NABORS
COMPLETION & PRODUCTION SERVICES CO.

GAMMA RAY CCL CEMENT BOND VDL

Company	ENCANA OIL & GAS (USA) INC.
Well	GRANT BROTHERS C UNIT #1
Field	WATTENBERG
County	WELD
State	COLORADO

Company ENCANA OIL & GAS (USA) INC.
Well GRANT BROTHERS C UNIT #1
Field WATTENBERG
County WELD State COLORADO
Location: API #: 0512310536
1120' FNL & N1490' FWL
NE/NW
SEC 11 TWP 2N RGE 68W

Other Services

			Elevation
Permanent Datum	GL	Elevation 4853	K.B. 4864
Log Measured From	KB		D.F.
Drilling Measured From	KB		G.L. 4853

Date	DECEMBER 12, 2014
Run Number	ONE
Depth Driller	7902
Depth Logger	7730
Bottom Logged Interval	7730
Top Log Interval	SURFACE
Open Hole Size	7-7/8
Type Fluid	WATER
Density / Viscosity	N/A
Max. Recorded Temp.	263°F
Estimated Cement Top	6850
Time Well Ready	BASIC RIG
Time Logger on Bottom	2-3/4 PROBE
Equipment Number	4838
Location	45
Recorded By	GREG NOLAN
Witnessed By	JACK RUSSELL

Borehole Record				Tubing Record		
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	8-5/8	24#	0	531
Prot. String				
Production String	4-1/2	11.6#	0	7902
Liner				

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

THANK YOU FOR CHOOSING NCPS!!!!
LOG NOT CORRELATED

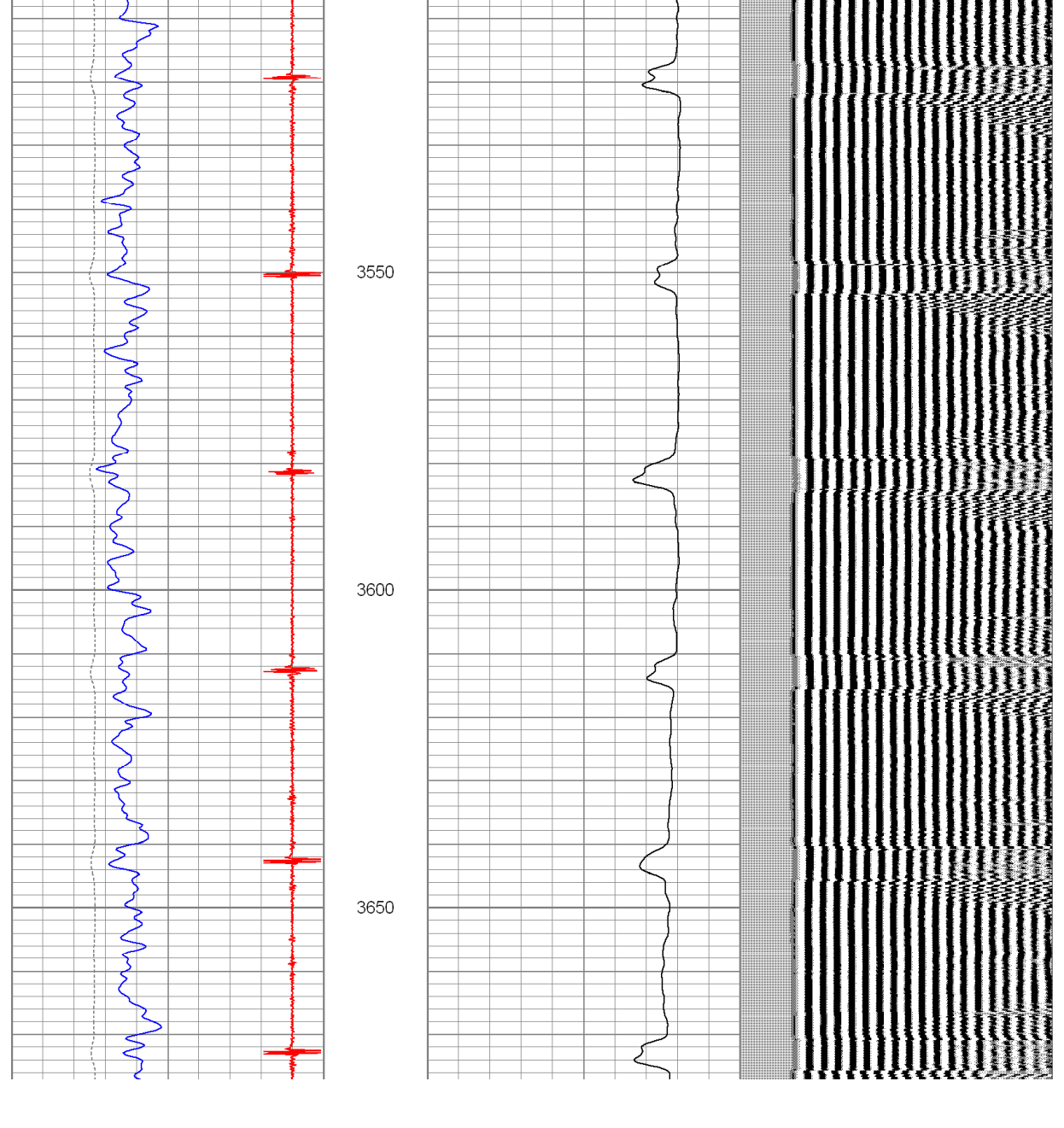
Database File: cbl encana grant brothers c unit 1.db
Dataset Pathname: pass5
Presentation Format: noble en
Dataset Creation: Wed Dec 10 16:22:40 2014 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240

50	CCL	-5.5	0	Amplified Amplitude (mV)	30	200 Variable Density 1200
0	Gamma Ray (GAPI)	130	0	Amplitude (mV)	100	
400	TT3 (usec)	0				

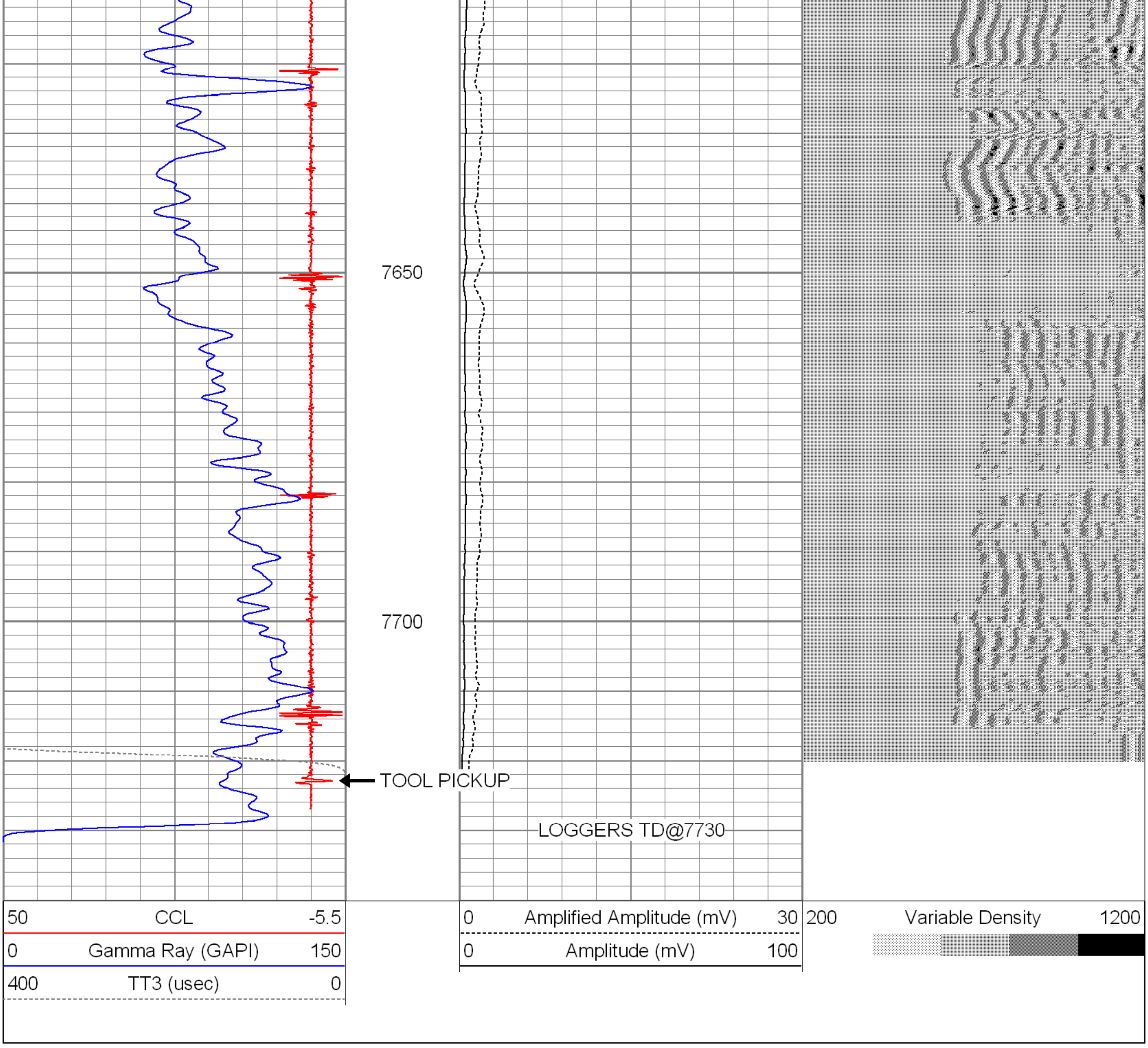
50	CCL	-5.5	0	Amplified Amplitude (mV)	30	200 Variable Density 1200
0	Gamma Ray (GAPI)	130	0	Amplitude (mV)	100	
400	TT3 (usec)	0				

Database File: cbl encana grant brothers c unit 1.db
Dataset Pathname: pass4
Presentation Format: noble en
Dataset Creation: Wed Dec 10 14:57:09 2014 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240

50	CCL	-5.5	0	Amplified Amplitude (mV)	30	200 Variable Density 1200
0	Gamma Ray (GAPI)	150	0	Amplitude (mV)	100	
400	TT3 (usec)	0				



Database File: cbl encana grant brothers c unit 1.db
Dataset Pathname: pass3
Presentation Format: noble en
Dataset Creation: Wed Dec 10 14:24:41 2014 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240



Calibration Report

Database File: cbl encana grant brothers c unit 1.db
Dataset Pathname: pass3
Dataset Creation: Wed Dec 10 14:24:41 2014 by Log SCH 120430

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 110785

SHOP CALIBRATION Fri Nov 08 09:38:30 2013

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0				cps
		0.4400			GAPI/cps

PRIMARY VERIFICATION

Background	0.0		cps
Calibrator	0.0		cps
Difference		0.0	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: 110802
Tool Model: Probe275Digital
Performed: Wed Dec 10 14:15:14 2014

Depth: 5789.68 ft
Casing Diameter: 4.5 in

	3' Spacing	5' Spacing	
Signal Zero:	0.7	0	mV
Calibrated Amplitude:	81.1961	81.1961	mV
Reading at Signal Zero:	-0.00581055	-0.00524902	V
Reading in Free Pipe:	2.49878	2.37864	V
Gain:	32.1394	34.0604	
Offset:	0.886748	0.178784	