

Title (en)

Downhole tool and method for perforating and sampling.

Title (de)

Werkzeug im Bohrloch und Verfahren zum Perforieren und zur Probeentnahme.

Title (fr)

Outil de fond de puits et procédé pour perforer et prendre un échantillon.

Publication

EP 0295922 A2 19881221 (EN)

Application

EP 88305522 A 19880617

Priority

US 6428587 A 19870619

Abstract (en)

A downhole tool for perforating a well and obtaining fluid samples therefrom, comprises a retrievable packer (20), perforating guns (24) and a sampler (22) disposed between the packer and guns which is adapted for entrapping a fluid sample without flowing well fluids into the tool string. An operating piston is slidably disposed in a cylinder above the packer and is used to actuate a sampler valve in the sampler. A seal ensures that all portions of a sampling chamber in the sampler are disposed below the packer. The operating piston is actuated in response to a pressure differential between a well annulus above the packer and an internal pressure in the tool. The sampler includes a plurality of sampler modules disposed in the sampling chamber. Each of the sampler modules includes a valve which automatically closes after a predetermined volume of fluid fills a sampler module chamber defined in the sampler module.

IPC 1-7

E21B 34/10; **E21B 43/116**; **E21B 47/06**; **E21B 49/08**

IPC 8 full level

E21B 34/10 (2006.01); **E21B 43/116** (2006.01); **E21B 47/06** (2012.01); **E21B 49/00** (2006.01); **E21B 49/08** (2006.01)

CPC (source: EP US)

E21B 34/102 (2013.01 - EP); **E21B 43/116** (2013.01 - EP); **E21B 47/06** (2013.01 - EP); **E21B 49/001** (2013.01 - EP);
E21B 49/0813 (2020.05 - EP US)

Cited by

CN111954748A; CN108166974A; EP1264962A1; EP0370606A3; CN117684921A; US6609569B2; GB2438480A; GB2438480B; GB2404679A; GB2404679B; GB2452651B; GB2452651A; US6622554B2; US8196668B2; US7083009B2; US8118098B2

Designated contracting state (EPC)

DE ES FR GB IT NL

DOCDB simple family (publication)

EP 0295922 A2 19881221; **EP 0295922 A3 19891213**; **EP 0295922 B1 19931006**; AU 1733388 A 19881222; AU 601591 B2 19900913; CA 1289464 C 19910924; DE 3884677 D1 19931111; DE 3884677 T2 19940203; NO 882693 D0 19880617; NO 882693 L 19881220

DOCDB simple family (application)

EP 88305522 A 19880617; AU 1733388 A 19880603; CA 569695 A 19880616; DE 3884677 T 19880617; NO 882693 A 19880617