



SUPERIOR
Hays,
Kansas

COMPENSATED
DENSITY / NEUTRON
LOG

Company RITCHIE EXPLORATION, INC.
Well HESS - JOSEPH #1
Field ANTELOPE RIDGE
County GOVE
State KANSAS

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County GOVE State KANSAS

Location: API # : 15-063-21900-0000

362' FSL & 175' FWL
SW - SW - SW

SEC 29 TWP 13S RGE 31W

Permanent Datum GROUND LEVEL Elevation 2878
Log Measured From KELLY BUSHING 10' A.G.L.
Drilling Measured From KELLY BUSHING

DIL

Elevation
K.B. 2883
D.F. 2886
G.L. 2878

Date 4/11/11

Run Number ONE

Depth Driller 4630

Depth Logger 4632

Bottom Logged Interval 4608

Top Log Interval 3600

Casing Driller 8 5/8" @ 222'

Casing Logger 222

Bit Size 7 7/8"

Type Fluid in Hole CHEMICAL MUD

Density / Viscosity 9.2/60

pH / Fluid Loss 10.5/7.2

Source of Sample FLOWLINE

Rim @ Meas. Temp .750 @ 80F

Rinf @ Meas. Temp .563 @ 80F

Rmc @ Meas. Temp .900 @ 80F

Source of Rmf / Rmc MEASUREMENT

Rim @ BHT .492 @ 122F

Time Circulation Stopped 2 HOURS

Time Logger on Bottom 11:15 A.M.

Maximum Recorded Temperature 122F

Equipment Number 0836

Location HAYS, KANSAS

Recorded By JEFF LUEBBERS

Witnessed By MIKE ENGELBRECHT

TOMMY ATKINS

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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 USING SUPERIOR WELL SERVICE HAYS, KANSAS (785) 628-6395
DIRECTIONS

OAKLEY, KS. (JUNCTION OF OLD 40 & HWY 83) 11S. ON HWY 83 TO "GOVE RD.", 3E., 5 1/4S., E. INTO

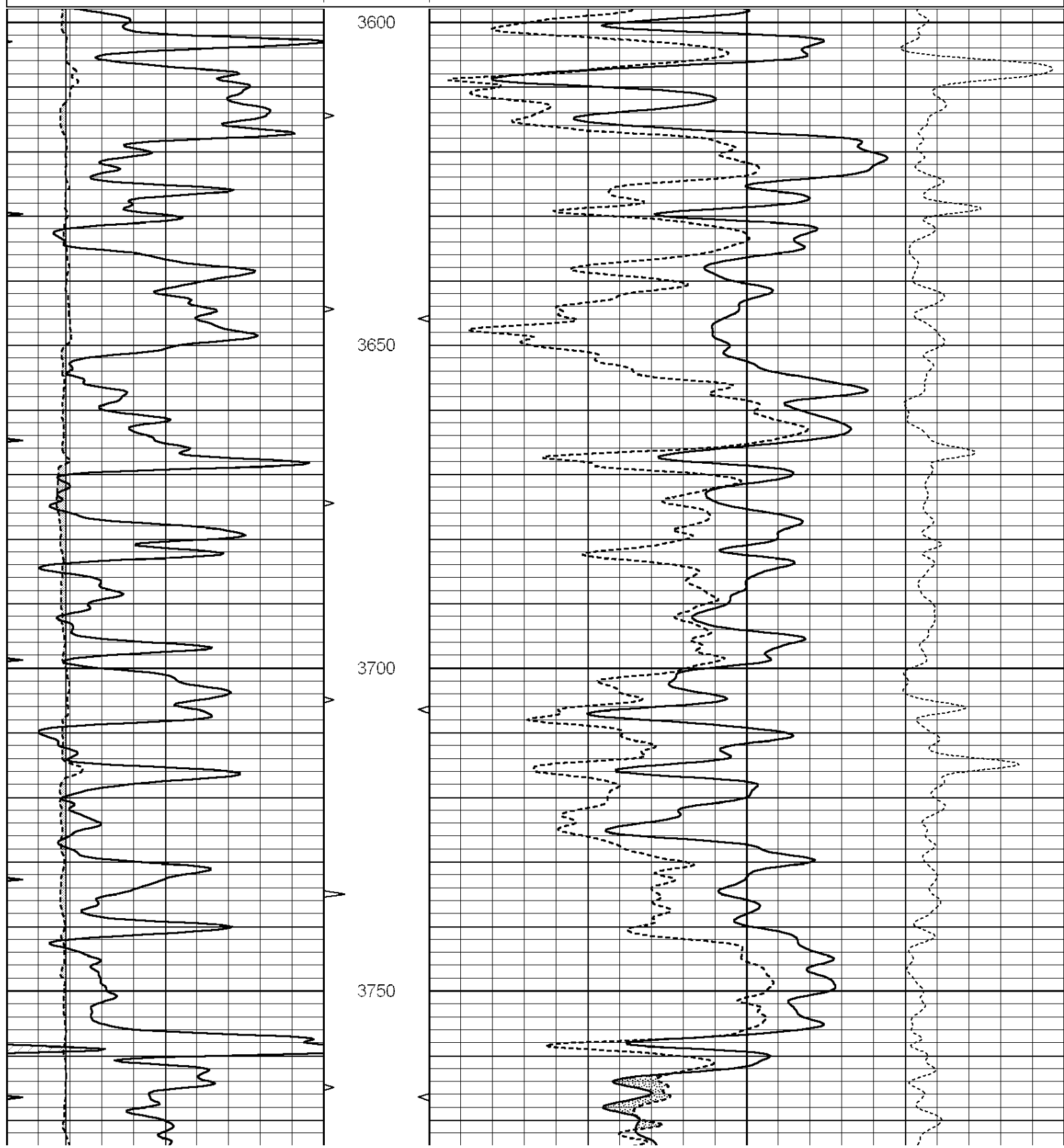


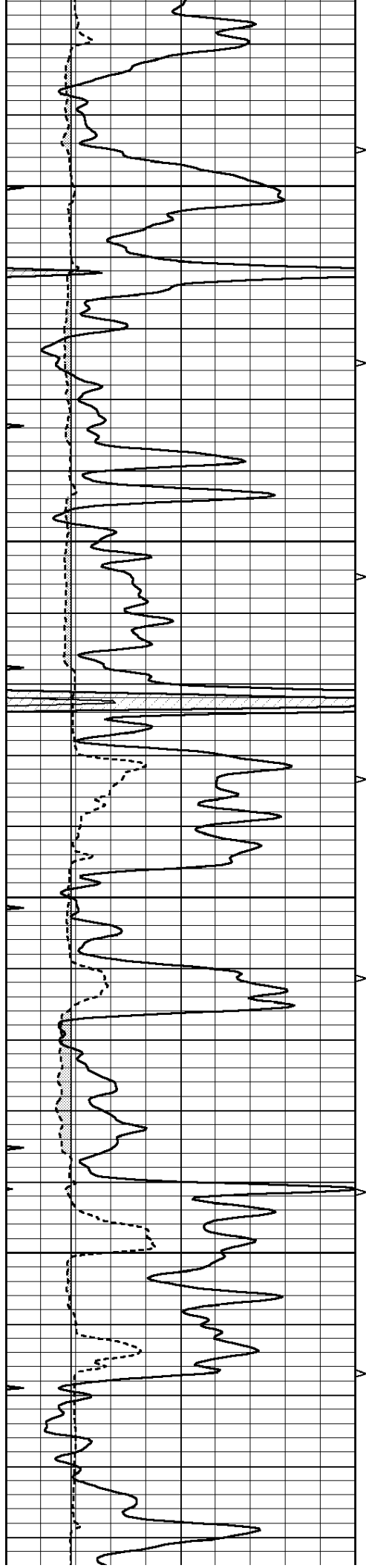
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MAIN SECTION

Database File: 006806ddn.db
Dataset Pathname: pass3.5
Presentation Format: den_neu
Dataset Creation: Mon Apr 11 12:10:26 2011
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10		



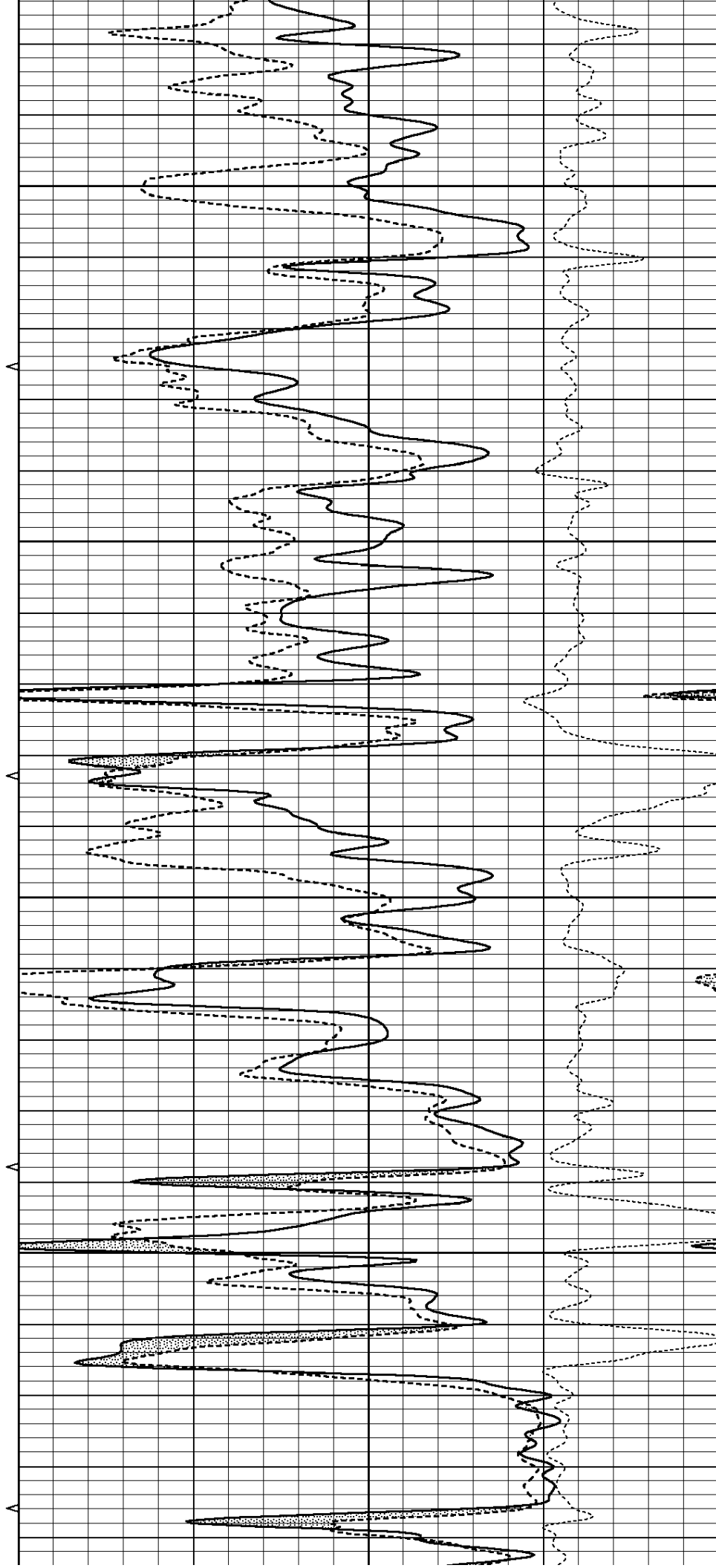


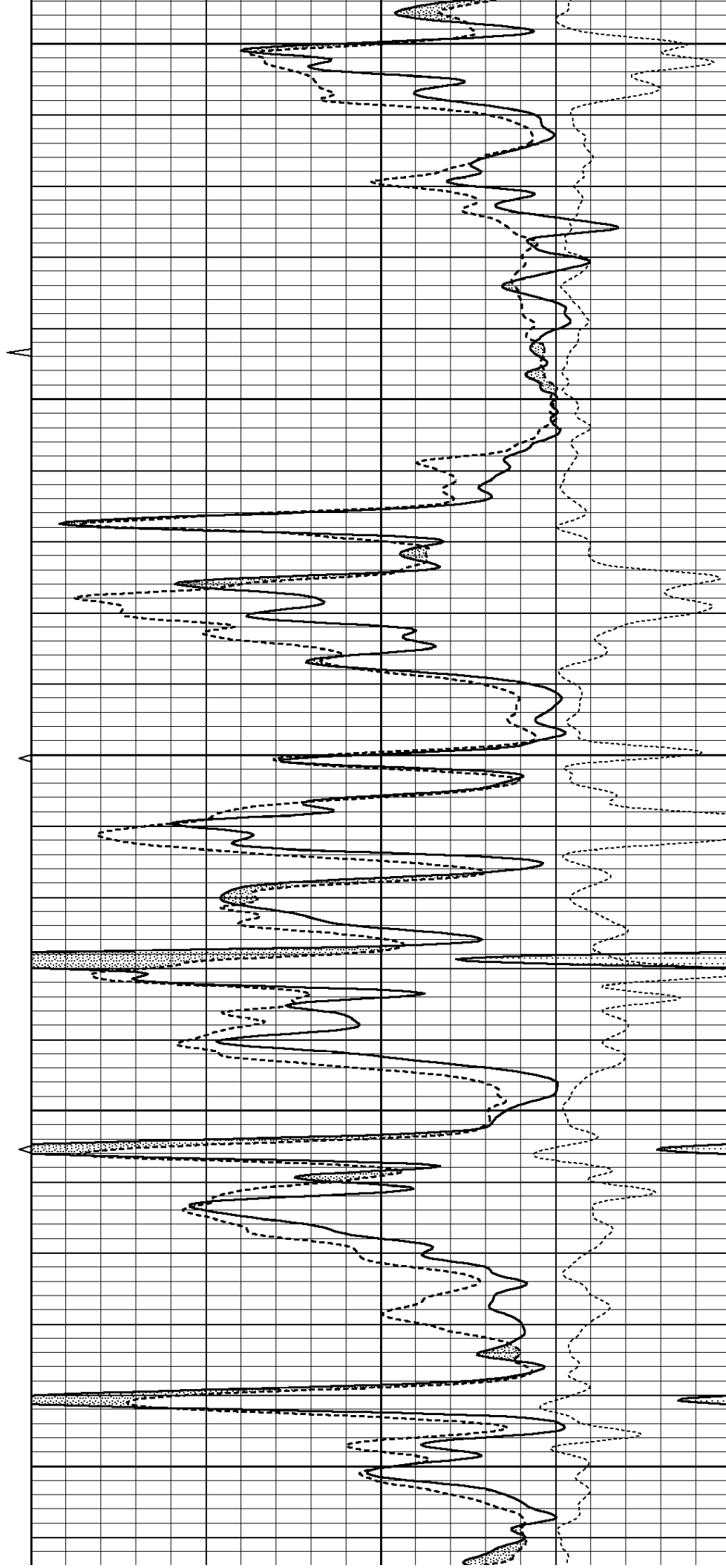
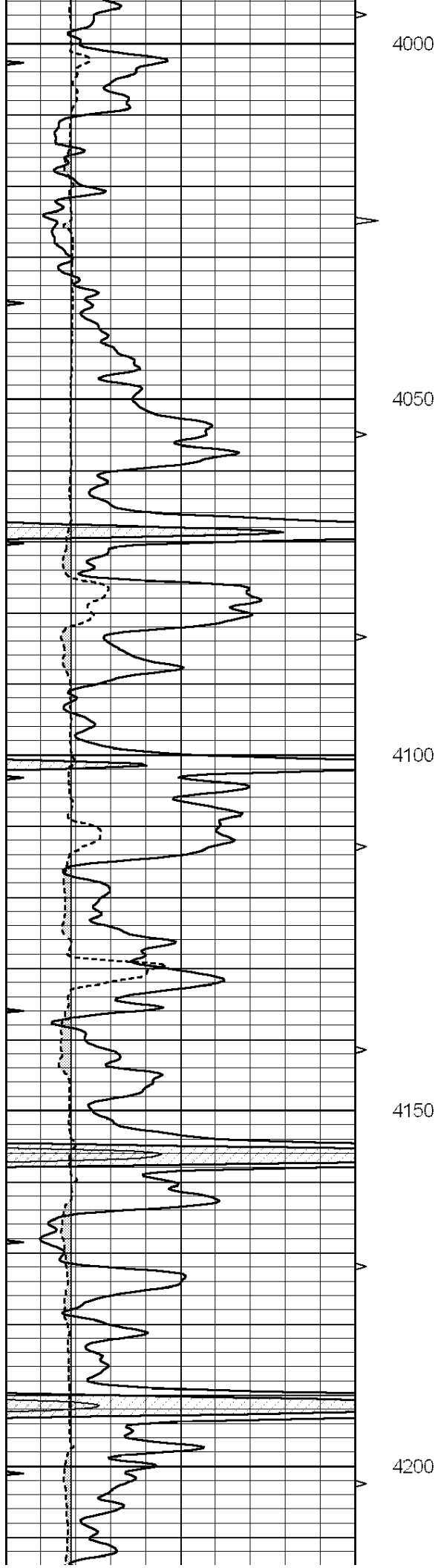
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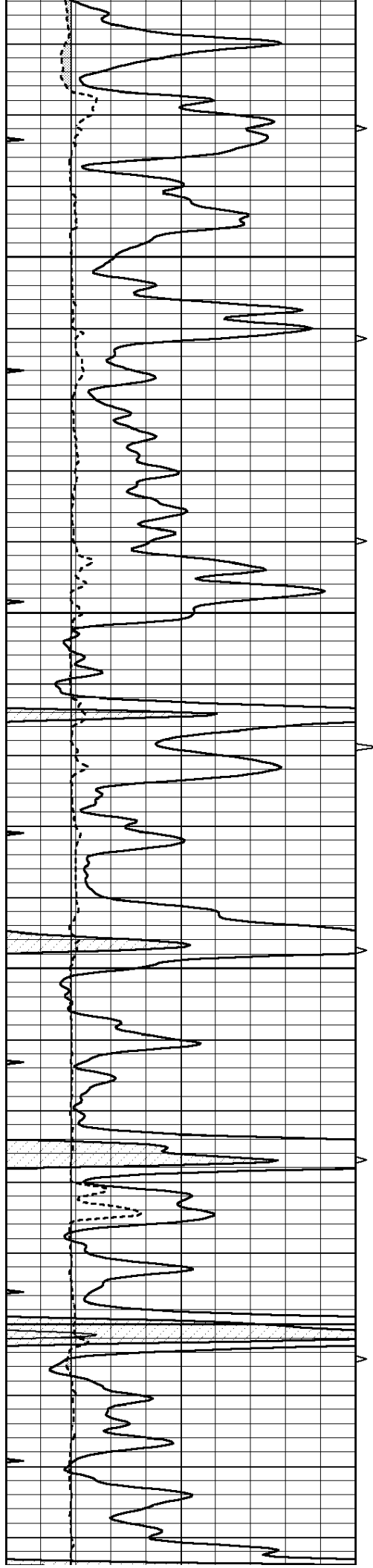
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3900

3950





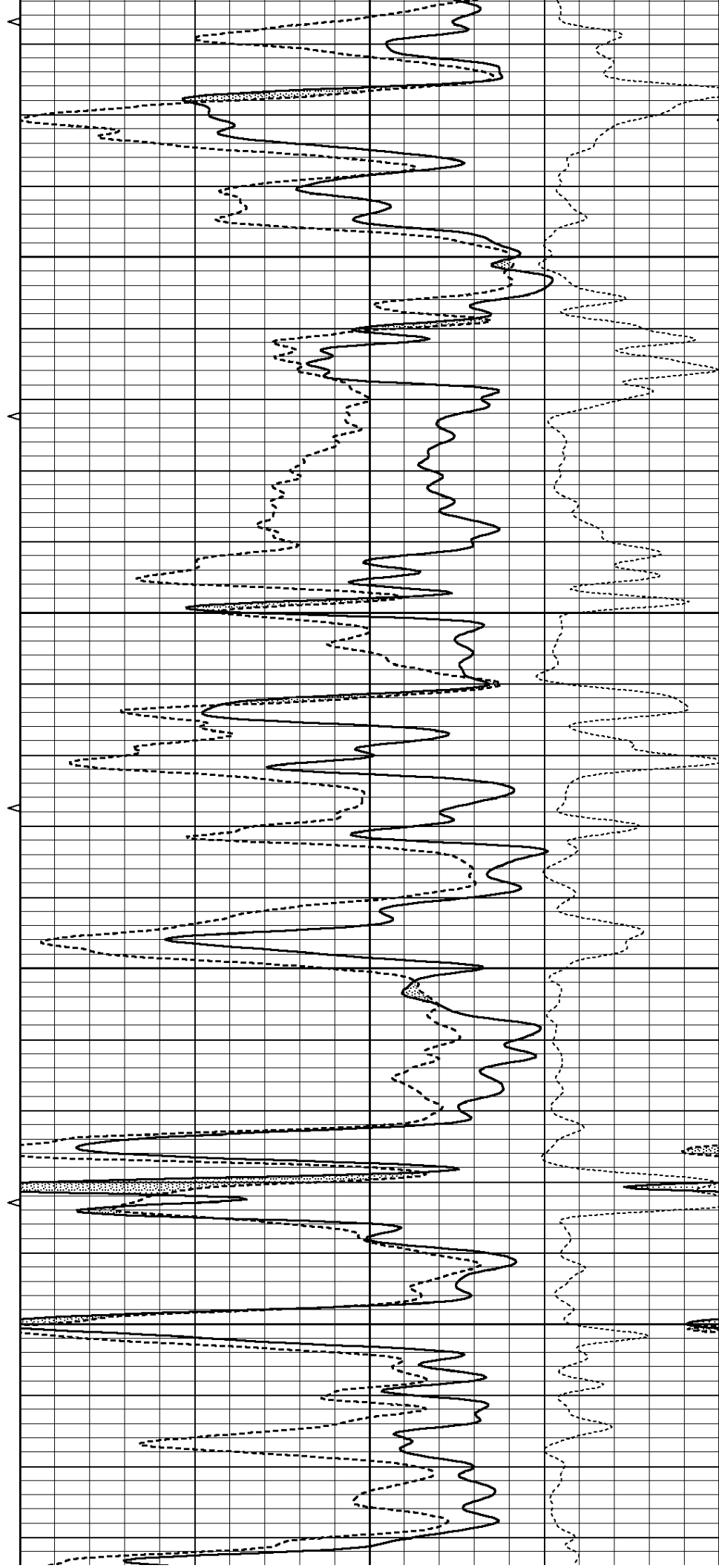


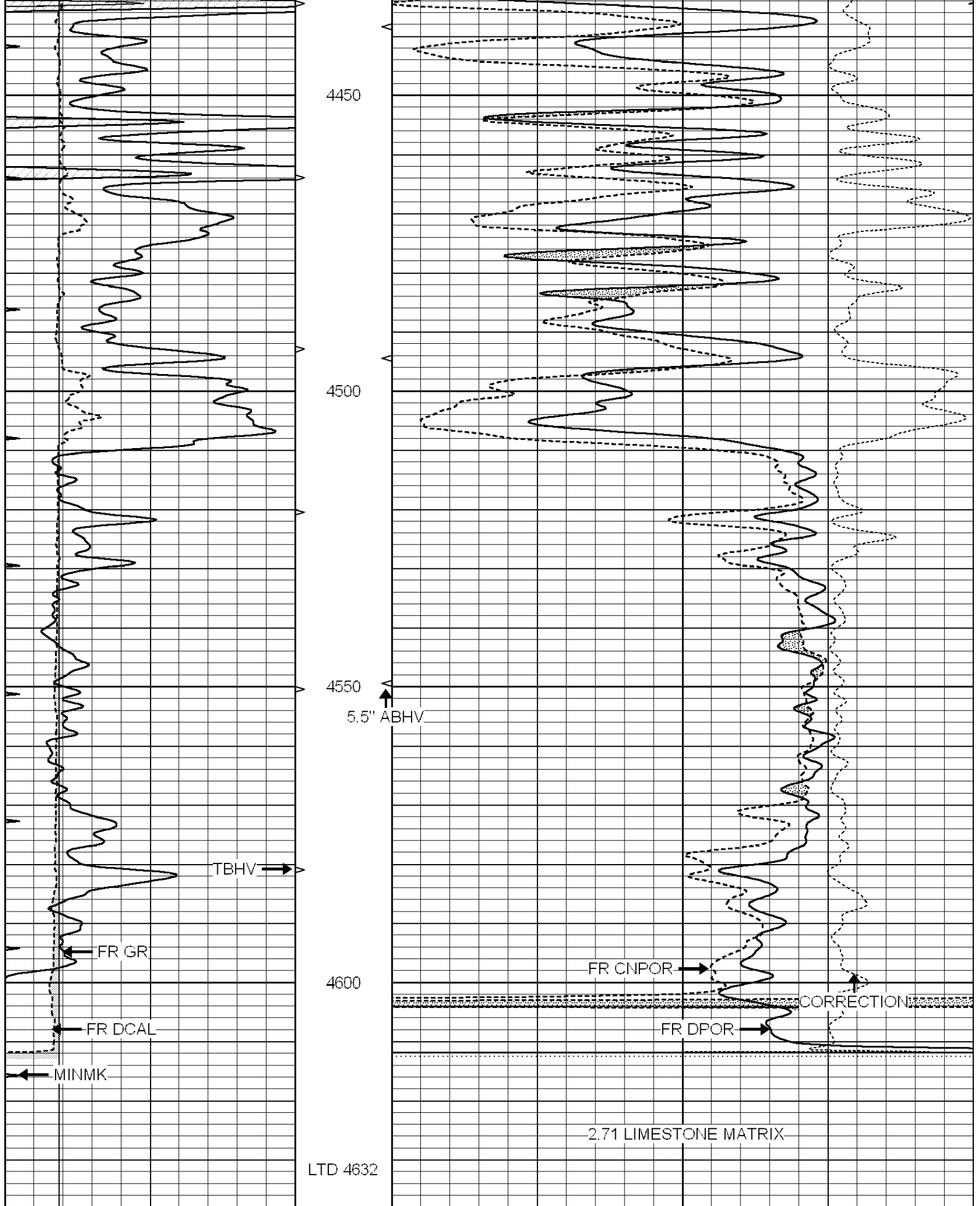
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4300

4350

4400





0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25

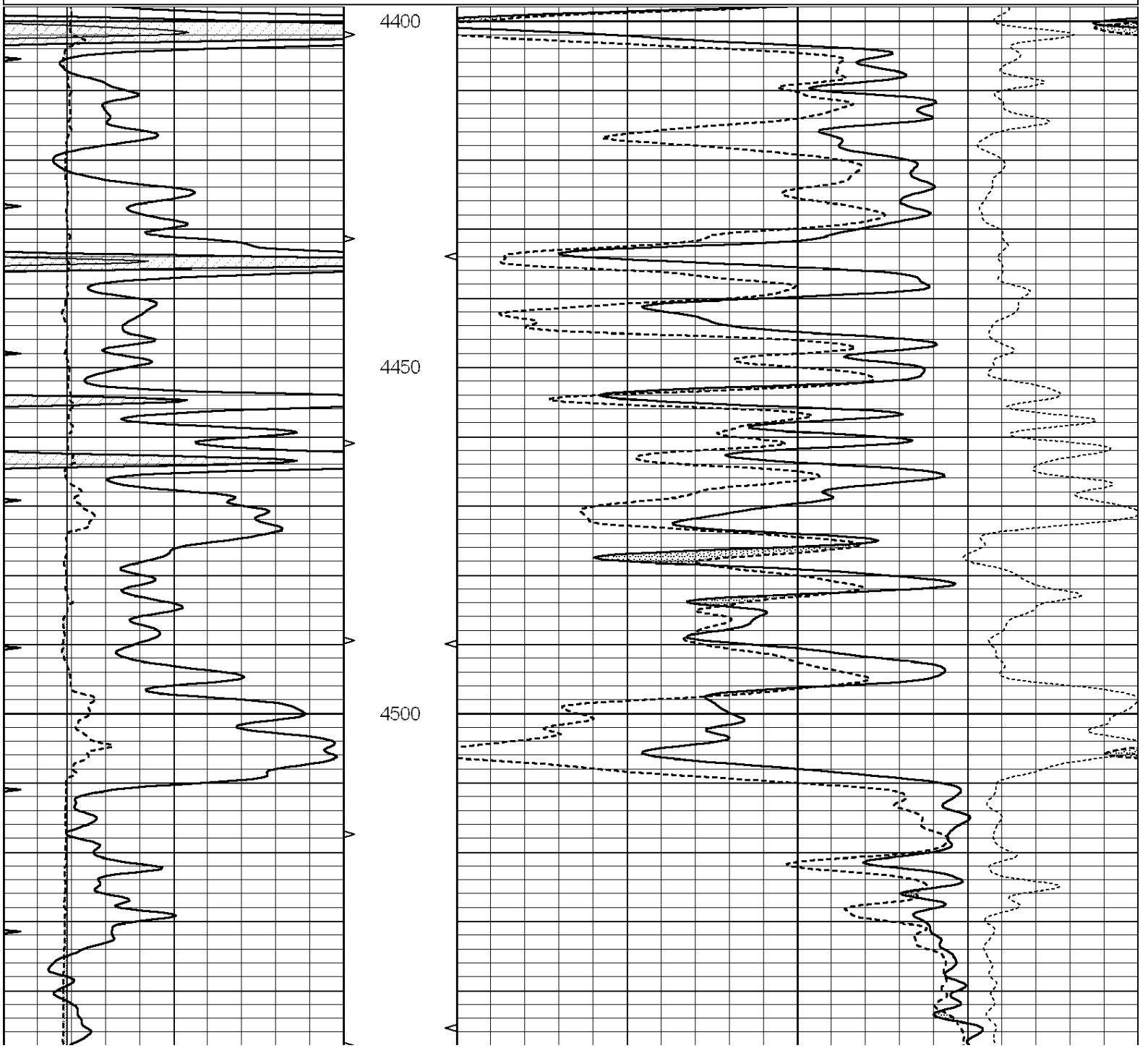


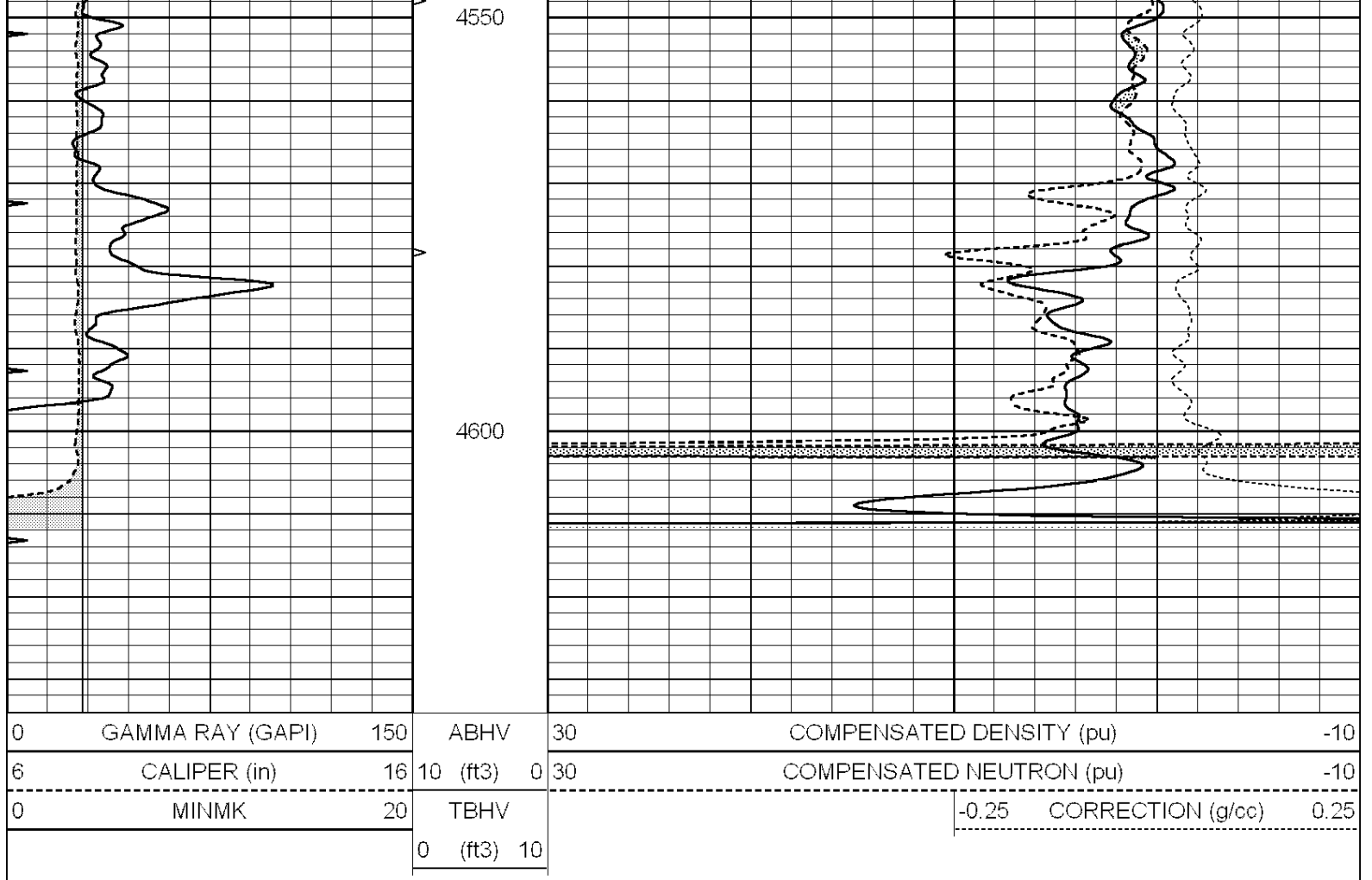
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REPEAT SECTION

Database File: 006806ddn.db
Dataset Pathname: pass2.4
Presentation Format: den_neu
Dataset Creation: Mon Apr 11 11:55:06 2011 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10		





Calibration Report

Database File: 006806ddn.db
 Dataset Pathname: pass3.5
 Dataset Creation: Mon Apr 11 12:10:26 2011

Dual Induction Calibration Report

Serial-Model: DIL6-GEAR
 Performed: Mon Apr 11 11:08:14 2011

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.001	0.644	V	0.000	400.000	mmho/m	660.000	-3.000
Medium	0.020	0.738	V	0.000	462.500	mmho/m	740.000	-19.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.000	1.000	V	0.000	1.000	mmho/m	1.000	0.000
Medium	0.000	1.000	V	0.000	1.000	mmho/m	1.000	0.000

Litho Density Calibration Report
 Serial: 006 Model: PRB
 Performed Sun Aug 15 09:48:41 2010

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1686.6	11612.8	3932.0	12718.8	cps
Window 2	1531.4	9204.7	3267.8	9851.9	cps
Window 3	1198.3	4733.6	1952.5	4920.6	cps
Window 4	317.3	321.2	325.9	303.6	cps

Window 4	0.0	0.0	0.0	0.0	0.0
Long Space	0.0	7673.3	1736.4	8320.4	cps
Short Space	1.7	2548.5	1657.2	2628.8	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	
Rib Angle	: 43.8	Rib Slope	: 0.961	Density/Spine Ratio	: 0.569
Spine Angle	: 73.8	Spine Slope	: 3.453	Spine Intercept	: -18.1

Caliper					
Low Ref	Readings	Reference			
High Ref	4.0	6.8			
	6.2	14.0			
	Gain: 3.2		Offset: -6.0		

Compensated Neutron Calibration Report

Serial Number:	NEU_4I
Tool Model:	G

CALIBRATION					
Detector	Readings		Target		Normalization
Short Space	996.00 cps		1000.00 cps		1.0000
Long Space	977.00 cps		1000.00 cps		1.0000

Gamma Ray Calibration Report

Serial Number:	GR4	
Tool Model:	OPEN	
Performed:	Mon Apr 11 09:54:54 2011	
Calibrator Value:	200.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	189.0	cps
Sensitivity:	1.6000	GAPI/cps