ASSESSMENT REPORTS

Whitehorse M.D.

MAP No. 105 D 4,5 TYPE OF WORK: Geological, Geochemical

REPORT FILED UNDER	Noranda Exploration Company, Ltd.
DATE PERFORMED	Sept. 18-22, 1984 DATE FILED: July 9, 1985
LOCATION – LAT.	60°14'
LONG.	135°31'
CLAIM Nos.	FACE 1-20; YA81944-963 FACE 21-28; YA81920-927
	29-30; YA81964-965
	31-38; YA81928-935
	39-40; YA81966-967
	41-48; YA81936-943
WORK DONE BY	M. P. Webster
WORK DONE FOR	Noranda Exploration Company, Ltd.
REMARKS	

091645

The claims are underlain by Paleozoic gneisses, schists, amphibolites and calc-silicates which have been intruded by Cretaceous granodiorite and diorite. Tertiary rhyolite plugs and dykes cut these units.

4ex 85 & 103

Thirty-four silt samples, 34 talus fine samples, 33 rock chip samples and 9 pan concentrates were collected and analyzed for Cu, Zn, Mo, Pb, Ag, As and Au. The results are summarized below:

SAMPLE TYPE	SIGNIFICANT ANOMALIES
Soil Silt	one weak anomaly for Zn,Ag and As
Talus Finc	one weak Zn,Pb anomaly
Rock	weak silver enrichment less than 13 ppm Ag in silicified rhyolite
Pan Concentrate	three anomalous Au values less than 1400 ppm

FACE 1-48 CLAIMS

GEOLOGY AND GEOCHEMISTRY

1984

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: May, 1985

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 $ 9600.00.

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

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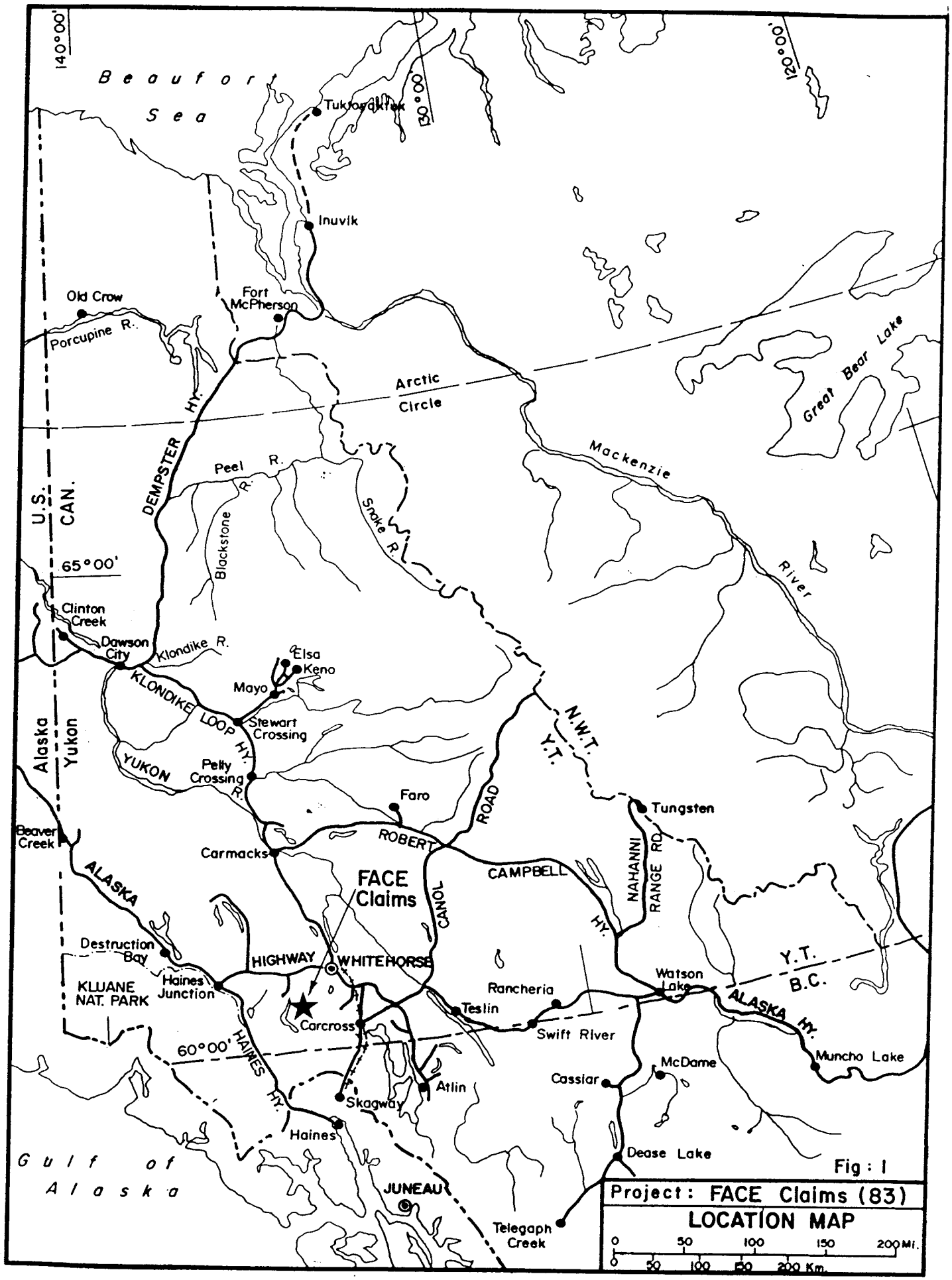
CHAPTER ONE: INTRODUCTION

1-1: INTRODUCTORY STATEMENT

Noranda Exploration Company, Limited staked the FACE 1-48 claims May 18, 1984 and conducted preliminary field work September 18-22, 1984. No previous work has been done by the company in the immediate claim group vicinity. 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.

Development of the Wheaton River area has been sporadic since the late 1800's, but peaked in the early 1900's, the late 1960's, and in the last decade. Recently, Agip-Erickson Gold Mines reported that the Mt. Skukum (Cirque zone) epithermal gold vein deposit contains 450,000 tons at an average grade of 0.7 opt Au. Shakwak Exploration Co. Ltd. reports a vein grading 0.34 opt Au and 8.5 opt Ag up to 0.76 metres wide over a potential length of 610 metres. There are more than twenty-five vein type mineral occurrences known in the Wheaton River area.



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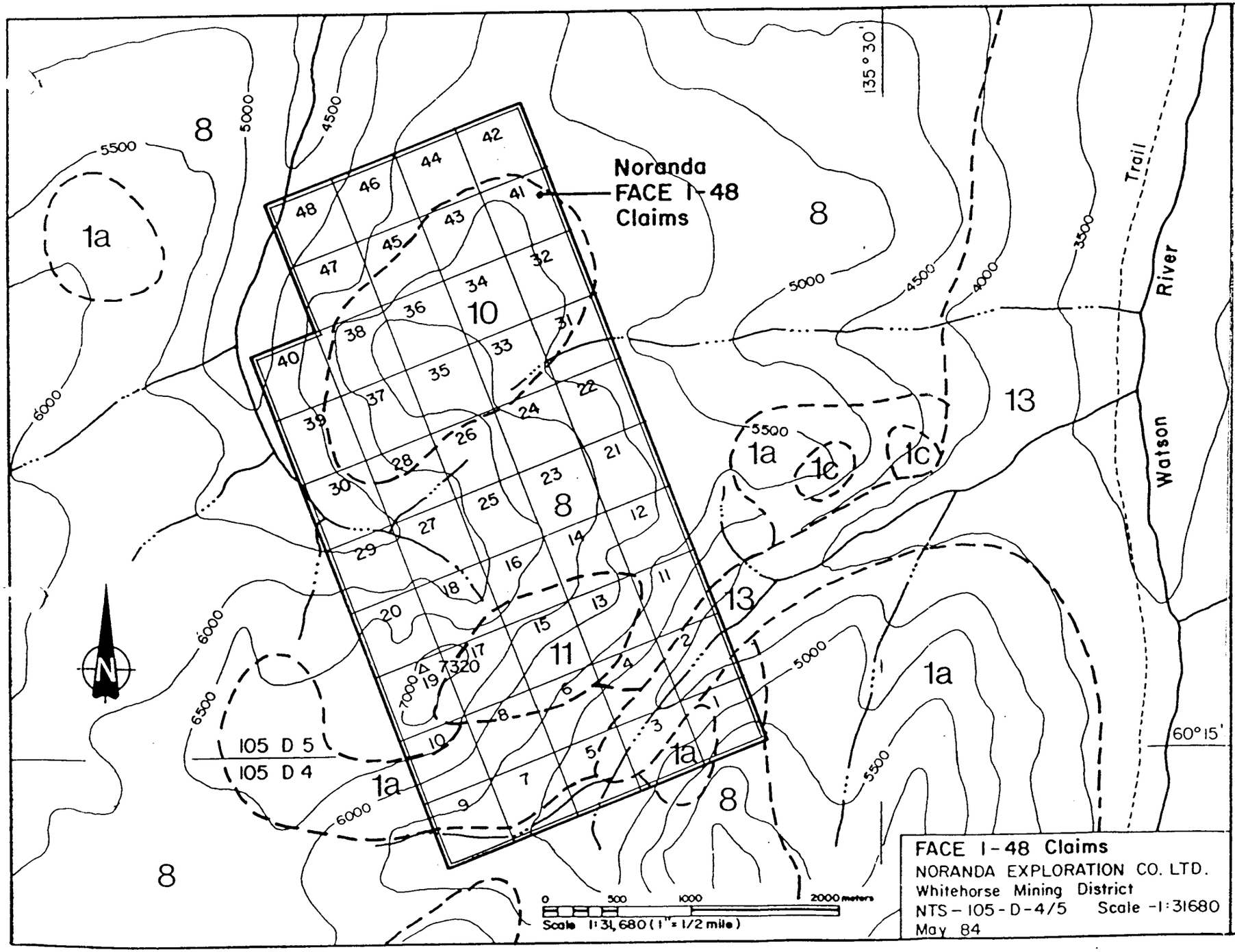

LEGEND

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

1-2: 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.

1-3: 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 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.

1-4: HISTORY of the PROPERTY

The FACE group was staked May 18, 1984 and recorded May 24, 1984 in Whitehorse (Figure 2). They were staked to cover one of the few remaining areas of favourable Tertiary Mt. Skukum rhyolite. Preliminary field work was conducted September 18-22, 1984. 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, 1986.

1-5: WORK PROGRAM

Preliminary field work was conducted on the FACE 1-48 claims from September 18 to 22, 1984. 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 and 1:5,000 scales from airphoto and N.T.S. maps 105 D/4 and 105 D/5 enlargements.

The exploration crew was camped at the south end of the property on the creek draining NE to the Watson River. Trans Canada Helicopters Ltd., based in Whitehorse, provided helicopter support with a Jet Ranger 206B. Mobilization from the Annie Lake road at Butte Creek required 1.2 helicopter hours including the ferrying time from Whitehorse.

The personnel involved in the program are listed below:

Mary Webster	Party Chief
Kim Heberlein	Senior Assistant
Carl Glaser	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).

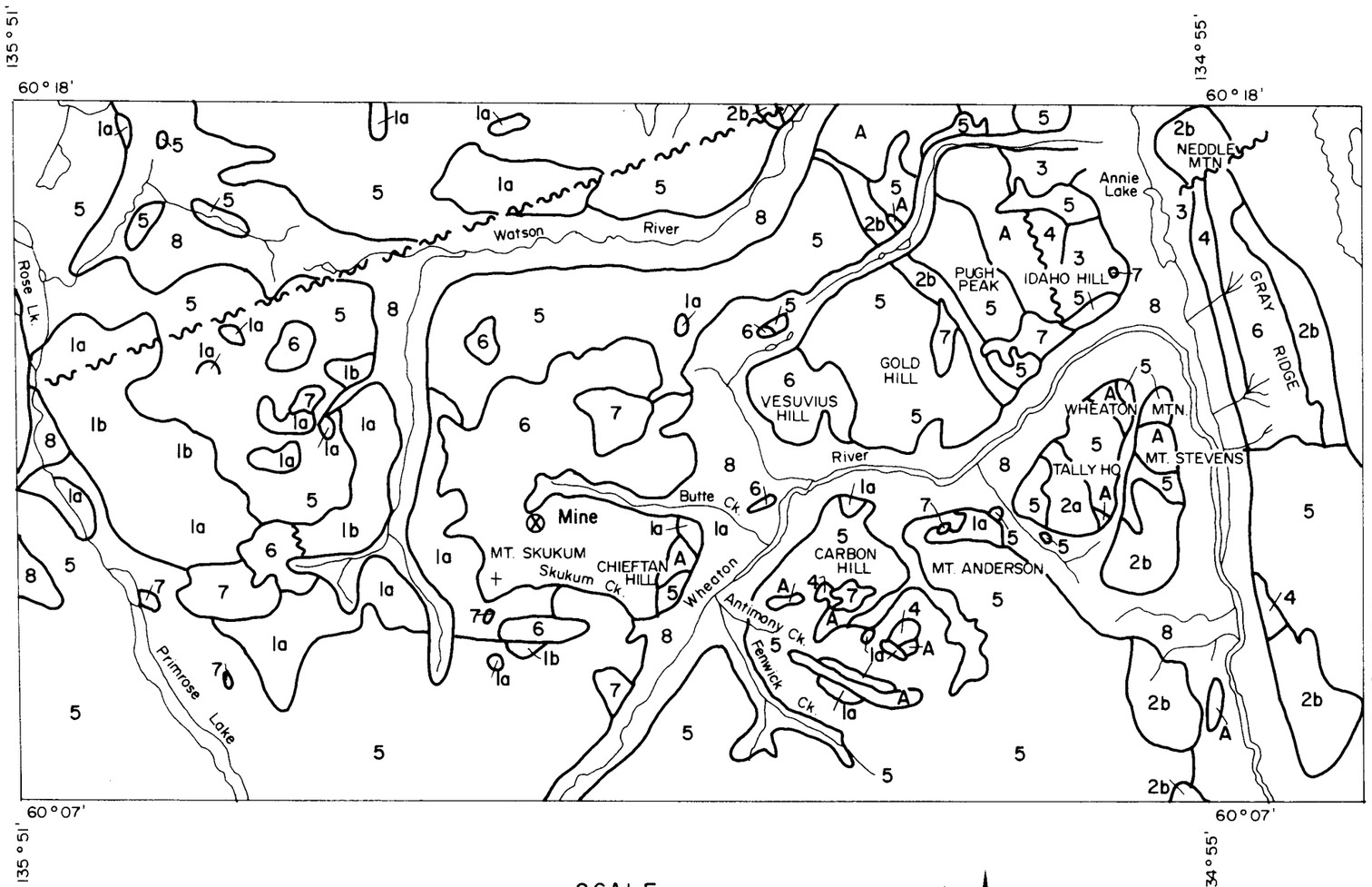
Lambert suggested that the Skukum region may represent a second caldera complex with grossly similar geology and structural characteristics.

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; felds-pathic gneiss, lit-par-lit gneiss; gneissic porphyritic granodiorite & quartz diorite



SCALE

0 5 10 15 km

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 Creataceous

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. 11	SURVEY BY: _____ DATE: MAY 85
N.T.S. 105 D	DRAWN BY: AI SCALE: _____
DWG. No.	NORANDA EXPLORATION
	OFFICE: Whitehorse

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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.

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:

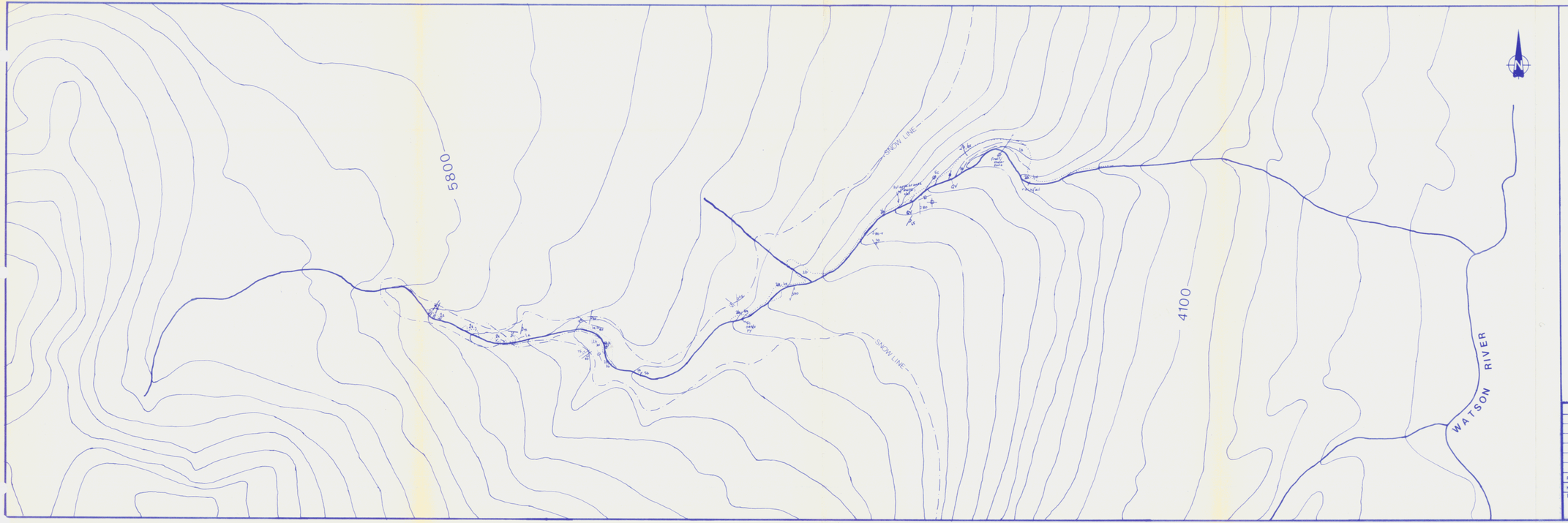
White to buff coloured dykes 0.15 to 25 metres wide of fine-grained to saccharoidal equigranular quartz and alkali feldspar. 1-5% pyrite (cubes up to 2 mm diameter). Contacts sharp, some muscovite along contacts.

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.

The Skukum volcanics present in the northern portion of the property and the upper cliff face were overlain by snow and could not be examined during this program.



LEGEND

GEOLOGY

5 INTRUSIVES
- a) APLITE
- b) PORPHYRITIC RHYOLITE DYKES
- c) MAFIC DYKES
- e) QUARTZ VEINS

CRETACEOUS

2 COAST INTRUSIVES
- b) HBLD - BIOTITE GRANODIORITE
- c) DIORITE

PRECAMBRIAN AND LATER

I YUKON GROUP
- a) QUARTZ MICA SCHIST & GNEISS
- b) LIMESTONE, CRYSTALLINE
- c) CALC-SILICATES

SYMBOLS

- bx breccia
- chl chlorite
- py pyrite
- musc muscovite
- outcrop
- schistosity
- foliation
- joint / fracture
- shear zone
- contact, real, assumed
- gradational
- snowline
- creek

0 250m.

Fig : 4

REVISED	FACE Claims
	DETAILED GEOLOGY
PROJ. No. 83	SURVEY BY: DATE: Sept. 84
N.T.S. 105 D/5	DRAWN BY: K.H. SCALE: 1 : 5,000
DWG. No.	NORANDA EXPLORATION
	OFFICE: Whitehorse

CHAPTER THREE: GEOCHEMISTRY

A reconnaissance stream sampling program was conducted by helicopter and ground traverses in order to sample all creeks draining the property and vicinity.

Summary statistical analysis of the geochemical results from silt, pan concentrate, and combined talus fines/rock samples have been computed (Tables 2, 3, 4). The anomalous threshold level is taken to be two arithmetic standard deviations above the arithmetic mean.

3-1: STREAM GEOCHEMISTRY

Pan Concentrate Sampling Program

Of nine pan concentrate samples taken, three samples were anomalous in gold (80, 830 and 1400 ppb Au) and one weakly anomalous in silver (1.0 ppm Ag). The 830 ppb and 1400 ppb gold anomalies are located 7.5 km west of the claim block in a wide valley drained by slow running streams. Downstream silt samples recovered only 10 ppb Au values. The 80 ppb Au anomaly is isolated in one narrow tributary 3 km southwest of the property. The silver anomaly is located in the gravels of the major NE draining stream of the south part of the property. This anomaly occurs in close proximity to the eastern contact of the rhyolite porphyry plug and is coincident with the talus fines and silt sample anomalies in this area. Statistical results of this program are listed in Table 2.

TABLE 2
STATISTICAL SUMMARY
Pan Concentrates

Number of Analyses: 9

	Au	Cu	Zn	Pb	Ag
Lowest Value	10	12	42	2	0.2
Highest Value	1400	44	86	18	1.0
Mean (Log)	35.6	21.7	59.9	5.8	0.24
Stand. Dev. (Log)	.892	.187	.123	.377	.232
Mean (Arith.)	263.3	23.6	62.0	7.8	.29
Stand. Dev. (Arith.)	503.96	10.53	16.64	5.61	.266
Anomalous Threshold	1271.22	44.66	95.28	19.02	0.822

Silt Sampling Program

A total of 34 silt samples were taken during this program. Three samples from the NE draining major stream are moderately anomalous in arsenic; 32, 32 and 36 ppm As. These were taken downstream from the rhyolite porphyry plug. Immediately west of the property, an isolated tributary returned 220 ppm Zn, 1.2 ppm Ag, 12 ppm As and will require detailed follow-up once the snow cover has melted. A statistical summary of this survey is listed below in Table 3.

TABLE 3
STATISTICAL SUMMARY
Silt Samples

Number of Analyses: 34

	Cu	Zn	Pb	Ag	Mo	As	Au
Lowest Value	14	48	2	.2	1	1	10
Highest Value	66	220	60	1.2	4	36	10
Mean (Log)	33.7	100.2	3.7	0.37	1.2	1.8	10.0
Stand. Dev. (Log)	.193	.163	.428	.210	.162	.541	.003
Mean (Arith)	36.9	107.5	7.2	.41	1.3	5.5	10.0
Stand. Dev. (Arith)	15.42	43.38	12.0	.209	.75	10.51	0
Anomalous Threshold	67.72	194.26	31.2	.828	2.8	26.52	10.0

3-2: ROCK and TALUS FINES GEOCHEMISTRY

Talus Fines Sampling Program

Thirty-four talus fines and outcrop chip samples were taken at 25 metre intervals at the 5500' elevation contour. This line covered the east and west contact of the rhyolite plug and granitic or Yukon Group country rocks. The highest base metal anomaly was found in sample 65646; 200 ppm cu, 620 ppm Zn, 1300 ppm Pb, 3.4 ppm Ag, 10 ppb Au and 20 ppm As at the east rhyolite-granodiorite contact. To the west 225 metres from this sample, a low gold (40 ppb Au) anomaly was found in rhyolite.

Rock Sampling Program

Thirty-three rock samples were taken with specific emphasis on sampling the rhyolite plug, rhyolite and aplite dykes, quartz-carbonate veins, shear zones and alteration zones. Sampling was done primarily along the base of the cliff face and those gullies free from heavy snow cover.

Samples R68992 and R68993 (Appendix A) show slight silver (1.4 and 13.0 ppm Ag respectively) enrichment in strongly silicified rhyolite.

Quartz veins (samples R65623, R65624, R68988) usually accompanied by chloritic, carbonate or sericitic alteration show Ag, As and Au values above the arithmetic mean.

The mafic and aplite dykes sampled did not prove anomalous in precious metals although abundant pyrite may have been visible (see Chapter 4-2: Local Mineralization).

A statistical summary given below in Table 4 combines those results of both talus fines and rock sampling programs.

TABLE 4
STATISTICAL SUMMARY
Talus Fines/Rock

Number of Analyses: 67

	Cu	Zn	Pb	Ag	Mo	As	Au
Lowest Value	4	6	2	.2	1	2	10
Highest Value	1000	620	1300	13.0	16	100	40
Mean (Log)	35.3	65.6	6.7	.29	1.8	3.1	10.8
Stand. Dev. (Log)	.421	.411	.539	.330	.345	.453	.115
Mean (Arith)	60.1	95.2	31.0	.55	2.7	8.4	11.3
Stand. Dev. (Arith)	121.89	90.85	158.50	1.610	2.96	20.16	4.89
Anomalous Threshold	303.88	276.90	348.00	3.77	8.62	48.72	21.08

CHAPTER FOUR: MINERALIZATION

4-1: REGIONAL SUMMARY

Three mineralized vein types have been described in the Wheaton River area by Cairnes (1912), Cockfield and Bell (1944) and Wheeler (1961). These are gold-silver, antimony-silver and silver-lead deposits.

Gold-silver veins are found as fissure type veins in the Cretaceous granitic Coast Range intrusions on Wheaton Mountain and Mt. Anderson. Mt. Stevens and Gold Hill host gold-silver vein deposits in the greenschist facies rocks of the Lewes River Group associated with granitic intrusions. Both vein occurrences are compositionally uniform and structurally persistant. The dominant sulphides are pyrite and galena. Minor native gold and gold-silver tellurides may be present in the quartz or calcite gangue components.

Antimony-silver veins are typically hosted by Coast Range intrusions and old volcanic rocks of uncertain age cut by porphyritic granitic rhyolitic dykes. Quartz is the dominant gangue mineral with significant calcite and barite. Argentiferous stibnite is the chief metallic mineral yet galena, sphalerite, jamesonite, tetrahedrite, arsenopyrite and other Ag-Pb-Sb sulphides may be present.

The silver-lead veins parallel the bedding planes of the Laberge Group greywackes on Idaho Hill. These tabular or podlike replacement deposits host argentiferous arsenopyrite and galena with minor pyrite,

sphalerite and chalcopyrite. Quartz and/or calcite are the dominant gangue minerals.

Mineralization is thought to be linked to the doming and subsidence of the Skukum caldera volcanic complex. Buchanan's (1981) model of epithermal precious metal vein deposits describes temporal and vertical zonation of vein fractures related to a caldera environment. The epithermal model outlines only a genetic classification of vein deposits where vertical zonation passes with depth from agate and clays at the paleosurface to calcite, zeolites, agate, stibnite, realgar and gold; then quartz, calcite, pyrite, barite, pyrite and gold (silver); then quartz, adularia, sericite, pyrite, calcite, chlorite, fluorite, gold, silver, (lead, zinc and copper); then quartz, fluorite, pyrite, chlorite, silver, lead, zinc and copper.

Should this theory be applicable to the Wheaton River area, the three types of veins previously described in this section may reflect only erosional levels of a "typical" epithermal deposit. Carbon Hill (POP claims group) exemplifies this idea in that lenses of barite and quartz pass into stibnite, then gold-stibnite assemblages at depth. The Mt. Skukum gold deposit is a carbonate-gold vein probably representing higher levels of the vertical zonation sequence. The general observation of quartz-calcite-barite gangue mineral assemblages in the Wheaton River area suggests an epithermal origin for these vein deposits and provides an exploration guide to buried precious metal deposits.

TABLE 5

ECONOMIC GEOLOGY — WHEATON RIVER AREA - SUMMARY OF KNOWN DEPOSITS — Page 1

LOCATION	CLAIM GROUP	COMMODITIES	DESCRIPTION	PRODUCTION/ASSAYS
Mt. Stevens Area 135 deg 00', 60 deg 13' 105 D/3E	Hawkeye Group	Au, Pb, Cu	Two quartz vein 0.5 m and approx. 1.0 m wide within Lewes River Group green schists. The veins parallel schistosity of country rock and have a slight impregnation of galena and chalcopyrite.	1972 - Pyrite and galena samples of quartz assay 0.01 oz/t Ag, 0.002 oz/t Au; background base metal values recovered from soil sampling.
	Acme Claim	Au, Pb	Large lenticular quartz lens 9 m wide 30 m long parallel to foliation of chloritic, sericitic schists. Full strike length not determined due to burden cover. Minor galena and pyrite.	
	Midnight Group	Au, Ag, Pb	Lewes River Group green schists and greenstones are cut by granite porphyry dykes up to 10 m wide and by basalt dykes up to 2 m wide and/or a series of parallel crossfaults. The porphyry dykes are sericitized and host many qtz stringers locally containing native gold and gold bearing pyrite and galena. Cockfield regards the intersection of the granitic porphyry dykes and crossfaults as the most favourable ore shoot location.	
	Hidden Ore Group (adjoining the Midnight Group)	Au, Ag, Pb, Zn, Cu	Numerous qtz-porphyry and granite porphyry dykes intrude Lewes River Group green schists at the contact to a granodiorite body probably part of the Cretaceous Coastal intrusions. A high amount of fracturing of the dykes followed by quartz infilling up to 5 cm wide is accompanied by the occurrence of native gold, galena, pyrite with minor sphalerite and chalcopyrite. Gold occurs locally in cubical cavities with limonite.	Workings expose mineralized and fractured dykes at elevations 1675 m (5500') and 792 m (2600').
	Buffalo Hump Group (Golden Slipper, Sunrise, Wheaton) 60 deg 14', 135 deg 00'	Au, Pb	Golden Slipper: Quartz float containing minor disseminated galena, free gold and sylvanite, hedleyrite, tellurbismuth and hessite. Sunrise: Most persistant vein of the group. Ave. 1 m wide exposed over 15 m, 315 deg/35 deg NE vein fissure in granodiorite sparsely mineralized with galena, pyrite and native gold.	Golden Slipper 1909 - 26 m drift with 6 m x-cut. 1923-27 - 15 m drifting. Now held by Tally-Ho Expl. Three grab samples ave. 1.61 oz/t Au, 31.1 oz/t Ag.

LOCATION	CLAIM GROUP	COMMODITIES	DESCRIPTION	PRODUCTION/ASSAYS
Wheaton Mountain 135 deg 05', 60 deg 14' 105 D/3E	Wheaton Mt. Claims (McDonald Fraction, Gopher, Silver Queen) 60 deg 15', 135 deg 02'	Ag, Pb, Au	McDonald: Quartz vein in granodiorite fissure 313 deg/90, massive and comb. and banded character. Argentiferous galena. Gopher: Irregular 2 m wide quartz lens containing disseminated galena in greenstone and green schist of Lewes River Group. Silver Queen: 1 m wide quartz vein in granodiorite hosting galena, pyrite	McDonald Fraction: pit - 0.05 oz/t Ag, 0.08% Pb 16 m shaft; 0.16 oz/t Au, 12.7 oz/t Ag Restaked 1983; Tally-Ho ECL Silver Queen: pit 0.84 oz/t Au, 0.50
Mt. Anderson Area 60 deg 12' 135 deg 09' 105 D/3	Mt. Anderson (Whirlwind, Becker-Cochran) 60 deg 12', 135 deg 09'	Au, Ag, Pb, Zn	Whirlwind (Lower vein): 0.1-1.8 m vuggy quartz vein cuts granodiorite and is locally cut by basalt dykes. Galena and pyrite are erratically distributed. 1947 test shipment: 1.0 oz/t Au, 12.6 oz/t Ag, 11.69% Pb, 5.2% Zn 1968 Adanac trenching: 1m wide, 15m long ore shoot ave. 2.0 oz/t Au, 5 oz/t Ag. Upper vein: 270/90, outcrops 60 m above lower vein 0.8 m of rusty quartz bounded on both sides by 0.5m of vuggy qtz and discontinuous galena lenses. Sheared granodiorite wall-rock. Basalt dykes occur locally. Intermittent exposure to the SE of continued vein material.	Staked 1906 & 1909 - two adits 12 m and 27 m drift on Whirlwind. 1912 - small mill built, no record of production. 1915: #1 adit - 98 m drifted; 45 m on lower vein #2 adit - 100 m drifted on upper vein #3 adit - 22 m and 10 m x-cut on a different vei #4 adit - failed to intersect a vein Restaked in 1926, 1934, 1944, 1947, 1951, 1957, 1960, 1962, 1964, 1968, 1974, 1977, and finally as Tam group in 1978. Work during this time entailed hand and bulldozer trenching, small sampling programs, one geophysical survey (1979) and one test shipment sent to the Trail Smelter after property examination by Keno Hill (1947).
	Becker-Cochran property (Yukon Antimony) 60 deg 11', 135 deg 13'	Ag, Pb, Zn, Ni, Ba	Shear zone 310/75 deg SW, 2m wide, 300m strike length hosts lenses of quartz, barite cut by a rhyolite dyke and old andesite (unit A). Poor surface expression of grey, red, yellow gangue, some massive sulphide boulders. Mineralization: stibnite with minor pyrite, sphalerite, realgar, orpiment galena, tetrahedrite in quartz and minor barite gangue. Yukon Antimony: 1.5m width, 100m length shear zone in Adit #1, grades 4.8% Sb, 0.6% Pb, 0.9 oz/t Ag. 1964: 23,000 tons 3.6% Sb over 2 m width. Dept. of Mines: 331 kg selected bulk sample from surface pit: 11.21% Sb, 0.27% Zn, 0.024% Pb, 0.004% Cu, 0.12% Ni, 0.81% Fe, 5.64% S, 0.01 oz/t Au, 0.03 oz/t Ag, 73.7% insolubles.	Staked July 1907 no info avail. Restaked 1915: trenching, 30 m adit. Restaked 1948, by 1951 numerous bulldozer pits, 27 m adit. Restaked 1964 by Yukon Antimony: trenching, mapping and sampling, 3 adits (1415') and 567 m drilling (about half underground). Bulk sampling by Dept. of Mines & Technical Surveys. May 1973 restaked by E. Bergvinson - mapping, geochem, road building, underground rehabilitation, 550 m drilling (7 holes). 1980 stripping D8, EM survey, geol. mapping, sampling.
	Fleming 60 deg 13', 135 deg 14'	Cu, Zn, Pb, Au, Ag	Yukon Group roof pendent within granodiorite. Coast Intrusion hosts garnet-epidote-calcite-magnetite skarn. Discontinuous 7-25 cm wide lenses, mineralization includes cyp, bornite, specularite and pyrite.	Staked as Fleming claims July 1909 by H.E. Porter: hand pitting Restaked by Yukon Antimony 1965: bulldozer trenching Transferred to New Ridge M.L. 1978: trenching, mag & Em survey, 7 (538m) percussion holes; best assays from mag high drill holes 0.6% Zn, 0.05% Pb

LOCATION	CLAIM GROUP	COMMODITIES	DESCRIPTION	PRODUCTION/ASSAYS
Tally-Ho Gulch 105 D/3E	Tally-Ho Group 60 deg 15', 135 deg 03'	Au, Ag, Pb	A brecciated fault zone up to 4 m wide 315 deg/65 deg NE in Coastal intrusive granodiorite cut by Tertiary dykes. Disseminated argentiferous galena in 0.5-1 m wide footwall silicified fault zone. Fault gouge is clayey and alteration of galena to cerussite observed within 3 m of the surface.	Main Adit - 1280 m elevation, 213 m drift and short drifts (15 m and 22 m) 1912: 0.7 oz/t Au, 2.7 oz/t Ag 1917: handcobbed, 14,628 ton test shipment to Tacoma Smelter; 2.34 oz/t Au, 5.1 oz/t Ag, 6.85% Pb 1966: 0.6 oz/t Au, 4.2 oz/t Ag, 6.8% Pb Adit - 1283 m elev., 137 m drift and 45 m x-cut. No ore intersected. 1966: drilling, adit rehabilitation, no mineralization intersected. 1983: Tally-Ho ECL; mapping, geochem, mag, EM surveys, trenching, underground rehabilitation.
Carbon Hill Area 60 deg 12', 135 deg 15' 105 D/3	Porter Vein 60 deg 11', 135 deg 17'	Sb, Ag, Au, Zn, Pb, Cu, Ba	15-20 quartz-biotite veinlets in granitic rocks and occasionally cut andesitic (unit A) roof pendants. Sporadic pockets of argentiferous stibnite and sphalerite with minor galena, tetrahedrite, zinkerite, chalcostibnite, plagionite, covellite. Underground exploration reportedly recovered assays 20% Sb, less than 5 oz/t Ag, 5% Pb, 0.25 oz/t Au over 7-20 cm widths.	1898 - trenching as PORTEL, EMPIRE, EXCELSIOR claims 1906 - restaked, 355 m drifting 1941- restaked, workings rehabilitation 1964 - Yukon Antimony Corp: sampling, bulldozer trenching 1976 - Con-Am Res. Ltd: EM survey, 10 drill hole (672 m) - best intersection 8.2% Sb, 2.0% Zn over 0.4 m.
	Goddell Vein 60 deg 12', 135 deg 7'	Sb, Au Pb, Zn, Ag, Cu	3-4 parallel quartz veins up to 1 m wide x-cut granite within 15 m wide shear zone traced 250 m on surface. Sporadic small occurrences of stibnite with pyrite, jamesonite, sphalerite, galena, and arsenopyrite. A grab sample assayed 7.7% Sb, 0.09 oz/t Au, 0.3 oz/t Ag	1906 - staked by C. Goddell: trenches and a short adit 1958 - restaked by Prospectors Airways 1965 - restaked by Yukon Antimony Corp. Ltd.: trenching 1976 - Con Am Res. Ltd. restaked, mapped and sampled 1984 - restaked as POP claims; M. Barker
Mt. Skukum Area 60 deg 11', 135 deg 23' 105 D/3	Morning Vein 60 deg 12', 135 deg 21' (SE face of Chieftan Hill)	Sb, In	Strong fault 12 m wide strikes east, vertical dip hosts quartz veinlets within andesite (unit A). GSC reports max. vein width 1.2 m. Lumps of quartz in vein contain stibnite and locally some sphalerite. Hand picked sample, taken by Bostock, yielded 49.9% Sb.	1906 - staked as 14 Morning, etc. by Eisenhauer: hand trenching 1951 - restaked as Chief by W. McAlister 1964 - restaked and optioned to Yukon Antimony Corp. Ltd: tote road 1965 - bulldozer trenching 1981 - restaked as Chief by M. Johnson.
	Skukum Porphyry 60 deg 11', 135 deg 23'	Cu, Ag	Granitic breccia hosts chalcopyrite and pyrite at the contact between granodiorite, Skukum group and a volcanic complex. The zone of weak to mod. silicification, chloritization, biotization, kaolinization to the potassic facies is 365 m long, 15 to 120 m wide on the cliff face. Some native copper present.	1907 or earlier - staked as Skookum, no records 1966 - Yukon Antimony Corp. Ltd: IP survey, 276 m drilling (2 holes). IP anomaly drilled (228m) intersected pyrite only. Second hole abandoned at 48 m in talus. 1971 - Archer Cathro & Assoc: mapping & sampling 1975 - restaked Berglyn Res. Ltd. Grab samples from outcrop: 0.1-0.5% Cu, up to 0.20 oz/t Ag

LOCATION	CLAIM GROUP	COMMODITIES	DESCRIPTION	PRODUCTION/ASSAYS
	Mt. Reid Vein 60 deg 10', 135 deg 24'	Au, Ag Pb, Zn, Sb	Two quartz vein 30-100 m apart cut granodiorite and ardesite roof pendant. North vein: 0.6 m wide, occasionally up to 7.6 m wide within a fracture zone South vein: 3-5 m wide, vertical dip, adit workings show 3 m vein widths. Mineralization consists of galena, sphalerite, pyrite, stibnite and arsenopyrite 1936 - 7 channel samples ave. Au(oz/t) 0.277 Ag(oz/t) 17.3 Sb(%) -- 1974 - best sample 1.5 m width 0.38 36.4 1.02 Geochemical sampling outlined two areas anomalous in Au, Ag and Sb.	1922 - 12 m adit, trenching, shallow shafts 1938 - trenching, road building and restaked as Strenbraten by J. Strenbraten 1935. 1937 - 30 m adit North vein; 300 m of pits and cuts to South vein. Restaked 1953, 1962, 1963 1965 - Yukon Antimony Corp; tote road, bulldozer trenching 1973 - restaked as WH claims by El Paso Mg and Milling; mapping, rock and soil sampling. 1975 - Con-Am Res. option; mapping, sampling, EM survey, road rebuilt; option dropped 1979. 1980 - transfer to E. Bergvinson
	Berney 60 deg 10', 135 deg 30'	Sb	Roof pendants of Yukon Group metasediments in Coast Range granodiorite cut by a small stock of Tertiary group volcanics.	No records of assessment work prior to 1923. GSC noted in 1915 antimony showing on both sides of Mt. Reid found by E. Johnson. 1975 - restaked by Can Superior EL; mapping, soil survey. 1980 - restaked by J. Millhouse; mapping, geochem 1982 - restaked by Agio Can.; mapping, geochem
	Charleston Vein (Mascot) 60 deg 10', 135 deg 30'	Au, Ag, Pb Cu	Quartz vein: ave. 45 cm wide. Pyrite, minor galena occasional malachite. Diorite host. Alteration envelope up to 1.5 m on either side of vein. Au(oz/t) Ag(oz/t) 2m vein (grab) 0.11 1.5 Sample ave. from 13 trenches along 600m strike length 0.34 8.4 (across 0.64m) Grab samples up to 12.65 149.0	1907 - staked as Mascot and Charleston by C. Weik, up to 1954 rock trenches and adits (1922, one 60 m adit) 1980 - Amoco MP Expl. and Chevron; geochemistry 1983 - restaked as Earl cl (YA77893) by Agio Can
West Wheaton River Area approx. 60 deg15' 135 deg 45' 105 D4/3	Bostock (Vein?) 60 deg 13', 135 deg 35' 105 D/4	Sb	Yukon Group metasediments occur as roof pendants in Coast Range granodiorite.	The GSC reports that prior to 1948 E. Johnson found stibnite "on the west side of the head of Watson River". Prior to 1987 the Porcupine and Dall claims were staked in this area. No records preserved.
	Rose Vein 60 deg 21', 135 deg 51' 105 D/5	Ag, Au Pb	Galena and pyrite occur in a slightly rusty quartz vein up to 9 m wide, 600 m strike length that cuts pyritic rhyolite and dacite porphyry of the Skukum Group. Au(oz/t) Ag(oz/t) Pb(%) 3 selected specimens ave. (Worbett) 0.27 25.6 Mineralized qtz sample 0.25 15.4 11.9 Assays over 10m up to 0.45 1982 work indicated very low average grades.	Discovered 1949 by T. Worbett Staked 1962 by W. Newmanishin Restaked 1967, 1973, 1979 1982 restaked as Primrose Cl. by Cominco; mapping, geochem and rock sampling

LOCATION	CLAIM GROUP	COMMODITIES	DESCRIPTION	PRODUCTION/ASSAYS
	Primrose Skarn 60 deg 16', 135 deg 57' 105 D/5	Zn	Weak skarn zone 15 m wide and 90 m long developed in a thin limestone horizon of the Yukon Group which has been intruded by Creatceous granodiorite. Some sphalerite mineralization.	Staked in 1968, 1971, 1972 Restaked 1981 by Westfort Pet. L.; mapping, geochem and channel sampling.
Gold Hill District 105 D/6 135 deg 07', 60 deg 18'	Gold Reef Claim 60 deg 18', 135 deg, 08'	Au, Ag Pb, Cu	Quartz vein 305/55 deg SW parallels, occasionally crosscuts the foliation host Lewes River Group greenstones & schists. Traced over 300 m ave. 1.5 m wide, small lenses of aspy, galena, argentite, chalcopyrite, and pyrite. Native gold may occur disseminated or in pockets as small spongy masses including sylvanite (Au,Ag)Te hessite, petzite and telluric ochre.	1909: approx. 100 m of drifts, cross-cuts and shafts. One ton of ore shipped.
	Dail Ck 60 deg 17', 135 deg 07'	Au, Ag, Te	Quartz vein 278/80 deg SW, 20-50 cm wide occurs in a fissure in granitic rocks at an elevation of 1463m (4800'). Disseminated galena and minor sylvanite.	13 samples (oz/T) Au Ag OV 35 cm (14") 0.25 0.75 OV 50 cm (20") 0.11 1.99 Ave. mineralized specimens 1.51 15.75 Now held by Tally Ho ECL
	Lucky Boy (SE of Legal Tender)	Cu	Quartz vein striking NW in green schists containing chalcopyrite, chalcocite and malachite.	1909, frozen felsenmeer caused difficulty in uncovering 2-3 sq. m.
	Legal Tender 60 deg 21', 135 deg 14'	Ag, Pb, Cu	Fine crystalline quartz vein locally exhibiting a coarse comb structure strikes NW and has a near vertical dip in granodiorite. Metallic minerals argentiferous galena & minor chalcopyrite.	1909 - one 30 m drift, trenching, bulldozer trail. Assays reported up to 100 oz/t Ag 1977: dump sample, 9.5 oz/t Au, 18.6 oz/t Ag and 25.3% Pb. Now held by Tally-Ho ECL.
Idaho Hill Area 60 deg 20', 135 deg 02' 105 D/6	Union Mines 60 deg 19', 135 deg 02' 105 D/6 (Export, Idaho Hill, Lost Mines, Nevada Mines)	Ag, Pb Zn, Au, Cu	Zone 1: at least a dozen 10-30 cm wide, traced up to 30 m length quartz-calcite veins cut Laberge Group greywackes and tuffs are found within an area 120 m x 365 m. Mineralization in the vein gangue and walls consists of galena, arsenopyrite, minor sphalerite, pyrite and chalcopyrite. Grades from early work: 50 oz/t Ag, 40% Pb, 0.1 oz/t Au. Zone 2 (uphill from Zone 1): 8 m wide vein contains 3 bands of sulphides approx. 0.5 m wide. Ag(oz/t) Pb(%) Zn(%) Au(oz/t) Best assays (grab) 127.0 43.0 6.0 (1964) 7.6 m chip sample from trench 3.5 2.5 1.0 0.06 (1964) Selected sample from trench 41.4 27.7 1.6 0.20 Zone 3: New (1978) showing consisting of narrow, NW/70 deg SW qtz-carbonate vein, weak galena, sphalerite, chalcopyrite and pyrrhotite mineralization.	Reportedly staked 1893 by Thomas Kerwin. Staked 1898 as Union Mines claims by W.P. Schnab 1906 - 10 tons of hand cobbed ore at $20.00/ton shipped. By 1909, 3 adits (longest adit 41 m). Restaked 1927, 1946, 1951 (mapping, trenching, rehabilitation) 1957 - hand, bulldozer trenching 1964 - Optioned to Cominco; bulldozer trenching, mapping, geochem, geophysics. 1971; soil samol 1972; EM survey and in 1974 bulldozer trenching Restaked 1976 by Dumb Donkey ML; optioned to Whitehorse Copper ML 1978 - mag, EM, IP surveys trenching. Transferred to Annie Lake ML 1979 - mapping, geo geophysical surveys. Transferred in 1981 to Doug Baird, then in 1983 Avid Gold Res. Inc.; trenching.

4-2: LOCAL MINERALIZATION

Examination of Appendix A shows that mineralized samples appear to be associated with siliceous alteration and/or quartz veins. Sample R68893 was taken from a narrow (0.7 m) shear zone within the rhyolite plug and is permeated with hairline quartz stringers, minor disseminated chalcopyrite and pyrite. Strong silicification and minor molybdenum is seen in a nearby float sample (R68992) of the same rhyolite. The source of this sample has not yet been found but detailed prospecting of this gully is certainly warranted when snow cover is completely gone.

Elsewhere the greatest potential of economic mineralization is found in quartz and quartz-carbonate veins. Generally, if the vein carries some limonite, chlorite or muscovite gangue minerals, an arsenic and weak gold anomaly is seen. Base metal enrichment is observed in quartz veins and siliceous rhyolite where sulphides are visible.

No mineralization of economic interest was found in the quartz-mica schists and limestones of the Yukon Group. The aplite dykes proved economically disappointing and appear younger in age than the rhyolite plug and accompanying stockwork.

It should be noted that heavy snow cover hampered climbing and severely limited outcrop exposure. Observations and conclusions of economic potential of this property are therefore incomplete. The weakly auriferous-intensely silicified zones related to the rhyolite plug are potentially of economic interest.

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

The FACE 1-48 claims are underlain by the Precambrian Yukon Group metasediments intruded by Cretaceous granitic Coast Intrusions. Remnant Skukum volcanics lie unconformably above this assemblage. A high level Tertiary rhyolite porphyry plug crosscuts the Yukon Group and Coast Intrusions in the south part of the FACE claim block. Associated rhyolite dykes may be accompanied by minor intrusive breccia. Later aplite and mafic dykes are seen to crosscut the Yukon Group and Coast Intrusion granites.

Detailed mapping, rock and talus fines sampling and stream reconnaissance has shown that economic mineral potential may lie in the vicinity of the Tertiary rhyolite plug and related dykes. Intense zones of silicification, shear zones and quartz or quartz-carbonate veins have proven slightly enriched in base and precious metals. Aplite dykes have not yet proven to be of economic interest.

Heavy snow cover severely hampered climbing conditions and outcrop visibility. Because the cliff face offers excellent exposure of the Tertiary rhyolite it is strongly recommended that field work be conducted in July or early August in future exploration programs.

Geological mapping, sampling and prospecting should be completed in the north part of the claim group.

Detailed geological mapping, prospecting and talus sampling of the Tertiary rhyolite plug is recommended. Delineation of the previously cited silicified zones and accompanying precious metal

enrichment is imperative.

Follow-up prospecting and detailed stream sampling is recommended for those gold anomalies found in silt samples west of the property.

A soil sampling program is recommended in the southern plateau area within closer proximity of the rhyolite plug. The width of the plug is projected to be no more than 2000 metres and sampling of several lines at 25 metre spacings is suggested in order to detect any vein deposits beneath this over burden covered area.

Respectfully submitted,

Mary Webster

Mary Webster
Field Geologist

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

NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COSTS

MAY, 1985

PROJECT: FACE

TYPE OF REPORT: GEOCHEMICAL, GEOLOGICAL

DATES FROM SEPTEMBER 18-22, 1984

a)	**Wages** - including report preparation, drafting and secretarial services		
	No. of Days - 30 mandays Rate per Day - $173.94 Total wages (30 x 173.94)	$5218.06	
b)	**Food and Accomodation**		
	No. of Days - 15 Rate per day - $63.47 Total Cost (15 x 63.47)	952.11	
c)	**Transportation and Fuel**	2577.40	
d)	**Expediting and Communications**	175.00	
e)	**Sample Analysis**	909.00	
	Sample Shipment	227.60	
	TOTAL COST		$10059.17

NORANDA EXPLORATION COMPANY, LIMITED

DETAILS OF ANALYSES COSTS

Project: Face

Element	No. of Determinations	Cost per Determination	Total
Cu	101	1.60	161.60
Zn	101	.60	60.60
Pb	101	.60	60.60
Mo	101	.60	60.60
Ag	101	.60	60.60
Au	101	3.50	353.50
As	101	1.50	151.50
Total			$909.00

VANCAL 11917

Noranda FACE 1-48 Claims

Inset "A"

See Inset "A"

Snowline

105 D 5 60°15'

105 D 4 135°40'

Legend

6 ALLUVIUM

5 INTRUSIVES
(a) aplite (b) porphyritic (c) mafic (d) felsic

TERTIARY or EARLIER

4 RHYOLITE
massive to porphyritic; quartz - feldspar.

3 SKUKUM GROUP
undifferentiated andesite, basalt, 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

Scale 1:10,000

Fig.: 5

091645

REVISED	FACE Claims
	Geology
PROJ. No. 83	SURVEY BY: DATE: SEP 84 / MAY 85
N.T.S. 105 D 4/5	DRAWN BY: AI SCALE: 1:10,000
DWG. No	NORANDA EXPLORATION
	OFFICE: Whitehorse

APPENDIX 1

ROCK SAMPLE DESCRIPTIONS AND GEOCHEMICAL RESULTS

SAMPLE NO.	LOCATION & DESCRIPTION	TYPE	ASSAYS Cu	Zn	Pb	Ag	Mo	As	Au
35932	Aplite dyke, creamy white thru, 1.16 m wide weathered py?, minor epidote along fractures, in granodiorite host, 135/90 deg, extends at least 25 m.	grab	12	40	20	0.4	<2	<4	10
35933	As 35932, no Py, ~7 cm wide, 84/3 deg N Diorite host.	grab	40	66	16	0.4	<2	<4	10
35934	As 39533, 15 cm wide, 15 m strike length, 142/90 deg, granite host.	grab	20	40	12	0.2	<2	<4	10
72173	As 35932, 7 cm wide, 20/78 deg E, minor dissem. biot. py? in sedimentary host, 180 metres on talus line	grab	80	20	2	0.2	<2	<4	10
72174	As 35932, 5-15 cm wide, 15 m strike length, parallel to host Yukon Group sedimentary bedding (92/32 N), sample taken at 718 m on talus line.	grab	16	40	10	0.2	<2	<4	10
72175	Rhyolite, gry-white, f.g., brn-white weathered surface, small vugs (~1 mm dia) with limonite, py, minor cpy.	grab	74	90	14	0.8	8	<4	10
68994	As 72175, rusty, no vugs or mineralization visible.	grab	44	200	30	0.6	<2	<4	20
R65623	Quartz-carbonate vein, (talus)(s/c?) coarse crystalline to white quartz vein - 15% brown massive to crystalline ankerite on selvage and in centre. 2-3% of small lim. cubes (py?).	grab	22	12	2	0.4	<2	92	20
R65624	Quartz vein 5 cm wide in limestone. Weathers very limonitic. Some boxwork in vein possibly dissolution. No visible sulphides.	o/c	22	14	2	1.4	<2	24	20
R65625	Basic Dyke/Pyritic envelope. Med. gy-gn f.g. basaltic dyke ~1 m wide, irregular thin pyritic envelope, ~3% max. dissem. f. to med. grained blebby py.	o/c	24	82	2	0.4	<2	<4	10
R65626	Shear/Fracture zone in med.-c. grd. equigranular GDIO. - v. rusty but no vis. sulphides. Limonite.	o/c	8	52		0.2	2	<4	10

SAMPLE NO.	LOCATION & DESCRIPTION	TYPE	ASSAYYS Cu	Zn	Pb	Ag	Mo	As	Au
R68976	Aplite Dyke: Light beige, fine grained 1/2 m wide, 62/65 deg W, (strike length 10 m), chl margins and wisp veinlets within dyke, minor py. Host: hbld diorite. .	grab	4	6	2	0.2	<2	<4	10
R68977	Aplite Dyke: as 68976, slightly gray in colour, 159/82 deg S, less chl + py.	grab	4	22	2	0.2	<2	<4	10
R68978	Diorite: Silicic-Chl rich phase. Po 5%, py 2%; fine grained dissem. part of Yukon Group. Strong silicif., med. green colours, slight schistosity, rusty weath. surface.	grab	170	26	2	0.2	<2	<4	10
R68979	Qtz lens: white, massive "sweated" out qtz in strongly schistose hbld diorite, (width 30 cm, length 1.5 m), minor rusty spots py?, minor chl along fract. rusty surface, non friable	grab	6	10	2	0.2	<2	<4	10
R68980	Aplite Dyke: as 68977, 76 Py cubes up to 2 mm dia., dissem. + often rusted out (4-5%), obscure strike/dip, width 10 m, strike length at least 20 m bending over itself uphill. Host: hbld diorite, margins clean with only narrow 10 cm slight hornfelsing of host.	grab	4	12	2	0.2	<2	<4	10
R68981	Felsic Dyke: white, slightly porphyritic dyke, qtz rich, width 10 m, strike obscure, Host hbld diorite almost gneissic in texture, contact clean, some rustiness on surface, weathered out py patches up to 2 cm dia. found within dyke.	chip 10 m	18	6	4	0.2	<2	<4	10
R68982	Aplite Dyke: as in 68976, 68977	chip 10 m	32	60	10	0.2	<2	<4	10
R68983	Aplite Dyke (50 cm wide, 5 m strike): lens of qtz rich aplite, host mica schist, minor py 2-3% dissem, 1 mm cubes often completely oxidized, white-buff coloured, fine grained, contact margins clean, clear, unaltered. Schist foliation bends gently.	grab	14	70	6	0.2	<2	<4	10
R68984	Aplite Dyke (width 25 m, min. strike length 40 m) + boulders: white-cream colour, very fine grained dissem. oxid. py cubes 1 mm dia. 1%. Contact to host mica schist clean.	grab	12	6	6	0.2	<2	<4	10

SAMPLE NO.	LOCATION & DESCRIPTION	TYPE	ASSAYYS Cu	Zn	Pb	Ag	Mo	As	Au
R68985	Qtz-mica Schist (Yukon Group): rusty oxid. weath. surface, strong schistosity + mixing of laminations, silicif. strong, py dissem up to 10%, schist grades over 3 m to coarse grained qtz-diorite. Mineralization assoc. with stronger foliation.	grab	30	36	2	0.2	<2	<4	10
R68986	Qtz Porphyry: strongly leached, qtz phenocrysts up to 5 mm dia, cubic, cream coloured, fine grained, clear, clean contact to host mica schist, minor py (1%, friable weathered surface.	grab	4	62	8	0.2	<2	<4	10
R68987	Quartz Vein: host granodiorite, 5 cm wide, 10 m long (presumed longer) buried by talus, 2 veins spaced 1 m apart running parallel to each other. Chip sample from east vein. Muscovite coating along contact, thin (1 mm intermittent.	chip (along strike 3m)	10	50	2	0.2	<2	<4	10
R68988	Quartz Vein: Chlorite-musc rich along contact sericite alt, minor py (1%, cubes (.5 mm diam, intergrown SiO_2 crystals 3 mm x 1 cm, contact to leached granodiorite chl up to 20%.	chip 1 m	10	20	6	1.2	4	32	30
R68991	Rhyolite: light beige, highly fr. 108/84 deg E, 014/89 E, siliceous, qtz-eyes 2 mm diam. dissem up to 10% of rock, minor py max. 5%, contact to granite sharp with slight bleaching of rhyolite over 3 m.	chip 3 m	18	100	12	0.2	2	<4	10
R68992	Rhyolite: as 68991, small flecks of Mo along fr. plane 1-2%, white saccharoidal texture, rusty sericite coating + oxidation assoc. Mo flecks. Minor py (190, heavy snow cover therefore not located in outcrop but suggest near sample site. Strong silification.	float	62	260	100	1.4	12	<4	10
R68993	Rhyolite: as 68991, elev 5485/1672 m, 1 1/2' wide shear zone 09/90 malachite staining + rusty oxides on wallrock rhyolite, cpy dissem. (1 mm diam, 5%. Most sulphides located at shear margins. Hairline stringers SiO_2 right angle to shear.	chip 3 m	1000	46	10	13.0	2	<4	20