SUPERIOR WELL SERVICES

CEMENT BOND LOG
GAMMA RAY C C L
V D L

Company	Noble Energy INC.
Well	IRENE G30-63-1HN
Field	Wattenberg
County	Weld
State	Colorado

Company Noble Energy INC.
Well IRENE G30-63-1HN
Field Wattenberg
County Weld State Colorado

Location: API #: 05123348150000
BHL: 990' FSL & 535' FEL
SEC 25 TWP 4N RGE 66W

Other Services

Permanent Datum GL Elevation 4802
Log Measured From KB 24'
Drilling Measured From KB

Elevation
K.B. 4826
D.F. 4825
G.L. 4802

Date	July 19, 2012	
Run Number	One	
Depth Driller	11,653	
Depth Logger	7329	
Bottom Logged Interval	7328	
Top Log Interval	Surface	
Casing Size	7.0"	
Type Fluid	Water	
Max. Recorded Temp.	233 deg F	
Estimated Cement Top	973 est.	
Time Well Ready	Crane	
Time Logger On Bottom	AM	
Unit Number	4367	4515
Tool Size / ID Number	2.75 Probe 110802	2.75 Probe 101010
Location	45	
Recorded By	K. Monaghan	
Witnessed By	E. Klem	

Borehole Record

Run Number	Bit	From	To

Tubing Record

Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	9 5/8"	36 lb/ft J-55	Surface	632.4
Prot. String	8 5/8"	26 lb/ft P-110	Surface	7443
Production String				
Liner	4 1/2"	11.6 lb/ft P-110	7329.7	11,643

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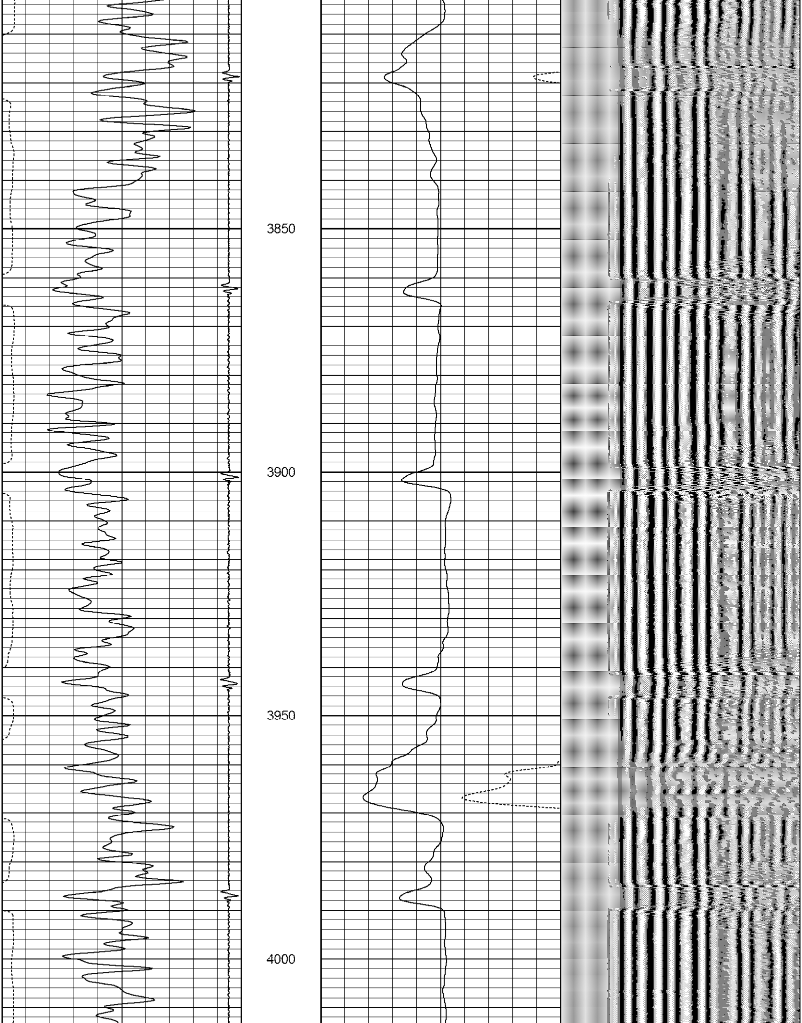
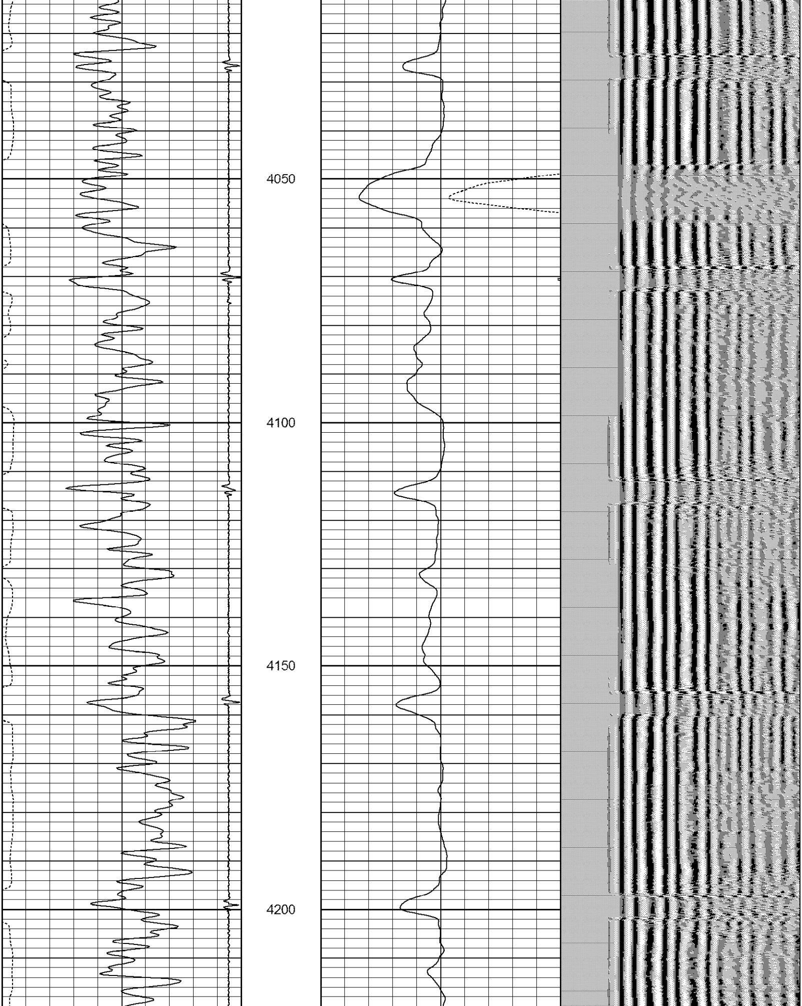
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

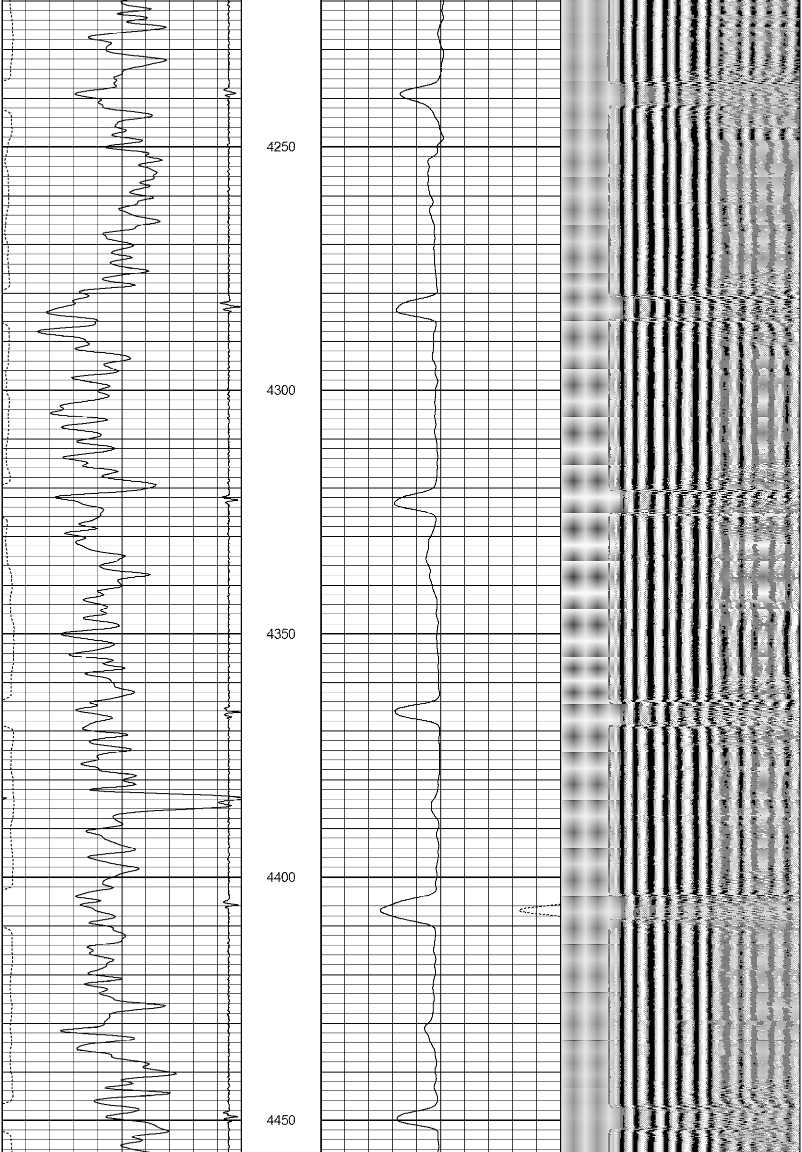
Comments

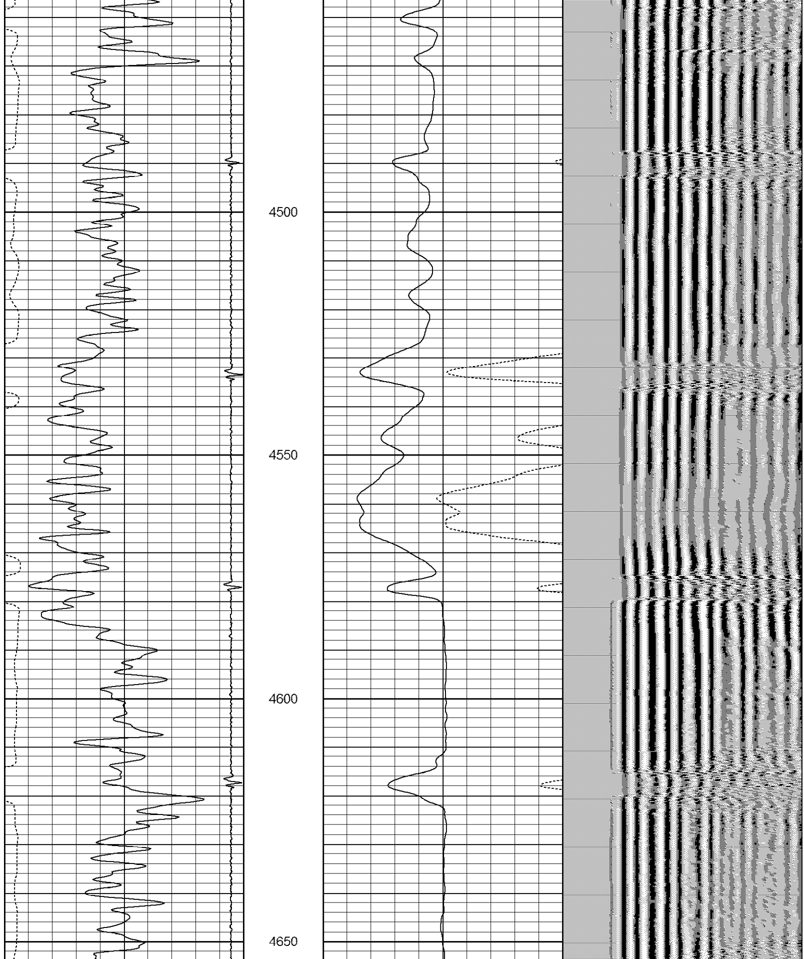
Thank You For Choosing Superior Well Services!!!
API# 05-123-34815-0000
Wireline Zero @ 24' KB
Directions: 37 & 40, N 1/10, W Then NE Into
(Second Well From South on 4 Well Pad)

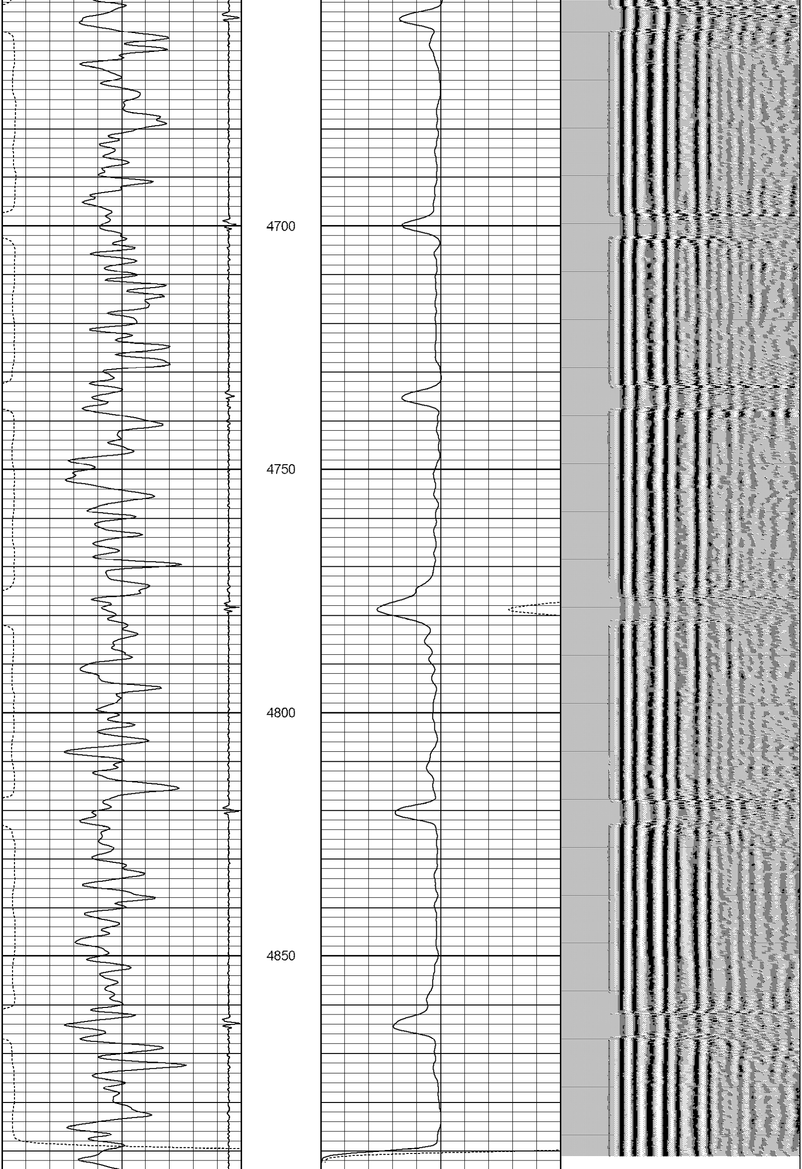
Database File: cblirene g30-63-1hn.db
Dataset Pathname: pass3
Presentation Format: noble en
Dataset Creation: Thu Jul 19 10:29:39 2012 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240











130	CCL	-7
30	Gamma Ray (GAPI)	130
340	TT3 (usec)	240

0	Amplified Amplitude (mV)	30
0	Amplitude (mV)	100

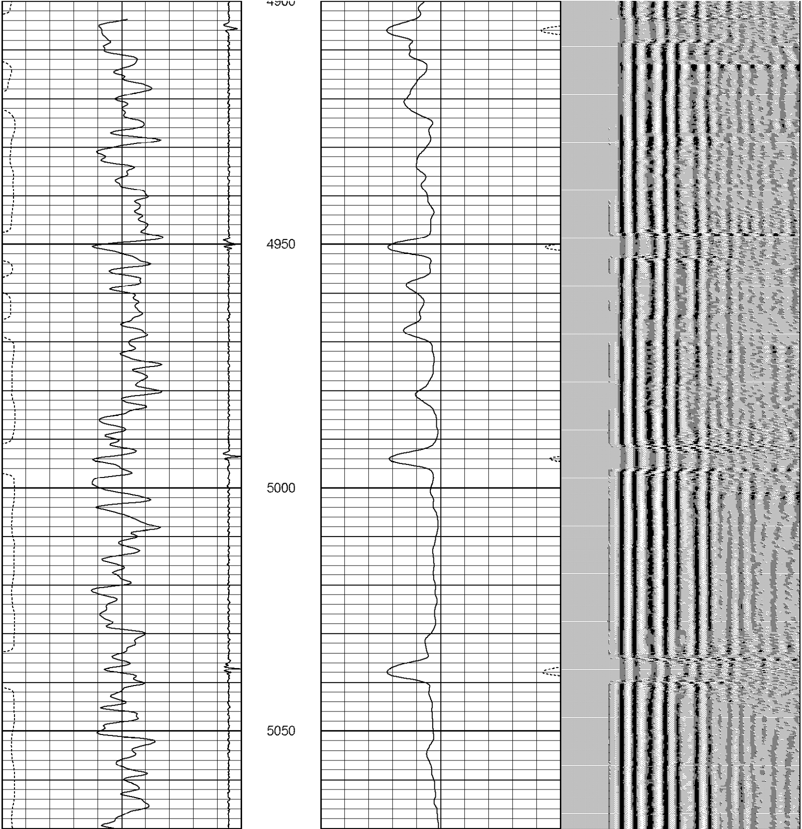
200	Variable Density	1200

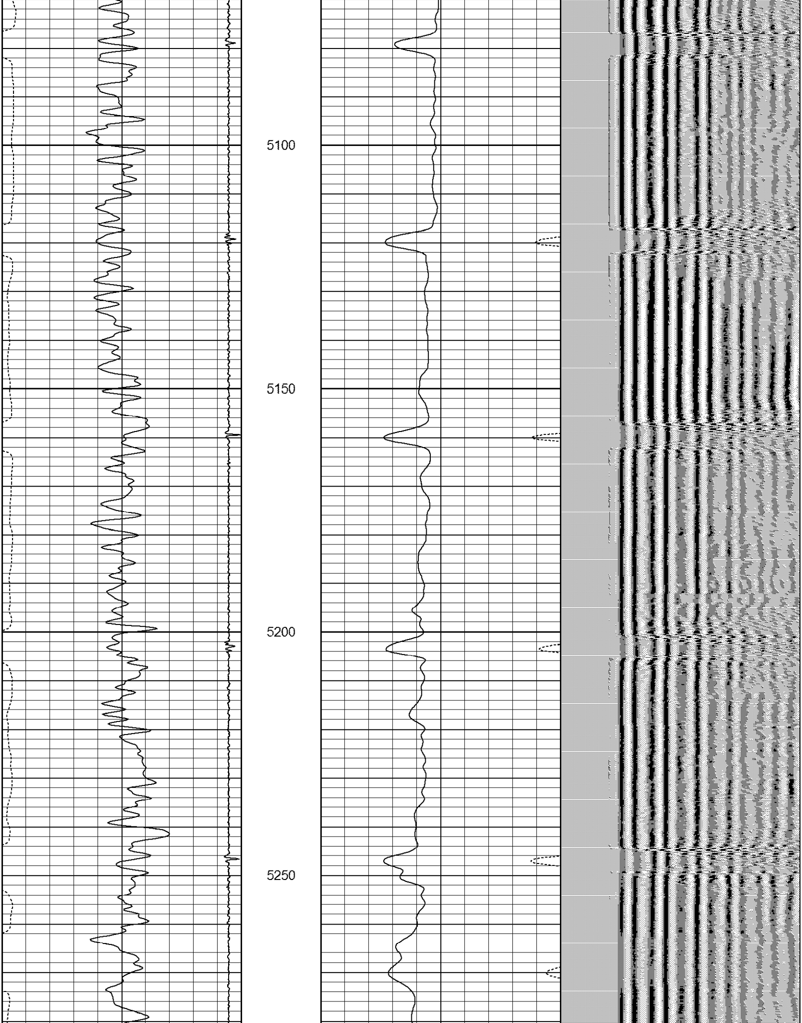
Database File: cblirene g30-63-1hn.db
Dataset Pathname: pass2
Presentation Format: noble en
Dataset Creation: Thu Jul 19 10:09:01 2012 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240

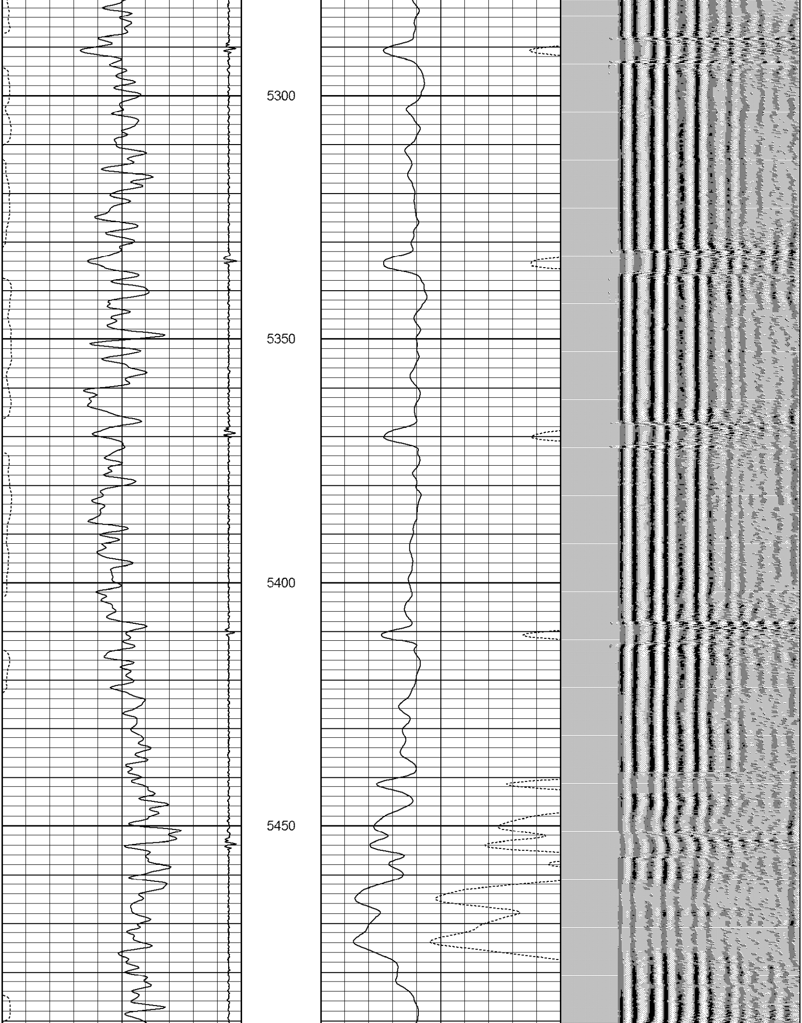
130	CCL	-7
0	Gamma Ray (GAPI)	150
340	TT3 (usec)	240

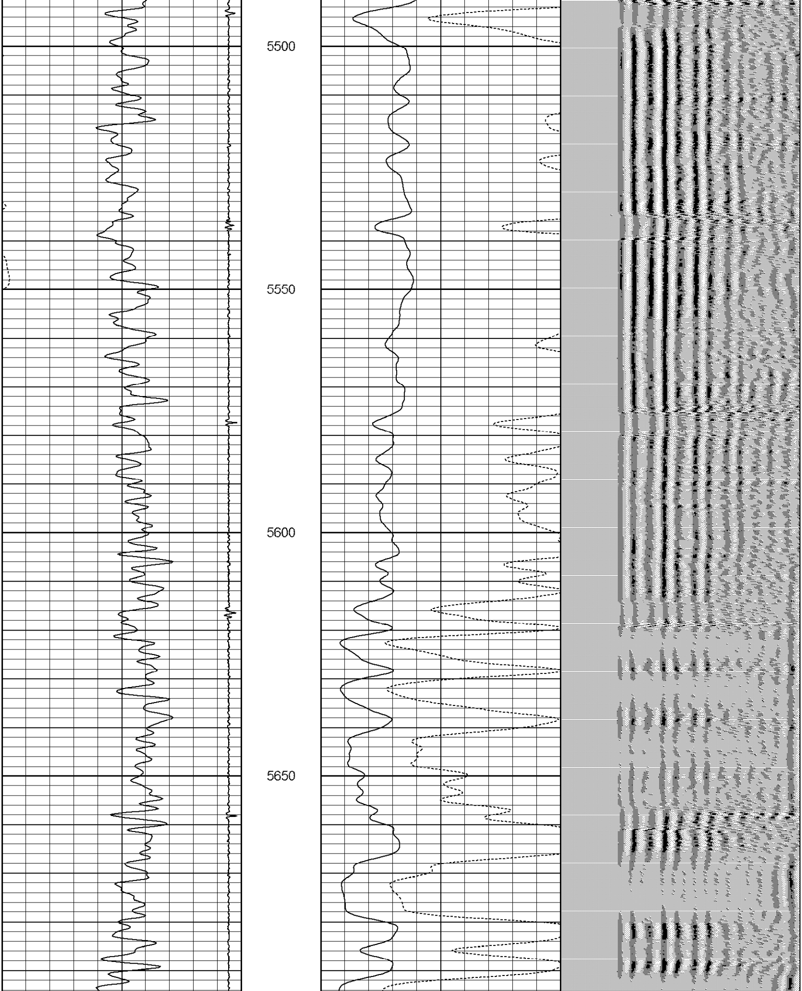
0	Amplified Amplitude (mV)	30
0	Amplitude (mV)	100

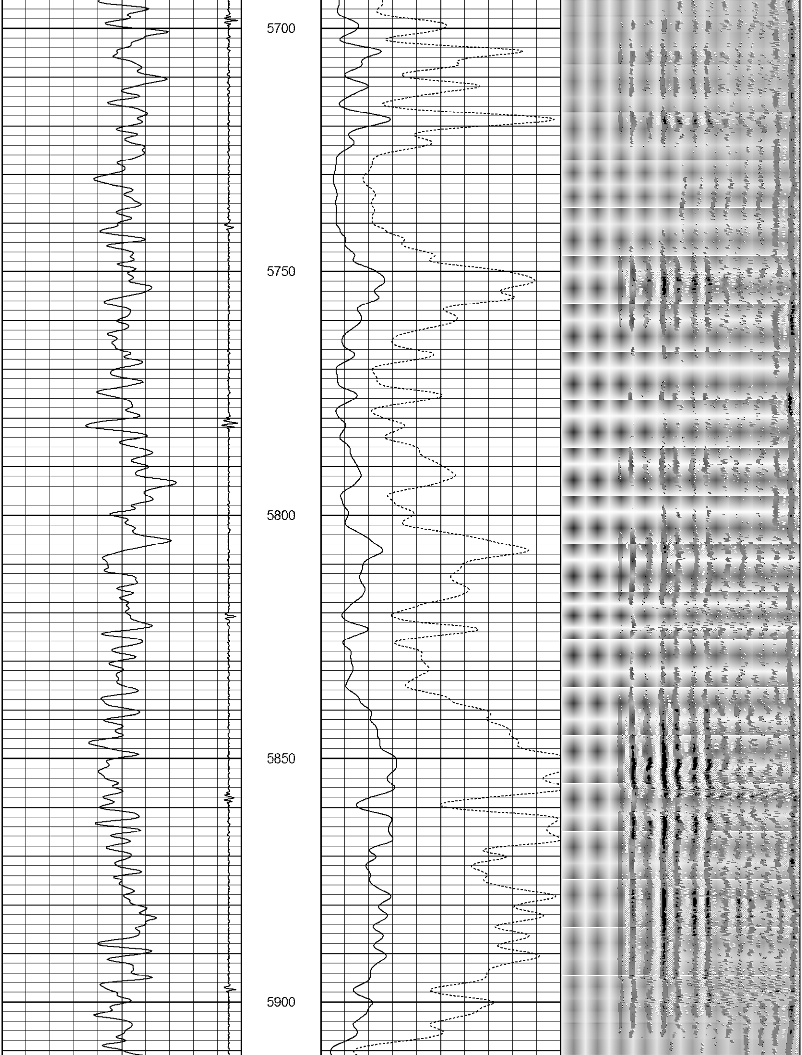
200	Variable Density	1200

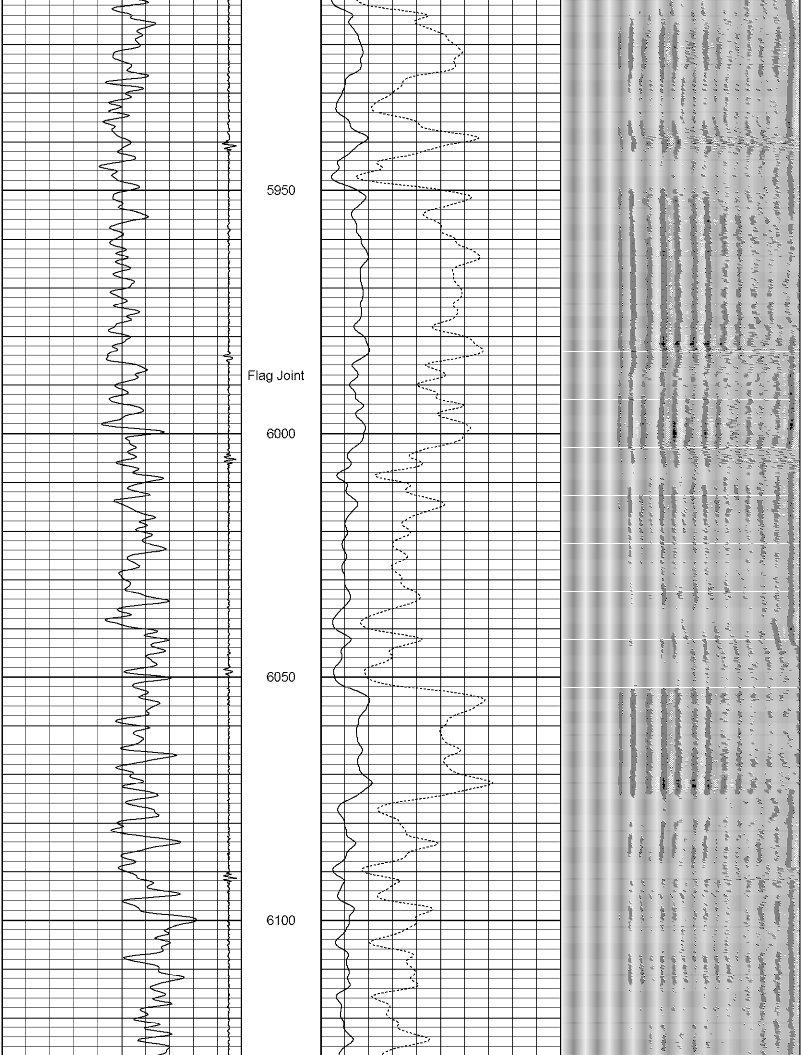


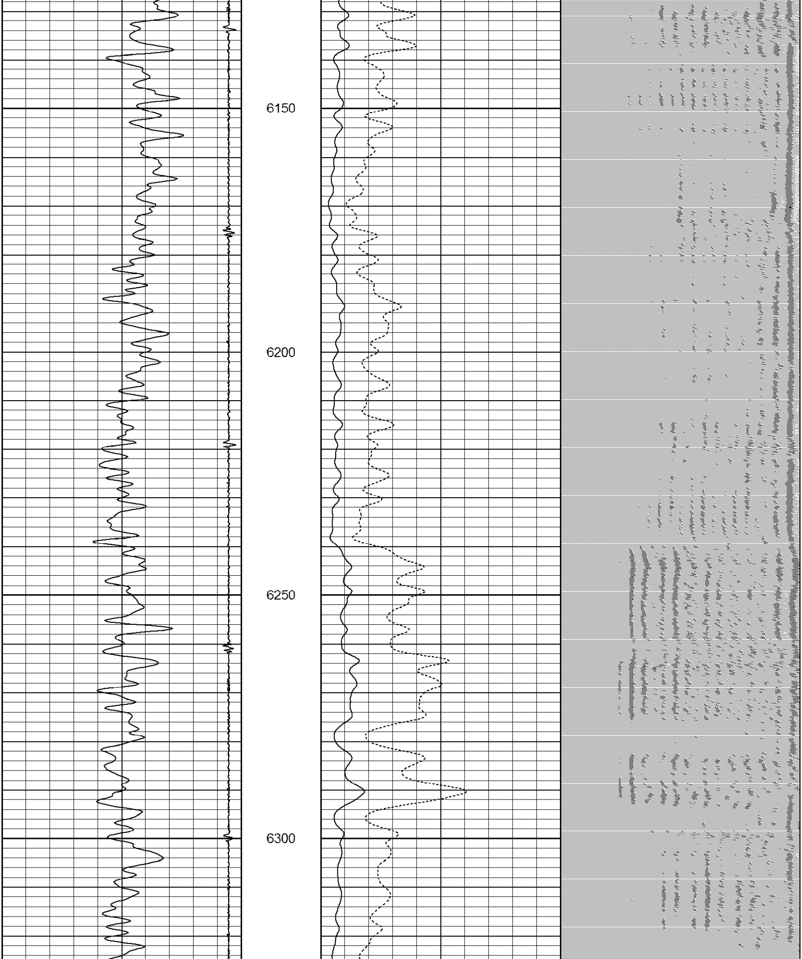


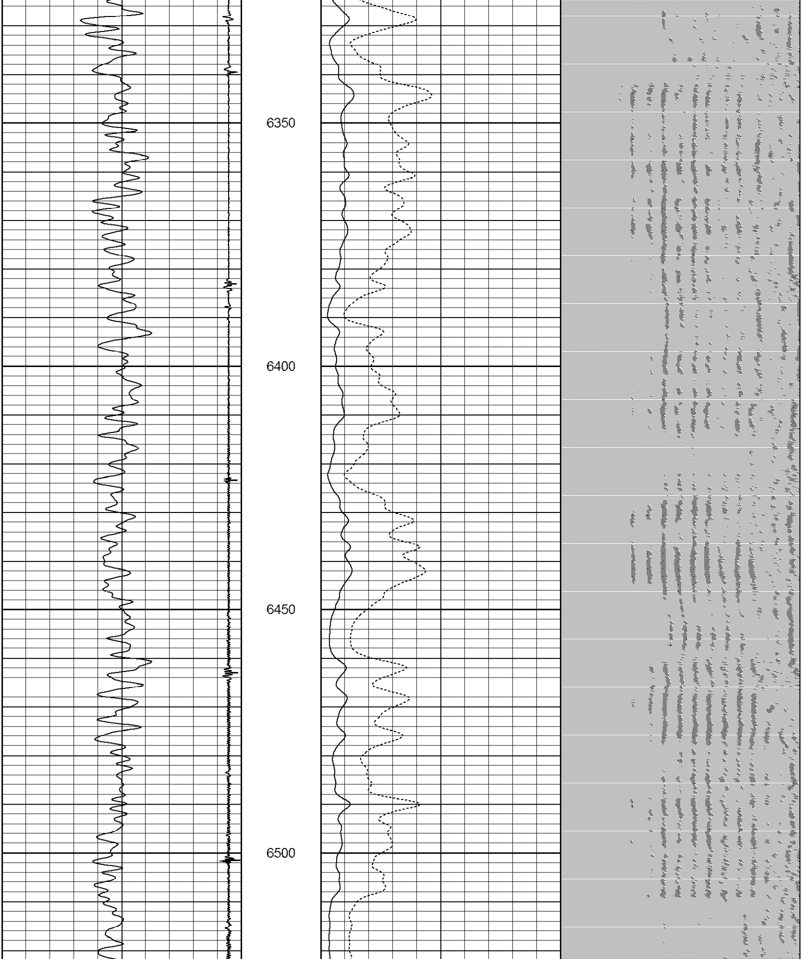


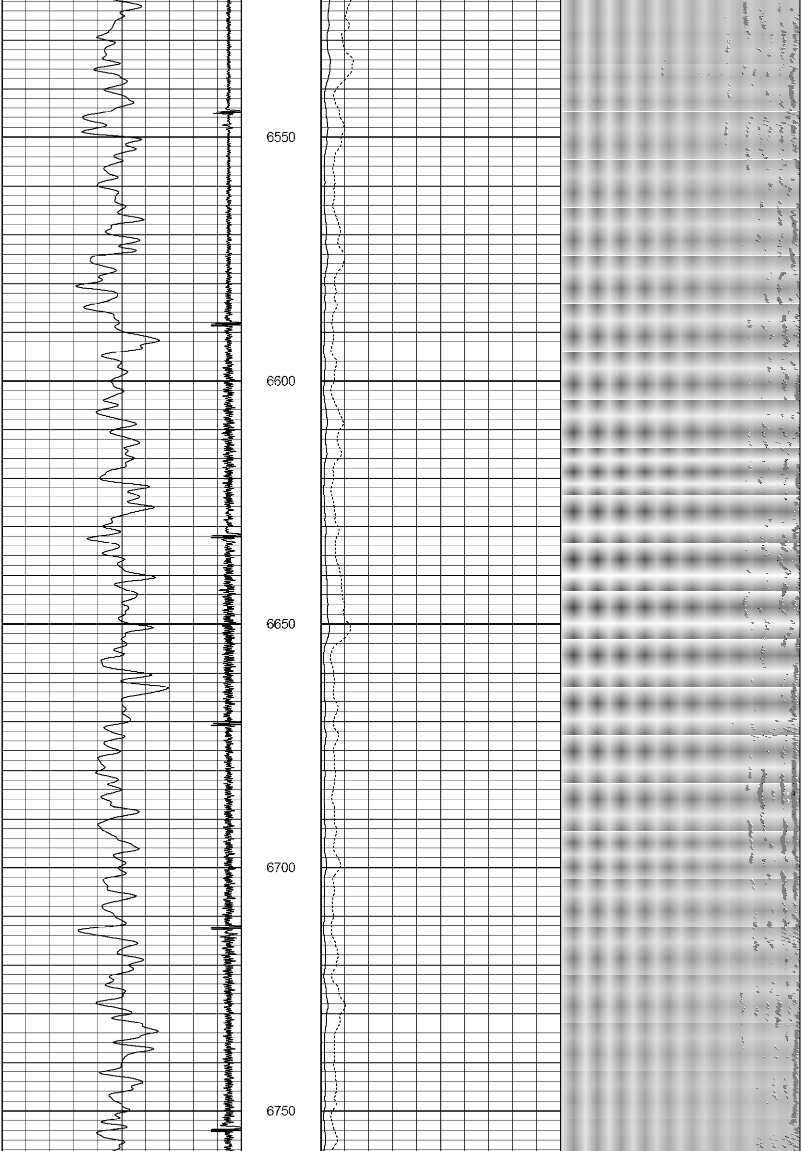


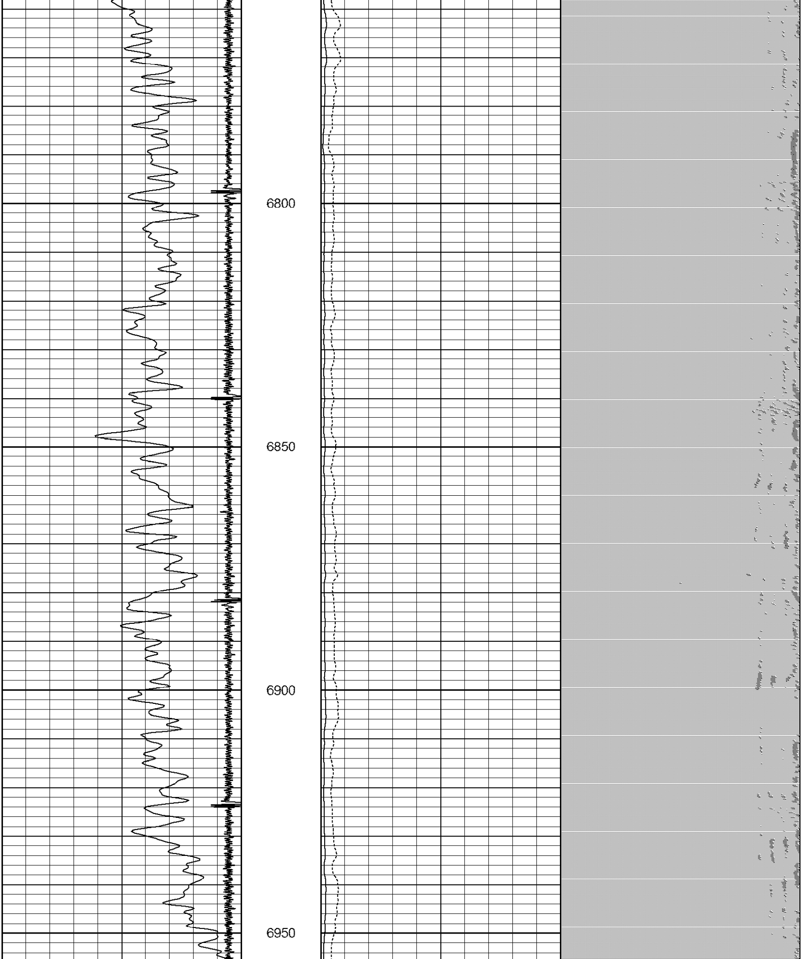


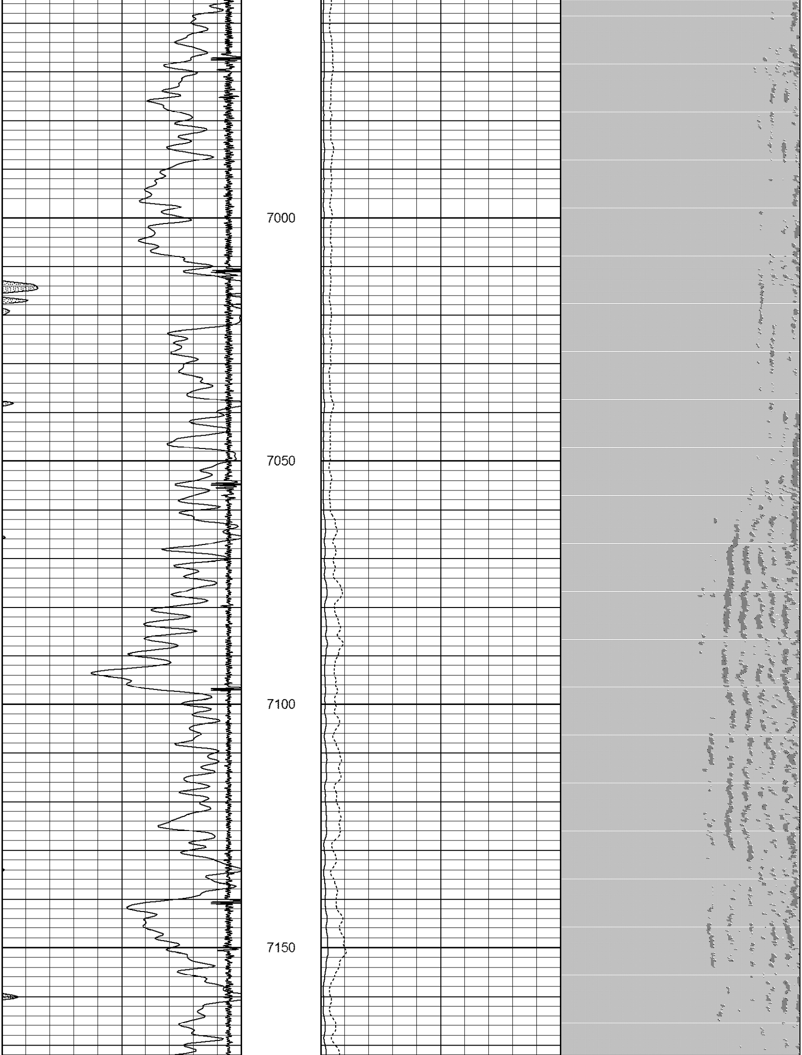


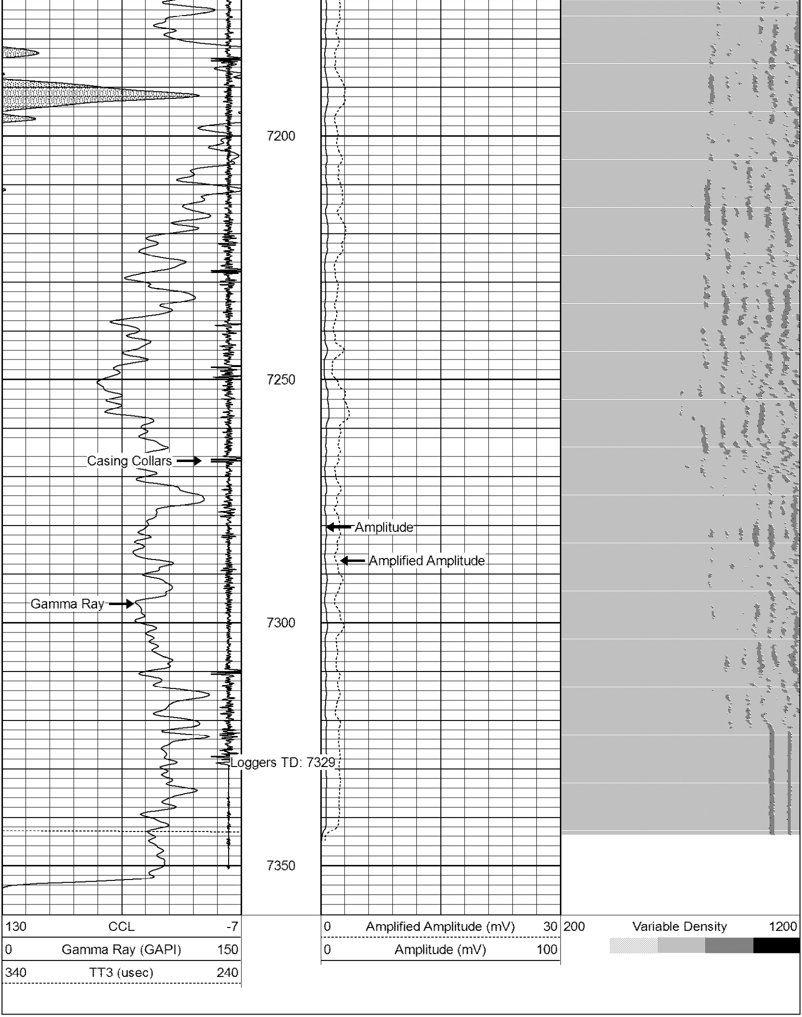












Calibration Report

Database File: cblirene g30-63-1hn.db
Dataset Pathname: pass3
Dataset Creation: Thu Jul 19 10:29:39 2012 by Log SCH 120430

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 101010

SHOP CALIBRATION

Thu Jul 19 09:51:44 2012

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0				cps
		0.8500			GAPI/cps

PRIMARY VERIFICATION

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

BEFORE SURVEY VERIFICATION

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

AFTER SURVEY VERIFICATION

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

Cement Bond Log Calibration Report

Serial Number: 110802
Tool Model: Probe275Digital
Performed: Thu Jul 19 07:00:10 2012

Depth:	460.6	ft
Casing Diameter:	7	in

	3' Spacing	5' Spacing	
Signal Zero:	0.9	0	mV
Calibrated Amplitude:	62.1651	62.1651	mV
Reading at Signal Zero:	0.013623	0.0135254	V
Reading in Free Pipe:	2.49878	2.41499	V
Gain:	24.6524	25.8863	
Offset:	0.56416	-0.350123	