**BRISTLE BACK REDRESSABLE Tool Design Cuts Inventory, Reduces Costs**

“The M-I SWACO Specialized Tools Engineering Department Engineering Department has developed a cost-saving casing cleaning tool design that incorporates easily into our widely accepted casing brush tools.”

James Henderson – Senior Applications Engineer, EH

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**Well Information**

<table>
<thead>
<tr>
<th>Location</th>
<th>Saudi Arabia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Type</td>
<td>Gas Producer</td>
</tr>
<tr>
<td>Tool Depth</td>
<td>Maximum to date @ 11,463ft (3494 m)</td>
</tr>
<tr>
<td>Tool Type</td>
<td>9 ⅝-in. BRISTLE BACK REDRESSABLE*</td>
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<tr>
<td>Maximum Angle</td>
<td>Maximum to date @ 80°</td>
</tr>
</tbody>
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**The Situation**

The M-I SWACO internal global clients required a solution for designing a patented and well recognized high performance cleaning tool that would not have the large overhead and time delays typically associated with major design changes. The emphasis was to employ new assets in tandem with existing components, thereby eliminating redundancy and the ensuing extra cost to the operation. The ease of the modification and faster turnaround time would enhance competitiveness in the marketplace, while also delivering optimum preparation of the wellbore. This is an, especially critical component for work-over wells and the pre-DST/completion runs that frequently use such tools.

**The Solution**

The Specialized Tools Engineering Department formulated a design that could be incorporated into the existing BRISTLE BACK Casing Cleaning Tools to allow the continued use of the assets. The use of this approach meant conventional Bristle Back components no longer needed to be returned to the UK or US for refurbishment. In country refurbishment is now available using only basic tools and moderate components. Earlier brush tools in need of makeovers often were required to be out of service for 28 to 70 days, depending on the location. The new design allows for a higher level of service with fewer assets required to be maintained in inventory. Further, the effort optimizes the competitiveness of the casing brush tools.
The Results

Recognizing the benefits of the approach, the primary client in Saudi Arabia agreed to evaluate the performance of the tools. Accordingly, it has been determined that the new design accomplishes more runs per redress. Further, the tools allowed easy on-location redresses when required without the need for additional tools or maintaining more spare parts in inventory, thus producing a more flexible tool to meet the demands of today’s market.

Improving current technology using existing inventory with minimal changes allows for flexibility and increases the utilization levels of the current inventory.

To date eight successful runs have been recorded with no LTI or NPT associated specifically with the new design. A modification of the retained brush material type was made after feedback from the field, which served to improve the longevity of the components. At last count, the change has resulted in reducing brush insert wear by a factor of four. Further updates to this report will be made when more runs are established.

Questions? We’ll be glad to answer them.

If you’d like to know more about the Specialized Tools product line and how it’s performing for our other customers, please call the M-I SWACO office nearest you.