## **TL SAMPLING**

## Before you start, you will need:

- 1. Drill w/ 2mm carbide drill bit (you may want a harder drill bit)
- 2. Red light source (this needs to be an actual red light, not a red filter over a white light)
- 3. Aluminum foil
- 4. Sample bag(s)
- 5. Pen for labeling
- 6. Wet cloth for cleaning drill bit

**Step 1:** Ensure work space and drill bit are thoroughly cleaned using water. Remember to clean both between each sample (including between each sample even if they are from the same piece) to prevent contamination or mixing of samples.

**Step 2:** Carefully examine the object to be drilled for any repair or restoration. Choose areas that are unobtrusive (the base, under an arm, inside a rim) but that will be thick enough to get a sample. For each item to be tested, choose at least two sample locations.

**Step 3:** Label the bag with the ID number of the object to be tested. Then list each sample location to be drilled. An ideal bag looks like:



Step 4: Cut an aluminum foil square (roughly 5cm x 5 cm) for each sample you will be taking and label the matte side with the number corresponding to the one on the bag. Lay out the first sheet flat on your workspace.

Step 5: Turn off any white source of light. From this point onward, use red light unless all samples are sealed in foil.

Step 6: Using the drill on its slowest setting and supporting the object with your hand to counteract that force, drill a large enough sample that you have a small pile of ceramic material approximately the size of an eraser on the foil sheet. An ideal quantity of material looks like this:



Step 7: Tap the piece against the foil to extract any remaining material and then seal the foil by folding it over from all four sides. Put the labeled foil into the bag and repeat. An ideal drill hole looks like this when completed:

