



METALLURGY EXPERTS FOR THE ENERGY INDUSTRY

WHO WE ARE

ADV is unique because we seamlessly integrate full-scale testing, numerical modeling, and failure analysis to assess, validate, and predict mechanical performance of critical components. For oil and gas operators full-scale testing allows better understanding and interpretation of system capacities, including the influence of features, defects, and anomalies on system performance. We have worked with operators from around the world to help them quantify the effects of anomalies on the integrity of their critical systems. Practical and usable data from full-scale testing supplemented with analytical results greatly facilitate informed integrity and risk management programs.

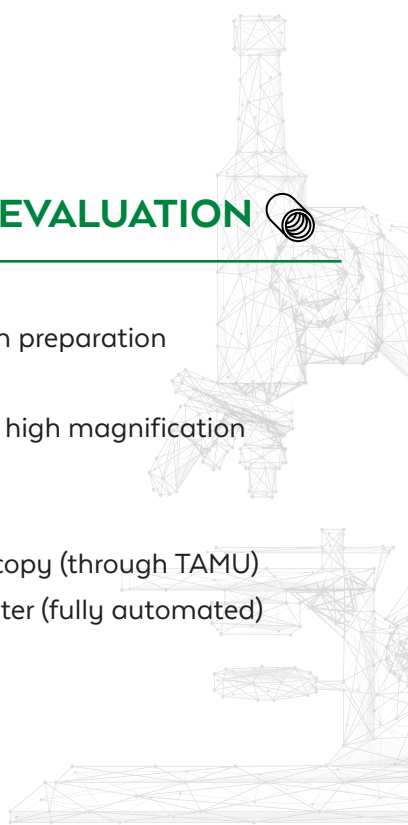
FAILURE ANALYSIS & CONSULTING

- Nondestructive testing
- Measurements of line pipe characteristics and geometry
- Fractographic examination
- Metallographic examination

MECHANICAL TESTING

- Tensile Testing up to 120,000 lbf
- Elevated Temperature Tensile Testing
- Charpy Impact
- Hardness Testing
- Bend Testing
- Flattening Rings
- Compression Testing

METALLURGICAL EVALUATION

- Stereoscope examination
 - Metallurgical cross-section preparation
 - Polishing & Etching
 - Inverted metallograph for high magnification examination
 - Grain Size Determination
 - Scanning electron microscopy (through TAMU)
 - Vickers microhardness tester (fully automated)
 - Equotip hardness tester
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A TRUSTED TESTING PARTNER FOR YOUR METALLURGY NEEDS

FRACTURE MECHANICS

- COTD
- J&K Analysis
- J-R Curve Analysis
- Integrity Management Planning
- In-line Inspection Support

COATING QUALIFICATION TESTING

- Cathodic Disbondment
- Adhesion
- Wet Adhesion
- Impact Resistance
- Bendability
- Penetration Resistance
- Ductility
- Abrasion Resistance

WELDING & WELD INSPECTION

- Welding Engineering
- Welder Qualification
- Certified Welding Inspection
- Defect Sizing


NON DESTRUCTIVE TESTING

- Magnetic Particle
- Liquid Penetrant
- Phased Array
- Creaform 3D Laser Scan



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