



# Non-Destructive Examination Services

## On-Site Life Assessment

ETD is pleased to announce its **on-site life assessment capabilities** including replication, hardness testing and metallography. This service is complimentary to our *plant integrity and life assessment services* in general and our other capabilities and utilises the extensive knowledge and experience of ETD's in-house and international technical experts. ETD specialists have the expertise to analyse the component condition by means of replication and hardness values. Combining NDE with other remaining life assessment techniques (both deterministic and probabilistic) to provide the client with most reliable assessment of component life.

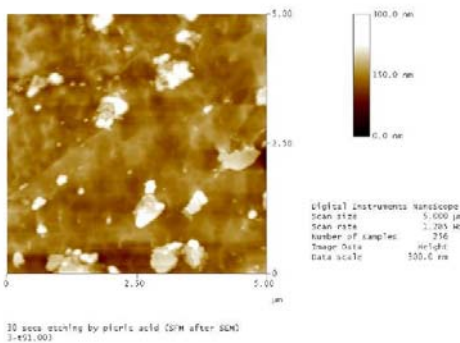
ETD has a highly qualified team of metallurgists, mechanical engineers and corrosion specialists with experience in the analysis of industrial component *failures*. ETD services cover **industrial sectors** such as *power plant boilers and turbines, oil refineries, petrochemical & process plant, offshore oil & gas, aerospace and other industries*, and for a wide range of materials - from low alloy ferritic steels to 9-12%Cr martensitics (such as P91, P23), stainless steels, nickel-base alloys and aluminium alloys. ETD has its own databases for these materials based on national and int. standards and codes.



On-site hardness testing



On-site grinding and polishing



**On-site powerful microscopy:** As a part of its excellence in innovation, ETD is planning to introduce its on-site Scanning Force Microscopy services which will give instant results of a component's level of damage in terms of, for example, creep cavitation 'area' or 'volume' and detect **nano** level creep, fatigue, corrosion etc. damage and precipitates, thus enabling us to detect and quantify damage in P91, P92 components and predict their life at a much earlier stage than presently possible.



## ETD - Other Services

- Plant Life Assessment/Extension
- Stress Analysis (Including FEA)
- Customised Training Courses worldwide
- Technology Development
- Plant Cycling
- Power Plant Benchmarking & Costs Analysis
- Crack Assessment
- Risk Based Maintenance
- Consultancy

For details of other services please visit the ETD website: [www.etc1.co.uk](http://www.etc1.co.uk)

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