# CDN Resource Laboratories Ltd.

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## REFERENCE MATERIAL: CDN-GS-6F

Recommended value and the "Between Laboratory" two standard deviations

Gold	$6.87 \pm 0.28 \ g/t$	30 g FA, instrumental	Certified Value
Gold	$6.79 \pm 0.30  g/t$	30 g FA, gravimetric	Certified Value

**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 19, 2016

### **ORIGIN OF REFERENCE MATERIAL:**

Standard CDN-GS-6F was prepared using ore supplied by Barrick Gold Inc. from their Cortez Mine in Nevada, USA. It is Carlin Style Mineralization in the prolific Battle Mountain-Eureka Trend in Northern Nevada, USA. Mineralization is primarily hosted in a sequence of Silurian and Devonian carbonate sediments. The material is from breccias near the contact between the Mississippian Pilot Shale and the underlying Devonian Guilmette formation. Near the center of the system, micronsized native Au occurs with base metal sulfides and sulfosalts. In peripheral deposits and in later stages of mineralization, Au is typically submicron in size and resides in pyrite or arsenopyrite. Note that this standard has a carbonate matrix.

### 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 blender. Splits were taken and sent to 15 commercial laboratories for round robin assaying. Round robin results are displayed below:

	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
Instrumental	Au g/t	Au g/t	Λυ α/t	Au g/t	Au a/t	Au g/t	Au g/t	Au a/t							
mstrumentar	Au g/t														
GS-6F-1	6.67	7.24	6.93	6.78	6.82	6.84	6.24	6.80	6.85	6.82	7.08	6.88	6.63	7.01	6.53
GS-6F-2	6.72	7.17	6.68	6.71	6.89	6.94	6.17	6.72	6.94	6.97	7.17	6.85	6.71	6.79	6.68
GS-6F-3	6.82	7.16	6.93	6.76	6.87	6.82	6.33	6.78	6.83	6.76	6.96	6.96	6.76	7.09	6.66
GS-6F-4	6.89	7.23	6.95	6.72	6.81	6.87	6.22	6.77	6.89	6.79	7.00	7.02	6.82	7.16	6.67
GS-6F-5	6.78	7.14	6.91	6.70	6.89	6.97	6.50	6.75	6.97	6.56	7.18	6.88	6.81	6.94	6.75
GS-6F-6	6.88	7.24	6.95	6.73	6.85	7.07	6.35	6.85	7.05	6.71	7.16	6.93	6.88	6.87	6.80
GS-6F-7	6.89	7.14	6.98	6.71	6.99	6.94	6.27	6.73	6.94	6.62	7.26	6.95	7.06	6.90	6.82
GS-6F-8	6.93	7.18	7.04	6.70	6.90	7.00	6.19	6.88	7.01	6.74	7.08	7.00	6.76	6.95	6.76
GS-6F-9	6.95	7.26	6.61	6.71	6.90	6.89	6.50	6.77	6.91	6.62	7.06	6.99	6.57	6.99	6.83
GS-6F-10	6.81	7.29	6.94	6.86	6.81	6.84	6.44	6.71	6.84	6.79	7.10	6.84	6.69	6.93	6.77
	0.00	7.00	0.00	0.74	0.07	0.00	0.00	0.70	0.00	0.74	7.40	0.00	0.77	0.00	0.70
Mean	6.83	7.20	6.89	6.74	6.87	6.92	6.32	6.78	6.92	6.74	7.10	6.93	6.77	6.96	6.73
Std. Dev'n	0.0911	0.0537	0.1360	0.0503	0.0549		0.1240	0.0550	0.0748	0.1187	0.0889	0.0645	0.1375	0.1066	0.0924
%RSD	1.33	0.75	1.97	0.75	0.80	1.17	1.96	0.81	1.08	1.76	1.25	0.93	2.03	1.53	1.37
Gravimetric	Au g/t														
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GS-6F-1	6.89	6.89	6.63	6.70	6.98	6.78	6.30	6.85	6.86	6.85	6.80	6.63	6.40	6.37	7.00
GS-6F-2	6.61	6.91	6.74	6.57	6.90	6.56	6.10	6.95	6.70	6.60	6.88	6.89	6.80	6.27	7.20
GS-6F-3	6.33	6.92	6.94	6.67	7.06	6.70	6.30	6.62	6.80	6.89	6.86	6.95	6.80	6.71	7.37
GS-6F-4	6.66	6.90	7.28	6.61	6.93	6.58	6.20	6.59	6.55	6.53	6.84	6.66	6.60	6.76	7.07
GS-6F-5	6.63	7.03	7.07	6.88	6.82	6.35	6.40	6.80	6.43	6.82	6.77	6.79	7.00	6.66	7.43
GS-6F-6	6.74	6.98	6.98	6.65	6.79	6.65	6.40	6.74	6.67	6.72	6.81	6.88	6.50	6.87	6.93
GS-6F-7	6.68	6.96	6.78	6.65	6.82	6.54	6.30	6.73	6.48	6.74	6.88	6.90	6.60	6.67	6.90
GS-6F-8	6.59	6.91	6.81	6.57	7.00	6.92	6.10	6.99	6.85	6.75	6.80	6.87	6.60	6.57	7.03
GS-6F-9	6.60	6.90	6.71	6.72	7.02	6.92	6.50	6.85	7.01	6.77	6.83	6.84	6.80	6.56	6.93
GS-6F-10	6.63	6.95	7.16	6.68	6.91	6.88	6.30	6.83	6.94	6.73	6.74	6.92	6.80	6.74	7.30
Mean	6.64	6.94	6.91	6.67	6.92	6.69	6.29	6.80	6.73	6.74	6.82	6.83	6.69	6.62	7.12
Std. Dev'n	0.1397	0.0445	0.2121	0.0894	0.0925	0.1882	0.1287	0.1288	0.1967	0.1086	0.0461	0.1083		0.1828	0.1952
%RSD	2.11	0.64	3.07	1.34	1.34	2.81	2.05	1.90	2.92	1.61	0.68	1.59	2.68	2.76	2.74

Note: Instrumental Au data from laboratory 7 was excluded for failing the t test. Gravimetric Au data from laboratory 7 was excluded for failing the t test.

## APPROXIMATE CHEMICAL COMPOSITION (by whole rock analysis):

	Percent		Percent
SiO2	8.8	Na2O	< 0.1
Al2O3	2.1	MgO	11.5
Fe2O3	0.9	K2O	0.3
CaO	35.6	TiO2	0.1
MnO	0.1	LOI	40.2
Total S	< 0.1	Total C	11.1

### **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 mean and standard deviation were calculated using all remaining data. Any analysis that fell outside of the mean  $\pm 2$  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.

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

American Assay Laboratory, Nevada, USA
Activation Laboratories, Ancaster, ON, Canada
Activation Laboratories, Thunder Bay, ON, Canada
AGAT Laboratories, Mississauga, ON, Canada
ALS USA, Sparks, Nevada, USA
ALS Canada, North Vancouver, BC, Canada
Argetest, Ankara, Turkey
Bureau Veritas, Perth, Australia
Bureau Veritas, Vancouver, BC, Canada
Certimin, Lima, Peru
Labtium, Rovaniemi, Finland
Met-Solve Analytical, Langley, BC, Canada
SGS, Lakefield, ON, Canada
SGS, Lima, Peru
SGS, Vancouver, BC, Canada

## **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

Duncan Sanderson, Certified Assayer of B.C.

Geochemist

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