

CDN Resource Laboratories Ltd.

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REFERENCE MATERIAL: CDN-CGS-30

Recommended values and the “Between Lab” Two Standard Deviations

<i>Gold</i>	<i>0.338 g/t ± 0.048 g/t</i>	<i>Provisional value (RSD=7.2%)</i>	<i>30g FA / ICP or AA</i>
<i>Copper</i>	<i>0.154 % ± 0.007 %</i>	<i>Certified value</i>	<i>4-acid / ICP or AA</i>
<i>Copper</i>	<i>0.154 % ± 0.011 %</i>	<i>Certified value</i>	<i>Aqua regia / ICP or AA</i>

Note: 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: Duncan Sanderson, B.Sc., Licensed Assayer of British Columbia
INDEPENDENT GEOCHEMIST: Dr. Barry Smee., Ph.D., P. Geo.
DATE OF CERTIFICATION: May 1, 2012

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 laboratories for round robin assaying.

ORIGIN OF REFERENCE MATERIAL:

Standard CDN-CGS-30 was prepared using 800 kg of ore supplied by MMG (Minerals & Metals Group) plus 2 kg of a high grade gold ore. The ore is described as massive to semi-massive sulphides from an Archean aged VMS deposit in the Slave structural province of Canada. It consists of pyrite, pyrrhotite, chalcopyrite, sphalerite and minor galena. Gangue minerals include quartz, chlorite, feldspar, cordierite, biotite, magnetite, anthophyllite and grunerite.

Approximate chemical composition (from whole rock analysis) is as follows:

	Percent		Percent
SiO ₂	58.8	MgO	3.7
Al ₂ O ₃	12.9	K ₂ O	2.0
Fe ₂ O ₃	12.1	TiO ₂	0.5
CaO	3.3	LOI	4.0
Na ₂ O	1.5	S	3.9
C	0.1		

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.

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Results from round-robin assaying:

	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
SAMPLE	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t
CGS-30-1	0.403	0.334	0.385	0.321	0.344	0.32	0.340	0.359	0.331	0.344	0.35	0.358	0.345	0.363	0.44
CGS-30-2	0.350	0.310	0.379	0.310	0.329	0.34	0.387	0.382	0.322	0.343	0.32	0.324	0.348	0.352	0.37
CGS-30-3	0.394	0.327	0.349	0.315	0.340	0.36	0.335	0.367	0.295	0.345	0.29	0.341	0.294	0.340	0.31
CGS-30-4	0.374	0.303	0.362	0.308	0.348	0.37	0.345	0.378	0.364	0.341	0.33	0.319	0.310	0.361	0.34
CGS-30-5	0.406	0.332	0.349	0.323	0.325	0.32	0.406	0.362	0.289	0.328	0.30	0.362	0.340	0.319	0.33
CGS-30-6	0.376	0.327	0.347	0.327	0.336	0.31	0.374	0.336	0.302	0.366	0.35	0.347	0.337	0.362	0.34
CGS-30-7	0.370	0.324	0.364	0.321	0.348	0.33	0.402	0.349	0.302	0.304	0.36	0.334	0.310	0.359	0.39
CGS-30-8	0.366	0.310	0.365	0.319	0.323	0.29	0.368	0.355	0.325	0.360	0.35	0.347	0.321	0.314	0.32
CGS-30-9	0.323	0.341	0.367	0.313	0.305	0.34	0.346	0.305	0.354	0.342	0.32	0.330	0.298	0.308	0.40
CGS-30-10	0.360	0.316	0.361	0.308	0.324	0.36	0.325	0.356	0.323	0.303	0.32	0.394	0.315	0.347	0.32
Mean	0.372	0.322	0.363	0.317	0.332	0.334	0.363	0.355	0.321	0.338	0.329	0.346	0.322	0.343	0.356
Std. Dev'n	0.0251	0.0122	0.0125	0.0067	0.0136	0.0250	0.0288	0.0220	0.0247	0.0208	0.0233	0.0220	0.0196	0.0213	0.0425
%RSD	6.76	3.79	3.45	2.11	4.10	7.50	7.94	6.21	7.69	6.15	7.08	6.36	6.09	6.22	11.93
4 acid	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %
CGS-30-1	0.153	0.16	0.157	0.151	0.162	0.156	0.152	0.153	0.161	0.154	0.155	0.153	0.148	0.147	0.151
CGS-30-2	0.157	0.15	0.155	0.149	0.157	0.157	0.149	0.154	0.160	0.157	0.155	0.156	0.155	0.150	0.150
CGS-30-3	0.156	0.16	0.158	0.149	0.156	0.152	0.150	0.156	0.160	0.157	0.157	0.152	0.152	0.150	0.150
CGS-30-4	0.157	0.15	0.156	0.151	0.157	0.154	0.148	0.156	0.161	0.154	0.154	0.155	0.151	0.150	0.149
CGS-30-5	0.155	0.15	0.155	0.153	0.159	0.153	0.149	0.155	0.158	0.153	0.157	0.156	0.143	0.149	0.149
CGS-30-6	0.158	0.15	0.155	0.151	0.158	0.152	0.153	0.155	0.159	0.153	0.153	0.150	0.150	0.150	0.149
CGS-30-7	0.156	0.15	0.155	0.152	0.154	0.156	0.149	0.157	0.161	0.156	0.153	0.156	0.152	0.152	0.151
CGS-30-8	0.157	0.15	0.156	0.155	0.158	0.155	0.151	0.157	0.159	0.157	0.153	0.161	0.153	0.149	0.150
CGS-30-9	0.160	0.15	0.156	0.154	0.154	0.155	0.153	0.162	0.158	0.157	0.153	0.159	0.153	0.151	0.149
CGS-30-10	0.157	0.15	0.156	0.152	0.158	0.157	0.153	0.161	0.159	0.155	0.160	0.158	0.143	0.149	0.149
Mean	0.157	0.152	0.156	0.152	0.157	0.155	0.151	0.157	0.160	0.155	0.155	0.156	0.150	0.150	0.150
Std. Dev'n	0.0018	0.0042	0.0010	0.0019	0.0024	0.0018	0.0019	0.0029	0.0012	0.0017	0.0024	0.0033	0.0041	0.0013	0.0008
%RSD	1.17	2.77	0.64	1.28	1.50	1.13	1.29	1.84	0.74	1.10	1.52	2.13	2.76	0.89	0.56
Aqua regia	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %
CGS-30-1	0.165	0.15	0.157	0.153	0.157	0.156	0.158	0.156	0.168	0.159	0.162	0.156	0.150	0.147	0.137
CGS-30-2	0.159	0.15	0.156	0.148	0.154	0.153	0.148	0.114	0.165	0.160	0.158	0.152	0.153	0.147	0.136
CGS-30-3	0.157	0.15	0.156	0.148	0.155	0.155	0.143	0.154	0.166	0.161	0.159	0.155	0.152	0.143	0.139
CGS-30-4	0.157	0.15	0.153	0.150	0.154	0.158	0.145	0.155	0.164	0.158	0.163	0.147	0.154	0.143	0.140
CGS-30-5	0.161	0.15	0.159	0.149	0.158	0.152	0.144	0.155	0.164	0.160	0.159	0.151	0.152	0.146	0.137
CGS-30-6	0.157	0.15	0.153	0.151	0.157	0.156	0.148	0.151	0.167	0.160	0.163	0.154	0.157	0.144	0.135
CGS-30-7	0.158	0.15	0.154	0.151	0.154	0.155	0.148	0.160	0.167	0.160	0.164	0.156	0.156	0.145	0.141
CGS-30-8	0.158	0.15	0.154	0.153	0.159	0.158	0.148	0.158	0.165	0.155	0.165	0.152	0.151	0.140	0.140
CGS-30-9	0.161	0.15	0.159	0.150	0.154	0.156	0.148	0.154	0.168	0.157	0.161	0.151	0.157	0.140	0.139
CGS-30-10	0.160	0.15	0.159	0.153	0.157	0.154	0.148	0.155	0.170	0.159	0.156	0.152	0.150	0.145	0.137
Mean	0.159	0.150	0.156	0.151	0.156	0.155	0.148	0.151	0.166	0.159	0.161	0.153	0.153	0.144	0.138
Std. Dev'n	0.0025	0.0000	0.0024	0.0018	0.0019	0.0018	0.0041	0.0132	0.0020	0.0018	0.0029	0.0028	0.0027	0.0025	0.0020
%RSD	1.59	0.00	1.57	1.19	1.23	1.14	2.76	8.74	1.17	1.13	1.80	1.81	1.76	1.76	1.42

Note: Aqua regia Cu data from Lab 15 was excluded for failing the t test.

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Participating Laboratories:

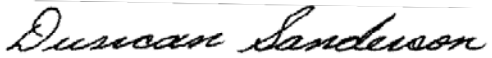
(not in same order as listed in table of results)

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Certified by


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