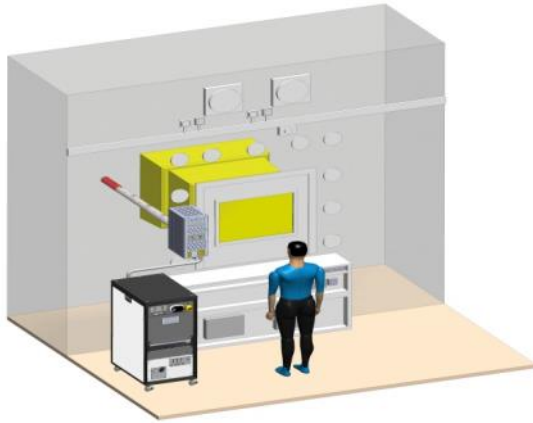


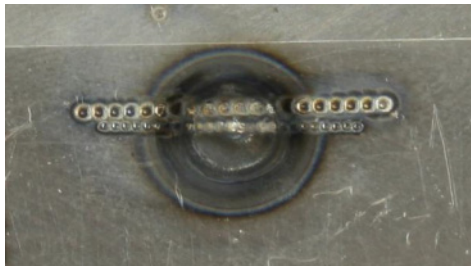
The Challenge:

•Develop an innovative technique for materials characterisation inside the Windscale cave high-active environment.



Options for LIBS deployment identified by APL.

1. Through-Wall LIBS Endoscope"
2. In-Cell LIBS Head
3. Advanced Fibre-Optic LIBS Probe
4. Compact Fibre-Optic LIBS Probe



Line scan across affected area maps approximate levels of material on substrate.



Validation and testing:

- Test pieces analysed on the bench system have been re-analysed using the wall plug periscope delivery system.
- Analytical performance of the periscope wall plug LIBS system proven to be comparable to that of the bench-top LIBS system.
- TRL7 achieved, TRL8 scheduled for October 2017.