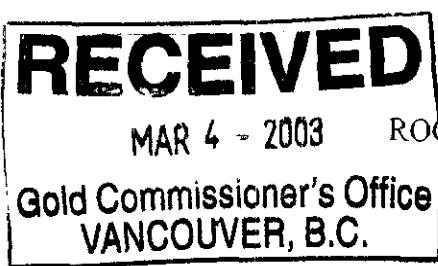


ASSESSMENT REPORT



on

ROCK GEOCHEMISTRY

ZINGER CLAIMS

Upper Perry Creek Area

FORT STEELE MINING DIVISION

NTS 82 F/9 E

TRIM 82F.050

UTM 5478000N 561000E

By

PETER KLEWCHUK, P. Geo.

January, 2003

**GEOLOGICAL SURVEY BRANCH**  
ASSESSMENT REPORT

27,090

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## 1.00 INTRODUCTION

This report describes a program of rock geochemistry completed on the Zinger property in the upper Perry Creek and Hellroaring Creek drainages during 2002.

### 1.10 Location and Access

The Zinger claims are located approximately 30 kilometers west-southwest of Cranbrook, B.C., in the Fort Steele Mining Division (Fig. 1). The claim block straddles a ridge between Perry Creek and Hellroaring Creek, near the headwaters of both drainages. The claims are centered near UTM coordinates 5478000N, 561000E.

Access to the property is via logging roads up either Perry Creek or Hellroaring Creek.

### 1.20 Property

The Zinger claims as reported on here are a contiguous group of 169 two-post claims either owned by or under option to National Gold Corporation of Vancouver, B.C. (Fig. 2). They include the Zinger 1 to 96, Zinger 100 to 168, Soc. Hoard 2 and 3, and H.S. 13 mineral claims.

### 1.30 Physiography

The Zinger claim group occurs within the Moyie Range of the Purcell Mountains, in moderately rugged terrain near the headwaters of Perry and Hellroaring Creeks. Elevation on the claim block ranges from 1520m to 2220m. Forest cover consists of a mixture of Pine, Fir and Larch. Portions of the claim block in both the Perry Creek and Hellroaring Creek drainages have been recently clear-cut logged.

### 1.40 History of Previous Exploration

The Zinger claims are situated near the headwaters of Perry Creek which was the site of a placer gold rush near the turn of the century. Intermittent placer gold production has occurred since that time. Numerous old workings on and in the vicinity of the Zinger claims date back to the early part of this century. Several adits and shafts on the old 'Yellow Metal' property, which is now part of the Zinger claims, are described in B.C Ministry of Mines Annual Report for 1916.

More recent lode gold exploration activity started in the early 1980's following a dramatic increase in the price of gold. Numerous claims were staked to cover prospective lode gold sources of known placer streams near Cranbrook, including this part of Perry Creek.





In 1985 Partners Oil and Minerals Ltd. took reconnaissance soil samples along the trail above Gold Run Lake and detected significant gold anomalies (Brewer, 1985, A.R. 15,284). In 1987 they conducted grid soil sampling and established the presence of a large and rather strong gold anomaly (Bishop, 1987, A.R. 16,656).

Also in the mid-1980's, the 'Yellow Metal' prospect was explored using soil geochemistry and ground geophysics (Mark, 1986, A.R. 15,387).

In 1993 Consolidated Ramrod Gold Corporation staked a large claim block in the area. Their work included soil geochemistry, road building, trenching and diamond drilling in the area of the present Zinger claims; trenching near the approximate up-slope cut-off of one of the soil anomalies exposed a strong NNE-striking gold-mineralized quartz vein / shear zone system (Klewchuk, 1994, A.R. 23,398).

In 1997 and 1998 VLF-EM surveys were conducted over parts of the claims; some survey lines crossed one of Ramrod's gold-in soil anomalies. A northwest trending VLF-EM anomaly was identified, crossing regional stratigraphy a short distance west of a strong gold-in-soil anomaly (Klewchuk, 1998, AR 25,634). In 1999 more detailed surface prospecting and rock geochemistry established the presence of widespread anomalous gold in bedrock, associated with quartz veinlet breccias and pyrite mineralization (Klewchuk, 2000, AR 26,216).

In 2000 additional soil and rock geochemistry sampling was done and the area of anomalous gold mineralization was extended to the northeast into the Heart Lake area (Klewchuk, 2001).

#### 1.50 Purpose of Survey

During 2002 the program of surface rock geochemistry was expanded north into the upper drainage of Shorty Creek with about 233 samples collected and analyzed: this program again expanded the known area of anomalous surface gold mineralization..

### 2.00 GEOLOGY

#### 2.10 Regional Geology

The area of the Zinger claims is underlain by the Mesoproterozoic Purcell Supergroup, a thick succession of fine grained clastic and carbonate sedimentary rocks exposed in the core of the Purcell Anticlinorium in southeast British Columbia. These rocks are believed by most workers (eg. Harrison, 1972) to have been deposited in an epicratonic re-entrant of a sea that extended along the western margin of the Precambrian North American Craton.

The oldest known member of the Purcell Supergroup is the Aldridge Formation, a thick sequence of fine-grained siliciclastic rocks deposited largely by turbidity currents. The Aldridge Formation is gradationally overlain by shallower-water deltaic clastics of the Creston Formation. The Creston Formation is in turn overlain by predominantly dolomitic siltstones of the Kitchener Formation.

The Purcell Anticlinorium is transected by a number of steep transverse and longitudinal faults. The transverse faults appear to have been syndepositional (Lis and Price, 1976) and Hoy (1982) suggests a possible genetic link between mineralization and syndepositional faulting. Longitudinal faults which more closely parallel the direction of basin growth faults may have played a similar role. Gold mineralization, most of which is believed Cretaceous in age, appears to be related to felsic intrusive activity and controlled by brittle deformation structures. The Grassy Mountain Stock, a Cretaceous granitic plug, outcrops east of Hellroaring Creek about two kilometers west of the northwestern Zinger claim boundary.

## 2.20 Property Geology

The Zinger property is underlain mainly by rocks of the Creston Formation with small portions of the claim block underlain by Kitchener Formation rocks. Kitchener Formation crops out west of the claim block along the Hellroaring Creek road and the lowermost bedrock exposures on the west edge of the property appear to be near the Creston - Kitchener contact. Kitchener Formation is also exposed lower in the Perry Creek valley, below the Perry Creek Fault. On the property, the Creston Formation consists mainly of shallow water laminated and thin bedded argillites, medium to thick bedded siltstones and medium and thicker bedded quartzites. The lithologic character can vary extensively over a short distance, making it difficult to block out separate map-units.

Argillaceous and silty beds are vari-colored with shades of green, gray, blue-gray, purple and tan brown. Quartzites and siltstones are white, light purple to pink, and shades of light brown and gray. Thicker quartzite and silty quartzite beds are commonly graded or have cross-bedding and / or internal laminations. Mud-chip breccias are not uncommon; these are usually less than one meter in thickness and typically purple in color but can also occur within white graded quartzites. Many argillite beds display mud cracks, attesting to the shallow water depositional regime. Extensive quartz veining is present over the property but varies considerably in intensity from place to place.

The Kitchener Formation is typically thin bedded to laminated and consists of vari-colored siltstones and argillites that are commonly dolomitic and thus weather to a buff-brown color.

## Structure

Beds mostly strike northeasterly and dip moderately to steeply to the northwest. The variation in dip is probably related to drag folding along steeply dipping fault and shear structures that parallel the strike of beds but have generally steeper dips. Where drag folding has been observed, the sense of movement is west side up, suggesting reverse or thrust faulting. The strike and dip of beds is commonly slightly wavy and there is local thickening and thinning of individual beds, apparently due to deformation. Across the claim block there is widespread structural deformation with numerous scattered fault and shear zones. These zones of deformation cannot always be followed along strike; they appear at least locally to die out.

suggesting an 'en echelon' or reticulate pattern of development. Argillaceous zones have responded to deformation in a more ductile manner than the quartzites and have taken up most of the stress as they are typically more sheared, usually with an abundance of thin wavy quartz veins. Quartzites and siltstones are locally brecciated with a matrix of usually narrow quartz veins. Fault repetition of the Creston Formation strata probably exists on the property but the amount of displacement on any of the fault structures has not been determined.

Development of quartz veins and shearing on the property appears to have occurred at about the same time. In a few places there is evidence of northwest structure breaking up northeast quartz veins but elsewhere northwest veins cut across northeast shearing.

## Intrusions

Narrow gabbro dikes occur in the Creston Formation on the Zinger claims and nearby. These are presumably part of the Moyie Intrusions, which are considerably more prolific in the underlying Aldridge Formation (not exposed on the Zinger claims). Narrow gabbro intrusions were observed on the Zinger 6 and Zinger 8 claims. These are bedding-parallel and appear to be sills although they may be structure-parallel dikes. The gabbro on the Zinger 6 claim is sheared and poorly exposed, about 7 or 8 meters wide, and has a variably pyritic quartz vein zone on its west side.

A strongly magnetic gabbro dike present west and south of Gold Run Lake is about 15 meters wide, fine to medium grained, and trends roughly east-west, crossing the regional structure. South of Gold Run Lake this gabbro is broken up by NNE structures and locally extends into the NNE structures. The gabbro dike is altered with carbonate, magnetite and epidote common. Near its western-most exposure in the upper Hellroaring Creek drainage, an adit is developed on the upper (south) contact of the gabbro dike, where it is carbonate altered and sheared. A thin quartz vein breccia zone is also developed on this contact.



The Cretaceous Grassy Mountain Stock, a quartz monzonite to granodiorite composition felsic intrusion, crops out on the ridge west of Hellroaring Creek less than 2 kilometers west of the northwest boundary of the Zinger property. A smaller, generally similar composition newly-discovered intrusion is located less than one kilometer west of the Zinger 114 claim on the GM claims and is the closest known such intrusive to the Zinger claims. Gold mineralization on the Zinger claims may be related to felsic intrusive activity such as these stocks

### **Quartz Veining.**

Three main styles of quartz veining are present on the Zinger claims:

- massive to brecciated, northeast-trending quartz veins associated with shear zones
- narrow stockwork veins which are bedding and / or cleavage -parallel and which carry the most consistent high gold values ("Zinger Zones")
- northwest-striking 'barren', and presumably late, veins up to 2 meters wide, usually with proximal chlorite alteration and commonly with specular hematite.

#### **1. Northeast-trending quartz veins / shear zones**

The largest quartz veins seen on the property are northeast-striking (parallel to the Perry Creek Fault) but dip more steeply to the west than their host Creston Fm sediments. Margins of these veins are typically sheared, indicating the veins have been intruded into shear zones. The best examples of this style of quartz veining are about 1.5 kilometers east of Gold Run Lake and one of the quartz vein / shear zone systems was trenched and drilled by Consolidated Ramrod Gold Corp. in 1993 (Klewchuk, 1994, AR 23.398).

#### **2. Gold-enriched stockwork veins (Zinger Zones)**

Small stockworks of thin sulfide-enriched auriferous quartz veins are developed at a number of localities on the Zinger property. The thin quartz veins are typically only a few millimeters wide, rarely getting over 2 or 3 centimeters in width. Pyrite is common and galena and / or chalcopyrite are present locally. The presence of iron sulfide results in a limonitic weathered character to the zones. On flatter bedrock surfaces the stockwork veins appear to be developed parallel to bedding or cleavage. On small cliff exposures these zones are developed in local sub-horizontal kink folds which dip eastward at about 25°. Silicification and sericite alteration usually accompany the quartz stockworks. Individual zones that have been observed to date are small, usually less than one meter in thickness and a few tens of meters in strike length although one zone just east of Gold Run Lake has been traced for over 400 meters. Most of the higher gold values obtained on the rock geochemistry survey are from these zones. This style of gold mineralization is referred to as a "Zinger Zone".

### 3. Northwest quartz veins

Northwest-striking, near-vertical quartz veins that range from a few centimeters up to four meters in thickness are common across the Zinger claim group. These veins are usually barren of sulfides and the few analyses that have been made indicate these veins carry only very low gold values. These veins commonly carry some specular hematite and minor chlorite. Stronger chlorite alteration can be developed proximal to these veins. To date, the impression is that the northwest-trending quartz veins and chlorite alteration are probably both developed later than the gold mineralization.

#### **Alteration**

Chlorite and hematite alteration are common on the property. Both range in intensity from weak to quite intense. Hematite appears to be earlier; where it is intensely developed, bedding features are preserved. Chlorite appears to be a late feature and can be correlated with some of the northwest striking quartz veins. Where chlorite is intensely developed, internal bedding features are obliterated. Both chlorite and hematite alteration were influenced by bedding as commonly the contact between the two types of alteration can be defined as a bedding plane. There appears to be no obvious close relationship between chlorite or hematite alteration and gold mineralization.

Pyrite and silicification are associated with better gold mineralized zones and are usually first recognized on surface by their limonitic weathering.

### 3.00 ROCK GEOCHEMISTRY

Two hundred and thirty-three rock samples were collected on the Zinger claims in 2002. These were collected from south of Gold Run Lake to west of the upper part of Hellroaring Creek to north of the Shorty Creek lakes. Some rock samples were taken as a follow-up of work done in previous years but many are from areas of newly discovered gold mineralization. Rock samples are mostly from bedrock but a few are of subcropping float material.

Location of the rock samples is shown in Figure 3 along with gold values in ppb. Brief descriptions of the rock samples are provided in Appendix 1. Rock samples were shipped to Acme Analytical Laboratories Ltd. at 852 East Hastings Street, Vancouver, B.C., V6A 1R6, and analyzed for a 30 element ICP package and geochemical gold by standard analytical techniques. Complete geochemical analyses are provided in Appendix 2.

Rock sampling was concentrated along zones of silicification and quartz veining with iron sulfides, hosted by Creston Formation sedimentary rocks. Many of the samples are of quartz stringer stockwork zones although numerous other quartz veins were sampled as well.

## Results

Of the 233 samples collected, 45 (19.3%) returned gold values >1000 ppb, including 7 samples with >10,000 ppb Au, with a high of 39,597 ppb. An additional 20 samples (8.6%) have gold values between 500 and 1000 ppb, thus almost 28% of the samples have gold values >500 ppb.

Clusters of higher gold values were obtained from three separate areas:

### 1. Shorty Lakes

Widespread higher grade gold values, including a number of multi-gram values, occur in the vicinity of Shorty Lakes. This area hosts a number of gold-bearing quartz vein zones associated with shallow-dipping kink fold zones. The identification of significant gold mineralization in the Shorty Lakes area in 2002 is one of the more important results of the current program and extends the northeast zone of surface gold mineralization on the property to 7 kilometers (by about 2 km wide).

### 2. Gold Run Lake area

Four separate clusters of moderate to high gold values were identified east, north, west and south of Gold Run Lake. These include the highest gold value obtained on the property in 2002 (39,597 ppb, from ZR-212 west of Gold Run Lake). These results add to favorable rock geochem results obtained in previous work.

### 3. Ridge west of Heart Lake

A number of high gold values were obtained from samples collected in this area, including 15 g (ZR-103) and 12 g (ZR-211) values. Again, these anomalous gold values add to the favorable surface rock geochem results obtained in previous years.

## 4.00 CONCLUSIONS

1. Surface rock geochemistry on the Zinger claims in 2002 substantiated the present of significant anomalous gold mineralization on the property and expanded the area of known surface gold mineralization to the northeast into the upper drainage of Shorty Creek. New zones of gold mineralization were discovered at a number of locations on the claim block. Gold is typically associated with pyrite and minor base metals (PbS, Cpy and ZnS). Gold is structurally controlled and is usually within thin quartz veins in bedding and / or cleavage -parallel zones or in thin quartz veins developed within gently east-dipping kink folds.
2. Chlorite and hematite alteration are widespread but are not obviously closely related to gold mineralization. Field relationships demonstrate that this alteration was controlled by bedding (ie lithology) and by ENE striking fault structures.

2. Further work on the property is warranted to delineate the known gold mineralized zones through trenching and diamond drilling. In addition, favorable structures should be explored along their strike length to search for new zones of gold mineralization.

## 5.00 REFERENCES

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## 6.00 STATEMENT OF EXPENDITURES

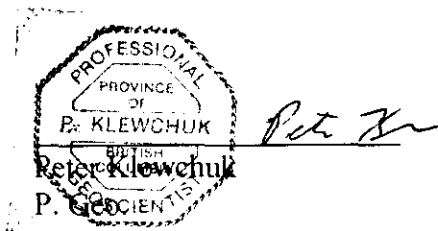
Rock geochemistry	
30 man days @ \$250.00 / day	\$7500.00
4X4 vehicle 20 days @ \$75.00 / day	1500.00
Analyses 233 samples @ \$16.00 / sample	3728.00
Drafting	151.00
Report 2.5 days @ \$300.00 / day	750.00
 Total Expenditure	 <u>\$13,629.00</u>

## 7.00 AUTHOR'S QUALIFICATIONS

As author of this report I, Peter Klewchuk, certify that:

1. I am an independent consulting geologist with offices at 246 Moyie Street, Kimberley, B.C.
2. I am a graduate geologist with a B.Sc. degree (1969) from the University of British Columbia and an M.Sc. degree (1972) from the University of Calgary.
3. I am a Fellow of the Geological Association of Canada and a member of the Association of Professional Engineers and Geoscientists of British Columbia.
4. I have been actively involved in mining and exploration geology, primarily in the province of British Columbia, for the past 28 years.
5. I have been employed by major mining companies and provincial government geological departments.

Dated at Kimberley, British Columbia, this 15<sup>th</sup> day of January, 2003.



## Appendix 1

## Description of Rock Samples

Sample No.	Description
ZR-01	Zone of narrow veinlets (quartz): vuggy with some limonite / pyrite - alteration halos along margins of veins which are at ~ 040°/56° NW.
	ZR-02 to ZR-05 are from one 5-6m wide 'quartz ledge' structure with ~attitude 023°/80° E).
ZR-02	Vuggy quartz vein in quartz breccia zone - milky quartz and sericitic sediments with some pyrite / limonite. Quartz flooded zone here is ~ 10 m wide.
ZR-03	120° striking cross fracture zone with limonite wad breccia.
ZR-04	Limonite / pyrite rich quartz veinlets - some vugs. Part of quartz flooded zone ~ 10 m wide.
ZR-05	Quartz breccia with pyrite / limonite diss in altered (sericitic) seds. Composite.
ZR-06	Limonitic-altered seds with narrow quartz veinlets (1 cm wide) with pyrite / limonite ~bedding-parallel at 032° / 60° NW.
ZR-07	Limonitic-altered seds (gray-hematitic banded unit) with narrow quartz veinlets - some pyrite / limonite -leached alteration.
ZR-08	'Zinger Zone' of narrow quartz veinlets within sericitic - limonitic altered seds. Some pyrite / limonite in veinlets.
ZR-09	Zinger Zone - intensely silicified seds with diss pyrite and narrow quartz veinlets on edge of 330° trending draw - 20m downhill from ZR-08.
ZR-10	1 cm wide bedding-parallel quartz vein with black and brown limonite.
ZR-11	5 cm wide quartz vein with sheared seds ~bedding parallel ~attitude 022° / 60 W.
ZR-12	Quartz blocks in talus 30 cm x 30 cm x 60 cm with quartz crystal vugs, limonite / pyrite and galena.
ZR-13	Limonitic altered seds cut by narrow quartz veinlets with pyrite / limonite.
ZR-14	Same as 13.
ZR-15	Quartz float with abundant limonite / pyrite along argillite layers. Medium sized limonite crystals ~0.5 cm wide sediment inclusions, sheared and silicified.
ZR-16	Quartz breccia / shear zone with limonite / pyrite ~ 040° / 80° SE.
ZR-17	Zinger Zone - silicified seds with diss pyrite cut by pyrite / limonite -bearing quartz veinlets.
ZR-18	Same as 17 (same zone).
ZR-19	Zinger Zone - limonite-altered sheared argillic unit with narrow quartz veinlets with brown limonite - diss pyrite / limonite along margins of veinlets.
ZR-20	Same as 19.
ZR-21	Zinger Zone - silicified limonitic altered seds with Diss pyrite and narrow quartz veinlets with pyrite / limonite.
Zr-22	Same as 21.
ZR-23	Zinger Zone - limonitic altered seds cut by narrow quartz veinlets with brown limonite.

- ZR-24 Zinger Zone - limonitic altered phyllitic seds with narrow limonite (brown and black) rich quartz veinlets, some PbS.
- ZR-25 Zinger Zone - phyllitic limonite altered argillite with narrow limonite rich quartz veinlets, some PbS, fresh pyrite.
- ZR-26 Zinger Zone - limonitic altered seds cut by vuggy pyrite / limonite rich quartz veinlets.
- ZR-27 Zinger Zone - intensely silicified sediments with diss pyrite cut by narrow quartz veinlets with fresh pyrite and PbS.
- Zr-28 Zinger Zone - limonitic altered seds with some quartz veinlets with pyrite / limonite.
- ZR-29 Zinger Zone - bedding parallel quartz veinlets (1-2 cm wide) with limonite / pyrite, PbS, ZnS.
- ZR-30 Same as 29.
- ZR-31 Same as 29.
- ZR-32 Zinger Zone - limonitic altered silicified seds with diss pyrite cut by limonite / pyrite -rich quartz veinlets.
- Zr-33 Same as 32.
- ZR-34 Zinger Zone - limonite / pyrite rich quartz veinlets cutting limonite-altered seds along edge of 320° striking fractures.
- ZR-35 Sheared seds cut by a series of flat-lying quartz veins (2-3 cm wide) with limonite / pyrite.
- ZR-36 Same as 35 - abundant limonite in veinlets.
- ZR-37 Narrow quartz veinlets with vuggy limonite / pyrite.
- ZR-38 Zinger Zone- weakly silicified limonitic altered seds cut by narrow quartz veinlets with pyrite and limonite.
- ZR-39 15 cm wide bedding-parallel quartz vein with limonite / pyrite around green phyllitic clasts - some rotted pyrite / limonite in clasts. Patchy weak limonite in bedrock.
- ZR-40 Narrow limonite / iron carbonate quartz veinlets along edge of 120° trending structure. Bedding-parallel zone of thin lensey quartz veinlets <1 to 4 cm wide.
- ZR-41 Quartz veinlet breccia zone with PbS, Cpy, py and carbonate in pink carbonate-altered seds.
- ZR-42 Same zone as 41 - 1 cm wide roughly bedding-parallel veinlets with Cpy, py, PbS; zone on strike with 41: part of much larger carbonate and weak limonite -altered zone.
- ZR-43 1 cm wide quartz veinlet with pyrite / limonite in pyrite / limonite altered seds - veinlet at 028° / 74° NW. Widespread weak limonite, carbonate alteration.
- ZR-44 Zinger Zone off edge of 124° striking quartz vein - limonitic quartz veinlets with some PbS / Cpy, pyrite / limonite.
- ZR-45 Narrow limonite-rich quartz veinlets in phyllitic greenish seds.
- ZR-46 Composite of limonite-rich quartz veinlets over 1 m width in sheared limonitic altered seds.
- ZR-47 Series of limonite-rich quartz veinlets cutting phyllitic seds.

- ZR-48 1.5 m wide zone of limonite-altered seds with ~ 6 quartz veinlets with pyrite / limonite. ~ bedding-parallel - composite of veinlets.
- ZR-49 30 cm wide zone of bedding-parallel quartz veinlets with pyrite and Cpy.
- ZR-50 Zinger Zone 5 m x 20 m - strongly silicified seds with diss pyrite. Some pyrite / limonite rich quartz veinlets and PbS.
- ZR-51 Same as 50.
- ZR-52 Same zone as 50, 51. Weakly limonite / pyrite altered seds cut by quartz veinlets with some pyrite / limonite.
- ZR-53 15 cm wide phyllitic zone of altered seds with narrow quartz - carbonate - limonite veinlets, at 028° / 58° W.
- ZR-54 Zinger Zone - silicified seds with diss pyrite cut by narrow quartz veinlets with py and PbS.
- ZR-55 Same as 54.
- ZR-56 Zinger Zone - silicified seds with abundant limonite in quartz veinlets on hinge of fold.
- ZR-57 Zinger Zone - silicified seds with diss fresh pyrite and narrow quartz veinlets with pyrite / limonite.
- ZR-58 30 cm wide zone with narrow quartz veinlets with pyrite / limonite and carbonate. Some vugs in phyllitic khaki green seds.
- ZR-59 0.5 m wide quartz vein with limonite wad pods - some PbS?. Mo? On edge of 020° / 70° E ; vein dips ~40° W.
- ZR-60 Narrow 1 cm wide quartz veinlet with abundant limonite / pyrite.
- ZR-61 Zinger breccia material with limonitic quartz veinlets, some visible gold.
- ZR-62 Quartz float with limonite / pyrite by old trenches.
- ZR-63 Bleached / leached seds cut by narrow vuggy quartz veinlets with orange / brown limonite.
- ZR-64 Old pit dug on quartz breccia zone of narrow limonite-rich veinlets.
- ZR-65 Zinger Zone - limonitic-altered seds with narrow quartz veinlet with pyrite / limonite.
- ZR-66 Same zone as 65 - more silicified seds with narrow quartz veinlets, some pyrite / limonite.
- ZR-67 Same as 66.
- ZR-68 Zone of narrow 1-2 cm wide quartz veinlets with limonite / pyrite in phyllitic seds ~ bedding-parallel.
- ZR-69 Quartz veinlets with limonite - poddy - within larger zone of quartz-carbonate breccia.
- ZR-70 Quartz breccia zone. 1-2 m wide ~ 020° strike - limonite-rich veinlets and sheared seds.
- ZR-71 Same as 70.
- ZR-72 30 cm wide shear zone with narrow veinlets of quartz. 15 cm wide core with abundant limonite oriented 360° / 85E, in hanging wall of above structure.
- ZR-73 Same zone as 70, 71. ~25 m on strike - narrow limonite-rich quartz veinlets in sheared seds.



- ZR-74 Zinger type altered seds cut by narrow limonite-rich veinlets. Some pyrite - in area of abundant 120° striking white chloritic quartz veins.
- ZR-75 Similar to ZR-74 in a 3 m wide zone of thicker bedded gray / hematitic quartzite with narrow limonite - pyrite -rich veinlets.
- ZR-76 Old workings - Zinger Zone - limonitic altered seds with some narrow limonite / pyrite -rich quartz veinlets.
- ZR-77 Same zone as 76 - more limonite / pyrite in quartz veinlets than ZR-76.
- ZR-78 Same zone as above ~ 25 m along contour - limonite-rich quartz veinlets in limonite-altered seds.
- ZR-79 Limonite-rich vugs in hangingwall veins of a 3-4 m wide quartz breccia zone trending ~ 026° / 70 NW.
- ZR-80 Same zone as 79 - limonite-rich quartz veinlets in footwall of structure.
- ZR-81 Zone of quartz veining with some limonite / pyrite in carbonate-altered bleached seds.
- ZR-82 Zone in quartzites of narrow poddy veinlets with limonite / pyrite; carbonate-altered, bleached.
- ZR-83 Zinger Zone - limonite-altered seds cut by narrow limonite and pyrite -rich quartz veinlets. Some limonite diss along veinlet margins.
- ZR-84 Same zone as 83. ~ 20 m downslope. Limonite-rich veinlets in limonite-altered seds.
- ZR-85 Quartz veinlet breccia zone with limonite and PbS.
- ZR-86 Quartz breccia zone with pods of more limonite-rich material; 100° strike ?
- ZR-87 Zinger Zone - limonite altered seds cut by narrow quartz veinlets with limonite and pyrite.
- ZR-88 Zinger Zone - quartz breccia with vugs and limonite in albitic seds.
- ZR-89 Zinger Zone - silicified seds with pyrite / limonite rich veinlets.
- Zr-90 Bedding-parallel quartz veinlets with some pyrite / limonite in limonite-altered seds.
- ZR-91 Bedding-parallel quartz vein with pyrite / limonite. PbS. ~ 1 cm wide in phyllitic seds, oriented 024° / 64 W.
- ZR-92 Zinger Zone - bedding-parallel veinlets with pyrite / limonite.
- ZR-93 Bedding-parallel quartz veins with limonite / pyrite in a coarser quartzite unit; visible gold? Weaker limonite zone in hematite-altered seds.
- ZR-94 Zinger Zone - along kink fold. Composite of more limonitic quartz veinlets.
- ZR-95 Zinger Zone - quartz breccia material - narrow vuggy veinlets with pyrite / limonite.
- ZR-96 15 cm wide Zinger Zone of thin bedding-parallel quartz veinlets 1-2 cm wide with limonite, carbonate in vugs within phyllitic, limonitic altered seds.
- ZR-97 1-2 m wide quartz vein zone. ~bedding-parallel Zinger Zone with some limonite-rich veinlets.
- ZR-98 Zinger Zone - narrow quartz veinlets with leached pyrite and limonite in gray / hematitic limonite-altered quartzites.
- ZR-99 Zinger Zone subcrop - limonite-rich veinlets in altered seds.

- ZR-100 30 to 45 cm shear zone, bedding-parallel, oriented 035° / 70° NW. Some quartz with limonite / pyrite.
- ZR-101 Float in talus, of quartz shear zone material with abundant limonite / pyrite.
- ZR-102 *Float in talus. Zinger type breccia material with limonite / pyrite in vuggy quartz veinlets.*
- ZR-103 Quartz float in talus, 5-10 cm wide with abundant limonite / pyrite cubes. Some visible gold.
- ZR-104 Large block of quartz float with limonite / pyrite, iron-rich vugs.
- ZR-105 1.5 m wide breccia zone with limonite / pyrite. 045° strike.
- ZR-106 Zinger Zone pod. Limonite-rich quartz veinlets cutting limonite-altered seds.
- ZR-107 Quartz breccia float in talus with limonite and carbonate.
- ZR-108 Albitic quartz breccia float with pyrite / limonite, Cranbrook Fm.
- ZR-109 Quartz float with abundant fresh pyrite.
- ZR-110 30 cm wide quartz vein / breccia with lots of pyrite. ~300° / 60 SW. Some drag along hangingwall.
- ZR-111 30 cm wide quartz vein in Cambrian quartzite. Ribboned texture, abundant pyrite.
- ZR-112 Quartz float with argillite inclusions. Rotted pyrite along argillite-quartz boundary.
- ZR-113 Zone of quartz veinlets in sheared contact zone between Kitchener Fm and Cambrian. Some pyrite / limonite.
- ZR-114 Zone of narrow quartz veinlets with pyrite / limonite in green argillite.
- ZR-115 Narrow quartz veinlets with abundant black limonite / pyrite. Trends 016° / 70E.
- ZR-116 Same as 115; 20 m uphill.
- ZR-117 Pyrite / limonite rich vuggy quartz veins. 30 cm wide zone.
- ZR-118 Brecciated Cambrian quartzite with rotted out pyrite. Vuggy. Quartz veins strike 040°.
- ZR-119 Narrow quartz veinlets. Some limonite / pyrite & carbonate within bleached albitic seds. Some limonite.
- ZR-120 Narrow quartz veinlets in green / purple quartzite with pyrite / limonite. Composite of veinlets.
- ZR-121 Zinger Zone. 1 m wide silicified seds with diss pyrite. Limonite / pyrite in narrow quartz veinlets.
- ZR-122 Gray quartzite with carbonate quartz veinlets. Same zone with limonite / pyrite.
- ZR-123 Breccia zone in gray quartzite with limonite / pyrite in seds and veins. Carbonate and quartz crystal vugs.
- ZR-124 Same zone as above. More limonite and larger quartz veins. Feldspar?
- ZR-125 Zinger Zone. Poddy silicified seds with pyrite / limonite in narrow quartz veinlets.
- ZR-126 Structure striking 010° / 70° E. Quartz veinlets and sheared seds with some limonite / pyrite.
- ZR-127 Same structure as 126. Sheared seds with narrow limonite / pyrite -rich quartz veinlets.
- ZR-128 Zinger style zone. Pyrite / limonite -rich veinlets in limonite / sericite -altered seds.

- ZR-129 Same as 128.
- ZR-130 Zinger Zone. Quartz breccia material with abundant rotted pyrite in veinlets.
- ZR-131 Quartz vein breccia. Weakly limonitic altered seds with some limonite / pyrite in narrow quartz veinlets.
- ZR-132 Small but strong-looking Zinger Zone. Silicified seds with pyrite / limonite in narrow bedding-parallel quartz veinlets.
- ZR-133 Narrow Zinger Zone. Pyrite / limonite in quartz veinlets within limonitic altered seds.
- ZR-134 Limonitic altered seds cut by narrow quartz veinlets with pyrite / limonite and carbonate.
- ZR-135 Limonitic altered seds with narrow quartz veinlets with limonite / pyrite along edge of structure.
- ZR-136 Albitic / bleached seds with narrow limonite / pyrite -rich veinlets.
- ZR-137 Bedding-parallel narrow quartz veins in sheared seds with some pyrite / limonite. 025° / 74 NW.
- ZR-138 Quartz float with limonite / pyrite. Quartz crystal vugs. Bull type quartz.
- ZR-139 White quartz vein with some pyrite / limonite.
- ZR-140 Same as 139.
- ZR-141 Albitic / bleached seds with quartz veinlets. Some pyrite / limonite, carbonate. Thicker than typical ZZ veinlets - bedding-parallel and sub-parallel. Within generally more limonitic zone.
- ZR-142 Zone of bedding-parallel quartz veins with limonite / pyrite along edge of NW vein.
- ZR-143 Limonitic altered seds with narrow limonite / pyrite -rich quartz veinlets. Some visible gold.
- ZR-144 Zinger Zone. Limonite altered seds cut by narrow pyrite / limonite -rich veinlets. Some visible gold. Sample near NE edge? of zone.
- ZR-150 Narrow zone of quartz veinlets with limonite / pyrite in limonite-altered seds.
- ZR-151 2-4 m wide quartz vein / breccia zone (quartz ledge structure). Trends ~038° / 75° NW. Old trench. Narrow limonitic quartz veinlets in sheared seds.
- ZR-152 Subcrop of limonitic-altered seds cut by narrow quartz veinlets with some pyrite / limonite.
- ZR-153 Zone of limonite-altered seds with narrow bedding-parallel quartz veinlets with limonite / pyrite and vugs.
- ZR-154 Zinger Zone. Narrow quartz veinlets with some pyrite / limonite in limonitic seds.
- ZR-155 Zinger Zone. Bedding-parallel quartz veins with some limonite / pyrite. Weak zone.
- ZR-156 Zinger Zone. Flat lying 'kink' fold with abundant quartz along flexure. Some limonite / pyrite in veinlets.
- ZR-157 Composite of limonite-rich quartz veinlets with visible gold. Some carbonate.
- ZR-158 Zinger Zone. Limonitic-altered seds with narrow quartz veinlets with pyrite / limonite.

- ZR-159 Zinger Zone. Narrow limonite / pyrite -rich veinlets in limonitic-altered seds within area of NW veining.
- ZR-160 Zinger Zone. Limonitic-altered seds with narrow quartz veinlets - limonite / pyrite -rich.
- ZR-161 Zinger Zone. Narrow limonite-rich quartz veinlets within limonite-altered seds along flat-lying kink fold hinge.
- ZR-162 Zinger Zone. Narrow veinlets with limonite / pyrite in limonitic altered seds.
- ZR-163 Same as 162.
- ZR-164 Zinger Zone. Bedding-parallel quartz veins with some limonite / pyrite.
- ZR-165 Zinger Zone. Limonite-rich quartz veinlets within sheared limonitic seds.
- ZR- 166 to 169 are from one ~ 6 m wide zone
- ZR-166 Zinger Zone. Silicified seds with limonite-rich quartz veinlets.
- ZR-167 Zinger Zone. Silicified seds with limonite / pyrite, cut by limonite / pyrite -rich quartz veinlets. Some PbS.
- ZR-168 Zinger Zone. Silicified seds with limonite / pyrite. cut by limonite / pyrite -rich quartz veinlets. PbS. Clay in vugs.
- ZR-169 Zinger Zone. Limonite-altered seds with narrow pyrite limonite -rich quartz veinlets.
- ZR-170 Bedding-parallel veinlets with limonite / pyrite within limonite-altered seds.
- ZR-171 Zinger Zone. Limonite-altered seds with narrow quartz veinlets. Some pyrite / limonite.
- ZR-172 Zinger Zone. Limonite / pyrite -rich quartz veinlets in limonite-altered seds.
- ZR-173 2-4 m wide quartz breccia 'ledge' zone with pyrite / limonite. Some carbonate.
- ZR-174 Same as 173. Some quartz crystal vugs.
- ZR-175 Weakly limonite-altered seds and veinlets within carbonate-quartz breccia zone.
- ZR-176 Same as 175.
- ZR-177 Limonite-rich quartz breccia pod in larger breccia zone with quartz-carbonate alteration. Some feldspar?, dolomite in association with 110° trending fracture.
- ZR-178 Limonitic-altered seds with some quartz veinlets with pyrite / limonite. Massive limonite / pyrite on fractures.
- ZR-179 Vuggy quartz vein with iron carbonate. Quartz crystals in vugs. Some patches of limonite / pyrite.
- ZR-180 Quartz breccia zone. Iron carbonate, quartz crystals, some limonite / pyrite, feldspar? in veinlets.
- ZR-181 Zinger Zone. Limonite-altered seds cut by limonitic iron carbonate. Quartz veinlets. Weak zone.
- ZR-182 Zone of flat-lying quartz veinlets with limonite / pyrite.
- ZR-183 Zinger Zone. Limonitic-altered seds with quartz breccia. Abundant limonite / pyrite. 30cm wide, flat-lying zone.
- ZR-184 Small Zinger Zone on SW side of narrow covered saddle that trends ~ 127°..  
Narrow bedding-parallel quartz veinlets with abundant pyrite / limonite.

- ZR-185 Narrow bedding-parallel quartz veins with abundant pyrite / limonite within Zinger Zone.
- ZR-186 Weak Zinger Zone. Limonitic-altered seds weakly silicified. Some pyrite / limonite on fractures and in quartz veinlets.
- ZR-187 Series of flat-lying narrow veinlets with limonite / pyrite. Some shearing.
- ZR-188 Zinger Zone on east side of 113° covered draw. Bedding-parallel quartz vein breccia. Narrow bedding-parallel and irregular quartz veinlets with limonite and pyrite. Most QV are ½ to 2 cm wide.
- ZR-189 Quartz float with pyrite / limonite. Phyllitic seds. with visible gold.
- ZR-190 350° / 58° quartz vein. 2-4 cm wide. Abundant limonite / pyrite; iron-rich vugs.
- ZR-191 Quartz breccia zone. Some limonitic Fe carbonate. white quartz.
- ZR-192 Narrow quartz vein with black limonite.
- ZR-193 Narrow bedding-parallel quartz vein with 10 cm zone of phyllitic seds. Limonite / pyrite -rich. Trends 020° / 58° W.
- ZR-194 Same area as 193; upper narrow quartz veinlets with pyrite / limonite.
- ZR-195 Zinger Zone - quartz brecciation in quartzite - limonitic veinlets. slips in limonitic altered seds.
- ZR-196 Same as 195.
- ZR-197 Same as 195, 196.
- ZR-198 Upper Creston Fm. Green argillite. Small quartz breccia pod with limonite / pyrite - vuggy quartz, green chlorite.
- ZR-200 Narrow bedding parallel quartz veins with rare limonite in zone of sheared seds. Some limonitic alteration.
- ZR-201 Limonitic altered seds with quartz breccia zone with some limonite / pyrite.
- ZR-202 Limonitic altered seds with narrow limonite-rich quartz veins.
- ZR-203 Narrow zone of Zinger style veinlets and altered seds with limonite / pyrite.
- ZR-204 Zinger Zone. Limonite altered seds with narrow limonite-rich quartz veinlets.
- ZR-205 Old trench on limonite-altered seds with narrow quartz veinlets (pyrite / limonite - rich).
- ZR-206 Zinger Zone. Limonite-altered sedwith limonite / pyrite -rich veinlets.
- ZR-207 Zinger Zone. Limonite-altered seds with some bedding-parallel quartz veinlets with limonite / pyrite.
- ZR-208 Zinger Zone. Flat-lying kink fold with some narrow limonite-rich veinlets.
- ZR-209 Same zone as 208 - limonite-rich quartz veinlets.
- ZR-210 Composite sample of bedding-parallel quartz veinlets with some limonite / pyrite, phyllitic seds.
- ZR-211 Bedding-parallel quartz veinlets. Lots of limonite / pyrite around folded seds.
- ZR-212 Ribbon-textured quartz vein ~10 cm wide with pyrite / limonite, Cpy, PbS. Old adit.
- ZR-213 50° slip with limonite-rich quartz veinlet. Dip 48° to south.
- ZR-214 Vuggy limonite-rich quartz vein in breccia zone - sericite mica.
- ZR-215 Zinger like zone with narrow limonite-rich veinlets in limonite-altered seds.
- ZR-216 Flat-lying zone of quartz veinlets with carbonate and pods of pyrite / limonite. Some iron staining.

- ZR-217 Carbonatite? / carbonate-altered gabbro along contact with seds - some disseminated pyrite. Trends ~ 060° / 72° SE.
- ZR-218 Quartz breccia zone with carbonate in veinlets. Pods of more limonite / pyrite - rich zones.
- ZR-219 Flat-lying veinlets with lots of limonite.
- ZR-220 Narrow limonite / pyrite -rich quartz veinlets in limonite-altered seds.
- ZR-221 1 m wide quartz vein zone - milky friable quartz with limonite / pyrite.
- ZR-222 Quartz float with PbS. limonite / pyrite - milky quartz with vugs.
- ZR-223 Quartz breccia zone in albitic seds with some limonite / pyrite.
- ZR-501 Sample of rare bedding-sub-parallel 2-3 mm wide rusty quartz veinlets.
- ZR-502 Sample of thin limonitic quartz vein on 068° / 90° fault contact between hematite alteration to south. chlorite alteration to north. Seds are sheared on both sides. Quartz sampled is Mn-stained, vuggy, lensey.
- ZR-503 Irregular 2-3 cm wide medium orange-brown limonitic quartz veins. In phyllitic argillaceous seds that are locally folded. Probable fault zone. (Similar character quartz to HS-14 which is from a northerly-striking fault).
- ZR-504 Zinger Zone. Thin rusty quartz veins at east edge of exposure. Pyrite entirely leached. Possible pyromorphite.
- ZR-505 ~15 m NW of 504. Mostly of thin, rusty, bedding-parallel and sub-parallel quartz veins within broader Zinger Zone.
- ZR-506 Zinger Zone. Sample of mostly oxidized quartz veins in limonitic seds. Part of a northwest panel of variably-developed limonite.
- ZR-507 Zinger Zone. Northwest panel of variably-developed limonite narrows down to about 70 cm width. Thin, limonitic (oxidized pyrite), bedding-parallel quartz veins plus small pods of irregular white quartz with leached pyrite.
- ZR-508 6-7 m NW of 507. Vuggy, slightly more massive white limonitic quartz. Irregular veins associated with more distinct kink fold (minor warp). Strongly limonitic on weathered near-vertical SW face.
- ZR-509 Zinger Zone at base of outcrop. Strong limonitic zone, thin quartz veins, oxidized pyrite. Bedding-parallel and sub-parallel lensey veins.
- ZR-510 Small Zinger Zone at NE edge of exposure (could be more extensive to NE). Limonitic thin lensey bedding-parallel and sub-parallel quartz veins.
- ZR-511 Lensey, vuggy, rusty bedding-parallel quartz veins. Leached out pyrite.
- ZR-512 Weaker limonitic zone in phyllitic yellow to light brown seds. Thin bedding-parallel quartz veins. Numerous slight warps present in bedding.
- ZR-513 Weak Zinger Zone. Rusty thin quartz veins. Pyrite entirely leached.
- ZR-514 Bedding-parallel and cross-cutting quartz veins in weak Zinger Zone. QV are only ½ to 2 mm wide. Thin cross-cutting veins are relatively flat.
- ZR-515 Quartz vein breccia. Narrow limonitic, bedding-parallel-looking zone. Spotty orange-brown limonite; may be pyrite &/or iron carbonate. Host seds are weakly hematitic, chloritic.
- ZR-516 Narrow, rusty, bedding-parallel quartz veins. Leached pyrite. QV up to 3 mm.



## GEOCHEMICAL ANALYSIS CERTIFICATE

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600 - 890 W. Pender St., Vancouver BC V6C 1K4 Submitted by: T. Kennedy

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	<1	<3	<1	<1	2	.02	<2	<8	<2	<2	2	<.5	<3	<3	2	.06	.003	<1	2	<.01	2	<.01	<3	.01	.34	.01	<2	<.2
2R-01	1	38	5	12	<3	4	3	194	1.09	2	<8	<2	6	18	<.5	<3	<3	3	<.01	.004	21	45	.02	1203	<.01	<3	.26	.04	.13	2	46.9
2R-02	4	10	39	206	<3	8	5	108	2.07	17	<8	<2	<2	1	<.5	<3	<3	1	<.01	.037	3	26	.01	19	<.01	<3	.12	.01	.07	12	1.9
2R-03	8	8	197	751	<3	41	36	35	16.43	125	27	<2	4	3	1.7	23	<3	6	<.01	.192	6	33	.02	31	<.01	<3	.16	<.01	.09	6	7.0
2R-04	5	7	56	16	<3	4	8	31	1.05	25	<8	<2	6	1	<.5	<3	<3	2	<.01	.016	27	18	.01	25	<.01	<3	.26	.01	.18	8	4.6
2R-05	1	3	53	2	<3	2	<1	20	.51	7	<8	<2	3	1	<.5	<3	<3	3	<.01	.009	38	46	.01	22	<.01	<3	.20	.01	.15	2	8.7
2R-06	2	18	44	11	<3	6	6	1025	.96	3	<8	<2	31	3	<.5	<3	<3	2	.02	.024	53	13	.03	195	<.01	<3	.34	.01	.24	5	352.5
2R-07	1	4	11	11	<3	3	1	134	.78	2	<8	<2	5	1	<.5	<3	<3	3	<.01	.011	18	45	.03	39	<.01	<3	.33	.03	.15	2	1.1
2R-08	34	41	240	4	.8	4	1	49	.93	2	<8	<2	5	4	<.5	<3	<3	1	<.01	.012	22	23	.01	840	<.01	<3	.24	.02	.17	9	860.3
2R-09	48	23	215	4	.4	2	1	35	.77	2	<8	<2	7	6	<.5	<3	<3	2	<.01	.011	32	40	.02	462	<.01	<3	.29	.01	.21	2	268.8
2R-10	3	4	20	32	<3	8	4	155	1.98	3	<8	<2	8	1	<.5	<3	<3	1	<.01	.015	36	21	.04	62	<.01	<3	.30	.01	.21	8	8.0
2R-11	1	213	10490	126	6.5	3	1	138	.50	2	<8	<2	6	2	1.8	<3	15	2	<.01	.017	16	62	.01	427	<.01	<3	.21	.01	.14	3	306.2
2R-12	5	85	6362	29	33.8	7	2	114	1.15	10	<8	<2	<2	1	1.2	<3	167	<1	<.01	.005	3	40	<.01	48	<.01	<3	.06	<.01	.04	17	155.6
2R-13	1	6	123	6	.5	3	2	54	1.38	2	<8	<2	4	5	<.5	<3	3	2	<.01	.016	20	38	.01	72	<.01	<3	.29	.05	.07	2	26.9
2R-14	4	5	53	6	<3	6	2	70	2.36	11	<8	<2	3	9	<.5	<3	<3	<1	<.01	.016	10	27	.01	23	<.01	<3	.17	.02	.07	12	45.5
2R-15	2	16	97	2	<3	12	10	35	4.03	201	<8	<2	3	1	<.5	<3	<3	3	<.01	.014	12	59	.03	27	<.01	<3	.16	.01	.12	4	646.4
2R-16	3	4	25	7	<3	6	6	74	.89	18	<8	<2	3	3	<.5	<3	<3	1	<.01	.011	19	23	.01	30	<.01	3	.18	.01	.13	9	3.8
2R-17	1	11	218	7	.3	2	1	126	.74	4	<8	<2	5	4	<.5	<3	<3	3	<.01	.009	28	47	.02	45	<.01	<3	.30	.01	.23	2	62.1
2R-18	3	11	104	34	<3	4	1	62	1.09	3	<8	<2	8	2	<.5	<3	<3	2	<.01	.012	27	19	.03	63	<.01	<3	.31	.01	.24	7	276.1
2R-19	1	4	27	12	<3	4	3	65	1.40	22	<8	<2	11	12	<.5	<3	<3	5	.18	.106	44	27	.05	137	<.01	<3	.57	.01	.40	<2	415.2
2R-20	2	6	50	10	<3	4	1	263	1.42	9	<8	<2	8	8	<.5	<3	<3	1	<.01	.024	38	16	.03	99	<.01	<3	.35	.01	.29	6	714.0
2R-21	1	6	53	5	<3	2	1	81	1.07	3	<8	<2	5	3	<.5	<3	<3	2	<.01	.010	24	35	.03	148	<.01	<3	.34	.01	.27	2	194.3
2R-22	3	3	53	2	<3	3	<1	38	.64	5	<8	<2	4	4	<.5	<3	<3	2	<.01	.009	29	20	.02	52	<.01	<3	.29	.01	.24	7	603.1
2R-23	1	5	93	5	<3	3	1	58	1.11	10	<8	<2	6	7	<.5	<3	<3	4	<.01	.018	30	46	.03	81	<.01	<3	.33	.01	.25	2	1553.4
RE 2R-23	1	5	92	5	<3	3	1	56	1.09	10	<8	<2	5	7	<.5	<3	<3	4	<.01	.018	30	47	.03	79	<.01	<3	.33	.01	.25	2	1606.5
2R-24	2	14	213	18	.5	5	3	127	2.06	9	<8	<2	12	8	<.5	<3	<3	3	<.01	.033	21	16	.02	123	<.01	<3	.30	<.01	.23	7	259.4
2R-25	1	8	102	16	<3	3	1	153	1.41	17	<8	<2	7	14	<.5	<3	<3	4	<.01	.042	32	43	.03	141	<.01	3	.36	.01	.30	2	964.9
2R-26	3	20	333	40	.6	4	2	191	3.20	38	<8	<2	6	6	<.5	<3	<3	3	<.01	.031	29	19	.03	98	<.01	<3	.31	.01	.25	7	1030.4
2R-27	1	39	1469	18	2.3	2	<1	31	.86	7	<8	<2	3	2	<.5	<3	<3	3	<.01	.007	23	45	.02	40	<.01	<3	.26	.01	.24	2	631.3
2R-28	3	6	271	23	<3	4	1	44	.80	8	<8	<2	6	4	<.5	<3	<3	2	<.01	.011	19	24	.02	444	<.01	<3	.25	<.01	.20	8	64.4
2R-29	1	10	893	325	1.1	3	1	226	.63	6	<8	<2	6	3	4.0	<3	<3	3	.02	.013	37	48	.03	109	<.01	<3	.33	<.01	.26	2	258.3
2R-30	3	31	2579	1047	2.3	6	4	1799	1.38	4	<8	<2	7	5	13.7	<3	<3	2	.06	.019	26	23	.05	159	<.01	<3	.32	<.01	.26	9	140.0
2R-31	1	5	116	32	<3	2	1	65	.77	6	<8	<2	8	4	<.5	<3	<3	3	.08	.009	45	47	.03	58	<.01	<3	.33	<.01	.27	2	228.5
2R-32	2	3	15	15	<3	4	2	88	1.18	17	<8	<2	9	8	<.5	<3	<3	3	.03	.023	25	14	.02	87	<.01	<3	.31	.02	.25	5	371.0
STANDARD DS3	9	119	34	156	.3	37	12	800	3.13	28	<8	<2	4	29	6.0	5	6	72	.58	.081	18	177	.57	142	.10	<3	1.81	.04	.15	3	23.2

GROUP 10 - 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 &amp; 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 &gt; 1%, AG &gt; 30 PPM &amp; AU &gt; 1000 PPB

- SAMPLE TYPE: ROCK R150 60C AU\* BY IGNITION ACID LEACHED, ANALYZE BY ICP-MS. (10 gm)

Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 5 2002 DATE REPORT MAILED: July 17/02 SIGNED BY: C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Assay recommend for Pb 75000ppm, Ag 730ppm Au &gt; 1000ppb

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Date LFA

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
2R-33	1	3	34	6	<.3	2	3	111	1.05	7	<8	<2	7	5	<.5	<3	3	2	.03	.010	27	11	.03	94	<.01	3	.27	.01	.25	2	660.9
2R-34	2	23	110	2	2.1	2	2	71	1.54	11	8	7	5	11	<.5	<3	4	2	.03	.021	22	14	.02	171	<.01	<3	.19	.01	.21	<2	2252.4
2R-35	<1	13	55	6	<.3	4	4	1277	2.11	<2	<8	<2	10	8	<.5	<3	4	2	.01	.028	14	13	.02	338	<.01	<3	.23	<.01	.20	3	110.0
2R-36	3	13	97	3	<.3	5	2	332	2.28	7	<8	<2	9	5	<.5	<3	<3	2	.01	.038	14	20	.01	81	<.01	7	.20	.01	.18	2	167.2
2R-37	1	4	56	9	<.3	3	1	103	1.44	6	<8	<2	7	5	<.5	<3	<3	2	.01	.031	31	11	.02	72	<.01	3	.28	<.01	.26	3	143.1
2R-38	7	3	26	9	<.3	2	2	251	1.10	8	<8	<2	6	4	<.5	<3	<3	2	<.01	.011	35	11	.02	156	<.01	<3	.34	<.01	.27	<2	153.9
STANDARD DS3	9	126	31	151	<.3	35	13	809	3.23	29	11	<2	3	31	5.8	5	5	81	.56	.087	17	185	.57	148	.09	<3	1.74	.04	.16	3	21.9

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
2R-39	<1	2	<3	1	<.3	<1	<1	4	.03	<2	<8	<2	<2	2	<.5	<3	<3	<1	.08	<.001	<1	3	<.01	4	<.01	<3	.01	.36	.01	<2	<.2
2R-40	4	5	23	6	<.3	6	1	45	.44	48	<8	<2	2	1	<.5	<3	<3	1	.01	.003	6	29	.01	31	<.01	<3	.17	.01	.15	12	14.2
2R-41	3	3	529	529	.7	6	3	94	.88	2	<8	<2	6	2	1.4	<3	<3	2	.02	.017	18	22	.09	22	<.01	<3	.47	.02	.11	8	483.0
2R-42	16	783	2858	54	8.0	9	7	396	1.74	2	<8	5	6	2	1.1	<3	11	4	.02	.011	17	43	.03	58	<.01	<3	.26	.04	.13	2	4208.5
2R-43	26	3716	4078	482	12.7	14	9	238	1.87	2	<8	4	8	10	10.3	<3	11	2	.10	.034	15	14	.09	537	<.01	<3	.36	.01	.21	4	14001.9
2R-44	1	60	83	16	.6	6	5	111	2.48	8	<8	<2	11	1	<.5	<3	<3	5	<.01	.011	26	46	.03	53	<.01	<3	.38	.01	.22	2	846.0
2R-45	2	23	157	44	.6	4	3	358	.94	2	<8	<2	7	14	.6	<3	<3	1	.19	.013	17	11	.07	67	<.01	<3	.28	<.01	.22	3	385.0
2R-46	1	18	204	11	1.0	5	3	374	1.44	<2	<8	<2	7	1	<.5	<3	<3	4	.01	.008	11	74	.02	44	<.01	<3	.19	<.01	.15	4	1008.7
2R-47	3	10	25	13	1.2	6	3	418	1.41	2	<8	<2	8	4	<.5	<3	<3	2	.01	.021	28	19	.02	66	<.01	<3	.26	<.01	.21	7	1277.5
2R-48	1	16	75	6	2.3	3	2	135	.92	2	<8	2	7	1	<.5	<3	<3	3	<.01	.013	26	39	.02	43	<.01	<3	.33	.01	.23	2	2128.7
2R-49	3	23	234	14	3.1	11	9	1636	3.06	2	<8	6	4	12	<.5	<3	5	2	.33	.033	11	23	.08	94	<.01	<3	.22	<.01	.18	9	9187.4
2R-50	<1	120	16	11	.4	4	3	684	.85	<2	<8	<2	6	4	<.5	<3	<3	3	.04	.008	17	38	.03	65	<.01	<3	.27	.01	.18	2	237.0
2R-51	2	60	1571	7	3.7	4	1	87	.84	<2	<8	<2	4	3	<.5	<3	4	1	<.01	.011	13	15	.02	46	<.01	<3	.24	.01	.19	6	494.3
2R-52	2	60	1587	7	3.6	4	1	87	.86	<2	<8	<2	4	3	<.5	<3	5	1	<.01	.012	13	15	.02	48	<.01	<3	.23	.01	.19	6	668.1
2R-53	1	72	705	11	1.1	4	3	460	1.07	<2	<8	<2	5	3	<.5	<3	<3	3	<.01	.009	20	45	.02	91	<.01	<3	.25	<.01	.20	2	167.1
2R-54	3	13	54	4	.3	4	1	116	.73	<2	<8	<2	3	2	<.5	<3	<3	1	<.01	.006	15	22	.01	68	<.01	<3	.18	.01	.14	8	44.0
2R-55	3	8	19	45	.7	17	12	625	2.72	9	<8	3	9	37	<.5	<3	<3	5	.52	.095	21	38	.31	720	<.01	<3	.41	.01	.31	2	590.3
2R-56	2	5	1600	635	.7	3	<1	25	.38	3	<8	<2	6	3	7.3	<3	<3	1	<.01	.006	25	13	.02	82	<.01	<3	.31	<.01	.26	5	42.0
2R-57	1	6	485	176	.5	2	<1	39	.46	3	<8	<2	6	2	2.2	<3	<3	2	<.01	.010	19	37	.02	59	<.01	<3	.27	.01	.23	2	346.8
2R-58	3	11	588	70	.6	4	2	696	.97	2	<8	<2	6	3	.6	<3	<3	<1	<.01	.016	23	17	.01	92	<.01	<3	.22	.01	.19	6	766.2
2R-59	1	7	140	21	<.3	3	1	74	.59	6	<8	<2	5	3	<.5	<3	<3	2	.01	.018	24	51	.01	37	<.01	<3	.23	.01	.19	2	72.3
2R-60	4	91	125	36	.9	11	9	137	2.34	5	<8	<2	11	3	<.5	<3	5	2	.02	.030	29	19	.02	282	<.01	4	.26	<.01	.19	7	226.3
2R-61	60	1122	5034	67	108.7	25	24	101	16.35	3	<8	3	7	1	<.5	<3	289	3	<.01	.032	11	34	.01	1085	<.01	<3	.20	<.01	.14	2	3403.0
2R-62	2	12	41	12	1.8	6	4	38	1.69	<2	<8	4	7	6	<.5	<3	<3	2	<.01	.022	24	16	.02	2128	<.01	<3	.35	<.01	.30	5	1507.2
2R-63	2	31	26	5	1.4	4	5	29	1.50	<2	<8	6	3	3	<.5	<3	<3	2	<.01	.017	10	44	.02	803	<.01	<3	.25	<.01	.22	2	6594.8
2R-64	6	34	139	23	1.8	11	5	52	2.75	<2	<8	5	<2	1	<.5	<3	5	1	<.01	.015	4	38	.01	131	<.01	<3	.10	<.01	.07	11	6177.2
2R-65	1	3	7	20	<.3	7	4	148	1.21	2	<8	<2	13	1	<.5	<3	<3	3	<.01	.015	37	42	.02	36	<.01	<3	.34	.02	.13	<2	21.0
2R-66	8	7	63	9	<.3	6	2	49	1.67	3	<8	<2	6	1	<.5	<3	<3	2	<.01	.027	18	27	.01	15	<.01	<3	.15	<.01	.09	9	22.0
2R-67	3	12	148	114	<.3	3	2	58	.90	<2	<8	<2	7	2	.9	<3	<3	3	<.01	.014	24	42	.02	68	<.01	<3	.26	<.01	.22	2	167.0
2R-68	5	4	77	13	<.3	4	<1	26	.72	<2	<8	<2	2	1	<.5	<3	<3	1	<.01	.006	6	20	.01	56	<.01	<3	.19	<.01	.18	8	39.0
2R-69	2	5	45	9	.3	3	1	33	1.44	2	<8	<2	4	1	<.5	<3	<3	3	<.01	.011	18	45	.02	51	<.01	<3	.25	<.01	.20	2	129.7
2R-70	6	5	91	19	1.5	5	4	53	2.05	9	<8	4	17	1	<.5	<3	3	4	<.01	.012	51	19	.02	45	<.01	<3	.29	<.01	.26	5	3402.9



## GEOCHEMICAL ANALYSIS CERTIFICATE

National Gold Corporation File # A202654

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600 - 890 W. Pender St., Vancouver BC V6C 1K4

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*
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppb
ZR-69	1	3	7	4	<.3	3	1	48	.83	2	<8	<2	4	1	<.5	<3	<3	<1	.01	.007	17	12	.01	22	<.01	<3	.16	.03	.06	<2	5.0
ZR-70	2	5	8	3	<.3	2	1	22	1.00	8	<8	<2	<2	<1	<.5	<3	<3	1	<.01	.007	14	9	.01	17	<.01	<3	.14	<.01	.11	3	2.7
ZR-71	4	18	8	5	<.3	13	8	18	3.71	14	<8	<2	7	1	<.5	<3	4	2	<.01	.017	29	14	.02	30	<.01	<3	.16	.01	.12	<2	5.6
ZR-72	1	6	13	5	<.3	1	1	84	4.87	11	<8	<2	3	1	<.5	<3	8	3	<.01	.028	34	13	.01	23	<.01	<3	.19	.01	.15	4	4.8
ZR-73	2	6	<3	4	<.3	6	12	12	4.21	5	<8	<2	3	1	<.5	<3	<3	1	<.01	.020	12	6	.01	198	<.01	<3	.21	<.01	.16	<2	2.7
ZR-74	2	25	6	17	.4	9	8	97	1.73	2	<8	2	6	1	<.5	<3	<3	1	<.01	.015	28	7	.02	21	<.01	<3	.22	<.01	.17	2	1566.2
ZR-75	1	3	<3	11	<.3	4	2	176	.94	<2	<8	<2	12	2	<.5	<3	<3	1	.01	.008	32	12	.02	157	<.01	<3	.18	.03	.09	<2	29.7
ZR-76	1	8	5	6	<.3	3	2	32	.72	<2	<8	<2	4	3	<.5	<3	<3	1	<.01	.009	18	10	.01	298	<.01	<3	.19	.01	.16	3	445.3
ZR-77	3	16	8	3	.4	4	2	16	.87	<2	<8	<2	2	1	<.5	<3	<3	1	.01	.007	16	14	.01	99	<.01	<3	.16	.01	.13	<2	3012.4
ZR-78	1	5	26	11	.8	10	10	22	1.61	<2	<8	<2	4	<1	<.5	<3	<3	1	<.01	.008	19	8	.02	17	<.01	<3	.17	<.01	.14	5	4231.7
ZR-79	1	4	6	5	<.3	10	20	30	1.27	2	<8	<2	4	2	<.5	<3	<3	2	<.01	.019	21	7	.01	24	<.01	<3	.21	<.01	.15	<2	23.1
ZR-80	1	4	<3	8	<.3	16	35	95	1.15	<2	<8	<2	4	3	<.5	<3	3	2	.08	.019	12	10	.03	24	<.01	<3	.22	.01	.15	4	9.7
RE ZR-80	1	3	<3	8	<.3	15	36	95	1.13	2	<8	<2	4	3	<.5	<3	<3	2	.08	.019	13	11	.03	25	<.01	<3	.20	.01	.16	3	7.4
ZR-81	1	2	3	10	<.3	4	3	88	.99	4	<8	<2	4	3	<.5	<3	<3	1	.02	.009	10	12	.01	291	<.01	<3	.12	.02	.06	2	203.0
ZR-82	2	5	11	11	.3	3	2	32	.98	10	<8	<2	7	5	<.5	<3	<3	1	<.01	.011	17	16	.01	84	<.01	<3	.15	.03	.03	3	39.6
ZR-83	1	6	11	6	.3	6	5	39	2.52	<2	<8	<2	10	2	<.5	<3	<3	2	.01	.028	29	7	.01	440	<.01	<3	.20	<.01	.17	2	1201.8
ZR-84	2	3	4	7	<.3	3	3	111	1.15	<2	<8	<2	4	3	<.5	<3	<3	1	.04	.007	21	8	.03	232	<.01	<3	.19	.01	.15	<2	348.0
ZR-85	1	1091	1008	792	1.3	5	5	442	1.14	<2	<8	<2	5	17	11.2	<3	3	1	.21	.025	22	10	.05	449	<.01	<3	.18	.01	.14	3	1332.1
ZR-86	2	15	14	16	.4	7	4	1670	2.30	3	<8	<2	3	5	<.5	<3	<3	5	.01	.015	36	12	.02	73	<.01	<3	.19	.01	.18	3	94.6
ZR-87	1	7	14	8	.3	2	1	117	1.12	2	<8	<2	3	4	<.5	<3	<3	1	.03	.007	13	8	.02	92	<.01	<3	.17	<.01	.16	3	45.0
ZR-88	4	10	176	101	.3	6	5	3111	1.48	3	<8	<2	4	17	1.5	<3	<3	1	.42	.021	8	13	.14	50	<.01	<3	.16	.01	.14	3	47.3
ZR-89	2	3	26	10	<.3	2	1	252	.64	2	<8	<2	3	6	<.5	<3	<3	1	<.01	.008	21	10	.01	136	<.01	<3	.17	<.01	.15	3	58.1
ZR-90	3	13	36	32	.5	3	1	122	.69	<2	<8	<2	3	2	.6	<3	3	1	.02	.007	19	16	.02	98	<.01	<3	.15	<.01	.13	2	38.1
ZR-91	9	355	1925	1249	2.8	3	2	150	1.64	6	<8	<2	8	11	13.5	<3	3	2	.01	.051	42	11	.02	762	<.01	<3	.17	<.01	.16	2	555.4
ZR-92	1	8	167	30	.8	3	2	198	1.07	<2	<8	<2	4	6	<.5	<3	<3	1	.01	.017	26	8	.01	254	<.01	<3	.15	<.01	.13	3	831.1
ZR-93	2	7	10	12	<.3	4	2	66	1.05	3	<8	<2	4	2	<.5	<3	<3	2	.01	.029	18	10	.01	38	<.01	<3	.17	<.01	.14	<2	562.3
ZR-94	1	4	10	5	<.3	4	3	36	1.84	2	<8	<2	11	5	<.5	<3	<3	2	<.01	.028	20	8	.02	534	<.01	<3	.23	.01	.20	2	1544.0
ZR-95	5	14	97	76	.5	3	1	28	1.01	27	<8	<2	3	5	<.5	4	<3	1	.04	.007	8	15	.01	108	<.01	<3	.10	.02	.09	2	3253.1
ZR-96	1	9	16	21	<.3	8	5	415	1.05	<2	<8	<2	11	3	<.5	<3	<3	3	.01	.019	54	11	.02	63	<.01	<3	.26	.01	.23	2	65.1
ZR-97	3	12	27	6	.5	3	1	26	1.51	<2	<8	4	6	1	<.5	<3	<3	1	<.01	.020	18	13	.01	23	<.01	<3	.17	<.01	.13	<2	1820.1
ZR-98	2	3	3	4	<.3	3	1	45	.89	<2	<8	<2	4	27	<.5	<3	<3	2	.01	.028	11	13	.01	56	<.01	<3	.14	<.01	.11	<2	425.4
ZR-99	2	5	59	9	.5	4	4	45	1.60	2	<8	5	4	6	<.5	<3	<3	2	<.01	.024	15	12	.01	251	<.01	<3	.16	.01	.13	2	4379.8
ZR-100	3	10	80	66	<.3	18	14	976	2.73	5	<8	<2	9	9	<.5	<3	4	4	.18	.103	41	12	.03	165	<.01	4	.25	.01	.17	2	1174.9
STANDARD DS3	9	127	36	155	.3	38	12	750	3.24	34	<8	<2	3	27	5.7	6	5	71	.54	.086	16	174	.56	140	.08	3	1.82	.04	.16	5	22.0

GROUP 10 - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO<sub>3</sub>-H<sub>2</sub>O 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\* IGNITION BY ACID LEACHED, ANALYZE BY ICP-MS. (10 gm)  
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 29 2002 DATE REPORT MAILED: Aug 8/02 SIGNED BY: C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



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
ZR-101	4	27	94	17	<.3	7	4	56	1.79	39	<8	<2	8	7	<.5	<3	<3	2	.01	.029	30	11	.02	44	<.01	<3	.21	.02	.12	2	58.0
ZR-102	3	42	176	3	4.5	2	1	29	.74	<2	<8	<2	5	<1	<.5	<3	8	1	<.01	.007	10	12	.01	15	<.01	<3	.13	<.01	.09	<2	221.8
ZR-103	4	31	217	41	2.6	13	10	159	3.23	13	<8	17	3	1	<.5	<3	5	1	<.01	.014	12	18	.02	32	<.01	4	.10	<.01	.08	4	15778.6
ZR-104	7	31	341	35	.4	43	424	76	6.14	19	<8	<2	<2	1	<.5	<3	15	2	<.01	.017	3	16	.01	4	<.01	<3	.06	<.01	.02	2	411.0
ZR-105	3	7	9	6	<.3	16	42	83	1.19	4	<8	<2	<2	1	<.5	<3	3	1	<.01	.007	1	13	<.01	6	<.01	<3	.05	.01	.03	2	20.0
ZR-106	3	4	16	10	.6	7	7	116	1.40	3	<8	4	12	5	<.5	<3	<3	2	.02	.019	23	8	.02	245	<.01	<3	.23	<.01	.21	<2	949.9
ZR-107	13	76	24	12	.4	19	32	64	1.99	2	<8	<2	3	4	<.5	<3	3	2	<.01	.021	3	15	.01	18	<.01	3	.12	.01	.06	3	9.4
ZR-108	3	5	<3	3	<.3	12	62	15	1.90	3	<8	<2	<2	<1	<.5	<3	<3	3	<.01	.012	2	10	.01	4	<.01	<3	.05	<.01	.03	<2	4.2
ZR-109	2	4	4	2	<.3	6	9	26	1.44	2	<8	<2	<2	1	<.5	<3	3	1	<.01	.001	2	15	<.01	4	<.01	3	.04	.01	.03	3	2.5
ZR-110	3	3	<3	2	<.3	5	7	14	1.37	<2	<8	<2	<2	1	<.5	<3	<3	1	<.01	.003	3	15	.01	10	<.01	<3	.09	<.01	.08	<2	.9
ZR-111	2	4	7	11	<.3	28	55	284	1.83	3	<8	<2	<2	83	<.5	<3	<3	<1	3.03	.006	2	14	1.67	2	<.01	3	.03	.01	.01	3	33.0
ZR-112	4	6	3	11	<.3	31	35	23	5.52	25	<8	<2	2	1	<.5	<3	<3	7	.02	.037	3	20	.03	4	<.01	13	.09	.01	.05	<2	4.5
ZR-113	4	6	9	7	<.3	13	49	29	2.74	7	<8	<2	4	2	<.5	<3	3	1	.13	.019	4	12	.98	9	<.01	5	.70	.01	.06	3	5.5
ZR-114	20	9	46	14	.3	15	57	44	5.28	5	<8	<2	4	4	<.5	<3	4	3	.02	.023	5	14	.36	98	<.01	4	.42	.01	.10	<2	5.8
RE ZR-114	19	9	53	15	.5	14	57	44	5.31	3	8	<2	5	4	<.5	<3	4	3	.02	.023	6	15	.36	111	<.01	<3	.42	.01	.10	<2	6.2
ZR-115	9	9	21	14	<.3	39	187	36	5.34	7	<8	<2	5	2	<.5	3	5	1	.01	.013	8	16	.51	323	<.01	5	.48	.01	.07	2	8.6
ZR-116	27	21	15	10	.5	4	18	24	3.25	<2	<8	<2	3	1	<.5	<3	6	2	<.01	.014	9	13	.16	31	<.01	<3	.25	.01	.07	<2	5.5
ZR-117	32	21	12	16	<.3	20	97	90	5.83	2	<8	<2	3	1	<.5	<3	4	3	<.01	.033	13	16	.14	15	<.01	<3	.26	.01	.07	3	4.6
ZR-118	3	4	<3	6	<.3	6	15	18	2.07	5	<8	<2	2	1	<.5	<3	<3	1	<.01	.013	3	19	.01	7	<.01	5	.11	.01	.06	<2	1.8
ZR-119	1	6	8	9	.4	4	3	119	1.17	<2	<8	<2	6	3	<.5	<3	<3	3	.03	.021	19	11	.01	67	<.01	<3	.18	.02	.10	<2	11.4
ZR-120	3	7	8	10	<.3	3	2	32	1.08	2	<8	<2	6	1	<.5	<3	<3	1	.01	.008	14	9	.01	14	<.01	<3	.10	.03	.03	<2	13.3
ZR-121	1	5	11	4	<.3	3	1	36	.86	17	<8	<2	8	16	<.5	<3	4	2	.02	.019	31	14	.01	139	<.01	<3	.20	.04	.12	2	18.2
ZR-122	3	10	14	4	<.3	3	8	43	1.04	2	<8	<2	2	5	<.5	<3	<3	1	.07	.008	8	10	.01	80	<.01	<3	.11	.04	.11	<2	1.6
ZR-123	1	4	3	9	<.3	4	3	83	1.33	<2	<8	<2	5	3	<.5	<3	<3	1	.02	.005	11	13	.02	27	<.01	<3	.15	.03	.04	2	88.8
ZR-124	3	3	3	7	<.3	5	4	65	.87	<2	<8	<2	6	2	<.5	<3	3	1	.01	.008	13	10	.02	23	<.01	<3	.17	.02	.04	<2	16.9
ZR-125	1	4	3	3	<.3	4	9	37	.75	<2	<8	<2	4	4	<.5	<3	<3	1	.04	.004	10	12	.01	674	<.01	<3	.13	.02	.07	<2	4.3
ZR-126	4	8	12	5	<.3	5	8	22	.50	<2	<8	<2	2	2	<.5	<3	<3	1	<.01	.006	3	10	.01	430	<.01	<3	.15	<.01	.11	<2	1.0
ZR-127	3	15	16	7	.5	8	71	40	2.50	3	<8	<2	3	<1	<.5	3	4	3	<.01	.013	8	10	.01	17	<.01	<3	.12	<.01	.08	2	7.0
ZR-128	2	8	<3	5	<.3	4	6	32	1.07	3	<8	<2	4	3	<.5	<3	3	1	<.01	.009	22	12	.01	447	<.01	<3	.14	<.01	.10	<2	327.4
STANDARD DS3	11	131	32	161	<.3	40	12	767	3.25	33	8	<2	3	28	6.0	6	5	73	.57	.088	17	180	.58	141	.08	<3	1.81	.04	.16	6	22.0
ZR-129	2	8	<3	5	<.3	4	3	41	1.56	2	<8	<2	5	2	<.5	<3	<3	1	<.01	.012	21	13	.01	164	<.01	<3	.17	<.01	.13	4	480.5
ZR-130	3	67	15	7	<.3	14	8	133	6.74	144	10	<2	4	<1	<.5	<3	3	4	<.01	.015	4	10	.02	14	<.01	<3	.26	<.01	.07	2	5.0
ZR-131	2	3	10	3	<.3	2	2	33	.59	2	<8	<2	7	1	<.5	<3	<3	1	<.01	.006	22	10	.01	141	<.01	<3	.24	.01	.12	3	18.0
ZR-132	2	8	49	2	<.3	2	1	24	1.22	4	<8	<2	4	2	<.5	<3	<3	1	<.01	.005	16	12	.01	66	<.01	<3	.16	.01	.12	<2	970.2
ZR-133	2	19	14	11	<.3	7	28	125	2.42	<2	<8	<2	5	5	<.5	<3	<3	1	<.01	.008	8	10	.01	181	<.01	<3	.15	.02	.11	4	3.3
ZR-134	3	4	<3	13	<.3	5	3	132	1.15	<2	9	<2	5	3	<.5	<3	<3	1	.03	.019	24	11	.01	44	<.01	<3	.14	.03	.05	<2	14.0
STANDARD DS3	9	128	30	162	<.3	40	13	764	3.29	32	10	<2	5	28	6.1	5	6	74	.56	.089	16	180	.58	142	.08	3	1.78	.04	.16	6	22.0

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Date 1 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	Au*
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppb
ZR-135	2	3	4	18	<.3	4	2	67	1.29	<2	<8	<2	8	2	<.5	<3	<3	2	.01	.011	28	17	.02	38	<.01	<3	.32	.04	.15	3	3.1
ZR-136	3	3	5	17	<.3	8	2	78	1.32	2	<8	<2	7	2	<.5	<3	<3	3	.01	.011	32	23	.03	33	<.01	<3	.31	.07	.09	7	2.9
ZR-137	1	7	5	27	<.3	16	7	133	2.29	<2	<8	<2	20	2	<.5	<3	<3	5	.02	.031	45	17	.04	62	<.01	<3	.53	.01	.28	3	9.9
ZR-138	21	9	77	45	.6	12	3	49	3.44	39	<8	<2	2	1	<.5	<3	<3	1	<.01	.012	4	37	.01	19	<.01	<3	.10	.01	.05	15	279.1
ZR-139	3	3	3	5	<.3	3	1	235	.72	<2	<8	<2	<2	1	<.5	<3	<3	1	<.01	.005	1	30	.01	29	<.01	<3	.06	<.01	.02	13	.9
ZR-140	5	4	3	4	<.3	7	1	82	.67	<2	<8	<2	<2	1	<.5	<3	<3	1	<.01	.004	1	41	.06	14	<.01	<3	.11	.01	.03	16	.8
ZR-141	3	9	98	19	1.0	9	4	121	1.55	<2	<8	<2	5	1	<.5	<3	<3	2	<.01	.010	13	29	.03	28	<.01	<3	.26	.02	.09	9	4.2
ZR-142	4	43	137	8	3.3	13	8	56	5.75	<2	<8	<3	6	8	<.5	<3	<3	3	<.01	.035	16	29	.02	387	<.01	<3	.29	<.01	.23	8	2700.6
ZR-143	3	206	243	5	11.4	4	3	234	1.24	<2	<8	23	16	1	<.5	<3	12	3	.01	.022	50	22	.03	63	<.01	<3	.36	<.01	.26	5	12941.2
ZR-144	6	20	27	24	1.5	19	12	270	5.04	<2	<8	10	7	3	<.5	<3	<3	3	.03	.031	9	30	.03	88	<.01	<3	.38	.01	.27	11	7395.4

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*
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppb
SI	<1	1	3	1	<.3	<1	<1	4	.01	<2	<8	<2	<2	1	<.5	<3	<3	<1	.05	<.001	<1	<1	<.01	2	<.01	<3	<.01	.22	<.01	<2	.4
ZR-150	3	8	11	11	.3	6	1	58	.96	3	<8	<2	6	6	<.5	3	<3	4	.01	.009	24	16	.03	1930	<.01	<3	.52	.01	.37	7	63.9
ZR-151	3	19	202	48	.8	15	40	97	1.50	38	<8	<2	2	3	<.5	3	<3	3	.01	.019	15	20	.01	153	<.01	3	.27	.02	.17	11	19.8
ZR-152	3	9	41	13	.3	4	1	69	1.01	3	<8	<2	11	1	<.5	<3	<3	3	.01	.018	39	22	.02	56	<.01	<3	.31	.01	.20	16	82.3
ZR-153	1	4	23	37	<.3	11	8	227	1.93	<2	<8	<2	10	2	<.5	<3	<3	2	.02	.026	33	15	.03	73	<.01	<3	.35	.02	.23	6	22.6
ZR-154	3	6	7	6	<.3	5	1	49	.84	<2	<8	<2	9	4	<.5	<3	<3	2	<.01	.012	30	21	.03	240	<.01	<3	.41	.01	.30	7	84.2
ZR-155	2	5	8	9	.3	5	3	56	1.04	<2	<8	<2	5	5	<.5	<3	<3	3	.01	.007	15	19	.02	1021	<.01	<3	.25	.03	.14	8	352.1
ZR-156	4	21	31	6	1.5	8	3	135	1.28	2	<8	3	7	7	<.5	<3	<3	3	.01	.018	20	31	.03	105	<.01	<3	.35	.01	.26	13	2537.8
ZR-157	3	9	82	57	1.0	11	7	522	3.64	2	<8	2	3	7	<.5	<3	<3	2	.01	.025	13	22	.02	112	.01	<3	.15	.01	.11	11	1820.9
ZR-158	3	34	47	17	1.4	8	3	188	1.78	3	<8	2	9	7	<.5	<3	<3	3	<.01	.024	24	23	.03	596	<.01	<3	.37	.01	.27	9	1679.3
ZR-159	3	5	13	7	.3	7	2	92	1.35	<2	<8	<2	8	4	<.5	<3	<3	3	<.01	.017	29	15	.03	493	<.01	<3	.37	<.01	.28	6	543.4
ZR-160	3	6	5	17	.5	8	5	282	2.03	3	<8	<2	10	3	<.5	<3	<3	5	.02	.043	28	18	.04	90	<.01	<3	.45	.01	.30	7	475.0
ZR-161	1	24	16	5	.8	3	2	49	1.37	2	<8	13	6	4	<.5	<3	<3	3	<.01	.021	22	16	.03	207	<.01	<3	.35	.01	.26	7	10146.5
ZR-162	3	193	32	34	5.5	11	5	2980	3.60	4	<8	13	5	4	<.5	<3	<3	3	<.01	.036	17	25	.03	423	<.01	<3	.30	.01	.20	10	8298.2
ZR-163	2	82	24	7	1.2	4	2	429	.86	2	<8	15	5	2	<.5	<3	<3	2	<.01	.013	22	22	.02	43	<.01	<3	.24	<.01	.17	9	9367.6
ZR-164	2	35	14	6	1.1	3	1	75	1.09	3	<8	<2	4	1	<.5	<3	<3	2	<.01	.013	18	22	.02	31	<.01	<3	.27	.01	.20	9	1368.0
ZR-165	3	7	7	6	.4	6	2	79	1.26	2	<8	<2	7	3	<.5	<3	<3	2	.01	.014	25	23	.03	305	<.01	<3	.37	.01	.26	8	372.4
ZR-166	11	49	589	298	2.8	4	1	65	1.91	2	<8	<2	12	2	3.0	<3	<3	3	.01	.011	20	17	.02	182	<.01	<3	.34	.01	.25	6	1405.0
ZR-167	4	30	6051	96	4.6	7	1	53	1.19	<2	<8	9	6	3	.5	<3	<3	3	.01	.017	18	24	.02	193	<.01	<3	.32	.01	.23	10	4314.5
ZR-168	4	52	2360	111	2.8	1	<1	31	2.28	<2	<8	3	12	4	.5	<3	<3	4	<.01	.018	33	13	.03	89	<.01	<3	.40	.01	.30	7	1913.8
ZR-169	4	12	192	200	.5	6	1	47	1.04	<2	<8	<2	6	1	1.6	<3	<3	2	<.01	.009	23	24	.02	66	<.01	<3	.28	.01	.19	10	503.5
ZR-170	2	10	23	8	.4	6	5	262	1.80	3	<8	<2	9	3	<.5	<3	<3	2	<.01	.021	28	15	.02	60	<.01	<3	.34	.01	.23	5	781.8
ZR-171	2	8	13	7	.4	6	2	76	1.77	4	<8	<2	10	5	<.5	<3	<3	5	.01	.031	39	14	.04	172	<.01	<3	.54	.01	.37	4	472.2
ZR-172	2	6	117	22	.4	4	2	113	1.18	3	<8	<2	4	1	<.5	<3	<3	2	.01	.006	14	23	.02	62	<.01	<3	.20	.01	.15	10	124.4
ZR-173	3	4	20	5	<.3	80	127	48	3.25	8	<8	<2	<2	20	<.5	<3	<3	4	1.03	.535	6	32	.04	187	<.01	7	.38	.02	.18	15	15.2
RE ZR-173	4	4	19	5	<.3	80	126	53	3.23	9	<8	<2	<2	20	<.5	<3	<3	4	1.03	.532	5	30	.04	187	<.01	7	.38	.01	.17	15	14.2
ZR-174	2	5	58	3	.7	95	201	34	3.64	11	<8	<2	2	6	<.5	<3	5	4	.26	.154	15	24	.02	57	<.01	3	.21	.01	.12	11	68.4
ZR-175	2	3	6	6	<.3	5	2	28	.93	<2	<8	<2	5	2	<.5	<3	<3	2	<.01	.008	20	20	.02	236	<.01	<3	.33	.01	.23	7	71.2
ZR-176	2	3	3	14	<.3	5	4	55	.98	<2	<8	<2	4	2	<.5	<3	<3	1	.01	.015	16	15	.02	528	<.01	<3	.29	<.01	.20	7	233.3
ZR-177	3	2	4	23	<.3	8	2	75	1.35	<2	<8	<2	18	4	<.5	<3	<3	4	.02	.020	38	22	.05	47	<.01	3	.46	.03	.24	7	22.7
ZR-178	2	3	59	48	<.3	5	4	33	1.33	<2	<8	<2	8	4	<.5	<3	<3	2	.05	.034	15	13	.08	162	<.01	<3	.49	.04	.17	5	16.7
ZR-179	5	3	23	123	<.3	7	3	63	1.23	4	<8	<2	12	3	.9	<3	<3	3	.03	.010	28	26	.05	42	<.01	3	.45	.03	.19	9	18.1
ZR-180	3	4	23	14	<.3	5	2	67	.66	2	<8	<2	5	1	<.5	<3	<3	2	.01	.006	15	24	.02	21	<.01	<3	.24	.04	.08	11	10.8
ZR-181	3	6	5	8	<.3	7	2	73	.92	11	<8	2	6	1	<.5	<3	<3	2	<.01	.014	32	22	.02	26	<.01	<3	.34	.01	.22	8	336.2
ZR-182	2	3	8	15	.3	8	4	85	1.77	3	<8	<2	6	2	3.1	<3	<3	2	.03	.026	19	17	.03	109	<.01	<3	.40	<.01	.28	7	360.7



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
ZR-183	2	4	4	6	<.3	7	3	65	1.56	3	<8	<2	4	4	<.5	<3	4	2	.01	.006	10	16	.02	84	<.01	<3	.21	<.01	.16	7	328.3
ZR-184	3	5	5	4	.5	12	4	59	1.56	<2	<8	3	3	1	.9	<3	<3	<1	.01	.008	6	25	.02	54	<.01	<3	.21	.01	.12	11	2084.6
ZR-185	5	5	19	4	.3	5	2	78	.96	<2	<8	<2	3	1	<.5	<3	<3	1	<.01	.007	10	26	.02	23	.01	<3	.18	.01	.12	12	402.9
ZR-186	1	4	3	4	<.3	5	1	27	1.04	2	<8	<2	6	4	<.5	<3	<3	3	.01	.019	16	14	.03	158	<.01	<3	.32	.02	.22	5	263.8
ZR-187	6	6	147	5	1.5	5	1	90	1.06	3	<8	<2	6	1	<.5	<3	5	1	.01	.008	14	22	.02	18	<.01	<3	.24	<.01	.16	11	821.0
ZR-188	3	3	13	4	.5	5	1	29	.91	4	<8	4	7	1	<.5	<3	<3	1	<.01	.007	26	20	.02	37	<.01	<3	.32	<.01	.24	7	4504.6
ZR-189	5	62	7	4	<.3	8	4	69	1.61	2	<8	<2	2	<1	<.5	<3	<3	1	<.01	.013	4	30	.01	9	<.01	<3	.11	<.01	.08	16	343.6
ZR-190	5	6	48	4	.9	13	2	78	1.70	26	<8	<2	<2	1	.8	<3	4	<1	<.01	.003	1	47	.01	5	<.01	<3	.04	<.01	.02	23	33.8
ZR-191	2	7	3	22	<.3	6	3	153	2.79	4	<8	<2	<2	9	<.5	<3	<3	12	.14	.095	<1	28	.02	10	<.01	<3	.06	<.01	.02	16	124.1
ZR-192	3	12	27	9	<.3	10	5	341	1.67	3	<8	<2	3	1	<.5	<3	<3	3	<.01	.015	10	27	.02	45	<.01	<3	.17	.01	.12	11	269.5
ZR-193	2	25	17	13	.4	14	8	339	2.90	5	10	2	12	1	<.5	<3	<3	2	<.01	.051	38	22	.01	95	<.01	<3	.21	.01	.15	9	909.9
ZR-194	1	46	14	21	.5	11	9	382	3.44	5	<8	7	17	2	<.5	<3	<3	2	<.01	.050	66	14	.02	137	<.01	<3	.41	<.01	.28	4	5592.9
ZR-195	2	5	5	4	<.3	6	3	80	.90	2	<8	<2	3	1	<.5	<3	<3	1	.02	.018	9	29	.01	22	<.01	<3	.14	<.01	.10	12	151.6
ZR-196	2	5	9	6	<.3	8	2	132	1.17	<2	<8	<2	10	1	<.5	<3	<3	2	<.01	.014	18	31	.03	120	<.01	<3	.33	<.01	.23	8	811.7
ZR-197	1	4	11	5	<.3	6	3	81	1.01	2	<8	<2	9	7	<.5	<3	<3	2	.09	.061	26	21	.03	297	<.01	<3	.29	.01	.23	8	116.1
ZR-198	6	14	32	43	.6	9	3	366	1.25	6	<8	<2	4	3	<.5	<3	4	2	.02	.012	9	30	.12	121	<.01	<3	.31	.01	.17	12	112.2
SI	<1	1	<3	1	<.3	<1	<1	3	.03	<2	<8	<2	<2	2	<.5	<3	<3	1	.09	<.001	<1	2	<.01	2	<.01	<3	.01	.48	.01	13	<.2
ZR-200	1	4	18	77	<.3	11	12	1432	2.97	<2	<8	<2	10	2	<.5	<3	<3	2	.01	.055	26	13	.05	266	<.01	<3	.34	.01	.23	4	2.4
ZR-201	2	192	8	9	1.6	6	7	1180	1.67	<2	<8	<2	10	4	<.5	<3	<3	3	<.01	.025	26	15	.03	94	<.01	<3	.40	.01	.28	4	1937.1
ZR-202	1	11	20	10	1.0	6	3	273	2.35	<2	<8	<2	10	3	<.5	<3	<3	3	<.01	.023	8	8	.02	844	<.01	<3	.32	<.01	.26	2	1034.6
ZR-203	2	5	7	6	<.3	4	2	108	.62	2	<8	<2	11	1	<.5	<3	<3	2	<.01	.009	33	16	.02	59	<.01	<3	.33	.01	.24	4	412.0
ZR-204	1	6	25	6	<.3	2	1	84	1.20	3	<8	<2	7	3	<.5	<3	<3	2	<.01	.023	25	12	.02	42	<.01	<3	.27	<.01	.21	3	374.2
ZR-205	1	9	7	11	<.3	5	2	136	1.66	4	<8	3	14	3	<.5	<3	<3	3	<.01	.039	55	10	.03	96	<.01	<3	.44	<.01	.30	2	1045.9
ZR-206	1	6	5	11	<.3	3	1	31	1.33	<2	<8	3	5	1	<.5	<3	<3	2	<.01	.024	23	11	.02	27	<.01	<3	.27	<.01	.18	3	959.8
ZR-207	3	6	46	10	<.3	4	2	250	.87	2	<8	<2	8	1	<.5	<3	<3	2	.01	.017	23	20	.02	64	<.01	<3	.31	<.01	.24	5	85.2
ZR-208	1	7	26	19	<.3	4	4	433	1.23	<2	<8	<2	9	7	<.5	<3	<3	2	.12	.034	21	11	.05	101	<.01	<3	.34	.02	.26	3	1392.0
ZR-209	2	11	58	9	1.3	6	2	148	1.11	<2	<8	3	5	5	<.5	<3	<3	2	<.01	.016	18	17	.02	661	<.01	<3	.30	.01	.23	5	3059.3
ZR-210	3	9	43	57	<.3	9	8	651	2.39	3	<8	<2	6	33	<.5	<3	<3	3	.03	.042	21	17	.03	2203	<.01	<3	.29	.01	.23	5	380.6
ZR-211	4	35	53	9	1.0	10	10	150	2.71	5	<8	9	15	5	<.5	<3	<3	4	.02	.021	32	24	.02	381	<.01	4	.28	.01	.22	6	12238.7
ZR-212	2	5564	644	46	28.7	9	7	258	1.50	11	<8	77	<2	32	1.0	5	23	4	1.25	.009	1	21	.61	56	<.01	4	.03	<.01	.02	7	39597.4
ZR-213	3	37	12	23	<.3	9	25	145	3.10	7	<8	<2	7	1	<.5	<3	<3	3	<.01	.012	29	17	.03	23	<.01	<3	.34	<.01	.23	4	24.1
ZR-214	3	49	282	70	6.4	41	57	842	7.19	21	9	<2	4	1	<.5	<3	14	4	<.01	.011	6	21	.03	46	<.01	3	.11	.01	.08	6	1252.1
ZR-215	3	17	16	13	<.3	8	4	78	1.39	3	<8	<2	6	3	<.5	<3	<3	2	.01	.014	21	21	.01	24	<.01	<3	.21	.05	.09	6	7.2
ZR-216	2	6	11	7	<.3	6	4	225	1.54	2	<8	<2	5	12	<.5	<3	<3	2	.27	.021	11	15	.11	131	<.01	<3	.25	.02	.16	4	26.3
ZR-217	<1	163	<3	198	<.3	48	37	1581	7.53	120	12	<2	2	83	.7	<3	<3	29	5.57	.102	4	14	2.84	61	<.01	5	.37	.03	.21	9	7.4
ZR-218	2	9	19	74	<.3	4	3	82	1.39	41	<8	<2	9	4	<.5	<3	<3	3	.05	.009	28	14	.04	181	<.01	<3	.31	.03	.19	7	179.8
ZR-219	2	5	6	15	<.3	9	5	107	1.45	4	<8	<2	8	4	<.5	<3	<3	4	.02	.010	20	18	.03	160	<.01	<3	.30	.05	.18	5	9.0
ZR-220	2	7	13	9	<.3	11	7	94	2.69	48	<8	<2	9	5	<.5	<3	<3	6	.04	.045	25	17	.03	142	<.01	<3	.31	.01	.22	5	24.0
RF ZR-220	1	6	10	8	<.3	12	6	97	2.55	45	<8	<2	8	4	<.5	<3	<3	5	.04	.042	24	16	.02	153	<.01	<3	.29	.01	.21	5	24.7
ZR-221	3	5	78	45	<.3	7	2	58	2.06	59	<8	<2	4	1	<.5	<3	<3	2	<.01	.009	12	28	.03	18	<.01	<3	.31	.01	.08	9	1601.3
ZR-222	4	22	24148	227	158.2	4	1	58	.94	7	<8	<2	<2	3	5.4	54	103	1	<.01	.011	1	35	<.01	36	<.01	<3	.03	<.01	.01	12	551.9
ZR-223	3	4	380	13	1.2	10	3	131	1.57	9	<8	<2	4	2	<.5	<3	<3	2	.01	.028	15	28	.01	35	<.01	<3	.23	.01	.14	8	14.1

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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
ZR-501	2	66	32	37	2.6	8	4	300	6.07	3	<8	3	16	15	<.5	<3	<3	4	.01	.156	27	12	.02	149	<.01	<3	.37	.01	.27	2	4115.0
ZR-502	3	5	4	23	<.3	7	5	603	2.22	6	9	<2	9	4	<.5	<3	<3	8	.01	.053	19	33	.03	224	<.01	<3	.63	<.01	.13	4	41.0
RE ZR-502	3	5	5	35	<.3	8	4	604	2.20	5	<8	<2	9	4	<.5	<3	<3	8	.01	.053	19	31	.03	225	<.01	<3	.62	<.01	.13	4	49.0

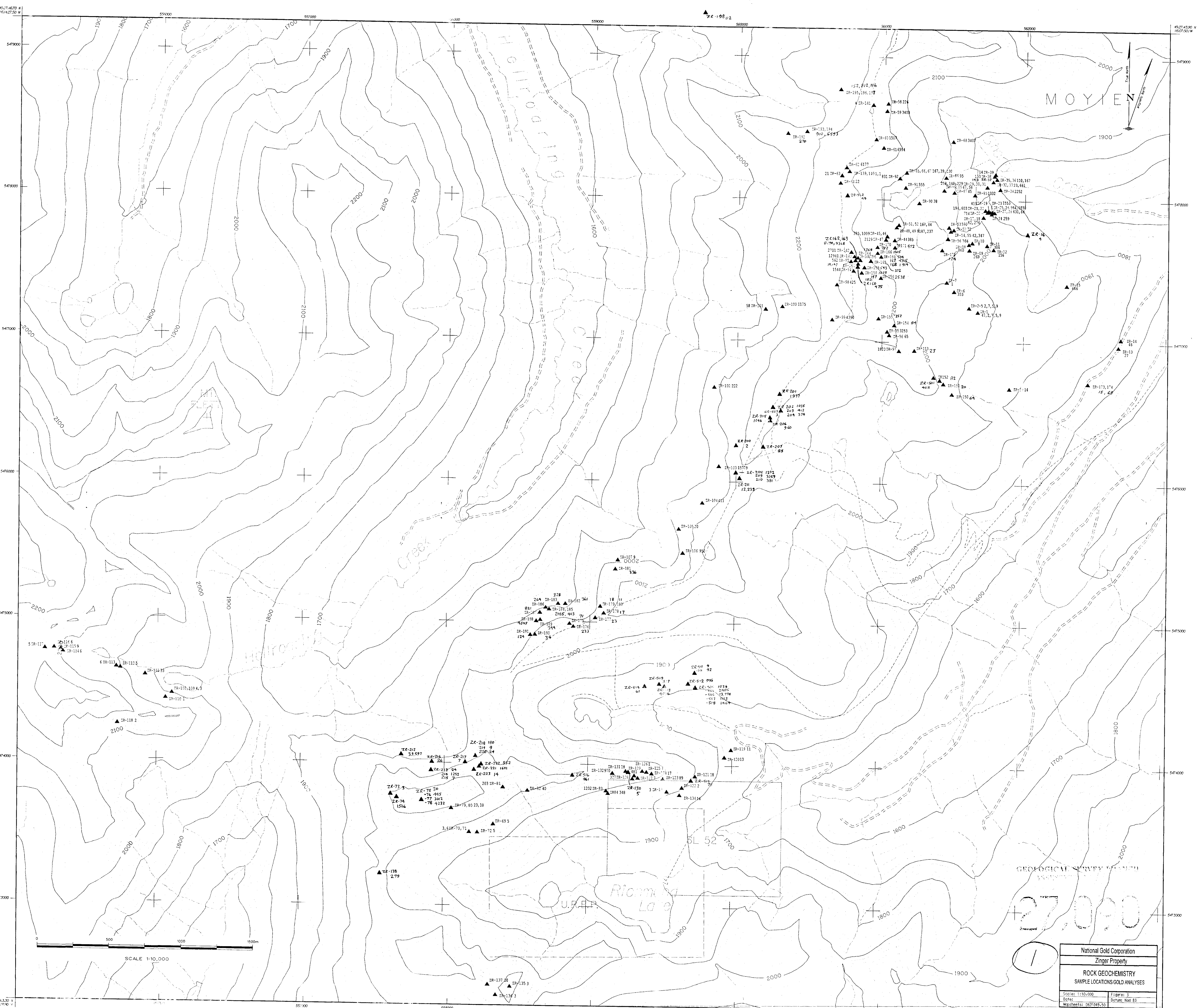
SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
ZR-503	3	6	422	9	1.2	4	1	186	.75	<2	<8	<2	4	1	<.5	<3	<3	2	<.01	.013	16	29	.02	25	<.01	<3	.20	.01	.15	9	2.7
ZR-504	2	3	60	6	<.3	4	2	75	1.90	8	<8	<2	4	5	<.5	<3	<3	3	<.01	.009	18	16	.02	137	<.01	<3	.23	.02	.21	5	1036.0
ZR-505	2	5	76	6	.5	1	1	80	3.09	33	<8	4	6	4	<.5	<3	<3	3	<.01	.009	22	14	.02	222	<.01	<3	.27	.01	.23	4	2485.4
ZR-506	3	4	50	13	1.5	3	1	74	2.69	28	<8	12	6	2	<.5	<3	<3	3	<.01	.025	32	16	.02	99	<.01	<3	.35	.01	.26	5	13774.1
ZR-507	2	5	104	5	<.3	3	1	79	1.83	16	<8	3	6	5	<.5	<3	<3	3	<.01	.040	21	17	.02	167	<.01	<3	.24	.01	.21	6	1113.1
ZR-508	4	3	29	3	<.3	3	<1	56	.84	21	<8	<2	2	4	<.5	<3	<3	1	<.01	.008	17	23	.02	193	<.01	<3	.21	<.01	.19	6	1463.9
ZR-509	5	8	70	6	1.3	2	1	68	1.83	6	<8	<2	5	5	<.5	<3	<3	3	<.01	.015	25	19	.02	260	<.01	<3	.26	.01	.20	5	376.7
ZR-510	3	2	11	10	<.3	5	3	197	.91	3	<8	<2	8	3	<.5	<3	<3	3	<.01	.016	31	17	.02	309	<.01	<3	.27	.02	.20	4	9.4
ZR-511	2	2	24	6	<.3	3	2	60	1.52	6	<8	<2	9	1	<.5	<3	<3	4	<.01	.022	36	12	.02	88	<.01	<3	.31	.01	.25	3	91.7
STANDARD DS4	7	123	34	154	<.3	35	12	829	3.16	24	<8	<2	4	31	5.0	5	5	76	.55	.097	18	169	.60	148	.10	<3	1.78	.04	.18	4	26.6

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
ZR-512	4	2	29	5	.5	4	1	50	2.92	6	<8	<2	7	16	<.5	<3	<3	3	<.01	.041	25	15	.03	742	<.01	<3	.39	<.01	.34	6	995.0
ZR-513	2	6	106	4	1.2	3	1	17	3.42	15	<8	5	5	7	<.5	<3	<3	2	<.01	.022	24	11	.02	401	<.01	<3	.28	.01	.27	4	4076.0
ZR-514	2	3	6	21	<.3	10	5	168	1.66	2	<8	<2	10	3	<.5	<3	<3	3	.03	.034	33	17	.03	79	.01	<3	.34	.02	.24	7	60.9
ZR-515	3	8	15	11	<.3	6	3	168	1.44	2	<8	<2	6	3	<.5	<3	<3	1	.01	.022	19	20	.01	26	<.01	<3	.16	.03	.06	9	75.1
ZR-516	3	4	17	6	.4	6	4	89	1.83	6	<8	<2	5	2	<.5	<3	<3	2	<.01	.015	16	18	.02	69	<.01	<3	.31	.01	.23	7	961.0

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

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National Gold Corporation	
Zinger Property	
ROCK GEOCHEMISTRY	
SAMPLE LOCATIONS/GOLD ANALYSES	
Scale: 1:10,000	Figure: 3
Dates:	Datum: NAD 83
Mapsheet: 087049.50	