



RECORD OF MEMORANDUM

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Rolls Royce Materials Examination Summary
NTSB Accident Number: WPR18LA029

Narrative:

The following was noted during the materials examination of the stage 1 compressor wheel:

- Damage to the compressor components and fracture surfaces did not reveal a primary failed component.
- The fractured compressor blade fracture surface was analyzed and consistent with tensile overload.
 - There was no evidence of fatigue or corrosion
- The black sludge-like substance was analyzed. The material contained aluminum debris which is not present in any of the engine components.
- The fractured stage 2, 3, and 5 compressor blades exhibited features consistent with overload.
 - There was no evidence of fatigue or corrosion.
- Damage to the other engine compartments were consistent with secondary damage as a result of debris generation and rotor imbalance after the airfoil separated from the 3rd stage turbine wheel.

END.

Submitted by: Samantha Link