

ARIS SUMMARY SHEET

District Geologist, Victoria

Off Confidential: 89.02.09

ASSESSMENT REPORT 17092

MINING DIVISION: Vancouver

PROPERTY: Northair  
 LOCATION: LAT 50 07 35 LONG 123 05 33  
 UTM 10 5552468 493387  
 NTS 092J03E

CLAIM(S): Northair 1-6, Rose  
 OPERATOR(S): Falconbridge  
 AUTHOR(S): Clemmer, S.G.; Hendrickson, G.A.  
 REPORT YEAR: 1988, 1136 Pages

COMMODITIES  
 SEARCHED FOR: Gold, Silver, Zinc, Lead, Copper

GEOLOGICAL  
 SUMMARY: The property is underlain by the Callaghan Creek pendant, a 3 by 12 kilometre belt of Lower Cretaceous Gambier Group volcanic/ sedimentary rocks intruded and surrounded by Upper Cretaceous Coast Plutonic Complex diorite and quartz monzonite. Tertiary to Recent Garibaldi Formation basalt flows outcrop along Callaghan Creek.

WORK  
 DONE: Geological, Geochemical, Geophysical  
 EMGR 40.4 km; VLF  
 Map(s) - 14; Scale(s) - 1:2000  
 GEOL 2500.0 ha  
 Map(s) - 11; Scale(s) - 1:5000, 1:2000  
 IPOL 40.4 km  
 Map(s) - 30; Scale(s) - 1:2000  
 LINE 26.3 km  
 MAGG 40.4 km  
 Map(s) - 27; Scale(s) - 1:2000  
 PETR 33 sample(s)  
 ROCK 642 sample(s) ; ME  
 Map(s) - 2; Scale(s) - 1:5000  
 SOIL 460 sample(s) ; CU, PB, ZN, AG  
 Map(s) - 12; Scale(s) - 1:2000

RELATED  
 REPORTS: 16527  
 MINFILE: 092J 012, 092J 019

LOG NO: 0219	RD.
ACTION:	
FILE NO:	

VOLUME 1 of IV

1987 GEOLOGICAL AND GEOCHEMICAL

ASSESSMENT REPORT

ON THE

NORTHAIR OPTION AND CALLAGHAN PROPERTY

Brandywine Falls - Vancouver Mining Division

NTS 92J/03

FILED

Lat. 50° 08'N. Long. 123° 06'W

Callaghan Property - Owned and operated by Falcon Bridge Ltd.

GEOLOGICAL BRANCH  
 Northair Claims - Optioned from Northair Mines Ltd. **MENT REPORT**

by

S.G. Clemmer, BSc., F.G.C.

**17,092**

*Part 1 of 7*  
 Vancouver B.C.

January, 1988

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## SUMMARY AND CONCLUSIONS

The Northair property was optioned in 1987. The objective of the 1987 program was to outline areas of geology that are favourable for the occurrence of Zn-Pb-Cu-Ag-Au volcanogenic massive sulphide deposits. This was accomplished through a program of geological mapping, whole rock geochemistry, and ground follow-up of airborne geophysical anomalies.

The property is underlain by volcanic and sedimentary rocks of the Lower Cretaceous Gambier Group which are intruded by Cretaceous to Tertiary intermediate plutons of the Coast Intrusive Complex. These older rocks are cut by and unconformably overlain by basaltic and felsic dykes and flows of the Tertiary to Quaternary Garibaldi Group.

The Gambier Group rocks can be divided into two 2500 metre thick stratigraphic units, a Lower Volcanic Unit and an Upper Volcanic Unit. The volcanic rocks in both units are calc-alkaline. The Lower Volcanic Unit is composed of equal proportions of epiclastic sediments and dacitic to andesitic pyroclastics. The sediments are predominantly wacke and greywacke with lesser interbedded siltstone and argillite. The volcanic component is made up of breccia, lapilli tuff, crystal tuff and tuff. The large volume of sedimentary material throughout the lower unit indicates that it formed in a distal volcanic environment. In contrast, the Upper Volcanic Unit is composed of andesitic to dacitic pyroclastics with only minor intercalated wacke, siltstone and argillite. The presence of angular volcanic breccia and lapilli tuff, especially in the lower half of the Upper Volcanic Unit and the small volume of sediments indicates that it formed in a more proximal volcanic environment.

The Northair Mine is a former gold producer and from 1976 to 1982 it produced 492,770 tonnes of ore containing 1.77% Zn, 1.22% Pb, 11.6 g/tonne Au and 63.0 g/tonne Ag. It is believed to be at least in part a stratiform volcanogenic deposit. A volcanic breccia and lapilli tuff horizon near the base of the Upper Volcanic Unit is host to the Northair Mine. The sulphide mineralization occurs as disseminations and layers in a siliceous carbonate horizon (Miller, 1979). This horizon has been faulted into four zones that form a relatively continuous, near vertical, northwesterly trending mineralized sheet that has been traced for 1200 metres along strike, at least 300 metres down dip, and is 1 to 7 metres wide. Drilling and mining has defined the zones along strike but they are still open at depth. The northern half of the mineralized horizon is wider and contains more lead-zinc sulphides that are locally massive. The best potential for massive sulphide mineralization appears to be at depth on the northern half of the horizon beneath the Discovery and C zones. These zones have been previously drill tested to an elevation of 825 metres which is 150 metres below the surface.

Airborne geophysics outlined several areas of weak anomalous conductivity. Eight small grids were placed over these areas. Subsequent geological mapping revealed that only one of the grids is underlain by volcanic breccia and lapilli tuff of the Upper Volcanic Unit. For this reason, the massive sulphide potential of seven of these areas is considered poor. The mapping also indicates that most of the weak conductors are caused by argillite, shear zones or faults.

Soil sampling did not reveal any significant new anomalies, nor was any important new mineralization located in 1987.



An extensive program of rock geochemistry (546 whole rock samples) revealed that the pyroclastic dacite, andesite, and basalt of the Upper Volcanic Unit, within 100 metres of the Northair mineralization, is characterized by depletion in sodium, calcium and strontium and enrichment in potassium, rubidium, manganese, barium, copper and zinc. Four other areas were outlined within the Upper Volcanic Unit that have a similar depletion and enrichment signature. These four areas have excellent massive sulphide potential.

## **INTRODUCTION**

### **Location, Access, and Physiography**

The Northair Option (50° 08'N, 123° 06'W, NTS 92J/03) and Callaghan Claims (50° 08'N, 123° 09'W) are located within the Coast Range Mountains of British Columbia approximately 10 kilometres west of the Municipality of Whistler, 42 kilometres north of Squamish and 90 kilometres north of Vancouver (figures 1 and 2).

The British Columbia Railway, Highway 99 and a 12,500 kV B.C. Hydro line are located just 5 kilometres south of the property. Access to the area is via a good quality gravel road that connects to Highway 99. Most of the area is accessible via 4X4 dirt roads except for the alpine areas in the eastern-most part of the property.

Topography on the property is variable and often steep. Elevations vary from 700m above sea level along Callaghan Creek in the west, to 1700m in the eastern third of the property.

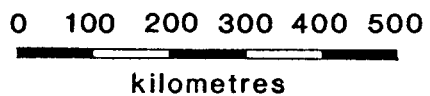
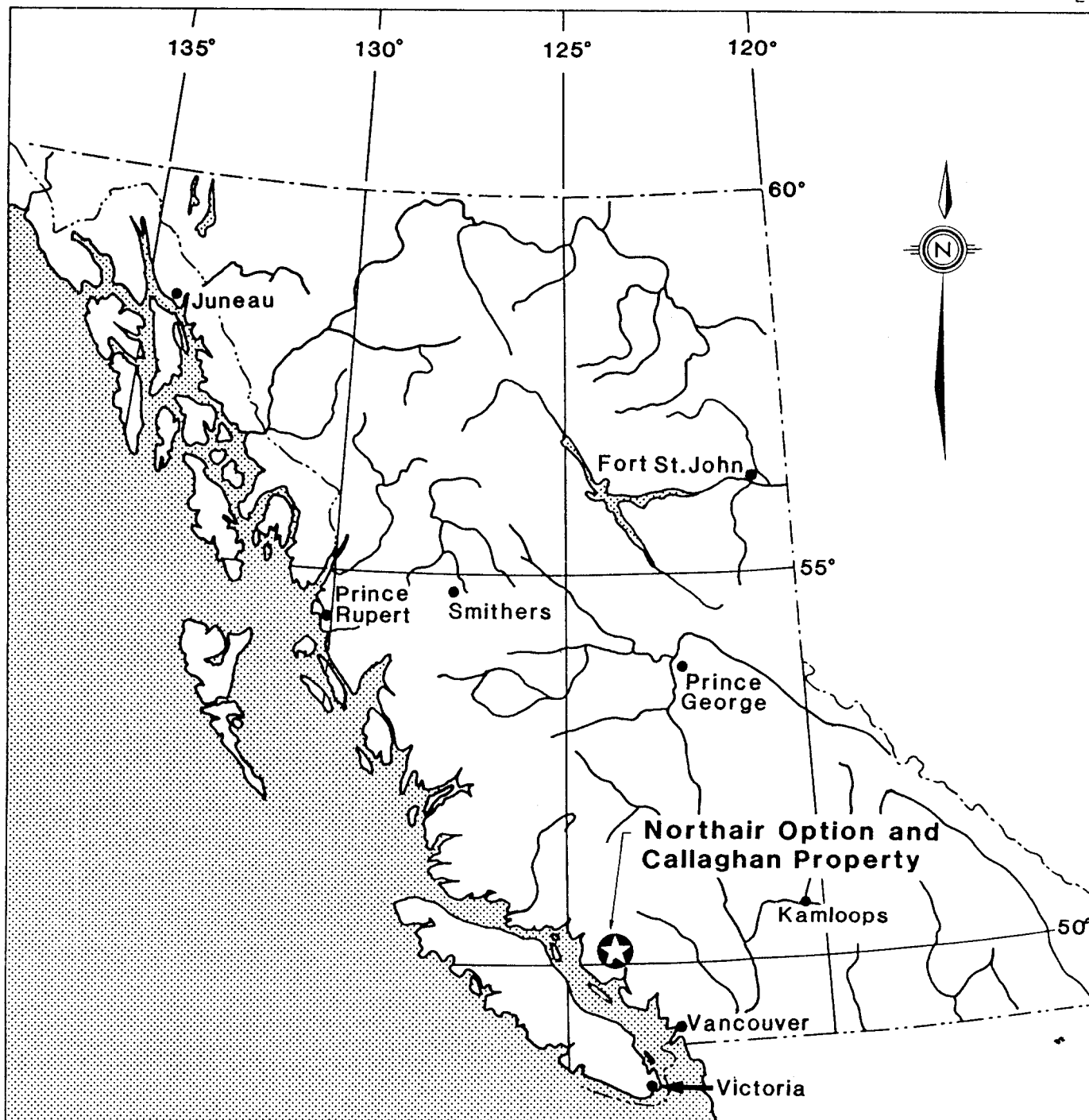
### **Climate**

The Northair Mine area lies within a zone of heavy precipitation, and annually receives 250cm of which 65% falls as snow. Normal temperatures rarely dip below -17°C in winter and rarely exceed 27°C in summer. Snow can be expected between October 1 and July 1.

### **Claims**

The Northair Option and Callaghan claims are contiguous.

The Northair Option consists of the following claims containing 118 units (see figure 3).



**Falconbridge Limited**  
NORTHAIR OPTION AND  
CALLAGHAN PROPERTY  
**LOCATION MAP**  
Vancouver Mining Division  
British Columbia  
NTS: 92 J/03

Figure 1

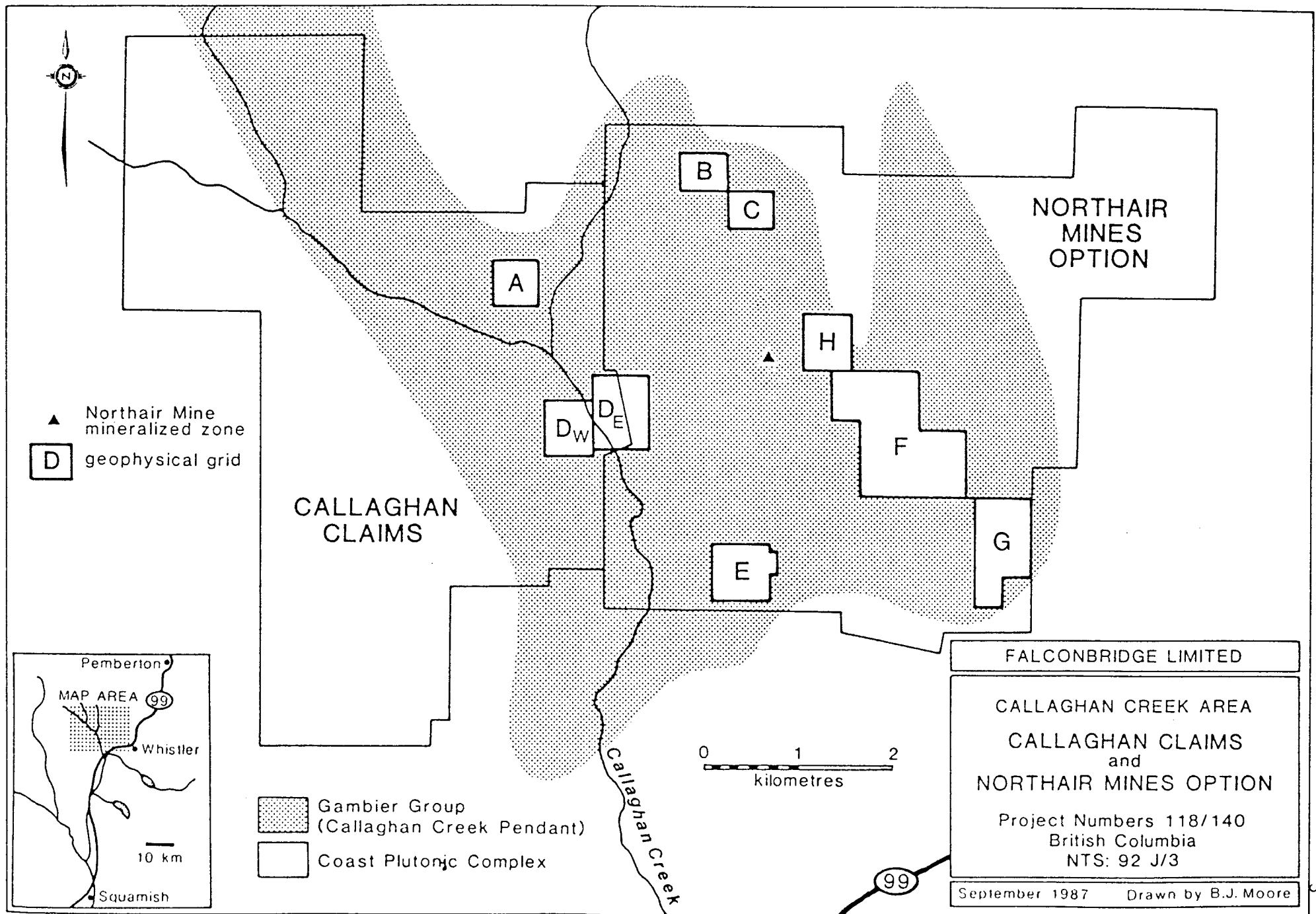


Figure 2

CLAIM NAME	UNITS	RECORD NUMBER	LOCATION DATE	RECORD DATE	EXPIRY DATE
Northair 1	20	747	Jul 15, '80	Aug 11, '80	Aug 11, '92
Northair 2	15	748	Jul 16, '80	Aug 11, '80	Aug 11, '92
Northair 3	15	749	Jul 15, '80	Aug 11, '80	Aug 11, '92
Northair 4	15	750	Jul 16, '80	Aug 11, '80	Aug 11, '92
Northair 5	15	751	Jul 15, '80	Aug 11, '80	Aug 11, '92
Northair 6	16	752	Jul 17, '80	Aug 11, '80	Aug 11, '92
Northair 7	6	2135	May 8, '87	May 12, '87	May 12, '88
Northair 8	6	2136	May 8, '87	May 12, '87	May 12, '88
Rose	10	2132	Apr 30, '87	May 12, '87	May 12, '90

In addition, Northair claims 1,2,3 and 4 are partially covered by the 390 acre Production Lease P-1. Expiry dates are subject to approval by the Gold Commissioner.

The Callaghan property consists of the following claims that contain 92 units (see figure 3).

CLAIM NAME	UNITS	RECORD NUMBER	LOCATION DATE	RECORD DATE	EXPIRY DATE
Callaghan 1	20	1880	Nov 16, '85	Nov 20, '85	Nov 20, '88
Callaghan 2	6	1881	Nov 14, '85	Nov 20, '85	Nov 20, '88
Edna	1	1882	Nov 14, '85	Nov 20, '85	Nov 20, '90
Edna	2	1883	Nov 14, '85	Nov 20, '85	Nov 20, '90
Edna	3	1884	Nov 14, '85	Nov 20, '85	Nov 20, '88
Edna	4	1885	Nov 14, '85	Nov 20, '85	Nov 20, '91
Edna	5	1886	Nov 14, '85	Nov 20, '85	Nov 20, '88
Alex	1	1887	Nov 14, '85	Nov 20, '85	Nov 20, '91
Alex	2	1888	Nov 14, '85	Nov 20, '85	Nov 20, '91

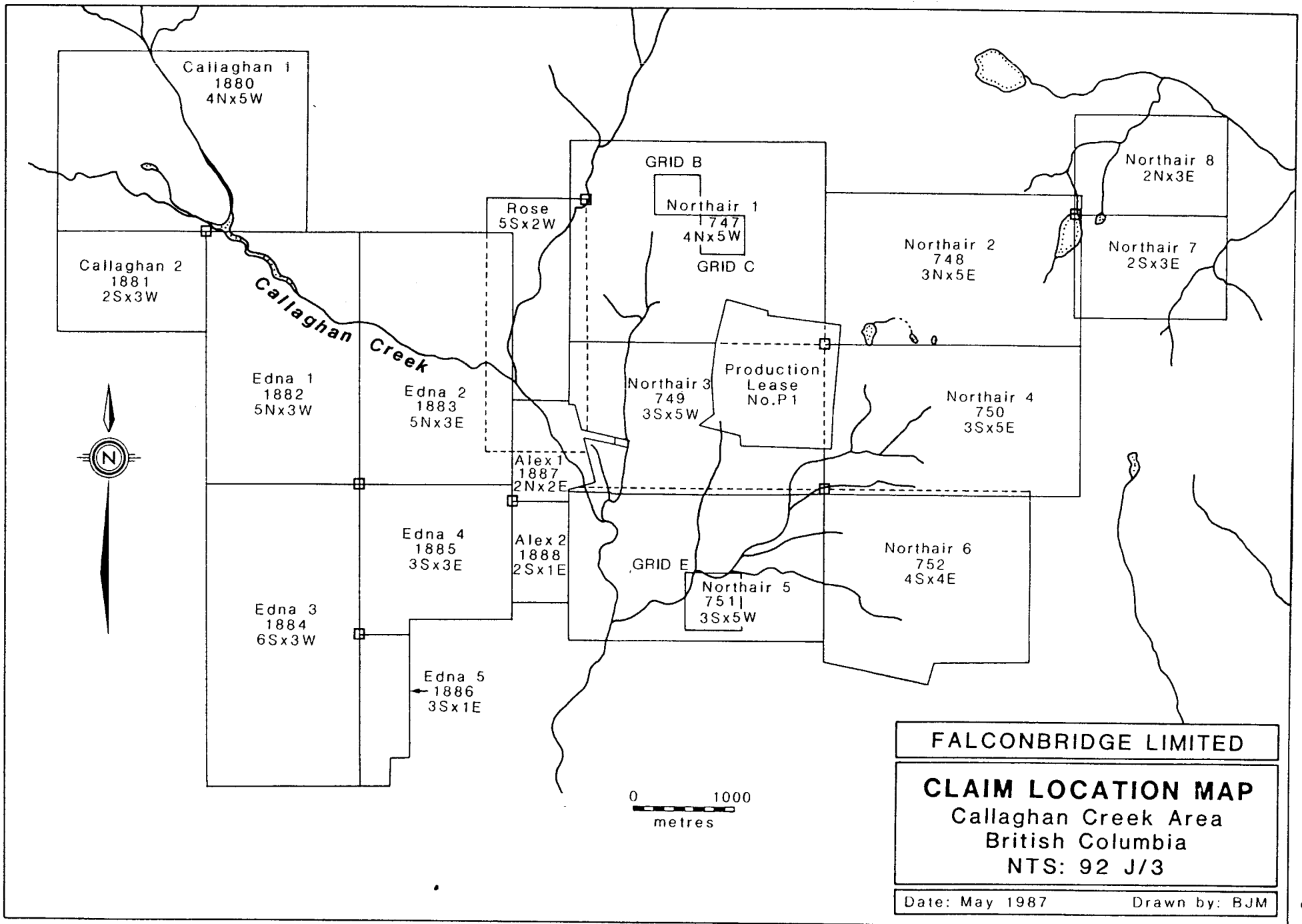


Figure 3

## Property History

Interest in the Callaghan Creek pendant dates back to the early 1900's. The earliest recorded work is noted in the 1924 B.C. Dept. of Mines Annual Report. Two occurrences are mentioned; the Blue Jack and the Astra base metal occurrences (presently known as the Silver Tunnel and Tedi Pit by their current owners), which occur 7 and 5 km southwest of the Northair Mine respectively.

In 1972 Northair Mines Ltd. optioned claims near the eastern margin of the Callaghan Creek pendant and subsequently defined three zones containing polymetallic sulphide ore. The mineralization varies from massive to disseminated to vein type (Dickson et al, 1975). Between 1976 and 1982 Northair Mines Ltd. mined and milled 492,770 tons of ore grading 1.77% zinc, 1.22% lead, 11.6 g/tonne gold and 63.0 g/tonne silver.

The Northair Property was optioned in 1987 from Northair Mines Limited by Falconbridge Limited.

The Callaghan property was staked by Kidd Creek Mines Ltd., a wholly owned subsidiary of Falconbridge Limited in 1985. In 1986 the following work was carried out in the period August 18 to Oct. 24, 1986.

- geological mapping at a scale of 1:10,000 west of Callaghan Creek.
- rock geochemistry, 98 whole rock samples and 33 geochemical samples analysed for Cu, Pb, Zn, Ag, Ba, and Au.

## 1987 Work Programme

Work completed from March 29, 1987 to October 14, 1987 consisted of,

- 1) Airborne geophysics over the entire Northair option area and part of the Callaghan property. The results are covered in a separate report. (McConnell 1987)
- 2) Line-cutting of 51.4 km on 9 separate grids to follow-up airborne geophysical anomalies. See figure 2 for their location. Line spacing was 100 metres and stations were established every 20 metres.

	<u>Callaghan Property</u>	<u>Northair Option</u>
Grid 'A'	4.1km	
Grid 'B'		4.1km
Grid 'C'		4.1km
Grid 'D'(east)	3.6km	1.3km
Grid 'D'(west)	4.1km	
Grid 'E'		5.1km
Grid 'F'		15.2km
Grid 'G'		5.3km
Grid 'H'		4.5km

Grid 'H' was cut to evaluate a showing, and not to follow-up any of the airborn targets.

- 3) Geophysics consisting of IP, MAG and VLF over 51.4 km of cut line on nine grids listed above. Results of these surveys are covered in a separate report (Hendrickson, 1987).



- 4) Geological mapping of the entire Northair Option area and parts of the Callaghan Property east of Callaghan Creek was carried out at a scale of 1:5000.
- 5) Geological mapping of the nine cut line grids listed in 2 above at a scale of 1:2000.
- 6) Geochemical rock chip sampling of 740 samples of which 194 were geochemically analysed for Cu, Pb, Zn, Ag, Au, and Ba, and 546 were analysed for 17 whole rock elements plus Cu and Zn.
- 7) Soil sampling of the grids under 2 above in areas not covered by previous geochemical surveys completed by Northair Mines Ltd. A total of 780 samples were collected and analysed for Cu, Pb, Zn, Ag, and 50 samples for Ba.
- 8) Over 15,000 feet (4,572m) of drill core was re-logged. This includes all of the holes drilled by Northair in 1980, 1981 and 1986; a total of twenty-five holes.

## REGIONAL GEOLOGY

The Northair Mine area is located in the Coast Range of British Columbia within a Lower Cretaceous Gambier Group volcanic and sedimentary roof pendant. Miller et al (1978) describe the Callaghan Creek Pendant as: "one of many northwesterly trending volcanic and volcanic sedimentary pendants within the southern part of the Coast Range Plutonic Complex. The pendant rocks are variably metamorphosed and commonly are characterized by a strong northwesterly trending foliation. The Coast Range Plutonic Complex in the area consists of many plutons that range in composition from diorite to quartz monzonite. A western zone of intrusions is predominantly Cretaceous whereas an eastern zone is Early Tertiary."

Contacts between roof pendants and the surrounding plutonic rocks are often sharp and commonly are narrow shear zones, whose orientation is subparallel to the main foliation of the roof pendant. Several Tertiary to Quaternary volcanic centres form a north by northwesterly trending belt containing accumulations of flows and pyroclastics from basalt to rhyolite in composition.

## **PROPERTY GEOLOGY**

### **Introduction**

Mapping of the entire Northair Option and part of the Callaghan property east of Callaghan Creek was carried out at a scale 1:5000. Additional detailed mapping of 9 nine cut line grids was completed at a scale of 1:2000.

### **Lithology and Stratigraphy**

Rocks on the Northair Option and Callaghan property can be divided into three distinct stratigraphic groups. The oldest rocks are a 5000 metre thick sequence of volcanic and sedimentary rocks that are correlated with the Lower Cretaceous Gambier Group. These rocks are intruded by the Cretaceous to Tertiary plutonic rocks of the Coast Plutonic Complex. The youngest rocks exposed are the Tertiary to Quaternary basalt flows, basalt dykes and felsic dykes of the Garibaldi Group.

The geology as mapped at 1:5000 is shown on figures 4 and 5, and the Table of Formations is given in Table 1.

TABLE 1 : TABLE OF FORMATIONS

## TERTIARY TO QUATERNARY

## GARIBALDI GROUP

- 5a) Valley Basalt
- 5b) Basalt Dyke
- 5c) Felsic Dyke

## CRETACEOUS TO TERTIARY

## COAST RANGE INTRUSIVE COMPLEX

- 4) Diorite

## LOWER CRETACEOUS

## GAMBIER GROUP

## Hybrid Contact Rocks

- 3a) Epidotized Hybrid Rock
- 3b) Silicified Tuff
- 3c) Chlorite Schist
- 3d) Biotite Hornfels and Schist

## Upper Volcanic Unit

- 2a) Feldspar Crystal Breccia
- 2b) Feldspar Crystal Lapilli Tuff
- 2c) Feldspar Crystal Tuff
- 2d) Fine Grained Feldspar Crystal Tuff
- 2e) Ash Tuff
- 2f) Siltstone
- 2g) Argillite
- 2h) Siliceous Siltstone
- 2i) Greywacke

## Lower Volcanic Unit

- 1a) Porphyritic Volcanic Breccia
- 1b) Feldspar Crystal Lapilli Tuff
- 1c) Massive Feldspar Porphyritic Volcanic
- 1d) Tuff
- 1e) Volcanic Wacke
- 1f) Grey Wacke
- 1g) Siltstone
- 1h) Argillite
- 1i) Siliceous Siltstone

### **Garibaldi Group (Unit 5)**

Basalt flows (unit 5a) of the Garibaldi group are exposed in and along Callaghan and Madeley Creeks and the adjacent low lying areas.

Basalt dykes (unit 5b) are common throughout the map area, vary in width from < 1m to over 5m, averaging <2m, and appear to follow faults and other zones of weakness. Most of the dykes observed trend northerly parallel to the regional foliation but a minority trend easterly.

Felsic dykes (unit 5c) are light pinkish grey weathering aphanitic rocks that locally contain quartz eyes. They have similar attitudes as the basalt dykes and also follow zones of weakness.

### **Coast Plutonic Complex (Unit 4)**

Plutonic rocks that range in composition from diorite to quartz monzonite surround much of the Northair Option area and Callaghan property. The contact between the Gambier Group volcanics and sediments is usually marked by a 50 to 100m wide zone of hybridization and alteration, and less commonly it is a sharp faulted or sheared contact.

### **Hybrid Contact Rocks (Unit 3)**

Adjacent to the dioritic pluton the sediments and volcanics of the Gambier Group are hybridized and altered. The alteration often takes the form of a progressively more intense epidotization, and shearing, as the pluton contact is approached. Less commonly, the tuffaceous rocks and adjacent to the pluton are metamorphosed to a biotite hornfels or chlorite schist.

Locally, the epidotized hybrid rocks contain lenses of light grey to white silicified tuff that are up to 20m thick and over 300 m long.

### **Gambier Group**

Volcanic and sedimentary rocks of the Gambier Group that have a stratigraphic thickness in excess of 5,000 metres are exposed on the property. These rocks can be divided into two stratigraphic units; a Lower Volcanic Unit, and an Upper Volcanic Unit.

Some of the major differences between the lower and upper unit are contrasted below,

<b>Lower Unit</b>	<b>Upper Unit</b>
1) More than 50% sediments.	1) Less than 5% sediments
2) Well sorted grey wackes common.	2) Grey wackes rare.
3) Deposited over long period of time.	3) Rapid deposition.
4) Single fragment type in volcanic breccia and lapilli tuff.	4) Secondary fragments types common in breccia and lapilli tuff.
5) Fragment size variation low.	5) Large and erratic variation in fragment size.

The southern two thirds of the contact between the two units appears to be a fault contact. On surface it is marked by a lineament and Garibaldi felsic dyke rocks outcrop along it. The presence of faulting at the contact does not rule out the possibility that the two units are conformable. The location of the contact is well established in the southern two thirds of the property but north of Discovery Creek the exact location of the contact is uncertain.

### **Lower Volcanic Unit (Unit 1)**

The Lower Volcanic unit is about 2500m thick and is composed of intercalated wacke, greywacke, siltstone, argillite, and andesitic to dacitic pyroclastic material. The sedimentary rocks comprise at least half of this unit and occur throughout it. Two thirds of the sediments are wacke and greywacke. The volcanic component is made up of breccia, lapilli tuff, massive feldspar crystal tuff and tuff. The large volume of sedimentary material and the relatively thin (<100m), and areally extensive nature of the pyroclastic dacites and andesites suggest that the unit was deposited in a distal volcanic environment.

A typical cycle of deposition within the Lower Volcanic Unit begins with a period of quiescence and the accumulation of argillite. This is followed by a volcanic eruption and the deposition of andesitic to dacitic tuff, lapilli tuff and breccia. The initial pyroclastic material disrupts the underlying argillite and the first 10 to 20 metres of the pyroclastic rock is argillaceous. In a single cycle over 100 metres of pyroclastic material may accumulate. Next, volcanic wackes are deposited and these wackes become better sorted and grade up into grey wacke. The grey wacke grades up into siltstone and argillite. The sediments can reach thicknesses of 500 metres or more. Thin (<10

metres) pyroclastic layers of tuff and lapilli tuff are also deposited during the period of wacke deposition. The cycle then repeats itself. There are at least three major cycles.

The Porphyritic Volcanic Breccia of unit 1a is grey to dark grey, with 25-70%, <1-15cm (locally 50cm) fragments of coarse grained feldspar porphyritic andesite and dacite set in a fine grained matrix with 5 - 20%, <1-2mm plagioclase crystals. The fragments are essentially all of the same type and are angular to sub-angular. In drill core individual layers of this unit vary from 3 to 30 metres in thickness. Feldspar Crystal Lapilli Tuff of unit 1b is similar to unit 1a except that the fragment size on average is lapilli.

The Massive Feldspar Porphyritic Volcanic of unit 1c is a massive andesitic to dacitic crystal tuff with 10 to 30% plagioclase crystals and 0 to 10% quartz eyes set in a fine grained matrix.

The Volcanic Wacke of unit 1e is a light green to green, massive to locally banded, fine to medium grained rock that contains 30 to 50%, 0.1 to 0.5mm equant plagioclase grains, 10 to 20%, 0.1 to 0.3mm quartz grains in an extremely fine grained groundmass of plagioclase-sericite-chlorite-epidote-calcite. The rock is very poorly sorted. Locally the wacke contains up to 5 to 30% magnetite that occurs as 1 to over 10mm bands which often show sedimentary features such as cross-bedding and soft sediment deformation.

The Grey Wacke of unit 1f is lighter coloured, better sorted and contains more quartz than the volcanic wacke. The greywacke commonly displays graded bedding, cross bedding, and at one locality pelecypod shells were observed. The greywacke unit is particularly abundant towards the east central area of Lower Volcanic Unit where it appears to form a clastic wedge that may represent a paleo-channel.



## Upper Volcanic Unit

The Upper Volcanic unit is at least 2500m thick and is composed of andesitic to dacitic pyroclastic material with less than 5% interbedded sediments. The lower 1000m of the unit is made up of volcanic breccia, feldspar crystal lapilli tuff, feldspar crystal tuff, tuff and no sediments. The upper 1500m is composed of feldspar crystal tuff, tuff, lesser lapilli tuff and at least two argillite-siltstone horizons. In addition to becoming finer up section, unit 2 also becomes finer towards the south. The absence of sediments, apparent rapid deposition, and the angular volcanic breccias, and lapilli tuffs, which occur in the lower 1000m of unit 2 indicate that, at least, the lower half of Upper Volcanic Unit was deposited in a proximal volcanic environment.

The Feldspar Crystal Breccia of unit 2a contains 10 to 30 percent, angular to sub-angular fragments that average 5 to 15cm in size. Locally, occasional fragments may be up to 80 cm in diameter. The matrix is composed of feldspar crystal tuff or a fine grained, chloritic, tuff. Most (90%) of the fragments are of medium to coarse grained feldspar porphyritic andesite, dacite and rarely rhyolite. The remainder of the fragments are of fine grained tuff, wacke and rarely argillite. These secondary fragments are more common lower in the unit. The Feldspar Crystal Lapilli Tuff of unit 2b is similar to unit 2a except that the average fragment size is smaller.

The Feldspar Crystal Tuff of unit 2c and 2d contains 10 to 30% plagioclase crystals and 0 to 10% augite crystals which are now altered to hornblende. If the plagioclase crystals are larger than 2mm then it is described as coarse grained and if most are less than one millimetre

then it is termed fine grained (unit 2d). Feldspar crystal tuff forms much of the upper half of the Upper Volcanic Unit.

The Ash Tuff of Unit 2e contains a wide variety of fine grained tuffaceous rocks that occur throughout the Upper Volcanic Unit.

### **Structure**

At present, there is no information available to indicate the nature and extent of folding at Northair. The data currently known indicates that the Gambier volcanics and sediments form a near vertical north-south striking, homoclinal sequence with tops to the east. Bedding at Northair strikes from  $160^{\circ}$  to  $200^{\circ}$  with both east and west dips that vary from  $45^{\circ}$  to vertical. No minor fold structures have been observed.

A pervasive cleavage trends from  $160^{\circ}$  to  $180^{\circ}$  and dips steeply both to the east and west. The cleavage is better developed in the Upper Volcanic Unit as this unit is more chloritic than the Lower Volcanic Unit. Adjacent to strong lineaments and/or faults other cleavage orientations do occur. The cleavage is locally weakly folded or warped and at one locality minor chevron folding was observed.

Numerous faults were observed in drill core and strong lineaments indicate faulting is widespread at Northair. It is however difficult to determine if there are any substantial offsets. If one takes the ore horizon as an example, it is cut into at least four segments by faults none of which offsets it by more than 200 metres.

## Geophysical Grids

A total of nine grids were cut to follow-up the airborne geophysics, and in one case, to evaluate the 'J' showing area. The grids were mapped at a scale of 1:2000 and are shown in figures 6 to 14.

The airborne geophysics is covered in the 1987 report by McConnell and the ground geophysics in the 1987 report by Grant Hendrikson.

Except for the western half of grid 'H' and the eastern half of grid 'E' none of the grids are underlain by volcanic breccia or lapilli tuff of the Upper Volcanic Unit. For this reason their massive sulphide potential is considered poor. Most of the conductivity anomalies detected on these grids are caused by graphitic and pyritic argillite, pyritic shear zones, and faults.

The western half of grid 'H' is underlain by lapilli tuff and crystal tuff of the Upper Volcanic Unit. Two northerly trending VLF anomalies cut across the western half of grid 'H' for 500 metres (see figure 14). The eastern most, and stronger, is associated with a bleached, pyritic and sheared feldspar crystal lapilli tuff and tuff. The rock is not geochemically anomalous. The weaker western anomaly is cut in drill hole S-11-80 and is caused by a 7 metre wide fault zone.

The eastern half of grid 'E' is underlain by breccia and lapilli tuff of the Upper Volcanic Unit. The VLF anomalies appear to be related to faulting and shearing at and 100 metres east of the contact between units 1 and 2. Two areas of low resistivity and two areas of high chargeability are located over the Upper Volcanic Unit (see figure 11). They are not coincident. Their cause is unknown. It is recommended that when the altered rocks of Area I to the northeast are followed-up, that the grid be extended south to include the eastern half of grid 'E'.

## Mineralization

Known mineralization on the Northair property is confined to the Northair Mine itself and several other minor showings that occur at or near the altered contact with the diorite pluton.

## Northair Mine

The mine was in production from 1976 until June 1982. Production and reserves remaining at the end of that period are as follows (Taylor 1983).

	tonnes	Au g/tonne	Ag g/tonne	Pb %	Zn %
Mined	492,770	11.6	63.0	1.22	1.77
1983 Reserves	47,145	8.9	24.7	0.37	1.16
Deposit total	539,915	11.3	59.7	1.14	1.72

The Northair Mine is hosted by a pyroclastic breccia and lapilli tuff horizon near the bottom of the Upper Volcanic Unit. The ore horizon has been faulted into four zones, which form a mineralized sheet that has been defined for 1200 metres along strike, at least 300 meters down a near vertical to steep westerly dip, and is 1 to 7 metres wide. The four zones from north to south are the Discovery Zone, the C zone, the Warman Zone and the Manifold Zone(see figure 4). The mineralized horizon is a siliceous carbonate layer that contains disseminations and discontinuous layers of sulphide (Miller, 1979). In 1976 reserves and metal contents of three of the zones were listed as follows (Manifold 1976).

Zone	Tonnes	Width (m)	Au g/tonne	Ag g/tonne	Cu %	Pb %	Zn %
Manifold	72,300	1.8	9.6	496.0	0.07	0.28	0.57
Warman	189,000	2.5	23.3	29.1	0.24	1.45	2.39
Discovery	110,500	5.3	3.4	40.5	0.55	5.43	6.58

Metal contents of the various zones are as follows (Manifold 1976)

Zone	Au g/tonne	Ag g/tonne	Cu %	Pb %	Zn %
Manifold -south-east ore body	10.3	1033.0	0.07	0.28	0.57
Manifold -north-west ore body	15.1	425.1	0.07		
Manifold -north-west end of north-west ore body	12.0	205.0			
Warman -3500 (1067m) level	23.3	29.1	0.24	1.45	2.39
Warman -3500 (1067m) level north-west ore body (from raise and drift)	18.9	45.6	0.68	4.98	5.69
Warman -3250 (991m) level	29.1	24.0		1.10	5.50
Discovery-(diamond drilling)	3.4	40.5	0.55	5.43	6.58

This information indicates that the mineralized horizon is silver rich and base metal poor to the southeast in the Manifold zone. As one moves northwest the silver content decreases and the copper, lead and zinc content increases. There is also some indication that the lead content may decrease down dip in the Warman zone. Sulphide content is

lowest in the Manifold Zone and areas of massive banded sphalerite-galena are reported in the Discovery Zone (Miller, 1979). The average width of the horizon is 1.8 metres at the Manifold Zone, 2.5 metres in the Warman Zone, and 5.3 metres in the Discovery Zone (Manifold 1976).

The Manifold zone is over 300 metres long. It has been mined from the surface at 3800 feet (1158m) above sea level down to the 3450 foot (1052m) level. Drilling indicates that it does not continue to the south but it appears to be open at depth.

The Warman zone is about 400 metres long. It was mined from surface (3650 feet (1113m) above sea level) down to the 2800 foot level (853m). Thirty-six drill holes have intersected the zone below the 2800 foot level and indicate that it continues to the 2300 foot level (701m).

The C zone is located in the area between the Discovery and the Warman zones and was not mined as Northair did not outline any significant gold bearing zones. The zone has been traced along strike for 300 metres and down dip for 200 metres.

A total of 20 holes were drilled on the C zone. Most of the holes were drilled above 3200 foot level (975m) and indicate the zone above this elevation is less than two metres wide and weakly mineralized. The only three holes drilled below the 3200 foot level returned the following results.

Hole	Length (m)	Au (g/tonne)	Ag (g/tonne)	Pb (%)	Zn (%)	Elevation (feet)
S-35-77	2.6	tr.	17.8	1.85	2.98	2824 (861m)
S-38-77	4.6	tr.	tr.	0.87	1.33	3080 (939m)
S-90-77	3.1	0.34	6.9	na	na	3172 (967m)

na - not assayed

The Discovery zone has been mined from surface to the 3200 foot level (975m) and drill tested to an elevation of 2770 feet (844m). The zone ends abruptly to the northwest where it appears to be faulted off. Drilling completed in 1977 and 1979 on the Discovery zone over an area 300 feet (90m) along strike and 500 feet (150m) down dip returned the following results.

Hole	Length (m)	Au (g/tonne)	Ag (g/tonne)	Pb (%)	Zn (%)	Elevation (feet)
S-36-77	1.5	tr.	tr.	1.80	1.45	2776 (846m)
S-37-77	1.7	14.70	51.4	0.84	3.20	3260 (993m)
S-39-77	2.1	1.37	17.1	0.44	1.32	3236 (986m)
S-41-77	2.7	0.69	36.7	2.65	9.61	3264 (995m)
S-44-77	2.9	1.03	72.0	9.26	11.74	3224 (983m)
S-46-77	1.5	0.34	11.3	1.76	4.23	3260 (994m)
S-47-77	3.1	1.03	35.0	4.63	6.44	3176 (968m)
S-50-77	2.4	0.34	10.3	1.36	3.91	3106 (947m)
S-51-77	6.4	tr.	6.5	0.59	1.39	3164 (964m)
S-52-77	5.8	1.71	15.4	0.86	1.96	3292 (1003m)
S-53-77	1.8	0.34	51.4	4.57	8.30	3248 (990m)
S-54-77	1.4	tr.	3.4	0.48	0.92	3208 (978m)
S-55-77	2.0	tr.	13.7	2.15	2.28	3280 (1000m)
S-38-79	1.7	0.34	0.3	0.40	0.60	2993 (912m)
S-39-79	4.3	tr.	tr.	na	na	2770 (844m)
S-40-79	1.4	5.14	5.5	1.61	3.00	2994 (913m)
S-41-79	2.7	1.03	1.0	na	na	3020 (920m)
S-44-79	1.2	4.11	4.5	na	na	3021 (921m)
S-45-79	3.1	6.51	2.1	0.22	1.19	3020 (920m)
S-46-79	1.2	3.09	2.1	0.20	1.03	3128 (953m)
S-47-79	2.3	tr.	15.4	0.15	0.31	3084 (940m)
S-48-79	3.4	tr.	3.4	0.15	0.26	2872 (875m)
S-49-79	2.4	0.69	1.0	0.10	0.31	2940 (896m)
S-50-79	2.1	tr.	3.4	0.15	0.82	2912 (888m)
S-58-79	0.9	tr.	tr.	0.92	1.39	3076 (938m)
S-59-79	3.1	tr.	tr.	1.16	1.59	3152 (961m)
S-60-79	3.7	tr.	tr.	na	na	2934 (894m)

na - not assayed

The drilling on the Discovery Zone indicates that the lead and zinc content decreases with depth. The lead and zinc values in the C zone drilling show a relative increase with depth. This may indicate that a zone of higher lead and zinc values plunges to the south along the horizon; starting in the Discovery zone at shallow depth and extending toward the C zone at depth.

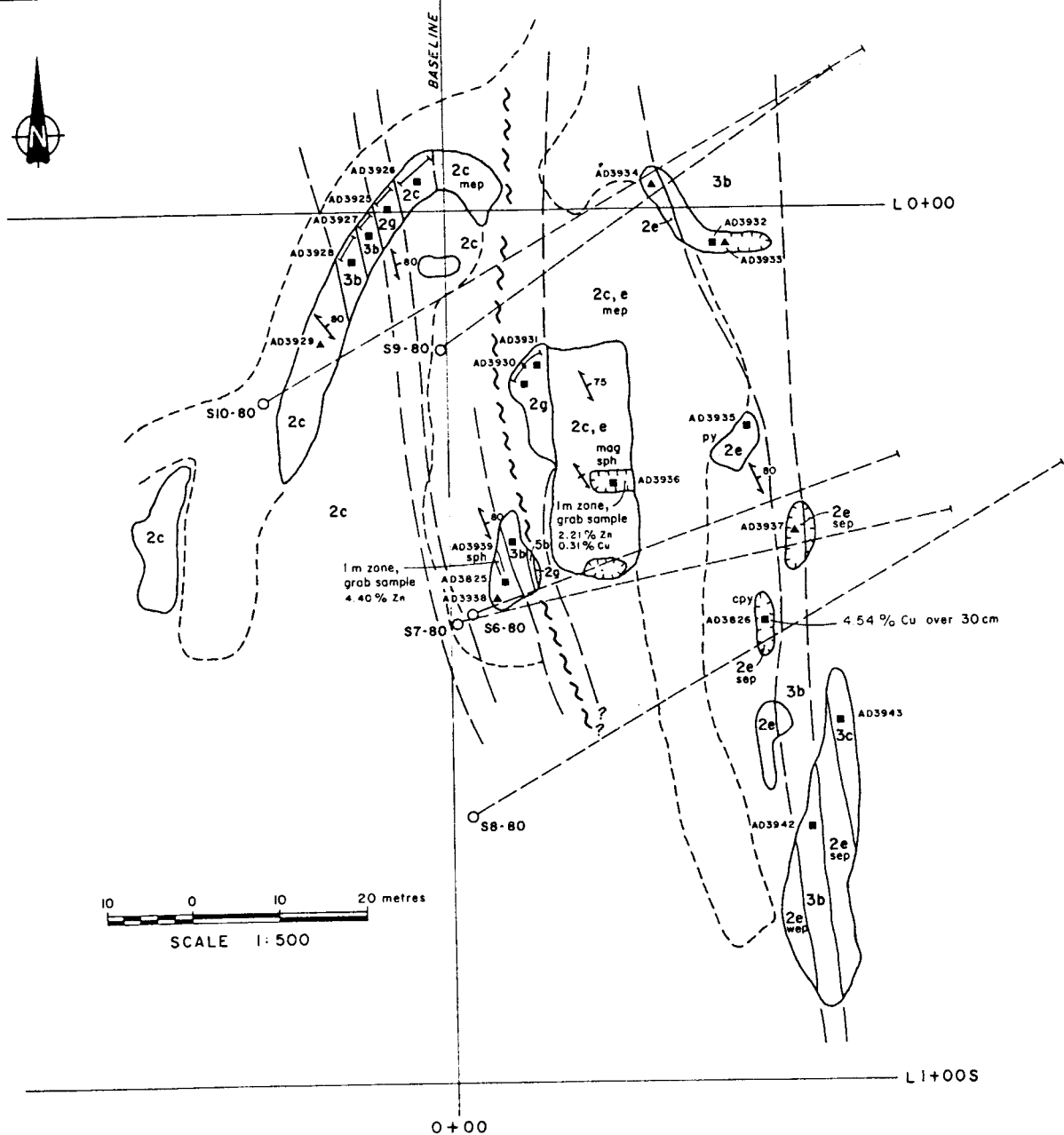
### **'J' Showing**

The 'J' showing is located east of the Warman zone and stratigraphically above the mineralized mine horizon. It is underlain by feldspar crystal tuff, tuff and minor argillite of the Upper Volcanic Unit. The showing area lies within 100 metres of the diorite pluton and the rocks have been epidotized and locally strongly silicified. The geology of the showing is shown in figure 15.

Three minor occurrences of mineralization make up the 'J' showing. The first of which contains 10% sphalerite over a one metre width in a chloritic feldspar crystal tuff. The second is a one metre zone of epidotized tuff that contains 5% sphalerite and 10% magnetite. The third is a 30cm wide layer in a strongly epidotized tuff that contains 10% chalcopyrite. None of the zones extend for more than three metres along strike. The area was drilled by Northair Mines Ltd. in 1980 when seven drill holes were completed, none of which intersected any significant mineralization.

All mineralization is interpreted as being related to the intrusion of the diorite and subsequent alteration of the adjacent volcanics.





### LEGEND

- 5b Basalt Dyke
- 3b Silicified Tuff
- 3c Chlorite Schist
- 2c Feldspar Crystal Tuff
- 2e Ash Tuff
- 2g Argillite

- cpy chalcopyrite
- sph sphalerite
- mag magnetite
- py pyrite
- wep weak epidotization
- mep moderate epidotization
- sep strong epidotization

- Geochemical Rock Sample
- ▲ Whole Rock Sample
- Chip Sample
- ~ Fault
- - - Outline of Cat Trenching
- Contact
- ⊖ Blasted Trench
- ↙ 80° Cleavage
- Drill Hole

FALCONBRIDGE LTD.

'J' SHOWING  
NORTHAIR OPTION

PROJ. 140

WORK BY	DRAWN BY	DATE
SC	VJG	Aug 1987

1: 500

SCALE IN METRES

Figure: 15

### **'PAC' Showing**

This showing is located 500 metres south of the 'J' showing. A 25cm wide seam of 20% pyrite and 20% magnetite occurs in a silicified-epidotized tuff of the Upper Volcanic Unit. The silicified zone is 2 to 3 metres wide and extends for at least 6 metres along strike. Grab samples collected contain up to 3% zinc. Mineralization appears to be related to the contact metamorphic alteration caused by the diorite that is projected to occur at depth below the showing area.

### **'E' Showing**

This showing is located 1000 metres south of the 'J' showing and is just west of grid F. It is underlain by a silicified and epidotized tuff of the Upper Volcanic Unit that is intruded by diorite. Copper mineralization occurs in a 1 metre wide shear zone and in a 1 to 2 metre wide quartz vein. Grab samples of copper rich material contain up to 10% copper and 2 oz/ton silver. A grab sample of epidotized tuff contains 2% zinc.

The mineralization is not considered important as it is intimately associated with the alteration caused by the intrusion of the diorite.

### **'JAC' Showing**

The 'JAC' showing occurs within a black, weakly hornfelsed, massive, dacitic, feldspar crystal tuff of the Lower Volcanic Unit. The dacite is intruded by a dark grey diabase dyke. Three grab samples collected are listed below.

	Ba ppm	Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb
AD3984	1500	4100	18.36%	164	1.4	35
AD3984	2200	75	2200	17	1.5	<5
AD3984	540	118	885	118	1.1	<5

The first sample is from a 30cm wide sphalerite rich breccia zone adjacent to the diabase dyke which can be traced for 3 metres along strike. The other two samples are of the dacitic crystal tuff.

Zinc rich feldspar crystal tuffs of the Lower Volcanic Unit are common around the JAC showing at the north end of grid C. See figure 39 which shows anomalous zinc in rock. It appears that the intrusion of the diorite and subsequent alteration of the crystal tuff has elevated its zinc content.

### **Other Minor Occurrences**

#### **1) Discovery Creek**

Drill hole S-13-80 intersected a silicified, fractured, quartz-veined zone from 43m to 49m that contains 76ppm Cu, 1200ppm Pb, 1700ppm Zn, 2.2ppm Ag and 520ppm Au (sample AF1134).

#### **2) South of Grid F Argillite**

An outcrop of Upper Volcanic Unit argillite that is located 300m south of grid F was chip sampled over 4m. Sample AF1172 contains 161 ppm copper, 790 ppm lead, 154 ppm zinc, 1.5 ppm silver and 980 ppm barium.

## SOIL GEOCHEMISTRY

A limited program of soil geochemistry was completed in 1987 to sample areas on the geophysical grids that had not been previously covered by Northair Mines Ltd. soil surveys. The 1987 program covered all of grid 'A', all of grid 'D'(west), half of grid 'B' and half of grid 'D'(east).

Samples were collected every 20 metres on lines 100 metres apart. Every effort was made to collect the 'B' horizon. If this was not possible then the organic 'A' horizon was sampled. Samples were analysed for Cu, Pb, Zn, Ag, by Bondar-Clegg & Co. Ltd. using a hot HNO<sub>3</sub>-HCL extraction, and atomic absorption. In addition, 50 samples were analysed for barium by Bondar-Clegg using XRF. The analytical data and more details of the analytical techniques are listed in Appendix 2. Sample data, including: soil horizon, colour, texture, depth, size fraction was recorded on sheets which are on file with Falconbridge Ltd. in Vancouver.

A total of 460 samples were collected on the Northair Option and 320 were collected on the Callaghan property. The number of samples collected from individual grids is listed below.

Grid 'A'	206
Grid 'B'	154
Grid 'D'(west)	221
Grid 'D'(east)	199

Thresholds were determined statistically and are listed below (all values in ppm). See Appendix 5 for statistics.

Element	Mean	Minimum	Maxium	Threshhold
Cu	23.8	0.5	1050	100
Pb	8.4	1.0	85	25
Zn	61.0	3.0	1700	200
Ag	0.17	0.05	0.90	0.4
Ba	524.4	120	830	too few samples

The data is displayed on figures 16 to 25 as listed below.

- Figure 16 : Grid A Soil Sample Location
- Figure 17 : Grid A Soil Geochemistry Cu, Zn
- Figure 18 : Grid A Soil Geochemistry Pb, Ag
- Figure 19 : Grid B Soil Sample Location
- Figure 20 : Grid B Soil Geochemistry Cu, Zn
- Figure 21 : Grid B Soil Geochemistry Pb, Ag
- Figure 22 : Grid D west Soil Sample Location
- Figure 23 : Grid D west Soil Geochemistry Cu, Zn
- Figure 24 : Grid D west Soil Geochemistry Pb, Ag
- Figure 25 : Grid D east Soil Sample Location
- Figure 26 : Grid D east Soil Geochemistry Cu, Zn
- Figure 27 : Grid D east Soil Geochemistry Pb, Ag, Ba

No significant soil anomalies were detected on grid 'A', grid 'D'(west) or grid 'D'(east).

A zinc-lead anomaly is located in the northeast corner of grid 'B'. The anomaly trends north-northwest, is 150 metres long, 100 metres wide, and is open to the north. Zinc values range from 150 to 300ppm and lead values range from 40 to 85ppm. The anomaly is located over biotite-hornfels crystal tuffs of the Lower Volcanic Unit immediately adjacent to the diorite pluton. Three geochemical rock samples of these crystal tuffs contain 126, 141 and 226ppm zinc. The anomalous soil geochemistry seen here is attributed to the alteration and subsequent base metal enrichment of the tuffs caused by the intrusion of the diorite.

## ROCK GEOCHEMISTRY

A systematic program of rock sampling of the Gambier Group volcanics and sediments was completed in an effort to characterize the rock types chemically and to outline areas of significant hydrothermal alteration.

A total of 546 whole rock samples were analysed for  $\text{SiO}_2$ ,  $\text{Al}_2\text{O}_3$ ,  $\text{CaO}$ ,  $\text{MgO}$ ,  $\text{Na}_2\text{O}$ ,  $\text{K}_2\text{O}$ ,  $\text{Fe}_2\text{O}_3$ ,  $\text{MnO}$ ,  $\text{TiO}_2$ ,  $\text{P}_2\text{O}_5$ ,  $\text{Cr}_2\text{O}_3$ , Rb, Sr, Y, Zr, Nb, Ba, Cu and Zn by Xray Assay Laboratories Ltd. using XRF. In addition, 194 rock samples were analysed for Cu, Pb, Zn, Ag, Au and Ba by Bondar-Clegg Co. Limited. Cu, Pb, Zn and Ag were determined using a hot  $\text{HNO}_3$ -HCl extraction and atomic absorption. Ba was determined using XRF and gold was determined using fire assay and atomic absorption.

The analytical data and analytical techniques are listed in Appendix 2. The location of the samples is shown in figures 31 and 32. Whole rock samples taken from drill core are shown on the drill sections in Appendix 7.

Both the Jensen Cation plot (figure 28) and the AFM diagram (figure 29) indicate that the volcanic rocks are calc-alkaline. The Jensen Cation plot shows that most of the volcanic rocks vary from andesite to dacite in composition. A plot of  $\text{Na}_2\text{O}+\text{K}_2\text{O}$  versus  $\text{SiO}_2$  (figure 30) suggests the rocks tend toward a sub-alkaline composition.

The above three diagrams were generated using only unaltered rock samples. A rock sample was considered unaltered if it had an ACNK alteration index less than 2.0 and an Ishikawa alteration index of less than 50.0. The ACNK and Ishikawa indices were calculated using the following formulas.

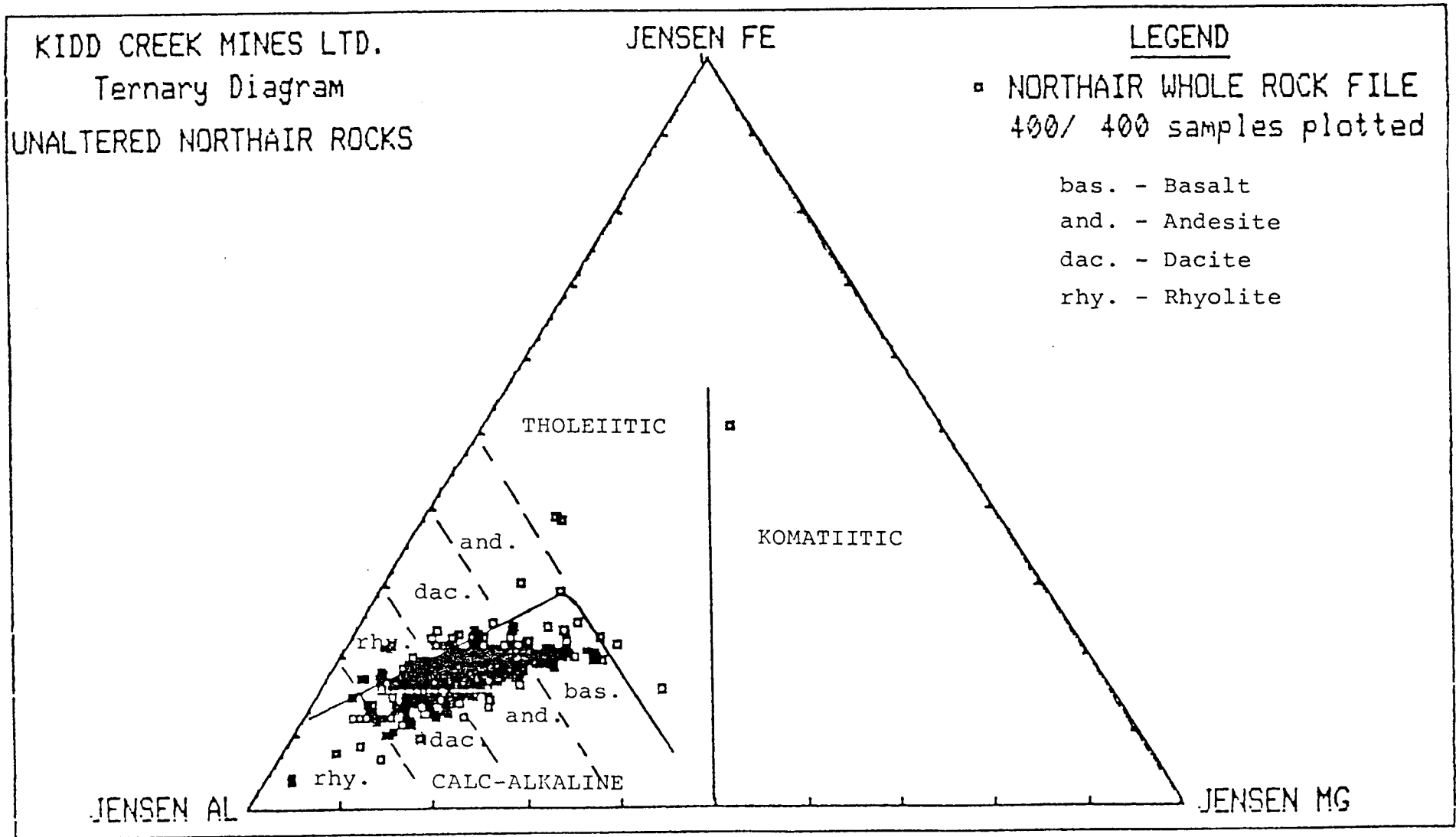


FIGURE 28: Jensen Cation Plot

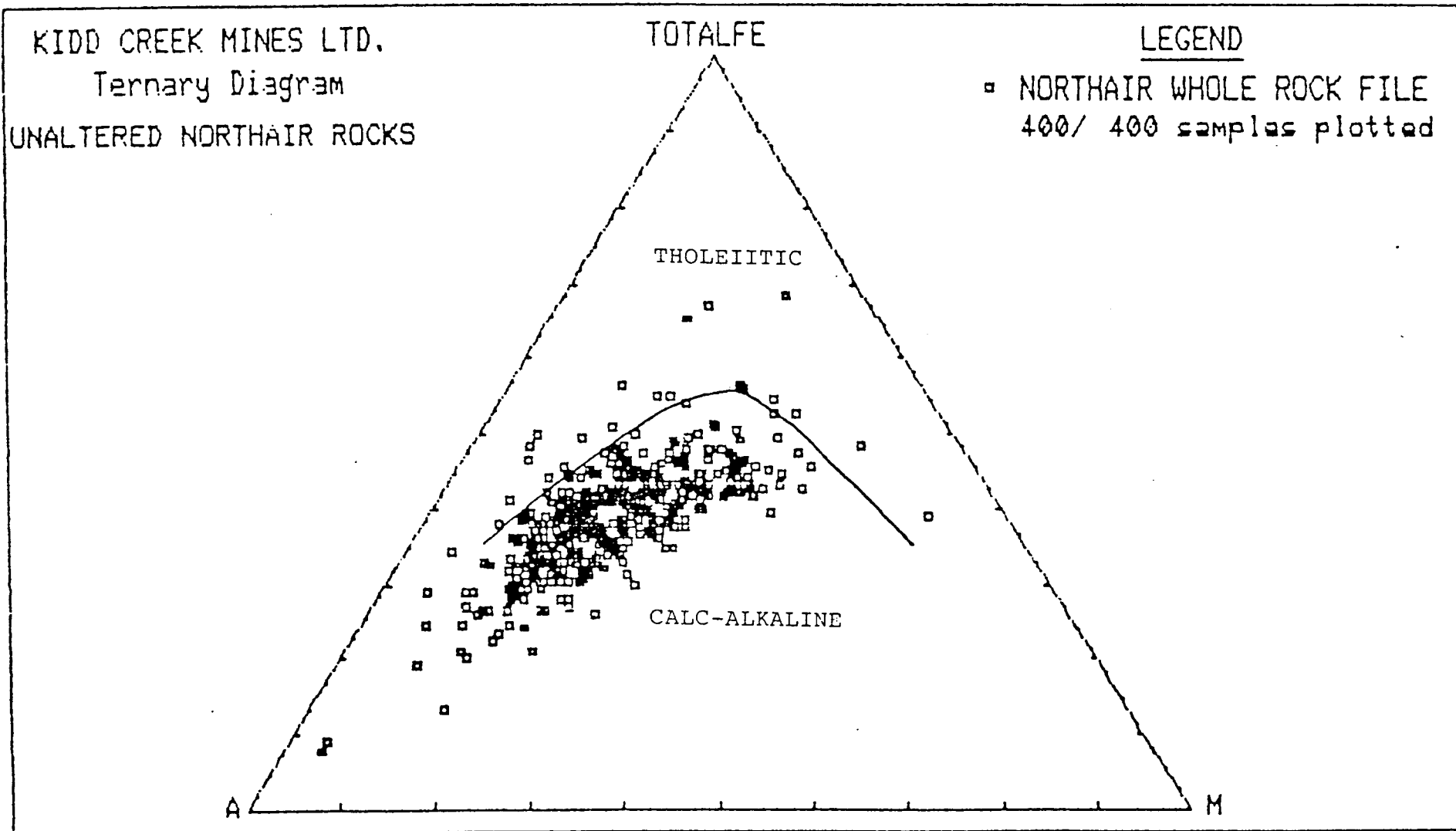


FIGURE 29: AFM Diagram



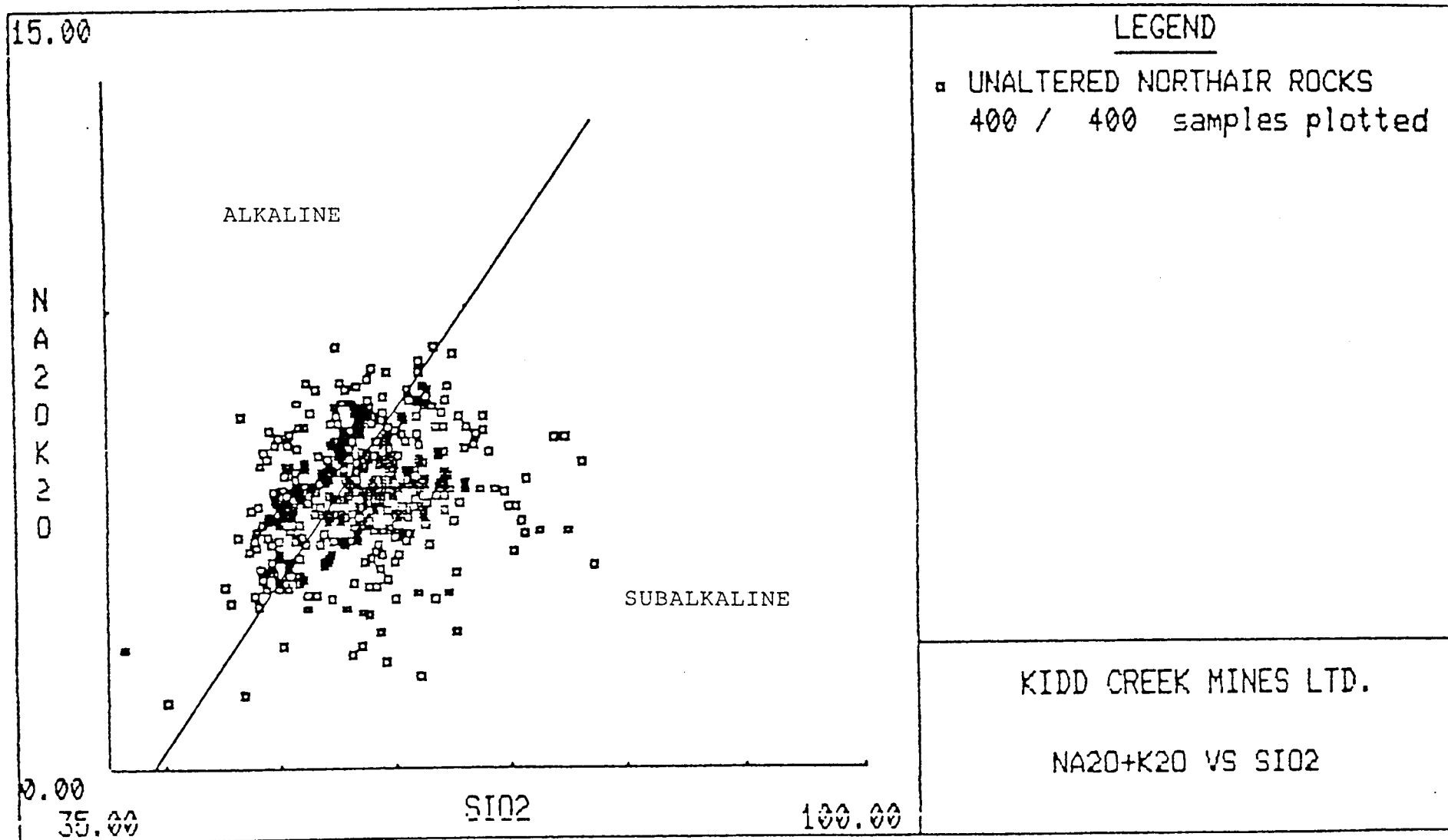


FIGURE 30: NA2O+K2O vs. SiO2

$$ACNK = (Al_2O_3/102)/((CaO/56)+(Na_2O/62)+(K_2O/94))$$

$$Ishikawa = 100*((MgO+K_2O)/(Na_2O+K_2O+CaO+MgO))$$

### Hydrothermal Alteration

Analysis of the geochemical data indicates that the tuffs, lapilli tuffs and breccias of the Upper Volcanic Unit within 100 metres of the mineralized ore horizon are geochemically anomalous when compared to similar rocks elsewhere. They are characterized by depletion in sodium and strontium, local depletion in calcium, enrichment in potassium, rubidium, and manganese, and local enrichment in zinc, copper and barium. It is suggested that this anomalous geochemistry is due to hydrothermal alteration. The distribution of the anomalous samples for these elements are shown in the figures listed below.

- Figure 31 Sodium
- Figure 32 Calcium
- Figure 33 Strontium
- Figure 34 Potassium
- Figure 35 Rubidium
- Figure 36 Manganese
- Figure 37 Zinc
- Figure 38 Copper
- Figure 39 Barium
- Figure 40 Ishikawa Alteration Index

Threshold values used for each element were determined statistically by examining the various populations that make up the distribution of values for each element and oxide. The thresholds used are listed below. The statistics, histograms and cumulative log plots for all elements and oxides can be found in Appendix 5.

Element	Threshold
Sodium	< 1.0 %
Calcium	< 1.0 %
Strontium	< 250 ppm
Potassium	> 7.0 %
Rubidium	> 120 ppm
Manganese	> 0.25 %
Zinc	> 110 ppm
Copper	> 60 ppm
Barium	> 1400 ppm

The following areas are considered to be significantly altered and are outlined on the above figures.

- 1) Northair ore horizon
- 2) Area I
- 3) Area II
- 4) South Creek area
- 5) Discovery Creek area
- 6) JAC showing area
- 7) Grid B area
- 8) J showing area

Table 2 lists the samples that fall within each of these anomalous areas. Single sample anomalies are listed at the end. Table 3 gives a brief description of each altered rock.

These altered areas were chosen by selecting samples with similar alteration patterns of enrichment and depletion as those displayed by the ore horizon. This approach has lead to the inclusion of some samples that are only marginally altered. This was done to allow areas of more subtle alteration adjacent to potential significant alteration to be detected. All rock samples were screened using the following combination of 'relaxed' thresholds.

Potassium	K <sub>2</sub> O	> 3.0 %
Calcium	CaO	< 3.0 %
Sodium	Na <sub>2</sub> O	< 3.0 %
Rubidium	Rb	> 50 ppm
Strontium	Sr	< 500 ppm

The rocks that met these requirements were examined, and unaltered rocks (ie. not sodium depleted) were rejected. Any sample with significant sodium depletion was added to the group of altered samples even if it did not pass the initial 5 element threshold screen.

Each of the altered areas is discussed below.

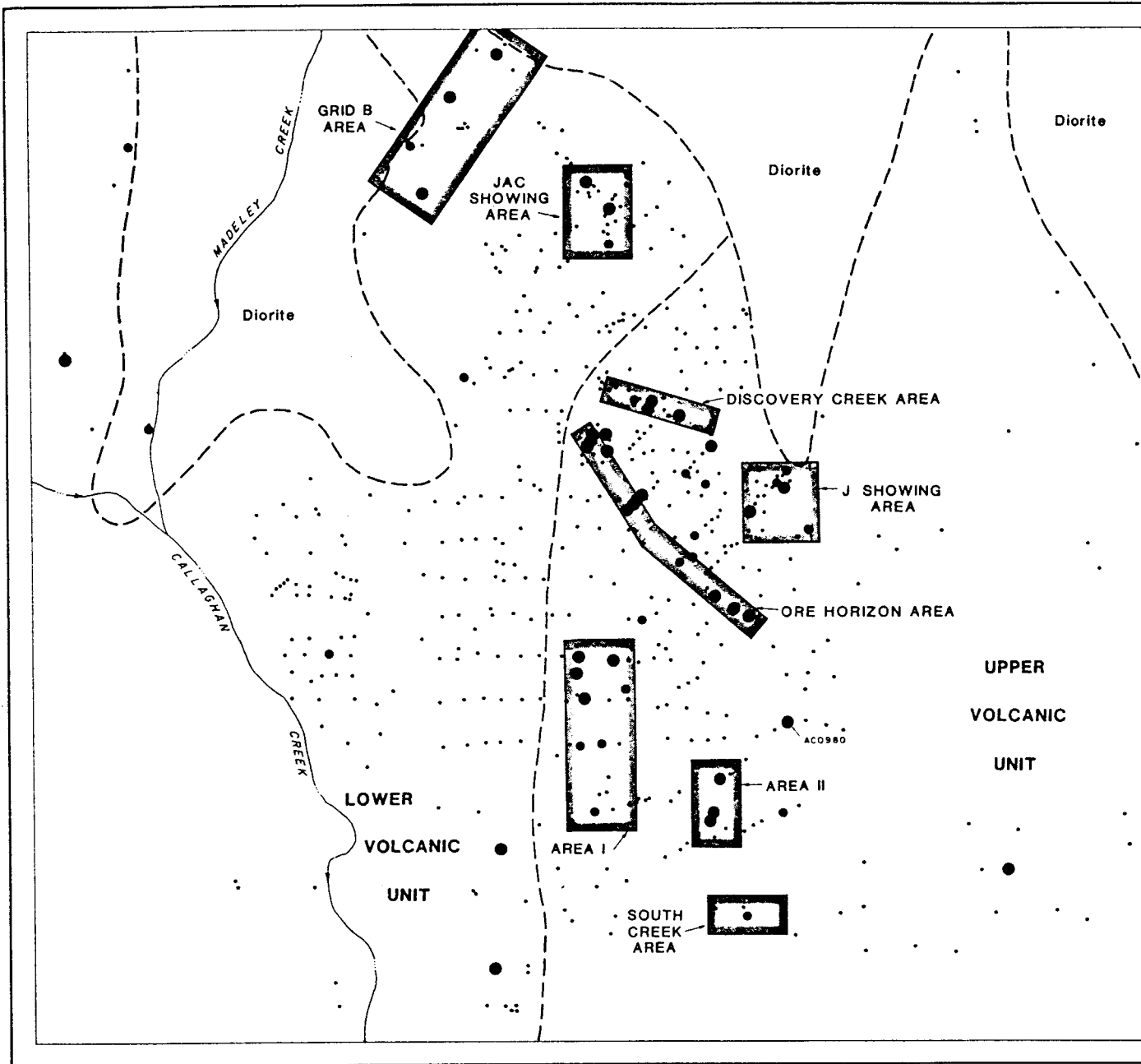
### **1) Northair Ore Horizon**

The breccia, lapilli tuff, crystal tuff and tuff of the Upper Volcanic Unit that host the Northair ore horizon classify as calc-alkaline basalts to dacites. There are some local exceptions to this and some of the rocks classify as tholeiitic dacites and rhyolites. The tholeiitic classification is caused by a relatively low magnesium content of these particular samples.

The alteration pattern shows some variation between the various mineralized zones; rocks from the Discovery Zone and the C Zone (AD3814, AD3815, AD3965, AF1091, AF1092 and AF1095) are only moderately calcium depleted and rocks around the Manifold zone (AF5094 to AF5096) are very strongly depleted in strontium and contain very little copper.

### **2) Area I**

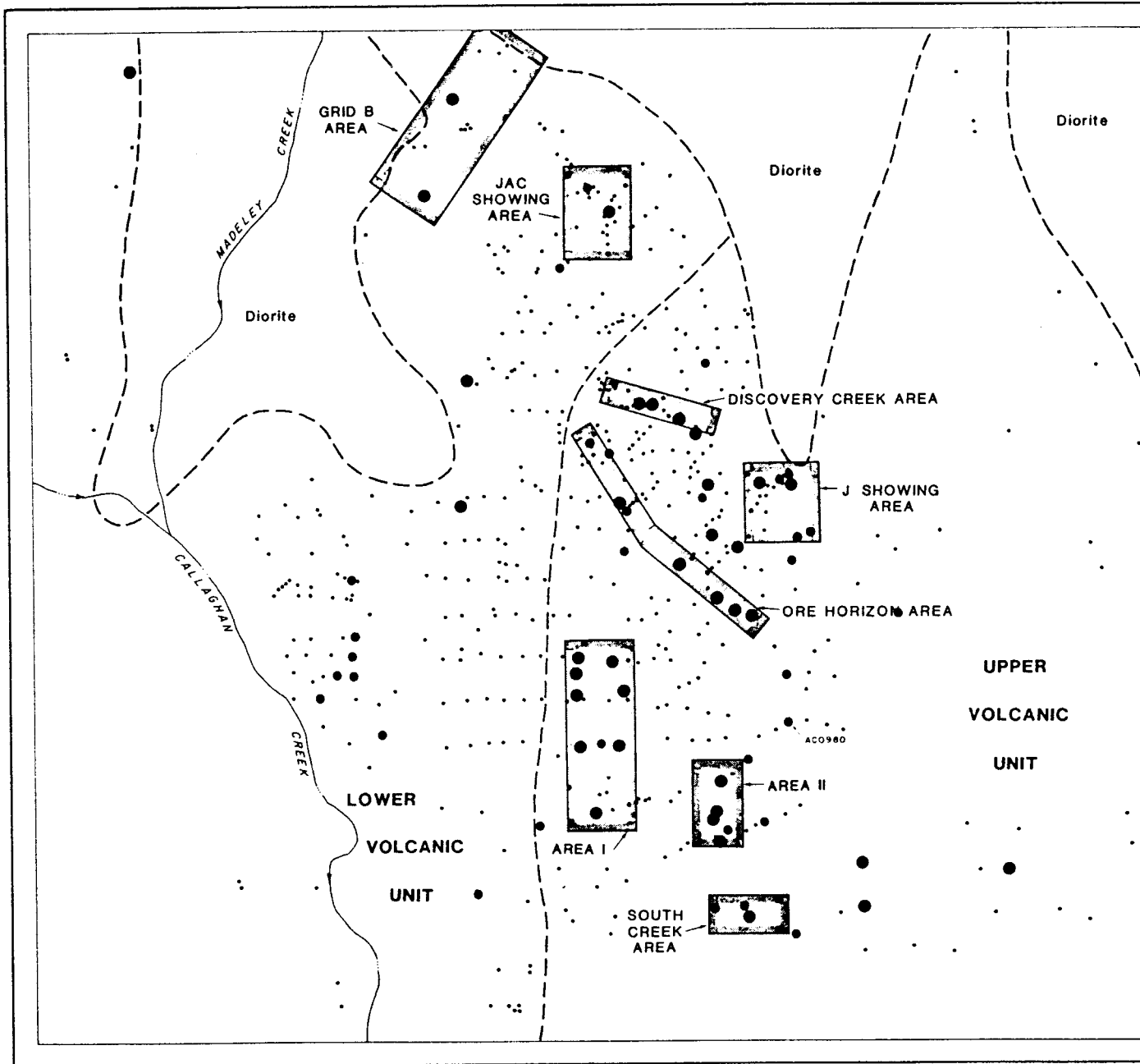
Tuffs, crystal tuffs and lapilli tuffs of the Upper Volcanic Unit that underlie Area I show an almost identical alteration pattern to the ore horizon; ie. enrichment in potassium, rubidium, and barium and depletion in strontium, sodium, and calcium. One noticeable difference is that these rocks are not enriched in manganese. Only two samples contain more than 0.20% MnO. The same is true for zinc and copper as only one sample contains significant zinc, and only one has significant copper. These exceptions might be expected since many of the altered samples collected in and surrounding the ore horizon are mineralized, or lie very close to the mineralized zone.



## LEGEND

- Whole rock sample
- Geological contact
- Significantly altered area
- 1-2% Na<sub>2</sub>O
- <1% Na<sub>2</sub>O

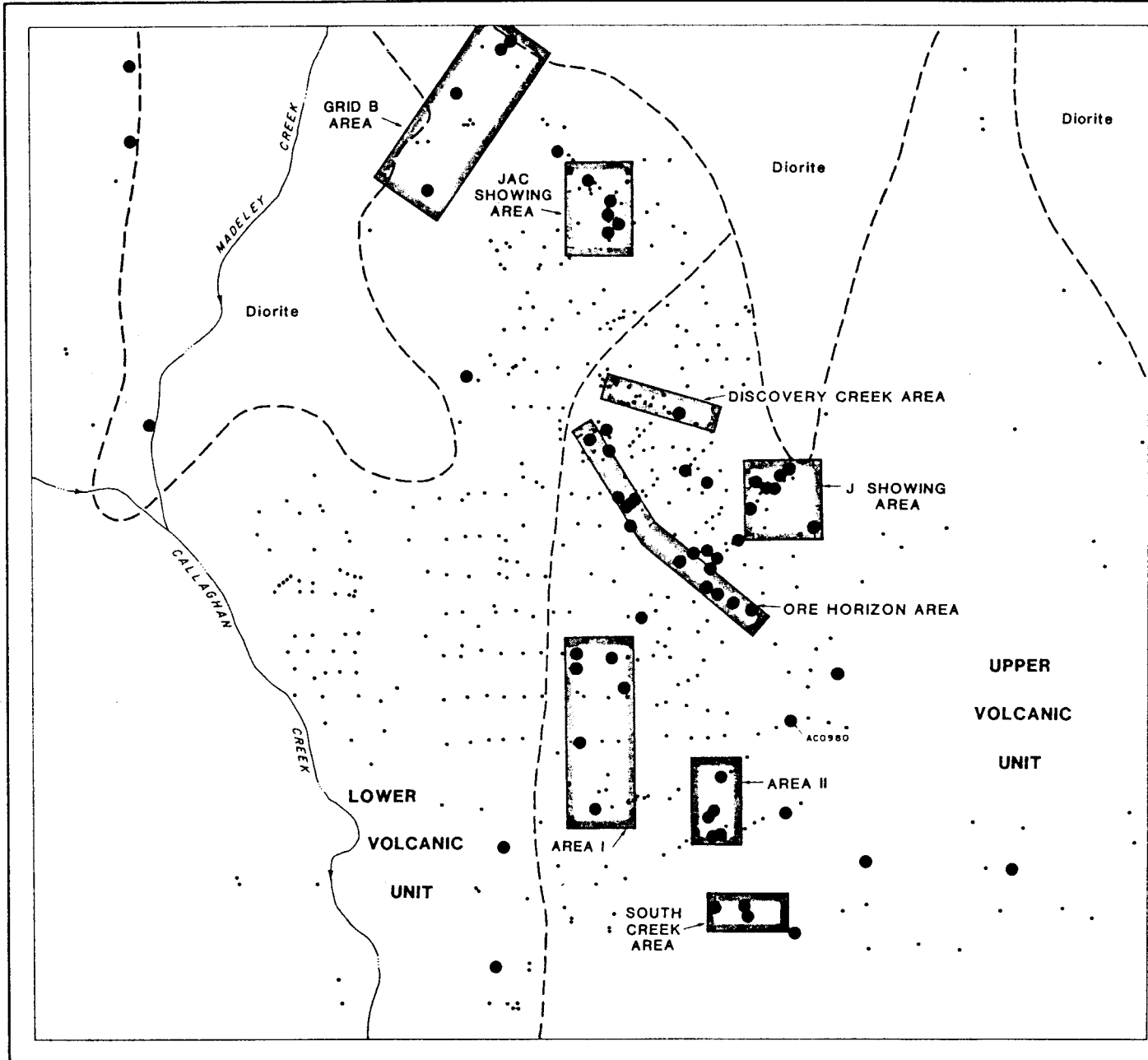
<b>FALCONBRIDGE LIMITED</b>		
NORTHAIR OPTION		
<b>ROCK GEOCHEMISTRY</b>		
<b>SODIUM</b>		
PROJ. 140		
WORK BY SC	DRAWN BY VJG	DATE: Jan. 1988
SCALE IN METRES 1 : 20 000		
Figure: <b>33</b>		



## LEGEND

- Whole rock sample
- Geological contact
- ▭ Significantly altered area
- 1-2% CaO
- <1% CaO

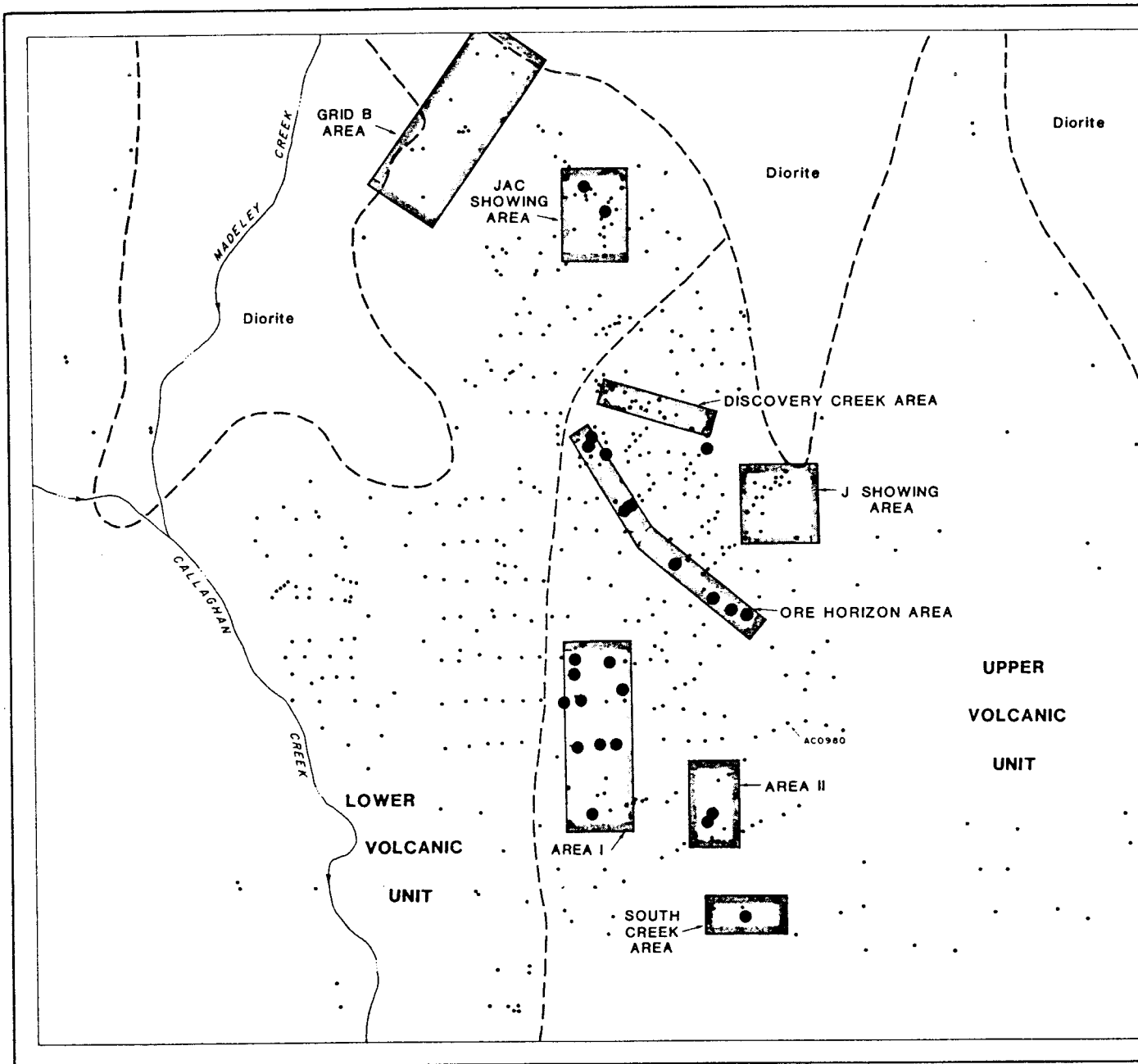
<b>FALCONBRIDGE LIMITED</b>		
NORTHAIR OPTION		
<b>ROCK GEOCHEMISTRY</b>		
<b>CALCIUM</b>		
PROJ. 140		
WORK BY SC	DRAWN BY VJG	DATE: Jan 1988
0 — 500 — 1000 m		
SCALE IN METRES		1 : 20 000
Figure: <b>34</b>		



### LEGEND

- Whole rock sample
- Geological contact
- ▭ Significantly altered area
- < 250 ppm Sr

<b>FALCONBRIDGE LIMITED</b>		
NORTHAIR OPTION		
<b>ROCK GEOCHEMISTRY</b>		
<b>STRONTIUM</b>		
PROJ. 140		
DRAWN BY	CHECKED BY	DATE
SC	VJG	Jan. 1988
SCALE IN METRES		1 : 20 000
<b>Figure: 35</b>		

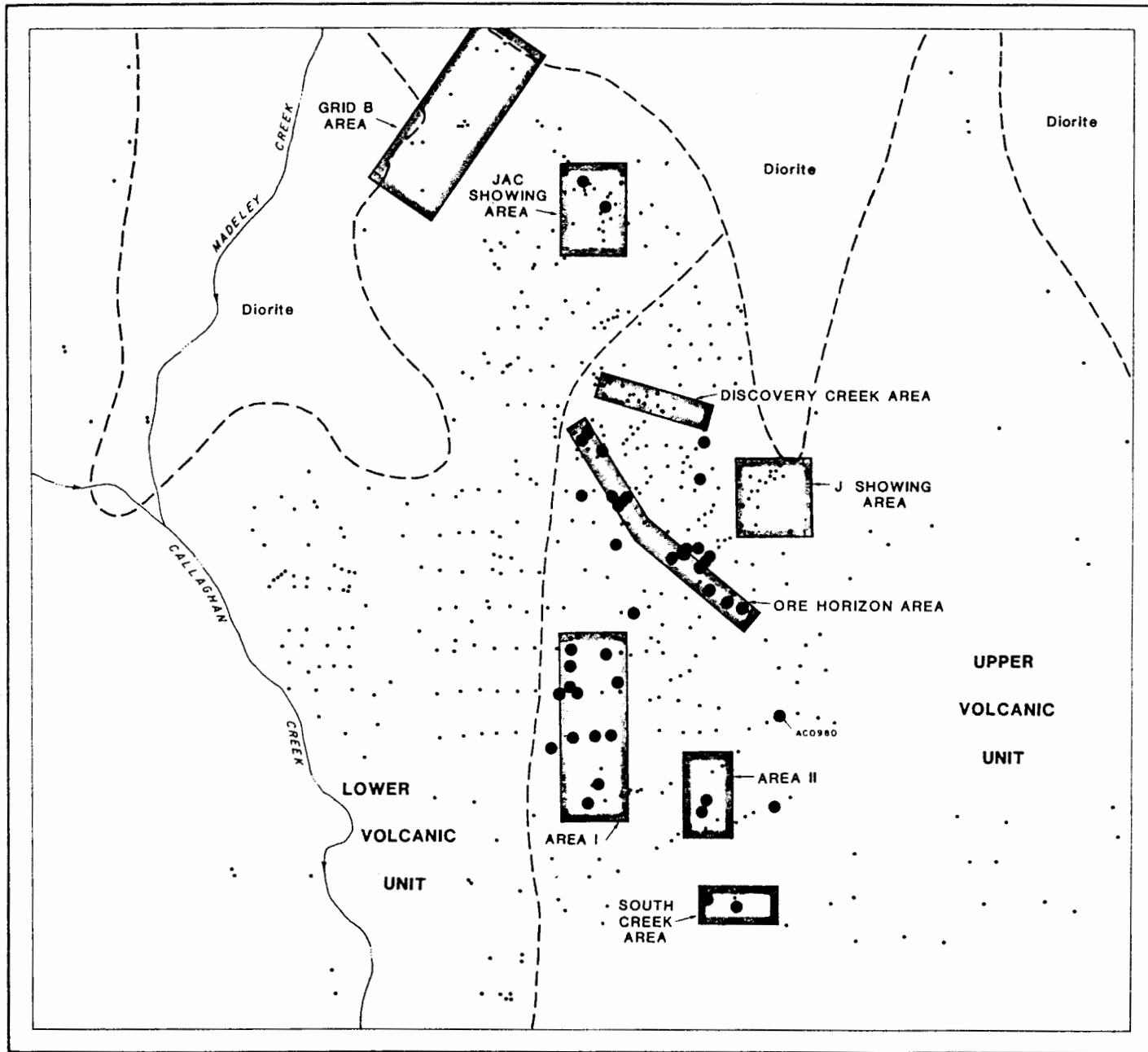


## LEGEND

- Whole rock sample
- Geological contact
- ▭ Significantly altered area
- > 7% K<sub>2</sub>O

<b>FALCONBRIDGE LIMITED</b>		
NORTHAIR OPTION		
ROCK GEOCHEMISTRY		
POTASSIUM		
PROJ. 140		
WORK BY	DRAWN BY	DATE
SC	VJG	Jan. 1988
0 500 1000 m		
SCALE IN METRES		1 : 20 000
Figure: <b>36</b>		

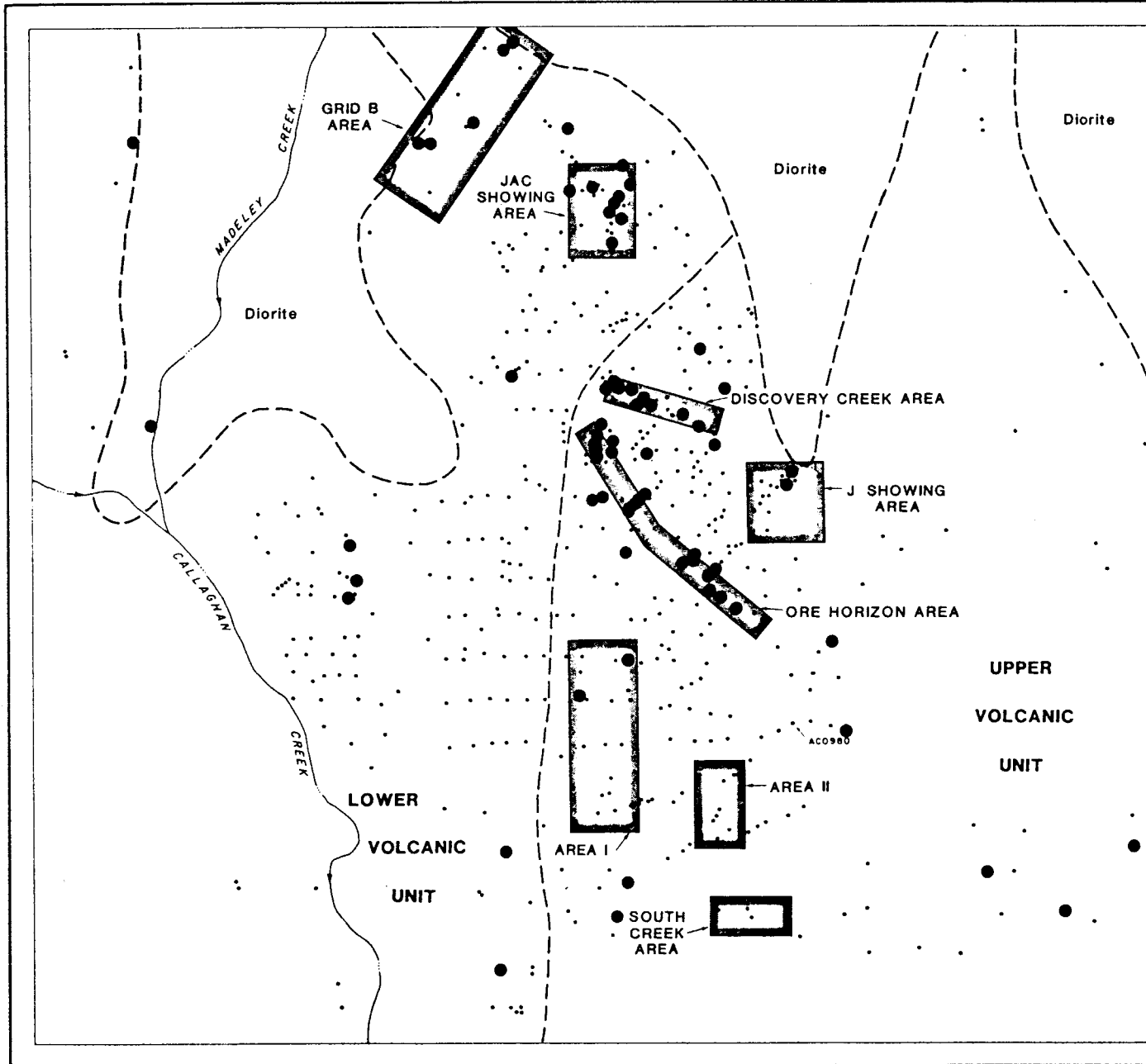




# LEGEND

- Whole rock sample
- Geological contact
- Significantly altered area
- > 120 ppm Rb

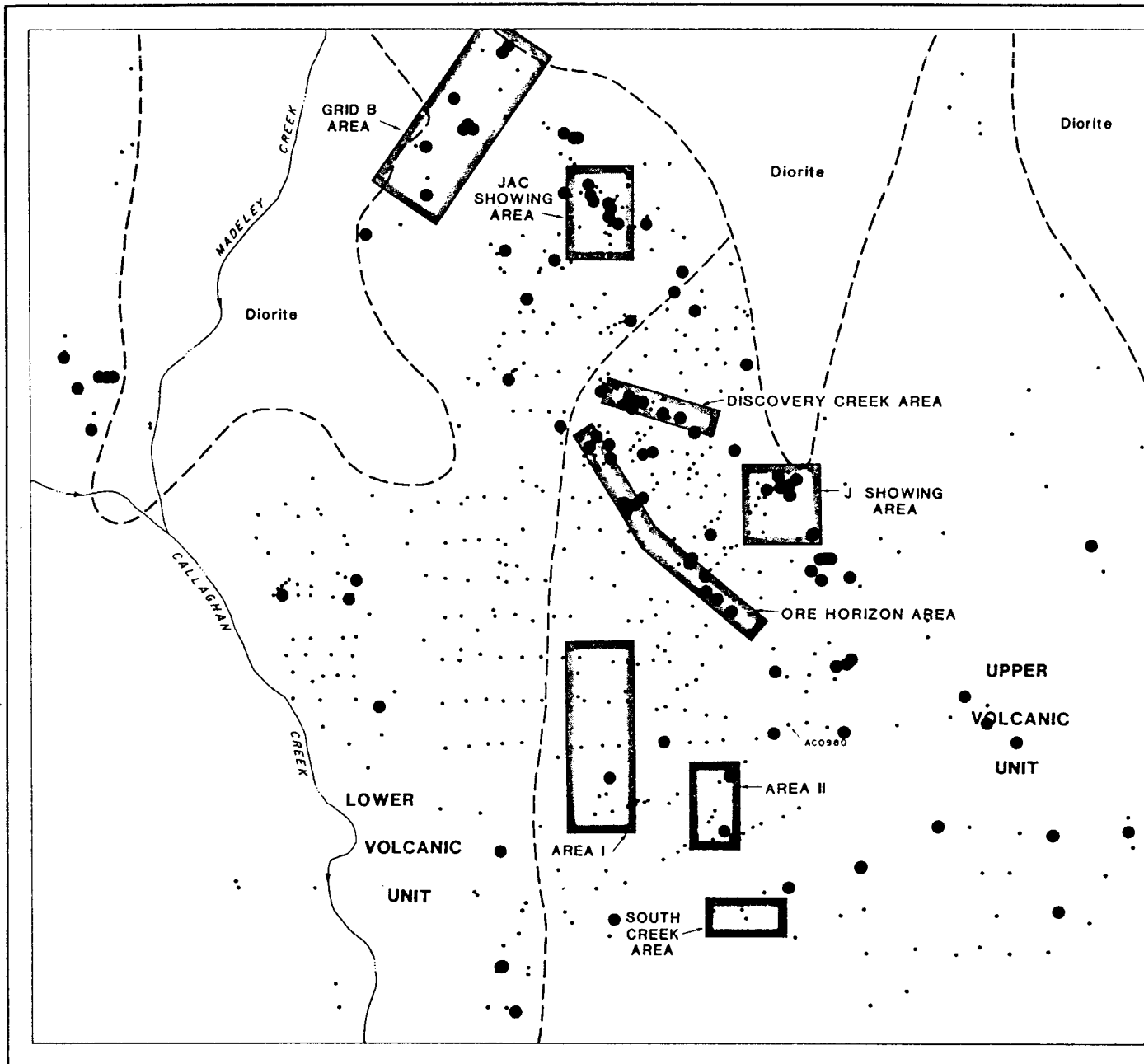
<b>FALCONBRIDGE LIMITED</b>		
NORTHAIR OPTION		
ROCK GEOCHEMISTRY		
<b>RUBIDIUM</b>		
PROJ. 140		
DRAWN BY	DRAWN BY	DATE: Jan 1988
SC	VJG	
SCALE IN METRES   : 20 000		
Figure: <b>37</b>		



# LEGEND

- Whole rock sample
- Geological contact
- Significantly altered area
- > 0.25% MnO

<b>FALCONBRIDGE LIMITED</b>		
NORTHAIR OPTION		
<b>ROCK GEOCHEMISTRY</b>		
<b>MANGANESE</b>		
PROJ. 140		
WORK BY	DRAWN BY	DATE
SC	VJG	Jan 1988
SCALE IN METRES		1 : 20 000
Figure: <b>38</b>		

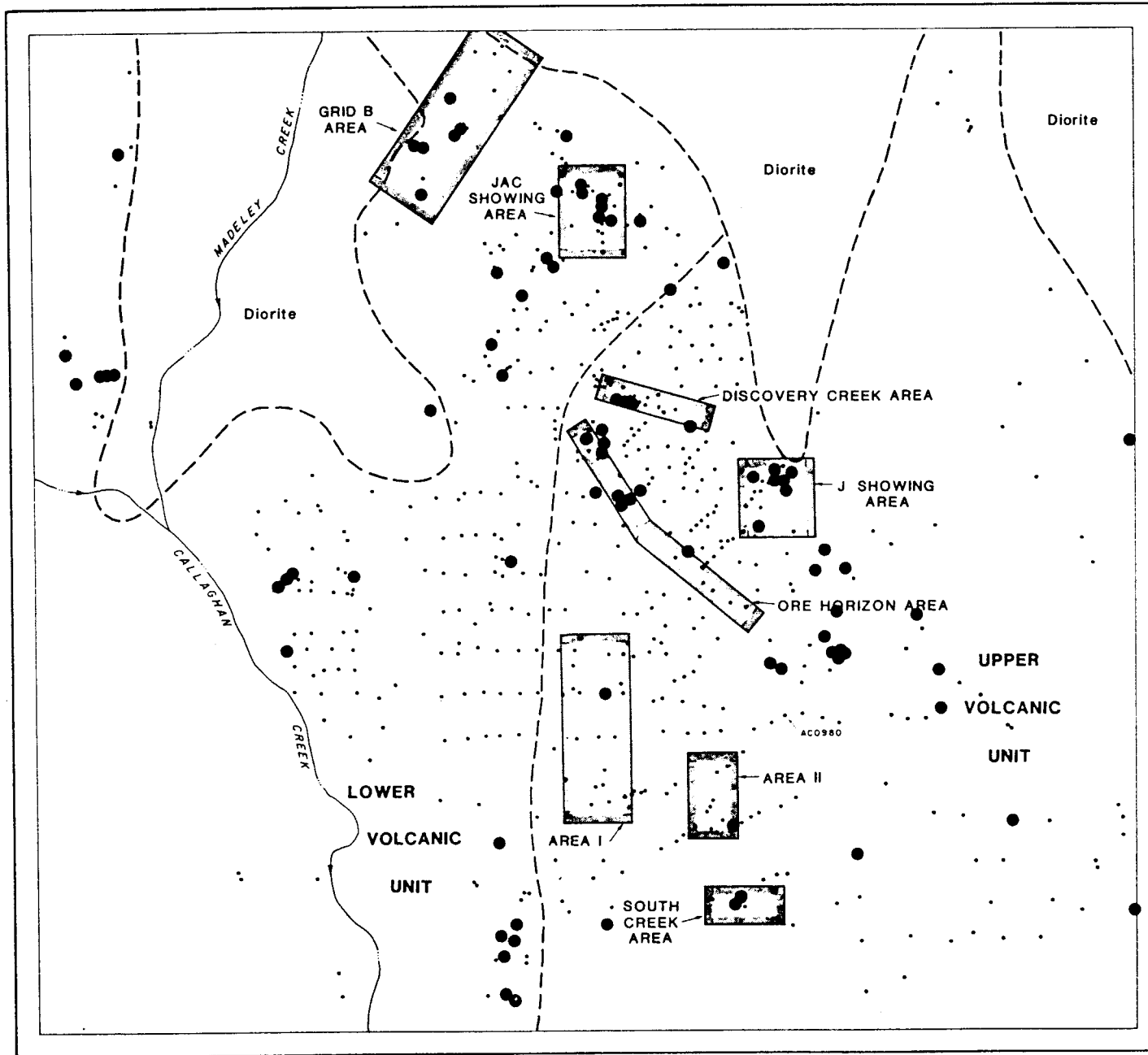


## LEGEND

- Whole rock sample
- Geological contact
- Significantly altered area
- > 110 ppm Zn

NOTE: Data displayed includes both whole rock and rock geochemical samples.

<b>FALCONBRIDGE LIMITED</b>		
NORTHAIR OPTION		
<b>ROCK GEOCHEMISTRY</b>		
<b>ZINC</b>		
PROJ. 140		
WORK BY	DRAWN BY	DATE
SC	VJG	Jan. 1988
SCALE IN METRES 1 : 20 000		
Figure: <b>39</b>		

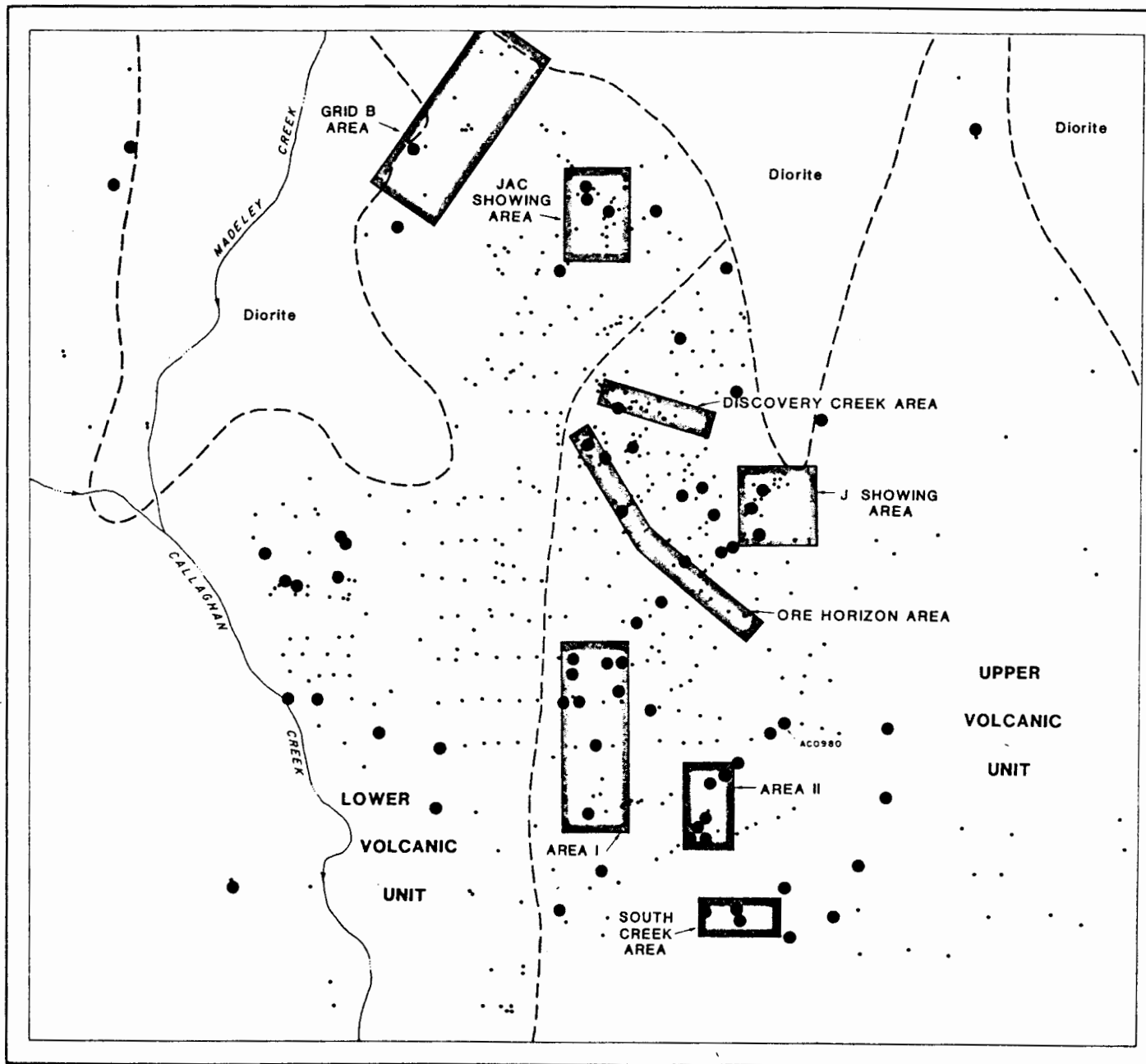


## LEGEND

- Whole rock sample
- Geological contact
- ▭ Significantly altered area
- > 60 ppm Cu

NOTE: Data displayed includes both whole rock and rock geochemical samples.

<b>FALCONBRIDGE LIMITED</b>		
NORTHAIR OPTION		
ROCK GEOCHEMISTRY		
<b>COPPER</b>		
PROJ. 140		
WORK BY SC	DRAWN BY VJG	DATE: Jan. 1988
0 500 1000 m		
SCALE IN METRES		1 : 20 000
Figure: <b>40</b>		

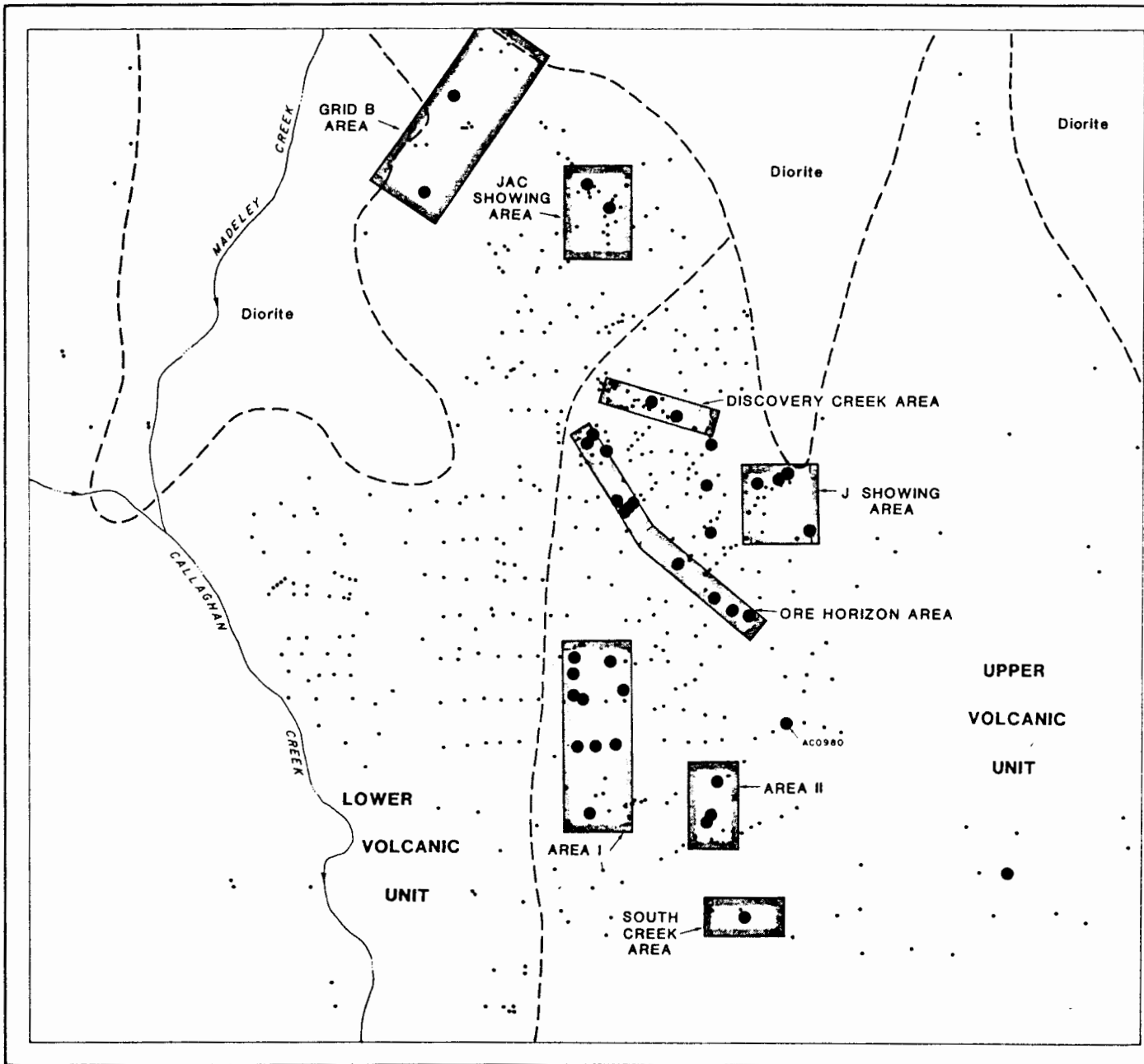


## LEGEND

- Whole rock sample
- Geological contact
- Significantly altered area
- > 1400 ppm Ba

NOTE: Data displayed includes both whole rock and rock geochemical samples.

<b>FALCONBRIDGE LIMITED</b>		
NORTHAIR OPTION		
<b>ROCK GEOCHEMISTRY</b>		
<b>BARIUM</b>		
PROJ. 140		
WORK BY	DRAWN BY	DATE: Jan 1988
SC	VJG	
SCALE IN METRES		1 : 20 000
<b>Figure: 41</b>		



## LEGEND

- Whole rock sample
- Geological contact
- ▭ Significantly altered area
- > 70%

<b>FALCONBRIDGE LIMITED</b>		
NORTHAIR OPTION		
<b>ROCK GEOCHEMISTRY</b>		
<b>ISHIKAWA</b>		
<b>ALTERATION INDEX</b>		
PROJ. 140		
WORK BY	DRAWN BY	DATE
SC	VJG	Jan. 1988
SCALE IN METRES 1 : 20 000		
Figure: <b>42</b>		

Soil sampling by Northair in this area did not locate any significant geochemical anomalies except for two samples with 150ppm zinc.

The altered rocks of Area I occur over an area 1000 metres by 300 metres. They are lithologically similar to the rocks that host the ore zones and may represent the same stratigraphic pyroclastic unit that hosts the Discovery zone to the north. This area definitely requires further work to evaluate its massive sulphide potential.

### **3) Area II**

Area II is underlain by andesitic to dacitic tuffs, crystal tuffs and lapilli tuffs of the Upper Volcanic Unit. The altered samples are crystal tuffs that have been silicified, bleached and contain 5 to 10% pyrite. They are very strongly depleted in sodium, calcium, manganese, strontium, copper, and zinc, and enriched in potassium, rubidium and barium.

The areal extent of the alteration is unknown and further work is required to assess the significance of these altered Upper Volcanic Unit tuffs.

### **4) South Creek Area**

The area is underlain by dacitic and andesitic tuffs, crystal tuffs and lapilli tuffs of the Upper Volcanic Unit.

Alteration appears to be related to north-south shear zones with local brecciation. The rocks are depleted in calcium, manganese, and strontium, and enriched in rubidium and barium. They are moderately depleted in sodium and moderately enriched in potassium.

Although the alteration is not very intense, it is recommended that this area be further evaluated because it is approximately on strike with Area II.

### **5) Discovery Creek Area**

The Discovery Creek area is marked by an extensive area of bleaching, pyritization, carbonatization and fracturing of feldspar crystal tuffs and lapilli tuffs of the Upper Volcanic Unit. The zone of alteration trends northwesterly for at least 200 metres and is over 100 metres wide.

Alteration in this area differs from the ore horizon in that it is not enriched in potassium or rubidium, nor is it strongly depleted in strontium. Only two samples are both calcium and sodium depleted. The area is consistently anomalous in zinc and manganese.

Two drill holes have tested this area. Drill hole S-13-80 intersected a silicified zone that contains 1700ppm Zn, 1500ppm Pb and 520ppb Au over 6 metres. Drill hole S-15-80 although confirming the extensive nature of the alteration did not intersect any significant base metals.

The alteration, and proximity of this area to the Discovery Zone, which is located 200 metres to the southwest, indicates that further work is warranted.

### **6) JAC Showing Area**

The JAC showing is located in the Lower Volcanic Unit in an area of massive porphyritic andesites and dacites that are interbedded with wackes and local argillites. These rocks have been weakly



hornfelsed. Sixteen whole rock samples were collected in this area but only two are significantly altered, one from the vicinity of the JAC showing (AC0837) and the other from drill hole S-14-80 (AF5128). The alteration of these two samples is very similar to the ore horizon but it appears to be confined to shear zones that are only one metre in width. No extensive zone of alteration is apparent.

### **7) Grid B Area**

Rocks in this area are weakly to strongly hornfelsed, dark grey, feldspar crystal tuffs and tuffs of the Lower Volcanic Unit. Alteration here differs from the ore horizon in that there is no enrichment in potassium, rubidium, or locally barium. Rocks are enriched in zinc and locally copper. Three samples are depleted in sodium. The anomalous geochemistry seen here is attributed to the alteration of the tuff caused by the intrusion of the diorite.

### **8) J Showing Area**

Crystal tuff, lapilli tuff, and minor argillite of the Upper Volcanic Unit are weakly to strongly epidotized. Local depletion in sodium, calcium and strontium and enriched in zinc and manganese is evident. Unlike the host rocks of the ore horizon these rocks are not enriched in potassium or rubidium.

The alteration seen here is due to the contact metamorphic effects of the diorite and consequently the area has low massive sulphide potential. One possible exception to this is sample AF1064 from drill hole S-11-80 that is located 300m from the diorite within an area of Upper Volcanic Unit lapilli tuff.

### 9) Single Sample Anomalies

Sample AC0980 is a phyllitic tuff of the Upper Volcanic Unit, roughly on strike with the Manifold zone. The sample is strongly depleted in sodium and the area requires further work.

Three samples (AD3853,AD3876,AF1090) reflect alteration adjacent to the diorite pluton.

Sample AF1170 is from a silicified shear zone within the fine grained crystal tuffs stratigraphically higher up in the Upper Volcanic Unit and does not appear to be significant.

TABLE 2 : ALTERED AREAS GEOCHEMISTRY

Northair Ore Horizon

Sample ID.	CaO	Na <sub>2</sub> O	K <sub>2</sub> O	MnO	Rb	Sr	Ba	Cu	Zn
AD3814	1.83	0.47	11.30	0.43	185	164	1750	81	530
AD3815	2.29	0.39	7.86	0.51	105	131	2140	74	2100
AD3965	1.95	0.14	9.04	1.16	143	108	1820	169	2400
AD3969	2.28	2.51	6.56	0.34	103	372	1090	<10	86
AF1091	1.36	0.40	10.10	0.41	160	248	1420	14	133
AF1092	2.37	0.12	9.22	0.82	158	165	1390	116	603
AF1095	2.32	0.10	9.20	0.83	148	220	1390	75	713
AF5156	0.99	1.55	5.93	0.10	136	164	1230	13	77
AF5188	0.67	1.84	11.20	0.27	166	134	1380	<10	77
AF5194	0.87	0.18	9.50	0.86	148	61	1340	<10	140
AF5195	0.83	0.31	10.20	0.49	224	81	1180	<10	61
AF5196	0.50	0.53	7.64	0.12	226	43	1320	<10	95

Area I

Sample ID.	CaO	Na <sub>2</sub> O	K <sub>2</sub> O	MnO	Rb	Sr	Ba	Cu	Zn
AC0874	0.44	0.42	11.40	0.03	174	196	1780	<10	14
AC0875	0.51	0.27	11.10	0.06	197	221	1730	<10	22
AC0879	2.15	0.22	11.30	0.19	163	336	1490	<10	47
AC0880	2.09	2.55	7.58	0.16	163	374	1430	<10	62
AC0893	0.55	1.65	8.28	0.23	175	188	934	<10	57
AC0894	1.16	1.83	8.78	0.15	182	289	1510	<10	52
AC0895	0.82	2.84	9.40	0.17	188	253	1070	<10	55
AD3856	0.27	0.43	12.10	0.08	192	226	1810	36	17
AD3858	0.66	2.83	6.98	0.26	190	260	727	1	100
AD3861	0.79	1.57	10.60	0.12	152	150	1210	9	48
AF5142	0.87	1.61	7.33	0.13	182	99	2430	<10	82

Area II

Sample ID.	CaO	Na <sub>2</sub> O	K <sub>2</sub> O	MnO	Rb	Sr	Ba	Cu	Zn
AC0972	0.59	0.15	11.40	0.03	190	91	2520	<10	18
AC0973	0.58	0.14	9.46	<0.01	114	56	2160	<10	<10
AC0975	0.22	0.08	5.06	0.02	107	<10	1920	<10	16
AF5116	1.24	2.44	3.76	0.20	91	148	1420	<10	80

South Creek Area

Sample ID.	CaO	Na <sub>2</sub> O	K <sub>2</sub> O	MnO	Rb	Sr	Ba	Cu	Zn
AF5083	1.17	2.53	6.40	0.08	168	115	1510	<10	57
AF5085	1.12	2.91	3.99	0.15	103	137	2350	414	68
AF5086	0.80	1.55	8.27	0.07	139	78	2130	<10	29

Discovery Creek Area

Sample ID.	CaO	Na <sub>2</sub> O	K <sub>2</sub> O	MnO	Rb	Sr	Ba	Cu	Zn
AF5075	5.28	1.36	2.01	0.40	60	627	1110	<10	123
AF5080	6.28	0.41	2.27	0.20	63	261	1230	<10	63
AF5107	0.86	0.57	3.62	0.08	88	657	1220	<10	88
AF5133	0.33	0.96	3.04	0.25	63	208	1210	49	147

JAC Showing Area

Sample ID.	CaO	Na <sub>2</sub> O	K <sub>2</sub> O	MnO	Rb	Sr	Ba	Cu	Zn
AC0837	1.14	0.43	7.48	0.10	172	128	2110	<10	50
AF5128	0.29	0.56	8.32	0.09	182	93	1750	43	79

Grid B Area

Sample ID.	CaO	Na <sub>2</sub> O	K <sub>2</sub> O	MnO	Rb	Sr	Ba	Cu	Zn
AC0968	5.31	0.62	2.94	0.56	65	196	375	<10	221
AD3875	0.88	0.98	4.25	0.24	69	125	1360	72	140
AD3878	0.36	0.41	2.30	0.08	56	78	467	370	320

J Showing Area

Sample ID.	CaO	Na <sub>2</sub> O	K <sub>2</sub> O	MnO	Rb	Sr	Ba	Cu	Zn
AD3934	3.60	1.41	0.03	0.34	<10	56	73	14	191
AD3938	7.67	0.07	1.89	0.37	68	345	170	<10	80
AD3945	1.94	1.54	4.20	0.19	95	128	939	29	125
AF1064	8.21	0.52	5.01	0.20	108	208	1000	<10	66
AF1069	6.45	1.58	1.35	0.23	53	271	207	11	130

Single Sample Areas

Sample ID.	CaO	Na <sub>2</sub> O	K <sub>2</sub> O	MnO	Rb	Sr	Ba	Cu	Zn
AC0980	1.95	0.07	6.19	0.14	201	68	1460	40	82
AD3853	10.70	0.38	2.19	0.65	58	92	349	69	130
AD3876	10.50	0.12	1.35	0.19	32	338	696	7	120
AF1084	6.88	0.38	4.15	0.30	103	98	752	39	95
AF1090	3.71	0.69	8.74	0.50	161	293	1340	<10	88
AF1170	0.42	0.47	4.69	0.01	98	55	791	<10	12

TABLE 3 : ALTERED AREAS ROCK DESCRIPTION

CA - Calc-alkaline  
 TH - Tholeiitic  
 KO - Komatiitic

Northair Ore Horizon

ID	Jensen Rock	Description
AD3814	CA Dacite	-dark grey tuff, minor mineralization
AD3815	CA Andesite	-dark grey tuff, limonitic fractures
AD3965	CA Andesite	-dark grey-green phyllitic tuff, mineralized carbonate veins
AD3969	CA Dacite	-lapilli tuff, carb. veins, 2% pyrite
AF1091	CA Andesite	-dark grey feldspar crystal tuff
AF1092	CA Basalt	-cherty fragment lapilli tuff
AF1095	CA Basalt	-dark grey feldspar crystal tuff
AF5156	CA Dacite	-rusty sheared feld. crystal breccia
AF5188	CA Dacite	-dark grey feldspar crystal tuff
AF5194	TH Rhyolite	-Fe-carb. veined tuff
AF5195	TH Dacite	-rusty black feld. crystal lap. tuff
AF5196	CA Dacite	-chloritic tuff

Area I

ID	Jensen Rock	Description
AC0874	CA Dacite	-silicified, brecciated crystal tuff -out-crop 5 by 30 metres; 4% pyrite
AC0875	TH Rhyolite	-white pyritic silicified rock
AC0879	TH Rhyolite	-epidotized chloritic crystal tuff
AC0880	CA Andesite	-epidotized chloritic crystal tuff
AC0893	CA Dacite	-feld. crystal lapilli tuff
AC0894	CA Dacite	-chloritic feld. crystal lapilli tuff
AC0895	CA Dacite	-chloritic crystal lapilli tuff and tuff
AD3856	CA Dacite	-light green-grey ash tuff, 4% pyrite
AD3858	CA Andesite	-dark grey crystal tuff, minor epidote
AD3861	TH Rhyolite	-pyritic tuff, 5 to 10% pyrite
AF5142	CA Andesite	-chloritic lapilli tuff

Area II

ID	Jensen Rock	Description
AC0972	TH Rhyolite	-feld. crystal tuff, 0 to 10% pyrite
AC0973	TH Rhyolite	-light grey siliceous rock 10% pyrite
AC0975	CA Dacite	-1m wide phyllitic shear zone
AF5116	CA Andesite	-chloritic crystal tuff

South Creek Area

ID	Jensen Rock	Description
AF5083	CA Dacite	-lapilli tuff and breccia
AF5085	CA Basalt	-chloritic feld. crystal tuff 5% pyrite
AF5086	CA Dacite	-bleached chloritic tuff

Discovery Creek Area

ID	Jensen Rock	Description
AF5075	CA Andesite	-pyritic bleached feld. crystal tuff
AF5080	TH Rhyolite	-bleached feld. crystal tuff
AF5107	TH Rhyolite	-Fe-carb. altered tuff
AF5133	CA Andesite	-bleached sheared tuff

JAC Showing Area

ID	Jensen Rock	Description
AC0837	CA Rhyolite	-light grey phyllitic tuff
AF5128	CA Rhyolite	-sheared dark grey feld. crystal tuff

Grid B Area

ID	Jensen Rock	Description
AC0968	CA Basalt	-siliceous hornfels argillaceous tuff
AD3875	TH Andesite	-argillaceous feld. crystal tuff
AD3878	TH Basalt	-pyritic tuff, 5 to 20% pyrite

J Showing Area

ID	Jensen Rock	Description
AD3934	KO Basalt	-chloritic feld. crystal tuff
AD3938	KO Basalt	-chloritic feld. crystal tuff
AD3945	CA Andesite	-green chloritic tuff
AF1064	CA Andesite	-sheared chloritic crystal tuff
AF1069	CA Andesite	-fine grained crystal tuff

Single Sample Areas

ID	Jensen Rock	Description
AC0980	CA Andesite	-dark green phyllitic crystal tuff
AD3853	KO Basalt	-augite rich rock near diorite
AD3876	CA Basalt	-pyritic altered tuff near diorite
AF1084	TH Dacite	-siliceous siltstone, 2% pyrite
AF1090	CA Andesite	-biotite meta-crystal tuff
AF1170	CA Basalt	-bleached silicified tuff, 3% pyrite

## REFERENCES

- DICKSON, M.P. and McLEOD, D.A. 1975: Northair Mines: Grass roots to senior financing; *Canadian Mining Journal*, April, p.79-82.
- LITTLE, L.M. 1974: The geology and mineralogy of the Brandywine property lead-zinc-gold-silver deposit, Brandywine map area, southwestern British Columbia; unpublished Geology 409 term paper, UBC, 96p.
- HENDRIKSON G.A. 1987: Geophysical surveys on the Edna 2, Alex 1 claims, Callaghan Creek area British Columbia, NTS 92J/03; Assessment Report.
- MALLALIEU, D.G. 1986: 1986 Final report on the Callaghan claims Brandywine Falls - Vancouver Mining Division, NTS 92J/03E; Assessment Report, 26p.
- MANIFOLD, A.H. 1976: Some aspects of Northair Mines' Brandywine property; text of presentation at the annual meeting of CIM district 6, October 13-15, 1976, 15p.
- McCONNELL, T.C. 1987: Airborne MAG, VLF, IP on the Callaghan 3, Edna 1,2,4 and Alex 1,2 claims, Callaghan Creek area British Columbia, NTS 92J/03E, Assessment Report, 29p.
- MILLER, J.H.L. and SINCLAIR, A.J. 1978: Geology of part of the Callaghan roof pendant; in *Geological Fieldwork 1977*, British Columbia Ministry of Mines and Petroleum Resources, p.96-102
- MILLER, J.H.L. 1979: Geology of the central part of the Callaghan Creek pendant, NTS 92J/2,3; unpublished MSc. Thesis UBC, 174p.
- TAYLOR, B. 1983: Summary report on the surface geology and exploration potential of the Northair Mine Ltd.'s Brandywine Mine (NTS 92J/03E) and an exploration proposal for Northair Mines Ltd. 1450-625 Howe St. Vancouver, B.C.; unpublished G.A. Noel and Associates, Inc. report, 10p.
- WARES, R. 1980: Summary of available information, Northair Brandywine areas; unpublished Northair Mines Ltd. Summary Report, 7p.
- WHITE, G.E.W. 1980: Northair Mines Ltd. Summary geophysical and geochemical report Brandywine property; Glen E. White Geophysical Consulting and Services Limited, 4p.

STATEMENT OF EXPENDITURE

SALARIES

B. Anderson, Field Assistant  
Northair Option : 3 days @ \$ 95/day..... \$ 285.00  
Callaghan Prop. : 4 days @ \$ 95/day..... \$ 380.00

E. Bakker, Geologist  
Northair Option : 27 days @ \$150/day.....\$ 4,050.00

S. Clemmer, Project Geologist  
Northair Option : 44 days @ \$180/day..... \$ 7,920.00  
Callaghan Prop. : 3 days @ \$180/day..... \$ 540.00

S. Gibbons, Geologist  
Northair Option : 4 days @ \$108/day.....\$ 432.00

E. Grill, Geologist  
Northair Option : 85 days @ \$108/day..... \$ 9,180.00  
Callaghan Prop. : 8 days @ \$108/day..... \$ 864.00

G. McTaggart, Geologist  
Northair Option : 4 days @ \$131/day.....\$ 524.00

R. Moore, Exploration Manager  
Northair Option : 1 days @ \$200/day.....\$ 200.00

N. Von Fersen, Senior Project Geologist  
Northair Option : 8 days @ \$200/day.....\$ 1,600.00

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Total Salaries.....\$25,975.00

ROOM AND BOARD

Northair Option : 170 days @ \$65/day..... \$11,050.00  
Callaghan Prop. : 15 days @ \$65/day..... \$ 975.00

TRANSPORTATION

Truck rental, fuel..... \$ 5,250.00  
Helicopter, 9 hours + fuel..... \$ 3,914.20

FIELD COSTS..... \$ 1,200.00



GEOCHEMISTRY

Bondar Clegg & Co. Ltd.

Soils (Cu,Pb,Zn,Ag, 50 Ba)

Northair Option : 460 samples @ \$5.15..... \$ 2,369.00

Callaghan Prop. : 320 samples @ \$5.15..... \$ 1,648.00

50 samples @ \$4.05..... \$ 202.50

Rock (geochem Cu,Pb,Zn,Ag,Au,Ba)

Northair Option : 182 samples @ \$18.30..... \$ 3,330.60

Zn assay 6 samples @ \$6.25..... \$ 37.50

Cu assay 4 samples @ \$5.75..... \$ 23.00

Ag assay 3 samples @ \$7.50..... \$ 22.50

Callaghan Prop. : 12 samples @ \$18.30..... \$ 219.60

XRAL Laboratories Ltd.

Rock (17 element whole rock + Cu,Zn)

Northair Option : 526 samples @ \$22.65..... \$11,913.90

Callaghan Prop. : 20 samples @ \$22.65..... \$ 453.00

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Total Geochemistry..... \$20,219.60

PETROGRAPHY

Vancouver Petrographic

33 thin sections and descriptions..... \$ 1,777.75

REPORT..... \$ 1,000.00

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TOTAL EXPENDITURE..... \$71,361.55

## STATEMENT OF QUALIFICATIONS

I, Stanley G. Clemmer, an employee of Falconbridge Limited, with offices at 701-1281 West Georgia St. Vancouver B.C., do hereby declare that,

1. I am a geologist; graduate of the Carleton University, Ottawa, Ontario, in 1978 with a B.Sc. in Geology.
2. I have practised my profession as an exploration geologist continuously since my graduation, in Canada.
3. I am a fellow of the Geological Association of Canada.
4. I supervised the work in this report.

Dated at Vancouver, B.C., this        th day of February, 1988.



S.G. Clemmer, B.Sc., FGAC

APPENDIX 1 : PERSONNEL

LIST OF PROJECT PERSONNEL

Bruce Anderson, Field Assistant  
Term : October 7 to October 13, 1987

Ebo Bakker, Geologist  
Term : June 29 to July 28, 1987

Stan Clemmer, Project Geologist  
Term : August 10 to October 1, 1987

Stuart Gibbons, Geologist  
Term : June 30 to July 3, 1987

Eric Grill, Geologist  
Term : June 29 to October 13, 1987

George McTaggart, Geologist  
Term : June 30 to July 3, 1987

Richard Moore, Exploration Manager  
Term : September 17, 1987

Nils Von Fersen, Senior Project Geologist  
Term : June 3, 18, 1987  
June 30 to July 3, 1987  
August 10, 1987  
September 17, 1987

APPENDIX 2 : ANALYTICAL DATA

WHOLE ROCK SAMPLES : MAJOR OXIDES

Analysed by: X-Ray Assay Laboratories Limited  
1885 Leslie Street  
Don Mills, Ontario  
M3B 3J4

Element	Lower Detection Limit	Extraction	Method (Whole Rock)
SI02	0.010 %		X-ray Fluorescence
AL2O3	0.010 %		X-ray Fluorescence
CAO	0.010 %		X-ray Fluorescence
MGO	0.010 %		X-ray Fluorescence
NA2O	0.010 %		X-ray Fluorescence
K2O	0.010 %		X-ray Fluorescence
FE3O3	0.010 %		X-ray Fluorescence
MNO	0.010 %		X-ray Fluorescence
TIO2	0.010 %		X-ray Fluorescence
P2O5	0.010 %		X-ray Fluorescence
CR2O3	0.010 %		X-ray Fluorescence
LOI	0.010 %		X-ray Fluorescence

Total number of samples : 546

Sample	SiO2	Al2O3	CaO	MgO	Na2O	K2O	Fe2O3	MnO	TiO2	P2O5	Cr2O3	LOI	SUM
AC00804	69.50	13.80	1.48	2.49	4.31	1.37	2.84	0.10	0.38	0.11	<0.01	2.08	98.47
AC00811	63.70	15.60	2.66	2.99	4.09	2.05	3.54	0.24	0.41	0.07	<0.01	3.62	98.98
AC00812	61.10	16.20	2.89	3.01	4.73	1.75	5.03	0.16	0.55	0.08	<0.01	3.93	99.44
AC00813	59.70	17.50	3.58	1.63	3.20	3.46	5.40	0.28	0.55	0.25	<0.01	3.16	98.72
AC00814	58.80	16.70	4.90	1.86	4.10	2.53	5.06	0.16	0.51	0.23	<0.01	4.31	99.17
AC00815	61.00	18.90	2.40	0.82	3.48	3.31	6.52	0.06	0.68	0.23	<0.01	1.85	99.26
AC00816	52.40	22.30	2.57	2.44	2.77	4.46	8.09	0.12	0.81	0.25	<0.01	2.93	99.15
AC00817	62.40	14.40	3.61	2.22	4.28	1.39	6.30	0.11	0.66	0.08	<0.01	3.77	99.23
AC00818	59.50	16.70	6.48	2.60	4.64	0.65	6.25	0.14	0.58	0.23	<0.01	2.23	100.01
AC00820	52.30	19.50	3.22	4.48	5.72	0.97	9.18	0.19	0.93	0.32	<0.01	3.16	99.98
AC00821	58.60	18.20	2.92	2.71	6.16	0.96	6.54	0.19	0.69	0.23	<0.01	2.70	99.91
AC00823	45.70	19.10	7.99	6.04	3.35	0.27	11.90	0.21	1.09	0.35	<0.01	3.93	99.94
AC00824	57.90	17.70	4.45	1.56	6.08	1.79	6.52	0.14	0.59	0.29	<0.01	3.54	100.57
AC00825	58.00	17.80	2.94	2.88	8.36	0.38	5.87	0.15	0.58	0.30	<0.01	2.85	100.12
AC00829	56.70	17.60	7.87	2.70	3.91	1.16	6.90	0.18	0.64	0.21	<0.01	2.23	100.11
AC00830	59.70	16.80	4.95	2.17	2.63	3.50	5.75	0.29	0.54	0.19	<0.01	3.23	99.76
AC00831	51.00	18.60	7.25	4.44	3.75	1.95	9.43	0.38	0.77	0.43	<0.01	2.08	100.09
AC00832	57.60	17.70	6.64	2.92	4.30	1.53	6.80	0.20	0.67	0.21	<0.01	1.47	100.05
AC00833	66.10	16.40	3.15	1.29	4.14	2.84	3.25	0.16	0.37	0.13	<0.01	2.08	99.92
AC00834	59.40	17.60	5.61	1.86	5.41	1.75	5.64	0.21	0.57	0.27	<0.01	1.47	99.80
AC00835	59.40	17.70	5.48	1.97	5.47	1.73	5.76	0.19	0.57	0.28	<0.01	1.47	100.03
AC00836	66.80	16.30	2.76	1.36	4.69	2.39	3.39	0.19	0.37	0.13	<0.01	1.70	100.09
AC00837	53.20	26.80	1.14	1.00	0.43	7.48	5.03	0.10	0.87	0.11	<0.01	3.62	99.79
AC00838	58.40	18.00	5.79	1.49	5.41	0.89	6.30	0.27	0.60	0.32	<0.01	2.54	100.02
AC00839	57.60	18.00	5.92	2.44	5.56	0.45	7.02	0.22	0.56	0.32	<0.01	2.16	100.26
AC00840	50.30	18.30	7.69	4.68	4.23	1.87	8.76	0.19	0.75	0.33	<0.01	2.93	100.04
AC00841	50.70	20.60	5.77	3.75	4.59	2.46	7.08	0.30	0.69	0.23	<0.01	3.62	99.80
AC00843	65.60	16.70	2.58	1.90	3.89	3.79	3.25	0.14	0.36	0.13	<0.01	1.70	100.05
AC00844	56.70	17.90	3.75	4.17	5.77	0.90	7.14	0.17	0.62	0.29	<0.01	2.54	99.96
AC00845	55.80	18.00	5.60	3.43	4.47	1.87	7.30	0.18	0.70	0.26	<0.01	2.31	99.93
AC00846	51.70	18.80	3.98	5.38	6.23	1.25	8.98	0.15	0.81	0.26	<0.01	2.54	100.09
AC00850	59.60	18.20	3.98	2.51	4.72	2.31	5.19	0.32	0.49	0.18	<0.01	2.54	100.05
AC00851	61.10	16.90	2.89	3.33	4.83	1.51	5.57	0.21	0.63	0.23	<0.01	2.77	99.98
AC00852	73.80	13.50	0.71	1.44	6.31	0.89	1.45	0.07	0.20	0.06	<0.01	1.16	99.60
AC00854	62.20	16.60	4.60	1.99	4.37	2.70	5.17	0.11	0.57	0.16	<0.01	1.39	99.87
AC00855	56.60	19.10	3.55	3.58	5.12	2.60	7.01	0.11	0.67	0.14	<0.01	1.39	99.98
AC00856	58.80	16.40	3.37	2.90	2.10	0.85	6.73	0.15	0.57	0.23	<0.01	2.23	100.34
AC00859	56.30	17.60	4.42	4.13	3.58	1.99	7.40	0.21	0.80	0.28	<0.01	3.31	100.03
AC00860	67.40	15.30	3.51	1.70	4.15	1.94	3.58	0.07	0.40	0.08	<0.01	1.62	99.75
AC00861	57.90	16.50	6.91	3.16	3.48	1.11	7.44	0.14	0.68	0.22	<0.01	2.31	99.85

Sample	SiO2	Al2O3	CaO	MgO	Na2O	K2O	Fe2O3	MnO	TiO2	P2O5	Cr2O3	LOI	SUM
AC00862	59.30	19.30	2.77	3.05	5.21	2.03	5.23	0.14	0.60	0.11	<0.01	2.23	99.98
AC00863	55.30	18.00	7.17	3.95	4.26	1.17	6.97	0.17	0.65	0.27	<0.01	2.31	100.23
AC00864	59.60	20.30	3.10	2.17	4.56	2.19	5.01	0.09	0.54	0.12	<0.01	2.31	100.00
AC00865	75.00	12.70	2.43	0.94	3.47	1.71	1.83	0.05	0.22	0.06	0.02	1.47	99.90
AC00866	62.10	16.50	5.65	2.07	5.16	0.90	5.27	0.14	0.49	0.19	<0.01	1.47	99.95
AC00867	64.80	15.60	3.10	2.16	2.85	2.08	5.12	0.10	0.68	0.08	<0.01	3.31	99.89
AC00868	56.60	20.00	5.80	1.31	7.14	0.72	4.93	0.19	0.50	0.23	<0.01	2.70	100.13
AC00869	58.30	20.20	4.08	2.72	5.07	1.10	4.81	0.11	0.52	0.28	<0.01	2.70	99.90
AC00870	57.00	17.80	6.35	3.22	4.94	0.75	6.62	0.15	0.62	0.27	<0.01	2.47	100.20
AC00871	55.30	17.80	6.41	2.96	4.53	2.40	6.41	0.17	0.57	0.26	<0.01	3.00	99.82
AC00872	56.70	17.50	7.99	2.84	4.43	0.55	6.78	0.18	0.57	0.25	<0.01	2.00	99.80
AC00873	58.90	17.60	5.17	1.97	5.21	2.37	6.46	0.22	0.59	0.29	<0.01	1.16	99.95
AC00874	62.80	16.60	0.44	0.91	0.42	11.40	4.21	0.03	0.47	0.21	<0.01	2.70	100.20
AC00875	63.30	15.70	0.51	0.68	0.27	11.10	4.98	0.06	0.51	0.23	<0.01	2.77	100.12
AC00876	49.30	20.00	4.30	5.01	3.13	2.43	9.81	0.28	1.03	0.36	<0.01	4.16	99.82
AC00877	57.10	18.20	5.67	2.19	4.93	2.56	6.91	0.18	0.68	0.29	<0.01	1.31	100.00
AC00878	55.60	17.10	6.49	2.32	2.89	4.27	8.36	0.24	0.87	0.30	<0.01	1.39	99.84
AC00879	57.10	17.50	2.15	1.88	0.22	11.30	7.03	0.19	0.63	0.28	<0.01	1.23	99.52
AC00880	57.10	18.30	2.09	2.85	2.55	7.58	7.01	0.16	0.71	0.26	<0.01	1.47	100.09
AC00881	60.20	16.80	5.01	3.30	4.44	1.09	5.65	0.16	0.52	0.21	<0.01	2.47	99.86
AC00882	57.30	17.60	5.18	3.40	4.95	1.12	6.43	0.15	0.57	0.26	<0.01	2.93	99.90
AC00883	59.70	20.60	2.91	2.29	3.56	2.66	5.04	0.10	0.51	0.11	<0.01	2.77	100.26
AC00884	62.80	15.90	4.00	2.30	4.10	1.70	5.67	0.12	0.65	0.09	<0.01	2.62	99.96
AC00885	53.20	18.30	10.80	2.44	3.49	0.29	8.46	0.20	0.74	0.32	<0.01	1.93	100.18
AC00886	55.50	17.90	7.55	3.11	4.17	0.83	7.55	0.17	0.76	0.31	<0.01	2.31	100.27
AC00887	62.60	16.70	3.11	1.98	4.79	3.15	4.51	0.17	0.45	0.19	<0.01	1.62	99.28
AC00888	62.00	17.20	3.63	2.07	5.66	2.28	4.59	0.14	0.47	0.19	<0.01	1.39	99.63
AC00889	58.60	19.00	3.30	3.01	4.25	1.46	6.59	0.11	0.67	0.17	<0.01	2.70	99.97
AC00890	57.80	19.00	3.81	3.03	3.34	1.74	7.05	0.11	0.71	0.16	<0.01	3.08	99.84
AC00891	58.90	18.60	5.72	2.56	5.06	1.03	5.57	0.14	0.54	0.15	<0.01	1.85	100.13
AC00892	55.30	18.90	4.88	2.66	3.61	4.78	7.02	0.23	0.71	0.31	<0.01	1.54	99.95
AC00893	62.40	16.40	0.55	3.53	1.55	8.28	5.06	0.23	0.52	0.24	<0.01	1.39	100.26
AC00894	61.30	16.60	1.16	2.10	1.83	8.78	5.55	0.15	0.54	0.24	<0.01	1.47	99.73
AC00895	57.80	18.20	0.82	2.05	2.84	9.40	6.57	0.17	0.62	0.20	<0.01	0.93	99.61
AC00898	49.00	17.60	7.10	3.09	3.96	2.82	8.78	0.21	0.89	0.27	<0.01	6.23	99.96
AC00899	52.40	18.10	6.44	2.19	6.17	2.24	6.02	0.26	0.68	0.30	<0.01	5.31	100.12
AC00900	56.30	19.50	5.47	1.94	7.26	0.68	6.08	0.14	0.80	0.27	<0.01	1.70	100.15
AC00901	52.30	20.90	1.84	3.77	4.20	3.84	8.13	0.14	0.80	0.28	<0.01	3.39	99.60
AC00902	59.10	17.60	3.23	1.95	4.83	2.10	7.97	0.11	0.70	0.23	<0.01	2.00	99.83
AC00903	56.70	18.50	3.80	3.25	5.67	1.78	7.05	0.17	0.70	0.35	<0.01	2.00	99.98



Sample	SiO2	Al2O3	CaO	MgO	Na2O	K2O	Fe2O3	MnO	TiO2	P2O5	Cr2O3	LOI	SUM
AC00904	48.60	20.90	5.74	3.29	3.75	3.16	8.57	0.16	0.93	0.32	<0.01	4.93	100.36
AC00905	54.40	18.20	7.47	3.53	3.39	1.19	7.89	0.21	0.76	0.29	<0.01	2.70	100.04
AC00906	55.00	18.70	4.55	4.00	5.40	1.06	7.57	0.19	0.68	0.38	<0.01	2.47	100.01
AC00907	54.10	18.80	3.79	4.37	3.70	1.29	9.51	0.19	0.85	0.26	<0.01	3.23	100.10
AC00908	58.60	16.50	4.39	1.84	1.53	5.20	5.96	0.23	0.62	0.21	<0.01	4.93	100.02
AC00909	55.50	19.40	3.05	2.55	4.82	2.16	8.11	0.13	0.95	0.31	<0.01	2.93	99.92
AC00910	48.00	17.90	8.59	4.02	3.13	2.04	8.82	0.22	0.95	0.47	<0.01	6.00	100.15
AC00911	48.40	17.80	8.38	2.79	5.12	1.52	8.87	0.18	0.88	0.33	<0.01	5.85	100.13
AC00912	46.70	23.00	5.02	2.03	3.92	3.73	8.88	0.23	0.81	0.30	<0.01	5.08	99.71
AC00913	60.80	18.20	3.27	1.10	5.25	2.35	5.98	0.13	0.58	0.20	<0.01	1.93	99.80
AC00914	59.90	18.30	4.07	1.93	4.91	1.60	6.09	0.17	0.64	0.21	<0.01	2.16	99.99
AC00915	58.80	17.80	4.70	2.72	4.05	1.91	6.96	0.17	0.58	0.28	<0.01	2.16	100.14
AC00917	58.80	18.10	4.62	2.41	3.39	2.41	6.72	0.16	0.61	0.29	<0.01	2.23	99.75
AC00918	52.40	17.70	7.14	5.65	2.24	1.20	8.14	0.20	0.82	0.23	<0.01	3.85	99.58
AC00919	61.00	17.80	3.80	3.17	6.17	0.38	5.06	0.12	0.44	0.15	<0.01	2.23	100.33
AC00920	59.60	19.30	3.68	2.95	5.96	1.48	4.50	0.11	0.47	0.11	<0.01	2.60	100.17
AC00921	57.90	19.50	5.81	2.07	4.74	0.94	6.23	0.10	0.56	0.12	<0.01	2.23	100.21
AC00922	54.40	18.30	7.03	3.80	3.97	1.52	7.84	0.17	0.72	0.31	<0.01	1.93	100.00
AC00923	62.10	17.00	3.37	3.01	5.03	2.06	5.16	0.12	0.50	0.19	<0.01	1.47	100.02
AC00924	62.40	16.70	4.09	2.79	4.28	2.39	5.14	0.09	0.47	0.18	<0.01	1.23	99.77
AC00925	72.50	13.10	3.43	1.21	4.43	0.75	2.95	0.07	0.24	0.05	<0.01	1.16	99.90
AC00926	60.10	15.30	6.40	2.80	3.42	0.30	8.56	0.13	0.91	0.10	<0.01	2.16	100.19
AC00927	58.40	19.10	3.15	3.12	3.41	1.77	7.00	0.11	0.73	0.13	<0.01	2.93	99.86
AC00928	55.70	17.50	5.62	3.58	2.89	2.04	8.17	0.12	0.67	0.23	<0.01	2.85	99.48
AC00929	56.10	20.10	4.92	3.34	3.96	2.23	5.66	0.04	0.75	0.16	<0.01	2.62	99.89
AC00930	55.50	18.50	4.42	3.92	4.76	3.23	7.15	0.07	0.75	0.27	<0.01	1.54	100.12
AC00931	57.40	17.60	4.16	3.88	4.40	2.24	7.72	0.08	0.66	0.25	<0.01	1.77	100.17
AC00932	67.60	14.50	0.68	1.67	6.21	1.17	4.89	0.01	0.44	0.06	<0.01	2.85	100.09
AC00933	62.40	17.00	3.10	3.77	5.46	0.80	4.77	0.05	0.54	0.10	<0.01	2.31	100.31
AC00934	48.10	19.30	7.62	5.69	2.94	2.76	10.20	0.19	0.88	0.24	<0.01	2.31	100.24
AC00935	57.80	18.00	5.34	3.39	5.43	1.40	6.28	0.11	0.57	0.25	<0.01	1.70	100.28
AC00936	49.40	18.50	7.27	5.42	3.35	2.68	9.33	0.17	0.96	0.23	<0.01	2.00	99.22
AC00937	49.30	17.20	8.57	3.53	3.12	1.78	8.07	0.15	0.91	0.24	<0.01	7.23	100.01
AC00938	51.80	17.40	8.81	3.29	2.63	1.56	7.63	0.15	0.75	0.23	<0.01	5.62	99.88
AC00939	68.10	16.20	2.57	1.67	5.43	1.51	2.73	0.08	0.31	0.07	<0.01	1.39	100.07
AC00940	64.10	18.20	2.28	2.59	6.43	1.29	3.04	0.06	0.42	0.08	<0.01	1.54	100.04
AC00941	58.10	18.50	5.59	2.76	3.77	2.27	6.79	0.15	0.61	0.27	<0.01	1.39	100.21
AC00942	43.50	35.40	0.44	0.34	1.58	2.13	12.50	0.07	1.16	0.09	<0.01	2.77	99.99
AC00943	53.90	19.00	5.35	4.28	2.46	0.08	10.00	0.21	0.78	0.26	<0.01	4.00	100.33
AC00944	55.50	23.60	3.07	2.25	2.80	2.48	6.16	0.08	0.79	0.08	<0.01	3.08	99.90

Sample	SiO2	Al2O3	CaO	MgO	Na2O	K2O	Fe2O3	MnO	TiO2	P2O5	Cr2O3	LOI	SUM
AC00945	63.40	15.20	5.95	3.19	3.29	0.37	6.12	0.21	0.45	0.11	<0.01	2.08	100.38
AC00946	50.70	18.50	5.99	5.52	4.22	0.24	9.56	0.37	0.89	0.26	<0.01	3.21	99.57
AC00947	47.90	18.10	8.84	5.79	3.75	1.23	9.48	0.18	0.92	0.27	<0.01	3.00	99.47
AC00948	59.80	16.90	4.69	3.15	4.02	1.99	6.20	0.14	0.58	0.19	<0.01	1.16	98.83
AC00949	61.70	16.90	4.34	2.50	4.61	1.63	6.74	0.15	0.64	0.20	<0.01	0.85	100.27
AC00950	60.30	18.00	4.48	2.64	4.90	1.93	6.00	0.13	0.59	0.17	<0.01	1.00	100.15
AC00951	67.00	16.20	3.46	1.52	5.72	1.61	3.56	0.11	0.36	0.17	<0.01	0.77	100.49
AC00952	53.10	18.70	7.60	4.82	4.69	1.35	7.51	0.15	0.75	0.23	<0.01	1.47	100.38
AC00953	58.90	17.20	4.92	3.78	4.68	1.23	6.37	0.24	0.63	0.22	<0.01	2.08	100.26
AC00954	56.90	18.10	7.40	2.54	3.81	1.72	6.56	0.16	0.59	0.30	<0.01	1.62	99.71
AC00955	50.20	18.00	10.20	4.51	2.50	0.17	7.81	0.16	0.71	0.25	<0.01	5.70	100.22
AC00956	68.60	14.60	3.01	2.44	5.73	0.36	3.54	0.11	0.35	0.10	<0.01	1.54	100.39
AC00957	61.90	17.50	3.07	2.58	5.52	2.18	5.00	0.15	0.46	0.22	<0.01	1.54	100.13
AC00958	52.10	18.20	8.70	4.44	2.77	1.36	7.72	0.17	0.73	0.25	<0.01	3.47	99.92
AC00959	63.30	17.60	1.72	2.22	6.57	1.30	4.92	0.09	0.49	0.10	<0.01	1.77	100.09
AC00960	64.20	15.80	3.87	2.90	4.62	1.02	4.96	0.12	0.47	0.14	<0.01	2.00	100.11
AC00961	59.20	13.50	8.59	3.87	1.98	0.26	8.21	0.20	0.94	0.15	<0.01	3.23	100.04
AC00962	62.80	17.20	3.20	2.02	6.15	2.11	4.42	0.16	0.41	0.20	<0.01	1.54	100.22
AC00963	62.80	17.20	3.23	2.05	6.01	2.11	4.45	0.16	0.41	0.20	<0.01	1.62	100.25
AC00964	62.50	17.10	3.82	2.85	5.65	1.06	4.68	0.15	0.43	0.20	<0.01	1.77	100.22
AC00965	62.70	17.40	5.15	1.85	3.39	2.76	4.58	0.16	0.49	0.18	<0.01	1.47	100.14
AC00966	55.50	18.10	5.30	4.06	4.23	2.55	7.90	0.21	0.71	0.27	<0.01	1.00	99.84
AC00967	53.00	17.40	3.11	6.68	2.33	1.20	11.30	0.30	1.48	0.26	<0.01	2.35	99.92
AC00968	44.80	20.10	5.31	7.06	0.62	2.94	14.00	0.56	1.70	0.35	<0.01	2.62	100.07
AC00969	62.50	17.10	5.41	2.01	2.61	2.93	5.34	0.20	0.50	0.18	<0.01	1.31	100.16
AC00970	51.50	20.80	3.45	3.38	4.69	3.30	8.75	0.18	0.72	0.41	<0.01	2.85	100.04
AC00971	54.50	19.50	6.94	0.99	3.07	3.97	8.28	0.20	0.72	0.28	<0.01	1.77	100.23
AC00972	59.70	18.00	0.59	0.57	0.15	11.40	6.11	0.03	0.66	0.21	<0.01	2.54	99.97
AC00973	66.30	14.20	0.58	0.23	0.14	9.46	5.26	<0.01	0.53	0.17	<0.01	2.93	99.30
AC00974	53.10	22.20	1.51	2.08	4.29	3.36	8.64	0.14	0.85	0.20	<0.01	3.62	100.00
AC00975	71.80	14.10	0.22	1.02	0.08	5.06	4.10	0.02	0.39	0.06	<0.01	3.31	100.17
AC00976	55.10	19.00	3.09	3.76	4.89	2.05	8.08	0.20	0.82	0.25	<0.01	2.70	99.95
AC00977	63.40	18.80	1.77	1.86	7.55	1.63	3.07	0.06	0.48	0.17	<0.01	1.31	100.11
AC00978	65.10	17.40	2.08	0.67	7.04	1.99	4.39	0.12	0.46	0.19	<0.01	0.77	100.22
AC00979	53.70	20.00	2.37	3.84	5.21	2.28	8.84	0.17	0.79	0.35	<0.01	2.62	100.13
AC00980	54.10	19.00	1.95	3.35	0.07	6.19	9.78	0.14	0.95	0.35	<0.01	4.08	99.97
AC00981	49.70	19.40	5.43	3.97	5.74	1.35	8.35	0.17	0.79	0.31	<0.01	5.16	100.38
AC00982	50.50	18.50	7.46	4.04	5.16	0.52	10.30	0.19	0.96	0.25	<0.01	2.23	100.12
AC00983	47.80	17.30	5.48	7.36	2.87	0.89	11.00	0.41	1.09	0.34	0.02	5.00	100.16
AC00984	64.30	16.10	2.92	2.64	2.52	3.58	3.85	0.17	0.39	0.12	<0.01	3.54	100.14

Sample	SiO2	Al2O3	CaO	MgO	Na2O	K2O	Fe2O3	MnO	TiO2	P2O5	Cr2O3	LOI	SUM
AC00985	52.30	18.90	6.22	2.62	6.10	1.37	7.54	0.22	0.80	0.28	<0.01	3.54	99.90
AC00986	51.90	19.40	6.22	4.53	4.79	1.07	8.45	0.17	0.76	0.28	<0.01	2.54	100.12
AC00987	59.10	14.50	3.06	2.95	4.26	0.95	11.20	0.12	1.09	0.10	<0.01	2.54	99.98
AC00989	59.00	18.60	3.30	2.50	4.09	1.65	6.99	0.16	0.57	0.33	<0.01	2.70	99.90
AC00991	59.70	18.60	3.85	2.21	3.79	1.78	6.28	0.27	0.57	0.27	<0.01	2.77	100.10
AC00992	59.90	17.90	4.59	0.99	5.88	0.89	6.06	0.12	0.60	0.27	<0.01	2.77	99.98
AC00993	61.40	14.10	4.37	2.28	3.26	1.83	7.35	0.11	0.72	0.09	<0.01	4.31	99.83
AC00994	71.40	14.50	3.12	0.76	4.33	1.97	1.84	0.03	0.19	0.06	<0.01	1.70	99.90
AC00995	59.20	19.20	4.34	1.57	4.71	1.36	5.84	0.22	0.54	0.29	<0.01	2.77	100.05
AC00996	56.30	18.10	5.34	2.88	2.99	1.95	6.86	0.22	0.66	0.25	<0.01	4.16	99.72
AC00997	61.90	17.40	4.84	1.50	6.91	0.35	5.45	0.19	0.55	0.27	<0.01	1.00	100.37
AC00998	60.70	18.60	6.30	1.95	3.94	1.21	4.64	0.27	0.49	0.20	<0.01	2.08	100.39
AC00999	60.70	19.10	4.49	1.14	4.35	2.94	4.58	0.10	0.51	0.27	<0.01	1.85	100.04
AD03801	58.10	17.70	4.82	2.61	6.58	1.07	5.23	0.19	0.57	0.21	<0.01	2.85	99.93
AD03802	66.20	16.40	2.85	1.08	4.37	3.05	3.79	0.06	0.38	0.13	<0.01	1.54	99.86
AD03803	50.30	16.40	6.47	2.97	1.60	4.09	6.86	0.33	0.65	0.22	<0.01	9.77	99.67
AD03804	60.50	18.20	2.79	2.85	4.88	1.44	5.98	0.09	0.64	0.11	<0.01	2.46	99.95
AD03805	58.20	21.40	0.85	1.46	3.52	4.74	4.87	0.06	0.71	0.28	<0.01	3.77	99.87
AD03809	59.00	17.10	4.20	2.99	5.31	1.37	5.46	0.13	0.50	0.19	<0.01	3.54	99.80
AD03810	43.70	15.70	8.58	5.77	1.17	4.38	8.50	1.16	0.83	0.18	0.01	6.77	96.75
AD03811	51.40	16.70	5.86	7.17	3.19	1.78	8.70	0.17	0.97	0.20	0.02	3.46	99.62
AD03812	58.60	16.10	3.11	3.09	2.04	3.95	7.02	0.20	0.66	0.23	<0.01	4.00	99.01
AD03813	55.30	17.90	3.62	4.45	4.45	1.41	7.77	0.15	0.79	0.24	<0.01	3.16	99.25
AD03814	57.50	17.00	1.83	2.23	0.47	11.30	5.33	0.43	0.56	0.19	<0.01	1.70	99.05
AD03815	55.70	17.30	2.29	2.55	0.39	7.86	7.48	0.51	0.89	0.24	<0.01	3.62	98.84
AD03816	55.30	18.40	6.59	3.68	3.48	1.95	7.60	0.22	0.69	0.35	<0.01	1.47	99.74
AD03822	57.70	18.30	1.98	3.35	6.73	1.77	6.29	0.20	0.59	0.22	<0.01	2.08	99.22
AD03824	58.10	16.20	4.47	3.25	4.82	1.44	6.31	0.19	0.64	0.19	<0.01	3.85	99.47
AD03827	60.00	18.30	2.98	2.74	4.54	1.65	5.82	0.09	0.62	0.11	<0.01	2.47	99.33
AD03831	64.30	16.10	3.09	2.59	5.71	1.22	4.13	0.10	0.43	0.15	<0.01	1.77	99.60
AD03834	56.90	17.10	6.06	1.63	6.50	1.35	5.30	0.13	0.60	0.27	<0.01	3.00	98.85
AD03835	59.50	17.50	3.91	1.81	5.63	1.68	5.32	0.16	0.68	0.30	<0.01	3.31	99.61
AD03836	64.20	15.40	3.46	3.38	5.71	0.20	4.67	0.17	0.46	0.13	<0.01	1.33	99.72
AD03838	61.20	16.80	3.39	2.72	5.10	1.07	5.92	0.33	0.55	0.21	<0.01	2.08	99.38
AD03839	70.50	12.90	1.88	2.38	5.62	0.07	3.85	0.22	0.34	0.08	<0.01	1.85	99.70
AD03840	60.00	14.70	6.59	3.23	3.87	0.67	4.60	0.16	0.33	0.09	<0.01	5.77	100.02
AD03842	56.80	20.80	3.88	2.18	3.57	1.94	6.83	0.15	0.73	0.24	<0.01	2.70	99.83
AD03843	57.70	14.50	5.48	4.17	3.05	0.30	10.90	0.19	1.26	0.12	<0.01	2.47	99.95
AD03844	56.30	14.60	7.59	5.12	1.59	0.86	3.35	0.29	1.04	0.15	<0.01	2.70	99.60
AD03845	61.00	15.90	3.78	2.31	3.30	3.87	5.13	0.18	0.49	0.18	<0.01	2.16	98.31

Sample	SiO2	Al2O3	CaO	MgO	Na2O	K2O	Fe2O3	MnO	TiO2	P2O5	Cr2O3	LOI	SUM
AD03846	57.80	13.60	4.93	5.22	3.00	0.99	7.29	0.42	0.72	0.14	<0.01	4.93	99.05
AD03847	52.40	17.40	7.99	2.62	5.50	0.28	6.62	0.22	0.68	0.22	<0.01	5.54	99.48
AD03848	51.80	22.50	2.92	2.32	2.69	3.81	8.62	0.16	0.84	0.18	<0.01	3.16	99.01
AD03849	57.50	17.00	6.16	2.99	3.18	1.37	6.25	0.16	0.61	0.20	<0.01	3.85	99.28
AD03850	52.50	24.40	4.93	2.24	2.84	1.36	7.26	0.17	0.94	0.11	<0.01	3.23	99.99
AD03851	62.50	17.10	2.89	3.04	4.02	2.25	5.33	0.11	0.58	0.08	<0.01	2.31	100.22
AD03852	69.40	14.20	2.68	1.61	4.91	1.10	3.64	0.08	0.44	0.08	<0.01	1.77	99.92
AD03853	36.50	7.60	10.70	7.12	0.38	2.19	23.20	0.65	3.29	0.14	<0.01	3.16	94.94
AD03854	66.50	16.40	2.64	1.94	4.45	1.42	3.95	0.07	0.47	0.06	<0.01	2.00	99.91
AD03855	66.10	15.40	2.94	2.60	5.24	0.96	4.58	0.11	0.50	0.09	<0.01	1.85	100.38
AD03856	56.70	19.50	0.27	1.33	0.43	12.10	5.20	0.08	0.64	0.24	<0.01	3.31	99.81
AD03857	58.50	19.00	3.22	2.90	4.02	1.58	6.61	0.09	0.69	0.16	<0.01	3.08	99.86
AD03858	59.20	17.70	0.66	2.72	2.83	6.98	6.72	0.26	0.61	0.28	<0.01	2.16	100.13
AD03859	64.30	15.00	4.03	1.85	3.79	2.37	4.90	0.14	0.45	0.08	<0.01	3.31	100.23
AD03860	56.80	17.80	6.60	3.19	4.92	1.40	6.66	0.15	0.58	0.25	<0.01	1.77	100.13
AD03861	54.20	18.70	0.79	1.83	1.57	10.60	7.19	0.12	0.67	0.30	<0.01	3.46	99.44
AD03862	46.30	19.00	5.34	6.12	3.75	1.29	11.90	0.23	1.00	0.26	<0.01	4.62	99.82
AD03863	49.30	18.90	8.91	4.94	3.77	0.77	9.36	0.26	0.91	0.26	<0.01	2.46	99.85
AD03864	64.60	16.50	1.90	2.51	7.30	1.06	3.83	0.10	0.44	0.15	<0.01	1.62	100.02
AD03865	57.10	18.00	4.34	3.61	5.53	2.36	6.76	0.17	0.61	0.20	<0.01	1.16	99.85
AD03866	63.80	16.10	4.10	2.02	5.21	1.69	4.73	0.20	0.44	0.19	<0.01	1.47	99.86
AD03867	64.40	16.40	2.25	2.22	5.09	2.92	4.36	0.12	0.44	0.18	<0.01	1.47	99.86
AD03868	58.20	18.00	6.99	2.50	3.80	2.11	6.73	0.19	0.55	0.32	<0.01	0.47	99.95
AD03869	46.90	17.40	13.30	10.50	1.16	0.42	8.64	0.25	0.30	0.04	0.04	1.31	100.26
AD03870	54.70	22.50	2.93	2.22	2.86	2.54	6.15	0.07	0.88	0.09	<0.01	4.93	99.88
AD03871	61.80	16.80	6.66	1.34	5.44	0.42	4.91	0.19	0.51	0.21	<0.01	1.39	99.68
AD03872	56.40	16.00	2.37	4.40	2.00	1.89	11.00	0.30	0.63	0.22	<0.01	4.54	99.76
AD03873	70.20	13.70	3.99	1.69	3.10	1.61	4.14	0.09	0.46	0.09	<0.01	0.62	99.70
AD03874	53.00	19.40	7.75	3.60	2.83	2.76	8.60	0.27	0.85	0.26	<0.01	0.77	100.10
AD03875	55.60	17.10	0.88	2.48	0.98	4.25	12.10	0.24	0.62	0.16	<0.01	5.47	99.89
AD03876	40.20	14.10	10.50	5.79	0.12	1.35	7.54	0.19	0.59	0.25	<0.01	18.54	99.18
AD03878	52.10	16.10	0.36	8.23	0.41	2.30	11.70	0.08	2.46	0.25	0.03	6.31	100.33
AD03903	60.00	13.70	5.00	4.57	4.50	0.52	7.77	0.23	0.71	0.13	<0.01	2.31	99.45
AD03904	59.40	17.30	3.82	2.55	5.41	0.20	7.61	0.18	0.67	0.23	<0.01	2.73	100.11
AD03906	55.40	22.20	3.95	1.57	2.26	1.39	8.40	0.15	0.90	0.18	<0.01	3.39	99.80
AD03912	51.40	18.30	5.92	4.61	4.93	1.53	7.53	0.16	0.76	0.26	<0.01	3.39	98.80
AD03913	50.00	17.80	6.31	4.79	3.35	2.09	7.96	0.21	0.84	0.31	<0.01	5.70	99.37
AD03915	54.00	18.00	5.20	3.84	5.88	0.37	8.24	0.20	0.87	0.28	<0.01	2.85	99.74
AD03916	58.70	17.00	2.39	3.33	4.89	4.08	6.01	0.18	0.62	0.28	<0.01	2.08	99.57
AD03917	52.70	17.40	6.63	3.08	3.59	2.58	7.08	0.23	0.70	0.30	<0.01	5.31	99.61

Sample	SiO2	Al2O3	CaO	MgO	Na2O	K2O	Fe2O3	MnO	TiO2	P2O5	Cr2O3	LOI	SUM
AD03918	55.80	17.90	3.05	2.65	5.26	3.01	6.79	0.14	0.72	0.24	<0.01	3.16	98.73
AD03920	52.70	17.40	4.26	4.12	4.91	1.59	7.58	0.17	0.71	0.31	<0.01	4.08	98.84
AD03921	58.10	17.50	3.75	2.94	4.61	1.52	6.23	0.19	0.64	0.27	<0.01	2.93	98.69
AD03924	60.90	18.30	0.57	2.84	2.26	3.88	5.46	0.10	0.64	0.27	<0.01	4.08	99.31
AD03929	52.30	19.60	1.03	7.86	2.30	2.30	8.52	0.18	0.76	0.12	<0.01	4.77	99.75
AD03933	76.20	12.80	1.62	0.31	5.09	1.63	0.67	0.03	0.09	0.04	<0.01	1.54	100.03
AD03934	42.20	16.10	3.60	14.70	1.41	0.03	11.30	0.34	0.71	0.06	0.08	8.47	99.00
AD03937	74.80	14.00	0.75	0.33	5.33	1.92	0.84	0.03	0.10	0.04	<0.01	1.00	99.15
AD03938	62.20	14.30	7.67	2.51	0.07	1.89	6.35	0.37	0.87	0.08	<0.01	3.62	99.94
AD03944	77.20	10.00	1.68	1.49	3.70	0.75	2.40	0.06	0.30	0.04	0.01	1.77	99.40
AD03945	55.70	18.40	1.94	4.85	1.54	4.20	7.17	0.19	0.85	0.16	<0.01	3.93	98.94
AD03946	54.70	17.60	3.43	4.16	4.58	1.91	7.13	0.18	0.72	0.19	<0.01	4.31	98.92
AD03947	57.80	17.50	2.97	2.77	4.02	2.72	6.61	0.13	0.63	0.26	<0.01	3.77	99.19
AD03948	53.60	17.60	3.70	4.66	3.67	2.61	7.31	0.19	0.72	0.24	<0.01	5.16	99.47
AD03961	60.10	16.70	5.05	2.52	4.45	2.19	6.00	0.14	0.63	0.20	<0.01	0.85	98.34
AD03962	51.40	17.70	6.24	3.43	3.17	3.13	7.58	0.19	0.78	0.28	<0.01	5.54	99.45
AD03963	52.20	18.10	4.79	4.41	3.61	2.94	7.58	0.17	0.75	0.29	<0.01	5.08	99.94
AD03964	50.60	19.10	6.47	3.44	3.86	2.73	7.56	0.17	0.86	0.26	<0.01	4.31	99.37
AD03965	50.40	17.90	1.95	3.56	0.14	9.91	9.04	1.16	0.95	0.21	<0.01	2.77	98.00
AD03966	50.60	17.80	6.63	3.19	2.30	3.63	8.30	0.25	0.92	0.20	<0.01	5.08	98.91
AD03967	51.70	18.60	4.13	3.29	1.28	4.84	8.33	0.22	0.88	0.25	<0.01	5.54	99.07
AD03968	49.90	17.60	5.35	5.86	3.05	1.55	8.75	0.25	0.88	0.29	<0.01	5.62	99.11
AD03969	62.10	15.70	2.28	1.36	2.51	6.56	5.00	0.34	0.52	0.19	<0.01	2.08	98.65
AD03970	50.40	18.30	6.60	3.35	1.74	5.51	7.56	0.26	0.82	0.25	<0.01	4.16	98.96
AD03971	50.20	17.90	3.76	4.30	0.82	7.22	8.74	0.51	0.92	0.26	<0.01	3.47	98.21
AD03972	49.50	17.40	8.21	5.20	3.69	0.62	8.96	0.21	0.89	0.20	<0.01	3.70	98.59
AD03973	50.70	17.90	6.61	5.10	4.01	1.50	8.93	0.18	0.97	0.22	<0.01	2.62	98.65
AD03974	51.90	16.90	5.99	5.79	3.79	1.25	8.83	0.16	0.87	0.19	<0.01	2.85	98.53
AD03975	49.80	17.60	6.79	4.56	3.09	2.71	8.07	0.22	0.82	0.28	<0.01	5.00	98.95
AD03979	63.60	16.60	4.52	1.92	4.41	1.50	4.48	0.16	0.47	0.17	<0.01	1.77	99.61
AF00701	59.10	18.10	2.44	2.63	6.29	1.32	6.92	0.24	0.67	0.30	<0.01	1.93	99.95
AF00702	58.50	18.00	5.72	1.83	4.36	1.93	5.66	0.16	0.53	0.19	<0.01	2.47	99.36
AF00703	61.70	17.30	1.85	0.43	4.76	2.73	6.64	0.04	0.53	0.12	<0.01	4.08	100.19
AF00704	62.10	17.30	4.52	2.44	5.68	1.10	4.45	0.15	0.41	0.20	<0.01	1.62	99.98
AF00705	62.20	17.00	2.76	2.19	7.28	1.57	4.40	0.14	0.43	0.20	<0.01	1.85	100.03
AF00706	52.70	23.50	4.97	2.26	4.27	3.50	5.45	0.09	0.61	0.10	<0.01	2.62	100.08
AF00707	63.20	17.20	1.51	3.19	3.83	2.96	4.80	0.10	0.56	0.13	<0.01	2.47	99.96
AF00708	66.00	16.20	3.27	1.76	4.42	1.81	4.01	0.09	0.47	0.09	<0.01	1.85	99.98
AF00709	61.40	17.80	1.89	3.19	5.48	1.86	5.41	0.12	0.57	0.11	<0.01	2.16	100.00
AF00710	62.50	17.90	1.55	2.89	6.53	1.25	4.96	0.10	0.52	0.10	<0.01	1.93	100.14

Sample	SiO2	Al2O3	CaO	MgO	Na2O	K2O	Fe2O3	MnO	TiO2	P2O5	Cr2O3	LOI	SUM
AF00711	61.50	18.80	1.89	2.20	6.24	1.67	4.82	0.09	0.60	0.12	<0.01	2.08	100.02
AF00712	62.10	17.30	3.21	1.89	7.35	0.71	4.54	0.17	0.43	0.21	<0.01	2.23	100.15
AF00713	59.70	18.50	2.92	2.56	4.04	2.76	5.84	0.10	0.63	0.12	<0.01	2.62	99.80
AF00714	60.60	17.30	4.32	1.82	6.26	1.40	4.71	0.17	0.46	0.19	<0.01	2.54	99.78
AF00715	62.40	17.40	2.84	1.94	5.43	2.95	4.77	0.16	0.47	0.19	<0.01	1.70	100.26
AF00716	57.10	20.30	1.68	3.83	2.08	4.51	6.01	0.09	0.59	0.09	<0.01	3.54	99.83
AF00717	50.40	15.10	4.09	3.74	2.17	1.91	17.50	0.23	1.58	0.23	<0.01	3.16	100.12
AF00718	57.20	18.40	4.36	2.97	4.20	1.83	5.59	0.17	0.58	0.22	<0.01	4.16	99.69
AF00719	64.70	16.20	3.70	2.70	5.63	0.48	4.44	0.09	0.47	0.10	<0.01	1.85	100.37
AF00720	58.40	16.00	5.58	4.09	3.36	0.63	8.22	0.15	0.76	0.14	<0.01	2.70	100.04
AF00721	60.00	15.50	4.53	4.14	4.54	1.04	7.44	0.15	0.74	0.12	<0.01	1.70	99.91
AF00722	61.10	18.10	2.65	2.17	5.56	2.70	5.63	0.14	0.57	0.20	<0.01	1.31	100.14
AF00723	52.40	19.10	8.52	5.05	2.76	1.01	8.18	0.14	0.75	0.27	<0.01	1.85	100.04
AF00724	57.20	17.80	5.10	3.96	3.92	1.36	7.75	0.21	0.63	0.22	<0.01	1.85	100.01
AF00725	61.90	19.20	3.15	2.24	4.62	1.57	4.65	0.09	0.47	0.10	<0.01	2.08	100.09
AF00726	65.10	17.00	4.21	1.96	4.10	1.34	3.77	0.07	0.40	0.06	<0.01	1.85	99.87
AF01055	67.60	15.40	1.98	1.28	4.61	3.03	3.22	0.10	0.35	0.12	<0.01	1.85	99.55
AF01056	61.00	15.40	5.42	2.76	4.37	0.58	6.02	0.23	0.64	0.08	<0.01	3.00	99.51
AF01057	71.20	12.10	2.29	1.95	3.84	1.29	3.40	0.14	0.32	0.09	0.01	2.23	98.96
AF01059	57.30	17.30	4.67	2.45	2.68	3.45	5.64	0.28	0.57	0.27	<0.01	4.54	99.16
AF01060	56.50	19.20	3.81	2.68	5.45	1.67	5.60	0.38	0.65	0.21	<0.01	2.70	98.86
AF01061	59.60	17.30	4.57	2.07	3.75	2.70	6.14	0.13	0.63	0.19	<0.01	2.70	99.78
AF01062	55.70	19.10	4.29	2.68	3.89	3.43	7.25	0.16	0.69	0.21	<0.01	1.93	99.34
AF01063	51.40	18.10	4.83	4.07	3.46	2.63	8.22	0.17	0.71	0.31	<0.01	5.70	99.61
AF01064	45.80	17.30	9.21	4.28	0.52	5.01	7.97	0.20	0.73	0.20	<0.01	9.31	99.54
AF01065	56.20	16.90	4.57	2.52	5.15	2.21	6.34	0.16	0.62	0.23	<0.01	4.08	98.99
AF01066	58.10	17.30	3.36	2.95	5.57	1.97	6.05	0.19	0.60	0.26	<0.01	3.47	99.82
AF01068	59.20	17.10	3.93	2.83	3.30	2.76	5.39	0.12	0.58	0.09	<0.01	4.95	100.16
AF01069	65.20	11.40	6.45	2.70	1.58	1.35	5.40	0.23	0.50	0.08	0.01	4.47	99.37
AF01070	58.80	18.40	2.51	3.60	4.85	1.21	6.60	0.17	0.60	0.23	<0.01	2.93	99.91
AF01074	57.50	18.50	4.37	1.89	5.03	1.52	6.57	0.24	0.65	0.28	<0.01	2.70	99.26
AF01075	70.90	13.10	2.71	1.70	4.70	0.75	3.27	0.15	0.34	0.16	0.01	1.47	99.26
AF01077	54.20	18.90	1.85	4.36	6.88	0.94	7.25	0.14	0.73	0.29	<0.01	3.00	98.55
AF01081	58.40	18.30	6.21	2.35	3.33	1.44	5.96	0.11	0.66	0.11	<0.01	2.31	99.19
AF01083	56.80	17.50	2.37	3.49	4.48	3.75	6.82	0.15	0.67	0.25	<0.01	2.47	99.76
AF01084	54.10	16.20	6.88	1.76	0.38	4.15	7.26	0.30	0.58	0.20	<0.01	6.93	98.75
AF01085	49.90	17.80	8.13	0.79	1.47	4.23	7.24	0.14	0.71	0.24	<0.01	9.54	100.20
AF01086	51.50	17.50	4.79	4.50	4.10	2.91	7.99	0.16	0.85	0.39	<0.01	4.00	98.70
AF01087	55.90	17.20	4.61	3.17	4.97	1.99	6.62	0.17	0.66	0.24	<0.01	3.39	98.93
AF01089	48.10	16.80	9.34	7.71	3.15	0.42	10.40	0.17	1.07	0.15	0.03	1.54	98.88

Sample	SiO2	Al2O3	CaO	MgO	Na2O	K2O	Fe2O3	MnO	TiO2	P2O5	Cr2O3	LOI	SUM
AF01090	56.40	16.20	3.71	2.22	0.69	8.74	5.67	0.50	0.53	0.20	<0.01	3.85	98.72
AF01091	58.40	16.00	1.36	2.09	0.40	10.10	5.78	0.41	0.53	0.23	<0.01	2.85	98.16
AF01092	52.00	16.00	2.37	4.23	0.12	9.22	7.57	0.82	0.80	0.19	<0.01	3.08	96.41
AF01094	48.70	17.00	5.05	2.13	1.86	6.24	8.78	0.58	0.79	0.20	<0.01	4.39	95.73
AF01095	54.00	16.50	2.32	4.33	0.10	9.20	7.64	0.83	0.92	0.20	<0.01	2.85	98.90
AF01096	49.10	17.00	7.35	2.73	5.39	1.99	8.08	0.17	0.75	0.27	<0.01	6.47	99.31
AF01097	49.90	14.90	7.74	3.56	0.12	3.94	5.67	0.33	0.63	0.15	<0.01	13.40	100.35
AF01098	54.80	19.60	3.97	1.74	5.00	2.88	6.11	0.12	0.90	0.28	<0.01	3.23	98.64
AF01099	49.90	18.10	6.88	4.74	2.63	2.68	8.95	0.17	1.08	0.35	<0.01	4.39	99.88
AF01100	59.20	18.80	2.37	2.96	3.48	3.18	4.92	0.17	0.57	0.19	<0.01	3.77	99.62
AF01102	48.40	17.30	6.09	7.00	3.25	1.12	9.53	0.26	0.93	0.29	<0.01	5.54	99.72
AF01104	54.00	18.60	6.26	2.74	4.30	1.26	7.92	0.20	0.80	0.31	<0.01	3.00	99.40
AF01105	62.00	15.90	4.42	1.90	4.00	2.16	6.22	0.13	0.59	0.17	<0.01	2.85	100.35
AF01106	59.50	16.70	4.19	2.18	5.28	1.06	5.49	0.15	0.61	0.18	<0.01	3.31	98.66
AF01107	56.70	19.20	2.62	2.60	4.76	3.02	6.54	0.13	0.55	0.21	<0.01	2.33	99.83
AF01108	62.70	17.40	4.12	2.02	4.77	1.53	4.50	0.10	0.53	0.15	<0.01	2.00	99.83
AF01109	51.00	18.80	7.32	4.05	3.52	1.67	8.70	0.21	0.80	0.37	<0.01	3.93	100.39
AF01110	47.50	17.50	9.67	2.22	1.77	3.90	7.89	0.27	0.73	0.32	<0.01	7.62	99.40
AF01111	49.10	18.30	8.46	3.02	3.26	2.26	9.56	0.21	0.79	0.36	<0.01	5.54	99.87
AF01112	61.80	15.60	3.60	2.34	4.53	1.99	5.15	0.14	0.57	0.08	<0.01	4.00	99.81
AF01113	69.70	14.50	3.16	1.52	3.55	2.20	2.62	0.13	0.27	0.06	0.02	2.23	99.96
AF01114	56.70	17.90	6.68	2.24	3.26	2.79	6.21	0.15	0.52	0.29	<0.01	3.00	99.66
AF01117	57.80	18.40	3.62	2.39	4.34	3.42	5.50	0.23	0.56	0.31	<0.01	2.54	99.12
AF01118	66.10	15.10	2.21	2.37	5.18	0.83	4.81	0.19	0.51	0.08	0.01	2.31	99.75
AF01121	60.90	17.40	2.83	1.83	2.83	2.51	6.78	0.13	0.56	0.19	<0.01	4.15	100.13
AF01122	53.90	19.50	4.60	3.73	3.16	3.31	7.12	0.31	0.64	0.26	<0.01	2.08	98.62
AF01123	63.80	16.70	3.38	1.60	5.65	1.20	3.98	0.18	0.41	0.17	0.01	2.00	99.08
AF01124	62.70	17.00	4.76	2.33	3.64	1.69	4.93	0.20	0.51	0.18	<0.01	1.98	99.03
AF01125	54.40	17.20	5.26	3.48	2.44	4.16	6.77	0.22	0.65	0.28	<0.01	5.00	99.87
AF01126	54.40	17.70	4.54	1.80	3.72	2.62	8.86	0.20	0.71	0.29	<0.01	3.93	98.78
AF01129	55.70	17.80	5.91	1.98	4.11	2.41	6.00	0.22	0.53	0.28	<0.01	5.39	100.34
AF01131	58.30	16.90	5.29	1.91	2.46	2.70	6.29	0.21	0.52	0.28	<0.01	3.70	98.57
AF01132	56.20	19.30	3.97	1.80	4.93	2.07	6.26	0.14	0.61	0.29	<0.01	2.93	98.51
AF01133	56.00	19.10	3.94	1.27	2.43	3.76	8.30	0.16	0.69	0.24	<0.01	3.93	99.83
AF01135	56.90	17.80	3.44	2.30	3.39	4.10	7.96	0.13	0.73	0.27	<0.01	3.90	100.03
AF01136	60.70	16.10	4.37	3.12	3.74	1.99	4.86	0.19	0.53	0.09	<0.01	4.16	99.86
AF01137	61.10	15.20	4.50	3.48	3.82	1.33	5.69	0.13	0.68	0.10	<0.01	4.16	100.20
AF01138	53.60	16.60	6.86	4.60	3.64	1.26	7.59	0.15	0.76	0.19	<0.01	4.93	100.19
AF01139	64.30	17.00	3.43	2.12	4.52	1.95	3.47	0.08	0.39	0.07	<0.01	2.47	99.81
AF01140	48.00	17.10	7.01	6.15	4.10	0.71	8.69	0.18	0.89	0.22	<0.01	7.00	100.06

Sample	SiO2	Al2O3	CaO	MgO	Na2O	K2O	Fe2O3	MnO	TiO2	P2O5	Cr2O3	LOI	SUM
AF01142	54.50	16.00	4.00	1.03	4.31	2.10	3.33	0.12	0.37	0.13	<0.01	4.31	100.21
AF01143	55.00	17.00	3.54	3.26	5.26	3.94	7.53	0.45	0.71	0.23	<0.01	2.77	99.70
AF01144	55.10	16.20	4.97	2.69	2.29	4.95	7.31	0.25	0.76	0.23	<0.01	5.39	100.15
AF01145	58.00	17.40	3.99	1.68	2.24	5.44	5.49	0.17	0.56	0.25	<0.01	4.77	100.00
AF01146	55.20	17.50	4.30	3.58	5.34	1.52	7.23	0.23	0.65	0.23	<0.01	4.23	100.02
AF01147	54.20	17.50	6.34	2.18	4.84	1.92	6.73	0.17	0.69	0.24	<0.01	5.00	99.32
AF01148	49.90	17.70	6.63	3.36	1.88	3.06	8.26	0.22	0.72	0.31	<0.01	7.85	99.90
AF01150	58.40	15.20	6.21	1.61	4.31	1.73	5.88	0.20	0.46	0.21	<0.01	4.00	98.22
AF01151	59.20	16.30	3.97	2.97	4.91	1.86	5.37	0.17	0.56	0.24	<0.01	4.54	100.10
AF01152	56.80	17.70	4.66	2.11	5.51	2.80	5.49	0.14	0.58	0.21	<0.01	3.93	99.94
AF01153	56.90	18.00	2.73	2.81	4.63	3.15	8.14	0.12	0.75	0.27	<0.01	2.39	99.90
AF01154	56.80	17.30	3.97	2.54	4.81	3.10	6.48	0.15	0.50	0.28	<0.01	3.77	99.61
AF01155	55.00	18.90	2.67	3.18	4.85	2.79	8.37	0.19	0.37	0.28	<0.01	2.77	99.88
AF01156	59.10	17.50	3.94	2.73	5.07	2.69	6.36	0.15	0.60	0.29	<0.01	1.39	99.83
AF01157	60.30	18.70	2.64	1.88	4.59	2.34	6.84	0.11	0.64	0.23	<0.01	2.08	100.16
AF01158	54.70	20.00	5.71	2.05	4.03	1.84	7.21	0.20	0.66	0.26	<0.01	3.39	100.05
AF01159	58.40	18.10	3.68	1.92	2.70	3.45	6.79	0.14	0.64	0.24	<0.01	3.93	100.00
AF01160	54.50	17.10	6.36	4.37	3.41	1.24	9.18	0.18	0.87	0.16	<0.01	2.54	99.92
AF01161	53.80	18.00	5.46	5.03	4.01	0.54	8.26	0.16	0.83	0.27	<0.01	3.70	100.07
AF01162	56.90	20.40	4.14	2.65	3.47	2.07	6.49	0.10	0.76	0.17	<0.01	2.62	99.76
AF01163	57.30	17.70	6.10	2.92	3.77	1.94	7.61	0.11	0.61	0.25	<0.01	1.70	100.02
AF01164	55.30	17.90	5.81	4.28	4.49	1.09	7.75	0.16	0.72	0.25	<0.01	2.23	100.00
AF01166	59.30	16.80	6.26	3.40	3.68	0.43	6.28	0.18	0.62	0.16	<0.01	2.77	99.89
AF01168	58.80	16.40	3.78	4.32	5.01	0.84	6.10	0.12	0.56	0.17	<0.01	3.77	99.88
AF01170	70.20	18.00	0.42	0.61	0.47	4.69	1.61	0.01	0.52	0.15	<0.01	3.16	99.85
AF01171	58.20	17.20	3.90	3.89	4.74	1.01	6.05	0.30	0.60	0.18	<0.01	3.70	99.73
AF01173	72.80	14.50	0.71	1.29	2.59	5.31	0.91	0.09	0.32	0.09	<0.01	1.47	100.08
AF01174	59.80	17.90	5.29	1.21	3.80	2.13	5.84	0.22	0.50	0.26	<0.01	3.00	99.16
AF01175	51.00	19.80	4.12	4.24	6.14	1.15	8.84	0.19	0.35	0.31	<0.01	3.39	100.04
AF01176	65.20	12.90	4.24	3.26	4.11	0.21	6.38	0.16	0.53	0.11	<0.01	3.06	100.17
AF01177	53.90	17.20	5.53	4.58	3.95	1.19	8.01	0.16	0.78	0.21	<0.01	4.16	99.68
AF01178	65.50	16.30	3.69	1.83	3.96	1.84	3.70	0.09	0.41	0.07	<0.01	2.54	99.94
AF01179	53.20	19.00	5.68	4.00	5.54	0.49	7.84	0.15	0.78	0.27	<0.01	3.00	99.96
AF01180	60.60	17.70	5.00	2.28	4.91	1.25	4.62	0.12	0.43	0.13	<0.01	3.08	100.13
AF01181	50.90	18.50	6.70	5.93	3.41	0.83	8.43	0.14	0.84	0.26	<0.01	3.93	99.89
AF01182	60.20	16.40	4.65	1.82	6.76	0.63	6.05	0.15	0.60	0.27	<0.01	2.62	100.16
AF01184	54.20	17.70	6.02	2.98	4.00	1.39	6.69	0.22	0.69	0.27	<0.01	5.70	99.87
AF01185	50.80	17.40	9.47	5.82	2.63	1.28	9.83	0.17	0.90	0.23	<0.01	2.62	100.16
AF01186	62.90	16.80	5.55	2.03	3.02	1.91	3.61	0.09	0.40	0.07	<0.01	3.77	100.16
AF01187	55.70	17.40	4.50	4.95	4.88	0.62	7.72	0.21	0.80	0.23	<0.01	2.93	99.95



Sample	SiO2	Al2O3	CaO	MgO	Na2O	K2O	Fe2O3	MnO	TiO2	P2O5	Cr2O3	LOI	SUM
AF01188	49.00	18.40	7.19	5.23	4.01	1.42	9.89	0.19	0.97	0.24	<0.01	2.62	100.17
AF01189	60.40	17.50	4.47	1.52	3.74	2.34	4.65	0.19	0.46	0.22	<0.01	4.31	99.83
AF01190	55.70	17.50	5.85	1.95	3.94	1.91	6.23	0.17	0.60	0.15	<0.01	5.85	99.86
AF01192	58.20	17.70	4.90	2.61	4.39	2.43	6.34	0.21	0.62	0.30	<0.01	2.08	99.79
AF01193	55.80	17.50	6.87	4.41	2.58	0.89	6.54	0.35	0.66	0.30	<0.01	4.00	99.91
AF01195	48.90	18.10	5.81	5.70	2.60	2.47	8.71	0.43	0.95	0.23	<0.01	5.93	99.84
AF01196	48.80	18.30	9.26	7.43	3.04	0.85	9.39	0.24	0.94	0.24	<0.01	1.77	100.27
AF01197	56.50	18.50	7.64	2.58	4.08	1.16	7.18	0.18	0.73	0.24	<0.01	1.16	99.96
AF01198	60.40	17.10	6.13	2.90	3.79	0.85	6.69	0.16	0.62	0.21	<0.01	1.08	99.94
AF01199	58.50	18.30	3.29	2.98	4.04	2.27	8.24	0.11	0.91	0.16	<0.01	1.31	100.12
AF01200	57.30	17.10	7.60	2.89	3.13	0.25	7.00	0.24	0.67	0.26	<0.01	3.70	100.15
AF05051	51.10	18.40	7.63	5.72	4.60	0.92	9.02	0.22	0.90	0.24	<0.01	1.23	99.99
AF05053	50.30	20.10	4.85	6.64	3.87	1.13	8.43	0.15	1.01	0.26	<0.01	3.39	100.14
AF05054	54.40	23.90	3.02	2.26	2.96	2.70	5.99	0.09	1.16	0.08	<0.01	3.54	100.11
AF05055	55.10	20.80	3.30	3.27	3.04	2.02	9.24	0.15	0.85	0.10	<0.01	2.39	100.27
AF05056	54.20	21.30	3.13	3.18	2.40	3.22	8.69	0.16	0.85	0.12	<0.01	3.08	100.34
AF05057	58.10	20.10	2.68	3.00	3.14	2.31	5.06	0.09	0.75	0.18	<0.01	4.39	99.81
AF05059	59.20	18.90	1.45	3.72	4.34	2.23	6.55	0.10	0.70	0.16	<0.01	2.70	100.36
AF05060	54.10	18.00	6.65	3.52	4.04	1.56	8.12	0.17	0.74	0.27	<0.01	2.54	99.83
AF05061	57.00	19.80	4.21	2.24	2.98	1.59	8.66	0.14	0.83	0.19	<0.01	2.39	100.04
AF05062	55.00	17.90	6.38	3.83	3.71	1.88	7.87	0.16	0.72	0.27	<0.01	2.08	99.81
AF05063	60.40	15.70	3.92	2.58	2.78	2.42	6.87	0.13	0.65	0.08	<0.01	4.54	100.08
AF05064	51.80	17.00	7.97	4.70	2.77	1.30	8.04	0.17	0.80	0.24	<0.01	5.23	100.03
AF05065	53.80	13.40	4.25	3.09	3.25	1.17	15.70	0.15	1.48	0.11	<0.01	2.70	100.15
AF05067	51.30	18.50	5.71	4.70	3.85	1.76	8.13	0.17	0.76	0.27	<0.01	4.65	100.01
AF05068	49.10	17.90	8.86	4.03	3.41	0.91	8.43	0.19	0.80	0.31	<0.01	5.85	99.80
AF05069	51.70	17.20	6.18	5.36	3.48	1.10	8.10	0.16	0.72	0.24	<0.01	5.77	100.02
AF05070	45.30	17.40	10.40	4.99	2.33	1.64	7.90	0.18	0.75	0.25	<0.01	8.23	99.38
AF05071	50.80	18.00	5.63	4.94	2.82	1.57	8.57	0.20	0.84	0.24	<0.01	4.47	98.09
AF05072	57.70	17.30	5.46	1.63	2.70	2.72	5.47	0.26	0.50	0.26	<0.01	3.93	97.94
AF05073	61.60	16.70	5.50	1.72	4.47	1.23	4.88	0.27	0.46	0.23	<0.01	2.77	99.34
AF05075	55.60	18.10	5.28	4.36	1.36	2.01	6.24	0.40	0.63	0.28	<0.01	4.77	99.04
AF05076	65.20	17.50	0.60	3.09	3.45	1.21	4.44	0.29	0.43	0.21	<0.01	3.54	99.96
AF05078	57.80	17.50	2.55	3.37	2.89	1.52	6.97	0.25	0.60	0.30	<0.01	5.29	99.15
AF05079	58.90	16.90	4.53	0.69	3.42	1.22	5.14	0.24	0.52	0.27	<0.01	6.85	98.69
AF05080	57.10	17.10	6.28	1.01	0.41	2.27	5.33	0.20	0.55	0.27	<0.01	9.08	99.81
AF05081	52.30	17.30	5.91	5.23	3.53	1.38	8.25	0.16	0.81	0.23	<0.01	4.62	100.23
AF05082	50.90	17.70	5.80	5.33	2.82	1.72	7.93	0.19	0.83	0.23	<0.01	6.08	99.54
AF05083	57.80	19.40	1.17	2.12	2.53	6.40	6.98	0.08	0.76	0.31	<0.01	2.39	99.95
AF05085	53.80	17.40	1.12	4.06	2.91	3.99	10.10	0.15	0.70	0.27	<0.01	5.08	99.59

Sample	SiO2	Al2O3	CaO	MgO	Na2O	K2O	Fe2O3	MnO	TiO2	P2O5	Cr2O3	LOI	SUM
AF05086	67.90	15.00	0.80	1.61	1.55	8.27	2.92	0.07	0.41	0.17	<0.01	1.08	99.79
AF05087	50.10	19.40	5.24	5.90	2.97	2.52	8.68	0.21	0.94	0.14	<0.01	2.47	99.59
AF05088	63.30	16.70	1.26	2.45	3.84	3.32	5.20	0.08	0.52	0.17	<0.01	3.16	100.01
AF05089	57.40	18.20	4.45	2.17	4.87	1.71	6.51	0.20	0.63	0.25	<0.01	3.39	99.79
AF05090	58.80	17.90	5.79	2.01	2.23	2.13	6.53	0.19	0.57	0.23	<0.01	2.85	99.24
AF05104	56.50	18.10	5.76	3.46	2.23	1.87	6.24	0.31	0.60	0.28	<0.01	3.62	98.98
AF05105	57.80	17.70	4.80	1.67	3.98	2.00	6.22	0.23	0.53	0.28	<0.01	2.85	98.07
AF05106	54.60	16.30	6.08	2.15	2.78	2.17	7.20	0.17	0.61	0.22	<0.01	3.77	96.06
AF05107	61.20	17.80	0.86	0.93	0.57	3.62	7.25	0.08	0.55	0.26	<0.01	7.00	100.13
AF05108	62.00	14.80	5.65	3.05	2.82	1.04	5.91	0.12	0.42	0.14	<0.01	4.08	100.34
AF05111	64.60	14.70	4.33	3.13	2.09	1.79	4.66	0.49	0.42	0.14	<0.01	3.35	100.21
AF05112	57.20	17.10	6.63	2.65	3.99	1.39	7.53	0.15	0.64	0.19	<0.01	2.52	100.10
AF05113	52.30	18.00	6.56	4.90	4.66	1.96	8.39	0.20	0.86	0.25	<0.01	1.70	99.79
AF05114	55.20	19.60	2.52	4.11	4.74	1.05	8.38	0.17	0.75	0.13	<0.01	3.23	100.19
AF05115	56.50	17.90	3.39	3.63	5.19	0.99	8.10	0.15	0.77	0.21	<0.01	3.39	100.23
AF05116	57.30	18.40	1.24	3.22	2.44	3.75	8.55	0.20	0.72	0.28	<0.01	3.70	99.82
AF05117	55.00	19.80	0.82	3.24	4.96	2.78	7.19	0.06	0.79	0.27	<0.01	5.08	100.00
AF05119	60.20	17.50	3.54	3.33	3.79	1.56	6.59	0.20	0.56	0.20	<0.01	2.54	100.02
AF05120	60.70	17.00	3.02	3.80	4.49	0.78	6.63	0.18	0.56	0.20	<0.01	2.47	99.54
AF05121	57.10	19.20	1.36	2.82	4.67	2.15	7.48	0.14	0.77	0.20	<0.01	3.52	100.02
AF05122	51.90	21.90	2.67	2.62	1.51	4.94	9.90	0.14	0.90	0.32	<0.01	3.31	100.12
AF05123	55.80	18.50	4.25	2.57	5.11	2.13	7.17	0.15	0.66	0.26	<0.01	3.08	99.79
AF05124	59.80	19.40	1.99	1.98	5.09	2.57	6.22	0.12	0.60	0.30	<0.01	2.08	99.76
AF05127	58.60	16.20	7.96	1.78	4.08	0.81	5.05	0.37	0.47	0.22	<0.01	4.39	99.94
AF05128	49.60	30.00	0.29	0.85	0.56	8.32	5.12	0.09	0.95	0.17	<0.01	4.16	100.12
AF05129	61.20	15.10	5.28	1.68	2.63	2.84	4.32	0.31	0.43	0.25	<0.01	4.22	98.28
AF05130	63.90	15.60	4.69	0.91	3.88	2.37	3.22	0.13	0.33	0.13	<0.01	4.35	100.02
AF05133	59.90	18.20	0.33	4.58	0.96	3.04	6.64	0.25	0.60	0.24	<0.01	5.98	99.68
AF05134	56.30	17.80	0.99	4.63	3.75	1.70	7.34	0.25	0.76	0.25	<0.01	5.47	99.75
AF05136	64.20	16.30	3.46	1.17	3.91	3.51	3.55	0.10	0.35	0.13	<0.01	3.62	100.31
AF05137	57.10	18.90	4.05	2.36	4.07	3.24	7.05	0.16	0.71	0.30	<0.01	2.08	100.03
AF05138	61.30	18.20	3.75	1.98	2.91	3.62	5.75	0.13	0.53	0.28	<0.01	2.08	99.94
AF05139	55.20	18.70	5.49	2.56	3.55	3.97	7.07	0.22	0.69	0.32	<0.01	2.47	100.25
AF05140	59.00	18.10	4.08	2.06	5.42	2.69	6.11	0.15	0.59	0.33	<0.01	1.21	99.85
AF05141	57.80	18.40	4.05	1.97	5.21	2.87	6.87	0.14	0.66	0.30	<0.01	1.39	99.67
AF05142	54.90	20.10	0.37	3.22	1.61	7.33	7.33	0.13	0.72	0.30	<0.01	2.53	99.45
AF05143	61.40	16.40	3.97	2.77	2.84	3.32	5.44	0.14	0.49	0.20	<0.01	2.33	99.91
AF05144	54.50	19.10	3.85	2.46	3.29	4.20	7.54	0.14	0.74	0.23	<0.01	4.16	100.22
AF05145	57.20	17.60	3.94	3.48	4.14	2.77	6.15	0.16	0.60	0.26	<0.01	4.00	100.31
AF05146	62.20	17.50	2.20	1.85	3.89	4.25	5.15	0.14	0.50	0.20	<0.01	2.16	100.05

Sample	SiO2	Al2O3	CaO	MgO	Na2O	K2O	Fe2O3	MnO	TiO2	P2O5	Cr2O3	LOI	SUM
AF05147	54.40	18.60	7.54	2.27	5.33	0.60	7.33	0.21	0.61	0.28	<0.01	2.77	99.95
AF05148	59.30	17.90	3.60	1.71	7.32	1.30	6.48	0.16	0.61	0.25	<0.01	1.16	99.60
AF05149	55.80	20.20	1.87	4.15	4.38	2.92	6.66	0.15	0.63	0.26	<0.01	3.00	100.03
AF05150	61.30	16.90	3.70	0.64	4.67	3.36	5.00	0.26	0.48	0.19	<0.01	3.62	100.13
AF05151	75.10	14.00	0.38	0.59	4.10	2.24	1.73	0.02	0.24	0.08	<0.01	1.54	100.03
AF05153	50.00	19.10	5.57	3.70	2.48	5.10	8.04	0.33	0.80	0.30	<0.01	4.54	99.37
AF05154	53.50	17.90	5.98	3.28	3.18	2.51	7.31	0.20	0.67	0.25	<0.01	5.00	99.79
AF05155	54.90	16.50	5.04	2.11	2.41	4.75	8.04	0.22	0.59	0.23	<0.01	5.23	100.03
AF05156	60.00	18.20	0.99	2.18	1.55	5.93	6.40	0.10	0.60	0.27	<0.01	3.77	100.00
AF05157	57.60	16.90	5.00	1.84	2.30	4.14	5.80	0.14	0.54	0.25	<0.01	5.16	100.13
AF05158	56.60	16.70	6.00	2.70	4.61	1.85	6.17	0.18	0.60	0.26	<0.01	4.54	100.22
AF05159	51.40	18.80	5.07	3.96	3.19	2.87	7.86	0.18	0.79	0.25	<0.01	5.93	100.21
AF05160	52.80	18.40	3.75	5.48	3.61	1.79	8.15	0.18	0.80	0.24	<0.01	4.85	100.06
AF05161	51.00	18.50	4.99	4.06	3.08	3.56	7.84	0.30	0.76	0.31	<0.01	5.95	100.34
AF05162	57.10	17.60	1.85	2.52	2.97	6.58	6.61	0.25	0.62	0.24	<0.01	2.47	98.82
AF05163	56.10	17.50	4.62	2.75	4.09	2.65	6.85	0.17	0.63	0.22	<0.01	4.47	100.06
AF05164	50.30	18.10	6.07	4.30	3.45	2.07	3.73	0.17	0.90	0.22	<0.01	4.70	95.57
AF05165	58.20	17.30	4.83	2.56	3.98	1.68	6.29	0.21	0.59	0.25	<0.01	3.93	99.82
AF05166	48.50	17.00	7.81	3.74	4.22	1.15	9.81	0.19	0.59	0.20	<0.01	5.82	99.59
AF05167	51.70	18.10	6.33	3.59	4.65	1.27	3.54	0.24	0.80	0.34	<0.01	3.93	99.50
AF05168	52.70	20.10	4.11	3.19	4.90	1.22	8.11	0.18	0.79	0.26	<0.01	3.65	99.42
AF05169	58.30	17.50	4.63	3.11	4.25	1.36	5.41	0.31	0.61	0.27	<0.01	3.23	96.99
AF05170	53.90	17.40	5.38	3.43	3.96	2.40	7.32	0.17	0.75	0.29	<0.01	4.82	99.34
AF05171	51.20	18.50	4.36	4.68	3.56	2.45	8.97	0.19	0.81	0.29	<0.01	5.16	100.13
AF05172	48.50	18.10	10.00	4.66	3.27	0.86	8.66	0.17	0.95	0.48	<0.01	4.39	100.05
AF05174	51.70	17.60	7.07	3.10	2.30	3.07	7.58	0.20	0.72	0.29	<0.01	6.39	100.03
AF05175	50.00	16.90	8.07	3.67	2.10	2.54	9.02	0.17	0.89	0.20	<0.01	6.31	99.68
AF05176	49.70	18.90	7.30	2.95	4.80	1.09	9.79	0.20	0.92	0.26	<0.01	4.00	99.92
AF05177	56.00	17.70	5.97	2.88	3.34	2.58	6.68	0.17	0.64	0.24	<0.01	3.35	100.06
AF05178	54.50	17.60	5.40	3.47	2.36	4.18	6.40	0.20	0.61	0.27	<0.01	4.62	99.62
AF05179	57.00	17.30	4.82	2.02	5.05	2.32	6.33	0.16	0.59	0.31	<0.01	3.93	99.89
AF05180	58.40	16.70	4.67	2.25	6.16	0.99	6.54	0.14	0.59	0.22	<0.01	3.16	99.85
AF05181	50.60	19.10	2.66	1.39	4.92	2.58	4.37	0.12	0.55	0.22	<0.01	3.16	99.68
AF05182	52.30	18.90	5.55	4.19	5.56	0.60	8.75	0.16	0.87	0.26	<0.01	2.99	99.54
AF05183	53.20	19.00	2.17	1.83	5.57	2.68	8.79	0.11	0.96	0.41	<0.01	5.98	99.87
AF05184	59.80	17.40	5.12	2.45	6.01	0.36	6.12	0.15	0.61	0.26	<0.01	1.70	99.99
AF05185	60.20	21.60	0.58	1.16	1.29	6.69	3.74	0.02	0.55	0.28	<0.01	3.85	99.97
AF05186	60.10	18.00	1.85	2.95	2.66	3.33	6.49	0.15	0.63	0.27	<0.01	3.47	99.91
AF05187	53.00	18.10	2.64	2.77	3.71	2.99	6.75	0.17	0.66	0.25	<0.01	3.16	99.21
AF05188	53.20	18.40	0.67	1.36	1.84	11.20	5.18	0.27	0.54	0.19	<0.01	0.85	99.71

Sample	SiO2	Al2O3	CaO	MgO	Na2O	K2O	Fe2O3	MnO	TiO2	P2O5	Cr2O3	LOI	SUM
AF05189	55.00	18.00	5.60	1.91	2.11	5.01	5.17	0.30	0.55	0.21	<0.01	6.00	99.87
AF05190	55.70	17.10	5.19	2.41	2.23	4.29	5.57	0.20	0.60	0.24	<0.01	5.39	99.93
AF05191	57.20	18.70	0.84	5.38	2.55	2.67	6.93	0.24	0.62	0.29	<0.01	4.47	99.90
AF05192	55.50	17.80	4.90	2.52	4.88	2.00	7.27	0.17	0.69	0.26	<0.01	2.92	99.93
AF05193	50.50	17.80	5.39	4.03	2.90	3.52	8.47	0.56	0.90	0.22	<0.01	5.85	100.05
AF05194	64.80	13.90	0.87	1.19	0.18	9.50	5.19	0.86	0.46	0.23	<0.01	2.31	99.50
AF05195	52.40	19.10	0.83	2.48	0.31	10.20	9.11	0.49	0.85	0.27	<0.01	3.47	99.52
AF05196	60.90	17.90	0.50	2.24	0.53	7.64	6.07	0.12	0.54	0.27	<0.01	3.47	100.19
AF05197	50.00	20.30	3.61	4.46	4.67	2.56	8.65	0.16	0.84	0.28	<0.01	4.31	99.85
AF05198	56.70	17.00	5.39	2.54	3.03	3.45	5.73	0.15	0.59	0.23	<0.01	4.93	99.75
AF05199	59.40	17.10	4.49	1.79	3.16	4.05	5.04	0.18	0.48	0.23	<0.01	4.39	100.52
AF05200	58.10	17.60	2.43	1.67	3.02	4.07	9.07	0.11	0.50	0.25	<0.01	2.77	99.60
AF05201	63.60	16.30	3.00	1.63	5.02	2.41	4.63	0.11	0.47	0.23	<0.01	2.47	99.89
AF05202	62.20	17.40	4.14	0.87	8.35	0.31	3.43	0.16	0.46	0.19	<0.01	2.08	99.50
AF05203	56.50	20.60	3.27	2.16	3.60	2.97	7.06	0.18	0.76	0.18	<0.01	2.85	100.18
AF05204	59.70	19.50	3.37	1.79	4.07	2.99	5.50	0.15	0.65	0.17	<0.01	2.31	100.21
AF05205	53.60	18.50	3.92	2.98	3.35	1.80	11.00	0.32	0.66	0.19	<0.01	3.47	99.80
AF05206	62.70	17.50	2.16	1.50	6.46	1.41	5.93	0.09	0.58	0.22	<0.01	1.47	100.03
AF05208	50.00	18.30	9.47	4.61	3.26	0.67	9.62	0.15	1.21	0.19	0.01	2.47	99.96
AF05209	61.00	16.90	4.94	2.27	3.80	1.19	5.68	0.48	0.50	0.23	<0.01	3.16	100.16
AF05210	53.40	18.80	4.46	4.45	4.84	2.03	7.33	0.15	0.68	0.23	<0.01	3.93	100.31
AF05211	54.50	16.90	9.41	3.59	3.30	0.38	8.48	0.14	0.93	0.17	<0.01	2.31	100.12
AF05212	47.30	19.20	9.04	5.77	2.97	1.81	10.20	0.18	0.91	0.24	<0.01	2.54	100.17
AF05213	48.60	17.30	4.66	8.93	4.26	0.92	9.12	0.18	0.91	0.23	0.02	4.31	99.44
AF05214	56.20	17.60	4.81	3.47	4.67	1.68	6.94	0.14	0.63	0.23	<0.01	3.47	99.85
AF05215	52.50	16.10	6.79	4.04	3.54	2.22	7.41	0.18	0.67	0.22	<0.01	6.47	100.15

WHOLE ROCK SAMPLES : MINOR ELEMENTS

Analysed by: X-Ray Assay Laboratories Limited  
1885 Leslie Street  
Don Mills, Ontario  
M3B 3J4

Element	Lower Detection Limit	Extraction	Method
Copper	10 ppm		X-ray Fluorescence
Zinc	10 ppm		X-ray Fluorescence
Rubidium	10 ppm		X-ray Fluorescence
Strontium	10 ppm		X-ray Fluorescence
Yttrium	10 ppm		X-ray Fluorescence
Zirconium	10 ppm		X-ray Fluorescence
Niobium	10 ppm		X-ray Fluorescence
Barium	10 ppm		X-ray Fluorescence

Total number of samples : 546

Sample Number	Easting	Northing	Copper (ppm)	Zinc (ppm)	Rubidium (ppm)	Strontium (ppm)	Yttrium (ppm)	Zirconium (ppm)	Niobium (ppm)	Barium (ppm)
AC00804	494285.09	5552124.00	38.	47.	34.	380.	14.	64.	21.	835.
AC00811	492848.28	5553978.50	56.	99.	60.	223.	16.	37.	<10.	389.
AC00812	492894.87	5554042.00	76.	146.	48.	217.	19.	67.	<10.	297.
AC00813	492901.22	5554067.50	114.	977.	80.	377.	<10.	109.	17.	1120.
AC00814	492983.62	5554027.00	43.	65.	54.	395.	18.	104.	21.	707.
AC00815	493046.34	5554075.50	26.	53.	73.	537.	12.	54.	17.	1030.
AC00816	493102.91	5554111.00	23.	77.	84.	463.	40.	96.	18.	1560.
AC00817	493177.56	5554007.50	<10.	68.	35.	439.	23.	118.	11.	529.
AC00818	494835.03	5553007.00	10.	58.	25.	612.	26.	45.	<10.	345.
AC00820	495227.16	5552454.00	11.	126.	18.	569.	27.	107.	24.	536.
AC00821	495282.72	5552322.50	20.	85.	33.	638.	27.	110.	21.	962.
AC00823	495495.87	5552943.00	101.	105.	22.	764.	25.	75.	<10.	121.
AC00824	495257.62	5553333.50	<10.	58.	49.	503.	11.	114.	18.	744.
AC00825	495083.16	5553689.00	<10.	66.	17.	305.	12.	129.	20.	312.
AC00829	493038.34	5554325.50	<10.	62.	38.	780.	14.	56.	<10.	404.
AC00830	492911.09	5554303.50	<10.	108.	88.	346.	<10.	76.	21.	1220.
AC00831	492629.09	5554491.50	15.	217.	61.	452.	21.	73.	18.	389.
AC00832	492542.94	5554502.50	<10.	68.	34.	723.	16.	68.	20.	568.
AC00833	492606.75	5554375.00	<10.	76.	77.	156.	28.	141.	23.	465.
AC00834	492645.56	5554348.50	<10.	75.	38.	834.	23.	107.	16.	1040.
AC00835	492670.72	5554329.00	<10.	68.	50.	755.	47.	109.	14.	899.
AC00836	492751.87	5554239.00	76.	852.	57.	376.	18.	144.	22.	1400.
AC00837	492755.00	5554232.50	<10.	50.	172.	128.	26.	140.	23.	2110.
AC00838	492633.06	5554200.00	70.	304.	35.	650.	20.	100.	16.	330.
AC00839	492708.87	5554188.50	13.	93.	24.	703.	24.	86.	15.	199.
AC00840	492793.09	5554214.50	43.	86.	35.	789.	14.	51.	15.	1060.
AC00841	492946.06	5554219.00	<10.	91.	52.	733.	18.	91.	22.	1280.
AC00843	493986.87	5550621.00	<10.	86.	65.	408.	17.	109.	<10.	1520.
AC00844	494112.62	5550439.00	<10.	59.	20.	577.	20.	84.	20.	365.
AC00845	494361.00	5550458.00	<10.	56.	43.	722.	<10.	73.	12.	783.
AC00846	494556.69	5550437.00	<10.	87.	23.	510.	31.	110.	25.	362.
AC00850	495069.81	5550641.00	17.	118.	64.	707.	19.	90.	26.	935.
AC00851	494762.12	5550625.50	<10.	61.	28.	643.	14.	79.	19.	581.
AC00852	494106.12	5550649.00	<10.	26.	23.	320.	13.	69.	11.	627.
AC00854	494675.44	5554484.00	<10.	43.	41.	378.	18.	69.	11.	1150.
AC00855	494669.72	5554532.50	<10.	70.	60.	867.	<10.	92.	22.	1570.
AC00856	494582.03	5554780.00	<10.	64.	21.	473.	21.	55.	10.	709.
AC00859	492654.00	5552098.00	<10.	69.	47.	559.	12.	83.	27.	741.
AC00860	492569.28	5552097.50	<10.	20.	50.	565.	<10.	35.	21.	1070.
AC00861	492469.25	5552075.50	<10.	27.	30.	605.	<10.	63.	21.	493.

Sample Number	Easting	Northing	Copper (ppm)	Zinc (ppm)	Rubidium (ppm)	Strontium (ppm)	Yttrium (ppm)	Zirconium (ppm)	Niobium (ppm)	Barium (ppm)
AC00862	492378.53	5552104.00	<10.	49.	44.	596.	18.	60.	<10.	1260.
AC00863	492281.97	5552098.50	<10.	60.	26.	728.	23.	52.	<10.	658.
AC00864	492196.47	5552032.50	<10.	29.	42.	702.	<10.	44.	23.	877.
AC00865	492114.81	5552099.00	<10.	27.	32.	442.	<10.	16.	<10.	924.
AC00866	492037.34	5552094.00	10.	45.	<10.	715.	15.	99.	17.	289.
AC00867	492027.78	5551888.00	13.	57.	40.	350.	<10.	98.	23.	854.
AC00868	492110.09	5551881.00	<10.	63.	34.	1360.	25.	156.	22.	506.
AC00869	492204.25	5551912.00	16.	35.	30.	723.	<10.	37.	11.	521.
AC00870	492309.87	5551899.50	17.	64.	24.	817.	29.	78.	15.	321.
AC00871	492415.75	5551898.50	<10.	55.	51.	729.	26.	67.	14.	814.
AC00872	492506.34	5551898.50	<10.	54.	16.	828.	<10.	65.	14.	209.
AC00873	492610.31	5551896.00	<10.	59.	53.	601.	20.	121.	13.	780.
AC00874	492696.31	5551895.50	<10.	14.	174.	196.	14.	110.	14.	1780.
AC00875	492866.75	5551872.00	<10.	22.	197.	221.	11.	101.	<10.	1730.
AC00876	492937.81	5551874.00	<10.	85.	52.	596.	21.	80.	19.	1450.
AC00877	492933.31	5551683.00	34.	35.	58.	818.	11.	85.	15.	724.
AC00878	492847.78	5551681.00	124.	62.	90.	850.	22.	31.	<10.	989.
AC00879	492721.41	5551687.50	<10.	47.	163.	336.	33.	87.	12.	1490.
AC00880	492634.37	5551680.50	<10.	62.	163.	374.	20.	107.	<10.	1430.
AC00881	492513.34	5551687.00	<10.	71.	36.	841.	26.	88.	11.	685.
AC00882	492418.81	5551683.50	22.	66.	30.	855.	28.	75.	<10.	744.
AC00883	492319.03	5551685.00	<10.	55.	65.	591.	<10.	44.	11.	756.
AC00884	492240.69	5551688.00	<10.	47.	33.	527.	<10.	87.	14.	871.
AC00885	492141.81	5551678.00	<10.	45.	28.	1210.	19.	56.	11.	80.
AC00886	492022.69	5551673.00	<10.	60.	23.	1020.	<10.	56.	26.	427.
AC00887	492033.62	5551447.00	<10.	51.	78.	570.	20.	142.	15.	1880.
AC00888	492153.53	5551461.00	<10.	41.	59.	694.	24.	147.	15.	1130.
AC00889	492245.28	5551469.50	<10.	73.	58.	632.	16.	72.	<10.	558.
AC00890	492318.16	5551469.50	<10.	76.	63.	624.	<10.	84.	17.	639.
AC00891	492412.56	5551475.50	<10.	50.	28.	687.	12.	40.	<10.	691.
AC00892	492588.00	5551404.00	<10.	70.	141.	528.	17.	97.	21.	960.
AC00893	492705.50	5551457.00	<10.	57.	175.	188.	12.	91.	16.	934.
AC00894	492813.56	5551462.00	<10.	52.	182.	289.	22.	104.	10.	1510.
AC00895	492896.09	5551461.00	<10.	55.	188.	253.	<10.	109.	<10.	1070.
AC00898	493867.50	5551917.50	<10.	49.	63.	483.	14.	41.	17.	919.
AC00899	493937.69	5551967.50	76.	42.	48.	467.	13.	80.	18.	909.
AC00900	493837.78	5551813.00	<10.	52.	32.	706.	18.	79.	14.	258.
AC00901	493732.12	5551801.50	66.	86.	113.	381.	27.	117.	13.	1030.
AC00902	493432.69	5551604.00	<10.	61.	63.	542.	33.	94.	22.	821.
AC00903	493422.09	5551490.00	<10.	65.	47.	639.	29.	137.	<10.	768.

Sample Number	Easting	Northing	Copper (ppm)	Zinc (ppm)	Rubidium (ppm)	Strontium (ppm)	Yttrium (ppm)	Zirconium (ppm)	Niobium (ppm)	Barium (ppm)
AC00904	493340.78	5551478.00	<10.	78.	82.	627.	32.	89.	<10.	981.
AC00905	493254.75	5551479.00	<10.	100.	29.	965.	15.	99.	<10.	982.
AC00906	493138.00	5551484.50	<10.	128.	38.	775.	29.	97.	17.	897.
AC00907	492943.81	5552076.50	16.	97.	39.	410.	21.	80.	14.	852.
AC00908	493012.37	5552077.00	<10.	52.	145.	209.	11.	78.	11.	1420.
AC00909	492989.75	5551864.00	20.	62.	61.	502.	35.	95.	20.	1290.
AC00910	493072.31	5551886.50	<10.	78.	45.	873.	33.	70.	14.	656.
AC00911	493152.47	5551880.00	<10.	50.	42.	526.	16.	73.	19.	404.
AC00912	493315.06	5551863.50	<10.	78.	105.	567.	16.	150.	22.	1360.
AC00913	493338.66	5551616.50	<10.	40.	55.	609.	<10.	106.	20.	1160.
AC00914	493235.50	5551636.50	<10.	50.	40.	843.	19.	107.	<10.	1170.
AC00915	493133.75	5551651.50	19.	95.	44.	912.	<10.	110.	<10.	1220.
AC00917	493085.53	5551644.50	<10.	89.	45.	749.	23.	114.	17.	1630.
AC00918	492526.47	5552274.50	<10.	64.	36.	1270.	25.	27.	<10.	511.
AC00919	492441.50	5552280.50	<10.	50.	12.	643.	<10.	40.	<10.	357.
AC00920	492345.41	5552269.00	<10.	36.	37.	409.	<10.	41.	19.	883.
AC00921	492303.75	5552288.00	<10.	29.	27.	1030.	23.	20.	13.	479.
AC00922	492143.97	5552275.00	<10.	42.	34.	1030.	21.	65.	29.	948.
AC00923	492039.25	5552286.00	<10.	97.	39.	770.	12.	101.	14.	1250.
AC00924	492036.94	5552464.00	<10.	53.	25.	957.	20.	103.	19.	999.
AC00925	492135.69	5552477.00	<10.	17.	11.	711.	<10.	18.	<10.	625.
AC00926	492202.34	5552477.00	<10.	26.	<10.	682.	<10.	180.	24.	191.
AC00927	492303.25	5552483.00	<10.	57.	50.	715.	28.	70.	18.	562.
AC00928	492421.09	5552528.50	<10.	40.	42.	1000.	25.	59.	11.	989.
AC00929	492336.12	5552685.50	<10.	22.	69.	699.	<10.	75.	26.	678.
AC00930	492226.78	5552693.50	21.	30.	64.	763.	11.	63.	17.	1060.
AC00931	492150.47	5552687.50	<10.	27.	76.	628.	22.	94.	27.	778.
AC00932	492119.37	5552658.00	<10.	16.	30.	504.	<10.	64.	14.	224.
AC00933	492004.84	5552663.50	<10.	21.	22.	684.	16.	52.	<10.	238.
AC00934	492415.87	5552836.00	45.	76.	64.	692.	15.	14.	18.	733.
AC00935	492419.94	5552768.50	17.	34.	42.	1040.	25.	68.	13.	330.
AC00936	492520.62	5552721.00	19.	62.	55.	885.	13.	18.	<10.	621.
AC00937	492622.66	5553108.00	30.	65.	49.	1040.	15.	60.	25.	741.
AC00938	492549.91	5553104.00	<10.	61.	32.	993.	12.	64.	21.	1040.
AC00939	492455.50	5553110.00	<10.	36.	35.	636.	<10.	29.	16.	779.
AC00940	492370.53	5553111.00	<10.	24.	39.	553.	12.	51.	<10.	1130.
AC00941	492104.87	5553039.50	<10.	76.	72.	813.	28.	99.	19.	935.
AC00942	492154.56	5553273.50	<10.	40.	54.	176.	45.	222.	25.	824.
AC00943	492199.78	5553240.00	47.	62.	13.	637.	24.	35.	<10.	128.
AC00944	492257.37	5553368.00	<10.	65.	59.	626.	22.	94.	16.	1010.



Sample Number	Easting	Northing	Copper (ppm)	Zinc (ppm)	Rubidium (ppm)	Strontium (ppm)	Yttrium (ppm)	Zirconium (ppm)	Niobium (ppm)	Barium (ppm)
AC00945	492286.69	5553321.00	<10.	76.	20.	630.	15.	48.	<10.	412.
AC00946	492351.41	5553277.00	285.	465.	<10.	833.	20.	<10.	15.	164.
AC00947	492426.31	5553348.50	47.	62.	33.	843.	<10.	31.	13.	566.
AC00948	491110.41	5552491.50	<10.	63.	62.	627.	<10.	58.	<10.	702.
AC00949	491118.06	5552603.50	<10.	76.	55.	702.	<10.	69.	14.	1240.
AC00950	491253.37	5552651.00	<10.	49.	36.	633.	19.	72.	22.	1180.
AC00951	491314.66	5552593.50	<10.	46.	32.	704.	17.	93.	26.	1360.
AC00952	491431.22	5552601.50	<10.	55.	28.	779.	27.	52.	<10.	649.
AC00953	491383.59	5552418.50	<10.	95.	32.	662.	10.	80.	21.	1020.
AC00954	491166.84	5552415.00	<10.	76.	39.	899.	<10.	67.	14.	1630.
AC00955	491314.25	5552212.50	19.	63.	17.	924.	<10.	43.	14.	338.
AC00956	491484.12	5552187.50	<10.	38.	13.	447.	<10.	37.	<10.	400.
AC00957	491584.12	5552205.50	<10.	86.	52.	699.	<10.	108.	17.	1020.
AC00958	491374.41	5552204.50	12.	70.	29.	729.	16.	50.	12.	716.
AC00959	491601.44	5551998.50	<10.	54.	37.	536.	13.	64.	20.	755.
AC00960	491536.47	5551994.00	<10.	55.	26.	565.	19.	51.	32.	841.
AC00961	491479.00	5551910.50	<10.	68.	18.	631.	11.	90.	21.	187.
AC00962	491371.59	5551992.50	<10.	57.	39.	618.	24.	126.	<10.	1040.
AC00963	491284.69	5551990.00	<10.	59.	50.	604.	26.	118.	11.	1040.
AC00964	491287.75	5551827.00	<10.	54.	33.	859.	35.	95.	<10.	531.
AC00965	492224.12	5554887.00	<10.	59.	64.	443.	14.	76.	12.	1120.
AC00966	492087.81	5555002.50	<10.	95.	65.	806.	13.	64.	19.	1040.
AC00967	492359.41	5554910.00	17.	149.	44.	244.	24.	126.	15.	613.
AC00968	492327.25	5554874.00	<10.	221.	65.	196.	31.	194.	22.	375.
AC00969	492398.34	5554785.50	<10.	94.	86.	498.	19.	68.	10.	903.
AC00970	493231.12	5550969.50	<10.	94.	94.	400.	24.	162.	27.	696.
AC00971	493290.72	5551010.00	<10.	44.	65.	829.	24.	92.	22.	1410.
AC00972	493350.53	5551085.00	<10.	18.	190.	91.	17.	98.	<10.	2520.
AC00973	493367.87	5551112.00	<10.	<10.	114.	56.	19.	67.	<10.	2160.
AC00974	493377.37	5551141.00	<10.	53.	124.	368.	25.	113.	<10.	897.
AC00975	493399.97	5551286.50	<10.	16.	107.	<10.	15.	85.	16.	1920.
AC00976	493452.41	5551312.50	<10.	112.	43.	412.	16.	110.	10.	1750.
AC00977	493524.72	5551383.00	<10.	44.	49.	575.	19.	131.	<10.	1460.
AC00978	493589.91	5551504.50	<10.	35.	55.	484.	28.	162.	27.	1110.
AC00979	493673.69	5551530.00	<10.	141.	60.	440.	16.	129.	11.	1440.
AC00980	493738.75	5551568.50	40.	82.	201.	68.	12.	85.	<10.	1460.
AC00981	493828.66	5551578.00	<10.	79.	47.	596.	17.	74.	20.	500.
AC00982	493922.94	5551557.50	44.	73.	25.	550.	<10.	50.	18.	200.
AC00983	494008.12	5551528.00	<10.	305.	24.	535.	32.	104.	23.	684.
AC00984	493968.16	5551796.00	<10.	106.	100.	137.	<10.	60.	11.	1070.

Sample Number	Easting	Northing	Copper (ppm)	Zinc (ppm)	Rubidium (ppm)	Strontium (ppm)	Yttrium (ppm)	Zirconium (ppm)	Niobium (ppm)	Barium (ppm)
AC00985	493823.19	5551726.50	<10.	71.	35.	794.	17.	65.	14.	751.
AC00986	493320.94	5553704.50	<10.	85.	31.	829.	14.	83.	13.	619.
AC00987	493541.59	5553588.50	<10.	69.	29.	513.	11.	303.	<10.	535.
AC00989	493336.66	5553618.50	<10.	87.	68.	690.	24.	118.	15.	870.
AC00991	493293.97	5553417.50	<10.	100.	50.	1130.	26.	91.	<10.	1340.
AC00992	493393.22	5553421.00	<10.	43.	34.	1180.	22.	86.	<10.	906.
AC00993	493570.19	5553519.00	<10.	62.	78.	329.	<10.	139.	23.	458.
AC00994	493489.50	5553520.00	<10.	23.	53.	435.	10.	10.	15.	881.
AC00995	493389.00	5553513.00	<10.	87.	40.	1090.	21.	113.	18.	1080.
AC00996	493237.62	5553489.50	<10.	83.	62.	873.	43.	94.	<10.	1610.
AC00997	493212.78	5553308.00	<10.	56.	30.	1020.	<10.	113.	<10.	241.
AC00998	493411.47	5553210.50	<10.	71.	55.	1120.	15.	107.	17.	735.
AC00999	493515.97	5553222.00	<10.	41.	69.	599.	17.	116.	15.	1670.
AD03801	493076.66	5552728.50	1.	67.	31.	1050.	27.	118.	18.	679.
AD03802	493915.97	5553076.00	7.	24.	67.	692.	19.	142.	<10.	1440.
AD03803	493267.72	5552393.50	75.	160.	120.	161.	<10.	96.	16.	1090.
AD03804	492440.47	5550365.50	16.	83.	37.	565.	<10.	96.	20.	674.
AD03805	493486.87	5552450.00	11.	43.	<10.	<10.	32.	202.	27.	1730.
AD03809	492383.78	5550145.50	120.	350.	37.	485.	<10.	56.	15.	564.
AD03810	492764.87	5552963.00	400.	3600.	70.	263.	<10.	13.	11.	1260.
AD03811	492764.87	5552963.00	73.	270.	46.	521.	13.	38.	10.	398.
AD03812	492764.87	5552963.00	55.	160.	97.	247.	<10.	75.	25.	1110.
AD03813	492764.87	5552963.00	41.	100.	39.	508.	11.	47.	<10.	582.
AD03814	492764.87	5552963.00	81.	530.	185.	164.	18.	79.	21.	1750.
AD03815	492764.87	5552963.00	74.	2100.	105.	131.	<10.	49.	15.	2140.
AD03816	490157.87	5553403.50	110.	59.	54.	559.	<10.	84.	18.	967.
AD03822	492334.97	5550160.50	57.	70.	58.	558.	18.	64.	<10.	848.
AD03824	492244.62	5550166.50	43.	67.	55.	551.	<10.	86.	20.	663.
AD03827	492438.44	5550338.00	40.	62.	31.	682.	12.	99.	20.	741.
AD03831	492189.09	5550723.00	47.	37.	41.	923.	10.	95.	<10.	561.
AD03834	492658.22	5550589.00	23.	21.	59.	512.	24.	86.	17.	866.
AD03835	492850.91	5550521.50	165.	63.	<10.	373.	29.	69.	<10.	145.
AD03836	491614.75	5552274.50	36.	57.	23.	514.	15.	77.	<10.	772.
AD03838	491598.69	5552281.00	129.	950.	24.	278.	11.	46.	14.	114.
AD03839	491593.31	5552283.00	51.	77.	24.	466.	<10.	33.	18.	509.
AD03840	491546.41	5552299.50	47.	67.	58.	675.	22.	95.	17.	938.
AD03842	491510.81	5552312.50	16.	44.	22.	473.	16.	226.	<10.	105.
AD03843	491643.16	5552177.00	42.	80.	40.	573.	32.	138.	13.	220.
AD03844	491900.00	5554415.00	34.	93.	81.	541.	13.	105.	11.	1540.
AD03845	491576.47	5552184.50	18.	62.	23.	264.	22.	63.	15.	575.

Sample Number	Easting	Northing	Copper (ppm)	Zinc (ppm)	Rubidium (ppm)	Strontium (ppm)	Yttrium (ppm)	Zirconium (ppm)	Niobium (ppm)	Barium (ppm)
AD03846	491563.75	5552186.50	53.	793.	22.	715.	25.	35.	<10.	250.
AD03847	491268.25	5552283.50	79.	56.	89.	477.	<10.	96.	18.	1770.
AD03848	491250.53	5552266.50	64.	71.	35.	711.	19.	62.	<10.	1130.
AD03849	491235.50	5552250.00	58.	50.	33.	729.	40.	119.	16.	893.
AD03850	491219.31	5552235.00	83.	59.	17.	440.	14.	67.	18.	285.
AD03851	491432.00	5551558.00	6.	76.	54.	541.	<10.	124.	28.	947.
AD03852	491670.00	5552107.00	14.	49.	15.	432.	14.	40.	18.	675.
AD03853	492312.00	5550940.00	69.	130.	58.	92.	38.	941.	28.	349.
AD03854	492115.00	5551940.00	3.	48.	36.	540.	10.	40.	<10.	520.
AD03855	491934.00	5551988.00	3.	54.	26.	443.	15.	46.	18.	576.
AD03856	492685.87	5551817.50	36.	17.	192.	226.	22.	107.	10.	1810.
AD03857	492336.75	5552462.00	30.	44.	42.	547.	11.	62.	13.	674.
AD03858	492686.00	5551706.00	1.	100.	190.	260.	32.	119.	<10.	727.
AD03859	493530.00	5553605.00	1.	61.	64.	285.	<10.	71.	<10.	695.
AD03860	492272.00	5552133.00	9.	71.	25.	605.	15.	79.	12.	628.
AD03861	492927.69	5551731.50	8.	48.	152.	150.	12.	107.	17.	1210.
AD03862	491665.00	5553990.00	11.	140.	33.	656.	23.	38.	14.	562.
AD03863	491568.00	5552453.00	36.	78.	30.	888.	15.	27.	19.	712.
AD03864	492182.00	5550732.00	13.	56.	17.	529.	28.	117.	14.	791.
AD03865	491415.00	5552627.00	3.	73.	45.	677.	13.	68.	<10.	1290.
AD03866	492842.16	5551298.50	11.	110.	40.	555.	15.	125.	26.	703.
AD03867	490300.69	5553026.00	9.	380.	44.	404.	<10.	121.	<10.	1100.
AD03868	490585.22	5553040.00	15.	74.	55.	683.	18.	83.	13.	762.
AD03869	490584.56	5553030.50	19.	36.	18.	147.	25.	<10.	<10.	89.
AD03870	492331.03	5553494.00	5.	79.	60.	624.	<10.	142.	24.	1250.
AD03871	493233.00	5553970.00	4.	43.	22.	1620.	15.	761.	16.	218.
AD03872	490500.06	5554423.50	21.	84.	50.	212.	<10.	83.	<10.	1470.
AD03873	490419.66	5554232.50	10.	52.	37.	260.	<10.	57.	13.	2310.
AD03874	491953.00	5554415.00	74.	260.	58.	420.	<10.	40.	<10.	743.
AD03875	491952.00	5554180.00	72.	140.	69.	125.	20.	91.	24.	1360.
AD03876	490162.72	5553385.50	7.	120.	32.	338.	12.	29.	19.	696.
AD03878	492093.44	5554660.50	370.	320.	56.	78.	32.	126.	33.	467.
AD03903	491190.66	5552207.00	38.	77.	29.	525.	18.	58.	10.	258.
AD03904	491270.44	5552278.00	79.	71.	47.	509.	26.	134.	14.	822.
AD03906	491302.56	5552271.00	41.	68.	50.	744.	18.	53.	<10.	651.
AD03912	491378.37	5552254.00	58.	66.	75.	679.	<10.	64.	23.	961.
AD03913	493541.59	5552484.50	28.	81.	<10.	708.	28.	64.	17.	258.
AD03915	493618.50	5552514.50	81.	65.	109.	385.	15.	111.	22.	1450.
AD03916	493715.41	5552514.00	<10.	51.	54.	611.	19.	92.	20.	1270.
AD03917	493627.12	5552600.50	<10.	70.	86.	443.	24.	80.	18.	1180.

Sample Number	Easting	Northing	Copper (ppm)	Zinc (ppm)	Rubidium (ppm)	Strontium (ppm)	Yttrium (ppm)	Zirconium (ppm)	Niobium (ppm)	Barium (ppm)
AD03918	493602.53	5552684.00	26.	64.	61.	794.	13.	63.	23.	607.
AD03920	493435.19	5552700.00	16.	63.	51.	518.	11.	95.	19.	727.
AD03921	493635.50	5552732.50	38.	106.	96.	179.	13.	115.	28.	1400.
AD03924	493593.16	5552756.50	29.	98.	78.	74.	33.	48.	<10.	445.
AD03929	493696.31	5552785.00	44.	100.	66.	172.	<10.	32.	11.	659.
AD03933	493748.00	5552798.50	<10.	<10.	<10.	53.	<10.	11.	19.	95.
AD03934	493738.62	5552804.50	14.	191.	70.	88.	<10.	51.	<10.	714.
AD03937	493750.75	5552762.00	<10.	<10.	73.	326.	13.	51.	20.	222.
AD03938	493713.03	5552749.00	<10.	80.	72.	608.	14.	71.	22.	708.
AD03944	493790.84	5552484.50	15.	33.	24.	366.	12.	10.	10.	431.
AD03945	493850.53	5552528.00	29.	125.	95.	128.	54.	123.	17.	939.
AD03946	494186.06	5552489.50	19.	91.	57.	478.	11.	71.	<10.	960.
AD03947	494492.00	5552514.00	10.	73.	69.	378.	20.	104.	24.	526.
AD03948	494272.59	5552421.50	25.	81.	63.	255.	20.	92.	<10.	627.
AD03961	492523.00	5554520.00	15.	50.	67.	644.	13.	88.	29.	541.
AD03962	492721.53	5552848.00	<10.	58.	75.	508.	23.	39.	18.	695.
AD03963	492752.37	5552852.50	<10.	70.	66.	442.	<10.	65.	13.	578.
AD03964	492824.06	5552853.00	<10.	69.	58.	738.	13.	40.	17.	472.
AD03965	492855.12	5552911.00	169.	2400.	143.	108.	<10.	34.	27.	1920.
AD03966	492853.41	5552961.50	62.	185.	64.	608.	<10.	39.	20.	829.
AD03967	492848.41	5553011.00	66.	93.	114.	181.	15.	55.	<10.	678.
AD03968	492801.56	5553045.00	42.	80.	47.	643.	23.	51.	<10.	549.
AD03969	492781.47	5552895.50	<10.	86.	103.	372.	20.	68.	<10.	1090.
AD03970	492766.87	5552941.50	53.	79.	111.	546.	15.	45.	<10.	524.
AD03971	492783.22	5552994.50	38.	367.	151.	260.	12.	68.	<10.	1090.
AD03972	492608.53	5553043.00	40.	144.	23.	730.	20.	32.	14.	238.
AD03973	492609.53	5553002.00	15.	76.	30.	637.	<10.	39.	23.	560.
AD03974	492609.94	5552955.00	16.	71.	10.	625.	19.	40.	12.	611.
AD03975	492721.03	5552887.00	<10.	75.	60.	686.	12.	50.	12.	498.
AD03979	495219.28	5550589.00	<10.	71.	36.	633.	15.	78.	22.	693.
AF00701	493539.22	5553350.00	<10.	118.	34.	472.	37.	104.	22.	1140.
AF00702	493435.69	5553346.50	<10.	55.	46.	869.	26.	97.	18.	1300.
AF00703	493339.28	5553344.00	19.	22.	67.	689.	<10.	116.	14.	1110.
AF00704	491248.37	5551908.50	164.	62.	21.	1020.	33.	116.	16.	608.
AF00705	491346.50	5551911.50	<10.	58.	46.	398.	15.	119.	<10.	731.
AF00706	491285.47	5551635.50	<10.	48.	57.	749.	16.	63.	11.	1950.
AF00707	491419.75	5551685.50	47.	51.	68.	368.	11.	63.	13.	1710.
AF00708	491598.91	5551693.50	<10.	49.	38.	615.	20.	37.	<10.	878.
AF00709	491590.62	5551804.00	15.	59.	48.	539.	19.	73.	<10.	959.
AF00710	491581.97	5551902.50	<10.	50.	38.	582.	11.	85.	<10.	681.

Sample Number	Easting	Northing	Copper (ppm)	Zinc (ppm)	Rubidium (ppm)	Strontium (ppm)	Yttrium (ppm)	Zirconium (ppm)	Niobium (ppm)	Barium (ppm)
AF00711	491510.09	5551805.50	<10.	52.	49.	698.	16.	77.	12.	939.
AF00712	491435.69	5551802.50	27.	77.	38.	496.	22.	110.	10.	425.
AF00713	491384.09	5551776.50	<10.	63.	69.	606.	<10.	78.	19.	976.
AF00714	492207.16	5551123.50	<10.	82.	28.	739.	10.	125.	22.	998.
AF00715	492012.22	5551150.00	12.	58.	54.	752.	30.	125.	<10.	1530.
AF00716	491729.25	5551519.50	<10.	68.	97.	267.	27.	91.	<10.	1650.
AF00717	491709.87	5551665.00	<10.	156.	54.	405.	30.	225.	26.	1240.
AF00718	491792.31	5551731.00	<10.	53.	55.	695.	11.	76.	17.	856.
AF00719	491945.34	5552304.50	<10.	32.	22.	544.	22.	30.	<10.	260.
AF00720	491852.84	5552462.50	<10.	36.	33.	531.	28.	126.	13.	418.
AF00721	491871.81	5552621.00	<10.	51.	29.	631.	17.	109.	16.	564.
AF00722	491546.53	5552492.50	<10.	49.	36.	725.	<10.	67.	23.	1540.
AF00723	491387.28	5552779.50	<10.	43.	35.	871.	27.	60.	22.	505.
AF00724	491684.28	5552697.50	<10.	86.	31.	630.	10.	69.	17.	938.
AF00725	491661.97	5551354.50	<10.	54.	49.	725.	14.	44.	13.	735.
AF00726	491565.78	5551473.50	<10.	44.	43.	585.	<10.	27.	16.	656.
AF01055	493753.25	5552376.50	<10.	43.	77.	369.	31.	113.	<10.	1270.
AF01056	492839.28	5554069.00	<10.	84.	17.	616.	11.	97.	<10.	193.
AF01057	492849.16	5554089.50	21.	53.	32.	187.	<10.	60.	21.	453.
AF01059	492864.06	5554118.00	47.	434.	95.	161.	<10.	108.	22.	828.
AF01060	492864.97	5554122.50	<10.	137.	50.	859.	<10.	80.	11.	730.
AF01061	492876.41	5554144.00	12.	56.	61.	398.	12.	69.	<10.	1040.
AF01062	492887.06	5554164.00	13.	89.	76.	581.	22.	67.	<10.	1250.
AF01063	492891.06	5554171.00	<10.	83.	75.	432.	28.	79.	11.	876.
AF01064	493559.53	5552610.50	<10.	66.	108.	208.	<10.	35.	13.	1000.
AF01065	493589.44	5552645.50	<10.	53.	42.	629.	15.	66.	16.	1410.
AF01066	493628.50	5552687.50	<10.	75.	59.	440.	12.	109.	23.	1220.
AF01068	493666.81	5552729.00	<10.	64.	92.	234.	<10.	52.	<10.	656.
AF01069	493688.62	5552756.00	11.	130.	53.	271.	18.	60.	12.	207.
AF01070	493717.03	5552786.50	10.	83.	28.	845.	<10.	46.	23.	483.
AF01074	494081.53	5552256.00	<10.	73.	44.	861.	29.	89.	<10.	828.
AF01075	493772.59	5552218.00	<10.	46.	18.	440.	<10.	62.	<10.	550.
AF01077	494285.09	5552123.00	<10.	85.	22.	452.	42.	120.	16.	481.
AF01081	492433.47	5550679.00	<10.	63.	44.	788.	<10.	64.	18.	449.
AF01083	492623.44	5550639.00	16.	76.	90.	466.	20.	88.	<10.	1620.
AF01084	492287.44	5550349.50	39.	95.	103.	98.	14.	73.	16.	752.
AF01085	493232.53	5552803.50	<10.	73.	101.	175.	15.	99.	23.	1140.
AF01086	493256.94	5552828.00	<10.	65.	90.	680.	18.	86.	10.	900.
AF01087	493281.87	5552854.00	<10.	63.	56.	605.	18.	72.	15.	924.
AF01089	493323.00	5552896.50	24.	73.	37.	728.	12.	52.	13.	150.

Sample Number	Easting	Northing	Copper (ppm)	Zinc (ppm)	Rubidium (ppm)	Strontium (ppm)	Yttrium (ppm)	Zirconium (ppm)	Niobium (ppm)	Barium (ppm)
AF01090	493361.41	5552936.50	<10.	88.	161.	293.	28.	94.	13.	1340.
AF01091	492945.00	5552627.50	14.	133.	160.	248.	17.	89.	21.	1420.
AF01092	492955.41	5552638.00	116.	603.	158.	165.	<10.	37.	12.	1390.
AF01094	492965.69	5552645.00	12.	97.	131.	274.	11.	41.	17.	780.
AF01095	492971.09	5552649.50	75.	713.	148.	220.	<10.	46.	21.	1390.
AF01096	492983.56	5552660.50	17.	44.	57.	712.	<10.	50.	18.	602.
AF01097	493022.87	5552694.50	65.	115.	79.	429.	20.	54.	17.	804.
AF01098	493098.16	5552761.50	32.	46.	72.	831.	53.	77.	14.	966.
AF01099	495793.59	5551301.00	41.	86.	74.	517.	27.	117.	17.	851.
AF01100	495403.34	5551113.50	<10.	107.	78.	418.	25.	83.	<10.	1210.
AF01102	495424.94	5550965.00	27.	83.	29.	843.	15.	38.	19.	535.
AF01104	491392.37	5550755.50	<10.	79.	42.	1070.	37.	96.	16.	630.
AF01105	491496.97	5550287.50	<10.	52.	55.	808.	<10.	65.	31.	922.
AF01106	491513.66	5550171.50	<10.	58.	33.	714.	19.	71.	<10.	770.
AF01107	491017.53	5550765.00	<10.	88.	83.	549.	22.	83.	16.	1700.
AF01108	491006.31	5550783.00	<10.	50.	39.	607.	22.	76.	<10.	784.
AF01109	492861.25	5553885.50	<10.	73.	53.	972.	19.	59.	21.	745.
AF01110	492859.78	5553933.50	15.	71.	66.	497.	14.	58.	<10.	910.
AF01111	492852.03	5554024.50	<10.	70.	55.	900.	11.	53.	29.	1060.
AF01112	492835.78	5553991.50	<10.	54.	61.	337.	<10.	73.	17.	307.
AF01113	492708.16	5554020.50	<10.	38.	70.	317.	<10.	39.	<10.	436.
AF01114	492598.34	5553985.50	19.	73.	58.	585.	26.	95.	14.	723.
AF01117	492761.50	5554187.00	<10.	1320.	51.	661.	30.	105.	25.	1520.
AF01118	492762.25	5554187.00	18.	134.	23.	556.	<10.	40.	12.	293.
AF01121	492131.59	5554498.00	11.	221.	71.	410.	19.	82.	<10.	1000.
AF01122	492150.09	5554503.50	170.	335.	89.	438.	26.	75.	<10.	858.
AF01123	492164.00	5554518.50	47.	123.	38.	664.	<10.	127.	21.	526.
AF01124	492178.31	5554508.00	<10.	125.	64.	562.	<10.	70.	18.	425.
AF01125	492958.25	5552923.50	<10.	53.	108.	586.	11.	78.	18.	1040.
AF01126	492975.97	5552941.50	<10.	48.	78.	874.	20.	87.	15.	1040.
AF01129	493003.97	5552970.00	<10.	51.	78.	638.	22.	92.	18.	1140.
AF01131	493029.28	5552996.00	<10.	62.	66.	518.	32.	87.	<10.	1020.
AF01132	493060.12	5553028.50	<10.	45.	66.	725.	37.	112.	<10.	998.
AF01133	492919.56	5553136.50	<10.	41.	86.	654.	39.	95.	21.	1430.
AF01135	492865.22	5551135.00	<10.	48.	106.	452.	25.	104.	13.	1080.
AF01136	492807.28	5553498.50	<10.	69.	57.	498.	12.	52.	12.	775.
AF01137	492849.03	5553520.00	<10.	61.	38.	407.	21.	125.	<10.	476.
AF01138	492883.09	5553536.00	<10.	63.	34.	677.	<10.	69.	<10.	691.
AF01139	492906.97	5553547.00	<10.	37.	47.	608.	<10.	22.	<10.	635.
AF01140	492920.22	5553552.50	24.	70.	23.	533.	20.	33.	12.	350.

Sample Number	Easting	Northing	Copper (ppm)	Zinc (ppm)	Rubidium (ppm)	Strontium (ppm)	Yttrium (ppm)	Zirconium (ppm)	Niobium (ppm)	Barium (ppm)
AF01142	492976.87	5553579.50	<10.	42.	62.	603.	30.	129.	<10.	910.
AF01143	493337.00	5552309.50	<10.	178.	152.	378.	30.	96.	<10.	484.
AF01144	493358.31	5552331.00	<10.	67.	143.	194.	12.	91.	13.	862.
AF01145	493390.31	5552363.00	<10.	59.	168.	198.	15.	124.	15.	1240.
AF01146	493434.62	5552406.00	57.	93.	49.	515.	<10.	55.	21.	1360.
AF01147	493468.56	5552440.00	<10.	55.	48.	853.	<10.	121.	21.	964.
AF01148	493280.84	5552494.00	<10.	70.	79.	278.	<10.	71.	<10.	688.
AF01150	493333.66	5552543.00	<10.	48.	54.	486.	24.	86.	14.	634.
AF01151	493364.37	5552570.50	<10.	55.	51.	407.	20.	123.	<10.	857.
AF01152	493407.78	5552609.50	<10.	53.	61.	589.	22.	111.	<10.	1400.
AF01153	492939.62	5551160.00	<10.	66.	67.	417.	<10.	103.	13.	1190.
AF01154	492978.66	5551174.00	<10.	61.	97.	457.	<10.	116.	<10.	964.
AF01155	493018.50	5551187.50	23.	81.	95.	422.	21.	79.	<10.	920.
AF01156	493045.47	5551198.00	<10.	71.	57.	573.	15.	111.	20.	1060.
AF01157	493196.06	5551740.00	<10.	57.	53.	481.	16.	127.	13.	1150.
AF01158	493240.87	5551761.00	<10.	67.	59.	797.	18.	116.	15.	1200.
AF01159	493287.03	5551781.50	<10.	62.	97.	365.	35.	119.	13.	1300.
AF01160	492390.00	5552348.00	<10.	71.	27.	637.	12.	70.	<10.	516.
AF01161	492382.81	5552347.00	79.	48.	19.	760.	16.	66.	14.	387.
AF01162	492355.81	5552352.00	<10.	56.	43.	636.	21.	74.	15.	890.
AF01163	492337.44	5552354.50	<10.	44.	53.	753.	26.	57.	<10.	867.
AF01164	492307.12	5552360.50	<10.	42.	31.	743.	27.	59.	20.	416.
AF01166	494624.62	5551065.00	16.	61.	19.	844.	30.	52.	12.	463.
AF01168	494872.37	5551037.50	340.	103.	23.	379.	27.	60.	13.	473.
AF01170	494820.69	5550835.50	<10.	12.	98.	55.	<10.	82.	17.	791.
AF01171	494685.94	5550840.00	<10.	103.	40.	588.	<10.	70.	30.	716.
AF01173	494102.78	5550877.50	10.	18.	73.	169.	20.	105.	<10.	2060.
AF01174	492900.59	5553230.50	<10.	52.	50.	946.	21.	109.	15.	938.
AF01175	493145.97	5553613.50	17.	84.	45.	796.	19.	52.	<10.	825.
AF01176	492927.31	5553586.50	<10.	52.	16.	630.	22.	52.	16.	200.
AF01177	492702.31	5553575.00	31.	58.	34.	731.	<10.	31.	25.	809.
AF01178	492776.22	5553618.00	<10.	44.	62.	559.	12.	19.	<10.	654.
AF01179	493193.19	5553510.00	12.	65.	<10.	1090.	18.	66.	<10.	433.
AF01180	493038.59	5553518.00	<10.	46.	45.	925.	20.	24.	12.	656.
AF01181	492864.25	5553497.50	21.	70.	25.	776.	13.	40.	11.	420.
AF01182	493189.06	5553412.50	<10.	56.	44.	598.	25.	88.	21.	596.
AF01184	492958.16	5553316.50	<10.	68.	44.	760.	13.	77.	17.	939.
AF01185	492845.66	5553301.50	18.	60.	28.	639.	17.	34.	17.	656.
AF01186	492595.28	5553305.00	<10.	39.	40.	537.	18.	24.	12.	714.
AF01187	492493.72	5553286.50	20.	100.	15.	609.	19.	67.	11.	437.

Sample Number	Easting	Northing	Copper (ppm)	Zinc (ppm)	Rubidium (ppm)	Strontium (ppm)	Yttrium (ppm)	Zirconium (ppm)	Niobium (ppm)	Barium (ppm)
AF01188	492378.16	5553312.50	13.	64.	45.	750.	11.	34.	<10.	759.
AF01189	492947.19	5553119.50	<10.	65.	63.	655.	<10.	122.	24.	1360.
AF01190	493130.75	5553108.00	<10.	54.	49.	718.	<10.	91.	<10.	1140.
AF01192	493248.25	5553213.50	<10.	67.	67.	557.	<10.	121.	<10.	1170.
AF01193	492953.06	5553205.00	25.	93.	42.	757.	18.	108.	21.	551.
AF01195	492815.81	5553216.00	41.	162.	63.	345.	<10.	45.	20.	672.
AF01196	492422.87	5553974.00	52.	87.	29.	609.	19.	23.	14.	441.
AF01197	492264.75	5553933.00	<10.	49.	37.	827.	22.	68.	19.	1060.
AF01198	492298.78	5553890.00	<10.	62.	27.	653.	14.	69.	19.	458.
AF01199	492361.72	5553895.00	58.	61.	57.	434.	32.	112.	15.	1030.
AF01200	492526.59	5553906.50	17.	67.	<10.	723.	20.	69.	25.	241.
AF05051	492339.31	5553917.00	11.	89.	28.	713.	33.	34.	<10.	434.
AF05053	492503.16	5553801.00	<10.	89.	31.	635.	<10.	38.	<10.	878.
AF05054	492331.16	5553797.00	97.	68.	55.	673.	24.	167.	<10.	1090.
AF05055	492308.72	5553808.00	<10.	78.	58.	536.	29.	109.	21.	1170.
AF05056	492444.03	5553674.00	73.	110.	76.	428.	15.	112.	15.	1330.
AF05057	492655.66	5553842.00	<10.	57.	59.	609.	<10.	90.	22.	879.
AF05059	492619.34	5553814.50	109.	53.	47.	411.	19.	92.	<10.	1450.
AF05060	492471.69	5553602.00	<10.	71.	33.	796.	22.	57.	11.	632.
AF05061	492409.37	5553598.00	<10.	82.	45.	584.	23.	96.	12.	846.
AF05062	492425.94	5553497.00	<10.	75.	51.	698.	18.	67.	<10.	806.
AF05063	492540.09	5553498.00	<10.	50.	66.	287.	<10.	132.	<10.	813.
AF05064	492570.56	5553545.00	<10.	57.	43.	720.	<10.	56.	12.	772.
AF05065	493221.28	5553818.00	<10.	117.	36.	360.	15.	435.	20.	472.
AF05067	493067.81	5553903.00	<10.	67.	42.	676.	14.	78.	27.	747.
AF05068	492830.66	5553687.50	<10.	58.	24.	898.	30.	45.	19.	543.
AF05069	492812.81	5553260.00	<10.	63.	20.	539.	17.	48.	10.	474.
AF05070	492822.19	5553250.00	37.	51.	47.	617.	<10.	37.	14.	930.
AF05071	492829.16	5553244.00	<10.	104.	46.	529.	13.	58.	18.	609.
AF05072	492863.00	5553240.50	<10.	57.	70.	586.	13.	91.	19.	1360.
AF05073	492876.37	5553226.00	15.	60.	45.	832.	<10.	87.	<10.	646.
AF05075	492989.00	5553164.00	<10.	123.	60.	627.	18.	90.	20.	1110.
AF05076	493001.75	5553164.50	<10.	126.	21.	883.	10.	126.	18.	762.
AF05078	493029.97	5553149.50	21.	109.	55.	574.	<10.	86.	<10.	848.
AF05079	493025.09	5553141.00	<10.	84.	27.	489.	14.	101.	10.	839.
AF05080	493045.94	5553124.50	<10.	63.	63.	261.	14.	105.	11.	1230.
AF05081	492659.22	5553637.00	<10.	79.	45.	633.	18.	44.	16.	563.
AF05082	492748.87	5553325.50	12.	81.	66.	472.	33.	59.	<10.	807.
AF05083	493372.00	5550644.50	<10.	57.	168.	115.	<10.	121.	16.	1510.
AF05085	493515.22	5550652.50	414.	68.	103.	137.	17.	99.	20.	2350.



Sample Number	Easting	Northing	Copper (ppm)	Zinc (ppm)	Rubidium (ppm)	Strontium (ppm)	Yttrium (ppm)	Zirconium (ppm)	Niobium (ppm)	Barium (ppm)
AF05086	493534.72	5550609.50	<10.	29.	139.	78.	<10.	81.	16.	2130.
AF05087	493679.94	5550553.50	<10.	83.	50.	354.	15.	50.	<10.	1230.
AF05088	493770.97	5550515.50	<10.	46.	73.	195.	17.	95.	10.	1750.
AF05089	492919.19	5553127.00	40.	66.	60.	812.	20.	104.	23.	1200.
AF05090	492949.50	5553133.00	<10.	98.	64.	682.	<10.	89.	32.	1260.
AF05104	492981.37	5553142.00	<10.	101.	58.	700.	19.	95.	21.	1040.
AF05105	493017.34	5553149.50	<10.	71.	60.	565.	18.	95.	14.	959.
AF05106	493054.87	5553158.50	<10.	57.	43.	337.	19.	79.	17.	818.
AF05107	493071.94	5553162.00	<10.	88.	88.	657.	23.	111.	12.	1220.
AF05108	493125.25	5553175.00	<10.	59.	49.	580.	<10.	40.	<10.	531.
AF05111	492852.00	5554095.00	55.	193.	49.	247.	<10.	44.	14.	435.
AF05112	0.00	0.00	<10.	53.	38.	588.	22.	65.	26.	575.
AF05113	0.00	0.00	15.	70.	54.	784.	<10.	60.	<10.	1100.
AF05114	492368.78	5550142.00	24.	72.	37.	746.	29.	86.	13.	662.
AF05115	492387.16	5550169.50	16.	77.	39.	490.	21.	110.	<10.	731.
AF05116	493372.62	5550995.50	<10.	80.	91.	148.	28.	110.	22.	1420.
AF05117	493395.34	5550990.00	<10.	32.	73.	195.	11.	144.	16.	758.
AF05119	493518.47	5551024.50	<10.	97.	44.	590.	19.	84.	11.	799.
AF05120	493572.44	5551064.00	<10.	80.	26.	656.	11.	97.	<10.	790.
AF05121	493611.37	5551074.50	<10.	59.	73.	457.	14.	125.	14.	1010.
AF05122	493715.66	5551111.50	<10.	71.	137.	243.	12.	136.	17.	1150.
AF05123	493792.72	5551155.50	<10.	64.	102.	777.	26.	112.	15.	970.
AF05124	493430.44	5551045.50	<10.	89.	64.	444.	42.	134.	14.	1190.
AF05127	492860.47	5554112.50	<10.	76.	23.	665.	46.	92.	14.	322.
AF05128	492862.41	5554115.00	43.	79.	182.	93.	22.	156.	<10.	1750.
AF05129	492863.81	5554118.00	123.	2400.	93.	167.	27.	77.	17.	765.
AF05130	493150.84	5553084.00	<10.	48.	57.	511.	15.	106.	16.	1190.
AF05133	493203.31	5553087.50	49.	147.	63.	208.	28.	126.	21.	1210.
AF05134	493281.84	5553016.00	65.	124.	45.	258.	<10.	101.	16.	814.
AF05136	493365.75	5552989.00	<10.	44.	72.	351.	27.	125.	20.	1080.
AF05137	493152.22	5551177.00	<10.	56.	81.	499.	35.	104.	17.	1080.
AF05138	493192.31	5551222.00	<10.	46.	102.	618.	24.	123.	<10.	1200.
AF05139	492994.50	5551190.50	<10.	88.	94.	777.	15.	119.	<10.	1300.
AF05140	493194.69	5550937.00	<10.	59.	75.	547.	17.	121.	27.	905.
AF05141	493119.25	5550895.00	<10.	58.	68.	473.	15.	95.	19.	1240.
AF05142	492777.59	5551128.50	<10.	82.	182.	99.	24.	131.	19.	2430.
AF05143	492799.84	5551213.00	<10.	60.	92.	541.	11.	100.	13.	1140.
AF05144	492830.66	5551222.00	<10.	70.	147.	434.	32.	74.	14.	646.
AF05145	492642.03	5551254.00	<10.	93.	85.	501.	11.	108.	16.	1120.
AF05146	492835.16	5550838.00	<10.	50.	84.	427.	27.	117.	13.	2050.

Sample Number	Easting	Northing	Copper (ppm)	Zinc (ppm)	Rubidium (ppm)	Strontium (ppm)	Yttrium (ppm)	Zirconium (ppm)	Niobium (ppm)	Barium (ppm)
AF05147	492781.22	5550756.50	<10.	58.	15.	1370.	30.	80.	10.	469.
AF05148	492590.19	5550852.00	<10.	49.	35.	743.	25.	123.	18.	491.
AF05149	492503.03	5551059.50	<10.	85.	66.	505.	19.	122.	11.	1250.
AF05150	492924.09	5550786.00	<10.	62.	85.	384.	<10.	111.	21.	1190.
AF05151	490500.00	5554800.00	<10.	24.	54.	55.	33.	59.	<10.	575.
AF05153	492747.00	5552669.50	<10.	58.	121.	614.	<10.	76.	10.	848.
AF05154	492807.44	5552528.00	14.	78.	55.	777.	33.	77.	15.	931.
AF05155	492947.69	5552519.00	38.	61.	96.	227.	25.	84.	<10.	915.
AF05156	492907.84	5552668.50	13.	77.	136.	164.	34.	116.	13.	1230.
AF05157	492964.91	5552865.50	<10.	45.	112.	414.	17.	117.	11.	1100.
AF05158	493068.81	5552804.50	33.	60.	53.	844.	20.	85.	15.	913.
AF05159	492936.69	5552768.00	<10.	70.	87.	383.	<10.	58.	<10.	744.
AF05160	493037.22	5552672.00	<10.	74.	50.	490.	<10.	65.	15.	595.
AF05161	492808.81	5552686.00	137.	99.	96.	332.	27.	61.	28.	652.
AF05162	492921.94	5552413.50	<10.	91.	150.	273.	32.	77.	14.	1290.
AF05163	493063.06	5552185.50	<10.	82.	61.	544.	17.	81.	16.	1040.
AF05164	493266.12	5552152.50	<10.	62.	62.	714.	15.	41.	20.	893.
AF05165	492992.62	5553003.50	<10.	70.	45.	719.	21.	109.	<10.	974.
AF05166	493243.87	5552905.00	<10.	95.	44.	683.	<10.	27.	15.	667.
AF05167	493169.97	5552916.50	<10.	65.	42.	1030.	27.	46.	17.	866.
AF05168	493069.06	5552913.00	<10.	112.	46.	1020.	15.	84.	31.	1340.
AF05169	493022.09	5552902.00	<10.	134.	37.	757.	15.	96.	19.	722.
AF05170	493084.28	5552102.50	<10.	65.	64.	544.	25.	53.	<10.	698.
AF05171	493149.09	5552021.50	<10.	89.	63.	544.	22.	85.	16.	767.
AF05172	493131.75	5551935.00	<10.	66.	32.	1080.	16.	68.	18.	419.
AF05174	493094.53	5551956.50	<10.	63.	100.	556.	<10.	75.	<10.	935.
AF05175	493335.78	5552056.50	<10.	57.	61.	478.	14.	35.	14.	613.
AF05176	493409.97	5551952.50	<10.	71.	33.	793.	16.	75.	16.	579.
AF05177	493292.22	5552002.50	<10.	72.	60.	798.	25.	89.	<10.	1140.
AF05178	493143.97	5552175.00	<10.	58.	92.	536.	26.	103.	22.	1510.
AF05179	493177.69	5552483.50	<10.	63.	73.	594.	21.	120.	20.	768.
AF05180	493147.72	5552640.50	47.	57.	31.	759.	12.	98.	21.	742.
AF05181	493180.06	5552812.00	<10.	94.	69.	630.	34.	105.	<10.	1000.
AF05182	493251.62	5552784.00	<10.	78.	21.	653.	20.	76.	20.	262.
AF05183	493290.84	5552808.00	33.	83.	57.	449.	23.	103.	<10.	937.
AF05184	493394.87	5552796.50	<10.	71.	22.	1020.	27.	61.	<10.	202.
AF05185	493337.91	5552745.50	<10.	52.	129.	110.	21.	105.	20.	1440.
AF05186	493311.94	5552688.50	<10.	72.	75.	393.	<10.	108.	25.	1230.
AF05187	493243.12	5552704.50	<10.	72.	79.	648.	<10.	103.	19.	1500.
AF05188	493199.81	5552353.50	<10.	77.	166.	134.	29.	83.	<10.	1380.

Sample Number	Easting	Northing	Copper (ppm)	Zinc (ppm)	Rubidium (ppm)	Strontium (ppm)	Yttrium (ppm)	Zirconium (ppm)	Niobium (ppm)	Barium (ppm)
AF05189	493262.37	5552376.00	<10.	151.	142.	261.	22.	120.	17.	1520.
AF05190	493336.41	5552408.50	<10.	71.	131.	180.	27.	99.	11.	901.
AF05191	493365.50	5552510.50	<10.	126.	87.	322.	23.	107.	20.	1070.
AF05192	493398.09	5552585.00	<10.	58.	49.	648.	21.	85.	<10.	1030.
AF05193	493340.66	5552223.50	<10.	130.	98.	211.	18.	61.	13.	772.
AF05194	493387.37	5552189.50	<10.	140.	148.	61.	<10.	76.	13.	1340.
AF05195	493470.28	5552129.50	<10.	122.	224.	81.	21.	87.	<10.	1180.
AF05196	493547.44	5552100.50	<10.	61.	226.	43.	29.	109.	<10.	1320.
AF05197	493668.59	5551942.00	<10.	95.	86.	474.	<10.	76.	19.	865.
AF05198	493603.28	5552191.00	<10.	58.	87.	489.	17.	97.	20.	1030.
AF05199	493523.84	5552336.00	<10.	56.	108.	327.	11.	113.	14.	1330.
AF05200	493430.56	5552436.50	31.	49.	114.	393.	21.	114.	<10.	1960.
AF05201	493598.91	5552320.50	<10.	46.	76.	400.	31.	103.	14.	949.
AF05202	492871.50	5550604.00	26.	39.	22.	636.	27.	146.	22.	239.
AF05203	492871.62	5550604.00	19.	77.	107.	765.	24.	92.	20.	1230.
AF05204	492871.87	5550604.50	<10.	66.	102.	523.	14.	73.	25.	1340.
AF05205	492871.75	5550604.00	35.	136.	68.	692.	28.	65.	12.	801.
AF05206	492961.91	5551932.50	<10.	40.	40.	689.	<10.	110.	23.	1000.
AF05208	492767.97	5554163.50	<10.	113.	17.	589.	<10.	48.	28.	277.
AF05209	492760.00	5554218.00	<10.	99.	39.	351.	27.	121.	15.	323.
AF05210	492760.50	5552292.00	<10.	64.	62.	550.	<10.	76.	16.	899.
AF05211	492620.75	5552430.00	<10.	53.	<10.	869.	<10.	39.	22.	141.
AF05212	492486.84	5552742.50	14.	53.	46.	696.	28.	39.	21.	299.
AF05213	492693.75	5552536.50	<10.	62.	20.	517.	17.	43.	11.	362.
AF05214	492667.78	5552680.00	<10.	58.	42.	800.	<10.	51.	21.	706.
AF05215	492874.38	5552257.50	<10.	53.	62.	385.	18.	59.	28.	689.

ALTERATION INDEXES

ISHIKAWA =  $100 * ((\text{MgO} + \text{K}_2\text{O}) / (\text{Na}_2\text{O} + \text{K}_2\text{O} + \text{CaO} + \text{MgO}))$

SPITZDAR =  $\text{Al}_2\text{O}_3 / \text{Na}_2\text{O}$

ACNK =  $(\text{Al}_2\text{O}_3 / 102) / ((\text{CaO} / 56) + (\text{Na}_2\text{O} / 62) + (\text{K}_2\text{O} / 94))$

Total number of samples : 546

SAMPLE NO.	ISHIKAWA	SPITZDAR	ACNK
AC00804	40.00	3.20	1.22
AC00811	42.75	3.81	1.13
AC00812	38.45	3.42	1.08
AC00813	42.88	5.47	1.13
AC00814	32.79	4.07	0.91
AC00815	41.26	5.43	1.38
AC00816	56.37	8.05	1.58
AC00817	31.39	3.36	0.95
AC00818	22.62	3.60	0.83
AC00820	37.87	3.41	1.19
AC00821	28.78	2.95	1.10
AC00823	35.75	5.70	0.94
AC00824	24.14	2.91	0.88
AC00825	22.39	2.13	0.91
AC00829	24.68	4.50	0.80
AC00830	42.79	6.39	0.98
AC00831	36.75	4.96	0.87
AC00832	28.91	4.12	0.85
AC00833	36.16	3.96	1.05
AC00834	24.68	3.25	0.84
AC00835	25.26	3.24	0.85
AC00836	33.48	3.48	1.06
AC00837	84.38	62.33	2.46
AC00838	17.53	3.33	0.88
AC00839	20.11	3.24	0.88
AC00840	35.46	4.33	0.80
AC00841	37.48	4.49	0.99
AC00843	46.79	4.29	1.10
AC00844	34.75	3.10	1.03
AC00845	34.48	4.03	0.92
AC00846	39.37	3.02	1.00
AC00850	35.65	3.86	1.04
AC00851	38.54	3.50	1.14
AC00852	24.92	2.14	1.07
AC00854	34.33	3.80	0.90
AC00855	41.62	3.73	1.08
AC00856	24.64	7.81	0.76
AC00859	43.34	4.92	1.09
AC00860	32.21	3.69	1.00
AC00861	29.13	4.74	0.85
AC00862	38.90	3.70	1.22
AC00863	30.94	4.23	0.84
AC00864	36.27	4.45	1.31
AC00865	30.99	3.66	1.06
AC00866	21.55	3.20	0.84
AC00867	41.61	5.47	1.24
AC00868	13.56	2.80	0.87
AC00869	29.45	3.98	1.19
AC00870	26.02	3.60	0.87
AC00871	32.88	3.93	0.82

SAMPLE NO.	ISHIKAWA	SPITZDAR	ACNK
AC00872	21.44	3.95	0.78
AC00873	29.48	3.38	0.86
AC00874	93.47	39.52	1.20
AC00875	93.79	58.15	1.17
AC00876	50.03	6.39	1.28
AC00877	30.94	3.69	0.86
AC00878	41.26	5.92	0.81
AC00879	84.76	79.55	1.06
AC00880	69.21	7.18	1.13
AC00881	31.72	3.78	0.95
AC00882	30.85	3.56	0.94
AC00883	43.35	5.79	1.47
AC00884	33.06	3.88	1.00
AC00885	16.04	5.24	0.71
AC00886	25.00	4.29	0.83
AC00887	39.37	3.49	0.98
AC00888	31.89	3.04	0.93
AC00889	37.19	4.47	1.30
AC00890	40.02	5.69	1.33
AC00891	24.98	3.68	0.94
AC00892	46.70	5.24	0.94
AC00893	84.30	9.94	1.29
AC00894	78.44	9.07	1.13
AC00895	75.78	6.41	1.11
AC00898	34.83	4.44	0.78
AC00899	26.00	2.93	0.74
AC00900	17.07	2.69	0.86
AC00901	55.75	4.98	1.45
AC00902	33.44	3.64	1.09
AC00903	34.69	3.26	1.02
AC00904	40.46	5.57	1.04
AC00905	30.30	5.37	0.89
AC00906	33.71	3.46	1.02
AC00907	43.04	5.08	1.31
AC00908	54.32	10.78	1.02
AC00909	37.44	4.02	1.23
AC00910	34.08	5.72	0.78
AC00911	24.20	3.48	0.70
AC00912	39.18	5.87	1.17
AC00913	28.82	3.47	1.06
AC00914	28.22	3.73	1.06
AC00915	34.60	4.40	1.03
AC00917	37.57	5.34	1.09
AC00918	42.21	7.90	0.98
AC00919	26.26	2.88	1.02
AC00920	31.49	3.24	1.07
AC00921	22.20	4.11	1.01
AC00922	32.60	4.61	0.87
AC00923	37.64	3.38	1.02
AC00924	38.23	3.90	0.98

SAMPLE NO.	ISHIKAWA	SPITZDAR	ACNK
AC00925	19.96	2.96	0.91
AC00926	23.99	4.47	0.87
AC00927	42.71	5.60	1.44
AC00928	40.20	6.06	1.02
AC00929	38.55	5.08	1.12
AC00930	43.78	3.89	0.95
AC00931	41.69	4.00	1.02
AC00932	29.19	2.33	1.14
AC00933	34.81	3.11	1.10
AC00934	44.45	6.56	0.89
AC00935	30.78	3.31	0.89
AC00936	43.27	5.52	0.85
AC00937	31.24	5.51	0.76
AC00938	29.77	6.62	0.79
AC00939	28.44	2.98	1.06
AC00940	30.82	2.83	1.13
AC00941	34.95	4.91	0.98
AC00942	55.01	22.41	6.20
AC00943	35.83	7.72	1.37
AC00944	44.62	8.43	1.83
AC00945	27.81	4.62	0.91
AC00946	36.07	4.38	1.02
AC00947	35.80	4.83	0.77
AC00948	37.11	4.20	0.98
AC00949	31.57	3.67	0.98
AC00950	32.76	3.67	0.98
AC00951	25.43	2.83	0.93
AC00952	33.42	3.99	0.81
AC00953	34.29	3.68	0.96
AC00954	27.54	4.75	0.84
AC00955	26.93	7.20	0.79
AC00956	24.26	2.55	0.95
AC00957	35.66	3.17	1.03
AC00958	33.58	6.57	0.83
AC00959	29.81	2.68	1.15
AC00960	31.59	3.42	1.00
AC00961	28.10	6.82	0.70
AC00962	30.64	2.80	0.94
AC00963	31.04	2.86	0.95
AC00964	29.22	3.03	0.98
AC00965	35.06	5.13	0.97
AC00966	40.95	4.28	0.93
AC00967	59.16	7.47	1.61
AC00968	62.77	32.42	1.45
AC00969	38.12	6.55	0.99
AC00970	45.07	4.43	1.18
AC00971	33.13	6.35	0.89
AC00972	94.18	120.00	1.31
AC00973	93.08	101.43	1.23
AC00974	48.40	5.17	1.65

SAMPLE NO.	ISHIKAWA	SPITZDAR	ACNK
AC00975	95.30	176.25	2.34
AC00976	42.13	3.89	1.20
AC00977	27.24	2.49	1.08
AC00978	22.58	2.47	0.99
AC00979	44.67	3.84	1.30
AC00980	82.53	271.43	1.83
AC00981	32.26	3.38	0.93
AC00982	26.54	3.59	0.82
AC00983	49.70	6.24	1.14
AC00984	53.34	6.39	1.21
AC00985	24.46	3.10	0.83
AC00986	33.71	4.05	0.95
AC00987	34.76	3.40	1.07
AC00989	35.96	4.55	1.28
AC00991	34.31	4.91	1.23
AC00992	15.22	3.04	0.94
AC00993	35.01	4.33	0.92
AC00994	26.82	3.35	0.97
AC00995	24.46	4.08	1.12
AC00996	36.70	6.05	1.08
AC00997	13.60	2.52	0.85
AC00998	23.58	4.72	0.97
AC00999	31.58	4.39	1.03
AD03801	24.40	2.69	0.85
AD03802	36.39	3.75	1.05
AD03803	46.66	10.25	0.87
AD03804	35.87	3.73	1.24
AD03805	58.66	6.08	1.71
AD03809	31.43	3.22	0.96
AD03810	51.01	13.42	0.7
AD03811	49.72	5.24	0.94
AD03812	57.75	7.89	1.21
AD03813	42.07	4.02	1.16
AD03814	85.47	36.17	1.04
AD03815	79.53	44.36	1.30
AD03816	35.86	5.29	0.93
AD03822	37.02	2.72	1.10
AD03824	33.55	3.36	0.92
AD03827	36.86	4.03	1.25
AD03831	30.21	2.82	0.98
AD03834	19.18	2.63	0.74
AD03835	26.78	3.11	0.96
AD03836	28.08	2.70	0.97
AD03838	30.86	3.29	1.07
AD03839	24.62	2.30	1.01
AD03840	27.16	3.80	0.77
AD03842	35.61	5.83	1.38
AD03843	34.38	4.69	0.93
AD03844	39.45	9.18	0.84
AD03845	46.61	4.82	0.96



SAMPLE NO.	ISHIKAWA	SPITZDAR	ACNK
AD03846	43.92	4.53	0.91
AD03847	17.69	3.16	0.73
AD03848	52.21	8.36	1.62
AD03849	31.82	5.35	0.95
AD03850	31.66	8.59	1.61
AD03851	43.36	4.25	1.19
AD03852	26.31	2.89	1.00
AD03853	45.66	20.00	0.34
AD03854	32.15	3.69	1.20
AD03855	30.32	2.94	1.03
AD03856	95.05	45.35	1.36
AD03857	38.23	4.73	1.34
AD03858	73.54	6.25	1.32
AD03859	35.05	3.96	0.93
AD03860	28.49	3.62	0.82
AD03861	84.04	11.91	1.20
AD03862	44.91	5.07	1.10
AD03863	31.05	5.01	0.81
AD03864	27.96	2.26	0.99
AD03865	37.69	3.25	0.92
AD03866	28.49	3.09	0.90
AD03867	41.19	3.22	1.05
AD03868	29.94	4.74	0.85
AD03869	43.03	15.00	0.65
AD03870	45.12	7.87	1.76
AD03871	12.70	3.09	0.78
AD03872	59.01	8.00	1.66
AD03873	31.76	4.42	0.97
AD03874	37.54	6.86	0.89
AD03875	78.35	17.45	2.18
AD03876	40.20	117.50	0.68
AD03878	93.19	39.27	4.21
AD03903	34.89	3.04	0.80
AD03904	22.95	3.20	1.08
AD03906	32.28	9.82	1.79
AD03912	36.14	3.71	0.89
AD03913	41.60	5.31	0.92
AD03915	27.53	3.06	0.92
AD03916	50.44	3.48	1.01
AD03917	35.64	4.85	0.84
AD03918	40.52	3.40	1.02
AD03920	38.37	3.54	0.99
AD03921	34.79	3.80	1.09
AD03924	70.37	8.10	2.04
AD03929	75.32	8.52	2.40
AD03933	22.43	2.51	0.98
AD03934	74.62	11.42	1.81
AD03937	27.01	2.63	1.15
AD03938	36.24	204.29	0.89
AD03944	29.40	2.70	1.00

SAMPLE NO.	ISHIKAWA	SPITZDAR	ACNK
AD03945	72.23	11.95	1.73
AD03946	43.11	3.84	1.11
AD03947	43.99	4.35	1.17
AD03948	49.66	4.80	1.13
AD03961	33.15	3.75	0.88
AD03962	41.08	5.58	0.89
AD03963	46.67	5.01	1.01
AD03964	37.39	4.95	0.91
AD03965	86.57	127.86	1.23
AD03966	43.30	7.74	0.90
AD03967	60.04	14.53	1.25
AD03968	46.87	5.77	1.07
AD03969	62.31	6.25	1.02
AD03970	51.51	10.52	0.88
AD03971	71.55	21.83	1.12
AD03972	32.84	4.72	0.80
AD03973	38.33	4.46	0.88
AD03974	41.85	4.46	0.91
AD03975	42.39	5.70	0.86
AD03979	27.69	3.76	0.97
AF00701	31.15	2.88	1.12
AF00702	27.17	4.13	0.91
AF00703	32.34	3.63	1.22
AF00704	25.76	3.05	0.92
AF00705	27.25	2.34	0.91
AF00706	38.40	5.50	1.18
AF00707	53.52	4.49	1.40
AF00708	31.71	3.67	1.07
AF00709	40.66	3.25	1.23
AF00710	33.88	2.74	1.20
AF00711	32.25	3.01	1.21
AF00712	19.76	2.35	0.92
AF00713	43.32	4.58	1.24
AF00714	23.33	2.76	0.88
AF00715	37.16	3.20	1.01
AF00716	68.93	9.76	1.78
AF00717	47.44	6.96	1.15
AF00718	35.93	4.38	1.09
AF00719	25.42	2.88	0.98
AF00720	34.55	4.76	0.98
AF00721	36.35	3.41	0.92
AF00722	37.23	3.26	1.07
AF00723	34.95	6.92	0.90
AF00724	37.10	4.54	1.03
AF00725	32.90	4.16	1.28
AF00726	28.42	4.15	1.07
AF01055	39.54	3.34	1.06
AF01056	25.44	3.52	0.87
AF01057	34.58	3.15	1.02
AF01059	44.53	6.46	1.04

SAMPLE NO.	ISHIKAWA	SPITZDAR	ACNK
AF01060	31.96	3.52	1.08
AF01061	36.44	4.61	0.99
AF01062	42.76	4.91	1.06
AF01063	44.70	5.23	1.04
AF01064	51.55	33.27	0.81
AF01065	32.73	3.28	0.88
AF01066	35.52	3.11	0.99
AF01068	43.60	5.18	1.10
AF01069	33.53	7.22	0.72
AF01070	39.52	3.79	1.33
AF01074	26.62	3.68	1.03
AF01075	24.85	2.79	0.97
AF01077	37.78	2.75	1.20
AF01081	28.43	5.50	1.00
AF01083	51.38	3.91	1.11
AF01084	44.87	42.63	0.92
AF01085	34.34	12.11	0.82
AF01086	45.46	4.27	0.94
AF01087	35.01	3.46	0.92
AF01089	39.43	5.33	0.74
AF01090	71.35	23.48	0.93
AF01091	87.38	40.00	1.14
AF01092	84.38	133.33	1.10
AF01094	54.78	9.14	0.89
AF01095	84.83	165.00	1.15
AF01096	27.03	3.15	0.70
AF01097	48.83	124.17	0.80
AF01098	34.00	3.92	1.05
AF01099	43.83	6.88	0.92
AF01100	51.21	5.40	1.39
AF01102	46.51	5.32	0.98
AF01104	27.47	4.33	0.94
AF01105	32.53	3.97	0.94
AF01106	25.49	3.16	0.96
AF01107	43.23	4.03	1.21
AF01108	28.54	3.65	1.02
AF01109	34.54	5.34	0.90
AF01110	34.85	9.89	0.71
AF01111	31.06	5.61	0.79
AF01112	34.75	3.44	0.96
AF01113	35.67	4.08	1.04
AF01114	33.60	5.49	0.87
AF01117	42.19	4.24	1.05
AF01118	30.55	2.92	1.12
AF01121	43.40	6.15	1.39
AF01122	47.57	6.17	1.14
AF01123	23.67	2.96	1.00
AF01124	32.37	4.67	1.03
AF01125	49.80	7.05	0.95
AF01126	34.86	4.76	1.03

SAMPLE NO.	ISHIKAWA	SPITZDAR	ACNK
AF01129	30.46	4.33	0.88
AF01131	37.30	6.87	1.02
AF01132	30.31	3.91	1.10
AF01133	44.12	7.86	1.25
AF01135	48.37	5.25	1.09
AF01136	38.65	4.30	0.99
AF01137	36.63	3.98	0.95
AF01138	35.82	4.56	0.84
AF01139	33.86	3.76	1.08
AF01140	38.17	4.17	0.84
AF01142	27.36	3.71	0.96
AF01143	45.00	3.23	0.88
AF01144	51.28	7.07	0.89
AF01145	53.33	7.77	1.03
AF01146	34.60	3.28	0.96
AF01147	26.83	3.62	0.81
AF01148	43.00	9.41	0.96
AF01150	24.10	3.53	0.75
AF01151	35.23	3.32	0.94
AF01152	32.56	3.21	0.86
AF01153	44.74	3.89	1.12
AF01154	39.11	3.60	0.93
AF01155	44.26	3.90	1.19
AF01156	37.56	3.45	0.95
AF01157	35.73	4.07	1.26
AF01158	28.54	4.96	1.05
AF01159	45.70	6.70	1.22
AF01160	36.48	5.01	0.92
AF01161	37.03	4.49	1.05
AF01162	38.28	5.88	1.32
AF01163	32.99	4.69	0.91
AF01164	34.27	3.99	0.93
AF01166	27.81	4.57	0.94
AF01168	36.99	3.27	1.02
AF01170	85.62	38.30	2.72
AF01171	36.19	3.63	1.08
AF01173	66.67	5.60	1.28
AF01174	26.87	4.71	0.98
AF01175	34.44	3.22	1.05
AF01176	29.36	3.14	0.88
AF01177	37.84	4.35	0.96
AF01178	32.42	4.12	1.07
AF01179	28.58	3.43	0.95
AF01180	26.26	3.60	0.95
AF01181	40.07	5.43	0.99
AF01182	17.68	2.43	0.81
AF01184	30.37	4.43	0.93
AF01185	36.98	6.62	0.76
AF01186	31.49	5.56	0.98
AF01187	37.26	3.57	1.03

SAMPLE NO.	ISHIKAWA	SPITZDAR	ACNK
AF05111	43.39	7.03	1.11
AF05112	27.56	4.29	0.85
AF05113	37.94	3.86	0.83
AF05114	40.57	4.14	1.39
AF05115	35.00	3.45	1.13
AF05116	65.48	7.54	1.78
AF05117	51.02	3.99	1.56
AF05119	40.02	4.62	1.22
AF05120	37.88	3.79	1.24
AF05121	43.22	4.11	1.43
AF05122	64.40	14.50	1.72
AF05123	33.90	3.62	1.00
AF05124	40.52	3.81	1.38
AF05127	17.70	3.97	0.73
AF05128	91.52	53.57	2.86
AF05129	36.36	5.74	0.89
AF05130	27.68	4.02	0.89
AF05133	85.52	18.96	3.32
AF05134	57.18	4.75	1.81
AF05136	38.84	4.17	0.99
AF05137	40.82	4.64	1.07
AF05138	42.88	6.25	1.17
AF05139	41.94	5.27	0.93
AF05140	33.33	3.34	0.94
AF05141	34.33	3.53	0.97
AF05142	80.97	12.48	1.65
AF05143	47.21	5.77	1.06
AF05144	48.26	5.81	1.12
AF05145	43.61	4.25	1.04
AF05146	50.04	4.50	1.17
AF05147	18.23	3.49	0.80
AF05148	21.61	2.45	0.89
AF05149	53.08	4.61	1.47
AF05150	32.34	3.62	0.94
AF05151	38.71	3.41	1.42
AF05153	52.23	7.70	0.97
AF05154	38.73	5.63	0.95
AF05155	47.94	6.85	0.90
AF05156	76.15	11.74	1.69
AF05157	43.40	6.04	0.93
AF05158	30.01	3.62	0.81
AF05159	44.90	5.89	1.07
AF05160	49.69	5.10	1.25
AF05161	48.57	6.01	1.03
AF05162	65.37	5.93	1.14
AF05163	38.27	4.28	0.97
AF05164	41.92	5.25	0.95
AF05165	32.49	4.35	1.01
AF05166	28.90	4.03	0.76
AF05167	30.68	3.89	0.88

SAMPLE NO.	ISHIKAWA	SPITZDAR	ACNK
AF05168	32.86	4.10	1.19
AF05169	33.48	4.12	1.04
AF05170	38.43	4.39	0.92
AF05171	47.38	5.20	1.12
AF05172	29.38	5.54	0.74
AF05174	39.70	7.65	0.88
AF05175	37.91	8.05	0.81
AF05176	25.03	3.94	0.84
AF05177	36.97	5.30	0.92
AF05178	49.64	7.46	0.96
AF05179	30.54	3.43	0.88
AF05180	23.00	2.70	0.85
AF05181	34.37	3.88	1.21
AF05182	30.13	3.40	0.95
AF05183	37.12	3.41	1.19
AF05184	20.16	2.90	0.89
AF05185	80.76	16.74	2.07
AF05186	58.20	6.77	1.58
AF05187	47.56	4.88	1.28
AF05188	83.34	10.00	1.12
AF05189	47.30	8.53	0.94
AF05190	47.45	7.67	0.96
AF05191	70.37	7.33	2.17
AF05192	31.61	3.65	0.93
AF05193	47.66	6.14	0.97
AF05194	91.06	77.22	1.14
AF05195	91.75	61.61	1.46
AF05196	90.56	33.77	1.78
AF05197	45.88	4.35	1.19
AF05198	41.57	5.61	0.92
AF05199	43.29	5.41	0.96
AF05200	51.30	5.83	1.27
AF05201	33.50	3.25	1.00
AF05202	8.63	2.08	0.81
AF05203	42.75	5.72	1.36
AF05204	39.12	4.79	1.21
AF05205	39.67	5.52	1.27
AF05206	25.24	2.71	1.09
AF05208	29.32	5.61	0.78
AF05209	28.36	4.45	1.02
AF05210	41.06	3.88	1.03
AF05211	23.80	5.12	0.74
AF05212	38.69	6.46	0.82
AF05213	52.48	4.06	1.05
AF05214	35.20	3.77	0.96
AF05215	37.73	4.55	0.78

## GEOCHEMICAL ROCK SAMPLES

Analysed by: Bondar-Clegg & Company Limited  
130 Permberton Ave.  
North Vancouver, B.C.  
V7P 2R5

Element	Lower Detection Limit	Extraction	Method
Copper	1 ppm	HNO3-HCL Hot Extr.	Atomic Absorption
Lead	1 ppm	HNO3-HCL Hot Extr.	Atomic Absorption
Zinc	1 ppm	HNO3-HCL Hot Extr.	Atomic Absorption
Silver	0.1 ppm	HNO3-HCL Hot Extr.	Atomic Absorption
Gold (fire assay)	5 ppb	Fire Assay	Fire Assay AA
Barium	20 ppm		X-ray Fluorescence

Sample preparation : crush, pulverize to -150 mesh

Total number of samples : 194

Sample Number	Easting	Northing	Copper (ppm)	Zinc (ppm)	Lead (ppm)	Silver (ppm)	Gold (ppb)	Barium (ppm)
AC00801	493964.41	5551856.50	18.	42.	6.	0.3	<5.	140.
AC00802	494000.87	5552091.50	195.	108.	9.	0.4	5.	970.
AC00803	494285.09	5552124.00	8.	51.	8.	0.1	<5.	1200.
AC00805	494707.41	5551660.00	16.	89.	5.	0.2	<5.	460.
AC00806	494522.84	5551603.50	99.	33.	13.	0.2	10.	1300.
AC00807	494438.06	5551545.50	48.	17.	8.	0.3	5.	1100.
AC00808	494239.75	5551215.00	30.	50.	26.	0.4	<5.	1700.
AC00809	494042.09	5551884.50	835.	148.	2.	1.0	<5.	1200.
AC00810	494012.87	5551874.00	235.	24300.	7.	0.4	<5.	200.
AC00819	494993.12	5552751.00	46.	73.	7.	0.2	<5.	790.
AC00822	496084.66	5552307.50	15.	12.	3.	0.2	<5.	1100.
AC00826	492673.37	5554476.00	965.	675.	3.	1.4	10.	330.
AC00827	492692.16	5554474.50	240.	305.	43.	1.2	<5.	580.
AC00828	492743.50	5554492.50	56.	79.	420.	5.9	25.	310.
AC00842	492768.47	5554164.50	55.	124.	9.	0.3	<5.	250.
AC00847	494668.22	5550463.00	27.	29.	14.	0.8	<5.	920.
AC00848	494815.06	5550433.50	20.	47.	3.	0.2	<5.	770.
AC00849	495006.87	5550442.00	4.	66.	15.	0.1	<5.	600.
AC00853	494685.81	5554501.50	29.	72.	5.	0.2	<5.	770.
AC00857	494520.59	5554618.00	48.	57.	2.	0.2	<5.	930.
AC00858	494908.22	5553220.00	19.	48.	6.	0.2	<5.	930.
AC00896	493673.94	5551827.00	37.	88.	14.	2.0	5.	930.
AC00897	493673.59	5551828.00	275.	151.	49.	8.1	90.	1200.
AC00916	493077.06	5551665.00	22.	19.	5.	0.2	<5.	1500.
AC00988	493487.87	5553624.50	28.	71.	21.	0.4	<5.	350.
AC00990	493283.34	5553616.50	37.	165.	2.	<0.1	<5.	630.
AD03806	492963.91	5551960.00	7.	27.	<2.	NA	NA	752.
AD03807	493789.59	5552789.00	39000.	350.	460.	NA	NA	<10.
AD03808	492931.31	5552670.00	13000.	56000.	140000.	NA	NA	30.
AD03817	490398.16	5553294.50	58.	1100.	14.	5.8	10.	190.
AD03818	490384.66	5553305.00	62.	69.	2.	0.7	<5.	270.
AD03819	490362.75	5553296.00	63.	143.	<2.	0.5	<5.	890.
AD03820	490334.97	5553298.00	100.	1400.	4.	0.4	<5.	290.
AD03821	490212.91	5553266.00	111.	78.	3.	0.5	10.	960.
AD03823	492341.22	5550183.00	960.	86.	3.	2.2	15.	670.
AD03825	493757.00	5552706.00	77.	44000.	50.	4.6	80.	100.
AD03826	493736.00	5552752.00	45400.	810.	147.	66.9	130.	<20.
AD03828	492323.50	5550369.00	350.	200.	4.	0.7	<5.	1000.
AD03829	492378.03	5550450.50	82.	104.	4.	0.2	<5.	610.
AD03830	492317.00	5550473.00	64.	108.	5.	0.1	<5.	650.



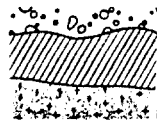
Sample Number	Easting	Northing	Copper (ppm)	Zinc (ppm)	Lead (ppm)	Silver (ppm)	Gold (ppb)	Barium (ppm)
AD03832	492194.06	5550714.00	41.	86.	8.	<0.1	<5.	990.
AD03833	492394.00	5550528.00	74.	100.	2.	<0.1	<5.	270.
AD03837	491604.37	5552279.00	33.	250.	<2.	<0.1	<5.	290.
AD03841	491533.19	5552304.00	40.	52.	3.	0.1	<5.	1600.
AD03877	492302.22	5553431.00	1000.	41.	<2.	NA	NA	149.
AD03879	491562.00	5552483.00	10.	60.	<2.	<0.1	<5.	1600.
AD03880	491923.00	5554450.00	75.	28.	5.	0.2	25.	1200.
AD03881	492093.56	5554651.50	200.	285.	10.	0.1	30.	330.
AD03882	491823.00	5554035.00	12.	10.	6.	<0.1	<5.	2600.
AD03883	491986.25	5553110.00	215.	20.	<2.	0.1	<5.	860.
AD03884	490447.22	5554396.50	80.	13.	15.	0.9	130.	400.
AD03885	492927.56	5551733.00	23.	80.	7.	0.2	20.	1400.
AD03886	494258.37	5551563.00	27.	57.	3.	0.1	10.	1400.
AD03887	494336.78	5551545.50	24.	67.	4.	0.1	<5.	1000.
AD03888	492356.87	5554923.50	48.	126.	6.	0.2	<5.	760.
AD03889	494107.37	5551830.00	5.	17.	2.	<0.1	<5.	600.
AD03890	494009.75	5552750.50	5.	10.	3.	<0.1	<5.	630.
AD03891	493740.00	5552774.00	5.	6.	<2.	0.1	25.	530.
AD03892	490305.00	5553098.00	57.	69.	3.	0.1	<5.	280.
AD03893	490240.00	5553194.00	45.	68.	2.	<0.1	<5.	710.
AD03894	491368.16	5552183.00	16.	43.	2.	0.1	<5.	750.
AD03895	491235.00	5552215.00	11.	129.	5.	0.1	<5.	1360.
AD03896	492579.87	5553870.50	65.	122.	8.	0.2	<5.	700.
AD03897	492708.03	5554010.00	5.	81.	4.	<0.1	<5.	510.
AD03898	492830.03	5554226.50	<1.	15.	4.	<0.1	<5.	800.
AD03899	493048.84	5554049.00	500.	126.	2.	0.5	<5.	270.
AD03900	489144.34	5554860.00	42.	59.	2.	0.1	<5.	<20.
AD03901	491214.16	5552231.00	29.	78.	6.	<0.1	<5.	1200.
AD03902	491207.09	5552224.00	10.	72.	<2.	<0.1	<5.	800.
AD03905	491292.28	5552274.00	45.	86.	5.	0.1	<5.	980.
AD03907	491306.56	5552270.00	29.	37.	<2.	<0.1	<5.	1500.
AD03908	491312.34	5552268.50	22.	54.	4.	<0.1	<5.	1100.
AD03909	491317.59	5552267.50	24.	57.	<2.	0.1	<5.	1400.
AD03910	491324.41	5552266.00	15.	53.	5.	0.1	<5.	1200.
AD03911	491338.28	5552263.50	14.	53.	<2.	<0.1	<5.	930.
AD03914	493615.25	5552525.00	16.	12.	14.	0.2	30.	1700.
AD03919	493618.50	5552808.50	9.	53.	5.	0.1	<5.	1300.
AD03922	493635.12	5552733.00	56.	142.	8.	0.1	<5.	890.
AD03923	493595.78	5552768.50	95.	100.	9.	0.2	5.	760.
AD03925	493693.00	5552800.00	72.	38.	2.	0.2	<5.	640.

Sample Number	Easting	Northing	Copper (ppm)	Zinc (ppm)	Lead (ppm)	Silver (ppm)	Gold (ppb)	Barium (ppm)
AD03926	493697.00	5552803.00	46.	136.	2.	<0.1	<5.	200.
AD03927	493691.00	5552797.00	8.	158.	<2.	0.1	<5.	<20.
AD03928	493689.00	5552794.00	2.	65.	<2.	<0.1	<5.	150.
AD03930	493709.00	5552780.00	70.	170.	<2.	<0.1	<5.	360.
AD03931	493710.00	5552782.00	50.	185.	<2.	0.5	15.	330.
AD03932	493747.75	5552798.50	3.	8.	<2.	<0.1	<5.	570.
AD03935	493734.00	5552775.00	260.	118.	36.	0.6	<5.	420.
AD03936	493719.00	5552768.00	3400.	22100.	3.	6.0	60.	50.
AD03939	493762.00	5552707.00	30.	220.	3.	0.1	<5.	<20.
AD03940	493759.87	5552706.50	37.	330.	<2.	<0.1	<5.	760.
AD03941	493490.12	5552927.50	24.	230.	3.	0.2	<5.	1200.
AD03942	493741.00	5552729.00	14.	530.	7.	0.2	<5.	390.
AD03943	493744.00	5552741.00	55.	113.	5.	1.0	10.	240.
AD03949	493955.41	5552391.00	109.	160.	2.	0.2	<5.	220.
AD03950	493943.44	5552403.00	420.	36700.	42.	3.2	50.	100.
AD03951	492037.28	5554168.00	35.	23.	7.	0.1	10.	1300.
AD03952	491953.00	5554263.00	25.	43.	23.	0.1	10.	1000.
AD03953	492163.37	5554508.50	15.	68.	<2.	<0.1	<5.	1100.
AD03954	492118.69	5554484.50	61.	55.	5.	0.1	5.	1300.
AD03955	492316.53	5554694.50	12.	87.	6.	0.1	5.	1000.
AD03956	492102.50	5554675.00	10.	35.	5.	<0.1	<5.	1300.
AD03957	493623.37	5550738.00	35.	54.	57.	1.2	30.	1200.
AD03958	493692.94	5550765.00	15.	22.	<2.	0.2	<5.	850.
AD03959	493734.12	5550766.00	16.	27.	19.	6.1	85.	590.
AD03960	493745.25	5550767.00	48.	127.	10.	4.8	140.	1700.
AD03976	495580.66	5550491.00	95.	235.	6.	0.1	<5.	400.
AD03977	495521.22	5550522.00	62.	1200.	8.	0.2	<5.	300.
AD03978	495489.75	5550587.50	230.	108.	5.	0.4	<5.	370.
AD03980	493190.69	5553709.50	62.	116.	3.	0.2	<5.	330.
AD03981	493030.00	5553385.00	10.	91.	6.	0.1	<5.	1000.
AD03982	494720.00	5551530.00	40.	220.	9.	0.2	5.	620.
AD03983	490230.00	5553240.00	48.	147.	8.	0.1	<5.	180.
AD03984	492767.62	5554201.00	118.	885.	305.	1.1	<5.	540.
AD03985	490161.94	5553487.50	19.	32.	5.	<0.1	<5.	230.
AD03986	494313.69	5550242.00	21.	86.	6.	<0.1	<5.	810.
AD03987	494124.87	5550171.00	8.	27.	3.	0.1	<5.	1100.
AD03988	494416.22	5551991.00	5.	98.	4.	0.1	<5.	290.
AD03989	494600.16	5551721.00	40.	131.	6.	0.1	<5.	360.
AD03990	495045.09	5551027.00	14.	120.	26.	<0.1	10.	510.
AD03991	494864.50	5551493.00	36.	315.	13.	<0.1	10.	400.

Sample Number	Easting	Northing	Copper (ppm)	Zinc (ppm)	Lead (ppm)	Silver (ppm)	Gold (ppb)	Barium (ppm)
AD03992	494845.16	5551501.00	11.	80.	10.	<0.1	<5.	80.
AD03993	494331.16	5551891.50	9.	32.	5.	<0.1	<5.	510.
AD03994	493987.50	5551866.00	14.	191.	16.	0.4	35.	1200.
AD03995	493964.53	5551856.50	8.	53.	5.	0.1	10.	440.
AD03996	494012.75	5551874.00	107500.	3000.	5.	76.1	95.	420.
AD03997	494012.75	5551874.00	6050.	670.	6.	6.2	55.	180.
AD03998	493990.00	5551882.00	310.	59.	3.	0.5	<5.	170.
AD03999	494025.34	5551904.00	99500.	107.	8.	53.8	700.	<20.
AD04000	494511.00	5551798.00	545.	19.	3.	0.3	<5.	600.
AF01051	493943.44	5552403.00	1750.	30300.	139.	12.0	240.	100.
AF01052	493943.44	5552403.00	82.	1200.	4.	0.1	120.	740.
AF01053	493901.59	5552396.50	57.	250.	5.	0.2	5.	470.
AF01054	493857.28	5552395.00	27.	103.	13.	0.5	<5.	770.
AF01058	492856.37	5554104.00	42.	122.	19.	0.2	<5.	1100.
AF01067	493638.41	5552699.00	48.	100.	12.	0.5	5.	1100.
AF01071	493861.25	5552334.00	22.	113.	7.	0.1	<5.	840.
AF01072	493900.72	5552301.00	315.	124.	7.	0.1	<5.	530.
AF01073	494045.19	5552304.50	134.	115.	12.	0.2	<5.	950.
AF01076	493776.72	5552188.00	51.	84.	10.	0.3	15.	1100.
AF01078	494285.09	5552124.00	28.	79.	8.	<0.1	<5.	1100.
AF01079	494407.84	5552085.00	67.	39.	<2.	0.1	<5.	730.
AF01080	492419.06	5550645.00	13.	60.	2.	0.2	<5.	850.
AF01082	492450.91	5550676.00	27.	64.	<2.	0.2	<5.	630.
AF01088	493311.44	5552885.00	36.	109.	3.	0.2	<5.	1300.
AF01093	492965.31	5552646.00	335.	980.	370.	2.2	440.	1200.
AF01101	495423.09	5551047.00	40.	255.	10.	0.2	<5.	790.
AF01103	495285.47	5550821.00	9.	41.	3.	0.1	<5.	80.
AF01115	492691.37	5554080.50	17.	44.	13.	0.4	<5.	670.
AF01116	492762.37	5554187.00	4100.	183600.	164.	14.0	35.	1500.
AF01119	492762.62	5554187.50	270.	4700.	30.	1.2	<5.	2200.
AF01120	492147.03	5554511.50	75.	2200.	17.	1.5	<5.	400.
AF01127	492986.78	5552953.00	41.	19.	13.	0.4	<5.	1400.
AF01128	492990.62	5552957.50	33.	92.	15.	0.3	<5.	1200.
AF01130	493012.97	5552978.50	23.	95.	9.	0.4	<5.	990.
AF01134	492935.50	5553152.00	76.	1700.	1200.	2.2	520.	990.
AF01141	492956.84	5553570.00	44.	119.	21.	0.7	<5.	980.
AF01149	493307.31	5552520.00	17.	99.	13.	0.4	<5.	780.
AF01165	494469.16	5551073.00	37.	138.	5.	0.4	5.	390.
AF01167	494625.50	5551052.00	25.	77.	7.	0.2	<5.	880.
AF01169	494837.41	5550827.50	20.	21.	5.	0.3	<5.	710.

Sample Number	Easting	Northing	Copper (ppm)	Zinc (ppm)	Lead (ppm)	Silver (ppm)	Gold (ppb)	Barium (ppm)
AF01172	494088.91	5550874.00	161.	154.	790.	1.4	<5.	980.
AF01183	493183.81	5553392.50	8.	78.	11.	0.1	<5.	850.
AF01191	493130.62	5553107.50	35.	120.	14.	0.3	<5.	960.
AF01194	492952.81	5553189.00	33.	150.	12.	0.6	<5.	950.
AF05052	492339.44	5553917.00	37.	126.	6.	0.4	<5.	710.
AF05058	492655.91	5553824.50	30.	99.	14.	0.4	<5.	1000.
AF05066	493463.53	5553838.50	1300.	16.	8.	2.1	<5.	1600.
AF05074	492977.91	5553173.50	12.	92.	5.	0.1	<5.	930.
AF05077	493017.12	5553155.50	25.	50.	7.	0.1	<5.	1000.
AF05084	493497.00	5550634.00	85400.	25.	22.	31.1	40.	410.
AF05091	492963.12	5553137.50	960.	91.	7.	0.5	<5.	1100.
AF05092	492970.97	5553140.00	300.	78.	8.	0.3	<5.	1200.
AF05093	492976.22	5553141.00	90.	119.	2.	0.1	<5.	850.
AF05094	492980.72	5553142.50	124.	89.	2.	0.1	10.	850.
AF05095	492985.75	5553143.50	58.	88.	5.	0.2	5.	920.
AF05096	492992.81	5553144.00	63.	104.	4.	0.1	<5.	720.
AF05097	492999.87	5553146.50	47.	88.	5.	0.1	<5.	1000.
AF05098	493006.69	5553148.50	35.	80.	2.	0.1	5.	790.
AF05099	493013.87	5553149.00	20.	71.	5.	<0.1	10.	1200.
AF05100	493032.25	5553153.50	50.	63.	6.	0.2	20.	1100.
AF05101	493038.16	5553155.00	35.	86.	7.	0.2	<5.	710.
AF05102	493044.44	5553156.00	50.	89.	7.	0.2	<5.	860.
AF05103	493050.37	5553158.00	35.	78.	6.	0.2	5.	760.
AF05109	492853.28	5554098.50	52.	74.	14.	0.3	25.	940.
AF05110	492851.87	5554095.50	880.	8650.	3650.	4.8	80.	790.
AF05118	493487.50	5551011.50	80.	205.	67.	0.2	20.	1200.
AF05125	493430.69	5551046.00	38.	153.	24.	0.1	15.	780.
AF05126	493430.81	5551046.00	40.	105.	6.	0.1	<5.	740.
AF05131	493203.91	5553087.50	42.	79.	8.	0.1	<5.	1200.
AF05132	493203.56	5553087.00	50.	162.	8.	0.1	<5.	1200.
AF05135	493280.22	5553017.00	26.	83.	8.	0.1	10.	1200.
AF05152	490500.00	5554800.00	6.	41.	5.	0.1	<5.	310.
AF05173	493131.87	5551929.00	5.	74.	3.	0.1	<5.	370.
AF05207	492767.87	5554164.50	32.	158.	6.	0.1	<5.	310.

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**BONDAR-CLEGG**

Certificate  
 of Analysis

*In computer Database*

REPORT: 627-6755 ( COMPLETE )

REFERENCE INFO:

CLIENT: FALCONBRIDGE LIMITED  
 PROJECT: 140

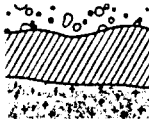
SUBMITTED BY: STAN CLEMMER  
 DATE PRINTED: 24-SEP-87

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Ag Silver	1	0.01 OPT		
2	Cu Copper	1	0.01 PCT		
3	Zn Zinc	2	0.01 PCT		

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
R- ROCK OR BED-ROCK	3	2-150	3	AS RECEIVED, NO SP	3

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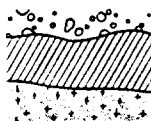
REPORT: 627-6755

PROJECT: 140

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SAMPLE NUMBER	ELEMENT UNITS	Ag OPT	Cu PCT	Zn PCT
R2 3825				4.40
R2 3826		1.95	4.54	
R2 3936				2.21

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 North Vancouver, B.C.  
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 Phone: (604) 985-0681  
 Telex: 04-352667



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*in complete Oct 26/87*

REPORT: 627-7408 ( COMPLETE )

REFERENCE INFO:

CLIENT: FALCONBRIDGE LIMITED  
 PROJECT: 140

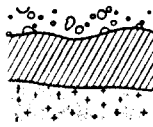
SUBMITTED BY: STAN CLEMMER  
 DATE PRINTED: 6-OCT-87

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Ag Silver	2	0.01 OPT		
2	Cu Copper	2	0.01 PCT		
3	Zn Zinc	4	0.01 PCT		

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
R ROCK OR BED ROCK	6	2 -150	6	AS RECEIVED, NO SP	6

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REPORT: 627-7408

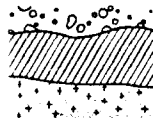
PROJECT: 140

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SAMPLE NUMBER	ELEMENT UNITS	Ag OPT	Cu PCT	Zn PCT
R2 ACD810				2.43
R2 AD3950				3.67
R2 AD3996		2.22	10.75	
R2 AD3999		1.57	9.95	
R2 AF1051				3.03
R2 AF1116				18.36



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REPORT: 627-8478 ( COMPLETE )

REFERENCE INFO:

CLIENT: FALCONBRIDGE LIMITED  
 PROJECT: 140

SUBMITTED BY: STAN CLEMMER  
 DATE PRINTED: 26-OCT-87

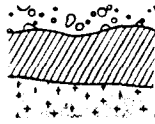
ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Cu Copper	1	0.01 PCT		

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
R ROCK OR RFD ROCK	1	2 -150	1	AS RECEIVED, NO SP	1

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REPORT: 627-8438

PROJECT: 140

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PCT
R2 AF5084		8.54

REPORT: 127-7407 ( COMPLETE )      REFERENCE INFO:

CLIENT: FALCONBRIDGE LIMITED      SUBMITTED BY: STAN CLEMMER  
 PROJECT: 140      DATE PRINTED: 15-SEP-87

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Cu    Copper	50	1 PPM	HN03-HCL HOT EXTR	Atomic Absorption
2	Pb    Lead	50	2 PPM	HN03-HCL HOT EXTR	Atomic Absorption
3	Zn    Zinc	50	1 PPM	HN03-HCL HOT EXTR	Atomic Absorption
4	Ag    Silver	50	0.1 PPM	HN03-HCL HOT EXTR	Atomic Absorption
5	Ba    Barium	50	20 PPM		X-RAY Fluorescence

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
S SOILS	50	1 -80	50	DRY, SIEVE -80	50

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Empty table area for additional data or notes.

REPORT: 127-7407

PROJECT: 140

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SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ba PPM
S1 SA2401		12	11	80	0.2	830
S1 SA2402		3	6	11	0.2	250
S1 SA2403		6	8	26	0.1	410
S1 SA2404		14	12	22	0.3	470
S1 SA2405		30	11	73	0.3	520
S1 SA2406		62	25	155	0.4	300
S1 SA2407		6	8	18	0.1	280
S1 SA2408		7	5	23	0.1	330
S1 SA2409		11	7	27	<0.1	520
S1 SA2410		18	4	103	<0.1	730
S1 SA2411		13	3	32	0.1	660
S1 SA2412		15	3	34	0.1	530
S1 SA2413		14	4	34	0.1	570
S1 SA2414		10	5	32	<0.1	660
S1 SA2415		12	3	33	<0.1	720
S1 SA2416		10	8	48	0.1	570
S1 SA2417		17	7	75	0.2	550
S1 SA2418		20	6	51	<0.1	370
S1 SA2419		10	6	61	0.1	540
S1 SA2420		5	4	42	<0.1	430
S1 SA2421		9	8	45	0.1	670
S1 SA2422		2	6	40	<0.1	650
S1 SA2423		2	4	23	<0.1	760
S1 SA2424		12	6	64	0.1	480
S1 SA2425		27	8	58	0.1	370
S1 SA2426		21	6	56	0.1	370
S1 SA2427		11	5	54	0.2	650
S1 SA2428		6	8	27	0.1	760
S1 SA2429		28	6	82	0.2	480
S1 SA2430		13	7	45	0.1	650
S1 SA2431		10	4	31	<0.1	580
S1 SA2432		13	3	31	<0.1	610
S1 SA2433		6	7	14	0.1	510
S1 SA2434		14	2	65	<0.1	580
S1 SA2435		25	8	167	0.1	420
S1 SA2436		27	4	125	0.2	270
S1 SA2437		42	4	105	0.5	120
S1 SA2438		24	5	49	0.2	560
S1 SA2439		8	9	35	<0.1	560
S1 SA2440		3	3	56	0.1	570



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Geochemical  
 Lab Report

REPORT: 127-8707 ( COMPLETE )

REFERENCE INFO:

CLIENT: FALCONBRIDGE LIMITED  
 PROJECT: 140

SUBMITTED BY: ERIC GRILL  
 DATE PRINTED: 20-OCT-87

ORDER	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Cu	Copper	730	1 PPM	HN03-HCL HOT EXTR	Atomic Absorption
2	Pb	Lead	730	2 PPM	HN03-HCL HOT EXTR	Atomic Absorption
3	Zn	Zinc	730	1 PPM	HN03-HCL HOT EXTR	Atomic Absorption
4	Ag	Silver	730	0.1 PPM	HN03-HCL HOT EXTR	Atomic Absorption

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
S SOILS	730	1 -80	730	DRY, SIEVE -80	730

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REPORT: 127-8707

PROJECT: 140

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SAMPLE NUMBRER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM	SAMPLE NUMBRER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM
S1 SA2451		5	5	77	<0.1	S1 SA2491		26	6	35	0.2
S1 SA2452		3	<2	15	0.1	S1 SA2492		17	3	31	0.2
S1 SA2453		19	4	141	0.1	S1 SA2493		29	2	27	0.2
S1 SA2454		27	5	45	0.3	S1 SA2494		15	5	37	<0.1
S1 SA2455		11	7	51	0.1	S1 SA2495		19	4	31	0.1
S1 SA2456		16	3	50	0.2	S1 SA2496		32	<2	39	<0.1
S1 SA2457		17	3	63	0.1	S1 SA2497		25	2	33	0.2
S1 SA2458		13	2	80	0.3	S1 SA2498		23	2	56	0.2
S1 SA2459		34	3	290	0.2	S1 SA2499		22	4	43	0.3
S1 SA2460		24	5	49	<0.1	S1 SA2500		11	6	23	0.1
S1 SA2461		8	5	43	0.1	S1 SA2501		36	9	64	<0.1
S1 SA2462		7	<2	99	0.1	S1 SA2502		12	6	28	0.1
S1 SA2463		21	3	74	0.2	S1 SA2503		13	3	34	<0.1
S1 SA2464		4	<2	39	<0.1	S1 SA2504		17	6	60	0.1
S1 SA2465		3	2	14	<0.1	S1 SA2505		22	3	116	0.1
A7466		18	<2	42	0.1	S1 SA2506		15	6	51	0.2
S1 SA2467		6	2	36	0.1	S1 SA2507		10	5	46	0.1
S1 SA2468		11	<2	43	0.1	S1 SA2508		17	6	52	<0.1
S1 SA2469		11	2	48	0.1	S1 SA2509		29	6	80	0.1
S1 SA2470		17	5	50	0.2	S1 SA2510		5	4	43	0.1
S1 SA2471		36	<2	41	0.1	S1 SA2511		22	5	127	<0.1
S1 SA2472		8	4	30	<0.1	S1 SA2512		55	3	192	0.2
S1 SA2473		11	4	19	<0.1	S1 SA2513		9	3	43	<0.1
S1 SA2474		5	<2	10	<0.1	S1 SA2514		10	7	52	0.2
S1 SA2475		8	2	19	0.2	S1 SA2515		23	4	68	0.4
S1 SA2476		11	4	35	0.1	S1 SA2516		22	7	67	0.1
S1 SA2477		17	6	36	0.2	S1 SA2517		8	4	28	0.1
S1 SA2478		27	5	25	0.2	S1 SA2518		13	8	84	0.3
S1 SA2479		14	3	33	0.4	S1 SA2519		7	<2	29	<0.1
S1 SA2480		7	3	8	0.4	S1 SA2520		7	6	33	<0.1
S1 SA2481		8	6	10	0.1	S1 SA2521		7	8	52	<0.1
S1 SA2482		15	3	28	0.1	S1 SA2522		13	4	42	<0.1
S1 SA2483		10	4	21	<0.1	S1 SA2523		10	4	41	<0.1
S1 SA2484		22	2	20	0.1	S1 SA2524		35	3	71	<0.1
S1 SA2485		12	2	17	<0.1	S1 SA2525		19	3	58	<0.1
S1 SA2486		8	3	12	<0.1	S1 SA2526		13	5	57	<0.1
S1 SA2487		16	<2	14	0.1	S1 SA2527		12	4	41	<0.1
S1 SA2488		23	4	30	0.2	S1 SA2528		11	7	38	0.1
S1 SA2489		18	5	15	0.3	S1 SA2529		18	2	54	<0.1
S1 SA2490		29	7	34	0.3	S1 SA2530		20	2	67	0.1

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SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM	SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM
S1 SA2531		23	4	57	<0.1	S1 SA2571		15	5	31	0.1
S1 SA2532		5	2	19	<0.1	S1 SA2572		23	6	39	0.4
S1 SA2533		13	3	27	<0.1	S1 SA2573		19	8	80	0.3
S1 SA2534		16	3	44	<0.1	S1 SA2574		18	4	55	0.2
S1 SA2535		17	3	45	<0.1	S1 SA2575		16	7	56	0.2
S1 SA2536		3	5	9	<0.1	S1 SA2576		23	3	52	0.1
S1 SA2537		15	3	49	<0.1	S1 SA2577		22	2	52	0.2
S1 SA2538		16	6	38	<0.1	S1 SA2578		27	4	76	0.3
S1 SA2539		15	3	88	0.1	S1 SA2579		27	4	64	0.2
S1 SA2540		41	2	68	<0.1	S1 SA2580		60	3	40	0.1
S1 SA2541		11	4	38	<0.1	S1 SA2581		15	4	27	0.2
S1 SA2542		25	3	62	<0.1	S1 SA2582		8	4	14	0.2
S1 SA2543		6	3	50	<0.1	S1 SA2583		17	2	36	0.1
S1 SA2544		17	3	51	0.1	S1 SA2584		34	<2	21	0.6
S1 SA2545		46	<2	54	<0.1	S1 SA2585		21	4	31	0.2
S1 SA2546		14	2	40	<0.1	S1 SA2586		22	3	44	0.1
S1 SA2547		2	2	8	<0.1	S1 SA2587		41	3	53	0.5
S1 SA2548		11	7	47	0.1	S1 SA2588		25	4	60	0.2
S1 SA2549		7	4	24	<0.1	S1 SA2589		52	3	90	0.1
S1 SA2550		4	5	19	<0.1	S1 SA2590		39	5	55	0.2
S1 SA2551		22	6	35	<0.1	S1 SA2591		27	3	38	0.3
S1 SA2552		18	5	38	0.1	S1 SA2592		16	3	25	0.2
S1 SA2553		34	7	39	0.1	S1 SA2593		26	3	37	0.1
S1 SA2554		19	6	33	0.1	S1 SA2594		46	2	63	0.2
S1 SA2555		21	4	37	0.2	S1 SA2595		32	3	47	0.2
S1 SA2556		26	<2	41	0.1	S1 SA2596		25	5	53	0.1
S1 SA2557		26	4	33	0.1	S1 SA2597		19	3	53	0.2
S1 SA2558		26	4	24	0.1	S1 SA2598		14	4	40	0.2
S1 SA2559		18	5	19	0.2	S1 SA2599		18	12	36	0.4
S1 SA2560		25	4	30	0.3	S1 SA2600		18	9	28	0.4
S1 SA2561		26	9	39	0.2	S1 SA2601		10	10	43	0.4
S1 SA2562		15	5	26	0.3	S1 SA2602		12	13	37	0.3
S1 SA2563		29	4	43	0.1	S1 SA2603		34	8	37	0.4
S1 SA2564		24	2	36	0.1	S1 SA2604		44	6	27	0.2
S1 SA2565		20	4	42	0.1	S1 SA2605		12	6	70	0.2
S1 SA2566		12	7	37	0.1	S1 SA2606		32	6	48	0.1
S1 SA2567		15	2	23	0.2	S1 SA2607		30	10	32	0.4
S1 SA2568		9	<2	24	<0.1	S1 SA2608		41	7	92	0.4
S1 SA2569		6	4	18	0.1	S1 SA2609		83	8	52	0.6
S1 SA2570		6	7	5	<0.1	S1 SA2610		17	12	40	0.1



REPORT: 127-8707

PROJECT: 140

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SAMPLE NUMBR	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM	SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM
S1 SA2611		14	12	32	0.2	S1 SA2651		21	10	52	0.1
S1 SA2612		15	13	37	0.3	S1 SA2652		11	7	46	0.1
S1 SA2613		32	9	44	0.2	S1 SA2653		16	12	80	0.1
S1 SA2614		50	5	45	0.6	S1 SA2654		13	12	58	0.1
S1 SA2615		25	11	39	0.4	S1 SA2655		10	9	50	<0.1
S1 SA2616		32	10	40	0.2	S1 SA2656		22	38	44	0.2
S1 SA2617		54	9	60	0.3	S1 SA2657		8	8	16	0.3
S1 SA2618		56	22	65	0.3	S1 SA2658		16	9	45	0.2
S1 SA2619		28	10	80	0.4	S1 SA2659		33	12	90	0.3
S1 SA2620		36	9	115	0.2	S1 SA2660		6	9	17	<0.1
S1 SA2621		48	10	96	0.1	S1 SA2661		4	16	20	0.1
S1 SA2622		30	9	110	<0.1	S1 SA2662		8	13	88	0.1
S1 SA2623		16	13	60	0.2	S1 SA2663		4	21	20	0.1
S1 SA2624		21	10	38	0.3	S1 SA2664		10	23	30	0.1
S1 SA2625		20	9	65	0.2	S1 SA2665		16	15	48	0.2
S1 SA2626		26	8	60	0.2	S1 SA2666		6	12	23	0.1
S1 SA2627		20	12	56	<0.1	S1 SA2667		16	17	46	0.1
S1 SA2628		24	12	50	0.2	S1 SA2668		20	9	120	0.1
S1 SA2629		26	7	66	0.2	S1 SA2669		4	9	8	0.2
S1 SA2630		28	6	64	0.2	S1 SA2670		12	11	62	0.1
S1 SA2631		19	9	36	0.3	S1 SA2671		26	13	45	0.1
S1 SA2632		34	5	38	0.4	S1 SA2672		41	14	66	0.1
S1 SA2633		16	14	48	0.4	S1 SA2673		8	7	56	0.1
S1 SA2634		32	9	55	0.2	S1 SA2674		14	13	115	<0.1
S1 SA2635		43	8	50	0.1	S1 SA2675		6	14	55	<0.1
S1 SA2636		12	3	57	0.1	S1 SA2676		6	16	54	0.2
S1 SA2637		20	2	65	0.1	S1 SA2677		<1	3	16	<0.1
S1 SA2638		22	4	62	0.1	S1 SA2678		18	11	60	0.4
S1 SA2639		14	3	52	<0.1	S1 SA2679		10	16	28	0.2
S1 SA2640		36	2	48	0.3	S1 SA2680		2	6	10	<0.1
S1 SA2641		43	<2	35	0.2	S1 SA2681		8	10	28	<0.1
S1 SA2642		44	3	32	0.1	S1 SA2682		6	14	19	<0.1
S1 SA2643		26	15	54	<0.1	S1 SA2683		8	17	30	0.5
S1 SA2644		54	32	108	<0.1	S1 SA2684		20	15	78	0.3
S1 SA2645		24	14	38	0.1	S1 SA2685		44	45	184	0.4
S1 SA2646		6	10	12	0.1	S1 SA2686		120	47	315	0.6
S1 SA2647		6	7	48	<0.1	S1 SA2687		16	41	54	0.2
S1 SA2648		76	14	115	0.1	S1 SA2688		4	15	20	0.2
S1 SA2649		14	9	80	0.1	S1 SA2689		20	7	43	0.2
S1 SA2650		15	8	88	0.1	S1 SA2690		20	23	70	0.1



REPORT: 127-8707

PROJECT: 140

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SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM	SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM
S1 SA2691		110	17	210	0.9	S1 SA2731		14	7	55	0.2
S1 SA2692		30	37	95	0.6	S1 SA2732		31	10	66	0.3
S1 SA2693		90	11	260	0.6	S1 SA2733		14	10	48	0.1
S1 SA2694		24	31	58	0.2	S1 SA2734		5	3	46	0.2
S1 SA2695		34	84	114	0.4	S1 SA2735		19	10	38	0.2
S1 SA2696		32	57	84	0.5	S1 SA2736		17	7	64	0.1
S1 SA2697		18	57	108	0.4	S1 SA2737		35	6	52	0.1
S1 SA2698		20	38	67	0.4	S1 SA2738		36	9	80	0.1
S1 SA2699		27	17	56	0.3	S1 SA2739		26	5	85	0.1
S1 SA2700		8	32	110	0.4	S1 SA2740		40	7	66	<0.1
S1 SA2701		36	20	130	0.4	S1 SA2741		5	6	28	<0.1
S1 SA2702		22	45	170	0.6	S1 SA2742		14	3	38	0.1
S1 SA2703		64	21	150	0.2	S1 SA2743		35	8	120	<0.1
S1 SA2704		28	16	103	0.5	S1 SA2744		45	6	260	0.1
S1 SA2705		30	6	155	0.2	S1 SA2745		12	6	42	0.1
S1 SA2706		1050	13	160	0.5	S1 SA2746		49	7	120	0.2
S1 SA2707		4	5	27	0.2	S1 SA2747		16	8	56	0.1
S1 SA2708		40	8	164	0.2	S1 SA2748		8	6	45	0.2
S1 SA2709		39	46	310	0.1	S1 SA2749		9	6	41	0.1
S1 SA2710		20	44	255	0.2	S1 SA2750		18	10	64	0.3
S1 SA2711		35	85	275	0.4	S1 SA2751		13	11	60	0.1
S1 SA2712		13	51	165	0.4	S1 SA2752		22	7	70	0.1
S1 SA2713		37	47	140	0.3	S1 SA2753		12	7	50	0.1
S1 SA2714		57	56	240	0.3	S1 SA2754		23	8	44	0.1
S1 SA2715		34	43	350	0.2	S1 SA2755		35	5	56	0.4
S1 SA2716		24	31	260	0.4	S1 SA2756		14	9	40	0.1
S1 SA2717		13	29	95	0.4	S1 SA2757		31	9	56	0.2
S1 SA2718		19	17	90	0.1	S1 SA2758		23	7	83	0.1
S1 SA2719		20	16	154	0.1	S1 SA2759		6	4	70	0.1
S1 SA2720		7	12	26	0.1	S1 SA2760		23	8	65	0.1
S1 SA2721		9	13	32	0.1	S1 SA2761		54	7	100	0.4
S1 SA2722		6	8	32	0.1	S1 SA2762		42	9	136	0.4
S1 SA2723		39	4	66	<0.1	S1 SA2763		61	4	52	0.5
S1 SA2724		14	4	84	0.1	S1 SA2764		23	7	26	0.1
S1 SA2725		13	5	57	<0.1	S1 SA2765		14	6	50	0.2
S1 SA2726		37	6	108	0.1	S1 SA2766		19	9	36	<0.1
S1 SA2727		21	3	48	<0.1	S1 SA2767		10	7	24	<0.1
S1 SA2728		35	7	75	0.2	S1 SA2768		39	7	66	0.2
S1 SA2729		13	5	40	0.1	S1 SA2769		57	6	60	0.2
S1 SA2730		41	6	70	0.2	S1 SA2770		36	7	84	<0.1

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SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM	SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM
S1 SA2771		14	6	44	0.1	S1 SA10211		7	17	20	0.2
S1 SA2772		175	12	78	0.5	S1 SA10212		16	17	70	0.3
S1 SA2773		10	5	52	0.1	S1 SA10213		4	11	15	0.1
S1 SA2774		19	8	60	0.1	S1 SA10214		10	16	66	0.2
S1 SA2775		48	8	170	0.1	S1 SA10215		8	11	46	0.2
S1 SA2776		59	6	100	0.1	S1 SA10216		20	13	70	0.2
S1 SA2777		62	3	115	0.2	S1 SA10217		22	10	120	0.2
S1 SA2778		16	5	32	0.2	S1 SA10218		9	15	41	0.2
S1 SA2779		19	6	48	0.1	S1 SA10219		21	14	70	0.1
S1 SA2780		11	6	50	0.2	S1 SA10220		6	16	44	0.1
S1 SA2781		32	7	170	0.2	S1 SA10221		8	10	41	0.2
S1 SA2782		13	5	64	0.2	S1 SA10222		2	7	16	0.1
S1 SA2783		16	7	43	0.2	S1 SA10223		3	6	10	0.2
S1 SA2784		10	7	67	0.1	S1 SA10224		5	11	32	0.2
S1 SA2785		12	9	63	0.1	S1 SA10225		31	58	152	0.2
S1 SA2786		31	7	168	0.1	S1 SA10226		31	57	255	0.2
S1 SA2787		15	8	56	0.1	S1 SA10227		109	37	90	0.7
S1 SA2788		16	9	60	0.1	S1 SA10228		46	10	76	0.2
S1 SA2789		14	7	50	0.2	S1 SA10229		310	12	95	0.8
S1 SA2790		25	7	70	0.2	S1 SA10230		20	15	95	0.1
S1 SA2791		9	9	60	0.3	S1 SA10231		44	41	255	0.3
S1 SA2792		32	7	100	0.2	S1 SA10232		33	19	280	0.7
S1 SA2793		10	13	54	0.1	S1 SA10233		3	14	26	0.2
S1 SA2794		24	6	63	0.2	S1 SA10234		4	3	75	0.1
S1 SA2795		23	8	73	0.2	S1 SA10235		2	<2	48	0.1
S1 SA2796		29	9	60	0.1	S1 SA10236		5	4	21	0.2
S1 SA2797		14	9	63	0.1	S1 SA10237		7	7	18	0.2
S1 SA2798		40	7	95	0.1	S1 SA10238		19	15	32	0.3
S1 SA2799		19	9	36	0.1	S1 SA10239		5	16	21	0.2
S1 SA2800		7	8	60	0.1	S1 SA10240		36	16	46	0.3
S1 SA10201		22	12	44	<0.1	S1 SA10241		38	13	75	0.4
S1 SA10202		29	20	58	0.1	S1 SA10242		6	33	16	0.2
S1 SA10203		28	19	62	0.1	S1 SA10243		28	46	48	0.4
S1 SA10204		27	12	43	0.1	S1 SA10244		18	53	50	0.6
S1 SA10205		31	15	56	0.1	S1 SA10245		29	35	48	0.6
S1 SA10206		7	14	40	0.2	S1 SA10246		38	13	120	0.8
S1 SA10207		8	15	20	0.1	S1 SA10247		33	16	105	0.4
S1 SA10208		7	25	90	0.1	S1 SA10248		27	27	280	0.4
S1 SA10209		5	15	30	0.1	S1 SA10249		10	<2	110	0.1
S1 SA10210		18	12	72	0.1	S1 SA10250		18	5	80	0.2

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 B



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SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM	SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM
S1 SA10251	B	3	10	75	<0.1	S1 SA10291		27	5	48	0.2
S1 SA10252		20	50	51	0.2	S1 SA10292		9	6	30	0.2
S1 SA10253		22	27	50	0.2	S1 SA10293		5	2	36	0.2
S1 SA10254		30	3	30	0.2	S1 SA10294		12	4	23	0.2
S1 SA10255		7	8	24	0.1	S1 SA10295		113	29	1700	0.3
S1 SA10256		13	5	30	0.2	S1 SA10296		52	9	70	0.2
S1 SA10257		9	3	32	0.1	S1 SA10297		51	5	126	0.3
S1 SA10258	A	32	3	58	0.1	S1 SA10298		33	6	65	0.4
S1 SA10259		9	7	56	0.1	S1 SA10299		32	4	62	0.2
S1 SA10260		4	2	13	0.3	S1 SA10300		23	5	40	0.1
S1 SA10261		29	5	67	0.4	S1 SA10301		5	3	46	0.1
S1 SA10262		9	4	26	0.4	S1 SA10302		4	5	18	<0.1
S1 SA10263		10	3	38	0.3	S1 SA10303		76	6	57	0.1
S1 SA10264		45	<2	62	0.1	S1 SA10304		84	5	74	0.3
S1 SA10265		25	4	36	0.1	S1 SA10305		34	4	41	0.2
S1 SA10266		5	2	20	0.2	S1 SA10306		57	5	62	0.3
S1 SA10267		6	3	120	0.2	S1 SA10307		27	9	47	0.1
S1 SA10268		15	4	70	0.4	S1 SA10308		36	5	76	0.2
S1 SA10269		15	5	68	0.3	S1 SA10309		17	8	68	0.2
S1 SA10270		29	5	47	0.2	S1 SA10310		50	6	52	0.2
S1 SA10271		18	7	50	0.2	S1 SA10311		49	6	86	0.1
S1 SA10272		14	3	140	0.3	S1 SA10312		23	6	70	0.2
S1 SA10273		3	4	14	0.1	S1 SA10313		24	5	56	0.1
S1 SA10274		3	<2	16	0.2	S1 SA10314		101	4	121	0.1
S1 SA10275		28	3	58	0.1	S1 SA10315		3	2	24	0.1
S1 SA10276		16	4	36	0.2	S1 SA10316		4	4	18	<0.1
S1 SA10277		53	4	180	0.2	S1 SA10317		20	6	65	0.1
S1 SA10278		11	6	44	0.3	S1 SA10318		14	4	32	<0.1
S1 SA10279		21	11	62	0.3	S1 SA10319		6	3	20	0.2
S1 SA10280		9	6	28	0.2	S1 SA10320		18	6	96	0.2
S1 SA10281		22	6	70	0.3	S1 SA10321		15	8	33	0.1
S1 SA10282		22	16	68	0.3	S1 SA10322		3	3	6	0.1
S1 SA10283		16	5	59	0.3	S1 SA10323		13	5	39	0.1
S1 SA10284		18	4	56	0.2	S1 SA10324		5	6	48	0.1
S1 SA10285		28	5	76	0.2	S1 SA10325		26	4	25	0.1
S1 SA10286		20	6	66	0.2	S1 SA10326		8	9	16	0.1
S1 SA10287		44	6	100	0.1	S1 SA10327		18	6	54	0.1
S1 SA10288		17	3	35	0.1	S1 SA10328		6	3	13	0.1
S1 SA10289		44	7	30	0.4	S1 SA10329		20	4	50	<0.1
S1 SA10290		20	5	59	0.2	S1 SA10330		38	9	60	0.5

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SAMPLE NUMFR	ELEMENT UNITS	Cu PPH	Pb PPH	Zn PPH	Ag PPH	SAMPLE NUMBER	ELEMENT UNITS	Cu PPH	Pb PPH	Zn PPH	Ag PPH
S1 SA10331		28	7	79	0.2	S1 SA10428		10	6	32	0.1
S1 SA10332		14	10	64	0.2	S1 SA10429		1	5	12	0.1
S1 SA10333		8	5	20	0.2	S1 SA10430		<1	12	13	<0.1
S1 SA10334		9	6	24	0.1	S1 SA10431		4	8	52	0.1
S1 SA10335		3	10	6	0.1	S1 SA10432		36	11	86	0.1
S1 SA10336		50	8	120	0.2	S1 SA10433		7	7	43	0.1
S1 SA10337		2	3	9	<0.1	S1 SA10434		29	6	54	0.2
S1 SA10338		20	9	41	0.5	S1 SA10435		30	8	156	0.1
S1 SA10339		3	4	10	<0.1	S1 SA10436		10	6	130	0.5
S1 SA10340		19	6	48	0.1	S1 SA10437		25	7	123	0.2
S1 SA10341		29	7	21	0.2	S1 SA10438		8	6	50	0.1
S1 SA10342		62	5	22	0.7	S1 SA10439		10	6	50	0.2
S1 SA10343		75	6	10	0.5	S1 SA10440		10	6	37	0.2
S1 SA10401		49	10	113	0.1	S1 SA10441		23	8	66	0.2
S1 SA10402		17	6	60	0.2	S1 SA10442		11	9	51	0.2
S1 SA10403		5	10	50	0.2	S1 SA10443		31	6	63	0.2
S1 SA10404		29	6	190	0.3	S1 SA10444		46	6	90	0.1
S1 SA10405		5	6	35	0.2	S1 SA10445		52	17	124	0.3
S1 SA10406		4	5	35	0.2	S1 SA10446		8	5	31	0.2
S1 SA10407		4	7	28	<0.1	S1 SA10447		3	4	60	0.1
S1 SA10408		6	5	40	<0.1	S1 SA10448		11	5	54	0.1
S1 SA10409		6	5	35	0.1	S1 SA10449		11	6	40	0.1
S1 SA10410		22	5	68	0.2	S1 SA10450		11	6	48	0.2
S1 SA10411		7	3	53	0.1	S1 SA10451		28	6	78	0.1
S1 SA10412		19	7	54	0.2	S1 SA10452		2	6	16	<0.1
S1 SA10413		12	6	63	0.4	S1 SA10453		5	5	36	<0.1
S1 SA10414		2	10	22	0.1	S1 SA10454		14	6	61	0.1
S1 SA10415		21	7	41	0.3	S1 SA10455		16	3	62	0.3
S1 SA10416		5	5	26	0.1	S1 SA10456		7	6	26	0.1
S1 SA10417		6	7	38	0.2	S1 SA10457		9	8	44	0.3
S1 SA10418		15	7	72	0.1	S1 SA10458		3	11	15	0.2
S1 SA10419		21	6	72	0.1	S1 SA10459		45	3	66	0.1
S1 SA10420		24	8	104	0.3	S1 SA10460		5	6	22	0.1
S1 SA10421		5	2	23	0.2	S1 SA10461		11	8	47	0.3
S1 SA10422		13	6	90	0.1	S1 SA10462		26	6	58	0.1
S1 SA10423		5	4	41	0.2	S1 SA10463		13	6	66	0.2
S1 SA10424		13	5	44	0.1	S1 SA10464		3	6	26	0.1
S1 SA10425		18	7	56	0.2	S1 SA10465		3	4	50	0.1
S1 SA10426		<1	6	20	0.1	S1 SA10466		1	5	10	<0.1
S1 SA10427		10	5	32	0.1	S1 SA10467		2	6	14	<0.1

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SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM	SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM
S1 SA10468		8	5	76	0.1	S1 SA10508		26	5	72	0.3
S1 SA10469		21	4	44	0.2	S1 SA10509		24	4	44	0.1
S1 SA10470		20	6	66	0.1	S1 SA10510		24	4	48	0.3
S1 SA10471		2	3	13	0.2	S1 SA10511		27	5	50	0.3
S1 SA10472		7	5	56	0.1	S1 SA10512		32	6	64	0.2
S1 SA10473		8	9	56	0.1	S1 SA10513		10	4	36	0.1
S1 SA10474		18	6	52	0.1	S1 SA10514		4	<2	23	0.1
S1 SA10475		7	7	65	0.1	S1 SA10515		20	6	64	0.5
S1 SA10476		25	7	38	0.1	S1 SA10516		56	5	79	0.1
S1 SA10477		7	5	28	<0.1	S1 SA10517		35	6	58	0.2
S1 SA10478		7	4	50	<0.1	S1 SA10518		27	6	73	0.2
S1 SA10479		9	<2	32	<0.1	S1 SA10519		42	4	87	0.2
S1 SA10480		10	7	46	0.1	S1 SA10520		22	6	58	0.1
S1 SA10481		15	11	64	0.1	S1 SA10521		22	3	58	0.1
S1 SA10482		13	5	48	0.1	S1 SA10522		18	7	58	0.2
S1 SA10483		6	4	25	<0.1	S1 SA10523		1	7	34	0.1
S1 SA10484		7	6	24	0.1	S1 SA10524		9	6	40	0.1
S1 SA10485		28	4	53	0.1	S1 SA10525		21	8	56	0.2
S1 SA10486		9	7	37	0.1	S1 SA10526		33	5	67	0.1
S1 SA10487		10	7	44	0.2	S1 SA10527		39	5	51	0.1
S1 SA10488		13	7	37	0.1	S1 SA10528		18	8	60	0.2
S1 SA10489		9	9	50	0.2	S1 SA10529		17	4	49	0.1
S1 SA10490		34	5	66	0.1	S1 SA10530		25	4	66	0.1
S1 SA10491		36	4	71	0.1	S1 SA10531		27	4	68	0.2
S1 SA10492		10	6	50	0.1	S1 SA10532		19	5	62	0.1
S1 SA10493		23	5	34	0.3	S1 SA10533		15	5	56	0.2
S1 SA10494		22	10	76	0.1	S1 SA10534		36	7	103	0.2
S1 SA10495		15	7	52	<0.1	S1 SA10535		17	6	70	0.1
S1 SA10496		24	5	56	0.9	S1 SA10536		62	4	110	0.1
S1 SA10497		38	5	34	0.2	S1 SA10537		21	9	68	0.6
S1 SA10498		23	12	52	0.1	S1 SA10538		37	5	80	0.9
S1 SA10499		23	6	46	0.1	S1 SA10539		64	5	80	0.1
S1 SA10500		16	8	44	0.2	S1 SA10540		22	8	53	0.2
S1 SA10501		26	5	51	0.3	S1 SA10541		28	7	60	0.1
S1 SA10502		20	3	40	0.1	S1 SA10542		41	6	98	0.2
S1 SA10503		42	3	66	0.1	S1 SA10543		68	3	83	0.1
S1 SA10504		43	6	64	0.2	S1 SA10544		48	3	63	<0.1
S1 SA10505		84	4	78	0.1	S1 SA10545		32	6	53	0.2
S1 SA10506		85	5	81	0.5	S1 SA10546		19	12	40	0.2
S1 SA10507		25	6	60	0.2	S1 SA10547		30	5	51	<0.1

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SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM	SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM
S1 SA10548		28	6	72	0.4	S1 SA10588		3	2	5	<0.1
S1 SA10549		18	5	36	0.2	S1 SA10589		18	6	22	0.1
S1 SA10550		31	6	53	0.2	S1 SA10590		13	13	12	0.1
S1 SA10551		29	4	60	0.4	S1 SA10591		11	16	14	0.1
S1 SA10552		31	6	52	0.2	S1 SA10592		9	7	31	0.4
S1 SA10553		14	12	37	<0.1	S1 SA10593		11	10	28	0.1
S1 SA10554		11	8	51	<0.1	S1 SA10594		10	22	50	<0.1
S1 SA10555		15	4	51	0.1	S1 SA10595		4	17	18	0.1
S1 SA10556		25	6	36	<0.1	S1 SA10596		35	15	101	0.1
S1 SA10557		18	5	28	0.1	S1 SA10597		4	<2	15	<0.1
S1 SA10558		40	6	64	0.1	S1 SA10598		15	12	30	0.2
S1 SA10559		27	6	46	0.1	S1 SA10599		7	16	26	0.2
S1 SA10560		38	5	73	0.1	S1 SA10600		11	9	20	0.2
S1 SA10561		39	3	84	0.1	S1 SA21241		10	6	27	0.1
S1 SA10562		22	5	71	0.1	S1 SA21242		10	5	37	<0.1
S1 SA10563		49	5	100	0.2	S1 SA21243		27	4	57	0.1
S1 SA10564		25	7	60	0.1	S1 SA21244		17	7	39	<0.1
S1 SA10565		27	6	60	0.2	S1 SA21245		17	4	36	0.1
S1 SA10566		47	11	66	0.3	S1 SA21246		33	4	48	0.1
S1 SA10567		41	5	69	0.1	S1 SA21247		34	3	53	<0.1
S1 SA10568		48	6	84	0.2	S1 SA21248		37	4	36	<0.1
S1 SA10569		37	9	74	0.2	S1 SA21249		16	4	28	<0.1
S1 SA10570		22	7	65	0.2	S1 SA21250		52	4	79	<0.1
S1 SA10571		62	5	88	0.1	S1 SA21251		150	4	290	0.1
S1 SA10572		46	3	84	0.2	S1 SA21252		178	4	320	0.2
S1 SA10573		65	5	123	0.1	S1 SA21253		12	5	32	0.1
S1 SA10574		53	4	88	0.4	S1 SA21254		26	4	28	<0.1
S1 SA10575		26	6	51	0.1	S1 SA21255		23	8	53	0.1
S1 SA10576		37	4	76	0.1	S1 SA21256		12	4	23	<0.1
S1 SA10577		52	5	76	0.1	S1 SA21257		41	3	39	0.1
S1 SA10578		22	4	70	0.1	S1 SA21258		21	6	64	0.1
S1 SA10579		6	13	8	<0.1	S1 SA21259		19	4	40	0.1
S1 SA10580		15	18	28	0.1	S1 SA21260		43	7	58	0.1
S1 SA10581		13	18	58	0.2	S1 SA21261		77	6	54	0.1
S1 SA10582		15	14	78	0.1	S1 SA21262		18	4	64	0.1
S1 SA10583		50	13	112	0.1	S1 SA21263		18	4	24	<0.1
S1 SA10584		21	20	28	0.1	S1 SA21264		10	2	23	<0.1
S1 SA10585		20	28	35	<0.1	S1 SA21265		15	6	23	<0.1
S1 SA10586		29	15	44	<0.1	S1 SA21266		11	6	34	0.1
S1 SA10587		25	27	29	0.1	S1 SA21267		19	2	36	0.1

