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[Continued on next page]

(54) Title: DOWNHOLE MEASUREMENT OF SUBSTANCES IN EARTH FORMATIONS

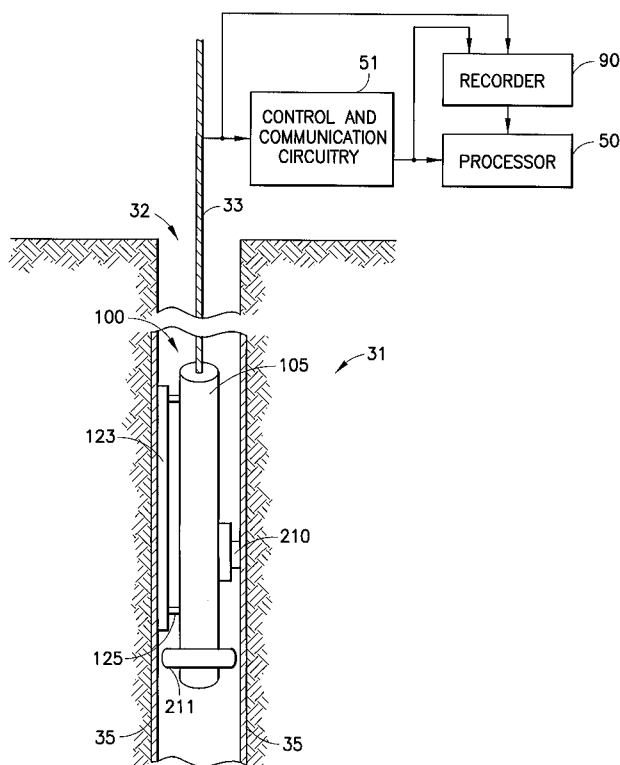


FIG. 1

(57) Abstract: A method for determining a property of earth formations surrounding a borehole, including the following steps: isolating a region of the borehole, and obtaining a sample of borehole fluid from the isolated region; and implementing measurements, downhole, of the Raman scattering of electromagnetic energy directed at the fluid sample; the property of the earth formations being determinable from the measurements. In a disclosed embodiment, the steps of isolating a region of the borehole and obtaining a sample of borehole fluid from the isolated region include: providing a logging device in the borehole in sealing engagement with the isolated region, causing formation fluid from the isolated region to flow in a flow line of the logging device, and providing a measurement cell in the logging device which receives the sample of formation fluid via the flow line.

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B. FIELDS SEARCHED

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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 practical, search terms used)
EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 590 647 B2 (STEPHENSON KENNETH E [US]) 8 July 2003 (2003-07-08) cited in the application	1-8, 13-21
Y	column 4, line 10 - line 15 column 5, line 18 - line 55 -----	9-12, 22-26
Y	US 4 802 761 A (BOWEN JOHN M [US] ET AL) 7 February 1989 (1989-02-07)	9-12, 22-26
A	column 3, line 25 - line 35 column 5, line 39 - line 44 -----	7-8
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Information on patent family members

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