



Northern Territory Environmental Laboratories Pty Ltd

MEMORANDUM

9th Feb 2004

Att Cameco Australia

As requested here are details of the NTEL methods used for the analysis of Cameco samples.

Sample Prep 1 – Brick samples

The samples are jaw crushed then milled to a nominal 90%-106um

Sample Prep 2 – Vial Samples

The samples are rolls crushed to a nominal –2mm

G400 Rolls Digest

The rolls crushed material is soaked in HF until all silicate minerals are decomposed (can take 2-3 days). Nitric, hydrochloric and perchloric acids are added and the sample digested and at least, double dehydrated.

G400 Pulp Digest

The pulp is soaked in HF, nitric, hydrochloric and perchloric acids for 8 hours, and then the sample is digested and at least double dehydrated.

G400I

The above digestion solutions are presented to an ICPOES to determine the elements of interest and any elements higher than the ICPMS upper limits.

G400M

The above digestion solutions are presented to an ICPMS to determine the elements of interest

Pb Isotopes

**G950**

A large sample weight is leached with high purity nitric acid on a mixing table. After settling the clear supernatant liquor is decanted.

G950m U and Pb isotopes

The sample is presented to an ICPMS

G140B

The pulped sample is fused with sodium peroxide. Iron is precipitated. The resulting solution is read by ICPOES.

LOI

The pulped sample is ignited at 1000°C

Fire Assay – New Pots

An appropriate charge, up to 50g, depending on mineralogy and sample size is fused in a lead collection assay. The prill is dissolved and the gold, platinum and palladium are determined by either ICPMS or ICPOES.
