

CDN Resource Laboratories Ltd.

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REFERENCE MATERIAL: CDN-ME-1606

Recommended values and the "Between Lab" Two Standard Deviations

Gold	1.069 g/t	±	0.092 g/t	30 g FA, instrumental	Certified value
Silver	114 ppm	±	7 ppm	30 g FA, gravimetric	Certified value
Silver	116 ppm	±	5 ppm	4-Acid / ICP	Certified value
Copper	0.197 %	±	0.008 %	4 Acid / ICP	Certified value
Lead	1.76 %	±	0.06 %	4 Acid / ICP	Certified value
Zinc	0.60 %	±	0.02 %	4 Acid / ICP	Certified value

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: April 28, 2017

ORIGIN OF REFERENCE MATERIAL:

Standard CDN-ME-1606 was prepared by combining a variety of low and high grade 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.

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

	Percent		Percent
SiO ₂	61.1	Na ₂ O	0.3
Al ₂ O ₃	8.8	MgO	3.0
Fe ₂ O ₃	11.5	K ₂ O	1.4
CaO	2.2	TiO ₂	0.3
MnO	0.3	LOI	8.0
S	4.8	C	1.2

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

Results from round-robin assaying:

Instrumental	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-1606-1	1.12	1.02	1.12	1.11	1.10	1.16	1.07	1.10	1.11	1.03	1.05	1.05	1.10	1.06	1.01
ME-1606-2	1.14	1.05	1.06	1.07	1.15	1.03	1.01	1.14	1.11	0.99	1.09	1.10	1.14	0.98	0.99
ME-1606-3	1.12	1.02	1.07	1.12	1.07	1.18	0.96	1.16	1.09	1.05	1.06	1.09	1.08	1.03	1.08
ME-1606-4	1.14	1.05	1.03	1.01	1.10	1.08	1.04	1.16	1.03	1.05	1.11	1.08	1.12	1.01	1.04
ME-1606-5	1.10	0.98	1.13	0.99	1.07	1.10	0.99	1.10	1.03	1.03	1.09	1.08	1.07	0.99	1.06
ME-1606-6	1.11	1.03	1.05	1.08	1.05	1.04	0.97	1.13	1.06	1.00	1.05	1.15	1.05	1.09	0.95
ME-1606-7	1.12	0.98	1.06	1.06	1.06	1.11	1.06	1.18	1.11	0.99	1.02	1.15	1.06	1.14	0.98
ME-1606-8	1.14	1.00	1.08	1.03	1.07	1.05	1.09	1.13	1.08	1.07	1.02	1.09	1.07	1.05	1.04
ME-1606-9	1.10	0.99	1.11	1.13	1.13	1.03	1.03	1.12	1.09	1.08	1.03	1.11	1.12	1.10	1.04
ME-1606-10	1.12	1.04	1.06	1.05	1.08	1.03	1.02	1.14	1.04	1.00	1.03	1.08	1.09	1.10	1.09
Mean	1.12	1.02	1.08	1.06	1.09	1.08	1.02	1.14	1.07	1.03	1.06	1.10	1.09	1.06	1.03
Std. Devn.	0.0147	0.0276	0.0336	0.0468	0.0323	0.0572	0.0427	0.0248	0.0322	0.0325	0.0314	0.0316	0.0280	0.0528	0.0449
% RSD	1.31	2.72	3.12	4.41	2.97	5.31	4.17	2.18	3.00	3.16	2.97	2.87	2.57	5.00	4.37

Gravimetric	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
	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-1606-1	113	121	116	109	114	114		117	106	115	111	109	114	118	105
ME-1606-2	112	119	117	112	114	113		120	108	115	110	110	117	116	110
ME-1606-3	114	119	117	115	113	114		116	114	116	109	113	116	117	110
ME-1606-4	115	118	119	114	110	109		117	111	115	111	115	116	110	110
ME-1606-5	112	116	116	113	108	109		118	112	116	110	118	115	120	110
ME-1606-6	114	115	116	111	109	112		121	107	116	110	104	114	112	103
ME-1606-7	114	120	117	112	117	112		120	107	117	110	103	113	113	102
ME-1606-8	114	116	117	104	117	109		113	111	114	112	112	115	112	103
ME-1606-9	115	120	117	112	113	115		120	111	116	110	108	114	118	117
ME-1606-10	113	117	119	117	115	112		115	113	114	111	109	115	112	115
Mean	113	118	117	112	113	112		118	110	115	110	110	115	115	108
Std. Devn.	1.0750	2.0248	1.0231	3.5418	3.1269	2.2336		2.5841	2.7889	0.9140	0.8433	4.6296	1.1972	3.3928	5.1478
% RSD	0.95	1.71	0.87	3.17	2.77	2.00		2.20	2.54	0.79	0.76	4.20	1.04	2.96	4.74
Instrumental	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-1606-1	118	117	114	114	116		114	118	120	121	110	120	115	116	120
ME-1606-2	118	117	112	116	118		112	118	118	120	113	114	114	115	119
ME-1606-3	117	120	114	121	115		115	121	118	123	113	116	114	118	117
ME-1606-4	117	116	113	120	116		113	116	116	124	111	114	112	119	117
ME-1606-5	116	118	112	117	116		113	117	117	118	112	113	110	118	116
ME-1606-6	119	117	114	120	114		114	119	119	119	114	121	110	116	121
ME-1606-7	116	118	116	118	111		111	121	117	120	113	118	114	116	120
ME-1606-8	117	116	111	119	115		114	116	115	118	113	115	115	116	119
ME-1606-9	118	119	111	116	115		114	117	115	124	116	121	114	117	118
ME-1606-10	118	116	112	117	115		113	118	117	119	112	112	115	117	119
Mean	117	117	113	118	115		113	118	117	121	113	116	113	117	119
Std. Devn.	0.9661	1.3499	1.5515	2.2010	1.7920		1.1595	1.7920	1.6193	2.3190	1.6364	3.3731	1.9465	1.2293	1.5776
% RSD	0.82	1.15	1.37	1.87	1.56		1.02	1.52	1.38	1.92	1.45	2.90	1.72	1.05	1.33

Notes: Laboratory 7 did not report fire assay, gravimetric data for Ag.
Laboratory 6 did not report 4-acid instrumental data for Ag.

Results from round-robin assaying:

Instrumental	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-1606-1	0.21	0.192	0.191	0.196	0.203	0.192	0.194	0.197	0.200	0.201	0.190	0.19	0.199	0.195	0.202
ME-1606-2	0.20	0.191	0.190	0.196	0.203	0.202	0.187	0.199	0.199	0.202	0.200	0.20	0.198	0.196	0.200
ME-1606-3	0.21	0.191	0.197	0.202	0.204	0.203	0.190	0.202	0.202	0.199	0.190	0.19	0.197	0.200	0.197
ME-1606-4	0.21	0.199	0.194	0.200	0.197	0.194	0.182	0.198	0.201	0.203	0.200	0.20	0.198	0.197	0.195
ME-1606-5	0.21	0.191	0.193	0.199	0.196	0.192	0.182	0.198	0.200	0.203	0.190	0.19	0.196	0.198	0.200
ME-1606-6	0.21	0.195	0.196	0.203	0.195	0.200	0.193	0.196	0.200	0.202	0.200	0.20	0.198	0.196	0.199
ME-1606-7	0.21	0.195	0.196	0.199	0.194	0.200	0.183	0.196	0.197	0.202	0.200	0.20	0.201	0.201	0.202
ME-1606-8	0.21	0.195	0.193	0.200	0.198	0.195	0.187	0.199	0.196	0.200	0.200	0.19	0.198	0.194	0.201
ME-1606-9	0.21	0.196	0.190	0.195	0.198	0.199	0.194	0.196	0.194	0.203	0.200	0.19	0.198	0.196	0.200
ME-1606-10	0.21	0.194	0.190	0.195	0.197	0.197	0.192	0.197	0.199	0.201	0.200	0.20	0.202	0.197	0.197
Mean	0.209	0.194	0.193	0.199	0.199	0.197	0.188	0.198	0.199	0.202	0.197	0.195	0.199	0.197	0.199
Std. Devn.	0.0032	0.0026	0.0028	0.0029	0.0036	0.0040	0.0049	0.0018	0.0024	0.0013	0.0048	0.0053	0.0018	0.0022	0.0023
% RSD	1.51	1.36	1.44	1.45	1.80	2.03	2.59	0.89	1.23	0.67	2.45	2.70	0.90	1.10	1.16
Instrumental	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
	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb
ME-1606-1	1.85	1.71	1.685	1.71	1.78	1.700	1.870	1.741	1.775	1.757	1.730	1.83	1.792	1.75	1.82
ME-1606-2	1.85	1.80	1.713	1.72	1.79	1.715	1.86	1.765	1.770	1.753	1.75	1.79	1.804	1.76	1.78
ME-1606-3	1.84	1.72	1.752	1.77	1.80	1.715	1.81	1.749	1.760	1.736	1.75	1.79	1.817	1.77	1.76
ME-1606-4	1.85	1.72	1.735	1.77	1.80	1.685	1.82	1.743	1.775	1.745	1.76	1.82	1.796	1.77	1.76
ME-1606-5	1.85	1.75	1.721	1.78	1.81	1.695	1.76	1.746	1.755	1.764	1.76	1.78	1.805	1.79	1.76
ME-1606-6	1.85	1.74	1.752	1.77	1.78	1.690	1.87	1.756	1.765	1.745	1.76	1.82	1.792	1.78	1.78
ME-1606-7	1.85	1.75	1.757	1.77	1.78	1.710	1.78	1.745	1.745	1.757	1.79	1.79	1.782	1.79	1.79
ME-1606-8	1.84	1.70	1.723	1.77	1.80	1.710	1.82	1.740	1.735	1.733	1.78	1.80	1.784	1.78	1.79
ME-1606-9	1.84	1.73	1.711	1.71	1.80	1.700	1.82	1.734	1.750	1.759	1.81	1.81	1.803	1.76	1.79
ME-1606-10	1.85	1.75	1.726	1.74	1.80	1.715	1.80	1.739	1.740	1.725	1.79	1.81	1.804	1.77	1.78
Mean	1.847	1.74	1.727	1.75	1.794	1.704	1.82	1.746	1.757	1.747	1.768	1.804	1.798	1.77	1.781
Std. Devn.	0.0048	0.0283	0.0224	0.0268	0.0107	0.0111	0.0370	0.0091	0.0144	0.0128	0.0239	0.0165	0.0107	0.0132	0.0185
% RSD	0.26	1.63	1.30	1.53	0.60	0.65	2.03	0.52	0.82	0.73	1.35	0.91	0.60	0.74	1.04
Instrumental	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
	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn
ME-1606-1	0.61	0.59	0.586	0.61	0.63	0.594	0.620	0.599	0.631	0.600	0.57	0.59	0.632	0.60	0.60
ME-1606-2	0.61	0.59	0.585	0.62	0.64	0.622	0.59	0.600	0.621	0.605	0.57	0.59	0.636	0.60	0.59
ME-1606-3	0.60	0.60	0.602	0.63	0.63	0.609	0.58	0.610	0.631	0.597	0.57	0.58	0.629	0.61	0.59
ME-1606-4	0.61	0.61	0.595	0.63	0.60	0.608	0.59	0.601	0.630	0.607	0.57	0.60	0.599	0.60	0.59
ME-1606-5	0.60	0.59	0.593	0.63	0.60	0.601	0.59	0.608	0.620	0.606	0.58	0.59	0.607	0.61	0.59
ME-1606-6	0.60	0.60	0.603	0.64	0.59	0.612	0.61	0.603	0.625	0.597	0.57	0.61	0.608	0.61	0.60
ME-1606-7	0.60	0.60	0.602	0.63	0.59	0.623	0.60	0.601	0.617	0.605	0.58	0.60	0.610	0.61	0.60
ME-1606-8	0.60	0.61	0.592	0.63	0.60	0.603	0.61	0.603	0.613	0.598	0.59	0.60	0.597	0.61	0.60
ME-1606-9	0.60	0.60	0.587	0.61	0.60	0.615	0.60	0.604	0.618	0.604	0.59	0.60	0.595	0.61	0.60
ME-1606-10	0.60	0.60	0.592	0.62	0.60	0.623	0.60	0.607	0.619	0.601	0.58	0.60	0.598	0.60	0.60
Mean	0.603	0.60	0.594	0.62	0.608	0.611	0.60	0.603	0.623	0.602	0.577	0.596	0.611	0.61	0.596
Std. Devn.	0.0048	0.0065	0.0066	0.0096	0.0181	0.0100	0.0120	0.0037	0.0064	0.0039	0.0082	0.0084	0.0156	0.0053	0.0056
% RSD	0.80	1.08	1.10	1.55	2.98	1.63	2.00	0.61	1.03	0.64	1.43	1.41	2.55	0.88	0.93

Notes: Cu data from laboratory 1 was removed for failing the t test.
Pb data from laboratory 1 was removed for failing the t-test.
Zn data from laboratory 11 was removed for failing the t-test.

Participating Laboratories:

(not in same order as table of assays)

- Bureau Veritas, Vancouver, BC, Canada
- Activation Laboratories, Ancaster, Ontario, Canada
- Activation Laboratories, Thunder Bay, Ontario, Canada
- ALS Canada, North Vancouver, BC, Canada
- ALS, Loughrea, Ireland
- ALS, Lima, Peru
- Argetest, Ankara, Turkey
- Certimin S.A., Lima, Peru
- AGAT Labs, Mississauga, Ontario, Canada
- MS Analytical, Langley, BC, Canada
- SGS, Vancouver, BC, Canada
- SGS, Lima, Peru
- SGS, Lakefield, Ontario, Canada
- TSL Laboratories Ltd., Saskatoon, SK, Canada
- Andes Analytical Assay Ltda., Santiago, Chile


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.