



# Northern Territory Environmental Laboratories Pty Ltd

## **MEMORANDUM**

(note: monetary quotations have been deleted by Cameco)

9<sup>th</sup> Feb 2004

Att Jennifer Parks

Jennifer

As requested here are details of the NTEL methods used for the analysis of Cameco samples. I have included the pricing of each technique, as you wanted.

### **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.

The above prices include the supply of vials, trays and all transport costs. For samples from Darwin to Pine Creek and return or prepared material.

Transport of residues from Pine creek to Darwin is at Cameco's expense.

If you have any queries on the information contained in the memo please give me a ring.

Regards

**Alastair**