

Title (en)

WELL-DRILLING WASTE NEUTRALIZATION METHOD AND NEUTRALIZATION DEVICE

Title (de)

BOHRLOCHBOHRABFALLNEUTRALISIERUNGSVERFAHREN UND NEUTRALISIERUNGSVORRICHTUNG

Title (fr)

PROCÉDÉ DE NEUTRALISATION ET DISPOSITIF DE NEUTRALISATION DE DÉCHETS DE FORAGE DE Puits

Publication

EP 3774096 A4 20210623 (EN)

Application

EP 19781306 A 20190401

Priority

- RU 2018111797 A 20180403
- RU 2019000206 W 20190401

Abstract (en)

[origin: WO2019194705A1] The well-drilling waste neutralization method includes separation of drilling sludge from the drilling fluid, drilling sludge discharge into a sludge pit, chemical and technological treatment of sludge until obtaining a composite mixture including, but not limited to, a humic mineral component; installation of drilling sludge dividers represented by a metal fixture in the form of bottomless cells placed and fixed, at least in their upper part; drilling sludge discharge into the formed cells, each being filled to 80% by volume. The chemical and technological treatment is performed in a batchwise manner - individually in each of the cells with constant stirring. The humic mineral component is injected in the amount of about 3-5% of the total drilling sludge quantity and stirred within 30-60 minutes. Significant parameters are checked until values below maximum allowable concentrations are reached. The fixture is removed from the pit, and soil from the rehabilitated areas is added. The well-drilling waste neutralization device consists of dividers in the form of a metal fixture for installation inside a sludge pit to create a structure with vertically oriented bottomless cells; a metal grid installed on top of the fixture. Guides in the form of rails are provided on the grid together with a working platform moving along them. The grid has an operator's workplace and provides for capability for placing chemicals and drilling sludge stirring equipment. The use of the claimed group of inventions ensures the improvement of the neutralized drilling sludge quality.

IPC 8 full level

B09B 3/00 (2006.01); **B09B 5/00** (2006.01); **B09C 1/08** (2006.01); **E21B 21/01** (2006.01); **E21B 43/34** (2006.01)

CPC (source: EP RU)

B09B 5/00 (2013.01 - EP RU); **B09C 1/08** (2013.01 - EP); **E21B 21/068** (2013.01 - EP)

Citation (search report)

- [A] RU 2392256 C1 20100620 - BORODAJ ANNA VITAL EVNA [RU], et al
- [A] RU 2539470 C1 20150120 - SAMOTLORNEFTEGAZ AOOT [RU]
- [A] CN 205422596 U 20160803 - BAZHOU CHUANYUAN TECH CO LTD
- [A] WO 2008118868 A1 20081002 - MI LLC [US], et al
- See also references of WO 2019194705A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2019194705 A1 20191010; EA 037837 B1 20210526; EA 202092079 A1 20201116; EP 3774096 A1 20210217; EP 3774096 A4 20210623; RU 2679056 C1 20190205

DOCDB simple family (application)

RU 2019000206 W 20190401; EA 202092079 A 20190401; EP 19781306 A 20190401; RU 2018111797 A 20180403