PatBase - Search results 12 June 2018
Search query (3): [SP]: claims 1. a blasting system which is established at a blast site and which includes at least one detonator and explosive loaded into a borehole and wherein the detonator includes a memory in which is stored data selected from environmental and installation information prevailing at least at the time the detonator is loaded into the borehole and wherein such data is presented to an operator or to a component of the blasting system before firing of the detonator takes place. 2. a blasting system according to claim 1 wherein the information is presented to the operator or to the blasting system upon request or automatically when a particular stage in the blasting process is reached. 3. a blasting system according to claim 1 or claim 2 wherein the data which is stored is selected from the following aspects: information relating to the borehole or to the detonator or to the explosive or to parameters of environmental aspects prevailing at or in the borehole 4. a blasting system according to any one of claims 1 to 3 wherein the data is collected or generated on surface when the detonator is tagged, and is loaded into the detonator. 5. a detonator which includes a housing and attached to or located in the housing at least one sensor for detecting an environmental condition at a location at which the detonator is located and at least one memory for receiving data from the sensor related to the environmental condition. 6. a detonator according to claim 5 wherein the sensor is responsive to at least one of the following: the pressure which is exerted on the sensor or a housing of the detonator, the presence of any liquid and the presence of any gas at a location at which the detonator is positioned. a detonator according to claim 5 or 6 which includes a plurality of sensors and wherein each sensor is responsive to the presence or absence of a predetermined and distinctive environmental condition. a method of operating a blasting system which includes at least one detonator and explosive loaded into a borehole, wherein the method includes the steps of collecting information selected from information relating to the borehole, the detonator, the explosive and parameters of environmental aspects prevailing at or in the borehole once the detonator is loaded into the borehole, storing the information in a memory in the detonator, and presenting the information to an operator or to a component of the blasting system before the detonator is fired. a method of operating a blasting system according to claim 8 which includes the step after the detonator has been fired, of ascertaining whether the nature of the stored information had an effect on the operation of the blasting system.
Results: 4

Search history

Search 1: PN=(WO/2016/183600) (Results 1)

Search 2: [SP]: detonator information system systeme d'information de detonateur a blasting system in which environmental and installation data prevailing at the time a detonator is loaded into a borehole are stored in the detonator and are made available to an operator before the detonator is fired.la presente invention concerne un systeme d'explosion dans lequel des donnees d'environnement et d'installation en vigueur au moment ou un detonateur est charge dans un trou de forage sont stockees dans le detonateur et sont mises a disposition d'un operateur avant que le detonateur ne soit mis a feu. (Results 0)

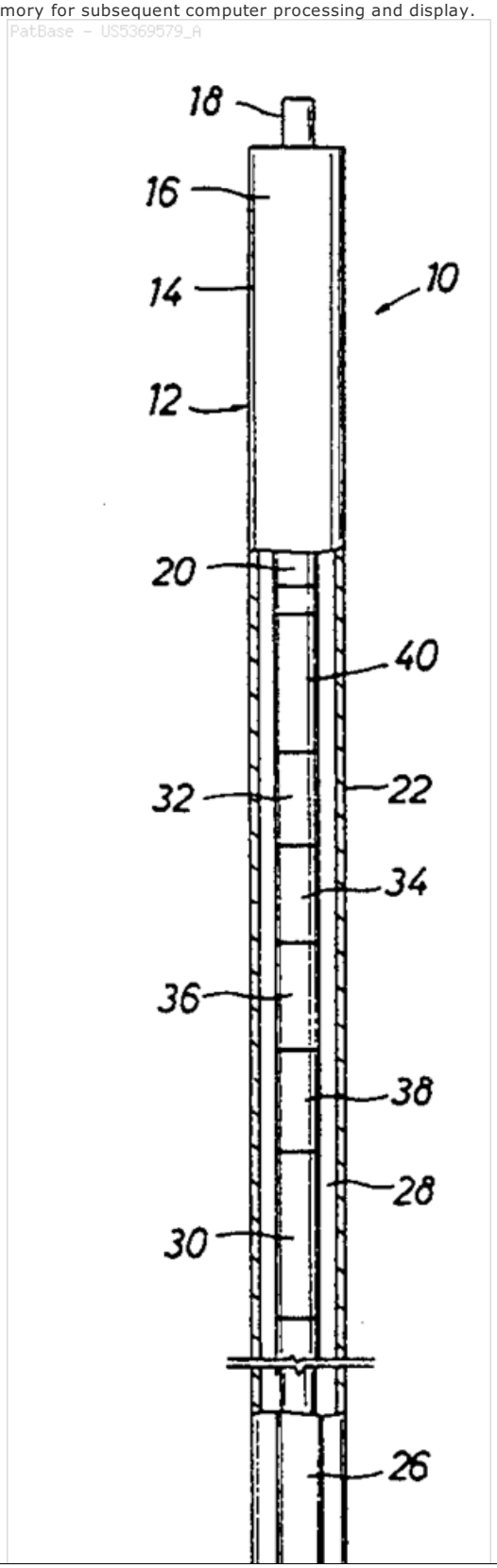
Search 3: [SP]: claims 1. a blasting system which is established at a blast site and which includes at least one detonator and explosive loaded into a borehole and wherein the detonator includes a memory in which is stored data selected from environmental and installation information prevailing at least at the time the detonator is loaded into the borehole and wherein such data is presented to an operator or to a component of the blasting system before firing of the detonator takes place. 2. a blasting system according to claim 1 wherein the information is presented to the operator or to the blasting system upon request or automatically when a particular stage in the blasting process is reached. 3. a blasting system according to claim 1 or claim 2 wherein the data which is stored is selected from the following aspects: information relating to the borehole or to the detonator or to the explosive or to parameters of environmental aspects prevailing at or in the borehole 4. a blasting system according to any one of claims 1 to 3 wherein the data is collected or generated on surface when the detonator is tagged, and is loaded into the detonator. 5. a detonator which includes a housing and attached to or located in the housing at least one sensor for detecting an environmental condition at a location at which the detonator is located and at least one memory for receiving data from the sensor related to the environmental condition. 6. a detonator according to claim 5 wherein the sensor is responsive to at least one of the following: the pressure which is exerted on the sensor or a housing of the detonator, the presence of any liquid and the presence of any gas at a location at which the detonator is positioned. a detonator according to claim 5 or 6 which includes a plurality of sensors and wherein each sensor is responsive to the presence or absence of a predetermined and distinctive environmental condition. a method of operating a blasting system which includes at least one detonator and explosive loaded into a borehole, wherein the method includes the steps of collecting information selected from information relating to the borehole, the detonator, the explosive and parameters of environmental aspects prevailing at or in the borehole once the detonator is loaded into the borehole, storing the information in a memory in the detonator, and presenting the information to an operator or to a component of the blasting system before the detonator is fired. a method of operating a blasting system according to claim 8 which includes the step after the detonator has been fired, of ascertaining whether the nature of the stored information had an effect on the operation of the blasting system. (Results 4)

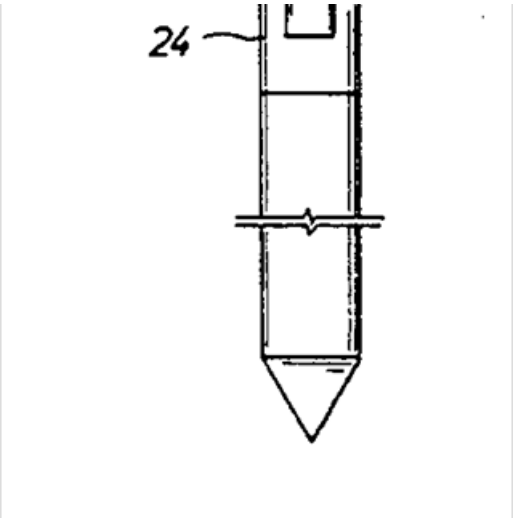
1) Family number: 9374354 (US5369579A)

Title: Electronic blast control system for downhole well operations

Abstract: A method and apparatus for safely controlling detonation of a downhole explosive energized device which ensures that the explosive can be detonated in a well bore only when downhole hydrostatic pressure and well fluid temperature are within limits reflecting location of the explosive energized device at designed depth for accurate positioning relative to a selected formation. The apparatus further employs a clock/timer circuit and a motion sensor circuit to ensure firing of the explosive device only within a predetermined time period and only after having remained stationary within the well casing for a predetermined period of time. The apparatus further includes a memory circuit which receives and stores pressure and temperature data sets correlated with time which reflect well conditions before and after firing of the explosive device. After the tool has been retrieved from the well, this data is copied from the tool memory to a computer memory for subsequent computer processing and display.

Classifications:
International (IPC 8-9): E21B23/06 E21B41/00 E21B43/1185 F42D1/04 F42D5/00 (Advanced/Invention);
E21B23/00 E21B41/00 E21B43/11 F42D1/00 (Core/Invention)
International (IPC 1-7): E21B43/1185 F42D1/04 F42D5/00
CPC: E21B23/065 E21B41/00 E21B43/1185 F42D1/04
European: E21B23/06D E21B41/00 E21B43/1185 F42D1/04
US: 175/4.54 175/454 702/11





Family:

Publication number	Publication date	Application number	Application date
CA2133161 AA	19950725	CA19942133161	19940928
CA2133161 C	19990713	CA19942133161	19940928
US5369579 A	19941129	US19940150610	19940124

Priority:

US19940150610 19940124 CA19942133161 19940928

Probable Assignee: ANDERSON OTIS R

Assignee(s): (std)**:** ANDERSON OTIS R

Inventor(s): (std)**:** ANDERSON OTIS R

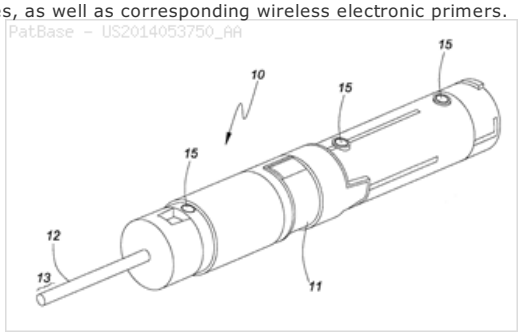
Agent(s): FINLAYSON AND SINGLEHURST

2) Family number: 52240030 (US2014053750A)

Title: WIRELESS DETONATORS WITH STATE SENSING, AND THEIR USE

Abstract: Wireless detonator systems present opportunities for controlled blasting of rock without the encumbrances of physical wired connections at the blast site. Disclosed herein are wireless detonator assemblies, which sense the state of environmental condition(s) of their immediate vicinity, and which are active to receive and/or process a command signal to FIRE only if the environmental condition(s) are deemed suitable or appropriate according to predetermined parameters. Also disclosed are improved methods of blasting involving such wireless detonator assemblies, as well as corresponding wireless electronic primers.

Classifications:
International (IPC 8-9): C06C5/00 F42B3/00 F42C11/06 F42C13/04 F42C15/00 F42D1/00 F42D1/04 F42D1/05 F42D5/00 (Advanced/Invention)
CPC: F42C11/06 F42D5/00 F42D1/05 F42D1/04
US: 102/206 102/313 361/248



Family:

Publication number	Publication date	Application number	Application date
AU2012249562 AA	20121101	AU20120249562	20120427
AU2012249562 BB	20161006	AU20120249562	20120427
BR112013027605 A2	20170314	BR20131127605	20120427
CA2834390 AA	20131025	CA20122834390	20120427
CL2013003110 A1	20140808	CL20130003110	20131028
CL53864 B	20170131	CL20130003110	20131028
DE602012012728 D1	20160107	DE201260012728T	20120427
EP2702349 A2	20140305	EP20120776092	20120427
EP2702349 A4	20141029	EP20120776092	20120427
EP2702349 B1	20151125	EP20120776092	20120427
ES2563827 T3	20160316	ES20120776092T	20120427
IN09259DN2013 A	20141219	IN2013DN09259	20131028
JP2014517240 T2	20140717	JP20140508587T	20120427
JP6109814 B2	20170405	JP20140508587T	20120427
KR20140063523 A	20140527	KR20137031723	20120427
PE17792014 A1	20141119	PE20130002421	20120427
RU2013152738 A	20150610	RU20130152738	20120427
RU2608745 C2	20170124	RU20130152738	20120427
SG194664 A1	20131230	SG20130079868	20120427
TR201602246 T4	20160321	TR20160002246T	20120427
US2014053750 AA	20140227	US20120114289	20120427
WO12149277 A2	20121101	WO2012US35397	20120427
WO12149277 A3	20130321	WO2012US35397	20120427

Priority:

US20110480021P 20110428 EP20120776092 20120427 WO2012US35397 20120427
US20120114289 20120427

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Inventor(s): LOWNDS CHARLES MICHAEL SALT LAKE CITY

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; KIRBY EADES GALE BAKER; JOHANSSON AND LANGLOIS LTDA; BRANN AB; SAKAI HIROAKI; AYSEGUEL SENARSLAN; MOLAN ROBERT A

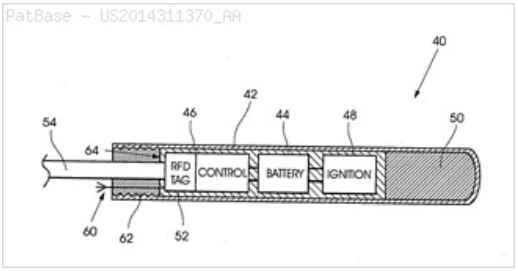
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

3) Family number: 53330182 (US2014311370A)

Title: DETONATOR DEVICE COMMUNICATION

Abstract: A method of communicating with a detonator device using radio frequency identification (RFID) technology to read data from the device, and to transmit information and commands to the device.

Classifications:
International (IPC 8-9): F42C11/00 F42C11/06 F42D F42D1/055 (Advanced/Invention); F42D (Subclass/Invention)
CPC: F42D1/055 F42C11/001 F42C11/065
US: 1/1 102/217



Family:

Publication number	Publication date	Application number	Application date
AU2012311993 AA	20130328	AU20120311993	20120921
AU2012311993 BB	20161027	AU20120311993	20120921
CA2844836 AA	20140210	CA20122844836	20120921
CA2844836 C	20180529	CA20122844836	20120921
DE602012015740 D1	20160428	DE201260015740T	20120921
EP2758748 A1	20140730	EP20120795317	20120921
EP2758748 B1	20160316	EP20120795317	20120921
ES2570202 T3	20160517	ES20120795317T	20120921
TR201605813 T4	20160621	TR20160005813T	20120921
US2014311370 AA	20141023	US20120346475	20120921
US9127921 BB	20150908	US20120346475	20120921
WO13044275 A1	20130328	WO2012ZA00058	20120921
ZA201400900 A	20141126	ZA20140000900	20140206

Priority:

ZA20110006918 20110922 EP20120795317 20120921 WO2012ZA00058 20120921

Probable Assignee: DETNET SOUTH AFRICA PTY LTD

Assignee(s): (std): DETNET SOUTH AFRICA PTY LTD

Assignee(s): KOEKEMOER ANDRE ; MAURISSENS DANIEL AUGUST JULIEN LOUIS ; SCHLENTER CRAIG CHARLES ; DETNET SOUTH AFRICA (PTY) LTD

Inventor(s): (std): KOEKEMOER ANDRE ; MAURISSENS DANIEL AUGUST JULIEN LOUIS ; SCHLENTER CRAIG CHARLES

Inventor(s): ANDRE KOEKEMOER

Agent(s): GRIFFITH HACK; GOWLING LAFLEUR HENDERSON LLP; GOWLING WLG CANADA LLP; PATENTANWAELTE RUFF WILHELM BEIER DAUSTER AND PARTNER MBB; PATENTANWAELTE RUFF WILHELM BEIER DAUSTER AND PARTNER; PATENTANWAELTE RUFF WILHELM BEIER DAUSTER AND PARTNER MBB; CURELL MIREIA; FULYA SUEMERALP; CANTOR COLBURN LLP; MCCALLUM RADEMEYER AND FREIMOND ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

4) Family number: 63994038 (WO16183600A1)

Title: DETONATOR INFORMATION SYSTEM

Abstract: A blasting system in which environmental and installation data prevailing at the time a detonator is loaded into a borehole are stored in the detonator and are made available to an operator before the detonator is fired.

Classifications:
International (IPC 8-9): F42D1/05 F42D3/06 (Advanced/Invention)
CPC: F42D1/05 F42D3/06

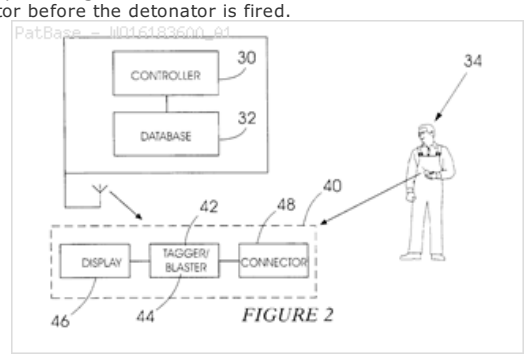


FIGURE 2

Family:

Publication number	Publication date	Application number	Application date
AR104586 AA	20170802	AR2016P101351	20160511
AU2016260872 AA	20161117	AU20160260872	20160504
BR112017018868 A2	20180417	BR20171118868	20160504
CA2978108 AA	20170828	CA20162978108	20160504
CO20170008980 A2	20170911	CO20170008980	20170831
MX2017012686 A1	20180209	MX20170012686	20160504
PE15522017 A1	20171027	PE20170001631	20160504
WO16183600 A1	20161117	WO2016ZA50014	20160504

Priority:

ZA20150003271 20150512 WO2016ZA50014 20160504

Probable Assignee: DETNET SOUTH AFRICA PTY LTD

Assignee(s): (std)**:** DETNET SOUTH AFRICA PTY LTD

Assignee(s): KRUGER MICHIEL JACOBUS ; LIEBENBERG ABRAHAM JOHANNES ; WHYTE ALDAINE

Inventor(s): (std)**:** ABRAHAM JOHANNES LIEBENBERG ; ALDAINE WHYTE ; KRUGER MICHIEL JACOBUS ; LIEBENBERG ABRAHAM JOHANNES ; MICHIEL JACOBUS KRUGER ; WHYTE ALDAINE

Agent(s): PIZZEYS PATENT AND TRADE MARK ATTORNEYS PTY LTD; OYEN WIGGS GREEN AND MUTALA LLP; ALICIA LLOREDA RICAURTE; MCCALLUM RADEMEYER AND FREIMOND ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW