# **Triple-Ridged Diamond Element Increases Drillbit ROP** by More Than 20%

AxeBlade bit with Axe TR elements improves cutting efficiency in SCOOP play, Oklahoma

An operator reduced drilling time using an AxeBlade\* ridged diamond element bit with the Axe TR\* triple-ridged diamond element, lowering costs and improving a SCOOP play, Oklahoma drilling program.

### Improve cutting efficiency

An operator sought to improve a drilling program by increasing cutting efficiency in the lower intermediate vertical section consisting of interbedded sands, shales, and limestone.

### **Reduce drilling hours**

The lower intermediate section required multiple trips and BHAs to complete. The formation damaged conventional PDC drill bits and resulted in costly accumulated drilling hours.

## **Drill more effectively with Axe TR elements**

The unique shape of the Axe TR elements enables the drillbit cutting structure to more effectively penetrate the lower intermediate formation stringers. The improved cutting efficiency of the Axe TR elements enables the entire BHA to drill more efficiently through these formations, resulting in operator cost savings.

#### **Increase ROP and footage drilled**

Using an AxeBlade bit with Axe TR elements, the operator drilled an interval of 2,039 ft at an ROP of 39.31 ft/h compared with 1,591 ft at an ROP of 32.57 ft/h drilled with conventional bits.



|                                 | Conventional bit | AxeBlade bit with Axe TR elements |
|---------------------------------|------------------|-----------------------------------|
| Average of drilled interval, ft | 1,591            | 2,039                             |
| Average IADC ROP, ft/h          | 32.57            | 39.31                             |
| Bit type, count                 | 6                | 4                                 |

AxeBlade bit with Axe TR elements increased ROP by more than 20% over conventional bits.



AxeBlade bit with Axe TR elements.