



CASE HISTORY

Total Fluids Management



Improved Management at the Rig Site

Customer wished to bring about reduced cost and increased efficiency at the rig site whilst utilizing Thermal Desorption technologies.



The Challenge

A large Multinational Oil company became concerned that the consequence of its day to day operational practice was impacting the ability to process waste efficiently utilizing thermal cuttings treatment. The identification of the contributory factors to this inefficiency and subsequent remedial actions was an early application of 'Total Fluids Management'.

The Solution

The customer brought in a small team to identify, evaluate and provide a progressive plan of action to address operational inefficiencies at the rig site. By implementing a simple 'plan-do-check-learn' process, significant improvements were made that had demonstrable and measurable benefits to the well costs. The steps can be described as:

'Audit and Plan', where the current status of the operation was established in terms of activities, capabilities and performance.

Set Goals and Targets, was used to identify realistic and attainable improvements to the well construction activities.

'Do' identified tasks, roles and responsibilities to bring about the actions identified in the rig audits.

'Operation and Supervision', utilized an independent team member that coordinated the continuous improvement plan agreed with the customer.

'Check', measured, using Key Performance Measures, the success and impact of these changes in working practices.

'Learn', Review and lessons Learnt', captured these improvements and embraced them in these planning process for future wells.

The Results

The customer captured a number of results from the initiative, including a 41% reduction in waste creation compared to the historical benchmark. Journey management and associated risk was improved by the reduction in waste creation.

These performance improvements reduced the combined costs of fluids, waste management and related services by an average of \$753,000/well compared to the historical average well cost.

This was an equivalent of reducing the cost of \$47/ft. in well construction.

The Details

The customer acknowledged that the benefits brought about by the *'Total Fluids Management'* of these wells was significant. They identified that drilling fluids and waste management activities have synergy and that one activity has substantial impact on another. Savings can be substantial when these activities are properly managed with respect to each other.

'TFM', as it was known widely following this project provides a means of management of fluids and waste activities to realize performance improvements and cost savings. Cross discipline improvements were evident with enhanced team working bringing about more efficient use of equipment, more recycling and reduced generation of waste.

Performance should be measured versus benchmarked data, and communicated regularly to all parties. Spending the time to obtain reliable benchmarks is essential in order to set sensible targets. Databases and cost models should be updated as wells are completed

Summary

The early development of the TFM concept in partnership with the operator brought about a seed change in working practices. This gave added impetus to the roll out of other integrated management systems that aim to bring about the continuous improvement of fluids, cementing, rig operation and waste management. These early initiatives, designed and executed by the Directors of BEAD ENVIRONMENTAL SOLUTIONS, have impact today with many of the philosophies adopted as standard practice and use of vocabulary to describe the processes of waste management best practice.