Mercury Primary Containment Inspection 17 Aug – Viewport 2

- Sapphire windows removed
- No obvious surface damage noted
- Higher quality photographs to be obtained
New Photographs Taken 10 Sept With 35mm Camera & Macro Lens

Setup

Snout Orientation –
Beam from Right
Top of Container is Up
Viewport 2 Upstream Side

- General surface appearance is uniform
Viewport 2 Upstream Side Close-Ups
Viewport 2 downstream side

- Raw material labeling intact
Viewport 2 Top
Viewport 2 Bottom
Other Viewports Have Similar Images
Primary Containment Microscopic Inspection

- Dissection of chamber around viewport 2
  - Might require purchase of dedicated tool due to radiation & Hg issues
  - Would also allow sectioning of mercury nozzle piping
- Decontamination of pieces (includes sapphire viewports)
- Inspection with SNS scanning electron microscope
- Cost estimate: $25k
Observations

- Surface appearance consistent throughout interior of primary containment – standard, un-machined surface texture
- Higher resolution images do not support theory of mercury bead pitting, at least on a macroscopic level
- Further investigation possible by sectioning chamber, decontaminating and viewing pieces with microscope