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REFERENCE MATERIAL: CDN-PGMS-18

Recommended values and the "Between Lab" Two Standard Deviations

Gold concentration: 0.517 ± 0.060 g/t
Platinum concentration: 0.329 ± 0.038 g/t
Palladium concentration: 1.42 ± 0.11 g/t

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: November 13, 2009

METHOD OF PREPARATION:

The standard was made by combining two ores: one supplied by Stillwater Mining Corporation from the Stillwater Complex in Montana and the other supplied by Pacific Sentinel from their Casino property in the Yukon.

The mineralogy of the Stillwater Pt/Pd ore consists of up to 1 % sulphides comprising chalcopyrite, pentlandite, pyrrhotite, ± pyrite hosted by a chromite-rich ultramafic layer. The main platinum-bearing minerals are Braggite (Pt,Pd,Ni)S, Cooperite (Pt, Pd ,Ni)S as well as Isoferroplatinum (PtFe₃) and Moncheite (Pt,Pd)(Te,Bi)₂. The majority of the palladium is hosted as solid solution within the pentlandite ((Fe,Ni)₉S₈); less than 15 % as Vysotskite (Pd,Ni,Pt)S, Bragite, Cooperite and Moncheite.

Copper-gold-molybdenum mineralization in the Casino ore is genetically related to a breccia and microbreccia pipe of fine grained quartz monzonites, intrusion breccias, and plagioclase-porphyritic intrusions that may be subvolcanic in origin, comprising part of the 72-74 Ma Casino Intrusive Complex. Roughly centred on the microbreccia pipe, both the alteration and mineralization are zoned. Innermost is the potassic alteration suite consisting of K-feldspar, biotite, magnetite, anhydrite, gypsum, and pyrite, chalcopyrite, molybdenite, and gold.

This standard was prepared by combining 180kg of the Stillwater ore (screened to -325) with 360 kg of the Casino ore (screened to -270). The material was mixed for 5 days in a double-cone mixer. Splits were sent to 15 laboratories for round robin assaying.

Approximate chemical composition is as follows:

	Percent		Percent
SiO ₂	51.5	MgO	3.8
Al ₂ O ₃	17.1	K ₂ O	2.1
Fe ₂ O ₃	7.1	TiO ₂	0.4
CaO	8.5	LOI	5.7
Na ₂ O	1.7	S	1.5

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.

Results from round-robin assaying are presented on the following page:

REFERENCE MATERIAL: CDN-PGMS-18

Assay Procedure: 30g fire assay, AA or ICP finish.

	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
PGMS18-1	0.517	0.53	0.54	0.453	0.44	0.508	0.49	0.474	0.528	0.54	0.51	0.544	0.542	0.457	0.62
PGMS18-2	0.513	0.56	0.50	0.479	0.50	0.531	0.49	0.501	0.568	0.54	0.56	0.547	0.552	0.475	0.52
PGMS18-3	0.523	0.53	0.49	0.518	0.42	0.437	0.55	0.550	0.523	0.49	0.55	0.510	0.539	0.502	0.52
PGMS18-4	0.607	0.56	0.51	0.503	0.52	0.462	0.54	0.467	0.541	0.49	0.50	0.522	0.487	0.497	0.52
PGMS18-5	0.536	0.58	0.54	0.471	0.48	0.502	0.48	0.516	0.528	0.53	0.53	0.587	0.546	0.463	0.50
PGMS18-6	0.517	0.54	0.56	0.512	0.49	0.494	0.51	0.554	0.586	0.52	0.52	0.618	0.462	0.486	0.50
PGMS18-7	0.526	0.58	0.49	0.496	0.53	0.504	0.53	0.543	0.536	0.51	0.52	0.524	0.486	0.460	0.50
PGMS18-8	0.543	0.58	0.48	0.499	0.41	0.547	0.47	0.484	0.524	0.51	0.53	0.515	0.556	0.557	0.50
PGMS18-9	0.491	0.53	0.54	0.523	0.52	0.500	0.48	0.537	0.503	0.48	0.61	0.567	0.532	0.461	0.50
PGMS18-10	0.594	0.53	0.52	0.515	0.44	0.500	0.54	0.509	0.532	0.48	0.55	0.591	0.514	0.482	0.56
Mean	0.537	0.552	0.517	0.497	0.475	0.499	0.508	0.513	0.537	0.509	0.537	0.553	0.522	0.484	0.524
Std. Dev'n	0.0365	0.0225	0.0271	0.0227	0.0443	0.0311	0.0297	0.0321	0.0238	0.0237	0.0307	0.0369	0.0327	0.03	0.04
%RSD	6.80	4.08	5.24	4.57	9.32	6.23	5.85	6.24	4.43	4.66	5.72	6.67	6.26	6.23	7.37
	Pt g/t	Pt g/t	Pt g/t	Pt g/t	Pt g/t	Pt g/t	Pt g/t	Pt g/t	Pt g/t	Pt g/t	Pt g/t	Pt g/t	Pt g/t	Pt g/t	Pt g/t
PGMS18-1	0.342	0.30	0.32	0.308	0.28	0.317	0.36	0.338	0.322	0.38	0.33	0.365	0.33	0.294	0.30
PGMS18-2	0.334	0.30	0.32	0.342	0.35	0.329	0.33	0.333	0.290	0.33	0.34	0.367	0.35	0.306	0.30
PGMS18-3	0.348	0.31	0.33	0.324	0.33	0.299	0.33	0.334	0.299	0.32	0.36	0.362	0.34	0.283	0.30
PGMS18-4	0.344	0.32	0.37	0.332	0.37	0.325	0.36	0.340	0.316	0.32	0.34	0.375	0.32	0.313	0.33
PGMS18-5	0.352	0.31	0.33	0.339	0.31	0.309	0.34	0.359	0.315	0.36	0.34	0.360	0.34	0.279	0.29
PGMS18-6	0.343	0.32	0.35	0.333	0.34	0.305	0.32	0.337	0.304	0.36	0.34	0.342	0.32	0.294	0.31
PGMS18-7	0.363	0.31	0.34	0.338	0.35	0.315	0.32	0.324	0.326	0.34	0.35	0.356	0.33	0.311	0.28
PGMS18-8	0.350	0.34	0.33	0.338	0.27	0.318	0.33	0.334	0.325	0.35	0.34	0.333	0.31	0.316	0.27
PGMS18-9	0.352	0.32	0.34	0.343	0.34	0.302	0.32	0.338	0.295	0.32	0.33	0.372	0.32	0.283	0.29
PGMS18-10	0.332	0.32	0.34	0.352	0.30	0.328	0.34	0.325	0.330	0.31	0.32	0.340	0.33	0.306	0.30
Mean	0.346	0.315	0.336	0.335	0.324	0.315	0.335	0.336	0.312	0.339	0.339	0.357	0.327	0.299	0.297
Std. Dev'n	0.0091	0.0118	0.0141	0.0120	0.0327	0.0107	0.0151	0.0096	0.0142	0.0228	0.0114	0.0143	0.0107	0.0137	0.0164
%RSD	2.64	3.74	4.19	3.59	10.10	3.41	4.51	2.86	4.55	6.73	3.37	4.00	3.29	4.59	5.51
	Pd g/t	Pd g/t	Pd g/t	Pd g/t	Pd g/t	Pd g/t	Pd g/t	Pd g/t	Pd g/t	Pd g/t	Pd g/t	Pd g/t	Pd g/t	Pd g/t	Pd g/t
PGMS18-1	1.48	1.41	1.48	1.30	1.25	1.43	1.47	1.38	1.36	1.41	1.40	1.56	1.45	1.39	1.31
PGMS18-2	1.44	1.30	1.50	1.37	1.47	1.41	1.44	1.47	1.34	1.41	1.46	1.59	1.49	1.45	1.34
PGMS18-3	1.49	1.32	1.48	1.39	1.46	1.38	1.44	1.42	1.39	1.38	1.46	1.54	1.46	1.35	1.34
PGMS18-4	1.46	1.30	1.54	1.41	1.50	1.40	1.46	1.45	1.37	1.41	1.46	1.56	1.45	1.43	1.33
PGMS18-5	1.45	1.34	1.48	1.44	1.41	1.42	1.45	1.40	1.33	1.48	1.46	1.56	1.50	1.40	1.32
PGMS18-6	1.46	1.33	1.46	1.44	1.50	1.40	1.43	1.43	1.39	1.43	1.44	1.54	1.41	1.42	1.35
PGMS18-7	1.47	1.24	1.48	1.43	1.48	1.45	1.45	1.41	1.38	1.40	1.46	1.52	1.40	1.38	1.30
PGMS18-8	1.48	1.34	1.48	1.47	1.24	1.41	1.43	1.44	1.37	1.44	1.48	1.55	1.40	1.45	1.29
PGMS18-9	1.46	1.27	1.50	1.49	1.41	1.40	1.42	1.46	1.28	1.42	1.45	1.57	1.45	1.41	1.31
PGMS18-10	1.44	1.24	1.52	1.46	1.30	1.41	1.46	1.39	1.34	1.36	1.44	1.54	1.46	1.40	1.34
Mean	1.46	1.31	1.49	1.42	1.40	1.41	1.45	1.42	1.36	1.41	1.45	1.55	1.45	1.41	1.32
Std. Dev'n	0.0165	0.0515	0.0235	0.0554	0.1017	0.0194	0.0158	0.0297	0.0337	0.0327	0.0213	0.0195	0.0347	0.0306	0.0200
%RSD	1.13	3.94	1.57	3.90	7.26	1.37	1.09	2.08	2.49	2.31	1.47	1.25	2.40	2.17	1.51

Note: Pd: data from Lab 12 removed for failing the “t” test.

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Participating Laboratories:

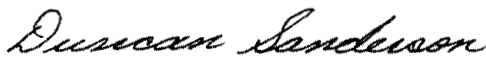
(not in same order as listed in table of results)

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