

Europäisches Patentamt European Patent Office Office européen des brevets



(11) **EP 1 076 156 A3**

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3: **27.02.2002 Bulletin 2002/09**

(51) Int Cl.⁷: **E21B 49/08**

(43) Date of publication A2: 14.02.2001 Bulletin 2001/07

(21) Application number: 00306849.1

(22) Date of filing: 10.08.2000

(84) Designated Contracting States:

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU

MC NL PT SE

Designated Extension States: **AL LT LV MK RO SI**

(30) Priority: 13.08.1999 US 374184

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(54) Early evaluation system for a cased wellbore

(57)An early evaluation system for use in a cased wellbore (12) is disclosed. An apparatus (10) comprises: a tool string (18); a perforating gun (20) on a lower end of the tool string (18); a packer (24), carried on the tool string (18), having a set position for sealingly closing a well annulus between the tool string (18) and the cased wellbore (12); a control valve (26) disposed in the tool string (18) operably controlling fluid flow therethrough; a sampler (28) disposed in the tool string (18) and in communication with the control valve (26); and a locating device (36) disposed within the tool string (18) for selectively positioning the tool string (18) adjacent to a formation (16). When the tool string (18) is positioned adjacent the formation (16), the packer (24) is set and the control valve (26) is in communication with the formation (16), and formation fluid will flow from the formation (16) into the sampler (28) after opening the control valve (26).

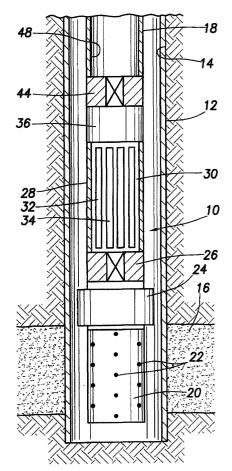


FIG. 1



EUROPEAN SEARCH REPORT

Application Number EP 00 30 6849

Category	Citation of document with in	Relevant	CLASSIFICATION OF THE		
Y	column 12, line 3 column 12, line 3 figures 1-5 *	DRILL INT SA CES PETROL (FR)) -04-12) -11 * 2 - column 11, line 11	1-4,6-10	E21B49/08	(mt.cl./)
Υ	US 4 597 439 A (MEE 1 July 1986 (1986-0		1-4,6-10		
Y	US 4 915 171 A (MCM 10 April 1990 (1990 * column 8, line 32 * column 9, line 38 * column 10, line 2 * column 10, line 3	-04-10) -39 * -40 * 3-25 *	2	TECHNICAL FI	ELDS (Int.Cl.7)
Y	US 4 665 983 A (RIN 19 May 1987 (1987-0 * abstract *		3	E21B	(IIII)
Υ	EP 0 697 500 A (HAL 21 February 1996 (1 * column 16, line 5 * figures 8B,C *	 LIBURTON CO) 996-02-21) 5 - column 17, line 5 *	4,9,10		
Υ	US 5 103 912 A (FLI 14 April 1992 (1992 * column 6, line 63	-04-14)	8		
Α	EP 0 295 923 A (HAL 21 December 1988 (1 * the whole documen	988-12-21)	1		
	The present search report has	been drawn up for all claims	-		
	Place of search	1	Examiner		
	THE HAGUE	Schouten, A			
X : part Y : part doca A : tech O : non	ATEGORY OF CITED DOCUMENTS icularly relevant if taken alone icularly relevant if combined with anot unent of the same category inological background—written disclosure rmediate document	L : document cited for	cument, but publis e n the application or other reasons	shed on, or	•••••

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 00 30 6849

This annex lists the patent family members relating to the patent documents cited in the above—mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

07-01-2002

	Patent docume cited in search re		Publication date		Patent fam member(s		Publicatio date
EP	0647767	A	12-04-1995	CA	2131595	A1	13-04-199
				EP	0647767		12-04-199
US	4597439	Α	01-07-1986	CA	1264656		23-01-199
				EP	0210110		28-01-198
				MX	173343		21-02-199
				NO	862826	A ,B,	27-01-198
US	4915171	Α	10-04-1990	AU	643932		25-11-199
				AU	2634392		14-01-199
				AU	631810		10-12-199
				AU	4177589		31-05-199
				CA	1318241		25-05-199
				DE	68927666		27-02-199
				DE	68927666		07-05-199
				EP	0370652		30-05-199
			na cuan crein wein 1800 1800 (quan quan mina: cares milito 4001 4001) dility a	NO	174753	B 	21-03-199
US	4665983	Α	19-05-1987	AU	584789	B2	01-06-198
				AU	7073487	Α	08-10-198
				CA	1270753		26-06-199
				DE	3774469		19-12-199
				EP	0241196		14-10-198
				ES	2026905		16-05-199
				NO	871372		05-10-198
				SG	17892		16-04-199
EP	0697500	A	21-02-1996	US	5555945		17-09-199
				CA	2155917	A1	16-02-199
				EP	0697500	A2	21-02-199
US	5103912	Α	14-04-1992	NONE			
EP	0295923	Α	21-12-1988	US	4787447		29-11-198
				AU	601046		30-08-199
				AU	1733688		22-12-198
				CA	1289463		24-09-199
				DE	3852785		02-03-199
				DE	3852785		18-05-199
				EP	0295923		21-12-198
			10 May 200 May 1871 May 1882 May 1880 May 1887 May 1888 May 1	NO	882694 	A 	20-12-198
	1-1-10	00000	e Official Journal of the I	Euroneen D	ntant Office No.	10/00	