ASSESSMENT REPORT ON

THE 2002 DIAMOND DRILLING PROGRAM

ON THE

AXELGOLD PROPERTY

OMINECA MINING DIVISION

B.C.

NTS: 93N/13W

Latitude 55^0 58' N

Longitude 125^0 58' W

For

Rubicon Minerals Corporation

And

Wheaton River Minerals Ltd.

By

Gordon J. Allen, P. Geo.

And

Michael J. Gray, M.Sc., P. Geo

November, 2002

Executive Summary

The Axelgold property is an alkalic to calc-alkalic syenite-hosted porphyry gold prospect located adjacent to the Pinchi Fault in north–central B.C.

The Pinchi Fault is a crustal-scale strike-slip tectonic break and postulated paleosubduction zone marking the terrane boundary between the Paleozoic to Mesozoic Cache Creek Complex and the Mesozoic Quesnellia Terrane. A syenite-monzonite-nepheline monzonite intrusive complex (Axel Intrusion) of possible Jurassic-Cretaceous age has intruded a sliver of Quesnellia Terrane sedimentary rocks on the southwest side of the Pinchi Fault. Rocks in the intrusive complex are strongly pyritized and weakly to strongly phyllic-altered (carbonate-sericite assemblage; potassic metasomatism). Poorly delineated quartz-carbonate-fluorite stockwork zones on the property are mineralized with chalcocite, pyrite, galena, sphalerite, and stibnite. These mineralized stockwork zones contain up to 3.12 g/t gold over 5.79m in drill core, and up to 12.6 g/t gold in grab samples from surface trenching.

The 2002 diamond drilling program consisted of 1364.29m in 8 holes, and was completed between August 7 and September 4th. The program targeted bulk-tonnage gold porphyry mineralization peripheral to the apparently narrow stockwork zones discovered in previous drilling and trenching. Drilling in this exploration program was focused on gold-soil anomalies in the south part of the grid area, and on a prominent colour anomaly with coincident gold-soil anomalies on Gossan Hill in the central part of the grid area.

In the south part of the grid area gold-in-soil anomalies were found to be related to a series of pyrite and arsenopyrite-bearing orthoclase-plagioclase-biotite monzonite porphyry dykes (AX02-09). These dykes occupy a north-northwest trending zone roughly 600m wide which cuts both sedimentary rocks and the syenite intrusive complex. This type of dyke material intersected in hole AX87-01 was unremarkable, with no obvious mineralization, and yet contained 0.65 g/tonne Au across 10.37m (including 3.390 g/tonne Au across 0.91m). In the Gossan Hill area drilling from the 2002 program intersected intervals over 200m wide with gold in the 100 to 300ppb range. Gold appears to be related to ubiquitous disseminated pyrite, and more restricted pyrite-fluorite-calcite stockwork zones. Mineralization is hosted both in crystalline phases of the intrusions, and in intrusion breccias (possibly diatremes).

Mapping conducted during this program shows that the syenite is much larger than previously interpreted, extending at least an additional 1km to the northeast and significantly expanding the area of potential syenite-hosted mineralization. The abundance of intrusion breccia on the property, much with pyrite-flooded matrix, indicates that the complex was structurally well prepared for subsequent mineralization.

The best mineralization observed on the property to date occurs in the valley bottom between holes AX87-03 and AX87-06 in a poorly defined stockwork zone approximately 650 metres long. This area was very loosely bracketed to the southeast and northwest by the 2002 drilling, but apart from hole AX87-05, the internal part of the mineralized zone remains untested. Attitude, continuity and dimensions of the zone are all unknown.

Prospecting, rock sampling, mapping and soil sampling within the newly-defined limits of the syenite body is warranted. Specific anomalous soil sample sites should be investigated and trenched. Much of this mineralized trend is below tree line and therefore poorly exposed. A systematic drilling program targeting the dyke-trend in areas with known mineralization (as in the AX87-03 to AX87-06 area) and anomalous soil geochemistry is warranted. It is estimated that a 2500 metre, 10-12 hole program would cost approximately $650,000.

- TABLE OF CONTENTS -

TABLES

FIGURES

APPENDICES

Appendix No.

1.0 INTRODUCTION

The Axelgold property is an alkalic to calc-alkalic syenite-hosted porphyry gold prospect in north–central B.C. Past exploration programs on the property identified structurally-controlled gold-bearing mineralization within a pyritic feldspar porphyry syenite intrusion. Rubicon Minerals Corporation and Wheaton River Minerals Ltd. conducted a diamond drilling program on the property in August of 2002 in an attempt to identify both bulk mineable and structurally-controlled high-grade gold mineralization.

2.0 LOCATION AND ACCESS

The property is centered at 55° 58' N and 125° 58' W, approximately 150 kilometres north-northeast of Smithers, in the Axelgold range of north-central British Columbia (Figure 1). Access to the property is via roughly 200km of paved and gravel Canfor forest access roads out of Fort St. James to a staging area southwest of Mt. Ogden, approximately 20km south-southeast of the claims. Access to the property from the staging area is via helicopter.

Details of the road system from Fort St. James are as follows:

- North on the paved Tachie Highway to 68.5km
- North on the Leo Creek forest access road to 68km
- North on the Driftwood forest access road to 91km
- East on Fall River forest access road to 23km
- North on the Omineca (West Ogden?) road for approximately 12km (staying left) to the staging area.

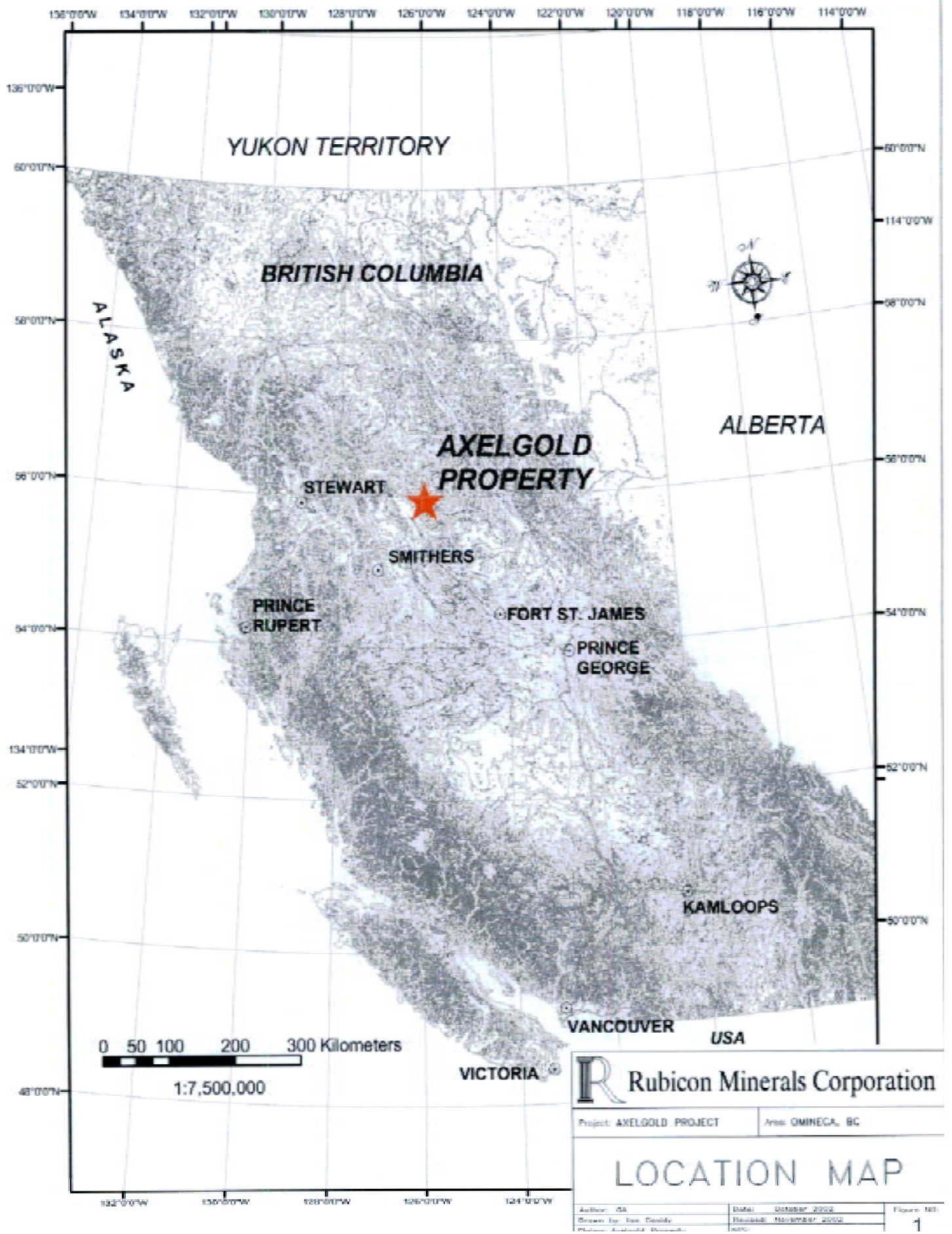
Driving time from Fort St. James to the staging area is approximately 3.5 hours. Flying time from the staging area to the property is roughly 10 minutes.

3.0 PROPERTY TENURE

Table 1

Axelgold Property Mineral Claims

Claim Name	Claim Number	No. Units	Expiry Date *
AX952	340400	12	22 September, 2010
AX953	340401	12	22 September, 2010
AX963	343036	1	14 January, 2010
AX964	343037	1	14 January, 2010
AX965	343038	1	14 January, 2010
AX966	343039	1	14 January, 2010
AX967	343040	1	14 January, 2010
AX968	343041	1	14 January, 2010
AX969	343042	1	14 January, 2010
AX9610	343043	1	14 January, 2010
AX9611	343044	1	14 January, 2010
AX9612	343045	1	14 January, 2010
AX9613	343019	15	14 January, 2010
AX9614	343020	15	14 January, 2010
	Total	64	

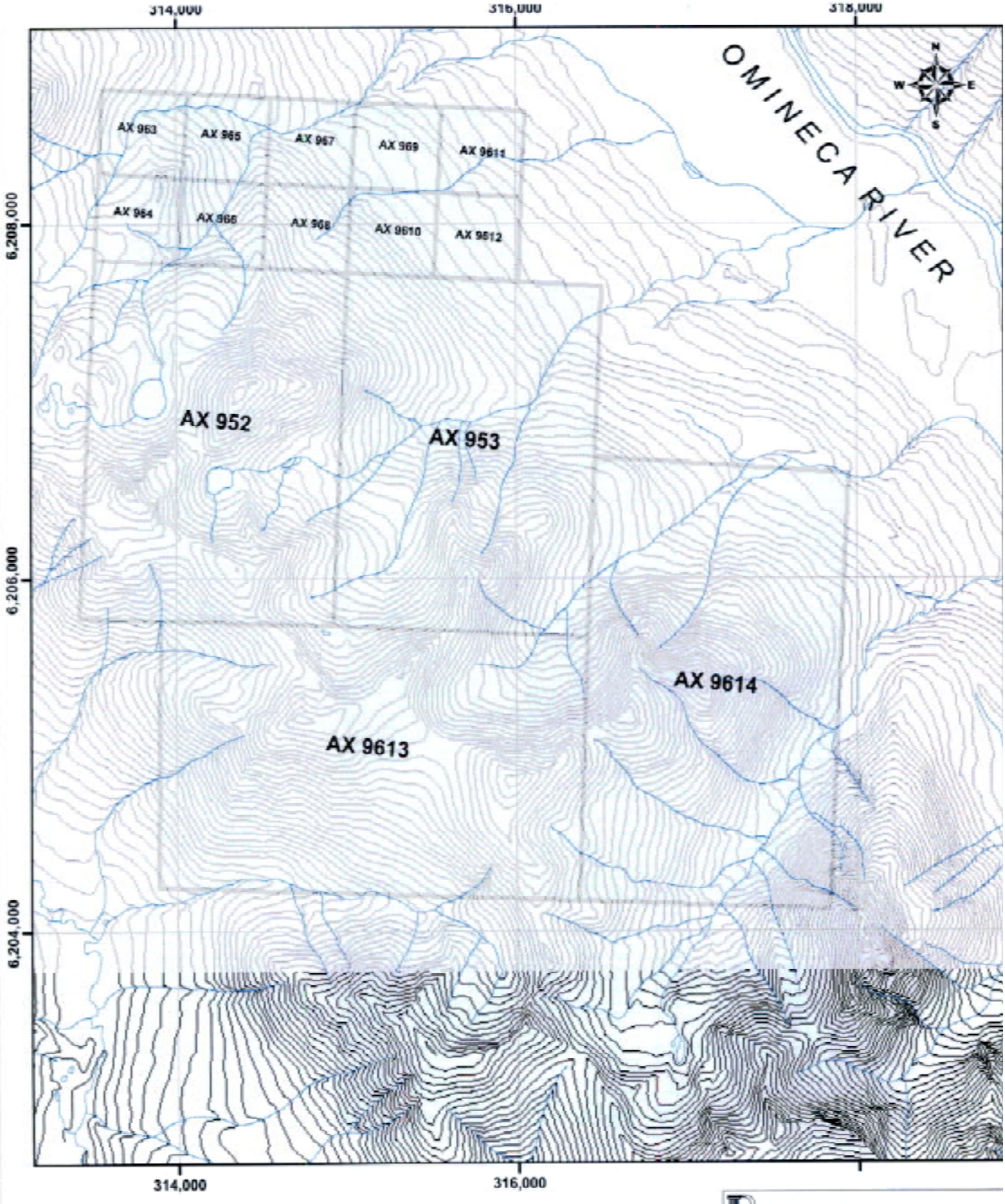


Rubicon Minerals Corporation

Project: AXELGOLD PROJECT | Area: OMINECA, BC

LOCATION MAP

Author: GA	Date: October 2002	Figure No:
Drawn by: Ian Cavilly	Revised: November 2002	1



Legend

CLAIMS

0 250 500 1,000 1,500 2,000 Meters

1:30,000

Rubicon Minerals Corporat

Project: AXEL GOLD PROPERTY | Area: OMINECA, BC

CLAIM LOCATION

Author: BA | Date: October 2009

Revised: December 2009

*** Expiry date after assessment credit for program described in this report applied**
Claims are shown in Figure 2.

4.0 ECONOMIC SETTING AND POTENTIAL

4.1 Economic Setting

A large number of mineral occurrences are recorded in the Axelgold area (Figure 3). Types of occurrences are diverse, and include:

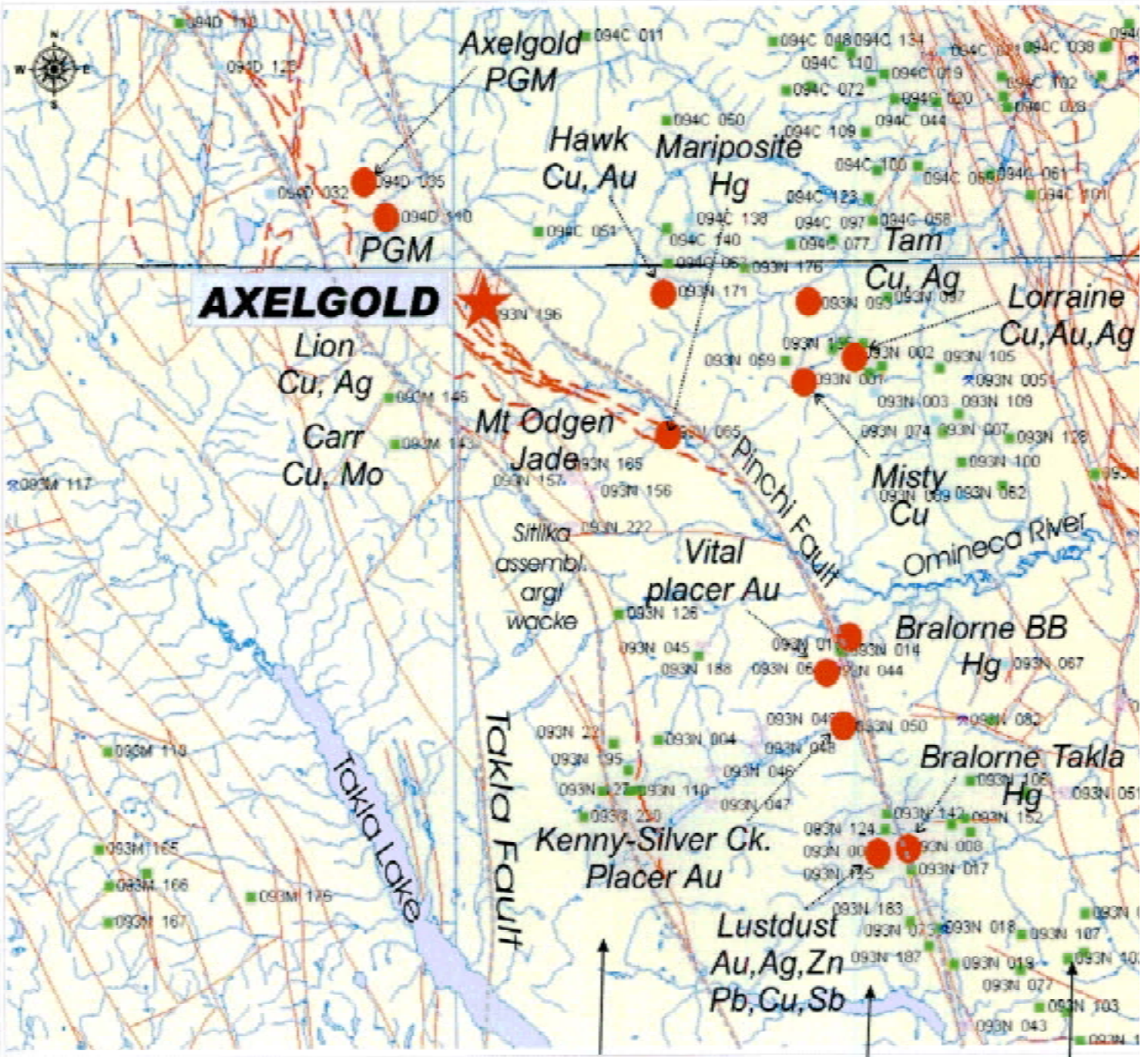
- Placer gold
- Epithermal mercury
- Jade
- Alkalic porphyry Cu-Au-Ag
- Alkalic porphyry Au-Cu-Sb
- Orogenic gold
- Ti-Cu (+PGE potential) in layered mafic intrusions
- Mesothermal vein / skarn / manto
- Polymetallic veins
- Au-As Listwanite

To date only placer gold, mercury and jade have been mined in the Axelgold area. Placer gold has been extracted intermittently from several drainages in the area between 1869 and the present, although there has been no documented gold production from the property itself. Most placer operations were or are on creeks draining areas underlain by metasediments of the Paleozoic-Mesozoic Cache Creek Complex. Reported gold production from **Vital Creek** alone was in excess of 143,000 grams or 4,598 troy ounces (Minfile 093N 044).

Several Eocene mercury showings occur along the Pinchi Fault. During World War II mercury was a strategic mineral and exploration for the metal was part of the war effort. Many of the cinnabar occurrences in this area received underground exploration development, but only one was put into production. The **Bralorne Takla** mine, located roughly 55km SE of the Axelgold property, produced 59,914kg of mercury in 1943-1944. Limestone of the Cache Creek Complex hosts the deposit. Cinnabar occurs as veinlets and breccia filling in shattered limestone adjacent to the Pinchi Fault (Minfile 093N 008).

Jade occurs as large nephrite blocks within the Mississippian to Triassic Oceanic Ultramafites (formerly the Trembleur intrusions) of the Cache Creek Complex. Three small past producers are located on **Mount Ogden**, approximately 15 kilometres south-southeast of the Axelgold property. Nephrite boulders were discovered in the area in 1967, and in-situ nephrite was located in 1969. Discontinuous lenses, bands and veins of nephrite occur along serpentinite-metasediment and serpentinite-granodiorite sill contacts. Total jade production from the Mt. Ogden deposits is estimated to be 1441 tonnes (Minfile 093N 165).

A large number of porphyry Cu ± Au ± Ag prospects occur in the Duckling Creek alkalic syenite phase of the Late Triassic to Early Cretaceous Hogem Intrusive Complex, east of the Pinchi Fault and roughly 15 to 45 kilometres east and southeast of the Axelgold property. These intrusions are hosted in volcanic rocks of the Middle Triassic-Lower Jurassic Takla Group. Mineralization consists of disseminated and lesser amounts of stringer pyrite, chalcopyrite, bornite, malachite and magnetite in sheared/foliated, potassic-altered (biotite and secondary k-spar) syenite. Table 2 presents resource estimates for selected deposits in the Duckling Creek Complex.



0 10 20 30

km

● Mineral occurrence/deposit
(discussed in text)

Source of data: Minfile

Rubicon Minerals Corporation

Project: AXELGOLD PROJECT Area: OMINECA, BC

MINERAL DEPOSITS
IN THE AXELGOLD AREA

Author: GA Date: October 2002 Figure

Table 2

Resource Estimates for Selected Alkalic Syenite-Hosted Porphyry Cu-Au-Ag Deposits in the Duckling Creek Syenite Complex (Hogem Batholith)

Deposit	Resource Date	Millions of Tonnes	Grade			Minfile Number
			Cu (%)	Au (g/t)	Ag (g/t)	
Lorraine	1998	31	0.66	0.17	4.7	093N 002
Misty	1976	3	0.6			093N 001
Boundary (Tam, Cirque)	1974	7.2	0.55		4.11	093N 093

The **Hawk** showings (Minfile 093N 171 and others) were also porphyry Cu-Au-Ag targets in the Duckling Creek Syenite Complex. They have recently been re-assessed for their orogenic gold potential (shear-hosted, intrusion-related deposits such as Pogo, Alaska).

A **layered mafic intrusion** is located in the north part of the Axelgold Range, approximately 10km northwest of the Axelgold property. Disseminated and layered ilmentite with associated pyrrhotite, and minor chalcopyrite and pyrite are hosted in the Late Cretaceous layered gabbroic Axelgold Intrusion (Axelgold PGM; Minfile 094D 035. PGM; Minfile 094D 110).

Alpha Gold's **Lustdust** property is located roughly 55km SE of the Axelgold property, 1.5km west of the Braiorne Takla mercury mine. The property is underlain by highly deformed chert, phyllite, argillite, greywacke, and discontinuous limestone and volcanic members of the Cache Creek Complex which have been intruded by feldspar porphyry dykes and sills, and monzonite plugs. Mineralization, which appears to be related to the thermal aureole of a poorly exposed monzonite plug, occurs as skarns and mantos in limestone proximal to the monzonite, and in more distal north-northwest striking, steeply-dipping, foliation-parallel quartz-carbonate veins. Manto- and skarn-type mineralization consists primarily of lenses of massive sphalerite and pyrite. The predominant sulphide minerals in the veins are pyrite and arsenopyrite, with lesser amounts of sphalerite, chalcopyrite, galena, tetrahedrite, stibnite, realgar, jamesonite, and several other unusual antimony-bearing minerals. A rough resource estimate from 1968-1970 for the Lustdust property is presented below:

Table 3

1968-1970 Lustdust Resource Estimate

Zone	Tonnes	Grade			
		Au (g/t)	Ag (g/t)	Pb (%)	Zn (%)
1	19684	4.45	802.15	2	
3	233124	2.4	63.1		1.5
4	74110	3.2	27.7		6.6

(Minfile 093N 009)

The **Indata** deposit is hosted in Cache Creek Complex metasediments and ultramafites. Mineralization is of two types (Minfile 093N 192):

- Polymetallic veins hosting massive arsenopyrite and associated pyrrhotite, chalcopyrite, pyrite, stibnite, galena, tetrahedrite, sphalerite, pentlandite, scheelite, bismuthinite, and gold and silver values in a quartz-carbonate gangue.

- Veinlet and disseminated sulphides (predominantly chalcopyrite and pyrite) in fractured volcanic rocks.

Mineralogy, setting, and possibly genesis at the Indata may be similar to the Lustdust deposit.

The **Snowbird** deposit, a past producer, is located well south of the Axelgold property, approximately 16km west of Fort St. James. It is hosted in sheared altered metasediments and ultramafites of the Cache Creek Complex. Silica and ankerite flooding have produced the classic listwanite assemblage of ankerite, quartz and mariposite. Quartz veins and stockwork within the altered rock host stibnite, arsenopyrite, and pyrite with associated gold. Unclassified reserves published in 1986 are: 4535 tonnes grading 6.86 g/t Au, and 3% antimony.

4.2 Deposit Model and Economic Potential

Alkalic igneous rocks, ranging from mafic to felsic, either host or are spatially-related to various types of precious metal deposits. They are recognized as a class of deposit with enormous tonnage potential. As outlined by Mutschler and Mooney (1993) deposit types within this class include:

- PGE ± Au in ultramafic/mafic complexes
- Porphyry Cu-Ag-Au ± PGE associated with shoshonitic plutons, or pyroxenite-syenite-carbonatite complexes
- Porphyry Au in felsic syenites
- Epithermal Au-only, or Au-Ag-base metals associated with various alkalic intrusions (eg. Cripple Creek, Colorado)
- Submarine exhalite Kuroko-type and Cyprus-type massive sulphides
- Olympic Dam Fe-Cu-U-Au (IOCG)
- Au in shear zones within Archean alkalic host rocks (e.g. Kirkland Lake, Ontario)

Regional-scale characteristics associated with these types of deposits include:

- Proximity to major crustal breaks
- Presence of alkalic rocks
- Pervasive potassium-metasomatic, carbonatic, and sulphidization alteration
- Low level Au ± Te rock geochemical anomalies

The Axelgold property appears to best fit the "porphyry Au in felsic syenite-type" of deposit in the first list above. Gold in these deposits is typically associated with pyrite in quartz-carbonate-fluorite stockworks, and with disseminated pyrite in high level intrusions, associated diatreme breccias, or host volcanic or sedimentary rocks (Schroeter and Cameron, 1996). Geochemically, the deposits have elevated levels of: Au, Ag, As, Sb, Pb, Zn, F, Ba, V, Te, and Bi. Chalcopyrite, galena, sphalerite, molybdenite and scheelite are common accessory minerals, but are not generally present in economic quantities. Alteration mineralogy includes widespread pyrite and carbonate in the intrusions, and quartz-clay-sericite (silicic-argillic) in the wallrocks.

An example of this type of deposit is the Young-Davidson – Matachewan in Ontario. Historic production and estimated reserves are roughly 8 million tonnes @ 2.6 g/t (0.076 oz/t) Au with a total of 55, 705 Kg (1.79 million ounces) of contained gold (Melling, 2000, and Royal Oak Mines press release, 1996).

In many cases epithermal Au deposits are spatially related to Au-bearing porphyry-type mineralization in alkalic plutons, and the two are thought to be related. Examples of where this association has been noted are Cripple Creek in Colorado (over 21 million ounces produced), and the Toodogone and Sulphurets camps to the north of the Axelgold property.

5.0 EXPLORATION PROGRAMS

5.1 Exploration History

The earliest documented geological mapping in the Axelgold area was conducted by Armstrong in 1949. His interpretation lumped all of the Axelgold range into the Cache Creek Group (current nomenclature is Cache Creek Complex). Subsequent mapping by Paterson in 1973, however, showed that the Axelgold Range was actually composed of a sequence of fault-bounded slices of Cache Creek Complex and Takla Group, intruded by a 26 stock to Tertiary syenite.

The earliest available report documenting exploration activities on what is now the Axelgold property is from 1984. Claim posts on the property, however, date back to 1973.

The following summary of exploration activities is taken verbatim (in italics) from a report by K. McInnis (1998).

1984 ***Equinox Resources*** *conducted regional prospecting, mapping, and silt (73), soil (19) and rock (51) sampling. All methods returned anomalous gold values (up to 660ppb in silt, 640 ppb in soil, and 585 ppb in rock) interpreted to be associated with a "syenitic' intrusion.*

1985 ***Imperial Metals*** *and JV partner* ***Equinox*** *established 6 grids (Recce, GAA, GAB, GAC, GAD, and GAX) and conducted detailed soil/silt (441) and rock (327) sampling, and petrographic studies (11 slides). Soil contour grid (GAA) over Gossan Hill outlined a 375 by 300m Au-Ag-Sb-As-Mo anomaly. Au-Cu-Mo soil anomalies were detected southeast of Gossan Hill. Rock sampling returned up to 690ppb Au.*

1986 ***Imperial Metals*** *established the Au grid (incorporating GAA, GAC, and GAD) and conducted extensive soil (2,235) and rock (143) sampling. A 7 metre trench and several small pits were excavated. Selected areas were mapped at 1:12,500 and 1:2,000 scale. Five major multi-element soil anomalies (up to 700 by 300m) were identified, including values up to 9050ppb Au. Nine rock samples, mainly from the syenite with associated stibnite-feldspathic veins, returned >1000ppb Au (up to 4820ppb) and one sample 26.2ppm Te. Samples from the trench returned 0.55 g/t Au over 7m (not including grab samples with up to 12.62 g/t Au), and up to 320,000ppb Hg, 2.6% Ba and 2.0% F. Soils to the southeast returned spotty gold highs (up to 615ppb) thought to be associated with a serpentinized fault block. Mapping delineated a northwest-trending 3 by 1km syenite intrusion in contact with the Takla Group sediments and (locally) Cache Creek volcanics.*

1987 ***Imperial Metals*** *extended the Au grid and collected soil (247) and rock (30) samples, and conducted petrographic studies (14 slides). Local IP (9.75km) and ground VLF surveys were conducted. Eight DD holes were completed, totaling 726.9m. Six holes were drilled on the Au grid and two holes on the GAB grid. Four holes (AX87-03 through -06) were drilled in the syenite intrusion but not necessarily within soil anomalies. Holes AX87-03, -04, and -05 intersected pyrite±fluorite±stibnite±tetrahedrite with disseminated to stockwork mineralization. Significant intersections include: 3.12 g/t Au over 5.79m (AX87-03); 0.65g/t Au over 9.23m (AX87-05) and ; 8.56 g/t Au over 0.61m (AX87-06). The best mineralization in AX87-05 was found in thin massive pyrite bands with gold values up to 2030ppb Au. Four holes (AX87-01, -02,- 07, and -08), intended to test IP chargeability highs, failed to intersect the intrusive-sediment contact, cutting only narrow intervals of feldspar porphyry in Takla conglomerates.*

1995 ***Rubicon Minerals*** *and* ***Lorne Warren*** *collected soil (1), rock (43) and core (156) samples, and conducted petrographic studies (2 slides). Re-sampling of Imperial Metals' core confirmed anomalous gold values, including: 3.82 g/t over 3.05m and 0.37g/t over 39.2m (AX87-05); 1.92 g/t over 6.09m (AX87-03), and; 10.84 g/t over 0.47m (AX87-06). Gold appears to be associated with pyritic feldspar porphyry in: stockwork veinlets of feldspar porphyry±quartz+ fluorite±stibnite+ tetrahedrite(?); semi-massive fine-grained pyrite stringers, and ; disseminated tetrahedrite(?)-*

stibnite-pyrite zones. Selected samples of conglomerate in AX87-01 and -08 returned values up to 110ppb Au. Whole rock geochemistry returned high K2O (up to 13.5%), Ba (up to 1.0%) and Sr (up to 2.4%). Subsequent analyses of drill core returned Te values up to 5.7ppm. Rock sampling included 21 chip samples within areas of anomalous soil geochemistry, returning values up to 1.06 g/t Au over 4.0m.

1996 ***Cyprus Canada*** *excavated three trenches (361m) and 33 test pits* (using a small heli-portable Kubota excavator). *Soil (14) and rock (296) samples were collected and analyzed, in conjunction with mapping. Although the test pits failed to reach bedrock, 175 grab/chip samples from the trenches encountered anomalous gold (up to 294ppb over 17.0m). Surface outcrop samples returned up to 2.79g/t Au.*

1997 **Rubicon Minerals** better delineated the extent and geochemistry of the intrusion with a program of 1:2000 mapping and rock sampling (22 rocks).

5.2 2002 Exploration Program

Preparatory work for the 2002 exploration program included a data synthesis prepared by iMAP Interactive Mapping Solutions Inc. of Vancouver, B.C. All previous data was digitized, reviewed and reinterpreted in an attempt to pick targets for the drilling program.

Fieldwork for the 2002 exploration program on the Axelgold property was conducted between August 6th and September 5th. Two geologists, two field assistants / core cutters, and four diamond drillers (Britton Bros. Diamond Drilling) stayed in Lorne Warren's Kenny Creek camp, approximately 45 kilometres southeast of the property. Interior Helicopter's 206B was stationed at the camp and provided transportation to and from the property, as well as logistical support for the diamond drill.

Geochemical and geological drill targets were assessed and refined for the first few days of the program. Once firm targets were determined, topographic and geological profiles were created along the trace of the drill holes. During the surface evaluation of drill targets, 22 rock chips and 4 soil samples were collected.

The 1987 drill core was reviewed to understand the nature of the known mineralization.

Pad building was performed by four men from Britton Bros. between August 9th and August 13th. Drilling commenced August 14th. Core was slung by helicopter to a staging area on a logging road southeast of the property, and subsequently transported to camp daily by truck. The core was logged in camp. Halving of the core for sampling was done using either a diamond saw or a hydraulic splitter. All core was sampled and is currently stored at the Kenny Creek camp.

A total of 1364.29 metres (4476 feet) of NQ core was drilled in 8 holes, and 568 core samples collected. Standards (35), blanks (19), and duplicates (34) were inserted into the sample series at regular intervals (see Appendix 6 for QAQC procedures). A total of 682 samples were shipped by bus or truck from either Smithers or Fort Saint James to ALS Chemex Labs in Vancouver. All samples were analyzed for gold by fire assay and AAS using a 30g nominal sample weight. Every 5th sample was analyzed for 34 elements using an aqua-regia acid digestion and ICP-AES.

In addition to the regular analyses, 38 samples were submitted for whole rock geochemistry using Chemex procedure ME-XRF-06 for the major oxides and ME-XRF-05 for the minor elements (Rb, Nb, Y, and Zr). Five of these samples were also analyzed for rare earth elements using method ME-MS82.

Eight hand specimens were submitted to Vancouver Petrographics for preparation of 2 polished thin sections and 6 regular thin sections. All sections were described by Craig Leitch. The thin section report is included as Appendix 7, and discussed in section 7.1.4.

Table 4

Summary of Samples Collected During the 2002 Exploration Program

	Core	Standards	Duplicates	Blanks	Soil	Rock	Totals
Au	568	35	19	34	4	22	682
ICP	129				4	22	155
WR	37					1	38
Thin Section	8						8

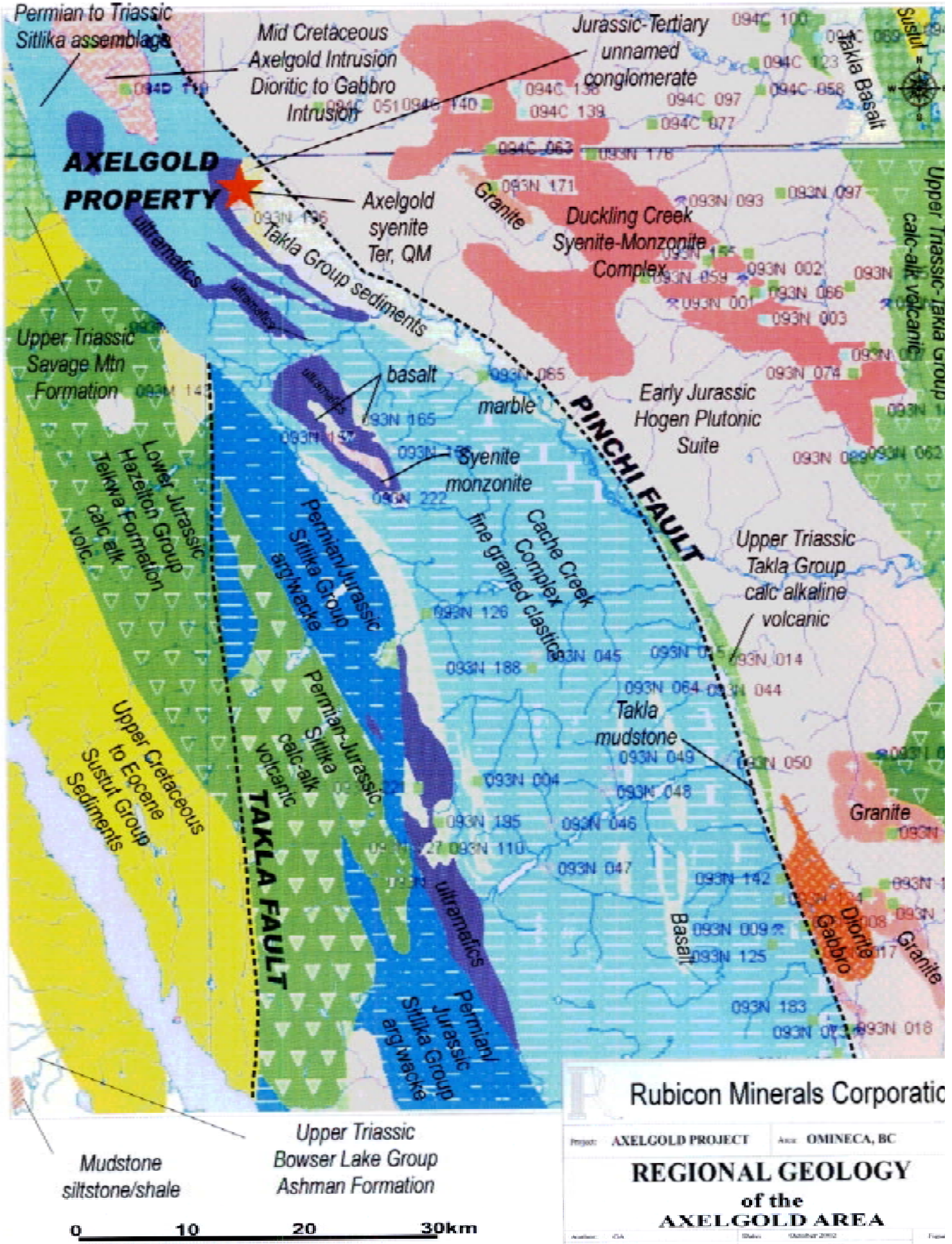
As part of a "public-private" partnership, Joanne Nelson of the Ministry of Energy and Mines spent a few days on the property mapping. Her mandate was to get a better understanding of the stratigraphy of the Axelgold Range, and to collect a sample for age dating of the Axelgold syenite.

6.0 REGIONAL GEOLOGY

The Axelgold area lies between two major fault zones; the Pinchi Fault to the east and the Takla Fault to the west (Figure 4). The Pinchi Fault is a major crustal break. It is the boundary between the Quesnellia and Cache Creek Terranes. Quesnellia, on the east side of the Pinchi Fault, is a Mesozoic-aged accreted magmatic arc composed predominantly of Jurassic granodiorite of the Hogem Batholith, and Mesozoic volcanic and sedimentary rocks (Paterson, 1974; Monger, 1989).

Carbonaceous to Jurassic rocks of the Cache Creek Terrane consist of deep water oceanic basin sedimentary, volcanic (minor), and ultramafic rocks. They are a highly deformed assemblage of chert, phyllite, and greywacke, with discontinuous carbonate and pillowed basalt units. Some limestone lenses contain poorly preserved fossils of Permian age, but intense deformation and a lack of fossils make the ages of the other units in the group uncertain. They were in part subducted beneath, and in part accreted onto the coast of Mesozoic North America (Quesnellia) along the steeply east-dipping Pinchi Fault. Subduction probably started some time in the Permian to Triassic (Struik et al, 2001). Metamorphic grade is generally lower greenschist facies, locally transitional to lower blueschist facies. Metamorphism appears to be related to the first phase of ductile deformation, probably also Triassic or older in age. Metamorphic grade does not appear to be spatially related to the Pinchi Fault.

Mississippian to Triassic Oceanic Ultramafites (formerly Trembleur ultramafic intrusions) occur as fault-bounded sill-like bodies within the Cache Creek Complex. They form narrow, laterally extensive, north to northwest-trending steeply-dipping lenses and sub-planar units up to a few kilometers wide, most commonly occupying the contact zone between the Cache Creek Complex rocks on the northeast and the younger Upper Triassic to Jurassic Sitlika Assemblage rocks on the southwest. A belt of ultramafic rocks also occurs in the Axelgold Range along the northeast margin of the Cache Creek Complex rocks along their contact with younger Upper Triassic to Jurassic sedimentary rocks of the Takla Group. These ultramafic bodies are thought to be slivers of Permian oceanic crust incorporated into the overlying sedimentary rocks during intense deformation associated with terrane collision and subsequent subduction/obduction.


Permian to Triassic Sitlika assemblage
Mid Cretaceous Axelgold Intrusion Dioritic to Gabbro Intrusion
Jurassic-Tertiary unnamed conglomerate
AXELGOLD PROPERTY
Axelgold syenite Ter, QM
Takla Group sediments
ultramafics
Granite
Duckling Creek Syenite-Monzonite Complex
Takla Basalt
Sustut
Upper Triassic-Takla Group calc-alk volcanic
Upper Triassic Savage Mtn Formation
basalt
marble
Syenite monzonite
PINCHI FAULT
Early Jurassic Hogen Plutonic Suite
Lower Jurassic Hazelton Group Telkwa Formation calc-alk volc.
Permian/Jurassic Sitlika Group arg/wacke
Cache Creek Complex fine grained clastics
Upper Triassic Takla Group calc alkaline volcanic
Takla mudstone
Granite
Upper Cretaceous to Eocene Sustut Group Sediments
Permian-Jurassic Sitlika calc-alk volcanic
TAKLA FAULT
ultramafics
Basalt
Diorite Gabbro
Granite
Permian Jurassic Sitlika Group arg/wacke
Mudstone siltstone/shale
Upper Triassic Bowser Lake Group Ashman Formation
0 10 20 30km
Rubicon Minerals Corporatio
Project: AXELGOLD PROJECT
Area: OMINECA, BC
REGIONAL GEOLOGY
of the
AXELGOLD AREA

The Oceanic Ultramafites consist primarily of serpentinized harzburgite in a schistose serpentinite matrix. They are commonly strongly carbonatized to ankerite and talc, and weather to a light grey to orange colour. Nephrite also occurs as large blocks within the assemblage, such as at Mount Ogden where it has been quarried as jade.

Upper Triassic to Jurassic sedimentary rocks of the Sitlika Assemblage occur between the southwest flank of the Cache Creek Complex and the Takla Fault to the southwest. They consist of argillite, volcanic rocks, and greywacke. They are well foliated and have a closely-spaced penetrative cleavage, indicating that they have undergone dynamic metamorphism.

Sedimentary rocks in the Axelgold Range on the northeast flank of the Cache Creek Complex were mapped by Paterson (1974) as Takla Group. They are Upper Triassic to Jurassic in age as are the Sitlika Assemblage rocks to the southwest, and consist of feldspathic wacke, siltstone, and tuff. They are differentiated from the Sitlika Assemblage rocks partly because of their lack of penetrating fabric.

The syenite on the Axelgold property, termed the Axel Intrusion, is hosted in sedimentary rocks northeast of the Cache Creek Complex. It is thought to be related to either the Late Triassic to Early Cretaceous Hogem Intrusive Complex, or to the Late Triassic to Early Jurassic Topley intrusions (Minfile 093N 196). Age dating of a sample collected during this program may help to make a definitive association.

This sedimentary/intrusion package of rocks forms a fault-bounded lens roughly 25 kilometres long by up to 4 kilometres wide exposed on the southwest side of the Omineca River valley. Other narrow lenses of Takla Group rocks occur elsewhere along the Pinchi Fault, such as along Silver Creek to the south of Axelgold (Figure 4), separating Cache Creek Complex rocks from the Hogem Batholith. At Silver Creek the Pinchi Fault is interpreted to be on the southwest side of the Takla Group rocks, putting them into the Quesnellia Terrane which includes the Hogem Batholith. The Axelgold Range is located on a significant kink in the Pinchi Fault, and it appears that the fault splays in this area have isolated a sliver of Quesnellia Terrane on the south side of the main structure. As part of Quesnellia, therefore, the Axel syenite could be related to the Jurassic Duckling Creek phase of syenites in the Hogem Batholith. One possible contradiction to this scenario, however, is the existence of a syenite body in the Cache Creek Complex in the Mt. Ogden area. The Hogem Batholith is presumed to have been emplaced during subduction of Cache Creek Complex rocks beneath Quesnellia. If the syenite in the Axelgold and Mt. Ogden areas are in fact related, they would unlikely be associated with the Hogem Batholith syenites.

7.0 LOCAL GEOLOGY

7.1 Local Geology

The Axelgold Range consists of Cache Creek Complex and Mississippian to Triassic oceanic ultramafites in contact with various sedimentary and intrusive units along a northwest-trending, steeply northeast-dipping thrust fault (Figure 5).

Cache Creek Complex rocks underlie the northwest-trending ridge of the Axelgold Range. The northeast flank of the Cache Creek Complex is delineated by a discontinuous series of serpentinite lenses up to a few hundred metres wide. These rocks are typically strongly sheared and altered to an assemblage of orange to green-weathering serpentine, talc, quartz and ankerite (listwanite). A northwest-trending, steeply northeast-dipping fault truncates the ultramafic rocks to the northeast. Previous mapping described this structure as a left lateral strike-slip fault, but recent observations suggest that it had dip-slip movement and is probably a thrust fault (Nelson et al, 2003).

In the south part of the Axelgold Range, to the south of the Axelgold property, ultramafic rocks are in fault contact with sedimentary rocks of the Upper Triassic Takla Group. These sediments are a well bedded, northwest-striking, steeply northeast-dipping tops-up sequence (Joanne Nelson, personal communication). Their base or southwest unit consists of mudstone, siltstone and greywacke, which grades upward (northeast) into thickly-bedded green volcanic sandstone with minor augite porphyry. These rocks are relatively massive and unfoliated. It is probable that this sequence continues to the northeast to the Pinchi Fault in the Omineca River valley.

Farther to the north on the Axelgold property the Cache Creek Complex-Oceanic Ultramafites are in fault contact with a sedimentary breccia unit (SDBX). It is a fragment-supported breccia with angular to sub-rounded pebble-sized fragments of siliceous argillite, siltstone, minor chert, and rare limestone. Minor green epiclastic to tuffaceous rocks are included within the sedimentary breccia unit. This assemblage is wedge- or lens-shaped and broadens to the northwest to over 1km wide. Paterson (1974) included this breccia unit in with the Takla Group sedimentary rocks. It has a closely-spaced penetrative cleavage, however, making it distinct from and probably older than the Takla Group rocks. They may be Paleozoic in age (Nelson et al, 2003).

The sedimentary breccia unit hosts the Axelgold syenite intrusive complex (Axel intrusion). The bulk of the syenite is characterized by a medium-grained orthoclase porphyry with a relatively fine-grained crystalline groundmass (SMGP unit). It appears to have been cut by later-stage megacrystic syenite (SYMC) with orthoclase phenocrysts to 5cm long, and also by an aphanitic to fine-grained crystalline syenite (SYAP). All of these units appear to have been sporadically brecciated by late-stage hydrothermal processes.

Breccia units are relatively diverse in texture. Most have subangular to rounded (milled?) porphyritic syenite fragments up to a few centimetres in diameter (average <1-3cm), and K-feldspar crystal fragments in a finer-grained breccia matrix (SYIB). Fine-grained breccias (SIMB; syenite intrusive microbreccia) have the appearance of arkoses, but have textures and compositions similar to the coarser-grained varieties. In thin section (Appendix 7) some breccias contain possible tuffaceous fragments (AX02-09 135.5, and 140.2). The matrix apparent in hand specimen is seen to be composed of fine-grained siliceous fragments and sericite in an ultimate matrix composed mainly of carbonate, sericite, quartz, pyrite, and possibly barite. The presence of tuffaceous rock mixed with syenite and k-par crystal fragments in a possible hydrothermal matrix suggests that these rocks may have been near surface vent breccias, possibly diatremes. Textures in thin section, however, are "permissive but not conclusive of a diatreme origin" (Leitch, 2002, Appendix 7).

Greenish andesitic fragmental units (whole rock sample GA-6) observed on gossan hill in the north part of the syenite exposure appear to be completely surrounded by syenite and syenite breccia, suggesting that they are inclusions or pendants in the intrusion.

Late-stage orthoclase-plagioclase-biotite porphyritic dykes (KPBP and probably D/FB units) were observed cutting both the syenite and sedimentary breccia units. Mapping indicates that these dykes have widths of up to several tens of metres, and trend north-northwest to north. They contain minor amounts of fine-grained disseminated pyrite and rarely arsenopyrite, and appear to be related to several gold-in-soil anomalies in the south part of the grid. Anomalous gold values in holes AX87-01 and AX02-09 are associated with these dykes. Chemically they contain less silica and are less alkalic than the host syenites, and fall within the monzonite to monzosyenite composition fields. They are differentiated in hand specimen by the abundance of euhedral biotite. In drill hole AX87-02 these dykes contain prominent large calcite amygdules suggesting near surface emplacement. Age of theses intrusions is uncertain, but previous mapping programs have suggested they could be Eocene.

The youngest rock on the property is probably a quartz-eye rhyolite hypabyssal plug, exposed on the ridge northeast of drill hole AX02-09 in the south part of the Au grid. A thin section of this rock (WP-90; 1650S, 350E – Appendix 7) is described as a high-level quartz-trachyte intrusion

with some tuffaceous textures. It contains 35% K-feldspar phenocrysts to 3mm, 10% quartz phenocrysts to 3mm, and 5% plagioclase and relict mafic phenocrysts in an aphanitic groundmass composed of very fine-grained K-feldspar, quartz, and sericite.

Previous programs described the Axelgold syenite complex as an elongated lens-shaped body approximately 2 kilometres long northwest-southeast by up to 400m wide. Whereas the southwest limits of the syenite are fairly well constrained, the northeastern contact is not defined. Several traverses made by Joanne Nelson indicate that the hydrothermally brecciated syenite extends well down into the trees to the northeast, and that the northeast-southwest dimension of the syenite is at least 1.3 kilometres. The body now appears to have a more typical equidimensional plug shape.

7.1.1 Rock Unit Descriptions

The following rock units make up the bulk of the lithologies differentiated during the 2002 drilling program on the Axelgold property. The corresponding four letter codes were used for logging and on sections. A complete list of codes is presented in Appendix 1.

Igneous Rocks

Syenite; Medium-to Coarse-Grained Porphyry (SMGP)

This unit ranges from equigranular to porphyritic (more abundant) and appears to make up the bulk of the intrusive complex. The groundmass consists of a medium grey to blue-grey fine-grained equigranular crystalline aggregate probably composed predominantly of orthoclase with minor (5%?) sericite-carbonate altered plagioclase and mafic minerals. This groundmass typically hosts 15-25% 2mm – 1cm stubby, anhedral to subhedral light grey orthoclase prisms. Pyrite is ubiquitous in the groundmass, generally making up 2-5% of the rock.

Megacrystic Syenite Porphyry (SYMC)

This unit consists of 20 – 30% large orthoclase prisms in a fine to medium-grained crystalline syenite groundmass. Phenocrysts of orthoclase are generally grey to cream-coloured, prism-shaped, and euhedral to subhedral with dimensions of up to 1cm by 5cm. They are commonly altered to pinkish-brown in irregular patches, possibly to a secondary potassic feldspar, and fractured at right angle to their 'C' axis. Fractures extend across the narrow dimension of the crystals but apparently do not extend into the crystalline groundmass, suggesting that they underwent strain during cooling or emplacement. The crystalline groundmass consists of an aggregate of <1 to 3mm crystals of predominantly orthoclase and probably minor amounts of plagioclase and biotite. Both the plagioclase and mafic minerals are altered to a light pinkish-grey aggregate of carbonate and probably sericite. Rarely biotite forms euhedral hexagonal books. The groundmass is typically very hard and probably consists largely of potassic feldspar. The rock is commonly overprinted by a weak late-stage sericite-carbonate alteration which occurs in irregular fine-grained patches and along hairline fractures.

The megacrystic syenite makes up less than 20% of the syenite complex and probably cuts the more abundant fine to medium-grained syenite. Intrusive relationships, however, are not clear.

Syenite; Aphanitic to Fine-Grained Equigranular Felsite (SYAP)

This is similar to the SMGP unit described above but is generally finer-grained with few or no orthoclase phenocrysts. As with the other units it is generally very hard, probably due to fine-grained potassic feldspar, and sporadically overprinted by sericite-carbonate alteration. Fine-grained disseminated pyrite typically makes up 2-5% of the rock.

Syenite Intrusive Breccia (SYIB)

This unit is an inhomogeneous clastic rock with a range of textures.

One variety is typically a greenish-grey heterolithic matrix-supported clastic with predominantly subrounded to subangular lithic fragments ranging up to over 20cm, but averaging <1-5cm in diameter. Fragments consist of:

- feldspar porphyry with a dark grey very hard groundmass and 25-30% stubby white anhedral orthoclase phenocrysts averaging 1-2mm (typical syenite porphyry)
- subangular to subrounded grey aphanitic clasts which may be orthoclase crystal fragments

The matrix to the larger fragments is a finer-grained clastic rock composed predominantly of grey orthoclase crystal fragments. The ultimate matrix appears to be a grey aphanitic aggregate of hydrothermal (?) quartz, carbonate and sericite.

In some cases these rocks appear sedimentary in nature, but the fact that few of the finer-grained fragments appear to touch suggests a hydrothermal or intrusion breccia mode of origin, possibly a diatreme.

Other less common intrusion breccias have an aphanitic hard grey matrix hosting distinct porphyritic fragments. The matrix may be a fine-grained late-stage intrusion, or possibly a fine-grained aggregate of hydrothermal minerals such as quartz, potassic feldspar, etc.

Some breccias have a medium-grained feldspar porphyry matrix hosting aphanitic intrusive xenoliths several centimeters across. Again, this type of breccia is not common.

Megacrystic Syenite Intrusive Breccia (SMCB)
This is similar to the SYIB unit, but has large anhedral to subhedral orthoclase crystal fragments in the finer-grained clastic matrix. It may be a diatreme breccia which formed within a megacrystic syenite. It is not a common lithology.

Syenite Intrusive Microbreccia (SIMB)
This unit is similar to the SYIB possible diatreme unit but lacks the large lithic fragments. The two units are commonly gradational to each other.

Brecciated Syenite (BXSY)
Unlike the intrusive breccias described above, this unit appears to be pseudobreccia in a weakly sheared syenite with subsequent sericite and carbonate alteration along fractures. It does not make up a significant volume in the Axelgold area.

Orthoclase-Plagioclase-Biotite Porphyry (KPBP)
This unit typically has a very hard orange-brown aphanitic groundmass with:

- 30% stubby blue-grey anhedral 2-5mm orthoclase phenocrysts
- 10-15% fine prisms and laths of subhedral to euhedral feldspar (probably plagioclase) altered to a mottled grey aggregate of sericite and carbonate.
- 5-8% euhedral to subhedral black to pinkish-grey altered biotite, commonly in <1-2mm hexagonal books
- traces to 3% fine-grained disseminated pyrite
- rare traces of arsenopyrite

The rock is typically weakly to moderately magnetic. It's magnetic nature and presence of abundant biotite differentiate it from the typical phases of syenite.

Dykes of similar mineralogy were observed cutting syenite in drill core and are, therefore, late stage intrusions. They appear to be associated with gold-in-soil anomalies in the AX87-01 and AX02-09 drill hole areas.

Sedimentary Rocks

Sedimentary Breccia (SDBX)
This unit is a fragment-supported heterolithic sedimentary breccia with predominantly angular fragments ranging from <1-5cm (average 1-2cm) in diameter. Fragments consist of:

- 30% dark grey to black relatively hard argillite of siliceous mudstone
- 30-40% medium grey , medium hard fine-grained siltstone
- 5% light to dark grey cherty fragments
- rare limestone clasts
- rare altered ultramafite

Fragments are commonly imbricated with their long axes at 30° to the core axis. Near its fault-contact with the syenite the rock is quite fissile, with fragments flattened and elongated.

The ultramafic clasts are altered to a bright green (probably mariposite). These clasts indicate that the unit was derived from eroded Cache Creek Complex rocks.

Metamorphic Rocks

Serpentinite (SERP)
This unit was intersected in only 1 hole; AX02-16. It is a dark to medium green aggregate of fine-grained serpentine variably altered to talc and magnesite. The rock is generally moderately magnetic.

7.1.2 Alteration

In hand specimen (surface and core) the syenite is very hard and was presumed to be strongly altered with secondary K-feldspar. In logs, moderate to strong potassic alteration was generally recorded as the primary (penultimate) alteration type. This was overprinted by a weak to strong pervasive carbonate-sericite-pyrite alteration. Feldspar phenocrysts (plagioclase and K-feldspar) are typically variably altered to a very fine-grained grey, soft, crystalline assemblage of sericite and carbonate. This same alteration with the addition of fine-grained disseminated pyrite occurs as irregular patches in the syenite porphyry matrix, along fractures and in breccia matrices.

In thin section, Craig Leitch (Appendix 7) notes that the alteration in the suite of rocks studied is mainly phyllic, with an alteration mineral assemblage of sericite, carbonate, pyrite and rutile. K-feldspar is abundant (commonly making up to 75% of the rock) as phenocrysts, replacement of plagioclase phenocrysts, and in the fine-grained groundmass. There are few textures in these rocks, such as K-feldspar veining, which are typical of strong hydrothermal-related secondary K-feldspar alteration. Although plagioclase is commonly replaced by K-feldspar, it may be a late-magmatic phenomenon rather than a hydrothermal event.

A plot of conserved constituents vs. K_2O (Section 7.1.4, Figures 7i and 7j) shows potassium smeared out, possibly due to potassic metasomatism. This may be caused by the addition of K-feldspar, or possibly sericite.

7.1.3 Veins

Historically, the best gold values from the Axelgold property were from mineralized veins in the syenite. Grab samples from Trench A in the south part of the Au grid contained up to 12.6 g/t Au. Megacrystic syenite in this area is cut by quartz-fluorite-calcite veins up to 7cm wide mineralized with stibnite, chalcocite, galena, sphalerite, and pyrite. A map of Trench 2 produced by Cyprus (Jiang and Hurley, 1996) shows a mineralized structure with an attitude of 295/60 NE, which may correlate with a mineralized structure intersected in holes AX87-03 and 04. In cross section the structure appears to dip at roughly 80° to the northeast (iMAP, 2002).

Mineralization in hole AX87-06, with gold grades up to 8.54g/t across 0.61m, is related to narrow pyrite veins cutting the syenite. A map of Trench 1 by Cyprus along the surface trace of the hole shows a possibly correlative gossanous mineralized shear zone with an attitude of 280/80NE.

Quartz stingers up to 2cm wide on the ridge northeast of the peak of gossan hill (iMAP anomaly B area) contain stibnite, galena, chalcopyrite, tetrahedrite and up to 2900pb Au (Taylor, 1986).

Very little veining was observed in core from the 2002 drill program. Veining generally consists of several cross-cutting sets of volumetrically minor hairline stringers. Generally, an early set of sub-millimetric sericite-carbonate ± pyrite stringers are cut by a later equally weak set of carbonate stringers. Veining typically makes up less than 1% of the rock. Other less abundant weak sets of early hairline stringers have mineral assemblages made up of combinations of sericite, carbonate, fluorite, pyrite, quartz and feldspar. A list of observed vein types is presented in the 'Codes for Geological Drill Logs' (Appendix 1).

In hole AX02-10, pyrite and pyrite-sericite stringers reached widths of several centimetres and in some intervals made up 3-5% of the rock.

7.1.4 Whole Rock and Rare Earth Geochemistry

A total of 38 core and surface specimens were submitted to ALS Chemex for whole rock analyses (major oxides and minor elements; Rb, Nb, Y, and Zr). Five of these samples were also analyzed for rare earth elements. With analyses from previous programs, the entire whole rock database consists of 107 samples (Appendix 9). Samples were separated into groups and given unique symbols for differentiation on data plots. Data was divided into subsets according to year and specific rock types to simplify the plots for interpretation.

Figure 7a is a plot of SiO_2 vs. $K_2O + Na_2O$ for all data sets and all rock types. The alkalic and subalkalic (calc-alkalic) fields are shown. Intrusive rocks have a scatter from calc-alkalic to alkalic. Most of the medium-grained syenites fall in the calc-alkalic field, whereas the late-stage megacrystic syenites are mostly alkalic. . It should be noted, however, that most rocks analyzed had a high LOI, possibly due to hydrous alteration minerals, and any interpretation of the entire data set should be treated with caution. An inset in Figure 7b shows data with LOI <4%.

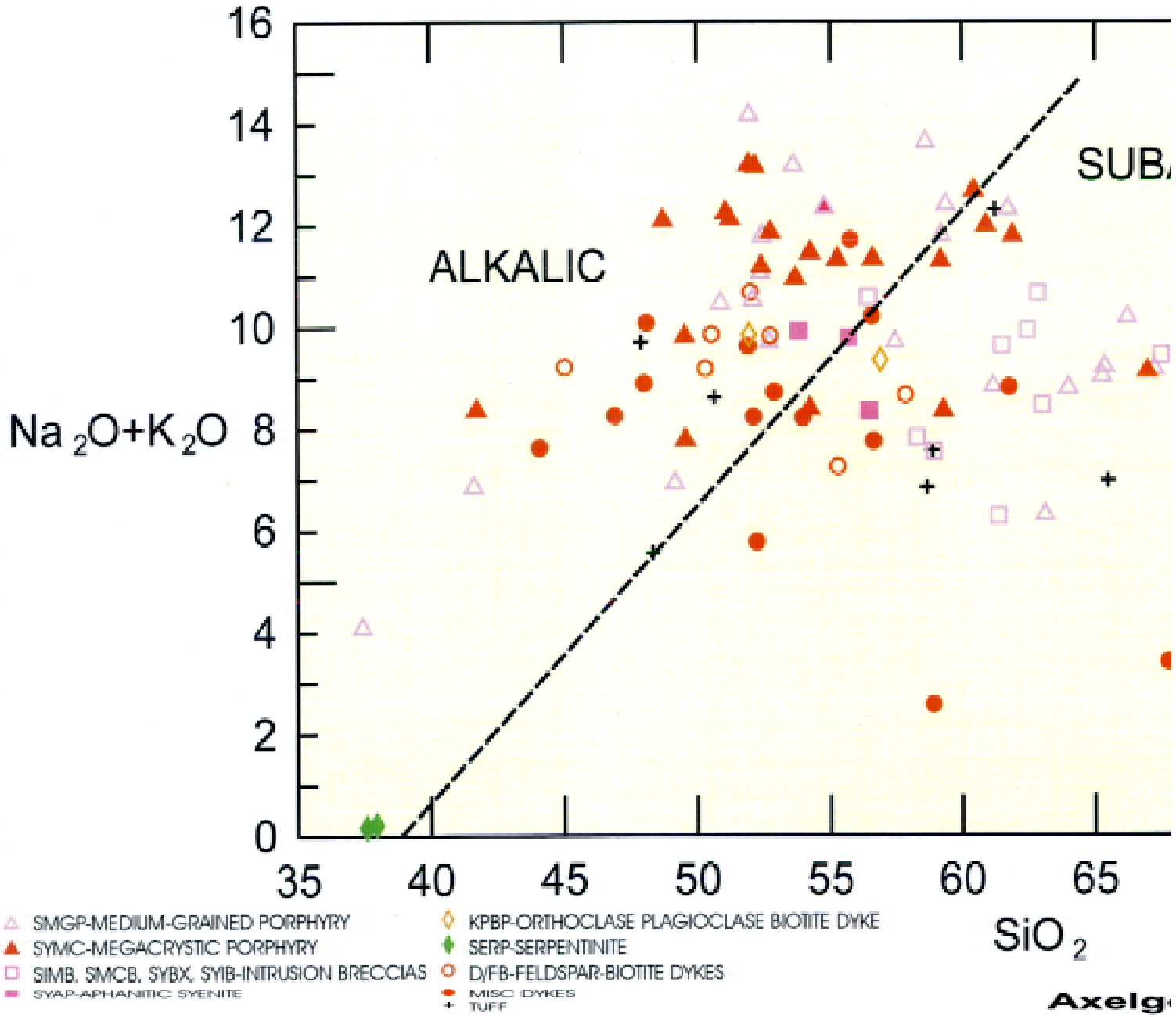
Alkalies-silica (SiO_2 vs. $K_2O + Na_2O$; LeBas, 1986) plots of all the whole rock data (Figures 7b-e) show that the majority of the medium-grained syenite (SMGP) falls into the syenite rock field, although there is a range in composition from granite to monzonite. The brecciated syenite units (SYIB, SIMB, SYBX, and SMCB) are scattered through a similar range suggesting that they are the same rock having undergone different plutonic processes. Megacrystic syenite (SYMC) has a distinctly different chemical composition than the finer-grained syenites, with a higher alkali and lower silica content. The megacrystic syenite is typically a nepheline monzonite. Field relationships suggest that the megacrystic syenite is a late-stage intrusive event, which is supported by the geochemistry. As the magma evolved silica would have been largely depleted forming feldspar. Late-stage melts would not have had enough silica to form feldspar with all of the available potassium and sodium, and hence would have formed nepheline.

The late-stage orthoclase-plagioclase-biotite porphyry dykes (KPBP and D/FB) are monzonitic in composition. They are less alkalic than the megacrystic syenites, and are probably from a different parent melt.

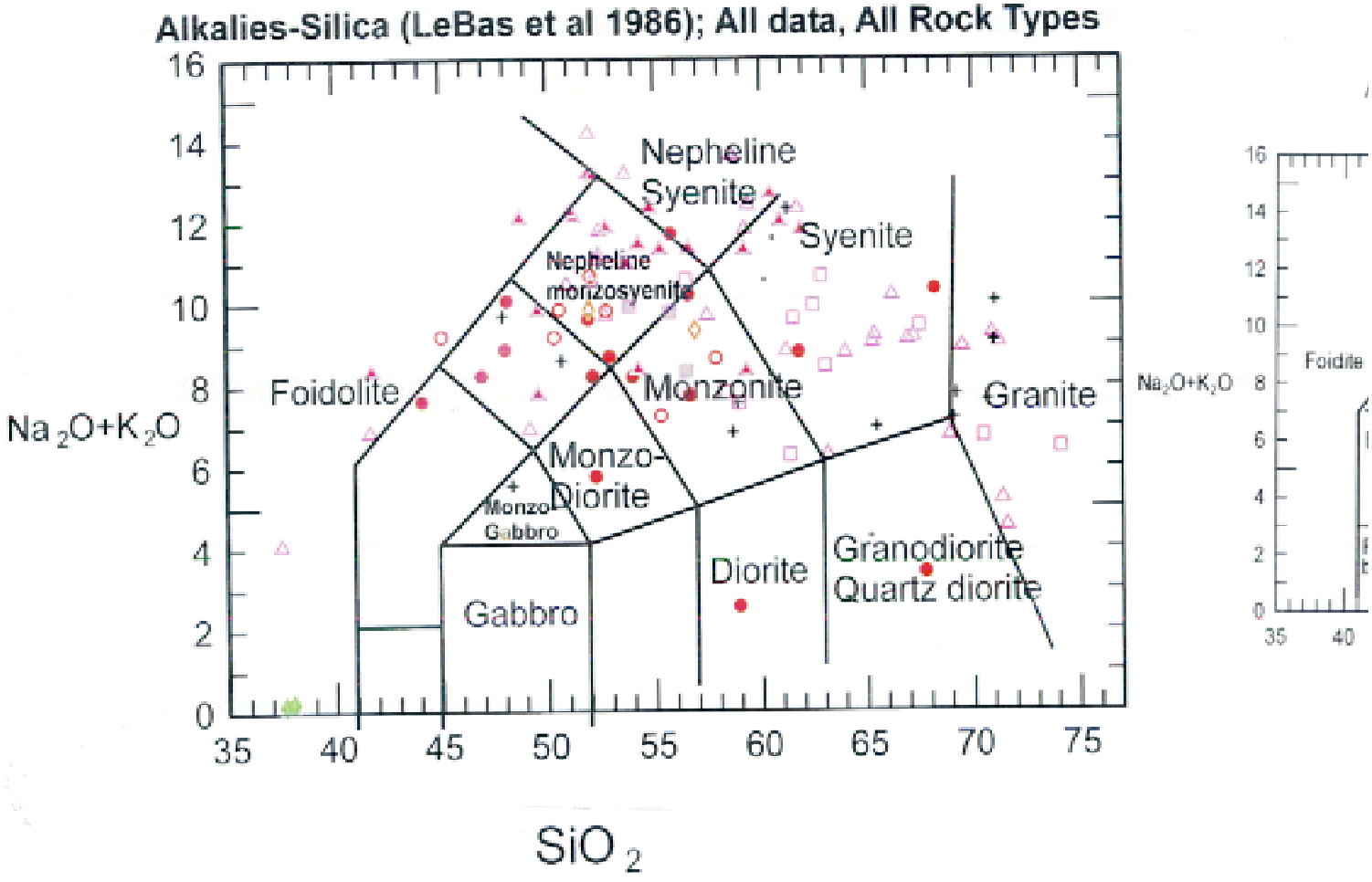
A sample (GA-6) from the greenish fragmental unit on the peak of Gossan Hill plots in the trachyandesite field. It is clearly of different composition than the syenite, and is probably a tuff rather than an intrusive breccia. This unit may be a pendant (Takla Group?) within the syenite.

Conserved constituent plots are presented in Figures 7f and g (Zr/TiO_2 vs Nb/Y). These plots use elements that are relatively immobile, regardless of the alteration the rock may have undergone.

ALKALIES-SILICA PLOT SHC
ALKALIC-SUBALKALIC FIE



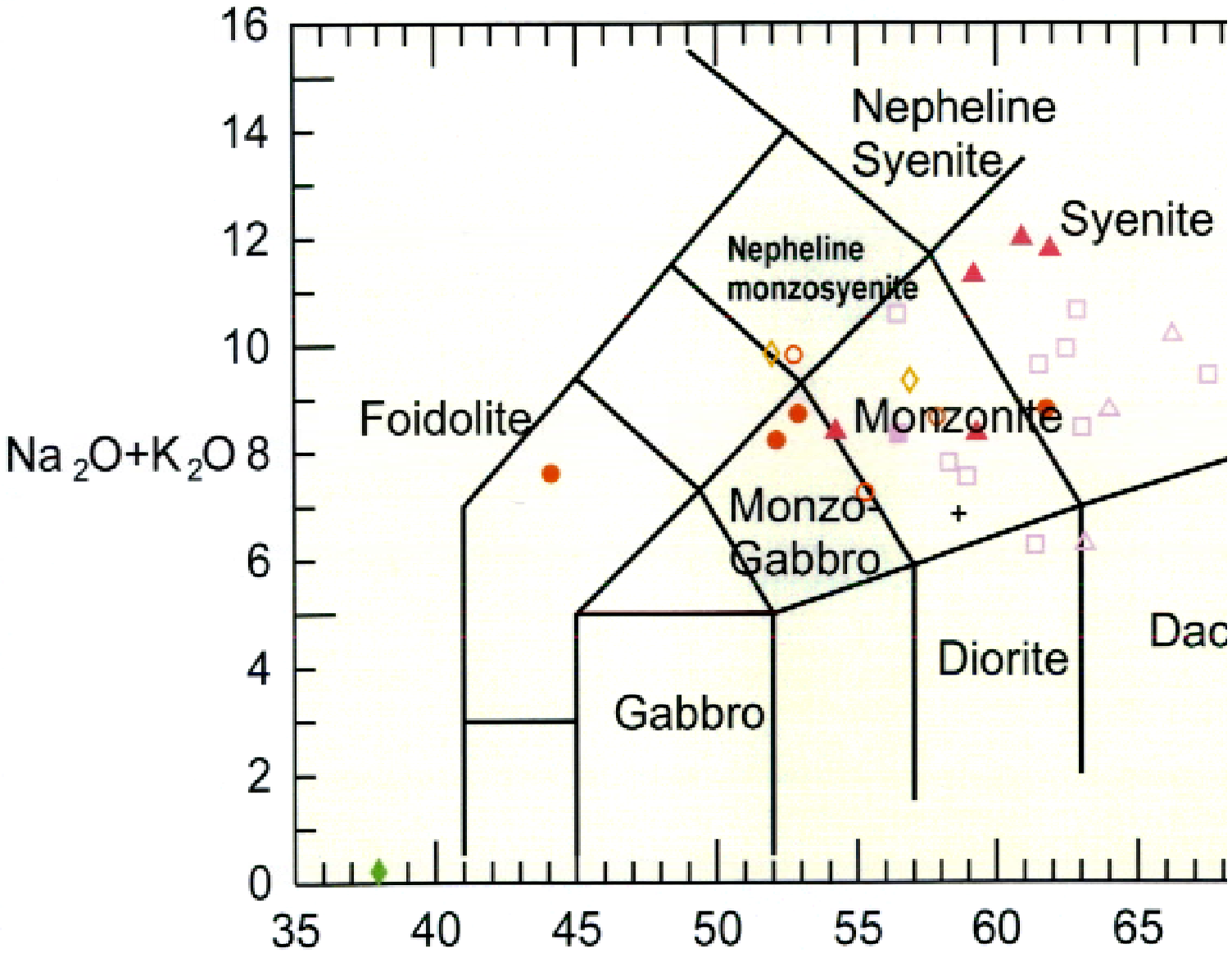
AXELGOLD PROJECT



△ SMGP-MEDIUM-GRAINED PORPHYRY
▲ SYMC-MEGACRYSTIC PORPHYRY
□ SIMB, SMCB, SYBX, SYIB-INTRUSION BRECCIAS
▬ SYAP-APHANITIC SYENITE
◊ KPBP-ORTHOCLASE PLAGIOCLASE BIOTITE DYKE
◆ SERP-SERPENTINITE
○ DYFB-FELDSPAR-BIOTITE DYKES
▬ MISC DYKES
+ TUFF

AXELGOLD PROJECT

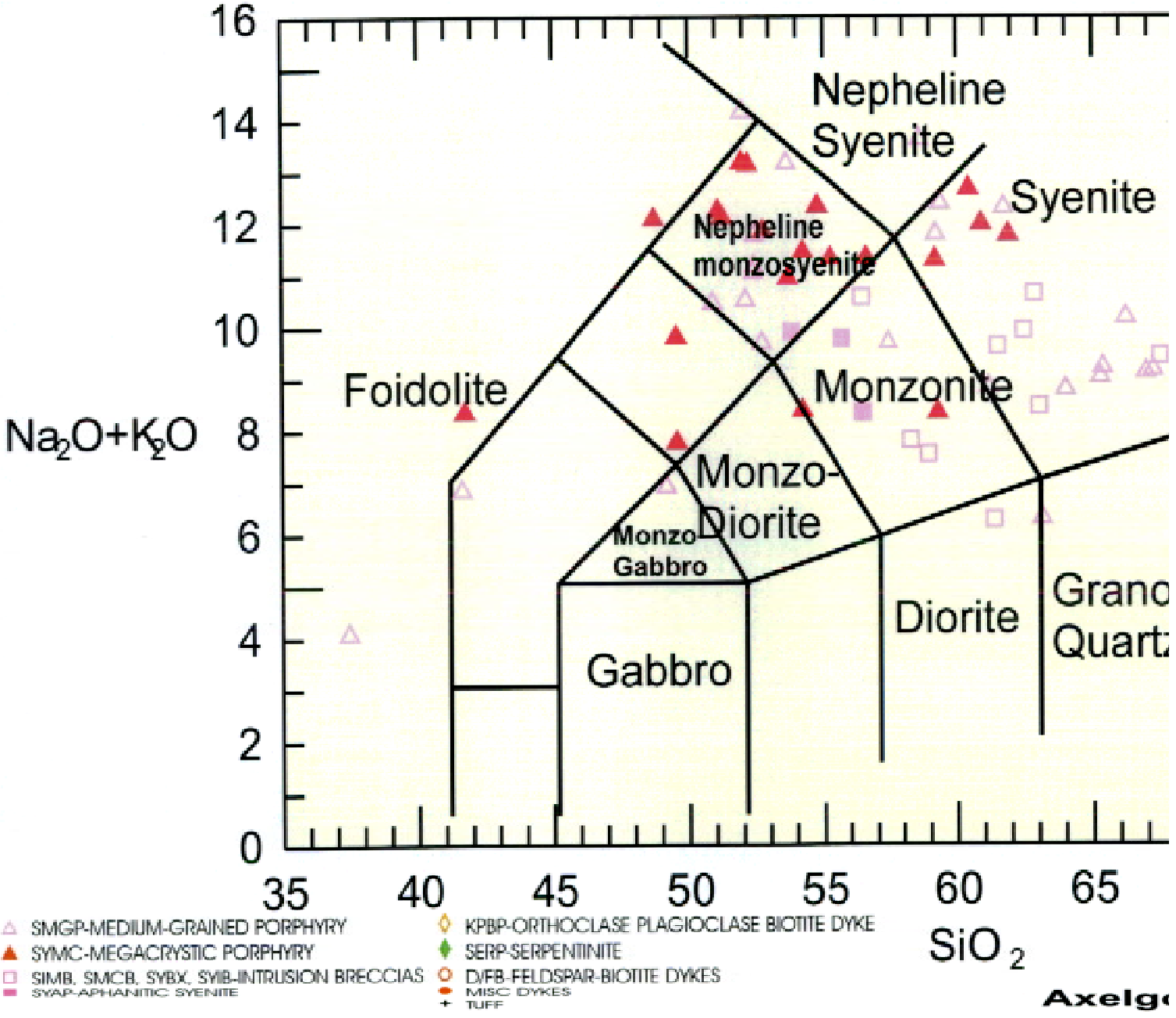
Alkalies-Silica (LeBas et al 1986); 2002 data on



Axelg

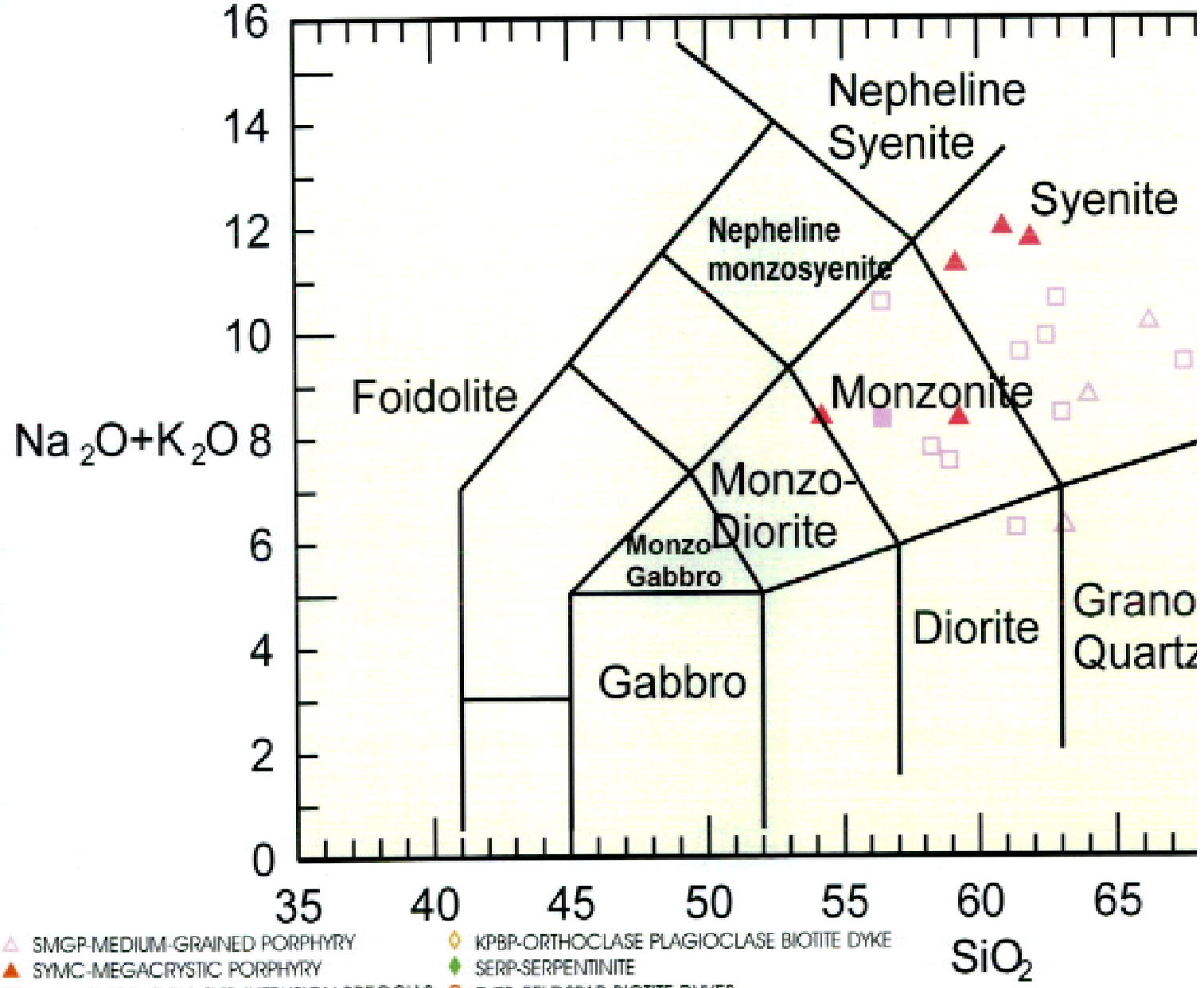
AXELGOLD PROJECT

Alkalies-Silica (LeBas et al, 1986); all data, s



AXELGOLD PROJECT

Alkalies-Silica (LeBas et al 1986); 2002 data, sy

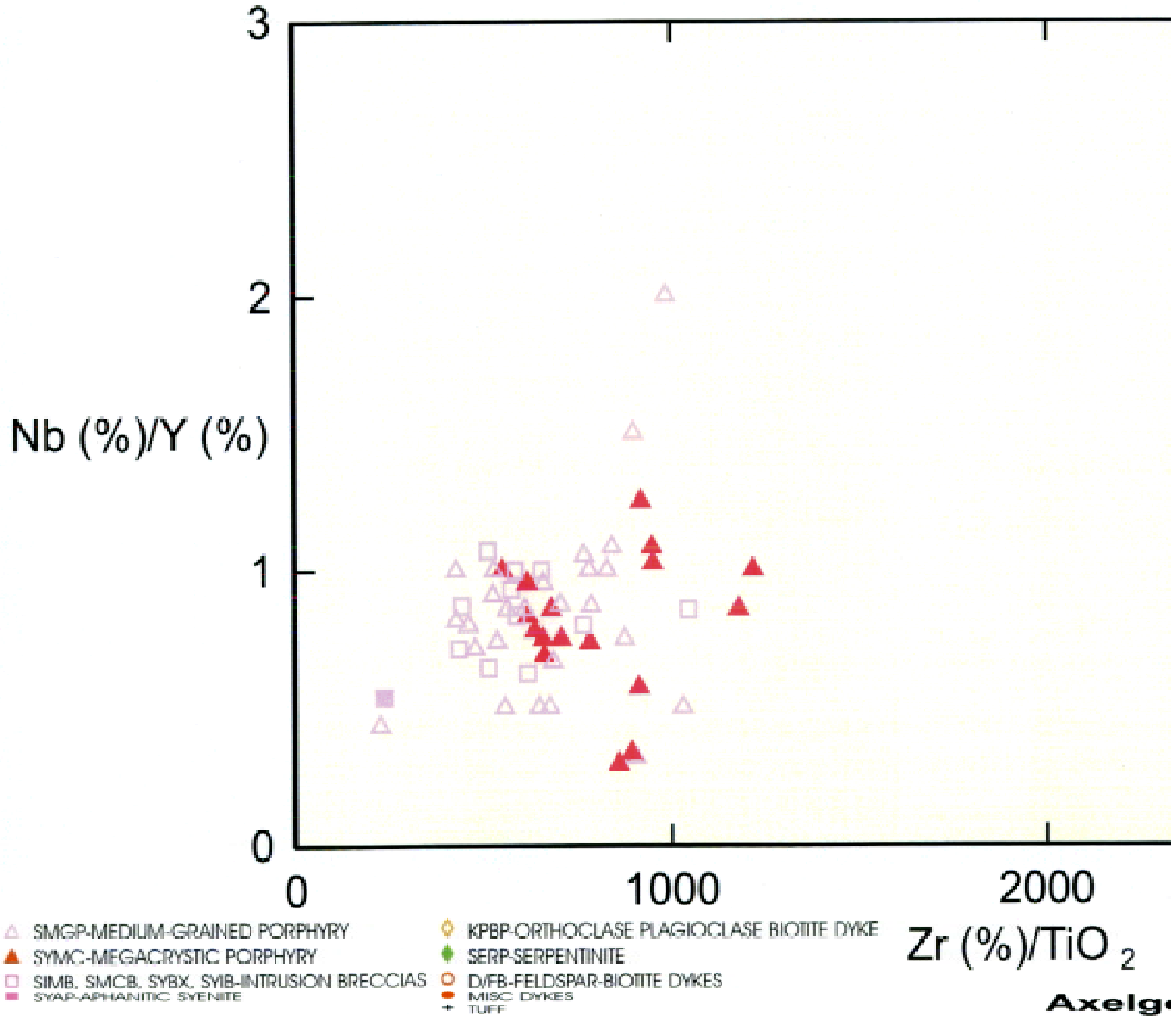


△ SMGP-MEDIUM-GRAINED PORPHYRY
▲ SYMC-MEGACRYSTIC PORPHYRY
□ SIMB, SMCB, SYBX, SYIB-INTRUSION BRECCIAS
▬ SYAP-APHANITIC SYENITE
◇ KPBP-ORTHOCLASE PLAGIOCLASE BIOTITE DYKE
♦ SERP-SERPENTINITE
○ D/FB-FELDSPAR-BIOTITE DYKES
▬ MISC DYKES
+ TUFF

Axelgc

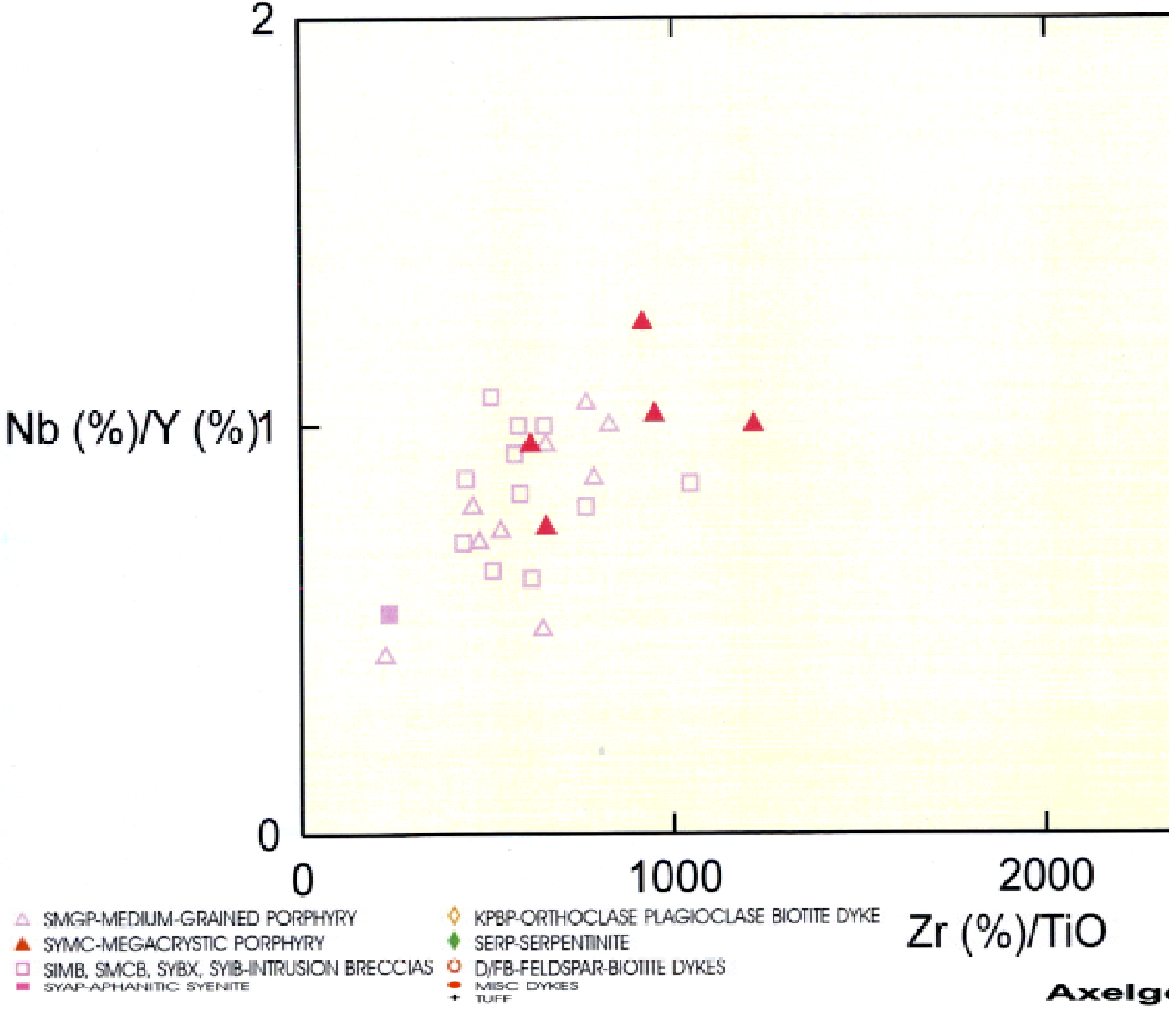
AXELGOLD PROJECT

Conserved Constituent Plot (Zr/TiO2 vs Nb/Y); all da



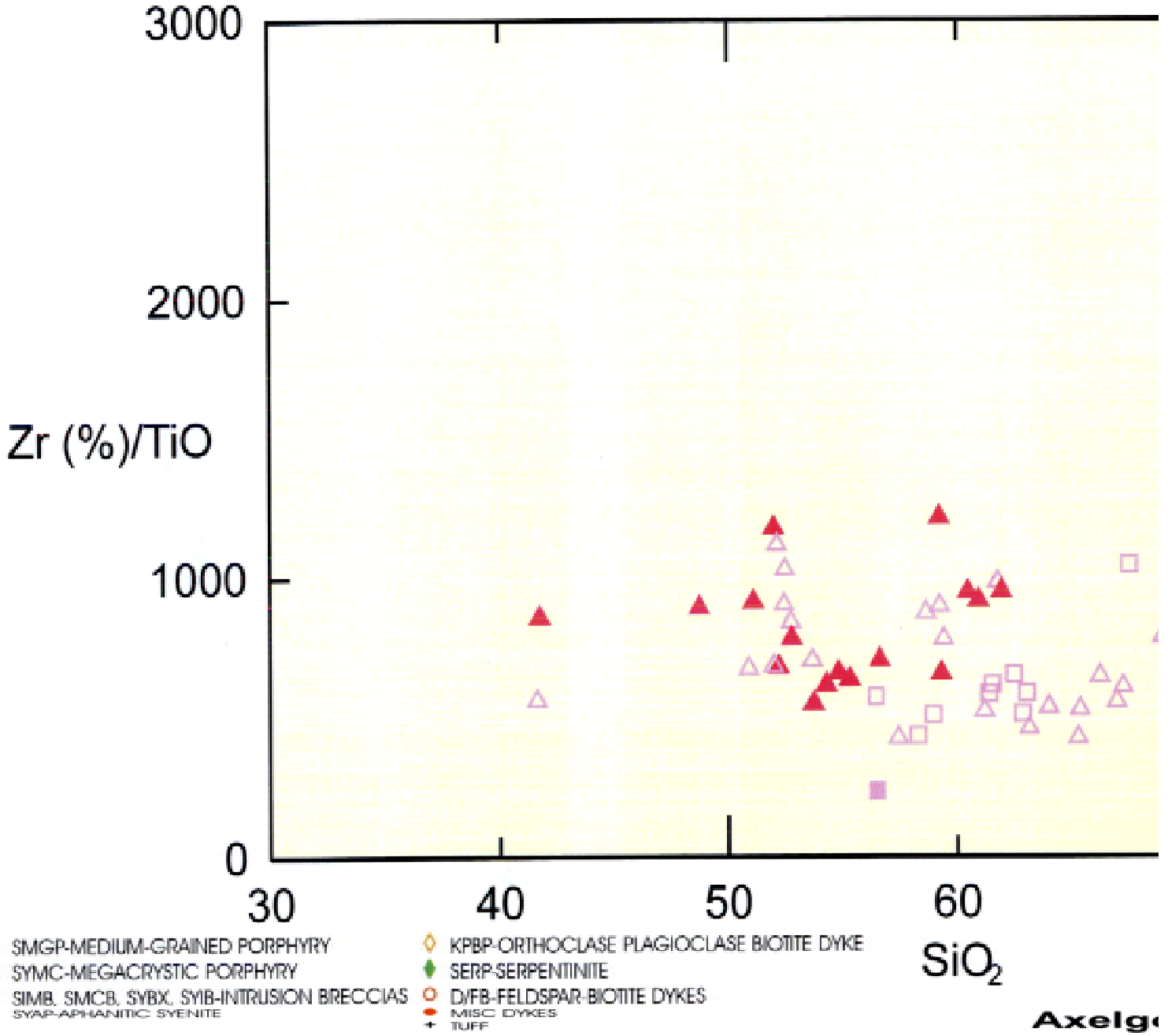
AXELGOLD PROJECT

Conserved Constituent Plot (Zr/TiO2 vs Nb/Y); 2002 c



AXELGOLD PROJECT

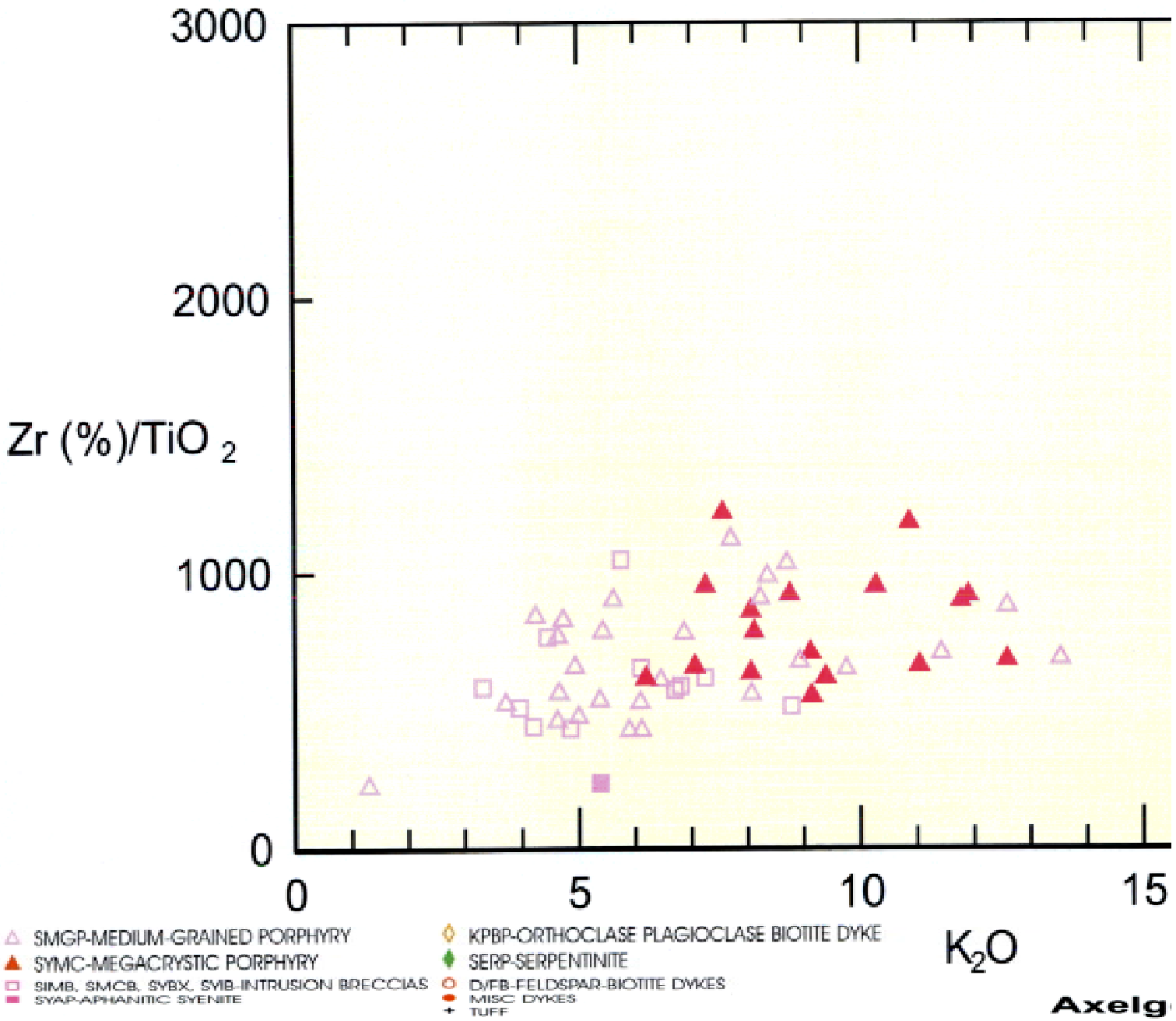
Silica Enrichment / Depletion (SiO2 vs Zr/TiO2); all



Axelg

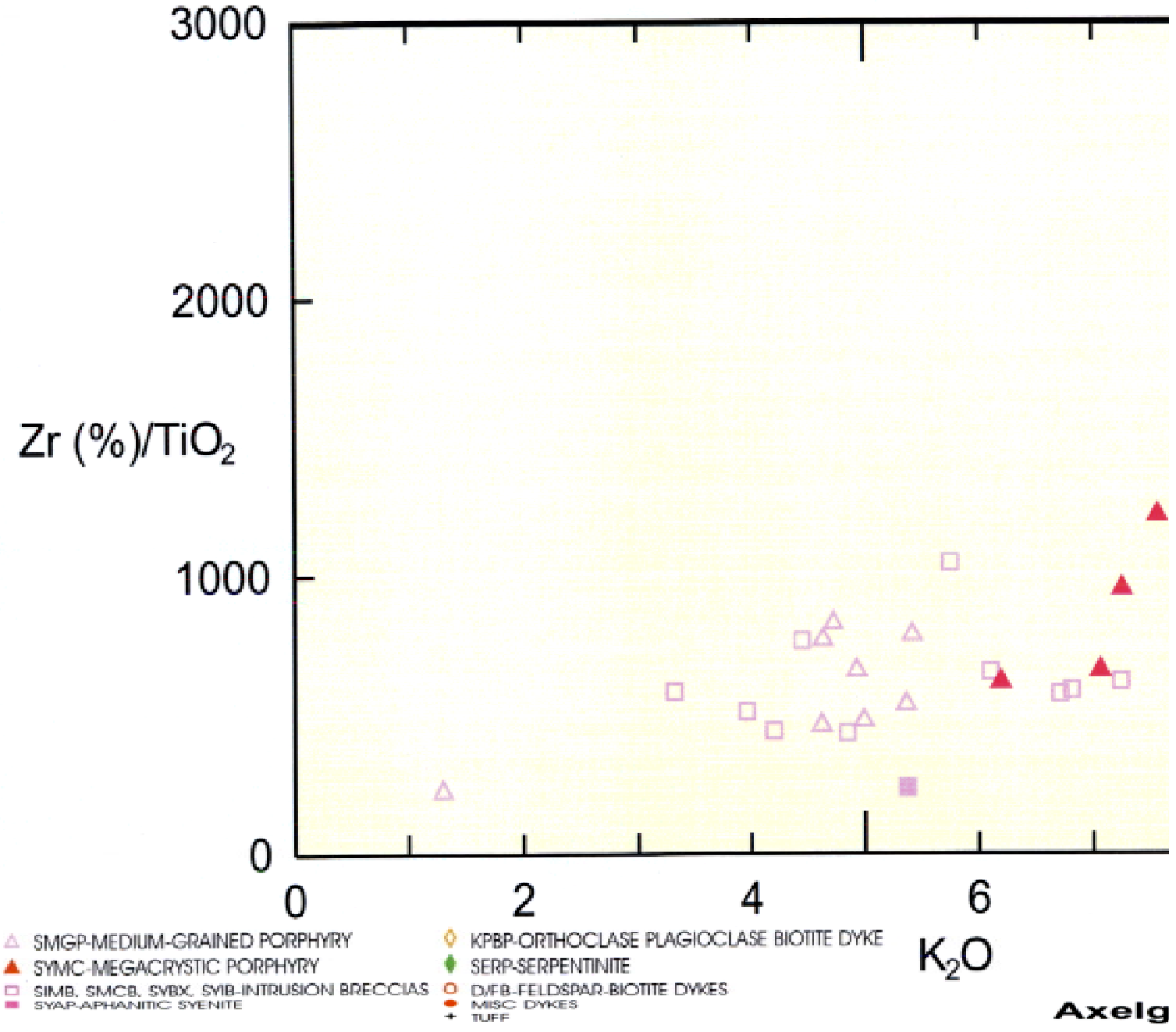
AXELGOLD PROJECT

Potassium Alteration Plot (K2O vs Zr/TiO2); all



AXELGOLD PROJECT

Potassium Alteration Plot (K2O vs Zr/TiO2); 2002



Hence, ratios of immobile elements should stay constant for a given rock type. Most of the syenites fall within a tight cluster, but it appears that the megacrystic syenite may have a slightly different composition, possibly due to magmatic differentiation.

A plot of SiO2 vs Zr/TiO_2 (Figure 7h) is designed to show if the rock has undergone any silica enrichment or depletion. Silica values are smeared out with the majority of the megacrystic syenite on the depleted end. This is probably simply showing an evolution of the melt to a lower silica content through time. Similar plots using K_2O in place of silica (Figures 7i and 7j) show a smearing of K_2O values, with megacrystic syenite on the upper end. Again, this could be magma evolution. The other syenites are also smeared out through the entire range of K_2O values. This may be indicating the addition of potassium through potassic alteration, possibly sericite.

A rare earth plot prepared by Joanne Nelson (Nelson, 2002) shows that the Axelgold syenitic rocks are very similar to intrusions at the Lustdust deposit to the southeast, and dissimilar to syenite from the Duckling Creek complex in the Hogem Batholith to the north. There may be a previously unrecognized suite of mineralized alkalic intrusions south of the Pinchi Fault in this area.

7.2 Mineralization

7.2.1 Surface Mineralization

The Axelgold syenite typically contains 1-5% fine-grained disseminated pyrite throughout. Pyrite is generally restricted to the groundmass of the porphyry.

Mineralization in Trench A has been covered, but a few cobbles of float were stacked to one side of the reclaimed trench. The rock appears to be a light to medium grey aphanitic to fine-grained crystalline syenite. It is hard but can be scratched and is therefore probably sericite-carbonate altered. 1-2% fine-grained pyrite and 1% dark grey metallic mineral, probably chalcocite, are disseminated throughout. Closely-spaced (2-3cm) quartz-carbonate-fluorite stringers cut the syenite and appear to coalesce into a mass of vein carbonate hosting 4-5% black chalcocite in irregular bands to 5mm wide, as fine-grained disseminated specs, and as late-stage fracture-fillings cutting across the carbonate. Pyrite (1-2%) is associated with the disseminated chalcocite. Strong malachite and azurite staining has developed along fractures.

Traces of disseminated pyrite and arsenopyrite were observed in the orthoclase-plagioclase-biotite porphyry dyke in the AX02-09 area.

7.2.2 Review of 1987 Core

Core from the 1987 drilling program was reviewed to identify characteristics of the mineralized zones.

The interval 116'-119' (35.36-36.27m) in drill hole AX87-01 contained 3.39 g/t Au. It is an orthoclase-plagioclase-biotite dyke (KPBP or D/FB) similar in appearance and chemistry to rock intersected in AX02-09. A whole rock sample from 32.9m in AX87-01 is a monzonite with an almost identical chemical signature to rock from 100.87m in hole AX02-09. It is a very hard (silicified?) medium-grained porphyry with 15-20% medium blue-grey orthoclase phenocrysts and 10% euhedral biotite phenocrysts altered to a soft pinkish aggregate of sericite and carbonate. The rock also contains 10-15% rounded white carbonate amygdules to 5mm in diameter. A second interval in AX87-01 between 138 and 141' (42.06-42.98m) contained 2.62 g/t Au. It is similar to the rock described above. There is nothing distinctive about these intervals to explain the elevated gold content.

Very little core from holes AX87-03 and 05 remain and no observation of their mineralized zones was made.

In hole AX87-04, the interval 182.0-187.0' (55.47-57.0m) contained 0.740 g/t Au. The rock in this interval is an aphanitic to fine-grained very hard medium blue-grey syenite (?) with 2-4% disseminated and fracture-controlled pyrite, and a 5% white carbonate (dolomite/ankerite) stockwork. Again, there is nothing distinctive about this interval.

Hole AX87-06 intersected medium-grained porphyritic syenite cut by pyrite stringers and veins, generally at high angles to the core axis. An interval from 261-263' (79.55 to 80.16m) contained 8.55g/t Au. The gold is related to pyrite in stringers and a massive vein 10cm wide, hosted in syenite with 1% disseminated pyrite.

A good summary table of significant intersections from the 1987 drilling is presented in the iMAP (2002) report, and is re-presented here in Table 5 for reference.

Table 5

Highlights From 1987 Diamond Drilling (from iMAP, 2002)

DDH	From (m)	To (m)	Length (m)	Au (g/t)	Cu (ppm)	Mo (ppm)
AX87-01	32.62	42.99	10.37	0.65		
AX87-03	34.47	40.26	5.79	3.12	6022	48
including	*37.52*	*38.43*	*0.91*	*5.89*	*7191*	*33*
including	*39.35*	*40.26*	*0.91*	*5.48*	*4803*	*31*
AX87-03	52.46	75.30	22.84			115
AX87-04	55.49	57.01	1.52	0.74		
AX87-05	6.10	36.28	30.18	0.41	953	107
including	*6.10*	*17.07*	*10.97*	*0.57*	*1873*	*122*
AX87-05	61.89	78.35	16.46			564
AX87-06	38.11	41.16	3.05	0.56		41
AX87-06	79.57	89.02	9.45	0.87		58
including	*79.57*	*80.18*	*0.61*	*8.54*		*79*
including	*85.37*	*87.50*	*2.13*	*0.82*		*61*

8.0 ROCK SAMPLING AND DIAMOND DRILLING

8.1 Surface Rock Chip Sampling

During field evaluation of drill targets a total of 22 surface chips were collected. Sample descriptions with assays are presented in Appendix 8. Only one sample had a significant gold content. Sample 54001 (1.51g/t Au) was collected from an exposure of orthoclase-plagioclase-biotite porphyry southwest of the collar of AX87-01. It is the same rock type which hosted anomalous gold up to 3.39g/t in AX87-01 and 0.827g/t in hole AX02-09. The surface exposure was cut by a few apparently unmineralized quartz veins, but was generally unremarkable.

8.2 Diamond Drilling

8.2.1 Discussion of Targets

The targets of the 2002 exploration program were structurally-controlled high-grade gold mineralization, and large-tonnage bulk mineable gold porphyry-type mineralization within the Axelgold syenite. Previous trenching and drilling had identified gold-bearing structures in the syenite along a northwest-trending zone near what was thought to be the intrusion's northeast margin.

A review of digital soil geochemical plots (iMAP, 2002) revealed that gold anomalies formed several roughly east-west zones up to 1.5 kilometres long by 200m wide which cut obliquely across the syenite (Figure 8). It was thought that these may have been related to a series of splay faults extending between the main Pinchi Fault on the northeast, and the fault along the Cache Creek Complex-sediment contact on the southwest. Mineralized veins are rarely observed on surface but two weak structures exposed in trenches excavated by Cyprus (Jiang and Hurley, 1996) are possibly correlative with mineralization intersected in drilling. These structures strike west-northwest and dip steeply to the northeast, roughly parallel with soil geochemical trends.

Drilling was proposed to cut the interpreted mineralized northeast margin of the syenite within the east-west gold-in-soil anomalies.

8.2.2 Discussion of Results

A total of 1364.29m of drilling was completed in 8 holes between August 14th and 29th. Hole locations are shown in Figures 5 and 8, and drill cross sections in Figures 6a through 6k. Survey data are presented in Table 6. Drill hole collars were surveyed using a Garmin 12XL handheld GPS unit. Coordinates are thought to be accurate to within 10m horizontal.

Table 6

Diamond Drill Hole Survey Data Summary

Number	Easting (NAD 83)	Northing (NAD 83)	Elevation	Azimuth	Dip	Length (m)	Length by Year
AX87-01	315130	6205817	1612	215	-45	101.19	
AX87-02	315134	6206010	1564	233	-42	107.29	
AX87-03	315232	6206162	1540	185	-45	102.72	
AX87-04	315232	6206162	1540	185	-70	79.86	
AX87-05	315156	6206256	1532	220	-45	98.15	
AX87-06	314768	6206631	1555	235	-45	101.19	
AX87-07	314454	6207712	1515	238	-46	73.46	***1987***
AX87-08	314219	6207635	1522	230	-46	63.09	726.95
AX02-09	315603	6206043	1685	200	-45	158.50	
AX02-10	314621	6206708	1572	008	-45	225.55	
AX02-11	314619	6206705	1572	226	-45	134.11	
AX02-12	314339	6206985	1844	027	-45	201.17	
AX02-13	314338	6206981	1844	185	-61	155.45	
AX02-14	314372	6206662	1653	009	-45	289.56	
AX02-15	314373	6206658	1653	225	-45	75.59	***2002***
AX02-16	314269	6206795	1767	226	-61	124.36	1364.29
					Total		**2091.24m**

Summaries of drill holes are presented below:

AX02-09
This hole is located in the southern part of the Au grid area, near line 1600S. It targeted a series of soil geochemical anomalies which define a roughly east-west trending zone approximately 100m wide by over 1 km long (Figure 8). Soil samples in the vicinity of the hole contained up to 2.3 g/tonne Au. The area is underlain by a fine to medium-grained orthoclase-biotite-plagioclase porphyritic dyke (KPBP) cutting syenite and syenite intrusion breccia. The dyke is very hard (silicified?, K-feldspar altered?) and mineralized with 1-5% (average 1-2%) fine-grained disseminated pyrite, and traces of arsenopyrite. It is exposed in a series of strongly gossanous ribs and cliffs.

The drill hole intersected a few metres of medium-grained syenite porphyry near the top of the hole, and then passed into 95m of the orthoclase-biotite-plagioclase porphyry. As on surface, the dyke contained 1-2% fine-grained disseminated pyrite and traces on arsenopyrite. The last part of the hole consisted of intercalated fine to coarse-grained clastic rock, probably a syenite intrusive breccia with a finely milled groundmass.

The highest gold grade from the 2002 program came from the (KPBP) unit in hole AX02-09. The average grade in one KPBP unit was 0.164g/t Au across 90.44m, with values up to 0.827g Au and 0.486% As across 0.65m.

The main KPBP dyke in this hole is similar visually and chemically to the dykes containing up to 3.1 g/t Au in hole AX87-01.

AX02-10
This hole was drilled on Au Grid line 400S near the baseline. It was targeting an east-west-trending zone of soil geochemical anomalies, as well as the mapped northeast margin of the syenite body.

The hole intersected medium-grained syenite orthoclase porphyry and intrusion breccia for much of the top of the hole, and megacrystic syenite for the lower part. The entire hole was well mineralized with 1-10% (average 3-5%) disseminated and stringer / fracture-filling pyrite, and ubiquitous traces of a very fine-grained blue-grey metallic mineral which occurs both disseminated and along hairline fractures. Even after a polished thin section study this mineral has not been positively identified. In his petrographic report (Appendix 7) Leitch suggests that it could be chalcocite, but that an SEM study would be required to be sure. Copper values in this hole range up to 493ppm, indicating that it could contain traces of chalcocite. Fluorite occurs sporadically throughout, generally with carbonate stingers. The rock has undergone sporadic weak to moderate phyllic alteration with fine-grained sericite and carbonate forming haloes around fractures, and irregular masses in the porphyry matrix.

AX02-11
This drill hole was twinned from the same pad as AX02-10. It intersected intercalated medium-grained syenite porphyry (SMGP) and syenite breccia for its entire length. The rock was weakly mineralized with roughly 1% disseminated pyrite throughout. Gold grades were low, reaching a maximum of 372ppb across 0.99m.

AX02-12
Holes AX02-12 and 13 were drilled from the ridge on gossan hill. Hole 12 intersected moderately to strongly sericite-altered megacrystic syenite at the top and then medium-grained syenite at depth. Pyrite content averaged 1% or less. Gold grades were low.

AX02-13
Intercalated megacrystic syenite and medium-grained syenite porphyry was intersected for much of the upper part of the hole. Syenite intrusion breccia predominates toward the end of the hole. The rock has been moderately sericite-altered throughout. Pyrite content averages 3-4%. The best gold grade of 0.439 g/t across 2.25m is associated with a biotite-feldspar porphyritic dyke (D/FB); probably related to similar gold-bearing rock intersected in holes AX87-01 and AX02-09.

AX02-14
This hole intersected long intervals of syenite intrusion breccia (SYIB) intercalated with lesser amounts of medium-grained syenite porphyry (SMGP). Rocks are moderately sericite altered and contain an average of 3-4% pyrite throughout. Gold grades were generally low, reaching 0.303g/t across 1.5m.

AX02-15
Hole AX02-15 was drilled from the same pad as AX02-14 to test the syenite-sedimentary breccia contact zone. The top of the hole was predominated by intercalated syenite intrusion breccia with lesser amounts of medium-grained and aphanitic syenite. The bottom of the hole was in foliated sedimentary breccia (SDBX). The contact between the syenite and the sediment is abrupt along a crush minor zone. Syenite at the contact is a fine-grained microbreccia. It is unclear if this is a brecciated chill margin, or simply a finely ground intrusive breccia. The sedimentary breccia shows little alteration, but lithic fragments are more flattened near the contact. Gold grades are generally at or below background levels for the entire hole.

AX02-16
This site was picked by Stan Keith based on his interpretation of metal zonation and plutonic vectoring. An intercalated sequence of medium-grained porphyritic syenite, megacrystic syenite, and syenite intrusion breccia was intersected in the upper part of the hole. The syenites are in contact with sedimentary breccia along a significant (10m wide) fault zone. Faulting appears to have been focused predominantly in the syenite. Contact with the sedimentary breccia is sharp. With depth the sedimentary breccia unit becomes more sheared and eventually contacts highly deformed and sheared serpentinite. It is unclear if the sediment-serpentine contact is along a fault. Serpentine was noted within the sedimentary breccia unit within 2 metres of the contact. The age of this sedimentary breccia is still obscure. Its serpentine content suggests that it may have been deposited onto the deformed Cache Creek Complex.

No significant gold grades were intersected in the hole.

A summary of significant anomalous intersections from the 2002 program is presented in Table 7.

Table 7

Summary of Significant Intersections from the 2002 Drilling Program

DDH	From (m)	To (m)	Length (m)	Au (g/t)	As (ppm)*	Cu (ppm)*	Mo (ppm)*
AX02-09	36.58	112.98	76.40	0.182	1291	54	2
Including	*73.15*	*73.80*	*0.65*	*0.827*	4860	*58*	*1*
AX02-10	10.67	225.55	214.88	0.162	144	175	79
Including	*15.24*	*18.29*	*3.05*	*0.772*			
AX02-11	9.14	18.29	9.15	0.217	75	32	23
AX02-11	84.53	116.75	32.22	0.176	63	17	16
AX02-12	*No significant results*						
AX02-13	135.10	152.41	17.31	0.260	166	52	68
AX02-14	193.52	228.60	35.08	0.150	160	73	7
AX02-15	20.00	20.15	0.15	0.402			
AX02-15	45.40	48.77	3.37	0.306			
AX02-16	*No significant results*						

***Note: Not all samples have ICP results. As, Cu, and Mo values shown are a simple average of analyses in the interval.**

9.0 CONCLUSIONS

The Axelgold property is partly underlain by a syenite-monzonite-nepheline monzonite intrusive complex of calc-alkaline to alkaline composition. Rocks in the complex are strongly pyritized and weakly to moderately phyllic-altered (carbonate-sericite assemblage; potassic metasomatism). Broad zones within the intrusion contain anomalous levels of gold (0.26 g/t Au across 17.31m, 0.162 g/t Au across 214.88m, etc.) associated with disseminated and stringer-related pyrite and fluorite-carbonate stringers and breccia filling. Other more restricted zones on the property contain quartz-carbonate-fluorite stockwork zones mineralized with up to 3.12 g/t Au across 5.79m (AX87-03) and up to 12.6 g/t Au in grab samples on surface (Trench A). These mineralized stockwork zones contain chalcocite, pyrite, galena, sphalerite, and stibnite. All of these characteristics are consistent with an 'alkalic syenite-hosted gold porphyry' model.

From the review of 1987 core it appears that the best gold mineralization on the Axelgold property is associated with quartz-calcite-fluorite-pyrite veins containing chalcocite, galena and possibly stibnite in holes AX87-03, 04 and 05. In hole AX87-06 significant gold values are associated with pyrite stringers. No mineralized quartz-carbonate-fluorite stockwork was intersected in the 2002 drilling. Pyrite stringer mineralization intersected in AX02-10 was similar to rock in hole AX87-06, but in AX02-10 gold grades were only elevated to the 100-300 ppb range.

The best mineralization observed to date occurs in the valley bottom between holes AX87-03 and AX87-06, a distance of 650m. This area was very loosely bracketed to the southeast and northwest by the 2002 drilling, but apart from hole AX87-05 the internal part of the mineralized

zone remains untested. Mapping conducted during this program indicates that the syenite is much larger than previously thought, extending at least an additional 1km to the northeast, and significantly expanding the area of potential syenite-hosted mineralization. The abundance of intrusion breccia (possibly diatremes) on the property, much with pyrite-flooded matrix, indicates that the complex was structurally well prepared for subsequent mineralization.

Elevated gold values are consistently associated with the late-stage north to north-northwest trending orthoclase-plagioclase-biotite porphyry dykes (KPBP). These dykes are observed as a loose swarm cutting sedimentary breccia to the south of the syenite, and appear to trend into the holes AX87-03 to 06 area (Figure 5). North of this drilling the dykes project into an area with sporadic gold-in-soil anomalies, including iMAP Anomalies B, C and D.

Anomaly B is located on the ridge running northeast from the peak of Gossan Hill. It has stibnite- and tetrahedrite-bearing stringers cutting syenite near KPBP dykes, roughly 1.4 kilometres along trend from the gold-bearing dykes intersected in AX87-01. An unexplained gold-in-soil anomaly of 9050ppb is located in anomaly C in the extreme northwest part of the grid area. The area appears to be underlain by syenite intrusion breccia, and is on trend with the KPBP dykes approximately 2 kilometres north-northwest of AX87-01.

In summary, the northwest-trending AX87-03 to AX87-06 mineralized zone appears to be cut by the swarm of late-stage gold-bearing dykes and is the best exploration target on the property. These dykes have spatially-related gold anomalies along a 2km(+) trend both within and peripheral to the syenitic intrusion. This trend constitutes a larger secondary exploration target.

10.0 RECOMMENDATIONS

Prospecting, rock sampling, and mapping along the 600m(+) wide by 2km(+) long trend of late-stage dykes is warranted (Figure 9). Specific anomalous soil sample sites in anomalies B, C, and D as defined by iMAP should be investigated. Sites with extremely elevated gold values, such as at 300N, 1075E on the Gab grid with 9050ppb Au require trenching.

Much of this mineralized trend is below tree line and therefore poorly exposed. A systematic drilling program targeting the dyke-trend in areas with known mineralization (as in the AX87-03 to AX87-06 area) and anomalous soil geochemistry is warranted. All-in cost per metre for drilling (including administration) for the 2002 program was approximately $257. It is estimated that a 2500 metre, 8-10 hole program would cost approximately $650,000.

11.0 BIBLIOGRAPHY

Armstrong, J.E., 1949, Fort St. James map-area, Cassiar and Coast districts, British Columbia; Geol. Surv. Can., Mem. 252.

Casadevall, T., Ohmoto, H., 1977, Sunnyside Mine, Eureka Mining District, San Juan County, Colorado: Geochemsitry of gold and base metal ore deposition in a volcanic environment. Economic Geology, Vol. 72, 1977, pp. 1285-1320.

Cocker, M.D., 1993, Primary element dispersion patterns in a carbonate-hosted, epithermal, high-grade, Au-Ag telluride system: Mayflower mine, Madison County, Montana, U.S.A. Journal of Geochemical Exploration, 47 (1993) 377-390. Elsevier Science Publishers B.V., Amsterdam.

DeLong, R.C., Godwin, C.I., Harris, M.W., Caira, N.M., Rebagliati, C.M., 1990, Geology and alteration at the Mount Milligan gold-copper porphyry deposit, central British Columbia (93N/1E). University of British Columbia, Continental Gold Corp., and Rebagliati Geological Consulting, Geological Fieldwork 1990, Paper 1991-1.

Dickin, A.P., Rice, C.M., and Harmon, R.S., 1986, A strontium and oxygen isotope study of Laramide magmatic and hydrothermal activity near Central City, Colorado. Economic Geology, Vol. 81, 1986, pp. 904-914.

Foster, F., Geology and general overview of the Golden Sunlight Mine, Jefferson County, Montana.

Garnett, J.A., Duckling Creek area, Hogem Batholith

Gorc, D., 1991, Summary Report, Axelgold Property. Unpublished internal report produced for Cathedral Gold Corporation and Equinox Resources, March, 1991.

Irvine, T.N., Studies of Cordilleran Gabbroic and ultramafic intrusions, British Columbia; Part 1: Axelgold Gabbro intrusion, McConnell Creek map-area. Geological Survey of Canada, Paper 76-1A.

Jiang, X.D., and Hurley, T.D., 1996, Axelgold Project; Report on the 1996 Exploration Program, AXD 1-6, AXEL 1-4, AX 952-953, AX 963-969, AX9610-9614. Unpublished internal report prepared by Cyprus Canada Inc., November, 1996.

Kaip, A., and Childe, F., 2002, Exploration Memo and Data Synthesis: Axelgold Property, north central British Columbia. Unpublished internal report prepared for Rubicon Minerals Corporation by iMAP Interactive Mapping Solutions Inc., April 30, 2002.

Keith, S.B., 1990, Economic viability and exploration success in western U.S. gold occurrences as a function of their magma series affinity. MagmaChem.

Mansy, J.L., and Dodds, C.J., 1976, Stratigraphy, structure, and metamorphism in northern and central Swannell ranges. Geological Survey of Canada, Paper 76-1A.

McInnis, K, 1998, Geological and Lithogeochemical Report on the Axelgold Project; AX 952, 953, 9613; AXD 1-6; AXEL 1-3. Unpublished internal report for Rubicon Minerals Corporation, April, 1998.

Melling, D., 2000. Qualifying Report on the Argyle Property, for Phoenix Matachewan Mines Inc., by David Melling, November, 2000.

Monger, J.W.H., 1974, The Takla Group near Dewar Peak, McConnell Creek map-area (94D). British Columbia. Geological Survey of Canada, Paper 74-1, Part B.

Monger, J.W.H., 1976, Lower Mesozoic rocks in the McConnell Creek map-area (94E), British Columbia. Geological Survey of Canada, Paper 76-1A.

Monger, J.W.H., 1989, Overview of Cordilleran Geology. In: Western Canada sedimentary basin: a case history. B.D. Ricketts, ed., Canadian Society of Petroleum Geologists

Morton, J., 1985, A geochemical soil survey "A" grid, on the Axel 5-8 claims. Unpublished internal report produced for Imperial Metals Corporation, October, 1985.

Mutschler, F.E. and Mooney, T.C., 1993, Precious-metal deposits related to alkalic igneous rocks: Provisional classification, grade-tonnage data and exploration frontiers, in Kirkham, R.V., Sinclair, W.D., Thorpe, R.I. and Duke, J.M., eds., Mineral Deposit Modeling; Geological Association of Canada, Special Paper 40, p. 479-520.

Nelson, J.L., Gray, M., and Carmichael, R., 2003, Innovation gold targets in the Pinchi Fault/Hogem Batholith area: the Hawk and Axelgold properties, central British Columbia. B.C. Ministry of Energy and Mines, Geological Fieldwork 2002, Paper 2003-1, in press.

Page, J.W., and Culbert, R.R., 1984, Report on a geochemical survey on the Axel property, Axelgold Range. Internal report for Equinox Resources Ltd., August 10, 1984. Assessment report 12784.

Paterson, I. A., 1974, Geology of Cache Creek Group and Mesozoic rocks at the northern end of the Stuart Lake Belt, central British Columbia. In: report of activities, Geological Survey of Canada 74-1, Part B, pp. 31-42.

Rice, C.M., Harmon, R.S., and Shepherd, T.J., 1985, Central City, Colorado: The upper part of an alkaline porphyry molybdenum system. Economic geology, Vol. 80, 1985, 1769-1796.

Rice, C.M., Lux, D.R., and Macintyre, 1991, Timing of mineralization and related intrusive activity near Central City, Colorado. Economic geology, Volume 77, 1982, pp. 1655-1666.

Richards, T.A., 1976, Takla Project (Reports 10-16): McConnell Creek map-area (94D, east half). British Columbia. Geological Survey of Canada, Paper 76-1A.

Richards, J.P., 1990, Petrology and geochemistry of alkalic intrusives at the Porgera gold deposit, Papua New Guinea. Journal of Geochemical Exploration, 35 (1990) 141-199, Elsevier Science Publishers B.V., Amsterdam.

Richards, J.P., 1992, Magmatic-epithermal transitions in alkalic systems: Porgera gold deposit, Papua New Guinea. Geology, V. 20, pp. 547-550, June 1992.

Richards, J.P., 1995(?), Alkalic-type epithermal gold deposits-a review. MAC Short Course 23, Chapter 17.

Richards, J.P., 1997, Controls in scale of Porgera-type porphyry/epithermal gold deposits associated with mafic, alkalic magmatism. Transactions of the Institution of Mining and Metallurgy, Vol. 106, B1-58.

Richards, J.P., 2000, Lineaments Revisited. SEG Newsletter, No. 42.

Schroeter, T.G., and Cameron, R, 1996. Alkalic Intrusion-Associated Au-Ag. In: B.C. Mineral Deposit Profiles, Open File 1996-13.

Scott, A., 1987, *Logistical Report, Induced Polarization Survey, Takla Rainbow South and* Axelgold Grids, Takla Area, B.C. Internal geophysical report prepared for Imperial Metals Corporation, August 3, 1987.

Struik, L.C., Schiarizza, P., Orchard, M.J., Corday, F., Sano, H., Macintyre, D.G., Lapierre, H., and Tardy, M., 2001, *Imbricated architecture of the upper Paleozoic to Jurassic oceanic Cache* Creek Terrane, central British Columbia. Canadian Journal of Earth Sciences, Volume 38, pp. 495-514.

Taylor, A. B., 1986, Geology of the central Axelgold Range. Unpublished internal report for *Imperial Metals Corporation, November, 1986.*

Taylor, A. B., 1987, Geology of the Central Axelgold Range. Unpublished internal report for Imperial Metals Corporation, July, 1987.

Taylor, A. B., *1986, 1986 Year End Report to Imperial Metals Corporation and Equinox* Resources Concerning Exploration Activities Completed on the Axelgold Joint Venture. Unpublished internal report produced by Imperial Metals Corporation, December, 1986.

Taylor, A. B., 1988, 1987 Year End Report, Axelgold Joint Venture Between Imperial Metals Corporation and Equinox Resources Ltd. *Unpublished internal report produced by Imperial* Metals Corporation, May, 1988.

Tesfaye, G., 1992, Ore-microscopic and geochemical characteristics of gold-telluride-sulfide mineralization in the Macassa Gold Mine, Abitibi Belt, Canada. Mineral Deposita 27, 66-71 (1992).

Thompson, T.B., Trippel, A.D., and Dwelley, P.C., 1985, Mineralized veins and breccias of the Cripple Creek District, Colorado. Economic Geology, Vol. 80, pp. 1669-1688.

Tosdal, R.M., and Richards, J.P., 2001, Magmatic and structural controls on the development of porphyry Cu±Mo±Au Deposits. Society of Economic Geologists, Reviews v. 14, 2001, p. 157-181.

Vila, T., Sillitoe, D.H., Betzhold, J., and Viteri, E., 1991, The Porphyry Gold Deposit at Marte. Northern Chile. Economic Geology, Vol. 86, 1991, pp. 1271-1286.

Woodsworth, G.J., 1976, Plutonic rocks of McConnel Creek (94D west half) and Aiken Lake (94C east half) map-areas, British Columbia. Geological Survey of Canada, Paper 76-1A.

Zhang, Xiaomao, and Spry, Paul, 1994, Petrological, mineralogical, fluid inclusion, and stable isotope studies of the Gies gold-silver telluride deposit, Judith Mountains, Montana. Economic geology, Volume 89, 1994, pp. 602-627.

STATEMENT OF QUALIFICATIONS

I, GORDON J. ALLEN, DO HEREBY CERTIFY THAT:

1. I am a consulting geologist with a business office at 2479 Jackson Valley Road, Duncan, British Columbia, Canada.

2. I am a graduate from the University of British Columbia with a Bachelor of Science, Honours Geology degree (1975).

3. I am a member in good standing of the Association of Professional Engineers and Geoscientists of the Province of British Columbia (19692).

4. I have practiced my profession in mineral exploration for twenty-seven years with numerous multinational mining corporations, junior mining companies, geological consulting companies and as an independent consultant.

5. I have personally performed or observed exploration activities on the subject property between August 6th and September 5th, 2002.

6. I am not an officer or director of Rubicon Minerals Corporation or of Wheaton River Minerals Ltd. I have not received any direct or indirect interest in the properties of Rubicon Minerals Corporation or of Wheaton River Minerals Ltd., nor in any affiliates or in any property within a radius of ten kilometres of the subject property.

7. I do not own, directly or indirectly, any securities of the companies.

8. I hereby authorize Rubicon Minerals Corporation and Wheaton River Minerals Ltd. to use this report or excerpts of this report for any news release, prospectus, or Statement of Material Facts related to the Axelgold group of claims, provided that no excerpts are used out of context with the whole.

Gordon J. Allen, P. Geo
Consulting Geologist

Dated at Vancouver, British Columbia, this 29th Day of November, 2002.

STATEMENT OF QUALIFICATIONS

I, **MICHAEL J. GRAY**, of 1516 Frederick Street, North Vancouver, do hereby certify that:

1. I am a geologist, registered with the Association of Professional Engineers and Geoscientists of British Columbia since 1993, and employed ab Rubicon Mineral Corporation as Vice President of Exploration.

2. I am a graduate of the University of British Columbia with a B.Sc. (Geology 1985), and Laurentian University of Ontario with an M.Sc. (Mineral Deposits Geology, 1995).

3. I have practiced my profession throughout Canada and the United States continuously since 1985.

4. I was involved in the design of the exploration program, oversaw exploration activities, and was personally on the subject property between August 24th and August 27th, 2002.

5. I hereby authorize Rubicon Minerals Corporation and Wheaton River Minerals Ltd. to use this report or excerpts of this report for any news release, prospectus, or Statement of Material Facts related to the Axelgold group of claims, provided that no excerpts are used out of context with the whole.

6. I own shares and have stock options in Rubicon Minerals Corporation.

Michael J. Gray, P. Geo., M.Sc.
V.P. Exploration
Rubicon Minerals Corporation

Dated at Vancouver, British Columbia, this 29th Day of November, 2002.

APPENDIX 1

CODES FOR GEOLOGIC DRILL LOGS

CODES FOR GEOLOGIC DRILL LOGS

HEADER DATA

The upper part of page 1 of the log contains general information, survey data, and sample information.

General Information:

Drill Hole Number	number of drill hole (property, year, and number in total sequence (ie. AX02-09)
Drilled By	name of drilling company
Logged By	*name of geologist who logged hole*
Date	date(s) hole logged
UTM Northing (m)	northing; NAD 83
UTM Easting (m)	easting: NAD 83
Elevation (m)	elevation in metres
Total Length (m)	total length of the hole
Collar Core Size	core size at collar before reduction (ie. NTW)
Reduction Depth/To (size)	record reduction depth and size reduced to
Proposed Hole Number	no. from proposed hole sequence, site, or grid location
Date Started	date drilling started
Date Completed	date drilling finished
Data Entry	name of person entering data into database (with date)
Checked By	name of person who checked the entered data (with date)
Casing Depth	depth of casing in metres
Casing In/Out	indicate if casing left in hole or removed
Recovery	indicate general recovery throughout hole (qualitative)

Downhole Survey:

Survey	survey type (ie. Tropari, Sperry Sun, Acid)
Depth (m)	down hole survey depth in metres
Azimuth (reading / true)	azimuth (record reading and converted true azimuth)
Dip (reading / true)	dip angle reading (record reading and corrected dip)

Sample Information:

Sample Series	sample numbers used
Assay Certificate No.	*assay certificate number(s) from lab*

MAIN BODY OF LOG

INTERVALS

Start and end of interval being described.

ROCK CODES

This column will define the rock type of the interval being described. The lithology noted will generally be the protolith (if recognizable) of an altered zone, or the host of a mineralized zone. It will also include non-lithologic units such as casing, no recovery, etc.

GENERAL CODES

CASING	CASN
OVERBURDEN	OVBR

IGNEOUS ROCKS

Intrusive

MEGACRYSTIC SYENITE (K-spar phenos ≥ 1cm)	SYMC
SYENITE; MEDIUM TO COARSE-GRAINED PPY	SMGP
SYENITE; APHANITIC TO FINE-GRAINED EQUIGRANULAR (FELSITE)	SYAP
SYENITE INTRUSIVE BRECCIA	SYIB
MEGACRYSTIC SYENITE INTRUSIVE BRECCIA	SMCB
SYENITE INTRUSIVE MICROBRECCIA	SIMB
BRECCIATED SYENITE (alteration along fractures)	BXSY
ORTHOCLASE-PLAGIOCLASE-BIOTITE PORPHYRY	KPBP

Dykes or Sills

AUGITE-FELDSPAR PORPHYRY	D/AF
FELSIC DYKE	D/FE
APLITE DYKE	D/AP
SYENITE; FELDSPAR-BIOTITE PORPHYRY	D/FB
MAFIC DYKE	D/MA
ORTHOCLASE-PLAGIOCLASE PORPHYRY	D/KP

Extrusive (volcaniclastic)

ANDESITE TUFF	ANTF
ANDESITE LAPILLI TUFF	ANLT
ANDESITE TUFF BRECCIA (matrix support >64mm)	ATBX

SEDIMENTARY ROCKS

SHALE	SHAL
SHALE WITH SILTSTONE	SHSL
MUDSTONE	MDST
SILTSTONE	STST
CONGLOMERATE	CONG
SEDIMENTARY BRECCIA	SDBX

METAMORPHIC ROCKS

SERICITIC PHYLLITE	PHSE
SERPENTINITE	SERP
ARGILLITE	ARGL
GRAPHITIC ARGILLITE	ARGP

TECTONIZED ROCK (no recognizable lithology)

FAULT ZONE	FAUL

VEINS

PYRITE	VNPY

SULPHIDE CODE

The sulphide code defines the general habit of the sulphides. A more exact definition of textures and habit is defined in the "mineralization type" column.

DISSEMINATED SULPHIDES	DSSX
FRACTURE FILLING SULPHIDES	FRSX
STRINGER SULPHIDES (*can be over 20% sulphides)*	STSX
SULPHIDES IN BRECCIA MATRIX(+/- stringers)	BXSX

STRUCTURE CODES

Structure codes have their own "**from – to**" intervals noted in metres. These data will be imported into a separate structure table for plotting.

Stockwork:

Ev-U Mineralogy of the stringers or breccia fillings of the **ultimate significant** mineralizing event. Stringer and breccia matrix mineralogy codes are listed below.

Int Intensity of the stringer or breccia event based on percent volume of the rock. Intensity criteria are listed below.

A-1, A-2 Angle to core axis of the predominant structure set (ie. in a vertical drill hole a horizontal structure would have an angle of 90°).

Ev-P Mineralogy of the stringers or breccia fillings of the **penultimate significant** mineralizing event. Stringer and breccia matrix mineralogy codes are listed below.

Stockwork stringer and breccia matrix mineralogy codes:

	Stringers	Breccia Matrix
QUARTZ	VNQZ	BXQZ
CARBONATE	VNCB	BXCB
CHLORITE	VNCL	BXCL
PYRITE	VNPY	BXPY
SERICITE	VNSE	BXSE
CARBONATE-LIMONITE	VCBL	BCBL
CARBONATE-FELDSPAR	VCBF	BCBF
CARBONATE-PYRITE	VCBP	BCBP
CARBONATE-SERICITE	VCBS	BCBS
CHLORITE-PYRITE	VCLP	BCLP
FLUORITE	VFLR	BFLR
FLUORITE-CARBONATE	VFLC	BFLC
FELDSPAR-FLUORITE-CALCITE-		
K- FELDSPAR	VNKF	BXKF
K-FELDSPAR+ CARBONATE	KFCB	KFCB
QUARTZ-CARBONATE	VQCB	BQCB
QUARTZ-CARBONATE-CHLORITE	QCBC	QCBC
QUARTZ-CARBONATE-HEMATITE	QCBH	QCBH
QUARTZ-CARBONATE-FELDSPAR	VQCF	BQCF
QUARTZ-FELDSPAR	VQZF	BQZF
QUARTZ-PYRITE	VQPY	BQPY
QUARTZ-PYRITE-CARBONATE	QPCB	QPCB
SERICITE-PYRITE	VSPY	BSPY
SERICITE-PYRITE-CARBONATE	VSPC	BSPC

Stockwork and breccia **intensity (Int)** is quantified from 1 to 5:

1	< 1%	stringers or breccia matrix
2	1 - 5%	stringers or breccia matrix
3	5 - 15%	stringers or breccia matrix
4	15 – 30%	stringers or breccia matrix
5	> 30%	stringers or breccia matrix

Other structural features will be entered in the **option (Opn)** column and their angles to core axis in the **Angle 1** and **Angle 2** columns. *Note: Two angles listed with bedding (BED) indicate a range of bedding orientations. Two angles for all other features indicate a set of structures (eg. conjugate set):*

Bedding	BED
Breccia	BRX
Contact	CTC
Fault	FLT
Fault breccia	FBX
Foliation	FOL
Flow Banding	FLB
Fracture	FRC
Gouge	GGE
Slickensides	SLK
Shear	SHR
Trachytic texture	TRA
Imbrication	IMB
Blocky Core (<3cm pieces)	BKY
Crush Zone (<1cm pieces)	CSH

Note: Individual veins (see vein codes in rock code section) can be entered i nthe option (Opn) column if not already entered as a separate lithologic unit.

ALTERATION:

Two columns are available for alteration assemblages: **Ultim.** (ultimate or last significant *alteration event overprinting all previous alteration assemblages) and* **Penult.** (*penultimate or* overprinted significant alteration assemblage). Alteration minerals are noted in the 4-letter codes in order of abundance. Volume percent estimates for each mineral are made in the mineralogy section.

Alteration Mineral Assemblage Codes

CARBONATE (*probably ankerite*)	CARB
CARBONATE (probably ankerite) - SERICITE	CBSE
CHLORITE	CHLR
CHLORITE-BIOTITE	CHBI
CHLORITE-EPIDOTE	CHEP
CHLORITE-CARBONATE	CHCB
CLAY	CLAY
EPIDOTE	EPID
EPIDOTE-CARBONATE	EPCB
HEMATITE	HEMT
K-FELDSPAR	KSPR
K-SPAR-CARBONATE (ankerite)	KSCB
K-SPAR-CARBONATE (ankerite)-SERICITE	KCBS
K-SPAR – QUARTZ	KSQZ
K-SPAR – SERICITE	KSSE

K-SPAR-SERICITE-QUARTZ	KSSQ
K-SPAR-CARBONATE-QUARTZ-SERICITE	KCQS
QUARTZ (silicification)	SILI
QUARTZ-CARBONATE	QZCB
QUARTZ-SERICITE	QZSE
QUARTZ - K-FELDSPAR	QZKS
QUARTZ-CARBONATE-SERICITE	QCBS
SERICITE	SRCT
FUCHSITE	FUCH

Intensity Of Alteration:

trace	1
weak	2
moderate	3
strong	4
intense	5

MINERALIZATION

How mineralization occurs will be described in the **Type** column. This mode of occurrence will apply to the most abundant or significant mineral in the interval. If more than one type of mineralization occurs (eg. Breccia matrix filling as well as disseminated mineralization in the host or breccia fragments) the long-hand description of the interval will clarify the complexity.

Mineralization Type:

		Code	
Vein-hosted *(can be over 20% sulphides)*			100
Veins average < 1mm		120	
Veins average 1mm – 1cm		121	
Veins average 1 – 5cm		122	
Veins average 5 – 10cm		124	
Veins average 10 – 100cm		126	
Veins average > 100cm		128	
Fracture-fill (fracture coating)			200
Breccia or Conglomerate Matrix			300
Very fine-grained (crystals not visible)	< 0.05 mm	302	
Fine-grained (crystals visible)	0.05mm – 0.5mm	304	
Medium-grained	0.5mm – 2mm	306	
Coarse-grained	>2mm	308	
Disseminated (if sulphides, <20%)			400
Very fine-grained (crystals not visible)	< 0.05 mm	402	
Fine-grained (crystals visible)	0.05mm – 0.5mm	404	
Medium-grained	0.5mm – 2mm	406	
Coarse-grained	>2mm	408	

Semi-massive sulphides (20-50%)			800
	Very fine-grained (crystals not visible)	< 0.05 mm	802
	Fine-grained (crystals visible)	0.05mm – 0.5mm	804
	Medium-grained	0.5mm – 2mm	806
	Coarse-grained	>2mm	808
Massive sulphides (>50%)			900
	Very fine-grained (crystals not visible)	< 0.05 mm	902
	Fine-grained (crystals visible)	0.05mm – 0.5mm	904
	Medium-grained	0.5mm – 2mm	906
	Coarse-grained	>2mm	908

One field has a pre-defined two letter mineral codes:

Pyrite	Py

A percent will be entered in the pyrite column if it is present. An estimate of less than 1% will be entered as 0.5%. An observation of trace amounts of any mineral except gold will be given a value of 0.1%.

Any other minerals will be entered in the options **(Opn)** column, along with their percentage. As noted above, an estimate of less than 1% will be entered as 0.5%. An observation of trace amounts of any mineral except gold will be given a value of 0.1%.

Minerals will be given the following two letter codes:

Arsenopyrite	As
Azurite	Az
Barite	Ba
Bornite	Bn
Chalcocite	Cc
Chalcopyrite	Cp
Chromite	Cr
Covelite	Cv
Fluorite	Fl
Fuchsite	Fu
Galena	Gl
Garnet	Gr
Goethite	Go
Hematite	He
Jarosite	Ja
Limonite	Lm
Magnetite	Mt
Malachite	Mc
Manganese oxide	Mn
Native copper	Cu
Pyrrhotite	Po
Siderite	Sd
Sphalerite	Sp
Stibnite	Sb
Tetrahedrite	Tt

CORE SIZES

HQ	**6.3 cm**
NTW	**5.6 cm**
NQ	**4.6 cm**
BQ	**3.6 cm**

Please note the core size and reduction depth(s) on page one of the geological logs.

Core Weight:

- At a density of 2.6, NQ core should weigh 4.3 Kg/m (2.9lb/foot)
- 1000lb load (454kg) max for a 206 = approximately 106m (345')
- 3 row boxes = 14' or 4.27m approx.
- 40.6lb core plus box weight = 45 lb/box or about 20kg
- Therefore 1000 lb = 22 boxes

APPENDIX 2

DRILL LOGS

Rubicon Minerals Corporation

Axelgold Property

Summary Geology Log

Hole Number	Interval (m)		Rock Code	Sulph Code	Alteration				Mineralization																				
	From	To			Type	Ints	Type	Ints	Type	Py	As	Az	Ba	Bn	Cc	Cp	Cr	Cv	Fu	Fl	Gl	Gr	Go	He	Ja	Lm	Mt	Mi
AX87-01	0.00	5.18	CASN																										
AX87-01	5.18	32.50	SDBX	BXSX	CARB	2	SRCT	2	304	0.1																			
AX87-01	32.50	36.65	D/FB	DSSX	SILI	4			404	2																			
AX87-01	36.65	42.30	SDBX	DSSX					404	0.1																			
AX87-01	42.30	43.48	D/FB	STSX					121	3																			
AX87-01	43.48	58.75	SDBX	DSSX					404	0.1																			
AX87-01	58.75	60.35	D/FB	DSSX	CLAY	3	CBSE	3	402	0.1																			
AX87-01	60.35	77.85	SDBX	BXSX					308	0.5																			
AX87-01	77.85	79.66	D/FB	DSSX					402	0.5																			
AX87-01	79.66	83.07	D/AF	DSSX	CLAY	2			404	0.1																			
AX87-01	83.07	101.19	SDBX	BXSX					308	0.1																			
		E.O.H.																											

Rubicon Minerals Corporation

Axelgold Property

Summary Geology Log

Hole Number	Interval (m)		Rock Code	Sulph Code	Alteration				Mineralization																		
	From	To			Type	Ints	Type	Ints	Type	Py	As	Az	Ba	Bn	Cc	Cp	Cr	Cv	Fu	Fl	Gl	Gr	Go	He	Ja	Lm	Mt
AX87-02	0.00	3.26	CASN																								
AX87-02	3.26	84.63	SDBX	DSSX					404	0.5																	
AX87-02	84.63	91.10	D/FB	DSSX	CBSE	3			404	1																	
AX87-02	91.10	94.25	SDBX	DSSX					404	0.1																	
AX87-02	94.25	100.90	D/AF	DSSX	CARB	3			404	1																	
AX87-02	100.90	102.27	SDBX	DSSX	CLAY	3			404	3																	
AX87-02	102.27	105.12	D/FE	FRSX	CBSE	3			121	2																	
AX87-02	105.12	107.79	SDBX	DSSX					121	3																	
		E.O.H.																									

Rubicon Minerals Corporation

Axelgold Property

Summary Geology Log

Hole Number	Interval (m) From	Interval (m) To	Rock Code	Sulph Code	Alteration Type	Alteration Ints	Alteration Type	Alteration Ints	Mineralization Type	Py	As	Az	Ba	Bn	Cc	Cp	Cr	Cv	Fu	Fl	Gl	Gr	Go	He	Ja	Lm	Mt
AX87-03	0.00	6.07	OVBR																								
AX87-03	6.07	18.53	SMGP	DSSX	KSPR	3			404	5									0.1	0.5							
AX87-03	18.53	22.25	SMGP	DSSX	KSPR	3			404	5										1.5							
AX87-03	22.25	37.34	SMGP	DSSX	KSPR	3			404	5					0.1												
AX87-03	37.34	37.36	VNPY	STSX					122	90																	
AX87-03	37.36	38.13	SMGP	DSSX	KSPR	3			404	5					0.1												
AX87-03	38.13	38.15	VNPY	STSX					122	90																	
AX87-03	38.15	42.67	SMGP	DSSX	KSPR	3			404	5					0.1												
AX87-03	42.67	82.78	SMGP	DSSX					404	4										0.1							
AX87-03	82.78	89.00	SYMC	DSSX	KSPR	3			404										0.1	0.1							
AX87-03	89.00	102.72	SMGP	DSSX	KSPR	3			404	4										0.1							
EOH																											

Rubicon Minerals Corporation

Axelgold Property

Summary Geology Log

Hole Number	Interval (m)		Rock Code	Sulph Code	Alteration				Mineralization																		
	From	To			Type	Ints	Type	Ints	Type	Py	As	Az	Ba	Bn	Cc	Cp	Cr	Cv	Fu	Fl	Gl	Gr	Go	He	Ja	Lm	Mt
AX87-04	0.00	5.20	CASN																								
AX87-04	5.20	63.09	SMGP	DSSX	CBSE	4	KSPR	3	404	1																	
AX87-04	63.09	70.10	SYMC	DSSX	KSCB	4			404	2																	
AX87-04	70.10	73.76	SMGP	DSSX	KSCB	4			404	5																	
AX87-04	73.76	79.86	SYMC	DSSX	KCBS	3			404	3																	
		E.O.H.																									

Rubicon Minerals Corporation

Axelgold Property

Summary Geology Log

Hole Number	Interval (m)		Rock Code	Sulph Code	Alteration				Mineralization																	
	From	To			Type	Ints	Type	Ints	Type	Py	As	Az	Ba	Bn	Cc	Cp	Cr	Cv	Fu	Fl	Gl	Gr	Go	Ha	Je	Lm	Ml
AX87-05	0.00	6.00	CASN																							
AX87-05	6.00	19.45	SMGP	DSSX					404	6							0.1			0.1	0.1					
AX87-05	19.45	23.04	SMGP	DSSX					404	2										0.1						
AX87-05	23.04	45.02	SMGP	DSSX					404	6							0.1			0.1	0.1					
AX87-05	45.02	53.92	SYMC	DSSX					404	5																
AX87-05	53.92	55.99	SMGP	DSSX					404	6																
AX87-05	55.99	58.67	SYMC	DSSX																0.1						
AX87-05	58.67	73.15	SMGP	DSSX					404	5					0.1					0.1						
AX87-05	73.15	83.21	SMGP	DSSX					404	2.5																
AX87-05	83.21	91.14	SMGP	DSSX					404	3.5									0.1							
AX87-05	91.14	98.15	SYMC	DSSX					404	4										0.1						
EOH																										

Rubicon Minerals Corporation

Axelgold Property

Summary Geology Log

Hole Number	Interval (m) From	Interval (m) To	Rock Code	Sulph Code	Alteration Type	Alteration Ints	Alteration Type	Alteration Ints	Mineralization Type	Py	As	Az	Ba	Bn	Cc	Cp	Cr	Cv	Fu	Fl	Gl	Gr	Go	Hs	Ja	Lm	Mt	Mc	Mn	Cu	Pb	Sd	Sp	Sb	Tt	Recov.
AX87-06	0.00	2.10	CASN																																	
AX87-06	2.10	23.40	SMGP	DSSX	CLAY	2	KSCB	4	404	2																										
AX87-06	23.40	23.50	SMGP	STSX	KSCB	3			121	5																										
AX87-06	23.50	31.20	SMGP	DSSX					404	1																										
AX87-06	31.20	31.30	SMGP	STSX	KSCB	3			121	15																										
AX87-06	31.30	79.55	SMGP	STSX	KSQZ	3			121	3												0.1														0.1
AX87-06	79.55	79.65	VNPY	STSX					902	85																										
AX87-06	79.65	79.85	SMGP	DSSX					404	1																										
AX87-06	79.85	80.50	VNPY	STSX					902	50																										
AX87-06	80.50	85.55	SMGP	DSSX					404	1																										
AX87-06	85.55	85.57	VNPY	STSX					902	70																										
AX87-06	85.57	93.90	SMGP	DSSX	KSQZ	3	CLAY	3	404	2																										
AX87-06	93.90	94.25	VNPY	STSX	KSQZ	3	CLAY	3	902	50																										
AX87-06	94.25	101.19	SMGP	DSSX	KSQZ	3			404	3																										
		E.O.H.																																		

Rubicon Minerals Corporation

Axelgold Property

Summary Geology Log

Hole Number	Interval (m)		Rock Code	Sulph Code	Alteration				Mineralization																			
	From	To			Type	Ints	Type	Ints	Type	Py	As	Az	Ba	Bn	Cc	Cp	Cr	Cv	Fu	Fl	Gl	Gr	Go	Ilm	Ja	Lm	Ml	Mc
AX87-07	0.00	2.44	OVBR																									
AX87-07	2.44	16.37	ANTF		CARB	2																						
AX87-07	16.37	17.25	ANTF	DSSX	CBSE	3			404	3																		
AX87-07	17.25	19.05	ANTF																									
AX87-07	19.05	23.77	ANTF	DSSX	CBSE	3			404	5																		
AX87-07	23.77	26.15	ANTF																									
AX87-07	26.15	29.26	ANTF		CBSE	3																						
AX87-07	29.26	39.93	ANTF	DSSX	CBSE	4			404	0.5																		
AX87-07	39.93	44.26	ANTF	DSSX					404	0.1																		
AX87-07	44.26	73.46	GRAP	DSSX					404	0.1																		
EOH																												

Rubicon Minerals Corporation

Axelgold Property

Summary Geology Log

Hole Number	Interval (m)		Rock Code	Sulph Code	Alteration				Mineralization																	
	From	To			Type	Ints	Type	Ints	Type	Py	As	Az	Ba	Bn	Cc	Cp	Cr	Cv	Fu	Fl	Gl	Gr	Go	He	Ja	Lm	Ml
AX87-08	0.00	1.83	OVBR																							
AX87-08	1.83	51.82	SDBX	DSSX					404	0.1																
AX87-08	51.82	57.00	SDBX																							
AX87-08	57.00	63.09	GRAP																							
EOH																										

Rubicon Minerals Corporation

Axelgold Property

Summary Geology Log

Hole Number	Interval (m) From	Interval (m) To	Rock Code	Sulph Code	Alteration Type	Alteration Ints	Alteration Type	Alteration Ints	Mineralization Type	Py	As	Az	Ba	Bn	Cc	Cp	Cr	Cv	Fl	Gl	Ga	Go	He	Je	Lm	Mt	Mc	Mn	Cu	Po	Sd	Sp	Sb	Tl	
AX02-09	0.00	18.29	CASN																																
AX02-09	18.29	22.40	SMGP	DSSX	KSPR	3			404	0.5																									
AX02-09	22.40	42.80	KPBP	DSSX	KCBS	3	KSPR	3	404	1.5	0.1														0.5										
AX02-09	42.80	45.40	KPBP	BXSX	KCBS	3			304	2	0.1																								
AX02-09	45.40	86.55	KPBP	DSSX	KCBS	3	KSPR	3	404	1.5	0.1												0.2			0.1									
AX02-09	86.55	88.35	D/MA		CBSE	2																													
AX02-09	88.35	91.92	KPBP	DSSX	KCBS	1			404	0.5																									
AX02-09	91.92	95.20	KPBP	DSSX	KCBS	3			404	1.5	0.1																								
AX02-09	95.20	99.30	KPBP	DSSX	KCBS	1			404	0.5																									
AX02-09	99.30	112.98	KPBP	DSSX	KCBS	4			404	2													0.1												
AX02-09	112.98	115.10	SIMB	DSSX	KSSQ	3			404	0.5																									
AX02-09	115.10	117.68	FAUL	STSX					120	0.5															2										
AX02-09	117.68	135.80	SYIB	DSSX					404	1																									
AX02-09	135.80	140.30	SIMB	DSSX					404	0.5																									
AX02-09	140.30	140.50	D/KP	DSSX	KCBS	3			404	0.5																									
AX02-09	140.50	141.40	SYIB	DSSX					404	1																									
AX02-09	141.40	141.92	D/KP	DSSX	KCBS	3			404	0.1																									
AX02-09	141.92	143.20	SYIB	DSSX					404	1																									
AX02-09	143.20	143.60	D/KP		KCBS	3																													
AX02-09	143.60	147.90	SYIB	DSSX					404	1																									
AX02-09	147.90	150.10	KPBP	DSSX	KCBS	3			404	0.1																									
AX02-09	150.10	152.50	KPBP	DSSX	KCBS	3			404	0.1																									
AX02-09	152.50	153.45	KPBP	DSSX	KCBS	3			404	1.5																									
AX02-09	153.45	157.65	KPBP	DSSX	KCBS	1			404	0.1																0.2									
AX02-09	157.65	158.50	KPBP						404	0.5																									
		E.O.H.																																	

Rubicon Minerals Corporation

Axelgold Property

Summary Geology Log

Hole Number	Interval (m) From	Interval (m) To	Rock Code	Sulph Code	Alteration Type	Alteration Ints	Alteration Type	Alteration Ints	Mineralization Type	Py	As	Az	Ba	Bn	Co	Cp	Cr	Cv	Fu	Fl	Gl	Gr	Go	He	Ja	Lm	Mt
AX02-10	0.00	10.67	CASN																								
AX02-10	10.67	19.50	SMGP	DSSX	KCBS	4	KSPR	1	404	1																	
AX02-10	19.50	28.53	SYIB	DSSX	KSPR	4	SRCT	3	404	3											0.1						
AX02-10	28.53	38.63	SYIB	DSSX	CBSE	4	KSPR	2	402	3											0.1						
AX02-10	38.63	48.12	SYIB	DSSX	KSPR	4	SRCT	2	404	3											0.1						
AX02-10	48.12	51.62	SMGP	STSX	SRCT	3	KSPR	3	121	10																	
AX02-10	51.62	54.96	SYMC	STSX	SRCT	3	KSPR	3	121	4																	
AX02-10	54.96	68.16	SMGP	STSX	SRCT	4	KSPR	3	121	5											0.1						
AX02-10	68.16	70.75	SYMC	STSX	SRCT	4	KSPR	3	121	3											0.1						
AX02-10	70.75	76.85	SMGP	STSX	SRCT	4	KSPR	3	121	6											0.1						
AX02-10	76.85	80.85	SMGP	DSSX	SRCT	3	KSPR	2	404	2.5										0.1	0.1						
AX02-10	80.85	91.44	SMGP	STSX	SRCT	4	KSPR	3	121	5										0.1	0.1						
AX02-10	91.44	94.37	SYMC	STSX	SRCT	4	KSPR	2	121	5																	
AX02-10	94.37	97.67	SMGP	DSSX	SRCT	4	KSPR	1	404	2											0.1						
AX02-10	97.67	98.24	FAUL		CLAY	5																					
AX02-10	98.24	100.70	D/SFB	DSSX	SRCT	3	KSPR	3	404	1.5																	
AX02-10	100.70	106.68	SMGP	STSX	SRCT	4	KSPR	2	121	3									0.1		0.1						
AX02-10	106.68	108.75	SMGP	DSSX	SRCT	3	KSPR	2	404	5																	
AX02-10	108.75	109.64	SYMC	DSSX	SRCT	2			404	1											0.1						
AX02-10	109.64	114.63	SMGP	STSX	SRCT	4	KSPR	3	121	7											0.1						
AX02-10	114.63	114.95	SMGP	DSSX	SRCT	3	KSPR	2	404	5									0.1								
AX02-10	114.95	115.36	SMGP	STSX	SRCT	3	KSPR	2	121	5											0.1						
AX02-10	115.36	116.79	SMGP	DSSX	SRCT	2	KSPR	1	404	4																	
AX02-10	116.79	117.90	SMGP	DSSX	SRCT	3	FUCH	1	404	5											0.1						
AX02-10	117.90	119.70	SMGP	STSX	KSPR	3	SRCT	3	121	10										0.1	0.1						
AX02-10	119.70	123.87	SYAP	DSSX	SRCT	4	FUCH	1	404	4											0.1						
AX02-10	123.87	140.21	SMGP	STSX	SRCT	4	FUCH	1	121	10									0.1	0.1	0.1						
AX02-10	140.21	144.35	SYIB	DSSX	SRCT	4	KSPR	3	404	3										0.2	0.3			0.1			
AX02-10	144.35	182.88	SYMC	DSSX	SRCT	4	KSPR	3	404	4										0.3	0.2			0.1			
AX02-10	182.88	188.98	SYMC	DSSX	SRCT	5	CHLR	1	404	2																	1
AX02-10	188.98	216.30	SYMC	DSSX	SRCT	4	KSPR	2	404	4									0.1	2	0.1			0.1			
AX02-10	216.30	221.30	SMGP	DSSX	KSCB	4	SRCT	4	404	2										0.1				0.1			
AX02-10	221.30	225.55	SYMC	STSX	SRCT	4	KSPR	3	121	4										0.2	0.1						
		E.O.H.																									

Rubicon Minerals Corporation

Axelgold Property

Summary Geology Log

Hole Number	Interval (m)		Rock Code	Sulph Code	Alteration				Mineralization																				
	From	To			Type	Intn	Type	Intn	Type	Py	As	Az	Ba	Bn	Cc	Cp	Cr	Cv	Fu	Fl	Gl	Gr	Go	He	Ja	Lm	Ml	
AX02-11	0.00	6.10	CASN																									
AX02-11	6.10	41.60	SMGP	DSSX	KCBS	3			404	0.5																		
AX02-11	41.60	45.20	BXSY	DSSX	SRCT	3	KCBS	3	404	1																		
AX02-11	45.20	46.60	SMGP	DSSX	KCBS	3			404	0.5																		
AX02-11	46.60	47.40	BXSY	DSSX	SRCT	3	KCBS	3	404	1																		
AX02-11	47.40	51.35	SMGP	DSSX	KCBS	3			404	0.5																		
AX02-11	51.35	52.60	SMGP	STSX	SRCT	4	KCBS	3	121	1																		
AX02-11	52.60	54.43	SMGP	DSSX	KCBS	3			404	0.5																		
AX02-11	54.43	62.30	BXSY	BXSX	SRCT	3	KCBS	3	304	1.5																		
AX02-11	62.30	75.87	SMGP	DSSX	KCBS	3			404	1											0.1							
AX02-11	75.87	79.85	SMGP	DSSX	SRCT	3	KCBS	3	404	1																		
AX02-11	79.85	80.00	DISY	DSSX	KCBS	3			404	1																		
AX02-11	80.00	86.95	BXSY	DSSX	SRCT	3	KCBS	3	404	1																		
AX02-11	86.95	96.35	SMGP	DSSX	KCBS	3			404	1.5																		
AX02-11	96.35	110.60	SMGP	DSSX	SRCT	3	KCBS	3	404	1.5																		
AX02-11	110.60	115.05	BXSY	DSSX	SRCT	3	KCBS	3	404	1																		
AX02-11	115.05	116.75	SMGP	DSSX	KCBS	3			404	1																		
AX02-11	116.75	125.10	SMGP	DSSX	KSPR	4	KCBS	3	404	1																		
AX02-11	125.10	134.11	SMGP	DSSX	KCBS	3			404	1																		

Rubicon Minerals Corporation

Axelgold Property

Summary Geology Log

Hole Number	Interval (m)		Rock Code	Sulph Code	Alteration				Mineralization																			
	From	To			Type	Ints	Type	Ints	Type	Py	As	Az	Ba	Bn	Cc	Cp	Cr	Cv	Fu	Fl	Gl	Gr	Go	Ilm	Ja	Lm	Mt	Mc
AX02-12	0.00	3.05	CASN																									
AX02-12	3.05	16.37	SYMC	DSSX	CLAY	4			404	1													2			10		
AX02-12	16.37	20.10	SYMC	DSSX	CBSE	4	KSPR	2	404	2													2			5		
AX02-12	20.10	33.53	SYMC	DSSX	CLAY	3	CBSE	4	404	1													1			10		
AX02-12	33.53	39.62	SYMC	DSSX	CBSE	4	KSPR	3	404	1.5													1	0.1		3		
AX02-12	39.62	49.05	SYMC	DSSX	CLAY	3	KCBS	3	404	1													2		0.5	5		
AX02-12	49.05	64.01	SMGP	DSSX	CBSE	4	KSPR	2	404	1.5									0.1				0.5			1		
AX02-12	64.01	111.58	SMGP	DSSX	SRCT	5	CARB	2	404	0.5									0.1				1		0.3	7		
AX02-12	111.58	116.15	SMGP	DSSX	CBSE	4			404	1									0.1				0.1			0.5		
AX02-12	116.15	121.92	SMGP	DSSX	CBSE	4	CLAY	3	404	0.5									0.1						0.5	2		
AX02-12	121.92	162.18	SMGP	DSSX	CBSE	4	CHLR	2	404	1									0.1							1		
AX02-12	162.18	170.69	SMGP	STSX	CBSE	4	KSPR	2	121	1.5																0.2		
AX02-12	170.69	182.88	D/FB	STSX	CHCB	4	SRCT	3	121	4									0.2				0.1			0.3		
AX02-12	182.88	201.17	SMGP	DSSX	SRCT	4	CHLR	4	404	1									0.1				0.1			0.5		
		E.O.H																										

Rubicon Minerals Corporation

Axelgold Property

Summary Geology Log

Hole Number	Interval (m)		Rock Code	Sulph Code	Alteration				Mineralization																			
	From	To			Type	Ints	Type	Ints	Type	Py	As	Az	Ba	Bn	Cc	Cp	Cr	Cv	Fu	Fl	Gl	Gr	Go	He	Ja	Lm	Ml	Mc
AX02-13	0.00	12.19	CASN																									
AX02-13	12.19	19.40	SYMC	DSSX	SRCT	2	KSPR	2	404	0.5																1		
AX02-13	19.40	33.53	SYMC	DSSX	SRCT	2	KCBS	2	404	1.5																1		
AX02-13	33.53	37.10	SMGP	STSX	SRCT	2	KCBS	3	121	2																0.1		
AX02-13	37.10	40.25	SMGP	DSSX	SRCT	3	KCBS	2	404	0.1									0.1							0.5		
AX02-13	40.25	40.45	FAUL																							2		
AX02-13	40.45	42.20	SMGP	DSSX	KSPR	3			404	5																		
AX02-13	42.20	49.65	SMGP	DSSX	SRCT	3	KSPR	2	404	3										0.1						0.1		
AX02-13	49.65	60.96	SYMC	DSSX	KCBS	3			404	3																0.1		
AX02-13	60.96	64.80	SMGP	DSSX	SRCT	3	KCBS	3	404	2									0.1							0.2		
AX02-13	64.80	68.90	SMGP	DSSX	SRCT	3	KCBS	3	404	2.5																		
AX02-13	68.90	70.10	SYMC	DSSX	SRCT	4	KCBS	3	404	3									0.1									
AX02-13	70.10	70.70	SYMC	DSSX	SRCT	1	KCBS	3	404	3																		
AX02-13	70.70	76.90	SMGP	DSSX	SRCT	2	KCBS	3	404	3									0.1									
AX02-13	76.90	80.50	SYAP	DSSX	SRCT	3	KCBS	3	404	4																		
AX02-13	80.50	90.07	SMGP	DSSX	SRCT	2	KSPR	3	404	3																		
AX02-13	90.07	90.90	SYAP	DSSX	SRCT	3	KSPR	3	404	4																		
AX02-13	90.90	93.45	SMGP	DSSX	KSPR	3			404	4																		
AX02-13	93.45	94.25	SYAP	DSSX	KSPR	4			404	2																		
AX02-13	94.25	95.70	SMGP	DSSX	KSPR	4			404	4																		
AX02-13	95.70	99.63	D/FE	DSSX	SRCT	3	KSPR	3	404	5																		
AX02-13	99.63	116.25	SMGP	DSSX	SRCT	2	KSPR	3	404	3																		
AX02-13	116.25	117.06	SYMC	DSSX	SRCT	1	KSPR	4	404	5																		
AX02-13	117.06	120.65	SMGP	DSSX	SRCT	2	KSPR	3	404	3																		
AX02-13	120.65	129.30	SYIB	DSSX	SRCT	3	KSPR	3	404	4																		
AX02-13	129.30	132.03	SYAP	DSSX	SRCT	4	KSPR	2	404	4																		
AX02-13	132.03	135.10	SYIB	DSSX	SRCT	3	KSPR	4	404	4																		
AX02-13	135.10	135.95	SMCB	STSX	SRCT	3	KSPR	3	121	5																		
AX02-13	135.95	138.90	SYAP	DSSX	SRCT	3			404	4																		
AX02-13	138.90	145.80	SMGP	DSSX	SRCT	2	KSPR	3	404	4																		
AX02-13	145.80	148.00	SYMC	DSSX	SRCT	3	KSPR	2	404	5																		
AX02-13	148.00	150.25	D/FB	DSSX	SRCT	4			404	5																		
AX02-13	150.25	153.61	SYIB	DSSX	CBSE	3	KSPR	2	404	4																		
AX02-13	153.61	155.45	SYMC	DSSX	KSPR	4			404	2																		

Rubicon Minerals Corporation

Axelgold Property

Summary Geology Log

Hole Number	Interval (m)		Rock Code	Sulph Code	Alteration				Mineralization																		
	From	To			Type	Ints	Type	Ints	Type	Py	As	Az	Ba	Bn	Cc	Cp	Cr	Cv	Fu	Fl	Gl	Gr	Go	Hs	Ja	Lm	Ml
AX02-14	0.00	3.05	CASN																								
AX02-14	3.05	6.10	SMGP	DSSX	KSPR	4	SRCT	3	404	1.5																0.2	
AX02-14	6.10	12.27	SYIB	DSSX	CBSE	4	KSPR	3	404	3									0.3								
AX02-14	12.27	16.00	SMGP	DSSX	KSPR	4	SRCT	3	404	1.5																	
AX02-14	16.00	32.82	SYIB	DSSX	SRCT	4	KSPR	3	404	2									0.1							0.1	
AX02-14	32.82	33.70	SMGP	DSSX	SRCT	4	KSPR	3	404	1																0.1	
AX02-14	33.70	38.27	SYIB	DSSX	SRCT	4	KSPR	2	404	2.5									0.1							0.1	
AX02-14	38.27	44.90	SMGP	DSSX	KSPR	4	SRCT	3	404	1.5																	
AX02-14	44.90	78.10	SYIB	DSSX	SRCT	4	KSPR	2	404	2									0.5								
AX02-14	78.10	83.54	SMGP	DSSX	KSPR	4	SRCT	3	404	1.5									0.1								
AX02-14	83.54	87.15	SYIB	DSSX	SRCT	4	KSPR	2	404	3									0.2								
AX02-14	87.15	89.29	D/KP	STSX	SRCT	3	KSPR	2	121	4									0.1								
AX02-14	89.29	94.40	SYIB	DSSX	SRCT	4	KSPR	3	404	3																	
AX02-14	94.40	95.32	D/KP	STSX	SRCT	3	KSPR	3	121	3									0.1								
AX02-14	95.32	102.22	SYIB	DSSX	SRCT	4	KSPR	4	404	3									0.3								
AX02-14	102.22	102.53	SIMB	DSSX	KSPR	3	SRCT	2	404	4									0.1								
AX02-14	102.53	104.38	SYIB	DSSX	SRCT	3	KSPR	3	404	4									0.1								
AX02-14	104.38	137.00	SYIB	DSSX	SRCT	4	KSPR	3	404	3									0.1								
AX02-14	137.00	137.70	D/KP	DSSX	SRCT	3	KSPR	3	404	4									0.5								
AX02-14	137.70	147.87	SYIB	DSSX	SRCT	4	KSPR	3	404	3									0.1								
AX02-14	147.87	154.35	SMGP	DSSX	SRCT	4	KSPR	3	404	2									0.1								
AX02-14	154.35	161.00	SYIB	DSSX	SRCT	4	KSPR	3	404	4									0.1								
AX02-14	161.00	181.13	SMGP	DSSX	KSPR	4	SRCT	2	404	3									0.1								
AX02-14	181.13	214.84	SYIB	DSSX	SRCT	4	KSPR	3	404	4									0.1								
AX02-14	214.84	222.50	SYIB	DSSX	CBSE	4	KSPR	2	404	1.5																	
AX02-14	222.50	224.05	SYIB	STSX	KCBS	4	CHLR	2	121	4									0.1								
AX02-14	224.05	234.80	SYIB	DSSX	KCBS	4	CHLR	2	404	4									0.1								
AX02-14	234.80	258.38	SMGP	DSSX	KSPR	4	SRCT	3	404	2									0.1								
AX02-14	258.38	266.38	SYIB	STSX	CBSE	5	KSPR	2	121	5									0.5	0.3							
AX02-14	266.38	269.50	SYIB	DSSX	KSPR	4	CBSE	4	404	3									0.2	0.1							
AX02-14	269.50	289.56	SYIB	DSSX	CBSE	4	KSPR	2	404	4									0.3	0.3							
		E.O.H.																									

Rubicon Minerals Corporation

Axelgold Property

Summary Geology Log

Hole Number	Interval (m)		Rock Code	Sulph Code	Alteration				Mineralization																			
	From	To			Type	Intn	Type	Intn	Type	Py	As	Az	Ba	Bn	Co	Cp	Cr	Cv	Fu	Fl	Gl	Gr	Gn	Hp	Ja	Lm	Mt	Mc
AX02-15	0.00	1.83	CASN																									
AX02-15	1.83	6.70	SMGP	DSSX	SRCT	2	KSPR	4	404	1.5																		
AX02-15	6.70	10.10	SYAP	DSSX	SRCT	4			404	4									0.1									
AX02-15	10.10	13.85	SYIB	DSSX	SRCT	3	KSPR	3	404	3																		
AX02-15	13.85	17.45	SMCB	DSSX	SRCT	3	KSPR	2	404	2.5																		
AX02-15	17.45	20.00	SYIB	STSX	SRCT	3			120	4																		
AX02-15	20.00	21.00	SYAP	DSSX	SRCT	3			404	4																		
AX02-15	21.00	22.30	SMGP	DSSX	SRCT	3	KSPR	3	404	1.5																		
AX02-15	22.30	23.26	SYIB	DSSX	SRCT	3			404	4																		
AX02-15	23.26	23.50	SMGP	DSSX	SRCT	3	KSPR	2	404	2																		
AX02-15	23.50	23.65	SYAP	DSSX	SRCT	3			404	1																		
AX02-15	23.65	24.20	SMGP	DSSX	SRCT	1	KSPR	4	404	1.5																		
AX02-15	24.20	24.30	FAUL	DSSX					404	1																		
AX02-15	24.30	26.50	SMGP	DSSX	SRCT	3	KSPR	2	404	1																		
AX02-15	26.50	29.70	SMGP	DSSX	SRCT	2	KSPR	3	404	3																		
AX02-15	29.70	34.40	SYIB	DSSX	SRCT	3	KSPR	2	404	4																		
AX02-15	34.40	34.60	D/FE	DSSX					404	0.5									0.1									
AX02-15	34.60	41.00	SIMB	DSSX	SRCT	3	KSPR	2	404	2																		
AX02-15	41.00	43.85	SDBX	DSSX					404	0.5																		
AX02-15	43.85	45.40	D/FE		CBSE	4																						
AX02-15	45.40	75.59	SDBX	DSSX	SILI	2			404	0.1																		

Rubicon Minerals Corporation

Axelgold Property

Summary Geology Log

Hole Number	Interval (m)		Rock Code	Sulph Code	Alteration				Mineralization																			
	From	To			Type	Ints	Type	Ints	Type	Py	As	Az	Ba	Bn	Cc	Cp	Cl	Cv	Fu	Fl	Gl	Gr	Go	He	Ja	Lm	Mt	Mc
AX02-16	0.00	3.05	CASN																									
AX02-16	3.05	35.32	SMGP	DSSX	CLAY	3	KSPR	3	404	1															0.5	0.5		
AX02-16	35.32	59.90	SYMC	STSX	CBSE	4	KSPR	3	121	2									0.1				0.2		0.1	0.2		
AX02-16	59.90	63.30	SMGP	STSX	SRCT	3	KSPR	4	121	3															0.1	0.1		
AX02-16	63.30	70.55	SIMB	STSX	CLAY	3	KSPR	3	121	2									0.1				0.5			3		
AX02-16	70.55	80.25	FAUL	STSX	CLAY	3	KSPR	2	121	1													0.5			3		
AX02-16	80.25	91.03	SDBX	STSX					121	0.5																0.5		
AX02-16	91.03	91.23	D/KP	DSSX	KSPR	3	CARB	3	404	0.1																		
AX02-16	91.23	106.25	SDBX	DSSX					404	1																0.1		0
AX02-16	106.25	109.73	SERP	STSX	QZCB	5			121							0.1	0.1											
AX02-16	109.73	124.36	SERP	DSSX	CARB	3			404	0.2						2	0.1											
		E.O.H.																										

RUBICON MINERALS CORPORATION - DRILL LOG

Start_date: 14/08/02 End_date 15/08/02

AX02-009 Northing (UTM15 NAD83) 6206043 Easting (UTM15 NAD83) 315603 Elev(ASL) 1685

Length(m) 158.5 Local co-ord North Local Co-ord East Claim

TESTS:	Depth	Type	Dip	Az
	0		-45	200
	91.44	Acid test	-43.5	200
	158.5	Acid test	42.5	200

Project: Axelgold

AX02-009

	g_geol			
Depth	rocktype	g_from	g_to	descript
5				
10	Casing	0	18.29	?
15				
20	Syenite	18.29	22.4	M to C.gr ppy; Mottled med to dark grey orthoclase ppy. Very hard grey groundmass, probably k-spar altered. Stubby med grey subhedral to anhedral « very weak carb » alt. « dissem. v.f.g py » « dissem v.f.gr py along discontinuous f1 ». « limonite f1 » (log illeg. "surfaces"?]. « 1-5% carb stringers 2(Moderate k-spar ultim. alt. « Dissem sx »: « f.gr py 0.50% »
25				
30	Ortho-plag-bt porphyry	22.4	42.8	Mottled dark to light grey bimodal feldspar and bt ppy. ~20% stubby blue grey subhedral orthoclase phenocrysts to 4mm, finer grained laths of euhedra plagioclase up to 3 mm in length (avg 1-2mm). Dark grey parts are generally hard and probably k-spar alt. In some dark parts bt is black and fresh. Ligh darker parts. « Some py along f1 » « tr dissem aspy » assoc with « carb and qtz blebs and stringers ». « <1% qtz stringers ». « 1-5% carb stringers 30.00-60.00° » Moderate k-spar « carb » (ankerite) « ser » ultim. alt. Moderate k-spar penult alt. « Dissem sx »: « f.gr py 1.50% ». « f.gr aspy 0.10% ». « f.gr lm 0.50% » « Hairline carb stringers 30.00-70.00° 1.00-3.00mm (avg 1-2mm) » Possibly arseno assoc with carb-strs. « Later qy [? qtz?] stringers » ~1mm cuts cart »along « f1 » Biotite 5-7%. Euhedral with distinctive hexagonal section on C axis. In lighter grey parts biotite altered to pinkish grey « carb »« ser » 0.5- 1.0mm. Plagioclase laths altered to sericite"carbonate (ankerite?) « 24.10- 25.10 aspy 1.00% » assoc with « carb stringers » « 36.50- 39.85 f1 » « Strong lm » alteration along fracture. « 39.85- 42.80 <1% qtz stringers 0 deg to CA» « 1-5% carb stringers 30.00-60.00° »
35				
40				

Scale 1:250 | 11/09/02 | 15:09:19

Project: Axelgold

AX02-009

Depth At	d_geol rocktype	g_from	g_to	descript
	Ortho-plag-bt porphyry	22.4	42.8	Mottled dark to light grey bimodal feldspar and bt ppy. ~20% stubby blue grey subhedral orthoclase phenocrysts to 4mm, finer grained laths of euhedr plagioclase up to 3 mm in length (avg 1-2mm). Dark grey parts are generally hard and probably k-spar alt. In some dark parts bt is black and fresh. Lig darker parts.
	Ortho-plag-bt porphyry	42.8	45.4	« Some py along f1 » « tr dissem aspy » assoc with « carb and qtz blebs and stringers ». « <1% qtz stringers » « 1-5% carb stringers 30.00-60.00°»
45				Moderate k-spar « carb » (ankerite) « ser » ultim. alt. Moderate k-spar penult alt. « Dissem sx ». « f.gr py 1.50%». « f.gr aspy 0.10%» « f.gr lm 0.50%» « Hairline carb stringers 30.00-70.00° 1.00-3.00mm (avg 1-2mm) » Possibly arseno assoc with carb-strs. « Later qy [? qtz?] stringers » ~1mm cuts ca »along « f1 »
				Biotite 5-7%. Euhedral with distinctive hexagonal section on C axis. In lighter grey parts biotite altered to pinkish grey « carb »« ser » 0.5- 1.0mm.
50				Plagioclase laths altered to sericite+carbonate (ankerite?) « 24.10- 25.10 aspy 1.00%» assoc with « carb stringers » « 35.50- 39.85 f1 » « Strong lm » alteration along fracture. « 39.85- 42.80 <1% qtz stringers 0 deg to CA» « 1-5% carb stringers 30.00-60.00°»
				Much as above but appears « bx ». Light host rock broken and with dark matrix ~ 25% . Darker parts still have porphyritic texture but « pervasive py »
				Both are hard. Dark matrix has a crushed/milled appearance with subhedral phenos in a dark matrix [log ileg. "at"?] 3-4%. « dissem py » and « py alor dissem aspy » in lighter grey fragments.
55				Moderate k-spar « carb » (ankerite) « ser » ultim. alt. « sx in bx matrix (+/- stringers)»: « 1-5% py stringers 40.00°».« f.gr py 2.00%» « f.gr aspy 0.10%» « 45.20- 45.50 shear 10.00°» « LCT along limonite shr or frac at 10.00°»
60				
				(light in areas) by k-spar.
	Ortho-plag-bt porphyry			
65				stringers 45.00°». « 1-5% carb stringers 30.00-45.00°» Moderate k-spar « carb » (ankerite) « ser » ultim. alt. Moderate k-spar penult. alt. « Dissem sx »: « f.gr py 1.50%». « f.gr mt 0.10%». « f.gr he 0.20%». « f.gr aspy 0.10%»
		45.4	86.55	bx
				2.00-3.00%» « 53.55- 54.30 <1% qtz stringers 45.00°». « 1-5% carb stringers 30.00-45.00°»
70				54.3- 54.65 Crush zone 20-30° along « 54.30- 54.65 shear 30.00°». « Strongly lm » « 54.65- 78.40 <1% qtz stringers 45.00°». « 1-5% carb stringers 30.00-45.00°»
				55.40- 57.55 *Dark grey-brown relatively fresh K-P-B porphyry. Moderately magnetic.* « 55.40- 57.55 very little py », indicating that pyrite came in with CB-ser alt.
				Whole rock/Thin section at 56.2
75				« 73.00- 75.00 dark grey to black hairline stringers 20.00-45.00°». Very hard. Looks like it contains something metallic. Probably « qtz » and « f.g carb-stringers.
				78.4- 79.4 Blocky core (<3 cm) « 78.40- 79.40 Strong lm » staining. « 79.40- 86.55 <1% qtz stringers 45.00°» « 1-5% carb stringers 30.00-45.00°»
80				

Scale 1:250 | 11/09/02 | 15:09:19

Project: Axelgold

AX02-009

d_geol

Depth At	rocktype	g_from	g_to
85	Ortho-plag-bt porphyry	45.4	86.55
	Mafic dyke	86.55	88.35
90	Ortho-plag-bt porphyry	88.35	91.92
95	Ortho-plag-bt porphyry	91.92	95.2
	Ortho-plag-bt porphyry	95.2	99.3
100			
105	Ortho-plag-bt porphyry	99.3	.98
110			
115	Sandstone	.98	115.1
	Fault zone	115.1	.68
120	Conglomerate	.68	135.8

descript

stringers 45.00°», « 1-5% carb stringers 30.00-45.00°»
Moderate k-spar « carb » (ankerite) « ser » ultim. alt. Moderate k-spar penult. alt.
« Dissem sx »: « f.gr py 1.50%», « f.gr mt 0.10%», « f.gr he 0.20%», « f.gr aspy 0.10%»
bx

2.00-3.00%»
« 53.55- 54.30 <1% qtz stringers 45.00°», « 1-5% carb stringers 30.00-45.00°»
54.3- 54.65 *Crush zone 20-30°. along*
« 54.30- 54.65 shear 30.00°». « Strongly lm »
« 54.65- 78.40 <1% qtz stringers 45.00°», « 1-5% carb stringers 30.00-45.00°»
55.40- 57.55 Dark grey-brown relatively fresh K-P-B porphyry. Moderately magnetic.
« 55.40- 57.55 very little py », indicating that pyrite came in with CB-ser alt.
Whole rock/Thin section at 56.2
« 73.00- 75.00 dark grey to black hairline stringers 20.00-45.00°». Very hard. Looks like it contains something metallic. Probably « qtz » and « f.
~~(augite feldspar porphyry) Dark greenish-greymsv variably aphanitic to f.g feldspar porphyritic. May be variation of main extrusion but aphanitic parts~~
carb stringers.
subhedral to euhedral prisms package avg 1mm. 20% </= 1mm stubby barrel-shaped mafics (alt) probably augite. Mafic and feldspar phenos altered
« 1-5% carb stringers 45.00-60.00°»
88.35- 88.57 Contact at 50°. Contacts obscured by alteration.
Weak « carb » (probably ankerite) - « ser » ultim. alt.

stringers 2.00-3.00% 1.00mm» cut by rare « qtz » « feldspar vnlets subparallel CA »
« <1% vn » - [log calls them VNQF] K-feldspar? « qtz ? »
« 1-5% carb stringers 45.00-60.00°»
Trace k-spar « carb » (ankerite) « ser » ultim. alt.
weak carbonate stockwork as usual, related to k-spar-carb-(ankerite)-ser alteration. « dissem py » and « py along hairline f1 ». « Possible tr. aspy ». «
45.00-60.00°».
Moderate k-spar « carb » (ankerite) « ser » alteration.
As 88.35- 91.92. Mottled dark grey to light grey. Less altered than above and « distinctly less py ».
« Dissem sx »: « f.gr py 1.50%», « f.gr aspy 0.10%»
« vn » - VNQF [not in log list- kspar? quartz kspar??] <1% at 45 deg to CA.
« 1-5% carb stringers 40.00-70.00°»
As units above but appears to have stronger alteration. Med to pale greenish grey m.gr ppy. Aphanitic 'cherty' grey hard groundmass probably strongly
Trace k-spar « carb » (ankerite) « ser » ultim. alt.
« 89.30- 109.60 vn » - [VNQF, K-spar? quartz-k-spar?] 5-15%, 0.00- 70.00 deg to CA. « <1% carb stringers 45.00-70.00°»
« Dissem sx »: « f.gr py 0.50%»
Strong k-spar « carb » (ankerite) « ser » alteration.
« Dissem sx »: « f.gr py 2.00%», « f.gr he 0.10%»
15% stubby euhedral orthoclase phenos to 5mm. 15-20% subhedral to euhedral plag prisms generally altered to « carb » and « ser ». Biotite 5-7% eu
pseudomorphs of « carb » and « ser ». <1mm. « dissem f.gr crystalline py 1.00-3.00%». « Some py along f1 » as well. « Stockworks of qtz 70 deg to (
stringers up to 5mm 0.00 deg to CA» (average 2-3mm) Strongest stockwork noted in hole to date. cuts « hairline carb stringers » at 45.00-70.00°. « tr
[illegible] Sandstone with round to subangular (average subrdd-sunangular) frags of grey hard aphnitic material (sedimen
[illegible] ranges from <1mm to 2 cm but averages 2-3mm (c.gr sandstone). Rock is relatively hard but has green
ser ». Could be « ser »-« qtz » or « ser »-k-spar.
« 112.98- 114.65 <1% VNQF vn 20.00°» « <1% carb stringers 45.00°»
Moderate k-spar « ser » « qtz » ultim. alt.
« Dissem sx »: « f.gr py 0.50%».
« 114.65- 114.95 15-30% qtz-carb stringers 20.00°»
Weakly tectonized zone with moderate « lm » staining. Close to being vertically below soil anomaly. Host rock is a c.gr sediment as above.
Overall <1% pyrite - « py » predominantly dissem but some along « hairline f1 ».
115.0- 115.80 Crush zone.
« 115.10- 115.80 shear 10.00-40.00°» Limonitic clay on shear surfaces. « py 1.00-2.00%» along shear-parallel lenses and stringers. Overall pyrite
weak strs.
« Stringer sx »: « veins of py avg 0.50% 0.10-1.00cm» « veins of lm 2.00% avg 0.10-1.00cm». Crush zone (<1 cm pieces)
(+/- sed [illegible]) [illegible]ish-grey conglomerate, c.gr sandstone. Subang to rdd fragments of m.gr feldspar porphyry and grey aphanitic
to 3cm in a c.gr sandstone groundmass. C.gr sandstone grains 3-4mm predom aphanitic material. « Some qtz ? ». « <1% carb stringers 30.00-60.00°
« Dissem sx »: « f.gr py 1.00%».

dark grey aphanitic [log unclear...'gm c' (circa?)] 30% and stubby white subhedral to euhedral phenocrysts averaging 1-2mm. Orthoclase? C.gr sand p

AX02-009

Depth At	d_geol rocktype	g_from	g_to	descript	D_SAMP S_FROM	S_TO	SAMPLE	AU_ppm	AG_ppm	CU_ppm	MO_ppm
					73	92	54256	0.2	0.21	9	1
125				(+/- sed brxx) to c.gr sandstone. Med bluish-grey conglomerate, c.gr sandstone. Subang to rdd fragments of m.gr feldspar porphyry and grey aphanitic material (sed? volc?) to 3cm in a c.gr sandstone groundmass. C.gr sandstone grains 3-4mm predom aphanitic material. « Some qtz ? ». « <1% carb stringers 30.00-60.00°». « Dissem sx »: « f.gr py 1.00%».	92	97	54257	?	?	?	?
	Conglomerate			dark grey aphanitic [log unclear...'gm c' (circa?)] 30% and stubby white subhedral to euhedral phenocrysts averaging 1-2mm. Orthoclase? C.gr sand particles predom light to dark grey aphanitic, probably volcanic fragments also. Whole unit could be volcanic sandstone.	97	02	54258	?	?	?	?
130		68	135.8		02	06	54259	?	?	?	?
				Similar to unit above with a few large fragments. Medium blue grey, msv homogenous. Poorly bedded 60-70 deg to CA. Hard. Possibly potassic altered (silicified?). « Dissem sx »: « f.gr py 0.50%».	06	11	54260	?	?	?	?
135				Medium grey glassy hard aphanitic gm (k-spar altered?). 10% stubby anhedral light brn-grey orthoclase to 4mm. 20% </= 1mm euhedral plag laths and prisms typically alt to « carb » and « ser » « dissem f.gr py 1.00%» « Qtz stringers 30.00° 4.00mm» cutting « hairline carb stringers » « 1-5% qtz stringers 30.00°», « <1% carb stringers 30.00°» Moderate k-spar « carb »(ankerite) « ser » ultim. alt. « dissem sx »: « f.gr py 0.50%» « LCT 50.00»	11	85	54261	0.2	0.2	10	2
	C.gr sandstone			Much as above dyke. Slightly coarser-grained. « Dissem sx »: « f.gr py 1.00%»	85	139	54262	?	?	?	?
		135.8	140.3								
140	Ortho-plag porphyritic dyke	140.3	140.5	As dyke above. May have biotite but not recognized. Similar texture to k-spar-bt-plag porphyry unit but without biotite. Related? « 1-5% qtz stringers 30.00-50.00°» « <1% carb stringers 30.00°».							
	Conglomerate	140.5	141.4	Moderate k-spar « carb »(ankerite) « ser » ultim. alt.	139	141.4	54263	?	?	?	?
	Ortho-plag porphyritic dyke	141.4	92	« Dissem sx »: « f.gr py 0.10%» « LCT 70.00»	141.4	92	54264	?	?	?	?
	Conglomerate	92	143.2	« 1-5% qtz stringers 45.00°». « <1% carb stringers 20.00°» « Dissem sx »: « f.gr py 1.00%»	92	143.2	54266	0.2	0.16	11	1
	Ortho-plag porphyry	143.2	143.6								
145				Moderate k-spar « carb » (ankerite) « ser » ultim. alt « Dissem sx »: « f.gr py 1.00%»	143.2	146.1	54267	?	?	?	?
	Conglomerate	143.6	147.9								
				med. grey. Very hard aphanitic groundmass (k-spar?) with ~10% anhedral stubby orthoclase 2-3mm and 15-20% euhedral laths and prisms of « carb - ser » altered plagioclase up to 1 mm long. « 147.90- 150.10 1-5% carb stringers 20.00-45.00°»	146.1	147.9	54268	?	?	?	?
				Moderate k-spar « carb » (ankerite) « ser »ultim. alt.	147.9	150.1	54269	?	?	?	?
150				« Dissem sx »: « f.gr py 0.10%» 150.1- 152.5 Greenish grey. Similar to above but few amygdules. « 150.10- 152.50 tr py ». « Very weak carb » stockwork - « hairline stringers ».	150.1	152.5	54270	?	?	?	?
	Ortho-plag-bt porphyry			Moderate k-spar « carb » (ankerite) « ser »ultim. alt. « 152.50- 153.45 <1% qtz stringers 45.00°», « <1% carb stringers 10.00-45.00°»	152.5	45	54271	0.2	0.19	65	1
		147.9	67	Moderate k-spar « carb » (ankerite) « ser »ultim. alt.							
155				153.45- 157.65 Alteration weaker than above. Some dark brown parts away from « 153.45- 157.65 carb stringers ». Weakly magnetic. « mt specks 4.00%» « <1% qtz stringers 45.00°», « <1% carb stringers 20.00-45.00°»	45	45	54272	?	?	?	?
				Moderate k-spar « carb »(ankerite) « ser » ultim. alt.	45	65	54273	?	?	?	?
	Ortho-plag-bt porphyry	67	158.5	« Dissem sx »: « f.gr py 0.10%», « f.gr mt 0.20%»	65	158.5	54274	?	?	?	?
	End of hole	158.5	158.5	(fresh) Dark brown relatively unaltered intrusion. Greenish orthoclase-stubby anhedral phenos to 3mm. Plag laths to 1mm at 15%. 5-8% black unaltered biotite up to 1 mm. Euhedral. « dissem mt 0.50%»							
160				« <1% carb stringers 20.00-45.00°». « f.gr py 0.50%» ?							

Scale 1:250 | 11/09/02 | 15.09.20

RUBICON MINERALS CORPORATION - DRILL LOG

Start_date 17/08/02 End_date 20/08/02 Logged_by D. Daoud

AX02-010 Northing (UTM15 NAD83) 6206708 Easting (UTM15 NAD83) 314621 Elev(ASL) 1572 CoreSize - NQ

Length(m) 225.55 Local co-ord North Local Co-ord East Claim Contractor: Britton Bros

Re-logged_by/date

TESTS:	Depth	Type	Dip	Az	Comments
	0		-45	8	
	91.44	Acid test	-41	8	
	152.4	Acid test	-41	8	
	225.55	Acid test	-40	8	

Project: Axelgold | Page No 1

AX02-010

	d_geol				D_SAMP						
Depth At	rocktype	g_from	g_to	descript	S_FROM	S_TO	SAMPLE	AU_ppm	AG_ppm	CU_ppm	MO_ppm
D2.5											
5	Casing	0	10.67	?							
.5											
10											
12.5	Syenite	10.67	19.5	size 4mm across. Fine dissem « py » in th ematrix seems to be assoc with olive green patches (« ? ser ») and to less-extent a green min., prob. « fuch » « >30% carb stringers 70.00-80.00°» « 1-5% "QB" - qtz?/carb? stringers 40.00-50.00°»« f1 30.00-40.00°» Strong K-spar-« carb » (ankerite)-« ser » ultim. alt. *Trace K-spar penult. alt. « dissem, f.gr py 1.00%»*	10.67	15.24	54276	?	?	?	?
15					15.24	18.29	54277	?	?	?	?

Scale 1:100 | 11/09/02 | 15:11:00

AX02-010

	d_geol				D_SAMP						
Depth At	rocktype	o_from	g_to	descript	S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
17.5	Syenite	10.67	19.5	size 4mm across. Fine dissem « py » in th ematrix seems to be assoc with olive green patches (« ? ser ») and to less-extent a green min., prob. « fuch » « >30% carb stringers 70.00-80.00°» « 1-5% "QB" - qtz?/carb? stringers 40.00-50.00°»« f1 30.00-40.00°» Strong K-spar-« carb » (ankerite)-« ser » ultim. alt. Trace K-spar penult. alt. « dissem, f.gr py 1.00%»	15.24	18.29	54277	?	?	?	?
					18.29	19.5	54279	?	?	?	?
20					19.5	21.34	54280	1.2	0.57	312	95
22.5	Syenite	19.5	28.53	M to c.gr ppy; potassic altered, fragmental porphyritic M.grey, m. to c. gr, fragmental (brxx) porphyritic syenite, the fragments are up to 8 cm across comprised ainly of feldspar. Altered, dark grey porphyriticsyenite, their borders are sometimes diffused within the main matrix. The rock is extensively altered (potassic and « ser »/ « fuch » alteration) The frags are subangular to subrounded. « 1-5% qtz-carb stringers 40.00-50.00°»« >1% carb-py stringers 30.00-40.00°» « f1 30.00-40.00°» Strong K-spar ultim alt. Moderate « ser » penult. alt. « f.gr dissem py 3.00%», « f.gr, dissem ga 0.10%», « f.gr, dissem sb 0.10%». Increase of pyrite content from previous (dissem veins) These py-veins are 2-4mm thick and represent the early generation fo veins (assoc in some cases w. sericite) The *2nd generation of veins is qtz/carb/ga and/or sb/hematite and they are up to 1 cm (40 to 50 degrees to CA) The last generation of veins is rpresented by a few « flour /carb* vns 1.00-2.00 mm thick»	21.34	24.38	54281	?	?	?	?
25					24.38	28.53	54282	?	?	?	?
27.5											
30	Syenite	28.53	38.63	« ga » are present (1-2mm thick) an are 10-15 deg to CA. « >1% py stringers 20.00-30.00°» « 1-5% qtz-carb stringers 40.00-50.00°». « f1 30.00-40.00°» Strong « carb » (prob ankerite)- « ser » ultim alt. Weak K-spar penult. alt. « Dissem, v.f.gr py 3.00%», « Dissem, v.f.gr ga 0.10%», « Dissem, v.f.gr sb 0.10%»	28.53	30.48	54284	?	?	?	?
					30.48	33.53	54285	0.9	0.54	481	95

Scale 1:100 | 11/09/02 | 15:11:00

AX02-010

	d_geol				D_SAMP						
Depth At	rocktype	g_from	g_to	descript	S_FROM	S_TO	SAMPLE	AU_ppm	AG_ppm	CU_ppm	MO_ppm
					30.48	33.53	54285	0.9	0.54	481	95
35	Syenite			« ga » are present (1-2mm thick) an are 10-15 deg to CA. « >1% py stringers 20.00-30.00°» « 1-5% qtz-carb stringers 40.00-50.00°». « f1 30.00-40.00°»	33.53	36.58	54286	?	?	?	?
		28.53	38.63	Strong « carb » (prob ankerite)- « ser » ultim alt. Weak K-spar penult. alt. « Dissem, v.f.gr py 3.00%», « Dissem, v.f.gr ga 0.10%», « Dissem, v.f.gr sb 0.10%»							
37.5					36.58	38.63	54287	?	?	?	?
					38.63	40.63	54289	?	?	?	?
40											
					40.63	42.67	54290	0.5	0.55	493	157
42.5	Syenite			Fine, grey to dk. grey metal mineral noted (« Assoc. w/ py »), probably « sb? » « Numerous qtz-carb vns are present., 40.00-50.00°» w/ « ga » and hematite. A few « flourite /calcite vns noted at 70°» « 38.63- 44.80 f1 30.00-40.00°» « 44.80- 45.72 shear 50.00°» « 45.72- 48.12 f1 70.00°» Strong K-spar ultim. alt. Weak « ser »penult. alt « dissem, f.gr py 3.00%». « dissem. f.gr ga 0.10%». « dissem, f.gr sb 0.10%»							
		38.63	48.12		42.67	45.72	54291	?	?	?	?
45											
					45.72	48.12	54292	?	?	?	?
47.5				volume are set in f. to m.gr grey to greenish matrix (K-spar and « ser ») Size of the phenocrysts vary from 2-10mm (avg 4 mm). A few megacrysts are present (1-2cm long) « More py is present, avg 10.00%» seems to be mainly controlled by « anastamosing vns » and « vnlets » assoc with « ser », in some places « carb » « fluor »are assoc, too. « stringer sx » « f1 35.00-40.00°».							
	Syenite	48.12	51.62	Moderate « ser » ultim. alt. Moderate K-spar pentult. alt. « py vns 10.00% 0.10-1.00cm»	48.12	51.62	54293	?	?	?	?

Scale 1:100 | 11/09/02 | 15:11:01

AX02-010

	d_geol				D_SAMP						
Depth At	rocktype	g_from	g_to	descript	S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
50	Syenite	48.12	51.62	volume are set in f. to m.gr grey to greenish matrix (K-spar and « ser ») Size of the phenocrysts vary from 2-10mm (avg 4 mm). A few megacrysts are present (1-2cm long) « More py is present, avg 10.00%» seems to be mainly controlled by « anastamosing vns » and « vnlets » assoc with « ser ». in some places « carb » « fluor »are assoc, too. « stringer sx » « f1 35.00-40.00°», Moderate « ser » ultim. alt. Moderate K-spar pentult. alt. « py vns 10.00% 0.10-1.00cm»	48.12	51.62	54293	?	?	?	?
52.5	Syenite	51.62	54.96	Megacrystic (K-spar phenos >/= 1cm). Grey to greyish, megacrystic, porphyritic, altered (potassic/ « ser ») syenite. Euhedral to subhedral megacrysts of felds phenocrysts comprising 40-50% of total rock volume and are up to 3 cm long. Gradual contact w/ m to c.gr porphyritic syenite. « Anastamosing py vns and veinlets » and 70 deg to CA and up to 0.5 cm thick. Moderate « ser » ultim alt. Moderate K-feldspar penult alt. « stringer sx » « sx hosted by vns 0.10-1.00cm» « py 4.00%» 53.22- 53.91 Broken core	51.62	54.96	54294	?	?	?	?
55					54.96	57.91	54295	0.2	0.61	104	72
57.5											
60	Syenite	54.96	68.16	M to c.gr ppy; Med grey to greyish, m. to c.gr. porphyritic, altered (K-spar/ « ser »), syenite partially broken. A few megacrysts of feldspar phenocrysts are present. « Anastamosing py vns and vnlets » and « finely dissem py » are noted throughout. « Carb/fluor vns » and « tr of ga » « f1 30.00-60.00°» Strong « ser » ultim. alt. Moderate K-spar penult. alt. « py vns 5.00% 0.10-1.00cm» « ga 0.10%»	57.91	60.96	54296	?	?	?	?
62.5					60.96	64.01	54297	?	?	?	?
					64.01	67.06	54299	?	?	?	?

Scale 1:100 | 11/09/02 | 15:11:01

AX02-010

	d_geol				D_SAMP						
Depth At	rocktype	g_from	g_to	descript	S_FROM	S_TO	SAMPLE	Au_ppm	Ag_ppm	Cu_ppm	Mo_ppm
65											
	Syenite	54.96	68.16	M to c.gr ppy; Med grey to greyish, m. to c.gr, porphyritic, altered (K-spar/ « ser »), syenite partially broken. A few megacrysts of feldspar phenocrysts are present. « *Anastamosing py vns and vnlets » and « finely dissem py » are noted throughout.* « *Carb/fluor vns* » and « *tr of ga* » « f1 30.00-60.00° » Strong « ser » ultim. alt. Moderate K-spar penult. alt. « py vns 5.00% 0.10-1.00cm» « ga 0.10%»	64.01	67.06	54299	?	?	?	?
67.5					67.06	68.16	54300	0.4	0.65	279	166
	Syenite	68.16	70.75	M to c.gr ppy; Megacrystic (K=spar phenos >/= 1cm) Greyish-grey, porphyritic, altered (« ser » and potassic) megacrystic syenite. Megacrysts of feldspar phenocrysts up to 4 cm long. Amount of « py » decreases from previous, mainly in « fine stringers » (« vnlets ») in some places, a dark grey metallic mineral assoc with (« sb? ») A few « qtz, carb and ga vns 60.00° » are present (fine grains of galena). « sx stringers » « f1 70.00° » Strong « ser » ultim. alt. Moderate K-spar penult. alt. « py vns 3.00% 0.10-1.00cm», « ga 0.10% in veins 0.10-1.00cm», « sb 0.10% in veins 0.10-1.00cm»	68.16	70.1	54301	?	?	?	?
70											
					70.1	73.15	54302	?	?	?	?
72.5											
	Syenite	70.75	76.85	length. « A network of py vns vnlets » throughout, (stockwork) and « finely dissem py ». « A few qtz-carb and fluor vns are present 1.00-3.00mm». « up to 20% sx in stringers » « f1 30.00-60.00° » Strong « ser » ultim. alt. Moderate K-spar penult. alt. « py vns 6.00% 0.10-1.00cm», « ga 0.10%», « sb 0.10%»	73.15	75	54303	?	?	?	?
75											
					75	76.85	54304	?	?	?	?
77.5											
	Syenite	76.85	80.85	M to c.gr ppy; Porphyritic syenite, same as above w/ fresher and larger feldspar phenocrysts up to 1.3 cm long. « Mainly finely dissem py » throughout. « fluor, qtz and carb f1-filling » are present. « A few fine grains ga » as inclusions in « qtz-carb vns which are up to 4.00cm» « dissem sx » « 1-5% qtz-carb stringers 30.00-50.00° » « f1 70.00° » Moderate « ser »ultim. alt. Moderate K-sapr penult. alt. « f.gr py 2.50%», « f.gr ga 0.10%», « f.gr fluor 0.10%»	76.85	79.25	54305	0.2	0.38	41	25
80					79.25	80.85	54306	?	?	?	?

AX02-010

Depth At	d_geol rocktype	g_from	g_to	descript	D_SAMP S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
	Syenite	~~79.85~~	~~88.85~~	M to c.gr ppy; Porphyritic syenite, same as above w/ fresher and larger feldspar phenocrysts up to 1.3 cm long. « Mainly finely dissem py » throughout. « fluor, qtz and carb f1-filling » are present. « A few fine grains ga » as inclusions in « qtz-carb vns which are up to 4.00cm» « dissem sx » « 1-5% qtz-carb stringers 30.00-50.00°» « f1 70.00°» Moderate « ser »ultim. alt. Moderate K-sapr penult. alt. « f.gr py 2.50%», « f.gr ga 0.10%», « f.gr fluor 0.10%»	~~79.85~~	~~88.85~~	~~54309~~				
					80.85	82.3	54307	?	?	?	?
82.5											
					82.3	85.34	54309	?	?	?	?
85											
	Syenite			with the « ser ». « Anastamosing fine py vns and vnlets » throughout. « Tr of ga » and « sph » in « qtz and carb vns 60.00° 1.00-5.00mm». « tr fluor » present along « f1 70.00°». « qtz and carb vns » crosscutting « py vns ». « sx stringers ». « 1-5% py stringers 50.00°», « 1-5% qtz-carb stringers 60.00°» « f1 20.00-70.00°» Strong « ser » ultim alt., Weak K-spar penult. alt. sulphides in vns 0.10-1.00cm: « py 5.00% » « ga 0.10%» « sph 0.10%», « fluor 0.10%»							
		80.85	91.44		85.34	88.39	54310	0.8	0.43	105	58
87.5											
90					88.39	91.44	54311	?	?	?	?
92.5	Syenite			Megacrystic (K-spar phenos >/= 1cm). Very alt., (« ser » mainly), porphyritic megacrystic syenite w/ « anastamosing py », « tr of fine ga » is noted. « sx stringers ». « f1 60.00°». Strong « ser » ultim. alt. Weak K-spar penult. alt. « sx in vns 0.10-1.00cm»: « py 5.00%», « ga 0.10%»							
		91.44	94.37		91.44	94.37	54312	?	?	?	?
95											
	Syenite	94.37	97.67	M to c.gr ppy: Altered porphyritic syenite. Broken rock w/ « finely dissem py » throughout. Tr. of « finely dissem ga » noted. « Dissem sx », « f1 40.00-60.00°». Strong s« ser » ultim. alt., trace K-spar penult. alt.« F.gr py 2.00%», « f.gr ga 0.10%»	94.37	97.67	54313	?	?	?	?

Scale 1:100 | 11/09/02 | 15:11:01

Project: Axelgold | Page No 7

AX02-010

	d_geol				D_SAMP						
Depth At	rocktype	g_from	g_to	descript	S_FROM	S_TO	SAMPLE	AU_ppm	AG_ppm	CU_ppm	MO_ppm
97.5	Syenite	94.37	97.67	M to c.gr ppy; Altered porpnyntic syenite. Broken rock w/ « finely dissem py » throughout. Tr. of « finely dissem ga » noted. « Dissem sx », « f1 40.00-60.00°», Strong s« ser » ultim. alt., trace K-spar penult. alt.« F.gr py 2.00%», « f.gr ga 0.10%»	94.37	97.67	54313	?	?	?	?
	Fault Zone	97.67	98.24	(Contact with a dyke) « shear 5.00°» Intense clay ultim alt.	97.67	98.24	54314	?	?	?	?
100	Syenite; feld-bt porphyry dyke	98.24	100.7	up to 5% of rock volume. The amount of finely dissem decreases dramatically from teh fault-zone to the end of the interval. « dissem sx » « f1 40.00°». Moderate « ser » ultim. alt. Moderate K-spar penult. alt. « f.gr py 1.50%»	98.24	100.7	54315	0.2	0.61	59	28
102.					100.7	.63	54316	?	?	?	?
105	Syenite	100.7	.68	and « tr of fine ga » are present. « Minor fuch » assoc. w/ « ser » « py » in the matrix. « sx stringers » « 1-5% qtz-carb stringers 50.00-70.00°» « f1 20.00-70.00°» Strong « ser » ultim. alt. Weak K-spar penult. alt. « vns 0.10-1.00cm»: « py 3.00%», « ga 0.10%», « fuch 0.10%»	.63	.68	54318	?	?	?	?
107.	Syenite	.68	.75	py » throughout. The cove (???) is sheared w/ « carb » coating. « Dissem sx ». « shear 15.00-50.00°» Moderate « ser » ultim alt., Weak K-spar penult. alt. « f.gr py 5.00%»	.68	.75	54319	?	?	?	?
110	Syenite	.75	.64	Megacrystic (K-spar phenos >/= 1cm) Fresh and competent (partially altered and « ser ») megacrystic syenite w/ felds. phenocrysts up to 4 cm long (euhedral). «dissem py throughout, about 1.00%» « tr of fine ga » assoc. w « qtz/carb vns ». « Dissem sx » « 1-5% qtz-carb stringers 60.00°» Weak « ser » ultim. alt. « f.gr py 1.00%», « f.gr ga 0.10%»	.75	.64	54320	0.2	0.33	57	25
112.	Syenite	.64	.63	and « stockwork of vnlets »« A few qtz and carb vns 7.00° 1.00-4.00mm» (« w/ a trace of ga ») « sx stringers » « f1 70.00°» Strong « ser » ultim. alt, Moderate K-spar penult. alt. « sx in vns 0.10-1.00cm»: « py 7.00%», « ga 0.10%»	.64	.04	54321	?	?	?	?
					.04	.63	54323	?	?	?	?

Scale 1:100 | 11/09/02 | 15:11:01

AX02-010

	d_geol				D_SAMP							
Depth At	rocktype	g_from	g_to	descript	S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
	Syenite	64	63	and « stockwork of vnlets »« A few qtz and carb vns 7.00° 1.00-4.00mm» (« w/ a trace of ga ») « sx stringers » « f1 70.00° »	04	63	54323	?	?	?	?
	Syenite	63	95	*Strong « ser » ultim. alt, Moderate K-spar penult. alt.* « sx in vns 0.10-1.00cm»: « py 7.00%», « ga 0.10%»	63	95	54324	?	?	?	?
115	Syenite	95	36	M to c.gr ppy; Dark grey to med-grey, f.gr, fresh feldspar, biotite or oxyde porphyritic dyke w/ « finely dissem py » throughout. Possibly 2ndary biotite? « Dissem sx » Moderate « ser » ultim. alt. Weak K-spar penult. alt. « f.gr py 5.00%», « f.gr fuch 0.10%»	95	36	54325	0.9	0.36	103	74
	Syenite	36	79	M to c.gr ppy; Altered porphyritic syenite. Med. grey to greyish, m to c.gr, porphyritic alt. (« ser »/K-spar) syenite with « finely dissem and veins of py ». « tr of ga » are presen in « qtz and carb (dolomite) thin vns 1.00-3.00mm». « sx stringers »« 1-5% py stringers 50.00° » « >1% qtz-carb stringers 40.00-50.00° »	36	79	54326	?	?	?	?
117.	Syenite	79	117.9	Moderate « ser » ultim. alt. Weak K-spar penult. alt. « sx in vns 0.10-1.00cm»: « py 5.00%», « ga 0.10%»	79	117.9	54328	?	?	?	?
	Syenite	117.9	119.7	biotite? are 1-2mm across and represent 3-4% of rock volume. « Py finely dissem and w/ vnlets, about 4.00% throughout » « Dissem sx » « ser » ultim alt. strength illegible. Trace K-spar penult. alt. « f.gr py 4.00%»	117.9	119.7	54329	?	?	?	?
120				py » and « py in vns 50 deg to CA.» are noted (avg 5%) . « Minor ga » is present in « thin qtz-carb vns » « Dissem sx »« >1% py stringers 50.00° » Moderate « ser » ultim. alt. Trace « fuch » penult. alt. « F.gr py 5.00%», « F.gr ga 0.10%»							
	Syenite	119.7	87	length from 3mm to 10mm (5mm avg) and comprising 45% of rock volume. « Numers large fine py vns up to 3.00cm thick» are rpesent throughout the interval. Its (log » Moderate K-spar ultim. alt. Moderate « ser » penult. alt. « sx in vns 0.10-1.00cm»: « py 10.00%», « ga 0.10%», « fluor 0.10%» « 118.02- 118.05 >30% py stringers 10.00° » « 119.12- 119.13 >30% qtz-carb stringers 40.00° »	119.7	121.8	54330	1.7	0.54	344	155
122.					121.8	87	54331	?	?	?	?
				An altered, whitish rounded xenolith is noted at 123.03 m, about 5 cm across w/ « dissem py » and « grey sx » (fine) (« ga? »). (probably represents a chill margin for the next rock type.) « dissem sx » « >1% qtz-carb stringers 40.00° » Trachytic texture, 40.00°. Strong « ser » ultim. alt. Trace « fuch » penult. alt. « f.gr py 4.00%», « f.gr ga 0.10%»	87	97	54332	?	?	?	?
125											
	Syenite	87	21	Feldspars are up to 1.5 cm long and euhedral to sub-euhedral biotite? 2ndary oxyde are 1-2mm across and represent 3-4% of rock volume. « Anastamosing py » throughout. « 133.30- 133.34 Msv py in vn » « 123.87- 140.21 Tr of ga » and « fluor »are present, assoc w/ « qtz-carb vn 50.00° 1.00-5.00mm». Extenisve « ser » alteration assoc w/ « py vns ». « sx stringers »« sx in vns 0.10-1.00cm». « py 10.00%», « ga 0.10%», « fluor 0.10%», « fuch 0.10%» Trachytic texture Strong « ser » ultim. alt. « 133.30- 133.34 >30% py stringers 40.00° »	97	02	54333	?	?	?	?
127.					02	06	54334	?	?	?	?

Scale 1:100 | 11/09/02 | 15.11.01

AX02-010

Depth At	d_geol rocktype	g_from	g_to	descript	D_SAMP S_FROM	S_TO	SAMPLE	AU_ppm	AG_ppm	CU_ppm	MO_ppm
130					.02	06	54334	?	?	?	?
132.					.06	.11	54335	?	?	?	?
				Feldspars are up to 1.5 cm long and euhedral to sub-euhedral biotite? 2ndary oxyde are 1-2mm across and represent 3-4% of rock volume. « Anastamosing py » throughout.							
				« 133.30- 133.34 *Msv py in vn* »							
				« 123.87- 140.21 Tr of ga » and « fluor »are present, assoc w/ « qtz-carb vn 50.00° 1.00-5.00mm». Extenisve « ser » alteration assoc w/ « py vns ».							
135	Syenite			« sx stringers »« sx in vns 0.10-1.00cm»: « py 10.00%», « ga 0.10%», « fluor 0.10%», « fuch 0.10%»							
				Trachytic texture							
				Strong « ser » ultim. alt.							
		.87	.21	« 133.30- 133.34 >30% py stringers 40.00°»	.11	.16	54336	0.8	0.41	170	57
137.											
					.16	.21	54338	?	?	?	?
140											
				type probably represents the contact with megacrystic syenite.							
				« Dissem sx »							
				« f1 30.00-50.00°»							
				Strong « ser » ultim. alt. Moderate K-spar penult alt							
142.	Syenite			« *F.gr py 3.00%*», « *f.gr ga 0.30%*», « *f.gr he 0.10%*», « *f.gr fluor 0.20%*»	.21	26	54339	0.7	0.5	165	60
		.21	.35	Megacrystic (K-spar phenos >/= 1cm) Med grey to lt. grey, very altered (« ser »and potassic), megacrystic porphyritic syenite w/ megacrysts of feldspar up to 4 cm long, euhedral to subhedral, comprising 40% of total rock volume, and fractured (« fine py » along « f1 » and rarely as inclusions). « Pervasive ser » -potassic alteration of the matrix. « Finely dissem and anastamosing py » present throughout the interval, but it seems the amount of « py » slightly decreased with depth --> 2-3%. « Very fine grains of grey sx », probably « ga », is assoc with « py » and also as coating of « latestage f1 at 40 deg to CA » « Tr of he » noted along « qtz and carb vns ».	.26	.35	54340	0.2	0.48	108	36
				153.4m- « Fluor » is present as « f1-filling » and in « qtz carb (dolomite) vns »							
				« 144.11- 146.30 f1 10.00-65.00°»							
				« 171.88- 171.90 >30% Qtz-carb stringers 50.00°» w/ « fluor »							
145	Syenite	.35	.88	« 174.50- 176.78 f1 25.00-60.00°»	.35	146.3	54341	?	?	?	?
				« 144.35- 182.88 Strong ser » ultim. alt Moderate K-spar penult alt. « f.gr py 4.00%» « f.gr ga 0.20%», « f.gr he 0.10%», « f.gr fluor 0.30%»							

AX02-010

	d_geol				D_SAMP						
Depth At	rocktype	g_from	g_to	descript	S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
					35	146.3	54341	?	?	?	?
147.					146.3	35	54342	0.3	0.21	192	110
150					35	152.4	54343	0.3	0.26	191	74
152.	Syenite			Megacrystic (K-spar phenos >/= 1cm) Med grey to lt. grey, very altered (« ser »and potassic), megacrystic porphyritic syenite w/ megacrysts of feldspar up to 4 cm long, euhedral to subhedral, comprising 40% of total rock volume, and fractured (« fine py » along « f1 » and rarely as inclusions). « Pervasive ser » -potassic alteration of the matrix. « Finely dissem and anastamosing py » present throughout the interval, but it seems the amount of « py » slightly decreased with depth --> 2-3%. « Very fine grains of grey sx », probably « ga », is assoc with « py » and also as coating of « latestage f1 at 40 deg to CA ». « Tr of he » noted along « qtz and carb vns ». 153.4m- « Fluor » is present as « f1-filling » and in « qtz carb (dolomite) vns » « 144.11- 146.30 f1 10.00-65.00°» « 171.88- 171.90 >30% Qtz-carb stringers 50.00°» w/ « fluor » « 174.50- 176.78 f1 25.00-60.00°» « 144.35- 182.88 Strong ser » ultim. alt Moderate K-spar penult alt. « f.gr py 4.00%», « f.gr ga 0.20%», « f.gr he 0.10%», « f.gr fluor 0.30%»	152.4	.45	54344	0.7	0.38	129	49
155		35	.88								
					.45	158.5	54345	?	?	?	?
157											
160					158.5	.54	54346	?	?	?	?
					.54	.69	54348	0.2	0.31	179	42

Project: Axelgold | Page No.: 11

AX02-010

	d_geol				D_SAMP						
Depth At	rocktype	g_from	g_to	descript	S_FROM	S_TO	SAMPLE	AU_ppm	AG_ppm	CU_ppm	MO_ppm
162.											
					54	69	54348	0.2	0.31	179	42
165											
					69	69	54349	?	?	?	?
167.											
	Syenite			Megacrystic (K-spar phenos >/= 1cm) Med grey to lt. grey, very altered (« ser »and potassic), megacrystic porphyritic syenite w/ megacrysts of feldspar up to 4 cm long, euhedral to subhedral, comprising 40% of total rock volume, and fractured (« fine py » along « f1 » and rarely as inclusions). « Pervasive ser » -potassic alteration of the matrix. « Finely dissem and anastamosing py » present throughout the interval, but it seems the amount of « py » slightly decreased with depth –> 2-3%. « Very fine grains of grey sx », probably « ga », is assoc with « py » and also as coating of « latestage f1 at 40 deg to CA ». « Tr of he » noted along « qtz and carb vns ». 153.4m- « Fluor » is present as « f1-filling » and in « qtz carb (dolomite) vns » « 144.11- 146.30 f1 10.00-65.00° » « 171.38- 171.90 >30% Qtz-carb stringers 50.00° » w/ « fluor » « 174.50- 175.78 f1 25.00-60.00° » « 144.35- 182.88 Strong ser » ultim. alt Moderate K-spar penult alt. « f.gr py 4.00%», « f.gr ga 0.20%», « f.gr he 0.10%». « f.gr fluor 0.30%»	69	69	54350	?	?	?	?
170		35	38								
172.					69	74	54351	?	?	?	?
175											
					74	78	54352	?	?	?	?
177.					78	83	54353	0.2	0.38	171	94

Scale 1:100 | 11/09/02 | 15:11:02

AX02-010

d_geol					D_SAMP						
Depth At	rocktype	g_from	g_to	descript	S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
180	Syenite	.35	38	Megacrystic (K-spar phenos >/= 1cm) Med grey to lt. grey, very altered (« ser »and potassic), megacrystic porphyritic syenite w/ megacrysts of feldspar up to 4 cm long, euhedral to subhedral, comprising 40% of total rock volume, and fractured (« fine py » along « f1 » and rarely as inclusions). « Pervasive ser » -potassic alteration of the matrix. « Finely dissem and anastamosing py » present throughout the interval, but it seems the amount of « py » slightly decreased with depth --> 2-3%. « Very fine grains of grey sx », probably « ga », is assoc with « py » and also as coating of « latestage f1 at 40 deg to CA ». « Tr of he » noted along « qtz and carb vns ». 153.4m- « Fluor » is present as « f1-filling » and in « qtz carb (dolomite) vns » « 144.11- 146.30 f1 10.00-65.00° » « 171.88- 171.90 >30% Qtz-carb stringers 50.00° » w/ « fluor » « 174.50- 176.78 f1 25.00-60.00° » « 144.35- 182.88 Strong ser » ultim. alt Moderate K-spar penult alt. « f.gr py 4.00% », « f.gr ga 0.20% », « f.gr he 0.10% », « f.gr fluor 0.30% »	.78	.83	54353	0.2	0.38	171	94
182					.83	.88	54354	?	?	?	?
185	Syenite	.88	98	Megacrystic (K-spar phenos are >/= 1cm) Very altered megacrystic syenite w/ « f.gr mt » assoc w/ dark green mineral (« chl »). Finely dissem (« interstitial py »). Intense « ser » ultim. alt. Tr « chl » penult alt « Dissem sx »: « f.gr py 2.00% », « f.gr fluor 1.00% »	.88	.93	54355	?	?	?	?
187					.93	.98	54356	?	?	?	?
190	Syenite	.98	216.3	Megacrystic (K-spar phenos >/= 1cm). Light grey to greenish grey, megacrystic, very alt (« ser »and potassic) mainly « ser », porphyritic syenite w/ « finely dissem and anastamosing py 4.00% », « minor fine ? ga » noted and « very minor sph » assoc w/ « fluor/he/calcite in a small vn »« Ptches of fuch » are present w/ « py »and « ser ». Some small phenocrysts (laths 1-2mm long) pinkish to light brown, probably 2ndary K-spar or plag? comprising <1% of rock volume. « Dissem sx »: « f.gr py 4.00% », « f.gr ga 0.10% », « f.gr sph 0.10% », « f.gr he 0.10% », « f.gr fluor 2.00% », « f.gr fuch 0.10% » « 15-30% qtz-carb-chl stringers 30.00° », « >1% fluor-carb stringers 40.00° » Strong « ser » ultim alt. Weak K-spar penult. alt. « 196.05- 196.25 >30% py stringers 30.00° up to 2.00cm in one place» assoc with clay and « carb ». 199.85- 201.17 Blocky Core 0 deg to CA. « 204.42- 204.92 shear 30.00° »	.98	.02	54358	?	?	?	?
192					.02	.07	54359	0.2	0.4	135	71

AX02-010

Depth	id_geol rocktype	g_from	g_to	descript	D_SAMP s_FROM	S_TO	SAMPLE	AU_ppm	AG_ppm	CU_ppm	MO_ppm
195					.02	.07	54359	0.2	0.4	135	71
197.					.07	.12	54360	?	?	?	?
200					.12	.17	54361	?	?	?	?
202.	Syenite			**Mega**crystic (K-spar phenos >/= 1cm). Light grey to greenish grey, megacrystic, very alt (« ser »and potassic) mainly « ser », porphyritic syenite w/ « finely dissem and anastamosing py 4.00%». « minor fine ? ga » noted and « very minor sph » assoc w/ « fluor/he/calcite in a small vn »« Ptches of fuch » are present w/ « py »and « ser ». Some small phenocrysts (laths 1-2mm long) pinkish to light brown. probably 2ndary K-spar or plag? comprising <1% of rock volume. « Dissem sx »: « f.gr py < 00%», « f.gr ga 0.10%», « f.gr sph 0.10%», « f.gr he 0.10%», « f.gr fluor 2.00%», « f.gr fuch 0.10%» « 15-30% qtz-carb-chl stringers 30.00°», « >1% fluor-carb stringers 40.00°» Strong « ser » ultim alt. Weak K-spar penult. alt. « 196.05- 196.25 >30% py stringers 30.00°up to 2.00cm in one place» assoc with clay and « carb ». 199.85- 201.17 Blocky Core 0 deg to CA. « 204.42- 204.92 shear 30.00°»	.17	.22	54363	?	?	?	?
		.98	216.3								
205					.22	.26	54364	0.2	0.25	98	26
207.					.26	.31	54365	?	?	?	?
210											

Scale 1:100 | 11/09/02 | 15:11:02

AX02-010

Depth At	d_geol rocktype	g_from	g_to	descript	D_SAMP S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
					.29	.31	54365	?	?	?	?
212.	Syenite	.98	215.3	Megacrystic (K-spar phenos >/= 1cm). Light grey to greenish grey, megacrystic, very alt (« ser »and potassic) mainly « ser », porphyritic syenite w/ « finely dissem and anastamosing py 4.00%», « minor fine ? ga » noted and « very minor sph » assoc w/ « fluor/he/calcite in a small vn »« Ptches of fuch » are present w/ « py »and « ser ». Some small phenocrysts (laths 1-2mm long) pinkish to light brown, probably 2ndary K-spar or plag? comprising <1% of rock volume. « Dissem sx »: « f.gr py 4.00%», « f.gr ga 0.10%», « f.gr sph 0.10%», « f.gr he 0.10%», « f.gr fluor 2.00%», « f.gr fuch 0.10%» « 15-30% qtz-carb-chl stringers 30.00°», « >1% fluor-carb stringers 40.00°» Strong « ser » ultim alt. Weak K-spar penult. alt. « 196.05- 196.25 >30% py stringers 30.00°up to 2.00cm in one place» assoc with clay and « carb ». 199.85- 201.17 Blocky Core 0 deg to CA. « 204.42- 204.92 shear 30.00°»	.31	.36	54366	?	?	?	?
215					.36	216.3	54368	?	?	?	?
217.	Syenite	216.3	221.3	M to c.gr ppy; porphyritic. Med grey, med to c.gr, altered, porphyritic syenite w/ feldspar-phenocrysts averaging 4 mm across and comprising 45% of total rock volume. The matrix is strongly to intensely alteresd (« ser » around the « f1 » zones probably w some « chl »). « 217.21- 218.85 1-5% qtz-carb stringers 60.00°» « 218.85- 219.00 >30% qtz-carb stringers 70.00° up to 8.00cm thick » w/ « fluor ». « 219.55- 221.30 1-5% qtz-carb-he stringers 50.00°»	216.3	.46	54369	0.2	0.45	51	164
220					.46	221.3	54370	0.2	0.33	53	76
					221.3	222.5	54371	?	?	?	?
222.	Syenite	221.3	.55	Megacrystic (K-spar phenos >/= 1 cm). Lt grey to greenish grey, megacrystic, very alt. porphyritic syenite w/ « finely dissem and anastamosing py » throughout, richer at 223.95 to 224.40 (« py 20.00%») average 4%. « Tr of ga » in « thin carb/qtz vns (late stage)» « 223.75- 223.95 f1 40.00°». Muddy « 223.95- 224.40 >30% qtz-py-carb stringers 40.00°» w/ some « fluor »							
					222.5	.55	54430	?	?	?	?
225	End of hole	.55	.55	?							

Scale 1:100 | 11/09/02 | 15:11:03

RUBICON MINERALS CORPORATION - DRILL LOG

Start_date: 18/08/02 End_date 19/08/02 Logged_by G. Allen

AX02-011 Northing (UTM15 NAD83) 6206705 Easting (UTM15 NAD83) 314619 Elev(ASL) 1572 CoreSize - NQ

Length(m) 134.11 Local co-ord North Local Co-ord East Claim Contractor: Britton Bros

Re-logged_by/date

TESTS:	Depth	Type	Dip	Az	Comments
	0		-45	226	
	76.2	Acid test	-41	226	
	134.11	Acid test	-39	226	

Project: Axelgold

Page No.: 1

AX02-011

	d_geol				D_SAMP						
Depth At	rocktype	g_from	g_to	descript	S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
	Casing	0	6.1	?							
5											
					6.1	9.14	54372	?	?	?	?
10					9.14	12.19	54373	?	?	?	?
					12.19	15.24	54374	?	?	?	?
15											
	Megacrystic Syenite	6.1	41.6	K-spar phenos >/= 1cm. M.gr orthoclase porphyritic syenite. Msv, homogenous m.gr, grey orthoclase porphyry. Glassy hard grey crystocrystalline 'cherty' matrix, probably K-spar altered, 30-40%. Stubby grey orthoclase phenos have soft white patches to 1mm of « ser » and « carb ». 5% </= 1 mm subhedral lath - probably plagioclase. < 1% f-g [log illegible ('bucoxene'? 'wcoxene'? 'hucoxene'?] - after some type of mafic.	15.24	18.29	54376	0.9	0.2	32	23
20				see which first, qtz-carb-fsp stgs to 5mm, gen. < 2mm, ~1%. « 1-5% qtz-carb-feld stringers 30.00°» « > 1% carb stringers 30.00°» Moderate K-spar « carb » (ankerite) - « ser » ultim. alt. « Dissem sx »: « f.gr py 0.50%»	18.29	21.34	54377	?	?	?	?
					21.34	24.38	54378	?	?	?	?
25					24.38	27.43	54379	?	?	?	?
					27.43	30.48	54381	0.2	0.54	6	1
30											
					30.48	33.53	54382	?	?	?	?

Scale 1:200 | 11/09/02 | 15:14:00

AX02-011

Depth At	d_geol rocktype	g_from	g_to	descript	D_SAMP S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
				K-spar phenos >/= 1cm. M.gr orthoclase porphyritic syenite. Msv, homogenous m.gr, grey orthoclase porphyry. Glassy hard grey crystocrystalline cherty matrix, probably K-spar altered. 30-40%. Stubby grey orthoclase phenos have soft white patches to 1mm of « ser » and « carb ». 5% </= 1 mm subhedral lath - probably plagioclase. < 1% f-g [log illegible ('bucoxene'? 'wcoxene'? 'hucoxene'?] - after some type of mafic.	30.48	33.53	54382	?	?	?	?
35				see which first, qtz-carb-fsp stgs to 5mm, gen. < 2mm, ~1%. « 1-5% qtz-carb-feld stringers 30.00°» « > 1% carb stringers 30.00°» Moderate K-spar « carb » (ankerite) - « ser » ultim. alt. « Dissem sx »: « f.gr py 0.50%»	33.53	36.57	54383	?	?	?	?
	Megacrystic Syenite	6.1	41.5	bx ». Looks like a zone of « weak bx » and fluid movement causing « ser ». Slight increase in « py » from above. Some interval of meto CG orthoclase porphyry indicating that it is an alteration of the rock above and below. Both « dissem py » and « along hairline stringers py ». « 41.80- 45.00 >1% qtz-carb stringers 30.00°». 41.50- 45.20 Contact at 40 deg to CA 45.00- 45.30 Contact at 20 deg to CA. Moderate « ser » ultim. alt. Moderate K-spar « carb »(ankerite) « ser » penult. alt. « dissem sx »: « f.gr py 1.00%»	36.57	39.62	54384	?	?	?	?
40				M to C.gr ppy; M to c.gr orthoclase porphyritic syenite. As above brxxd unit. Orthoclase to 1 cm, average 3-5 mm. « 45.30- 46.60 >1% qtz-carb stringers 0.00 -30.00°» Moderate K-spar « carb » (ankerite) « ser » ultim. alt. « Dissem sx » « f.gr py 0.50%»	39.62	41.6	54386	0.2	0.16	11	2
	Brxx syenite	41.5	45.2	(alteration along fractures) As 41.6- 45.2. Med grey to greenish grey f-g syenite (phenos obscured by alteration?) with « irreg. patches greenish-grey f-g ser » Moderate « ser » ultim alt. Moderate K-spar « carb »(ankerite) « ser » penult alt. « Dissem sx »: « f.gr py 1.00%»	41.6	43.55	54387	?	?	?	?
45				M to C.gr ppy; Orthoclase porphyritic syenite. Med. grey, m. to c.gr porphyry with 30-40% stubby orthoclase phenos to 1cm, average 4-5mm. Msv. Homogenous. Traces v.f.g	43.55	45.2	54388	?	?	?	?
	Syenite	45.2	46.6	blue grey metallic mineral. Cut by « few qtz-carb stringers 30.00°» « <1% qtz-carb stringers 30.00°»	45.2	46.6	54389	?	?	?	?
	Brxx syenite	46.6	47.4	Moderate K-spar « carb » (ankerite) « ser » ultim. alt. « Dissem sx » « f.gr py 0.50%»	46.6	47.4	54390	?	?	?	?
				Some « chl ? » sharp contacts suggest alt along weak structure. « Dissem py » and « along hairline to 3mm stringers py » « 51.35- 51.37 <1% carb-py stringers 60.00°»	47.4	48.77	54391	0.4	0.16	20	10
	Syenite	47.4	51.35	51.35- 51.37 Contact at 50 deg to CA. Strong « ser » ultim alt. Moderate K-spar « carb » (ankerite) « ser» penult. alt. « Dissem sx »: « 1% py in vns avg 0.10-1.00cm»	48.77	51.35	54392	?	?	?	?
50	Syenite	51.35	52.6	« 51.37- 52.60 <1% carb-py stringers 30.00°» 52.60- 52.65 Contact at 70 deg to CA	51.35	52.6	54393	?	?	?	?
	Syenite	52.6	54.43	M to C.gr orthoclase ppy, 54.3 +5 cm zone « strong ser » alt with « 5-7% py 50.00°» «54.00- 54.05 >30% ser-py stringers 50.00°» « 52.60- 52.65 >1% qtz-carb stringers 60.00°» « 54.05- 54.43 <1% qtz-carb stringers 30.00°»	52.6	54.43	54394	?	?	?	?
55				Moderate K-spar « carb » (ankerite) « ser » ultim alt. « dissem sx »: « f.gr py 0.50%»	54.43	57.57	54396	0.2	0.19	10	4
	Brxx syenite	54.43	62.3	(alteration along fractures). Weakly brecciated and altered syenite prphyry. fragments grey hard syenit in matrix of « greenish ser ». « Weak bx » zone. Sericite in matrix overprinting ultim. potassic alteration. Most phenos alt to « dark green ser ». « py » predom dissem in sericitic matrix but also in frags and strs. Moderate « ser »ultim. alt. Moderate K-spar « carb »(ankerite)« ser » penult. alt. « sx » in « bx » matrix (+/- « stringers »): py« f.gr py 1.50%» 60.0- 61.5 *Blocky core (<3 cm pieces)* « 60.00- 61.50 Blocky along shear 10.00-20.00°»	57.57	60	54397	?	?	?	?
60				M to C.gr orthoclase ppy, very hard med. grey K-spar altered matrix with 30% 3-5mm (max 1 cm) stubby subhedral orthoclase phenocrysts. « dissem py 0.50-1.00%» and « py along hairline stringers »	60	62.3	54398	?	?	?	?
				Doesn't look like galena, but « could be ga ». « <1% ser-py stringers 40.00-60.00°», « <1% qtz-carb stringers 30.00°» Moderate K-spar « carb » (ankerite) « ser » ultim. alt.	62.3	65.45	54399	?	?	?	?
	Syenite	62.3	75.87	« Dissem sx »: « f.gr py 1.00%», « f.gr sph 0.10%», « f.gr ga 0.10%» « 74.45- 74.50 >30% qtz-py-carb stringers 10.00°» « qtz + white carb 5-7% py vn 10.00° 2.00cm»							

Scale 1:200 | 11/09/02 | 15:14:00

AX02-011

Depth At	d_geol rocktype	g_from	g_to	descript	D_SAMP S_FROM	S_TO	SAMPLE	AU_ppm	AG_ppm	CU_ppm	MO_ppm
					62.3	65.45	54399	?	?	?	?
					65.45	68.35	54400	?	?	?	?
				M to c.gr orthoclase ppy; Very hard med. greyK-spar altered matrix with 30% 3-5mm (max 1 cm) stubby subhedral orthoclase phenocrysts. « dissem py 0.50-1.00%» and « py along hairline stringers »							
70	Syenite			Doesn't look like galena, but « could be ga ». « <1% ser-py stringers 40.00-60.00°», « <1% qtz-carb stringers 30.00°» Moderate K-spar « carb » (ankerite) « ser » ultim. alt.	68.35	71.35	54401	0.2	0.2	16	1
		62.3	75.87	« Dissem sx »: « f.gr py 1.00%», « f.gr sph 0.10%», « f.gr ga 0.10%» « 74.45- 74.50 >30% qtz-py-carb stringers 10.00°» « qtz + white carb, 5-7% py vn 10.00° 2.00cm»	71.35	74.5	54402	?	?	?	?
75					74.5	75.87	54403	?	?	?	?
	Syenite			M to C.gr orthoclase ppy - « ser » alt. Sporadic to pervasive « ser » alt. of matrix giving a « weak bx » appearance « <1% hairline carb stringers 10.00-30.00°» Moderate « ser » ultim. alt. Moderate K-spar « carb » (ankerite) « ser »penult alt. « Dissem sx »: « f.gr py 1.00%»	75.87	77.75	54404	?	?	?	?
	Syenite dyke/ortho porph	75.87	79.85	<1% chl-py stringers 30.00-60.00°» Contact at 85°. Moderate K-spar « carb » (ankerite) « ser » ultim. alt.							
80		~~79.85~~	~~80~~	« dissem sx » : « f.gr py 1.00%»	77.75	82	54406	0.5	0.21	53	2
	Brxx syenite	80	86.95	(alteration along fractures). « ser » altered syenite orthoclase ppy. Med-greenish grey « ser » alt « weakly bx » syenite ppy. Groundmass looks ground. « Weak fault zone? »Possible structure in hot intrusion. « <1% ser-py-carb stringers 30.00-60.00°» « <1% carb stringers 10.00-40.00°» Moderate « ser » ultim. alt. Moderate K-spar « carb » (ankerite) « ser » penult. alt. « Dissem sx »: « f.gr py 1.00%»	82	84.53	54407	?	?	?	?
85					84.53	86.95	54408	?	?	?	?
				M to c.gr orthoclase ppy; Subhedral to euhedral orthoclase phenocrysts up to 1cm, average 5-7 mm. Coarser grained than uphole. Weakly trachytic, Very hard grey groundmass. Phenos sporadic « ser » and « carb » alt. « <1% qtz-carb stringers 45.00°», « <1% carb stringers 30.00-70.00°» Trachytic texture. 45° Moderate K-spar « carb » (ankerite) « ser » ultim. alt. « Dissem sx »: « f.gr py 1.50%»	86.95	89.95	54409	?	?	?	?
90	Syenite	86.95	96.35	M to C.gr « ser » alt ppy; Inhomogenous texture. « Vaguely bx ». « Pseudo- bx » « Hairline carb stringers »,« V.f.gr dissem py » in groundmass. « <1% carb stringers 30.00-50.00°» Moderate « ser » ultim alt. Moderate K-spar « carb »(ankerite) « ser » penult. alt. « Dissem sx »: « f.gr py 1.50%»	89.95	93.5	54410	?	?	?	?
				99.05- 99.5 Blocky core (pieces <3 cm) 45- 90°	93.5	94.49	54411	?	?	?	?
95				« 99.50- 105.12 <1% carb stringers 30.00-50.00°» « 105.12- 105.90 <1% carb stringers 30.00-50.00°» Blocky core (pieces less than 3cm) 10-45° « 105.90- 106.50 5-15% qtz-carb stringers 30.00-50.00°»	94.49	96.35	54412	?	?	?	?
	Syenite	96.35	110.6	« 106.50- 110.60 <1% carb stringers 30.00-50.00°» Blocky core (pieces less than 3cm)	96.35	99.05	54413	?	?	?	?

AX02-011

	d_geol				D_SAMP						
Depth At	rocktype	g_from	g_to	descript	S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
					96.35	99.05	54413	?	?	?	?
100					99.05	.55	54414	?	?	?	?
	Syenite			M to C.gr « ser » alt ppy; Inhomogenous texture. « Vaguely bx ». « Pseudo- bx » « Hairline carb stringers »,« V.f.gr dissem py » in groundmass. « <1% carb stringers 30.00-50.00°» Moderate « ser » ultim alt. Moderate K-spar « carb »(ankerite) « ser » penult. alt. « Dissem sx »: « f.gr py 1.50%» 99.05- 99.5 Blocky core (pieces <3 cm) 45- 90°	.55	.55	54416	0.2	0.28	20	22
105		96.35	110.6	« 99.50- 105.12 <1% carb stringers 30.00-50.00°» « 105.12- 105.90 <1% carb stringers 30.00-50.00°» Blocky core (pieces less than 3cm) 10-45° « 105.90- 106.50 5-15% qtz-carb stringers 30.00-50.00°» « 106.50- 110.60 <1% carb stringers 30.00-50.00°» Blocky core (pieces less than 3cm)	.55	.15	54417	?	?	?	?
					.15	110.6	54418	?	?	?	?
110											
	Brxx syenite	110.6	.05	texture not apparent. « <1% carb stringer 10.00°» Moderate « ser » ultim. alt. Moderate K-spar « carb »(ankerite) « ser » penult. alt. « dissem sx »: « f.gr py 1.00%» 113.2- 115.05 Blocky core (pieces < 3 cm) 5- 60°	110.6	113.2	54419	?	?	?	?
					113.2	.05	54421	0.2	0.21	13	11
115	Syenite	.05	.75	Dark grey M to c.gr orthoclase ppy; « <1% carb stringers 30.00-70.00°» Strong k-spar ultim. alt. Moderate k-spar « carb » (ankerite) « ser » penult. alt. « Dissem sx »: « f.gr py 1.00%»	.05	.75	54422	?	?	?	?
					.75	.87	54423	?	?	?	?
120	Syenite	.75	125.1	<1% carb stringers 10.00- 45.00°» Strong k-spar ultim. alt. Moderate k-spar « carb » (ankerite) « ser » penult alt. « Dissem sx »: « f.gr py 1.00%»	.87	.92	54424	?	?	?	?
					.92	125.1	54426	0.8	0.24	42	22
125											
	Syenite	125.1	.11	M to c.gr orthoclase ppy; Dark blue grey hard grained porphyry. « <1% qtz-carb stringers 30.00°», « <1% carb stringers 30.00-70.00°» Moderate k-spar « carb » (ankerite) « ser » ultim. alt. « Dissem sx »: « f.gr py 1.00%»	125.1	.02	54427	?	?	?	?
					.02	.06	54428	?	?	?	?

Scale 1:200 | 11/09/02 | 15:14:00

Project: Axelgold | Page No.: 5

AX02-011

	d_geol				D_SAMP						
Depth At	rocktype	g_from	g_to	descript	S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
130	Syenite	125.1	11	M to c.gr orthoclase poy; Dark blue grey hard grained porphyry. « <1% qtz-carb stringers 30.00°». « <1% carb stringers 30.00-70.00°» Moderate K-spar « carb » (ankerite) « ser » ultim. alt. « Dissem sx »: « f.gr py 1.00%»	.02	.06	54428	?	?	?	?
					.06	.11	54429	?	?	?	?
	End of Hole	11	11	?							
135											
140											
145											
150											
155											
160											

Scale 1:200 | 11/09/02 | 15:14:00

RUBICON MINERALS CORPORATION - DRILL LOG

Start_date: 20/08/02 End_date 22/08/02 Logged_by D. Daoud

AX02-012 Northing (UTM15 NAD83) 6206985 Easting (UTM15 NAD83) 314339 Elev(ASL) 1844 CoreSize - NQ

Length(m) 201.17 Local co-ord North Local Co-ord East Claim Contractor: Britton Bros

Re-logged_by/date

TESTS:	Depth	Type	Dip	Az	Comments
	0		-45	27	
	76.2	Acid test	-40	27	
	201.17	Acid test	39.5	27	

Project: Axelgold

AX02-012

Depth At	d_geol rocktype	g_from	g_to	descript	D_SAMP S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
	Casing	0	3.05	?							
5											
10	Megacrystic syenite	3.05	16.37	(K-spar phenos >/= 1 cm) weathered megacrystic porphyritic syenite. Rusty, whitish to greyish, broken, vuggy (pitted) caused by the removal of pyrite (weathering) . Abundant iron oxides througnout (limonite) assoc. with clay. « Minor finely dissem py in the freshest pieces </= 1.00%» Bad recovery. Manganese oxide noted assoc w limonite. Probably the vuggs are caused also by the removal of fine to med. grains of 2ndary K-spars. BLK (=blocky??) 50 deg. and 10 deg. CA. Clay alteration, strong. « f.gr py 1.00%» « lm 10.00%» « go 2.00%» mn. oxide 1.00%. Bad recovery.	3.05	12.19	54431	?	?	?	?
15					12.19	16.37	54432	?	?	?	?
20	Megacrystic syenite	16.37	20.1	(K-spar phenos >/= 1 cm) Altered megacrystic porphyritic syenite. Lt grey, altered (« carb »/« ser »/ k-spar), with « finely dissem and along fracs py 1.00-2.00%», « small euhedral to subhedral carb » alteration minerals (and K-spar or plag) comprising 1.0 -1.5% of rock volume and up to 3mm long. Feldspar megacrysts are up to 3 cm long. penultimate alteration. « Dissem sx »: « f.gr py 2.00%». « f.gr lm 5.00%», « f.gr go 2.00%» « <1.00% carb stringers 20.00-50.00°»	16.37	18.29	54433	?	?	?	?
					18.29	20.1	54435	0.2	0.27	56	12
					20.1	21.34	54436	?	?	?	?
					21.34	24.38	54437	?	?	?	?
25	Megacrystic syenite	20.1	33.53	K-spar which are replaced by calcite are partially removed (vugs). (calcite alteration followed by clay alt. and removal of py + plag on K-spar 2nd generation) « Abundant f1 40.00-50.00° coated by calcite, lim, « go » and clay ». Blocky core (<3cm pieces) Mod. clay ultim. alt. Strong carb (prob ank)-ser penult. alt.« dissem, f.gr py 1.00%», « dissem, f.gr lm 10.00%», « dissem, f.gr go 1.00%» « 5.00- 15.00% carb-lim stringers 40.00-50.00°» « <1.00% py stringers 25.00°» « <1.00% qtz-carb-hem stringers 20.00-70.00°» « f1 10.00-60.00°»	24.38	27.43	54438	?	?	?	?
					27.43	30.48	54440	0.2	0.26	49	23
30					30.48	33.53	54441	?	?	?	?

Scale 1:200 | 11/09/02 | 15:15:34

AX02-012

Depth At	d_geol rocktype	g_from	g_to	descript	D_SAMP S_FROM	S_TO	SAMPLE	AU_ppm	AG_ppm	CU_ppm	MO_ppm
	Megacrystic syenite	29.1	33.53	K-spar which are replaced by calcite are partially removed (vugs). (calcite alteration followed by clay alt. and removal of py + plag on K-spar 2nd generation) « Abundant f1 40.00-50.00° coated by calcite, lim, « go » and clay ». Blocky core (<3cm pieces) Mod. clay ultim. alt. Strong carb (prob ank)-ser penult. alt.« dissem, f.gr py 1.00%», « dissem, f.gr lm 10.00%», « dissem, f.gr go 1.00%» « 5.00- 15.00% carb-lim stringers 40.00-50.00°» « <1.00% py stringers 25.00°» « <1.00% qtz-carb-hem stringers 20.00-70.00°» « f1 10.00-60.00°»	30.48	33.53	54441	?	?	?	?
35					33.53	36.58	54442	?	?	?	?
	Megacrystic syenite	33.53	39.62	(K-spar phenos >/= 1 cm) Altered megacrystic porphyritic syenite. Med grey, altered (« carb »/« ser »/K-spar), partially wx, wtih « finely dissem py » and « py vnlets » -> « total of all py 1.50%». Small laths 1-3mm long are completely replaced by calcite/dolomite (formerly plag or 2nd K-spar) Comprising 2-3% of total rock volume. The feldspar megacrysts are partially alt. (replaced) by calcite. « <1.00% py stringers 25.00°» « <1.00% qtz-carb-hem stringers 20.00-70.00°» « f1 10.00-60.00°» Strong carb(prob ank)-ser alt. Mod. K-spar alt. « f.gr py 1.50%» « f.gr lm 3.00%» « f.gr go 1.00%» mn. oxide 0.1%.	36.58	39.62	54443	?	?	?	?
40					39.62	42.67	54445	0.4	0.34	60	342
	Megacrystic syenite	39.62	49.05	(K-spar phenos >/= 1 cm) Weathered megacrystic porphyritic syenite. Lt grey, rusty, yellowish in some places, altered, broken w « finely dissem py 1.00%» (partially removed by the « small lath of carb--> vuggy or pitted ») 40.20- 42.67 Blocky core <3cm pieces, 10° - 60° to CA. Mod clay ultim. alt, mod k-spar-carb(ank)-ser penult. alt. « 42.67- 45.34 f1 10.00-60.00°» 45.34- 49.06 Blocky core <3cm pieces, 10° - 60° to CA « 49.04- 49.05 LCT 40.00°»	42.67	45.72	54446	?	?	?	?
45					45.72	49.04	54447	?	?	?	?
50					49.04	51.82	54448	?	?	?	?
	Syenite	49.05	64.01	4mm, are partially replaced w. « carb » (calcite/dolomite). Comprising around 50% of total rock volume. « Pervasive carb/ser » alteration on matrix and phenocrysts. « Abundant f1 coated w lm, go, and psilomelane (mn oxides)». « Trace of fuch present ». « vns and finely dissem py and ser » up to 8cm thick. (at 63.05m depth) w « py 5.00-10.00%» assoc w. « ser at 50.00°». « 1.00- 5.00% py stringers 20.00-50.00°» « f1 25.00-60.00°» Strong carb (prob. ank)-ser ultim. alt. Weak k-spar penult. alt. « dissem sx »: « f.gr py 1.50%», « lm 1.00%», « go 0.50%», mn oxide 0.1%, « fuch 0.10%	51.82	54.86	54449	?	?	?	?
55					54.86	57.91	54450	0.2	0.45	7	5
60					57.91	60.96	54451	?	?	?	?
	Syenite	64.01	68	go », psilomelane, and « ja » (+ clay). « tr of fuch » noted when it's very wx, gets whitish w. hardly any « py (leached)». « <1% ser stringers 20.00-10.00°». Blocky core <3cm pieces at 40° - 30°, « fol 40.00-30.00°». « Intense ser ultim. alt », « Weak carb penult. alt.». «dissem sx »:« f.gr py 0.50%», « f.gr lm 7.00%», « f.gr go 1.00%» « f.gr ja 0.30%», f.gr mn oxide 0.1%, « f.gr fuch »	60.96	64.01	54452	?	?	?	?
					64.01	67.06	54453	?	?	?	?

Scale 1:200 | 11/09/02 | 15:15:34

Project: Axelgold | Page No: 3

AX02-012

Depth At	d_geol rocktype	g_from	g_to	descript	D_SAMP S_FROM	S_TO	SAMPLE	AU_ppm	AG_ppm	CU_ppm	MO_ppm
					64.01	67.06	54453	?	?	?	?
70					67.06	70.01	54455	0.2	0.34	8	2
					70.01	73.15	54456	?	?	?	?
75					73.15	76.2	54457	?	?	?	?
					76.2	79.25	54458	?	?	?	?
80	Syenite			go », psilomelane, and « ja » (+ clay). « tr of fuch » noted when it's very wx, gets whitish w. hardly any « py (leached)». « <1% ser stringers 20.00-10.00°» Blocky core <3cm pieces at 40° - 30°. « fol 40.00-30.00°». « Intense ser ultim. alt », « Weak carb penult. alt.». «dissem sx ».« f.gr py 0.50%», « f.gr lm 7.00%», « f.gr go 1.00%» « f.gr ja 0.30%», f.gr mn oxide 0.1%, « f.gr fuch »	79.25	82.3	54459	?	?	?	?
					82.3	85.34	54460	0.2	0.38	21	3
85		64.01	158		85.34	88.39	54461	?	?	?	?
90					88.39	91.44	54462	?	?	?	?
					91.44	94.49	54463	?	?	?	?
95					94.49	97.54	54465	0.2	0.36	8	4

Scale 1:200 | 11/09/02 | 15:15:34

AX02-012

Depth At	d_geol rocktype	g_from	g_to	d_geol descript	D_SAMP S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
					94.49	97.54	54465	0.2	0.36	8	4
100					97.54	.58	54466	?	?	?	?
					.58	.63	54467	?	?	?	?
105	Syenite	64.01	58	go », psilomelane, and « ja » (+ clay). « tr of fuch » noted when it's very wx, gets whitish w. hardly any « py (leached)». « <1% ser stringers 20.00-10.00°». Blocky core <3cm pieces at 40° - 30°. « fol 40.00-30.00°». « Intense ser ultim. alt », « Weak carb penult. alt.». «dissem sx »:« f.gr py 0.50%», « f.gr lm 7.00%», « f.gr go 1.00%» « f.gr ja 0.30%», f.gr mn oxide 0.1%, « f.gr fuch »	.63	.68	54468	?	?	?	?
					.68	.73	54469	?	?	?	?
110					.73	.58	54470	0.2	0.32	21	5
					.58	.78	54471	?	?	?	?
115	Syenite	.58	15	m.gr to c.gr, ppy; Altered, porphyritic. M. grey to blowish-greyish, m to c.gr, alt (« pervasive carb »/ « ser »), porphyritic, « slightly fol », w finely dissem throughout. (~1%). « tr fuch » noted. « >1% carb vns 50.00°», « >1% ser stringers 50.00°», « f1 60.00-40.00°». Strong carb (prob ank)-ser ultim. alt. « Dissem sx »: « f.gr py 1.00%», « f.gr lm 0.50%», « f.gr go 0.10%», « f.gr fuch 0.10%»	.78	.15	54472	?	?	?	?
					.15	.87	54473	?	?	?	?
120	Syenite	.15	.92	Abundant f1 » following the « fol 40.00-50.00°». These fractures are coated by « lm », psilomelane, « ja » and clay. « tr fuch » noted. « >1% carb stringers 80.00°», Blocky core <3cm pieces, 50°-45°. Strong carb (prob ank)-ser ultim. alt, mod clay penult. alt., « dissem sx »: « f.gr py 0.50%», « f.gr lm 2.00%», « f.gr ja 0.50%», mn oxide 1.00%, « fuch 0.10%»	.87	.92	54475	0.2	0.35	13	3
					.92	.99	54476	?	?	?	?
125	Syenite	.92	18	m.gr to c.gr, ppy; Altered, porhyritic. Lt grey to whitish, m. to c.gr, altered (« ser », « carb », « chl ») « partially fol », « w. fine dissem py ». « a few py vns (assoc w carb/ser)» 1 to 3mm thick, and « sporadic patches up to 3mm across py » present. « lm », mn oxide, and calcite coating « f1 ». Feldspar phenocrysts are partially to completely replaced by calcite/dolomite. « Few patches fuch » present in some areas where there is a « pervasive carb alt.» Py looks like recrystallized into m.gr, 'xx' (log illegible) euhedralisolated cubes and into small patches sometimes following the « fol »planes. « >1% ser-py-carb stringers 40.00°»« >1% carb stringers 80.00-20.00°» « f1 60.00-40.00°» Strong « carb » (prob ank)-« ser » ultim. alt. Weak « chl » penult. alt. « dissem sx »: « f.gr py 1.00%», « f.gr lm 1.00%», f.gr mn onxide 0.1%, « f.gr fuch 0.10%»	.99	.02	54477	?	?	?	?
					.02	.06	54478	?	?	?	?

Scale 1:200 | 11/09/02 | 15:15:35

Project: Axelgold

AX02-012

	d_geol				D_SAMP						
Depth At	rocktype	g_from	g_to	descript	S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
130					.02	06	54478	?	?	?	?
					.06	.11	54480	0.2	0.36	17	2
135					.11	.16	54481	?	?	?	?
					.16	.21	54482	?	?	?	?
140					.21	.26	54483	?	?	?	?
145	Syenite			m.gr to c.gr, ppy; Altered, porhyritic. Lt grey to whitish, m. to c.gr. altered (« ser », « carb », « chl ») « partially fol », « w. fine dissem py ». « a few py vns (assoc w carb/ser)» 1 to 3mm thick, and « sporadic patches up to 3mm across py » present. « lm », mn oxide, and calcite coating « f1 ». Feldspar phenocrysts are partially to completely replaced by calcite/dolomite. « Few patches fuch » present in some areas where there is a « pervasive carb alt.» Py looks like recrystallized into m.gr, 'xx' (log illegible) euhedralisolated cubes and into small patches sometimes following the « fol »planes. « >1% ser-py-carb stringers 40.00°»« >1% carb stringers 80.00-20.00° » « f1 60.00-40.00° » Strong « carb » (prob ank)-« ser » ultim. alt. Weak « chl » penult. alt. « dissem sx »: « f.gr py 1.00%», « f.gr lm 1.00%», f.gr mn onxide 0.1%, « f.gr fuch 0.10%»	.26	146.3	54485	0.2	0.51	30	2
					146.3	.35	54486	?	?	?	?
150		.92	.18		.35	.24	54487	?	?	?	?
					.24	.45	54488	?	?	?	?
155					.45	158.5	54489	?	?	?	?
160					158.5	.54	54490	0.2	0.39	14	2
					.54	.59	54491	?	?	?	?

Scale 1:200 | 11/09/02 | 15:15:35

AX02-012

Depth	d_geol				D_SAMP						
	rocktype	g_from	g_to	descript	S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
	Syenite	32	18	m.gr to c.gr, ppy; Altered, porphyritic. Lt grey to whitish, m. to c.gr, altered (« ser », « carb », « chl ») « partially fol », « w. fine dissem py ». « a few py vns (assoc w carb/ser)» 1 to 3mm thick, and « sporadic patches up to 3mm across py » present. « lm ». mn oxide, and calcite coating « f1 ». Feldspar phenocrysts are partially to completely replaced by calcite/dolomite. « Few patches fuch » present in some areas where there is a « pervasive carb alt.» Py looks like recrystallized into m.gr, 'xx' (log illegible) euhedral/isolated cubes and into small patches sometimes following the « fol »planes.	.54	.59	54491	?	?	?	?
165				« >1% ser-py-carb stringers 40.00°»« >1% carb stringers 80.00-20.00°» « f1 60.00-40.00°» Strong « carb » (prob ank)-« ser » ultim. alt. Weak « chl » penult. alt. « dissem sx »: « f.gr py 1.00%», « f.gr lm 1.00%», f.gr mn oxide 0.1%, « f.gr fuch 0.10%»							
	Syenite	18	.59	m.gr to c.gr, ppy; Altered porphyritic. Greenish grey to greyish, m to c.gr, alt (« ser »« carb », « chl » and a little K-spar) , « fol », « w. dissem and anastamosing py » « 162.00- 163.50 network of vnlets ». « Pervasive ser »/ « chl » alt w. « py 1.00-2.00%» « 162.18- 163.50 1-5% carb-py stringers 40.00°» « 163.50- 170.59 <1% py stringers 60.00°» « fol 40.00°» « f1 30.00-60.00°»	.59	.64	54492	?	?	?	?
170				Strong « carb » (prob ank) « ser » ultim. alt. Weak K-spar penult. alt. « Stringer sx, avg 1mm- 1cm »: , « py 1.50%», « lm 0.20%»	.64	.69	54493	?	?	?	?
					.69	.74	54495	0.2	1	36	26
175	Syenite; Feldspar-bt porph dyke	59	.88	4mm thick (~4%). Small phenocrysts of biotite completely alt. (pinkish to whitish colour product) w size avgs from 1-2mm across. Feldspar phenocrysts comprise about Some f1 » are coated by « lm », « go » and clay minerals. « 1-5% carb vn 50.00-70.00°» « 1-5% carb-py stringers 35.00°» « fol 35.00-40.00°» Strong « chl »« carb » ultim. alt, mod « ser » penult. alt. « stringer sx, avg 1mm- 1cm»: « py 4.00%», « lm 0.30%», « go 0.10%» « fuch 0.20%»	.74	.78	54496	?	?	?	?
					.78	179.2	54497	?	?	?	?
180					179.2	.58	54498	?	?	?	?
					.58	.88	54499	?	?	?	?
185				removed (partially vuggy). « Finely dissem py » and « a few vns 50.00-35.00° up to 3.00mm». « 182.88- 187.15 <1% py stringers 35.00-50.00°» « 187.15- 188.40 15-30% chl stringers 30.00°» « 196.20- 196.90 15-30% chl-py stringers 60.00°» « 196.90- 197.40 >30% carb-lm stringers 20.00°»	.88	.93	54500	0.2	0.54	9	6
	Syenite	88	.17	« 182.88- 187.15 f1 15.00-40.00°» « 187.15- 188.40 fol 35.00-40.00°» « 188.40- 196.20 f1 30.00-40.00°» « 196.20- 196.90 fol 35.00-40.00°» « 196.90- 197.40 fol 35.00-40.00°» « 197.40- 201.17 f1 30.00-50.00°» « 182.88- 201.17 strong ser ultim. alt » « Strong chl penult. alt ». « Dissem sx »: « f.gr py 1.00%», « f.gr lm 0.50%», « f.gr go 0.10%», « f.gr fuch 0.10%»	.93	.98	54501	?	?	?	?
190					.98	.02	54502	?	?	?	?
					.02	.07	54503	?	?	?	?

Project: Axelgold

AX02-012

	id_geol				D_SAMP						
Depth	rocktype	g_from	g_to	descript	S_FROM	S_TO	SAMPLE	AU_ppm	AG_ppm	CU_ppm	MO_ppm
195				removed (partially vuggy). « F.nely dissem py » and « a few vns 50.00-35.00° up to 3.00mm».	.02	.07	54503	?	?	?	?
				« 182.88- 187.15 <1% py stringers 35.00-50.00°»							
				« 187.15- 188.40 15-30% chl stringers 30.00°»							
	Syenite			« 196.20- 196.90 15-30% chl-py stringers 60.00°»	.07	12	54505	0.2	0.24	25	16
				« 196.90- 197.40 >30% carb-fm stringers 20.00°»							
		88	17	« 182.88- 187.15 fl 15.00-40.00°»							
				« 187.15- 188.40 fol 35.00-40.00°»							
				« 188.40- 196.20 fl 30.00-40.00°»							
200				« 196.20- 196.90 fol 35.00-40.00°»	.12	17	54506	?	?	?	?
	End of hole	17	17	« 196.90- 197.40 fol 35.00-40.00°»							
				« 197.40- 201.17 fl 30.00-50.00°»							
				« 182.88- 201.17 strong ser-carb. alt » « Strong chl penult. alt ».							
				« Dissem sx » « f.gr py 1.00%», « f.gr lm 0.50%», « f.gr go 0.10%», « f.gr fuch 0.10%»							
				?							
205											
210											
215											
220											
225											

Scale 1:200 | 11/09/02 | 15:15.35

RUBICON MINERALS CORPORATION - DRILL LOG

Start_date: 25/08/02 End_date 25/08/02 Logged_by D. Daoud

AX02-014 Northing (UTM15 NAD83) 6206662 Easting (UTM15 NAD83) 314372 Elev(ASL) 1653 CoreSize - NQ

Length(m) 239.56 Local co-ord North Local Co-ord East Claim Contractor: Britton Bros

Re-logged_by/date

TESTS:	Depth	Type	Dip	Az	Comments
	3		-45	9	
	91.44	Acid test	-41.5	9	
	182.88	Acid test	-41	9	
	274.33	Acid test	-41	9	

Project: Axelgold

Page No : 1

AX02-014

	d_geol				D_SAMP						
Depth	rocktype	g_from	g_to	descript	S_FROM	S_TO	SAMPLE	AU_ppm	AG_ppm	CU_ppm	MO_ppm
	Casing	0	3.05	?							
5	Syenite	3.05	6.1	60% of total rock volume w/ euhedral to sub-euhedral shape and 3-6mm across. « Numerous f1 » coated with « lm » (beginning of the drill hole). « f1 40.00-70.00°» Strong k-spar ultim alt. Moderate « ser » penult alt. « Dissem f.gr sx »: « py 1.50%», « sb 0.10%», « lm 0.20%»	3.05	6.1	54579	?	?	?	?
10	Syenite intrusive brxx	6.1	12.27	carb » alterated dominate. « fuch » is present throughout the interval assoc. mainly with alt f.gr syenite fragments. « 1-3% qtz-carb stringers 60.00-80.00° » « <1% k-feld stringers 20.00° » « f1 40.00° » Strong « carb » (probably ankerite) « ser » ultim alt. Moderate k-spar penult. alt. « Dissem f.gr sx »: « py 3.00%», « fuch 0.30%»	6.1	9.14	54580	?	?	?	?
					9.14	12.27	54581	?	?	?	?
15	Syenite	12.27	16	M to C.gr ppy; across (4mm avg). A few xenoliths (fragments) of syenite intrusive breccia up to 15cm across are present (3). « <1% carb stringers 40.00-50.00° » « f1 30.00-70.00° » Strong k-spar ultim alt. Moderate « ser » penult. alt « Dissem f.gr sx »: « py 1.50%», « sb? 0.30%»	12.27	13.95	54583	0.2	0.17	10	5
					13.95	16.8	54584	?	?	?	?
20					16.8	18.29	54585	?	?	?	?
					18.29	21.34	54586	?	?	?	?
25	Syenite intrusive brxx	16	32.82	throughout the interval. A few small fragments (</= 3cm) are « fuch » rich. « Qtz-carb vns up to 0.50cm» are present. « <1% qtz-carb stringers 50.00-60.00° » « f1 50.00-70.00° » Strong « ser » ultim. alt. Moderate k-spar penult alt. « Dissem f.gr sx »: « py 2.00%», « lm 0.10%», « fuch 0.10%»	21.34	24.38	54588	0.2	0.21	60	10
					24.38	27.43	54589	?	?	?	?
30					27.43	30.48	54590	?	?	?	?
					30.48	32.82	54591	?	?	?	?

Scale 1:200 | 11/09/02 | 15:21:17

AX02-014

Depth At	d_geol rocktype	g_from	g_to	descript	D_SAMP S_FROM	S_TO	SAMPLE	AU_ppm	AG_ppm	CU_ppm	MO_ppm
	Syenite	16	32.82		30.48	32.82	54591	?	?	?	?
	intrusive brxx	32.82	33.7		32.82	33.7	54593	0.2	0.16	23	7
	Syenite			throughout the interval. A few small fragments (<= 3cm) are « fuch » rich. « Qtz-carb vns up to 0.50cm» are present.							
				« <1% qtz-carb stringers 50.00-60.00°»							
35				« f1 50.00-70.00°»							
	Syenite			Strong « ser » ultim. alt. Moderate k-spar penult alt.	33.7	36.58	54594	?	?	?	?
	intrusive brxx	33.7	38.27	« Dissem f.gr sx »: « py 2.00%», « lm 0.10%», « fuch 0.10%»							
				M to C.gr ppy:							
				Large xenolith of light grey to whitish, m to c.gr porphyritic syenite.	36.58	38.27	54595	?	?	?	?
				« f1 35.00°»							
				Strong « ser » ultim. alt. Moderate k-spar penult alt.	38.27	39.62	54596	?	?	?	?
				« Dissem f.gr sx »: « py 1.00%», « sp 0.10%», « lm 0.10%»							
40				Similar to above with « finely dissem py 2.50% »							
				Strong « ser » ultim alt., Weak k-spar penult alt.							
	Syenite			« 33.70- 34.15 f1 50.00°»	39.62	42.69	54597	?	?	?	?
		38.27	44.9	34.15- 35.30 Blocky Core (pieces <3cm) 50.00°							
				« 35.30- 38.27 f1 35.00-50.00°»							
				M to C.gr ppy:							
					42.69	44.9	54598	0.2	0.18	21	5
				sulphide (« sb ? »). Feldspar phenocrysts comprising about 65% of rock volume.							
45				« <1% qtz-carb stringers 50.00°»	44.9	45.72	54599	?	?	?	?
				« f1 20.00-40.00°»							
				Strong k-spar ultim alt. Moderate « ser » penult alt.							
				« Dissem f.gr sx »: « py 1.50%», « sp 0.30%»	45.72	48.77	54600	?	?	?	?
50					48.77	51.82	54601	?	?	?	?
					51.82	54.86	54603	0.2	0.25	54	7
	Syenite			Dark grey to med grey, altered (« ser ») syenite intrusive breccia (diatreme style) with « finely dissem py » throughout the interval (~2%), « anastamosing py » and a « few							
55	intrusive brxx			» alt.) and are subangular to rounded , some with reaction rim (1-2mm thick) and there are 50°. The groundmass is « strongly ser » and the fragments, especially the porphyritic syenite, are mainly k-spar altered. The « px » is slightly porphyritic (probably a combination of xenocrysts and phenocrysts).							
				« <1% py stringers 40.00°», « 1-5% qtz-carb stringers 60.00-70.00°»	54.86	57.91	54604	?	?	?	?
		44.9	78.1	« f1 20.00-40.00°»							
				Strong « ser » ultim. alt. Weak k-spar penult alt.							
				« Dissem f.gr sx »: « py 2.00%», « fuch 0.50%»							
60					57.91	60.96	54605	?	?	?	?
					60.96	64.01	54606	?	?	?	?
					64.01	67.06	54607	?	?	?	?

Scale 1:200 | 11/09/02 | 15:21:17

AX02-014

	d_geol				D_SAMP						
Depth	rocktype	g_from	g_to	descript	S_FROM	S_TO	SAMPLE	AU_ppm	AG_ppm	CU_ppm	MO_ppm
				Dark grey to med grey altered (« ser ») syenite intrusive breccia (diatreme style) with « finely dissem py » throughout the interval (~2%), « anastamosing py » and a « few	64.01	67.06	54607	?	?	?	?
				» alt.) and are subangular to rounced , some with reaction rim (1-2mm thick) and there are 50°. The groundmass is « strongly ser » and the fragments, especially the porphyritic syenite, are mainly k-spar altered. The « bx » is slightly porphyritic (probably a combination of xenocrysts and phenocrysts).							
				« <1% py stringers 40.00°», « 1-5% qtz-carb stringers 60.00-70.00°»	67.06	70.1	54608	0.2	0.18	70	7
70				« f1 20.00-40.00°»							
				Strong « ser » ultim. alt. Weak k-spar penult alt.							
	Syenite			« Dissem f.gr sx » « py 2.00%», « fuch 0.50%»							
	intrusive brxx				70.1	73.15	54609	?	?	?	?
		44.3	78.1	M to C.gr ppy; Light grey m to c.gr, altered (k-spar and « ser ») porphyritic syenite, w « finely dissem py 1.50% » in the matrix, throughout the interval, subhedral to euhedral k-spar phenocrysts comprise about 50% of core volume and up to 0.5cm long fine violated grain of grey metallic mineral (« sb ») is noted. The rock is partially broken.							
				« <1% qtz-carb stringers 40.00-50.00°»							
				« f1 20.00-50.00°»							
75				Strong k-spar ultim alt. Moderate « ser » penult alt.	73.15	76.2	54610	?	?	?	?
				« Dissem f.gr sx »: « py 1.50%», « sb 0.10%», « fuch 0.10%»							
				(fragmental) same as the breccia described before , very altered, mainly « ser » and « chl » with « finely dissem (anastamosing) py averaging 3.00%» The fragments are							
					76.2	78.1	54611	?	?	?	?
				the matrix (xenocrysts) up to 0.5cm and as fine grains in some of the fragments. Small [log unclear: "'redish"?] silicates are noted as inclusions in the f.gr. palg feldsp. porphyritic syenite (« probably gar »?) the rock is « sheared » and broken.	78.1	79.25	54613	0.2	0.21	12	4
				« 83.53- 84.19 shear 15.30-50.00°»							
				« 84.19- 88.02 1-5% qtz-carb stringers 50.00-80.00°» « f1 30.00-70.00°»							
80				« 83.54- 87.15 Dissem. f.gr sx »: « py 3.00%», « sb 0.20%», « gar 0.10%?»	79.25	81	54614	?	?	?	?
	Syenite	78.1	83.54	Dark grey to med grey, f.gr, partially alt. (« ser ») with gradual contact with the « intrusive bx » (a few small syenite fragments are noted) porphyritic, small (1-2mm) plagioclase phenocrysts with orthoclase euhedral to subhedral up to 15% of core volume (both) « Anastamosing py » and « vns » up to 4mm thick are present.	81	82.3	54615	?	?	?	?
				« 1-5% py stringers 30.00-60.00°», « <1% qtz-carb stringers 70.00°»							
				« f1 15.00-70.00°»	82.3	83.54	54616	?	?	?	?
				Moderate « ser »ultim. alt. Weak k-spar penult. alt.							
				« 88.02- 89.29 sx in stringers »: « f.gr py 4.00%», « f.gr fuch 0.10%»	83.54	84.8	54617	?	?	?	?
85	Syenite			Med grey to light grey altered « ser » matrix with abundant porphyritic syenite fragments up to 7cm across. About « finely dissem and anastamosing py 3.00%» throughout							
	intrusive brxx	83.54	87.15	the interval fragments represent about 50% of rock volume. « Thin quartz and carbonate (dolomite) vns 1.00- 2.00mm » are noted as late stage.	84.8	86.2	54618	0.2	0.21	71	25
				« <1% qtz-carb stringers 30.00-80.00°»							
				« f1 »	86.2	87.15	54619	?	?	?	?
				Strong « ser » ultim. alt. Moderate k-spar penult alt.							
	Ortho-plag			« issem f.gr sx »: « py 3.00%»	87.15	88.39	54620	?	?	?	?
	porphyritic dyke	87.15	89.29								
					88.39	89.7	54621	?	?	?	?
90				metallic mineral is assoc with « py stringers » in « very fine vnlet », probably tetrahedrite. Both phenocrysts comprise about 15% of total rock volume. One small fragments (2cm) subrounded of biotite-orthoclase porphyry and present (« with dissem py »).							
				« 1-5% chl-py stringers 0.00-10.00°» « <1% carb stringers 50.00°»	89.7	91.44	54623	0.2	0.18	106	9
	Syenite			« f1 50.00- 60.00°»	91.44	92.4	54624	?	?	?	?
	intrusive brxx	89.29	94.4	Moderate « ser » ultim. alt. Moderate k-spar penult. alt.							
				« sx in stringers »: « py 3.00%», « fuch 0.10%», 0.2% tetrahedrite	92.4	93.32	54625	?	?	?	?
					93.32	94.49	54626	?	?	?	?
	Ortho-plag			to c.gr syenite and f.gr orthoclase-plag porphyritic syenite. few fragments are angular and alt. probably feldspar megacrysts of « fuch » are present. « py vnlets							
	porphyry	94.4	95.32	1.00-10.00mm» assoc with « ser »are crosscutting « carbonate vns ».							
95				« <1% carb stringers 70.00°», « <1% qtz-carb stringers 50.00-60.00°»	94.49	96	54628	0.2	0.2	69	6
	Syenite			Strong « ser » ultim. alt. Strong k-spar penult. alt.							
	intrusive brxx	95.32	22	« Dissem f.gr sx »: « py 3.00%», « fuch 0.30%», « sb 0.10%»	96	97.54	54629	?	?	?	?

Scale 1:200 | 11/09/02 | 15:21:18

AX02-014

	d_geol				D_SAMP						
Depth	rocktype	g_from	g_to	descript	S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
					96	97.54	54629	?	?	?	?
	Syenite intrusive brxx			to c.gr syenite and f.gr orthoclase-plag porphyritic syenite. few fragments are angular and alt. probably feldspar megacrysts of « fuch » are present. « py vnlets 1.00-10.00mm» assoc with « ser »are crosscutting « carbonate vns ».	97.54	99.04	54630	?	?	?	?
				« <1% carb stringers 70.00°». « <1% qtz-carb stringers 50.00-60.00°»							
100		95.32	22	Strong « ser » ultim. alt. Strong k-spar penult. alt.	99.04	58	54631	?	?	?	?
				« Dissem f.gr sx », « py 3.00%», « fuch 0.30%», « sb 0.10%»							
	Syenite intrusive breccia			F to m.gr intrusive breccia (syenite?)	58	22	54633	0.2	0.18	87	11
		22	53	about 4% of « finely dissem py ». Alteration is assoc with more pyrite. Thefragments represent ~25% of volume (sample taken for TS and WR).	22	53	54634	?	?	?	?
	Intrusive breccia (syenite)			Moderate k-spar ultim. alt. Weak « ser » penult. alt.							
		53	38	« Dissem f.gr sx », « py 4.00%», « fuch 0.10%»	53	38	54635	?	?	?	?
105				after « fuch » grains. « Finely dissem py » throughout the interval (in the matrix assoc with « ser » and with the fragments.) These fragments comprise about 35% of rock volume.	38	68	54636	?	?	?	?
				« f1 60.00°»							
				Moderate « ser » ultim. alt. Moderate k-spar penult. alt.							
				« Dissem f.gr sx », « py 4.00%», « fuch 0.10%»	68	18	54637	?	?	?	?
					18	73	54638	0.2	0.22	53	17
110					73	28	54639	?	?	?	?
					28	78	54640	?	?	?	?
					78	114.2	54641	?	?	?	?
115					114.2	82	54643	0.2	0.21	57	9
	Syenite intrusive breccia			Dark to med grey, altered (« ser ») , with abundant fragments (about 60-70% of total rock volume) and size varies from 1mm up to 2 cm across. These fragments are from							
				noted throughout the interval. The rock looks porphyritic, probably becuase of xenocrysts (felds). Few grains of tetrahedrite are present in « qtz-carb vns ».	82	32	54644	?	?	?	?
				« 130.85- 137.00 A small dissem py vn 50.00° 2.00cm» with « ser » and « chl ».	32	42	54645	?	?	?	?
				« 104.38- 107.50 f1 15.00-70.00°»							
				« 107.50- 107.56 >30% carb-py stringers 50.00-60.00°»							
				« 107.56- 122.23 <1% carb stringers 50.00°» « <1% carb stringers 40.00°», « f1 40.00-70.00°»	42	42	54646	?	?	?	?
120		38	137	« 122.23- 127.82 carb stringers 60.00°» Broken core « f1 10.00-50.00°»							
				« 127.82- 137.00 <1% qtz-carb stringers 50.00°» « f1 50.00°»							
				« 104.38- 137.00 Dissem f.gr sx », « py 3.00%», 0.1% tetrahedrite, « fuch 0.10%»	42	92	54647	?	?	?	?
					92	37	54648	0.3	0.14	55	20
					37	97	54649	?	?	?	?
125					97	45	54650	?	?	?	?
					45	02	54651	?	?	?	?
					02	52	54653	0.2	0.17	52	8

AX02-014

	d_geol				D_SAMP						
Depth	rocktype	s_from	g_to	descript	s_FROM	S_TO	SAMPLE	AU_ppb	AG_ppm	cu_ppm	mo_ppm
130				Dark to med grey, altered (« ser »), with abundant fragments (about 60-70% of total rock volume) and size varies from 1mm up to 2 cm across. These fragments are from	.52	.06	54654	?	?	?	?
				noted throughout the interval. The rock looks porphyritic, probably becuase of xenocrysts (felds). Few grains of tetrahedrite are present in « qtz-carb vns ».							
				« 130.85- 137.00 A small dissem py vn 50.00° 2.00cm» with « ser » and « chl »							
	Syenite intrusive breccia			« 104.38- 107.50 f1 15.00-70.00°»	.06	.66	54655	?	?	?	?
				« 107.50- 107.56 >30% carb-py stringers 50.00-60.00°»							
				« 107.56- 122.23 <1% carb stringers 50.00°» « <1% carb stringers 40.00°». « f1 40.00-70.00°»	.66	.11	54656	?	?	?	?
		38	137	« 122.23- 127.82 carb stringers 60.00°» Broken core « f1 10.00-50.00°»							
135				« 127.82- 137.00 <1% qtz-carb stringers 50.00°» « f1 50.00°»	.11	.61	54657	?	?	?	?
				« 104.38- 137.00 Dissem f.gr sx »: « py 3.00%». 0.1% tetrahedrite, « fuch 0.10%»							
	Ortho-plag syenite? dyke	137	137.7	2.5cm in length and plagioclase altered into light yellowish (« ser ? ») with size range from 0.5mm up to 2mm long (about 2% of rock volume). Nice trachytic texture phenocrysts oriented at 40 deg to CA.) Numerous grains (phenocrysts? or xenocrysts or alt. product of « fuch ») are present. « Dissem py » throughout.	.61	137	54658	0.2	0.17	59	8
				« <1% carb stringers 40.00°»	137	137.7	54659	?	?	?	?
				Trachytic texture 40.00°							
				Moderate « ser » ultim. alt. Moderate k-spar penult alt.	137.7	140.2	54660	?	?	?	?
140				« Dissem f.gr sx »: « py 4.00%», « fuch 0.50%»							
					140.2	.76	54662	?	?	?	?
	Syenite intrusive breccia			Dark to med grey, altered (matrix alt. to « ser » and the fragments to k-spar) Syenite intrusive breccia with sunrounded to subangular fragments up to 21cm across and have differetn origins (mainly from the different types of syenites or related rocks) These fragments comprise about 55-60% of total rock volume. « F to m.gr py » dissem in the matrix and the fragments (mainly in the matrix assoc with « ser » altered zones) A few grains of tetrahedrite ? are assoc with	.76	.26	54663	0.2	0.19	52	8
		137.7	.87	« 147.35- 147.37 large k-spar/calcite/ser/py vns up to 4.00cm»							
				« 137.70- 147.35 <1% qtz-carb stringers 40.00°» « f1 50.00-40.00°»	.26	.75	54664	?	?	?	?
145				« 147.35- 147.37 15-30% k-feldspar + carb stringers 30.00°»							
				Strong « 137.70- 147.87 ser » ultim alt. Moderate k-spar penult. alt.	.75	146.3	54665	?	?	?	?
				« Dissem f.gr sx »: « py 3.00%», 0.1% tetrahedrite, « fuch 0.10%»							
					146.3	.87	54667	?	?	?	?
					.87	.35	54668	0.2	0.17	15	2
150				m to c.gr; Light grey, m to c.gr. altered (« ser »/k-spar) porphyritic syenites, feidspar phenocrysts are pink colour and comprise about 70% of rock volume and avg 4mm across. « Dissem py 2.00%»throughout with « tr of sb » and/or tetrahedrite.	.35	.85	54669	?	?	?	?
	Alt porphyritic syenite			« <1% qtz-carb stringers 50.00°»							
		87	.35	« f1 50.00-70.00°»	.85	152.4	54670	?	?	?	?
				Strong « ser » ultim alt. Moderate k-spar penult alt.							
				« Dissem f.gr sx »: « py 2.00%», 0.1% tetrahedrite, « fuch 0.10%», « sb 0.10%»							
					152.4	.35	54672	?	?	?	?
155				Similar to the syenite intrusive breccia above with « f to m.gr dissem py »/ increasing in the matrix where it's assoc with « ser ». « tr of sb? » present with « py » A few fragments with megacrysts of feldspar showing trachytic txt are noted. The fragments are mainly made up of m to c.gr syenite.	.35	.45	54673	0.2	0.22	78	7
				« <1% k-feld + carb stringers 60.00°». « <1% carb stringers 60.00°»	.45	.95	54674	?	?	?	?
	Syenite intrusive breccia			« f1 10.00-50.00°»							
				Strong se« ser » ultim. alt. Moderate k-spar penult alt.							
		.35	161	« Dissem f.gr sx »: « py 4.00%», « sb 0.10%», « fuch 0.10%»	.95	158.5	54675	?	?	?	?
				Spoardic carb »/dolomite alteration noted in a few places. « The thin carb vns » are the earliest cut by k-spar/carb.							
160				« 1-5% k-feldspar + carb stringers 60.00°» « <1% carb stringers 70.00°» « f1 50.00-60.00°»	158.5	161	54676	?	?	?	?
	Altered porph syenite			Strong k-spar ultim. alt. Weak « ser » penult. alt.							
		161	13	« Dissem f.gr sx »: « py 3.00%», « sb 0.20%», 0.1% tetrahedrite, « fuch 0.10%»	161	.99	54677	?	?	?	?

Scale 1:200 | 11/09/02 | 15:21:18

AX02-014

	d_geol				D_SAMP							
Depth At	rocktype	g_from	g_to	descript	S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
					161	.99	54677	?	?	?	?
					.99	.69	54678	0.2	0.2	17	1
165					.69	.19	54679	?	?	?	?
					.19	.69	54680	?	?	?	?
					.69	.19	54682	?	?	?	?
170					.19	.69	54683	0.2	0.28	14	6
	Altered porph syenite			Spoardic carb »/dolomite alteration noted in a few places. « The thin carb vns » are the earliest cut by k-spar/carb. « 1-5% k-feldspar + carb stringers 60.00° » « <1% carb stringers 70.00° » « f1 50.00-60.00° » *Strong k-spar ultim. alt. Weak « ser » penult. alt.* « Dissem f.gr sx »: « py 3.00%», « sb 0.20%», 0.1% tetrahedrite, « fuch 0.10%»	.69	.19	54684	?	?	?	?
					.19	.94	54685	?	?	?	?
		161	.13		.94	.44	54686	?	?	?	?
175					.44	.74	54687	?	?	?	?
					.74	.24	54688	0.2	0.22	19	4
					.24	.83	54689	?	?	?	?
180					.83	.13	54690	?	?	?	?
					.13	.88	54692	?	?	?	?
					.88	.38	54693	0.2	0.34	72	6
				Dark to med grey, altered (« ser »/k-spar and « minor carb »: calcite)Syenite intrusive breccia simialr to syenite described before with « dissem and anastamosing py »							
185					.38	.93	54694	?	?	?	?
				noted locally (from digested megacrystic syenite.)							
	Syenite intrusive breccia			«181.13- 204.70 <1% k-feldspar and carb stringers 50.00-60.00° » « 181.13- 204.70 <1% carb stringers 60.00-70.00° » « f1 40.00-70.00° » 204.70- 205.40 Blocky core (<3cm pieces) 10.00- 30.00° *« 205.40- 214.84 <1% carb stringers 80.00° » « f1 30.00-60.00° »* Strong « 181.13- 214.84 ser » ultim. alt Moderate k-spar penult. alt. « Dissem f.gr sx »: « py 4.00%», « sb 0.10%», « fuch 0.10%»	.93	.43	54695	?	?	?	?
					.43	.98	54696	?	?	?	?
		.13	.84		.98	190.5	54697	?	?	?	?
190					190.5	.02	54698	0.2	0.22	49	10
					.02	.52	54699	?	?	?	?
					.52	.07	54700	?	?	?	?

AX02-014

Depth M	d_geol rocktype	g_from	g_to	descript	D_SAMP S_FROM	S_TO	SAMPLE	AU_ppm	AG_ppm	CU_ppm	MO_ppm
195					.52	.07	54700	?	?	?	?
					.07	.62	54702	?	?	?	?
					.62	.12	54703	0.2	0.21	60	15
					.12	.62	54704	?	?	?	?
200					.62	.17	54705	?	?	?	?
				Dark to med grey, altered (« ser »/k-spar and « minor carb »: calcite)Syenite intrusive breccia simialr to syenite described before with « dissem and anastamosing py »							
					.17	.72	54707	?	?	?	?
				noted locally (from digested megacrystic syenite.)							
	Syenite intrusive breccia			«181.13- 204.70 <1% k-feldspar and carb stringers 50.00-60.00°»	.72	.22	54708	0.2	0.31	75	2
				« 181.13- 204.70 <1% carb stringers 60.00-70.00°» « f1 40.00-70.00°»							
205				204.70- 205.40 Blocky core (<3cm pieces) 10.00- 30.00°	.22	.72	54709	?	?	?	?
				« 205.40- 214.84 <1% carb stringers 30.00°» « f1 30.00-60.00°»							
				Strong « 181.13- 214.84 ser » ultim. alt							
				Moderate k-spar penult. alt.	.72	.26	54710	?	?	?	?
		13	34	« Dissem f.gr sx »: « py 4.00%», « sb 0.10%», « fuch 0.10%»							
					.26	.76	54712	?	?	?	?
					.76	.31	54713	0.2	0.21	68	6
210											
					.31	.91	54714	?	?	?	?
					.91	.36	54715	?	?	?	?
					.36	.84	54716	?	?	?	?
215											
				throughout (f to m.gr) K-spar xenocrysts compose the bulk of the fragments there are pinkish to grey, subhedral to broken, resorped (w/ reaction rims ~ 0.5-1mm thick) fractured mainly along [log illeg:"clivage"?"divage"?] plans filled with dolomite. this pahse of fracturation happened before the breccia event. The size of these k-spar xenocrysts vary from 0.5mm to 4cm long. At the start of the interval, these xenocrysts are showing a trachytic texture at 40°. the clasts are made of f.gr dark grey seynite	.84	.41	54717	?	?	?	?
				areas. the xenocrysts are more abundant (dominant the clasts) and [log illeg:" ins versa"?] with the syenitic fragments.	.41	.91	54718	0.2	0.58	75	1
	Syenite intrusive breccia			« 214.84- 217.28 <1% carb stringers 40.00°» Trachytic texture, 35-40°							
		84	222.5	217.28- 219.00 Blocky core (pieces <3cm) 0°- 80°	.91	.48	54719	?	?	?	?
220				« 219.00- 222.50 <1% carb stringers 50.00-60.00°» « f1 40.00-70.00°»							
				« 214.84- 222.50 Dissem f.gr sx »: « py 1.50%»	.48	.98	54720	?	?	?	?
				Strong « carb » (probably ankerite) « ser » ultim. alt. Weak k-spar penult alt.							
				cut by « large qtz/carb/ser/muscovite vns up to 7cm thick». These large veins are cross-cutting another set of « carb vns up to 2.00mm thick» « Tr to minor sb », « sph », tetrahedrite are dissem in the large veins. « A few grains of fuch » are noted. p« Finely dissem py » and « py forming vnlets » assoc. with the « large stringers 3.00%».	.98	222.5	54722	?	?	?	?
	Syenite intrusive breccia	222.5	05	Similar to the syenite intrusive breccia described previously, except has more « py heavily dissem in some areas». « carb » are replacing the k-spar xenocrysts and partially the matrix (very local). The core is broken towards the end of interval with « some shear » filled with « chl ». « Tr fuch » noted.	222.5	.05	54723	0.4	0.33	88	6
				« <1% carb stringers 60.00-90.00°», « <1% py stringers 20.00°»							
225	Syenite intrusive breccia			« f1 60.00-70.00°»	.05	.55	54724	?	?	?	?
		05	234.8	Strong k-spar « carb » (ankerite) « ser » ultim. alt. Weak « chl »penult alt.							
				« Dissem f.gr sx »: « py 4.00%», « fuch 0.10%»	.55	.05	54725	?	?	?	?

AX02-014

	d_geol				D_SAMP						
Depth At	rocktype	g_from	g_to	descript	S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
					.55	.05	54725	?	?	?	?
					.05	228.6	54726	?	?	?	?
				Similar to the syenite intrusive breccia described previously, except has more « py heavily dissem in some areas». « carb » are replacing the k-spar xenocrysts and partially the matrix (very local) The core is broken towards the end of interval with « some shear » filled with « chl ». « Tr fuch » noted.	228.6	230.1	54727	?	?	?	?
230	Syenite intrusive breccia			« <1% carb stringers 60.00-90.00°», « <1% py stringers 20.00°»							
				« f1 60.00-70.00°»	230.1	.65	54728	0.4	0.31	57	9
		.05	234.8	Strong k-spar « carb » (ankerite) « ser » ultim. alt. Weak « chl »penult alt.							
				« Dissem f.gr sx »: « py 4.00%», « fuch 0.10%»	.65	.15	54729	?	?	?	?
					.15	234.8	54730	?	?	?	?
235					234.8	236.2	54732	?	?	?	?
					236.2	.74	54733	0.2	0.29	29	7
					.74	.24	54734	?	?	?	?
240					.24	.79	54735	?	?	?	?
					.79	.29	54736	?	?	?	?
				volume with size range from 1 to 10mm long, euhedral to subhedral. The matrix is completely k-spar and « ser » altered. « py » is finely dissem throughout but it gets richer (more abundant) in sericite zone. « Tr of sb » and/or tetrahedrite are present as finely dissem asn as « vnlets », assoc with « ser »altered zones (with « fuch ») ([log	.29	.84	54737	?	?	?	?
				(sample taken) just before the contact with syenite intrusive breccia.							
245				« 234.80- 238.84 chl stringers 0.00- 30.00°»Blocky core (pieces <3cm) at 30°.	.84	.34	54738	0.2	0.21	12	5
	Altered porphyritic syenite			« 238.84- 258.38 <1 carb stringers 30.00-60.00°»							
				[log unclear: "CBSE" listed as stockwork, but acronym not in translation-notes. Probably « carb » « ser » « stringers »? <1%, 20-50°] « f1 15.00-70.00°»	.34	.89	54740	?	?	?	?
				Strong k-spar ultim alt. Moderate							
				« 234.80- 258.38 ser » penult alt.	.89	.39	54741	?	?	?	?
				« Dissem f.gr sx »: « py 2.00%», 0.1% tetrahedrite, « sph 0.10%», « fuch 0.10%»							
		234.8	38		.39	.94	54742	?	?	?	?
250					.94	.44	54743	0.2	0.26	12	32
					.44	.98	54745	?	?	?	?
					.98	.53	54746	?	?	?	?
255					.53	.03	54747	?	?	?	?
				« Finely dissem py » throughout. « Few calcite and fluorite vns 80.00°»							
				« 1-5% ser-carb-py stringers 50.00°» « <1% fluorite-carb stringers 80.00°»							
				« shear 15.00-20.00°»							
	Alt syenite intrusive brxx			Intense « carb » (probably ankerite) « ser » ultim. alt. Weak k-spar penult alt.	.03	.38	54748	0.3	0.4	21	21
		38	38	« sx in stringers 0.10-1.00cm»: « py 5.00%», « fuch 0.50%», « fluor 0.30%»	.38	.58	54750	?	?	?	?

AX02-014

Depth At	d_geol rocktype	g_from	g_to	descript	D_SAMP S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
260				« Finely dissem py » throughout. « Few calcite and fluorite vns 80.00°»	38	58	54750	?	?	?	?
				« 1-5% ser-carb-py stringers 50.00°» « <1% fluorite-carb stringers 80.00°»	58	13	54751	?	?	?	?
	Alt syenite intrusive brxx			« shear 15.00-20.00°»							
		.38	.38	*Intense « carb » (probably ankerite) « ser » ultim. alt. Weak k-spar penult alt.*	13	63	54752	?	?	?	?
				« sx in stringers 0.10-1.00cm»: « py 5.00%», « fuch 0.50%», « fluor 0.30%»							
265					63	18	54753	0.7	0.34	81	96
				dissem py » throughout area within this a new alteration/ a new magma. Assoc with pyrite, a « tr of sb » and tetrahedrite. « fuch » and « small grains of fluor » are noted throughout.	18	38	54754	?	?	?	?
	Syenite intrusive breccia			« <1% carb stringers 85.00°»	38	22	54755	?	?	?	?
		.38	269.5	« f1 40.00-60.00°»							
				Strong k-spar ultim alt. Strong « carb » (probably ankerite) « ser » penult. alt							
				« Dissem f.gr sx »: « py 3.00%», « sb 0.10%», 0.1% tetrahedrite, « fuch 0.20%», « fluor 0.10%»	22	269.5	54756	?	?	?	?
270					269.5	27	54757	?	?	?	?
					27	32	54758	?	?	?	?
275					32	82	54760	?	?	?	?
					82	37	54761	?	?	?	?
	Altd syenite intrusive brxx			Similar to the syenite intrusive breccia descrived before with « extensive ser »/ « carb » alteration, fragments with reaction rims, subangular to subrounded, from different types of syenite (megacrystic orthoclaseplag porphyry, m to c.gr porphyritic xenocrysts of k-spar, and « fuch »-altered small fragments) « Finely dissem py » throughout the interval (increasing in the matrix) « Few fine py stringers 35-40 deg to CA, 1.00- 2.00mm» assoc with « carb » and « ser »/ « chl » are noted. --> « anastamosing py »	37	87	54762	?	?	?	?
280					87	42	54763	?	?	?	?
		269.5	56		42	92	54764	0.2	0.23	90	37
					92	46	54765	?	?	?	?
					46	96	54766	?	?	?	?
285					96	51	54767	?	?	?	?
					51	01	54768	?	?	?	?
	End of Hole	56	56	?	01	56	54770	?	?	?	?
290											

Scale 1:200 | 11/09/02 | 15:21:19

RUBICON MINERALS CORPORATION - DRILL LOG

Start_date: 22/08/02 End_date 23/08/02 Logged_by G. Allen

AX02-013 Northing (UTM15 NAD83) 6206981 Easting (UTM15 NAD83) 314338 Elev(ASL) 1844 CoreSize - NQ

Length(m) 155.45 Local co-ord North Local Co-ord East Claim Contractor: Britton Bros

Re-logged_by/date

TESTS:	Depth	Type	Dip	Az	Comments
	0		-61	185	
	91.44	Acid test	58.5	185	
	155.45	Acid test	-58.5	185	

Project: Axelgold

Page No.: 1

AX02-013

	c_geol				D_SAMP						
Depth At	rocktype	g_from	g_to	descript	S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
2.5											
5											
	Casing			?							
7.5		0	12.19								
10											
12.5											
	Megacrystic Syenite	12.19	19.4	K-spar phenos >/= 1cm. Medium blue grey to greenish grey f.gr groundmass hosting 30% + cream to orange brown coloured stubby subhedral orthoclase crystals to 2cm fracture surfaces. Vague prism-shaped phenos or pseudo-morphs of phenos to 0.1mm in groundmass. <5% probably altered plagioclase phenos. « Sporadic dissem py generally much less than 0.50%». Traces to 0.5% [log illeg: "Pg"?] blue grey metallic (?) Could be [log unclear: "lwcoxene?" Blocky core (<3cm pieces) 30-70°. Weak « ser » ultim alt. Weak k-spar penult. alt. « Dissem sx »: « f.gr py 0.50%», « f.gr lm 1.00%»	11.6	15.24	54507	?	?	?	?
15					15.24	18.29	54509	?	?	?	?

Scale 1:100 | 11/09/02 | 15:21:32

AX02-013

Depth At	d_geol rocktype	g_from	g_to	descript	D_SAMP S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
17.5	Megacrystic Syenite	12.19	19.4	K-spar phenos >/= 1cm. Medium blue grey to greenish grey f.gr groundmass hosting 30% + cream to orange brown coloured stubby subhedral orthoclase crystals to 2cm fracture surfaces. Vague prism-shaped phenos or pseudo-morphs of phenos to 0.1mm in groundmass. <5% probably altered plagioclase phenos. « Sporadic dissem py generally much less than 0.50%». Traces to 0.5% [log illeg "Pg"?] blue grey metallic (?) Could be [log unclear: "lwcoxene?" Blocky core (<3cm pieces) 30-70°. Weak « ser » ultim alt. Weak k-spar penult. alt. « Dissem sx »: « f.gr py 0.50%», « f.gr lm 1.00%»	15.24	18.29	54509	?	?	?	?
					18.29	19.24	54510	?	?	?	?
20					19.24	21.34	54511	0.2	0.18	55	20
22.5					21.34	24.38	54512	?	?	?	?
25	Megacrystic Syenite			M to C.gr ppyK-spar phenos >/= 1cm. Much as above. [log illeg] blocky and « more py » in start of interval. « Strongly lm » along and adjacent to « f1 ». Surface weathering [log illeg: "works."? "Wials"?] « carb » alt of plagioclase phenos. « 19.40- 21.90 f1 10.00-40.00°» Weak « ser » ultim. alt. Weak k-spar « carb »(ankerite) « ser »penult alt. « Dissem sx »: « f.gr py 1.50%», « f.gr lm 1.00%» 21.9- 33.53 Blocky core (<3 cm pieces) 20.00- 60.00°	24.38	27.43	54514	?	?	?	?
27.5		19.4	33.53		27.43	30.48	54515	?	?	?	?
30					30.48	33.53	54516	0.2	0.31	43	19

Scale 1:100 | 11/09/02 | 15:21:32

AX02-013

Depth	d_geol rocktype	g_from	g_to	descript	D_SAMP S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
	Megacrystic Syenite	13.4	33.53	M to C.gr ppyK-spar phenos >/= 1cm. Much as above. [log illeg] blocky and « more py » in start of interval « Strongly lm » along and adjacent to « f1 ». Surface weathering [log illeg: "works."? "Wials"?] « carb » alt of plagioclase phenos. « 19.40- 21.90 f1 10.00-40.00°» Weak « ser » ultim. alt. Weak k-spar « carb »-ankerite) « ser »penult alt. « Dissem sx » « f.gr py 1.50%», « f.gr lm 1.00%» 21.9- 33.53 Blocky core (<3 cm pieces) 20.00- 60.00°	30.48	33.53	54516	0.2	0.31	43	19
35	Syenite	33.53	37.1	M to C.gr orthoclase ppy; Sporadic blue grey to « lm » orange-brown surface weathered syenite. Orthoclase prisms to 1cm but average 3-4mm, stubby ~20%. « lm » on « f1 » and as attractive haloes around fracture, assoc with dendritic MnO2 (pyrolusite). Hard cryptocrystalline blue grey groundmass probably mostly k-spar orthoclase altered to greenish aggregate. « carb » and « ep (?)». Overprinted by « softer ser » alt. « Hairline carb-py stringers » cut by « carb stringers ». Both weak. « <1% carb stringers 30.00°» « <1% carb-py stringers 30.00°» Weak « ser » ultim. alt. Moderate k-spar « carb » (ankerite) « ser » penult alt. « sx in stringers » veins average 0.1- 1.0cm: « dissem py and py along hairline stringers 1.00-3.00%», « lm 0.10%», « mn 0.10%»	33.53	36.1	54517	?	?	?	?
					36.1	37.1	54519	?	?	?	?
37.5	Syenite	37.1	40.25	M to c.gr orthoclase ppy; Mottled pale grey to dark blue grey ppy. « Stronger ser » overprint than above. « very little py » Blocky core (<3 cm pieces) 0-40 deg to CA. Moderate « ser » ultim alt. Weak k-spar « carb » (ankerite) « ser » penult. alt. « Dissem sx »: « f.gr py 0.10%», « f.gr lm 0.50%», « f.gr fuch 0.10%»	37.1	40.45	54520	?	?	?	?
40	Fault zone	40.25	40.45	« lm » crush zone. « fault bx » with « lm » cement and crushed rubble. Lower limit of « strong lm surface effect» « fault 70.00°» « lm 2.00%»							
	Syenite	40.45	42.2	v.f.gr blue grey metallic. Galena? Stibnite? DO ICP. 1-5% « carb bx matrix.» 30-60 deg to CA « <1% carb-py stringers 20.00°» Moderate k-spar ultim. alt. « f.gr, dissem sx »: « py 5.00%», « sb 0.10%»	40.45	42.2	54521	0.8	0.34	113	912
42.5					42.2	44.4	54522	0.2	1	103	83
45	Syenite	42.2	49.65	M to C.gr ppy; Bluish to greenish grey moderate soft ppy with phenos to 1cm, average 3-4mm. Commonly « ser » altered. « Dissem py and py along f1, 3.00- 4.00% » surfaces. Contact abrupt but not sharp. Graduated over ~10 cm. DO ICP. « <1% carb stringers 20.00-60.00°», « <1% carb-py stringers » Moderate « ser » ultim. alt. Weak k-spar penult. alt. « F.gr dissem sx »« py 3.00%», « lm 0.10%», « sb 0.10%», « fuch 0.10%»	44.4	47.3	54523	0.2	1.13	110	84
47.5					47.3	49.65	54524	0.3	1.36	134	32

Scale 1:100 | 11/09/02 | 15:21:32

AX02-013

Depth	d_geol rocktype	g_from	g_to	descript	D_SAMP S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
	Syenite	42.2	49.65	M to C.gr ppy; Bluish to greenish grey moderate soft ppy with phenos to 1cm, average 3-4mm. Commonly « ser » altered. « Dissem py and py along f1, 3.00- 4.00% » surfaces. Contact abrupt but not sharp. Graduated over ~10 cm. DO ICP. « <1% carb stringers 20.00-60.00°», « <1% carb-py stringers » Moderate « ser » ultim. alt. Weak k-spar penult. alt.	47.3	49.65	54524	0.3	1.36	134	32
50				« F.gr dissem sx »« py 3.00%», « lm 0.10%», « sb 0.10%», « fuch 0.10%»	49.65	50.7	54525	?	?	?	?
					50.7	51.8	54526	0.2	0.4	29	31
52.5											
					51.8	54.86	54527	?	?	?	?
55	Megacrystic syenite			49.65- 59.50 Glassy hard medium grey K-spar alt. groundmass with stubby to prism-shaped subhedral to euhedral orthoclase phenos to 2cm, averaging 1-2cm. « 49.65- 59.50 f.gr dissem py 3.00%» mostly in groundmass. « Some py with stringers » « <1% carb-py stringers 30.00°», Moderate k-spar « carb » (ankerite) « ser »ultim. alt. « Dissem f.gr sx »: « py 3.00%», « lm 0.10%»							
		49.65	60.96	59.5- 60.96 Blocky core (<3cm pieces). 0-60 deg to CA, « limonite on f1 surfaces.»	54.86	57.91	54529	?	?	?	?
57.5											
					57.91	60.96	54530	?	?	?	?
60											
62.5	Megacrystic syenite	60.96	64.8	M gr syenite porphyry. Medium blue-grey « tr lm » stained syenite ppy with vague whitish orthoclase phenos to 4mm (average 1-3mm) Softer than unit above. Hard parts » alteration. « Mostly dissem, f.gr py 2.00- 3.00%». « f1 30.00-60.00°» Moderate « ser » ultim. alt. Moderate k-spar « carb » (ankerite) « ser » penult. alt. « Dissem f.gr sx »: « py 2.00%», « lm 0.20%», « fuch 0.10%», « mn 0.10%»	60.96	64.8	54531	0.3	0.45	53	72

Scale 1:100 | 11/09/02 | 15:21:33

AX02-013

Depth At	d_geol rocktype	G_from	G_to	descript	D_SAMP S_FROM	S_TO	SAMPLE	AU_ppm	AG_ppm	CU_ppm	MO_ppm
65	Megacrystic syenite	60.56	64.8	M.gr syenite porphyry. Medium blue-grey « tr lm » stained syenite ppy with vague whitish orthoclase phenos to 4mm (average 1-3mm) Softer than unit above. Hard parts » alteration.. « Mostly dissem, f.gr py 2.00- 3.00%». « f1 30.00-60.00°» Moderate « ser » ultim. alt. Moderate k-spar « carb » (ankerite) « ser » penult. alt. « Dissem f.gr sx » : « py 2.00%», « lm 0.20%», « fuch 0.10%», « mn 0.10%»	60.56	64.8	54531	0.3	0.45	53	12
67.5	Megacrystic syenite	64.8	68.9	py and py along fol ». - parallel ["liners"? "lines"?] Some harder parts probably remissant k-spar alt. « Minor py stringers 30.00°». « <1% carb-py stringers 30.00°» « fol 60.00°» Moderate « ser » ultim. alt. Moderate k-spar « carb » (ankerite) « ser » penult. alt. « Dissem f.gr sx »: « py 2.50%»	64.8	68.9	54532	?	?	?	?
70	Megacrystic Syenite	68.9	70.1	(Type 2) K-spar phenos >/= 1cm. Light to med blue grey « ser » groundmass hosting 20% elongated prism-shaped euhedral orthoclase phenocrysts up to 2cm long (avg 1-2cm). Trachytic with phenos aligned 20-30 deg to CA. Distinct from megacrystic syenite above b/c orthoclase so flat and trachytic (therefor type 2). Trachytic texture 20 -30 deg to CA. Strong « ser » ultim. alt. Moderate k-spar « carb »(ankerite) « ser » penult. alt. « Dissem f.gr sx »: « py 3.00%», « fuch 0.10%»	68.9	70.7	54533	?	?	?	?
	Megacrystic syenite	70.1	70.7	K-spar phenos >/= 1cm Type 2. As above but glossy hard. « Less ser » overprinting. Traces dark blue grey metallic. « f.gr dissem py 3.00-4.00%» Hard gm. White <1mm plagioclase phenos « carb » « ser » altered. « <1% carb stringers 70.00°» Trace « ser » ultim. alt. Moderate k-spar « carb » (ankerite) « ser » penult. alt. « Dissem f.gr sx »: « py 3.00%»							
72.5	Syenite	70.7	76.9	M to C.gr ppy; Medium blue grey orthoclase ppy with anhedral white orthoclase phenos to 2mm (stubby) Relatively hard. K-spar overprinted by « ser ». « Dissem py » and « py along fol 30.00°». « Patchy ser » alteration gives the rock a vague « bx »appearance. Matrix of « ser »alteration is f.gr. 'Fragments' rounded, up to 15cm with stubby anhedral 1-3mm whitish orthoclase phenos preserved. "Fragments" are hard, k-spar alteration. « <1% carb stringers 40.00-60.00°» « fol 30.00°» Weak « ser » ultim. alt. Moderate k-spar « carb » (ankerite) « ser » penult. alt. « Dissem f.gr sx »: « py 3.00%», « fuch 0.10%» Aphanitic to f.gr equigranular (relsite);	70.7	73.15	54534	?	?	?	?
75				Medium hard. Looks like initial k-spar alt overprinted by « ser ». « Dissem, stringer and discontinuous lenses py ».parallel to foliation. « 1-5% carb-py stringers 30.00-70.00°» « fol 40.00°» cut by later , « <1% hairline carb stringers » Moderate « ser »ultim. alt. Moderate k-spar penult. alt. * WR/TS at 78.4. Check for ID on blue grey mineral. Tr blue grey metallic sulphide along foliation with pyrite. Poss. stibnite. « Dissem f.gr sx »: « py 4.00%», « sb 0.10%» Possible syenite porphyry with phenocrysts obscureed by alteration. M to C.gr ppy;	73.15	76.9	54535	?	?	?	?
77.5	Syenite	76.9	80.5	10 cm. « 80.50- 84.50 Sporadic ser » alteration gives rock a « pseudo bx » texture. Phenocrysts obscure.... [1.5 lines log illeg] .... k-spar alt ...15-20% subyy light grey 1-2mm orthoclase. Anhedral to subhedral. « <1% carb stringers 60.00°», « <1% carb-py stringers 60.00°» « f1 10.00°» Weak « ser » ultim. alt. Moderate k-spar penult. alt. « Dissem f.gr sx »: « py 3.00%», « sb 0.10%» 85.3- 85.8 Rock has a banded texture at 45°. Interbanded f.gr	76.9	79.25	54536	1.4	0.28	126	88
80	Syenite	80.5	90.07	+ plag. Traces dark blue grey metallic («sb ?»)	79.25	80.5	54537	?	?	?	?
				« 84.50 - 86.00 Dissem py, and py along lagsas and stringers » in « sericitic fol » parts. « fol 45.00°»	80.5	82.3	54539	?	?	?	?

Scale 1:100 | 11/09/02 | 15:21:33

AX02-013

Depth	d_geol rocktype	g_from	g_to	descript	D_SAMP S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
					80.5	82.3	54539	?	?	?	?
82.5				*M to C gr ppy:* 10 cm. « 80.50- 84.50 Sporadic ser » alteration gives rock a « pseudo bx » texture. Phenocrysts obscure.... [1.5 lines log illeg] .... k-spar alt ...15-20% subyy light grey 1-2mm orthoclase. Anhedral to subhedral. « <1% carb stringers 60.00°». « <1% carb-py stringers 60.00°» « f1 10.00°»	82.3	85.34	54540	?	?	?	?
85	Syenite			Weak « *ser* » *ultim. alt. Moderate k-spar penult. alt.* « Dissem f.gr sx »: « py 3.00%». « sc 0.10%» 85.3- 85.8 Rock has a banded texture at 45°. Interbanded f.gr + plag. Traces dark blue grey metallic («sb ?») « 84.50- 86.00 Dissem py and py along lenses and stringers » in « sericitic fol » parts. « fol 45.00°»							
		80.5	90.07		85.34	88.39	54541	0.3	0.43	62	51
87.5				Aphanitic f.gr to equigranular (felsite) Dark blue grey f.gr agg of [log unclear:"fep"?] and « ser ». Medium-hard. « ser »- altered overprint of syenite ppy? No larger phenos apparent. « Dissem py and py along lenses and stringers » « Weak carb-filled bx ». « Hairline carb stringers » cut by « carb-py stringers ». Opposite relationship noteds in unit above. « <1% *Carb bx » matrix.* « <1% *carb-py stringers 30.00°»* Moderate « ser » ultim alt. Moderate k-spar penult. alt. « Dissem f.gr sx »: « py 4.00%»	88.39	90.07	54542	?	?	?	?
90	Syenite	90.07	90.9	M to c.gr orthoclase ppy; Med grey very hard m-g orthoclase ppy. Vaguely bounded 1-3mm white stubby anhedral to subhedral orthoclase ~25% + strongly K-spar alt groundmass. « Dissem and lesser f1-related py 3.00-5.00%». Some parts have 5-7% subhedral pink pseudomorphs of « ser » and « carb »after biotite. K-spar alt. « Dissem f.gr sx »: « py 4.00%»	90.07	90.9	54543	?	?	?	?
92.5	Syenite	90.9	93.45	Aphanitic to f.gr equigranular (felsite) Dark blue grey f-g aphanitic mix of k-spar and (?) Vague orthoclase phenos in some parts. Looks like a « pseudo-bx ». Very hard. Looks like k-spar alt. « v.f.gr dissem py 2.00%». Abrupt but not sharp contacts. « Dissem f.gr sx »: « py 4.00%» « <1% carb stringers 30.00-60.00°» Strong k-spar ultim alt.	90.9	93.45	54544	?	?	?	?
	Syenite	93.45	94.25	M to c.gr orthoclase ppy; Dark blue grey. Very hard. 25% (+) 1-3mm orthoclase phenos. « Mostly dissem py » « 1-5% carb stringers 0.00-40.00°» Strong k-spar ultim. alt. « Dissem f.gr sx »: « py 4.00%»							
95	Syenite	94.25	95.7	(log indicates start point is 97.5m, but probably dyslexic-type error) Aphanitic to f.gr equigranular (felsite) - possibly a dyke Med blue to greenish grey aphanitic rock. Abrupt but not sharp contact with above. Probably a f-g aggregate of « ser »and k-spar. No obvious phenos in most parts. Some f-g alt plag. « Dissem py » and « py along lenses and stringers » parallel to « fol ». « <1% carb stringers », « carb-py stringers »	93.45	95.7	54545	?	?	?	?
	Syenite	95.7	99.63	« fol 30.00°» Moderate « ser »ultim alt. Moderate k-spar penult alt. « Dissem f.gr sx »: « py 5.00%»	95.7	97.54	54546	0.5	0.34	205	17

AX02-013

Depth At	d_geol rocktype	G_from	G_to	descriot	D_SAMP S_FROM	S_TO	SAMPLE	AU_ppm	AG_ppm	CU_ppm	MO_ppm
97.5				log indicates start point is 97.5m, but probably dyslexic-type error)	95.7	97.54	54546	0.5	0.34	205	17
				Aphanitic to f.gr equigranular (felsite) - possibly a dyke							
				Med blue to greenish grey aphanitic rock. Abrupt but not sharp contact with above. Probably a f-g aggregate of « ser »and k-spar. No obvious phenos in most parts. Some f-g							
				alt plag. « Dissem py » and « py along lenses and stringers » parallel to « fol »							
	Syenite	95.7	99.63	« <1% carb stringers ». « carb-py stringers »							
				« fol 30.00° »	97.54	99.63	54547	?	?	?	?
				Moderate « ser »ultim alt. Moderate k-spar penult alt.							
				« Dissem f.gr sx » « py 5.00% »							
100					99.63	58	54548	?	?	?	?
102.					58	63	54550	?	?	?	?
105											
				M to C.gr ppy; Mottled med to dark blue grey orthoclase ppy with 25-30% stubby subhedral to anhedral orthoclase 1-3mm. Generally very hard. Probably k-spar alt. « Patches	63	68	54551	?	?	?	?
				ser » alt overprint. Weakly calcareous. « Probably carb » -alt orthoclase. 5% FG (<1mm) euhedral pinkish pseudomorphs after the plag and biotite. « Py dissem and along							
				fracs 2.00- 4.00% ». Some « ser » alt gives rock a « *pseudo-bx* » *appearance*. « *Very weak carb* » « *bx* » *along* « *hairline f1* ».							
	Syenite			*WR/TS 110.3.*							
				« 1-5% carb bx ». « <1% carb-py stringers 0.00- 30.00° »							
				Weak « ser » ultim. alt. Moderate k-spar penult. alt.							
107.				« Dissem f.gr sx »: « py 3.00% »							
		99.63	114.3		68	73	54552	?	?	?	?
110											
					73	78	54554	?	?	?	?
112.					78	51	54555	0.2	0.47	97	329

Scale 1:100 | 11/09/02 | 15:21:33

AX02-013

Depth At	d_geol rocktype	g_from	g_to	descript	D_SAMP S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
	Syenite	99.53	114.3	M to C.gr ppy; Mottled med to dark blue grey orthoclase ppy with 25-30% stubby subhedral to anhedral orthoclase 1-3mm. Generally very hard. Probably k-spar alt. « Patches ser » alt overprint. Weakly calcareous. « Probably carb » -alt orthoclase. 5% FG (<1mm) euhedral pinkish pseudomorphs after the plag and biotite. « Py dissem and along fracs 2.00- 4.00%» . Some « ser » alt gives rock a « pseudo-bx » appearance. « Very weak carb » « bx » along « hairline f1 ».	.78	.51	54555	0.2	0.47	97	329
	VCBP	114.3	.45	"WR/TS 110.3. « 1-5% carb bx », « <1% carb-py stringers 0.00- 30.00°» Weak « ser » ultim. alt. Moderate k-spar penult. alt.							
115	Syenite	.45	.25	« Dissem f.gr sx »: « py 3.00%» « msv py and light grey carb vn 30.00° 5.00cm» M to C.gr ppy; K-spar phenos >/= 1cm	.51	.25	54556	?	?	?	?
	Megacrystic syenite	.25	.06	Medium blue-grey aphanitic g-m (groundmass) with 25-30% prism to stubby grey to brown orthoclase phenos to 2cm. « py » in 2-3mm and 5-10mm lenses in groundmass. «	.25	.12	54557	?	?	?	?
	VCBP	.06	.12	With carb py 5.00%». Indistinct contacts. Trachytic texture 40°. Trace « ser » ultim. alt. Strong k-spar penult alt.							
117.				« Dissem f.gr sx »: « py 5.00%» M.gr orthoclase ppy							
	Syenite	.12	.65	Medium to dark blue grey gm. MG porphyry. Mostly very hard but with some « ser »overprint. « Inhomogenous ser » alt gives rock a « pseudo-bx » texture. « f.gr dissem py » Trace f.gr blue-grey mineral. « >30% carb-py stringers » Weak « ser »ultim. alt. Moderate k-spar penult. alt. « Dissem f.gr sx »: « py 3.00%», « sb 0.10%»	.12	.87	54559	?	?	?	?
120				M to C.gr ppy; « <1% qtz-carb stringers 70.00°», « 1-5% carb bx »	.87	.65	54560	0.2	0.39	40	98
					.65	.92	54561	?	?	?	?
122.											
	Syenite intrusive brxx			Mottled med to dark blue grey « bx ». ANgular to rounded fragments of dark grey k-spar alt porphyry to 5cm in a « ser » greenish-grey groundmass. May be a « pseudo-bx » due to alteration, but sharp fragment boundaries. « f.gr dissem py 3.00-5.00%» both diss and along « fol ». « Ser » gm (vague) at 40 deg to CA. Tr blue grey metallic. « fol 40.00°» Moderate « ser » ultim. alt. Moderate k-spar pentult alt. « Dissem f.gr sx »:« py 4.00%», « sb 0.10%»	.92	.97	54562	?	?	?	?
125		.65	129.3								
					.97	.02	54563	?	?	?	?
127.				Aphanitic to f.gr equigranular (felsite) f.gr to aphanitic dyke Looks like f.gr crystalline agg of orthoclase in a « ser » matrix. Not hard. 4-5%. « f.gr dissem py » « <1% py stringers 30.00-40.00°», « <1% carb-py stringers 30.00°». « f1 50.00°»							
	Syenite	129.3	.03	Strong « ser » ultim. alt. Weak k-spar penult. alt. « Dissem f.gr sx »: « py 4.00%»	.02	129.3	54564	?	?	?	?
					129.3	.03	54565	0.2	0.45	81	23

AX02-013

	c_geol				D_SAMP						
Depth AT	rocktype	g_from	g_to	descript	S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
130	Syenite	129.3	33	Aphanitic to f.gr equigranular felsite) f.gr to aphanitic dyke Looks like f.gr crystalline agg of orthoclase in a « ser » matrix. Not hard. 4-5% « f.gr dissem py » « <1% py stringers 30.00-40.00°». « <1% carb-py stringers 30.00°» « fl 50.00°» Strong « ser » ultim. alt. Weak k-spar penult. alt. « Dissem f.gr sx »: « py 4.00%»	129.3	33	54565	0.2	0.45	81	23
132.	Syenite intrusive brxx	33	135.1	~30% <1-3 cm hard dark grey k-spar alt orthoclase ppy. *with 25% anhedral light grey orthoclase (stubby rdd) phenos to 5mm (avg 3-4mm) Matrix to « bx » looks like a possibly brecciated f.gr aggregate of orthoclase crystals. Some* parts vaguely porphyntic. 5-8% white alt prism-shaped crystals to <1mm. Probably plagioclase. « Sporadic ser » in matrix. « <1% dissem py » in matrix. « Hairline late-stage carb stringers 0.00-20.00°» Soe frags have scalloped edges suggesting potential re-digestion by matrix. [log unclear"Molten"?] matrix. « <1% carb stringers 20.00°» Moderate « ser » ultim alt. Strong k-spar penult. alt. « Dissem f.gr sx »: « py 4.00%»	33	135.1	54566	?	?	?	?
135	Megacrystic syenite	135.1	95	(K-spar phenos >/= 1cm) intrusion breccia. Medium blue-grey groundmass composed of vague orthoclase crystals and « ser ». « py » in lenses and « discontinuous stringers » in matrix along with « ser ». Subhedral orthoclase phenos up to 1 cm wide by 4 cm long with « patchy white ser »/« carb » alt. Some with [log unclear, but prob."red-tan"] cores, could be 2ndary k-spar alt. Darker blue-grey angular lithic (fso ppy) frags up to 2cm. « Both dissem and stringer py 10.00%» « <1% carb stringers 30.00°» « <1% pyrite stringers 40.00°» Moderate « ser » ultim alt. Moderate k-spar penult. alt. « sx in stringers avg. 0.10-1.00cm» « py 5.00%», « sb 0.10%»	135.1	95	54567	?	?	?	?
137.	Syenite	95	138.9	Aphanitic to f.gr equigranular (felsite) clots to ....[log illeg].... « Possible fol » .....« with carb ».....dark blue grey ...with « py ». « fol 40.00°» Moderate « ser » ultim alt « Dissem f.gr sx »: « py 4.00%»	95	138.9	54569	?	?	?	?
140					138.9	21	54570	1	0.4	29	80
142.	Syenite	138.9	145.8	M to c.gr orthoclase ppy; Med blue-grey f.gr crystalline groundmass composed predom of orthoclase plus minor laths and poss biotite. Sericite appears to be forming interstitally * orthoclase as f.gr stringers » and « carb » to 0.5mm. Most « py » dissem in matrix with « ser ». Traces blue-grey metallic. « <1% carb-py stringers 30.00°», « <1% carb stringers 30.00-70.00°» Weak « ser » ultim. alt. Moderate k-spar penult. alt. « Dissem f.gr sx »: « py 4.00%», « sb 0.10%»	21	26	54571	?	?	?	?
145					26	145.8	54572	?	?	?	?

AX02-013

	c_geol				D_SAMP						
Depth	rocktype	g_from	g_to	descript	S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
	Syenite	138.9	145.8	M to c.gr orthoclase ppy; Med blue-grey f.gr crystalline groundmass composed predom of orthoclase plus minor laths and poss biotite. Sericite appears to be forming interstitally * orthoclase as f.gr	25	145.8	54572	?	?	?	?
	Megacrystic syenite	145.8	148	stringers » and « carb » to 0.5mm. Most « py » dissem in matrix with « ser ». Traces blue-grey metallic. « <1% carb-py stringers 30.00°». « <1% carb stringers 30.00-70.00°» Weak « ser » ultim. alt. Moderate k-spar penult. alt. « Dissem f.gr sx »: « py 4.00%», « sp 0.10%»	145.8	148	54573	?	?	?	?
147.											
	Syenite; feld-bt porphyry dyke	148	25	K-spar phenos >/= 1cm Abrupt contact at « weak carb bx ». Medium blue grey f.gr crystalline aggregate matrix composed mostly of orthoclase + « ser ». 5% pinkish grey f.gr subhedral laths, probably mostly biotite (rare hex look). « f.gr diss py 4.00%» with « ser » matrix. [log illeg:"Usey"?] elongated anhedral to subhedral orthoclase to 1-4cm. Some with ["red-tan"?] cores. Probably 2ndary k-spar. Clots « carb »/ « ser » to 1mm. Trachytic texture 30 deg to CA. Moderate « ser »ultim alt. Weak k-spar penult alt. « Dissem f.gr sx » : « py 5.00%»	148	25	54574	?	?	?	?
150											
	Syenite intrusive breccia	25	61	Med blue grey f.gr agg of orthoclase and « ser ». 20% vague orthoclase phenos to 2mm. 10-15% euhedral pink grey alt biotite to 2mm. Probably some chemistry (+/-) as syenite but distinctly biotite rich. « py »mostly dissem but also along « hairline stringers » and « carb ». Indistinct contacts. « <1% carb-py stringers 45.00-70.00°» Strong « ser » ultim. alt « Dissem f.gr sx »: « py 5.00%» F.gr syenite intrusion breccia	25	41	54575	0.2	0.77	74	55
152.											
				py » *matrix*. « <1% carb stringers 40.00-70.00°», « 1-5% ser-py-carb bx » Moderate « carb » (probably ankerite) « ser » ultim. alt. Weak k-spar penult alt. « f.gr dissem py 4.00%»	41	61	54576	?	?	?	?
	Megacrystic syenite	61	45	trachytic Dark blue grey matrix with 30% 0.5 * 4 cm brownish orthoclase phenos aligned ~30 deg to CA. Very hard groundmass. Trachytic texture ~ 30 deg to CA Strong k-spar ultim alt. « Dissem f.gr py 2.00%»	61	45	54577	?	?	?	?
155	End of hole	45	45	?							
157.											
160											

RUBICON MINERALS CORPORATION - DRILL LOG

Start_date: 25/08/02 End_date 26/08/02 Logged_by G. Allen

AX02-015 Northing (UTM15 NAD83) 6206658 Easting (UTM15 NAD83) 314373 Elev(ASL) 1653 CoreSize - NQ

Length(m) 75.59 Local co-ord North Local Co-ord East Claim Contractor: Britton Bros

Re-logged_by/date

TESTS:	Depth	Type	Dip	Az	Comments
	0		-45	225	
	75.59	Acid test	-39	225	

Project: Axelgold

AX02-015

Depth At	d_geol rocktype	g_from	g_to	descript	D_SAMP S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	C_ PPM	MO_PPM
	Casing	0	1.83	?							
2.5	Syenite porphyry	1.83	6.7	M.gr Med blue grey f.gr groundmass hosting 30-40% stubby [log illeg] to prismatic white subhedral to anhedral orthoclase phenocrysts up to 7mm long (avg 4-5mm). Groundmass generally very hard carb stringers » « 1.83- 5.70 <1% carb stringers 20.00-60.00°» Weak « ser » ultim. alt. Strong k-spar penult alt. « Dissem f.gr sx »: « py 1.50%», « sb 0.10%» « 5.72- 5.77 >30% qtz stringers 30.00°»- White quartz vein. Barren « 5.77- 6.70 >1% qtz stringers 60.00°», « >1% carb stringers 30.00°»	1.83	5	54820	?	?	?	?
5					5	6.7	54821	0.2	0.37	11	4
7.5	Syenite	6.7	10.1	» and « later qtz-carb stringers generally 50-70°, 4mm» « 6.70- 8.90 1-5% carb stringers 60.00°», « <1% carb stringers 70.00°» Blocky core (pieces <3cm) Strong « ser » ultim alt. « dissem f.gr sx »: « py 4.00%», « fuch 0.10%» « 8.90- 10.30 1-5% carb stringers 60.00°», « 1% carb stringers 70.00°» « fol 40.00°»	6.7	10.1	54822	?	?	?	?
10											
12.5	Syenite intrusive breccia	10.1	13.85	Similar to unit above but with vague clastic texture. Some orthoclase crystal frags to 1cm + rare vague porphyritic frags to 0-5cm. Sporadic hard to soft. « dissem f.gr py 3.00-4.00%» and traces blue-grey metallic mineral. « 1-5% carb stringers 60.00°», « <1% carb stringers 30.00°» Moderate « ser » ultim alt. Moderate k-spar penult. alt. « Dissem f.gr sx »: « py 3.00%», « sb 0.10%»	10.1	12.7	54823	?	?	?	?
					12.7	13.85	54825	?	?	?	?
15	Megacrystic syenite breccia	13.85	17.45	Medium blue-grey generally « ser » groundmass with orthoclase phenos to 6mm * 2cm (up to 20%, avg 5%) and vaguely bounded f.gr orthoclase porphyry. Fragments to 1cm. Texture vague. « py 2.00-3.00%» generally in micro [log unclear:"shrand"?] « ser » gm. « dissem py 2.00-3.00%». Trace f-g blue grey metallic. « qtz-carb stringers 1.00-2.00% 1.00mm» « 1-5% carb stringers 70.00°» « fol 40.00°» Moderate « ser »ultim alt. Weak k-spar penult alt. « Dissem f.gr sx »: « py 2.50%», « sb 0.10%»	13.85	17.45	54826	0.5	0.52	70	40

Scale 1:100 | 11/09/02 | 15:22:40

Project: Axelgold

AX02-015

	d_geo				D_SAMP						
Depth A	rocktype	g_from	g_to	descript	S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
	Megacrystic syenite breccia	13.85	17.45	*Medium blue-grey generally « ser » groundmass with orthoclase phenos to 5mm * 2cm (up to 20%, avg 5%) and vaguely bounded f.gr orthoclase porphyry. Fragments to 1cm. Texture vague.* « py 2.00-3.00%» generally in micro [log unclear:"s-rand"?] « ser » gm. « dissem py 2.00-3.00%». Trace f-g blue grey metallic. « qtz-carb stringers 1.00-2.00% 1.00mm» « 1-5% carb stringers 70.00°» « fol 40.00°»	13.85	17.45	54826	0.5	0.52	70	40
17.5				Moderate « ser »ultim alt. Weak k-spar penult alt. « Dissem f.gr sx »: « py 2.50%», « sp 0.10%»							
	Megacrystic syenite brxx	17.45	20	» and « fol 40.00°» « >1% carb stringers 40.00°» « fol 40.00°» Moderate « ser » ultim. alt. « f.gr sx in stringers » « py 4.00%»	17.45	20	54827	?	?	?	?
20	Aphanitic syenite	20	21	Med blue-grey f-g aggregate of « ser » and probably orthoclase. Relatively massive. « py » occurs dissem along « fol »parallel lenses and « hairline stringers ». « Weakly fol 40.00°». « 20.00- 20.05 >30% carb-py stringers 45.00°» « fol 40.00°» Moderate « ser » ultim. alt. « Dissem sx » « py 4.00%» « 20.00- 20.05 *py and carb vn 45.00° 5.00cm*» Cuts foliation/banding in host.	20	20.15	54828	?	?	?	?
					20.15	21	54830	?	?	?	?
	M.gr orthoclase porphyry	21	22.3	« 1-5% white qtz-carb stringers 10.00-30.00° 5.00mm» Irregular Med blue grey f.gr groundmass. Very hard k-spar alt in parts and then sporadically overprinted by « ser » alt. ~30-40% light grey to white stubby sub-rdd anhedral orthoclase to 5mm, avg 3-4mm. « dissem py 1.00-2.00%» generally with « ser » Moderate « ser » ultim. alt. Moderate k-spar penult. alt. « Dissem f.gr sx »: « py 1.50%»	21	22.3	54831	0.2	0.4	9	23
22.5	Syenite intrusion breccia	22.3	23.26	*Med to dark blue grey f.gr « ser » groundmass with « vague bx » texture. Some orthoclase crystal frags to 5mm and irreg light and dark patches which may be altered lithic fragments.* « f.gr dissem py 3.00-5.00%» in « ser »[log unclear:"spn"?] Cut by « carb and qtz-carb stringers » minor « <1% qtz-carb stringers » « <1% carb stringers »	22.3	23.26	54832	?	?	?	?
	M.gr orthoclase porphyry	23.25	23.5	Moderate « ser » ultim alt. « Dissem f.gr sx »: « py 4.00%»							
		23.5	23.65								
		23.65	24.2	Crowded porphyry 30-40% stubby sunhedral orthoclase to 7mm (avg 3-5mm)	23.26	24.2	54833	?	?	?	?
	Aphanitic syenite	24.2	24.3	Moderate « ser » ultim alt. Weak k-spar penult alt. « Dissem f.gr sx »: « py 2.00%»							
25	M.gr orthoclase porphyry			Med to dark blue grey « ser » alt. aphanitic syenite. « UCT 30.00» « LCT 60.00» Dyke? Alteration? « Minor dissem py 1.00%». Moderate « ser » ultim. alt. « Dissem f.gr sx » « py 1.00%»							
	Fault	24.3	25.5	Dark blue grey aphanitic groundmass. Very hard. K-spar alt. « Weak ser » overprint in irreg patches and « along f1 40.00°». « Cut by qtz-feld stringers 40.00° 4.00mm» « Dissem py 1.00-2.00%» « 1-5% qtz-carb-feldspar stringers 40.00°»	24.2	25.5	54835	?	?	?	?
	M.gr syenite porphyry			Trace « ser » ultim alt. Strong k-spar penult alt. « dissem f.gr sx » « py 1.50%»							
				Clay « gouge » and crushed rock ~45° 8-10 cm wide. « py »from original rocks. « fault 45.00°»							
				(crowded, light grey) Med blue-grey « ser » weakly k-spar alt gm. Crowded porphyry with 30-40% subhedral to anhedal orthoclase phenocrysts. Stubby, avg 3-4mm. Some parts look « weakly bx » « py 1.00-3.00%»							
27.5				Blocky core (pieces <3cm) ~0-30.00° Moderate « ser » ultim alt. Weak k-spar penult alt.							
	M.gr orthoclase porphyry	26.5	29.7	« Dissem f.gr sx » « py 1.00%» « 24.30- 25.50 limonitic-clay coated f1 » « 25.50- 26.50 1-5% qtz-carb stringers 80.00° to 4.00mm» (Dark grey, 15-20% phenos)	26.5	29.7	54836	?	?	?	?
				abundant and wider spaced than in unit above. Subhedral prisms orthoclase to 1cm (verging on megacrystic) but avg 3-4mm. Abrupt upper contact along fracture zone. Probably later phase than above.							
30				« 1-5% qtz-carb stringers 40.00-70.00°» Weak « ser » *ultim alt. Mocerate k-spar penult alt.* « Dissem f.gr sx » « py 3.00%»	29.7	30.57	54837	?	?	?	?
	F.gr intrusive breccia	29.7	34.4	Sporadic zone of shattered orthoclase porphyry. Angular to subrounded orthoclase crystal fragments in a « ser » and « py » matrix. Rare lithic fragments. Average grain size <1mm, but up to 5mm. « Dissem py 3.00-5.00%» in sericite matrix. Some « fol »/ « shear 60.00° » parallel « py bands 60.00° to 5.00mm» « shear 60.00°» Moderate « ser »ultim alt. Weak k-spar penult alt. « Dissem f.gr sx »: « py 4.00%» TS-29.75 Some zones m to c gr syenite ppy	30.57	32.7	54838	?	?	?	?

Scale 1:100 | 11/09/02 | 15:22:40

AX02-015

Depth At	d_geol rocktype	g_from	g_to	descript	D_SAMP s_FROM	S_TO	SAMPLE	AU_ppm	AG_ppm	CU_ppm	MO_ppm
				Sporadic zone of shattered orthoclase porphyry. Angular to subrounded orthoclase crystal fragments in a « ser » and « py » matrix. Rare lithic fragments. Average grain size <1mm, but up to 5mm. « Dissem py 3.00-5.00%» in sericite matrix. Some « fol »/ « shear 60.00° » parallel « py bands 60.00° to 5.00mm» « shear 60.00°»	30.57	32.7	54838	?	?	?	?
	F.gr intrusive breccia	29.7	34.4	Moderate « ser »ultim alt. Weak k-spar penult alt. « Dissem f.gr sx »: « py 4.00%» TS-29.75 Some zones m to c.gr syenite ppy	32.7	34.4	54839	0.7	2.38	55	19
	Felsic dyke	34.4	34.6	Pale yellow-grey aphanitic felsic dyke. « dissem py <1.00%». Contains slivers of host syenite. « shear 60.00°». Could also be contact orientation. « Tr fuch » « Dissem f.gr sx »: « py 0.50%», « fuch 0.10%»							
35					34.4	37.45	54840	?	?	?	?
37.5	Syenite intrusive *microbrxx*	34.6	41	syenite, later « bx » by venting gases (diatreme?) « dissem py 1.00-3.00%» along « fol »and « ser » Moderate « ser »ultim alt. Weak k-spar penult alt. « Dissem f.gr sx »: « py 2.00%» « 36.00- 36.50 fol 45.00°» 36.5- 41.0 Blocky core (pieces <3cm) 20-60°							
40					37.45	41	54841	?	?	?	?
42.5	Sedimentary breccia	41	43.85	2cm, but generally <5mm. Some rounded hard calcareous fragments to 2cm. « Dissem py » but also concentrated in fragments. « fol ranges from 60.00-70.00°». Frags medium hard. Siliceous millstone and argillite. « <1% carb stringers 30.00°» « fol 60.00-70.00°» « Dissem f.gr sx »: « py 0.50%»	41	43.8	54842	?	?	?	?
45	Felsic dyke	43.85	45.4	« Sharp undulating UCT 45.00» Medium greenish to yellowish grey aphanitic felsic dyke. FG agg of « ser » orthoclase and « carb ». Cut by « weak carb stockwork in stringers 1.00-2.00% to 1.00mm». « Sharp LCT 70.00». Strong « carb » (probably ankerite) « ser » ultim alt. « 43.86- 45.39 1-5% carb stringers 20.00-90.00°»	43.8	45.4	54843	?	?	?	?
47.5	Sedimentary breccia	45.4	75.59	Frag-supported breccia with <1-5cm (avg 1-2cm) angular to subangular (avg subangular) pebbles of: -40-50% medium blue-grey siliceous siltstone (?) -20-30% black siliceous argillite or chert -15% brown grey mud soft sediment or poss volcanic? Most fragments appear sedimentary Fragments become less flattened with depth, therefore looks like some tectonic component of contact, although not a fault-contact. Cut by « 1-5% weak carb (stockwork) stringers 30.00° 1.00mm» « Dissem f.gr sx »: « py 0.10%» generally in fragments Weak flattened fragments/ « fol 60.00°» Minor « py » on « f1 » surfaces. Minor « py » with « carb stringers » rarely	45.4	48.77	54845	?	?	?	?

AX02-015

Depth	c_geol rocktype	g_from	g_to	descript
50	Sedimentary breccia	45.4	75.59	Frag-supported breccia with <1-5cm (avg 1-2cm) angular to subangular (avg subangular) pebbles of: -40-50% medium blue-grey siliceous siltstone (?) -20-30% black siliceous argillite or chert -15% brown grey mud soft sediment or poss volcanic? Most fragments appear sedimentary Fragments become less flattened with depth, therefore looks like some tectonic component of contact, although not a fault-contact. Cut by « 1-5% weak carb (stockwork) stringers 30.00° 1.00mm». « Dissem f gr sx »: « py 0.10% » generally in fragments Weak flattened fragments/ « foi 60.30° » Minor « py » on « f1 » surfaces. Minor « py » with « carb stringers » rarely
52.5				
55				
57.5				
60				
62.5				

D_SAMP S_FROM	S_TO	SAMPLE	AU_ppm	AG_ppm	CU_ppm	MO_ppm
45.4	48.77	54845	?	?	?	?
48.77	51.82	54846	?	?	?	?
51.82	54.86	54847	?	?	?	?
54.86	57.91	54848	?	?	?	?
57.91	60.96	54849	0.2	1.27	62	1
60.96	64.01	54850	?	?	?	?
64.01	67.05	54851	?	?	?	?

Scale 1:100 | 11/09/02 | 15:22:41

AX02-015

Depth	c_geol rocktype	g_from	g_to	descriot	D_SAMP s_FROM	S_TO	SAMPLE	AU_ppm	AG_ppm	C_ppm	MO_ppm
65					64.01	67.05	54851	?	?	?	?
67.5											
70	Sedimentary breccia			Frag-supported breccia with <1-5cm (avg 1-2cm; angular to subangular (avg subangular) peobles of: -40-50% medium blue-grey siliceous siltstone (?; -20-30% black siliceous argillite or chert -15% brown grey muc soft sediment or boss volcanic? Most fragments appear sedimentary Fragments become less flattened with depth, therefore looks like some tectonic component of contact, although not a fault-contact. Cut by « 1-5% weak carb (stockwork) stringers 30.00° 1.00mm». « Dissem f.gr sx »: « py 0.10%» generally in fragments Weak flattened fragments: « fol 60.00° » Minor « py » on « f1 » surfaces. Minor « py » with « carb stringers » rarely.	67.05	70.1	54852	?	?	?	?
		45.4	75.59		70.1	73.15	54853	?	?	?	?
72.5											
75	End of hole	75.59	75.59	?	73.15	75.59	54855	?	?	?	?
77.5											
80											

Scale 1:100 | 11/09/02 | 15:22:41

RUBICON MINERALS CORPORATION - DRILL LOG

Start_date: 29/08/02 End_date 30/08/02 Logged_by D. Daoud

AX02-016 Northing (UTM15 NAD83) 6206795 Easting (UTM15 NAD83) 314269 Elev(ASL) 1767 CoreSize - NQ

Length(m) 124.26 Local co-ord North Local Co-ord East Claim Contractor: Britton Bros

Re-logged_by/date

TESTS:	Depth	Type	Dip	Az	Comments
	0		-61	226	
	124.26	Acid test	-58.5	226	

Project: Axelgold

AX02-016

	c_geol				D_SAMP						
Depth A	rocktype	g_from	g_to	descript	S_FROM	S_TO	SAMPLE	AU_ppm	AG_ppm	[illegible]_ppm	MO_ppm
	Casing	0	3.05	?							
5					3.05	6.1	54771	?	?	?	?
					6.1	9.14	54772	0.2	0.31	16	2
10					9.14	12.19	54773	?	?	?	?
					12.19	15.24	54774	?	?	?	?
15											
	Porphyritic syenite			Altered and weathered. Light grey to rusty yellowish, altered (kspar) weathered (clay, « lm » and jarosite) partially vuggy. Porphyritic syenite. The rock is very broken and leached (« lacking py »). A few grains tetrahedrite assoc with v« k-spar vns » « 1-5% chl stringers 60.00-70.30°» « <1% k-spar stringers 60.00°» Blocky core (pieces <3cm) 30-60° Moderate clay ultim alt. Moderate k-spar penult alt. « Dissem f.gr sx »: « py 1.00%», « lm 0.50%», « ja 0.50%», 0.1% tetrahedrite	15.24	18.29	54776	?	?	?	?
20					18.29	21.34	54777	0.2	0.27	10	4
		3.05	35.32		21.34	24.38	54778	?	?	?	?
25					24.38	27.43	54779	?	?	?	?
					27.43	30.48	54781	?	?	?	?
30					30.48	33.53	54782	0.2	0.29	14	3

Scale 1:200 | 11/09/02 | 15:23:19

Project: Axelgold

AX02-016

Depth At	d_geol rocktype	g_from	g_to	descript	D_SAMP S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
	Porphyritic syenite	3.05	35.32	Altered and weathered. Light grey to rusty yellowish, altered (kspar) weathered (clay, « lm » and jarosite) partially vuggy. Porphyritic syenite. The rock is very broken and leached (« lacking py »). A few grains tetrahedrite assoc with v« k-spar vns » « 1-5% chl stringers 60.00-70.00°» « <1% k-spar stringers 60.00°» Blocky core (pieces <3cm) 30-60° Moderate clay ultim alt. Moderate k-spar penult alt. « Dissem f.gr sx »: « py 1.00%», « lm 0.50%», « ja 0.50%», 0.1% tetrahedrite	30.48	33.53	54782	0.2	0.29	14	3
					33.53	35.32	54783	?	?	?	?
35					35.32	36.58	54784	?	?	?	?
					36.58	39.62	54786	?	?	?	?
40					39.62	42.67	54787	0.2	0.58	99	2
				These megacrysts of k-spar comprise about 15-20% of total rock volume. « Five py stringers 30.00-50.00° 0.50-2.00mm thick » are noted throughout but get more abundant towards the end of the interval. « Finely dissem py » is present throughout. Limenite, « go » and « ja » as weathered product along « f1 » and in fracture zones. « A few grains of fuch » noted as dissem. and along fractures. Sharp contact with syenite ppy.	42.67	45.72	54788	?	?	?	?
45				st « 35.32- 43.20 <1% py stringers 30.00-40.00°», « <1% k-spar carb (ankerite) stringers 50.00°» Blocky core (<3cm pieces) 50-60° « 43.20- 50.70 <1% py stringers 40.00°», « 1-5% carb stringers 10.00-40.00°» « f1 40.00-60.00°» « 50.70- 59.90 5-15% "KSCB" = k-spar carb ? stringers 50.00°», « 1-5% py stringers 40.00-50.00°» Blocky core (pieces <3cm) 20-60°.							
	Megacrystic syenite			Strong k-spar « 35.32- 59.90 carb » (ankerite) « ser » ultim alt. Moderate k-spar penult alt. « Dissem f.gr sx »: « py 2.00%», « lm 0.20%», « ja 0.10%», « fuch 0.10%», « go 0.20%»	45.72	48.77	54789	?	?	?	?
50		35.32	59.9		48.77	51.82	54790	0.2	0.3	46	1
					51.82	54.86	54791	?	?	?	?
55				Finely dissem py » is noted throughout. Feldspar phenocrysts are partially weathered (around fracture zones) and removed (replaced by « lm »). These phenocrysts comprise about 80% of rock volume. Sub-euhedral, broken and partially alt. A few fractures are coated with « ja » and « lm » « Tr of sb » and/or tetrahedrite (f.gr) in « carb/k-spar vns ». The rock gets « fol » towards the end. « 1-5% py stringers 40.00-50.00°», « <1% carb-feldspar stringers 40.00°» Blocky core (<3cm pieces) 50-70° Moderate « ser » ultim alt. Strong k-spar penult alt. « f.gr sx in stringers »: « py 3.00%», 0.1% tetrahedrite, « sb 0.10%», « lm 0.10%», « ja 0.10%»	54.86	57.91	54792	?	?	?	?
					57.91	59.9	54793	?	?	?	?
60	Altered *porphyritic* syenite	59.9	63.3	recognizable (weathering and « fol ») but med to fine subangular fragments are noted, these fragments are mainly composed of feldspars. But a few large altered (whitish) coating these fractures and replacing practically the microbreccia) Where the rock is not weathered, small (0.5- 1.0mm across), altered (whitish) plagioclase phenocrysts are present and represent about 2-3% of core volume. « 5-15% pyrite stringers 40.00-60.00°», « <1% carb-feldspar stringers 40.00-50.00°» Blocky core (pieces <3cm) 60.00° Moderate clay ultim alt. Moderate k-spar penult alt. « F.gr sx in stringers »: « py 2.00%», « lm 3.00%», « fuch 0.10%», « go 0.50%»	59.9	63.4	54794	?	?	?	?
	Syenite intrusive microbrxx	63.3	70.55		63.4	67.06	54796	?	?	?	?

Scale 1:200 | 11/09/02 | 15:23:19

AX02-016

Depth At	d_geol rocktype	g_from	g_to	descript	D_SAMP s_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	C_PPM	MO_PPM
	Syenite intrusive microbrxx	63.3	70.55	recognizable (weathering and « fol ») but med to fine subangular fragments are noted, these fragments are mainly composed of feldspars. But a few large altered (whitish) coating these fractures and replacing practically the microbreccia) Where the rock is not weathered, small (0.5- 1.0mm across), altered (whitish) plagioclase phenocrysts are present and represent about 2-3% of core volume. « 5-15% pyrite stringers 40.00-60.00°», « <1% carb-feldspar stringers 40.00-50.00°» Blocky core (pieces <3cm) 60.00° Moderate clay ultim alt. Moderate k-spar penult alt. « F.gr sx in stringers »: « py 2.00%», « lm 3.00%», « fuch 0.10%», « go 0.50%»	63.4	67.06	54796	?	?	?	?
70					67.06	70.1	54797	?	?	?	?
					70.1	73.15	54798	?	?	?	?
75	Fault zone	70.55	80.25	The same rock type described previously, weathered, broken, altered syenite intrusive microbreccia with broken altered feldspars (phenocrysts?) and 1-2% small (0.5- 1mm Sharp contact with the country rock (« sedimentary bx »). « <1% carb-py stringers 60.00°» Blocky core (pieces <3cm) 50-60° Moderate clay ultim alt. Weak k-spar penult alt. « sx in f.gr stringers »: « py 1.00%», « lm 3.00%», « go 0.50%» « 80.24- 80.25 LCT » - the contact is following the foliation plane (in the sedimentary) breccia.	73.15	76.2	54799	?	?	?	?
					76.2	80.25	54800	0.2	0.29	57	4
80					80.25	82.3	54801	?	?	?	?
85	Sedimentary breccia	80.25	91.03	4cm long, of varied origin (siltstone, black mudstone. « carb », and « occasionally py »). Two generations of « carb veins and vnlets » are noted. are parallel to foliation crosscut by the second one. Both generations are at 40-50° and may carry pyrite. Late stage « carb and feldspar vns » are present near the contact with the intrusion. The amount of clasts decreases with depth and the rock unit becomes matrix supported breccia, and an increase of « carb vns » (1st generation). « <15 carb-py stringers 40.00-50.00°», « carb-feldspar stringers 20.00°» FLO (probably means « ? fol 40.00-50.00°») « F.gr sx in stringers »: « py 0.50%», « lm 0.50%»	82.3	85.39	54802	?	?	?	?
					85.39	88.38	54803	?	?	?	?
90	Ortho-plag porphyritic dyke	91.03	91.23	M.gr aphanitic to f.gr altered (k-spar or « carb ») orthoclase and plag porphyritic dyke (dykelet). orthoclase are 1-5mm long (laths) some are oriented parallel to « fol 40.00-50.00°» and the contact (40°). 1-2% plagioclase phenocrysts (whitish) alt are present (0.5- 1.0mm long). « Tr of finely dissem py » is noted. « <1% carb stringers 60.00°», « 1-5% k-feldspar stringers 50.00°» Trachytis texture 40° Moderate k-spar ultim alt. Moderate « carb » penult alt. « Dissem f.gr stringers »: « py 0.10%»	88.38	91.03	54804	?	?	?	?
					91.03	91.23	54806	?	?	?	?
95	Sedimentary breccia	91.23	25	Same as the one described before with more « py » as finely dissem in « carb »and black mudstone fragments, along « vnlets », and as fragments (small). From 97.54m to 106.25m the core is « sheared » and broken with « lm » coating (blocky), becomes (at around 100.58m) very deformed along « fol » even the « carb vns » are affected by deformation (microfolds) probably we are in a « fault » zone. In the last couple meters some serpentine is noted along the « fol » but deformed as well. One « calcite vn 1.00cm» with « py » and malachite is affected by a microfault parallel to the « fol » at 96.5m depth. « 91.23- 97.54 1-5% carb stringers 40.00-50.00°», « <1% carb-py stringers 40.00°» « f1 40.00-50.00°» « 97.54- 106.25 15-30% carb stringers 40.00-50.00°» « shear 40.00-50.00°» « 91.23- 106.25 Dissem f.gr sx ». « py 1.00%», « lm 0.10%», (written as ma but probably means) « mn 0.10%»	91.23	94.49	54807	?	?	?	?
					94.49	97.54	54808	?	?	?	?

AX02-016

Depth At	d_geol rocktype	g_from	g_to	descript	D_SAMP S_FROM	S_TO	SAMPLE	AU_PPM	AG_PPM	CU_PPM	MO_PPM
					94.49	97.54	54808	?	?	?	?
100	Sedimentary breccia	91.23	.25	Same as the one described before with more « py » as finely dissem in « carb »and black mudstone fragments, along « vnlets », and as fragments (small). From 97.54m to 106.25m the core is « sheared » and broken with « lm » coating (blocky), becomes (at around 100.58m) very deformed along « fol » even the « carb vns » are affected by deformation (microfolds) probably we are in a « fault » zone. In the last couple meters some serpentine is noted along the « fol » but deformed as well. One « calcite vn 1.00cm» with « py » and malachite is affected by a microfault parallel to the « fol » at 96.5m depth. « 91.23- 97.54 1-5% carb stringers 40.00-50.00°», « <1% carb-py stringers 40.00°» « f1 40.00-50.00°» « 97.54- 106.25 15-30% carb stringers 40.00-50.00°» « shear 40.00-50.00°» « 91.23- 106.25 Dissem f.gr sx »: « py 1.00%», « lm 0.10%», (written as ma but probably means) « mn 0.10%»	97.54	.58	54809	?	?	?	?
					.58	.63	54810	0.2	0.32	18	1
105					.63	.25	54811	?	?	?	?
	Serpentinite	.25	.73	Completely altered and deformed (microfolds) med grey, f.gr serpentinite or used to be ultramafic rock. Alteration products: ankerite (« qtz »/ serpentine). Trace of « cpy » and « one grain of sph » are found in « qtz vns » and « vnlets ». The rock turns into serpentine and ultramafic lithology. Suspected chromite grains finely dissem. « <1% carb stringers 60.00°» « 1-5% qtz-carb stringers 10.00-70.00°» (Option = FLO, probably meant) « fol 40.00°» Intense « qtz » « carb » alteration. « Dissem sx »: ("Cp" not in code, but probably) « cpy 0.10%», « sph 0.10%», ("Cr" = unknown, but probably) 0.1% chromite	.25	.63	54812	?	?	?	?
110					.63	.78	54814	?	?	?	?
					.78	.82	54815	0.2	0.33	10	1
115	Serpentinite	.73	.26	and f to m.gr dissem chromite throughout the interval. « 110.85- 124.26 large dolomite vn 15.00cm» « 109.73- 124.26 late stage py » coating some « f1 ». The drillhole ends in serpentinite at 124.26m. « 5% carb stringers 20.00-60.00°» « shear 20.00-70.00°» Moderate « carb » ultim alt. « Dissem sx »: « py 0.20%», « po 0.30%», « cpy 0.10%», 2% chromite.	.82	.87	54816	?	?	?	?
120					.87	.92	54817	?	?	?	?
	End of hole	.26	.26	?	.92	.26	54819	?	?	?	?
125											

Scale 1:200 | 11/09/02 | 15:23:20