PRP89: Crush to 75% passing 2 mm & Pulverize to 75 µm.

1. **Parameter(s) measured, unit(s):**
   All

2. **Typical sample size:**
   < 250 g

3. **Type of sample applicable (media):**
   Geological and metallurgical samples (ores, concentrates, rocks, soils and metallurgical process products)

4. **Sample preparation technique used:**
   Sample preparation includes various steps taken in the lab to reduce the sample into a form suitable for chemical analysis. These preparation procedures ensure sample homogeneity, representative sub-samples and prevent cross contamination. The stepwise procedure may involve all steps or some of the steps depending upon the state of the sample as received. The sample is dried at 100°C +/- 10°C for 24 hours, if received wet or client specified. The next step involves crushing to reduce the sample size to 2mm 10 mesh Tyler by crushing using a Boyd Crusher. The sample is then split via a riffle splitter or Stand Alone Rotating Sample Divider (SRSD) in order to divide the sample into a 250g sub-sample for analysis and the remainder is stored as a reject.
   Pulverizing is done using pots made hardened chrome steel or agate ceramic (mortar and pestle). Crushed material is transferred into a clean pot and the pot is placed into a vibratory mill. Samples are pulverized to 85% passing 75 micron 200 mesh or otherwise specified by the client.

5. **Method of analysis used:**
   This may involve various analyses depending upon the analytes requested and sample type.

6. **Data reduction by:**
   The results are exported via computer, on line, data fed to the SGS Laboratory Information Management System (SLIM) with secure audit trail.

7. **Figures of Merit: Quality Control**

Crushing/ Pulverizing Parameters	Frequency	Quality Control Requirement
Cru. Prep. Blank	At the start of batch	Clean the Crusher
First Sample	At the start of job	75% passing or (specified by client)
Cru. Prep. Replicates	every 50 samples	75% passing 10 mesh (2mm) (Tyler)
Cru. % Passing Checks	Every 50 samples	75% passing 10 mesh (2mm) (Tyler)
Pul. Prep. Blank	At the start of batch	85% passing 200 mesh (75 um) or (specified by client)
Pul. Prep. Replicates	every 50 samples	85% passing 200 mesh (75 um)
Pul. % Passing Checks	Every 50 samples	85% passing 200 mesh (75 um)