

CASE STUDY: PRE COMMISSIONING SERVICES

PRECISION TESTING TO SUPPORT  
SAFE START-UP

Delivering high-volume leak testing and nitrogen support to enable critical infrastructure expansion at BP’s Sangachal Terminal.



CLIENT  
bp

YEAR  
2017-2018

BUSINESS LINE  
Infrastructure and Industrial

The Challenge

As part of the Shah Deniz 2 project, BP expanded its Sangachal Terminal in Azerbaijan to accommodate new gas processing and compression facilities.

EnerMech was contracted to perform extensive leak testing on the new infrastructure—an essential step before commissioning.

The scope required high-pressure testing using nitrogen and helium, with tight timelines, complex logistics, and the need for continuous on-site support to maintain momentum and ensure safety.

The Solution

EnerMech provided full pre-engineering, planning, and execution of the leak testing programme. This included air leak testing, nitrogen/helium leak testing, and nitrogen operations support.

The team mobilized all necessary equipment and personnel, including high-pressure converters and quads, and supplied over 2.3 million litres of liquid nitrogen and 500,000 standard cubic feet of helium.

A full-time management team was based on-site to coordinate logistics, engineering, and real-time problem-solving. Testing was carried out around the clock, with up to three tests completed per day to keep pace with the project schedule.

The Outcome

Our team’s delivery enabled BP to safely and efficiently complete leak testing on the expanded terminal infrastructure, supporting the successful progression of the Shah Deniz 2 project.

With over 50,000 man-hours completed without incident, the team achieved high marks in BP’s supplier performance evaluation, including top ratings in Health & Safety, Documentation, and Commissioning.

The project demonstrated EnerMech’s ability to deliver high-volume, high-pressure testing with precision, safety, and reliability.

We Delivered...

- Over 57 million standard cubic feet of nitrogen/helium pumped
- 2.34 million litres of liquid nitrogen and 500,000 scf of helium supplied
- 24/7 on-site support and full-time project management presence
- Pre-engineering, planning, and execution of all leak testing scopes
- Up to three tests completed daily to support production targets

High-Volume Testing

57 million scf of nitrogen/helium pumped to support critical infrastructure commissioning.

Round-The-Clock Delivery

50,000+ man-hours completed without incident, with 24/7 on-site support and up to three tests per day.

