

OIL AND GAS



CASE STUDY

SIGA Implementation at a Mediterranean FPSO



BACKGROUND

An international exploration and production company with a focus on gas field development has launched a new development project in the Mediterranean Sea. The largest discovery in the region, the field is expected to provide the highest yield of liquid per volume of produced gas. The FPSO (Floating Production Storage Offloading) will be installed 90 km offshore, making it the first FPSO ever to operate in the Eastern Mediterranean.

CHALLENGE

Challenges of securing the FPSO include the remoteness of the platform itself and the fact that the security program needs to be self-sustaining; with very little intervention from the outside world. There are several vulnerabilities to the OT assets on the platform which—if manipulated— could lead to catastrophic results.

THE PROCESS

The FPSO will have a gas treatment capacity of 800M scf/day (8 bcm/per annum) and a liquid storage capacity of 800,000 Bbls, which the Company believes provides a flexible infrastructure solution and, potentially the scope to expand output for potential additional projects. The Field contains 1,409 bcf gas 2P reserves plus 61M Bbls liquids 2P reserves. This represents a total of 317M BOE 2P reserves.

AUTONOMOUS · RELIABLE · SMART

Animation of the FPSO platform



SIGA'S SOLUTION – THE NEXT LEVEL OF OT CYBERSECURITY

SIGA has been selected to provide OT Cyber security for the FPSO platform to satisfy regulations and assuage concerns around OT cybersecurity threats to customer mission-critical infrastructure offshore. SIGA installed the SigaGuard solution for Level-0 protection by monitoring the electrical signals directly at the source, detecting anomalies in the process behavior and gaining direct visibility into the OT process..



MAIN VULNERABILITIES IDENTIFIED ABOARD THE FPSO

Flowline & Pig Launchers/Receivers

Dewpointing Scrubbers & LTS

Gas & Metering Compressors

MEG Injection and Distribution

Train HP Separator

Gas & Metering Coolers

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