



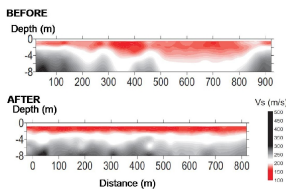
South Yoloten gas field development project

Control of soil improvement by seismic MASW

Yoloten, Turkmenistan
Started in 2011, 2 months



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Yoloten, in Turkmenistan, is an important town in the oil and gas industries with oil fields such as the South Yoloten Field, located south of the town, which ranks among the world's five biggest, with possible reserves of 4 tcm to 14 tcm of gas.

As part of the construction of a new gas extraction platform in the desert of dunes, the company MENARD was in charge of preparing the subsoil for the loading it would receive.

Works included a levelling phase and a soil improvement phase by dynamic compacting.

The aim of the seismic Multichannel Analysis of Surface Waves (MASW) 2D campaign carried out by SOLDATA Geophysics was to control and quantify the soil improvement.

About 9 km of measurements were recorded before dynamic compaction.

Results obtained from the first campaign allowed the identification of filled areas and the evaluation of compaction of the additional material.

Results of the second campaign determined, in terms of shear modulus, the improvement brought about by the dynamic compaction.



Legends

- 1. Dynamic compaction
- 2. Results of seismic MASW before and after dynamic compaction
- 3. Gas treatment unit in Yoloten

Key figures

- 2*9 km of seismic MASW
- 2*450 measurement points

- visualisation of filled areas

- quantification of soil improvement