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Assessment Report on Geological, Geochemical, Prospecting and other Investigations on the

FOREMORE PROJECT

June – December 2003

Located in the More Creek Area
Liard Mining Division
British Columbia

NTS 104G/2W, 3E; 104B/14E, 15W

57° 04' N Latitude
130° 54' W Longitude

For

ROCA MINES INC.
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By

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VOLUME 1

SUMMARY

The Foremore property covers 206 km^2 is located in northwestern British Columbia approximately 120 kms north-northwest of Stewart, B.C. The property is accessible by helicopter from the Bob Quinn Lake airstrip, situated 46 kms to the east along all-weather Highway 37. The 824 mineral claims that constitute the Foremore property are 100% held by Roca Mines Inc., subject to an underlying agreement with property vendor Lorne Warren.

Exploration to date on the Foremore property has consisted of geological mapping, rock, soil and stream sediment sampling, prospecting, trenching, air photo interpretation, ground geophysics and diamond drilling, totalling over C$3,000,000 in expenditures. This work occurred from 1987 – 1992 (Cominco Ltd.), 1996 (Cominco Ltd.), and in 2002 – 2003 (Roca Mines Inc.).

The Foremore property is underlain predominantly by the Stikine Assemblage, a Devono-Mississippian suite of variably metamorphosed mafic, intermediate and felsic volcanics, fine-grained siliciclastic sediments and limestones. A smaller portion covering some of the topographic highs is underlain by Stuhini Group, Triassic volcanic conglomerates and sandstones, and intermediate volcaniclastics. The composite More Creek Pluton, related to the Stikine Assemblage arc volcanism, has been mapped on the property mostly occurring on the eastern portion of the property.

To date, the most significant mineralization from an economic potential perspective is the recently found BRT Showing; gold-silver and massive Zn-Pb-Cu-Fe mineralization hosted in metamorphosed felsic volcanics, consistent with volcanic hosted massive sulphide (VHMS) mineralization. In addition, the SG Zone, Rhino, and North Showing represent other significant VHMS targets. The Sunday Zone contains crosscutting gold enriched sulphide structures, and the Hollywood and Ice Fall veins (Hollywood area) are newly discovered gold bearing hydrothermal veins. Roca personnel discovered all but one of these mineralized areas in 2003, with the SG Zone discovered in 2002. In addition to these mineralized areas, there are various other gold rich structures (Westmore, Windy and Rat Veins) worthy of further follow-up.

Skarn mineralization, as seen in the boulders in the East Boulder Field, has not yet been located in-place, but the main portion of the More Creek Pluton and its apophyses has been subjected to only cursory exploration. Exploration on the property has also been directed to the source of Irish-type carbonate-hosted massive sulphide mineralized boulders found in the South Boulder Field, and although no source area for this mineralization has yet to be located, this remains a viable exploration target type.

Exploration results from 2002 and 2003 justify an advanced 2004 field program. A C$2,064,250 budget would encompass approximately 9,000m of diamond drilling, primarily focused on the North and SG Zones, 40km of IP geophysics (North Zone), grid and reconnaissance soil sampling, consultancy work for detail structural mapping, prospecting and rock sampling.

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1.0 INTRODUCTION AND TERMS OF REFERENCE

Roca Mines Inc. ("Roca") acquired an interest in the Foremore property in order to source the 1000^+ variably gold-silver-zinc-lead-copper mineralized boulders that are predominantly concentrated in four distinct boulder fields. During late summer 2002, Roca's contract personnel were successful in locating a potential source site, the SG Zone.

In 2003, the author was contracted by Roca to follow-up on the previous year's work and to search for additional sources of mineralization predicted by: the amount and extent of mineralized boulders; rock, soil and silt geochemical anomalies; and prospective geology. The author supervised all aspects of a June through October field program on the Foremore property. The program consisted of detail and regional geological, geochemical, and geophysical surveys, as well as limited diamond drilling.

A total of 1073 surface samples were collected and submitted for assay and chemical analyses in 2003. Of this total, 547 samples are rock (outcrop and float), 502 are soil, and 26 are stream sediment (silt). Limited electromagnetic (EM) and induced polarization (IP) surveys were run over the BRT showing as an initial test, whereas more extensive EM and magnetics surveying were completed over the SG Zone and its northeast extension. A total of 11 diamond drill holes were completed over portions of the SG Zone (4 holes; 225.3m, 82 core samples) and at the BRT showing (7 holes; 896m, 203 core samples). All aspects of the field program are detailed in the following text.

This technical report has been prepared in compliance with the requirements of National Instrument (NI) 43-101.

2.0 DISCLAIMER

The author has made no attempt to verify the legal status and ownership of the Foremore property. The following information regarding property title and ownership was collected from the BC Dept. of Mines and Energy website. The author sees no evidence to suggest that it is incorrect.

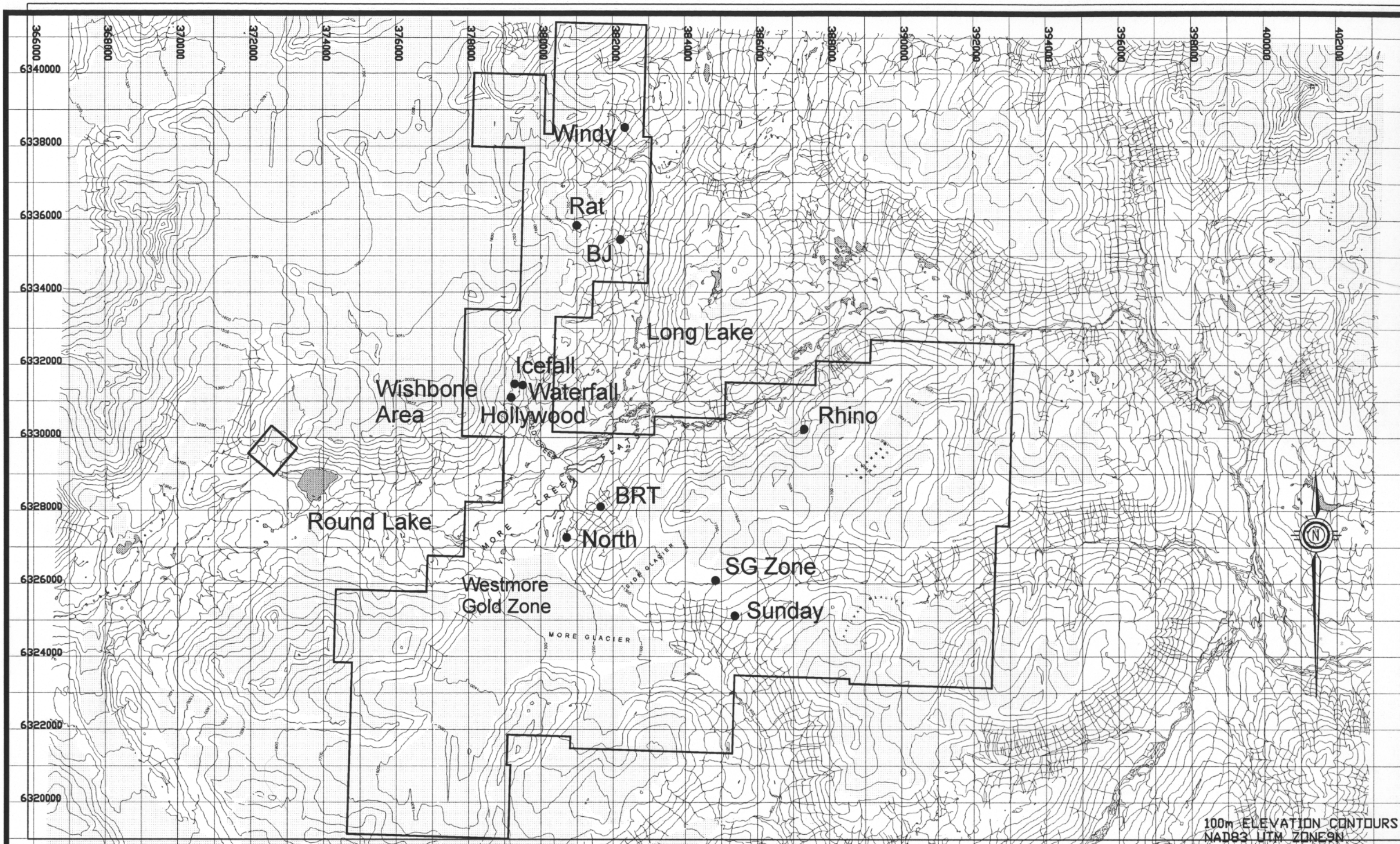
All analytical results included in this report were collected under the author's supervision or were obtained from previous claim owner's files and public assessment reports.

3.0 PROPERTY DESCRIPTION AND LOCATION

The Foremore property (Figure 1) lies in north-western British Columbia, approximately 120 kms north-northwest of Stewart, BC. The property is contained within NTS mapsheets 104G/2 and G/3 and 104B/14 and B/15 and consists of 54 contiguous mineral claims (820 units) covering over 200 km^2 (Figure 2) in the Liard Mining Division. The mineral claims are 100% held by Roca Mines Inc., subject to underlying agreements with owner Lorne B. Warren.

Portions of claim blocks Dice 1 and 2 are pending and currently under review by the Mining Recorder.

Figure 1: Location Map.



SCALE: 1:150 000	DATE: FEB 2004	DRAWN: WKL	DESIGNED: ss	CHECKED: SS	APPROVED: SS

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AN APPLIED EARTH SCIENCES COMPANY
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CLIENT: Roca Mines Inc. ROK.v rocamines.com

PROJECT: FOREMORE PROJECT

TITLE: CLAIM LOCATION

PROJECT No.	Figure No.	REV.
0327-002-01	2	0

Table 1. Foremore claim data.

Tenure #	Claim	Map #	Work recorded To	Good Standing To	# Units
374763	FORE 1	104G006	2004.08.05	2004.08.05	20
374764	FORE 2	104G006	2004.08.05	2004.08.05	20
374765	FORE 3	104G006	2004.08.05	2004.08.05	12
374766	MORE 1	104G006	2004.08.05	2004.08.05	12
374767	MORE 2	104G006	2004.08.05	2004.08.05	20
374768	MORE 3	104G006	2004.08.05	2004.08.05	20
374769	MORE 4	104G006	2004.08.05	2004.08.05	18
374770	MORE 5	104G006	2004.08.05	2004.08.05	20
380863	FM 1	104G006	2004.08.05	2004.08.05	1
380864	FM 2	104G006	2004.08.05	2004.08.05	1
380865	FM 3	104G006	2004.08.05	2004.08.05	1
380866	FM 4	104G006	2004.08.05	2004.08.05	1
392631	FORE 4	104G006	2004.08.05	2004.08.05	18
392632	FORE 5	104G006	2004.08.05	2004.08.05	9
392641	FORE 6	104G006	2004.08.05	2004.08.05	16
392642	FORE 7	104G006	2004.08.05	2004.08.05	18
392643	FORE 8	104G006	2004.08.05	2004.08.05	6
392644	FORE 10	104G006	2004.08.05	2004.08.05	20
392645	FORE 9	104G006	2004.08.05	2004.08.05	16
392646	FORE 11	104G006	2004.08.05	2004.08.05	16
392647	FORE 12	104G006	2004.08.05	2004.08.05	20
392648	FORE 13	104G006	2004.08.05	2004.08.05	20
392649	EBF1	104G006	2004.08.05	2004.08.05	20
392650	EBF2	104G006	2004.08.05	2004.08.05	20
392651	EBF3	104G006	2004.08.05	2004.08.05	20
392652	EBF4	104G006	2004.08.05	2004.08.05	20
392655	MORE 6	104G006	2004.08.05	2004.08.05	20
392656	MORE 7	104G005	2004.08.05	2004.08.05	20
392657	MORE 8	104G005	2004.08.05	2004.08.05	12
392658	MORE 9	104G005	2004.08.05	2004.08.05	16
392659	MORE 10	104G005	2004.08.05	2004.08.05	20
392660	MORE 11	104G005	2004.08.05	2004.08.05	20
393458	ANT 1	104G017	2004.08.05	2004.08.05	20
393459	ANT 2	104G017	2004.08.05	2004.08.05	20
393460	ANT 3	104G017	2004.08.05	2004.08.05	20
393461	ANT 4	104G017	2004.08.05	2004.08.05	20
395889	MOR 1	104G005	2004.08.05	2004.08.05	4
395890	MOR 2	104G005	2004.08.05	2004.08.05	2
395891	MOR 3	104G005	2004.08.05	2004.08.05	3
400284	ROKS 1	104G006	2004.08.05	2004.08.05	6
400285	ROKS 2	104G006	2004.08.05	2004.08.05	20
400286	ROKS 3	104G006	2004.08.05	2004.08.05	16
400287	ROKS 4	104G016	2004.08.05	2004.08.05	15
400288	ROKS 5	104G016	2004.08.05	2004.08.05	18
400289	ROKS 6	104G006	2004.08.05	2004.08.05	9
400294	ROC 8	104G016	2004.08.05	2004.08.05	20
400295	ROC 9	104G016	2004.08.05	2004.08.05	15

Tenure #	Claim	Map #	Work recorded To	Good Standing To	# Units
400296	ROC 10	104G016	2004.08.05	2004.08.05	15
400297	ROC 11	104G016	2004.08.05	2004.08.05	20
400298	ROC 12	104G016	2004.08.05	2004.08.05	20
400299	ROC 13	104G016	2004.08.05	2004.08.05	9
400300	ROC 14	104G016	2004.08.05	2004.08.05	16
406128	DICE 1	104G016	2004.10.08	2004.10.08	20
406129	DICE 2	104G016	2004.10.08	2004.10.08	15
406339	KIDLET 1	104G005	2004.10.17	2004.10.17	1
406340	KIDLET 2	104G005	2004.10.17	2004.10.17	1
406341	KIDLET 3	104G005	2004.10.17	2004.10.17	1
406342	KIDLET 4	104G005	2004.10.17	2004.10.17	1
				Total:	824

4.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The Foremore property is accessible by helicopter from the Bob Quinn airstrip, which lies 46 kilometres to the east on Highway 37, and is suitable for fixed wing aircraft up to and including small passenger and cargo jets, such as a Hercules. The nearest road access is also at the Bob Quinn airstrip along all-weather Highway 37. The Bob Quinn airstrip lies approximately 410 kilometres by road north along Highway 37 from Smithers, BC. Commercial jet airliners service Smithers daily from Vancouver. The communities of Stewart and Wrangell are the nearest supply centres, however Smithers is most commonly utilized as a base of operations in the area and also has a fully-serviced hospital. The Eskay Creek Mine and access road lies approximately 45 kilometres to the southeast of the property.

The Foremore property is located in the headwaters of More Creek. The area is primarily above treeline, partially covered by glaciers, and flanked by moderate to steep, craggy hillsides. The property lies almost entirely above 1200 to 1800m above sea level, with a few peaks reaching over 1950m on the Fore 6 and 9 claims and just over 2100m on the western margin of the More 11 claim. The lowest points are in the east-flowing tributary of More Creek on the Fore 8 claim at 1030 metres, and in the south-flowing tributary of More Creek on the Fore 13 claim at 910m.

Some tree cover is present on the gravel alluvial plain near the headwaters of Mess Creek (northern portion of the property) and the south flowing arm of More Creek (South More Creek), otherwise vegetation on the property is limited to spruce and alder on the slopes above the headwaters of More Creek and in the lower reaches of the Hanging Valley. Alpine vegetation consisting of willow, grass and moss occur at higher altitudes. Very sparsely to non-vegetated glacial morainal material covers much of the property, although soils are moderately to well developed in vegetated areas. Summer and winter temperatures are moderate and annual rainfall may exceed 200 centimetres with heavy snow accumulations each winter. Groundwork on the property can be worked from the middle of June until the middle of October. Drilling and geophysical surveys could begin in May and continue into November, if not later.

5.0 PROPERTY HISTORY

In 1987, helicopter reconnaissance in the headwaters of a south-flowing tributary of More Creek by Cominco Ltd. ("Cominco") identified sulphide and gold mineralized quartz boulders in glacial debris near the south and north termini of More Glacier. In December of 1987, Cominco staked eight claims covering these occurrences (Mawer, 1988 - later termed the South (SBF) and North (NBF) Boulder Fields). Work completed on the western and central portion of the current Foremore claim group by Cominco Ltd. personnel from 1987 through 1992 and in 1996 is as follows (Barnes, 1989; Holroyd, 1989, 1991, 1992; Paterson and Lee, 1991; Westcott, 1992):

1987

- Iskut area reconnaissance discovers Fe-oxide and gold bearing quartz vein sulphide boulders near More Glacier;
- 2 separate groups of 4 claims staked.

1988

- additional land staked, including that between the two above claim groups;
- geological mapping, prospecting and sampling discover a gold rich quartz vein source (Westmore Gold) as well as a field of sulphide rich boulders (SBF);
- horizontal loop electromagnetics (HLEM) over SBF returns negative results.

1989

- additional claims added to land package;
- detailed and regional geological mapping, prospecting and sampling carried out;
- over 800 sulphide boulders located in the SBF;
- north boulder field (NBF) discovered;
- University of Toronto electromagnetics (UTEM) and magnetics surveying conducted over much of the claim group.

1990

- additional claims staked;
- continued regional and detail mapping and prospecting
- contour soil sampling of favourable stratigraphy
- UTEM, magnetics and HLEM surveys carried out over ice and land
- radar survey performed to estimate ice depth on north terminus of More glacier
- five hole diamond drilling program on More Glacier returns negative results

1991

- additional claims staked;
- detail mapping and sampling in the Nunatak area; limestone fossils identified;
- talus fines collected for geochemical analyses.

1992

- UTEM, magnetics, and HLEM surveys carried out over the Nunatak area;
- radar survey is performed to estimate ice depth in the area of the Nunatak in order to help with the geophysical interpretations and to aid diamond drilling.

1996

- a single drill hole was cored at the Nunatak testing UTEM conductors.

1999

- camp reclamation and all claims allowed to lapse.

In the eastern portion of the current Foremore claim group, the Broken Antler showing, disseminated to semi-massive pyrite hosted in felsic volcanic, was staked in 1990 by L. Barry and J. Robins. No work was recorded, and the claims were allowed to lapse. The showing was re-examined as part of a Geological Survey of Canada regional mapping program in 1992 and 1993 and subsequently staked in 1994 by D. Gunning. In 1995 a program of geological mapping and prospecting, silt and soil sampling was carried out by Westore Engineering Ltd ("Westore") (Gunning, 1995).

A brief property visit to the Antler property was conducted by Westore and Cominco in 1996 and five rock samples were collected for trace element geochemical and whole rock analysis. The claims covering the Broken Antler were allowed to lapse.

In 2000, the main portion of the current land package was staked by L. Warren. That summer 34 rock samples and 2 stream sediment samples were collected, and during the course of a property visit, Homestake Canada Inc. geologists also collected 18 rock samples.

The Wishbone group of claims (Roc 8-14) were initially staked in 1980 by Teck Corporation. They performed various geological and geochemical surveys and hand trenching over what were called the Windy, BJ and Wish claims (Tully, 1987). A M.Sc. thesis (Holbeck, 1988) was completed in 1988 by Peter Holbeck based on mapping completed during 1981 and 1982. In 1986 prospecting, hand trenching and geochemical soil sampling resulted in the discovery of a gold zone in the central portion of the Windy claims. In 1988 a joint venture between Iskut Gold Corp. and Teck Corp. resulted in additional prospecting and at least 8 holes were drilled targeting gold bearing vein structure in the north end of the current Wishbone claim group.

In March 2002 Roca Mines Inc. optioned the Foremore property and staked additional contiguous claims to the east, covering the Broken Antler showing. In the summer 2002 Equity Engineering Ltd. ("Equity") of Vancouver and the author were contracted to carry out a program of mapping, prospecting and geochemical sampling.

A total of 398 rock, 180 contour soil and one silt sample were taken from throughout the property in 2002. Geological mapping and sampling was conducted over areas of mineralization (North showing, Westmore gold veins, boulder fields) in order to gain an understanding of the styles of mineralization and their relation to applicable deposit models. Mapping and prospecting was also undertaken across the property in order to investigate the potential for additional mineralization on the property. In late August 2002, Stewart Harris, P.Geo of Equity then produced a NI 43-101 compliant report titled 'Summary Report on the Foremore Property' ("Equity Report").

In the second year of the option, Roca contracted the author to manage a 2 phased exploration program. This exploration program and the results are outlined in this technical report.

6.0 GEOLOGICAL SETTING

Much of Section 6.1 is taken from or paraphrased from Harris, 2002; Summary Report on the Foremore Property.

6.1 Regional Geology

The Foremore property is underlain by the Stikine Assemblage, part of the Stikine Terrane within the Intermontane Belt, a sequence of generally low grade metamorphic sedimentary and volcanic rocks cut by predominantly Triassic and younger intrusives (Gabrielse and Yorath, 1992). Regional mapping in the area has been carried out at a scale of 1:50,000 by Logan et al (1990a, b; 1992a, b) of the BCGS and by Read et al (1989) of the G.S.C., and at 1:100,000 by Logan et al (1994, 1997 and 2000) of the BCGS. The property area is underlain by rocks of the Stikine Terrane (Stikine Assemblage), interpreted as an allochthon transported to the east after originating offshore of the ancestral North American margin. The Stikine Assemblage is comprised of mid-Paleozoic island arc successions (Figure 3), locally overlain by island arc volcanic and sedimentary rocks of the Upper Triassic Stuhini Group. These rocks are bounded to the east by Middle Jurassic to Middle Cretaceous successor basins, (locally the Bowser Basin) and to the west by the younger intrusive Coast Plutonic Complex. Late Cretaceous, Tertiary and Recent continental and shield volcanism overlie these sequences away from the Foremore property.

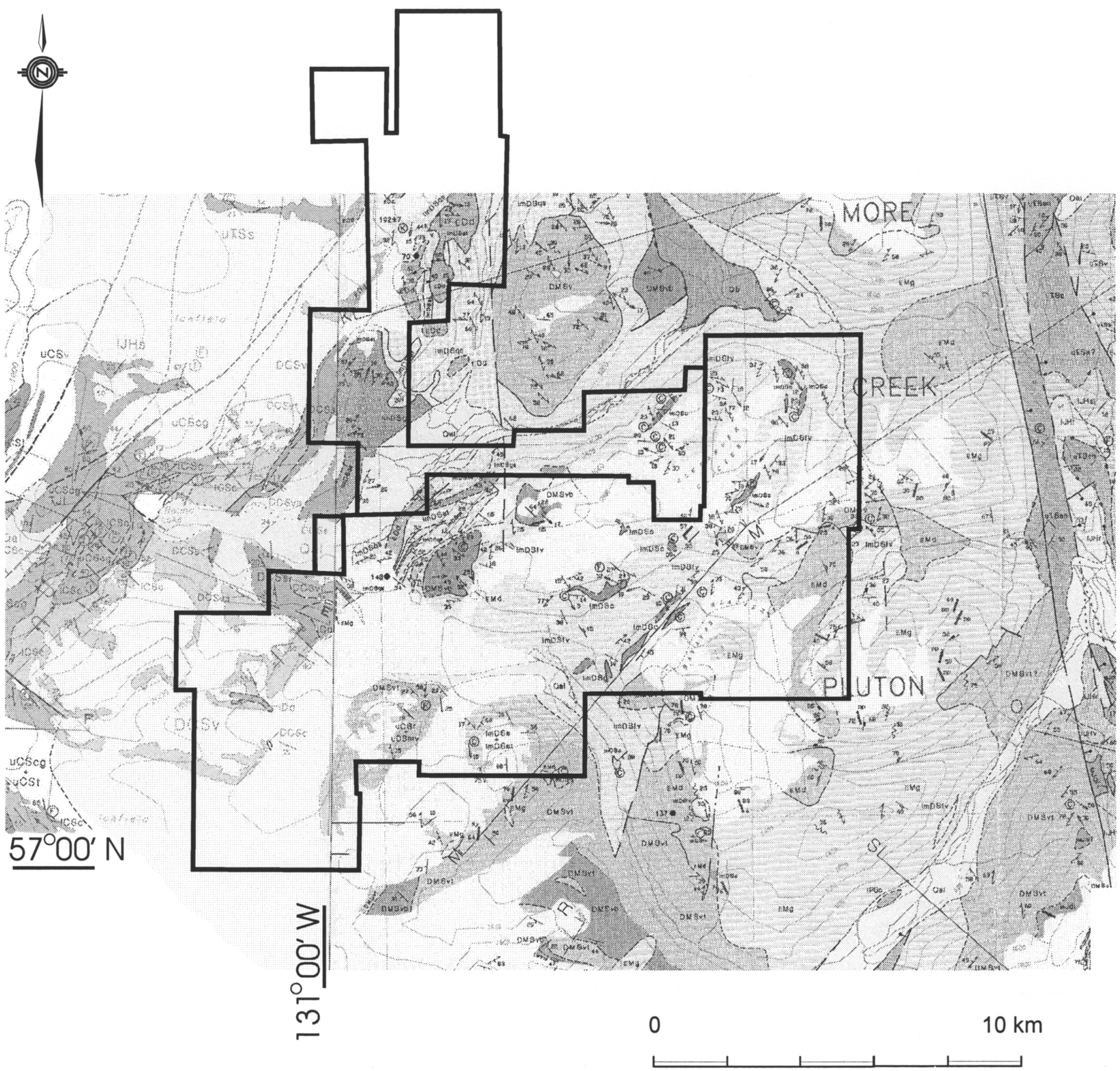
6.1.1 Stikine Assemblage

The Paleozoic Stikine Assemblage underlying the Foremore claims comprise variably foliated mafic to felsic flows and volcaniclastics, interbedded limestone, and fine clastic sediments. This assemblage has been intruded by the Late Devonian to Early Mississippian intrusions, including the More Creek and Forrest Kerr composite batholiths, with phases ranging from granite to diorite. The Paleozoic rocks lie entirely on the western side of the north-trending Forrest Kerr Fault.

The Stikine Assemblage comprises a succession of tholeiitic island arc volcanism and epiclastic rocks, with interlayered carbonate rocks deposited between periods of volcanic activity. Logan et. al. (2000) has defined five main subdivisions:

1. A lowermost Lower to Middle Devonian aged sequence consisting of penetratively deformed intermediate to mafic metavolcanic tuffs and flows, diorite and gabbro, recrystallized limestone, graphitic schist and quartz-sericite schist. These interleaved metasediments and metavolcanics are locally intruded by massive and variably schistose diorite sills. Limestones contain late Early Devonian Favosites sp. and Lochkovian conodonts. These lowermost Devonian to Early Mississippian sequences are interpreted as representing an environment of occasionally emergent submarine island arc volcanism with associated carbonate and clastic deposition (Logan et al, 2000), likely early stage arc development.

2. Overlying this package is a generally conformable Upper Devonian to Mississippian sequence of bimodal mafic and felsic volcanic flows and tuffs, comprised of variably foliated mainly basaltic flows and volcaniclastics, lesser dacitic and rhyolitic tuffs, flows and volcaniclastics, and locally Favosite-bearing limestone.



LEGEND

Intrusive Rocks:
Early Mississippian
More Creek Plutonic Suite
EMd (lDd) Hornblende diorite to quartz monzonite
EMg Biotite granite

Stratified Rocks:
QuaternaryQal Glacial till and alluvium

Pleistocene
Arctic Lake Formation
Qb Basalt, subaerial flows and pyroclastic breccia

Lower Jurassic
(lJHs) Volcanic conglomerate, siltstone, shale and tuff
lJHr Felsic ash tuff, rhyolite lava, ashflow tuff

Upper Triassic to Lower Jurassic
TJt Crystal tuff, epiclastics and volcanic conglomerate

Upper Triassic
Stuhini Group
uTSs Volcanic sandstone and conglomerate
uTSsn Sandstone, conglomerate and siltstone
uTSv Pale green tuff and epiclastic rocks, basalt flows and sills

Stikine Assemblage
PSu Undifferentiated Paleozoic foliated volcanic and associated sedimentary rock

Lower Permian
lPSc Fossiliferous carbonate

Carboniferous
(uCSv) Maroon and green intermediate volcaniclastics
(uCScg) Boulder and pebble conglomerate, minor siltstone and sandstone
(lCSc) Grainstone and packstone, minor chert, tuff and epiclastics

Lower and Middle Devonian
(DCSv) Mafic and felsic flows
DMSv Undifferentiated basalt and andesite
DMSvb Amygdaloidal basalt, hyaloclastite, pillowed flows and scoriaceous tephra
DMSvt Siliceous tuff, scoriaceous mafic tuff and minor pyritic felsic tuff
lmDSfv Intermediate to felsic crystal tuff, breccia and flows
lmDSgs (DCSs) Graphitic schist, siliceous phyllite and chert
lmDSst (DCSvt) Green and maroon schistose tuff
lmDSqs (DCSvs) Quartz-sericite-chlorite schist
lmDSc Coralline marble and limestone

Geology adapted from Logan et al (2000), East of 131°00' West, and from Logan et al (1994), West of 131°00' West (bracketed unit names).

Roca Mines Inc.

FOREMORE PROPERTY

REGIONAL GEOLOGY

Date	February 2004	Scale	as shown	Figure
UTM Zone	UTM(NAD83)9	Mining District	Liard	3
NTS	104G/2,3, 104B/14,15	State/Prov.	BC	

The third subdivision consists of Middle Carboniferous fossiliferous limestones, cherts and lesser siltstones, sandstones, conglomerates and tuffs. This package lies conformably upon Devono-Mississippian rocks, although locally the base of the carbonate is truncated by faulting or lies nonconformably upon intrusions. These rocks are folded but lack an earlier fabric. Logan et al (2000) suggest that these limestones and overlying clastics developed as mounds flanking volcanic centres.

3. Overlying the Middle Carboniferous limestones are minor epiclastic rocks overlain by calc-alkaline basalts and intermediate to felsic tuffs and flows, which are in turn, overlain by carbonates. The age of this sequence is well-constrained by the well-dated underlying limestones, and overlying Early Permian carbonates. This package is thought to represent volcaniclastic/epiclastic dispersal aprons deposited about local volcanic island arc centres (Logan et al, 2000).

4. The uppermost portion of the Stikine Assemblage consists of two sequences; a) thin-bedded, fossiliferous, and locally recrystallized carbonate, and b) siliceous tuff and sedimentary rocks interfingered with carbonate. These rocks are variably deformed, but on average, deformation is stronger east of the More Creek and Forrest Kerr Plutons. Numerous fossils within the carbonate indicate that it ranges in age from latest Carboniferous to Early Permian (Logan et al, 2000).

6.1.2 Younger Sequences

The Stikine Assemblage is unconformably overlain by island arc volcanics and sediments of the Upper Triassic Stuhini Group. The base of the Stuhini Group is a thick package of fine-grained volcaniclastics and sediments, dominated by volcanic wackes, arenites and interbedded siltstone and argillite. These units are intercalated with overlying massive green tuff.

The Early to Middle Jurassic Hazelton Group unconformably overlies the Stuhini Group. From bottom to top, the Hazelton Group consists of basal coarse clastics in angular unconformity with the underlying Stuhini rocks; a sequence of andesitic to dacitic volcanics (Betty Creek Fm); calc-alkaline volcanic flows and tuffs; sedimentary rocks derived from the underlying volcanic rocks; and an uppermost intra-arc rift sequence dominated by bimodal tholeiitic volcanics and lesser volcaniclastics/sedimentary rocks (Macdonald et al, 1996, Anderson, 1993, Roth et al, 1999).

Middle to Upper Jurassic Bowser Lake Group marine and terrestrial mudstones, sandstones and conglomerates conformably overlie the Hazelton Group. These basinal clastics lack volcanic components and contain clasts of rock types from adjacent terranes, indicating a change in the local and regional tectonic setting (Roth et al, 1999).

6.1.3 Intrusive Rocks

There are several episodes of intrusive activity identified in the Forrest Kerr Creek - Mess Creek area. From oldest to youngest they include:

- Early Devonian weakly foliated to schistose diorite sills and stocks that intrude and are probably feeders to the Devonian rocks west of Mess Creek. The most prominent intrusion in the area is a composite pluton comprising the Forrest Kerr and More Creek Plutons which trend northerly and are located east of the Foremore property. These subalkaline monzodioritic to tonalitic intrusions are probably equivalents of the Devono-Mississippian volcanic rocks.

- Middle to Late Triassic plutons (228-221 Ma) are comprised of small ultramafic bodies and large calc-alkaline plutons. These intrusions are associated with and crosscut the Stuhini Group volcanic pile, and are associated with mineralization at the Schaft Creek porphyry Cu-Mo-Au deposit.

- Copper Mountain Plutonic Suite (Woodsworth et al, in Logan et al, 2000) is a Late Triassic to Early Jurassic (210-195 Ma) suite of smaller alkaline bodies that vary from monzodiorite through syenite in composition, with associated ultramafic phases. This complex suite includes the Galore Creek porphyry Cu-Au deposit.

- The Early Jurassic Texas Creek Plutonic Suite (195-189 Ma) consists of calc-alkaline to alkaline plutons (Logan et al, 2000) that are associated with mesothermal and epithermal base and precious metal mineralization at the Premier, Snip, Johnny Mountain and Sulphurets deposits and porphyry Cu-Au mineralization at the Kerr deposit.

- A series of Early Jurassic and younger plugs and dykes have been mapped intruding the Stuhini Group.

- The Middle Jurassic Three Sisters Plutonic Suite (179-176 Ma) (Woodsworth et al, in Logan et al, 2000) are large calc-alkaline quartz monzonite to granite plutons that have been interpreted to be in the root zone of the Middle Jurassic arc (Anderson, in Logan et al, 2000) and back-arc basalts.

- A series of Middle Jurassic pyroxene gabbro and diorite plugs, sills and dykes occur primarily along and west of the Forrest Kerr fault zone.

6.1.4 Structure

Five phases of deformation (Logan et al, 2000) have been recognized regionally; pre-Middle Carboniferous (D_1), pre-Late Triassic (D_2), Early Jurassic (D_3), and Late Jurassic to Tertiary (D_4) folding, and Jurassic to Quaternary faulting (D_5). The earliest event consists of northwest-trending recumbent isoclinal folding represented by a northeast-striking and northwest-dipping penetrative foliation (D_1) in Devonian rocks. The D_2 deformational event consists of a southwest-dipping penetrative axial planar cleavage attributed to northwest-trending and southeast-plunging moderately inclined to recumbent folds. These sub-parallel penetrative Paleozoic fabrics are deformed by northwest-trending upright, open to tight crenulation folds with shallowly east-plunging fold axes (D_3). This has produced a crenulation cleavage in Paleozoic rocks with millimetre- to metre-scale amplitude folds and steeply south- to southwest-dipping axial planar surfaces. The fourth phase of deformation (D_4) is comprised of north-trending moderate to open upright folds with metres to several kilometre wavelengths and is manifested by a fracture cleavage.

There are two main regional fault systems in the region: the north-striking Forrest Kerr and Mess Creek Fault Zones. The Forrest Kerr Fault Zone is a regional lineament ranging from Iskut River in the south to Arctic Lake in the north where it is lost under recent volcanism. It is either vertical or dips steeply east with normal sinistral strike-slip movement. The Forrest Kerr Fault separates Devonian-Mississippian rocks to the west from younger rocks to the east. West of the Forrest Kerr Fault, the Mess Creek Fault Zone, a 7km wide zone of normal faulting, may be an en echelon step extending to the north from the headwaters of Sphaler Creek.

6.1.5 Metallogeny

The Foremore property lies in a prospective belt for mineralization related to island arc volcanic settings. These include porphyry deposits (Schaft Creek, Kerr and Galore Creek), intrusion-related mesothermal veins (Snip Mine and Red Mountain deposit), epithermal veins (Sulphurets deposit), skarns and volcanic-hosted massive sulphide (VHMS) deposits (Eskay Creek Mine and Tulsequah Chief Mine). Other significant producers in this metallogenic province include the Silbak Premier Mine (porphyry to epithermal environment), and the Golden Bear Mine (Carlin-style sediment-hosted gold deposit). The Lower Mississippian Tulsequah Chief (Kuroko-type VHMS) deposit possesses a total geologic resource of 8.94 Mt grading 107.6 g/t Ag, 2.53 g/t Au, 1.31% Cu, 1.24% Pb and 6.60% Zn (Redcorp Ventures Ltd. website). Total production to December 2002 at the Middle Jurassic Eskay Creek (shallow subaqueous VHMS) Mine totalled 1.26 Mt grading 55.7 g/t Au (2.27 Moz.) and 2626 g/t Ag (107.1 Moz.) with proven and probable reserves estimated at 1.43 Moz. Au and 64.4 Moz. Ag (Barrick Gold Corp. website).

Within the Forrest Kerr - Mess Lake area there are four main styles of mineralization. The most well known are porphyry copper-gold-molybdenum deposits of calc-alkaline and alkaline affinity: Schaft Creek (971 Mt grading 0.30% Cu, 0.033% MoS_2, 0.14 g/t Au and 1.20 g/t Ag) and Galore Creek (234 Mt grading 0.67% Cu, 0.35 g/t Au and 7.0 g/t Ag in the Central Zone) deposits (Logan et al, 2000). Cu- and Cu-Au skarns, subvolcanic Cu-Ag-Au veins and carbonate-hosted replacements, and stratiform volcanogenic or carbonate-hosted (possibly Irish-type) massive sulphide mineralization are other styles of mineralization found in this area and associated with an island volcanic arc setting.

6.2 Property Geology

The Foremore property is predominantly underlain by the Devono-Mississippian Stikine Assemblage (Figure 4), a suite of variably foliated mafic to felsic flows and volcaniclastics, interbedded limestone, and fine clastic sediments. Overlying these rocks and of limited aerial extent are arc volcanics and sedimentary rocks of the Upper Triassic Stuhini Group. The eastern portion of the property is dominated by the early Mississippian More Creek Pluton, coeval with and likely feeder to the Devono-Mississippian volcanics.

The Stikine assemblage consists of penetratively foliated phyllitic to lesser schistose rocks. The lowermost rocks comprise a variety of phyllites and schists derived from a mainly bimodal suite of volcanic and volcaniclastics rocks. Lithologies range from quartz sericite schists and phyllites with local quartz eyes through argillaceous and cherty carbonaceous phyllites, to hematitic and chloritic phyllites representing original mafic volcaniclastics. Fossiliferous limestones containing probable Devonian Favosites fossils have also been mapped sporadically within this package. Deformation of the fossils prevents unequivocal dating. A dark green diabase/gabbro sill or dyke is spatially associated with outcrops of quartz-sericite-chlorite schists and phyllites and is probably correlative with the gabbroic unit of Holbek (1988).

A probable younger sequence of Mississippian volcanic arc and related rocks has been differentiated from the above assemblage on the basis of a lesser degree of deformation, being predominantly weakly to moderately foliated. This sequence is dominated by dark green-grey thick-bedded mafic volcaniclastics and mafic to intermediate flows and flow breccias. This thick sequence contains lesser but significant sericite altered rhyolite, felsic ash and lapilli tuffs, chert pebble conglomerate, and fossiliferous carbonates including micritic grey limestones and whitish dolomitic carbonates.

An unconformity separates the Stuhini Group from the underlying Stikine rocks. Stuhini lithologies consist of thin-bedded ash to lapilli tuffs, massive crystal and dacitic tuffs and volcanic conglomerates that outcrop predominantly on a few of the higher peaks on the property.

The eastern portion of the property consists of medium- to coarse-grained quartz-porphyritic biotite granite of the More Creek Pluton. The contact zone with the coeval Stikine Assemblage volcanics locally contains less quartz rich phases mixed with aplites and mafic schlieren (volcanic inclusions). Elsewhere, a series of post-Triassic intrusions cut the volcanic arc packages. They are comprised primarily of granodiorite and diorite intrusions, dykes, sills and plugs of syenodiorite to monzodiorite. These intrusions are locally pegmatitic and heavily epidotized. Basalt and lamprophyre dykes have also been mapped on the property.

The Paleozoic Stikine Assemblage rocks on the property exhibit four phases of deformation, the first of which produced a penetrative axial planar cleavage (S_1 striking 035° to 050° and dipping 30° to 45° to the southeast) related to northeast-trending isoclinal recumbent folds (regional D_1 of Logan et al, 2000). A second phase of deformation (D_2 of Logan et al, 2000) and resultant axial planar cleavage (S_2 striking northwest and dipping southwest) produced a crenulation lineation (L_2) where it intersects the S_1 cleavage. The S_2 cleavage and L_2 lineation are related to south-trending folds. Isoclinal folds with vertical to steeply southwest-dips and shallow southeast plunging fold axes noted in the North Zone and in tuffs north of the South Boulder Field, and east-trending kink bands probably represent Logan et al's (2000) D_3 deformational event. These fabrics are warped by a broad, open anticline that plunges southwest. Rare north-trending spaced fracture cleavage represents D_4 deformation (Logan et al, 2000).

On the western portion of the property, a several km long low angle fault divides the lower, more foliated and phyllitic lithologies to the west from less foliated volcanics to the east. The fault is oriented generally northeast striking/southeast dipping.

Regional metamorphism affecting rocks on the property are of lower greenschist facies, and contact metasomatism occurs adjacent to plutons. The contact metasomatism is marked by the development of epidote, tremolite, and diopside with magnetite, and lesser pyrite, pyrrhotite, chalcopyrite and sphalerite.

Alteration is widespread on the property is expressed as variable silicification, chloritization, and epidotization. However, intense alteration commonly masks the identity of the protolith, in particular the sericitization of felsic volcanics and quartz eye tuffs and quartz+Fe-carbonate+sericite alteration of graphitic schists. Locally, it appears that quartz-sericite-chlorite schists are altered hematite and chlorite schists.

7.0 DEPOSIT TYPES

7.1 Potential Deposit Types on the Property

Mapping and prospecting has found at least 3 different areas where volcanic hosted (or volcanogenic) massive sulphide (VHMS) mineralization occurs: North Zone (North Showing and BRT Showing), SG Zone, and the Rhino showing. Both the BRT Showing and the SG Zones have elevated precious metal contents. Mineralogically different float boulders indicate that there are likely more VMS sources than those already found. Section 7.2 elaborates on the important economical and geological character of these types of deposits.

In addition to VHMS type mineralization, high grade gold in quartz/sulphide veins has been found in 3 localities (Wishbone and Westmore), indicative of structurally controlled mesothermal vein emplacement or replacement type deposits. Boulders containing magnetite, pyrite ± Cu skarn mineralization are present in 3 localities (SBF, EBF, and highlands near the top of the Side Glacier). In-place skarn mineralization has not yet been located, but the main portion of the More Creek Pluton and its apophyses has been subjected to only cursory exploration. Exploration on the property has also been directed to the source of Irish-type carbonate-hosted massive sulphide mineralized boulders, and although no source area for this mineralization has been located, this remains a viable exploration target type.

7.2 Volcanic Hosted Massive Sulphide (VHMS) Mineralization

VHMS deposits are important producers of Au, Ag, Cu, Zn, and Pb in Canada and worldwide. Significant Canadian deposits include the Kidd Creek Mine (Ontario), Buchans (Newfoundland), Bathurst District (New Brunswick), and the Noranda District (Quebec-Ontario). Significant B.C. examples include the Myra Falls Mine and the Tulsequah Chief deposit. Tulsequah Chief, located approximately 350 km northwest of the Foremore property, is an example of Kuroko/Noranda style VHMS mineralization. It is a past producer that contains a geologic resource of 8.93 Mt grading 2.53 g/t Au, 107.6 g/t Ag, 1.31% Cu, 6.62% Zn, and 1.24% Pb. (B.C. MINFILE, 2002). It is hosted in Stikine Assemblage rocks that have been dated as Lower Mississippian. The Myra Falls Mine is hosted in late Devonian volcanics and has a global resource of 8.36 Mt grading 1.4 g/t Au, 45.5 g/t Ag, 1.7% Cu, 6.9% Zn, and 0.54% Pb (Exploration and Mining in BC – 2002).

Kuroko/Noranda style VHMS deposits consist of syngenetic lenses of massive pyrite, chalcopyrite, sphalerite and galena, commonly within felsic volcanics in a calc-alkaline bimodal arc succession. The sulphide lenses are commonly zoned with Cu-rich bases and Pb-Zn rich tops with an underlying stockwork Cu zone. Au and Ag are common by-products of the mineralization and may be present in significant quantities.

VHMS deposits are typically located in island arc settings, in areas of local extension or rifting (high heat and fluid flow) within or behind an oceanic or continental margin arc. These deposits occur across a wide range of ages, although in B.C. they are typically hosted in Devonian lithologies; less so in Mississippian or younger rocks. The deposits are formed within marine volcanic environments, characteristically associated with a period of felsic volcanism in an otherwise andesite- or basalt-dominated succession. They are also locally associated with fine-grained sediments within these successions and faults or prominent fractures.

VHMS mineralization is associated with calc-alkaline felsic rocks within a mafic marine volcanic assemblage. Massive sulphide deposition is typically located flanking a felsic dome and along strike the mineralization commonly grades into exhalative cherts and clastic sediments. Sulphide mineralization consists of concordant massive to banded pyrite, sphalerite, galena, and chalcopyrite with lesser other Fe, Cu, Sb, As, and Ag sulphides. This concordant portion is typically underlain by a discordant pyrite-chalcopyrite-quartz stringer zone, containing lesser sphalerite and galena. Concordant lenses are typically metres to tens of metres thick, and tens to hundreds of metres laterally. Peripheral aprons of remobilized massive sulphides fragments and underlying cross-cutting stringer zones of intense alteration and stockwork veining are also common.

The massive mineralization is commonly zoned with an outer Zn-Pb increasing over Cu upwards and outwards from the centre of deposition. Disseminated, stockwork and vein sulphides, in particular chalcopyrite, are prevalent in the footwall. Sulphide minerals are hosted in a quartz, barite, chert, gypsum, anhydrite or carbonate gangue near the top of the lens, and a carbonate, quartz, chlorite and sericite gangue near the base of the deposit. The alteration system is also zoned comprising footwall alteration pipes with a quartz-sericite-chlorite altered core to an outer zone of clay, albite and carbonate development.

The sulphide lenses respond well to electromagnetic ("EM") or induced polarization ("IP") surveying and the associated stockwork zones also respond well to IP surveying. Geochemically, they are marked by haloes of Zn, Hg and Mg, and footwall rocks showing evidence of K addition, and Na and Ca depletion.

8.0 MINERALIZATION

8.1 Introduction

A very thorough summary of known mineralized zones through 2002 is available in the Equity Report. That summary includes descriptions of the boulder fields (NBF, SBF, EBF) as well as insitu mineralization (North Zone, SG Zone, SG Zone East and West, Nunatak Zone, Hanging Valley Mineralization, Quartz-Carbonate Vein Swarm Mineralization, and Ant Claims Mineralization).

The following describes mineralized areas that were found for the most part during the 2003 field season. Some newly found mineralized zones are related to or form part of previously known mineralization. All showings are located on the property geology map, Figure 4, found in a back pocket. Analytical certificates for all samples (surface rock, core, soil and silt) are located in Appendix A. Rock UTM locations and descriptions are available in Appendix E and Figure 5a.

8.2 North Zone (BRT and North Showings)

The BRT Showing and the North showing are interpreted to be part of the same stratigraphic interval located upslope to the southeast of the North Boulder Field (NBF). Both showings are hosted in pyritic quartz-sericite phyllites and schists within a larger thickness of northeast striking, southeast dipping chloritic, hematitic and carbonaceous phyllites.

The North showing was located by Cominco Ltd. personnel in 1989. They collected 6 chip samples across the mineralized zone with the most significant assay returning 4.5% Zn, 0.24% Cu, 0.32% Pb, 13.1 ppm Ag and 60 ppb Au over 0.16m. The largest Au value collected from the 6 samples is 140 ppb over 0.2m. Follow up sampling in 2002 returned overall lower precious and base metal values from grab samples.

Along strike 1.25km to the northeast is the recently found BRT Showing, outcropping massive sulphides up to 3m in thickness exposed in a small creek at surface. Mineralization consists of semi-layered massive sphalerite, galena, pyrite, and lesser chalcopyrite in a quartz rich gangue. The massive mineralization is located within variable quartz sericite pyrite phyllites sandwiched between an underlying variably graphitic/carbonaceous chloritic ankeritic phyllite and an overlying chlorite hematite phyllite.

Seven trenches were hand-dug along the inferred strike of the mineralization toward the southwest. Six of these trenches intersected bedrock. Rock saw cut channel samples were taken from portions of these 4 trenches (BRT-03 through 06) as well as from the mineralized discovery exposure in the creek (BRT-01 and 02). All trenches are oriented NW-SE cutting across the strike of the local foliation at high angles.

Assays of rock saw cut channel samples from trenches BRT-01 and 02, approximately 4m apart across the discovery exposure, yielded high grade Au, Ag, Zn and Pb assays as seen in Table 2.

Table 2. Selected channel sample results from the BRT Showing.

Trench	Interval(m)	Au (g/t)	Ag (g/t)	Zn (%)	Pb (%)	Cu (%)
BRT-01	2.05	2.75	189.7	6.34	0.94	0.73
BRT-02	2.80	2.03	161.9	9.52	4.27	0.11
BRT-03	4.30	2.07	276.4	1.33	2.13	0.41
Including	0.65	7.61	554.6	7.44	11.58	0.14
BRT-04	1.20	0.27	44.7	--	--	--
BRT-05	4.0	1.90	137.3	0.14	0.24	--
BRT-06	2.0	176 ppb	17.9 ppm	630 ppm	1756 ppm	150 ppm

A trench 30m to the southwest (BRT-03) cut entirely through quartz sericite pyrite phyllites and intersected a 0.65m massive sulphide interval. This 9m long trench exposed approximately 7m of bedrock. Channel samples were taken across 6.5m with a 4.3m composite sample returning high grade Au and Ag results as well as 3.46% combined Zn-Pb.

Approximately 15m farther to the southwest a 10m long trench (BRT-04), exposed quartz sericite ± pyrite phyllite. Uneven exposure in the trench resulted in one chip sample taken through a clay and pyrite rich portion of the phyllite. This sample returned anomalous Au and Ag values.

Trench BRT-05, located approximately 15m south of BRT-04, is 11m long and cut through variably pyritic chlorite sericite phyllite. Of this 10m of discontinuous exposure, a continuous 4.8m section was channel cut with a rock saw, sampled and assayed. Of this 4.8m sample, a 4.0m interval assayed 1.90 g/t Au, 137.3 g/t Ag, and 0.38% combined Zn-Pb.

Approximately 7m to the west is BRT-06, a 5m trench which cut through quartz sericite phyllite throughout its length. Assay values are generally low but well above local background levels. Value ranges include: Au (106 – 176 ppb), Au (6.9 – 17.9 ppm), Zn (413 – 657 ppm), Pb (253 – 1756 ppm), and Cu (86 – 150 ppm).

8.3 SG Zone

Late during the 2002 field program, Zn-Pb mineralization at the SG Zone was trenched using drilling and blasting techniques, resulting in the exposure of precious metal enriched massive Zn-Pb-As mineralization (20.11 g/t Au, 138 g/t Ag, 12.62% Zn, 11.22% Pb from a grab specimen). Until this point, only thin discontinuous stringers of Zn-Pb mineralization were visible. The significance of this mineralization was realized during the 2003 exploration program.

There was exceptional exposure at the SG Zone during the latter part of the 2003 exploration program due to a thinner than normal snow pack and a warm summer and autumn. Detail structural and stratigraphic mapping, and rock saw channel sampling has shown the SG Zone to be either a stringer zone or remobilized layered mineralization peripheral to more massive mineralization hidden beneath the thin ice to the northeast.

The SG Zone mineralization occurs in a felsic tuff unit located between an overlying sericite altered rhyolite and an underlying limestone/mafic sill unit. The felsic tuff/rhyolite are typically apple green and massive, however fragmental tuffaceous textures and rare flow banding are visible. The massive mineralization grab sampled the previous year is associated with calcite bearing stringer type mineralization which cuts across stratigraphy. This crosscutting and discontinuous nature of mineralization are both indicative of stringer-style or remobilized mineralization.

A total of eight saw cut channel trenches were cut and sampled over portions of the surface mineralization, with selected assays presented in Table 3. Three trenches totalling 10.7m in length, covering approximately 15m of strike, were cut over the area where massive mineralization was found. To the northeast 45m, five trenches totalling 23.5m in length, were cut across mineralized stratigraphy.

In the area where massive mineralization was exposed, a 1.9m composite of 2 samples (126856 and 126857) assayed 1.63g/t Au, 13.0 g/t Ag, 1.62% Zn, and 0.24% Pb, and 1127 ppm As. The remaining 8.8m of samples returned lower base and precious metal values in the following ranges: Au (24 – 379 ppb), Ag (0.9 – 15.9 ppm), Zn (306 – 6858 ppm), Pb (99 – 2660 ppm), Cu (93 – 1047 ppm) and As (8 – 154 ppm). All of these samples were contained in what is mapped as felsic tuff, however the tuff can be difficult to distinguish from the altered rhyolite.

The trenches to the northeast (SG-1 through 5) cut similar rock types with a similar tenor of mineralization. The more economically significant assays are located in Table 3. The highest result is a 0.42m sample from channel SG-2. Sample 126836 returned 129 ppb Au, 67.6 ppm Ag, 16.39% Zn, 3.68% Pb, 1714 ppm Cu and 124 ppm As.

Table 3. Selected channel sample results from the SG Zone.

Trench	Sample #	Width (m)	Au (ppb)	Ag (ppm)	Zn (%)	Pb (%)	Cu (ppm)	As (ppm)
SG-1	126829	0.45	87	6.3	1.23	4759ppm	253	65
	126830	1.30	100	15.2	3.25	0.92	867	135

Trench	Sample #	Width (m)	Au (ppb)	Ag (ppm)	Zn (%)	Pb (%)	Cu (ppm)	As (ppm)
SG-2	126836	0.42	129	67.6	16.39	3.68	1714	124
SG-3	126840	0.82	202	76.4	11.76	4.28	3455	205
	126841	0.52	50	13.4	2.34	5976ppm	440	44
	126842	0.48	47	17.2	2.75	9080ppm	737	71
SG-4	126846	0.62	149	39.7	2.07	2.06	1465	202
SG-5	126852	1.05	34	12.8	2.21	0.83	621	51
	126853	0.75	78	24.6	2.95	0.46	733	71
SG-6	126856	0.40	3.1 g/t	16.1	2.89	0.5	630	3899
	126857	1.49	1.24 g/t	12.1	1.28	0.17	231	389
SG-7	126858	1.20	379	8	4261ppm	1284ppm	337	154
SG-8	no significant results							

8.4 Rhino Showing

The Rhino showing is exposed along the steep east side of small well-crevassed north flowing glacier 6km east-northeast of the BRT Showing. The showing consists of fine grained massive pyrite associated with ferro-carbonate breccia located at or near the top of a limestone. Massive pyrite is up to 4m thick and is irregular in shape, however hand trenching has not defined the exact upper or lower contact of the mineralization. Within the hand trenches, the mineralization is underlain by purple mafic volcanics/volcaniclastics, locally incorporating limestone fragments. The massive pyrite mineralization grades into limestone with disseminated pyrite over an additional 10m of thickness. Along strike the mineralization can be traced for approximately 40m. Farther up slope into the hangingwall are additional mafic volcanics, limestone and felsic volcanics.

Three trenches totalling 15.6m were hand mucked perpendicular to the inferred strike of the mineralization with 15 chip samples taken. The trenches cover 16m of strike length, and in conjunction with another mineralized zone on surface, the known strike length is approximately 25m. All assayed samples returned low Au, Ag, Cu, Zn, and Pb assays with the exception of one grab sample (126701) which assayed 0.49 g/t Au, 10.2 g/t Ag. Cu, Zn, Pb, and As were at or below detection limits. Other assay values fell within the following ranges: Au (<0.01 – 0.09 g/t); Ag (<0.3 – 6.6 g/t); Cu (0.002 – 0.047%); Zn (<0.01) and Pb (<0.01). Arsenic had slightly elevated values with a range of <0.01 to 0.16%.

Down slope from the showing beyond the toe of the glacier, several massive pyrite in limestone boulders were found. All boulders returned near detection limits for Zn, Pb and Cu, however one boulder (sample 126379) assayed 3.23 g/t Au and 34 g/t Ag. This boulder is described as being heavily oxidized.

The Rhino stratigraphy is interpreted to be a time equivalent to the stratigraphy that hosts the SG Zone mineralization.

8.5 Sunday Zone

The Sunday Zone is located 1100m south-southeast of the SG Zone. Sunday Zone mineralization consists of Au and Ag rich, heavily disseminated to massive aresenopyrite, galena, sphalerite and pyrite (Table 4). Mineralization is hosted in parallel zones cutting across the local stratigraphy. There are 3 zones (and possibly a 4^{th}) that are oriented 030^{0}N, dip shallow to moderately to the southeast and have been followed in one zone for 120m in subcrop and outcrop. On surface the zones are separated by 80-100m, although the true thickness between the mineralized structures is much less than this. Using float, one zone can be traced for 450m along strike to the southwest. These mineralized structures are located near a felsic-mafic contact within an overall thicker mafic volcanic package. Limestone is also present in the footwall but not in intimate contact with mineralization. The regional stratigraphy strikes toward the northeast and dips toward the northwest.

Assays from the discovery outcrop returned an average of 8.0 g/t Au, 16.9 g/t Ag, 3.96% Pb, and 1.2% Zn over 0.12m (samples 126005, 006, 007). 30m to the southwest, a subcrop sample returned 3.06 g/t Au, 20.9 g/t Ag, 1.65% Zn, 0.6% Pb and 6.17% As. Another boulder 450m along strike to the southwest of the discovery outcrop assayed 4.98 g/t Au, 35.6 g/t Ag, 5.3% Zn, 4.55% Pb, and 9.5% As. The parallel zone to the southeast of the discovery outcrop was partially trenched with a 1m chip sample (126331) returning 2.21 g/t Au, 119.2 g/t Ag, 1.08% Zn, 8.07% Pb and 2.46% As. Along strike 100m to the southwest, a mineralized subcrop sample (126333) assayed 6469 ppb Au, 54.5 ppm Ag, 33533 ppm Zn and above the upper detection limits for Pb and As. A third parallel zone to southeast is defined by the alignment of 4 mineralized boulders. These boulders are more obviously vein material; they are quartz rich and contain less galena and sphalerite and no visible arsenopyrite. The 4 samples assayed 10.9 g/t, 3.51 g/t, 6.46 g/t (126062 – 064) and 20.82 g/t Au (126320).

Table 4. Selected Sunday Zone assays.

Sample #	Type	Au (g/t)	Ag (g/t)	Zn (%)	Pb (%)	Cu (%)	As (%)
126004	float	4.98	35.6	5.3	4.55	0.066	9.5
126005	outcrop	8.66	37.4	1.05	11.37	0.025	14.1
126006	outcrop	8.58	8.7	2.48	0.24	0.022	15.5
126007	outcrop	6.75	4.6	0.07	0.27	0.006	12.59
126008	float	0.67	6.4	0.3	0.01	0.474	0.14
126009	subcrop	3.06	20.9	1.65	0.6	0.041	6.17
126010	float	85	1.4	141	52	63	225 ppm
126011	outcrop	3.29	11.6	2.25	0.31	0.014	1.8
126012	float	0.81	80.5	0.82	3.95	0.05	1.69
126013	outcrop	0.16	3.7	0.09	0.1	0.016	0.28
126014	float	2.02	30.7	1.19	0.56	0.073	1.71
126029	float	0.2	21	2.2	0.13	0.049	0.37
126030	float	5.09	71.8	3.36	3.27	0.197	5.67
126062	float	10.9	3.4	0.37	0.66	1989	7 ppm
126063	outcrop	3.51	5.8	1.74	1.76	2464	14 ppm
126064	float	6.46	5.8	0.91	1.51	1454	6 ppm
126102	float	0.53	9.2	1.72	0.32	359	1.2
126103	float	2.84	20.7	0.81	0.3	839	3.61
126319	float	1.99	24.3	6.9	1.1	802	1888 ppm
126320	subcrop	20.82	9.7	710	3777	504	15
126321	float	1.77	10.7	4.81	6286	1.719	11
126328	Trench 1 (0.0 - 0.5m)	296	5.3	1.98	0.56	0.015	0.04
126329	Trench 1 (0.5 - 1.35m)	26	0.5	220	42	94	55 ppm
126330	Trench 2 (0.0 - 1.0m)	382	10.7	0.12	0.89	0.026	0.5
126331	Trench 2 (1.0 - 2.0m)	2.21	119.1	1.08	8.07	0.085	2.46
126332	Trench 2 (2.0 - 3.2m)	187	6.2	0.08	0.69	0.009	0.36
126333	subcrop	3.25	78.1	3.27	5.48	0.055	3.62

Sample #	Type	Au (g/t)	Ag (g/t)	Zn (%)	Pb (%)	Cu (%)	As (%)
126787	float	1.87	32.1	1.87	4.86	573	2 ppm
126788	outcrop	0.54	13.7	0.13	0.38	151	0.87
126789	subcrop	3.62	23.6	0.6	0.1	1067	6.05
126790	outcrop	1.88	94.3	0.76	4.98	680	2.02
126791	float	2.53	273.5	8.17	33.38	625	2.72
126792	subcrop	58	1.1	193	554	285	95 ppm

Mineralization found to date is interpreted to be associated with the more extensive VMS style mineralization present across the property. More specifically, the Sunday Zone mineralization is present at roughly the same stratigraphic interval as the SG Zone. Sunday Zone mineralization could be crosscutting feeder zones to as yet undiscovered stratabound mineralization, or the mineralization could be younger, remobilized stratabound mineralization.

8.6 Westmore

Gold bearing quartz veins and veinlets have been mapped on the northwest bank of More Glacier within and adjacent to a granodiorite plug intruding a package of intermediate to mafic volcanics and volcanic and sedimentary phyllites. These veins occur in a dense, sub-parallel swarm over a 150 by 100 metre area. The granodiorite plug is post-Triassic and probably related to a regional Jurassic intrusive event. The veins are up to 2 metres thick and generally strike 255° to 285°, dipping moderately to steeply to the north, although shallowly-dipping and southerly-dipping veins also occur. The veins can be continuous over 100m and consist primarily of coarse, milky bull quartz with coarse grained disseminated pyrite. Some veins contain minor disseminated sulphides (galena, sphalerite, chalcopyrite, pyrite) and have sericitic margins. These veins contain gold mineralization. Texturally and mineralogically these veins are different than the white veins with coarse crystalline pyrite, which also carry gold mineralization. Quartz veins swarm over a length of nearly 1000m.

8.7 Kidlet

The Kidlet showing is located within a non-contiguous claim block west of the main Foremore claim group. The showing consists of heavy disseminated to massive pyrite associated with silicified limestone. The lens is approximately 110m by 7-20m, oriented SW-NE and dipping moderately to the west. It's western boundary is a probable fault zone within a creek drainage. The local area is underlain by an assemblage of limestone, marble and calcareous sedimentary rocks, part of the lower Carboniferous portion of the Stikine Assemblage.

Zn and Pb values are below assay detection limits (<0.01%), and Cu is also low with the highest value of 5 samples (4 grabs and a 1m chip) being 0.003% (Table 5). As values are elevated and range between 0.07 - 0.54% and Ag values are 6.4 ppm or less. A Au value of 1.58 g/t was returned from one sample of massive pyrite in limestone (sample 126470), and the 1m chip sample (sample 126467) assayed 0.16 g/t Au. The other 3 samples returned Au values between 0.07 and 0.19 g/t.

Table 5. Kidlet Showing assay results

Sample #	Description	Au (g/t)	Ag (g/t)	Zn(%)	Pb(%)	Cu(%)	As(%)
126466	grab - pyritic silicified limestone	0.07	2.5	<0.01	<0.01	<0.001	0.39
126467	1m chip – pyritic limestone	0.16	6.4	<0.01	<0.01	0.003	0.32

Sample #	Description	Au (g/t)	Ag (g/t)	Zn(%)	Pb(%)	Cu(%)	As(%)
126468	grab – sheared pyritic limestone	0.19	3.1	<0.01	<0.01	0.002	0.07
126469	grab – massive pyrite	0.07	2.3	<0.01	<0.01	<0.001	0.4
126470	grab – massive pyrite	1.58	5.1	<0.01	<0.01	0.001	0.54

8.8 Wishbone Area

The Wishbone area is found north of the North Arm of More Creek. Past exploration on the property was focussed on various styles of precious metal bearing mesothermal veins. Holbeck (1988) separated the various vein types into 5 different groups: foliation parallel quartz veins; quartz breccia veins; carbonate sulphide veins; carbonate arsenopyrite veins; and others (including quartz albite and barite veins). In addition, Holbeck (1988) also mentions the potential for VHMS style mineralization exists, indicated by the presence of widespread partially stratabound alteration, sulphide fragments in lapilli tuffs and 2 to 8m long lenses of massive pyrite +/- chalcopyrite in felsic fragmental rocks.

Limited exploration in 2003 located additional precious metal bearing veins (Hollywood Showing) and at least one other area that indicates the potential for VHMS type mineralization (Waterfall Showing). Some known veins were also relocated and float debris from these veins were sampled in order to verify past exploration assays.

Table 6. Selected assays from the Wishbone Area.

Sample #	Sample Type*/Size	Au (g/t)	Ag (g/t)	Zn (%)	Pb (%)	Cu (%)
126414	o/c - Hollywood; 45cm chip; quartz/Fe-carbonate vein in phyllite	0.16	< 2.0	< .01	< .01	0.007
126415	o/c - Hollywood; 60cm chip; quartz/Fe-carbonate vein	1.15	< 2.0	< .01	< .01	0.006
126416	o/c - Hollywood; grab; pyritic Fe-carbonate stringers	0.2	< 2.0	< .01	< .01	0.006
126476	o/c - 60cm chip Waterfall Showing	0.27	9.8	<0.01	<0.01	0.014
126711	o/c – chert or exhalite (near Waterfall)	0.02	<2.0	<0.01	<0.01	0.283
126479	o/c - grab from Icefall Vein	0.78	6.3	<0.01	<0.01	0.004
126518	flt - 15 cm boulder massive pyrite	1.21	315.1	0.15	0.04	1.103
126522	flt - boulder with disseminated to massive pyrite	0.86	85.5	0.04	<0.01	2.878
126523	flt - 20 cm massive pyrite boulder	4.70	27.6ppm	<0.01	0.04	0.029
126524	flt - 20 cm massive sulphide boulder	1.95	605.5	16.92	2.64	0.365
126525	flt - 25 cm iron carbonate boulder with 10% pyrite	2.28	2.5ppm	995ppm	113ppm	25ppm
126526	flt - 30 cm boulder massive sulphide	1.63	9.9ppm	0.05	<0.01	6.497
126528	flt - 10 cm boulder with cp	2.47	48.4	0.04	<0.01	8.223
126529	flt - 25 cm boulder with semi-massive pyrite & arsenopyrite	1.70	1,093.5	0.13	0.02	1.122
126530	flt - 20 cm quartz/iron carbonate boulder with chalcopyrite	1.50	42.1	0.03	<0.01	1.13
126531	o/c - grab sample of semi-massive pyrite in quartz/carbonate vein	2.23	7.7ppm	70ppm	302ppm	300ppm
126533	flt - 10 cm boulder of semi-massive pyrite and tetrahedrite	0.20	4,835.1	0.21	<0.01	3.504
126534	flt - 15 cm boulder of semi-massive pyrite, chalcopyrite and tetrahedrite	0.74	4,362.6	2,554ppm	0.55	3.021
126535	o/c - grab sample pyritic quartz/carbonate vein	1.36	69.0	57ppm	0.01	0.073

Sample #	Sample Type*/Size	Au (g/t)	Ag (g/t)	Zn (%)	Pb (%)	Cu (%)
126536	o/c - 25 cm chip pyritic quartz/carbonate vein	1.28	19.4ppm	53ppm	0.01	0.047
126537	flt - 10 cm boulder of iron carbonate with pyrite	0.09	95.6	387ppm	0.02	5.658
126539	flt - 10 cm boulder with band of massive pyrite and lesser tetrahedrite	0.15	6,708.3	1,888ppm	<0.01	2.546
126540	flt - 10 cm Fe carbonate boulder with tetrahedrite and pyrite	0.27	1,819.3	1,159ppm	0.98	0.81

* flt = float; o/c = outcrop

Very high grade Ag values (up to 6708 g/t) were returned from samples of many of the newly discovered float samples shed from an as yet undiscovered veins or vein sets from the southern portion of the claim group. These float samples are composed mainly of Fe-carbonate and Fe and Cu sulphides. From the general area from which these high grade samples are shedding, 2 new mineralized veins and a probable VMS style occurrence have been found. The newly discovered Icefall Vein is irregular in width up to 6.5m and is mainly an Fe-carbonate breccia with pyritic portions. Base metal values are low but there is 0.78 g/t Au assay from a grab sample.

Nearby the Icefall vein is the Hollywood Showing. This showing consists of several blebs and concentrations of visible Au hosted within a thin, 2-3 cm in width, Fe-carbonate and quartz vein cutting across an older and larger Fe-carbonate vein, all hosted in quartz sericite phyllites. This showing is poorly understood and it is unknown if the mineralized portion is a younger discrete vein, or a remobilized portion of the larger vein which it cuts. The portion of the outcrop which contained the visible gold was taken as a specimen (currently unassayed) and several chip and grab samples were taken from the surrounding vein and phyllite material. The surrounding material assayed as high as 1.15 g/t Au over a 60cm chip sample (sample 126415).

The Waterfall Showing consists of stringers and heavy disseminations of pyrite in Fe-carbonate altered quartz sericite phyllite. Sample 126476 assayed 0.27 g/t Au, 9.8 g/t Ag, 0.014% Cu and below detection Zn and Pb. Nearby a gray chert or exhalite was also sampled. Although visually unmineralized with respect to sulphides, sample 126711 returned 0.283% Cu. This is an indication that the unit is an exhalite, a rock type commonly deposited lateral to VMS mineralization.

9.0 EXPLORATION

9.1 Prospecting

An intensive prospecting program was focused on the Foremore property between mid-June and the mid-October 2003. Prospectors were stationed either at Bell II lodge or at a camp established on the property near the confluence of Gold Creek and North Arm of More Creek. Each location received helicopter support stationed at Bob Quinn Lake. Several new showings and areas of mineralized float were located as discussed in the Mineralization section. Hand and blast trenching to expose outcrop was undertaken at the BRT, SG, and Sunday zones.

9.2 Geology - Regional and Detail Mapping

Mapping on the Foremore property was undertaken by Roca geologists and prospectors as well as two other contract geologists. The results are presented as Figure 4 and discussed in the Property Geology section.

Due to his knowledge of VHMS deposits, independent consultant Mr. Jim Oliver, P.Geo., was contracted for 10 days in July to map in detail the North Zone and the SG Zone. Mr. Oliver's mandate was to help increase the understanding of the structural and stratigraphic setting of the mineralization and host rocks. His full report is presented in Appendix B.

Mr. Jim Logan, P.Geo., senior project geologist employed with the BC Ministry of Energy and Mines, was on the property for several weeks conducting regional mapping as part of a Private-Public Partnership Agreement. Mr. Logan spent the majority of his time within the perimeter of the current claim boundary, although a few days were spent outside the claim group. Mr. Logan's mapping has been incorporated into the regional map submitted as part of this report (Figure 4).

9.3 Geophysics – EM, IP and Magnetics Surveys

Preliminary limited Genie Horizontal Loop Electromagnetic (HLEM) and IP test geophysical programs were run over known mineralization at the SG Zone and the BRT Showing. The results of these surveys were then examined in order to determine which techniques would best target the known types of mineralization. The report submitted by the geophysical contractor is presented in Appendix C.

EM surveying is generally used to explore for massive sulphide mineralization. The basic premise of EM surveys is to induce a primary current into the ground and then measure the resulting secondary magnetic field. Variations in this secondary response would suggest the presence of something conductive. If no conductors are present, no secondary field is produced. The effective penetrative depth of the survey can be said to equal the width of the dipole spacing.

IP surveying is typically used to explore for mineral deposits which have a large volume of disseminated sulphide mineralization. An IP survey sends an electrical current into the subsurface and the resulting primary voltages are measured between two potential electrodes. The electrodes are placed and moved over the area to be surveyed.

<u>SG Zone</u>

A limited Genie HLEM survey was performed over the exposed mineralization in order to determine if the mineralization has an HLEM response. The survey was undertaken at 2 different dipole separations: 25m and 12.5m.

Three parallel lines were established and surveyed for this limited orientation survey: L575N (375E to 600E; L525N (325E to 675E); and L475N (375E to 575E). A 100m perpendicular tieline at 500E was also established and surveyed. The lines were orientated 300^0N – 120^0N. Lines L575N and 525N were surveyed at 25m dipoles and all 3 lines were surveyed at 12.5m dipoles.

At both dipole spacings there was very little secondary response to the EM survey, however there is more variability in the 12.5m dipole spacing. The implications of this lack of response could be due to the mineralogy (the abundance of sphalerite which is a poor EM conductor), or to the lack of "connectedness" between the sulphide minerals. Currently, mineralized exposures can be described as stringer style with only local pods of massive mineralization.

An IP survey was not performed over the area even though it is generally a more effective survey for disseminated sulphides. The terrain at the SG Zone is outcrop covered with coarse glacial debris, or is ice or snow covered and consequently it would be very difficult to get an adequate connection between the IP electrodes.

A more extensive Max-Min HLEM survey was performed over the SG Zone and its strike extension toward the northeast even though the Genie HLEM survey was very flat. The Max-Min survey was designed to find a more substantial body of mineralization rather than to locate the presence of stringer type, near surface mineralization. A tightchain 1.8km baseline was set up at 055^0N – 235^0N along the strike of the host felsic unit. Survey crosslines were established by tightchain perpendicular to the baseline every 100m along the baseline from 4600E to 6400E (19 lines). The cumulative length of the 19 lines is 14.5km. The crosslines were surveyed every 25m using a 100m coil separation at frequencies of 444, 888, 1776, and 3555 Hz.

At all frequencies, the EM response is generally flat, however there is some increased response at all frequencies to a geological contact or unit. There is at least one area where there is an increased EM response at higher frequencies that does not appear to be related to a mapped geological contact.

The geological contact or unit that is responsive to the HLEM survey is the limestone/mafic sill unit that underlies the felsic unit hosting the known mineralization. The increased EM response occurs across the southern portions of lines L4600E through L5200E, and does not exactly match the mapped extent of the limestone/mafic sill complex. Limestone occurs within the underlying mafic volcanic unit, and this unit may be providing EM signal interference, thus complicating the interpretation of the response. This type and magnitude of EM response also occurs near the southern ends of lines L6000E and L6100E and may be the folded extension of response seen on lines L4600E through L5200E. It is difficult to determine if the EM response is defining a contact, either upper or lower, or if it is a signature of the unit itself. The limestone/mafic sill unit is relatively thin enough and sufficiently exposed enough that this EM response could be further examined.

A 2 line 100m+ EM response striking approximately 050^0N occurs across lines L6000E, 5175N to L6100E, 5150N. The response is mainly seen in the higher frequencies although there is a small response in the lower frequencies. This is indicative of a near surface conductor. This is the same approximate location where Cominco found a strong 600m long UTEM conductor orientated 100^0N.

Following the Max-Min survey, a magnetic survey was completed over the SG grid. The magnetic patterns on the grid generally conform to the gross geology. In general terms, the northwest portion of the grid has lower magnetic values grading into higher values to the southeast. This increasing magnetic gradient to the south and east is cut by a pronounced NW-SE trending magnetic high with a width of 50 – 100m. The lower magnetic values weakly correspond to the mapped and inferred contacts of the felsic unit hosting the SG Zone mineralization. The higher values to the southeast are underlain by mafic volcanic and lesser limestones/mafic sill complex. The magnetically high crosscutting NW-SE feature may be a mafic dyke swarm, hidden mostly under ice cover.

BRT Showing

Orientation EM and IP surveys were completed over the surface massive sulphide mineralization at the BRT Showing.

A limited hipchain-and-compass grid was established over the exposed mineralization and it strike extent 100m to the southwest. The grid comprised 6 parallel lines (L525N to L400N), spaced 25m apart, with a total length of 1125m. Survey readings were taken at 25m intervals. There were minor fluctuations in the 3 EM frequencies read (337, 1012, and 3037 Hz) but little EM response was seen over the mineralization or its strike extent in the near surface.

IP was surveyed over 3 of these lines (L400N, L450N, and L500N), and a fourth line was established (L550N) in order to test the strike extension farther to the north east. The 12.5m dipole IP survey discerns a near horizontal, slightly north plunging, rod shaped chargeable body on the order of 30-40m in width cutting across L550N through L450N centred approximately on 500E. The chargeability high has values up to 50 mV/V in comparison to 1.5 to 10 mV/V in the hangingwall chloritic hematitic phyllites to the east. Footwall sericitic phyllites have chargeability values of 10-30 mV/V and they can be gradational from the 50 mV/V high. The chargeability anomaly appears to thicken and become more lens-shaped toward the north. L400N, the most southerly line, does not pick up this chargeability anomaly.

A resistivity low mimics the shape of the chargeability high. The low has values in the 800 ohm metre range whereas chloritic hematitic phyllites to the east are in the 5000 – 10,000 ohm metre range. Footwall sericitic phyllites have gradatitional resistivity values becoming increasing higher toward the west deeper into the footwall.

9.4 Geochemistry – Soil and Silt Sampling

A total of 497 contour soil samples and 26 stream sediment (silt) samples were taken in 2003. The contour lines were positioned along the base of hills (Figure 5) in order to test the prospectivity of various lithological package known or thought to host precious or base metal mineralization. Soil samples were taken at 50m intervals from B or C horizon where soil was developed, or from talus or glacial fines. Every 2nd sample was located using GPS. Stream silt samples were collected during the soil sampling program where conditions were such that silt was available for collection. All silt locations were located using GPS.

Soil Geochemistry

Due to the past glacial activity in the area, there area limited number of areas that provide available soil or talus fines which can be sampled. Areas sampled during this program include: Hanging Valley; south of the Sunday Zone; north of Westmore; North Zone; south side of More Creek; and south Wishbone area. Figures 6 through 12 are plots of the soil assay data for Au, Ag, Zn, Pb, Cu, As and Ba

Rudimentary statistics have been used to determine arithmetic mean and standard deviation values. Various elements can be evaluated with respect to these statistical parameters, however these soils are derived from different rock types with different background levels for certain elements. The following table indicates the values used for interpretation in this report. The elements described below are not the entire suite of elements analysed, but represent a suite of elements which would help locate VMS and various types of Au deposits.

Table 7. Statistical parameters for 497 Foremore soil samples.

Parameter	Au (ppb)	Ag (ppm)	Zn (ppm)	Pb (ppm)	Cu (ppm)	As (ppm)	Ba* (ppm)
Arithmetic Mean	38	0.22	100	13	53	12	145
Standard Deviation	38	0.25	125	17	36	12	87
Detection Limit	0.5	0.1	1	0.1	0.1	<0.5	1

* partial leach

Hanging Valley Area

Two contour lines were sampled in the Hanging Valley; a 2km line along the northern (south facing) slope, and a 2.5km line along the southeast (northwest facing) slope. There is significant soil development along the south facing slope, but the northwest facing slope is predominantly talus covered bedrock and as such, at many sites a sample was not available.

Au and Ag values are generally below mean values close to detection limits, except for a few cases. On the northwest facing slope Au values are <10 ppb except for 3 values of 11.1, 11.8, and 15.5 ppb. The north slope of the valley sampled more soil than talus fines; many gold values returned are between 10 and 20 ppb, with 2 sites 200m apart assaying 37.9 and 157.6 ppb. Ag values range as high as 0.5 ppm but are generally 0.1 to 0.2 ppm across the valley. There is no known mineralization upslope from these anomalous Au values although a gold rich vein (81.7 g/t Au from grab) is located approximately 1km to the west.

Multi-station anomalies of Zn, Pb, Cu, As and Ba occur along both side of the Hanging Valley. The valley is underlain by variably mineralized carbonates and volcanic (mostly mafic), however the distribution of the mineral occurrences is insufficient to explain the size of the anomalies. Glacial dispersion trains may have helped disperse the anomalies to some extent.

Sunday Zone South

Two soil lines were sampled south of the Sunday Zone in an area where Cominco had previously soil sampled in the late 1980's. One line run along contour roughly west-to-east for 1.9km and the second line start halfway along the first line and contours for 1.3km to the southeast.

As, Zn, Pb, Cu, and +/- Au values all share a multi-element anomaly over 1km in length. Ba and Ag each have a few anomalous values within the multi-element anomaly, but to a much lesser extent. The anomaly is almost certainly picking up the mineralization from the Sunday Zone, but the size of the anomaly would predict that there is additional mineralized material to be found.

Westmore (north side)

A 4km soil line was sampled along the lower slope immediately north and west of the Westmore quartz vein swarm. Either soil or talus was sampled.

A 1.5km length of anomalous Au values occurs along the easternmost portion of the line, directly down slope from the quartz vein swarm and in an area where visible Au in float was found. Ag, Zn, Pb, Cu and Ba values are generally below mean values with occasional anomalous values. This represents quite well the relatively sulphide free nature of the gold bearing veins.

North Zone

A 2.5km line was sampled down slope from the North Zone along the northwest facing slope defining the south side of More Creek flats. Soil is quite well developed in this area.

The 1km portion of the soil line southwest from the BRT Showing toward the North Showing is a near continuous multi-element anomaly of Ag, Zn, Cu, As, and to a lesser extent Pb and Ba. Au values are low with 5 sample sites returning > 10ppb (highest is 24.7 ppb). These anomalous results are a good indicator of the potential for additional mineralized zones between BRT and the North Showings.

The portion of the soil line trending northeast from the BRT contains sporadic anomalous values of all 7 elements but there is nothing consistent as compared to the samples from the southwest portion of the line. This may be due to the sample locations which strayed slightly from the slope into an area where there could have been influence from a small tributary flowing into More Creek.

North Arm More Creek

A 10km+ contour line was run along the base of the north facing (south side) slope of the More Creek drainage. The area can be divided into 2 segments for analyses. One area originates from the point on More Creek down slope from the Rhino Showing and follows the south side of More Creek 6km to the northeast then east, ending 500m north of the Antler Showing (heavy disseminated to semi-massive pyrite in felsic flow or dyke). The second segment begins at the same point below Rhino and continues for approximately 4km to the west-southwest where it ends in the More Creek Flats. In general, soil is well developed on both portions as most of the area is forested.

The Rhino to Antler portion returned background Ag values and discontinuous Au values (a high of 279.7 ppb) over the 1.5km northeast from Rhino. Anomalous Cu values mimic those of Au over the 1.5km northeast from Rhino, and there is also a cluster of higher Cu values in the area leading up to the Antler Showing. Ba, Zn and Pb values through this stretch are predominantly above the arithmetic mean with Ba and Zn having a more continue sequence of higher values. Arsenic values are generally below mean values from Rhino to Antler.

This soils along this stretch are derived from mixed volcanics and limestone; the along strike extension of the rocks hosting the locally gold-rich massive pyrite of the Rhino Showing.

The portion of the soil contour line from Rhino west toward the eastern extent of More Creek Flats has relatively low values for the metal suite. There are 3 values for Au >20 ppb (highest is 41.8 ppb) and Ag is near lower detection limits. Zn, Pb and As all return below arithmetic mean values whereas Cu and Ba returned above mean values in the More Creek Flats area. Above mean values of Ba also occur over approximately 1km southwest from Rhino. Bedrock upslope from this portion of the soil line is mapped as mafic volcanics.

Wishbone Area

The Wishbone area is not conducive for soil sampling as there is little soil development except for the lower slopes to the south. Glacial deposits or bedrock cover a large portion of the property.

Within this southern portion, two parallel 300m contour lines separated by 100m were sampled north of the headwaters of More Creek (north arm) in the southern portion of the Wishbone area. Values ranged from 4.8 to 377.9 ppb with many values greater than 20 ppb. On Gold Creek 1.5km to the east, 7 soil samples taken adjacent to the creek returned Au values ranging from 6 to 1125 ppb. Ag and Ba also returned several anomalous values from both areas whereas Zn and Pb were low. Cu and As values from near the creek were above their mean value, but below mean value on the two contour lines.

The high Au and Ag values are indicative of the precious metal rich nature of the rocks in the general area.

Stream Sediment (Silt) Geochemistry

Stream sediment samples were collected from north flowing tributaries into More Creek (north arm), along a 10km portion, from 2 creeks draining the southern part of the Wishbone area, and from 2 small creeks draining north into More Creek from the Westmore area.

Table 8. Stream sediment results for selected elements.

Sample #	UTM Easting	UTM Northing	Au (ppb)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)	Ba (ppm)
126339	383471	6330172	1.2	0.3	44.7	8.6	106	18.5	115
126451	378372	6329350	8.6	0.1	72.3	7.1	82	7.3	664
126452	378288	6329263	5	0.1	71.4	5.3	95	5.8	838
126453	378549	6329280	3.9	0.1	39.6	3.3	72	5.8	234
126454	378461	6329193	16.9	0.2	42.6	5.8	78	8.8	237
126550	378341	6329307	13	0.2	70.1	21	82	5.3	556
127851	379778	6329784	45.4	1	87.9	9.5	93	86.2	86
127853	379723	6329887	333.7*	1.1	104.5	13.5	102	117.8	111
127855	379723	6329980	3.1	0.7	20.2	12.4	46	16.9	166
127858	379717	6330089	27.3	1	77.5	10.4	84	83.7	134
127860	379678	6330201	47.2	0.8	77.6	10.8	89	69.4	180
127861	379685	6330344	48.6	0.7	68.4	7.2	80	53.9	189
127863	379685	6330615	97.3	1	80.3	11.6	86	86.8	100
198007	388297	6332537	3.2	0.1	38.1	7.4	117	11.8	167
198039	387549	6332009	3.3	0.1	53.3	6.9	106	7.2	195

Sample #	UTM Easting	UTM Northing	Au (ppb)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)	Ba (ppm)
198051	377639	6326796	11.4	0.2	39	4.4	107	7.7	42
198060	377334	6326956	5.3	0.2	38.9	6.3	100	6.3	128
198095	376404	6327756	5.8	0.2	41	6.9	82	9.5	163
198520	391482	6332907	2.7	0.1	53.4	5.8	89	5.6	175
198530	391068	6332948	3.6	0.1	44.9	10	145	10.5	278
198540	390760	6330080	1.9	0.1	37	9.7	121	7.7	284
198545	390520	6333145	1.9	0.1	38.3	9.3	124	9.8	352
198559	389928	6333170	3.5	0.1	65.2	14.7	171	27.5	229
198592	388768	6332979	3.1	0.1	31.3	7.5	95	9.1	219
198718	385099	6330325	3.8	0.1	40.4	5.7	81	7.2	166
198759	386586	6330831	4.9	0.1	76.4	9.7	99	11.8	116
		Mean	14.9	0.34	55.9	8.9	97.4	26.8	235.5
		Standard Deviation	22.6	0.36	20.9	3.7	24.5	33.1	183.5

* not included in mean/standard deviation calculation

Eleven samples were taken from small tributaries of More Creek beginning at the eastern end of More Creek Flats to just northwest of the Antler Showing. Au values ranged between 1.9 – 4.9 ppb and Ag was consistently at the lower detection limit of 0.1ppm. Three samples from a 2.5km northeast flowing portion of More Creek starting north of the Rhino Showing contains above mean (average) Zn, with the sample closest to Rhino assaying above average Zn, Pb and Cu. A 1km section that includes samples taken from 4 tributaries 1.5km northwest of the Antler Showing returned sporadic above average Ba and Pb +/- Cu and As, with consistently high values of Zn (up to 171 ppm).

Seven samples were taken over an 800m section of Gold Creek, a creek draining a significant portion of the Wishbone area. Au values are high with a range of 3.1 to 333.7 ppb and Ag is also highly anomalous with all values ranging between 0.7 and 1.0 ppm. The majority of Pb, As, and Cu values are also well above average values. Zn and Ba assays are below the statistical average. The silt geochemistry fits well with the mineralogy of the float and showings sampled in the drainage area.

Approximately 1.5km west of Gold Creek is a small south-flowing More Creek tributary in the vicinity of the two parallel 300m long soil lines. Au and Ag values range between 1.2 – 16.9 ppb and 0.1 – 0.3 ppm respectively; generally below statistical average. The majority of Cu and Ba values are above average with Zn, Pb and As all below average values.

Three samples from two small creeks draining the western portion of the Westmore area returned low overall metal values excluding Zn which was assayed above average values for 2 of the 3 samples. The creeks are draining an area underlain by sediments and volcanics flanking the intrusive hosting the gold bearing veins.

9.5 Diamond Drilling

Eleven BQTW diamond drill holes were completed by Roca in 2003 over two different areas; four holes were drilled at the SG Zone and seven holes at the BRT Showing. All holes were drilled in areas where mineralization is known, to develop a greater understanding of the stratigraphy and to better target mineralization in the subsurface. Drill logs are present in Appendix D. A summary of the Cominco diamond drill holes (1990,

1996) is also included in this report. Drill core from both Roca and Cominco drilling is stored on the property.

Table 9. Summary of Diamond Drill Hole Locations on the Foremore Property.

Drill Hole	Collar Location		Elevation (metres)	Azimuth(°)	Dip(°)	Depth (metres)
	Easting	Northing				
Cominco						
FM-90-1	380589	6325359	1227	n/a	-90	149.0
FM-90-2	380500	6325329	1228	n/a	-90	340.0
FM-90-3	380573	6325119	1235	n/a	-90	280.0
FM-90-4	380271	6325931	1169	n/a	-90	298.0
FM-90-5	380298	6326253	1202	n/a	-90	280.0
FM96-6	377047	6322194	1495	039	-60	663.9
Roca						
SG Zone						
FM03-01	384912	6326175	1618	135	-60	45.7
FM03-02	384912	6326175	1618	135	-90	42.7
FM03-03	384884	6326151	1646	135	-60	45.4
FM03-04	384872	6326218	1650	135	-60	91.5
BRT Showing						
FM03-05	381603	6328033	1245	315	-55	114.0
FM03-06	381603	6328033	1245	335	-45	122.0
FM03-07	381603	6328033	1245	335	-75	147.0
FM03-08	381595	6327979	1264	315	-45	132.3
FM03-09	381595	6327979	1264	315	-70	147.5
FM03-10	381627	6328065	1237	325	-55	109.1
FM03-11	381627	6328065	1237	350	-55	124.1

Cominco Ltd. Drilling (1990, 1996)

Cominco drilled six diamond drill holes on the Foremore property; five in 1990 and one in 1996. The five holes drilled in 1990 were located on ice on the northern lobe of the More Glacier, to the southwest of the NBF. These holes were positioned to test moderate to strong southeast dipping UTEM conductors found underneath the ice sheet. Of these five holes, four penetrated the ice (holes FM-90-2 through 5) and were able to drill to the targeted depth. One hole was abandoned before intersecting the ice-rock interface (FM-90-1) due to broken rods down the hole. The one hole drilled in 1996 was located on the 'Nunatak', 5km up-ice to the southwest of the five holes drilled in 1990. This hole was also positioned to test 2 strong UTEM conductors located beneath the glacial ice.

Holes FM-90-2 and 3 were collared in a small area testing a strong UTEM conductor beneath the ice. FM-90-2 drilled through 176m of ice and was drilled to a final depth of 340m. The hole intersected deformed black, locally pyritic, carbonaceous chert and graphitic phyllite with minor undeformed diorite. The chert and phyllite contained much fault gouge, breccia, stockworks and mylonites. FM-90-3 stepped back to the south from FM-90-2 in order to intersect the UTEM conductor at a greater depth. Thin bedded to laminated limestone, argillite and tuff overlying carbonaceous chert and graphitic phyllite were intersected. These graphitic rocks were deemed to be the source of the UTEM anomalies.

Holes FM-90-4 and 5 were collared several hundred metres north of FM-90-2 and 3 and were drilling a weak UTEM conductor that was thought to provide a source for the mineralized boulders in the NBF. Both holes drilled through predominantly maroon and green schists cut by mafic to intermediate sills. Fault zones in each hole were inferred to be the source for the conductor.

No significant mineralization was encountered in any of the holes and the UTEM conductors were satisfactorily tested and explained.

Hole FM96-6 intersected two intervals of graphitic mudstone (307m – 332m and 609m to EOH) which correlate with the expected subsurface locations of the two UTEM conductors. These mudstones are part of a larger package of andesitic and lesser rhyolitic volcanics and volcaniclastics overlain by and in thrust contact with deformed and graphitic limestone and lesser andesite. Minor vein-hosted base metal mineralization was observed with the highest assay returning 2040 ppb Au, 0.34% Zn and 0.06% Pb from interval 30.1 to 31.1m in the limestone.

SG Zone

Four holes were drilled totalling 225.3m on the SG Zone discovery outcrop. The holes were spotted in a tight spacing upslope and up dip from one portion of the known extent of the mineralization.

The holes drilled through an upper interval of massive sericitized rhyolite, through an underlying polylithic breccia/limey tuff/limestone interval then into locally limey mafic volcanics. All units are cut by fine grained mafic dykes and/or sills. This is the stratigraphy as mapped on surface.

Minor amounts of Zn-Pb mineralization were found as stringers or re-mobilized lenses typically associated with calcite-quartz veins and veinlets in the rhyolite. Hole FM03-01 returned 1.56% Zn, 0.89% Pb, and 8.2g/t Ag over 1.0m and FM03-02 returned similar values of 2.04% Zn, 0.36% Pb, and 6.4 g/t Ag over 1.1m. The highest Au value is found in a 1.0m section (13.4 – 14.4m) of rhyolite from FM03-03. This interval assayed 0.65 g/t Au, 12.8 g/t Ag, 0.68% Zn and 0.2% Pb.

Table 10. Selected core sample assays from the SG Zone.

Drill Hole	Interval			Au (g/t)	Ag (g/t)	Zn (%)	Pb (%)	Cu (%)
	From	To	Width					
FM03-01	9.0	10.0	1.0	0.03	8.2	1.56	0.89	0.027
FM03-02	8.6	9.7	1.1	0.18	6.4	2.04	0.36	0.046
FM03-03	13.4	14.4	1.0	0.65	12.8	0.68	0.2	0.066
FM03-04	no significant results							

BRT Showing

Seven holes totalling 895.9m of core were drilled over a strike length of 100m at the BRT Showing (Figure 13). These holes were collared to test the stratigraphic sequence hosting the mineralization and to determine the level of structural complexity of the mineralization.

The holes intersected a fairly predictable stratigraphic sequence consisting of hangingwall chlorite hematite phyllites, through mineralized quartz sericite pyrite +/- chlorite phyllites into footwall chlorite graphite +/- sericite phyllites (carbonaceous sediments). The stratigraphy repeated itself throughout most of the holes, however lithological contact depths were difficult to predict due to structural complexity.

The hangingwall chlorite hematite phyllites contain from 5 to 20% calcite +/- quartz veins which provide a local pervasive calcite alteration over portions of the phyllites. These rocks are unmineralized with only trace pyrite occasionally visible. This unit is moderately to strongly foliated, however very similar less-foliated versions of this rock type occur in outcrop along the hillside and are mapped as mafic volcaniclastics or fragmentals.

The unit hosting the massive sulphide mineralization has been mapped on surface as intensely foliated locally carbonate altered chlorite sericite pyrite phyllites. Drill core through this unit shows that the down foliation extent is dominated by a moderately to intensely foliated quartz sericite pyrite +/- chlorite phyllite up to 30m in thickness. This phyllite is typically strongly sericitic containing heavily disseminated pyrite (5-10%) to semi-massive concentrations focussed as fine grained layers (sub)parallel to foliation. Overall, trace to minor amounts of sphalerite and galena are present, commonly associated with calcite +/- quartz veining in areas with a heavy concentration of pyrite.

Table 11. Selected core sample assays from BRT Showing.

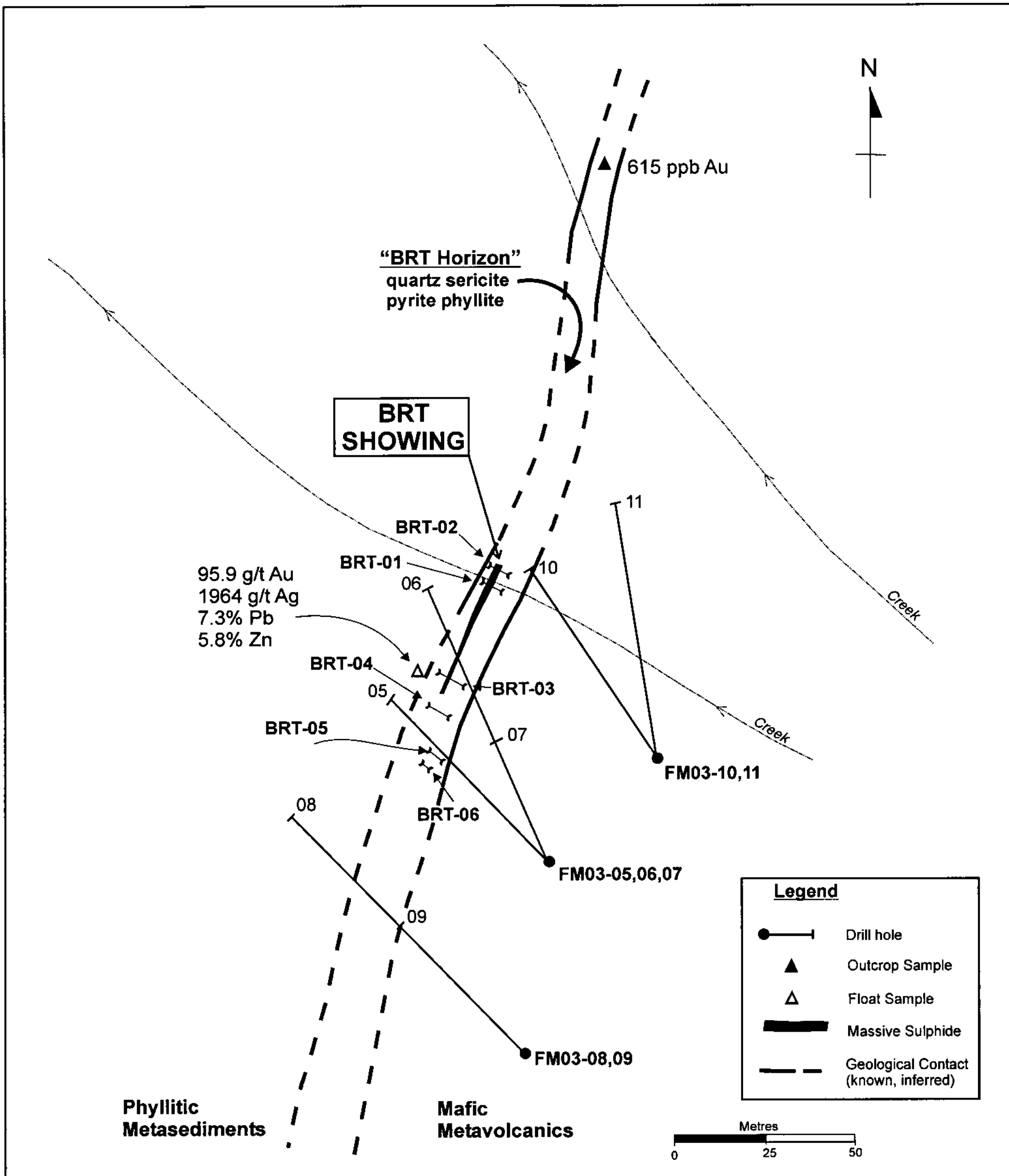
Drill Hole	Interval			Au (g/t)	Ag (g/t)	Zn (%)	Pb (%)	Cu (%)
	From	To	Width					
FM03-05	57.0	64.5	7.5	0.11	6.1	0.13	<0.1	<0.1
	73.1	75.2	2.1	0.24	13.3	<0.1	<0.1	<0.1
FM03-06	62.1	67.8	5.7	0.47	17.0	0.28	0.14	<0.1
	including		1.0	0.83	22.4	1.06	0.66	<0.1
FM03-07	78.1	83.1	5.0	0.14	13.4	0.22	0.18	<0.1
FM03-08	no significant results							
FM03-09	104.9	106.7	1.8	0.94	<0.3	<0.1	<0.1	<0.1
FM03-10	74.8	76.6	1.8	0.45	20.1	1.58	0.05	<0.1
FM03-11	96.1	98.4	2.3	7.92	22.6	0.12	0.20	<0.1
	98.4	101.0	2.6	1.36	84.9	0.11	<0.1	<0.1

10.0 SAMPLING METHOD AND APPROACH

A total of 497 contour soil samples were collected in 2003 under the author's supervision. Occasionally these contour soil lines deviated from their contour elevation in order to sample areas of better soil development. Where possible, contour soil samples were collected at 50-metre intervals from the "B" horizon, or where soil was not present, from talus fines. Every second sample was located using GPS, usually with an accuracy of 8m or less for easting and northing. These samples were analyzed for Au by fire assay and 30 elements by ICP using a 15g sample split.

Twenty six (26) reconnaissance stream sediment samples were collected during soil sampling. Where available, the fine fraction sediment was collected from the stream channel near its high water level.

A total of 557 rock samples, consisting of float and outcrop, were collected in 2003 under the author's supervision by Roca personnel. Float samples are either grab or select samples of boulders, and outcrop samples are either grab, select, chip, or saw cut channel samples. Chip samples consisted of continuous chips across the area of interest by



Roca Mines Inc.
ROK.v
rocamines.com

PROJECT	FOREMORE PROJECT
TITLE	NORTH ZONE, BRT SHOWING AREA

PROJECT No.	FIGURE. No.	REV.
0327-001-01	13	0

0327-002-01 BRT Showing.cdr

hammer and chisel. Saw cut channel samples are typically 5cm wide, and 5 cm deep across variable lengths. Some of the rock samples were analyzed for Au by fire assay and 30 elements by ICP and other were assayed for Au, Ag, Zn, Pb, Cu, ± As, ± Sb.

11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

All rock, core, soil and silt samples were analysed by Acme Analytical Labs Ltd. ("Acme") in Vancouver, an ISO 9002 (1994) certified laboratory. At Acme, the rock and core samples were crushed and pulverized to 95% -150 mesh and all were analyzed for Au by 30 gram fire assay for 30 element ICP using an aqua regia digestion. If Ag (>200 ppm), Cu, Zn, Pb, or As (all >10,000 ppm) were reported as being greater than their upper analytical limits, most were re-assayed by ICP-ES to determine actual analytical values. All core samples were submitted for precious and base metal analyses, some of which were also analysed for 30 element ICP analyses.

Soil and silt samples were dried and sieved to -80 mesh and analyzed for Au by 30g fire assay with ICP finish, and for 30 elements by aqua regia/ICP.

A quality control protocol was established for core samples collected during the diamond drilling phase. The protocol included the insertion of either a blank sample (unmineralized limestone) or a known rock standard at every 20^{th} sample location.

All samples were shipped in rice sacks via Bandstra Transport to Acme in Vancouver. The author has no reason to believe that the samples have been altered before arriving at Acme Inc.

12.0 DATA VERIFICATION

Quality control measures undertaken thus far include, the insertion of blank and standard samples within the core sample series. In addition, all rock, core, soil and silt samples were collected under the supervision of the author. Also Acme Labs Ltd. insert their own blank standards, rock standards and duplicate samples to monitor laboratory precision and reproducibility. The author obtained this data and conducted a visit to Acme in person to verify procedures and was satisfied with the quality control of the analytical procedures.

13.0 INTERPRETATION AND CONCLUSIONS

Work completed during the 2003 field season resulted in the identification of several new mineralized zones (BRT, Sunday, Rhino, Kidlet), an area containing concentrations of precious metal rich quartz-sulphide veins (Wishbone Area) and has furthered our knowledge of the stratigraphy, structure and mineralization at the SG Zone.

Previous work on the SG Zone initially revealed precious metal rich massive sulphide mineralization in conjunction with lower grade stringer style Zn-Pb mineralization, all hosted in a sericitized volcanic rock. During 2003 detail mapping in areas of unprecedented snow-melt revealed that the exposed mineralization is probably crosscutting or remobilized mineralization potentially fringing buried massive mineralization. Geological mapping, and to a lesser extent EM geophysics, suggest that a massive sulphide target may occur along strike up to 1000m to the northeast, underneath a thin (estimated 10-20m) veneer of ice, and associated with a newly recognized rhyolitic body.

The recently discovered BRT showing (massive sulphide assaying 2.8m @ 2.03 g/t Au, 161.9 g/t Ag, 9.52% Zn, 4.27% Pb, and 0.11% Cu) occurs within a quartz sericite pyrite phyllite stratigraphically and structurally located between hangingwall hematite chlorite phyllites (former mafic volcanics) and footwall graphitic phyllites (carbonaceous sediments). This horizon is located upslope, southeast of the North Boulder Field. However, the position of the BRT Showing along this favourable horizon is such that it is slightly north of the NBF, implying that mineralized debris shedding from the BRT Showing could not have generated much of the NBF (unless ice moved contrary to its current flow direction, i.e. flowed toward the southwest). In addition, the North Showing (along approximate strike 1.2km to the southwest of BRT) occurs immediately upslope from the main portion of the NBF. The location of the weakly mineralized North Showing is an indicator that there is probably additional mineralization in the immediate area along this favourable strike.

A limited IP survey performed over the BRT showing confirmed that the known mineralization responds to IP techniques. The mineralization has a high chargeability/low resistivity response with a sharp upper contact and a more gradational lower contact. The footwall and hangingwall rocks have sufficiently different IP responses that suggests eventhough mineralization may plunge into the hillside, the mafic/sediment horizon where the mineralization occurs should be discernable.

The Rhino Showing (massive pyrite in limestone host) is analogous to the SG Zone as it is interpreted to be located at approximately the same stratigraphic level. Surface samples are generally barren with respect to base metals yet one boulder (sample 126379) sampled from below the toe of the glacier assayed 3.23 g/t Au and 34 g/t Ag. Precious metal mineralization and the favourable statigraphic level make the Rhino a prospective target for follow-up prospecting and eventual diamond drilling. It is not conclusive if the massive pyrite mineralization is syngenetic in origin, however the extensive soil anomalies along More Creek, downslope from the extension of the host limestone, suggests an extensive favourable horizon. This would be more likely syngenetic in origin, rather than replacement which are more prone to be less extensive in distribution.

Mineralization at the Sunday Zone (eg. average of 3 samples returned 8.0 g/t over 12cm; 1m chip sample (126331) returning 2.21 g/t Au, 119.2 g/t Ag, 1.08% Zn, 8.07% Pb and 2.46% As; high grade Au in boulders) is also present at a similar stratigraphic level as the SG Zone, however the mineralization here crosscuts the local stratigraphy. What is not known is if the precious metal rich mineralization is related to epigenetic processes specific to remobilization of syngenetic mineralization. The Sunday Zones shares some characteristics with the SG Zone and it would be prudent to explore for the possibility of syngenetic mineralization when drilling the known crosscutting mineralization.

The Kidlet Showing is in a similar setting to the Rhino Showing, although its stratigraphic level is likely higher (younger). The wholly exposed Kidlet Showing is moderately silicified and likely related to a structure present in the creek bounding the showing to the west. Five samples were taken and one returned an assay of 1.58 g/t Au. Much more sampling is needed to cover this aerially extensive showing.

The Wishbone area, and the claims to the north, has been subjected to minimal prospecting. Limited prospecting located 3 new mineralized zones (Hollywood, Icefall, and

Waterfall) plus several Ag and Au mineralized boulders. Past and present work shows that the area is host to several mesothermal veins as well as statabound (VMS?) mineralization. Both of these types of mineralization are attractive exploration targets.

In addition to the known mineralized areas, a large portion of the claim block has not been prospected or sampled. The prospective package of rocks (Stikine Assemblage) covering the majority of the claim group needs much further work in order to properly appraise the economic potential.

14.0 RECOMMENDATIONS

Program

A two-phase C$2,060,500 exploration program is recommended for the Foremore property in 2004.

Phase 1 will consist of diamond drilling, prospecting, geological mapping and sampling, soil geochemical sampling, ground geophysics, with possible airborne EM and magnetics geophysics. Diamond drilling should commence at the BRT (North Zone) area then shift to the SG Zone. During drilling at the BRT area, a grid will be established over the North Zone. This grid will be soil sampled and IP geophysics should be completed before drilling commences. Prospecting, geological mapping and sampling will continue in areas where showings are poorly understood and in areas that have been subjected to limited prospecting and mapping, or none at all. Detailed geological mapping over known mineralized areas should lead to further diamond drilling during a Phase 2 of exploration.

Phase 2 exploration should continue as a progression from Phase 1, subject to Phase 1 results. Prospecting, mapping, sampling and detail mapping will continue. Detail mapping and sampling various showings during Phase 1 should lead to additional diamond drill targets, and potential infill drilling at the SG Zone and North Zone.

The ground work will be supported by helicopter, with both helicopter and fixed-wing aircraft used to bring supplies to the property. It is likely that Roca and contract personnel will be based both on the property and at either Bob Quinn Lake or Bell II lodge.

2004 Budget

Phase 1 ($Cdn)

Professional Fees and Wages	$100,000
Geological Consulting	$10,000
Ground Geophysics (IP at BRT)	$100,000
Chemical Analyses (2000 core, rock, soil samples)	$60,000
Fixed Wing Charters	$25,000
Helicopters ($900/hr wet)	$90,000
Expenses/Materials/Rentals	$55,000
Report	$25,000
Diamond Drilling (BRT and SG: 5000m @ $100/metre)	$500,000
Room and Board (500 mandays @ $100/day)	$ 50,000
Airfare, truck, travel	$25,000

Sub-total:	$1,040,000
Contingencies (@ 15%)	$156,000
Total:	**$1,196,000**

Phase 2 ($Cdn)

Professional Fees and Wages	$100,000
Chemical Analyses (1000 core, rock)	$30,000
Aircraft Charters	$15,000
Helicopter ($900/hr wet)	$90,000
Expenses/Materials/Rentals	$10,000
Report	$20,000
Diamond Drilling (4000m @ $100/metre)	$400,000
Room and Board (400 mandays @ $100/day)	$ 40,000
Airfare, truck, travel	$30,000
Shipping	$20,000
Sub-total:	$755,000
Contingencies (@ 15%)	$113,250
Total:	**$868,250**
Grand Total (Phase 1 and 2):	**$2,064,250**

15.0 ITEMIZED COST STATEMENT

Item	Description	Cost
Camp Set-up	mobilization and demob (helicopter @ $900/hr and fixed wing)	$19,000
	camp equipment and supplies	$27,000
Geophysical Surveying	15 line km EM/Mag; minor IP	$21,000
Geological/Geochemical Sampling	equipment and supplies	$5,000
contract labour and geology	S. Sears (Project geologist - on site and report writing - 100 days)	$35,000
	Marcus Vanwermeskerken (geologist - 25 days)	$9,000
	Jim Hutter (geologist - labour and supplies - 65 days)	$26,000
	CJL Enterprises (labour/supplies/expediting - 100 man days)	$36,000
	Jim Oliver	$10,000
	Jim Logan (Govt PPP personnel)	$12,000
project supervision	Canam Mining (labour and supplies)	$28,000
	John Baker (Senior consultant)	$8,000
helicopter	Highland Helicopters support	$124,000

Item	Description	Cost
assays	rock, soil, and silt samples	$28,000
Prospecting		
contract labour	CJL Enterprises (labour/supplies/expediting/freight - 300 man days)	$95,000
	Canam Mining	$16,000
helicopter	Highland Helicopter support	$101,000
Drilling	all drilling costs for 1120m	$69,000
helicopter	Highland Helicopters drilling support	$29,000
supplies	Westcoast Drilling Supplies	$7,000
General		
accomodations	Bell II ($80/man day X 800 man days)	$64,000
fuel	gas, diesel, Jet fuel (from Grandmac in Stewart)	$28,000
airfares	Vancouver-Smithers return (several trips)	$12,000
transportation/trucks	rental trucks at Smithers	$3,000
workers compensation		$3,000
communications	satellite phone, fax, hand held radios	$10,000
	Total:	**$825,000**

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Respectfully submitted,

W.A. (Sandy) Sears, P.Geo

Vancouver, British Columbia
April, 2004

APPENDIX A

ANALYTICAL CERTIFICATES

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Roca Mines Inc. PROJECT FOREMORE File # A303726 Page 1
500 - 1045 Howe St., Vancouver BC V6Z 2A9 Submitted by: Sandy Sears

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au**	Sample
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppb	gm
SI	<1	2	3	6	<.3	1	<1	11	.13	<2	<8	<2	<2	5	<.5	<3	<3	1	.15	.001	<1	2	.01	9	<.01	<3	.02	.69	.02	<2	<2	-
A 126153	4	4	7	62	<.3	3	9	762	3.59	9	<8	<2	<2	2	<.5	3	<3	42	.11	.058	5	4	2.17	16	<.01	<3	1.83	.04	.01	<2	2	1000
A 126154	71	1173	>9999	57878	39.2	8	29	2898	8.34	4110	<8	4	3	78	335.9	29	<3	15	3.52	.018	3	<1	.57	37	<.01	<3	.56	.01	.11	<2	3488	1400
A 126155	3	478	6558	37696	7.5	2	12	7766	2.47	217	<8	<2	<2	379	215.4	12	<3	4	16.09	.005	8	<1	.53	58	<.01	<3	.08	<.01	.03	<2	187	650
A 126156	<1	204	665	6338	2.9	11	43	2536	8.99	>9999	<8	2	<2	75	35.7	16	<3	22	2.76	.045	2	2	1.01	19	<.01	<3	.83	<.01	.15	<2	1352	950
A 126157	21	953	2003	3109	2.0	12	13	544	2.11	74	<8	5	<2	33	43.6	<3	<3	5	1.40	.024	2	4	.13	53	<.01	<3	.18	.01	.11	<2	5872	1300
A 126158	<1	90	70	145	.7	9	28	2084	6.39	162	<8	<2	<2	83	1.3	4	<3	74	3.40	.041	3	4	2.29	89	<.01	<3	2.41	.01	.14	<2	78	1700
A 126159	6	763	31	23	5.3	15	304	671	43.36	158	<8	<2	5	3	.8	<3	4	18	.05	.030	1	9	.02	19	.05	<3	.48	<.01	.02	<2	228	950
A 126160	5	220	5	241	.4	18	11	2007	4.42	11	<8	<2	<2	95	1.4	<3	<3	80	6.98	.162	9	9	1.98	25	.01	<3	2.57	.01	.08	<2	105	1300
A 126161	16	53	32	31	1.8	3	6	2519	12.87	65	8	<2	2	277	1.9	5	<3	6	10.72	.020	2	2	.29	17	<.01	<3	.32	.01	.05	3	34	1800
A 126162	28	350	658	6009	>200	87	18	85	30.24	132	<8	5	3	6	25.3	16	4	<1	.11	<.001	1	5	<.01	3	<.01	<3	.02	<.01	.01	<2	4212	7500
A 126163	<1	342	32	609	5.2	65	19	3128	5.18	3	<8	<2	2	73	1.8	3	<3	30	2.54	.021	2	13	1.51	118	<.01	<3	1.87	.01	.09	<2	82	9000
A 126164	8	8804	3020	41256	181.7	107	29	2882	14.93	30	<8	5	3	104	222.2	9	4	15	2.70	.033	2	6	.97	8	<.01	<3	1.25	.01	.04	<2	2005	6000
A 126165	15	5130	>9999	87204	162.0	106	27	1432	22.67	41	<8	5	4	40	489.8	15	3	1	1.45	.005	1	<1	.36	2	<.01	<3	.15	.01	.07	<2	3203	4000
A 126166	16	6329	>9999	73081	>200	237	86	1626	24.80	182	<8	3	4	19	378.1	50	8	3	1.47	.001	1	<1	.63	3	<.01	<3	.05	.01	.03	<2	1364	3300
A 126167	15	627	>9999	44875	119.2	141	27	1827	23.91	41	<8	2	4	48	191.2	14	<3	16	1.50	.017	1	3	.95	2	<.01	<3	.93	<.01	.03	<2	1707	3700
A 126168	18	2027	>9999	>99999	162.6	90	17	1771	16.48	59	<8	2	3	72	492.4	129	3	1	1.93	.003	<1	<1	.87	2	<.01	<3	.04	<.01	.01	<2	1831	6900
A 126169	<1	97	1066	1199	6.8	66	17	3957	4.31	<2	<8	<2	3	109	3.6	4	<3	13	3.06	.035	3	7	1.51	232	.01	<3	1.51	.01	.09	<2	1040	2700
A 126170	28	877	8697	>99999	>200	56	15	492	23.83	121	<8	6	4	5	684.9	61	<3	1	.22	.002	<1	<1	.07	4	.01	<3	.02	<.01	.01	<2	7265	7200
RE A 126170	28	862	8908	>99999	>200	57	15	464	23.64	122	<8	5	3	4	682.7	64	<3	<1	.20	.001	1	<1	.06	2	<.01	<3	.02	<.01	.01	<2	13411	-
A 126171	<1	274	419	638	4.1	37	7	1702	1.98	<2	<8	<2	4	40	2.4	<3	<3	2	1.52	.022	3	2	.90	171	<.01	<3	.82	.01	.15	<2	68	5500
A 126172	18	14371	2217	15576	>200	97	44	1355	30.21	199	<8	7	4	26	78.5	28	13	1	1.02	<.001	1	4	.48	5	<.01	<3	.08	.01	.04	<2	6925	2900
A 126173	<1	74	67	943	1.9	101	34	5050	5.81	2	<8	<2	<2	129	3.1	4	<3	40	4.64	.084	2	37	2.46	148	<.01	<3	2.34	.01	.13	<2	47	900
A 126174	2	267	266	7208	20.9	190	50	469	7.93	24	<8	<2	<2	17	33.9	3	<3	9	.41	.097	1	22	.43	18	<.01	<3	.58	<.01	.13	<2	198	3700
A 126175	1	3251	3023	699	>200	38	19	2939	3.67	6	<8	4	4	161	3.6	17	<3	6	4.10	.023	1	3	.92	45	<.01	<3	.28	.01	.10	<2	6188	2400
A 126176	<1	1072	1278	323	42.4	26	9	1678	2.31	5	<8	<2	3	77	1.4	4	<3	10	2.13	.019	3	4	.69	167	<.01	<3	.62	.01	.05	<2	371	2500
A 126177	<1	173	279	621	9.8	69	29	2788	4.70	3	<8	<2	<2	37	1.4	5	<3	42	1.17	.098	2	57	1.45	229	<.01	<3	2.10	.01	.11	<2	82	2100
A 126178	5	13350	>9999	7609	>200	44	22	1611	8.41	96	<8	<2	3	58	41.9	61	5	3	1.54	.016	1	4	.44	18	<.01	<3	.10	.03	.02	<2	1464	6500
A 126179	13	1381	>9999	72038	>200	49	11	1122	17.33	48	<8	9	4	25	432.2	223	3	1	.38	.002	<1	<1	.16	2	<.01	<3	.03	<.01	.01	<2	8820	4300
A 126180	2	1911	2104	2419	101.1	17	9	2581	3.99	9	<8	<2	4	58	12.2	10	5	4	2.82	.012	2	2	.55	29	<.01	<3	.16	.01	.09	<2	692	1900
A 126323	<1	53	112	179	2.6	19	4	658	3.41	6	<8	<2	<2	185	.6	3	<3	5	1.74	.054	11	3	.83	250	<.01	<3	.48	.01	.11	<2	37	900
A 126324	<1	316	138	76	3.5	20	29	3361	8.83	367	<8	<2	<2	271	1.4	26	<3	17	6.90	.020	<1	5	2.84	32	<.01	<3	.13	.01	.08	<2	158	1500
A 126325	<1	57	27	39	.9	4	14	1494	4.97	39	<8	<2	2	272	<.5	6	<3	7	3.63	.160	3	2	1.59	26	<.01	<3	.07	.03	.01	<2	126	1300
A 126326	1	16	79	76	1.1	23	9	522	3.15	13	<8	<2	<2	185	<.5	3	<3	17	1.10	.025	1	7	.83	70	.01	3	.15	.03	.06	<2	181	1500
A 126327	4	34	705	212	3.0	16	9	1183	3.74	8	<8	<2	<2	428	1.3	4	<3	20	2.83	.008	1	3	1.58	42	<.01	<3	.06	.04	.02	<2	206	1600
STANDARD DS5/AU-R	12	136	25	132	.3	23	12	751	2.87	18	<8	<2	2	49	5.4	4	7	58	.72	.096	12	184	.65	142	.10	17	2.03	.04	.13	3	493	-

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK R150 60C AU** GROUP 3B - 30.00 GM SAMPLE ANALYSIS BY FA/ICP.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 21 2003 **DATE REPORT MAILED:** Sept 8/03 **SIGNED BY**.......... D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

Roca Mines Inc. PROJECT FOREMORE FILE # A303726

ACME ANALYTICAL

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Sample gm
A 126328	2	124	5190	18386	5.3	3	8	946	5.46	348	<8	<2	2	19	113.1	<3	4	10	1.04	.097	6	9	1.06	41	<.01	<3	1.62	.01	.16	<2	296	3200
A 126329	4	94	42	220	.5	6	13	1027	4.55	55	<8	<2	<2	47	1.1	<3	<3	33	2.96	.110	6	11	1.27	57	<.01	<3	1.79	.02	.20	<2	26	4700
A 126330	4	253	8388	1210	10.7	2	10	1649	4.28	5162	<8	<2	3	6	3.9	4	<3	20	.30	.114	13	1	1.10	51	<.01	<3	1.91	.01	.18	<2	382	3100
A 126331	4	847	>9999	10797	94.2	2	7	615	7.58	>9999	<8	2	4	5	63.3	64	13	11	.15	.065	4	4	.43	30	.01	<3	.91	<.01	.11	<2	2192	2200
A 126332	9	86	6318	769	6.2	3	5	1200	4.59	3680	<8	<2	2	7	2.3	7	<3	9	.24	.120	11	2	.95	80	<.01	<3	1.73	.01	.13	<2	187	2100
A 126333	2	587	>9999	33533	54.5	1	8	151	9.25	>9999	<8	3	3	8	229.7	60	18	1	.07	.036	2	7	.10	27	<.01	<3	.40	.01	.10	<2	6469	2000
A 126518	<1	10544	541	1522	>200	53	16	3251	29.05	3554	<8	2	3	43	16.2	>2000	<3	<1	.52	.002	<1	2	.89	6	<.01	<3	.05	.01	.04	<2	1162	1000
A 126519	<1	28	254	106	1.3	10	4	952	2.31	198	<8	<2	<2	277	.7	12	<3	9	3.18	.031	<1	2	1.38	44	<.01	<3	.12	.01	.07	<2	86	850
A 126520	1	4	41	20	<.3	4	2	3572	9.33	37	<8	<2	2	15	.7	5	<3	2	.43	.029	2	2	1.31	16	<.01	<3	.10	.02	.06	<2	9	1000
A 126521	1	50	15	36	.7	26	9	8273	21.89	90	<8	<2	2	63	4.0	21	3	12	2.92	.019	1	3	4.22	31	<.01	<3	.07	.01	.04	<2	70	1500
A 126522	<1	25376	93	365	49.4	145	184	5363	25.33	>9999	<8	<2	2	4	3.6	1412	<3	6	.10	<.001	<1	2	.98	11	<.01	<3	.05	.01	.04	<2	858	1400
A 126523	1	299	411	37	27.6	132	105	4924	27.02	>9999	<8	6	2	2	2.7	468	4	7	.07	.003	<1	6	.82	7	<.01	<3	.06	.01	.04	<2	5148	1800
A 126524	<1	3655	>9999	>99999	>200	120	49	1703	6.77	633	<8	2	3	2	921.0	>2000	<3	2	.02	.002	<1	4	.21	22	<.01	<3	.06	.01	.04	<2	2185	1200
A 126525	1	25	113	995	2.5	17	5	9033	24.54	2740	<8	2	2	3	6.9	64	<3	9	.24	.004	<1	3	4.37	14	<.01	<3	.04	.01	.02	<2	2066	1900
A 126526	<1	57942	125	405	9.9	268	49	1012	36.71	3190	<8	3	4	1	2.9	1976	22	1	.02	<.001	<1	4	.23	5	<.01	<3	.01	<.01	.01	<2	1635	2100
A 126527	<1	407	3	68	<.3	2	2	1030	16.37	40	<8	<2	<2	20	1.9	19	<3	176	.27	.006	<1	3	.84	69	.09	<3	.07	.01	.02	2	267	1800
A 126528	2	93087	18	371	41.5	32	<1	8404	31.94	498	<8	4	2	4	1.9	767	50	9	.08	<.001	<1	3	1.16	58	<.01	<3	.01	<.01	.01	<2	2525	900
A 126529	<1	10547	358	1285	>200	85	64	4855	27.75	>9999	<8	<2	2	2	16.2	>2000	<3	2	.05	<.001	<1	6	.86	9	<.01	<3	.03	<.01	.03	<2	1562	2800
A 126530	2	10562	22	298	43.3	73	15	>9999	31.23	632	<8	<2	2	6	4.8	978	<3	9	.53	.001	<1	5	2.90	14	<.01	<3	.02	.01	.02	<2	1272	1100
RE A 126530	2	10453	21	287	42.5	73	16	>9999	31.43	634	<8	<2	2	5	4.5	950	<3	9	.54	.002	<1	6	2.92	14	<.01	<3	.01	.01	.01	<2	1373	-
A 126531	<1	300	302	70	7.7	157	283	727	27.53	3354	9	3	2	79	3.7	47	3	5	4.01	.006	<1	3	2.80	9	<.01	<3	.03	.01	.03	<2	2490	1800
A 126532	<1	474	63	34	2.1	50	46	333	22.87	3178	<8	<2	<2	28	1.8	<3	6	4	1.17	.013	<1	4	.45	7	<.01	<3	.08	.01	.06	<2	775	1200
A 126533	3	31138	61	2171	>200	26	14	>9999	35.14	5207	<8	<2	2	3	33.5	>2000	<3	<1	.14	<.001	<1	3	2.05	7	<.01	<3	.01	.01	.01	<2	204	2300
A 126534	1	27276	5629	2554	>200	72	69	5136	32.39	7511	<8	<2	3	2	41.0	>2000	<3	1	.04	<.001	<1	5	.73	9	<.01	<3	.02	.01	.02	<2	1292	2700
A 126535	<1	638	85	57	65.4	65	119	336	17.36	1950	<8	<2	<2	16	2.4	296	3	5	1.55	.013	<1	4	.73	12	<.01	<3	.07	.01	.06	<2	1559	1800
A 126536	<1	433	72	53	19.4	319	519	51	30.13	2093	<8	<2	2	1	.8	43	<3	1	.01	.001	<1	5	.01	4	<.01	<3	.07	<.01	.06	<2	1225	1800
A 126537	1	3313	14	387	33.4	69	39	4862	13.46	297	<8	<2	<2	6	3.8	>2000	<3	10	.18	.021	<1	4	1.74	46	<.01	<3	.09	.01	.07	<2	92	700
A 126538	1	48562	213	1187	88.5	239	32	6258	31.84	1232	<8	<2	3	3	8.2	>2000	3	2	.15	<.001	<1	3	1.65	13	<.01	<3	.03	.01	.03	<2	481	1800
A 126539	3	22218	138	1888	>200	22	9	>9999	32.11	3348	<8	<2	2	2	28.7	>2000	<3	3	.13	<.001	<1	4	2.94	11	<.01	<3	.01	.01	.02	<2	152	1000
A 126540	3	7104	9649	1159	>200	26	16	>9999	28.58	2112	<8	<2	<2	5	16.8	>2000	<3	10	.21	.001	1	6	2.35	26	<.01	<3	.03	.01	.02	<2	268	850
STANDARD DS5/AU-R	12	141	23	130	.3	23	12	761	2.92	20	<8	<2	2	48	5.4	4	7	57	.73	.095	12	180	.64	140	.09	16	2.01	.04	.13	3	491	-

Sample type: ROCK R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

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ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

ASSAY CERTIFICATE

Roca Mines Inc. PROJECT FOREMORE File # A303726R Page 1
500 - 1045 Howe St., Vancouver BC V6Z 2A9 Submitted by: Sandy Sears

SAMPLE#	Cu %	Pb %	Zn %	As %	Sb %	Ag** gm/mt	Au** gm/mt
A 126154	.123	4.14	6.12	.40	.006	42.1	3.40
A 126155	.054	.67	4.25	.02	<.001	-	-
A 126156	.022	.06	.62	1.09	.004	-	1.29
A 126157	-	-	-	-	-	8.5	5.36
A 126162	.036	.05	.52	.01	.001	200.6	3.73
A 126164	.890	.27	3.92	<.01	.002	177.9	2.44
A 126165	.520	1.29	9.22	.01	.002	170.9	3.90
A 126166	.678	1.91	8.10	.02	.005	231.4	2.15
A 126167	.060	1.83	4.29	<.01	.004	113.9	1.26
A 126168	.223	9.22	11.93	<.01	.010	179.0	1.76
A 126169	-	-	-	-	-	-	.13
A 126170	.098	3.77	15.14	.02	.009	253.2	3.62
A 126172	1.379	.20	1.52	.02	.005	479.1	6.25
A 126175	.314	.30	.06	<.01	.005	352.2	3.53
A 126176	.112	.13	.03	<.01	<.001	39.5	-
A 126178	1.330	1.24	.71	.01	.005	545.3	1.33
A 126179	.139	11.58	7.44	<.01	.022	554.6	7.61
A 126180	.199	.22	.21	<.01	.001	-	-
A 126328	.015	.56	1.98	.04	.003	-	-
A 126330	.026	.89	.12	.50	<.001	-	-
RE A 126331	.084	7.87	1.06	2.44	.007	110.6	2.20
A 126331	.085	8.07	1.08	2.46	.007	119.1	2.21
A 126332	.009	.69	.08	.36	.001	-	-
A 126333	.055	5.48	3.27	3.62	.004	78.1	3.25
A 126518	1.103	.04	.15	.33	.628	315.1	1.21
A 126522	2.878	<.01	.04	1.17	.175	85.5	-
A 126523	.029	.04	<.01	6.37	.052	-	4.70
A 126524	.365	2.64	16.92	.07	.929	605.5	1.95
A 126525	-	-	-	-	-	-	2.28
A 126526	6.497	<.01	.05	.30	.202	-	1.63
A 126528	8.223	<.01	.04	.05	.082	48.4	2.47
A 126529	1.122	.02	.13	3.25	.780	1093.5	1.70
A 126530	1.130	<.01	.03	.06	.092	42.1	1.50
A 126531	-	-	-	-	-	-	2.23
A 126533	3.504	<.01	.21	.57	2.284	4835.1	-
STANDARD GC-2/AU-1	.928	8.76	16.73	.16	.797	1044.1	3.35

BRT

BJ

GROUP 7AR - 1.000 GM SAMPLE, AQUA - REGIA (HCL-HNO3-H2O) DIGESTION TO 250 ML, ANALYSED BY ICP-ES.
- SAMPLE TYPE: ROCK PULP AG** & AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 12 2003 **DATE REPORT MAILED:** Sep29/2003 **SIGNED BY**..........D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data d FA 4

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

ASSAY CERTIFICATE

Roca Mines Inc. PROJECT FOREMORE File # A303726R Page 2
500 - 1045 Howe St., Vancouver BC V6Z 2A9 Submitted by: Sandy Sears

SAMPLE#	Cu %	Pb %	Sb %	Ag** gm/mt	Au** gm/mt
A 126534	3.021	.55	2.279	4362.6	.74
A 126535	.073	.01	.037	69.0	1.36
A 126536	.047	.01	.013	-	1.28
A 126537	.375	<.01	.237	36.2	-
A 126538	5.658	.02	.844	95.6	-
A 126539	2.546	<.01	1.911	6708.3	-
A 126540	.810	.98	.663	1819.3	-
STANDARD GC-2/AU-1	.927	8.74	.745	1049.2	3.35

GROUP 7AR - 1.000 GM SAMPLE, AQUA - REGIA (HCL-HNO3-H2O) DIGESTION TO 250 ML, ANALYSED BY ICP-ES.
- SAMPLE TYPE: ROCK PULP AG** & AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.

DATE RECEIVED: SEP 12 2003 **DATE REPORT MAILED:** Sep 29/2003 **SIGNED BY**.......D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Roca Mines Inc. PROJECT FOREMORE File # A302765

500 - 1045 Howe St., Vancouver BC V6Z 2A9 Submitted by: D. Coolidge

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Sample gm
SI	<1	2	<3	2	<.3	1	<1	11	.08	<2	<8	<2	<2	6	<.5	<3	<3	1	.27	.001	<1	1	<.01	6	<.01	<3	.02	.98	.01	<2	<2	-
A 126041	9	23	22	61	.7	20	8	580	5.08	24	<8	<2	2	35	<.5	<3	<3	19	.88	.062	9	8	.71	132	<.01	<3	1.42	.03	.17	<2	4	1100
A 126042	5	123	31	39	1.9	30	55	808	8.75	919	<8	<2	<2	70	.6	<3	<3	2	2.10	.123	6	3	.23	21	<.01	<3	.85	.05	.13	<2	419	800
A 126043	5	6	7	71	<.3	4	2	223	3.01	13	<8	<2	2	13	<.5	<3	<3	15	.09	.048	20	12	2.29	156	<.01	<3	2.04	.04	.12	<2	3	1600
A 126068	<1	55	7	50	<.3	1	13	702	4.24	9	<8	<2	<2	128	<.5	<3	<3	59	.59	.126	5	1	1.66	153	.13	<3	1.75	.06	.11	<2	17	1100
A 126069	10	13165	<3	112	11.9	8	23	1176	5.38	<2	<8	<2	<2	62	.6	<3	<3	52	2.72	.101	6	5	2.27	249	<.01	<3	3.15	.02	.19	<2	152	1900
A 126070	3	114	<3	26	<.3	3	4	960	2.39	2	<8	<2	3	106	<.5	<3	<3	6	2.08	.191	25	2	.21	51	<.01	<3	.66	.09	.05	<2	37	2400
A 126071	10	10243	4	165	3.8	4	3	718	2.27	5	<8	<2	<2	30	2.0	<3	<3	6	2.08	.004	2	14	.24	17	<.01	<3	.37	.01	.02	3	123	2200
A 126072	9	40083	11	1047	17.7	4	3	143	5.75	3	<8	<2	<2	4	4.2	<3	<3	14	.09	.008	2	8	.35	29	.01	<3	.61	.02	.03	<2	451	1900
A 126073	<1	163	3	25	<.3	7	11	1941	4.53	<2	<8	<2	2	91	.5	7	<3	14	7.94	.358	18	3	2.11	31	<.01	3	.54	.01	.46	<2	3	1300
A 126074	13	115	16	45	5.8	5	27	998	11.44	220	<8	<2	<2	27	1.1	<3	5	4	2.57	.041	4	10	1.07	9	<.01	<3	.67	.01	.23	3	168	2000
A 126075	2	215	19	72	.6	10	5	2412	3.47	9	<8	<2	<2	256	.6	8	<3	46	14.33	.040	3	8	2.37	402	<.01	<3	.68	.02	.13	<2	7	2600
A 126076	6	101	16	46	.4	13	7	3484	2.64	36	<8	<2	<2	650	.6	5	<3	19	25.67	.031	6	5	1.21	55	.01	<3	.81	<.01	.05	<2	5	3100
A 126077	16	450	3209	2791	2.0	25	11	969	2.84	174	14	<2	<2	108	16.4	<3	<3	46	6.09	.085	6	10	.62	102	.05	<3	.85	.01	.16	<2	174	1600
A 126078	11	1312	>9999	19771	7.0	6	13	620	2.37	90	8	<2	<2	93	122.1	<3	<3	11	5.15	.016	2	11	.27	52	<.01	<3	.38	<.01	.04	3	88	1500
A 126079	14	55	>9999	3245	2.8	8	3	1869	.75	29	10	<2	<2	130	42.9	4	<3	2	8.17	.005	2	3	.18	102	<.01	<3	.15	<.01	.03	3	12	1600
A 126080	9	232	91	74	1.0	22	13	2392	3.24	43	<8	<2	<2	598	1.0	<3	<3	27	16.97	.095	4	5	.85	95	<.01	<3	.29	.01	.17	<2	181	4100
RE A 126080	9	238	89	76	1.1	24	14	2475	3.36	45	<8	<2	<2	616	1.0	3	<3	27	17.43	.097	5	8	.88	96	<.01	<3	.31	.01	.18	<2	407	-
A 126312	4	12	42	17	.5	9	2	61	1.87	10	<8	<2	2	50	<.5	<3	<3	6	.39	.058	28	3	.03	51	<.01	3	.37	.05	.39	<2	<2	2500
A 126313	8	7	51	16	3.1	13	4	24	2.51	7	<8	<2	<2	13	<.5	<3	<3	2	.05	.004	3	8	.01	54	<.01	<3	.19	.14	.04	<2	835	2800
A 126314	8	22	14	35	1.2	23	2	35	1.53	32	<8	<2	<2	2	<.5	<3	<3	15	.02	.011	5	12	.09	271	<.01	<3	.25	.01	.11	<2	12	1600
A 126315	4	12	3	12	<.3	8	1	190	.88	<2	10	<2	<2	47	<.5	<3	<3	2	.76	.006	1	21	.28	42	<.01	<3	.07	.01	.03	6	<2	1400
A 126316	2	227	8771	38999	8.1	3	8	364	5.19	524	<8	<2	<2	12	241.7	<3	3	4	.38	.080	4	3	.36	16	<.01	<3	.88	.01	.27	<2	488	2300
A 126802	2	330	37	206	<.3	2	6	1477	2.38	4	<8	<2	3	37	1.1	<3	<3	8	3.55	.093	16	6	.32	516	<.01	3	.55	.02	.48	4	4	1400
A 126803	1	817	13	68	<.3	1	5	805	1.91	3	<8	<2	<2	33	<.5	<3	<3	5	2.77	.027	7	4	.40	295	<.01	<3	.92	.06	.07	<2	2	1500
A 126804	3	6769	33	137	4.4	3	13	1615	5.70	18	<8	<2	<2	71	.7	3	<3	55	2.57	.168	7	4	1.42	72	<.01	<3	1.88	.05	.13	<2	36	1700
A 126805	<1	119	5	83	<.3	7	19	1162	4.86	4	8	<2	<2	73	<.5	5	<3	87	4.40	.104	9	16	1.81	91	<.01	3	1.20	.03	.24	<2	4	2200
A 126806	<1	142	102	81	.4	10	17	1601	8.81	3	<8	<2	<2	27	.8	<3	<3	106	.61	.077	2	6	1.77	28	.33	<3	1.93	.04	.13	<2	3	1900
A 126807	<1	103	115	64	.5	11	20	1241	8.14	6	<8	<2	<2	42	.8	3	<3	108	.55	.077	2	6	1.69	27	.34	<3	1.83	.05	.11	<2	19	1900
A 126808	27	336	108	125	3.6	22	59	1803	19.01	1330	<8	<2	2	14	.9	5	<3	119	.44	.112	16	18	2.79	10	.04	<3	3.67	.01	.04	<2	405	1000
A 126809	8	22	12	50	.7	18	8	66	3.37	115	<8	<2	<2	53	<.5	<3	3	21	.52	.249	8	6	.39	59	<.01	<3	.54	.05	.06	2	6	2000
A 126810	13	111	450	1586	5.8	11	2	45	4.30	61	<8	<2	<2	4	9.0	<3	<3	3	.02	.005	5	11	.05	26	<.01	<3	.35	.01	.20	7	138	1500
A 126811	12	11	80	72	2.1	30	4	109	1.85	7	<8	<2	<2	12	.8	<3	<3	1	.26	.003	3	5	.07	55	<.01	<3	.24	.01	.14	<2	46	1500
STANDARD DS	12	141	24	134	.3	25	12	756	2.90	19	<8	<2	3	48	5.5	4	6	59	.73	.095	12	180	.66	137	.09	16	2.04	.04	.13	4	490	-

Standard is STANDARD DS5/AU-R.

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK R150 60C AU** GROUP 3B - 30.00 GM SAMPLE ANALYSIS BY FA/ICP.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 22 2003 DATE REPORT MAILED: Aug 4/03 SIGNED BY. C.L. D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

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ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

ASSAY CERTIFICATE

Roca Mines Inc. PROJECT FOREMORE File # A302765R
500 - 1045 Howe St., Vancouver BC V6Z 2A9 Submitted by: D. Coolidge

SAMPLE#	Cu %	Pb %	Zn %
A 126071	1.058	<.01	.02
A 126072	4.463	<.01	.10
A 126078	.141	1.29	1.98
A 126079	.007	1.83	.30
A 126316	.025	.94	3.89
STANDARD GC-2	.923	8.92	16.42

GROUP 7AR - 1.000 GM SAMPLE, AQUA - REGIA (HCL-HNO3-H2O) DIGESTION TO 250 ML, ANALYSED BY ICP-ES.
- SAMPLE TYPE: ROCK PULP

DATE RECEIVED: AUG 5 2003 DATE REPORT MAILED: Aug 14/03 SIGNED BY C. Leong ....D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data ___ FA ___

ACME ANALYTICAL LABORATORIES LTD.   852 E. HASTINGS ST. VANCOUVER BC V6A 1R6   PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Roca Mines Inc. PROJECT FOREMORE File # A302591 Page 1

500 - 1045 Howe St., Vancouver BC V6Z 2A9 Submitted by: Marcus Van W.

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Sample gm
SI	2	2	<3	6	<.3	<1	<1	7	.15	<2	<8	<2	<2	3	<.5	<3	<3	<1	.13	<.001	<1	2	<.01	4	<.01	<3	.01	.60	.02	<2	<2	-
A 126051	24	15	9	55	<.3	8	4	1060	3.88	10	<8	<2	2	180	.5	<3	<3	12	2.11	.111	19	8	.58	183	.01	<3	1.27	.07	.12	<2	4	1100
A 126052	4	2	<3	3	<.3	7	5	71	1.81	2	<8	<2	<2	12	<.5	<3	<3	2	.02	.005	1	9	.03	463	<.01	<3	.16	.01	.06	<2	5	800
A 126053	22	12	7	60	<.3	5	4	1049	2.99	9	<8	<2	<2	268	<.5	<3	<3	6	2.08	.119	9	11	.37	100	.01	<3	1.04	.04	.12	2	4	1500
A 126054	5	4	3	56	<.3	15	6	2074	3.79	<2	<8	<2	<2	571	<.5	10	<3	19	10.60	.009	2	5	4.24	369	<.01	<3	.06	.05	.02	<2	2	1300
A 126055	3	726	17	8076	2.4	6	18	3714	7.62	926	<8	<2	<2	87	40.6	7	<3	1	6.70	.041	3	7	1.96	23	<.01	<3	.22	.05	.03	<2	30	2200
A 126056	2	27	4	85	<.3	3	4	1500	3.06	10	<8	<2	<2	365	.6	<3	<3	12	17.10	.063	5	5	1.51	24	<.01	<3	.52	.01	.10	2	2	2000
A 126057	3	50	8	72	<.3	7	13	2870	4.68	11	<8	<2	<2	91	.7	5	<3	9	9.93	.042	2	3	2.73	236	<.01	<3	.30	.01	.20	<2	8	1400
A 126058	3	4007	10	56	1.0	2	10	484	1.23	10	<8	<2	<2	34	<.5	<3	<3	3	1.35	.044	10	9	.04	152	.01	<3	.41	.01	.36	6	12	2800
A 126059	5	1782	20	13	1.3	3	12	578	2.05	89	<8	<2	<2	53	<.5	<3	<3	2	2.65	.055	5	3	.04	117	<.01	<3	.39	.01	.27	<2	18	2200
A 126060	3	25	9	3	<.3	1	5	39	1.01	61	<8	<2	<2	7	<.5	<3	<3	3	.15	.064	12	5	.03	89	.01	<3	.46	<.01	.34	<2	18	1700
A 126061	3	126	134	429	2.6	7	7	734	10.78	45	<8	<2	2	5	5.4	<3	<3	106	.10	.080	4	14	2.25	40	.05	<3	2.71	.02	.15	<2	5	1500
A 126062	14	1989	7037	4055	5.5	13	10	449	1.97	7	<8	16	<2	16	63.6	<3	<3	7	1.13	.018	3	13	.17	129	.01	<3	.27	<.01	.17	<2	10458	1900
A 126063	10	2464	>9999	17717	7.4	4	3	923	1.91	14	<8	11	<2	19	265.5	3	<3	2	1.20	.010	1	13	.08	15	<.01	<3	.10	<.01	.06	2	4631	2100
A 126064	12	1454	>9999	9291	5.6	5	2	443	1.25	6	<8	6	<2	21	120.7	3	<3	2	1.37	.004	1	15	.13	9	.01	<3	.06	<.01	.04	<2	7397	2500
A 126065	4	642	418	221	.8	1	6	434	2.37	15	<8	<2	<2	21	2.3	<3	3	4	1.12	.083	8	7	.20	70	<.01	<3	.53	.01	.23	<2	254	1600
A 126066	5	397	89	118	<.3	3	5	184	2.49	13	<8	<2	<2	8	1.2	<3	<3	4	.18	.084	7	13	.09	73	<.01	<3	.44	.02	.25	5	168	2000
A 126067	2	1638	761	112	1.0	2	4	388	1.89	18	<8	<2	<2	26	1.1	<3	<3	4	1.27	.095	8	5	.16	110	.01	<3	.49	.02	.22	<2	303	2200
RE A 126067	2	1681	770	112	1.0	1	5	393	1.94	19	<8	<2	<2	27	1.2	<3	<3	3	1.30	.098	8	6	.17	113	<.01	<3	.52	.03	.23	<2	281	-
A 126101	1	94	118	302	1.1	7	18	603	4.62	41	<8	<2	2	22	1.9	<3	<3	70	1.20	.084	8	6	1.13	26	.24	<3	1.25	.02	.28	<2	7	1100
A 126102	3	359	3485	18416	9.9	1	9	973	5.06	>9999	<8	<2	<2	29	107.4	9	<3	3	1.42	.104	4	11	.22	31	<.01	3	.80	<.01	.29	3	500	1500
A 126103	3	839	3326	8806	22.1	2	19	1928	8.44	>9999	<8	4	2	92	60.6	54	7	6	3.76	.052	4	6	.58	55	.01	<3	1.08	<.01	.14	<2	2952	2000
A 126282	15	55	35	97	2.5	52	24	867	5.49	146	<8	<2	<2	87	.8	<3	<3	26	1.72	.064	2	25	.77	45	.01	<3	.88	.03	.15	<2	224	1400
A 126283	3	31	16	103	.7	29	4	248	3.35	26	<8	<2	<2	60	<.5	<3	<3	35	1.50	.050	5	18	1.57	95	.01	<3	1.91	.01	.06	2	6	1800
A 126284	3	19	4	33	<.3	7	1	211	.75	8	8	<2	<2	49	<.5	<3	3	4	2.25	.005	3	9	.19	30	.01	<3	.17	.01	.02	<2	4	1300
A 126285	18	8427	3937	57461	190.7	279	81	1645	31.95	210	<8	<2	3	4	280.1	46	6	6	.75	<.001	<1	<1	.49	4	.01	<3	.04	<.01	.02	<2	3787	500
A 126286	17	5744	3881	>99999	151.0	150	57	1385	27.78	102	<8	2	3	5	627.1	27	6	2	.74	.001	<1	<1	.38	4	.01	<3	.11	<.01	.03	<2	2554	500
A 126287	16	8759	5620	>99999	174.1	105	30	1187	24.11	55	<8	<2	3	22	644.7	13	6	6	.46	.007	1	<1	.38	18	.01	<3	.55	<.01	.05	<2	1317	500
A 126288	8	450	422	4578	75.6	31	6	962	8.34	47	<8	3	<2	22	20.3	7	<3	16	.57	.007	1	11	.43	21	.01	<3	.97	<.01	.11	<2	1208	400
A 126289	24	322	350	4325	173.4	91	25	85	33.85	171	<8	<2	3	3	19.5	16	8	2	.01	.001	<1	11	<.01	6	.01	<3	.02	<.01	.02	<2	2057	400
A 126290	7	1107	6042	5707	144.7	31	11	2083	3.96	25	<8	<2	4	25	29.0	13	<3	12	.97	.013	3	10	.28	55	.01	<3	.47	.02	.18	<2	823	1100
A 126291	15	1272	9647	76697	189.1	73	14	2086	20.15	70	<8	<2	2	10	418.6	202	<3	9	.25	.006	<1	<1	.18	2	.01	<3	.19	<.01	.05	<2	1646	1500
A 126292	7	5423	>9999	9531	151.3	62	24	2461	9.73	86	<8	2	<2	29	49.3	31	<3	20	.90	.055	2	28	.67	19	.01	<3	1.07	.02	.09	<2	428	9400
A 126293	4	3710	2692	970	124.1	89	37	3691	6.15	12	<8	<2	2	50	3.3	13	<3	42	1.71	.054	3	53	1.50	100	.01	<3	2.02	.01	.15	<2	417	2000
A 126294	6	8699	>9999	13406	196.1	227	62	2599	17.27	53	9	4	3	73	77.2	71	<3	9	1.77	.021	1	8	.72	6	.01	<3	.14	.03	.05	4	3001	1600
STANDARD DS5/AU-R	13	142	24	141	<.3	25	12	783	3.00	18	<8	<2	3	50	5.7	3	6	61	.76	.099	12	186	.68	143	.10	17	2.07	.04	.15	4	495	-

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK R150 60C   AU** GROUP 3B - 30.00 GM SAMPLE ANALYSIS BY FA/ICP.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 15 2003 DATE REPORT MAILED: July 28/03 SIGNED BY. . . . . . . .D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

ACME ANALYTICAL

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Sample gm
A 126295	3	538	98	2646	9.6	77	17	886	4.24	13	<8	<2	2	41	11.8	<3	<3	11	1.08	.038	2	21	.66	69	.01	<3	1.04	.01	.15	<2	43	2000
A 126296	3	6998	423	6316	33.4	51	23	2789	4.26	14	<8	3	2	107	31.5	5	6	16	3.10	.031	2	21	.77	71	.01	<3	1.09	.02	.12	<2	1638	2200
A 126297	6	258	3342	1051	172.0	18	5	951	5.05	17	<8	2	<2	39	4.4	11	<3	8	.58	.069	2	21	.15	334	.01	<3	.39	<.01	.15	3	3152	1600
A 126298	5	138	1283	1647	85.7	55	19	582	7.98	49	<8	<2	2	17	5.4	7	<3	9	.44	.017	2	20	.20	12	<.01	3	.35	.01	.20	<2	620	1400
A 126299	3	572	184	266	12.0	56	18	830	4.68	5	<8	<2	<2	46	.7	3	<3	22	.76	.066	3	37	1.52	114	.02	<3	1.91	<.01	.21	<2	89	1200
A 126300	3	150	1756	630	17.9	18	8	495	8.62	79	<8	<2	<2	11	1.3	<3	<3	15	.06	.087	2	29	.23	179	.01	3	.70	.01	.26	<2	176	3300
A 126301	4	101	960	413	7.6	31	14	953	5.35	24	<8	<2	<2	13	.6	<3	<3	20	.16	.085	4	32	.69	255	.01	3	1.22	<.01	.22	<2	141	4100
A 126302	4	86	253	657	6.9	99	22	2079	5.20	11	<8	<2	2	28	1.5	<3	<3	23	.76	.080	4	36	1.14	147	.01	<3	1.71	<.01	.20	<2	106	2400
A 126303	1	231	12	181	.4	58	28	1092	8.28	40	<8	<2	2	6	<.5	<3	<3	190	.34	.048	2	197	2.60	159	.29	<3	2.89	.05	.90	<2	3	1800
A 126304	4	356	13	63	.5	4	27	352	5.12	10	<8	<2	<2	8	<.5	<3	<3	69	.54	.139	5	5	.77	32	.07	<3	1.18	.06	.04	<2	5	1500
A 126305	13	199	11	131	.5	31	30	472	6.47	48	<8	<2	2	24	.7	3	<3	180	1.12	.191	7	20	2.44	51	.16	<3	2.41	.15	.11	<2	31	1500
A 126306	13	1099	22	88	3.9	247	533	399	17.63	1121	<8	<2	2	11	<.5	<3	3	142	.37	.030	1	204	1.02	10	.06	<3	1.62	.01	<.01	<2	25	1500
A 126307	16	8	12	8	1.3	6	2	68	1.24	10	<8	<2	<2	51	<.5	<3	<3	7	.20	.039	21	5	.04	112	.01	<3	.37	.06	.34	<2	3	1200
A 126308	2	13	5	92	<.3	1	3	985	2.76	4	<8	<2	<2	28	<.5	<3	<3	5	1.30	.084	9	6	.33	363	.01	<3	.28	.07	.10	<2	2	1200
A 126309	58	9	9	4	.8	10	1	58	1.09	7	<8	<2	<2	65	<.5	<3	<3	5	.29	.047	26	3	.03	65	.01	3	.32	.05	.28	<2	4	1500
A 126310	3	5	22	11	2.8	5	2	34	1.97	14	<8	<2	2	39	<.5	<3	<3	7	.10	.049	23	5	.03	83	<.01	3	.34	.06	.32	<2	3	1300
A 126311	2	6	10	13	.7	10	1	62	1.53	7	<8	<2	<2	22	<.5	<3	<3	4	.25	.045	38	3	.05	96	<.01	5	.43	.05	.44	<2	<2	2400
A 126517	3	35	243	565	33.8	19	7	41	2.63	33	<8	<2	<2	8	2.1	<3	<3	11	.01	.084	3	23	.03	107	<.01	3	.36	.01	.23	3	261	1200
RE A 126517	3	34	241	552	32.9	19	7	43	2.59	32	<8	<2	<2	8	2.0	<3	<3	11	.01	.083	2	22	.03	108	<.01	3	.35	.01	.23	2	204	-
A 126783	6	22	9	5	.9	2	2	62	.96	33	<8	<2	3	12	<.5	<3	<3	2	.08	.019	7	7	.04	80	<.01	<3	.36	.03	.16	<2	47	1300
A 126784	10	38	22	19	1.6	7	11	542	2.64	42	<8	<2	2	38	<.5	<3	<3	3	1.12	.024	7	8	.29	76	<.01	<3	.22	.06	.09	<2	43	1100
A 126785	1	244	3	74	.3	85	73	785	6.56	<2	<8	<2	<2	85	<.5	3	<3	139	1.41	.175	7	32	1.97	12	.56	<3	2.30	.01	.01	<2	<2	1700
A 126786	1	32	4	65	<.3	85	30	1327	4.74	91	<8	<2	<2	87	.5	3	<3	147	7.67	.092	8	169	3.12	78	<.01	3	.53	.02	.16	<2	<2	2000
A 126787	4	573	>9999	20613	34.1	4	8	139	6.75	>9999	<8	2	<2	4	122.9	45	6	4	.07	.036	3	19	.15	26	<.01	<3	.52	<.01	.13	2	1848	2500
A 126788	4	151	4136	1342	14.1	1	<1	140	3.58	9368	<8	<2	2	3	8.7	4	<3	3	.11	.063	5	8	.11	38	<.01	<3	.53	.01	.21	<2	557	1500
A 126789	4	1067	1189	6613	24.5	5	18	71	10.22	>9999	<8	5	2	2	39.5	71	<3	2	.03	.029	2	16	.04	26	<.01	<3	.30	<.01	.14	<2	3524	1700
A 126790	6	680	>9999	8173	77.8	1	1	89	7.85	>9999	<8	3	<2	8	41.6	52	8	12	.04	.091	4	7	.05	80	<.01	3	.55	.01	.27	3	1889	1400
A 126791	2	625	>9999	>99999	196.1	3	14	117	6.78	>9999	<8	3	<2	7	504.7	213	37	2	.05	.009	<1	<1	.07	13	<.01	<3	.27	<.01	.04	<2	2523	2300
A 126792	<1	285	554	193	1.1	9	33	1152	13.77	95	<8	<2	<2	3	.9	<3	<3	93	.16	.075	1	4	1.87	22	.06	<3	2.70	.02	.23	<2	58	1400
A 126793	1	55	428	132	.4	6	9	3803	2.34	42	<8	<2	<2	198	.8	4	<3	14	13.27	.076	7	6	2.37	52	<.01	<3	1.91	<.01	.28	<2	21	1400
A 126794	10	603	>9999	7235	3.7	2	6	1252	4.00	43	<8	6	<2	53	69.5	3	<3	8	4.34	.006	2	6	.53	7	<.01	<3	.48	.01	.02	<2	6106	1300
A 126795	1	10	168	251	<.3	1	<1	4194	.38	15	<8	<2	<2	423	2.0	<3	<3	4	35.55	.002	3	3	.67	10	<.01	<3	.21	<.01	<.01	3	15	1300
A 126796	4	4884	143	51	2.8	1	2	1001	1.63	10	<8	<2	<2	44	<.5	<3	3	5	1.63	.027	3	8	.12	202	<.01	<3	.19	<.01	.18	<2	250	1500
A 126797	3	481	254	93	1.1	29	33	767	28.05	82	<8	<2	3	10	<.5	<3	<3	50	.32	.020	1	10	1.58	13	<.01	<3	1.57	<.01	.05	<2	17	1200
STANDARD DS	13	144	23	133	<.3	25	12	787	2.98	18	<8	<2	3	49	5.5	3	6	59	.75	.098	12	188	.68	142	.10	17	2.07	.04	.14	4	484	-

Standard is STANDARD DS5/AU-R. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Sample gm
A 126798	4	83	15	58	<.3	8	65	700	8.89	61	<8	<2	<2	14	<.5	<3	<3	39	.24	.031	2	10	1.67	20	.05	<3	1.75	.02	.02	<2	9	1700
A 126799	2	23	5674	1357	4.8	<1	2	371	3.69	443	<8	<2	<2	4	8.0	<3	<3	4	.12	.083	7	3	.46	43	<.01	<3	1.03	<.01	.16	<2	125	2200
A 126800	9	48	35	62	.4	162	51	649	7.93	16	8	<2	2	22	<.5	3	<3	117	.79	.121	4	146	2.40	56	.39	<3	2.46	.03	.06	<2	4	1600
A 126801	10	13	31	10	<.3	31	8	90	2.52	11	<8	<2	<2	60	<.5	<3	<3	3	1.01	.230	10	2	.05	60	<.01	3	.35	.02	.30	<2	<2	1200
A 127701	<1	44	15	13	<.3	3	11	1895	2.75	15	<8	<2	<2	128	<.5	5	3	43	16.82	.053	6	2	1.76	25	.01	<3	1.11	.01	.10	<2	<2	1600
A 127702	<1	64	21	83	.6	5	12	453	4.89	109	<8	<2	<2	11	<.5	6	3	67	.37	.102	6	2	1.61	47	.04	<3	1.79	.01	.19	<2	165	1200
A 127703	1	3	14	114	<.3	2	3	603	4.23	13	<8	<2	<2	6	<.5	4	<3	9	.29	.148	8	1	1.20	36	<.01	<3	1.61	.03	.14	<2	4	1700
A 127704	1	2861	14	77	.9	1	11	1188	2.96	8	<8	<2	<2	443	<.5	3	3	16	6.05	.125	7	1	.54	62	<.01	<3	1.08	.03	.17	<2	14	1000
A 127705	5	33	7	7	<.3	1	5	119	1.73	32	<8	<2	<2	14	<.5	<3	<3	3	.15	.063	14	<1	.03	105	<.01	<3	.32	.01	.32	<2	37	1200
STANDARD DS5/AU-R	11	143	23	130	<.3	25	12	761	2.88	19	8	<2	3	49	5.5	5	6	59	.72	.095	13	191	.63	138	.09	15	2.02	.04	.13	3	489	-

Sample type: ROCK R150 60C.

Data ✓ FA Y

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

ASSAY CERTIFICATE

Roca Mines Inc. PROJECT FOREMORE File # A302591R
500 - 1045 Howe St., Vancouver BC V6Z 2A9 Submitted by: Marcus Van W.

SAMPLE#	Pb %	Zn %	As %	Ag** gm/mt	Au** gm/mt
A 126062	.66	.37	<.01	3.4	10.90
A 126063	1.76	1.74	<.01	5.8	3.51
A 126064	1.51	.91	<.01	5.8	6.46
A 126102	.32	1.72	1.20	9.2	.53
A 126103	.30	.81	3.61	20.7	2.84
A 126285	1.80	5.89	.02	329.4	3.84
A 126286	1.76	13.30	.01	200.8	3.08
A 126287	.70	12.31	.01	242.2	1.51
A 126288	.04	.43	.01	69.3	1.21
A 126289	.04	.42	.02	227.8	2.39
A 126290	.59	.54	<.01	161.4	.83
A 126291	13.88	7.58	<.01	444.8	1.38
A 126292	2.35	.95	.01	158.4	.54
RE A 126292	2.34	.93	.01	166.8	.44
A 126293	.26	.09	<.01	180.7	.39
A 126294	1.24	1.31	<.01	956.7	3.17
A 126296	.04	.63	<.01	31.7	1.84
A 126297	.34	.11	<.01	172.8	2.95
A 126298	.13	.16	.01	101.8	.85
A 126517	.03	.05	<.01	44.7	.27
A 126787	4.86	1.87	2.00	32.1	1.87
A 126788	.38	.13	.87	13.7	.54
A 126789	.10	.60	6.05	23.6	3.62
A 126790	4.98	.76	2.02	94.3	1.88
A 126791	33.38	8.17	2.72	273.5	2.53
A 126794	1.39	.70	.01	4.5	4.93
STANDARD R-2/AU-1	1.53	4.22	.25	155.7	3.34

GROUP 7AR - 1.000 GM SAMPLE, AQUA - REGIA (HCL-HNO3-H2O) DIGESTION TO 100 ML, ANALYSED BY ICP-ES.
AG** & AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.
- SAMPLE TYPE: ROCK PULP Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 30 2003 DATE REPORT MAILED: Aug 12/2003 SIGNED BY. ......D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Roca Mines Inc. PROJECT FOREMORE File # A302396

500 - 1045 Howe St., Vancouver BC V6Z 2A9 Submitted by: Sandy Sears

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
SI	<1	<1	<3	4	<.3	<1	<1	<2	.06	<2	<8	<2	<2	4	<.5	<3	<3	1	.14	<.001	<1	1	<.01	6	<.01	<3	.01	.67	<.01	<2	<2
A 126036	12	434	>9999	68142	188.1	83	4	185	17.93	69	<8	<2	<2	24	359.9	137	<3	1	.17	.002	1	<1	.07	2	<.01	<3	.01	.01	.01	<2	728
A 126274	2	1601	2983	7387	21.5	32	24	1951	3.31	47	<8	<2	2	57	35.5	5	<3	2	1.97	.011	1	3	.71	58	<.01	<3	.27	.02	.15	6	367
A 126275	32	838	>9999	>99999	140.3	62	16	694	24.44	154	<8	<2	<2	7	589.1	76	<3	4	.32	.007	<1	<1	.18	4	<.01	3	.11	.01	.02	<2	1641
A 126276	15	1734	>9999	>99999	197.3	43	11	428	17.93	168	10	<2	<2	32	426.9	175	<3	1	.13	.001	1	<1	.05	9	<.01	<3	.03	.01	.02	<2	1663
A 126277	2	18632	2097	4019	113.3	85	22	3375	6.58	5	14	<2	<2	163	12.8	12	7	32	3.21	.094	2	41	1.44	120	.01	<3	1.94	.01	.14	3	1238
A 126278	18	782	>9999	>99999	157.1	78	9	1603	15.84	103	8	<2	<2	49	428.7	125	<3	2	1.25	.004	1	<1	.86	10	<.01	<3	.10	<.01	.03	<2	1506
A 126279	14	1659	>9999	>99999	197.4	52	19	1487	20.27	97	12	2	<2	71	477.5	97	<3	4	1.57	.011	1	<1	.76	15	.01	<3	.22	.01	.06	<2	3388
A 126280	24	605	984	>99999	169.4	75	18	166	24.53	85	<8	4	2	8	573.4	9	<3	1	.04	.002	<1	<1	.01	15	<.01	<3	.02	<.01	.01	<2	2975
RE A 126280	25	600	867	>99999	170.3	74	18	157	24.60	87	<8	3	3	9	569.9	5	<3	2	.04	.001	<1	<1	.01	15	.01	<3	.02	.01	.01	<2	3159
A 126281	9	1416	>9999	>99999	174.0	34	<1	311	11.99	142	10	<2	<2	33	586.4	164	<3	1	.14	<.001	<1	<1	.05	18	<.01	<3	.01	.01	.01	<2	1042
STANDARD DS4/AU-R	7	129	32	160	<.3	34	12	796	3.19	23	<8	<2	3	27	5.4	5	6	75	.53	.091	17	166	.57	149	.09	<3	1.81	.04	.14	2	488

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK R150 60C AU** GROUP 3B - 30.00 GM SAMPLE ANALYSIS BY FA/ICP.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 7 2003 DATE REPORT MAILED: July 11/03 SIGNED BY C. L[illegible] D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

ASSAY CERTIFICATE

Roca Mines Inc. PROJECT FOREMORE File # A302396R
500 - 1045 Howe St., Vancouver BC V6Z 2A9 Submitted by: Sandy Sears

SAMPLE#	Cu %	Pb %	Zn %	Ag** gm/mt	Au** gm/mt
A 126036	.044	9.73	7.24	217.6	.77
A 126274	.159	.30	.69	20.6	.37
A 126275	.089	4.26	14.38	161.8	1.91
A 126276	.184	13.44	12.32	228.2	1.83
A 126277	2.038	.20	.36	114.4	2.70
A 126278	.079	9.19	10.94	180.1	2.14
A 126279	.170	8.53	12.23	226.7	3.17
A 126280	.060	.09	11.84	192.6	4.43
A 126281	.154	11.48	18.03	202.1	1.35
STANDARD R-2/AU-1	.553	1.53	4.16	158.7	3.35

GROUP 7AR - 1.000 GM SAMPLE, AQUA - REGIA (HCL-HNO3-H2O) DIGESTION TO 100 ML, ANALYSED BY ICP-ES.
AG** & AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.
- SAMPLE TYPE: ROCK PULP

DATE RECEIVED: JUL 11 2003 DATE REPORT MAILED: July 16/03 SIGNED BY C. L........D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Roca Mines Inc. PROJECT FOREMORE File # A302395 Page 1

500 - 1045 Howe St., Vancouver BC V6Z 2A9 Submitted by: Sandy Sears

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Sample gm
SI	<1	1	<3	2	<.3	<1	<1	8	.04	6	<8	<2	<2	3	<.5	<3	<3	1	.11	<.001	<1	1	<.01	3	<.01	<3	.01	.53	.01	<2	7	-
A 126019	4	9	19	65	.7	25	20	301	3.57	57	<8	<2	2	14	<.5	5	5	28	.19	.028	4	8	1.44	119	.16	<3	1.62	.03	.08	<2	11	-
A 126020	1	12	8	25	.3	3	14	397	3.99	<2	<8	<2	<2	31	<.5	<3	<3	23	.39	.123	6	5	.59	54	.04	<3	.92	.04	.40	<2	3	-
A 126021	<1	131	244	2551	<.3	8	18	1199	7.27	61	<8	<2	<2	60	7.1	<3	<3	45	4.01	.105	2	2	.46	35	.17	<3	.89	.04	.06	<2	21	-
A 126022	100	18	25	46	<.3	4	<1	1063	21.17	56	14	<2	3	96	1.4	9	5	3	7.24	.008	1	4	.56	12	<.01	<3	.05	<.01	.01	<2	2	-
A 126023	3	1	9	23	<.3	5	51	250	5.09	<2	<8	<2	2	8	<.5	<3	6	14	.29	.044	4	2	.53	26	.10	<3	.66	.08	.01	<2	<2	-
A 126024	5	23	11	41	.5	17	11	4257	6.28	7	8	<2	2	214	.6	4	4	47	16.54	.053	12	6	3.90	22	.01	<3	1.37	.02	.02	<2	2	-
A 126025	1	773	14	23	1.0	19	176	1366	12.71	159	19	<2	2	26	1.0	<3	5	70	8.54	.034	2	5	.91	51	.05	<3	2.00	.01	.05	2	29	1600
A 126026	24	365	363	181	2.3	9	19	1187	30.02	174	<8	<2	3	32	<.5	24	4	16	.12	.127	3	3	.09	957	.01	4	.46	.03	.09	<2	50	1500
A 126027	3	43	108	721	<.3	8	12	1082	19.76	373	<8	<2	2	7	.5	<3	6	177	.24	.049	2	23	1.11	97	<.01	<3	1.94	.02	.08	<2	12	1500
A 126028	<1	13	23	60	.5	8	13	504	6.10	297	<8	<2	<2	14	<.5	3	3	34	.33	.084	4	6	1.38	42	.01	<3	1.46	.02	.24	<2	212	-
A 126029	4	487	1440	21351	20.0	45	23	2281	13.34	3868	17	<2	3	188	120.0	5	11	34	5.92	.096	3	4	.83	39	.01	<3	1.34	<.01	.15	2	224	1700
A 126030	3	1935	>9999	35106	68.1	<1	13	429	16.45	>9999	<8	3	<2	11	197.8	120	31	3	.38	.034	2	10	.21	25	.01	<3	.55	<.01	.11	2	4175	2400
A 126031	18	38	414	459	3.4	20	9	1766	4.18	703	<8	<2	<2	151	2.5	4	3	2	3.90	.025	2	2	1.17	54	<.01	<3	.12	.03	.05	<2	122	2000
A 126032	8	11	132	110	.4	10	5	246	4.27	175	<8	<2	<2	38	<.5	<3	3	2	.82	.024	1	19	.13	33	<.01	<3	.12	.01	.04	3	21	1500
A 126033	16	600	>9999	54613	>200	2	<1	41	14.26	136	9	81	<2	87	361.6	233	3	2	.03	.078	1	<1	.02	53	<.01	<3	.06	<.01	.05	<2	81495	1300
A 126034	3	56	5720	1247	47.2	26	6	20	3.35	53	<8	<2	<2	8	4.6	9	<3	4	.01	.001	1	21	.01	55	<.01	<3	.13	.01	.08	<2	183	1200
A 126035	2	82	943	241	91.3	4	1	22	2.86	54	<8	<2	<2	5	1.0	9	<3	6	.02	.008	1	3	.01	137	<.01	<3	.04	.01	.02	4	595	1700
A 126037	3	9	29	38	.4	9	6	1096	3.01	11	<8	<2	<2	189	<.5	<3	<3	39	5.93	.046	3	9	.89	141	.01	<3	1.23	<.01	.07	<2	5	1500
A 126038	27	6	39	19	6.6	2	5	712	3.20	5	<8	<2	<2	66	<.5	<3	9	7	.27	.025	1	3	.06	31	<.01	3	.12	.04	.04	<2	245	2100
A 126039	1	4	35	17	2.0	3	5	20	1.73	115	<8	<2	2	6	<.5	<3	<3	3	.05	.025	3	1	.01	78	<.01	<3	.25	.01	.14	<2	192	-
A 126040	5	11	28	83	2.7	20	3	149	2.97	37	<8	<2	2	5	<.5	<3	<3	9	.07	.056	11	14	.90	86	<.01	3	.97	.01	.11	<2	7	-
RE A 126040	5	10	26	78	2.3	21	3	135	2.81	31	<8	<2	2	5	<.5	<3	3	8	.06	.053	10	13	.81	75	<.01	<3	.90	.01	.11	<2	<2	-
A 126268	3	9	13	43	.4	1	12	1009	3.48	14	<8	<2	<2	102	<.5	<3	<3	42	2.74	.182	9	2	.31	130	.01	3	.53	.02	.06	<2	5	-
A 126269	3	33	19	19	<.3	<1	<1	130	1.83	17	<8	<2	<2	5	<.5	<3	<3	1	.16	.020	8	9	.12	54	.01	<3	.34	.05	.07	2	<2	-
A 126270	8	127	3188	250	1.8	5	12	309	4.22	57	<8	<2	<2	17	1.9	<3	3	43	1.02	.035	2	5	.30	41	.06	<3	.45	.02	.12	<2	246	-
A 126271	1	32	9	50	<.3	7	27	677	4.70	5	<8	<2	<2	7	<.5	<3	3	107	.29	.080	4	8	1.73	26	.10	<3	1.47	.06	.01	<2	<2	-
A 126272	4	83	41	11	1.4	3	10	67	15.43	14	<8	<2	<2	3	<.5	10	4	5	.02	.008	3	2	.09	10	.01	<3	.27	.05	.10	<2	14	-
A 126273	7	207	10	50	<.3	13	159	618	18.15	161	<8	<2	2	3	<.5	<3	11	78	.02	.044	2	8	1.07	21	.12	<3	1.61	.01	.04	<2	342	-
A 126511	<1	1	22	23	.5	<1	<1	977	1.43	<2	<8	<2	7	140	<.5	<3	<3	<1	.98	.013	113	1	.09	80	.02	<3	.35	.03	.24	<2	2	-
A 126512	3	3	4	36	<.3	<1	10	2096	3.52	11	<8	<2	<2	1708	.5	<3	3	68	14.74	.291	9	5	.76	192	.02	<3	.75	.02	.01	2	8	-
A 126513	1	2	15	100	<.3	<1	22	1178	6.21	13	<8	<2	<2	306	<.5	<3	<3	171	4.15	.604	32	1	2.38	136	.08	<3	2.93	.03	.57	<2	5	-
A 126514	6	7631	1995	3273	104.3	4	9	4649	2.94	25	<8	<2	<2	246	45.5	42	3	16	15.21	.039	5	3	4.77	9	<.01	<3	.71	<.01	<.01	3	55	-
A 126515	1	284	1923	4072	1.2	3	9	4784	2.72	3	<8	<2	<2	259	25.8	<3	<3	9	19.10	.009	2	1	7.06	114	<.01	<3	.36	.01	.01	<2	11	-
A 126516	3	144	135	63	.8	2	9	506	.42	25	<8	<2	<2	33	.8	<3	<3	3	1.45	.049	3	9	.05	41	<.01	<3	.21	.01	.16	5	6	-
STANDARD DS5/AU-R	13	145	26	139	.5	25	12	772	2.92	18	<8	<2	3	49	5.7	5	6	62	.74	.095	12	184	.66	140	.10	15	2.08	.04	.13	3	487	-

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK R150 60C AU** GROUP 3B - 30.00 GM SAMPLE ANALYSIS BY FA/ICP.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 7 2003 DATE REPORT MAILED: July 11/03 SIGNED BY.......... D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data ___ FA ___

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Sample gm
A 126767	16	18	27	52	.5	4	<1	356	1.08	7	<8	<2	<2	38	<.5	<3	<3	<1	.58	.023	92	<1	.09	29	<.01	<3	.29	.03	.30	<2	3	-
A 126768	8	7	30	71	.9	6	1	61	2.03	7	<8	<2	3	23	<.5	<3	<3	1	.22	.075	53	2	.02	61	.09	<3	.24	.03	.31	<2	<2	-
A 126769	3	13	28	27	1.4	16	10	275	3.26	9	<8	<2	<2	24	<.5	<3	<3	4	.82	.168	11	1	.03	21	.22	4	.32	<.01	.46	<2	8	-
A 126770	4	634	22	12357	1.5	6	2	816	1.33	24	<8	<2	<2	184	47.5	4	<3	5	6.77	.019	3	14	.51	22	<.01	<3	.11	<.01	.02	3	7	-
A 126771	1	65	36	293	.5	7	17	1053	4.00	27	<8	<2	<2	44	1.1	<3	<3	28	3.16	.108	8	1	.90	113	.01	3	1.36	.02	.17	<2	9	2800
A 126772	4	61	30	1719	.4	5	8	2951	3.22	38	<8	<2	<2	270	4.7	<3	<3	7	24.53	.058	5	3	.20	74	<.01	<3	.24	<.01	.04	<2	3	1500
A 126773	<1	101	38	139	.4	9	24	1637	3.77	30	<8	<2	<2	125	.5	<3	<3	14	12.28	.064	3	1	.39	143	<.01	3	.78	<.01	.19	<2	8	1700
A 126774	3	20	4	34	<.3	<1	4	409	1.95	4	<8	<2	<2	15	<.5	<3	<3	7	.53	.039	5	9	.62	14	.03	3	.91	.05	.01	2	<2	1200
A 126775	1	5	<3	9	<.3	<1	2	72	1.05	2	<8	<2	<2	5	<.5	<3	<3	5	.08	.011	7	2	.06	116	<.01	<3	.20	.04	.01	4	8	-
A 126776	3	78	<3	13	<.3	<1	5	233	1.39	5	<8	<2	<2	12	<.5	<3	<3	5	.10	.010	5	16	.56	194	.03	3	.73	.04	.03	2	<2	2000
A 126777	3	63	8	42	<.3	14	10	359	3.71	66	8	<2	<2	14	<.5	<3	<3	33	.90	.060	3	6	1.13	67	.08	<3	1.19	.02	.10	<2	<2	-
A 126778	3	3	7	28	<.3	<1	2	495	4.12	20	8	<2	<2	27	<.5	<3	<3	4	2.01	.056	5	8	.13	30	<.01	<3	.20	.06	.01	<2	3	-
RE A 126778	3	4	5	26	<.3	<1	2	480	4.05	18	<8	<2	<2	26	<.5	<3	<3	3	1.95	.054	4	9	.13	28	<.01	<3	.19	.05	.01	<2	5	-
A 126779	10	37	31	86	.7	41	5	222	3.13	12	<8	<2	<2	17	<.5	<3	<3	12	.29	.024	3	31	.31	109	<.01	<3	.60	<.01	.12	<2	51	1500
A 126780	21	43	301	93	2.5	50	22	178	5.87	89	<8	<2	<2	16	<.5	3	<3	7	.24	.048	2	20	.09	50	<.01	<3	.26	.01	.16	<2	615	-
A 126781	2	9	7	1	<.3	3	6	44	1.73	78	<8	<2	<2	5	<.5	<3	4	1	.04	.016	1	1	.01	87	<.01	<3	.29	<.01	.09	<2	59	1400
A 126782	5	7	6	34	.4	18	1	165	1.45	12	<8	<2	<2	12	<.5	<3	<3	12	.18	.074	4	17	.59	69	<.01	<3	.79	<.01	.05	2	4	2000
STANDARD DS5/AU-R	12	142	25	143	.3	24	12	746	2.84	18	<8	<2	3	47	5.4	4	6	58	.73	.094	12	190	.64	138	.09	14	2.02	.03	.12	3	457	-

Sample type: ROCK R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

ASSAY CERTIFICATE

Roca Mines Inc. PROJECT FOREMORE File # A302395R

500 - 1045 Howe St., Vancouver BC V6Z 2A9 Submitted by: Sandy Sears

SAMPLE#	Cu %	Pb %	Zn %	Ag gm/mt	As %	Au** gm/mt
A 126029	.049	.13	2.20	21.0	.37	.20
A 126030	.197	3.27	3.36	71.8	5.67	5.09
A 126033	.060	7.34	5.84	1964.1	-	95.90
A 126034	.005	.51	.11	48.2	-	.18
A 126035	.008	.08	.02	90.0	-	.85
A 126270	.012	.30	.02	2.6	-	.21
RE A 126270	.012	.30	.02	2.4	-	.29
A 126514	.886	.22	.38	118.6	-	-
A 126515	.032	.20	.46	1.4	-	-
A 126770	-	-	1.29	-	-	-
A 126780	-	-	-	-	-	.71
STANDARD R-2/AU-1	.555	1.50	4.25	155.1	.24	3.31

GROUP 7AR - 1.000 GM SAMPLE, AQUA - REGIA (HCL-HNO3-H2O) DIGESTION TO 100 ML, ANALYSED BY ICP-ES.
AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.
- SAMPLE TYPE: ROCK PULP Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 11 2003 DATE REPORT MAILED: July 21/03 SIGNED BY. C.L........D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Roca Mines Inc. PROJECT FOREMORE File # A302312 Page 1
500 - 1045 Howe St., Vancouver BC V6Z 2A9 Submitted by: Sandy Sears

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Sample gm
SI	<1	4	4	3	<.3	<1	<1	4	.04	<2	<8	<2	<2	3	<.5	<3	<3	<1	.10	<.001	<1	2	<.01	4	<.01	<3	.01	.49	.01	<2	3	-
A 126001	20	162	12	47	.7	5	8	747	5.10	423	<8	<2	<2	55	.5	4	<3	6	1.05	.068	5	7	.61	23	.01	<3	1.07	.03	.14	3	9	2100
A 126002	<1	74	195	119	.4	6	20	1086	4.50	21	<8	<2	<2	53	<.5	4	<3	49	3.19	.097	3	4	1.70	53	.25	<3	2.00	.02	.05	<2	<2	1300
A 126003	14	75	2368	30797	34.0	1	2	400	4.41	479	<8	<2	<2	38	130.3	74	<3	2	.28	.005	<1	5	.02	12	<.01	<3	.02	<.01	<.01	<2	4	1600
A 126004	4	664	>9999	53557	33.5	2	42	172	14.54	>9999	10	6	2	3	362.5	133	11	4	.03	.014	2	10	.18	11	<.01	<3	.51	<.01	.08	<2	4956	2200
A 126005	2	251	>9999	10510	35.1	<1	6	75	15.54	>9999	19	10	4	10	82.9	269	7	3	.03	.014	2	1	.09	9	<.01	<3	.33	<.01	.06	<2	8806	2600
A 126006	5	221	2607	23787	8.3	1	10	291	17.94	>9999	17	12	2	6	188.2	258	9	4	.03	.013	1	14	.22	13	<.01	<3	.49	<.01	.06	<2	7521	2000
A 126007	<1	64	2936	730	4.4	<1	3	99	13.30	>9999	12	9	2	15	6.3	214	6	3	.07	.025	1	1	.06	17	.01	<3	.35	<.01	.08	2	7601	1600
A 126008	13	4799	147	2924	5.5	3	111	1292	32.96	1444	<8	2	4	1	15.8	5	10	8	.23	.005	1	11	.77	7	.02	6	1.23	<.01	.01	<2	552	1700
A 126009	4	421	6813	16581	20.5	<1	22	302	18.93	>9999	<8	4	2	3	150.2	64	10	6	.05	.036	2	4	.34	18	<.01	<3	.87	<.01	.11	<2	4366	2300
A 126010	2	63	52	141	1.4	<1	7	488	4.49	225	<8	<2	2	12	.7	<3	<3	9	.60	.123	9	4	.70	74	<.01	<3	1.26	.01	.27	<2	85	2500
A 126011	1	137	3265	22201	11.0	2	18	280	6.50	>9999	<8	3	<2	2	141.8	16	<3	5	.04	.026	5	7	.31	25	<.01	<3	.90	<.01	.10	<2	3318	1700
A 126012	3	513	>9999	8681	84.1	1	<1	112	2.94	>9999	<8	<2	<2	4	72.9	47	4	2	.04	.035	2	12	.09	25	<.01	<3	.37	<.01	.10	<2	765	2000
A 126013	<1	162	1009	934	3.7	1	7	1034	15.04	3078	<8	<2	2	5	5.0	<3	<3	12	.11	.056	3	2	.54	39	<.01	<3	1.75	<.01	.08	<2	173	1600
A 126014	3	712	6025	12120	31.2	1	3	486	8.98	>9999	<8	<2	<2	17	69.1	22	8	2	.78	.058	5	12	.30	20	<.01	<3	.66	<.01	.16	<2	2094	2000
A 126015	4	712	266	3836	3.1	16	15	1133	2.99	165	<8	<2	<2	45	17.8	4	<3	5	1.16	.027	1	3	.42	50	<.01	<3	.18	.02	.09	<2	47	1500
A 126016	1	209	56	282	.9	23	38	1278	5.21	140	<8	<2	<2	74	1.0	4	<3	91	1.22	.097	2	22	1.91	25	.31	<3	1.82	.04	.03	<2	56	1800
A 126017	2	7	30	158	.6	4	9	743	4.45	48	<8	<2	<2	237	.5	3	<3	8	4.20	.376	6	1	.15	53	<.01	<3	.44	.03	.23	2	6	1600
A 126018	16	1111	223	527	8.1	6	<1	17	23.17	9	<8	<2	2	2	1.7	<3	<3	1	.03	.002	1	13	<.01	5	<.01	3	.04	.03	<.01	2	361	2300
RE A 126018	16	1156	232	544	8.4	5	<1	16	24.29	5	<8	<2	2	1	1.1	<3	<3	<1	.01	.001	1	13	<.01	4	<.01	3	.04	.03	<.01	2	360	-
A 126251	33	24	29	113	.3	2	1	1080	5.59	40	<8	<2	<2	264	.9	<3	<3	2	2.63	.014	6	1	.20	28	.01	<3	.44	.04	.07	<2	4	-
A 126252	5	34034	126	785	8.3	8	5	316	7.54	28	<8	<2	<2	5	3.6	<3	<3	8	.27	.001	<1	19	.24	20	<.01	<3	.23	<.01	.01	2	75	-
A 126253	19	2244	205	3897	3.2	2	3	214	.77	13	<8	<2	<2	7	26.6	<3	5	2	.22	.002	1	3	.04	130	<.01	<3	.07	.01	.03	<2	245	1500
A 126254	8	80	13	23	.5	2	<1	431	3.03	12	<8	<2	2	17	<.5	<3	<3	1	.23	.037	17	7	.03	22	.01	<3	.21	.04	.25	<2	9	-
A 126255	11	26	17	33	.4	<1	1	39	1.04	30	<8	<2	<2	23	<.5	<3	<3	<1	.16	.094	52	1	.03	87	.01	<3	.33	.04	.28	<2	2	-
A 126256	3	472	6	8	8.7	6	12	36	6.50	10	<8	<2	<2	107	1.5	<3	4	53	.05	.016	<1	25	.01	14	.04	3	.07	.04	<.01	8	638	1600
A 126257	9	59	8	37	.3	2	7	672	7.24	22	<8	<2	<2	14	<.5	<3	3	34	.26	.058	2	3	1.13	22	.11	<3	1.43	.04	.02	<2	5	1600
A 126258	6	35	10	355	.4	21	3	469	1.74	16	8	<2	<2	50	4.2	<3	<3	55	2.87	.035	4	9	.40	144	.01	<3	.71	<.01	.12	3	2	-
A 126259	2	1031	<3	18	.4	3	175	394	15.53	2	<8	<2	2	1	<.5	3	<3	4	.34	.029	<1	4	.13	17	<.01	<3	.12	.01	.01	<2	5	2000
A 126260	1	5	<3	35	<.3	6	13	1502	4.54	2	<8	<2	4	32	<.5	<3	4	18	.81	.371	44	3	.24	125	.01	6	1.11	.01	.53	<2	7	-
A 126261	2	39	9	18	.3	10	4	355	.91	6	<8	<2	<2	129	<.5	<3	<3	9	1.23	.011	4	4	.19	81	<.01	3	.35	.01	.06	<2	<2	-
A 126262	3	119	9	47	.3	22	13	1281	3.26	9	<8	<2	<2	389	<.5	<3	<3	21	3.80	.054	3	21	.93	172	<.01	<3	1.45	.01	.14	2	<2	-
A 126263	<1	4	3	4	<.3	1	<1	89	.32	5	<8	<2	<2	18	<.5	<3	<3	1	.60	.001	1	2	.01	53	<.01	<3	.03	<.01	<.01	<2	<2	-
A 126264	1	10	3	67	.4	3	13	3262	4.49	2	<8	<2	<2	358	.6	8	<3	68	7.50	.110	4	5	3.46	44	<.01	<3	.25	.03	.02	<2	<2	-
A 126265	3	24	4	39	.3	9	33	1621	7.05	21	10	<2	<2	330	.6	10	5	175	8.47	.070	7	7	2.90	65	<.01	<3	.38	.02	.10	2	12	-
STANDARD DS4/AU-R	6	127	33	162	.3	34	12	796	3.14	25	<8	<2	3	28	5.3	5	6	75	.54	.090	17	171	.59	145	.09	<3	1.78	.03	.14	4	486	-

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK R150 60C AU** GROUP 3B - 30.00 GM SAMPLE ANALYSIS BY FA/ICP.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUN 30 2003 DATE REPORT MAILED: July 10/03 SIGNED BY. C. L........D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

ACME ANALYTICAL

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Sample gm
A 126266	3	28	<3	37	<.3	4	2	559	1.12	4	<8	<2	<2	82	<.5	<3	<3	15	.94	.008	7	16	.39	948	<.01	<3	.43	.03	.05	3	4	1400
A 126267	6	81	5	23	<.3	30	8	1476	2.49	4	<8	<2	<2	270	<.5	<3	<3	5	2.04	.097	4	3	.39	340	<.01	<3	.24	.01	.07	<2	9	1700
A 126501	1	3	3	13	<.3	9	6	203	2.42	6	<8	<2	<2	3	<.5	3	<3	48	.07	.029	2	23	1.94	53	.03	<3	1.18	.06	.02	2	4	-
A 126502	<1	170	<3	15	<.3	3	3	280	.82	2	<8	<2	<2	27	<.5	<3	<3	9	.32	.002	1	4	.17	836	<.01	<3	.20	.01	.01	<2	6	-
A 126503	3	43	<3	16	<.3	7	6	401	2.32	7	<8	<2	<2	44	<.5	<3	<3	18	1.16	.022	4	29	.19	206	.03	4	.37	.06	.01	5	16	-
A 126504	<1	211	<3	11	<.3	1	3	181	1.72	4	<8	<2	<2	14	<.5	4	4	12	.40	.029	7	2	.13	284	.02	<3	.25	.07	.02	<2	2	1600
A 126505	1	20	<3	51	<.3	7	21	3520	6.28	13	<8	<2	2	263	1.0	10	3	87	17.86	.028	2	5	2.89	101	<.01	<3	.89	.01	.03	2	3	1200
A 126506	<1	534	21	147	1.7	15	28	1656	5.30	4	<8	<2	<2	92	.7	5	<3	131	2.06	.107	8	7	2.41	152	.07	<3	2.63	.04	.08	<2	6	-
A 126507	5	6	<3	4	<.3	3	1	238	.82	<2	<8	<2	<2	24	<.5	<3	<3	2	.83	.016	1	21	.37	37	<.01	<3	.05	.01	.01	5	4	-
A 126508	3	299	25	199	2.1	48	20	2790	5.13	9	<8	<2	<2	48	<.5	3	5	16	.97	.067	2	30	1.01	32	<.01	<3	1.43	.01	.18	<2	51	1100
A 126509	4	19	4	73	<.3	8	1	304	.99	2	<8	<2	<2	34	<.5	<3	<3	1	.94	.005	<1	20	.46	60	<.01	<3	.04	.01	.01	4	6	1000
A 126510	1	28	<3	13	8.3	2	72	368	7.49	3	<8	13	<2	39	<.5	<3	<3	14	.50	.172	1	1	.12	21	<.01	<3	.25	.02	.12	<2	10830	1400
RE A 126510	1	28	7	13	8.2	1	75	380	7.72	2	<8	11	<2	39	<.5	<3	<3	15	.51	.176	1	2	.12	19	<.01	<3	.25	.02	.12	<2	11271	-
A 126751	15	35	13	99	.6	47	40	628	6.39	4	<8	<2	<2	30	<.5	<3	<3	28	.72	.192	7	43	.86	66	<.01	<3	1.85	.02	.19	<2	21	1200
A 126752	11	11	6	82	<.3	12	2	703	5.10	3	<8	<2	2	11	<.5	<3	<3	9	.09	.019	29	2	.56	37	.01	<3	1.45	.06	.08	<2	41	1400
A 126753	2	2	<3	12	<.3	6	4	1125	1.99	2	<8	<2	2	77	<.5	<3	<3	9	1.52	.084	41	18	.19	56	.01	<3	.26	.05	.12	2	<2	1300
A 126754	1	8	3	4	<.3	3	41	93	6.71	23	<8	<2	<2	4	<.5	3	<3	33	.10	.022	<1	2	.23	16	.09	<3	.30	.07	.02	<2	22	1000
A 126755	1	20	<3	25	<.3	9	28	400	5.82	4	<8	<2	<2	5	<.5	3	<3	147	.18	.080	3	14	2.27	35	.01	<3	1.87	.07	.03	2	5	1500
A 126756	3	163	53	600	.6	2	4	50	.63	14	<8	<2	<2	5	3.0	16	<3	3	.08	.006	<1	1	.03	179	<.01	<3	.10	<.01	.08	<2	8	1000
A 126757	2	5	<3	13	<.3	3	13	282	3.83	11	<8	<2	<2	7	<.5	<3	<3	47	.44	.041	2	5	.55	17	.10	<3	.60	.09	.01	2	10	1600
A 126758	1	25	<3	30	<.3	6	22	508	6.06	<2	<8	<2	<2	4	<.5	4	<3	149	.22	.073	2	5	2.26	28	.08	<3	1.93	.05	.02	<2	7	2000
A 126759	2	2	<3	9	<.3	2	1	246	.81	<2	<8	<2	2	26	<.5	<3	<3	6	1.16	.007	20	9	.16	11	<.01	<3	.28	.08	.02	2	12	1700
A 126760	<1	6	4	79	<.3	2	5	841	3.09	3	<8	<2	<2	3	<.5	<3	<3	41	.11	.045	1	4	2.34	35	.06	<3	1.98	.04	<.01	<2	6	1400
A 126761	1	13	20	57	<.3	<1	9	812	5.08	25	<8	<2	2	98	<.5	4	<3	14	1.78	.130	7	5	.98	48	<.01	<3	1.36	.06	.09	2	49	1200
A 126762	7	21	3	31	.9	1	60	484	9.08	<2	<8	<2	<2	56	<.5	<3	<3	33	.71	.213	2	1	.30	25	<.01	5	.44	.02	.23	2	836	1100
A 126763	4	77	<3	33	<.3	1	8	542	3.04	<2	<8	<2	<2	39	<.5	<3	<3	33	.48	.148	5	12	.23	103	<.01	4	.36	.02	.12	2	15	-
A 126764	3	20	5	49	.4	26	3	298	1.98	21	<8	<2	<2	27	<.5	4	<3	7	.74	.011	2	3	.54	61	<.01	<3	.28	.01	.02	<2	11	1700
A 126765	3	28	11	12	.7	5	6	110	4.63	12	<8	<2	<2	4	<.5	<3	3	2	.08	.005	3	9	.02	28	<.01	<3	.23	.01	.18	3	20	1300
A 126766	3	16	18	30	1.5	8	1	61	1.22	35	<8	<2	<2	63	<.5	4	<3	11	.48	.120	6	7	.07	155	<.01	<3	.29	.01	.16	<2	20	1200
STANDARD DS4/AU-R	6	126	29	160	.3	34	12	789	3.19	24	<8	<2	3	28	5.4	6	5	75	.55	.092	17	166	.60	146	.08	<3	1.78	.03	.15	2	475	-

Sample type: ROCK R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

ASSAY CERTIFICATE

Roca Mines Inc. PROJECT FOREMORE File # A302312R

500 - 1045 Howe St., Vancouver BC V6Z 2A9 Submitted by: Sandy Sears

SAMPLE#	Cu %	Pb %	Zn %	Ag gm/mt	As %	Au** gm/mt
A 126003	.008	.32	3.42	37.0	-	-
A 126004	.066	4.55	5.30	35.6	9.50	4.98
A 126005	.025	11.37	1.05	37.4	14.10	8.66
A 126006	.022	.24	2.48	8.7	15.50	8.58
A 126007	.006	.27	.07	4.6	12.59	6.75
A 126008	.474	.01	.30	6.4	.14	.67
A 126009	.041	.60	1.65	20.9	6.17	3.06
A 126011	.014	.31	2.25	11.6	1.80	3.29
A 126012	.050	3.95	.82	80.5	1.69	.81
A 126013	.016	.10	.09	3.7	.28	.16
A 126014	.073	.56	1.19	30.7	1.71	2.02
RE A 126014	.073	.56	1.19	30.3	1.71	2.18
A 126252	3.540	.01	.08	7.3	-	-
A 126253	.223	.02	.38	3.4	-	-
A 126510	-	-	-	8.5	-	10.90
A 126762	-	-	-	-	-	.85
STANDARD R-2/AU-1	.552	1.48	4.24	155.3	.25	3.31

GROUP 7AR - 1.000 GM SAMPLE, AQUA - REGIA (HCL-HNO3-H2O) DIGESTION TO 100 ML, ANALYSED BY ICP-ES.
AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.
- SAMPLE TYPE: ROCK PULP Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 11 2003 DATE REPORT MAILED: July 21/03 SIGNED BY.......D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Roca Mines Inc. File # A303280
500 - 1045 Howe St., Vancouver BC V6Z 2A9

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Sample gm
SI	<1	1	<3	2	<.3	1	<1	2	.03	<2	<8	<2	<2	2	<.5	<3	<3	1	.07	<.001	<1	1	.01	3	<.01	<3	<.01	.37	<.01	<2	5	-
A 126048	17	29	11	15	.6	25	3	88	2.23	75	<8	<2	<2	25	<.5	<3	<3	15	.02	.088	2	10	.09	359	<.01	<3	.29	.04	.10	<2	6	1100
A 126049	3	4	6	4	.5	10	21	70	3.96	18	<8	<2	8	4	<.5	<3	<3	2	.01	.004	25	2	.01	22	.01	<3	.21	.09	.12	<2	38	900
A 126050	63	5	<3	5	<.3	9	3	112	.71	2	<8	<2	<2	21	<.5	<3	<3	2	.42	.004	4	9	.07	75	<.01	<3	.09	.02	.02	<2	4	1300
A 126151	1	16	<3	9	<.3	15	9	461	2.64	<2	<8	<2	<2	52	<.5	<3	<3	6	2.00	.039	2	6	.62	64	<.01	<3	.14	.05	.03	<2	<2	1200
A 126152	5	22	10	69	<.3	31	31	692	6.78	4	<8	<2	<2	62	.7	<3	<3	119	.82	.220	8	38	2.24	34	.39	<3	2.14	.04	.03	<2	2	1500
A 126322	<1	22	20	119	.6	3	14	71	1.97	18	<8	<2	<2	11	1.3	<3	<3	15	.27	.131	7	<1	.05	85	.02	<3	.47	.02	.37	<2	3	1600
A 126848	3	165	1942	4644	3.3	2	4	1995	3.36	25	<8	<2	<2	184	24.1	<3	<3	6	4.70	.106	5	1	1.11	54	.01	<3	1.42	.01	.22	<2	15	4600
A 126849	1	206	1388	4943	4.2	1	5	1506	3.06	28	<8	<2	<2	116	23.9	<3	<3	6	3.37	.116	6	<1	.80	50	<.01	<3	1.35	.01	.23	<2	16	3500
A 126850	2	148	1534	2636	3.1	1	5	1459	3.36	32	<8	<2	<2	121	13.8	<3	<3	3	2.84	.139	7	<1	.93	66	<.01	<3	1.51	.01	.25	<2	12	5400
A 126851	1	214	1347	4998	2.8	17	23	1735	5.30	38	<8	<2	<2	142	30.6	3	<3	76	3.92	.066	3	16	2.14	300	<.01	<3	2.88	.01	.18	<2	6	7500
A 126852	2	621	7647	20249	12.8	3	4	2090	2.67	51	<8	<2	<2	97	128.9	3	6	6	3.95	.096	5	4	.71	145	<.01	<3	1.05	.01	.22	4	34	8300
A 126853	4	733	4248	26909	24.6	1	7	1339	3.49	71	<8	<2	<2	24	188.1	7	<3	6	1.71	.110	5	3	.39	32	<.01	<3	.53	.01	.26	<2	78	5000
A 126854	<1	161	1141	4252	5.6	15	30	1629	6.37	43	<8	<2	<2	160	23.4	<3	<3	165	4.26	.065	3	15	2.31	67	<.01	<3	3.20	.02	.13	<2	38	7300
A 126855	<1	93	103	306	.9	18	30	1784	6.32	78	<8	<2	<2	196	2.0	<3	<3	187	5.33	.055	3	24	2.42	74	.01	<3	3.27	.02	.08	<2	24	5700
A 126856	12	630	4563	25977	16.1	35	2	1288	5.72	3899	<8	2	<2	163	144.8	<3	7	121	4.70	.044	3	8	.69	28	<.01	<3	1.34	<.01	.16	<2	3966	2000
A 126857	1	231	1585	11641	12.1	27	19	1304	6.26	389	<8	<2	<2	109	64.2	<3	5	82	4.00	.071	4	35	1.88	46	.01	<3	2.53	.01	.19	<2	1111	11100
A 126858	59	337	1284	4261	8.0	65	13	1934	7.15	154	10	<2	<2	245	22.3	<3	5	129	7.10	.094	4	11	1.55	36	<.01	<3	2.00	<.01	.15	<2	379	7800
A 126859	7	241	2660	6858	13.9	15	13	1315	4.19	75	<8	<2	<2	153	39.1	<3	8	28	4.00	.091	4	19	1.15	80	<.01	<3	1.72	.01	.19	<2	193	7300
A 126860	10	98	1685	1452	7.7	3	8	1275	4.35	58	<8	<2	<2	168	7.6	<3	5	8	4.39	.105	4	2	.72	39	<.01	<3	1.12	<.01	.25	<2	182	10600
RE A 126860	10	99	1680	1436	7.4	3	8	1264	4.29	57	<8	<2	<2	167	7.3	<3	4	8	4.35	.104	4	2	.71	38	<.01	<3	1.11	<.01	.23	<2	92	-
A 126861	8	1047	441	923	15.1	20	20	1721	10.83	107	8	<2	<2	184	5.9	<3	14	86	7.07	.192	6	4	1.30	28	<.01	<3	2.05	.01	.16	<2	156	9400
A 126862	11	117	683	407	5.3	13	12	2856	4.56	88	<8	<2	<2	565	1.9	<3	<3	52	10.69	.069	5	13	1.41	62	<.01	<3	1.83	.01	.15	<2	71	5300
A 126863	1	138	99	1627	1.0	3	3	2397	2.45	8	<8	<2	<2	214	9.9	<3	<3	18	7.25	.122	10	1	1.30	83	.01	<3	1.57	.01	.21	<2	23	7200
A 126864	13	6189	>9999	56928	152.2	80	36	938	18.16	22	<8	2	<2	28	266.5	25	5	4	.62	.017	1	<1	.28	3	<.01	<3	.22	.02	.07	<2	3763	5400
A 126865	15	1119	>9999	>99999	>200	50	6	981	15.85	60	<8	<2	<2	18	495.3	126	<3	1	1.06	.001	<1	<1	.42	1	<.01	<3	.04	<.01	.01	<2	2308	16700
A 126866	<1	101	353	1015	2.3	41	8	2500	2.72	<2	<8	<2	3	82	3.1	<3	<3	7	2.53	.028	5	2	1.04	278	<.01	<3	1.14	.01	.23	<2	36	10100
A 126867	17	579	5289	>99999	139.4	75	26	989	25.84	70	<8	<2	3	9	683.2	22	<3	2	.64	.001	<1	<1	.24	4	<.01	<3	.04	<.01	.01	<2	1877	2000
A 126868	1	1517	276	3229	12.9	46	16	4671	3.51	4	<8	<2	<2	936	13.2	3	<3	17	9.04	.033	3	20	.83	166	<.01	<3	1.07	.01	.09	<2	174	6300
STANDARD DS5/AU-R	12	140	23	136	<.3	24	12	747	2.86	19	<8	<2	2	47	5.4	4	6	59	.73	.094	12	182	.65	138	.10	15	2.02	.04	.13	2	475	-

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK R150 60C AU** GROUP 3B - 30.00 GM SAMPLE ANALYSIS BY FA/ICP.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 11 2003 DATE REPORT MAILED: Aug 25/03 SIGNED BY..........D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Roca Mines Inc. File # A303280
500 - 1045 Howe St., Vancouver BC V6Z 2A9

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Sample gm
SI	<1	1	<3	2	<.3	1	<1	2	.03	<2	<8	<2	<2	2	<.5	<3	<3	1	.07	<.001	<1	1	.01	3	<.01	<3	<.01	.37	<.01	<2	5	-
A 126048	17	29	11	15	.6	25	3	88	2.23	75	<8	<2	<2	25	<.5	<3	<3	15	.02	.088	2	10	.09	359	<.01	<3	.29	.04	.10	<2	6	1100
A 126049	3	4	6	4	.5	10	21	70	3.96	18	<8	<2	8	4	<.5	<3	<3	2	.01	.004	25	2	.01	22	.01	<3	.21	.09	.12	<2	38	900
A 126050	63	5	<3	5	<.3	9	3	112	.71	2	<8	<2	<2	21	<.5	<3	<3	2	.42	.004	4	9	.07	75	<.01	<3	.09	.02	.02	<2	4	1300
A 126151	1	16	<3	9	<.3	15	9	461	2.64	<2	<8	<2	<2	52	<.5	<3	<3	6	2.00	.039	2	6	.62	64	<.01	<3	.14	.05	.03	<2	<2	1200
A 126152	5	22	10	69	<.3	31	31	692	6.78	4	<8	<2	<2	62	.7	<3	<3	119	.82	.220	8	38	2.24	34	.39	<3	2.14	.04	.03	<2	2	1500
A 126322	<1	22	20	119	.6	3	14	71	1.97	18	<8	<2	<2	11	1.3	<3	<3	15	.27	.131	7	<1	.05	85	.02	<3	.47	.02	.37	<2	3	1600
A 126848	3	165	1942	4644	3.3	2	4	1995	3.36	25	<8	<2	<2	184	24.1	<3	<3	6	4.70	.106	5	1	1.11	54	.01	<3	1.42	.01	.22	<2	15	4600
A 126849	1	206	1388	4943	4.2	1	5	1506	3.06	28	<8	<2	<2	116	23.9	<3	<3	6	3.37	.116	6	<1	.80	50	<.01	<3	1.35	.01	.23	<2	16	3500
A 126850	2	148	1534	2636	3.1	1	5	1459	3.36	32	<8	<2	<2	121	13.8	<3	<3	3	2.84	.139	7	<1	.93	66	<.01	<3	1.51	.01	.25	<2	12	5400
A 126851	1	214	1347	4998	2.8	17	23	1735	5.30	38	<8	<2	<2	142	30.6	3	<3	76	3.92	.066	3	16	2.14	300	<.01	<3	2.88	.01	.18	<2	6	7500
A 126852	2	621	7647	20249	12.8	3	4	2090	2.67	51	<8	<2	<2	97	128.9	3	6	6	3.95	.096	5	4	.71	145	<.01	<3	1.05	.01	.22	4	34	8300
A 126853	4	733	4248	26909	24.6	1	7	1339	3.49	71	<8	<2	<2	24	188.1	7	<3	6	1.71	.110	5	3	.39	32	<.01	<3	.53	.01	.26	<2	78	5000
A 126854	<1	161	1141	4252	5.6	15	30	1629	6.37	43	<8	<2	<2	160	23.4	<3	<3	165	4.26	.065	3	15	2.31	67	<.01	<3	3.20	.02	.13	<2	38	7300
A 126855	<1	93	103	306	.9	18	30	1784	6.32	78	<8	<2	<2	196	2.0	<3	<3	187	5.33	.055	3	24	2.42	74	.01	<3	3.27	.02	.08	<2	24	5700
A 126856	12	630	4563	25977	16.1	35	2	1288	5.72	3899	<8	2	<2	163	144.8	<3	7	121	4.70	.044	3	8	.69	28	<.01	<3	1.34	<.01	.16	<2	3966	2000
A 126857	1	231	1585	11641	12.1	27	19	1304	6.26	389	<8	<2	<2	109	64.2	<3	5	82	4.00	.071	4	35	1.88	46	.01	<3	2.53	.01	.19	<2	1111	11100
A 126858	59	337	1284	4261	8.0	65	13	1934	7.15	154	10	<2	<2	245	22.3	<3	5	129	7.10	.094	4	11	1.55	36	<.01	<3	2.00	<.01	.15	<2	379	7800
A 126859	7	241	2660	6858	13.9	15	13	1315	4.19	75	<8	<2	<2	153	39.1	<3	8	28	4.00	.091	4	19	1.15	80	<.01	<3	1.72	.01	.19	<2	193	7300
A 126860	10	98	1685	1452	7.7	3	8	1275	4.35	58	<8	<2	<2	168	7.6	<3	5	8	4.39	.105	4	2	.72	39	<.01	<3	1.12	<.01	.25	<2	182	10600
RE A 126860	10	99	1680	1436	7.4	3	8	1264	4.29	57	<8	<2	<2	167	7.3	<3	4	8	4.35	.104	4	2	.71	38	<.01	<3	1.11	<.01	.23	<2	92	-
A 126861	8	1047	441	923	15.1	20	20	1721	10.83	107	8	<2	<2	184	5.9	<3	14	86	7.07	.192	6	4	1.30	28	<.01	<3	2.05	.01	.16	<2	156	9400
A 126862	11	117	683	407	5.3	13	12	2856	4.56	88	<8	<2	<2	565	1.9	<3	<3	52	10.69	.069	5	13	1.41	62	<.01	<3	1.83	.01	.15	<2	71	5300
A 126863	1	138	99	1627	1.0	3	3	2397	2.45	8	<8	<2	<2	214	9.9	<3	<3	18	7.25	.122	10	1	1.30	83	.01	<3	1.57	.01	.21	<2	23	7200
A 126864	13	6189	>9999	56928	152.2	80	36	938	18.16	22	<8	2	<2	28	266.5	25	5	4	.62	.017	1	<1	.28	3	<.01	<3	.22	.02	.07	<2	3763	5400
A 126865	15	1119	>9999	>99999	>200	50	6	981	15.85	60	<8	<2	<2	18	495.3	126	<3	1	1.06	.001	<1	<1	.42	1	<.01	<3	.04	<.01	.01	<2	2308	16700
A 126866	<1	101	353	1015	2.3	41	8	2500	2.72	<2	<8	<2	3	82	3.1	<3	<3	7	2.53	.028	5	2	1.04	278	<.01	<3	1.14	.01	.23	<2	36	10100
A 126867	17	579	5289	>99999	139.4	75	26	989	25.84	70	<8	<2	3	9	683.2	22	<3	2	.64	.001	<1	<1	.24	4	<.01	<3	.04	<.01	.01	<2	1877	2000
A 126868	1	1517	276	3229	12.9	46	16	4671	3.51	4	<8	<2	<2	936	13.2	3	<3	17	9.04	.033	3	20	.83	166	<.01	<3	1.07	.01	.09	<2	174	6300
STANDARD DS5/AU-R	12	140	23	136	<.3	24	12	747	2.86	19	<8	<2	2	47	5.4	4	6	59	.73	.094	12	182	.65	138	.10	15	2.02	.04	.13	2	475	-

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK R150 60C AU** GROUP 3B - 30.00 GM SAMPLE ANALYSIS BY FA/ICP.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 11 2003 DATE REPORT MAILED: Aug 25/03 SIGNED BY..........D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

ASSAY CERTIFICATE

Roca Mines Inc. File # A303280R
500 - 1045 Howe St., Vancouver BC V6Z 2A9

SAMPLE#	Pb %	Zn %	Ag** gm/mt	Au** gm/mt
A 126852	.83	2.21	-	-
A 126853	.46	2.95	-	-
A 126856	.50	2.89	-	3.10
A 126857	.17	1.28	-	1.24
A 126864	2.43	6.33	167.7	8.52
A 126865	10.15	14.61	229.2	2.32
A 126867	.95	15.53	161.0	3.58
STANDARD GC-2/AU-1	8.90	16.63	1053.5	3.35

GROUP 7AR - 1.000 GM SAMPLE, AQUA - REGIA (HCL-HNO3-H2O) DIGESTION TO 100 ML, ANALYSED BY ICP-ES.
- SAMPLE TYPE: ROCK PULP AG** & AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.

DATE RECEIVED: AUG 28 2003 DATE REPORT MAILED: Sept 10/03 SIGNED BY. C.L. ..D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

ASSAY CERTIFICATE

Roca Mines Inc. File # A305416 Page 1
500 - 1045 Howe St., Vancouver BC V6Z 2A9 Submitted by: Sandy Sears

SAMPLE#	Cu %	Pb %	Zn %	As %	Ag** gm/mt	Au** gm/mt	Sample gm
SI	<.001	<.01	<.01	<.01	<2	<.01	-
A 126414	.007	<.01	<.01	<.01	<2	.16	4400
A 126415	.006	<.01	<.01	<.01	<2	1.15	3500
A 126416	.006	<.01	<.01	<.01	<2	.20	2600
A 126417	.008	<.01	<.01	.01	<2	.23	2500
A 126418	.005	<.01	<.01	<.01	<2	.05	2900
A 126419	.001	<.01	<.01	<.01	<2	.02	1800
A 126420	<.001	<.01	<.01	<.01	<2	.01	2800
A 126421	.003	<.01	<.01	<.01	<2	.04	4500
A 126422	.001	<.01	<.01	<.01	<2	.06	2300
A 126423	.004	<.01	<.01	<.01	<2	.03	2300
A 126424	.001	<.01	<.01	<.01	<2	.02	2700
A 126469	<.001	<.01	<.01	.40	2.3	.07	1100
A 126471	6.468	<.01	.65	.30	2870.5	2.54	1100
A 126472	.524	.01	.05	.57	481.6	.17	1500
A 126473	8.504	.18	.14	.09	513.9	6.27	1900
A 126474	2.725	.82	.29	.13	2682.5	1.35	1800
A 126475	.017	<.01	<.01	.05	11.9	.49	1700
A 126476	.014	<.01	<.01	.03	9.8	.27	1100
A 126477	.004	<.01	<.01	.04	3.8	.41	1300
A 126478	.002	<.01	<.01	.05	<2	.30	1400
A 126479	.004	<.01	<.01	.07	6.3	.78	2100
A 126480	9.481	<.01	<.01	.04	33.4	.47	1300
RE A 126480	9.661	<.01	<.01	.04	35.7	.47	-
A 126481	10.499	<.01	<.01	.03	26.9	.28	2400
A 126482	3.162	<.01	.06	.20	42.8	.10	800
A 126709	23.560	<.01	.04	.07	49.6	.07	1200
A 126710	.054	.02	.05	16.47	12.5	9.35	1000
A 126711	.283	<.01	<.01	.02	<2	.02	1400
A 126712	.311	.03	<.01	.07	2.6	.07	1900
A 126713	.037	<.01	.08	.01	<2	1.44	1900
A 126714	.005	<.01	<.01	<.01	<2	.05	900
A 126715	.019	<.01	<.01	<.01	<2	.02	1000
C 198175	.004	<.01	<.01	<.01	<2	.01	2300
C 198176	.009	<.01	<.01	<.01	<2	.07	5500
C 198177	.001	<.01	<.01	<.01	<2	.03	3900
STANDARD R-2/AU-1	.566	1.53	4.13	.24	152.5	3.36	-

GROUP 7AR - 1.000 GM SAMPLE, AQUA - REGIA (HCL-HNO3-H2O) DIGESTION TO 100 ML, ANALYSED BY ICP-ES.
- SAMPLE TYPE: ROCK R150 60C AG** & AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: OCT 31 2003 DATE REPORT MAILED: Nov 10/03 SIGNED BY.............D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

SAMPLE#	Cu %	Pb %	Zn %	As %	Ag** gm/mt	Au** gm/mt	Sample gm
C 198178	.002	<.01	<.01	.01	<2	.10	5100
C 198179	.007	<.01	<.01	.01	<2	.27	4100
C 198887	.013	<.01	.01	<.01	3.8	.01	600
STANDARD R-2/AU-1	.568	1.52	4.29	.26	160.8	3.35	-

Sample type: ROCK R150 60C.

Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

ASSAY CERTIFICATE

Roca Mines Inc. File # A304969 Page 1

500 - 1045 Howe St., Vancouver BC V6Z 2A9

SAMPLE#	Cu %	Pb %	Zn %	As %	Ag** gm/mt	Au** gm/mt	Sample gm
SI	<.001	<.01	<.01	<.01	<.3	<.01	-
A 126389	.005	<.01	<.01	<.01	1.6	<.01	2100
A 126390	.004	<.01	<.01	.01	<.3	<.01	1900
A 126391	.004	<.01	<.01	.04	.6	<.01	1900
A 126392	.003	<.01	<.01	.01	3.9	<.01	2800
A 126393	.003	<.01	<.01	.06	2.5	<.01	1300
A 126394	.003	<.01	<.01	.16	.7	.01	1800
A 126395	.002	<.01	<.01	.13	1.8	.02	1800
A 126396	.007	<.01	<.01	.06	1.3	.01	1200
A 126397	.008	<.01	<.01	.09	3.1	.03	1600
A 126398	.014	<.01	<.01	.03	3.5	.02	2100
A 126399	.047	<.01	<.01	.11	6.6	.09	2000
A 126400	.003	<.01	<.01	<.01	.5	.37	2300
A 126401	.002	<.01	<.01	<.01	<.3	.13	3700
A 126402	.008	<.01	<.01	<.01	<.3	.41	3500
A 126403	.035	<.01	<.01	<.01	3.0	.06	4900
A 126404	.020	<.01	<.01	.01	2.6	.49	700
A 126405	.001	<.01	<.01	<.01	1.0	.03	2800
A 126406	.001	<.01	.03	<.01	2.8	.05	1700
A 126407	.048	.10	<.01	<.01	9.4	.03	3000
A 126408	.023	<.01	<.01	<.01	<.3	.02	1500
A 126409	.242	.05	<.01	.01	14.9	.03	2200
A 126410	.051	<.01	.02	<.01	7.2	<.01	1300
RE A 126410	.050	<.01	.01	<.01	6.8	<.01	-
A 126411	.020	.01	<.01	<.01	<.3	<.01	2000
A 126412	.003	<.01	<.01	<.01	2.5	<.01	2200
A 126413	.002	<.01	<.01	.01	.6	<.01	2100
A 126459	.006	<.01	<.01	<.01	<.3	<.01	1800
A 126460	<.001	<.01	<.01	<.01	2.4	1.03	1100
A 126461	.043	.17	.25	.01	4.6	.01	1300
A 126462	.012	<.01	<.01	<.01	<.3	<.01	1400
A 126463	.013	.02	.04	<.01	<.3	.01	1800
A 126464	.013	<.01	<.01	<.01	<.3	.01	800
A 126465	.012	<.01	.01	<.01	<.3	<.01	1100
A 126466	<.001	<.01	<.01	.39	2.5	.07	1500
A 126467	.003	<.01	<.01	.32	6.4	.16	1700
STANDARD R-2/AU-1	.565	1.49	4.27	.25	157.8	3.39	-

GROUP 7AR - 1.000 GM SAMPLE, AQUA - REGIA (HCL-HNO3-H2O) DIGESTION TO 100 ML, ANALYSED BY ICP-ES.
AG** & AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.
- SAMPLE TYPE: ROCK R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: OCT 14 2003 DATE REPORT MAILED: Oct 20/2003 SIGNED BY. ....D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

SAMPLE#	Cu %	Pb %	Zn %	As %	Ag** gm/mt	Au** gm/mt	Sample gm
A 126468	.002	<.01	<.01	.07	3.1	.19	1700
A 126470	.001	<.01	<.01	.54	5.1	1.58	2400
A 126707	.104	<.01	<.01	.01	1.3	.02	1500
A 126708	.002	<.01	<.01	<.01	2.4	1.12	2300
C 198171	.012	<.01	<.01	<.01	<.3	.01	1100
C 198172	.010	<.01	<.01	<.01	1.3	.01	1200
C 198173	.001	<.01	<.01	<.01	4.6	<.01	1600
C 198174	.003	<.01	<.01	.01	2.3	<.01	1100
STANDARD R-2/AU-1	.568	1.52	4.27	.25	156.7	3.26	-

Sample type: ROCK R150 60C.

Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

ASSAY CERTIFICATE

Roca Mines Inc. File # A304732 Page 1
500 - 1045 Howe St., Vancouver BC V6Z 2A9

SAMPLE#	Cu %	Pb %	Zn %	As %	Ag** gm/mt	Au** gm/mt	Sample gm
SI	<.001	<.01	<.01	<.01	<.3	<.01	-
A 126189	.005	<.01	.53	<.01	.7	<.01	800
A 126190	<.001	<.01	<.01	<.01	.6	.01	1200
A 126191	.018	<.01	<.01	<.01	.7	.02	1200
A 126192	.001	<.01	<.01	<.01	1.1	<.01	1300
A 126193	.002	.56	4.84	.10	<.3	.10	700
A 126194	.001	<.01	.03	<.01	.4	.01	1000
A 126195	<.001	<.01	<.01	<.01	.3	<.01	1200
A 126196	.021	<.01	<.01	.06	3.8	.06	1600
A 126197	.022	9.00	16.64	.01	104.0	2.84	2000
A 126198	<.001	.02	.03	<.01	<.3	<.01	1600
A 126199	.045	<.01	<.01	.22	1.0	.12	1800
A 126200	.013	<.01	<.01	.12	8.7	.06	1000
A 126340	.004	<.01	.08	.01	<.3	.01	1400
A 126347	.003	<.01	<.01	.04	<.3	.07	2100
A 126348	<.001	<.01	.01	.01	.4	.01	1400
A 126349	<.001	<.01	<.01	<.01	<.3	.02	3300
A 126377	.002	<.01	<.01	.12	<.3	<.01	3500
A 126378	.003	<.01	<.01	.11	3.3	<.01	4200
A 126379	.008	<.01	<.01	<.01	34.0	3.23	2200
A 126380	.019	<.01	<.01	.10	5.8	.07	3400
RE A 126380	.017	<.01	<.01	.10	6.2	.07	-
RRE A 126380	.017	<.01	<.01	.09	4.2	.06	-
A 126381	<.001	<.01	<.01	.02	<.3	.01	2000
A 126382	.004	<.01	<.01	.08	<.3	<.01	5600
A 126383	.010	<.01	<.01	<.01	<.3	<.01	3400
A 126384	.002	<.01	<.01	.26	3.9	<.01	2600
A 126385	.003	<.01	<.01	.11	<.3	.03	3000
A 126386	.002	<.01	<.01	.06	.4	.02	2700
A 126387	.002	<.01	<.01	.04	<.3	<.01	4300
A 126388	.001	<.01	<.01	.08	.8	.01	2500
A 126455	.004	<.01	<.01	.10	<.3	.05	1000
A 126456	.011	<.01	<.01	.34	<.3	.07	1300
A 126701	.002	<.01	<.01	<.01	10.2	.49	500
A 126702	.013	<.01	<.01	.27	7.6	.06	400
A 126703	.003	<.01	<.01	.07	.8	<.01	1600
STANDARD R-2/AU-1	.577	1.45	4.25	.25	153.7	3.32	-

GROUP 7AR - 1.000 GM SAMPLE, AQUA - REGIA (HCL-HNO3-H2O) DIGESTION TO 100 ML, ANALYSED BY ICP-ES.
- SAMPLE TYPE: ROCK R150 60C AG** & AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: OCT 2 2003 **DATE REPORT MAILED:** Oct 15/2003 **SIGNED BY** ......D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

SAMPLE#	Cu %	Pb %	Zn %	As %	Ag** gm/mt	Au** gm/mt	Sample gm
A 126704	.026	<.01	<.01	.12	7.5	.09	1400
A 126705	2.331	<.01	.39	.54	36.2	.03	800
A 126706	.067	<.01	.01	.03	3.0	.01	300
STANDARD R-2/AU-1	.559	1.64	4.09	.26	156.2	3.43	-

Sample type: ROCK R150 60C.

 Data___ FA ____

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

ASSAY CERTIFICATE

Roca Mines Inc. File # A304436
500 - 1045 Howe St., Vancouver BC V6Z 2A9

SAMPLE#	Cu %	Pb %	Zn %	As %	Ag** gm/mt	Au** gm/mt	Sample gm
SI	.001	<.01	<.01	<.01	<.3	<.01	-
A 126353	.004	.01	.19	.01	4.5	.08	2300
A 126354	.004	<.01	.17	.01	1.3	.04	2500
A 126355	.010	<.01	.66	.01	2.2	.10	3500
A 126356	.023	<.01	.78	.01	4.7	.11	2800
A 126357	.006	<.01	.33	.01	2.6	.06	4400
A 126358	.003	<.01	.07	<.01	1.4	.04	3800
A 126359	.001	<.01	.05	<.01	1.8	.02	3400
A 126360	.005	<.01	.06	.01	2.2	.07	4400
A 126361	.004	<.01	<.01	.01	2.6	.08	3400
A 126362	.029	<.01	.04	.01	3.1	.09	3500
A 126363	.012	<.01	.17	<.01	.7	.02	2800
A 126364	.015	<.01	.01	<.01	.3	.01	2900
A 126365	.007	<.01	.03	.01	2.2	.02	2400
A 126366	.008	<.01	.02	.01	7.0	.08	3700
A 126367	.024	<.01	.04	<.01	2.6	.05	4300
A 126368	.001	<.01	.03	<.01	.5	.02	3100
A 126369	.003	<.01	.04	<.01	1.5	.03	5400
A 126370	.003	<.01	.06	<.01	1.7	.03	7000
RE A 126370	.003	<.01	.06	<.01	.8	.06	-
A 126371	.002	<.01	.01	<.01	.5	.01	6400
A 126372	.004	<.01	.01	<.01	.4	.03	8200
A 126373	.004	<.01	<.01	<.01	2.0	.03	7700
A 126374	.003	.01	.02	<.01	1.1	.02	5000
A 126375	.016	.05	.19	<.01	3.7	.04	6400
A 126376	3.621	<.01	.09	.24	55.5	.13	2300
A 126457	.003	<.01	<.01	<.01	<.3	<.01	1200
A 126458	.013	<.01	<.01	<.01	.3	<.01	1300
C 198954	.004	<.01	<.01	<.01	.5	.01	1400
C 198955	.004	<.01	.01	.02	2.7	.02	1400
C 198956	.001	<.01	<.01	<.01	.5	<.01	1600
C 198957	1.103	<.01	.09	.15	524.7	.83	2000
C 198958	.019	.02	.04	<.01	3.0	.02	2900
C 198959	.131	.02	<.01	.09	12.3	<.01	2100
C 198960	.003	<.01	<.01	<.01	<.3	.01	1500
C 198961	.002	<.01	<.01	<.01	.7	<.01	2000
STANDARD R-2/AU-1	.583	1.51	4.28	.26	155.5	3.33	-

GROUP 7AR - 1.000 GM SAMPLE, AQUA - REGIA (HCL-HNO3-H2O) DIGESTION TO 100 ML, ANALYSED BY ICP-ES.
AG** & AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.
- SAMPLE TYPE: ROCK R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 23 2003 DATE REPORT MAILED: Oct 7/2003 SIGNED BY. [signature] ...D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

 Data [initials] FA [initials]

ACME ANALYTICAL LABORATORIES LTD.   852 E. HASTINGS ST. VANCOUVER BC V6A 1R6   PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Roca Mines Inc. PROJECT FOREMORE   File # A303812

500 - 1045 Howe St., Vancouver BC V6Z 2A9   Submitted by: Sandy Sears

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
SI	<1	3	<3	3	<.3	1	<1	8	.09	<2	<8	<2	<2	3	<.5	<3	<3	<1	.10	.001	<1	2	.02	5	<.01	<3	.01	.50	<.01	<2	<2
A 126181	2	16	39	18	1.4	13	12	202	5.83	90	<8	<2	<2	9	<.5	<3	<3	34	.02	.023	2	12	.83	12	<.01	<3	.93	.03	.10	2	440
A 126182	1	926	5	49	3.9	7	75	2118	21.64	69	<8	<2	4	4	1.0	<3	<3	46	3.77	.012	1	10	.21	54	.08	<3	1.03	<.01	.01	<2	323
A 126183	25	1114	223	123	13.2	15	401	824	30.89	1957	<8	<2	5	9	<.5	<3	<3	21	.14	.016	<1	8	.73	8	.03	<3	.76	<.01	.01	2	395
A 126184	1	13	5	3	<.3	<1	2	35	1.05	5	<8	<2	<2	27	<.5	<3	<3	1	.09	.021	4	1	.09	85	.07	<3	.30	.04	.21	<2	5
A 126185	52	23	14	96	<.3	25	12	618	4.47	13	<8	<2	<2	380	.7	<3	<3	24	5.08	.395	13	6	.98	60	.01	<3	1.21	.03	.20	<2	5
A 126186	<1	8	3	16	<.3	2	14	205	3.52	11	<8	<2	<2	18	<.5	<3	<3	34	.16	.022	3	2	.81	68	.07	<3	.79	.04	.02	<2	6
A 126187	7	105	43	54	.5	5	11	308	40.17	6	<8	<2	5	4	<.5	<3	11	271	.03	.127	1	80	.04	42	.05	<3	1.14	<.01	.09	<2	35
A 126188	4	107	53	53	1.2	123	42	255	7.09	115	<8	<2	2	20	<.5	3	<3	19	.61	.277	4	37	.17	13	.03	<3	.49	<.01	.31	2	26
A 126204	<1	77	7	99	<.3	10	28	2591	6.47	53	<8	<2	<2	84	.7	<3	<3	111	3.43	.043	3	5	2.64	116	<.01	<3	3.22	.02	.18	4	10
A 126334	<1	8	3	22	<.3	99	21	1874	3.20	5	<8	<2	<2	497	<.5	<3	<3	40	8.83	.027	1	134	4.45	38	<.01	<3	.49	.01	.04	<2	<2
A 126335	<1	179	4	49	1.2	254	81	1573	14.44	98	<8	<2	2	177	.9	<3	<3	27	5.98	.057	1	40	2.60	17	<.01	<3	.19	.01	.13	2	4835
A 126336	<1	<1	14	3	4.9	51	43	32	33.46	169	<8	<2	5	4	<.5	<3	<3	1	.08	.001	<1	5	.03	5	<.01	<3	.03	.02	.02	<2	394
A 126337	<1	7	18	18	.3	20	24	1699	5.72	92	<8	<2	2	354	<.5	<3	<3	5	3.85	.015	1	3	1.75	13	<.01	<3	.08	.06	.02	<2	96
A 126338	1	60	20	70	.7	16	28	2068	6.23	45	<8	<2	3	395	.6	4	<3	15	6.47	.236	6	6	2.16	23	<.01	<3	.16	.04	.06	<2	85
RE A 126338	<1	60	22	70	.8	16	28	2043	6.17	42	<8	<2	3	390	.6	4	<3	15	6.43	.233	6	6	2.14	24	<.01	<3	.15	.04	.06	<2	100
A 126541	<1	224	108	10	3.2	184	160	83	25.88	4574	<8	<2	4	7	<.5	<3	5	4	.09	.005	<1	3	.04	5	<.01	<3	.11	<.01	.08	<2	2238
A 126542	<1	12	16	17	.4	66	35	3488	14.61	597	<8	<2	2	100	1.1	<3	<3	11	5.64	.004	<1	2	4.03	35	<.01	<3	.07	.01	.04	2	122
A 126543	1	27	<3	18	<.3	21	<1	6343	21.65	57	<8	<2	4	20	.9	<3	<3	12	.65	.005	<1	3	5.11	68	<.01	<3	.07	<.01	.05	<2	10
A 126544	<1	273	115	51	3.1	225	157	1659	36.74	4234	<8	<2	5	3	.5	10	6	9	.06	.001	<1	4	1.13	10	<.01	<3	.03	.01	.03	<2	1668
A 126545	<1	23	15	9	<.3	51	29	2231	13.02	244	<8	<2	2	23	<.5	7	<3	9	.48	.006	<1	3	1.01	15	<.01	<3	.08	<.01	.05	2	56
A 126546	3	33404	<3	402	77.4	31	<1	>9999	31.96	216	8	<2	6	2	2.9	1846	<3	5	.18	<.001	<1	2	3.44	8	.01	<3	.01	.01	.03	<2	1412
STANDARD DS5/AU-R	12	143	25	135	<.3	24	12	771	3.00	19	<8	<2	3	49	5.6	4	7	60	.74	.096	12	190	.68	144	.10	17	2.10	.04	.15	4	493

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK R150 60C   AU** GROUP 3B - 30.00 GM SAMPLE ANALYSIS BY FA/ICP.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 27 2003 **DATE REPORT MAILED:** Sept 16/03 **SIGNED BY** C. L........D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

ASSAY CERTIFICATE

Roca Mines Inc. File # A302767
500 - 1045 Howe St., Vancouver BC V6Z 2A9 Submitted by: John Bakers

SAMPLE#	Mo %	Cu %	Pb %	Zn %	Ag** gm/mt	Ni %	Co %	Mn %	Fe %	As %	Sr %	Cd %	Sb %	Bi %	Ca %	P %	Cr %	Mg %	Al %	Na %	K %	W %	Hg %	Au** gm/mt	Sample gm
SI	<.001	.008	<.01	<.01	<.3	<.001	<.001	<.01	.13	<.01	<.001	<.001	<.001	<.01	.11	<.001	.001	.03	.04	.48	.01	<.001	<.001	<.01	-
A 126201	<.001	.098	6.93	10.79	171.9	.009	.001	.10	22.32	.01	.018	.041	.011	<.01	.76	.008	<.001	.31	.22	.01	.06	<.001	.011	.65	2000
A 126202	<.001	.173	.42	4.04	58.9	.008	.004	.22	11.16	.01	.020	.018	.001	<.01	2.87	.020	.002	.72	.98	.02	.25	<.001	.003	2.53	1200
A 126203	<.001	.184	3.31	14.93	55.9	.001	.001	.17	4.85	.02	.014	.075	.002	<.01	4.32	.048	.001	.52	1.00	.01	.23	<.001	.002	.28	1400
STANDARD R-2/AU-1	.047	.565	1.44	4.19	157.4	.362	.044	.20	21.23	.25	.168	.028	.124	<.01	2.32	.079	.069	1.57	1.47	.20	.50	.063	.161	3.35	-

GROUP 7AR - 1.000 GM SAMPLE, AQUA - REGIA (HCL-HNO3-H2O) DIGESTION TO 100 ML, ANALYSED BY ICP-ES.
AG** & AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.
- SAMPLE TYPE: ROCK R150 60C

DATE RECEIVED: JUL 22 2003 DATE REPORT MAILED: Aug 4/03 SIGNED BY C. Leong D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Roca Mines Inc. PROJECT FOREMORE File # A304223

500 - 1045 Howe St., Vancouver BC V6Z 2A9 Submitted by: John Mirko

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Sample gm
SI	1	4	<3	3	<.3	3	<1	19	.20	<2	<8	<2	<2	10	<.5	<3	<3	1	.39	.001	<1	3	.01	11	<.01	<3	.04	1.29	.02	<2	-
A 126341	1	6	5	139	<.3	38	57	1807	14.18	29	<8	<2	2	18	.8	<3	7	122	.22	.037	1	88	4.44	14	.11	3	4.11	.01	.03	<2	1800
A 126342	2	12	79	44	<.3	4	2	838	.78	8	<8	<2	<2	49	1.0	<3	4	2	3.36	.006	1	14	.04	46	<.01	<3	.07	.01	.03	2	2200
A 126343	4	3	8	10	<.3	3	2	346	1.29	13	<8	<2	<2	14	<.5	<3	<3	1	.64	.007	<1	16	.02	41	<.01	<3	.04	<.01	.02	<2	1100
A 126344	<1	30	55	4	.6	13	15	855	5.71	317	<8	<2	3	22	<.5	<3	<3	15	.33	.130	11	5	.28	20	<.01	5	.16	.08	.05	<2	2900
A 126345	<1	3148	998	1293	>200	18	3	>9999	32.61	2355	<8	<2	4	3	10.7	>2000	11	5	.22	<.001	<1	<1	1.80	88	<.01	<3	.03	.01	.02	<2	1500
A 126346	3	46	2529	2096	11.2	20	17	9427	23.97	189	15	<2	3	40	9.9	41	<3	12	.50	.052	2	1	1.09	122	<.01	4	.22	.01	.15	<2	1500
A 126350	4	10	11	17	1.8	5	2	742	1.49	15	<8	<2	<2	8	<.5	7	<3	1	.30	.009	2	10	.02	90	<.01	<3	.09	.03	.03	<2	2800
A 126351	12	6	24	45	.7	3	3	988	5.24	11	<8	<2	<2	240	<.5	<3	<3	2	2.01	.062	11	3	.46	70	<.01	4	1.05	.03	.14	<2	1500
A 126352	26	9	8	4	1.2	4	3	104	1.52	19	<8	<2	<2	22	<.5	<3	<3	2	.25	.008	6	3	.02	81	<.01	3	.21	.03	.14	<2	2000
A 126547	1	21	11	144	<.3	4	12	2218	4.27	15	<8	<2	2	228	.6	<3	5	38	5.49	.061	7	3	1.29	126	.01	3	2.21	.03	.22	<2	1000
A 126548	2	34	4	3	.4	4	18	105	4.96	<2	<8	<2	<2	13	<.5	<3	<3	80	.21	.110	3	2	1.26	27	<.01	<3	1.48	.06	.14	<2	800
A 126549	<1	34	4	9	<.3	7	3	441	.56	<2	<8	<2	<2	69	<.5	<3	3	4	2.70	.009	3	5	.09	823	<.01	<3	.17	.01	.07	<2	1500
RE A 126549	1	35	6	8	<.3	7	4	443	.56	3	<8	<2	<2	69	<.5	<3	<3	4	2.71	.008	3	4	.09	824	<.01	<3	.16	<.01	.06	<2	-
C 198951	3	4471	3454	6655	2.1	10	43	1153	6.53	24	<8	<2	<2	36	53.4	66	11	165	1.42	.103	7	1	2.51	225	.01	4	3.58	.04	.05	<2	1300
C 198952	2	28	23	60	<.3	3	24	668	8.17	19	<8	<2	<2	8	<.5	<3	<3	52	.34	.081	5	5	2.14	26	.06	3	2.14	.06	.08	<2	1200
C 198953	1	12290	7647	77	11.6	4	2	304	1.85	<2	<8	<2	<2	49	2.1	<3	13	8	1.60	.003	1	16	.21	57	<.01	<3	.28	.01	.02	<2	2000
STANDARD DS5	12	143	24	130	.3	23	12	757	2.86	18	<8	<2	2	46	5.4	5	6	57	.71	.090	11	184	.66	136	.10	16	2.00	.03	.13	5	-

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK R150 60C TOTAL WEIGHT FOR ROCK SAMPLES. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 15 2003 DATE REPORT MAILED: Oct 1/2003 SIGNED BY ....D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

 Data___ FA ____

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

ASSAY CERTIFICATE

Roca Mines Inc. PROJECT FOREMORE File # A304223

500 - 1045 Howe St., Vancouver BC V6Z 2A9 Submitted by: John Mirko

SAMPLE#	Cu %	Pb %	Zn %	Ag** gm/mt	Au** gm/mt
SI	<.001	<.01	<.01	<.3	<.01
A 126341	.001	<.01	.02	1.4	.02
A 126342	.001	<.01	<.01	2.1	.01
A 126343	<.001	<.01	<.01	<.3	<.01
A 126344	.002	<.01	<.01	.7	.19
A 126345	.330	.11	.14	739.5	.17
A 126346	.005	.27	.23	11.5	.02
A 126350	<.001	<.01	<.01	1.0	.02
A 126351	<.001	<.01	<.01	1.9	<.01
A 126352	<.001	<.01	<.01	1.3	.09
A 126547	.001	<.01	.01	<.3	<.01
A 126548	.002	<.01	<.01	1.4	.01
A 126549	.002	<.01	<.01	<.3	.01
RE A 126549	.002	<.01	<.01	<.3	.01
C 198951	.442	.33	.60	1.4	.01
C 198952	.004	<.01	<.01	<.3	<.01
C 198953	1.220	.75	<.01	11.6	.01
STANDARD R-2/AU-1	.560	1.49	4.22	157.0	3.30

GROUP 7AR - 1.000 GM SAMPLE, AQUA - REGIA (HCL-HNO3-H2O) DIGESTION TO 100 ML, ANALYSED BY ICP-ES.
- SAMPLE TYPE: ROCK R150 60C AG** & AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 15 2003 DATE REPORT MAILED: Sep 29/2003 SIGNED BY ....D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Roca Mines Inc. File # A305655
500 - 1045 Howe St., Vancouver BC V62 2A9

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm
SI	<1	4	<3	5	<.3	<1	<1	9	.05	3	<8	<2	<2	4	<.5	<3	<3	1
C 198111	2	83	7	85	.7	56	22	1323	6.92	46	<8	<2	<2	138	.6	4	<3	23
C 198112	<1	16	31	10	.7	34	23	3306	18.83	>9999	<8	4	2	4	.9	86	<3	3
C 198113	24	49	4	18	<.3	2	2	162	1.44	39	<8	<2	<2	31	<.5	<3	<3	68
C 198114	8	27	<3	19	<.3	6	22	233	3.63	19	<8	<2	3	24	<.5	<3	<3	55
C 198115	59	103	<3	14	<.3	11	15	170	3.59	5	<8	<2	2	16	<.5	<3	<3	69
C 198116	1	35	3	23	.4	11	6	1467	4.00	118	<8	<2	<2	509	<.5	3	<3	7
STANDARD	12	142	23	131	<.3	24	12	755	2.81	19	<8	<2	3	46	5.5	3	5	59

SAMPLE#	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Ag** gm/mt	Au** gm/mt	Sample gm
SI	.14	.001	<1	<1	.01	4	.01	<3	.02	.60	<.01	<2	<.3	<.01	-
C 198111	7.36	.100	5	13	1.17	62	.01	3	.45	.02	.15	<2	<.3	<.01	1000
C 198112	.08	.004	<1	3	1.15	25	<.01	<3	.17	<.01	.09	<2	1.6	4.31	3400
C 198113	.39	.080	8	6	.26	43	.12	<3	.55	.06	.08	<2	<.3	.01	1600
C 198114	.44	.105	9	4	.79	106	.01	10	1.51	.05	.21	<2	.3	.05	700
C 198115	.37	.061	3	16	.44	27	.21	<3	.65	.07	.12	<2	<.3	.04	2000
C 198116	3.79	.020	1	7	1.66	131	.01	<3	.09	.01	.03	<2	.9	1.61	3000
STANDARD	.72	.093	12	180	.64	134	.09	18	2.10	.03	.13	7	156.9	3.43	-

Standard is STANDARD DS5/R-2/AU-1.

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
AG** & AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK R150 60C

DATE RECEIVED: NOV 17 2003 **DATE REPORT MAILED:** Nov 27/2003 **SIGNED BY** ......D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Roca Mines Inc. PROJECT FOREMORE File # A303127 Page 1

500 - 1045 Howe St., Vancouver BC V6Z 2A9 Submitted by: Marcus Van W.

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Sample gm
SI	<1	2	<3	3	<.3	1	<1	6	.07	2	<8	<2	<2	3	<.5	<3	<3	1	.10	.001	<1	1	.01	3	<.01	<3	.01	.47	.01	<2	<2	-
A 126044	1	47	8	214	.3	26	9	27	2.43	27	<8	<2	<2	12	<.5	<3	<3	3	.24	.208	3	1	.02	85	<.01	<3	.48	.04	.13	<2	6	900
A 126045	30	40	18	350	2.3	31	1	40	.75	92	<8	<2	<2	7	4.6	10	<3	235	.06	.036	1	29	.01	203	<.01	<3	.22	.01	.09	2	5	800
A 126046	1	2	21	16	.7	2	<1	20	1.14	64	<8	<2	4	2	<.5	<3	<3	1	.01	.011	77	2	.01	30	.01	<3	.13	.01	.14	<2	8	1100
A 126047	2	165	16	159	.7	31	24	2526	13.16	24	<8	<2	2	125	1.1	4	<3	27	2.55	.016	1	7	1.72	27	<.01	<3	1.31	.01	.06	<2	9	800
A 126317	1	54	821	949	1.3	2	3	419	4.06	328	<8	<2	2	9	7.6	<3	<3	10	.27	.132	8	2	.70	93	<.01	<3	1.24	<.01	.22	<2	126	2300
A 126318	1	203	302	230	7.8	<1	6	952	13.04	260	<8	<2	2	9	1.3	7	5	11	.45	.066	7	2	1.37	22	<.01	<3	1.80	.01	.11	<2	180	2200
A 126319	2	802	>9999	63654	24.3	<1	60	308	13.72	1888	<8	2	2	4	374.5	8	8	5	.04	.029	2	<1	.31	11	.01	<3	1.12	.01	.11	<2	1817	1500
A 126320	76	504	3777	710	9.7	2	<1	39	3.73	15	<8	19	<2	6	5.7	<3	<3	2	.11	.008	<1	2	.02	8	<.01	<3	.06	.01	.04	<2	19347	1700
A 126321	19	16261	6286	46989	10.7	1	15	153	2.18	11	<8	2	<2	9	207.3	<3	12	4	.07	<.001	<1	10	.05	65	<.01	<3	.09	.01	.02	<2	1924	1900
A 126812	1	37	44	124	.3	5	8	376	4.08	7	<8	<2	<2	15	.5	<3	<3	19	.23	.131	8	2	.95	129	.01	<3	1.27	.01	.18	<2	36	1700
A 126813	5	385	34	197	<.3	3	14	2873	9.36	47	<8	<2	2	92	1.0	4	<3	20	1.43	.086	2	5	1.34	60	.11	<3	2.04	<.01	.07	<2	12	1900
A 126814	3	3569	39	14046	2.4	3	79	8817	8.31	25	<8	<2	<2	16	55.7	<3	<3	12	9.34	.059	3	5	.13	12	.03	<3	.53	<.01	.02	<2	14	1800
A 126815	1	991	6	67	<.3	<1	3	311	1.72	16	<8	<2	3	10	<.5	14	<3	3	.34	.032	24	3	.55	57	<.01	<3	.93	.04	.11	<2	5	1500
A 126816	<1	5382	<3	216	.3	16	39	1544	7.37	2	<8	<2	<2	88	1.0	<3	<3	158	5.71	.232	8	1	2.93	72	.01	<3	2.77	.02	.05	<2	11	1700
A 126817	3	28	16	35	.3	<1	2	425	2.53	42	<8	<2	<2	7	<.5	<3	<3	<1	.26	.044	7	2	.20	101	<.01	<3	.61	.02	.16	<2	26	1800
A 126818	1	70	10	55	.4	1	2	264	4.33	14	<8	<2	<2	5	<.5	<3	<3	3	.08	.046	5	1	.43	69	<.01	<3	.84	.02	.13	<2	10	1600
A 126819	15	24	47	96	1.8	8	3	157	2.77	125	<8	<2	<2	8	2.4	<3	<3	4	.42	.019	2	8	.03	69	<.01	<3	.10	<.01	.04	<2	105	2300
A 126820	3	63	25	11	.7	7	15	52	3.58	6	<8	<2	<2	5	<.5	<3	<3	3	.20	.049	2	1	.06	26	<.01	<3	.31	<.01	.24	<2	6	1800
RE A 126820	3	65	27	10	.6	7	16	52	3.66	6	<8	<2	<2	5	<.5	<3	<3	3	.20	.050	2	1	.06	26	<.01	<3	.32	<.01	.25	<2	4	-
A 126821	4	144	16	42	1.8	14	11	1226	6.73	381	<8	<2	<2	65	.5	12	<3	15	4.71	.023	3	4	.17	26	<.01	<3	.28	<.01	.07	<2	1782	1400
A 126822	35	205	29	173	2.4	11	6	87	5.78	3968	<8	<2	<2	4	.9	51	<3	8	.07	.031	1	8	.07	28	.01	<3	.20	<.01	.07	<2	1793	2400
A 126823	1	46	5	68	<.3	4	23	1174	6.14	6	<8	<2	<2	14	<.5	<3	4	86	.47	.107	3	5	2.24	13	.15	<3	2.28	.03	.02	<2	19	2300
A 126824	<1	20	<3	83	<.3	31	53	1345	8.82	11	<8	<2	<2	24	<.5	<3	<3	91	.40	.034	1	37	3.63	26	.11	<3	3.76	.01	.02	<2	12	2300
A 126825	1	128	12	42	.4	7	11	886	6.70	34	<8	<2	<2	38	.5	<3	<3	93	.42	.058	3	19	2.09	37	.18	<3	2.54	.01	.05	<2	2	1900
A 126826	1	2	8	24	<.3	1	7	340	4.01	4	<8	<2	<2	13	<.5	<3	<3	68	.32	.079	3	3	1.55	7	.24	<3	1.39	.05	.03	<2	9	1500
A 126827	1	3	5	17	<.3	6	25	215	6.44	<2	<8	<2	<2	12	<.5	<3	<3	17	.15	.016	3	7	.48	19	.03	<3	.60	.04	.01	<2	7	2100
A 126828	1	320	4278	11871	6.9	1	6	1185	3.42	150	<8	<2	<2	96	67.5	<3	6	5	2.53	.113	4	4	.75	78	<.01	<3	1.28	.01	.18	<2	235	9100
A 126829	1	253	4759	11190	6.3	<1	2	1345	2.69	65	<8	<2	<2	93	62.8	<3	<3	3	2.48	.122	4	4	.84	88	<.01	<3	1.37	.01	.20	<2	87	6000
A 126830	2	867	9273	29022	15.2	4	7	1777	4.01	135	<8	<2	<2	119	165.7	4	5	9	3.25	.061	2	6	.89	57	<.01	<3	1.17	<.01	.17	<2	100	9700
A 126831	1	190	1773	3291	3.4	<1	7	1498	3.17	40	<8	<2	<2	103	18.1	<3	<3	7	2.91	.071	2	1	.73	81	<.01	<3	1.12	<.01	.19	<2	27	7500
A 126832	1	126	456	1091	2.4	1	6	1615	2.99	60	<8	<2	<2	153	5.7	<3	<3	6	3.88	.089	3	1	.63	109	<.01	<3	1.12	.01	.18	<2	31	13300
A 126833	1	218	757	722	16.4	3	9	1468	3.55	1582	<8	<2	<2	90	3.3	<3	8	12	2.89	.106	4	1	.66	51	<.01	<3	1.07	<.01	.16	<2	228	7100
A 126834	1	47	74	526	.4	21	27	2017	5.40	71	<8	<2	<2	174	1.5	3	<3	72	5.75	.066	3	16	2.10	64	<.01	<3	2.84	.01	.13	<2	37	1000
A 126835	1	27	151	370	1.2	3	8	1070	3.08	16	8	<2	2	139	1.5	<3	<3	12	3.31	.127	6	3	1.15	67	<.01	<3	1.65	<.01	.20	<2	15	1900
STANDARD DS	12	144	23	132	.4	25	12	773	2.94	19	<8	<2	3	49	5.7	4	7	59	.74	.097	12	185	.66	140	.09	16	2.07	.04	.13	5	488	-

Standard is STANDARD DS5/AU-R.

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK R150 60C AU** GROUP 3B - 30.00 GM SAMPLE ANALYSIS BY FA/ICP.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 5 2003 **DATE REPORT MAILED:** Aug 20/03 **SIGNED BY** C.L. ...D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

 Data FA

ACME ANALYTICAL

Roca Mines Inc. PROJECT FOREMORE FILE # A303127

ACME ANALYTICAL

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Sample gm
A 126836	<1	1714	>9999	>99999	59.7	1	3	2773	3.55	124	10	<2	<2	190	780.5	31	49	3	6.41	.038	5	<1	.58	17	<.01	<3	.95	<.01	.09	<2	129	3800
A 126837	1	43	261	426	2.3	<1	6	2099	3.15	16	<8	<2	<2	171	1.7	<3	<3	6	5.90	.121	9	1	1.10	42	<.01	<3	1.47	.01	.18	<2	17	3300
A 126838	1	9	117	515	.4	1	7	1025	3.21	9	<8	<2	<2	153	2.6	<3	<3	4	3.32	.127	8	1	1.15	67	<.01	<3	1.68	.01	.17	<2	5	10400
A 126839	1	114	833	2003	2.4	7	11	1352	4.08	30	<8	<2	<2	163	9.4	<3	<3	27	3.48	.110	4	12	1.49	59	.01	<3	2.00	.01	.17	<2	12	6200
A 126840	<1	3455	>9999	97131	69.6	3	6	1232	3.87	205	<8	<2	<2	99	598.0	42	42	7	2.93	.053	2	<1	1.07	28	<.01	<3	.96	.01	.12	<2	202	6500
A 126841	1	440	5976	19651	13.4	<1	2	635	1.61	44	<8	<2	<2	68	119.7	<3	13	3	1.69	.097	3	9	.51	91	<.01	<3	.83	.01	.19	<2	50	5600
A 126842	1	737	9080	22894	17.2	3	10	1042	3.99	71	<8	<2	<2	113	133.4	3	10	22	2.71	.109	4	10	1.31	63	<.01	<3	1.65	.01	.20	<2	47	6200
A 126843	<1	160	1232	4971	2.3	14	17	1411	4.24	37	<8	<2	<2	180	30.4	4	<3	55	4.45	.084	4	14	1.77	82	<.01	<3	2.38	.01	.15	<2	10	7500
A 126844	1	155	1296	4665	4.4	1	5	1189	3.27	28	<8	<2	2	91	32.9	<3	<3	4	2.65	.123	5	1	.83	89	<.01	<3	1.25	.01	.19	<2	25	16600
A 126845	1	831	>9999	35266	24.1	4	6	822	3.21	190	<8	<2	<2	81	205.8	12	8	13	2.06	.089	3	6	.78	33	<.01	<3	1.20	.01	.16	<2	184	6000
A 126846	3	1465	>9999	17937	38.5	1	6	290	3.20	202	<8	<2	<2	10	92.5	17	13	5	.20	.082	3	8	.50	39	<.01	<3	.97	<.01	.15	<2	149	3400
A 126847	<1	128	269	2793	1.0	25	25	1937	5.49	40	<8	<2	<2	246	15.6	<3	<3	83	5.44	.054	2	37	2.64	36	<.01	<3	3.44	.01	.14	<2	4	3600
A 127706	1	166	166	995	1.4	17	26	1022	10.04	32	<8	<2	<2	14	3.3	8	<3	124	.55	.077	4	15	2.60	35	.20	<3	2.91	.02	.08	<2	3	1100
RE A 127706	1	165	165	1006	1.3	17	26	1040	10.16	30	10	<2	2	14	3.4	6	<3	126	.55	.078	5	16	2.64	34	.20	<3	2.96	.02	.08	<2	4	-
FM-JM-01	1	95	16	103	<.3	20	83	1143	12.64	7	<8	<2	2	15	<.5	3	<3	112	.66	.052	1	37	3.05	13	.13	<3	3.11	.02	.06	<2	21	1000
FM-JM-02	2	16	106	113	.6	2	13	308	2.95	2	<8	<2	<2	24	.5	<3	<3	11	.18	.019	8	5	.59	41	.01	<3	.77	.03	.05	<2	3	2600
FM-JM-03	1	57	11	112	<.3	8	14	1368	4.74	13	8	<2	<2	74	.6	<3	<3	53	3.78	.075	3	3	1.76	113	<.01	<3	2.00	.02	.12	<2	5	1100
STANDARD DS5/AU-R	12	138	25	135	.3	24	12	740	2.86	18	8	<2	3	47	5.4	4	7	58	.72	.093	12	184	.64	140	.09	15	2.00	.04	.13	5	489	-

Sample type: ROCK R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data ✓ FA ____

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

ASSAY CERTIFICATE

Roca Mines Inc. PROJECT FOREMORE File # A303127R
500 - 1045 Howe St., Vancouver BC V6Z 2A9 Submitted by: Marcus Van W.

SAMPLE#	Cu %	Pb %	Zn %	Ag** gm/mt	Au** gm/mt
A 126319	-	1.10	6.90	-	1.99
A 126320	-	-	-	-	20.82
A 126321	1.719	-	4.81	-	1.77
A 126814	-	-	1.60	-	-
A 126821	-	-	-	-	1.74
A 126822	-	-	-	-	1.82
A 126828	-	-	1.31	-	-
A 126829	-	-	1.23	-	-
A 126830	-	.92	3.25	-	-
A 126836	-	3.68	16.39	67.6	-
A 126840	-	4.28	11.76	76.4	-
RE A 126840	-	4.24	11.63	76.6	-
A 126841	-	-	2.34	-	-
A 126842	-	-	2.75	-	-
A 126845	-	1.89	4.32	-	-
A 126846	-	2.06	2.07	39.7	-
STANDARD R-2/AU-1	.564	1.37	4.17	156.8	3.34

GROUP 7AR - 1.000 GM SAMPLE, AQUA - REGIA (HCL-HNO3-H2O) DIGESTION TO 100 ML, ANALYSED BY ICP-ES.
- SAMPLE TYPE: ROCK PULP AG** & AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 22 2003 DATE REPORT MAILED: Sept 3/03 SIGNED BY.......... D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data___ FA ____

Acme file # A303922 Page 1 Received: SEP 2 2003 * 55 samples in this disk file.
Analysis: GROUP 1D - 0.50 GM
AU** GROUP 3B - 30.00 GM SAMPLE ANALYSIS BY FA/ICP.

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au**
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppb
SI	< 1	2	< 3	2	< .3	1	< 1	14	0.04	< 2	< 8	< 2	< 2	5	< .5	< 3	< 3	1	0.17	< .001	1	2	0.01	9	< .01	< 3	0.02	0.76	0.02	< 2	< 2
C 198201	< 1	115	< 3	216	0.5	69	29	2016	5.12	2	< 8	< 2	< 2	124	< .5	< 3	< 3	31	3.41	0.045	3	45	2.25	104	0.01	< 3	2.36	0.01	0.12	< 2	9
C 198202	< 1	34	< 3	636	< .3	18	11	1387	5.42	< 2	< 8	< 2	< 2	152	< .5	< 3	< 3	34	2.89	0.049	3	24	2.4	99	< .01	< 3	2.85	0.01	0.06	< 2	4
C 198203	3	143	421	5243	6.1	124	37	539	8.5	31	< 8	< 2	< 2	76	25.5	< 3	< 3	6	1.25	0.06	1	10	0.23	37	< .01	< 3	0.25	0.01	0.14	< 2	109
C 198204	1	63	285	553	3	61	22	2723	3.86	7	< 8	< 2	< 2	129	1.1	< 3	< 3	12	3.93	0.05	2	22	1.78	55	< .01	< 3	0.8	0.01	0.1	< 2	93
C 198205	1	70	196	863	3.8	54	22	1644	4.47	13	< 8	< 2	< 2	83	2.8	< 3	< 3	4	2.46	0.042	1	8	1	38	< .01	< 3	0.2	0.01	0.11	2	99
C 198206	1	77	132	819	3.9	92	21	1530	3.97	7	< 8	< 2	2	73	2	< 3	< 3	11	2.16	0.039	2	22	1.52	60	< .01	< 3	1.03	0.01	0.21	< 2	86
C 198207	1	103	391	613	8.3	135	38	443	6.49	40	< 8	< 2	2	34	1.4	< 3	< 3	7	0.67	0.041	2	16	0.32	17	< .01	< 3	0.33	0.01	0.18	< 2	171
C 198208	8	58	217	1103	7.6	47	14	1096	4.09	36	< 8	< 2	2	63	2.4	< 3	< 3	8	2.08	0.02	2	7	1.05	45	< .01	< 3	0.32	0.02	0.19	< 2	101
C 198209	15	39	113	369	8.7	80	15	903	4.89	69	< 8	< 2	2	52	0.8	4	< 3	4	1.54	0.019	2	2	0.76	40	< .01	< 3	0.17	0.01	0.11	3	100
C 198210	120	199	74	53	2.6	50	58	585	3.5	1101	< 8	7	2	133	< .5	< 3	10	18	4.63	0.087	10	20	0.18	46	0.03	14	0.86	0.07	0.04	2	6520
C 198211	3	26	79	626	4.2	12	5	1041	3.03	28	< 8	< 2	< 2	72	0.8	< 3	< 3	7	2.78	0.03	2	4	1.43	65	< .01	< 3	0.35	0.01	0.2	2	42
C 198212	2	39	116	1296	4.3	21	10	875	3.24	31	< 8	< 2	< 2	61	0.8	< 3	< 3	8	2.1	0.028	1	6	1.04	65	< .01	< 3	0.33	0.02	0.2	< 2	32
C 198213	3	75	378	1728	6	89	25	695	5.66	62	< 8	< 2	< 2	56	3.1	< 3	< 3	9	1.58	0.078	2	16	0.75	26	< .01	< 3	0.37	0.02	0.2	< 2	58
C 198214	4	96	336	666	15.3	109	31	388	6.42	81	< 8	< 2	< 2	41	1.3	< 3	< 3	8	0.91	0.06	1	14	0.42	34	0.01	< 3	0.34	0.01	0.19	< 2	195
C 198215	< 1	32	5	107	0.8	23	10	1774	3.46	4	< 8	< 2	2	90	< .5	< 3	< 3	8	2.71	0.017	4	4	1.64	144	0.01	< 3	1.62	0.01	0.16	< 2	6
C 198216	1	23	14	121	1	37	16	2494	2.02	< 2	< 8	< 2	< 2	183	< .5	< 3	< 3	11	4.17	0.022	2	8	1.18	158	< .01	< 3	0.62	0.01	0.18	< 2	8
C 198217	2	108	346	374	14.5	155	46	213	6.7	53	< 8	< 2	2	24	0.7	< 3	< 3	9	0.35	0.022	1	18	0.17	19	< .01	< 3	0.36	0.01	0.21	< 2	247
C 198218	2	86	225	245	12.3	134	39	258	7.4	71	< 8	< 2	2	32	< .5	< 3	< 3	6	0.51	0.079	1	11	0.18	33	0.01	< 3	0.18	0.01	0.11	< 2	236
RE 198218	2	86	230	241	12.4	137	40	259	7.52	72	< 8	< 2	2	32	< .5	< 3	< 3	5	0.51	0.077	1	11	0.18	32	< .01	< 3	0.18	0.01	0.11	< 2	205
C 198219	< 1	23	4	99	< .3	30	16	4170	3.96	2	< 8	< 2	2	104	< .5	< 3	< 3	9	3.09	0.019	3	2	1.58	179	< .01	< 3	1.57	0.01	0.15	< 2	3
C 198220	< 1	46	5	117	0.9	47	25	3790	3.95	11	< 8	< 2	2	109	< .5	< 3	< 3	19	3.46	0.023	4	12	1.67	165	0.01	< 3	1.64	0.01	0.18	< 2	4
C 198221	< 1	19	7	99	0.3	13	8	1211	2.83	5	< 8	< 2	< 2	132	< .5	< 3	< 3	13	2.51	0.033	2	9	0.89	225	0.01	< 3	1.3	0.01	0.14	< 2	9
C 198222	< 1	48	219	265	1.8	54	21	1492	4.23	22	< 8	< 2	< 2	125	1	< 3	3	13	2.59	0.057	2	21	1.1	78	< .01	< 3	1.11	0.01	0.22	< 2	69
C 198223	2	13	12	46	0.7	11	6	875	2.09	8	< 8	< 2	< 2	135	< .5	< 3	< 3	5	2.5	0.029	2	4	0.7	71	< .01	< 3	0.54	0.01	0.08	< 2	6
C 198224	2	61	16	63	0.7	11	3	785	2.26	6	< 8	< 2	< 2	80	< .5	< 3	< 3	6	1.83	0.025	2	4	0.91	67	0.01	< 3	0.55	0.01	0.07	2	5
C 198225	9	14	4	90	< .3	6	2	561	3.23	5	< 8	< 2	< 2	73	< .5	< 3	< 3	3	1.15	0.068	7	4	0.67	163	< .01	< 3	1.24	0.01	0.14	< 2	< 2
C 198226	1	18	8	77	< .3	8	2	550	1.69	5	< 8	< 2	< 2	58	0.5	< 3	< 3	4	1.1	0.009	6	4	0.53	155	< .01	3	0.67	0.01	0.17	< 2	< 2
C 198227	3	21	15	60	0.6	14	6	1046	2.26	16	< 8	< 2	< 2	95	< .5	< 3	< 3	5	2.19	0.028	2	3	0.81	200	< .01	< 3	0.45	0.02	0.2	< 2	2
C 198228	3	21	18	53	0.7	17	10	1946	3.89	25	< 8	< 2	< 2	148	< .5	< 3	< 3	3	3.36	0.049	1	2	1.24	66	0.01	< 3	0.42	0.01	0.05	< 2	< 2
C 198229	2	15	8	49	< .3	8	2	684	1.81	11	< 8	< 2	< 2	88	< .5	< 3	< 3	2	1.46	0.015	5	2	0.54	246	< .01	< 3	0.55	0.01	0.19	< 2	2
C 198230	< 1	4	16	171	< .3	7	< 1	708	0.11	2	< 8	< 2	< 2	197	0.7	< 3	3	2	33.79	0.002	1	1	0.7	12	< .01	< 3	0.11	0.01	0.01	4	< 2
C 198231	2	13	8	49	0.4	9	2	727	1.5	11	< 8	< 2	< 2	74	< .5	< 3	< 3	3	1.7	0.009	4	2	0.55	295	< .01	< 3	0.41	0.01	0.14	< 2	< 2
C 198232	3	24	9	79	0.4	14	8	1966	3.19	13	< 8	< 2	< 2	150	< .5	< 3	< 3	7	3.44	0.034	2	5	1.32	181	0.01	< 3	0.69	0.01	0.17	< 2	< 2
STD	13	144	24	138	< .3	24	12	791	2.99	18	< 8	< 2	3	49	5.7	4	6	61	0.74	0.096	12	190	0.68	141	0.1	15	2.1	0.04	0.14	4	482
C 198233	1	17	16	143	< .3	1	4	733	3.25	16	< 8	< 2	3	32	1	< 3	< 3	9	1.72	0.122	12	1	0.96	48	0.02	< 3	1.58	0.04	0.2	< 2	6
C 198234	1	4	10	50	0.3	1	7	863	3.23	8	< 8	< 2	3	47	< .5	< 3	< 3	8	2.53	0.119	13	1	0.74	44	0.04	< 3	1.44	0.04	0.17	< 2	9
C 198235	< 1	4	5	39	< .3	1	3	895	2.89	9	< 8	< 2	2	49	< .5	< 3	< 3	8	2.3	0.126	12	1	0.64	62	0.05	< 3	1.41	0.05	0.22	< 2	4
C 198236	< 1	< 1	4	45	< .3	1	3	994	2.96	2	< 8	< 2	2	46	< .5	< 3	< 3	6	2.58	0.12	14	1	0.84	56	0.02	< 3	1.54	0.04	0.19	< 2	2
C 198237	1	1	13	75	< .3	< 1	5	756	3.01	2	< 8	< 2	< 2	53	< .5	< 3	< 3	4	1.74	0.126	14	< 1	0.72	224	0.02	< 3	1.42	0.03	0.25	< 2	3
C 198238	< 1	1	11	84	< .3	1	5	807	3.35	4	< 8	< 2	< 2	42	< .5	< 3	< 3	5	1.6	0.121	12	1	0.9	63	0.04	< 3	1.55	0.04	0.19	< 2	< 2
C 198239	1	1	4	54	< .3	1	5	882	3.07	6	< 8	< 2	2	73	< .5	< 3	< 3	6	2.28	0.125	11	1	0.82	72	< .01	< 3	1.42	0.05	0.18	< 2	3
C 198240	1	3	4	65	< .3	1	5	691	3.09	3	< 8	< 2	2	59	< .5	< 3	< 3	5	1.53	0.121	8	< 1	0.78	129	< .01	< 3	1.32	0.04	0.21	< 2	4
C 198241	1	2	3	64	< .3	1	5	897	3.1	2	< 8	< 2	2	74	< .5	< 3	< 3	6	2.08	0.122	10	1	0.93	98	0.01	< 3	1.53	0.04	0.21	< 2	< 2
C 198242	< 1	< 1	3	61	< .3	< 1	3	994	3.06	3	< 8	< 2	< 2	67	< .5	< 3	< 3	7	1.89	0.125	11	< 1	1	63	0.02	3	1.63	0.04	0.18	< 2	< 2
C 198243	1	14	5	61	< .3	1	4	1058	3.08	5	< 8	< 2	2	121	< .5	< 3	< 3	6	2.51	0.12	10	1	0.88	266	< .01	< 3	1.54	0.04	0.18	< 2	2
C 198244	1	< 1	6	57	< .3	1	6	1128	3.09	6	< 8	< 2	2	95	< .5	< 3	< 3	5	2.38	0.124	8	1	0.86	115	< .01	< 3	1.56	0.04	0.17	< 2	< 2
RE 198244	< 1	1	8	58	< .3	< 1	6	1140	3.12	6	< 8	< 2	2	96	< .5	< 3	< 3	6	2.41	0.125	9	1	0.87	115	< .01	< 3	1.57	0.04	0.18	< 2	< 2
C 198245	1	< 1	5	54	< .3	< 1	6	1151	3.02	5	< 8	< 2	2	90	< .5	< 3	< 3	5	2.49	0.12	7	< 1	0.86	64	< .01	< 3	1.5	0.02	0.2	< 2	< 2

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au**
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppb
C 198246	1	1	6	47	< .3	1	4	1523	2.48	6	< 8	< 2	< 2	158	< .5	< 3	< 3	4	4.12	0.112	10	1	0.81	116	< .01	3	1.47	0.01	0.23	2	2
C 198247	< 1	43	8	92	< .3	7	21	1627	4.91	3	< 8	< 2	< 2	143	< .5	< 3	< 3	70	3.79	0.057	3	3	1.75	58	< .01	< 3	2.67	0.01	0.19	< 2	< 2
C 198248	2	16	30	113	< .3	3	16	1882	3.91	6	< 8	< 2	< 2	274	0.6	< 3	< 3	28	5.51	0.067	3	2	1.22	118	< .01	< 3	1.93	0.01	0.2	< 2	4
C 198249	1	12	6	104	< .3	1	3	958	2.66	7	< 8	< 2	< 2	118	< .5	< 3	< 3	7	2.94	0.096	7	1	0.94	65	< .01	3	1.48	0.02	0.18	< 2	46
C 198250	12	141	17	69	1	37	115	1187	3.26	3726	10	3	2	87	0.5	7	67	24	5.15	0.097	11	39	0.29	30	0.03	23	1.21	0.06	0.05	21	2167
STD	12	137	23	131	0.4	24	12	745	2.85	18	< 8	< 2	3	48	5.3	4	6	58	0.77	0.091	12	190	0.64	139	0.1	18	1.98	0.04	0.13	4	497

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
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GEOCHEMICAL ANALYSIS CERTIFICATE

Roca Mines Inc. PROJECT FOREMORE File # A304071
500 - 1045 Howe St., Vancouver BC V6Z 2A9

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
SI	<1	3	<3	2	.3	1	<1	8	.09	2	<8	<2	<2	3	<.5	<3	<3	1	.11	<.001	<1	1	<.01	5	.01	5	.01	.54	.01	<2
C 198407	8	184	293	465	3.7	43	16	1738	3.48	7	15	<2	<2	299	2.2	5	<3	6	6.73	.030	2	8	.81	51	.01	7	.36	.01	.14	5
C 198408	2	152	200	193	4.1	92	28	529	6.06	29	<8	<2	<2	85	.7	5	<3	6	1.58	.139	1	14	.29	46	.01	6	.24	.01	.15	3
C 198409	<1	77	159	543	4.2	86	26	1003	6.19	43	9	<2	<2	53	1.4	7	<3	7	1.58	.079	1	14	.67	39	.01	6	.22	.01	.14	2
C 198410 PULP	11	145	14	68	.8	38	124	1113	3.34	4006	16	3	<2	88	.6	11	63	25	5.11	.103	11	39	.29	29	.04	27	1.19	.06	.06	22
C 198411	6	271	1875	2369	13.6	183	62	251	8.88	90	<8	<2	<2	30	5.3	4	<3	3	.40	.026	1	4	.16	8	.01	5	.27	.01	.17	<2
C 198412	4	34	415	251	2.9	54	28	1404	3.15	11	<8	<2	<2	62	.6	3	<3	2	2.33	.010	1	4	1.01	44	.01	6	.17	.01	.13	2
C 198413	1	98	458	2355	4.9	71	25	809	4.95	31	<8	<2	2	47	7.4	5	<3	4	1.45	.068	1	8	.60	36	<.01	6	.27	.01	.15	<2
C 198414	2	252	2971	11884	13.5	88	35	718	8.26	49	<8	<2	<2	41	45.9	6	<3	4	1.04	.048	1	8	.44	31	<.01	6	.22	.01	.14	66
C 198415	1	207	911	1685	8.7	101	40	243	8.04	77	<8	<2	<2	29	4.5	7	<3	7	.47	.099	1	14	.14	34	<.01	6	.27	.01	.16	<2
C 198416	2	153	296	4353	9.0	168	56	382	10.29	70	<8	<2	2	37	20.9	4	<3	10	.81	.132	1	21	.24	35	.01	5	.31	.01	.17	4
C 198417	2	170	137	2808	3.9	144	40	1311	6.05	30	9	<2	<2	55	13.5	<3	<3	12	1.60	.058	1	42	1.09	45	.01	5	.74	.01	.16	<2
C 198418	1	521	286	2352	5.0	98	30	983	5.15	29	<8	<2	2	55	9.8	3	<3	8	1.70	.050	1	28	.89	29	<.01	5	.43	.01	.13	<2
C 198419	1	119	202	71	2.1	8	7	511	.66	<2	<8	<2	<2	51	<.5	<3	<3	2	1.64	.011	2	8	.49	70	<.01	6	.17	.01	.12	<2
C 198420	10	189	992	1011	14.3	274	72	184	7.73	90	<8	3	2	22	8.9	7	<3	1	.33	.013	1	4	.16	21	<.01	6	.24	.01	.15	<2
RE C 198420	10	178	979	990	16.6	268	71	179	7.64	88	<8	6	2	22	8.7	6	3	2	.33	.013	1	6	.15	20	<.01	5	.23	.01	.15	<2
RRE C 198420	10	128	1046	1069	14.3	294	77	189	7.96	91	<8	2	<2	22	9.3	7	<3	1	.34	.012	<1	4	.16	19	<.01	5	.17	<.01	.12	<2
C 198421	12	128	2892	1454	27.0	47	9	586	13.44	24	12	5	<2	42	10.1	5	3	2	1.23	.006	<1	3	.58	26	<.01	4	.20	.01	.13	<2
C 198422	8	211	243	752	25.1	94	43	779	5.66	41	11	2	<2	54	3.5	5	<3	2	1.70	.015	1	2	.82	44	<.01	5	.17	.01	.11	2
C 198423	6	97	523	1701	77.2	38	15	338	4.60	25	<8	<2	<2	34	6.3	15	<3	1	.90	.011	1	2	.30	40	.01	6	.19	<.01	.13	<2
C 198424	5	176	1065	620	145.4	42	16	314	4.52	93	<8	<2	<2	125	2.2	66	<3	2	1.36	.009	1	4	.20	29	<.01	5	.19	.01	.13	4
C 198425	<1	24	32	90	1.9	33	14	1449	3.50	13	8	<2	<2	126	<.5	<3	<3	14	3.60	.098	3	12	1.54	112	<.01	6	1.43	<.01	.13	<2
C 198426	<1	39	15	135	1.3	84	27	2934	4.23	12	<8	<2	2	109	<.5	<3	<3	12	3.37	.034	1	36	1.60	69	.01	5	1.73	<.01	.13	<2
C 198427	<1	31	10	184	.8	125	30	3982	5.29	7	<8	<2	2	103	<.5	<3	<3	17	2.86	.042	2	45	1.76	73	<.01	4	2.41	<.01	.16	<2
C 198428	<1	30	16	85	.7	15	6	1646	2.21	5	<8	<2	<2	63	<.5	<3	<3	4	1.65	.025	3	6	.90	97	<.01	6	.79	<.01	.15	<2
C 198429	<1	29	20	85	.4	14	6	1202	2.69	<2	8	<2	2	82	<.5	<3	<3	9	2.06	.041	3	8	1.06	70	<.01	6	1.21	<.01	.14	<2
C 198430 ROCK	1	18	19	362	.3	2	1	764	.22	3	<8	<2	<2	195	1.1	<3	<3	3	33.16	.004	1	1	.51	38	<.01	6	.17	<.01	.03	6
C 198431	<1	17	7	89	.7	11	6	975	2.74	12	11	<2	<2	124	<.5	<3	<3	11	2.65	.027	3	6	.59	73	<.01	5	1.29	<.01	.16	<2
C 198432	<1	23	18	68	.3	10	5	817	2.51	5	<8	<2	<2	99	<.5	<3	<3	9	2.09	.030	5	4	1.05	81	<.01	6	1.19	<.01	.16	<2
C 198433	<1	27	14	77	.3	13	8	797	3.74	5	<8	<2	<2	93	<.5	<3	<3	14	2.06	.038	3	8	1.51	63	<.01	6	1.72	<.01	.14	<2
C 198434	2	24	6	69	.4	10	5	1012	2.51	12	<8	<2	<2	158	<.5	<3	<3	9	2.81	.029	3	5	.60	134	<.01	6	1.15	<.01	.17	<2
C 198435	4	10	<3	81	<.3	4	4	1465	4.17	3	<8	<2	<2	268	<.5	<3	<3	5	3.40	.161	16	3	.88	102	.01	6	1.89	.01	.13	2
C 198436	2	14	9	76	.4	9	4	1326	2.44	6	9	<2	<2	239	<.5	<3	<3	7	3.44	.044	3	5	.63	96	.01	6	1.05	.01	.17	<2
C 198437	6	24	3	38	<.3	10	3	977	1.72	8	<8	<2	<2	147	<.5	<3	<3	8	2.28	.018	3	9	.47	70	.01	6	.60	<.01	.12	<2
STANDARD DS5	12	132	22	123	.3	23	11	708	2.75	17	<8	<2	2	46	5.0	5	6	56	.68	.088	12	175	.60	127	.09	19	1.86	.03	.14	4

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: CORE R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 9 2003 **DATE REPORT MAILED:** Sep 29/2003 **SIGNED BY** ....D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

 Data ✓ FA ____

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

ASSAY CERTIFICATE

Roca Mines Inc. PROJECT FOREMORE File # A304071R
500 - 1045 Howe St., Vancouver BC V6Z 2A9

SAMPLE#	Pb %	Zn %	Ag** gm/mt	Au** gm/mt
SI	<.01	<.01	<.3	<.01
C 198407	.03	.05	3.6	.14
C 198408	.02	.02	3.7	.07
C 198409	.02	.05	3.3	.09
C 198410 PULP	<.01	<.01	.8	2.28
C 198411	.17	.23	13.2	.97
C 198412	.04	.03	2.5	.09
C 198413	.04	.23	4.9	.09
C 198414	.31	1.35	14.4	.15
C 198415	.09	.17	7.5	.11
C 198416	.03	.46	9.2	.12
C 198417	.01	.29	3.6	.09
C 198418	.03	.23	4.2	.05
C 198419	.02	<.01	1.7	.01
C 198420	.10	.10	16.0	6.03
RE C 198420	.09	.10	16.4	6.07
RRE C 198420	.10	.11	17.9	7.33
C 198421	.28	.15	27.7	9.04
C 198422	.03	.08	25.4	1.39
C 198423	.05	.17	79.6	1.21
C 198424	.10	.06	137.1	1.51
C 198425	<.01	<.01	1.6	.02
C 198426	<.01	.01	1.4	.03
C 198427	<.01	.02	.4	.01
C 198428	<.01	<.01	.6	.02
C 198429	<.01	<.01	<.3	.01
C 198430 ROCK	<.01	.04	<.3	.01
C 198431	<.01	.01	<.3	.01
C 198432	<.01	<.01	<.3	<.01
C 198433	<.01	<.01	<.3	<.01
C 198434	<.01	<.01	<.3	.01
C 198435	<.01	<.01	.3	.02
C 198436	<.01	<.01	.3	.01
C 198437	<.01	<.01	<.3	.01
STANDARD R-2/AU-1	1.56	4.22	156.5	3.26

GROUP 7AR - 1.000 GM SAMPLE, AQUA - REGIA (HCL-HNO3-H2O) DIGESTION TO 100 ML, ANALYSED BY ICP-ES.
- SAMPLE TYPE: CORE R150 60C AG** & AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 9 2003 DATE REPORT MAILED: Sep 29/2003 SIGNED BY ....D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data ✓ FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

ASSAY CERTIFICATE

Roca Mines Inc. PROJECT FOREMORE File # A304385 Page 1

500 - 1045 Howe St., Vancouver BC V6Z 2A9 Submitted by: Sandy Sears

SAMPLE#	Cu %	Pb %	Zn %	As %	Ag** gm/mt	Au** gm/mt	Sample gm
SI	<.001	<.01	<.01	<.01	<.3	<.01	-
C 198271	.006	<.01	<.01	<.01	<.3	.02	1800
C 198272	.014	.06	.28	.01	2.1	.07	1800
C 198273	.009	<.01	.35	<.01	.4	.09	1800
C 198274	.008	<.01	.01	<.01	<.3	.01	2900
C 198275	.008	<.01	.01	<.01	<.3	.02	2900
C 198276	.066	.20	.68	.13	12.8	.65	1900
C 198277	.018	<.01	.04	.01	.5	.03	1600
C 198278	.025	<.01	.02	.01	1.3	.07	1700
C 198279	.113	.03	.03	.11	11.2	.24	2700
C 198280	.016	<.01	.02	<.01	<.3	.02	1800
C 198281	.008	<.01	<.01	<.01	<.3	.01	1700
C 198282	.008	<.01	<.01	<.01	<.3	.01	2200
C 198283	.006	<.01	<.01	<.01	<.3	.01	1700
C 198284	.006	<.01	<.01	<.01	<.3	.01	2000
C 198285	.008	<.01	.02	<.01	.4	.01	1500
C 198286	.010	<.01	<.01	<.01	<.3	<.01	1500
C 198287	.009	<.01	<.01	<.01	<.3	.01	2700
C 198288	.009	<.01	<.01	<.01	<.3	.01	2900
RE C 198288	.009	<.01	<.01	<.01	<.3	.01	-
RRE C 198288	.009	<.01	<.01	<.01	<.3	<.01	-
C 198289	.007	<.01	<.01	<.01	<.3	.01	2700
C 198290 PULP	.016	<.01	<.01	.41	.5	2.27	-
C 198291	.014	<.01	.02	<.01	<.3	<.01	2100
C 198292	.010	<.01	.01	<.01	<.3	.01	1900
C 198293	.001	<.01	<.01	<.01	<.3	<.01	2500
C 198294	.001	<.01	.01	<.01	<.3	.01	1700
C 198295	.004	.06	.20	<.01	1.0	.03	1700
C 198296	.007	.03	.08	<.01	1.5	.03	2900
C 198297	.046	.36	2.04	.01	6.4	.18	2000
C 198298	.013	.07	.16	.30	2.8	.23	2100
C 198299	.026	.12	.18	.02	4.5	.19	2700
C 198300	.009	<.01	.02	<.01	<.3	.01	1800
C 198301	.010	<.01	.02	<.01	<.3	<.01	2100
C 198302	.009	<.01	.01	<.01	<.3	<.01	2700
C 198303	.002	<.01	.04	<.01	<.3	.01	900
STANDARD R-2/AU-1	.564	1.48	4.27	.23	155.2	3.27	-

GROUP 7AR - 1.000 GM SAMPLE, AQUA - REGIA (HCL-HNO3-H2O) DIGESTION TO 100 ML, ANALYSED BY ICP-ES.
- SAMPLE TYPE: CORE R150 60C AG** & AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 19 2003 DATE REPORT MAILED: Oct 2/2003 SIGNED BY ....D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

SAMPLE#	Cu %	Pb %	Zn %	As %	Ag** gm/mt	Au** gm/mt	Sample gm
C 198304	.010	<.01	.01	<.01	.4	<.01	1900
C 198305	.001	<.01	<.01	<.01	.3	<.01	2500
C 198306	.003	.05	.11	<.01	<.3	.03	1800
C 198307	.010	.05	.06	<.01	1.5	.04	1900
C 198308	.006	.01	.02	<.01	.6	.02	2000
C 198309	.016	.03	.01	.01	<.3	.02	2000
C 198310 ROCK	.001	<.01	.02	<.01	<.3	.02	1000
C 198311	.027	.89	1.56	<.01	8.2	.03	1700
C 198312	.015	.04	.15	.01	2.8	.04	1900
C 198313	.012	.03	.11	.01	2.6	.08	1900
C 198314	.013	.31	.88	.02	6.6	.08	1400
C 198315	.012	.04	.20	.10	1.7	.04	1100
C 198316	.006	<.01	.02	.01	3.4	.05	900
C 198317	.006	<.01	.01	.01	<.3	.01	2100
C 198318	.007	<.01	.01	<.01	<.3	<.01	2000
RE C 198318	.007	<.01	.01	<.01	<.3	<.01	-
RRE C 198318	.007	<.01	.01	<.01	<.3	<.01	-
C 198438	.002	<.01	.01	<.01	.3	<.01	3400
C 198439	.002	<.01	.01	<.01	.4	<.01	3800
C 198440	.002	<.01	<.01	<.01	.3	<.01	3700
C 198441	.003	<.01	<.01	<.01	<.3	<.01	3800
C 198442	.002	<.01	<.01	<.01	.5	<.01	3600
C 198443	.002	<.01	.01	<.01	<.3	.01	3500
C 198444	.002	<.01	.01	<.01	1.1	.04	3600
C 198445	.004	.02	.01	<.01	.7	.01	3400
C 198446	.002	<.01	.01	<.01	.3	<.01	3500
C 198447	.002	<.01	<.01	<.01	.5	<.01	3800
C 198448	.001	<.01	.01	<.01	<.3	<.01	3700
C 198449	.002	<.01	<.01	<.01	<.3	<.01	3600
C 198450 PULP	.020	<.01	<.01	.11	1.9	5.53	-
C 198451	.002	<.01	<.01	<.01	<.3	.01	3900
C 198452	.004	<.01	<.01	<.01	<.3	.01	3900
C 198453	.003	<.01	<.01	<.01	.5	<.01	3400
C 198454	.002	<.01	.01	<.01	<.3	.01	2300
C 198455	.002	<.01	<.01	<.01	<.3	.01	3200
STANDARD R-2/AU-1	.554	1.47	4.28	.23	154.9	3.35	-

Sample type: CORE R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA YING

SAMPLE#	Cu %	Pb %	Zn %	As %	Ag** gm/mt	Au** gm/mt	Sample gm
C 198456	.002	<.01	<.01	<.01	<.3	.01	3200
C 198457	.002	<.01	<.01	<.01	.5	.01	3700
C 198458	.003	<.01	<.01	<.01	<.3	.03	3100
C 198459	.002	<.01	<.01	<.01	.3	.01	3400
C 198460	.001	<.01	<.01	<.01	<.3	<.01	3300
C 198461	.004	<.01	.01	<.01	<.3	.01	3000
C 198462	.007	<.01	.01	.01	1.6	.07	1700
C 198463	.001	<.01	<.01	<.01	<.3	<.01	3100
C 198464	.003	<.01	<.01	<.01	<.3	.01	2700
C 198465	.001	<.01	.01	<.01	<.3	.01	3700
C 198466	.001	<.01	.01	<.01	<.3	.01	3200
C 198467	.002	<.01	.01	<.01	<.3	.01	3600
C 198468	.002	<.01	.01	<.01	<.3	.01	3800
C 198469	.002	<.01	<.01	<.01	<.3	.94	3300
C 198470 ROCK	<.001	<.01	.01	<.01	<.3	<.01	1400
C 198471	.002	<.01	<.01	<.01	<.3	.01	3500
C 198472	.005	<.01	.01	<.01	.4	.01	3400
C 198473	.005	<.01	.01	<.01	<.3	<.01	3500
C 198474	.002	<.01	.02	<.01	<.3	.01	3600
RE C 198474	.002	<.01	.01	<.01	<.3	.01	-
RRE C 198474	.008	<.01	.01	<.01	<.3	<.01	-
C 198475	.003	<.01	<.01	<.01	<.3	.01	3600
C 198476	.004	<.01	<.01	<.01	<.3	.01	3300
C 198477	.004	<.01	<.01	<.01	<.3	.11	3100
C 198478	.006	<.01	.01	.01	.6	.01	3100
C 198479	.006	<.01	.01	<.01	.4	.01	3600
C 198480	.027	.04	1.54	<.01	25.4	.39	1800
C 198481	.019	.05	1.62	<.01	14.7	.50	1800
C 198482	.002	<.01	.02	<.01	<.3	.04	2500
C 198483	.002	<.01	.01	<.01	<.3	.01	3500
C 198484	.002	<.01	<.01	<.01	<.3	<.01	3600
C 198485	<.001	<.01	<.01	<.01	<.3	.01	3800
C 198486	<.001	<.01	<.01	<.01	<.3	<.01	3200
C 198487	.005	<.01	<.01	<.01	<.3	.02	3500
C 198488	.001	<.01	.01	<.01	<.3	<.01	3300
STANDARD R-2/AU-1	.566	1.49	4.26	.23	155.3	3.35	-

Sample type: CORE R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

ACME ANALYTICAL

Roca Mines Inc. PROJECT FOREMORE FILE # A304385

SAMPLE#	Cu %	Pb %	Zn %	As %	Ag** gm/mt	Au** gm/mt	Sample gm
C 198489	.005	<.01	<.01	<.01	1.9	.08	1600
C 198490 PULP	.016	<.01	<.01	.38	<.3	2.21	-
C 198491	.007	<.01	<.01	.01	1.5	.06	1600
C 198492	.001	<.01	.02	<.01	.8	<.01	1500
C 198493	.004	<.01	<.01	.01	2.1	.05	4800
C 198494	<.001	<.01	<.01	<.01	.4	<.01	3700
C 198495	<.001	<.01	<.01	<.01	.4	.01	3500
C 198496	.003	<.01	<.01	<.01	.6	.02	3200
RE C 198496	.004	<.01	<.01	<.01	.9	.01	-
RRE C 198496	.005	<.01	<.01	<.01	<.3	<.01	-
C 198497	.002	<.01	<.01	<.01	2.2	.06	2000
C 198498	.004	<.01	<.01	<.01	2.3	.06	2000
C 198499	.002	<.01	.01	<.01	1.8	.03	1800
C 198500	.002	<.01	.03	<.01	1.6	.04	1700
STANDARD R-2/AU-1	.557	1.49	4.27	.25	156.4	3.34	-

Sample type: CORE R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data [signature] FA [signature]

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Roca Mines Inc. PROJECT FOREMORE File # A304222 Page 1

500 - 1045 Howe St., Vancouver BC V6Z 2A9 Submitted by: John Mirko

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Sample gm
SI	<1	1	<3	2	<.3	<1	<1	3	.14	<2	<8	<2	<2	3	<.5	<3	<3	<1	.13	.001	<1	1	<.01	4	<.01	<3	.01	.58	<.01	<2	-
C 198251	1	5	15	71	<.3	<1	7	789	2.73	4	<8	<2	2	89	<.5	<3	3	4	2.41	.105	6	2	.68	38	.01	<3	1.22	.02	.21	<2	3500
C 198252	3	3	6	68	<.3	<1	5	1134	3.73	4	10	<2	2	119	<.5	<3	<3	6	3.68	.127	5	1	.92	39	<.01	<3	1.34	.02	.21	<2	2100
C 198253	<1	79	25	274	<.3	5	21	1991	5.36	15	9	<2	<2	174	<.5	<3	<3	74	5.19	.063	2	5	1.87	34	.01	<3	2.65	.01	.17	<2	1900
C 198254	2	186	11	281	.8	36	26	1716	6.27	11	<8	<2	<2	221	.7	<3	3	126	7.20	.080	3	53	2.30	133	<.01	<3	2.81	.02	.11	<2	2100
C 198255	<1	81	<3	87	<.3	9	25	1362	6.41	3	<8	<2	2	113	<.5	<3	<3	170	3.41	.063	5	15	2.66	758	.01	<3	3.28	.03	.07	<2	3100
C 198256	2	178	<3	104	<.3	3	23	1371	6.37	4	<8	<2	<2	36	<.5	<3	<3	122	2.83	.060	4	3	2.46	97	<.01	<3	2.93	.03	.11	<2	3100
C 198257	1	27	3	42	<.3	1	9	1177	3.93	2	15	<2	<2	31	<.5	<3	<3	28	4.49	.070	2	2	.66	86	.01	<3	1.22	.03	.15	<2	1400
C 198258	<1	3	<3	27	<.3	6	12	752	4.89	<2	<8	<2	<2	26	<.5	<3	<3	67	3.82	.059	2	10	1.37	78	.03	<3	1.61	.01	.14	<2	2600
C 198259	<1	<1	3	19	<.3	13	14	667	4.05	3	13	<2	<2	25	<.5	<3	<3	61	3.99	.056	2	13	1.08	84	.02	<3	1.20	.02	.12	<2	1500
C 198260	<1	<1	4	18	<.3	9	15	875	4.20	2	<8	<2	<2	28	<.5	<3	<3	74	4.99	.055	3	12	.74	106	.03	<3	.96	.02	.13	<2	2000
C 198261	<1	2	3	25	<.3	12	16	606	4.42	<2	13	<2	<2	31	<.5	<3	<3	76	2.91	.056	8	17	1.67	93	.04	<3	1.57	.02	.13	<2	2100
C 198262	<1	6	<3	31	<.3	12	18	694	4.74	<2	<8	<2	<2	19	<.5	3	<3	79	2.41	.068	8	17	2.14	61	.03	<3	2.14	.02	.08	<2	600
C 198263	<1	35	<3	45	<.3	20	23	926	5.70	<2	9	<2	<2	79	<.5	<3	<3	111	4.39	.054	5	40	2.93	81	.01	<3	3.36	.01	.10	<2	1100
C 198264	<1	37	<3	58	<.3	71	26	1003	5.36	2	8	<2	<2	83	<.5	<3	<3	112	6.27	.093	4	250	2.92	136	<.01	<3	3.09	.01	.08	<2	1100
C 198265	2	20	14	81	.3	1	5	1026	3.61	9	11	<2	3	46	<.5	<3	<3	13	2.31	.127	9	2	1.02	41	<.01	<3	1.46	.02	.19	<2	1700
C 198266	1	7	72	139	<.3	1	5	1596	3.35	134	<8	<2	2	60	.9	<3	<3	9	2.84	.131	11	2	.94	73	<.01	<3	1.58	.02	.21	<2	1600
C 198267	1	6	37	89	<.3	<1	4	1749	3.46	65	<8	<2	3	58	<.5	<3	<3	8	2.88	.129	11	1	.97	46	.01	<3	1.72	.02	.20	<2	1400
C 198268	1	70	48	133	.5	<1	6	1182	3.44	14	<8	<2	<2	66	.9	<3	4	8	2.87	.119	6	1	.76	48	<.01	<3	1.28	.01	.20	<2	1300
C 198269	<1	22	11	39	<.3	1	7	894	2.96	8	<8	<2	<2	76	<.5	<3	<3	10	2.77	.094	4	1	.56	48	.01	<3	.92	.01	.18	<2	1800
C 198270 ROCK	<1	4	20	319	<.3	<1	<1	864	.22	4	<8	<2	<2	205	1.1	<3	<3	3	37.13	.004	<1	<1	1.04	9	<.01	<3	.13	<.01	.01	2	1000
C 198319	<1	85	<3	292	.7	17	10	1052	4.77	<2	<8	<2	<2	102	<.5	<3	<3	25	2.00	.040	5	18	2.08	219	<.01	<3	2.52	.01	.12	<2	1600
C 198320	<1	60	<3	404	.6	31	11	1332	3.94	<2	<8	<2	<2	77	<.5	<3	<3	20	1.95	.054	5	19	1.93	148	.01	<3	2.14	.01	.13	<2	1400
RE C 198320	<1	55	<3	400	.7	29	11	1317	3.89	<2	<8	<2	<2	76	<.5	<3	<3	20	1.93	.055	5	19	1.91	145	.01	<3	2.11	.01	.13	<2	-
RRE C 198320	<1	57	<3	390	.6	29	11	1292	3.82	<2	8	<2	<2	74	<.5	<3	<3	20	1.88	.052	5	19	1.88	148	<.01	<3	2.08	.01	.14	<2	-
C 198321	5	117	91	1234	11.0	107	33	1374	8.72	25	14	<2	<2	187	6.2	4	<3	6	3.65	.051	1	10	.39	29	<.01	<3	.24	.01	.16	<2	1500
C 198322	2	150	216	2200	12.3	120	43	1000	9.10	39	9	<2	<2	80	9.8	4	4	6	1.81	.060	2	12	.40	43	<.01	<3	.24	<.01	.15	<2	1700
C 198323	4	369	384	559	17.4	123	41	412	11.61	32	9	<2	<2	31	2.3	5	<3	8	.66	.053	1	15	.18	25	<.01	<3	.28	.01	.17	<2	2000
C 198324	4	368	6800	10450	22.1	130	45	601	10.43	43	<8	<2	2	38	35.2	9	<3	11	.91	.086	1	21	.32	29	<.01	<3	.36	.01	.22	35	2000
C 198325	1	104	511	873	19.3	93	33	562	7.58	40	10	<2	<2	146	3.3	5	<3	9	1.83	.049	2	28	.33	56	<.01	<3	.35	.02	.15	<2	1700
C 198326	2	310	765	1026	18.1	77	29	872	6.87	27	10	3	<2	114	6.9	4	<3	5	2.45	.042	1	15	.53	24	<.01	<3	.18	.02	.11	<2	1100
C 198327	<1	55	72	137	2.2	12	3	2252	2.63	8	9	<2	2	157	1.2	5	<3	10	6.21	.017	2	3	2.38	92	<.01	<3	.20	.01	.09	<2	1800
C 198328	6	70	427	3494	5.9	32	8	983	3.90	27	<8	<2	<2	73	26.7	5	3	5	2.36	.024	1	3	1.06	60	<.01	<3	.20	.01	.13	<2	1900
C 198329	6	59	271	662	4.3	24	20	602	3.40	13	9	<2	<2	61	2.3	3	<3	3	1.50	.049	2	2	.62	37	<.01	<3	.25	.01	.16	<2	1500
C 198330 PULP	12	155	18	77	.5	40	123	1216	3.44	4006	15	2	<2	94	.7	8	69	26	5.46	.109	12	40	.31	31	.04	22	1.18	.06	.05	23	-
STANDARD DS5	12	144	24	137	.3	24	12	784	2.99	18	<8	<2	3	49	5.5	5	6	60	.77	.097	12	187	.68	141	.10	17	2.09	.03	.14	3	-

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: CORE R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 15 2003 DATE REPORT MAILED: Sept 19/03 SIGNED BY.......... D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data___ FA ____

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Sample gm
C 198331	6	50	592	1664	5.0	44	10	1495	3.39	14	<8	<2	<2	159	6.9	5	<3	5	4.60	.026	2	3	1.32	30	.01	3	.17	.03	.08	<2	2100
C 198332	<1	68	78	128	.9	25	8	1184	1.85	5	<8	<2	3	86	<.5	3	5	5	3.11	.017	3	2	1.28	251	<.01	<3	.55	.01	.13	<2	3700
C 198333	<1	14	12	52	<.3	18	6	1260	1.27	<2	<8	<2	3	78	<.5	<3	<3	3	3.26	.017	5	1	1.46	145	<.01	<3	.37	.01	.14	<2	3400
C 198334	<1	4	3	46	<.3	17	7	931	1.26	<2	<8	<2	3	58	<.5	<3	<3	4	2.13	.020	4	2	1.02	110	<.01	<3	.49	<.01	.14	<2	2800
C 198335	<1	53	<3	161	<.3	144	32	1195	5.32	<2	<8	<2	<2	126	<.5	<3	<3	20	2.13	.025	1	51	1.55	186	.01	<3	2.46	.01	.16	<2	3700
C 198336	<1	28	3	99	<.3	97	25	1719	4.44	2	<8	<2	<2	94	<.5	<3	<3	11	2.25	.031	3	40	1.45	237	.01	<3	1.97	.01	.15	<2	3500
C 198337	2	24	7	107	.3	10	6	1198	2.87	5	<8	<2	<2	174	<.5	<3	<3	8	3.31	.060	3	4	.86	156	<.01	<3	1.10	.01	.12	<2	3200
C 198338	7	6	<3	129	<.3	<1	5	1090	4.54	3	<8	<2	2	121	<.5	<3	3	2	2.00	.161	12	1	1.03	96	<.01	<3	2.16	.02	.11	<2	2400
C 198339	<1	17	9	119	.6	9	6	1009	2.87	7	<8	<2	<2	77	.5	<3	<3	9	1.67	.034	2	4	.79	251	<.01	<3	1.11	.01	.11	<2	2200
C 198340	<1	8	5	42	.4	7	4	620	1.61	4	<8	<2	<2	70	<.5	<3	3	6	2.14	.016	2	5	.38	210	<.01	<3	.44	.01	.09	<2	2600
C 198341	1	16	6	54	.6	14	5	653	2.45	7	<8	<2	<2	63	<.5	<3	<3	8	1.46	.022	1	7	.65	137	<.01	<3	.58	.01	.09	<2	2600
C 198342	1	29	9	124	.6	15	8	686	3.50	12	<8	<2	<2	70	<.5	<3	<3	14	1.21	.049	3	5	.92	183	<.01	<3	1.55	.01	.16	<2	3100
C 198343	<1	22	9	81	.6	10	6	958	2.57	26	<8	<2	<2	86	<.5	<3	<3	7	1.94	.041	2	2	.71	126	<.01	<3	.61	<.01	.11	<2	4200
C 198344	<1	18	5	98	.5	10	6	882	3.16	6	<8	<2	<2	110	<.5	<3	<3	9	2.03	.038	3	4	.82	133	<.01	<3	1.23	.01	.12	<2	3300
C 198345	1	23	6	69	.6	12	7	668	2.63	8	<8	<2	2	62	<.5	<3	4	13	1.17	.032	3	3	.73	137	<.01	<3	.95	.01	.11	<2	2400
C 198346	4	29	9	95	.5	17	7	881	2.78	21	<8	<2	<2	109	<.5	<3	<3	13	2.16	.031	3	4	1.03	150	<.01	<3	.79	.01	.10	<2	3900
C 198347	<1	21	<3	115	<.3	82	25	2325	5.06	<2	<8	<2	2	151	<.5	<3	<3	29	3.56	.104	5	58	1.58	84	.01	<3	2.49	<.01	.17	<2	1900
C 198348	2	46	5	119	.6	42	17	1692	3.49	4	<8	<2	<2	114	<.5	<3	3	16	3.23	.080	3	19	1.46	101	<.01	<3	1.45	.01	.13	<2	1800
RE C 198348	1	46	9	118	.7	42	16	1657	3.43	4	<8	<2	2	112	<.5	<3	<3	16	3.18	.077	3	19	1.44	100	<.01	<3	1.42	.01	.13	<2	-
RRE C 198348	2	45	9	119	.6	44	17	1680	3.61	3	<8	<2	<2	115	<.5	<3	<3	16	3.24	.082	2	19	1.45	107	<.01	<3	1.46	.01	.14	<2	-
C 198349	50	93	41	39	10.1	165	45	487	8.31	47	<8	<2	<2	83	<.5	<3	<3	8	2.11	.103	2	19	.21	16	<.01	<3	.29	.01	.12	<2	1700
C 198350 ROCK	1	5	32	98	<.3	2	1	860	.21	3	<8	<2	<2	215	.5	<3	<3	3	36.76	.003	2	2	.55	11	<.01	<3	.11	<.01	<.01	<2	900
C 198351	2	77	202	231	2.6	110	37	502	7.06	30	<8	<2	2	50	.6	3	<3	8	1.03	.083	1	16	.41	44	<.01	<3	.29	.01	.15	<2	1700
C 198352	1	52	41	41	2.1	116	36	727	6.80	32	<8	<2	<2	59	<.5	4	<3	9	1.54	.089	1	17	.68	47	<.01	<3	.25	.02	.15	<2	1700
C 198353	1	42	39	42	1.7	117	36	1182	6.77	30	<8	<2	2	79	<.5	<3	<3	12	2.34	.086	1	18	1.12	43	<.01	<3	.29	.01	.15	<2	1700
C 198354	2	61	224	251	2.3	111	33	662	6.40	30	<8	<2	<2	54	.5	3	<3	12	1.44	.080	1	20	.71	27	<.01	<3	.37	.01	.15	<2	1800
C 198355	2	72	196	81	2.7	91	29	1080	5.25	22	<8	<2	<2	112	<.5	<3	<3	10	2.92	.074	1	18	1.12	31	<.01	<3	.23	.02	.11	<2	1900
C 198356	<1	45	72	84	2.7	59	22	1033	4.12	29	<8	<2	2	75	<.5	<3	<3	9	2.53	.061	1	11	1.45	39	<.01	<3	.57	.02	.12	<2	1900
C 198357	1	60	441	488	5.3	78	23	1443	4.89	45	<8	<2	<2	85	1.1	3	<3	9	3.41	.058	1	14	1.69	35	<.01	<3	.24	.01	.12	<2	1700
C 198358	1	92	978	1255	9.5	106	29	789	5.77	64	<8	<2	<2	55	2.9	3	<3	8	1.72	.054	1	11	.81	28	<.01	<3	.24	.01	.12	<2	1700
C 198359	1	78	489	306	10.2	93	27	1431	5.26	61	<8	<2	<2	81	.6	4	3	10	2.51	.062	1	16	1.15	39	<.01	3	.26	.02	.12	<2	1700
C 198360	1	102	959	897	8.1	81	25	1757	4.68	46	<8	<2	2	89	2.3	5	<3	8	3.12	.067	1	13	1.52	46	<.01	4	.24	.03	.10	<2	1800
C 198361	1	747	4419	5029	29.7	126	31	1644	7.87	68	<8	<2	<2	88	12.4	12	<3	9	2.72	.057	1	9	1.33	47	<.01	<3	.26	.03	.11	<2	2000
C 198362	1	183	2180	2133	11.8	117	30	1492	5.95	61	<8	<2	<2	78	5.9	3	<3	9	2.36	.056	1	16	1.08	54	<.01	3	.30	.02	.12	<2	1900
STANDARD DS5	12	138	23	130	.4	24	12	737	2.85	18	8	<2	3	47	5.3	3	6	57	.72	.089	12	179	.64	137	.09	16	2.01	.04	.13	3	-

Sample type: CORE R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

ACME ANALYTICAL

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Sample gm
C 198363	<1	83	51	218	3.5	208	44	2565	5.89	36	<8	<2	2	93	<.5	3	4	40	3.55	.052	2	148	2.53	64	<.01	3	1.59	.03	.10	<2	1500
C 198364	<1	65	26	128	3.5	158	35	2581	5.60	56	<8	<2	2	92	<.5	<3	<3	26	3.83	.075	1	79	2.15	68	<.01	<3	.90	.03	.09	<2	1900
C 198365	<1	83	70	55	4.4	127	32	614	5.82	93	<8	<2	<2	62	<.5	<3	<3	8	1.16	.070	1	22	.53	26	<.01	3	.36	.04	.12	<2	1700
C 198366	1	96	56	59	4.5	190	49	1067	7.61	98	<8	<2	2	93	<.5	5	<3	20	2.11	.113	1	36	1.11	24	<.01	4	.51	.06	.11	<2	2600
C 198367	<1	7	8	74	<.3	8	2	768	1.70	<2	<8	<2	<2	67	<.5	<3	<3	2	1.97	.017	6	3	1.38	129	<.01	3	.89	.03	.10	<2	3500
C 198368	<1	2	4	91	<.3	6	1	639	1.62	2	<8	<2	2	60	<.5	<3	<3	1	1.58	.016	8	2	1.24	107	<.01	3	.97	.04	.09	<2	1800
C 198369	<1	5	4	90	<.3	7	2	714	1.62	<2	<8	<2	2	57	<.5	<3	<3	1	1.65	.014	8	1	1.30	87	<.01	3	.91	.03	.09	<2	2200
C 198370 PULP	115	189	76	51	2.1	49	57	543	3.34	1058	11	5	2	130	<.5	4	10	17	4.44	.084	9	19	.17	58	.03	17	.85	.07	.03	<2	-
C 198371	3	19	12	54	1.0	59	28	1542	2.32	17	<8	<2	<2	92	<.5	3	<3	5	3.17	.029	1	4	1.47	109	<.01	3	.37	.04	.08	<2	1700
C 198372	2	70	23	106	2.2	85	23	1699	4.77	59	<8	<2	<2	97	.6	4	<3	9	3.20	.048	1	15	1.50	50	<.01	4	.40	.03	.10	<2	1500
C 198373	1	91	32	83	3.0	164	40	1880	7.54	96	<8	<2	<2	84	<.5	4	4	28	3.36	.098	2	67	1.78	50	<.01	4	.76	.04	.10	<2	2000
C 198374	1	81	32	150	3.8	192	40	2060	7.68	137	<8	<2	2	85	.7	5	<3	20	3.47	.088	2	27	1.76	41	<.01	4	.39	.04	.11	<2	2000
C 198375	1	57	19	83	1.6	136	31	1700	5.49	54	<8	<2	<2	98	<.5	<3	<3	16	3.47	.054	2	36	1.74	44	<.01	3	.58	.04	.09	<2	1700
C 198376	1	61	25	93	2.3	154	28	2150	6.72	75	<8	<2	2	101	<.5	5	<3	15	4.26	.049	1	22	2.06	50	.01	3	.43	.04	.10	<2	1800
C 198377	<1	48	15	114	1.4	104	27	1672	4.67	25	<8	<2	2	98	<.5	3	<3	23	3.76	.051	2	46	2.07	81	<.01	3	.97	.04	.10	<2	1700
C 198378	1	53	17	67	1.5	127	31	1827	5.34	43	<8	<2	2	96	<.5	<3	<3	17	3.96	.062	2	28	1.86	64	<.01	3	.47	.03	.11	<2	1800
C 198379	<1	76	19	94	2.0	168	39	2025	6.31	45	<8	<2	<2	103	<.5	3	<3	25	4.22	.073	2	50	2.05	48	<.01	3	.69	.03	.11	<2	1500
C 198380	<1	81	21	94	3.8	188	46	1075	6.26	62	<8	<2	<2	64	<.5	4	<3	19	2.10	.076	1	52	1.28	21	<.01	<3	.75	.02	.13	<2	1800
C 198381	1	72	21	91	2.1	150	37	1414	6.06	43	<8	<2	2	71	<.5	<3	4	28	2.76	.089	2	65	1.69	49	<.01	<3	1.01	.03	.12	<2	2300
C 198382	<1	13	9	75	<.3	17	4	1165	2.34	5	<8	<2	<2	73	.6	<3	<3	5	3.10	.017	4	4	1.70	72	<.01	3	.96	.02	.11	<2	1700
RE C 198382	<1	13	7	78	<.3	16	4	1187	2.36	4	<8	<2	<2	74	<.5	<3	<3	5	3.15	.017	4	3	1.71	71	<.01	4	.97	.03	.11	<2	-
RRE C 198382	<1	14	7	75	<.3	16	4	1169	2.37	3	<8	<2	2	74	<.5	<3	<3	5	3.13	.018	5	4	1.72	76	<.01	3	1.01	.02	.12	<2	-
C 198383	2	87	84	78	1.3	73	47	1078	2.13	36	<8	<2	<2	66	1.1	<3	<3	5	2.31	.018	3	2	1.09	75	<.01	4	.52	.02	.13	<2	1900
C 198384	1	33	24	284	.7	29	11	3560	2.96	9	<8	<2	2	72	1.5	<3	<3	8	3.26	.028	2	11	1.60	114	<.01	<3	.92	.01	.11	<2	1900
C 198385	2	21	55	661	1.2	10	6	935	2.79	30	<8	<2	<2	45	2.5	<3	<3	6	1.27	.028	2	3	.88	72	<.01	<3	.76	.01	.11	<2	2000
C 198386	2	17	13	179	2.1	14	6	1104	3.02	26	<8	<2	<2	57	.7	3	<3	3	1.69	.027	2	3	.84	54	<.01	<3	.44	.01	.10	<2	1900
C 198387	1	91	22	76	2.9	167	43	711	7.00	77	<8	<2	<2	47	<.5	<3	<3	9	1.29	.110	2	18	.51	30	<.01	3	.32	.01	.14	<2	1900
C 198388	<1	93	40	146	4.0	182	54	561	7.94	84	<8	<2	<2	42	.5	<3	<3	10	.95	.109	1	28	.39	36	<.01	<3	.41	.01	.16	<2	2100
C 198389	<1	82	20	83	3.0	176	44	1145	6.62	51	<8	<2	2	60	<.5	<3	<3	20	2.09	.087	2	56	1.22	55	.01	3	.85	.01	.15	<2	1800
C 198390 ROCK	<1	5	19	222	<.3	1	1	838	.17	2	<8	<2	<2	209	.8	<3	<3	3	35.86	.004	1	1	.60	12	<.01	<3	.13	<.01	<.01	<2	500
C 198391	1	22	6	66	.8	41	16	535	2.85	8	<8	<2	<2	39	<.5	<3	<3	9	1.35	.027	3	22	1.07	60	<.01	<3	1.17	.01	.12	<2	2000
C 198392	1	22	5	64	<.3	16	12	1330	3.17	3	<8	<2	<2	84	<.5	<3	<3	20	3.18	.148	5	3	1.45	74	<.01	3	1.34	.01	.12	<2	3200
C 198393	1	25	4	95	<.3	25	9	2033	2.99	48	<8	<2	<2	65	<.5	<3	<3	6	2.21	.029	3	12	1.35	76	<.01	<3	1.25	.01	.11	<2	3400
C 198394	2	9	7	28	<.3	8	3	799	1.69	13	<8	<2	<2	64	<.5	<3	3	3	1.89	.017	3	4	.84	113	<.01	<3	.46	.01	.15	<2	3200
STANDARD DS5	12	139	22	130	<.3	24	12	739	2.91	18	<8	<2	3	47	5.4	<3	8	59	.73	.092	12	189	.66	138	.09	17	2.03	.04	.13	3	-

Sample type: CORE R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Sample gm
C 198395	<1	3	<3	30	<.3	4	1	470	1.26	3	<8	<2	<2	51	<.5	<3	<3	1	1.27	.020	8	2	.68	118	<.01	<3	.65	.01	.19	<2	3900
C 198396	1	34	5	43	.3	62	15	1536	3.31	18	<8	<2	<2	121	<.5	<3	4	11	3.99	.038	2	21	1.62	104	<.01	<3	.73	.01	.21	<2	3000
C 198397	1	9	5	27	<.3	8	3	1098	2.40	3	<8	<2	<2	118	<.5	<3	<3	6	2.57	.012	4	7	.94	138	<.01	<3	.30	.02	.10	<2	2100
C 198398	3	19	3	20	<.3	9	4	1439	2.81	9	9	<2	<2	166	<.5	<3	<3	6	3.48	.092	5	5	1.04	161	<.01	<3	.31	.04	.13	<2	2000
C 198399	2	20	11	64	<.3	11	6	993	2.80	9	<8	<2	<2	121	<.5	<3	<3	8	2.21	.035	2	5	1.00	177	<.01	3	.94	.01	.17	<2	2600
C 198400	8	7	7	110	<.3	3	3	1430	4.00	<2	13	<2	5	278	<.5	<3	<3	3	2.80	.084	35	4	.50	124	<.01	4	1.69	.03	.16	<2	3200
C 198401	6	6	<3	104	<.3	1	3	1264	4.21	<2	<8	<2	3	245	<.5	<3	<3	<1	2.57	.089	31	1	.56	116	.01	<3	1.83	.03	.13	<2	3400
C 198402	6	7	<3	112	<.3	1	4	1433	4.58	4	<8	<2	4	231	<.5	<3	<3	1	2.49	.099	36	<1	.56	113	<.01	<3	2.00	.05	.14	<2	1900
C 198403	6	7	3	115	<.3	<1	3	1547	4.60	3	8	<2	3	207	<.5	<3	<3	1	2.61	.098	25	1	.59	102	<.01	<3	2.01	.04	.13	<2	2400
C 198404	1	17	6	116	.3	47	12	1486	5.46	19	<8	<2	<2	195	<.5	<3	<3	34	3.88	.107	4	89	1.71	122	<.01	<3	2.22	.02	.19	<2	2000
RE C 198404	1	20	7	120	.3	48	13	1524	5.60	21	9	<2	<2	200	<.5	<3	<3	35	3.99	.110	4	91	1.75	128	<.01	3	2.27	.02	.20	<2	-
RRE C 198404	1	18	8	119	<.3	46	12	1564	5.57	19	<8	<2	2	206	<.5	<3	<3	36	4.14	.109	4	91	1.76	122	.01	<3	2.26	.01	.18	<2	-
C 198405	1	8	8	31	<.3	2	5	967	1.82	2	<8	<2	2	104	<.5	<3	<3	12	2.33	.057	12	2	.87	132	<.01	3	.82	.01	.21	<2	1600
C 198406	<1	7	4	14	<.3	2	1	397	.69	<2	<8	<2	2	42	<.5	<3	3	1	.74	.022	13	3	.27	157	<.01	3	.47	.01	.20	<2	1600
STANDARD DS5	11	137	22	125	.3	24	11	729	2.82	20	<8	<2	3	47	5.2	3	8	56	.70	.092	12	177	.64	137	.09	17	1.99	.04	.12	4	-

Sample type: CORE R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data___ FA ____

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

ASSAY CERTIFICATE

Roca Mines Inc. PROJECT FOREMORE File # A304222 Page 1

500 - 1045 Howe St., Vancouver BC V6Z 2A9 Submitted by: John Mirko

SAMPLE#	Cu %	Pb %	Zn %	Ag** gm/mt	Au** gm/mt
SI	<.001	<.01	<.01	.4	<.01
C 198251	<.001	<.01	<.01	<.3	.01
C 198252	<.001	<.01	<.01	<.3	.01
C 198253	.008	<.01	.03	<.3	.01
C 198254	.019	<.01	.03	.4	.01
C 198255	.008	<.01	<.01	<.3	.01
C 198256	.018	<.01	.01	<.3	.01
C 198257	.003	<.01	<.01	<.3	.01
C 198258	<.001	<.01	<.01	<.3	.01
C 198259	<.001	<.01	<.01	<.3	.02
C 198260	<.001	<.01	<.01	<.3	<.01
C 198261	<.001	<.01	<.01	<.3	.01
C 198262	.001	<.01	<.01	<.3	.01
C 198263	.003	<.01	<.01	<.3	.01
C 198264	.004	<.01	<.01	<.3	.01
C 198265	.002	<.01	<.01	<.3	.01
C 198266	<.001	<.01	.02	<.3	.01
C 198267	.001	<.01	.01	<.3	.01
C 198268	.008	<.01	.02	.9	.01
C 198269	.002	<.01	<.01	.4	.01
C 198270 ROCK	<.001	<.01	.03	.5	.01
C 198319	.009	<.01	.03	1.0	.02
C 198320	.006	<.01	.04	.8	.01
RE C 198320	.006	<.01	.04	1.0	<.01
RRE C 198320	.006	<.01	.04	.9	.01
C 198321	.012	<.01	.13	11.4	.38
C 198322	.017	.02	.23	14.2	.35
C 198323	.043	.04	.06	18.6	.52
C 198324	.040	.66	1.06	22.4	.83
C 198325	.011	.05	.09	18.7	.31
C 198326	.033	.07	.11	16.5	.50
C 198327	.006	<.01	.02	2.6	.05
C 198328	.008	.04	.36	6.6	.15
C 198329	.007	.03	.07	4.8	.07
C 198330 PULP	.017	<.01	<.01	.7	2.14
STANDARD R-2/AU-1	.568	1.49	4.24	156.0	3.33

GROUP 7AR - 1.000 GM SAMPLE, AQUA - REGIA (HCL-HNO3-H2O) DIGESTION TO 100 ML, ANALYSED BY ICP-ES.
- SAMPLE TYPE: CORE R150 60C AG** & AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 15 2003 DATE REPORT MAILED: Sept 19/03 SIGNED BY C. L........D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

 Data FA

SAMPLE#	Cu %	Pb %	Zn %	Ag** gm/mt	Au** gm/mt
C 198331	.005	.06	.20	7.5	.03
C 198332	.007	<.01	.01	1.0	.01
C 198333	.002	<.01	<.01	.8	<.01
C 198334	<.001	<.01	<.01	<.3	<.01
C 198335	.006	<.01	.02	.4	.01
C 198336	.003	<.01	.01	.4	<.01
C 198337	.002	<.01	.01	.6	.01
C 198338	.001	<.01	.02	<.3	<.01
C 198339	.002	<.01	.01	.7	.01
C 198340	.001	<.01	<.01	<.3	.03
C 198341	.002	<.01	<.01	<.3	.01
C 198342	.003	<.01	.01	.6	.01
C 198343	.002	<.01	<.01	.3	<.01
C 198344	.002	<.01	.01	<.3	<.01
C 198345	.002	<.01	<.01	<.3	<.01
C 198346	.003	<.01	.01	1.4	<.01
C 198347	.002	<.01	.01	<.3	<.01
C 198348	.005	<.01	.01	1.0	.02
RE C 198348	.005	<.01	.01	.3	.02
RRE C 198348	.005	<.01	.02	.4	.01
C 198349	.010	<.01	<.01	10.8	.36
C 198350 ROCK	<.001	<.01	.01	<.3	<.01
C 198351	.008	.02	.02	2.7	.09
C 198352	.006	<.01	<.01	2.3	.08
C 198353	.004	<.01	<.01	2.3	.04
C 198354	.007	.02	.03	2.3	.04
C 198355	.008	.02	<.01	3.0	.05
C 198356	.005	<.01	.01	1.9	.04
C 198357	.007	.04	.06	5.7	.10
C 198358	.010	.10	.14	9.1	.12
C 198359	.009	.05	.04	9.2	.18
C 198360	.011	.09	.10	7.4	.10
C 198361	.082	.43	.57	29.4	.18
C 198362	.021	.22	.25	11.9	.11
STANDARD R-2/AU-1	.556	1.51	4.22	156.5	3.30

Sample type: CORE R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

SEP 24 2003

Data FA

SAMPLE#	Cu %	Pb %	Zn %	Ag** gm/mt	Au** gm/mt
C 198363	.009	<.01	.02	3.9	.06
C 198364	.006	<.01	.01	3.8	.05
C 198365	.009	<.01	<.01	5.4	.08
C 198366	.010	<.01	<.01	4.9	.11
C 198367	.001	<.01	<.01	1.0	<.01
C 198368	<.001	<.01	<.01	.6	.30
C 198369	<.001	<.01	<.01	<.3	<.01
C 198370 PULP	.022	<.01	<.01	2.4	5.62
C 198371	.002	<.01	<.01	.9	.01
C 198372	.007	<.01	.01	2.9	.05
C 198373	.009	<.01	<.01	3.0	.09
C 198374	.008	<.01	.02	4.5	.11
C 198375	.006	<.01	<.01	1.6	.04
C 198376	.006	<.01	<.01	2.7	.04
C 198377	.005	<.01	.01	1.6	.01
C 198378	.006	<.01	<.01	1.0	.02
C 198379	.008	<.01	<.01	1.4	.03
C 198380	.009	<.01	.01	4.1	.05
C 198381	.008	<.01	<.01	2.3	.04
C 198382	.001	<.01	<.01	.5	<.01
RE C 198382	.001	<.01	<.01	.7	<.01
RRE C 198382	.001	<.01	<.01	<.3	<.01
C 198383	.010	<.01	<.01	1.1	.01
C 198384	.004	<.01	.03	.5	.01
C 198385	.002	<.01	.07	1.1	.02
C 198386	.002	<.01	.02	1.6	.03
C 198387	.010	<.01	<.01	3.9	.16
C 198388	.010	<.01	.02	4.4	.26
C 198389	.008	<.01	<.01	3.4	.09
C 198390 ROCK	<.001	<.01	.02	<.3	<.01
C 198391	.002	<.01	<.01	.7	.01
C 198392	.002	<.01	<.01	<.3	<.01
C 198393	.003	<.01	.01	.3	.01
C 198394	.001	<.01	<.01	.7	<.01
STANDARD R-2/AU-1	.566	1.54	4.27	155.0	3.33

Sample type: CORE R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

SAMPLE#	Cu %	Pb %	Zn %	Ag** gm/mt	Au** gm/mt
C 198395	<.001	<.01	<.01	<.3	<.01
C 198396	.003	<.01	<.01	<.3	.02
C 198397	.001	<.01	<.01	.7	.03
C 198398	.002	<.01	<.01	<.3	.06
C 198399	.002	<.01	<.01	<.3	.02
C 198400	.001	<.01	.01	<.3	<.01
C 198401	<.001	<.01	.01	<.3	<.01
C 198402	.001	<.01	.01	.5	<.01
C 198403	<.001	<.01	.01	<.3	<.01
C 198404	.002	<.01	.01	<.3	.02
RE C 198404	.002	<.01	.01	.4	.02
RRE C 198404	.002	<.01	.01	<.3	.02
C 198405	.001	<.01	<.01	.3	.01
C 198406	.001	<.01	<.01	<.3	<.01
STANDARD R-2/AU-1	.565	1.52	4.14	155.9	3.34

Sample type: CORE R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

SEP 24 2003

Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Roca Mines Inc. File # A305414 Page 1
500 - 1045 Howe St., Vancouver BC V6Z 2A9 Submitted by: Sandy Sears

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
G-1	1.6	2.6	2.3	44	<.1	4.9	3.9	560	1.90	<.5	1.7	.5	4.3	92	<.1	<.1	.1	44	.56	.083	9	16.7	.60	241	.145	1	1.07	.125	.49	2.5	<.01	2.5	.3	<.05	5	<.5	15.0
L1-000	1.6	5.8	8.6	59	.1	12.5	7.5	329	2.67	1.9	.6	6.5	.1	22	.2	.1	.2	42	.21	.080	11	20.9	.84	305	.014	1	1.69	.011	.04	<.1	.02	1.1	.1	.07	8	<.5	7.5
L1-025	2.1	48.7	9.9	89	.3	21.3	16.2	1220	6.10	31.9	2.1	67.4	.3	21	.2	1.0	.3	57	.23	.138	19	37.3	.89	175	.025	1	2.79	.009	.04	.1	.10	3.7	.1	.10	8	2.0	15.0
L1-050	1.3	35.6	4.3	68	.2	14.6	12.8	592	4.57	10.0	.9	14.4	.3	9	.2	.6	.2	46	.08	.058	12	23.7	.66	249	.023	1	1.99	.008	.02	<.1	.03	2.1	<.1	<.05	6	.8	15.0
L1-075	2.4	37.3	9.6	51	.5	13.1	7.6	321	4.48	8.2	1.3	11.1	.1	6	.1	.4	.2	58	.05	.073	19	30.9	.66	184	.032	1	2.73	.008	.04	.1	.10	2.5	.1	.07	12	.8	15.0
L1-100	1.1	15.6	3.1	61	.1	19.5	10.3	586	3.83	2.2	.5	7.8	.1	6	.2	.4	.1	59	.02	.069	8	42.1	1.00	193	.011	1	2.08	.005	.04	<.1	.05	2.3	.1	<.05	6	<.5	15.0
L1-125	15.3	48.7	8.0	74	.4	15.4	10.1	604	6.08	8.8	5.3	10.7	.6	56	.2	.3	.1	47	.42	.136	29	39.0	.90	527	.025	<1	2.31	.042	.05	.1	.10	4.2	.1	.16	10	3.2	15.0
L1-150	1.3	87.4	7.0	90	.2	16.3	13.2	643	5.05	23.8	.4	26.6	.9	12	.2	1.0	.1	43	.09	.093	11	20.1	1.14	83	.009	<1	2.09	.005	.02	<.1	.05	3.5	<.1	<.05	5	.7	15.0
L1-200	4.3	27.3	5.8	53	.3	5.6	10.7	1078	4.27	4.4	1.0	13.9	.2	10	.2	.3	.2	38	.11	.082	16	10.1	.28	124	.009	1	1.40	.016	.04	.1	.06	1.9	.1	.07	6	.8	15.0
L1-225	2.3	16.7	4.1	55	.4	5.6	4.2	324	3.07	6.2	1.3	7.6	.1	5	.1	.3	.1	54	.02	.102	11	18.1	.28	68	.016	<1	1.45	.009	.02	.1	.08	.7	.1	<.05	8	<.5	15.0
L1-250	1.6	11.0	4.1	49	.1	6.6	3.8	294	3.11	8.3	1.0	23.0	.3	5	.1	.7	.2	33	.02	.061	11	16.0	.28	61	.013	2	1.40	.010	.03	.1	.05	1.2	<.1	<.05	8	.6	7.5
L1-275	1.6	33.7	4.0	78	.2	11.0	13.8	1424	5.40	17.6	.5	35.0	.5	7	.1	.6	.2	45	.03	.088	12	16.9	.34	86	.018	1	1.21	.008	.03	.1	.04	2.0	<.1	<.05	6	.8	7.5
L1-300	1.7	38.3	7.0	68	.1	12.2	7.3	412	4.77	18.3	.7	21.5	.3	8	.1	.9	.2	66	.03	.082	11	20.8	.46	67	.031	<1	1.42	.005	.03	.1	.04	2.5	.1	<.05	8	.6	15.0
L2-000	1.5	32.0	8.7	69	.4	14.1	9.2	153	3.44	18.9	.4	70.3	.5	12	.1	1.1	.2	72	.08	.021	16	22.4	.69	216	.032	<1	1.93	.005	.02	.1	.04	4.7	.1	<.05	8	1.4	15.0
L2-025	1.3	23.0	5.4	89	.2	21.7	10.0	350	4.23	15.4	.6	42.0	.3	22	.1	1.2	.2	49	.24	.122	16	29.6	.82	184	.018	1	1.92	.008	.03	.1	.05	3.3	.1	<.05	9	1.0	15.0
L2-050	1.9	14.9	8.3	81	.3	14.3	16.7	1943	4.29	13.7	.6	15.9	.2	9	.1	.6	.1	55	.06	.065	12	28.8	.63	84	.039	1	1.97	.012	.04	.1	.06	2.0	.1	.06	7	.9	15.0
L2-075	2.4	17.0	11.4	59	.8	8.8	4.3	225	4.07	9.9	.9	55.3	.2	16	.1	.4	.2	45	.14	.084	23	20.4	.46	103	.050	2	1.91	.015	.04	.1	.07	1.9	.1	.08	14	1.2	15.0
L2-100	1.9	21.1	11.3	73	.9	14.1	8.7	495	5.40	14.6	1.5	377.9	.1	22	.1	.5	.3	45	.23	.171	26	21.7	.47	135	.014	<1	2.19	.017	.03	.1	.09	1.2	.1	.13	12	1.5	7.5
RE L2-100	1.8	21.8	11.5	73	.9	13.0	7.9	477	5.22	14.5	1.5	20.6	.1	24	.1	.6	.2	43	.23	.178	27	20.9	.47	143	.014	<1	2.16	.019	.03	.1	.09	1.3	.1	.13	13	1.7	7.5
L2-125	1.9	20.2	7.2	60	.4	15.7	7.6	306	5.61	14.5	1.1	16.7	.2	14	.1	.5	.2	54	.11	.090	27	25.6	.55	177	.022	1	1.89	.009	.03	.1	.05	1.9	.1	<.05	10	1.5	15.0
L2-150	2.1	20.3	11.7	68	.8	12.9	10.0	747	4.62	11.4	1.2	65.7	.1	10	.1	.4	.3	41	.10	.154	26	22.9	.50	92	.018	1	2.12	.024	.04	.1	.07	1.1	.1	.12	12	.9	15.0
L2-175	1.5	11.6	8.3	66	.3	11.5	7.0	448	3.28	9.3	.7	24.0	.1	10	.1	.3	.1	43	.08	.082	12	19.1	.50	114	.022	<1	1.60	.014	.04	<.1	.03	.8	.1	.09	9	.5	7.5
L2-200	1.6	7.8	8.4	49	1.0	7.8	4.0	149	2.67	4.2	.9	17.3	.2	7	.1	.1	.1	48	.05	.060	11	19.7	.44	99	.026	1	1.81	.021	.04	.1	.05	1.1	.1	.11	11	<.5	7.5
L2-225	1.6	61.7	10.7	64	1.1	11.2	8.5	654	3.67	5.1	3.1	14.6	.1	20	.1	.5	.1	34	.16	.171	23	21.4	.36	107	.019	1	2.86	.019	.03	.1	.52	2.9	.1	.18	9	2.6	1.0
L2-250	2.7	15.4	6.9	65	.8	10.8	15.5	3040	3.14	2.6	2.1	4.8	.1	26	.2	.4	.1	33	.28	.206	21	18.1	.44	309	.014	2	1.82	.059	.06	.1	.06	1.4	.1	.16	9	1.4	7.5
L2-275	1.7	13.9	9.6	86	.5	10.7	9.4	1105	3.59	5.2	1.2	15.7	.1	16	.1	.3	.2	38	.20	.158	13	15.4	.51	236	.016	<1	1.49	.026	.05	.1	.03	1.1	.1	.16	9	.6	15.0
L2-300	1.3	3.7	7.9	48	.8	6.1	2.8	101	1.75	4.4	.7	51.9	<.1	10	.1	.1	.1	32	.06	.061	10	14.6	.32	109	.017	1	1.04	.019	.04	.1	.03	.4	.1	.10	9	<.5	15.0
L2-325	1.1	5.3	10.1	70	.7	6.6	3.3	141	1.90	6.5	.4	24.7	.1	14	.1	.2	.2	40	.08	.036	10	17.1	.36	221	.033	1	1.18	.010	.03	<.1	.02	1.3	.1	<.05	10	.5	15.0
A 127751	3.0	24.8	7.7	92	.1	12.2	11.9	1623	4.00	3.7	.9	1.0	1.4	17	.2	.3	.1	39	.19	.169	33	16.0	.88	74	.071	1	2.12	.024	.08	.1	.02	2.4	.1	<.05	8	<.5	15.0
A 127752	2.8	115.8	15.0	104	.2	20.4	22.6	1854	7.16	51.6	.4	4.6	.7	10	.3	2.5	.1	62	.16	.083	8	14.4	.47	269	.008	1	1.11	.011	.06	.1	.36	12.5	<.1	<.05	3	1.1	15.0
A 127753	12.1	90.7	72.8	2790	.3	58.2	66.7	>9999	22.20	70.3	1.3	3.1	1.0	11	2.2	3.3	.2	40	.19	.081	9	7.3	.50	273	.018	<1	1.15	.005	.03	<.1	.29	4.1	8.8	<.05	5	.8	15.0
A 127754	1.2	236.5	14.2	95	.2	7.2	25.0	3630	7.28	8.3	.5	9.2	1.0	10	.5	1.0	.1	86	.16	.077	18	6.4	.92	325	.016	1	1.67	.008	.07	.1	.04	12.5	.1	<.05	6	<.5	15.0
A 127755	1.8	186.1	22.9	144	.2	8.2	32.2	3501	8.61	20.2	.3	32.4	.8	15	.7	1.5	.1	112	.28	.089	18	4.4	1.10	245	.019	<1	1.92	.012	.07	<.1	.05	13.8	<.1	<.05	7	.5	15.0
A 127756	1.8	72.1	7.9	149	.1	12.4	26.7	3793	9.86	6.6	.6	4.3	1.3	7	.4	.4	.1	89	.12	.108	17	9.5	.50	259	.022	<1	1.43	.015	.08	.1	.03	12.0	.1	<.05	5	.7	15.0
A 127757	1.6	97.3	8.4	131	.1	7.9	21.2	3354	7.86	9.3	.6	3.6	1.9	10	.3	.8	.1	89	.24	.122	25	7.4	.78	200	.048	2	1.84	.028	.08	.1	.04	16.2	.1	<.05	9	.8	15.0
STANDARD DS5	12.8	147.6	25.5	137	.3	25.8	12.5	799	2.99	19.7	6.4	41.4	2.7	50	6.0	3.8	6.4	58	.73	.092	13	178.9	.68	139	.103	16	2.10	.035	.13	5.1	.17	3.4	1.1	<.05	7	4.7	15.0

GROUP 1DX - 15.0 GM SAMPLE LEACHED WITH 90 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 300 ML, ANALYSED BY ICP-MS.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: SOIL SS80 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: OCT 31 2003 DATE REPORT MAILED: Nov 10/03 SIGNED BY..........D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

 Data FA

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
G-1	1.4	2.6	2.5	46	<.1	4.5	4.0	560	2.04	<.5	2.0	<.5	4.6	88	<.1	<.1	.1	42	.64	.080	9	15.6	.54	263	.140	2	1.07	.098	.56	2.3	<.01	2.7	.3	<.05	5	<.5	15.0
A 127758	1.9	146.4	16.8	137	.2	13.6	31.7	3371	10.41	12.1	.6	4.7	1.3	8	.4	1.0	.1	120	.13	.079	15	7.3	.65	548	.008	1	1.63	.009	.09	.1	.04	19.1	.1	<.05	5	.9	15.0
A 127852	2.0	91.1	10.0	86	.6	28.6	24.8	653	5.78	63.1	.3	138.5	2.2	55	.2	4.0	.1	43	.62	.220	13	23.0	.95	318	.017	1	.87	.003	.05	.1	.12	6.8	<.1	<.05	2	1.1	15.0
A 127854	1.7	35.1	13.1	92	.2	20.2	12.1	591	4.39	41.6	.3	136.3	1.2	12	.1	2.0	.2	44	.07	.064	10	26.4	.89	376	.004	1	1.78	.005	.07	.1	.05	3.5	<.1	<.05	5	.7	7.5
A 127856	2.1	24.7	10.2	34	.4	23.1	11.1	319	2.70	22.3	.1	6.0	1.3	23	<.1	2.7	.2	8	.10	.026	12	1.9	.12	372	.001	1	.23	.002	.08	<.1	.03	2.6	<.1	.16	1	3.8	15.0
A 127857	1.1	70.6	8.0	92	.4	26.6	14.6	828	2.91	23.1	.5	9.9	.8	87	.3	1.5	.1	16	1.50	.108	6	14.5	.80	189	.003	2	.63	.003	.08	<.1	.10	2.8	<.1	.13	2	2.6	7.5
A 127859	1.2	91.7	12.8	84	1.0	37.2	28.4	1165	6.48	135.0	.3	1125.3	1.5	61	.2	5.7	.1	39	1.35	.201	6	27.3	1.48	155	.017	2	.75	.004	.06	<.1	.14	6.4	.1	.81	2	1.3	15.0
A 127862	1.4	74.1	8.9	85	.4	34.5	22.3	1031	5.54	36.8	.3	29.3	1.6	42	.2	2.4	.1	43	.48	.144	12	26.7	.93	178	.017	2	.94	.006	.06	<.1	.10	7.2	<.1	.14	2	1.6	15.0
A 127864	1.1	71.6	4.2	81	.3	107.6	46.5	1077	5.62	14.9	.7	17.1	2.7	88	.2	.7	.1	124	1.14	.173	13	140.1	4.40	142	.065	2	2.38	.073	.04	<.1	.08	6.3	<.1	.14	6	.8	15.0
C 198001	7.8	60.9	6.9	98	.2	12.3	19.1	3590	6.59	16.4	1.3	4.1	.8	30	.3	.5	.1	53	.40	.415	36	17.6	.68	245	.031	<1	3.67	.010	.11	.2	.11	3.1	.1	<.05	10	.8	15.0
C 198002	4.3	14.3	4.2	72	.1	4.7	14.3	2010	6.44	6.2	.7	2.7	.5	27	.3	.4	.1	47	.34	.292	39	9.5	.62	182	.030	<1	2.71	.008	.15	.1	.07	2.4	.1	<.05	11	<.5	15.0
C 198003	1.1	19.3	6.1	82	.1	17.8	13.6	762	4.12	7.1	.3	3.7	.9	28	.1	.5	.1	56	.41	.145	16	28.0	1.26	108	.057	2	1.94	.009	.08	<.1	.02	4.5	<.1	<.05	6	.5	15.0
C 198004	2.4	23.9	7.2	71	.1	12.9	10.6	734	4.66	6.6	.5	3.2	.5	41	.1	.4	.1	63	.42	.221	25	21.8	.88	135	.051	2	2.10	.012	.12	.1	.07	3.0	<.1	<.05	11	.6	15.0
C 198005	3.1	17.3	6.4	85	.1	17.2	12.7	651	4.34	7.0	.4	4.8	.6	33	.1	.6	.1	60	.36	.125	18	27.0	1.24	129	.049	1	2.38	.011	.09	.1	.03	3.6	<.1	<.05	7	.6	7.5
C 198006	6.9	27.5	8.6	123	.1	9.3	14.7	1776	4.66	17.7	3.0	4.5	.8	59	.3	.5	.1	56	.58	.205	31	16.4	1.34	205	.076	2	2.22	.009	.15	.1	.05	3.5	<.1	.06	7	1.8	15.0
C 198007	1.1	38.1	7.4	117	.1	8.8	16.3	1389	4.90	11.8	.8	3.2	1.2	73	.2	.4	.1	53	.86	.208	25	14.5	1.57	167	.108	2	1.95	.012	.15	.1	.04	3.9	<.1	<.05	8	.7	1.0
C 198008	2.0	50.5	17.0	130	.1	11.2	19.1	1448	4.72	12.0	.5	2.8	.9	43	.2	.5	.2	67	.50	.176	24	18.9	1.45	149	.088	1	2.37	.010	.12	.1	.03	5.2	<.1	.07	7	.5	15.0
C 198009	2.4	43.5	8.3	103	.1	9.1	15.7	1459	4.66	16.9	2.4	5.0	1.3	80	.3	.3	.1	76	.85	.205	33	17.2	1.70	207	.123	1	2.78	.014	.25	.1	.05	5.5	<.1	.07	8	1.0	15.0
C 198010	1.7	54.6	32.5	123	.3	11.5	19.0	1024	5.36	8.1	.3	2.8	.5	29	.4	.6	.2	60	.50	.174	20	12.6	1.12	170	.040	1	1.76	.009	.10	.1	.06	3.5	<.1	<.05	7	<.5	15.0
RE C 198025	1.9	76.4	7.0	111	.1	12.6	19.6	1540	5.04	8.9	.3	10.4	1.1	43	.2	.5	.3	74	.57	.155	19	20.6	1.85	126	.060	2	2.16	.010	.07	.1	.03	5.8	<.1	<.05	7	.5	15.0
C 198011	2.3	46.9	9.2	87	.1	8.9	16.1	1649	5.43	6.2	.5	6.2	.8	40	.3	.4	.1	68	.55	.181	27	16.0	1.23	147	.084	2	2.41	.009	.19	.1	.07	4.1	<.1	.06	9	.5	15.0
C 198012	2.1	31.9	8.1	115	.1	10.3	12.7	1888	5.05	6.4	.7	5.9	1.4	39	.2	.4	.1	53	.45	.160	50	21.6	1.40	83	.120	1	2.74	.013	.24	.1	.05	4.1	.1	.06	12	.6	15.0
C 198013	4.6	18.4	7.2	110	.1	8.4	9.6	1812	4.60	4.4	.5	4.4	1.8	27	.3	.4	.1	51	.28	.116	51	18.1	1.44	63	.151	1	2.49	.019	.57	.1	.06	2.8	.1	.06	12	.6	15.0
C 198014	1.4	51.0	8.2	129	.1	13.4	20.3	2382	6.57	4.3	.6	6.6	1.3	66	.3	.3	.2	91	1.12	.303	23	26.6	2.39	236	.261	1	3.37	.016	.52	.1	.03	6.4	.1	<.05	13	<.5	15.0
C 198015	5.1	22.6	6.4	98	.2	9.0	14.5	4263	5.60	7.6	.5	4.1	.5	40	.3	.6	.1	49	.56	.149	46	16.5	.81	199	.034	1	2.24	.013	.16	.1	.08	3.3	.1	.08	8	.5	15.0
C 198016	1.7	90.8	10.6	131	.1	11.4	20.2	1991	6.23	6.9	.5	13.1	1.0	51	.4	.4	.2	80	.83	.237	22	17.2	2.23	188	.205	<1	3.06	.011	.27	.1	.05	6.2	.1	.06	10	.7	15.0
C 198017	5.2	20.7	5.8	119	.1	7.4	9.8	2696	5.30	13.6	5.2	7.0	.8	173	.5	.4	.1	43	.94	.124	42	16.9	1.04	101	.083	3	2.64	.022	.29	.1	.06	2.6	.1	.12	11	1.8	7.5
C 198018	1.3	103.6	13.9	140	.2	13.6	23.5	1887	5.31	10.6	.4	13.6	.8	43	.5	.5	.4	81	.76	.172	16	19.6	2.12	167	.105	2	2.59	.016	.12	<.1	.05	6.8	<.1	.10	8	.8	15.0
C 198019	1.4	150.4	8.4	112	.1	11.6	18.7	1917	4.48	6.3	.3	8.6	1.0	37	.3	.4	.3	68	.48	.129	18	18.8	1.70	112	.050	3	2.05	.009	.07	<.1	.03	6.1	<.1	.10	6	<.5	15.0
C 198020	2.0	124.6	10.9	129	.3	14.7	22.4	2278	5.58	8.4	.4	12.3	1.0	40	.3	.6	.4	83	.59	.118	20	21.7	1.97	194	.048	2	2.44	.008	.08	.1	.05	8.2	<.1	.11	7	.6	7.5
C 198021	1.5	108.3	8.3	140	.1	12.4	21.2	1994	5.26	6.3	.3	9.7	1.1	38	.5	.5	.3	77	.56	.150	24	21.1	1.89	155	.049	2	2.36	.009	.08	.1	.06	7.0	<.1	.06	7	.6	15.0
C 198022	1.2	109.8	8.0	119	.1	13.8	19.8	1588	5.02	6.8	.2	7.2	1.1	37	.3	.4	.3	72	.54	.136	18	20.1	1.90	118	.050	1	2.48	.008	.07	<.1	.03	6.6	<.1	.09	7	.5	15.0
C 198023	1.3	110.0	8.9	117	.3	14.7	23.9	1471	5.49	8.8	.2	11.8	1.0	34	.3	.6	.4	74	.50	.124	15	21.3	2.03	122	.057	2	2.49	.009	.06	<.1	.03	6.3	<.1	.21	7	.5	7.5
C 198024	1.4	113.2	8.3	123	.1	15.7	24.7	1573	5.38	7.7	.2	12.4	1.0	40	.2	.5	.4	79	.54	.119	16	23.4	2.03	132	.050	<1	2.34	.009	.06	<.1	.02	6.1	<.1	.17	7	.5	7.5
C 198025	1.9	83.1	6.9	113	.1	13.8	21.4	1531	5.35	9.0	.2	8.9	1.1	41	.3	.5	.3	74	.58	.156	19	20.1	1.73	126	.059	<1	2.14	.012	.07	<.1	.03	5.8	<.1	<.05	7	<.5	15.0
STANDARD DS5	12.5	141.3	25.3	139	.3	24.3	12.0	745	2.95	19.5	6.1	43.6	2.7	50	5.7	3.9	6.0	60	.76	.094	13	175.1	.67	148	.099	17	2.09	.034	.13	5.1	.18	3.4	1.0	<.05	7	5.1	15.0

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
G-1	1.4	2.2	2.4	40	<.1	4.2	4.0	517	1.89	<.5	1.7	<.5	4.2	78	<.1	<.1	.1	36	.49	.072	8	13.9	.53	229	.118	1	.89	.101	.44	2.1	<.01	2.1	.3	<.05	4	<.5	15.0
C 198026	1.4	117.0	11.1	139	.1	15.7	24.4	2026	5.84	9.0	.3	30.8	1.2	34	.4	.5	.4	85	.56	.130	21	23.7	2.36	171	.069	<1	2.63	.009	.08	.1	.04	8.4	<.1	.10	9	.6	7.5
C 198027	1.0	68.1	6.9	124	.1	12.4	21.5	1115	4.88	6.5	.2	9.0	1.0	26	.2	.4	.3	72	.38	.110	15	20.9	1.96	62	.050	1	2.30	.008	.04	<.1	.02	6.2	<.1	<.05	8	.6	15.0
C 198028	1.2	80.5	6.7	118	.1	13.3	20.1	1575	4.33	6.1	.2	10.5	1.0	25	.3	.4	.3	70	.41	.107	15	17.8	1.89	92	.049	<1	2.16	.008	.03	<.1	.02	5.9	<.1	<.05	7	.5	15.0
C 198029	1.4	28.6	6.3	85	.1	16.0	14.2	920	4.43	8.3	.3	10.7	1.3	38	.1	.5	.1	50	.50	.164	21	22.6	1.22	81	.120	<1	1.68	.011	.11	.1	.04	4.9	<.1	<.05	7	.5	15.0
C 198030	1.4	12.4	6.8	98	.1	3.4	11.5	2077	4.78	3.1	.4	4.2	.8	67	.3	.2	.1	32	.99	.190	27	5.2	1.41	209	.137	2	2.21	.016	.31	.1	.05	2.4	.1	.14	11	<.5	7.5
C 198031	2.4	59.7	7.3	122	.1	10.6	20.9	2283	5.50	5.4	.3	4.2	.9	47	.2	.4	.2	76	.71	.202	33	16.6	1.88	156	.117	1	2.61	.014	.21	.1	.04	6.3	<.1	<.05	9	.6	15.0
C 198032	3.2	29.8	8.1	137	.1	10.7	21.4	2541	6.01	5.9	.4	4.8	.9	54	.3	.4	.1	73	.71	.199	23	17.7	1.79	167	.143	2	2.42	.012	.28	.1	.03	4.7	<.1	.07	11	.5	7.5
C 198033	2.2	41.2	6.9	133	.1	10.3	21.2	2470	6.19	5.9	.4	3.6	1.0	46	.2	.3	.1	74	.63	.227	30	17.4	1.76	175	.152	1	2.81	.018	.22	.1	.03	5.2	<.1	<.05	11	<.5	15.0
C 198034	1.4	28.4	7.3	90	.1	18.7	16.7	1037	4.90	11.3	.3	13.3	1.3	35	.1	.7	.1	54	.45	.155	17	24.9	1.17	105	.079	2	1.66	.009	.06	.1	.03	4.5	<.1	<.05	6	.9	15.0
C 198035	1.2	34.3	7.5	75	.2	16.1	12.7	671	4.18	10.7	.4	8.4	.9	32	.2	.7	.1	49	.42	.163	20	22.4	1.03	83	.076	1	1.56	.017	.06	.1	.04	4.1	<.1	<.05	6	.7	15.0
C 198036	1.5	56.9	7.9	96	.1	13.5	20.1	1602	4.80	7.1	.4	4.4	.7	30	.4	.4	.2	79	.51	.166	19	20.9	1.81	115	.066	<1	2.47	.009	.07	<.1	.03	6.8	<.1	.08	7	.9	7.5
C 198037	1.1	68.4	6.8	96	.1	13.1	18.2	979	4.36	5.6	.3	5.4	.9	35	.2	.3	.2	73	.66	.136	21	19.6	1.74	111	.090	1	2.17	.010	.08	.1	.03	7.0	<.1	<.05	8	.6	15.0
C 198038	1.5	72.3	7.3	102	.1	14.2	20.6	1525	5.22	6.8	.3	3.3	1.1	35	.2	.4	.2	73	.55	.158	20	20.1	1.85	144	.074	2	2.29	.010	.08	<.1	.03	6.8	<.1	<.05	8	.5	15.0
C 198039	1.6	53.3	6.9	106	.1	10.9	22.4	1431	5.49	7.2	.3	3.3	1.1	72	.2	.3	.2	72	.94	.234	24	15.7	2.10	195	.177	1	2.42	.014	.18	.1	.02	5.8	<.1	.13	9	.8	5.0
C 198040	1.3	64.1	7.1	84	.1	13.8	20.8	1363	4.95	7.1	.3	19.9	1.0	28	.1	.4	.2	73	.53	.136	20	18.4	1.76	137	.059	<1	2.18	.010	.08	<.1	.03	6.7	<.1	<.05	7	.5	15.0
RE C 198041	1.3	100.5	7.6	101	.1	14.1	21.9	1421	4.87	6.9	.2	7.4	.8	27	.3	.4	.3	81	.53	.121	17	21.5	1.95	138	.056	<1	2.33	.009	.06	<.1	.02	7.3	<.1	<.05	8	.5	15.0
C 198041	1.4	90.6	7.5	94	.1	13.3	21.1	1380	5.00	6.5	.2	6.1	.9	28	.2	.4	.3	80	.51	.117	16	20.5	1.99	134	.057	2	2.40	.009	.06	<.1	.03	7.2	<.1	<.05	8	.5	15.0
C 198042	2.0	71.5	8.7	83	.1	12.8	20.4	1497	4.65	7.6	.4	8.7	1.0	42	.2	.4	.2	72	.75	.170	22	20.4	1.66	176	.079	<1	2.18	.012	.11	.1	.04	7.1	<.1	.11	7	.8	7.5
C 198043	1.7	60.0	9.8	98	.1	12.5	21.4	1822	4.92	7.6	.5	7.1	.8	43	.4	.4	.2	68	.98	.177	25	17.5	1.60	189	.081	1	2.00	.009	.10	.1	.05	8.4	<.1	.09	7	.6	7.5
C 198044	1.9	46.7	9.8	99	.1	13.3	22.2	1233	5.11	5.7	.2	3.7	.7	25	.2	.4	.3	96	.49	.082	12	25.5	2.09	155	.050	1	2.54	.010	.07	.1	.02	8.1	<.1	.06	8	.5	7.5
C 198045	.8	90.8	11.5	116	.1	11.9	22.4	1123	4.70	7.2	.2	2.5	.7	27	.3	.5	.1	77	.76	.115	11	17.6	1.96	115	.036	1	2.19	.006	.06	.1	.04	6.3	<.1	.26	8	.7	15.0
C 198046	.7	90.7	12.5	102	.1	13.7	22.7	1222	5.17	7.6	.2	2.8	.7	22	.2	.5	.2	81	.57	.093	11	23.2	2.03	111	.030	1	2.23	.007	.05	<.1	.03	6.7	<.1	.26	7	.5	15.0
C 198047	1.3	94.5	17.0	120	.2	14.2	22.4	1709	5.02	8.6	.3	279.7	.8	32	.4	.7	.2	79	.62	.129	16	17.9	1.91	195	.040	1	2.25	.009	.06	.1	.05	7.9	<.1	.17	7	.6	7.5
C 198048	3.3	64.4	18.1	148	.6	43.0	21.9	1053	4.89	22.2	.6	30.9	1.7	33	.4	1.3	.2	32	.26	.120	26	26.8	1.74	103	.014	1	2.22	.007	.03	<.1	.04	4.1	<.1	<.05	6	1.8	15.0
C 198049	3.3	82.5	8.4	93	.2	43.3	27.3	2911	4.89	5.0	.7	13.2	.4	12	.3	.3	.1	47	.12	.102	13	64.5	2.05	78	.026	1	2.39	.034	.06	.1	.04	3.8	<.1	.08	8	.7	15.0
C 198050	1.3	51.8	5.3	111	.1	24.6	17.3	920	4.16	8.4	.5	9.6	1.8	30	.2	.4	.1	43	.28	.092	19	23.7	.96	171	.076	<1	1.47	.014	.05	.1	.03	6.5	<.1	<.05	4	.6	15.0
C 198051	1.6	39.0	4.4	107	.2	26.1	17.6	1015	5.22	7.7	.1	11.4	1.0	99	.2	.4	.1	27	1.64	.114	4	19.7	2.33	42	.005	1	.87	.005	.03	<.1	.03	7.4	<.1	.33	2	1.2	15.0
C 198052	3.9	16.6	6.7	49	2.9	4.2	2.5	765	2.50	4.9	1.8	2.8	1.7	11	.2	.1	.1	16	.16	.061	38	11.7	.20	74	.088	3	1.60	.248	.15	.4	.06	1.7	.1	.09	11	1.6	15.0
C 198053	2.8	14.7	11.8	88	.3	14.1	10.6	725	4.50	9.4	.9	3.1	1.6	12	.2	.3	.3	40	.14	.061	30	28.0	.65	48	.112	1	2.38	.023	.05	.1	.05	3.1	.1	<.05	15	.9	15.0
C 198054	3.4	28.8	10.2	85	.3	13.4	8.0	269	5.77	11.8	.9	98.6	.5	13	.2	.4	.2	62	.11	.078	18	28.3	.67	84	.082	1	1.87	.013	.05	.1	.09	2.2	.1	.09	12	.6	7.5
C 198055	2.9	43.5	9.2	106	.2	19.7	20.1	2518	4.53	2.9	.5	10.4	.3	21	.3	.3	.1	34	.21	.109	25	14.2	1.01	99	.022	2	1.86	.010	.05	.1	.02	2.7	.1	.11	7	.7	7.5
C 198056	4.5	12.5	15.4	54	.5	4.5	2.4	178	4.79	10.4	1.8	4.1	.7	11	.1	.2	.6	39	.10	.078	43	16.1	.18	53	.116	1	2.44	.024	.04	.4	.10	1.4	.1	.08	34	.8	15.0
C 198057	6.3	11.8	14.4	74	.6	6.9	5.7	566	4.63	8.6	1.2	4.4	1.9	6	.2	.2	.4	45	.06	.055	27	18.9	.32	30	.179	1	2.80	.014	.04	.2	.08	2.3	.1	<.05	20	.6	15.0
C 198058	4.1	31.3	11.2	82	.5	10.7	10.0	543	6.92	13.3	1.2	6.2	1.1	8	.2	.4	.3	49	.07	.075	36	33.1	.53	68	.084	1	3.44	.010	.04	.2	.08	3.6	.1	.08	22	.9	15.0
STANDARD DS5	12.8	138.1	25.2	137	.3	25.2	12.3	788	3.02	19.0	6.1	43.0	2.9	50	5.6	3.8	6.0	60	.72	.089	13	181.0	.70	142	.101	16	2.00	.035	.13	4.9	.17	3.4	1.0	<.05	7	5.1	15.0

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Sample
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	gm
G-1	1.3	2.4	2.2	40	<.1	4.1	3.9	530	1.77	<.5	1.6	.6	4.1	81	<.1	<.1	.1	36	.51	.073	10	14.5	.52	247	.136	1	1.03	.107	.42	2.4	<.01	2.5	.3	<.05	4	<.5	15.0
C 198059	3.3	20.7	9.5	81	.1	14.3	12.3	847	5.44	6.9	.7	5.2	.5	21	.2	.3	.1	58	.18	.074	25	30.3	.85	109	.074	2	2.35	.007	.05	.1	.04	2.6	.1	.06	7	.8	15.0
C 198060	1.4	38.9	6.3	100	.2	20.2	14.9	1042	4.17	6.3	.2	5.3	.9	55	.2	.5	.1	37	.63	.101	14	21.5	1.34	128	.038	4	1.25	.009	.04	<.1	.04	4.8	<.1	.09	3	1.1	7.5
C 198061	1.6	44.0	4.7	86	.3	23.5	18.9	1016	3.78	1.3	.5	7.3	.5	15	.2	.2	.1	39	.16	.073	21	34.2	1.58	156	.019	1	2.19	.007	.04	<.1	.04	3.3	<.1	<.05	6	.7	15.0
C 198062	1.2	5.5	8.6	36	.1	9.1	4.4	266	2.17	2.5	.3	3.9	.2	11	.1	.2	.1	34	.06	.029	14	20.9	.52	197	.027	1	1.14	.004	.03	.1	.02	1.0	.1	<.05	6	<.5	15.0
C 198063	4.9	17.6	6.8	67	.4	12.2	8.1	682	6.17	6.3	1.0	4.9	1.1	9	.3	.3	.2	94	.05	.074	16	28.8	.47	65	.103	<1	2.00	.008	.03	.1	.06	2.7	<.1	.07	12	.7	7.5
C 198064	3.7	17.7	11.3	64	.4	9.4	8.5	552	6.17	12.0	1.1	2.4	1.1	39	.1	.3	.3	49	.29	.060	32	24.8	.50	189	.118	1	2.43	.012	.03	.3	.07	2.6	.1	.10	23	1.3	15.0
C 198065	3.5	13.4	10.7	53	.3	5.5	3.5	182	5.07	8.9	1.2	4.2	2.9	8	.1	.3	.4	56	.05	.042	32	24.3	.35	81	.231	1	2.38	.015	.04	.4	.06	2.1	.1	<.05	24	.5	15.0
C 198066	2.3	18.7	13.2	90	.4	15.1	9.2	476	4.27	5.0	.7	5.0	.4	21	.1	.3	.1	47	.21	.109	26	26.3	.79	185	.048	1	2.22	.015	.07	.1	.06	2.5	.1	.06	8	.7	15.0
C 198067	3.4	15.6	7.9	53	.3	5.8	5.0	409	4.26	8.7	1.0	4.4	2.5	8	.1	.3	.2	52	.05	.051	32	22.6	.38	50	.125	1	2.60	.010	.05	.3	.08	2.6	.1	<.05	18	.6	15.0
C 198068	5.2	8.4	11.1	47	.7	3.4	2.1	222	3.75	8.3	1.7	.5	1.6	4	.1	.2	.4	36	.03	.060	27	16.0	.17	28	.145	<1	2.59	.015	.04	.5	.08	.8	.1	<.05	27	.6	15.0
C 198069	4.1	13.3	9.4	79	.9	7.5	6.6	846	4.59	10.3	1.7	3.3	1.3	7	.2	.3	.3	36	.06	.093	28	22.1	.38	49	.099	<1	2.51	.014	.06	.3	.09	1.7	.1	<.05	15	.7	7.5
C 198070	5.3	24.7	13.9	84	.6	9.1	8.9	1907	5.85	15.2	1.5	1.5	1.4	8	.2	.3	.4	41	.08	.126	29	26.7	.40	36	.077	3	3.75	.018	.05	.3	.10	2.0	.1	.07	16	1.2	7.5
RE C 198070	4.6	22.1	13.5	81	.6	7.6	8.5	1902	5.75	14.6	1.5	6.3	1.4	7	.2	.4	.4	43	.08	.119	29	26.8	.39	38	.077	<1	3.33	.017	.05	.3	.10	2.3	.1	<.05	15	1.5	7.5
C 198071	2.5	30.5	7.3	88	.1	16.7	10.4	709	4.72	9.6	.5	4.2	.9	19	.1	.5	.1	53	.20	.178	20	30.5	.95	60	.060	1	2.38	.008	.07	.1	.09	2.9	<.1	<.05	7	.5	15.0
C 198072	4.0	15.3	13.0	76	.1	7.4	10.7	2090	5.31	12.1	1.5	4.2	1.2	11	.2	.4	.4	46	.09	.090	36	20.2	.34	51	.109	<1	2.56	.019	.05	.2	.08	1.9	.1	.07	20	1.0	15.0
C 198073	2.1	28.9	7.4	111	.2	15.8	16.4	1206	5.09	6.9	.8	2.6	.3	28	.2	.3	.1	57	.31	.070	30	32.0	.93	136	.055	1	2.85	.009	.06	.1	.05	2.3	.1	<.05	9	1.2	15.0
C 198074	3.5	17.7	12.2	89	.2	9.5	21.3	1975	4.68	6.9	1.1	1.2	.4	9	.2	.2	.2	44	.07	.075	34	16.4	.85	60	.050	1	2.75	.007	.05	.1	.05	1.8	.1	<.05	10	1.1	15.0
C 198075	2.3	112.2	17.9	112	.3	13.8	28.2	1090	9.24	32.3	.6	4.9	1.1	20	.4	.9	.5	29	.09	.161	11	11.1	.58	121	.003	1	1.58	.008	.03	.1	.05	5.5	<.1	<.05	4	2.8	7.5
C 198076	2.0	5.2	9.1	35	.1	2.4	1.5	129	1.35	1.7	.7	1.5	.3	28	.2	.1	.2	17	.18	.054	25	5.7	.13	414	.026	<1	1.16	.023	.05	.1	.03	1.0	.1	<.05	8	<.5	7.5
C 198077	2.8	9.5	9.0	58	.6	18.1	10.7	353	5.48	5.6	1.2	1.3	.8	5	.2	.1	.3	66	.03	.054	20	37.3	1.01	54	.100	<1	2.36	.009	.03	.2	.07	1.6	.1	.06	22	<.5	7.5
C 198078	2.6	43.2	8.3	64	.2	22.1	14.1	1042	7.96	6.8	1.4	2.8	1.7	4	.4	.2	.2	84	.05	.126	18	47.5	1.26	93	.139	2	3.00	.007	.04	.1	.10	2.6	.1	<.05	19	.6	7.5
C 198079	4.3	27.4	7.1	45	.1	14.3	8.4	224	2.66	6.2	.2	20.7	1.0	6	.1	.4	.7	61	.02	.035	11	7.1	.08	71	.082	3	.56	.005	.02	.2	.02	1.6	.1	<.05	9	<.5	7.5
C 198080	2.0	33.7	8.5	92	.3	22.9	13.3	736	5.84	8.2	1.4	7.1	.6	25	.2	.3	.3	52	.37	.084	32	33.7	1.06	553	.066	1	3.27	.011	.05	.1	.09	3.6	.1	.08	18	2.9	15.0
C 198081	2.0	12.4	2.0	108	.1	107.7	36.7	895	6.16	2.2	3.6	1.9	1.0	74	.2	.2	<.1	158	1.85	.055	17	181.3	4.06	124	1.273	1	3.90	.020	.04	<.1	.02	4.1	<.1	.07	16	1.6	15.0
C 198082	5.8	84.6	9.9	80	1.5	9.1	11.2	1692	3.60	7.3	24.3	<.5	.5	64	.3	.3	.2	42	.77	.261	91	17.5	.47	308	.044	2	3.34	.042	.05	.1	.16	3.5	.1	.26	13	4.0	15.0
C 198083	.9	105.1	13.1	106	.1	14.4	23.5	1387	4.86	8.6	.2	3.4	.6	24	.3	.5	.2	87	.50	.105	11	21.8	2.01	142	.046	<1	2.29	.006	.05	<.1	.04	7.6	<.1	.22	7	.7	15.0
C 198084	1.3	94.8	14.8	108	.1	16.1	19.3	1144	4.88	8.9	.4	7.4	1.0	35	.2	.5	.2	77	.72	.109	18	22.9	1.80	252	.051	2	2.30	.009	.08	.1	.05	8.7	<.1	.08	7	.7	15.0
C 198085	1.4	145.3	39.7	144	.1	17.3	27.7	2552	6.38	16.3	.3	9.0	.8	39	.6	.7	.2	95	.75	.129	19	21.0	2.13	364	.035	1	2.71	.009	.09	.1	.07	12.1	<.1	.14	8	.8	7.5
C 198086	1.0	118.1	21.3	118	.1	13.6	23.9	1905	5.36	13.5	.2	5.9	.8	32	.4	.6	.2	83	.68	.139	15	19.5	1.90	201	.039	1	2.13	.009	.06	.1	.05	9.1	<.1	.21	7	.6	7.5
C 198087	1.3	101.4	23.3	115	.1	14.1	24.0	2158	5.27	15.5	.2	6.8	.8	33	.4	.7	.2	81	.62	.119	16	19.8	1.83	254	.036	<1	2.24	.008	.06	.1	.05	9.2	<.1	.21	7	.6	7.5
C 198088	.6	81.4	16.8	106	.1	12.8	21.1	896	4.59	7.8	.2	5.5	.7	30	.3	.5	.2	83	.58	.131	15	19.1	1.92	109	.045	<1	2.25	.006	.06	<.1	.04	9.2	<.1	.12	7	.5	15.0
C 198089	.8	91.6	17.0	98	.1	13.3	21.3	1435	4.74	9.5	.2	6.6	.7	30	.4	.6	.2	79	.55	.124	14	18.2	1.72	161	.045	<1	2.08	.007	.06	.1	.05	7.8	<.1	.12	7	.6	15.0
C 198090	.8	103.5	7.4	88	.1	12.5	20.6	819	4.43	5.0	.2	3.3	.8	30	.2	.4	.2	86	.54	.104	11	23.5	1.89	84	.051	1	2.17	.007	.05	.1	.03	7.5	<.1	.06	7	.6	15.0
C 198091	2.0	42.6	9.7	72	1.9	12.0	13.7	621	3.90	5.1	.6	18.4	.6	20	.4	.4	3.3	80	.10	.099	13	16.7	.65	188	.006	<1	1.54	.007	.04	<.1	.17	3.3	.1	<.05	5	.8	15.0
STANDARD DS5	12.5	137.9	24.1	129	.3	24.2	12.2	776	2.92	19.6	5.8	45.0	2.7	51	5.6	3.9	6.0	58	.76	.089	14	178.0	.67	145	.103	17	2.10	.033	.14	5.3	.18	3.4	.9	.06	6	5.0	15.0

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
G-1	1.6	2.6	2.8	40	<.1	4.6	4.0	546	1.98	<.5	2.0	.8	4.5	104	<.1	<.1	.1	35	.56	.077	11	14.5	.55	283	.150	1	1.03	.123	.48	2.3	<.01	3.2	.3	<.05	5	<.5	15.0
C 198092	10.2	32.8	10.4	71	2.5	12.8	7.5	969	4.68	17.4	1.4	3.8	.3	19	.4	1.1	.3	32	.12	.059	16	12.8	.39	192	.025	3	2.08	.044	.06	.3	.07	1.3	.1	.17	12	1.8	7.5
C 198093	4.0	18.4	12.4	68	.2	12.3	6.6	347	4.37	9.9	1.1	5.5	.2	17	.1	.5	.3	53	.13	.102	28	19.6	.44	101	.050	2	2.28	.013	.06	.1	.06	2.5	.1	.10	11	1.0	15.0
C 198094	3.7	17.3	6.4	50	.3	9.8	6.5	480	4.72	7.8	1.1	5.5	.2	8	.1	.3	.1	65	.05	.110	16	23.2	.56	53	.054	<1	1.70	.007	.04	.1	.11	1.2	.1	.09	11	.5	15.0
C 198095	1.3	41.0	6.9	82	.2	22.4	17.5	1390	4.86	9.5	.3	5.8	.9	64	.3	.7	.1	42	1.00	.138	14	20.8	1.26	163	.083	2	1.11	.011	.06	.1	.05	5.0	<.1	.25	4	1.6	7.5
C 198096	2.7	15.0	6.4	72	.1	12.4	10.0	696	5.53	6.7	.6	5.4	.2	11	.3	.4	.1	53	.06	.073	19	26.0	.74	75	.046	1	2.10	.006	.04	.1	.05	1.5	<.1	<.05	9	.7	15.0
C 198097	3.5	36.2	9.4	83	.2	15.8	15.4	1654	3.97	6.9	.9	4.4	.6	15	.3	.5	.1	40	.12	.103	25	21.9	.73	73	.039	<1	2.08	.020	.07	.1	.07	2.8	.1	<.05	6	1.0	15.0
C 198098	2.1	15.2	8.2	77	.1	14.3	10.3	558	4.77	6.7	.6	5.9	.3	37	.1	.3	.2	44	.20	.116	26	21.3	.87	333	.034	<1	2.29	.010	.06	.1	.05	2.3	.1	<.05	8	.9	15.0
C 198099	2.3	25.5	5.9	64	.2	14.9	10.2	895	3.29	6.7	.6	2.1	.2	22	.2	.3	.1	25	.18	.143	13	16.3	.63	115	.021	1	1.07	.027	.09	.1	.04	2.2	<.1	<.05	4	.7	15.0
C 198100	10.4	27.9	8.2	105	.3	11.5	13.9	1673	5.55	6.7	1.6	1.4	.5	112	.2	.2	.2	40	.71	.277	34	13.2	.67	323	.022	1	1.84	.008	.05	<.1	.08	3.7	.1	.12	6	1.6	7.5
C 198101	4.2	22.5	10.7	148	.2	16.1	12.9	1933	6.32	8.0	.8	6.1	.3	22	.3	.4	.2	56	.17	.092	20	18.0	.82	122	.040	<1	1.67	.007	.05	.1	.04	2.5	.1	<.05	8	1.1	15.0
C 198102	5.8	16.0	9.1	104	.4	9.6	16.6	3554	5.16	4.6	2.0	.6	.3	21	.3	.2	.1	30	.21	.207	35	15.0	.51	121	.027	2	2.34	.059	.07	.2	.05	1.3	.1	.10	10	2.2	15.0
C 198103	1.4	40.4	7.7	86	.2	20.6	15.1	1330	4.12	7.1	.5	8.8	.6	29	.3	.6	.1	42	.31	.107	21	21.2	.82	169	.084	1	1.45	.017	.07	.1	.06	4.2	<.1	<.05	5	.9	15.0
C 198104	1.7	17.3	8.7	71	.2	14.4	7.9	276	3.34	5.2	.4	8.0	.2	24	.2	.4	.1	43	.23	.098	21	22.2	.82	109	.052	1	1.62	.012	.07	.1	.04	2.4	<.1	<.05	6	.8	15.0
C 198105	4.7	15.1	11.1	77	.4	14.5	7.7	389	4.26	9.3	1.4	12.0	.4	9	.2	.4	.3	45	.05	.068	28	25.5	.80	79	.069	2	2.88	.013	.06	.2	.07	1.7	.1	<.05	18	.6	15.0
C 198106	3.4	13.0	9.1	86	.3	10.9	7.4	672	4.47	7.4	1.1	2.8	.2	10	.4	.5	.3	57	.07	.073	17	20.8	.49	102	.061	1	1.64	.010	.07	.1	.05	1.2	.1	<.05	19	.7	7.5
C 198107	3.3	25.4	8.0	95	.1	21.7	9.3	293	5.29	10.9	1.0	2.3	1.2	14	.1	.4	.2	41	.12	.075	25	31.9	1.05	79	.057	2	3.10	.010	.06	.2	.06	2.8	.1	.10	12	1.1	15.0
C 198108	1.5	49.2	9.9	84	.2	18.6	14.0	676	4.44	11.1	1.3	20.4	.8	12	.2	.5	.1	44	.10	.076	28	22.0	.94	81	.087	1	2.55	.006	.03	.1	.06	5.7	.1	<.05	6	1.4	15.0
C 198109	3.5	32.5	8.8	83	.2	15.0	10.5	815	4.02	7.5	.8	5.8	.3	34	.2	.4	.2	42	.29	.144	21	18.0	.71	161	.051	<1	1.74	.016	.06	.1	.05	2.2	.1	<.05	11	1.0	15.0
C 198110	2.1	13.3	10.5	57	.1	16.6	9.7	393	3.34	4.0	.8	1.9	.2	9	.1	.2	.2	49	.07	.056	16	29.2	.83	162	.036	1	2.30	.016	.06	.1	.03	1.9	.1	<.05	12	.6	7.5
RE C 198151	5.5	60.7	20.7	99	.1	7.6	15.6	2205	6.06	18.9	1.8	17.9	2.0	11	.2	.8	.3	45	.13	.053	23	13.8	.81	70	.070	2	3.04	.011	.04	.3	.08	4.0	.1	<.05	16	1.7	15.0
C 198151	5.4	66.9	20.9	103	.1	7.7	16.9	2307	6.29	19.5	1.7	4.1	2.1	11	.2	.8	.3	46	.15	.051	23	13.4	.80	72	.072	2	2.95	.012	.05	.2	.09	4.1	.1	<.05	17	1.7	15.0
C 198152	4.2	55.8	19.1	73	.1	9.7	12.6	1291	5.17	23.4	.6	4.2	.4	7	.2	1.4	.2	59	.07	.098	11	15.2	.95	30	.057	2	3.15	.006	.05	.1	.08	3.8	.1	.06	6	.9	15.0
C 198153	1.9	10.2	12.0	42	.1	3.0	3.2	517	2.07	3.9	1.0	2.0	.1	6	.1	.2	.2	41	.06	.108	9	9.4	.15	44	.135	1	.89	.018	.06	.1	.06	.8	.1	<.05	10	.6	15.0
C 198154	1.5	76.5	13.7	81	.2	7.6	11.6	927	4.23	13.8	.6	8.1	<.1	6	.1	.7	.1	58	.04	.117	10	11.6	.96	74	.016	2	2.39	.012	.07	.1	.07	.9	.1	<.05	8	.5	15.0
C 198155	1.5	75.4	24.5	90	.2	10.1	11.4	966	3.81	16.5	.5	17.9	.2	8	.1	.9	.1	52	.08	.135	14	18.0	1.02	58	.036	2	2.47	.033	.07	.1	.02	3.2	.1	<.05	7	.7	15.0
C 198156	2.9	34.2	17.6	62	.3	3.6	9.3	1723	4.63	22.9	.9	54.8	.2	5	.1	.6	.2	60	.04	.187	10	8.4	.35	63	.084	2	1.59	.019	.06	.1	.06	1.0	.1	.09	11	.6	15.0
C 198157	1.3	20.3	36.0	73	.2	6.5	6.9	619	3.20	9.1	.6	194.1	.1	11	.1	.4	.2	53	.09	.081	15	14.3	.85	60	.058	2	2.14	.010	.06	.1	.05	1.6	.2	<.05	9	.6	15.0
C 198158	2.7	22.4	19.3	58	.3	9.3	6.9	379	3.25	12.3	.8	5.6	.1	6	.2	.4	.2	71	.05	.100	10	26.9	.66	50	.014	1	2.68	.007	.04	.1	.07	1.0	.1	.10	10	.6	15.0
C 198159	2.2	20.7	21.1	65	.1	4.4	3.6	272	2.81	13.4	1.0	3.5	.1	6	.2	.4	.2	44	.06	.096	13	13.9	.51	47	.056	2	2.73	.010	.05	.1	.09	1.1	.1	.16	13	.8	15.0
C 198160	2.2	42.7	19.1	104	.2	10.4	8.7	1088	4.35	19.0	.7	5.0	.1	7	.2	.8	.1	59	.04	.100	11	18.1	1.43	78	.018	2	2.96	.005	.06	.1	.05	1.1	.1	.08	8	.6	15.0
C 198161	5.0	112.1	83.2	351	.2	17.8	16.3	6110	5.97	85.4	1.8	13.2	.5	9	1.1	1.3	.2	91	.21	.255	34	19.5	3.84	133	.051	2	3.75	.006	.06	.1	.10	7.1	.1	.12	11	.9	15.0
C 198162	3.7	45.0	57.3	196	.3	14.8	5.8	1387	3.50	28.9	1.4	8.6	.4	5	.3	.5	.3	76	.11	.130	13	24.2	2.99	51	.091	4	2.97	.014	.08	.1	.05	3.4	.2	.09	10	.8	15.0
C 198163	2.3	157.7	126.1	241	.2	16.7	22.8	4137	5.19	32.4	.5	14.3	.4	13	.8	1.1	.2	70	.13	.080	14	19.8	1.89	141	.050	1	2.69	.006	.09	.1	.88	6.6	.1	.08	7	.8	15.0
C 198164	15.6	23.2	67.8	111	1.1	6.5	10.3	1919	4.62	70.1	.9	4.8	.1	9	.5	.6	.3	48	.13	.121	10	13.3	.56	52	.025	2	1.69	.022	.10	.1	.05	.7	.1	.18	10	.9	15.0
STANDARD DS5	12.9	129.3	25.7	136	.3	22.7	11.0	732	2.86	20.0	6.0	44.2	2.7	54	6.4	3.8	6.0	49	.66	.088	12	156.5	.64	145	.101	18	2.05	.033	.13	4.9	.17	3.1	1.0	<.05	6	4.9	15.0

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
G-1	1.5	3.0	2.4	43	<.1	4.9	4.0	564	1.92	.5	1.9	.6	4.5	81	<.1	<.1	.1	44	.57	.078	9	17.2	.56	216	.125	<1	1.03	.105	.47	2.4	<.01	2.6	.3	<.05	5	<.5	15.0
C 198165	2.9	62.0	49.8	213	.3	13.5	14.3	836	4.55	37.9	1.1	6.0	.2	21	.2	.6	.2	84	.36	.109	14	20.2	1.29	227	.022	<1	3.05	.016	.09	.1	.03	3.0	.1	.06	10	<.5	15.0
C 198166	2.9	56.9	39.6	125	.3	10.4	11.8	1515	4.32	27.6	.8	6.2	.1	6	.2	.7	.2	59	.05	.144	11	16.0	1.10	80	.017	1	2.64	.009	.07	.1	.05	1.7	.1	<.05	8	<.5	15.0
C 198167	2.4	47.3	82.9	132	.2	8.1	8.3	960	3.55	39.0	.9	23.5	.1	6	.3	.5	.3	63	.07	.148	13	15.4	.87	97	.033	1	2.78	.010	.05	.1	.05	1.8	.1	.08	10	.5	15.0
C 198168	1.7	41.4	33.2	76	.1	12.6	9.1	540	3.44	15.3	.4	5.7	.2	7	.1	.4	.2	62	.06	.100	10	18.6	1.15	52	.036	<1	2.48	.011	.07	.1	.03	2.2	.1	<.05	11	<.5	15.0
C 198169	2.2	60.7	47.6	87	.4	7.3	7.6	409	3.67	18.5	.5	7.6	.2	6	.1	.6	.2	61	.06	.101	10	15.4	.93	51	.033	<1	2.34	.007	.06	.1	.07	2.0	.1	<.05	9	<.5	15.0
C 198170	1.6	146.4	10.8	129	.1	15.0	25.3	2334	4.81	8.6	.6	14.3	3.2	11	.3	.5	.1	62	.17	.124	20	14.0	1.36	163	.036	1	2.97	.011	.12	.1	.05	9.6	<.1	<.05	7	.5	15.0
C 198501	.7	62.1	6.8	87	.1	17.4	16.5	1460	3.80	5.6	.3	2.8	1.2	30	.2	.7	.1	54	.73	.138	19	28.3	1.59	143	.079	1	1.83	.015	.10	.1	.07	6.1	<.1	<.05	6	<.5	5.0
C 198502	.6	38.1	5.0	87	.1	16.3	17.1	1450	4.41	4.0	.3	1.6	1.2	49	.3	.7	<.1	59	1.26	.198	25	28.7	1.42	82	.113	1	1.50	.011	.08	.1	.16	5.5	<.1	<.05	6	<.5	7.5
C 198503	.5	90.6	4.1	90	.1	37.9	27.3	1499	5.04	4.6	.3	1.9	1.0	48	.2	.5	<.1	87	1.68	.156	15	82.7	3.12	117	.133	2	2.85	.014	.12	.1	.05	10.5	<.1	.07	8	<.5	7.5
C 198504	.7	59.8	5.0	96	.1	29.7	22.6	1413	4.65	8.3	.3	1.0	1.1	47	.3	.8	<.1	70	1.25	.183	19	44.9	2.01	126	.101	2	2.28	.012	.09	.1	.08	7.9	<.1	.08	7	.5	7.5
C 198505	.7	47.2	5.6	80	.1	22.3	19.2	1567	4.37	7.1	.3	1.8	1.0	38	.3	.8	.1	62	.86	.165	19	36.3	1.50	112	.102	<1	1.69	.009	.07	.1	.18	6.6	<.1	.06	6	<.5	7.5
C 198506	.9	64.9	6.7	86	.1	17.0	19.5	1426	5.08	8.3	.3	2.2	1.2	37	.3	1.3	.1	72	.85	.157	20	31.0	1.55	103	.103	1	1.58	.010	.06	.1	.05	6.3	<.1	.06	6	<.5	7.5
C 198507	.7	44.1	5.9	93	.1	19.0	17.4	1462	4.57	7.3	.3	2.2	1.4	39	.2	.7	.1	66	.72	.156	24	29.1	1.58	103	.113	2	1.84	.010	.08	.1	.05	5.9	<.1	.06	6	<.5	7.5
C 198508	.7	30.2	4.9	76	.1	12.9	14.5	999	4.03	4.6	.2	2.1	1.1	39	.2	.6	.1	54	.70	.180	22	22.3	1.27	61	.109	<1	1.37	.008	.06	.1	.04	4.1	<.1	<.05	6	<.5	15.0
C 198509	.8	45.0	7.1	91	.1	13.7	18.2	1131	5.04	7.1	.3	6.4	1.3	39	.2	.8	.1	67	.78	.186	26	23.3	1.48	144	.117	1	1.84	.009	.08	.1	.06	6.0	<.1	.11	7	<.5	7.5
C 198510	.7	59.1	5.5	98	.1	16.4	16.7	1230	4.31	4.9	.3	3.3	1.4	48	.3	.6	.1	57	1.04	.190	26	23.0	1.47	136	.105	1	1.68	.009	.08	.1	.05	5.7	<.1	<.05	7	<.5	7.5
RE C 198516	.7	54.0	4.8	76	.1	13.3	15.3	1088	3.72	6.3	.3	1.6	1.0	33	.2	.7	<.1	57	.61	.155	19	20.1	1.23	72	.101	1	1.37	.009	.06	.1	.05	4.9	<.1	<.05	5	<.5	15.0
C 198511	.6	62.8	4.3	73	.1	14.1	15.4	1417	3.74	4.3	.2	1.6	.9	47	.2	.7	<.1	52	1.58	.160	19	21.2	1.49	94	.089	1	1.39	.009	.07	.1	.06	5.7	<.1	.06	5	<.5	5.0
C 198512	4.4	147.2	16.7	178	.1	20.6	23.3	1629	5.33	36.7	.5	3.7	.8	23	.9	2.3	.1	68	.57	.095	16	11.2	1.26	142	.020	<1	1.92	.008	.06	<.1	.29	8.5	.1	.15	7	.7	15.0
C 198513	.8	84.7	5.3	107	.1	13.3	15.9	1630	3.96	6.0	.3	2.7	.8	80	.3	.8	<.1	54	2.93	.129	17	19.2	1.48	577	.092	1	1.42	.012	.09	.1	.15	6.4	<.1	.09	6	<.5	5.0
C 198514	.9	71.9	8.1	85	.1	13.4	16.7	1761	3.99	6.7	.4	3.8	1.0	49	.4	.9	.1	56	1.21	.152	23	18.4	1.22	132	.106	2	1.45	.009	.10	.1	.18	6.5	<.1	.11	6	.5	5.0
C 198515	.8	64.6	3.3	65	.1	10.7	12.6	1355	2.73	5.8	.2	1.4	.6	84	.3	.7	<.1	35	3.97	.103	13	13.0	.98	90	.069	<1	.88	.007	.07	<.1	.11	4.6	<.1	.07	4	<.5	5.0
C 198516	.7	51.7	4.8	74	.1	13.8	15.5	1147	4.01	6.1	.2	2.4	1.0	35	.2	.7	.1	55	.60	.153	20	20.7	1.15	70	.102	1	1.27	.008	.06	.1	.04	4.5	<.1	<.05	5	<.5	15.0
C 198517	.8	54.2	5.7	85	.1	12.4	15.4	692	3.78	6.7	.3	2.3	1.2	44	.3	.8	.1	61	.79	.195	22	19.5	1.01	61	.116	1	1.25	.009	.06	.1	.05	5.0	<.1	<.05	5	<.5	15.0
C 198518	1.2	84.6	6.3	104	.2	20.8	19.9	1478	4.65	8.7	.4	2.2	1.3	47	.4	.9	.1	74	1.18	.172	22	27.2	1.68	165	.104	1	2.10	.017	.15	.1	.12	8.6	<.1	<.05	8	.9	7.5
C 198519	1.1	59.4	5.8	91	.1	15.0	15.0	987	3.85	7.1	.3	4.7	1.3	39	.3	.7	.1	57	.69	.183	22	20.6	1.20	121	.078	<1	1.54	.011	.06	.1	.05	5.6	<.1	<.05	6	.5	15.0
C 198520	2.5	53.4	5.8	89	.1	17.3	16.6	1124	3.75	5.6	.8	2.7	1.2	70	.2	.6	.1	60	1.73	.155	19	24.8	1.23	175	.097	2	1.58	.011	.08	.1	.05	5.7	<.1	.09	6	.8	15.0
C 198521	1.0	59.4	6.4	93	.1	18.1	15.3	1034	3.94	9.0	.3	5.2	1.3	41	.2	.8	.1	56	.83	.169	20	21.7	1.09	128	.092	<1	1.42	.012	.08	.1	.05	5.9	<.1	<.05	5	.5	15.0
C 198522	1.0	52.9	5.9	87	.2	21.8	17.2	1248	4.21	8.5	.3	4.4	1.5	36	.2	.7	.1	57	.61	.172	21	25.0	1.16	120	.096	<1	1.55	.013	.09	.1	.05	5.6	<.1	<.05	6	.5	15.0
C 198523	1.5	52.6	7.1	108	.1	20.9	19.1	1093	4.14	8.8	.4	6.1	1.3	38	.4	.6	.1	66	.71	.167	25	31.2	1.33	126	.104	1	1.74	.010	.09	.1	.07	6.5	<.1	<.05	6	.6	7.5
C 198524	1.6	41.3	9.6	132	.1	16.6	18.7	1547	4.51	6.5	.3	3.2	1.2	30	.6	1.0	.1	66	.54	.144	19	21.5	1.29	128	.073	<1	1.74	.008	.08	.1	.05	5.4	<.1	<.05	7	<.5	7.5
C 198525	3.8	50.8	10.1	137	.1	16.3	18.4	1818	4.73	8.2	1.7	2.6	1.4	52	.6	.6	.1	79	1.07	.118	24	28.7	1.22	323	.087	1	2.42	.016	.10	.1	.10	5.8	.1	.07	11	.8	7.5
C 198526	7.0	45.1	15.0	104	.2	13.3	11.0	626	6.96	13.9	1.4	4.1	3.8	16	.3	.6	.2	80	.21	.080	20	29.2	.71	124	.103	1	3.53	.015	.08	.4	.14	4.8	.1	<.05	21	.6	15.0
C 198527	2.7	26.7	8.1	125	.1	18.4	19.5	1757	4.62	5.5	.6	1.5	.4	27	.7	.6	.1	71	.45	.122	17	31.8	1.29	177	.056	1	2.17	.012	.11	.1	.08	3.9	<.1	<.05	9	<.5	7.5
STANDARD DS5	13.3	143.9	25.3	138	.3	24.9	12.5	790	2.88	19.4	6.2	45.8	2.8	46	5.6	3.7	6.3	61	.74	.093	14	186.4	.64	138	.097	16	1.99	.032	.13	5.3	.18	3.4	1.1	<.05	7	4.8	15.0

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data ✓ FA ____

ACME ANALYTICAL

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
G-1	1.4	2.9	2.3	41	<.1	4.6	4.2	543	1.78	<.5	1.7	.6	4.3	80	<.1	<.1	.1	46	.56	.077	9	16.8	.52	216	.126	1	.96	.086	.47	2.1	<.01	2.6	.3	<.05	5	<.5	15.0
C 198528	5.2	23.9	12.0	65	.2	7.8	7.6	2089	3.43	5.5	.9	.8	1.0	27	.2	.4	.2	70	.36	.130	19	15.2	.38	195	.122	2	1.19	.011	.08	.2	.06	2.4	.1	<.05	14	<.5	7.5
C 198529	1.4	79.9	7.7	124	.2	24.6	22.2	1861	4.76	6.6	.5	2.0	1.5	34	.9	.7	.1	78	.78	.170	28	38.3	1.87	252	.088	3	2.66	.016	.11	.1	.11	9.2	<.1	<.05	9	.5	7.5
C 198530	3.5	44.9	10.0	145	.1	18.6	16.2	1927	4.46	10.5	1.1	3.6	1.3	66	1.9	.9	.1	69	1.21	.197	28	25.7	1.02	278	.072	2	2.43	.015	.08	.1	.27	5.9	.1	.06	10	1.0	7.5
C 198531	1.5	44.7	8.4	107	.2	18.9	18.0	999	4.89	6.3	.5	3.6	1.4	27	.5	.9	.1	71	.53	.176	25	28.8	1.17	108	.074	2	2.42	.013	.07	.1	.20	5.4	<.1	<.05	9	.5	15.0
C 198532	2.3	44.9	11.1	107	.1	16.6	17.0	1578	4.48	6.8	.8	4.0	1.5	21	.9	1.0	.1	73	.46	.176	30	23.7	.87	126	.070	1	2.73	.010	.06	.1	.26	6.0	.1	<.05	12	<.5	15.0
C 198533	1.9	28.6	8.9	111	<.1	19.7	16.0	1448	4.72	7.0	.5	5.2	1.3	32	2.4	2.1	.1	68	.74	.271	29	21.7	.92	558	.060	3	2.37	.011	.05	.1	.49	6.7	<.1	<.05	7	.5	15.0
C 198534	1.5	51.2	8.4	119	.2	20.4	17.8	1649	4.41	6.5	.5	2.5	1.2	29	.5	.6	.1	69	.50	.171	24	30.7	1.37	231	.076	2	2.12	.014	.11	.1	.10	6.2	.1	<.05	9	.5	5.0
C 198535	2.4	47.1	11.5	113	.2	15.6	13.5	879	6.33	10.2	.7	3.4	1.4	31	.5	1.2	.1	86	.63	.242	17	26.8	.94	105	.069	2	2.94	.012	.08	.2	.11	4.4	.1	<.05	10	.5	15.0
C 198536	1.1	81.4	8.3	105	.1	16.8	18.8	2320	4.38	7.3	.5	2.5	.8	30	1.5	1.2	.1	64	1.43	.146	21	21.9	1.50	259	.036	2	2.26	.016	.12	.1	.28	7.1	.1	.08	9	.5	7.5
C 198537	1.4	38.0	13.6	137	.1	14.3	12.3	1445	4.32	4.0	1.2	2.5	.4	30	2.0	1.5	.2	74	1.06	.229	27	20.2	.71	168	.025	<1	3.31	.013	.06	.1	.22	3.7	.1	.11	12	<.5	15.0
C 198538	1.9	31.8	8.2	104	.1	17.8	15.7	857	4.13	5.6	1.0	1.8	.5	25	.8	.9	.1	73	.42	.148	19	29.4	1.23	181	.052	2	2.36	.017	.08	.1	.11	4.4	.1	.08	10	<.5	15.0
C 198539	7.2	31.7	10.6	111	.2	10.0	13.4	756	5.89	7.8	1.2	2.5	.8	97	.6	1.9	.2	74	1.26	.144	26	22.0	.59	178	.077	2	3.40	.012	.06	.2	1.09	3.6	<.1	.13	13	.8	7.5
C 198540	4.1	37.0	9.7	121	.1	19.0	17.6	2138	4.89	7.7	.7	1.9	1.0	118	2.0	1.9	.1	67	1.20	.213	27	22.1	.91	284	.054	2	1.85	.012	.08	.1	.41	5.6	<.1	.09	7	.7	7.5
RE C 198539	7.1	31.5	10.9	118	.2	10.1	13.8	763	5.77	7.5	1.2	2.4	.8	95	.7	1.9	.2	65	1.12	.134	26	21.1	.58	175	.068	2	3.09	.012	.05	.2	1.02	3.2	.1	.09	13	.7	7.5
C 198541	1.7	55.5	9.4	93	.1	17.1	17.0	1395	4.43	7.1	.6	3.7	1.6	37	1.0	1.5	.1	68	.88	.190	28	26.1	1.12	181	.070	2	2.64	.013	.08	.1	.34	6.2	<.1	.08	9	.6	7.5
C 198542	4.2	42.2	8.9	116	<.1	14.2	19.5	1691	5.00	8.0	.8	1.9	.7	75	.4	.7	.1	70	.72	.191	25	21.1	1.19	214	.047	1	2.50	.012	.10	.1	.14	4.4	<.1	.08	9	.7	7.5
C 198543	6.6	78.3	7.1	65	.4	7.5	6.9	600	5.32	16.1	2.5	<.5	9.3	32	.6	.7	.2	27	.50	.130	21	37.2	.20	60	.049	2	9.01	.026	.04	.5	.44	7.6	<.1	.14	12	1.7	7.5
C 198544	5.3	42.8	10.4	91	.2	13.6	11.8	358	3.75	8.2	1.3	3.8	1.1	111	.4	.6	.2	81	.79	.114	27	28.3	.89	324	.062	2	2.67	.017	.07	.1	.15	4.9	.1	.11	13	1.4	15.0
C 198545	4.6	38.3	9.3	124	.1	15.2	15.6	1381	4.66	9.8	.9	1.9	1.3	166	.7	.6	.1	64	1.02	.124	26	23.2	.91	352	.058	3	2.40	.014	.06	.1	.11	4.0	.1	.07	9	1.3	7.5
C 198546	3.7	39.1	8.8	63	.1	8.4	10.7	663	3.55	4.9	.7	1.8	.6	76	.1	1.0	.2	90	.56	.050	24	20.0	.60	348	.043	1	2.18	.010	.06	.1	.27	4.5	.1	.07	14	.5	7.5
C 198547	7.7	69.2	10.2	109	.2	13.4	13.1	2201	4.23	9.8	1.8	2.4	.6	112	.6	.6	.1	71	.88	.152	48	27.9	.86	397	.055	2	2.73	.015	.08	.1	.31	4.6	.1	.09	10	.9	15.0
C 198548	2.0	56.1	8.4	118	.1	21.7	18.5	1196	4.72	8.1	.5	3.3	1.5	75	.3	.7	.1	75	.86	.130	23	34.7	1.37	235	.103	1	2.23	.016	.13	.1	.09	6.6	<.1	.06	10	.6	7.5
C 198549	5.5	23.7	12.6	77	.3	9.6	8.4	410	4.93	10.2	.7	2.3	1.4	24	.3	.6	.2	100	.20	.075	19	25.2	.64	125	.112	<1	2.12	.012	.07	.2	.11	3.3	<.1	.12	18	.6	7.5
C 198550	6.5	34.2	11.2	149	.2	14.7	14.9	1094	4.89	10.3	1.1	1.6	1.6	51	.4	.7	.2	78	.48	.259	22	28.8	.88	214	.079	1	2.86	.011	.12	.1	.18	5.2	.1	.07	12	.7	7.5
C 198551	5.7	39.9	9.6	140	.2	13.2	12.4	1281	3.83	7.5	.8	2.6	.7	121	.3	.6	.1	73	.86	.145	22	27.8	1.11	330	.076	2	2.55	.017	.09	.1	.08	4.0	.1	.10	11	.8	15.0
C 198552	3.1	47.8	8.8	128	.2	14.8	20.0	1574	5.45	7.1	.8	1.7	.7	128	.4	.4	.1	76	.94	.195	22	23.4	1.17	256	.062	1	3.02	.011	.07	.1	.07	3.9	<.1	.10	10	<.5	7.5
C 198553	3.7	34.3	8.6	88	.1	13.2	16.2	1550	4.62	6.7	1.1	6.3	.6	54	.4	.4	.1	66	.51	.191	33	22.8	.97	208	.095	1	2.56	.016	.06	.1	.09	3.6	<.1	.14	10	.7	7.5
C 198554	4.8	31.2	8.6	98	.1	14.0	15.0	808	5.22	12.4	1.1	1.9	.8	42	.2	.4	.1	77	.46	.204	26	27.5	.99	175	.105	2	2.69	.012	.07	.1	.07	3.3	<.1	.07	11	.5	7.5
C 198555	4.8	33.9	7.6	86	.1	14.6	16.2	788	5.96	15.2	.7	1.7	1.8	35	.2	.5	.1	86	.44	.202	26	26.3	1.13	190	.107	1	2.55	.012	.07	.2	.06	3.9	<.1	.10	11	.5	7.5
C 198556	19.4	40.8	20.5	38	.2	3.8	3.9	416	11.24	20.2	1.8	3.6	5.3	12	.5	.6	.3	113	.15	.216	22	31.2	.25	43	.150	<1	2.93	.021	.04	.8	.33	2.3	<.1	.10	33	1.4	7.5
C 198557	3.4	52.6	11.0	71	.1	12.1	16.8	952	7.38	12.5	.9	2.2	1.2	35	.3	.6	.2	100	.39	.097	20	30.6	.94	188	.099	1	2.90	.015	.06	.2	.09	4.5	<.1	.10	12	.6	7.5
C 198558	2.6	55.1	14.2	100	.1	9.6	16.4	1100	5.74	16.4	.7	2.9	.4	42	.3	.7	.2	93	.73	.119	18	17.9	1.04	193	.036	1	2.36	.012	.09	.1	.11	4.9	<.1	.08	9	.5	15.0
C 198559	1.8	65.2	14.7	171	.1	12.9	18.0	1409	4.73	27.5	.8	3.5	.9	55	.5	1.0	.1	75	.83	.126	20	21.5	1.39	229	.061	2	2.17	.014	.09	.1	.09	6.2	<.1	.10	8	.8	7.5
C 198560	6.8	35.0	8.7	40	.3	5.5	5.1	372	6.01	9.5	1.1	9.6	1.4	17	.2	.4	.1	72	.23	.312	20	26.6	.35	68	.096	<1	3.52	.013	.03	.2	.26	2.4	<.1	.13	11	1.0	7.5
STANDARD DS5	13.1	149.4	25.8	137	.3	24.9	12.9	794	2.98	19.4	6.2	43.5	2.7	46	5.6	4.0	6.3	62	.75	.097	13	190.2	.69	141	.100	17	2.17	.034	.15	5.4	.19	3.4	1.2	.06	7	4.8	15.0

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data ___ FA ___

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
G-1	1.4	2.7	2.1	42	<.1	4.8	4.2	537	1.86	<.5	1.8	<.5	4.4	76	<.1	<.1	.1	38	.54	.085	8	14.9	.49	215	.123	<1	.97	.082	.45	2.1	<.01	2.2	.3	<.05	5	<.5	15.0
C 198561	2.9	11.6	14.8	74	.1	6.0	7.2	829	3.50	3.8	.5	4.6	1.6	13	.1	.3	.3	71	.14	.082	12	14.6	.44	101	.186	<1	1.48	.008	.04	.2	.06	2.3	.1	<.05	14	<.5	15.0
C 198562	1.9	27.3	8.6	71	.2	7.5	7.3	1378	2.19	4.7	.6	1.3	1.0	49	.2	.3	.1	39	.84	.070	15	12.1	.47	213	.106	<1	1.15	.026	.07	.2	.09	2.8	<.1	.06	9	<.5	7.5
C 198563	1.1	16.9	9.7	24	.1	1.8	1.8	242	.68	1.4	.3	4.9	.9	13	.1	.2	.2	31	.32	.018	16	4.7	.12	113	.082	1	.67	.007	.03	<.1	.03	2.9	.1	<.05	9	<.5	15.0
C 198564	4.0	42.1	7.1	123	.4	23.2	21.0	1194	4.98	5.5	.6	2.6	1.2	21	.4	.6	.1	74	.38	.149	17	32.8	1.67	197	.045	1	2.76	.013	.10	.1	.07	5.8	<.1	<.05	9	.7	7.5
C 198565	2.1	30.1	9.8	32	.2	6.0	4.0	166	3.88	6.7	1.0	3.2	.8	27	.1	.3	.2	79	.61	.060	14	19.0	.28	63	.079	1	2.19	.012	.03	.1	.14	2.8	.1	.06	14	<.5	7.5
C 198566	4.0	29.8	11.7	81	.2	10.2	9.7	372	8.83	10.7	1.1	2.8	2.0	51	.3	.7	.1	121	1.19	.043	23	27.0	.82	174	.136	1	3.23	.012	.04	.2	.10	5.1	<.1	.06	15	<.5	15.0
C 198567	1.9	32.2	9.5	85	.3	11.3	9.9	370	5.33	8.6	.7	2.6	1.4	23	.3	.5	.1	89	.45	.083	12	25.9	.93	61	.075	1	3.64	.011	.05	.1	.12	4.8	<.1	<.05	11	<.5	15.0
C 198568	.7	34.0	4.9	86	.1	15.1	16.0	1306	4.11	4.0	.3	1.8	1.3	40	.3	.6	.1	65	.87	.254	20	20.6	1.38	86	.106	2	1.69	.010	.07	.1	.05	5.4	<.1	<.05	6	<.5	15.0
C 198569	2.5	26.8	11.4	82	.1	7.9	6.3	316	5.79	8.3	.7	2.3	2.0	37	.2	.4	.2	76	.70	.055	11	23.9	.52	55	.094	<1	2.39	.012	.05	.2	.11	3.3	<.1	<.05	19	.5	7.5
C 198570	2.0	26.1	7.9	101	.2	11.6	8.6	386	3.37	3.0	.7	1.1	.6	30	.2	.3	.1	64	.49	.065	19	22.8	.69	161	.056	<1	2.79	.010	.10	.1	.07	3.4	.1	<.05	14	<.5	7.5
C 198571	2.8	35.1	10.6	111	.3	11.4	8.9	349	6.30	12.9	1.0	2.4	1.2	18	.7	.5	.2	83	.49	.197	17	24.8	.64	133	.077	1	2.56	.015	.07	.3	.13	4.2	.1	.09	17	.6	7.5
C 198572	4.6	39.9	20.9	97	.1	11.2	10.5	742	7.77	11.1	.8	7.5	2.2	15	.2	.5	.3	119	.21	.133	15	22.9	.74	67	.097	<1	2.77	.016	.07	.2	.12	4.6	<.1	.06	18	.7	7.5
C 198573	3.9	51.1	13.6	147	.1	18.1	17.1	716	8.97	11.5	.7	2.5	1.9	17	.3	.7	.2	142	.24	.065	15	36.9	1.26	150	.082	<1	3.00	.010	.09	.2	.06	5.4	<.1	<.05	20	<.5	7.5
C 198574	1.7	15.0	8.0	98	.1	8.9	9.7	972	3.30	3.4	.4	3.3	1.2	17	.1	.3	.1	58	.25	.082	16	14.9	.61	276	.082	1	1.72	.015	.09	.2	.04	2.9	<.1	<.05	11	<.5	15.0
C 198575	1.6	86.9	15.7	129	.2	23.3	20.0	1635	5.33	9.0	1.3	5.1	2.2	36	.4	.7	.2	91	.73	.086	45	47.1	1.37	555	.131	2	2.66	.023	.12	.1	.12	9.5	.1	.07	10	1.1	7.5
C 198576	3.7	89.3	9.5	81	.2	12.1	14.7	2997	3.87	17.2	5.3	5.6	.6	49	.4	1.0	.2	61	1.54	.195	29	60.3	.70	297	.048	2	2.30	.015	.07	.1	.26	7.9	.1	.16	9	1.7	15.0
C 198577	3.0	62.6	41.0	210	.1	13.2	13.7	846	4.08	16.7	2.7	2.0	1.7	31	.4	.4	.2	62	.41	.074	29	25.5	.67	181	.087	1	2.57	.018	.06	.2	.07	4.9	<.1	<.05	11	.5	15.0
C 198578	2.3	60.6	8.0	109	.2	17.3	18.4	1521	4.24	8.0	1.2	5.4	1.0	47	.5	.6	.1	74	.79	.144	28	32.7	.89	187	.067	1	2.39	.016	.08	.1	.12	6.8	<.1	.06	7	.8	15.0
C 198579	3.4	18.2	103.1	84	.3	4.8	6.9	486	6.75	39.1	.7	2.5	1.6	31	.4	1.1	.3	110	.80	.069	6	18.3	.23	69	.391	1	1.48	.009	.01	.3	.06	2.3	<.1	.07	14	<.5	15.0
C 198580	4.0	43.3	115.6	109	.1	8.9	9.6	497	6.00	13.5	1.1	6.3	1.6	16	.4	.5	.2	85	.17	.089	13	27.7	.67	88	.087	1	4.02	.009	.04	.1	.17	3.8	<.1	.07	13	.8	7.5
RE C 198580	4.1	42.9	116.6	108	.1	9.7	9.3	494	5.68	13.9	1.1	6.9	1.6	16	.4	.5	.3	81	.17	.087	13	27.9	.65	90	.083	1	4.20	.008	.04	.1	.18	3.9	<.1	.07	13	.9	7.5
C 198581	4.0	30.1	217.7	196	.3	6.0	7.8	836	5.07	14.5	1.0	2.5	.8	24	.7	.5	.3	82	.68	.094	18	19.2	.41	66	.127	1	2.36	.009	.03	.2	.09	2.8	.1	.06	13	.5	15.0
C 198582	3.6	55.2	16.2	99	.3	13.8	12.1	582	8.48	24.6	.8	3.3	1.9	23	.4	.6	.1	109	.41	.137	13	32.5	.88	166	.076	<1	3.23	.009	.07	.2	.11	5.3	<.1	.06	15	.6	15.0
C 198583	10.5	40.5	15.7	177	.2	11.4	12.4	1414	4.70	8.0	2.5	2.1	.6	133	.3	.5	.2	60	.73	.166	40	21.0	.93	176	.056	<1	2.58	.012	.06	.1	.12	6.8	<.1	.11	9	1.0	15.0
C 198584	1.2	83.6	7.8	97	.1	17.9	21.4	1784	5.05	5.4	.3	2.6	1.3	36	.5	.6	.1	70	.95	.191	23	24.2	2.04	212	.065	1	2.31	.018	.11	.1	.11	8.7	<.1	.07	8	.5	7.5
C 198585	2.7	29.2	8.1	86	.2	10.9	13.9	1804	4.76	10.9	1.5	3.6	3.0	15	1.4	.5	.1	61	.48	.257	17	25.0	.53	147	.036	<1	5.91	.008	.04	.2	.20	5.4	<.1	.07	6	.7	15.0
C 198586	5.2	30.3	8.4	94	.2	8.6	8.7	1261	8.31	8.7	1.5	4.2	1.1	17	1.4	.6	.1	93	.36	.296	16	23.2	.32	114	.072	1	2.67	.007	.06	.2	.19	2.3	<.1	.07	12	.6	15.0
C 198587	1.9	23.5	6.2	91	.1	20.2	16.0	1030	4.39	5.5	.3	3.5	.6	20	.1	.5	.1	64	.33	.136	16	27.4	1.34	186	.035	1	2.25	.009	.07	.1	.03	4.4	<.1	.06	9	<.5	15.0
C 198588	1.6	17.6	6.2	81	<.1	20.3	15.2	847	4.27	7.2	.2	4.5	.9	27	.1	.5	.1	56	.43	.153	19	28.1	1.36	106	.059	1	1.86	.009	.09	.1	.02	4.1	<.1	<.05	7	<.5	15.0
C 198589	1.3	29.2	6.0	102	.1	24.5	19.5	1209	4.76	7.9	.3	3.9	1.2	30	.2	.6	.1	56	.49	.159	19	28.9	1.50	182	.064	1	1.99	.012	.10	<.1	.04	5.1	<.1	<.05	7	.5	7.5
C 198590	4.2	27.5	5.5	78	.1	16.0	13.5	770	4.21	6.0	.6	4.5	.3	24	.1	.4	.1	50	.33	.158	24	22.4	.96	171	.041	<1	2.55	.009	.08	.1	.09	2.6	<.1	.08	9	.6	15.0
C 198591	1.8	24.5	8.0	77	.1	15.2	13.6	849	3.92	7.1	.5	2.8	.7	28	.1	.4	.1	55	.44	.140	19	19.2	1.09	126	.109	<1	1.73	.017	.08	.1	.04	3.4	<.1	<.05	9	.6	15.0
C 198592	1.7	31.3	7.5	95	.1	7.2	20.1	1562	5.49	9.1	.8	3.1	1.5	126	.3	.3	.1	65	1.25	.360	30	10.1	1.73	219	.175	2	2.49	.074	.37	.1	.03	4.8	<.1	.06	11	.6	7.5
C 198593	2.9	20.8	4.5	103	.1	6.1	20.3	1764	6.90	4.6	.7	6.4	1.4	86	.3	.3	<.1	66	1.14	.424	34	7.9	1.89	196	.192	1	3.42	.016	.37	.1	.04	4.5	<.1	.07	13	<.5	15.0
STANDARD DS5	12.9	142.8	24.0	131	.3	24.4	11.9	749	2.86	17.7	6.3	45.3	2.8	46	5.7	3.9	6.3	59	.75	.098	13	189.1	.69	134	.096	17	2.11	.035	.14	4.7	.17	3.5	1.0	<.05	7	4.8	15.0

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
G-1	1.4	2.7	2.7	39	<.1	4.6	4.1	566	1.84	<.5	2.0	1.8	4.6	86	<.1	<.1	.1	40	.57	.072	10	14.3	.50	233	.111	<1	1.05	.132	.49	2.3	<.01	3.9	.3	<.05	5	<.5	15.0
C 198594	9.0	32.9	6.6	82	.1	9.8	14.0	1793	4.65	6.2	3.6	3.2	1.2	81	.1	.5	.1	63	.72	.152	37	20.5	.90	294	.105	2	2.72	.014	.14	.1	.12	4.8	.1	<.05	10	1.2	15.0
C 198595	2.0	27.0	8.8	99	.1	8.0	19.2	1830	4.91	5.5	.6	12.0	1.2	74	.2	.3	.1	62	.89	.261	24	13.5	1.38	226	.119	1	2.20	.014	.24	.1	.03	4.0	<.1	<.05	9	<.5	15.0
C 198596	3.1	16.8	6.9	95	.1	5.8	18.0	1903	5.70	4.5	.6	1.6	1.6	69	.2	.3	.1	62	.83	.283	27	8.1	1.38	166	.126	<1	2.36	.016	.22	.1	.02	3.9	<.1	<.05	11	<.5	15.0
C 198597	2.3	45.7	7.2	99	.1	18.2	14.9	769	4.55	5.1	.8	2.3	.9	26	.2	.4	.1	74	.35	.094	28	28.9	1.05	246	.051	2	3.18	.016	.14	.2	.06	5.8	.1	<.05	11	<.5	15.0
C 198598	6.6	41.4	7.7	92	.2	17.1	12.8	558	4.91	7.7	1.0	4.2	1.7	37	.2	.3	.1	70	.47	.083	19	27.1	1.04	201	.054	<1	3.52	.015	.11	.2	.08	4.8	.1	<.05	11	.5	15.0
C 198599	7.5	45.7	7.9	116	.1	20.8	18.8	712	5.00	6.5	.9	3.5	2.1	39	.2	.4	.2	81	.43	.116	26	29.4	1.25	335	.086	1	3.57	.018	.18	.1	.05	6.5	.1	<.05	12	.5	15.0
C 198600	12.1	20.8	4.1	86	.2	7.8	12.7	1022	4.91	20.1	4.5	4.1	.7	150	.1	.5	.1	58	1.14	.251	39	17.7	1.27	318	.073	3	2.63	.013	.23	.1	.09	4.3	<.1	.10	11	1.8	15.0
C 198601	5.9	42.0	27.8	147	.3	38.4	19.7	991	4.76	12.2	1.0	<.5	.8	28	.4	.7	.1	53	.36	.139	25	41.6	1.43	162	.066	2	2.45	.013	.11	.1	.09	3.9	.1	.06	8	1.0	15.0
C 198602	2.7	28.6	17.7	88	.4	30.1	11.2	547	3.86	11.6	.6	4.1	.3	11	.3	.7	.2	40	.13	.118	20	32.9	1.35	48	.031	2	2.01	.005	.06	<.1	.08	1.9	.1	.06	7	.9	15.0
C 198603	6.7	22.5	12.9	99	.6	29.8	12.2	355	4.01	7.6	1.2	6.5	.7	26	.2	.5	.2	46	.28	.075	24	34.3	1.08	138	.051	1	2.41	.013	.08	.1	.04	2.5	.1	.09	11	1.3	15.0
C 198604	15.9	36.6	15.5	70	.5	13.1	8.1	1177	4.84	11.1	3.2	2.1	.9	41	.2	.7	.4	31	.36	.127	74	20.8	.40	97	.059	<1	2.95	.014	.06	.3	.08	2.0	.1	.12	26	2.4	15.0
C 198605	8.3	27.8	11.7	114	.2	30.1	18.1	702	4.97	10.9	1.1	3.3	1.0	47	.2	.5	.1	60	.57	.155	22	36.3	1.47	121	.089	1	2.12	.007	.09	.1	.04	4.0	<.1	<.05	8	1.4	15.0
C 198606	8.3	22.1	101.0	84	.7	9.0	10.4	1150	5.29	10.6	1.0	4.4	.6	24	1.9	.4	.2	50	.26	.160	25	22.2	.44	82	.045	<1	1.46	.021	.07	.1	.10	1.3	<.1	.11	14	.9	7.5
C 198607	9.9	16.1	9.5	75	.1	22.8	12.5	892	3.82	10.9	.7	3.1	.7	24	.1	.3	.1	39	.30	.074	16	30.1	1.20	104	.041	<1	1.76	.024	.07	.1	.03	2.7	<.1	.07	8	1.0	15.0
C 198608	4.5	12.2	35.1	87	.2	15.5	11.4	3294	3.66	6.3	.7	2.6	.3	16	.3	.3	.1	36	.14	.099	16	21.5	.68	88	.046	2	1.34	.042	.11	.1	.03	1.1	.1	.07	9	<.5	15.0
C 198609	9.4	9.1	8.7	75	.2	9.9	10.1	1483	2.65	4.6	.6	2.9	.4	75	.3	.2	.1	30	.61	.102	12	13.5	.51	111	.050	2	.93	.034	.10	.2	.03	1.1	.1	.11	8	<.5	15.0
C 198610	2.5	35.0	21.0	132	.5	31.2	12.9	531	4.20	15.4	.5	10.9	.5	26	.2	.7	.1	46	.28	.101	25	37.8	1.27	110	.048	<1	2.30	.006	.09	.1	.07	3.0	.1	.07	6	1.0	15.0
RE C 198610	2.5	37.5	20.7	132	.5	32.6	13.9	556	4.44	15.4	.5	14.6	.6	25	.2	.6	.1	47	.28	.101	24	38.6	1.22	109	.045	1	2.22	.005	.08	<.1	.07	3.1	.1	.06	6	1.0	15.0
C 198611	2.3	13.8	5.4	103	.1	45.4	30.1	930	5.02	4.2	.2	2.6	.5	43	.2	.2	.1	74	.59	.139	14	60.1	2.06	66	.146	1	2.03	.004	.09	<.1	.02	3.0	<.1	.06	8	.5	15.0
C 198612	1.6	51.2	7.6	105	.1	49.0	26.9	1118	5.40	7.4	.3	2.8	1.2	53	.3	.3	.1	67	.69	.203	19	53.2	1.87	120	.146	<1	2.03	.007	.09	.1	.03	4.6	<.1	<.05	7	<.5	15.0
C 198613	2.3	48.3	6.5	106	.3	46.3	24.5	958	5.37	16.0	.2	3.2	1.3	59	.2	1.3	.1	45	.63	.219	21	34.2	1.34	95	.077	<1	1.61	.004	.07	<.1	.04	3.6	<.1	.06	6	.9	15.0
C 198614	2.7	45.8	6.4	108	.6	49.2	25.8	1230	5.44	16.8	.3	2.1	1.2	61	.3	1.4	.1	44	.71	.223	18	39.9	1.61	151	.079	<1	1.81	.008	.08	<.1	.04	3.8	<.1	.11	6	.9	7.5
C 198615	2.6	51.6	7.4	105	.4	47.5	25.8	1434	5.59	18.2	.4	6.1	1.4	63	.3	1.4	.1	48	.73	.222	23	35.8	1.53	186	.086	<1	1.78	.009	.13	.1	.04	4.4	.1	.06	6	.9	15.0
C 198616	2.2	45.3	9.1	94	.3	34.5	21.8	1131	5.34	16.9	.4	3.2	1.3	73	.2	1.1	.1	45	.81	.238	26	28.4	1.31	172	.078	1	1.65	.007	.08	<.1	.04	4.3	<.1	.08	6	1.2	15.0
C 198617	1.5	45.6	16.2	102	.2	40.5	24.8	1076	4.88	14.2	.3	3.5	1.5	42	.1	.9	.1	42	.52	.201	26	33.9	1.30	103	.040	1	1.76	.005	.09	<.1	.06	3.8	<.1	<.05	6	.8	15.0
C 198618	1.9	57.3	23.2	111	.2	49.7	26.2	1338	5.18	11.0	.3	4.3	.9	40	.2	.7	.1	53	.54	.196	23	51.1	1.60	122	.037	<1	2.16	.005	.08	<.1	.07	5.1	<.1	<.05	7	.9	15.0
C 198619	1.6	70.0	10.0	121	.2	41.0	24.8	1547	5.27	14.3	.3	3.7	1.5	42	.2	.9	.1	45	.54	.200	26	31.1	1.24	183	.043	<1	1.71	.004	.10	<.1	.06	5.0	<.1	<.05	6	.7	15.0
C 198620	2.5	42.9	8.8	75	.2	15.1	23.0	1437	5.59	8.2	.4	2.9	.6	27	.1	.4	.1	106	.37	.169	15	20.7	1.15	69	.131	<1	2.09	.007	.06	.1	.06	3.3	<.1	.06	9	.7	15.0
C 198621	3.6	47.8	10.4	121	.3	31.4	24.2	1265	5.34	10.6	.3	2.8	1.7	55	.3	.8	.1	54	.64	.209	32	26.3	1.53	145	.068	1	1.91	.005	.10	.1	.04	4.2	<.1	<.05	7	1.0	15.0
C 198622	2.5	25.2	10.0	101	.2	23.7	22.0	990	4.87	13.2	.3	3.4	.7	35	.2	.8	.1	48	.49	.182	24	21.9	1.28	138	.042	2	1.77	.005	.09	<.1	.03	3.3	<.1	<.05	7	.7	15.0
C 198623	1.9	63.1	8.9	111	.3	32.0	22.2	1043	5.15	12.8	.3	3.5	1.7	37	.2	1.0	.1	49	.53	.181	32	26.1	1.56	148	.063	<1	2.01	.006	.09	<.1	.06	4.8	<.1	<.05	7	.7	15.0
C 198624	1.6	57.3	9.7	106	.3	29.6	19.0	895	4.82	9.8	.2	3.2	1.4	36	.2	.8	.1	45	.55	.177	29	23.5	1.42	146	.045	<1	1.80	.005	.07	<.1	.06	5.0	<.1	.06	6	1.0	15.0
C 198625	2.1	30.9	13.8	88	.2	26.0	19.5	1029	4.68	9.0	.2	13.0	1.3	41	.2	.7	.1	40	.59	.190	25	22.9	1.32	132	.048	1	1.78	.006	.07	<.1	.04	3.5	<.1	.06	6	.7	15.0
C 198626	2.4	47.7	10.3	133	.4	30.0	21.3	927	4.71	14.7	.3	3.2	1.4	41	.3	1.2	.1	43	.59	.179	21	19.4	1.42	317	.030	<1	1.92	.006	.07	<.1	.05	4.0	<.1	<.05	6	.9	7.5
STANDARD DS5	12.5	140.3	23.8	133	.3	24.4	12.5	811	2.99	18.0	6.0	41.4	2.9	48	5.6	3.8	5.9	63	.76	.090	14	188.4	.69	132	.095	19	2.10	.034	.15	4.7	.18	3.7	1.0	<.05	7	4.7	15.0

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

ACME ANALYTICAL

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
G-1	1.4	2.6	2.6	41	<.1	4.1	3.9	511	1.80	<.5	1.8	1.5	4.3	87	<.1	<.1	.1	40	.63	.079	9	14.7	.52	236	.124	<1	1.09	.152	.57	2.3	<.01	4.4	.3	<.05	5	<.5	15.0
C 198627	3.7	52.9	10.9	102	.5	31.2	17.1	1402	4.34	29.0	.5	5.1	1.6	41	.3	1.8	.1	33	.55	.135	22	18.7	1.14	217	.023	1	1.45	.006	.08	<.1	.06	4.7	<.1	.08	5	1.7	15.0
C 198628	2.6	42.5	9.0	101	.3	27.7	19.4	651	4.34	10.8	.4	3.6	1.9	31	.2	.9	.1	45	.47	.187	29	22.8	1.39	118	.055	<1	1.93	.006	.09	<.1	.05	4.1	<.1	<.05	7	.5	15.0
C 198629	6.0	72.2	10.9	107	.3	28.2	27.9	1294	6.99	18.8	1.2	11.1	1.9	31	.4	.9	.3	54	.50	.164	31	29.0	1.24	215	.063	1	2.41	.011	.08	.1	.06	7.6	.1	<.05	8	1.2	15.0
C 198630	3.8	44.4	8.9	115	.4	32.0	17.1	619	4.17	19.3	.6	3.7	2.0	33	.3	1.3	.1	39	.49	.172	25	20.1	1.17	156	.039	1	1.68	.010	.07	<.1	.05	3.8	<.1	<.05	6	1.2	15.0
C 198631	2.0	23.9	7.3	43	.2	11.5	5.7	212	2.54	8.1	.8	2.7	.5	14	.2	.3	.1	43	.27	.103	20	19.2	.72	80	.050	1	1.52	.013	.05	.1	.06	3.7	.1	.15	6	3.4	15.0
C 198632	2.5	21.8	14.2	67	.3	13.7	9.7	587	4.58	13.0	.8	2.5	2.0	11	.2	.6	.2	46	.18	.108	21	23.6	1.01	30	.075	1	2.64	.009	.05	.1	.05	2.7	.1	<.05	13	1.0	15.0
C 198633	2.5	20.4	6.2	67	.3	14.3	7.6	512	4.05	6.4	.7	18.5	.6	7	.1	.3	.1	42	.08	.070	19	31.0	1.06	25	.048	<1	3.21	.005	.04	.1	.06	2.6	.1	.06	10	.9	15.0
C 198634	3.4	21.3	8.5	58	.3	12.2	6.7	379	5.85	13.0	.9	4.7	1.3	8	.3	.5	.2	68	.10	.076	16	23.0	.83	32	.082	<1	1.92	.007	.04	.2	.08	1.9	<.1	<.05	17	.5	15.0
C 198635	.7	1.5	6.4	13	.1	1.5	.4	24	.47	1.4	.3	1.4	.2	3	<.1	.1	.2	11	.02	.020	26	4.9	.18	9	.047	<1	.53	.009	.02	.1	.01	.5	.1	<.05	7	<.5	15.0
C 198636	4.2	17.1	7.4	50	.6	8.9	5.6	275	7.02	10.3	1.1	6.7	1.9	8	.1	.4	.2	49	.09	.075	33	27.5	.59	27	.075	<1	2.88	.006	.03	.3	.13	2.5	<.1	<.05	20	.7	15.0
C 198637	3.2	16.1	5.8	50	.3	9.7	6.4	298	5.32	6.9	.9	3.9	1.7	9	.1	.3	.2	47	.10	.061	28	25.8	.69	31	.070	1	3.18	.008	.06	.1	.10	2.5	.1	<.05	19	.8	15.0
C 198638	1.7	66.4	7.5	84	.1	22.6	18.7	1299	4.05	5.9	.5	4.5	2.3	23	.3	.4	.1	48	.36	.151	28	29.0	1.35	47	.082	1	2.24	.010	.08	.1	.07	4.9	.1	<.05	6	.6	15.0
C 198639	3.7	33.7	7.3	82	.1	25.7	14.9	555	3.55	23.4	.5	4.2	1.4	30	.2	1.4	.1	33	.41	.147	20	21.3	.96	90	.032	<1	1.34	.007	.05	.3	.04	2.9	<.1	<.05	4	1.4	15.0
C 198640	4.0	43.8	10.5	108	.3	35.6	19.4	921	4.48	21.2	.5	8.0	.9	25	.2	1.2	.1	39	.37	.144	20	30.4	1.21	156	.028	<1	1.69	.006	.06	<.1	.05	3.6	<.1	<.05	6	1.3	15.0
C 198641	4.4	51.9	8.7	99	.4	29.6	16.3	853	4.21	23.0	1.1	4.2	1.9	36	.1	1.5	.1	38	.46	.169	27	23.9	1.14	134	.038	<1	1.65	.008	.06	<.1	.06	3.8	<.1	<.05	6	.9	15.0
RE C 198641	4.5	50.5	8.5	99	.4	28.4	15.9	805	4.00	22.4	.6	4.4	1.8	35	.1	1.4	.1	35	.43	.163	25	23.7	1.11	127	.035	1	1.58	.005	.05	<.1	.05	3.7	<.1	<.05	5	.9	15.0
C 198643	2.3	56.1	7.8	94	.3	20.7	18.9	744	3.67	6.2	2.5	3.9	1.8	24	.3	.5	.1	48	.35	.093	28	25.5	1.96	99	.060	1	2.99	.011	.09	.1	.07	6.4	<.1	<.05	8	1.0	15.0
C 198644	1.1	35.4	10.4	90	.2	16.1	14.7	512	3.93	7.1	.2	8.5	2.0	12	.1	.4	.1	43	.21	.109	13	21.2	1.94	37	.047	<1	2.74	.006	.05	.1	.03	3.9	<.1	<.05	9	.6	15.0
C 198645	2.3	28.7	7.6	93	.1	13.8	12.4	566	3.73	4.5	.3	3.4	1.2	18	.2	.3	.2	33	.25	.086	25	16.7	1.98	93	.019	<1	2.88	.009	.06	.1	.03	3.5	.1	<.05	8	.6	15.0
C 198646	2.5	20.1	9.2	77	.2	16.7	10.4	483	5.25	6.5	.4	5.0	.6	14	.1	.3	.2	62	.20	.126	19	31.8	1.35	55	.045	<1	3.15	.009	.07	.1	.04	3.2	<.1	<.05	13	.9	15.0
C 198647	3.1	22.4	8.1	55	.4	12.9	7.8	300	5.75	8.1	1.0	2.4	.5	11	.1	.4	.1	88	.10	.084	18	37.7	.81	82	.040	<1	3.01	.006	.08	.1	.13	3.0	.1	.08	20	.7	15.0
C 198648	3.2	16.2	13.0	55	.2	17.7	9.0	548	6.39	13.4	.6	24.7	.6	7	.1	.5	.2	81	.08	.074	22	43.3	.81	24	.066	<1	2.35	.006	.03	.1	.06	2.2	<.1	<.05	14	1.0	15.0
C 198649	4.3	26.1	19.2	127	.3	25.7	11.9	585	3.89	28.4	.5	4.3	.4	23	.3	1.4	.1	46	.32	.133	16	23.5	1.02	133	.014	1	1.37	.007	.07	<.1	.04	2.2	<.1	<.05	5	1.6	15.0
C 198650	8.6	37.0	20.1	133	.4	26.8	24.5	1536	5.01	46.2	1.0	8.3	.8	16	.4	2.6	.1	47	.21	.146	18	21.2	1.01	88	.017	1	1.54	.008	.07	<.1	.04	2.6	<.1	<.05	5	2.2	15.0
C 198651	3.9	104.5	30.7	211	.4	24.0	17.2	1699	4.37	9.6	.6	13.8	.8	39	.3	.8	.2	48	.41	.107	27	33.1	1.16	149	.049	1	2.52	.010	.08	.1	.14	4.6	.1	<.05	8	1.3	15.0
C 198652	4.4	32.8	22.1	134	.1	25.3	23.0	1215	5.29	13.1	.4	3.0	1.4	31	.4	.7	.1	64	.40	.148	23	31.2	1.49	90	.065	1	2.18	.011	.09	.1	.02	3.5	<.1	<.05	8	.8	7.5
C 198653	1.9	26.9	7.4	101	.1	25.5	23.8	673	4.87	5.8	.3	1.9	1.2	51	.3	.4	.1	78	.69	.233	21	32.5	1.58	75	.081	<1	2.04	.009	.07	<.1	.02	3.7	<.1	<.05	8	<.5	15.0
C 198654	.7	39.7	4.3	53	.2	30.0	13.4	735	3.13	10.9	.2	11.4	.6	36	.2	.4	.1	53	1.21	.103	8	57.5	1.03	81	.092	<1	1.04	.012	.09	.1	.03	4.7	<.1	.07	4	.5	15.0
C 198655	.6	35.2	4.4	50	.2	34.2	15.1	664	3.38	8.2	.1	96.7	.6	49	.1	.4	.1	67	2.06	.090	7	74.4	1.26	81	.100	1	1.20	.021	.15	.1	.02	5.1	<.1	.07	4	.5	15.0
C 198656	.7	44.6	4.9	55	.3	38.2	17.1	687	3.63	11.9	.2	166.6	.5	48	.2	.5	.1	64	2.14	.089	6	75.9	1.30	85	.097	<1	1.24	.013	.16	.1	.02	4.9	<.1	.12	4	.6	15.0
C 198657	.5	36.4	4.2	53	.2	32.3	13.6	720	3.11	5.9	.2	23.3	.6	63	.2	.4	<.1	58	2.47	.104	8	66.8	1.28	95	.098	<1	1.35	.024	.15	.1	.02	5.7	<.1	.08	4	.5	15.0
C 198658	.7	36.2	4.5	53	.2	37.3	15.7	762	3.40	8.3	.2	65.8	.7	28	.2	.4	.1	64	.73	.094	7	82.9	1.30	115	.099	<1	1.27	.021	.14	.1	.02	5.4	<.1	.06	5	.5	15.0
C 198659	.7	57.1	4.8	62	.3	38.8	18.2	679	3.57	10.5	.2	102.9	.6	37	.2	.4	.1	60	1.09	.085	6	71.9	1.32	94	.091	<1	1.29	.018	.14	.1	.02	5.6	<.1	<.05	4	.5	15.0
C 198660	.6	41.7	4.6	68	.2	41.2	16.3	885	3.49	7.0	.2	19.3	.7	47	.2	.4	<.1	69	1.84	.099	8	85.1	1.58	182	.110	1	1.80	.060	.25	.1	.01	7.8	<.1	<.05	6	<.5	15.0
STANDARD DS5	12.4	148.3	24.7	138	.3	24.6	11.9	764	2.92	18.3	6.0	42.7	2.9	46	5.6	3.9	6.1	62	.79	.098	13	193.2	.69	134	.098	16	2.11	.033	.15	4.9	.19	3.7	1.0	<.05	7	4.9	15.0

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
G-1	1.4	2.6	2.4	42	<.1	4.5	4.0	533	1.86	<.5	1.7	2.2	4.1	87	<.1	<.1	.1	39	.55	.075	8	14.5	.54	235	.124	1	1.12	.159	.53	2.3	<.01	3.8	.3	<.05	5	<.5	15.0
C 198661	.7	38.8	4.4	59	.2	42.1	17.5	924	3.42	6.6	.2	9.6	.6	28	.2	.4	.1	63	.66	.097	6	81.2	1.35	83	.112	1	1.41	.026	.14	.1	.02	5.7	<.1	<.05	4	.5	15.0
C 198662	.6	45.2	4.5	65	.3	58.1	22.2	980	3.91	7.2	.2	85.4	.5	32	.2	.3	.1	77	.78	.098	6	117.7	1.78	110	.139	1	1.82	.034	.17	.1	.02	7.3	<.1	<.05	5	.6	15.0
C 198663	.5	41.9	3.9	61	.2	42.5	17.4	841	3.49	5.8	.2	331.3	.7	57	.2	.4	<.1	66	2.18	.091	8	79.0	1.54	140	.115	1	1.71	.050	.22	.1	.03	6.9	<.1	<.05	5	.5	15.0
C 198664	.8	55.7	9.1	69	.5	54.7	24.7	909	4.54	20.1	.2	283.6	.6	39	.2	.6	.1	73	1.09	.078	5	104.8	1.60	122	.133	1	1.53	.027	.21	.1	.03	6.5	<.1	.26	5	1.1	15.0
C 198665	.6	43.5	4.1	66	.2	42.1	17.3	838	3.51	7.9	.2	28.5	.7	44	.2	.4	<.1	65	1.61	.096	8	76.5	1.48	148	.111	1	1.74	.046	.22	.1	.02	6.8	<.1	<.05	5	.5	15.0
C 198666	.5	41.2	3.8	63	.2	52.0	20.3	1113	3.71	6.9	.1	22.1	.5	23	.2	.3	<.1	72	.68	.087	6	106.3	1.55	107	.135	1	1.53	.027	.19	.1	.02	7.0	<.1	<.05	5	.6	15.0
C 198667	.5	43.6	4.5	58	.3	43.2	18.7	920	3.63	11.2	.2	391.8	.6	25	.2	.4	.1	69	.73	.091	7	88.9	1.33	87	.122	1	1.44	.024	.15	.1	.03	5.9	<.1	.07	5	.5	15.0
C 198668	.7	43.8	4.9	61	.2	52.1	21.4	970	4.06	8.0	.2	43.9	.6	23	.2	.3	.1	80	.63	.096	7	106.2	1.47	97	.143	1	1.54	.029	.15	.1	.02	6.9	<.1	<.05	5	.5	15.0
C 198670	1.2	58.3	8.7	99	.2	33.9	20.4	1142	4.30	8.9	.3	6.9	1.3	37	.3	.6	.1	59	.54	.150	16	42.3	1.53	142	.104	2	1.96	.015	.12	.1	.04	5.3	<.1	<.05	6	.5	15.0
C 198671	2.1	36.0	8.4	81	.3	27.3	16.7	1481	5.06	7.7	.5	8.5	.7	22	.2	.5	.1	69	.31	.138	16	43.3	1.33	89	.103	1	2.14	.010	.07	.1	.04	3.8	<.1	<.05	9	.8	15.0
C 198673	2.1	73.3	9.4	99	.5	55.4	24.9	1492	4.71	16.6	.4	34.1	1.5	22	.3	.8	.1	58	.38	.114	14	67.1	1.58	100	.077	1	1.89	.022	.07	.1	.05	6.3	<.1	<.05	5	.7	7.5
C 198674	6.0	71.6	21.1	111	.8	26.0	23.3	1465	4.57	25.2	.8	122.0	.6	8	.2	1.0	.3	24	.05	.151	13	9.3	.65	60	.009	1	1.21	.007	.03	.1	.05	2.6	<.1	<.05	4	1.2	15.0
C 198675	9.2	45.7	22.4	68	.2	41.9	25.4	1862	5.19	8.5	.6	9.8	.7	13	.3	1.5	.3	20	.17	.193	13	11.5	1.04	19	.008	1	1.56	.003	.02	.1	.02	1.5	<.1	<.05	4	4.0	15.0
C 198676	1.0	27.8	4.3	57	.1	24.9	14.8	654	3.58	7.1	.2	23.1	.9	20	.1	.4	.1	51	.37	.100	10	47.9	1.05	33	.090	1	1.28	.012	.05	.1	.02	4.3	<.1	<.05	4	.7	15.0
C 198677	.8	24.1	3.4	122	<.1	24.2	13.4	551	4.17	2.5	.2	5.1	1.4	17	.1	.2	.1	44	.24	.082	11	26.3	1.70	154	.038	2	2.37	.012	.05	<.1	.02	6.3	<.1	<.05	7	<.5	15.0
C 198678	3.8	33.4	9.9	49	.2	12.6	11.0	1048	7.11	12.4	.9	17.8	.8	7	.1	.4	.2	78	.09	.173	20	37.5	.55	29	.085	<1	2.07	.007	.04	.1	.06	2.8	<.1	<.05	13	1.2	15.0
C 198679	2.8	41.1	14.5	79	.3	17.0	16.3	1005	5.91	12.3	.6	85.7	1.2	14	.2	.5	.2	65	.18	.094	18	30.2	.75	42	.133	<1	2.29	.010	.04	.1	.07	3.9	<.1	<.05	10	1.0	15.0
C 198680	3.3	46.7	18.4	98	.4	22.7	21.2	1459	4.92	16.4	.6	32.9	.8	9	.2	.8	.2	26	.10	.105	16	19.4	1.16	44	.018	1	1.93	.016	.04	.1	.05	3.1	<.1	<.05	5	1.1	15.0
RE C 198676	1.0	27.8	4.3	58	.1	25.1	14.2	662	3.61	7.0	.2	13.9	.9	21	.1	.4	.1	56	.38	.098	10	51.5	1.06	32	.091	<1	1.29	.013	.06	.1	.02	4.4	<.1	<.05	4	.7	15.0
C 198701	1.6	23.3	6.9	93	<.1	11.7	12.5	1298	4.17	8.0	.3	3.6	1.6	53	.2	.4	.1	48	.67	.166	40	16.3	1.21	73	.076	1	1.79	.051	.16	.1	.02	3.0	<.1	<.05	7	<.5	15.0
C 198702	2.4	47.5	10.4	133	.2	20.0	18.0	2897	5.15	12.6	.6	3.1	1.9	62	.6	.5	.1	60	.78	.194	56	22.5	1.61	160	.098	1	2.48	.092	.27	.1	.04	4.7	.1	<.05	10	.5	15.0
C 198703	1.7	45.4	6.0	81	.2	17.6	15.5	932	4.02	12.1	.3	10.0	1.3	39	.2	.8	.1	48	.58	.175	20	21.7	.80	86	.080	1	1.17	.009	.05	.1	.05	5.0	<.1	<.05	4	.7	15.0
C 198704	1.3	42.0	6.0	75	.1	17.4	12.6	374	3.79	9.9	.3	10.8	1.4	36	.2	.8	.1	55	.57	.169	20	23.2	.91	75	.091	<1	1.32	.007	.05	.1	.04	5.2	<.1	<.05	5	.8	15.0
C 198705	6.9	25.2	8.0	92	.1	7.6	8.9	3482	3.52	15.0	.5	1.9	1.6	49	.4	.4	.1	23	.44	.100	74	7.4	.67	182	.018	1	1.45	.012	.23	.1	.05	3.0	<.1	<.05	6	.5	15.0
C 198706	4.4	25.3	5.7	68	.1	24.8	12.3	2102	3.83	4.7	.5	2.1	3.1	59	.2	.5	.1	30	.56	.175	61	22.7	.86	160	.064	<1	1.25	.023	.14	.1	.02	2.8	<.1	<.05	5	<.5	15.0
C 198707	3.8	24.9	5.5	70	.1	21.2	11.6	1913	4.07	3.8	.5	2.6	2.9	48	.2	.5	.1	29	.56	.193	63	19.9	.73	188	.061	<1	1.20	.021	.15	.1	.02	2.5	<.1	<.05	5	<.5	15.0
C 198708	3.3	22.9	5.4	67	.1	16.2	11.2	1074	3.72	3.3	.6	2.4	2.7	45	.2	.5	.1	25	.57	.186	60	14.9	.68	185	.058	<1	1.15	.020	.18	.1	.02	2.4	<.1	<.05	4	<.5	15.0
C 198709	2.6	24.6	5.2	67	.1	34.3	11.9	1658	3.56	3.1	.7	2.1	3.0	57	.2	.5	.1	34	.66	.161	55	33.3	.96	226	.066	1	1.43	.038	.18	.1	.03	3.3	<.1	<.05	5	<.5	15.0
C 198710	2.9	16.9	3.9	58	.1	11.5	9.7	2076	3.48	2.8	.4	4.8	2.6	36	.2	.6	.1	20	.47	.191	62	9.4	.52	156	.054	<1	.96	.019	.16	.1	.02	1.8	<.1	<.05	4	<.5	15.0
C 198711	3.0	17.1	3.6	57	.1	10.9	9.3	1414	3.43	3.0	.4	1.3	2.7	35	.1	.6	<.1	19	.49	.201	58	9.9	.54	128	.052	<1	.99	.018	.14	.1	.02	1.7	<.1	<.05	4	<.5	15.0
C 198712	3.0	19.8	4.6	53	.1	6.3	8.7	1788	3.70	2.9	.4	3.1	2.3	39	.2	.6	.1	16	.47	.206	65	7.3	.42	127	.058	<1	.91	.010	.13	.1	.02	1.8	<.1	<.05	4	<.5	15.0
C 198713	2.4	12.0	4.3	55	.1	5.4	6.6	762	3.00	2.7	.3	25.7	1.6	32	.1	.5	.1	16	.46	.160	56	7.9	.42	139	.034	<1	.95	.010	.16	.1	.02	1.6	<.1	<.05	3	<.5	15.0
C 198714	2.3	23.3	4.4	66	.1	7.1	10.5	1572	3.87	2.6	.4	2.6	1.7	44	.2	.5	.1	24	.63	.214	54	7.5	.65	166	.050	1	1.22	.011	.16	.1	.02	2.7	<.1	<.05	5	<.5	15.0
C 198715	2.4	26.0	4.5	69	.1	7.8	10.8	2271	3.88	3.6	.3	3.6	1.9	52	.3	.7	<.1	26	.70	.220	49	8.6	.66	153	.059	1	1.09	.011	.13	.1	.02	2.8	<.1	<.05	4	<.5	15.0
STANDARD DS5	12.5	146.0	23.8	141	.3	24.0	12.5	783	2.90	17.8	6.1	43.6	2.7	45	5.7	3.9	6.0	62	.76	.094	12	190.3	.69	133	.095	17	2.14	.035	.15	4.7	.17	3.6	1.0	<.05	6	4.7	15.0

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
G-1	1.4	2.8	2.7	41	<.1	4.7	4.2	504	1.87	<.5	1.9	1.1	4.4	95	<.1	<.1	.1	43	.61	.078	10	15.2	.55	256	.135	1	1.16	.169	.55	2.2	<.01	4.2	.3	<.05	5	<.5	15.0
C 198716	2.5	27.6	5.9	67	.1	9.9	11.4	1523	4.05	4.8	.3	9.8	2.2	54	.2	.8	.1	28	.72	.243	48	10.5	.76	155	.084	<1	1.13	.009	.17	.1	.03	2.9	<.1	<.05	4	<.5	15.0
C 198717	2.1	28.1	4.8	64	.1	11.0	12.6	1236	4.08	4.7	.3	2.2	1.8	46	.2	.7	.1	31	.61	.219	39	13.3	.79	98	.084	<1	1.08	.008	.12	.1	.03	2.7	<.1	.07	4	<.5	15.0
C 198718	2.1	40.4	5.7	81	.1	14.7	16.4	1530	4.72	7.2	.3	3.8	1.8	65	.2	.6	.1	46	.82	.232	34	17.5	1.37	166	.089	1	1.66	.023	.17	.1	.03	4.2	<.1	.07	6	<.5	15.0
C 198719	2.6	37.2	5.0	82	.1	13.4	14.7	1445	4.49	7.0	.3	3.4	1.8	58	.2	.6	.1	41	.70	.223	37	15.4	1.21	121	.076	1	1.44	.015	.13	.1	.03	3.5	<.1	.08	6	<.5	15.0
C 198720	1.2	41.9	5.7	72	.1	11.6	15.2	1606	4.33	7.9	.2	5.2	1.7	57	.3	.6	.1	41	1.01	.209	35	14.9	1.24	163	.082	1	1.49	.015	.18	.1	.03	4.5	<.1	.10	6	<.5	15.0
C 198721	1.5	29.5	3.6	63	.1	10.6	13.7	1371	4.05	4.4	.3	2.8	1.8	45	.2	.4	<.1	35	.57	.216	40	12.0	1.01	97	.072	1	1.31	.014	.12	.1	.02	3.3	<.1	<.05	5	<.5	15.0
C 198722	2.4	9.8	3.5	70	.1	7.5	11.6	1303	4.58	2.0	.2	1.8	2.1	56	.1	.3	<.1	24	.67	.225	51	8.4	.85	90	.081	1	1.37	.009	.15	.1	.01	1.9	<.1	<.05	6	<.5	15.0
C 198723	2.2	12.5	3.1	73	<.1	13.1	14.3	1132	4.96	2.3	.2	1.1	2.0	58	.1	.3	<.1	26	.61	.221	58	12.6	.86	76	.073	1	1.38	.010	.17	.1	.01	2.4	<.1	<.05	7	<.5	15.0
C 198724	1.5	24.8	3.4	76	.1	19.7	19.3	1771	5.08	1.8	.2	2.3	1.8	66	.1	.3	<.1	43	.82	.273	47	32.1	1.38	130	.145	1	1.86	.011	.19	.1	.02	3.6	<.1	<.05	8	<.5	15.0
C 198725	1.8	24.7	2.8	69	.1	27.2	22.1	1289	5.13	1.9	.2	.7	1.6	62	.1	.3	<.1	58	.84	.239	36	52.3	1.67	75	.157	1	1.87	.010	.14	.1	.01	3.6	<.1	<.05	8	<.5	15.0
C 198726	1.2	31.1	3.1	74	.1	32.0	22.1	1190	5.10	2.4	.2	1.8	1.3	67	.1	.3	<.1	71	.85	.224	28	64.9	1.94	98	.162	1	1.91	.019	.16	.1	.01	3.1	<.1	.07	8	<.5	15.0
C 198727	1.3	28.7	2.8	79	.1	38.2	26.0	1232	5.18	1.8	.3	1.1	1.5	76	.2	.3	<.1	70	1.07	.243	34	63.0	2.10	108	.214	1	2.23	.022	.20	.1	.01	3.5	<.1	<.05	9	<.5	15.0
C 198728	2.1	32.7	2.5	76	.1	36.9	27.3	1310	5.68	2.2	.3	1.3	1.5	61	.1	.2	<.1	75	.86	.243	35	63.7	1.98	100	.205	1	2.28	.019	.20	.1	.02	4.0	<.1	<.05	9	<.5	15.0
C 198729	1.2	28.5	2.4	73	.1	34.0	26.1	1091	5.32	1.7	.3	1.1	1.5	85	.2	.2	<.1	76	1.09	.239	32	54.4	1.91	116	.232	2	2.20	.025	.19	.1	.02	4.3	<.1	<.05	9	<.5	15.0
C 198730	1.4	32.2	2.3	70	.1	34.0	26.2	1251	5.57	1.6	.2	1.9	1.4	83	.2	.2	<.1	71	1.02	.241	28	50.9	1.83	111	.174	1	2.17	.021	.20	.1	.01	4.3	<.1	<.05	9	<.5	15.0
C 198731	.9	17.2	1.8	59	.1	27.8	24.6	602	5.68	1.1	.2	.6	1.0	51	.1	.2	<.1	79	.84	.251	20	58.6	1.70	25	.215	1	1.99	.010	.10	<.1	.01	3.3	<.1	<.05	8	<.5	15.0
RE C 198731	.8	17.6	1.9	61	.1	28.2	25.4	608	5.53	1.3	.2	.9	1.0	51	.1	.2	<.1	77	.85	.245	21	56.7	1.70	25	.227	1	1.94	.011	.10	.1	<.01	3.3	<.1	<.05	8	<.5	15.0
C 198732	.9	28.4	2.2	68	.1	33.6	27.0	1170	5.88	1.6	.3	.9	1.1	75	.2	.2	<.1	82	1.15	.284	28	61.0	2.02	99	.216	2	2.34	.010	.17	.1	.02	5.0	<.1	<.05	9	<.5	15.0
C 198733	3.2	30.9	3.5	79	.1	32.9	26.6	1130	5.70	2.9	.4	1.5	1.3	109	.1	.2	.1	76	.95	.242	31	53.7	1.72	181	.164	1	2.45	.012	.14	.1	.03	4.5	<.1	<.05	9	.5	15.0
C 198734	1.6	27.1	8.8	56	.1	10.9	11.5	514	4.94	8.5	.6	2.6	1.5	21	.1	.5	.1	122	.27	.105	18	28.8	.75	50	.121	1	2.62	.010	.08	.1	.07	5.0	.1	<.05	13	.6	15.0
C 198735	1.0	47.6	6.1	85	.1	17.4	15.6	589	3.66	6.6	.4	1.8	1.0	37	.2	.5	.1	86	.58	.123	17	24.9	1.08	100	.114	1	2.02	.018	.07	.1	.05	6.1	<.1	<.05	7	<.5	15.0
C 198736	1.6	130.8	12.1	90	.6	23.3	24.8	1844	4.78	17.9	.6	6.5	1.2	68	.4	.9	.1	90	1.06	.128	29	29.4	1.32	262	.085	2	2.10	.016	.14	.1	.11	11.1	.1	.08	7	1.0	7.5
C 198737	.8	61.1	5.9	59	.1	17.2	18.8	745	4.08	8.2	.3	2.4	1.1	43	.2	.5	.1	92	.71	.098	16	25.5	1.03	118	.105	2	1.95	.021	.07	.1	.04	6.1	<.1	<.05	5	.5	15.0
C 198738	3.6	25.5	4.1	73	.1	23.5	25.0	946	5.94	4.9	.3	3.4	1.1	71	.1	.3	.1	70	.70	.223	32	24.9	1.27	176	.113	1	2.24	.012	.11	<.1	.02	4.2	<.1	<.05	9	<.5	15.0
C 198739	1.3	23.6	6.8	44	.2	9.8	11.0	418	6.16	10.1	.6	3.0	1.6	43	.1	.5	.1	150	.59	.122	13	32.3	.64	42	.144	1	3.37	.010	.05	.1	.09	5.2	<.1	<.05	12	.9	15.0
C 198740	.9	54.5	5.5	64	.1	15.5	17.8	869	3.59	8.4	.2	2.5	1.0	27	.2	.5	.1	85	.46	.093	14	20.2	.99	54	.106	2	1.71	.015	.07	.1	.03	5.4	<.1	<.05	5	.6	15.0
C 198741	1.8	37.9	6.5	33	.2	5.1	7.4	440	4.46	8.6	.9	2.1	1.2	86	.2	.3	.1	87	1.21	.109	19	22.1	.46	221	.076	1	3.48	.009	.05	.2	.14	3.3	<.1	.06	9	1.2	7.5
C 198742	1.8	44.8	7.2	111	.3	39.3	26.7	1043	5.71	12.4	.3	2.6	1.1	80	.3	.8	.1	72	.98	.269	24	39.2	1.52	122	.135	2	1.85	.008	.12	.1	.08	4.3	<.1	.11	7	1.4	15.0
C 198743	1.2	52.9	4.6	84	.1	24.1	21.0	896	4.35	4.9	.3	2.0	1.3	31	.2	.4	.1	86	.46	.100	21	39.9	1.17	121	.108	1	2.65	.021	.12	.1	.04	6.2	<.1	<.05	8	<.5	15.0
C 198744	1.2	43.1	4.2	70	.1	25.6	18.9	1063	3.88	4.0	.3	2.4	1.4	36	.2	.4	<.1	77	.53	.112	28	37.7	1.11	133	.134	1	1.92	.029	.13	.1	.04	6.9	<.1	<.05	6	<.5	15.0
C 198745	1.3	60.7	4.5	81	.1	30.3	21.3	1221	4.60	4.9	.3	1.9	1.9	45	.2	.6	.1	86	.82	.099	30	42.4	1.35	224	.143	1	2.20	.038	.20	.1	.05	9.0	<.1	<.05	7	<.5	7.5
C 198746	1.1	43.6	5.4	62	.2	17.7	18.1	1252	3.55	6.6	.3	4.2	1.1	32	.2	.4	.1	71	.56	.124	19	26.7	.91	76	.100	<1	2.31	.015	.07	.1	.05	5.7	<.1	<.05	5	.6	15.0
C 198747	1.7	41.2	6.3	59	.1	15.0	12.7	605	3.19	4.2	.4	3.2	1.1	37	.2	.4	.1	66	.66	.099	25	24.8	.82	82	.110	<1	2.21	.021	.09	.1	.05	4.8	<.1	<.05	8	<.5	15.0
C 198748	1.1	2.8	7.0	13	.1	1.4	1.4	56	.70	1.6	.3	5.5	.3	8	<.1	.1	.1	22	.08	.027	18	5.4	.12	17	.084	1	.77	.013	.03	<.1	.02	1.0	<.1	<.05	11	<.5	15.0
STANDARD DS5	12.4	147.6	24.0	135	.3	25.3	12.3	743	2.91	18.0	6.1	40.7	2.7	46	5.5	3.9	6.4	64	.76	.092	13	192.4	.68	141	.101	16	2.13	.034	.15	5.0	.18	3.6	1.1	<.05	7	4.5	15.0

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
G-1	1.4	2.6	2.3	46	<.1	4.1	4.0	543	1.97	<.5	1.8	<.5	4.4	87	<.1	<.1	.1	36	.57	.075	10	13.4	.56	223	.126	1	1.03	.107	.50	2.4	.01	2.5	.3	<.05	5	<.5	15
C 198749	2.0	31.1	7.6	138	.1	22.6	15.6	827	4.32	8.1	.8	41.8	1.7	33	.3	.4	.1	60	.42	.096	34	28.7	.87	141	.093	1	3.07	.011	.08	.2	.08	4.7	.1	.06	10	.9	15
C 198750	3.8	18.2	7.6	67	.3	9.2	7.5	613	3.48	3.7	1.0	1.5	.3	22	.1	.3	.1	60	.24	.092	35	23.6	.48	124	.085	1	2.35	.011	.06	.1	.08	2.8	.1	.08	11	<.5	15
C 198751	2.2	35.5	6.1	75	.1	17.3	13.6	716	4.15	4.5	.6	5.3	1.0	46	.1	.4	.1	64	.78	.119	45	31.8	.91	256	.086	1	2.30	.012	.09	.1	.07	5.5	<.1	.07	7	.7	15
C 198752	2.1	5.0	10.1	20	.3	2.6	1.9	75	1.08	2.8	.7	4.3	.3	19	.1	.2	.1	43	.21	.026	14	11.0	.17	44	.069	<1	1.05	.011	.03	.1	.04	1.1	<.1	<.05	12	<.5	15
C 198753	1.7	27.4	5.9	58	.2	10.8	9.4	402	4.44	7.4	.5	3.6	1.4	30	.2	.4	.1	76	.41	.117	17	28.2	.71	51	.082	2	2.97	.008	.04	.2	.10	3.5	<.1	<.05	7	.6	15
C 198754	1.9	26.5	4.7	51	.1	12.9	11.1	582	5.39	6.2	.7	2.5	1.8	17	.2	.4	.1	78	.25	.090	17	33.5	.59	44	.124	2	2.92	.008	.05	.1	.09	4.1	<.1	<.05	9	.6	15
C 198755	1.0	34.2	3.8	60	.1	13.6	12.7	414	3.74	6.0	.4	26.6	1.1	26	.1	.4	<.1	76	.43	.077	10	22.9	.86	51	.090	2	1.72	.011	.05	.1	.03	4.2	<.1	<.05	5	.5	15
C 198756	5.7	28.1	6.6	59	.1	10.7	12.0	535	4.45	8.5	.6	3.6	.9	32	.1	.3	.2	70	.40	.047	14	16.8	.89	78	.124	1	2.19	.009	.03	.2	.05	2.5	<.1	.06	13	.6	15
C 198757	4.9	23.9	6.9	68	.3	11.5	9.5	997	5.30	9.7	.6	7.3	.8	57	.1	.4	.1	69	.65	.081	13	24.8	.61	166	.114	2	1.59	.008	.05	.1	.06	2.5	.1	<.05	11	.8	15
C 198758	1.8	43.2	5.0	74	.1	17.4	13.4	569	3.09	6.5	.4	2.3	1.3	49	.1	.4	.1	57	.59	.105	25	28.4	.94	156	.089	3	2.13	.013	.09	.1	.05	5.9	<.1	<.05	7	.6	15
C 198759	.8	76.4	9.7	99	.1	12.8	17.5	1062	3.55	11.8	.3	4.9	.7	87	.4	.6	.1	59	3.52	.088	9	15.3	1.63	116	.063	2	1.61	.008	.06	<.1	.05	4.7	<.1	.49	5	.5	15
C 198801	4.5	26.9	18.0	100	.2	7.6	6.8	1393	4.45	13.1	1.8	1.8	3.2	6	.2	.8	.4	30	.12	.074	33	12.4	.41	56	.084	2	3.37	.029	.08	.3	.07	2.0	.2	.06	18	.8	15
C 198802	2.8	154.8	28.7	140	.3	17.2	25.9	4469	6.27	24.1	.7	11.6	.4	11	.4	3.0	.2	74	.14	.171	22	19.5	1.24	116	.042	<1	2.62	.009	.09	.1	.25	8.7	.1	.08	7	.8	15
C 198803	1.9	40.8	9.5	64	.2	6.4	6.7	576	2.62	6.7	.6	1.8	.1	20	.2	.6	.1	40	.80	.103	10	12.6	.72	124	.026	2	1.64	.023	.07	.2	.05	1.4	<.1	.13	7	<.5	15
C 198804	9.5	118.5	28.7	173	.3	11.3	10.3	3564	4.96	19.0	2.7	8.6	4.7	5	.6	3.7	.4	36	.09	.105	54	15.9	.58	95	.087	2	3.17	.023	.08	.3	.50	6.2	.1	.07	13	1.6	15
C 198805	8.5	128.7	39.9	174	.3	13.9	17.1	3419	5.57	21.1	1.5	11.1	1.2	8	.5	2.3	.2	56	.08	.158	22	18.0	1.17	57	.049	2	2.66	.017	.10	.2	.18	6.7	.1	.06	9	1.0	15
C 198806	3.3	32.6	15.3	108	.1	6.4	10.4	2716	4.82	12.2	.8	5.8	.1	7	.3	1.6	.3	65	.11	.124	16	13.9	.50	129	.054	2	2.39	.010	.07	.1	.09	1.2	.1	.13	15	.6	15
C 198807	6.4	29.8	15.2	97	.1	5.8	6.4	1299	3.87	10.4	1.9	3.2	1.1	6	.1	.7	.3	43	.07	.119	27	16.2	.43	61	.098	2	3.09	.043	.10	.2	.07	1.8	.2	.08	19	.9	15
C 198808	2.9	160.2	33.0	130	.4	17.0	26.3	4934	6.80	38.6	.9	13.0	1.8	10	.4	3.7	.2	72	.13	.198	14	16.8	1.28	99	.073	2	2.79	.021	.08	.2	.25	12.8	.1	<.05	9	1.0	15
C 198809	5.7	39.9	17.9	106	.1	7.3	12.8	3110	5.83	15.5	1.3	3.1	1.2	5	.1	1.7	.4	61	.07	.125	22	15.9	.48	49	.120	1	2.99	.017	.07	.2	.08	2.5	.1	.09	20	.8	15
C 198810	4.6	156.7	34.5	147	.2	13.1	23.4	4466	7.15	39.4	2.0	18.4	5.1	6	.3	3.4	.6	57	.09	.167	28	15.8	.70	111	.090	2	3.59	.029	.10	.3	.13	6.1	.1	.10	15	1.5	15
RE C 198811	2.6	34.1	10.8	64	.1	10.8	10.0	1021	4.93	7.6	.9	2.7	1.0	16	.1	.9	.2	96	.16	.089	15	36.3	.74	78	.189	1	2.97	.010	.08	.1	.09	3.2	.1	.08	18	1.0	15
C 198811	2.6	33.4	10.9	63	.1	10.9	9.4	1028	4.67	7.8	1.0	3.8	1.0	16	.1	.9	.2	91	.17	.089	16	32.5	.73	80	.196	1	2.73	.011	.08	.1	.08	3.3	.1	<.05	17	.8	15
C 198812	1.2	107.5	21.1	124	.2	16.0	20.8	1398	4.70	29.8	.3	3.0	.5	127	.5	1.6	.2	62	4.63	.106	7	18.1	1.50	135	.039	2	1.86	.011	.09	<.1	.06	6.8	.1	.48	5	.7	15
C 198813	1.0	142.2	23.7	127	.3	18.1	26.8	1858	5.91	56.8	.3	9.4	.4	58	.7	1.7	.2	63	1.77	.095	7	18.5	1.50	145	.037	3	1.72	.005	.04	<.1	.07	6.7	.1	.59	5	.8	15
C 198814	.6	74.0	11.9	85	.1	12.0	15.7	1277	3.96	18.1	.2	4.2	.6	95	.3	.8	.1	64	3.29	.091	7	18.3	1.48	175	.048	3	2.04	.013	.11	<.1	.03	6.8	<.1	.17	5	<.5	15
C 198815	.5	83.7	14.8	89	.2	12.4	17.5	1427	4.20	35.9	.2	6.0	.6	89	.3	1.0	.1	67	3.24	.108	10	19.2	1.64	327	.053	3	2.09	.018	.14	<.1	.04	7.3	<.1	.21	6	.5	15
C 198816	.9	111.1	16.9	91	.2	13.7	18.7	1386	4.37	57.4	.2	6.5	.4	69	.4	1.2	.1	61	2.61	.095	7	15.2	1.36	139	.047	<1	1.69	.014	.07	<.1	.04	6.0	<.1	.41	5	.9	15
C 198817	.9	136.8	24.0	99	.2	14.8	23.4	1520	4.96	50.3	.3	10.3	.6	74	.5	1.5	.1	56	2.72	.124	10	13.4	1.46	133	.036	1	1.90	.010	.09	<.1	.06	6.8	.1	.38	5	.6	15
C 198818	.7	103.0	15.5	99	.2	12.7	19.1	1475	4.43	25.6	.3	4.1	.6	97	.4	1.1	.1	58	3.20	.119	9	14.0	1.54	149	.036	3	2.09	.018	.15	<.1	.06	6.3	.1	.24	6	.5	15
C 198819	.5	103.0	13.8	81	.2	11.8	17.3	1190	4.09	26.8	.2	6.2	.5	76	.3	1.1	.1	50	2.53	.094	8	10.5	1.34	101	.034	2	1.74	.013	.07	<.1	.04	4.8	<.1	.26	5	.6	15
C 198820	.4	94.6	16.3	79	.2	10.0	18.5	1179	3.88	30.2	.2	6.2	.4	99	.4	1.0	.1	43	3.46	.078	7	9.6	1.02	77	.036	<1	1.35	.012	.07	<.1	.04	4.6	<.1	.37	4	<.5	15
C 198821	.5	69.1	10.3	67	.1	9.1	14.1	1000	3.38	19.5	.2	6.7	.4	126	.2	.8	.1	43	4.58	.079	5	10.8	1.23	89	.029	1	1.45	.009	.05	<.1	.04	3.8	<.1	.53	4	.6	15
C 198822	.4	64.0	13.0	62	.1	7.9	14.1	1111	2.95	18.0	.2	4.3	.4	148	.2	.7	.1	39	5.77	.081	6	8.2	.92	160	.034	2	1.38	.016	.12	<.1	.02	4.4	<.1	.32	4	.5	15
STANDARD DS5	12.2	142.5	25.6	140	.3	25.6	12.5	795	2.87	19.5	6.5	44.2	3.0	49	5.5	3.8	6.4	58	.76	.096	13	187.8	.69	136	.100	20	2.17	.035	.15	5.2	.19	3.6	1.2	<.05	7	5.4	15

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA ____

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
G-1	1.4	2.5	2.2	42	<.1	4.6	3.8	524	1.82	.8	1.6	<.5	4.2	87	<.1	<.1	.1	42	.54	.086	8	14.7	.57	240	.116	3	.90	.120	.40	2.1	<.01	2.8	.3	<.05	5	<.5	15
C 198823	.4	77.5	13.3	69	.1	9.2	15.8	1131	3.46	20.2	.2	9.9	.4	102	.2	.8	.1	51	3.98	.085	5	10.6	1.25	141	.026	1	1.32	.014	.07	<.1	.04	4.8	<.1	.44	5	<.5	15
C 198827	.3	82.1	10.9	75	.1	9.4	15.5	1266	3.62	15.0	.2	3.1	.5	142	.2	.7	.4	61	5.87	.094	6	12.4	1.45	174	.054	4	1.75	.026	.13	<.1	.03	6.4	<.1	.24	6	.5	15
C 198828	.4	89.9	17.4	77	.1	11.4	15.8	1236	3.66	19.6	.2	6.2	.5	102	.3	.8	.2	51	4.09	.097	7	14.4	1.30	89	.037	<1	1.32	.011	.04	<.1	.03	5.0	<.1	.10	4	<.5	15
C 198829	.8	116.3	25.1	96	.3	14.0	20.7	1394	4.78	35.6	.2	157.6	.5	53	.3	1.3	.6	62	1.87	.109	8	16.8	1.52	143	.039	3	1.62	.015	.05	.1	.04	5.9	<.1	.33	5	<.5	15
C 198830	.8	95.7	9.8	99	.1	12.1	21.3	1647	4.23	8.6	.4	4.6	1.1	18	.2	2.0	.4	59	.52	.124	10	12.8	1.46	224	.031	1	1.38	.010	.06	<.1	.08	6.0	<.1	.09	5	<.5	15
C 198831	.5	74.3	8.2	87	.1	13.1	20.4	1224	4.05	7.6	.3	2.6	1.0	26	.2	1.8	.1	62	1.37	.115	8	13.9	1.52	207	.036	1	1.45	.009	.06	<.1	.07	5.5	<.1	.15	5	<.5	15
C 198832	.9	103.7	12.3	111	.2	14.2	23.6	1965	4.85	9.9	.4	4.9	1.3	18	.2	2.6	.3	71	.58	.133	13	15.5	1.59	281	.039	2	1.57	.010	.07	<.1	.11	6.8	<.1	.06	5	<.5	15
C 198833	.8	91.1	9.7	95	.1	11.8	21.1	1739	4.18	8.2	.4	37.9	1.2	19	.2	2.2	.2	57	.77	.137	13	12.7	1.52	268	.035	1	1.54	.010	.07	<.1	.10	6.4	<.1	.06	5	<.5	15
C 198834	.4	74.1	10.1	82	.1	11.0	16.6	1101	3.64	15.0	.2	3.5	.5	93	.2	.7	.1	61	3.86	.089	7	16.2	1.43	69	.040	<1	1.54	.013	.04	<.1	.03	4.8	<.1	.07	5	.5	15
C 198835	.6	74.7	12.1	99	.1	13.0	15.4	1059	3.94	12.0	.3	5.6	.7	24	.2	.8	.1	66	.62	.113	11	15.9	1.47	109	.031	<1	1.66	.011	.06	.1	.04	5.4	<.1	<.05	6	<.5	15
C 198836	1.3	55.0	14.5	102	.1	10.5	12.6	1192	3.24	9.9	.4	3.0	.3	21	.4	.8	.2	61	.48	.120	11	14.0	1.13	143	.042	2	1.44	.015	.08	.1	.04	3.8	<.1	.08	6	<.5	15
C 198837	1.1	84.1	15.0	107	.2	14.5	15.7	1591	4.23	13.6	.4	3.3	.3	25	.3	1.1	.1	67	.55	.127	15	14.9	1.27	177	.032	1	1.67	.020	.09	.1	.05	4.3	<.1	<.05	7	<.5	15
C 198838	.9	68.6	13.3	105	.1	12.5	16.7	2015	4.63	10.0	.4	4.1	.3	18	.3	.8	.2	75	.35	.148	14	15.9	1.38	261	.039	1	1.95	.012	.08	.1	.05	4.6	<.1	<.05	7	<.5	15
C 198839	1.1	68.1	15.0	119	.1	13.9	16.4	1591	4.58	12.3	.4	3.1	.3	21	.4	1.0	.1	81	.38	.157	13	17.6	1.68	148	.038	1	2.27	.010	.08	.1	.06	4.4	<.1	<.05	7	<.5	15
C 198840	.6	72.9	13.2	82	.1	11.4	13.6	1554	3.21	13.1	.3	4.5	.8	109	.3	1.0	.1	51	4.31	.120	10	12.4	1.21	100	.042	1	1.28	.011	.04	.1	.04	4.5	<.1	.06	4	<.5	15
RE C 198840	.7	73.6	12.8	75	.1	10.9	13.0	1477	3.36	12.8	.3	3.8	.8	118	.4	1.0	.1	52	4.34	.118	10	13.1	1.15	107	.045	<1	1.32	.014	.04	.1	.05	4.8	<.1	.06	4	<.5	15
C 198841	.7	45.6	8.3	84	.1	11.6	13.2	817	3.62	6.4	.5	3.1	.2	35	.2	.7	.1	68	.57	.096	11	19.9	1.34	105	.026	1	2.09	.008	.09	.1	.05	3.1	.1	.06	7	.5	15
C 198842	.8	74.2	11.6	122	.1	13.7	16.0	1527	3.89	8.9	.4	3.5	.4	26	.5	.8	.1	68	.48	.134	11	18.1	1.32	267	.034	<1	1.91	.009	.09	<.1	.06	4.6	<.1	.06	7	.6	15
C 198843	.9	63.3	15.4	116	.1	12.7	16.1	2467	4.01	9.8	.6	8.9	.7	19	.3	.8	.2	63	.33	.140	17	15.0	1.21	209	.063	1	1.97	.016	.09	.1	.06	5.2	.1	<.05	8	.5	15
C 198844	1.0	54.1	10.9	90	.1	12.3	14.1	1275	4.20	9.7	.5	3.0	.3	30	.3	.9	.1	79	.55	.088	11	16.9	1.23	143	.038	1	2.27	.010	.08	.1	.06	3.6	.1	.06	7	.8	15
C 198845	1.0	72.4	13.6	108	.1	14.6	16.0	1867	4.64	12.0	.4	9.0	.8	19	.4	.9	.1	73	.40	.112	15	18.4	1.40	239	.052	1	1.81	.012	.07	.1	.04	6.5	<.1	.08	6	<.5	15
C 198846	.9	95.7	16.4	106	.2	15.5	17.2	1713	4.46	14.9	.4	4.5	.9	47	.4	1.1	.1	72	1.52	.134	14	17.2	1.63	186	.050	1	1.99	.014	.08	.1	.06	6.7	<.1	.08	6	.5	15
C 198847	1.0	78.0	12.9	112	.1	14.6	14.9	1402	3.99	12.0	.5	14.2	.7	34	.5	1.0	.1	69	.86	.104	14	15.0	1.34	208	.050	<1	1.68	.013	.08	.1	.05	5.2	<.1	<.05	6	<.5	15
C 198850	2.0	92.4	17.3	116	.1	10.9	11.0	986	4.57	21.0	1.0	8.5	.7	14	.2	.8	.2	61	.23	.121	19	15.7	1.14	124	.047	<1	2.21	.013	.08	.1	.07	3.8	.1	.08	10	.7	15
C 198851	3.9	22.9	11.1	77	.1	7.3	5.9	956	4.27	6.3	1.6	1.1	.4	23	.1	.4	.4	57	.46	.175	33	18.3	.47	548	.047	<1	2.10	.011	.06	.1	.03	1.5	.1	.14	17	1.3	15
C 198852	1.5	97.7	11.6	82	.1	14.5	13.5	1692	3.64	7.2	.9	4.8	1.2	10	.2	.5	.2	57	.17	.095	21	25.3	1.18	173	.050	<1	2.11	.013	.08	.1	.06	4.3	<.1	<.05	7	.5	15
C 198853	7.1	28.9	13.6	109	.1	5.6	5.7	1268	4.94	10.1	1.6	1.5	.8	22	.2	.4	.4	47	.34	.136	25	15.1	.33	301	.068	<1	2.14	.016	.06	.2	.07	1.6	.1	.14	18	.9	15
C 198854	3.1	101.1	13.9	91	.2	10.3	11.3	1771	3.59	8.7	3.2	5.8	2.1	10	.2	.4	.3	44	.18	.145	50	20.4	.75	257	.068	1	2.44	.031	.12	.2	.06	3.6	.1	<.05	13	1.3	15
C 198855	8.0	108.6	15.2	123	.2	7.8	7.8	1742	4.96	37.2	8.6	3.9	6.6	25	.3	.6	.5	56	.14	.109	57	14.2	.42	282	.102	<1	3.56	.032	.08	.4	.08	4.4	.1	.06	18	1.6	15
C 198856	.6	44.8	5.4	95	.1	14.5	26.7	3114	6.19	3.2	.4	5.3	1.2	12	.2	.5	.1	65	.27	.162	21	11.7	1.96	410	.032	<1	2.08	.008	.11	.1	.04	7.7	<.1	<.05	6	<.5	15
C 198858	.5	95.7	11.1	132	.2	18.9	21.3	1827	5.39	18.4	.3	3.7	.6	27	.4	.9	<.1	93	.70	.088	11	19.7	1.80	128	.126	1	2.05	.025	.07	.1	.07	7.6	<.1	<.05	7	<.5	15
C 198859	.5	81.4	9.1	129	.1	16.7	18.1	1401	4.30	14.3	.3	2.7	.6	31	.4	.8	<.1	76	1.64	.082	8	17.2	1.84	110	.103	1	1.70	.016	.06	<.1	.08	5.7	<.1	.09	6	<.5	15
C 198860	.4	68.7	8.6	113	.1	13.0	15.5	1390	3.92	8.0	.3	1.8	.6	38	.4	.7	<.1	73	2.91	.082	8	15.2	1.88	99	.109	<1	1.57	.013	.06	<.1	.04	5.5	<.1	.06	5	<.5	15
C 198862	.7	98.3	13.9	143	.1	14.6	16.7	1786	4.13	11.1	.4	2.1	.8	24	.5	.9	.1	80	1.15	.089	10	15.2	1.90	157	.101	2	1.73	.013	.07	.1	.10	6.4	<.1	<.05	6	<.5	15
STANDARD DS5	12.1	145.1	23.2	126	.3	24.3	11.6	767	2.81	18.9	5.9	45.5	2.6	46	5.4	3.9	6.1	58	.70	.094	12	178.6	.62	137	.085	19	1.73	.031	.11	5.1	.17	3.2	1.0	<.05	6	5.1	15

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
G-1	1.4	2.5	2.1	41	<.1	4.4	4.0	567	2.01	<.5	1.7	.8	4.4	93	<.1	<.1	.1	39	.55	.070	8	14.0	.53	228	.126	1	.94	.113	.40	2.4	<.01	1.9	.3	<.05	5	<.5	15
C 198864	.4	77.8	12.6	132	.1	10.4	17.3	1564	4.30	8.4	.2	3.2	.5	30	.3	.6	<.1	77	2.38	.069	8	12.2	1.86	109	.098	1	1.74	.009	.05	.1	.09	6.3	<.1	<.05	6	<.5	15
C 198867	.4	102.9	17.5	116	.1	9.4	16.6	1725	4.15	7.8	.2	2.7	.6	43	.3	.5	<.1	52	3.93	.079	8	11.9	2.00	177	.064	3	1.51	.011	.09	<.1	.11	5.0	<.1	.12	5	.5	15
C 198869	.5	111.7	18.9	111	.2	10.8	16.1	2270	4.20	9.1	.2	4.6	.6	19	.4	.7	.1	61	1.16	.092	10	13.9	1.52	173	.086	2	1.49	.007	.05	.1	.14	6.4	<.1	.13	4	<.5	15
C 198871	.4	92.9	13.7	109	.1	12.0	15.5	1396	4.08	7.3	.2	2.1	.5	19	.3	.4	<.1	68	.78	.076	9	15.6	1.40	137	.082	2	1.71	.011	.06	.1	.07	6.6	<.1	.08	5	<.5	15
C 198872	.5	103.2	13.7	101	.1	9.7	16.5	1655	4.15	7.4	.2	2.2	.7	35	.2	.4	<.1	60	1.75	.090	11	12.3	1.33	213	.074	3	1.62	.019	.12	<.1	.05	6.3	.1	.08	6	<.5	15
C 198873	.3	87.3	9.2	86	.1	10.9	15.8	1385	4.10	5.6	.2	1.3	.6	42	.2	.3	<.1	75	3.60	.066	12	17.7	1.58	182	.096	1	1.97	.014	.10	.1	.04	7.8	<.1	.07	7	<.5	15
C 198874	.4	73.6	15.6	115	.1	9.6	16.3	1643	4.14	6.4	.3	2.4	.8	39	.3	.4	.1	61	2.88	.074	12	12.4	1.32	235	.062	<1	1.59	.014	.12	<.1	.04	6.4	<.1	.08	6	<.5	15
C 198875	.4	83.8	17.6	103	.1	15.7	17.1	1586	4.31	9.4	.3	11.8	.7	43	.2	.5	.1	56	2.92	.075	11	20.1	1.55	212	.067	3	1.98	.012	.11	<.1	.04	6.8	<.1	.12	6	<.5	15
C 198876	.4	102.5	14.7	74	.2	16.8	17.0	1267	4.10	12.4	.2	5.0	.5	38	.1	.5	<.1	66	2.81	.065	8	20.4	1.35	122	.067	1	1.52	.013	.07	.1	.04	5.7	<.1	.15	5	<.5	15
C 198877	.7	105.5	24.5	101	.2	13.5	18.0	1907	4.31	11.2	.2	3.4	.8	23	.3	.6	.1	60	1.30	.081	10	16.1	1.53	189	.064	1	1.57	.011	.08	.1	.06	5.9	<.1	.12	5	<.5	15
C 198879	.6	83.4	15.3	94	.2	12.3	17.2	1599	3.76	7.8	.2	2.9	.5	47	.2	.5	<.1	49	2.99	.082	9	15.2	1.29	222	.049	1	1.33	.012	.11	<.1	.04	5.4	<.1	.15	4	<.5	15
C 198880	.5	59.5	18.5	95	.1	12.0	15.9	1602	3.51	8.2	.2	4.7	.6	31	.2	.5	.1	51	1.70	.074	11	13.4	1.25	214	.045	1	1.34	.010	.11	<.1	.05	5.2	<.1	.09	4	.5	15
C 198881	.5	88.9	22.5	110	.2	13.8	18.1	1479	4.03	12.3	.2	4.1	.5	47	.3	.6	.1	48	2.70	.083	7	15.7	1.55	138	.046	<1	1.41	.009	.08	<.1	.08	4.4	<.1	.19	5	.5	15
C 198882	.5	81.9	25.1	116	.3	14.5	17.3	2126	3.84	15.5	.2	11.1	.4	47	.4	.8	.1	44	3.32	.077	7	13.9	1.54	154	.050	<1	1.07	.010	.08	<.1	.11	4.4	<.1	.22	4	<.5	15
RE C 198882	.5	76.0	26.1	115	.3	13.0	16.5	1902	3.64	13.8	.2	8.0	.4	45	.4	.7	.1	41	3.25	.075	6	12.9	1.45	145	.046	1	1.07	.007	.08	<.1	.11	3.9	<.1	.19	4	<.5	15
C 198886	.6	111.6	25.4	128	.2	16.8	20.5	1539	4.28	20.5	.2	8.1	.5	29	.4	.7	.1	45	1.73	.085	7	16.4	1.47	172	.034	<1	1.42	.007	.08	<.1	.09	4.5	<.1	.32	5	<.5	15
C 198890	.5	88.9	18.3	104	.2	11.6	17.8	1812	4.04	11.7	.2	4.1	.4	56	.3	.6	<.1	44	4.59	.085	5	12.7	1.54	117	.037	<1	1.26	.007	.07	<.1	.06	4.7	<.1	.30	4	<.5	15
C 198891	.6	92.8	20.2	116	.3	12.6	15.4	1955	4.21	17.4	.3	3.8	.5	78	.4	.9	<.1	43	8.78	.078	5	13.6	1.26	168	.039	<1	1.21	.008	.08	<.1	.09	4.5	<.1	.24	4	<.5	15
C 198894	.6	82.3	16.0	121	.2	15.3	16.3	1540	3.65	11.5	.2	3.0	.5	39	.4	.8	<.1	50	3.28	.078	7	16.3	1.45	143	.041	<1	1.44	.008	.09	<.1	.07	4.7	<.1	.17	5	<.5	15
C 198895	.9	103.9	37.6	138	.3	17.8	19.6	2401	4.37	18.0	.3	5.5	.6	24	.6	1.1	.1	54	1.73	.079	9	16.7	1.66	198	.042	<1	1.41	.007	.06	<.1	.11	4.9	<.1	.25	4	<.5	15
C 198896	.9	108.2	29.4	135	.3	17.6	20.8	2449	4.45	22.1	.3	15.5	.5	25	.6	1.1	.1	48	1.92	.086	7	16.1	1.70	179	.032	<1	1.35	.006	.05	<.1	.08	4.4	<.1	.36	4	<.5	15
C 198899	2.7	148.8	38.4	251	.4	39.4	23.3	2099	4.96	29.3	.7	2.2	.6	36	2.2	2.5	.1	71	3.36	.082	7	27.6	1.82	150	.033	<1	1.32	.008	.07	<.1	.16	5.1	.1	.33	6	1.4	15
C 198900	1.8	175.6	53.6	190	.5	28.2	23.5	2199	5.16	28.1	.5	3.9	.6	33	1.6	2.0	.1	62	3.12	.078	7	23.9	1.79	162	.044	1	1.28	.010	.06	<.1	.16	5.1	.1	.27	4	1.5	15
C 198901	2.8	19.8	6.3	51	.1	6.4	8.4	969	4.47	4.5	.7	4.3	.1	15	.2	.3	.1	78	.16	.089	15	16.9	.61	85	.024	<1	2.61	.011	.05	.1	.06	1.2	.1	.07	11	.5	15
C 198902	2.2	12.0	6.8	34	.2	4.6	4.3	283	3.86	5.4	.8	4.1	.3	7	.1	.3	.1	73	.07	.065	13	11.5	.46	37	.043	<1	1.65	.011	.04	.1	.04	1.4	.1	.08	12	<.5	15
C 198903	2.0	36.7	6.2	49	.1	6.3	7.3	319	2.82	3.6	.6	4.9	.1	8	.1	.3	.1	41	.09	.089	13	12.8	.68	58	.022	<1	2.34	.006	.07	.1	.05	1.1	.1	.06	9	.7	15
C 198905	2.4	15.7	5.8	38	.1	4.5	6.2	421	4.19	3.5	.7	3.5	.3	11	.1	.3	.1	84	.09	.045	15	13.9	.48	86	.033	<1	2.41	.008	.04	.1	.05	2.3	.1	.06	13	.5	15
C 198907	1.9	34.5	6.3	50	.1	8.2	10.2	826	6.65	7.3	.6	4.0	.5	11	.1	.4	.1	90	.18	.354	11	22.6	.77	71	.034	<1	2.73	.007	.05	.1	.08	2.6	<.1	.07	10	.7	15
C 198909	4.0	27.6	6.6	74	.1	13.1	11.3	2582	4.93	3.2	.8	1.7	.1	7	.1	.3	.1	74	.07	.151	18	27.6	.69	64	.022	<1	1.86	.011	.07	.1	.05	1.3	<.1	.09	10	.5	15
C 198910	2.2	35.2	7.1	45	.1	6.1	9.6	1012	4.18	6.4	.7	4.6	.6	9	.1	.4	.1	57	.15	.238	16	13.8	.66	50	.031	<1	2.41	.011	.06	.2	.05	2.0	<.1	<.05	9	<.5	15
C 198911	1.7	50.9	7.0	58	.1	9.5	14.6	1406	4.37	5.2	.5	5.2	.7	11	.1	.4	.1	66	.18	.105	13	15.1	1.09	86	.045	<1	2.23	.008	.08	.1	.02	4.0	<.1	<.05	8	<.5	15
C 198914	1.0	72.9	7.4	81	<.1	14.9	18.1	1182	4.20	6.5	.7	7.1	1.7	20	.2	.4	.1	58	.34	.109	19	16.1	1.45	172	.054	<1	2.12	.008	.09	.1	.03	5.0	<.1	<.05	6	<.5	15
C 198916	1.4	65.9	28.4	140	.1	12.9	16.6	1355	4.76	17.1	.5	6.2	.7	18	.4	.5	.2	76	.40	.085	15	17.4	1.48	136	.053	1	2.06	.010	.07	.1	.06	4.9	<.1	.08	8	.5	15
C 198917	1.6	86.8	20.7	111	.1	12.5	18.8	1763	5.00	12.4	.8	8.3	.9	13	.3	.6	.1	70	.24	.096	14	14.3	1.40	134	.039	1	2.40	.009	.08	.1	.04	6.7	<.1	<.05	8	<.5	15
STANDARD DS5	11.9	152.1	23.9	134	.2	26.3	12.6	782	3.03	19.2	6.1	45.6	2.6	47	5.5	3.8	6.1	60	.70	.086	12	186.8	.63	135	.095	18	1.99	.034	.11	5.4	.18	3.2	1.1	<.05	6	5.0	15

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
G-1	1.4	2.9	2.4	42	<.1	4.4	4.0	495	1.89	<.5	1.8	.5	4.5	89	<.1	<.1	.1	37	.59	.076	9	13.8	.54	238	.126	<1	1.02	.108	.49	2.3	<.01	2.8	.3	<.05	5	<.5	15
C 198919	1.3	117.8	13.9	102	.1	12.4	24.1	2305	6.02	13.2	.6	6.1	1.1	9	.2	.8	.1	95	.14	.107	12	10.3	1.46	136	.022	<1	2.55	.007	.09	.1	.06	11.8	<.1	<.05	7	<.5	15
C 198920	2.5	152.5	63.0	242	.2	24.3	22.5	2945	5.43	63.2	.6	12.8	1.0	9	.9	1.5	.1	60	.21	.123	15	12.7	1.47	191	.020	<1	2.68	.010	.15	.1	.11	8.0	.2	<.05	6	.5	15
C 198922	2.0	138.0	34.0	170	.2	17.5	21.7	2777	5.10	23.1	.6	7.9	1.1	30	.9	.9	.2	82	1.48	.110	19	19.5	2.04	198	.041	1	2.74	.013	.11	.1	.11	8.7	.1	<.05	8	<.5	15
C 198925	1.5	148.4	51.7	165	.3	23.2	22.2	3368	4.94	34.5	.4	15.0	.8	39	1.2	1.2	.2	61	2.34	.115	16	27.6	1.62	226	.053	1	1.84	.010	.08	.1	.11	7.8	<.1	.09	5	.6	15
C 198926	1.2	133.3	52.9	164	.3	15.1	22.0	2086	5.04	43.6	.3	13.6	1.0	31	1.0	1.3	.2	60	1.50	.131	14	15.6	1.52	146	.061	2	1.84	.010	.07	.1	.11	6.5	<.1	.08	6	<.5	15
C 198927	1.2	121.1	33.5	124	.2	17.4	22.9	1953	4.96	21.7	.4	21.9	1.0	17	.4	.7	.2	74	.48	.123	18	20.0	1.77	142	.072	2	2.20	.011	.07	.1	.06	7.4	<.1	<.05	7	.5	15
C 198928	1.7	142.5	41.0	174	.2	18.3	23.8	2509	5.02	49.5	.5	27.6	1.5	18	1.0	.9	.3	78	.65	.107	20	17.9	1.66	153	.075	1	2.22	.010	.06	.1	.07	7.7	.1	<.05	7	.5	15
C 198930	1.0	114.9	26.6	143	.2	16.8	21.5	1718	4.68	23.6	.3	14.4	1.1	17	.6	.7	.2	72	.56	.092	14	18.9	1.89	151	.058	<1	2.34	.016	.08	.1	.03	6.7	<.1	<.05	7	.5	15
C 198933	.7	88.1	13.2	115	.1	15.7	18.5	1229	4.43	12.1	.3	15.9	.5	29	.3	.7	<.1	77	1.39	.087	8	18.5	1.91	104	.084	1	2.05	.012	.07	.1	.04	5.7	<.1	.17	6	<.5	15
C 198939	1.4	90.9	35.0	117	.3	21.9	20.7	4079	4.97	14.8	.3	5.7	.9	27	.7	1.0	.1	64	.63	.139	20	25.4	1.54	192	.085	<1	1.95	.009	.07	.1	.26	8.0	<.1	.09	6	.5	15
C 198940	.7	51.8	7.2	79	.1	18.8	17.5	1431	4.31	4.7	.2	11.1	1.2	31	.2	.5	.1	61	.55	.153	18	26.1	1.42	130	.092	1	1.85	.012	.09	.1	.03	5.5	<.1	<.05	6	<.5	15
C 198941	.8	70.4	8.4	103	.1	19.1	20.8	1323	4.85	5.7	.3	5.4	1.9	60	.2	.4	.1	66	2.16	.167	23	23.1	1.71	279	.064	2	2.56	.023	.26	.1	.03	6.5	<.1	<.05	8	<.5	15
C 198943	.7	56.1	5.6	86	.1	17.1	17.8	1144	4.37	4.9	.3	10.0	1.7	74	.2	.4	.1	63	2.55	.158	21	22.4	1.54	198	.084	2	2.26	.032	.22	.1	.03	6.4	<.1	<.05	7	<.5	15
RE C 198943	.8	59.3	6.1	94	.1	17.6	18.8	1246	4.74	5.2	.3	5.7	1.6	80	.2	.4	.1	69	2.74	.169	23	24.8	1.68	212	.091	3	2.48	.029	.26	.1	.03	6.9	<.1	<.05	8	<.5	15
001 CD-03	2.1	122.7	31.5	138	.5	16.0	17.3	3595	4.04	26.7	.4	5.0	.5	41	.6	1.4	.1	49	6.65	.077	7	12.8	3.37	129	.068	1	1.21	.008	.05	<.1	.12	4.4	.1	.13	4	.5	15
003 CD-03	1.6	116.7	26.0	130	.5	14.5	16.7	3780	3.71	19.2	.4	3.0	.8	34	.4	1.5	.1	48	5.47	.067	8	13.0	3.13	118	.054	<1	1.32	.009	.06	.1	.11	4.7	.1	.07	4	<.5	15
STANDARD DS5	12.3	142.0	24.3	131	.3	24.6	11.8	728	2.86	17.2	6.3	40.0	2.6	44	5.7	3.9	6.2	58	.73	.092	12	182.7	.67	129	.085	18	2.07	.032	.13	5.4	.17	3.4	1.0	<.05	7	4.6	15

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Roca Mines Inc. File # A305415

500 - 1045 Howe St., Vancouver BC V6Z 2A9 Submitted by: Sandy Sears

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm
A 126339	2.0	44.7	8.6	106	.3	44.1	26.6	1013	6.48	18.5	.3	1.2	1.1	95	.3	.8	.1	61
A 126451	1.7	72.3	7.1	82	.1	34.3	26.1	2986	5.59	7.3	.4	8.6	.8	43	.3	.3	.1	43
A 126452	2.5	71.4	5.3	95	.1	37.9	28.3	4077	7.06	5.8	.5	5.0	.7	65	.3	.5	.1	52
A 126453	.7	39.6	3.3	72	.1	30.8	19.7	1260	4.27	5.8	.8	3.9	.7	31	.1	.6	.1	47
A 126454	1.1	42.6	5.8	78	.2	39.1	20.9	1592	5.02	8.8	.5	16.9	.5	30	.2	.8	.1	47
A 126550	2.5	70.1	21.0	82	.2	37.7	24.7	2496	10.35	5.3	.5	13.0	.7	46	.3	.4	.4	44
A 127851	.8	87.9	9.5	93	1.0	36.1	27.9	1532	6.86	86.2	.2	45.4	1.0	115	.2	8.7	.1	49
A 127853	1.5	104.5	13.5	102	1.1	39.1	30.0	1273	6.69	117.8	.2	333.7	1.5	97	.3	6.9	.1	42
A 127855	.4	20.2	12.4	46	.7	15.7	9.5	337	1.75	16.9	.1	3.1	2.4	29	.1	1.9	.2	4
A 127858	1.0	77.5	10.4	84	1.0	31.4	24.6	1186	5.67	83.7	.2	27.3	1.5	105	.2	5.6	.1	42
A 127860	1.4	77.6	10.8	89	.8	35.4	25.0	1119	5.62	69.4	.3	47.2	1.7	69	.2	4.3	.1	42
RE A 127860	1.2	79.2	10.5	83	.8	33.9	25.2	1131	5.66	66.3	.3	42.7	1.6	63	.2	4.1	.1	40
A 127861	.9	68.4	7.2	80	.7	32.5	23.2	1237	5.53	53.9	.2	48.6	1.2	100	.2	4.8	.1	47
A 127863	.9	80.3	11.6	86	1.0	31.9	25.4	1196	5.72	86.8	.2	97.3	1.0	109	.2	6.5	.1	44
STANDARD DS5	12.5	139.3	26.0	132	.3	24.3	11.9	774	3.03	19.5	5.9	43.0	2.7	50	5.8	3.9	6.4	58

SAMPLE#	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
A 126339	.93	.247	18	41.9	1.70	115	.126	3	1.80	.009	.09	<.1	.06	3.6	<.1	.17	7	1.3	15.0
A 126451	.52	.105	9	29.0	1.85	664	.030	3	1.66	.007	.07	<.1	.03	7.8	<.1	<.05	5	.7	7.5
A 126452	.58	.165	11	34.6	1.88	838	.030	3	1.69	.009	.06	<.1	.04	6.6	<.1	.08	5	1.1	7.5
A 126453	.53	.125	8	33.6	1.15	234	.034	3	1.12	.008	.06	.1	.08	6.9	<.1	<.05	3	<.5	7.5
A 126454	.51	.111	7	30.6	1.13	237	.036	2	1.06	.010	.05	<.1	.07	7.1	<.1	.13	3	1.0	5.0
A 126550	.53	.124	10	35.1	2.06	556	.031	1	1.71	.007	.07	<.1	.03	7.1	<.1	.07	5	1.0	1.0
A 127851	3.56	.168	6	24.4	2.36	86	.038	<1	.66	.004	.04	<.1	.12	8.0	<.1	.85	2	1.0	15.0
A 127853	2.18	.189	5	21.2	1.93	111	.024	2	.70	.004	.05	<.1	.17	6.5	.1	.98	2	1.7	15.0
A 127855	.13	.040	17	1.4	.18	166	<.001	2	.17	.003	.06	<.1	.02	1.3	<.1	.20	<1	2.3	7.5
A 127858	2.61	.174	6	20.6	1.85	134	.028	2	.64	.004	.05	<.1	.11	7.0	<.1	.56	2	.9	15.0
A 127860	1.24	.177	8	22.1	1.49	180	.025	2	.74	.005	.06	<.1	.10	6.3	<.1	.32	2	1.2	15.0
RE A 127860	1.20	.175	8	22.0	1.44	179	.024	3	.74	.004	.05	<.1	.10	6.7	<.1	.31	2	1.1	15.0
A 127861	2.62	.179	6	24.7	2.01	189	.035	1	.80	.006	.05	<.1	.10	6.8	<.1	.42	2	.9	15.0
A 127863	2.91	.170	5	21.7	2.02	100	.036	1	.67	.005	.04	<.1	.11	7.0	<.1	.68	2	1.1	15.0
STANDARD DS5	.76	.090	13	179.7	.69	146	.093	17	2.10	.034	.13	5.0	.17	3.4	1.0	<.05	7	5.1	15.0

GROUP 1DX - 15.0 GM SAMPLE LEACHED WITH 90 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 300 ML, ANALYSED BY ICP-MS.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: SILT SS80 60C <u>Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.</u>

DATE RECEIVED: OCT 31 2003 **DATE REPORT MAILED:** Nov 7/03 **SIGNED BY** C. L..........D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

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APPENDIX B

JIM OLIVER DETAIL MAPPING REPORT

SUMMARY OF GEOLOGICAL OBSERVATIONS: ROCA MINE'S FOREMORE PROPERTY, NORTHWESTERN B.C.

(UTM NAD 83, 6326000 N 385000 E)

TERMS OF REFERENCE

The following report is based on 10 days of field mapping on the Foremore property. The report was written without the aid of a literature review and no rock analytical data, or any quantitative assessment of lithological characteristics has been utilized. The report was written on site and should be viewed as a preliminary summary of observations in those areas examined. Most of the technical data in this report is relevant to the SG, North and BRT occurrences.

The location of all outcrops has been determined through the use of a hand held GPS operating in a non-differential mode. The average accuracy of outcrop locations is believed to be approximately +/- 6 m. Geological stations have been plotted only with respect to the UTM coordinates. Small conflicts with topography are sometimes noted. At the time of mapping, and dependent on the elevation of the occurrence, snow cover ranged from 60% to 10%. The style and form of outcrops will change with additional recession in snow cover.

Mapping in the BRT and North area is not complete. Contact relationships may require revision upon with the addition of more detailed surface and sub-surface data.

SG Occurrence: General Stratigraphic Relations:

All information relevant to the SG occurrence was obtained during 2.5 days spent mapping the immediate occurrence area at a scale of 1:5000, later compiled at 1:2,000. In addition, two measured north-south stratigraphic transects were completed.

Generalized stratigraphic relationships are shown on Figure 1. The thickness of the rock units is generally representative for the rock column in the central portions of the SG occurrence area. Contact relationships at a scale of 1:2000 are shown on Figure 2.

Stuhini (Cominco Terminology) Group:

On the Cominco compilation maps, a sequence of upper Triassic, Stuhini Group rocks, has been suggested to outcrop to the north and northwest of the SG occurrence. In this area, three dominant and related lithologies are identified:

i. Well-bedded chloritic siltites, fine grained volcanic sandstones.
ii. Coarser, poorly sorted mafic volcaniclastics. Polylithic fragments frequently exceed 2.0 cm and range in from sub-angular, to well rounded

fragments. Much of the matrix appears to be composed of immature volcanically derived components.

iii. Plagioclase and pyroxene rich sills and flows. Discrimination of individual intrusive contacts was not attempted during the rapid mapping of this occurrence.

The stratigraphic column may have a thickness exceeding 200 m. The actual thickness of the package may be considerably thinner due to the discordant nature of the unconformity. The stratigraphic relationships are summarized on Figure 1, Generalized Stratigraphic Relationships SG Occurrence.

Plate 1. Stuhini: Well bedded chloritic siltites. The photograph is taken due north of the SG occurrence. Rapidly cycled beds are common at this locale. Beds have a dip direction of 026°/41°.

Devonian and Older:

Heterolithic Carbonate Rich Drebris Flows

These rocks are identified only as course boulders due west of the SG trenches, and just before the Stuhuni contact. The rocks are placed stratigraphically above the felsic package as they contain felsic fragments, limestone fragments and oxidized sulphide fragments. All of these have been derived from rocks at or below the felsic rock stratigraphic position. The rocks are significant as they clearly suggest:

i. Primary slope instability, probable potential growth faults and cross strata permeability.
ii. The porosity of this unit would make an ideal stratigraphic host for a VHMS deposit.
iii. Rapid sedimentation and favors sulphide burial and preservation.
iv. Both felsic fragments and sulphide clasts are noted in the unit. Clast composition suggests that the unit should overlie stratigraphically, the main mineralized horizon and the felsic flow sequence.
v. Denitrified shardy fragments appear in the matrix.
vi. Abundant light grey fine-grained limestone fragments may form approximately 30% of this rock. Shallow water deposition is inferred.

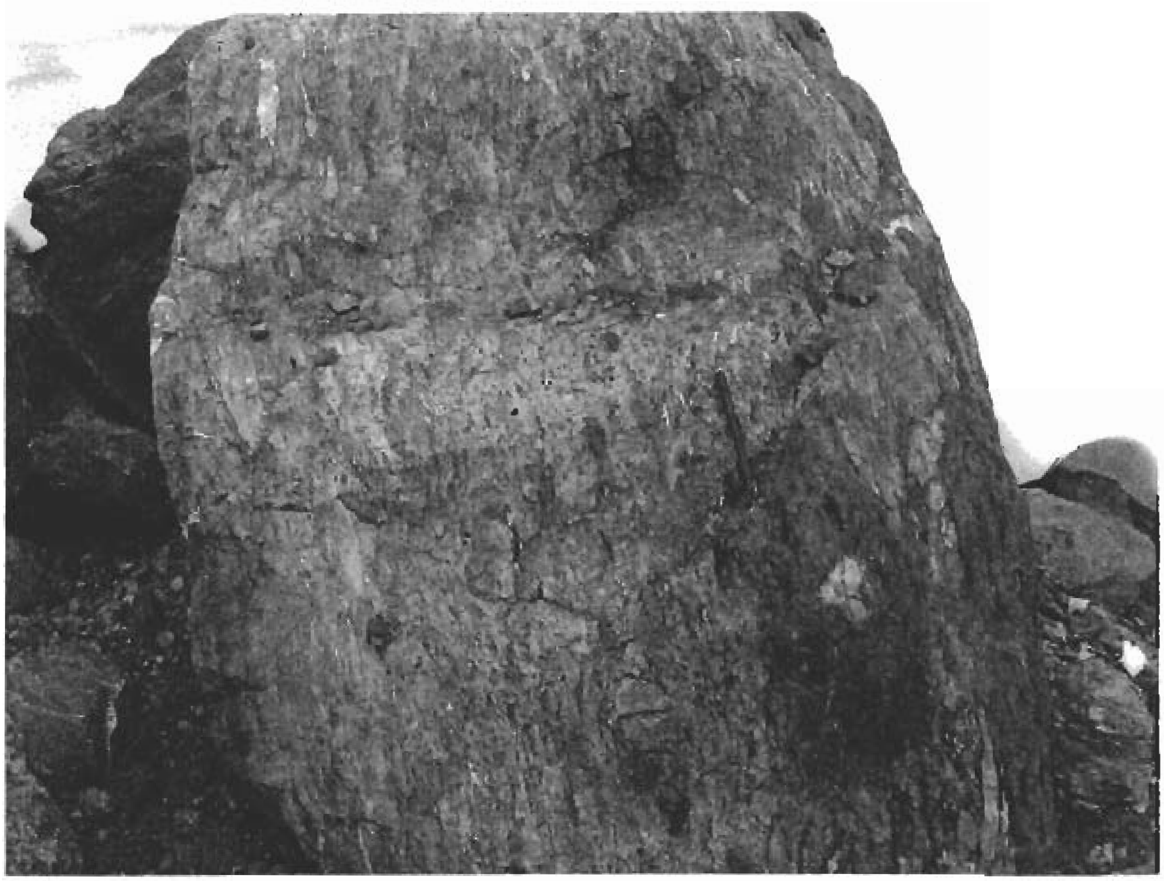


Plate 2. Heterolithic Debris Flow: The mixed fragment origin and the presence of discrete cm scale sulphide rich clasts is clearly shown on this plate. These rocks have only been identified as float boulders.

These rocks and the associated thin bedded carbonates form a critical stratigraphic marker for continued delineation of this mineralized zone. Heterolithic debris flows are common in many VHMS deposits and may be an important exploration guide to preferential sub-basins on the Foremore property.

No thickness estimate may be made for this unit.

Felsic Flows:

A sequence of massive, moderately sericitized felsic flows are identified proximal to the SG mineralized occurrence. These are suggested to be coherent flows based on:

i. The absence of stratified beds.
ii. The abundance of fine grained "blurred" phenocrysts.
iii. Massive, texturally homogenous nature.
iv. Occasionally preserved flow bands.
v. Rare fragments, possibly hyaloclastites in origin.

Devitrification structures were not identified. The flows are estimated to be approximately 50 - 75 m's in thickness. Chlorite and pyrite lined irregular vesicles and aggregates are noted in the massive flows near the western limit of the exposed felsic sequence.

There is a low probability (20%) that these "felsic" rocks are representative of the effects of rock alteration. Or are essentially alkali depleted and sericitized rocks derived from a mafic volcanic protolith.

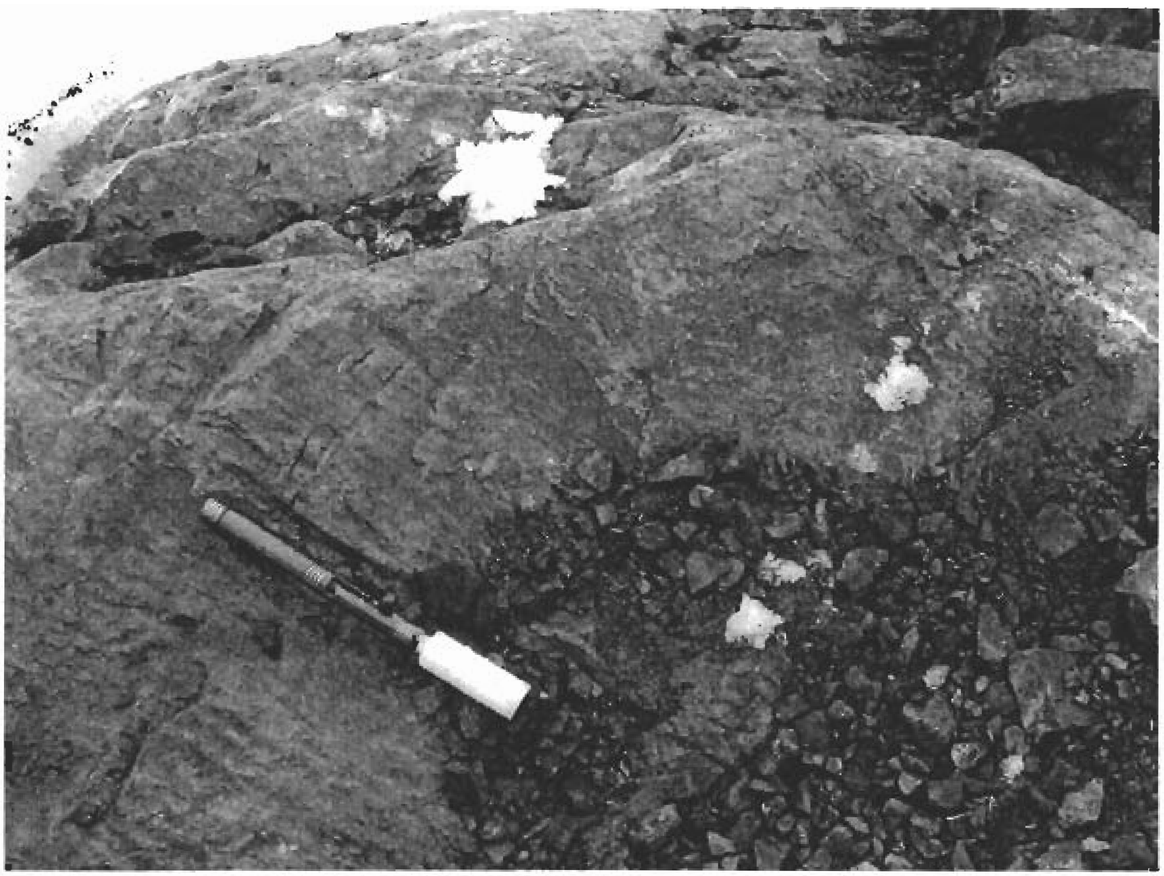


Plate 3. Flow Banded Felsic Flows, SG Occurrence. A series of subvertical flow bands, in the lower left field of view, are in contact with a fragment rich interflow bed in the upper right field of view. The absence of hyaloclastite blocks and related fragments suggest that these outcrops are representative of the deep internal portions of a felsic flow dome.

Felsic Tuffs

Rocks, which are identified as felsic tuffs, appear to underlie the felsic flows. This stratigraphic position is important, as it appears to be the host horizon to semi-conformable lead-zinc stringers and replacements. A tuffaceous origin for these rocks is suggested by:

i. The presence of cm scale, contorted to irregular aggregates of cream to off-white silica, possibly early tuffaceous beds.
ii. The presence of fragment ghosts, outlined by preferential development of sericite +/- ankerite alteration.
iii. Coplanar contacts with the underlying limestone and an absence of pepritic textures, a typical flow signature, along this contact.

Discrimination of the position of the contact between the overlying flows and underlying tuffaceous rocks is difficult. As a best estimate the basal felsic tuff unit appears to be in the range of 5 – 10 m in thickness.

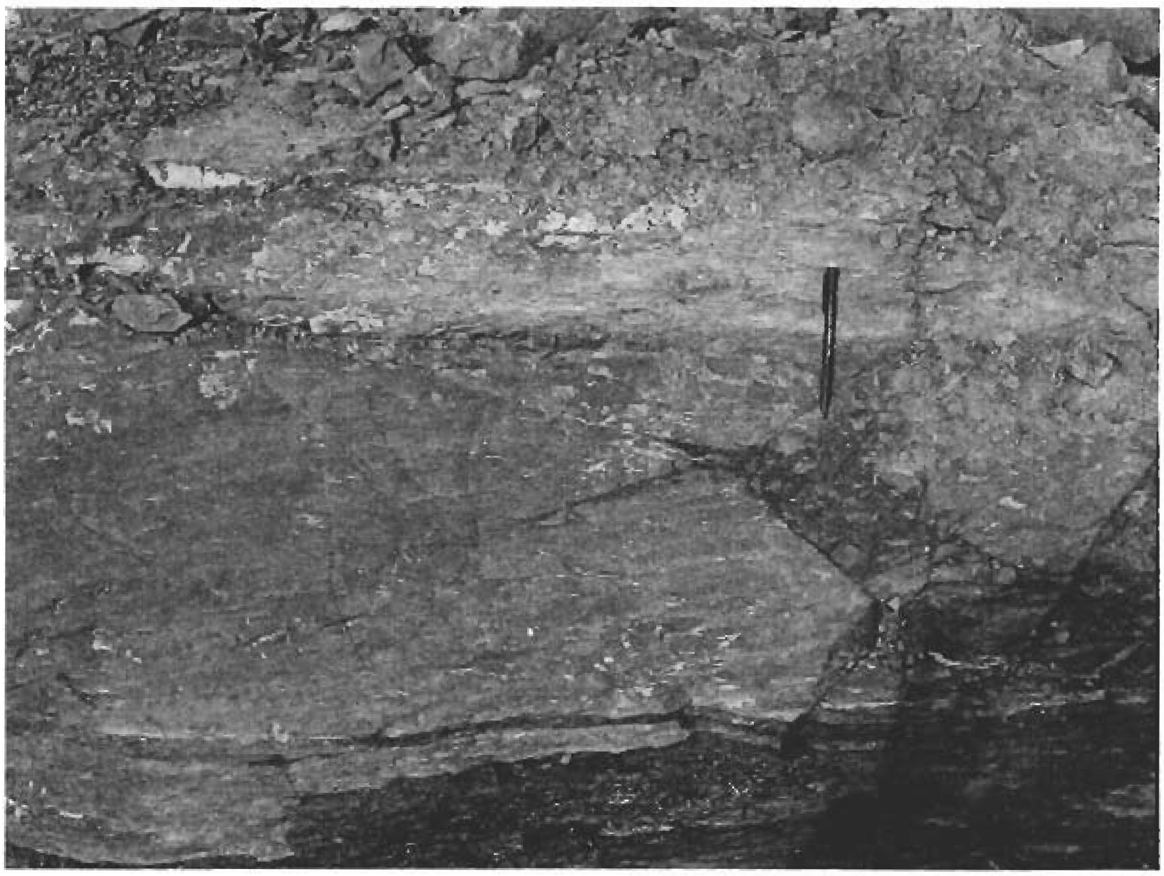


Plate 4. Felsic Tuffs, Semi-conformable alteration SG Occurrence. The felsic tuff contact can be noted at approximately the mid-point of the pencil. Felsic tuffs conformably overlie thin bedded calcareous phyllites and limestones. A marked increase in iron oxide contents are also noted within felsic tuffs.

Mineralized Zone:

The mineralized zone at SG is characterized by:

i. The development of roughly stratabound sphalerite-galena veins localized at or near the contact between felsic tuffs and underlying thin-bedded limestones and chloritic to limy phyllites.
ii. Rock alteration is characterized by sericite-chlorite+/-ferrodolomite+/-pyrite. Black hydrothermal chlorite is not identified.
iii. Veinlets are typically 1-2 cm in width and prefer to form parallel to the predominant foliation. Significantly, foliation discordant veinlets are also identified.
iv. Veinlets do not have significant alteration selvedges. Rather they are embayed within a rock matrix which has been ubiquitously altered to a sericite-chlorite-ferrodolomite assemblage.
v. Chalcopyrite is weakly developed. These are essentially sphalerite – galena semi-conformable sulphide alteration zones.
vi. The thickness of the mineralized panel appears to be in the 5 – 8 m range. Within this panel or rock sulphide distribution is variable, ranging from 5 to 40%.
vii. Weak data suggests that the distal hangingwall to the mineralized zone may grade into an iron carbonate dominant alteration assemblage.

The alteration assemblages suggest that mineralization is associated with relatively low temperature 200° – 250° C fluids. In contrast to the higher temperature 300° – 350° C degree fluids associated with the development of pervasive hydrothermal chlorite and a predominance of copper bearing sulphide phases.

Discordant quartz-carbonate veinlets cut the earlier sericite rich matrix. It is likely that mineralization associated with these structural zones, significantly post-dates the earlier semi-conformable alteration and mineralization type.

Plate 5. Style of Mineralization SG Occurrence. Dark grey sphalerite-galena stringers are noted adjacent to the black pencil. Most of these are forming roughly parallel to a weak penetrative fabric, which has a dip direction (dd) of 202°/32°. The brown oxidized planar surface in the lower left field of view is a late discordant brittle failure, which has an orientation (dd) of 121°/71°.

Thin Bedded Limestones and Calcareous Mafic Tuffs.

One of the better stratigraphic markers in the structural footwall to the SG occurrence is a series of well bedded light grey to brown grey micritic limestones. These rocks grade laterally and vertically to well-bedded grey green phyllites, possibly mafic tuff protoliths, with buff to brown cm scale carbonate interbeds.

Clastic fragments are sometimes noted within these units, but much of the fragmentation of the carbonate beds is related to boudinage of hard soft beds. These rocks would be the primary lithology which is later inflated and cut by mafic sill and dyke complexes.

Plate 6. Well-bedded phyllites, mafic ash tuffs and lesser brown weathering limestone interbeds. The exposure is located at 385009 E 63226132 N.

Mafic Sills – Discordant Limestone Contacts:

Between the thicker continuous limestone marker horizon and the base of the felsic package are a sequence of intercalated thin, very discontinuous limestone horizons interdigitated with massive, medium to dark green, frequently fine grained, partially epidotized rocks which are interpreted as mafic sills and dykes, Plate 7.

Individual rock contacts within this complex can seldom be followed for more than a few 10's of m. However, the unit as a whole, sill – limestone complex, has a fairly realible stratigraphic position and is traceable.

Plate 7. Discordant contact relationships between mafic sills and well-bedded limestones. Well-bedded grey micritic limestones are cut by a strongly discordant mafic sill in the upper right field of view. The mafic rock has been slightly altered by iron carbonate filled extensional veinlets. Discordant contact relationships are the rule, not the exception, in the limestone-mafic stratigraphic package immediately below the felsic section.

The nature of the limestone-sill complex identified on Figure 2, is slightly enigmatic. Field data suggest that the continuity of individual beds has been badly compromised by the juxtaposition of an early mafic volcanic sills and mafic flow complex. A sill origin, for the mafic rock, is suggested by the strongly embayed and discordant nature of many of the limestone – mafic contacts. However, in general, significant thermal aureoles are not identified adjacent to these contacts, ie. the "sill" is either cold (or is a sediment) or has been intruded at depth in a previously deformed rock package. Under these conditions, the temperature of the supracrustal rocks is also elevated to the regional thermal gradient, lower Greenschist, the temperature differential between the intrusive rock and the sediment is diminished and thermal aureoles reduced.

A conformable contact relationship is illustrated in Plate 8 where a probable mafic crystal (plagioclase) tuff lies conformably on the limestone bed with no macroscale evidence of a chilled margin or thermal effects on the adjacent limestone. It is likely that within the sill-limestone complex, fine-grained mafically derived sediments may also exist.

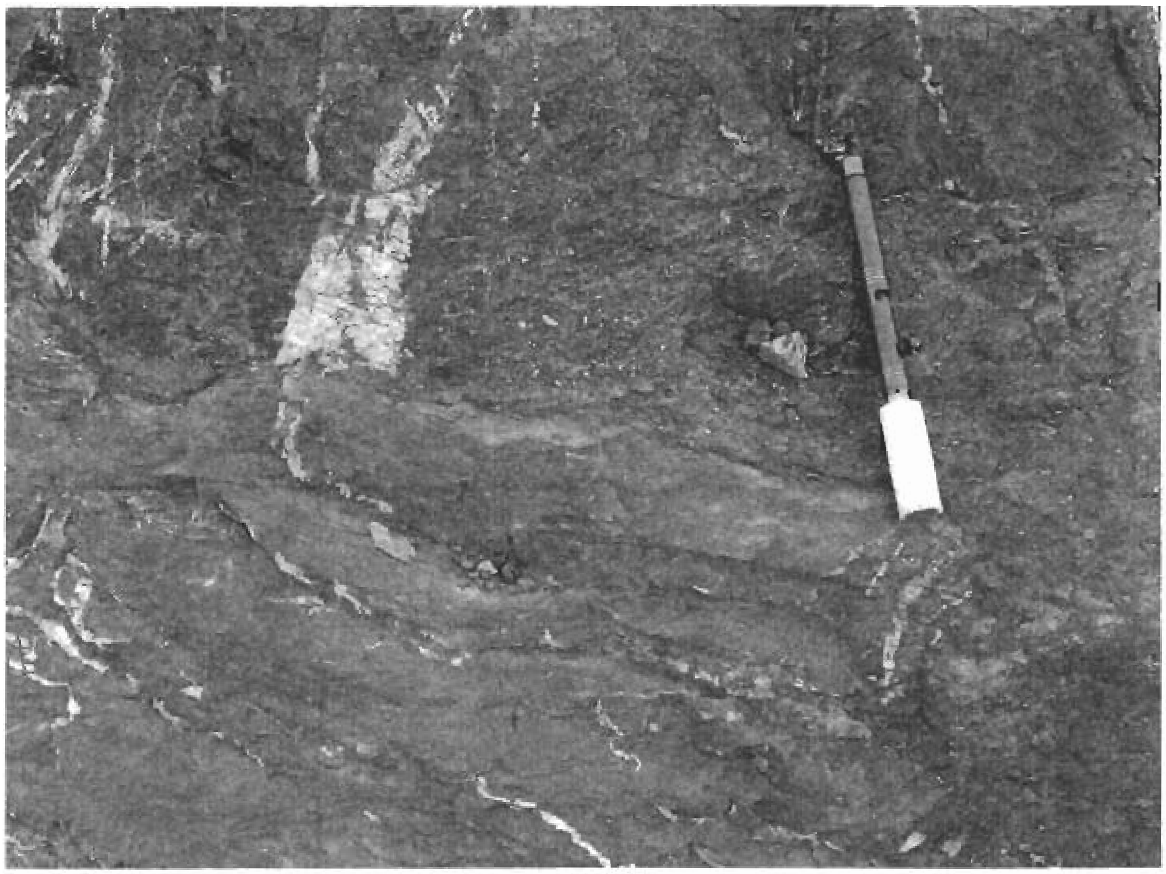


Plate 8. Conformable contact relationships, mafic crystal tuffs and thin bedded limestones. The absence of thermal effects in either the mafic rock or the underlying limestone strongly suggests a tuffaceous origin for the overlying mafic contact.

Mafic sills have essentially inflated the carbonate stratigraphy. The bottom contact of the sill-flow complex is roughly conformable to a well bedded limestone marker ranging in thickness from 5 – 20 m. This unit has been traced for approximately 700 m in the SG area and has been used extensively to constrain the style and form of the mineralized zone, enclosing stratigraphy and subsequent deformation.

Coarse Grained Poorly Sorted Mafic Volcaniclastics - Epiclastics

The base of the section at the SG occurrence is composed of a sequence of coarse grained volcaniclastics. These rocks exhibit variable sorting, ranging from polylithic cobble sized volcaniclastics to moderate well-sorted coarse-grained volcanic sands. Coarser grained members have poor on-strike continuity when compared to finer grained volcaniclastics. Some of these rocks could be mistaken for members of Cominco's Triassic section, but at the locales where they are identified, their contacts are conformable with the marker limestones of the Devonian section. Tops data, available from normal graded beds within these rocks, suggests that the SG rock column is upright.

Plate 9. Paleozoic Coarse-grained mafic volcaniclastics to epiclastics. Abundant, well-rounded, clast supported, cobble to pebble sized fragments make up this unit. Coarse volcaniclastics grade rapidly into finer grained well sorted volcanic sands. Planar beds are uncommon, and sedimentation appears to have been achieved largely by mass flow processes.

These rocks form a significant part of the deep footwall stratigraphy at SG. The lower contact is never identified; this unit will likely exceed 100 m in thickness.

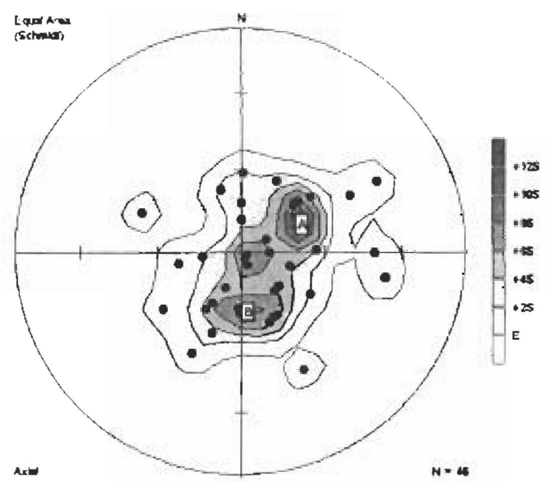
Between the base of the section, coarse grained, green to maroon volcaniclastic and epiclastics, to the base of the felsic stratigraphy the entire sequence has fined upward. This may also suggests a generally upright rock column.

Structural Style:

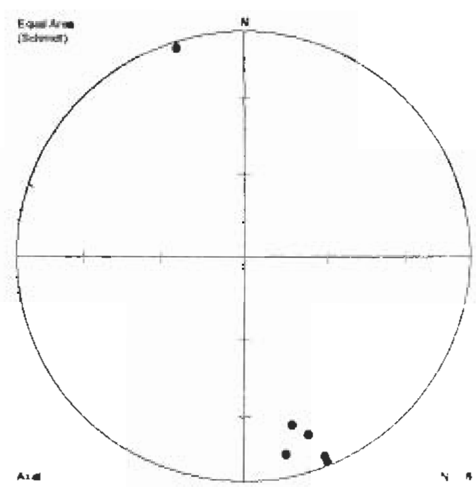
The rock sequence at SG has been deformed into a broad southeast plunging synform. A pole plot (Steronet 1a), of 41 primary bedding surfaces noted in this area, defines two distinct pole clusters. The pole cluster labeled "A" has a dip direction of 237°/23° or in strike convention defines a limb striking 147°/23° SW. The pole cluster labeled "B" has a dip direction of 357°/22° or defines a limb striking 087°/22° N. This defines a broad open fold that is the dominant structural feature in this area. The ability to trace the upper and lower contacts of the main limestone marker for greater than 700 m clearly demonstrates that continuity of primary stratigraphy is retained in close proximity to the SG zone.

The plunge of this fold, based on 8 intersection lineations, Steronet 1b, is 14° → 163°. These lineations have a relatively constant orientation orientation and they are likely caused by the intersection of S1 and S2 foliations. Additional data from the BRT and North Zone areas suggests that all of the folds with open interlimb angles and north-northwest trending axial surfaces are D2 or younger.

Steronet 1a. Poles to Bedding SG Area.

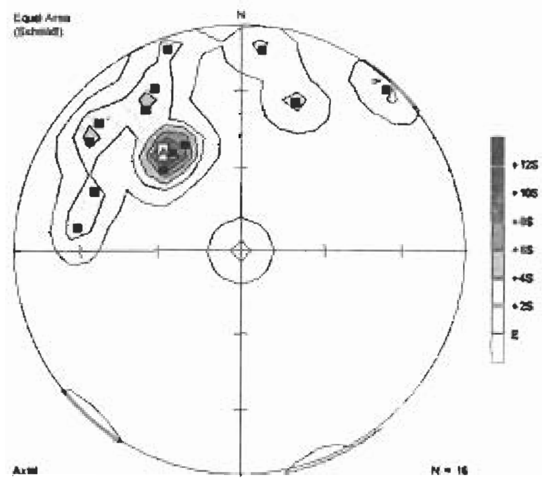


Steronet 1b. Intersection Lineations, SG Area.



All rocks, both intrusive and supracrustal, are offset by small, typically northeast trending southeast dipping brittle faults. No brittle - ductile rock fabrics are noted for any of these structures ,and they likely have evolved at shallow, < 4.0 km, crustal levels. Most of these structures are associated with iron carbonate alteration zones. Offsets are minor are none and none greater than 5 m were recognized during this brief mapping program. These structural zones have a defined by the pole cluster labeled "A" on dip direction orientation of 143°/45° . Or in strike convention, the dominant brittle failure structures strike 053° and dip 45° southeast, Steronet 2.

Steronet 2. Poles to Brittle Shear Planes,
SG Occurrence Area.



Nature of Mineralized Zones:

Arguments may be made for two possible types of mineralization at the SG occurrence. These include:

1. Semi-conformable stringers, distal zinc-lead-silver-gold replacements, forming in a syngenetic volcanic hosted massive sulphide environment. This mineralization would be essentially stratigraphically controlled. Lower temperature Zn-Pb rich fluids may have utilized the primary permeability of the basal felsic tuffaceous unit, a preferred site for lateral discharge and sulphide precipitation. Drill testing of this target type would be done using boreholes directed towards 135 ° and collaring the boreholes to the northwest of the exposed mineralization.

2. Lead – zinc silver stringers related to the presence of northeast striking, southeast (40-70°) dipping, brittle fault zones. Drill testing of structurally controlled mineralized zones at SG would be done from boreholes collared to the southeast of the exposed mineralization in the trenches and drilling towards the northwest (e.g. 315°). These structural zones may preferentially dilate within competent supracrustal or intrusive lithologies.

The development of galena – sphalerite and sericite-ankerite alteration zones, apparently well constrained to lithologic contacts, suggests that mineralization at SG is related to an early synvolcanic process and is not controlled by younger, discordant brittle structural zones with iron carbonate alteration envelops. A second preferred loeus of mineralization could be the upper felsic volcanic – heterolithic debris flow contact. Due to snow, ice, talus and potentially the presence of a younger Triassic sequence, this contact has not yet been recognized in the field.

Plate 10. Conformable relationships between lithology and mineralization, SG occurrence. The photography shows the ice axe defining the contact position between thin-bedded limestones and an overlying fine-grained chloritic tuff or siltite unit. The clipboard is essentially resting on a mineralized, moderately bedded felsic tuff. The contact is best noted in the extreme right upper field of view. This felsic tuff underlies the more massive felsic flows.

Critical Exploration Note, SG Stratigraphy:

The felsic stratigraphy which hosts the SG occurrence is being crowded on both the footwall and hangingwall contacts by re-worked, volcaniclastic or epiclastic rocks, some of which may have been deposited under very shallow water conditions or have been locally emergent.

Massive sulphide deposit can readily be deposited in immature, re-cemented (by sulphides) massive sulphide deposits, or form by sub-seafloor replacements in these deposits. But these primary massive sulphide bodies cannot be preserved in extensively re-worked and re-deposited volcanic rocks. More likely, they will be lost. The exploration challenge will be to define **primary stratigraphy**, deeper sub-basins, proximal to the felsic section where sulphide bodies can be preserved. This should be close to Roca's number one regional exploration priority.

BRT and North Occurrence:

The North Occurrence is a noted primarily as a sequence of quartz-sericite, and related, schistose and structurally controlled veins and replacements associated with any of several faults. In total, 2.0 days were spent near the BRT occurrence and 3.0 days spent mapping the section between the BRT and North occurrences. This are was mapped at a scale of 1:5,000 and compiled at a scale of 1:2,500. Due to the nature of deformation in these rocks, best mapping results will be obtained from mapping contacts, not by doing the more rapid vertical ridge transects as was done by Oliver in this area. Although general structural and stratigraphic relationhips are defined on this map, mapping in this area is incomplete.

A well-presented massive sulphide mineralized zone is present at the BRT zone. At the North locale, stringer and structurally controlled mineralization is not noted. Stratigraphic interpretations are rendered slightly more complex due to the presence of

i. Superb recumbent fold structures, which repeat all stratigraphic elements.
ii. Low angle northwest verging thrusts and detachments which truncate stratigraphy.

A generalized stratigraphic section, from youngest to oldest is shown on Figure 3. Geological relationships at a scale of 1:2500 are shown on Figure 4.

An important question to attempt to answer is whether the North Zone and BRT zones share a common stratigraphy. Although both occurrences occur at or near significant volcanic – sedimentary contacts, field relationships suggest that the BRT occurrence lies at a volcanic sediment contact, which is structurally deeper in the section than the North occurrence. In these kinds of deformational environments, structural position does not infer a stratigraphic position. More than one major volcanic-sediment contact may be a preferred site for mineralization.

Most of the better-mineralized samples in the North area appear to have come from high sulphide veins and replacements in argillites associated with low angle faults. These zones would have only limited lithologic control.

Massive Pillowed Basalts and Monolithologic Autogenous Flow Breccias.

A well defined sequence of unaltered basalt flows and flow breccias is noted on the high ridges due east of the North Occurrence. The combined units have an estimated thickness in the order of 50 to 100 m. The flows are uniformly medium green, not maroon, and locally have unequivocal pillows and pillow buds. The breccias, which immediately underlie these flows, have a bright to medium green matrix, which highlights angular to sub-angular purple fragments. No younging directions are obtained from this unit.

This volcanic package may form an angular unconformity, which trends 025° and is juxtaposed against the typically 150°-170° striking stratified fine grained clastics and tuffaceous rocks which form most of the North and BRT sections. The flow breccias have the right bulk composition and textural style to be a possible precursor to the highly strained maroon volcanics noted proximal to the North zone occurrence. This relationship is relatively speculative and has not been represented on the attached stratigraphic column.

Plate 11. Monolithologic autogenous breccias. These distinctive rocks form a useful marker in the structurally higher portions of the North Zone stratigraphy. The mottled green and purple form is characteristic, only a single fragment type is generally noted.

Cherty Tuffs, Intermediate Ash Tuffs and Well Bedded Fine Grained Siliciclastics.

Pale cream to apple green, exceptionally well bedded cherty tuffs to interbedded light to dark grey siliceous siltites , are exposed along the central portions of the high cliffs between BRT and the North Zone. These rocks range in composition from true cherts, to silty silica and lesser chlorite rich ash tuffs or siltites. Individual beds are in range from 3 to 10 cm. An early fabric, S1 (?) is occasionally preserved within these lamella. Rapid bedding cycles are common and the section has affinities to the upper portions of a turbidite sequence. Iron oxide and overall alteration levels are typically low in these rocks, which do not appear especially prospective.

Most of the outcrops show repeated and rapid changes in the orientation of beds and therefore thickness estimates are highly problematic. The sequence of thin-bedded siliciclastics could well exceed 100 to 200 m.

Plate 12. Thin bedded intermediate ash tuffs and chatty tuffs. These rocks have clean planar contacts and display crowded rapidly cycled beds. They range in color from white to light green. Coarse clastic interbeds are never recognized and the rock typically contains only very low levels of oxidized sulphides contained within small extensional fractures.

A structural break often occurs between these rocks and the volcanic dominant stratigraphy immediately down section. The low angle fault shown on Figure 4 defines this structural zone and identified as the North Zone Fault (NZF)). These well bedded sediments also appear to be bounded up-section by another stratigraphic break. A non-conformity likely exists between these rocks and the overlying mafic flows and autogenous breccias.

Strained and Sulphidized Siliceous Argillites, Argillaceous phyllites, Siliceous Argillites, Interbedded Phyllites.

A sequence of dark grey to silver grey to black phyllites, argillites and siliceous argillites, form some of the prominent oxide zones along in the North and BRT occurrence area. Although diagentic pyrite is noted in some of these rocks, elevated sulphide levels are most often associated with juxtaposition to through-going structural zones. Primary rock units have thickness which significantly exceed 100 m.

The rock unit identified as "Aq –es" on Figure 4, is an alteration and strain related rock unit, not a primary lithology. This rock forms in the immediate hangingwall to the mineralized zone. In the North occurrence area, this alteration unit is approximately 30 - 40 m thick.

Maroon to Green Mafic Volcanic Semi-Schists (Flows and Monolithologic Autogenous Breccias ?):

These rocks form the immediate structural, and likely stratigraphic, hangingwall to the North occurrence. They are characterized by:

i. Maroon to purple weathering.
ii. Presence of well developed kink bands.
iii. Low levels of rock alteration, discordant veins are generally absent, sericite and ankerite are rare.
iv. In selected exposures, cm scale purple monolithologic fragments are commonly noted.
v. Primary beds are never identified but well developed cm scale strain related lamella are common.
vi. Apple green foliation parallel streaks, lamella or beds are often noted.

Within tight fold closures these rocks may be infolded and appear both in the hanging and footwall to the mineralized zone.

The lithology often contains well-defined contractional kink bands. These features propagate in rocks of a homogenous bulk composition and rheology, and typically require the presence of greater than 30% sheet silicates within the matrix.

The rocks have a marked fissility, often separating into relatively thick plates with a smooth, silky, sericite-hematite, foliation surface.

In these extremely strained rocks, thickness estimates, are variable and unreliable. Outcrop exposures in the cliffs southeast of the BRT occurrence define several outcrops which range in width from less than 5 to greater than 100 m. Halfway between BRT and the North occurrence virtually the entire western half of the map area is composed of these volcanic rocks.

Plate 13. Maroon weathering mafic flows and autogenous breccias forming the proximal hangingwall to the North Occurrence. Under strong flattening strain the individual fragments may elongate to the point of appearing as discrete planar compositional layers.

Compositionally Layered Chloritized-Seritictized, Pyritic Phyllites.

The onset of the mineralized zone, at both BRT and the North occurrence, is demarcated by the presence of apple green, fine grained, well compositionally banded siliceous-chloritic phyllites. The rock is defined principally by its alteration assemblage: chlorite-sericite-pyrite-ankerite. The protolith of these altered and strained rocks may not be defined, but a fine grained felsic tuff or volcaniclastic would be a likely candidate. Sporadic clasts and fragments are noted.

The matrix is generally competent with only a moderately developed fissility. Foliation parallel and discordant pyrite-ankerite-quartz veinlets are common.

Quartz Sericite Schist:

One of the hosts to mineralization at the North occurrence is a bright, yellow-cream weathering, pyritic, quartz sericite schist. Well-developed siliceous, cm scale compositional layers are common. At some locales, both sulphide development and silica compositional layers are enhanced towards the upper contact.

No primary textures are preserved and no protolith is defined for these rocks. The actual thickness of the QSP lithology, at the North Zone ranges from 2 to 5 m. True QSP rocks are identified only in the deeper stratigraphic intervals of the BRT occurrence.

At most locales, quartz sericite schists overlie chlorite-sericite-ankerite schists, although many examples of stacked alteration zones may be identified.

Plate 14. Mineralized Stratigraphy, North Zone Occurrence. Three alteration or primary rock units are identified in this photograph. The ice axe is laying on a sequence of pale green, sericitized and chloritized siliceous schists. These rocks overlie an approximately 2 m wide band of strongly oxidized quartz sericite schists. A sequence of dark grey, sulphidic siliceous argillites forms the base of the section.

Massive Sulphides: BRT Occurrence

A planar massive sulphide body, hosted within bright to medium green chlorite-sericite-pyrite schists ,was discovered while prospecting in the BRT area. No primary compositional layers are preserved in the host lithology and the compositional lamella within the massive sulphide provide the best evidence for original compositional layers. The sulphide horizon has been deformed into a shallow, 20°, south to southeast plunging antiform,

Well-defined sigmoidal quartz veins cut the chlorite-sericite-ankerite schistose host rocks and clearly indicate that these rocks have experienced post-alteration sinistral shear.

The alteration mineralogy, chlorite-sericite-pyrite, nature of the sulphide phases, galena-sphalerite-pyrite, and the morphology of quartz , euhedral not sucrosic, all suggest that BRT is a low sulphidation VHMS. Gold contents frequently exceed 2 g/t Au, which would classify this occurrence as a precious metal enriched VHMS. Some caution is required, as some of the higher grade gold samples have been obtained from oxidized samples. Alteration assemblages in the proximal hanging and footwall appear similar and are dominated by chlorite-pyrite-sericite +/- ankerite. Alteration is well zoned in the structural footwall moving from proximal alteration chlorite-pyrite-sericite to a sericite-pyrite assemblage and then most distally to ankerite +/- sericite. Most distal effects can be seen 20 – 30 m's into the structural footwall. Definitive stockwork zones on either the structural hangingwall or footwall are not identified in the BRT area.

Barite contents are typically less than 200 ppm and no strong correlation between Ba and gold contents has been identified. Gold is positively correlated with arsenic.

Plate 15. BRT sulphide body. The photography is viewed looking northeast. The flat limb of the folded BRT horizon is in the foreground, and dips modestly, less than 25 ° to the southeast. A second steeper dipping limb is exposed along the downstream side of the rock cut. The limb width, external to the fold hinges, is in the 40-50 cm range, these may thicken significantly in the hinge regions. Hip chain for scale.

Siliceous Clastics,Volcanic Wackes and Silver Grey Phyllites.

The base of the section is formed by a sequence of well-bedded, competent quartz rich volcanic wackes and well bedded siliceous volcaniclastics and fine grained epiclastics. Well rounded dark grey quartz grains are common in these rocks and oval, cm scale lithic clasts, pebbles, are also noted. Net sulphide content relative to the structurally overlying argillaceous phyllites is reduced. These rocks form excellent structural markers as both bedding-cleavage and cleavage-cleavage intersection lineations are common.

Lenses of quartz-sericite +/- pyrite are fairly common within this schist package. But to date, these have relatively short apparent strike lengths.

No thickness estimate may be made for these rocks as they outcrop only at the deepest portions of the section and their base is not identified.

Plate 16. Well bedded siliciclastics, lesser volcanic wackes, and fine grained volcaniclastics. These rocks form the base of the BRT and North zone occurrences. This unit contains buff to pale green interbeds and lenses of felsic to intermediate fine grained volcaniclastics. Sporadic discontinuous zones of sericite-chlorite and iron oxides develop within this section.

Structural Analysis:

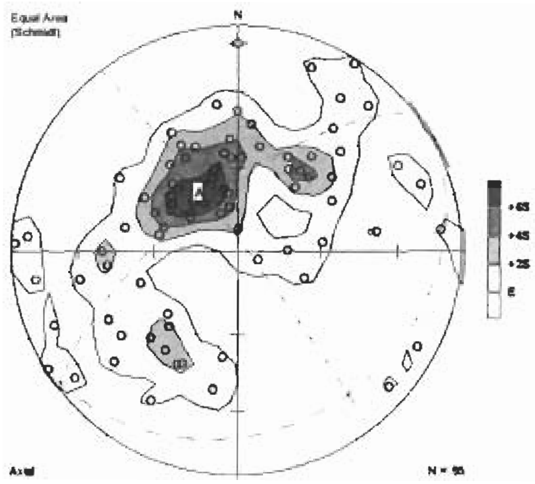
Principle structural elements may be summarized:

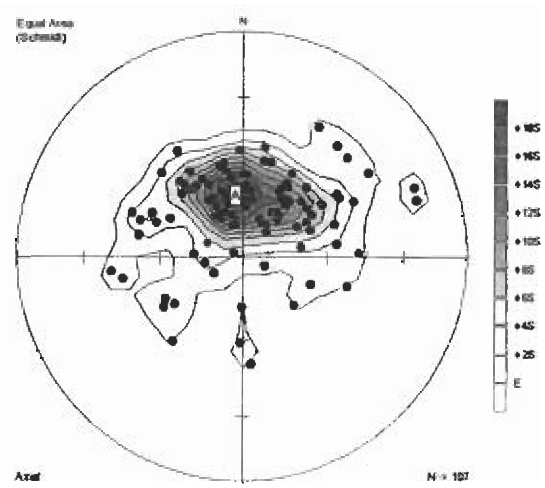
A. *Penetrative Structural Features – Folds, Foliations and Linear Fabrics.*

1. Early recumbent to tight isoclinal folds are identified. These structures most typically have 030° to 060° trending axial trace. For convenience, call these "D1" folds, although the term has minor utility. Beds have noisy steronet patterns but have a peak which has a dip direction of 148°/21°, labeled "A" on Steronet 3a. Early fold structures cannot be identified in the steronet pattern shown on Steronet 3a. The poorly defined girdle on these rocks has a pole at 26° → 148°, which is likely the plunge of later D2 folds.

Steronet 3a: Poles to Bedding North – BRT areas.

Steronet 3b: Poles to "S1" Foliation, BRT & North Areas.

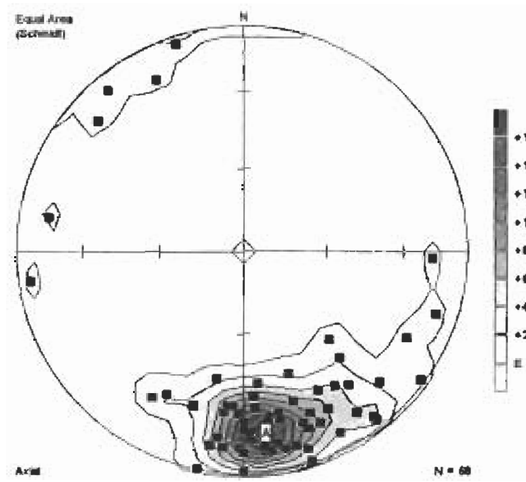




2. The dominant penetrative fabric in these rocks may be an S1 fabric, Steronet 3b. Most typically this foliation is generally flat lying with a dip direction at 175°/23°, labeled as "A" on Steronet 3b. The primary foliation in the rock package is strongly deformed by D2 or younger process and therefore pre-dates D2 processes. The presence of well developed intersection lineations strongly suggests that two planar surfaces, three, including bedding, are present to form the lineation. Early foliation surfaces, S1 fabric, would be cut by subtle S2 fabrics related to D2 deformation.

3. Younger folds which are upright, open and south to southeast plunging. These plunges are well defined by the many, and relatively constant orientation, of the dominant intersection lineation represented in these rocks. This lineation is likely caused by the intersection of S1 onto S2 fabrics, an L12 lineation, Steronet 4. The peak pole concentration labeled "A" has an orientation of 18° → 173°. This plunge orientation corresponds to the plunges of D2 folds. These structures deform early isoclinal folds. Open warps typically have north to north-northwest trending axial traces, for convenience they are identified as these D2 folds. A penetrative planar cleavage, S2 has not been reliably measured.

Steronet 4. L12 Intersection Lineations.



4. In homogeneous lithologies with significant pre-existing micas, contraction kink bands are often defined. These small, cm, scale folds often have east west trending axial surfaces and suggest the presence of north-south compression late in the tectonic history of these region. These are the last penetrative feature affecting the rocks within the map.

B. Non-penetrative Structural Features – Faults.

Two styles of brittle deformation are noted in this area. This includes late extensional faults of modest offsets, a few m's to a few 10's of m's. Several of them have roughly east-west strikes and north-side down offsets. One of these minor faults truncates the QSP schist package at the North zone.

A much more significant structural feature is the presence of a persistent deformation zone which has been traced for 2.2 kms along strike. The fault could be named after its type locale, the North Zone, and for convenience it will be identified as the North Zone Fault (NZF).

The NZF is interpreted to be a north-northwest verging low angle reverse fault. The this deformation zone is well outlined in the steep faces adjacent to the North Zone. Limited kinematic data also supports the map scale vergance pattern, as minor structures in the hangingwall to the NZF have tops to the north.

The existence of the NZF is based on:

1. A rapid increase in brittle-ductile deformational fabrics, including measurable flat fault structures within a 15 – 25 m wide deformational envelop.

2. Localization of quartz veins, elevated sulphide contents, and general indicators of structurally controlled alteration and mineralized zones.

3. The necessity to balance incongruous rock contacts and strike lines defined in the hangingwall plate with the strike lines and contacts of the units in the footwall plate.

4. The necessity to balance the general stratigraphic relationships noted in the hangingwall with the footwall lithologies. In general, rocks in the proximal hangingwall to the NZF are characterized as exceptionally well bedded siliciclastics, chemical sediments and very fine grained tuffaceous sediments. Rocks in the footwall to the fault are either massive maroon to purple weathering volcanic rocks or poorly bedded, silver grey to yellow grey phyllites and semi-schists.

5. The structure does not appear to be folded by either D1 or D2 folds. In a sequence of highly deformed rocks the trace of the NZF appears very consistent along an east – northeast strike line.

6. A prominent topographic scarp follows the line of the NZF.

In a few localities, through-going units appear to cross or penetrate this structural zone, across the vast majority of its currently recognized strike length the presence of this fault is well supported by field relationships. The linear nature of this structure suggests that it has evolved relatively late in the tectonic history of this area.

Plate 17. The NZF. The arcuate planar failure surfaces are clearly noted in the left centre field of view. At this locale, due east of the BRT occurrence the NZF is orientated sub-parallel to gently dipping well stratified sediments. At points along its strike line the NZF will truncate vertically dipping stratified sediments. Field of view 50 – 75 m.

This structural zone and related mineralized second order faults appears to have provided at least some of the historical mineralized samples in Cominco occurrence file. Well defined quartz +/- sulphide veins have been identified at recurring positions along the trace of this fault, Plate 18.

In this rock environment, and given the size and strike length of the deformation zone, mineralized, structurally controlled orogenic veins are a strong prospecting target. This target can be most effectively be pursued after geologic mapping has defined the general trace of the structural zones.

Plate 18. Quartz Sulphide Veins – Second Order Structures to the NZF. This outcrop, located at 382265 E and 6327782 N, exposes a quartz sulphide orogenic vein, which may exceed 1.0 m in width. The zone contains iron and arsenical oxide phases in addition to strong quartz injection.

Critical Exploration Notes North and BRT Occurrences.

Based on the initial rapid appraisal of the BRT and North Zone occurrences, several exploration criteria become significant:

1. The BRT and North Zone occurrences are found at different stratigraphic positions. BRT is structurally deeper in the section and occurs at the transition between a thick section of well stratified deformed phyllitic and sedimentary rocks and an overlying massive mafic volcanic rock page. BRT occurs structurally and likely stratigraphically well below the time-stratigraphic interval, which defines the SG occurrence. Avoid placing BRT into any "model" type until the sequence can be better defined. To do that it will be necessary to have a better idea of the nature of the rocks in the deeper (1.0 km) structural footwall. At the present state of knowledge in can be said only that BRT likely is (i.) a more distal deposit type that that defined at SG and (ii.) the sequence may be less bi-modal in its volcanic relationships.

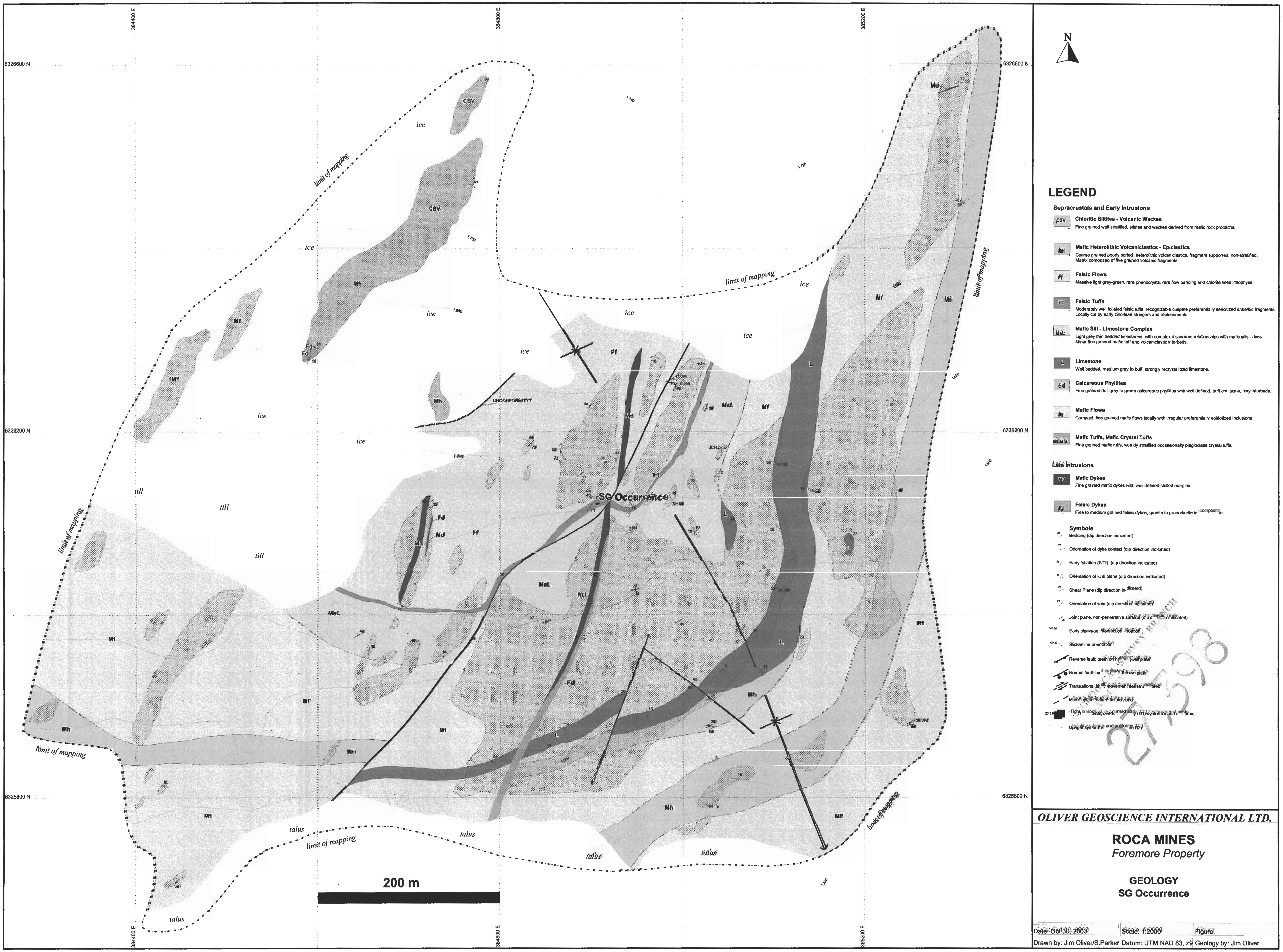
2. The North zone occurrence is associated with the contact between a thin package of quartz-sericite and chlorite schists, and an unusual purple to maroon mafic volcanic rock sequence. The host schist stratigraphy appears to be developing internal to the "purple volcanic package" or occurs at an intravolcanic break.

3. The presence of significant low angle fault structures, eg. the NZF, strongly suggests that gold-silver orogenic veins associated with these failure zones may be strong exploration targets and, in some cases, potential sources of mineralized float boulders. The trace of these structural zones are often obscured by talus and boulders as they form marked topographic steps which serve as an ideal accumulation point for up-slope debris. Try to define "hot or cold" spots along these traces by running contour soil lines directly below the fault scarp. Smart prospecting and mapping will go a long way to delineating the strengths or weakness of this target. Best mineralized zones will likely be associated with second order structural zones associated with the principal fault strands.

4. Due to several periods of rock deformation unexpected changes in the orientation, strike-dip, of mineralized zones often occur. Do not assume that the strike directions of any mineralized rock package will persist for great distances. Any exploration approache should be aware of two principal preferred strike directions including (i.) east-northeast and (ii) north to northwest or north to northeast. The latter may be predominant.

5. Regional plunges are consistent and strong. Look for raking mineralized zones plunging at approximately 20° → 175°. Deformed massive sulphide lenses will have an tendency to track this plunge orientation.

Jim Oliver.
Kamloops, B.C.
July 29, 2003.



384400 E
384800 E
385200 E
6326600 N
6326200 N
6325800 N
N
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ice
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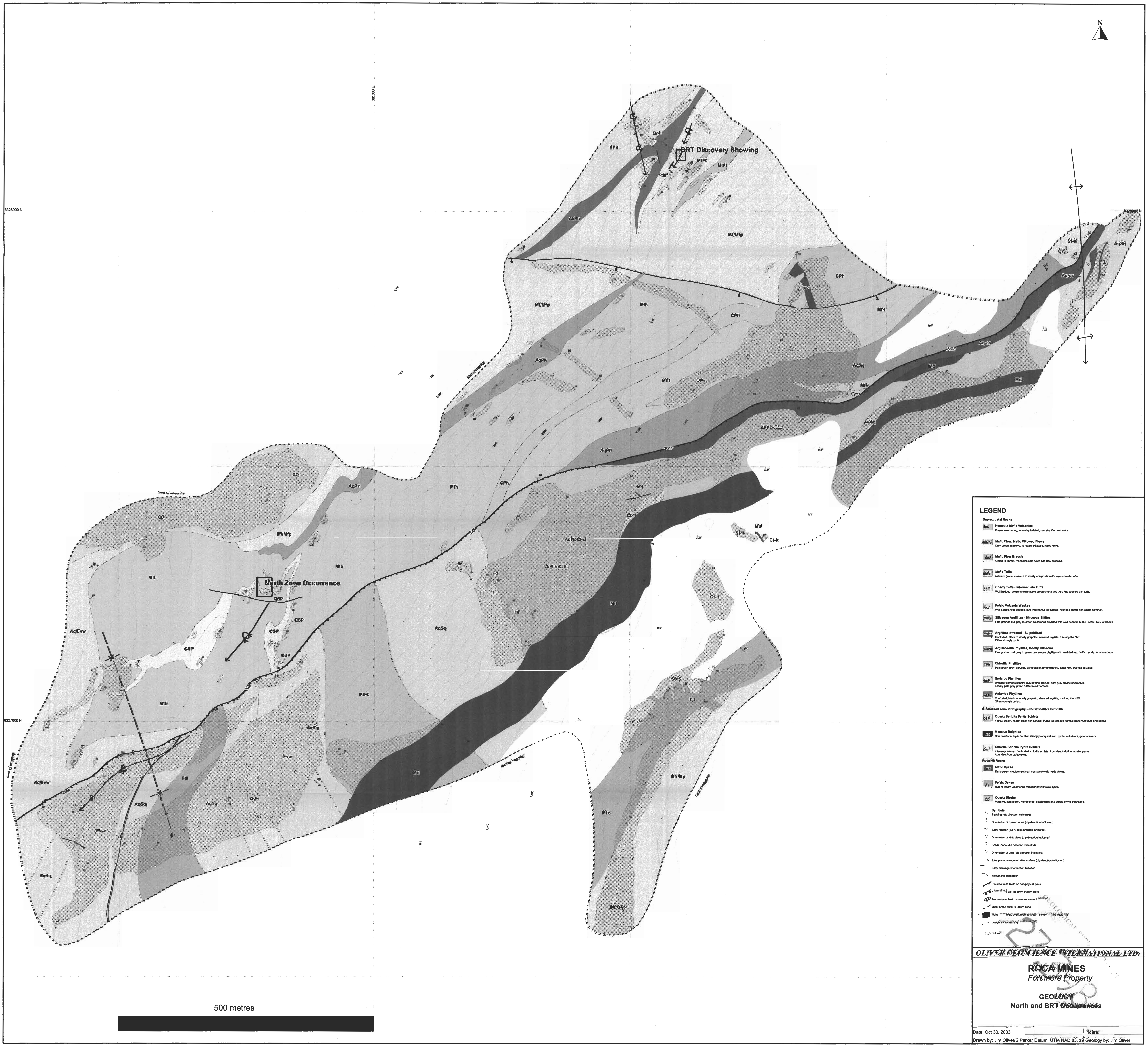
talus
CSV
Mh
Mf
Fd
Ff
Md
MsL
Ft
L
Mct
UNCONFORMITY?
SG Occurrence
200 m
LEGEND
Supracrustals and Early Intrusions
Chloritic Siltites - Volcanic Wackes
Fine grained well stratified, siltites and wackes derived from mafic rock protoliths.
Mafic Heterolithic Volcaniclastics - Epiclastics
Coarse grained poorly sorted, heterolithic volcaniclastics, fragment supported, non-stratified. Matrix composed of five grained volcanic fragments.
Felsic Flows
Massive light grey-green, rare phenocrysts, rare flow banding and chlorite lined lithophysa.
Felsic Tuffs
Moderately well foliated felsic tuffs, recognizable cuspate preferentially sericitized ankeritic fragments. Locally cut by early zinc-lead stringers and replecements.
Mafic Sill - Limestone Complex
Light grey thin bedded limestones, with complex discordant relationships with mafic sills - dyes. Minor fine greined mafic tuff and volcaniclastic interbeds.
Limestone
Well bedded, medium grey to buff, strongly recrystallized limestone.
Calcareous Phyllites
Fine grained dull grey to green calcareous phyllites with well defined, buff cm. scale, limy interbeds.
Mafic Flows
Compact, fine grained mafic flows locally with irregular preferentially epidotized inclusions
Mafic Tuffs, Mafic Crystal Tuffs
Fine grained mafic tuffs, weakly stratified occassionally plagioclase crystal tuffs.
Late Intrusions
Mafic Dykes
Fine grained mafic dykes with well defined chilled margins.
Felsic Dykes
Fine to medium grained felsic dykes, granite to granodiorite in composition.
Symbols
Bedding (dip direction indicated)
Orientation of dyke contact (dip direction indicated)
Early foliation (S1?) (dip direction indicated)
Orientation of kink plane (dip direction indicated)
Shear Plane (dip direction indicated)
Orientation of vein (dip direction indicated)
Joint plane, non-penetrative surface (dip direction indicated)
Early cleavage intersection lineation
Stickenline orientation
Reverse fault: teeth on hangingwall plate
Normal fault: ball on downthrown plate
Translational fault: movement sense indicated
Minor brittle fracture failure zone
Upright synform's and antiforms (D2)
OLIVER GEOSCIENCE INTERNATIONAL LTD.
ROCA MINES
Foremore Property
GEOLOGY
SG Occurrence
Date: Oct 30, 2003
Scale: 1:2000
Figure:
Drawn by: Jim Oliver/S.Parker
Datum: UTM NAD 83, z9
Geology by: Jim Oliver



N
BRT Discovery Showing
North Zone Occurrence
6328000 N
6327000 N
381000 E
limit of mapping
ice
NZF
500 metres
LEGEND
Supracrustal Rocks
Hematic Mafic Volcanics
Purple weathering, intensley foliated, non stratified volcanics.
Mafic Flow, Mafic Pillowed Flows
Dark green, massive, to locally pillowed, mafic flows.
Mafic Flow Breccia
Green to purple, monolithologic flows and flow breccias.
Mafic Tuffs
Medium green, massive to locally compositionally layered mafic tuffs.
Cherty Tuffs - Intermediate Tuffs
Well bedded, cream to pale apple green cherts and very fine grained ash tuffs.
Felsic Volcanic Wackes
Well sorted, well bedded, buff weathering epiclastics, rounded quartz rich clasts common.
Siliceous Argillites - Siliceous Siltites
Fine grained dull gray to green calcareous phyllites with well defined, buff c.. scale, limy interbeds.
Argillites Strained - Sulphidized
Contorted, black to locally graphitic, sheared argillite, tracking the NZF.
Often strongly pyritic.
Argillaceous Phyllites, locally siliceous
Fine grained dull grey to green calcareous phyllites with well defined, buff c.. scale, limy interbeds.
Chloritic Phyllites
Pale green-grey, diffusely compositionally laminated, silica rich, chloritic phyllites.
Sericitic Phyllites
Diffusely compositionally layered fine grained, light grey clastic sediments.
Locally pale grey green tuffaceous interbeds.
Ankeritic Phyllites
Contorted, black to locally graphitic, sheared argillite, tracking the NZF.
Often strongly pyritic.
Mineralized zone stratigraphy - No Definative Protolith
Quartz Sericite Pyrite Schists
Yellow cream, fissile, silica rich schists. Pyrite as foliation parallel disseminations and bands.
Massive Sulphide
Compositional layer parallel, strongly recrystallized, pyrite, sphalerite, galena layers.
Chlorite Sericite Pyrite Schists
Intensely foliated, laminated, chlorite schists. Abundant foliation parallel pyrite.
Abundant iron carbonates.
Intrusive Rocks
Mafic Dykes
Dark green, medium grained, non-porphyritic mafic dykes.
Felsic Dykes
Buff to cream weathering feldspar phyric felsic dykes.
Quartz Diorite
Massive, light green, hornblende, plagioclase and quartz phyric intrusions.
Symbols
Bedding (dip direction indicated)
Orientation of dyke contact (dip direction indicated)
Early foliation (S1?) (dip direction indicated)
Orientation of kink plane (dip direction indicated)
Shear Plane (dip direction indicated)
Orientation of vein (dip direction indicated)
Joint plane, non-penetrative surface (dip direction indicated)
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