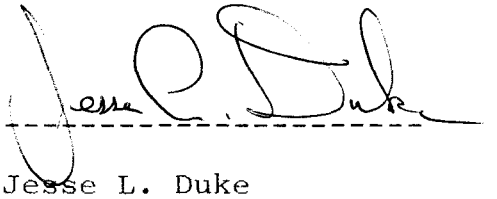

Jesse L. Duke

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McClintock, J.

1979: IDA Claims, 1979 Geology & Geochemistry. Rio Canex. Assessment Report No. 090548.

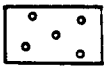
McClintock, J.

1981: IDA Claims, 1981, Geology & Trenching, Rio Canex; Assessment Report No. 090908.

Winker, A. & McClintock J.

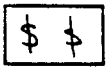
1981: IDA Claims 1980, Geology & Geochemistry, Rio Canex; Assessment Report No. 090781.

LEGEND FOR
TRENCH SAMPLING
IDA PROPERTY



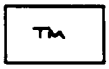
FELDSPAR PORPHYRY, QUARTZ-FELDSPAR PORPHYRY
FELSIC. LIGHT GREY

HORNFELS, PURPLE, LOCALLY BLEACHED WHITE.
OFTEN INDURATED.

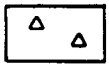


SILICIFICATION

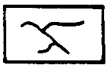
CLAY ALTERATION



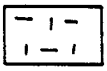
TOURMALINE



BRECCIA TEXTURES



VEINING



QUARTZ MONZONITE

FIG 4

PPM Ag	PPM As	Oz/T Au	Sample#	Log	Description
.7	615	.001	53372		21m (END) HORNFELS (RAFT)
.5	1359	.003	53371		↑ DECREASING ALTERATION INTENSITY · GRADES FROM SUCROSIC Qz INTO BIOTITE Qz-MONZONITE ·
.7	11067	.027	53370		Samples 53352 - 57 Average 2.058 oz/T over 5m = 1.93 g/mT over 5m
.2	1547	.026	53369		
.1	977	.008	53368		
.2	910	.006	53367		
.2	1532	.009	53366		
.2	1234	.007	53365		BROKEN CHIPS OF SUCROSIC Qz-IN-SOIL - OFTEN WITH BLEBS OR VEINLETS OF ASPY ·
.3	5160	.005	53364		MASSIVE XLINE CALCITE IN RED WEATHERED REGOLITH
.2	23958	.023	53363		SHEARED SECTION WITH SMALL LENSES OF DARK GREEN INDURATED ROCK CONTAINING TR CPY AND FREQUENT ASPY XLS
.2	6902	.004	53362		
.2	3668	.003	53361		THIS TRENCH FORMS A FAULTED CONTACT BETWEEN Qz-MONZONITE TO THE NORTH AND BANDED SEDIMENTS TO THE SOUTH. 1988 ROCK SAMPLING RETURNED A 2m CHIP RUNNING 10.15 gmt Au · NEAR THE SOUTH END OF THIS TRENCH · SIMILAR MATERIAL OCCURS AT THE BORDER OF SAMPLES #53353 AND 53354.
.2	3650	.004	53360		
.5	19880	.018	53359		
.4	2259	.008	53358		BLEACHED, STRONGLY ALTERED - SUCROSIC QUARTZ (Qz-MONZONITE?)
.3	17329	.025	53357		
.2	5656	.021	53356		
.7	6620	.069	53355		EXTENSIVELY SHEARED BLUE SUCROSIC QUARTZ WITH PATCHES OF BLEACHING, CHLORITE, BLEACHED ACTMOLITE(?) AND PALE GREEN Ca SILIATE · DISSEMINATED CPY (1%) PY AND OTHER (ASPY?) OXIDIZED Sx ·
1.4	7439	.143	53354		
.7	1179	.048	53353		78 DISSEMINATED CPY AND OTHER STRONGLY OXIDIZED SULPHIDES IN 15cm WIDE EXTRA RED STAINED SECTION.
.5	625	.041	53352		0m (start)

QUARTZ-RICH-GRAINED-GRAVLAR FREQUENT LIMONITE AND RED & BLACK STAINED PATCHES - BLEACHED LOCAL PATCHES OF CHLORITE.

Face
Trench 2
25m East

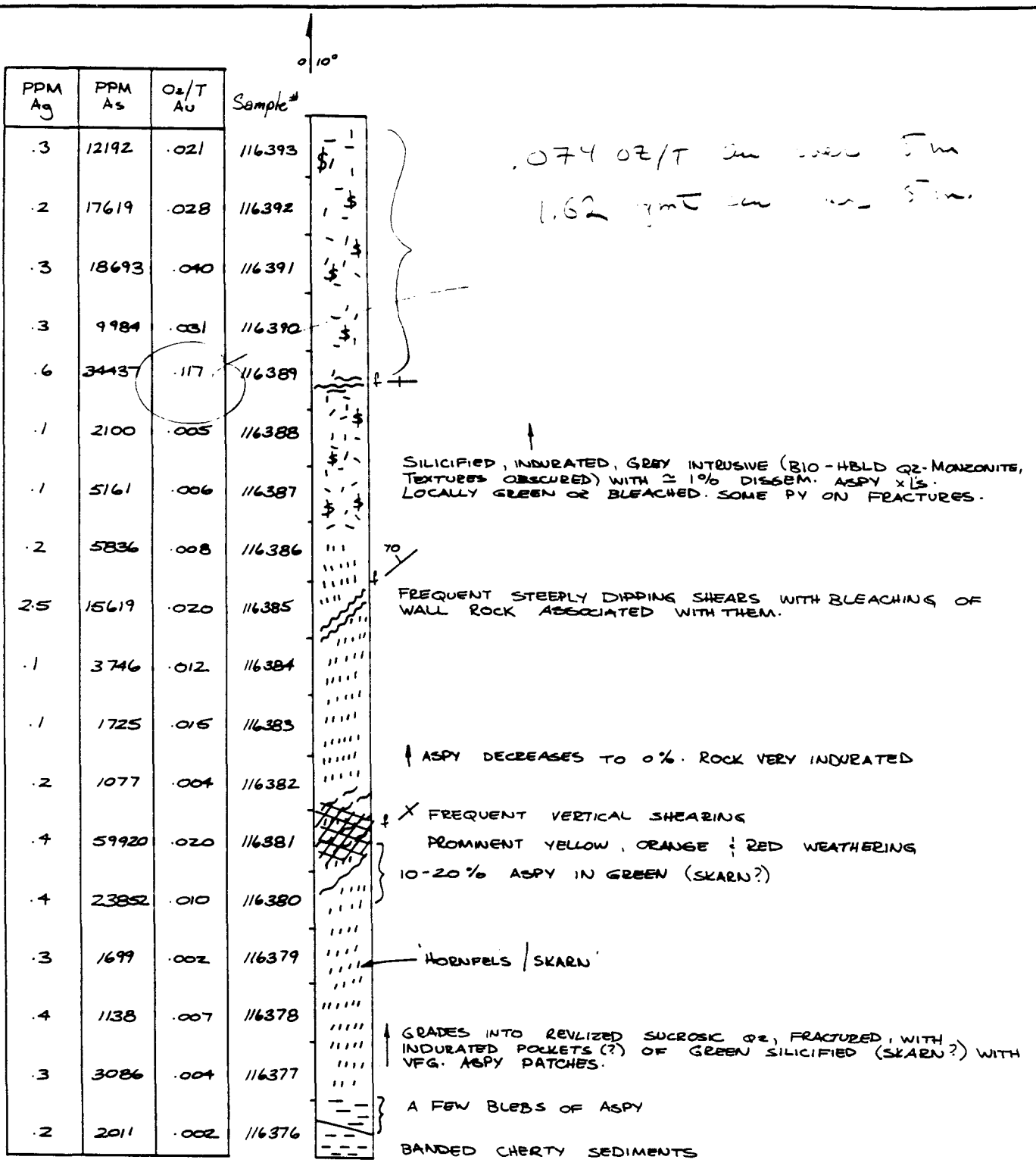
NORANDA EXPLORATION

IDA PROPERTY

TR89-01

Target: 1988 Sample R55531
Ran 10105 PPB Au

Scale: 1:100	Tech.: J. Duke	Date: December 1989
Project No.: 318	Drawn By:	Figure No.: 5



PPM Ag	PPM As	Oz/T Au	Sample#
.3	12192	.021	116393
.2	17619	.028	116392
.3	18693	.040	116391
.3	9984	.031	116390
.6	34437	.117	116389
.1	2100	.005	116388
.1	5161	.006	116387
.2	5836	.008	116386
2.5	15619	.020	116385
.1	3746	.012	116384
.1	1725	.016	116383
.2	1077	.004	116382
.4	59920	.020	116381
.4	23852	.010	116380
.3	1699	.002	116379
.4	1138	.007	116378
.3	3086	.004	116377
.2	2011	.002	116376

NORANDA EXPLORATION

IDA PROPERTY

TR89 - 2

Target: 25m East on Strike from 1988 Sample R55531 (10105 PPB Au)

Scale: 1:100	Tech.: J. Duke	Date: December 1989
Project No.: 318	Drawn By: [illegible]	Figure No.: 6

330° Az

PPM Ag	PPM As	Oz/T Au		
.3	1447	.002	116399	HORNFELS (PURPLE) WITH VFG DISSEM. PY & ASPY ALSO VFG. XL'S ON SOME FRACTURES
.2	2114	.002	116398	
.2	2264	.005	116397	A FEW BLEACHED PATCHES AND DARK-GREEN ACTINOLITE-BEARING PIECES WITH 3-10% ASPY.
.4	2195	.018	116396	PURPLE HORNFELS WITH BLEBS AND VEINLETS OF SUCROSIC Qz CONTAINING BLEBS OF ASPY, GREEN & RED COLOURS ON FRACTURES.
.3	3840	.013	116395	PURPLE HORNFELS - VERY INDURATED.
.6	14676	.023	116394	

NOTE: THIS TRENCH DOES NOT TEST THE EASTERN EXTENTION OF THE FAULT-CONTACT SAMPLED IN TR89-1 & 2. DANGEROUS TERRAIN THWARTED THESE EFFORTS.

NORANDA EXPLORATION

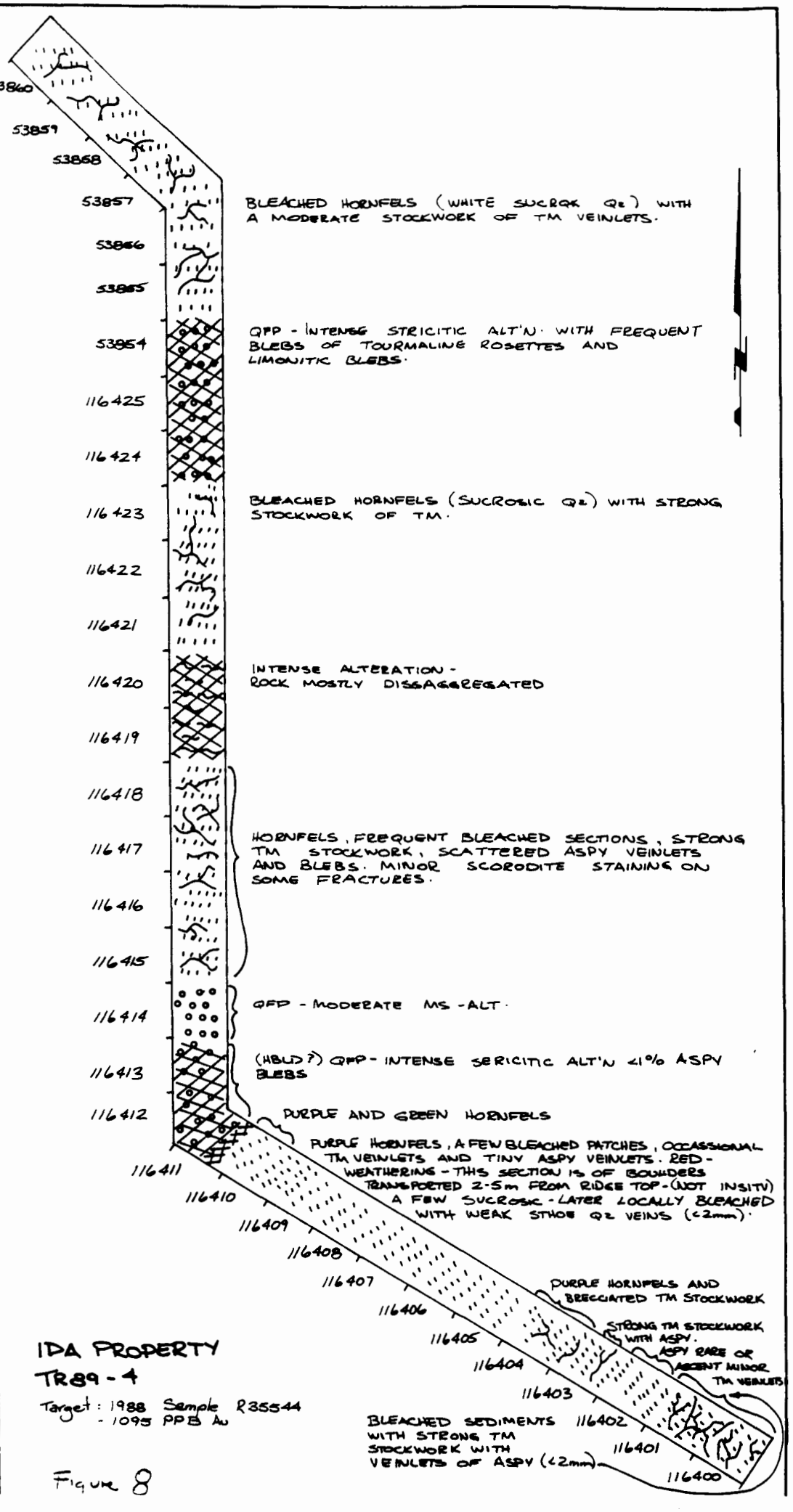
IDA PROPERTY

TR89 - 3

Target: 50m East on Strike from 1988 Sample R55531 (10105 PPB Au)

Scale: 1:100	Tech.: J. Duke	Date: December 1989
Project No.: 318	Drawn By: [illegible]	Figure No.: 7

PPM Ag	PPM As	Oz/T Au
.2	1109	.003
.1	900	.011
.1	1107	.014
.1	692	.004
.1	583	.008
.2	2206	.008
.1	2246	.007
.2	202	.001
.1	331	.001
.3	1294	.005
.3	992	.021
.3	1249	.012
.4	810	.005
.2	938	.006
.2	1167	.005
.2	1252	.011
.2	1760	.007
.1	1096	.004
.1	464	.003
.1	80	.001
.1	71	.001
.1	485	.007
.2	863	.010
.5	930	.005
.5	1109	.006
.4	1108	.006
.7	1343	.007
.1	1137	.003
.1	1157	.004
.1	712	.006
.1	559	.006
.1	7544	.014
.1	882	.004



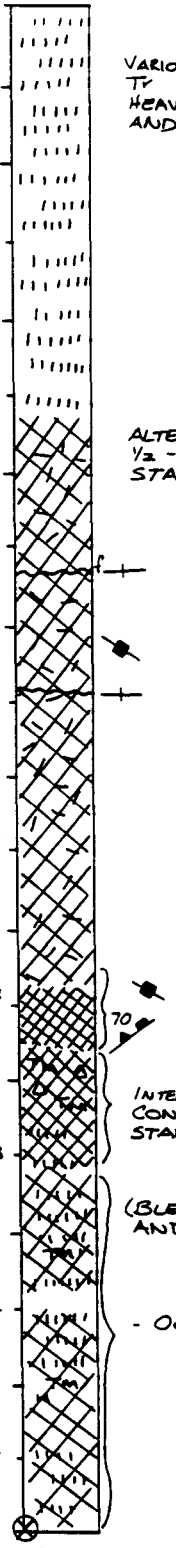
IDA PROPERTY

TR89-4

Target: 1988 Sample R35544 - 1095 PPB Au

Figure 8

PPM Ag	PPM As	Oz/T Au	
1.4	513	.008	121510
.8	613	.004	121509
.3	474	.005	121508
.2	64	.001	121507
.1	57	.001	121506
.2	189	.001	121505
1.2	2307	.001	121504
3.9	15116	.004	121503
2.0	4713	.005	121502
.4	104	.008	121501



VARIOUSLY BLEACHED AND SILICIFIED HORNFELS. LOCALLY WITH TR (<1%) VFG. DISSEMINATED (ASPY?) SX OFTEN HEAVY AND INDURATED WITH BLACK GREY, DARK GREEN AND REDDISH COLOURS.

ALTERED FELDSPAR PORPHYRITIC Qz-MONZONITE 1/2-1% ASPY BLEBS. TR CPY PERVASIVE LIMONITIC STAINING.

COMPLETELY BLEACHED WITH WHITE AND GREEN COLOURS

INTENSELY SILICIFIED LOCALLY BRECCIATED WITH A FEW FRACTURE CONTROLLED PLANNER Qz DRUSES WITH STRONG SCORODITE STAINING - ELSEWHERE SCORODITE STAINING ON ALL FRACTURES.

(BLEACHED) SUCROSIC Qz WITH VFG BLACK DISSEMINATIONS. AND A STOCKWORK OF HAIRLINE BLACK (TM?) VEINLETS.

- OCCASSIONAL SCORODITE STAINS ON FRACTURES.

NORANDA EXPLORATION

IDA PROPERTY

TR89-5

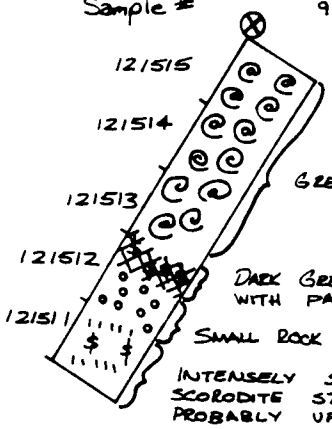
Target: 1988 Sample R35540
Ran 975 PPB Au

Scale: 1:100	Tech.: J. Duke	Date: December 1989
Project No.: 318	Drawn By: [illegible]	Figure No.: 9

NORTH ZONE

REGOLITH SAMPLES

PPM Ag	PPM As	Oz/T Au
.4	370	.001
.3	536	.001
.5	581	.001
.8	3393	.002
3.1	15589	.016



GREY CHERT - FRACTURES INTO SMALL ANGULAR CHIPS

DARK GREEN MASSIVE EXTREMELY INDURATED AND HEAVY ROCK WITH PATCHES OF ASPY AND TR CPY.

SMALL ROCK CHIPS, OFTEN WITH SCORODITE STAINS, TOO SMALL TO I.D.

INTENSELY SILICIFIED ROCK CHIPS, DARK GREY WITH STRONG SCORODITE STAINING ON FRACTURES. DARK GREY STREAKS PROBABLY UFG Sx. A FEW PATCHES OF ASPY VISIBLE.

NOTE: BEDROCK WAS NOT REACHED IN THIS TRENCH. ITS LOCATION ON A RIDGE TOP SUPPORTS THE POSSIBILITY THE ANGULAR BROKEN ROCK SAMPLES IS REGOLITH AND LITTLE DISTURBED. THE CHERT TO THE NORTH END OF THE TRENCH IS THE MOST LIKELY TO BE TRANSPORTED TALUS.

NORANDA EXPLORATION

IDA PROPERTY

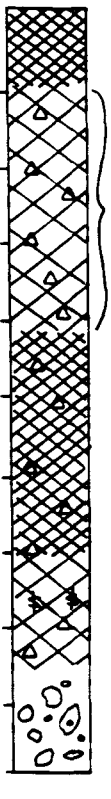
TR89 - 6

Target: 1988 Sample R10190

Ran 1225 PPB Au

Scale: 1: 100	Tech.: J. Duke	Date: December 1989
Project No.: 318	Drawn By:	Figure No.: 10

PPM Ag	PPM As	Oz/T Au	
5.8	30180	.007	123251
6.6	4218	.004	123252
3.7	2958	.002	123253
13.3	5761	.005	123254
10.5	3109	.003	123255
5.4	6092	.005	123256
3.8	11028	.017	123257
11.4	56529	.059	123258
4.0	7359	.004	123259
2.0	1615	.005	123260



BRIGHT YELLOW SOIL CONTAINING ANGULAR TO SUBROUNDED CHERTY COBBLES AND PEBBLES

BROWN SOIL WITH COBBLE TO PEBBLE SIZED FRAGMENTS OF SILICIFIED SEDIMENTS AND SILICIFIED AND ARGILLIC PEBBLE BRECCIAS.

LIGHT TAN SOIL WITH SILICIFIED PEBBLE AND SMALLER - FRAGMENTS MAY BE INTENSELY CLAY ALTERED FAULT BRECCIA.

RESISTANT KNOB OF ARGILLIZED AND INADERATELY SILICIFIED BRECCIA, CONTAINING TOURMALINE AND SCORODITE STAINING

RED SOIL WITH FRAGMENTS OF SILICIFIED SEDIMENTS. COBBLES TO PEBBLES - OVERBURDEN.

NOTE: IT IS NOT CLEAR IF THESE SAMPLES REPRESENT UNDERLYING OUTCROP. SAMPLE # 123258 AND 123259 APPEAR RELATED TO THE SHOWING. HOWEVER ALL SAMPLING MAY REPRESENT MATERIAL DERIVED UPSLOPE FROM A MAXIMUM DISTANCE OF 100 m.

NORANDA EXPLORATION

IDA PROPERTY

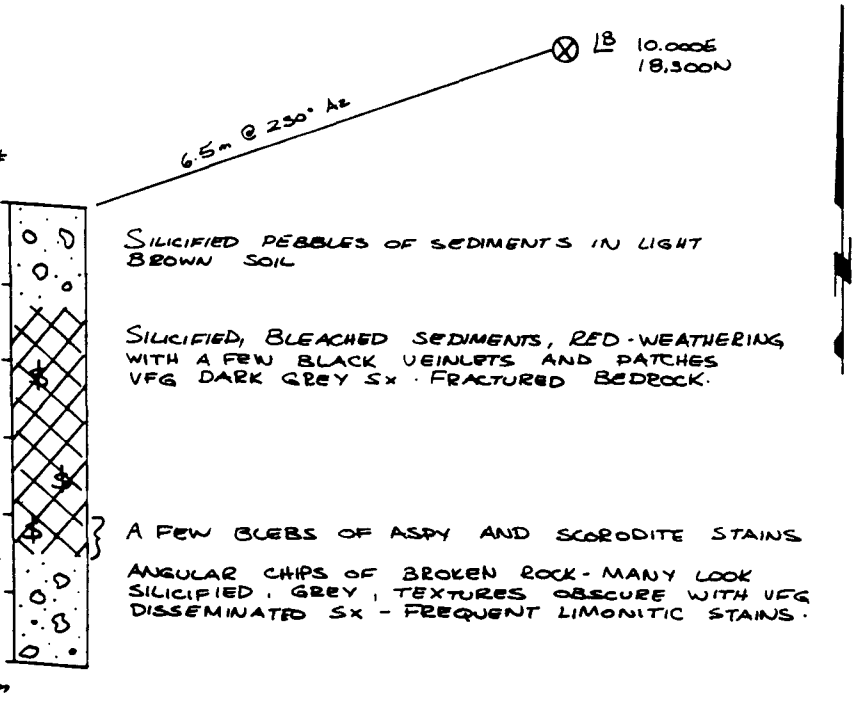
TR89 - 7

Target: 1988 Samples R35587, R35588

Ran 4780 PPB Au, 6560 PPB Au

Scale: 1:100	Tech.: J. Duke	Date: December 1989
Project No.: 318	Drawn By: [illegible]	Figure No.: 11

PPM Ag	PPM As	Oz/T Au	Sample #
.7	387	.005	123266
.8	628	.001	123265
.6	449	.005	123264
.9	819	.005	123263
.7	388	.003	123262
1.1	478	.004	123261



SILICIFIED PEBBLES OF SEDIMENTS IN LIGHT BROWN SOIL

SILICIFIED, BLEACHED SEDIMENTS, RED-WEATHERING WITH A FEW BLACK VEINLETS AND PATCHES VFG DARK GREY Sx · FRACTURED BEDROCK.

A FEW BLEBS OF ASPY AND SCORODITE STAINS

ANGULAR CHIPS OF BROKEN ROCK - MANY LOOK SILICIFIED, GREY, TEXTURES OBSCURE WITH VFG DISSEMINATED Sx - FREQUENT LIMONITIC STAINS.

NOTE: EXPOSURE ON THE RIDGE OF THIS SILICIFIED UNIT CONTINUES FOR SEVERAL METRES TO THE EAST AND WEST. TO THE EAST SOLIFLUCTION LOBES REVEAL FREQUENT FLOAT OF SILICIFIED AND LIMONITIC BRECCIA AND INTENSELY ALTERED FELDSPAR PORPHYRY (OR Qz-MONZONITE) SUGGESTING THE ZONE THIS TRENCH SAMPLES IS - ALONG AN E-W TRENDING FAULT.

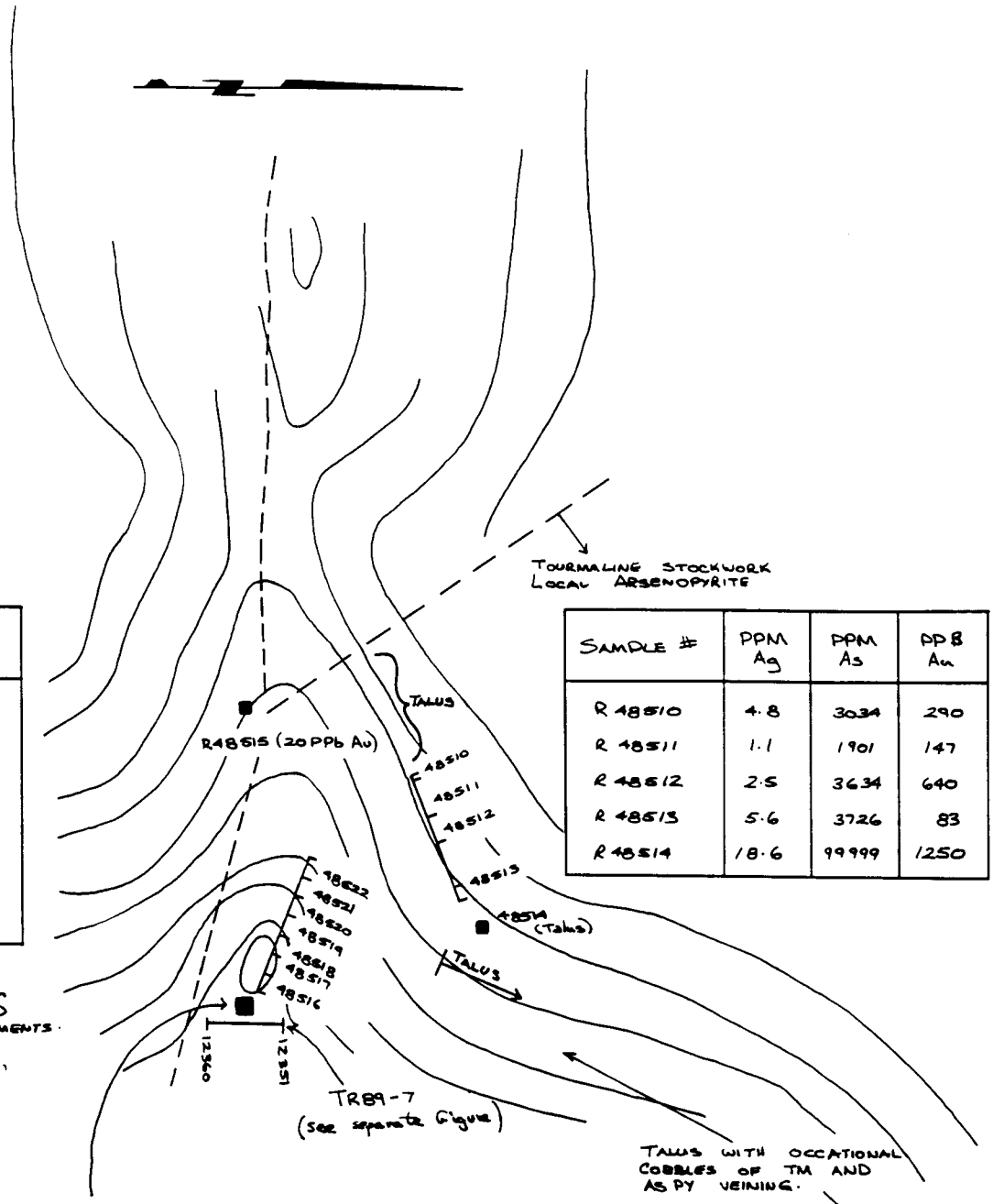
NORANDA EXPLORATION

IDA PROPERTY

TR89-8

Target: 1988 Sample R35685
Ran 4210 PPB Au

Scale: 1:100	Tech.: J. Duke	Date: December 1989
Project No.: 318	Drawn By: [illegible]	Figure No.: 12



R48516 - 48522 *

PPM Ag	PPM As	PPB Au
.1	331	390
.1	482	230
.1	189	170
.1	303	135
.2	538	168
.1	426	144
.3	1330	520

SAMPLE #	PPM Ag	PPM As	PPB Au
R 48510	4.8	3034	290
R 48511	1.1	1901	147
R 48512	2.5	3634	640
R 48513	5.6	3726	83
R 48514	18.6	99999	1250

* EACH SAMPLE IS A 3m CHIP ACROSS SILICIFIED AND/OR BLEACHED SEDIMENTS. COMMON TOURMALINE VEINLETS THROUGHOUT, FREQUENT SCORODITE STAINING.

SOUTH SHOWING: SEVERAL BOULDERS OF SILICIFIED BRECCIA, STRONGLY LIMONITE AND VUGGY, WITH FREQUENT TM VEINS AND A FEW ASPY VEINS. SILIFICATION AND INTENSE CLAY ALTERATION IS ALSO PRESENT.

NORANDA EXPLORATION

IDA PROPERTY

SOUTH ZONE SHOWING

TARGET 1988:

(Samples R35587, R35588 ran 4780 PPB Au, 6560 PPB Au)

Scale: 1:1000	Tech.: J. Duke	Date: December 1989
Project No.: 318	Drawn By: Hendrigan	Figure No.: 13

PPM Ag	PPM As	PPB Au	Sample #	
			100	Mostly purple hornfels, a few chips of F.P.
.4	148	22	123285	
				Intensely argillic altered feldspar porphyry (?) Pervasive red to creamy colours. All feldspars clay altered. Frequent limonitic yugs - locally moderate silica - flooding. Light - weathering colour distinctive.
.1	63	26	123284	
			90	
.1	81	51	123283	
				Hornfels - strong silification and alteration - one chip contained blebs of aspy ? scordite in weathered purple hornfels - mixed with a few chips of QFP. Purple and green hornfels - a few Qz veinlets. Hornfels.
.6	430	280	123282	
			80	
.5	348	109	123281	
			53885	Strongly silicified hornfels, locally bleached, with vfg. disseminated sx (with Tr Cpy ?). Fractures often have green yellow and red staining.
			53881	
.7	398	200	123280	Mostly boulders ? cobbles of massive Qz containing TM veining - and Qz ? TM breccia, mixed with smaller pieces of bleached hornfels.
.6	428	105	123279	
			60	
.8	272	430	123278	Hornfels many strongly fractured. Many large cobbles with white Qz veining and strong TM stockwork.
1.2	321	80	123277	Purple hornfels, frequently bleached
			50	
.3	353	122	123276	
				Purple hornfels with irregular clear Qz pods and banded TM veins mixed with tan altered chips.
.4	221	570	123275	
			40	
.6	523	290	123274	Bleached locally silicified tan coloured chips.
.8	724	3820	123273	TM veinlets and clear Qz, late-stage veining in bleached tan ? red weathering rock. Silicified and clay altered chips, yfg grey Sx noted here.
			30	
.6	231	131	123272	Bleached chips, locally limonitic and yuggy.
				Tan weathering chips mixed with purple hornfels
.3	2358	290	123271	123266 Brecciated, silicified and bleached chips - red weathering - mixed with tan weathering chips
			20	1.0 m intervals
.9	261	133	123270	123261 Bleached f.g. sucrosic Qz - tan weathering. Highly fractured purple hornfels with occassional TM veinlets.
.4	172	75	123269	Mixed with raolinitic bleached tan-weathering chips (sediments ?)
			10	
.7	162	86	123268	Purple locally green hornfels
.3	79	54	123267	Rare TM veinlets a few bleached chips
			0M	Mostly cobbles ? pebbles.

START

Test 5 metre intersection

NORANDA EXPLORATION

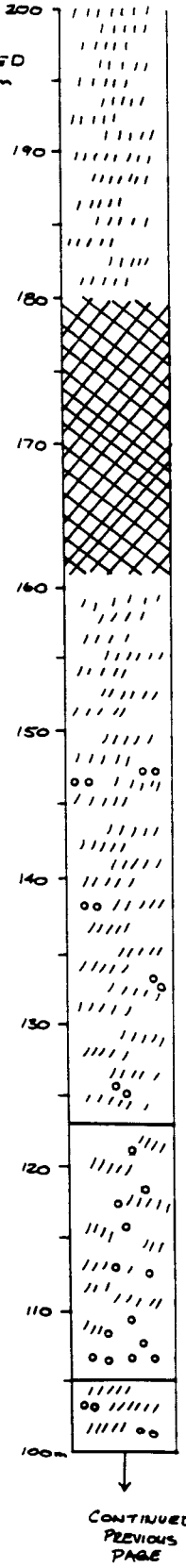
IDA PROPERTY

South Zone Ridge

Chip Sampling

(Page 1 of 4)

Scale: 1:500	Tech.: J. Duke	Date: December 1989
Project No.: 318	Drawn By: Hawkesworth	Figure No.: 14



NO SAMPLES COLLECTED FROM 100m to 270m

PURPLE HORNFELS

HORNFELS, LOCALLY PURPLE, MOSTLY BLEACHED TO VARYING DEGREES.

PURPLE HORNFELS
RARE CHIPS OF BLEACHED FELDSPAR PORPHYRY.

PURPLE HORNFELS PEBBLES MIXED WITH FELDSPAR PORPHYRY (BLEACHED) CHIPS.

CONTINUED PREVIOUS PAGE

NORANDA EXPLORATION

IDA PROPERTY

SOUTH ZONE RIDGE

Chip Sampling

(Page 2 of 4)

Scale: 1:500	Tech.: J. Duke	Date: December 1989
Project No.: 318	Drawn By: [illegible]	Figure No.: 15

CONTINUED NEXT PAGE

PPM Ag	PPM As	PPB Au	SAMPLE #
			300
.4	204	195	123299
.3	215	46	123298
			290
.6	480	65	123297
.6	1040	163	123296
			280
1.7	2353	152	123295
.4	1253	690	123294
			270
.1	1164	310	123293
.1	194	82	123292
			260
.1	693	280	123291
.1	289	53	123290
			250
.3	385	290	123289
.6	283	50	123288
			240
.3	422	56	123287
.3	233	26	123286
			230
			220
			210
			200

SILICIFED BLEACHED ROCK WITH STRONG STOCKWORK OF BLACK (TM?) VEINING.

SILICIFIED HORNFELS CUT BY A FEW THIN CLEAR Qz VEINS

TAN - WEATHERING INPURATED - FRACTURED INTO SMALL ANULAR CHIPS
STRONG STOCKWORK OF TM-VEINLETS.

TM VEINLETS COMMON IN BLEACHED ROCK

SKARN?

HEAVY SKARNLIKE ROCK OF BLEACHED PODS MIXED WITH DARK GREEN MINERALS - COMMONLY BROWN AND TAN-WEATHERED CUT BY AT LEAST TWO EPISODES OF THIN QUARTZ VEINING.

MOSTLY BLEACHED TO SUCROSIC QUARTZ · FREQUENT LIMONITIC BLEBS A FEW PIECES OF FRACTURE - FILLING WHITE ; CLEAR - Qz WITH (<1%) RARE SILVERY GREY AMORPHOUS Sx PODS OF DARK-GREEN MINERALS.

SCATTERED PODS OF DARK GREEN MINERALS WITH ASSOCIATED V.F.G. OXIDIZED Sx.

INCREASING SILICIFICATION WITH LAYERED BANDS OF V.F.G. GREY SILICIA UP TO 1cm THICK SPACED FROM 4-10 cm APART. ALTERED ACTMOLITE(?) OCCUR AS RADIATING ACICULAR X/S ON SOME FRACTURES. RARE TM VEINLETS. INCREASED BLEACHING.

PURPLE HORNFELS

CONTINUED FROM PREVIOUS PAGE

NORANDA EXPLORATION

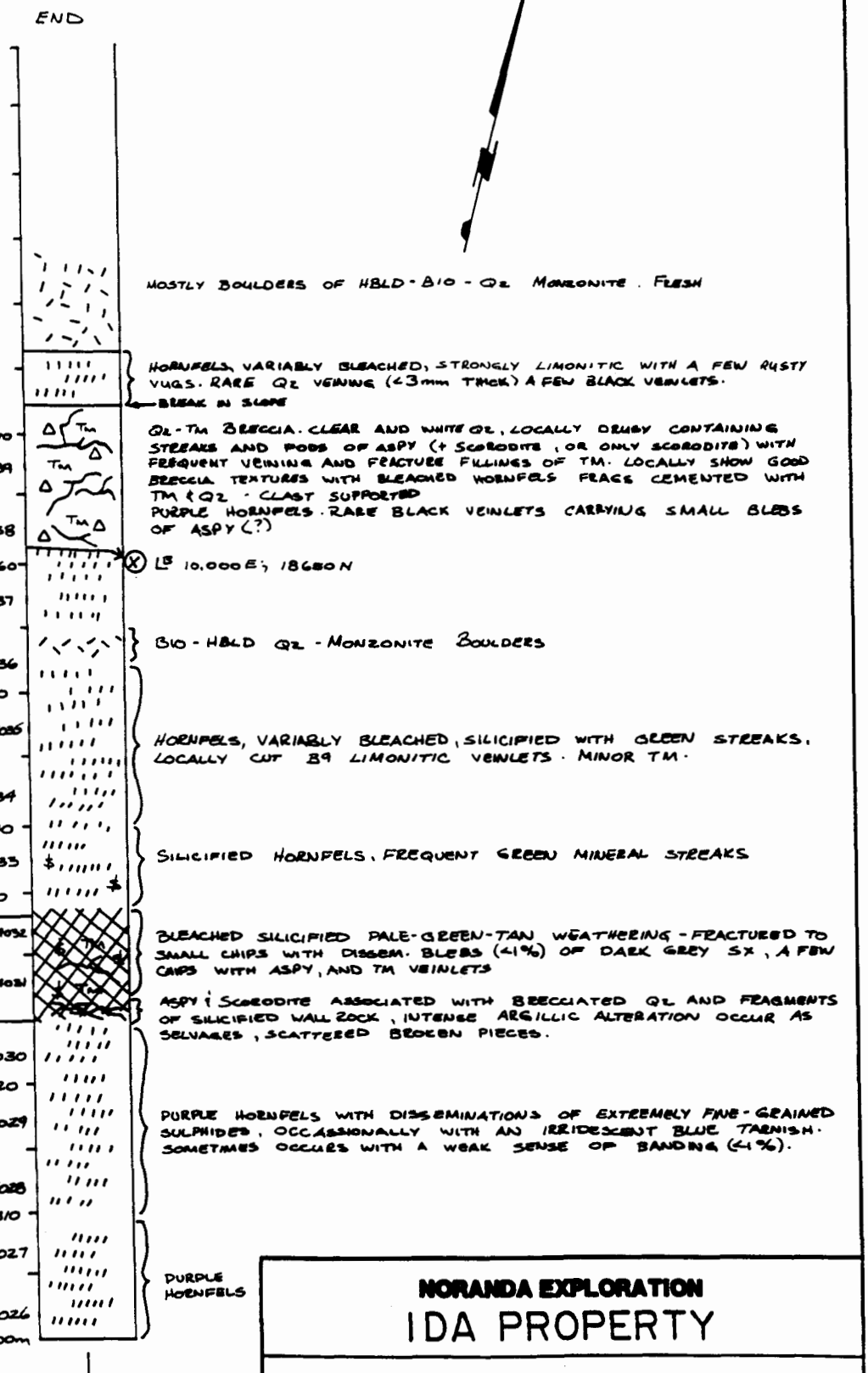
IDA PROPERTY

SOUTH ZONE RIDGE

Chip Sampling

(Page 3 of 4)

Scale: 1:500	Tech.: J. Duke	Date: December 1989
Project No.: 318	Drawn By:	Figure No.: 16



PPM Ag	PPM As	PPB Au
.6	282	104
.7	593	280
.3	1452	114
.1	179	93
.1	68	123
.2	406	410
.1	413	66
.1	271	111
.1	267	102
.3	707	66
.1	1705	82
.1	130	63
.2	166	99
.1	298	64

NORANDA EXPLORATION

IDA PROPERTY

South Zone Ridge

Chip Sampling

(Page 4 of 4)

Scale: 1:500	Tech.: J. Duke	Date: December 1989
Project No.: 318	Drawn By:	Figure No.: 17

APPENDIX 1

SAMPLE DESCRIPTIONS & RESULTS

IDA (JD)

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

DATE RECEIVED: JUL 26 1989
DATE REPORT MAILED: Aug. 4/89

GEOCHEMICAL/ASSAY CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1-P4 TRENCH P5-P8 ROCK AU** BY FIRE ASSAY FROM 1/2 A.T. AU* - ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

SIGNED BY. C. Leong D.TOYE. C.LEONG. J.WANG: CERTIFIED B.C. ASSAYERS

NORANDA EXPLORATION CO. LTD. PROJECT 8908-001 350 FILE # 89-2474 Page 1

SAMPLE#	Ag PPM	As PPM	AU** OZ/T
TR-89-1 53352	.5	625	.041
TR-89-1 53353	.7	1179	.048
TR-89-1 53354	1.4	7433	.143
TR-89-1 53355	.7	6520	.069
TR-89-1 53356	.2	5656	.021
TR-89-1 53357	.3	17329	.025
TR-89-1 53358	.4	2259	.008
TR-89-1 53359	.5	19880	.018
TR-89-1 53360	.2	3650	.004
TR-89-1 53361	.2	3668	.003
TR-89-1 53362	.2	6902	.004
TR-89-1 53363	.2	23958	.023
TR-89-1 53364	.3	5160	.005
TR-89-1 53365	.2	1234	.007
TR-89-1 53366	.2	1532	.009
TR-89-1 53367	.2	910	.006
TR-89-1 53368	.1	977	.008
TR-89-1 53369	.2	1547	.025
TR-89-1 53370	.7	11067	.027
TR-89-1 53371	.5	1339	.003
TR-89-1 53372	.7	615	.001
TR-89-2 116376	.2	2011	.002
TR-89-2 116377	.3	3086	.004
TR-89-2 116378	.4	1138	.007
TR-89-2 116379	.3	1699	.002
TR-89-2 116380	.4	23852	.010
TR-89-2 116381	.4	59920	.020
TR-89-2 116382	.2	1077	.004
TR-89-2 116383	.1	1725	.015
TR-89-2 116384	.1	3746	.012
TR-89-2 116385	2.5	15619	.020
TR-89-2 116386	.2	5836	.008
TR-89-2 116387	.1	5161	.006
TR-89-2 116388	.1	2100	.005
TR-89-2 116389	.6	34437	.117
TR-89-2 116390	.3	9984	.031
STD C	6.7	40	-

— 1 metre intervals

SAMPLE#	Ag PPM	As PPM	AU** OZ/T
TR-89-2 116391	.3	18693	.040
TR-89-2 116392	.2	17619	.028
TR-89-2 116393	.3	12192	.021
TR-89-3 116394	.6	14676	.023
TR-89-3 116395	.3	3840	.013
TR-89-3 116396	.4	2195	.018
TR-89-3 116397	.2	2264	.005
TR-89-3 116398	.2	2114	.002
TR-89-3 116399	.3	1447	.002
TR-89-4 53854	.1	2246	.007
TR-89-4 53855	.2	2205	.008
TR-89-4 53856	.1	583	.008
TR-89-4 53857	.1	692	.004
TR-89-4 53858	.1	1107	.014
TR-89-4 53859	.1	900	.011
TR-89-4 53860	.2	1109	.003
TR-89-4 116400	.1	882	.004
TR-89-4 116401	.1	7544	.014
TR-89-4 116402	.1	559	.006
TR-89-4 116403	.1	712	.006
TR-89-4 116404	.1	1157	.004
TR-89-4 116405	.1	1137	.003
TR-89-4 116406	.7	1343	.007
TR-89-4 116407	.4	1108	.006
TR-89-4 116408	.5	1109	.006
TR-89-4 116409	.5	930	.005
TR-89-4 116410	.2	863	.010
TR-89-4 116411	.2	485	.007
TR-89-4 116412	.1	71	.001
TR-89-4 116413	.1	80	.001
TR-89-4 116414	.1	464	.003
TR-89-4 116415	.1	1096	.004
TR-89-4 116416	.2	1760	.007
TR-89-4 116417	.2	1252	.011
TR-89-4 116418	.2	1167	.005
TR-89-4 116419	.2	938	.006
STD C	6.7	42	-

SAMPLE#	Ag PPM	As PPM	AU** OZ/T
TR-89-4 116420	.4	810	.005
TR-89-4 116421	.3	1249	.012
TR-89-4 116422	.3	992	.021
TR-89-4 116423	.3	1294	.005
TR-89-4 116424	.1	331	.001
TR-89-4 116425	.2	202	.001
TR-89-5 121501	.4	104	.008
TR-89-5 121502	2.0	4713	.005
TR-89-5 121503	3.9	15116	.004
TR-89-5 121504	1.2	2307	.001
TR-89-5 121505	.2	189	.001
TR-89-5 121506	.1	57	.001
TR-89-5 121507	.2	64	.001
TR-89-5 121508	.3	474	.005
TR-89-5 121509	.8	613	.004
TR-89-5 121510	1.4	513	.008
TR-89-6 121511	3.1	15589	.016
TR-89-6 121512	.8	3393	.002
TR-89-6 121513	.5	581	.001
TR-89-6 121514	.3	536	.001
TR-89-6 121515	.4	370	.001
TR-89-7 123251	5.8	30180	.007
TR-89-7 123252	6.6	4218	.004
TR-89-7 123253	3.7	2958	.002
TR-89-7 123254	13.3	5761	.005
TR-89-7 123255	10.5	3109	.003
TR-89-7 123256	5.4	6092	.005
TR-89-7 123257	3.8	11028	.017
TR-89-7 123258	11.4	56529	.059
TR-89-7 123259	4.0	7359	.004
TR-89-7 123260	2.0	1615	.005
TR-89-8 123261	1.1	478	.004
TR-89-8 123262	.7	388	.003
TR-89-8 123263	.9	819	.005
TR-89-8 123264	.6	449	.005
TR-89-8 123265	.8	628	.001
STD C	6.7	42	-

SAMPLE#	Ag PPM	As PPM	Au** OZ/T
TR-89-8 123266	.7	387	.005
TR-89-9 53861	.6	372	.006
TR-89-9 53862	.7	473	.005
TR-89-9 53863	1.0	678	.004
TR-89-9 53864	.9	549	.003
TR-89-9 53865	.2	270	.003
TR-89-10 119801	2.9	5513	.007
TR-89-10 119802	.6	505	.002
TR-89-10 119803	.6	933	.004
TR-89-10 119804	.7	1041	.006

SAMPLE#	Ag PPM	As PPM	AU* PPB	
R 34228	.5	1087	660	Resampled Trench 1990-12
R 34229	10.8	498	125	
R 34230	.2	786	104	
R 34231	.1	444	340	
R 34232	.1	651	115	
R 34233	.1	994	150	average: 202 PPB Au/gm
R 34234	.1	1449	360	
R 34235	.1	2993	560	
R 34236	.1	772	11	
R 34236A	.2	577	17	
R 34237	2.9	8337	650	
R 34237A	6.7	8754	300	
R 48501	.2	2406	33	NORTH ZONE
R 48502	.1	221	5	
R 48503	5.5	2784	65	See rock sample reports
R 48504	1.1	837	47	
R 48505	3.0	1063	11	
R 48506	.2	2057	61	
R 48507	.4	3447	7	
R 48508	.1	1613	53	
R 48509	.7	2371	156	
R 48510	4.8	3034	290	South Zone - See rock sample reports
R 48511	1.1	1901	147	
R 48512	2.5	3634	640	
R 48513	5.6	3726	83	
R 48514	18.6	99999	1250	
R 48515	.1	4134	20	
R 48516	.3	1330	520	South Zone Showing.
R 48517	.1	426	144	
R 48518	.2	538	168	
R 48519	.1	303	135	
R 48520	.1	189	170	
R 48521	.1	482	230	
R 48522	.1	331	390	
R 53976	.1	754	147	
R 53977	.2	455	340	NORTH ZONE 5m CHIPS ALONG RIDGE
STD C/AU-R	7.2	39	490	

R 34227?

SAMPLE#	Ag PPM	As PPM	AU* PPB
R 53978	.6	860	240
R 53979	.6	1547	350
R 53980	.7	1517	210
R 53981	.8	1059	201
R 53982	.5	1476	370
R 53983	.9	691	370
R 53984	4.1	316	340
R 53985	.3	232	290
R 53986	.4	287	290
R 53987	.6	347	440
R 53988	.7	1135	410
R 53989	.8	605	184
R 53990	1.5	637	390
R 53991	1.2	1550	310
R 53992	.3	1106	167
R 53993	.3	640	203
R 53994	1.6	1493	410
R 53995	.7	651	430
R 53996	.8	1444	64
R 53997	.3	1139	98
R 53998	.4	339	162
R 53999	.3	286	270
R 54000	.4	867	156
R 54001	.4	1843	600
R 54002	.4	940	340
R 54003	.3	973	190
R 54004	.7	4208	370
R 54005	1.0	5003	184
R 54006	3.0	2440	200
R 54007	1.0	2045	118
R 54008	1.0	1815	83
R 54009	1.4	2299	158
R 54010	.8	1993	118
R 54011	2.5	2305	180
R 54012	.6	1636	132
R 54013	.8	1352	69
STD C/AU-R	6.7	38	490

NORTH ZONE 5 m chips along ridge

R 53976 to R53995 GIVE A GOOD AVERAGE OF [illegible] PPB GOLD OVER 95 metres.

SAMPLE#	Ag PPM	As PPM	AU* PPB
R 54014	3.3	2342	58
R 54015	.7	2483	27
R 54016	2.3	2196	20
R 54017	.1	976	33
R 54018	.1	1171	88
R 54019	.7	4076	134
R 54020	.1	1188	174
R 54026	.1	298	64
R 54027	.2	156	99
R 54028	.1	130	63
R 54029	.1	1705	82
R 54030	.3	707	65
R 54031	.1	267	102
R 54032	.1	271	111
R 54033	.1	413	66
R 54034	.2	406	410
R 54035	.1	68	123
R 54036	.1	179	93
R 54037	.3	1452	114
R 54038	.7	593	280
R 54039	.6	232	104
R 123267	.3	79	54
R 123268	.7	162	86
R 123269	.4	172	75
R 123270	.9	261	133
R 123271	.3	2358	290
R 123272	.6	231	131
R 123273	.8	724	3820
R 123274	.6	523	290
R 123275	.4	221	570
R 123276	.3	353	122
R 123277	1.2	321	80
R 123278	.8	272	430
R 123279	.6	428	105
R 123280	.7	398	200
R 123281	.5	348	109
STD C/AU-R	6.6	41	490
R 123282 (next page)			

↑
↓
SOUTH ZONE
RUGE CHIPS

505 PPB au / 65 m.

SAMPLE#	Ag PPM	As PPM	AU* PPB
R 123282	.6	430	280
R 123283	.1	81	51
R 123284	.1	63	26
R 123285	.4	148	22
R 123286	.3	233	26
R 123287	.3	422	56
R 123288	.6	283	50
R 123289	.3	385	290
R 123290	.1	289	53
R 123291	.1	693	280
R 123292	.1	194	82
R 123293	.1	1164	310
R 123294	.4	1253	690
R 123295	1.7	2353	152
R 123296	.6	1040	163
R 123297	.6	480	65
R 123298	.3	215	46
R 123299	.4	204	195
R 123300	.8	267	101
STD C/AU-R	7.2	41	520

- ASSAY REQUIRED FOR CORRECT RESULT - for As > 1%

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 116 A/4

PROPERTY IDA, N.W.T. Canada

DATE

PROJECT 350

ROCK SAMPLE REPORT

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☒ A☐ Ag	G☒ A☐ Au	G☒ A☐	G☐ A☐	G☐ A☐	G☐ A☐	G☐ A☐	SAMPLED BY
49501	200 SW 9545E. Bleached very altered - locally quartz veined - up to 5m wide zone.		Grab		.2	2406	33					
48502	200 SW 7730 E. Massive cryptocrystalline chert (?) with a few tourmaline veinlets.		GRAB		0.1	221	5					

G = GEOCHEM A = ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 116 A/4 2 of 4

PROPERTY WA - North Zone

DATE July

ROCK SAMPLE REPORT

PROJECT 350

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☒ A☐ Ag	G☒ A☐ As	G☒ A☐ Au	G☐ A☐	G☐ A☐	G☐ A☐	G☐ A☐	SAMPLED BY
4236	Quartz - vein: Massive cryptocrystalline (may be chert(?!)) - locally brecciated, cut by a few quartz tourmaline breccia veins. 1% sphalerite. - Sample is of the Tourmaline breccia		CHIP	3m	0.1	772	11					JP
4237	Intensely sericitic and kaolinitic, altered - highly silicified tourmaline - bearing breccia.		GRAB		2.9	9337	650					JP

G = GEOCHEM A = ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 116 A/4

PROPERTY IDA North Side

DATE July

PROJECT IDD

ROCK SAMPLE REPORT

MPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☒ A☐ Ag	G☒ A☐ As	G☒ A☐ Au	G☐ A☐	G☐ A☐	G☐ A☐	G☐ A☐	SAMPLED BY
34225	Sheared - cherty sediments. - most intense shearing contains bleached and ginged material with green, yellow and red alteration colors. *		CHIP	1m	0.1	772	11					
34227	Similar to R.34226. Adjacent and north of 34226. Some pieces contain limited veinlets. Others are dark grey-green chert or silica with VF-F. Disseminated dark grey sulphides. *		CHIP	1m	2.9	8337	650					
*	The above 2 samples are in the hanging part of a 5-10m wide gossanous zone that may contain the western strike extension of the ore-bearing material 1/2 hundred metres west.											

G = GEOCHEM A = ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

PROPERTY IDA (Resample of Trench 1980-12)

N.T.S. 116 A/4

DATE August 1987

PROJECT 350

ROCK SAMPLE REPORT

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☒ A☐ Ag	G☒ A☐ As	G☒ A☐ Au	G☐ A☐	G☐ A☐	G☐ A☐	G☐ A☐	SAMPLED BY
	Trench 1980-12 was reported to run 5.5 g/t Au over its entire width. It was resampled at 1.0 metre intervals											DT
34228	Purple hornfels, indurated. Disseminated arsenopyrite, pyrite and (chalcopyrite?).	5%	CHIP	1m	0.5	1087	560					DT
34229	Same as 34228 + Pegmatite bleached sections with tourmaline veinlets.	5%?	CHIP	1m	10.8	498	125					
34230	Same as 34229		CHIP	1m	0.2	786	114					
34231	"		"	"	0.1	444	340					↓
34232	"		"	"	0.1	551	115					↓
34233	Hornfels, dark purple, prominent reddish-black mottling. A few veins of chalcopyrite + arsenopyrite (+ pyrite?) ≤ 1mm thick.		"	"	0.1	994	150					↓

G = GEOCHEM A = ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 116 A/4

PROPERTY IDA (Rectangle of Trench 1981-12)

DATE August, 1981

ROCK SAMPLE REPORT

PROJECT 250

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☒ A☐ Ag	G☒ A☐ As	G☒ A☐ Au	G☐ A☐	G☐ A☐	G☐ A☐	G☐ A☐	SAMPLED BY
34234	Same as 34233		CHIP	1m	0.1	1449	360					EC
34235	"		"	"	0.1	2[illegible]	560					
	48502 to 48509: Several chip cuts for this location: String tourmaline stockwork in a bleached vuggy rock with prominent green yellow and red staining. Silicified, locally brecciated.											AH
19503	As described above.		Grab		5.5	2784	65					AH
19504	"		"		1.1	837	47					
19505	"		"		3.0	1055	11					
19506	"		"		0.2	2057	61					
19507	"		"		0.4	3447	7					
19508	"		"		0.1	1613	53					
19509	"		"		0.7	2371	156					

G = GEOCHEM A = ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 116 A/4

PROPERTY IDA (South Zone Showing)

DATE August 1989

ROCK SAMPLE REPORT

PROJECT 350

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☒ A☐ Ag	G☒ A☐ As	G☒ A☐ Au	G☐ A☐	G☐ A☐	G☐ A☐	G☐ A☐	SAMPLED BY
48510	Silicified sediments Grey locally scorodite stained with strong tourmaline stockwork. Occassional breccia textures. Some dolomitic and/or scorodite stained vugs.	TR	CHIP	1m	4.8	3554	2.10					
R48511	DISCONTINUOUS REPRESENTATIVE CHIP SCORODITE-STAINED silicified sediments with frequent bleached patches and tourmaline veinlets (forming a stockwork). Local vuggy and dolomitic patches. a few clear calcite-type quartz veins		CHIP	5m	1.1	1901	147					
58512	Discontinuous representative chip Same description as R48511		CHIP	4m	2.5	3554	54					

G = GEOCHEM A = ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 116 A/4

PROPERTY IDA (South & adjoining)

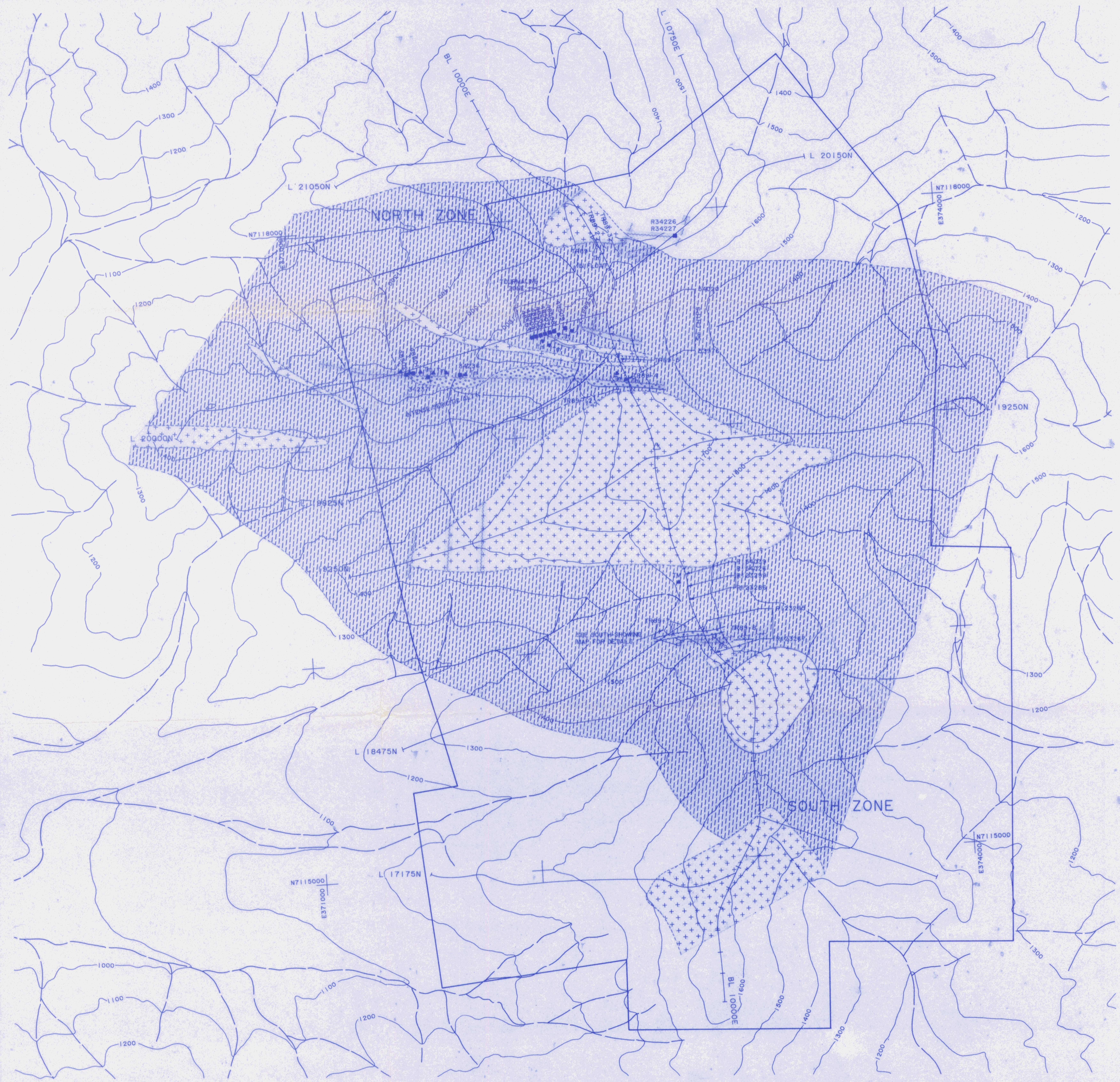
DATE Aug. 1981

ROCK SAMPLE REPORT

PROJECT 350

SAMPLE NO.	LOCATION & DESCRIPTION	% SULPHIDES	TYPE	WIDTH	G☒ A☐ Au	G☒ A☐ As	G☒ A☐ Au	G☐ A☐	G☐ A☐	G☐ A☐	G☐ A☐	SAMPLED BY
58513	Silicified sediments with stringy tourmaline stockwork and associated staining. A few arsenopyrite veinlets.		CHIP	2m	5.6	3126	23					
58514	2-3 cm wide arsenopyrite vein with wispy silicified wallrock envelopes. Frequent brecciated laminations and leached rock occurs as talus in this area.		TALUS		18.6	9999	1250					
58515	TOURMALINE-BEARING QFP. Intense silicic alteration. Tourmaline forms radiating blebs (<1%)		CHIP	2m	0.1	4134	20					

G = GEOCHEM A = ASSAY



LEGEND

- TERTIARY - Quartz-feldspar porphyry
- CRETACEOUS - Biotite granodiorite and biotite quartz monzonite to hornblende syenite. Frequent rafts of hornfels.
- PALEOZOIC - Undifferentiated Road River Formation : interbedded chart, argillite, quartzite, and conglomerate.
- Thermally metamorphosed Road River Sediments (hornfels).
- Fault - known, assumed
- Geological Contact - known, assumed
- Breccia Textures
- Tm Tourmaline
- L 20150N Flag Grid Line

100m Contour Interval

(228)

REVISED	IDA PROPERTY
	GEOLOGY AND SAMPLE LOCATIONS
PROJ. No. 318	SURVEY BY: JESSE DUKE — DATE: DECEMBER 1989
N.T.S. 116 A/4	DRAWN BY: HANDESIGN — SCALE: 1:10000
DWG. No. 17	NORANDA EXPLORATION OFFICE: WHITEHORSE 092794

VANCAL - 8323