## APPENDIX 1

# REGIONAL RESOURCES LTD. GWR RESOURCES INC. LAC LA HACHE PROJECT 1995 DRILL PROGRAM MURPHY LAKE PROPERTY 

Longitude $121^{\circ} 15^{\prime} \mathrm{W}$, Latitude $52^{\circ} 01^{\prime} \mathrm{N}$ Cariboo Mining Division, B.C.

NTS 93 A/3

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## SUMMARY

Diamond drilling of 1146 metres in seven holes was performed on the Murphy Lake grid by the Lac La Hache joint venture in 1995, subsequent to induced polarization and magnetometer surveying in 1994/95.

The grid is situated on the TT1-TT3 claims, which are under option from Action Mine Services Inc. and form part of "Claim Group $1^{1 "}$ in the agreement between Regional Resources Ltd. and GWR Resources Inc. Regional has the right to acquire a 60 percent interest in these claims by incurring cumulative work costs and option payments of $\$ 4000000$ before December 31, 1998 on all of the Lac La Hache claims.

A 30-35 metre-wide, steeply dipping zone grading 0.2-0.3\% copper with traces of gold and molybdenum was intersected in holes ML95-01 and ML95-06 at a distance of 115 metres in moderately potassic altered, coarse-grained, magnetic monzonite. Higher grades of 0.4-1.1\% copper are confined to a width of 10 metres or less near the footwall of the zone. It is open below 50 metres depth and on strike to the north and south. The distribution of chalcopyrite, the only copper mineral present, is fracture-controlled, disseminations are less frequent.

The mineralization is characterized by a weak chargeability anomaly and a coinciding relative magnetic low, which indicates destruction of primary magnetite during hydrothermal alteration.

An economic deposit, mineable by open pit methods would require a large tonnage, and a copper grade probably close to one percent considering the low amounts of gold and molybdenum present. So far, this grade has only been found in a narrow zone at the margin of a wider, low grade envelope. Geophysical surveys performed on 400 metre-spaced lines indicate a continuation of the IP anomaly to the north, past the last line ( 6600 N ) on the grid. There is sufficient room for a large tonnage deposit between hole ML95-06 on Section 5915N, which had the best intersection, and the northern limit of the claim group, close to the boundary of the aeromagnetic anomaly.

It is recommended to perform a program of line cutting, geophysical surveying (which should include the western margin of the northerly trending magnetic anomaly) and diamond drilling for a total of $\$ 250000$ on the property in 1996. If this program is successful, a second phase of drilling and testing with estimated costs of $\$ 450000$ would follow.


Drill hole ML95-06. The section from 68.40 to 77.70 metres returned $1.14 \% \mathrm{Cu}, 0.07 \mathrm{~g} / \mathrm{t} \mathrm{Au}$

## INTRODUCTION

The Lac La Hache joint venture of Regional Resources Ltd. and GWR Resources Inc. was formed in 1993, to explore a block of claims north of Lac La Hache, south-central British Columbia (Figure ML-1), for porphyry and skarn-type copper and copper-gold deposits.

In 1994/95 induced polarization (IP) and magnetic surveying was performed over the eastern lobe of a large regional aeromagnetic anomaly, north of the Nemrud grid. The Nemrud bornite skarn is developed in Nicola Group rocks in close proximity to the Takomkane batholith and was drilled by the Lac La Hache joint venture in 1994/95. Objective of the geophysical surveys was, to test a magnetic anomalous area near the projected Nicola Group/Takomkane contact for its potential to host porphyry and skarn-type copper-gold deposits. The magnetic anomaly is underlain by extensive glacio-fluvial overburden with scarce outcrop of monzonite and gabbro carrying traces chalcopyrite. A total of 27 kilometres of IP and magnetometer surveys on 400 metrespaced lines returned several weak to moderate chargeability anomalies and magnetic anomalies. Results of the surveys were presented to the joint venture partners in March of $1995{ }^{(1)}$.

This report describes results of drilling of three anomalies with a total of 1145.9 metres in seven NQ-size holes during August to December 1995. Field work was carried out by Strathcona Mineral Services Limited on behalf of the joint venture partners.

## LOCATION AND ACCESS

The Murphy Lake property is situated 27 kilometres northeast of Lac La Hache, in the Cariboo Mining Division of south-central British Columbia, and is centred at Longitude $121^{\circ} 15^{\prime} \mathrm{W}$ and Latitude $52^{\circ} 01^{\prime} \mathrm{N}$ (Figure ML-2). The claims are accessible from 100 Mile House via Forest Grove by 23 kilometres of asphalt road and 34 kilometres of gravel road (Bradley Creek Road = 500-Road, 100-Road, B-Road). The northern portion of the grid has been logged by Weldwood of Canada Ltd. in December 1995.


## PHYSIOGRAPHY AND CLIMATE

The Central Plateau in the Lac La Hache region is characterized by gentle, rolling hills with elevations ranging from 850 m to 1500 metres above sea level. About $40 \%$ of the forests in the area have been clear cut. The climate is cold temperate with an annual precipitation of 500 to 1000 millimetres. Snow cover on the ground averages one to two metres, with snow arriving in November and departing by mid-April.

The Murphy Lake grid has an average elevation of approximately 1040 metres, and is situated on a plane dipping gently to the northeast towards Murphy Lake. Glaciofluvial deposits which cover approximately 90 percent of the area are intersected by creeks draining into the lake.

## PROPERTY STATUS

The Murphy Lake grid is located on TT1-TT3 claims, in the Cariboo Mining Division of south-central British Columbia. These and other claims listed below are under option from Action Mine Services Inc. and constitute "Claim Group 1" in the agreement between Regional Resources Ltd. and GWR Resources Inc. Regional has the right to acquire a $60 \%$ interest in these claims by incurring cumulative work costs and option payments of $\$ 4000000$ before December 31, 1998 on all of the Lac La Hache claims.

Drilling was performed on TT1 claim (ML95-01, -04 to -07) and TT2 claim (ML95-02, -03).

Claim Group 1

| Claim Name | Record Number | Number of Units | Expiry Date |
| :---: | :---: | :---: | :---: |
| TT | 303085 | 20 | Aug. 12, 1997 |
| TT1 | 302141 | 20 | June 19, 1996 |
| TT2 | 302142 | 20 | June 18, 1997 |
| TT3 | 302143 | 20 | June 18, 1997 |
| Ace 2 | 302130 | 20 | June 13, 1997 |
| Ace4 | 302132 | $\underline{20}$ | June 14, 1997 |



## PROJECT HISTORY

The project area covers the eastern lobe of a large aeromagnetic anomaly, which has attracted the attention of exploration companies since its delineation by the Geological Survey of Canada in 1967. The association of magnetite and potassic alteration zones is well known from alkalic porphyry copper-gold systems in the Nicola Group. Surveys were mostly directed towards areas of abundant outcrop along the southern portion of the magnetic anomaly and resulted in the discovery of the Spout Lake coppermagnetite skarn, the Peach Lake, Miracle and Tim copper-gold occurrences and other showings associated with Nicola Group alkalic intrusions and volcanic rocks. To the north of Spout Lake, Tertiary basalt and glacio-fluvial deposits form extensive covers which prevent direct access to underlying rocks. Exploration in this area by geophysical and geochemical methods was mainly performed over magnetic highs.

In 1973, Craigmont Mines Ltd. identified a geochemical anomaly with up to 300 ppm copper in an area which is now part of the Ace 2 claim (assessment report No. 4697). The area of the Murphy Lake grid was part of an airborne VLF and magnetometer survey flown by Tide Resources Ltd. in 1988 (assessment report No. 18347). Reconnaissance IP performed by Cominco Ltd. in 1992 on logging roads north of Spout Lake included the main access road crossing the TT1 and TT2 claims. These surveys did not result in follow-up work.

Work by the Lac La Hache joint venture in 1993 on 22 claims ( 440 units) north of Spout Lake consisted of reconnaissance and detailed geochemical surveys and geological mapping ${ }^{(2)}$. Grab samples of monzonitic intrusive rocks on TT1/TT2 claims returned up to 508 ppm copper and 38 ppb gold, while soil and silt sampling had generally negative results. Three lines of IP conducted on TT1 and TT2 claims in 1994 indicated weak chargeability anomalies near the copper anomaly. In the winter of 1994/95 27 kilometres of IP and magnetometer surveys were conducted on 400 metre-spaced lines between the Nemrud grid and the TT1 claim ${ }^{(1)}$. The objective of this survey was to test the eastern limb of the regional magnetic high for chargeability anomalies indicative of porphyry copper-gold deposits. Zones of weak chargeability anomalies were found to extend over a distance of 3.5 kilometres to the north end of the grid, and it was decided to test some of the anomalies by drilling.

## REGIONAL GEOLOGY

The Murphy Lake property is situated within the Upper Triassic to Lower Jurassic Nicola Group, which forms part of the Quesnel Trough (Figure ML-3), a volcanic and sedimentary arc sequence affected by Upper Triassic to Jurassic intrusions, and by voicanic activity continuing into the Quaternary. The Quesnel Trough extends for over one thousand kilometres from northern Washington State to north-central British Columbia, and hosts alkalic porphyry copper-gold deposits (Afton, Ingerbelle) and mine prospects (Mount Milligan, Mount Polley) as well as gold-skarns, and numerous porphyry occurrences.

Northeast of Lac La Hache, Nicola Group sediments, basalts, andesites and breccias are intruded by coeval small stocks of syenitic to dioritic composition. These highlevel intrusions typically consist of densely crowded euhedral plagioclase phenocrysts and minor amounts of pyroxene, hornblende and biotite in a fine-grained feldspar matrix. Textures of intrusive and volcanic rocks may resemble each other closely which makes identification problematic.

The north-northwest $\left(340^{\circ}\right)$ striking Pinchi Fault separates the Quesnel Trough from the Cache Creek Group and straddles the east corner of Lac La Hache lake. Prominent structural features (faults, intrusive contacts) on the Lac La Hache property as indicated from geology, magnetics, IP surveys and topography are $300-310^{\circ}, 50-60^{\circ}$ and $20-30^{\circ}$ south of Spout Lake, $300^{\circ}$ and $325^{\circ}$ at the east side of the property (Nemrud) and $350^{\circ}$ in the Murphy Lake area.

Potassic and propylitic alteration has affected Nicola Group intrusives and metavolcanic rocks and includes K-feldspar flooding, development of biotite, magnetite, quartz, albite, epidote and chlorite. Porphyry and skarn-type chalcopyrite, bornite and pyrite mineralization is locally associated with these alteration zones (Peach, Miracle, Tim, WC, Nemrud).

The Takomkane batholith, a zoned, granodioritic intrusion measuring about 50 km in diameter, is located with its centre 35 kilometres northeast of Lac La Hache, and borders the Nicola Group at the east side of the Lac La Hache property. It is estimated to be 187-198 million years old ${ }^{(3)}$, and is cut by a younger ( 102 million years) quartz

monzonite, which hosts the Boss Mountain molybdenum deposit. This deposit opened in 1965 and produced intermittently until 1983.

The MurphyLake property is situated between the Takomkane batholith to the east and a texturally very similar monzonite in the centre of a large annular aeromagnetic anomaly to the west. The grid covers most of the eastern lobe of the aeromagnetic anomaly, which may have developed as a result of monzonite intruding Nicola Group to the north of Peach Lake and Spout Lake. This anomaly has attracted exploration for porphyry copper-gold deposits since it was delineated by a survey flown for the Geological Survey of Canada in 1967. The northern limit of Nicola Group on the Murphy Lake property is unknown, and it is possible, that some of the magnetic anomaly is underlain by it.

Tertiary basalts unconformably overlie and crosscut Triassic-Jurassic rocks on the Lac La Hache property, and are most frequent on the Murphy Lake and Murphy claims.

## PROPERTY GEOLOGY

The central and northern portion of the Murphy Lake grid is, based on scarce outcrop, underlain by coarse grained monzonitic to gabbroic intrusives containing 1-3\% primary magnetite. Outcrop of Nicola Group volcanic rocks is confined to the southern part of the grid. The orientation of pegmatitic veins is northeast to east (45-95 ${ }^{\circ}$ ), finegrained diabase dikes strike northwest $\left(300^{\circ}\right)$, and fracture systems northeast and north $\left(45^{\circ}, 350^{\circ}\right)$. Dips are generally steep. Monzonite and gabbro intersected by dikes contain traces chalcopyrite, bornite and pyrite.

## DRILL PROGRAM

## General

Drilling of holes ML95-01 to ML95-04 was performed by Tex Drilling Ltd. of Kamloops, using a Longyear 38 drill, mounted on a 690 John Deere undercarriage. Holes ML95-05 to ML95-07 were drilled by Connors Drilling Ltd. of Kamloops with a Val d'Or type drill. Core was logged, cut and stored on Don Fuller's property in Lac La Hache.

Core samples were shipped to Acme Analytical Laboratories Ltd. in Vancouver for 30 element ICP analysis, and for gold fire assays of $\mathbf{3 0}$ gram samples.

Approximately 300 metres of road construction between the B-Road and the drill site on line 6600N (ML95-04) was performed by Kingsgate Auto Ltd. This area has subsequently been clear-cut.

Table 1: MURPHY LAKE PROPERTY - DRILL HOLE STATISTICS

| DDH No. | Claim | Location |  | Azimuth <br> (dea) | Incile nation <br> (deg) |  | over burden <br> (m) | $\frac{\text { Corren }}{}$ | Assays |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | North | East |  |  |  |  |  |  |
| ML95-01 | TT1 | 5800 | 1545 | 270 | -45 | 160.7 | 28.0 | 132.7 | 39 |
| ML95-02 | TT2 | 5645 | 1335 | 270 | -45 | 138.1 | 6.7 | 131.4 | 23 |
| ML95-03 | TT2 | 4985 | 1708 | 270 | -45 | 175.9 | 27.4 | 148.5 | 11 |
| ML95-04 | TT1 | 6600 | 1250 | 270 | -45 | 151.5 | 13.1 | 138.4 | 8 |
| ML95-05 | T11 | 5945 | 1693 | 270 | -45 | 153.9 | 30.8 | 123.1 | 34 |
| ML95-06 | TT1 | 5915 | 1545 | 270 | -45 | 291.1 | 27.5 | 263.6 | 52 |
| ML95-07 | T11 | 5915 | 1545 | 90 | -45 | 74.7 | 30.5 | 44.2 | 15 |
| Total |  |  |  |  |  | 11459 | 164.0 | 98119 | 182 |

Results
Drill hole locations are shown on Figure ML-4, a 1:5000 scale compilation map, and drill results on four 1:1000 scale sections ( Figure ML-5, -6, -7, -8).

## Rock Types

The most common rock encountered in core is medium grey monzonite, carrying 1520\% subhedral, chloritized hornblende, 1-3\% magnetite, and locally biotite, in a coarse-grained, equigranular, feldspathic matrix. Gabbro, intersected mainly in hole ML95-06, is dark green, coarse grained, and consists of subhedral, chloritized pyroxene/hornblende, anhedral plagioclase and magnetite. Rocks with a macroscopic
composition between monzonite and gabbro were classified as diorite. Fine-grained, partly porphyritic dikes, range in composition from felsic/intermediate to syenitic and mafic.

## Alteration

Potassic alteration has affected the intrusives and varies from thin k-feldspar envelopes developed adjacent to fractures and veinlets, to a more massive alteration rendering the feldspar matrix light grey to cream-coloured. This alteration appears to reflect incipient bleaching of matrix feldspar rather than pervasive $k$-feldspar replacement of matrix minerals by potassium-rich solutions. Red brown to pale brown, coarse-grained k-feldspar veinlets occur with the alteration zones. Silicification and blue quartz, secondary magnetite, chlorite/calcite/quartz veining, and pyrite and chalcopyrite are less frequent. There is little epidote, mostly with k-feldspar veins, but pervasive chlorite alteration of primary hornblende and pyroxene, based on macroscopic observation.

## Mineralization

The distribution of chalcopyrite and pyrite, the two sulfide minerals contained in the intrusives, is erratic and mostly fracture controlled, reflecting incomplete hydrothermal alteration of the host rocks. Chalcopyrite forms seams on hairline fractures in fresh looking monzonite, it occurs as blobs with k-feldspar veins, and less frequently disseminated. Massive, up to $10-15 \mathrm{~cm}$ thick chalcopyrite-chlorite-quartz veins were intersected in hole ML95-06. Hairline fractures lined with chalcopyrite appear to be steeply dipping, and form a set different from also steeply dipping $k$-feldspar veins. Shears, carrying magnetite, $k$-feldspar and traces chalcopyrite offset $k$-feldspar veins. Most chalcopyrite was probably deposited during one mineralizing event, there is no evidence of significant multiple-phase alteration and mineralization.

The highest concentrations of disseminated pyrite ( $5 \%$ ) were found in syenitic and monzonitic dikes, coarse grained intrusives carry traces pyrite only.

## Section 5000N (Figure ML-5)

Drill target on line 5000 N was an eight millisecond filtered chargeability anomaly on the flank of a magnetic high. Hole ML95-03 intersected variably k-feldspar-altered monzonite, containing up to $0.2 \%$ copper over three metres core-length.


Sections 5800N, 5915N (Figures ML-6, -7)
Anomalous copper ranging from approximately 200 to 400 ppm is widespread in all holes drilled however, higher grades were mainly found to be associated with a weak chargeability anomaly ( 9.5 milliseconds, 21 point filter) and a relative magnetic low located on line 5800N. This anomaly was drilled with hole ML95-01 on line 5800N which intersected 45 metres of $0.20 \%$ copper including 15 metres of $0.41 \%$ copper at the footwall of the zone under 20 metres of overburden. Hole ML95-06, drilled 115 metres to the north returned $0.34 \%$ copper and $0.04 \mathrm{~g} / \mathrm{t}$ gold over 53 metres core length, including $1.14 \%$ copper over nine metres length in the footwall of the zone. The true width of the mineralized zone is $30-35$ metres if the interpreted vertical dip is correct. It is open to depth and on strike, and from the IP response may continue as far south as line 5400 N and to the north beyond line 6600 N , the last line on the grid.

The low gold content of the mineralized zone underlines its affiliation with calcalkalic intrusions similar to the Highland Valley and Gibraltar deposits, rather than Nicola Group alkalic intrusions (Afton, Ingerbell). The highest gold value of 289 ppb is contained in a 30 centimetre-long sample of a chalcopyrite vein in hole ML95-06, which returned $8.5 \%$ copper and 2 ppm molybdenum. The latter is generally present as traces only. A maximum value of 390 ppm molybdenum, together with $1.5 \%$ copper and 98 ppb gold, was recorded in the three-metre section following the 30 centimetre-long sample.

## Section 6600N (Figure ML-8)

Drill hole ML95-04 tested a coinciding chargeability ( 12 milliseconds) and magnetic anomaly on line 6600N. The IP response is caused by disseminated pyrite in dikes and possibly by the relatively high amount of primary magnetite in the dioritic hostrock. Highest copper values of $0.06 \%$ over three metres core-length were recorded.



## CONCLUSIONS AND RECOMMENDATIONS

The 1995 drill program at Murphy Lake has identified a zone of anomalous copper mineralization in potassic-altered, coarse-grained monzonite under 20 metres of glaciofluvial overburden. The zone is probably vertically dipping, has a true width of 30-35 metres, and carries an average of 0.2-0.3\% copper and traces of gold and molybdenum. A narrow footwall zone contains $1.1 \%$ and $0.4 \%$ copper over true widths of 6.6 and 10.6 metres respectively. The mineralization was intersected in two holes, at a distance of 115 metres. It is open below 50 metres at depth, as well as on strike.

Chalcopyrite, the only copper mineral seen, occurs mainly on fractures and veinlets and to a lesser extent disseminated, which reflects the incomplete hydrothermal alteration of the rock. The copper grade will therefore greatly depend on the density of fractures in the monzonite.

The hostrock is affected by a moderate potassic alteration, indicative of the centre of a classical porphyry system. Phyllic (sericite, quartz) and truly propylitic (epidote, chlorite, albite) alterations have not been observed. The chloritization of mafic minerals may represent retrograde metamorphism.

The geophysical responses on the Murphy Lake grid are caused by factors which are not necessarily direct indicators of porphyry copper mineralization. They include the amount of primary magnetite in the monzonitic intrusive, and the relative high amount of pyrite in some of the dikes. Resistivity values may partly reflect the thickness and composition of the glacio-fluvial overburden. The combination of IP and magnetometer surveying was successful in finding the copper zone, with the relative magnetic low indicating destruction of primary magnetite during hydrothermal alteration.

An economic mineable deposit in this area would require a large tonnage with a copper grade close to one percent, considering the low amounts of gold and molybdenum associated with the chalcopyrite mineralization. Although this grade has so far only been found in a zone less than 10 metres thick, there is enough room left on strike and at depth to justify more work. This work should consist of detailed IP and magnetometer surveying between lines and to the north of the existing grid (and
should include the western margin of the magnetic anomaly) followed by more drilling of the existing zone and of possible new zones with similar geophysical characteristics.

It is recommended to perform follow-up work consisting of 40 kilometres of line cutting and IP and magnetometer surveys and 1500 metres of diamond drilling in Phase I. Provided results warrant more work, drilling of 4000 metres is proposed in Phase II. Estimated costs for the two phases are $\$ 250000$ and $\$ 450000$ respectively. The costs of the second phase could be reduced by using reverse circulation drilling.

PROPOSED 1996 BUDGET

## Phase I

Linecutting 40 km @ \$500 20000
IP, Magnetometer surveys
40 km @ \$1700 ..... 68000
Diamond drilling
1500 m @ \$80 ..... 120000
Geology and support ..... 30000
Contingency ..... 12000
Total ..... 250000
Phase II\$
Diamond drilling 4000 m @ \$80 ..... 320000
Geology and support ..... 80000
Mineralogical, metallurgical testing ..... 30000
Contingency ..... 20000
Total ..... 450000

## EXPENDITURES

Table 2: MURPHY LAKE PROPERTY - 1995 EXPENDITURES

| Description | Jan 1 Jul 31 | Aus 11 Dec 311 | Total |
| :---: | :---: | :---: | :---: |
| Government Fees | 2420 |  | 2420 |
| Diamond Drilling |  | 65424 | 65424 |
| Geophysical Surveys | 35858 |  | 35858 |
| Geologists | 6606 | 19481 | 26087 |
| Assaying |  | 1751 | 1751 |
| Warehouse rental | 132 | 363 | 495 |
| Room \& Board | 861 | 2410 | 3271 |
| Communications |  | 89 | 89 |
| Materials \& Supplies | 180 | 443 | 623 |
| Travel | 727 | 1126 | 1853 |
| Freight, Truck | 1189 | 2976 | 4165 |
| Project Management | 1352 | 1801 | 3153 |
| Total | 49325 | 95865 | 145190 |

## REFERENCES

Cornock, S.J.A., Lloyd, J. (1995) An assessment report on an induced polarization survey on the Murphy Lake property, Lac La Hache area, Cariboo Mining Division, British Columbia, for Regional Resources Ltd. / GWR Resources Inc.

Aulis, R.J. (1993) Assessment report, geological and geochemical surveys on the Lac La Hache property (Two Mile Lake group)

Campbell, R.B., Tipper, H.W. (1972) Geological Survey of Canada Memoir 363, Geology of Bonaparte Map Area

## STATEMENT OF QUALIFICATIONS

I, Reinhard von Guttenberg, residing at 171 Romfield Circuit, Thornhill, Ontario, do hereby certify that:

1. I am a graduate of the University of Munich, Germany (1969), and have obtained a Dr. rer. nat. in geology from that university in 1974;
2. I have been practising my profession as a geologist since graduation;
3. I have been employed by Strathcona Mineral Services Limited, of Toronto, Ontario, an independent consulting firm for the mining industry, since 1989;
4. I am a Fellow of the Geological Association of Canada, and a Member of the Canadian Institute of Mining, Metallurgy and Petroleum;
5. I have supervised and carried out on behalf of Regional Resources Ltd., and GWR Resources Inc. the work performed on the Nemrud grid.
6. I have no interest, either direct or indirect, in the properties or securities of Regional Resources Ltd. and GWR Resources Inc.

Dated at Toronto, Ontario this $\qquad$ day of $\qquad$ , 1996




Grid:
Grid:
Co-ords:
Azimuth:
Dip:
MURPHY LAKE
5645N LAKE 1335

Elevation: $\begin{aligned} & -45.0 \\ & \text { Not surveyed, appr. } 1040 \mathrm{~m}\end{aligned}$
Length:
Purpose: iP An
Assays: 23
Core at: D. Fuller

DIAMOND DRILL RECORD
$\begin{array}{ll}\text { *** Dip Tests } \\ \text { Depth } & \text { *** } \\ \text { Azí. } & \text { Dip }\end{array}$

Hole No.:
ML95-02
Claim:
Date Started: Date Completed Logged by: Contractor: Drill Type: Core size:

TT2
September 3, 1995
September 8, 1995
RVG
Tex
Longyear 38


| from <br> (m) | To <br> (m) | Geol ogy | Sample No. | From (m) | To <br> (m) | Length <br> (m) | Copper <br> (ppm) | Gold (ppb) | Silver (ppm) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 54.00 | 68.50 | pyrite. <br> MONZONITE <br> Medium grey light grey to red brown 30\%. 1\% red brown k-feldspar veins at 70 degrees, 70\% medium grey monzonite. Core moderately broken, trace pyrite; chalcopyrite. Fractures, joints at 70 degrees ( to 20 degrees ). <br> 59.8560 .00 Fine-grained mafic dike parallel core axis. |  |  |  |  |  |  |  |
| 68.50 | 117.85 | MONZONITE <br> Light grey to red brown $k$-feldspar, 40\%. 15\% $k$-feldspar veins at 15 to 70 degrees. Trace pyrite, chalcopyrite. Core moderate to strongly broken, inhomogeneous, $k$-feldspar veins 2 to 40 cm . At $74.55 \mathrm{~m}, 1 \mathrm{~cm}$ fine-grained magnetite seams at 80 degrees with $k$-feldspar vein. Shearing at 81.80 m 70 degrees. <br> $75.00 \quad 77.30$ to 78.15 fine-grained mafic dike parallel core axis, $k$-feldspar veins 15 to 70 degrees. Lamination at 81.80 m 70 degrees. |  |  |  |  |  |  |  |
|  |  | 86.4587 .20 K -feldspar veining cut by epidote-calcite veinlet at 0 to 15 degrees. <br> 93.55 96.30 Chloritic shears 20\%, dark green to dark red (hematitic), +/- calcite, at 15 to 40 degrees. Blebs pyrite at 95.00 m . | $\begin{aligned} & 33809 \\ & 93082 \end{aligned}$ | $\begin{aligned} & 90.50 \\ & 93.50 \end{aligned}$ | $\begin{aligned} & 93.50 \\ & 96.50 \end{aligned}$ | 3.00 3.00 | 190 1771 | 5 | . 4 |
|  |  | 94.1594 .45 Feldspar porphyritic dike at 50 degrees, feldspar 3 to 4 mm , trace pyrite, magnetic. | 33810 33811 93083 | 96.50 99.50 | 99.50 102.15 | 3.00 2.65 3.00 | $\begin{array}{r}345 \\ 250 \\ \hline\end{array}$ | 11 8 8 |  |
|  |  | 102.15123 .15 Trace chalcopyrite, pyrite as seams, blebs on shears, fractures at 50 to 60 degrees with $k$-feldspar veining. <br> 102.75103 .00 K -feldspar vein at 50 degrees. Massive epidote, 3 cm , at hangingwall contact. Chalcopyrite, pyrite 1 to $2 \%$, est imated $0.5 \% \mathrm{Cu}$. <br> 103.00 103.70 fracture parallel core axis, $1 \mathrm{~cm} k$-feldspar alteration, trace chalcopyrite $103.80 \quad$ Foliation at 30 degrees, marked by 2 to 3 mm , light grey $k$-feldspar staining. | 93083 | 102.15 | 105.15 | 3.00 | 3645 | 71 | . 9 |
|  |  | 104.05104 .35 K -feldspar vein at 50 degrees. | 93084 | 105.15 | 108.15 | 3.00 | 459 | 20 | .3 |
|  |  | 106.85107 .90 k -feldspar vein at 45 degrees, light cream-couloured. Patches fine-grained biotite. Trace pyrite, chalcopyrite. <br> 110.40110 .80 Calcite veinlets at 20 degrees, perpendicular to shearing at 35 degrees. | 93085 | 108.15 | 111.15 | 3.00 | 896 | 28 | . 3 |
|  |  |  | $\begin{aligned} & 93086 \\ & 93087 \end{aligned}$ | $\begin{aligned} & 111.15 \\ & 114.15 \end{aligned}$ | $\begin{aligned} & 114.15 \\ & 117.15 \end{aligned}$ | 3.00 3.00 | 754 3302 | 21 84 | . 3 |
|  |  | pyrite, trace chalcopyrite. 4 cm epidote, pyrite at hanginguall. <br> 114.45116 .10 K -feldspar vein at 50 degrees, medium grained, massive, light brown red, 1 cm epidote at hangingwall contact, 1 to $2 \%$ pyrite, $+/-$ chalcopyrite. <br> 114.45 114.90 Estimated 0.1 to $0.5 \% \mathrm{Cu}$. <br> 116.85117 .65 k -feldspar, hornblende vein, coarse grained, upper contact 70 degrees, lower contact 50 degrees, trace pyrite, chalcopyrite. <br> 117.65 117.85 Hornblende, (chlorite?), magnetite, massive, coarse grained, dark green, chalcopyrite seams and disseminated. Estimated $0.5 \% \mathrm{Cu}$. | 93088 | 117.15 | 120.15 | 3.00 | 1335 | 37 | . 4 |
| 117.85 | 128.60 | MONZONITE <br> 5\% Light cream to light grey k-feldspar staining spreading from fractures at 25 to 40 degrees. Trace chalcopyrite, pyrite on hairline fractures, especially with chlorite magnetite shears, e.g. At 122.00 m . <br> 121.10121 .20 K -feldspar, calcite vein at 50 degrees. <br> 127.30127 .80 K -feldspar, epidote veining at 0 to 40 degrees, 50\%. | 93089 | 120.15 | 123.15 | 3.00 | 277 | 10 | . 3 |
| 128.60 | 133.30 | GABBRO |  |  |  |  |  |  |  |







| From <br> (m) | To <br> (m) | Geology | Sample No. | From (m) | To <br> (m) | Length (m) | Copper (ppm) | Gold (ppb) | silver (ppm) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 38.15 | 100.00 | DIORITE <br> Dark grey green, massive, coarse grained, strongly magnetic. $3 x$ white, coarse grained feldspar veins with dark green hornblende, black biotite, light brown sphene and trace chalcopyrite, 0.5 to 25 cm , at 25 to 60 degrees. Some pink $k$-feldspar. <br> 42.3542 .55 Syenite dike, same as 36.05 to 38.15 . <br> 49.65 49.95 White $k$-feldspar epidote vein, 2 cm , at 15 degrees. Trace pyrite. <br> 54.15 <br> Pyrite on hairline fractures at 45 degrees. <br> 54.2555 .00 Brown rusty specks, 1 to 3 mm , oxidized magnetite. Rock weakly magnetic. <br> 64.5067 .5012 red hematite after magnetite. Weakly foliated at 75 degrees. <br> 84.35 84.65 Hairline epidote hornblende feldspar fractures with seams pyrite, trace chalcopyrite at 10 degrees. |  |  |  |  |  |  |  |
| 100.00 | 108.00 | DIORITE <br> Similar to above, but medium to light grey matrix, and sheared and fractured, with <1\% pyrite on hairline fractures and and $k$-feldspar hornblende biotite veins. <br> 104.30 106.90 Medium grained, medium grey green, white speckled monzonite/diorite dike. Anhedral feldspar, biotite, hornblende. Sub-parallel to 25 degrees to core axis. Trace pyrite, chalcopyrite. |  |  |  |  |  |  |  |
| 108.00 | 136.20 | DIORITE <br> SAME as 38.15 to 100.00 . Medium green grey, massive, coarse grained, feldspar hornblende biotite magnetite. 1 to $2 x k$-feldspar hornblende veins, coarse grained, light grey to brown grey. Hairline fractures at 30 to 40 degrees with pyrite, trace chalcopyrite at 0.2 to 1.0 m intervals. Chalcopyrite also as blebs with hornblende-rich clots and patches. Medium grey, altered, matrix increasing to depth. <br> 116.05116 .65 Medium grained syenitic dike at 80 degrees. $5 \%$ biotite, $1 \%$ hornblende, | $\begin{aligned} & 93204 \\ & 93205 \\ & 93206 \end{aligned}$ | $\begin{aligned} & 110.00 \\ & 113.00 \\ & 116.00 \end{aligned}$ | 113.00 116.00 119.00 | 3.00 3.00 3.00 | 275 352 370 | 16 8 4 | .4 .4 .4 |
|  |  | $117.85 \mathbf{1 2 0 . 8 0}$ Monzonitic dike, medium grey, medium grained, $5 \%$ biotite, $10 \%$ hornblende, trace pyrite, chalcopyrite. Light grey $k$-feldspar fractures at 45 degrees. <br> 129.05 129.60 Mafic dike. Medium grey green, medium grained, upper contact 60 degrees, lower contact 50 degrees. | $\begin{aligned} & 93207 \\ & 93208 \end{aligned}$ | $\begin{aligned} & 127.00 \\ & 130.00 \end{aligned}$ | $\begin{aligned} & 130.00 \\ & 133.00 \end{aligned}$ | $\begin{aligned} & 3.00 \\ & 3.00 \end{aligned}$ | 397 452 | 7 3 | .3 .5 |
| 136.20 | 151.50 | diorite / MONZONITE <br> Light grey to white to pink matrix with coarse grained, dark hornblende, 70\%. K-feldspar $+1-$ epidote veins, brown red. Trace chalcopyrite (less than in section above). <br> 139.29 Trace native copper. <br> 144.85 to 144.95 foliation / Shear planes at 70 to 80 degrees. <br> $145.35 \quad \mathrm{Clay}$ gouge, 2 cm at 80 degrees. <br> 149.75150 .50 Epidote calcite and epidote $k$-feldspar veins $5 \% .0 .5$ to 2 cm , at 90 degrees <br> 151.50 End of hole. |  |  |  |  |  |  |  |

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{10}{|r|}{} \\
\hline From (m) \& To (m) \& Geology \& Sample No. \& From (m) \& \begin{tabular}{l}
To \\
(m)
\end{tabular} \& Length (m) \& Copper (ppm) \& Gold (ppb) \& Silver (Ppm) \\
\hline \[
\begin{array}{r}
.00 \\
30.80
\end{array}
\] \& 30.80
103.35 \& \begin{tabular}{l}
OVERBURDEN \\
MONZONITE \\
Medium grey, medium grained to coarse grained, 5 to 10\% biotite, chlorite after hornblende. Euhedral, prismatic plagioclase laths, up to 10 mm long. Moderately to strongly magnetic. Weakly foliated at \(50^{\circ}\). Fractures at 45 to \(70^{\circ}\). Minor ( \(<5 \%\) ) \(k-f e l d s p a r\) alteration spreading from fractures. Trace pyrite, chalcopyrite. \\
\(32.0042 .677 \%\) red brown \(k\)-feldspar veins, 1 to 25 cm , at 35 to \(65{ }^{\circ}\). Thicker veins with blebs pyrite, chalcopyrite, chlorite. \\
40.8543 .003 to \(15 \%\) coarse blebs chlorite after hornblende. \\
\(42.6754 .8020 \%\) red brown k-feldspar alteration spreading from 1 to 40 cm -thick veinlets. Trace coarse grained \(k\)-feldspar \(+/-\) quartz, biotite, epidote, chalcopyrite, pyrite veins, 1 to 8 cm at \(43.55,53.90\) to \(53.98,54.70\) to 54.75 m. \\
Pyrite on hairline fractures at 40 to 80. . \\
48.00 : pyrite, chlorite, k-feldspar at \(35^{\circ}\). \(45.85,46.00 \mathrm{~m}\) : trace chalcopyrite on fractures at \(40^{\circ}\) and with k-feldspar alteration. \\
Calcite on fractures at 30 to \(45^{\circ}\) up to 0.5 cm thick, mostly with k-feldspar alteration envelopes. \\
54.50 54.75 Pyrite, calcite hairline fractures at 25 - with \(k\)-feldspar envelopes. Pyrite, chlorite, k-feldspar, trace chalcopyrite at \(0^{\circ}\). Pyrite at \(80^{\circ} .4\) cm coarse grained \(k\)-feldspar vein at \(65^{\circ}\). \\
\(54.8068 .1010 \%\)-feldspar alteration, 0.5 to 10 cm , spreading from hairline fractures and mm quartz calcite veinlets, mostly at \(30^{\circ}\). Trace coarse grained \(k\)-feldspar veins, 1 to 5 cm at 35 to \(55^{\circ}\). \\
\(67.0567 .6540 \%\)-feldspar alteration from fractures at 70 to \(80^{\circ}\). 56.30 m : foliation \(55^{\circ}\). \\
Trace chalcopyrite, pyrite on hairline fractures at 30 to \(80{ }^{\circ}\) generally in less altered medium grey monzonite, also with \(k\)-feldspar \(+/\) - hornblende, biotite, magnetite veins.
\end{tabular} \& \begin{tabular}{l}
31714 \\
31715 \\
31716 \\
31717 \\
31718
\end{tabular} \& \[
\begin{aligned}
\& 32.00 \\
\& 35.00 \\
\& 38.00 \\
\& 41.00 \\
\& 43.00 \\
\& 46.00 \\
\& \\
\& \\
\& 49.00 \\
\& 52.00 \\
\& \\
\& \\
\& \\
\& 55.00 \\
\& 58.00 \\
\& 61.00 \\
\& 64.00 \\
\& 67.00
\end{aligned}
\] \& 35.00
38.00
41.00
43.00
46.00
49.00

52.00
55.00

58.00
61.00
64.00
67.00
70.00 \& 3.00
3.00
3.00
2.00
3.00
3.00

3.00
3.00

3.00
3.00
3.00
3.00
3.00 \& 210
476
271
317
358
272

278
354

312
292
381
348
317 \& 7
14
4
3
12
4

4
6 \& <br>
\hline
\end{tabular}

| From (m) | TO <br> (m) | Geology | Sample No. | from (m) | To <br> (m) | Length (m) | Copper (ppm) | Gold (ppb) | silver (ppm) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 103.35 104.40 | 104.40 153.90 | 68.1081 .30 10\% k-feldspar alteration, including 65 cm ( $5 \%$ ) $k$-feldspar veins. <br> 70.10 70.50 Massive $k$-feldspar vein at $30^{\circ}$. Pale brown grey to pink. Seams magnetite parallel core axis. 3\% chlorite after hornblende, trace chalcopyrite. <br> 71.15 71.40 Chalcopyrite on fractures at $80^{\circ}$ ( $<1 \% \mathrm{Cu}$ ). <br> 71.63 71.73 Massive $k$-feldspar vein at $40^{\circ}$, trace chalcopyrite. <br> 74.5077 .10 Coarse chlorite after hornblende. <br> 75.20 Quartz vein, 1 cm , trace chalcopyrite at 50 degrees. <br> 80.70 K -feldspar vein, 2 cm , trace chalcopyrite at $45^{\circ}$. <br> Trace chalcopyrite blebs in $k$-feldspar veins and in very weakly altered medium grey Monzonite. Hornblende, chalcopyrite, sphene (garnet?) blebs eg 79.10 to 79.40. <br> 81.30 94.60 Mostly fresh, starting at $76.50 \mathrm{~m}, 7 \% \mathrm{k}$-feldspar alteration, including 4\% pale pink grey to red brown $k$-feldspar veins, $1-25 \mathrm{~cm}$. <br> 86.05 to $86.25,89.05$ to $89.15,89.65$ to $89.80,93.98$ to $94.05 \mathrm{~m}: k$-feldspar veins at <br> 40 to $45^{\circ}$. Trace pyrite, chalcopyrite, hornblende, chlorite, magnetite. <br> 87.75103 .35 Coarse chlorite blebs, no biotite. More mafic than above, continues to end of hole. Foliation at $88.80 \mathrm{~m} 40^{\circ}$. <br> $94.60107 .9512 \%$ k-feldspar altered, including $1.5 \% \mathrm{k}$-feldspar veins mostly between 95.25 to 103.35 m . <br> 95.5595 .75 Trace chalcopyrite with $k$-feldspar, magnetite, chlorite veinlet at $25{ }^{\circ}$ and on fracture at $70{ }^{\circ}$. <br> 100.40100 .60 K -feldspar vein at $40^{\circ}$, trace chalcopyrite. <br> mafic dike <br> Dark grey green matrix, 20\% euhedral 2 to 3 mm plagioclase laths, saussuritized. Upper contact chilled, brecciated, lower contact $20^{\circ}$. Trace disseminated pyrite. <br> monzonite / diorite <br> Same as above. <br> $107.95121 .005 \%$-feldspar alteration including one $4 \mathrm{~cm} k$-feldspar vein at $45^{\circ}$. <br> 1.18 .20 Alteration spreading from fractures +/- calcite seams at 45 to $65^{\circ}$. <br> 121.0012800 Hairline fracture with $k$-feldspar alteration, blebs chalcopyrite. <br> 121.00128 .00 3\% $k$-feldspar alteration, including one $1 \mathrm{~cm} k$-feldspar vein with trace chalcopyrite at $50{ }^{\circ}$ at 126.25 m . <br> $128.00130 .0560 \% k$-feldspar vein and alteration. <br> 128.10 128.30 Silicified, minor $k$-feldspar alteration, trace chalcopyrite. <br> 128.85130 .00 Pale brown grey $k$-feldspar vein at $15{ }^{\circ}$, cut by pink $k$-feldspar alteration at 45 to 50 . and hornblende, chlorite, chalcopyrite veinlets at $10 \%$. Chalcopyrite also on $55^{\circ} \mathrm{fractures}$ at 130.00 m . <br> 130.05132 .85 Mostly fresh, dark diorite, one $2 \mathrm{~cm} k$-feldspar vein, light grey, with chlorite, trace pyrite. <br> $132.85134 .1060 \% \quad k$-féldspar vein and alteration, $k$-feldspar vein at $25^{\circ}$, grey to brown red with blebs pyrite, chalcopyrite also on chlorite shears at $35^{\circ}$. <br> 134.10138 .00 15x $k$-feldspar alteration, light grey, minor pink, spreading from fractures at 35 - with chlorite, trace chalcopyrite and fractures with epidote at $60^{\circ}$. <br> 138.00 143.70 Medium to light grey feldspar matrix with $20 \%$ dark green, coarse grained chlorite after hornblende. 70x $k$-feldspar alteration, trace $k$-feldspar veins. Moderate to strong shearing at $75 \circ$, accompanied by pervasive $k$-feldspar alteration and $k$-feldspar +/- epidote, calcite, pyrite | 31719 <br>  <br> 31720 <br> 31721 <br> 31722 <br>  <br> 31723 <br> 31724 <br> 31725 <br> 31726 <br> 31727 <br> 31728 <br> 31729 <br>  <br> 31730 <br> 31731 <br> 31732 <br> 31733 <br> 31734 |  |  | 3.00 <br> 3.00 <br> 3.00 <br> 3.00 <br>  <br> 3.00 <br> 3.00 <br> 3.00 <br> 3.00 <br> 3.00 <br> 3.00 <br> 3.00 <br>  <br>  <br>  <br>  <br>  | $\begin{array}{r}416 \\ 295 \\ 345 \\ 343 \\ \\ 343 \\ 289 \\ \hline 308 \\ 334 \\ 350 \\ \\ 349 \\ 325 \\ \hline\end{array}$ | $\begin{array}{r}7 \\ \hline\end{array}$ |  |





| From (m) | TO <br> (m) | Geol ogy | Sample No. | From (m) | To <br> (m) | Length (m) | Copper (ppm) | Gold (ppb) | Silver (ppm) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 97.85 | 98.70 | 97.6097 .85 Massive $k$-feldspar vein, $3 \%$ quartz. Upper contact 35 , lower contact $50^{\circ}$. <br> mafic dike <br> Dark green matrix, fine-grained, 10\% light green grey anhedral saussuritized plagioclase. 3\% disseminated pyrite. | 33764 | 95.70 | 98.70 | 3.00 | 529 | 8 |  |
| 98.70 | 123.60 | MONZONITE <br> SAME as 87.95 to 97.85 , but $15 \% \mathrm{k}$-feldspar veins, 1 to 170 cm . Trace Cu. <br> 98.95100 .40 K -feldspar vein, massive. Upper contact, lower contact $45^{\circ}$. $1 \%$ chlorite after hornblende, $1 \%$ quartz, trace chalcopyrite. $\text { 105.35 Trace chalcopyrite on } 30^{\circ} \text { chlorite hairline fracture. }$ |  |  |  |  |  | 2 |  |
|  |  |  | 33765 33766 | 98.70 101.70 | 101.70 104.70 | 3.00 3.00 | 210 254 | 2 |  |
|  |  |  | 33767 | 104.70 | 107.70 | 3.00 | 269 | 4 |  |
|  |  |  | 33768 | 107.70 | 110.70 | 3.00 | 240 | 6 |  |
|  |  |  | 33769 | 110.70 | 113.70 | 3.00 | 338 | 7 |  |
|  |  | $111.08 \mathbf{1 1 5 . 2 5} 50 \%$-feldspar veins with $\mathbf{1 \%}$ chlorite ( hornblende ), trace quartz, trace chalcopyrite. Contacts at $30^{\circ}$. | 33770 | 113.70 | 116.70 | 3.00 | 361 | 6 |  |
|  |  | $116.35 \quad 117.25$ to 117.50 trace pyrite, chalcopyrite with chlorite k-feldspar alteration. Hairline fractures $+/-\operatorname{chlorite}$ at $25^{\circ}$. | 33771 | 116.70 | 119.70 | 3.00 | 310 | 10 |  |
|  |  | 119.00 123.60 Monzonite sheared at $60^{\circ}$, trace chalcopyrite. | 33772 | 119.70 | 122.70 | 3.00 | 254 | 10 |  |
| 123.60 | 124.65 | MAFIC DIKE <br> Dark green, fine-grained, matrix. $1 \%$ chlorite bledes, 1 to 5 mm . Upper contact $65^{\circ}$, lower contact lost. |  |  |  |  |  |  |  |
| 124.65 | 132.75 | MONZONITE <br> Similar to monzonite above, $13 \% \mathrm{k}$-feldspar vein. Trace Cu. <br> 124.65129 .40 Moderately sheared at $60^{\circ}$. <br> 130.50130 .90 K -feldspar vein at $40^{\circ}$, $3 \%$ coarse grained chlorite. Trace Cu . |  |  |  |  |  |  |  |
| 132.75 | 133.15 | MAFIC DIKE 2 to $3 \%$ disseminated pyrite, upper contact 45 , lower contact $40^{\circ}$. |  |  |  |  |  |  |  |
| 133.15 | 183.05 | MONZONITE <br> 133.15 141.70 Monzonite with mainly dark matrix, $17 \%$ medium to light grey k-feldspar alteration including $6 \% \mathrm{k}$-feldspar veins at 60 to $80^{\circ}$. parallel to shears. Fracture with light grey to pink k-feldspar at 0,30 to $50{ }^{\circ}$. <br> 141.70 162.50 Monzonite with dark grey to mediun light grey matrix with dark chlorite blebs, 30\% k-feldspar alteration including 10\% k-feldspar veins, 1 to 40 cm , trace quartz at $20(60){ }^{\circ}$. Blebs chalcopyrite, e.g. 146.05 to 146.15, 148.75 to $148.85,152.80$ to 153.20 . | 33773 | 142.70 | 145.70 | 3.00 | 241 | 7 |  |
|  |  |  | 33774 | 145.70 | 148.70 | 3.00 | 771 | 14 |  |
|  |  |  | 33775 | 148.70 | 151.70 | 3.00 | 299 | 4 |  |
|  |  |  | 33776 | 151.70 | 154.70 | 3.00 | 193 | 4 |  |
|  |  |  | 33777 | 154.70 | 157.70 | 3.00 | 397 | 3 |  |
|  |  |  | 33778 33779 | 157.70 160.70 | 160.70 | 3.00 | 246 | 4 |  |
|  |  | 162.50173 .80 20\% $k$-feldspar alteration with medium to light grey matrix, including 5\% $k$-feldspar veins. Light hairline fractures with $k$-feldspar, chlorite $+/-$ chalcopyrite at 20 to $45^{\circ}$. Shears at $40^{\circ}$. <br> 162.80163 .25 Trace chalcopyrite with shears at $40^{\circ}$, on alteration fractures at 20 and 45 . and chlorite, $k$-feldspar veins at $50^{\circ}$. <br> 165.701 .00 Cm k -feldspar, epidote, chalcopyrite vein at $40^{\circ}$ parallel shears. <br> 166.20167 .50 trace chalcopyrite on $k$-feldspar, chlorite vein at $30 \%$ and altered fracture at $40^{\circ}$. <br> 168.30168 .703 cm k -feldspar vein at $0^{\circ}$. | 33779 | 160.70 | 163.70 | 3.00 | 444 | 5 |  |
|  |  |  | 33780 | 163.70 | 166.70 | 3.00 | 1043 | 12 |  |
|  |  |  | 33781 | 166.70 | 169.70 | 3.00 | 313 | 6 |  |


| From (m) | TO <br> (m) | Geology | Sample No. | From (m) | To <br> (m) | Length <br> (m) | Copper (ppm) | Gold (ppb) | silver (ppm) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 183.05 | 238.25 | 168.85169 .15 Magnetite, trace chalcopyrite, $k$-feldspar on shears at $40{ }^{\circ}$, offsetting <br> $170.80 \quad k$-feldspar vein. <br>  <br> 173.204 .00 Cm chlorite, $k$-feldspar vein, trace chalcopyrite at $40^{\circ}$. <br> $173.80180 .4040 \%$ light to medium grey monzonite, core strongly broken, trace k-feldspar and chlorite veins at $25^{\circ}$. <br> 180.40183 .05 Dark grey, trace chalcopyrite on light k-feldspar, chlorite fractures at $200^{\circ}$. <br> GABBRO <br> Dark green, coarse grained, chloritized, subhedral hornblende/pyroxene, anhedral plagioclase. Variable amount of light white to pink feldspar alteration and $k$-feldspar veins. Magnetic. <br> 183.05 185.75 Massive, homogeneous. <br> 183.35 188.65 Coarse grained $k$-feldspar, chlorite, $+/$ - carbonate, 7 sphene vein at $15{ }^{\circ}$. <br> 185.75 203.10 Feldspar mostly light green grey, mottled appearance. $10 x \mathrm{k}$-feldspar veins, 1 to $25 \mathrm{~cm}, 5$ to $35^{\circ}$ with trace chalcopyrite. Matrix feldspar saussuritized, coarse chlorite and ?phlogopite. <br> $185.75186 .1010 \% \mathrm{k}$-feldspar veins at $3^{\circ}$ and $5^{\circ}$. pale red brown, white selvages. <br> 187.05187 .15 K -feldspar vein at $40^{\circ}$. <br> $189.351 .00 \mathrm{Cm} k$-feldspar, chlorite vein, trace chalcopyrite at $25^{\circ}$. <br> 196.00 196.10 Coarse grained chlorite, epidote, k-feldspar, chalcopyrite vein. <br> 196.20 Shearing at $80^{\circ}$. <br> 201.60201 .75 Chlorite, calcite, $k$-feldspar, chalcopyrite shear at $45^{\circ}$. <br> 203.10233 .00 Dark green matrix, feldspar dark grey, fresh, $7 \% \mathrm{k}$-feldspar, chlorite veins <br> 207.10 207.90 Fine-grained chlorite, carbonate selvages and coarse grained light grey to pink $k$-feldspar vein with trace chalcopyrite at $30^{\circ}$. <br> 217.05 217.25 Chlorite shear and coarse grained $k$-feldspar, chlorite, quartz, epidote, magnetite vein at $40^{\circ}$ with trace pyrite, chalcopyrite. <br> 219.10 219.15 Chlorite shear at $40^{\circ}$ with blebs chalcopyrite. <br> 221.95224 .25 K-feldspar, chlorite, clinozoisite vein, red brown, chlorite dark green, clinozoisite light green at $20{ }^{\circ}$. <br> 230.12233 .00 Core strongly broken, dark red hematite specks. <br> 233.00238 .25 Mottled gabbro, to 239 m with strongly broken sections. $5 \% \mathrm{k}$-feldspar veins at 20 to $30^{\circ}$. <br> MAFIC DIKE <br> Fine-grained, grey green matrix, $2 \%$ chlorite ( hornblende ) phenocrysts, $1 \%$ disseminated pyrite. <br> GABBRO <br> As 233.00 to 238.25. <br> 248.60249 .05 Fault breccia at $45^{\circ}$. <br> 249.60249 .85 K -feldspar, chlorite vein at $25{ }^{\circ}$, trace chalcopyrite. <br> 251.70252 .05 Shear, fault gouge. <br> 253.45253 .60 Shearing at $40^{\circ}$, chlorite veinlet at $25^{\circ}$, trace chalcopyrite. <br> 258.35 258.70 Shear / gouge at $55^{\circ}$. <br> 258.95 259.40 Mafic to intermediate dike. Upper contact 35 , lower contact $70{ }^{\circ}$. 1 to $2 \%$ pyrite on veinlets and disseminated. <br> 263.40264 .25 Chlorite, $k$-feldspar vein, upper contact 45 , lower contact $80^{\circ}$. | 33782 <br> 33783 <br> 33784 | 169.70 <br> 172.70 <br> 175.70 <br> 193.00 <br> 196.00 <br> 199.00 | 172.70 <br> 175.70 <br> 178.70 | $\begin{aligned} & 3.00 \\ & 3.00 \\ & 3.00 \\ & \\ & \\ & \\ & \\ & \\ & 3.00 \\ & 3.00 \\ & 2.00 \end{aligned}$ | 476 <br> 482 <br> 458 <br> 106 <br> 163 <br> 793 | $\begin{array}{r}7 \\ 4 \\ 4 \\ \\ \\ \\ \hline\end{array}$ |  |



\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \& \begin{tabular}{l}
Grid: \\
Co-ords: \\
Azimuth: \\
Dip: \\
Elevation \\
Length: \\
Purpose: \\
Assays: \\
Core at:
\end{tabular} \& DIAMOND DRILL RECORD \& \& \multicolumn{3}{|r|}{\begin{tabular}{l}
Hole No.: \\
Claim: \\
Date Started: \\
Date Completed \\
Logged by: \\
Contractor: \\
Orill Type: \\
Core Size:
\end{tabular}} \& \multicolumn{3}{|l|}{\begin{tabular}{l}
ML95-07 \\
Til \\
December 15, 1995 \\
December 16, 1995 \\
RvG \\
Connors \\
Val Dior \\
Na
\end{tabular}} \\
\hline From (m) \& \begin{tabular}{l}
To \\
(m)
\end{tabular} \& Geology \& Sample No. \& From (m) \& \begin{tabular}{l}
To \\
(m)
\end{tabular} \& Length (m) \& Copper (ppm) \& Gold (ppb) \& Silver (ppm) \\
\hline  \& \[
\begin{aligned}
\& 30.50 \\
\& 74.70
\end{aligned}
\] \& \begin{tabular}{l}
OVERBURDEN \\
MONZONITE. \\
Dark grey, coarse grained, massive, little fracturing, 20\% coarse grained chlorite after hornblende, \(1 \%\) magnetite. Variably \(k\)-feldspar altered. Alteration causes matrix feldspar to turn light grey. REDDISH \(k\)-feldspar alteration spreading from partly calcite-coated fractures. \\
30.5043 .7030 to \(40 \%\) medium to light grey, minor reddish k-feldspar alteration, including \(2 X\) coarse grained \(k\)-feldspar veins at 40 to \(4^{\circ}\). Fractures at 25 -. Trace chalcopyrite, pyrite with \(k\)-feldspar veins and alteration zones. Estimated <0.1\% Cu. \\
43.7056 .8040 to 50\% \(k\)-feldspar alteration, including 6\% grey brown to red brown \(k\)-feldspar veins, 1 to 20 cm , at 30 to 45 ( 65\()^{\circ}\). Hairline fractures with \(k\)-feldspar alteration in hostrock at 5 to \(25^{\circ}\). Hairline fractures with chalcopyrite, chlorite and little or no k-feldspar at 65 to 75 . Chalcopyrite and pyrite also on fractures at 10 to \(20^{\circ}\) and with \(k\)-feldspar veins. \\
50.8050 .85 K -feldspar, calcite, chlorite vein, blobs chalcopyrite. \\
53.5553 .65 K -feldspar vein at \(30^{\circ}\), cut by fractures with blebs chalcopyrite at \(70^{\circ}\). \\
\(56.8070 .1030 \%\) medium to light grey matrix, including \(12 \% \mathrm{k}\)-feldspar veins, up to 1 m long, contacts \(k\)-feldspar veins at 55 to \(70^{\circ}\). \\
63.8064 .80 K -feldspar vein. Upper contact 70 , lower contact \(60^{\circ}\), minor chlorite, quartz, trace chalcopyrite. \\
65.2065 .75 K -feldspar vein. Upper contact, lower contact \(60 \%\) minor chlorite, trace quartz, chalcopyrite. 1 to \(2 \mathrm{~cm} k\)-feldspar vein with chalcopyrite at \(0{ }^{\circ}\) at lower contact. \\
66.9067 .25 K -feldspar vein at \(60{ }^{\circ}\), cut by magnetite band at \(75^{\circ}\). Pyrite, trace chalcopyrite on fractures at 5 。. Chalcopyrite on hairline chlorite fractures at \(70^{\circ}\) (eg 69.72m). \\
\(70.1074 .7040 \%\) matrix alteration, mainly mediun to light grey, minor reddish k-feldspar
\end{tabular} \& 31792
31793
31794
31795
31796
31797
31798

31799
31800
31801
31802
33803

33804 \& $$
\begin{aligned}
& 30.50 \\
& 33.50 \\
& 36.50 \\
& 39.50 \\
& 42.50 \\
& 45.50 \\
& 48.50 \\
& \\
& \\
& \\
& 51.50 \\
& 54.50 \\
& 57.50 \\
& 60.50 \\
& 63.50 \\
& \\
& 66.50 \\
& \\
& 69.50
\end{aligned}
$$ \& 33.50

36.50
39.50
42.50
45.50
48.50
51.50

54.50
57.50
60.50
63.50
66.50

69.50 \& 3.00
3.00
3.00
3.00
3.00
3.00
3.00

3.00
3.00
3.00
3.00
3.00

3.00 \& 308
348
349
304
375
938
368

356
355
475
232
937

836 \& $\begin{array}{r}7 \\ 11 \\ 7 \\ 4 \\ 7 \\ 10 \\ 11 \\ \\ \\ \\ \hline 9 \\ 4 \\ 7 \\ 5 \\ 32 \\ \\ \hline 17\end{array}$ \& <br>
\hline
\end{tabular}



APPENDIX 2





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


ISP - . 500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2D AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH HATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B $W$ AND LIMITED FOR NA K AND AL.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZH AS > 1\%, AG > 30 PPM \& AU > 1000 PB

- SAMPLE TYPE: CORE AU** ANALYSIS BY FA/ICP FROM 30 GM SAMPLE.

Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.
DATE RECEIVED: JAN 21996 DATE REPORT MAILED: $\operatorname{san} 9 / 96$
signed by .....opo.tore, c.leong, J.hang; certified b.c. assayers



[^0]



ISP - . 500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH HATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B w and limited for Ma K and al
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB 2N AS > 1\%, AG $>30$ PPM \& AU $>1000$ PPR

- SAMPLE TYPE: CORE AU** ANALYSIS BY FA/ICP FROM 30 GM SAMPLE.

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


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



Sample type: CORE, Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.






| SAMPLE\# | $\begin{array}{\|c} \text { Mo } \\ \hline \text { ppow } \\ \hline \end{array}$ | $\begin{gathered} \mathrm{Cu} \\ \mathrm{pprn} \end{gathered}$ | $\begin{gathered} \mathrm{Pb} \\ \mathrm{ppm} \end{gathered}$ | $\begin{array}{r} \mathbf{2 n} \\ \mathrm{ppm} \end{array}$ | $\begin{gathered} \mathrm{Ag} \\ \mathrm{ppm} \end{gathered}$ | $\begin{gathered} N i \\ \mathrm{ppom} \end{gathered}$ | $\begin{array}{r} \text { Co } \\ \text { pprm } \end{array}$ | $\begin{array}{r} \text { Mn } \\ \mathrm{pppn} \end{array}$ | $\mathrm{Fe}$ $x$ | $\begin{array}{r} \text { As } \\ \text { ppm } \\ \hline \end{array}$ | $\begin{array}{r} \mathrm{U} \\ \mathbf{p p m} \end{array}$ | $\begin{array}{r} \text { Au } \\ \text { ppon } \end{array}$ | $\begin{array}{r} \text { Th } \\ \text { pppon } \end{array}$ | $\begin{array}{r} \mathbf{S r} \\ \mathrm{pp} \\ \hline \end{array}$ | $\begin{array}{r} \text { Cd } \\ \text { ppon } \\ \hline \end{array}$ | $\begin{array}{r} \text { Sb } \\ \text { pppin } \end{array}$ | $\begin{array}{r} \mathrm{Bi} \\ \hline \mathrm{ppm} \end{array}$ | $\begin{array}{r} v \\ \text { ppon } \end{array}$ | $\begin{gathered} \mathrm{Ca} \\ \mathbf{x} \end{gathered}$ | $\begin{aligned} & \underline{p} \\ & \underline{\chi}_{p} \end{aligned}$ | La |  | $\mathrm{Mg}$ $\dot{\chi}$ | $\begin{array}{r} \mathrm{Ba} \\ \mathrm{pppm} \end{array}$ | $\begin{array}{r} \mathrm{Ti} \\ \% \\ \hline \end{array}$ | $\begin{array}{r} B \\ \text { ppm } \\ \hline \end{array}$ | $\begin{gathered} \text { Al } \\ Z \end{gathered}$ | $\begin{gathered} \mathrm{Na} \\ \boldsymbol{Z} \end{gathered}$ | $\begin{aligned} & x \\ & z \end{aligned}$ |  | $\begin{aligned} & \text { Au** } \\ & \text { ppb } \end{aligned}$ | SAMPLE <br> lb |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 033771 M | 3 | 310 | $<3$ | 31 | <. 3 | 9 | 10 | 454 | 3.61 | 4 | $<5$ | $<2$ | 3 | 36 | $<.2$ | $<2$ | $<2$ | 120 | 1.08 | . 208 | 10 | 18 | . 45 | 33 | . 13 | $<3$ | . 54 | . 05 | . 24 | $<2$ | 10 | 15 |
| 033772 M | 4 | 254 | 4 | 31 |  | 14 | 10 | 462 | 3.74 | $<2$ | < 5 | $<2$ | 7 | 50 | . 3 | $<2$ | $<2$ | 132 | . 98 | . 203 | 11 | 23 | . 46 | 39 | . 14 | 3 | . 61 | . 07 | . 21 | $<2$ | 10 | 14 |
| 033773 M | 3 | 241 | 3 | 24 | <. 3 | 12 | 9 | 357 | 3.03 | $<2$ | $<5$ | $<2$ | 6 | 42 | . 2 | $<2$ | <2 | 113 | 1.24 | . 170 | 9 | 20 | . 48 | 29 | . 13 | 3 | . 71 | . 06 | . 18 | $<2$ | 7 | 14 |
| 033774 M | 16 | 771 | 4 | 34 |  | 15 | 12 | 445 | 3.74 | $<2$ | < 5 | $<2$ | 3 | 78 | . 2 | $<2$ | $<2$ | 140 | 1.16 | . 201 | 7 | 24 | . 65 | 65 | . 15 | $<3$ | . 82 | . 05 | . 29 | $<2$ | 14 | 15 |
| 033775 M | 3 | 299 | $<3$ | 20 | < 3 | 7 | 6 | 272 | 2.37 | $<2$ | $<5$ | $<2$ | 4 | 35 | . 2 | $<2$ | $<2$ | 94 | . 84 | . 198 | 9 | 8 | . 37 | 55 | . 11 | 3 | . 48 | . 06 | . 27 | $<2$ | 4 | 16 |
| 033776 M | 3 | 193 | $<3$ | 37 | <. 3 | 16 | 11 | 424 | 3.97 | $<2$ | $<5$ | $<2$ | 2 | 43 | . 2 | $<2$ | $<2$ | 163 | 1.02 | . 206 | 8 | 26 | . 76 | 78 | . 17 | $<3$ | . 80 | . 07 | . 53 | $<2$ | 4 | 15 |
| 033777 M | 5 | 397 | 4 | 33 | $<.3$ | 16 | 10 | 406 | 3.51 | $<2$ | $<5$ | $<2$ | 5 | 54 | .2 | <2 | $<2$ | 123 | 1.13 | . 183 | 7 | 22 | . 61 | 49 | . 13 | $<3$ | . 76 | . 05 | . 27 | $<2$ | 3 | 14 |
| 033778 M | 2 | 246 | < 3 | 35 | <. 3 | 13 | 13 | 530 | 3.47 | $<2$ | $<5$ | $<2$ | $<2$ | 57 | . 2 | <2 | $<2$ | 109 | 1.70 | . 204 | 8 | 19 | . 61 | 31 | . 10 | $<3$ | . 94 | . 04 | . 14 | $<2$ | 4 | 15 |
| 033779 M | 3 | 444 | 5 | 43 | <.3 | 19 | 13 | 471 | 4.34 | $<2$ | < 5 | $<2$ | 2 | 55 | . 2 | $<2$ | <2 | 163 | 1.25 | . 224 | 8 | 33 | . 79 | 55 | . 15 | $<3$ | . 96 | . 05 | . 30 | <2 | 5 | 15 |
| 033780 M | 3 | 1043 | $<3$ | 45 | <. 3 | 19 | 14 | 466 | 4.46 | $<2$ | $<5$ | $<2$ | $<2$ | 44 | . 7 | $<2$ | $<2$ | 152 | 1.27 | . 220 | 7 | 33 | . 82 | 41 | . 16 | $<3$ | . 94 | . 05 | . 25 | $<2$ | 12 | 14 |
| RE 033780 M | 5 | 1092 | 3 | 47 | < 3 | 20 | 15 | 483 | 4.61 | $<2$ | $<5$ | <2 | $<2$ | 46 | . 5 | <2 | <2 | 157 | 1.32 | . 229 | 8 | 34 | . 86 | 43 | . 17 | 3 | . 98 | . 06 | . 26 | $<2$ | 16 | - |
| RRE 033780 M | 3 | 1185 | 3 | 49 | . 4 | 19 | 16 | 494 | 4.73 | $<2$ | < 5 | $<2$ | 2 | 44 | . 4 | $<2$ | $<2$ | 162 | 1.34 | . 245 | 9 | 36 | . 87 | 41 | . 16 | $<3$ | . 97 | . 05 | . 25 | $<2$ | 14 | - |
| 033781 M | 37 | 313 | $<3$ | 28 | <. 3 | 14 | 9 | 373 | 3.20 | <2 | < 5 | $<2$ | 2 | 43 | $<.2$ | <2 | <2 | 88 | 1.13 | . 226 | 10 | 17 | . 55 | 49 | . 12 | $<3$ | . 69 | . 06 | . 29 | $<2$ | 6 | 15 |
| 033782 M | 7 | 476 | 3 | 29 | <. 3 | 14 | 9 | 315 | 3.30 | <2 | $<5$ | $<2$ | <2 | 52 | . 2 | $<2$ | $<2$ | 104 | 1.38 | . 259 | 9 | 10 | . 55 | 47 | . 12 | 3 | . 83 | . 06 | . 20 | $<2$ | 4 | 15 |
| 033783 M | 2 | 482 | <3 | 40 | <. 3 | 14 | 12 | 457 | 3.95 | 7 | $<5$ | $<2$ | 2 | 58 | . 2 | $<2$ | $<2$ | 144 | 1.23 | . 302 | 11 | 19 | . 59 | 60 | . 12 | $<3$ | . 72 | . 05 | . 31 | $<2$ | 7 | 15. |
| 033784 M | 21 | 458 | $<3$ | 35 | <. 3 | 11 | 11 | 552 | 3.51 | 2 | < 5 | <2 | 2 | 70 | . 2 | $<2$ | <2 | 113 | 1.28 | . 256 | 69 | 14 | . 56 | 60 | . 11 | $<3$ | . 64 | . 05 | . 27 | $<2$ | 4 | 14 |
| 033785 M | 6 | 106 | 8 | 35 | <. 3 | 33 | 14 | 352 | 3.81 | <2 | < 5 | $<2$ | 13 | 199 | . 2 | <2 | 2 | 102 | 1.96 | . 016 | 1 | 27 | 1.14 | 39 | . 14 | $<3$ | 2.51 | . 17 | . 63 | 2 | 5 | 15 |
| 033786 M | 5 | 163 | <3 | 37 | <. 3 | 45 | 22 | 488 | 5.49 | <2 | < | $<2$ | 3 | 153 | . 3 | <2 | <2 | 149 | 2.33 | . 015 | 1 | 42 | 1.78 | 46 | . 19 | $<3$ | 2.74 | . 13 | . 59 | $<2$ | 3 | 15 |
| 033787 M | 4 | 793 | $\leqslant$ | 45 | <. 3 | 39 | 25 | 526 | 5.52 | 3 | < | $<2$ | 3 | 133 | . 2 | $<2$ | <2 | 146 | 2.96 | . 009 | <1 | 46 | 1.90 | 20 | . 13 | 3 | 2.28 | . 05 | . 16 | $<2$ | 3 | 14 |
| 033788 M | 44 | 922 | <3 | 42 | <. 3 | 41 | 22 | 598 | 6.66 | $<2$ | $<5$ | $<2$ | 4 | 42 | .3 | $<2$ | <2 | 208 | 1.33 | . 121 | 4 | 122 | 1.44 | 76 | . 22 | <3 | 1.43 | . 08 | . 83 | $<2$ | 18 | 15 |
| 033789 M | 14 | 268 | $<3$ | 53 | <. 3 | 64 | 29 | 694 | 8.82 | <2 | $<5$ | $<2$ | 3 | 39 | . 5 | $<2$ | $<2$ | 267 | 1.35 | . 046 | <1 1 | 154 | 1.83 | 71 | . 23 | $<3$ | 1.55 | . 06 | . 54 | $<2$ | 5 | 14 |
| 033790 M | 11 | 385 | <3 | 33 | <. 3 | 33 | 17 | 482 | 4.97 | $<2$ | $<5$ | $<2$ | 3 | 38 | . 2 | $<2$ | <2 | 157 | 1.10 | . 182 | 5 | 74 | 1.24 | 120 | . 20 | $<3$ | 1.18 | . 08 | . 87 | $<2$ | 9 | 14 |
| RE 033790 M | 10 | 373 | 3 | 33 | <. 3 | 32 | 17 | 471 | 4.85 | $<2$ | $<5$ | $<2$ | 3 | 38 | .3 | $<2$ | $<2$ | 152 | 1.07 | . 177 | 5 | 71 | 1.22 | 118 | . 20 | $<3$ | 1.16 | . 08 | . 85 | $<2$ | 11 | - |
| RRE 033790 M | 11 | 319 | <3 | 32 | <. 3 | 31 | 17 | 475 | 4.84 | $<2$ | $<5$ | $<2$ | 2 | 39 | . 3 | <2 | <2 | 155 | 1.11 | . 179 | 6 | 71 | 1.23 | 120 | . 20 | <3 | 1.18 | . 08 | . 85 | $<2$ | 9 | - |
| 033791 M | 14 | 968 | $<3$ | 31 | <. 3 | 24 | 15 | 444 | 4.12 | $<2$ | $<5$ | $<2$ | 2 | 30 | . 2 | $<2$ | $<2$ | 138 | 1.05 | . 162 | 5 | 48 | 1.04 | 103 | . 18 | <3 | 1.00 | . 06 | . 75 | $<2$ | 24 | 15 |
| 033792 M | 4 | 308 | 3 | 60 | <. 3 | 20 | 15 | 545 | 4.84 | $<2$ | < 5 | $<2$ | 3 | 23 | . 3 | $<2$ | $<2$ | 164 | 1.21 | . 236 | 11 | 29 | 1.05 | 43 | . 20 | 3 | 1.00 | . 05 | . 50 | $<2$ | 7 | 14 |
| 033793 M | 3 | 348 | 5 | 59 | <. 3 | 21 | 16 | 517 | 5.18 | $<2$ | $<5$ | $<2$ | 3 | 25 | . 2 | '<2 | <2 | 177 | 1.00 | . 240 | 11 | 32 | 1.00 | 65 | . 21 | <3 | . 92 | . 06 | . 73 | $<2$ | 11 | 15 |
| 033794 M | 2 | 349 | 5. | 52 | < 3 | 16 | 14 | 411 | 4.34 | $<2$ | $<5$ | $<2$ | 3 | 31 | <. 2 | <2 | $<2$ | 148 | . 94 | . 229 | 11 | 25 | . 89 | 60 | . 19 | 3 | . 84 | . 06 | . 62 | $<2$ | 7 | 15 |
| 033795 M | 4 | 304 | 4 | 55 | <. 3 | 21 | 16 | 433 | 4.64 | $<2$ | $<5$ | $<2$ | 3 | 39 | . 3 | $<2$ | $<2$ | 172 | . 99 | . 237 | 11 | 32 | . 99 | 72 | . 21 | 3 | . 94 | . 07 | . 73 | $<2$ | 4 | 15 |
| 033796 M | 5 | 375 | 3 | 38 | <. 3 | 13 | 10 | 388 | 3.49 | $<2$ | $<5$ | $<2$ | 3 | 51 | $<.2$ | $<2$ | $<2$ | 119 | 1.26 | . 222 | 10 | 15 | . 65 | 42 | . 16 | 4 | . 92 | . 07 | . 36 | $<2$ | 7 | 15 |
| 033797 M | 8 | 938 | 4 | 37 | . 3 | 10 | 12 | 402 | 3.84 | 2 | $<5$ | $<2$ | 3 | 44 | . 2 | $<2$ | $<2$ | 110 | 1.43 | . 209 | 10 | 15 | . 63 | 30 | . 16 | 3 | . 76 | . 05 | . 21 | 2 | 10 | 14 |
| 033798 M | 7 | 368 | 3 | 44 | <. 3 | 13 | 10 | 436 | 3.66 | $<2$ | $<5$ | $<2$ | 4 | 37 | <. 2 | $<2$ | $<2$ | 126 | 1.14 | . 222 | 10 | 16 | . 66 | 55 | . 18 | 3 | . 77 | . 07 | . 47 | $<2$ | 11 | 15 |
| 033799 M | 20 | 356 | 3 | 41 | < 3 | 14 | 10 | 456 | 3.86 | $<2$ | $<5$ | $<2$ | 7 | 27 | . 3 | <2 | $<2$ | 127 | . 85 | . 221 | 11 | 17 | . 67 | 61 | . 18 | 3 | . 70 | . 08 | . 60 | 13 | 9 | 15 |
| 033800 M | 3 | 355 | 3 | 44 | <. 3 | 11 | 11 | 433 | 3.69 | $<2$ | $<5$ | $<2$ | 3 | 29 | . 2 | <2 | <2 | 125 | . 90 | . 223 | 11 | 17 | . 66 | 52 | . 17 | 3 | . 69 | . 06 | . 50 | 2 | 4 | 14 |
| 033801 M | 5 | 475 | 4 | 53 | <. 3 | 18 | 14 | 446 | 4.76 | 2 | $<5$ | $<2$ | 5 | 27 | $<.2$ | $<2$ | $<2$ | 169 | . 98 | . 252 | 12 | 27 | . 84 | 65 | . 19 | <3 | . 78 | . 06 | . 67 | $<2$ | 7 | 15 |
| 033802 M | 3 | 232 | <3 | 60 | <. 3 | 23 | 17 | 526 | 5.28 | 2 | <5 | $<2$ | 3 | 34 | $<.2$ | $<2$ |  | $186$ | . 90 | . 232 | 11 | 43 | 1.02 | 68 | . 22 | $<3$ | . 91 | . 06 | . 85 | $<2$ | 5 | 14 |
| 033803 M | 6 | 937 | 3 | 37 | . 5 | 12 | 11 | 340 | 3.34 | $<2$ | <5 | $<2$ | 12 | 25 | <. 2 | <2 | <2 | 102 | . 69 | . 130 | 8 | 21 | . 54 | 42 | . 14 | <3 | . 52 | . 06 | . 41 | 2 | 32 | 15 |
| STAMDARD C/AU-R | 23 | 57 | 39 | 128 | 6.8 | 72 | 33 | 1022 | 3.92 | 40 | 15 | 7 | 38 | 53 | 19.4 | 14 | 22 | 57 | . 51 | . 097 | 40 | 57 | . 93 | 179 | . 07 | 28 | 1.75 | . 06 | . 14 | 10 | 478 | - |

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


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


ICP - . 500 GRAM SAMPLE IS dIGESTED WITH 3ML 3-1-2 hCL-hnO3-h20 at 95 deg. C for one hour and is diluted to 10 ml WITh water.
IHIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B $W$ AND LIMITED FOR NA $K$ AND AL.
ASSAY RECOMMENDED. FOR ROCK AND CORE SAMPLES IF CU PB 2N AS > 1\%, AG > 30 PPM \& AU > 1000 PPB

- SAMPLE TYPE: CORE AU** ANALYSIS BY FA/ICP FROM 30 GM SAMPLE

Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.
DATE RECEIVED: JAN 21996 DATE REPORT MAILED: $\sin 9 / 96$


| SAMPLE\# | $\begin{gathered} \text { Mo } \\ \text { ppa } \end{gathered}$ | $\underset{\mathrm{ppm}}{\mathrm{Cu}}$ | $\begin{array}{r} \mathrm{Pb} \\ \mathrm{ppom} \end{array}$ | $\begin{array}{r} 2 n \\ p p m \end{array}$ | $\underset{\underset{\mathrm{pp}}{\mathrm{Ag}}}{\mathrm{Ag}}$ | $\underset{\text { ppm }}{\mathrm{Ni}}$ | $\begin{array}{r} \text { Co } \\ \text { pprin } \end{array}$ | $\begin{array}{r} \text { Mn } \\ \text { pprn } \end{array}$ | $\begin{array}{cc} n & \mathrm{Fe} \\ \mathrm{~m} & \mathrm{Z} \end{array}$ | $\mathrm{As}$ | $\underset{\text { ppon }}{U}$ | $\underset{\mathrm{ppm}}{\mathrm{Au}}$ | Th ppr | $\begin{array}{r} \mathbf{S r} \\ \mathbf{p p r o n} \end{array}$ | $\begin{gathered} \mathrm{Cd} \\ \mathrm{ppm} \end{gathered}$ | $\begin{gathered} \mathrm{Sb} \\ \mathrm{ppm} \end{gathered}$ | $\mathbf{B i}$ ppm |  | $\begin{array}{r} \mathrm{Ca} \\ \% \end{array}$ |  | $\begin{array}{r} \text { La } \\ \text { pppm } \end{array}$ | $\begin{gathered} \mathrm{Cr} \\ \mathrm{ppm} \end{gathered}$ | $\begin{gathered} \mathbf{M g} \\ \% \end{gathered}$ | $\begin{gathered} \mathrm{Ba} \\ \text { Ppom } \end{gathered}$ | $\begin{gathered} \mathrm{Ti} \\ \mathbf{\%} \end{gathered}$ | $\begin{array}{r} B \\ \mathrm{ppm} \end{array}$ | $\begin{gathered} \text { A! } \\ \% \end{gathered}$ | $\begin{gathered} \mathrm{Na} \\ \mathrm{Z} \end{gathered}$ | $\begin{aligned} & k \\ & \% \end{aligned}$ | ppm | $\begin{aligned} & A u^{\star \#} \\ & \mathrm{ppb} \end{aligned}$ | SAMPLE <br> (b |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 033771 M | 3 | 310 | $<3$ | 31 | < 3 | 9 | 10 | 454 | 3.61 | 4 | $<5$ | $<2$ | 3 | 36 | <. 2 | $<2$ | <2 | 120 | 1.08 | . 208 | 10 | 18 | . 45 | 33 | . 13 | $<3$ | . 54 | . 05 | . 24 | $<2$ | 10 | 15 |
| 033772 H | 4 | 254 | 4 | 31 | <. 3 | 14 | 10 | 462 | 3.74 | $<2$ | $<5$ | <2 | 7 | 50 | . 3 | <2 | <2 | 132 | . 98 | . 203 | 11 | 23 | . 46 | 39 | . 14 | <3 | . 61 | . 07 | . 21 | $<2$ | 10 | 14 |
| 033773 M | 3 | 241 | 3 | 24 | <. 3 | 12 | 9 | 357 | 3.03 | <2 | $<5$ | <2 | 6 | 42 | . 2 | $<2$ | <2 | 113 | 1.24 | . 170 | 9 | 20 | . 48 | 29 | . 13 | 3 | . 71 | . 06 | . 18 | <2 | 7 | 14 |
| 033774 M | 16 | 771 | 4 | 34 | <. 3 | 15 | 12 | 445 | 3.74 | <2 | $<5$ | $<2$ | 3 | 78 | . 2 | <2 | <2 | 140 | 1.16 | . 201 | 7 | 24 | . 65 | 65 | . 15 | <3 | . 82 | . 05 | . 29 | <2 | 14 | 15 |
| 033775 M | 3 | 299 | $\leqslant$ | 20 | <. 3 | 7 | 6 | 272 | 2.37 | <2 | $<5$ | $<2$ | 4 | 35 | . 2 | $<2$ | $<2$ | 94 | . 84 | . 198 | 9 | 8 | . 37 | 55 | . 11 | < | . 48 | . 06 | . 27 | $<2$ | 4 | 16 |
| 033776 M | 3 | 193 | $<3$ | 37 | <.3 | 16 | 11 | 424 | 3.97 | <2 | $<5$ | <2 | 2 | 43 | . 2 | $<2$ | <2 | 163 | 1.02 | . 206 | 8 | 26 | . 76 | 78 | . 17 | $<3$ | . 80 | . 07 | . 53 | <2 | 4 | 15 |
| 033777 | 5 | 397 | 4 | 33 | <. 3 | 16 | 10 | 406 | 3.51 | <2 | $<5$ | $<2$ | 5 | 54 | . 2 | $<2$ | <2 | 123 | 1.13 | . 183 | 7 | 22 | . 61 | 49 | . 13 | $<3$ | . 76 | . 05 | . 27 | $<2$ | 3 | 14 |
| 033778 M | 2 | 246 | < | 35 | <. 3 | 13 | 13 | 530 | 3.47 | <2 | <5 | <2 | $<2$ | 57 | . 2 | <2 | <2 | 109 | 1.70 | . 204 | 8 | 19 | . 61 | 31 | . 10 | $<$ | . 94 | . 04 | . 14 | <2 | 4 | 15 |
| 033779 M | 3 | 444 | 5 | 43 | <. 3 | 19 | 13 | 471 | 14.34 | <2 | $<5$ | $<2$ | 2 | 55 | . 2 | <2 | <2 | 163 | 1.25 | . 224 | 8 | 33 | . 79 | 55 | . 15 | < | . 96 | . 05 | . 30 | <2 | 5 | 15 |
| 033780 M | 3 | 1043 | <3 | 45 | <. 3 | 19 | 14 | 466 | 4.46 | $<2$ | $<5$ | <2 | $<2$ | 44 | . 7 | $<2$ | <2 | 152 | 1.27 | . 220 | 7 | 33 | . 82 | 41 | . 16 | $<3$ | . 94 | . 05 | . 25 | $<2$ | 12 | 14 |
| RE 033780 M | 5 | 1092 | 3 | 47 | <. 3 | 20 | 15 | 483 | 4.61 | $<2$ | $<5$ | $<2$ | $<2$ | 46 | . 5 | $<2$ | $<2$ | 157 | 1.32 | . 229 | 8 | 34 | . 86 | 43 | . 17 | 3 | . 98 | . 06 | . 26 | $<2$ | 16 | - |
| RRE 033780 M | 3 | 1185 | <3 | 49 | . 4 | 19 | 16 | 494 | 4.73 | <2 | <5 | <2 | 2 | 44 | .4 | $<2$ | $<2$ | 162 | 1.34 | . 245 | 9 | 36 | . 87 | 41 | . 16 | < | . 97 | . 05 | . 25 | <2 | 14 | - |
| 033781 M | 37 | 313 | 3 | 28 | <. 3 | 14 | 9 | 373 | 3.20 | <2 | $<5$ | $<2$ | 2 | 43 | $<.2$ | <2 | $<2$ | 88 | 1.13 | . 226 | 10 | 17 | . 55 | 49 | . 12 | 3 | . 69 | . 06 | . 29 | $<2$ | 6 | 15 |
| 033782 M | 7 | 476 | 3 | 29 | <. 3 | 14 | 9. | 315 | 3.30 | <2 | <5 | <2 | $<2$ | 52 | . 2 | 2 | $<2$ | 104 | 1.38 | . 259 | 9 | 10 | . 55 | 47 | . 12 | 3 | . 83 | . 06 | . 20 | $<2$ | 4 | 15 |
| 033783 M | 2 | 482 | <3 | 40 | <. 3 | 14 | 12 | 457 | 73.95 | 7 | $<5$ | $<2$ | 2 | 58 | . 2 | $<2$ | $<2$ | 144 | 1.23 | . 302 | 11 | 19 | . 59 | 60 | . 12 | <3 | . 72 | . 05 | . 31 | $<2$ | 7 | 15 |
| 033784 M | 21 | 458 | <3 | 35 | <. 3 | 11 | 11 | 552 | 3.51 | 2 | $<5$ | $<2$ | 2 | 70 | . 2 | $<2$ | $<2$ | 113 | 1.28 | . 256 | 9 | 14 | . 56 | 60 | . 11 | $<3$ | . 64 | . 05 | . 27 | $<2$ | 4 | 14 |
| 033785 M | 6 | 106 | 8 | 35 | <. 3 | 33 | 14 | 352 | 3.81 | $<2$ | <5 | <2 | 13 | 199 | . 2 | $<2$ | 2 | 102 | 1.96 | . 016 | 1 | 27 | 1.14 | 39 | . 14 | <3 | 2.51 | . 17 | . 63 | 2 | 5 | 15 |
| 033786 M | 5 | 163 | <3 | 37 | <. 3 | 45 | 22 | 488 | 8.49 | <2 | $<5$ | <2 | 3 | 153 | .3 | <2 | <2 | 149 | 2.33 | . 015 | 1 | 42 | 1.78 | 46 | . 19 | <3 | 2.74 | . 13 | . 59 | $<2$ | 3 | 15 |
| 033787 M | 4 | 793 | <3 | 45 | <. 3 | 39 | 25 | 526 | 65.52 | 3 | $<5$ | <2 | 3 | 133 | . 2 | <2 | <2 | 146 | 2.96 | . 009 | <1 | 46 | 1.90 | 20 | . 13 | 3 | 2.28 | . 05 | . 16 | $<2$ | 3 | 14 |
| 033788 н | 44 | 922 | <3 | 42 | <. 3 | 41 | 22 | 598 | 6.66 | $<2$ | $<5$ | <2 | 4 | 42 | .3 | <2 | $<2$ | 208 | 1.33 | . 121 | 4 | 122 | 1.44 | 76 | . 22 | <3 | 1.43 | . 08 | . 83 | $<2$ | 18 | 15 |
| 033789 M | 14 | 268 | <3 | 53 | <. 3 | 64 | 29 | 694 | 8.82 | $<2$ | $<5$ | <2 | 3 | 39 | . 5 | <2 | $<2$ | 267 | 1.35 | . 046 | <1 | 154 | 1.83 | 71 | . 23 | $<3$ | 1.55 | . 06 | . 54 | $<2$ | 5 | 14 |
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| RE 033790 M | 10 | 373 | 3 | 33 | <. 3 | 32 | 17 | 471 | 14.85 | <2 | $<5$ | <2 | 3 | 38 | . 3 | <2 | <2 | 152 | 1.07 | . 177 | 5 | 71 | 1.22 | 118 | . 20 | <3 | 1.16 | . 08 | . 85 | $<2$ | 11 | - |
| RRE 033790 M | 11 | 319 | $<3$ | 32 | <. 3 | 31 | 17 | 475 | 4.84 | $<2$ | $<5$ | <2 | 2 | 39 | . 3 | <2 | <2 | 155 | 1.11 | . 179 | 6 | 71 | 1.23 | 120 | . 20 | <3 | 1.18 | . 08 | . 85 | $<2$ | 9 | $\bullet$ |
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|  | 4 | 308 | 3 | 60 | < 3 | 20 | 15 |  | 4.84 | $<2$ | $<5$ | <2 | 3 | 23 | . 3 | <2 | <2 | 164 | 1.21 | . 236 | 11 | 29 | 1.05 | 43 | . 20 | 3 | 1.00 | . 05 | . 50 | <2 | 7 | 14 |
| 033793 M | 3 | 348 | 5 | 59 | < 3 | 21 | 16 | 517 | 75.18 | <2 | $<5$ | $<2$ | 3 | 25 | . 2 | <2 | <2 | 177 | 1.00 | . 240 | 11 | 32 | 1.00 | 65 | . 21 | $<3$ | . 92 | . 06 | . 73 | $<2$ | 11 | 15 |
| 033794 M | 2 | 349 | 5 | 52 | <. 3 | 16 | 14 | 411 | 14.34 | <2 | $<5$ | $<2$ | 3 | 31 | < 2 | $<2$ | <2 | 148 | . 94 | . 229 | 11 | 25 | . 89 | 60 | . 19 | 3 | . 84 | . 06 | . 62 | $<2$ | 7 | 15 |
| 033795 M | 4 | 304 | 4 | 55 | <. 3 | 21 | 16 | 433 | 3.64 | <2 | < 5 | $<2$ | 3 | 39 | . 3 | $<2$ | $<2$ | 172 | . 99 | . 237 | 11 | 32 | . 99 | 72 | . 21 | 3 | . 94 | . 07 | . 73 | $<2$ | 4 | 15 |
| 033796 M | 5 | 375 | 3 | 38 | <. 3 | 13 | 10 | 388 | 3.49 | <2 | $<5$ | <2 | 3 | 51 | $<.2$ | $<2$ | $<2$ | 119 | 1.26 | . 222 | 10 | 15 | . 65 | 42 | . 16 | 4 | . 92 | . 07 | . 36 | $<2$ | 7 | 15 |
| 033797 M | 8 | 938 | 4 | 37 | . 3 | 10 | 12 | 402 | 23.84 | 2 | $<5$ | <2 | 3 | 44 | . 2 | <2 | $<2$ | 110 | 1.43 | . 209 | 10 | 15 | . 63 | 30 | . 16 | 3 | . 76 | . 05 | . 21 | 2 | 10 | 14 |
| 033798 M | 7 | 368 | 3 | 44 | <. 3 | 13 | 10 | 436 | 3.66 | <2 | < 5 | $<2$ | 4 | 37 | $<.2$ | $<2$ | <2 | 126 | 1.14 | . 222 | 10 | 16 | . 66 | 55 | . 18 | 3 | . 77 | . 07 | . 47 | <2 | 11 | 15 |
| 033799 M | 20 | 356 | 3 | 41 | < 3 | 14 | 10 | 456 | 3.86 | <2 | < 5 | $<2$ | 7 | 27 | . 3 | $<2$ | <2 | 127 | . 85 | . 221 | 11 | 17 | . 67 | 61 | . 18 | 3 | . 70 | . 08 | . 60 | 13 | 9 | 15 |
| 033800 M | 3 | 355 | 3 | 44 | <. 3 | 11 | 11 | 433 | 33.69 | <2 | $<5$ | $<2$ | 3 | 29 | . 2 | <2 | <2 | 125 | . 90 | . 223 | 11 | 17 | . 66 | 52 | . 17 | 3 | . 69 | . 06 | . 50 | 2 | 4 | 14 |
| 033801 M | 5 | 475 | 4 | 53 | <. 3 | 18 | 14 | 446 | 4.76 | 2 | $<5$ | $<2$ | 5 | 27 | <. 2 | $<2$ | <2 | 169 | . 98 | . 252 | 212 | 27 | . 84 | 65 | . 19 | $<3$ | . 78 | . 06 | . 67 | $<2$ | 7 | 15 |
| 033802 M | 3 | 232 | $<3$ | 60 | <. 3 | 23 | 17 | 526 | 5.28 | 2 | < | <2 | 3 | 34 | <. 2 | <2 | $<2$ | 186 | . 90 | . 232 | 11 | 43 | 1.02 | 68 | . 22 | <3 | . 91 | . 06 | . 85 | $<2$ | 5 | 14 |
| 033803 M | 6 | 937 | 3 | 37 | . 5 | 12 | 11 | 340 | 3.34 | <2 | < | $<2$ | 12 | 25 | <. 2 | <2 | $<2$ | 102 | . 69 | . 130 | 8 | 21 | . 54 | 42 | . 14 | $<3$ | . 52 | . 06 | . 41 | 2 | 32 | 15 |
| STANDARD C/AU-R | 23 | 57 | 39 | 128 | 6.8 | 72 | 33 | 1022 | 3.92 | 40 | 15 | 7 | 38 | 53 | 19.4 | 14 | 22 | 57 | . 51 | . 097 | 40 | 57 | . 93 | 179 | . 07 | 28 | 1.75 | . 06 | . 14 | 10 | 478 | - |





[^0]:    Sample type: CORE. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

