

CLAIMS

1. Device for obtaining information about the ground of an area for dredging, comprising a vessel, a source embodied to generate a geophysical signal under water,
5 and an elongate carrier, mounted on the vessel and immersible in water, for a series of receivers which are embodied to measure a response signal returning via the bottom, wherein the carrier extends in a longitudinal direction transversely of the direction of navigation of the vessel, wherein the carrier comprises an elongate support structure with bending stiffness, the support structure comprising a lattice of mutually connected
10 lattice elements.
2. Device as claimed in claim 1, wherein the carrier carries the source.
3. Device as claimed in any of the foregoing claims, wherein the receivers lie in a
15 line extending parallel to the longitudinal direction of the carrier.
4. Device as claimed in any of the foregoing claims, wherein each receiver is located a fixed distance from the source.
- 20 5. Device as claimed in any of the foregoing claims, wherein the carrier is provided with a depth gauge, preferably a pressure gauge.
6. Device as claimed in any of the foregoing claims, wherein the carrier is provided with damping means embodied to reduce the disturbance of the signal
25 generated by the source through the carrier.
7. Device as claimed in claim 6, wherein the source generates a seismic signal and the damping means are embodied such that the propagation velocity of the wave generated by the source through the carrier is lower than the propagation velocity of the
30 wave generated by the source through the underwater bottom.
8. Device as claimed in claim 6, wherein the source generates an electromagnetic signal and the damping means are embodied such that the electromagnetic field generated by the source is not disturbed by the carrier, or minimally so.

9. Device as claimed in any of the claims 6 to 8, wherein the damping means comprise rubber elements.
- 5 10. Device as claimed in any of the claims 6 to 9, wherein the damping means are placed between the carrier and receivers mounted on the carrier.
11. Device as claimed in any one of the foregoing claims, wherein the lattice elements are provided with openings accessible to water.
- 10 12. Device as claimed in any of the foregoing claims, wherein the source and/or the receivers and/or signal cabling therefor is accommodated in the carrier.
13. Device as claimed in any of the foregoing claims, wherein the source and/or the receivers and/or signal cabling is mounted in rigid manner on the underside of the
15 carrier.
14. Device as claimed in any of the foregoing claims, wherein the carrier is embodied for mounting on the vessel via a hinged connection or a damping suspension.
15. Device as claimed in any of the foregoing claims, wherein the source comprises
20 a seismic source and the receivers comprise seismic receivers.
16. Device as claimed in claim 15, wherein the seismic receivers comprise a hydrophone.
- 25 16. Device as claimed in any of the foregoing claims, wherein the source comprises an electromagnetic source and the receivers comprise electromagnetic receivers.
17. Device as claimed in any of the foregoing claims, wherein the source comprises an electrical source and the receivers comprise electrical receivers.
- 30 18. Method for obtaining information about the ground of an area for dredging, wherein a device as claimed in any of the foregoing claims is provided, the carrier mounted on the vessel and provided with the series of receivers is immersed in water, the vessel is moved forward, wherein the longitudinal direction of the carrier extends

transversely of the direction of navigation of the vessel, the source generates signals and the receivers measure response signals returning via the underwater bottom.

19. Method as claimed in claim 18, wherein the source generates a sound wave and
5 the receivers measure the sound waves returning via the underwater bottom.

20. Method as claimed in any of the claims 18 to 19, wherein the source generates
an electromagnetic wave and the receivers measure electromagnetic waves returning via
the underwater bottom.
10

21. Method as claimed in any of the claims 18 to 20, wherein the source generates
an electrical signal and the receivers measure the electrical response signal returning via
the underwater bottom.

15