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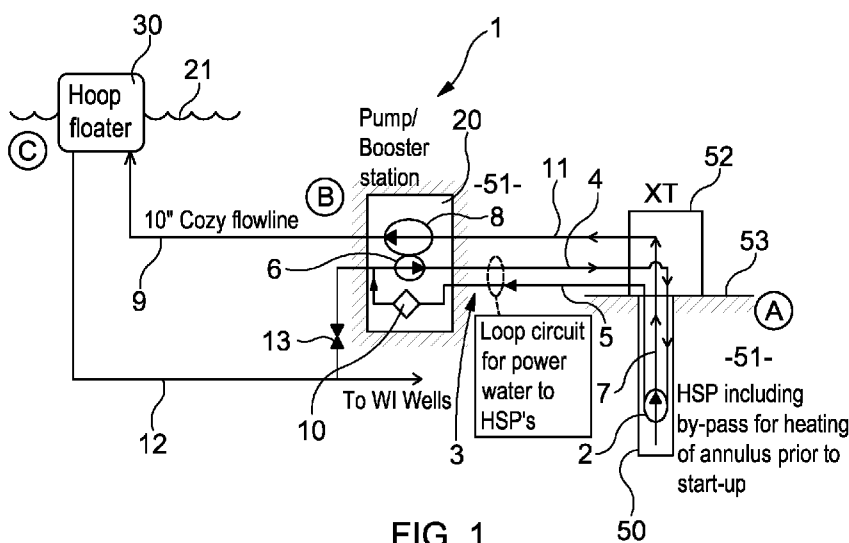


FIG. 1

(57) Abstract: A method (100) of producing fluid from a hydrocarbon reservoir (51) is described in which, in particular embodiments, a production tubing (7) section is provided in a well (50) and is arranged to contain therein a flow of production fluid, and a power fluid for a downhole HSP is circulated adjacent to the production tubing section, so that the power fluid protects the production fluid against any one or more of: hydrate formation; wax appearance; and wax deposition. A circulation pump can be used to circulate the power fluid and the power fluid is preferably supplied with heat from the pump to keep the power fluid warm.



INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2015/064522

A. CLASSIFICATION OF SUBJECT MATTER
INV. E21B36/00 E21B43/12
ADD.
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
Minimum documentation searched (classification system followed by classification symbols)
E21B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/71157 A1 (HALLIBURTON ENERGY SERV INC [US]) 27 September 2001 (2001-09-27)	1-3,6, 12,13, 18-23, 26,30
Y	abstract	11
A	figure 1 page 2, line 25 - page 4, line 14 page 8, line 17 - page 9, line 14 -----	4,5, 7-10, 14-17
X	CA 1 185 519 A (HENNESSEY ALBERT) 16 April 1985 (1985-04-16)	1-10, 12-23, 26,30
Y	abstract	11
	figures 1-2 page 2, line 1 - line 33 page 4, line 17 - page 6, line 21 ----- -/--	

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search 3 December 2015	Date of mailing of the international search report 06/05/2016
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Hustedt, Bernhard

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2015/064522

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 2 914 124 A (RIPLEY JR FREDERICK C) 24 November 1959 (1959-11-24) abstract figure 1 column 1, line 19 - line 34 column 2, line 68 - column 3, line 54 -----	1,3,5, 14,26,30 2,4, 6-13, 15-23
X A	US 2002/100587 A1 (LEWIS KEN [US]) 1 August 2002 (2002-08-01) abstract figure 1 paragraph [0008] - paragraph [0009] paragraph [0023] -----	1,3,26, 30 2,4-23
X A	US 2007/062704 A1 (SMITH DAVID R [US]) 22 March 2007 (2007-03-22) abstract figure 4 paragraph [0005] paragraph [0023] - paragraph [0025] paragraph [0032] -----	1,3,26, 30 2,4-23
A	WO 2013/092449 A1 (SHELL INT RESEARCH [NL]; SHELL OIL CO [US]) 27 June 2013 (2013-06-27) abstract figure 3 page 2, line 27 - page 3, line 22 page 6, line 26 - page 7, line 8 -----	1-23,26, 30

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2015/064522

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-23, 26, 30

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-23, 26, 30

Method of producing fluids from a hydrocarbon reservoir comprising a production tubing section in a well and circulating a circulation fluid adjacent to the production tubing section.

2. claims: 24, 25

Method of producing fluids from a hydrocarbon reservoir comprising a production tubing section, a downhole production pump driven by a power fluid, the power fluid being supplied to operate the pump and the power fluid being in thermal communication with the production tubing.

3. claims: 27-29

Method of transporting production fluid using a pipe section and circulating a circulation fluid to be in thermal communication with the pipe section and provide thermal energy to the production fluid.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/EP2015/064522

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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