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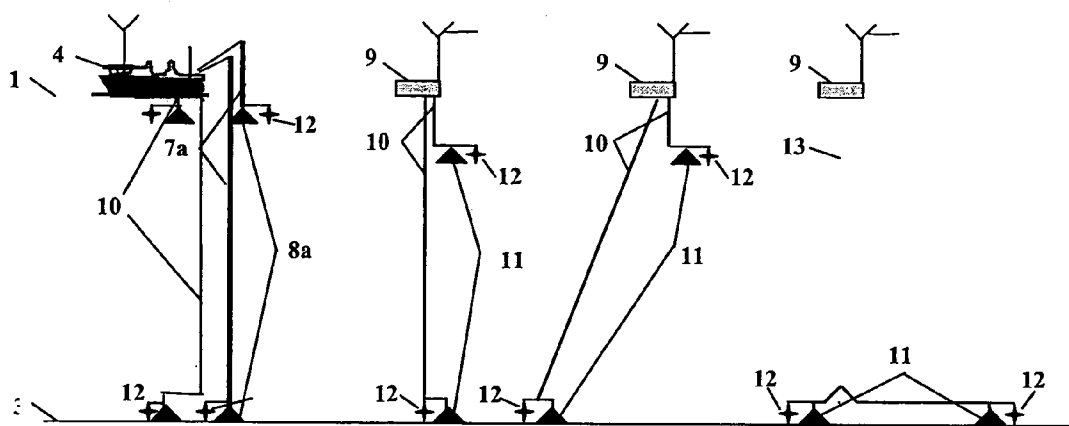
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(54) Title: A METHOD OF MAPPING HYDROCARBON RESERVOIRS IN SHALLOW WATERS AND ALSO AN APPARATUS FOR USE WHEN PRACTISING THE METHOD



(57) Abstract: A system for marine electromagnetic surveying of hydrocarbon reservoirs is proposed. The system proposed is characterized by high sensitivity to targets containing hydrocarbons and an ability to work in shallow and deep waters. The system includes a transmitter setting up current pulses in water (2) through a submerged, vertical or horizontal transmitter cable (7a, 7b, 8) and a registration subsystem (9) connected to electrodes (11) on vertical or horizontal receiver cables (10a, 10b). The transmitter generates a special sequence of sharply terminated pulses of the electric current, the electric field being measured in the water in the pauses between these pulses. The straight line through the receiver electrodes lies in the same vertical plane as the terminations of the transmitter cable (7a, 7b). The measurements are carried out with an offset between the transmitter cable (7a, 7b) and the receiver cables (10a, 10b) which is smaller than the depth of the targeted reservoir of hydrocarbons, measured from the sea floor (3).

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