

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
9 July 2009 (09.07.2009)

PCT

(10) International Publication Number
WO 2009/086292 A3

(51) International Patent Classification:
G01V 1/46 (2006.01)

(21) International Application Number:
PCT/US2008/087992

(22) International Filing Date:
22 December 2008 (22.12.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/964,887 27 December 2007 (27.12.2007) US

(71) Applicant (for CA only): **SCHLUMBERGER CANADA LIMITED** [CA/CA]; 525 3rd Avenue SW, Calgary, Alberta, T2P0G4 (CA).

(71) Applicant (for AL, AU, AZ, BG, CO, CZ, DE, DK, GR, HU, ID, IE, IL, IT, KZ, LT, MX, MY, NO, NZ, OM, PL, RO, RU, SI, SK, TM, TN, TR, TT, UA, UZ, ZA only): **SCHLUMBERGER TECHNOLOGY B.V.** [NL/NL]; Parkstraat 83-89, NL-2514 JG The Hague (NL).

(71) Applicant (for all designated States except AL, AU, AZ, BG, CA, CO, CZ, DE, DK, FR, GB, GR, HU, ID, IE, IL, IT, JP, KZ, LT, MX, MY, NL, NO, NZ, OM, PL, RO, RU, SI, SK, TM, TN, TR, TT, UA, US, UZ, ZA): **PRAD RESEARCH AND DEVELOPMENT LIMITED**; PO Box 71, Craigmuir Chambers, Road Town Tortola (VG).

(71) Applicant (for FR only): **SERVICES PETROLIERS SCHLUMBERGER** [FR/FR]; 42, Rue Saint-dominique, F-75007 Paris (FR).

(71) Applicant (for GB, JP, NL only): **SCHLUMBERGER HOLDINGS LIMITED**; PO Box 71, Craigmuir Chambers, Roadtown Tortola (VG).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **SIGNER, Claude** [CH/US]; 265 Willow Avenue, Somerville, MA 02144

(US). **JOHNSTON, Lucian** [US/US]; 39 Dorothea Lane, Sugar Land, TX 77479 (US). **PEDERSEN, Stein, Inge** [NO/NO]; Risabergveien 3, Tananger, N-4068 Stavanger (NO).

(74) Agents: **FONSECA, Darla, P.** et al.; Office of IP Counsel, Schlumberger Technology Corporation, 200 Gillingham Lane MD 200-9, Sugar Land, TX 77478 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:
18 November 2010

(54) Title: METHOD AND SYSTEM FOR TRANSMITTING BOREHOLE IMAGE DATA

(57) Abstract: A method of transmitting borehole image data from a borehole location to a remote location includes obtaining a set of image data describing formation surrounding a borehole using a logging tool at a selected depth or range of depths in the borehole, extracting one or more image features from the set of image data downhole, and transmitting a representation of the extracted image features to the surface.



WO 2009/086292 A3

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2008/087992

A. CLASSIFICATION OF SUBJECT MATTER

INV. G01V1/46
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)
G01V

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, 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 2007/092127 A2 (BAKER HUGHES INC [US]) 16 August 2007 (2007-08-16) page 15, line 24 - page 16, line 19 page 17, line 17 - page 18, line 7 page 25, line 4 - line 17 claim 4	1-21
X	US 2005/132794 A1 (SPROSS RONALD L [US] ET AL) 23 June 2005 (2005-06-23) page 4, paragraph 25	1, 20, 21
A	US 2007/027629 A1 (HASSAN GAMAL A [US] ET AL) 1 February 2007 (2007-02-01) page 4, paragraph 48	1
A	US 5 204 673 A (KYLE DONALD G [US] ET AL) 20 April 1993 (1993-04-20)	1

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 document 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

24 September 2010

Date of mailing of the international search report

30/09/2010

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

Swartjes, Harrie

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2008/087992

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2007092127 A2	16-08-2007	CA 2637135 A1 GB 2450009 A	16-08-2007 10-12-2008
US 2005132794 A1	23-06-2005	CA 2550821 A1 EP 1709280 A2 US 2007186639 A1 WO 2005062830 A2	14-07-2005 11-10-2006 16-08-2007 14-07-2005
US 2007027629 A1	01-02-2007	NONE	
US 5204673 A	20-04-1993	NONE	