

(12) UK Patent Application (19) GB (11) 2565721 (13) A

(43) Date of Reproduction by UK Office 20.02.2019

(21) Application No: 1819800.2

(22) Date of Filing: 28.07.2016

Date Lodged: 04.12.2018

(86) International Application Data:  
PCT/US2016/044483 En 28.07.2016

(87) International Publication Data:  
WO2018/022063 En 01.02.2018

(51) INT CL:  
F16L 55/48 (2006.01) G02B 6/50 (2006.01)  
G02B 6/54 (2006.01)

(56) Documents Cited:  
WO 2014/031116 A1 US 20150226055 A1  
US 20120298243 A1 US 20100309750 A1  
US 20090090512 A1

(58) Field of Search:  
INT CL E21B, F16L, G01V, G02B  
Other: eKOMPASS(KIPO internal)

(71) Applicant(s):  
Halliburton Energy Services, Inc.  
3000 N.Sam Houston Parkway E.,  
Houston 77032-3219, Texas, United States of America

(72) Inventor(s):  
Wolfgang Hartmut Nitsche  
John Laureto Maida  
Christopher Lee Stokely

(74) Agent and/or Address for Service:  
Hoffmann Eitle  
Harmsworth House, 13-15 Bouverie Street, London,  
EC4Y 8DP, United Kingdom

(54) Title of the Invention: **Real-time plug tracking with fiber optics**  
Abstract Title: **Real-time plug tracking with fiber optics**

(57) A plug may be deployed within a pipeline along with a fluid. The plug is coupled to a fiber optic line dispensed from fiber optic dispenser located outside or within the pipeline. The plug may transmit a signal via the fiber optic line that is indicative of the location of the plug within the pipeline. The signal may comprise light pulses associated with the traversal of a pipeline joint by the plug. The location may allow the plug to be reclaimed efficiently and economically should the plug become lodged within the pipeline. The plug may communicate other measurement information via the fiber optic line and this information may be used to adjust operational parameters associated with the pipeline.

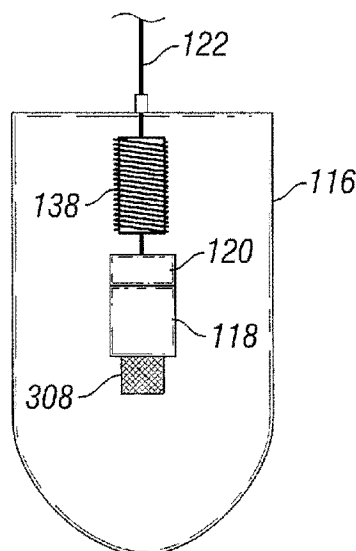


FIG. 4

GB 2565721 A