Company	LARAMIE ENERGY II
Well	REPPO 34-15B
Field	GRAND VALLEY
County	GARFIELD State CO

HALLIBURTON

ACOUSTIC CEMENT BOND LOG

Company	LARAMIE ENERGY II		
Well	REPPO 34-15B		
Field	GRAND VALLEY		
County	GARFIELD	State	CO

API No.: 05045185290000 Serv #: 7042365

Location: SURFACE HOLE:
0550' FSL & 2596' FEL
BOTTOM HOLE:
0884' FSL & 1973' FWL

Other Services
TEMP
RMT

Sec: 34 Twp: 07S Rge: 96W

Permanent Datum	GROUND LEVEL	Elevation	5155'
Log Measured From	K.B. 21 Ft. above perm. datum		
Drilling Measured From	K.B.		

Elevation
K.B. 5176'
D.F. ---
G.L. 5155'

Date @ Time Logged	04/DEC/09 @ 0915 HRS	Type Fluid in Hole	WATER
Run No.	ONE	Density of Fluid	8.34 PPG
Depth - Driller	5068'	Fluid Level	FULL
Depth - Logger	5004'	Cement Top Est. Logged	LOGGED
Bottom - Logged Interval	5000'	Equipment / Location	10549604 / GJ
Top - Log Interval	SURFACE	Recorded by	A. LINTEL
Max. Recorded Temp.	182 F	Witnessed by	N/A

CEMENTING DATA	Surface String	Protection String	Production String	Liner
Date / Time Cemented				
Primary / Squeeze				
Expected Compressive Strength	psi@ hrs	psi@ hrs	psi@ hrs	psi@ hrs
Cement Volume				
Cement Type / Weight	/	/	/	/
Formulation				
Mud Type / Mud Wgt.	/	/	/	/

Borehole Record				Casing & Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
ONE	26"	SURFACE	40'	16"	N/A	SURFACE	40'
TWO	12.5"	40'	800'	8.625"	32#	SURFACE	800'
THREE	7.875"	800'	5068'	4.5"	11.6#	SURFACE	5068'

<<< Fold Here >>>

HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHCIH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.

Comments

GR-CCL-CBL RAN IN COMBINATION

HES CBL LOG DATED 04/DEC/2009 IS THE PRIMARY LOG FOR THIS WELL

LOGGED INTERVALS PER CUSTOMER REQUEST

NO SUFFICIENT PLACE FOR CALIBRATION, USED CALIBRATION FROM PREVIOUS WELL

SHORT JOINTS LOCATED @ 1750' - 1772' & 3958' - 3980'

THANK YOU FOR USING HALLIBURTON ENERGY SERVICES GRAND JUNCTION, CO

Service Ticket No. 7042365 API No. 05045185290000 PGM Ver WARRIOR 7.0

The Well Name, Location, Borehole Description, and / or Cementing Data Furnished by Client

EQUIPMENT DATA

CBL		GR					
Run No.	ONE	Run No.	ONE	Run No.		Run No.	
Serial No.	080544	Serial No.	061017	Serial No.		Serial No.	
Model No.	CBL-PROBE	Model No.	GR-PROBE	Model No.		Model No.	
Diameter	2.75"	Diameter	2.75"	Diameter		Diameter	

LOGGING DATA

General Data

Pass	Depths		Well Head	Speed	Logging Run Comments
No.	From	To	Pressure	Ft/Min	
ONE	5004'	SURFACE	0 PSI	65	MAIN SECTION

Pass	GAMMA RAY		CCL		AMPLITUDE			
	Scale		Scale		Scale		Scale	
No.	L	R	L	R	L	R	L	L
ONE	0	200	9	-1	0	100		

DIRECTIONAL INFORMATION

Maximum Deviation		deg. @		KOP	

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MAIN SECTION

5" = 100'

Database File: reppo_34_15b_cbl.db
Dataset Pathname: MAINF1
Presentation Format: cbl_main
Dataset Creation: Fri Dec 04 17:34:16 2009
Charted by: Depth in Feet scaled 1:240

450 TRAVEL TIME (usec) 250	LTEN	0 AMP AMPLITUDE (mV) 10	200 MSG 1200	
9 Collar Locator -1	0 (lb) 4500	0 AMPLITUDE (mV) 100		
0 Gamma Ray (GAPI) 200				

450 TRAVEL TIME (usec) 250	LTEN	0 AMP AMPLITUDE (mV) 10	200 MSG 1200	
9 Collar Locator -1	0 (lb 4500	0 AMPLITUDE (mV) 100		
0 Gamma Ray (GAPI) 200				

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MAIN SECTION

5" = 100'

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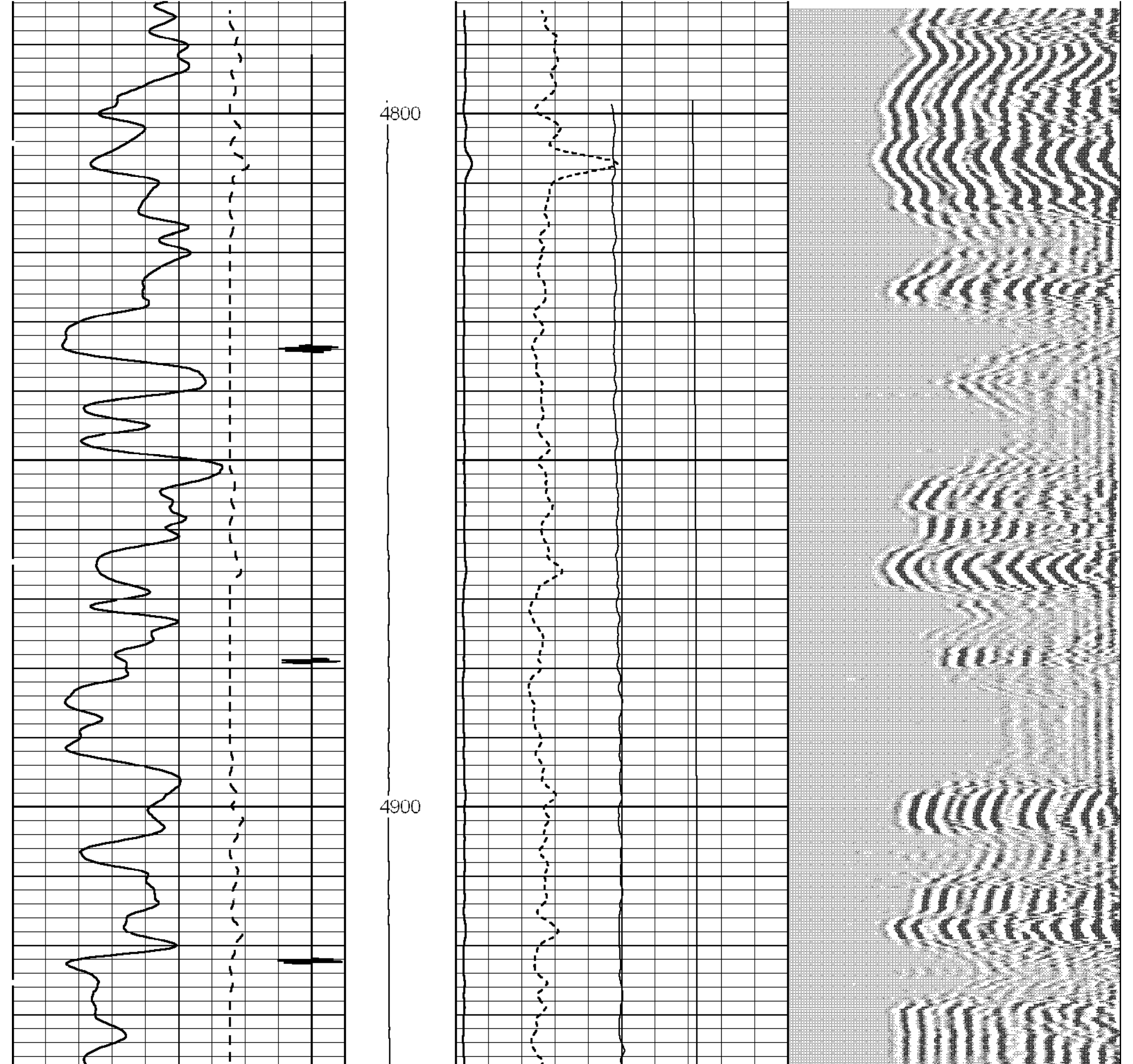
REPEAT SECTION

5" = 100'

Database File: reppo_34_15b_cbl.db
Dataset Pathname: REPTF1
Presentation Format: cbl_temp
Dataset Creation: Fri Dec 04 17:36:35 2009
Charted by: Depth in Feet scaled 1:240

443 TRAVEL TIME (usec) 243	LTEN	0 AMP AMPLITUDE (mV) 10	200 MSG 1200
9 Collar Locator -1	0 (lb 3000	0 AMPLITUDE (mV) 100	
0 Gamma Ray (GAPI) 200		0 TEMP (degF) 250	
		1 DTMP (degF) -1	



443 TRAVEL TIME (usec) 243	LTEN	0 AMP AMPLITUDE (mV) 10	200 MSG 1200
9 Collar Locator -1	0 (lb 3000	0 AMPLITUDE (mV) 100	
0 Gamma Ray (GAPI) 200		0 TEMP (degF) 250	
		1 DTMP (degF) -1	

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REPEAT SECTION

5" = 100'

Calibration Report

Database File: reppo_34_15b_cbl.db
Dataset Pathname: MAIN1
Dataset Creation: Fri Dec 04 09:24:10 2009 by Log Halliburton Casedho

Temperature Calibration Report

Serial Number: 080951
Tool Model: 1.375TEMP
Performed: Mon Nov 09 20:15:17 2009

	Reference		Reading	
Low Reference:	0.00	degF	0.00	cps
High Reference:	1.00	degF	10.00	cps

Gain: 0.10
Offset: 0.00
Delta Spacing 1

Gamma Ray Calibration Report

Type / Serial: Probe / 061017

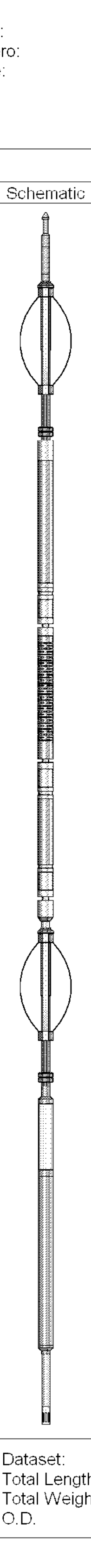
	Counts/Sec.	Gain	Offset	Jig	Units
SHOP CALIBRATION	Fri Dec 04 07:50:09 2009				
Background	55.2				cps
Calibrator	233.0				cps
		1.1925			GAPI/cps
PRIMARY VERIFICATION	Fri Dec 04 07:52:41 2009				
Background	69.0				cps
Calibrator	276.3				cps
Difference				207.3	GAPI
BEFORE SURVEY VERIFICATION					
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI
AFTER SURVEY VERIFICATION					
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

Cement Bond Log Calibration Report

Serial Number: 080544
Tool Model: Probe
Performed: Wed Dec 02 09:43:57 2009

Depth: 723.757 ft
Casing Diameter: 4.5 in

	3' Spacing	5' Spacing	
Signal Zero:	2	2	mV
Calibrated Amplitude:	82	82	mV
Reading at Signal Zero:	0.00180664	0.000634766	V
Reading in Free Pipe:	1.13535	0.959253	V
Gain:	70.5751	83.4535	
Offset:	1.8725	1.94703	

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			STND_CH 1.4375 IN CABLE HEAD	1.25	1.44	1.00
			CENT-Probe (PT_MONO2)	2.88	2.75	35.00
WVF3 WVF5	13.15 12.15		CBL-Probe (080544) Probe 2.75" Dual Receiver Bond	8.79	2.75	118.00
			CENT-Probe (PT_MONO2)	2.88	2.75	35.00
CCL GR	5.17 3.79		GR-Probe (061017) Probe 2.75" 4 Channel Pulse	4.83	2.75	60.00
TEMP LLMTEN	0.13 0.00		TEMP-1.375TEMP (080951) Temperature Tool	1.25	1.38	5.00

Dataset: reppo_34_15b_cbl.db: field/well/run1/MAIN1
Total Length: 21.88 ft
Total Weight: 254.00 lb
O.D. 2.75 in

Company	LARAMIE ENERGY II
Well	REPPO 34-15B
Field	GRAND VALLEY
County	GARFIELD
State	CO

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ACOUSTIC CEMENT BOND LOG