CDN Resource Laboratories Ltd.

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

Certificate of Analysis

REFERENCE MATERIAL: CDN-MPC-2301

Recommended values and the "Between Lab" Two Standard Deviations

Copper	**36.60 %**	**±**	**0.46 %**	**Titration/ Volumetric**	**Certified value**
Gold	**0.98 gpt**	**±**	**0.06 gpt**	**30 g FA, instrumental finish**	**Certified value**
Silver	**142 ppm**	**±**	**7 ppm**	**4 Acid digestion / ICP**	**Certified value**
Silver	**142 ppm**	**±**	**7 ppm**	**Aqua Regia digestion/ ICP**	**Certified value**
Copper	**35.9 %**	**±**	**1.3 %**	**4 Acid digestion / ICP**	**Certified value**
Copper	**36.9 %**	**±**	**2.1 %**	**Aqua Regia digestion/ ICP**	***Provisional mean***
Molybdenum	**1612 ppm**	**±**	**73 ppm**	**4 Acid digestion / ICP**	**Certified value**
Molybdenum	**1534 ppm**	**±**	**120 ppm**	**Aqua Regia digestion/ ICP**	**Certified value**
Lead	**96 ppm**	**±**	**9 ppm**	**4 Acid digestion / ICP**	**Certified value**
Lead	**95 ppm**	**±**	**9 ppm**	**Aqua Regia digestion/ ICP**	***Provisional mean***
Arsenic	**965 ppm**	**±**	**126 ppm**	**4 Acid digestion / ICP**	***Provisional mean***
Arsenic	**1035 ppm**	**±**	**63 ppm**	**Aqua Regia digestion/ ICP**	**Certified value**
Iron	**14.57 %**	**±**	**0.38 %**	**4 Acid digestion / ICP**	**Certified value**
Iron	**14.12 %**	**±**	**0.43 %**	**Aqua Regia digestion/ ICP**	**Certified value**
Total S	**21.2 %**	**±**	**1.1 %**	**IR instrument- LECO Induction**	**Certified value**
Bismuth		**93**		**4 Acid digestion / ICP**	***Indicated value***
Bismuth		**89**		**Aqua Regia digestion/ ICP**	***Indicated value***
Fluorine	**194 ppm**	**±**	**38 ppm**	**Fusion Ion Electrode**	***Provisional mean***

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: Ali Alizadeh, MSc, MBA, P Geo
INDEPENDENT GEOCHEMIST: Dr. Barry Smee., Ph.D., FGC
DATE OF CERTIFICATION: March 27th, 2024

ORIGIN OF REFERENCE MATERIAL:

Standard CDN-MPC-2301 was prepared from a concentrate which became available to CDN Resource Laboratories.

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.

Assay Procedures:

Cu:	Classical Titration
Au:	30 gr. fire assay pre-concentration, AA or ICP finish.
F:	Fusion Ion Electrode or ICP Finish
Ag, Cu, Mo, Pb, Fe, As, Bi:	4-acid digestion, and Aqua Regia digestion AA or ICP finish.
Total S:	LECO Induction

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.

Quality Assurance and Quality Control Procedures:

Screening Test: After completion of homogenization, three samples, 300g each of homogenized material was randomly collected and was re-screened by a testing sieve. Over size material of this standard and based on CDN's screening test was ~%1.0.

Homogeneity Test:

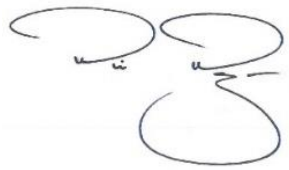
15 samples were selected selectively throughout the batch and were sent to an independent assay Laboratories for Homogeneity testing following directions of Annex B, Homogeneity and Stability of proficiency test items, ISO 13528:2015 Guidelines.

Assay results went through a statistical work-up by checking the mean, standard deviation, and %RSD. Based on performed statistical works outlined by ISO 13528; CDN-MPC-2301 is statistically homogenized (Appendix III).

LEGAL NOTICE:

This certificate and the reference material described in it have been prepared with due care and attention. However, CDN Resource Laboratories Ltd. nor Barry Smee accept any 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



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Ali Alizadeh, MSc, MBA, P.Geo.

Geochemist

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Dr. Barry Smee, PhD, FGC

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APPENDIX I:
Whole rock analysis and 30 element ICP analysis (4-acid digestion) were also conducted on 3 samples.

APPROXIMATE CHEMICAL COMPOSITION (by whole rock analysis):

Analyte	Percent	Analyte	Percent
SiO_2	15.4	**Na_2O**	0.6
Al_2O_3	3.7	**MgO**	0.5
Fe_2O_3	20.4	**K2O**	0.5
CaO	1.4	**TiO_2**	0.2
MnO	<0.1	**LOI**	10.2
Total S	21.2	**Total C**	0.2

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

Activation Labs, Ancaster, Ontario, Canada
ALS, Perth, Australia
ALS Lima, Peru
ALS, Loughrea, Ireland
ALS Canada, North Vancouver, BC, Canada
Bureau Veritas, Vancouver, BC, Canada
MS Analytical, Langley, BC, Canada
SGS Lakefield, ON, Canada

APPENDIX II: Results from round-robin assaying:

Standard	Lab 1	Lab 2	Lab 3	Lab 4	Lab 5	Lab 6	Lab 7	Lab 8
	Au by Fire Assay, 30g sample size and Instrumental finish							
MPC-2301	0.985	0.943	0.969	0.964	0.974	1.034	0.97	1.00
	0.954	0.977	0.980	0.993	0.989	0.896	1.03	1.03
	0.997	0.955	0.999	0.972	0.988	0.973	1.02	1.01
	0.952	1.010	0.992	0.944	0.957	1.007	0.94	1.02
	1.020	0.961	1.000	0.970	1.070	1.003	0.94	1.01
	0.916	0.939	1.000	1.055	1.005	0.956	0.97	0.99
	0.975	0.960	1.000	0.950	1.010	0.972	0.95	0.96
	0.892	0.956	0.992	0.976	1.025	1.047	1.01	0.99
	0.935	0.969	1.005	0.941	0.945	0.953	0.96	1.03
	0.981	0.938	0.988	0.959	1.025	0.966	0.95	1.05
Mean	0.961	0.961	0.993	0.972	0.999	0.981	0.97	1.01
Std. Devn.	0.04	0.02	0.01	0.03	0.04	0.04	0.03	0.03
% RSD	4.04	2.23	1.11	3.40	3.67	4.47	3.46	2.54
Ag (g/t) by 4Acid digestion Instrumental finish								
MPC-2301	141	144	147	143	141	142	135	134
	144	142	149	142	143	141	142	135
	143	142	147	142	141	141	137	134
	142	144	146	142	142	142	137	134
	143	143	147	142	143	142	138	132
	141	143	147	144	143	142	139	134
	143	142	147	143	141	142	135	133
	140	144	148	142	142	142	136	133
	142	143	146	142	142	142	134	135
	141	146	146	144	143	143	136	132
Mean	142	143	147	143	142	142	137	134
Std. Devn.	1.25	1.25	0.94	0.84	0.876	0.57	2.33	1.07
% RSD	0.88	0.87	0.64	0.59	0.616	0.40	1.70	0.80
Ag (g/t) by Aqua Regia digestion Instrumental finish								
MPC-2301	145	145	145	137	142	137.1	141	147
	143	143	144	139	141	146.8	142	145
	143	144	146	136	142	143.3	137	147
	143	145	144	138	139	142.6	137	148
	140	145	144	136	140	142.1	129	143
	141	144	145	138	139	141.8	136	148
	142	143	145	137	141	143.4	138	144
	140	144	144	138	139	142.2	136	146
	140	144	145	138	139	143.6	135	140
	141	144	144	138	141	137.6	134	137
Mean	142	144	145	138	140	142.1	137	145
Std. Devn.	1.69	0.74	0.70	0.97	1.252	2.85	3.63	3.63
% RSD	1.19	0.51	0.48	0.71	0.892	2.01	2.66	2.51

Standard	Lab 1	Lab 2	Lab 3	Lab 4	Lab 5	Lab 6	Lab 7	Lab 8
	Cu (%) by Volumetric							
MPC-2301	36.5	36.47	36.41	-	36.50	36.98	37.41	36.68
	36.5	36.39	36.45	-	36.66	37.05	37.39	36.64
	36.6	36.49	36.50	-	36.71	36.84	36.27	36.65
	36.7	36.73	36.44	-	36.61	37.43	36.39	36.70
	36.8	36.46	36.52	-	36.74	37.67	36.24	36.69
	36.4	36.91	36.50	-	36.64	37.19	36.13	36.68
	36.4	36.68	36.61	-	36.55	37.34	37.38	36.68
	36.3	36.53	36.65	-	36.68	36.96	36.31	36.69
	36.2	36.34	36.61	-	36.69	37.13	36.21	36.70
	36.4	36.53	36.88	-	36.56	37.10	35.92	36.70
Mean	36.5	36.55	36.56	-	36.63	37.17	36.57	36.68
Std. Devn.	0.181	0.172	0.139	-	0.077	0.249	0.585	0.021
% RSD	0.497	0.472	0.379	-	0.212	0.669	1.599	0.057
Cu (%) by 4Acid digestion Instrumental finish								
MPC-2301	35.2	>DTL	36.2	36.6	35.7	>DTL	35.635	35.9
	35.6	>DTL	36.4	36.0	35.7	>DTL	36.395	35.4
	35.6	>DTL	36.7	36.6	35.9	>DTL	35.734	35.3
	35.3	>DTL	36.7	36.7	35.9	>DTL	35.386	35.6
	35.3	>DTL	36.8	36.6	36.0	>DTL	36.025	35.1
	34.6	>DTL	36.7	36.5	36.1	>DTL	35.315	34.7
	35.4	>DTL	36.5	36.6	36.0	>DTL	34.862	34.9
	35.0	>DTL	36.5	36.8	35.9	>DTL	36.745	35.5
	35.4	>DTL	36.5	36.9	36.0	>DTL	34.808	34.9
	34.9	>DTL	36.5	36.6	36.1	>DTL	35.115	34.8
Mean	35.2		36.6	36.6	35.9		35.602	35.2
Std. Devn.	0.32		0.18	0.24	0.14		0.64	0.39
% RSD	0.90		0.49	0.65	0.39		1.80	1.12
Cu (%) by Aqua Regia digestion Instrumental finish								
MPC-2301	36.2	>DTL	36.7	36.9	36.2	>DTL	-	39.2
	36.4	>DTL	36.8	36.9	36.3	>DTL	-	39.5
	36.0	>DTL	37.1	37.2	36.2	>DTL	-	41.2
	35.6	>DTL	36.9	37.2	36.2	>DTL	-	39.4
	35.8	>DTL	37.0	37.0	36.4	>DTL	-	39.1
	35.8	>DTL	37.0	36.8	36.4	>DTL	-	40.0
	35.7	>DTL	37.2	37.4	36.3	>DTL	-	38.5
	35.7	>DTL	37.1	37.0	36.4	>DTL	-	38.5
	35.7	>DTL	37.0	37.1	36.4	>DTL	-	38.6
	35.2	>DTL	37.2	36.9	36.0	>DTL	-	37.7
Mean	35.8		37.0	37.0	36.3			39.2
Std. Devn.	0.33		0.16	0.18	0.13			0.96
% RSD	0.93		0.44	0.50	0.36			2.46

Standard	Lab 1	Lab 2	Lab 3	Lab 4	Lab 5	Lab 6	Lab 7	Lab 8
	S (%) by IR							
MPC-2301	21.5	22.1	20.6	20.8	20.9	20.53	21.76	19.8
	21.3	22.0	20.5	20.4	21.2	20.96	21.85	19.9
	21.0	22.7	20.7	20.9	20.8	21.32	22.15	19.7
	21.0	22.3	20.8	20.3	21.1	21.49	21.85	19.7
	20.8	22.0	21.2	20.7	20.8	21.44	22.05	19.7
	21.2	22.8	20.8	20.9	21.0	21.37	21.76	19.7
	21.0	22.4	20.5	20.9	21.2	20.83	21.76	19.5
	21.4	22.1	20.8	20.8	21.0	20.30	21.85	19.5
	21.1	22.0	21.3	20.6	20.9	20.40	21.56	19.7
	20.9	22.2	20.4	20.7	21.1	21.25	22.15	19.7
Mean	21.1	22.3	20.8	20.7	21.0	20.99	21.87	19.7
Std. Devn.	0.23	0.29	0.30	0.21	0.15	0.45	0.19	0.12
% RSD	1.07	1.31	1.42	1.02	0.71	2.15	0.87	0.61
	F (ppm) by Ion Electrode ICP							
MPC-2301	240	170	210	220	190	189	190	200
	180	140	210	210	190	180	160	210
	190	290	220	210	190	191	170	260
	160	290	210	210	200	183	180	200
	170	170	200	220	190	182	180	200
	120	200	230	210	190	183	170	210
	150	160	210	230	190	190	180	270
	150	210	200	220	210	186	180	200
	180	170	200	220	200	186	180	200
	170	190	210	230	190	198	190	200
Mean	171	199	210	218	194	187	178	215
Std. Devn.	31.43	51.95	9.43	7.89	6.99	5.35	9.19	26.77
% RSD	18.38	26.11	4.49	3.62	3.60	2.86	5.16	12.45
	Pb (ppm) by 4Acid digestion Instrumental finish							
MPC-2301	78	100	100	90	100	92	100	114
	79	100	90	90	90	97	100	112
	80	100	90	100	90	95	100	122
	78	100	100	110	90	97	100	116
	82	100	100	110	100	96	100	115
	77	100	90	100	100	93	100	114
	75	100	100	90	90	94	>DTL	113
	80	90	100	100	90	92	100	110
	82	100	90	90	100	93	>DTL	113
	78	100	90	100	90	92	100	113
Mean	79	99	95	98	94	94	100	114
Std. Devn.	2.18	3.16	5.27	7.89	5.16	2.02	0.00	3.19
% RSD	2.77	3.19	5.55	8.05	5.49	2.15	0.00	2.79

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Standard	Lab 1	Lab 2	Lab 3	Lab 4	Lab 5	Lab 6	Lab 7	Lab 8
	Pb (ppm) by Aqua Regia digestion Instrumental finish							
MPC-2301	73	100	90	100	90	<DTL	90	97
	71	90	90	100	90	<DTL	100	99
	72	90	90	110	90	<DTL	90	96
	73	100	90	100	80	<DTL	100	98
	73	100	100	100	80	<DTL	100	93
	74	90	90	100	100	<DTL	100	94
	71	90	90	90	90	<DTL	100	95
	73	90	90	100	80	<DTL	100	96
	73	100	90	100	80	<DTL	110	92
	76	100	90	100	90	<DTL	100	91
Mean	73	95	91	100	87		99	95
Std. Devn.	1.45	5.27	3.16	4.71	6.75		5.68	2.60
% RSD	1.99	5.55	3.48	4.71	7.76		5.73	2.74
As (ppm) by 4Acid digestion Instrumental finish								
MPC-2301	716	1000	1030	800	940	1000	980	197
	716	980	1020	730	970	1000	960	177
	708	970	1030	800	940	1000	1000	190
	704	1010	1030	780	950	1000	990	201
	708	1000	1040	770	940	1000	990	189
	697	960	1020	790	940	1000	950	210
	727	970	1030	780	980	1000	950	205
	735	990	1030	730	960	1000	970	192
	715	980	1020	770	940	1000	960	197
	688	940	1030	790	940	1000	970	201
Mean	711	980	1028	774	950	1000	972	196
Std. Devn.	13.70	21.08	6.32	25.47	14.91	0.00	17.51	9.37
% RSD	1.93	2.15	0.62	3.29	1.57	0.00	1.80	4.79
As (ppm) by Aqua Regia digestion Instrumental finish								
MPC-2301	886	1040	1050	1050	1010	322	990	1110
	878	1040	1050	1070	1010	329	1020	1020
	883	1040	1060	1050	1020	314	980	1240
	870	1050	1060	1080	1010	338	960	1010
	891	1050	1040	1070	1000	319	930	1070
	991	1040	1050	1060	1010	309	980	1110
	871	1030	1060	1050	1020	320	970	1060
	873	1040	1040	1030	1010	333	990	1050
	912	1040	1040	1050	1020	293	1000	1060
	871	1040	1050	1050	1010	331	970	1070
Mean	893	1041	1050	1056	1012	321	979	1080
Std. Devn.	36.88	5.68	8.16	14.30	6.32	13.25	24.24	64.81
% RSD	4.13	0.55	0.78	1.35	0.62	4.13	2.48	6.00

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Standard	Lab 1	Lab 2	Lab 3	Lab 4	Lab 5	Lab 6	Lab 7	Lab 8
	Bi (ppm) by 4Acid digestion Instrumental finish							
MPC-2301	<DTL	90	90	30	100	87	<DTL	<DTL
	<DTL	80	70	100	100	90	<DTL	<DTL
	<DTL	130	90	120	100	93	<DTL	<DTL
	<DTL	70	110	90	100	91	<DTL	<DTL
	<DTL	100	90	110	100	89	<DTL	<DTL
	<DTL	70	110	120	100	91	<DTL	<DTL
	<DTL	100	90	40	100	92	<DTL	<DTL
	<DTL	60	110	70	90	90	<DTL	<DTL
	<DTL	90	70	40	100	88	<DTL	<DTL
	<DTL	90	90	40	110	89	<DTL	<DTL
Mean		88	92	76	100	90		
Std. Devn.		19.89	14.76	36.27	4.71	1.83		
% RSD		22.60	16.04	47.72	4.71	2.03		
	Bi (ppm) by Aqua Regia digestion Instrumental finish							
MPC-2301	5	90	90	90	90	-	<DTL	<DTL
	9	90	100	110	70	-	<DTL	<DTL
	<DTL	80	80	90	20	-	<DTL	<DTL
	15	80	100	120	40	-	<DTL	<DTL
	<DTL	100	90	130	90	-	<DTL	<DTL
	<DTL	90	100	70	80	-	<DTL	<DTL
	23	100	100	190	110	-	<DTL	<DTL
	44	100	90	60	70	-	<DTL	<DTL
	<DTL	80	100	80	30	-	<DTL	<DTL
	19	94	95	100	66			
Mean	15.43	15.06	7.07	39.72	28.75			
Std. Devn.	80.38	16.02	7.44	39.72	43.56			
% RSD	5	90	90	90	90	-	<DTL	<DTL
	Fe (%) by 4Acid digestion Instrumental finish							
MPC-2301	13.6	13.95	14.40	14.80	14.65	14.39	14.72	14.6
	13.6	13.85	14.40	14.85	14.65	14.35	14.98	14.7
	13.5	13.95	14.35	14.65	14.70	14.25	14.99	14.4
	13.4	13.90	14.30	14.80	14.65	14.32	14.64	14.6
	13.5	13.85	14.40	14.75	14.70	14.48	14.82	14.7
	13.0	13.95	14.30	14.95	14.65	14.37	14.67	14.3
	13.5	13.85	14.45	14.85	14.65	14.44	14.51	14.4
	13.6	13.95	14.45	14.80	14.70	14.36	15.03	14.6
	13.5	13.85	14.30	14.70	14.70	14.34	14.60	14.4
	13.7	14.20	14.35	14.85	14.75	14.35	14.60	14.5
Mean	13.5	13.93	14.37	14.80	14.68	14.37	14.76	14.5
Std. Devn.	0.19	0.11	0.06	0.08	0.03	0.06	0.19	0.14
% RSD	1.42	0.76	0.41	0.57	0.24	0.44	1.27	0.96

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Standard	Lab 1	Lab 2	Lab 3	Lab 4	Lab 5	Lab 6	Lab 7	Lab 8
	Fe (%) by Aqua Regia digestion Instrumental finish							
MPC-2301	12.6	13.95	14.20	14.15	14.05	14.03	14.69	16.2
	12.5	13.85	14.20	14.10	14.00	15.07	14.73	16.1
	12.6	13.90	14.30	14.00	14.00	14.37	14.50	17.1
	12.5	13.95	14.20	14.05	13.85	14.22	14.42	16.2
	12.8	13.95	14.25	14.10	13.90	14.39	13.73	16.2
	13.2	13.85	14.20	14.05	13.90	14.37	14.44	16.4
	12.3	13.80	14.25	13.95	13.95	14.26	14.42	15.9
	12.6	13.95	14.20	14.05	13.85	14.38	14.50	15.9
	12.9	13.95	14.35	14.05	13.95	14.90	14.48	15.8
	12.5	13.95	14.35	14.10	14.00	13.96	14.30	15.5
Mean	12.7	13.91	14.25	14.06	13.95	14.40	14.42	16.1
Std. Devn.	0.25	0.06	0.06	0.06	0.07	0.35	0.27	0.43
% RSD	2.02	0.41	0.44	0.40	0.49	2.41	1.90	2.65
	Mo (ppm) by 4Acid digestion Instrumental finish							
MPC-2301	1700	1640	1610	1630	1590	1440	1550	1630
	1700	1610	1610	1630	1580	1440	1550	1630
	1690	1630	1600	1620	1580	1430	1580	1640
	1680	1610	1600	1630	1600	1470	1540	1630
	1690	1610	1610	1620	1590	1490	1550	1630
	1640	1620	1590	1640	1600	1450	1540	1630
	1680	1620	1610	1630	1580	1420	1530	1630
	1690	1610	1610	1630	1590	1420	1560	1610
	1680	1590	1600	1620	1580	1440	1540	1620
	1720	1650	1600	1650	1590	1370	1550	1590
Mean	1687	1619	1604	1630	1588	1437	1549	1624
Std. Devn.	20.58	17.29	6.99	9.43	7.89	31.99	13.70	14.30
% RSD	1.22	1.07	0.44	0.58	0.50	2.23	0.88	0.88
	Mo (ppm) by Aqua Regia digestion Instrumental finish							
MPC-2301	962	1440	1550	1600	1560	1547	1500	1830
	947	1365	1555	1585	1540	1640	1530	1840
	956	1465	1560	1525	1560	1619	1500	1970
	921	1490	1530	1600	1545	1608	1490	1820
	902	1425	1540	1580	1500	1610	1420	1840
	880	1505	1525	1570	1550	1600	1490	1840
	913	1540	1540	1600	1540	1613	1510	1810
	958	1435	1510	1590	1520	1601	1500	1820
	1070	1400	1520	1565	1540	1623	1500	1790
	899	1435	1500	1640	1545	1547	1480	1760
Mean	941	1450	1533	1586	1540	1601	1492	1832
Std. Devn.	53.56	51.48	19.61	29.76	18.10	30.62	28.60	54.73
% RSD	5.69	3.55	1.28	1.88	1.18	1.91	1.92	2.99

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Notes:

Total S results from Lab 8 were removed for failing the t test.
Pb results assayed by 4 Acid digestion with instrumental finish from Labs 1 and 8 were removed for failing the t test.
Pb results assayed by Aqua Regia digestion with instrumental finish from Lab 1 were removed for failing the t test.
As results assayed by 4 Acid digestion with instrumental finish from Labs 1 and 8 were removed for failing the t test.
As results assayed by Aqua Regia digestion with instrumental finish from Labs 1 and 6 were removed for failing the t test.
Bi results assayed by Aqua Regia digestion with instrumental finish from Lab 1 were removed for failing the t test.
Fe results assayed by 4 Acid digestion with instrumental finish from Labs 1 and 2 were removed for failing the t test.
Fe results assayed by Aqua Regia digestion with instrumental finish from Labs 1 and 8 were removed for failing the t test.
Mo results assayed by 4 Acid digestion with instrumental finish from Lab 6 were removed for failing the t test.
Mo results assayed by Aqua Regia digestion with instrumental finish from Labs 1 and 8 were removed for failing the t test.

APPENDIX III: QAQC

Table below illustrates percentages of over size (+275 mesh) material in CDN-MPC-2301

Standard	Study Date	Total weight Screened (g)	Total weight Over size (g)	Percentage
MPC-2301	11/6/2023	300	3.5	1.2%
	11/6/2023	300	3.5	1.2%
	11/6/2023	300	4	1.3%

Table below shows homogeneity test results of CDN-MPC-2301

	Au Original	Au Repeat	Between Sample Variance Wt	Sample Avg. Xt	Stdev of Sample Avg	Within-Sample Std.
MPC-2301	0.934	0.948	0.014	0.941	0.000	0.000
	0.823	0.943	0.120	0.883	0.003	0.014
	0.946	0.930	0.016	0.938	0.000	0.000
	0.958	0.928	0.030	0.943	0.000	0.001
	0.894	0.969	0.075	0.932	0.000	0.006
	0.974	0.939	0.035	0.957	0.000	0.001
	0.947	0.950	0.003	0.949	0.000	0.000
	0.949	0.953	0.004	0.951	0.000	0.000
	0.940	0.968	0.028	0.954	0.000	0.001
	0.904	0.941	0.037	0.923	0.000	0.001
	1.001	0.911	0.090	0.956	0.000	0.008
	0.989	0.936	0.053	0.963	0.001	0.003
	0.899	0.900	0.001	0.900	0.001	0.000
	0.926	0.909	0.017	0.918	0.000	0.000
	0.910	0.934	0.024	0.922	0.000	0.001
Statistics			**Gavg**	**SX**	**SS**	
Mean	0.933	0.937	**0.935**	**0.023**	**0.010**	
SD	0.0439	0.0199	**C**	**C SQRT**		
RSD	4.701	2.125	**0.0017**	**0.04**		
Proof of Homogeneity	Based on Statistical procedures outlined in Annex B, ISO 13528:2015 guidelines, If "SS is < square root of C" Standard is considered homogeneous. **MPC-2301 is statistically homogenous**					

APPENDIX IV: General Notes

Intended Use

This Certified Reference Material, fit for use as a control sample in routine assay laboratory quality control when inserted within runs of test samples and measured in parallel to test samples. This material can also be used for method development, use as independent calibration verification check standard or for validation of accuracy in a method validation exercise.
This CRM can also be used to assess inter-laboratory or instrument bias and establish within-laboratory precision and within-laboratory reproducibility. The certified concentrations and expanded uncertainty for this material are property values based on an inter-laboratory measurement campaign and reflect consensus results from the laboratories that took part in the exercise.

Handling

Do not use if the seal is broken or there are any signs of contamination.
The material is packaged in either Tin Tie envelopes, foil envelopes, or jars that must be shaken before use.

Storage information

The material should be stored in a dry place, in such a way that it does not compromise the integrity of the CRM. The material should be stored in conditions which will ensure it does not absorb moisture.
Certificate is not valid if re-packaged by a third party.

Metrological Traceability

The values quoted herein are based on the consensus values derived from statistical analysis of the data from an inter-laboratory measurement program. Traceability to SI units is via the standards used by the individual laboratories all of which are accredited to the ISO17025 general requirements for the competence of testing and calibration laboratories and who have maintained measurement traceability during the analytical process.

Period of Validity

The certified values are valid for this product, while still sealed in its original packaging, until notification to the contrary. The material's stability will undergo regular testing every five years throughout its inventory duration. Should product stability become an issue, all customers will be notified and notification to that effect will be placed on the http://www.cdnlabs.com/ website.

Minimum Sample Size

Most of the laboratory's reporting used a 0.5g sample size for the ICP and a 30g sample size for the fire assay.
Our certified gold values are based on 30g Fire Assay determinations. For optimal results, we strongly recommend you assay our standards with similar methods using "at least" 30g of material. Using a smaller sample weight may result in erratic values. These are the recommended minimum sample sizes for the use of this material.

Statistical Procedures

Round robin samples were sent to participating laboratories.
The mean and standard deviation for all data were calculated. Outliers were defined as samples beyond the mean $\pm$ 2 Standard Deviations from all data. These outliers were removed from the data and a new mean and standard deviation were determined. This method makes use of actual "between-laboratory" standard deviation in the calculations. This produces upper and lower limits that reflect actual individual analyses rather than a grouped set of analyses.
Statistical analysis was carried out by Dr. Barry Smee, an independent statistician. A statistical report is provided along with a certificate of analysis.