

Case Story

A real story on the Arrow 3S Overshot Click Release in the Arizona desert

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Click Release: Improved Reliability and Safety with Just a Few Clicks

The inspiration behind the Arrow 3S Click Release was to improve both reliability and safety when drillers released overshots in a borehole. No driller wants to waste time pulling rods. But did the new product perform as expected? Epiroc was happy to have Layne, a Granite company in Chandler, Arizona, agree to a trial that would test the product in harsh desert-like conditions.

Traditional overshoot release sleeves are not always as reliable as drillers would like. Often, a traditional release sleeve does not release when it should, or it releases unexpectedly leading to a variety of problems. Epiroc has launched a new and improved overshoot release sleeve to address these challenges. The Click Release is a spring-loaded release sleeve designed to work with the Arrow 3S overshoot and offers improved reliability and safety. By clicking and ratcheting the pawl on the sleeve, you can safely and reliably release the overshoot.

The trial

Before the launch, Epiroc conducted a ten-week trial with Layne, a Granite Company (Layne) located in Chandler, Arizona, and a provider in the mineral exploration market. The trial began at the beginning of October and ran for ten weeks, finishing on December 11, 2023. The Click Release was used in three boreholes in typical surface drilling conditions.



Chandler, Arizona
Desert-like conditions
Deep-hole drilling in rocky, fractured ground



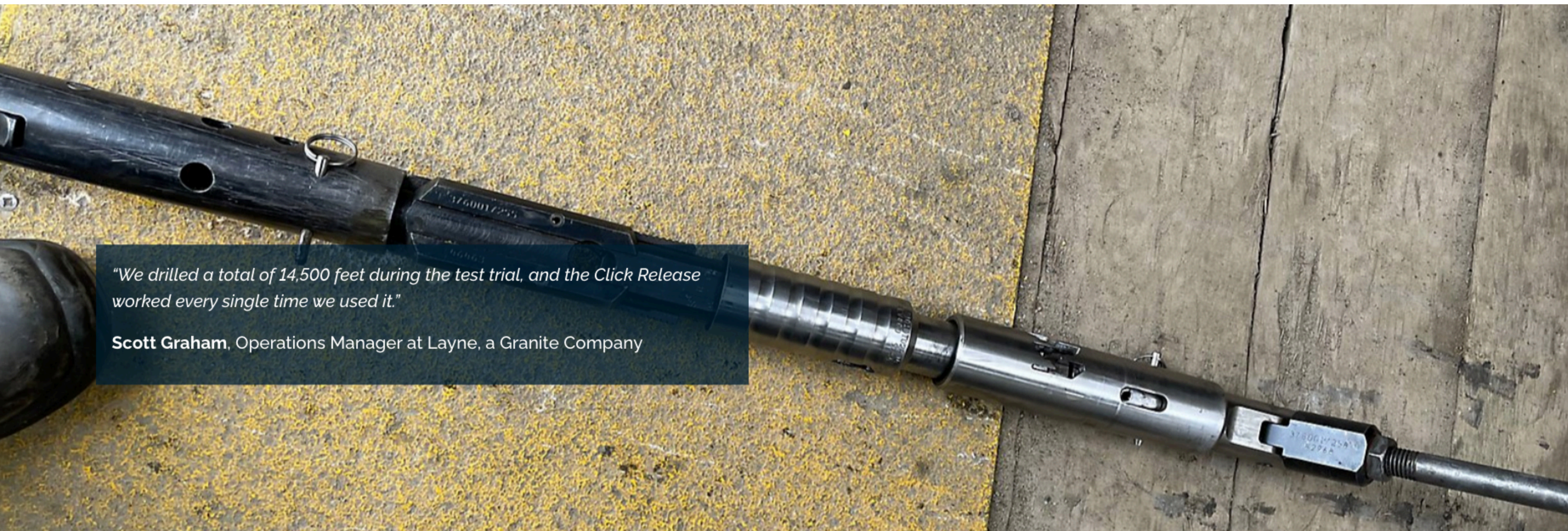
The feedback

Scott Graham, Operations Manager at Layne, oversaw the trial. With a standard release sleeve, his team often experienced unpredictability when attempting to release the overshoot from the inner tube in the borehole.

"Typically, we would have problems 50% of the time. The equipment would fall off the wireline or not go down the borehole properly. Sometimes it would get hung up and break the wireline," explained Scott. "This meant we had to either pull rods or cut the wireline." Pulling the rods is an expensive operation for drill crews. Depending on the depth of the hole, up to an entire shift could be spent pulling rods. This is expensive as the crew is not drilling and collecting core during this time. Additionally, having to cut the wireline is expensive, and also takes time. Scott elaborated, "We usually drill deep holes of between 3,000 and 6,000 feet, and if the overshoot doesn't work, that's at least twelve hours of lost time."

The test demonstrated the reliability of the click release. *"We drilled a total of 14,500 feet during the test trial, and the Click Release worked every single time we used it,"* Scott explained. *"That's 100% reliability versus 50% reliability with the traditional release sleeve."*

Safety is always an issue that is top of mind on drill sites. The Click Release includes **enhanced safety features** that prevent unexpected or premature release of the overshoot both in the hole and on the surface, reducing risk of injury and damage to equipment.



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Scott Graham, Operations Manager at Layne, a Granite Company



The results

During the course of the trial, **Ernesto Flores, a member of the drill team**, found another way to take advantage of the Click Release.

"Last night, the wireline broke mid-hole at 2,500 feet while trying to pull a tube full of core. I removed the top section of wireline, installed a fishing tool on it and was able to fish the severed end of wireline in the borehole."

Once the fishing tool was connected to the severed wireline, I was able to release the Overshot with the Click Release from the inner tube. Once released, I was able to remove the complete wireline and Overshot from the borehole. If I didn't have the overshoot release, it would have cost me a full rod trip and replacement of all the in-hole wireline," he recounted.

- Up to 100% reliability
- Request to have all drill rigs outfitted with the new Click Release as soon as possible.
- Savings in the cost of wireline
- Time saved by not having to pull rods

The conclusion

The Click Release is ideal for any type of surface drilling application. It is available in NH size and provides enhanced safety and improved reliability. You can learn more about this innovative new product by visiting our page ([link](#)) or by contacting your regional representative. Visit our Exploration & OreBody Solutions webpage ([link](#)) for information about all our products for exploration and data collection.



Layne, A Granite Company, is a water management, mineral exploration and drilling company. They provide responsible infrastructure solutions for water and minerals, while offering innovative, sustainable services with an enduring commitment to safety, operational excellence, and client satisfaction.



[About Layne](#)

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