



# SCHLUMBERGER

Reduction of Non-Productive Time

AFTERBURNER

CASE STUDY



### PROJECT OVERVIEW

Schlumberger is a global energy solutions provider and a leader in deep-water wireline operations that sought to address issues in its pump down perforating process.

The pump down perforating process is a method to transport composite plugs and perforating guns in horizontal or high angle wells by pumping fluids into the wellbore to force the gun string into the lateral section of the well. There are a number of risks associated with pump down perforation that can cause extensive Non-Productive Time (NPT).

### INITIAL CONDITIONS

Nine segments of Schlumberger's wireline unit experienced lengthy NPT resulting from miss fires in the perforating gun runs. These miss fires were often caused by a number of recurring errors, including:

- Procedural deviation
- Equipment inspection failures
- Limited experience and large variability's in perforating gun production
- No formalized process for continuous improvement within the wireline crews

Schlumberger's goal was to reduce NPT in the nine segments of its wireline unit by reducing the number of perforating gun miss fires.

### RECOMMENDATIONS

After examining the circumstances surrounding each miss fire, Afterburner recommended an initial checklist pilot to determine the viability of NPT reduction through checklist development and integration.

The purpose of this pilot was to establish the correlation between formalized procedure adoption and the client's need for safe, regulation-compliant operations with efficient, high-quality output.

The checklist pilot consisted of the following:

- Preliminary trial to determine need
- On-site consulting
- Development of three (3) checklists built from Schlumberger's procedural manual
- Development of a Checklist Build Manual for guidance in future checklist creation
- Introductory checklist training for effective field adoption and execution
- Development of a field survey
- Post-implementation Debrief with field personnel



## RESULTS

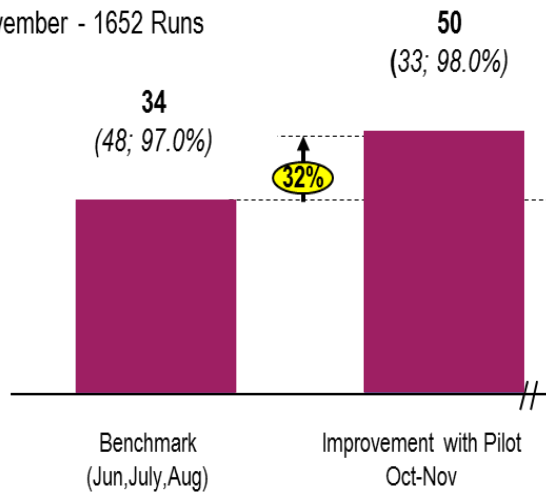
The three checklists developed and implemented during the Afterburner checklist pilot program:

- Established procedural adherence and consistency
- Allowed for early error detection
- Reduced risk by eliminating procedural “short-cuts”
- Provided guidelines to achieve miss fire reduction
- Consolidated necessary information into effective visual aids for quick reference
- Fostered a culture of iterative task-completion audits
- Captured best practices that became company-wide standard

### RUNS PER MISRUN

(MisRuns; Success Rate)

October/November - 1652 Runs



# \$2.8 MILLION

REVENUE GAINED WITHIN SIX WEEKS  
OF CHECKLIST IMPLEMENTATION