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-MPC-1601

Recommended values and the "Between Lab" Two Standard Deviations

Gold	***0.458 g/t ± 0.048 g/t***	***Certified value***	***FA / instumental finish***
Silver	***28.6 g/t ± 2.89 g/t***	***Certified value***	***4-acid / ICP or AA***
Copper	***27.83 % ± 0.54 %***	***Certified value***	***Titration***
Iron	***30.43 % ± 1.17 %***	***Certified value***	***Titration***
Sulphur	***34.55 % ± 1.20 %***	***Certified value***	***Leco***
SiO2	*3.08 g/t ± 0.25 %*	Provisional value	*Various*

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.

The certified value and between lab 2SD calculated for each element are done so for a specific analytical procedure. It is inappropriate to apply them to other techniques (eg. geochemical analyses).

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: December 2, 2016

METHOD OF PREPARATION:

Concentrate 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 9 laboratories for round robin assaying.

ORIGIN OF REFERENCE MATERIAL:

Standard CDN-MPC-1601 was prepared using copper concentrates supplied by various sources in British Columbia, Canada.

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-MPC-1601

Results from round-robin assaying:

	Lab 1	Lab 2	Lab 3	Lab 4	Lab 5	Lab 6	Lab 7	Lab 8	Lab 9
Instrumental	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
MPC-1601-1	0.475	0.457		0.416	0.432	0.764		0.480	0.427
MPC-1601-2	0.480	0.453		0.419	0.464	0.818		0.470	0.468
MPC-1601-3	0.494	0.504		0.478	0.466	0.700		0.440	0.461
MPC-1601-4	0.468	0.431		0.436	0.502	0.650		0.440	0.469
MPC-1601-5	0.483	0.538		0.422	0.422	0.752		0.440	0.448
MPC-1601-6	0.503	0.518		0.406	0.447	0.720		0.460	0.451
MPC-1601-7	0.502	0.457		0.441	0.437	0.726		0.460	0.440
MPC-1601-8	0.477	0.468		0.434	0.450	0.748		0.480	0.456
MPC-1601-9	0.490	0.404		0.456	0.453	0.702		0.490	0.443
MPC-1601-10	0.489	0.439		0.443	0.465	0.718		0.470	0.460
Mean	0.486	0.467		0.435	0.454	0.730		0.463	0.452
Std. Devn.	0.0116	0.0414		0.0211	0.0224	0.0448		0.0183	0.0132
% RSD	2.38	8.88		4.86	4.94	6.14		3.95	2.92
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
MPC-1601-1	31	29	29	30	27	24	27	27	27
MPC-1601-2	30	29	29	30	27	24	24	27	28
MPC-1601-3	30	31	30	30	28	25	27	27	27
MPC-1601-4	30	29	30	30	27	27	26	27	28
MPC-1601-5	30	29	30	30	28	23	28	27	29
MPC-1601-6	30	29	30	30	28	23	29	26	28
MPC-1601-7	31	29	29	30	28	27	28	27	28
MPC-1601-8	31	30	29	29	28	27	26	26	28
MPC-1601-9	30	30	29	30	29	23	27	26	28
MPC-1601-10	31	30	30	29	29	23	28	27	28
Mean	30	30	30	30	28	25	27	27	28
Std. Devn.	0.516	0.707	0.527	0.422	0.738	1.560	1.303	0.483	0.521
% RSD	1.70	2.40	1.79	1.41	2.64	6.32	4.85	1.81	1.87
	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu
MPC-1601-1	28.47	27.68	27.76	27.47	27.76	28.04	27.89	27.79	27.81
MPC-1601-2	28.56	27.37	27.78	27.65	27.68	28.08	27.95	27.90	27.84
MPC-1601-3	28.56	27.39	27.73	27.61	27.69	28.43	27.88	27.89	27.73
MPC-1601-4	28.67	27.82	27.75	27.41	27.78	28.60	27.92	28.00	27.65
MPC-1601-5	28.09	27.51	27.78	27.44	27.82	28.81	27.96	28.00	27.74
MPC-1601-6	28.33	27.48	27.81	27.42	27.82	28.17	27.88	27.99	27.68
MPC-1601-7	28.45	27.62	27.81	27.18	27.83	28.38	27.95	27.94	27.64
MPC-1601-8	28.44	27.57	27.80	27.39	27.73	27.40	27.93	27.88	27.85
MPC-1601-9	28.41	27.43	27.85	27.45	27.84	27.95	27.91	28.03	27.85
MPC-1601-10	28.41	27.79	27.80	27.27	27.62	28.11	27.90	27.93	27.72
Mean	28.44	27.57	27.79	27.43	27.76	28.20	27.92	27.94	27.75
Std. Devn.	0.1560	0.1595	0.0347	0.1387	0.0750	0.3900	0.0298	0.0729	0.0817
% RSD	0.55	0.58	0.12	0.51	0.27	1.38	0.11	0.26	0.29

Note: Au and Ag results from Lab 6 were removed, both for failing the t test.
Laboratories 3 and 7 did not provide Au results.

REFERENCE MATERIAL CDN-MPC-1601

Results from round-robin assaying:

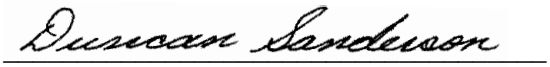
	Lab 1	Lab 2	Lab 3	Lab 4	Lab 5	Lab 6	Lab 7	Lab 8	Lab 9
	% Fe	% Fe	% Fe	% Fe	% Fe	% Fe	% Fe	% Fe	% Fe
MPC-1601-1	31.19	29.80	29.81	28.5	30.37	30.53	32.09	30.84	30.25
MPC-1601-2	31.45	29.49	29.84	29.9	30.29	30.53	31.59	30.68	30.25
MPC-1601-3	31.24	30.04	29.94	29.9	30.29	30.65	32.05	30.99	30.33
MPC-1601-4	31.47	29.90	29.85	28.8	30.30	30.07	31.71	31.02	30.15
MPC-1601-5	31.21	29.99	29.83	29.8	30.30	30.40	32.03	30.87	30.36
MPC-1601-6	31.23	29.80	29.81	29.9	30.41	30.65	32.13	30.66	30.30
MPC-1601-7	31.14	29.70	29.86	30.0	30.07	30.42	31.56	30.85	29.91
MPC-1601-8	31.04	29.81	29.80	29.8	30.30	30.35	31.57	30.84	30.35
MPC-1601-9	31.08	29.66	29.81	30.1	30.20	30.48	31.36	30.92	30.29
MPC-1601-10	31.42	29.56	29.82	30.1	30.03	30.56	31.63	31.12	30.11
Mean	31.25	29.78	29.84	29.68	30.26	30.46	31.77	30.88	30.23
Std. Devn.	0.1520	0.1767	0.0411	0.5574	0.1219	0.1705	0.2760	0.1428	0.1390
% RSD	0.49	0.59	0.14	1.88	0.40	0.56	0.87	0.46	0.46
	% SiO2	% SiO2	% SiO2	% SiO2	% SiO2	% SiO2	% SiO2	% SiO2	% SiO2
MPC-1601-1	3.20	2.78	3.00	3.05	3.08	1.78		3.12	3.00
MPC-1601-2	3.10	3.00	3.20	3.16	2.85	1.63		3.10	2.94
MPC-1601-3	3.30	3.00	3.20	3.14	2.88	1.66		3.10	2.95
MPC-1601-4	3.30	3.00	3.20	3.06	2.97	1.62		3.06	3.02
MPC-1601-5	3.30	3.00	3.20	3.16	2.99	1.87		3.08	3.10
MPC-1601-6	3.30	3.00	3.20	3.17	2.85	1.76		3.02	2.96
MPC-1601-7	3.30	3.00	3.20	3.17	2.93	1.76		3.04	2.98
MPC-1601-8	3.20	3.00	3.20	3.12	2.90	1.72		3.08	2.87
MPC-1601-9	3.10	3.00	3.20	3.17	2.94	1.96		3.06	2.99
MPC-1601-10	3.20	3.00	3.20	3.14	3.03	1.73		3.10	3.08
Mean	3.23	2.97	3.18	3.13	2.94	1.75		3.08	2.99
Std. Devn.	0.0823	0.0677	0.0632	0.0448	0.0764	0.1056		0.0331	0.0672
% RSD	2.55	2.28	1.99	1.43	2.60	6.04		1.08	2.25
	% S	% S	% S	% S	% S	% S	% S	% S	% S
MPC-1601-1	35.53	34.50	34.80	32.80	34.00	34.87	30.30	34.10	
MPC-1601-2	35.53	34.70	34.30	34.70	34.06	34.82	30.20	34.20	
MPC-1601-3	35.71	34.60	34.90	34.00	34.31	34.76	31.50	33.80	
MPC-1601-4	35.15	35.00	34.70	33.40	34.05	34.68	30.80	34.10	
MPC-1601-5	35.71	35.60	34.60	33.70	33.82	34.42	30.90	34.00	
MPC-1601-6	35.99	34.40	34.50	33.90	34.04	34.65	30.50	34.40	
MPC-1601-7	35.06	35.00	34.70	34.30	33.81	35.06	31.00	33.80	
MPC-1601-8	35.53	35.00	34.80	33.50	33.77	35.18	30.90	34.40	
MPC-1601-9	35.06	35.70	34.90	34.10	34.62	35.10	31.20	34.00	
MPC-1601-10	35.53	34.70	34.60	33.30	33.93	35.03	31.00	33.90	
Mean	35.48	34.92	34.68	33.77	34.04	34.86	30.83	34.07	
Std. Devn.	0.3051	0.4392	0.1874	0.5478	0.2577	0.2382	0.4001	0.2163	
% RSD	0.86	1.26	0.54	1.62	0.76	0.68	1.30	0.63	

Notes: SiO2 results from Lab 6 were removed for failing the t test.
Sulphur results from Lab 7 were removed for failing the t test.
Laboratory 7 did not provide SiO2 results.
Laboratory 9 did not provide S results.

REFERENCE MATERIAL CDN-MPC-1601

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

ALS Lima, Peru
ALS Perth, Australia
ALS Vancouver, B.C., Canada
Argetest, Ankara, Turkey
Bureau Veritas, Vancouver, B.C., Canada
Loring Laboratories, Calgary, Alberta, Canada
MS Analytical, Langley, B.C., Canada
Mt. Polley Mine Lab, B.C., Canada
SGS, Lakefield, Ontario, Canada

Certified by 
Duncan Sanderson, Certified Assayer of B.C.

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