## ASSESSMENT REPORT TITLE PAGE AND SUUVIVIARI



REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude do not use abbreviations or codes)
Middle to Upper Triassic augite porphyry basaltic greenstone and sedimentary rocks of the Nicola Group, ultramafic rocks of the Slide Mountain terrane as fault slices; orogenic gold bearing quartz veins and quartz-carbonate-pyrite replacement style mineralization; mineralization includes native gold, native silver, galena, sphalerite, chalcopyrite, molybdenite, arsenopyrite, pyrrhotite and pyrite; Main zone consists of a network of quartz veins over a northwest trending, $70^{\circ} \mathrm{NE}$ dipping, 40 m wide by 140 m long and 190 m deep zone with up to 29 quartz veins; East zone, 25 m northeast of Main zone consists of a northwesterly trending quartz vein zone apparently dipping northeast and stratiformly hosted by greenstone and traced over a length of 90 m , open to the northwest; other zones include Raven, North, Cayenne, Pioneer.

## REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS

\#03484: Geochemistry (Anderson, R.E., 1972)
\#08343, 09322 Geology, geophysics, geochemistry (Fox, 1980, 1981); \#12129 geochemistry (Allan, 1984)
\#25689: Prospecting \& trenching (Javorsky, 2004); \#27776: Diamond drilling (Javorsky and Briden, 2005)
\#28644: Geochemistry (Briden, H. Alex, 2006)
\#29467: Diamond drilling (Simmons, B., 2007)
\#34649, 35568, 36159: SP Geophysics; Geochemistry; SP Geophysics (Justason A., 2014, 2015 \& 2016)
\#37247: SP Geophysics (Justason A., 2018); \#37641: IP/Resistivity Geophysics (Mark, D., 2018)
\#37910 : Geochemistry and remote sensing (Justason A., 2019)


## Mineral Titles Online

Mineral Claim Exploration and Development Work/Expiry Date

## Change

Recorder: GOLDEN CARIBOO RESOURCES
LTD. (143177)
Recorded: 2019/NOV/14
D/E Date: 2019/NOV/14

Submitter: GOLDEN CARIBOO RESOURCES
LTD. (143177)
Effective: 2019/NOV/14

Confirmation
If you have not yet submitted your report for this work program, your technical work report is due in 90 days. The Exploration and Development Work/Expiry Date Change event number is required with your report submission. Please attach a copy of this confirmation page to your report. Contact Mineral Titles Branch for more information.

Event Number:
5763699

## Work Type: <br> Technical Items:

Technical Work Geochemical, Geological, PAC Withdrawal (up to $30 \%$ of technical work required)

Work Start Date: 2019/OCT/15
Work Stop Date: 2019/NOV/07
Total Value of Work: \$ 81866.28
Mine Permit No: MX-11-277
Summary of the work value:

| Title Number | Claim Name/Property | Issue Date | $\begin{aligned} & \text { Good } \\ & \text { To } \\ & \text { Date } \end{aligned}$ | New Good To Date | \# of Days Forward | Area in Ha | Applied Work Value | Submission Fee |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1011635 | HIXON GOLD | 2012/AUG/01 | 2019/NOV/15 | 2022/MAY/31 | 928 | 250.34 | \$ 12720.12 | \$ 0.00 |
| 1011669 | HIXON GOLD | 2012/AUG/01 | 2019/NOV/15 | 2022/MAY/31 | 928 | 38.51 | \$ 1956.81 | \$ 0.00 |
| 1011717 | HIXON GOLD | 2012/AUG/02 | 2019/NOV/15 | 2022/MAY/31 | 928 | 115.56 | \$ 5871.59 | \$ 0.00 |
| 1011719 | HIXON GOLD | 2012/AUG/02 | 2019/NOV/15 | 2022/MAY/31 | 928 | 57.77 | \$ 2935.36 | \$ 0.00 |
| 1013059 | HIXON GOLD | 2012/AUG/02 | 2019/NOV/15 | 2022/MAY/31 | 928 | 19.26 | \$ 978.74 | \$ 0.00 |
| 1013060 | HIXON GOLD | 2012/AUG/02 | 2019/NOV/15 | 2022/MAY/31 | 928 | 19.26 | \$ 978.74 | \$ 0.00 |
| 1021404 | HIXON GOLD | 2013/AUG/02 | 2019/NOV/15 | 2022/MAY/31 | 928 | 173.35 | \$ 8190.02 | \$ 0.00 |
| 1042906 | HIXON GOLD | 2016/MAR/18 | 2019/NOV/15 | 2022/MAY/31 | 928 | 96.29 | \$ 3026.36 | \$ 0.00 |
| 1045189 | GOLD RIDGE 1 | 2016/JUL/07 | 2019/NOV/15 | 2022/MAY/31 | 928 | 269.62 | \$ 8061.70 | \$ 0.00 |
| 1045190 | GOLD RIDGE 2 | 2016/JUL/07 | 2019/NOV/15 | 2022/MAY/31 | 928 | 346.72 | \$ 10366.91 | \$ 0.00 |
| 1045191 | GOLD RIDGE 3 | 2016/JUL/07 | 2019/NOV/15 | 2022/MAY/31 | 928 | 365.89 | \$ 10940.29 | \$ 0.00 |
| 1045192 | GOLD RIDGE 4 | 2016/JUL/07 | 2019/NOV/15 | 2022/MAY/31 | 928 | 288.86 | \$ 8636.97 | \$ 0.00 |
| 1045193 | GOLD RIDGE 5 | 2016/JUL/07 | 2019/NOV/15 | 2022/MAY/31 | 928 | 231.21 | \$ 6913.15 | \$ 0.00 |
| 1045195 | GOLD RIDGE 6 | 2016/JUL/07 | 2019/NOV/15 | 2022/MAY/31 | 928 | 327.56 | \$ 9793.98 | \$ 0.00 |
| 1045196 | GOLD RIDGE 7 | 2016/JUL/07 | 2019/NOV/15 | 2022/MAY/31 | 928 | 327.34 | \$ 9787.53 | \$ 0.00 |
| 1057679 | GOLD RIDGE 8 | 2018/JAN/15 | 2019/NOV/15 | 2022/MAY/31 | 928 | 96.25 | \$ 1882.73 | \$ 0.00 |
| 1061281 | Gold Ridge 10 | 2018/JUN/18 | 2019/NOV/15 | 2022/MAY/31 | 928 | 96.39 | \$ 1682.68 | \$ 0.00 |
| 1061283 | Gold Ridge 9 | 2018/JUN/18 | 2019/NOV/15 | 2022/MAY/31 | 928 | 115.63 | \$ 2018.68 | \$ 0.00 |
| 1061284 | Gold Ridge 11 | 2018/JUN/18 | 2019/NOV/15 | 2022/MAY/31 | 928 | 443.38 | \$ 7740.42 | \$ 0.00 |
| 1061285 | Gold Ridge 12 | 2018/JUN/18 | 2019/NOV/15 | 2022/MAY/31 | 928 | 115.67 | \$ 2019.38 | \$ 0.00 |

Financial Summary:
Total applied work value:\$ 116502.16
PAC name: $\quad$ Golden Cariboo Resources Ltd.
Debited PAC amount: $\$ 34635.88$
Credited PAC amount: \$ 0
Total Submission Fees: \$ 0.0
Total Paid: $\mathbf{\$ 0 . 0}$
Please print this page for your records. The event was successfully saved.

# GEOLOGICAL, GEOCHEMICAL and TRENCHING ASSESSMENT REPORT on the QUESNELLE GOLD QUARTZ MINE PROPERTY, Hixon, British Columbia 

NTS: 93G/07 \& 08
Latitude $53^{\circ} 26.5^{\prime} \mathrm{N} \quad$ Longitude $122^{\circ} 31^{\prime} \mathrm{W}$
Cariboo Mining Division, British Columbia

Claims: Hixon Gold, Gold Ridge 1-12
(Tenure Numbers: 1011635, 1011669, 1011717, 1011719, 1013059, 1013060, 1021404, 1042906, 1045189-93, 1045195-96, 1057679, 1061281, 1061283-85)

Event Number: 5763699
Work performed between October 15 and November 7, 2019

For:
Golden Cariboo Resources Ltd. 804-750 West Pender St, Vancouver, British Columbia V6C 2T7

## By:

Jean Pautler, P.Geo.
JP Exploration Services Inc.
\#103-108 Elliott Street
Whitehorse, Yukon
January 15, 2020
Y1A 6C4

### 1.0 Executive Summary

The approximately 3775 hectare Quesnelle Gold Quartz Mine Property (the "Property"), NTS map sheets 93G/07 \& 08, is located in the Cariboo Mining Division, British Columbia, 4 km northeast of Hixon approximately 721 km north of Vancouver, British Columbia by paved highway at a latitude of $53^{\circ} 26.5^{\prime} \mathrm{N}$ and longitude of $122^{\circ} 31^{\prime} \mathrm{W}$. The Property comprises the Hixon Gold and Gold Ridge Mineral Tenure Online claims owned by Golden Cariboo Resources Ltd., subject to the terms of a Property and Sale agreement, dated May 25, 2019. This report was prepared to support assessment requirements of Golden Cariboo Resources Ltd. with respect to the Property.

The Property is primarily underlain by Middle to Upper Triassic augite porphyry basaltic greenstone and sedimentary rocks of the Nicola Group at the boundary between the Quesnel and Kootenay terranes; the latter represented by the Barkerville subterrane in this region. Ultramafic rocks of the Slide Mountain terrane locally occur along the Eureka thrust, which marks this terrane boundary. The Quesnelle Gold Quartz Mine Property covers the historical Pioneer and Cayenne showings, the Quesnel Quartz deposit and part of the North Hixon showing as documented by the British Columbia Geological Survey Branch as Minfile Numbers 093G 013, 093G 014, 093G 015 and 093G 082, respectively (British Columbia Minfile, 2019).

The deposit model for the Property is the orogenic (also known as mesothermal, gold quartz, greenstone, Mother Lode) type, consisting of gold bearing quartz veins and quartz-carbonate-pyrite replacement style mineralization such as at Barkerville Gold Corporation's Bonanza Ledge, Cariboo Gold Quartz, and Island Mountain mines at Wells, 75 km to the southeast of the Quesnelle Gold Quartz Mine Property.

Historical work on the Property between 1866 and 2018 has included: about 1250 m of early underground development; prospecting, mapping and sampling; about 20 line km of soil sampling; less than 30 line km of ground magnetic, minor IP and 7.64 line km of self potential geophysical surveying; hand trenching and over 500 m of excavator trenching; road construction and maintenance; a LiDAR and orthoimagery survey: an airborne magnetic and electromagnetic survey on adjacent ground which overlaps the Property area; and 2863m of diamond drilling in 22 holes.

The most significant mineralization to date has been found at the Quesnel Quartz deposit. Historically, at least three main northwest trending gold-silver zones were identified crossing Hixon Creek over a distance of 500 m at the Quesnel Quartz deposit. From east to west the zones were the Washburn, the Stewart, and the Morrison ledges, which were explored by: the Main shaft, associated workings and the Mason shaft; the Stewart shaft and possibly the Raven adit and; the Morrison and Hercules shafts, respectively. The mineralization at the Mason shaft is probably a separate zone from the Washburn (Main) and explored the East zone, which was identified as a separate zone by Noranda in 1987 to 1988.

The gold-silver mineralization was found to occur primarily in quartz $\pm$ carbonate veins, but also in the quartz-carbonate-pyrite altered greenstone, and less commonly in phyllite, but proximal to and following the contact between the greenstone and phyllite. The latter two types are referred to as replacement ore. The veins, which vary from a few centimetres up to about 1.8 m in width, generally terminate against the contact. Mineralization includes native gold, native silver, galena, sphalerite, chalcopyrite, molybdenite, arsenopyrite, pyrrhotite and pyrite. Both quartz vein hosted and replacement style mineralization was documented, with replacement mineralization within the pyritized and carbonatized greenstone more prevalent at depth. The pyrite is fine grained, commonly with other sulphide, and can comprise 30\% of the rock.

The Main zone was intersected in DDH 83-1, 83-3, 87-1, 87-2, 88-4, 88-5, 88-6 and 071 , and is stratiform (essentially parallel to the volcanic-sedimentary contact). Quartz veins occur almost exclusively in greenstone. A second vein system within the zone strikes northeast and generally dips steeply southeast and occurs proximal to the contact. Diamond drill results from the Main zone include $5.72 \mathrm{~g} / \mathrm{t} \mathrm{Au}, 20.6 \mathrm{~g} / \mathrm{t}$ Ag over 1.5 m in DDH 83-1, $13.3 \mathrm{~g} / \mathrm{t}$ Ag over 6.1m in DDH 83-3, $5.1 \mathrm{~g} / \mathrm{t}$ Au over 1.5m in DDH 87$1,4.8 \mathrm{~g} / \mathrm{t}$ Au over 3.0 m in DDH $88-5$ and $6.75 \mathrm{~g} / \mathrm{t}$ Au and $54.5 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$ over 3 m from DDH 07-1.

The East zone lies $25 m$ northeast of the Main zone and consists of a northwesterly trending quartz vein zone apparently dipping northeast and stratiformly hosted by greenstone. It was traced over a length of 90 m in seven drill holes (DDH 83-1, 87-1, 87-$2,88-4,88-5,88-6,07-3$ ) and remains open to the northwest. Diamond drill results include $7.3 \mathrm{~g} / \mathrm{t}$ Au over 1.5 m from sludge in DDH 83-1, $3.3 \mathrm{~g} / \mathrm{t}$ Au over 2.8 m in DDH 88$4,5.2 \mathrm{~g} / \mathrm{t}$ Au over 2.75 m in DDH $88-5$ and $11.8 \mathrm{~g} / \mathrm{t}$ Au and $12.9 \mathrm{~g} / \mathrm{t}$ Ag over 1.5 m in DDH 07-3.

The Main zone comprises the principal gold zone at the Quesnel Quartz deposit and consists of a network of quartz veins over a northwest trending, $70^{\circ} \mathrm{NE}$ dipping, 40 m wide by 140 m long and 190 m deep zone. Twenty-nine quartz veins were recorded in the mine workings which extend 120 m vertically beneath the surface. The Main zone was explored by the Main and Koch shafts, and the Clarke and Koch adits, which have since been buried by placer and other debris, but uncovered in the 2019 program.

The 2019 exploration program, which was funded by Golden Cariboo Resources Ltd., consisted of $487 \mathrm{~m}^{3}$ of excavator trenching and pitting, with geological mapping and sampling, minor property mapping and sampling and improving 2 km of the south access road. A total of $263 \mathrm{~m}^{3}$ of trenching was completed in 9 trenches covering a cumulative length of 210 m , and $224 \mathrm{~m}^{3}$ of pitting was completed in 25 pits. A total of 120 samples were collected from the pits and trenches, 3 of which were soil samples, and an additional 1 stream sediment and 30 rock samples were collected during mapping/sampling. The program focussed on the Main zone, the accessible portion of the East zone, and the Raven zone with a preliminary evaluation of the Hixon North showing.

TR19-01 and -02, excavated in the Main shaft area which constituted the principal working of the Quesnel Gold Quartz deposit on the south side of Hixon Creek,
intersected a number of quartz veins with significant results. Quartz vein boulders from a vein trending $045-050^{\circ} / 60^{\circ} \mathrm{W}, 80^{\circ} \mathrm{W}$ and $75^{\circ} \mathrm{E}$ exposed in the upper level of the start of TR19-01 yielded: $16.5 \mathrm{~g} / \mathrm{t} \mathrm{Au}, 54 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$; and $5.73 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ and $14.8 \mathrm{~g} / \mathrm{t}$ Ag. Quartz boulders, with $30 \%$ pyrite layers and seams and minor carbonate further towards Hixon Creek returned $8.44 \mathrm{~g} / \mathrm{t}$ Au with $7.1 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$. Possible silicified limestone at this location returned $5.24 \mathrm{~g} / \mathrm{t}$ Au with $4.5 \mathrm{~g} / \mathrm{t}$ Ag. A grab of pyritic silicified limestone float from the ore bin yielded $2.00 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ with $4.7 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$ and 2190 ppm As. The source of the silicified limestone appears to be from underground on the Main shaft, since it was not encountered on surface.

Quartz veins in TR19-02 returned: $6.96 \mathrm{~g} / \mathrm{t}$ Au over 0.3m; $1.93 \mathrm{~g} / \mathrm{t}$ Au over 0.5 m and $4.41 \mathrm{~g} / \mathrm{t}$ Au over 1 m from the hanging wall; and $7.65 \mathrm{~g} / \mathrm{t}$ Au over 1.7 m . Quartz float in Pit 8 , which lies 16 m southerly $\left(195^{\circ}\right)$ along trend from the latter vein zone, yielded $3.69 \mathrm{~g} / \mathrm{t}$ Au.

An oxidized highly pyritic, $020^{\circ} / 80^{\circ} \mathrm{W}$ trending, possible listwanite zone yielded $16.2 \mathrm{~g} / \mathrm{t}$ $\mathrm{Au}, 10.1 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$ with 1980 ppm As and $>30 \%$ Fe over 0.4m in TR19-01 and contained $1.2 \mathrm{~g} / \mathrm{t} \mathrm{Au}, 4.5 \mathrm{~g} / \mathrm{t}$ Ag over 1.4 m in TR19-02, 18 m along strike to the south. The hanging wall in TR19-01 yielded $4.95 \mathrm{~g} / \mathrm{t} \mathrm{Au}, 9.4 \mathrm{Ag}$ and $8.3 \%$ Fe from a 1 by 1 m panel sample, indicating the more representative results from panel sampling in this setting. Panel samples are recommended in future sampling programs.

The Clarke adit and Koch adit and shaft constituted the principal workings of the Quesnel Gold Quartz deposit on the north side of Hixon Creek. A pit at the Clarke adit exposed a 37 cm quartz vein, trending $222^{\circ} / 85^{\circ} \mathrm{NW}$ and containing $6.0 \mathrm{~g} / \mathrm{t}$ Au and $10 \mathrm{~g} / \mathrm{t}$ Ag, at the phyllite/greenstone contact. The hanging wall and footwall returned gold values of $0.24 \mathrm{~g} / \mathrm{t}$ over 0.4 m and $0.44 \mathrm{~g} / \mathrm{t}$ Au over 1 m , respectively. A sample across the contact yielded $0.57 \mathrm{~g} / \mathrm{t}$ Au over 0.9 m .

At the Koch adit a 1.75 m wide quartz vein trending $225^{\circ} / 75^{\circ} \mathrm{NW}$ was intersected, hosted by the more competent greenstone. The vein may represent the extension of, or a subparallel vein to, the vein intersected in the Clarke adit. Due to poor ground conditions only 0.6 m of the footwall side of the vein could be sampled, which returned $17.5 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ and $61.5 \mathrm{~g} / \mathrm{t}$ Ag over the 0.6 m and the footwall yielded $1.94 \mathrm{~g} / \mathrm{t}$ Au over 0.5 m . A grab of highly pyritic vein material from quartz vein boulders within the pit returned $45.9 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ with >100 g/t Ag.

The Raven adit and surroundings, extending 200 m to the east of the adit, were explored by TR19-04, -08 and -09 , and Pits $19-13,-14,-16$ and -17 but no significant results were obtained. The Raven zone lies 270 m westerly from the Main zone near the site of an old adit. A chip sample collected in 1981 from a quartz vein exposed by a trench 20 m above the Raven adit assayed $5.28 \mathrm{~g} / \mathrm{t}$ Au over 3 m . Drilling has not been successful on this zone, possibly due to the extremely poor core recoveries encountered. The area appears to be strongly faulted, with extensive black graphitic argillaceous phyllite accounting for IP Anomalies B and C, and only a narrow band of the favourable more competent greenstone unit exposed. No further work is proposed here at present.

IP Anomalies 660 and D may be related to a thick deposit of the clay rich OligocenePliocene clastic sedimentary rocks in this area. Anomaly A still appears to be related to the east zone, which was not significantly explored in 2019.

Preliminary investigation of the North Hixon showing resulted in the discovery of intensely silicified float with strongly pyritized clasts and fine dark magnetite carrying $9.85 \mathrm{~g} / \mathrm{t} \mathrm{Au}$. Previous trenches in the area yielded $1-2 \mathrm{~g} / \mathrm{t}$ Au values from quartz veins in four trenches in sampling by Noranda, and grab samples taken from veins in two other trenches assayed $6.36 \mathrm{~g} / \mathrm{t}$ and $1.38 \mathrm{~g} / \mathrm{t}$. The zone lies 1.2 km northwest (possibly along trend?) of the Cayenne working.

There is excellent potential on the Quesnelle Gold Quartz Mine Property to discover an orogenic gold $\pm$ silver deposit consisting of gold $\pm$ silver bearing quartz veins and quartz-carbonate-pyrite replacement style mineralization similar to those within the WellsBarkerville mining camp, about 75 km to the southeast. Significant gold $\pm$ silver mineralization was previously delineated on the property in old workings, trenches and drill holes at the Quesnelle Quartz deposit.

The 2019 trenching program uncovered many of the old workings, with significant gold
 of part of the North Hixon showing resulted in a new discovery of silicified, pyritic and magnetite bearing float carrying $9.83 \mathrm{~g} / \mathrm{t}$ Au. Other showings on the Property with anomalous gold values have not been evaluated.

A contingent two phase exploration program is recommended to consist of a Phase 1 program of compilation and integration with the preparation of a 3D model, sections and plans, followed by a differential GPS survey, detailed mapping and sampling, and excavator trenching with a budget of $\$ 200,000$. Contingent on positive results from Phase 1, a Phase 2 diamond drill program with a $\$ 500,000$ budget is proposed to follow up results from Phase 1.

## Table of Contents

Page
Assessment Report Title Page and Summary ..... 1
Mineral Claim Exploration and Development Work ..... 3
Title Page ..... 4
1.0 Executive Summary ..... 5
Table of Contents ..... 9
List of Illustrations ..... 10
List of Tables ..... 10
List of Appendices ..... 10
2.0 Introduction and Terms of Reference ..... 11
2.1 Qualified Person, Participating Personnel and Scope ..... 11
2.2 Terms, Definitions and Units ..... 12
2.3 Source Documents ..... 12
2.4 Limitations, Restrictions and Assumptions ..... 13
3.0 Reliance on Other Experts ..... 13
4.0 Property Description and Location ..... 13
4.1 Location ..... 13
4.2 Land Tenure ..... 14
5.0 Accessibility, Climate, Local Resources, Infrastructure \& Physiography ..... 15
5.1 Access, Local Resources and Infrastructure ..... 15
5.2 Physiography, Climate and Infrastructure ..... 17
6.0 History ..... 17
6.1 Geophysics ..... 24
6.2 Remote Sensing. ..... 25
7.0 Geological Setting and Mineralization ..... 28
7.1 Regional Geology ..... 28
7.2 Property Geology ..... 31
7.3 Mineralization ..... 33
8.0 Deposit Type ..... 35
$9.0 \quad 2019$ Exploration ..... 36
9.1 2019 Sample Preparation, Analyses and Security ..... 54
10.0 Drilling ..... 55
11.0 Drill Sample Preparation, Analyses and Security ..... 63
12.0 Data Verification ..... 63
13.0 Mineral Processing and Metallurgical Testing. ..... 63
14.0 Mineral Resource Estimates ..... 63
23.0 Adjacent Properties ..... 63
24.0 Other Relevant Data and Information ..... 65
25.0 Interpretation and Conclusions ..... 65
26.0 Recommendations ..... 68
26.1 Budget ..... 68
Signature Page ..... 70
27.0 References ..... 71
Certificate of Qualified Person ..... 75
Appendices ..... 76

## List of Illustrations

Page
Figure 1: Location Map ..... 13
Figure 2: Claim and Access Map ..... 16
Figure 3: Plan of main workings of the Quesnel Quartz deposit ..... 19
Figure 4: Main workings of the Quesnel Quartz deposit \& mineralized zones ..... 20
Figure 5: Historical plan - Quesnel Quartz deposit and Cayenne workings ..... 21
Figure 6: 2017 IP and Resistivity Section ..... 26
Figure 7: 2017 IP and Resistivity Pseudosection ..... 27
Figure 8: Digital Elevation Model ..... 27
Figure 9: Regional Geology Map ..... 29
Legend for Figure 9 ..... 30
Figure 10: Property Geology Map ..... 32
Figure 11: 2019 Exploration and Index Map ..... 38
Legend for Figures 11 to 14 ..... 39
Figure 11a: Quesnelle Gold Quartz Detail and Index Map ..... 40
Figure 12: Main Shaft Detail ..... 42
Figure 12a: Main Shaft Detail sample results ..... 43
Figure 12b: Main Shaft Detail SW ..... 44
Figure 13: Raven Detail ..... 48
Figure 13a: Raven Detail sample results ..... 49
Figure 14NW: Clarke-Koch Detail NW ..... 50
Figure 14NWa:Clarke-Koch Detail NW sample results ..... 51
Figure 14SE: Clarke-Koch Detail SE ..... 52
Figure 14SEa: Clarke-Koch Detail SE sample results ..... 53
Figure 15: Drill Plan ..... 60
Figure 16: Drill Hole Section 2007-1 and -2 ..... 61
Figure 17: Drill Hole Section 2007-3 ..... 62
List of Tables
Table 1: Claim data summary ..... 14
Table 2: Underground development specifications ..... 19
Table 3: Comparison of old survey versus LiDAR elevations ..... 25
Table 4: $\quad 2019$ trench and pit specifications ..... 37
Table 5: Summary of drill programs ..... 55
Table 6: Drill hole specifications ..... 57
Table 7: $\quad$ Significant drill results ..... 59
List of Appendices
Appendix I: Statement of Expenditures ..... 76
Appendix II: Sample Descriptions with Select Results ..... 77
Appendix III: Assay Certificates ..... 84
Appendix IV: Photographs ..... digital file

### 2.0 INTRODUCTION AND TERMS OF REFERENCE

### 2.1 Qualified Person, Participating Personnel and Scope

Ms. Jean M. Pautler, P.Geo. of JP Exploration Services Inc. ("JPEx") was commissioned by Golden Cariboo Resources Ltd. ("Golden Cariboo"), Vancouver, British Columbia, a company duly incorporated under the laws of the Province of British Columbia, to participate in and report on the 2019 exploration program on the Quesnelle Gold Quartz Mine Property (the "Property"). Recommendations are made for the next phase of exploration work in order to test the resource potential of the property. An estimate of costs has been made based on current rates for drilling, trenching, geochemical and geophysical surveys and professional fees in British Columbia.

The Property comprises the Hixon Gold and Gold Ridge Mineral Tenure Online claims owned by Golden Cariboo Resources Ltd., subject to the terms of a Property and Sale agreement, dated May 25, 2019. The road accessible Property is located in the Cariboo Mining Division, British Columbia, 4 km northeast of Hixon on NTS map sheets 93G/07 \& 08. It lies within the Fraser Basin and Plateau of central British Columbia and is characterized by a gentle rolling topography cut by the incised drainages of Hixon and Terry Creeks and part of the upland between them.

This report was prepared to comply with Golden Cariboo Resources Ltd.'s obligations pursuant to the November 14, 2019 assessment filing to maintain the Property in good standing.

The 2019 exploration program, which was funded by Golden Cariboo Resources Ltd., consisted of $487 \mathrm{~m}^{3}$ of excavator trenching and pitting, with geological mapping and sampling, and minor property mapping and sampling.

Previous work on the Property between 1866 and 2018, has included: about 1250 m of early underground development; prospecting, mapping and sampling; about 20 line km of soil sampling; less than 30 line km of ground magnetic, minor IP and 7.64 line km of self potential geophysical surveying; hand trenching and over 500 m of excavator trenching; road construction and maintenance; a LiDAR and orthoimagery survey: an airborne magnetic and electromagnetic survey on adjacent ground which overlaps the Property area; and 2863m of diamond drilling in 22 holes.

The Property covers the historical Pioneer and Cayenne showings, the Quesnel Quartz deposit and part of the North Hixon showing as documented by the British Columbia Geological Survey Branch as Minfile Numbers 093G 013, 093G 014, 093G 015 and 093G 082, respectively (British Columbia Minfile, 2019). There is excellent potential to discover an orogenic gold $\pm$ silver deposit on the Property, consisting of gold $\pm$ silver bearing quartz veins and quartz-carbonate-pyrite replacement style mineralization, similar to those within the Wells-Barkerville mining camp, about 75 km to the southeast. Significant gold $\pm$ silver mineralization has been delineated on the Property in old workings, trenches and drill holes. The 2019 trenching program delineated significant mineralization and other showings with anomalous gold values have not been evaluated.

### 2.2 Terms, Definitions and Units

All costs contained in this report are denominated in Canadian dollars. Distances are primarily reported in metres ( m ) and kilometres (km) and in feet ( ft ) when reporting historical data. GPS refers to global positioning system, with UTM co-ordinates reported in Nad 83, Zone 10 projection. Minfile showing refers to documented mineral occurrences on file with the British Columbia Geological Survey. DDH refers to diamond drill hole. IP refers to induced polarization and SP to self potential, types of geophysical surveys. MMI refers to a type of soil survey utilizing mobile metal ions, useful in detecting mineralization beneath glacial till and younger cover rocks.

The term ppm refers to parts per million, which is equivalent to grams per metric tonne ( $\mathrm{g} / \mathrm{t}$ ) and ppb refers to parts per billion. The abbreviation oz/ton and oz/t refers to troy ounces per imperial short ton. The symbol \% refers to weight percent unless otherwise stated.

Element abbreviations used in this report include: gold (Au), silver (Ag), lead (Pb), zinc $(\mathrm{Zn})$, copper (Cu), molybdenum (Mo), and arsenic (As). Minerals found on the Hixon Property include pyrite and pyrrhotite (iron sulphides), galena (lead sulphide), sphalerite (zinc sulphide), chalcopyrite (copper sulphide), molybdenite (molybdenum sulphide), arsenopyrite (iron, arsenic sulphide) and native gold and silver. Tennantite (copper, iron-zinc, arsenic sulphide is documented in early reports (Minister of Mines, 1886).

### 2.3 Source Documents

Sources of information are detailed below and include available public domain information and personally acquired data.

- Research of Minfile data at http://minfile.gov.bc.ca/searchbasic.aspx on December 21, 2019.
- Research of mineral titles at https://www.mtonline.gov.bc.ca/mtov/isp/searchTenures.jsp on December 21, 2019.
- Review of annual assessment and company reports filed with the Ministry of Energy and Mines as documented under section 27.0, "References".
- Review of the news releases, website and public data of Golden Cariboo Resources Ltd. and of other companies in the regional area.
- Various historical newspaper archives at http://historicalnewspapers.library.ubc.ca and http://pgnewspapers.lib.pg.bc.ca .
- Review of geological maps and reports completed by the British Columbia Geological Survey or its predecessors and the Geological Survey of Canada.
- Published scientific papers on the geology of the region, gold quartz deposits, and mineral deposits.
- Work conducted by the author between October 15 and November 7, 2019, a site visit by the author on May 23, 2018, and a review of previous exploration programs on the Property.

Title documents and option agreements were reviewed for this study as identified above. The title and option information were relied upon to describe the ownership of the property and claim and option summaries in Section 4.2, "Land Tenure".

### 2.4 Limitations, Restrictions and Assumptions

The author has relied in part upon work and reports completed by others in previous years in the preparation of this report as identified under Section 2.3, "Source Documents" and Section 27.0, "References". The author has assumed that the previous documented work on the properties and in the region is valid and has not encountered any information to discredit such work. Thorough checks to confirm the results of such work and reports have not been done. Unless otherwise stated the author has not independently confirmed the accuracy of the data. Exploration assessment reports, listed in Section 27.0, "References", were completed by competent professionals and/or reputable prospectors and have been accepted by the Mining Recorder.

### 3.0 RELIANCE ON OTHER EXPERTS

This section is not relevant to this report since there is no reliance on other experts.

### 4.0 PROPERTY DESCRIPTION AND LOCATION

### 4.1 Location (Figures 1 to 2)

The Quesnelle Gold Quartz Mine Property, NTS map sheets 93G/07 \& 08 (BCGS map sheets 93G 048 \& 049) is located 4 km northeast of Hixon, British Columbia, approximately 721 km north of Vancouver, British Columbia by paved highway (Figures 1 and 2). It encompasses the drainage of Hixon Creek and the uplands between Hixon and Terry Creeks (Figure 2). The property is centred at a latitude of $53^{\circ} 26.5^{\prime} \mathrm{N}$ and longitude of $122^{\circ} 31^{\prime} \mathrm{W}$.


### 4.2 Land Tenure

(Figure 2)
The Quesnelle Gold Quartz Mine Property comprises the Hixon Gold and Gold Ridge Mineral Tenure Online (MTO) claims consisting of 20 contiguous claims covering an area of 3794.8702 hectares in the Cariboo Mining Division, British Columbia (Figure 2). The 20.1 ha survey parcel District Lot 9545 (Washburn Lateral) is not part of the Property area, reducing the size to 3774.7702 hectares. The claims were acquired in accordance with Mineral Titles Online on NTS map sheets 93G/07 \& 08 available for viewing at http://www.mtonline.gov.bc.ca. The claims are registered in the name of Golden Cariboo Resources Ltd. Client Number 143177. A table summarizing pertinent claim data follows.

TABLE 1: Claim data summary

| Title No. | Claim Name | Claims | Issue Date | Expiry Date* | Area (ha) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1011635 | HIXON GOLD | 1 | $2012 / \mathrm{AUG} / 01$ | $2022 / \mathrm{MAY} / 31$ | 250.3449 |  |  |  |  |
| 1011669 | HIXON GOLD | 1 | $2012 / \mathrm{AUG} / 01$ | $2022 / \mathrm{MAY} / 31$ | 38.512 |  |  |  |  |
| 1011717,19 | HIXON GOLD | 2 | $2012 / \mathrm{AUG} / 02$ | $2022 / \mathrm{MAY} / 31$ | 173.3302 |  |  |  |  |
| $1013059-60$ | HIXON GOLD | 2 | $2012 / \mathrm{AUG} / 02$ | $2022 / \mathrm{MAY} / 31$ | 38.5254 |  |  |  |  |
| 1021404 | HIXON GOLD | 1 | $2013 / \mathrm{AUG} / 02$ | $2022 / \mathrm{MAY} / 31$ | 173.3533 |  |  |  |  |
| 1042906 | HIXON GOLD | 1 | $2016 / \mathrm{MAR} / 18$ | $2022 / \mathrm{MAY/31}$ | 96.2917 |  |  |  |  |
| $1045189-93,95-96$ | GOLD RIDGE 1-7 | 7 | $2016 / \mathrm{JUL} / 07$ | $2022 / \mathrm{MAY/31}$ | 2157.1921 |  |  |  |  |
| 1057679 | GOLD RIDGE 8 | 1 | $2018 / \mathrm{JAN} / 15$ | $2022 / \mathrm{MAY/31}$ | 96.2462 |  |  |  |  |
| $1061281,83-85$ | Gold Ridge 10, 9, 11 - 12 | 4 | $2018 / \mathrm{JUN} / 18$ | $2022 / \mathrm{MAY/31}$ | 771.0744 |  |  |  |  |
| TOTAL | 20 claims |  |  |  |  |  | $\mathbf{2 0}$ |  | $\mathbf{3 7 9 4 . 8 7 0 2}$ |

The Hixon Gold claims are subject to a Property and Sale agreement, dated May 25, 2019 whereby Golden Cariboo can purchase the Hixon Gold claims from Standard and Engineering Ltd. ("Standard Drilling") for a total consideration of \$567,000 consisting of $\$ 267,000$ in cash and $\$ 300,000$ in shares $(6,000,000$ at $\$ 0.05)$. Included in the cash total are annual payments of $\$ 80,000$ due in each of 2019,2020 and 2021 to fulfil the original option to purchase agreement between Standard Drilling and the original vendors.

The Property is situated within the traditional territory of the Lheidli T'enneh First Nation. There are no lands within the Property area that are withdrawn from staking and exploration. The mineral claims are situated on Crown Land and fall under the jurisdiction of the British Columbia Government. Under the provision of Section 14 of the Mineral Tenure Act, a claim grants the holder the right to use the surface for mining exploration purposes, but this is not a "surface right" such as on privately owned land. The claim holder has the right to enter onto the surface subject to the provisions in Section 11(2) of the Act which excludes this right under certain conditions, none of which encumber the Property.

A mineral claim holder is required to perform assessment work and is required to document this work to maintain the title as outlined in the regulations of the British Columbia Ministry of Energy and Mines. The amount of work required is $\$ 5.00$ per hectare for the first two years, $\$ 10.00$ per hectare for the third and fourth years, $\$ 15.00$ per hectare for the fifth and sixth, and $\$ 20.00$ per hectare thereafter. Alternatively, the
claim holder may pay twice the equivalent amount to the British Columbia Government as "Cash in Lieu" to maintain title to the claims.

Preliminary exploration activities do not require permitting, but significant drilling, trenching, blasting, cut lines, excavating and induced polarization geophysical surveys may require a permit, obtained by filing a Notice of Work and Reclamation with the British Columbia Ministry of Energy and Mines. A permit is currently in place for the Quesnelle Gold Quartz Mine Property, Permit Number MX-11-277 and Mine Number 1101942, valid to December 31, 2020. To the author's knowledge, the Quesnelle Gold Quartz Mine Property area is not subject to any environmental liability. Reclamation of the old workings at the Quesnel Quartz deposit was completed in 2000. The author does not foresee any significant factors and risks that may affect access, title, or the right or ability to perform work on the property.

### 5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY (Figures 1 and 2)

### 5.1 Access, Local Resources and Infrastructure

The Property is accessible via Highway 1 to 97 from Vancouver (Figure 1). From Hixon the property is accessible via the Lake Creek Road by turning left just past the railway bridge south of Hixon to the 3800 Forest Service Road (FSR) (Pedley Lake Road) on the left at km 1.8, which is followed to road junctions at km 5 (accesses southern Gold Ridge claims), and Pedley Lake at km 7 (left junction accesses the northern Gold Ridge claims and right junction connects to the Hixon Creek road) (Figure 2). Continue straight (north) for 3.2 km to a turn off on the left to access the Hixon Gold claims or continue to the north and east to access the northern Gold Ridge claims.

Alternatively, the Hixon Creek road can be taken on the right from the north end of Hixon to Pedley Lake, a distance of 9 km , then turning left to access the northern claims or right to access the southern Gold Ridge claims. At km 4 on the Hixon Creek road a branch road on the left extends for 2.4 km to the Hixon Gold claim boundary (Figure 2).

Hixon is the closest town with a population of approximately 280. Facilities include two service stations, limited grocery store, restaurant (closed in winter) and accommodation with main industries of forestry, construction, transportation and tourism. Hixon is located along BC Highway 97 about 60 km south of Prince George (population of 74,000 ) and 45 km north of Quesnel (population of 9,300 ), where more complete facilities, including the availability of heavy equipment, and mining oriented labour forces. Prince George is the major service and supply centre and transportation hub for northern British Columbia with an international airport, hospital and college. Main industries include forestry, mining, services, manufacturing, construction and transportation.


### 5.2 Physiography, Climate and Infrastructure (Figure 2)

The Property lies within the Fraser Basin and Plateau, part of the Interior Plateau of central British Columbia and is characterized by a gentle rolling topography with incised streams (Figure 2).

Elevations on the Property range from about 635 m along Hixon Creek in the southwestern Property area to about 1465 m above sea level on the eastern Gold Ridge claims. Vegetation in the area consists of fir and spruce forest, much of which has been logged within the Property area. Thick brush, including alder and devil's club occur within the creek valleys. Water is available year round from Hixon and Terry Creek, and their tributaries, which flow southwesterly into Naver Creek, part of the Fraser River watershed (Figure 2).

The area has warm summers and cool winters with high precipitation. Highs of 20 to $25^{\circ} \mathrm{C}$ are common in summer with lows of 5 to $10^{\circ} \mathrm{C}$, while winter highs average 3 to $5^{\circ} \mathrm{C}$ with lows of -5 to $-10^{\circ} \mathrm{C}$, although $-20^{\circ} \mathrm{C}$ and below is not uncommon. The exploration season extends from May to November.

Although there do not appear to be any topographic or physiographic impediments, and suitable lands appear to be available for a potential mine, including mill, tailings storage, heap leach and waste disposal sites, engineering studies have not been undertaken and there is no guarantee that such areas will be available within the subject property. The nearest source of power is at Hixon.

### 6.0 HISTORY <br> (Figures 2 to 5)

The Quesnelle Gold Quartz Mine Property covers the Pioneer and Cayenne showings, the Quesnel Quartz deposit and most of the North Hixon showing as documented by the British Columbia Geological Survey Branch as Minfile Numbers 093G 013, 093G 014, 093G 015 and 093G 082, respectively (British Columbia Minfile, 2019) (Figure 2). Most of the historical work has been undertaken on the Quesnel Quartz gold-silver deposit, which produced 2,048 tonnes grading $3.14 \mathrm{~g} / \mathrm{t}$ Au and $4.18 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$ in 1932 and 1939, with an additional 217 tonnes of unknown grade reported in 1878 (British Columbia Minfile, 2019). The Cayenne gold-silver showing lies 1 km east of the Quesnel Quartz deposit; some historical exploration was completed on it in conjunction with work on the Quesnel Quartz deposit. The Pioneer showing is a silver-lead-zinc occurrence with anomalous values in gold, which produced 4 tonnes of ore in 1927 grading $202 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$, $3.15 \% \mathrm{~Pb}$ and $0.05 \% \mathrm{Zn}$ from a galena-sphalerite bearing quartz vein, but no recent documented exploration (British Columbia Minfile, 2019). An occurrence of mica (Hixon Mica), hosted in mica schists of the Snowshoe Group, is also reported 1 km upstream of the Cayenne showing along Hixon Creek, but no additional information is available.

Hixon Creek, which dissects the Hixon Gold claims, is a placer creek which has seen limited, small-scale placer production since the mid 1860's. From Ministry of Mines Reports prior to 1945 , estimates of up to $\$ 2,000,000$ worth of placer gold was mined from Hixon Creek.

A summary of the historical work completed by various operators on the individual occurrences, as documented in British Columbia Minfile, reports on file with the government (e.g. Annual Reports of, and assessment reports filed with, the British Columbia Ministry of Energy and Mines and publications of the Geological Survey of Canada), and various private company data, is tabulated below separately for each occurrence. Much of the work on the Quesnel Quartz deposit is documented in historical newspaper archives.
Pioneer: (work by T. Rush, J. Peters and associates)
1926 Underground development of 27.4 m consisted of an adit, winze and drift, exposing a 7.6 cm seam of galena and sphalerite which returned $21 \% \mathrm{~Pb}, 3 \% \mathrm{Zn}$ and $1423 \mathrm{~g} / \mathrm{t}$ Ag (Minister of Mines, 1927).
1927 Underground development of 21.3 m consisted of a shaft and an adit with 4 tonnes of ore grading $202 \mathrm{~g} / \mathrm{t} \mathrm{Ag}, 3.15 \% \mathrm{~Pb}$ and $0.05 \% \mathrm{Zn}$ shipped (Minister of Mines, 1928).

## Cayenne:

1918 A 41m adit was driven on the Belmont group owned by McLarty and Gillis and $6.86 \mathrm{~g} / \mathrm{t}$ Au was returned from a quartz sample (Minister of Mines, 1919).
1926 The area was restaked by Hahn and Strbac as the Ceyanne group and some sampling was undertaken but no significant results were reported (Minister of Mines, 1927).
1929 The showing was optioned by Cariboo Lode Mines Limited and the adit was extended to 53 m and sampled, returning $8.23 \mathrm{~g} / \mathrm{t} \mathrm{Au}, 13.7 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$ (Minister of Mines, 1930).
2004 Diamond drilling of 273.6 m of NQ core in 3 holes was conducted by Cayenne Gold Mines Ltd. 500 m east of the showing area in conjunction with work on the Quesnel Quartz deposit, but intersected the Oligocene to Pliocene conglomerate with no significant results (Javorsky and Briden, 2005).

## Quesnel Quartz:

1865 Discovery of visible gold in quartz during ditch construction along Hixon Creek in conjunction with placer mining activities.
1866-1886 Initially underground development on the auriferous quartz veins along Hixon Creek was undertaken by individuals and then the Quesnelle Quartz Mining Co. Ltd. ("QQM Co.") was formed in the 1870's which continued the underground work. A stamp mill was built in 1878 with reported production of 217 tonnes of ore (Minister of Mines, 1878 and 1886).
1918 Minor work consisting of re-opening some workings and underground development was completed under option (Minister of Mines, 1919).
1929-30 The showing was optioned by Cariboo Lode Mines Ltd. and some underground rehabilitation work was performed (Minister of Mines, 1930 and 1931).
1932-1939 QQM Co. reorganized and dewatered the existing workings and completed additional underground development consisting of the Koch adit and shaft and Clarke adit on the north side of the creek, and continued to develop the Main shaft (-4 levels) with over 275 m of workings, including a 61 m winze from the 4th level (levels 5 \& 6), extensive drifting on the three lowest levels. In the Main shaft workings 29 quartz veins were recorded and sampled (Minister of Mines, 1934 to 1939). Production of 2,048 tonnes grading $3.14 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ and $4.18 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$ was reported primarily in 1939, with some from 1932 (British Columbia Minfile, 2019). Work ceased abruptly in 1939, presumably because of the war.

The hoisting shaft head frames, concentrator, and mining facilities built by the QQM Co. in the 1930's are all gone. The concrete foundations of the Main Shaft head frame and remains of the ore bin are still evident.

Over 1220 m of underground workings are reported on the Quesnel Quartz deposit, with those documented in reports of the Minister of Mines, summarized in Table 2 with the workings from the Cayenne and Pioneer showings. A plan of the central underground workings at the Quesnel Quartz deposit is shown in Figure 4, and Figure 5 depicts the showings over the entire Property area.

TABLE 2: Underground development specifications

| Working | Location | Easting | Northing | Elev. <br> $(\mathbf{m})$ | Az. <br> $\left(\mathbf{(}^{\circ}\right)$ | Length <br> $\mathbf{( m )}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Main Shaft | Quesnel Quartz | 531802 | 5921644 | 745 |  | 63 | =Washburn, Senator Reid |
| Main workings | Quesnel Quartz | 531802 | 5921644 | 745 |  | $600+$ | drifts at 6 levels |
| Koch Shaft | Quesnel Quartz | 531745 | 5921685 | 744 |  | $21+$ | and drifts |
| Koch Adit | Quesnel Quartz | 531751 | 5921686 | 745 |  | 53 |  |
| Clarke Adit | Quesnel Quartz | 531735 | 5921685 | 747 |  | 61 |  |
| Mason Shaft | Quesnel Quartz | 531765 | 5921690 |  |  | $12+$ | and drifts |
| Raven Adit | Quesnel Quartz | 531533 | 5921680 | 738 |  | 35 | $=$ Stewart, Alvensleben |
| Stewart Shaft | Quesnel Quartz | $\sim 531610$ | $\sim 5921647$ |  |  |  |  |
| Colgrove | Quesnel Quartz | $\sim 531950$ | $\sim 5921685$ | 763 |  |  | shaft \& 3 adits |
| Morrison Shaft | Quesnel Quartz | $\sim 531340$ | $\sim 5921560$ |  |  |  |  |
| Johnson Shaft | Quesnel Quartz | 531084 | 5921416 |  |  |  |  |
| Hercules Shaft | Quesnel Quartz | $\sim 531460$ | $\sim 5921480$ |  |  |  |  |
| Belmont Adit | Cayenne | $\sim 532806$ | $\sim 5921518$ | 777 |  | 41 | location approximate |
| Rush Workings | Pioneer | $\sim 531353$ | $\sim 5923517$ | 739 |  | 48.7 | 2 adits, shaft |



## FIGURE 3: Plan of main workings of the Quesnel Quartz deposit

Files of Newton Ker, the past president of the Quesnelle Quartz Mining Company, were recently (circa. 2016) released by the family, including many assay certificates, cross sections and mine plan maps and assay plans. Justason has been compiling this data and has depicted the mineralized zones on the longitudinal section in Figure 4 on the following page. The mineralized zones will be discussed under section 7.3, "Mineralization".


FIGURE 4: Main workings of the Quesnel Quartz deposit showing mineralized zones


FIGURE 5: Historical plan map - Quesnel Quartz deposit and Cayenne workings

The Property area remained dormant from 1939 until 1971 at which time Bethlehem Copper Corporation Ltd. ("Bethlehem") optioned the four claims over the Main Shaft area and staked a large block of claims surrounding them. About 60\% of the property (northern portion) lies within the current Property area. Bethlehem's exploration programs are summarized below:
1971 A reconnaissance geochemical soil survey (579 B-horizon soils at 152 m stations on lines 213 m apart from a $320^{\circ}$ trending baseline), geological mapping, sampling and a photogeological study were completed. A 0.5 km by $>3 \mathrm{~km}$ northwest trending arsenic-gold anomaly was delineated despite the grid being oriented near-parallel to the regional geological strike. Only samples returning >8 ppm As and/or 1.5 ppm Ag (10\%) were analyzed for gold.
1972 The soil geochemical anomaly was tested with a 449 m diamond drill program in 4 holes, but only 2 holes were drilled in the current Property area, located northeast of the Main shaft. The holes intersected the Oligocene to Pliocene conglomerate with no significant gold or silver values and the property was allowed to lapse.
In 1979 Esperanza Explorations Ltd. optioned six claims over the old workings from Victor Guinett and Andrew Harman and added a larger block of claims surrounding them. They completed an initial evaluation program and collected 11 rock samples returning 0.03 to $2.88 \mathrm{~g} / \mathrm{t}$ Au (Jenks, 1979). The property was optioned to Golden Rule Resources Ltd. ("Golden Rule") of Calgary, Alberta, which contracted Taiga Consultants Ltd. ("Taiga") to complete their 1980 to 1983 work programs as summarized below. About $40 \%$ of the grid (northwest portion) lies within the current Property area. The work from 1980 to 1983 appears to have been completed for Calpetro Resources under option from, or joint venture with, Golden Rule.
1980-81 Ground magnetic and VLF-EM geophysical surveys ( 25 m readings), B-horizon soils at 25 m stations ( 957 samples for multi-element analyses) and mapping was conducted over a 30.5 km blazed-and-flagged grid over the central portion of the property (Fox, 1981). The northern $40 \%$ of the grid area, but $60 \%$ of the lines (15 $\mathrm{km})$ and about 574 samples lie within the current Property area, since lines over a $1 \mathrm{~km}^{2}$ area around the old workings were at a 100 m line spacing rather than 200 m .

The soil survey returned a value of 2650 ppb Au at the Koch zone with other values of 460 and 930 ppb Au away from the known workings. The magnetic survey outlined a $150-300 \mathrm{~m}$ wide by 3.6 km magnetic high anomaly, open to the south, with offsets suggestive of a northwest trending dextral fault regime, and a series of strong, northerly trending conductors (A to S) parallel to formational geologic contacts interpreted from the ground magnetic survey (Allan, 1984).
About 500m of bulldozer trenching, primarily in 3 trenches ( 91 samples) was also completed over the favourable greenstone-phyllite contact and 27 rock samples collected in the Quesnel Quartz area with trench results of $5.28 \mathrm{~g} / \mathrm{t}$ Au over 3m from 20 m above the Raven adit (Allan, 1984).
1983 Diamond drilling totaling 354 m in 4 holes was completed in the Raven adit and Main shaft areas with poor recovery in 2 holes, one of which was lost before target depth (Allan, 1984). Results include $5.72 \mathrm{~g} / \mathrm{t} \mathrm{Au}, 20.6 \mathrm{~g} / \mathrm{t}$ Ag over 1.5 m in DDH 83-1 and $1.28 \mathrm{~g} / \mathrm{t}$ Au, $13.3 \mathrm{~g} / \mathrm{t}$ Ag over 6.1m in DDH 83-3 (Allan, 1984).

In 1984 Noranda Exploration Company Ltd. ("Noranda") commissioned Questor Surveys Ltd. to conduct an airborne electromagnetic and magnetic survey over the Yardley Lake and Hixon mineral claims of Gabriel Resources Inc. and surrounding area, which included the Quesnelle Gold Quartz Mine Property area (Konings, 1984). The INPUT survey was successful in delineating a large number of conductors in favourable stratigraphy in the Hixon area. The Property area and surroundings was acquired by Hixon Gold Resources Inc. in 1986, which jointly optioned the property to Noranda (operator) and Gabriel Resources. The 1987 and 1988 programs consisted of 1835 soil and 215 rock chip samples in 1987, 486 samples in 1988, ground magnetic (66.35 line km ) and IP ( 8.5 km ) geophysical surveys over a 57.3 line km grid, only about $30 \%$ of which covers the current Property area. Anomalies were followed up with 34 bulldozer trenches, with 916.5 m of diamond drilling in 8 holes on the Quesnel Quartz deposit (Simmons, 2008b). The soil geochemistry outlined anomalies in the vicinity of the mine workings, but the IP response was weak. The magnetic survey was useful in delineating geological contacts.

The property was subsequently allowed to lapse and the area of the current Quesnelle Gold Quartz Mine Property was acquired by prospector Dave Javorsky who in 1997 to 1998 completed a program of research, prospecting, road rehabilitation, and 2 trenches (which successfully uncovered the Clarke and Koch workings), and 6 samples were collected and assayed for gold and silver with no significant results (Javorsky, 1998).
In 2000, reclamation work was completed near the Briscoe pit and at the Quesnelle Gold Quartz Mine and Mill site, carried out under Section 17 of the Mines Act.
Javorsky optioned the ground to Cayenne Gold Mines Ltd. ("Cayenne Gold"), which carried out the following programs on their ground, which now included the current Quesnelle Gold Quartz Mine Property and ground near Pedley Lake (not part of the current Property area). The work discussed below only includes the work undertaken on the current Property area. (* denotes that all assay certificates are not included in the indicated reports.)
2004 Prospecting, line cutting, sampling and diamond drilling of 273.6m of NQ core in 3 holes 500m east of Cayenne showing area; the latter intersected the Oligocene to Pliocene conglomerate with no significant results (Javorsky and Briden, 2005).
2006 Prospecting, trenching ( 34 m in 2 trenches) and sampling was conducted across the Main shaft area (15m) and east of the Raven adit (19m), targeting a greenstone/phyllite contact zone for gold mineralization. The Main shaft was relocated with $68.8 \mathrm{~g} / \mathrm{t}$ Au over $1 \mathrm{~m} *$ about 5 m to the west and $2.70 \mathrm{~g} / \mathrm{t}$ Au over 5m, including $8.83 \mathrm{~g} / \mathrm{t}$ Au over 1 m from 3 m to the northeast. The Raven trench returned $0.41 \mathrm{~g} / \mathrm{t}$ Au over 6 m , centred 10 m east of the adit (Briden, 2006*).
2007 Prospecting and diamond drilling of 596 m of NQ core in 3 holes from one pad at the Main shaft area with $6.75 \mathrm{~g} / \mathrm{t}$ Au and $54.5 \mathrm{~g} / \mathrm{t}$ Ag over 3 m from DDH 07-1 and $11.8 \mathrm{~g} / \mathrm{t}$ Au and $12.9 \mathrm{~g} / \mathrm{t}$ Ag over 1.5 m from DDH 07-3 (Simmons, 2008*). A rock sample from the Landing outcrop (North Hixon showing), 700 m north of the Main shaft, assayed $3.62 \mathrm{~g} / \mathrm{t}$ Au (Simmons, 2008a).
2008 Prospecting and diamond drilling of 583 m of BQ core in 2 holes from one pad between the Main shaft and Raven adit, but no significant results were obtained (Simmons, 2008c).

The Property was acquired by Angelique Justason and Tom Hatton in 2012, 2013 and 2016 to cover the known mineral occurrences discussed above. Exploration by Justason and Hatton, conducted between 2012 and 2016, has included self potential ("SP") geophysical surveying (locations shown on Figure 2) and rock geochemistry as summarized below:

2012-13 Completion of 3.14 line km of SP geophysical surveying over the Quesnel Quartz deposit area detected known mineralized zones and suggested an open 500 m extension to the northwest (Justason, 2014).
2014 Exploration of historical showings of the Quesnel Quartz deposit with the collection of 9 rock samples (4 acid digestion-ICP-AES finish for multi-element analysis and metallic screen for Au ), which returned $7.25 \mathrm{~g} / \mathrm{t} \mathrm{Au}, 30.1 \mathrm{~g} / \mathrm{t} \mathrm{Ag} ; 6.96$ $\mathrm{g} / \mathrm{t} \mathrm{Au}, 14.9 \mathrm{~g} / \mathrm{t} \mathrm{Ag} ; 5.75 \mathrm{~g} / \mathrm{t} \mathrm{Au}, 30.7 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$ from the Main shaft dump with associated $\mathrm{Pb}(0.1-0.5 \%)$, As ( $0.1 \%$ ) and $\mathrm{Ca}(3-4 \%)$ values from replacement style mineralization consisting of highly pyritic, carbonate altered rock (greenstone?) (Justason, 2015).
2016 A 2.5 line km SP geophysical survey was completed along on old mining road along Hixon Creek to crosscut veins, geological trends and structures associated with the Quesnel Quartz deposit and the Cayenne showing. Two main targets were highlighted and several anomalous areas, which correlate to previous soil and geophysical anomalies (Justason, 2016).
The following programs were completed on the Property by Frank Callaghan in 2017 and Standard Drilling in 2018, under option from Justason and Hatton.
2017 A 2.0 line km SP geophysical survey was completed, extending the 2016 survey to the east and west, and highlighted possible fault zones, conductive and narrow rock units, or contacts (Justason, 2018).
A one line 1.14 line km induced polarization and resistivity geophysical survey line was completed by Geotronics Consulting Inc. along a road across the Quesnel Quartz deposit (Mark, 2018). Results will be discussed in section 9.1, below. Location of the survey line is shown in Figure 2.
2018 A 750 hectare LiDAR and orthoimagery survey was completed and 3 rock samples were collected for geochemical analysis (Justason, 2019). Results will be discussed in section 9.2, below.

### 6.1 Geophysics

 (Figures 2 and 6 to 7)The survey outlined four anomalies, marked A to D (Figures 6 and 7), which generally correspond to the Mason (East) zone, between the Washburn (Main) and Raven, the Stewart/Raven and the Morrison-Hercules mineralized zones at the Quesnel Quartz deposit. The response was encouraging particularly for anomalies $C$ and $D$, since drilling of the Raven zone has not been successful, but hampered by extremely low core recovery, and no documentation of mineralization encountered at the Morrison and Hercules adits has been found. A summary of the anomalies from Mark (2018) follows.

Anomaly A occurs at the extreme eastern end of the survey line at station 1090E, appears to be vertically dipping, averages about 20 m in width and probably reflects mineralization at the Mason shaft (probably correlative to Noranda's East zone). Anomaly $B$ is centered at about 980E, averages about 70 m in width, is dipping
vertically, and appears to consist of two parts. Either one of these parts, or both, may be reflecting the Washburn (Main) mineral zone within the Quesnel Quartz mine. In addition, the IP and resistivity inversion sections suggest a thrust fault dipping at a shallow angle to the west through the mineralization. Anomaly C is centered at 780E, is about 110 m in width, appears to be dipping vertically as well and is very likely reflecting the Stewart/Raven mineral zone or possible faulting. Anomaly D is centered at 520E, is about 100 m wide, dips about $-60^{\circ}$ to the east and may reflect the Morrison-Hercules mineral zone.

The IP inversion section shows that all four mineral zones may extend to at least 40 m deep, open to depth. In addition, the widths of the anomalies given above are probably close to true width since the historical maps show a northwest strike to the mineralization and the average direction of the line was east-northeasterly.

### 6.2 Remote Sensing

(Figure 8)
LiDAR and orthoimagery were flown over the Property by Eagle Mapping Services Ltd. of Port Coquitlam, British Columbia on October 5, 2018 for Standard Drilling (Justason, 2019). A total of 750 hectares was flown over the entire property, using a Piper Navajo aircraft and a Riegl 1560 laser. Orthoimagery was acquired using an 80 megapixel Timble camera at a resolution of 15 cm . LiDAR (Light Detection and Ranging) is a remote sensing technology that measures distance by illuminating a target with a laser and analyzing the reflected light. LiDAR uses laser light to measure distance rather than radio waves as in RADAR. The result is the ability to produce accurate, detailed surface models quickly at reduced costs over conventional photogrammetric mapping.

The LiDAR survey was flown to provide a digital elevation model ("DEM") for draped contour maps and a bare-earth view of the ground below the canopy of vegetation in order to enhance structural and stratigraphic interpretation, and identify old workings and outcrop exposures (particularly in areas of poor exposure). An orthoimage was prepared to provide an accurate base for future surveys. A Trimble RTX system was used during the survey so that no ground control or base stations were required to be set up on site. The accuracy of the data was better than 15 cm vertically and 30 cm horizontally.

The LiDAR data clearly identifies the true elevation of several of the old workings in the digital elevation model ("DEM") which can be used in subsequent 3D modelling (Figure 8). A table of key elevations are noted below and as certain features are groundtruthed, additional data may be provided, including updating historical drill hole collars.

Table 3: Comparison of old survey versus LiDAR elevations

| LOCATION | QQM Co. Elevation in feet | LiDAR DEM Elevation in feet (ft) |
| :--- | :---: | :---: |
| Main Shaft Collar | 2395 | $2350 \mathrm{ft}(730 \mathrm{~m})$ |
| Stewart Adit | nil | $2401.57 \mathrm{ft}(732 \mathrm{~m})$ |
| Clarke Adit | 2365 | $2411.42 \mathrm{ft}(735 \mathrm{~m})$ |
| Clarke Raise | 2417 | $2467.2 \mathrm{ft}(752 \mathrm{~m})$ |



FIGURE 6: IP and RESISTIVITY 2D INVERSION PLOT (Mark, 2018)


FIGURE 7: IP and RESISTIVITY PSEUDOSECTION PLOT (Mark, 2018)


All drill programs completed in the area encompassing the Property are discussed under section 10.0, "Drilling".

### 7.0 GEOLOGICAL SETTING

### 7.1 Regional Geology

(Figure 9)
The regional geology of the Quesnelle Gold Quartz Mine Property is primarily summarized from Logan et al. (2010), Geoscience BC (2009) and Moynihan and Logan (2009).

The Property lies within the Quesnel, Slide Mountain and Kootenay (Barkerville subterrane in this area) terranes (Figure 9). The Quesnel terrane represents an extensive ( $>2000 \mathrm{~km}$ ) west-facing calcalkaline-alkaline Late Triassic to Early Jurassic arc that developed outboard or proximal to the western margin of North America. It is characterized by Mesozoic volcano-sedimentary arc rocks of the Nicola, Takla and Stuhini groups and coeval plutonic rocks. Within the regional area of the Property the western Nicola Group includes augite porphyry tuffs, breccias and minor flows and sedimentary rocks, followed by forearc volcaniclastic dominated successions that grade eastward across the arc into backarc Middle to Late Triassic fine grained clastic rocks (Black Phyllite unit).

The eastern margin of the Quesnel terrane is marked by a discontinuous belt of variably sheared mafic and ultramafic rocks of the Crooked amphibolite, which are assigned to the Slide Mountain terrane, a Late Paleozoic marginal basin of oceanic basalt and chert that separated Quesnellia from North America.

The Eureka thrust, an east-verging thrust fault, marks the eastern boundary of the Slide Mountain terrane. The footwall to the Eureka thrust comprises Proterozoic-Paleozoic Snowshoe Group rocks of the Barkerville subterrane, which are pericratonic and likely represent distal sedimentation off ancestral North America. In this region, a conglomerate near the base of the Nicola Group contains foliated clasts derived from the Snowshoe Group and the Crooked amphibolite, suggesting that the western Slide Mountain/Quesnel terrane boundary, and where Slide Mountain is absent, the Kootenay/Quesnel terrane boundary, is or was initially an unconformity. The Eureka thrust is shown to transect the Quesnelle Gold Quartz Mine Property at the Hixon Mica showing in the eastern Property area.

Younger rocks in the area include Early to Middle Jurassic and mid-Cretaceous granitic plutons, Cenozoic sedimentary and volcanic sequences, including Miocene flood basalt. The Early Cretaceous Naver pluton underlies the eastern Property area.


FIGURE 9: REGIONAL GEOLOGY Legend on following page from Thomas, 2009

Miocene - Pleistocene
$\square$ Chilcotin Group, basaltic volcanic rocks (M)
Oligocene - Pliocene
$\square$ Conglomerate, coarse clastic sedimentary rocks (M)
Upper Eocene
$\square$ Bowron River Coal Beds, sedimentary rocks (M)

## Mid Cretaceous

Bayonne Plutonic Suite, granite, alkali feldspar granite (M)

## Early Cretaceous

$\square \mathrm{N}$Naver Pluton, granite, quartz monzonite, monzonite, granodiorite; minor aplite, pegmatite; some screens of country rock (S)
Jurassic or Younger
$\square$ Ultramafic intrusion (S85)
Jurassic
$\square$ Gabbro, pyroxenite, hornblendite; lesser quartz diorite \& felsic segrations (ML)

Middle Jurassic
Ste. Marie Plutonic Suite, quartz monzonite, granodiorite, granite (S)
Early Jurassic
Syenite to monzonite (M)
Middle - Upper Triassic (S)
Nicola Group, augite porphyry basalt tuff, breccia, minor flows, tuffaceous argillite \& siltite; local andesitic basalt (S)
$\square$ Nicola Group, limestone, quartz sandy limestone, slate (S)
b Nicola Group, basaltic tuff, tuffaceous siltite \& argillite, greywacke, slate; minorbasalt breccia \& agglomerate (S)
a Nicola Group, slate, argillite, phyllite, minor greywacke; lesser tuff, tuffaceous siltite \& argillite (S)

## Middle - Late Triassic (ML)

$\square$ Nicola Group (black phyllite unit), metapelitic phyllite, banded metasiltstone, calcareous phyllite (ML)
Nicola Group (volcaniclastic unit), conglomerate with volcanic \& subvolcanic clasts, lithic \& crystal sandstone \& siltstone, lesser cherty sedimentary rocks; interlayered with pyroxene-bearing basaltic breccia flows \& hyaloclastite deposits (ML)
Permian - Triassic
$\square$ Cache Creek Complex, chert, siliceous argillite, siliciclastic rocks (M)
Mississippian - Permian
Slide Mountain Group
Crooked Amphibolite, serpentinite, sheared ultramafic rock, amphibolite, talc (S)
$\square$ Antler Formation, basalt pillows \& breccia, diorite, minor serpentinite (S)

## Ordovician - Lower Mississippian

 Black Stuart Group, sedimentary rocks (M)
## Lower Cambrian

$\square$ Gog Group, Mural Formation, sedimentary rocks (M)
Palaeozoic
$\square$ Snowshoe Group, greenschist, greenstone (M)
Proterozoic (?) \& Palaeozoic (?)
d Snowshoe Group, orthoquartzite, schistose quartzite, schist, phyllite (S)
$c$ Snowshoe Group, schistose quartzite, schist, phyllite, marble, amphibolite, siltite, minorquartzite (S)

|  | Thrust fault |
| :--- | :--- |
|  | Fault (some are strike-slip) |
|  | Northwest limit of mapping by <br> Moynihan and Logan (2009) |

### 7.2 Property Geology

(Figure 10)
Property scale mapping has been greatly hampered by the paucity of outcrop (<0.5\%). Recent mapping has not been undertaken, but historically more regional mapping was initially undertaken by Bethlehem in 1972 with more property scale mapping by Taiga for Golden Rule in 1980 to 1983. The Taiga mapping was completed at a 1:2500 scale within a $1 \mathrm{~km}^{2}$ grid over the Quesnel Quartz deposit and at a 1:5000 scale along trend, with detailed 1:1000 scale mapping of trenches, old workings and roads. Much of this area is overgrown, sloughed and disturbed by later placer, logging and exploration activity and was completed prior to GPS control. The geology map used in Figure 7 is modified from the British Columbia Geological survey website (http://www.empr.gov.bc.ca/Mining/Geoscience/MapPlace) and is a generalization for the geology of the property area.

The Hixon Gold claims, in the western Quesnelle Gold Quartz Mine Property area, are primarily underlain by Middle to Upper Triassic volcanic and sedimentary rocks of the Nicola Group. In the far western property area the Nicola Group is dominated by basalt augite porphyry of the Witch Lake succession (uTrNpbb). These are interlayered with transitional sedimentary rocks of the Inzana Lake succession (uTrNvs) around the Quesnel Quartz deposit further east, which include phyllitic volcanic sandstone and siltstone, siltstone and sedimentary breccia, and minor basalt breccia and conglomerate. The Black Phyllite unit, which includes sandstone, siltstone, shale, slate and phyllite, bioclastic limestone, minor felsic tuff and tuffaceous argillite, occurs further east (uTrNbp), with minor porphyritic basalt breccia even further east (uTrNv). The Spanish thrust appears to separate the Inzana Lake succession from the Black Phyllite unit within the Nicola Group.

The eastern Hixon Gold and western Gold Ridge claims are underlain by the Proterozoic-Paleozoic Snowshoe Group (uPPs) consisting of schistose quartzite, schist, phyllite and gneiss, with minor marble, quartzite and amphibolite. At the Hixon Mica showing gneiss and mica schists are documented. The Eureka thrust fault separates the Snowshoe Group of the Barkerville subterrane from the Nicola Group of the Quesnel terrane with local exposures of ultramafic rocks of the Slide Mountain terrane along its extent.

Quartz-carbonate-mariposite (listwanite) occurs at the Quesnel Quartz deposit and as float at the Main shaft dump suggestive of the presence of ultramafic rocks. The observed listwanite is commonly associated with north-northwesterly trending shear zones, which may represent splays related to the Spanish thrust. Minor serpentinized shear zones have also been observed in the greenstones. Ultramafic rocks may also occur in the Hixon Mica area and/or along trend along the Eureka thrust.

The Nicola Group is intruded by a syenite-diorite/gabbro body, assigned to the Early Jurassic Polaris Ultramafic suite (EJmum), along the western Property boundary, exposed along Hixon Creek. The Snowshoe Group is intruded by the Early Cretaceous Naver pluton (KNa) to the east, with compositions ranging from granite to alkali feldspar granite and minor granodiorite. The eastern Gold Ridge claims are shown to be underlain by the foliated equivalents along the margin of the pluton.


The above units are locally overlain by Oligocene to Pliocene conglomerate and clastic sedimentary rocks (OIPicg). The conglomerate was intersected in the 2004 drilling just east of the Cayenne showing and a conglomerate was intersected in the two Bethlehem drill holes. There is a discrepancy related to the actual position of the Bethlehem holes and they may also have been drilled in the area east of the Cayenne showing. However two old drill holes were documented by Taiga in 1983 to the northeast of the Main shaft at the Quesnel Quartz deposit.

A table of formations for the Property follows:
Oligocene to Pliocene OIPing: conglomerate and clastic sedimentary rocks
Early Cretaceous KNa: Bayonne plutonic suite: Naver pluton: granite, alkali feldspar granite, foliated along west margin

## Early Jurassic EJmum: Polaris Ultramafic suite: syenite and diorite/gabbro

## Middle to Upper Triassic

## Nicola Group:

uTrNv: porphyritic basalt breccia
uTrNbp: Black Phyllite unit: sandstone, siltstone, shale, slate and phyllite, bioclastic limestone, minor felsic tuff and tuffaceous argillite
uTrNvs: Inzana Lake succession: volcanic sandstone and siltstone, siltstone and sedimentary breccia, and minor basalt breccia and conglomerate
uTrNpbb: Witch Lake succession: basalt augite porphyry

## Mississippian-Permian

Slide Mountain Group: Crooked Amphibolite, serpentinite, sheared ultramafic rock, amphibolite and talc

## Proterozoic-Paleozoic

Snowshoe Group: schistose quartzite, schist, phyllite and gneiss, with minor marble, quartzite and amphibolite

### 7.3 Mineralization (Figures 2 to 10)

The Quesnelle Gold Quartz Mine Property covers the historical Pioneer and Cayenne showings, the Quesnel Quartz deposit and part of the North Hixon showing as documented by the British Columbia Geological Survey Branch as Minfile Numbers 093G 013, 093G 014, 093G 015 and 093G 082, respectively (British Columbia Minfile, 2019) (Figures 2 and 10). The most significant mineralization to date has been found at the Quesnel Quartz deposit. The following discussion on the mineralization is primarily summarized from Allan (1984), Adamson (1988) via Simmons (2008b), reports of the Minister of Mines (1878 to 1939) and miscellaneous reports and maps of the Quesnelle Quartz Mining Company (1930's).

Historically, at least three main northwest trending gold-silver zones were identified crossing Hixon Creek over a distance of 500 m at the Quesnel Quartz deposit. From east to west the zones were the Washburn, the Stewart, and the Morrison ledges, which
were explored by: the Main shaft, associated workings and the Mason shaft; the Stewart shaft and possibly the Raven adit and; the Morrison and Hercules shafts, respectively. The mineralization at the Mason shaft is probably a separate zone from the Washburn (Main) and explored the East zone, which was intersected in Noranda's 1987 to 1988 drill programs.

The gold-silver mineralization was found to occur primarily in quartz $\pm$ carbonate veins, but also in the quartz-carbonate-pyrite altered greenstone, and less commonly in phyllitic sedimentary rocks, but proximal to and following the contact between the greenstone and phyllite. The latter two types are referred to as replacement ore. The veins, which vary from a few centimetres up to about 1.8 m in width, generally terminate against the contact. Mineralization includes native gold, native silver, galena, sphalerite, chalcopyrite, molybdenite, arsenopyrite, pyrrhotite and pyrite. Both quartz vein hosted and replacement style mineralization was documented, with replacement mineralization within the pyritized and carbonatized greenstone more prevalent at depth. The pyrite is fine grained, commonly with other sulphide, and can comprise $30 \%$ of the rock.

The Main zone, which has seen the most work, comprises the principal gold zone on the Quesnelle Gold Quartz Mine Property and consists of a network of quartz veins over a northwest trending, $70^{\circ} \mathrm{NE}$ dipping, 40 m wide by 140 m long and 190 m deep zone. Up to 29 quartz veins were recorded in the mine workings which extend 120 m vertically beneath the surface.

The geological setting within the mine (Main shaft and associated workings) was mapped by the British Columbia Department of Mines in 1933 and 1934 after dewatering by the Quesnelle Quartz Mining Company (Minister of Mines 1936). The geology consisted of dark green, fine grained greenstone (meta-basalt), in contact on the southwest with quartz sericite schists (phyllite, including volcaniclastic and other clastic sedimentary rocks). Lithological contacts strike $320^{\circ}$. In the upper levels of the mine, dips are steeply northeast and in the lower levels, they dip moderately southwest. Moderate to intense hydrothermal alteration is pervasive. In basalts, it comprises quartz, carbonate, and pyrite; in the felsic schists, it consists of clay and pyrite. The oxidized or weathered zone in the basalt ranges from 25 to 30 m in depth.

The Main zone was intersected in DDH 83-1, 83-3, 87-1, 87-2, 88-4, 88-5, 88-6 and 071 , and is stratiform (essentially parallel to the volcanic-sedimentary contact. Quartz veins occur almost exclusively in greenstone. A second vein system within the zone strikes northeast and generally dips steeply southeast and occurs proximal to the contact.

The East zone lies 25 m northeast of the Main zone and consists of a northwesterly trending quartz vein zone apparently dipping northeast and stratiformly hosted by greenstone. It was traced over a length of 90m in seven drill holes (DDH 83-1, 87-1, 87-$2,88-4,88-5,88-6,07-3$ ) and remains open to the northwest.

The Raven zone lies 270 m westerly from the Main zone near the site of an old adit. A chip sample collected in 1981 from a quartz vein exposed by a trench 20 m above the Raven adit assayed $5.28 \mathrm{~g} / \mathrm{t}$ Au over 3m (Allan, 1984). Drilling has not been successful on this zone, possibly due to the extremely poor core recoveries encountered.

The North Hixon showing (Figure 10), approximately 1 km north of the Main shaft, reportedly north of an old logging landing at $531886 \mathrm{mE}, 5922319 \mathrm{mN}$, consists of numerous narrow quartz veins hosted by greenstone. Noranda obtained gold values in excess of $1 \mathrm{~g} / \mathrm{t}$ in four trenches, including $1.42 \mathrm{~g} / \mathrm{t}$ over 2 m and $1.24 \mathrm{~g} / \mathrm{t}$ over 3 m . Grab samples taken from veins in two other trenches assayed $6.36 \mathrm{~g} / \mathrm{t}$ and $1.38 \mathrm{~g} / \mathrm{t}$ (Simmons, 2008b). A sample from the landing outcrop returned $3.62 \mathrm{~g} / \mathrm{t}$ Au (Simmons, 2008a). The zone lies 1.2 km northwest (possibly along trend?) of the Cayenne working.

The Cayenne showing, 1 km east of the Main zone, covers a 0.6 to 1.2 m wide quartz vein and several smaller quartz stringers hosted by highly altered and weathered quartz sericite schist (phyllite). Gold values have been reported from both the quartz and from the phyllite. A quartz sample reportedly returned $6.86 \mathrm{~g} / \mathrm{t}$ Au in 1918 (Minister of Mines, 1919) and $8.23 \mathrm{~g} / \mathrm{t} \mathrm{Au}, 13.7 \mathrm{~g} / \mathrm{t}$ Ag was obtained in 1930 (Minister of Mines, 1930). Gold values have been spotty, but there is no documentation of systematic sampling and the trend of mineralization has not been documented or is unknown; the adit trends $145^{\circ}$. No work has been documented in recent times.

The Pioneer showing, 1.9 km north of the Main zone, consists of a northerly trending, northeast dipping, narrow quartz vein with galena and sphalerite hosted by carbonaceous shale. A 7.6 cm seam returned $21 \% \mathrm{~Pb}, 3 \% \mathrm{Zn}$ and $1423 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$ (Minister of Mines, 1927). Anomalous gold values have also been recorded from the vein. No recent work has been documented.

The eastern Hixon Gold claims and the western and southwestern Gold Ridge claims cover prospective stratigraphy of the Barkerville subterrane, which hosts the Bonanza Ledge, Cariboo Gold Quartz, and Island Mountain mines at Wells, British Columbia. An industrial mineral showing of mica (Hixon Mica) straddles Hixon Creek within the Barkerville subterrane near the eastern margin of the Hixon Gold claims.

### 8.0 DEPOSIT TYPE

The main deposit model for the Quesnelle Gold Quartz Mine Property is the orogenic (also known as mesothermal, gold quartz, greenstone, Mother Lode) type, consisting of gold bearing quartz veins and quartz-carbonate-pyrite replacement style mineralization. Deposits are of post-Middle Jurassic age in the Cordillera, and appear to form immediately after accretion of oceanic terranes to the continental margin. The following characteristics of the gold-quartz vein deposit model are primarily summarized from Ash and Alldrick (1996). Associated deposit types include gold bearing sulphide mantos, silica veins and placer gold.

This type of deposit typically occurs as gold bearing quartz-carbonate veins and veinlets with minor sulphides crosscutting varied hostrocks and localized along major regional faults and related splays. The wallrock is typically altered to silica, pyrite and muscovite within a broader carbonate alteration halo. Largest concentrations of free gold are commonly at, or near, the intersection of quartz veins with serpentinized and carbonate altered ultramafic rocks.

Gold-quartz vein type mineralization commonly occurs in a system of en echelon veins on all scales. Tabular fissure veins occur in more competent host lithologies, with veinlets and stringers forming stockworks in less competent lithologies. Generally lower grade bulk-tonnage styles of mineralization may develop in areas marginal to veins with gold associated with disseminated sulphides (replacement style) and may also be related to broad areas of fracturing with gold and sulphides associated with quartz veinlet networks. Major ore controls are secondary structures at a high angle to relatively flat-lying to moderately dipping collisional suture zones, and competent host rocks.

Ore minerals include native gold, pyrite, arsenopyrite, with lesser galena, sphalerite, chalcopyrite, pyrrhotite, tellurides, scheelite, bismuth minerals, cosalite, tetrahedrite, stibnite, molybdenite and gersdorffite (nickel, arsenic sulphide) in a gangue of quartz and carbonates (ferroan-dolomite, ankerite, ferroan-magnesite, calcite and siderite), and lesser albite, mariposite (fuchsite), sericite, muscovite, chlorite, tourmaline, graphite. Host rocks are varied including mafic volcanic rocks, ultramafic and mafic intrusions, fine clastic rocks, chert, and felsic to intermediate intrusions. On the Quesnelle Gold Quartz Mine Property quartz-carbonate veins are present and mineralization is hosted by mafic volcanic, with possible ultramafic, and lesser sedimentary rocks. Native gold, pyrite, arsenopyrite galena, sphalerite, chalcopyrite and tennantite have been identified on the property.

Silicification, pyritization and potassium metasomatism generally occur adjacent to veins (usually within a metre) within broader zones of carbonate alteration, extending up to tens of metres from the veins. Carbonate alteration consists of talc and iron-magnesite in ultramafic rocks, ankerite and chlorite in mafic volcanic rocks, graphite and pyrite in sediments, and sericite, albite, calcite, siderite and pyrite in felsic to intermediate intrusions. Quartz-carbonate altered rock and pyrite are often the most prominent alteration minerals in the wallrock. Fuchsite/mariposite, sericite and scheelite are common where veins are associated with felsic to intermediate intrusions.

Elemental associations are gold, silver, arsenic, antimony, potassium, lithium, bismuth, tungsten, tellerium and boron, $\pm$ (copper, lead, zinc and mercury). Geophysics is useful in outlining faults indicated by linear magnetic anomalies and areas of carbonate alteration indicated by negative magnetic anomalies due to destruction of magnetite.

## $9.0 \quad 2019$ EXPLORATION (Figures 2, 11 to 14)

The 2019 exploration program, which was funded by Golden Cariboo Resources Ltd., consisted of $487 \mathrm{~m}^{3}$ of excavator trenching and pitting, with geological mapping and sampling, minor property mapping and sampling and improving 2 km of the south access road. A total of $263 \mathrm{~m}^{3}$ of trenching was completed in 9 trenches covering a cumulative length of 210 m , and $224 \mathrm{~m}^{3}$ of pitting (due to thick overburden) was completed in 25 pits. Trench and pit specifications are summarized on the following page. A total of 120 samples were collected from the pits and trenches, 3 of which were soil samples, and an additional 1 stream sediment and 30 rock samples were collected during mapping/sampling.

The property scale mapping, sample locations with significant gold results and an index showing the detailed areas of trenching are shown in Figure 11, with a detail of the Quesnelle Quartz Deposit area in Figure 11a. The detailed trench maps are shown in Figures 12 to 14, with sample locations and gold, silver results in Figures 12a to 14a. Complete sample descriptions and select results are shown in Appendix II with complete results in Appendix III. An additional 12 samples were inserted for quality assurance and quality control ("QAQC"), which will be discussed under section 9.1, "2019 Sample Preparation, Analyses and Security".

TABLE 4: 2019 trench and pit specifications

| TRENCH/ PIT NO. | NAD 83 Zone 10 |  | Azimuth ( ${ }^{\circ}$ ) | Length (m) | Volume $\left(\mathrm{m}^{3}\right)$ | No. of Samples |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | EASTING | NORTHING |  |  |  |  |
| TR19-01 | 531788 | 5921665 | 125 | 42 | 50 | 19 |
| TR19-01a | 531788 | 5921665 | 205 | 4.8 | 10 | 5 |
| TR19-02 | 531841 | 5921621 | 280 | 50 | 65 | 21 |
| TR19-03 | 531737 | 5921607 | 50 | 7 | 7 | 3 |
| TR19-04 | 531584 | 5921663 | 120 | 20.7 | 22 | 14 |
| TR19-05 | 531718 | 5921723 | 220 | 20 | 30 | 8 |
| TR19-06 | 531691 | 5921726 | 50 | 20.5 | 30 | 2 |
| TR19-07 | 531694 | 5921729 | 325 | 20 | 30 | 1 |
| TR19-08 | 531546 | 5921713 | 330 | 4 | 9 | 2 |
| TR19-09 | 531528 | 5921690 | 115 | 21 | 10 | 9 |
| PIT19-01 | 531285 | 5921207 | 4.9 m D | till | 15 | 0 |
| PIT19-02 | 531543 | 5921364 | 4.9 mD | soil | 15 | 1 S |
| PIT19-03 | 531776 | 5921622 | <1m D | outcrop | 5 | 1 |
| PIT19-04 | 531731 | 5921594 | <1m D | outcrop | 5 | 2 |
| PIT19-05 | 531855 | 5921512 | 4.9 m D | grey clay | 10 | 0 |
| PIT19-06 | 531890 | 5921524 | 5.2 m D | soil, chips | 10 | 1, 2S |
| PIT19-07 | 531791 | 5921583 | 4 mD | till | 8 | 0 |
| PIT19-08 | 531819 | 5921608 | 3.7 mD | float train | 8 | 2 |
| PIT19-09 | 531818 | 5921612 | 3.5 mD | outcrop | 7 | 1 |
| PIT19-10 | 531726 | 5921535 | 1.8 mD | outcrop | 5 | 1 |
| PIT19-11 | 531683 | 5921533 | 3.7 mD | clay, till | 7 | 0 |
| PIT19-12 | 531607 | 5921486 | 2.5 m D | mud | 6 | 0 |
| PIT19-13 | 531598 | 5921652 | along | road | 6 | 0 |
| PIT19-14 | 531572 | 5921682 | sample line @ 240 ${ }^{\circ}$ |  | 15 | 6 |
| PIT19-15 | 531736 | 5921690 | Clarke | adit | 12 | 5 |
| PIT19-16 | 531696 | 5921663 | along | road | 5.5 | 0 |
| PIT19-17 | 531692 | 5921662 | along | road | 9 | 2 |
| PIT19-18 | 531435 | 5921596 | along | road | 6 | 1 |
| PIT19-19 | 531440 | 5921608 | yellow | clay | 5.5 | 0 |
| PIT19-20 | 531465 | 5921655 | orange | phyllite | 6 | 0 |
| PIT19-21 | 531423 | 5921581 | red | clay | 8 | 0 |
| PIT19-22 | 531426 | 5921572 | yellow | clay | 8 | 0 |
| PIT19-23 | 531392 | 5921554 | grey | clay | 7 | 0 |
| PIT19-24 | 531745 | 5921685 | Koch | shaft | 15 | 4 |
| PIT19-25 | 531751 | 5921686 | Koch | adit | 20 | 7 |
| TOTAL |  |  |  |  | 487 | 117, 3S |

D denotes depth; S denotes soil sample


## LEGEND for Figure 11

入 adit
回 shaft
, previous drill holes
(P) 2019 pit

- 2019 trench

D IP Anomaly
R rusty soil

- 2019 rock sample
- 2WD road
- 4WD road
trail, may be overgrown


## LEGEND for Figures 12-14

_. - geological contact
1
quartz vein in place
quartz stringers, discontinuous veinlets
$\triangle$ quartz vein float
W water

## LEGEND for Figures 11-14

## GEOLOGY

OIPicg: Oligocene-Pliocene clastic sediments and conglomeratePhy: phyllitic sedimentary rocksargillaceous phylliteGs: greenstone on Figure 11all Gs is carbonate altered on Figures 12-14carbonate altered greenstone on Figure 11L: listwanite
Lst: limestoneoutcrop
$\triangle$ float

## RESULTS

54929 = S054929 (5.28, 2.1)
2019 sample no. ( $\mathrm{g} / \mathrm{t} \mathrm{Au}, \mathrm{g} / \mathrm{t}$ Ag)
$M$ denotes moss mat stream sample
S as suffix denotes soil sample


The trenching/pitting, involving a total of 125.5 excavator hours, was completed by Standard Drilling of Vancouver, British Columbia with a Samsung 350 excavator. The operator was prospector Gary Polischuk of Lillooet, British Columbia, who has extensive experience (about 45 years) prospecting and as an excavator operator in the WellsBarkerville and Bralorne gold camps and regional area of Lillooet-Goldbridge. Mapping and sampling was completed by, or under the direction of, the author. A total of 35.5 man days were spent on the property (excluding excavator operator), including mobilization/demobilization within British Columbia.

## Access road:

Initially the 2 km long access road into the southern workings of the Quesnel Gold Quartz deposit (Main shaft area) was improved, due to overgrowth and fallen trees, to maintain four wheel drive access to the south side of Hixon Creek (Figure 2). The Main shaft accessed the principal workings of the Quesnel Gold Quartz deposit.

Two pits were excavated along the access road on the way in and another two on the way out (Figure 11). Pit19-1 tested the strike extent of the Johnson shaft, shown on old maps about 300 m to the northwest, and Pit 19-2 tested the possible strike extent of the "660" IP anomaly (between the C and D anomalies) located about 225 m to the northwest. Neither pit intersected bedrock, despite reaching an almost 5 m depth. However, C horizon soil was sampled (S054850) from Pit 2, and small bits of sheared, heavy, dark weathering, magnetic, probable ultramafic rock was encountered in the bottom of Pit 2. The soil sample did return elevated nickel, chromium and magnesium values suggestive of mafic to ultramafic bedrock. Pits 19-11 and -12 targeted two possible southeast projections of the Raven zone in favourable locations (possible shallower overburden and lack of slide material), but did not reach bedrock.

## QGQ South:

Two trenches (TR19-01 and -02) were excavated in the Main shaft area (Figure 12), exposing carbonate altered greenstone to the northeast, phyllitic metasedimentary rocks to the southwest, a lens of listwanite at the contact, and possible listwanite fault slivers. TR19-01a constitutes an extension from the start of TR19-01 to locate the greenstone-listwanite/phyllite contact. The listwanite does contain higher Ni (>300 to about 1200 ppm ), Mn ( $>1,000 \mathrm{ppm}$ ), Cr ( $>500 \mathrm{ppm}$ ) and Mg ( $>1 \%$ ) values than the carbonate altered greenstone, is generally harder, heavier and more siliceous, and locally contains flecks of mariposite.

At the start of TR19-01, large 0.5 by 1 m sized quartz boulders were uncovered at a depth of about $0.5-1 \mathrm{~m}$. Trends of $045-050^{\circ} / 60^{\circ} \mathrm{W}, 80^{\circ} \mathrm{W}$ and $75^{\circ} \mathrm{E}$ were obtained. Deepening of the trench for sampling intersected a vein trending $025^{\circ} / 75^{\circ} \mathrm{E}-80^{\circ} \mathrm{W}$, which appears to be a distinct vein. Significant precious metal results were not obtained from the $025^{\circ}$ trending vein and adjacent wallrock (samples 1690201-206), but stockpiled boulders from the original vein returned 16.5 and $5.73 \mathrm{~g} / \mathrm{t} \mathrm{Au}$, accompanied by 54 and $14.8 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$, respectively (1690249 and 1690250).


FIGURE 12: MAIN SHAFT DETAIL


FIGURE 12a: MAIN SHAFT DETAIL sample results


FIGURE 12b: MAIN SHAFT DETAIL SW
A grab from other quartz boulders, with $30 \%$ pyrite layers and seams and minor carbonate, further towards Hixon Creek, returned $8.44 \mathrm{~g} / \mathrm{t}$ Au with $7.1 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$ (1690245), and pyritic, possible silicified limestone at this location returned $5.24 \mathrm{~g} / \mathrm{t}$ Au with $4.5 \mathrm{~g} / \mathrm{t}$ Ag (1690246). The source of these boulders appears to be from underground on the Main shaft since similar material was not found in this area except at the ore bin, located about 60 m southwest of the Main shaft. A grab of pyritic silicified limestone float from the ore bin yielded $2.00 \mathrm{~g} / \mathrm{t}$ Au with $4.7 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$ and 2190 ppm As (S054844). The silicified limestone float varies from light grey to mauve in colour and contains 3.4 to $5.5 \%$ Ca with low nickel and chromium values.

A few veins in the first 15 m of TR19-02 returned significant gold results; a 0.3 m vein at 0 m returned $6.96 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ (1690221), a 0.5 m vein at 7 m returned $1.93 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ (1690224), with $4.41 \mathrm{~g} / \mathrm{t}$ Au over 1 m from the silicified carbonate altered greenstone hanging wall (1690226), and a 1.7 m wide vein zone at 13 m ran $7.65 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ (1690227). A sample of a manganiferous quartz float train in overburden from the wall of Pit 8 , which lies 16 m southerly ( $195^{\circ}$ ) along trend from the 1690227 vein zone, yielded $3.69 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ (S054914). This vein appears to lie proximal to the greenstone/phyllite contact.

A red-brown rusty highly pyritic, possible listwanite zone (moderate nickel-chromium geochemistry) at 28.6 to 30 m in TR19-02 contained $1.2 \mathrm{~g} / \mathrm{t} \mathrm{Au}, 4.5 \mathrm{~g} / \mathrm{t}$ Ag over 1.4 m (1690235), but a similar 1.3 m wide zone to the east, separated by a basalt dyke, did not contain significant gold (1690234). Both samples returned anomalous arsenic (458 and 643 ppm ) with high iron ( 6.3 and $7.5 \%$ ). A similar zone that trends $020^{\circ} / 80^{\circ} \mathrm{W}$ along a fracture/fault zone was encountered at 32.1 to 32.5 m in TR19-01, returning $16.2 \mathrm{~g} / \mathrm{t} \mathrm{Au}$, $10.1 \mathrm{~g} / \mathrm{t}$ Ag with 1980 ppm As and $>30 \%$ Fe over 0.4 m (1690218). A 1 by 1 m panel sample of the gougey hanging wall with quartz veins to 3 cm yielded $4.95 \mathrm{~g} / \mathrm{t} \mathrm{Au}, 9.4 \mathrm{Ag}$ and $8.3 \%$ Fe (1690217). The rusty, pyritic listwanite exposures lie along a $010^{\circ}$ trend 18m apart.

TR19-01a intersected a 50 cm banded quartz vein at the listwanite/phyllite contact with rusty bands and 5\% pyrite, but did not contain significant results (S054903). The listwanitic hanging wall yielded enhanced gold of $1.74 \mathrm{~g} / \mathrm{t}$ over 1 m (S054902).The contact was found to follow the foliation at $300 / 87^{\circ} \mathrm{E}$. Overall the contact trends about $315-320^{\circ}$ in this area.

Pits19-03 and -04 and TR19-03 (Figure 12b) were excavated along the main access road to explore for the strike extensions of veins encountered in TR19-01. Pit19-03 was excavated to trace the vein encountered at the start of TR19-01 but only intersected gougey, clay altered orange-grey phyllite. A sample over 1.4 m did not contain significant results. Foliation here trends $340^{\circ} / 88^{\circ} \mathrm{E}$. TR19-03 was excavated to trace the vein float encountered at a shallower depth in TR19-01, which trended 045-050 ${ }^{\circ}$. The trench intersected phyllite with fractures, gouge zones and a 3 cm quartz lens (S054846-48), but no significant values. Foliation and fault zones trend $340^{\circ} / 90^{\circ}$, and cherty cross fractures $050^{\circ} / 90^{\circ}$. Pit $19-04$ intersected a 12 cm vein along the foliation ( $335^{\circ} / 77^{\circ} \mathrm{W}$ ) hosted by rusty orange-maroon-tan phyllite with no significant values (S054906-7).

Pits19-05 and -06 were excavated along an old road that extends to the east for about 350 m , about 70 m south of Hixon Creek, targeting the greenstone/phyllite contact (Figure 11). No bedrock was intersected but Pit19-06 uncovered orange-brown sericitic and red oxidized clayey soils (S054909-910). The former contained rusty looking chips with pyrite and minor quartz to 0.7 cm and returned elevated nickel, chromium, lead, zinc, and arsenic values with 134 ppb Au and 1.2 ppm Ag, suggestive of a mafic to listwanite source with elevated precious metals. Decomposed quartz-biotite-weak sericite-pyrite lenses were sampled that resembled the Naver granodiorite in the uplands to the east, but no significant results were obtained (S054908).

Pits19-07 to -09 were excavated along the road to the ore bin. Pit19-07 targeted the projected southern strike extension of the $010^{\circ}$ trending rusty, pyritic listwanitic zone intersected in TR19-01 and -02, but did not reach bedrock. Pits19-08 and -09 targeted the greenstone/phyllite contact. Pit 8 did not reach bedrock, but a quartz float train was evident within the till that is described in the discussion of quartz veins, above (S054914). Pit 9 intersected relatively flat, orange and purple-mauve layered, strongly clay altered and decomposed fine clastic sedimentary rocks with wisps of Mn, which appear to be part of the younger Oligocene to Pliocene cover rocks. The same sedimentary rocks were intersected near the plotted location of the Robb shaft in Pit19$10,120 \mathrm{~m}$ southwest of Pit 9 . The sedimentary rocks were quite flat with one hard, thin red-brown layer about 2 m down trending $330^{\circ} / 35^{\circ} \mathrm{W}$, which returned $28.7 \% \mathrm{Fe}$ (S054917).

The phyllite and veins hosted by the phyllite do not contain significant gold or silver values. Banded quartz veins occur at the contact between the phyllite and greenstone or listwanite (1690240, 1690243, S054903), but do not contain significant gold.

## QGQ North:

The Clarke adit and Koch adit and shaft constituted the principal workings of the Quesnel Gold Quartz deposit on the north side of Hixon Creek (Figure 14). Pits were excavated here to locate the workings and to intersect the phyllite/greenstone contact and possible quartz veins. Pit19-15 intersected the Clarke adit, as identified by the presence of timbers, exposing the phyllite/greenstone contact with the phyllite on the west and greenstone on the east side. A 0.37 m quartz vein trending $222^{\circ} / 85^{\circ} \mathrm{NW}$ is present at the contact, yielding $6.0 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ and $10 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$ over the 0.37 m (S054963), but narrows through the phyllite. The hanging wall and footwall returned gold values of 0.24 $\mathrm{g} / \mathrm{t}$ over 0.4 m and $0.44 \mathrm{~g} / \mathrm{t}$ Au over 1 m , respectively (S054962, 64). A sample across the contact yielded $0.57 \mathrm{~g} / \mathrm{t}$ Au over 0.9 m (S054966). Foliation trended $347^{\circ} / 40^{\circ} \mathrm{E}$, progressively becoming steeper to the east to $347^{\circ} / 60^{\circ} \mathrm{E}$.

Clay altered phyllite within a fault zone with quartz boulders were evident in Pit19-24 at the Koch shaft. Graphitic material was evident on the west side coating quartz (S054899). No significant results were obtained from grab samples of quartz boulders or the clay gouge wallrock (S054896-899).

Pit19-25 on the Koch adit intersected a 1.75 m wide quartz vein hosted by the more competent greenstone, trending $225^{\circ} / 75^{\circ} \mathrm{NW}$. The vein may represent the extension of, or a sub-parallel vein to, the vein intersected in the Clarke adit. Due to poor ground conditions only 0.6 m of the footwall side of the vein could be sampled, which returned $17.5 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ and $61.5 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$ over the 0.6 m ( S 054893 ). The hanging wall did not return significant results over 0.35 m (S054894), but the footwall yielded $1.94 \mathrm{~g} / \mathrm{t}$ Au over 0.5 m (S054892). A grab of highly pyritic vein material from quartz vein boulders within the pit returned $45.9 \mathrm{~g} / \mathrm{t}$ Au with $>100 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$ (S054891). A grab sample of a possible second vein, $30-40 \mathrm{~cm}$ wide and trending about $020^{\circ}$, in the floor of the pit at about a 5.5 m depth returned $0.34 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ with $17.9 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$ (S054890) and a grab of clay gouge with quartz fragments at this depth yielded $0.82 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ (S054889).

A lense of listwanite (possibly 5 m wide) appears to follow foliation about 6 m east of the Koch adit and may be continuous with the listwanite encountered to the southeast in TR19-01.

TR19-05 targeted the northwest strike extension of the phyllite/greenstone contact from the Clarke adit and a 1.2 m wide, visible gold bearing quartz vein, which was reportedly intersected within a raise from the Clarke adit (Figure 14NW). No significant veins were encountered at the raise, but a lensoid quartz vein up to 1.8 m wide was exposed at the phyllite/greenstone contact, pinching out in the phyllite and possibly open to the northeast through the greenstone (S054975). The exact orientation is uncertain but appears to trend $205-210^{\circ}$, possibly dipping steeply to the northwest. A $7-30 \mathrm{~cm}$ wide quartz vein, trending $200^{\circ}$ /steep NW was traced along the trench for 4.4 m , pinching out proximal to the phyllite contact (S054972). No significant results were obtained from quartz veins, wallrock or the contact zone exposed by TR19-05.

TR19-06 and -07 targeted the northwest strike extension of the phyllite/greenstone contact, northwest from its intersection in TR19-05 and both were successful in intersecting narrow zones of banded, ribboned veins along it (S054973 in TR19-06 and S054979 in TR19-07). No significant results were obtained but the contact was found to trend parallel to foliation at $335^{\circ} / \mathrm{NE}$.

The Raven adit and surroundings, extending 200 m to the east of the adit, were explored by TR19-04, -08 and -09 , and Pits 19-13, $-14,-16$ and -17 but no significant results were obtained (Figures 13 and 11). TR19-09 was excavated across the highly decomposed Raven adit area (Figure 13) exposing a second sub-parallel phyllite/greenstone contact, with the phyllite on the west and greenstone on the east side, about 200 m west of the phyllite/greenstone contact through the Clarke adit and Main shaft. A foliation parallel banded quartz vein occurs at the contact and other minor quartz veins, ferricrete, fault zones and brecciation are evident. Folding is evident at the Raven adit and in the west end of TR19-09.

Two old drill holes in this area (DDH83-2 lies to the southwest and DDH83-4 lies to the northeast) reportedly intersected argillaceous phyllite. A band of black, graphitic argillaceous phyllite (and ferricrete) was encountered in Pit19-14, about 25m east of TR19-09. Pits 19-16 and -17 intersected black, argillaceous phyllite with dolomite bands and porphyroblasts at the strongest part of IP Anomaly B, which would account for the anomaly, a further 130 m east of Pit19-14. TR19-08, about 25 m north of TR19-09 intersected narrow crushed and brecciated quartz-iron oxide zones hosted by the phyllite.

TR19-04, 40m southeast of TR19-09 intersected phyllite with variable silicification, iron oxides, minor quartz stringers, folding and kink banding. Folds plunged $50^{\circ}$ at $268^{\circ}$.


FIGURE 13: RAVEN DETAIL


FIGURE 13a: RAVEN DETAIL with samples


FIGURE 14 NW: CLARKE-KOCH DETAIL NORTHWEST


FIGURE 14 NWa: CLARKE-KOCH DETAIL NW with sample results


FIGURE 14 SE: CLARKE-KOCH DETAIL SE


FIGURE 14 SEa: CLARKE-KOCH DETAIL SE with sample results

Pit19-21 intersected the Oligocene to Pliocene conglomerate (OIPicg), consisting of a red to lesser yellowish clay rich chaotic, completely unsorted, conglomerate made up of clasts of varying proportions of phyllite. It probably represents a regolith at the base of the unit. Pit19-19, to the east of Pit19-21, intersected yellow clay and Pits 19-22 and 23 , to the west, consist of yellow and grey clay respectively, all thought to represent mud rich layers above the conglomerate (upper part of OIPicg). An outcrop of the mudstones is exposed along the north bank of Hixon Creek about 200m southwest of Pit19-23. They are unfoliated, range in colour from white to grey to orange-yellow and bedding trends $260^{\circ} / 40-50 \mathrm{~N}$. Pit19-20, 80 m westerly of the Raven adit and 50 m northeasterly from Pit19-19, intersected orange weathering phyllite, part of the older Nicola Group sedimentary unit, which is exposed at the Raven adit.

Pit19-18, between Pits 19-19 and -21 intersected quartz vein blocks originally thought to occur within a fault zone, but is probably part of the regolith (OIPicg) which includes eroded blocks of quartz here. A sample of the quartz did not contain anomalous results. The 660 and D IP anomalies are probably related to this clay rich unit.

Part of the North Hixon showing (Figure 11) was examined by the author. Only one old trench was encountered, cutting greenstone. Quartz vein boulders were sampled here and other quartz float boulders were found within an area of extensive greenstone outcroppings, some of which were carbonate altered, silicified and pyritized. A total of six samples were collected, but only one significant result of $9.85 \mathrm{~g} / \mathrm{t}$ Au was obtained from intensely silicified float with strongly pyritized clasts and fine dark magnetite (S054926). The zone lies 1.2 km northwest (possibly along trend?) of the Cayenne working.

### 9.1 2019 SAMPLE PREPARATION, ANALYSES AND SECURITY

All of the 2019 samples were delivered by contractors of Golden Cariboo to VanKam Freightways, Quesnel, British Columbia and shipped directly to Activation Laboratories Ltd. ("Actlabs") in Kamloops, British Columbia for preparation and analysis.

Fire assay-metallic screen analysis for gold was performed on 88 select rock samples deemed to have potential to contain native gold. In this procedure a 500 g sample split is sieved to 149 microns with gold analyzed by fire assay on the entire +149 micron fraction and two splits of the -149 micron fraction (1A4-500g). On the remaining 72 rock samples preparation involved crushing the entire sample ( $<7 \mathrm{~kg}$ ) up to $90 \%$ passing 2 mm , riffle splitting to obtain a representative sample and then pulverizing 500 g to $95 \%$ minus 150 mesh (105 microns) (RX1-ORE+500). Gold was analyzed by fire assay with an atomic absorption finish on a 30 g aliquot (1A2B30).

Soil and stream sediment preparation involved drying the entire sample at $60^{\circ} \mathrm{C}$ then sieving to 80 mesh ( 177 microns) (S1). Analysis for gold was by fire assay with an atomic absorption finish on a 30 g aliquot (1A2).

All samples were also analyzed for 38 additional elements by aqua regia digestion followed by inductively coupled plasma - optical emission spectroscopy analysis on a 0.5 g aliquot (ICP-OES 1E3).

A total of 12 QAQC samples, consisting of 7 blanks and 5 duplicates, were inserted by the author for quality control in 2019. The blank used was commercially available decorative stone (<5-6 ppb Au). The duplicates consisted of coarse reject duplicates prepared at the laboratory of samples selected by the author. The duplicates and blanks returned results within acceptable limits. This indicates that the analytical results had an acceptable degree of precision and were free from contamination during sample preparation.

Actlabs is ISO 17025 accredited for the procedures performed. Quality control procedures were implemented at the laboratory, involving the regular insertion of blanks and standards and check repeat analyses and resplits (re-analysis on the original sample prior to splitting).

### 10.0 DRILLING

(Figures 15 to 17)
No drilling has been conducted by Golden Cariboo Resources Ltd. on the Property, but a total of 2863m of diamond drilling in 22 holes was previously completed between 1972 and 2008 in seven programs. The drilling includes 2590 m in 19 holes on the Quesnel Quartz deposit, shown in Figure 15, and 273.4 m in 3 holes near the Cayenne showing. In the drill tables "Elev." denotes elevation and "Az." azimuth. The drill programs are summarized in Table 5 below.

Table 5: Summary of diamond drill programs on Property

| Year | Location | Company | Holes | Size | Depth (m) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1972 | NE of Main | Bethlehem | 2 |  | 140.2 |
| 1983 | Main, Raven | Golden Rule | 4 | BQ,NQ | 353.6 |
| 1987 | Main, Raven | Noranda | 3 |  | 276.5 |
| 1988 | Main, Raven | Noranda | 5 |  | 640 |
| 2004 | E of <br> Cayenne | Cayenne Gold | 3 | NQ | 273.4 |
| 2007 | Main Shaft | Cayenne Gold | 3 | NQ | 596.4 |
| 2008 | Main Shaft | Cayenne Gold | 2 | BQ | 583 |
| TOTAL |  |  | $\mathbf{2 2}$ |  | $\mathbf{2 8 6 3 . 1}$ |

The following account of the drill programs is summarized from Fox (1980 and 1981) for Bethlehem's 1972 program, Allen (1984) for the 1983 Golden Rule program, Simmons (2008b) for Noranda's 1987 and 1988 programs and Briden (2005) and Simmons (2008a and c) for Cayenne Gold's 2004, 2007 and 2008 drill programs. All holes were road accessible.

In 1972 Bethlehem targeted a 0.5 km by $>3 \mathrm{~km}$ northwest trending arsenic-silver soil anomaly, the northern $60 \%$ of which lies on the current Property area, with a 449 m diamond drill program in 4 holes. Only 140.2 m in 2 holes were drilled on the Quesnelle

Gold Quartz Mine Property which appear to have been located northeast of the Main shaft based on Fox (1981-Map 1A). However, the locations are plotted northeast of the Cayenne workings on a regional grid location map in Fox (1980 - Figure 4). The Bethlehem drill report was not filed for assessment and could not be located by the author. Specifications are given in Fox (1980-p 21).

The 1983 drill program by Golden Rule was completed by Drilcor Ltd. of Delta, British Columbia and targeted the Raven adit with 2 holes and the Main shaft area with 2 holes. The first hole utilized BQ wireline tools, but NQ was used on the rest of the holes. Recovery averaged only about 60\% but was about 40\% in DDH 83-2 and 52\% in DDH $83-4$, with $80 \%$ recovery in DDH $83-1$ and $85 \%$ in DDH 83-3, except through weathered zones. DDH 83-4 was lost before target depth. The entire core was sampled ( 242 samples) and 174 sludge samples were also collected at 1.5 m intervals throughout the holes except for below 81.4 m in DDH 83-1 due to loss of circulation and above 21.9 m in DDH 83-4. Sludge samples consist of drill cuttings to aid in the evaluation of zones with poor core recovery. They do not provide qualitative results. Poor recovery can result in lower grades due to the loss of the soft sulphide portions, which tend to carry the grade.

The Noranda drill report was not filed for assessment and could not be located by the author. The only details found by the author are from the NI 43-101 report by Simmons (2008b) filed on SEDAR (website at sedar.com). Drill specifications and footage of significant results were not given. Drill recoveries are assumed to have been good in the Main shaft area, but only $15 \%$ recovery was reported from 87-3 in the Raven area.

The 2004, 2007 and 2008 drill programs by Cayenne Gold were conducted by Adam Diamond Drilling Limited of Princeton, British Columbia. The 2004 holes were all drilled from the same site located 1.5 km east of the Main shaft area about 580 m east of the Cayenne workings. All three 2007 holes were also drilled from a common site, located 72 m northeast of the Main shaft to test the validity of earlier drilling and to probe for additional gold mineralization. The hole depth of 198.8 m was limited by the drill capability, but the drill type used was not reported. The 2008 holes were also drilled from a common site located between the Main shaft and the Raven adit to test for mineralization near the phyllite/greenstone contact along a VLF-EM conductor axis identified in 1983 (Allan, 1984). The holes were collared in the phyllite and drilled towards the greenstone.

Drill recoveries: were good in 2004, averaging approximately $80 \%$ despite the friable nature of the rock; were reported to be good in 2007, even in the highly altered/weathered upper portions of the holes; and recoveries were not reported in 2008. Ten samples of core and/or sludge were collected in 2004 with 258 samples in 2007 and 82 in 2008, amounting to about $75 \%$ of the core in the 2007 and 2008 programs.

Drill hole specifications are outlined in Table 6, below. Drill specifications are not known for specific holes in the Noranda program, but all holes drilled in the Main zone (DDH $87-1$ and -2 , and DDH 88-4 to -6 , and -8) appear to be at $240^{\circ}$. DDH 87-3 and 87-7 targeted the Raven zone.

TABLE 6: Drill hole specifications

| $\begin{aligned} & \text { DDH } \\ & \text { No. } \end{aligned}$ | UTM Nad 83, Easting | Zone 10 <br> Northing | Elev. <br> (m) | Az. <br> ( ${ }^{\circ}$ ) | Dip <br> ${ }^{\circ}$ ) | Depth (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 72-3^ | 531920 | 5921733 | - | 176 | -60 | 91.44 |
| 72-4^ | 531905 | 5921670 | - | 356 | -60 | 48.77 |
| 83-1* | 531833 | 5921690 | - | 228 | -45 | 131.7 |
| 83-2* | 531587 | 5921712 | - | 257 | -45 | 82.9 |
| 83-3* | 531812 | 5921630 | - | 313 | -45 | 101.2 |
| 83-4* | 531520 | 5921675 | - | 032 | -45 | 37.8 |
| 87-3*V |  |  |  | ~152 |  |  |
| 87-7*V |  |  |  | ~245? |  |  |
| 04-1* | 533410 | 5921640 | 795 | 270 | -45 | 121.92 |
| 04-2* | 533410 | 5921640 | 795 | 090 | -45 | 88.39 |
| 04-3* | 533410 | 5921640 | 795 | - | -90 | 63.09 |
| 07-1 | 531860 | 5921682 | 733 | 240 | -55 | 198.8 |
| 07-2 | 531860 | 5921682 | 733 | 240 | -85 | 198.8 |
| 07-3 | 531860 | 5921682 | 733 | 280 | -50 | 198.8 |
| 08-4 | 531645 | 5921660 | 752 | 040 | -50 | 282 |
| 08-5 | 531645 | 5921660 | 752 | 040 | -70 | 301 |

^ location as per old drill sites in Fox (1981); * location is approximate
$v$ location as per Simmons (2008b) but only partially legible
Both drill holes in Bethlehem's 1972 program were drilled east of the main vein structures and reportedly intersected oxidized and faulted (or sheared) OligocenePliocene conglomerate with no significant gold or silver values (Fox, 1980).

DDH 83-1 and 83-3 partially targeted the phyllite/greenstone contact near the Main shaft, with marginally encouraging results. Exceptionally poor core recovery hampered the evaluation of the potential of this zone, and particularly low recoveries were encountered within mineralized intervals. DDH 83-2 and 83-4 targeted a possible extension of the Raven adit quartz vein and significant trench results to the north. DDH 83-2 intersected a continuous section of black graphitic argillaceous phyllite. It was subsequently assumed that the hole had been drilled down-dip but DDH 83-4 also intersected the graphitic argillaceous phyllite and had to be abandoned (due to stuck rods) at 37.8 m . No anomalous assays were obtained from the Raven zone.

Noranda drilled two more holes on the Raven zone in 1987 and 1988, encountering poor recovery and no significant results despite the fact that DDH 87-4 targeted an 8.2 $\mathrm{g} / \mathrm{t}$ Au over 6 m trench intercept and DDH 87-3 intersected altered greenstone. Drilling on the Main zone was more promising with two separate zones identified, separated by 25 m . The Main zone proper, as exposed in the Main shaft and intersected in DDH 87-1, $-2,88-4,88-4$ and $88-6$, as well as previously in DDH $83-1$ and -3 , was found to consist of two vein systems; one strikes northwest and dips $70^{\circ}$ degrees to the northeast, essentially paralleling the volcanic-sedimentary contact in a stratiform fashion, and the other strikes northeast and usually dips steeply southeast.

The East zone lies 25 m northeast of the Main zone and consists of a northwesterly trending quartz vein zone apparently dipping northeast and stratiformly hosted by greenstone. It was traced over a length of 90 m in six drill holes (DDH 83-1, 87-1, 87-2, $88-4,88-5,88-6)$ and remains open to the northwest. Values appear to weaken to the southeast. The zone has generally been intersected in weathered rocks where the core recovery is poorer.

All three drill holes in the 2004 program in the Cayenne area intersected the Oligocene to Pliocene conglomerate for their entire length. The conglomerate is described as chaotic, completely unsorted, clastic, angular and made up of clasts of varying proportions of schist and greenstone indicating a local origin. The matrix is composed of small fragments and a high proportion of clay and probably represents a mud flow which has been deposited on an irregular weathered surface. The three 2007 drill holes were essentially drilled in greenstone with only the bottom of DDH 07-3 intersecting metasedimentary rocks (phyllite). The top vertical 30 m of core in the 2007 holes was generally intensely altered and/or weathered such that the original rock type could not be determined.

The phyllite/greenstone contact was intersected in the 2008 drill holes with a dip to the southwest and is consistent with the dip of the contact found in the lower underground levels of the Main shaft (Quesnelle Quartz Mining Company, 1930's).

The 2007 drill holes encountered multiple zones of gold and silver mineralization and ended in sulphide mineralization (Simmons, 2008a). Results are shown in Table 7, and in Figures 16 and 17. The 2008 drill holes reportedly encountered multiple zones of mineralization in both the phyllite and greenstone, but results were low with maximum values of $0.046 \mathrm{~g} / \mathrm{t}$ Au over 15.5 m in DDH 08-4 and $1.41 \mathrm{~g} / \mathrm{t}$ Au over 0.5m in DDH 08-5. These holes would have been drilled in the wrong direction to intersect the northeast dipping Main zone.

Significant drill results are summarized in Table 7 on the following page. True widths of the zones cannot be calculated at this stage due to the uncertainty of the actual orientations and/or correlations of the mineralized zones. A drill plan and sections are shown in Figures 15 to 17.

Drill sampling methods are discussed under Section 11.0, "Sample Preparation, Analyses and Security".

TABLE 7: Significant drill results

| DDH No. | Zone | From (m) | To (m) | Length (m) | $\mathrm{Au}(\mathrm{g} / \mathrm{t})$ | Ag (g/t) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 83-1 | East | 22.0 | 23.5 | 1.5 | 7.3 | sludge |
| and | Main | 81.4 | 82.9 | 1.5 | 2.24 | 4.3 |
| and* | Main | 87.5 | 90.5 | 3.0 | 1.88 | 6.8 |
| and | Main | 96.6 | 97.5 | 1.5 | 2.20 | 4.0 |
| and | Main | 104.2 | 105.7 | 1.5 | 3.60 | 4.9 |
| and | Main | 108.8 | 110.3 | 1.5 | 5.72 | 20.6 |
| and | Main | 119.3 | 121.0 | 1.7 | 1.88 | 1.5 |
| 83-3* | Main | 20.4 | 25.0 | 4.6 | 1.28 | 3.7 |
| and* | Main | 40.2 | 46.3 | 6.1 | 1.28 | 13.3 |
| incl.* | Main | 40.2 | 43.5 | 3.3 | 1.93 | 21.9 |
| and | Main | 64.6 | 65.8 | 1.2 | 1.94 | 6.3 |
| 87-1 | Main |  |  | 1.5 | 5.1 |  |
| and | Main |  |  | 1.5 | 1.0 |  |
| and | East |  |  | 3.0 | 1.0 |  |
| 87-2 | Main |  |  | 1.0 | 2.6 |  |
| and* | East |  |  | 4.0 | 0.48 |  |
| 87-4 | East |  |  | 1.0 | 1.6 |  |
| and* | East |  |  | 2.8 | 3.3 |  |
| 88-5* | Main |  |  | 3.0 | 4.8 |  |
| and | Main |  |  | 1.0 | 2.5 |  |
| and | Main |  |  | 1.0 | 2.2 |  |
| and | Main |  |  | 1.9 | 1.6 |  |
| and* | Main |  |  | 3.0 | 1.1 |  |
| and* | East |  |  | 2.75 | 5.2 |  |
| and* | East |  |  | 2.8 | 2.2 |  |
| 88-6* | East |  |  | 3.5 | 0.55 |  |
| and* | Main |  |  | 3.0 | 1.1 |  |
| 07-1* | ? | 128.6 | 133.2 | 4.6 | 0.78 | <2 |
| and* | Main | 151.8 | 159.1 | 7.3 | 0.62 | 2.3 |
| and | Main | 179.3 | 182.3 | 3.0 | 6.75 | 54.5 |
| and | Main | 198.0 | 198.8 EOH | 0.8 | 2.13 | <2 |
| 07-2 | East? | 182.8 | 183.7 | 0.9 | 1.80 | 0.4 |
| 07-3 | East? | 60.1 | 61.6 | 1.5 | 11.8 | 12.9 |
| and* | East? | 66.9 | 69.2 | 2.3 | 2.23 | 3.9 |
| and* | Main | 190.4 | 198.8 EOH | 8.4 | 0.51 | 1.5 |

true widths cannot be determined since orientations of the mineralized zones are not definitively known




### 11.0 DRILL SAMPLE PREPARATION, ANALYSES AND SECURITY

Complete details of the drill programs are not in the public record and only limited second hand data was found for the Bethlehem and Noranda programs. In general, the core would be measured and marked with core box start and core box finish at the upper left (start) and lower right (finish) of each box and core recovery measured or approximated in percent. Geologists would then log core and measure out sample intervals. Typical sample intervals were 0.76 to 1.7 m , but were reduced across significant vein or mineralized intercepts and at significant lithological boundaries. Core was split in half with a mechanical core splitter and half sent to the laboratory for assay and the remaining half put back in the core box as a record.

The 2008 diamond drill program was supervised by Brian Simmons and logged by Alex Briden and Alison Dueck and/or Brian Simmons. The 2007 diamond drill core and rock samples were taken by or under the supervision of Brian Simmons P. Geo and Alex Burton P.Geo., P.Eng. The sulphide/quartz sections of the diamond drill core were split and sampled on a daily basis using a six inch core splitter. Half of the core was sent for analysis. After the initial assay results were received, additional sampling was done in 2007 on non-split sections of core. In both 2007 and 2008, the core sample length was typically 2.5 feet ( 0.76 m ). The sample bags were tied with plastic zip locks and samples were kept in a locked vehicle until delivery to the assay lab. In 2004 H.A. Briden spotted the drill holes, logged the core, split some of it and handed it in for assay; no additional information is reported.

In 2008 the 82 drill core samples were sent to ALS Chemex in Vancouver, British Columbia and analyzed for gold and silver by fire assay and ICP- atomic emission spectroscopy (AES) techniques for the gold analysis and aqua regia digestion with an atomic absorption (AAS) finish for silver. In 2007 the 258 samples were sent to ALS Chemex and ACME Analytical Laboratories ("ACME") Vancouver, British Columbia and were analyzed for gold and silver using fire assay with an AAS finish, and a gravimetric finish on results $>1,000 \mathrm{ppb}$ Au. The 2004 samples were analyzed for gold by fire assay and ICP- emission spectroscopy by ACME. Sample preparation in 2004, 2007 and 2008 involved drying, fine crushing to better than $70 \%$ passing minus 2 mm , then pulverizing a 150 g split to better that $85 \%$ passing 75 microns.

In 1983 all core recovered (242 samples) was logged by project geologist, C. Aussant, split and sampled. Sample intervals were generally at 1.0 to 1.5 m intervals, but varied based on mineralization and geological contacts. In addition, 174 sludge samples were collected at 1.5 m intervals where possible. All samples were assayed for gold and silver by Terrain Research Labs Ltd. in Calgary, Alberta. Analytical techniques consisted of a fire assay with an atomic absorption (AA) finish on a 25 gram sample aliquot.

In the 2004 to 2008 drill programs quality control procedures were implemented at the laboratories involving the regular insertion of blanks and standards and check repeat analyses and resplits (re-analyses on the original sample prior to splitting). No documented quality assurance and quality control (QAQC) samples were inserted by
the companies. There is no evidence of any tampering with or contamination of the samples during collection, shipping, analytical preparation or analysis. All sample preparation was conducted by the laboratories. The laboratory is entirely independent from the issuer. ALS Chemex and ACME Analytical Laboratories in Vancouver, British Columbia were ISO 9001:2000 accredited facilities and certified for the procedures performed. In the author's opinion, the sample preparation, analysis and analytical procedures are adequately reliable for the purposes of this technical report.

A sampling protocol should be implemented involving the routine and regular insertion of blanks, standards and duplicates sent to the primary laboratory, and re-assaying of selected mineralized pulps at a second independent laboratory in future trenching and drill programs on the Property.

### 12.0 DATA VERIFICATION

The geochemical data was verified by sourcing original analytical certificates and digital data, where available. Analytical data quality assurance and quality control was indicated by the favourable reproducibility obtained in laboratory inserted standards, blanks and duplicates (repeats). There does not appear to have been any tampering with or contamination of the samples during collection, shipping, analytical preparation or analysis. Quality control procedures are outlined under Section 11.0, "Sample Preparation, Analyses and Security". In the author's opinion, the data provided in this report is adequately reliable for its purposes.

### 13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

The Quesnelle Gold Quartz Mine Property is at an early exploration stage and no metallurgical testing has been carried out.

### 14.0 MINERAL RESOURCE ESTIMATES

There has not been sufficient drilling on the Quesnelle Gold Quartz Mine Property to undertake a resource calculation.

### 23.0 ADJACENT PROPERTIES

The Quesnelle Gold Quartz Mine Property is adjoined to the northwest and southeast by the 22,892 hectare Cayenne Project of Barkerville Gold Mining Ltd. ("BGM"), which owns the Bonanza Ledge, Cariboo Gold Quartz, and Island Mountain mines at Wells,

British Columbia, 75 km to the southeast of the Quesnelle Gold Quartz Mine Property. The Cayenne claims were staked by BGM in 2016 for their exploration potential based on regional setting, local geology, historical mineral occurrences and gold in stream sediment anomalies (Layman, 2017b). The Cayenne property area was explored intermittently since the 1970s with geological mapping, geochemical sampling, diamond drilling and geophysics.

Numerous historical placer operations and six hardrock Minfile occurrences are noted within the bounds of the Cayenne Project: the Jo (Minfile 093G 004), the Government (Minfile 093 067), the Tom/Yardley Lake (Minfile 093G 068) and the Ped (Minfile 093G $070)$ gold, $\pm$ silver, $\pm$ copper showings; the Ice molybdenum showing within the Naver pluton (Minfile 093G 006); and the Quartz silica showing (Minfile 093G 029). Mineralization within the first four showings generally consists of pyrite and chalcopyrite in orogenic style quartz veins with results of $0.65 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ and $106.8 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$ reported from the Government showing (Kowalchuk and Newton, 1987) and $0.82 \mathrm{~g} / \mathrm{t}$ Au from drilling on the Tom showing which did not reach the favourable sulphide bearing dyke contact (Kowalchuk and Newton, 1987). In addition, visible gold has been reported from the Ped showing with a value of $23.69 \mathrm{~g} / \mathrm{t}$ Au from quartz veinlets hosted by gabbroic rocks within the Nicola Group volcanic package (Yorkston, 1997).

In 2016, BGM conducted a more than 1350 line kilometre airborne VTEM and magnetic geophysical survey across and adjacent to the Cayenne Project. A northwest trending geophysical magnetic high anomaly with associated VTEM conductors was found to coincide with mapped fault structures along the contact between the volcaniclastic and metasedimentary units and known mineralized zones. The estimated depth to the top of the conductors is approximately near surface to 200m (Layman, 2017a and b).

The author is not able to verify the above information on the adjacent property and the information is not necessarily indicative of the mineralization on the Quesnelle Gold Quartz Mine Property.

### 24.0 OTHER RELEVANT DATA AND INFORMATION

To the author's knowledge, there is no additional information or explanation necessary to make this report understandable and not misleading.

### 25.0 INTERPRETATION AND CONCLUSIONS

There is excellent potential on the Quesnelle Gold Quartz Mine Property to discover an orogenic gold $\pm$ silver deposit consisting of gold $\pm$ silver bearing quartz veins and quartz-carbonate-pyrite replacement style mineralization similar to those within the WellsBarkerville mining camp, about 75 km to the southeast.

Significant gold $\pm$ silver mineralization was previously delineated on the Property in old workings, trenches and drill holes at the Quesnelle Quartz deposit. The 2019 trenching program uncovered many of the old workings, with significant gold $\pm$ silver results from quartz veins and silicified and pyritized zones. An initial examination of part of the North Hixon showing resulted in a new discovery of silicified, pyritic and magnetite bearing float carrying $9.83 \mathrm{~g} / \mathrm{t}$ Au. Other showings on the Property with anomalous gold values have not been evaluated.

The Quesnelle Gold Quartz Mine Property covers the historical Pioneer and Cayenne showings, the Quesnel Quartz deposit and part of the North Hixon showing as documented by the British Columbia Geological Survey Branch as Minfile Numbers 093G 013, 093G 014, 093G 015 and 093G 082, respectively (British Columbia Minfile, 2019). The most significant mineralization to date has been found at the Quesnel Quartz deposit, which provided the focus of the 2019 program. The Main zone comprises the principal gold zone at the Quesnel Quartz deposit and consists of a network of quartz veins over a northwest trending, $70^{\circ} \mathrm{NE}$ dipping, 40 m wide by 140 m long and 190 m deep zone. Twenty-nine quartz veins were recorded in the mine workings which extend 120 m vertically beneath the surface. The Main zone was explored by the Main and Koch shafts, and the Clarke and Koch adits, which have since been buried by placer and other debris, but uncovered in the 2019 program.

The 2019 exploration program, which was funded by Golden Cariboo Resources Ltd., consisted of $487 \mathrm{~m}^{3}$ of excavator trenching and pitting, with geological mapping and sampling, minor property mapping and sampling and improving the south access road. A total of $263 \mathrm{~m}^{3}$ of trenching was completed in 9 trenches covering a cumulative length of 210 m , and $224 \mathrm{~m}^{3}$ of pitting (due to thick overburden) was completed in 25 pits. A total of 120 samples were collected from the pits and trenches, 3 of which were soil samples, and an additional 1 stream sediment and 30 rock samples were collected during mapping/sampling.

TR19-01 and -02, excavated in the Main shaft area which constituted the principal working of the Quesnel Gold Quartz deposit on the south side of Hixon Creek, intersected a number of quartz veins with significant results. Quartz vein boulders from a vein with trends of $045-050^{\circ} / 60^{\circ} \mathrm{W}, 80^{\circ} \mathrm{W}$ and $75^{\circ} \mathrm{E}$ in the upper level of the start of TR19-01 yielded: $16.5 \mathrm{~g} / \mathrm{t} \mathrm{Au}, 54 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$; and $5.73 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ and $14.8 \mathrm{~g} / \mathrm{t}$ Ag. Quartz boulders, with $30 \%$ pyrite layers and seams and minor carbonate, further towards Hixon Creek returned $8.44 \mathrm{~g} / \mathrm{t}$ Au with $7.1 \mathrm{~g} / \mathrm{t}$ Ag. Possible silicified limestone at this location returned $5.24 \mathrm{~g} / \mathrm{t}$ Au with $4.5 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$. A grab of pyritic silicified limestone float from the ore bin yielded $2.00 \mathrm{~g} / \mathrm{t}$ Au with $4.7 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$ and 2190 ppm As. The source of the silicified limestone appears to be from underground on the Main shaft, since it was not encountered on surface.

Quartz veins in TR19-02 returned: $6.96 \mathrm{~g} / \mathrm{t}$ Au over $0.3 \mathrm{~m} ; 1.93 \mathrm{~g} / \mathrm{t}$ Au over 0.5 m and $4.41 \mathrm{~g} / \mathrm{t}$ Au over 1 m from the hanging wall; and $7.65 \mathrm{~g} / \mathrm{t}$ Au over 1.7 m . Quartz float in Pit19-08, which lies 16 m southerly $\left(195^{\circ}\right)$ along trend from the latter vein zone, yielded 3.69 g/t Au.

An oxidized, highly pyritic, $020^{\circ} / 80^{\circ} \mathrm{W}$ trending, possible listwanite zone yielded $16.2 \mathrm{~g} / \mathrm{t}$ $\mathrm{Au}, 10.1 \mathrm{~g} / \mathrm{t}$ Ag with 1980 ppm As and $>30 \%$ Fe over 0.4m in TR19-01 and contained $1.2 \mathrm{~g} / \mathrm{t} \mathrm{Au}, 4.5 \mathrm{~g} / \mathrm{t}$ Ag over 1.4 m in TR19-02, 18m along strike to the south. The hanging wall in TR19-01 yielded $4.95 \mathrm{~g} / \mathrm{t} \mathrm{Au}, 9.4 \mathrm{Ag}$ and $8.3 \%$ Fe from a 1 by 1 m panel sample suggesting that more representative results are obtained from panel sampling in this setting. Panel samples are recommended in future sampling programs.

The Clarke adit and Koch adit and shaft constituted the principal workings of the Quesnel Gold Quartz deposit on the north side of Hixon Creek. A pit at the Clarke adit exposed a 37 cm quartz vein, trending $222^{\circ} / 85^{\circ} \mathrm{NW}$ and containing $6.0 \mathrm{~g} / \mathrm{t}$ Au and $10 \mathrm{~g} / \mathrm{t}$ Ag, at the phyllite/greenstone contact. The hanging wall and footwall returned gold values of $0.24 \mathrm{~g} / \mathrm{t}$ over 0.4 m and $0.44 \mathrm{~g} / \mathrm{t}$ Au over 1 m , respectively. A sample across the contact yielded $0.57 \mathrm{~g} / \mathrm{t}$ Au over 0.9 m .

At the Koch adit a 1.75 m wide quartz vein was intersected hosted by the more competent greenstone, trending $225^{\circ} / 75^{\circ} \mathrm{NW}$. The vein may represent the extension of, or a sub-parallel vein to, the vein intersected in the Clarke adit. Due to poor ground conditions only 0.6 m of the footwall side of the vein could be sampled, which returned $17.5 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ and $61.5 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$ over the 0.6 m and the footwall yielded $1.94 \mathrm{~g} / \mathrm{t}$ Au over 0.5 m . A grab of highly pyritic vein material from quartz vein boulders within the pit returned $45.9 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ with > $100 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$.

The Raven zone lies 270 m westerly from the Main zone near the site of an old adit. The Raven adit and surroundings, extending 200 m to the east of the adit, were explored by TR19-04, -08 and -09 , and Pits 19-13, $-14,-16$ and -17 but no significant results were obtained. A chip sample collected in 1981 from a quartz vein exposed by a trench 20 m above the Raven adit assayed $5.28 \mathrm{~g} / \mathrm{t}$ Au over 3 m . Drilling has not been successful on this zone, possibly due to the extremely poor core recoveries encountered. The area appears to be strongly faulted, with extensive black graphitic argillaceous phyllite accounting for IP Anomalies B and C, and only a narrow band of the favourable more competent greenstone unit exposed. No further work is proposed here at present.

IP Anomalies 660 and D may be related to a thick deposit of the clay rich OligocenePliocene clastic sedimentary rocks in this area. Anomaly A still appears to be related to the east zone, which was not significantly explored in 2019.

Preliminary investigation of the North Hixon showing resulted in the discovery of intensely silicified float with strongly pyritized clasts and fine dark magnetite carrying $9.85 \mathrm{~g} / \mathrm{t} \mathrm{Au}$. Previous trenches yielded gold values in excess of $1 \mathrm{~g} / \mathrm{t}$ in four trenches in sampling by Noranda and grab samples taken from veins in two other trenches assayed $6.36 \mathrm{~g} / \mathrm{t}$ and $1.38 \mathrm{~g} / \mathrm{t}$. The zone lies 1.2 km northwest (possibly along trend?) of the Cayenne working.

Overburden depth has been found to be quite extensive away from Hixon Creek, except for in the North Hixon showing and Briscoe pit (northwest of TR19-06 and -07) areas. Based on this, additional trenching is proposed to investigate these areas.

### 26.0 RECOMMENDATIONS

The Quesnelle Gold Quartz Mine Property is a property of merit and warrants continued exploration. There is excellent potential on the Quesnelle Gold Quartz Mine Property to discover an orogenic gold $\pm$ silver deposit consisting of gold $\pm$ silver bearing quartz veins and quartz-carbonate-pyrite replacement style mineralization similar to those within the Wells-Barkerville mining camp, about 75 km to the southeast.

The reports on the Noranda and Bethlehem drill programs should be located and complete results from these and the old data recently released from the Quesnelle Quartz Mining Company require compilation to plot detailed plans and sections of the workings and mineralized zones and construct a 3D model using the recently acquired data from the LiDAR survey.

This should be followed by: a differential GPS survey of the 2019 trenches and pits, old workings and infrastructure that were uncovered during the 2019 program, including old trenches; detailed mapping and sampling of the property, including the Pioneer mine and Cayenne showings, the North Hixon zone and the Morrison-Hercules adit areas; and groundtruthing of specific features from the LiDAR survey that require verification or confirmation. Excavator trenching is recommended along strike to the northwest of the Main and East zones and at the North Hixon showing due to potential and shallower overburden cover. Depending on an initial evaluation of the Cayenne and Pioneer showings, some of the proposed trenching may be directed here. Drill pads and additional access required can be completed at this time.

A contingent Phase 2 diamond drill program is recommended to follow up significant results from Phase 1.

### 26.1 Budget

Based on the above recommendations, the following contingent two phase exploration program with corresponding budget is proposed. Phase 2 is entirely contingent on results from Phase 1.

## Phase 1

- Data compilation, integration, 3D model \$20,000
- differential GPS survey
- property mapping and sampling (geologist, prospector)
- trenching and sampling 5,000
- drill pads and access
- geochemistry (200 samples @ \$50/ea., plus freight \& QAQC) 35,000
- meals and accommodation 60,000
- transportation, communication 15,000
- preparation, report and drafting
- contingency

11,000

TOTAL:
10,000
9,000

TOTAL:
15,000
20,000

Phase 2 (contingent on results from Phase 1) diamond drilling

- diamond drilling ( 2500 m in 7-9 holes)

350,000

- geochemistry (500 samples @ \$40/ea., incl. freight) 20,000
- geologist, sampler 30,000
- transportation, communication 15,000
- meals and accommodation
- preparation, report and drafting 20,000
- contingency

20,000
TOTAL:
45,000
$\$ 550,000$
PHASE 1 \& 2 TOTAL
\$700,000

## SIGNATURE PAGE

Respectfully submitted,


Signing Date: January 15, 2020
Jean Pautler, P.Geo.

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## CERTIFICATE OF QUALIFIED PERSON

1) I, Jean Marie Pautler of 103-108 Elliott Street, Whitehorse, Yukon Territory am selfemployed as a consultant geologist, authored and am responsible for all sections of this report entitled "Geological, geochemical and trenching report on the Quesnelle Gold Quartz Mine Property", dated January 15, 2020.
2) I am a graduate of Laurentian University, Sudbury, Ontario with an Honours B.Sc. degree in geology (May, 1980) and 39 years mineral exploration experience in the North American Cordillera. Pertinent experience includes the evaluation of, and exploration for, orogenic type deposits in the Bralorne, Cassiar, Atlin and Wells-Barkerville gold camps.
3) I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC Registration Number 19804).
4) I have visited the subject mining property of this report and am a "Qualified Person" in the context of and have read and understand National Instrument 43-101. This report was not prepared in compliance with $\mathrm{NI} 43-101$.
5) This report is based upon work conducted on the project area between October 15 and November 7, 2019 and a review of pertinent data.
6) As of the date of this report, to the best of my knowledge, information, and belief, the report contains all scientific and technical information required to make the report not misleading.
7) I am entirely independent, as defined in section 1.5 of National Instrument 43-101, of Golden Cariboo Resources Ltd., Standard Drilling, any associated companies and the Quesnelle Gold Quartz Mine Property. I do not have any agreement, arrangement or understanding with Golden Cariboo Resources Ltd., Standard Drilling or any affiliated companies to be or become an insider, associate or employee. I do not own securities in Golden Cariboo Resources Ltd., or any affiliated companies and my professional relationship is at arm's length as an independent consultant, and I have no expectation that the relationship will change.

Dated at Carcross, Yukon Territory this $15^{\text {th }}$ day of January, 2020.
"Signed and Sealed"

"Jean Pautler"

Jean Pautler, P.Geo. (APEGBC Reg. No. 19804)


### 16.0 APPENDICES APPENDIX I: Statement of Expenditures

| Work on tenures 1011635, 1011637 and 1013059 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Wages in field |  | unit | rate | \# units | Total \$ |
| Jean Pautler | Oct 15-Nov 7 | days | \$700 | 24 | 16,800.00 |
| Gary Polischuk, without hoe | between Oct 15 and Nov 6 | days | \$570 | 5.5 | 3,135.00 |
| J.F. Callaghan | Oct 24, Nov 5-6 | days | \$500 | 2 | 1,000.00 |
| A. Justason | Oct 24, 26 Nov 2-3 | days | \$600 | 4 | 2,400.00 |
|  |  |  |  | 35.5 | 23,335.00 |
| Geochemistry | Act Labs |  |  |  |  |
| met screen Au, ICP | rock | samples | 92.50 | 88 | 8,140.00 |
| Au, ICP | rock | samples | 45.60 | 72 | 3,283.20 |
| Au, ICP | soil | samples | 34.25 | 4 | 137.00 |
| shipping | VAN-KAM | samples | 875 lbs | 164 | 400.00 |
|  |  |  |  |  | 11,960.20 |
| Mobilization, demobilization |  |  |  |  |  |
| truck 1 GPP |  | km | \$0.68 | 1768 | 1,202.24 |
| truck 2 JP |  | km | \$0.68 | 150 | 102.00 |
| truck 3 AJ |  | km | \$0.60 | 600 | 360.00 |
| airline flight JP | Oct 14-15 |  |  |  | 622.91 |
| airline flight JP | Nov 7 |  |  |  | 495.85 |
| airline flight JFC | Oct 24, Nov 5-6 |  |  |  | 1,268.48 |
| lowbed excavator |  |  |  |  | 2,000.00 |
|  |  |  |  |  | 6,051.48 |
| Use of truck on site |  |  |  |  |  |
| truck 1 Standard Drilling |  | days | 23 | 100 | 2,300.00 |
| truck 2 GPP |  | days | 5 | 100 | 500.00 |
| truck 2 JFC |  | days | 3 | 100 | 300.00 |
| fuel |  |  |  |  | 650.00 |
|  |  |  |  |  | 3,750.00 |
| Equipment Rental |  |  |  |  |  |
| Radios, phones |  | days | \$20 | 20 | 400.00 |
| Saw |  |  | \$30 | 1 | 30.00 |
|  |  |  |  |  | 430.00 |
| Room and Board |  |  |  |  |  |
| JP, GPP, JFC |  | mandays | \$100 | 42 | 4,200.00 |
|  |  |  |  |  | 4,200.00 |
| Excavator | Oct17-25,Nov2-6 | hours | \$183.10 | 125.5 | 22,979.05 |
| Standard Drilling | includes GPP as ope | or, fuel |  |  | 22,979.05 |
| Field Supplies |  | mandays | \$15.00 | 42 | 630.00 |
| spray paint, bear spray, measuring tapes, bags, flagging, tags, markers |  |  |  |  | 630.00 |
| Preparation | JP, JFC |  |  |  | 1,950.00 |
| Permitting | AJ - Tenorex | hrs | 60 | 10 | 600.00 |
| Report \& Drafting |  |  |  |  | 7,000.00 |
| SUBTOTAL |  |  |  |  | \$82,885.73 |
| Debited Pac (Golden Cariboo) |  |  |  | 30\% | 34,635.88 |
| TOTAL |  |  |  |  | 117,521.61 |
| TOTAL APPLIED WORK VALUE: |  |  |  |  | \$116,502.16 |

Appendix II: 2019 Sample Descriptions with Select Results

| SAMPLE | LOCATION (m) |  | NAD 83 Zone 10 |  | interval |  |  | Au | Au | Ag | As |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NUMBER | FROM | то | EASTING | NORTHING | (m) | Lithology | DESCRIPTION | ppb | ppm | ppm | ppm |
| TR19-01 | Az 035 | 0-6 | 531788 | 5921663 |  |  | N.B. GPS is for start of interval | FA+AA | screen |  |  |
| 1690201 | 0 | 0 |  |  | 0.65 | listwanite | orange-brown weathering listwanite with Mn-limonite fracture fillings, local claysericite alteration; footwall of 1690202; collected along 305 line in trench | 44 |  | 1.7 | 367 |
| 1690202 | 0 | 0 |  |  | 0.6 | quartz | 60 cm white quartz vein with minor Mn \& limonite fracture fillings, trace oxidized cubic pyrite,some fresh pyrite along vugs and wallrock inclusions; trend 025/75E to 80W; collected along 305 line in trench |  | < 0.03 | 1.1 | 16 |
| 1690202a | 0 | 0 |  |  | 0.6 | CRD | coarse reject duplicate of 1690202 | 8 |  | 1.4 | 18 |
| 1690203 | 0 | 0 |  |  | 1 | listwanite | orange-brown weathering listwanite with Mn-limonite fracture fillings, local claysericite alteration; hanging wall of 1690202; collected along 305 line in trench | 9 |  | 1.9 | 368 |
| 1690204 | 2 | 2 |  |  | 0.6 | listwanite | orange-brown weathering listwanite with Mn-limonite fracture fillings, local claysericite alteration; footwall of 1690205 ; collected along 305 line in trench | 170 |  | 2.9 | 761 |
| 1690205 | 2 | 2 |  |  | 0.5 | quartz | 50 cm white quartz vein on trend of 1690202 with minor Mn \& limonite fracture fillings, trace oxidized cubic pyrite,some fresh pyrite along vugs and wallrock inclusions; trend 025/75E to 80W; collected along 305 line in trench |  | 0.44 | 4.2 | 53 |
| 1690206 | 2 | 2 |  |  | 0.85 | listwanite | orange-brown weathering listwanite with Mn-limonite fracture fillings, local claysericite alteration; hanging wall of 1690205 ; collected along 305 line in trench | 330 |  | 3.8 | 926 |
| 1690207 | 5.4 | 6.8 |  |  | 1.5 | listwanite | orange-brown weathering listwanite with Mn-limonite fracture fillings, local claysericite alteration across rusty fractures trending 027/40W: foliation trends 340173W; collected along 285 line in trench | 107 |  | 8.9 | 628 |
| 1690208 | 3.9 | 5.4 |  |  | 1.5 | listwanite | orange-brown weathering listwanite with Mn-limonite fracture fillings, includes 20 cm of quartz from incomplete extension of 1690202 vein; adjoins 1690207 to E ; collected along 285 line in trench |  | < 0.03 | 5.7 | 609 |
| TR19-01 | Az 125 | 6-20 |  |  |  |  |  |  |  |  |  |
| 1690209 | 8.5 | 9.2 |  |  | 0.6 | listwanite | orange-brown weathering listwanite with Mn-limonite fracture fillings at 040/80W at hump in trench; taken along 290 degree line | 18 |  | 3.5 | 290 |
| 1690210 | 7.3 | 8.5 |  |  | 1 | listwanite | orange-brown weathering hard silicified listwanite with Mn-limonite fracture fillings and few cm wide drusy quartz veins at 040/80W at hump in trench; taken along 290 degree line |  | $<0.03$ | 3.1 | 498 |
| 1690211 | 6.6 | 7.3 |  |  | 0.75 | listwanite | orange-brown weathering hard silicified listwanite with Mn-limonite fracture fillings at 040/80W at hump in trench; taken along 290 degree line |  | < 0.03 | 9.2 | 204 |
| 1690212 | 18 | 19.5 |  |  | 1.5 | greenstone | bit faulted orange carbonate altered greenstone with 2 quartz veins at either end trending 040/90 then along foliation; collected along trench | 373 |  | 5.6 | 124 |
| TR19-01 | Az 140 | 20-42 | 531805 | 5921658 |  |  |  |  |  |  |  |
| 1690213 | 21.5 |  |  |  | grab | quartz | grab of quartz pods to 2 cm at about 340 and 040-050 trends in orange carbonate altered greenstone | 198 |  | 5.9 | 16 |
| 1690214 | 24 | 24 |  |  | 1.6 | fault | fault zone with strong clay gouge, mariposite, Mn \& limonite fracture fillings, minor quartz clasts to 1 cm ; chip across width of trench | 484 |  | 1.6 | 226 |
| 1690215 | 26.5 |  |  | pic | 1.8 | greenstone, quartz | orange carbonate altered greenstone with a through going, few cm wide foliation parallel (320) quartz vein which offsets a cross vein trending 040/90 by 50 cm ; collected along 090 line in trench | 88 |  | 1.4 | 94 |
| 1690216 | 30 |  |  |  | 1 | greenstone, quartz | orange carbonate altered greenstone with several quartz veins to 10 cm , some foliation parallel; collected along 050 line in trench | 410 |  | 1.5 | 92 |
| 1690217 | 31.1 | 32.1 |  | panel | 1 | fault, quartz | 1 by 1 m panel sample of fault gouge zone with discontinuous quartz veins to 3 cm |  | 4.95 | 9.4 | 225 |
| 1690217a | 31.1 | 32.1 |  |  | 1 | CRD | coarse reject duplicate of 1690217 | 5810 |  | 3 | 221 |
| 1690218 | 32.1 | 32.5 |  |  | 0.4 | pyritic listwanite | 40 cm wide intensely rusty zone trending 020/80W, highly oxidized, probable pyritic, highly siliceous listwanite, arsenopyrite |  | 16.2 | 10.1 | 1980 |
| 1690218a |  |  |  |  |  | blank | commercially available decorative stone | 6 |  | <0.2 | 11 |
| 1690219 | 39 |  | 531817 | 5921643 | 0.35 | basalt | basalt feldspar porphyry dyke trending about 320/80W, but curves - flatter | 24 |  | 0.7 | 4 |
| TR19-01 | 42 | end | 531819 | 5921642 |  |  |  |  |  |  |  |
| TR19-02 | Az 300 | 0-10 | 531838 | 5921621 |  |  |  |  |  |  |  |


| SAMPLE | LOCATION (m) |  | NAD 83 Zone 10 |  | interval |  |  | Au | Au | Ag | As |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NUMBER | FROM | то | EASting | NORTHING | (m) | Lithology | DESCRIPTION | ppb | ppm | ppm | ppm |
| 1690220 | 0 |  |  |  | 0.6 | greenstone | orange carbonate altered greenstone with Mn fracture fillings; collected along 270 line in trench | 24 |  | 0.8 | 117 |
| 1690221 |  |  |  |  | 0.3 | quartz | 30 cm white quartz vein with minor pyrite; trend 340/steep; collected along 270 line in trench |  | 6.96 | 1.7 | 51 |
| 1690222 |  | 2 |  |  | 0.7 | greenstone | orange carbonate altered greenstone with Mn fracture fillings; collected along 270 line in trench | 415 |  | 1.6 | 188 |
|  | 3 |  |  |  |  |  | old shallow trench cuts through, starts 5 m to S |  |  |  |  |
| 1690223 | 6 | 7 |  |  | 1 | greenstone | rusty orange carbonate altered greenstone with Mn fracture fillings; collected along trench | 357 |  | 2.8 | 139 |
| 1690224 | 7 | 7.5 |  |  | 0.5 | quartz | 50 cm white quartz vein; trend 020/90 but bulges out in S wall along foliation @ 340; narrows to 30 cm to N ; collected along trench |  | 1.93 | 2.9 | 51 |
| 1690225 |  |  |  |  |  | blank | commercially available decorative stone | 5 |  | <0.2 | 4 |
| 1690226 | 7.5 | 8.5 |  |  | 1 | greenstone | orange carbonate altered greenstone with Mn fracture fillings, bit gougey margin at vein contact, with 10 cm moderate silicification; collected along trench | 4410 |  | 2.9 | 129 |
| TR19-02 | Az 280 | 10-50 | 531832 | 5921626 |  |  |  |  |  |  |  |
| 1690227 | 12.8 | 14.5 |  |  | 1.7 | quartz | quartz veins +/-carbonate with Mn fracture fillings in gouge zone with mariposite; trend 015/90-85W, but locally along foliation (305) |  | 7.65 | 5.3 | 250 |
| 1690228 |  |  |  |  |  | CRD | coarse reject duplicate of 1690227 | 2010 |  | 6.4 | 280 |
| 1690229 | 15 | 17 |  |  | 1.65 | quartz | quartz veins +/-carbonate with Mn fracture fillings to $15-20 \mathrm{~cm}$ in orange carbonate altered greenstone which is strongly silicified in centre, some strong clay gouge; vein trend 050/steep and foliation trends 325/90; collected along 300 line in trench |  | 0.2 | 2.4 | 141 |
| 1690230 | 17 | 19.2 |  |  | 2 | greenstone | well fractured orange carbonate altered greenstone with Mn fracture fillings and some strong clay gouge; collected along 300 line in trench | 398 |  | 2.2 | 92 |
| 1690231 | 20.7 | 22 |  |  | 1.3 | greenstone | orange carbonate altered greenstone with Mn fracture fillings | 588 |  | 2 | 93 |
| 1690232 | 23.8 | 24.3 |  |  | 0.5 | clay | white clay seam with specks of mariposite, some limonite, occasional quartz stringers to $3-4 \mathrm{~mm}$; clay seam widens to 1.5 m in in S wall; trend 160 | 26 |  | 3 | 31 |
| 1690233 | 25.3 | 26.5 |  |  | 1.2 | greenstone | orange carbonate altered greenstone with trace quartz | 89 |  | 3.8 | 241 |
| 1690234 | 26.5 | 27.8 |  |  | 1.3 | listwanite | rusty red - dark brown oxidized (after pyrite) listwanite with mariposite and $15 \%$ quartz |  | < 0.03 | 4.5 | 643 |
|  | 27.8 | 28.6 |  |  | 0.8 | basalt | basalt feldspar porphyry dyke trending about 050 |  |  |  |  |
| 1690235 | 28.6 | 30 |  |  | 1.4 | listwanite | rusty red - dark brown oxidized (after pyrite) listwanite with mariposite and $15 \%$ quartz |  | 1.2 | 4.5 | 458 |
| 1690236 |  |  |  |  |  | CRD | coarse reject duplicate of 1690235 | 1390 |  | 4.3 | 455 |
| 1690237 | 28.6 | 30 |  |  | grab | quartz | grab of quartz from 1690235 | 79 |  | 4 | 252 |
| 1690238 | 30 | 31.2 |  |  | 1.2 | greenstone | carbonate altered greenstone? or orange weathering, less siliceous listwanite? similar chemistry to 1690241 (in between listwanite and greenstone) | 108 |  | 2.4 | 252 |
| 1690239 |  |  |  |  |  | blank | commercially available decorative stone | <5 |  | <0.2 | 5 |
| 1690240 | 34.7 | 35.2 |  |  | 0.5 | contact with phyllite | Mn stained patchy strongly silicified contact zone trending 305, with local white clay alteration; foliation trends 315/55NE |  | 0.35 | 3.4 | 186 |
| TR19-02 |  |  |  |  |  |  | deepen contact zone interval |  |  |  |  |
| 1690241 | 30 | 31.75 |  |  | 1.75 | greenstone | dark limonitic carbonate altered greenstone with quartz lenses | 806 |  | 4.8 | 282 |
| 1690242 | 31.75 | 32.75 |  |  | 1 | fault | rusty orange gougey zone with minor quartz, remnant pyrite |  | $<0.03$ | 1.1 | 334 |
| 1690243 | 32.75 | 33.75 |  |  | 1 | quartz | banded quartz at contact zone with phyllite 293/62NE, 280/ 70NE on W side |  | < 0.03 | 1.8 | 261 |
| 1690244 | 33.75 | 34.75 |  |  | 1 | fault in phyllite | buff to tan fault gouge with limonite fracture fillings, minor weathered out pyrite,as rusty blebs | 81 |  | 3 | 358 |
| TR19-02 | end |  | 531790 | 5921632 |  |  |  |  |  |  |  |
| Grabs |  |  |  |  |  |  |  |  |  |  |  |
| 1690245 | S creek bank |  | 531780 | 5921657 | grab | quartz | 10 cm rusty weathering quartz float near creek with $30 \%$ coarse pyrite as layers, to 3 cm wide, and seams |  | 8.44 | 7.1 | 719 |
| 1690246 | S creek bank |  | 531780 | 5921657 | grab | listwanite | mauve-grey intensely silicified limestone (?- Ca , low $\mathrm{Ni} \& \mathrm{Cr}$ ) float with seams of pyrite to 0.5 cm , |  | 5.24 | 4.5 | 530 |
| 1690247 | S creek bank |  | 531780 | 5921657 | grab | quartz | quartz vein float to 30 cm with minor ankerite blebs, $5 \%$ oxidized cubic pyrite |  | < 0.03 | 2.3 | 37 |
| 1690248 |  |  |  |  |  | CRD | coarse reject duplicate of 1690247 | 137 |  | 1.8 | 33 |


| SAMPLE | LOCATION (m) |  | NAD 83 Zone 10 |  | interval |  |  | Au | Au | Ag | As |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NUMBER | FROM | то | EASTING | NORTHING | (m) | Lithology | DESCRIPTION | ppb | ppm | ppm | ppm |
| 1690249 | start of TR1 |  | 531790 | 5921653 | grab | quartz | white quartz vein float to 50 cm from digging start of Tr19-01 with pyrite, cubic pyrite, VG observed in boulders but not put in sample |  | 16.5 | 54 | 8 |
| 1690250 | start of TR1 |  | 531790 | 5921653 | grab | quartz | white quartz vein float to 50 cm from digging start of Tr19-01 with pyrite, cubic pyrite, trace sphalerite \& chalcopyrite |  | 5.73 | 14.8 | 22 |
| S054843 | $\begin{gathered} \text { ore loading } \\ \text { deck } \end{gathered}$ |  | 531762 | 5921624 | grab | quartz | white quartz weak carbonate vein float with drusy fractures, $+/$ - limonite, $0.5 \%$ oxidized cubic pyrite to 5 mm , |  | < 0.03 | $<0.2$ | 10 |
| S054844 | S creek bank |  | 531759 | 5921643 | grab | listwanite | rusty to dark weathering, grey strongly silicified limestone (?- Ca, low Ni \& Cr) with a few cm ribboned quartz veins with $10 \%$ pyrite, Mn , limonite fracture fillings; |  | 2 | 4.7 | 2190 |
| S054845 | S creek bank |  | 531759 | 5921643 | grab | quartz | quartz |  | 0.1 | <0.2 | 28 |
| TR19-03 | Az 050 | 7 m | 531737 | 5921607 |  |  |  |  |  |  |  |
| S054846 | 2 | 3 |  |  | 1 | grab | grab from 2-3m of hard, grey moderate to strongly silicified phyllite black, cherty cross fractures and veinlets and $5 \%$ limonite blebs |  | < 0.03 | 0.4 | 123 |
| S054847 | 4.5 | 5 |  |  | 0.5 | phyllite | intense rusty brown banded zone with central 3 cm quartz lense along foliation, rusty blebs after pyrite |  | < 0.03 | 0.8 | 111 |
| S054848 | 6.5 | 7 |  |  | 0.5 | phyllite | tan to limonitic gouge in phyllite with 3\% oxidized pyrite cubes | 21 |  | 0.3 | 119 |
| S054849 | Pit 3 |  | 531776 | 5921622 | 1.4 | phyllite | orange-grey, moderately clay altered gougey phyllite; foliation 340/88E | 19 |  | 0.9 | 91 |
| S054850 | Pit 2 |  | 531546 | 5921390 |  | soil | medium orange-brown C horizon soil, sandy clay, sheared dark weathering, heavy, magnetic ultramafic? pieces in bottom; pit 1.5 by 2 m by 4.9 m deep | 24 |  | < 0.2 | 6 |
| TR19-01a | Az 205 | 0 to -4.8 | 531788 | 5921663 |  |  | TR19-01 extension |  |  |  |  |
| S054901 | 1.3 | 2.3 |  |  | 1.0 | listwanite | rusty brown weathering listwanite with 10\% oxidized pyrite |  | $<0.03$ | 2.9 | 320 |
| S054902 | 2.3 | 3.3 |  |  | 1.0 | listwanite | rusty brown weathering listwanite with $10 \%$ oxidized pyrite, minor mariposite, minor white quartz to 10 cm wide |  | 1.74 | 1.6 | 358 |
| S054903 | 3.3 | 3.8 |  |  | 0.5 | quartz | banded quartz vein zone with 5\% pyrite, rusty bands, along foliation 300/87E |  | < 0.03 | 1.3 | 203 |
| S054904 | 3.8 | 4.8 |  |  | 1.0 | phyllite | rusty orange-beige phyllite |  | < 0.03 | 1.1 | 143 |
| S054905 |  |  |  |  | grab | listwanite | grab of strongly silicified listwanite with mariposite, rusty bands and knots of oxidized pyrite |  | < 0.03 | 4.5 | 339 |
| S054906 | Pit 4 |  | 531731 | 5921594 | grab | quartz | 12 cm quartz vein with strong Mn , as lense along foliation in rusty clay gougey phyllite; foliation trends $150 / 77 \mathrm{~W}$ |  | < 0.03 | 14 | 20 |
| S054907 | Pit 4 |  | 531731 | 5921594 | 1 | phyllite | orange-grey clay gougey phyllite footwall, east side of S054906 | 90 |  | 5.9 | 109 |
| S054908 | Pit 6 |  | 531890 | 5921524 | grab | granodiorite? | quartz-biotite-weak sericite pods with minor pyrite | 6 |  | $<0.2$ | 7 |
| S054909 | Pit 6 |  | 531890 | 5921524 |  | soil | orange-brown colour clayey C horizon | 134 |  | 1.2 | 133 |
| S054910 | Pit 6 |  | 531890 | 5921524 |  | soil | red oxidized clayey C horizon | 38 |  | $<0.2$ | 6 |
| S054911 |  |  | 532107 | 5921534 |  | moss mat | moss mat from boulders in mid creek from creek draining northerly into Hixon Creek, 1 m wide, slow, orange carbonate rusty seep, good silt | 35 |  | $<0.2$ | 8 |
| S054912 | ore bin |  | 531763 | 5921587 | grab | listwanite | grey silicified limestone (?- Ca, low Ni \& Cr) with $15 \%$ coarse grained pyrite, lots cubic, crosscut by irregular quartz veinlets and veins to 3 cm (fine pyrite in quartz, some cubes), trace galena, sphalerite |  | 17.2 | 99.9 | 377 |
| S054913 | ore bin |  | 531763 | 5921587 | grab | quartz | quartz with $3 \%$ fresh \& oxidized cubic pyrite, and some pyrrhotite |  | < 0.03 | 5.3 | 64 |
| S054914 | Pit 8 |  | 531819 | 5921608 | grab | quartz | well fractured white quartz vein with Mn on fractures some pyrite and possible Mn smeared on quartz |  | 3.69 | 1 | 5 |
| S054915 | Pit 8 |  | 531819 | 5921608 | grab | quartz | quartz with red hematite as fracture fillings , Mn and sulphide wisps, minor oxidized cubic pyrite |  | 0.19 | 0.4 | 4 |
| S054916 | Pit 9 |  | 531818 | 5921612 | grab | PG seds | clay altered possibly younger PG sediments with Mn wisps, hematitic and limonitic layers | 20 |  | 0.8 | 9 |
| S054917 | Pit 10 |  | 531726 | 5921535 | grab | PG seds | narrow, hard red-brown Fe rich sandstone type layer with minor sericite, 330/35W bedding, but generally flatter | 35 |  | 0.4 | 55 |
| S054918 | Raven area |  | 531552 | 5921710 | grab | quartz | quartz weak carbonate vein grab from 30 cm float boulder with pyritic wisps and seams | 112 |  | 1.1 | 6 |
| S054919 | Raise area |  | 531701 | 5921709 | grab | quartz | white quartz vein with irregular fine sulphide stringers, minor oxidized cubic pyrite, some wallrock |  | < 0.03 | 0.3 | 10 |
| S054920 | Raise area |  | 531743 | 5921712 | grab | hornfels | dense, rusty, silicified, hematite-potassic altered hornfels? at contact, minor oxidized cubic pyrite |  | < 0.03 | 0.7 | 41 |
| S054921 | Raise area |  | 531743 | 5921712 | grab | quartz | quartz veins with smectite, oxidized cubic pyrite, fresh pyrite +/- cubic, pyrite wisps, altered listwanite clasts to 2 cm , some replaced by massive cubic pyrite with limonite and hematite |  | < 0.03 | 2.5 | 12 |

Page 3 of 7

| SAMPLE | LOCATION (m) |  | NAD 83 Zone 10 |  | interval |  |  | Au | Au | Ag | As |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NUMBER | FROM | то | EASTING | NORTHING | (m) | Lithology | DESCRIPTION | ppb | ppm | ppm | ppm |
| S054922 | above Clarke adit |  | 531744 | 5921716 | 0.08 | quartz | quartz vein trending 040/80E, minor oxidized cubic pyrite and pyrite wisps, originally a cross vein, locally along foliation |  |  | 1.9 | 12 |
| S054923 | above Clarke adit |  | 531742 | 5921708 | 0.7 | quartz | quartz vein along foliation trending 320/80E, in carbonate altered greenstone; cross vein, locally along foliation |  | < 0.03 | 1 | 32 |
| S054924 |  |  |  |  |  | blank | commercially available decorative stone | < 5 |  | <0.2 | 5 |
| S054925 | N zone |  | 531869 | 5922307 | grab | silicified | almost white, intensely silicified and pyritized with $7 \%$ fine disseminated, cubic and some coarser pyrite, and as fracture fillings, cut by few cm quartz-minor carbonate veinlets |  | 0.27 | 0.5 | 67 |
| S054926 | N zone |  | 531869 | 5922307 | grab | silicified | silicified with heavily pyritized clasts to 10 cm with $30-40 \%$ pyrite, many are cubes and oxidized, locally fine dark magnetite |  | 9.85 | 3 | 71 |
| S054927 | N zone |  | 531869 | 5922307 | grab | greenstone | orange weathering carbonate altered greenstone with $3 \%$ cubic pyrite, +/- oxidized |  | < 0.03 | 0.7 | 7 |
| S054928 | N zone |  | 531839 | 5922377 | grab | quartz | white quartz-carbonate vein float to 40 cm from old hand trench at North zone which returned $3.62 \mathrm{~g} / \mathrm{t} \mathrm{Au}$, with sulphide wisps and minor oxidized cubic pyrite |  | < 0.03 | 1 | 8 |
| S054929 | N zone |  | 531889 | 5922310 | grab | quartz | vuggy and drusy white quartz-carbonate vein float, $30-40 \mathrm{~cm}$ wide from below old hand trench at North zone which returned $3.62 \mathrm{~g} / \mathrm{t}$ Au, with sulphide wisps and minor oxidized cubic pyrite |  | < 0.03 | 0.8 | 8 |
| S054930 | N zone |  | 531888 | 5922317 | 1.5 | silicified greenstone | strongly silicified carbonate altered greenstone with pyrite cubes and few cm wide quartz-carbonate veins at $045 / 90$, perpendicular to foliation |  | 0.45 | 2.1 | 92 |
| S054931 | E zone at creek |  | 531794 | 5921705 | grab | quartz | $3-5 \mathrm{~cm}$ smoky quartz veins follow 043/83NW fracture then along foliation |  | 0.04 | <0.2 | 5 |
| S054932 | E zone at creek |  | 531782 | 5921713 | grab | greenstone | 15 cm pod along foliation (338/83W) of epidote-chlorite-quartz-feldspar with blebby magnetite in carbonate altered greenstone |  | < 0.03 | $<0.2$ | 4 |
| S054933 | below Koch adit |  | 531767 | 5921702 | grab | greenstone | two 2 cm quartz veins along foliation (303/60NE) in clay altered orange weathering greenstone?; antiform to west |  | 0.43 | 0.6 | 82 |
| S054934 | above Koch adit |  | 531746 | 5921712 | 0.7 | greenstone | orange weathering intense clay-carbonate altered greenstone with Mn and lesser limonite fracture fillings, ankerite, minor pyrite; hanging wall to west/above S054935 |  | < 0.03 | 0.3 | 60 |
| S054935 | above Koch adit |  | 531746 | 5921712 | 0.5 | greenstone | orange weathering intense clay-carbonate altered greenstone with Mn and lesser limonite fracture fillings, ankerite, minor pyrite; to east/below S054934 |  | < 0.03 | 1.5 | 27 |
| S054936 | above Koch adit |  | 531751 | 5921713 | 0.5 | qfp | strong clay-sericite altered and possibly silicified quartz feldspar porphyry? along foliation (310-320/steep E \& W) with $10 \%$ oxidized cubic pyrite, some pyrite stringers |  | < 0.03 | 1 | 170 |
| S054937 | above Koch adit |  | 531746 | 5921717 | 0.2 | greenstone | quartz-vuggy carbonate vein with minor oxidized cubic pyrite and surrounding claycarbonate altered greenstone? with minor pyrite cubes; 040/85E |  | < 0.03 | $<0.2$ | 87 |
| S054938 | Koch shaft |  | 531747 | 5921699 | grab | silicified | rusty weathering intensely silicified limestone or listwanite? with ribboned quartz and silicified patches with $2 \%$ cubic pyrite and fine disseminated cubic pyrite, as float from dump |  | 0.22 | 2.1 | 20 |
| S054939 | Koch shaft |  | 531747 | 5921699 | grab | quartz | chips across larger quartz boulders 50 by 50,60 by 40 and 50 by 60 cm , with limonite vugs and druses, some Mn fracture fillings, pyrite and other sulphide? wisps, trace arsenopyrite |  | < 0.03 | 0.4 | 7 |
| S054940 |  |  |  |  |  | blank | commercially available decorative stone | < 5 |  | <0.2 | 3 |
| S054941 | Pit 14 |  | 531572 | 5921682 | 1.05 | phyllite | orange-brown clayey phyllite with minor hard sections; sample line at 240 | 89 |  | 0.3 | 59 |
| S054942 |  |  |  |  | 0.4 | argillite | black graphitic argillaceous phyllite with calcite blebs generally few mm but up to 1 cm ; hard for 30 cm on east side then soft clayey; foliation $330 / 70 \mathrm{E}-90$; line at 240 | 28 |  | 15 | 6 |
| S054943 |  |  |  |  | 0.6 | phyllite | orange, hard phyllite with rusty limonite stringers at contact with black phyllite | 36 |  | 2.1 | 144 |
| S054944 |  |  |  |  | 1 | Fecrete | hard Mn-limonite cemented ferricrete; along foliation; line at 240 | 42 |  | 0.5 | 150 |
| S054945 |  |  |  |  | 0.6 | phyllite | pale grey to bit orange clayey phyllite, minor oxidized cubes after pyrite; line at 240 | 19 |  | $<0.2$ | 47 |
| S054946 |  |  |  |  | grab | Fecrete | reddish phyllite breccia to ferricrete, clasts of phyllite in Mn-Fe cement | 84 |  | $<0.2$ | 90 |
| TR19-04 | Az 120 | 20.2m | 531584 | 5921663 |  |  |  |  |  |  |  |
| S054961 | 0 | -0.5 |  |  | 0.5 | phyllite | hard, silicified? red-tan phyllite trend 080/80N, 070/87S with goethite knots trending 240/65N; similar to S054957, but less extensive alteration, fine $3-4 \mathrm{~mm}$ quartz bands along foliation | 25 |  | 0.2 | 69 |
| S054947 | 0 | 2 |  |  | 1.5 | phyllite | hard, silicified? red-tan phyllite trend 080/80N, 070/87S, 2nd half is along foliation at 327/70SW | 36 |  | 0.3 | 89 |
| S054948 | 2 | 2.5 |  |  | 0.3 | phyllite | as above but harder and more contorted | 23 |  | 0.9 | 126 |


| SAMPLE | LOCATION (m) |  | NAD 83 Zone 10 |  | interval <br> (m) | Lithology | DESCRIPTION | $\begin{aligned} & \hline \mathrm{Au} \\ & \hline \mathrm{ppb} \end{aligned}$ | $\begin{aligned} & \mathrm{Au} \\ & \hline \mathrm{ppm} \end{aligned}$ | $\frac{\mathrm{Ag}}{\mathrm{ppm}}$ | $\begin{array}{\|c\|} \hline \text { As } \\ \hline \text { ppm } \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NUMBER | FROM | то | EASTING | NORTHING |  |  |  |  |  |  |  |
| S054949 | 2.5 | 3.7 |  |  | 0.6 | phyllite | tan phyllite with strong brown goethite veinlets, fracture fillings, boxwork, silicified zones; grey, fine grained quartz veins and pods to 10 cm ; trend N/60W | 13 |  | 0.2 | 128 |
| S054950 | 3.7 | 7.3 |  |  | 0.8 | phyllite | mauve hematitic phyllite foliation in east half trending 310/80SW, west half $330 / 60 \mathrm{SW}$ | 36 |  | 0.4 | 103 |
| S054951 | 7.3 | 9 |  |  | 0.45 | phyllite | light orange, soft clay altered phyllite with dark brown bands of goethite and limonite along foliation (330/60SW) and as fracture fillings to 0.5 cm | 27 |  | 0.4 | 108 |
| S054952 | 9 | 9.5 |  |  | 0.35 | phyllite | hard, silicified phyllite? with dark brown goethite with quartz along foliation and quartz fragments |  | 0.08 | <0.2 | 383 |
| S054953 | 9.5 | 11 |  |  | 0.7 | phyllite | tan phyllite with dark brown goethite bands and fracture fillings with soft clay altered intervals |  | < 0.03 | <0.2 | 128 |
| S054954 | 11 | 12.5 |  |  | 0.8 | phyllite | orange weathering, some black Mn stained generally tan phyllite with some limonite, goethite crusts to 2 cm , hard siliceous sections, cross fractures at 356/72SW; folds plunging 50 at 268 ; foliation $330 / 55 \mathrm{NE}$ | 26 |  | $<0.2$ | 74 |
| S054955 | 12.5 | 15.2 |  |  | 1.4 | phyllite | tan phyllite, bit orange with limonite \& Mn fracture fillings along foliation but some crosscutting fractures and joints at 334/90, Mn staining along foliation at 304/90 on face of trench | 126 |  | 0.2 | 197 |
| S054956 | 15.2 | 17.7 |  |  | 1 | phyllite | tan to lesser pale greenish, bit orange phyllite, with lots small limonite \& Mn fracture fillings, some larger, kink bands, minor weak grey clay gouge zone along foliation at start; 304/65NE foliation | 142 |  | 0.6 | 84 |
| S054957 | 17.7 | 19 |  |  | 1.3 | phyllite | super hard, intensely deformed and kinked, Mn and limonite stained silicified? phyllite?; at corner in trench; foliation generally 285/50NE | 47 |  | 2.9 | 406 |
| S054958 | 19 | 20.2 |  |  | 1.2 | phyllite | softer phyllite with some hard lenses as in S054957 with foliation generally $305 / 45 \mathrm{NE}$, but twisted to 200/88NW | 57 |  | 1.8 | 185 |
| S054959 | 18.3 |  |  |  | grab |  | grab of harder, dense, heavy, more siliceous material from S054957; purplish hematite stained, highly foliated and kinked with lots Mn \& goethite fracture fillings |  | < 0.03 | 2.4 | 278 |
| S054960 |  |  |  |  |  | blank | commercially available decorative stone | < 5 |  | <0.2 | 4 |
| Pit 15 | Clark |  | 531736 | 5921690 |  |  | at contact | 25 |  | 0.2 | 69 |
| S054962 | Clark |  |  |  | 0.4 | listwanite? | listwanite or carbonate altered greenstone with mariposite in hanging wall of S054963 | 243 |  | 0.4 | 299 |
| S054963 | Clark |  |  |  | 0.37 | quartz | quartz vein trending 222/85NW, 37 cm wide but narrows in phyllite, moderate limonite \& Mn fracture fillings, some sulphide wisps, minor pyrite and arsenopyrite | 6000 |  | 10 | 45 |
| S054964 | Clark |  |  |  | 1 | phyllite | decomposed carbonate altered greenstone grading into phyllite in footwall | 436 |  | 1.6 | 316 |
| S054965 | Clark |  |  |  | grab | quartz | quartz with sulphide wisps, Mn and some limonite fracture fillings, minor ankerite pockets, especially along margins, minor black Mn stained quartz crystals in vugs |  | 0.11 | 1.1 | 39 |
| S054966 | Clark |  |  |  | 0.9 | contact | contact zone from carbonate altered greenstone to phyllite with bands of quartz; foliation ranges progressively from 347/40E in W to 347/60E to E |  | 0.57 | 0.6 | 233 |
| Pit 16 | no sample |  | 531696 | 5921663 |  | argillite | hard, competent black argillaceous phyllite with thin dolomitic bands and porphyroblasts; 1.5 by 1.5 by 2.4 m deep within start of the strongest part of IP Anomaly B |  |  |  |  |
| Pit 17 | no sample |  | 531692 | 5921662 | 0.5-1 | argillite, phyllite | hard, competent black argillaceous phyllite with thin dolomitic bands and porphyroblasts; 1.5 by 1.5 by 4 m deep within strongest part of IP Anomaly B, 10 m westerly from Pit 16 along road |  |  |  |  |
| S054967 | Pit 17 |  | 531692 | 5921662 | 0.3 | quartz | weakly orange rusty quartz vein with some crushed quartz and clayey phyllite and dark brown goethite grunge; along foliation at 327/70SW |  | < 0.03 | 0.2 | 67 |
| S054968 | Pit 17 |  | 531692 | 5921662 | 2 | phyllite | grey to pale green phyllite with limonite, Mn \& greenish clay (smectite) fracture fillings, commonly foliation parallel - folded from 327/70SW to 035 trend to E | 8 |  | 3.6 | 76 |
| TR19-05 | Az 206 to14.5m then 257 |  | 531718 | 5921723 |  |  | end of trench at 20 m |  |  |  |  |
| S054969 | 0 | face, S side |  |  | 1.1 | greenstone | orange weathering carbonate altered greenstone with few cm quartz veinlets, $2 \%$ oxidized cubic pyrite | 82 |  | 0.6 | 199 |
| S054970 | 0 | face, N side |  |  | 0.3 | phyllite | small slice of decomposed white phyllite? locally with irregular 3 cm quartz veinlets trending 020 to 030 , with $3 \%$ pyrite cubes, adjoining raise | 337 |  | 0.6 | 147 |
| S054971 | 0 | face, N side |  |  | 0.2 | quartz | 10 cm white quartz vein and rusty wallrock | 24 |  | 0.4 | 138 |
| S054972 | 12.5 |  | 531711 | 5921711 | 0.3 | quartz | quartz- weak carbonate vein along trench from $7 \mathrm{~m}(7 \mathrm{~cm}$ wide) to $14.3 \mathrm{~m}(30 \mathrm{~cm})$, locally with graphitic margins from 8.7 to 12.3 m , minor sulphide wisps | 13 |  | 0.2 | 29 |


| SAMPLE | LOCATION (m) |  | NAD 83 Zone 10 |  | interval <br> (m) | Lithology | DESCRIPTION | $\begin{gathered} \mathrm{Au} \\ \mathrm{ppb} \end{gathered}$ | $\begin{aligned} & \mathrm{Au} \\ & \mathrm{ppm} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \mathrm{Ag} \\ & \mathrm{ppm} \\ & \hline \end{aligned}$ | $\begin{array}{\|c\|} \hline \text { As } \\ \hline \text { ppm } \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NUMBER | FROM | то | EASTING | NORTHING |  |  |  |  |  |  |  |
| S054975 | 16 |  | 531705 | 5921709 | 1.8 | quartz | quartz- weak carbonate lense with red margins along trench from 13.2 m to 18 m , minor sulphide wisps; trend 208/steep NW |  | < 0.03 | 0.5 | 28 |
| S054976 | 16 |  |  |  | 0.8 | phyllite | soft, white to bit orange (limonitic) clay altered phyllite; footwall of S054975 | 103 |  | <0.2 | 111 |
| 5054977 | 16 |  |  |  | 0.8 | phyllite | soft, white clay altered phyllite; hanging wall of S054975 | 78 |  | 0.2 | 128 |
| S054978 | 13.3 | 14.8 | 531710 | 5921710 | 1.5 | greenstone | orange weathering carbonate altered greenstone at contact | 25 |  | <0.2 | 376 |
| TR19-06 | Az 040 to14.5m then 060 |  | 531691 | 5921726 |  |  | end of trench at 20.5m |  |  |  |  |
| S054973 | 3 | 4.5 | 531694 | 5921729 | 1.5 | contact | 80 cm of tan - white phyllite then 70 cm of rusty, carbonate altered greenstone with 23 cm quartz veins and fine ribboned veins |  | < 0.03 | 1.6 | 214 |
| S054974 | 2.4 |  | 531693 | 5921728 | 0.3 | quartz | dark Mn stained quartz pod |  | < 0.03 | 4.3 | 96 |
| S054979 | TR19-07 |  | 531687 | 5921740 | 1.3 | phyllite at contact | white phyllite with quartz-weak carbonate veins, commonly ribboned, very minor oxidized cubic pyrite and sulphide wisps; trend 335/NE |  | 0.29 | 0.8 | 78 |
| 5054980 | TR19-08 |  | 531543 | 5921712 | grab | quartz | goethite, limonite, Mn cemented quartz float |  | <0.03 | 0.2 | 170 |
| S054983 | TR19-08 | Az 330 | 531546 | 5921712 | 0.2 | quartz | 20 cm wide rusty zone with crushed quartz in limonite, goethite \& Mn cement trend about 080; another 1.5 m N with limonite-goethite \& Mn but no quartz (previous sample S 054980 above on surface; trench is 1.5 m wide by 1.5 m deep by 4 m long |  | < 0.03 | <0.2 | 117 |
| S054984 | Pit 18 |  | 531435 | 5921596 |  | quartz | quartz vein and brecciated quartz vein boulders to 30 cm and quartz zones through pit to 60 cm , graphitic margins, blebs of minor galena, in fault zone with red to orange oxidation; at 660 IP Anomaly |  | < 0.03 | 1.4 | 6 |
| TR19-09 | Az 105 to 12m then 117 |  | 531528 | 5921690 |  |  | end at 21 m at 531547E 5921680N |  |  |  |  |
| S054981 | 1.2 | 2.5 |  |  | 0.7 | quartz | broken up and lensey quartz with rusty and Mn stained sections with boxwork after pyrite |  | < 0.03 | 2.2 | 49 |
| S054982 | 2.5 | 2.7 |  |  | 0.3 | phyllite | silicified greenish-brown phyllite with rusty zones; foliation at 340/78NE; hanging wall of S054981 |  | 0.29 | 9.1 | 121 |
| S054985 | 5.7 | 7.3 |  |  | 0.7 | ferricrete | Mn and limonite cement with light coloured phyllite clasts, trend along foliation at 373/78NE |  | < 0.03 | 2.9 | 280 |
| S054986 | 7.3 | 8 |  |  | 0.7 | quartz | quartz vein zone with $2-5 \mathrm{~cm}$ veins along foliation at $373 / 73 \mathrm{NE}$, few perpendicular up to $10-15 \mathrm{~cm}$ wide in fault zone in phyllite near but west of contact, minor oxidized cubic pyrite, +/-graphitic, margins and ribbons, some grev quartz |  | < 0.03 | 3.4 | 62 |
| S054987 | 10.8 | 12 |  |  | 1 | phyllite | light coloured clay altered phyllite at contact with minor quartz veins and brecciated quartz in limonite-goethite cement with limonite-goethite fracture fillings and oxidized knots after pyrite |  | < 0.03 | 0.3 | 98 |
| S054988 | 12 | 12.4 |  |  | 0.25 | quartz | well broken quartz vein at contact with lots rusty fractures and banded limonitegoethite |  | < 0.03 | 0.2 | 77 |
| S054989 | 12.4 | 14 |  |  | 1.2 | greenstone | orange weathering carbonate altered greenstone with minor quartz veins at contact; brecciated quartz at east end | 23 |  | 0.4 | 107 |
| S054990 | 15.6 |  |  |  | 0.15 | quartz | white quartz, minor carbonate vein with limonite fracture fillings and vugs; trend 080/85-88N | 12 |  | 0.5 | 31 |
| S054991 | 15 | 16.7 |  |  | 1 | greenstone | combined 50 cm hanging wall and 50 cm footwall of orange weathering, rusty 7 Mn stained clay-carbonate altered greenstone with limonite \& Mn fracture fillings ; foliation at 330/70NE | 19 |  | 8.5 | 160 |
| S054889 | Koch adit |  |  |  | grab | gouge/quartz | goey fault gouge with quartz fragments, some limonitic; deeper level | 821 |  | 2.1 | 296 |
| S054890 | Koch adit |  | 531751 | 5921695 | grab | quartz | quartz-weak carbonate vein float from bucket, minor Mn, trace limonite fracture fillings, 020 trend?; deeper level |  | 0.34 | 17.9 | 12 |
| S054891 | Koch adit |  | 531751 | 5921695 | grab | quartz | high grade grab of tarnished pyrite with trace galena, malachite stain from quartz float from bucket; pyrite constitutes $35 \%$ of vein in places; deeper level |  | 45.9 | $\begin{gathered} \hline> \\ 100 \\ \hline \end{gathered}$ | 415 |
| S054892 | Koch adit |  | 531751 | 5921695 | 0.5 | greenstone | clay altered carbonate altered greenstone with limonite fracture fillings and veinlets to 0.5 cm , minor quartz to 2 cm ; footwall of S054893 |  | 1.94 | 1.3 | 286 |
| 5054893 | Koch adit |  | 531751 | 5921695 | 0.6 | quartz | 1.75 m wide quartz vein (wider to NE but could access only 0.6 m ) trending 225/75NW |  | 17.5 | 61.5 | 97 |
| S054894 | Koch adit |  | 531751 | 5921695 | 0.35 | greenstone | orange weathering decomposed carbonate altered greenstone or listwanite hanging wall with minor quartz veins at contact; brecciated quartz at east end |  | < 0.03 | 0.4 | 363 |
| S054895 | Koch adit |  | 531751 | 5921695 | grab | quartz | grab of quartz blocks to 40 by 70 cm from Koch vein with $10 \%$ pyrite, minor galena, malachite |  | < 0.03 | 6 | 27 |
| S054896 | Koch shaft |  | 531745 | 5921685 | grab | quartz | quartz-carbonate vein grab with lots of carbonate, some drusy and vuggy, quartzsulphide seams |  | < 0.03 | 0.5 | 30 |


| SAMPLE | LOCATION (m) |  | NAD 83 Zone 10 |  | interval |  |  | Au | Au | Ag | As |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NUMBER | FROM | то | EASTING | NORTHING | (m) | Lithology | DESCRIPTION | ppb | ppm | ppm | ppm |
| S054897 | Koch shaft |  | 531745 | 5921685 | grab | quartz | grab of banded quartz vein boulders in goey phyllite, appear to be foliation parallel, fine pyrite and gorthite knots after pyrite |  | < 0.03 | 0.2 | 57 |
| S054898 | Koch shaft |  | 531745 | 5921685 | grab | phyllite in fault | faulted clay altered, goey tan to light green to white phyllite with oxidized cubes and limonite stringers after pyrite | 26 |  | 0.2 | 160 |
| S054899 | Koch shaft |  | 531742 | 5921693 | grab | quartz | black, graphitic coated quartz-carbonate veins, Mn \& weak limonite-goethite fracture fillings, trace sulphide, minor sphalerite, carbonate vugs; 60 cm float | 27 |  | 3.6 | 16 |
| S054900 | Koch shaft |  |  |  |  | blank | commercially available decorative stone | <5 |  | <0.2 | 5 |

## Appendix III:

## Assay Certificates

Report No.:<br>Report Date:<br>Date Submitted:<br>Your Reference:<br>Golden Cariboo Resources<br>A19-14761<br>13-Nov-19<br>29-Oct-19<br>Quesnelle Gold Quartz Mine \#1

P.O. Box 48778 Stn. Bentall Center

Vancouver BC V7X 1A6

## Canada

## ATTN: Frank Callaghan

## CERTIFICATE OF ANALYSIS

75 Rock samples were submitted for analysis.

| The following analytical package(s) were requested: | Testing Date: |  |
| :--- | :--- | :--- |
| 1A2B-30-Kamloops | QOP AA-Au (Au-Fire Assay AA) | 2019-11-06 20:04:01 |
| 1A4 (100mesh)-Kamloops | QOP AA-Au (Au-Fire Assay-Metallic Screen-500g) | $2019-11-07$ 16:02:18 |
| 1E3-Kamloops | QOP AquaGeo (Aqua Regia ICPOES) | 2019-11-06 21:08:21 |
| Sieve Report-Kamloops Internal | Sieve Report Internal | $2019-11-12$ 15:00:35 |

## REPORT A19-14761

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

A representative 500 gram split is seived at 100 mesh ( 149 micron) with assays performed on the entire +100 mesh and 2 splits of the -100 mesh fraction. A final assay is calculated based on the weight of each fraction.
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

## ACTIVATION LABORATORIES LTD.

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Emmanuel Eseme, Ph.D Quality Control Coordinator

Results

| Analyte Symbol | Au | $\begin{array}{\|l} \mathrm{Au}+ \\ 100 \\ \text { mesh } \end{array}$ | $\begin{array}{\|l} \hline \mathrm{Au}- \\ 100 \\ \text { mesh } \\ \text { (A) } \\ \hline \end{array}$ | $\mathrm{Au}-$ <br> 100 <br> mesh <br> (B) | Total $\mathrm{Au}$ | $\begin{aligned} & +100 \\ & \text { mesh } \end{aligned}$ | $\begin{array}{\|l} -100 \\ \text { mesh } \end{array}$ | $\begin{aligned} & \text { Total } \\ & \text { Weight } \end{aligned}$ | Ag | Cd | Cu | Mn | Mo | Ni | Pb | Zn | AI | As | B | Ba | Be | Bi | Ca |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | $\mathrm{g} / \mathrm{mt}$ | $\mathrm{g} / \mathrm{mt}$ | $\mathrm{g} / \mathrm{mt}$ | g/mt | g | g | g | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | \% |
| Lower Limit | 5 | 0.03 | 0.03 | 0.03 | 0.03 |  |  |  | 0.2 | 0.5 | 1 | 5 | 1 | 1 | 2 | 2 | 0.01 | 2 | 10 | 10 | 0.5 | R | 0.01 |
| Method Code | FA-AA | FA-MeT | FA-MeT | FA-MeT | FA-MeT | FA-MeT | FA-MeT | FA-MeT | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| 1690201 | 44 |  |  |  |  |  |  |  | 1.7 | 5.2 | 115 | 1560 | 2 | 339 | 93 | 589 | 1.02 | 367 | $<10$ | 79 | $<0.5$ | $<2$ | 0.08 |
| 1690202 |  | <0.03 | <0.03 | <0.03 | <0.03 | 21.71 | 479.06 | 500.80 | 1.1 | <0.5 | 8 | 222 | 1 | 15 | 31 | 17 | 0.04 | 16 | <10 | 13 | <0.5 | <2 | 0.02 |
| 1690202a | 8 |  |  |  |  |  |  |  | 1.4 | <0.5 | 10 | 240 | <1 | 18 | 40 | 23 | 0.05 | 18 | <10 | 14 | < 0.5 | <2 | 0.02 |
| 1690203 | 9 |  |  |  |  |  |  |  | 1.9 | 4.4 | 67 | 2030 | 2 | 360 | 36 | 401 | 0.92 | 368 | <10 | 77 | $<0.5$ | $<2$ | 0.07 |
| 1690204 | 170 |  |  |  |  |  |  |  | 2.9 | 11.9 | 72 | 2680 | 1 | 1010 | 368 | 868 | 2.65 | 761 | <10 | 64 | < 0.5 | <2 | 0.21 |
| 1690205 |  | 9.44 | 0.20 | 0.23 | 0.44 | 11.02 | 444.67 | 455.69 | 4.2 | 0.6 | 4 | 160 | 9 | 50 | 54 | 59 | 0.16 | 53 | <10 | 13 | <0.5 | <2 | 0.02 |
| 1690206 | 330 |  |  |  |  |  |  |  | 3.8 | 12.4 | 28 | 1540 | <1 | 1180 | 451 | 946 | 3.24 | 926 | <10 | 27 | <0.5 | 3 | 0.28 |
| 1690207 | 107 |  |  |  |  |  |  |  | 8.9 | 4.0 | 16 | 1820 | 2 | 1040 | 36 | 167 | 2.76 | 628 | <10 | 49 | <0.5 | <2 | 0.17 |
| 1690208 |  | <0.03 | <0.03 | <0.03 | <0.03 | 46.62 | 405.67 | 452.29 | 5.7 | 8.9 | 46 | 1110 | <1 | 917 | 121 | 804 | 2.84 | 609 | <10 | 20 | <0.5 | <2 | 0.24 |
| 1690209 | 18 |  |  |  |  |  |  |  | 3.5 | <0.5 | 36 | 938 | <1 | 1200 | 18 | 73 | 4.35 | 290 | <10 | 23 | <0.5 | 3 | 0.12 |
| 1690210 |  | 0.08 | $<0.03$ | < 0.03 | < 0.03 | 26.16 | 287.85 | 314.01 | 3.1 | 1.6 | 29 | 995 | <1 | 876 | 322 | 262 | 2.86 | 498 | <10 | 33 | < 0.5 | $<2$ | 0.22 |
| 1690211 |  | <0.03 | <0.03 | <0.03 | <0.03 | 33.94 | 351.30 | 385.24 | 9.2 | 1.0 | 74 | 932 | <1 | 1130 | 4 | 64 | 4.18 | 204 | <10 | 28 | <0.5 | <2 | 0.66 |
| 1690212 | 373 |  |  |  |  |  |  |  | 5.6 | 2.6 | 94 | 1520 | 2 | 90 | 40 | 215 | 1.80 | 124 | < 10 | 76 | <0.5 | <2 | 0.33 |
| 1690213 | 198 |  |  |  |  |  |  |  | 5.9 | <0.5 | 9 | 143 | 1 | 9 | 5 | 13 | 0.15 | 16 | <10 | 17 | <0.5 | <2 | 0.06 |
| 1690214 | 484 |  |  |  |  |  |  |  | 1.6 | 1.7 | 85 | 1210 | 1 | 132 | 37 | 134 | 2.43 | 226 | <10 | 86 | 0.5 | $<2$ | 0.60 |
| 1690215 | 88 |  |  |  |  |  |  |  | 1.4 | 0.9 | 64 | 1180 | <1 | 133 | 36 | 115 | 2.37 | 94 | <10 | 98 | <0.5 | 4 | 0.48 |
| 1690216 | 410 |  |  |  |  |  |  |  | 1.5 | 1.0 | 41 | 981 | 4 | 88 | 40 | 86 | 1.63 | 92 | <10 | 79 | <0.5 | 3 | 0.43 |
| 1690217 |  | 25.9 | 3.15 | 3.07 | 4.95 | 21.66 | 247.27 | 268.93 | 9.4 | 2.1 | 68 | 1210 | <1 | 115 | 207 | 164 | 2.02 | 225 | $<10$ | 96 | $<0.5$ | $<2$ | 0.55 |
| 1690217a | 5810 |  |  |  |  |  |  |  | 3.0 | 2.1 | 68 | 1200 | 1 | 116 | 208 | 164 | 2.04 | 221 | <10 | 93 | <0.5 | <2 | 0.57 |
| 1690218 |  | 16.1 | 16.3 | 16.2 | 16.2 | 36.47 | 343.88 | 380.35 | 10.1 | 10.1 | 72 | 823 | 6 | 102 | 404 | 675 | 0.36 | 1980 | < 10 | 41 | <0.5 | 13 | 0.18 |
| 1690218a | 6 |  |  |  |  |  |  |  | <0.2 | <0.5 | 11 | 159 | 2 | 7 | 4 | 8 | 0.33 | 11 | <10 | 174 | <0.5 | <2 | 6.00 |
| 1690219 | 24 |  |  |  |  |  |  |  | 0.7 | 0.6 | 92 | 777 | <1 | 47 | 3 | 102 | 4.28 | 4 | <10 | 867 | 0.7 | <2 | 1.42 |
| 1690220 | 24 |  |  |  |  |  |  |  | 0.8 | 4.4 | 102 | 716 | <1 | 48 | 83 | 318 | 1.45 | 117 | <10 | 46 | <0.5 | 2 | 0.37 |
| 1690221 |  | 158 | 1.11 | 1.01 | 6.96 | 13.93 | 356.77 | 370.70 | 1.7 | 1.0 | 30 | 276 | - 1 | 12 | 24 | 143 | 0.56 | 51 | <10 | 31 | <0.5 | $<2$ | 0.10 |
| 1690222 | 415 |  |  |  |  |  |  |  | 1.6 | 4.1 | 124 | 941 | <1 | 48 | 50 | 451 | 2.01 | 188 | <10 | 79 | < 0.5 | <2 | 0.44 |
| 1690223 | 357 |  |  |  |  |  |  |  | 2.8 | 3.1 | 89 | 1560 | <1 | 51 | 32 | 331 | 2.41 | 139 | <10 | 124 | <0.5 | <2 | 0.50 |
| 1690224 |  | 1.91 | 1.96 | 1.90 | 1.93 | 27.69 | 415.04 | 442.73 | 2.9 | 0.5 | 8 | 578 | 6 | 10 | 47 | 29 | 0.17 | 51 | <10 | 66 | <0.5 | <2 | 0.04 |
| 1690225 | 5 |  |  |  |  |  |  |  | <0.2 | <0.5 | 6 | 218 | <1 | 7 | <2 | 11 | 0.57 | 4 | <10 | 92 | <0.5 | <2 | 4.30 |
| 1690226 | 4410 |  |  |  |  |  |  |  | 2.9 | 3.6 | 127 | 1940 | 1 | 59 | 15 | 180 | 1.10 | 129 | <10 | 107 | $<0.5$ | 4 | 0.40 |
| 1690227 |  | 41.4 | 3.31 | 3.14 | 7.65 | 41.25 | 314.86 | 356.11 | 5.3 | 2.0 | 66 | 1240 | <1 | 70 | 554 | 415 | 1.68 | 250 | <10 | 92 | < 0.5 | $<2$ | 0.42 |
| 1690228 | 2010 |  |  |  |  |  |  |  | 6.4 | 2.2 | 72 | 1230 | <1 | 75 | 585 | 430 | 1.73 | 280 | <10 | 92 | <0.5 | <2 | 0.44 |
| 1690229 |  | <0.03 | 0.20 | 0.23 | 0.20 | 18.27 | 370.67 | 388.90 | 2.4 | 1.7 | 79 | 1700 | 1 | 89 | 8 | 130 | 1.68 | 141 | < 10 | 109 | < 0.5 | <2 | 0.43 |
| 1690230 | 398 |  |  |  |  |  |  |  | 2.2 | 0.9 | 64 | 1290 | <1 | 103 | 19 | 110 | 2.22 | 92 | <10 | 102 | < 0.5 | <2 | 0.47 |
| 1690231 | 588 |  |  |  |  |  |  |  | 2.0 | 0.9 | 48 | 903 | 4 | 43 | 12 | 83 | 1.10 | 93 | <10 | 82 | <0.5 | $<2$ | 0.24 |
| 1690232 | 26 |  |  |  |  |  |  |  | 3.0 | $<0.5$ | 21 | 542 | 1 | 25 | 129 | 114 | 1.69 | 31 | <10 | 43 | <0.5 | <2 | 0.19 |
| 1690233 | 89 |  |  |  |  |  |  |  | 3.8 | 3.4 | 171 | 1670 | 2 | 152 | 28 | 229 | 1.23 | 241 | <10 | 112 | 0.6 | <2 | 0.29 |
| 1690234 |  | <0.03 | <0.03 | <0.03 | <0.03 | 27.78 | 438.83 | 466.61 | 4.5 | 5.2 | 40 | 2910 | 2 | 752 | 150 | 401 | 2.39 | 643 | <10 | 133 | 1.1 | <2 | 0.23 |
| 1690235 |  | 0.52 | 1.33 | 1.15 | 1.20 | 24.85 | 396.09 | 420.94 | 4.5 | 3.7 | 40 | 2050 | 2 | 534 | 451 | 427 | 2.11 | 458 | < 10 | 68 | < 0.5 | <2 | 0.23 |
| 1690236 | 1390 |  |  |  |  |  |  |  | 4.3 | 3.6 | 39 | 2040 | 2 | 517 | 451 | 422 | 2.04 | 455 | <10 | 69 | <0.5 | <2 | 0.22 |
| 1690237 | 79 |  |  |  |  |  |  |  | 4.0 | 1.6 | 16 | 1070 | 1 | 237 | 59 | 105 | 0.59 | 252 | <10 | 48 | $<0.5$ | <2 | 0.06 |
| 1690238 | 108 |  |  |  |  |  |  |  | 2.4 | 2.6 | 84 | 2000 | <1 | 258 | 829 | 574 | 2.56 | 252 | <10 | 62 | < 0.5 | <2 | 0.33 |
| 1690239 | < 5 |  |  |  |  |  |  |  | <0.2 | < 0.5 | 6 | 1260 | <1 | 15 | 4 | 23 | 0.77 | 5 | < 10 | 190 | < 0.5 | 6 | 4.84 |
| 1690240 |  | 0.14 | 0.36 | 0.36 | 0.35 | 13.96 | 316.38 | 330.34 | 3.4 | 2.3 | 69 | 1730 | 2 | 127 | 7 | 168 | 0.54 | 186 | <10 | 173 | <0.5 | 4 | 0.03 |
| 1690241 | 806 |  |  |  |  |  |  |  | 4.8 | 2.8 | 83 | 2090 | 3 | 217 | 483 | 372 | 1.59 | 282 | <10 | 92 | <0.5 | <2 | 0.17 |
| 1690242 |  | <0.03 | <0.03 | <0.03 | <0.03 | 20.95 | 281.06 | 302.01 | 1.1 | 3.1 | 92 | 473 | 2 | 330 | 20 | 326 | 1.42 | 334 | <10 | 44 | <0.5 | <2 | 0.14 |
| 1690243 |  | <0.03 | <0.03 | <0.03 | <0.03 | 23.61 | 349.51 | 373.12 | 1.8 | 2.5 | 73 | 510 | 5 | 141 | 16 | 291 | 0.74 | 261 | <10 | 71 | <0.5 | <2 | 0.07 |
| 1690244 | 81 |  |  |  |  |  |  |  | 3.0 | 4.2 | 123 | 1100 | 9 | 179 | 65 | 669 | 1.11 | 358 | <10 | 200 | 0.5 | 2 | 0.09 |
| 1690245 |  | 7.35 | 8.75 | 8.28 | 8.44 | 23.00 | 320.91 | 343.91 | 7.1 | <0.5 | 9 | 415 | 2 | 30 | 135 | 16 | 0.14 | 719 | < 10 | 14 | < 0.5 | 3 | 1.66 |
| 1690246 |  | 3.72 | 5.32 | 5.39 | 5.24 | 29.59 | 372.44 | 402.03 | 4.5 | <0.5 | 35 | 1100 | <1 | 34 | 81 | 24 | 0.53 | 530 | <10 | 26 | <0.5 | <2 | 3.51 |

Results
Activation Laboratories Ltd.

| Analyte Symbol | Au | $\begin{aligned} & \mathrm{Au}+ \\ & 100 \\ & \text { mesh } \end{aligned}$ | $\begin{aligned} & \text { Au- } \\ & 100 \\ & \text { mesh } \\ & \text { (A) } \end{aligned}$ | $\begin{array}{\|l} \hline \mathrm{Au}- \\ 100 \\ \text { mesh } \\ (\mathrm{B}) \\ \hline \end{array}$ | Total $\mathrm{Au}$ | $\begin{aligned} & +100 \\ & \text { mesh } \end{aligned}$ | $\begin{aligned} & -100 \\ & \text { mesh } \end{aligned}$ | Total Weight | Ag | Cd | Cu | Mn | Mo | Ni | Pb | Zn | AI | As | B | Ba | Be | Bi | Ca |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | $\mathrm{g} / \mathrm{mt}$ | $\mathrm{g} / \mathrm{mt}$ | $\mathrm{g} / \mathrm{mt}$ | $\mathrm{g} / \mathrm{mt}$ | 9 | g | $g$ | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | \% |
| Lower Limit | 5 | 0.03 | 0.03 | 0.03 | 0.03 |  |  |  | 0.2 | 0.5 | 1 | 5 | 1 | 1 | 2 | 2 | 0.01 | 2 | 10 | 10 | 0.5 | 2 | 0.01 |
| Method Code | FA-AA | FA-MeT | FA-MeT | FA-MeT | FA-MeT | FA-MeT | FA-MeT | FA-MeT | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| 1690247 | 137 | 0.17 | <0.03 | <0.03 | <0.03 | 18.11 | 330.59 | 348.70 | 2.3 | $<0.5$ | 5 | 131 | 11 | 6 | 52 | 50 | 0.07 | 37 | $<10$ | 15 | $<0.5$ | <2 | 0.09 |
| 1690248 |  |  |  |  |  |  |  |  | 1.8 | <0.5 | 5 | 134 | 11 | 6 | 51 | 47 | 0.06 | 33 | <10 | 13 | <0.5 | <2 | 0.09 |
| 1690249 |  | 45.8 | 14.2 | 11.9 | 16.5 | 36.69 | 311.40 | 348.09 | 54.0 | <0.5 | 18 | 108 | 4 | 7 | 53 | 44 | 0.01 | 8 | <10 | 12 | $<0.5$ | <2 | 0.06 |
| 1690250 |  | 73.7 | 2.92 | 2.50 | 5.73 | 15.57 | 350.34 | 365.91 | 14.8 | 0.9 | 141 | 158 | 8 | 15 | 79 | 114 | 0.03 | 22 | < 10 | 11 | $<0.5$ | <2 | 0.14 |
| S054843 |  | <0.03 | <0.03 | <0.03 | <0.03 | 19.05 | 417.52 | 436.57 | <0.2 | <0.5 | 1 | 103 | <1 | 5 | 4 | <2 | 0.01 | 10 | <10 | 13 | $<0.5$ | <2 | < 0.01 |
| S054844 |  | 2.82 | 2.06 | 1.85 | 2.00 | 22.69 | 427.21 | 449.90 | 4.7 | 4.8 | 172 | 1430 | <1 | 47 | 262 | 296 | 0.76 | 2190 | <10 | 25 | $<0.5$ | <2 | 5.55 |
| S054845 |  | $<0.03$ | 0.10 | 0.13 | 0.10 | 33.42 | 326.27 | 359.69 | <0.2 | < 0.5 | 5 | 731 | <1 | 12 | 2 | 31 | 0.18 | 28 | $<10$ | 21 | <0.5 | <2 | 3.03 |
| S054846 |  | <0.03 | <0.03 | <0.03 | <0.03 | 15.16 | 295.30 | 310.46 | 0.4 | 2.7 | 154 | 297 | 15 | 114 | 17 | 456 | 0.74 | 123 | < 10 | 50 | 1.2 | <2 | 0.04 |
| S054847 |  | <0.03 | <0.03 | <0.03 | <0.03 | 18.07 | 202.39 | 220.46 | 0.8 | 1.8 | 104 | 307 | 11 | 116 | 17 | 267 | 0.56 | 111 | < 10 | 47 | 1.1 | 4 | 0.03 |
| S054848 | 21 |  |  |  |  |  |  |  | 0.3 | 2.0 | 117 | 185 | 23 | 76 | 16 | 450 | 1.02 | 119 | <10 | 53 | 0.8 | 2 | 0.05 |
| S054849 | 19 |  |  |  |  |  |  |  | 0.9 | 1.5 | 93 | 130 | 11 | 92 | 23 | 303 | 0.66 | 91 | <10 | 84 | 0.5 | <2 | 0.04 |
| S054901 |  | <0.03 | <0.03 | 0.03 | < 0.03 | 38.12 | 355.18 | 393.30 | 2.9 | 4.3 | 128 | 2640 | 2 | 381 | 464 | 499 | 1.15 | 320 | < 10 | 112 | <0.5 | <2 | 0.07 |
| S054902 |  | 7.26 | 1.21 | 1.28 | 1.74 | 27.43 | 305.32 | 332.75 | 1.6 | 3.4 | 156 | 1350 | 2 | 323 | 219 | 373 | 0.70 | 358 | <10 | 99 | $<0.5$ | <2 | 0.04 |
| S054903 |  | $<0.03$ | <0.03 | $<0.03$ | <0.03 | 18.26 | 520.86 | 539.12 | 1.3 | 1.9 | 125 | 162 | 18 | 113 | 53 | 400 | 0.54 | 203 | <10 | 76 | $<0.5$ | <2 | 0.03 |
| S054904 |  | <0.03 | <0.03 | <0.03 | <0.03 | 29.37 | 365.28 | 394.60 | 1.1 | 1.4 | 111 | 142 | 10 | 91 | 64 | 327 | 0.64 | 143 | <10 | 84 | $<0.5$ | <2 | 0.03 |
| S054905 |  | $<0.03$ | <0.03 | <0.03 | <0.03 | 36.61 | 389.25 | 425.86 | 4.5 | 3.2 | 716 | 334 | 4 | 184 | 11 | 241 | 0.45 | 339 | <10 | 23 | < 0.5 | 3 | 0.07 |
| S054906 |  | <0.03 | <0.03 | <0.03 | <0.03 | 22.39 | 313.91 | 336.30 | 14.0 | 3.5 | 106 | 9290 | 14 | 46 | 17 | 80 | 0.35 | 20 | <10 | 703 | < 0.5 | <2 | 0.02 |
| S054907 | 90 |  |  |  |  |  |  |  | 5.9 | 3.0 | 175 | 3880 | 10 | 76 | 17 | 187 | 1.22 | 109 | <10 | 421 | 1.1 | <2 | 0.05 |
| S054908 | 6 |  |  |  |  |  |  |  | <0.2 | <0.5 | 27 | 546 | 1 | 29 | 4 | 51 | 1.96 | 7 | <10 | 123 | <0.5 | <2 | 0.99 |
| S054912 |  | 17.6 | 16.6 | 17.9 | 17.2 | 37.84 | 383.87 | 421.71 | 99.9 | 8.9 | 286 | 744 | 2 | 36 | 396 | 473 | 0.34 | 377 | <10 | 27 | $<0.5$ | <2 | 3.43 |
| S054913 |  | <0.03 | <0.03 | <0.03 | <0.03 | 21.05 | 381.04 | 402.09 | 5.3 | 0.5 | 2 | 127 | <1 | 5 | 27 | 30 | 0.11 | 64 | <10 | 15 | $<0.5$ | <2 | 0.04 |
| S054914 |  | 49.4 | 1.26 | 1.38 | 3.69 | 18.13 | 349.96 | 368.09 | 1.0 | <0.5 | 41 | 1710 | 7 | 53 | 3 | 17 | 0.23 | 5 | <10 | 76 | <0.5 | <2 | 0.02 |
| S054915 |  | 4.39 | 0.03 | <0.03 | 0.19 | 16.42 | 406.33 | 422.75 | 0.4 | $<0.5$ | 12 | 120 | 12 | 8 | 2 | 4 | 0.08 | 4 | < 10 | 20 | < 0.5 | <2 | < 0.01 |
| S054916 | 20 |  |  |  |  |  |  |  | 0.8 | <0.5 | 100 | 3780 | <1 | 163 | 3 | 68 | 3.03 | 9 | <10 | 275 | 1.4 | 2 | 0.10 |
| S054917 | 35 |  |  |  |  |  |  |  | 0.4 | 5.0 | 67 | 2600 | 7 | 119 | 15 | 512 | 1.27 | 55 | <10 | 433 | 4.9 | 5 | 0.05 |
| S054918 | 112 |  |  |  |  |  |  |  | 1.1 | <0.5 | 5 | 134 | 8 | 9 | <2 | 7 | 0.10 | 6 | <10 | 18 | <0.5 | <2 | <0.01 |


| Analyte Symbol | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr | Ti | Th | Te | TI | U | V | W | Y | Zr |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | \% | ppm | ppm | \% | ppm | \% | \% | \% | \% | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 | 0.01 | 20 | 1 | 2 | 10 | 1 | 10 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| 1690201 | 56 | 159 | 8.41 | <10 | <1 | 0.20 | $<10$ | 0.12 | 0.049 | 0.083 | $<0.01$ | 7 | 20 | 11 | < 0.01 | <20 | 2 | <2 | $<10$ | 50 | $<10$ | 11 | 3 |
| 1690202 | 1 | 274 | 1.17 | <10 | <1 | < 0.01 | <10 | < 0.01 | 0.018 | 0.003 | <0.01 | 3 | <1 | 1 | < 0.01 | <20 | 3 | <2 | <10 | 3 | <10 | <1 | <1 |
| 1690202a | 2 | 344 | 1.08 | <10 | <1 | <0.01 | <10 | 0.01 | 0.020 | 0.003 | <0.01 | 3 | <1 | 1 | < 0.01 | <20 | <1 | <2 | <10 | 4 | <10 | <1 | <1 |
| 1690203 | 61 | 71 | 9.27 | < 10 | <1 | 0.12 | <10 | 0.10 | 0.064 | 0.079 | $<0.01$ | 7 | 23 | 12 | < 0.01 | <20 | <1 | <2 | < 10 | 55 | < 10 | 11 | 3 |
| 1690204 | 91 | 1070 | 8.86 | <10 | <1 | 0.09 | <10 | 2.63 | 0.027 | 0.056 | <0.01 | 11 | 18 | 16 | 0.02 | <20 | <1 | <2 | <10 | 92 | <10 | 9 | 3 |
| 1690205 | 6 | 140 | 1.09 | <10 | <1 | 0.01 | <10 | 0.12 | 0.018 | 0.004 | <0.01 | 3 | 1 | 2 | < 0.01 | <20 | 1 | <2 | <10 | 8 | <10 | <1 | <1 |
| 1690206 | 86 | 1350 | 8.92 | < 10 | <1 | 0.05 | <10 | 3.80 | 0.020 | 0.046 | <0.01 | 14 | 17 | 16 | < 0.01 | <20 | <1 | <2 | <10 | 105 | <10 | 10 | 2 |
| 1690207 | 82 | 1280 | 8.17 | < 10 | <1 | 0.05 | <10 | 3.84 | 0.023 | 0.043 | $<0.01$ | 12 | 16 | 12 | < 0.01 | <20 | 3 | <2 | < 10 | 95 | < 10 | 9 | 2 |
| 1690208 | 70 | 1290 | 7.20 | < 10 | <1 | 0.03 | <10 | 3.63 | 0.020 | 0.044 | <0.01 | 11 | 15 | 14 | < 0.01 | <20 | <1 | <2 | < 10 | 87 | < 10 | 7 | 2 |
| 1690209 | 78 | 1900 | 8.10 | <10 | <1 | 0.01 | <10 | 6.88 | 0.018 | 0.041 | $<0.01$ | 11 | 16 | 7 | < 0.01 | <20 | <1 | <2 | <10 | 117 | <10 | 6 | 2 |
| 1690210 | 65 | 1250 | 7.02 | < 10 | <1 | 0.05 | <10 | 3.93 | 0.022 | 0.040 | $<0.01$ | 11 | 14 | 11 | 0.06 | <20 | <1 | <2 | < 10 | 95 | $<10$ | 8 | 3 |
| 1690211 | 72 | 1860 | 7.68 | <10 | 5 | <0.01 | <10 | 7.09 | 0.017 | 0.036 | <0.01 | 12 | 15 | 18 | < 0.01 | <20 | <1 | <2 | < 10 | 113 | < 10 | 6 | 2 |
| 1690212 | 34 | 135 | 8.16 | <10 | <1 | 0.08 | <10 | 0.31 | 0.083 | 0.116 | <0.01 | 6 | 22 | 27 | < 0.01 | <20 | <1 | <2 | <10 | 83 | <10 | 8 | 3 |
| 1690213 | 3 | 117 | 1.23 | < 10 | <1 | 0.02 | <10 | 0.02 | 0.029 | 0.024 | <0.01 | <2 | 1 | 4 | < 0.01 | <20 | <1 | <2 | <10 | 9 | < 10 | < 1 | <1 |
| 1690214 | 36 | 85 | 8.35 | < 10 | <1 | 0.21 | <10 | 0.51 | 0.033 | 0.180 | <0.01 | 8 | 17 | 35 | < 0.01 | <20 | <1 | <2 | <10 | 80 | < 10 | 10 | 3 |
| 1690215 | 23 | 94 | 5.17 | <10 | <1 | 0.23 | <10 | 0.40 | 0.040 | 0.128 | <0.01 | 5 | 10 | 31 | <0.01 | <20 | 2 | <2 | <10 | 50 | <10 | 5 | 3 |
| 1690216 | 20 | 82 | 4.80 | <10 | <1 | 0.20 | <10 | 0.41 | 0.050 | 0.114 | $<0.01$ | 3 | 9 | 27 | < 0.01 | <20 | <1 | <2 | <10 | 71 | <10 | 4 | 3 |
| 1690217 | 30 | 82 | 8.28 | < 10 | <1 | 0.25 | <10 | 0.59 | 0.048 | 0.156 | <0.01 | 7 | 12 | 37 | < 0.01 | <20 | 2 | <2 | <10 | 148 | < 10 | 7 | 4 |
| 1690217a | 30 | 84 | 8.31 | < 10 | <1 | 0.24 | <10 | 0.60 | 0.049 | 0.158 | <0.01 | 7 | 12 | 37 | < 0.01 | <20 | 5 | <2 | <10 | 146 | <10 | 7 | 4 |
| 1690218 | 29 | 214 | > 30.0 | < 10 | 1 | 0.04 | $<10$ | 0.19 | 0.016 | 0.186 | 0.01 | 23 | 4 | 25 | < 0.01 | <20 | < 1 | <2 | < 10 | 841 | < 10 | 11 | 9 |
| 1690218a | 3 | 26 | 0.94 | <10 | <1 | 0.09 | <10 | 1.09 | 0.044 | 0.026 | 0.05 | 2 | <1 | 41 | 0.03 | <20 | 7 | <2 | <10 | 13 | <10 | 6 | 6 |
| 1690219 | 25 | 155 | 6.80 | <10 | <1 | 0.58 | 39 | 2.45 | 0.074 | 0.331 | 0.02 | 6 | 22 | 145 | 0.22 | <20 | <1 | <2 | <10 | 141 | <10 | 15 | 3 |
| 1690220 | 40 | 25 | 11.0 | <10 | 3 | 0.10 | <10 | 0.23 | 0.101 | 0.152 | $<0.01$ | 5 | 27 | 24 | <0.01 | <20 | 2 | <2 | <10 | 111 | <10 | 15 | 5 |
| 1690221 | 10 | 90 | 2.79 | < 10 | <1 | 0.06 | <10 | 0.10 | 0.027 | 0.031 | <0.01 | 3 | 5 | 7 | < 0.01 | <20 | <1 | <2 | <10 | 30 | <10 | 3 | 3 |
| 1690222 | 44 | 42 | 10.1 | <10 | <1 | 0.22 | <10 | 0.53 | 0.052 | 0.147 | <0.01 | 5 | 24 | 26 | < 0.01 | <20 | <1 | <2 | <10 | 130 | <10 | 14 | 3 |
| 1690223 | 32 | 89 | 8.79 | < 10 | <1 | 0.22 | <10 | 0.70 | 0.052 | 0.116 | <0.01 | 6 | 21 | 35 | < 0.01 | <20 | 1 | <2 | <10 | 130 | < 10 | 8 | 3 |
| 1690224 | 8 | 72 | 2.13 | < 10 | <1 | 0.04 | <10 | 0.03 | 0.022 | 0.015 | <0.01 | <2 | 2 | 4 | <0.01 | <20 | 3 | <2 | <10 | 22 | <10 | 1 | <1 |
| 1690225 | 3 | 66 | 1.48 | <10 | 2 | 0.15 | 11 | 1.81 | 0.070 | 0.025 | <0.01 | 3 | 1 | 32 | 0.04 | <20 | <1 | <2 | <10 | 15 | <10 | 3 | 4 |
| 1690226 | 44 | 24 | 10.1 | $<10$ | 2 | 0.19 | <10 | 0.21 | 0.057 | 0.179 | <0.01 | 7 | 22 | 26 | < 0.01 | <20 | 6 | <2 | < 10 | 97 | < 10 | 10 | 4 |
| 1690227 | 23 | 102 | 6.78 | < 10 | <1 | 0.19 | <10 | 0.40 | 0.046 | 0.112 | $<0.01$ | 6 | 14 | 28 | < 0.01 | <20 | 5 | <2 | < 10 | 86 | <10 | 6 | 4 |
| 1690228 | 25 | 104 | 7.32 | <10 | 1 | 0.17 | <10 | 0.43 | 0.045 | 0.110 | <0.01 | 7 | 14 | 27 | < 0.01 | <20 | 3 | <2 | <10 | 89 | <10 | 6 | 4 |
| 1690229 | 38 | 43 | 8.57 | <10 | <1 | 0.12 | <10 | 0.33 | 0.089 | 0.129 | <0.01 | 5 | 21 | 28 | < 0.01 | <20 | <1 | <2 | <10 | 79 | <10 | 8 | 3 |
| 1690230 | 27 | 92 | 6.81 | <10 | <1 | 0.12 | <10 | 0.53 | 0.096 | 0.108 | <0.01 | 5 | 17 | 31 | < 0.01 | <20 | 7 | <2 | <10 | 64 | <10 | 5 | 4 |
| 1690231 | 25 | 56 | 6.33 | < 10 | < 1 | 0.09 | <10 | 0.18 | 0.064 | 0.075 | <0.01 | 3 | 12 | 17 | <0.01 | <20 | 4 | <2 | < 10 | 60 | <10 | 5 | 3 |
| 1690232 | 7 | 41 | 2.01 | <10 | <1 | 0.03 | <10 | 0.19 | 0.066 | 0.029 | <0.01 | 3 | 3 | 14 | $<0.01$ | <20 | <1 | <2 | <10 | 19 | <10 | 2 | 6 |
| 1690233 | 40 | 70 | 9.60 | < 10 | 1 | 0.12 | <10 | 0.18 | 0.080 | 0.158 | $<0.01$ | 7 | 23 | 19 | < 0.01 | <20 | <1 | <2 | < 10 | 106 | $<10$ | 11 | 4 |
| 1690234 | 93 | 783 | 7.51 | < 10 | <1 | 0.13 | <10 | 1.44 | 0.025 | 0.060 | $<0.01$ | 10 | 18 | 18 | < 0.01 | <20 | <1 | <2 | < 10 | 123 | < 10 | 10 | 3 |
| 1690235 | 60 | 598 | 6.32 | < 10 | <1 | 0.07 | <10 | 1.12 | 0.037 | 0.043 | <0.01 | 8 | 15 | 15 | < 0.01 | <20 | 4 | 2 | < 10 | 89 | < 10 | 8 | 3 |
| 1690236 | 59 | 579 | 6.26 | <10 | <1 | 0.07 | <10 | 1.11 | 0.035 | 0.044 | <0.01 | 7 | 15 | 15 | < 0.01 | <20 | 5 | <2 | <10 | 88 | <10 | 8 | 2 |
| 1690237 | 32 | 310 | 2.84 | < 10 | <1 | 0.07 | <10 | 0.32 | 0.024 | 0.016 | $<0.01$ | 5 | 6 | 5 | < 0.01 | <20 | < 1 | <2 | < 10 | 46 | < 10 | 4 | < 1 |
| 1690238 | 48 | 246 | 7.72 | <10 | 1 | 0.16 | <10 | 0.61 | 0.042 | 0.086 | <0.01 | 6 | 21 | 22 | <0.01 | <20 | <1 | <2 | <10 | 74 | <10 | 11 | 3 |
| 1690239 | 4 | 69 | 2.55 | < 10 | <1 | 0.29 | 22 | 2.26 | 0.080 | 0.043 | 0.02 | 3 | 3 | 50 | 0.08 | <20 | 8 | <2 | <10 | 29 | <10 | 10 | 7 |
| 1690240 | 22 | 22 | 3.68 | < 10 | <1 | 0.18 | 13 | 0.05 | 0.039 | 0.025 | <0.01 | 3 | 6 | 7 | < 0.01 | <20 | 3 | <2 | <10 | 49 | <10 | 5 | 3 |
| 1690241 | 34 | 135 | 6.45 | < 10 | <1 | 0.13 | <10 | 0.28 | 0.042 | 0.061 | $<0.01$ | 5 | 15 | 15 | < 0.01 | <20 | <1 | <2 | <10 | 65 | < 10 | 8 | 4 |
| 1690242 | 48 | 189 | 8.26 | < 10 | <1 | 0.15 | 10 | 0.33 | 0.045 | 0.059 | $<0.01$ | 7 | 15 | 13 | < 0.01 | <20 | <1 | <2 | < 10 | 62 | <10 | 10 | 4 |
| 1690243 | 24 | 178 | 5.45 | <10 | <1 | 0.17 | 12 | 0.10 | 0.028 | 0.043 | $<0.01$ | 6 | 6 | 7 | < 0.01 | <20 | <1 | <2 | <10 | 60 | <10 | 7 | 7 |
| 1690244 | 39 | 297 | 5.80 | < 10 | 1 | 0.21 | 22 | 0.19 | 0.029 | 0.047 | <0.01 | 6 | 7 | 14 | 0.02 | <20 | <1 | <2 | <10 | 109 | < 10 | 6 | 12 |
| 1690245 | 26 | 23 | 10.3 | $<10$ | <1 | 0.05 | <10 | 0.71 | 0.038 | 0.021 | 10.2 | 7 | 6 | 95 | < 0.01 | <20 | <1 | <2 | < 10 | 17 | < 10 | 3 | 3 |
| 1690246 | 25 | 15 | 9.63 | < 10 | <1 | 0.19 | <10 | 2.21 | 0.058 | 0.073 | 5.64 | 6 | 17 | 133 | < 0.01 | <20 | <1 | <2 | < 10 | 47 | < 10 | 5 | 3 |
| 1690247 | 2 | 131 | 1.53 | < 10 | < 1 | 0.02 | <10 | 0.04 | 0.022 | 0.015 | 0.02 | 2 | 3 | 5 | < 0.01 | <20 | 4 | <2 | <10 | 13 | <10 | < 1 | <1 |
| 1690248 | 2 | 118 | 1.57 | <10 | <1 | 0.02 | <10 | 0.03 | 0.019 | 0.014 | 0.02 | 2 | 3 | 5 | < 0.01 | <20 | 3 | <2 | <10 | 12 | <10 | <1 | <1 |

Results

| Analyte Symbol | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr | Ti | Th | Te | TI | U | V | W | Y | Zr |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | \% | ppm | ppm | \% | ppm | \% | \% | \% | \% | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 | 0.01 | 20 | 1 | 2 | 10 | 1 | 10 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| 1690249 | 1 | 158 | 0.79 | $<10$ | <1 | < 0.01 | $<10$ | 0.03 | 0.019 | <0.001 | 0.01 | 3 | <1 | 3 | $<0.01$ | $<20$ | 4 | $<2$ | $<10$ | 2 | $<10$ | <1 | $<1$ |
| 1690250 | 2 | 90 | 0.97 | <10 | <1 | <0.01 | <10 | 0.07 | 0.018 | 0.001 | 0.02 | 2 | <1 | 7 | <0.01 | <20 | <1 | $<2$ | $<10$ | 4 | $<10$ | <1 | $<1$ |
| S054843 | <1 | 195 | 0.82 | <10 | <1 | <0.01 | <10 | <0.01 | 0.019 | 0.001 | <0.01 | <2 | <1 | 1 | <0.01 | <20 | <1 | $<2$ | <10 | <1 | <10 | <1 | <1 |
| S054844 | 30 | 14 | 9.31 | <10 | <1 | 0.16 | <10 | 2.58 | 0.052 | 0.086 | 4.60 | 8 | 14 | 200 | <0.01 | <20 | <1 | $<2$ | <10 | 50 | <10 | 6 | 3 |
| S054845 | 5 | 128 | 2.91 | <10 | 1 | 0.07 | $<10$ | 0.89 | 0.033 | 0.255 | 0.48 | 3 | 7 | 102 | < 0.01 | <20 | 6 | $<2$ | $<10$ | 16 | <10 | 7 | $<1$ |
| S054846 | 40 | 41 | 7.88 | < 10 | <1 | 0.09 | 17 | 0.03 | 0.067 | 0.076 | 0.01 | 9 | 10 | 15 | <0.01 | <20 | <1 | <2 | <10 | 39 | < 10 | 13 | 4 |
| S054847 | 36 | 150 | 5.10 | <10 | <1 | 0.08 | 16 | 0.02 | 0.026 | 0.087 | <0.01 | 4 | 4 | 5 | < 0.01 | <20 | <1 | $<2$ | <10 | 26 | <10 | 12 | 3 |
| S054848 | 18 | 38 | 6.06 | < 10 | <1 | 0.12 | 10 | 0.05 | 0.083 | 0.068 | <0.01 | 5 | 16 | 16 | <0.01 | <20 | 2 | <2 | <10 | 50 | < 10 | 10 | 5 |
| S054849 | 8 | 182 | 5.58 | < 10 | <1 | 0.16 | 24 | 0.04 | 0.028 | 0.075 | <0.01 | 8 | 3 | 6 | < 0.01 | <20 | 5 | 3 | <10 | 35 | < 10 | 7 | 7 |
| S054901 | 64 | 157 | 7.88 | <10 | <1 | 0.15 | <10 | 0.10 | 0.047 | 0.073 | <0.01 | 10 | 19 | 12 | < 0.01 | <20 | 7 | $<2$ | <10 | 60 | <10 | 10 | 4 |
| S054902 | 48 | 97 | 7.68 | <10 | <1 | 0.21 | <10 | 0.05 | 0.039 | 0.061 | <0.01 | 7 | 10 | 9 | < 0.01 | <20 | <1 | $<2$ | <10 | 57 | <10 | 9 | 4 |
| S054903 | 10 | 291 | 5.36 | <10 | <1 | 0.19 | 19 | 0.04 | 0.033 | 0.051 | <0.01 | 7 | 5 | 6 | <0.01 | <20 | <1 | $<2$ | <10 | 65 | < 10 | 10 | 11 |
| S054904 | 9 | 229 | 4.52 | <10 | <1 | 0.22 | 28 | 0.05 | 0.032 | 0.038 | <0.01 | 6 | 4 | 5 | <0.01 | <20 | <1 | <2 | $<10$ | 56 | <10 | 8 | 11 |
| S054905 | 43 | 249 | 19.9 | <10 | 4 | 0.09 | 55 | 0.10 | 0.091 | 0.093 | <0.01 | 12 | 11 | 13 | < 0.01 | <20 | <1 | $<2$ | <10 | 88 | < 10 | 16 | 7 |
| S054906 | 33 | 137 | 1.66 | <10 | <1 | 0.11 | 12 | 0.02 | 0.036 | 0.020 | <0.01 | <2 | 1 | 52 | <0.01 | <20 | <1 | $<2$ | <10 | 13 | < 10 | 4 | 5 |
| S054907 | 38 | 43 | 5.60 | <10 | <1 | 0.24 | 27 | 0.05 | 0.033 | 0.078 | < 0.01 | 4 | 4 | 27 | < 0.01 | <20 | <1 | $<2$ | $<10$ | 46 | <10 | 11 | 6 |
| S054908 | 12 | 59 | 3.49 | < 10 | <1 | 0.26 | 15 | 1.03 | 0.190 | 0.075 | <0.01 | 2 | 7 | 59 | 0.23 | <20 | 2 | <2 | <10 | 89 | < 10 | 10 | 9 |
| S054912 | 24 | 23 | 7.15 | <10 | 1 | 0.14 | < 10 | 1.69 | 0.041 | 0.033 | 6.12 | 10 | 9 | 180 | <0.01 | <20 | 4 | <2 | <10 | 27 | < 10 | 5 | 3 |
| S054913 | 2 | 108 | 1.45 | <10 | <1 | 0.01 | <10 | 0.03 | 0.025 | 0.011 | 0.08 | <2 | 2 | 3 | < 0.01 | <20 | 6 | <2 | <10 | 7 | <10 | <1 | <1 |
| S054914 | 100 | 69 | 1.66 | <10 | <1 | 0.04 | <10 | 0.01 | 0.031 | 0.011 | <0.01 | <2 | 3 | 4 | < 0.01 | <20 | 1 | $<2$ | <10 | 15 | <10 | 2 | 2 |
| S054915 | 3 | 175 | 1.45 | <10 | <1 | < 0.01 | <10 | $<0.01$ | 0.025 | 0.005 | <0.01 | <2 | 1 | 2 | < 0.01 | <20 | <1 | <2 | <10 | 6 | < 10 | - 1 | <1 |
| S054916 | 94 | 154 | 9.78 | 10 | 1 | 0.03 | <10 | 0.11 | 0.061 | 0.127 | <0.01 | 5 | 40 | 24 | 0.01 | <20 | <1 | $<2$ | <10 | 264 | <10 | 13 | 5 |
| S054917 | 43 | 81 | 28.7 | < 10 | <1 | 0.14 | <10 | 0.09 | 0.026 | 0.187 | <0.01 | 18 | 5 | 13 | 0.02 | <20 | <1 | $<2$ | <10 | 150 | <10 | 43 | 9 |
| S054918 | 2 | 85 | 1.71 | $<10$ | <1 | 0.02 | <10 | <0.01 | 0.023 | 0.007 | <0.01 | <2 | <1 | 2 | <0.01 | <20 | 1 | <2 | <10 | 7 | <10 | 1 | <1 |


| Analyte Symbol | Au | Total $\mathrm{Au}$ | Total Weight | Ag | Cd | Cu | Mn | Mo | Ni | Pb | Zn | AI | As | B | Ba | Be | Bi | Ca | Co | Cr | Fe | Ga | Hg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | $\mathrm{g} / \mathrm{mt}$ | g | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | \% | ppm | ppm | \% | ppm | ppm |
| Lower Limit | 5 | 0.03 |  | 0.2 | 0.5 | 1 | 5 | 1 | 1 | 2 | 2 | 0.01 | 2 | 10 | 10 | 0.5 | 2 | 0.01 | 1 | 1 | 0.01 | 10 | 1 |
| Method Code | FA-AA | FA-MeT | FA-MeT | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| OREAS 904 (Aqua Regia) Meas |  |  |  | 0.2 | $<0.5$ | 5890 | 421 | 2 | 30 | 8 | 22 | 1.89 | 90 |  | 74 | 7.8 | $<2$ | 0.04 | 83 | 23 | 6.22 | $<10$ |  |
| OREAS 904 <br> (Aqua Regia) Cert |  |  |  | 0.366 | 0.0580 | 6300 | 410 | 2.02 | 36.6 | 8.49 | 22.4 | 1.25 | 91.0 |  | 68.0 | 6.54 | 3.74 | 0.0404 | 82.0 | 17.5 | 6.40 | 3.40 |  |
| OREAS 45e (Aqua Regia) Meas |  |  |  |  |  | 714 | 403 |  | 371 | 7 | 28 | 3.76 | 10 |  | 110 |  |  | 0.03 | 38 | 775 | 22.1 | 10 |  |
| OREAS 45e <br> (Aqua Regia) Cert |  |  |  |  |  | 709.0 | 400.000 |  | 357.0 | 14.3 | 30.6 | 3.32 | 11.4 |  | 139 |  |  | 0.032 | 52 | 849.0 | 22.650 | 11.7 |  |
| OREAS 45e (Aqua Regia) Meas |  |  |  |  |  | 714 | 372 |  | 380 | 12 | 30 | 3.71 | 9 |  | 109 |  |  | 0.03 | 42 | 785 | 22.1 | 10 |  |
| OREAS 45e <br> (Aqua Regia) Cert |  |  |  |  |  | 709.0 | 400.000 |  | 357.0 | 14.3 | 30.6 | 3.32 | 11.4 |  | 139 |  |  | 0.032 | 52 | 849.0 | 22.650 | 11.7 |  |
| SQ48 Meas |  | 30.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SQ48 Cert |  | 30.25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SQ48 Meas |  | 30.5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SQ48 Cert |  | 30.25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SQ48 Meas |  | 29.9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SQ48 Cert |  | 30.25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 922 (AQUA REGIA) Meas |  |  |  | 1.0 | < 0.5 | 2320 | 779 | <1 | 37 | 57 | 255 | 3.06 | 6 |  | 83 | 0.8 | 4 | 0.40 | 18 | 46 | 5.52 | < 10 |  |
| OREAS 922 (AQUA REGIA) Cert |  |  |  | 0.851 | 0.28 | 2176 | 730 | 0.69 | 34.3 | 60 | 256 | 2.72 | 6.12 |  | 70 | 0.65 | 10.3 | 0.324 | 19.4 | 40.7 | 5.05 | 7.62 |  |
| OREAS 922 <br> (AQUA REGIA) <br> Meas |  |  |  | 0.9 | < 0.5 | 2280 | 747 | < 1 | 33 | 66 | 254 | 3.00 | 8 |  | 78 | 0.8 | 6 | 0.40 | 18 | 45 | 5.40 | < 10 |  |
| OREAS 922 (AQUA REGIA) Cert |  |  |  | 0.851 | 0.28 | 2176 | 730 | 0.69 | 34.3 | 60 | 256 | 2.72 | 6.12 |  | 70 | 0.65 | 10.3 | 0.324 | 19.4 | 40.7 | 5.05 | 7.62 |  |
| OREAS 923 (AQUA REGIA) Meas |  |  |  | 1.9 | < 0.5 | 4350 | 877 | < 1 | 31 | 71 | 318 | 2.95 | 3 |  | 68 | 0.7 | 13 | 0.39 | 19 | 40 | 6.14 | < 10 |  |
| OREAS 923 (AQUA REGIA) Cert |  |  |  | 1.62 | 0.40 | 4248 | 850 | 0.84 | 32.7 | 81 | 335 | 2.80 | 7.07 |  | 54 | 0.61 | 21.8 | 0.326 | 22.2 | 39.4 | 5.91 | 8.01 |  |
| OREAS 923 (AQUA REGIA) Meas |  |  |  | 1.7 | < 0.5 | 4280 | 837 | <1 | 33 | 82 | 316 | 2.90 | 7 |  | 63 | 0.7 | 12 | 0.38 | 21 | 40 | 6.06 | < 10 |  |
| OREAS 923 (AQUA REGIA) Cert |  |  |  | 1.62 | 0.40 | 4248 | 850 | 0.84 | 32.7 | 81 | 335 | 2.80 | 7.07 |  | 54 | 0.61 | 21.8 | 0.326 | 22.2 | 39.4 | 5.91 | 8.01 |  |
| $\begin{aligned} & \text { OREAS 520 } \\ & \text { (Aqua Regia) } \\ & \text { Meas } \end{aligned}$ |  |  |  |  |  | 2710 | 2040 | 51 | 72 | 7 | 17 | 1.53 | 140 |  |  | 0.6 | <2 | 3.27 | 160 | 32 | 15.7 | 10 |  |
| OREAS 520 <br> (Aqua Regia) Cert |  |  |  |  |  | 2960 | 2280 | 62.0 | 73.0 | 5.22 | 20.7 | 1.56 | 152 |  |  | 0.540 | 2.90 | 3.84 | 196 | 37.4 | 15.74 | 13.7 |  |
| $\begin{aligned} & \text { OREAS 520 } \\ & \text { (Aqua Regia) } \\ & \text { Meas } \end{aligned}$ |  |  |  |  |  | 2890 | 1890 | 53 | 67 | 11 | 20 | 1.57 | 143 |  |  | 0.6 | <2 | 3.34 | 165 | 33 | 16.1 | 10 |  |
| OREAS 520 <br> (Aqua Regia) Cert |  |  |  |  |  | 2960 | 2280 | 62.0 | 73.0 | 5.22 | 20.7 | 1.56 | 152 |  |  | 0.540 | 2.90 | 3.84 | 196 | 37.4 | 15.74 | 13.7 |  |
| OREAS 907 <br> (Aqua Regia) <br> Meas |  |  |  | 1.2 | 0.6 | 6200 | 337 | 6 | 7 | 31 | 136 | 1.18 | 34 |  | 215 | 1.1 | 12 | 0.26 | 41 | 10 | 8.15 | 20 |  |
| OREAS 907 |  |  |  | 1.30 | 0.540 | 6370 | 330 | 5.64 | 4.74 | 34.1 | 139 | 0.945 | 37.0 |  | 225 | 0.870 | 22.3 | 0.280 | 43.7 | 8.59 | 8.18 | 14.7 |  |


| Analyte Symbol | Au | $\begin{array}{\|l} \hline \begin{array}{l} \text { Total } \\ \mathrm{Au} \end{array} \\ \hline \end{array}$ | Total Weight | Ag | Cd | Cu | Mn | Mo | Ni | Pb | Zn | AI | As | B | Ba | Be | Bi | Ca | Co | Cr | Fe | Ga | Hg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | g/mt | g | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | \% | ppm | ppm | \% | ppm | ppm |
| Lower Limit | 5 | 0.03 |  | 0.2 | 0.5 | 1 | 5 | 1 | 1 | 2 | 2 | 0.01 | 2 | 10 | 10 | 0.5 |  | 0.01 | 1 | 1 | 0.01 | 10 | 1 |
| Method Code | FA-AA | FA-MeT | FA-MeT | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| (Aqua Regia) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 222 (Fire Assay) Meas | 1170 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 222 (Fire <br> Assay) Cert | 1220 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \hline \text { OREAS } 222 \text { (Fire } \\ & \text { Assay) Meas } \end{aligned}$ | 1190 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 222 (Fire Assay) Cert | 1220 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas 621 (Aqua Regia) Meas |  |  |  | 73.7 | 289 | 3540 | 515 | 13 | 24 | > 5000 | >10000 | 1.81 | 79 |  |  | 0.6 | 3 | 1.59 | 27 | 32 | 3.54 | < 10 | 5 |
| Oreas 621 (Aqua Regia) Cert |  |  |  | 68.0 | 278 | 3660 | 520 | 13.3 | 25.8 | 13600 | 51700 | 1.60 | 75.0 |  |  | 0.530 | 3.85 | 1.65 | 27.9 | 31.3 | 3.43 | 9.29 | 3.93 |
| OREAS 257 Meas |  | 14.3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 257 Cert |  | 14.18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 257 Meas |  | 13.9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 257 Cert |  | 14.18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{array}{\|l\|} \hline \text { OREAS } 255 \text { (Fire } \\ \text { Assay) Meas } \\ \hline \end{array}$ | 4100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 255 (Fire Assay) Cert | 4080 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{array}{\|l\|} \hline \text { OREAS } 255 \text { (Fire } \\ \text { Assay) Meas } \\ \hline \end{array}$ | 4140 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 255 (Fire Assay) Cert | 4080 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1690202 Orig |  | < 0.03 | 500.80 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1690205 Orig |  | 0.44 | 455.69 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1690209 Orig |  |  |  | 3.5 | $<0.5$ | 36 | 947 | 1 | 1220 | 15 | 74 | 4.40 | 293 | < 10 | 23 | $<0.5$ | 3 | 0.13 | 80 | 1920 | 8.19 | < 10 | 2 |
| 1690209 Dup |  |  |  | 3.6 | <0.5 | 35 | 930 | <1 | 1190 | 21 | 72 | 4.30 | 287 | < 10 | 23 | <0.5 | 3 | 0.12 | 76 | 1870 | 8.01 | < 10 | < 1 |
| 1690212 Orig | 401 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1690212 Dup | 344 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1690222 Orig |  |  |  | 1.7 | 4.2 | 125 | 942 | <1 | 48 | 51 | 452 | 2.04 | 189 | < 10 | 80 | <0.5 | <2 | 0.44 | 44 | 43 | 10.1 | <10 | <1 |
| 1690222 Dup |  |  |  | 1.5 | 4.0 | 122 | 941 | <1 | 48 | 49 | 449 | 1.98 | 186 | < 10 | 78 | <0.5 | $<2$ | 0.43 | 44 | 41 | 9.96 | <10 | 1 |
| 1690234 Orig |  | <0.03 | 466.61 | 4.5 | 5.6 | 40 | 2910 | 1 | 747 | 148 | 400 | 2.35 | 641 | < 10 | 132 | 1.1 | <2 | 0.23 | 94 | 786 | 7.47 | < 10 | <1 |
| 1690234 Dup |  |  |  | 4.4 | 4.8 | 40 | 2910 | 2 | 757 | 152 | 401 | 2.42 | 645 | < 10 | 134 | 1.1 | <2 | 0.23 | 93 | 781 | 7.55 | <10 | 1 |
| 1690246 Orig |  |  |  | 4.5 | $<0.5$ | 35 | 1100 | <1 | 34 | 81 | 24 | 0.53 | 530 | <10 | 26 | < 0.5 | <2 | 3.51 | 25 | 15 | 9.63 | <10 | < 1 |
| $\begin{aligned} & 1690246 \text { Split } \\ & \text { PREP DUP } \end{aligned}$ |  |  |  | 4.7 | <0.5 | 32 | 1020 | <1 | 31 | 73 | 22 | 0.44 | 493 | < 10 | 24 | <0.5 | 3 | 3.55 | 26 | 12 | 8.72 | $<10$ | 1 |
| S054844 Orig |  | 2.00 | 449.90 | 4.5 | 4.5 | 171 | 1390 | 1 | 46 | 261 | 297 | 0.75 | 2180 | < 10 | 24 | < 0.5 | <2 | 5.60 | 31 | 13 | 9.25 | < 10 | 5 |
| S054844 Dup |  |  |  | 4.9 | 5.1 | 174 | 1470 | <1 | 48 | 263 | 296 | 0.77 | 2200 | <10 | 26 | < 0.5 | <2 | 5.51 | 30 | 14 | 9.38 | <10 | < 1 |
| S054906 Orig |  | <0.03 | 336.30 | 14.1 | 3.4 | 107 | 9330 | 14 | 46 | 17 | 81 | 0.34 | 21 | < 10 | 706 | $<0.5$ | <2 | 0.02 | 33 | 138 | 1.68 | < 10 | <1 |
| S054906 Dup |  |  |  | 13.9 | 3.5 | 105 | 9240 | 14 | 46 | 17 | 80 | 0.36 | 20 | <10 | 701 | <0.5 | <2 | 0.02 | 33 | 136 | 1.64 | <10 | <1 |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  | $<0.2$ | $<0.5$ | <1 | < 5 | <1 | <1 | <2 | <2 | < 0.01 | <2 | < 10 | < 10 | $<0.5$ | <2 | < 0.01 | <1 | <1 | $<0.01$ | < 10 | <1 |
| Method Blank |  |  |  | <0.2 | <0.5 | <1 | < 5 | <1 | <1 | <2 | <2 | < 0.01 | <2 | <10 | 10 | <0.5 | <2 | <0.01 | <1 | <1 | < 0.01 | <10 | <1 |
| Method Blank |  | < 0.03 | 0.00000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  | < 0.03 | 0.00000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  | < 0.03 | 0.00000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  | < 0.03 | 0.00000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  | < 0.03 | 0.00000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | $\begin{array}{\|l\|} \hline \begin{array}{l} \text { Total } \\ \mathrm{Au} \end{array} \\ \hline \end{array}$ | $\begin{aligned} & \text { Total } \\ & \text { Weight } \end{aligned}$ | Ag | Cd | Cu | Mn | Mo | Ni | Pb | Zn | AI | As | B | Ba | Be | Bi | Ca | Co | Cr | Fe | Ga | Hg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | $\mathrm{g} / \mathrm{mt}$ | g | ppm | ppm | ppm | ppm | ppm | ppm | pp | ppm | \% | ppm | ppm | ppm | ppm | ppm | \% | ppm | ppm | \% | ppm | pm |
| Lower Limit | 5 | 0.03 |  | 0.2 | 0.5 | 1 | 5 | 1 | 1 | 2 | 2 | 0.01 | 2 | 10 | 10 | 0.5 | 2 | 0.01 | 1 | 1 | 0.01 | 10 | 1 |
| Method Code | FA-AA | FA-MeT | FA-MeT | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| Method Blank |  | $<0.03$ | 0.00000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | K | La | Mg | Na | P | S | Sb | Sc | Sr | Ti | Th | Te | TI | U | V | W | Y | Zr |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | \% | ppm | \% | \% | \% | \% | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 | 0.01 | 20 | 1 | 2 | 10 | 1 | 10 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| OREAS 904 (Aqua Regia) Meas | 0.91 | 39 | 0.20 |  | 0.096 | 0.05 | 4 | 4 | 21 |  | $<20$ |  | <2 | < 10 | 31 |  | 21 |  |
| OREAS 904 (Aqua Regia) Cert | 0.603 | 33.9 | 0.143 |  | 0.0950 | 0.0340 | 0.780 | 3.83 | 16.5 |  | 7.56 |  | 0.150 | 5.20 | 21.7 |  | 17.2 |  |
| OREAS 45e (Aqua Regia) Meas | 0.06 |  | 0.10 | 0.041 | 0.029 | 0.04 |  | 73 | 5 |  | <20 |  | <2 | < 10 | 269 |  | 5 |  |
| OREAS 45e <br> (Aqua Regia) Cert | 0.053 |  | 0.095 | 0.027 | 0.029 | 0.044 |  | 78 | 4.05 |  | 10.70 |  | 0.072 | 1.73 | 295.0 |  | 5.74 |  |
| OREAS 45e (Aqua Regia) Meas | 0.05 |  | 0.10 | 0.038 | 0.026 | 0.04 |  | 76 | 5 |  | <20 |  | <2 | < 10 | 279 |  | 5 |  |
| OREAS 45e <br> (Aqua Regia) Cert | 0.053 |  | 0.095 | 0.027 | 0.029 | 0.044 |  | 78 | 4.05 |  | 10.70 |  | 0.072 | 1.73 | 295.0 |  | 5.74 |  |
| SQ48 Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SQ48 Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SQ48 Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SQ48 Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SQ48 Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SQ48 Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 922 (AQUA REGIA) Meas | 0.49 | 40 | 1.41 | 0.042 | 0.065 | 0.38 | 3 | 4 | 18 |  | $<20$ |  | <2 | < 10 | 37 | < 10 | 24 | 32 |
| OREAS 922 (AQUA REGIA) Cert | 0.376 | 32.5 | 1.33 | 0.021 | 0.063 | 0.386 | 0.57 | 3.15 | 15.0 |  | 14.5 |  | 0.14 | 1.98 | 29.4 | 1.12 | 16.0 | 22.3 |
| OREAS 922 (AQUA REGIA) Meas | 0.45 | 39 | 1.38 | 0.037 | 0.061 | 0.38 | 3 | 4 | 17 |  | <20 |  | <2 | < 10 | 37 | < 10 | 23 | 21 |
| OREAS 922 (AQUA REGIA) Cert | 0.376 | 32.5 | 1.33 | 0.021 | 0.063 | 0.386 | 0.57 | 3.15 | 15.0 |  | 14.5 |  | 0.14 | 1.98 | 29.4 | 1.12 | 16.0 | 22.3 |
| OREAS 923 (AQUA REGIA) Meas | 0.43 | 35 | 1.44 |  | 0.062 | 0.66 | <2 | 4 | 16 |  | $<20$ |  | <2 | < 10 | 36 | < 10 | 23 | 36 |
| OREAS 923 (AQUA REGIA) Cert | 0.322 | 30.0 | 1.43 |  | 0.061 | 0.684 | 0.58 | 3.09 | 13.6 |  | 14.3 |  | 0.12 | 1.80 | 30.6 | 1.96 | 14.3 | 22.5 |
| $\begin{aligned} & \text { OREAS } 923 \\ & \text { (AQUA REGIA) } \\ & \text { Meas } \end{aligned}$ | 0.38 | 35 | 1.43 |  | 0.058 | 0.64 | 6 | 4 | 15 |  | $<20$ |  | <2 | < 10 | 35 | < 10 | 21 | 33 |
| OREAS 923 (AQUA REGIA) Cert | 0.322 | 30.0 | 1.43 |  | 0.061 | 0.684 | 0.58 | 3.09 | 13.6 |  | 14.3 |  | 0.12 | 1.80 | 30.6 | 1.96 | 14.3 | 22.5 |
| OREAS 520 <br> (Aqua Regia) <br> Meas | 0.50 | 68 | 1.09 | 0.077 | 0.071 | 0.96 | 9 | 11 | 34 | 0.15 | <20 | <1 | <2 | 10 | 227 | 30 | 15 | 34 |
| OREAS 520 <br> (Aqua Regia) Cert | 0.506 | 83.0 | 1.14 | 0.0520 | 0.0740 | 1.03 | 1.97 | 11.8 | 36.0 | 0.135 | 8.03 | 0.33 | 0.0900 | 14.9 | 247 | 29.6 | 14.3 | 28.0 |
| OREAS 520 <br> (Aqua Regia) <br> Meas | 0.44 | 67 | 1.11 | 0.077 | 0.064 | 0.85 | 6 | 11 | 28 | 0.15 | <20 | < 1 | <2 | 12 | 233 | 29 | 13 | 30 |
| OREAS 520 <br> (Aqua Regia) Cert | 0.506 | 83.0 | 1.14 | 0.0520 | 0.0740 | 1.03 | 1.97 | 11.8 | 36.0 | 0.135 | 8.03 | 0.33 | 0.0900 | 14.9 | 247 | 29.6 | 14.3 | 28.0 |
| OREAS 907 (Aqua Regia) Meas | 0.36 | 38 | 0.23 | 0.129 | 0.024 | 0.07 | 6 | 2 | 15 | 0.02 | <20 | <1 | <2 | < 10 | 7 | < 10 | 9 | 36 |
| OREAS 907 <br> (Aqua Regia) Cert | 0.286 | 36.1 | 0.221 | 0.0860 | 0.0240 | 0.0660 | 2.28 | 2.16 | 11.7 | 0.0170 | 8.04 | 0.230 | 0.120 | 2.15 | 5.12 | 0.980 | 6.52 | 43.7 |


| Analyte Symbol | K | La | Mg | Na | P | S | Sb | Sc | Sr | Ti | Th | Te | TI | U | V | W | Y | Zr |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | \% | ppm | \% | \% | \% | \% | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 | 0.01 | 20 | 1 | 2 | 10 | 1 | 10 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| OREAS 222 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 222 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 222 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 222 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas 621 (Aqua Regia) Meas | 0.35 | 20 | 0.44 | 0.221 | 0.033 | 4.73 | 139 | 2 | 21 |  | <20 |  | <2 | <10 | 13 | <10 | 8 | 62 |
| Oreas 621 (Aqua Regia) Cert | 0.333 | 19.4 | 0.436 | 0.160 | 0.0335 | 4.50 | 107 | 2.20 | 18.9 |  | 5.91 |  | 0.770 | 1.63 | 10.9 | 1.00 | 6.87 | 55.0 |
| OREAS 257 Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 257 Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 257 Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 257 Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 255 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 255 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 255 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 255 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1690202 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1690205 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1690209 Orig | 0.01 | <10 | 6.97 | 0.018 | 0.041 | < 0.01 | 10 | 17 | 8 | < 0.01 | <20 | <1 | <2 | <10 | 119 | <10 | 6 | 2 |
| 1690209 Dup | 0.01 | <10 | 6.80 | 0.018 | 0.041 | <0.01 | 12 | 16 | 7 | < 0.01 | <20 | 3 | <2 | $<10$ | 116 | $<10$ | 6 | 2 |
| 1690212 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1690212 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1690222 Orig | 0.23 | < 10 | 0.53 | 0.054 | 0.147 | <0.01 | 4 | 24 | 26 | < 0.01 | <20 | <1 | <2 | <10 | 132 | <10 | 14 | 4 |
| 1690222 Dup | 0.22 | < 10 | 0.52 | 0.051 | 0.147 | <0.01 | 6 | 24 | 26 | < 0.01 | <20 | 4 | <2 | <10 | 127 | <10 | 14 | 3 |
| 1690234 Orig | 0.13 | < 10 | 1.43 | 0.024 | 0.060 | <0.01 | 10 | 18 | 18 | < 0.01 | <20 | <1 | 2 | <10 | 122 | <10 | 10 | 3 |
| 1690234 Dup | 0.13 | <10 | 1.44 | 0.026 | 0.060 | < 0.01 | 11 | 18 | 18 | < 0.01 | <20 | <1 | <2 | <10 | 123 | <10 | 10 | 3 |
| 1690246 Orig | 0.19 | < 10 | 2.21 | 0.058 | 0.073 | 5.64 | 6 | 17 | 133 | < 0.01 | <20 | <1 | <2 | $<10$ | 47 | <10 | 5 | 3 |
| $\begin{aligned} & 1690246 \text { Split } \\ & \text { PREP DUP } \\ & \hline \end{aligned}$ | 0.18 | $<10$ | 1.92 | 0.046 | 0.072 | 6.62 | 6 | 15 | 162 | < 0.01 | $<20$ | <1 | <2 | <10 | 41 | <10 | 5 | 3 |
| S054844 Orig | 0.15 | <10 | 2.57 | 0.051 | 0.083 | 4.50 | 8 | 13 | 196 | < 0.01 | <20 | <1 | $<2$ | $<10$ | 50 | <10 | 6 | 3 |
| S054844 Dup | 0.17 | < 10 | 2.59 | 0.054 | 0.089 | 4.69 | 7 | 14 | 204 | < 0.01 | <20 | 5 | <2 | <10 | 50 | <10 | 7 | 3 |
| S054906 Orig | 0.10 | 12 | 0.02 | 0.036 | 0.020 | <0.01 | <2 | 1 | 52 | < 0.01 | <20 | 2 | <2 | $<10$ | 13 | <10 | 4 |  |
| S054906 Dup | 0.11 | 12 | 0.02 | 0.036 | 0.020 | <0.01 | <2 | 1 | 53 | < 0.01 | <20 | <1 | <2 | $<10$ | 13 | $<10$ | 4 | 5 |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 0.01 | < 10 | < 0.01 | 0.011 | < 0.001 | < 0.01 | <2 | < 1 | < 1 | < 0.01 | <20 | < 1 | <2 | < 10 | < 1 | < 10 | <1 | < 1 |
| Method Blank | < 0.01 | <10 | < 0.01 | 0.013 | < 0.001 | <0.01 | <2 | <1 | <1 | < 0.01 | <20 | <1 | <2 | $<10$ | <1 | <10 | <1 | <1 |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Report No.: A19-15561
Report Date:
Date Submitted: 15-Nov-19
Your Reference: Quesnelle Gold Quartz Mine \#2
Golden Cariboo Resources
P.O. Box 48778 Stn. Bentall Center

Vancouver BC V7X 1A6

## Canada

## ATTN: Frank Callaghan

## CERTIFICATE OF ANALYSIS

89 Rock samples were submitted for analysis.

| The following analytical package(s) were requested: | Testing Date: |  |
| :--- | :--- | :--- |
| 1A2-Kamloops | QOP AA-Au (Au - Fire Assay AA) | 2019-11-25 19:20:03 |
| 1A2B-30-Kamloops | QOP AA-Au (Au - Fire Assay AA) | $2019-11-28$ 00:49:00 |
| 1A4 (100mesh)-Kamloops | QOP AA-Au (Au-Fire Assay-Metallic Screen-500g) | 2019-11-22 16:22:53 |
| 1E3-Kamloops | QOP AquaGeo (Aqua Regia ICPOES) | $2019-11-22$ 01:24:45 |
| Sieve Report-Kamloops Internal | Sieve Report Internal | 2019-11-22 18:51:53 |

REPORT A19-15561
This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

A representative 500 gram split is seived at 100 mesh (149 micron) with assays performed on the entire +100 mesh and 2 splits of the -100 mesh fraction. A final assay is calculated based on the weight of each fraction.

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:


Elitsa Hrischeva, Ph.D.
Quality Control Coordinator

| Analyte Symbol | $\begin{aligned} & \mathrm{Au}+ \\ & 100 \\ & \text { mesh } \end{aligned}$ | $\begin{array}{\|l} \hline \text { Au- } \\ 100 \\ \text { mesh } \\ \text { (A) } \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline \text { Au- } \\ 100 \\ \text { mesh } \\ \text { (B) } \\ \hline \end{array}$ | $\left\lvert\, \begin{aligned} & \text { Total } \\ & \text { Au }\end{aligned}\right.$ | $\begin{aligned} & +100 \\ & \text { mesh } \end{aligned}$ | $\begin{aligned} & -100 \\ & \text { mesh } \end{aligned}$ | Total Weight | Ag | Cd | Cu | Mn | Mo | Ni | Pb | Zn | AI | As | B | Ba | Be | Bi | Ca | Co |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | $\mathrm{g} / \mathrm{mt}$ | $\mathrm{g} / \mathrm{mt}$ | $\mathrm{g} / \mathrm{mt}$ | $\mathrm{g} / \mathrm{mt}$ | $g$ | g | g | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | \% | ppm |
| Lower Limit | 0.03 | 0.03 | 0.03 | 0.03 |  |  |  | 0.2 | 0.5 | 1 | 5 | 1 | 1 | 2 | 2 | 0.01 | 2 | 10 | 10 | 0.5 | 2 | 0.01 | 1 |
| Method Code | FA-MeT | FA-MeT | FA-MeT | FA-MeT | FA-MeT | FA-MeT | FA-MeT | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| S054889 |  |  |  |  |  |  |  | 2.1 | 0.8 | 306 | 2510 | 8 | 379 | 171 | 220 | 1.15 | 296 | <10 | 145 | $<0.5$ | <2 | 0.07 | 64 |
| S054890 | 0.11 | 0.33 | 0.40 | 0.34 | 44.56 | 401.25 | 445.80 | 17.9 | <0.5 | 13 | 259 | 11 | 18 | 38 | 18 | 0.07 | 12 | < 10 | 21 | $<0.5$ | <2 | <0.01 | 3 |
| S054891 | 365 | 29.4 | 30.2 | 45.9 | 20.59 | 408.25 | 428.84 | > 100 | 2.4 | 1140 | 51 | 13 | 20 | 678 | 227 | 0.01 | 415 | < 10 | 12 | < 0.5 | <2 | <0.01 | < 1 |
| S054892 | 5.57 | 1.87 | 1.71 | 1.94 | 16.69 | 412.37 | 429.06 | 1.3 | 0.6 | 134 | 1790 | 3 | 254 | 648 | 228 | 1.12 | 286 | < 10 | 85 | $<0.5$ | <2 | 0.07 | 56 |
| S054893 | 85.8 | 11.8 | 12.4 | 17.5 | 32.74 | 416.24 | 448.98 | 61.5 | 0.8 | 265 | 74 | 11 | 21 | 210 | 116 | 0.05 | 97 | <10 | 12 | <0.5 | <2 | <0.01 | 2 |
| S054894 | $<0.03$ | <0.03 | $<0.03$ | <0.03 | 17.64 | 388.86 | 406.50 | 0.4 | 0.9 | 149 | 1910 | 2 | 419 | 370 | 287 | 1.15 | 363 | <10 | 67 | 0.6 | <2 | 0.07 | 61 |
| S054895 | $<0.03$ | <0.03 | $<0.03$ | <0.03 | 38.42 | 434.65 | 473.07 | 6.0 | <0.5 | 14 | 169 | 18 | 32 | 4 | 22 | 0.11 | 27 | <10 | 44 | $<0.5$ | <2 | 0.02 | 10 |
| S054896 | <0.03 | <0.03 | <0.03 | <0.03 | 34.06 | 427.55 | 461.61 | 0.5 | $<0.5$ | 10 | 320 | 10 | 27 | 25 | 29 | 0.08 | 30 | <10 | 17 | $<0.5$ | <2 | 0.01 | 5 |
| S054897 | <0.03 | <0.03 | <0.03 | <0.03 | 15.17 | 517.56 | 532.73 | 0.2 | $<0.5$ | 79 | 119 | 3 | 36 | 33 | 57 | 0.25 | 57 | <10 | 60 | $<0.5$ | <2 | 0.02 | 7 |
| S054898 |  |  |  |  |  |  |  | 0.2 | 0.8 | 179 | 191 | 5 | 112 | 99 | 190 | 0.65 | 160 | $<10$ | 113 | 0.6 | 3 | 0.03 | 24 |
| S054899 |  |  |  |  |  |  |  | 3.6 | 0.6 | 17 | 3150 | 12 | 28 | 88 | 42 | 0.04 | 16 | <10 | 68 | < 0.5 | <2 | 0.01 | 4 |
| S054900 |  |  |  |  |  |  |  | < 0.2 | <0.5 | 4 | 1500 | 2 | 5 | 3 | 12 | 0.34 | 5 | <10 | 251 | $<0.5$ | 3 | 5.24 | 2 |
| S054919 | $<0.03$ | $<0.03$ | $<0.03$ | $<0.03$ | 32.62 | 594.24 | 626.86 | 0.3 | $<0.5$ | 3 | 154 | 12 | 10 | 2 | 6 | 0.01 | 10 | <10 | 17 | $<0.5$ | <2 | 0.01 | 2 |
| S054920 | $<0.03$ | <0.03 | <0.03 | <0.03 | 36.24 | 512.93 | 549.17 | 0.7 | $<0.5$ | 66 | 920 | 4 | 71 | 10 | 73 | 0.22 | 41 | <10 | 69 | $<0.5$ | 4 | 0.05 | 13 |
| S054921 | <0.03 | <0.03 | <0.03 | <0.03 | 21.89 | 576.80 | 598.70 | 2.5 | <0.5 | 10 | 115 | 18 | 21 | 2 | 11 | 0.09 | 12 | <10 | 29 | <0.5 | 4 | 0.01 | 5 |
| S054922 |  |  |  |  |  |  |  | 1.9 | $<0.5$ | 13 | 101 | 17 | 21 | 3 | 13 | 0.08 | 12 | <10 | 23 | $<0.5$ | 6 | 0.01 | 6 |
| S054923 | $<0.03$ | $<0.03$ | $<0.03$ | $<0.03$ | 14.73 | 482.83 | 497.56 | 1.0 | $<0.5$ | 16 | 573 | 7 | 69 | 3 | 23 | 0.49 | 32 | <10 | 66 | $<0.5$ | <2 | 0.04 | 13 |
| S054924 |  |  |  |  |  |  |  | $<0.2$ | $<0.5$ | 7 | 273 | 2 | 9 | 3 | 17 | 0.56 | 5 | <10 | 150 | $<0.5$ | <2 | 4.98 | 4 |
| S054925 | 0.40 | 0.23 | 0.30 | 0.27 | 37.65 | 543.84 | 581.49 | 0.5 | $<0.5$ | 13 | 364 | 5 | 39 | 12 | 12 | 0.09 | 67 | <10 | 23 | <0.5 | <2 | 0.91 | 7 |
| S054926 | 11.3 | 9.72 | 9.90 | 9.85 | 16.50 | 560.00 | 576.50 | 3.0 | $<0.5$ | 136 | 277 | 3 | 14 | 16 | 23 | 0.30 | 71 | < 10 | 14 | $<0.5$ | <2 | 0.10 | 2 |
| S054927 | $<0.03$ | <0.03 | $<0.03$ | <0.03 | 10.33 | 455.03 | 465.36 | 0.7 | $<0.5$ | 594 | 1390 | <1 | 118 | 17 | 111 | 1.60 | 7 | <10 | 88 | $<0.5$ | 3 | 0.24 | 35 |
| S054928 | $<0.03$ | <0.03 | <0.03 | <0.03 | 38.34 | 543.79 | 582.13 | 1.0 | <0.5 | 39 | 211 | 6 | 23 | 34 | 9 | 0.19 | 8 | <10 | 10 | $<0.5$ | <2 | 0.62 | 3 |
| S054929 | $<0.03$ | <0.03 | <0.03 | <0.03 | 15.72 | 468.59 | 484.31 | 0.8 | $<0.5$ | 26 | 388 | 4 | 19 | <2 | 14 | 0.16 | 8 | <10 | 33 | $<0.5$ | <2 | 0.72 | 6 |
| S054930 | 5.00 | 0.36 | 0.30 | 0.45 | 14.21 | 519.14 | 533.40 | 2.1 | $<0.5$ | 107 | 1040 | <1 | 80 | <2 | 58 | 0.54 | 92 | <10 | 24 | $<0.5$ | <2 | 5.36 | 27 |
| S054931 | 0.14 | 0.03 | 0.03 | 0.04 | 49.74 | 478.88 | 528.62 | $<0.2$ | $<0.5$ | 8 | 912 | 6 | 10 | <2 | 16 | 0.48 | 5 | <10 | 31 | <0.5 | <2 | 0.24 | 6 |
| S054932 | $<0.03$ | <0.03 | <0.03 | <0.03 | 22.90 | 491.40 | 514.30 | <0.2 | $<0.5$ | 14 | 527 | 2 | 12 | <2 | 17 | 1.22 | 4 | < 10 | 83 | <0.5 | <2 | 0.85 | 7 |
| S054933 | 1.66 | 0.33 | 0.36 | 0.43 | 30.10 | 422.12 | 452.22 | 0.6 | $<0.5$ | 67 | 1400 | 2 | 114 | 415 | 185 | 1.64 | 82 | <10 | 58 | $<0.5$ | 2 | 0.11 | 28 |
| S054934 | $<0.03$ | < 0.03 | $<0.03$ | <0.03 | 14.70 | 449.76 | 464.46 | 0.3 | $<0.5$ | 81 | 1650 | 2 | 203 | 6 | 106 | 0.86 | 60 | <10 | 83 | $<0.5$ | <2 | 0.08 | 34 |
| S054935 | <0.03 | <0.03 | <0.03 | <0.03 | 15.74 | 498.86 | 514.60 | 1.5 | <0.5 | 43 | 338 | 4 | 41 | 6 | 46 | 0.15 | 27 | < 10 | 44 | $<0.5$ | <2 | 0.04 | 6 |
| S054936 | 0.04 | <0.03 | $<0.03$ | <0.03 | 23.94 | 505.13 | 529.07 | 1.0 | $<0.5$ | 168 | 1490 | 4 | 164 | 2 | 73 | 0.35 | 170 | <10 | 117 | $<0.5$ | <2 | 0.06 | 22 |
| S054937 | <0.03 | <0.03 | <0.03 | <0.03 | 24.87 | 474.68 | 499.55 | $<0.2$ | $<0.5$ | 21 | 937 | 4 | 175 | <2 | 36 | 0.64 | 87 | <10 | 51 | $<0.5$ | 3 | 0.02 | 29 |
| S054938 | 0.61 | 0.23 | 0.16 | 0.22 | 44.03 | 634.89 | 678.92 | 2.1 | $<0.5$ | 29 | 222 | 7 | 14 | 15 | 20 | 0.08 | 20 | <10 | 64 | $<0.5$ | <2 | 0.02 | 2 |
| S054939 | <0.03 | <0.03 | <0.03 | <0.03 | 19.61 | 435.58 | 455.19 | 0.4 | <0.5 | 5 | 171 | 9 | 9 | 7 | 10 | 0.02 | 7 | < 10 | 14 | $<0.5$ | <2 | <0.01 | <1 |
| S054940 |  |  |  |  |  |  |  | <0.2 | $<0.5$ | 4 | 321 | 1 | 5 | <2 | 13 | 0.45 | 3 | <10 | 103 | $<0.5$ | <2 | 5.94 | 2 |
| S054941 |  |  |  |  |  |  |  | 0.3 | 5.7 | 213 | 644 | 21 | 191 | 19 | 796 | 1.83 | 59 | $<10$ | 148 | 1.8 | <2 | 0.07 | 38 |
| S054942 |  |  |  |  |  |  |  | 15.0 | 12.3 | 239 | 7060 | 3 | 59 | 17 | 207 | 0.90 | 6 | <10 | 154 | 0.5 | <2 | 0.71 | 49 |
| S054943 |  |  |  |  |  |  |  | 2.1 | 13.8 | 159 | 7430 | 24 | 291 | 4 | 747 | 1.45 | 144 | <10 | 718 | 2.1 | <2 | 0.06 | 149 |
| S054944 |  |  |  |  |  |  |  | 0.5 | 45.4 | 289 | 8160 | 17 | 507 | 3 | 1360 | 1.11 | 150 | <10 | 159 | 4.9 | <2 | 0.09 | 151 |
| S054945 |  |  |  |  |  |  |  | $<0.2$ | 4.8 | 83 | 668 | 7 | 83 | 3 | 241 | 2.06 | 47 | <10 | 195 | 1.0 | <2 | 0.10 | 16 |
| S054946 |  |  |  |  |  |  |  | $<0.2$ | 8.6 | 231 | 1410 | 10 | 89 | 4 | 371 | 1.01 | 90 | <10 | 120 | 1.3 | <2 | 0.04 | 40 |
| S054947 |  |  |  |  |  |  |  | 0.3 | 0.6 | 142 | 617 | 39 | 62 | 19 | 311 | 0.83 | 89 | <10 | 159 | 1.0 | <2 | 0.02 | 7 |
| S054948 |  |  |  |  |  |  |  | 0.9 | 0.9 | 164 | 1140 | 23 | 58 | 10 | 327 | 0.70 | 126 | <10 | 190 | 0.9 | <2 | 0.02 | 7 |
| S054949 |  |  |  |  |  |  |  | 0.2 | 0.7 | 135 | 570 | 15 | 49 | 10 | 234 | 0.52 | 128 | <10 | 116 | 0.6 | <2 | 0.02 | 5 |
| S054950 |  |  |  |  |  |  |  | 0.4 | 2.7 | 75 | 1450 | 57 | 69 | 11 | 332 | 0.80 | 103 | <10 | 206 | 0.7 | <2 | 0.02 | 9 |
| S054951 |  |  |  |  |  |  |  | 0.4 | 4.1 | 93 | 1300 | 47 | 98 | 18 | 408 | 0.82 | 108 | <10 | 191 | 1.3 | <2 | 0.02 | 9 |
| S054952 | 0.05 | 0.07 | 0.10 | 0.08 | 20.28 | 504.24 | 524.52 | $<0.2$ | 6.3 | 170 | 1000 | 49 | 147 | 29 | 677 | 0.92 | 383 | <10 | 104 | 1.5 | 3 | 0.04 | 15 |
| S054953 | <0.03 | < 0.03 | <0.03 | <0.03 | 12.63 | 412.94 | 425.60 | $<0.2$ | 4.7 | 89 | 675 | 39 | 100 | 19 | 455 | 1.04 | 128 | <10 | 141 | 1.9 | <2 | 0.03 | 16 |
| S054954 |  |  |  |  |  |  |  | <0.2 | 3.0 | 39 | 747 | 40 | 53 | 11 | 258 | 0.84 | 74 | <10 | 202 | 1.2 | <2 | 0.02 | 18 |
| S054955 |  |  |  |  |  |  |  | 0.2 | 4.6 | 131 | 571 | 52 | 134 | 28 | 652 | 0.96 | 197 | <10 | 162 | 1.8 | <2 | 0.03 | 25 |

Results
Activation Laboratories Ltd.
Report: A19-15561

| Analyte Symbol | $\begin{aligned} & \mathrm{Au}+ \\ & 100 \\ & \text { mesh } \end{aligned}$ | $\mathrm{Au}-$ <br> 100 <br> mesh <br> (A) | $\mathrm{Au}-$ <br> 100 <br> mesh <br> (B) | $\begin{array}{\|l\|} \hline \text { Total } \\ \mathrm{Au} \end{array}$ | $\begin{aligned} & +100 \\ & \text { mesh } \end{aligned}$ | $\begin{array}{\|l} -100 \\ \text { mesh } \end{array}$ | $\begin{array}{\|l\|} \hline \text { Total } \\ \text { Weight } \end{array}$ | Ag | Cd | Cu | Mn | Mo | Ni | Pb | Zn | AI | As | B | Ba | Be | Bi | Ca | Co |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | $\mathrm{g} / \mathrm{mt}$ | $\mathrm{g} / \mathrm{mt}$ | $\mathrm{g} / \mathrm{mt}$ | $\mathrm{g} / \mathrm{mt}$ | g | g | g | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | \% | ppm |
| Lower Limit | 0.03 | 0.03 | 0.03 | 0.03 |  |  |  | 0.2 | 0.5 | 1 | 5 | 1 | 1 | 2 | 2 | 0.01 | 2 | 10 | 10 | 0.5 | 2 | 0.01 | 1 |
| Method Code | FA-MeT | FA-MeT | FA-MeT | FA-MeT | FA-MeT | FA-MeT | FA-MeT | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| S054956 |  |  |  |  |  |  |  | 0.6 | 1.7 | 62 | 1770 | 46 | 71 | 25 | 296 | 0.91 | 84 | $<10$ | 271 | 1.0 | 3 | 0.04 | 22 |
| S054957 |  |  |  |  |  |  |  | 2.9 | 9.4 | 89 | 11400 | 52 | 115 | 15 | 639 | 0.78 | 406 | $<10$ | 1330 | 1.5 | <2 | 0.04 | 124 |
| S054958 |  |  |  |  |  |  |  | 1.8 | 6.5 | 108 | 8220 | 40 | 113 | 14 | 474 | 0.87 | 185 | <10 | 1010 | 1.4 | <2 | 0.07 | 146 |
| S054959 | <0.03 | <0.03 | <0.03 | <0.03 | 15.54 | 485.23 | 500.77 | 2.4 | 7.1 | 62 | 8290 | 49 | 99 | 17 | 629 | 0.60 | 278 | $<10$ | 1000 | 1.7 | <2 | 0.03 | 130 |
| S054960 |  |  |  |  |  |  |  | <0.2 | <0.5 | 3 | 632 | 2 | 7 | <2 | 15 | 0.31 | 4 | <10 | 200 | <0.5 | <2 | 4.57 | 2 |
| S054961 |  |  |  |  |  |  |  | 0.2 | 0.7 | 149 | 277 | 20 | 51 | 12 | 196 | 0.69 | 69 | <10 | 112 | 0.8 | 4 | 0.03 | 9 |
| S054962 |  |  |  |  |  |  |  | 0.4 | 1.4 | 258 | 1670 | 3 | 315 | 369 | 300 | 1.25 | 299 | <10 | 79 | 0.7 | <2 | 0.07 | 65 |
| S054963 |  |  |  |  |  |  |  | 10.0 | <0.5 | 28 | 201 | 7 | 42 | 158 | 60 | 0.14 | 45 | $<10$ | 21 | <0.5 | <2 | 0.01 | 6 |
| S054964 |  |  |  |  |  |  |  | 1.6 | 1.1 | 103 | 1890 | 2 | 368 | 535 | 315 | 0.93 | 316 | $<10$ | 103 | 0.8 | <2 | 0.06 | 63 |
| S054965 | <0.03 | 0.10 | 0.13 | 0.11 | 37.46 | 550.94 | 588.40 | 1.1 | $<0.5$ | 15 | 409 | 8 | 39 | 98 | 63 | 0.07 | 39 | <10 | 23 | $<0.5$ | <2 | < 0.01 | 6 |
| S054966 | 0.41 | 0.60 | 0.56 | 0.57 | 24.27 | 426.62 | 450.89 | 0.6 | 1.0 | 65 | 826 | 4 | 237 | 408 | 412 | 0.62 | 233 | $<10$ | 60 | $<0.5$ | <2 | 0.04 | 32 |
| S054967 | <0.03 | <0.03 | <0.03 | <0.03 | 40.86 | 520.52 | 561.38 | 0.2 | 2.8 | 101 | 213 | 12 | 65 | 16 | 254 | 0.44 | 67 | <10 | 51 | <0.5 | <2 | 0.09 | 10 |
| S054968 |  |  |  |  |  |  |  | 3.6 | 8.1 | 165 | 2120 | 8 | 119 | 16 | 471 | 1.25 | 76 | <10 | 249 | 0.8 | <2 | 0.14 | 61 |
| S054969 |  |  |  |  |  |  |  | 0.6 | $<0.5$ | 50 | 1930 | 6 | 316 | 3 | 197 | 1.38 | 199 | <10 | 102 | <0.5 | <2 | 0.05 | 53 |
| S054970 |  |  |  |  |  |  |  | 0.6 | $<0.5$ | 50 | 1130 | 5 | 211 | <2 | 153 | 0.82 | 147 | <10 | 61 | $<0.5$ | <2 | 0.04 | 37 |
| S054971 |  |  |  |  |  |  |  | 0.4 | $<0.5$ | 40 | 1440 | 5 | 222 | <2 | 144 | 0.65 | 138 | <10 | 80 | <0.5 | <2 | 0.03 | 48 |
| S054972 |  |  |  |  |  |  |  | 0.2 | $<0.5$ | 15 | 644 | 9 | 36 | 13 | 21 | 0.14 | 29 | <10 | 36 | <0.5 | <2 | < 0.01 | 9 |
| S054973 | $<0.03$ | < 0.03 | <0.03 | <0.03 | 18.77 | 401.73 | 420.50 | 1.6 | 1.4 | 83 | 1840 | 6 | 258 | 13 | 210 | 0.56 | 214 | <10 | 140 | 0.9 | <2 | 0.02 | 41 |
| S054974 | <0.03 | <0.03 | <0.03 | < 0.03 | 26.84 | 516.10 | 542.94 | 4.3 | 1.4 | 106 | 3550 | 6 | 134 | 20 | 110 | 0.43 | 96 | <10 | 192 | 0.9 | <2 | 0.02 | 41 |
| S054975 | <0.03 | <0.03 | <0.03 | <0.03 | 30.88 | 463.33 | 494.21 | 0.5 | $<0.5$ | 15 | 264 | 7 | 28 | 17 | 31 | 0.09 | 28 | $<10$ | 20 | < 0.5 | <2 | < 0.01 | 4 |
| S054976 |  |  |  |  |  |  |  | $<0.2$ | 0.7 | 70 | 292 | 2 | 106 | 58 | 173 | 0.53 | 111 | <10 | 91 | 0.9 | <2 | 0.02 | 19 |
| S054977 |  |  |  |  |  |  |  | 0.2 | <0.5 | 68 | 964 | 2 | 103 | 14 | 133 | 0.67 | 128 | <10 | 109 | 0.8 | <2 | 0.02 | 17 |
| S054978 |  |  |  |  |  |  |  | $<0.2$ | 1.2 | 142 | 840 | 4 | 353 | 18 | 265 | 0.82 | 376 | $<10$ | 90 | 1.8 | <2 | 0.03 | 36 |
| S054979 | $<0.03$ | 0.30 | 0.33 | 0.29 | 30.87 | 485.53 | 516.40 | 0.8 | $<0.5$ | 39 | 375 | 5 | 50 | 11 | 108 | 0.29 | 78 | <10 | 56 | $<0.5$ | <2 | 0.02 | 3 |
| S054980 | <0.03 | < 0.03 | <0.03 | < 0.03 | 29.64 | 509.54 | 539.18 | 0.2 | 0.9 | 173 | 647 | 12 | 38 | 14 | 133 | 0.48 | 170 | <10 | 42 | 1.3 | <2 | 0.03 | 18 |
| S054981 | <0.03 | <0.03 | <0.03 | <0.03 | 25.82 | 438.72 | 464.54 | 2.2 | 3.1 | 46 | 2700 | 17 | 29 | 17 | 80 | 0.27 | 49 | <10 | 338 | 0.5 | <2 | 0.01 | 52 |
| S054982 | $<0.03$ | 0.33 | 0.26 | 0.29 | 15.06 | 366.96 | 382.02 | 9.1 | 10.1 | 153 | 7190 | 35 | 87 | 34 | 333 | 0.86 | 121 | $<10$ | 967 | 1.6 | 3 | 0.03 | 127 |
| S054983 | <0.03 | <0.03 | <0.03 | <0.03 | 31.48 | 453.83 | 485.31 | <0.2 | <0.5 | 86 | 564 | 10 | 20 | 29 | 37 | 0.43 | 117 | <10 | 97 | 0.9 | 3 | 0.02 | 7 |
| S054984 | < 0.03 | $<0.03$ | $<0.03$ | <0.03 | 27.28 | 474.44 | 501.72 | 1.4 | 0.6 | 85 | 6870 | 6 | 15 | 26 | 41 | 0.35 | 6 | $<10$ | 1060 | $<0.5$ | 2 | 0.02 | 52 |
| S054985 | 0.05 | <0.03 | <0.03 | < 0.03 | 22.46 | 472.18 | 494.64 | 2.9 | 13.1 | 390 | 6790 | 67 | 193 | 30 | 815 | 0.93 | 280 | <10 | 243 | 3.4 | <2 | 0.06 | 88 |
| S054986 | $<0.03$ | <0.03 | <0.03 | < 0.03 | 20.16 | 540.92 | 561.08 | 3.4 | 4.0 | 89 | 5930 | 15 | 77 | 18 | 179 | 0.38 | 62 | <10 | 266 | 0.7 | <2 | 0.03 | 41 |
| S054987 | 0.36 | <0.03 | <0.03 | <0.03 | 25.12 | 466.45 | 491.57 | 0.3 | 2.0 | 164 | 573 | 6 | 78 | 8 | 225 | 1.33 | 98 | <10 | 105 | 1.6 | <2 | 0.06 | 11 |
| S054988 | <0.03 | <0.03 | <0.03 | <0.03 | 18.91 | 416.12 | 435.00 | 0.2 | 1.2 | 136 | 543 | 5 | 63 | 7 | 189 | 1.06 | 77 | <10 | 105 | 1.3 | <2 | 0.04 | 15 |
| S054989 |  |  |  |  |  |  |  | 0.4 | 1.5 | 141 | 898 | 5 | 81 | 6 | 211 | 1.25 | 107 | $<10$ | 123 | 1.5 | <2 | 0.05 | 34 |
| S054990 |  |  |  |  |  |  |  | 0.5 | 0.8 | 43 | 976 | 6 | 27 | <2 | 60 | 0.34 | 31 | <10 | 84 | 0.5 | <2 | 0.02 | 27 |
| S054991 |  |  |  |  |  |  |  | 8.5 | 5.8 | 270 | 6550 | 10 | 190 | <2 | 289 | 1.74 | 160 | $<10$ | 581 | 2.4 | <2 | 0.07 | 194 |
| S054850 |  |  |  |  |  |  |  | <0.2 | 1.1 | 86 | 2380 | 1 | 140 | 13 | 127 | 4.32 | 6 | <10 | 259 | 1.3 | 3 | 1.22 | 39 |
| S054909 |  |  |  |  |  |  |  | 1.2 | 1.8 | 75 | 1260 | 2 | 188 | 149 | 231 | 2.18 | 133 | $<10$ | 147 | 0.6 | <2 | 0.54 | 33 |
| S054910 |  |  |  |  |  |  |  | $<0.2$ | $<0.5$ | 36 | 571 | 1 | 48 | 8 | 67 | 1.98 | 6 | $<10$ | 130 | 0.5 | <2 | 0.63 | 13 |
| S054911 |  |  |  |  |  |  |  | <0.2 | <0.5 | 26 | 870 | 1 | 38 | 3 | 57 | 1.20 | 8 | <10 | 96 | <0.5 | <2 | 0.67 | 13 |


| Analyte Symbol | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr | Ti | Th | Te | TI | U | V | W | Y | Zr | Au |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | \% | ppm | ppm | \% | ppm | \% | \% | \% | \% | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppb |
| Lower Limit | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 | 0.01 | 20 | 1 | 2 | 10 | 1 | 10 | 1 | 1 | 5 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | FA-AA |
| S054889 | 90 | 9.18 | <10 | <1 | 0.23 | <10 | 0.07 | 0.028 | 0.081 | <0.01 | 9 | 14 | 12 | <0.01 | <20 | 8 | <2 | $<10$ | 79 | <10 | 10 | 4 | 821 |
| S054890 | 115 | 0.71 | <10 | <1 | 0.01 | < 10 | $<0.01$ | 0.015 | 0.003 | <0.01 | <2 | <1 | <1 | $<0.01$ | < 20 | <1 | <2 | <10 | 5 | <10 | <1 | <1 |  |
| S054891 | 313 | 9.27 | $<10$ | < 1 | <0.01 | < 10 | <0.01 | 0.014 | 0.016 | 1.99 | 55 | < 1 | 2 | $<0.01$ | <20 | 3 | <2 | <10 | 15 | < 10 | <1 | 2 |  |
| S054892 | 61 | 8.21 | <10 | <1 | 0.21 | <10 | 0.06 | 0.052 | 0.079 | $<0.01$ | 7 | 22 | 14 | <0.01 | <20 | 8 | <2 | <10 | 66 | <10 | 11 | 3 |  |
| S054893 | 255 | 3.10 | <10 | <1 | 0.01 | < 10 | < 0.01 | 0.017 | 0.010 | 0.63 | 10 | <1 | 1 | <0.01 | <20 | <1 | <2 | <10 | 12 | <10 | <1 | <1 |  |
| S054894 | 118 | 8.49 | <10 | <1 | 0.22 | < 10 | 0.10 | 0.051 | 0.109 | < 0.01 | 9 | 24 | 13 | <0.01 | <20 | 6 | <2 | < 10 | 87 | < 10 | 13 | 2 |  |
| S054895 | 183 | 3.71 | $<10$ | < 1 | 0.02 | < 10 | 0.02 | 0.024 | 0.015 | 0.59 | <2 | 1 | 4 | <0.01 | <20 | <1 | <2 | < 10 | 10 | < 10 | 1 | 1 |  |
| S054896 | 109 | 1.15 | <10 | <1 | 0.01 | <10 | 0.01 | 0.017 | 0.008 | $<0.01$ | <2 | 2 | 2 | <0.01 | <20 | 3 | <2 | <10 | 7 | < 10 | 1 | <1 |  |
| S054897 | 67 | 1.67 | <10 | < 1 | 0.12 | 11 | 0.02 | 0.019 | 0.023 | <0.01 | <2 | 2 | 3 | <0.01 | <20 | 1 | <2 | < 10 | 17 | <10 | 4 | 1 |  |
| S054898 | 150 | 5.21 | <10 | <1 | 0.31 | 12 | 0.05 | 0.030 | 0.059 | <0.01 | 5 | 8 | 6 | <0.01 | <20 | 6 | <2 | < 10 | 69 | < 10 | 8 | 6 | 26 |
| S054899 | 117 | 0.73 | <10 | <1 | 0.02 | <10 | < 0.01 | 0.016 | 0.004 | $<0.01$ | <2 | <1 | 16 | <0.01 | <20 | <1 | <2 | <10 | 10 | <10 | 2 | 1 | 27 |
| S054900 | 23 | 3.02 | < 10 | < 1 | 0.11 | 13 | 2.40 | 0.043 | 0.037 | 0.02 | 3 | 1 | 51 | 0.02 | <20 | 4 | <2 | <10 | 12 | < 10 | 7 | 10 | < 5 |
| S054919 | 126 | 0.62 | <10 | <1 | <0.01 | <10 | < 0.01 | 0.019 | 0.002 | $<0.01$ | <2 | <1 | <1 | $<0.01$ | <20 | <1 | <2 | <10 | 2 | <10 | 1 | <1 |  |
| S054920 | 53 | 4.97 | $<10$ | < 1 | 0.04 | 17 | 0.03 | 0.058 | 0.036 | <0.01 | 3 | 5 | 10 | $<0.01$ | <20 | <1 | <2 | <10 | 46 | < 10 | 7 | 2 |  |
| S054921 | 149 | 2.99 | <10 | <1 | 0.01 | <10 | <0.01 | 0.018 | 0.012 | 0.11 | 2 | <1 | 2 | <0.01 | <20 | <1 | <2 | <10 | 14 | <10 | 1 | <1 |  |
| S054922 | 144 | 2.71 | <10 | < 1 | 0.01 | < 10 | < 0.01 | 0.015 | 0.011 | 0.21 | 3 | <1 | 2 | <0.01 | <20 | <1 | <2 | < 10 | 14 | < 10 | <1 | <1 |  |
| S054923 | 84 | 2.18 | <10 | < 1 | 0.07 | < 10 | 0.04 | 0.026 | 0.020 | <0.01 | <2 | 4 | 5 | <0.01 | <20 | 1 | <2 | < 10 | 25 | <10 | 2 | 2 |  |
| S054924 | 40 | 1.26 | $<10$ | <1 | 0.23 | 12 | 2.93 | 0.052 | 0.027 | 0.01 | 2 | 2 | 31 | 0.06 | <20 | <1 | <2 | < 10 | 21 | <10 | 5 | 6 | < 5 |
| S054925 | 54 | 2.35 | $<10$ | <1 | 0.02 | <10 | 0.35 | 0.033 | 0.014 | 1.47 | 2 | 2 | 29 | $<0.01$ | <20 | 2 | <2 | <10 | 8 | < 10 | 2 | 1 |  |
| S054926 | 40 | 13.3 | <10 | <1 | 0.02 | < 10 | 0.09 | 0.016 | 0.021 | 4.09 | 6 | 1 | 6 | <0.01 | < 20 | 6 | <2 | <10 | 70 | <10 | 1 | 3 |  |
| S054927 | 59 | 9.32 | <10 | <1 | 0.04 | 16 | 1.32 | 0.100 | 0.085 | 0.69 | 4 | 14 | 20 | <0.01 | <20 | 4 | <2 | < 10 | 100 | <10 | 5 | 4 |  |
| S054928 | 93 | 1.04 | <10 | <1 | <0.01 | < 10 | 0.46 | 0.022 | 0.010 | $<0.01$ | <2 | 2 | 20 | <0.01 | <20 | <1 | <2 | <10 | 11 | <10 | 1 | <1 |  |
| S054929 | 50 | 1.21 | <10 | <1 | 0.03 | < 10 | 0.08 | 0.068 | 0.231 | <0.01 | <2 | 2 | 20 | <0.01 | <20 | <1 | <2 | < 10 | 8 | <10 | 5 | <1 |  |
| S054930 | 33 | 5.96 | <10 | <1 | 0.06 | < 10 | 2.43 | 0.131 | 0.071 | 0.45 | 6 | 19 | 117 | <0.01 | <20 | 8 | <2 | <10 | 31 | <10 | 7 | 2 |  |
| S054931 | 67 | 1.50 | <10 | <1 | 0.04 | <10 | 0.32 | 0.023 | 0.028 | $<0.01$ | <2 | 5 | 12 | 0.09 | <20 | <1 | <2 | <10 | 38 | <10 | 6 | 1 |  |
| S054932 | 43 | 2.42 | <10 | <1 | 0.30 | < 10 | 0.48 | 0.070 | 0.024 | <0.01 | 5 | 7 | 49 | 0.23 | <20 | 1 | <2 | < 10 | 102 | <10 | 8 | 5 |  |
| S054933 | 60 | 4.67 | <10 | <1 | 0.16 | <10 | 0.17 | 0.035 | 0.044 | <0.01 | 3 | 16 | 13 | <0.01 | <20 | <1 | <2 | <10 | 60 | < 10 | 6 | 1 |  |
| S054934 | 35 | 6.77 | <10 | <1 | 0.07 | 16 | 0.07 | 0.103 | 0.071 | 0.02 | 4 | 16 | 19 | <0.01 | <20 | <1 | <2 | < 10 | 86 | < 10 | 8 | 3 |  |
| S054935 | 73 | 3.75 | $<10$ | <1 | 0.03 | 10 | 0.02 | 0.043 | 0.034 | 0.14 | 2 | 3 | 8 | <0.01 | <20 | <1 | <2 | <10 | 28 | <10 | 5 | 2 |  |
| S054936 | 136 | 10.6 | <10 | <1 | 0.05 | 24 | 0.06 | 0.078 | 0.070 | 0.01 | 7 | 10 | 15 | <0.01 | <20 | 5 | <2 | <10 | 100 | <10 | 16 | 4 |  |
| S054937 | 160 | 3.02 | <10 | <1 | 0.07 | <10 | 0.04 | 0.039 | 0.037 | <0.01 | 3 | 10 | 6 | <0.01 | <20 | - 1 | <2 | <10 | 35 | <10 | 4 | <1 |  |
| S054938 | 81 | 1.92 | $<10$ | < 1 | 0.02 | < 10 | <0.01 | 0.026 | 0.018 | 0.09 | <2 | 1 | 6 | <0.01 | <20 | <1 | <2 | < 10 | 12 | $<10$ | 2 | <1 |  |
| S054939 | 91 | 0.64 | <10 | <1 | <0.01 | < 10 | <0.01 | 0.017 | 0.003 | <0.01 | <2 | <1 | < 1 | <0.01 | <20 | <1 | <2 | <10 | 3 | < 10 | <1 | <1 |  |
| S054940 | 24 | 1.16 | <10 | <1 | 0.14 | < 10 | 2.25 | 0.049 | 0.029 | $<0.01$ | 3 | 2 | 46 | 0.04 | < 20 | 1 | <2 | $<10$ | 13 | $<10$ | 5 | 7 | $<5$ |
| S054941 | 25 | 12.8 | <10 | 3 | 0.21 | 112 | 0.06 | 0.024 | 0.146 | <0.01 | 15 | 4 | 24 | <0.01 | <20 | 5 | <2 | <10 | 59 | <10 | 132 | 5 | 89 |
| S054942 | 17 | 0.56 | <10 | <1 | 0.20 | 178 | 0.60 | 0.028 | 0.039 | <0.01 | <2 | 3 | 54 | <0.01 | <20 | 4 | <2 | <10 | 28 | <10 | 163 | 7 | 28 |
| S054943 | 18 | 14.7 | <10 | <1 | 0.18 | 32 | 0.05 | 0.030 | 0.232 | <0.01 | 11 | 3 | 36 | <0.01 | <20 | 6 | <2 | < 10 | 59 | < 10 | 71 | 4 | 36 |
| S054944 | 16 | 27.5 | <10 | <1 | 0.12 | < 10 | 0.05 | 0.019 | 0.576 | $<0.01$ | 13 | 2 | 53 | $<0.01$ | <20 | 16 | <2 | <10 | 45 | <10 | 55 | 6 | 42 |
| S054945 | 22 | 4.67 | <10 | <1 | 0.24 | 12 | 0.08 | 0.025 | 0.048 | <0.01 | 4 | 7 | 19 | $<0.01$ | <20 | 2 | <2 | <10 | 40 | <10 | 20 | 3 | 19 |
| S054946 | 28 | 11.4 | <10 | 4 | 0.22 | <10 | 0.04 | 0.022 | 0.106 | 0.02 | 5 | 3 | 8 | <0.01 | <20 | 7 | <2 | <10 | 32 | <10 | 41 | 4 | 84 |
| S054947 | 24 | 5.94 | <10 | $<1$ | 0.22 | 11 | 0.03 | 0.023 | 0.065 | $<0.01$ | 11 | 3 | 8 | <0.01 | < 20 | 1 | <2 | $<10$ | 46 | < 10 | 21 | 5 | 36 |
| S054948 | 29 | 6.97 | < 10 | <1 | 0.20 | <10 | 0.02 | 0.024 | 0.072 | $<0.01$ | 17 | 3 | 10 | <0.01 | <20 | <1 | <2 | <10 | 21 | <10 | 30 | 4 | 23 |
| S054949 | 20 | 4.98 | $<10$ | <1 | 0.15 | 13 | 0.02 | 0.023 | 0.079 | <0.01 | 6 | 2 | 14 | <0.01 | <20 | 3 | <2 | <10 | 20 | <10 | 23 | 4 | 13 |
| S054950 | 19 | 7.11 | <10 | <1 | 0.24 | 13 | 0.03 | 0.024 | 0.084 | <0.01 | 13 | 4 | 18 | <0.01 | <20 | 7 | <2 | <10 | 59 | < 10 | 18 | 5 | 36 |
| S054951 | 20 | 7.62 | <10 | <1 | 0.27 | 22 | 0.04 | 0.026 | 0.135 | <0.01 | 16 | 5 | 17 | $<0.01$ | < 20 | <1 | <2 | <10 | 56 | <10 | 35 | 3 | 27 |
| S054952 | 22 | 15.3 | <10 | <1 | 0.19 | 13 | 0.04 | 0.021 | 0.290 | 0.01 | 21 | 4 | 21 | <0.01 | <20 | 4 | <2 | < 10 | 68 | <10 | 25 | 4 |  |
| S054953 | 16 | 7.94 | < 10 | <1 | 0.25 | 18 | 0.05 | 0.023 | 0.181 | $<0.01$ | 24 | 5 | 13 | <0.01 | <20 | <1 | <2 | <10 | 44 | <10 | 12 | 3 |  |
| S054954 | 15 | 4.77 | $<10$ | <1 | 0.29 | 20 | 0.04 | 0.026 | 0.106 | <0.01 | 16 | 2 | 11 | <0.01 | <20 | 5 | <2 | <10 | 50 | <10 | 8 | 3 | 26 |
| S054955 | 24 | 12.6 | <10 | 3 | 0.25 | 13 | 0.05 | 0.026 | 0.262 | 0.01 | 34 | 4 | 14 | <0.01 | <20 | 2 | 4 | <10 | 66 | <10 | 13 | 3 | 126 |
| S054956 | 28 | 5.14 | <10 | <1 | 0.27 | 19 | 0.09 | 0.029 | 0.108 | $<0.01$ | 17 | 5 | 24 | <0.01 | <20 | 6 | <2 | <10 | 70 | <10 | 11 | 3 | 142 |
| S054957 | 21 | 18.2 | <10 | <1 | 0.27 | 12 | 0.04 | 0.041 | 0.384 | <0.01 | 16 | 3 | 54 | $<0.01$ | <20 | 1 | <2 | $<10$ | 71 | $<10$ | 20 | 4 | 47 |

Results

| Analyte Symbol | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr | Ti | Th | Te | TI | U | V | W | Y | Zr | Au |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | \% | ppm | ppm | \% | ppm | \% | \% | \% | \% | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppb |
| Lower Limit | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 | 0.01 | 20 | 1 | 2 | 10 | 1 | 10 | 1 | 1 | 5 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | FA-AA |
| S054958 | 36 | 10.9 | <10 | <1 | 0.25 | 16 | 0.09 | 0.039 | 0.237 | $<0.01$ | 13 | 3 | 40 | <0.01 | $<20$ | 4 | <2 | $<10$ | 71 | $<10$ | 16 | 3 | 57 |
| S054959 | 13 | 15.7 | <10 | <1 | 0.22 | < 10 | 0.03 | 0.034 | 0.379 | <0.01 | 16 | 2 | 31 | <0.01 | <20 | 3 | 2 | <10 | 64 | < 10 | 19 | 4 |  |
| S054960 | 25 | 1.69 | < 10 | <1 | 0.12 | 16 | 1.20 | 0.039 | 0.043 | 0.02 | 3 | 1 | 51 | 0.03 | <20 | 1 | <2 | <10 | 12 | < 10 | 8 | 9 | < 5 |
| S054961 | 35 | 4.43 | < 10 | <1 | 0.19 | 13 | 0.03 | 0.023 | 0.044 | <0.01 | 5 | 2 | 7 | <0.01 | <20 | 2 | <2 | < 10 | 26 | < 10 | 17 | 7 | 25 |
| S054962 | 103 | 6.76 | < 10 | <1 | 0.25 | <10 | 0.06 | 0.036 | 0.091 | $<0.01$ | 8 | 20 | 10 | <0.01 | <20 | 3 | <2 | <10 | 61 | < 10 | 11 | 2 | 243 |
| S054963 | 92 | 1.46 | < 10 | <1 | 0.05 | < 10 | 0.01 | 0.020 | 0.013 | <0.01 | 17 | 3 | 2 | $<0.01$ | <20 | 2 | <2 | <10 | 12 | < 10 | 2 | <1 | 6000 |
| S054964 | 136 | 8.40 | <10 | <1 | 0.28 | <10 | 0.07 | 0.039 | 0.091 | $<0.01$ | 7 | 20 | 10 | <0.01 | <20 | 3 | <2 | <10 | 63 | <10 | 11 | 2 | 436 |
| S054965 | 90 | 1.19 | < 10 | 1 | 0.03 | < 10 | <0.01 | 0.017 | 0.009 | <0.01 | 3 | 2 | 2 | <0.01 | <20 | 5 | <2 | <10 | 9 | < 10 | 1 | <1 |  |
| S054966 | 119 | 5.46 | < 10 | <1 | 0.20 | <10 | 0.04 | 0.028 | 0.067 | $<0.01$ | 5 | 11 | 7 | <0.01 | <20 | <1 | <2 | <10 | 42 | < 10 | 8 | 2 |  |
| S054967 | 39 | 4.29 | < 10 | <1 | 0.10 | <10 | 0.05 | 0.022 | 0.071 | <0.01 | 3 | 2 | 9 | <0.01 | <20 | 4 | <2 | <10 | 23 | < 10 | 6 | 4 |  |
| S054968 | 12 | 7.77 | < 10 | <1 | 0.26 | 33 | 0.12 | 0.040 | 0.088 | <0.01 | 5 | 4 | 38 | <0.01 | <20 | <1 | <2 | < 10 | 15 | < 10 | 11 | 4 | 8 |
| S054969 | 118 | 9.33 | < 10 | <1 | 0.13 | < 10 | 0.07 | 0.097 | 0.127 | <0.01 | 7 | 31 | 16 | <0.01 | <20 | 9 | <2 | < 10 | 61 | < 10 | 8 | 3 | 82 |
| S054970 | 99 | 7.02 | <10 | <1 | 0.09 | < 10 | 0.05 | 0.082 | 0.084 | <0.01 | 3 | 23 | 11 | $<0.01$ | <20 | <1 | <2 | <10 | 44 | <10 | 6 | 2 | 337 |
| S054971 | 45 | 7.06 | <10 | <1 | 0.10 | <10 | 0.04 | 0.087 | 0.071 | $<0.01$ | 5 | 22 | 12 | <0.01 | <20 | 6 | <2 | <10 | 39 | < 10 | 5 | 2 | 24 |
| S054972 | 86 | 1.06 | < 10 | <1 | 0.03 | < 10 | < 0.01 | 0.020 | 0.009 | <0.01 | <2 | 2 | 2 | <0.01 | < 20 | <1 | <2 | <10 | 7 | < 10 | 3 | <1 | 13 |
| S054973 | 84 | 4.40 | < 10 | <1 | 0.21 | 13 | 0.04 | 0.038 | 0.045 | $<0.01$ | 2 | 8 | 8 | <0.01 | <20 | <1 | <2 | <10 | 37 | < 10 | 16 | 6 |  |
| S054974 | 46 | 2.75 | < 10 | <1 | 0.14 | 11 | 0.03 | 0.025 | 0.030 | <0.01 | 2 | 6 | 8 | <0.01 | <20 | 3 | <2 | < 10 | 30 | < 10 | 24 | 5 |  |
| S054975 | 78 | 1.02 | < 10 | <1 | 0.02 | <10 | $<0.01$ | 0.016 | 0.008 | <0.01 | <2 | <1 | <1 | <0.01 | <20 | 3 | <2 | <10 | 8 | < 10 | 4 | 2 |  |
| S054976 | 125 | 3.45 | <10 | <1 | 0.19 | 47 | 0.04 | 0.022 | 0.041 | <0.01 | 4 | 4 | 5 | <0.01 | <20 | 2 | <2 | <10 | 47 | < 10 | 87 | 7 | 103 |
| S054977 | 29 | 3.35 | < 10 | <1 | 0.26 | 20 | 0.05 | 0.027 | 0.035 | <0.01 | 3 | 5 | 4 | <0.01 | <20 | <1 | <2 | <10 | 32 | < 10 | 16 | 8 | 78 |
| S054978 | 99 | 7.30 | < 10 | <1 | 0.25 | 14 | 0.05 | 0.042 | 0.091 | $<0.01$ | 5 | 14 | 7 | $<0.01$ | <20 | 5 | <2 | <10 | 59 | < 10 | 49 | 4 | 25 |
| S054979 | 137 | 2.11 | < 10 | <1 | 0.09 | < 10 | 0.03 | 0.022 | 0.024 | <0.01 | 2 | 2 | 3 | $<0.01$ | <20 | < 1 | <2 | $<10$ | 26 | < 10 | 3 | 5 |  |
| S054980 | 137 | 13.7 | < 10 | <1 | 0.05 | < 10 | 0.02 | 0.016 | 0.162 | <0.01 | 7 | 6 | 4 | <0.01 | < 20 | 5 | <2 | $<10$ | 99 | < 10 | 5 | 4 |  |
| S054981 | 55 | 1.46 | < 10 | <1 | 0.09 | $<10$ | 0.01 | 0.026 | 0.026 | $<0.01$ | <2 | 2 | 13 | $<0.01$ | < 20 | <1 | <2 | $<10$ | 18 | $<10$ | 5 | 3 |  |
| S054982 | 51 | 4.53 | < 10 | <1 | 0.29 | 16 | 0.04 | 0.037 | 0.080 | $<0.01$ | 3 | 5 | 35 | <0.01 | <20 | 3 | <2 | <10 | 116 | < 10 | 14 | 4 |  |
| S054983 | 42 | 3.01 | < 10 | <1 | 0.07 | < 10 | 0.02 | 0.016 | 0.051 | <0.01 | 4 | 7 | 7 | $<0.01$ | <20 | 1 | <2 | $<10$ | 24 | < 10 | 2 | 2 |  |
| S054984 | 42 | 3.35 | <10 | <1 | 0.04 | < 10 | $<0.01$ | 0.027 | 0.019 | <0.01 | 4 | 6 | 8 | <0.01 | <20 | 2 | <2 | <10 | 23 | <10 | 9 | 9 |  |
| S054985 | 118 | 16.2 | <10 | <1 | 0.28 | <10 | 0.05 | 0.032 | 0.273 | $<0.01$ | 9 | 8 | 70 | $<0.01$ | <20 | 4 | <2 | <10 | 177 | < 10 | 23 | 4 |  |
| S054986 | 40 | 5.84 | < 10 | <1 | 0.16 | 11 | 0.02 | 0.046 | 0.067 | <0.01 | 4 | 9 | 77 | <0.01 | <20 | 2 | <2 | <10 | 38 | < 10 | 8 | 3 |  |
| S054987 | 47 | 7.36 | <10 | <1 | 0.20 | <10 | 0.04 | 0.065 | 0.195 | <0.01 | 4 | 22 | 17 | $<0.01$ | <20 | <1 | 4 | <10 | 93 | <10 | 11 | 3 |  |
| S054988 | 39 | 6.39 | < 10 | <1 | 0.20 | < 10 | 0.04 | 0.067 | 0.170 | <0.01 | 4 | 17 | 17 | $<0.01$ | <20 | 9 | <2 | < 10 | 74 | < 10 | 9 | 3 |  |
| S054989 | 50 | 7.32 | < 10 | <1 | 0.19 | < 10 | 0.04 | 0.064 | 0.184 | $<0.01$ | 3 | 18 | 16 | $<0.01$ | <20 | <1 | $<2$ | <10 | 91 | < 10 | 10 | 3 | 23 |
| S054990 | 60 | 2.18 | < 10 | <1 | 0.05 | < 10 | 0.01 | 0.039 | 0.052 | <0.01 | <2 | 9 | 8 | $<0.01$ | <20 | <1 | <2 | $<10$ | 32 | < 10 | 4 | 1 | 12 |
| S054991 | 37 | 8.98 | <10 | <1 | 0.14 | <10 | 0.05 | 0.094 | 0.237 | $<0.01$ | 5 | 38 | 35 | <0.01 | <20 | <1 | <2 | <10 | 147 | < 10 | 14 | 3 | 19 |
| S054850 | 83 | 5.99 | 10 | <1 | 0.30 | 19 | 1.72 | 0.032 | 0.134 | <0.01 | 4 | 12 | 87 | 0.12 | <20 | 13 | <2 | <10 | 110 | < 10 | 20 | 5 | 24 |
| S054909 | 169 | 5.26 | < 10 | <1 | 0.15 | 14 | 0.85 | 0.027 | 0.083 | <0.01 | 6 | 14 | 38 | 0.10 | <20 | 2 | <2 | <10 | 90 | < 10 | 12 | 5 | 134 |
| S054910 | 64 | 3.09 | < 10 | <1 | 0.16 | 15 | 0.75 | 0.030 | 0.066 | <0.01 | 4 | 8 | 46 | 0.15 | <20 | <1 | <2 | <10 | 77 | < 10 | 11 | 9 | 38 |
| S054911 | 69 | 3.29 | <10 | <1 | 0.10 | 21 | 0.52 | 0.026 | 0.097 | 0.02 | <2 | 6 | 51 | 0.17 | <20 | 4 | <2 | $<10$ | 88 | <10 | 11 | 4 | 35 |


| Analyte Symbol | Au | $\begin{aligned} & \mathrm{Au}+ \\ & 100 \\ & \text { mesh } \end{aligned}$ | $\begin{array}{\|l\|} \hline \mathrm{Au}- \\ 100 \\ \text { mesh } \\ \text { (A) } \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline \mathrm{Au}- \\ 100 \\ \text { mesh } \\ \text { (B) } \\ \hline \end{array}$ | $\begin{aligned} & \text { Total } \\ & \mathrm{Au} \end{aligned}$ | $\begin{aligned} & +100 \\ & \text { mesh } \end{aligned}$ | $\begin{aligned} & -100 \\ & \text { mesh } \end{aligned}$ | Total <br> Weight | Ag | Cd | Cu | Mn | Mo | Ni | Pb | Zn | AI | As | B | Ba | Be | Bi | Ca |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | $\mathrm{g} / \mathrm{mt}$ | $\mathrm{g} / \mathrm{mt}$ | $\mathrm{g} / \mathrm{mt}$ | $\mathrm{g} / \mathrm{mt}$ | g | g | g | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | \% |
| Lower Limit | 5 | 0.03 | 0.03 | 0.03 | 0.03 |  |  |  | 0.2 | 0.5 | 1 | 5 | 1 | 1 | 2 | 2 | 0.01 | 2 | 10 | 10 | 0.5 | 2 | 0.01 |
| Method Code | FA-AA | FA-MeT | FA-MeT | FA-MeT | FA-MeT | FA-MeT | FA-MeT | FA-MeT | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| OREAS 45e (Aqua Regia) Meas |  |  |  |  |  |  |  |  |  |  | 739 | 401 |  | 409 | 6 | 30 | 3.64 | 10 |  | 113 |  |  | 0.03 |
| OREAS 45e (Aqua Regia) Cert |  |  |  |  |  |  |  |  |  |  | 709.0 | 400.000 |  | 357.0 | 14.3 | 30.6 | 3.32 | 11.4 |  | 139 |  |  | 0.032 |
| OREAS 45e <br> (Aqua Regia) Meas |  |  |  |  |  |  |  |  |  |  | 728 | 394 |  | 388 | 3 | 30 | 3.52 | 10 |  | 113 |  |  | 0.03 |
| OREAS 45e <br> (Aqua Regia) Cert |  |  |  |  |  |  |  |  |  |  | 709.0 | 400.000 |  | 357.0 | 14.3 | 30.6 | 3.32 | 11.4 |  | 139 |  |  | 0.032 |
| SQ48 Meas |  |  |  |  | 30.5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SQ48 Cert |  |  |  |  | 30.25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SQ48 Meas |  |  |  |  | 29.9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SQ48 Cert |  |  |  |  | 30.25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SQ48 Meas |  |  |  |  | 30.5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SQ48 Cert |  |  |  |  | 30.25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SQ48 Meas |  |  |  |  | 30.5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SQ48 Cert |  |  |  |  | 30.25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { OREAS 922 } \\ & \text { (AQUA REGIA) } \\ & \text { Meas } \end{aligned}$ |  |  |  |  |  |  |  |  | 0.7 | < 0.5 | 2310 | 808 | < 1 | 39 | 68 | 264 | 2.91 | 5 |  | 76 | 0.8 | 9 | 0.41 |
| OREAS 922 (AQUA REGIA) Cert |  |  |  |  |  |  |  |  | 0.851 | 0.28 | 2176 | 730 | 0.69 | 34.3 | 60 | 256 | 2.72 | 6.12 |  | 70 | 0.65 | 10.3 | 0.324 |
| OREAS 922 <br> (AQUA REGIA) <br> Meas |  |  |  |  |  |  |  |  | 0.7 | < 0.5 | 2160 | 780 | < 1 | 34 | 54 | 255 | 2.74 | 11 |  | 75 | 0.8 | 5 | 0.39 |
| OREAS 922 (AQUA REGIA) Cert |  |  |  |  |  |  |  |  | 0.851 | 0.28 | 2176 | 730 | 0.69 | 34.3 | 60 | 256 | 2.72 | 6.12 |  | 70 | 0.65 | 10.3 | 0.324 |
| $\begin{aligned} & \text { OREAS 923 } \\ & \text { (AQUA REGIA) } \\ & \text { Meas } \end{aligned}$ |  |  |  |  |  |  |  |  | 1.5 | $<0.5$ | 4220 | 865 | < 1 | 32 | 76 | 317 | 2.78 | 8 |  | 65 | 0.7 | 18 | 0.39 |
| $\begin{aligned} & \text { OREAS 923 } \\ & \text { (AQUA REGIA) } \\ & \text { Cert } \end{aligned}$ |  |  |  |  |  |  |  |  | 1.62 | 0.40 | 4248 | 850 | 0.84 | 32.7 | 81 | 335 | 2.80 | 7.07 |  | 54 | 0.61 | 21.8 | 0.326 |
| $\begin{aligned} & \text { OREAS 923 } \\ & \text { (AQUA REGIA) } \\ & \text { Meas } \end{aligned}$ |  |  |  |  |  |  |  |  | 1.6 | <0.5 | 4290 | 858 | < 1 | 32 | 87 | 321 | 2.72 | 8 |  | 58 | 0.7 | 15 | 0.37 |
| OREAS 923 (AQUA REGIA) Cert |  |  |  |  |  |  |  |  | 1.62 | 0.40 | 4248 | 850 | 0.84 | 32.7 | 81 | 335 | 2.80 | 7.07 |  | 54 | 0.61 | 21.8 | 0.326 |
| OREAS 520 (Aqua Regia) Meas |  |  |  |  |  |  |  |  |  |  | 2890 | 2080 | 55 | 74 | 7 | 22 | 1.55 | 151 |  |  | 0.7 | <2 | 3.47 |
| OREAS 520 <br> (Aqua Regia) Cert |  |  |  |  |  |  |  |  |  |  | 2960 | 2280 | 62.0 | 73.0 | 5.22 | 20.7 | 1.56 | 152 |  |  | 0.540 | 2.90 | 3.84 |
| OREAS 520 (Aqua Regia) Meas |  |  |  |  |  |  |  |  |  |  | 2780 | 2040 | 55 | 66 | 23 | 22 | 1.50 | 153 |  |  | 0.6 | <2 | 3.40 |
| OREAS 520 <br> (Aqua Regia) Cert |  |  |  |  |  |  |  |  |  |  | 2960 | 2280 | 62.0 | 73.0 | 5.22 | 20.7 | 1.56 | 152 |  |  | 0.540 | 2.90 | 3.84 |
| OREAS 907 <br> (Aqua Regia) <br> Meas |  |  |  |  |  |  |  |  | 1.2 | 0.7 | 6180 | 338 | 6 | 7 | 31 | 139 | 1.15 | 35 |  | 221 | 1.1 | 22 | 0.26 |
| OREAS 907 <br> (Aqua Regia) Cert |  |  |  |  |  |  |  |  | 1.30 | 0.540 | 6370 | 330 | 5.64 | 4.74 | 34.1 | 139 | 0.945 | 37.0 |  | 225 | 0.870 | 22.3 | 0.280 |


| Analyte Symbol | Au | $\begin{array}{\|l} \mathrm{Au}+ \\ 100 \\ \text { mesh } \end{array}$ | $\begin{array}{\|l} \hline \mathrm{Au}- \\ 100 \\ \text { mesh } \\ \text { (A) } \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline \mathrm{Au}- \\ 100 \\ \text { mesh } \\ \text { (B) } \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline \text { Total } \\ \mathrm{Au} \end{array}$ | $\begin{aligned} & +100 \\ & \text { mesh } \end{aligned}$ | $\begin{aligned} & -100 \\ & \text { mesh } \end{aligned}$ | $\begin{array}{\|l\|} \hline \text { Total } \\ \text { Weight } \end{array}$ | Ag | Cd | Cu | Mn | Mo | Ni | Pb | Zn | AI | As | B | Ba | Be | Bi | Ca |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | $\mathrm{g} / \mathrm{mt}$ | $\mathrm{g} / \mathrm{mt}$ | $\mathrm{g} / \mathrm{mt}$ | $\mathrm{g} / \mathrm{mt}$ | $g$ | g | g | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | \% |
| Lower Limit | 5 | 0.03 | 0.03 | 0.03 | 0.03 |  |  |  | 0.2 | 0.5 | 1 | 5 | 1 | 1 | 2 | 2 | 0.01 | 2 | 10 | 10 | 0.5 | 2 | 0.01 |
| Method Code | FA-AA | FA-MeT | FA-MeT | FA-MeT | FA-MeT | FA-MeT | FA-MeT | FA-MeT | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| OREAS 907 (Aqua Regia) Meas |  |  |  |  |  |  |  |  | 1.2 | $<0.5$ | 6020 | 331 | 6 | 4 | 32 | 138 | 1.11 | 36 |  | 212 | 1.1 | 29 | 0.27 |
| OREAS 907 <br> (Aqua Regia) Cert |  |  |  |  |  |  |  |  | 1.30 | 0.540 | 6370 | 330 | 5.64 | 4.74 | 34.1 | 139 | 0.945 | 37.0 |  | 225 | 0.870 | 22.3 | 0.280 |
| OREAS 222 (Fire Assay) Meas | 1220 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 222 (Fire <br> Assay) Cert | 1220 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 222 (Fire Assay) Meas | 1190 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 222 (Fire <br> Assay) Cert | 1220 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 222 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 222 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 222 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 222 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 222 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 222 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas 621 (Aqua Regia) Meas |  |  |  |  |  |  |  |  | 74.7 | 286 | 3580 | 554 | 13 | 26 | > 5000 | 10000 | 1.83 | 86 |  |  | 0.6 | <2 | 1.69 |
| Oreas 621 (Aqua <br> Regia) Cert |  |  |  |  |  |  |  |  | 68.0 | 278 | 3660 | 520 | 13.3 | 25.8 | 13600 | 51700 | 1.60 | 75.0 |  |  | 0.530 | 3.85 | 1.65 |
| Oreas 621 (Aqua Regia) Meas |  |  |  |  |  |  |  |  | 66.8 | 262 | 3300 | 508 | 13 | 23 | > 5000 | 10000 | 1.63 | 80 |  |  | 0.6 | 5 | 1.54 |
| Oreas 621 (Aqua <br> Regia) Cert |  |  |  |  |  |  |  |  | 68.0 | 278 | 3660 | 520 | 13.3 | 25.8 | 13600 | 51700 | 1.60 | 75.0 |  |  | 0.530 | 3.85 | 1.65 |
| OREAS 257 Meas |  |  |  |  | 13.9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 257 Cert |  |  |  |  | 14.18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 257 Meas |  |  |  |  | 13.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 257 Cert |  |  |  |  | 14.18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 257 Meas |  |  |  |  | 14.3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 257 Cert |  |  |  |  | 14.18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 257 Meas |  |  |  |  | 14.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 257 Cert |  |  |  |  | 14.18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 255 (Fire Assay) Meas | 3940 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 255 (Fire <br> Assay) Cert | 4080 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 255 (Fire Assay) Meas | 4010 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 255 (Fire <br> Assay) Cert | 4080 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 255 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 255 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 255 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | $\begin{aligned} & \mathrm{Au}+ \\ & 100 \\ & \text { mesh } \end{aligned}$ | $\mathrm{Au}-$ <br> 100 <br> mesh <br> (A) | $\begin{array}{\|l\|} \hline \mathrm{Au}- \\ 100 \\ \text { mesh } \\ \text { (B) } \\ \hline \end{array}$ | Total <br> Au | $\begin{aligned} & +100 \\ & \text { mesh } \end{aligned}$ | $\begin{aligned} & -100 \\ & \text { mesh } \end{aligned}$ | Total <br> Weight | Ag | Cd | Cu | Mn | Mo | Ni | Pb | Zn | AI | As | B | Ba | Be | Bi | Ca |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | g/mt | $\mathrm{g} / \mathrm{mt}$ | $\mathrm{g} / \mathrm{mt}$ | $\mathrm{g} / \mathrm{mt}$ | g | g | g | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | \% |
| Lower Limit | 5 | 0.03 | 0.03 | 0.03 | 0.03 |  |  |  | 0.2 | 0.5 | 1 | 5 | 1 | 1 | 2 |  | 0.01 | 2 | 10 | 10 | 0.5 | 2 | 0.01 |
| Method Code | FA-AA | FA-MeT | FA-MeT | FA-MeT | FA-MeT | FA-MeT | FA-MeT | FA-MeT | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| OREAS 255 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 255 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 255 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054890 Orig |  | 0.11 | 0.33 | 0.40 | 0.34 | 44.56 | 401.25 | 445.80 | 18.9 | $<0.5$ | 14 | 260 | 11 | 18 | 37 | 18 | 0.07 | 14 | $<10$ | 21 | $<0.5$ | <2 | $<0.01$ |
| S054890 Dup |  |  |  |  |  |  |  |  | 16.8 | <0.5 | 13 | 258 | 11 | 17 | 39 | 18 | 0.07 | 10 | <10 | 20 | <0.5 | <2 | < 0.01 |
| S054891 Orig |  | 365 | 29.4 | 30.2 | 45.9 | 20.59 | 408.25 | 428.84 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054892 Orig |  | 5.57 | 1.87 | 1.71 | 1.94 | 16.69 | 412.37 | 429.06 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054893 Orig |  | 85.8 | 11.8 | 12.4 | 17.5 | 32.74 | 416.24 | 448.98 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054894 Orig |  | <0.03 | $<0.03$ | <0.03 | <0.03 | 17.64 | 388.86 | 406.50 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054895 Orig |  | <0.03 | <0.03 | <0.03 | <0.03 | 38.42 | 434.65 | 473.07 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054896 Orig |  | <0.03 | <0.03 | <0.03 | <0.03 | 34.06 | 427.55 | 461.61 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054897 Orig |  | <0.03 | <0.03 | <0.03 | <0.03 | 15.17 | 517.56 | 532.73 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054919 Orig |  | <0.03 | <0.03 | <0.03 | <0.03 | 32.62 | 594.24 | 626.86 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054920 Orig |  | <0.03 | <0.03 | <0.03 | <0.03 | 36.24 | 512.93 | 549.17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054921 Orig |  | <0.03 | <0.03 | <0.03 | <0.03 | 21.89 | 576.80 | 598.70 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054923 Orig |  | <0.03 | <0.03 | <0.03 | <0.03 | 14.73 | 482.83 | 497.56 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054925 Orig |  | 0.40 | 0.23 | 0.30 | 0.27 | 37.65 | 543.84 | 581.49 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054926 Orig |  | 11.3 | 9.72 | 9.90 | 9.85 | 16.50 | 560.00 | 576.50 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054927 Orig |  | <0.03 | <0.03 | <0.03 | <0.03 | 10.33 | 455.03 | 465.36 | 0.6 | < 0.5 | 597 | 1390 | <1 | 118 | 17 | 111 | 1.59 | 8 | <10 | 89 | < 0.5 | 3 | 0.24 |
| S054927 Dup |  |  |  |  |  |  |  |  | 0.7 | $<0.5$ | 591 | 1400 | <1 | 119 | 18 | 111 | 1.61 | 6 | <10 | 87 | <0.5 | 3 | 0.24 |
| S054928 Orig |  | <0.03 | <0.03 | $<0.03$ | $<0.03$ | 38.34 | 543.79 | 582.13 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054929 Orig |  | <0.03 | <0.03 | <0.03 | <0.03 | 15.72 | 468.59 | 484.31 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054930 Orig |  | 5.00 | 0.36 | 0.30 | 0.45 | 14.21 | 519.14 | 533.40 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054931 Orig |  | 0.14 | 0.03 | 0.03 | 0.04 | 49.74 | 478.88 | 528.62 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054932 Orig |  | <0.03 | <0.03 | <0.03 | <0.03 | 22.90 | 491.40 | 514.30 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054933 Orig |  | 1.66 | 0.33 | 0.36 | 0.43 | 30.10 | 422.12 | 452.22 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054934 Orig |  | $<0.03$ | <0.03 | <0.03 | <0.03 | 14.70 | 449.76 | 464.46 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054935 Orig |  | <0.03 | <0.03 | <0.03 | <0.03 | 15.74 | 498.86 | 514.60 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054936 Orig |  | 0.04 | <0.03 | <0.03 | <0.03 | 23.94 | 505.13 | 529.07 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054937 Orig |  | <0.03 | <0.03 | <0.03 | <0.03 | 24.87 | 474.68 | 499.55 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054938 Orig |  | 0.61 | 0.23 | 0.16 | 0.22 | 44.03 | 634.89 | 678.92 | 2.2 | $<0.5$ | 29 | 223 | 6 | 13 | 14 | 20 | 0.08 | 20 | < 10 | 64 | $<0.5$ | <2 | 0.02 |
| S054938 Dup |  |  |  |  |  |  |  |  | 2.0 | <0.5 | 29 | 221 | 7 | 16 | 16 | 21 | 0.09 | 19 | $<10$ | 64 | <0.5 | <2 | 0.02 |
| S054939 Orig |  | <0.03 | <0.03 | <0.03 | $<0.03$ | 19.61 | 435.58 | 455.19 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054941 Orig | 87 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054941 Dup | 90 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054950 Orig | 35 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054950 Dup | 36 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054952 Orig |  | 0.05 | 0.07 | 0.10 | 0.08 | 20.28 | 504.24 | 524.52 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054953 Orig |  | <0.03 | <0.03 | <0.03 | <0.03 | 12.63 | 412.94 | 425.60 | <0.2 | 4.7 | 89 | 672 | 39 | 99 | 19 | 453 | 1.04 | 129 | <10 | 140 | 1.8 | <2 | 0.03 |
| S054953 Dup |  |  |  |  |  |  |  |  | <0.2 | 4.8 | 89 | 679 | 39 | 101 | 20 | 457 | 1.03 | 127 | <10 | 141 | 1.9 | <2 | 0.03 |
| S054956 Orig | 142 |  |  |  |  |  |  |  | 0.6 | 1.7 | 62 | 1770 | 46 | 71 | 25 | 296 | 0.91 | 84 | <10 | 271 | 1.0 | 3 | 0.04 |
| $\begin{aligned} & \text { S054956 Split } \\ & \text { PREP DUP } \\ & \hline \end{aligned}$ | 114 |  |  |  |  |  |  |  | 0.6 | 1.9 | 61 | 1640 | 46 | 72 | 28 | 297 | 0.95 | 81 | <10 | 267 | 1.0 | <2 | 0.04 |
| S054959 Orig |  | <0.03 | <0.03 | <0.03 | <0.03 | 15.54 | 485.23 | 500.77 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054963 Orig | 6290 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054963 Dup | 5710 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054965 Orig |  | <0.03 | 0.10 | 0.13 | 0.11 | 37.46 | 550.94 | 588.40 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | $\begin{array}{\|l} \mathrm{Au}+ \\ 100 \\ \text { mesh } \end{array}$ | $\begin{array}{\|l} \hline \mathrm{Au}- \\ 100 \\ \text { mesh } \\ \text { (A) } \\ \hline \end{array}$ |  | $\begin{array}{\|l\|l\|} \hline \text { Total } \\ \mathrm{Au} \end{array}$ | $\begin{aligned} & +100 \\ & \text { mesh } \end{aligned}$ | $\begin{aligned} & -100 \\ & \text { mesh } \end{aligned}$ | $\begin{array}{\|l\|} \hline \text { Total } \\ \text { Weight } \end{array}$ | Ag | Cd | Cu | Mn | Mo | Ni | Pb | Zn | AI | As | B | Ba | Be | Bi | Ca |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | $\mathrm{g} / \mathrm{mt}$ | $\mathrm{g} / \mathrm{mt}$ | g/mt | g/mt | $g$ | $g$ | g | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | \% |
| Lower Limit | 5 | 0.03 | 0.03 | 0.03 | 0.03 |  |  |  | 0.2 | 0.5 | 1 | 5 | 1 | 1 | 2 | 2 | 0.01 | 2 | 10 | 10 | 0.5 | 2 | 0.01 |
| Method Code | FA-AA | FA-MeT | FA-MeT | FA-MeT | FA-MeT | FA-MeT | FA-MeT | FA-MeT | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| S054966 Orig |  | 0.41 | 0.60 | 0.56 | 0.57 | 24.27 | 426.62 | 450.89 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054967 Orig |  | <0.03 | $<0.03$ | <0.03 | <0.03 | 40.86 | 520.52 | 561.38 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054973 Orig |  | <0.03 | <0.03 | <0.03 | <0.03 | 18.77 | 401.73 | 420.50 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054974 Orig |  | <0.03 | $<0.03$ | <0.03 | <0.03 | 26.84 | 516.10 | 542.94 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054975 Orig |  | <0.03 | <0.03 | <0.03 | <0.03 | 30.88 | 463.33 | 494.21 | 0.5 | $<0.5$ | 15 | 271 | 7 | 29 | 16 | 32 | 0.09 | 29 | <10 | 21 | $<0.5$ | <2 | < 0.01 |
| S054975 Dup |  |  |  |  |  |  |  |  | 0.5 | <0.5 | 15 | 258 | 7 | 28 | 17 | 31 | 0.09 | 27 | < 10 | 19 | <0.5 | <2 | < 0.01 |
| S054979 Orig |  | $<0.03$ | 0.30 | 0.33 | 0.29 | 30.87 | 485.53 | 516.40 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054980 Orig |  | <0.03 | $<0.03$ | <0.03 | <0.03 | 29.64 | 509.54 | 539.18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054981 Orig |  | <0.03 | <0.03 | <0.03 | <0.03 | 25.82 | 438.72 | 464.54 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054982 Orig |  | $<0.03$ | 0.33 | 0.26 | 0.29 | 15.06 | 366.96 | 382.02 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054983 Orig |  | $<0.03$ | $<0.03$ | <0.03 | <0.03 | 31.48 | 453.83 | 485.31 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054984 Orig |  | <0.03 | $<0.03$ | <0.03 | <0.03 | 27.28 | 474.44 | 501.72 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054985 Orig |  | 0.05 | $<0.03$ | <0.03 | <0.03 | 22.46 | 472.18 | 494.64 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054986 Orig |  | <0.03 | $<0.03$ | <0.03 | <0.03 | 20.16 | 540.92 | 561.08 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054987 Orig |  | 0.36 | $<0.03$ | <0.03 | <0.03 | 25.12 | 466.45 | 491.57 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054988 Orig |  | <0.03 | <0.03 | <0.03 | <0.03 | 18.91 | 416.12 | 435.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054989 Orig |  |  |  |  |  |  |  |  | 0.5 | 1.4 | 141 | 903 | 6 | 81 | 7 | 213 | 1.25 | 105 | < 10 | 124 | 1.5 | <2 | 0.05 |
| S054989 Dup |  |  |  |  |  |  |  |  | 0.4 | 1.6 | 140 | 893 | 5 | 82 | 6 | 210 | 1.25 | 109 | <10 | 122 | 1.5 | <2 | 0.05 |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  | $<0.03$ |  |  | 0.00000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  | <0.03 |  |  | 0.00000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  | <0.03 |  |  | 0.00000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  | <0.03 |  |  | 0.00000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  | <0.03 |  |  | 0.00000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  | <0.03 |  |  | 0.00000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  | $<0.03$ |  |  | 0.00000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  | <0.03 |  |  | 0.00000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  | $<0.2$ | $<0.5$ | <1 | < 5 | <1 | <1 | $<2$ | $<2$ | < 0.01 | 3 | <10 | < 10 | $<0.5$ | <2 | < 0.01 |
| Method Blank |  |  |  |  |  |  |  |  | <0.2 | <0.5 | <1 | < 5 | < 1 | <1 | <2 | <2 | < 0.01 | <2 | < 10 | < 10 | <0.5 | <2 | < 0.01 |
| Method Blank |  |  |  |  |  |  |  |  | <0.2 | <0.5 | <1 | < 5 | < 1 | <1 | <2 | <2 | < 0.01 | $<2$ | <10 | <10 | <0.5 | <2 | < 0.01 |


| Analyte Symbol | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr | Ti | Th | Te | TI | U | V | W | Y | Zr |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | \% | ppm | ppm | \% | ppm | \% | \% | \% | \% | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 | 0.01 | 20 | 1 | 2 | 10 | 1 | 10 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| OREAS 45e <br> (Aqua Regia) <br> Meas | 38 | 836 | 22.3 | 10 |  | 0.06 |  | 0.10 | 0.031 | 0.028 | 0.04 |  | 78 | 5 |  | <20 |  | <2 | $<10$ | 285 |  | 5 |  |
| OREAS 45e (Aqua Regia) Cert | 52 | 849.0 | 22.650 | 11.7 |  | 0.053 |  | 0.095 | 0.027 | 0.029 | 0.044 |  | 78 | 4.05 |  | 10.70 |  | 0.072 | 1.73 | 295.0 |  | 5.74 |  |
| OREAS 45e (Aqua Regia) Meas | 39 | 815 | 21.9 | 10 |  | 0.06 |  | 0.10 | 0.031 | 0.028 | 0.04 |  | 76 | 4 |  | <20 |  | <2 | < 10 | 286 |  | 5 |  |
| OREAS 45e <br> (Aqua Regia) Cert | 52 | 849.0 | 22.650 | 11.7 |  | 0.053 |  | 0.095 | 0.027 | 0.029 | 0.044 |  | 78 | 4.05 |  | 10.70 |  | 0.072 | 1.73 | 295.0 |  | 5.74 |  |
| SQ48 Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SQ48 Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SQ48 Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SQ48 Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SQ48 Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SQ48 Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SQ48 Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SQ48 Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 922 (AQUA REGIA) Meas | 18 | 48 | 5.29 | <10 |  | 0.46 | 32 | 1.46 | 0.032 | 0.064 | 0.38 | 3 | 4 | 18 |  | $<20$ |  | <2 | <10 | 38 | <10 | 22 | 18 |
| OREAS 922 (AQUA REGIA) Cert | 19.4 | 40.7 | 5.05 | 7.62 |  | 0.376 | 32.5 | 1.33 | 0.021 | 0.063 | 0.386 | 0.57 | 3.15 | 15.0 |  | 14.5 |  | 0.14 | 1.98 | 29.4 | 1.12 | 16.0 | 22.3 |
| OREAS 922 (AQUA REGIA) Meas | 17 | 45 | 5.09 | <10 |  | 0.44 | 31 | 1.38 | 0.028 | 0.063 | 0.37 | 4 | 4 | 17 |  | <20 |  | <2 | < 10 | 37 | <10 | 22 | 30 |
| OREAS 922 (AQUA REGIA) Cert | 19.4 | 40.7 | 5.05 | 7.62 |  | 0.376 | 32.5 | 1.33 | 0.021 | 0.063 | 0.386 | 0.57 | 3.15 | 15.0 |  | 14.5 |  | 0.14 | 1.98 | 29.4 | 1.12 | 16.0 | 22.3 |
| OREAS 923 (AQUA REGIA) Meas | 19 | 41 | 5.78 | <10 |  | 0.39 | 29 | 1.45 |  | 0.058 | 0.61 | <2 | 4 | 15 |  | $<20$ |  | <2 | < 10 | 36 | <10 | 20 | 33 |
| OREAS 923 (AQUA REGIA) Cert | 22.2 | 39.4 | 5.91 | 8.01 |  | 0.322 | 30.0 | 1.43 |  | 0.061 | 0.684 | 0.58 | 3.09 | 13.6 |  | 14.3 |  | 0.12 | 1.80 | 30.6 | 1.96 | 14.3 | 22.5 |
| OREAS 923 <br> (AQUA REGIA) Meas | 19 | 41 | 5.81 | < 10 |  | 0.36 | 29 | 1.45 |  | 0.060 | 0.64 | 3 | 4 | 15 |  | <20 |  | <2 | < 10 | 35 | < 10 | 19 | 30 |
| OREAS 923 (AQUA REGIA) Cert | 22.2 | 39.4 | 5.91 | 8.01 |  | 0.322 | 30.0 | 1.43 |  | 0.061 | 0.684 | 0.58 | 3.09 | 13.6 |  | 14.3 |  | 0.12 | 1.80 | 30.6 | 1.96 | 14.3 | 22.5 |
| OREAS 520 <br> (Aqua Regia) <br> Meas | 168 | 34 | 16.1 | 10 |  | 0.48 | 59 | 1.17 | 0.064 | 0.070 | 0.92 | 10 | 11 | 32 | 0.15 | <20 | 4 | <2 | < 10 | 245 | 28 | 14 | 32 |
| OREAS 520 <br> (Aqua Regia) Cert | 196 | 37.4 | 15.74 | 13.7 |  | 0.506 | 83.0 | 1.14 | 0.0520 | 0.0740 | 1.03 | 1.97 | 11.8 | 36.0 | 0.135 | 8.03 | 0.33 | 0.0900 | 14.9 | 247 | 29.6 | 14.3 | 28.0 |
| OREAS 520 (Aqua Regia) Meas | 164 | 33 | 15.5 | 10 |  | 0.47 | 59 | 1.13 | 0.061 | 0.068 | 0.89 | 11 | 11 | 32 | 0.14 | <20 | 3 | <2 | < 10 | 239 | 27 | 14 | 32 |
| OREAS 520 <br> (Aqua Regia) Cert | 196 | 37.4 | 15.74 | 13.7 |  | 0.506 | 83.0 | 1.14 | 0.0520 | 0.0740 | 1.03 | 1.97 | 11.8 | 36.0 | 0.135 | 8.03 | 0.33 | 0.0900 | 14.9 | 247 | 29.6 | 14.3 | 28.0 |
| OREAS 907 <br> (Aqua Regia) <br> Meas | 40 | 11 | 7.86 | 10 |  | 0.34 | 33 | 0.23 | 0.102 | 0.024 | 0.06 | 5 | 2 | 14 | 0.02 | <20 | 1 | <2 | < 10 | 7 | < 10 | 8 | 34 |
| OREAS 907 <br> (Aqua Regia) Cert | 43.7 | 8.59 | 8.18 | 14.7 |  | 0.286 | 36.1 | 0.221 | 0.0860 | 0.0240 | 0.0660 | 2.28 | 2.16 | 11.7 | 0.0170 | 8.04 | 0.230 | 0.120 | 2.15 | 5.12 | 0.980 | 6.52 | 43.7 |
| OREAS 907 (Aqua Regia) | 43 | 8 | 7.67 | 10 |  | 0.33 | 33 | 0.23 | 0.093 | 0.023 | 0.06 | 6 | 2 | 14 | 0.02 | <20 | 3 | 2 | < 10 | 8 | < 10 | 8 | 31 |


| Analyte Symbol | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr | Ti | Th | Te | TI | U | V | W | Y | Zr |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | \% | ppm | ppm | \% | ppm | \% | \% | \% | \% | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 | 0.01 | 20 | 1 | 2 | 10 | 1 | 10 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 907 <br> (Aqua Regia) Cert | 43.7 | 8.59 | 8.18 | 14.7 |  | 0.286 | 36.1 | 0.221 | 0.0860 | 0.0240 | 0.0660 | 2.28 | 2.16 | 11.7 | 0.0170 | 8.04 | 0.230 | 0.120 | 2.15 | 5.12 | 0.980 | 6.52 | 43.7 |
| OREAS 222 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 222 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 222 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 222 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 222 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 222 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 222 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 222 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 222 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 222 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas 621 (Aqua Regia) Meas | 28 | 34 | 3.52 | < 10 | 5 | 0.37 | 17 | 0.47 | 0.179 | 0.034 | 4.80 | 126 | 3 | 20 |  | <20 |  | <2 | < 10 | 14 | < 10 | 9 | 65 |
| Oreas 621 (Aqua Regia) Cert | 27.9 | 31.3 | 3.43 | 9.29 | 3.93 | 0.333 | 19.4 | 0.436 | 0.160 | 0.0335 | 4.50 | 107 | 2.20 | 18.9 |  | 5.91 |  | 0.770 | 1.63 | 10.9 | 1.00 | 6.87 | 55.0 |
| Oreas 621 (Aqua Regia) Meas | 26 | 28 | 3.21 | <10 | 3 | 0.32 | 17 | 0.43 | 0.171 | 0.032 | 4.33 | 123 | 2 | 20 |  | <20 |  | 3 | <10 | 13 | < 10 | 8 | 57 |
| Oreas 621 (Aqua Regia) Cert | 27.9 | 31.3 | 3.43 | 9.29 | 3.93 | 0.333 | 19.4 | 0.436 | 0.160 | 0.0335 | 4.50 | 107 | 2.20 | 18.9 |  | 5.91 |  | 0.770 | 1.63 | 10.9 | 1.00 | 6.87 | 55.0 |
| OREAS 257 Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 257 Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 257 Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 257 Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 257 Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 257 Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 257 Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 257 Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 255 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 255 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 255 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 255 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 255 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 255 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 255 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 255 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 255 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr | Ti | Th | Te | TI | U | V | W | Y | Zr |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | \% | ppm | ppm | \% | ppm | \% | \% | \% | \% | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 | 0.01 | 20 | 1 | 2 | 10 | 1 | 10 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| OREAS 255 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054890 Orig | 2 | 114 | 0.71 | <10 | $<1$ | 0.01 | <10 | < 0.01 | 0.016 | 0.004 | <0.01 | $<2$ | < 1 | $<1$ | <0.01 | <20 | <1 | $<2$ | <10 | 5 | <10 | $<1$ | <1 |
| S054890 Dup | 3 | 117 | 0.71 | <10 | <1 | 0.01 | <10 | <0.01 | 0.015 | 0.003 | <0.01 | <2 | <1 | <1 | <0.01 | <20 | <1 | <2 | <10 | 5 | <10 | <1 | <1 |
| S054891 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054892 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054893 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054894 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054895 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054896 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054897 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054919 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054920 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054921 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054923 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054925 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054926 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054927 Orig | 34 | 59 | 9.27 | $<10$ | $<1$ | 0.04 | 16 | 1.31 | 0.099 | 0.084 | 0.68 | 5 | 14 | 19 | <0.01 | $<20$ | 5 | $<2$ | $<10$ | 101 | <10 | 4 | 4 |
| S054927 Dup | 35 | 58 | 9.38 | <10 | <1 | 0.04 | 16 | 1.32 | 0.101 | 0.085 | 0.69 | 4 | 14 | 20 | <0.01 | <20 | 2 | $<2$ | <10 | 100 | <10 | 5 | $\square$ |
| S054928 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054929 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054930 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054931 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054932 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054933 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054934 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054935 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054936 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054937 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054938 Orig | 2 | 77 | 1.92 | <10 | $<1$ | 0.02 | <10 | $<0.01$ | 0.025 | 0.018 | 0.09 | 2 | 1 | 6 | <0.01 | <20 | $<1$ | $<2$ | <10 | 12 | <10 | 2 | <1 |
| S054938 Dup | 2 | 84 | 1.92 | <10 | $<1$ | 0.02 | <10 | <0.01 | 0.026 | 0.018 | 0.09 | $<2$ | 1 | 6 | <0.01 | <20 | <1 | $<2$ | <10 | 12 | <10 | - 2 | <1 |
| S054939 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054941 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054941 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054950 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054950 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054952 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054953 Orig | 17 | 17 | 7.90 | <10 | $<1$ | 0.25 | 18 | 0.05 | 0.023 | 0.180 | < 0.01 | 24 | 5 | 13 | <0.01 | <20 | 3 | $<2$ | <10 | 45 | <10 | 12 | 3 |
| S054953 Dup | 16 | 16 | 7.98 | <10 | $<1$ | 0.25 | 18 | 0.05 | 0.023 | 0.182 | < 0.01 | 24 | 5 | 13 | <0.01 | <20 | <1 | $<2$ | <10 | 44 | <10 | 12 | - 3 |
| S054956 Orig | 22 | 28 | 5.14 | $<10$ | $<1$ | 0.27 | 19 | 0.09 | 0.029 | 0.108 | < 0.01 | 17 | 5 | 24 | <0.01 | $<20$ | 6 | $<2$ | <10 | 70 | <10 | 11 | - 3 |
| $\begin{aligned} & \text { S054956 Split } \\ & \text { PREP DUP } \end{aligned}$ | 21 | 27 | 5.15 | <10 | <1 | 0.29 | 19 | 0.09 | 0.030 | 0.108 | < 0.01 | 16 | 5 | 25 | < 0.01 | <20 | 2 | <2 | <10 | 72 | <10 | 11 | 3 |
| S054959 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054963 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054963 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054965 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054966 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054967 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054973 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054974 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054975 Orig | 4 | 80 | 1.05 | <10 | $<1$ | 0.02 | <10 | <0.01 | 0.017 | 0.008 | <0.01 | <2 | <1 | <1 | <0.01 | <20 | 4 | $<2$ | <10 | 8 | <10 | 4 | 2 |
| S054975 Dup | 4 | 76 | 0.99 | <10 | <1 | 0.02 | <10 | <0.01 | 0.016 | 0.007 | <0.01 | <2 | <1 | <1 | <0.01 | <20 | 1 | <2 | <10 | 7 | <10 | 4 | - 2 |


| Analyte Symbol | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr | Ti | Th | Te | TI | U | V | W | Y | Zr |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | \% | ppm | ppm | \% | ppm | \% | \% | \% | \% | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 | 0.01 | 20 | 1 | 2 | 10 | 1 | 10 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| S054979 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054980 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054981 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054982 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054983 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054984 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054985 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054986 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054987 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054988 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S054989 Orig | 34 | 51 | 7.36 | < 10 | < 1 | 0.19 | $<10$ | 0.04 | 0.064 | 0.184 | < 0.01 | 4 | 18 | 16 | < 0.01 | <20 | 2 | <2 | < 10 | 91 | $<10$ | 10 | 2 |
| S054989 Dup | 34 | 49 | 7.29 | < 10 | <1 | 0.19 | <10 | 0.04 | 0.063 | 0.184 | < 0.01 | 3 | 18 | 16 | < 0.01 | <20 | <1 | <2 | < 10 | 91 | <10 | 10 | 3 |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 1 | <1 | < 0.01 | < 10 | < 1 | < 0.01 | < 10 | < 0.01 | 0.009 | < 0.001 | < 0.01 | <2 | < 1 | < 1 | < 0.01 | <20 | <1 | <2 | < 10 | < 1 | < 10 | < 1 | <1 |
| Method Blank | < 1 | < 1 | < 0.01 | <10 | <1 | < 0.01 | <10 | < 0.01 | 0.009 | < 0.001 | < 0.01 | <2 | < 1 | < 1 | < 0.01 | <20 | < 1 | <2 | < 10 | < 1 | <10 | < 1 | < 1 |
| Method Blank | <1 | <1 | < 0.01 | <10 | <1 | < 0.01 | <10 | <0.01 | 0.012 | <0.001 | < 0.01 | <2 | <1 | <1 | < 0.01 | <20 | <1 | <2 | <10 | <1 | <10 | <1 | <1 |

