SOUTHWEST RESEARCH INSTITUTE®

Oil & Gas Industry Support

Design, Fabrication and Testing

For more than 50 years, Southwest Research Institute® (SwRI®) has supported the oil and gas industry with structural engineering services including drilling systems, completion systems, and transportation systems. SwRI engineers have the expertise and comprehensive understanding of the industry to help investigate and solve complex problems. SwRI staff members have provided research, testing, design, analysis and fabrication services on a multitude of industry-related projects for over half a century.

D0 17944

SwRI has a variety of outdoor facilities to perform deep ocean simulation testing and structural load testing.

Capabilities

- Solid modeling
- Computational fluid dynamics
- Finite element analysis
- Testing and instrumentation
- High and low temperature test environments
- Probabilistic methods
- Fatigue and fracture mechanics
- Life prediction methods
- Full-scale and large-scale structural testing
- Machining and fabrication

D0 15777

SwRI performed a dimensional assessment and investigated the mechanisms of failure for a buoyancy can design used in the Gulf of Mexico.

Industry Experience

- Riser fatigue analysis
- LNG tanker analysis
- Drilling/production equipment testing
- Riser system failure assessment
- Drilling platform structural analysis
- Pipe and hose testing
- Pressure testing

D015779

SwRI designed and built a custom pressure containment chamber to pressure test both sides of a water-tight door for a semi-submersible production platform.

KEYWORDS

Topsides

Downhole Tools

Completion Systems

Drilling, Exploration & Production

Subsea Systems

Risers, Jumpers, & Tiebacks

Manifolds

Wellheads, Christmas Trees

Connectors

Safety & Control Valves

High Pressure Testing

High Temperature Testing

Full Scale Load Testing

Facilities

- Fabrication shop
- Structures laboratory
- Tension and compression load frames
- Torsion tower
- Water tank
- Deep ocean simulation laboratory

D015780

D015781

D015782

SwRI performs functional testing and evaluation of full-size subsea equipment.

Benefiting government, industry and the public through innovative science and technology

Southwest Research Institute is an independent, nonprofit, applied engineering and physical sciences research and development organization using multidisciplinary approaches to problem solving. The Institute occupies 1,200 acres in San Antonio, Texas, and provides more than 2 million square feet of laboratories, test facilities, workshops and offices for more than 3,100 employees who perform contract work for industry and government clients.

We welcome your inquiries.

For additional information, please contact:

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