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#### **Declarations under Rule 4.17:**

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))
- of inventorship (Rule 4.17(iv))

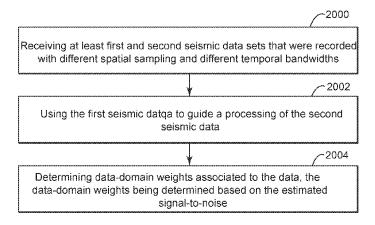
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- with international search report (Art. 21(3))
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- (88) Date of publication of the international search report:

26 November 2015

(54) Title: SYSTEM AND METHOD FOR SEISMIC DATA PROCESSING OF SEISMIC DATA SETS WITH DIFFERENT SPA-TIAL SAMPLING AND TEMPORAL BANDWIDTHS

Fig. 20



(57) Abstract: A computing device and a method for processing seismic data associated with a surveyed subsurface. The method includes receiving at least first and second seismic data sets that were recorded with different spatial sampling and different temporal bandwidths; using the first seismic data to guide a processing of the second seismic data; and generating an image of the subsurface based on processed second seismic data.



## **INTERNATIONAL SEARCH REPORT**

International application No PCT/IB2015/000261

A. CLASSIFICATION OF SUBJECT MATTER INV. G01V1/28 G01V1/36 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)	on symbols)					
GO1V						
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 rel	evant passages	Relevant to claim No.				
X US 2008/189043 A1 (ANNO PHIL DEA AL) 7 August 2008 (2008-08-07)	US 2008/189043 A1 (ANNO PHIL DEAN [US] ET AL) 7 August 2008 (2008-08-07)					
Y paragraphs [0077] - [0085]; figu 1,2,5,6,7-14,25	paragraphs [0077] - [0085]; figures					
AL) 19 December 2013 (2013-12-19	US 2013/333974 A1 (COSTE EMMANUEL [NO] ET AL) 19 December 2013 (2013-12-19) paragraphs [0019] - [0027]; claims 14,16; figures 3-7					
Further documents are listed in the continuation of Box C.	X See patent family annex.					
"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  22 July 2015	Date of mailing of the international search report $13/10/2015$					
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  Bream, Philip					

### INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/IB2015/000261

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 2008189043	A1	07-08-2008	CA EP US WO	2674235 A1 2115492 A1 2008189043 A1 2008097748 A1	14-08-2008 11-11-2009 07-08-2008 14-08-2008
US 2013333974	A1	19-12-2013	AU EP US WO	2013274081 A1 2841967 A1 2013333974 A1 2013188743 A1	04-12-2014 04-03-2015 19-12-2013 19-12-2013

International application No. PCT/IB2015/000261

## **INTERNATIONAL SEARCH REPORT**

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
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.:  1-8, 11-15
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: 1-8, 11-15

Optimising a seismic survey.

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2. claims: 9, 10

Improving reliability in seismic processing.

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3. claims: 16-20

Increasing the resolution of seismic images.

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