



## SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:  
EP 21 86 24 44

### Classification of the application (IPC):

E21B 47/125, E21B 17/00, E21B 41/00, E21B 17/04, E21B 17/20, E21B 47/06, E21B  
E21B 47/113, E21B 47/135

### Technical fields searched (IPC):

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
A	US 2019257194 A1 (GARNER LOUIS D [CA] ET AL) 22 August 2019 (2019-08-22) * the whole document *	1-14
A	US 2017268320 A1 (ANGMAN PER [CA] ET AL) 21 September 2017 (2017-09-21) * the whole document *	1-14
A	US 2012085531 A1 (LEISING LARRY J [US] ET AL) 12 April 2012 (2012-04-12) * the whole document *	1-14
A	US 6116085 A (MOFFATT TERRY GEORGE [CA] ET AL) 12 September 2000 (2000-09-12) * the whole document *	1-14

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search Munich	Date of completion of the search 02 July 2024	Examiner Ott, Stéphane
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### CATEGORY OF CITED DOCUMENTS

X: particularly relevant if taken alone	P: intermediate document
Y: particularly relevant if combined with another document of the same category	T: theory or principle underlying the invention
A: technological background	E: earlier patent document, but published on, or after the filing date
O: non-written disclosure	D: document cited in the application
& : member of the same patent family, corresponding document	L: document cited for other reasons

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## ANNEX TO SUPPLEMENTARY EUROPEAN SEARCH REPORT

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on 02-07-2024.  
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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		US 2015075783 A1	19-03-2015
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US 6116085 A	12-09-2000	NONE	