091800

GEOLOGY AND GEOCHEMISTRY REPORT, 1985

on the

FACE 1-48 CLAIMS

091800

Whitehorse Mining District

N.T.S. 105 D/4, 105 D/5

Latitude 60°15'N

Longitude 135°31'W

Owner: Noranda Exploration Company, Limited
(No Personal Liability)

Author: M.P. Webster

Date: February, 1986

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 $ 7,500 .

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

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SUMMARY

Noranda Exploration Company, Limited staked the FACE 1-48 claims May 18, 1984 and the 1984 preliminary field work was followed up in August 3-6, 1985. These claims were staked to cover geology favourable for Au-Ag-Sb vein deposits found in the Wheaton River area.

The Wheaton River area vein deposits are thought to be associated with remnant Skukum Group volcanic rocks and the high level Tertiary rhyolite plugs distributed along fracture systems generated by the doming and collapse of the Mt. Skukum caldera complex. More than twenty-five known mineral occurrences include gold-silver, silver-lead and antimony-silver minerals in quartz and calcite gangue materials.

The 1984 and 1985 work programs on the FACE 1-48 claims have outlined moderate Cu, Pb, Zn, Mo, Ag and Au anomalies in soil, talus fines and rock samples taken in close vicinity to the Tertiary rhyolite-Precambrian Yukon Group contact zones in the south part of the property. An intense, brief follow-up program is recommended in the area of the contact zones which are best exposed on the south cliff face of the claims. Technical climbing expertise will be required to carry out prospecting on the face and significantly higher precious metal values must be found in order to justify further investment in this property.

CHAPTER ONE: INTRODUCTION

1-1: LOCATION and ACCESS

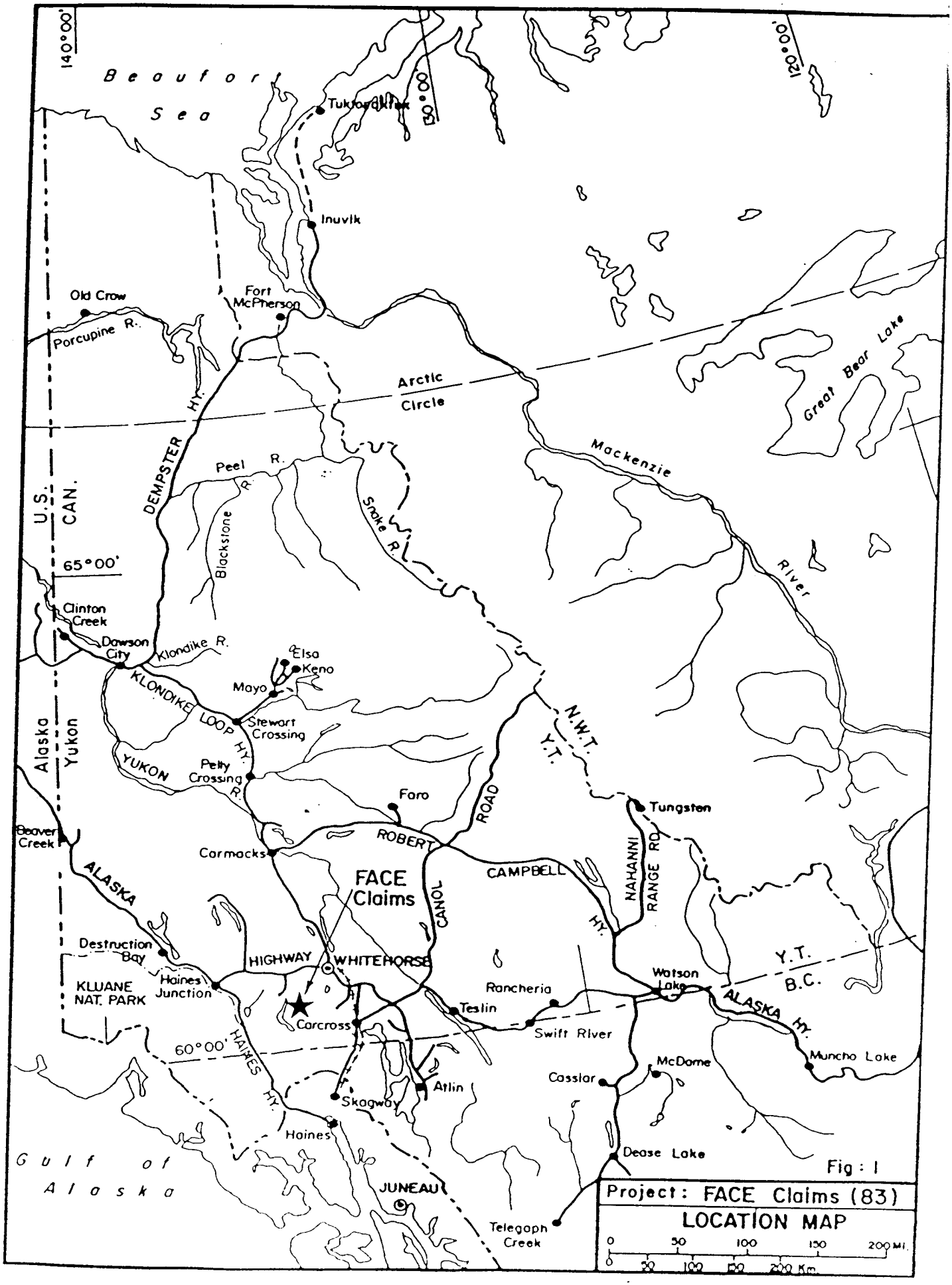
The FACE 1-48 claim group is located 56 kilometres SW of Whitehorse at longitude 135°31'W and latitude 60°15'N at the boundary of N.T.S. maps 105 D/4 and 105 D/5 (Figure 2). The claims lie just west of the Watson River (at its abrupt bend to the south) and 10 kilometres NW at a bearing of 315° from Mt. Skukum in the Wheaton River area.

Access to the property is by helicopter. The Annie Lake road provides year round access to within 20 kilometres of the property. Alternatively, a cat road follows the Watson River from the Annie Lake road just west of the Carcross Highway. This trail may be upgraded and pushed forward approximately 5 kilometres to provide feasible road access at a minimum expense.

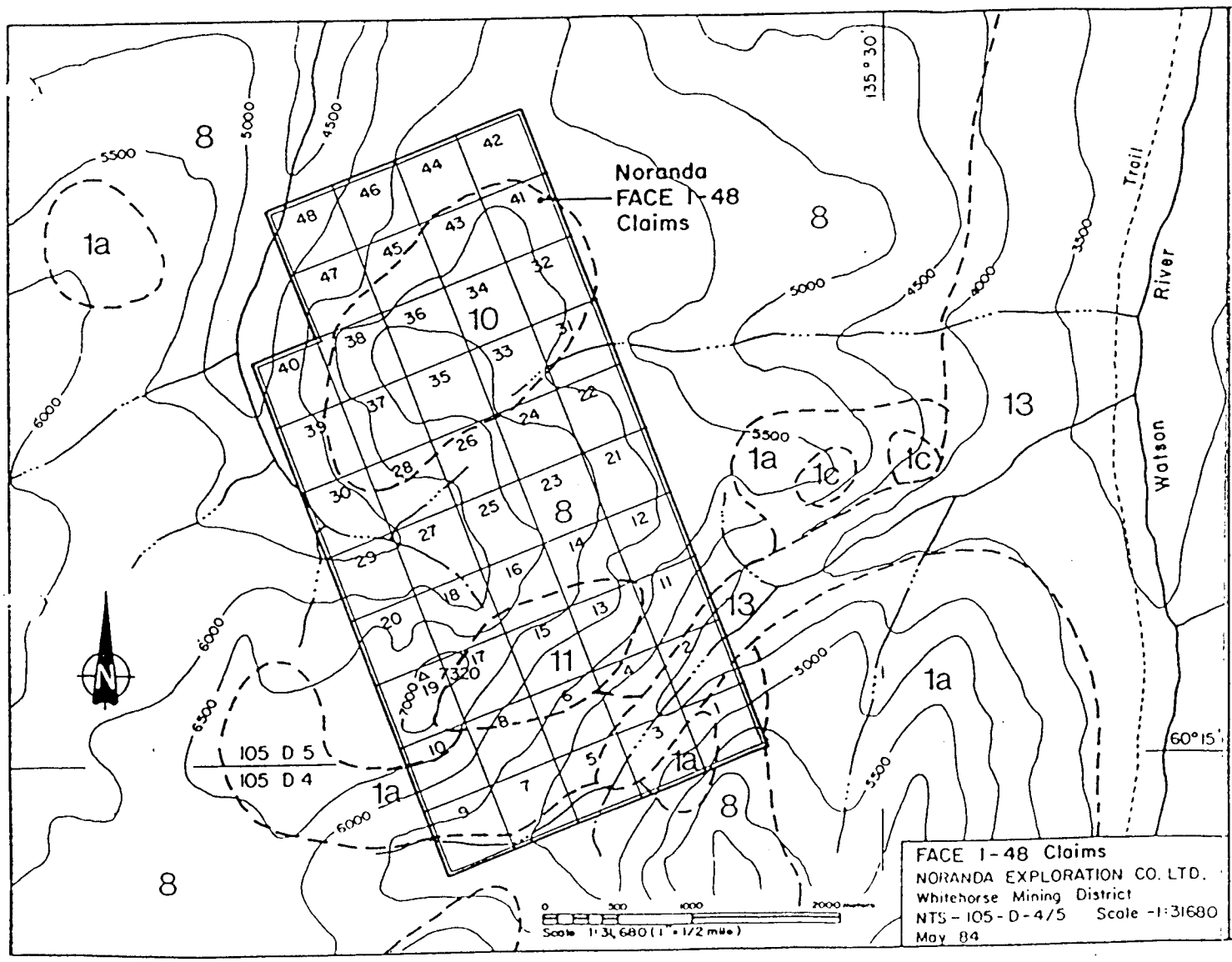
1-2: PHYSIOGRAPHY and VEGETATION

The Wheaton River area lies along the western flank of the Yukon plateau and immediately east of the Coast Ranges. The terrain varies from rolling hills to elevated plains incised by wide, deep u-shaped valleys with hanging valleys remaining from the Pleistocene glaciation.

The FACE group is particularly characteristic of this region in that



VANCAL 11926



LEGEND

QUATERNARY

- 13 Glacial deposits, alluvium

TERTIARY

- 11 Rhyolitic porphyry
- 10 Skukum Group - volcanics

CRETACEOUS

- 8 Granodiorite

PRECAMBRIAN

- 1a Schists & gneisses
- 1c Marble

FIGURE 2:
FACE 1-48
CLAIM MAP

flat plains occupy the north and central part of the claim group which is bounded by a steep, rugged slope 2,000 feet high where the plateau meets the Watson River valley.

Vegetation on the FACE group is typical of the regional pattern. The property vegetation is sparse and grassy whereas the Wheaton River valley is densely wooded with conifer, birch and willow. The treeline is localized along stream and river channels at an elevation of approximately 1,370 metres.

1-3: HISTORY of the PROPERTY

The FACE group was staked May 18, 1984 and recorded May 24, 1984 in Whitehorse (Figure 2). The property covers one of the few remaining areas of favourable Tertiary Mt. Skukum rhyolite. The 1985 work program was conducted August 3-6, 1985. This included rock and stream geochemistry and geological mapping.

Claims and Ownership

Claim Name	Grant (Tag) No.	Date Claim Recorded
FACE 1-20	YA81944-YA81963	May 24, 1984
FACE 21-28	YA81920-YA81927	"
FACE 29, 30	YA81964, YA81965	"
FACE 31-38	YA81928-YA81935	"
FACE 39, 40	YA81966, YA81967	"
FACE 41-48	YA81936-YA81943	"

Noranda Exploration Company, Limited (No Personal Liability) has 100% interest in each mining claim named above. Upon acceptance of this assessment report, the claims will be in good standing until May 24, 1987.

1-4: WORK PROGRAM

The 1985 field work was conducted on the FACE 1-48 claims from August 3 to 6, 1985. The work program included geological mapping, detailed silt and pan concentrate stream geochemistry, rock and talus fines sampling. Geological mapping was done at 1:10,000 scale from airphoto and N.T.S. maps 105 D/4 and 105 D/5 enlargements.

The exploration crew was camped at the east side of the property on the creek draining north to the Watson River. Frontier Helicopters Ltd., based in the Wheaton River valley, provided helicopter support with a Jet Ranger 206B. Mobilization from the Annie Lake road at Butte Creek required 1.2 helicopter hours.

The personnel involved in the program are listed below:

Mary Webster	Party Chief
Hugh Copland	Senior Assistant
Shirley Abercrombie	Senior Assistant
Arthur Fekete	Junior Assistant

CHAPTER TWO: GEOLOGY

2-1: REGIONAL GEOLOGY

The geology and mineral potential of the area has been documented by D.D. Cairnes (1912, 1916), J.O. Wheeler (1961), and more recently by M.J. Smith (1979), M.B. Lambert (1974) and the Northern Cordillera Mineral Inventory (Archer, Cathro & Associates Ltd., 1981).

The oldest rocks in the region are the Precambrian metasediments of the Yukon Group (Table 1). The Yukon Group quartz-mica schists, feldspathic gneisses and crystalline limestone occur as a northwest trending belt intruded by granitic rocks of the Cretaceous Coast Intrusions. The Triassic Lewes River Group metavolcanic rocks and Jurassic Laberge Group metasediments unconformably overlie the Yukon Group and occupy the northeastern part of the Wheaton River area. The Lower Tertiary Skukum Group[1] is comprised of intermediate to felsic volcanic rocks which occur in the centre of the Wheaton River area and as part of the Bennett Lake complex 20 km to the south at the Yukon-B.C. border.

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1. The Skukum Group volcanics have been described as the "Carmacks basalts" and "Wheaton River Volcanics" (Cairnes, 1912, p. 64 and 68), the "New Volcanics" and "Acid Volcanics" (Cockfield and Bell, 1926, p. 34), and recently as two groups subdivided into seven members of defined composition and texture (Pride, 1983, p. 94-104).

The Bennett Lake complex consists of a rhyolite to dacite ash flow, breccia and tuff volcanic package in part circumscribed by a high level rhyolite ring dyke with related intrusions. Lambert describes this complex as "two nested calderas, an eroded structural dome and a thick succession of pyroclastic and epiclastic rocks related to eruption, subsidence and filling of the cauldrons" (Lambert, 1974, p. 9).

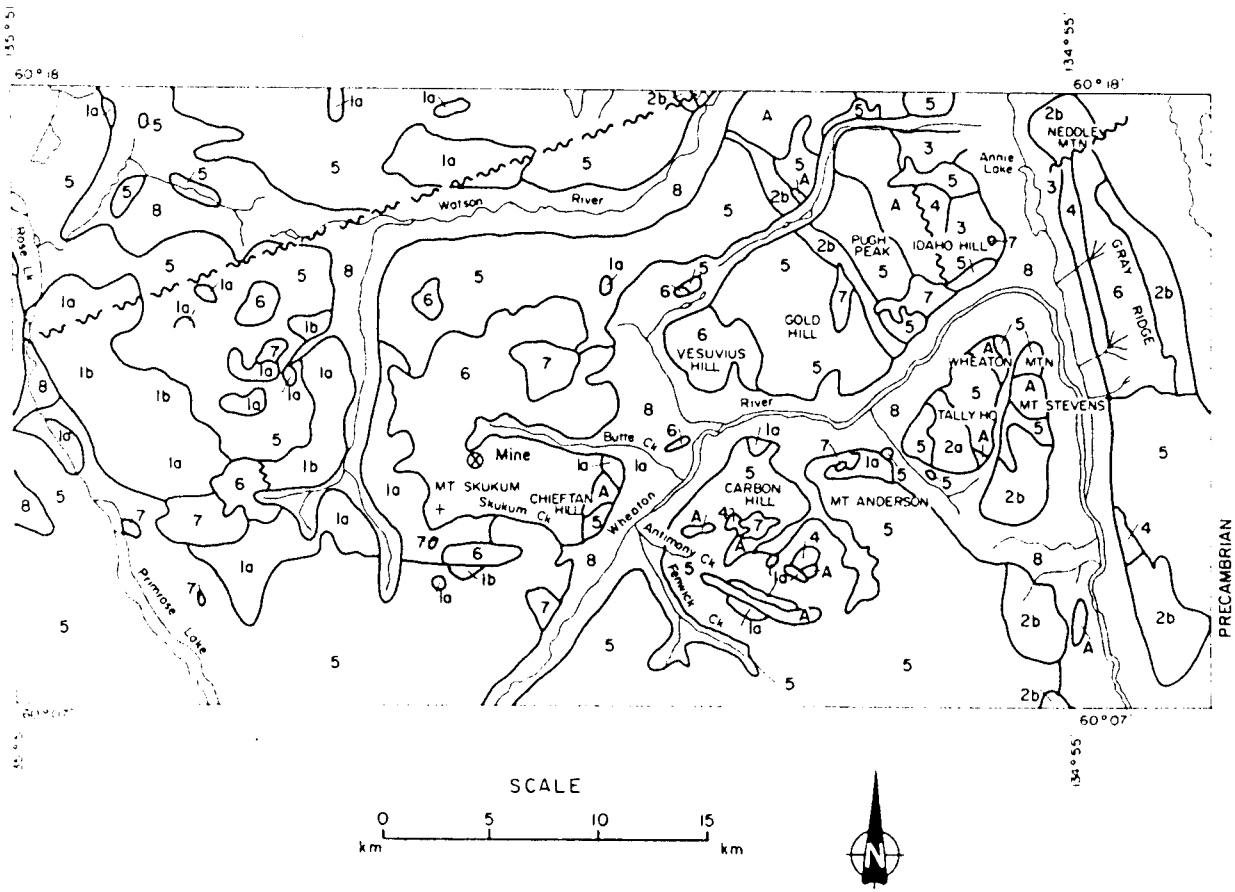
Lambert suggested that the Skukum region may represent a second caldera complex with grossly similar geology and structural characteristics.

The Skukum complex occupies approximately 140 km^2 and is elliptical in plan. It is partially fault bounded and in places intruded by felsic dykes and stocks. A major north trending fault divides the Skukum ellipse into two parts which are made up of probably genetically related interlayered sedimentary-volcanic units. On the west side, andesitic flows, pyroclastic flows and sedimentary units up to 500 metres thick are found. The eastern block consists of altered pyroclastic, brecciated, flow banded and spherulitic felsic lava flows up to 800 metres thick. Cogenetic high level rhyolite to dacite intrusions punctuate the perimeter of the complex. These rhyolites are thought to represent late ring fracture intrusions associated with a caldera event (Pride, nee Smith, 1981).

Vein occurrences are spatially related to the ring structure in both the Bennett Lake and Skukum volcanic complexes. This mineralization is thought to be linked to hydrothermal and structural events of late stage caldera development.

TABLE 1: TABLE OF FORMATIONS

ERA	PERIOD or EPOCH	FORMATION	LITHOLOGY
Cenozoic	Recent and Pleistoce		Glacial debris, loess, volcanic ash Basalt; minor pyroclastic rocks
		----------UNCONFORMITY----------	
	Tertiary		Granite Porphyry, Rhyolite
		----------INTRUSIVE INTO LOWER SKUKUM GP.-----	
		Skukum Group	Andesite, basalt, rhyolite, trachyte breccia, tuffs, flows. Granitic breccia, minor greywacke, sandstone and siltstone.
Mesozoic	Cretaceous	Coast Intrusions	Hbld-bio-oligoclase granodiorite diorite, granite, pegmatitic syenite
		----------INTRUSIVE CONTACT ----------	
		Hutshi Group	Basalt, andesite, porphyritic andesite, qtz latite & rhyolite flows, breccias and tuffs; minor greywacke, argillite; conglomerate locally at base
	Upper Jurassic	Tantalus Fm	Arkose, siltstone, congl. argillite, coal
	Lower Jurassic	Laberge Group	Conglomerate, greywacke, arkose quartzite, siltstone, argillite, hornfels
		----------UNCONFORMITY----------	
	Upper Triassic	Lewes River Group	Volcanic greywacke, siltstone, argillite, limestone breccia conglomerate; volcanic breccia agglomerate tuff; andesite, porphyritic andesite & basalt
Paleozoic	Pennsylvanian(?) & Permian	Taku Group	Limestone, breccia, chert; greenstone and (?) pyroclast rocks
Precambrian		Yukon Group	Quartz-mica, qtz-chlorite and mica schists; quartzite, feldspathic hbld gneiss, amphibolite, epidote-amphibolite crystalline limestone; feldspathic gneiss, lit-par-lit gneiss; gneissic porphyritic granodiorite & quartz diorite



Legend

CENOZOIC

Quaternary

8	Alluvium, glacial deposits, volcanic ash, loess

Tertiary or Earlier

7	Rhyolite

MESOZOIC

6	SKUKUM GROUP Andesite, basalt, rhyolite and trachyte breccia tuffs & flows, granitic conglomerate, minor greywacke

Cretaceous

5	COAST INTRUSIONS Granodiorite, quartz diorite

Jurassic (?) and Cretaceous

4	TANTALUS FORMATION Arkose, siltstone, conglomerate, argillite, coal

Jurassic

3	LABERGE GROUP Greywacke, arkose, quartzite, conglomerate, siltstone, argillite, hornfels

Triassic

2	LEWES RIVER GROUP A) Limestone, limestone breccia B) Metamorphosed rocks

PRECAMBRIAN and LATER

1	YUKON GROUP A) Quartz-mica, quartz chlorite and mica schists, micaceous quartzite, gneiss, amphibolite B) Crystalline limestone
A	Volcanic rocks of uncertain age

Fig. : 3

REVISED	WHEATON RIVER Property
	REGIONAL GEOLOGY (Modified from SMITH, 1981)
PROJ No II	SURVEY BY . DATE MAY 85
NTS 105 D	DRAWN BY AI SCALE
DWG No	NORANDA EXPLORATION OFFICE Whitehorse

2-2: DETAILED GEOLOGY

Geological mapping at 1:10,000 scale of the FACE group shows the area to be underlain by hornblende gneisses and schists, amphibolites, calcsilicates and crystalline limestone of the Yukon Group. Granodiorite to diorite of the Coast Intrusion intrude the Yukon Group which occurs mainly as large blocks or roof pendants within the intrusion. The contacts are generally sharp to undulating but in places accompanied by several metres of intrusive breccia. These rocks have been intruded by a Tertiary rhyolite plug and numerous rhyolite dykes. Infrequent and later aplite, porphyritic felsic and mafic dykes crosscut the rhyolite dykes and Yukon Group rocks.

The Skukum Group volcanics which lie unconformably above the Paleozoic Yukon Group metasediments and Cretaceous granodiorite rocks occur above 6,000' elevation and form the rounded peak in the north part of the claim group. Felsic volcanic flow subunits crop out on the west side of the volcanic Skukum Group complex. These flow units are strongly jointed, light beige in colour, locally porphyritic and easily distinguished from the Tertiary rhyolite plug on the south part of the property. Basalt to andesite massive and flow volcanic units make up the remainder of the Skukum Group assemblage and few sulphides are found in this area.

Rock Descriptions

Yukon Group:

Quartz-mica, quartz-biotite schists and gneisses. Consists of clear to white crystalline (up to 1 cm diameter) and saccharoidal (<0.5 cm equigranular) quartz, with locally foliated biotite up to 0.5 cm in length. Biotite is commonly altered to chlorite. Rusty oxidation is abundant on weathered surfaces. Mafic/felsic banding 1 to 50 cm wide. Strong contortion and infolding of these laminations. Minor pyrite. Fresh white, equigranular crystalline limestone weathers grey.

Coast Intrusions:

Medium to coarse-grained equigranular, hornblende-biotite granodiorite and quartz diorite consists of clear to white quartz, plagioclase, potash feldspar, minor muscovite and biotite. Hornblende is concentrated mainly at contacts. Contacts marked over several metres by brecciation. Quartz-chlorite/muscovite/epidote fracture coatings. Abundant mafic (15-20%) xenoliths. Minor clay and/or carbonate alteration

Skukum Group:

Andesitic, felsic and basaltic breccias, tuffs and lavas. Subordinate clastic sediments. May include breccia and conglomerate composed of basaltic, felsic and granitic fragments and cobbles in rusty-brown to buff matrix (Wheeler, 1961).

Tertiary Rhyolite:

Aphanitic to saccharoidal grey-white to beige rhyolite porphyry. Quartz +/- feldspar subhedral phenocrysts 2 mm diameter within aphanitic to fine grained matrix. Some bleaching near contacts. Small stocks and dykes occur locally. Minor chlorite, chalcopyrite and pyrite along contact margins.

Late Intrusions

Aplite Dykes:

White to buff coloured dykes 0.15 to 25 metres wide of fine-grained to saccharoidal equigranular quartz and alkali feldspar. 1-5% pyrite (cubes up to 2 mm diameter). Contacts sharp, some muscovite along contacts.

Porphyritic Dykes:

Felsic: Rhyolitic and granitic textures. Very fine grained to saccharoidal, quartz and feldspar phenocrysts <0.5 cm diam., occasional pyrite, local calcareous and/or limonite alteration. Contacts sharp, minor muscovite along fractures, contacts.

Mafic: Dark green to black, very fine grained, siliceous and calcareous alteration, minor pyrite. 1-5 mm diam. subhedral quartz or calcite phenocrysts.

CHAPTER THREE: GEOCHEMISTRY

A total of 3 silt, 64 soil, 26 rock and 10 pan concentrate samples were taken on and in close vicinity to the FACE 1-48 claims during the 1985 work program (Figure 5). The silt, soil, and rock samples were analyzed for Cu, Zn, Pb, Ag, Mo and Au. The pan concentrate samples were analyzed for Cu, Zn, Pb, Ag and Au. Detailed rock descriptions and geochemical results are listed in Appendices 1 and 2.

3-1: STREAM GEOCHEMISTRY

Pan concentrate sampling was conducted on the two major streams draining the north part of the property (Figure 5). There were 9 samples taken at approximate 400 metre intervals along the stream draining north to the Watson River. One sample was taken on the west draining stream which had been covered with snow in 1984. No anomalies were found in these creeks and maximum values ran as follows 26 ppm Cu, 34 ppm Zn, 4 ppm Pb, 0.2 ppm Ag and 10 ppb Au. Three silt samples (S69619, S69624, S72483) taken from the headwaters of the north draining stream and one narrow surface run-off channel ran up to 94 ppm Cu, 86 ppm Zn, 6 ppm Pb, 0.2 ppm Ag, 2 ppm Mo and 10 ppb Au.

3-2: SOIL GEOCHEMISTRY

Two reconnaissance soil lines were sampled at 50 metre intervals along the ridge exposure of the Tertiary rhyolite plug in the south part of the property. Line 1 recovered 850 metre long zinc anomaly from stations 4+00S to 12+50S which ranges from 90 ppm to 1,600 ppm Zn. Stations 8+50S to 9+50S on Line 1 were omitted because of difficult terrain, however stations 8+00, 10+50, 12+00S and 12+50S detected gold anomalies which range from 30 ppb to 140 ppb Au. Coincident Cu, Zn, Pb, Ag, Mo and Au anomalies occur on Line 1 at stations 8+00S, 11+50S, 12+00S and 12+50S which run as high as 280 ppm Cu, 1,600 ppm Zn, 300 ppm Pb, 1.4 ppm Ag, 24 ppm Mo and 140 ppb Au. These anomalies apparently lie directly over or in close vicinity to the SW Tertiary rhyolite plug-Paleozoic Yukon Group metasediment contact. The zinc anomaly was detected along Line 2 at stations 6+50S, 8+50S to 10+00S (140 ppm, 150 ppm, 150 ppm Zn respectively). These anomalies occur directly north and 200 metres downslope from the contact area and multi-element anomalies found at the southwest end of Line 1. Line 3 ran northwest across the central part of the property to cover an area covered by alpine moss and grasses with little outcrop. A slight zinc enhancement is observed at stations 9+50N and 10+00N at the north end of the line. Skukum Group basalt with minor felsic units crop out in this area and may account for the slightly higher zinc values. No other significant anomalies occur on Line 3.

3-3: ROCK GEOCHEMISTRY

A total of 26 rock samples were taken during this program. Emphasis was placed on prospecting and sampling the north part of the property, the Tertiary rhyolite plug, quartz veins (particularly with agate or laminated textures) and mineralization of interest. Unfortunately, hazardous climbing conditions severely limited access to the SW rhyolite-granodiorite contact area. Glassy quartz float boulders (R69698, R69700) collected immediately north of the contact ran 5 ppb and 65 ppb Au respectively with no base metal enhancement. One rhyolite boulder (R69699), found in talus dominated by granodioritic boulders, had a light iron oxide coating on weathered surface with minor chlorite along fractures and ran 625 ppm Cu, 0.3 ppm Ag and 35 ppb Au. A silicified rhyolite float sample (R69878) which ran 40 ppm Cu, 114 ppm Zn, 112 ppm Pb, 2.3 ppm Ag and 5 ppb Au was collected in the upper headwaters of the creek draining northwest from the contact area. A fourth float sample, collected in this area (R69700) from a rusty, silicified mafic xenolith (2 m x 10 m) within a large granodiorite block, ran 65 ppb Au. Samples taken from a prominent red gossan in granodiorite cut by (maximum 0.5 m wide) aplite and mafic dykes on the west side of the north draining creek ran up to 410 ppm Cu and 0.4 ppm Ag (R72481, 82, 84). The remainder of the rock samples taken on the property did not prove to be significantly anomalous in base or precious metals.

CHAPTER FOUR: MINERALIZATION

Examination of Appendix 1 shows that significant precious metal anomalies occur in close vicinity to the Tertiary rhyolite-Paleozoic Yukon Group contact. Multi-element anomalies are found to run as high as 280 ppm Cu, 1,600 ppm Zn, 300 ppm Pb,, 24 ppm Mo and 140 ppb Au in soil samples taken near the contact along Line 1 on the southwest part of the property. A coincident zinc anomaly (up to 150 ppm Zn), 100 metres in length, occurs on Line 2 approximately 200 metres north of Line 1 and represents a downslope migration of zinc from the contact area. Copper anomalies are associated with mafic Skukum Group volcanics, gossanous boulders and oxidized zones sampled in this unit run between 158 ppm and 410 ppm Cu and have a slight silver enhancement with values up to 0.5 ppm Ag (R69620, R72481-84). The rhyolite units of the Skukum Group are not anomalous in base or precious metals. Quartz float sample R69700 collected downslope from the contact ran 65 ppb Au. However, no source for anomalous rock samples taken from talus immediately north of the contact area has been determined.

No significant base or precious metal values were found in silt or pan concentrate samples taken in streams draining the property.

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

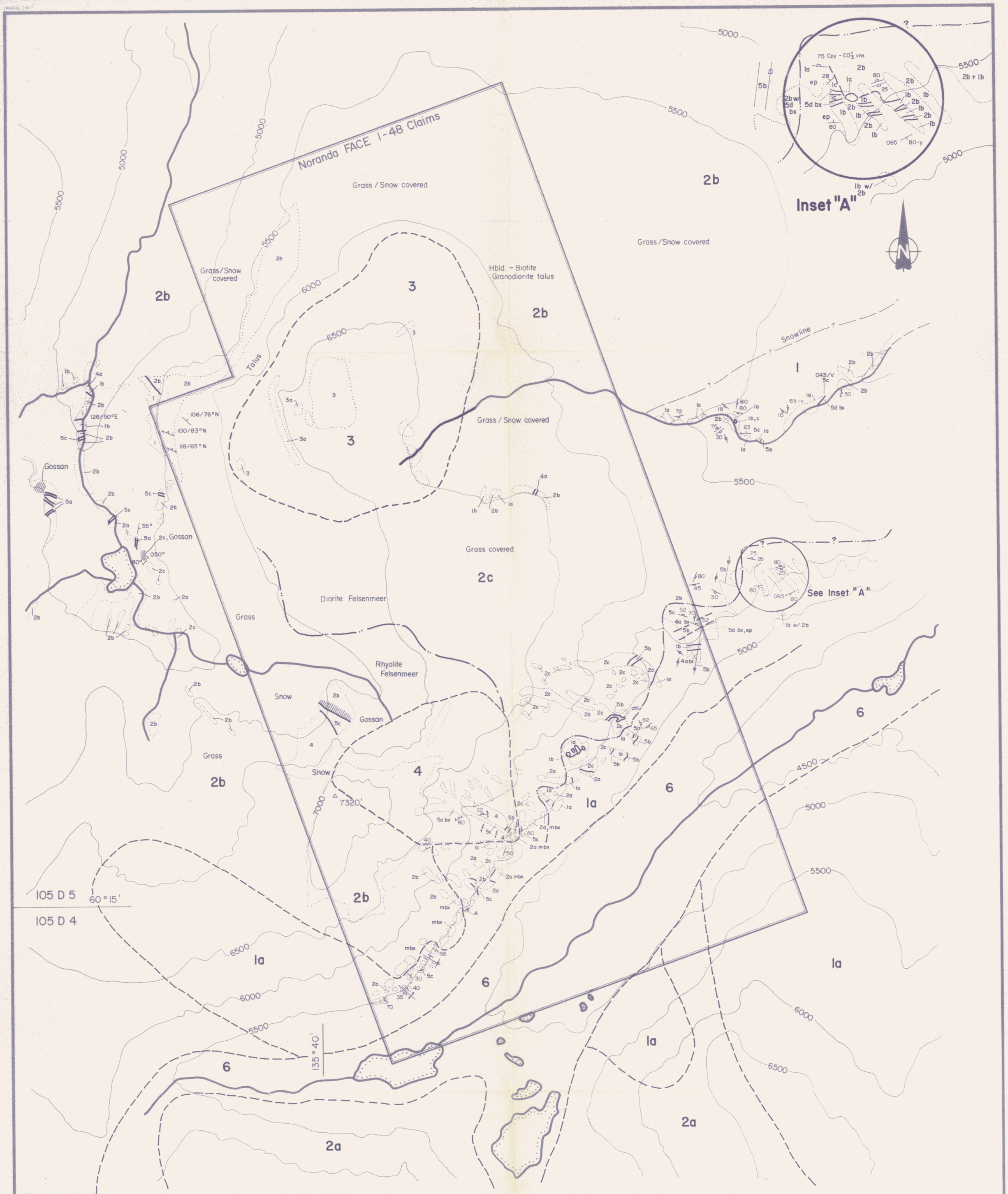
The 1984 and 1985 work programs have outlined multi-element anomalies in soil, talus fines and rock samples taken in close vicinity to the Tertiary rhyolite-Precambrian Yukon Group contact zones in the south part of the FACE 1-48 claim block. No mineralization of economic interest was found in the Skukum Group volcanic assemblage or in the mica schist and limestone units of the Yukon Group Quartz float boulders commonly with iron oxides, Fe-Mn stain and visible sulphides are found to be enriched in precious and base metals. Intense zones of silicification, shear zones and quartz or quartz-carbonate veins mapped on the steep southern exposure of the Tertiary rhyolite plug have also proven to have a slight increase in base and precious metal values. Talus fines sampling along the ridge top and base of the cliff face have detected Cu, Pb, Zn, Mo, Ag and Au anomalies near the contact zones, however hazardous climbing conditions and rock falls severely limited access to the cliff face.

Further work on the claims will require technical climbing expertise as the multi-element anomalies have been isolated to the contact zones which are best exposed on the south cliff face. The anomalies warrant an intense, brief follow-up program in 1986. A specific source for the anomalous quartz and silicified rhyolite float boulders must be found in order to justify further interest in this property.

Respectfully submitted,

Mary Webster

Mary Webster
Field Geologist



Legend

6	ALLUVIUM
5	INTRUSIVES (a) aplite (b) porphyritic (c) mafic (d) felsic
TERTIARY or EARLIER	
4	RHYOLITE massive to porphyritic; quartz - feldspar. (a) rhyolite dyke
3	SKUKUM GROUP undifferentiated andesite, basalt. (a) rhyolite.
CRETACEOUS	
2	COAST INTRUSIONS (a) granite (b) hornblende - biotite granodiorite (c) diorite
PRECAMBRIAN	
1	YUKON GROUP (a) quartz - mica schist (b) limestone; crystalline (c) calcite - silicates

Symbols

- Outcrop
- Bedding
- Joint fracture
- Schistosity
- Foliation
- Fold (antiform, synform)
- Geological contact (real, assumed, gradational)

bx	intrusive breccia
m	mega
chl	chlorite
cpy	chalcopyrite
$CO_3^{=}$	carbonate
ep	epidote
	Gossan

Scale 1:10,000

Fig. : 4

REVISED	FACE Claims 091800
	Geology
PROJ. No. 83	SURVEY BY: DATE: MAY 85 / FEB 86
N.T.S. 105 D 4/5	DRAWN BY: AI SCALE: 1:10,000
DWG. No.	NORANDA EXPLORATION
	OFFICE: Whitehorse


Noranda FACE 1-48 Claims
Grass Slope
Steep Face
1984 Samples
105 D 5
60°15'
105 D 4
135°40'
7320'
Rocks (R)
Silts (S)
Soils (P)
Soil lines
Pan conc. (H)
Talus fines (T)
Scale 1:10,000
REVISED
FACE Claims 091800
Sample Location Map
PROJ. No. 83
N.T.S. 105 D 4/5
DWG. No.
SURVEY BY:
DRAWN BY: AI
DATE: JUN 85 / FEB 86
SCALE: 1:10,000
NORANDA EXPLORATION
OFFICE: Whitehorse

Fig. : 5

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Wheeler, J.O., 1961. Whitehorse map-area, Yukon Territory. G.S.C., Mem. 312.

STATEMENT OF QUALIFICATIONS

I, Mary P. Webster, of the City of Whitehorse, Yukon Territory do hereby certify that:

1. I have been employed as a Geologist by Noranda Exploration Company, Limited (No Personal Liability) since May 1984.

2. I am a graduate of McMaster University, Hamilton, Ontario with a B.Sc. in Geology.

3. I am a member of the Prospector's and Developers Association and the B.C. and Yukon Chamber of Mines.

4. I supervised and carried out part of the work described in this report.

Mary P. Webster

Mary P. Webster
Field Geologist
Noranda Exploration Co. Ltd.
(No Personal Liability)

NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COSTS

PROJECT: FACE 1-48 Claims

TYPE OF REPORT: GEOCHEMICAL, GEOLOGICAL

Labour:	
16 mandays at 126.50 per day	$2,024.00
Food/Accommodation:	
16 mandays at 45.00 per day	720.00
Transportation:	
Truck Rental/Gas	183.63
Helicopter 3.2 hours	1,584.00
Geochemistry:	
Analysis	1,011.80
Shipment	254.00
Report Preparation:	
3 mandays at 126.50 per day	379.50
TOTAL COST	$6,156.93

DETAIL COST OF ANALYSIS

PROJECT: FACE 1-48 Claims

Element	No. of Determinations	Cost per Determination	Total
Cu	103	1.60	164.80
Pb	103	.60	61.80
Zn	103	.60	61.80
Mo	103	.60	61.80
Ag	103	.60	61.80
Au	103	4.00	412.00
	Sample Preparation:		
Soils/Silts	67	.50	33.50
Rocks/Talus Fines	26	1.00	26.00
Pan Concentrates	10	1.50	15.00
Data Entry	103	1.10	113.30
		TOTAL COST	$1,011.80

APPENDIX 1

ROCK SAMPLE DESCRIPTIONS

and

GEOCHEMICAL RESULTS

SAMPLE DESCRIPTIONS

SAMPLE NO.	LOCATION and DESCRIPTION	TYPE
R69694	Coarse grained, glassy quartz with moderate rusty stain on weathered surface, near meta-sedimentary/granodiorite contact.	Grab Float
R69695	Coarse grained, glassy quartz sweats with weak rusty stain in pod of metasediments surrounded by granodiorite.	Grab Float
R69696	Pod of metasediments west of 69695, dark grey to glassy, fine grained quartzite, intense limonitic stain and blebby pyrite to 3%.	
R69697	White-glassy, medium grained, massive quartz (vein?), 1 metre thick exposed over 5 metres.	
R69698	Glassy to white, medium grained quartz float, weak rusty stain on weathered surface. Chlorite alt. in microfractures surrounded by granodiorite talus.	Float 5 cm Grab
R69699	Rusty xenolith 2 x 10 m in size in diorite, intense gossan, difficult to determine rock type, dark green, medium grained, siliceous with 5-25% pyrrhotite.	Grab Float
R69700	Quartz float: White, massive quartz with mod.	Grab Float 30x20x35 cm
R69615	Skukum Group basalt, dark green 5% dissem. pyrite, minor silicification, rusty oxides	Grab
R69616	Skukum Group rhyolite, flow banded, light beige, fine grained, minor py	Grab
R69617	As 69616	Grab
R69618	As 69616, up to 15% dissem. py	Float/ Grab
R69620	Biotite Hbld. Granodiorite, mafic rich py up to 20% dissem., fine grained rusty gossan up to 0.5 m diameter adjacent to mafic dyke, minor malachite stain	Grab

R69622	Andesitic breccia, silicified, minor py. Angular 2-10 cm diameter clasts in andesite matrix, heavy Fe oxidization	Float Grab
R69623	Rhyolite dyke, fine grained, light buff colour, weak lamination of saccaroidal silica grains. Py up to 5% dissem.	Grab
R69625	Mafic dyke (re R69620) 0.6 m wide, fine grained dark green to black, porphyritic, py 5%, po 2%, rusty stain, minor calcareous alt.	Grab
R69626	Quartz float, possibly from Yukon Group meta-sedimentary schist, py 5% dissem., prominent Fe oxidation	Float Grab
R69876	Rhyolite with minor quartz stringers <1.0 cm wide, manganese stain, py 5-8% dissem.	Float
R69877	Diorite: fine to medium grained, 3 cm wide rhyolite dyke (?) cross-cuts boulder (20x30 cm) Sharp contact <3% dissem. pyrite throughout.	Float
R69878	Rhyolite (as 69876) py up to 10%, minor Fe stain and quartz stringers, vuggy quartz, weathered out py cubes.	Float
R69879	As 69878, py <5%	Float
R72479	Granodiorite cut by narrow basalt dyke 20 cm in diameter. Silicified, py 5-10% dissem., minor oxidation at contact.	Float
R72480	Gossaneous granodiorite, heavy Fe oxide, Mn stain and clay alteration to friable consistancy. Py up to 10% but heavily oxidized contact to mafic unit.	Grab
R72481	Gossaneous granodiorite fine to medium grained, Fe-Mn oxides, py up to 5% contact to mafic dyke.	Grab
R72482	Granodiorite, prominent Fe oxides and clay alteration, silica stringers up to 1 cm wide, py 5-10% dissem., minor malachite stain.	Grab
R72484	As R72482	Grab
R72485	Skukum Group rhyolite, beige, flow banded, py 5-8%, minor Fe oxides.	Float

SAMPLE	Cu	Pb	Zn	Ag	Mo	ppb Au
Rocks:						
R69615	3	6	10	<.2	1	<5
R69616	51	5	86	<.2	3	10
R69617	7	5	24	<.2	2	<5
R69618	41	8	40	<.2	4	10
R69620	256	6	25	.5	13	5
R69622	9	5	83	<.2	2	<5
R69623	3	16	43	<.2	1	<5
R69625	53	5	38	<.2	7	<5
R69626	4	44	63	<.2	3	<5
R69694	6	3	6	<.2	1	5
R69695	6	19	6	<.2	1	<5
R69696	60	8	29	<.2	4	<5
R69697	3	3	4	<.2	1	<5
R69698	21	9	10	<.2	1	5
R69699	625	7	22	.3	3	35
R69700	21	4	8	.2	1	65
R69876	13	16	52	<.2	1	10
R69877	4	15	42	.2	2	<5
R69878	40	114	112	2.3	1	5
R69879	6	7	16	<.2	1	<5
R72479	3	7	10	<.2	1	<5
R72480	68	4	70	<.2	2	5
R72481	158	7	20	<.2	4	<5
R72482	369	8	34	.4	5	<5
R72484	410	5	12	.4	5	<5
R72485	29	5	34	<.2	2	<5

APPENDIX 2

STREAM RECONNAISSANCE GEOCHEMICAL RESULTS

NORANDA EXPLORATION COMPANY, LIMTED
FACE 1-48 Claims

SAMPLE	Cu	Zn	Pb	Ag	Mo	ppb Au
Soil Samples:						
Line 1						
0+00E	20	70	6	.2	1	10
0.5	20	60	6	.2	1	10
1.0	20	72	14	.2	1	10
1.5	22	82	16	.2	1	10
2.0	18	62	8	.2	1	10
2.5	20	80	10	.2	1	10
3.0	20	76	14	.2	1	10
3.5	20	96	24	.2	1	10
4.0	16	130	22	.2	1	10
4.5	10	210	36	.2	1	10
5.0	8	210	26	.2	1	10
5.5	16	200	30	.4	1	10
6.0	30	180	24	.2	1	10
6.5	36	160	18	.2	2	10
7.0	30	180	22	.2	2	10
7.5	280	90	8	.2	1	10
8.0	120	290	190	.2	1	90
10.0	70	220	46	.4	4	10
10.5	60	640	42	.2	2	30
11.5	110	570	140	.8	24	10
12.0	250	550	150	.6	12	140
12.5	200	1600	300	1.4	10	130
Line 2						
0+00E	74	66	4	.2	1	10
0.5	60	64	8	.2	1	10
1.0	28	70	4	.2	1	10
1.5	78	70	6	.2	1	10
2.0	30	62	6	.2	1	10
2.5	56	74	20	.2	1	10
3.0	30	62	4	.2	1	10
3.5	28	64	6	.2	1	10
4.0	36	58	6	.2	1	10
4.5	38	60	6	.2	1	10
5.0	42	62	8	.2	1	10
5.5	28	62	8	.2	1	10
6.0	34	78	14	.2	1	10
6.5	32	170	140	.6	1	10
7.0	18	62	14	.2	1	10
7.5	22	66	8	.2	1	10
8.0	24	78	10	.2	1	10
8.5	20	120	20	.2	1	10
9.0	16	140	24	.2	1	10
9.5	16	150	34	.2	4	10
10.0	12	150	22	.2	2	10

SAMPLE	Cu	Zn	Pb	Ag	Mo	ppb Au
Line 3						
0+00N	26	62	6	.2	1	10
0.5	20	54	4	.2	1	10
1.0	22	60	6	.2	1	10
1.5	22	58	6	.2	2	10
2.0	30	54	6	.2	2	10
2.5	42	62	6	.2	1	10
3.0	26	58	4	.2	1	10
3.5	32	58	6	.2	1	10
4.0	30	68	12	.2	2	10
4.5	28	78	16	.2	1	10
5.0	26	72	14	.2	1	10
5.5	28	72	26	.2	1	10
6.0	22	110	38	.2	1	10
6.5	20	86	20	.2	1	10
7.0	16	70	6	.2	1	10
7.5	18	76	12	.2	1	10
8.0	26	94	24	.2	1	10
8.5	20	92	20	.2	1	10
9.0	20	94	34	.2	1	10
9.5	6	140	10	.2	1	10
10.0	10	160	14	.2	1	10
Silts:						
69619	42	86	6	.2	2	10
69624	34	66	4	.2	2	10
72483	94	64	6	.2	2	10
Pan Concentrates:						
69880	10	24	2	.2		10
69881	8	16	1	.2		10
69882	20	12	1	.2		10
69883	20	16	1	.2		10
69884	24	16	1	.2		10
69885	26	30	4	.2		10
69886	20	22	2	.2		10
69887	18	34	1	.2		10
69888	20	18	2	.2		10
69889	18	22	2	.2		10