

(19) World Intellectual Property
Organization
International Bureau



WIPO | PCT



(10) International Publication Number
WO 2019/112579 A8

(43) International Publication Date
13 June 2019 (13.06.2019)

(51) International Patent Classification:
E21B 34/06 (2006.01) *E21B 34/14* (2006.01)

(21) International Application Number:
PCT/US2017/064931

(22) International Filing Date:
06 December 2017 (06.12.2017)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant: **HALLIBURTON ENERGY SERVICE, INC.** [US/US]; 3000 N. Sam Houston Parkway E., Houston, TX 77032-3219 (US).

(72) Inventors: **WALTON, Zachary, William**; 2204 Southern Court, Carrollton, TX 75006 (US). **MERRON, Matthew, James**; 2705 Carmel Drive, Carrollton, TX 75006 (US). **FRIPP, Michael, Linley**; 3826 Cemetery Hill Road, Carrollton, TX 75007 (US). **MEIJS, Raymundus, Jozef**; 5743 South Kittredge Street, Centennial, CO 80015 (US). **ROSEMAN, Matthew, Bryan**; 1567 West Springcrest Circle, Lancaster, TX 75134 (US).

(74) Agent: **VOLPENHEIN CUTIE, Lindsay, M.** et al.; Baker Botts LLP, 910 Louisiana Street, Houston, TX 77002 (US).

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

(54) Title: ELECTRONIC INITIATOR SLEEVES AND METHODS OF USE

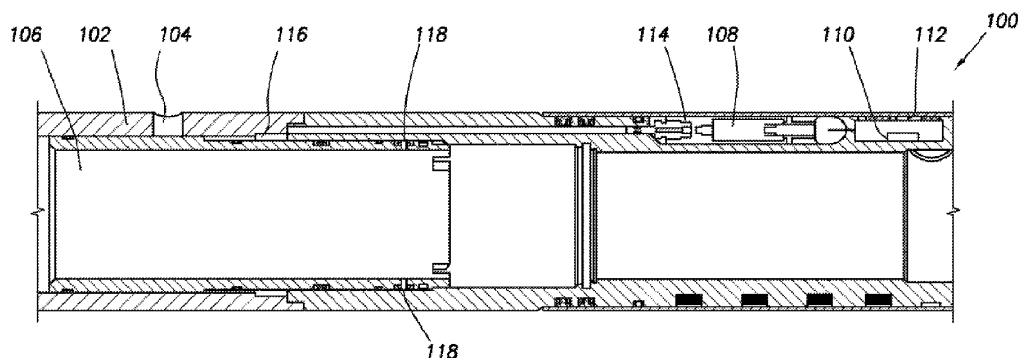


FIG. 1A

(57) Abstract: Apparatuses, systems, and methods for performing wellbore completion and production operations in a subterranean formation are provided. In some embodiments, the methods include: disposing an electronic initiator sleeve within a closed wellbore penetrating at least a portion of a subterranean formation, wherein the electronic initiator sleeve comprises: a housing having at least one port, a sleeve in a closed position, an actuator, and at least one sensor; increasing fluid pressure within the closed wellbore for a period of time, wherein the sleeve remains in the closed position during the period of time; detecting a signal with the at least one sensor; and actuating the actuator in response to the signal to transition the sleeve from the closed position to an open position.

[Continued on next page]

Declarations under Rule 4.17:

— *of inventorship (Rule 4.17(iv))*

Published:

— *with international search report (Art. 21(3))*

(48) Date of publication of this corrected version:

06 September 2019 (06.09.2019)

(15) Information about Correction:

see Notice of 06 September 2019 (06.09.2019)