

# CDN Resource Laboratories Ltd.

## Certificate of Analysis

### REFERENCE MATERIAL: CDN-GS-P5J

Recommended values and the "Between Lab" Two Standard Deviations

| Precious Metals and Targeted Base Metals |           |   |           |                               |
|------------------------------------------|-----------|---|-----------|-------------------------------|
| Gold                                     | 0.663 ppm | ± | 0.069 ppm | Fire Assay, ICP or AA finish  |
| Copper                                   | 265.3 ppm | ± | 14.7 ppm  | 4 Acid digestion / ICP finish |
| Lead                                     | 118 ppm   | ± | 22 ppm    |                               |
| Zinc                                     | 538 ppm   | ± | 26 ppm    |                               |
| Nickel                                   | 106 ppm   | ± | 9 ppm     |                               |
|                                          |           |   |           | Certified value               |
|                                          |           |   |           | Certified value               |
|                                          |           |   |           | Provisional Mean              |
|                                          |           |   |           | Certified value               |
|                                          |           |   |           | Certified value               |

| Major and Minor Base Metals |           |   |          |                               |
|-----------------------------|-----------|---|----------|-------------------------------|
| Aluminum                    | 7.48 %    | ± | 0.29 %   | 4 Acid digestion / ICP finish |
| Barium                      | 462.9 ppm | ± | 44.6 ppm |                               |
| Iron                        | 5.59 %    | ± | 0.31 %   |                               |
| Potassium                   | 1.21 %    | ± | 0.02 %   |                               |
| Magnesium                   | 3.05 %    | ± | 0.13 %   |                               |
| Sodium                      | 1.65 %    | ± | 0.09 %   |                               |
| Sulfur                      | 0.62 %    | ± | 0.02 %   |                               |
| Strontium                   | 276 ppm   | ± | 8 ppm    |                               |
|                             |           |   |          | Certified value               |

| Major Oxides                   |         |   |         |                 |
|--------------------------------|---------|---|---------|-----------------|
| SiO <sub>2</sub>               | 54.26 % | ± | 1.08 %  | Certified value |
| Al <sub>2</sub> O <sub>3</sub> | 13.99 % | ± | 0.52 %  |                 |
| Fe <sub>2</sub> O <sub>3</sub> | 8.09 %  | ± | 0.35 %  |                 |
| Na <sub>2</sub> O              | 2.26 %  | ± | 0.16 %  |                 |
| CaO                            | 3.7 %   | ± | 0.1 %   |                 |
| MnO                            | 0.13 %  | ± | 0.03 %  |                 |
| MgO                            | 5.15 %  | ± | 0.23 %  |                 |
| K <sub>2</sub> O               | 1.46 %  | ± | 0.01 %  |                 |
| TiO <sub>2</sub>               | 0.81 %  | ± | 0.04 %  |                 |
| P <sub>2</sub> O <sub>5</sub>  | 0.17 %  | ± | 0.02 %  |                 |
| LOI                            | 5.63 %  | ± | 0.042 % |                 |

**Note 1:** Standards with an RSD of near or less than 5% are certified; RSD's of between 5% and 15% are Provisional; RSD's over 15% are Indicated. Provisional and Indicated values cannot be used to monitor accuracy with a high degree of certainty.

PREPARED BY:

CDN Resource Laboratories Ltd.

CERTIFIED BY:

Ali Alizadeh, MSc, MBA, P Geo, FGC

INDEPENDENT GEOCHEMIST:

Dr. Barry Smee., Ph.D., FGC

DATE OF CERTIFICATION:

May 4<sup>th</sup>, 2025

COMMITTED TO EXCELLENCE

T 604-882-8422 F 604-882-8466 E info@cdnlabs.com TOLL FREE 1-888-882-0242

A No. 2, 20148 - 102 Avenue, Langley, B.C., Canada, V1M 4B4

WWW.cdnlabs.com



## ORIGIN OF REFERENCE MATERIAL:

Standard CDN-GS-P5J was produced from a blend of ores sourced from a porphyry deposit in northern British Columbia, Canada. **Total Sulfur and Total Carbon** were measured using LECO analysis, with average concentrations of **0.59% and 1.04%, respectively**.

## METHOD OF PREPARATION:

Reject ore material was dried, crushed, pulverized, and then passed through a 270-mesh screen. The +270 material was discarded. The -270 material was mixed for 5 days in a double-cone mixer. Splits were taken and sent to 18 commercial and mine laboratories for round robin assaying.

## Assay Procedures:

|                        |                                     |
|------------------------|-------------------------------------|
| <b>Au:</b>             | Fire assay, AA or ICP finish.       |
| <b>Cu, Pb, Zn, Ni:</b> | 4-acid digestion, AA or ICP finish. |
| <b>Major Oxides</b>    | Fusion, XRF finish                  |

## Statistical Procedures:

The final limits were calculated after first determining if all data was compatible within a spread normally expected for similar analytical methods done by reputable laboratories. Data from any one laboratory was removed from further calculations when the means of all analyses from that laboratory failed a T- test of the global means of the other laboratories. The means and standard deviations were calculated using all remaining data. Any analysis that fell outside of the mean  $\pm 2$  standard deviations was removed from the ensuing database. The mean and standard deviations were again calculated using the remaining data. This method is different from that used by Government agencies in that the actual “between-laboratory” standard deviation is used in the calculations. This produces upper and lower limits that reflect actual individual analyses rather than a grouped set of analyses. The limits can therefore be used to monitor accuracy from individual analyses, unlike the Confidence Limits published on other standards.

## Quality Assurance and Quality Control Procedures:

**Screening Test:** After completion of homogenization, three samples, 300g each of homogenized material were randomly collected and were re-screened by a testing sieve. The oversize material of this standard and based on CDN’s screening test was ~1.5%.

## Homogeneity Test:

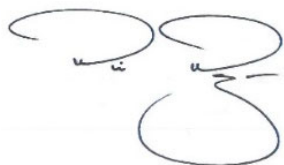
15 samples were systematically selected throughout the batch and were sent to an independent assay laboratory for homogeneity testing, following the guidelines outlined in Annex B (Homogeneity and Stability of Proficiency Test Items) of ISO 13528:2015.

Assay results went through a statistical work-up by checking the mean, standard deviation, and %RSD. Based on performed statistical works outlined by ISO 13528; CDN-GS-P5J is statistically homogenized (Appendix III).

# LEGAL NOTICE:

This certificate and the reference material described in it have been prepared with due care and attention. However, CDN Resource Laboratories Ltd. nor Barry Smee accept any liability for any decisions or actions taken following the use of the reference material. Our liability is limited solely to the cost of the reference material.

Certified by



Ali Alizadeh, MSc, MBA, P.Geo., FGC

Geochemist



Dr. Barry Smee, PhD, FGC

# APPENDIX I: Results from round-robin assaying:

| Standard                                               | Lab 1 | Lab 2 | Lab 3 | Lab 4 | Lab 5 | Lab 6 | Lab 7 | Lab 8 | Lab 9 | Lab 10 | Lab 11 | Lab 12 | Lab 13 | Lab 14 | Lab 15 | Lab 16 | Lab 17 | Lab 18 |
|--------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Au by Fire Assay, 30g sample size and ICP or AA finish |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |        |
| GS-P5J                                                 | 0.671 | 0.71  | 0.720 | 0.643 | 0.675 | 0.706 | 0.65  | 0.67  | 0.654 | 0.62   | 0.66   | 0.64   | 0.656  | 0.625  | 0.603  | 0.662  | 0.704  | 0.653  |
|                                                        | 0.714 | 0.72  | 0.660 | 0.630 | 0.663 | 0.700 | 0.66  | 0.66  | 0.681 | 0.71   | 0.60   | 0.66   | 0.650  | 0.622  | 0.615  | 0.676  | 0.665  | 0.646  |
|                                                        | 0.769 | 0.72  | 0.702 | 0.666 | 0.656 | 0.740 | 0.65  | 0.66  | 0.657 | 0.67   | 0.61   | 0.61   | 0.651  | 0.622  | 0.702  | 0.719  | 0.673  | 0.648  |
|                                                        | 0.778 | 0.72  | 0.644 | 0.640 | 0.681 | 0.726 | 0.67  | 0.65  | 0.700 | 0.61   | 0.61   | 0.60   | 0.645  | 0.623  | 0.703  | 0.700  | 0.624  | 0.641  |
|                                                        | 0.686 | 0.71  | 0.593 | 0.627 | 0.661 | 0.752 | 0.66  | 0.68  | 0.712 | 0.67   | 0.66   | 0.64   | 0.661  | 0.621  | 0.650  | 0.664  | 0.691  | 0.649  |
|                                                        | 0.680 | 0.72  | 0.664 | 0.690 | 0.686 | 0.690 | 0.67  | 0.65  | 0.611 | 0.64   | 0.66   | 0.59   | 0.662  | 0.622  | 0.659  | 0.707  | 0.769  | 0.646  |
|                                                        | 0.773 | 0.71  | 0.664 | 0.713 | 0.691 | 0.710 | 0.66  | 0.67  | 0.710 | 0.70   | 0.66   | 0.57   | 0.628  | 0.627  | 0.640  | 0.618  | 0.642  | 0.665  |
|                                                        | 0.762 | 0.72  | 0.628 | 0.633 | 0.682 | 0.720 | 0.67  | 0.64  | 0.645 | 0.67   | 0.62   | 0.67   | -      | 0.628  | 0.631  | 0.714  | 0.708  | 0.602  |
| Mean                                                   | 0.729 | 0.72  | 0.659 | 0.655 | 0.674 | 0.718 | 0.66  | 0.66  | 0.671 | 0.66   | 0.64   | 0.62   | 0.650  | 0.624  | 0.650  | 0.683  | 0.685  | 0.644  |
| Std. Devn.                                             | 0.05  | 0.01  | 0.04  | 0.03  | 0.01  | 0.02  | 0.01  | 0.01  | 0.04  | 0.04   | 0.03   | 0.04   | 0.01   | 0.00   | 0.04   | 0.03   | 0.04   | 0.02   |
| % RSD                                                  | 6.33  | 0.72  | 6.06  | 4.83  | 1.91  | 2.89  | 1.26  | 1.98  | 5.29  | 5.39   | 4.29   | 5.68   | 1.79   | 0.43   | 5.66   | 5.01   | 6.56   | 2.84   |

# APPENDIX I: Results from round-robin assaying-Continue:

| Standard                                | Lab 1 | Lab 3 | Lab 5  | Lab 9 | Lab 14 | Lab 17 | Lab18 |
|-----------------------------------------|-------|-------|--------|-------|--------|--------|-------|
| Cu (ppm) by 4 Acid digestion ICP finish |       |       |        |       |        |        |       |
| GS-P5J                                  | 272.5 | 262.9 | 267.8  | 278.8 | 252.9  | 266    | 264.3 |
|                                         | 271.5 | 264.6 | 268.3  | 270.1 | 254.5  | 273    | 255.8 |
|                                         | 273.5 | 265.8 | 267.8  | 265.3 | 253.3  | 274    | 262.6 |
|                                         | 270.0 | 265.6 | 273.0  | 274.7 | 253.2  | 271    | 259.8 |
|                                         | 274.0 | 263.1 | 272.6  | 259.9 | 253.7  | 276    | 260.6 |
|                                         | 269.0 | 261.1 | 266.9  | 280.1 | 252.3  | 258    | 269.8 |
|                                         | 273.5 | 265.2 | 265.7  | 270.3 | 253.1  | 270    | 265.4 |
|                                         | 275.0 | 263.3 | 268.9  | 281.4 | 254.3  | 267    | 262.8 |
| Mean                                    | 272.4 | 264.0 | 268.9  | 272.6 | 253.4  | 269    | 262.6 |
| Std. Devn.                              | 2.07  | 1.63  | 2.59   | 7.58  | 0.74   | 5.71   | 4.15  |
| % RSD                                   | 0.76  | 0.62  | 0.96   | 2.78  | 0.29   | 2.12   | 1.58  |
| Mo (ppm) by 4 Acid digestion ICP finish |       |       |        |       |        |        |       |
| GS-P5J                                  | 31.5  | 31.1  | -      | 16.46 | 35.0   | 31.1   | 31.5  |
|                                         | 31.0  | 32.1  | -      | 16.35 | 33.0   | 30.8   | 31.0  |
|                                         | 30.5  | 31.4  | -      | 16.42 | 33.0   | 30.7   | 30.5  |
|                                         | 31.5  | 31.6  | -      | 16.73 | 32.0   | 31.1   | 31.5  |
|                                         | 31.5  | 30.6  | -      | 16.51 | 33.0   | 31.3   | 31.5  |
|                                         | 31.0  | 32.4  | -      | 16.30 | 32.0   | 30.7   | 31.0  |
|                                         | 32.0  | 31.2  | -      | 16.46 | 34.0   | 31.7   | 32.0  |
|                                         | 31.5  | 32.2  | -      | 16.63 | 33.0   | 31.0   | 31.5  |
| Mean                                    | 31.3  | 31.6  | -      | 16.48 | 33.1   | 31.1   | 31.3  |
| Std. Devn.                              | 0.46  | 0.62  | -      | 0.14  | 0.99   | 0.34   | 0.46  |
| % RSD                                   | 1.46  | 1.97  | -      | 0.86  | 2.99   | 1.09   | 1.46  |
| Ni (ppm) by 4 Acid digestion ICP finish |       |       |        |       |        |        |       |
| GS-P5J                                  | 101.0 | 101.1 | 109.44 | 104.7 | 95.58  | 105    | -     |
|                                         | 101.0 | 111.5 | 111.14 | 114.7 | 95.48  | 107    | -     |
|                                         | 102.0 | 102.4 | 110.39 | 144.5 | 95.63  | 109    | -     |
|                                         | 101.5 | 102.2 | 110.74 | 117.3 | 95.61  | 108    | -     |
|                                         | 102.0 | 101.8 | 111.61 | 113.2 | 95.46  | 109    | -     |
|                                         | 102.5 | 101.2 | 110.40 | 101.6 | 95.50  | 106    | -     |
|                                         | 102.5 | 103.0 | 115.47 | 110.3 | 95.85  | 108    | -     |
|                                         | 102.5 | 102.6 | 107.05 | 101.0 | 95.88  | 106    | -     |
| Mean                                    | 101.9 | 103.2 | 110.78 | 113.4 | 95.62  | 107    | -     |
| Std. Devn.                              | 0.64  | 3.41  | 2.35   | 13.96 | 0.16   | 1.49   | -     |
| % RSD                                   | 0.63  | 3.30  | 2.13   | 12.31 | 0.17   | 1.39   | -     |
| Pb (ppm) by 4 Acid digestion ICP finish |       |       |        |       |        |        |       |
| GS-P5J                                  | 129.0 | 132.2 | 105.4  | -     | 116.3  | 105    | 149   |
|                                         | 131.5 | 130.0 | 105.7  | -     | 114.6  | 107    | 147   |
|                                         | 129.0 | 131.0 | 105.3  | -     | 115.9  | 109    | 146   |
|                                         | 127.5 | 131.3 | 106.1  | -     | 115.4  | 108    | 145   |
|                                         | 131.0 | 130.0 | 106.5  | -     | 117.1  | 109    | 148   |
|                                         | 131.0 | 128.2 | 106.4  | -     | 114.9  | 106    | 153   |
|                                         | 131.0 | 128.6 | 106.9  | -     | 116.4  | 108    | 146   |
|                                         | 131.5 | 131.0 | 106.4  | -     | 118.2  | 106    | 148   |
| Mean                                    | 130.2 | 130.3 | 106.1  | -     | 116.1  | 107    | 148   |
| Std. Devn.                              | 1.49  | 1.37  | 0.59   | -     | 1.18   | 1.49   | 2.49  |
| % RSD                                   | 1.14  | 1.05  | 0.55   | -     | 1.02   | 1.39   | 1.69  |

# APPENDIX I: Results from round-robin assaying-Continue:

| Zn (ppm) by 4 Acid digestion ICP finish |      |      |       |       |       |      |      |
|-----------------------------------------|------|------|-------|-------|-------|------|------|
| GS-P5J                                  | 542  | 540  | 650.5 | 580.2 | 517.3 | 526  | 553  |
|                                         | 538  | 541  | 650.0 | 583.7 | 516.0 | 529  | 549  |
|                                         | 535  | 540  | 659.4 | 584.3 | 517.3 | 549  | 547  |
|                                         | 548  | 548  | 648.8 | 587.2 | 518.3 | 541  | 543  |
|                                         | 559  | 542  | 658.6 | 601.8 | 517.6 | 546  | 546  |
|                                         | 542  | 537  | 650.8 | 607.3 | 519.5 | 532  | 564  |
|                                         | 555  | 541  | 654.9 | 560.8 | 516.5 | 539  | 555  |
|                                         | 545  | 546  | 657.1 | 571.2 | 513.4 | 531  | 548  |
| Mean                                    | 546  | 542  | 653.7 | 584.5 | 517.0 | 537  | 551  |
| Std. Devn.                              | 8.19 | 3.52 | 4.25  | 15.04 | 1.81  | 8.37 | 6.61 |
| % RSD                                   | 1.50 | 0.65 | 0.65  | 2.57  | 0.35  | 1.56 | 1.20 |

| Standard     | Lab 1 | Lab 3 | Lab 9 | Lab 14 | Lab 17 |
|--------------|-------|-------|-------|--------|--------|
| SiO2 (%) XRF |       |       |       |        |        |
| GS-P5J       | 54.00 | 54.89 | 54.21 | 53.48  | 54.48  |
|              | 54.04 | 54.88 | 54.40 | 53.51  | 55.04  |
|              | 54.05 | 54.88 | 53.90 | 53.54  | 54.63  |
|              | 54.05 | 55.16 | 54.53 | 53.47  | 54.57  |
|              | 54.19 | 54.72 | 54.42 | 53.43  | 54.43  |
|              | 54.01 | 54.95 | 54.63 | 53.32  | 54.48  |
|              | 54.11 | 55.11 | 54.53 | 53.36  | 54.49  |
|              | 54.09 | 55.09 | 54.00 | 53.42  | 54.11  |
| Mean         | 54.07 | 54.96 | 54.33 | 53.44  | 54.53  |
| Std. Devn.   | 0.06  | 0.15  | 0.27  | 0.07   | 0.26   |
| % RSD        | 0.11  | 0.27  | 0.49  | 0.14   | 0.47   |

| Al2O3 (%) XRF |       |       |       |       |       |
|---------------|-------|-------|-------|-------|-------|
| GS-P5J        | 14.24 | 14.09 | 14.27 | 14.15 | 13.93 |
|               | 14.26 | 14.14 | 14.32 | 14.14 | 13.97 |
|               | 14.25 | 14.09 | 14.20 | 14.15 | 13.93 |
|               | 14.25 | 14.14 | 14.10 | 14.20 | 13.87 |
|               | 14.26 | 14.10 | 14.37 | 14.23 | 13.86 |
|               | 14.24 | 14.12 | 14.60 | 14.15 | 13.89 |
|               | 14.26 | 14.11 | 14.18 | 14.12 | 13.88 |
|               | 14.24 | 14.12 | 14.29 | 14.17 | 13.84 |
| Mean          | 14.25 | 14.11 | 14.29 | 14.16 | 13.90 |
| Std. Devn.    | 0.01  | 0.02  | 0.15  | 0.04  | 0.04  |
| % RSD         | 0.06  | 0.14  | 1.06  | 0.25  | 0.31  |

| CaO (%) XRF |      |      |      |      |      |
|-------------|------|------|------|------|------|
| GS-P5J      | 6.50 | 6.56 | 6.35 | 6.52 | 6.44 |
|             | 6.51 | 6.56 | 6.23 | 6.49 | 6.47 |
|             | 6.53 | 6.56 | 6.20 | 6.50 | 6.44 |
|             | 6.53 | 6.59 | 6.07 | 6.51 | 6.46 |
|             | 6.52 | 6.55 | 6.58 | 6.50 | 6.44 |
|             | 6.52 | 6.55 | 6.20 | 6.54 | 6.44 |
|             | 6.53 | 6.59 | 6.01 | 6.48 | 6.46 |
|             | 6.51 | 6.56 | 6.30 | 6.49 | 6.43 |
| Mean        | 6.52 | 6.57 | 6.24 | 6.50 | 6.45 |
| Std. Devn.  | 0.01 | 0.02 | 0.18 | 0.02 | 0.01 |
| % RSD       | 0.17 | 0.24 | 2.85 | 0.28 | 0.22 |

| Fe2O3 (%) XRF |      |      |      |      |      |
|---------------|------|------|------|------|------|
| GS-P5J        | 7.96 | 8.15 | 7.85 | 8.31 | 8.11 |
|               | 7.94 | 8.18 | 7.66 | 8.27 | 8.16 |
|               | 7.97 | 8.19 | 7.75 | 8.29 | 8.15 |
|               | 7.95 | 8.19 | 7.54 | 8.34 | 8.13 |
|               | 7.96 | 8.19 | 7.78 | 8.35 | 8.10 |
|               | 7.93 | 8.17 | 7.84 | 8.37 | 8.12 |
|               | 7.94 | 8.18 | 7.81 | 8.29 | 8.14 |
|               | 7.93 | 8.18 | 7.82 | 8.30 | 8.09 |
| Mean          | 7.95 | 8.18 | 7.76 | 8.31 | 8.13 |
| Std. Devn.    | 0.01 | 0.01 | 0.11 | 0.03 | 0.02 |
| % RSD         | 0.19 | 0.17 | 1.38 | 0.39 | 0.30 |

| Standard     | Lab 1 | Lab 3 | Lab 9 | Lab 14 | Lab 17 |
|--------------|-------|-------|-------|--------|--------|
| K2O (%) XRF  |       |       |       |        |        |
| GS-P5J       | 1.46  | 1.46  | 1.67  | 1.47   | 1.45   |
|              | 1.47  | 1.45  | 1.67  | 1.46   | 1.46   |
|              | 1.47  | 1.44  | 1.65  | 1.46   | 1.44   |
|              | 1.46  | 1.45  | 1.68  | 1.47   | 1.45   |
|              | 1.46  | 1.45  | 1.64  | 1.47   | 1.46   |
|              | 1.46  | 1.45  | 1.62  | 1.47   | 1.46   |
|              | 1.47  | 1.46  | 1.67  | 1.46   | 1.46   |
|              | 1.46  | 1.46  | 1.63  | 1.46   | 1.45   |
| Mean         | 1.46  | 1.45  | 1.65  | 1.47   | 1.45   |
| Std. Devn.   | 0.01  | 0.01  | 0.02  | 0.01   | 0.01   |
| % RSD        | 0.35  | 0.49  | 1.33  | 0.42   | 0.51   |
| MgO (%) XRF  |       |       |       |        |        |
| GS-P5J       | 4.97  | 5.23  | 5.36  | 5.07   | 5.19   |
|              | 4.97  | 5.20  | 5.17  | 5.06   | 5.23   |
|              | 4.99  | 5.21  | 5.31  | 5.06   | 5.18   |
|              | 4.98  | 5.24  | 5.26  | 5.05   | 5.19   |
|              | 4.99  | 5.20  | 5.34  | 5.08   | 5.18   |
|              | 5.00  | 5.21  | 5.27  | 5.06   | 5.19   |
|              | 4.99  | 5.23  | 5.24  | 5.03   | 5.19   |
|              | 4.97  | 5.23  | 5.25  | 5.06   | 5.18   |
| Mean         | 4.98  | 5.22  | 5.28  | 5.06   | 5.19   |
| Std. Devn.   | 0.01  | 0.02  | 0.06  | 0.02   | 0.02   |
| % RSD        | 0.23  | 0.30  | 1.16  | 0.30   | 0.32   |
| Na2O (%) XRF |       |       |       |        |        |
| GS-P5J       | 2.33  | 2.27  | 2.41  | 2.17   | 2.25   |
|              | 2.31  | 2.26  | 2.58  | 2.12   | 2.23   |
|              | 2.31  | 2.27  | 2.22  | 2.19   | 2.23   |
|              | 2.31  | 2.26  | 2.38  | 2.14   | 2.20   |
|              | 2.33  | 2.27  | 2.41  | 2.16   | 2.22   |
|              | 2.32  | 2.25  | 2.43  | 2.13   | 2.22   |
|              | 2.32  | 2.29  | 2.58  | 2.15   | 2.24   |
|              | 2.32  | 2.27  | 2.41  | 2.17   | 2.24   |
| Mean         | 2.32  | 2.27  | 2.43  | 2.15   | 2.23   |
| Std. Devn.   | 0.01  | 0.01  | 0.11  | 0.02   | 0.02   |
| % RSD        | 0.36  | 0.51  | 4.69  | 1.02   | 0.70   |

| P2O5 (%) XRF |      |       |      |      |      |
|--------------|------|-------|------|------|------|
| GS-P5J       | 0.19 | 0.169 | 0.18 | 0.17 | 0.17 |
|              | 0.20 | 0.171 | 0.17 | 0.17 | 0.17 |
|              | 0.19 | 0.171 | 0.18 | 0.17 | 0.17 |
|              | 0.20 | 0.171 | 0.16 | 0.17 | 0.16 |
|              | 0.19 | 0.172 | 0.20 | 0.17 | 0.17 |
|              | 0.19 | 0.172 | 0.20 | 0.17 | 0.17 |
|              | 0.19 | 0.174 | 0.19 | 0.17 | 0.17 |
|              | 0.19 | 0.173 | 0.21 | 0.17 | 0.17 |
| Mean         | 0.19 | 0.172 | 0.19 | 0.17 | 0.17 |
| Std. Devn.   | 0.00 | 0.00  | 0.02 | 0.00 | 0.00 |
| % RSD        | 2.40 | 0.88  | 9.05 | 0.92 | 2.10 |

| Standard        | Lab 1 | Lab 3 | Lab 9 | Lab 14 | Lab 17 |
|-----------------|-------|-------|-------|--------|--------|
| TiO2 (%) XRF    |       |       |       |        |        |
| GS-P5J          | 0.72  | 0.81  | 0.82  | 0.85   | 0.81   |
|                 | 0.72  | 0.80  | 0.80  | 0.84   | 0.81   |
|                 | 0.73  | 0.80  | 0.81  | 0.85   | 0.81   |
|                 | 0.73  | 0.81  | 0.79  | 0.85   | 0.81   |
|                 | 0.73  | 0.81  | 0.81  | 0.84   | 0.80   |
|                 | 0.73  | 0.81  | 0.79  | 0.84   | 0.81   |
|                 | 0.73  | 0.80  | 0.80  | 0.85   | 0.81   |
|                 | 0.72  | 0.81  | 0.79  | 0.85   | 0.80   |
| Mean            | 0.73  | 0.81  | 0.80  | 0.85   | 0.81   |
| Std. Devn.      | 0.01  | 0.01  | 0.01  | 0.00   | 0.00   |
| % RSD           | 0.71  | 0.64  | 1.46  | 0.30   | 0.57   |
| LOI (%) Furnace |       |       |       |        |        |
| GS-P5J          | 5.34  | 5.53  | 5.68  | 5.81   | 5.65   |
|                 | 5.34  | 5.56  | 5.77  | 6.01   | 5.60   |
|                 | 5.34  | 5.57  | 5.85  | 5.85   | 5.66   |
|                 | 5.34  | 5.50  | 5.79  | 5.88   | 5.71   |
|                 | 5.34  | 5.56  | 5.77  | 6.11   | 5.57   |
|                 | 5.34  | 5.48  | 5.72  | 6.02   | 5.60   |
|                 | 5.34  | 5.48  | 5.84  | 6.06   | 5.63   |
|                 | 5.34  | 5.53  | 5.81  | 5.88   | 5.69   |
| Mean            | 5.34  | 5.53  | 5.78  | 5.95   | 5.64   |
| Std. Devn.      | 0.00  | 0.04  | 0.06  | 0.11   | 0.05   |
| % RSD           | 0.00  | 0.66  | 1.00  | 1.86   | 0.85   |

Notes: Highlighted assay results were removed for failing the t-test.

## APPENDIX II:

### Participating Laboratories: (not in same order as table of assays)

|                                   |                                        |
|-----------------------------------|----------------------------------------|
| Al Amri, Saudi Arabia             | QKR Navachab Gold Mine Lab. Namibia    |
| Dallagio, Chegutu, Zimbabwe       | QLS Saudi Arabia                       |
| GeoAngol, Viana, Angola           | SGS Kalgoorlie, Broadwood, Australia   |
| Intertek Ore Zone Burkina Faso    | SGS Tarkwa, Ghana                      |
| Intertek Perth, Australia         | SGS South Africa (Pty) Ltd - Barberton |
| Intertek Somisa, Burkina Faso     | SGS Burnaby, Canada                    |
| Intertek Mineral Tarkwa Ghana     | Shamva Mine, Shamva, Zimbabwe          |
| Nesch Mintec Lab, Tanzania        | Shiva Analytical India                 |
| Newlyn Lab Services, South Africa | Skyline Assayers and Labs, Az, USA     |

COMMITTED TO EXCELLENCE

T 604-882-8422 F 604-882-8466 E info@cdnlabs.com TOLL FREE 1-888-882-0242

A No. 2, 20148 - 102 Avenue, Langley, B.C., Canada, V1M 4B4

WWW.CDNLABS.COM



### APPENDIX III: QAQC

The table below illustrates percentages of over size (+200 mesh) material in CDN-GS-P5J

| Standard | Study Date | Total weight Screened (g) | Total weight Over size (g) | Percentage |
|----------|------------|---------------------------|----------------------------|------------|
| GS-P5J   | 4/22/2024  | 300                       | 4                          | 1.3%       |
|          | 4/22/2024  | 300                       | 4                          | 1.3%       |
|          | 4/22/2024  | 300                       | 3.5                        | 1.2%       |

Table below shows homogeneity test results of CDN-GS-P5J

| GS-P5J                                                                                                                                                                               | Au Original | Au Repeat | Between Sample Variance<br>Wt | Sample Avg.<br>Xt | Stdev of Sample Avg | Within-Sample Std. |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------|-------------------------------|-------------------|---------------------|--------------------|
|                                                                                                                                                                                      | 0.610       | 0.680     | 0.070                         | 0.645             | 0.000               | 0.005              |
|                                                                                                                                                                                      | 0.680       | 0.700     | 0.020                         | 0.690             | 0.001               | 0.000              |
|                                                                                                                                                                                      | 0.640       | 0.690     | 0.050                         | 0.665             | 0.000               | 0.002              |
|                                                                                                                                                                                      | 0.680       | 0.710     | 0.030                         | 0.695             | 0.001               | 0.001              |
|                                                                                                                                                                                      | 0.650       | 0.630     | 0.020                         | 0.640             | 0.000               | 0.000              |
|                                                                                                                                                                                      | 0.660       | 0.650     | 0.010                         | 0.655             | 0.000               | 0.000              |
|                                                                                                                                                                                      | 0.630       | 0.630     | 0.000                         | 0.630             | 0.001               | 0.000              |
|                                                                                                                                                                                      | 0.640       | 0.660     | 0.020                         | 0.650             | 0.000               | 0.000              |
|                                                                                                                                                                                      | 0.720       | 0.620     | 0.100                         | 0.670             | 0.000               | 0.010              |
|                                                                                                                                                                                      | 0.690       | 0.680     | 0.010                         | 0.685             | 0.001               | 0.000              |
|                                                                                                                                                                                      | 0.740       | 0.650     | 0.090                         | 0.695             | 0.001               | 0.008              |
|                                                                                                                                                                                      | 0.660       | 0.620     | 0.040                         | 0.640             | 0.000               | 0.002              |
|                                                                                                                                                                                      | 0.670       | 0.630     | 0.040                         | 0.650             | 0.000               | 0.002              |
|                                                                                                                                                                                      | 0.650       | 0.690     | 0.040                         | 0.670             | 0.000               | 0.002              |
|                                                                                                                                                                                      | 0.640       | 0.670     | 0.030                         | 0.655             | 0.000               | 0.001              |
| Statistics                                                                                                                                                                           |             |           | Gavg                          | SX                | SS                  |                    |
| Mean                                                                                                                                                                                 | 0.664       | 0.661     | 0.662                         | 0.021             | 0.010               |                    |
| SD                                                                                                                                                                                   | 0.0342      | 0.0303    | C                             | C SQRT            |                     |                    |
| RSD                                                                                                                                                                                  | 5.148       | 4.593     | 0.0016                        | 0.04              |                     |                    |
| Based on Statistical procedures outlined in Annex B, ISO 13528:2015 guidelines, if “SS is < square root of C” Standard is considered homogeneous. GS-P5J is statistically homogenous |             |           |                               |                   |                     |                    |

## APPENDIX IV: Statistics for Uncertified Elements

| Oxides/<br>Elements            | Generic<br>Method                        | Number of results | Mean | Standard Deviation | RSD % | Unit |
|--------------------------------|------------------------------------------|-------------------|------|--------------------|-------|------|
| Cr <sub>2</sub> O <sub>3</sub> | Fusion                                   | 24                | 0.02 | 0.005              | 22    | %    |
| Ag                             | 4 Acid Digestion-Instrumental Finish     | 32                | 3.2  | 0.4                | 12    | ppm  |
| As                             |                                          | 16                | 505  | 22.3               | 4.5   |      |
| Be                             |                                          | 16                | 0.7  | 0.05               | 8     |      |
| Bi                             |                                          | 16                | 0.6  | 0.08               | 13    |      |
| Cd                             |                                          | 32                | 4.6  | 0.8                | 18    |      |
| Ce                             |                                          | 24                | 26.3 | 1.3                | 5     |      |
| Co                             |                                          | 40                | 29   | 2                  | 7     |      |
| Cr                             |                                          | 48                | 150  | 14                 | 9     |      |
| Cs                             |                                          | 24                | 2.6  | 0.25               | 9.5   |      |
| Ga                             |                                          | 32                | 16.5 | 0.9                | 6     |      |
| In                             |                                          | 24                | 0.11 | 0.02               | 17    |      |
| La                             |                                          | 24                | 12.7 | 0.26               | 2     |      |
| Li                             |                                          | 40                | 27.2 | 2.9                | 11    |      |
| Nb                             |                                          | 24                | 11.7 | 2.1                | 18    |      |
| P                              |                                          | 24                | 750  | 20                 | 3     |      |
| Rb                             |                                          | 24                | 35.5 | 4                  | 11    |      |
| Sb                             |                                          | 32                | 19.3 | 1.2                | 6     |      |
| Sc                             |                                          | 32                | 9.1  | 1.2                | 13    |      |
| Sn                             |                                          | 16                | 2    | 0.05               | 2.5   |      |
| Ta                             |                                          | 16                | 0.6  | 0.05               | 8     |      |
| Th                             |                                          | 24                | 2.1  | 0.06               | 3     |      |
| Ti                             |                                          | 24                | 4363 | 50                 | 1     |      |
| U                              |                                          | 24                | 0.8  | 0.07               | 8.5   |      |
| V                              |                                          | 32                | 178  | 15                 | 8     |      |
| Ag                             | Aqua Regia digestion-Instrumental finish | 16                | 2.72 | 0.3                | 11    | ppm  |
| Cd                             |                                          | 16                | 5.2  | 0.7                | 14    |      |
| P                              |                                          | 16                | 724  | 5.5                | 1     |      |
| Mo                             |                                          | 16                | 30.3 | 0.3                | 1     |      |
| S                              |                                          | 16                | 0.6  | 0.004              | 1     |      |
| Sb                             |                                          | 16                | 7.8  | 0.7                | 10    |      |
| Sc                             |                                          | 16                | 9.5  | 0.9                | 9     |      |

## APPENDIX IV: Statistics for Uncertified Elements-Continue

| Standard                    | Lab 1 | Lab 3 | Lab 5 | Lab 9 | Lab 14 | Lab 17 |
|-----------------------------|-------|-------|-------|-------|--------|--------|
| Total S (%) LECO            |       |       |       |       |        |        |
| GS-P5J                      | -     | 0.59  | -     | -     | -      | 0.58   |
|                             | -     | 0.58  | -     | -     | -      | 0.58   |
|                             | -     | 0.59  | -     | -     | -      | 0.58   |
|                             | -     | 0.60  | -     | -     | -      | 0.58   |
|                             | -     | 0.59  | -     | -     | -      | 0.57   |
|                             | -     | 0.59  | -     | -     | -      | 0.58   |
|                             | -     | 0.59  | -     | -     | -      | 0.58   |
|                             | -     | 0.60  | -     | -     | -      | 0.58   |
| Mean                        | -     | 0.59  | -     | -     | -      | 0.58   |
| Std. Devn.                  | -     | 0.01  | -     | -     | -      | 0.00   |
| % RSD                       | -     | 1.08  | -     | -     | -      | 0.56   |
| Total C (%) LECO            |       |       |       |       |        |        |
| GS-P5J                      | -     | 1.05  | 1.09  | -     | -      | 1.03   |
|                             | -     | 1.05  | 1.10  | -     | -      | 1.02   |
|                             | -     | 1.06  | 1.10  | -     | -      | 1.04   |
|                             | -     | 1.05  | 1.07  | -     | -      | 1.02   |
|                             | -     | 1.05  | 1.13  | -     | -      | 1.02   |
|                             | -     | 1.05  | 1.10  | -     | -      | 1.04   |
|                             | -     | 1.06  | 1.10  | -     | -      | 1.05   |
|                             | -     | 1.05  | 1.10  | -     | -      | 1.02   |
| Mean                        | -     | 1.05  | 1.10  | -     | -      | 1.03   |
| Std. Devn.                  | -     | 0.00  | 0.01  | -     | -      | 0.01   |
| % RSD                       | -     | 0.44  | 1.30  | -     | -      | 1.05   |
| Specific Gravity Pycnometer |       |       |       |       |        |        |
| GS-P5J                      | -     | 2.82  | -     | -     | -      | 2.81   |
|                             | -     | 2.82  | -     | -     | -      | 2.82   |
|                             | -     | 2.81  | -     | -     | -      | 2.83   |
|                             | -     | 2.81  | -     | -     | -      | 2.84   |
|                             | -     | 2.81  | -     | -     | -      | 2.82   |
|                             | -     | 2.81  | -     | -     | -      | 2.83   |
|                             | -     | -     | -     | -     | -      | 2.82   |
|                             | -     | 2.80  | -     | -     | -      | 2.82   |
| Mean                        | -     | 2.81  | -     | -     | -      | 2.82   |
| Std. Devn.                  | -     | 0.01  | -     | -     | -      | 0.01   |
| % RSD                       | -     | 0.25  | -     | -     | -      | 0.32   |

## APPENDIX V: General Notes

### Intended Use

This Certified Reference Material, fit for use as a control sample in routine assay laboratory quality control when inserted within runs of test samples and measured in parallel to test samples. This material can also be used for method development, use as independent calibration verification check standard or for validation of accuracy in a method validation exercise.

This CRM can also be used to assess inter-laboratory or instrument bias and establish within-laboratory precision and within-laboratory reproducibility. The certified concentrations and expanded uncertainty for this material are property values based on an inter-laboratory measurement campaign and reflect consensus results from the laboratories that took part in the exercise.

### Handling

Do not use this product if the seal is broken or there are any signs of contamination.

The material is packaged in either Tin Tie envelopes, foil envelopes or jars that must be shaken before use.

### Storage information

The material should be stored in a dry place, in such a way that it does not compromise the integrity of the CRM. The material should be stored in conditions which will ensure it does not absorb moisture.

The certificate is not valid if re-packaged by a third party.

### Metrological Traceability

The values quoted herein are based on the consensus values derived from statistical analysis of the data from an inter-laboratory measurement program. Traceability to SI units is via the standards used by the individual laboratories, all of which are accredited to the ISO17025 general requirements for the competence of testing and calibration laboratories and who have maintained measurement traceability during the analytical process.

### Period of Validity

The certified values are valid for this product, while still sealed in its original packaging, until notification to the contrary. The material's stability will undergo regular testing every five years throughout its inventory duration. Should product stability become an issue, all customers will be notified and notification to that effect will be placed on the <http://www.cdnlabs.com/> website.

### Minimum Sample Size

Most of the laboratory's reporting used a 0.5g sample size for the ICP and a 30g sample size for the fire assay. Our certified gold values are based on 30 g Fire Assay determinations. For optimal results, we strongly recommend you assay our standards with similar methods using "at least" 30 g of material. Using a smaller sample weight may result in erratic values. These are the recommended minimum sample sizes for the use of this material.