

CDN Resource Laboratories Ltd.

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REFERENCE MATERIAL: CDN-ME-1413

Recommended values and the “Between Lab” Two Standard Deviations

<i>Gold</i>	<i>1.010 g/t</i>	<i>±</i>	<i>0.114 g/t</i>	<i>Certified value</i>
<i>Silver</i>	<i>52.2 g/t</i>	<i>±</i>	<i>2.8 g/t</i>	<i>Certified value</i>
<i>Copper</i>	<i>0.452 %</i>	<i>±</i>	<i>0.016 %</i>	<i>Certified value</i>
<i>Lead</i>	<i>0.698 %</i>	<i>±</i>	<i>0.028 %</i>	<i>Certified value</i>
<i>Zinc</i>	<i>0.604 %</i>	<i>±</i>	<i>0.026 %</i>	<i>Certified value</i>

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: Duncan Sanderson, B.Sc., Licensed Assayer of British Columbia
INDEPENDENT GEOCHEMIST: Dr. Barry Smee., Ph.D., P. Geo.
DATE OF CERTIFICATION: February 20, 2015

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-1413 is made from a combination of several ores.

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

	Percent			Percent
SiO ₂	57.3		MgO	3.4
Al ₂ O ₃	11.7		K ₂ O	1.4
Fe ₂ O ₃	11.5		TiO ₂	0.4
CaO	3.8		LOI	6.7
Na ₂ O	1.4		S	4.7
C	0.8			

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.

REFERENCE MATERIAL CDN-ME-1413

Assay Procedures:

Au: Fire assay pre-concentration, AA or ICP finish.
Ag, Cu, Pb, Zn: 4-acid digestion, AA or ICP finish.

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-1413-1	1.060	1.022	0.976	0.991	1.020	1.101	0.994	0.936	1.160	0.991	1.033	0.948	0.910	1.049	1.030
ME-1413-2	1.070	1.002	0.936	1.050	1.030	1.049	1.010	0.993	1.098	1.015	0.903	0.932	0.879	1.045	1.050
ME-1413-3	0.986	0.954	1.080	0.938	0.981	1.105	1.008	1.050	1.150	1.005	0.910	0.999	0.919	1.093	1.060
ME-1413-4	0.878	1.044	1.090	0.993	0.985	1.041	0.998	1.010	1.250	0.974	0.971	1.030	0.901	1.128	1.130
ME-1413-5	1.060	1.012	0.991	0.989	1.070	1.105	0.995	0.926	1.149	0.993	0.909	0.988	0.942	1.070	1.030
ME-1413-6	0.932	0.989	0.976	0.967	0.986	1.060	1.000	0.961	0.989	1.030	0.934	1.050	1.025	1.127	1.040
ME-1413-7	0.908	1.009	1.010	1.070	1.030	1.095	0.993	0.973	1.090	1.070	1.027	1.020	0.906	1.110	1.050
ME-1413-8	0.957	1.080	1.000	0.947	1.000	1.054	1.002	0.941	1.068	0.998	1.000	1.070	1.010	1.100	0.950
ME-1413-9	0.871	1.093	1.030	0.931	1.030	1.055	0.993	0.998	1.053	1.010	1.036	1.020	0.888	1.085	1.020
ME-1413-10	0.920	1.095	0.958	0.991	1.040	1.038	1.006	0.951	1.096	0.984	0.910	1.020	0.895	1.036	0.940
Mean	0.964	1.030	1.005	0.987	1.017	1.070	1.000	0.974	1.110	1.007	0.963	1.008	0.928	1.084	1.030
Std. Devn.	0.0763	0.0471	0.0499	0.0453	0.0287	0.0277	0.0064	0.0388	0.0712	0.0273	0.0565	0.0427	0.0506	0.0334	0.0542
% RSD	7.91	4.57	4.96	4.59	2.82	2.59	0.64	3.98	6.41	2.71	5.87	4.23	5.45	3.08	5.26
	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-1413-1	58.3	51.0	52.0	50.0	57.7	50.6	53.0	55.9	52.8	51.0	53.0	51.0	51.9	52.4	52.0
ME-1413-2	55.7	51.0	52.0	50.0	55.1	50.3	53.0	54.6	51.8	51.0	54.0	54.0	51.3	51.9	50.5
ME-1413-3	54.2	54.0	55.0	50.0	55.8	50.3	52.0	54.6	53.7	51.0	53.0	55.0	52.2	52.4	52.5
ME-1413-4	57.9	53.0	54.0	52.0	56.4	50.5	54.0	54.8	52.5	52.0	53.0	52.0	51.7	51.0	50.0
ME-1413-5	52.5	52.0	53.0	51.0	55.7	50.4	55.0	54.8	52.4	52.0	52.0	52.0	51.8	51.7	50.0
ME-1413-6	54.1	51.0	53.0	49.0	57.7	50.2	52.0	57.9	52.3	51.0	54.0	51.0	51.0	51.5	51.5
ME-1413-7	52.5	52.0	53.0	52.0	60.0	51.8	53.0	54.1	53.8	51.0	53.0	54.0	51.6	51.9	51.0
ME-1413-8	52.0	52.0	51.0	48.0	56.6	51.6	53.0	56.9	51.5	51.0	53.0	55.0	52.2	52.2	50.5
ME-1413-9	54.7	54.0	51.0	50.0	56.4	50.2	53.0	53.6	52.8	51.0	54.0	55.0	51.5	51.5	52.5
ME-1413-10	53.9	55.0	51.0	51.0	56.8	50.9	53.0	51.7	51.4	52.0	54.0	52.0	52.9	51.6	52.0
Mean	54.6	52.5	52.5	50.3	56.8	50.7	53.1	54.9	52.5	51.3	53.3	53.1	51.8	51.8	51.3
Std. Devn.	2.167	1.434	1.354	1.252	1.387	0.579	0.876	1.725	0.821	0.483	0.675	1.663	0.534	0.443	0.979
% RSD	3.97	2.73	2.58	2.49	2.44	1.14	1.65	3.14	1.56	0.94	1.27	3.13	1.03	0.86	1.91

Note: Ag data from laboratory 5 was removed for failing the t test.

REFERENCE MATERIAL CDN-ME-1413

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
	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu
ME-1413-1	0.474	0.449	0.438	0.452	0.436	0.462	0.447	0.489	0.468	0.449	0.452	0.44	0.44	0.456	0.452
ME-1413-2	0.461	0.443	0.445	0.445	0.440	0.460	0.452	0.480	0.466	0.443	0.457	0.42	0.44	0.457	0.455
ME-1413-3	0.456	0.446	0.481	0.451	0.446	0.455	0.455	0.479	0.474	0.458	0.450	0.47	0.45	0.456	0.456
ME-1413-4	0.449	0.446	0.464	0.473	0.448	0.454	0.445	0.481	0.470	0.454	0.458	0.45	0.45	0.450	0.458
ME-1413-5	0.453	0.443	0.469	0.451	0.450	0.447	0.447	0.473	0.472	0.449	0.450	0.44	0.46	0.456	0.455
ME-1413-6	0.483	0.447	0.454	0.451	0.453	0.458	0.453	0.484	0.475	0.451	0.454	0.46	0.46	0.452	0.455
ME-1413-7	0.440	0.456	0.450	0.454	0.439	0.458	0.447	0.473	0.461	0.452	0.447	0.42	0.46	0.459	0.453
ME-1413-8	0.446	0.454	0.451	0.435	0.439	0.454	0.451	0.504	0.465	0.442	0.455	0.48	0.45	0.456	0.450
ME-1413-9	0.455	0.452	0.443	0.449	0.441	0.451	0.448	0.472	0.474	0.433	0.451	0.45	0.43	0.451	0.458
ME-1413-10	0.452	0.435	0.443	0.451	0.457	0.460	0.450	0.445	0.467	0.450	0.449	0.44	0.45	0.453	0.457
Mean	0.457	0.447	0.454	0.451	0.445	0.456	0.450	0.478	0.469	0.448	0.452	0.447	0.449	0.455	0.455
Std. Devn.	0.0129	0.0061	0.0136	0.0094	0.0070	0.0047	0.0032	0.0150	0.0046	0.0071	0.0036	0.0195	0.0099	0.0030	0.0026
% RSD	2.83	1.37	2.99	2.08	1.57	1.02	0.71	3.14	0.98	1.58	0.79	4.35	2.21	0.65	0.57
	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb
ME-1413-1	0.702	0.700	0.711	0.691	0.726	0.687	0.698	0.751	0.693	0.703	0.700	0.67	0.68	0.681	0.694
ME-1413-2	0.711	0.700	0.709	0.695	0.734	0.695	0.707	0.724	0.685	0.689	0.699	0.66	0.69	0.683	0.673
ME-1413-3	0.708	0.700	0.777	0.699	0.687	0.690	0.695	0.722	0.692	0.695	0.694	0.67	0.70	0.689	0.668
ME-1413-4	0.705	0.700	0.738	0.734	0.701	0.690	0.698	0.728	0.697	0.695	0.695	0.67	0.70	0.678	0.678
ME-1413-5	0.707	0.700	0.738	0.694	0.710	0.684	0.701	0.727	0.697	0.691	0.701	0.68	0.73	0.692	0.672
ME-1413-6	0.711	0.700	0.730	0.698	0.721	0.686	0.701	0.738	0.703	0.686	0.706	0.71	0.72	0.684	0.672
ME-1413-7	0.700	0.710	0.721	0.706	0.729	0.689	0.705	0.718	0.691	0.703	0.705	0.64	0.72	0.691	0.664
ME-1413-8	0.698	0.710	0.719	0.681	0.714	0.691	0.695	0.760	0.691	0.690	0.701	0.67	0.71	0.689	0.680
ME-1413-9	0.731	0.710	0.712	0.690	0.698	0.678	0.695	0.719	0.700	0.699	0.702	0.69	0.68	0.685	0.681
ME-1413-10	0.705	0.720	0.709	0.700	0.717	0.690	0.694	0.684	0.705	0.697	0.699	0.69	0.71	0.692	0.676
Mean	0.708	0.705	0.726	0.699	0.714	0.688	0.699	0.727	0.695	0.695	0.700	0.675	0.704	0.686	0.676
Std. Devn.	0.0092	0.0071	0.0210	0.0141	0.0149	0.0046	0.0045	0.0206	0.0060	0.0058	0.0038	0.0190	0.0171	0.0049	0.0083
% RSD	1.30	1.00	2.89	2.02	2.09	0.67	0.65	2.83	0.87	0.84	0.54	2.82	2.43	0.71	1.23
	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn
ME-1413-1	0.639	0.580	0.596	0.602	0.587	0.605	0.595	0.673	0.601	0.605	0.601	0.63	0.60	0.596	0.591
ME-1413-2	0.631	0.570	0.609	0.598	0.595	0.601	0.597	0.654	0.602	0.600	0.602	0.64	0.60	0.597	0.588
ME-1413-3	0.631	0.580	0.659	0.598	0.599	0.604	0.593	0.648	0.606	0.620	0.610	0.58	0.62	0.602	0.592
ME-1413-4	0.627	0.580	0.627	0.625	0.597	0.604	0.597	0.651	0.610	0.612	0.609	0.61	0.62	0.593	0.603
ME-1413-5	0.624	0.570	0.633	0.594	0.618	0.598	0.596	0.649	0.606	0.609	0.608	0.63	0.63	0.604	0.591
ME-1413-6	0.630	0.570	0.618	0.597	0.603	0.610	0.600	0.664	0.611	0.609	0.606	0.63	0.63	0.596	0.600
ME-1413-7	0.620	0.590	0.614	0.610	0.597	0.607	0.594	0.642	0.602	0.609	0.600	0.59	0.62	0.602	0.587
ME-1413-8	0.615	0.580	0.614	0.586	0.596	0.600	0.594	0.682	0.611	0.605	0.602	0.59	0.62	0.605	0.591
ME-1413-9	0.651	0.580	0.599	0.593	0.593	0.595	0.597	0.642	0.614	0.588	0.611	0.64	0.60	0.597	0.603
ME-1413-10	0.622	0.590	0.601	0.595	0.607	0.604	0.602	0.624	0.610	0.616	0.605	0.64	0.62	0.606	0.581
Mean	0.629	0.579	0.617	0.600	0.599	0.603	0.597	0.653	0.607	0.607	0.605	0.618	0.616	0.600	0.593
Std. Devn.	0.0103	0.0074	0.0189	0.0108	0.0085	0.0044	0.0028	0.0166	0.0045	0.0088	0.0040	0.0235	0.0117	0.0044	0.0072
% RSD	1.63	1.27	3.07	1.80	1.42	0.74	0.47	2.55	0.74	1.46	0.66	3.80	1.91	0.74	1.21

Notes: Cu data from laboratory 8 was removed for failing the t test.
Zn data from laboratory 8 was removed for failing the t test.

REFERENCE MATERIAL CDN-ME-1413

Participating Laboratories:

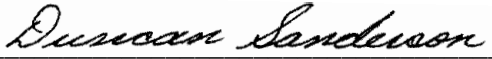
(not in same order as listed in table of results)

Bureau Veritas, Vancouver, BC, Canada
Actlabs, Ancaster, Ontario, Canada
Actlabs, Thunder Bay, Ontario, Canada
AGAT, Mississauga, Ontario, Canada
ALS Canada Inc., North Vancouver, BC, Canada
ALS, Loughrea, Ireland (Omac)
American Assay Laboratories, Nevada, USA
Certimin, Lima, Peru
Inspectorate, Lima, Peru
Met-Solve, Langley, B.C., Canada
SGS, Lima, Peru
SGS Canada Inc., Burnaby, BC, Canada
Skyline Assayers and Laboratories, Arizona, USA
TSL Laboratories Ltd., Saskatoon, Saskatchewan, Canada
Bureau Veritas, Perth, Australia


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Certified by


Duncan Sanderson, Certified Assayer of B.C.

Geochemist


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