

Driven by performance

#### 19R-04-14 Volvo Nodules

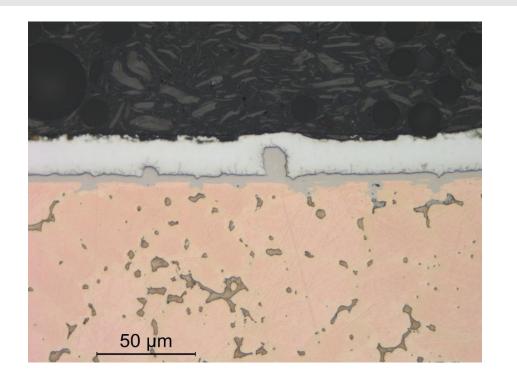
Rob Cumming

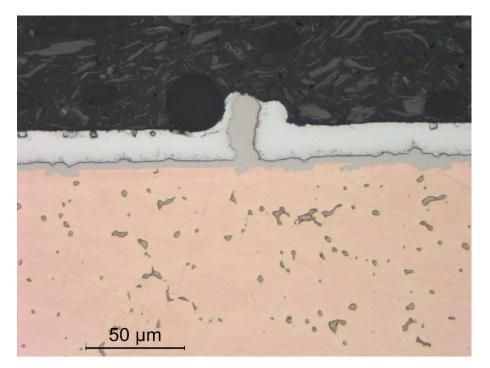
EDE2ML



## 19R-04-14 Volvo Nodules Optical Images







- Nodules were seen beneath the tin overlay.
  - In the image on the right, the nickel does not quite manage to penetrate to the surface
  - Our mounting process does tend to damage tin overlays

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### 19R-04-14 Volvo Nodules **EDS** analysis

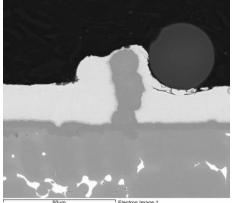
# MAHLE

Nickel nodule

underneath tin overlay, almost penetrating the

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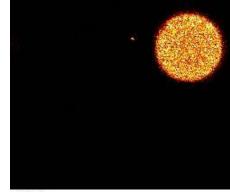
surface



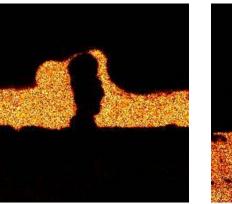
Electron Image 1



C Ka1\_2



Si Ka1



Ni Ka1

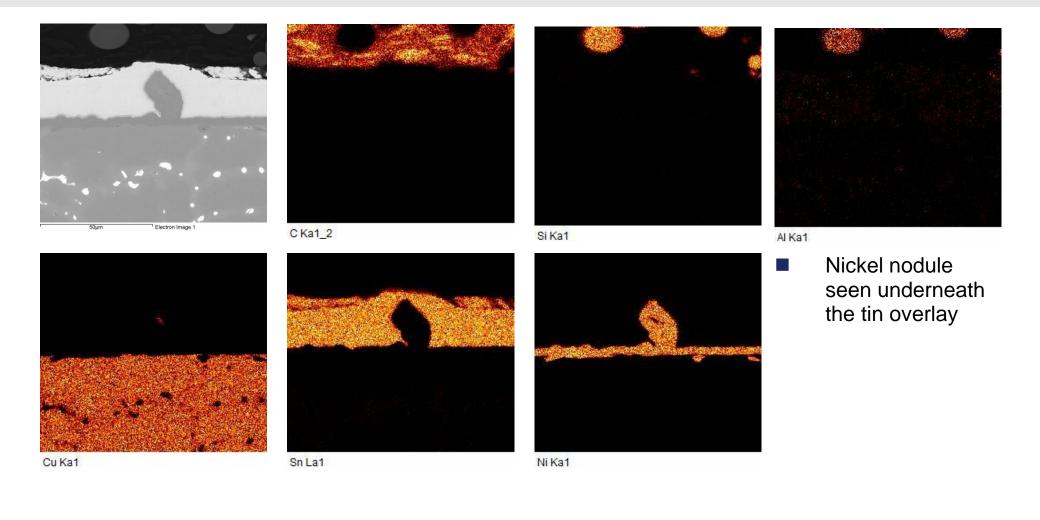
Sn La1

Cu Ka1

### 19R-04-14 Volvo Nodules EDS analysis



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