

Title (en)
UNDERWATER MINING APPARATUS AND METHOD

Title (de)
UNTERWASSER-GEWINNUNGSGERÄT UND -VERFAHREN

Title (fr)
APPAREIL ET PROCEDE D'EXPLOITATION SOUS-MARINE DE MINERAIS

Publication
EP 1000202 A1 20000517 (EN)

Application
EP 98938779 A 19980810

Priority

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- GB 9717456 A 19970818

Abstract (en)
[origin: WO9907949A1] An underwater mining vehicle (28) is provided with a suction boom (22) carrying a tooth cutter (9) at its forward tip and having an array of nozzles (20) disposed about its periphery. In use, the boom is oriented vertically and applies a downward force of 5 to 20 tones (49 to 196 kN) on a layer of sandstone drape covering a diamondiferous gravel layer. This breaks the drape and enables the mouth of the suction boom to access the diamondiferous gravel. The two lower/rearward nozzles (20) generate high velocity jets which form a fluidised region in the gravel and suspend particles up to 200 mm in diameter which are then sucked up in suspension via the suction boom and lifted to the surface where diamonds are extracted.

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