Company	Encana Oil & Gas (USA) Inc
Well	Shaffer Newman 1-8-13
Field	Wattenberg
County	Weld
State	Colorado

HALLIBURTON

Cement Bond Log
Gamma Ray
CCL

Scale 1:240

Company	Encana Oil & Gas (USA) Inc
Well	Shaffer Newman 1-8-13
Field	Wattenberg
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API No.: 05013065820000 Serv #:
Location: SHL: 462' FSL & 864' FWL SW SW
BHL: 12' FSL & 749' FWL SW SW

Other Services: None

Sec: 13 Twp: 1N Rge: 69W

Permanent Datum	GL	Elevation 5111	Elevation	
Log Measured From	KB	15 Ft. above perm. datum	K.B.	5126
Drilling Measured From	KB		D.F.	5125
			G.L.	5111

Date @ Time Logged	24-Apr-09	Type Fluid in Hole	Water
Run No.	One	Density of Fluid	8.4
Depth - Driller	8490	Fluid Level	Surface
Depth - Logger	8434	Cement Top Est. Logged	6190
Bottom - Logged Interval	8432	Equipment / Location	10842980 / Brighton
Top - Log Interval	5932	Recorded by	Michael Snyder
Max. Recorded Temp.	NA	Witnessed by	Tom Cobb

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			340 Sacks	
Cement Type / Weight	/	/	1.69 Y / 13.5 PPG	/
Formulation				
Mud Type / Mud Wgt	/	/	/	/

Borehole Record			Casing & Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
One				N-80 4.5	11.6	Surface	TD

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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

Cement Bond Log was correlated to PSI Open Hole Log dated 4-Apr-09
Thank you for choosing Halliburton!

Your Crew Today: Michael Snyder, Jake Walker, Greg Lueck

HALLIBURTON

Short Joint Pass

Scale 1:240

Database File: encana_shaffer_newman1-8-13.db
Dataset Pathname: pass4
Presentation Format: mikecbl
Dataset Creation: Fri Apr 24 12:21:42 2009 by Log Halliburton Casedho
Charted by: Depth in Feet scaled 1:240

HALLIBURTON

Short Joint Pass

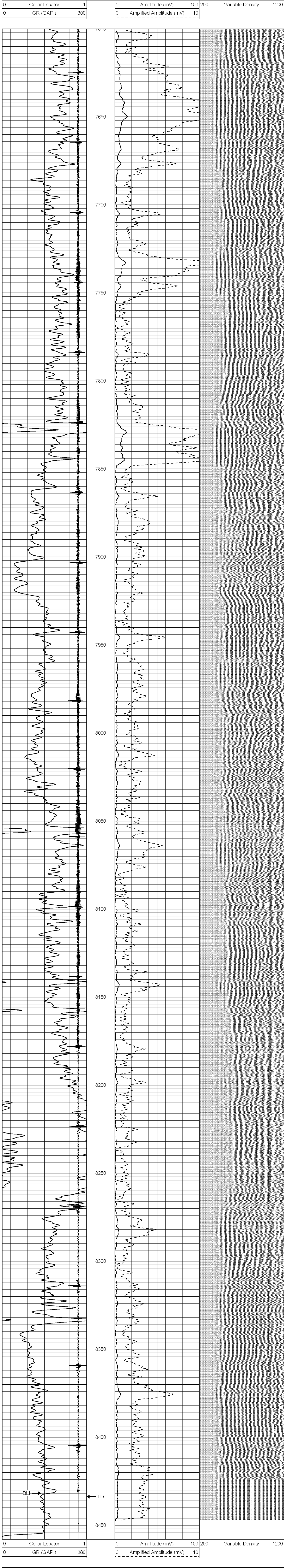
Scale 1:240

HALLIBURTON

Main Pass

Scale 1:240

Database File: encana_shaffer_newman1-8-13.db
Dataset Pathname: bottom
Presentation Format: mikecbl
Dataset Creation: Fri Apr 24 13:51:00 2009
Charted by: Depth in Feet scaled 1:240



HALLIBURTON

Main Pass

Scale 1:240

Log Variables

Database:C:\Warrior\Data\encana_shaffer_newman1-8-13.db
Dataset: field/well/run1/pass4

Top - Bottom

PPT usec	CASEWGHT lb/ft	MAXAMPL mV	MINAMPL mV	MINATTN db/ft	CASEOD in	PERFS	TDEPTH ft
0	11.5	81.196	0	0.8	4.5	0	0

BOTTEMP degF	BOREID in
100	7.875

Calibration Report

Database File: encana_shaffer_newman1-8-13.db
Dataset Pathname: pass4
Dataset Creation: Fri Apr 24 12:21:42 2009 by Log Halliburton Casedho

Gamma Ray Calibration Report

Type / Serial: probe275dig / pr050806

	Counts/Sec.	Gain	Offset	Jig	Units
SHOP CALIBRATION	Tue Jun 17 11:06:25 2008				
Background	116.4				cps
Calibrator	481.8				cps
		1.3000			GAPI/cps
PRIMARY VERIFICATION	Fri May 18 10:14:11 2007				
Background	77.7				cps
Calibrator	320.3				cps
Difference				242.6	GAPI
BEFORE SURVEY VERIFICATION	Fri May 18 10:17:30 2007				
Background	76.6				cps
Calibrator	320.4				cps
Difference				243.9	GAPI
AFTER SURVEY VERIFICATION					
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

CBL Calibration Report

Serial Number:	040201	
Tool Model:	PRB275_Dig	
Performed:	Fri Apr 24 11:51:52 2009	
Depth:	397.135	ft
Casing Diameter:	5.500	in
	3' Spacing	
Signal Zero:	1.500	mV
Calibrated Amplitude:	81.196	mV
Reading at Signal Zero:	0.011	V
Reading in Free Pipe:	1.114	V
Gain:	72.236	
Offset:	0.739	

Temperature Calibration Report

Serial Number: 040201
Tool Model: PRB275_Dig
Performed: Sat Oct 27 12:52:34 2007

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

Gain: 0.10
Offset: 0.00
Delta Spacing 1

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Cement Bond Log
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CCL
Scale 1:240