SUPERIOR WELL SERVICES

SUPERIOR
Hays,
Kansas

COMPENSATED DENSITY / NEUTRON LOG

Company ETERNITY EXPLORATION, LLC.
Well WILLSON WF #1
Field WILLSON
County SHERIDAN State KANSAS

Location: API # : 15-179-21286-0000

4950' FSL & 330' FEL

SEC 14 TWP 10S RGE 26W

Other Services
DIL

Permanent Datum GROUND LEVEL Elevation 2575
Log Measured From KELLY BUSHING 5' A.G.L.
Drilling Measured From KELLY BUSHING

Elevation
K.B. 2580
D.F. 2578
G.L. 2575

Company ETERNITY EXPLORATION, LLC.
Well WILLSON WF #1
Field WILLSON
County SHERIDAN
State KANSAS

Date	8/22/11		
Run Number	ONE		
Depth Driller	4109		
Depth Logger	4110		
Bottom Logged Interval	4086		
Top Log Interval	3500		
Casing Driller	8 5/8"@219'		
Casing Logger	219		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 3,400 PPM	
Density / Viscosity	9.1/54		
pH / Fluid Loss	11.5/7.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.600@99F		
Rmf @ Meas. Temp	.450@99F		
Rmc @ Meas. Temp	.720@99F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.508@117F		
Time Circulation Stopped	2.5 HOURS		
Time Logger on Bottom	2:00 P.M.		
Maximum Recorded Temperature	117F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	SCOTT ALBERG	CARLO UGOLINI	

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Comments

THANK YOU FOR USING SUPERIOR WELL SERVICE HAYS, KANSAS (785) 628-6395

DIRECTIONS

COLLYER, KS. W. ON OLD 40 TO "RD. 78", 9N. TO "INTERSECTION OF 140 & 120", 1/8W., S. INTO

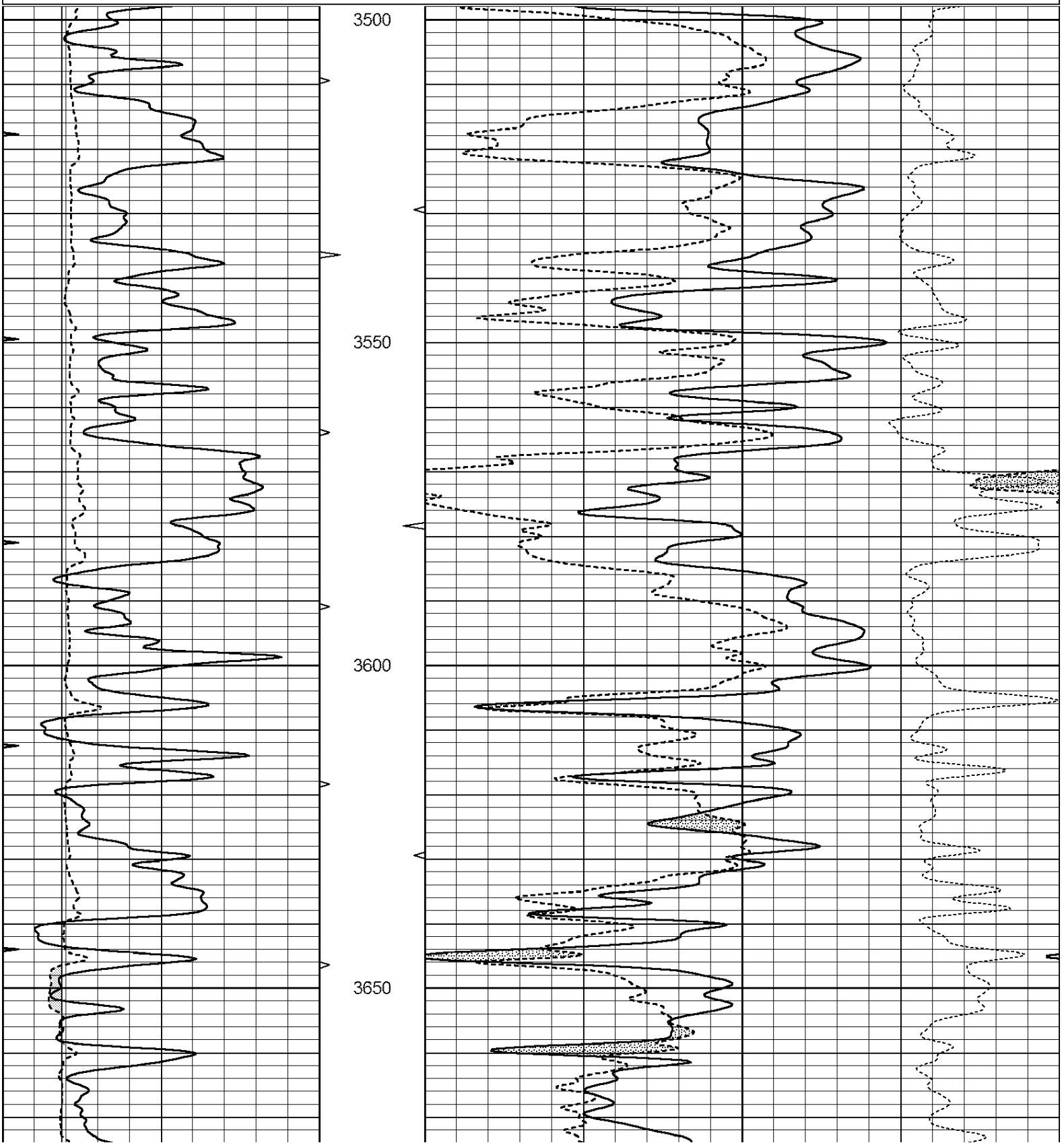
MAIN SECTION

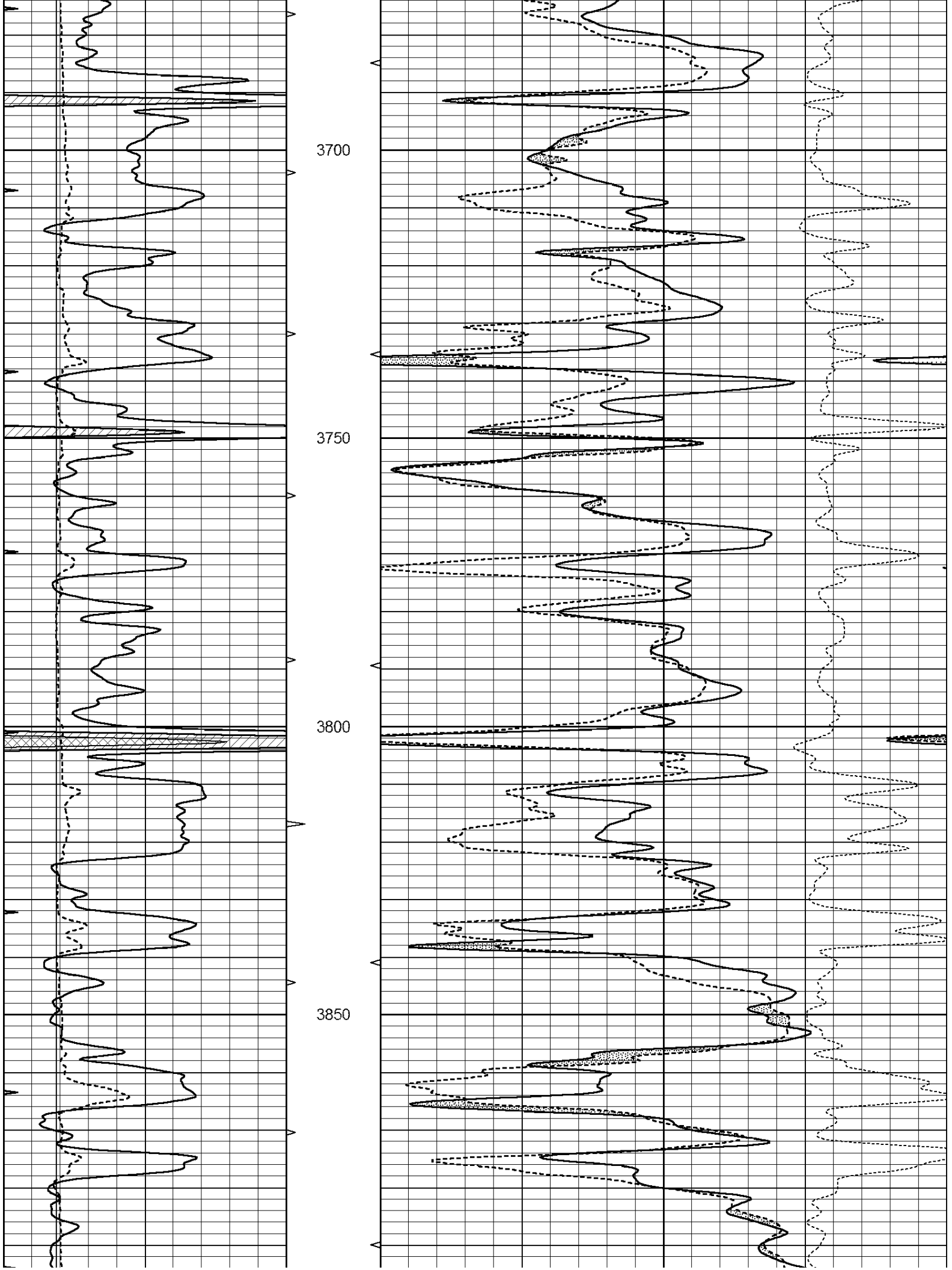
SUPERIOR
Hays,
Kansas

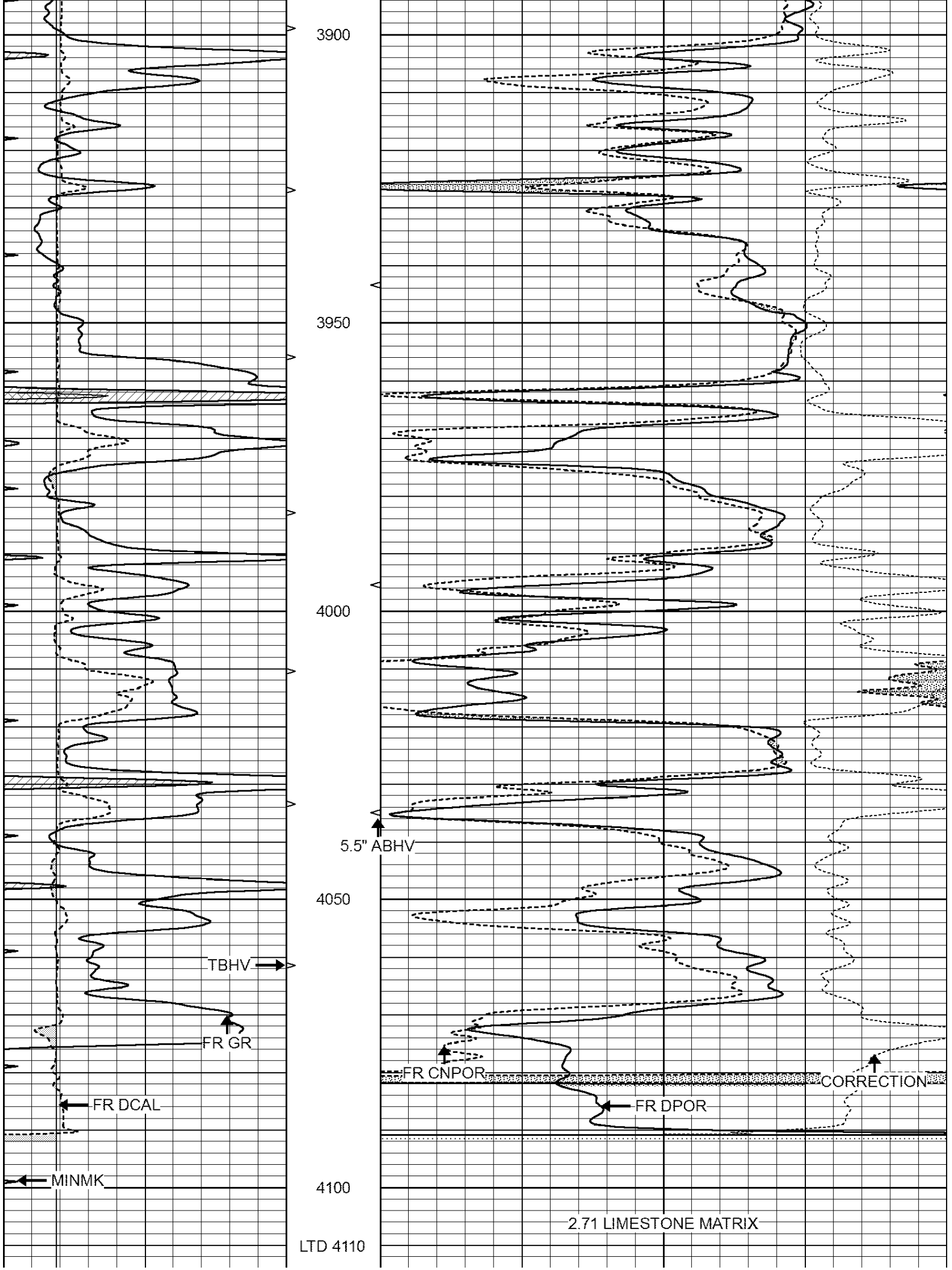
SUPERIOR WELL SERVICES

Database File:	007284ddn.db
Dataset Pathname:	pass3.4
Presentation Format:	den_neu
Dataset Creation:	Mon Aug 22 14:55:05 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		




3700
3750
3800
3850


3900
3950
4000
4050
4100
5.5" ABHV
TBHV
FR GR
FR DCAL
MINMK
FR CNPOR
FR DPOR
CORRECTION
2.71 LIMESTONE MATRIX
LTD 4110

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		

SUPERIOR WELL SERVICES

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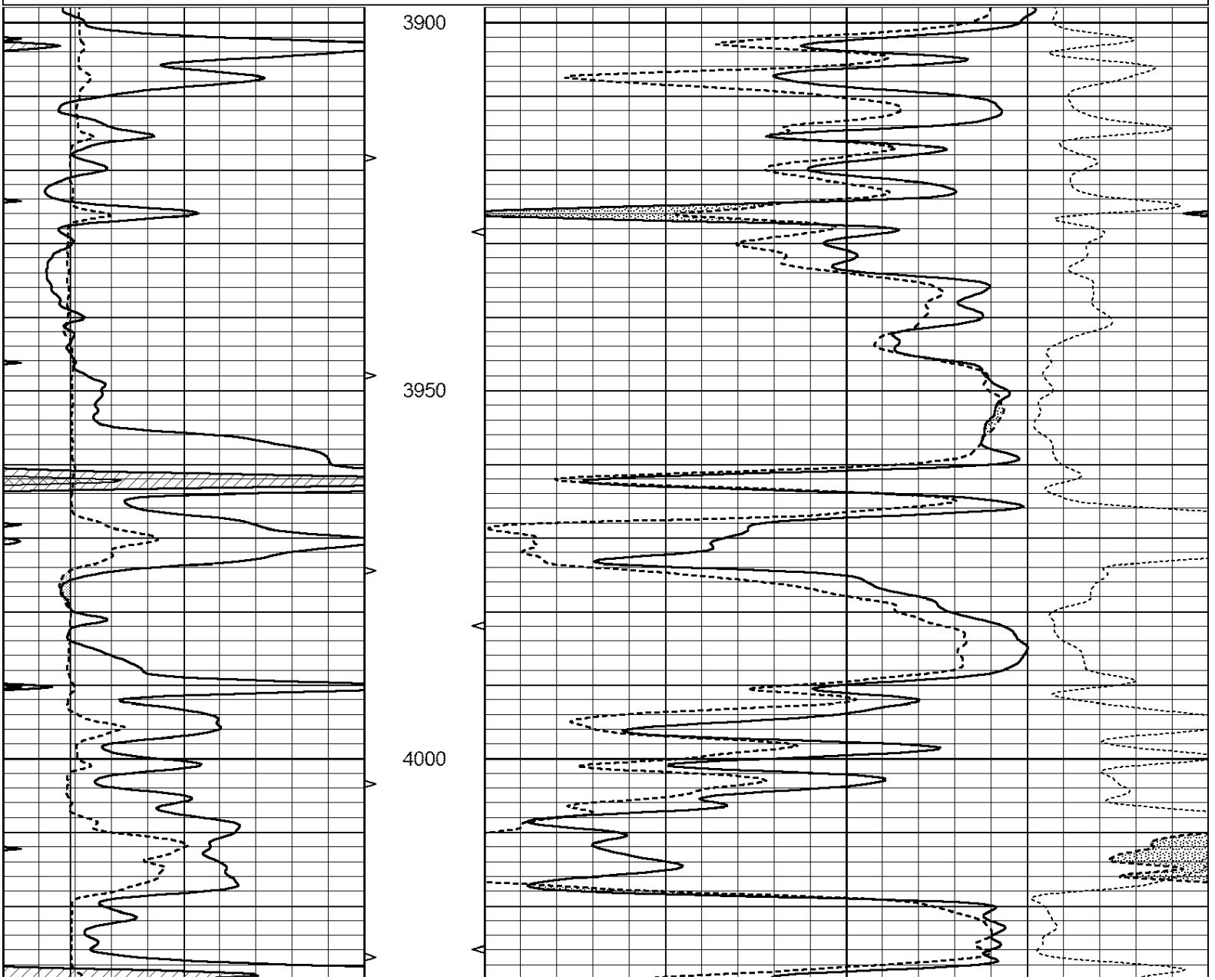
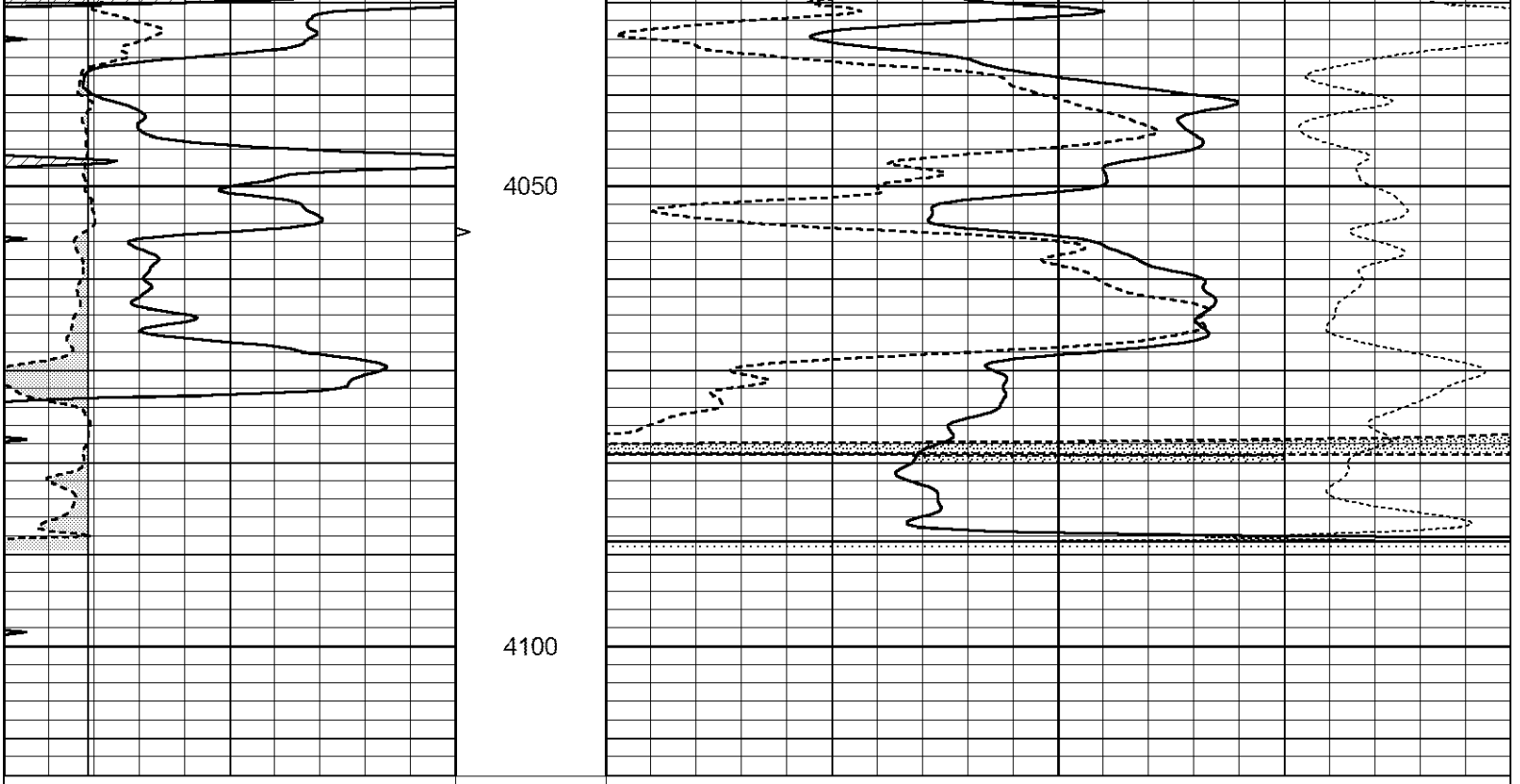
REPEAT SECTION

Database File: 007284ddn.db
Dataset Pathname: pass2.9
Presentation Format: den_neu
Dataset Creation: Mon Aug 22 14:49:00 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		





Calibration Report

Database File: 007284ddn.db
Dataset Pathname: pass3.4
Dataset Creation: Mon Aug 22 14:55:05 2011

Dual Induction Calibration Report

Serial-Model: DIL4-GEAR
Performed: Mon Aug 22 14:15:16 2011

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.008	0.666	V	0.000	400.000	mmho/m	570.000	-5.000
Medium	-0.003	0.769	V	0.000	462.500	mmho/m	560.000	-4.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.013	0.651	V	0.000	400.000	mmho/m	627.541	-8.365
Medium	0.020	0.754	V	0.000	462.500	mmho/m	630.311	-12.549

Litho Density Calibration Report

Serial: 004N Model: PRB
Performed Tue Sep 08 13:49:55 2009

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1535.8	11161.3	3721.6	12498.8	cps
Window 2	1402.6	9435.7	3219.7	10417.7	cps
Window 3	1077.6	4422.0	1779.2	4753.4	cps
Window 4	337.3	342.8	337.4	343.7	cps

Long Space	0.0	8033.1	1817.0	9015.1	cps
Short Space	1.2	1671.8	1138.1	1813.0	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	

Rib Angle	: 45.5	Rib Slope	: 1.017	Density/Spine Ratio	: 0.573
Spine Angle	: 75.5	Spine Slope	: 3.865	Spine Intercept	: -19.7

Caliper

	Readings	Reference
Low Ref	2.8	8.1
High Ref	4.6	15.0
	Gain: 3.8	Offset: -2.3

Compensated Neutron Calibration Report

Serial Number: NEU_1I
Tool Model: G

CALIBRATION

Detector	Readings		Target		Normalization
Short Space	1.00	cps	1.00	cps	1.0000
Long Space	1.00	cps	1.00	cps	1.0000

Gamma Ray Calibration Report

Serial Number: GR1
Tool Model: OPEN
Performed: Mon Aug 22 14:14:56 2011

Calibrator Value: 200.0 GAPI

Background Reading: 3.0 cps
Calibrator Reading: 186.0 cps

Sensitivity: 0.2500 GAPI/cps