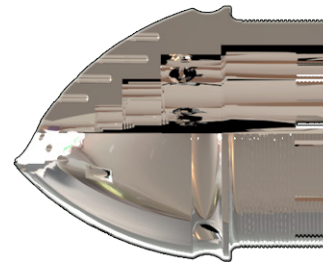


DOWNHOLE
PRODUCTS

EZI-DRILL® ALUMINIUM NOSE REDUCES DRILL-OUT TIMES

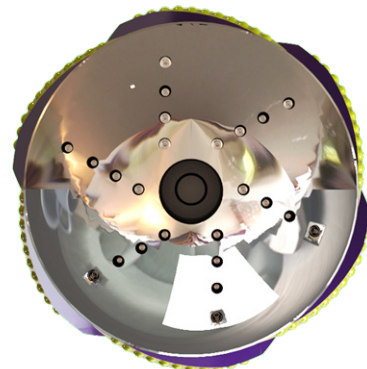
TECHNOLOGY: Downhole Products Ezi-Drill aluminium nose comes as standard on all DHP Pen-O-Trator® and pilot guide shoes 6 5/8" and above. The Ezi-Drill nose feature removes around 30% of the internal nose material coupled with strategically placed "breakup" voids to encourage aluminium breakup into manageable pieces. As the shoe is drilled, the aluminium will breakup into pieces either small enough to be circulated back to surface or of a size that will inbed into the sidewall of the new section below.



PERFORMANCE: A major South East Asia operator successfully ran their 13 3/8" Casing to TD at 2729 meters through a 16" Open Hole and cemented in place as per program.

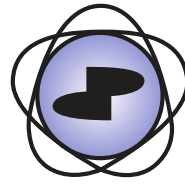
The 12 1/4" BHA was made up c/w PDC bit and run in hole to drill out the 13 3/8" shoe track.

TOC was located at 2697m and drilling out of the shoe track components/cement was undertaken with the following parameters being adhered to.



- 5-10 KLBS - W.O.B.
- 50 RPM - BIT SPEED
- 650 GPM – FLOW RATE
- 10-15K FT. /LBS. TORQUE RECORDED DURING SHOE TRACK DRILL OUT.

For further information on this tool and proposed applications, please contact your local DHP representative. Specifications may be liable to change without prior notice.



DOWNHOLE
PRODUCTS

Downhole the 32m shoe track was drilled out in 2 ½ hours (12-13m/hr.) with 30mins and 15mins being allotted to the float collar and pilot guide shoe respectively.

The client was very impressed with the quick drill out of the pilot guide shoe Ezi-Drill aluminium nose, as they had experienced far longer, troublesome drill-outs previously with a competitor's product.



The Ezi-Drill break-up feature of the nose ensures manageable sized aluminum debris is removed from the hole during the drillout process in addition to the quick drill out time.

- DOWNHOLE PRODUCTS PILOT GUIDE SHOES ARE CUSTOM BUILT TO THE CUSTOMERS SPECIFIC REQUIREMENT.
- CAN BE MADE TO MATCH ANY CASING GRADE OR PREMIUM THREAD
- AVAILABLE IN SIZES 3 ½" – 20" (EZI-DRILL NOSE AS STANDARD ON 6 5/8" AND ABOVE)
- API CAT III C VALVE SUPPLIED EITHER SINGLE, DOUBLE OR AUTO-FILL OPTIONS

For further information on this tool and proposed applications, please contact your local DHP representative. Specifications may be liable to change without prior notice.