



**TEMS International** is an independent provider of environmental management and compliance services to the global oil and gas industry. Our services are focused on managing and optimising drilling performance and drilling waste in real time, while ensuring an asset remains in environmental compliance. Ultimately, our experienced team aims to reduce drilling costs and ensure legislative compliance targets are met or exceeded.

## OUTLINE

A leading offshore exploration and production company with deepwater and shallow water assets in the Gulf of Mexico contracted TEMS International to support drilling operations from April to August 2021. During the 126-day project, TEMS International engineers oversaw more than 26,000ft of drilling from a drill ship.

TEMS International provided its drilling performance management and optimisation, continuous environmental compliance legislation and carbon footprint reduction services during the project.

Prior to the project commencing, TEMS International engineers conducted an extensive audit to identify potential issues regarding the containment of drilling fluids, diesel fuel and other hydrocarbons used in the daily operations onboard the rig. These observations were either resolved prior to and during drilling operations, depending on their seriousness, or recommendations made to implement improvements.

The overall aims of the project were to:

- Achieve governmental oil on wet cuttings (OOWC) limitations in line with EPA reporting
- Optimise solids control equipment to deliver maximum solids removal with minimum liquid retention
- Reduce synthetic based mud surface consumption
- Reduce shaker screen consumption
- Minimise environmental impact
- Reduce carbon footprint

All objectives achieved without the use of a cuttings dryer package.

- Location: **Gulf of Mexico**
- Project date: **April – August 2021**
- Drilling duration: **126 days**
- Total footage drilled: **26,746ft**
- Total estimated saving: **\$1,002,725.43**
- Estimated SBM savings: **3,264 barrels**

## SERVICES DELIVERED

### Drilling performance management and optimisation

A process approach to drilling performance management that adds value to the entire drilling process. The service aims to ensure more effective and efficient drilling – reducing drilling days – through optimised fluid management and effective solids control management with the overriding proviso of safety and environmental protection.

### Continuous environmental compliance legislation

Leading guidance on environmental compliance, prior to and for the duration of a drilling campaign. The comprehensive technical services and environmental consultancy enable well planners to ensure permits are in place, and that drilling operations keep pace with, or exceed, the evolving compliance regulations of drilling locations.

### Carbon footprint reduction

Monitor and report the ways in which greenhouse gas emissions can be reduced by optimising drilling performance. The service monitors the emissions of an installation and highlights the cumulative environmental benefits of using less drilling fluid, which includes transportation, shipping and treatment.

|                         |                                      |
|-------------------------|--------------------------------------|
| <b>3,264</b>            | <b>Fewer barrels of mud used</b>     |
| <b>\$569,603</b>        | <b>Saved on mud costs</b>            |
| <b>3.51%</b>            | <b>Average ROC rate achieved</b>     |
| <b>Carbon footprint</b> | <b>Of drilling asset was reduced</b> |