

Offshore Pipeline Abandonment Requires Bundled Services

A major midstream operator required decommissioning solutions for an aged gas pipeline asset. In order to properly abandon the said infrastructure in compliance with BSEE and state regulatory departments, engineering managers determined that an inert gas medium would mitigate several risks. As important, the asset contained a large amount of residual liquid product that required safe capture and disposal.

PLAN OF EXECUTION

1. **Project Pre-planning**
 - a. Multiple Site Surveys.
 - b. Sound engineering practices to determine the most efficient and effective method.
 - c. Proper attention to risk exposure and mitigation for client through HAZID process.
 - d. Resource management and procurement for third party transport and disposal for HAZMAT classified waste.
2. **Project Preparation and Set-up**
 - a. Offshore topside readiness: coordination to accommodate a 3,000 scfm nitrogen generation spread for pigging operations.
 - b. Offshore subsea readiness: connectivity to system; pig launcher.
 - c. Onshore site readiness: planning and coordination with client's facility on land to accommodate a large scale frac tank spread and other necessary gas and liquid handling equipment; *i.e. two-phase separators, mobile flare stack, waste removal efforts.*
3. **Project Execution**
 - a. Successful pigging operation safely and effectively removed residual liquid condensate from the 50 mile gas pipeline.
 - b. Properly planned and executed handling of multi-phase returns in excess of 20,000 bbls of liquid and 1MMSCF of gas
 - c. Management of over 130 Vac truck loads removed from facility, during operations, without incident

TECHNICAL ACHIEVEMENTS & BENEFITS

- Successfully executed Management of Change (MOC) orders to accommodate permit and operator risk management system.
- Executed 24-Hour SIMOPS schedule.
- Operator site audit during the execution phase received favorable recognition.
- Jobs completed with zero incidents and no environmental impact. Project completed on schedule.

LOCATION

Gulf of Mexico & Texas (US)

SPECIFICATIONS

Diameter: 24 inches
Length: 50 miles
Wall Thickness: 0.375 inches
Elevation Profile: 250' FSW to Onshore Gathering Facility

SCOPE OF WORK

A system retirement plan for a major midstream operator required integrated pipeline decommissioning services.

- Seawater Flushing
- Nitrogen Pigging

CHALLENGE

- High pressure, high flow rate nitrogen capability
- SIMOPS
- Limited accessibility for on offshore facility
- Significant revenue impact on downstream operations
- Onshore facility was located in an environmentally sensitive area with high stakeholder interest.