

CDN Resource Laboratories Ltd.

#2, 20148 – 102nd Ave, Langley, B.C., Canada, V1M 4B4, 604-882-8422, Fax: 604-882-8466 (www.cdnlabs.com)

REFERENCE MATERIAL: CDN-ME-1303

Recommended values and the “Between Lab” Two Standard Deviations

<i>Gold</i>	<i>0.924 g/t ± 0.100 g/t</i>	<i>Certified value</i>
<i>Silver</i>	<i>152 g/t ± 10 g/t</i>	<i>Certified value</i>
<i>Copper</i>	<i>0.344 % ± 0.016 %</i>	<i>Certified value</i>
<i>Lead</i>	<i>1.22 % ± 0.06 %</i>	<i>Certified value</i>
<i>Zinc</i>	<i>0.931 % ± 0.048 %</i>	<i>Certified value</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: July 26, 2013

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-ME-1303 was made from a variety of ores and concentrates.

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

	Percent			Percent
SiO ₂	62.7		MgO	1.7
Al ₂ O ₃	8.0		K ₂ O	0.8
Fe ₂ O ₃	10.8		TiO ₂	0.4
CaO	3.2		LOI	5.7
Na ₂ O	1.7		S	1.8

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.

Assay Procedures:

Au: Fire assay pre-concentration, AA or ICP finish (30g sub-sample).
Ag, Cu, Pb, Zn: 4-acid digestion, AA or ICP finish.

REFERENCE MATERIAL CDN-ME-1303

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
	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
ME-1303-1	1.020	0.898	0.98	0.94	0.876	1.089	0.900	0.852	0.915	0.925	0.968	1.010	0.88	0.85	0.830
ME-1303-2	0.918	0.867	0.96	0.85	0.763	1.068	0.927	0.899	0.982	0.927	0.970	0.983	0.96	0.98	0.816
ME-1303-3	0.835	0.933	0.96	0.92	0.896	0.988	0.910	0.841	0.947	0.922	1.010	0.887	0.90	0.90	0.841
ME-1303-4	0.877	0.905	0.94	0.93	1.000	1.048	0.902	0.866	0.889	0.939	0.949	0.918	1.02	0.95	0.837
ME-1303-5	0.910	0.886	0.96	0.87	0.876	0.936	0.960	0.899	0.794	0.920	0.983	0.952	1.04	0.84	0.940
ME-1303-6	1.028	0.773	1.00	0.96	0.896	1.027	0.904	0.837	0.837	0.959	0.913	0.974	0.95	0.88	0.981
ME-1303-7	0.958	0.951	0.98	0.96	1.050	0.997	0.901	0.890	0.901	0.923	0.922	0.919	0.92	0.82	0.915
ME-1303-8	0.913	0.879	0.95	0.90	0.908	0.979	0.949	0.856	1.125	0.982	1.090	0.977	0.92	0.92	0.881
ME-1303-9	0.944	1.005	0.95	0.89	0.924	0.912	0.904	0.897	0.868	0.979	0.884	0.908	0.91	0.97	0.935
ME-1303-10	0.881	0.958	1.00	0.94	0.829	0.937	0.945	0.846	0.835	0.945	0.975	0.907	0.91	0.95	0.899
Mean	0.928	0.906	0.968	0.916	0.902	0.998	0.920	0.868	0.909	0.942	0.966	0.944	0.941	0.906	0.888
Std. Devn.	0.0612	0.0629	0.0210	0.0375	0.0803	0.0596	0.0231	0.0254	0.0940	0.0237	0.0572	0.0410	0.0524	0.0570	0.0556
% RSD	6.59	6.95	2.17	4.09	8.91	5.97	2.51	2.93	10.34	2.51	5.92	4.35	5.57	6.29	6.26
	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t
ME-1303-1	154	155	144	147	159	151	145	149	148	160	147	151	153	156	162
ME-1303-2	152	155	143	150	157	155	147	147	147	157	141	152	154	156	162
ME-1303-3	151	156	150	148	158	152	143	151	150	162	147	160	132	155	158
ME-1303-4	154	156	150	149	152	154	145	151	148	162	146	152	153	157	159
ME-1303-5	153	157	145	145	153	150	144	153	148	159	145	154	150	155	161
ME-1303-6	154	153	145	146	157	149	143	152	147	160	151	152	139	157	163
ME-1303-7	153	155	149	149	158	153	143	150	146	162	144	154	153	156	157
ME-1303-8	152	152	145	150	161	153	146	150	150	154	144	151	152	155	156
ME-1303-9	152	154	146	146	151	155	145	150	149	166	145	153	153	156	160
ME-1303-10	153	152	146	146	147	155	145	148	151	163	144	151	147	155	155
Mean	153	155	146	148	155	153	145	150	148	161	145	153	149	156	159
Std. Devn.	0.962	1.716	2.497	1.556	4.347	2.163	1.350	1.792	1.578	3.342	2.633	2.708	7.382	0.945	2.742
% RSD	0.63	1.11	1.71	1.05	2.80	1.42	0.93	1.19	1.06	2.08	1.81	1.77	4.97	0.61	1.72

REFERENCE MATERIAL CDN-ME-1303

Results from round-robin assaying:

1.26 1.24	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
1.24 1.25	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu
1.26	0.337	0.346	0.346	0.335	0.365	0.337	0.34	0.335	0.362	0.338	0.345	0.333	0.354	0.346	0.348
1.26	0.342	0.348	0.350	0.336	0.359	0.343	0.34	0.334	0.365	0.336	0.331	0.345	0.360	0.351	0.351
1.25	0.337	0.351	0.359	0.333	0.364	0.335	0.34	0.337	0.371	0.349	0.338	0.354	0.360	0.342	0.334
1.24	0.344	0.349	0.345	0.335	0.350	0.336	0.34	0.340	0.368	0.348	0.340	0.331	0.356	0.354	0.345
1.25	0.344	0.347	0.360	0.327	0.352	0.338	0.34	0.339	0.366	0.346	0.338	0.336	0.358	0.347	0.346
1.27	0.347	0.348	0.345	0.327	0.360	0.340	0.33	0.346	0.367	0.353	0.351	0.331	0.352	0.347	0.349
ME-1303-7	0.347	0.339	0.357	0.336	0.364	0.336	0.34	0.342	0.357	0.351	0.337	0.336	0.349	0.348	0.330
ME-1303-8	0.343	0.340	0.359	0.335	0.364	0.336	0.34	0.338	0.379	0.350	0.334	0.339	0.354	0.347	0.344
ME-1303-9	0.348	0.345	0.352	0.335	0.360	0.345	0.34	0.339	0.382	0.356	0.336	0.347	0.360	0.346	0.355
ME-1303-10	0.350	0.337	0.346	0.330	0.349	0.343	0.34	0.341	0.386	0.354	0.340	0.344	0.357	0.348	0.340
Mean	0.344	0.345	0.352	0.333	0.359	0.339	0.339	0.339	0.370	0.348	0.339	0.340	0.356	0.348	0.344
Std. Devn.	0.0044	0.0047	0.0063	0.0037	0.0062	0.0036	0.0032	0.0035	0.0092	0.0066	0.0056	0.0077	0.0037	0.0032	0.0077
% RSD	1.28	1.37	1.80	1.10	1.72	1.06	0.93	1.03	2.49	1.88	1.66	2.26	1.05	0.91	2.25
	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb
ME-1303-1	1.28	1.22	1.19	1.26	1.11	1.17	1.24	1.23	1.21	1.18	1.20	1.22	1.26	1.17	1.23
ME-1303-2	1.26	1.23	1.23	1.24	1.06	1.19	1.25	1.23	1.20	1.19	1.16	1.24	1.28	1.19	1.24
ME-1303-3	1.25	1.21	1.22	1.24	1.12	1.18	1.24	1.23	1.22	1.24	1.19	1.29	1.12	1.17	1.23
ME-1303-4	1.26	1.24	1.24	1.25	1.11	1.17	1.23	1.23	1.21	1.23	1.20	1.22	1.26	1.19	1.16
ME-1303-5	1.25	1.24	1.21	1.26	1.10	1.17	1.23	1.24	1.20	1.20	1.19	1.26	1.24	1.17	1.24
ME-1303-6	1.25	1.23	1.19	1.26	1.11	1.18	1.22	1.28	1.19	1.23	1.23	1.22	1.16	1.19	1.24
ME-1303-7	1.25	1.22	1.21	1.25	1.12	1.17	1.23	1.28	1.20	1.22	1.20	1.24	1.27	1.18	1.24
ME-1303-8	1.24	1.22	1.21	1.24	1.12	1.17	1.24	1.24	1.23	1.22	1.19	1.23	1.25	1.18	1.25
ME-1303-9	1.24	1.22	1.19	1.25	1.09	1.20	1.25	1.24	1.20	1.25	1.18	1.25	1.25	1.20	1.25
ME-1303-10	1.25	1.20	1.18	1.27	1.08	1.17	1.22	1.25	1.22	1.24	1.19	1.24	1.24	1.18	1.22
Mean	1.25	1.22	1.21	1.25	1.10	1.18	1.24	1.24	1.21	1.22	1.19	1.24	1.23	1.18	1.23
Std. Devn.	0.0122	0.0126	0.0195	0.0103	0.0196	0.0106	0.0108	0.0175	0.0123	0.0231	0.0177	0.0218	0.0515	0.0099	0.0262
% RSD	0.97	1.03	1.61	0.82	1.78	0.90	0.87	1.41	1.02	1.89	1.48	1.76	4.19	0.84	2.13
	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn
ME-1303-1	0.974	0.949	0.907	0.955	0.982	0.92	0.90	0.915	0.939	0.880	0.941	0.899	0.947	0.881	0.985
ME-1303-2	0.968	0.960	0.912	0.963	0.946	0.93	0.90	0.915	0.945	0.886	0.905	0.913	0.962	0.886	0.934
ME-1303-3	0.958	0.965	0.921	0.964	0.981	0.91	0.90	0.913	0.956	0.920	0.935	0.941	0.952	0.881	0.923
ME-1303-4	0.968	0.962	0.930	0.974	0.939	0.91	0.91	0.903	0.947	0.897	0.946	0.904	0.957	0.893	0.922
ME-1303-5	0.951	0.953	0.928	0.945	0.942	0.92	0.90	0.916	0.947	0.914	0.925	0.916	0.961	0.891	0.949
ME-1303-6	0.951	0.959	0.922	0.930	0.974	0.93	0.89	0.937	0.945	0.938	0.963	0.904	0.938	0.891	0.944
ME-1303-7	0.945	0.933	0.938	0.962	0.976	0.92	0.90	0.923	0.927	0.922	0.939	0.906	0.938	0.888	0.907
ME-1303-8	0.948	0.942	0.940	0.953	0.999	0.91	0.91	0.911	0.978	0.921	0.934	0.902	0.940	0.893	0.925
ME-1303-9	0.941	0.951	0.918	0.950	0.967	0.94	0.91	0.913	0.985	0.948	0.929	0.918	0.954	0.884	0.931
ME-1303-10	0.944	0.930	0.912	0.962	0.946	0.93	0.91	0.912	0.999	0.932	0.927	0.915	0.953	0.905	0.941
Mean	0.955	0.950	0.923	0.956	0.965	0.922	0.903	0.916	0.957	0.916	0.934	0.912	0.950	0.889	0.936
Std. Devn.	0.0115	0.0121	0.0111	0.0123	0.0206	0.0103	0.0067	0.0089	0.0229	0.0221	0.0151	0.0122	0.0091	0.0071	0.0211
% RSD	1.21	1.27	1.21	1.29	2.14	1.12	0.75	0.98	2.39	2.41	1.62	1.34	0.95	0.80	2.26

Notes: *Cu results from laboratory 9 were removed for failing the t test.
Pb results from laboratory 5 were removed for failing the t test.*

REFERENCE MATERIAL CDN-ME-1303

Participating Laboratories:

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

Acme Analytical Laboratories Ltd., Vancouver, BC, Canada
Acme Analytical Laboratories Ltd., Chile
Actlabs-Ancaster, Ontario, Canada
Actlabs-Thunder Bay, Ontario, Canada
AGAT, Mississauga, Ontario, Canada
ALS Chemex Laboratories, North Vancouver, BC, Canada
ALS, Loughrea, Ireland
ALS Reno, Nevada, USA
American Assay Laboratory, Nevada, USA
Certimin, Lima, Peru
Intertek Genalysis, Perth, Australia
SGS – Lima, Peru
Alex Stewart Argentina SA
TSL Laboratories Ltd., Saskatoon, Saskatchewan, Canada
Ultra Trace, Perth, Australia


Legal Notice:

This certificate and the reference material described in it have been prepared with due care and attention. However CDN Resource Laboratories Ltd. or Barry Smee accept no 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


Duncan Sanderson, Certified Assayer of B.C.

Geochemist


Dr. Barry Smee, Ph.D., P. Geo.