

# London Petrotech Engineering Ltd (LPE)

## Forensic Engineering & Expert Witness Services

Comprehensive Capabilities in Oil and Gas, Renewables, Shipping & Maritime, and Infrastructures

### Who We Are

London Petrotech Engineering Ltd (LPE) is a London-based consultancy specializing in forensic engineering, expert witness services, and advanced materials investigations. Our team of deliver independent, court-ready opinions and holistic solutions for complex technical challenges across energy and infrastructure sectors.

### Why Choose Us



#### Deep Industry Experience & Competencies

Our expert team includes CEng, CSci, and members of The Academy of Experts, with extensive experience in forensic engineering, corrosion, metallurgy, welding, flow assurance, and structural/mechanical failures across energy, renewables, maritime, and infrastructure sectors.



#### Consultant Expertise

We deliver actionable insights through rigorous investigations, advanced laboratory testing, and detailed process modelling, backed by expert witness testimony



#### Rapid Value Creation

Our partnership with one of the top UK labs and efficient processes enable swift, cost-effective solutions for high-stakes insurance claims and legal disputes

### Our Forensic Service Workflow

- Evidence Collection & Site Examination
- Sample Extraction & Laboratory Investigations/ Testing
- Engineering Analysis (Stress, corrosion & erosion, process, flow assurance, piping, structural, etc.)
- Root Cause Analysis (RCFA, FTA, ECFA, Fishbone)
- Expert Reporting & Testimony Support

#### Recent Case Highlights

Recent cases (Since Q1 2025) include 32" subsea pipeline failures, ballast tank piping failure in an offshore wind turbine platform, and cargo ship's shaft/forging fractures.

### Our Forensic Engineering & Expert Witness Services

#### Comprehensive Forensic Engineering

- On-site failure investigations,
- Full-spectrum laboratory investigations, including corrosion testing, NDT, metallurgical examination, mechanical testing,
- Partnership with **University of Surrey** enables access to advanced electron microscopy/ spectroscopy such as XPS, TOF-SIMS, SEM, STEM, Auger, EBSD, etc.
- Advanced computer-aided simulation and analysis such as stress analysis, corrosion and erosion modelling, flow assurance, etc.
- Collect components life-cycle data and analyzing them using RCA techniques (ECF, CTM, 5WHY, WBM, etc);
- Failure mode analysis;

#### Expert Witness Services

- All expert witness report comply with CPR Part 35, TCC guidance, and TAE guidelines,
- Expert report preparation
- Expert testimony in court
- Cross-examination preparation support
- Technical evidence interpretation

#### Industry Sectors We Serve

- **Oil & Gas:** upstream, downstream, and pipelines
- **Renewables:** Offshore wind structures, CCS.
- **Shipping & Maritime:** hull structures & components, engines components.
- **Infrastructure:** Water Pipelines, Powerplants, etc.

