(12) UK Patent Application (19) GB (11) 2 396 916 (13) A

(43) Date of Printing by UK Office 07.07.2004

(21) Application No: 0408400.0

(22) Date of Filing: 09.09.2002

(30) Priority Data:
(31) 9957919 (32) 21.09.2001 (33) US

(86) International Application Data:
PCT/US2002/028604 En 09.09.2002

(87) International Publication Data:
WO2003/027713 En 03.04.2003

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(continued on next page)

(51) INT CL[7]:
G01V 1/44 // G01V 1/28 1/52

(52) UK CL (Edition W):
G1G GMB

(56) Documents Cited by ISA:
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US 5852587 A
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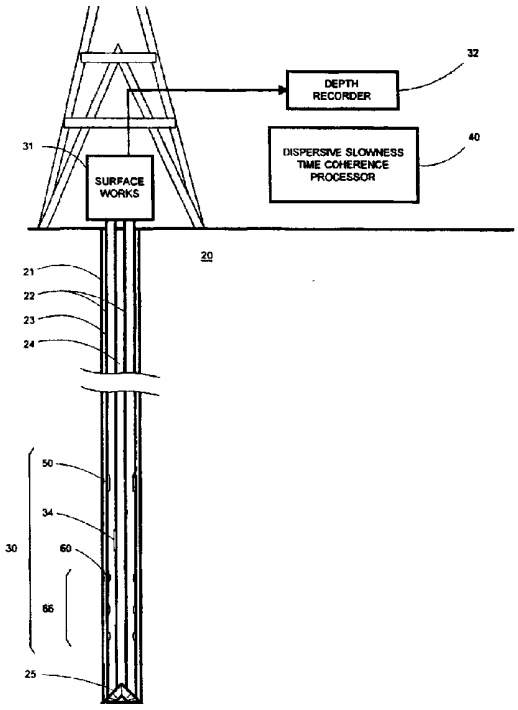
(58) Field of Search by ISA:
INT CL[7] G01V
Other: EPO-Internal, WPI Data, PAJ, INSPEC, COMPENDEX

(54) Abstract Title: **Quadrupole acoustic shear wave logging while drilling**

(57) A tool generates signals indicative of shear wave slowness of the formation surrounding a borehole. The tool comprises a collar portion adapted for mounting in a drill string, a quadrupole sonic transmitter mounted to the collar portion, and a quadropole sonic receiver array mounted to the collar spaced apart from the transmitter. A method determines shear wave slowness of the formation. The method includes propagating quadrupole wave energy into the formation and detecting quadrupole dispersive waveforms received at a second location. Formation shear wave slowness is calculated using dispersive slowness time coherence processing.



GB 2 396 916 A

GB 2396916 A continuation

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