

OFFSHORE WINDFARM CABLE DUCTS SPRING 2018

- ▶ 2 x 355mm Ducts Installed 550m in Length from Cliff Top
- ▶ Forward Reaming and Pipe Pushed Installation to Sea Bed
- ▶ Offshore Exit Cleared of Loose Materials by Air Lift

Scope

AMS were commissioned to design and install the 2 cable landfall ducts from a cliff top compound required as part of an offshore windfarm project in Aberdeen.

Prior to any works being undertaken a detailed mobilisation assessment was required due to the significantly restricted access available.

Project Details

The scheme comprised the drilling and installation of the two cable ducts from a cliff top 20m above the north sea, exiting on the sea bed 550m offshore, 10m beneath mean low water level, Ground conditions consisted of Granite and Schist Rock formation with 4m of loose material above the bedrock on the seabed.

Both pilot drills were stopped short of punching out on the seabed to reduce fluid losses into the marine environment. Each pilot was then upsized to 20" using forward reaming techniques and flushed with water to drilling fluid before final punch out was carried out.

The pipes were proved and pigged onshore and fitted with a dynema rope before being capped and ballasted with water to reduce friction during the pipe pushing installation process. Drilling and duct installations were completed ahead of programme

Technical Summary

- AMS drilled from cliff top launch position to exit on the sea bed
- Extremely challenging varied ground formations
- Delayed punch out to reduce mud consumption and the impact on the environment.
- Restricted access to the site via a small railway tunnel.
- Dive support cleared the exit point of loose materials utilising air lift.

Site Overview

Pipe Pusher in Operation

HDD Works Progressing

250t drill rig

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