

Coarse Silica Blank Material

(Cassidy Lake, Maritime Basin, New Brunswick, Canada)

SUMMARY STATISTICS

| Constituent | Recommended Value |
|----------------|-------------------|
| Gold, Au (ppb) | <5 |

The expected upper limits for the majority of ICP elements after an aqua regia digest have been set at 5 times the lower detection limit of the analytical method. Upper limits for Cu, Fe and Mn are based on the average plus 2 standard deviations for all results.

Different analytical or preparation methods may return higher element concentrations.

Analytical results are included on the last page of this certificate for information purposes only.

| Constituent | Recommended Upper Limit | Constituent | Recommended Upper Limit |
|-------------|-------------------------|-------------|-------------------------|
| Al (%) | 0.08 | Ag (ppm) | 1 |
| As (ppm) | 5 | Ba (ppm) | 50 |
| Be (ppm) | 2.5 | Bi (ppm) | 10 |
| Ca (%) | 0.05 | Cd (ppm) | 2.5 |
| Co (ppm) | 5 | Cr (ppm) | 5 |
| Cu (ppm) | 25 | Fe (%)* | 0.7 |
| Ga (ppm) | 50 | Hg (ppm) | 5 |
| K (%) | 0.05 | La (ppm) | 50 |
| Mg (%) | 0.05 | Mn (ppm)* | 75 |
| Mo (ppm) | 5 | Na (%) | 0.05 |
| Ni (ppm) | 5 | P (ppm) | 50 |
| Pb (ppm) | 10 | S (%) | 0.05 |
| Sb (ppm) | 10 | Sc (ppm) | 5 |
| Sr (ppm) | 5 | V (ppm) | 5 |
| Ti (%) | 0.05 | Zn (ppm) | 10 |

INTRODUCTION

Barren coarse material (“a blank”) is submitted with samples for crushing and pulverizing to determine if there has been contamination or sample cross-contamination in preparation. Elevated values for blanks may also indicate sources of contamination in the fire assay procedure (contaminated reagents or crucibles) or sample solution carry-over during instrumental finish.

SOURCE MATERIALS

The source deposit is situated in Carboniferous sedimentary rocks of the Maritimes Basin in New Brunswick. The Cassidy Lake occurrence is an unconsolidated deposit of nearly pure silica sand of Cretaceous age. Below is the expected grain size distribution.

| mm | Percent |
|------------|---------|
| > 8 | <1 |
| 6.3 - 8 | 4 |
| 4.75 - 6.3 | 32 |
| 4 - 4.75 | 27 |
| 2 - 4 | 35 |
| <2 | 2 |

ANALYTICAL PROGRAM

Randomly selected sub-samples were submitted for crushing, pulverizing and analysis. Samples were assayed eleven times at ALS Vancouver for the following:

- Au by 30g fire assay with ICP finish and
- 35 elements by aqua regia digestion with ICP-AES finish.

INTENDED USE

The Coarse Silica Blank Material is intended for the monitoring of laboratory performance in the contamination of gold during the processes of crushing, pulverizing and analysis.

PACKAGING

The Coarse Silica Blank Material is available in 500g packets or 5kg bags.

LEGAL NOTICE

OREAS North America Inc. has prepared and statistically evaluated the property values of this reference material to the best of its ability. The Purchaser by receipt hereof releases and indemnifies OREAS North America Inc. from and against all liability and costs arising from the use of this material and information.

CERTIFYING OFFICER

Lynda Bloom, M.Sc., P.Geo., OREAS North America Inc.



24th July, 2017

ANALYTICAL RESULTS

| SAMPLE ID | Constituents | | | | | | | | | | | | | | | | | | |
|-----------|--------------|-----------|---------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|
| | Au ppm | Ag ppm | Al % | As ppm | B ppm | Ba ppm | Be ppm | Bi ppm | Ca % | Cd ppm | Co ppm | Cr ppm | Cu ppm | Fe** % | Ga ppm | Hg ppm | K % | La ppm | Mg % |
| 1B | <0.001 | <0.2 | 0.08 | <2 | <10 | 10 | <0.5 | <2 | 0.08 | <0.5 | 1 | 3 | 32* | 0.44 | <10 | <1 | 0.02 | <10 | 0.04 |
| 2B | 0.001 | <0.2 | 0.06 | <2 | <10 | <10 | <0.5 | <2 | 0.01 | <0.5 | 1 | 3 | 1 | 0.44 | <10 | <1 | 0.01 | <10 | 0.01 |
| 3B | <0.001 | <0.2 | 0.07 | <2 | <10 | 10 | <0.5 | <2 | 0.01 | <0.5 | <1 | 4 | 4 | 0.46 | <10 | <1 | 0.01 | <10 | 0.01 |
| 4B | <0.001 | <0.2 | 0.07 | <2 | <10 | 10 | <0.5 | <2 | 0.01 | <0.5 | <1 | 3 | 1 | 0.53 | <10 | <1 | 0.01 | <10 | 0.01 |
| 5B | <0.001 | <0.2 | 0.05 | <2 | <10 | 10 | <0.5 | <2 | 0.01 | <0.5 | <1 | 3 | 2 | 0.36 | <10 | <1 | 0.01 | <10 | 0.01 |
| 1A | <0.001 | <0.2 | 0.05 | <2 | <10 | <10 | <0.5 | <2 | 0.01 | <0.5 | 1 | 3 | 1 | 0.41 | <10 | <1 | 0.01 | <10 | 0.01 |
| 2A | <0.001 | <0.2 | 0.06 | <2 | <10 | <10 | <0.5 | <2 | 0.01 | <0.5 | <1 | 4 | 3 | 0.49 | <10 | <1 | 0.01 | <10 | 0.01 |
| 3A | <0.001 | <0.2 | 0.05 | <2 | <10 | <10 | <0.5 | <2 | 0.01 | <0.5 | <1 | 3 | 1 | 0.37 | <10 | <1 | 0.01 | <10 | 0.01 |
| 4A | 0.002 | <0.2 | 0.04 | <2 | <10 | 10 | <0.5 | <2 | 0.01 | <0.5 | <1 | 3 | 2 | 0.44 | <10 | <1 | 0.01 | <10 | 0.01 |
| 5A | <0.001 | <0.2 | 0.04 | <2 | <10 | <10 | <0.5 | <2 | 0.01 | <0.5 | <1 | 3 | 1 | 0.4 | <10 | <1 | 0.01 | <10 | <0.01 |
| NB | <0.001 | <0.2 | 0.03 | <2 | <10 | <10 | <0.5 | <2 | <0.01 | <0.5 | 1 | 4 | 8 | 0.7 | <10 | <1 | 0.01 | <10 | <0.01 |
| SAMPLE ID | Constituents | | | | | | | | | | | | | | | | | | |
| | Mn ppm | Mo ppm | Na % | Ni ppm | P ppm | Pb ppm | S % | Sb ppm | Sc ppm | Sr ppm | Th ppm | Ti % | Tl ppm | U ppm | V ppm | W ppm | Zn ppm | | |
| 1B | 51 | <1 | 0.01 | 15* | 10 | 3 | 0.01 | <2 | <1 | 1 | <20 | <0.01 | <10 | <10 | 1 | <10 | 3 | | |
| 2B | 51 | <1 | 0.01 | 1 | 20 | 2 | <0.01 | <2 | <1 | 1 | <20 | <0.01 | <10 | <10 | 1 | <10 | 3 | | |
| 3B | 51 | <1 | 0.01 | 2 | 20 | <2 | <0.01 | <2 | <1 | 1 | <20 | <0.01 | <10 | <10 | 1 | <10 | 2 | | |
| 4B | 58 | <1 | 0.01 | 1 | 20 | <2 | <0.01 | <2 | <1 | 1 | <20 | <0.01 | <10 | <10 | 1 | <10 | 2 | | |
| 5B | 40 | <1 | 0.01 | 1 | 10 | <2 | 0.01 | <2 | <1 | 1 | <20 | <0.01 | <10 | <10 | 1 | <10 | 2 | | |
| 1A | 47 | <1 | 0.01 | 1 | 20 | <2 | <0.01 | <2 | <1 | 1 | <20 | <0.01 | <10 | <10 | 1 | <10 | 2 | | |
| 2A | 56 | <1 | 0.01 | 1 | 10 | 2 | <0.01 | <2 | <1 | 1 | <20 | <0.01 | <10 | <10 | 1 | <10 | 2 | | |
| 3A | 41 | <1 | <0.01 | 1 | 10 | 2 | <0.01 | <2 | <1 | 1 | <20 | <0.01 | <10 | <10 | 1 | <10 | <2 | | |
| 4A | 49 | <1 | <0.01 | 1 | 10 | <2 | <0.01 | <2 | <1 | 1 | <20 | <0.01 | <10 | <10 | 1 | <10 | <2 | | |
| 5A | 50 | <1 | <0.01 | <1 | 10 | 2 | <0.01 | <2 | <1 | 1 | <20 | <0.01 | <10 | <10 | 1 | <10 | <2 | | |
| NB | 75 | <1 | <0.01 | 5 | 10 | <2 | 0.01 | <2 | <1 | 1 | <20 | <0.01 | <10 | <10 | <1 | <10 | <2 | | |

* Sub-sample 1B assayed 32 ppm Cu. It was re-assayed and reported 35 ppm Cu; it is also slightly elevated in Ni and Ca. The elevated Cu value was investigated and no source of contamination was identified. Sub-sample (1B) was the only case that reported elevated Cu, Ni or Ca and was the first sample in the batch, it is assumed that there was sample carry-over from the previous analytical job. The recommended upper limit for Cu has been set at 25 ppm to reflect the average + 2 SD of the reported values.

** Fe values will vary according to the type of pulverizing equipment and the weight of the sub-sample. All steel pulverizing bowls transfer metal to the sample and steel contaminants can vary. Internal laboratory tests of silica sand used for cleaning between batches reported 0.3% Fe. The reported Fe values average 0.45% but the proportion that should be attributed to contamination by pulverizing equipment cannot be determined. The user should expect Fe values to report less than 0.5% but it should not be assumed that higher Fe values are necessarily a result of sample cross-contamination or analytical contamination.