



(43) International Publication Date
15 January 2015 (15.01.2015)

- (51) International Patent Classification:
E21B 47/18 (2012.01) *E21B 47/01* (2012.01)
- (21) International Application Number:
PCT/GB2014/052096
- (22) International Filing Date:
9 July 2014 (09.07.2014)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
1312465.6 11 July 2013 (11.07.2013) GB
- (71) Applicant: INTELLIGENT WELL CONTROLS LIMITED [GB/GB]; Halliburton House, Howe Moss Crescent, Kirkhill Industrial Estate, Dyce Aberdeenshire AB21 0GN (GB).
- (72) Inventors: BROWN-KERR, William; 8 Golf Place, Aboyne Aberdeenshire AB34 5GA (GB). MCGARIAN, Bruce Hermann Forsyth; 23 East Glebe, Stonehaven Aberdeenshire AB39 2HW (GB).
- (74) Agent: A.A. THORNTON & CO.; 10 Old Bailey, London Greater London EC4M 7NG (GB).
- (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, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, 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, 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).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

- (88) Date of publication of the international search report:
3 September 2015

(54) Title: DOWNHOLE APPARATUS, SYSTEM AND METHOD

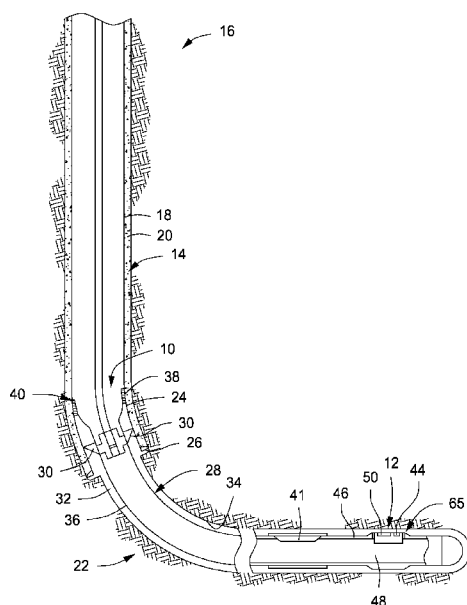


FIG. 1

(57) Abstract: An example apparatus (12) for generating downhole fluid pressure pulses includes a tubular housing (46) defining an internal fluid flow passage (48) and providing a housing wall (60) having an internal surface (61) and an external surface (63). The apparatus also includes a device (50) for selectively generating a fluid pressure pulse, the device being mounted in an aperture (65) defined in the housing wall and being movable between a retracted position, where the device is seated within the aperture, and a radially extended position, where the device extends at least partially beyond the external surface.

