CDN Resource Laboratories Ltd.

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Certificate of Analysis

REFERENCE MATERIAL: CDN-CM-58

Recommended values and the "Between Lab" Two Standard Deviations

Gold	**4.516 gpt**	**±**	**0.283 gpt**	**30 g Fire Assay, ICP or AA finish**	**Certified value**
Silver	**116 ppm**	**±**	**11 ppm**	**Fire Assay, gravimetric finish**	**Certified value**
Silver	**116 ppm**	**±**	**6 ppm**	**4 Acid digestion / ICP finish**	**Certified value**
Silver	**115 ppm**	**±**	**7 ppm**	**Aqua regia digestion / ICP finish**	**Certified value**
Copper	**0.821 %**	**±**	**0.038 %**	**4 Acid digestion / ICP finish**	**Certified value**
Copper	**0.819 %**	**±**	**0.027 %**	**Aqua regia digestion / ICP finish**	**Certified value**
Molybdenum	**0.106 %**	**±**	**0.007 %**	**4 Acid digestion / ICP finish**	**Certified value**
Molybdenum	**0.104 %**	**±**	**0.005 %**	**Aqua regia digestion / ICP finish**	**Certified value**

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
INDEPENDENT GEOCHEMIST: Dr. Barry Smee., Ph.D., FGC
DATE OF CERTIFICATION: June 3rd, 2024

ORIGIN OF REFERENCE MATERIAL:

Standard CDN-CM-58 was prepared by mixing various porphyry mineralization ores.

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 15 commercial laboratories for round robin assaying.

Assay Procedures:

Au: 30 gr. fire assay pre-concentration, AA or ICP finish.
Ag: Fire assay pre-concentration, gravimetric finish.
Ag, Cu, Mo: 4-acid digestion, AA or ICP finish.
Ag, Cu, Mo: Aqua regia digestion, AA or ICP 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 mean 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 ±2 standard deviations was removed from the ensuing data base. 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 was randomly collected and was re-screened by a testing sieve. Over size material of this standard and based on CDN's screening test was ~%1.0.

Homogeneity Test:

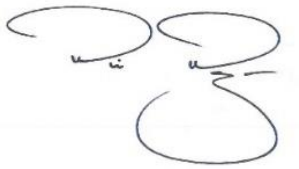
15 samples were selected selectively throughout the batch and were sent to an independent assay Laboratories for Homogeneity testing following directions of Annex B, Homogeneity and Stability of proficiency test items, ISO 13528:2015 Guidelines.

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-CM-58 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.

Geochemist

Dr. Barry Smee, PhD, FGC

APPENDIX I:
Whole rock analysis and 30 element ICP analysis (4-acid digestion) were also conducted on 3 samples.

APPROXIMATE CHEMICAL COMPOSITION (by whole rock analysis):

Analyte	Percent	Analyte	Percent
SiO_2	58.5	**Na_2O**	1.4
Al_2O_3	9.9	**MgO**	3.2
Fe_2O_3	9.5	**K2O**	1.7
CaO	4.4	**TiO_2**	0.4
MnO	0.2	**LOI**	6.2
Total S	4.8	**Total C**	0.7

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

Activation Labs, Ancaster, Ontario, Canada	Bureau Veritas, Perth, Australia
Activation Labs, Thunder Bay, Ontario, Canada	Bureau Veritas, Vancouver, BC, Canada
ALS, Brisbane, Australia	Certimin S.A., Lima, Peru
ALS, Perth, Australia	MS Analytical, Langley, BC, Canada
ALS Lima, Peru	SGS Lakefield, ON, Canada
ALS, Loughrea, Ireland	SGS, Vancouver, BC, Canada
ALS, Johannesburg, South Africa	Skyline Assayers, Tucson, AZ, USA
ALS Canada, North Vancouver, BC, Canada	

APPENDIX II: Results from round-robin assaying:

Sample	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
	Au (g/t) by Fire Assay, 30g sample size and Instrumental finish														
CM-58	4.275	4.677	4.68	4.10	4.80	4.46	4.36	4.26	4.50	4.455	4.414	4.312	4.67	4.77	4.359
	4.290	4.911	4.69	4.13	4.62	4.56	4.42	4.40	4.54	4.589	4.645	4.444	4.64	4.72	4.342
	4.174	4.754	4.45	4.30	4.50	4.52	4.46	4.63	4.51	4.664	4.633	4.383	4.54	4.71	4.579
	4.279	4.309	4.43	4.17	4.40	4.62	4.45	4.41	4.49	4.513	4.614	4.558	4.64	4.65	4.396
	4.164	4.510	4.42	4.18	4.35	4.59	4.67	4.56	4.33	4.573	4.387	4.580	4.53	4.50	4.399
	4.311	4.589	4.58	4.25	4.72	4.59	4.42	4.61	4.60	4.308	4.517	4.526	4.47	4.62	4.624
	4.365	4.611	4.50	4.36	4.58	4.60	4.49	4.67	4.37	4.638	4.468	4.284	4.78	4.74	4.823
	4.451	4.723	4.64	4.59	4.66	4.69	4.56	4.40	4.55	4.307	4.488	4.425	4.65	4.53	4.423
	4.344	4.705	4.80	4.20	4.54	4.43	4.57	4.33	4.40	4.649	4.633	4.408	4.44	4.96	4.778
	4.228	4.682	4.47	4.48	4.33	4.66	4.52	4.39	4.49	4.527	4.465	4.341	4.66	4.60	4.363
Mean	4.288	4.647	4.566	4.28	4.55	4.57	4.49	4.466	4.48	4.522	4.526	4.426	4.60	4.68	4.509
Std. Devn.	0.09	0.16	0.13	0.16	0.16	0.08	0.09	0.14	0.09	0.13	0.10	0.10	0.10	0.13	0.18
% RSD	2.03	3.44	2.88	3.71	3.46	1.80	2.02	3.14	1.90	2.89	2.15	2.31	2.26	2.83	4.00
	Ag (g/t) by Fire Assay and gravimetric finish														
CM-58	121	122	-	111	-	112	-	119	110	111	122	105	110	116	118
	109	112	-	110	-	116	-	121	110	111	124	118	101	116	118
	120	112	-	111	-	112	-	119	109	120	120	107	111	119	123
	124	113	-	112	-	113	-	123	110	121	123	112	122	117	118
	124	109	-	109	-	115	-	118	110	113	123	111	115	122	120
	121	115	-	108	-	118	-	123	108	122	123	106	119	115	125
	126	114	-	119	-	121	-	121	108	111	122	112	120	114	118
	126	114	-	107	-	118	-	124	108	115	126	116	118	116	113
	126	117	-	108	-	115	-	124	106	119	123	118	122	123	115
	127	114	-	107	-	114	-	123	106	113	123	114	110	118	115
Mean	122	114	-	110	-	115	-	122	109	116	123	112	115	118	118
Std. Devn.	5.32	3.46	-	3.55	-	2.91	-	2.22	1.581	4.45	1.52	4.75	6.75	2.95	3.65
% RSD	4.34	3.03	-	3.22	-	2.52	-	1.83	1.457	3.85	1.24	4.24	5.88	2.51	3.09
	Ag (g/t) by 4 Acid digestion /ICP finish														
CM-58	122	116	123	124	119	117	110	114	110	116	117	116	116	108	118
	118	119	125	115	117	117	113	110	114	116	117	114	115	114	118
	116	117	125	115	113	115	112	116	111	113	118	125	119	112	123
	118	121	123	117	116	114	118	115	114	112	122	118	123	113	118
	118	119	119	115	117	119	116	114	111	113	115	116	115	113	120
	114	119	121	115	114	118	113	115	112	110	117	122	119	110	125
	117	120	118	114	114	116	114	114	114	110	118	118	116	116	118
	121	118	120	113	111	115	112	122	117	111	115	120	116	112	113
	117	126	123	115	120	118	114	117	111	111	119	115	116	113	115
	117	121	125	117	119	113	117	115	113	112	116	116	123	111	115
Mean	118	120	122	116	116	116	114	115	113	112	117	118	118	112	118
Std. Devn.	2.300	2.757	2.573	3.055	2.944	1.932	2.470	3.011	2.111	2.171	2.066	3.432	3.084	2.201	3.653
% RSD	1.952	2.305	2.106	2.634	2.538	1.663	2.168	2.614	1.873	1.931	1.759	2.908	2.618	1.962	3.088

Ag (g/t) by Aqua Regia digestion /ICP finish															
CM-58	119	121	119	111	117	116	117	113	108	113	115	112	110	108	108.3
	123	116	117	111	117	114	115	115	107	115	120	113	120	109	111.6
	116	118	115	112	116	113	120	115	106	116	121	112	120	109	108.2
	124	117	116	111	116	115	117	119	106	113	116	113	120	108	111.6
	120	118	113	112	116	117	118	114	107	117	116	115	110	110	110.1
	121	120	114	110	116	113	118	114	105	115	113	112	120	109	109.8
	119	120	119	113	114	115	119	118	106	115	124	112	120	107	108.0
	116	119	116	115	114	114	114	116	107	117	117	116	120	106	110.0
	119	120	117	114	110	114	122	115	107	116	120	114	110	110	111.6
	121	118	124	111	114	114	119	112	108	116	115	112	110	108	109.6
Mean	120	119	117	112	115	115	118	115	107	115	118	113	116	108	108.0
Std. Devn.	2.62	1.57	3.13	1.56	2.11	1.27	2.33	2.13	0.949	1.42	3.40	1.45	5.16	1.26	1.41
% RSD	2.18	1.32	2.67	1.40	1.83	1.11	1.98	1.85	0.889	1.23	2.89	1.28	4.45	1.17	1.30
Cu (%) by 4 Acid digestion Instrumental finish															
CM-58	0.82	0.82	0.853	0.827	0.818	0.815	0.816	0.804	0.821	0.804	0.83	0.802	0.84	0.787	0.76863
	0.81	0.82	0.847	0.834	0.799	0.789	0.822	0.805	0.835	0.800	0.86	0.806	0.83	0.791	0.76901
	0.84	0.84	0.850	0.827	0.787	0.824	0.827	0.809	0.833	0.801	0.84	0.798	0.84	0.792	0.76866
	0.83	0.82	0.844	0.823	0.806	0.800	0.841	0.808	0.848	0.801	0.83	0.804	0.86	0.793	0.77921
	0.84	0.79	0.826	0.825	0.827	0.801	0.837	0.803	0.849	0.801	0.86	0.816	0.85	0.801	0.76791
	0.80	0.82	0.834	0.821	0.785	0.795	0.824	0.806	0.853	0.780	0.83	0.828	0.85	0.794	0.76992
	0.81	0.82	0.841	0.834	0.791	0.809	0.850	0.805	0.839	0.798	0.82	0.841	0.85	0.796	0.77024
	0.80	0.82	0.844	0.826	0.791	0.799	0.847	0.817	0.824	0.820	0.84	0.837	0.83	0.795	0.76748
	0.81	0.83	0.847	0.821	0.812	0.829	0.852	0.818	0.822	0.809	0.85	0.819	0.83	0.780	0.76709
	0.81	0.82	0.842	0.827	0.816	0.807	0.812	0.816	0.827	0.816	0.84	0.822	0.87	0.793	0.77357
Mean	0.82	0.82	0.843	0.827	0.803	0.807	0.833	0.809	0.835	0.803	0.84	0.817	0.85	0.792	0.77017
Std. Devn.	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.012	0.01	0.01	0.01	0.01	0.01	0.00
% RSD	1.83	1.52	0.93	0.55	1.83	1.58	1.74	0.71	1.416	1.36	1.59	1.82	1.60	0.71	0.48
Cu (%) by Aqua Regia digestion /ICP finish															
CM-58	0.796	0.808	0.834	0.823	0.827	0.841	0.851	0.831	0.811	0.805	0.83	0.808	0.790	0.805	0.82808
	0.799	0.802	0.827	0.829	0.827	0.836	0.834	0.839	0.833	0.806	0.84	0.791	0.800	0.820	0.82853
	0.808	0.798	0.841	0.825	0.818	0.837	0.826	0.831	0.798	0.816	0.83	0.807	0.810	0.809	0.82550
	0.792	0.806	0.843	0.819	0.828	0.830	0.828	0.833	0.811	0.801	0.83	0.818	0.800	0.806	0.82415
	0.802	0.800	0.834	0.847	0.828	0.835	0.821	0.835	0.800	0.811	0.85	0.812	0.780	0.817	0.82427
	0.806	0.802	0.834	0.827	0.811	0.826	0.809	0.834	0.827	0.814	0.83	0.823	0.810	0.807	0.82939
	0.810	0.803	0.837	0.829	0.821	0.832	0.818	0.828	0.794	0.804	0.84	0.818	0.800	0.798	0.83059
	0.813	0.805	0.834	0.829	0.813	0.829	0.783	0.824	0.801	0.797	0.84	0.817	0.810	0.806	0.83082
	0.810	0.802	0.837	0.826	0.809	0.828	0.821	0.826	0.809	0.814	0.84	0.821	0.810	0.822	0.83090
	0.808	0.806	0.838	0.826	0.807	0.834	0.811	0.830	0.812	0.813	0.84	0.816	0.750	0.814	0.82519
Mean	0.804	0.803	0.836	0.828	0.819	0.833	0.820	0.831	0.810	0.808	0.84	0.813	0.796	0.810	0.82774
Std. Devn.	0.007	0.003	0.004	0.007	0.008	0.005	0.018	0.004	0.012	0.006	0.007	0.009	0.019	0.008	0.003
% RSD	0.854	0.379	0.530	0.889	1.029	0.557	2.163	0.533	1.543	0.792	0.806	1.149	2.384	0.937	0.331

Sample	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
	Mo (%) by 4 Acid digestion Instrumental finish														
CM-58	0.107	0.105	0.110	0.099	0.107	0.111	0.101	0.105	0.109	0.103	0.11	0.112	0.108	0.108	>DTL
	0.105	0.102	0.109	0.101	0.104	0.106	0.102	0.104	0.113	0.102	0.11	0.112	0.108	0.110	>DTL
	0.105	0.106	0.109	0.100	0.102	0.110	0.103	0.106	0.112	0.100	0.11	0.113	0.109	0.108	>DTL
	0.106	0.104	0.108	0.100	0.104	0.107	0.103	0.105	0.113	0.101	0.11	0.114	0.111	0.109	>DTL
	0.105	0.105	0.108	0.100	0.107	0.108	0.102	0.103	0.112	0.101	0.11	0.116	0.111	0.107	>DTL
	0.104	0.103	0.108	0.101	0.102	0.109	0.102	0.106	0.112	0.099	0.11	0.117	0.111	0.107	>DTL
	0.106	0.107	0.109	0.102	0.103	0.109	0.103	0.107	0.110	0.101	0.11	0.118	0.111	0.108	>DTL
	0.104	0.108	0.109	0.103	0.101	0.109	0.102	0.107	0.108	0.103	0.11	0.117	0.108	0.107	>DTL
	0.106	0.108	0.109	0.100	0.108	0.108	0.106	0.108	0.110	0.102	0.11	0.117	0.107	0.110	>DTL
	0.104	0.108	0.108	0.098	0.105	0.107	0.105	0.107	0.112	0.101	0.11	0.115	0.114	0.108	>DTL
Mean	0.105	0.106	0.109	0.100	0.104	0.108	0.103	0.106	0.111	0.101	0.11	0.115	0.110	0.108	-
Std. Devn.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.002	0.00	0.00	0.00	0.00	0.00	-
% RSD	0.98	2.06	0.62	1.42	2.31	1.39	1.48	1.46	1.556	1.24	0.00	1.94	1.96	1.05	-
	Mo (%) by Aqua Regia digestion /ICP finish														
CM-58	0.105	0.107	0.107	0.103	0.107	0.106	0.102	0.102	0.104	0.104	0.100	0.10	0.106	0.104	>DTL
	0.104	0.102	0.106	0.105	0.107	0.106	0.101	0.102	0.105	0.105	0.100	0.10	0.108	0.106	>DTL
	0.107	0.105	0.107	0.104	0.106	0.106	0.104	0.102	0.103	0.105	0.100	0.10	0.109	0.099	>DTL
	0.104	0.108	0.107	0.104	0.107	0.106	0.104	0.101	0.103	0.104	0.100	0.10	0.109	0.099	>DTL
	0.108	0.110	0.107	0.106	0.107	0.106	0.103	0.102	0.105	0.105	0.100	0.10	0.107	0.102	>DTL
	0.105	0.104	0.107	0.106	0.105	0.105	0.102	0.101	0.105	0.106	0.100	0.10	0.111	0.105	>DTL
	0.106	0.106	0.106	0.106	0.105	0.105	0.102	0.101	0.105	0.104	0.100	0.10	0.109	0.101	>DTL
	0.106	0.108	0.106	0.105	0.106	0.108	0.098	0.102	0.105	0.105	0.100	0.10	0.110	0.100	>DTL
	0.106	0.105	0.106	0.105	0.104	0.106	0.102	0.101	0.105	0.105	0.110	0.10	0.110	0.103	>DTL
	0.106	0.109	0.107	0.106	0.104	0.107	0.100	0.102	0.108	0.105	0.100	0.10	0.102	0.101	>DTL
Mean	0.106	0.106	0.107	0.105	0.106	0.106	0.102	0.102	0.105	0.105	0.101	0.10	0.108	0.102	-
Std. Devn.	0.001	0.002	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.003	0.001	0.003	0.002	-
% RSD	1.184	2.311	0.484	1.004	1.162	0.825	1.781	0.508	1.334	0.603	3.131	0.957	2.406	2.309	-

Notes:

Ag results assayed by Aqua Regia digestion with ICP finish from Lab 9 were removed for failing the t test.

Cu results assayed by 4 Acid digestion with ICP finish from Lab 15 were removed for failing the t test.

Mo results assayed by 4 Acid digestion with instrumental finish from Lab 12 were removed for failing the t test.

APPENDIX III: QAQC

Table below illustrates percentages of over size (+275 mesh) material in CDN-CM-58

Standard	Study Date	Total weight Screened (g)	Total weight Over size (g)	Percentage
CM-58	2/7/2024	300	4.5	1.5%
	2/7/2024	300	5	1.7%
	2/7/2024	300	5	1.7%

Table below shows homogeneity test results of CDN-CM-58

	Au Original	Au Repeat	Between Sample Variance Wt	Sample Avg. Xt	Stdev of Sample Avg	Within-Sample Std.
CM-58	4.24	4.61	0.370	4.425	0.000	0.137
	4.43	4.41	0.020	4.420	0.000	0.000
	4.45	4.55	0.100	4.500	0.008	0.010
	4.46	4.55	0.090	4.505	0.009	0.008
	4.28	4.45	0.170	4.365	0.002	0.029
	4.42	4.15	0.270	4.285	0.016	0.073
	4.25	4.42	0.170	4.335	0.006	0.029
	4.59	4.35	0.240	4.470	0.003	0.058
	4.22	4.41	0.190	4.315	0.009	0.036
	4.67	4.26	0.410	4.465	0.003	0.168
	4.44	4.28	0.160	4.360	0.003	0.026
	4.53	4.40	0.130	4.465	0.003	0.017
	4.35	4.33	0.020	4.340	0.005	0.000
	4.36	4.56	0.200	4.460	0.002	0.040
	4.55	4.36	0.190	4.455	0.002	0.036
Statistics			**Gavg**	**SX**	**SS**	
Mean	4.416	4.406	**4.411**	**0.071**	**0.078**	
SD	0.1343	0.1261	**C**	**C SQRT**		
RSD	3.042	2.863	**0.0244**	**0.16**		
Proof of Homogeneity	Based on Statistical procedures outlined in Annex B, ISO 13528:2015 guidelines, If "SS is < square root of C" Standard is considered homogeneous. **CM-58 is statistically homogenous**					

APPENDIX IV: 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 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.

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.