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Department of Mines and Energy

**Deer Lake Oil & Gas Inc.**

**Final Well Report**

**Western Adventure #1**

**February, 2003**

**Prepared by  
Terry Brooker, P.Eng.**

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Please note, wire line logs are provided at the end of this report.

## 1.0 Introduction (2.2)

The Western Adventure #1 well was drilled by Deer Lake Oil & Gas Inc. (DLOG) to test the hydrocarbon potential of the Deer Lake basin. This exploratory oil and gas well is located about 20 km. north east of the town of Deer Lake, Newfoundland. DLOG earned an interest in Exploration Permit #93-103 from Vinland Petroleum Inc by drilling the well. Logan Drilling Limited was contracted to drill utilizing a Longyear Super 50 rig.

The well spudded on June 30, 2000 and was continuously cored to 872 m. Conventional open hole logs were run on August 4, 2000 and based on these logs and core results, three bottom hole Drill Stem Tests were run. The well was then suspended with two cement plugs and the rig was released on August 13, 2000.

Operations resumed on October 27, 2000 when Logan Drilling moved their rig back to the site. The suspension plugs were drilled out and casing was run and cemented to 872m. The well was cored to a depth of 1522 m and another Drill Stem Test was run. The well was then continuously cored to 1879 m. At that depth the pipe became stuck and twisted off and drilling was suspended, with the rig on the hole, on December 20, 2000.

Core was recovered from 18.9 m to 1870 m (the final 9 m, 1870 to the FTD of 1879 m., was lost down the hole). The core was continuously evaluated and described on site and boxed for permanent storage. Selected intervals were analyzed on site for permeability and porous, potential hydrocarbon sections were shipped to commercial laboratories for more detailed analysis of porosity and permeability.

Operations resumed on January 8, 2001, however efforts to recover the fish were unsuccessful and open hole logs were run from the top of the fish at 1575 m. The hole was again suspended with cement plugs and the rig was released on January 26, 2001.

Well site drilling supervision was by Mr. Stan Podulsky and site geological work was by Mr. Robert Taylor. Operations management was by Mr. Joe Gorman for the initial phases and Mr. Terry Brooker provided management for the second phase of the project.

## 2.0 Map (2.3)

A map showing the location of the well and access road is included as Attachment #1.

## 3.0 General Information (2.4)

Well Name - Deer Lake Oil & Gas et al Western Adventure No. 1

Operator - Deer Lake Oil & Gas Inc.

Permit - Exploration Permit #93-103

Contractor - Logan Drilling Inc.

Drilling Rig - Longyear Super 50

Location - Long 57° 14' 10.138"  
Lat 49° 15' 46.591"

- Northing 5456493.4  
Easting 482818.0

## 4.0 Difficulties and Delays (2.5)

See the drilling curve and time breakdown included as Attachments 2 a, b, and c, with details as follows:

- Approximately 2 days lost time (at 77 m) resulted from delays to bring the mining rig up to appropriate oilfield safety standards.

- Rigging up after the break in operations (at 872 m) took longer than normal due to severe weather and poor road conditions.

- The well kicked at 1441 m and drilling time was lost (22 hours) while circulating to increase the mud density.

- The parted drill pipe at 1584 m resulted in the hole being suspended due to the lack of a spear on the rig and the decision to shut down for Christmas.

- Significant time was then lost waiting on logging (45 hours) and cementing (96 hours) services to be mobilized to location.

5.0 Drilling Operations (3.0)

5.1 Ground Elev. - 95.1 m  
KB Elev. - 97.6 m

5.2 Total Depth - 1879 meters

5.3 Spud Date - 0900 hrs, June 29, 2000

5.4 TD Date - 0600 hrs, December 17, 2000

5.5 Rig Release - 1200 hrs, January 26, 2001

5.6 Well Status - well is suspended with cement plugs and a well head.

5.7 Hole Size and Depths

- Conductor - Drill 178 mm hole to 18.9 m
- Surface - Core 123 mm hole to 218 m
- Intermediate - Core 96 mm hole to 872 m
- Main - Core 75.8 mm hole to 1879 m

5.8 Bit records

- 140 mm hole

- 1 A 0 - 18.9 m no description
- B 18.9 - 20.8 m

- 123 mm hole

- 2 A 20.8 - 218 m GL no description

- 96 mm hole

- 3 A 218 - 701 m Florida set serial no 2w0415 - d  
483 m in 227.5 hrs, 380 rpm, ROP 2.1 mph
- B 701 - 872 m Florida impreg serial no 15990 - 05  
171 m in 96.75 hrs, 380 rpm, ROP 1.8 mph

- 76 mm hole

- 4 872 - 941 m Longyear series 2  
69 m in 28.5 hrs, ROP 2.6 mph
- 5 941 - 1019 m Longyear series 2, serial # L45357  
78 m in 30 hrs, 180 rpm, ROP 2.6 mph
- 6 1019 - 1175 m Florida SK - 2, serial # 12310 - 03  
156 m in 68 hrs 180 rpm, ROP 2.3 mph
- 7 1175 - 1522 m Florida SK - 2, serial # 12310 - 05  
347 m in 177.5 hrs, 180 rpm, ROP 2.0 mph

## 5.0 Drilling Operations – Bit Records (continued)

- 8 1522 – 1687 m Florida Impreg, serial # 17546 - 19  
165 m in 98.5 hrs, 180 rpm, ROP 1.7 mph
- 9 1687 – 1852 m Florida P200, serial # 17558 - 12  
165 m in 99.5 hrs, 180 rpm, ROP 1.7 mph
- 10 1852 – 1879 m Florida P-200, serial # 17538 – 11  
27 m in 28 hrs, 180 rpm, ROP 1.0 mph

## 5.9 Casing and Cementing Record

- Conductor  
Run 140 mm, 21.1 kg/m casing to 19 m  
Cemented with 5 sxs neat Class A cement
- Surface  
Run 114.7 mm, 17.4 kg/m HW casing to 218 m  
Cemented with 22 sxs Class A cement with 1sx cellophane
- Intermediate  
Run 88.9 mm, 12.82 kg/m NW casing to 872 m  
Cemented with 2.4 t Class A cement plus 15 l/t CFRSL, 5 l/t  
Halad 700, and 2 l/t HRH-L
- Main  
Suspension plugs – 210 kg Class G set 1220 m to 1255 m GL  
– 220 kg Class A set 790 m to 825 m GL

## 5.10 Sidetracked Hole

There was no sidetracked hole.

## 5.11 Drilling Fluid

The well was drilled with a simple low viscosity mud. Mud weight reached a maximum density of 1104 kg/m<sup>3</sup> at 1534 m GL. KCl was used to a depth of 1440 m when, due a shortage of KCl in Newfoundland, it was necessary to switch to CaCl<sub>2</sub> to TD. Viscosifiers used were Maytex 1200 and 2000.

## 5.12 Fluid Disposal

There were no problems with the mud system, however due to the fines generated by the coring process it was regularly necessary to dump tanks and rebuild the mud system, which significantly added to the mud costs. The dumped mud was trucked to an approved disposal site.

## 5.0 Drilling Operations (continued)

### 5.13 Fishing Operations

The drill rod twisted off at 1584 m (96 joints above bottom at 1879 m) after several problems with defective drill rods. The rig was unable to screw back in and did not have a spear on location. The operation shut down over Christmas and then latched on with a spear but was unable to move pipe. The well was then logged and suspended.

### 5.14 Well Kicks

The well kicked at 1441 m. The well was circulated and the mud density increased from 1036 to 1104 kg / m<sup>3</sup>. However the well continued to kick slightly as new fractures were opened up down to 1584 m.

### 5.15 Formation Leak-Off Tests

A leak off test was conducted at 877 m with casing set to 872 m. With 1020 kg / m<sup>3</sup> mud in the hole a total of 22.5 liters was pumped and the surface pressure built to 4191 kPa. This equates to a leak off gradient of 14.75 kPa / m.

### 5.16 Time Distribution

A detailed time breakdown is included as Attachment # 2.

### 5.17 Deviation Plot

No continuous directional survey was run on this well. The following single shots were taken 93.5 m - <1°, 524 m - 6°, 650 m - 8°, 782 m - 8°, 922 m - 10°, 1423 m - 13.5°, 1693 m - 12°.

### 5.18 Suspension / Abandonment Plugs

Suspension plugs – 210 kg Class G set 1220 m to 1255 m GL  
– 220 kg Class A set 790 m to 825 m GL

Fluid left in the hole is drilling mud with a density of 1068 kg/m<sup>3</sup>.

### 5.19 Well Schematic

A schematic showing hole sizes and depths, casing sizes and depths, and cementing details is included as Attachment #3.

6.0 Geological (4.0) (Attachment #4).

Deer Lake Group (0-1633m)

- Rocky Brook Formation (0m - 284m)

Grey to green Siltstone and occasional shale with red to brown siltstone becoming more common with depth.

- North Brook Formation (284m-1633m)

Red to brown siltstone and minor shale, red to brown sandstone and, occasional brown and grey conglomerate. North Brook Formation begins as a transitional sequence from a fresh water lake to a meandering stream transitioning again to a braided stream or distal alluvial fan. The braided stream portion transitions back into a meandering stream type setting and then ends as a limestone and dolomite conglomerate fan sequence lying unconformably on a metamorphosed shale and siltstone unit.

Anguille Group? (1633-1876m)

Black to grey shale and siltstone. Age of this rock type is uncertain . It may be of Ordovician age being part of the Carbonate platformal sequence or it may be Anguille Group, much younger.

Formation	Prognosed depth (m)	Actual Depth (m)
North Brook Formation	550	284
Anguille Formation (?)	1200	1633 (uncertain)
Carbonate Platform	1972	not encountered

Upon completion of Phase #2 of Deer Lake et al Western Adventure #1, the majority of the core was removed from the site and placed in storage at Tor's Cove. 200 meters of core underwent intense study at Frac Flow Consultant's in St John's (Attachment #5).

166 samples have been sent to Core Labs Canada in Calgary for porosity measurement and 95 meters of core has been analyzed in-house for permeability (Attachment #6). A further 60 meters of core has been selected for in-house permeability work (Attachment #7), while additional samples will be sent to Core Labs for further work once our in-house analysis is completed.



## 7.0 Well Evaluation (5.0)

### 7.1 Logging Program

Open hole electric logs were run by Schlumberger.

- Intermediate hole was logged on August 3, 2000 from 872 m to 218 m with Dual Laterlog, Compensated Neutron / Litho Density and Borehole Compensated Sonic
- Main hole was logged on January 17 and 18, 2001 from 1575 m to 873 m with Dual Laterlog, Litho Density and Borehole Compensated Sonic ( the Compensated Neutron was not be run as the tool OD of 69.9mm is too large to be run in the 75.8 mm hole)

### 7.2 Drill Stem Tests

A total of four conventional bottom hole drill stem tests were run in this hole by Alpine Testors.

DST # 1      840 – 872 m GL      2 / 92 / 76 / 100 min  
PF: Fair air blow throughout - NGTS  
FF: Fair air blow decreasing to dead in 30 min - NGTS  
8923 / 1142 / 5960 / 1552 / 6202 / 8756 kPa (IH / IF / ISI / FF/ FSI / FH)  
Mechanically successful test – suggests low perms in tested interval.  
Recovery 108 m condensate flecked mud.

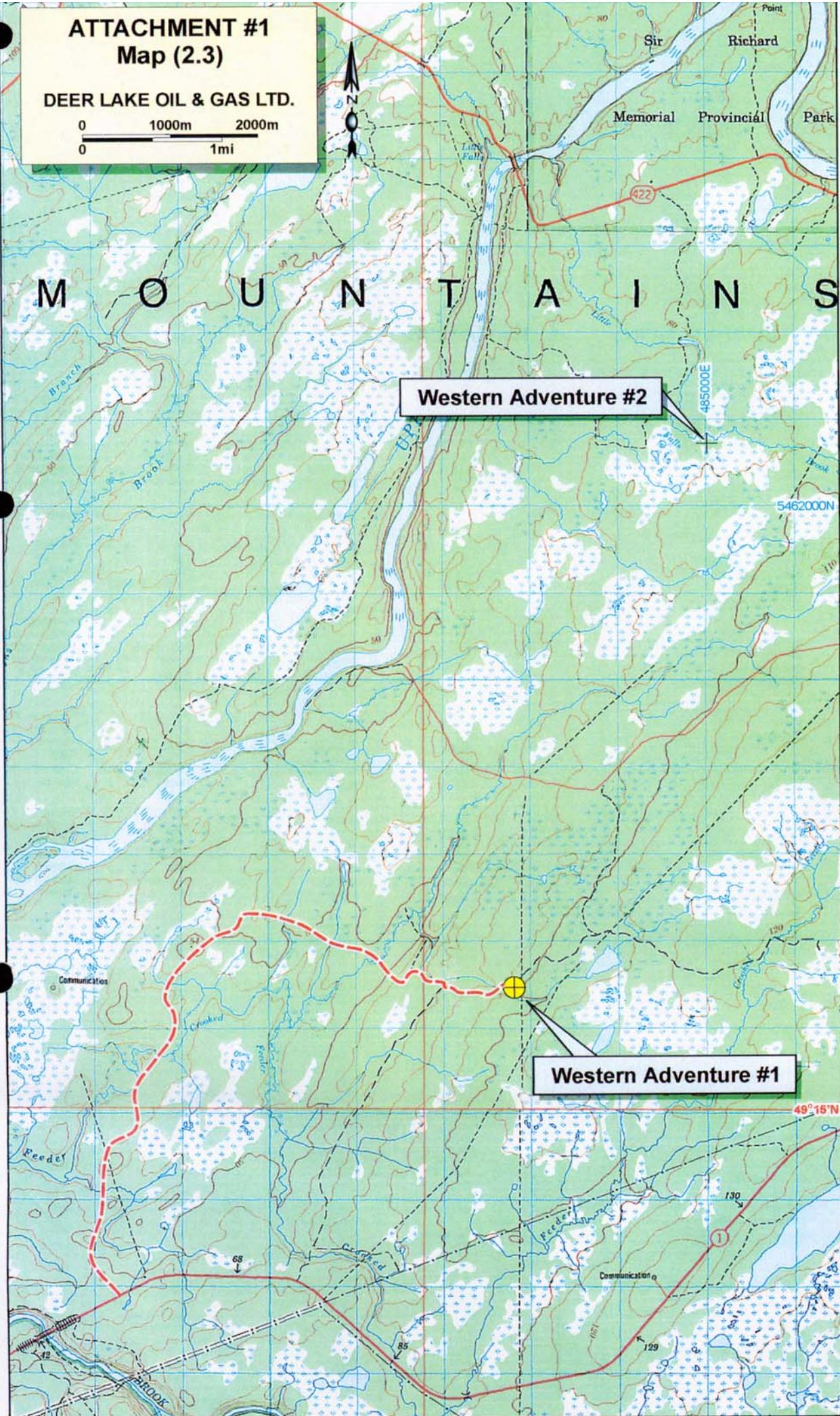
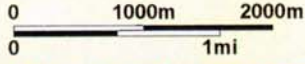
DST # 2      Misrun – 5 m fill on bottom – no test

DST #3      665 - 872 m GL      48 / 128 min  
PF: No preflow due to losing packer seat on tool opening.  
FF: Very weak air blow decreasing to dead in 10 min. NGTS.  
8826 / 9065 / 9301 / 8838 kPa (IH / FF/ FSI / FH)  
Recovery 60 m mud with some hydrocarbon flecking.

DST # 4      1425 – 1522 m GL      7 / 105 / 81 / 189 min  
PF: Strong air blow – GTS by end of flow, lazy 1.5 m flare.  
FF: GTS immed. Max rate 2935 decreasing to 922 10<sup>3</sup> m<sup>3</sup> per day.  
14958 / 2704 / 12861 / 3112 / 11520 / 14862 kPa (IH/IF/ISI/FF/FSI/FH)  
Mechanically successful test – suggests relatively low perms in tested interval. Recovery 234 m gassified muddy water.

**ATTACHMENT #1  
Map (2.3)**

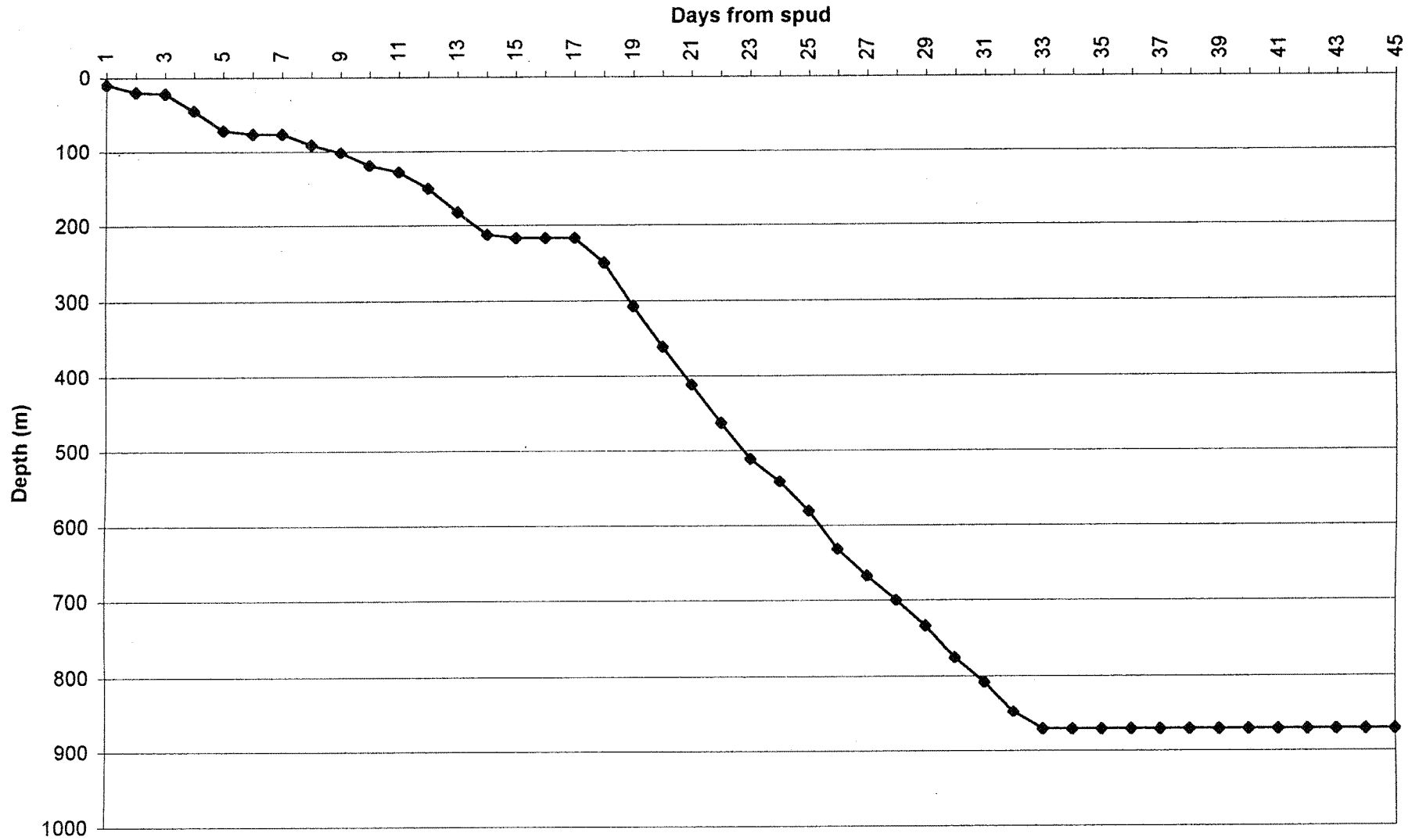
**DEER LAKE OIL & GAS LTD.**



**Western Adventure #2**

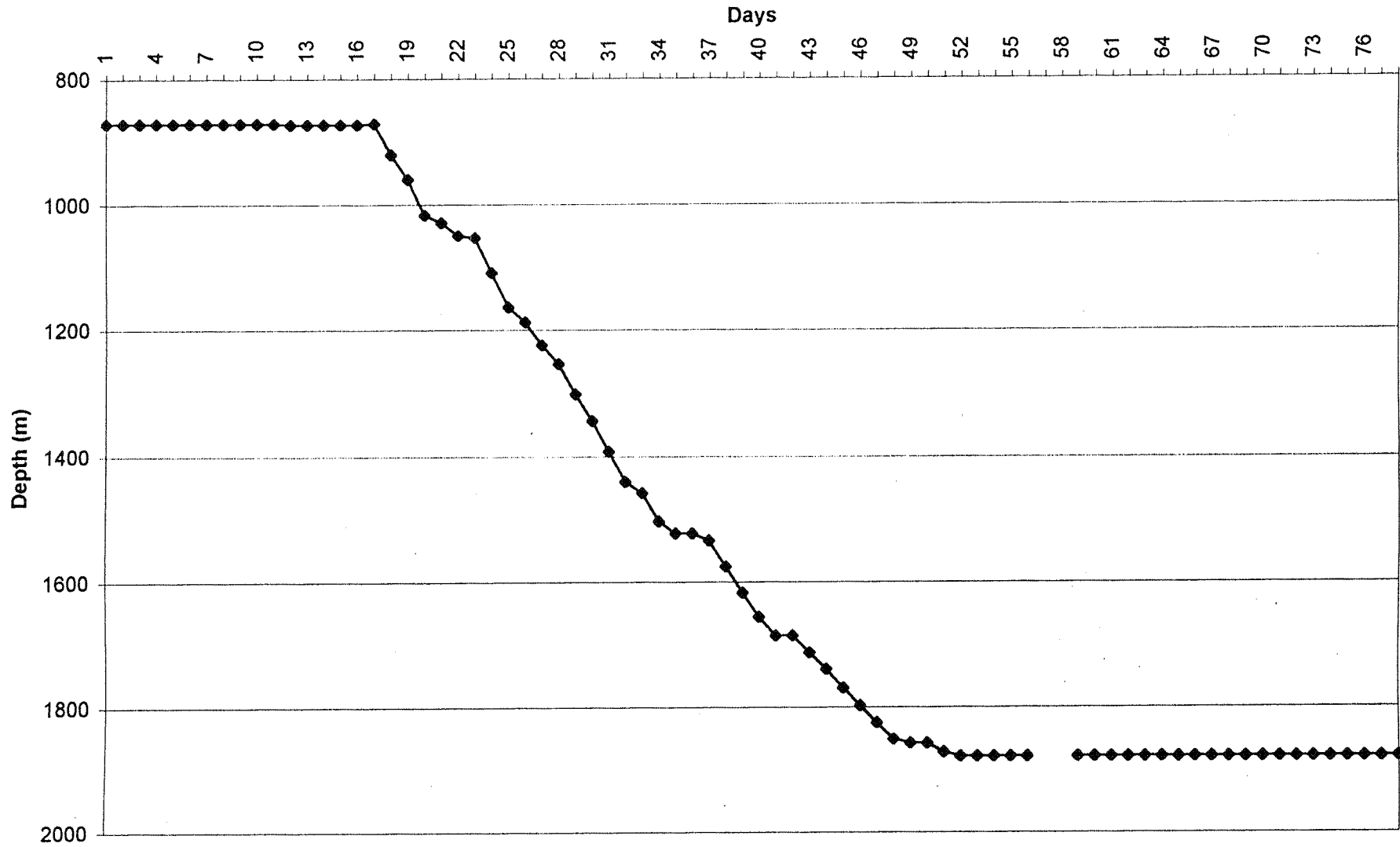
**Western Adventure #1**

Western Adventure # 1 (June 30 Spud to Aug 12, 2000)



Western Adventure # 1 (Oct 27 to Jan 26, 2001)

Drilling Curve  
DLOG WA #1



Time Breakdown  
DLOG WA #1

## Western Adventure #1

## Time Distribution - June 30 to Aug 12 (Spud to 872 m)

	Total Hrs.	RU/TO	Drill/Core	Reaming	Cond/Circ	Tripping	Pull Core	Survey	Repair Rig	DST	Logging	Cementing	WOC	WOO	Nu BOPs Test	Drill out	Misc	Shut Down	Fishing
<b>Total Hours</b>	1066.0	14.50	502.75	1.00	61.50	95.50	8.00	2.50	16.50	95.00	63.25	11.00	35.50	32.50	49.50	8.50	23.00	45.50	
<b>Time breakdown</b>	100.0%	1.36%	47.16%	0.09%	5.77%	8.96%	0.75%	0.23%	1.55%	8.91%	5.93%	1.03%	3.33%	3.05%	4.64%	0.80%	2.16%	4.27%	

## Time Distribution - Oct 27 to Jan 26, 2001 (872 m to FTD 1879)

	Total Hrs.	RU/TO	Drill/Core	Reaming	Cond/Circ	Tripping	Pull Core	Survey	Repair Rig	DST	Logging	Cementing	WOC	WOO	Nu BOPs	Drill out	Misc	Shut Down	Fishing
<b>Total Hours</b>	1705.0	283.50	547.00	7.00	72.00	212.00	0.00	2.50	100.00	18.00	107.00	86.50	49.00	48.00	14.50	86.00	26.00	0.00	46.00
<b>Time breakdown</b>	100.0%	16.63%	32.08%	0.41%	4.22%	12.43%	0.00%	0.15%	5.87%	1.06%	6.28%	5.07%	2.87%	2.82%	0.85%	5.04%	1.52%	0.00%	2.70%

Drill 178mm hole  
to 18.9m

Core 123mm hole  
to 218m

Plug #1  
825 - 790 mGL  
220 kg CI A  
cement

Core 96mm hole  
to 872m

Plug #1  
1255 - 1222 mGL  
210 kg CI G  
cement

Core 75.86mm hole  
to 1879m

T.D. 1879m

Conductor Pipe  
140mm 21.1 kg/m to 19m  
cement w/5 sxs neat CI A

Surface Casing  
114.7mm 17.4 kg/m  
HW to 218m  
cement w/22 sxs CI A  
with 1 sx cellophane

Intermediate Casing  
88.9mm 12.82 kg/m  
NW to 872m  
cement w/2.4t CI A  
plus additives

FISH - 96 joints NQ drill rods,  
stuck on bottom,  
top at 1584m


**ATTACHMENT #3  
Well Schematic (3.19)  
DLOG WA #1**

**DEER LAKE OIL & GAS LTD.**

Frac Flow Consultants  
Report

Depth (m)	STRUCTURAL & DISCONTINUITIES							GOUGE		PLANAR FEATURES			REMARK	
	rock type	breaks			character			type	colour	hardness	thickness (mm)	dip direction		angle of dip
		natural	induced	unconformity	open	closed	planar							
1401.4	SL/SH	x	x		x	x	x	1	wh		1-6	0	55	calcite fill, slicked, // to bed
02.38	SS	x			x	x		1	wh		1-4	230	60	calcite fill, slicked
04.35	SH	x			x	x		3	dk brn		<1	45	53	mn oxide coatings.
04.58	SH	x			x	x		2	"		<1	355	30	wk slicks
05.25	SS/CGL	x			x		x	5	"		<1	170	80	v.wk slicks, v. irregular
05.77	SH	x			x		x	5	"		<1	150	60	wk SKs,
09.07	SS	x			x	x		2	wh		1-2	10	60	good SKs, calcite fill.
09.62	SH	x			x		x	5	dk brn		<1	135	85	intermittent wk SKs, multi direction frac
10.17	SH	x			x	x		1	brn/wh		<1	180	65	> - few veinlets of calcite indicating closed frac between.
10.23	SH	x			x	x		1	"		<1	180	65	
10.47	SH	x			x		x	5	brn		<1	185	60	very irregular frac, multi directional
12.59	SH	x			x	x		2-3	wh brn		2-3	0	30	no SKs, calcite vein
12.69	SH	x			x		x	2	wh		1-2	0	85	calcite vein, not open.
13.58	SH	x			x	x		2	brn		<1	145	50	
13.89	SH	x			x	x		2	brn		<1	180	65	

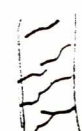
1401.4 m - 1660.4 m  
= 199 m.

Depth (m)	STRUCTURAL & DISCONTINUITIES					GOUGE		PLANAR FEATURES			REMARK			
	rock type	breaks			character		weathering	type	colour	hardness		thickness	dip direction	angle of dip
		induced	uncertain	open	closed	planar								
14.20	LS cgl	x		x	x	?	vein	wh		3	180	60	 dogtooth type calcite veins, possible pore space in vein.	
14.70	LS cgl	x		x	x	?	vein	wh		3-5	315	75		
15.00	SH/SS			x	x		vein	wh		>1	320	18		
16.0	SH	x		x	x	3		brn		4-10	180	17	4-10 mm of dk brn gouge, discontinuous calcite vein/veinlets, well developed.	
16.1	SH/SL	x		x	x	2		brn		<1	180	65		
19.1	1a	x		x	x	?	vein	wh		2	180	65		
19.65	1a-b	x		x	x	?	vein	wh		2-3	0	75		
21.31	1c <sub>m</sub>	x		x	x		vein	wh		1-2	very close to horizontal.			
21.74	1c <sub>m</sub>	x		x	x	3-2	fract	purp. brn		>1	330	45	some Mn staining apparent on surface.	
21.85	2a	x		x	x	?	vein	wh		1-4	90	30	some fault displacement on this one. contact between. = a/1c abrupt.	
24.56		x		x	x	1	fract	brn		>1	90	85	very polished with graphite $\frac{1}{2}$ SKS	
24.59		x		x	x	2	"	"		>1	30	85	stepped SKS, well developed	
24.62		x		x	x	3	fract vein	brn/wh		3-4	75	60	stepped SKS, well developed	
24.72		x		x	x	1	fract	brn		>1	50	75	wk SKS developed.	





Depth (m)	STRUCTURAL & DISCONTINUITIES				GOUGE		PLANAR FEATURES			REMARK			
	breaks	character	weathering	type	colour	hardness	thickness	dip direction	angle of dip				
											rock type	induced natural	uncertain
143.30	2a	x		x	x	2		F	brn	21	210	70	wk sks, little bit shiny.
33.64	2b	x		x	x	x	?	F/V	wh	2-6	240	65	calcite vein with sks (good) developed.
33.88	2b	x		x	x	2		F	brn	41	220	65	
33.90	2b	x		x	x	2-3		F/V	brn/wh	1-2	315	5	good curved frac with thin 21mm calcite vein, somewhat shiny.
33.95	2b	x		x	x	3		F	brn	21	180	55	v wk sks
34.06	2b	x		x	x	3-5		F/V	brn/L	21	315	25	good sks, smooth in some places very rough in others, good frac.
34.55	2b	x		x	x	?		V	wh	1-6	0	65	stacked set of veinlets, each with a thin brown layer of gouge.
35.14	2b	x		x	x	2		V/F	wh/br	4-3	280	55	good sks
35.19	2b	x		x	x	x	?	V	wh	1-2	200	50	vein, may be irregular but over all is planar
35.36	2b	x		x	x	2		F	brn	21	240	70	
35.51	2b	x		x	x	?		V	wh	2-3	260	55	
35.71	2b	x		x	x	?		V	wh/green	5-7	170	30	good vein, dog tooth calcite, <sup>type</sup> <del>ugly</del> porosity?, green colour.
35.86	2a												Many veins of calcite 41-7mm thick @ irregular angles, core appears brecciated.

Depth (m)	STRUCTURAL & DISCONTINUITIES					GOUGE		PLANAR FEATURES			REMARK	
	breaks			character		type	colour	hardness	thickness	dip direction		angle of dip
	rock type	natural	induced	uncertain	open							
1436.00	2a/b	x		x	x	2	F		<1	v. close to HORIZONTAL		1-3 cm of broken core, appears fractured and faulted from media - poorly developed SKS on various pieces, unable to orient
36.64	2a	x		x	x	1-2	F	br	<1	180	80	smooth, some part marks
36.66	2a	x		x	x	2	F	wh/br	2	350	80	good - ex SKS, calcite and some graphite
37.07	2a	x		x	x	1-2	F	br	<1	0	60	to S <sub>0</sub>
37.22	2a	x		x	x	2	F	br	<1	0	55	to S <sub>0</sub>
37.28	2a	x		x	x	2	F	br/blk	<1	0	78	
37.59	1d	x		x	x	3	F	wh/hn	1-2	0	85	nice stepped SKS with calcite
37.73	1d	x		x	x	x	V.	wh	1	180	80	10 cm above side has thin discontinuous calcite veins →  may be some fault displacement or some, not much movement 10's of cm 5 cm below
1438	1d	x		x	x	1	F	br/blk	<1	270	60	no SKS but polished, and sort of part marked, minor graphite.
1438.01	2a	x		x	x	1	F	br	<1	<del>curved</del>		this area has "spider web" irregular calcite veining.
38.07	2a	x		x	x	2	F	br/blk	<1	290	65	polished but a bit rough, com graphite
38.13	2a	x		x	x	3-4	F	br	<1	10	60	associated with a calcite vein (irregular)
38.16	2a	x		x	x	3	F	dk br	<1	0	88	horizontal
38.17	2a	x		x	x	1-2	F	br/wh	<1	340	80	excellent SKS, abt graphite, ridged but smooth in direction    to SKS.

Depth (m)	STRUCTURAL & DISCONTINUITIES						GOUGE		PLANAR FEATURES			REMARK		
	rock type	breaks			character			type	colour	hardness	thickness		dip direction	angle of dip
		natural	induced	uncertain	open	closed	planar							
1438.51	2a	x		x	x	1-2	F	brn		L1 0	65	to So, wk SKs		
38.68	2a	x		x	x	2-3	F	brn		L1 10	60	medium SKs, stepped SKs		
38.76	2a	x		x	x	2	F	brn		L1 10	75	m-poor SKs, little steps		
39.00	1d	x		x	x	2-3	F/V	brn/wh		L1 345	88	good stepped SKs.		
39.10	1d	x		x	x	2	F/V	brn/wh		2-3 355	80	orientation may be suspect, good SKs, stepped.		
39.62	2a/1d	x		x	x	3	F	brn		L1 05	65	shiny surface, calcite xtals suggest vuggy pore spaces (very little) not a vein.		
40.68	2a	x		x	x	2	F	brn		L1 05	65	to So		
41.25	2a			x	x	x 3-4	F	brn		L1 135	70	40.50 - 41.50 core is shale that is "poker chipped"		
40.60	2b	x		x		x 4	F	brn		L1 10	70	irregular with spotty shiny and SKs surfaces, occurs within a cm of the base of a SS unit the fracture follows the irregular bedding surface to a certain extent.		
41.34	2a	x		x	x	1	F	brn/blk		L1	horizontal	lots of breaks    to So up to 41.50 difficult to orient. polished with abt graphite.		
42.00	3a			x	x	2-3	F	gy		L1 315	65	Kinda funny looking, no SKs, possible they are false.		
42.01	3a			x	x	2-3	F	gy		L1 45	60			



Depth (m)	STRUCTURAL & DISCONTINUITIES						GOUGE		PLANAR FEATURES			REMARK	
	rock type	breaks			character		type	colour	hardness	thickness	dip direction		angle of dip
		induced natural	uncertain	open	closed	planar							
1446.12	2a	x		x		x	1-2	F	brn/g	L1	345	60	good smooth frac, slightly curved, some graphite.
46.20	2a+b	x		x	x	x	?	F/V	wh/brn	L1	30	60	Bundle of calcite veins over 7cm, majority of 7cm is wh calcite vein. probably some pore space in big vein but it is beat up pretty bad in core tube.
<del>From this point onward (until stated otherwise) orientations somewhat suspect to doubtful. This is due to poor S<sub>0</sub> indicators and/or conflicting S<sub>0</sub> indicators.</del>													
52.29	2b	x		x		x	2-3	F	brn	L1	270	75	small bit of calcite smearing + mnr graphite.
52.34	2b	x		x		x	x3	F	brn	L1	225	65	good SKs
52.45	2b	x		x		x	3	F	"	L1	340	60	good SKs.
52.72	2b	x		x		x	3-4	F	brn	L1	340	60	poor SKs
52.91	2b	x		x	x	x		F/V	brn/wl	L2	345	10	good near vert frac, calc smears, some graphite
53.25	2b	x		x		x		F	brn	L1	N	0	no orientation.
53.44	2a		x	x		x	5	F	brn	L1	45	15	is this real? no movement along frac plane
<del>1455.0 → 58.33 UNABLE TO ORIENT, lack of consistent S<sub>0</sub> indicators</del>													
55.41	2a	x		x		x	3-4	F/V	brn/wl	L2	N	60	good SKs, some shiny, mnr calcite, mnr graphite
55.59	2a	x		x		x	3-4	F	brn	L1	N	60	good SKs, 90° different orient than above
55.65	2a	x		x		x	3	F	brn	L1	N	85	both are poorly defined, poor SKs but irregular
55.71	2a	x		x		x	3	F	"	L1	N	80	

Depth (m)	STRUCTURAL & DISCONTINUITIES					GOUGE		PLANAR FEATURES			REMARK			
	breaks	character	weathering	type	colour	hardness	thickness	dip direction	angle of dip					
										rock type		induced natural	uncertain	open
144.21	3a	x		x						g	21	180	55	
48.22	3a	x								gy	21	-	-	Near horizontal, minor graphite.
48.33	3a	x		x						gy	21	020	75	mod sks
49.39	3a	x								gy	21	080	75	mod sks
48.53	3a		x	x						gy	21	-	-	— NO ORIENTATION POSSIBLE DUE TO MASSIVE NATURE OF 3a.
48.80	3a	x								gy	21	-	60	
48.88	3a	x		x						gy	21	-	60	wk sks
48.94	3a	x		x						g	21	-	70	u wk sks
49.09	3a	x		x						gy	21	-	70	wk sks
49.10	3a	x		x						gy	21	-	70	wk sks
49.21	3a	x								gy	21	-	~45	wk sks
49.28	3a	x		x						gy	21	-	~80	good sks
49.40	3a	x		x						g	4	-	65	good sks
50.45	2a	x		x						g	4-1	-	55	good sks

Depth (m)	STRUCTURAL & DISCONTINUITIES							GOUGE		PLANAR FEATURES			REMARK	
	rock type	breaks			character			type	colour	hardness	thickness	dip direction		angle of dip
		induced natural	uncertain	open	closed	planar	curved							
1455.74	pe												NO = NO ORIENTATION	
1456.52	2b	x		x	x	x	3		brn/L	1-2	NO	15	good SKs, mnr graphite.	
56.79	2b	x		x		x	4		brn	<1	NO	80	mod well develop SKs	
57.09	2b	x		x		x	2		brn	<1	NO	60	poor SKs, polished and pock marked.	
57.22	2b	x		x	x	x	2		brn	<1	NO	60		
57.24	2b	x		x		x	4		brn	<1	NO	70	good stepped SKs	
57.36	2b	x		x		x	3-4		brn	<1	NO	80	good stepped SKs.	
57.61	2b	x		x		x	3		brn	<1	NO	80	mod SKs	
57.64	2b	x		x		x	2-3		brn/L	<1	NO	60	shiny SKs w calcite "scabs"	
57.72	2b	x		x		x	2-3		brn	<1	NO	80	mod SKs	
57.78	2b	x		x		x	1-2		brn	<1	NO	80	poor SKs, polished w. pock marks.	
57.86	2b	x			x	x	?		wh	3-7	NO	70	group of 10+ calcite veins over 5cm, probab a little bit of pore space, mnr rough	
57.98	2b	x		x		x	1		brn/ blk	71	NO	65	} opposite facing directions.	
58.00	2b	x		x		x	2-3		brn	71	NO	40		
58.09	2b	x		x		x	1-2		brn/ gs	71	NO	40	com graphite	
58.10	2b	x		x		x	1-2		brn/ gs	71	NO	60	} com polished with poor SKs if at all, com graphite.	
58.15	2b	x		x		x	1-2		brn/ g	71	NO	60		



Depth (m)	STRUCTURAL & DISCONTINUITIES						GOUGE		PLANAR FEATURES			REMARK			
	rock type	breaks			character			type	colour	hardness	thickness		dip direction	angle of dip	
		natural	induced	uncertain	open	closed	planar								curved
1458.31	2b	x			x	x	x	?	F/U	wh		10-15/100	65	Nice thick calcite vein with some preserved porosity	ABLE TO ORIENT but still not absolutely confident in so.
58.43	2b	x			x		x	4-5	F/	brn/wh		>1 345	80	-occ frosty wh calcite on fracture surface	
58.57	2b	x		?			x	4-5	F	brn		>1 315	50	v wk sks	
58.72	2b	x					x	4	F	brn		>1 330	55	wk sks	
58.74	2b	x			x	x		?	V	wh		2-3 340	55		
58.81	2b	x			x	x		?	V	wh		>1 230	50	dis continuous. calcite vein	
58.92	2b	x			x		x	3	F	brn		>1 315	70	m sks, mnr calcite dusting	
58.94	2b	x			x		x	3	F	brn		>1 325	70		
59.21	2a	x			x	x		?	V/F	wh		2-4 230	80	Vein 2-4mm thick, some very porosity probably preserved.	
59.47	2a	x			x		x	4	F	brn/bk		>1 315	60	mnr graphite and mnr sks	
59.70	1d	x			x		x	4	F	brn		>1 290	70	147 → 170 occ dis continuous calcite veining. v wk sks	
60.22	3a <sub>2b</sub>	x			x	x		3-4	F	brn		>1 290	68	v wk sks	
61.95	2b	x			x	x		1	F	brn/bk		>1 290	60	orientations seem to be <sup>as</sup> conflicting i.e. so is not constant here. still believe ok data but may be a problem. com graphite, occ calcite	
62.42	1d	x			x		x	3	F	brn		>1 340	60	wk sks	
63.10	1b	x			x		x	3-4	F	brn occul		1-2 230	70	wk sks Better datum	
												Box 536 (1403.20 - 1467.30) DROPPED? Many of the pieces of core do not fit together.			

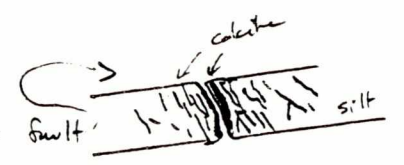
Depth (m)	STRUCTURAL & DISCONTINUITIES					GOUGE		PLANAR FEATURES			REMARK			
	rock type	breaks			character		weathering	type	colour	hardness		thickness	dip direction	angle of dip
		natural	induced	uncertain	open	closed								
1467.55 2b	x		x			x 4		F	wn		4	90	60	good SKS, mnr calcite smears
67.62 2b			x	x		x 3		F	"		4	80	60	shiny, NO SKS
67.66 2a	x			x		x 3		F	"		4	110	60	shiny, NO SKS
67.75 2a			x	x		x 3		F	brn/wh		4	120	60	good SKS
68.04 2a	x			x		x 2		F	brn		4	90	70	mnr calcite smears, shiny smooth surface
68.85 1a	x		x	x		x 4		V	wh		2-3	-	90	68.16 middle of a 15 cm patch of intense highly irregular calcite veining calcite vein possible wh SKS.
69.01 1a	x		x	x		x 4		V	wh		2-3	115	80	calcite vein may have some vuggy porosity preserved.
70.04 2b	x			x		x 4		F	brn		7	350	70	mnr SKS, somewhat shiny, u mnr graphite.
70.08 2b	x			x		x 3		F	brn		7	60	70	
70.44 2a	x		x	x		x 2		F	brn		7	0	85	good SKS, good graphite smooth
70.46 2a	x			x		x 2		F	brn		7	-	90	fairly smooth and shiny
70.78 1a	x			x		x 3		F	brn-wh		7	50	60	
70.84 1a	x			x		x 3		F	brn-wh		7	30	75	very well developed SKS
71.04 1a	x			x		x 3		F	brn-wh		7	-	-	unable to orient rubble zone with some slicked surfaces

Depth (m)	STRUCTURAL & DISCONTINUITIES					GOUGE		PLANAR FEATURES			REMARK			
	rock type	breaks			character		weathering	type	colour	hardness		thickness	dip direction	angle of dip
		natural	induced	uncertain	open	closed								
1473.47	2a	x			x		3		F	brn		>1 30	70	minor sks, mur graphite
73.53	2a		x	x	x		3		F	brn		>1 100	60	may not be real looks somewhat shiny and perhaps there are sks.
73.58	2a	x			x	x	3		F	brn		2-4 100	60	mur sks, does not fit perfectly into other pieces of core, i.e. some of the infill (gouge) has been removed/lost.
73.69	2a	x			x		3		F	brn		<1 110	80	wk sks
73.85	2a	x		x	x		3		F	brn		<1 005	50	shiny surface, may be polish or mica along S.
74.09	2a	x			x		3		F	brn		<1 010	70	wk sks
74.13	2a	x			x		2		F	brn		<1 110	83	
74.21	2a	x			x		2-3		F	brn		<1 005	55	mod-wk sks
74.33	2a	x			x		2-3		F	brn		<1 005	72	polished, no sks, mur graphite.
74.59	2a	x			x	x	?		V	wh		34 -	50	74.49 - 75.25 Unable to orient due to lack of S <sub>0</sub> . abt calc veins 74.49 - 75
74.67	2a	x			x	x	?		V	wh		1-2 -	50	
74.72	2a	x			x	x	2-3		F	brn	soft	? -	80	there was some material between the two surfaces but it has crumbled and/or turned to mud.
74.91	2a	x			x	x	2-3		F	brn	soft	? -	75	
74.92	2a	x			x	x	?		V	wh		1-2 -	-	irregular veining most ore close to horizontal i.e. 90° (angle of dip)

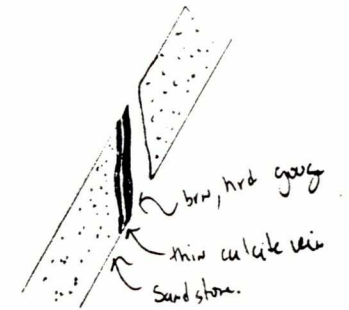
Depth (m)	STRUCTURAL & DISCONTINUITIES				GOUGE		PLANAR FEATURES			REMARK		
	rock type	breaks		character		type	colour	hardness	thickness		dip direction	angle of dip
		natural	uncertain	open	closed							
1475.20	2a/b	X		X	X	2-3	F	brn	>1	-	60	there are two identical faults here dipping same with opposite dip directions note exhibit good SKS, w. mnr calcite smears.
76.42	1b/2a	X		X	X	3-4	F	brn/wh	>1	60	~60	1476.40-1476.80 abt calcite staining, irregular, <sup>sub</sup> planar ones follow So. ~ some SKS
76.48	1b/2a	X	?	X	X	2-3	F	brn	>1			possibility that this fracture may not natural looks somewhat shiny, but no SKS
76.40-76.60	1b/2c	X		X	<del>X</del>	?	V	wh	1-3	~0	~60	11-15 discontinuous veins over this interval, all are close to orientation given.
76.59	"	X	?	X	X	2-3	F	brn	>1	100	75	possibility of uncertainty(?), no SKS, w/ calcite smears
76.66	"	X		X	X	3-4	F	brn/wh	>1	30	80	fair SKS,
76.69	"	X		X	X	3-4	F	brn/wh	>1	010	80	good SKS, com calcite smears
76.69	"	X		X	X	2-3	F	brn	>1	080	65	fair SKS, little calcite
76.74	"	X	?	X	X	2-3	F	brn	>1	330	85	somewhat polished, no SKS, mnr calcite smears
77.80	2b	X		X	X	4-5	F	brn/wh	>1	350	70	poor SKS, com calcite smears
77.85	1d	X		X	X	4	F	brn/wh	>1	290	70	good SKS, occ calcite smears (because of the core nature of the frac dip direction is approx)
78.13	1d	X		X	X	2-3	F	brn	>1	-	-	Fracture in core takes on a "U" shape no orientation info possible.
79.11	1d			X	X	3	F	brn	>1	-	-	irregular

Depth (m)	STRUCTURAL & DISCONTINUITIES					GOUGE		PLANAR FEATURES			REMARK		
	rock type	breaks		character			type	colour	hardness	thickness		dip direction	angle of dip
		induced natural	uncertain	open	closed	planar							
1479.33	2b		x	x	x	3	F	brn		>1 030	68	bit shiny with a "dusting" of calcite in patches	
79.46	2b	x		x	x	3	F	brn		>1 290	60	mur sks, mur calcite	
79.51	2b	x		x	(x)	3	F	brn		>1 225	60-70	a little bit curved, good sks.	
79.80	2b	x		x	x	3-4	F	brn		>1 000	72	v mur sks, patches of dusty calcite.	
1480.30	2a	x		(x)	x	2	F	brn		>1 230	35	good sks	
80.31	2a/b	x		x	(x)	3-4	F	brn		>1 040	50	wk sks	
80.54	2a	x		x	(x)	2-3	F	brn		>1 020	52	wk-mod sks	
80.79	2a	x		x	(x)	3	F	brn		>1 045	80		
80.92	2a	x		x	x	3	F	brn		>1 030	65	mod sks, mur xaline calcite	
80.99	2a	x		x		3.5-4	F	brn		>1 035	~70	good sks, com calcite smears	
81.05	2a	x		x	x	2-3	F	brn		>1 050	60	mod sks	
81.12	2a	x		x	x	2-3	F	brn		>1 355	70	mod sks	
81.30	2a	x			x	?	V	wh		>1 000	75	very thin veinlet with an "induced" frac along it.	
81.59	2a	x		x	x	2-3	F	brn		>1 045	70		
81.69	2a	x		x	x	2-3	F	brn		>1 000	70	polished, good sks	
1482-1482.66 com irregular calcite veinlets													

Depth (m)	STRUCTURAL & DISCONTINUITIES							GOUGE		PLANAR FEATURES			REMARK
	rock type	breaks				weathering	type	colour	hardness	thickness	dip direction	angle of dip	
		induced natural	uncertain	closed open	character planar curved irregular roughness								
1481.98	2a	X		X	X	2-3	F	brn	4	350	65	good SKS	
82.10	2a	X		X	X	3-4	F/V	wh/brn	3-5	000	70	excellent SKS, intense veining closer to the fault	
82.12	2a	X		X	X	4	F	brn	4	000	65	good-mod SKS, many calcite smears	
82.14	2a	X		X	X	3-4	F/V	brn/wh	4	180	80	good-exc SKS, occ calcite smear	
82.31	2a	X		X	X	2-3	F	brn	4	000	60	polished, mod-good SKS	
83.63	2b	X		X		X 4-5	F	brn/wh	4-1	2000	~70	irregular and rough, good SKS.	
88.02	2b	X		X	X	2	F	brn	4	180	60	wk SKS, c	
88.24	2b	X		X	X	4	F	brn	4	180	65	mod-good SKS, many patches of dusty calcite.	
1492.38	2a → 1d	X		X	X	?	V	wh	1-2	300	70		
1492.40	2a 1d	X		X	X	?	V	wh	1-2	300	70	veins and veinlets	
92.67	1a	X		X	V	?	V	wh	1-2	300	65		
92.72	1a	X		X	X	?	V	wh	1	290	50		
92.82	1d	X		X	X	2	F	H brn → Sg	4	41	170	63	gouge looks waxy but is harder, good SKS
92.85	1d	X		X	X	?	V	wh	2-3	180	75	nice "dog tooth" calcite vein, probably some waxy $\phi$ present.	
93.42	1d	X		X	X	?	V	wh/brn	6+	3-5	110	40	has brn gouge that is just as hard as the ss around it, small thin calc vein in center



calcite dark  
silt white



Depth (m)	STRUCTURAL & DISCONTINUITIES					GOUGE			PLANAR FEATURES			REMARK	
	breaks		character			weathering	type	colour	hardness	thickness	dip direction		angle of dip
	rock type	natural	induced	uncertain	open								
1496.25	2a	X		X		(N)	2	F/V	brw/wh	>1	315	70	UWK SKS
1499.19	2a	X		X			3	F	brw/wh	>1	0	70	} good SKS, see calcite smears
99.34	2a	X		X			3	F	brw/wh	>1	045	68	
1505.75	2b	X		X		(X)	2	F	brw	>1	150	75	
05.90	2b	X		X		X	4	F	brw	>1	330	80	good SKS
05.91	2b	X		X		X	2-3	F	brw	>1	55	70	good SKS
05.96	2b	X		X		X	3-4	F	brw	>1	225	70	good-exe SKS
06.71	2b	X		X		X	2-3	F	brw	>1	-	-	unable to orient irregular
06.76	2b	X		X		X	2-3	F	brw	>1	-	-	roughly horizontal
06.87	2b	X		X		X	2-3	F	brw	>1	240	75	orientation is an average due to irregularity, but less rough than previous 2.
07.28	2b	X		(X)		X	?	F/V	wh	2-4	330	85	good calcite vein probably had some ugly porosity
07.30	2b	X		X		(X)	2-3	F	brw	>1	290	90	poor SKS, polished
07.33	2a	X		(X)		X	?	F/V	wh/brw	2-4	135	85	has preserved ugly pore space within the vein.
07.47	2a	X		X		X	H2	F	brw	>1	005	50	} essentially in the same place, core is broken badly difficult to reassemble, broken core continues to 1508.0
07.48	2a	X		X		X	H2	F	brw	>1	125	70	
07.49	2a	X		X		X	H2	F	brw	>1	240	35	

Depth (m)	STRUCTURAL & DISCONTINUITIES					GOUGE		PLANAR FEATURES			REMARK		
	rock type	breaks		character		weathering	type	colour	hardness	thickness		dip direction	angle of dip
		natural	induced	planar	irregular								
1507.51	2a	x		x	1		F	brn	>1	145	50	very smooth	
1507.53	2a	x		x	1		F	brn	>1	330	30	very smooth	
07.68	2a	x		x	1		F	brn	>1	025	30	07.63-07.77 (14cm) many many fractures, most if not all follow similar pattern to that of 07.68 & 07.69 (left ←)	
07.69	2a	x		x	1		F	brn	>1	020	70		
07.88	2a	x		x	3-4		F	brn	>1	270	80		07.89-08.09 : badly (or goodly) fractured like above. ← trend is general sense, shiny but irregular
07.89	2a	x		x	3		F	brn	>1	225	80	← "	
07.94	2a	x		x	2		F	brn/g	>1	90	70	good faulted surface, good SKs, com graphite	
07.98	2a	x		x	2		F	brn/g	>1	135	65		
08.02	2a	x		x	3		F	brn	>1	110	70		
08.06	2a	x		x	2-3		F	gn/brn	>1	110	60		
08.09	2a	x		x	2-3		F	gn/brn	>1	115	60		
08.36	1cc	x		x	3		F	brn	>1	~90	-	bowl shaped,	
09.00	1cc	x		x	4-5		F	brn	-	~90		wk sks,	
09.17	1cc	x		x	4		F	brn	?		80	unable to orient core	



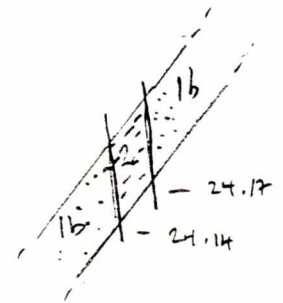
Depth (m)	STRUCTURAL & DISCONTINUITIES				GOUGE		PLANAR FEATURES			REMARK		
	rock type	breaks		character		type	colour	hardness	thickness		dip direction	angle of dip
		natural	induced	unconformity	open							
15.09.40	lc <sub>c</sub>	X	X	X	X	4-5	F	brn	71	—	~90	unable to orient core
09.58	lc <sub>c</sub>	X		X	X	3	F	brn	71			Shiny brn surfaces, good SKS, unable to orient.
09.68	lc <sub>c</sub>	X		X		5	F	brn	71	—	~80	UNABLE TO ORIENT.
10.23	lc <sub>m</sub>	X		X	X	2-3	F	brn	71	—	50	NO ORIENT
10.80	2a	X		X	X	2-3	F	brn	71	135	60	Shiny, wk SKS
11.22	2b	X		X	X	2	F	brn	71	135	70	smooth, mrr graphite
11.28	2b	X		X	X	2-3	F	brn	71	315	58	good SKS
11.95	2b	X		X	X	2	F	brn	71	030	70	smooth, wk polish.
11.98	2b	X		X	X	3	F	brn	71	340	65	stepped, polished
11.99	2h	X		X	X	?	V	wh	71	330	30	small veinlets X3
12.09	2b	X		X	X	4-5	F	brn	71	—	~90	mrr graphite, polish.
12.39	2b	X		X	X	4-5	F	brn	71	~135	~75	some polish, wk SKS
12.47	1d	X		X	X	?	V	wh	14	050	45	
12.56	2a	X		X	X	?	V	wh	3-7	110	80	Some porosity probably present.

Depth (m)	STRUCTURAL & DISCONTINUITIES				GOUGE			PLANAR FEATURES			REMARK
	breaks		character		type	colour	hardness	thickness	dip direction	angle of dip	
	rock type	natural	induced	uncertain							
1512.62 1a	x							1-2	350	250	} all 3 of these veins generally trend the same way, they are a bit irregular
1512.66 1a								71-1	005	250	
12.69 1a								1-3	045	250	
12.98 1d	x			x				71	045	65	
13.27 2a	x			x				71	030	45	1512.77 → 1513.25 many very irregular calcite veins in unit 1d, Very shiny, got graphite, looks like a mirror!
16.73 2b		x	x	(x)				71	010	35	possible weak sks.
17.50 2a	x			x				37	180	85	good vein some por space preserved.
17.56 2a	x			x				71	010	65	mur calc smears, wk sks
18.22 2b	x			x				71	015	60	good sks
19.70 2b				x				71	020	68	mod sks
18.84 2b				x				71	020	65	good sks.
19.06 2a	x			x				71	120	80	good sks, com graphite
19.26 2a	x			x				71	180	75	good sks
19.27 2a				x				71	180	270	good sks, fairly smooth, scoured

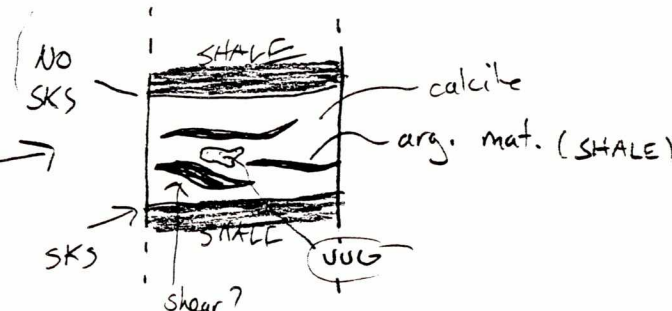
Depth (m)	STRUCTURAL & DISCONTINUITIES					GOUGE			PLANAR FEATURES			REMARK	
	breaks		character			weathering	type	colour	hardness	thickness	dip direction		angle of dip
	rock type	natural	induced	uncertain	open								
1519.53	2a	X		X	X	3	F	brn	L1	135	55	good SKS	
1519.54	2a	X		X	X	3	F	brn	L1	180	60	↙	
19.76	2a	X		X	X	3-4	F	brn/wh	L1	10	80	occ calc smears, occ SKS	
20.06	2a	X	X			2	F	brn	L1	300	75	very wk SKS if @ all	
20.09	2a	X		X	X	1-2	F/V	brn/wh	1	330	75	excellent SKS, 1mm calcite vein as well	
20.33	2a	X		X	X	2-3	F	brn	L1	70	60	mnv SKS, mnv calc.	
20.68	2a	X		X	X	3	F/V	brn/wh	1-4	140	80	very shiny	
20.75	2a	X		X	X	3-2	F	brn	L1	-	-		
20.81	2a	X		X	X	2-3	F	brn	L1	045	85		
20.83	2a	X		X		2-3	F	brn	L1	225	60	very shiny	
20.91	2a	X		X		X3	F	brn	L1	-	-		
20.97	2a	X		X	X	2	F	brn	L1	230	60		
21.00	2a	X		X	X	3	F	brn	L1	230	60		
												21.17 → 21.34 very badly fractured unable to orient due to intense fracturing.	
21.05	2a	X		X	X	3	F	brn	L1	285	60		
21.12	2a	X		X	X	3	F	brn	L1	290	68	poor SKS	
21.16	2a	X		X	X	3	F	brn	L1	230	60		

Depth (m)	STRUCTURAL & DISCONTINUITIES				GOUGE		PLANAR FEATURES			REMARK		
	rock type	breaks		character	weathering	type	colour	hardness	thickness		dip direction	angle of dip
		induced natural	uncertain									

1522.22	lc <sub>m</sub>	x	x	x	x	4	F	brn	L1	-	N/A	} - small portions of shiny slicked areas } unable to orient.
22.29	lc <sub>m</sub>	x	x	x	x	3-4	F	brn	L1	-	65	
22.34	lc <sub>m</sub>	x	x	x	x	2	F	brn	L1	-	55	
22.44	ld	x	x	x	x	2	F	brn	L1	90	50	
23.72	lb	x	x	x	x	2-3	F	brn	L1	190	225	fairly smooth not shiny.
24.14	2a/lb	x	x	x	x	2	F	brn	L1	290	70	shiny and smooth good SKS
24.17	2a/lb	x	x	x	x	2	F	brn	L1	255	70	poor SKS, patchy, shiny surface
26.15	lc <sub>c</sub>	x	x	x	x	2-3	F	brn	L1	-	~80	only evidence for a "real" frac is a smooth and weakly slicked shale cleft. the sand and granules show no evidence of a break.
26.50	lc/2a	x	x	x	x	2-3	F	brn/g	L1	315	65	good smooth surfaces, com graphite.
27.30	lc <sub>c</sub>	x	x	x	x	5	F/V	wh	1-3	010	72	Very good inter xtal porosity within calcite vein, best one yet. NO SKS looks like it opened up and mostly filled with calcite.
29.03	2a	x	x	x	x	2-3	F	brn/g	L1	045	70	} shiny surfaces.
29.12	2a	x	x	x	x	3	F	brn/g	L1	070	60	
29.18	2a	x	x	x	x	3	F	brn	L1	010	75	good SKS
29.39	2a	x	x	x	x	2-3	F/V	wh/br	3-9	090	70	good SKS
29.41	2a	x	x	x	x	2	F	brn/g	L1	055	70	com graphite, bit shiny.



Depth (m)	STRUCTURAL & DISCONTINUITIES					GOUGE		PLANAR FEATURES			REMARK							
	breaks		character			type	colour	hardness	thickness	dip direction		angle of dip						
	rock type	induced natural	uncertain	open	closed								planar	curved	irregular	roughness	weathering	
15.29.62	2a	x		x								2-3	F	brn	<1	030	80	occ SKs
29.63	2a	x		x		x						3-2	F	brn	<1	270	70	mnf SKs
29.79	2a	x		x		x						2-3	F	brn	<1	070	60	occ SKs
31.73	1d	x		x		x						3	F	brn	1-4	180	62	good SKs
31.83	1d	x				x	x					?	V	wh	<1	350	50	3 v thin calc veinlets
32.26	1d	x		x		x						3-4	F	brn	1	-	90	good SKs
32.88	1c	x		x		x						3	F/U	wh	1-2	-	85	wk SKs, stepped.
33.58	1d	x		x		x						4-5	F/U	wh	1-2	-	65	good SKs in calcite
33.86	1d	x		x		x						4-5	F/U	wh brn	1-2	045	75	good SKs in calcite.
35.59	1d	x		x	x	x						?	V	wh brn	25-30	225	80	3cm thick calcite vein with vuggy porosity and thin lensoidal shale inclusions within
33.13	1c	x		x		x						3-4	F	wh brn	<1	-	80	good SKs on surfaces covered with calcite, otherwise no SKs.
33.17	1c	x				x	x					?	V	wh	41-7	-	60	good calc vein with preserved pore space in the veins 2mm wide.
33.26	2a	x		x		x						2	F	brn	<1	-	25	this frac has poor SKs and is developed along what appears to be an older SSD type fault.
33.38	1c	x		x		x						4-5	F	wh brn gn	<1	-	80	fair SKs,
33.23	2a	x		x								X2	F	brn	<1	-	~80	some SKs, quite irregular may be 2-3 fracs superimposed.



with vuggy porosity and thin lensoidal shale inclusions within the vein.

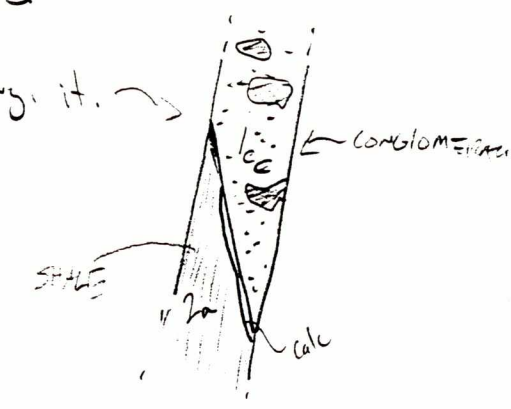
good calc vein with preserved pore space in the veins 2mm wide.


this frac has poor SKs and is developed along what appears to be an older SSD type fault.

fair SKs,

some SKs, quite irregular may be 2-3 fracs superimposed.

Depth (m)	STRUCTURAL & DISCONTINUITIES				GOUGE		PLANAR FEATURES			REMARK			
	breaks		character		type	colour	hardness	thickness	dip direction		angle of dip		
	rock type	induced	uncertain	open								closed	planar
											From this point onward (down hole) $S_0$ becomes quite shallow and irregular. Difficult to orient with any confidence. <b>UNABLE TO ORIENT THIS POINT FORWARD (DOWN).</b> 1536 → T.D		
1536.01	2a	x		xx	?	-	F <sub>N</sub>	brn wh	3-4	4-2	-	30	This looks like a sso type fault with some calcite along it.
36.19	lc	x		xx	?	-	v	wh	-	1	-	35	Same as above.
36.27	lc	x		x	?	-	v	wh	4-8	-	-	05	Joins into above vein/frac, overall planar but has quite a bit of irregularity to it.
37.23	2a	x		xx	?	-	v	wh	4	-	-	30	discontinuous
37.41	2a	x		x	?	-	v	wh	4	-	-	30	bit irregular
37.60	2a	x		x	x	2-3	F <sub>N</sub>	wh	4	-	-	68	
37.83	2a	x		xx	?	-	v	wh	1	-	-	45	
38.50		x		x	3-4		V/F	wh	1	-	-	260	
38.53		x		xx	?		v	wh	1	-	-	35	many superimposed hair thick veinlets make one "big" one
38.58		x		xx	?		v	wh	4	-	-	35	Group 3 hair thick veinlets
38.73		x		x	2		V/F	wh	1	-	-	280	



Depth (m)	STRUCTURAL & DISCONTINUITIES				GOUGE		PLANAR FEATURES			REMARK			
	breaks		character		type	colour	hardness	thickness	dip direction		angle of dip		
	rock type	natural induced	uncertain	open closed								planar curved	irregular
1539.15	2a	x		x	?	-	V	wh	-	1	-	~80	vein that follows So
39.36	1a	x		x	x	-	V	wh	-	1	-	~85	good SKs
40.03	3b/2a	x		x	x	-	V	wh/brn	-		-		thin "slebs" of SHALE caught up in the vein. 
41.07	3b	x		(x)	x 2-4	-	V/F	wh	-	1-2	-	-	Ugly irregular fac w. vein.
44.46	3b	x		x	x	3	V/F	wh/brn	-	4	-	60	good SKs
44.99	3b	x		x	x	3	V/F	wh/brn	-	4	-	85	good SKs
45.15	3b	x		x	x	2-3	V/F	wh/brn	-	1	-	85	good SKs
44.24	3b	x		x	x?		V	wh	-	4-8	-	~85	follows upward through the core along a some SSD type faulting, also irregular
44.08	3b	x		x	x	2-3	V/F	wh	-	1-6	-	~60	good SKs
47.28	3b	x		x	x	3	V/F	wh	-	4	-	60	- good stepped SKs
47.34	3b	x		x	x	?	V	wh	-	21-1	-	05	
47.41	3b	x		x	x	3	F/V	wh	-	4-1	-	80	good stepped SKs
48.09	2a	x		x	x	2	V/F	wh/brn	-	4	-	~90	poor SKs

Depth (m)	STRUCTURAL & DISCONTINUITIES					GOUGE		PLANAR FEATURES			REMARK	
	breaks	character			weathering	type	colour	hardness	thickness	dip direction		angle of dip
		rock type	uncertain	induced								
1548.14	2a	X				F/V	wh	-	4	-	~90	very wk SKs
48.21	2a	X				F/V	brn/wh	-	4-2	-	68	weak-poor SKs, shiny surfaces
48.26	2a/3b	X				V	wh	1-2			80	} irregular thickness veins
48.28	2a/3b	X				V	wh	"			80	
48.33	2a/3b	X				V	wh	"			80	
48.35	2a/3b	X				V	wh	"			80	
48.38	2a/3b	X				V	wh	"			80	
48.41	2a/3b	X				V	w	"			80	
48.46	2a/3b	X	X			V/F	brn/wh	4			~80	← good SKs
48.53	1a	X				V	wh	4			70	
48.62	1a	X				V	wh	4-3			~75	- irregular
48.65	1a	X				V	wh	1-9			80	
48.71	1a	X				V	wh/brn	3-4			60	good SKs
48.91	3b	X				F/V	wh/brn	1			90	group of 3 veinlets all close ~ 1cm
48.94	3b	X				F/V	wh/brn	1			70	





Depth (m)	STRUCTURAL & DISCONTINUITIES					GOUGE		PLANAR FEATURES			REMARK		
	breaks		character			type	colour	hardness	thickness	dip direction		angle of dip	
	rock type	induced natural	uncertain	open	closed								curved planar
1555.71	3b <sub>3</sub>	X		X	X	3	F/V	wh/br	-	L1	-	70	
59.61	1b <sub>2</sub>	X		X	X	3	F/V	wh	-	L6	-	60	Nice thick vein.
61.00	2a	X		X	X	3	F	brw/wh	-	L1	-	~90	
61.18	2a	X		X	X	3	V/F	wh	-	10-13	-	80	Nice thick vein, no pore space observed
61.26	2a	X		X	X	3	F/V	wh/br	-	L1	-	60	very smooth but rough / developed in soft shale 1st one since ~1530. or so
61.80	2a	X		X	X	2	F	br	-	L1	-	40	Shiny surface
62.02	1d <sub>3</sub>			X	X	2	F	gy	-	L1	-	45	
62.05	1d <sub>3</sub>			X	X	2	F	gy	↑	L1	-	45	
62.18	1d <sub>3</sub>			X	X	3	F	gy	↑	L1	-	85	
62.32	1d <sub>3</sub>	X		X	X	1-2	F	gy	↓	L1	-	70	good graphite, very shiny.
65.89	1c	X		X	X	3-4	F	wh	-	1-2	-	68	good sh <sub>s</sub>
68.46	2a	X		X	X	2-3	F	br	-	L1	-	~80	med sh <sub>s</sub>
68.56	3b	X		X	X	2-3	V/F	wh	-	10	-	90	good sh <sub>s</sub>
68.64	3b	X		X	X	2	F	brw/gy	-	L1	-	75	good sh <sub>s</sub> , good graphite
68.73	3b	X		X	X	2	F	brw/gy	-	L1	-	65	good sh <sub>s</sub> , poor graphite

Depth (m)	STRUCTURAL & DISCONTINUITIES				GOUGE		PLANAR FEATURES			REMARK				
	breaks		character		weathering	type	colour	hardness	thickness		dip direction	angle of dip		
	rock type	induced natural	uncertain	open									closed	planar
1593.62	3d	x			x	x	2-3	F	brn	L1	-	70	UNABLE TO ORIENT DUE TO MASSIVE NATURE OF 3d	
1593.62	3d	x			x	x	2-3	F	brn	L1	-	70	mod-good SKs developed.	
94.08	3d	x			x	x	3	F	brn	4+	+	-	75	good SKs
96.70	3d	x			x	x	5	F	brn	L1	-	70	wk SKs	
97.35	3d	x			x	x		F	brn	L1	-	-	wk SKs	
98.86	3d	x			x	x	3-4	F	brn	L1	-	80	wk SKs	
99.92	3d	x			x	x	3-4	F	brn	L1	-	55		
99.23	3d	x			x	x	5	F	brn	L1	-	85	wk SKs	
99.39	3d	x			x	x	5	F	brn	L1	-	45	wk SKs	

all these fractures developed in 3d or in shaly portions of the unit, not in the clasts.

END CORE @ 1600.4 m

CORE ANALYSIS REPORT  
FOR  
DEER LAKE OIL & GAS INC.  
DEER LAKE ET AL WESTERN ADVENTURE #1  
NEWFOUNDLAND

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom; and for whose exclusive and confidential use; this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories (all errors and omissions excepted); but Core Laboratories and its officers and employees, assume no responsibility and make no warranty or representations, as to the productivity, proper operations, or profitableness of any oil, gas or mineral well or formation in connection with which such report is used or relied upon.



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2002 11 08

Deer Lake Oil & Gas Inc.  
P. O. Box 5580  
St. John's, Newfoundland A1C 5W4

Attention: Mr. Cabot Martin

Subject: Deer Lake et al Western Adventure #1  
Our File Number: 52131-00-0539

One hundred and sixty-six full diameter samples were labeled and transported to our Calgary laboratory for analysis.

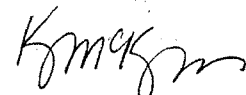
1. Full Diameter Analysis

One hundred and sixty-six samples were cleaned in a vapour phase extractor using toluene and dried in a gravity oven. Porosity was determined by the Boyle's Law technique using helium as the gaseous medium. Grain density and bulk density measurements were also taken.

Thank you for the opportunity to be of service.

Yours truly,

CORE LABORATORIES CANADA, LTD.

  
David J. Brooks  
Supervisor, Routine Rock Properties

DJB/kam  
Enclosures

# CORE LABORATORIES

Company : DEER LAKE OIL & GAS INC.  
 Well : DEER LAKE ET AL WESTERN ADVENTURE #1  
 Location :  
 Province : NEWFOUNDLAND

Field :  
 Formation :  
 Coring Equip. :  
 Coring Fluid :

File No.: 52131-00-0539  
 Date : 2000-12-27  
 Analysts: DJB  
 Core Dia:

## C O R E   A N A L Y S I S   R E S U L T S

SAMPLE NUMBER	DEPTH m	POROSITY (HELIUM) fraction	BULK DENSITY kg/m3	GRAIN DENSITY kg/m3	DESCRIPTION
1	1403.50	0.013	2600.	2640.	
2	1408.00	0.038	2640.	2740.	
3	1419.50	0.054	2630.	2780.	
4	1422.70	0.064	2600.	2780.	
5	1430.40	0.014	2650.	2690.	
6	1439.30	0.028	2650.	2730.	
7	1440.00	0.062	2580.	2740.	
8	1440.50	0.020	2640.	2690.	
9	1443.50	0.011	2680.	2710.	
10	1444.00	0.017	2600.	2650.	
11	1446.00	0.011	2640.	2670.	
12	1455.90	0.037	2660.	2760.	
13	1460.00	0.025	2680.	2740.	
14	1463.00	0.054	2600.	2750.	
15	1464.00	0.042	2610.	2720.	
16	1467.20	0.013	2670.	2710.	
17	1471.50	0.025	2650.	2720.	
18	1473.00	0.029	2580.	2660.	
19	1481.50	0.024	2690.	2760.	
20	1490.50	0.014	2670.	2710.	
21	1493.80	0.034	2600.	2690.	
22	1495.00	0.027	2630.	2700.	
23	1499.40	0.009	2680.	2700.	
24	1510.00	0.008	2660.	2680.	
25	1516.00	0.009	2700.	2730.	
26	1522.00	0.025	2630.	2700.	
27	1525.00	0.033	2620.	2710.	

# CORE LABORATORIES

Company : DEER LAKE OIL & GAS INC.  
 Well : DEER LAKE ET AL WESTERN ADVENTURE #1

Field :  
 Formation :

File No.: 52131-00-0539  
 Date : 2000-12-27

## C O R E   A N A L Y S I S   R E S U L T S

SAMPLE NUMBER	DEPTH m	POROSITY (HELIUM) fraction	BULK DENSITY kg/m3	GRAIN DENSITY kg/m3	DESCRIPTION
28	1527.90	0.050	2560.	2690.	
29	1529.70	0.031	2670.	2760.	
30	1533.00	0.011	2680.	2710.	
31	1538.40	0.005	2730.	2730.	
32	1547.00	0.014	2710.	2750.	
33	1557.70	0.005	2730.	2740.	
34	1562.90	0.013	2680.	2720.	
35	1564.75	0.027	2620.	2700.	
36	1565.50	0.025	2640.	2710.	
37	1568.10	0.025	2660.	2730.	
38	1426.84	0.019	2680.	2740.	
39	1435.00	0.008	2670.	2690.	
40	1451.50	0.009	2670.	2700.	
41	1475.25	0.020	2650.	2700.	
42	1488.70	0.020	2650.	2710.	
43	1505.00	0.026	2640.	2710.	
44	1516.30	0.005	2670.	2680.	
45	1543.10	0.005	2710.	2710.	
46	1553.00	0.005	2700.	2700.	
47	1513.20	0.015	2670.	2710.	
48	883.00	0.101	2440.	2710.	
49	887.00	0.106	2450.	2730.	
50	896.00	0.045	2550.	2670.	
51	901.00	0.052	2530.	2660.	
52	903.30	0.061	2570.	2740.	
53	911.50	0.080	2450.	2660.	
54	926.20	0.031	2620.	2700.	
55	948.50	0.115	2420.	2740.	
56	961.00	0.046	2540.	2660.	

# CORE LABORATORIES

Company : DEER LAKE OIL & GAS INC.  
 Well : DEER LAKE ET AL WESTERN ADVENTURE #1

Field :  
 Formation :

File No.: 52131-00-0539  
 Date : 2000-12-27

## CORE ANALYSIS RESULTS

SAMPLE NUMBER	DEPTH m	POROSITY (HELIUM) fraction	BULK DENSITY kg/m3	GRAIN DENSITY kg/m3	DESCRIPTION
57	966.50	0.043	2630.	2750.	
58	968.10	0.073	2490.	2690.	
59	971.10	0.046	2610.	2730.	
60	980.30	0.081	2450.	2670.	
61	983.50	0.030	2600.	2680.	
62	992.70	0.105	2400.	2680.	
63	1000.00	0.065	2490.	2660.	
64	1004.00	0.019	2660.	2710.	
65	1005.80	0.005	2620.	2630.	
66	1008.70	0.009	2650.	2670.	
67	1010.70	0.088	2420.	2650.	
68	1017.80	0.014	2630.	2670.	
69	1024.00	0.006	2660.	2670.	
70	1028.70	0.075	2440.	2640.	
71	1035.20	0.080	2450.	2660.	
72	1043.90	0.021	2600.	2660.	
73	1045.30	0.013	2630.	2670.	
74	1050.80	0.049	2510.	2640.	
75	1053.60	0.010	2650.	2680.	
76	1060.10	0.026	2570.	2640.	
77	1069.20	0.038	2550.	2650.	
78	1079.00	0.022	2610.	2670.	
79	1085.50	0.024	2620.	2680.	
80	1093.00	0.034	2570.	2660.	
81	1096.00	0.017	2610.	2660.	
82	1105.80	0.030	2590.	2670.	
83	1108.00	0.068	2490.	2670.	
84	1113.00	0.011	2640.	2670.	
85	1115.30	0.026	2580.	2650.	



# CORE LABORATORIES

Company : DEER LAKE OIL & GAS INC.  
 Well : DEER LAKE ET AL WESTERN ADVENTURE #1

Field :  
 Formation :

File No.: 52131-00-0539  
 Date : 2000-12-27

## CORE ANALYSIS RESULTS

SAMPLE NUMBER	DEPTH m	POROSITY (HELIUM) fraction	BULK DENSITY kg/m3	GRAIN DENSITY kg/m3	DESCRIPTION
86	1112.00	0.059	2500.	2650.	
87	1132.00	0.064	2470.	2640.	
88	1139.60	0.036	2550.	2640.	
89	1144.80	0.005	2680.	2690.	
90	1147.50	0.054	2490.	2630.	
91	1151.70	0.037	2540.	2640.	
92	1154.60	0.005	2670.	2680.	
93	1160.00	0.035	2570.	2660.	
94	1168.00	0.015	2600.	2640.	
95	1173.00	0.039	2530.	2640.	
96	1180.00	0.010	2620.	2650.	
97	1192.10	0.034	2560.	2650.	
98	1195.30	0.011	2640.	2670.	
99	1200.50	0.033	2560.	2650.	
100	1204.00	0.034	2530.	2620.	
101	1212.80	0.032	2530.	2620.	
134	183.20	0.179	2260.	2760.	
135	184.00	0.238	2080.	2730.	
136	185.20	0.164	2290.	2740.	
137	189.50	0.223	2120.	2730.	
138	192.00	0.194	2200.	2730.	
139	197.00	0.136	2330.	2700.	
140	284.50	0.107	2390.	2670.	
141	327.50	0.077	2500.	2710.	
142	341.30	0.070	2490.	2680.	
143	416.80	0.077	2450.	2660.	
144	428.60	0.081	2470.	2690.	
145	452.00	0.108	2420.	2710.	
146	465.20	0.058	2590.	2740.	

# CORE LABORATORIES

Company : DEER LAKE OIL & GAS INC.  
 Well : DEER LAKE ET AL WESTERN ADVENTURE #1

Field :  
 Formation :

File No.: 52131-00-0539  
 Date : 2000-12-27

## CORE ANALYSIS RESULTS

SAMPLE NUMBER	DEPTH	POROSITY (HELIUM)	BULK DENSITY	GRAIN DENSITY	DESCRIPTION
	m	fraction	kg/m3	kg/m3	
147	479.80	0.048	2590.	2720.	
148	491.00	0.056	2600.	2750.	
149	524.00	0.069	2570.	2760.	
150	533.00	0.100	2420.	2690.	
151	548.30	0.118	2430.	2760.	
152	560.40	0.061	2590.	2760.	
153	573.50	0.140	2330.	2710.	
154	607.20	0.112	2420.	2730.	
155	612.00	0.069	2510.	2700.	
156	641.50	0.087	2470.	2700.	
157	708.50	0.078	2470.	2680.	
158	743.80	0.079	2490.	2700.	
159	755.00	0.064	2520.	2690.	
160	766.80	0.059	2530.	2690.	
161	779.40	0.078	2520.	2730.	
162	791.20	0.105	2440.	2730.	
163	842.00	0.094	2470.	2730.	
164	853.90	0.089	2440.	2680.	
165	862.30	0.096	2420.	2680.	
166	886.30	0.044	2630.	2750.	
101	1216.10	0.024	2640.	2700.	
103	1222.00	0.025	2610.	2680.	
104	1226.00	0.010	2660.	2680.	
105	1234.10	0.023	2610.	2670.	
106	1243.00	0.011	2660.	2690.	
107	1249.20	0.032	2590.	2680.	
108	1258.00	0.026	2610.	2680.	
109	1269.00	0.046	2550.	2670.	
110	1274.00	0.038	2590.	2690.	

# CORE LABORATORIES

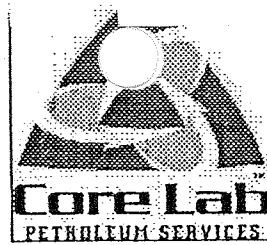
Company : DEER LAKE OIL & GAS INC.  
 Well : DEER LAKE ET AL WESTERN ADVENTURE #1

Field :  
 Formation :

File No.: 52131-00-0539  
 Date : 2000-12-27

## CORE ANALYSIS RESULTS

SAMPLE NUMBER	DEPTH m	POROSITY (HELIUM) fraction	BULK DENSITY kg/m3	GRAIN DENSITY kg/m3	DESCRIPTION
111	1286.50	0.027	2630.	2700.	
112	1291.50	0.037	2590.	2690.	
113	1297.40	0.007	2690.	2710.	
114	1303.40	0.061	2520.	2690.	
115	1312.00	0.021	2610.	2670.	
116	1313.00	0.007	2670.	2690.	
117	1318.00	0.027	2590.	2660.	
118	1326.00	0.029	2620.	2700.	
119	1330.50	0.042	2550.	2660.	
120	1339.00	0.035	2580.	2670.	
121	1351.10	0.030	2630.	2710.	
122	1360.20	0.010	2710.	2730.	
123	1368.40	0.043	2570.	2690.	
124	1372.00	0.006	2680.	2700.	
125	1384.00	0.005	2700.	2700.	
126	1395.00	0.006	2670.	2680.	
127	1604.40	0.005	2740.	2740.	
128	1611.80	0.005	2720.	2720.	
129	1625.50	0.005	2710.	2710.	
130	1630.00	0.005	2740.	2740.	
131	1699.30	0.005	2790.	2790.	
133	1763.00	0.005	2810.	2810.	
132	1766.50	0.005	2790.	2790.	



CODE KEY - DESCRIPTIONS

A	= (Prefix A) Horizontal matrix permeability measured by pressure decay profile permeametry through a probe tip due to induced fractures	i	= Intercrystalline	SPH	= Humidity analysis of small plug sample at 60 degrees Celsius and 50 percent relative humidity
ACA	= Removed for advanced core analysis	incl	= Inclusions	SP	= Small plug (sample drilled from core in maximum horizontal direction and parallel to bedding plane where possible) permeability, porosity and grain density are measured
anhy	= Anhydrite	lam	= Laminae (laminated)	ss	= Sandstone
arg	= Argillaceous	ls	= Limestone	ssdy	= Slightly sandy (<20%)
AST	= Appears similar to	lv	= Large vug	ssh	= Slightly shaly (<20%)
bit	= Bitumen	m	= Medium	sty	= Stylolite (ic)
bk	= Break	mi	= Mud invaded	sulf	= Sulphur
c	= Coarse	mv	= Medium vug	sv	= Small vug
calc	= Calcite (calcareous)	NA	= Not analyzed by request	TEC	= Thermal Extraction Chromatography to determine oil richness
carb	= Carbonaceous	NP	= No permeability measurement possible due to poor sample quality	TS	= Thin section
cbl	= Cobble	NR	= Not received	uncon	= Unconsolidated
cgl	= Conglomerate	ool	= Oolitic	vc	= Very coarse
cht	= Chert	OB	= Overburden sample (permeability and porosity measured at net overburden stress)	vfrac	= Vertical fracture
coal	= Coal/coal inclusion	PR	= Preserved for future studies	vf	= Very fine
coq	= Coquina	pbl	= Pebble	VIS	= Viscosity of oil measured
dol	= Dolomite	PFD	= Preliminary Full Diameter sample	VOB	= Vertical overburden sample (vertical permeability measured at net overburden stress)
f	= Fine	PSP	= Preliminary Small Plug sample	vshy	= Very shaly (>40%)
FD	= Full diameter analysis including three directional permeabilities, porosity and densities	PSA	= Particle size analysis	VSP	= Vertical small plug drilled from whole core to measure vertical permeability and occasionally porosity
foss	= Fossil (fossiliferous)	ppv	= Pinpoint vug	vug	= Vuggy (vuggular)
frac	= Fracture (undifferentiated)	pyr	= Pyrite (pyritic)	ws	= Water sand
fri	= Friable	pyrbit	= Pyrobitumen	XRD	= X-ray diffraction
glauc	= Glauconite (glauconitic)	ru	= Rubble	*	= Perm unavailable due to broken core
grnl	= Granule	SA	= Sieve analysis	10240	= Permeability >10 Darcies, (maximum routine permeability measurement)
gyp	= Gypsum	sd	= Sandy		
hfrac	= Horizontal fracture	SEM	= Scanning electron microscope analysis		
hal	= Halite (salt)	sh	= Shale		
IFD	= Inner Full Diameter, (a Full diameter sample is drilled from the bulk portion of the core in the vertical direction for permeability and porosity measurements)	shy	= Moderately shaly (20% - 40%)		
		sid	= Siderite		
		sltst	= Siltstone		
		silty	= Silty		
		SPT	= Small Plug used for tracer analysis		

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# Deer Lake et al Western Adventure #1

## Permeability Surveys

*DLOG internal permeability  
rearranged by depth  
Sample = depth*

Sample N: Field Well Depth Diameter Length Operator  
 674 explorator WA1 na HQ 50cm RCT

*RT  
perms  
by depth*

Tip OD Tip ID Geom. Fa Ref. Temp Ref. Press Viscosity  
 (in.) (in.) (in.) (°C) (atm.) (cp)  
 0.25 0.125 5.1 21 1 0.0177

Date	Time	Flow Pres: (psia)	Atm. Pres: (psia)	Flow Rate (cc/min)	Temp. (°C)	Perm. (md)	Sample
13/11/00	12:54:09 F	23.56	14.89	21.45	13.18	4.928834	674
13/11/00	12:57:31 F	23.75	14.89	21.51	13.27	4.814359	674.5
13/11/00	12:57:32 F	23.76	14.89	21.51	13.27	4.807687	675
13/11/00	1:00:38 PI	21.56	14.89	21.37	13.36	6.73731	675.5
13/11/00	1:04:29 PI	21.84	14.89	21.2	13.5	6.379568	676
13/11/00	1:06:18 PI	19.14	14.89	8.78	13.58	4.631887	676.5
13/11/00	1:09:02 PI	22.56	14.89	21.23	13.67	5.680159	677
13/11/00	1:09:03 PI	22.56	14.89	21.23	13.67	5.671634	677.5
		19.71	14.89	21.06	13.91	9.697471	678
		24.23	14.89	20.83	14.05	4.380045	678.5
		22.69	14.89	20.75	14.24	5.442572	679
		23.58	14.89	20.46	14.31	4.713243	679.5
		23.22	14.89	20.42	14.4	4.962756	680

13/11/00	1:31:27 PI	23.38	14.89	20.58	14.51	4.874777	682.5
13/11/00	1:34:35 PI	21.26	14.93	20.68	14.63	6.949999	683
13/11/00	1:37:44 PI	20.56	14.93	20.54	14.76	7.917327	683.5
13/11/00	1:39:45 PI	23.46	14.93	20.24	14.82	4.76164	684
13/11/00	1:41:51 PI	25.96	14.93	20	14.89	3.417088	684.5
		25.25	14.93	19.86	15.14	3.698148	685
		26.73	14.93	19.88	15.18	3.119399	685.5
		25.68	14.93	19.77	15.25	3.502267	686
		27.19	14.93	19.35	15.29	2.900662	686.5
		20	14.93	20.35	15.4	8.870438	687
		23.09	14.93	19.86	15.43	4.949441	687.5
		28.35	14.93	19.68	15.51	2.621721	688
		23.54	14.93	20.02	15.55	4.681527	688.5
		23.19	14.93	20.15	15.63	4.951257	689
		23.11	14.93	19.99	15.67	4.963779	689.5
		24.34	14.93	19.43	15.71	4.074001	690
		23.66	14.93	19.18	15.75	4.42505	690.5
		23.17	14.93	19.96	15.8	4.921966	691
13/11/00	5:57:16 PI	28.17	14.96	36.48	14.56	5	692
13/11/00	6:00:04 PI	23.31	14.96	36.49	14.56	5	692.5
13/11/00	6:00:05 PI	23.31	14.96	36.49	14.56	8.789209	693
13/11/00	6:01:34 PI	28.11	14.96	32.95	14.56	5	693.5
13/11/00	6:04:26 PI	27.88	14.96	36.37	14.56	5.062789	694
13/11/00	6:07:49 PI	28.01	14.96	36.62	14.6	5.032198	694.5
13/11/00	6:11:00 PI	28.22	14.96	36.68	14.65	5	695
13/11/00	6:13:43 PI	24.59	14.96	36.89	14.69	7.467907	695.5
13/11/00	6:16:01 PI	21.7	14.96	37.19	14.72	11.59141	696

13/11/00	6:18:10 PI	27.99	14.96	36.14	14.76	5	696.5
13/11/00	6:20:30 PI	20.27	14.96	37.19	14.82	15.31554	697
13/11/00	6:22:06 PI	28.92	14.96	34.26	14.83	5	697.5
13/11/00	6:25:20 PI	24.8	14.96	37.06	14.89	7.299325	698
13/11/00	6:42:19 PI	17.3	14.96	37.04	15.21	37.85226	698.5
13/11/00	6:45:37 PI	23.94	14.96	37.01	15.28	8.175224	699
13/11/00	6:48:47 PI	26.44	14.96	37.3	15.34	6.057082	699.5
13/11/00	7:10:53 PI	24.42	14.96	37.15	15.66	7.70496	700

Sheet1

Sample No	Field	Well	Depth	Diameter	Length	Operator		
878	exploratory	WA1	na	nq	50cm	RCT		
Tip OD (in.)	Tip ID (in.)	Geom. Fac	Ref. Temp. (°C)	Ref. Press. (atm.)	Viscosity (cp)			
0.5	0.25	5.1	21	1	0.0177			
Date	Time	Flow Press (psia)	Atm. Press (psia)	Flow Rate (cc/min)	Temp. (°C)	Perm. (md)	Sample	Position
13/11/00	9:06:08 PM	29.33	14.97	30.09	12.94	3.633336	878.00	1
13/11/00	9:07:58 PM	27.26	14.97	33.28	12.91	4.907191	878.50	2
13/11/00	9:09:12 PM	27.29	14.97	30.57	12.91	4.521839	879.00	3
13/11/00	9:10:45 PM	28.84	14.97	31.77	12.89	4.000919	879.50	4
13/11/00	9:11:54 PM	26.7	14.97	30.63	12.89	4.826926	880.00	5
13/11/00	9:13:19 PM	29.66	14.97	30.5	12.89	3.57611	880.50	6
13/11/00	9:14:56 PM	28.34	14.97	31.5	12.91	4.183233	881.00	7
13/11/00	9:16:15 PM	27.02	14.97	31.97	12.91	4.861335	881.50	8
13/11/00	9:17:53 PM	29.19	14.97	32.81	12.91	4.013443	882.00	9
13/11/00	9:25:34 PM	25.85	14.97	36.5	13	6.291442	882.50	10
13/11/00	9:29:57 PM	27.86	14.97	34.97	13.06	4.859842	883.00	11
13/11/00	9:31:54 PM	27.46	14.97	32.04	13.09	4.653792	883.50	12
13/11/00	9:33:36 PM	29.77	14.97	31.74	13.12	3.690945	884.00	13
13/11/00	9:33:39 PM	30.47	14.97	31.78	13.12	3.473629	884.50	14
13/11/00	9:39:15 PM	63.76	14.97	16.35	13.21	0.32608	885.00	15
13/11/00	9:40:39 PM	29.78	14.97	32.04	13.23	3.713851	885.50	16
13/11/00	9:43:28 PM	41.6	14.97	33.75	13.26	1.720403	886.00	17
13/11/00	9:44:43 PM	27.19	14.97	32.91	13.27	4.920976	886.50	18
13/11/00	9:48:39 PM	28.7	14.97	36.92	13.33	4.719194	887.00	19



Sample No	Field	Well	Depth	Diameter	Length	Operator		
886	exploratory	WA1	na	nq	50cm	RCT		
Tip OD (in.)	Tip ID (in.)	Geom. Fac	Ref. Temp. (°C)	Ref. Press. (atm.)	Viscosity (cp)			
0.5	0.25	5.1	21	1	0.0177			
Date	Time	Flow Press (psia)	Atm. Press (psia)	Flow Rate (cc/min)	Temp. (°C)	Perm. (md)	Sample	Position
14/11/00	4:24:10 PM	28.1	14.95	28.35	15.38	>3	886.00	1
14/11/00	4:26:55 PM	40.43	14.95	31.59	15.4	>3	886.50	2
14/11/00	4:28:03 PM	26.8	14.95	29.25	15.4	>3	887.00	3
14/11/00	4:29:43 PM	32.11	14.95	30.34	15.43	>3	887.50	4
14/11/00	4:31:13 PM	29.52	14.95	30.81	15.46	>3	888.00	5
14/11/00	4:32:22 PM	26.9	14.95	30.21	15.46	>3	888.50	6
14/11/00	4:33:36 PM	26.92	14.95	31.12	15.46	>3	889.00	7
14/11/00	4:33:37 PM	27.19	14.95	31.14	15.46	>3	889.50	8
14/11/00	4:33:39 PM	27.38	14.95	31.17	15.49	>3	890.00	9
14/11/00	4:35:40 PM	32.72	14.95	31.06	15.51	>3	890.50	10
14/11/00	4:35:41 PM	32.85	14.95	31.1	15.51	>3	891.00	11
14/11/00	4:37:40 PM	35.61	14.95	31.03	15.54	>3	891.50	12
14/11/00	4:40:46 PM	27.51	14.95	35.46	15.58	5.141329	892.00	13
14/11/00	4:44:45 PM	30.59	14.95	32.89	15.66	>3	892.50	14
14/11/00	4:46:14 PM	28.81	14.95	31.97	15.67	>3	893.00	15
14/11/00	4:47:39 PM	28.75	14.95	31.61	15.71	>3	893.50	16
14/11/00	4:48:53 PM	27.67	14.95	31.37	15.74	>3	894.00	17
14/11/00	4:48:54 PM	27.82	14.95	31.36	15.74	>3	894.50	18
14/11/00	4:50:17 PM	28.86	14.95	31.4	15.75	>3	895.00	19
14/11/00	4:51:28 PM	26.84	14.95	30.97	15.77	>3	895.50	20
14/11/00	4:51:29 PM	27.08	14.95	30.98	15.77	4.726928	896.00	21
14/11/00	4:52:56 PM	27.56	14.95	33.06	15.78	>3	896.50	22
14/11/00	4:54:50 PM	27.76	14.95	34.63	15.83	>3	897.00	23

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Sheet1

Sample No	Field	Well	Depth	Diameter	Length	Operator		
904	exploratory	WA1	na	nq	50cm	RCT		
Tip OD (in.)	Tip ID (in.)	Geom. Fac	Ref. Temp. (°C)	Ref. Press (atm.)	Viscosity (cp)			
0.5	0.25	5.1	21	1	0.0177			
Date	Time	Flow Press (psia)	Atm. Press (psia)	Flow Rate (cc/min)	Temp. (°C)	Perm. (md)	Sample	Position
14/11/00	5:45:39 PM	39.01	14.95	36.06	15.94	>3	904.00	1
14/11/00	5:47:30 PM	27.51	14.95	32.82	15.9	>3	904.50	2

↙

Sheet1

Sample No	Field	Well	Depth	Diameter	Length	Operator		
918	exploratory	WA1	na	nq	50cm	RCT		
Tip OD (in.)	Tip ID (in.)	Geom. Fac	Ref. Temp. (°C)	Ref. Press. (atm.)	Viscosity (cp)			
0.5	0.25	5.1	21	1	0.0177			
Date	Time	Flow Press (psia)	Atm. Press (psia)	Flow Rate (cc/min)	Temp. (°C)	Perm. (md)	Sample	Position
14/11/00	8:52:51 PM	29.4	14.94	34.97	13.96	4.189341	918.00	1
14/11/00	8:56:49 PM	28.75	14.94	35.15	13.99	4.475165	918.50	2
14/11/00	9:02:03 PM	32.57	14.94	35.4	14.07	3.247479	919.00	3

Sample N: Field	Well	Depth	Diameter	Length	Operator
924 exploratory	WA1	na	nq	25cm	RCT

Tip OD (in.)	Tip ID (in.)	Geom. Fa	Ref. Temp (°C)	Ref. Press (atm.)	Viscosity (cp)
0.5	0.25	5.1	21	1	0.0177

Date	Time	Flow Pres (psia)	Atm. Pres (psia)	Flow Rate (cc/min)	Temp. (°C)	Perm. (md)	Depth	Position
95 15/11/00	3:19:55 PM	30.38	14.71	31.3	18.62	<3	925.00	1
15/11/00	3:21:25 PM	29.29	14.71	32.1	18.65	<3	925.25	2
15/11/00	3:22:56 PM	29.27	14.71	32.41	18.65	<3	925.50	3
15/11/00	3:24:29 PM	30.5	14.71	31.84	18.68	<3	925.75	4
15/11/00	3:25:59 PM	29.24	14.71	31.9	18.7	<3	926.00	5
15/11/00	3:27:33 PM	29.39	14.71	32.78	18.73	<3	926.25	6
15/11/00	3:29:07 PM	29.43	14.71	32.79	18.77	<3	926.50	7
15/11/00	3:30:44 PM	30.26	14.71	32.87	18.8	<3	926.75	8
15/11/00	3:32:10 PM	29.55	14.71	32.55	18.83	<3	927.00	9

## Notes:

No permeability found, estimate all samples to be >2md since the flow pressure ws still rising rapid

Visually the interval did not lend itself to being permeable.

Sample N: Field	Well	Depth	Diameter	Length	Operator
949.5 exploratory	WA1	na	nq	50cm	RCT

Tip OD (in.)	Tip ID (in.)	Geom. Fa	Ref. Temp (°C)	Ref. Press (atm.)	Viscosity (cp)
0.5	0.25	5.1	21	1	0.0177

Date	Time	Flow Pres (psia)	Atm. Pres (psia)	Flow Rate (cc/min)	Temp. (°C)	Perm. (md)	Sample	Position
15/11/00	3:49:45 PM	33.79	14.71	32.58	19.36	<3	949.50	1
15/11/00	3:51:27 PM	30.2	14.71	34.87	19.4	<3	950.00	2
15/11/00	3:53:35 PM	36.06	14.71	34.27	19.46	<3	950.50	3
15/11/00	3:56:16 PM	41.54	14.71	34.46	19.56	<3	951.00	4
15/11/00	3:59:25 PM	34.75	14.71	37.03	19.63	<3	951.50	5
15/11/00	4:01:15 PM	31.23	14.71	34.58	19.68	3.581277	952.00	6
15/11/00	4:12:58 PM	32.56	14.71	34.54	19.65	<3	952.50	7

## Note:

Sample 952.0m is taken in a zone 50cm thick all with similar permeability, otherwise no permeabil

Sample N: Field      Well      Depth      Diameter      Length      Operator  
 958.5 exploratory    WA1      na          nq          50cm      RCT

Tip OD      Tip ID      Geom. Fa      Ref. Temp      Ref. Press      Viscosity  
 (in.)      (in.)           (°C)      (atm.)      (cp)  
 0.5      0.25      5.1      21      1      0.0177

Date	Time	Flow Pres (psia)	Atm. Pres (psia)	Flow Rate (cc/min)	Temp. (°C)	Perm. (md)	Depth	Position
15/11/00	4:18:59 PM	32.95	14.71	34.64	19.85	<3	958.50	1
15/11/00	4:18:59 PM	33	14.71	34.65	19.85	<3	959.00	2
15/11/00	4:20:53 PM	29.76	14.71	33.51	19.85	<3	959.50	3
15/11/00	4:22:45 PM	28.49	14.71	35.67	19.83	<3	960.00	4
15/11/00	4:24:46 PM	30.7	14.71	34.6	19.8	<3	960.50	5
15/11/00	4:26:36 PM	31.03	14.71	34.21	19.8	<3	961.00	6
15/11/00	4:28:32 PM	32.91	14.71	33.99	19.75	<3	961.50	7

Note:

No permeability found, all sample sites inferred to be below 2md.

Sample N: Field      Well      Depth      Diameter      Length      Operator  
 967.5 exploratory    WA1      na          nq          50cm      RCT

Tip OD      Tip ID      Geom. Fa      Ref. Temp      Ref. Press      Viscosity  
 (in.)      (in.)           (°C)      (atm.)      (cp)  
 0.5      0.25      5.1      21      1      0.0177

Date	Time	Flow Pres (psia)	Atm. Pres (psia)	Flow Rate (cc/min)	Temp. (°C)	Perm. (md)	Sample	Position
15/11/00	4:29:54 PM	28.45	14.71	34.12	19.74	<3	967.50	1
15/11/00	4:34:42 PM	30.08	14.71	38.32	19.68	4.360671	968.00	2
15/11/00	4:43:43 PM	31.79	14.71	38.29	19.59	3.775668	968.50	3
15/11/00	4:43:55 PM	31.91	14.71	38.3	19.59	<3	969.00	4
15/11/00	4:49:48 PM	29.96	14.71	34.31	19.56	<3	969.50	5

Note:

Perm in sample 2 found in very argillaceous sandstone, did not appear visually to have any permeability

Sample 3 was in a fine grain grey sand unit

Sample N: Field Well Depth Diameter Length Operator  
 wa1\_102Cexplorator:WA1 na nq 25cm RCT

Tip OD Tip ID Geom. Fa Ref. Temp Ref. Press Viscosity  
 (in.) (in.) (in.) (°C) (atm.) (cp)  
 0.5 0.25 5.1 21 1 0.0177

Date	Time	Flow Pres (psia)	Atm. Pres (psia)	Flow Rate (cc/min)	Temp. (°C)	Perm. (md)	Sample	Position
17/11/00	8:50:17	PI 32.14	14.65	31.41	16.63	<3	1020.00	1
17/11/00	8:52:03	PI 32.88	14.65	31.77	16.66	<3	1020.25	2
17/11/00	8:54:24	PI 39.65	14.65	31.44	16.69	<3	1020.50	3
17/11/00	8:55:59	PI 32.6	14.65	31.42	16.73	<3	1020.75	4
17/11/00	8:58:37	PI 39.74	14.65	33.49	16.78	<3	1021.00	5
17/11/00	9:00:15	PI 32.18	14.65	31.31	16.81	<3	1021.25	6
17/11/00	9:02:19	PI 39.15	14.65	31.35	16.89	<3	1021.50	7
17/11/00	9:05:47	PI 46.57	14.65	34.15	16.99	<3	1021.75	8
17/11/00	9:07:44	PI 35.47	14.65	32.75	17.06	<3	1022.00	9

Above sample points collected over interval with slightly anomalous gas readings, no permeability found.

Sample N: Field Well Depth Diameter Length Operator  
 wa1\_1027explorator:WA1 na nq 50cm RCT

Tip OD Tip ID Geom. Fa Ref. Temp Ref. Press Viscosity  
 (in.) (in.) (in.) (°C) (atm.) (cp)  
 0.5 0.25 5.1 21 1 0.0177

Date	Time	Flow Pres (psia)	Atm. Pres (psia)	Flow Rate (cc/min)	Temp. (°C)	Perm. (md)	Sample	Position
17/11/00	9:14:13	PI 57.15	14.65	36.33	17.3	<3	1027.0	1
17/11/00	9:16:45	PI 36.11	14.65	33.71	17.38	<3	1027.5	2
17/11/00	9:18:46	PI 33.47	14.65	34	17.45	<3	1028.0	3
17/11/00	9:20:52	PI 33.52	14.65	34.55	17.53	<3	1028.5	4
17/11/00	9:24:20	PI 38.87	14.65	36.2	17.62	<3	1029.0	5
17/11/00	9:25:43	PI 28.1	14.65	33.91	17.67	<3	1029.5	6
17/11/00	9:28:09	PI 37.06	14.65	34.9	17.75	<3	1030.0	7
17/11/00	9:31:07	PI 42.34	14.65	34.67	17.82	<3	1030.5	8
17/11/00	9:32:27	PI 29.39	14.65	32.51	17.87	<3	1031.0	9
17/11/00	9:33:36	PI 27.22	14.65	32.51	17.9	<3	1031.5	10
17/11/00	9:35:10	PI 32.03	14.65	32.47	17.93	<3	1032.0	11
17/11/00	9:36:29	PI 28.84	14.65	32.5	17.94	<3	1032.5	12
17/11/00	9:37:53	PI 29.92	14.65	32.48	17.99	<3	1033.0	13
17/11/00	9:39:11	PI 29.12	14.65	32.51	18.02	<3	1033.5	14
17/11/00	9:40:26	PI 28.36	14.65	32.56	18.04	<3	1034.0	15
17/11/00	9:41:56	PI 30.88	14.65	32.52	18.05	<3	1034.5	16
17/11/00	9:43:10	PI 27.34	14.65	32.61	18.08	<3	1035.0	17
17/11/00	9:45:46	PI 44.66	14.65	32.71	18.11	<3	1035.5	18
17/11/00	9:47:09	PI 30.19	14.65	32.63	18.13	<3	1036.0	19
17/11/00	9:48:40	PI 31.74	14.65	32.66	18.14	<3	1036.5	20
17/11/00	9:50:19	PI 33.33	14.65	32.73	18.14	<3	1037.0	21
17/11/00	9:51:29	PI 27.35	14.65	32.77	18.14	<3	1037.5	22
17/11/00	9:52:51	PI 30.07	14.65	32.84	18.14	<3	1038.0	23
17/11/00	9:54:01	PI 27.26	14.65	33.05	18.13	<3	1038.5	24

Above data collected over large interval with small amount of porosity (3-6%). No permeabilities found.

Sheet1

Sample No	Field	Well	Depth	Diameter	Length	Operator		
wa1_1059	exploratory	WA1	na	ng	50cm	RCT		
Tip OD (in.)	Tip ID (in.)	Geom. Fac	Ref. Temp. (°C)	Ref. Press. (atm.)	Viscosity (cp)			
0.25	0.125	5.1	21	1	0.0177			
Date	Time	Flow Press (psia)	Atm. Press (psia)	Flow Rate (cc/min)	Temp. (°C)	Perm. (md)	Sample	Position
20/11/00	7:55:39 PM	47.94	14.91	42.98	12	1.579507	1059.00	1
20/11/00	8:02:06 PM	56.47	14.91	41.68	12.08	1.07251	1059.50	2
20/11/00	8:09:08 PM	51.95	14.91	41.95	12.14	1.293387	1060.00	3
20/11/00	8:14:54 PM	43.65	14.91	41.69	12.22	1.891114	1060.50	4
20/11/00	8:20:57 PM	52.69	14.91	41.67	12.28	1.24589	1061.00	5
20/11/00	8:25:36 PM	19.43	14.91	41.19	12.32	1.46743	1061.50	6

Sample N: Field      Well      Depth      Diameter      Length      Operator  
 wa1\_1065 exploratory      WA1      na      nq      50cm      RCT

Tip OD      Tip ID      Geom. Fa      Ref. Temp      Ref. Press      Viscosity  
 (in.)      (in.)           (°C)      (atm.)      (cp)  
 0.5      0.25      5.1      21      1      0.0177

Date	Time	Flow Pres (psia)	Atm. Pres (psia)	Flow Rate (cc/min)	Temp. (°C)	Perm. (md)	Sample	Position
20/11/00	8:26:12 PM	19.39	14.91	41.51	12.32	2.453468	1065.00	1
20/11/00	8:34:49 PM	38.62	14.91	43.84	12.4	2.638695	1065.50	2
20/11/00	8:39:55 PM	46.07	14.91	43.23	12.45	1.73914	1066.00	3
20/11/00	8:43:55 PM	50.83	14.91	41.69	12.48	1.350816	1066.50	4
20/11/00	8:48:42 PM	47.79	14.91	42.76	12.52	1.585878	1067.00	5
20/11/00	8:54:00 PM	55.99	14.91	42.37	12.55	1.112734	1067.50	6
20/11/00	8:57:27 PM	40.03	14.91	42.34	12.55	2.34759	1068.00	7
20/11/00	9:02:09 PM	32.5	14.91	43.26	12.58	3.965262	1068.50	8
20/11/00	9:05:47 PM	24.83	14.91	43.16	12.58	8.368798	1069.00	9
20/11/00	9:07:56 PM	16.89	14.91	43.2	12.58	10.34756	1069.50	10
20/11/00	9:19:03 PM	39.81	14.91	43.47	12.61	2.438996	1070.00	11
20/11/00	9:22:34 PM	24.61	14.91	42.95	12.65	8.566474	1070.50	12
20/11/00	9:26:00 PM	33.22	14.91	42.63	12.65	3.701402	1071.00	13
20/11/00	9:30:28 PM	20.26	14.91	42.91	12.68	12.48429	1071.50	14
20/11/00	9:34:25 PM	33.42	14.91	42.52	12.68	3.637332	1072.00	15
20/11/00	9:38:13 PM	36.63	14.91	42.7	12.71	2.91895	1072.50	16
20/11/00	9:40:44 PM	37.64	14.91	40.07	12.71	2.570412	1073.00	17
20/11/00	9:46:40 PM	30.84	14.91	42.66	12.71	4.480231	1073.50	18
20/11/00	9:49:20 PM	37.82	14.91	40.42	12.71	2.563589	1074.00	19

Small amounts of discontinuous permeability detected. May be a function of the granule to pebble sand and conglomerates sampled, thus not allowing for a perfect seal on the probe. Conglomerate in very large clast sizes >1cm often exhibit compression fractures that, although exist at surface, do when under pressure at depth. Smaller micro fractures in smaller grained conglomerates may also play a role in elevating the permeabilities, however. Without doubt there are intervals in the above section where small 10-20cm zones host permeabilities in the 10md range.

These sub zones of permeability do not have any gas anomalies or porosity associated with them. This interval selected on visual appearance alone.



Sample N:	Field	Well	Depth	Diameter	Length	Operator
wa1_109C	exploratory	WA1	na	nq	50cm	RCT

Tip OD (in.)	Tip ID (in.)	Geom. Fa	Ref. Temp (°C)	Ref. Press (atm.)	Viscosity (cp)
0.5	0.25	5.1	21	1	0.0177

Date	Time	Flow Pres (psia)	Atm. Pres (psia)	Flow Rate (cc/min)	Temp. (°C)	Perm. (md)	Sample	Position
20/11/00	9:10:15 AM	35.89	14.94	42.35	8.41	1.375489	1090.00	1
20/11/00	9:14:03 AM	30.72	14.94	47.06	8.61	4.923259	1090.50	2
20/11/00	9:19:19 AM	36.66	14.94	47.16	8.88	3.175193	1091.00	3
20/11/00	9:25:01 AM	34.38	14.94	47.38	9.25	3.733403	1091.50	4
20/11/00	9:30:17 AM	41.36	14.94	47.42	9.59	2.412758	1092.00	5
20/11/00	9:36:13 AM	45.64	14.94	47.59	9.97	1.938132	1092.50	6
20/11/00	9:53:33 AM	35.2	14.94	47.45	11.02	3.55104	1093.00	7
20/11/00	10:00:30 AM	41.68	14.94	48.01	11.5	2.414775	1093.50	8
20/11/00	10:05:29 AM	53.22	14.94	47.4	11.8	1.386006	1094.00	9
20/11/00	10:08:26 AM	43.91	14.94	30.65	12	1.373553	1094.50	10

Small gas anomaly in this zone detected (x2 background). This interval quite conglomeratic and oc-  
exhibited compression fractures.

Very small amount of very weak permeability observed.

Sample N:	Field	Well	Depth	Diameter	Length	Operator
ra1_1178	exploratory	WA1	na	nq	50cm	RCT

Tip OD (in.)	Tip ID (in.)	Geom. Fa	Ref. Temp (°C)	Ref. Press (atm.)	Viscosity (cp)
0.5	0.25	5.1	21	1	0.0177

Date	Time	Flow Pres (psia)	Atm. Pres (psia)	Flow Rate (cc/min)	Temp. (°C)	Perm. (md)	Sample	Position
21/11/00	11:49:56 PM	58.01	14.65	34.95	11.22	0.843939	1178.00	1
21/11/00	11:53:06 PM	52.96	14.65	33.64	11.3	0.990358	1178.50	2
21/11/00	11:55:19 PM	39.26	14.65	33.74	11.35	1.935581	1179.00	3
21/11/00	11:56:35 PM	29.2	14.65	33.08	11.38	3.972046	1179.50	4

Sample Nar Field	Well	Depth	Diameter	Length	Operator
wa1_1196 exploratory	WA1	na	nq	50cm	RCT

Tip OD (in.)	Tip ID (in.)	Geom. Fact	Ref. Temp. (!C)	Ref. Press. (atm.)	Viscosity (cp)
0.5	0.25	5.1	21	1	0.0177

Date	Time	Flow Press (psia)	Atm. Press (psia)	Flow Rate (cc/min)	Temp. (!C)	Perm. (md)	Sample
01/02/01	1:45:35 PM	63.73	14.83	18.56	17.94	0.3762372	1196
01/02/01	1:55:29 PM	63.87	14.83	14.58	18.21	0.2944619	1196.5
01/02/01	2:03:06 PM	62.39	14.83	39.67	18.37	0.8424144	1197
01/02/01	2:09:23 PM	62.84	14.83	31.86	18.53	0.6667059	1197.5
01/02/01	2:15:31 PM	64.17	14.83	15.04	18.65	0.3012131	1198
01/02/01	2:26:49 PM	62.71	14.83	33.02	18.93	0.6949699	1198.5
01/02/01	2:48:34 PM	62.63	14.83	23.38	19.29	0.4940521	1199
01/02/01	3:01:39 PM	63.18	14.83	20.73	19.48	0.4302675	1199.5
01/02/01	3:07:53 PM	62.21	14.83	44.93	19.52	0.9637635	1200
01/02/01	3:13:12 PM	61.02	14.83	50.33	19.59	1.1250521	1200.5
01/02/01	3:26:26 PM	30.71	14.83	52.2	19.71	5.6552818	1201
01/02/01	3:35:31 PM	54.03	14.83	51.7	19.8	1.5010605	1201.5
01/02/01	3:46:47 PM	64.38	14.83	10.82	19.88	0.216114	1202
01/02/01	3:57:25 PM	39.77	14.83	52.1	19.94	2.99997	1202.5
01/02/01	4:03:22 PM	58.59	14.83	50.8	19.97	1.2403469	1203
01/02/01	4:09:17 PM	54.56	14.83	51.3	20	1.4599266	1203.5
01/02/01	4:30:26 PM	61.61	14.83	49.56	20.09	1.0872417	1204
01/02/01	4:36:10 PM	43.92	14.83	51.7	20.09	2.3743936	1204.5
01/02/01	4:45:07 PM	62.65	14.83	39.62	20.12	0.8389774	1205
01/02/01	4:49:32 PM	47.23	14.83	51.1	20.12	1.9938803	1205.5
01/02/01	4:54:23 PM	51.1	14.83	50.8	20.12	1.6674533	1206
02/02/01	9:35:39 AM	62.24	14.88	43.12	15.38	0.9112911	1206.5
02/02/01	9:46:52 AM	63.58	14.88	19.44	15.63	0.3930541	1207
02/02/01	9:53:54 AM	64.26	14.88	14.69	15.84	0.2905434	1207.5
02/02/01	10:05:49 AM	62.7	14.88	29.47	16.29	0.6150574	1208
02/02/01	10:22:38 AM	63.08	14.88	18.81	16.87	0.3883867	1208.5
02/02/01	10:34:30 AM	62.83	14.88	27.23	17.25	0.5677345	1209

Sample N:	Field	Well	Depth	Diameter	Length	Operator
ra1_1236	exploratory	WA1	na	nq	50cm	RCT

Tip OD (in.)	Tip ID (in.)	Geom. Fa	Ref. Temp (°C)	Ref. Press (atm.)	Viscosity (cp)
0.25	0.125	5.1	21	1	0.0177

Date	Time	Flow Pres (psia)	Atm. Pres (psia)	Flow Rate (cc/min)	Temp. (°C)	Perm. (md)	Sample	Position
24/11/00	2:09:27 PM	54.91	14.92	36.19	14.56	0.998292	1236.00	1
24/11/00	2:14:25 PM	59.97	14.92	34.72	14.69	0.793307	1236.50	2
24/11/00	2:18:58 PM	61.28	14.92	22.99	14.82	0.501904	1237.00	3
24/11/00	2:24:17 PM	63.16	14.92	18.69	15.02	0.382668	1237.50	4
24/11/00	2:30:12 PM	29.55	14.92	38.07	15.2	4.513957	1238.00	5
24/11/00	2:36:49 PM	64.82	14.92	10.35	15.34	0.200752	1238.50	6
24/11/00	2:41:38 PM	55.23	14.92	36.21	15.4	0.989656	1239.00	7
24/11/00	2:46:47 PM	57.04	14.92	36.13	15.4	0.920879	1239.50	8
24/11/00	2:51:54 PM	56.63	14.92	36.05	15.38	0.933485	1240.00	9

Sample N:	Field	Well	Depth	Diameter	Length	Operator
wa1_1249	exploratory	WA1	na	nq	50cm	RCT

Tip OD (in.)	Tip ID (in.)	Geom. Fa	Ref. Temp (°C)	Ref. Press (atm.)	Viscosity (cp)
0.5	0.25	5.1	21	1	0.0177

Date	Time	Flow Pres (psia)	Atm. Pres (psia)	Flow Rate (cc/min)	Temp. (°C)	Perm. (md)	Sample	Position
24/11/00	3:11:05 PM	55.53	14.92	37.13	15.37	1.001735	1249.00	1
24/11/00	3:16:38 PM	51.5	14.92	38.91	15.37	1.23612	1249.50	2
24/11/00	3:20:58 PM	55.58	14.92	35.32	15.37	0.951056	1250.00	3
24/11/00	3:28:30 PM	65.75	14.92	0.7	15.43	0.013181	1250.50	4
24/11/00	3:32:49 PM	54.2	14.92	37.22	15.49	1.05858	1251.00	5
24/11/00	3:36:28 PM	51.06	14.92	36.21	15.52	1.172724	1251.50	6
24/11/00	3:39:32 PM	47.21	14.92	35.43	15.52	1.363859	1252.00	7

Sample Nar Field	Well	Depth	Diameter	Length	Operator
wa1_1264 exploratory	WA1	na	nq	50cm	RCT

Tip OD (in.)	Tip ID (in.)	Geom. Fact	Ref. Temp. (°C)	Ref. Press. (atm.)	Viscosity (cp)
0.5	0.25	5.1	21	1	0.0177

Date	Time	Flow Press (psia)	Atm. Press (psia)	Flow Rate (cc/min)	Temp. (°C)	Perm. (md)	Sample
02/02/01	1:00:13 PM	63.16	14.9	22.86	20.34	0.4764216	1264
02/02/01	1:05:13 PM	50.56	14.9	52.3	20.42	1.7602809	1264.5
02/02/01	1:11:22 PM	63.28	14.9	23.64	20.51	0.4910188	1265
02/02/01	1:23:55 PM	63.44	14.9	17.52	20.66	0.3621469	1265.5
02/02/01	1:29:12 PM	61.12	14.9	50.58	20.74	1.1318094	1266
02/02/01	1:36:08 PM	45.03	14.9	52.4	20.82	2.2833633	1266.5
02/02/01	1:56:42 PM	39.46	14.9	52.3	21.03	3.0830074	1267
02/02/01	2:04:53 PM	63.41	14.9	21.29	21.09	0.4411603	1267.5
02/02/01	2:12:50 PM	46.92	14.9	52.4	21.15	2.0841972	1268
02/02/01	2:17:56 PM	51.21	14.9	51.5	21.2	1.6901715	1268.5
02/02/01	2:18:02 PM	51.4	14.9	51.5	21.2	1.6765518	1269
02/02/01	2:27:02 PM	38.29	14.9	52.5	21.23	3.3233416	1269.5
02/02/01	2:34:18 PM	57.37	14.9	51.7	21.28	1.327189	1270
02/02/01	2:40:46 PM	31.87	14.9	52.2	21.29	5.1848306	1270.5
02/02/01	2:52:01 PM	57.93	14.9	52	21.32	1.3071649	1271
02/02/01	3:21:33 PM	36.58	14.9	52.2	21.35	3.6848992	1271.5
02/02/01	3:29:00 PM	38.98	14.9	52.3	21.35	3.1759273	1272
02/02/01	3:33:19 PM	31.03	14.9	52.2	21.35	5.5512734	1272.5
02/02/01	3:40:22 PM	63.21	14.9	30.97	21.32	0.646622	1273
02/02/01	3:45:48 PM	45.6	14.9	52.1	21.32	2.2108839	1273.5
02/02/01	3:52:04 PM	31.92	14.9	52.6	21.31	5.2039931	1274
02/02/01	3:57:19 PM	53.52	14.9	51.4	21.31	1.53288	1274.5
02/02/01	4:01:42 PM	33.61	14.9	52.2	21.29	4.5336875	1275
02/02/01	4:05:26 PM	34.5	14.9	52.1	21.29	4.2385677	1275.5
02/02/01	4:15:37 PM	41.33	14.9	52.4	21.28	2.7772547	1276
02/02/01	4:21:42 PM	49.68	14.9	51.9	21.28	1.8208809	1276.5
02/02/01	4:27:27 PM	32.29	14.9	52.3	21.26	5.0196368	1277
02/02/01	4:33:24 PM	62.62	14.9	42.57	21.26	0.9063785	1277.5
02/02/01	4:38:53 PM	60.76	14.9	50.6	21.26	1.1490063	1278
02/02/01	4:45:52 PM	48.84	14.92	52.2	21.26	1.9008255	1278.5
02/02/01	4:57:22 PM	52.7	14.92	52.4	21.22	1.6153079	1279
02/02/01	5:02:18 PM	54.83	14.92	51	21.22	1.443366	1279.5
02/02/01	5:09:06 PM	63.02	14.92	36.84	21.2	0.7740906	1280

Sample N:	Field	Well	Depth	Diameter	Length	Operator
va1_128C	exploratory	WA1	na	nq	50cm	RCT

Tip OD (in.)	Tip ID (in.)	Geom. Fa	Ref. Temp (°C)	Ref. Press (atm.)	Viscosity (cp)
0.5	0.25	5.1	21	1	0.0177

Date	Time	Flow Pres (psia)	Atm. Pres (psia)	Flow Rate (cc/min)	Temp. (°C)	Perm. (md)	Sample	Position
25/11/00	1:07:42 PM	55.59	15.03	42.2	8.38	1.112645	1280.00	1
25/11/00	1:10:40 PM	52.53	15.03	41.41	8.56	1.234901	1280.50	2
25/11/00	1:14:56 PM	65.36	15.03	11.42	8.88	0.213028	1281.00	3
25/11/00	1:20:21 PM	66.21	15.03	4.42	9.22	0.080304	1281.50	4
25/11/00	1:37:55 PM	65.11	15.03	5.79	9.85	0.109223	1282.00	5
25/11/00	1:43:11 PM	63.97	15.03	17.37	9.91	0.340439	1282.50	6
25/11/00	1:46:31 PM	57.53	15.03	41.37	9.91	1.018158	1283.00	7
25/11/00	1:50:50 PM	64.55	15.03	15.69	9.95	0.301736	1283.50	8
25/11/00	1:55:44 PM	65.59	15.03	11.01	10.03	0.204628	1284.00	9

Sample N:	Field	Well	Depth	Diameter	Length	Operator
va1_129C	exploratory	WA1	na	nq	50cm	RCT

Tip OD (in.)	Tip ID (in.)	Geom. Fa	Ref. Temp (°C)	Ref. Press (atm.)	Viscosity (cp)
0.5	0.25	5.1	21	1	0.0177

Date	Time	Flow Pres (psia)	Atm. Pres (psia)	Flow Rate (cc/min)	Temp. (°C)	Perm. (md)	Sample	Position
25/11/00	2:01:24 PM	59.46	15.04	42.92	10.2	0.984479	1290.00	1
25/11/00	2:09:42 PM	61.42	15.04	43.49	10.44	0.930422	1290.50	2
25/11/00	2:13:54 PM	60.98	15.04	42.33	10.57	0.921279	1291.00	3
25/11/00	2:18:53 PM	60.38	15.04	43.92	10.73	0.976114	1291.50	4
25/11/00	2:25:20 PM	52.39	15.04	45.42	10.93	1.370594	1292.00	5
25/11/00	2:29:07 PM	59.07	15.04	41.91	11.09	0.978783	1292.50	6



Sample Nar Field	Well	Depth	Diameter	Length	Operator
wa1_1301.5 exploratory	WA1	na	nq	50cm	RCT

Tip OD (in.)	Tip ID (in.)	Geom. Fact	Ref. Temp. (°C)	Ref. Press. (atm.)	Viscosity (cp)
0.5	0.25	5.1	21	1	0.0177

Date	Time	Flow Press (psia)	Atm. Press (psia)	Flow Rate (cc/min)	Temp. (°C)	Perm. (md)	Sample
04/02/01	1:23:37 PM	37.45	14.86	52.5	18.53	3.4690235	1301.5
04/02/01	1:34:05 PM	40.31	14.86	51.8	18.65	2.8796955	1302
04/02/01	2:04:08 PM	46.14	14.86	51.9	18.97	2.1256859	1302.5
04/02/01	2:09:25 PM	33.17	14.86	52	19.03	4.6218936	1303
04/02/01	2:27:19 PM	33.74	14.86	51.9	19.22	4.4273969	1303.5
04/02/01	2:35:40 PM	39.49	14.86	52	19.28	3.0407778	1304
04/02/01	2:44:15 PM	43.58	14.86	51.8	19.36	2.4152262	1304.5
04/02/01	2:49:40 PM	39.79	14.86	51.7	19.4	2.9716596	1305
04/02/01	2:55:21 PM	35.65	14.86	51.8	19.43	3.8610878	1305.5
04/02/01	3:07:27 PM	22.88	14.86	52.2	19.52	13.503291	1306
04/02/01	3:13:01 PM	29.15	14.86	51.8	19.56	6.4498691	1306.5
04/02/01	3:20:20 PM	47.29	14.86	51.5	19.62	2.0013033	1307
04/02/01	3:30:34 PM	55.01	14.86	51.2	19.68	1.4298038	1307.5
04/02/01	3:38:46 PM	51.02	14.86	51.4	19.74	1.6913712	1308
04/02/01	3:47:17 PM	28	14.9	51.9	19.82	7.2381764	1306.25
04/02/01	3:54:51 PM	16.26	14.9	52.1	19.88	96.378621	1306.5
04/02/01	3:58:17 PM	22.84	14.9	51.9	19.91	13.599758	1306.75
04/02/01	4:03:36 PM	36.92	14.9	51.7	19.94	3.5525819	1307

Sample N:	Field	Well	Depth	Diameter	Length	Operator
va1_1387	exploratory	WA1	na	nq	50cm	RCT

Tip OD (in.)	Tip ID (in.)	Geom. Fa	Ref. Temp (°C)	Ref. Press (atm.)	Viscosity (cp)
0.25	0.125	5.1	21	1	0.0177

Date	Time	Flow Pres (psia)	Atm. Pres (psia)	Flow Rate (cc/min)	Temp. (°C)	Perm. (md)	Sample	Position
27/11/00	10:47:01 AM	56.98	14.86	38.4	14.31	<1	1387.00	1
27/11/00	10:54:45 AM	65.29	14.86	3.24	14.53	<1	1387.50	2
27/11/00	10:58:14 AM	57.48	14.86	38.59	14.65	<1	1388.00	3

Sample Nar Field      Well      Depth      Diameter      Length      Operator  
 wa1\_1417 exploratory      WA1      na      nq      25cm      RCT

Tip OD      Tip ID      Geom. Fact      Ref. Temp.      Ref. Press.      Viscosity  
 (in.)      (in.)           (!C)      (atm.)      (cp)  
           0.5            0.25            5.1            21            1            0.0177

Date	Time	Flow Press (psia)	Atm. Press (psia)	Flow Rate (cc/min)	Temp. (!C)	Perm. (md)	Sample
25/01/01	3:40:12 PM	65.26	14.77	6.65	18.47	0.1283949	1417
25/01/01	3:44:25 PM	64.67	14.77	12.31	18.57	0.2423464	1417.25
25/01/01	3:51:42 PM	64.69	14.77	9.67	18.73	0.1903595	1417.5
25/01/01	3:59:40 PM	64.65	14.77	9.05	18.91	0.1784972	1417.75
25/01/01	4:05:34 PM	65.26	14.77	6.36	19.02	0.1230273	1418
25/01/01	4:15:05 PM	64.49	14.77	10.67	19.16	0.2117337	1418.25
25/01/01	4:21:29 PM	64.97	14.77	8.52	19.23	0.1664847	1418.5
25/01/01	4:27:40 PM	65.6	14.77	1.75	19.31	0.0335199	1418.75
25/01/01	4:33:02 PM	65.16	14.77	7.98	19.37	0.1550499	1419
25/01/01	4:39:32 PM	63.99	14.77	17.14	19.43	0.346079	1419.25
25/01/01	4:44:58 PM	64.52	14.77	13.93	19.49	0.2764652	1419.5
25/01/01	4:50:49 PM	65.46	14.77	5.15	19.56	0.0991637	1419.75
25/01/01	4:56:18 PM	65.07	14.77	9.05	19.62	0.1765037	1420
26/01/01	12:26:49 PM	64.71	14.86	11.05	16.81	0.2160988	1420.25
26/01/01	12:32:48 PM	65.39	14.86	4.17	16.99	0.0798208	1420.5
26/01/01	12:39:54 PM	64.98	14.86	7.51	17.21	0.1457846	1420.75
26/01/01	12:47:04 PM	64.68	14.86	10.46	17.44	0.2052058	1421
26/01/01	12:53:01 PM	65.36	14.86	5.51	17.62	0.105802	1421.25
26/01/01	1:00:03 PM	65.43	14.86	2.85	17.82	0.0546393	1421.5
26/01/01	1:09:18 PM	64.56	14.86	9.96	18.08	0.1965966	1421.75
26/01/01	1:16:06 PM	64.7	14.86	11.3	18.28	0.2221809	1422
26/01/01	1:36:37 PM	63.18	14.86	17.18	18.74	0.3557666	1422.25
26/01/01	1:44:03 PM	64.5	14.86	12.66	18.87	0.2510872	1422.5
26/01/01	1:51:08 PM	65.22	14.86	6.14	19	0.1190039	1422.75
26/01/01	1:57:03 PM	65.79	14.86	0.89	19.13	0.0169425	1423
26/01/01	2:03:07 PM	65.19	14.86	7.65	19.19	0.1485007	1423.25
26/01/01	2:21:52 PM	63.78	14.86	15.77	19.43	0.3208585	1423.5
26/01/01	2:27:52 PM	65.31	14.86	6.79	19.51	0.1314399	1423.75
26/01/01	2:33:20 PM	64.85	14.86	11.85	19.56	0.2328773	1424
26/01/01	2:45:22 PM	64.89	14.86	7.87	19.65	0.1545083	1424.25
26/01/01	2:51:22 PM	65.41	14.86	5.96	19.71	0.1150798	1424.5
26/01/01	2:59:37 PM	65.44	14.86	3.95	19.79	0.076206	1424.75
26/01/01	3:04:41 PM	65.77	14.86	3.45	19.8	0.0658689	1425

Sample Nar Field      Well      Depth      Diameter      Length      Operator  
 wa1\_1417 exploratory      WA1      na      nq      25cm      RCT

Tip OD      Tip ID      Geom. Fact      Ref. Temp.      Ref. Press.      Viscosity  
 (in.)      (in.)           (|C)      (atm.)      (cp)  
           0.5           0.25           5.1           21           1           0.0177

Date	Time	Flow Press (psia)	Atm. Press (psia)	Flow Rate (cc/min)	Temp. ( C)	Perm. (md)	Sample
25/01/01	3:40:12 PM	65.26	14.77	6.65	18.47	0.1283949	1417
25/01/01	3:44:25 PM	64.67	14.77	12.31	18.57	0.2423464	1417.25
25/01/01	3:51:42 PM	64.69	14.77	9.67	18.73	0.1903595	1417.5
25/01/01	3:59:40 PM	64.65	14.77	9.05	18.91	0.1784972	1417.75
25/01/01	4:05:34 PM	65.26	14.77	6.36	19.02	0.1230273	1418
25/01/01	4:15:05 PM	64.49	14.77	10.67	19.16	0.2117337	1418.25
25/01/01	4:21:29 PM	64.97	14.77	8.52	19.23	0.1664847	1418.5
25/01/01	4:27:40 PM	65.6	14.77	1.75	19.31	0.0335199	1418.75
25/01/01	4:33:02 PM	65.16	14.77	7.98	19.37	0.1550499	1419
25/01/01	4:39:32 PM	63.99	14.77	17.14	19.43	0.346079	1419.25
25/01/01	4:44:58 PM	64.52	14.77	13.93	19.49	0.2764652	1419.5
25/01/01	4:50:49 PM	65.46	14.77	5.15	19.56	0.0991637	1419.75
25/01/01	4:56:18 PM	65.07	14.77	9.05	19.62	0.1765037	1420
26/01/01	12:26:49 PM	64.71	14.86	11.05	16.81	0.2160988	1420.25
26/01/01	12:32:48 PM	65.39	14.86	4.17	16.99	0.0798208	1420.5
26/01/01	12:39:54 PM	64.98	14.86	7.51	17.21	0.1457846	1420.75
26/01/01	12:47:04 PM	64.68	14.86	10.46	17.44	0.2052058	1421
26/01/01	12:53:01 PM	65.36	14.86	5.51	17.62	0.105802	1421.25
26/01/01	1:00:03 PM	65.43	14.86	2.85	17.82	0.0546393	1421.5
26/01/01	1:09:18 PM	64.56	14.86	9.96	18.08	0.1965966	1421.75
26/01/01	1:16:06 PM	64.7	14.86	11.3	18.28	0.2221809	1422
26/01/01	1:36:37 PM	63.18	14.86	17.18	18.74	0.3557666	1422.25
26/01/01	1:44:03 PM	64.5	14.86	12.66	18.87	0.2510872	1422.5
26/01/01	1:51:08 PM	65.22	14.86	6.14	19	0.1190039	1422.75
26/01/01	1:57:03 PM	65.79	14.86	0.89	19.13	0.0169425	1423
26/01/01	2:03:07 PM	65.19	14.86	7.65	19.19	0.1485007	1423.25
26/01/01	2:21:52 PM	63.78	14.86	15.77	19.43	0.3208585	1423.5
26/01/01	2:27:52 PM	65.31	14.86	6.79	19.51	0.1314399	1423.75
26/01/01	2:33:20 PM	64.85	14.86	11.85	19.56	0.2328773	1424
26/01/01	2:45:22 PM	64.89	14.86	7.87	19.65	0.1545083	1424.25
26/01/01	2:51:22 PM	65.41	14.86	5.96	19.71	0.1150798	1424.5
26/01/01	2:59:37 PM	65.44	14.86	3.95	19.79	0.076206	1424.75
26/01/01	3:04:41 PM	65.77	14.86	3.45	19.8	0.0658689	1425

Sample Nar Field      Well      Depth      Diameter      Length      Operator  
 wa1\_1434.(exploratory WA1      na      nq      25cm      RCT

Tip OD      Tip ID      Geom. Fact.      Ref. Temp.      Ref. Press.      Viscosity  
 (in.)      (in.)           (°C)      (atm.)      (cp)  
 0.5      0.25      5.1      21      1      0.0177

Date	Time	Flow Press (psia)	Atm. Press (psia)	Flow Rate (cc/min)	Temp. (°C)	Perm. (md)	Sample
30/01/01	3:08:11 PM	65.46	14.7	1.37	19.88	0.0263922	1434
30/01/01	3:13:15 PM	65	14.7	7.35	19.88	0.1437277	1434.25
30/01/01	3:17:28 PM	65.42	14.7	3.89	19.88	0.0750428	1434.5
30/01/01	3:23:37 PM	65.65	14.7	0	19.92	0	1434.75
30/01/01	3:29:43 PM	64.52	14.7	11.26	19.95	0.2237087	1435
30/01/01	3:33:49 PM	33.95	14.7	49.25	19.97	4.123874	1435.25
30/01/01	3:39:13 PM	65.68	14.7	0.52	20	0.0099489	1435.5
30/01/01	3:50:27 PM	65.59	14.7	0.59	20.09	0.0113279	1435.75
30/01/01	3:54:50 PM	65.54	14.7	3.43	20.12	0.0659679	1436
30/01/01	4:01:28 PM	64.61	14.7	10.4	20.15	0.2061566	1436.25
30/01/01	4:05:41 PM	65.42	14.7	4.78	20.15	0.0923266	1436.5
30/01/01	4:11:13 PM	64.87	14.7	9.18	20.17	0.1804506	1436.75
30/01/01	4:17:15 PM	65.17	14.7	6.17	20.18	0.1201136	1437
30/01/01	4:24:02 PM	64.68	14.7	10.15	20.2	0.2007762	1437.25
30/01/01	4:28:47 PM	65.36	14.7	5.58	20.2	0.1079783	1437.5
30/01/01	4:34:33 PM	64.76	14.7	10.27	20.22	0.2026348	1437.75
30/01/01	4:43:05 PM	64.83	14.7	5.9	20.25	0.1161584	1438
31/01/01	9:45:49 AM	64.65	14.57	4.85	16.52	0.0947354	1438.25
31/01/01	9:51:09 AM	65.05	14.57	4.1	16.64	0.0790846	1438.5
31/01/01	9:57:29 AM	64.75	14.57	5.95	16.81	0.11596	1438.75
31/01/01	10:03:35 AM	64.87	14.57	5.18	16.96	0.1006194	1439
31/01/01	10:14:05 AM	64.24	14.57	7.07	17.27	0.1403256	1439.25
31/01/01	10:21:44 AM	64.53	14.57	6.31	17.5	0.1241559	1439.5
31/01/01	10:27:55 AM	64.84	14.57	5.74	17.67	0.1118713	1439.75
31/01/01	10:36:30 AM	64.09	14.57	10.18	17.88	0.2034781	1440
31/01/01	10:43:53 AM	63.5	14.57	16.36	18.05	0.333643	1440.25
31/01/01	10:49:49 AM	65.06	14.57	3.87	18.19	0.0750232	1440.5
31/01/01	10:56:01 AM	63.04	14.57	19.93	18.33	0.4131352	1440.75
31/01/01	11:03:36 AM	64.99	14.57	2.24	18.48	0.0435662	1441
31/01/01	11:08:16 AM	65.14	14.57	4.68	18.57	0.0906094	1441.25
31/01/01	11:14:11 AM	65.1	14.57	3.66	18.68	0.0709797	1441.5
31/01/01	11:20:24 AM	65.06	14.57	3.48	18.77	0.0675971	1441.75
31/01/01	11:25:47 AM	65.01	14.57	5.08	18.85	0.0988632	1442
31/01/01	11:31:18 AM	64.92	14.57	5.78	18.97	0.1128611	1442.25
31/01/01	11:40:42 AM	64.75	14.57	3.39	19.1	0.0665898	1442.5
31/01/01	11:47:13 AM	64.15	14.57	11.69	19.16	0.2342252	1442.75
31/01/01	12:20:33 PM	64.33	14.57	1.05	19.51	0.0209462	1443
31/01/01	12:33:32 PM	64.7	14.57	2.75	19.6	0.0541989	1443.25
31/01/01	12:39:10 PM	64.19	14.57	11.94	19.63	0.2393043	1443.5

Sample Nar Field	Well	Depth	Diameter	Length	Operator
wa1_1521.2 exploratory	WA1	na	nq	25cm	RCT

Tip OD (in.)	Tip ID (in.)	Geom. Fact	Ref. Temp. (°C)	Ref. Press. (atm.)	Viscosity (cp)
0.5	0.25	5.1	21	1	0.0177

Date	Time	Flow Press (psia)	Atm. Press (psia)	Flow Rate (cc/min)	Temp. (°C)	Perm. (md)	Sample
26/01/01	3:17:59 PM	65.95	14.88	0	19.88	0	1521.25
26/01/01	3:22:05 PM	65.75	14.88	4.47	19.88	0.085461	1521.5
26/01/01	3:29:45 PM	64.56	14.88	12.56	19.94	0.2495382	1521.75
26/01/01	3:40:47 PM	64.13	14.88	15.52	20	0.3127956	1522
26/01/01	3:46:27 PM	63.73	14.88	19.93	20	0.407026	1522.25
26/01/01	3:52:53 PM	63.5	14.88	23.93	20.03	0.4925203	1522.5
26/01/01	4:51:42 PM	64.37	14.88	14.88	20.12	0.2976605	1522.75
29/01/01	11:26:21 AM	64.46	14.58	9.59	19.74	0.1905974	1523.5
29/01/01	11:31:43 AM	64.49	14.58	10.31	19.74	0.2047063	1523.75
29/01/01	11:40:14 AM	65.01	14.58	3.47	19.79	0.0677529	1524
29/01/01	11:46:12 AM	65.3	14.58	2.66	19.8	0.0514547	1524.25

Sheet1

Sample No	Field	Well	Depth	Diameter	Length	Operator		
wa1_1624	exploratory	WA1	na	nq	50cm	RCT		
Tip OD (in.)	Tip ID (in.)	Geom. Fac	Ref. Temp. (°C)	Ref. Press. (atm.)	Viscosity (cp)			
0.25	0.125	5.1	21	1	0.0177			
Date	Time	Flow Press (psia)	Atm. Press (psia)	Flow Rate (cc/min)	Temp. (°C)	Perm. (md)	Sample	Position
05/12/00	11:14:16 AM	39.7	14.87	42.47	8.76	2.375008	1624.00	1
05/12/00	11:15:55 AM	36.75	14.87	42.8	8.81	2.871516	1624.50	2
05/12/00	11:19:30 AM	62.5	14.87	20.75	8.93	0.425492	1625.00	3
05/12/00	11:21:12 AM	37.87	14.87	42.95	8.98	2.684167	1625.50	4
05/12/00	11:22:52 AM	36.59	14.87	42.86	9.05	2.908286	1626.00	5
05/12/00	11:24:36 AM	38.15	14.87	42.79	9.13	2.629334	1626.50	6
05/12/00	11:26:21 AM	37.15	14.87	42.7	9.19	2.782782	1627.00	7
05/12/00	11:29:18 AM	54.11	14.87	43	9.34	1.203445	1627.50	8
05/12/00	11:31:08 AM	38.77	14.87	42.95	9.42	2.532603	1628.00	9
05/12/00	11:32:51 AM	37.59	14.87	42.87	9.51	2.719855	1628.50	10
05/12/00	11:35:25 AM	49.14	14.87	42.83	9.63	1.477064	1629.00	11
05/12/00	11:37:41 AM	45.27	14.87	42.76	9.76	1.770164	1629.50	12
05/12/00	11:39:40 AM	41.2	14.87	42.73	9.86	2.191304	1630.00	13
05/12/00	11:41:25 AM	38.12	14.87	42.7	9.95	2.624917	1630.50	14

**COMPANY: DEER LAKE OIL & GAS INC**  
**WELL: DEER LAKE OIL & GAS ET AL**  
**FIELD: WESTERN ADVENTURE N**  
**EXPLORATORY**

**PROVINCE: NEWFOUNDLAND**

PROVINCENEWFOUNDLAND  
 Field: EXPLORATORY  
 Location:  
 Well: DEER LAKE OIL & GAS ET AL  
 Company: DEER LAKE OIL & GAS INC.

<b>Schlumberger</b>	<b>LOCATION</b>		
	Permanent Datum:	GROUND LEVEL	Elev
	Log Measured From:	DRILL FLOOR	2.5
	Drilling Measured From:	DRILL FLOOR	
API Serial No. 2000-120-01-01			NOR 5.4

Logging Date	3-AUG-2000		
Run Number	1		
Depth Driller	872 m		
Schlumberger Depth	873.5 m		
Bottom Log Interval	871 m		
Top Log Interval	218 m		
Casing Driller Size @ Depth	114.300 mm	@	218 m
Casing Schlumberger	218 m		
Bit Size	96.000 mm		
Type Fluid In Hole	POT. SULFATE		
Density	Viscosity	1044 kg/m <sup>3</sup>	35 s
Fluid Loss	PH		
Source Of Sample	MEASURED		
RM @ Measured Temperature	0.539 ohm.m	@	15 degC
RMF @ Measured Temperature		@	
RMC @ Measured Temperature		@	
Source RMF	RMC		
RM @ MRT	RMF @ MRT	NO SAMPLE @ 22	NO SAMPLE @ 22
Maximum Recorded Temperatures	22 degC		
Circulation Stopped	Time	2-AUG-2000	22:00
Logger On Bottom	Time	3-AUG-2000	12:40
Unit Number	Location	19	DARTMOUTH
Recorded By	KELLI SASCO		
Witnessed By	ROB TAYLOR		



**COMPENSATED NEUTRON DENSITY**

K.B. 92.5 m  
G.L. 90 m  
D.F. 92.5 m

90 m  
above Perm. Datum

DEPTHING: EASTING:  
56,519 482,797

**Final Print**

	Run 1	Run 2	Run 3	Run 4
Logging Date				
Run Number				
Depth Driller				
Schlumberger Depth				
Bottom Log Interval				
Top Log Interval				
Casing Driller Size @ Depth		@		@
Casing Schlumberger				
Bit Size				
Type Fluid In Hole				
Density				
Fluid Loss				
Source Of Sample				
RM @ Measured Temperature		@		@
RMF @ Measured Temperature		@		@
RMC @ Measured Temperature		@		@
Source RMF				
RM @ MRT		@		@
RMF @ MRT				
Maximum Recorded Temperatures				
Circulation Stopped				
Logger On Bottom				
Unit Number				
Recorded By				
Witnessed By				

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 INTERPRETATIONS, 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 CLAUSE 4 OF OUR GENERAL TERMS AND CONDITIONS AS SET OUT IN OUR CURRENT PRICE SCHEDULE.

OTHER SERVICES1  
OS1: DUAL LATEROLOG  
OS2: BHC SONIC  
OS3: COMPENSATED NEUTRON  
OS4: LITHO DENSITY  
OS5:

OTHER SERVICES2  
OS1:  
OS2:  
OS3:  
OS4:  
OS5:

REMARKS: RUN NUMBER 1

REMARKS: RUN NUMBER 2

1ST DESCENT: DUAL LATEROLOG, GR

2ND DESCENT: BHC SONIC, GR

3RD DESCENT: COMPENSATED NEUTRON, LITHO DENSITY, GR

II E-S BOWSPRING USED ON NEUTRON FOR ECCENTRALIZATION

CEMENT VOLUME BASED ON 66.7MM PRODUCTION CASING

\*\* SP SHIFTED ON REPEAT PASS \*\*

SCALES AND INTERVALS AS PER CLIENT REQUEST

RIG: LONGYEAR SUPER 50

CREW 19: OTTO MARSHALL, MIKE DIGGDON

RUN 1

SERVICE ORDER #: 6418543  
 PROGRAM VERSION: 9C0-413  
 FLUID LEVEL:

RUN 2

SERVICE ORDER #:  
 PROGRAM VERSION:  
 FLUID LEVEL:

LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

### EQUIPMENT DESCRIPTION

RUN 1

RUN 2

#### SURFACE EQUIPMENT

NCT-B  
NCS-VB  
WITM (DTS)-A

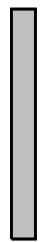
#### DOWNHOLE EQUIPMENT

LEH-ST 16.06  
 LEH-ST



STGC-B 15.15  
 STGH-B 8007  
 STGC0-A  
 STGC1-B

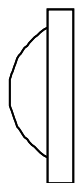
Gamma Ray 14.63  
 CTEM 14.16  
 TelStatus 12.80



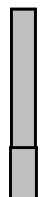
AH-201 12.80  
 AH-201



ILE-S 12.25  
 ILE-S

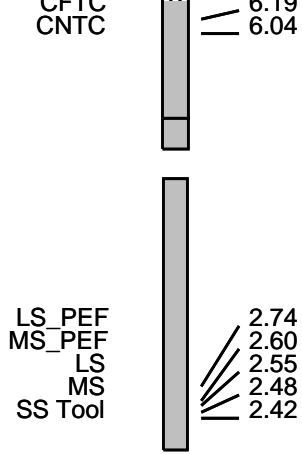


CNT-S 10.47  
 NLS-KL  
 NSR-L 3108  
 AH-218  
 CNH-CA  
 CNC-DA 58  
 AH-219  
 NPV-N



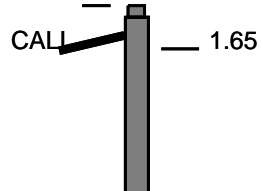
CETC 6.10

SLDT-A  
SLDH-A 18  
GSR-Z 2013  
SLDC-A 17



4.86

SPCS-B  
SPCS-B



2.09

BNS-CCS



0.14

MAXIMUM STRING DIAMETER 70 MM  
MEASUREMENTS RELATIVE TO TOOL ZERO  
ALL LENGTHS IN METERS

### Input DLIS Files

DEFAULT    SPCS .022    FN:18 PRODUCER    03-Aug-2000 12:24    874.9 M    209.2 M

### Output DLIS Files

DEFAULT    SPCS .023    FN:19 PRODUCER    03-Aug-2000 13:35    874.9 M    209.2 M

### Integrated Hole/Cement Volume Summary

Hole Volume = 5.05 M3  
 Cement Volume = 0.97 M3 (assuming 89.00 MM casing O.D.)  
 Computed from 873.4 M to 218.1 M using data channel(s) CALI\_SPCS

### OP System Version: 9C0-413

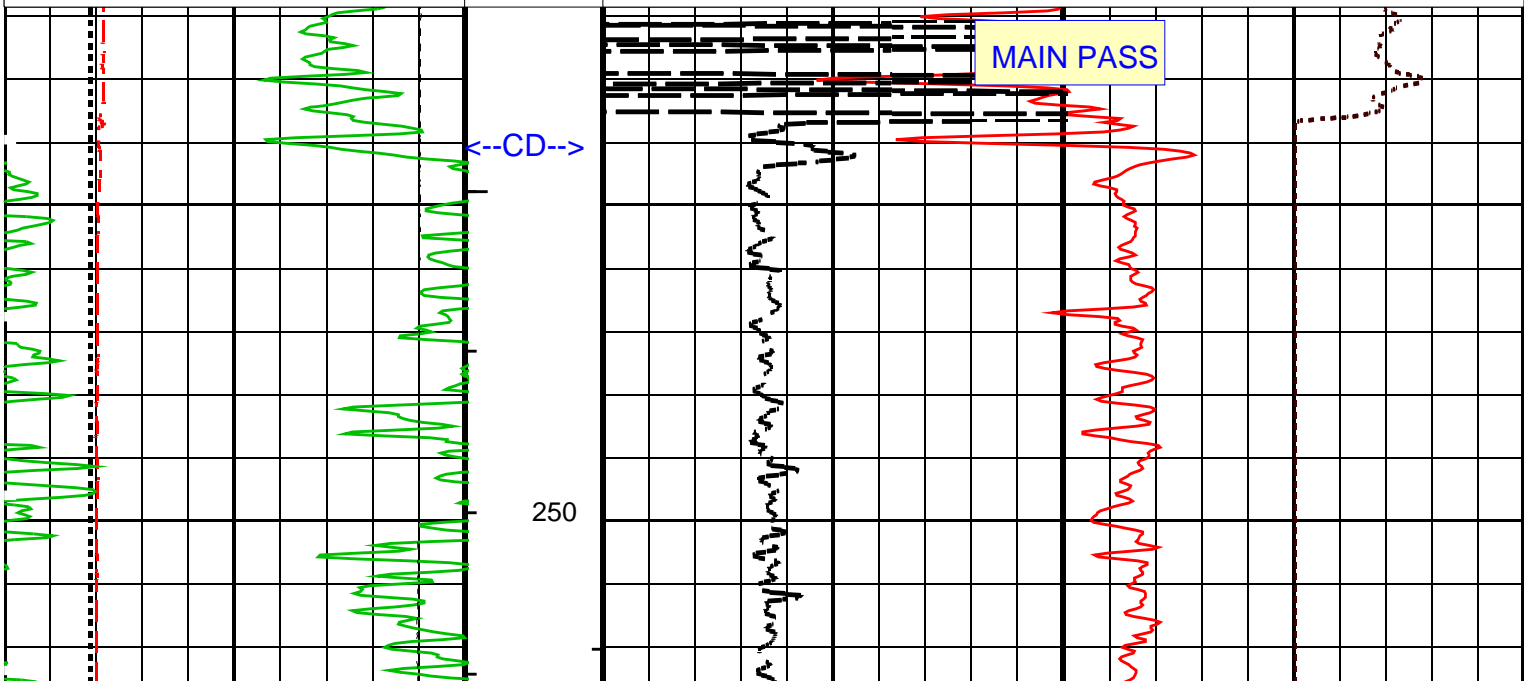
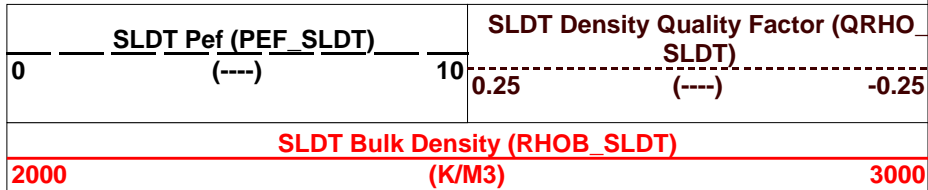
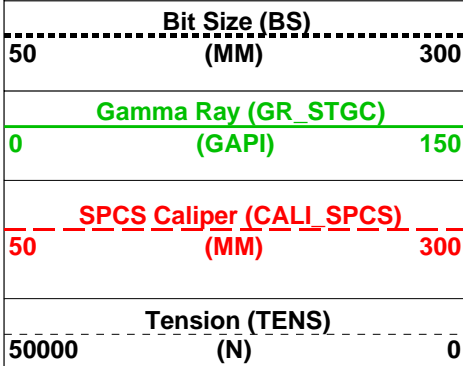
MCM

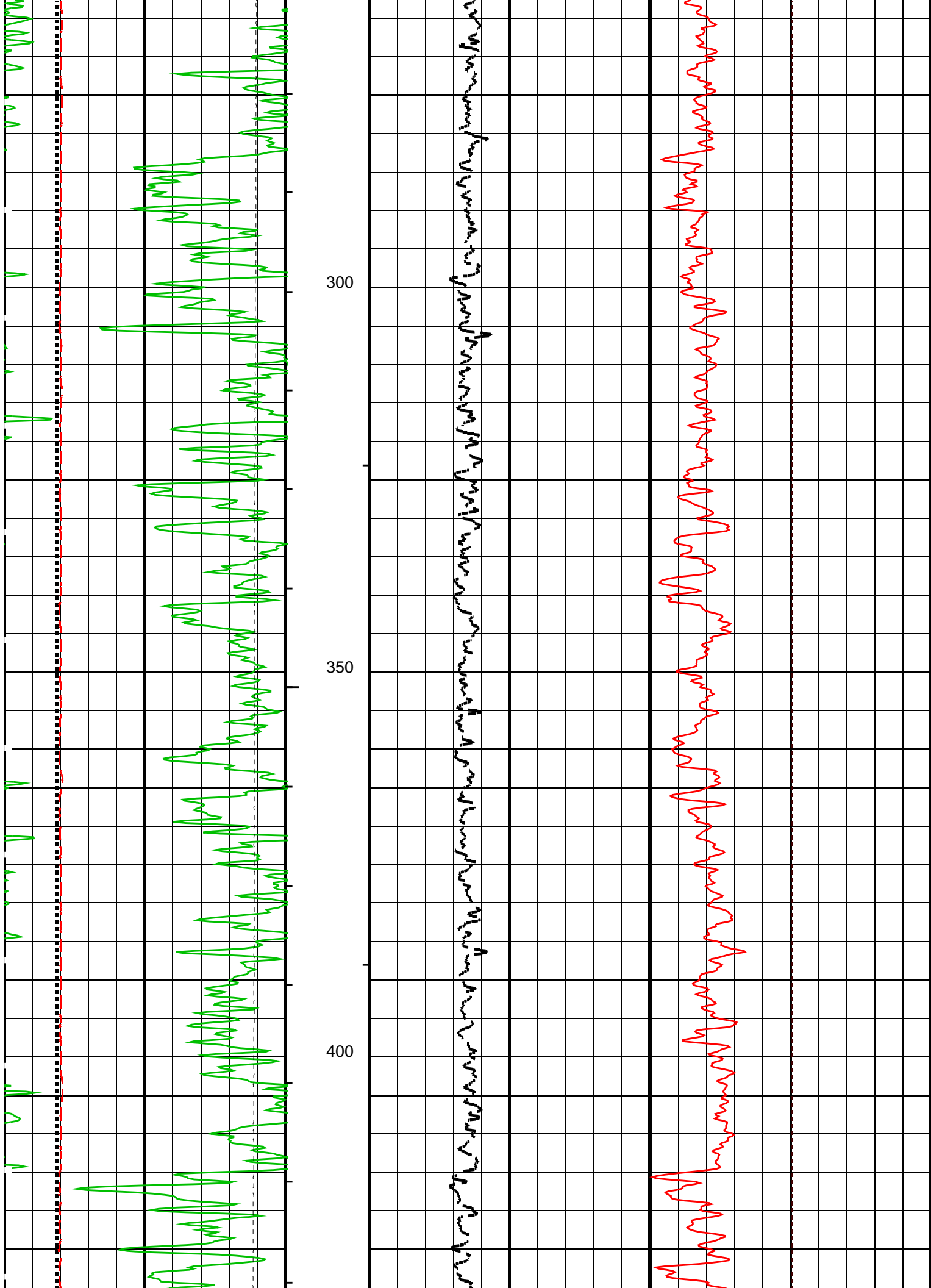
SPCS-B            OP9-KP2                    SLDT-A            OP9-KP2  
 CNT-S            OP9-KP2                    STGC-B            OP9-KP2

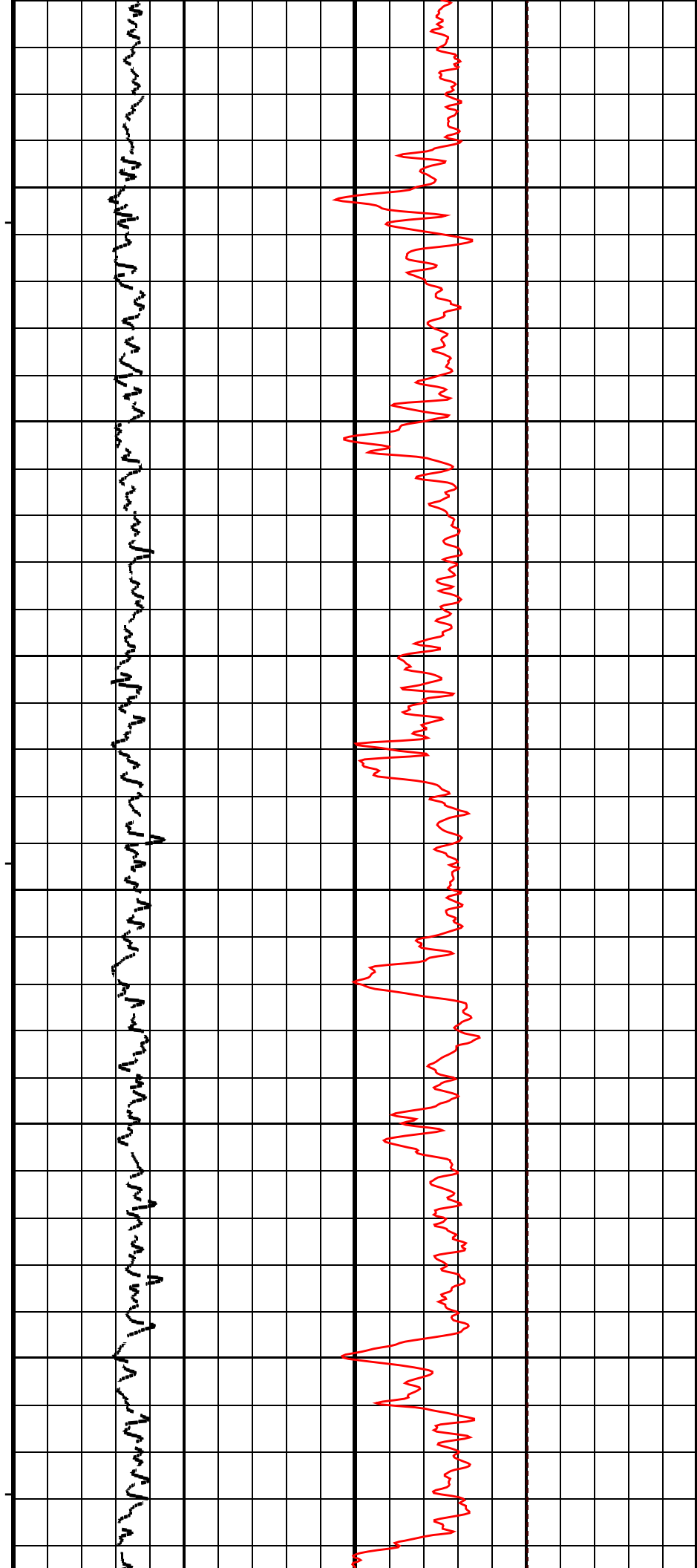
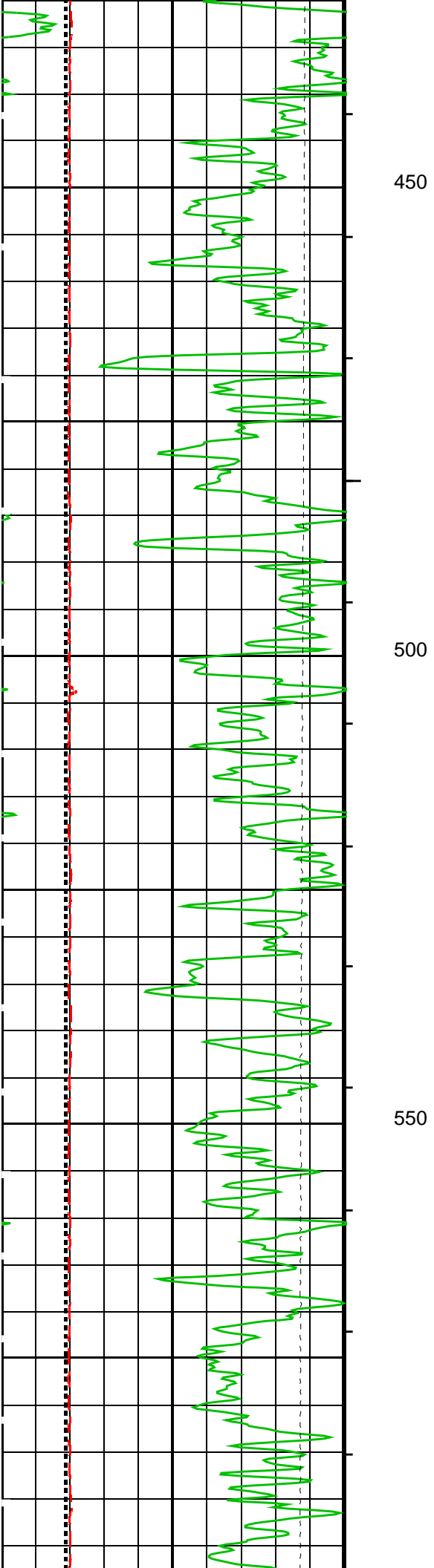
#### PIP SUMMARY

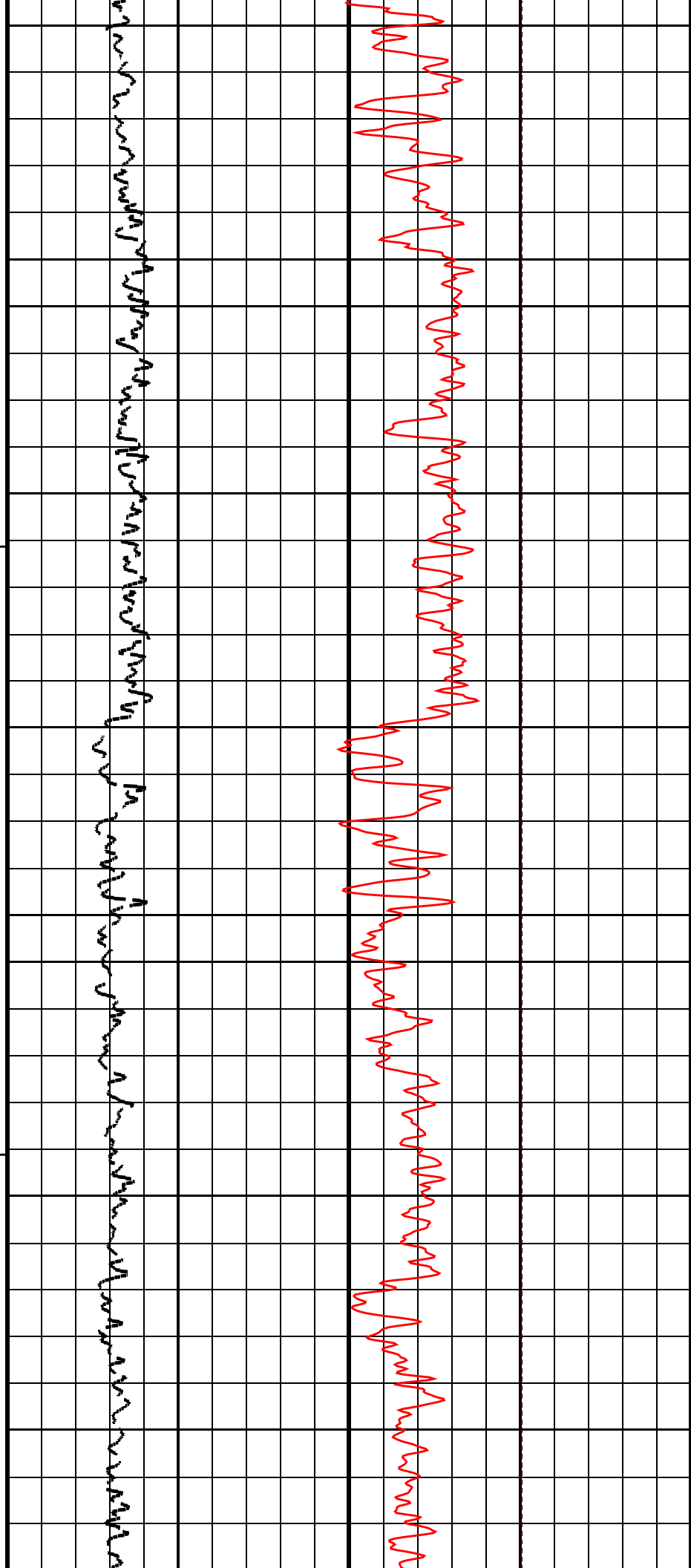
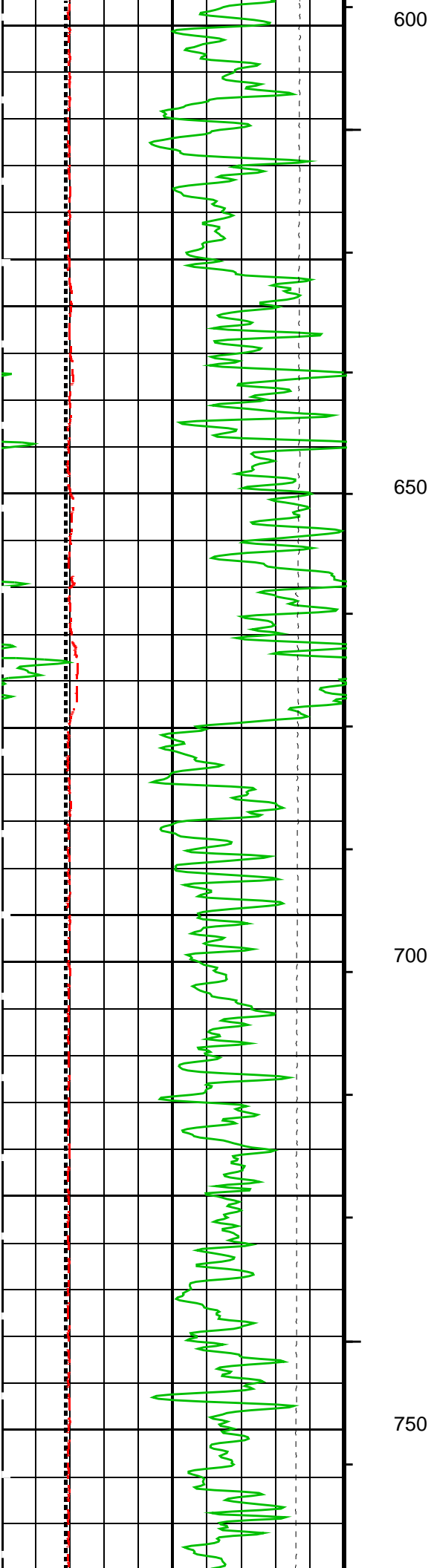
- └ Integrated Hole Volume Minor Pip Every 0.1 M3
- └ Integrated Hole Volume Major Pip Every 1 M3
  - └ Integrated Cement Volume Minor Pip Every 0.1 M3
  - └ Integrated Cement Volume Major Pip Every 1 M3

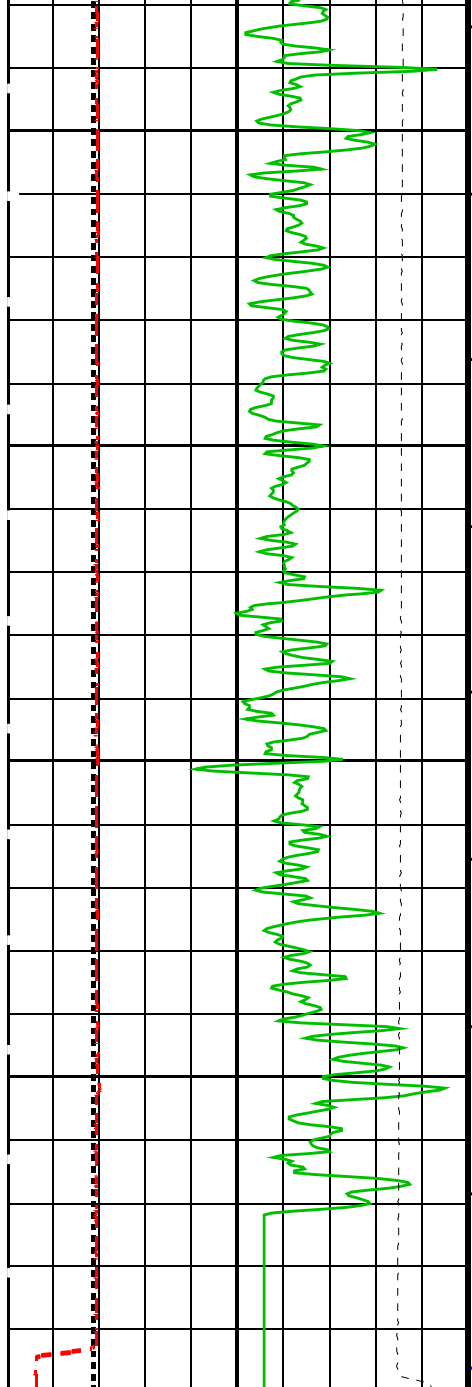
Time Mark Every 60 S



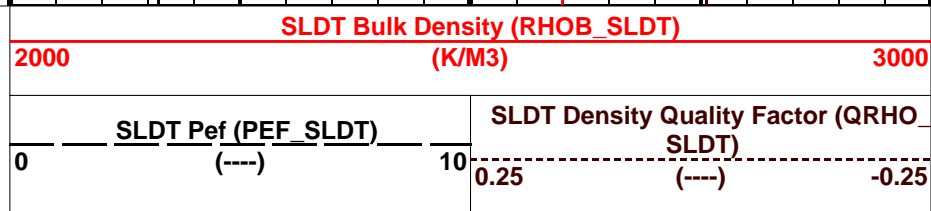
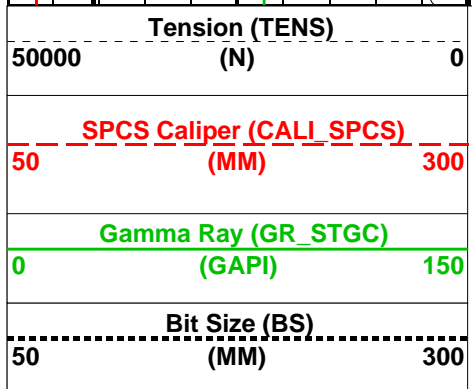
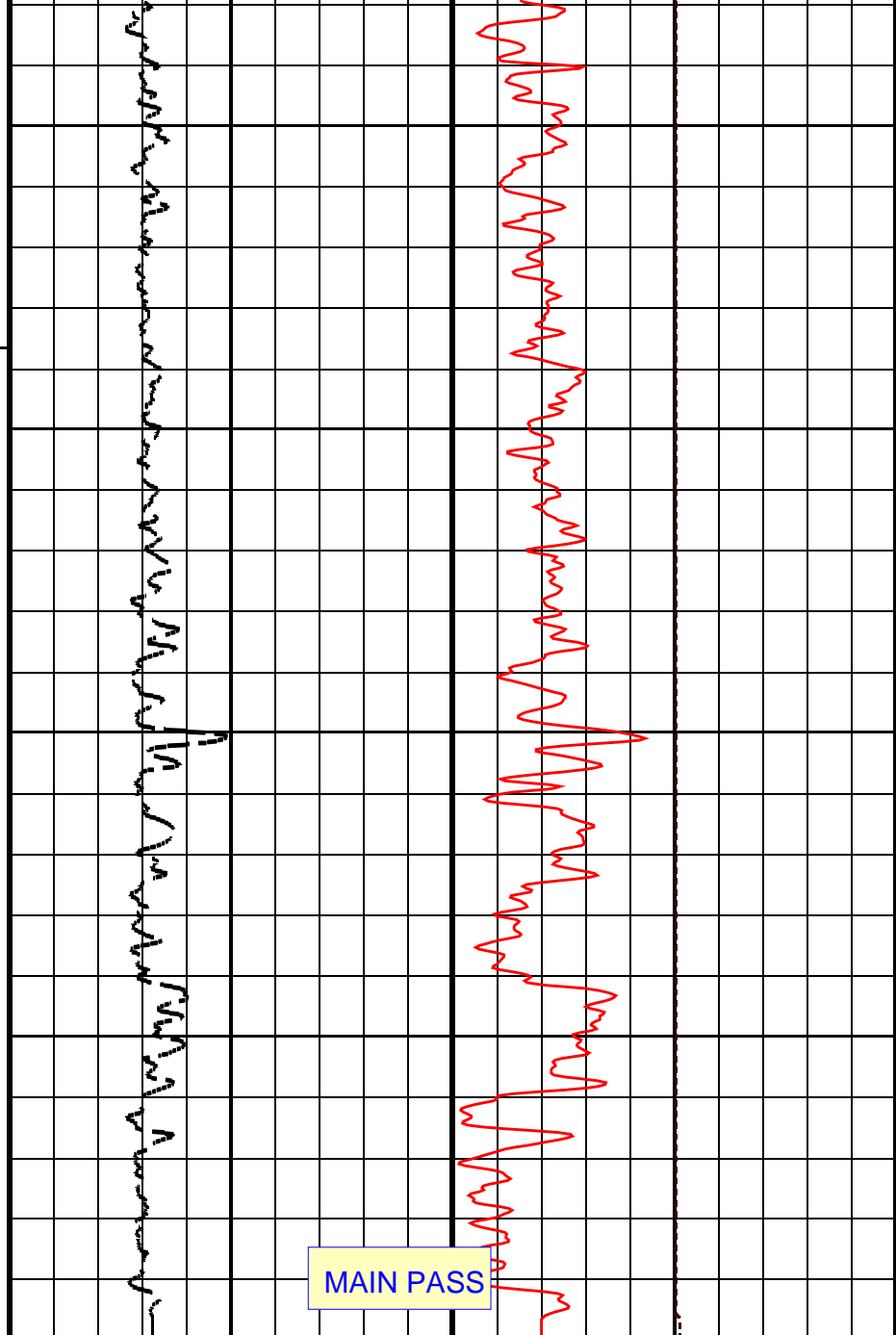








800  
850  
<--TD-->



**PIP SUMMARY**

- ┌ Integrated Hole Volume Minor Pip Every 0.1 M3
- ┌ Integrated Hole Volume Major Pip Every 1 M3
- ┌ Integrated Cement Volume Minor Pip Every 0.1 M3
- ┌ Integrated Cement Volume Major Pip Every 1 M3

Time Mark Every 60 S

**Parameters**

DLIS Name	Description	Value
-----------	-------------	-------



FD	Fluid Density	1000	K/M3
FVNA_SLDT	SLDT Firmware Version Number - Major	3	
FVNI_SLDT	SLDT Firmware Version Number - Minor	2	
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.018227	DC/M
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
MATR	Rock Matrix Type	SANDSTONE	
MDEN	Matrix Density	2650	K/M3
MVNA_SLDT	SLDT MAXIS Version Number - Major	10	
MVNI_SLDT	SLDT MAXIS Version Number - Minor	2	
PP	Playback Processing	NORMAL	
PVNA_SLDT	SLDT Log Processing Version Number - Major	4	
PVNI_SLDT	SLDT Log Processing Version Number - Minor	30	
SDHC	SLDT Density Hole Correction	CALI_SPCS	
SHT	Surface Hole Temperature	15	DEGC
STSO	SLDT Temperature Correction Source	TMPY_SLDT	
TD	Total Depth	873.5	M

Format: PORO\_S5\_REP Vertical Scale: 1:240 Graphics File Created: 03-Aug-2000 13:35

## OP System Version: 9C0-413

MCM

SPCS-B	OP9-KP2	SLDT-A	OP9-KP2
CNT-S	OP9-KP2	STGC-B	OP9-KP2

### Input DLIS Files

DEFAULT	SPCS .022	FN:18 PRODUCER	03-Aug-2000 12:24	874.9 M	209.2 M
DEFAULT	SPCS .021	FN:17 PRODUCER	03-Aug-2000 12:11	874.9 M	796.0 M

### Output DLIS Files

DEFAULT	SPCS .023	FN:19 PRODUCER	03-Aug-2000 13:35
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### Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Slimhole Powered Caliper Sonde - B Wellsite Calibration - SPCS Caliper Calibration							
Before: 1-AUG-2000 14:03							
SPCS Caliper Small Ring	101.6	N/A	106.0	N/A	N/A	N/A	MM
SPCS Caliper Medium Ring	177.8	N/A	175.6	N/A	N/A	N/A	MM
SPCS Caliper Large Ring	203.2	N/A	200.7	N/A	N/A	N/A	MM
Compensated Neutron - S Wellsite Calibration - Zero Measurement							
Master: Calibration out of date 9-APR-2000 16:56 Before: 1-AUG-2000 14:08							
CNTC Background	1.000	0	1.042	N/A	N/A	N/A	CPS
CFTC Background	0	1.111	1.667	N/A	N/A	N/A	CPS
Compensated Neutron - S Wellsite Calibration - Ratio Measurement (R6)							
Master: Calibration out of date 9-APR-2000 17:04 Before: 1-AUG-2000 14:04							
CNTC (R6)	5000	5000	5000	N/A	N/A	N/A	CPS
CFTC (R6)	833.3	833.2	833.2	N/A	N/A	N/A	CPS
Ratio (R6)	6.000	6.001	6.001	N/A	N/A	N/A	
Compensated Neutron - S Master Calibration - Tank Measurement							
Master: Calibration out of date 9-APR-2000 17:03							
Thermal Near Corr. (Tank)	7328	7361	--	--	--	--	CPS
Thermal Far Corr. (Tank)	1600	1734	--	--	--	--	CPS
TNRA	4.240	4.246	--	--	--	--	
SLIM Telemetry Gamma-ray Cartridge - B Wellsite Calibration - Detector Calibration							
Before: 1-AUG-2000 14:44							
Gamma Ray (Jig - Bkg)	149.1	N/A	149.1	N/A	N/A	13.55	GAPI
Gamma Ray (Calibrated)	155.1	N/A	155.1	N/A	N/A	15.00	GAPI

The CNT Master Calibration Was Done With The Following Parameters :

NCT-B Water Temperature 19.6 DEGC.

BHT	Bottom Hole Temperature (used in calculations)	22	DEGC
BS	Bit Size	96.000	MM
DFD	Drilling Fluid Density	1044.00	K/M3
DO	Depth Offset	0.0	M
DORL	Depth Offset Repeat Analysis	0.0	M
FVNA_SLDT	SLDT Firmware Version Number - Major	3	
FVNI_SLDT	SLDT Firmware Version Number - Minor	2	
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.018227	DC/M
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
MVNA_SLDT	SLDT MAXIS Version Number - Major	10	
MVNI_SLDT	SLDT MAXIS Version Number - Minor	2	
PP	Playback Processing	NORMAL	
PVNA_SLDT	SLDT Log Processing Version Number - Major	4	
PVNI_SLDT	SLDT Log Processing Version Number - Minor	30	
SDHC	SLDT Density Hole Correction	CALI_SPCS	
SHT	Surface Hole Temperature	15	DEGC
STSO	SLDT Temperature Correction Source	TMPY_SLDT	
TD	Total Depth	873.5	M

Format: DENS Vertical Scale: 1:600 Graphics File Created: 03-Aug-2000 13:35

**OP System Version: 9C0-413**  
MCM

SPCS-B	OP9-KP2	SLDT-A	OP9-KP2
CNT-S	OP9-KP2	STGC-B	OP9-KP2

**Input DLIS Files**

DEFAULT	SPCS .022	FN:18 PRODUCER	03-Aug-2000 12:24	874.9 M	209.2 M
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**Output DLIS Files**

DEFAULT	SPCS .023	FN:19 PRODUCER	03-Aug-2000 13:35		
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**Input DLIS Files**

DEFAULT	SPCS .022	FN:18 PRODUCER	03-Aug-2000 12:24	874.9 M	209.2 M
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**Output DLIS Files**

DEFAULT	SPCS .023	FN:19 PRODUCER	03-Aug-2000 13:35	874.9 M	209.2 M
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**Integrated Hole/Cement Volume Summary**

Hole Volume = 5.05 M3  
Cement Volume = 0.97 M3 (assuming 89.00 MM casing O.D.)  
Computed from 873.4 M to 218.1 M using data channel(s) CALI\_SPCS

**OP System Version: 9C0-413**  
MCM

SPCS-B	OP9-KP2	SLDT-A	OP9-KP2
CNT-S	OP9-KP2	STGC-B	OP9-KP2

**PIP SUMMARY**

- ┆ Integrated Hole Volume Minor Pip Every 0.1 M3
- ┆ Integrated Hole Volume Major Pip Every 1 M3
- ┆ Integrated Cement Volume Minor Pip Every 0.1 M3
- ┆ Integrated Cement Volume Major Pip Every 1 M3

Time Mark Every 60 S

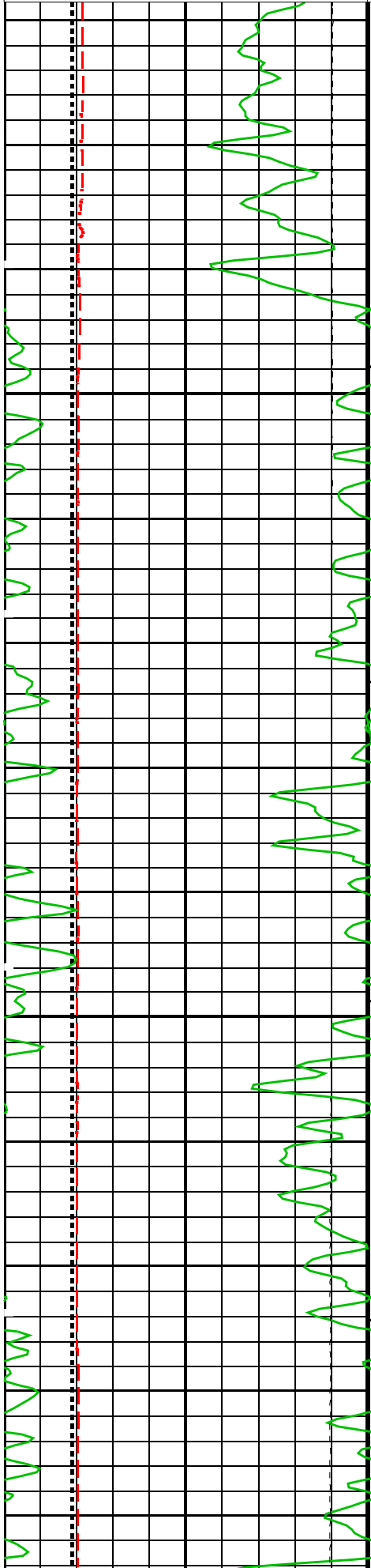
Bit Size (BS)	
50	300
(MM)	
-----	
Gamma Ray (GR_STGC)	
0	150
(GAPI)	
-----	
SPCS Caliper (CALI_SPCS)	
50	300
(MM)	

SLDT Density Porosity (DPHI_SLDT)	
45	-15
(PU)	
-----	
SLDT Pef (PEF_SLDT)	
0	10
(----)	
-----	
SLDT Density Quality Factor (QRHO_SLDT)	
0	0.8
(-----)	

Cable Tension (TENS)  
(N)

50000

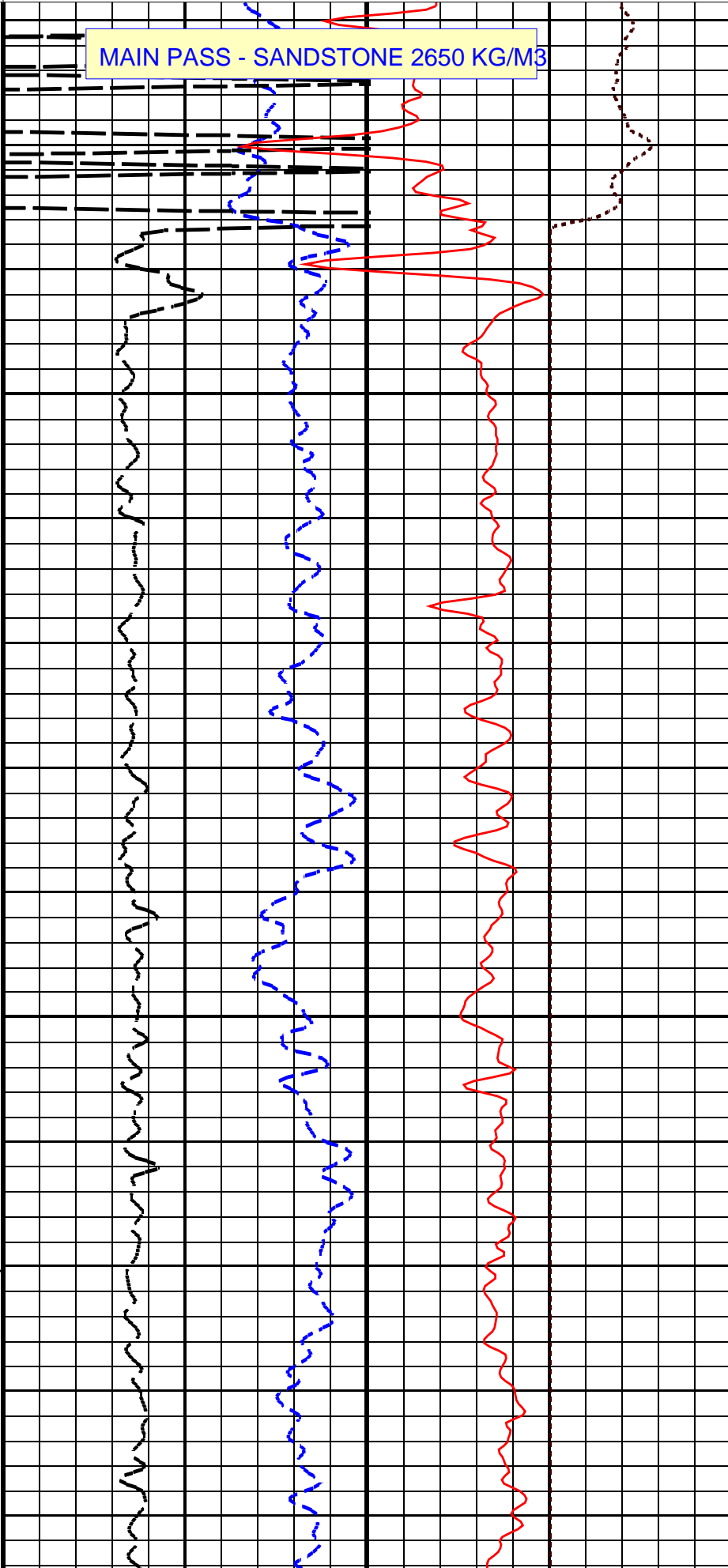
0



Neutron Porosity (NPHI)  
(PU)

45

-15

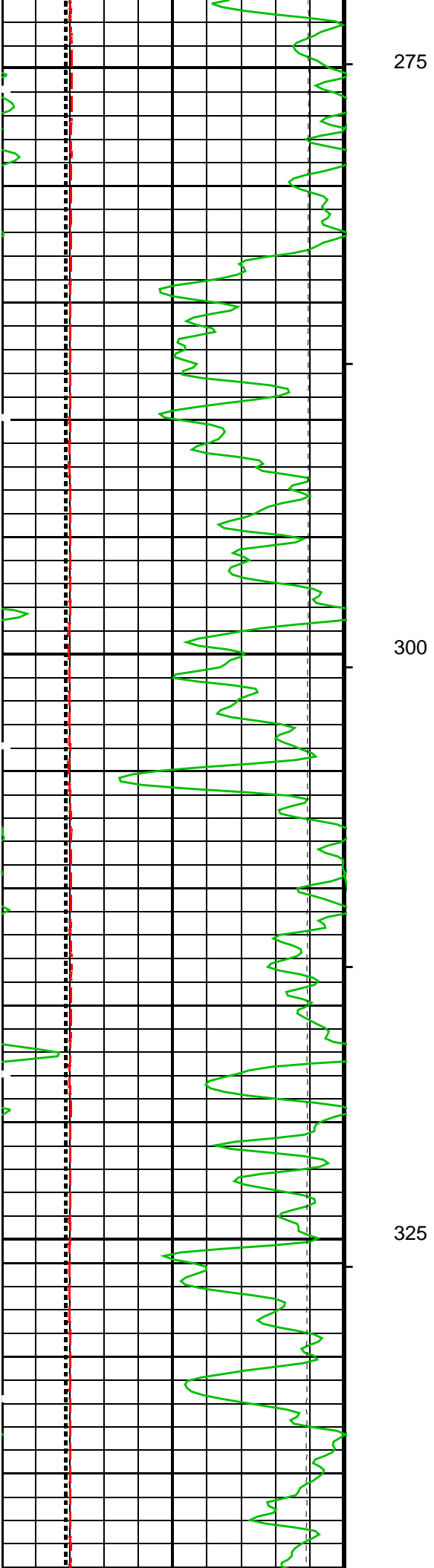


MAIN PASS - SANDSTONE 2650 KG/M3

<--CD-->

225

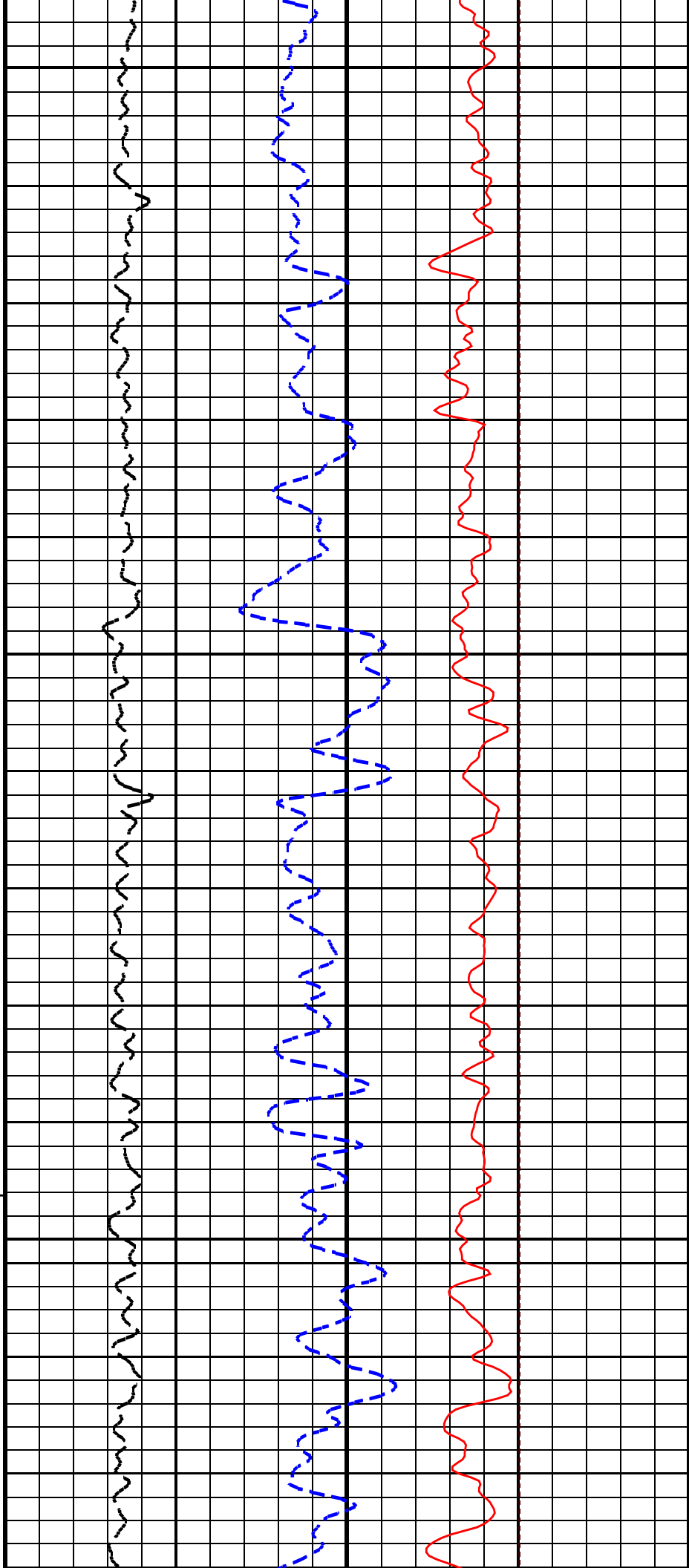
250

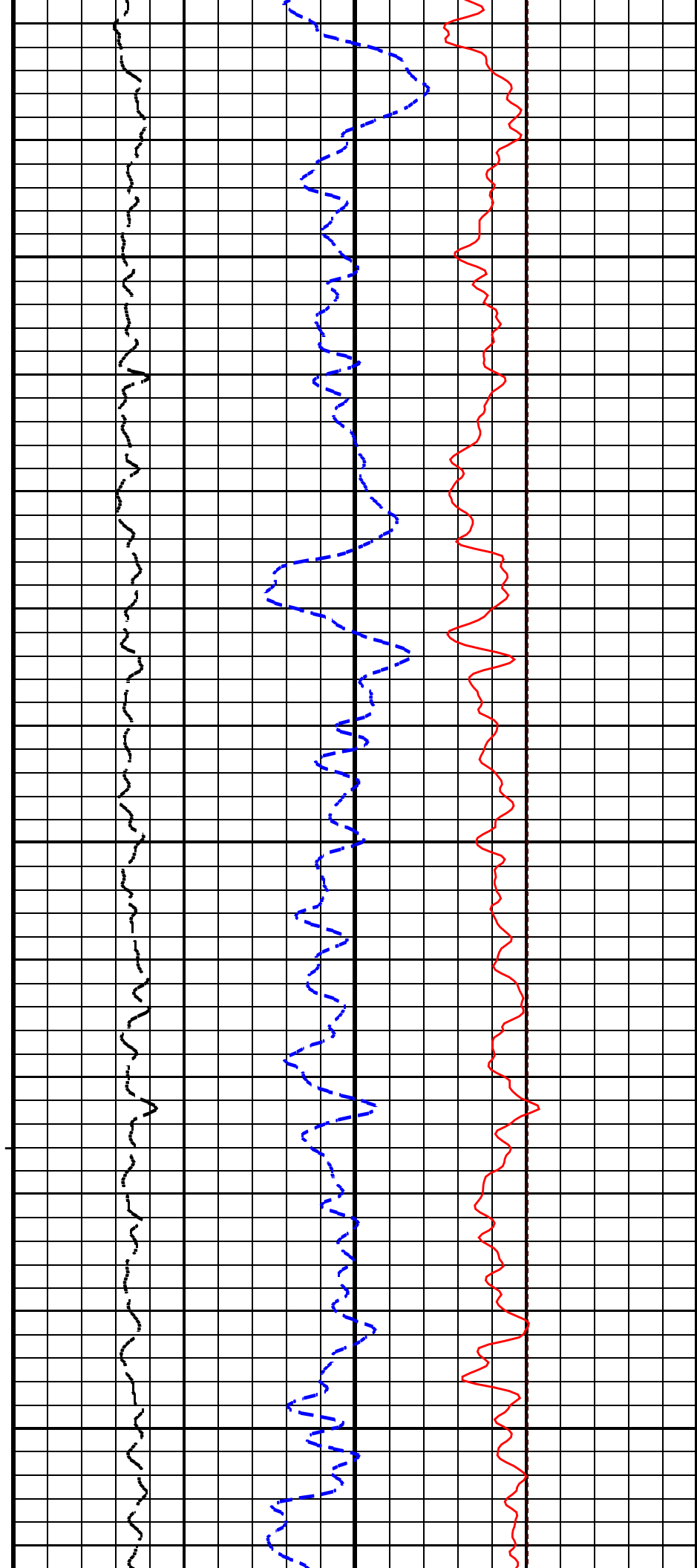
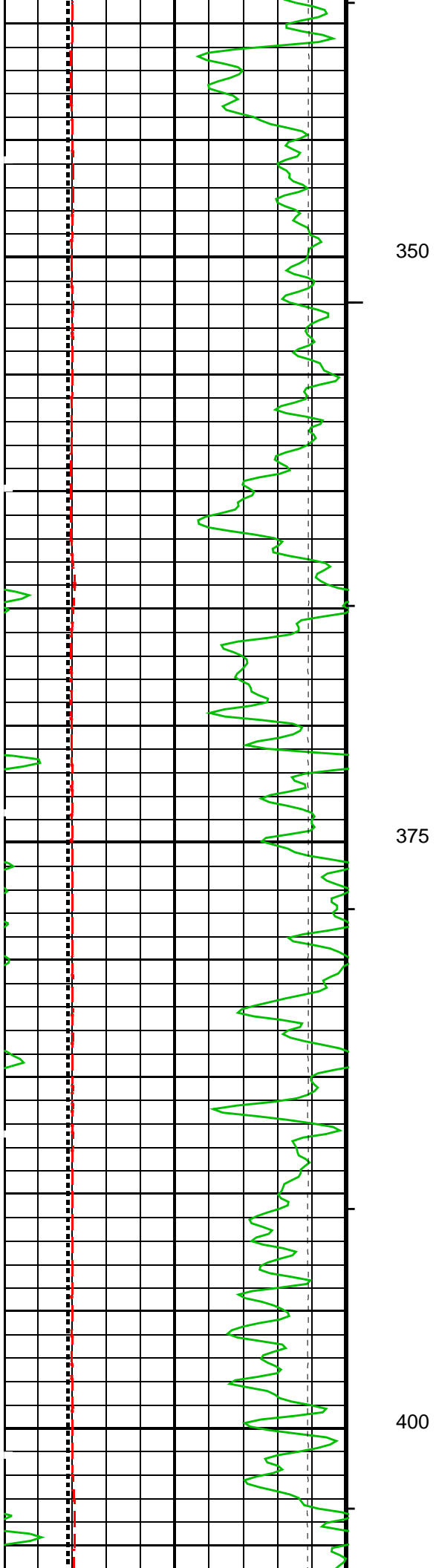


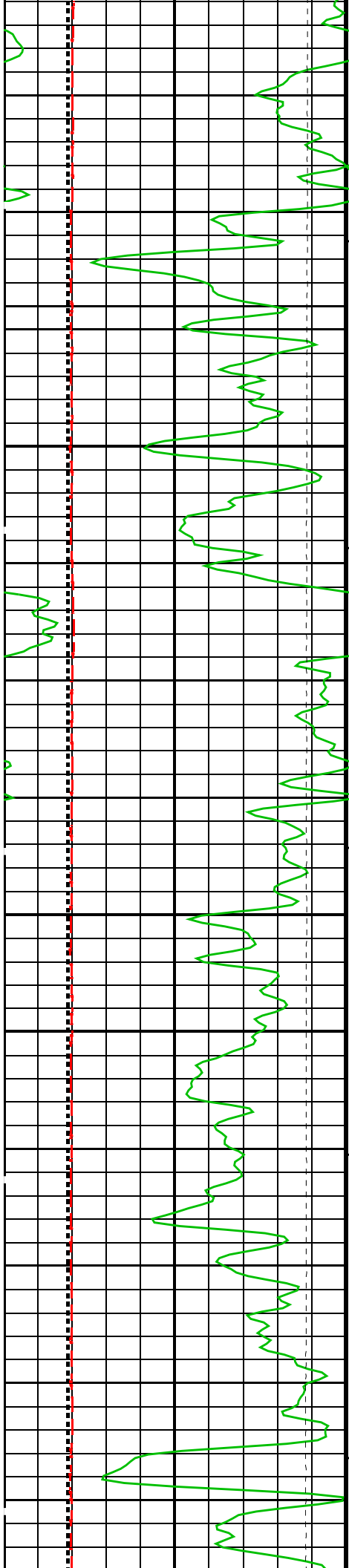
275

300

325

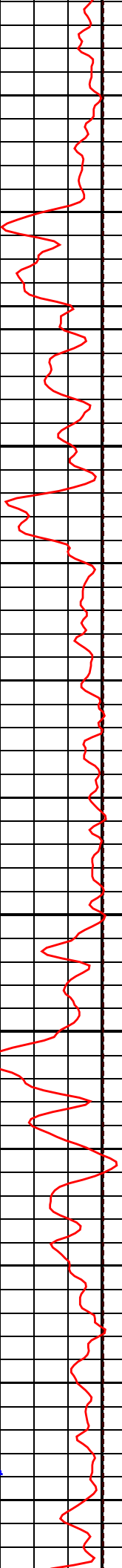
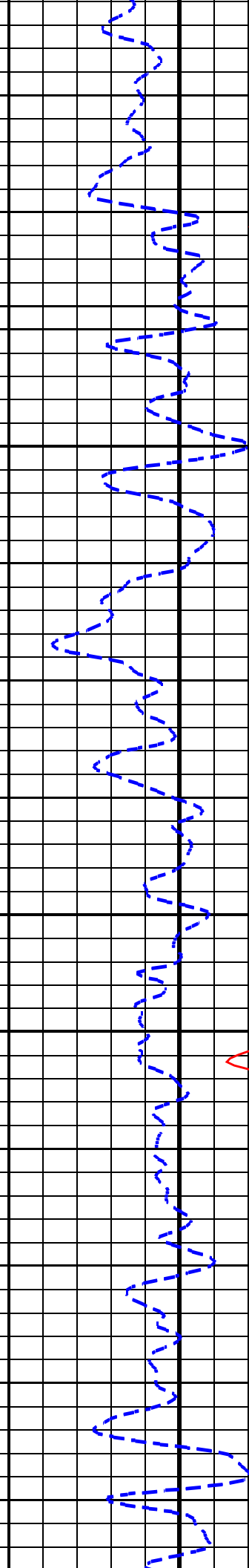
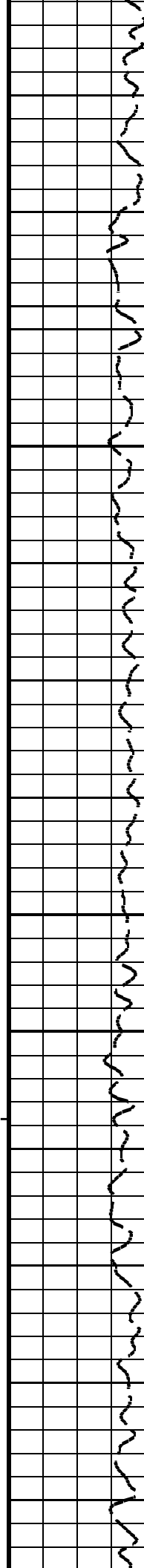


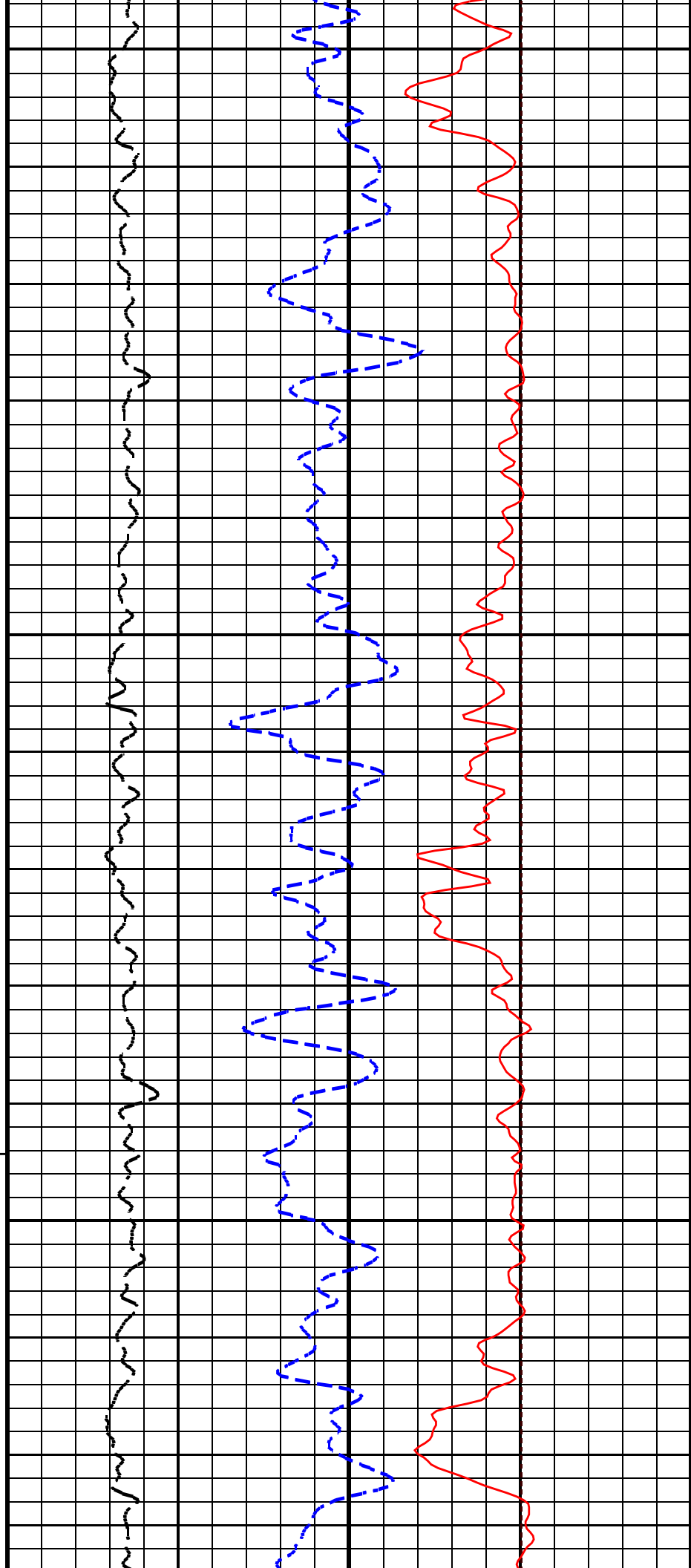
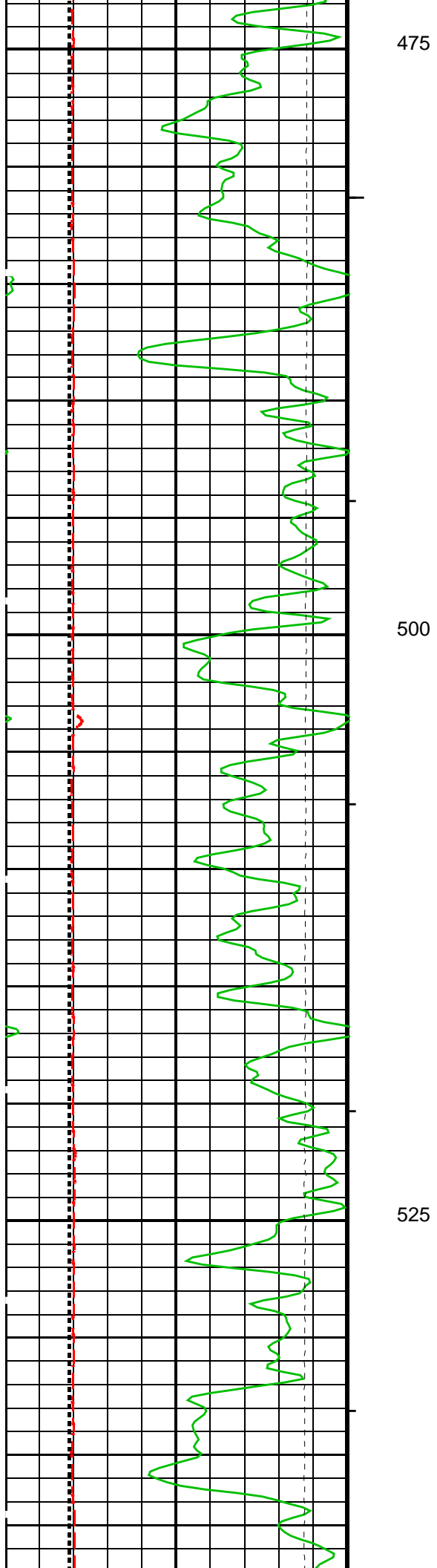


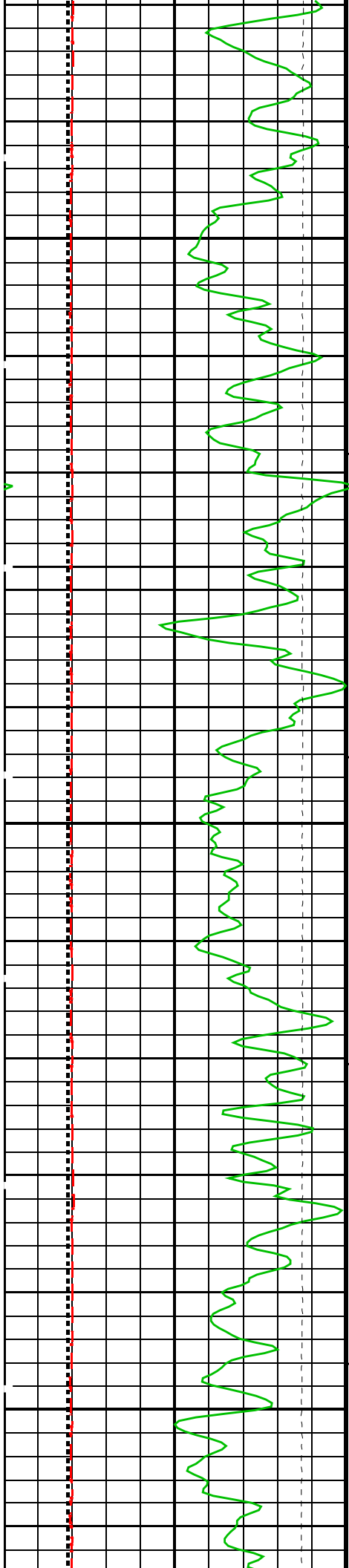


425

450



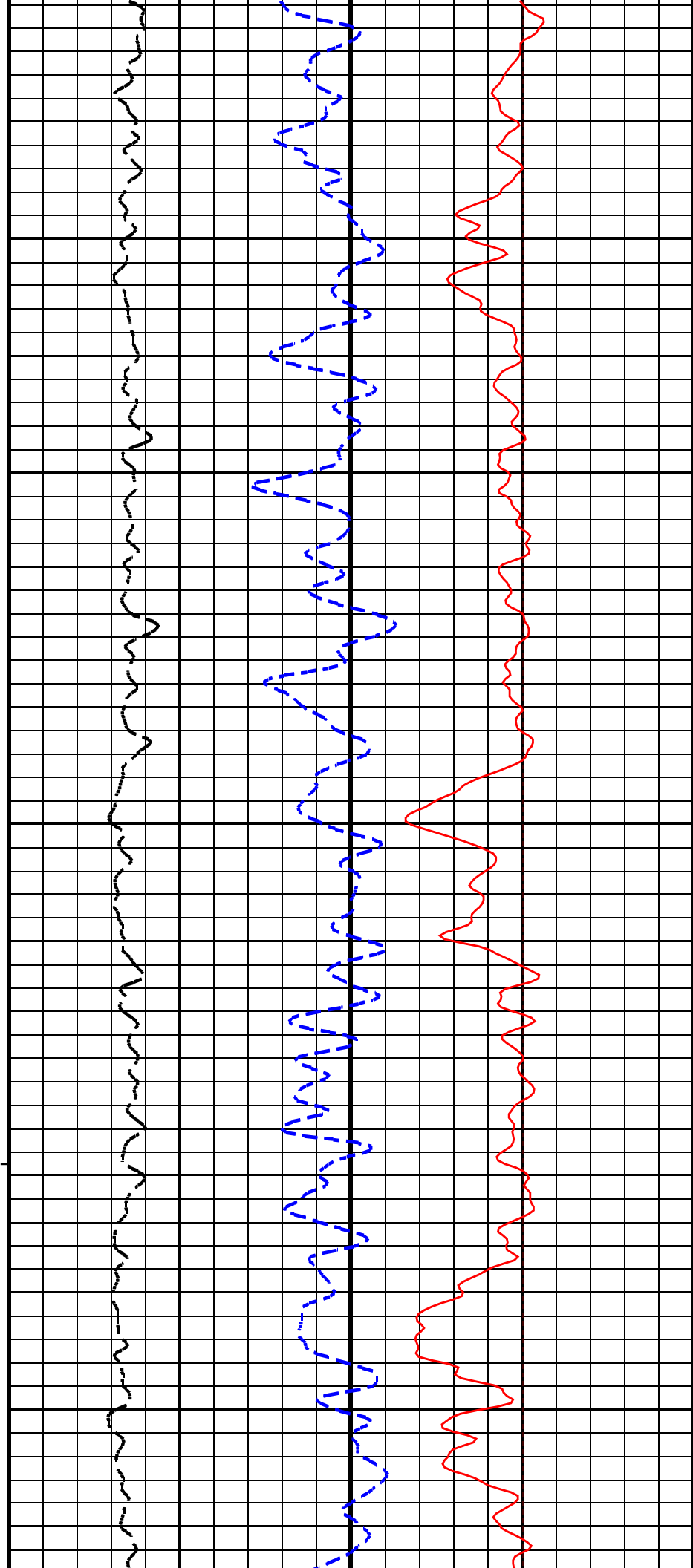




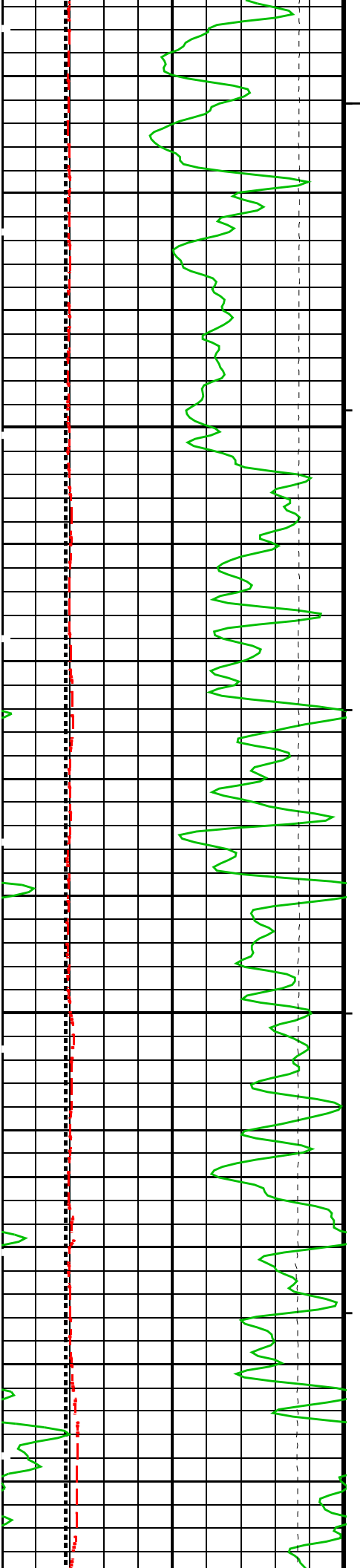
550

575

600

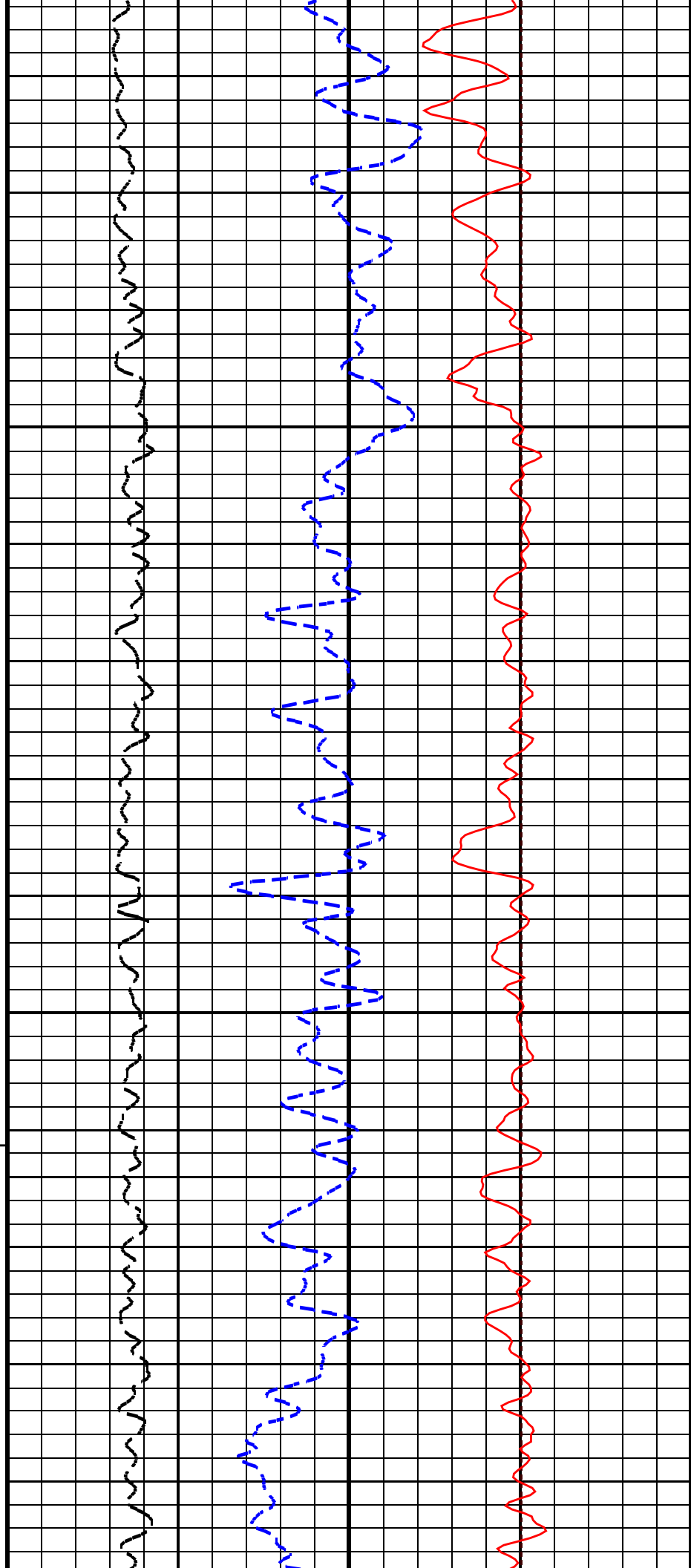


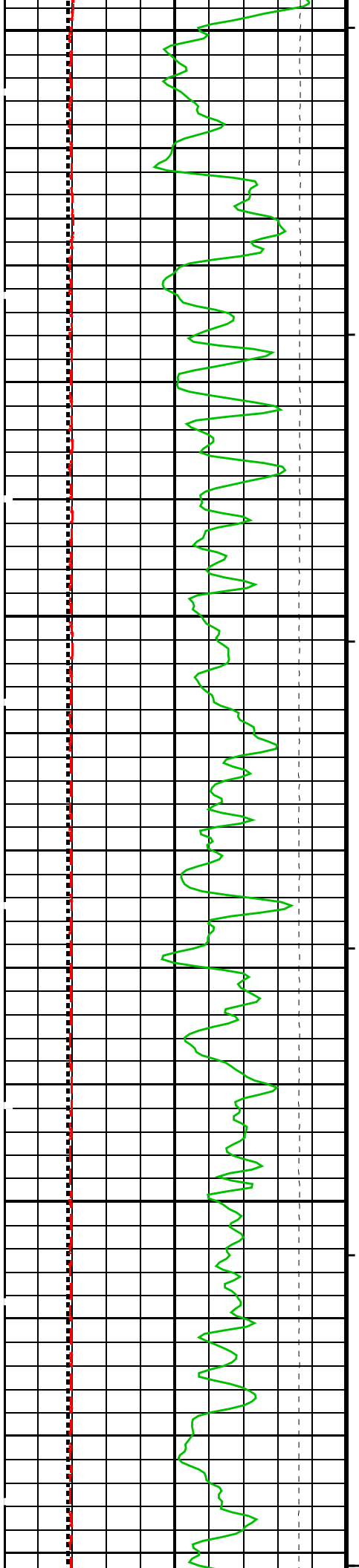




625

650

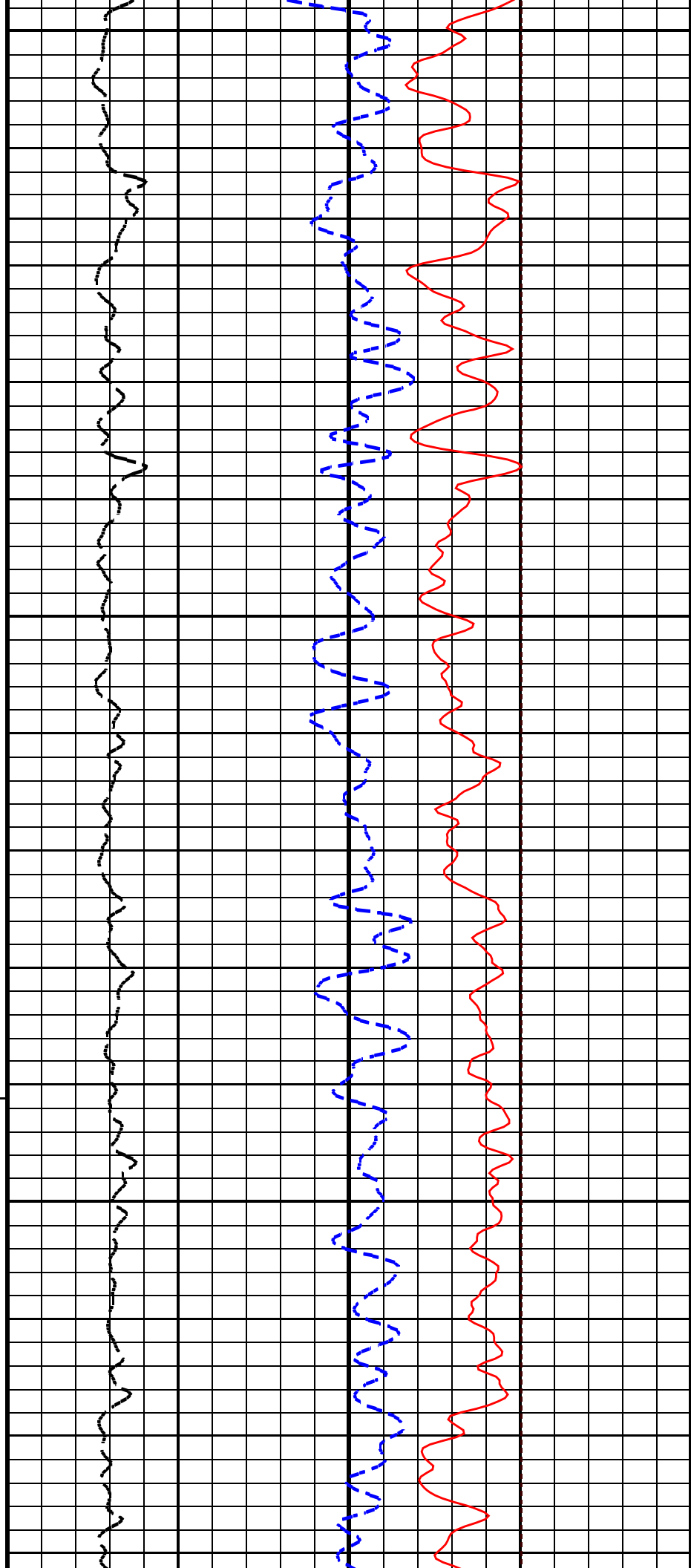


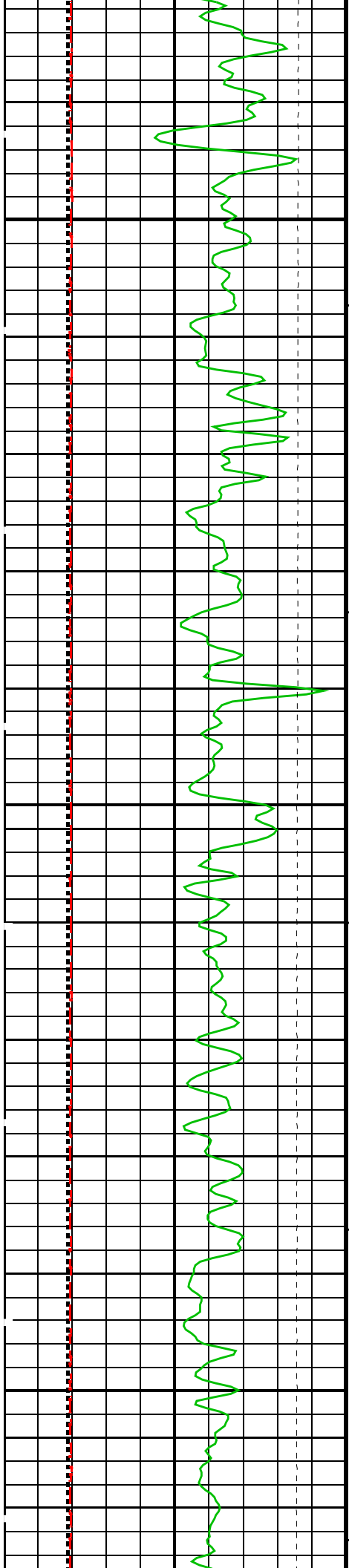


675

700

725

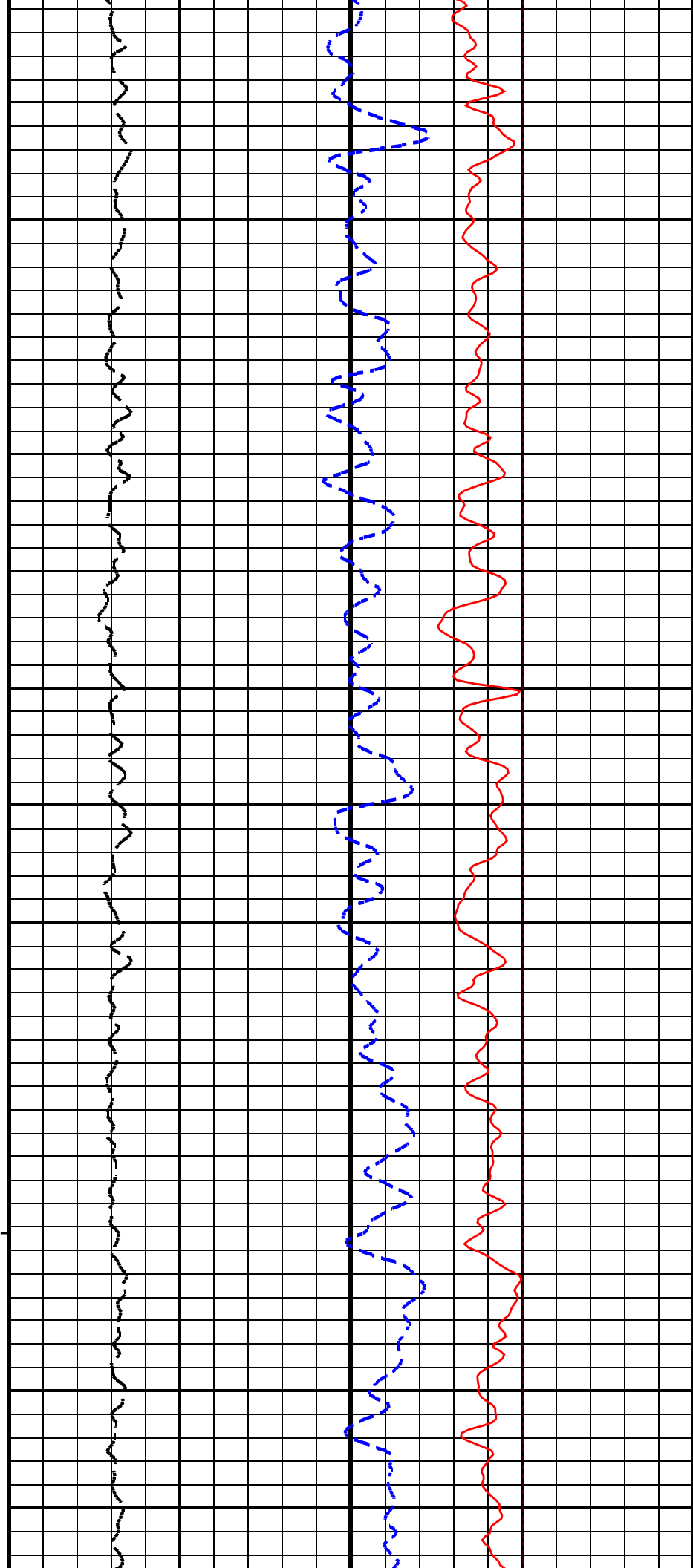


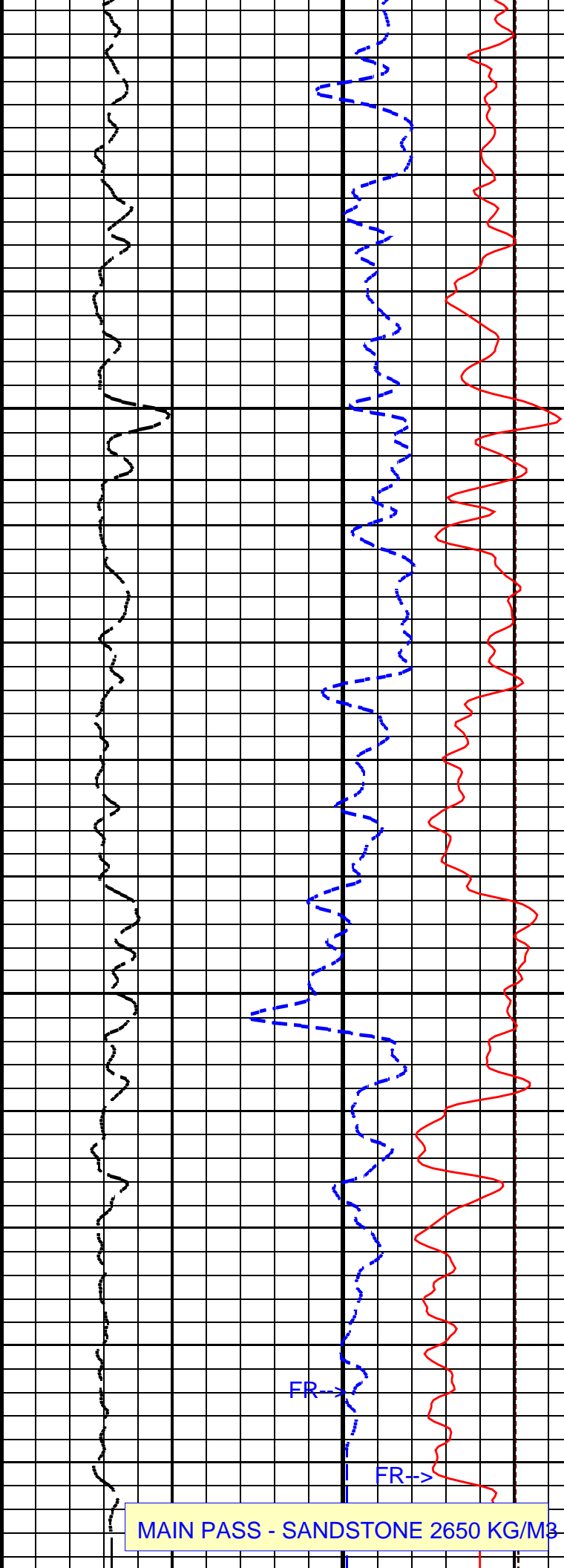
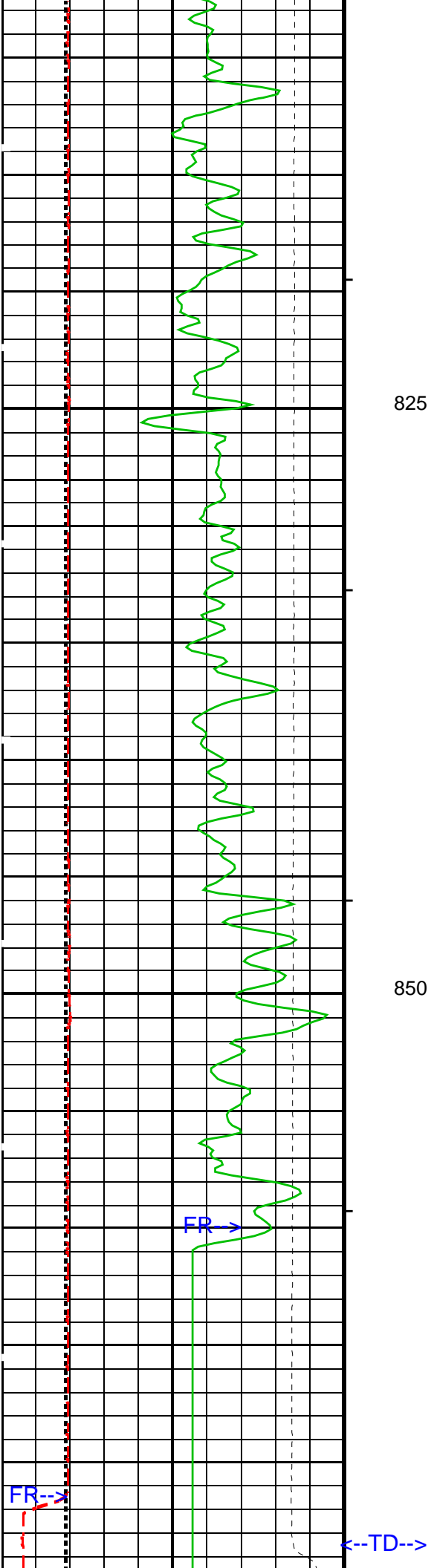


750

775

800





MAIN PASS - SANDSTONE 2650 KG/M<sup>3</sup>

<b>Cable Tension (TENS)</b>		
50000	(N)	0
<b>SPCS Caliper (CALI_SPCS)</b>		
50	(MM)	300
<b>Gamma Ray (GR_STGC)</b>		
0	(GAPI)	150
<b>Bit Size (BS)</b>		
50	(MM)	300

<b>Neutron Porosity (NPHI)</b>		
45	(PU)	-15
<b>SLDT Pef (PEF_SLDT)</b>		<b>SLDT Density Quality Factor (QRHO)</b>
0	(----	10
		0.25
		(----
		-0.25
<b>SLDT Density Porosity (DPHI_SLDT)</b>		
45	(PU)	-15

### PIP SUMMARY

- └ Integrated Hole Volume Minor Pip Every 0.1 M3
- └ Integrated Hole Volume Major Pip Every 1 M3
  - └ Integrated Cement Volume Minor Pip Every 0.1 M3
  - └ Integrated Cement Volume Major Pip Every 1 M3

Time Mark Every 60 S

### Parameters

DLIS Name	Description	Value
BHS	Bore Hole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	22 DEGC
BS	Bit Size	96.000 MM
DFD	Drilling Fluid Density	1044.00 K/M3
DO	Depth Offset	0.0 M
DORL	Depth Offset Repeat Analysis	0.0 M
FD	Fluid Density	1000 K/M3
FVNA_SLDT	SLDT Firmware Version Number - Major	3
FVNI_SLDT	SLDT Firmware Version Number - Minor	2
GCSE	Generalized Caliper Selection	BS
GGRD	Geothermal Gradient	0.018227 DC/M
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE
MATR	Rock Matrix Type	SANDSTONE
MDEN	Matrix Density	2650 K/M3
MVNA_SLDT	SLDT MAXIS Version Number - Major	10
MVNI_SLDT	SLDT MAXIS Version Number - Minor	2
PP	Playback Processing	NORMAL
PVNA_SLDT	SLDT Log Processing Version Number - Major	4
PVNI_SLDT	SLDT Log Processing Version Number - Minor	30
SDHC	SLDT Density Hole Correction	CALI_SPCS
SHT	Surface Hole Temperature	15 DEGC
STSO	SLDT Temperature Correction Source	TMPY_SLDT
TD	Total Depth	873.5 M

Format: PORO\_S5 Vertical Scale: 1:240

Graphics File Created: 03-Aug-2000 13:35

### OP System Version: 9C0-413

MCM

SPCS-B OP9-KP2 SLDT-A OP9-KP2  
 CNT-S OP9-KP2 STGC-B OP9-KP2

### Input DLIS Files

DEFAULT SPCS .022 FN:18 PRODUCER 03-Aug-2000 12:24 874.9 M 209.2 M

### Output DLIS Files

DEFAULT SPCS .023 FN:19 PRODUCER 03-Aug-2000 13:35

### Input DLIS Files

DEFAULT SPCS .022 FN:18 PRODUCER 03-Aug-2000 12:24 874.9 M 209.2 M  
 DEFAULT SPCS .021 FN:17 PRODUCER 03-Aug-2000 12:11 874.9 M 796.0 M

### Output DLIS Files

DEFAULT SPCS .023 FN:19 PRODUCER 03-Aug-2000 13:35

# OP System Version: 9C0-413

MCM

SPCS-B  
CNT-S

OP9-KP2  
OP9-KP2

SLDT-A  
STGC-B

OP9-KP2  
OP9-KP2

## PIP SUMMARY

- ┌ Integrated Hole Volume Minor Pip Every 0.1 M3
- ┌ Integrated Hole Volume Major Pip Every 1 M3
  - ┌ Integrated Cement Volume Minor Pip Every 0.1 M3
  - ┌ Integrated Cement Volume Major Pip Every 1 M3

Time Mark Every 60 S

CALI\_SPCS\_REP Curve (CALI\_SPCS\_REP)  
50 (MM) 300

GR\_STGC\_REP Curve (GR\_STGC\_REP)  
0 (GAPI) 150

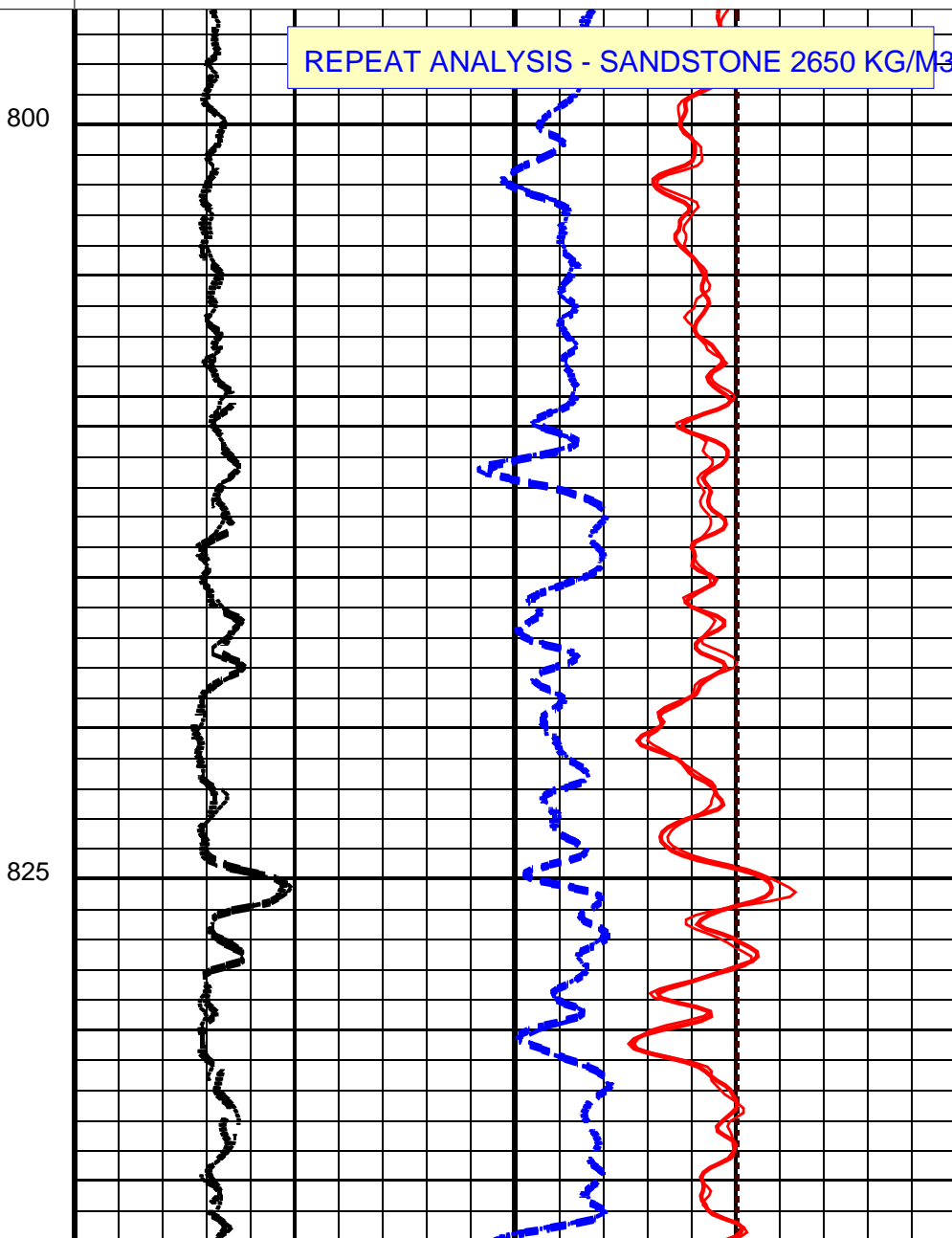
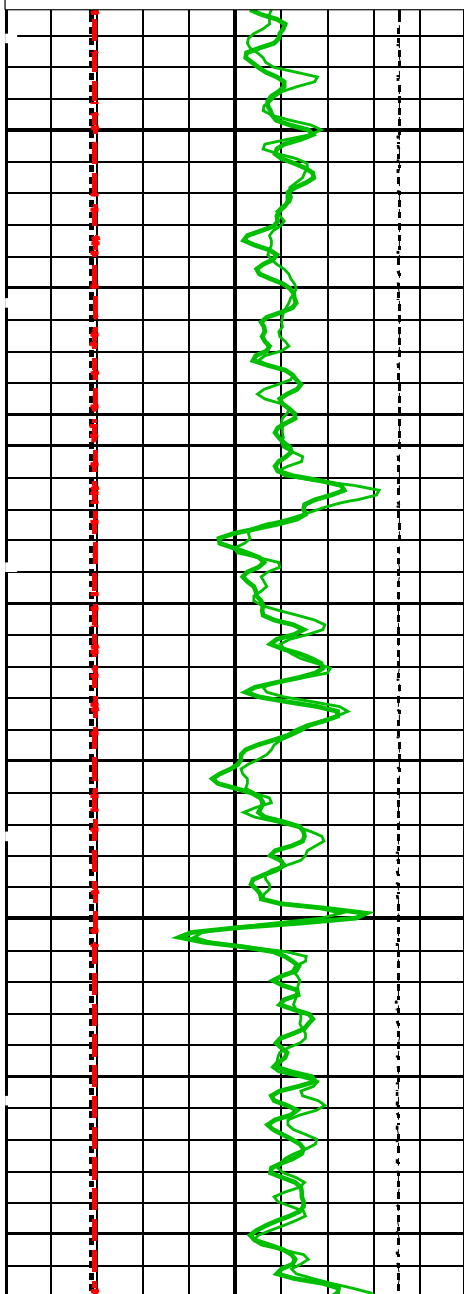
BS\_REP Curve (BS\_REP)  
50 (MM) 300

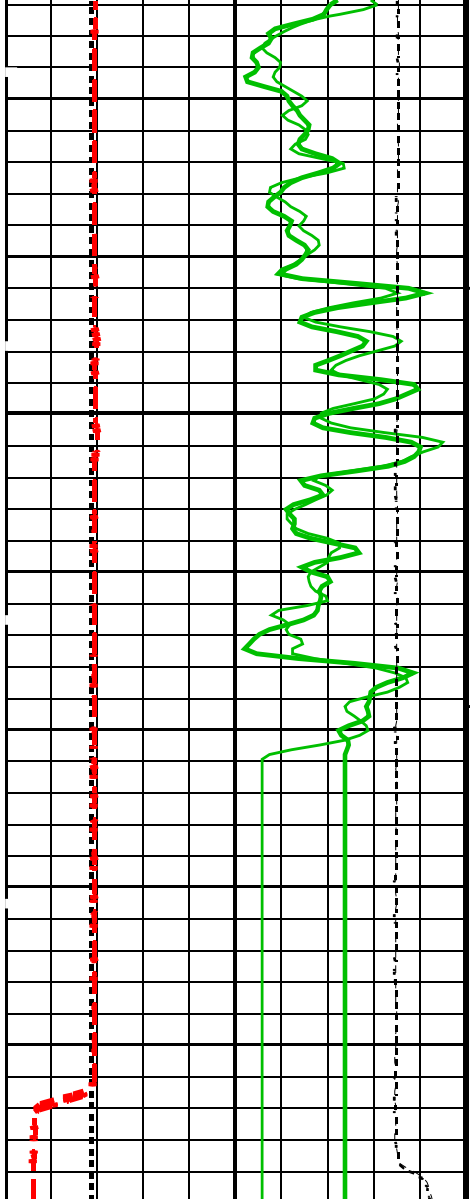
TENS\_REP Curve (TENS\_REP)  
50000 (N) 0

SLDT/DPHI/Curve\_REP Curve (DPHI\_SLDT\_REP)  
45 (PU) -15

SLDT/PEF/Curve\_REP Curve (PEF\_SLDT\_REP)      SLDT/QRHO/Curve\_REP Curve (QRHO\_SLDT\_REP)  
0 (----) 10 0.25 (----) -0.25

NPHI\_REP Curve (NPHI\_REP)  
45 (PU) -15





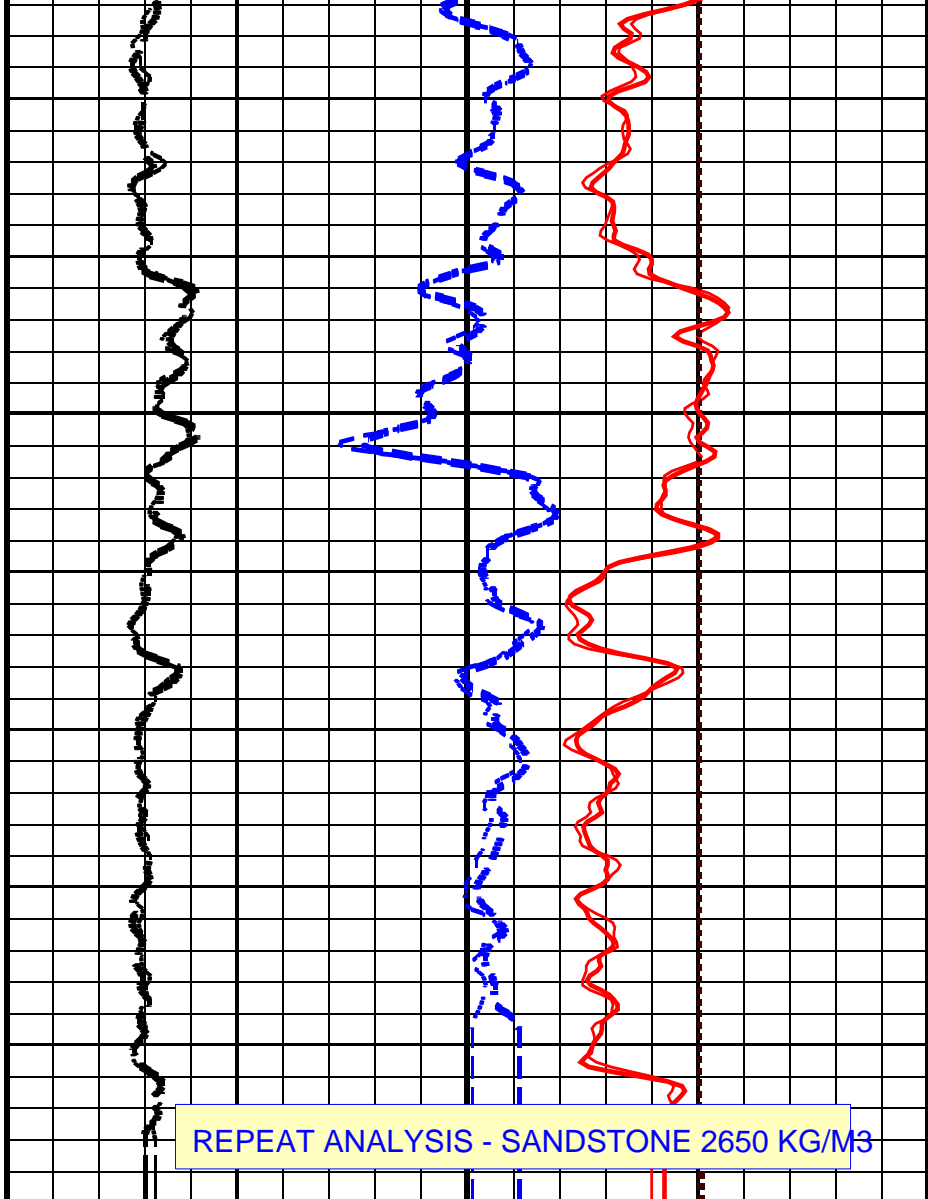
TENS\_REP Curve (TENS\_REP)  
50000 (N) 0

BS\_REP Curve (BS\_REP)  
50 (MM) 300

GR\_STGC\_REP Curve (GR\_STGC\_REP)  
0 (GAPI) 150

CALI\_SPCS\_REP Curve (CALI\_SPCS\_REP)  
50 (MM) 300

850



NPHI\_REP Curve (NPHI\_REP)  
45 (PU) -15

SLDT/PEF/Curve\_REP Curve (PEF\_SLDT\_REP)  
0 (---) 10 0.25 (---) -0.25

SLDT/DPHI/Curve\_REP Curve (DPHI\_SLDT\_REP)  
45 (PU) -15

REPEAT ANALYSIS - SANDSTONE 2650 KG/M3

PIP SUMMARY

- └ Integrated Hole Volume Minor Pip Every 0.1 M3
- └ Integrated Hole Volume Major Pip Every 1 M3
  - └ Integrated Cement Volume Minor Pip Every 0.1 M3
  - └ Integrated Cement Volume Major Pip Every 1 M3

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
BHS	Bore Hole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	22 DEGC
BS	Bit Size	96.000 MM
DFD	Drilling Fluid Density	1044.00 K/M3
DO	Depth Offset	0.0 M
DORL	Depth Offset Repeat Analysis	0.0 M

Master			13.00	Master			9.203	Master			8.772
Before			13.04	Before			9.177	Before			8.849
9.000 (Minimum)	12.00 (Nominal)	14.00 (Maximum)		7.500 (Minimum)	10.50 (Nominal)	12.50 (Maximum)		7.500 (Minimum)	10.50 (Nominal)	12.50 (Maximum)	

Master: 1-AUG-2000 14:42

Before: 1-AUG-2000 14:46

Slimhole Litho-Density Tool Master Calibration											
SS Bkgd Subtracted Window Countrates											
Phase	SS Wind 1	Water Lo	PE BSub	CPS	Value	Phase	SS Wind 2	Water Lo	PE BSub	CPS	Value
Master					45390	Master					39240
	33500 (Minimum)	49100 (Nominal)		54450 (Maximum)			27650 (Minimum)	40900 (Nominal)		45600 (Maximum)	
											19100 (Minimum)
											28500 (Nominal)
											32000 (Maximum)
Phase	SS Wind 4	Water Lo	PE BSub	CPS	Value	Phase	SS Wind 5	Water Lo	PE BSub	CPS	Value
Master					20220	Master					15740
	14200 (Minimum)	21200 (Nominal)		23850 (Maximum)			11550 (Minimum)	16600 (Nominal)		19850 (Maximum)	
											3800 (Minimum)
											5500 (Nominal)
											7150 (Maximum)
Phase	SS Wind 1	Water Hi	PE BSub	CPS	Value	Phase	SS Wind 2	Water Hi	PE BSub	CPS	Value
Master					37970	Master					35810
	28350 (Minimum)	41700 (Nominal)		46300 (Maximum)			25400 (Minimum)	37700 (Nominal)		42100 (Maximum)	
											17850 (Minimum)
											26800 (Nominal)
											30050 (Maximum)
Phase	SS Wind 4	Water Hi	PE BSub	CPS	Value	Phase	SS Wind 5	Water Hi	PE BSub	CPS	Value
Master					18990	Master					15010
	13350 (Minimum)	20100 (Nominal)		22550 (Maximum)			11100 (Minimum)	15900 (Nominal)		19200 (Maximum)	
											3650 (Minimum)
											5400 (Nominal)
											6950 (Maximum)

Master: 1-AUG-2000 14:42

Slimhole Litho-Density Tool Master Calibration											
MS Bkgd Subtracted Window Countrates											
Phase	MS Wind 1	Water Lo	PE BSub	CPS	Value	Phase	MS Wind 2	Water Lo	PE BSub	CPS	Value
Master					4731	Master					12610
	3050 (Minimum)	4900 (Nominal)		5650 (Maximum)			8650 (Minimum)	13300 (Nominal)		14700 (Maximum)	
											6800 (Minimum)
											10700 (Nominal)
											11950 (Maximum)
Phase	MS Wind 4	Water Lo	PE BSub	CPS	Value	Phase	MS Wind 5	Water Lo	PE BSub	CPS	Value
Master					8287	Master					9705
	5400 (Minimum)	8800 (Nominal)		10300 (Maximum)			6050 (Minimum)	10200 (Nominal)		12100 (Maximum)	
											700.0 (Minimum)
											1800 (Nominal)
											2650 (Maximum)
Phase	MS Wind 1	Water Hi	PE BSub	CPS	Value	Phase	MS Wind 2	Water Hi	PE BSub	CPS	Value
Master					3376	Master					10060
	2050 (Minimum)	3500 (Nominal)		4050 (Maximum)			6850 (Minimum)	10600 (Nominal)		11850 (Maximum)	
											6000 (Minimum)
											9200 (Nominal)
											10600 (Maximum)
Phase	MS Wind 4	Water Hi	PE BSub	CPS	Value	Phase	MS Wind 5	Water Hi	PE BSub	CPS	Value
Master					7330	Master					8614
	4700 (Minimum)	7800 (Nominal)		9200 (Maximum)			5250 (Minimum)	9100 (Nominal)		10900 (Maximum)	
											500.0 (Minimum)
											1600 (Nominal)
											2350 (Maximum)

Master: 1-AUG-2000 14:42

Slimhole Litho-Density Tool Master Calibration											
LS Bkgd Subtracted Window Countrates											
Phase	LS Wind 1	Water Lo	PE BSub	CPS	Value	Phase	LS Wind 2	Water Lo	PE BSub	CPS	Value
Master					2145	Master					2918
	1300 (Minimum)	2000 (Nominal)		2500 (Maximum)			1800 (Minimum)	2900 (Nominal)		3300 (Maximum)	
											1250 (Minimum)
											2100 (Nominal)
											2450 (Maximum)
Phase	LS Wind 4	Water Lo	PE BSub	CPS	Value	Phase	LS Wind 5	Water Lo	PE BSub	CPS	Value
Master					1587	Master					1576
	850.0 (Minimum)	1600 (Nominal)		2050 (Maximum)			800.0 (Minimum)	1600 (Nominal)		2100 (Maximum)	
											100.0 (Minimum)
											200.0 (Nominal)
											500.0 (Maximum)
Phase	LS Wind 1	Water Hi	PE BSub	CPS	Value	Phase	LS Wind 2	Water Hi	PE BSub	CPS	Value
Master					1524	Master					2477
	900.0 (Minimum)	1400 (Nominal)		1850 (Maximum)			1550 (Minimum)	2400 (Nominal)		2900 (Maximum)	
											1100 (Minimum)
											1900 (Nominal)
											2250 (Maximum)
Phase	LS Wind 4	Water Hi	PE BSub	CPS	Value	Phase	LS Wind 5	Water Hi	PE BSub	CPS	Value
Master					1436	Master					1455
	750.0 (Minimum)	1400 (Nominal)		1850 (Maximum)			750.0 (Minimum)	1400 (Nominal)		2050 (Maximum)	
											100.0 (Minimum)
											200.0 (Nominal)
											500.0 (Maximum)



Slimhole Powered Caliper Sonde - B / Equipment Identification

Primary Equipment:

Auxiliary Equipment:

Slimhole Litho-Density Tool / Equipment Identification

Primary Equipment:

SLDT Cartridge  
SLDT Source

SLDC - A            17  
GSR - Z            2013

Auxiliary Equipment:

SLDT Housing

SLDH - A            18

Slimhole Litho-Density Tool Wellsite Calibration											
SS Background Measurement											
Phase	SS Wind 1 Background CPS		Value	Phase	SS Wind 2 Background CPS		Value	Phase	SS Wind 3 Background CPS		Value
Master			1033	Master			1401	Master			1211
Before			1028	Before			1394	Before			1207
	800.0 (Minimum)	1150 (Nominal)	1600 (Maximum)		1050 (Minimum)	1500 (Nominal)	2000 (Maximum)		900.0 (Minimum)	1300 (Nominal)	1800 (Maximum)
Phase	SS Wind 4 Background CPS		Value	Phase	SS Wind 5 Background CPS		Value	Phase	SS Wind 6 Background CPS		Value
Master			920.9	Master			1097	Master			640.6
Before			921.6	Before			1085	Before			641.1
	700.0 (Minimum)	1050 (Nominal)	1400 (Maximum)		850.0 (Minimum)	1250 (Nominal)	1600 (Maximum)		450.0 (Minimum)	650.0 (Nominal)	1000 (Maximum)
Master: 1-AUG-2000 14:42						Before: 1-AUG-2000 14:46					

Slimhole Litho-Density Tool Wellsite Calibration											
MS Background Measurement											
Phase	MS Wind 1 Background CPS		Value	Phase	MS Wind 2 Background CPS		Value	Phase	MS Wind 3 Background CPS		Value
Master			443.4	Master			610.7	Master			705.5
Before			442.2	Before			611.3	Before			702.3
	250.0 (Minimum)	490.0 (Nominal)	650.0 (Maximum)		400.0 (Minimum)	670.0 (Nominal)	900.0 (Maximum)		400.0 (Minimum)	750.0 (Nominal)	1000 (Maximum)
Phase	MS Wind 4 Background CPS		Value	Phase	MS Wind 5 Background CPS		Value	Phase	MS Wind 6 Background CPS		Value
Master			1154	Master			1511	Master			882.6
Before			1149	Before			1514	Before			881.1
	700.0 (Minimum)	1230 (Nominal)	1600 (Maximum)		900.0 (Minimum)	1625 (Nominal)	2200 (Maximum)		550.0 (Minimum)	950.0 (Nominal)	1300 (Maximum)
Master: 1-AUG-2000 14:42						Before: 1-AUG-2000 14:46					

Slimhole Litho-Density Tool Wellsite Calibration											
LS Background Measurement											
Phase	LS Wind 1 Background CPS		Value	Phase	LS Wind 2 Background CPS		Value	Phase	LS Wind 3 Background CPS		Value
Master			265.9	Master			261.1	Master			311.2
Before			266.2	Before			260.8	Before			312.7
	150.0 (Minimum)	275.0 (Nominal)	350.0 (Maximum)		150.0 (Minimum)	275.0 (Nominal)	350.0 (Maximum)		200.0 (Minimum)	350.0 (Nominal)	400.0 (Maximum)
Phase	LS Wind 4 Background CPS		Value	Phase	LS Wind 5 Background CPS		Value	Phase	LS Wind 6 Background CPS		Value
Master			520.0	Master			684.6	Master			373.0
Before			517.2	Before			683.4	Before			370.9
	350.0 (Minimum)	550.0 (Nominal)	650.0 (Maximum)		450.0 (Minimum)	700.0 (Nominal)	800.0 (Maximum)		250.0 (Minimum)	375.0 (Nominal)	450.0 (Maximum)
Master: 1-AUG-2000 14:42						Before: 1-AUG-2000 14:46					

Slimhole Litho-Density Tool Wellsite Calibration											
Cs Resolution - Background Measurement											
Phase	SS Cs Resolution Bkg %		Value	Phase	MS Cs Resolution Bkg %		Value	Phase	LS Cs Resolution Bkg %		Value

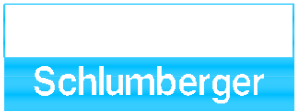
Slimhole Litho-Density Tool Master Calibration											
Housing Diameter Wear Measurement											
Phase	Source Housing Wear Meas MM		Value	Phase	SS Housing Wear Meas MM		Value	Phase	MS Housing Wear Meas MM		Value
Master	63.50		63.50	Master	63.70		63.70	Master	63.59		63.59
	62.61 (Minimum)	63.50 (Nominal)	63.63 (Maximum)		62.61 (Minimum)	63.68 (Nominal)	63.83 (Maximum)		62.61 (Minimum)	63.68 (Nominal)	63.83 (Maximum)
Phase	LS Housing Wear Meas MM		Value								
Master	63.61		63.61								
	62.61 (Minimum)	63.68 (Nominal)	63.83 (Maximum)								

Compensated Neutron - S / Equipment Identification			
Primary Equipment:			
Compensated Neutron Cartridge	CNC - DA	58	
Neutron Logging Source	NLS - KL		
Neutron Source Radioactive	NSR - L	3108	
Auxiliary Equipment:			
Compensated Neutron Housing	CNH - CA		
Neutron Calibration Tank	NCT - B		

SLIM Telemetry Gamma-ray Cartridge - B / Equipment Identification			
Primary Equipment:			
STGC Gamma-ray & Accelerometer Cartridge	STGC - B		
STGC Telemetry Cartridge	STGC - A		
Auxiliary Equipment:			
SLIM Electronics Cartridge Housing	STGH - B	8007	

SLIM Telemetry Gamma-ray Cartridge - B Wellsite Calibration											
Detector Calibration											
Phase	Gamma Ray Background GAPI		Value	Phase	Gamma Ray (Jig - Bkg) GAPI		Value	Phase	Gamma Ray (Calibrated) GAPI		Value
Before	47.68		47.68	Before	149.1		149.1	Before	155.1		155.1
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)		135.5 (Minimum)	149.1 (Nominal)	162.6 (Maximum)		140.1 (Minimum)	155.1 (Nominal)	170.1 (Maximum)

<b>COMPANY:</b> DEER LAKE OIL & GAS INC.  <b>WELL:</b> DEER LAKE OIL & GAS ET AL WESTERN ADVENTURE NO. 1 <b>FIELD:</b> EXPLORATORY <b>PROVINCE:</b> NEWFOUNDLAND	<b>BOTTOM LOG INTERVAL</b>	871 m
	<b>SCHLUMBERGER DEPTH</b>	873.5 m
	<b>DEPTH DRILLER</b>	872 m
	<b>KELLY BUSHING</b>	92.5 m
	<b>DRILL FLOOR</b>	92.5 m
	<b>GROUND LEVEL</b>	90 m



**COMPENSATED NEUTRON LITHO DENSITY**

COMPANY: DEER LAKE OIL & GAS INC

WELL: DEER LAKE OIL & GAS ET AL  
WESTERN ADVENTURE N  
FIELD: EXPLORATORY

PROVINCE: NEWFOUNDLAND

PROVINCENEWFOUNDLAND  
Field:  
Location: NORTHING: 5,456,519  
EASTING: 482,797  
Well: DEER LAKE OIL & GAS ET AL  
Company: DEER LAKE OIL & GAS INC.



BOREHOLE  
SONIC LOG

LOCATION		NORTHING: 5,456,519	GROUND LEVEL	Eleve
		EASTING: 482,797	DRILL FLOOR	2.5
		Permanent Datum:	DRILL FLOOR	
		Log Measured From:	DRILL FLOOR	
		Drilling Measured From:		
API Serial No.	SECTION	NOB		
2000-120-01-01		5,4		

Logging Date	18-JAN-2001			
Run Number	TWO			
Depth Driller	1584 m			
Schlumberger Depth	1575 m			
Bottom Log Interval	1573 m			
Top Log Interval	873 m			
Casing Driller Size @ Depth	89,000 mm @		872 m	
Casing Schlumberger	873 m			
Bit Size	75,770 mm			
Type Fluid In Hole	POLYMER - KCL			
Density	Viscosity	1068 kg/m <sup>3</sup>	34 s	
Fluid Loss	PH			
Source Of Sample	MEASURED			
RM @ Measured Temperature	0.162 ohm.m	@	5 degC	
RMF @ Measured Temperature		@		
RMC @ Measured Temperature		@		
Source RMF	RMC			
RM @ MRT	RMF @ MRT	NO SAMPLE @ 44	NO SAMPLE @ 44	
Maximum Recorded Temperatures	44 degC	44		
Circulation Stopped	Time	16-JAN-2001	10:00	
Logger On Bottom	Time	18-JAN-2001	0:30	
Unit Number	Location	19	DARTMOUTH	
Recorded By	KELLI SASCO			
Witnessed By	STAN PODULSKY			

COMPENSATED

K.B. 92.5 m  
G.L. 90 m  
D.F. 92.5 m

90 m  
above Perm. Datum

DEPTHING: 56,519 EASTING: 482,797

	Run 1	Run 2	Run 3	Run 4
Logging Date				
Run Number				
Depth Driller				
Schlumberger Depth				
Bottom Log Interval				
Top Log Interval				
Casing Driller Size @ Depth		@		@
Casing Schlumberger				
Bit Size				
Type Fluid In Hole				
Density				
Fluid Loss				
Source Of Sample				
RM @ Measured Temperature		@		@
RMF @ Measured Temperature		@		@
RMC @ Measured Temperature		@		@
Source RMF				
RM @ MRT		@		@
RMF @ MRT				
Maximum Recorded Temperatures				
Circulation Stopped				
Logger On Bottom				
Unit Number				
Recorded By				
Witnessed By				

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 INTERPRETATIONS, 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 CLAUSE 4 OF OUR GENERAL TERMS AND CONDITIONS AS SET OUT IN OUR CURRENT PRICE SCHEDULE.

OTHER SERVICES1  
 OS1: SLIM ACCESS  
 OS2: LITHO DENSITY  
 OS3: BHC SONIC  
 OS4: DUAL LATEROLOG  
 OS5:

OTHER SERVICES2  
 OS1:  
 OS2:  
 OS3:  
 OS4:  
 OS5:

REMARKS: RUN NUMBER 1

REMARKS: RUN NUMBER 2

1ST DESCENT: GAGE RUN (GR, TELEMETRY)

2ND DESCENT: LITHO DENSITY, GR

3RD DESCENT: BHC SONIC, GR

4TH DESCENT: DUAL LATEROLOG, GR

** DRILLER TD NOT REACHED DUE TO FISH REMAINING IN HOLE AT 1584M **					
** LOGS RUN TO 1575M AS PER CLIENT REQUEST **					
ALL TOOLS RUN SLICK					
SCHLUMBERGER LOGS (RUN 1, DATED: 3-AUG-2000) USED FOR CORRELATION					
RIG: LONGYEAR SUPER 50					
CREW 19: STEVE BEATON, MIKE DIGGDON					
RUN 1			RUN 2		
SERVICE ORDER #:		6418567	SERVICE ORDER #:		
PROGRAM VERSION:		9C0-413	PROGRAM VERSION:		
FLUID LEVEL:			FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

## EQUIPMENT DESCRIPTION

RUN 1

RUN 2

**SURFACE EQUIPMENT**

WITM (DTS)-A

**DOWNHOLE EQUIPMENT**

LEH-ST 9.69  
LEH-ST



STGC-B 8.78  
STGH-B  
STGC0-A  
STGC1-B

Gamma Ray

8.25

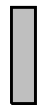
CTEM

7.78

TelStatus

6.43

AH-201 6.43  
AH-201



SSLT-B 5.88  
SSLX-BB  
SSAS-BB  
SSLC-BA  
SSCH-BA



TxC

TxA

RX ARRAY

R1

R2

R3

R4

R5

R6

TxB

3.12

HV DF  
Tension ACCZ  
TOOL ZERO

0.00

MAXIMUM STRING DIAMETER 64 MM  
MEASUREMENTS RELATIVE TO TOOL ZERO  
ALL LENGTHS IN METERS

### Input DLIS Files

DEFAULT      SSLT .007      FN:6 PRODUCER      18-Jan-2001 00:59      1577.6 M      789.7 M

### Output DLIS Files

DEFAULT      SSLT .008      FN:7 PRODUCER      18-Jan-2001 03:08      1576.1 M      788.2 M

### OP System Version: 9C0-413

MCM

SSLT-B

OP9-KP2

STGC-B

OP9-KP2

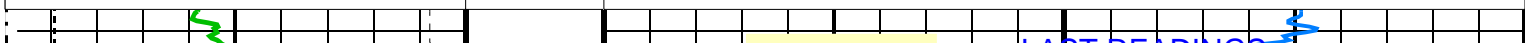
#### PIP SUMMARY

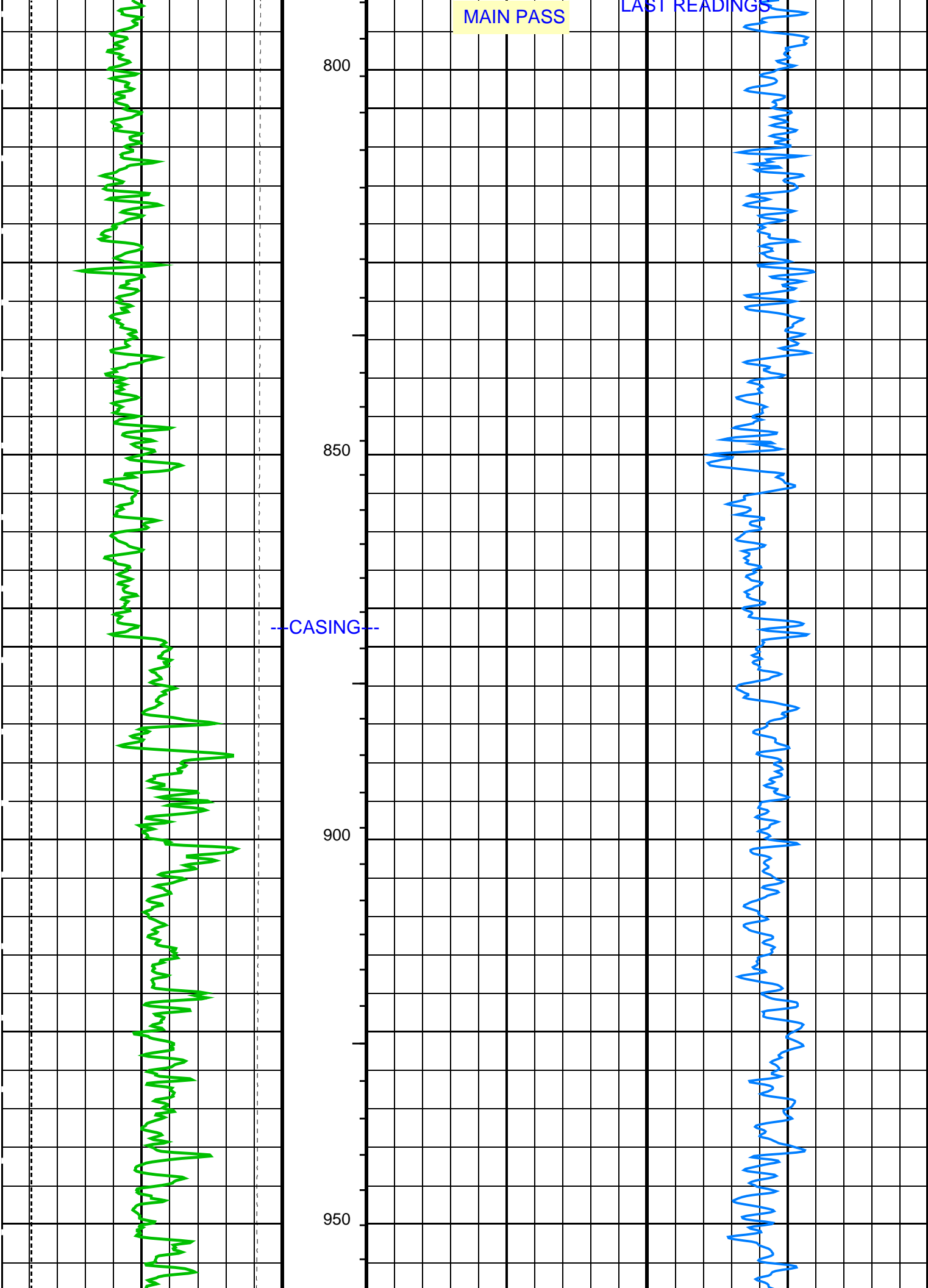
- Integrated Transit Time Minor Pip Every 1 MS
- Integrated Transit Time Major Pip Every 10 MS

Time Mark Every 60 S

Tension (TENS)	
20000 (N)	0
Gamma Ray (GR_STGC)	
0 (GAPI)	150
Bit Size (BS)	
50 (MM)	300

SSLT Delta-T (multishot 3'-5') (DT)	
500 (US/M)	100





MAIN PASS

LAST READINGS

800

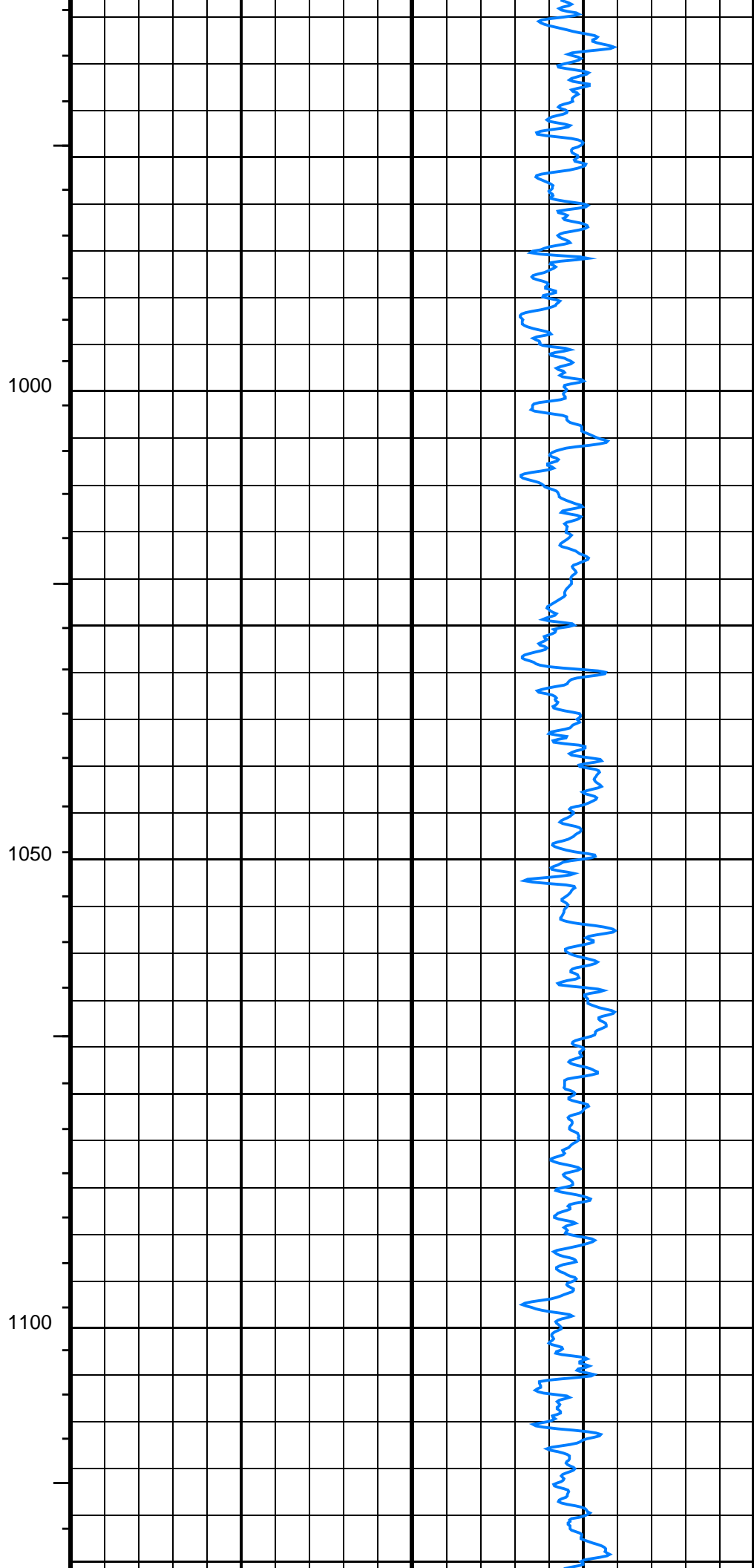
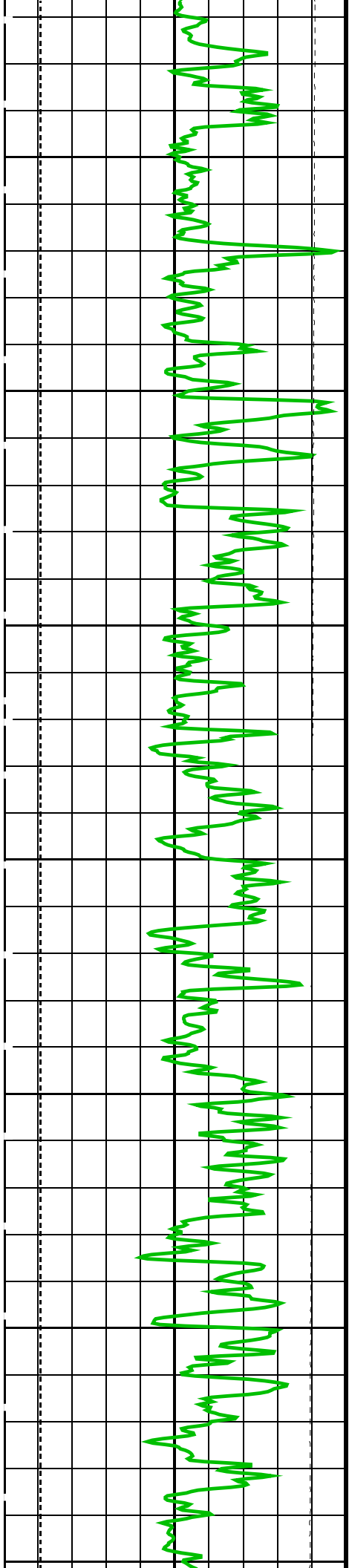
850

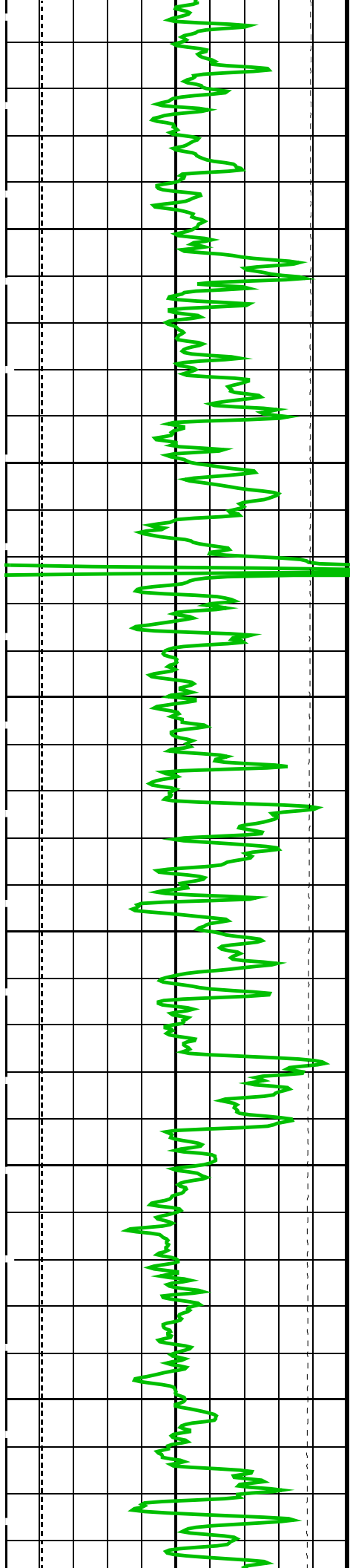
900

950

---CASING---



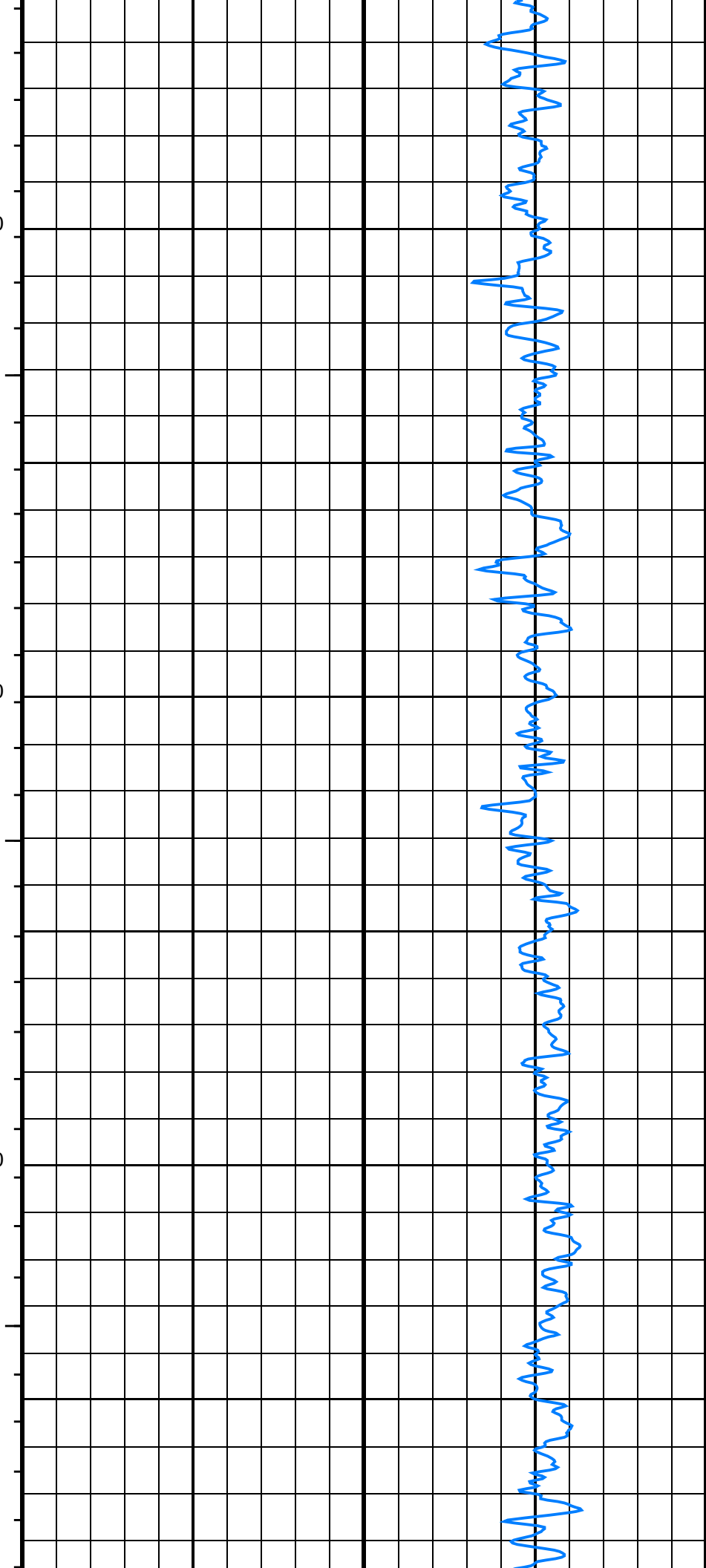


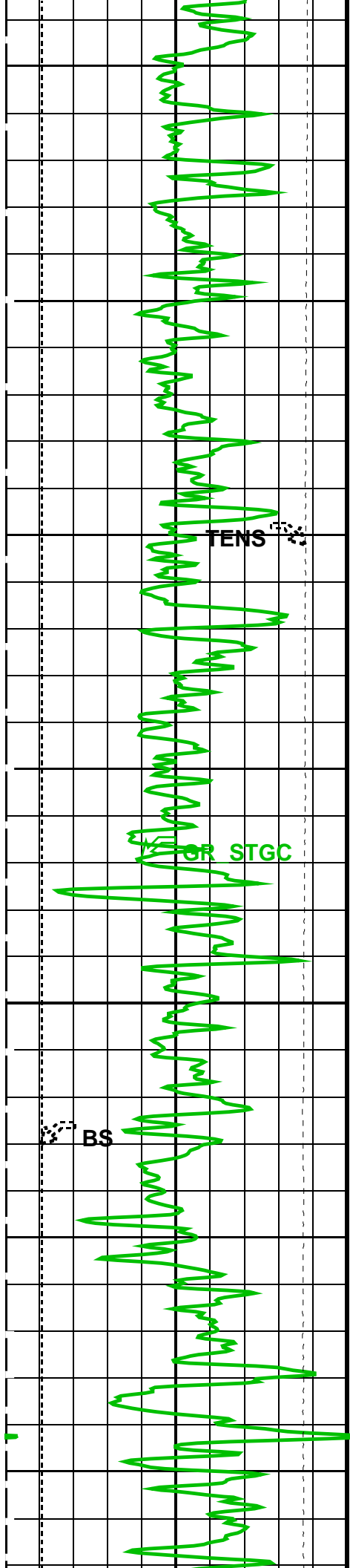


1150

1200

1250



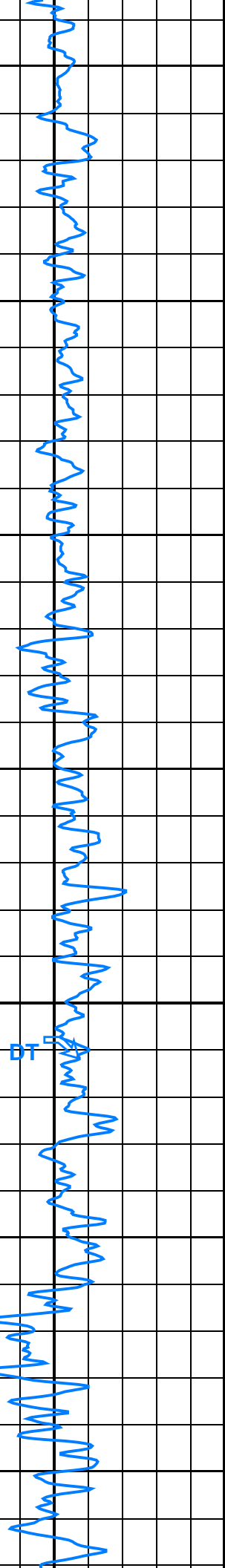


1300

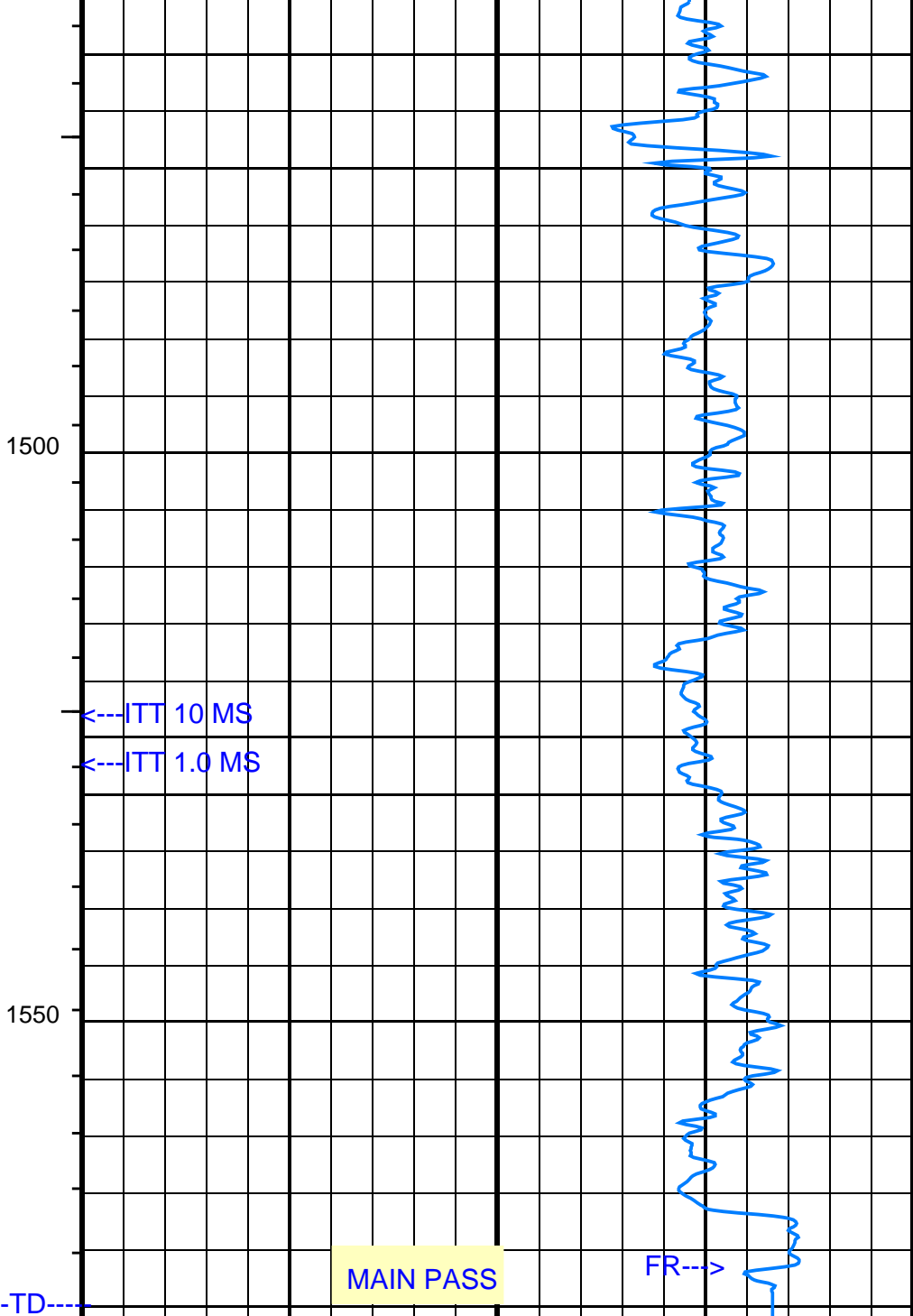
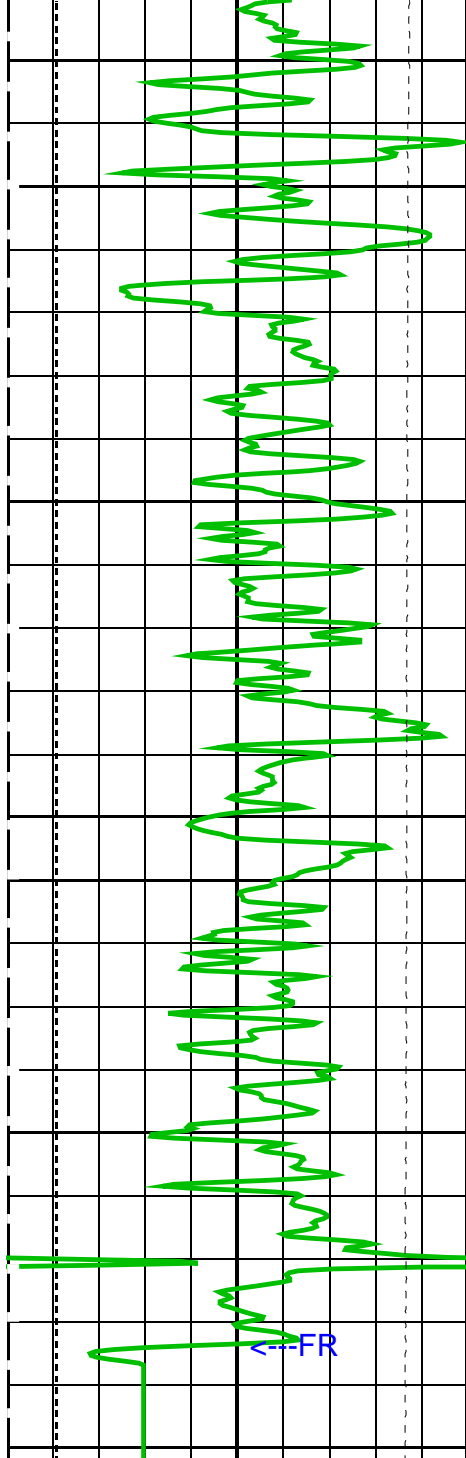
1350

1400

1450



DT



Bit Size (BS)	
50	300
(MM)	
Gamma Ray (GR_STGC)	
0	150
(GAPI)	
Tension (TENS)	
20000	0
(N)	

SSLT Delta-T (multishot 3'-5') (DT)	
500	100
(US/M)	

**PIP SUMMARY**

- ┆ Integrated Transit Time Minor Pip Every 1 MS
- ┆ Integrated Transit Time Major Pip Every 10 MS

Time Mark Every 60 S

**Parameters**

DLIS Name	Description	Value
ACSR	Array Cycle Skip Recovery	ON
AMSG	Auxiliary Minimum Sliding Gate	180 US
BS	Bit Size	75.770 MM
CBLG	CBL Gate Width	80 US

DDE1	Digitizing Delay 1 - Upper Tx	40	US
DDE2	Digitizing Delay 2 - Lower Tx	40	US
DDE3	Digitizing Delay 3 - Far Tx	40	US
DETE	Detection Peak	E2	
DFAD_ATC	DFAD Automatic Threshold Control	ON	
DFAD_INTERVAL_MODE	Detection Interval Mode for first arrival	TRACK	
DLSR	Depth Log Sampling Rate	TT1.5_WF6	
DO	Depth Offset	-1.5	M
DORL	Depth Offset Repeat Analysis	-1.5	M
DSIN	Digitizing Sample Interval	10	US
DTCM	Delta-T Computation Mode	FULL	
DTLCM	Delta-T Long Computation Mode	FULL	
DWCO	Digitizing Word Count	256	
GAI1	Gain Control 1 - Upper Tx	HIGH	
GAI2	Gain Control 2 - Lower Tx	HIGH	
GAI3	Gain Control 3 - Far Tx	HIGH	
MAHTR	Manual High Threshold Reference	40	
MNHTR	Minimum High Threshold Reference	30	
MODE	Sonic Firing Mode	DT_BHC	
NMSG	Near Minimum Sliding Gate	140	US
NMXG	Near Maximum Sliding Gate	750	US
NUMP	Number of Detection Passes	2	
NWI	Number of Waveform Items	6	
PP	Playback Processing	NORMAL	
RATE	Sonic Firing Rate	8.92857	HZ
SFAF	Sonic Formation Attenuation Factor	0	DB/M
SGAD	Sliding Gate Allow/Disallow	ON	
SGCL	Sliding Gate Closing Delta-T	558	US/M
SGCW	Sliding Gate Closing Width	33	US
SGDT	Sliding Gate Delta-T	131	US/M
SGW	Sliding Gate Width	80	US
SLEV	Signal Level for Threshold Control	5000	
WMAG	DFAD Waveform Magnifier	1	
ZCGW	Zero Crossing Gate Width	100	US
ZCTT	Option to compute Zero Crossing Transit Time	OFF	

Format: SSLT\_DT\_1 Vertical Scale: 1:600 Graphics File Created: 18-Jan-2001 03:08

### OP System Version: 9C0-413

MCM

SSLT-B OP9-KP2 STGC-B OP9-KP2

#### Input DLIS Files

DEFAULT	SSLT .007	FN:6	PRODUCER	18-Jan-2001 00:59	1577.6 M	789.7 M
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#### Output DLIS Files

DEFAULT	SSLT .008	FN:7	PRODUCER	18-Jan-2001 03:08		
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#### Input DLIS Files

DEFAULT	SSLT .007	FN:6	PRODUCER	18-Jan-2001 00:59	1577.6 M	789.7 M
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#### Output DLIS Files

DEFAULT	SSLT .008	FN:7	PRODUCER	18-Jan-2001 03:08	1576.1 M	788.2 M
---------	-----------	------	----------	-------------------	----------	---------

### OP System Version: 9C0-413

MCM

SSLT-B OP9-KP2 STGC-B OP9-KP2

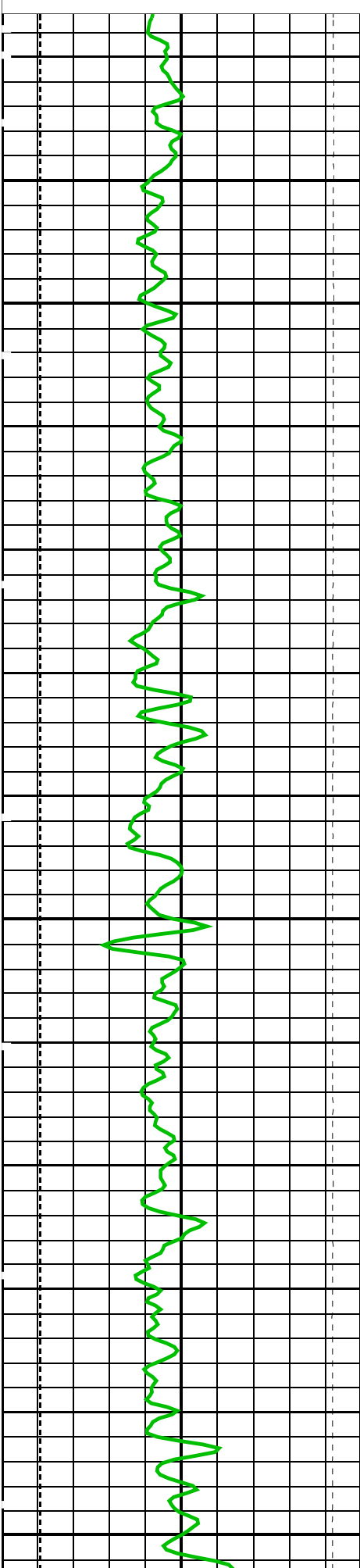
#### PIP SUMMARY

- ├ Integrated Transit Time Minor Pip Every 1 MS
- └ Integrated Transit Time Major Pip Every 10 MS

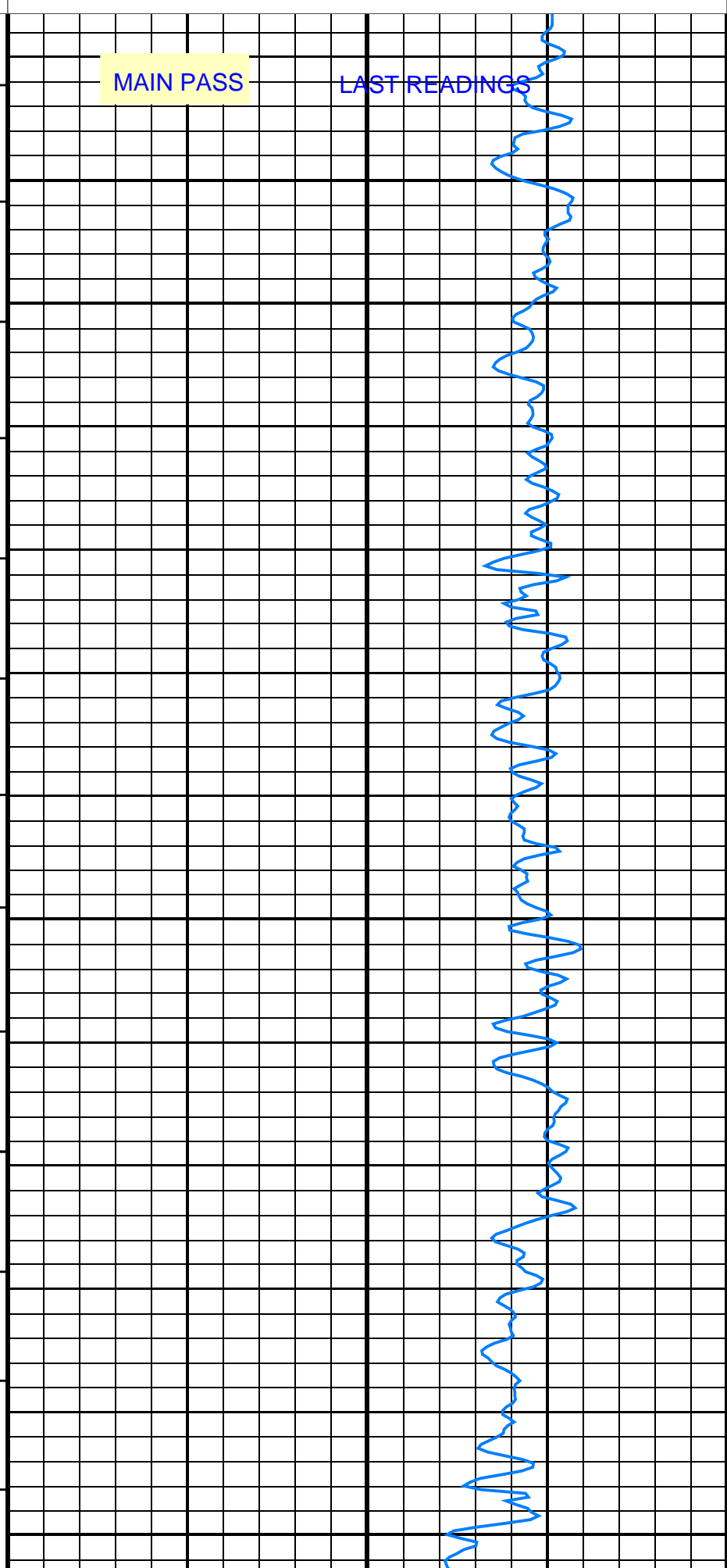
Time Mark Every 60 S

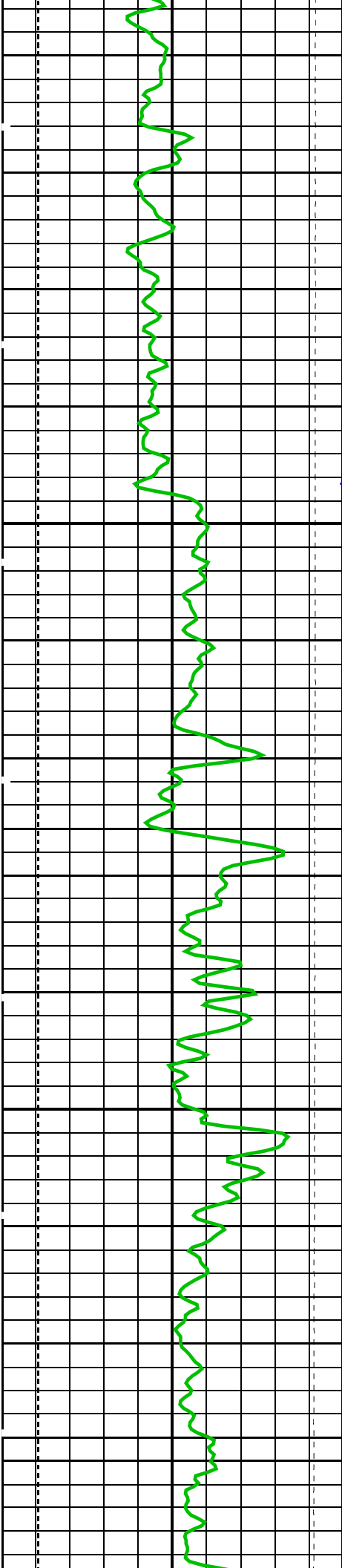
Tension (TENS)	
20000 (N)	0
Gamma Ray (GR_STGC)	
0 (GAPI)	150

Bit Size (BS)  
(MM)



SSLT Delta-T (multishot 3'-5') (DT)  
(US/M)

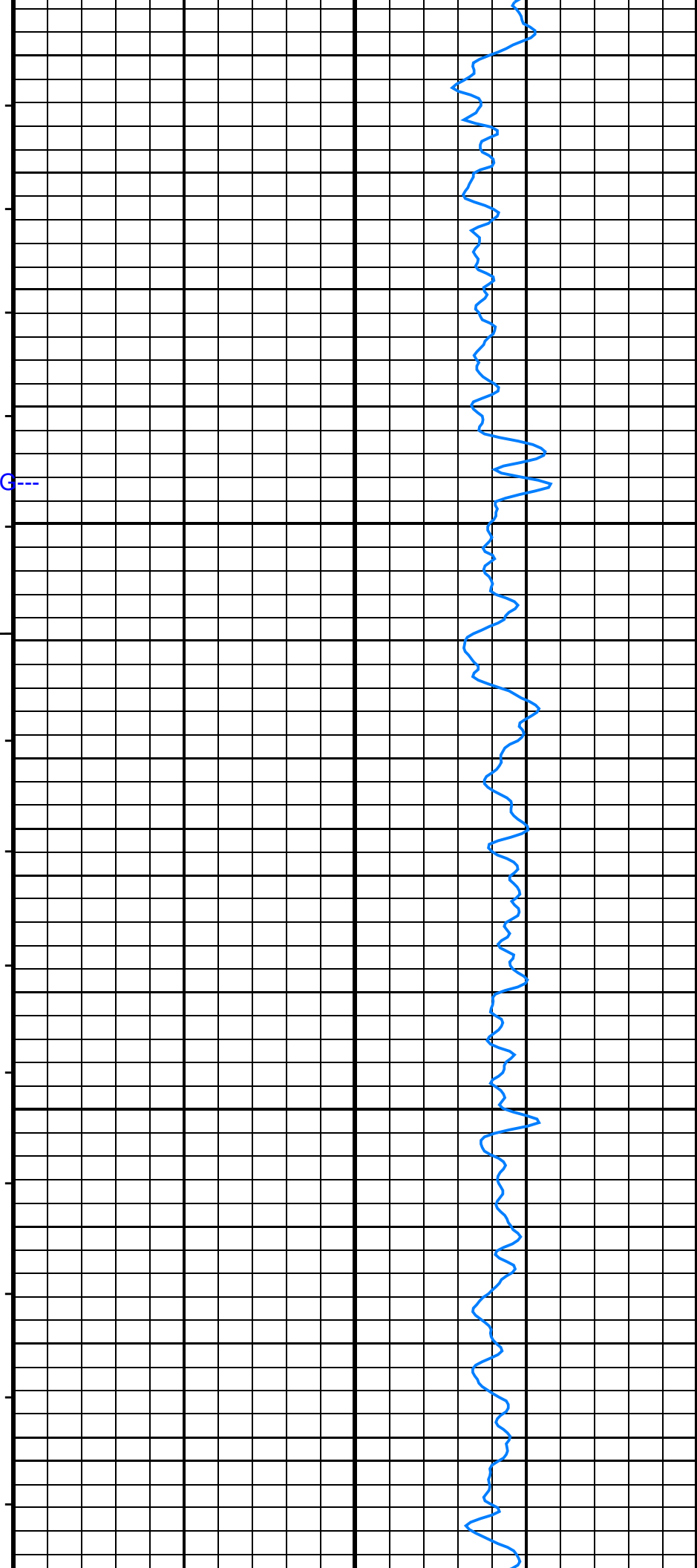


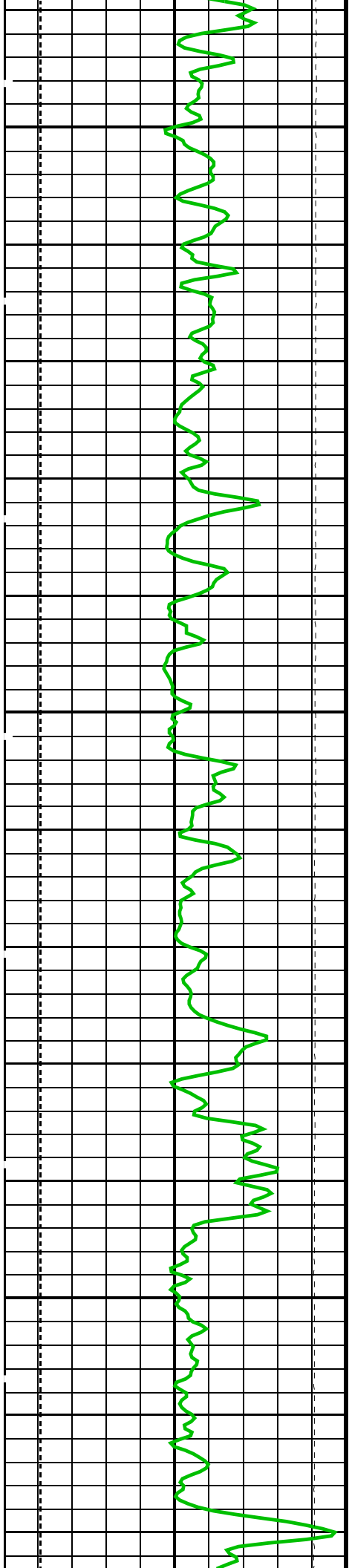


--CASING--

875

900

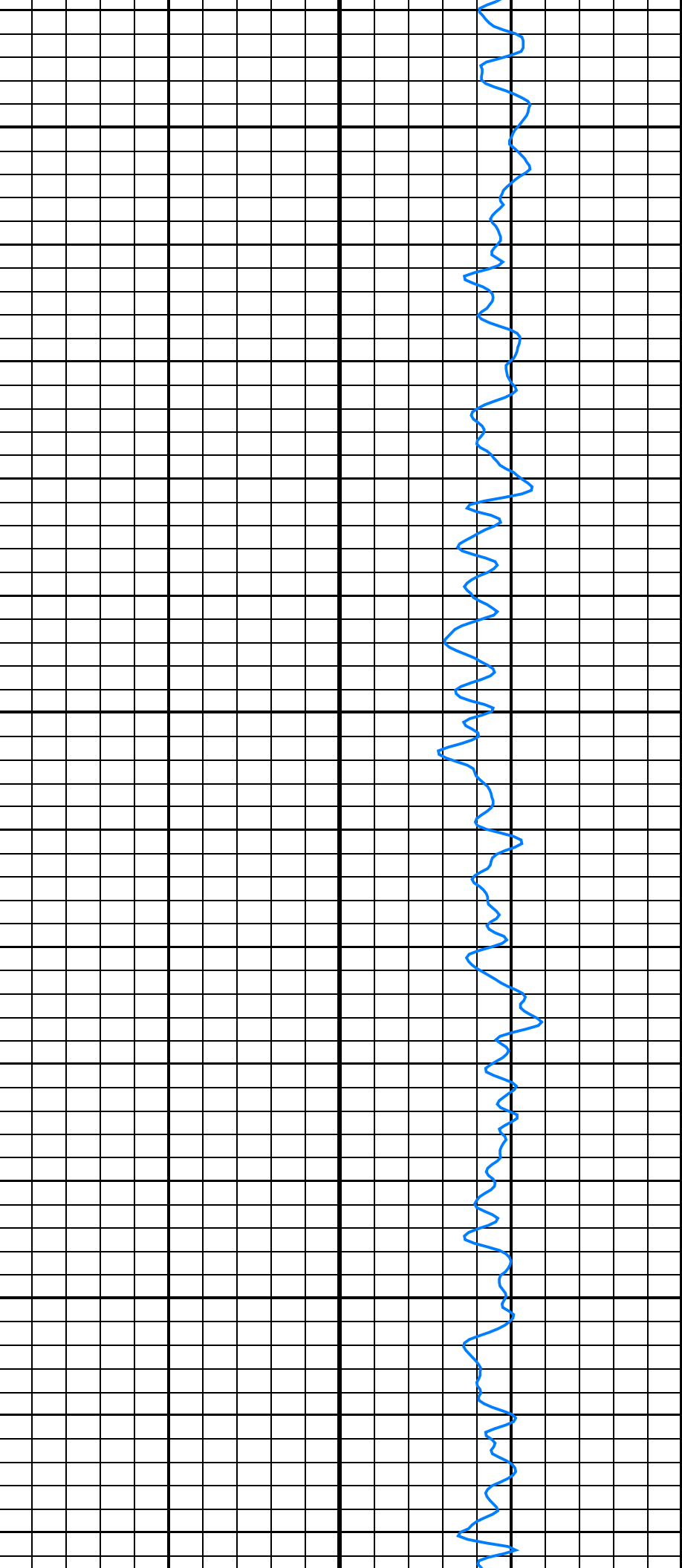




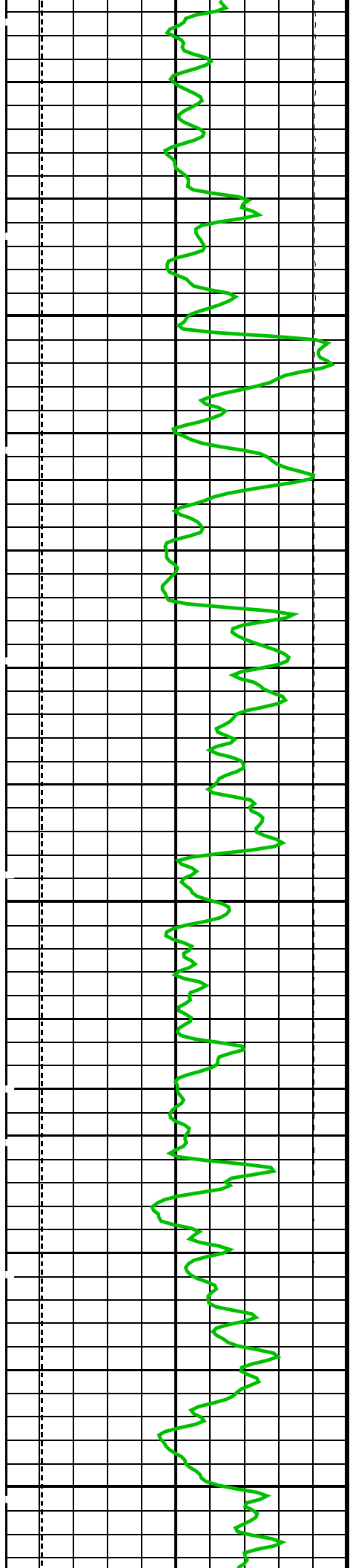
925

950

975



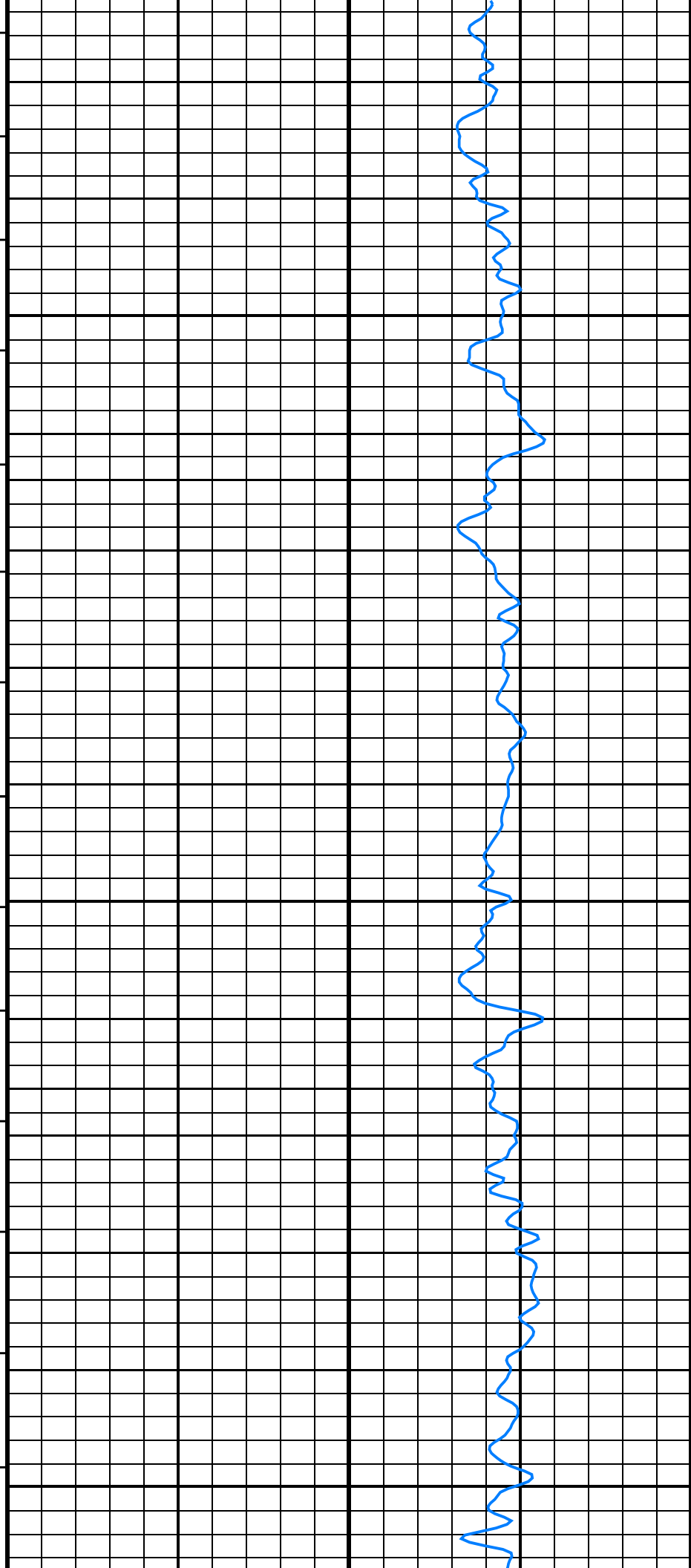


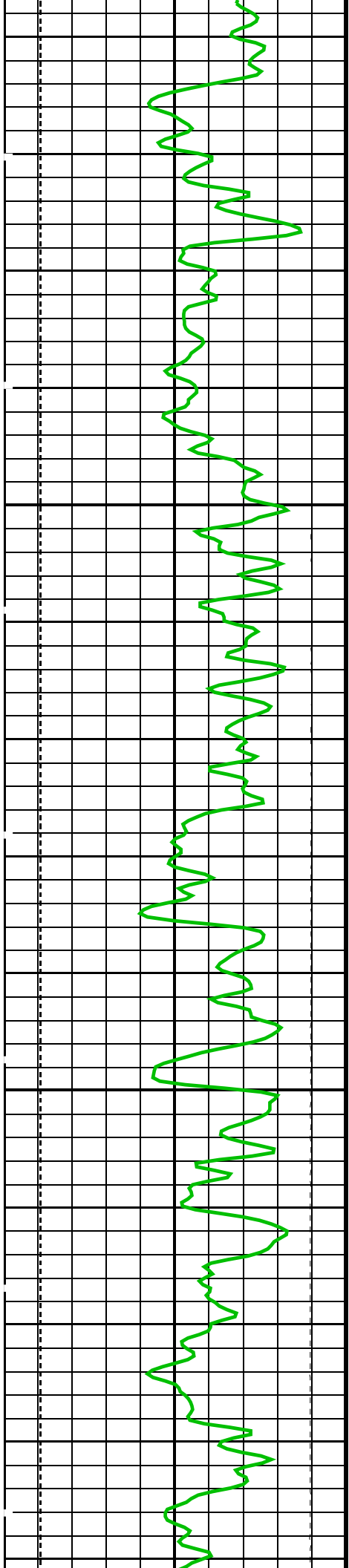


1000

1025

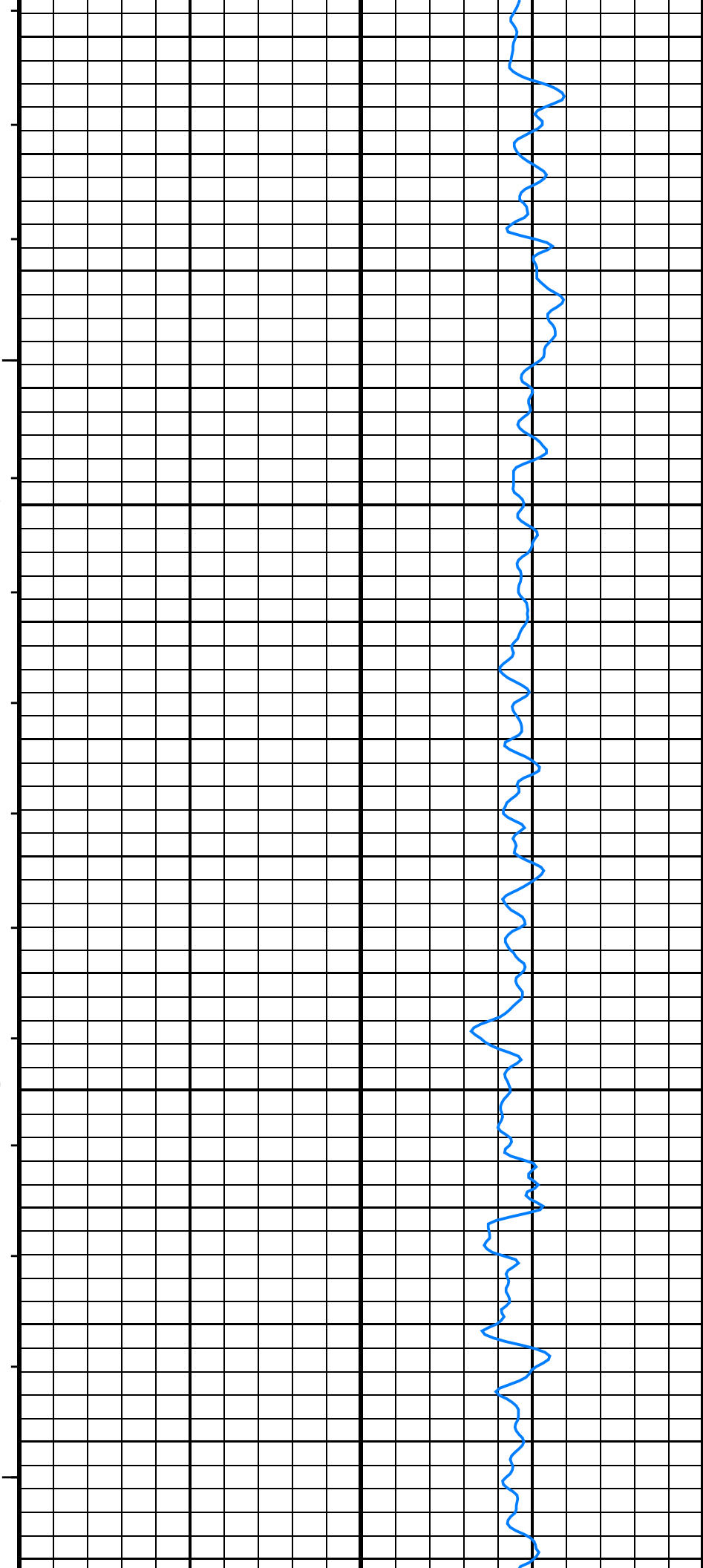
1050

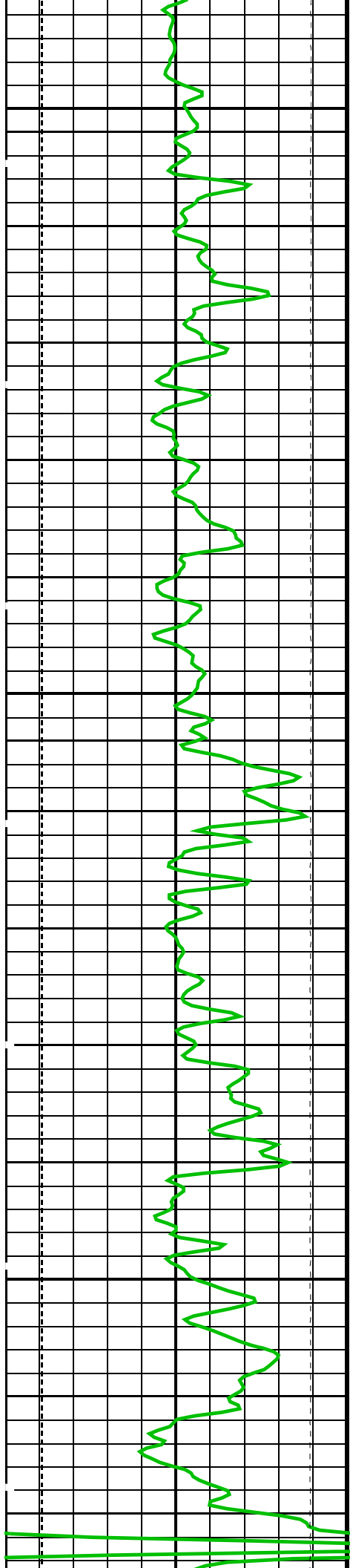




1075

1100

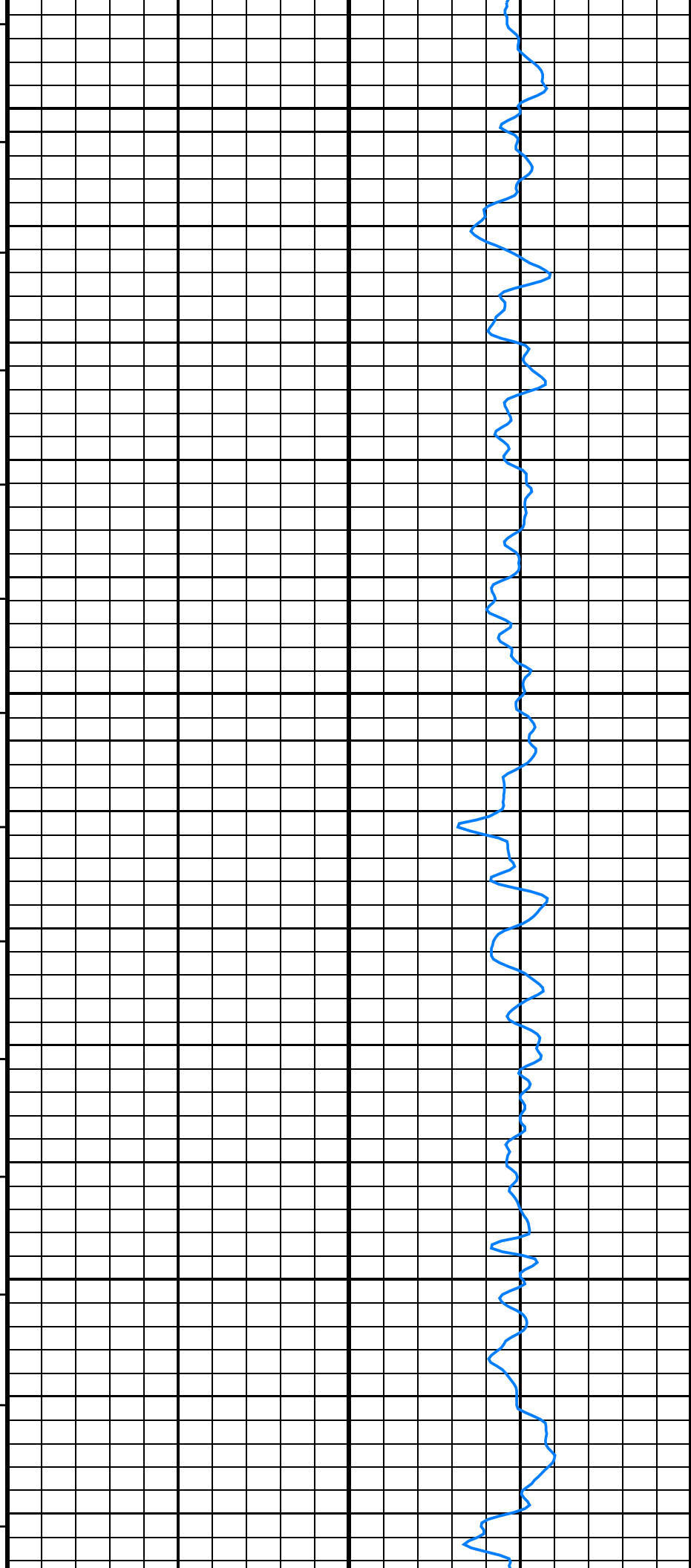


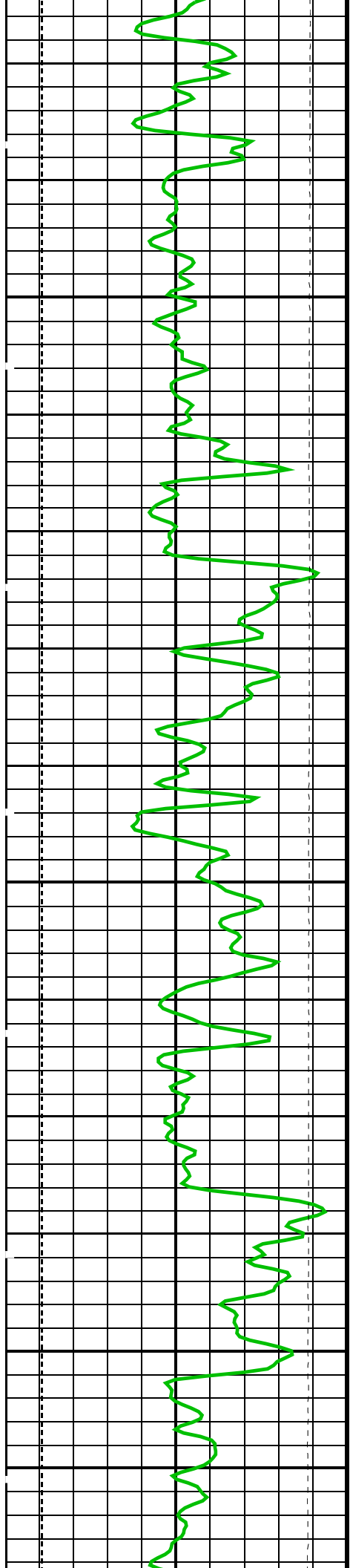


1125

1150

1175

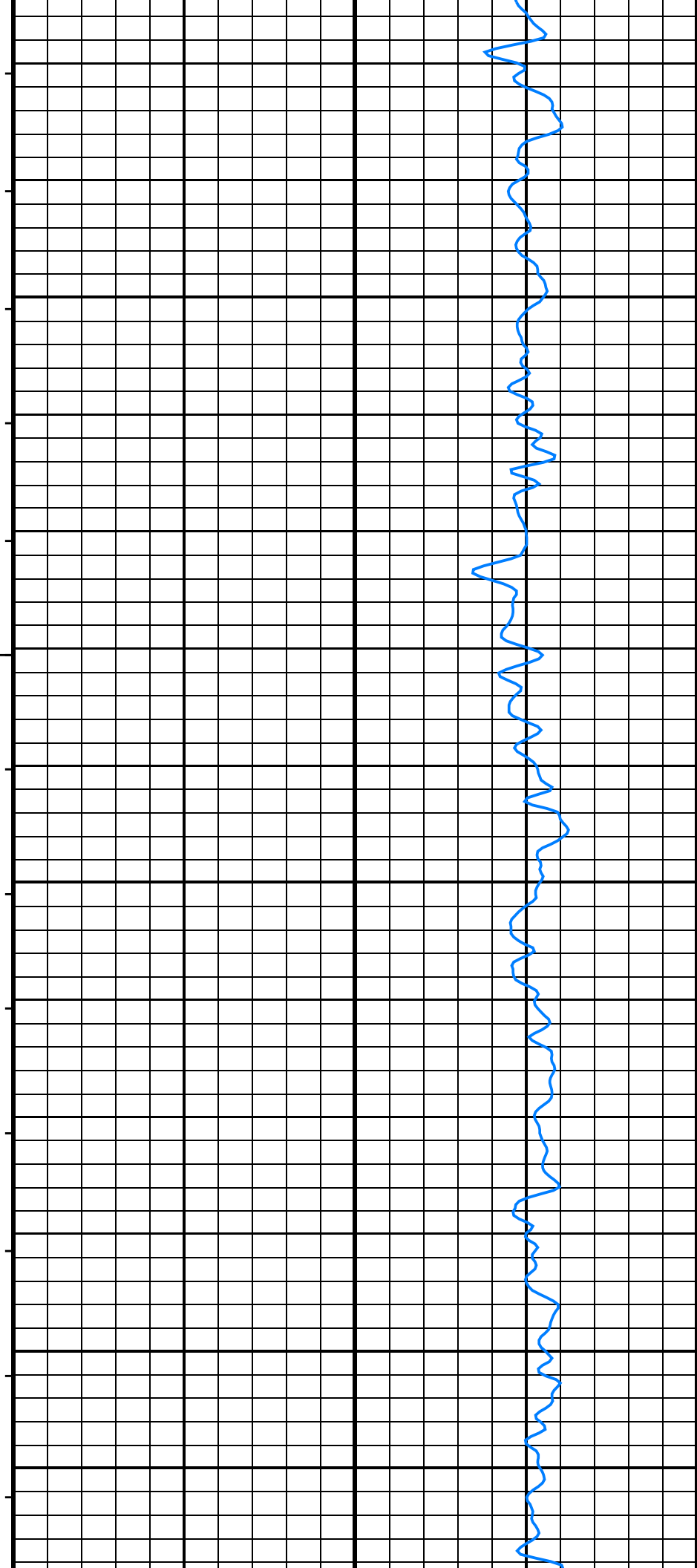


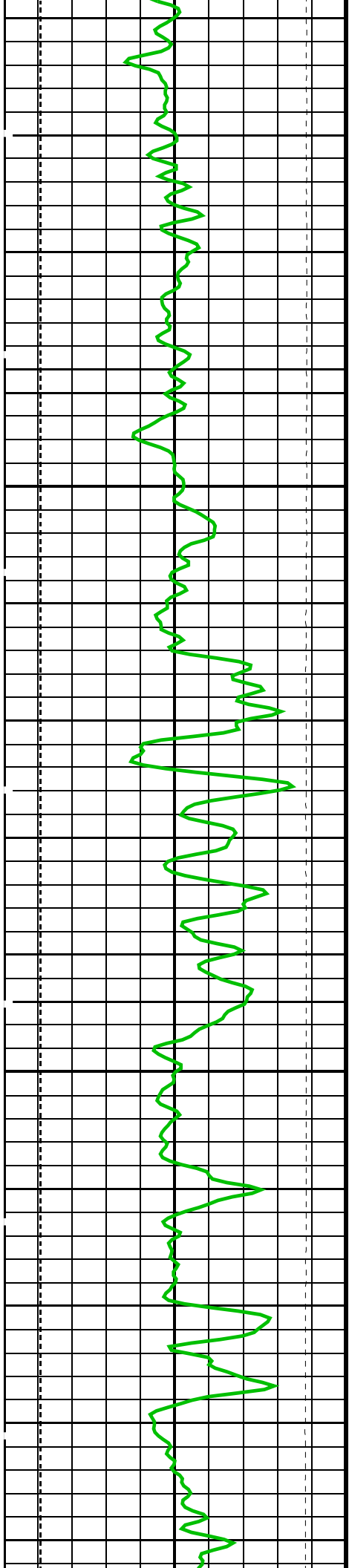


1200

1225

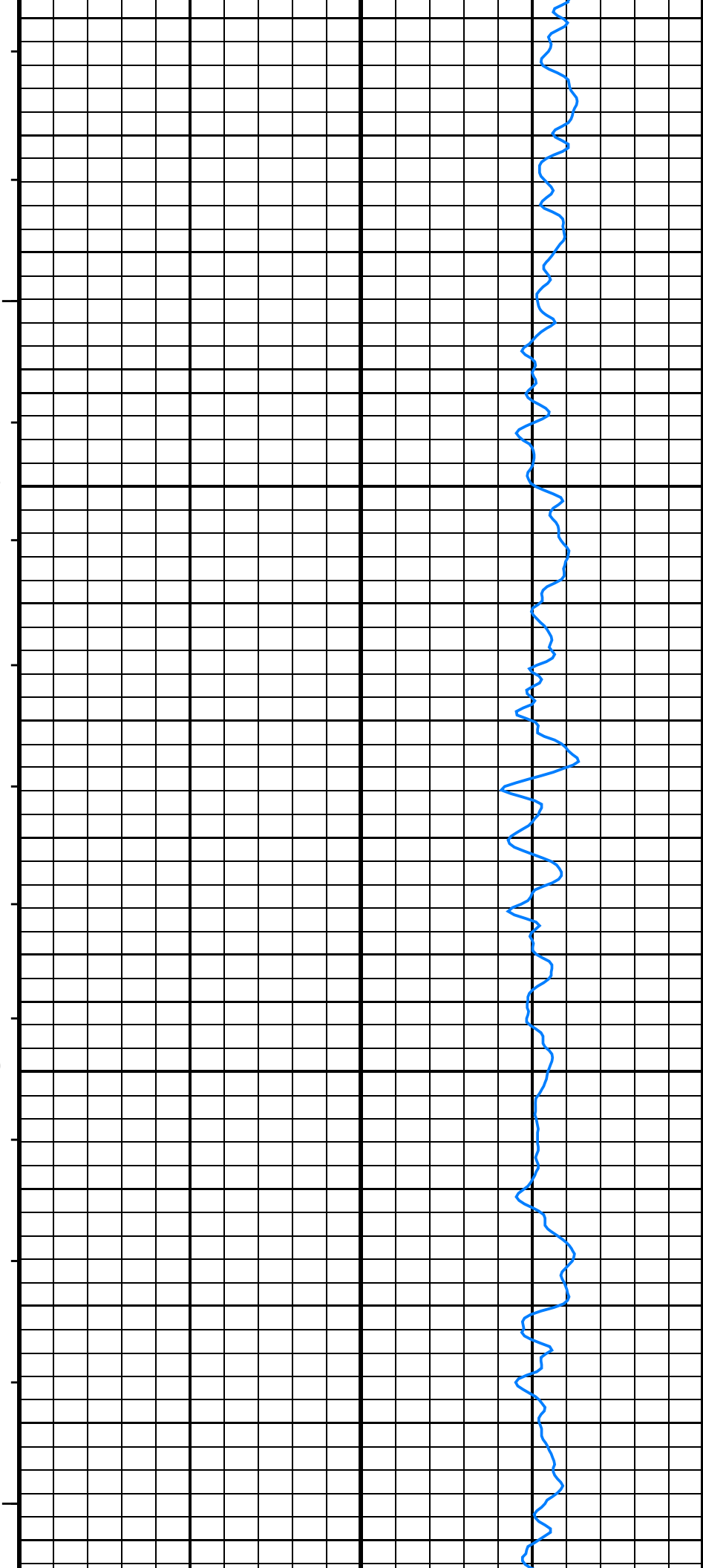
1250

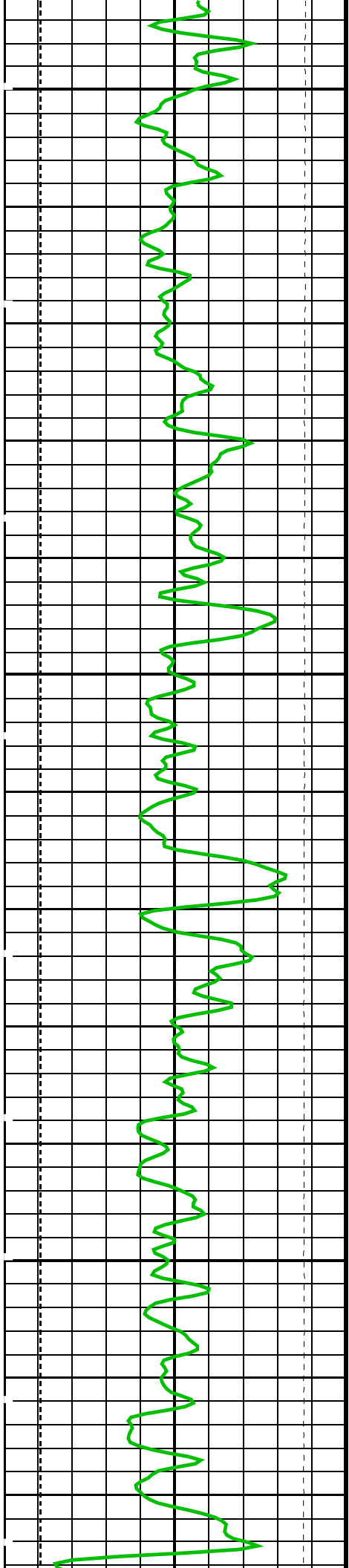




1275

1300

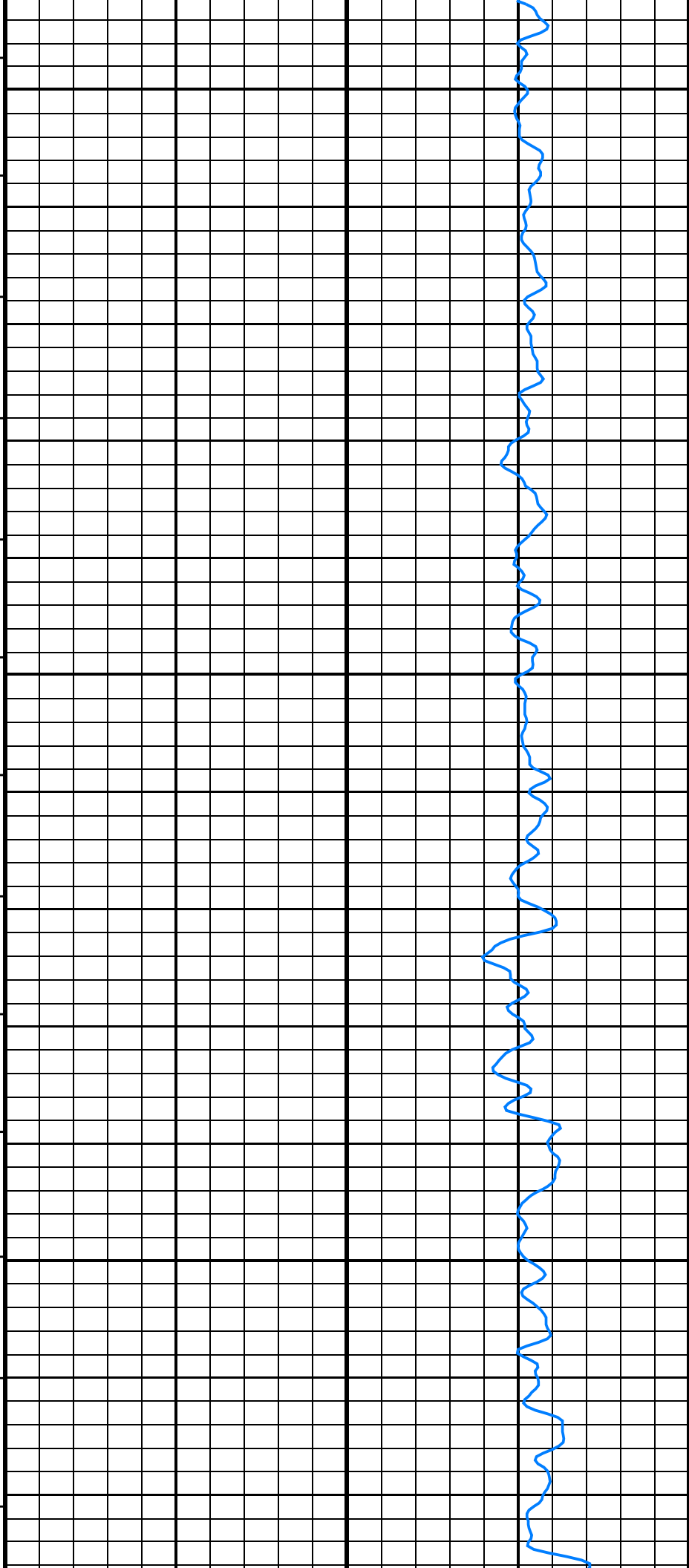


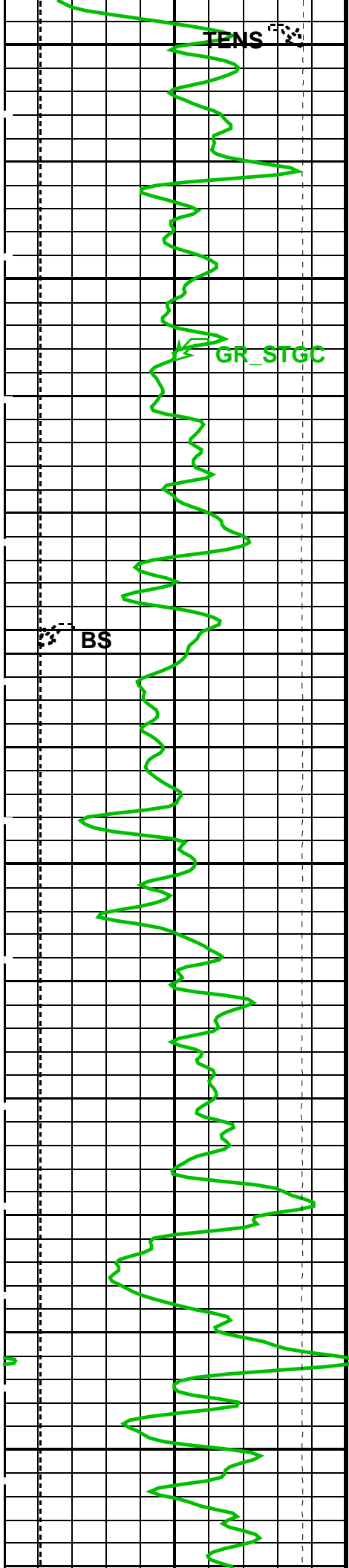


1325

1350

1375

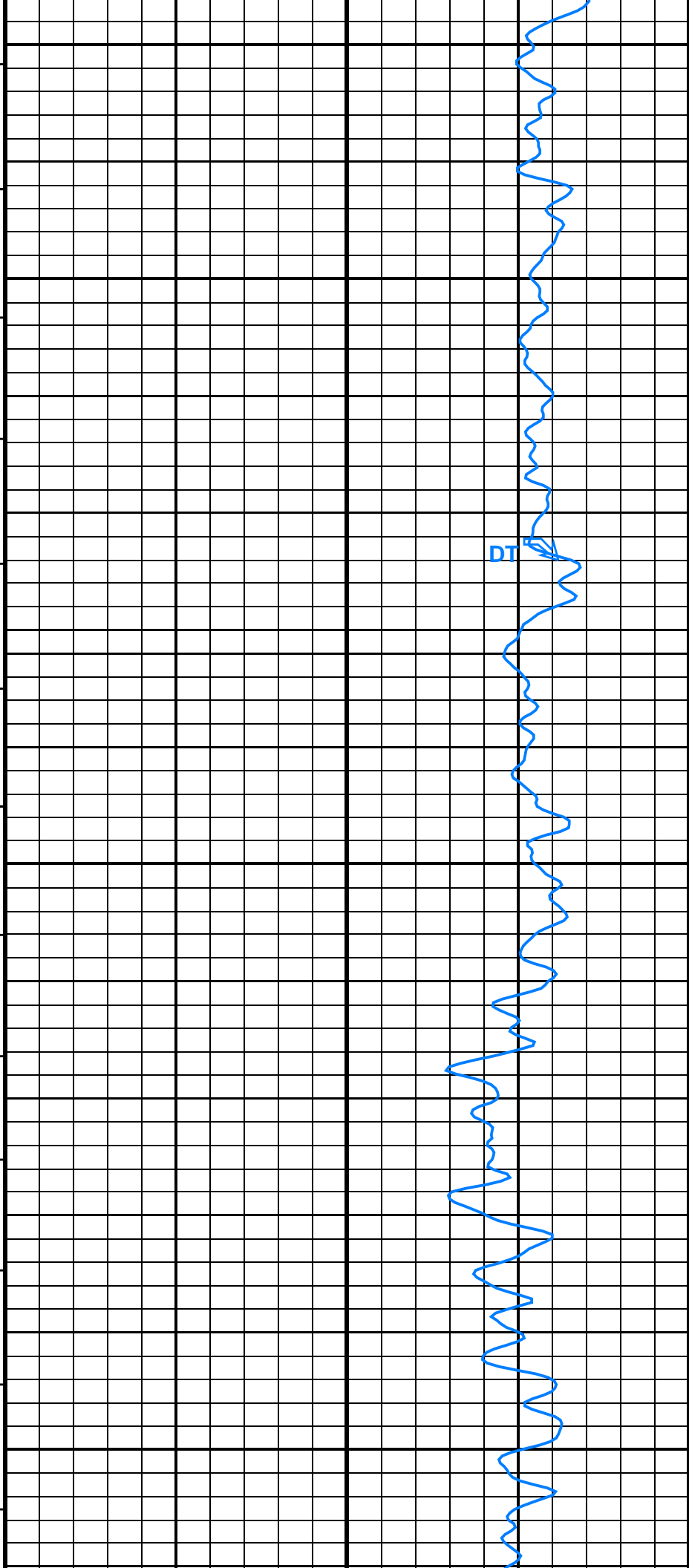


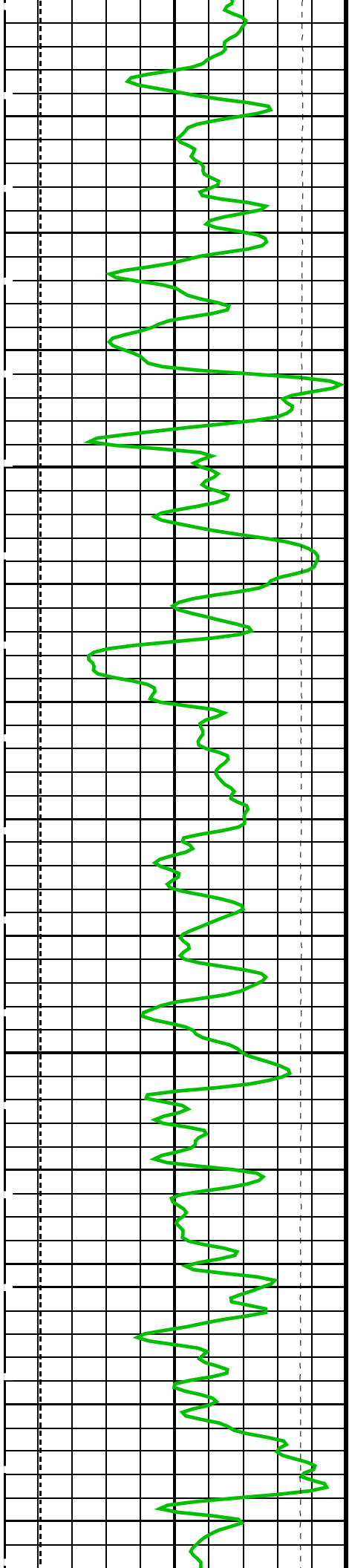


1400

1425

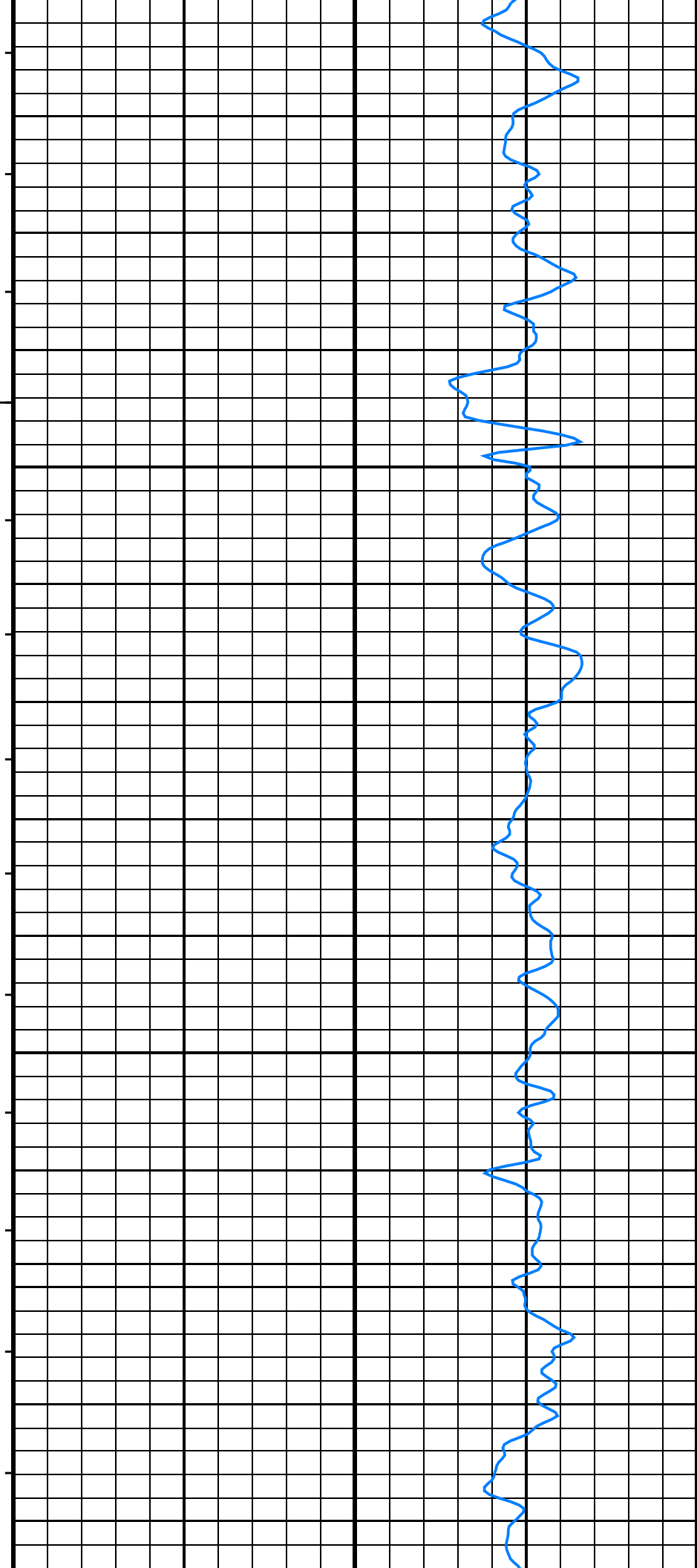
1450



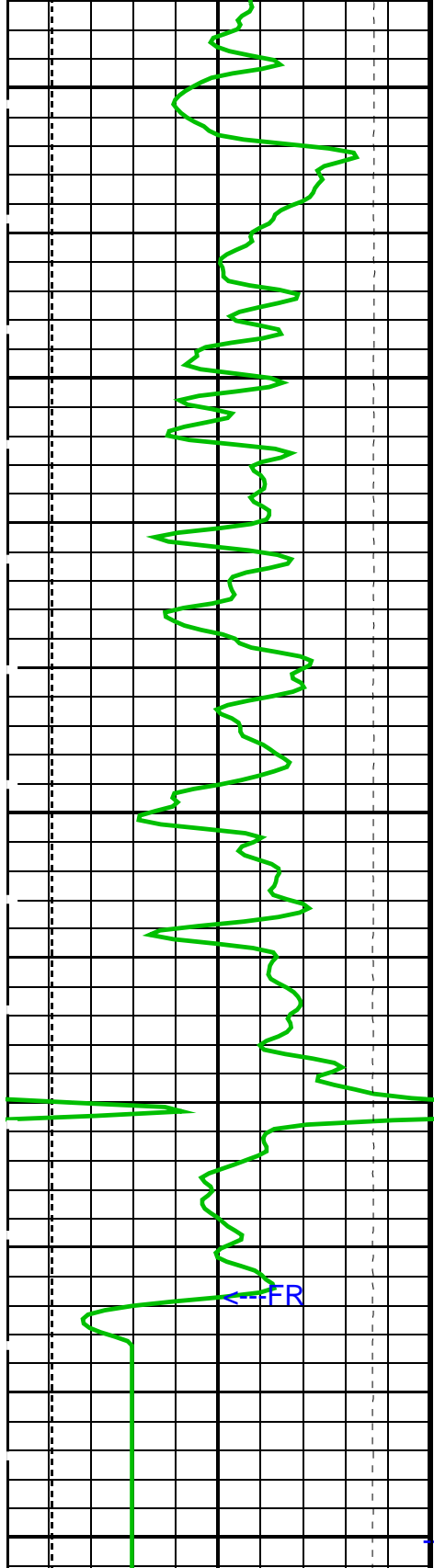


1475

1500







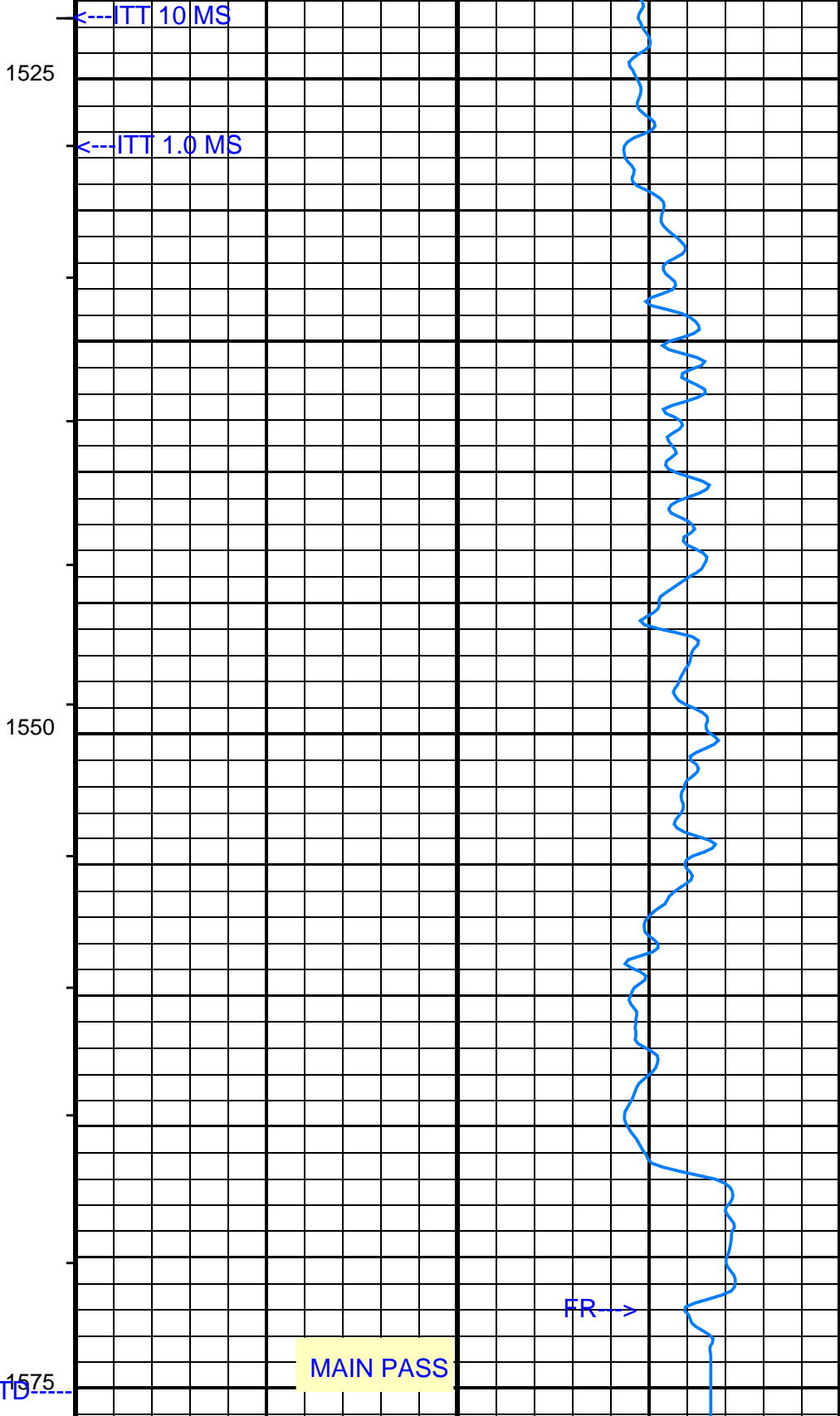
Bit Size (BS)  
(MM)

50 300

Gamma Ray (GR\_STGC)  
(GAPI)

0 150

Tension (TENS)  
20000 (N) 0



SSLT Delta-T (multishot 3'-5') (DT)  
(US/M)

500 100

MAIN PASS

PIP SUMMARY

- Integrated Transit Time Minor Pip Every 1 MS
- Integrated Transit Time Major Pip Every 10 MS

Time Mark Every 60 S

## Parameters

DLIS Name	Description	Value	
ACSR	Array Cycle Skip Recovery	ON	
AMSG	Auxilliary Minimum Sliding Gate	180	US
BS	Bit Size	75.770	MM
CBLG	CBL Gate Width	80	US
DDE1	Digitizing Delay 1 - Upper Tx	40	US
DDE2	Digitizing Delay 2 - Lower Tx	40	US
DDE3	Digitizing Delay 3 - Far Tx	40	US
DETE	Detection Peak	E2	
DFAD_ATC	DFAD Automatic Threshold Control	ON	
DFAD_INTERVAL_MODE	Detection Interval Mode for first arrival	TRACK	
DLSR	Depth Log Sampling Rate	TT1.5_WF6	
DO	Depth Offset	-1.5	M
DORL	Depth Offset Repeat Analysis	-1.5	M
DSIN	Digitizing Sample Interval	10	US
DTCM	Delta-T Computation Mode	FULL	
DTLCM	Delta-T Long Computation Mode	FULL	
DWCO	Digitizing Word Count	256	
GAI1	Gain Control 1 - Upper Tx	HIGH	
GAI2	Gain Control 2 - Lower Tx	HIGH	
GAI3	Gain Control 3 - Far Tx	HIGH	
MAHTR	Manual High Threshold Reference	40	
MNHTR	Minimum High Threshold Reference	30	
MODE	Sonic Firing Mode	DT_BHC	
NMSG	Near Minimum Sliding Gate	140	US
NMXG	Near Maximum Sliding Gate	750	US
NUMP	Number of Detection Passes	2	
NWI	Number of Waveform Items	6	
PP	Playback Processing	NORMAL	
RATE	Sonic Firing Rate	8.92857	HZ
SFAF	Sonic Formation Attenuation Factor	0	DB/M
SGAD	Sliding Gate Allow/Disallow	ON	
SGCL	Sliding Gate Closing Delta-T	558	US/M
SGCW	Sliding Gate Closing Width	33	US
SGDT	Sliding Gate Delta-T	131	US/M
SGW	Sliding Gate Width	80	US
SLEV	Signal Level for Threshold Control	5000	
WMAG	DFAD Waveform Magnifier	1	
ZCGW	Zero Crossing Gate Width	100	US
ZCTT	Option to compute Zero Crossing Transit Time	OFF	

Format: SSLT\_DT

Vertical Scale: 1:240

Graphics File Created: 18-Jan-2001 03:08

### OP System Version: 9C0-413

MCM

SSLT-B

OP9-KP2

STGC-B

OP9-KP2

#### Input DLIS Files

DEFAULT	SSLT .007	FN:6 PRODUCER	18-Jan-2001 00:59	1577.6 M	789.7 M
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#### Output DLIS Files

DEFAULT	SSLT .008	FN:7 PRODUCER	18-Jan-2001 03:08		
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#### Input DLIS Files

DEFAULT	SSLT .007	FN:6 PRODUCER	18-Jan-2001 00:59	1577.6 M	789.7 M
DEFAULT	SSLT .006	FN:5 PRODUCER	18-Jan-2001 00:36	1577.9 M	1510.8 M

#### Output DLIS Files

DEFAULT	SSLT .008	FN:7 PRODUCER	18-Jan-2001 03:08		
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### OP System Version: 9C0-413

MCM

SSLT-B

OP9-KP2

STGC-B

OP9-KP2

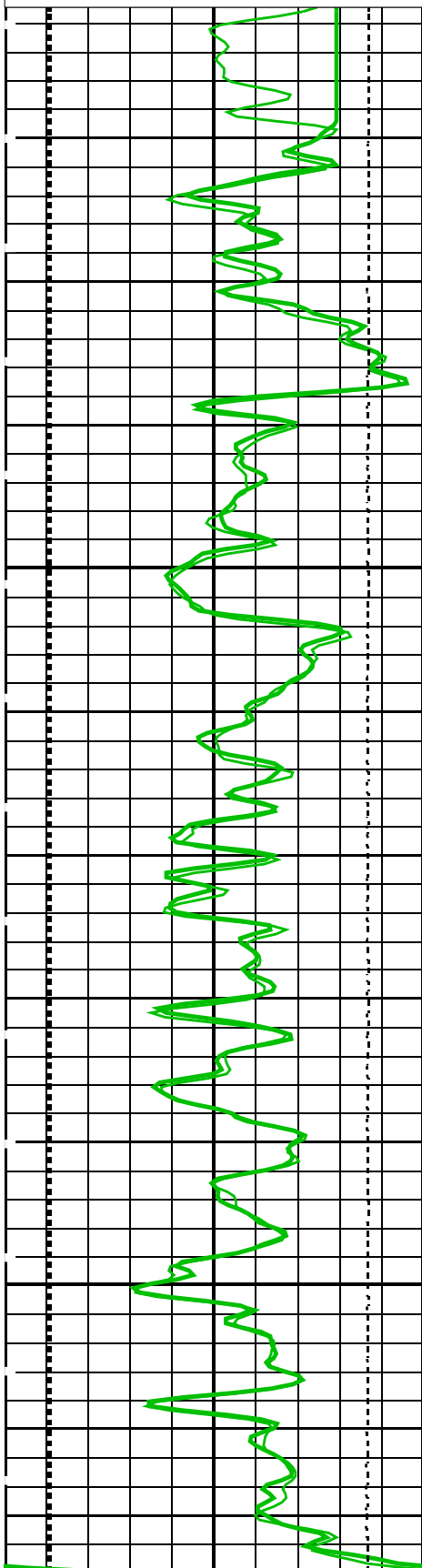
└ Integrated Transit Time Minor Pip Every 1 MS  
└ Integrated Transit Time Major Pip Every 10 MS

Time Mark Every 60 S

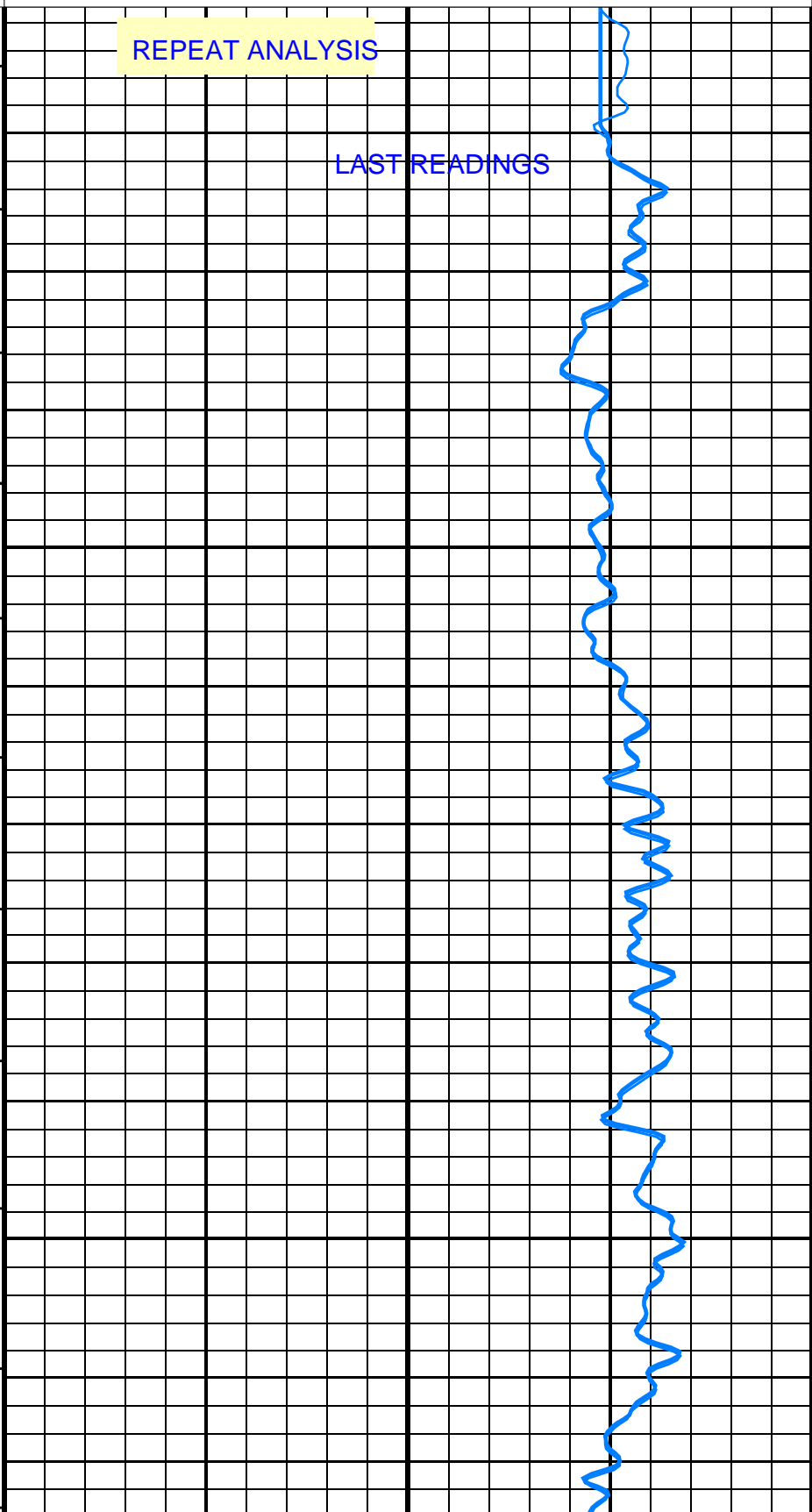
TENS\_REP Curve  
(TENS\_REP)  
20000 (N) 0

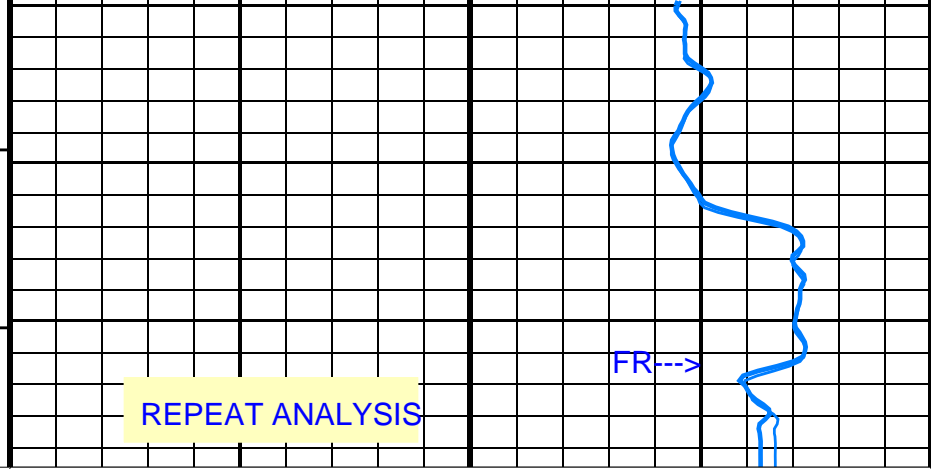
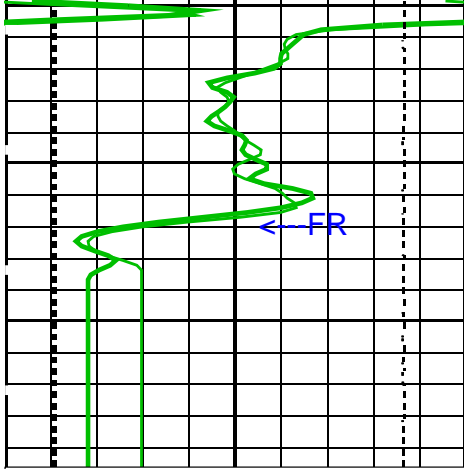
GR\_STGC\_REP Curve (GR\_STGC\_REP)  
0 (GAPI) 150

BS\_REP Curve (BS\_REP)  
50 (MM) 300



DT\_REP Curve (DT\_REP)  
500 (US/M) 100





BS\_REP Curve (BS\_REP)  
50 (MM) 300

DT\_REP Curve (DT\_REP)  
500 (US/M) 1000

GR\_STGC\_REP Curve (GR\_STGC\_REP)  
0 (GAPI) 150

TENS\_REP Curve  
(TENS\_REP)  
20000 (N) 0

**PIP SUMMARY**

- Integrated Transit Time Minor Pip Every 1 MS
- Integrated Transit Time Major Pip Every 10 MS

Time Mark Every 60 S

**Parameters**

DLIS Name	Description	Value	
ACSR	Array Cycle Skip Recovery	ON	
AMSG	Auxilliary Minimum Sliding Gate	180	US
BS	Bit Size	75.770	MM
CBLG	CBL Gate Width	80	US
DDE1	Digitizing Delay 1 - Upper Tx	40	US
DDE2	Digitizing Delay 2 - Lower Tx	40	US
DDE3	Digitizing Delay 3 - Far Tx	40	US
DETE	Detection Peak	E2	
DFAD_ATC	DFAD Automatic Threshold Control	ON	
DFAD_INTERVAL_MODE	Detection Interval Mode for first arrival	TRACK	
DLSR	Depth Log Sampling Rate	TT1.5_WF6	
DO	Depth Offset	-1.5	M
DORL	Depth Offset Repeat Analysis	-1.5	M
DSIN	Digitizing Sample Interval	10	US
DTCM	Delta-T Computation Mode	FULL	
DTLCM	Delta-T Long Computation Mode	FULL	
DWCO	Digitizing Word Count	256	
GAI1	Gain Control 1 - Upper Tx	HIGH	
GAI2	Gain Control 2 - Lower Tx	HIGH	
GAI3	Gain Control 3 - Far Tx	HIGH	
MAHTR	Manual High Threshold Reference	40	
MNHTR	Minimum High Threshold Reference	30	
MODE	Sonic Firing Mode	DT_BHC	
NMSG	Near Minimum Sliding Gate	140	US
NMXG	Near Maximum Sliding Gate	750	US
NUMP	Number of Detection Passes	2	
NWI	Number of Waveform Items	6	
PP	Playback Processing	NORMAL	
RATE	Sonic Firing Rate	8.92857	HZ
SFAF	Sonic Formation Attenuation Factor	0	DB/M
SGAD	Sliding Gate Allow/Disallow	ON	
SGCL	Sliding Gate Closing Delta-T	558	US/M
SGCW	Sliding Gate Closing Width	33	US
SGDT	Sliding Gate Delta-T	131	US/M
SGW	Sliding Gate Width	80	US
SLEV	Signal Level for Threshold Control	5000	
WMAG	DFAD Waveform Magnifier	1	
ZCGW	Zero Crossing Gate Width	100	US
ZCTT	Option to compute Zero Crossing Transit Time	OFF	

Format: SSLT\_DT\_REP

Vertical Scale: 1:240

Graphics File Created: 18-Jan-2001 03:08

SSLT-B

OP9-KP2

STGC-B

OP9-KP2

**Input DLIS Files**

DEFAULT	SSLT .007	FN:6	PRODUCER	18-Jan-2001 00:59	1577.6 M	789.7 M
DEFAULT	SSLT .006	FN:5	PRODUCER	18-Jan-2001 00:36	1577.9 M	1510.8 M

**Output DLIS Files**

DEFAULT	SSLT .008	FN:7	PRODUCER	18-Jan-2001 03:08
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Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
SLIM Telemetry Gamma-ray Cartridge - B Wellsite Calibration - Detector Calibration							
Before: 17-JAN-2001 16:44							
Gamma Ray (Jig - Bkg)	144.9	N/A	144.9	N/A	N/A	13.17	GAPI
Gamma Ray (Calibrated)	155.1	N/A	155.1	N/A	N/A	15.00	GAPI

SLIM Telemetry Gamma-ray Cartridge - B / Equipment Identification

Primary Equipment:

STGC Gamma-ray & Accelerometer Cartridge  
 STGC Telemetry Cartridge

STGC - B  
 STGC - A

Auxiliary Equipment:

SLIM Electronics Cartridge Housing

STGH - B

SLIM Telemetry Gamma-ray Cartridge - B Wellsite Calibration

Detector Calibration

Phase	Gamma Ray Background	GAPI	Value	Phase	Gamma Ray (Jig - Bkg)	GAPI	Value	Phase	Gamma Ray (Calibrated)	GAPI	Value
Before			8.447	Before			144.9	Before			155.1
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)		131.7 (Minimum)	144.9 (Nominal)	158.0 (Maximum)		140.1 (Minimum)	155.1 (Nominal)	170.1 (Maximum)

Before: 17-JAN-2001 16:44

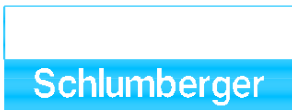
**COMPANY: DEER LAKE OIL & GAS INC.**

**WELL: DEER LAKE OIL & GAS ET AL WESTERN ADVENTURE NO**

**FIELD: EXPLORATORY**

**PROVINCE: NEWFOUNDLAND**

BOTTOM LOG INTERVAL	1573 m
SCHLUMBERGER DEPTH	1575 m
DEPTH DRILLER	1584 m
KELLY BUSHING	92.5 m
DRILL FLOOR	92.5 m
GROUND LEVEL	90 m




**BOREHOLE COMPENSATED  
SONIC LOG**

**COMPANY: DEER LAKE OIL & GAS INC**  
**WELL: DEER LAKE OIL & GAS ET AL**  
**WESTERN ADVENTURE N**  
**FIELD: EXPLORATORY**

**PROVINCE: NEWFOUNDLAND**

PROVINCENEWFOUNDLAND  
 Field: EXPLORATORY  
 Location:  
 Well: DEER LAKE OIL & GAS ET AL  
 Company: DEER LAKE OIL & GAS INC.

		LOCATION	
		NORTHING: 5,456,519 EASTING: 482,797	GROUND LEVEL DRILL FLOOR DRILL FLOOR
Permanent Datum: _____ Log Measured From: _____ Drilling Measured From: _____		API Serial No. 2000-120-01-01	NOB 5,4

Logging Date	3-AUG-2000	
Run Number	1	
Depth Driller	872 m	
Schlumberger Depth	873.5 m	
Bottom Log Interval	868 m	
Top Log Interval	218 m	
Casing Driller Size @ Depth	114.300 mm	@ 218 m
Casing Schlumberger	218 m	
Bit Size	96.000 mm	
Type Fluid In Hole	POT. SULFATE	
Density	1044 kg/m <sup>3</sup>	35 s
Fluid Loss	PH	
Source Of Sample	MEASURED	
RM @ Measured Temperature	0.539 ohm.m	@ 15 degC
RMF @ Measured Temperature	@	
RMC @ Measured Temperature	@	
Source RMF	RMC	@
RM @ MRT	RMF @ MRT	@ 22
RM @ MRT	0.452 @ 22	@ 22
Maximum Recorded Temperatures	22 degC	
Circulation Stopped	Time	22:00
Logger On Bottom	Time	6:30
Unit Number	Location	
Recorded By	KELLI SASCO	
Witnessed By	ROB TAYLOR	

LOG

K.B. 92.5 m  
G.L. 90 m  
D.F. 92.5 m

90 m  
above Perm. Datum

DEPTHING: EASTING:  
56,519 482,797

Final Print

Logging Date				
Run Number				
Depth Driller				
Schlumberger Depth				
Bottom Log Interval				
Top Log Interval				
Casing Driller Size @ Depth		@		@
Casing Schlumberger				
Bit Size				
Type Fluid In Hole				
Density				
Fluid Loss				
Source Of Sample				
RM @ Measured Temperature		@		@
RMF @ Measured Temperature		@		@
RMC @ Measured Temperature		@		@
Source RMF				
RM @ MRT		@		@
RMF @ MRT				
Maximum Recorded Temperatures				
Circulation Stopped				
Time				
Logger On Bottom				
Time				
Unit Number				
Location				
Recorded By				
Witnessed By				

Run 1

Run 2

Run 3

Run 4

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 INTERPRETATIONS, 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 CLAUSE 4 OF OUR GENERAL TERMS AND CONDITIONS AS SET OUT IN OUR CURRENT PRICE SCHEDULE.

OTHER SERVICES1  
OS1: DUAL LATEROLOG  
OS2: BHC SONIC  
OS3: COMPENSATED NEUTRON  
OS4: LITHO DENSITY  
OS5:

OTHER SERVICES2  
OS1:  
OS2:  
OS3:  
OS4:  
OS5:

REMARKS: RUN NUMBER 1

REMARKS: RUN NUMBER 2

1ST DESCENT: DUAL LATEROLOG, GR

2ND DESCENT: BHC SONIC, GR

3RD DESCENT: COMPENSATED NEUTRON, LITHO DENSITY, GR

CEMENT VOLUME BASED ON 66.7MM PRODUCTION CASING

SCALES AND INTERVALS AS PER CLIENT REQUEST

RIG:: LONGYEAR SUPER 50

CREW 19: OTTO MARSHALL, MIKE DIGGDON

RUN 1  
 SERVICE ORDER #: 6418543  
 PROGRAM VERSION: 9C0-413  
 FLUID LEVEL:

RUN 2  
 SERVICE ORDER #:  
 PROGRAM VERSION:  
 FLUID LEVEL:

LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

## EQUIPMENT DESCRIPTION

RUN 1

RUN 2

### SURFACE EQUIPMENT

LCM-AA  
 WITM (DTS)-A

### DOWNHOLE EQUIPMENT

BSP  
 BRT-S 42.59

SP SPARC 24.42

LEH-ST  
 LEH-ST 18.20

STGC-B  
 STGH-B 8007  
 STGC0-A  
 STGC1-B 17.29

Gamma Ray 16.77  
 CTEM 16.30

TelStatus 14.94

AH-201  
 AH-201 14.94

AH-216 14.39

DTA-A  
 ECH-KE  
 DTA-A 14.14

MDLT-A 11.70  
 MDLH-A  
 MDLI-A  
 AH-189  
 MDLH-B  
 MDLC-A  
 MDLS-A



MDLS-A  
MDLE

LLD LLS — 4.56

BNS-CCS HV DF Tension ACCZ TOOL ZERO 0.00 0.14

MAXIMUM STRING DIAMETER 86 MM  
MEASUREMENTS RELATIVE TO TOOL ZERO  
ALL LENGTHS IN METERS

### Input DLIS Files

DEFAULT

MDLT .004

FN:3 PRODUCER

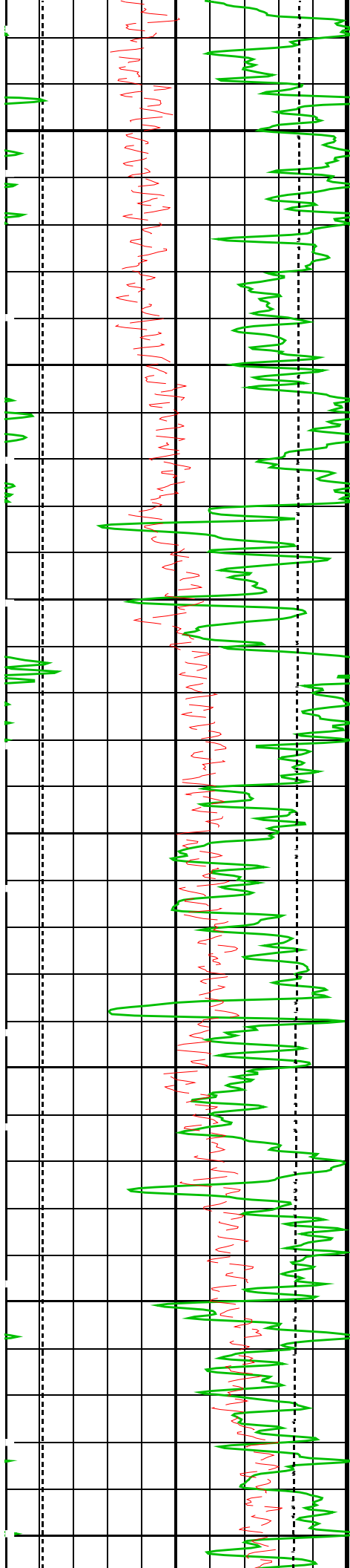
03-Aug-2000 06:17

874.3 M

69.8 M

OP System Version: 9C0-413

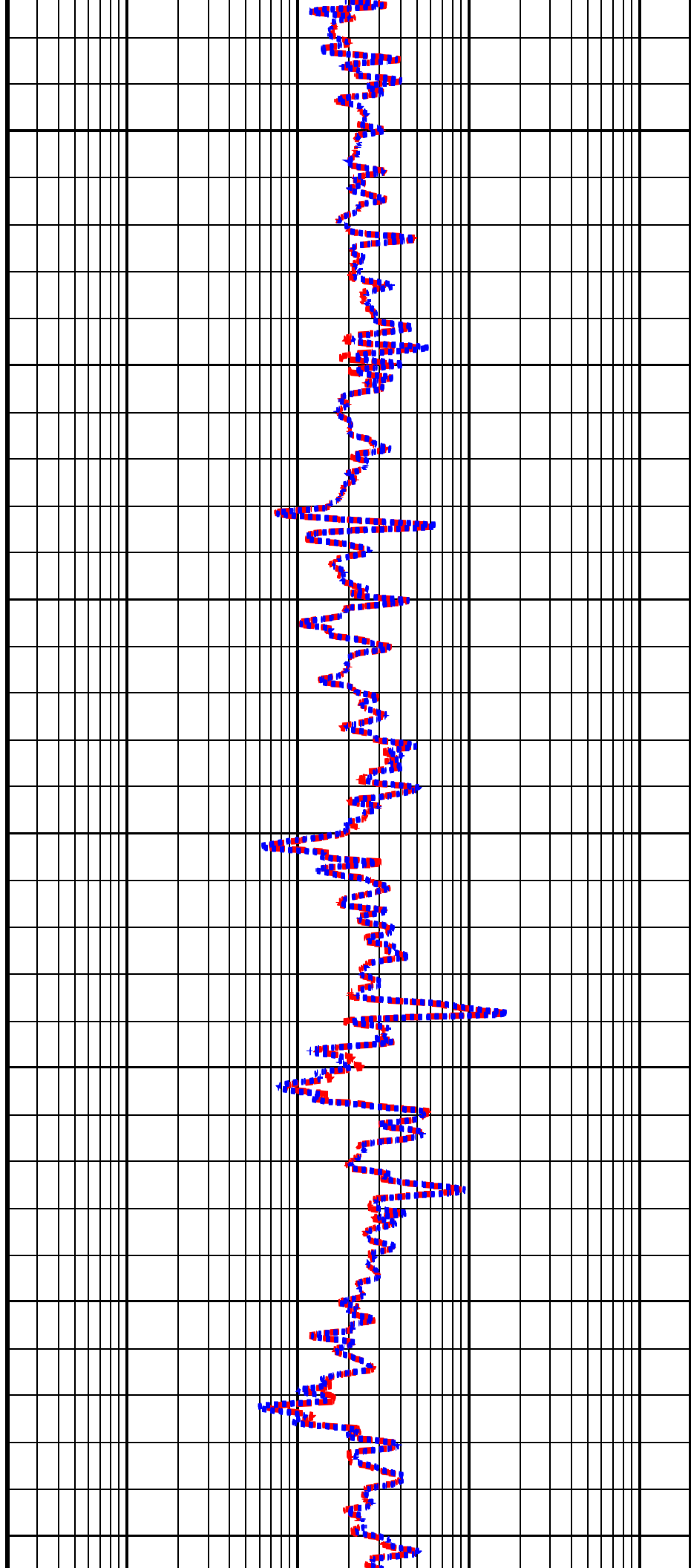
MCM

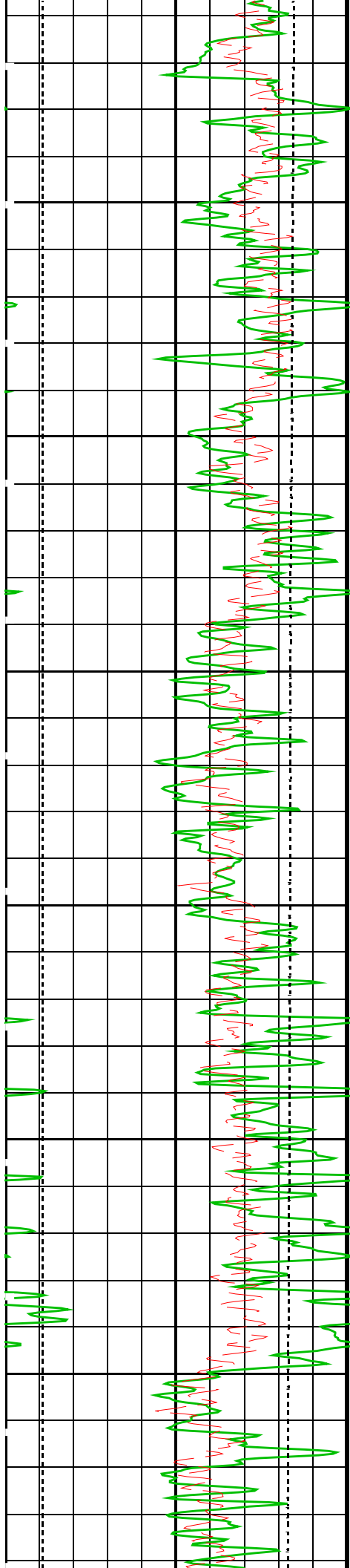


400

450

500

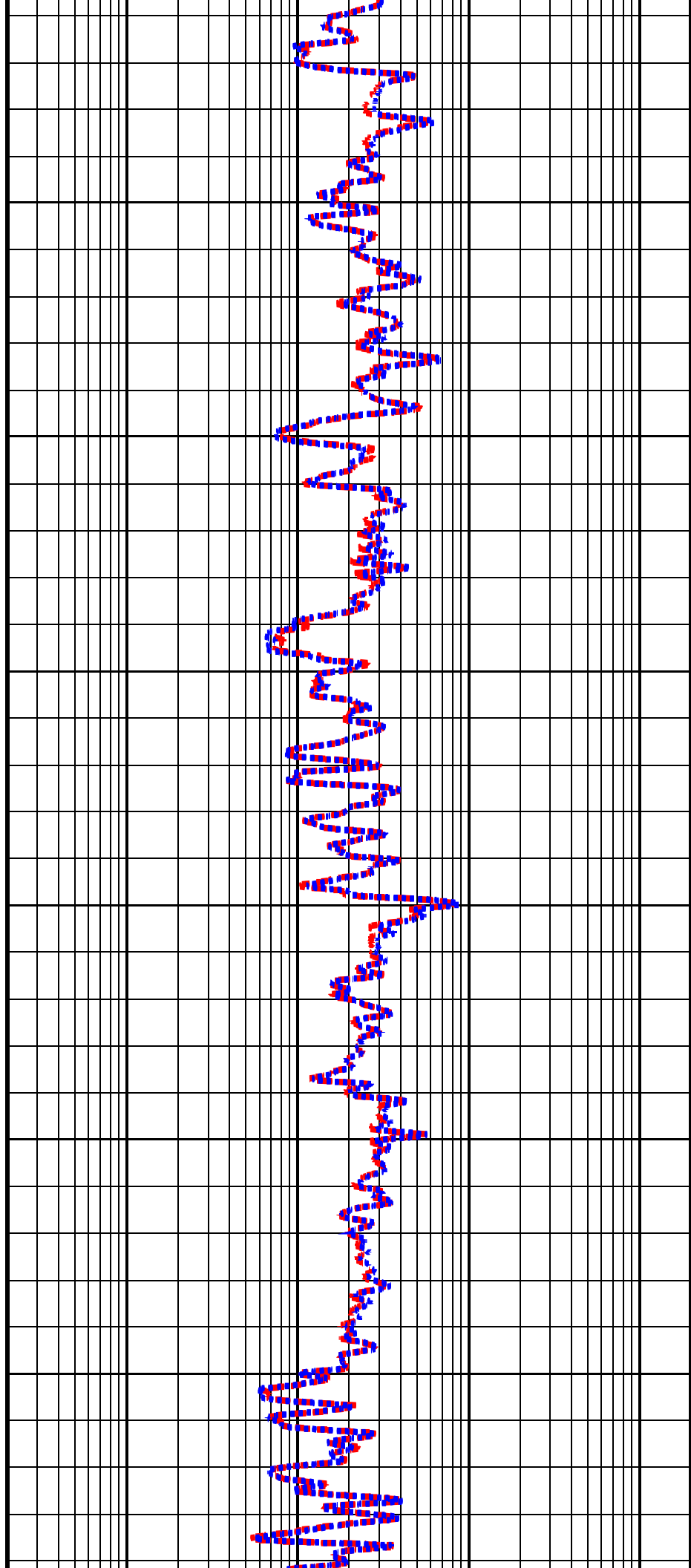


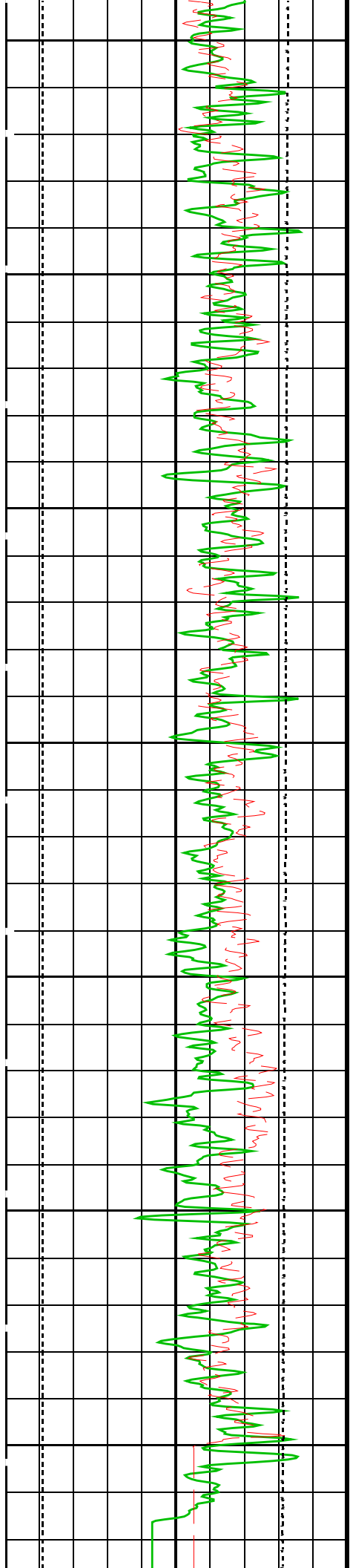


550

600

650



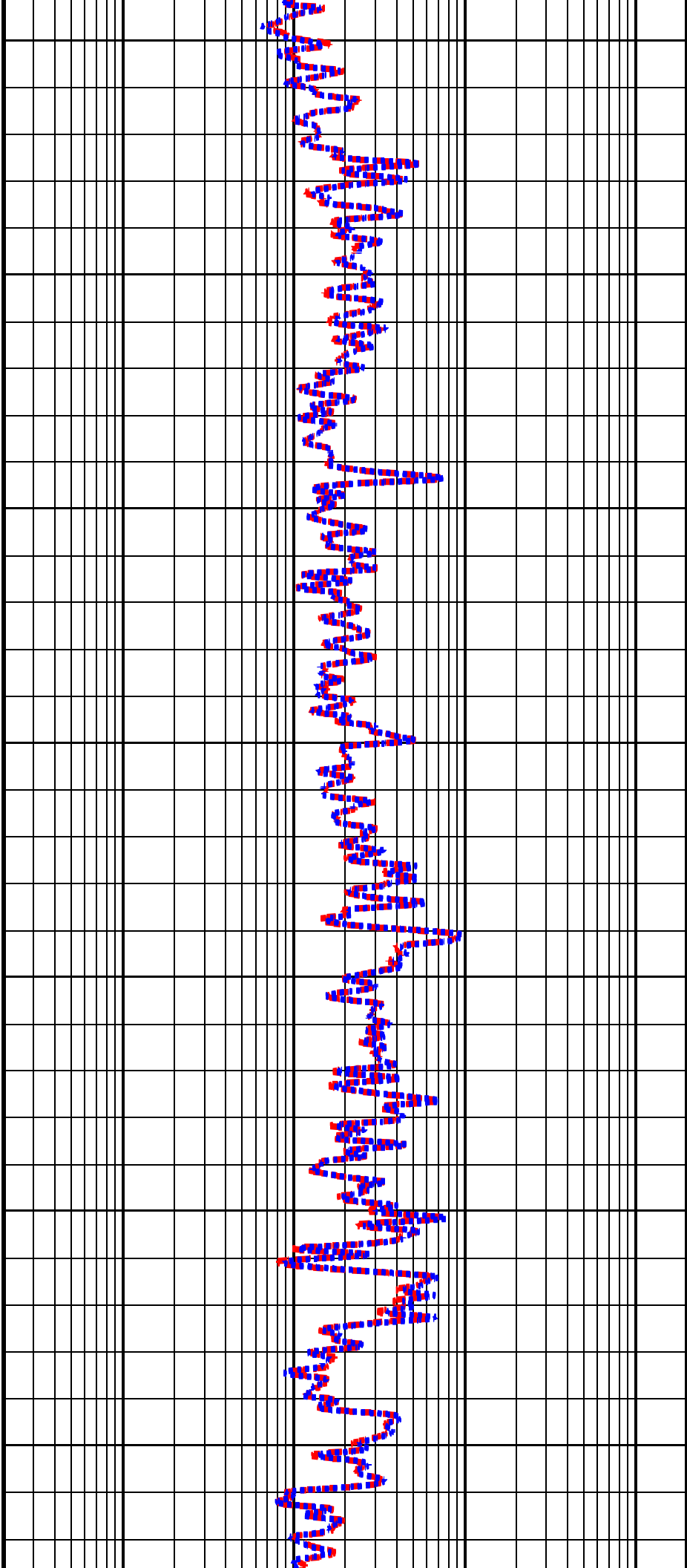


700

750

800

850



<b>SP (SP)</b> (MV)		
-80		20
<b>Bit Size (BS)</b> (MM)		
75		275
<b>Gamma Ray (GR_STGC)</b> (GAPI)		
0		150
<b>Tension (TENS)</b> 20000 (N)		
		0

<--TD-->

<b>Laterolog Deep Resistivity (LLD)</b> (OHMM)		
0.2		2000
<b>Laterolog Shallow Resistivity (LLS)</b> (OHMM)		
0.2		2000

MAIN PASS

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
BS	Bit Size	96.000 MM
DO	Depth Offset	0.0 M
DORL	Depth Offset Repeat Analysis	0.0 M
DPRF	DEEP REFERENCE POWER	550 NW
KFAC	K FACTOR	SOND
LLOO	LATEROLOG LOOP	OFF
PLRM	POWER LOOP REFERENCE MODE	DEEP
PP	Playback Processing	NORMAL
SPNV	SP Next Value	-25 MV
SPRF	SHALLOW REFERENCE POWER	550 NW

Format: DLT\_DST\_1 Vertical Scale: 1:600 Graphics File Created: 03-Aug-2000 07:28

OP System Version: 9C0-413  
MCM

MDLT-A	OP9-KP2	DTA-A	OP9-KP2
STGC-B	OP9-KP2	BSP	OP9-KP2

Input DLIS Files

DEFAULT	MDLT .004	FN:3 PRODUCER	03-Aug-2000 06:17	874.3 M	69.8 M
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Input DLIS Files

DEFAULT	MDLT .004	FN:3 PRODUCER	03-Aug-2000 06:17	874.3 M	69.8 M
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OP System Version: 9C0-413  
MCM

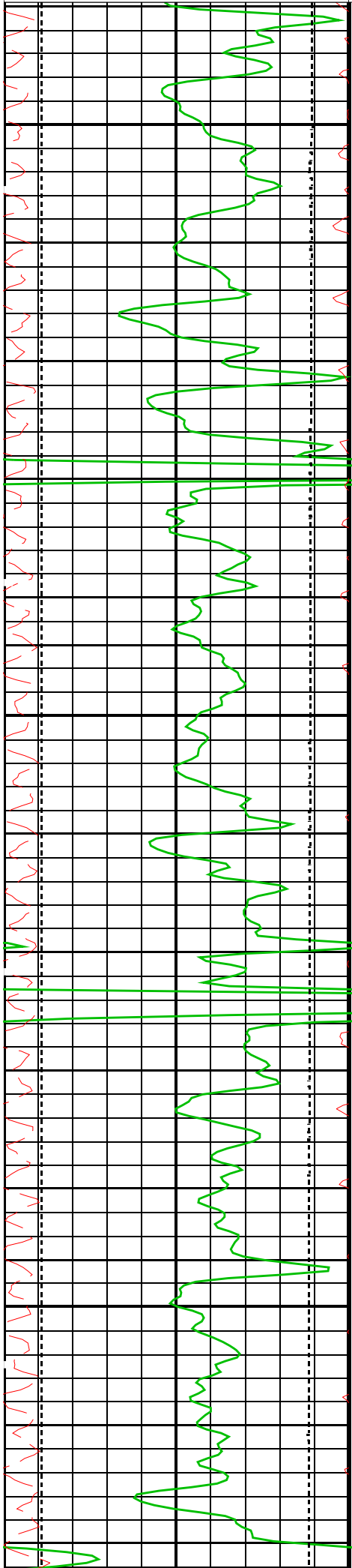
MDLT-A	OP9-KP2	DTA-A	OP9-KP2
STGC-B	OP9-KP2	BSP	OP9-KP2

PIP SUMMARY

Time Mark Every 60 S

<b>Tension (TENS)</b> 20000 (N)		
		0
<b>Gamma Ray (GR_STGC)</b> (GAPI)		
0		150
<b>Bit Size (BS)</b> (MM)		
75		275
<b>SP (SP)</b> (MV)		
-80		20

<b>Laterolog Shallow Resistivity (LLS)</b> (OHMM)		
0.2		2000
<b>Laterolog Deep Resistivity (LLD)</b> (OHMM)		
0.2		2000

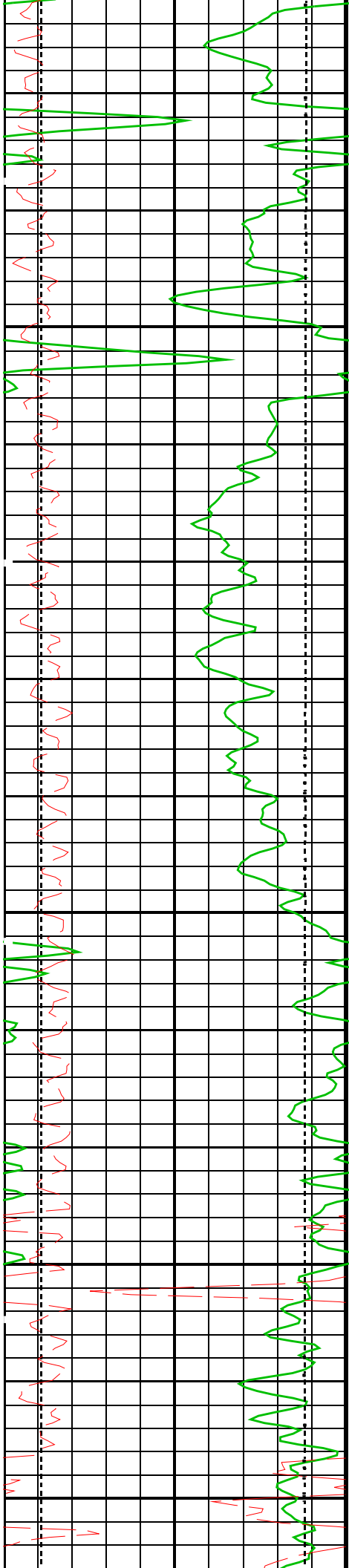


75

100

125

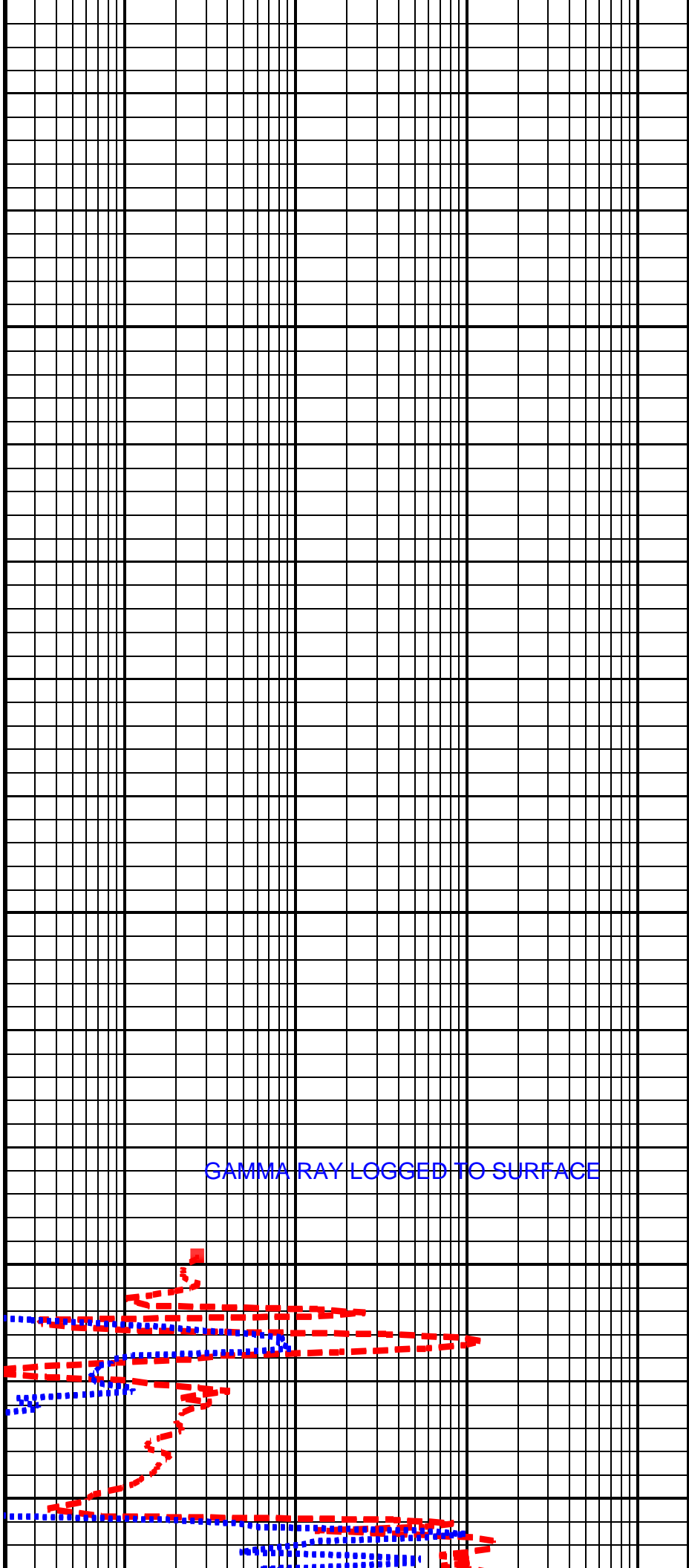
MAIN PASS



150

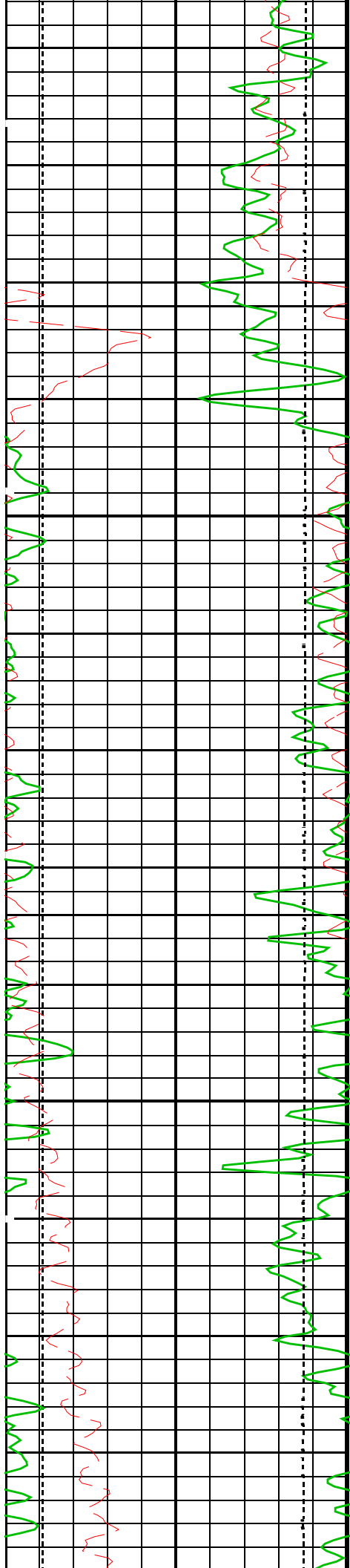
175

200



GAMMA RAY LOGGED TO SURFACE

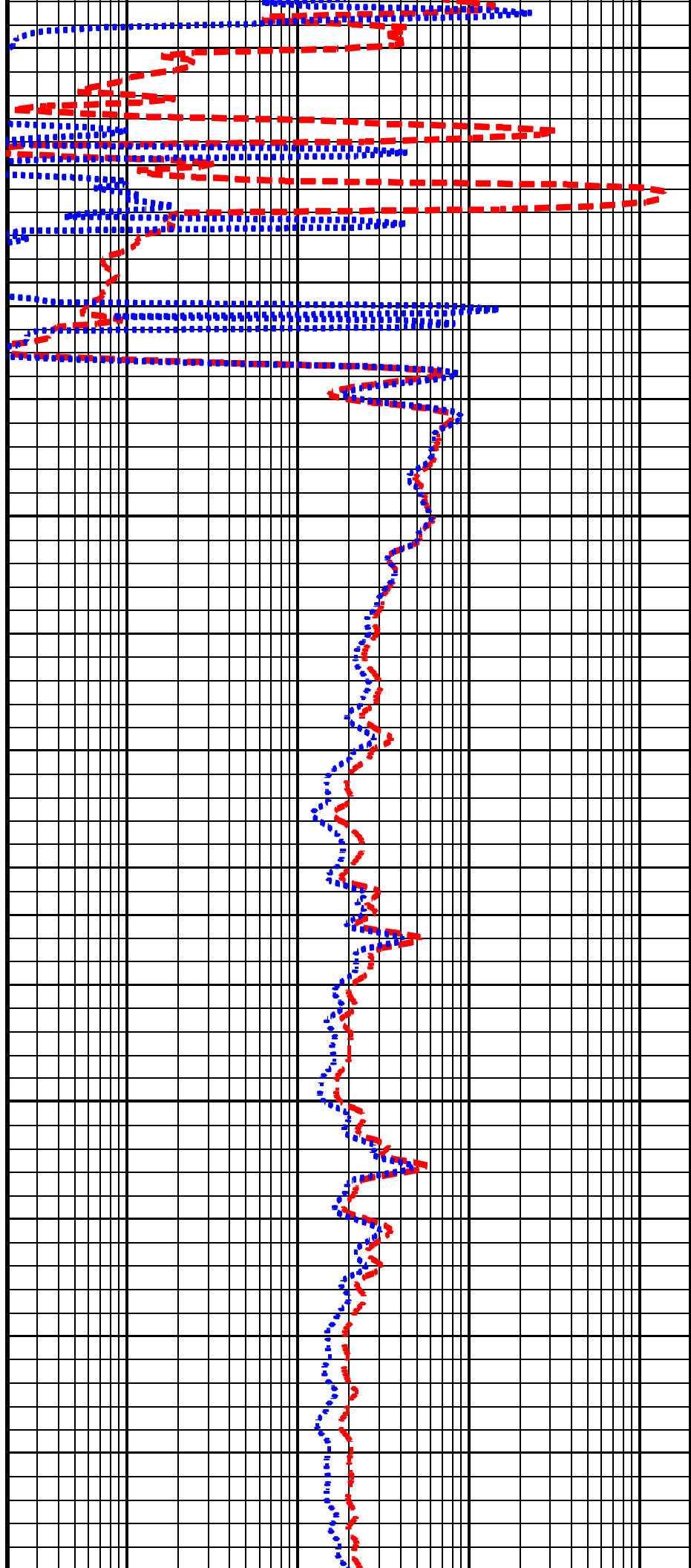


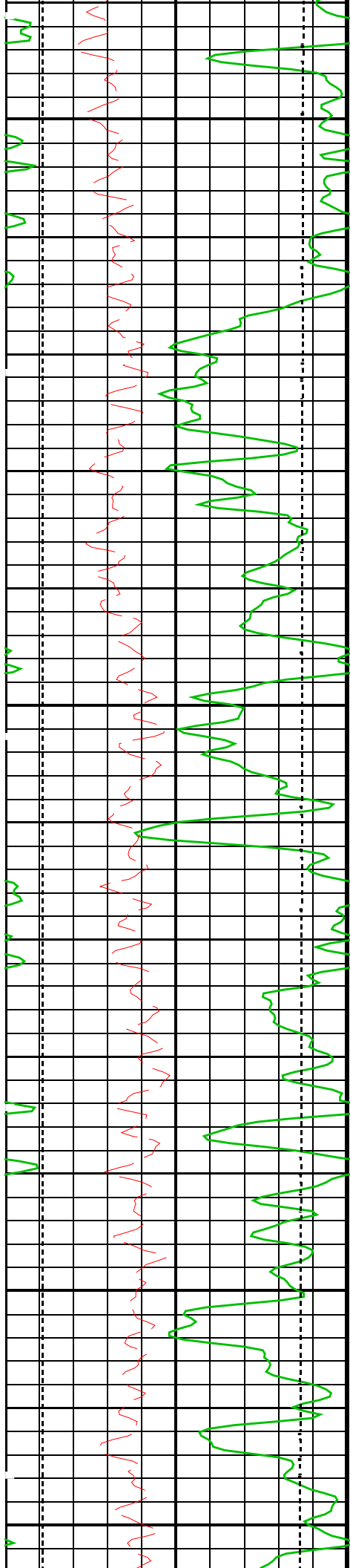


<--CD-->

225

250

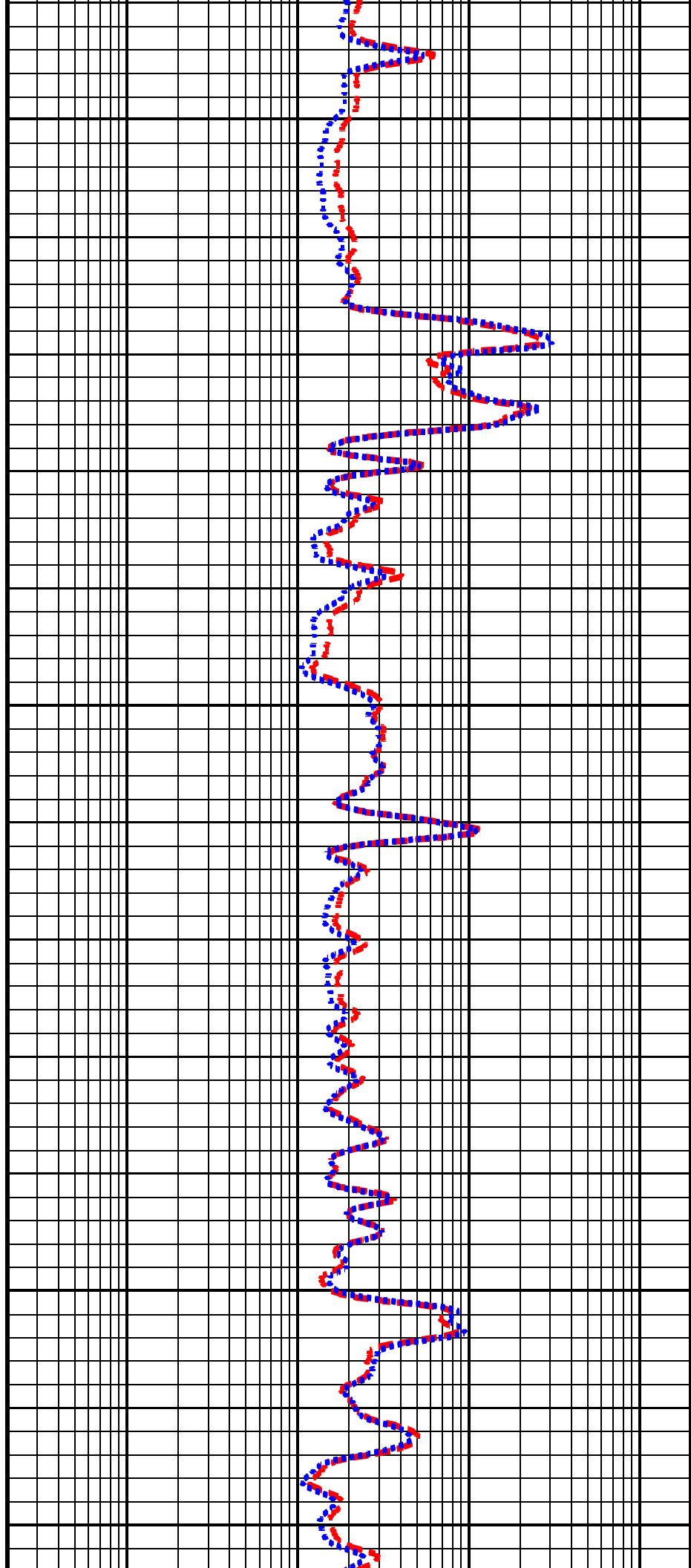


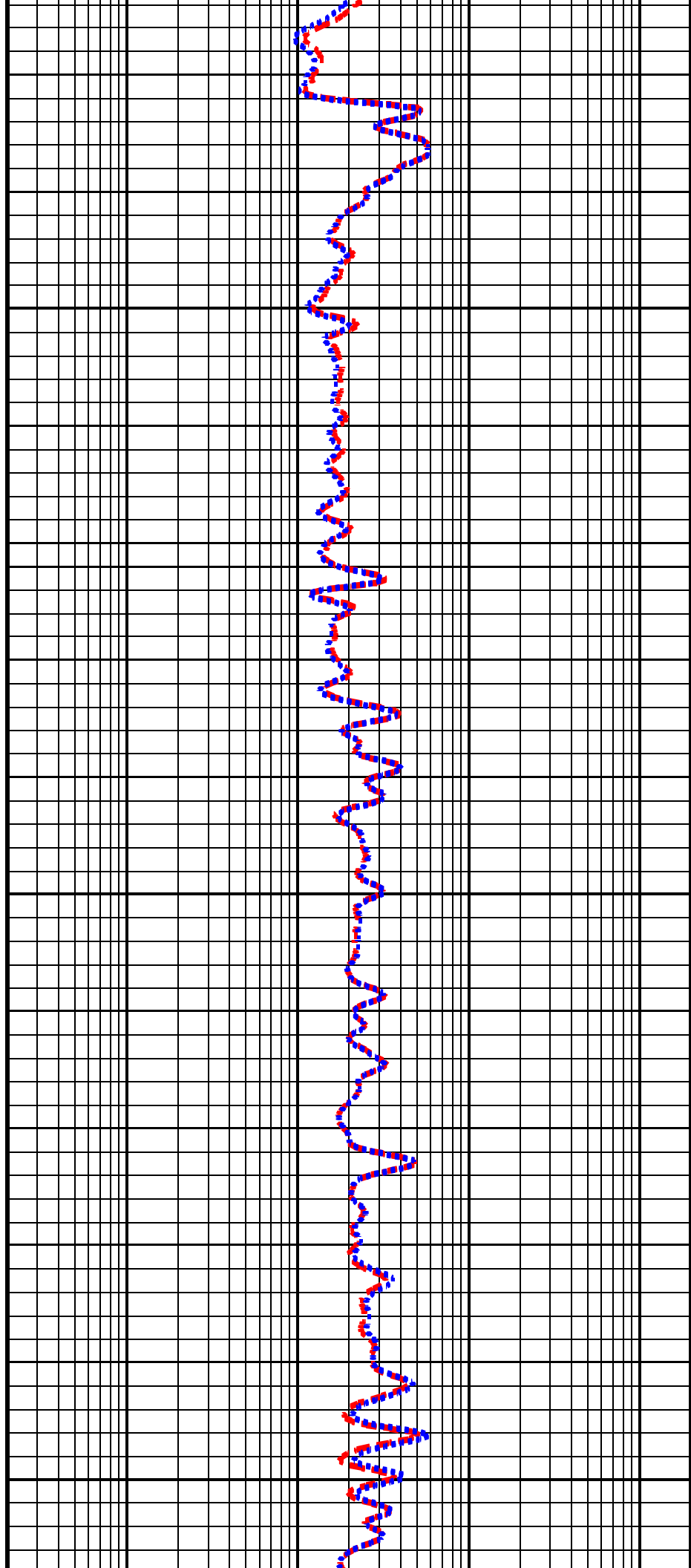
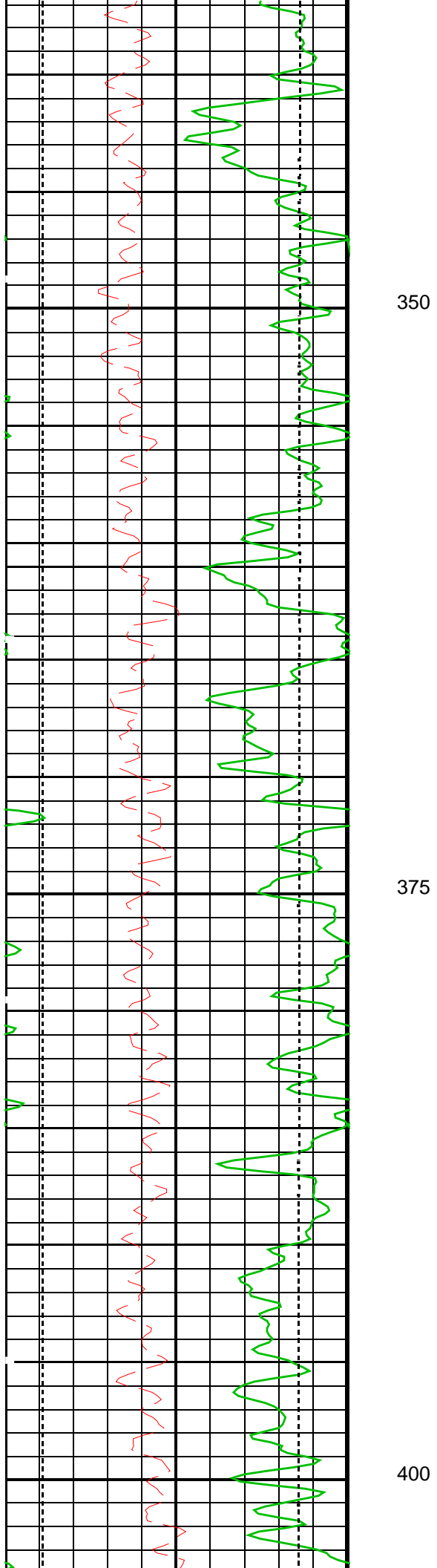


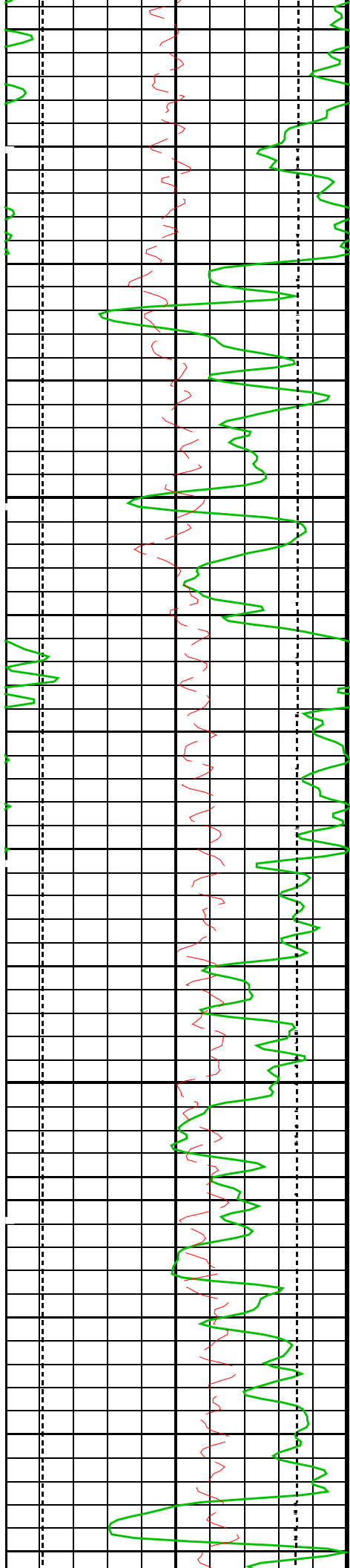
275

300

325

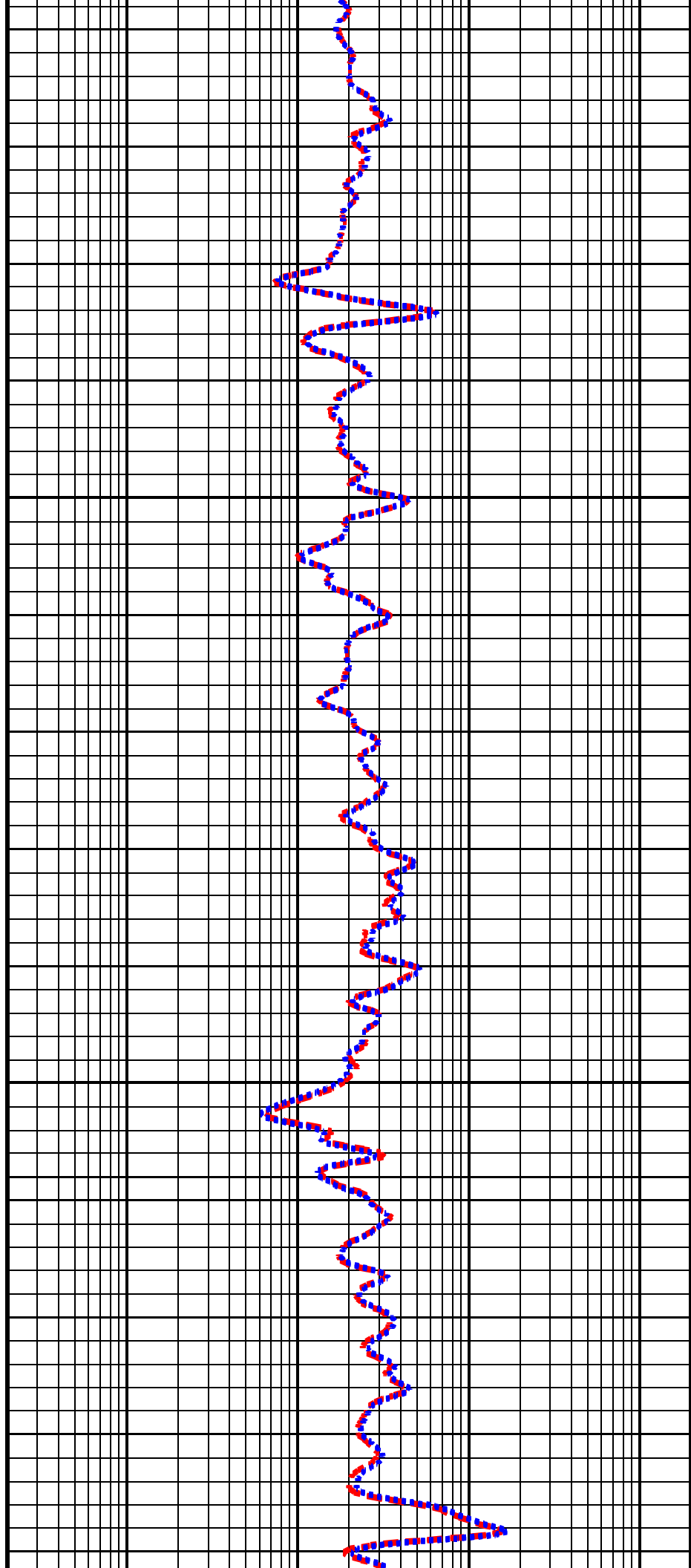


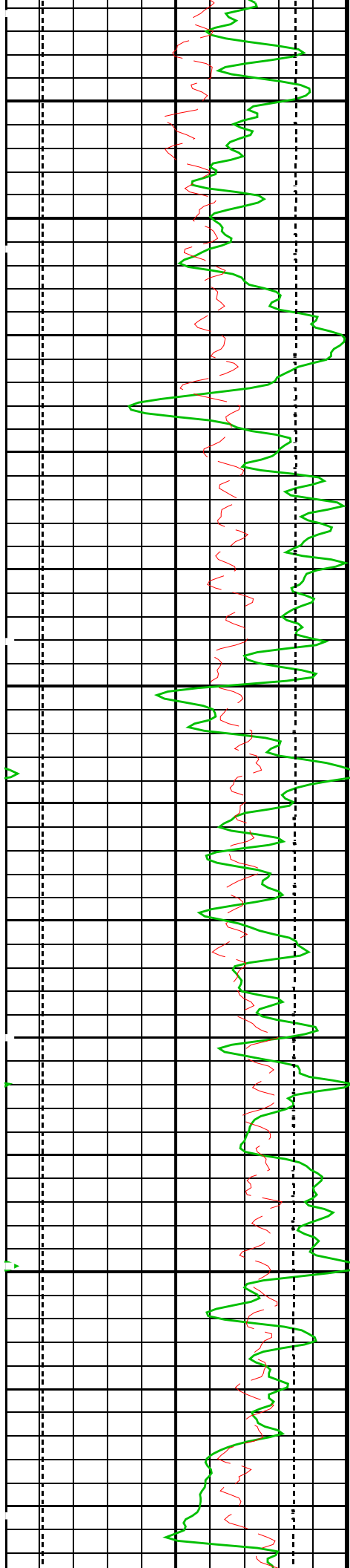




425

450

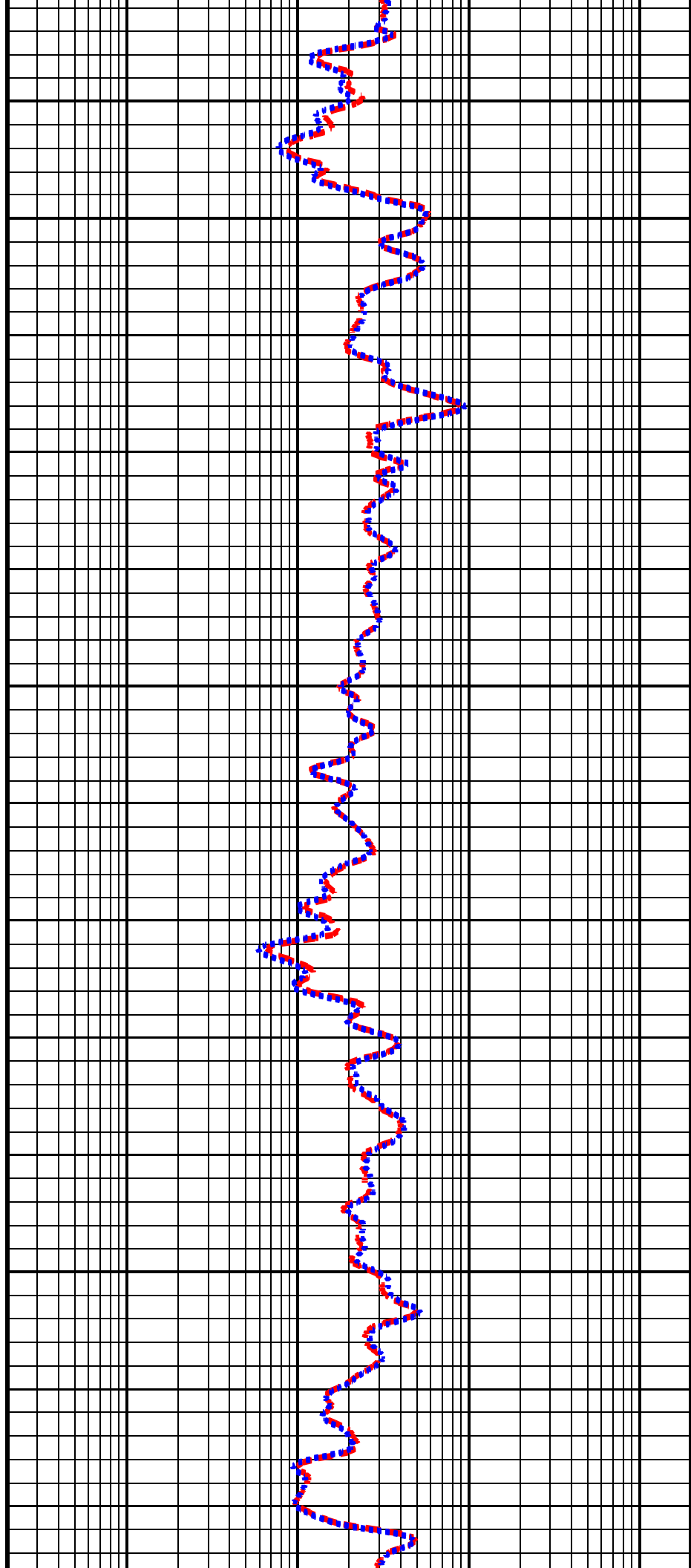


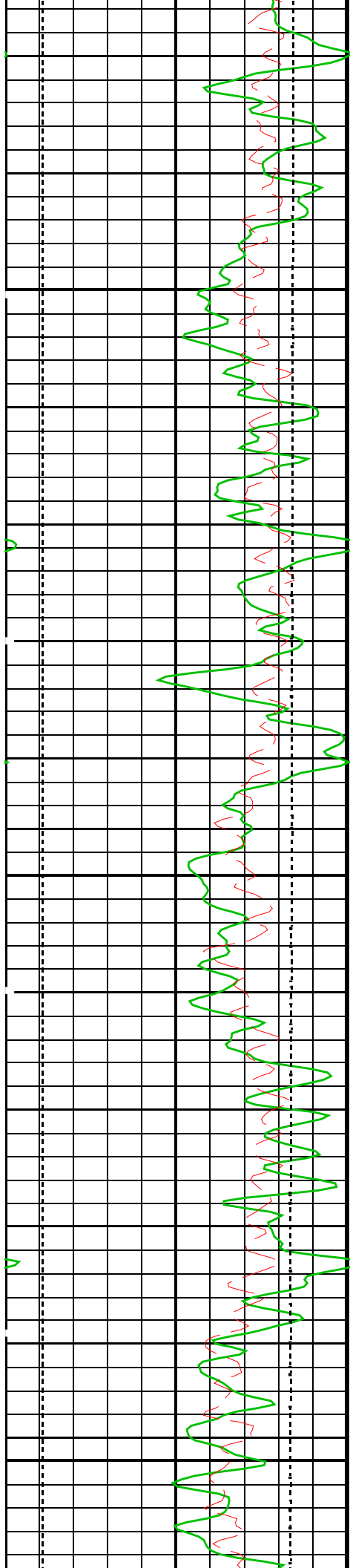


475

500

525

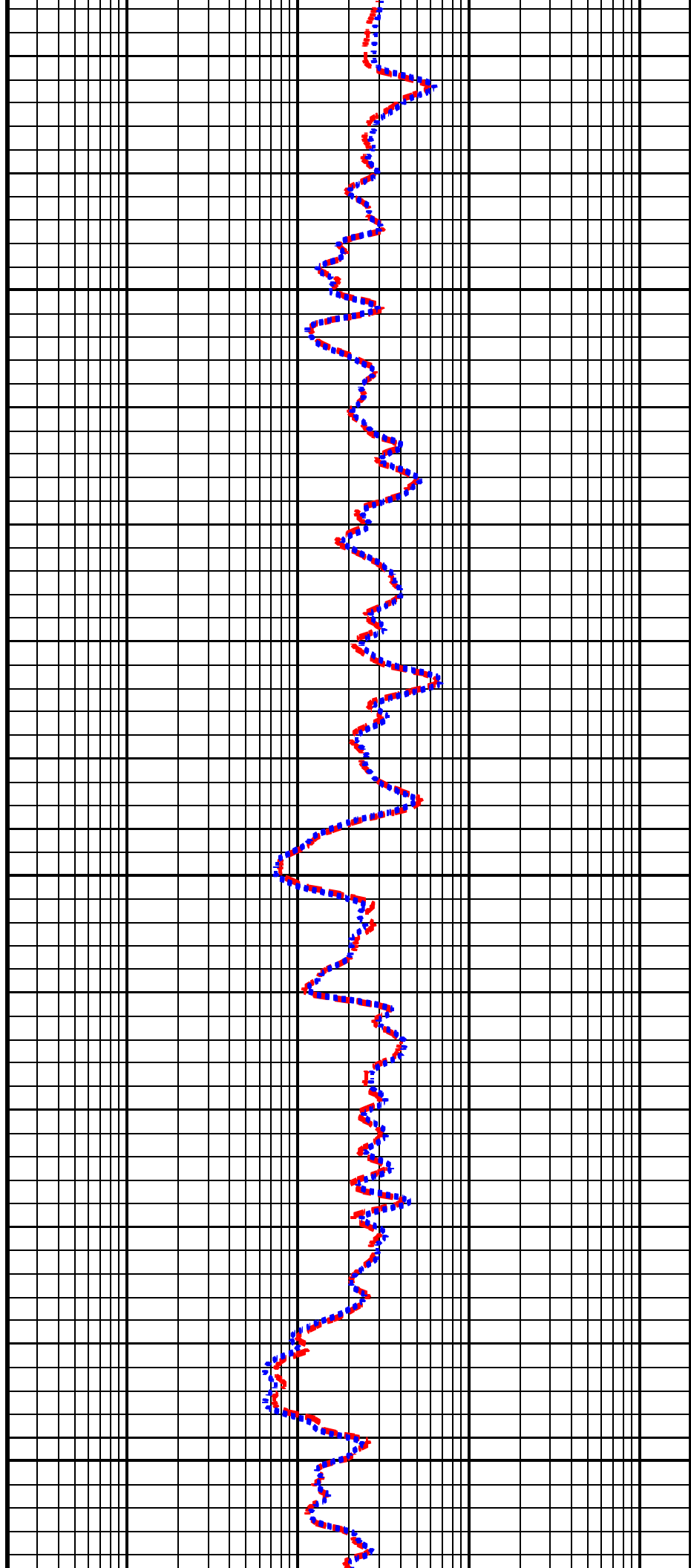


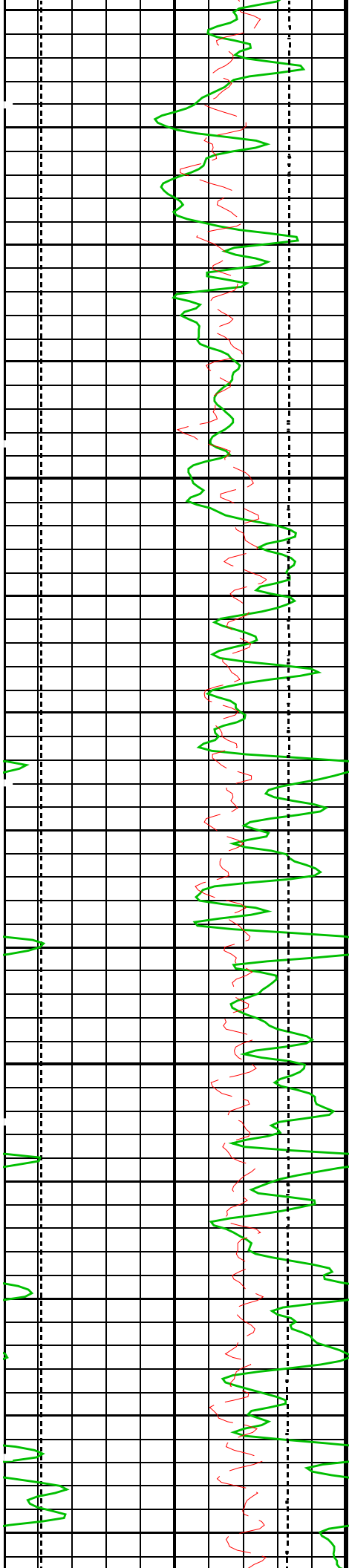


550

575

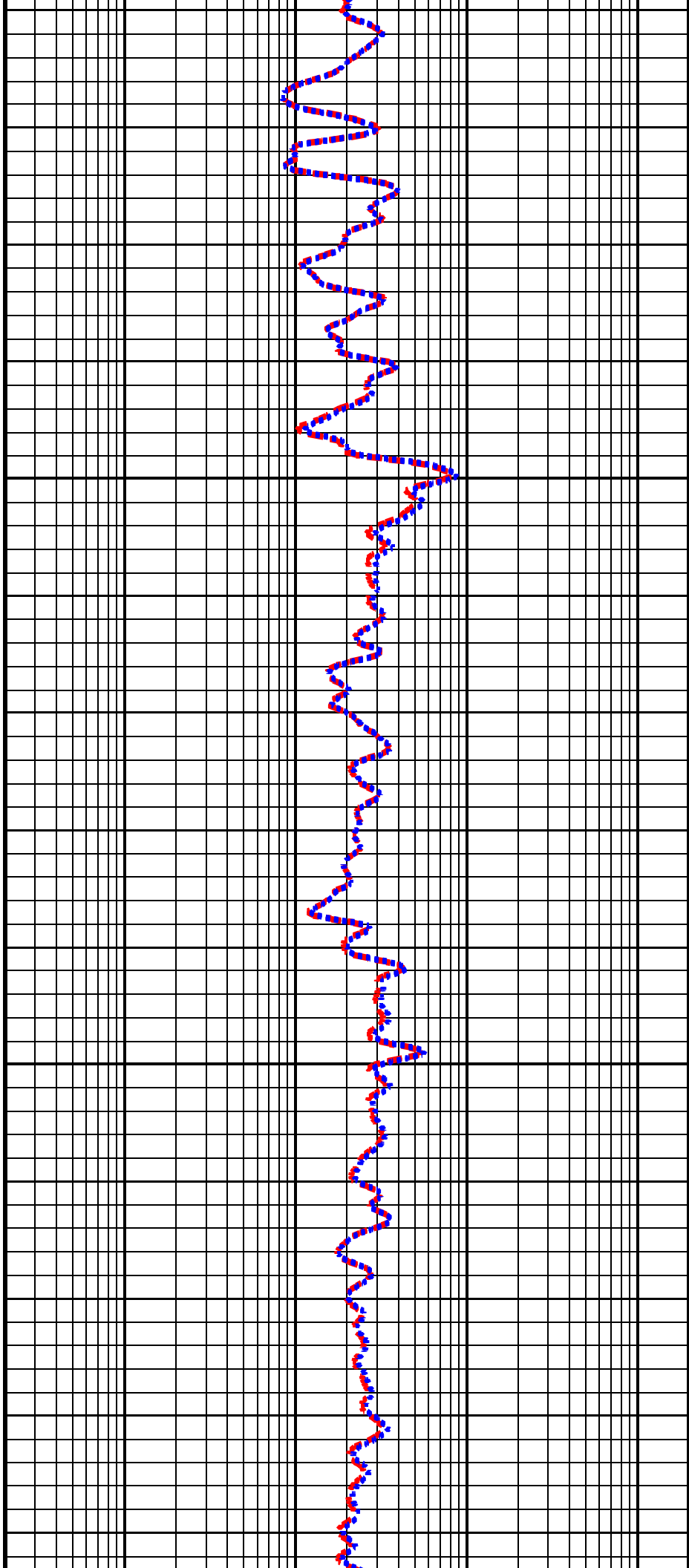
600

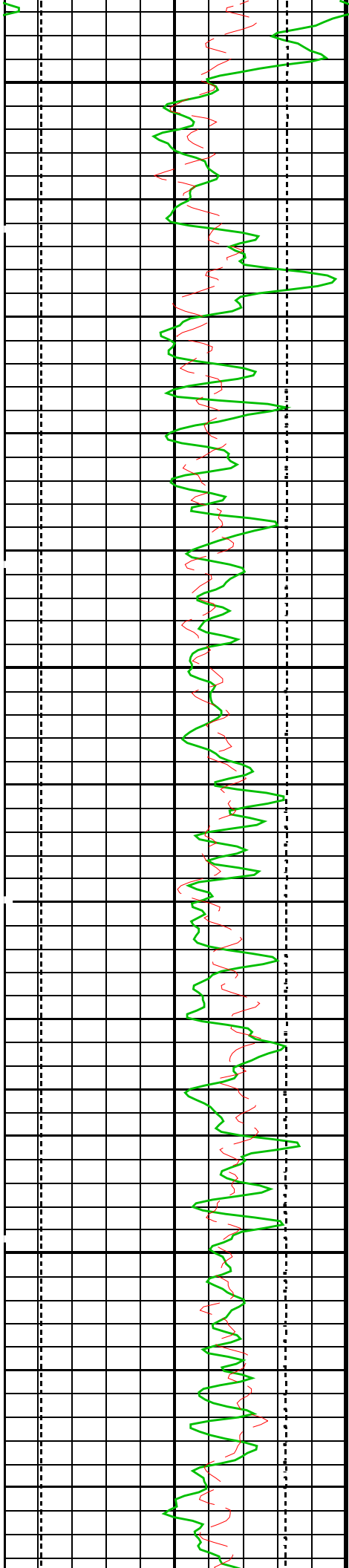




625

650

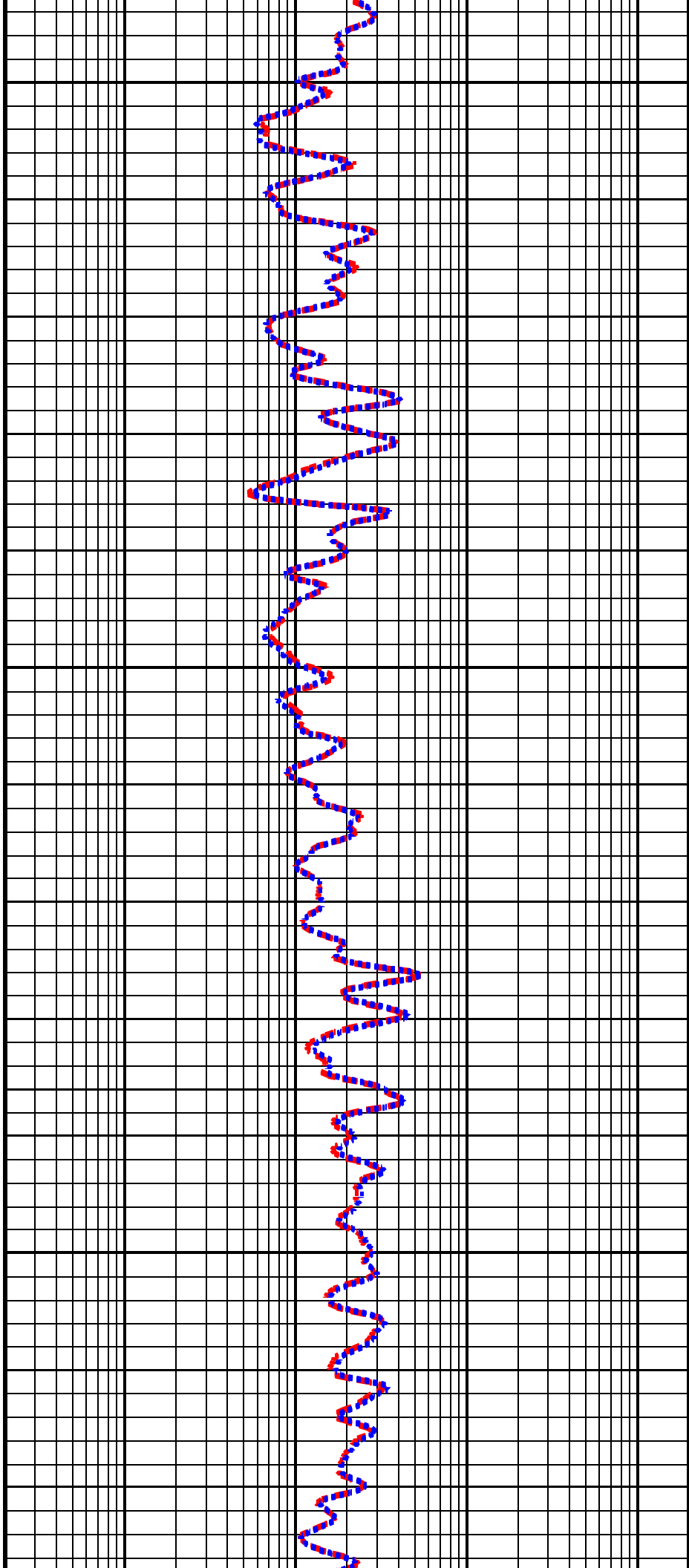




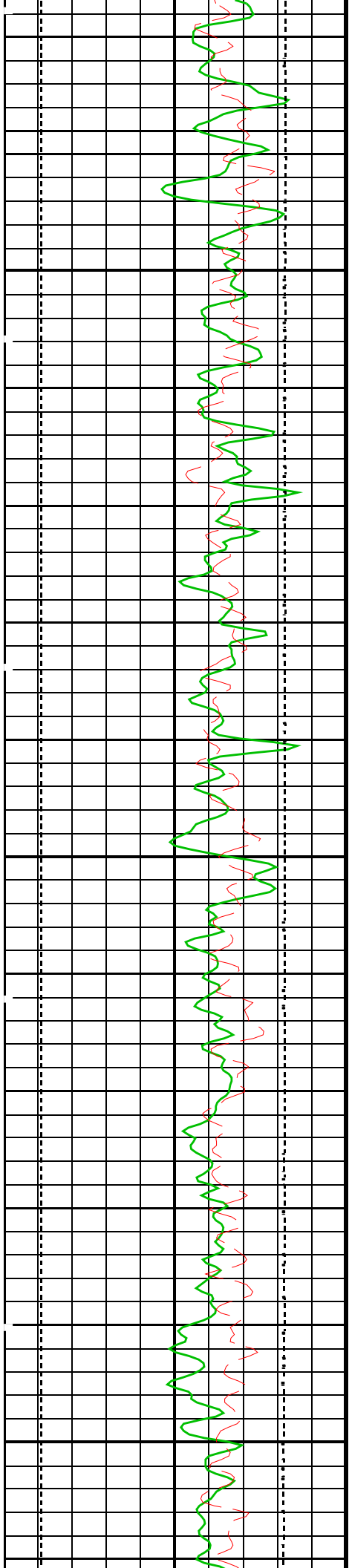
675

700

725



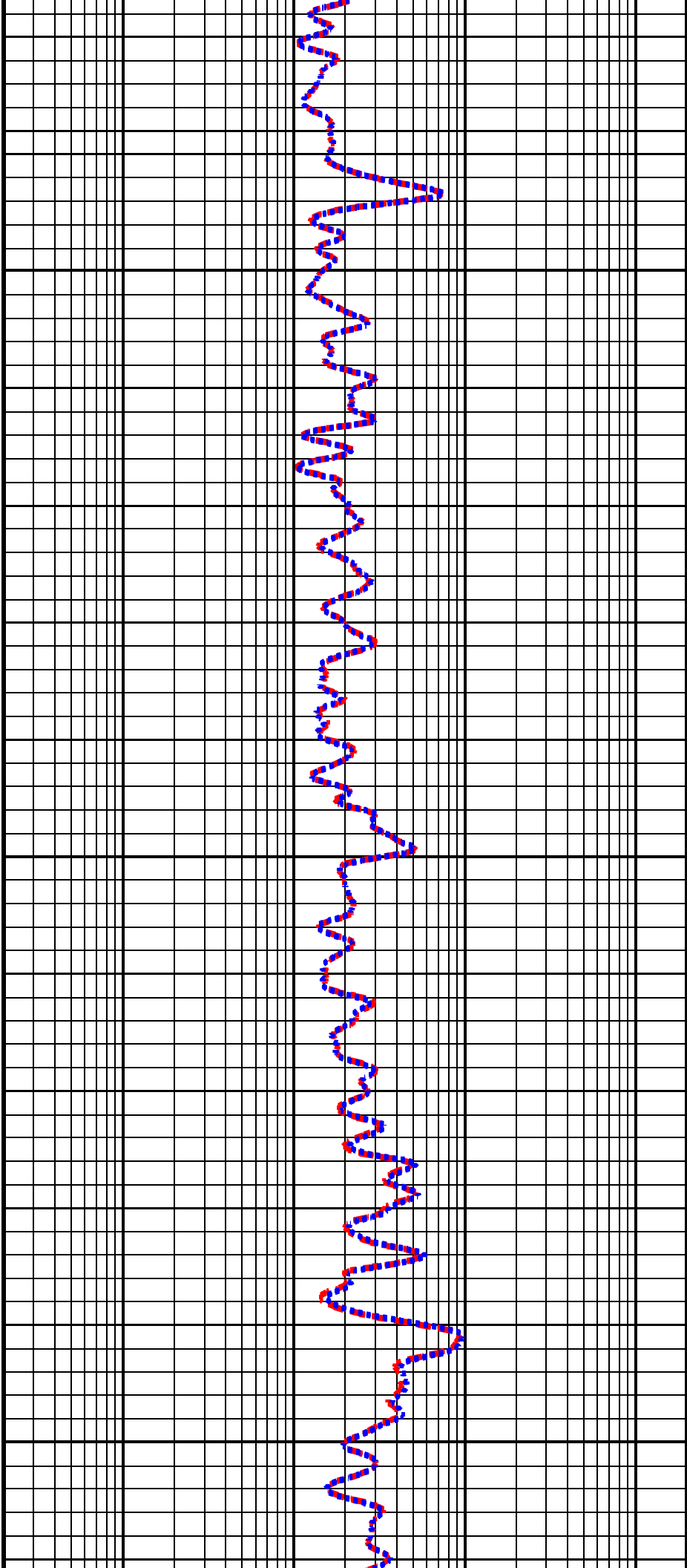


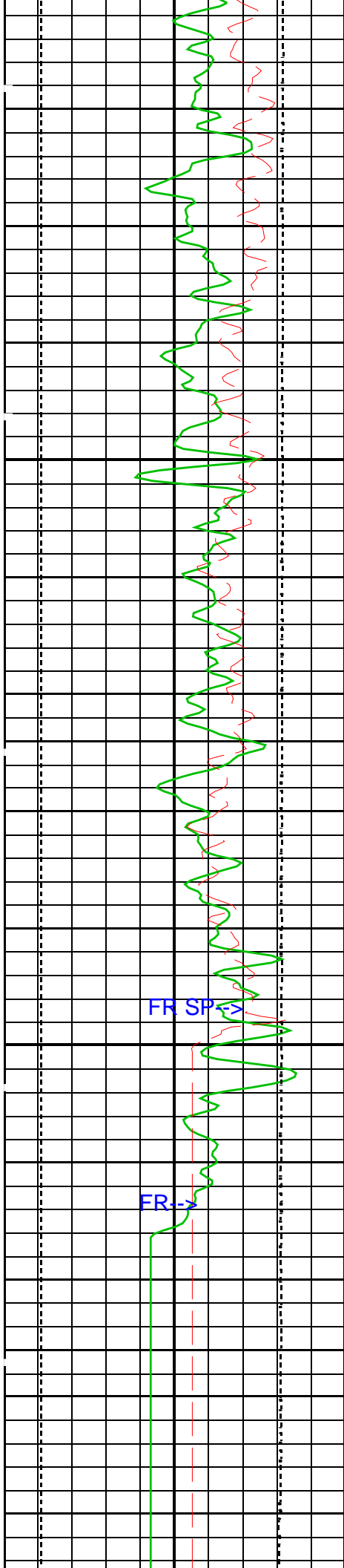


750

775

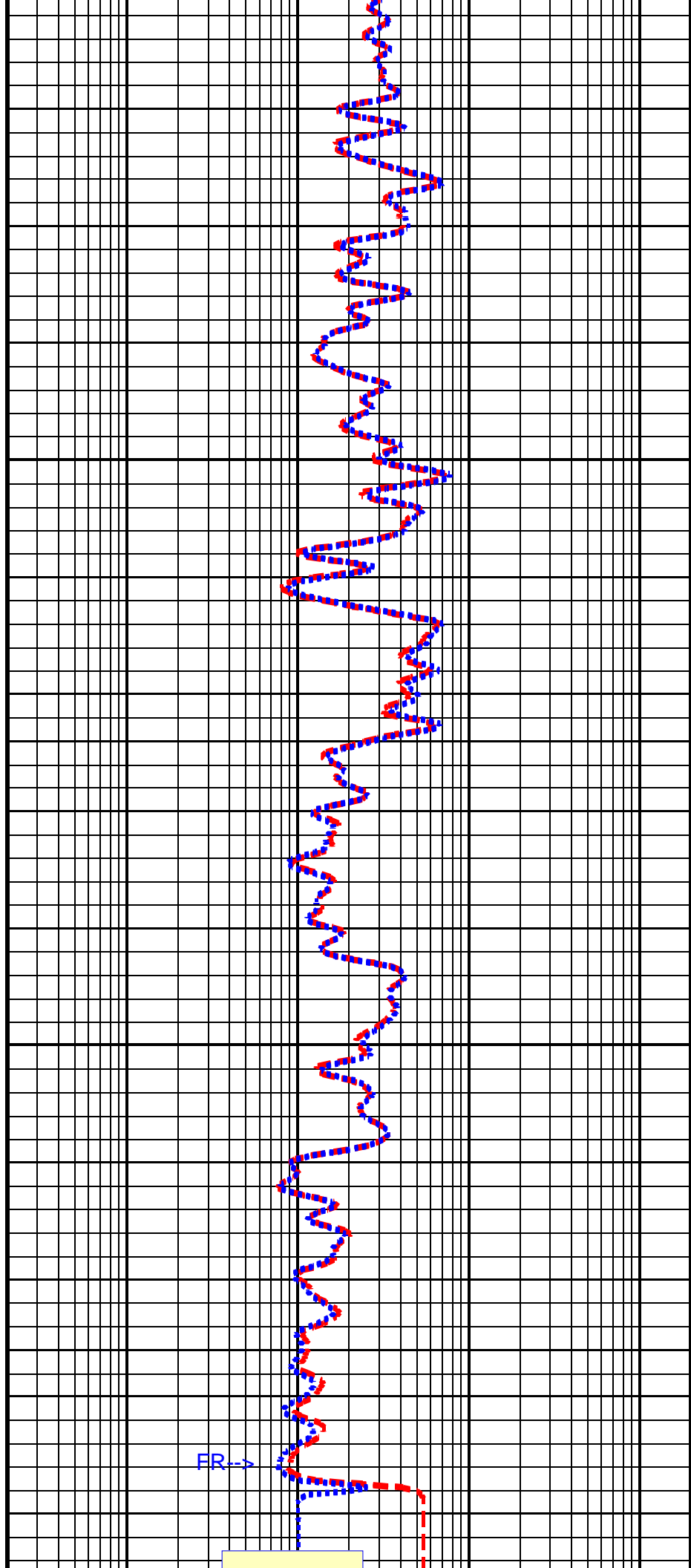
800





825

850



FR →

MAIN PASS

<--TD-->

<b>SP (SP)</b>		
-80	(MV)	20
<b>Bit Size (BS)</b>		
75	(MM)	275
<b>Gamma Ray (GR_STGC)</b>		
0	(GAPI)	150
<b>Tension (TENS)</b>		
20000	(N)	0

<b>Laterolog Deep Resistivity (LLD)</b>		
0.2	(OHMM)	2000
<b>Laterolog Shallow Resistivity (LLS)</b>		
0.2	(OHMM)	2000

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
BS	Bit Size	96.000	MM
DO	Depth Offset	0.0	M
DORL	Depth Offset Repeat Analysis	0.0	M
DPRF	DEEP REFERENCE POWER	550	NW
KFAC	K FACTOR	SOND	
LLOO	LATEROLOG LOOP	OFF	
PLRM	POWER LOOP REFERENCE MODE	DEEP	
PP	Playback Processing	NORMAL	
SPNV	SP Next Value	-25	MV
SPRF	SHALLOW REFERENCE POWER	550	NW

Format: DLT\_DST

Vertical Scale: 1:240

Graphics File Created: 03-Aug-2000 07:28

OP System Version: 9C0-413  
MCM

MDLT-A	OP9-KP2	DTA-A	OP9-KP2
STGC-B	OP9-KP2	BSP	OP9-KP2

Input DLIS Files

DEFAULT	MDLT .004	FN:3 PRODUCER	03-Aug-2000 06:17	874.3 M	69.8 M
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Input DLIS Files

DEFAULT	MDLT .003	FN:2 PRODUCER	03-Aug-2000 06:05	874.8 M	784.9 M
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OP System Version: 9C0-413  
MCM

MDLT-A	OP9-KP2	DTA-A	OP9-KP2
STGC-B	OP9-KP2	BSP	OP9-KP2

PIP SUMMARY

Time Mark Every 60 S

<b>TENS_REP Curve (TENS_REP)</b>		
20000	(N)	0
<b>SP_REP Curve (SP_REP)</b>		
-80	(MV)	20
<b>GR_STGC_REP Curve (GR_STGC_REP)</b>		
0	(GAPI)	150
<b>BS_REP Curve (BS_REP)</b>		
75	(MM)	275

<b>LLS_REP Curve (LLS_REP)</b>		
0.2	(OHMM)	2000
<b>LLD_REP Curve (LLD_REP)</b>		
0.2	(OHMM)	2000

Measurement	Nominal	Master	Before	After	Change	Limit	Units
<b>MEDIUM DUAL LATEROLOG - A Wellsite Calibration - DLT ELECTRONICS CALIBRATION Laterolog Measurement</b>							
Before: Calibration not done							
MEASURED LLD	31.62	N/A	0	N/A	N/A	0.9000	OHMM
MEASURED LLS	31.62	N/A	0	N/A	N/A	0.9000	OHMM
<b>SLIM Telemetry Gamma-ray Cartridge - B Wellsite Calibration - Detector Calibration</b>							
Before: 1-AUG-2000 14:44							
Gamma Ray (Jig - Bkg)	149.1	N/A	149.1	N/A	N/A	13.55	GAPI
Gamma Ray (Calibrated)	155.1	N/A	155.1	N/A	N/A	15.00	GAPI

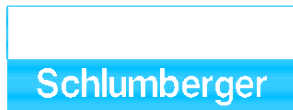
MEDIUM DUAL LATEROLOG - A / Equipment Identification	
Primary Equipment:	
Auxiliary Equipment:	
Medium Dual Laterolog Electrode	MDLE -
Medium Dual Laterolog Sonde	MDLS - A
Medium Dual Laterolog Housing B	MDLH - B
Medium Dual Laterolog Cartridge	MDLC - A
Adapter Head 189	AH - 189
Medium Dual Laterolog Housing A	MDLH - A
Medium Dual Laterolog Digital Interface	MDLI - A
Laterolog Control Module	LCM - AA

SLIM Telemetry Gamma-ray Cartridge - B / Equipment Identification	
Primary Equipment:	
STGC Gamma-ray & Accelerometer Cartridge	STGC - B
STGC Telemetry Cartridge	STGC - A
Auxiliary Equipment:	
SLIM Electronics Cartridge Housing	STGH - B 8007

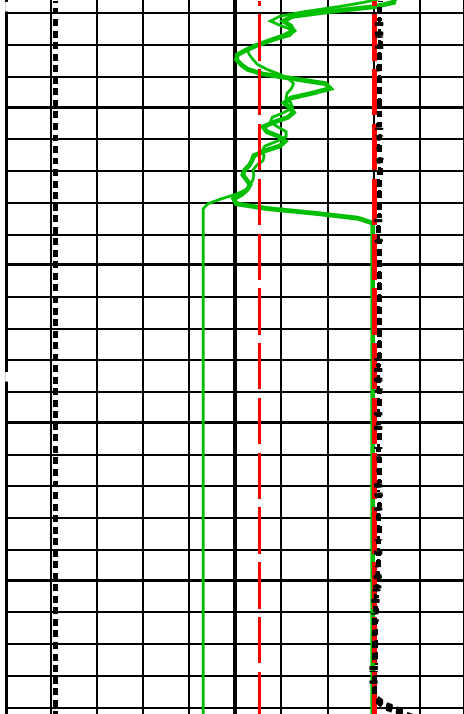
SLIM Telemetry Gamma-ray Cartridge - B Wellsite Calibration											
Detector Calibration											
Phase	Gamma Ray Background	GAPI	Value	Phase	Gamma Ray (Jig - Bkg)	GAPI	Value	Phase	Gamma Ray (Calibrated)	GAPI	Value
Before			47.68	Before			149.1	Before			155.1
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)		135.5 (Minimum)	149.1 (Nominal)	162.6 (Maximum)		140.1 (Minimum)	155.1 (Nominal)	170.1 (Maximum)

Before: 1-AUG-2000 14:44

<b>COMPANY:</b>	<b>DEER LAKE OIL &amp; GAS INC.</b>	BOTTOM LOG INTERVAL	868 m
		SCHLUMBERGER DEPTH	873.5 m
<b>WELL:</b>	<b>DEER LAKE OIL &amp; GAS ET AL WESTERN ADVENTURE NO. 1</b>	DEPTH DRILLER	872 m
<b>FIELD:</b>	<b>EXPLORATORY</b>	KELLY BUSHING	92.5 m
<b>PROVINCE:</b>	<b>NEWFOUNDLAND</b>	DRILL FLOOR	92.5 m
		GROUND LEVEL	90 m



**DUAL LATEROLOG**

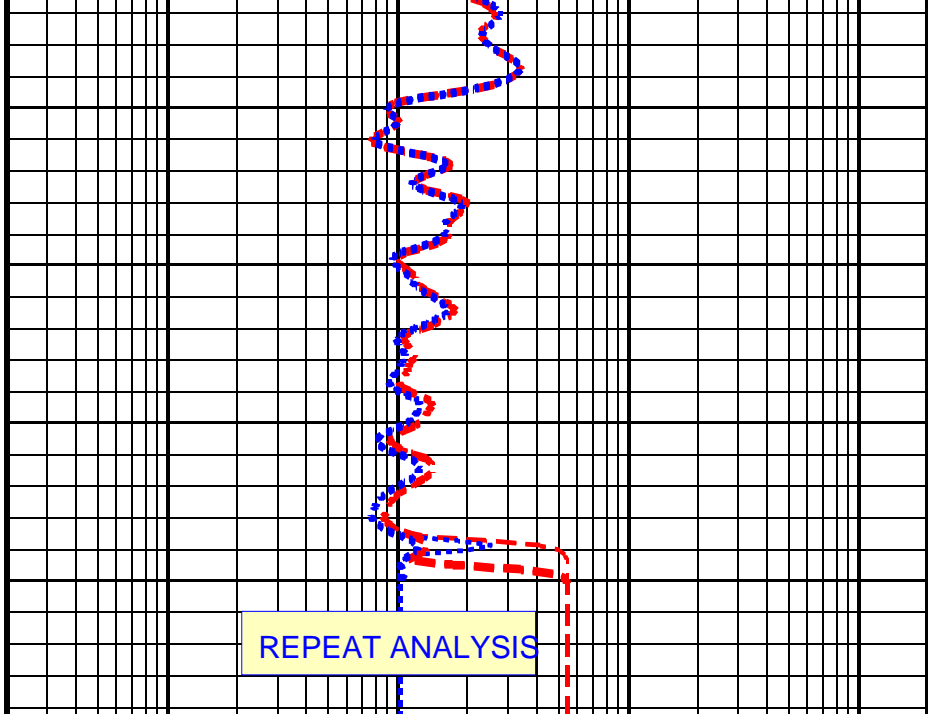


BS\_REP Curve (BS\_REP)  
75 (MM) 275

GR\_STGC\_REP Curve (GR\_STGC\_REP)  
0 (GAPI) 150

SP\_REP Curve (SP\_REP)  
-80 (MV) 20

TENS\_REP Curve (TENS\_REP)  
20000 (N) 0



LLD\_REP Curve (LLD\_REP)  
0.2 (OHMM) 2000

LLS\_REP Curve (LLS\_REP)  
0.2 (OHMM) 2000

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
BS	Bit Size	96.000 MM
DO	Depth Offset	0.0 M
DORL	Depth Offset Repeat Analysis	0.0 M
DPRF	DEEP REFERENCE POWER	550 NW
KFAC	K FACTOR	SOND
LLOO	LATEROLOG LOOP	OFF
PLRM	POWER LOOP REFERENCE MODE	DEEP
PP	Playback Processing	NORMAL
SPNV	SP Next Value	-25 MV
SPRF	SHALLOW REFERENCE POWER	550 NW

Format: DLT\_DST\_REP

Vertical Scale: 1:240

Graphics File Created: 03-Aug-2000 07:28

OP System Version: 9C0-413  
MCM

MDLT-A OP9-KP2 DTA-A OP9-KP2  
STGC-B OP9-KP2 BSP OP9-KP2

Input DLIS Files

DEFAULT MDLT .003 FN:2 PRODUCER 03-Aug-2000 06:05 874.8 M 784.9 M

MDLT-A  
STGC-B

OP9-KP2  
OP9-KP2

DTA-A  
BSP

OP9-KP2  
OP9-KP2

PIP SUMMARY

Time Mark Every 60 S

Tension (TENS)  
20000 (N) 0

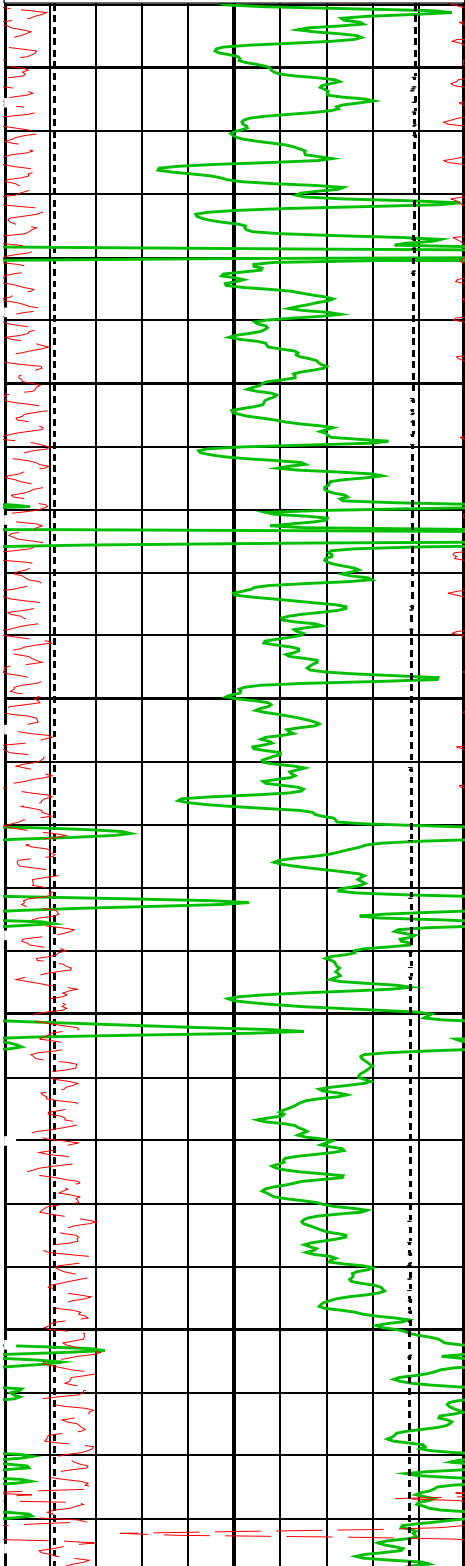
Gamma Ray (GR\_STGC)  
0 (GAPI) 150

Bit Size (BS)  
75 (MM) 275

SP (SP)  
-80 (MV) 20

Laterolog Shallow Resistivity (LLS)  
0.2 (OHMM) 2000

Laterolog Deep Resistivity (LLD)  
0.2 (OHMM) 2000

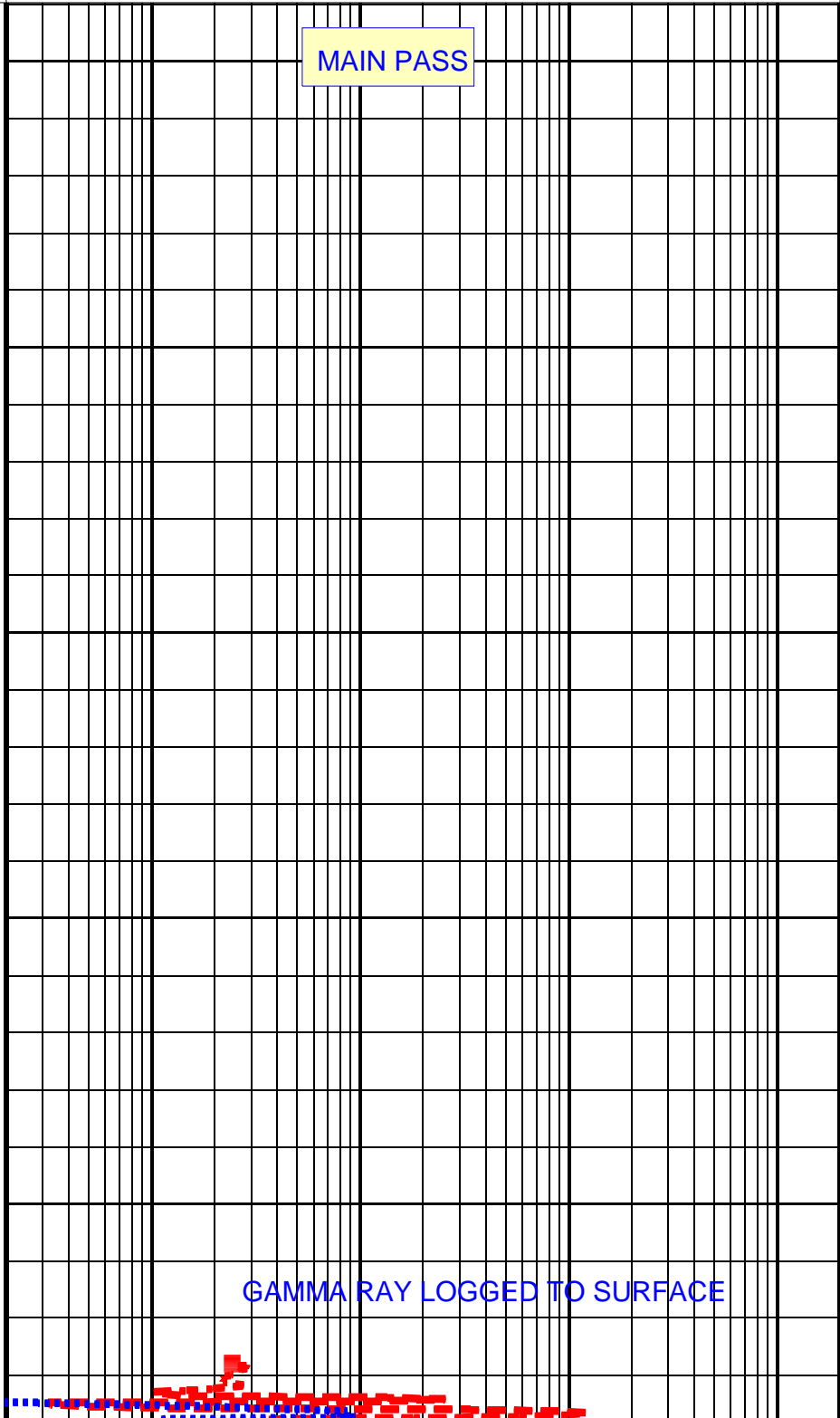


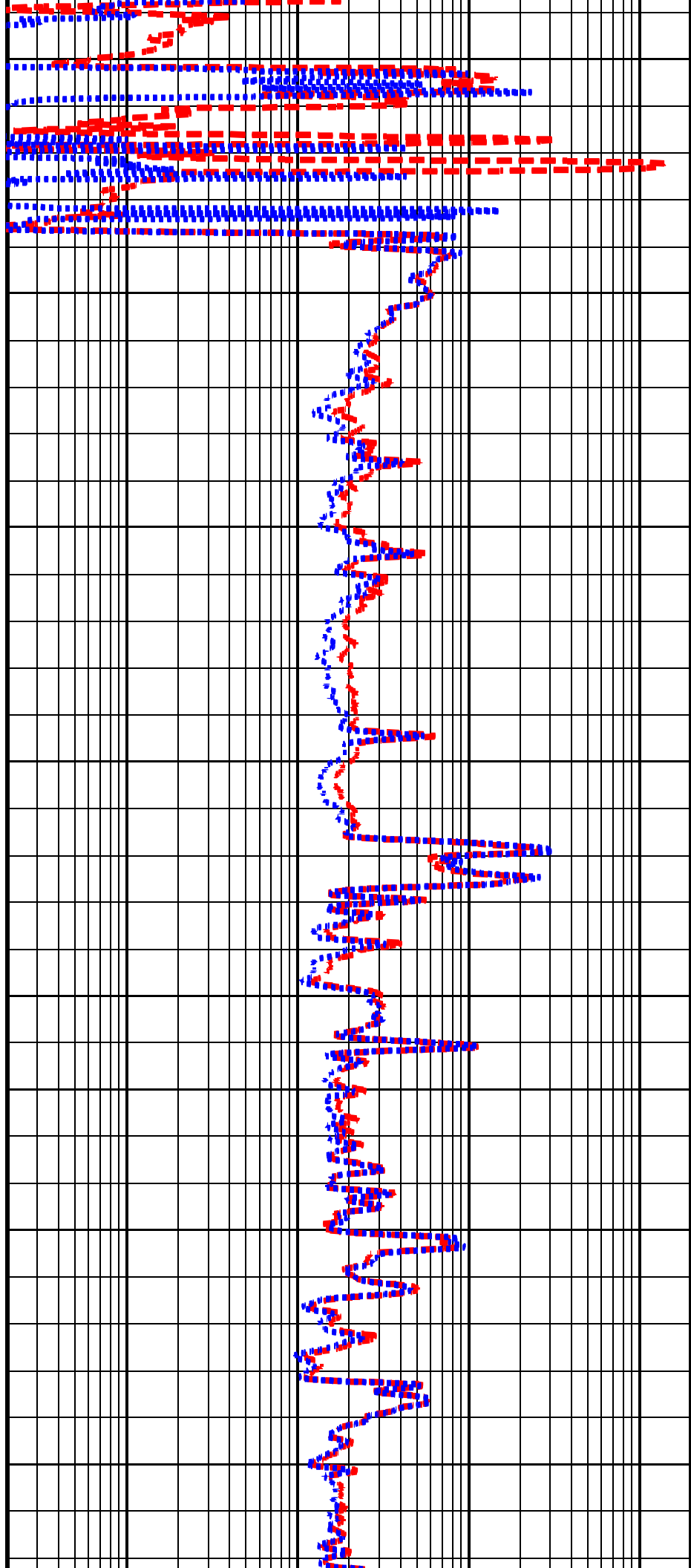
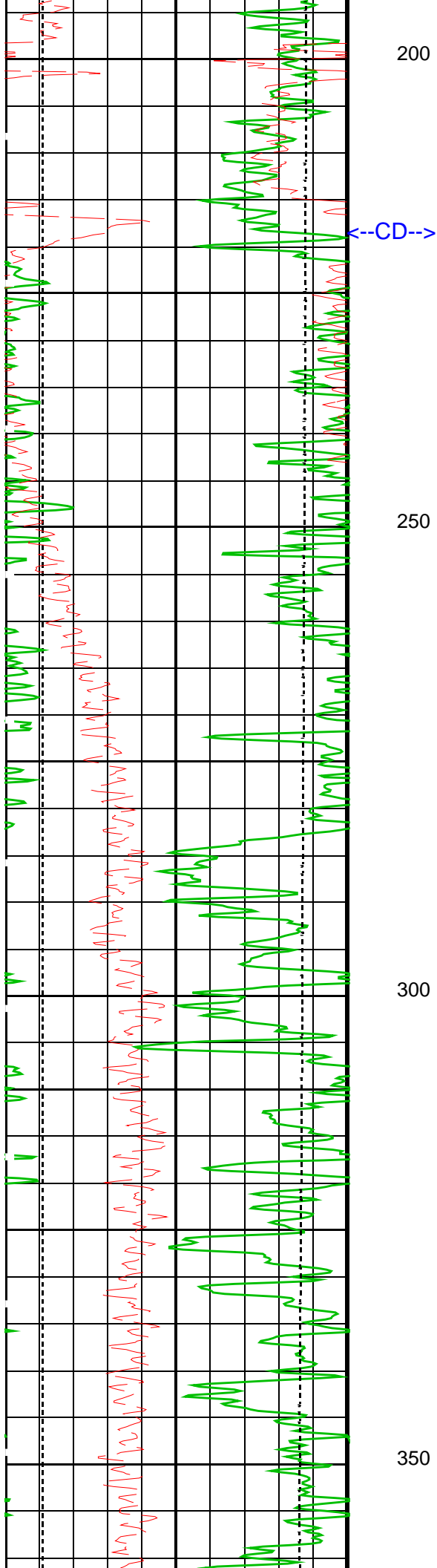
100

150

MAIN PASS

GAMMA RAY LOGGED TO SURFACE






**COMPANY: DEER LAKE OIL & GAS INC**  
**WELL: DEER LAKE OIL & GAS ET**  
**WESTERN ADVENTURE N**  
**FIELD: EXPLORATORY**

**PROVINCE: NEWFOUNDLAND**

PROVINCENEWFOUNDLAND  
 Field: EXPLORATORY  
 Location: NORTHING: 5,456,519  
 Well: DEER LAKE OIL & GAS ET AL  
 Company: DEER LAKE OIL & GAS INC.

		LOCATION	
		NORTHING: 5,456,519 EASTING: 482,797	GROUND LEVEL DRILL FLOOR DRILL FLOOR
Permanent Datum: _____ Log Measured From: _____ Drilling Measured From: _____		API Serial No. 2000-120-01-01	NOB 5.4

Logging Date	17-JAN-2001	
Run Number	TWO	
Depth Driller	1584 m	
Schlumberger Depth	1575 m	
Bottom Log Interval	1572 m	
Top Log Interval	873 m	
Casing Driller Size @ Depth	89,000 mm @ 872 m	
Casing Schlumberger	873 m	
Bit Size	75.770 mm	
Type Fluid In Hole	POLYMER - KCL	
Density	Viscosity	34 s
Fluid Loss	PH	
MUD		
Source Of Sample	MEASURED	
RM @ Measured Temperature	0.162 ohm.m	@ 5 degC
RMF @ Measured Temperature		@
RMC @ Measured Temperature		@
Source RMF	RMC	
RM @ MRT	RMF @ MRT	
Maximum Recorded Temperatures	44 degC	@ 44
Circulation Stopped	Time	10:00
Logger On Bottom	Time	18:40
Unit Number	Location	
Recorded By	KELLI SASCO	
Witnessed By	STAN PODULSKY	





1ST DESCENT: GAGE RUN (GR, TELEMETRY)  
 2ND DESCENT: LITHO DENSITY, GR  
 3RD DESCENT: BHC SONIC  
 4TH DESCENT: DUAL LATEROLOG  
 ALL TOOLS RUN SLICK  
 RIG: LONGYEAR SUPER 50  
 CREW 19: MIKE DIGGDON, STEVE BEATON

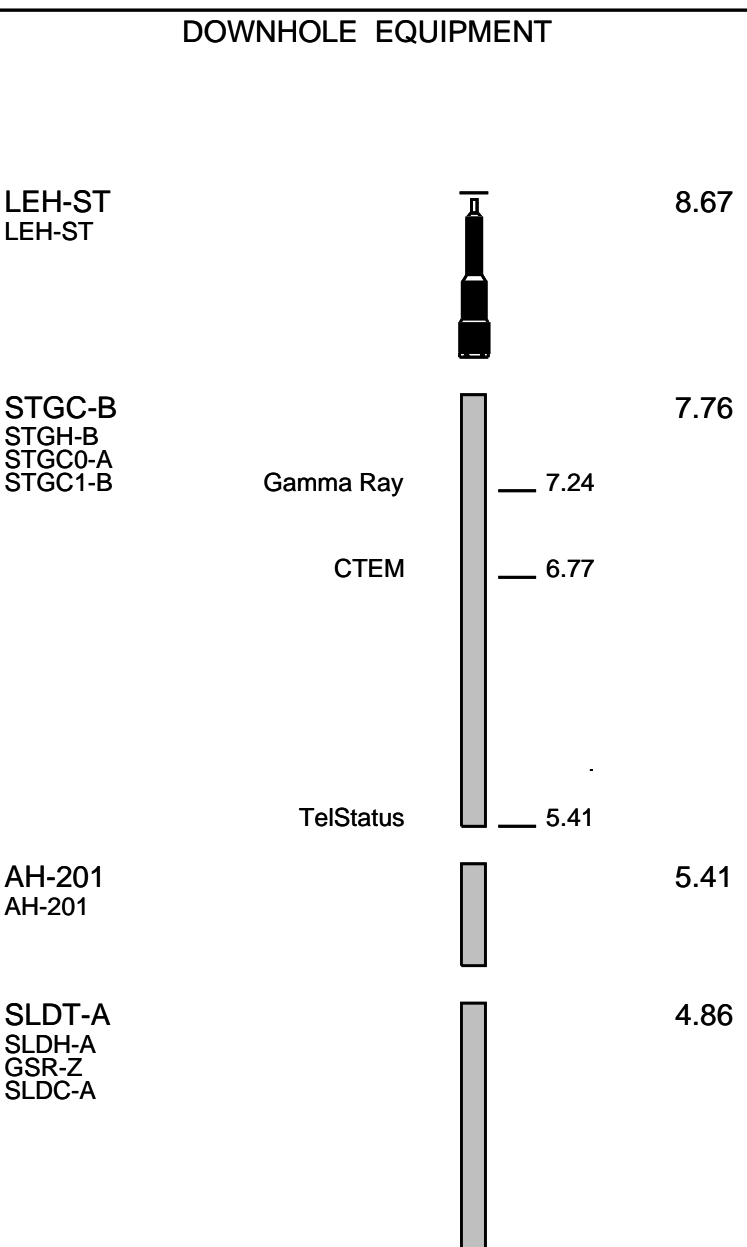
RUN 1		
LOGGED INTERVAL	START	STOP

RUN 2		
LOGGED INTERVAL	START	STOP

**EQUIPMENT DESCRIPTION**

RUN 1 RUN 2

**SURFACE EQUIPMENT**  
 WITM (DTS)-A



LS\_PEF 2.74  
MS\_PEF 2.60  
LS 2.55  
MS 2.48  
SS Tool 2.42

SPCS-B  
SPCS-B

CALL 1.65 2.09

BNS-CCS HV DF Tension ACCZ 0.00 0.14  
TOOL ZERO

MAXIMUM STRING DIAMETER 64 MM  
MEASUREMENTS RELATIVE TO TOOL ZERO  
ALL LENGTHS IN METERS

### Input DLIS Files

DEFAULT    SPCS .005    FN:4 PRODUCER    17-Jan-2001 18:49    1577.9 M    800.4 M

### Output DLIS Files

DEFAULT    SPCS .018    FN:17 PRODUCER    18-Jan-2001 23:03    1576.9 M    799.3 M

### OP System Version: 9C0-413

MCM

SPCS-B  
STGC-B

unofficial  
unofficial

SLDT-A

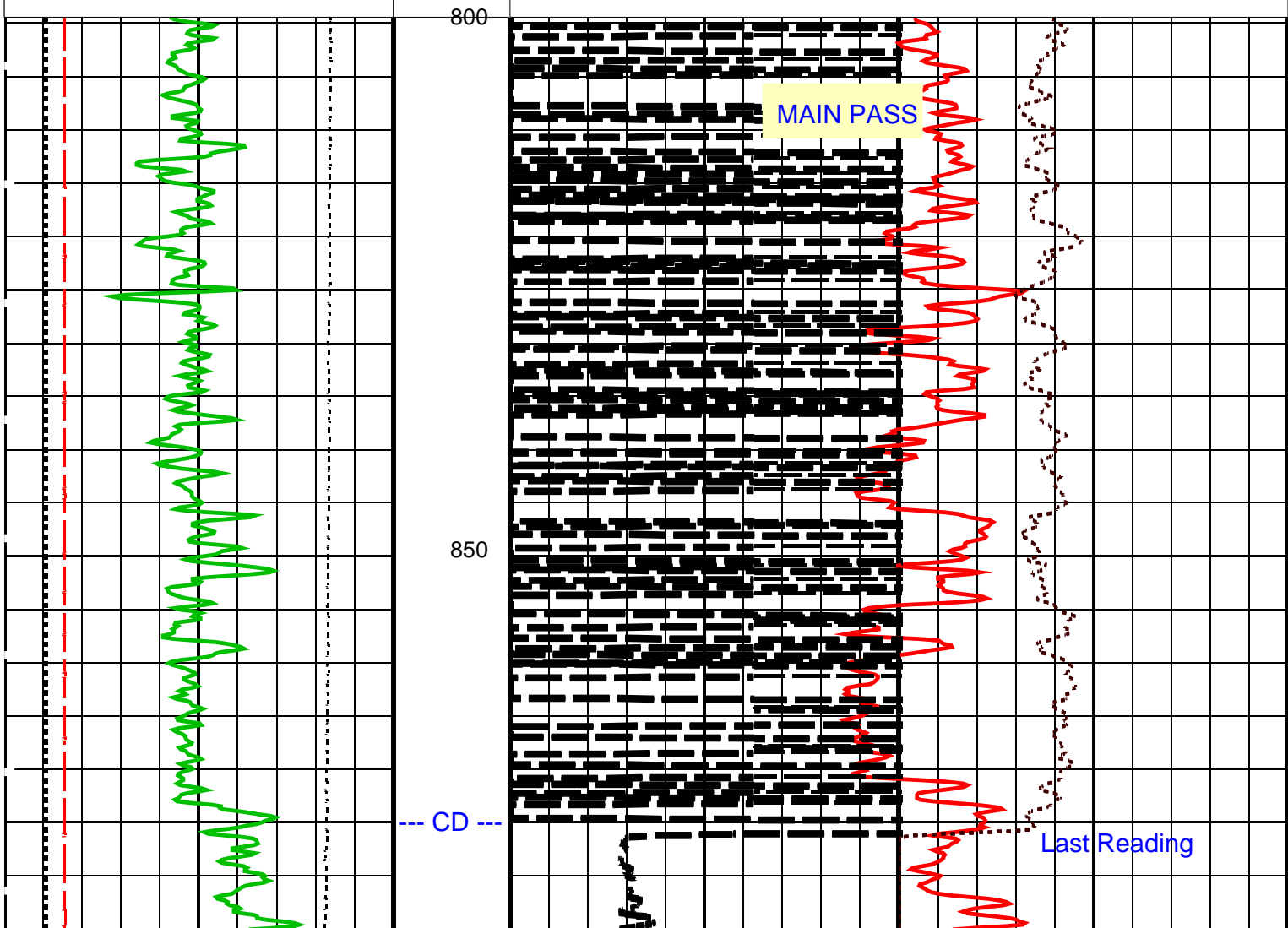
unofficial

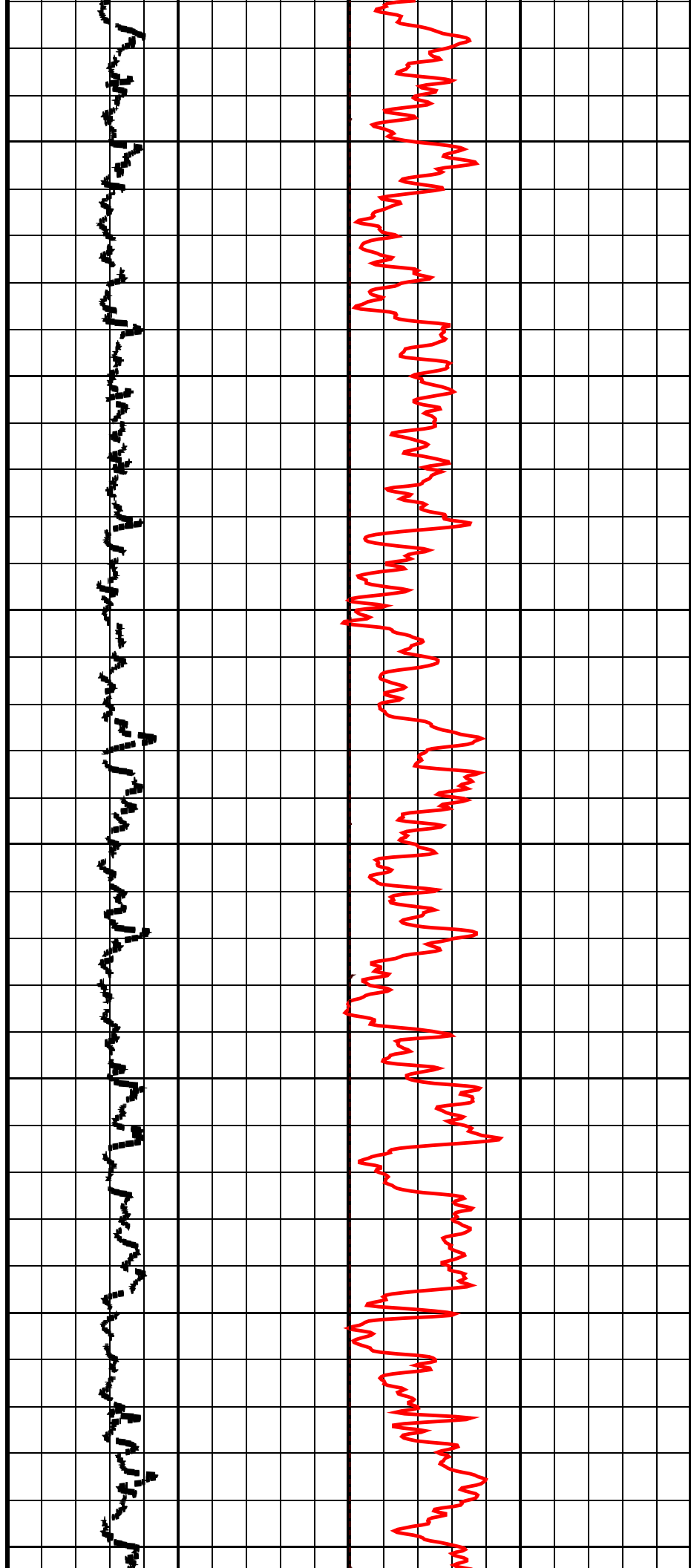
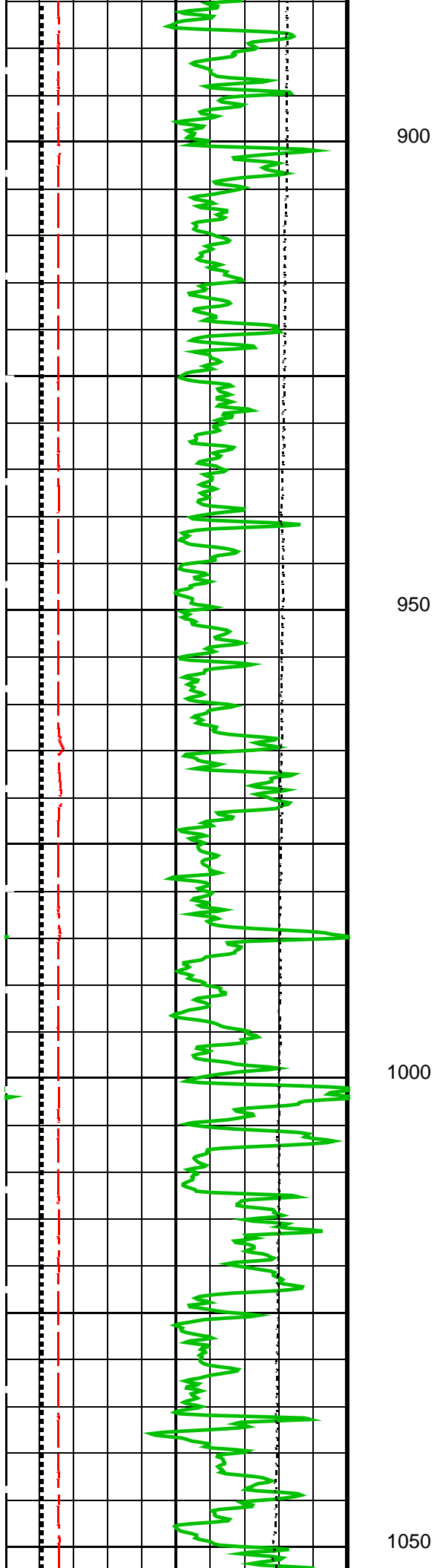
#### PIP SUMMARY

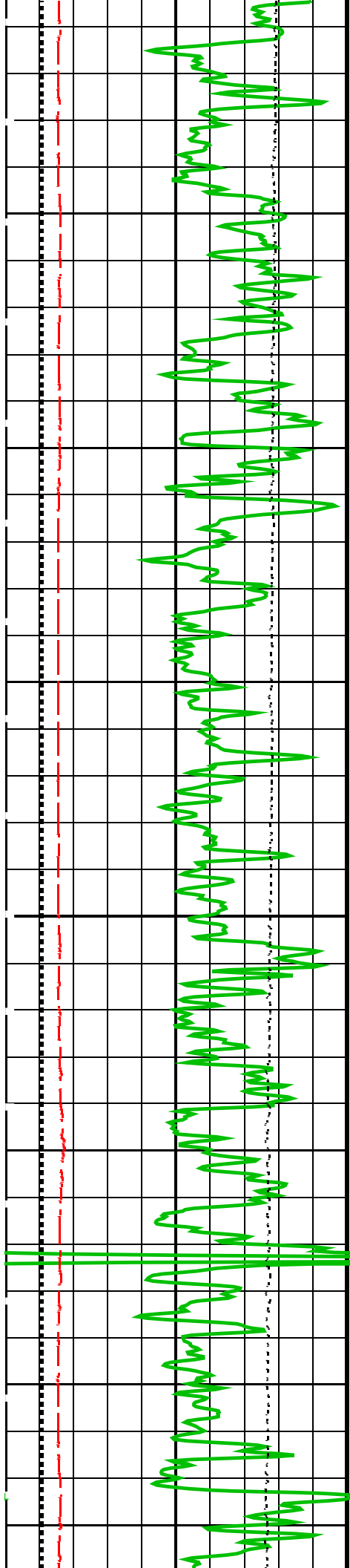
Time Mark Every 60 S

<b>Gamma Ray (GR_STGC)</b>		
0	(GAPI)	150
-----		
<b>Bit Size (BS)</b>		
50	(MM)	300
-----		
<b>SPCS Caliper (CALI_SPCS)</b>		
50	(MM)	300
-----		
<b>Tension (TENS)</b>		
20000	(N)	0

<b>SLDT Pef (PEF_SLDT)</b>		<b>SLDT Density Quality Factor (QRHO_SLDT)</b>	
0	(----	0	(----
10	----	-0.25	----
-----			
<b>SLDT Bulk Density (RHOB_SLDT)</b>			
2000	(K/M3)	3000	



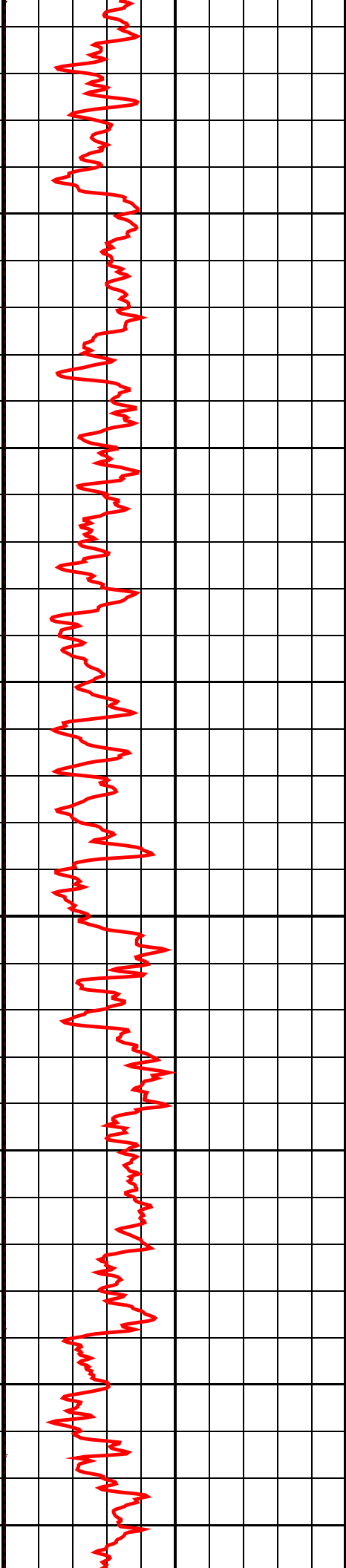
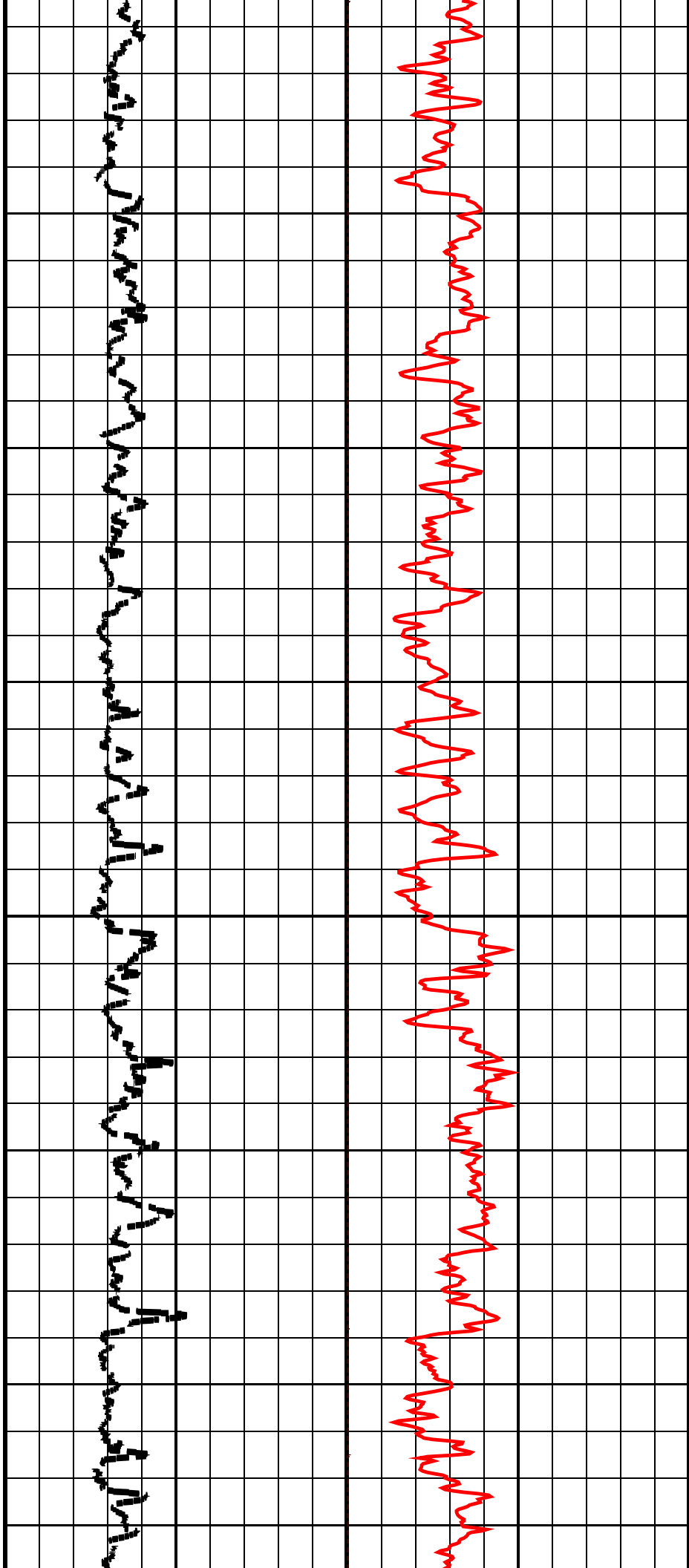


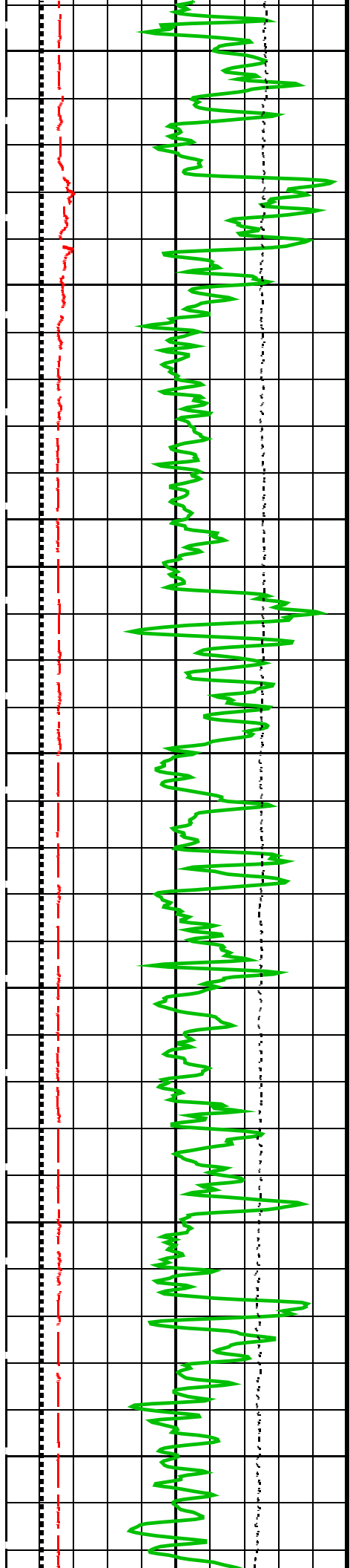


1100

1150

1200

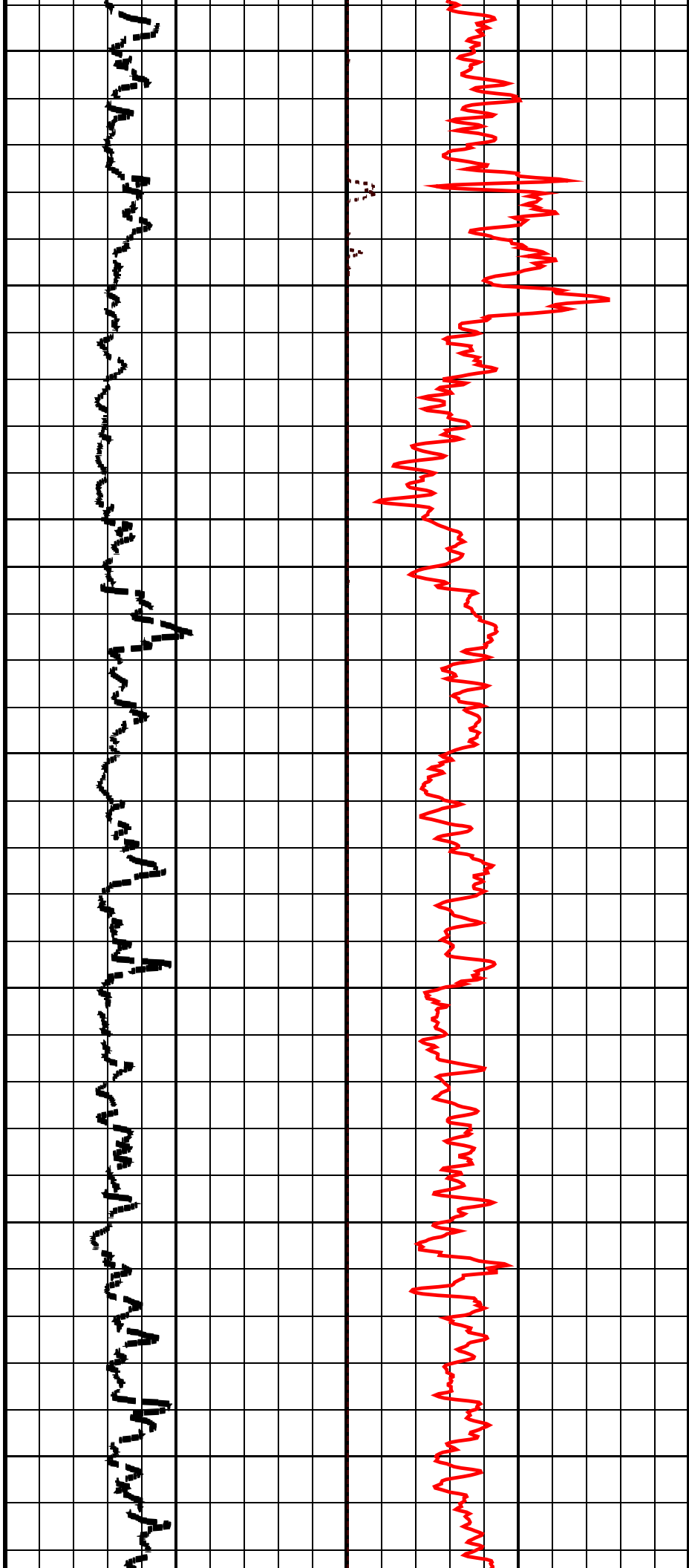


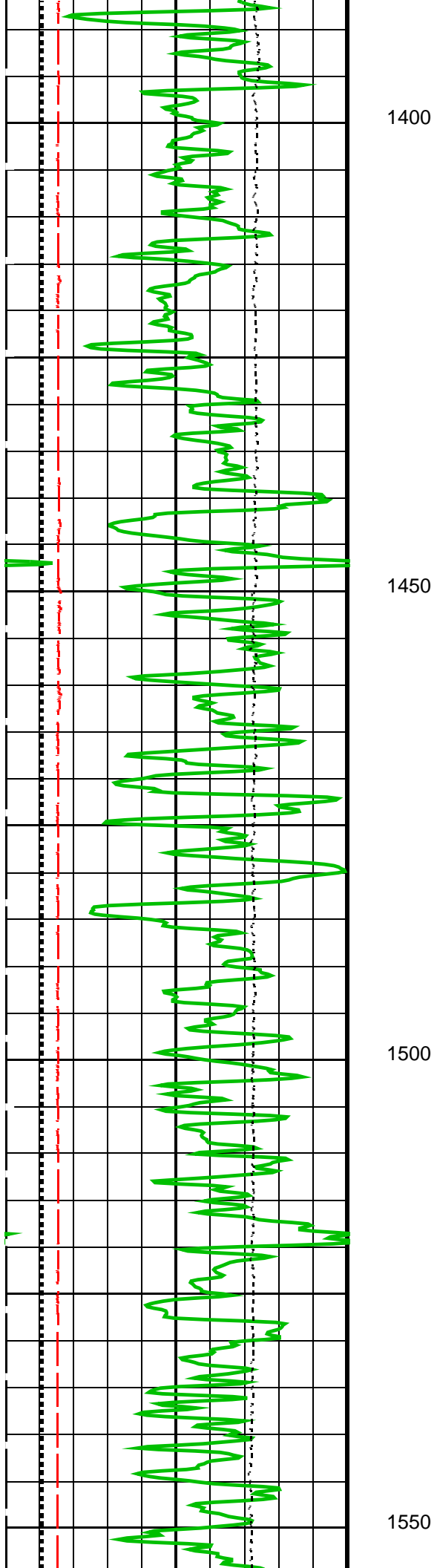


1250

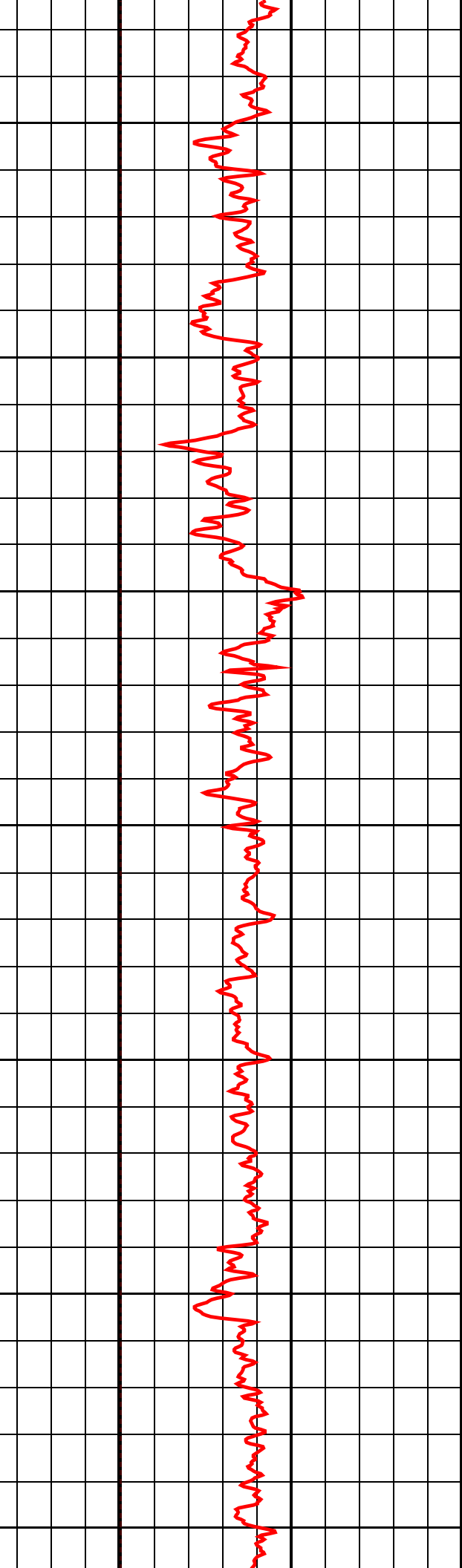
1300

1350

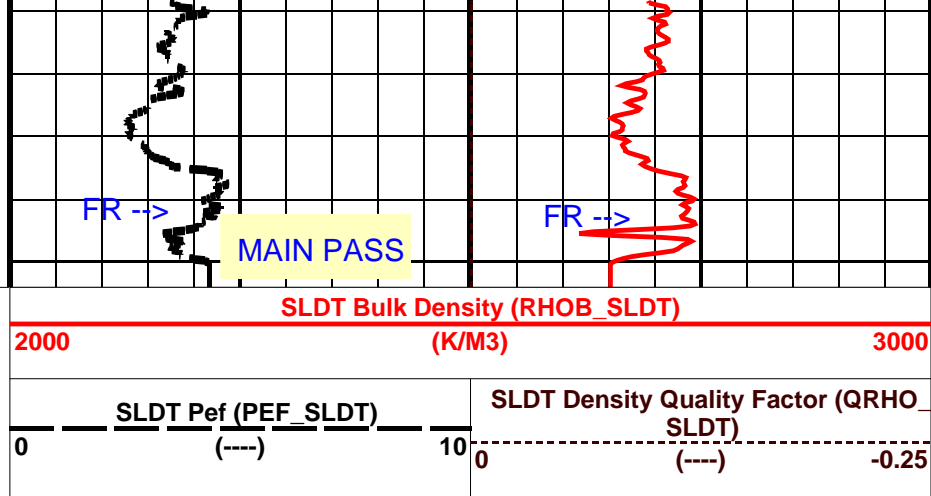
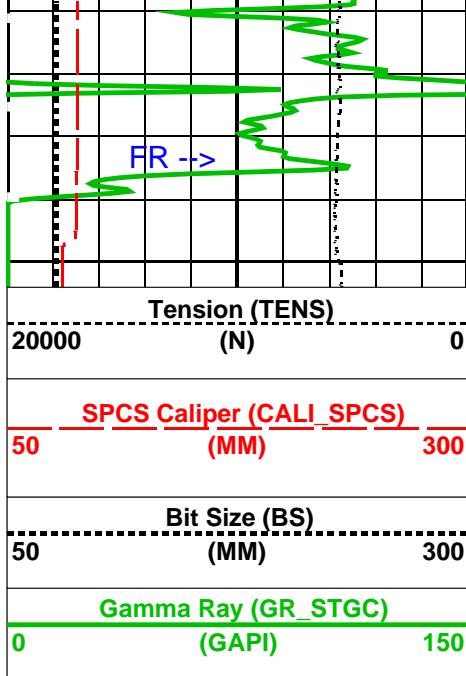




Handwritten text, possibly a signature or name, written vertically in black ink. The text is difficult to decipher but appears to be a name or identifier.







PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
BHT	Bottom Hole Temperature (used in calculations)	44	DEGC
BS	Bit Size	75.770	MM
DFD	Drilling Fluid Density	1068.00	K/M3
DO	Depth Offset	-1.0	M
FVNA_SLDT	SLDT Firmware Version Number - Major	0	
FVNI_SLDT	SLDT Firmware Version Number - Minor	0	
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.018227	DC/M
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
MVNA_SLDT	SLDT MAXIS Version Number - Major	10	
MVNI_SLDT	SLDT MAXIS Version Number - Minor	2	
PP	Playback Processing	RECOMPUTE	
PVNA_SLDT	SLDT Log Processing Version Number - Major	4	
PVNI_SLDT	SLDT Log Processing Version Number - Minor	21	
SDHC	SLDT Density Hole Correction	CALI_SPCS	
SHT	Surface Hole Temperature	12	DEGC
STSO	SLDT Temperature Correction Source	TMPY_SLDT	
TD	Total Depth	1575	M

Format: DENS\_S2 Vertical Scale: 1:600

Graphics File Created: 18-Jan-2001 23:03

OP System Version: 9C0-413  
MCM

SPCS-B unofficial SLDT-A unofficial  
STGC-B unofficial

Input DLIS Files

DEFAULT SPCS .005 FN:4 PRODUCER 17-Jan-2001 18:49 1577.9 M 800.4 M

Output DLIS Files

DEFAULT SPCS .018 FN:17 PRODUCER 18-Jan-2001 23:03

Input DLIS Files

DEFAULT SPCS .005 FN:4 PRODUCER 17-Jan-2001 18:49 1577.9 M 800.4 M

Output DLIS Files

DEFAULT SPCS .018 FN:17 PRODUCER 18-Jan-2001 23:03 1576.9 M 799.3 M

# OP System Version: 9C0-413

MCM

SPCS-B  
STGC-B

unofficial  
unofficial

SLDT-A

unofficial

## PIP SUMMARY

Time Mark Every 60 S

**Gamma Ray (GR\_STGC)**  
0 (GAPI) 150

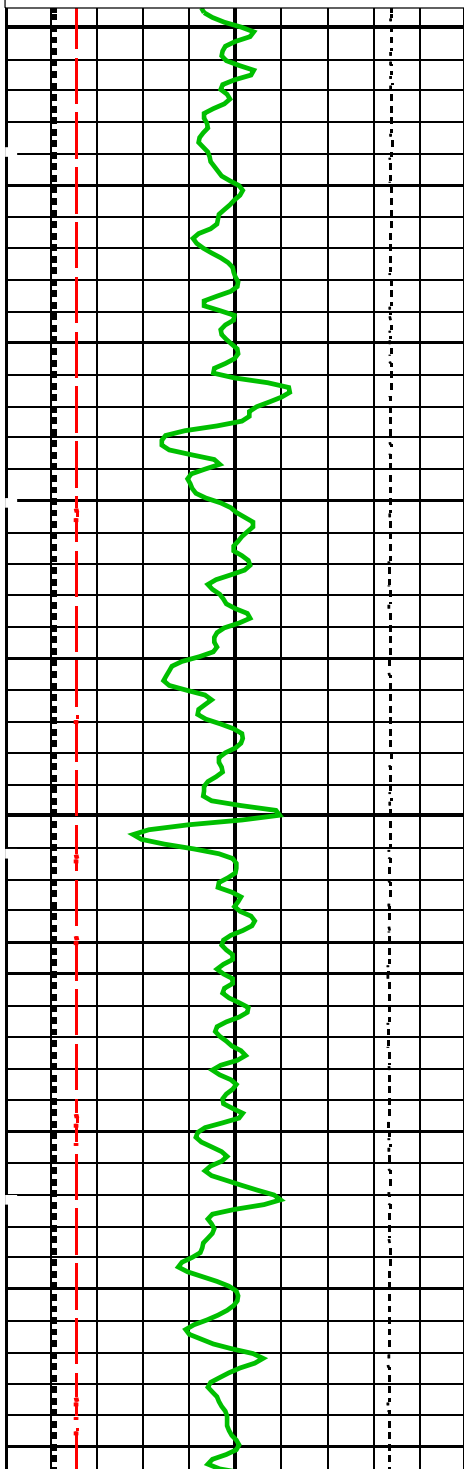
Bit Size (BS)  
50 (MM) 300

**SPCS Caliper (CALI\_SPCS)**  
50 (MM) 300

Tension (TENS)  
20000 (N) 0

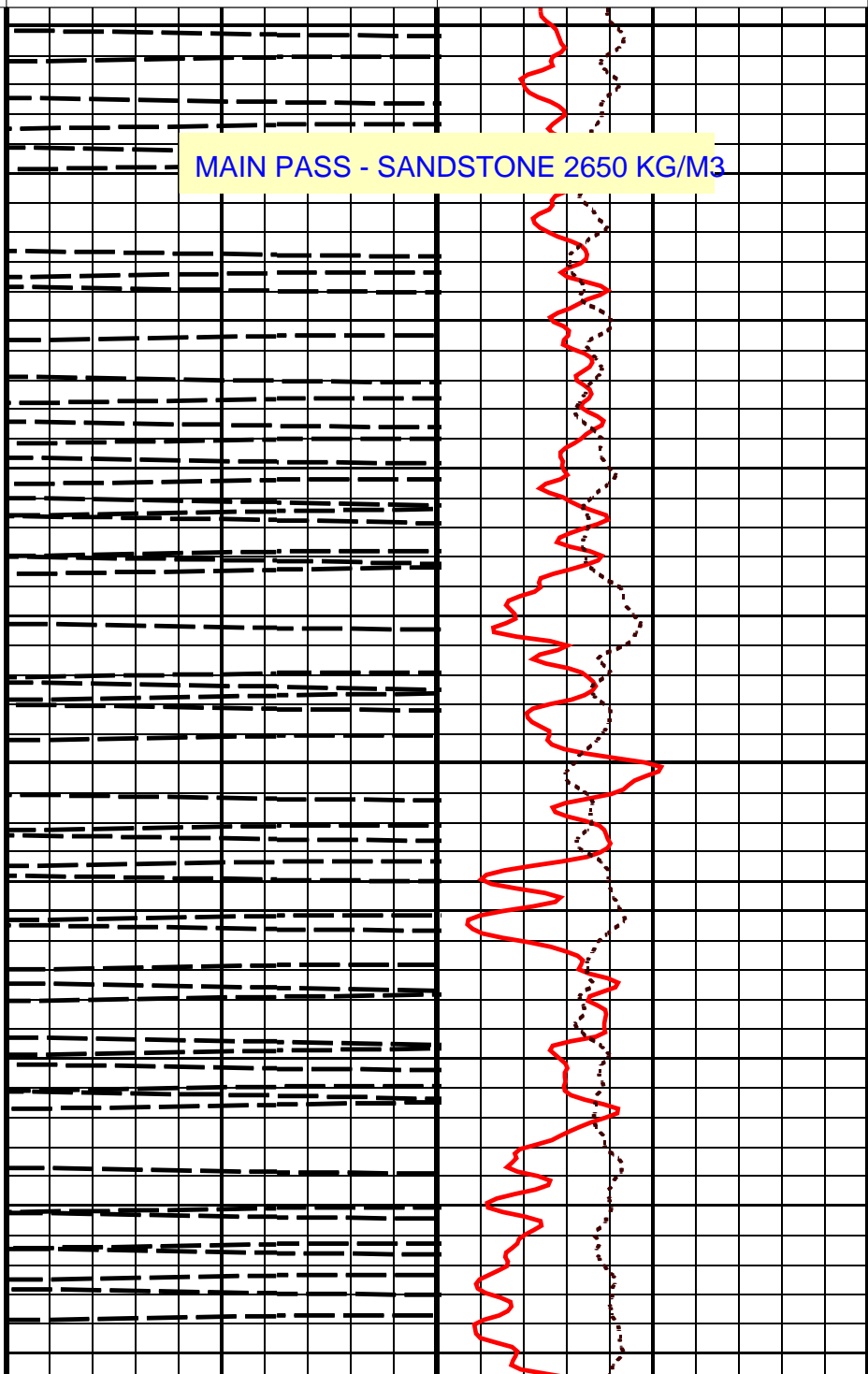
**SLDT Density Porosity (DPHI\_SLDT)**  
45 (PU) -15

SLDT Pef (PEF\_SLDT) 0 (----) 10  
SLDT Density Quality Factor (QRHO\_SLDT) 0 (----) -0.25

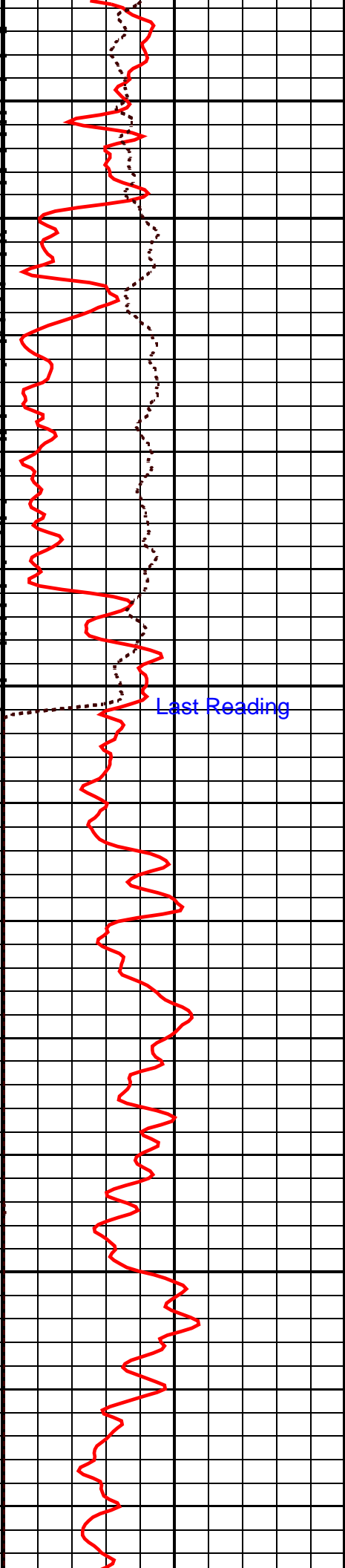
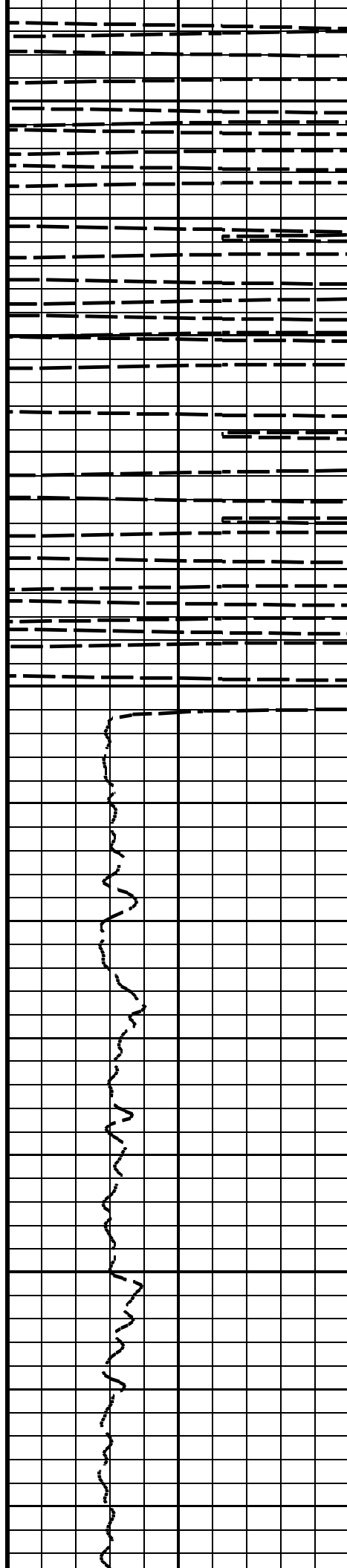
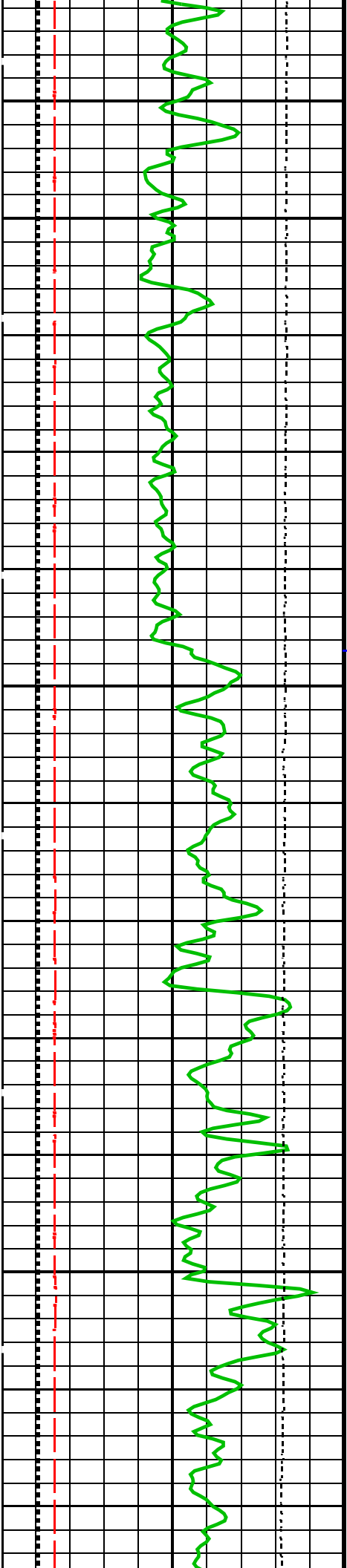


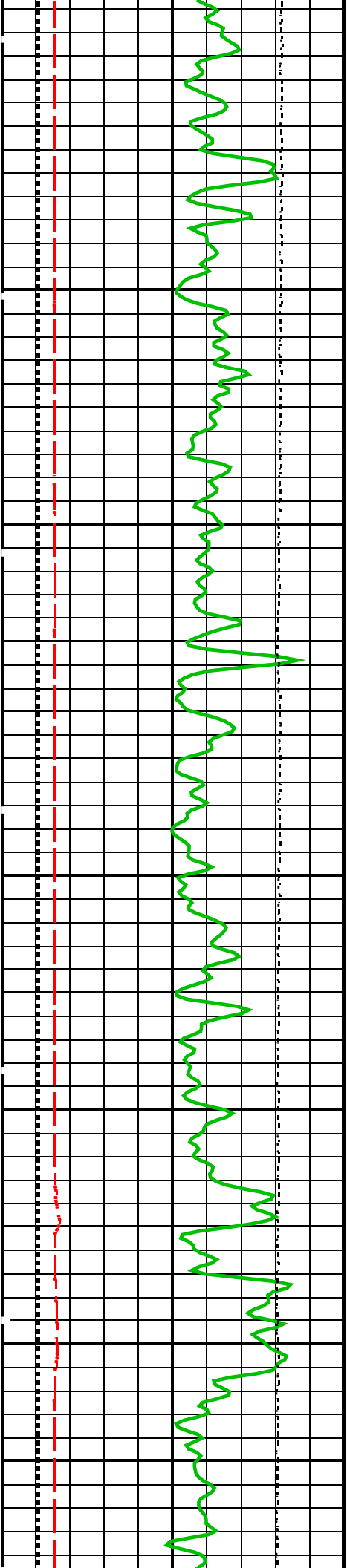
800

825



MAIN PASS - SANDSTONE 2650 KG/M3

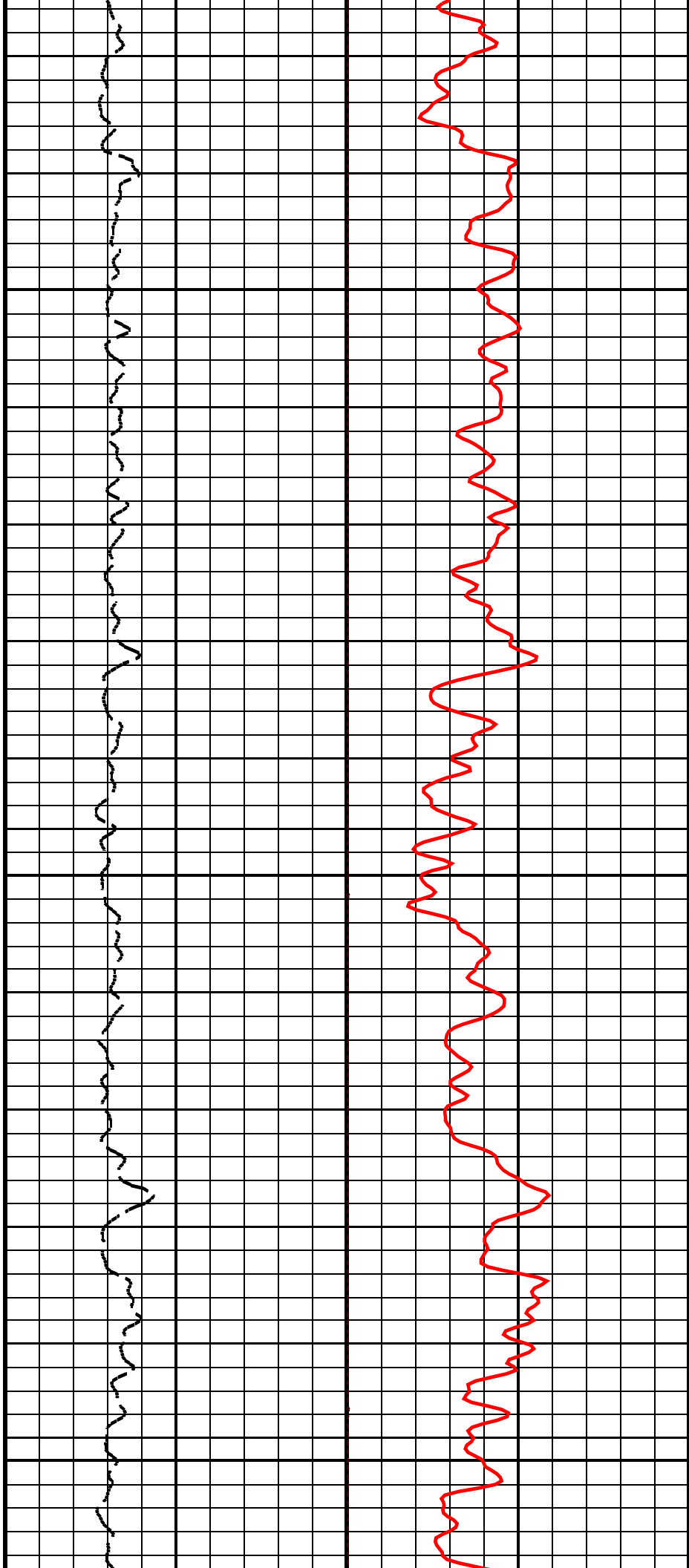


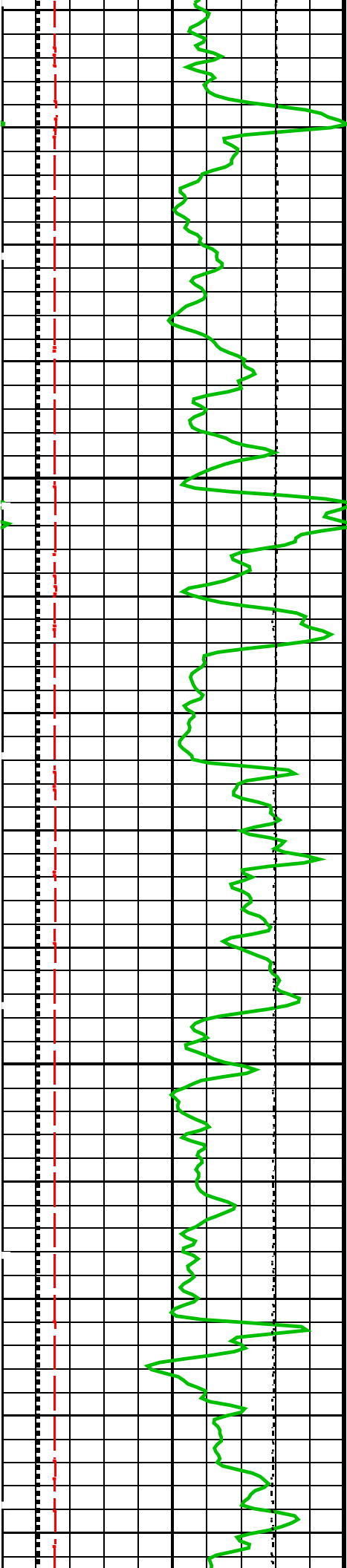


925

950

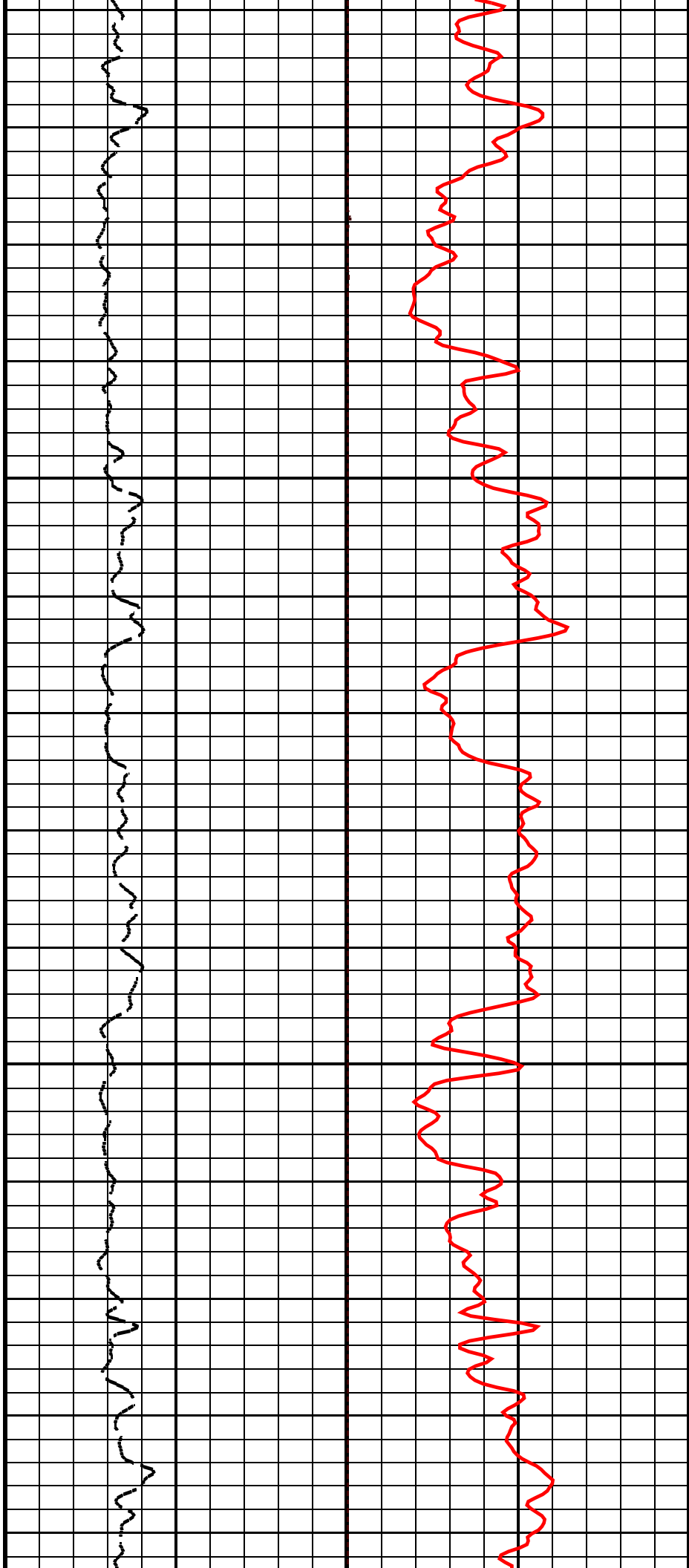
975

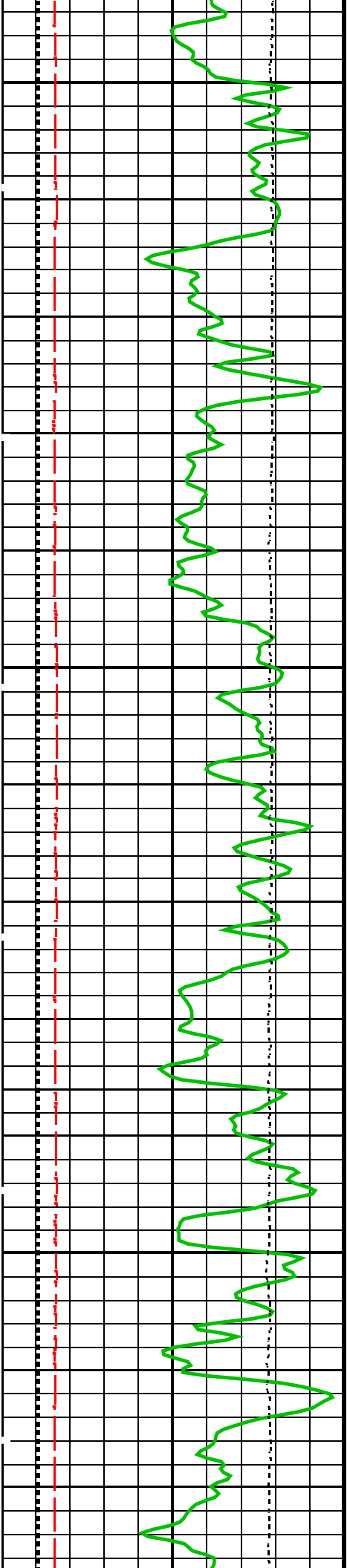




1000

1025

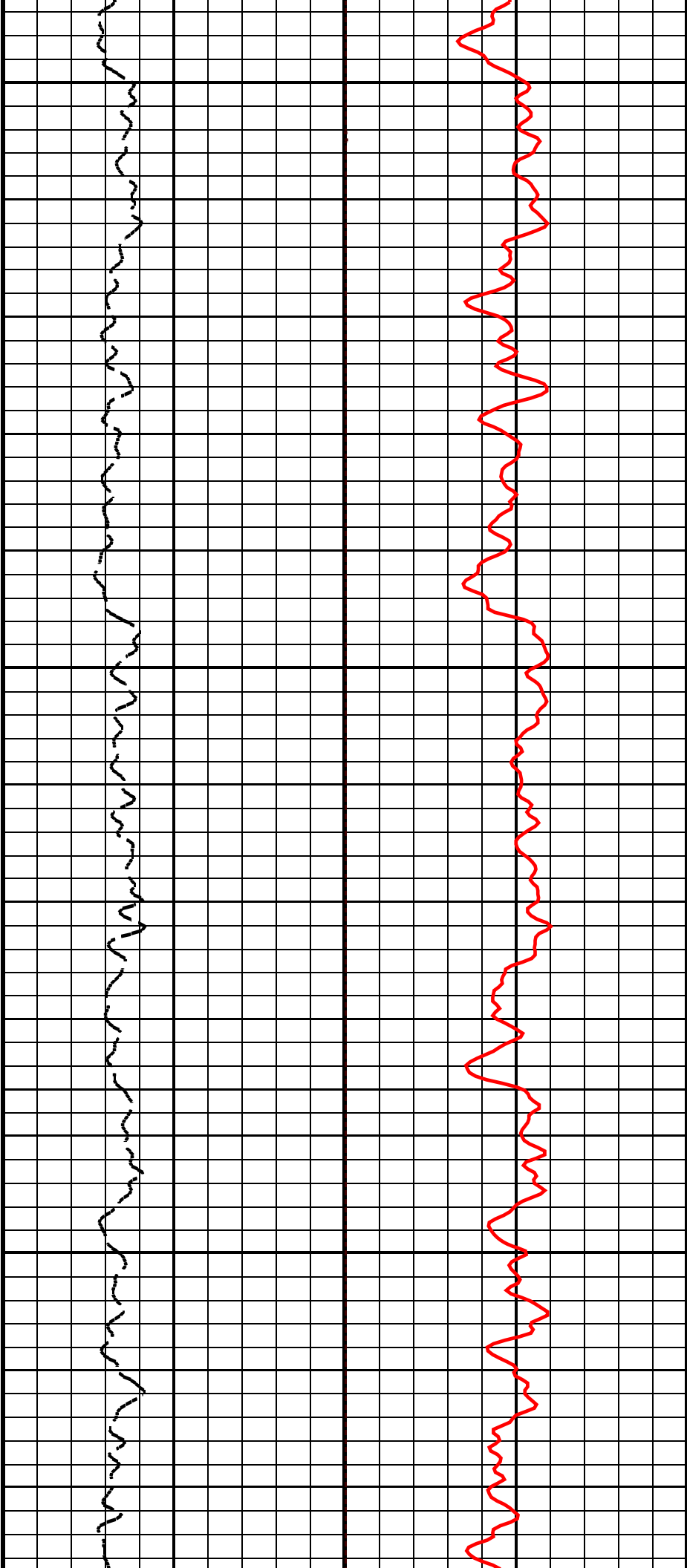


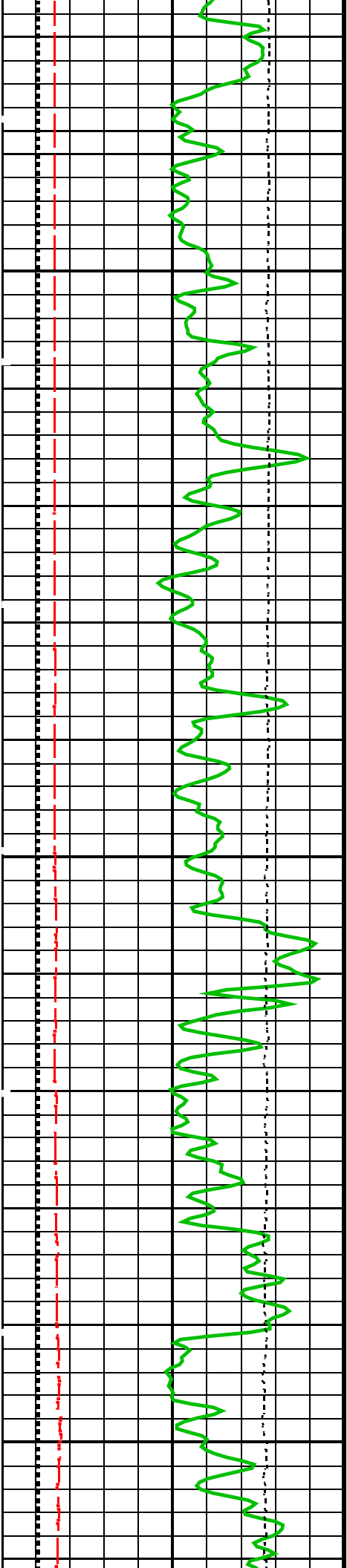


1050

1075

1100

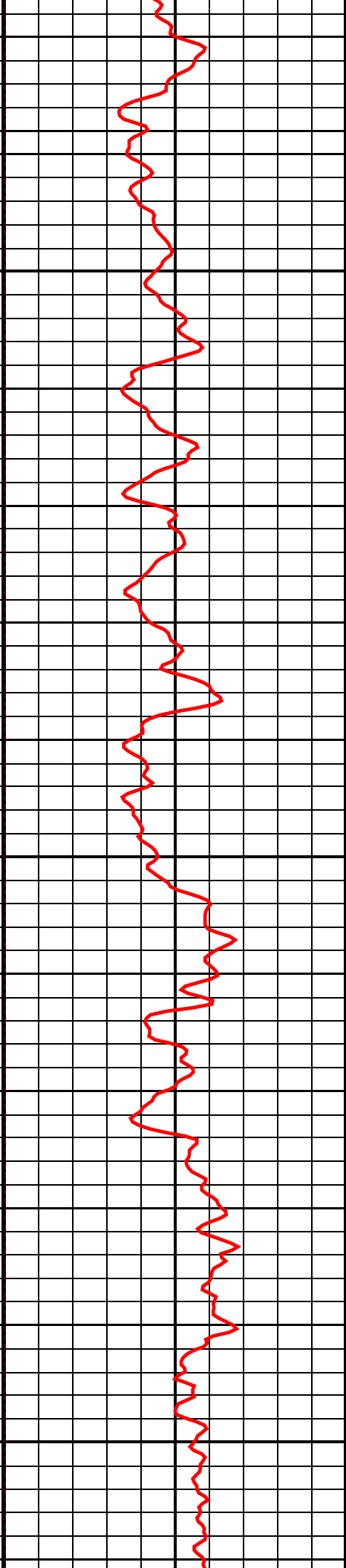
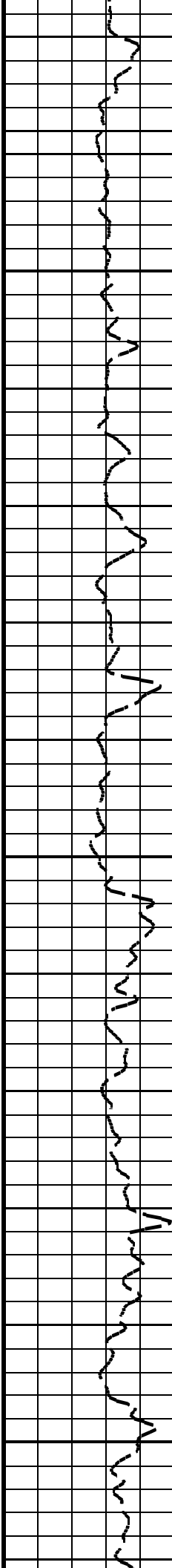


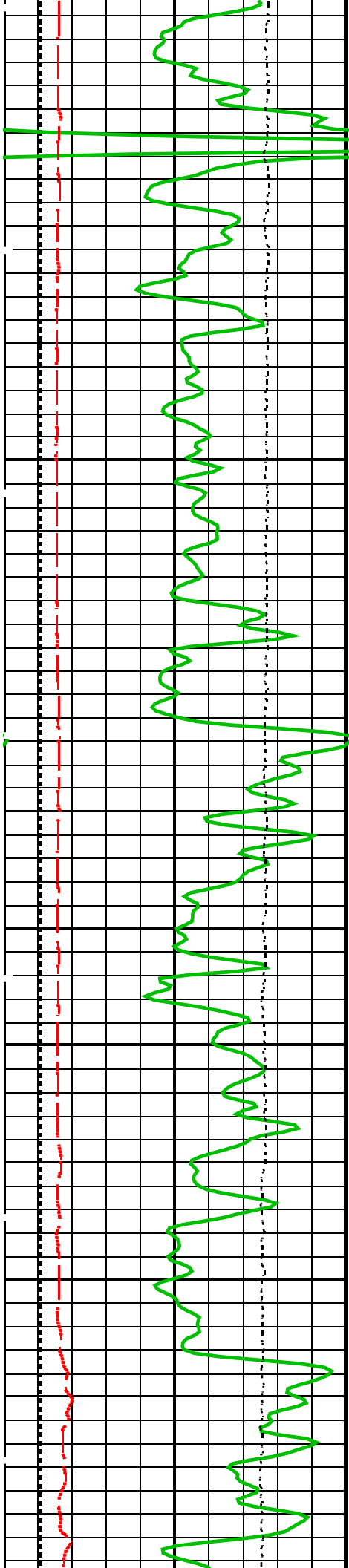


1125

1150

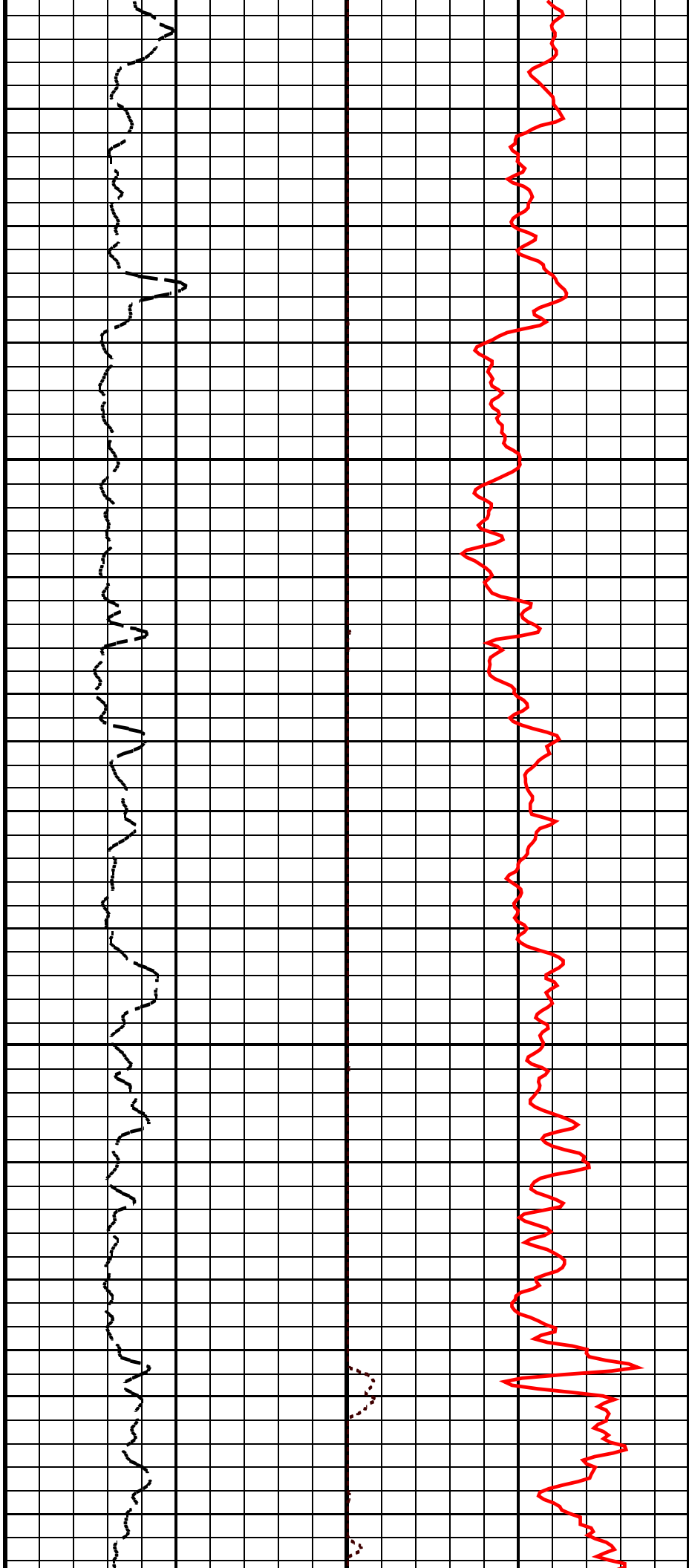
1175



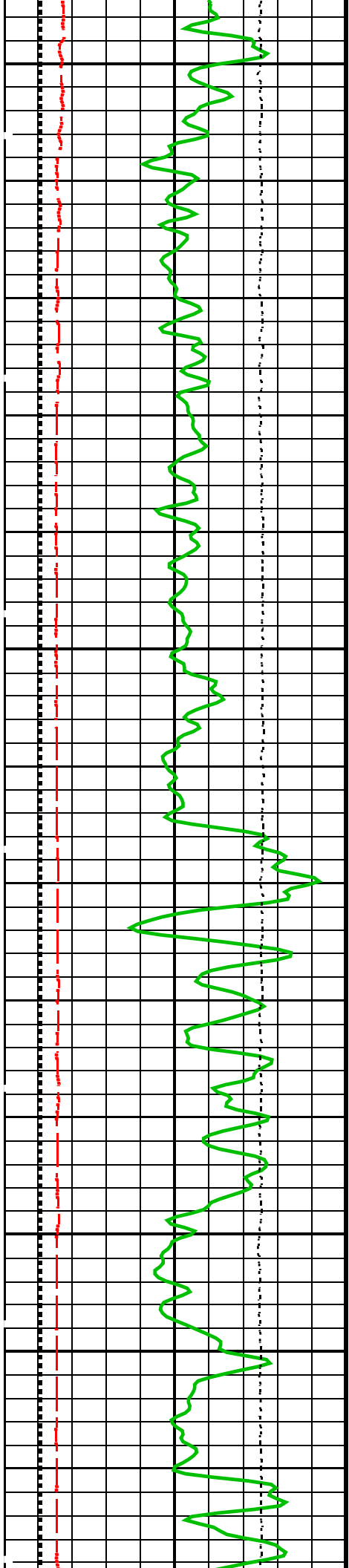


1200

1225



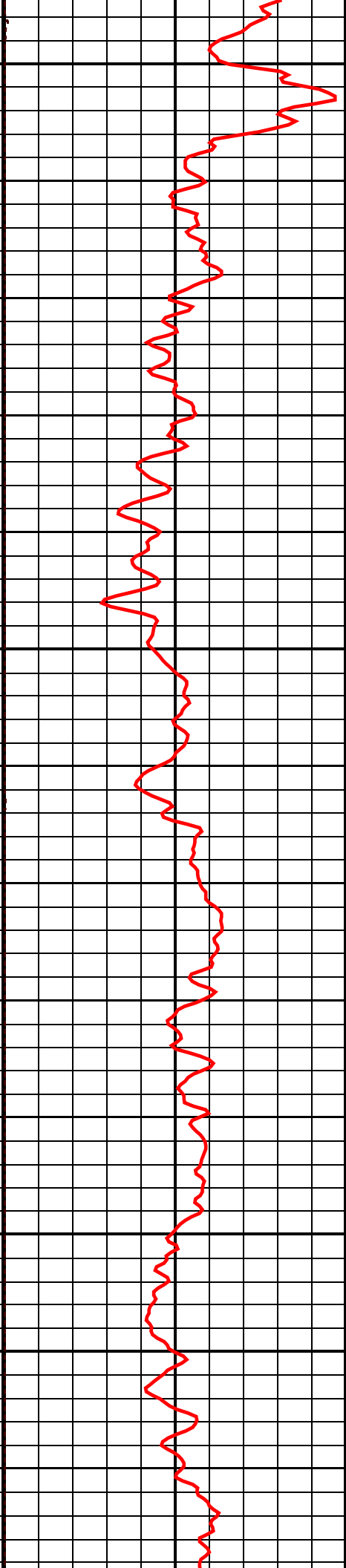
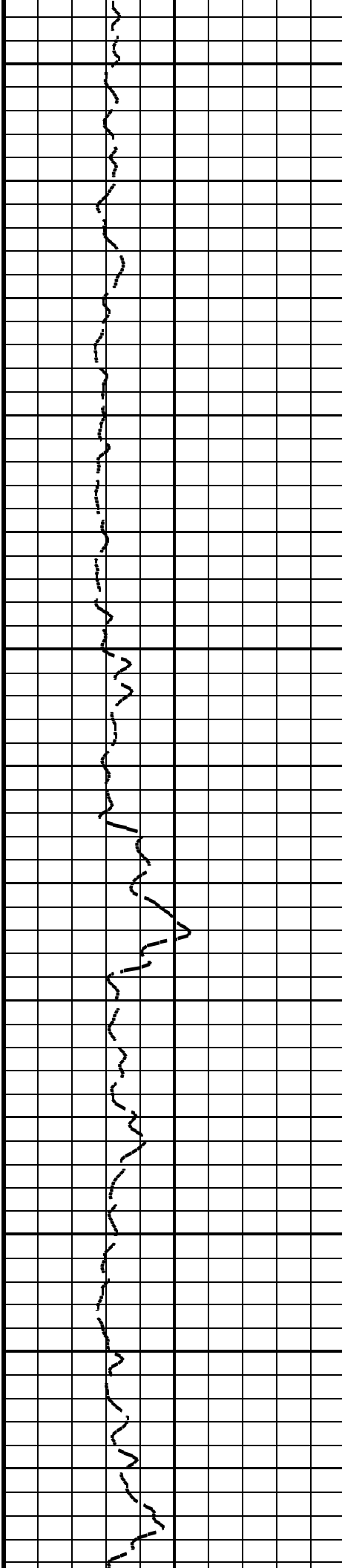


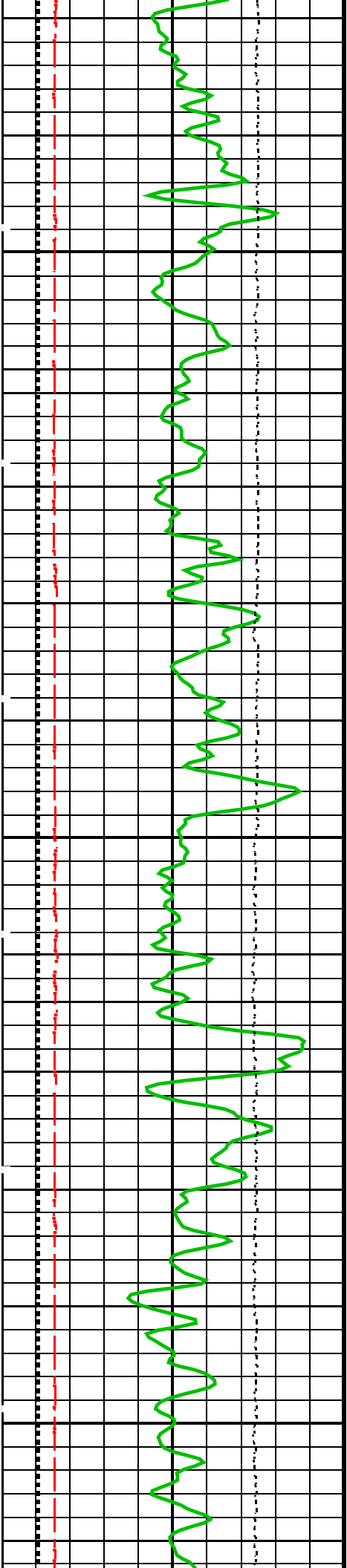


1250

1275

1300

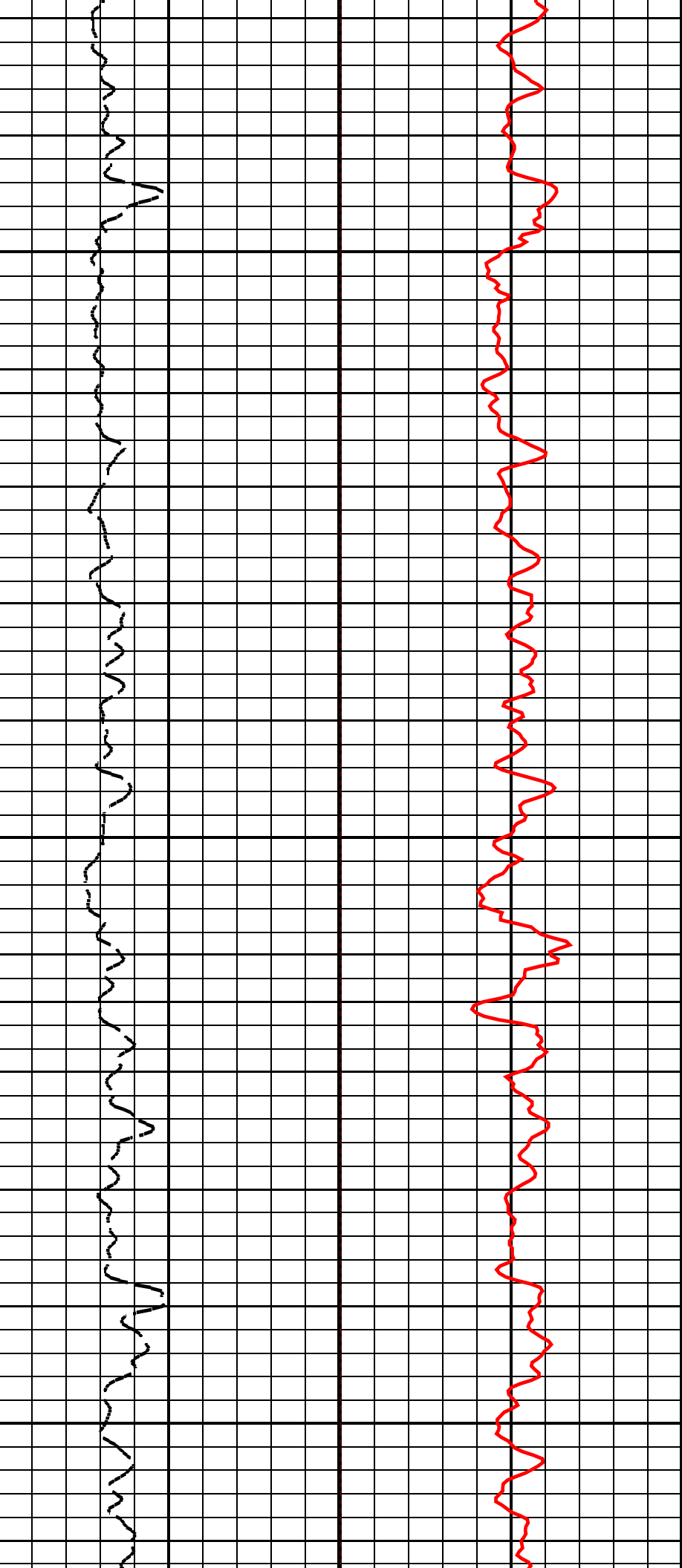


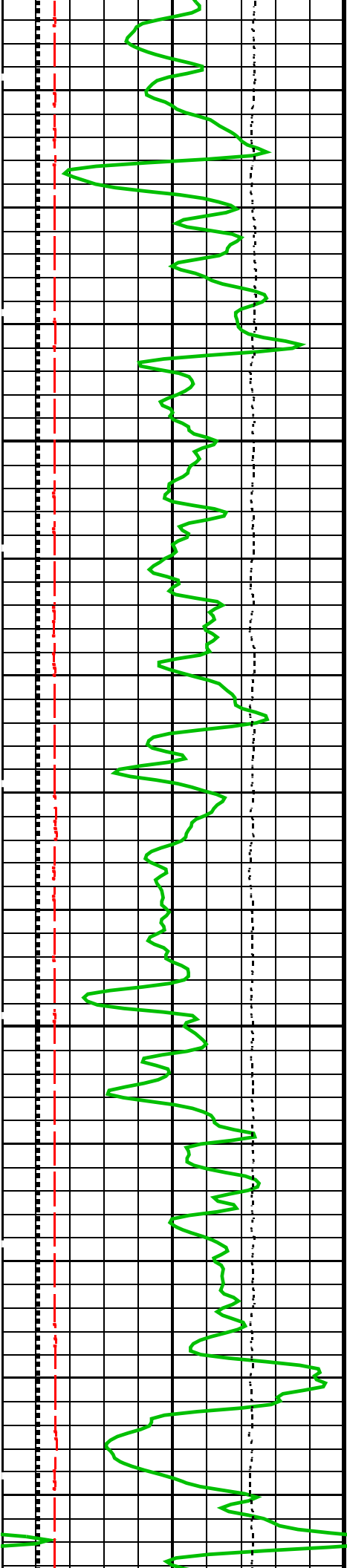


1325

1350

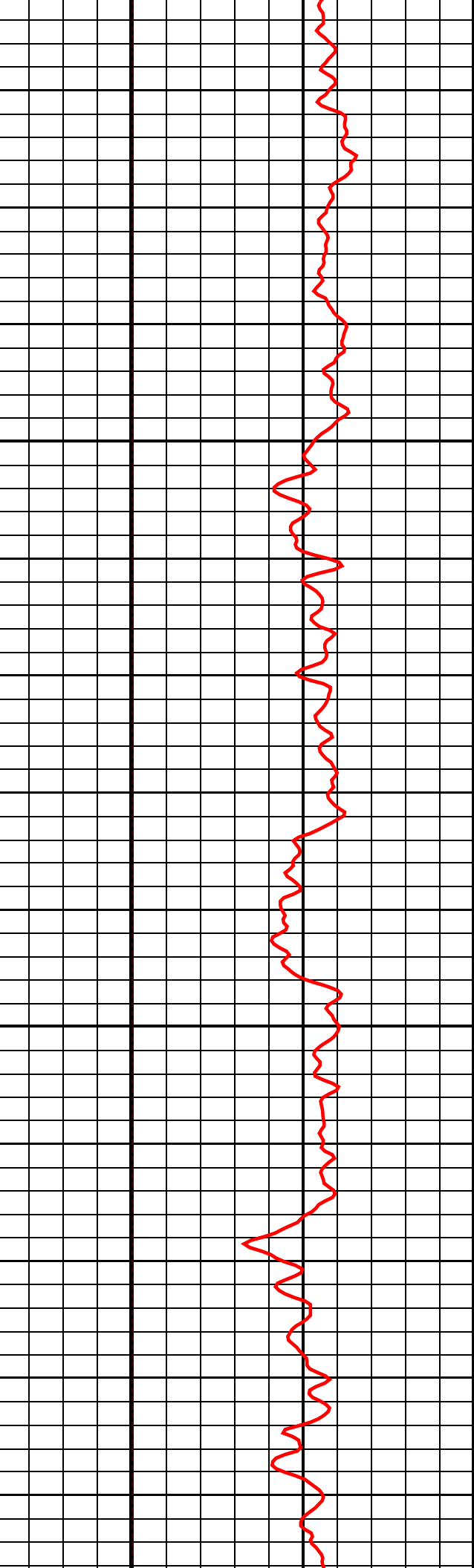
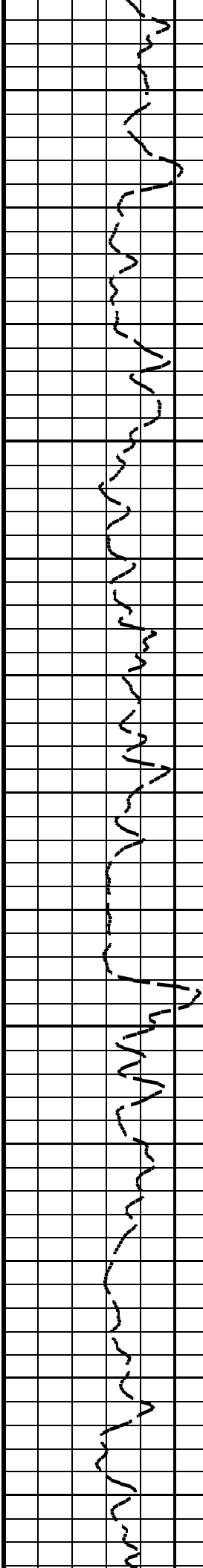
1375

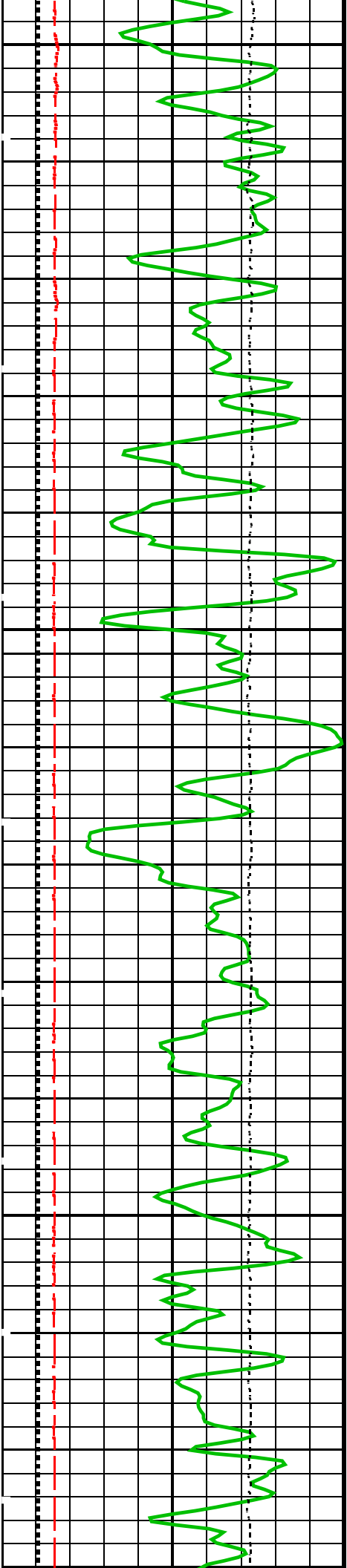




1400

1425

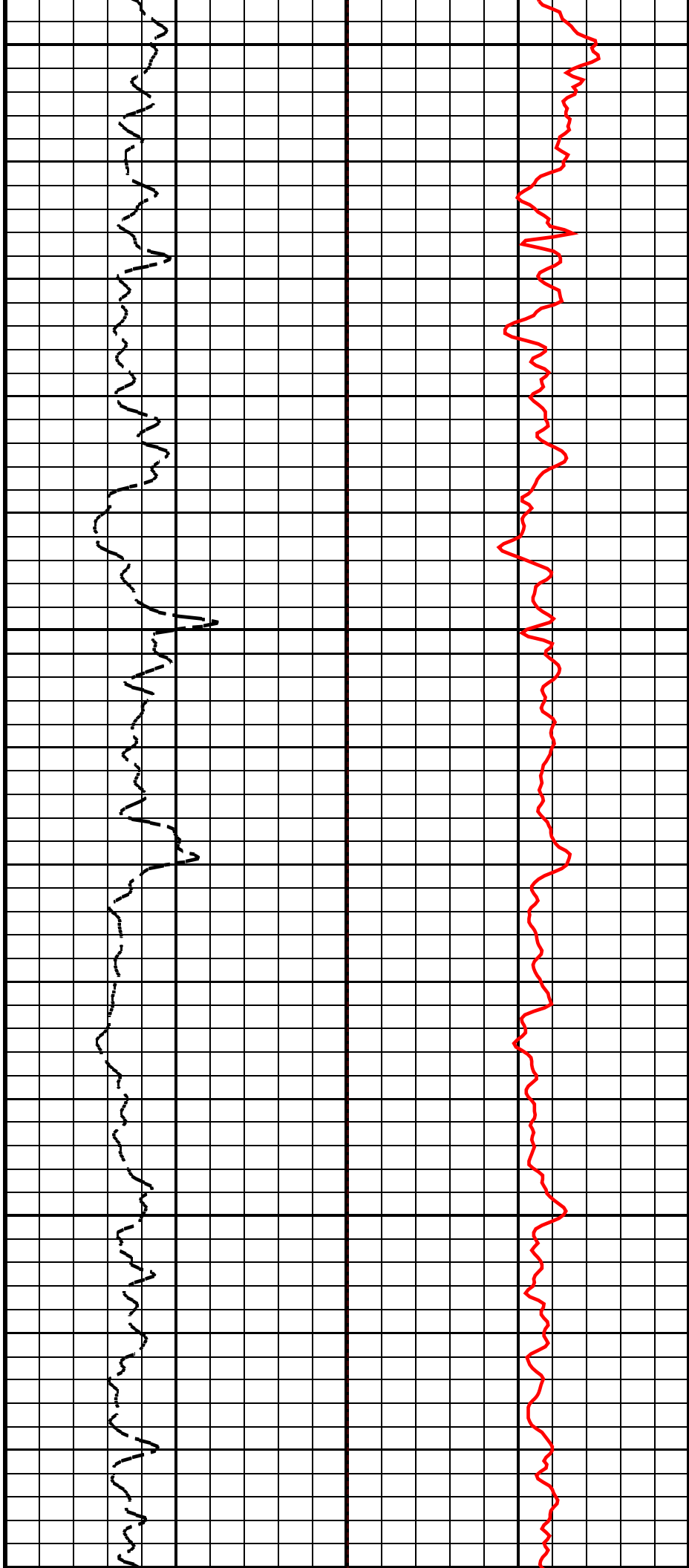


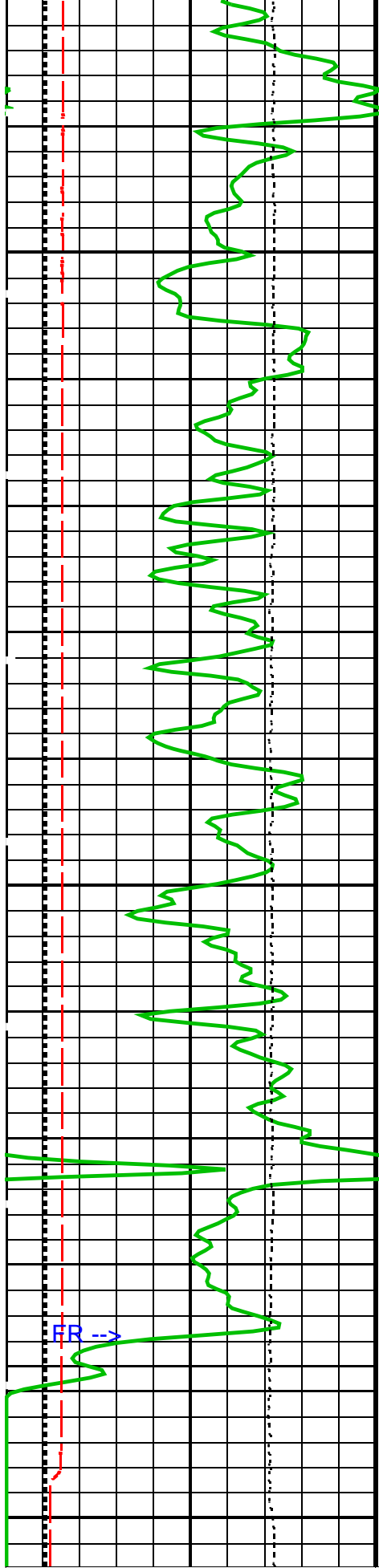


1450

1475

1500

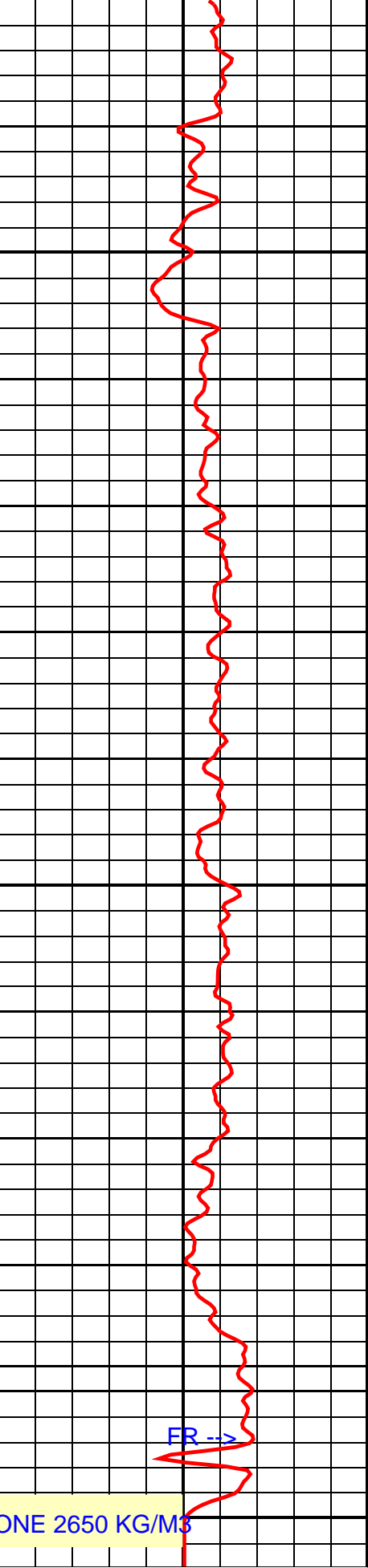
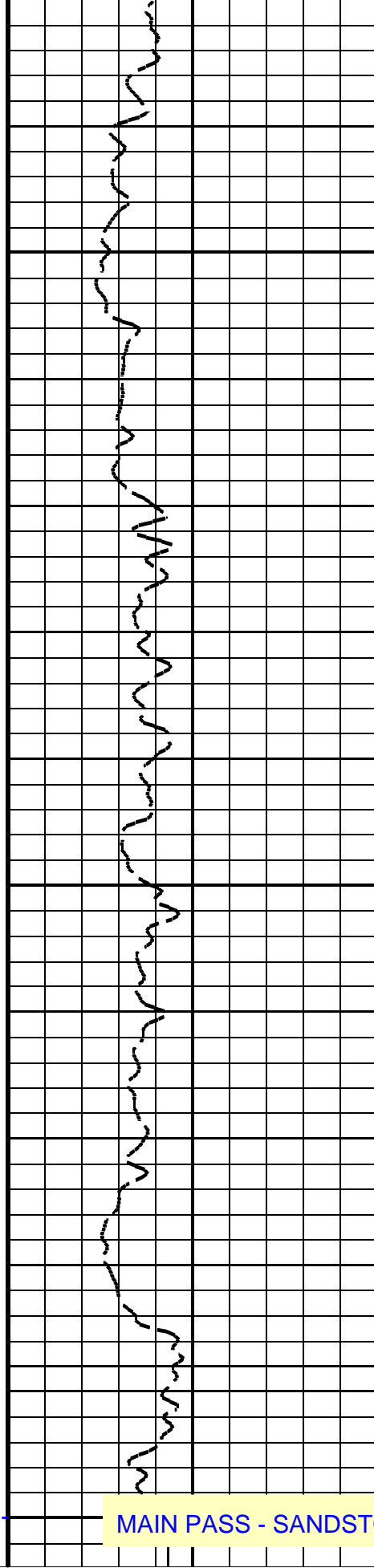




1525

1550

1675



MAIN PASS - SANDSTONE 2650 KG/M3

20000 (N) 0

0 (---) 10

0 (---) -0.25

SPCS Caliper (CALI\_SPCS)

SLDT Density Porosity (DPHI\_SLDT)

50	(MM)	300
Bit Size (BS)		
50	(MM)	300
Gamma Ray (GR_STGC)		
0	(GAPI)	150

45	(PU)	-15
----	------	-----

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
BHT	Bottom Hole Temperature (used in calculations)	44	DEGC
BS	Bit Size	75.770	MM
DFD	Drilling Fluid Density	1068.00	K/M3
DO	Depth Offset	-1.0	M
FD	Fluid Density	1000	K/M3
FVNA_SLDT	SLDT Firmware Version Number - Major	0	
FVNI_SLDT	SLDT Firmware Version Number - Minor	0	
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.018227	DC/M
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
MDEN	Matrix Density	2650	K/M3
MVNA_SLDT	SLDT MAXIS Version Number - Major	10	
MVNI_SLDT	SLDT MAXIS Version Number - Minor	2	
PP	Playback Processing	RECOMPUTE	
PVNA_SLDT	SLDT Log Processing Version Number - Major	4	
PVNI_SLDT	SLDT Log Processing Version Number - Minor	21	
SDHC	SLDT Density Hole Correction	CALI_SPCS	
SHT	Surface Hole Temperature	12	DEGC
STSO	SLDT Temperature Correction Source	TMPY_SLDT	
TD	Total Depth	1575	M

Format: PORO\_S5 Vertical Scale: 1:240

Graphics File Created: 18-Jan-2001 23:03

OP System Version: 9C0-413

MCM

SPCS-B unofficial SLDT-A unofficial  
STGC-B unofficial

Input DLIS Files

DEFAULT SPCS .005 FN:4 PRODUCER 17-Jan-2001 18:49 1577.9 M 800.4 M

Output DLIS Files

DEFAULT SPCS .018 FN:17 PRODUCER 18-Jan-2001 23:03

Input DLIS Files

DEFAULT SPCS .004 FN:3 PRODUCER 17-Jan-2001 18:24 1578.1 M 1508.9 M

Output DLIS Files

DEFAULT SPCS .019 FN:18 PRODUCER 18-Jan-2001 23:11 1577.0 M 1507.8 M

OP System Version: 9C0-413

MCM

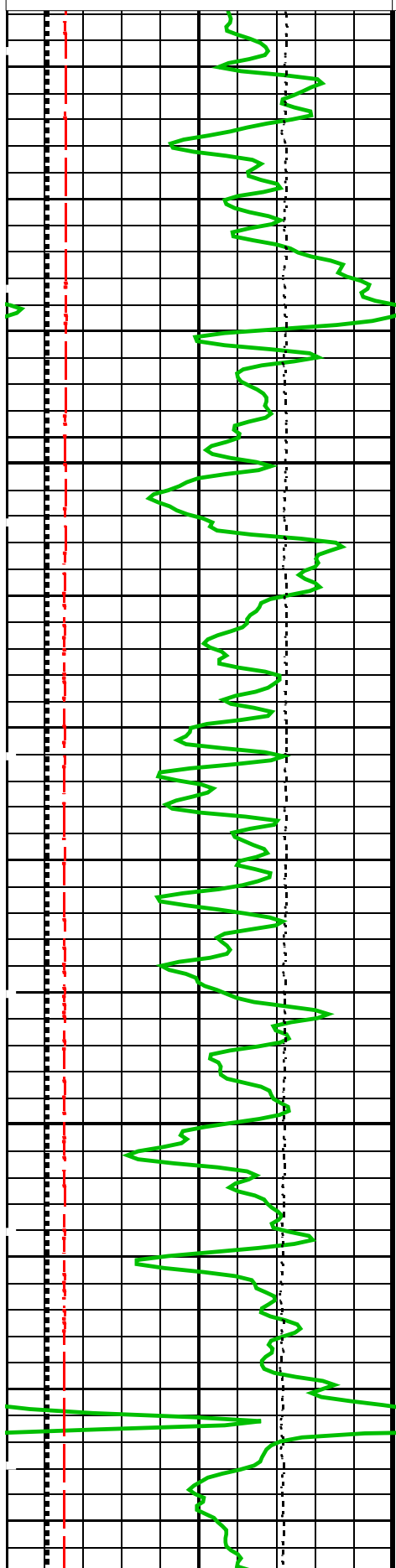
SPCS-B unofficial SLDT-A unofficial  
STGC-B unofficial

PIP SUMMARY

Time Mark Every 60 S

Gamma Ray (GR_STGC)		
0	(GAPI)	150
Bit Size (BS)		

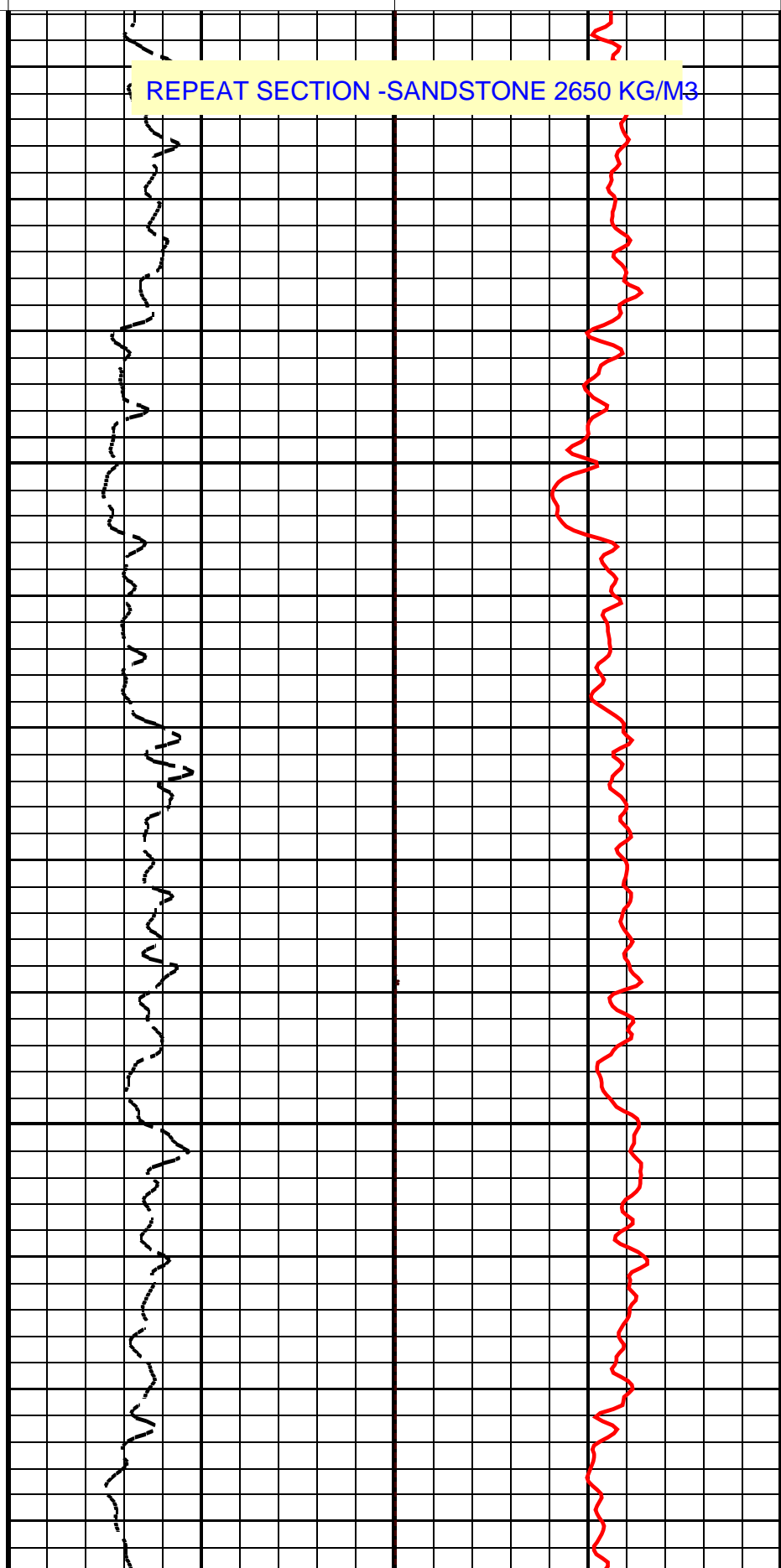
50 (MM) 300  
**SPCS Caliper (CALI\_SPCS)**  
50 (MM) 300  
Tension (TENS)  
20000 (N) 0



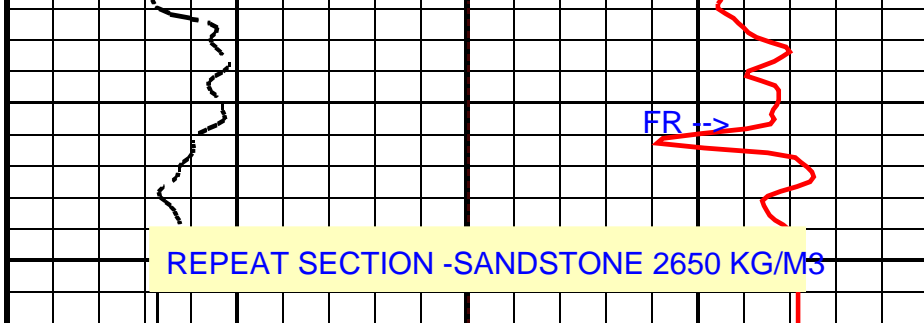
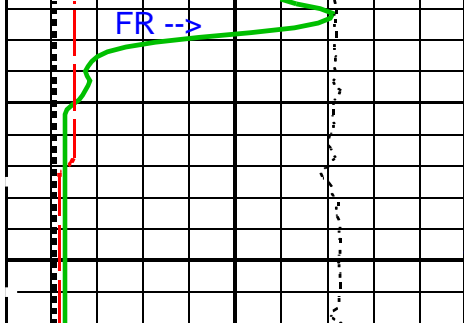
1525

1550

**SLDT Density Porosity (DPHI\_SLDT)**  
45 (PU) -15  
SLDT Pef (PEF\_SLDT) SLDT Density Quality Factor (QRHO\_SLDT)  
0 (----) 10 0 (----) -0.25



REPEAT SECTION -SANDSTONE 2650 KG/M3



TD 1575

REPEAT SECTION - SANDSTONE 2650 KG/M3

Tension (TENS)		
20000	(N)	0
SPCS Caliper (CALI_SPCS)		
50	(MM)	300
Bit Size (BS)		
50	(MM)	300
Gamma Ray (GR_STGC)		
0	(GAPI)	150

SLDT Pef (PEF_SLDT)		SLDT Density Quality Factor (QRHO)	
0	(----	10	SLDT)
		0	
		(----	
		-0.25	
SLDT Density Porosity (DPHI_SLDT)			
45		(PU)	
		-15	

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
BHT	Bottom Hole Temperature (used in calculations)	44	DEGC
BS	Bit Size	75.770	MM
DFD	Drilling Fluid Density	1068.00	K/M3
DO	Depth Offset	-1.0	M
FD	Fluid Density	1000	K/M3
FVNA_SLDT	SLDT Firmware Version Number - Major	0	
FVNI_SLDT	SLDT Firmware Version Number - Minor	0	
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.018227	DC/M
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
MDEN	Matrix Density	2650	K/M3
MVNA_SLDT	SLDT MAXIS Version Number - Major	10	
MVNI_SLDT	SLDT MAXIS Version Number - Minor	2	
PP	Playback Processing	RECOMPUTE	
PVNA_SLDT	SLDT Log Processing Version Number - Major	4	
PVNI_SLDT	SLDT Log Processing Version Number - Minor	21	
SDHC	SLDT Density Hole Correction	CALI_SPCS	
SHT	Surface Hole Temperature	12	DEGC
STSO	SLDT Temperature Correction Source	TMPY_SLDT	
TD	Total Depth	1575	M

Format: PORO\_S5

Vertical Scale: 1:240

Graphics File Created: 18-Jan-2001 23:11

OP System Version: 9C0-413

MCM

SPCS-B	unofficial	SLDT-A	unofficial
STGC-B	unofficial		

Input DLIS Files

DEFAULT	SPCS .004	FN:3 PRODUCER	17-Jan-2001 18:24	1578.1 M	1508.9 M
---------	-----------	---------------	-------------------	----------	----------

Output DLIS Files

DEFAULT	SPCS .019	FN:18 PRODUCER	18-Jan-2001 23:11		
---------	-----------	----------------	-------------------	--	--

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
-------------	---------	--------	--------	-------	--------	-------	-------



Measurement	Nominal	Master	Before	After	Change	Limit	Units
Slimhole Powered Caliper Sonde - B Wellsite Calibration - SPCS Caliper Calibration							
Before: Calibration not done							
SPCS Caliper Small Ring	63.50	N/A	N/A	N/A	N/A	N/A	MM
SPCS Caliper Medium Ring	101.6	N/A	102.7	N/A	N/A	N/A	MM
SPCS Caliper Large Ring	203.2	N/A	195.6	N/A	N/A	N/A	MM
SLIM Telemetry Gamma-ray Cartridge - B Wellsite Calibration - Detector Calibration							
Before: 17-JAN-2001 16:44							
Gamma Ray (Jig - Bkg)	144.9	N/A	144.9	N/A	N/A	13.17	GAPI
Gamma Ray (Calibrated)	155.1	N/A	155.1	N/A	N/A	15.00	GAPI

Slimhole Powered Caliper Sonde - B / Equipment Identification		
Primary Equipment:		
Auxiliary Equipment:		

Slimhole Litho-Density Tool / Equipment Identification		
Primary Equipment:		
SLDT Cartridge	SLDC - A	17
SLDT Source	GSR - Z	1850
Auxiliary Equipment:		
SLDT Housing	SLDH - A	18

Slimhole Litho-Density Tool Wellsite Calibration								
SS Background Measurement								
Phase	SS Wind 1 Background CPS	Value	Phase	SS Wind 2 Background CPS	Value	Phase	SS Wind 3 Background CPS	Value
Master		1028	Master		1388	Master		1199
Before		1025	Before		1386	Before		1194
	800.0 (Minimum) 1150 (Nominal) 1600 (Maximum)			1050 (Minimum) 1500 (Nominal) 2000 (Maximum)			900.0 (Minimum) 1300 (Nominal) 1800 (Maximum)	
Phase	SS Wind 4 Background CPS	Value	Phase	SS Wind 5 Background CPS	Value	Phase	SS Wind 6 Background CPS	Value
Master		910.9	Master		1081	Master		638.4
Before		910.1	Before		1080	Before		641.8
	700.0 (Minimum) 1050 (Nominal) 1400 (Maximum)			850.0 (Minimum) 1250 (Nominal) 1600 (Maximum)			450.0 (Minimum) 650.0 (Nominal) 1000 (Maximum)	
Master: 17-JAN-2001 16:38			Before: 17-JAN-2001 16:42					

Slimhole Litho-Density Tool Wellsite Calibration								
MS Background Measurement								
Phase	MS Wind 1 Background CPS	Value	Phase	MS Wind 2 Background CPS	Value	Phase	MS Wind 3 Background CPS	Value
Master		440.9	Master		608.2	Master		701.1
Before		436.5	Before		601.4	Before		694.1
	250.0 (Minimum) 490.0 (Nominal) 650.0 (Maximum)			400.0 (Minimum) 670.0 (Nominal) 900.0 (Maximum)			400.0 (Minimum) 750.0 (Nominal) 1000 (Maximum)	
Phase	MS Wind 4 Background CPS	Value	Phase	MS Wind 5 Background CPS	Value	Phase	MS Wind 6 Background CPS	Value
Master		1148	Master		1504	Master		873.8
Before		1148	Before		1491	Before		870.0
	700.0 (Minimum) 1230 (Nominal) 1600 (Maximum)			900.0 (Minimum) 1625 (Nominal) 2200 (Maximum)			550.0 (Minimum) 950.0 (Nominal) 1300 (Maximum)	
Master: 17-JAN-2001 16:38			Before: 17-JAN-2001 16:42					

Slimhole Litho-Density Tool Wellsite Calibration								
LS Background Measurement								
Phase	LS Wind 1 Background CPS	Value	Phase	LS Wind 2 Background CPS	Value	Phase	LS Wind 3 Background CPS	Value
Master		262.2	Master		260.7	Master		314.6
Before		260.9	Before		256.3	Before		308.9
	150.0 (Minimum) 275.0 (Nominal) 350.0 (Maximum)			150.0 (Minimum) 275.0 (Nominal) 350.0 (Maximum)			200.0 (Minimum) 350.0 (Nominal) 400.0 (Maximum)	

150.0 (Minimum) 275.0 (Nominal) 350.0 (Maximum)			150.0 (Minimum) 275.0 (Nominal) 350.0 (Maximum)			200.0 (Minimum) 350.0 (Nominal) 400.0 (Maximum)		
Phase	LS Wind 4 Background CPS	Value	Phase	LS Wind 5 Background CPS	Value	Phase	LS Wind 6 Background CPS	Value
Master		516.9	Master		676.4	Master		367.1
Before		514.4	Before		672.7	Before		363.4
350.0 (Minimum) 550.0 (Nominal) 650.0 (Maximum)			450.0 (Minimum) 700.0 (Nominal) 800.0 (Maximum)			250.0 (Minimum) 375.0 (Nominal) 450.0 (Maximum)		
Master: 17-JAN-2001 16:38						Before: 17-JAN-2001 16:42		

Slimhole Litho-Density Tool Wellsite Calibration								
Cs Resolution - Background Measurement								
Phase	SS Cs Resolution Bkg %	Value	Phase	MS Cs Resolution Bkg %	Value	Phase	LS Cs Resolution Bkg %	Value
Master		13.00	Master		9.187	Master		8.796
Before		12.61	Before		9.165	Before		8.741
9.000 (Minimum) 12.00 (Nominal) 14.00 (Maximum)			7.500 (Minimum) 10.50 (Nominal) 12.50 (Maximum)			7.500 (Minimum) 10.50 (Nominal) 12.50 (Maximum)		
Master: 17-JAN-2001 16:38						Before: 17-JAN-2001 16:42		

Slimhole Litho-Density Tool Master Calibration											
SS Bkgd Subtracted Window Countrates											
Phase	SS Wind 1 Water Lo PE BSub CPS	Value	Phase	SS Wind 2 Water Lo PE BSub CPS	Value	Phase	SS Wind 3 Water Lo PE BSub CPS	Value	Phase	SS Wind 4 Water Lo PE BSub CPS	Value
Master		43740	Master		37770	Master		26350	Master		19380
33500 (Minimum) 49100 (Nominal) 54450 (Maximum)			27650 (Minimum) 40900 (Nominal) 45600 (Maximum)			19100 (Minimum) 28500 (Nominal) 32000 (Maximum)			14200 (Minimum) 21200 (Nominal) 23850 (Maximum)		
Master		14880	Master		4833						
14200 (Minimum) 21200 (Nominal) 23850 (Maximum)			11550 (Minimum) 16600 (Nominal) 19850 (Maximum)			3800 (Minimum) 5500 (Nominal) 7150 (Maximum)					
Phase	SS Wind 1 Water Hi PE BSub CPS	Value	Phase	SS Wind 2 Water Hi PE BSub CPS	Value	Phase	SS Wind 3 Water Hi PE BSub CPS	Value	Phase	SS Wind 4 Water Hi PE BSub CPS	Value
Master		36620	Master		34530	Master		24600	Master		18230
28350 (Minimum) 41700 (Nominal) 46300 (Maximum)			25400 (Minimum) 37700 (Nominal) 42100 (Maximum)			17850 (Minimum) 26800 (Nominal) 30050 (Maximum)					
Phase	SS Wind 4 Water Hi PE BSub CPS	Value	Phase	SS Wind 5 Water Hi PE BSub CPS	Value	Phase	SS Wind 6 Water Hi PE BSub CPS	Value			
Master		18230	Master		14220	Master		4645			
13350 (Minimum) 20100 (Nominal) 22550 (Maximum)			11100 (Minimum) 15900 (Nominal) 19200 (Maximum)			3650 (Minimum) 5400 (Nominal) 6950 (Maximum)					
Master: 17-JAN-2001 16:38											

Slimhole Litho-Density Tool Master Calibration											
MS Bkgd Subtracted Window Countrates											
Phase	MS Wind 1 Water Lo PE BSub CPS	Value	Phase	MS Wind 2 Water Lo PE BSub CPS	Value	Phase	MS Wind 3 Water Lo PE BSub CPS	Value	Phase	MS Wind 4 Water Lo PE BSub CPS	Value
Master		4488	Master		12000	Master		9540	Master		7864
3050 (Minimum) 4900 (Nominal) 5650 (Maximum)			8650 (Minimum) 13300 (Nominal) 14700 (Maximum)			6800 (Minimum) 10700 (Nominal) 11950 (Maximum)			5400 (Minimum) 8800 (Nominal) 10300 (Maximum)		
Master		9145	Master		1642						
5400 (Minimum) 8800 (Nominal) 10300 (Maximum)			6050 (Minimum) 10200 (Nominal) 12100 (Maximum)			700.0 (Minimum) 1800 (Nominal) 2650 (Maximum)					
Phase	MS Wind 1 Water Hi PE BSub CPS	Value	Phase	MS Wind 2 Water Hi PE BSub CPS	Value	Phase	MS Wind 3 Water Hi PE BSub CPS	Value	Phase	MS Wind 4 Water Hi PE BSub CPS	Value
Master		3218	Master		9644	Master		8280	Master		7000
2050 (Minimum) 3500 (Nominal) 4050 (Maximum)			6850 (Minimum) 10600 (Nominal) 11850 (Maximum)			6000 (Minimum) 9200 (Nominal) 10600 (Maximum)					
Phase	MS Wind 4 Water Hi PE BSub CPS	Value	Phase	MS Wind 5 Water Hi PE BSub CPS	Value	Phase	MS Wind 6 Water Hi PE BSub CPS	Value			
Master		7000	Master		8153	Master		1440			
4700 (Minimum) 7800 (Nominal) 9200 (Maximum)			5250 (Minimum) 9100 (Nominal) 10900 (Maximum)			500.0 (Minimum) 1600 (Nominal) 2350 (Maximum)					
Master: 17-JAN-2001 16:38											

Slimhole Litho-Density Tool Master Calibration											
LS Bkgd Subtracted Window Countrates											
Phase	LS Wind 1 Water Lo PE BSub CPS	Value	Phase	LS Wind 2 Water Lo PE BSub CPS	Value	Phase	LS Wind 3 Water Lo PE BSub CPS	Value	Phase	LS Wind 4 Water Lo PE BSub CPS	Value
Master		2093	Master		2832	Master		1985	Master		
1300 (Minimum) 2000 (Nominal) 2500 (Maximum)			1800 (Minimum) 2900 (Nominal) 3300 (Maximum)			1250 (Minimum) 2100 (Nominal) 2450 (Maximum)					
Phase	LS Wind 4 Water Lo PE BSub CPS	Value	Phase	LS Wind 5 Water Lo PE BSub CPS	Value	Phase	LS Wind 6 Water Lo PE BSub CPS	Value			
Master			Master			Master					

Phase	LS Wind 1	Water	Hi	PE	BSub	CPS	Value	Phase	LS Wind 2	Water	Hi	PE	BSub	CPS	Value	Phase	LS Wind 3	Water	Hi	PE	BSub	CPS	Value
Master							1508	Master							1506	Master							196.4
	850.0 (Minimum)	1600 (Nominal)	2050 (Maximum)						800.0 (Minimum)	1600 (Nominal)	2100 (Maximum)						100.0 (Minimum)	200.0 (Nominal)	500.0 (Maximum)				
Phase	LS Wind 4	Water	Hi	PE	BSub	CPS	Value	Phase	LS Wind 5	Water	Hi	PE	BSub	CPS	Value	Phase	LS Wind 6	Water	Hi	PE	BSub	CPS	Value
Master							1544	Master							2483	Master							1861
	900.0 (Minimum)	1400 (Nominal)	1850 (Maximum)						1550 (Minimum)	2400 (Nominal)	2900 (Maximum)						1100 (Minimum)	1900 (Nominal)	2250 (Maximum)				
Phase	LS Wind 4	Water	Hi	PE	BSub	CPS	Value	Phase	LS Wind 5	Water	Hi	PE	BSub	CPS	Value	Phase	LS Wind 6	Water	Hi	PE	BSub	CPS	Value
Master							1401	Master							1413	Master							192.9
	750.0 (Minimum)	1400 (Nominal)	1850 (Maximum)						750.0 (Minimum)	1400 (Nominal)	2050 (Maximum)						100.0 (Minimum)	200.0 (Nominal)	500.0 (Maximum)				

Master: 17-JAN-2001 16:38

Slimhole Litho-Density Tool Master Calibration																				
Housing Diameter Wear Measurement																				
Phase	Source	Housing	Wear	Meas	MM	Value	Phase	SS	Housing	Wear	Meas	MM	Value	Phase	MS	Housing	Wear	Meas	MM	Value
Master						63.62	Master					63.68	Master						63.66	
	62.61 (Minimum)	63.50 (Nominal)	63.63 (Maximum)					62.61 (Minimum)	63.68 (Nominal)	63.83 (Maximum)				62.61 (Minimum)	63.68 (Nominal)	63.83 (Maximum)				
Phase	LS	Housing	Wear	Meas	MM	Value														
Master						63.62														
	62.61 (Minimum)	63.68 (Nominal)	63.83 (Maximum)																	

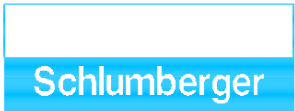
Master: 17-JAN-2001 16:38

SLIM Telemetry Gamma-ray Cartridge - B / Equipment Identification	
Primary Equipment:	
STGC Gamma-ray & Accelerometer Cartridge	STGC - B
STGC Telemetry Cartridge	STGC - A
Auxiliary Equipment:	
SLIM Electronics Cartridge Housing	STGH - B

SLIM Telemetry Gamma-ray Cartridge - B Wellsite Calibration														
Detector Calibration														
Phase	Gamma Ray	Background	GAPI	Value	Phase	Gamma Ray	(Jig - Bkg)	GAPI	Value	Phase	Gamma Ray	(Calibrated)	GAPI	Value
Before				8.447	Before				144.9	Before				155.1
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)			131.7 (Minimum)	144.9 (Nominal)	158.0 (Maximum)			140.1 (Minimum)	155.1 (Nominal)	170.1 (Maximum)	

Before: 17-JAN-2001 16:44

<b>COMPANY:</b> DEER LAKE OIL & GAS INC.  <b>WELL:</b> DEER LAKE OIL & GAS ET AL WESTERN ADVENTURE N <b>FIELD:</b> EXPLORATORY <b>PROVINCE:</b> NEWFOUNDLAND	BOTTOM LOG INTERVAL	1572 m
	SCHLUMBERGER DEPTH	1575 m
	DEPTH DRILLER	1584 m
	KELLY BUSHING	92.5 m
	DRILL FLOOR	92.5 m
	GROUND LEVEL	90 m



**SLIM ACCESS  
LITHO DENSITY**

COMPANY: DEER LAKE OIL & GAS INC

WELL: DEER LAKE OIL & GAS E  
WESTERN ADVENTURE N  
FIELD: EXPLORATORY

PROVINCE: NEWFOUNDLAND

PROVINCENEWFOUNDLAND  
Field: EXPLORATORY  
Location: NORTHING: 5,456,519  
Well: DEER LAKE OIL & GAS ET AL  
Company: DEER LAKE OIL & GAS INC.



DUAL LATER

LOCATION		NORTHING: 5,456,519	Elev
		EASTING: 482,797	
Permanent Datum:	GROUND LEVEL		Elev
Log Measured From:	DRILL FLOOR		2.5
Drilling Measured From:	DRILL FLOOR		
API Serial No.			NOR
2000-120-01-01			5,4

Logging Date	17-JAN-2001		
Run Number	TWO		
Depth Driller	1584 m		
Schlumberger Depth	1575 m		
Bottom Log Interval	1571 m		
Top Log Interval	873 m		
Casing Driller Size @ Depth	89,000 mm	@	872 m
Casing Schlumberger	873 m		
Bit Size	75,770 mm		
Type Fluid In Hole	POLYMER - KCL		
Density	1068 kg/m <sup>3</sup>		34 s
Fluid Loss	PH		
Source Of Sample	MEASURED		
RM @ Measured Temperature	0.162 ohm.m	@	5 degC
RMF @ Measured Temperature		@	
RMC @ Measured Temperature		@	
Source RMF	RMC		
RM @ MRT	RMF @ MRT	NO SAMPLE @ 44	NO SAMPLE @ 44
Maximum Recorded Temperatures	44 degC		44
Circulation Stopped	Time	16-JAN-2001	10:00
Logger On Bottom	Time	18-JAN-2001	16:55
Unit Number	Location	19	DARTMOUTH
Recorded By	KELLI SASCO		
Witnessed By	STAN PODULSKY		

LOG

K.B. 92.5 m  
G.L. 90 m  
D.F. 92.5 m

90 m  
above Perm. Datum

RTHING: EASTING:  
56,519 482,797

		Run 1	Run 2	Run 3	Run 4
Logging Date					
Run Number					
Depth Driller					
Schlumberger Depth					
Bottom Log Interval					
Top Log Interval					
Casing Driller Size @ Depth			@		@
Casing Schlumberger					
Bit Size					
Type Fluid In Hole					
Density					
Fluid Loss					
Source Of Sample					
RM @ Measured Temperature			@		@
RMF @ Measured Temperature			@		@
RMC @ Measured Temperature			@		@
Source RMF					
RM @ MRT			@		@
RMF @ MRT					
Maximum Recorded Temperatures					
Circulation Stopped					
Logger On Bottom					
Unit Number					
Recorded By					
Witnessed By					

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 INTERPRETATIONS, 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 CLAUSE 4 OF OUR GENERAL TERMS AND CONDITIONS AS SET OUT IN OUR CURRENT PRICE SCHEDULE.

OTHER SERVICES1  
OS1: SLIM LITHO DENSITY  
OS2: SLIM DUAL LATEROLOG  
OS3: SLIM BHC SONIC  
OS4:  
OS5:

OTHER SERVICES2  
OS1:  
OS2:  
OS3:  
OS4:  
OS5:

REMARKS: RUN NUMBER 1

REMARKS: RUN NUMBER 2

\*\*\*\*DRILLER TD NOT REACHED DUE TO FISH IN HOLE AT 1584M \*\*\*\*

LOGS RUN TO 1575 M, AS PER CLIENT REQUEST

1ST DESCENT: GAUGE RUN (GR. TELEMETRY)

TOP DESCENT: CAROL RUN (GR, TELEMETRY)

2ND DESCENT: LITHO DENSITY, GR

3RD DESCENT: BHC SONIC

4TH DESCENT: DUAL LATEROLOG

ALL TOOLS RUN SLICK

RIG: LONGYEAR SUPER 50

CREW 19: MIKE DIGGDON, STEVE BEATON

RUN 1  
 SERVICE ORDER #: 6418567  
 PROGRAM VERSION: 9C0-413  
 FLUID LEVEL:

RUN 2  
 SERVICE ORDER #:  
 PROGRAM VERSION:  
 FLUID LEVEL:

LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

### EQUIPMENT DESCRIPTION

RUN 1

RUN 2

#### SURFACE EQUIPMENT


LCM-AA 974  
WITM (DTS)-A



#### DOWNHOLE EQUIPMENT

BSP  
BRT-S 1  42.59

SP SPARC  24.42

LEH-ST  
LEH-ST  18.20

STGC-B  
STGH-B 8007  
STGC0-A  
STGC1-B  17.29

Gamma Ray  16.77  
CTEM  16.30

TelStatus  14.94

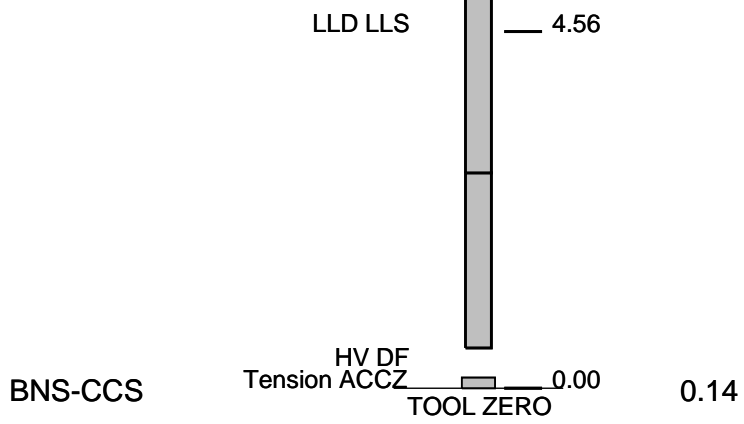
AH-201  
AH-201  14.94

AH-216  14.39

DTA-A  
ECH-KE  
DTA-A  14.14

MDLT-A  11.70

MDLH-A  
MDLI-A 710  
AH-189  
MDLH-B  
MDLC-A 710  
MDLS-A 710



MAXIMUM STRING DIAMETER 70 MM  
MEASUREMENTS RELATIVE TO TOOL ZERO  
ALL LENGTHS IN METERS

### Input DLIS Files

DEFAULT MDLT .011 FN:10 PRODUCER 18-Jan-2001 17:51 1575.4 M 866.9 M

### Output DLIS Files

DEFAULT MDLT .014 FN:13 PRODUCER 18-Jan-2001 20:40 1576.6 M 868.1 M

### OP System Version: 9C0-413

MCM

MDLT-A  
STGC-B

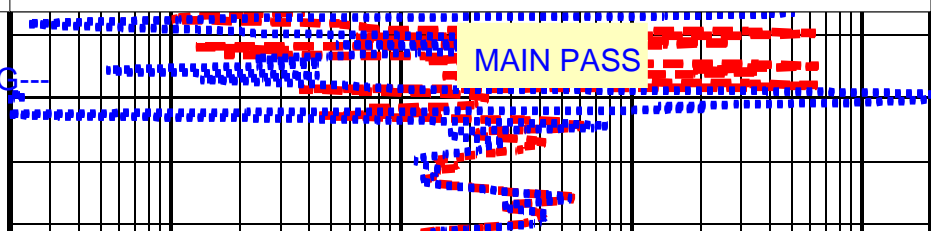
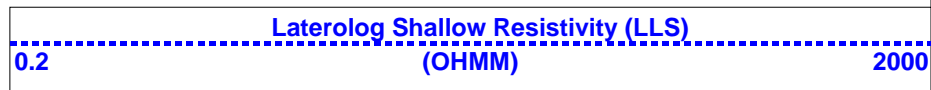
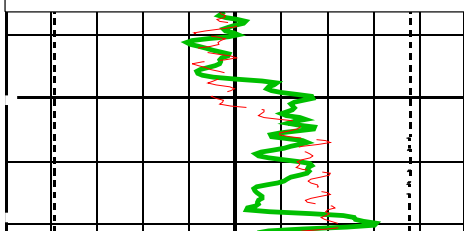
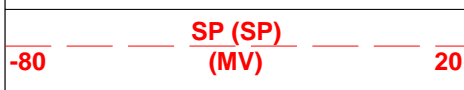
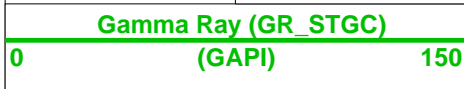
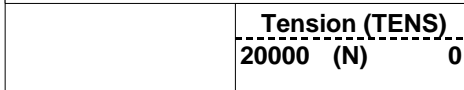
OP9-KP2  
OP9-KP2

DTA-A  
BSP

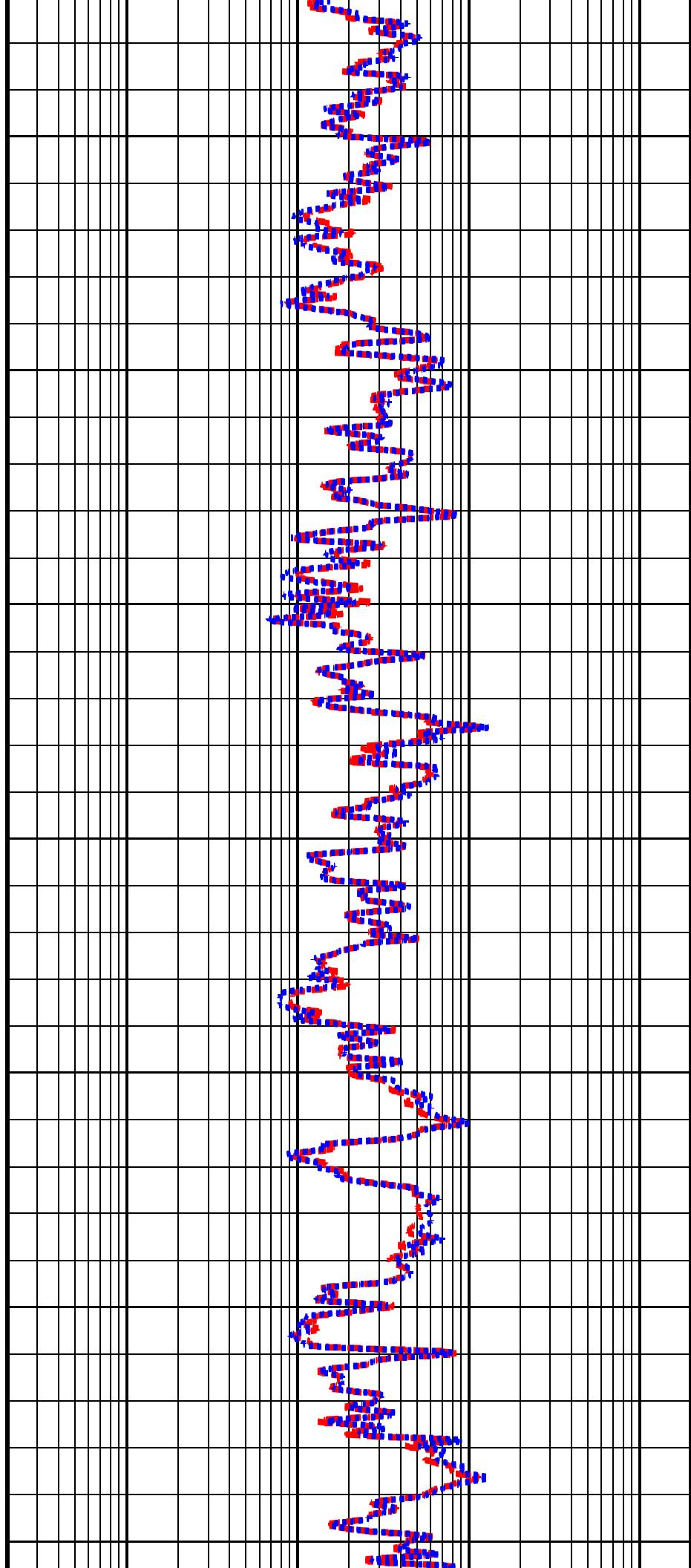
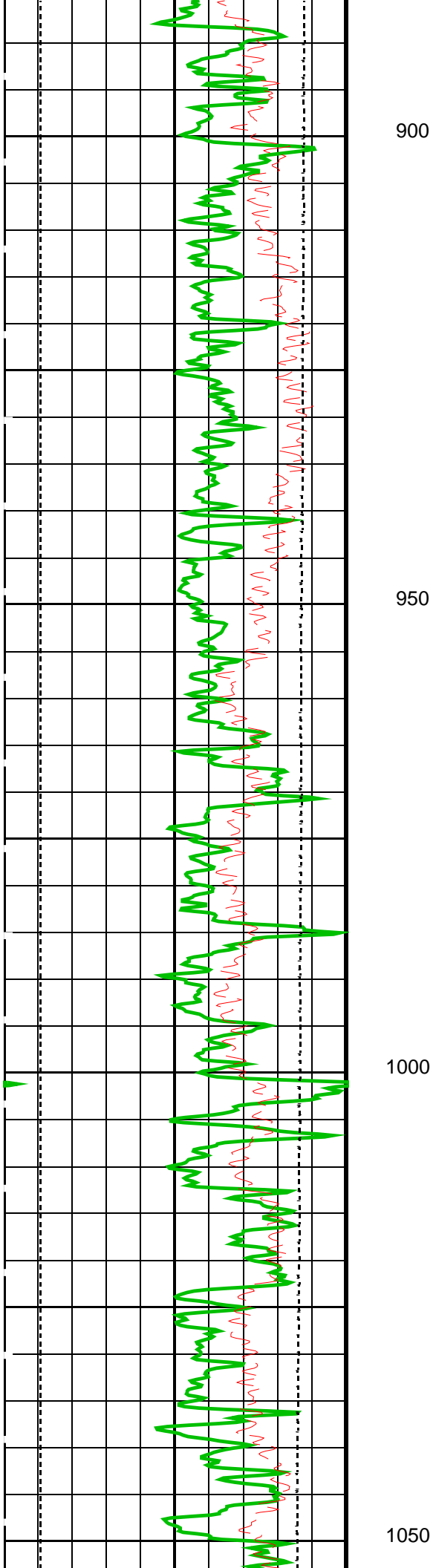
OP9-KP2  
OP9-KP2

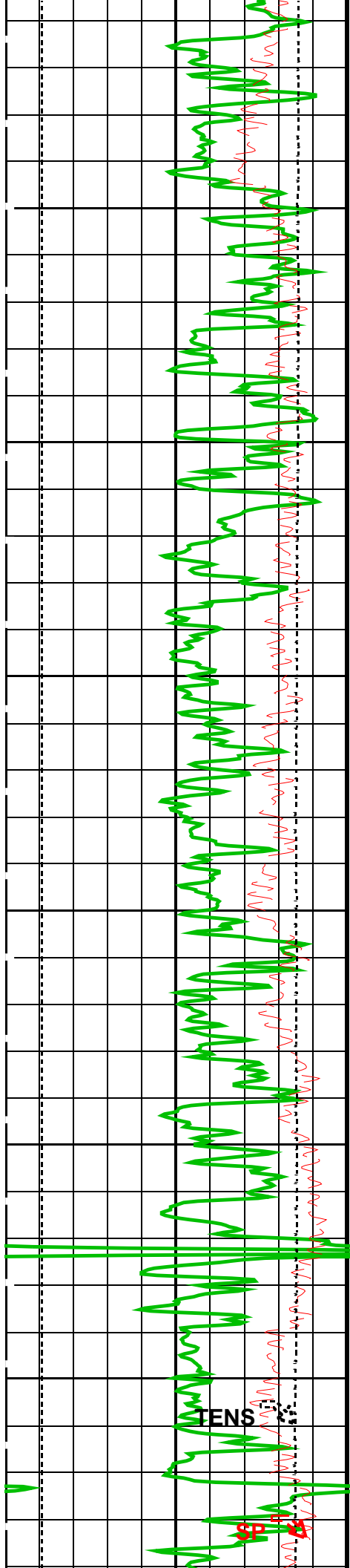
### PIP SUMMARY

Time Mark Every 60 S





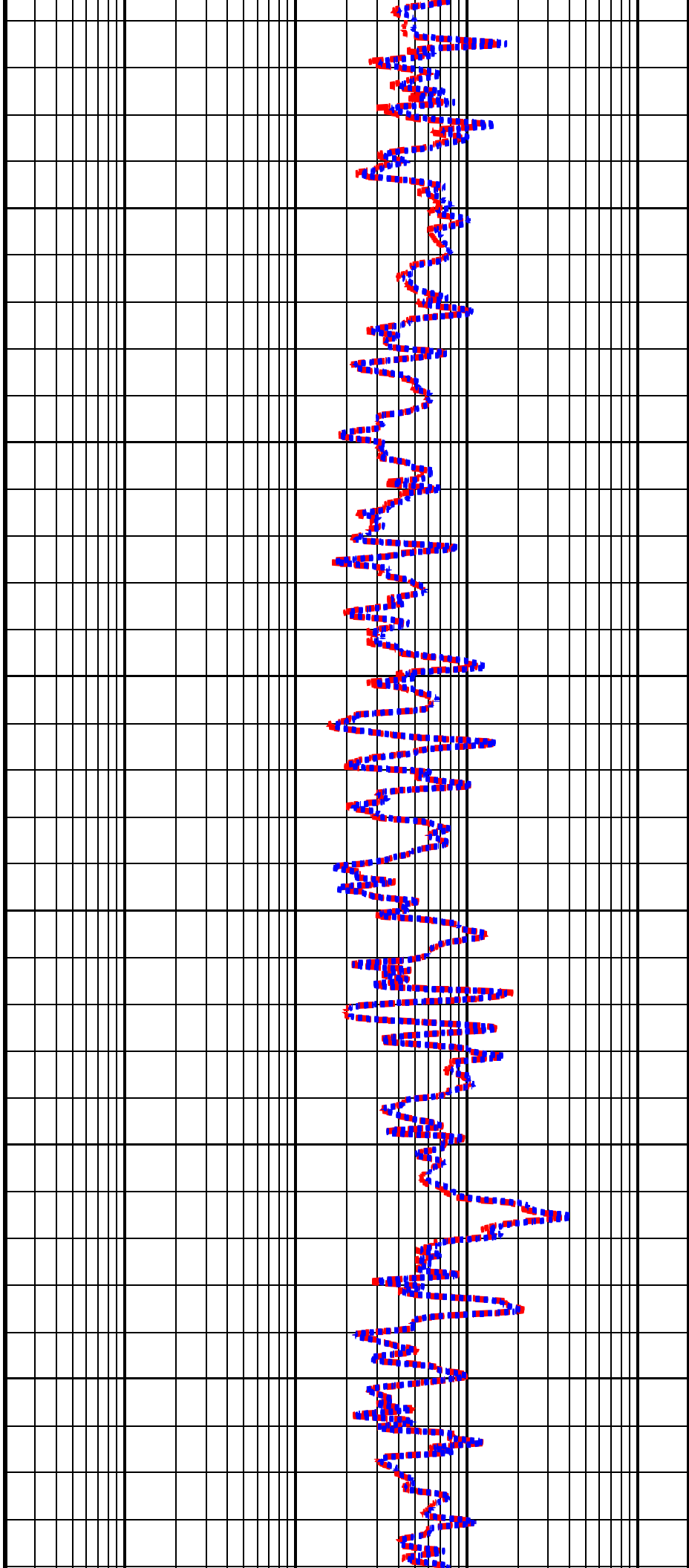


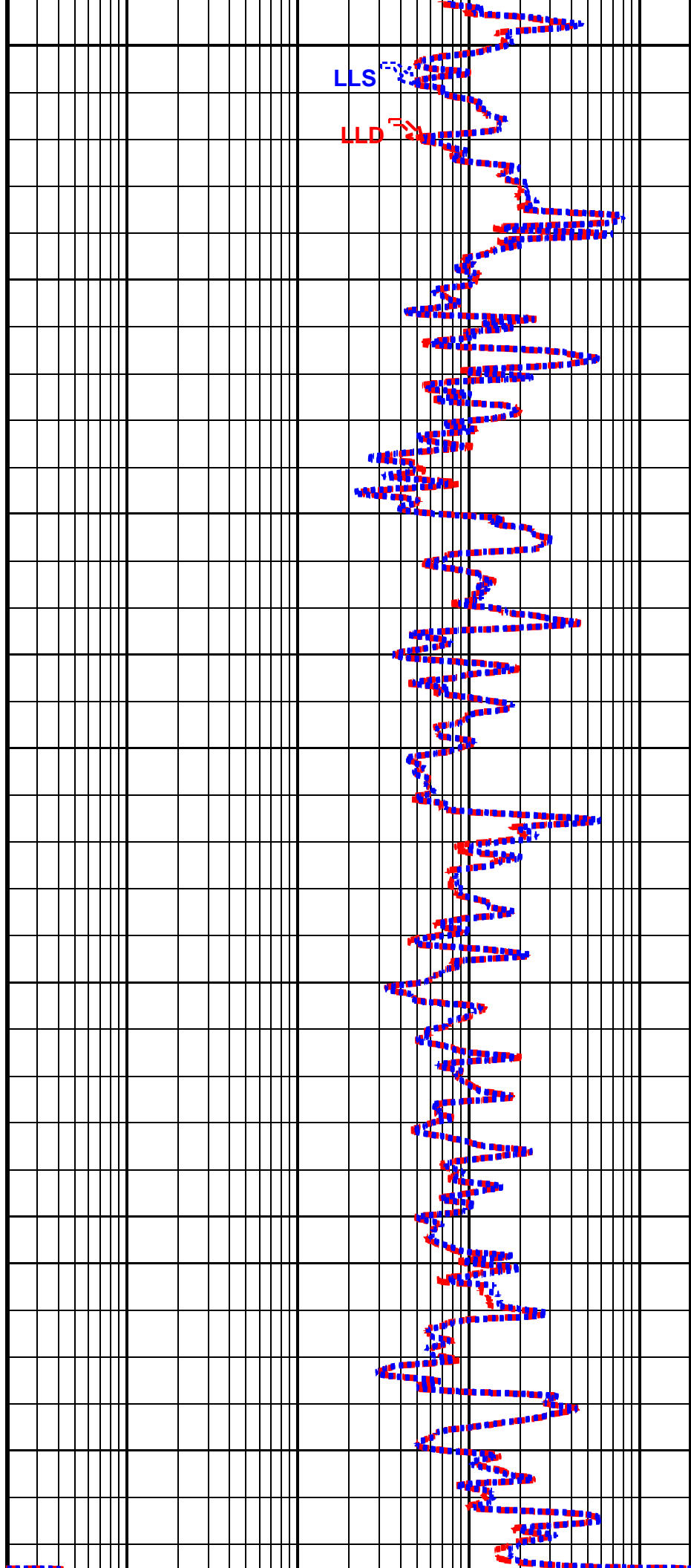
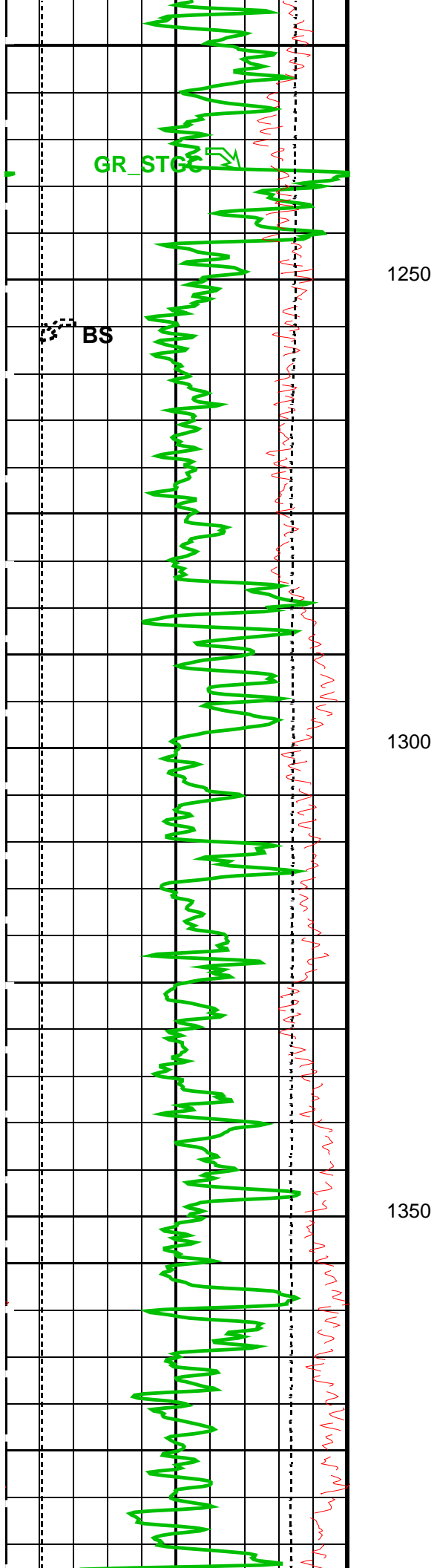


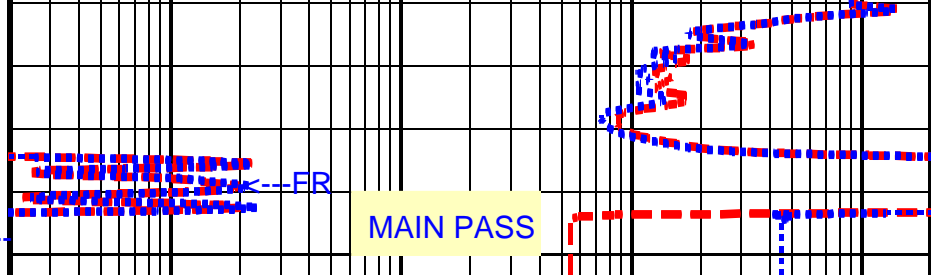
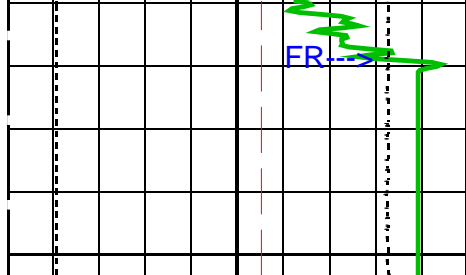
1100

1150

1200







<b>SP (SP)</b>		
-80	(MV)	20
<b>Bit Size (BS)</b>		
50	(MM)	300
<b>Gamma Ray (GR_STGC)</b>		
0	(GAPI)	150
<b>Tension (TENS)</b>		
20000	(N)	0

<b>Laterolog Deep Resistivity (LLD)</b>		
0.2	(OHMM)	2000
<b>Laterolog Shallow Resistivity (LLS)</b>		
0.2	(OHMM)	2000

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
BS	Bit Size	75.770 MM
DO	Depth Offset	1.2 M
DORL	Depth Offset Repeat Analysis	1.2 M
DPRF	DEEP REFERENCE POWER	550 NW
KFAC	K FACTOR	SOND
LLOO	LATEROLOG LOOP	OFF
PLRM	POWER LOOP REFERENCE MODE	DEEP
PP	Playback Processing	NORMAL
SPNV	SP Next Value	-25 MV
SPRF	SHALLOW REFERENCE POWER	550 NW

Format: DLT\_S2 Vertical Scale: 1:600 Graphics File Created: 18-Jan-2001 20:40

OP System Version: 9C0-413

MCM

MDLT-A	OP9-KP2	DTA-A	OP9-KP2
STGC-B	OP9-KP2	BSP	OP9-KP2

Input DLIS Files

DEFAULT	MDLT .011	FN:10 PRODUCER	18-Jan-2001 17:51	1575.4 M	866.9 M
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Output DLIS Files

DEFAULT	MDLT .014	FN:13 PRODUCER	18-Jan-2001 20:40
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Input DLIS Files

DEFAULT	MDLT .011	FN:10 PRODUCER	18-Jan-2001 17:51	1575.4 M	866.9 M
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Output DLIS Files

DEFAULT	MDLT .014	FN:13 PRODUCER	18-Jan-2001 20:40	1576.6 M	868.1 M
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OP System Version: 9C0-413

MCM

MDLT-A	OP9-KP2	DTA-A	OP9-KP2
STGC-B	OP9-KP2	BSP	OP9-KP2

PIP SUMMARY

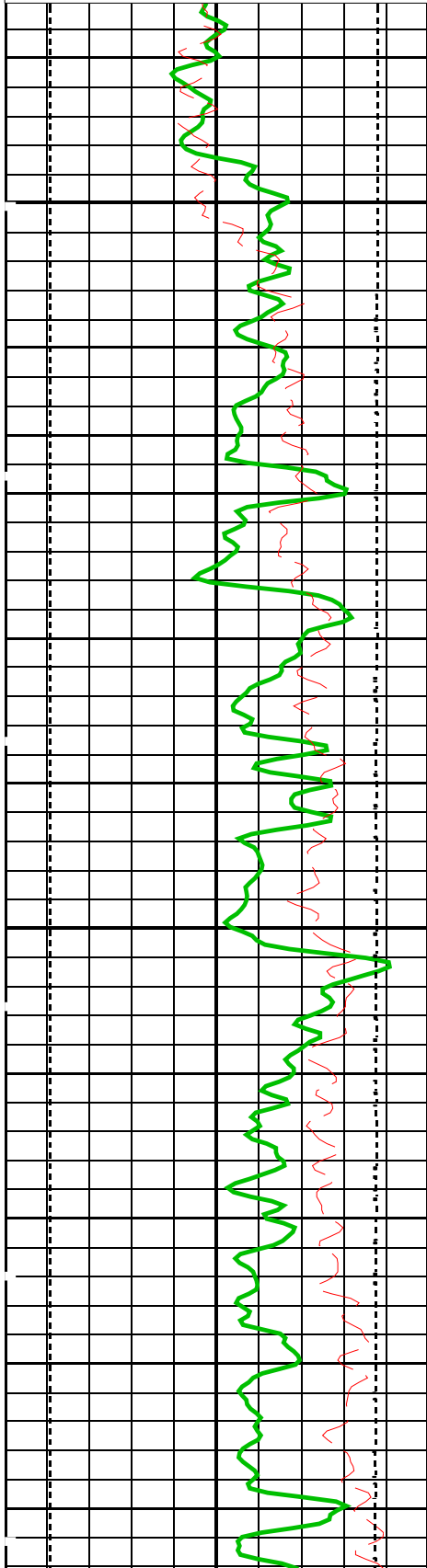
Time Mark Every 60 S

Tension (TENS)  
20000 (N) 0

Gamma Ray (GR\_STGC)  
0 (GAPI) 150

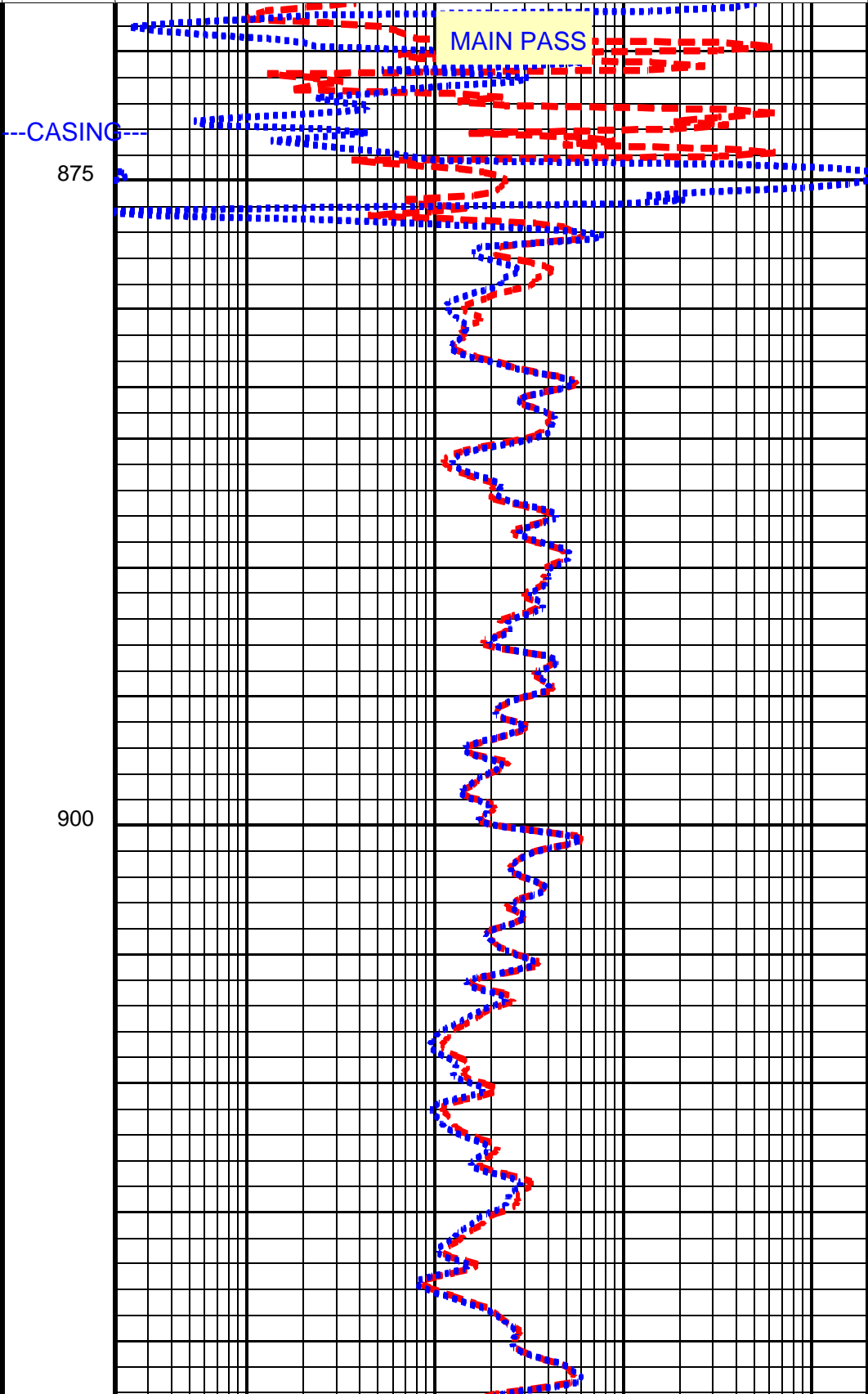
Bit Size (BS)  
50 (MM) 300

SP (SP)  
-80 (MV) 20



Laterolog Shallow Resistivity (LLS)  
0.2 (OHMM) 2000

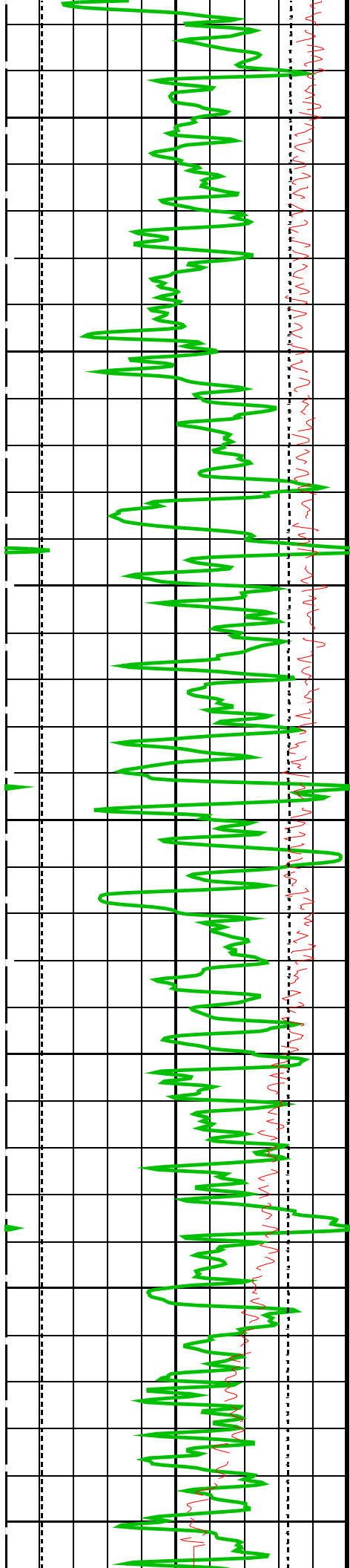
Laterolog Deep Resistivity (LLD)  
0.2 (OHMM) 2000



---CASING  
875

900

MAIN PASS

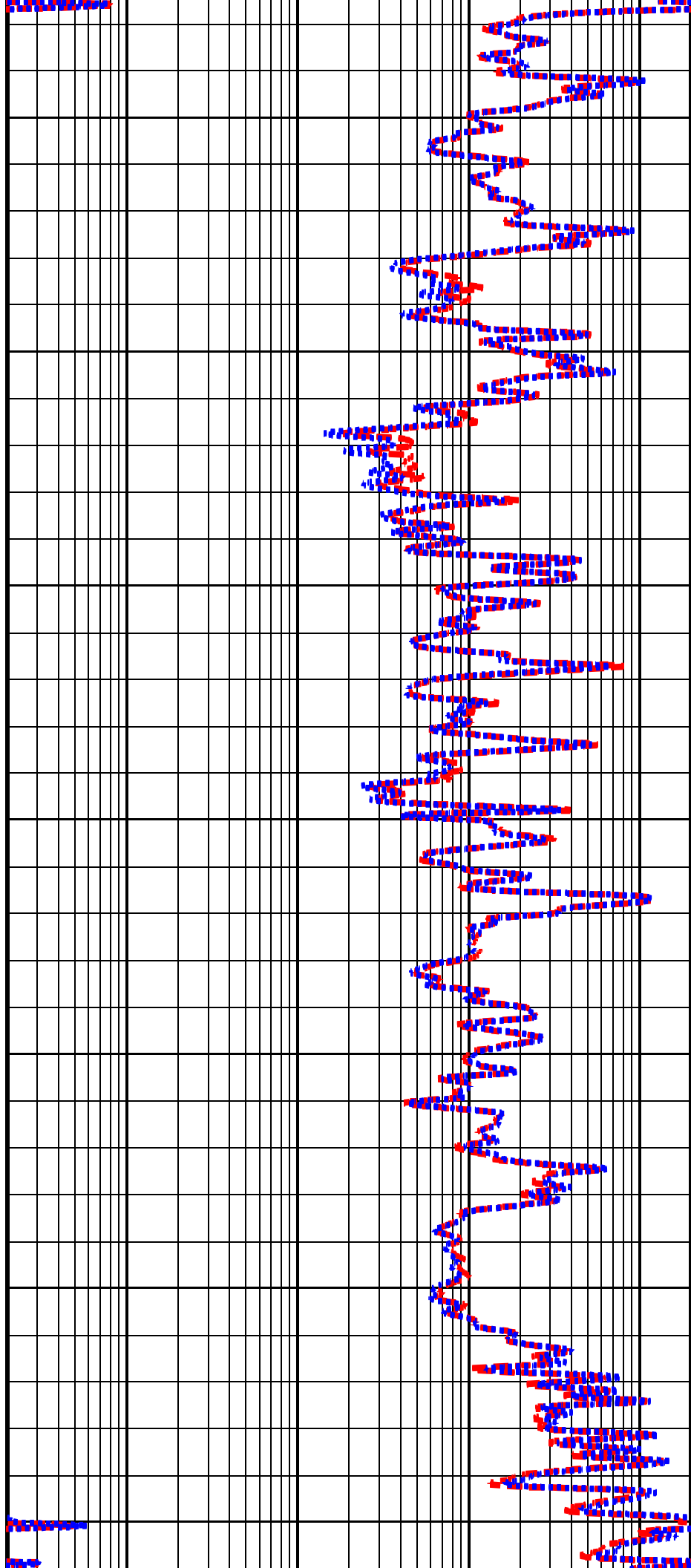


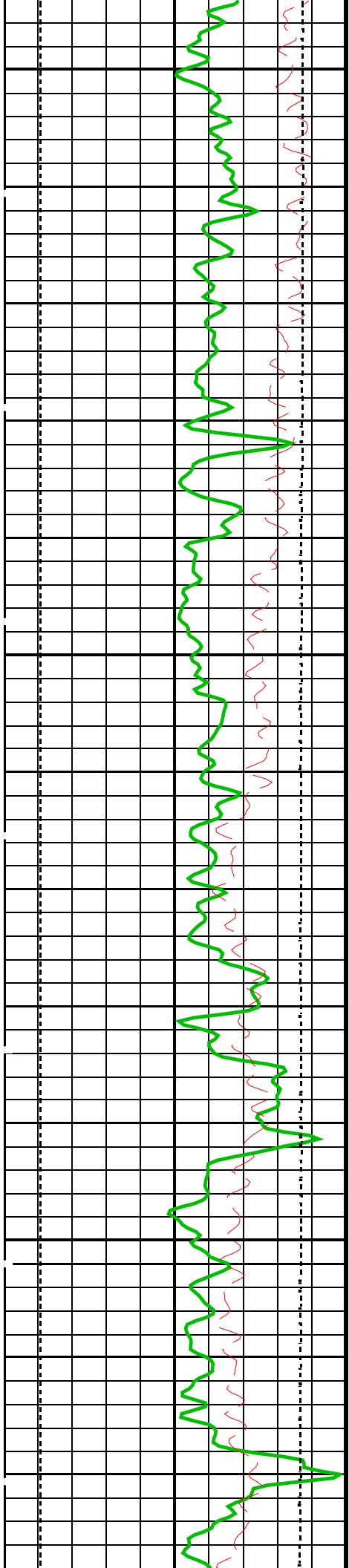
1400

1450

1500

1550

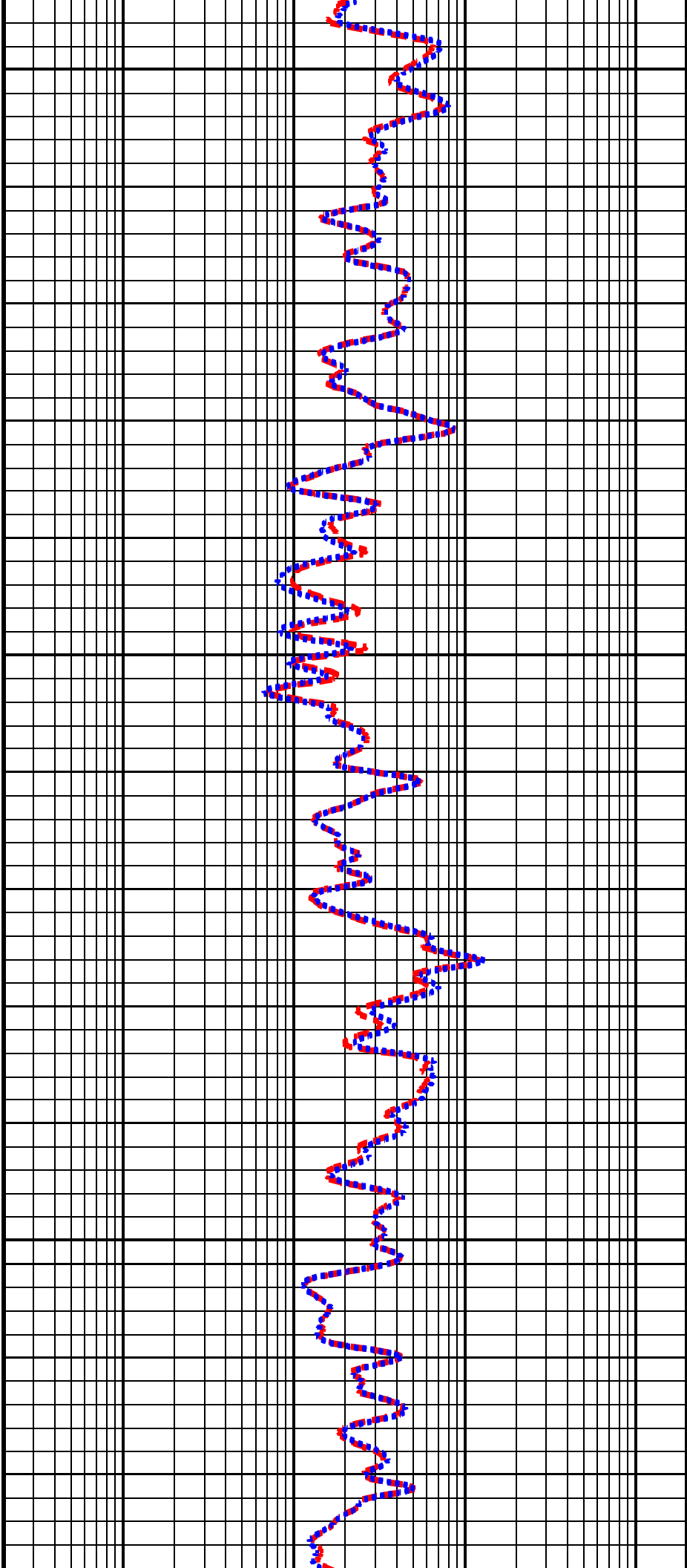


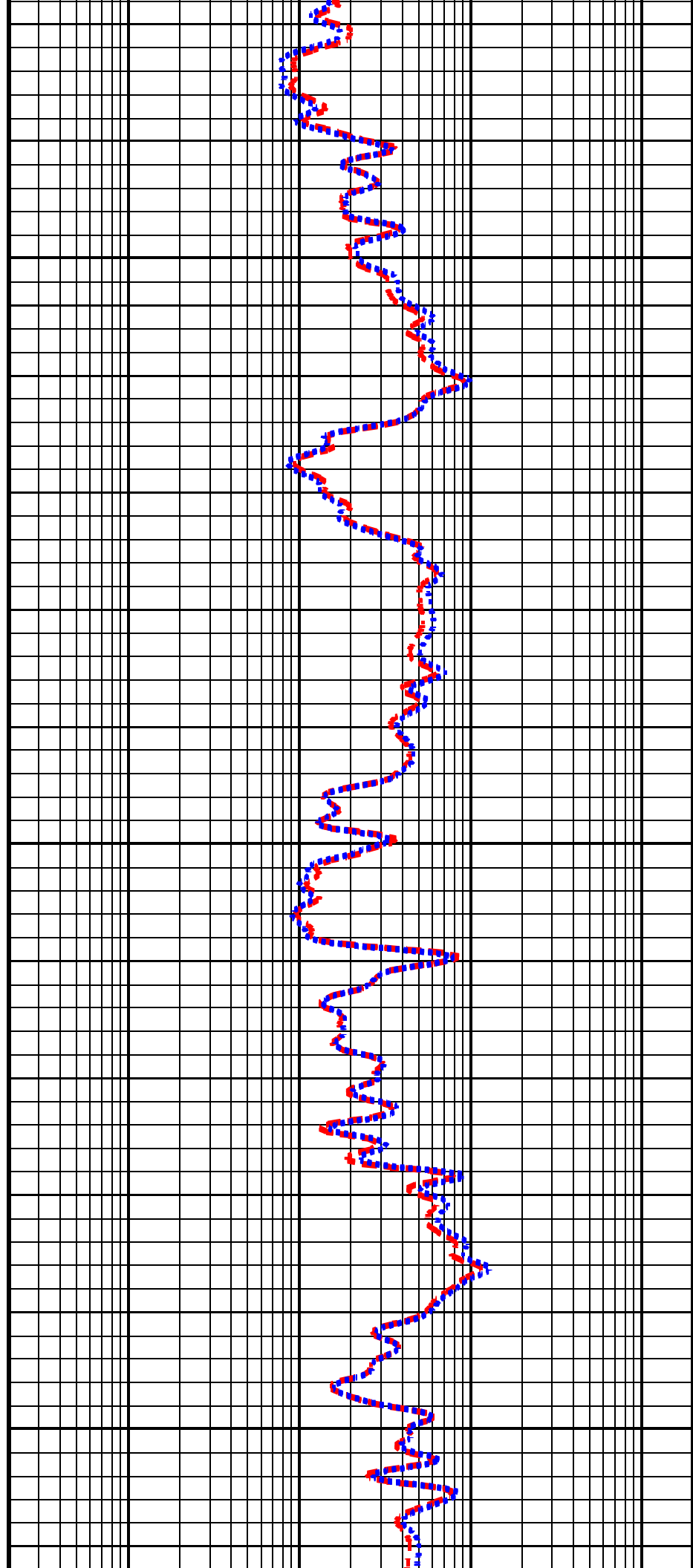
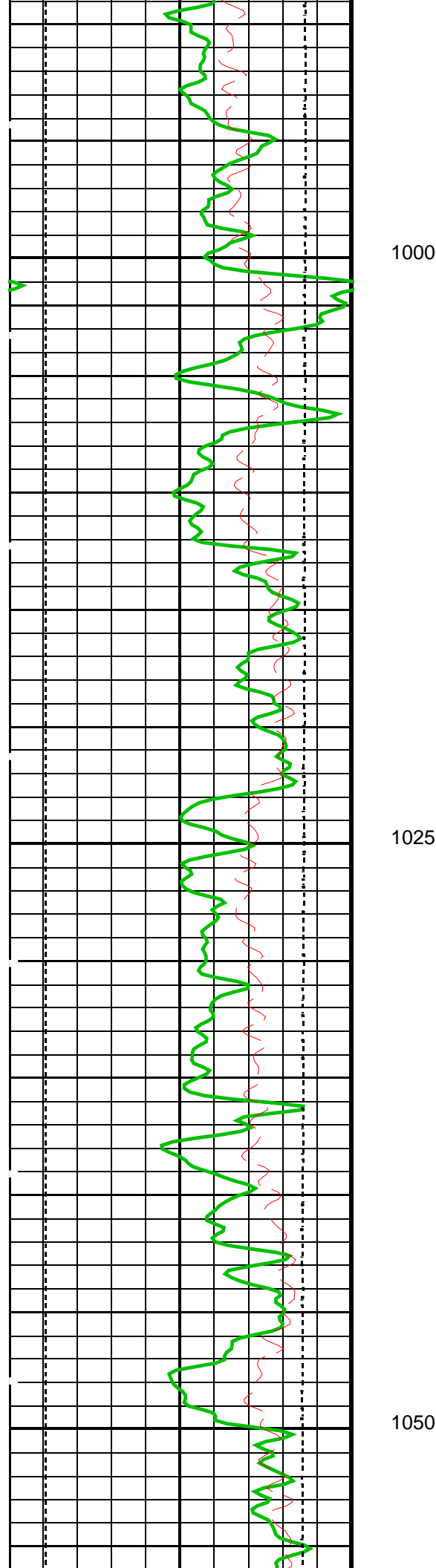


925

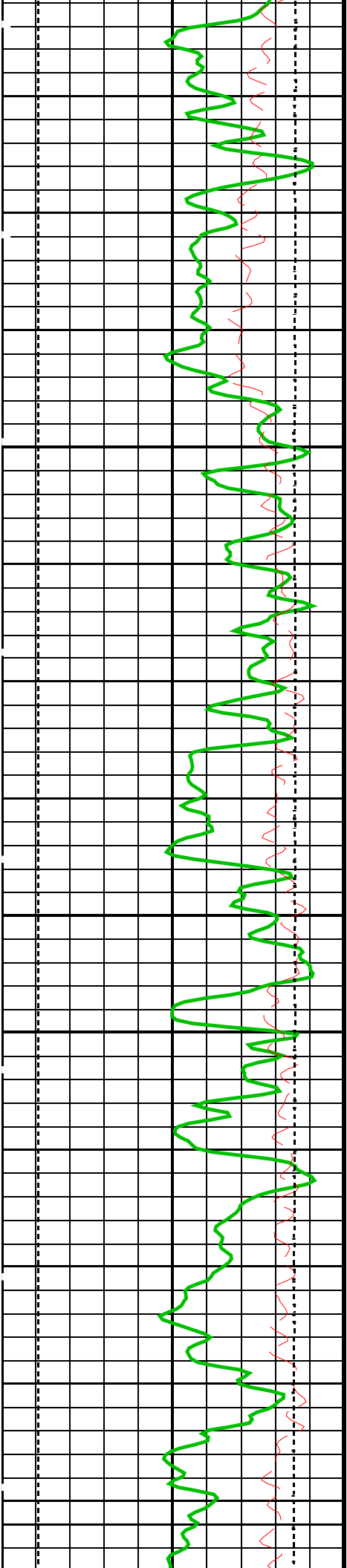
950

975



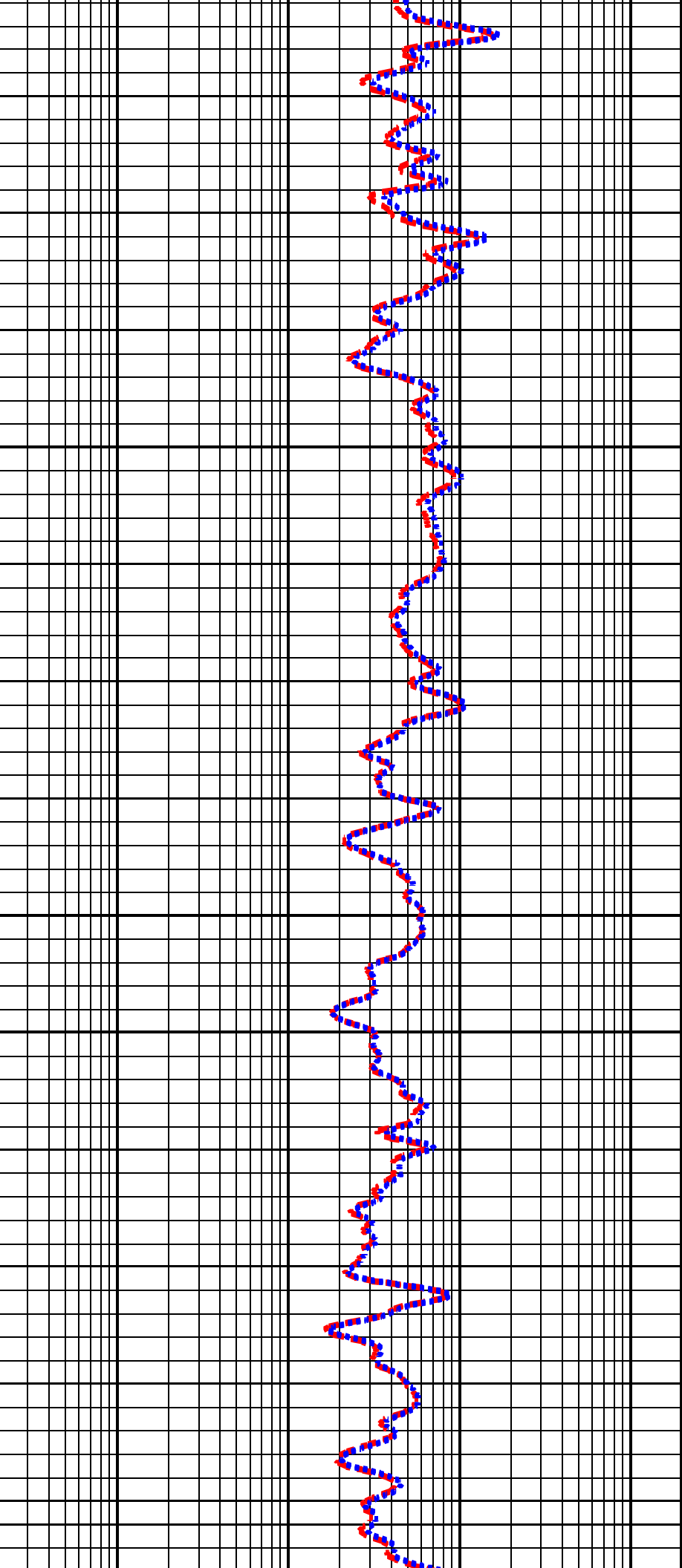


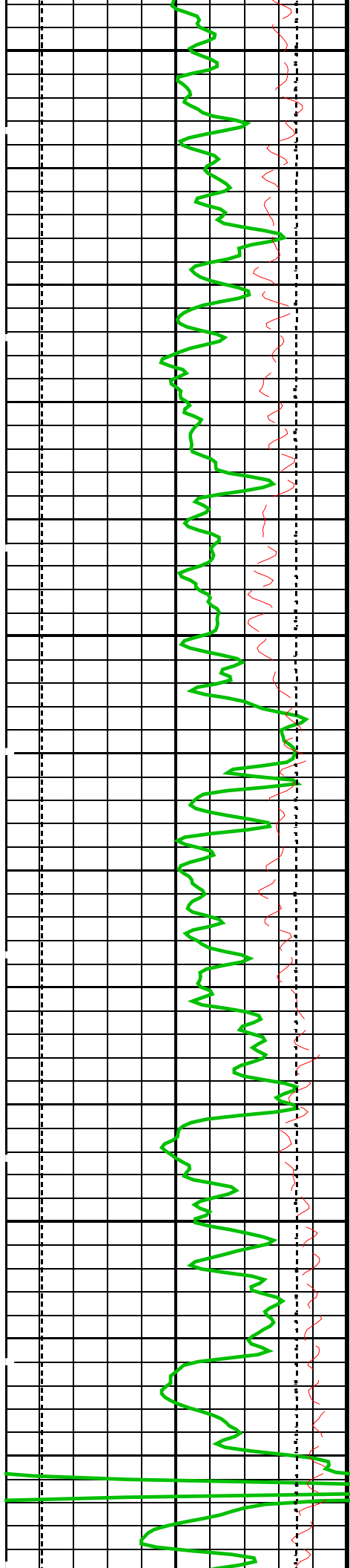




1075

1100

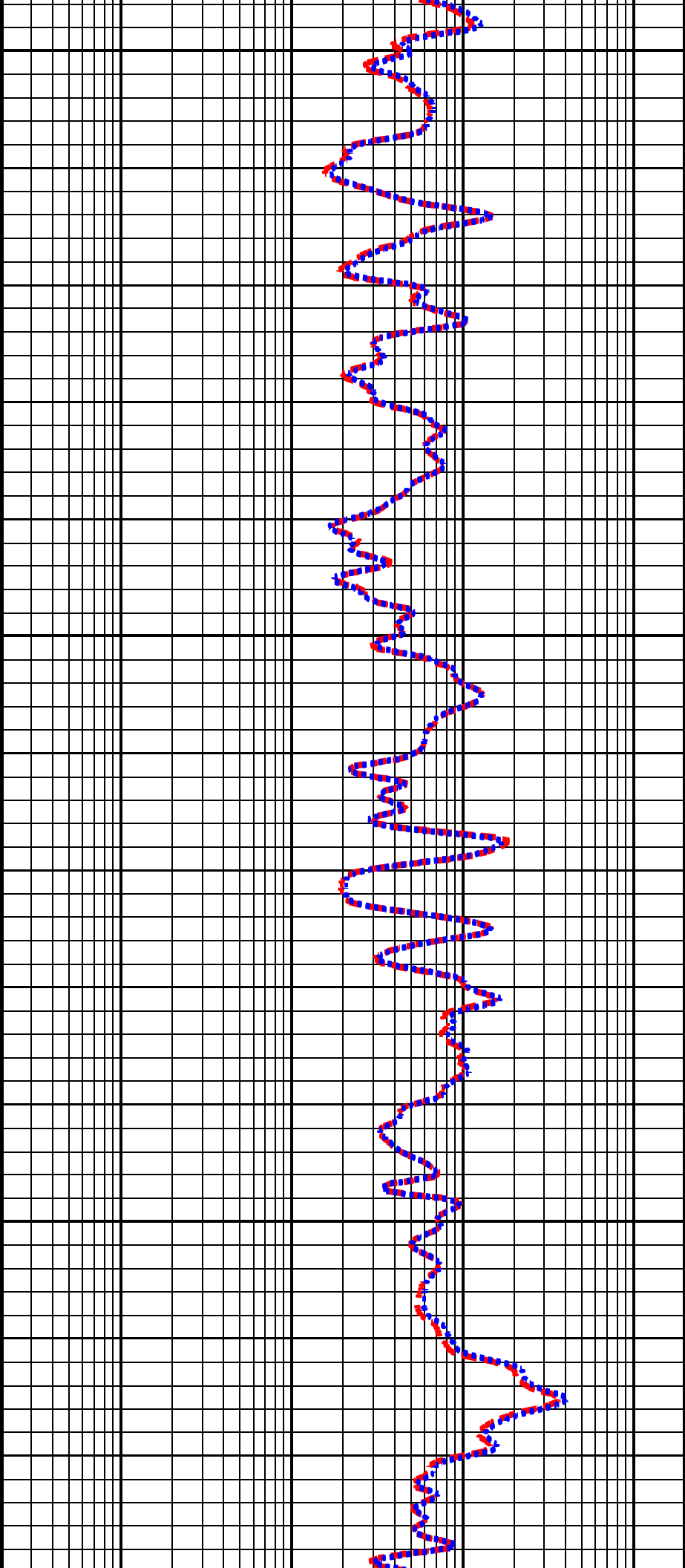


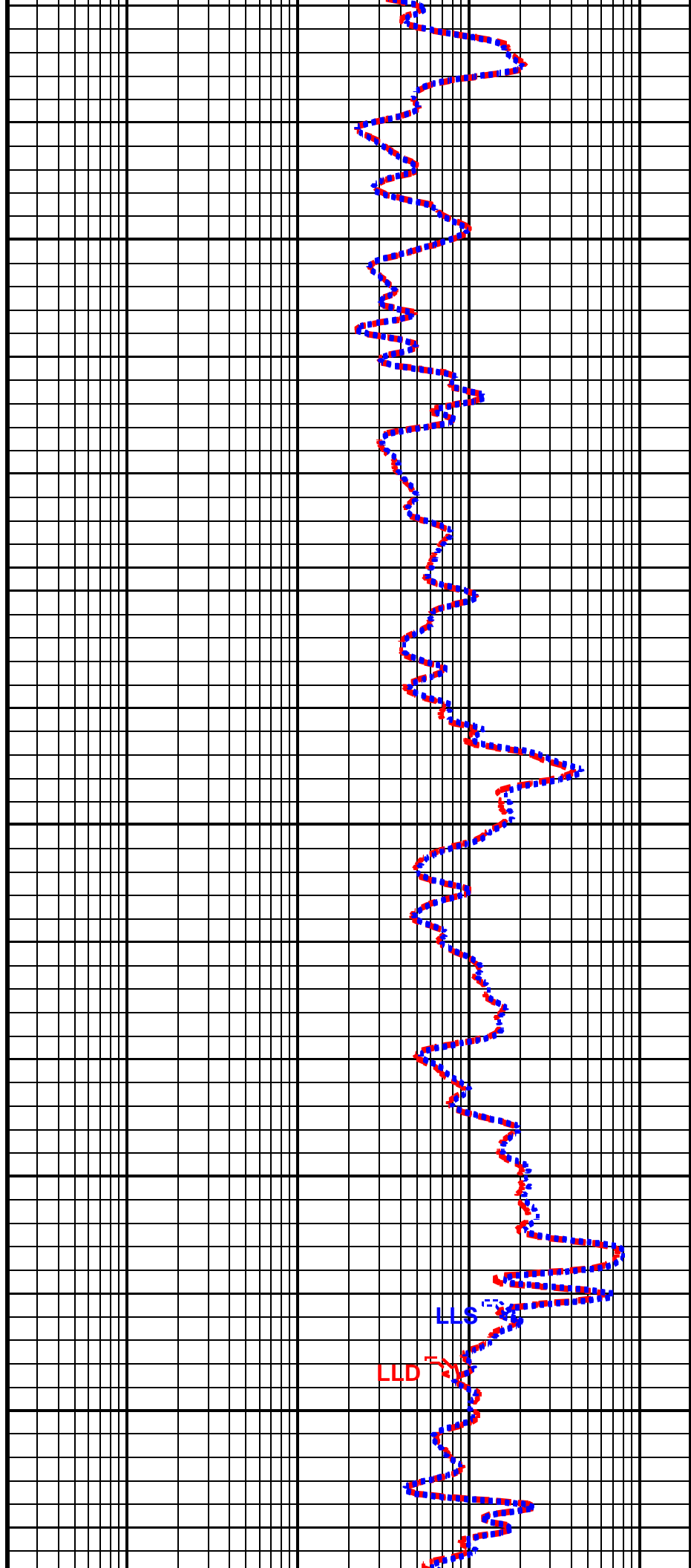
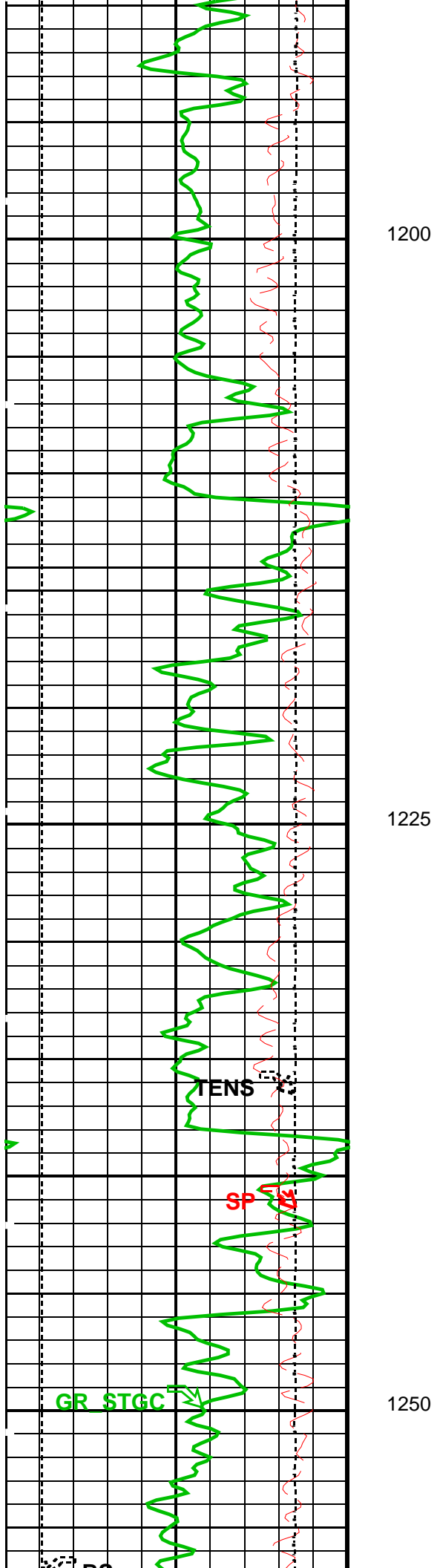


1125

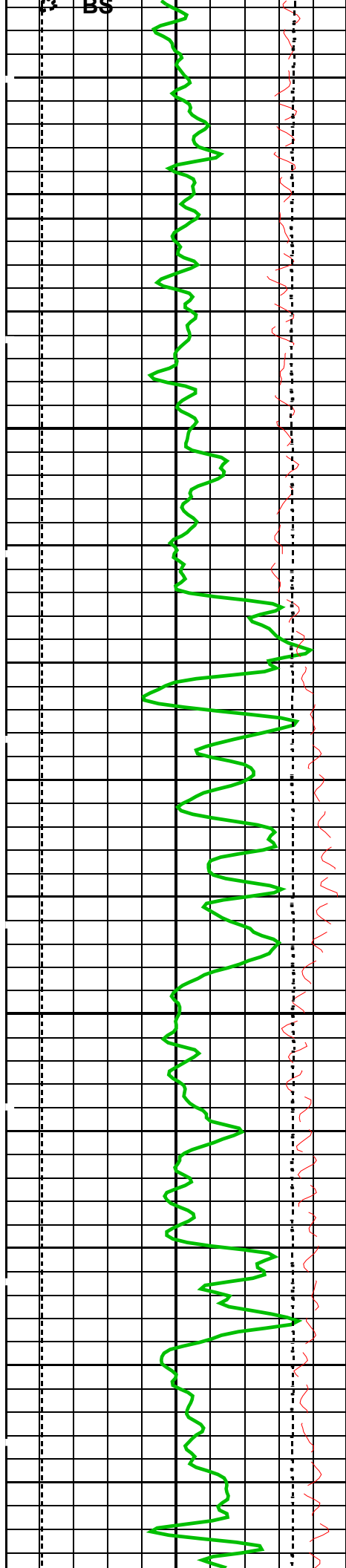
1150

1175



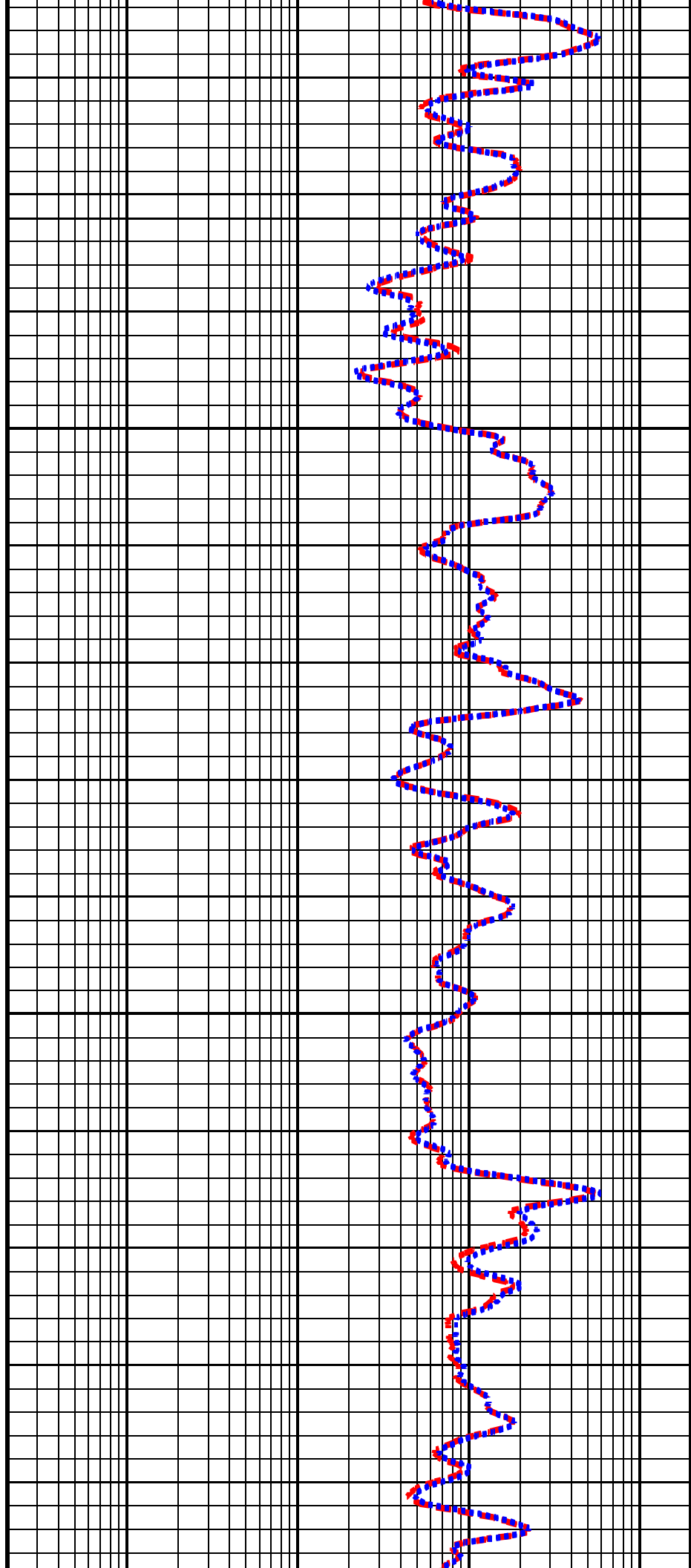


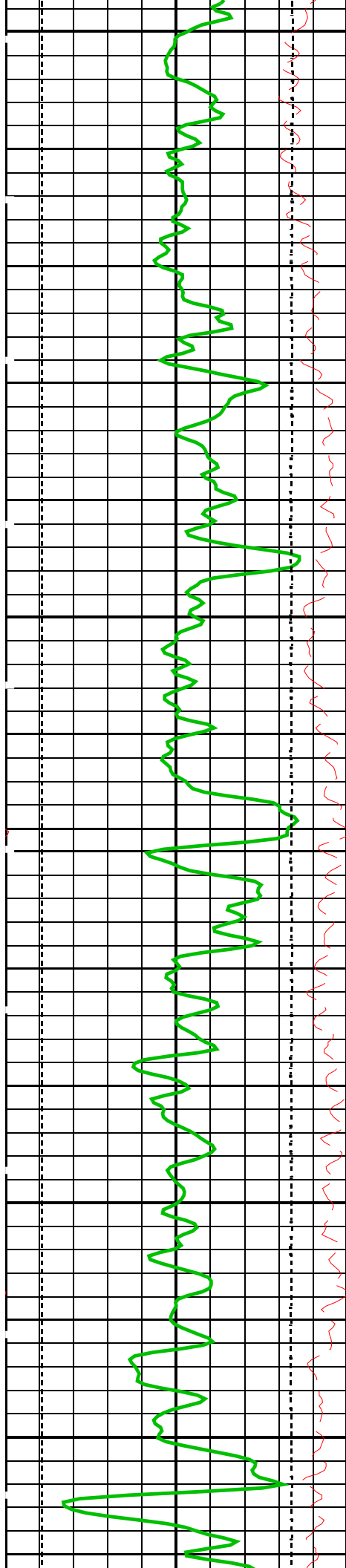
BS



1275

1300

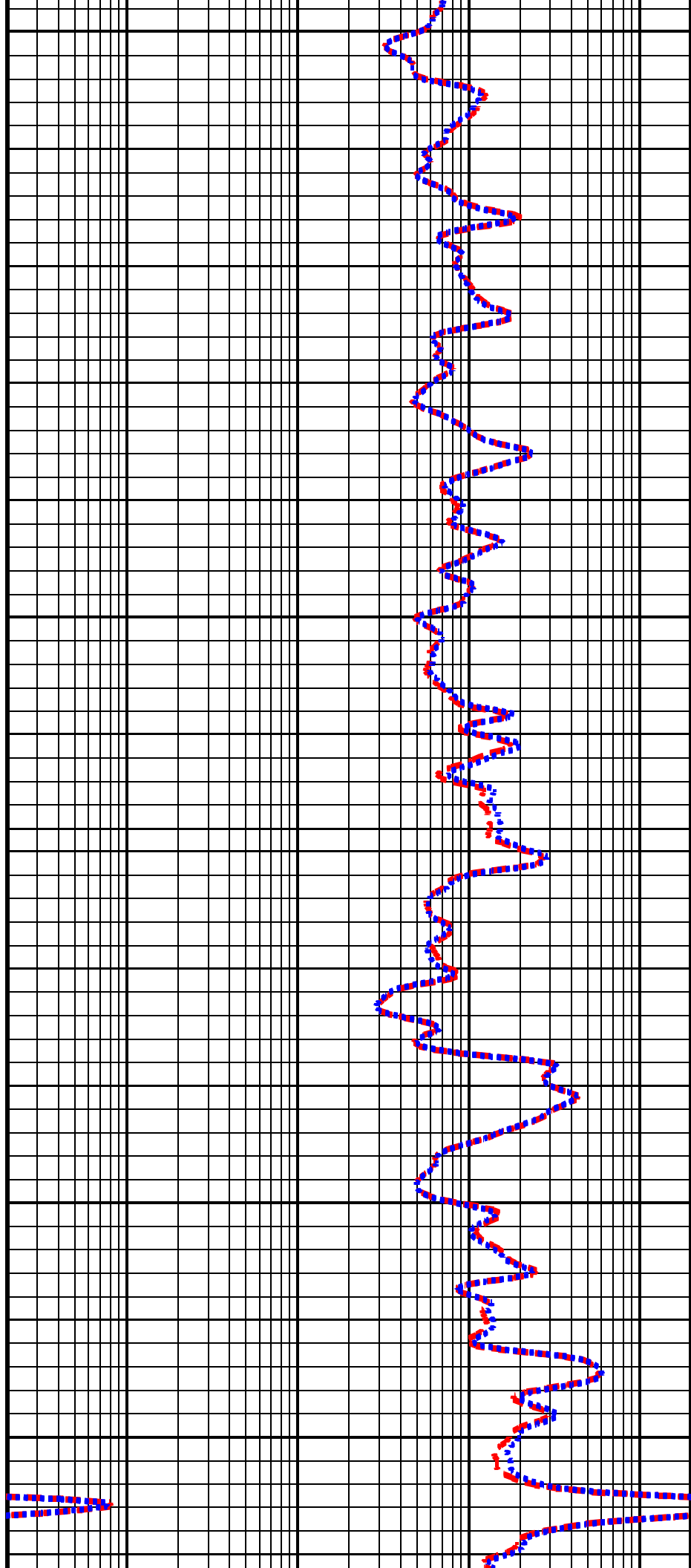


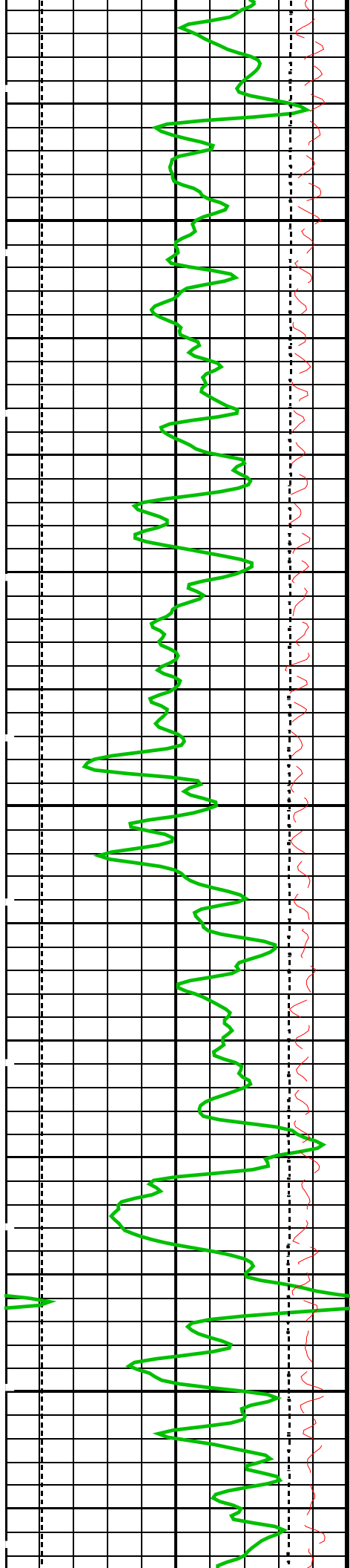


1325

1350

1375

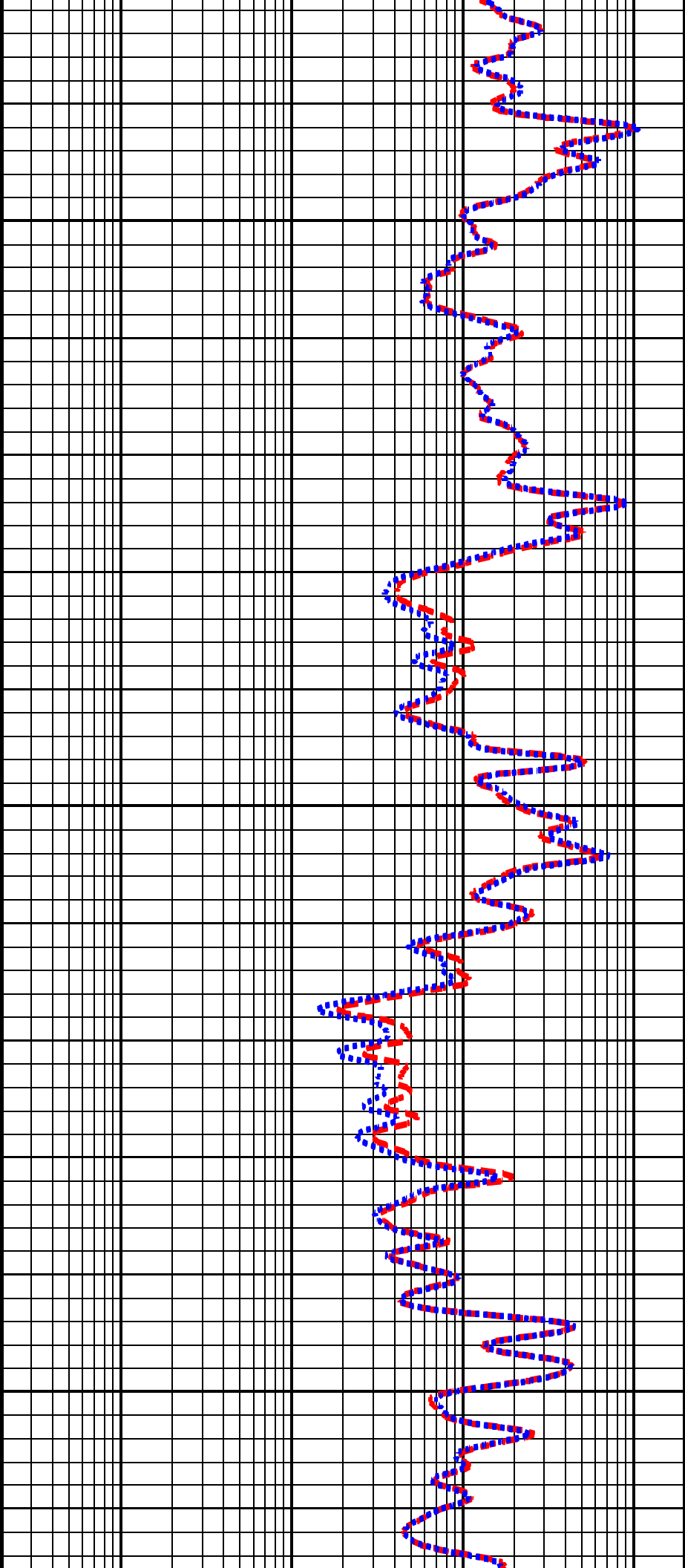


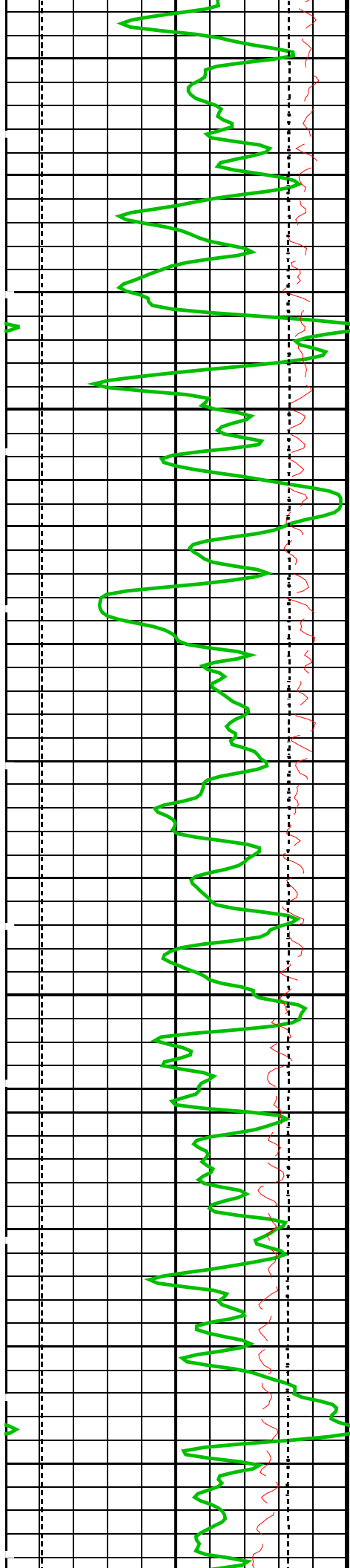


1400

1425

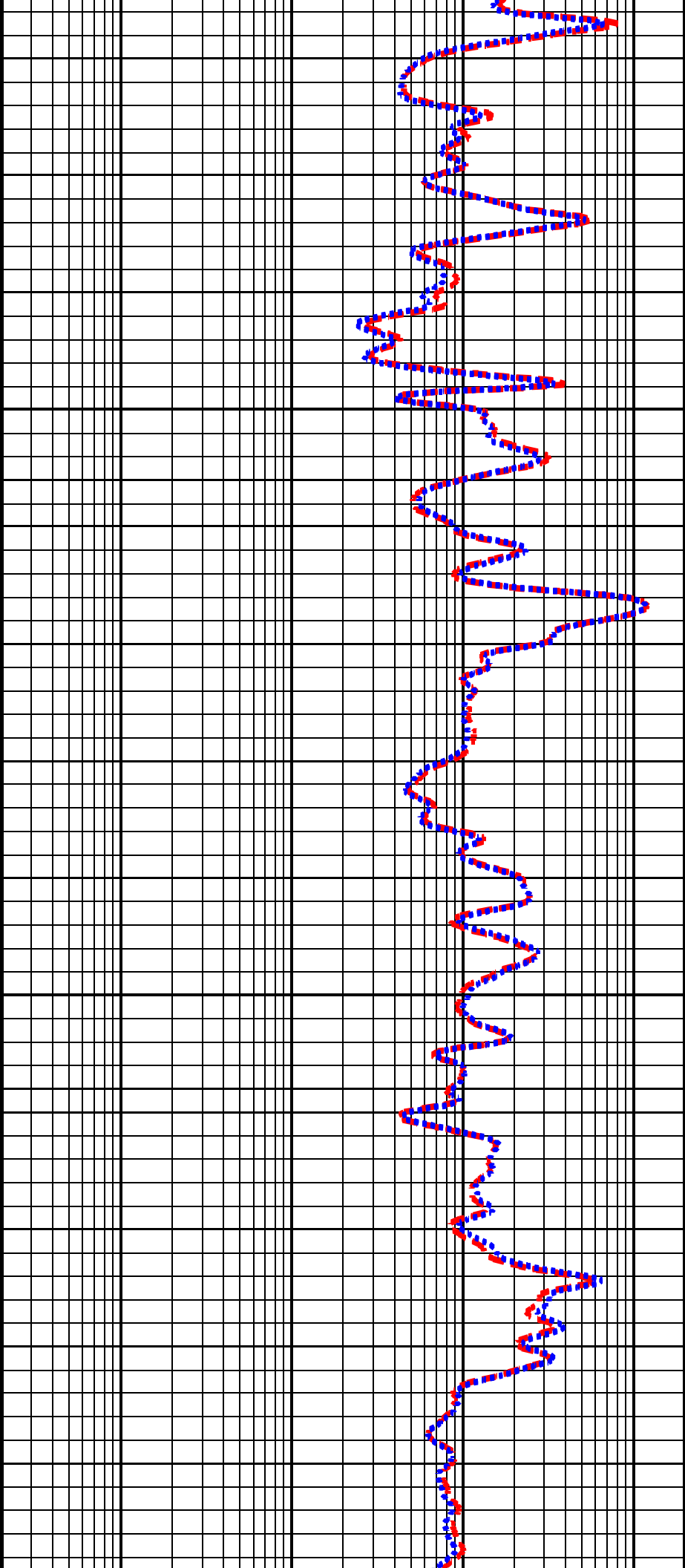
1450

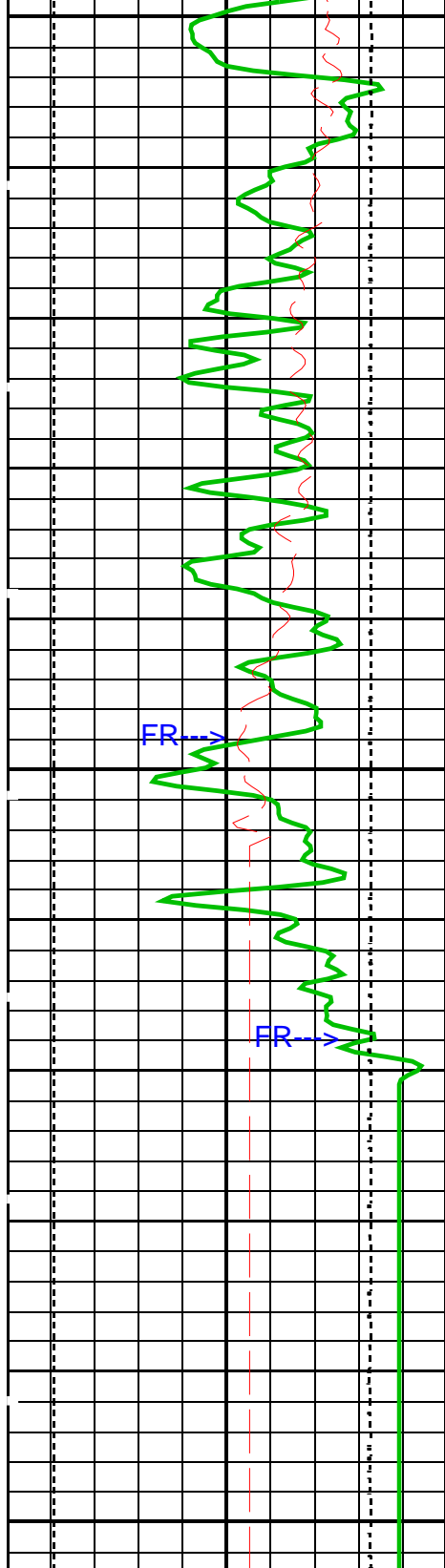




1475

1500

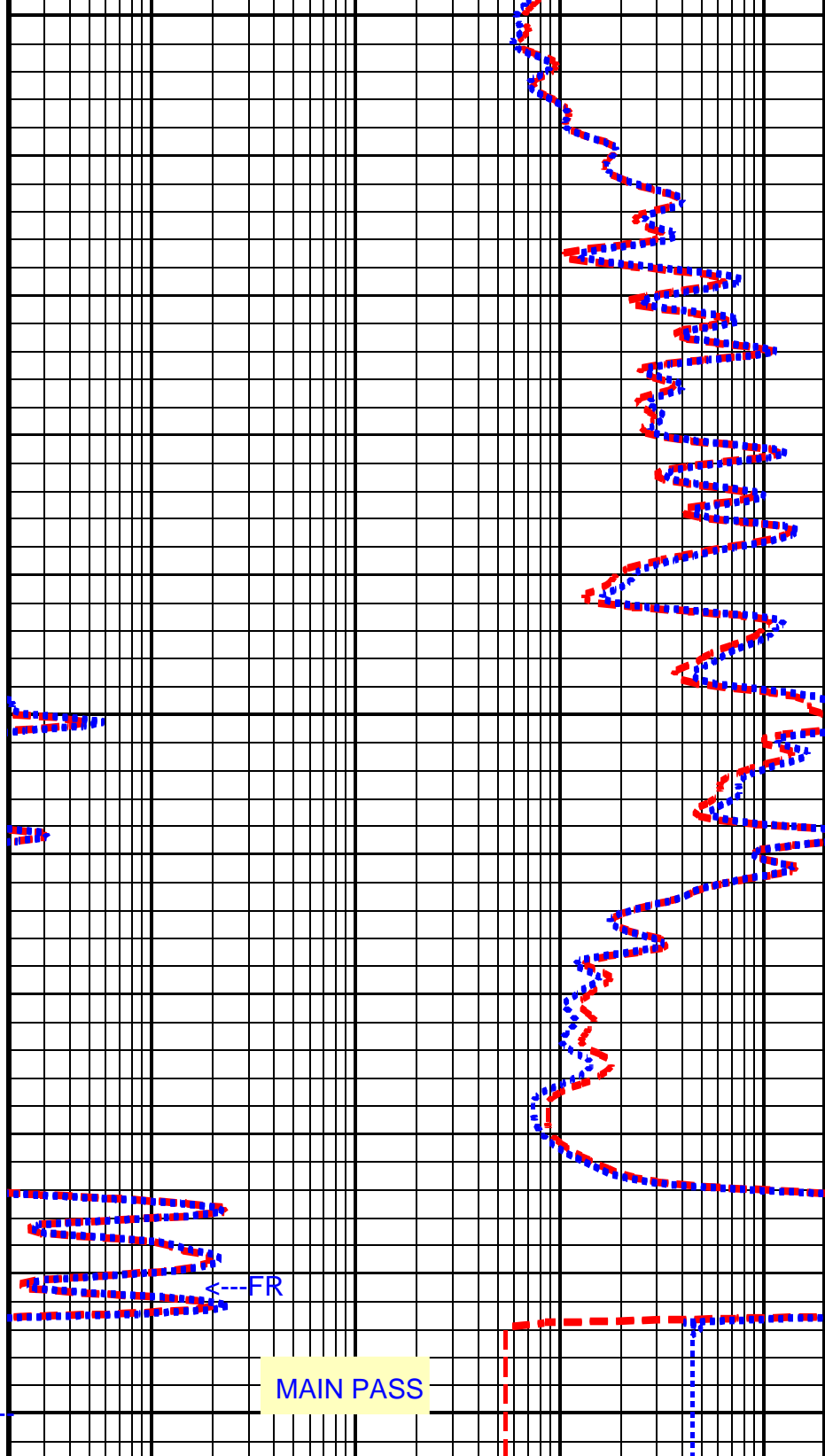




1525

1550

1575



-80	SP (SP) (MV)	20
50	Bit Size (BS) (MM)	300
0	Gamma Ray (GR_STGC) (GAPI)	150
20000	Tension (TENS) (N)	0

0.2	Laterolog Deep Resistivity (LLD) (OHMM)	2000
0.2	Laterolog Shallow Resistivity (LLS) (OHMM)	2000

PIP SUMMARY

Time Mark Every 60 S



## Parameters

DLIS Name	Description	Value
BS	Bit Size	75.770 MM
DO	Depth Offset	1.2 M
DORL	Depth Offset Repeat Analysis	1.2 M
DPRF	DEEP REFERENCE POWER	550 NW
KFAC	K FACTOR	SOND
LLOO	LATEROLOG LOOP	OFF
PLRM	POWER LOOP REFERENCE MODE	DEEP
PP	Playback Processing	NORMAL
SPNV	SP Next Value	-25 MV
SPRF	SHALLOW REFERENCE POWER	550 NW

Format: DLT\_S5    Vertical Scale: 1:240    Graphics File Created: 18-Jan-2001 20:40

### OP System Version: 9C0-413 MCM

MDLT-A STGC-B	OP9-KP2 OP9-KP2	DTA-A BSP	OP9-KP2 OP9-KP2
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#### Input DLIS Files

DEFAULT	MDLT .011	FN:10 PRODUCER	18-Jan-2001 17:51	1575.4 M	866.9 M
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#### Output DLIS Files

DEFAULT	MDLT .014	FN:13 PRODUCER	18-Jan-2001 20:40
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#### Input DLIS Files

DEFAULT	MDLT .011	FN:10 PRODUCER	18-Jan-2001 17:51	1575.4 M	866.9 M
DEFAULT	MDLT .009	FN:8 PRODUCER	18-Jan-2001 17:12	1574.6 M	1499.0 M

#### Output DLIS Files

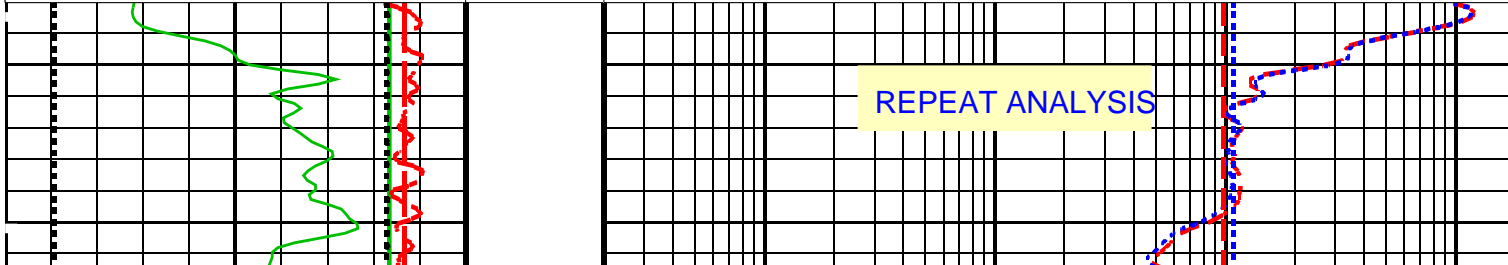
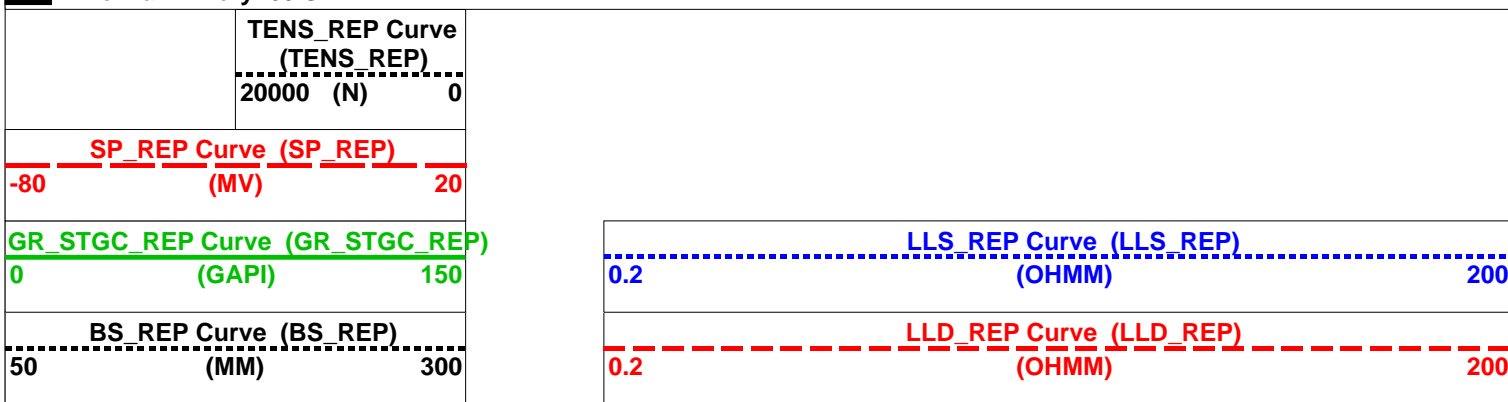
DEFAULT	MDLT .014	FN:13 PRODUCER	18-Jan-2001 20:40
---------	-----------	----------------	-------------------

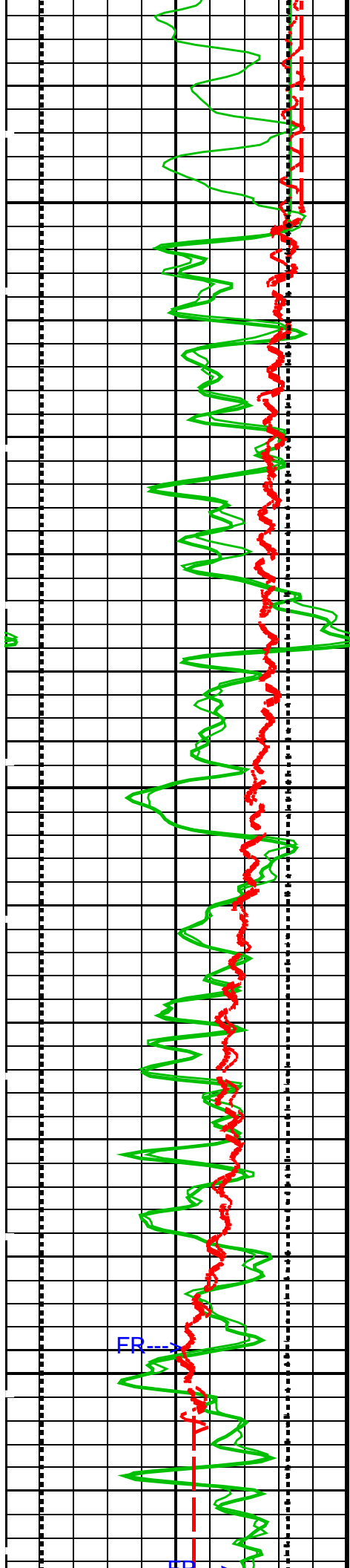
### OP System Version: 9C0-413 MCM

MDLT-A STGC-B	OP9-KP2 OP9-KP2	DTA-A BSP	OP9-KP2 OP9-KP2
------------------	--------------------	--------------	--------------------

#### PIP SUMMARY

Time Mark Every 60 S



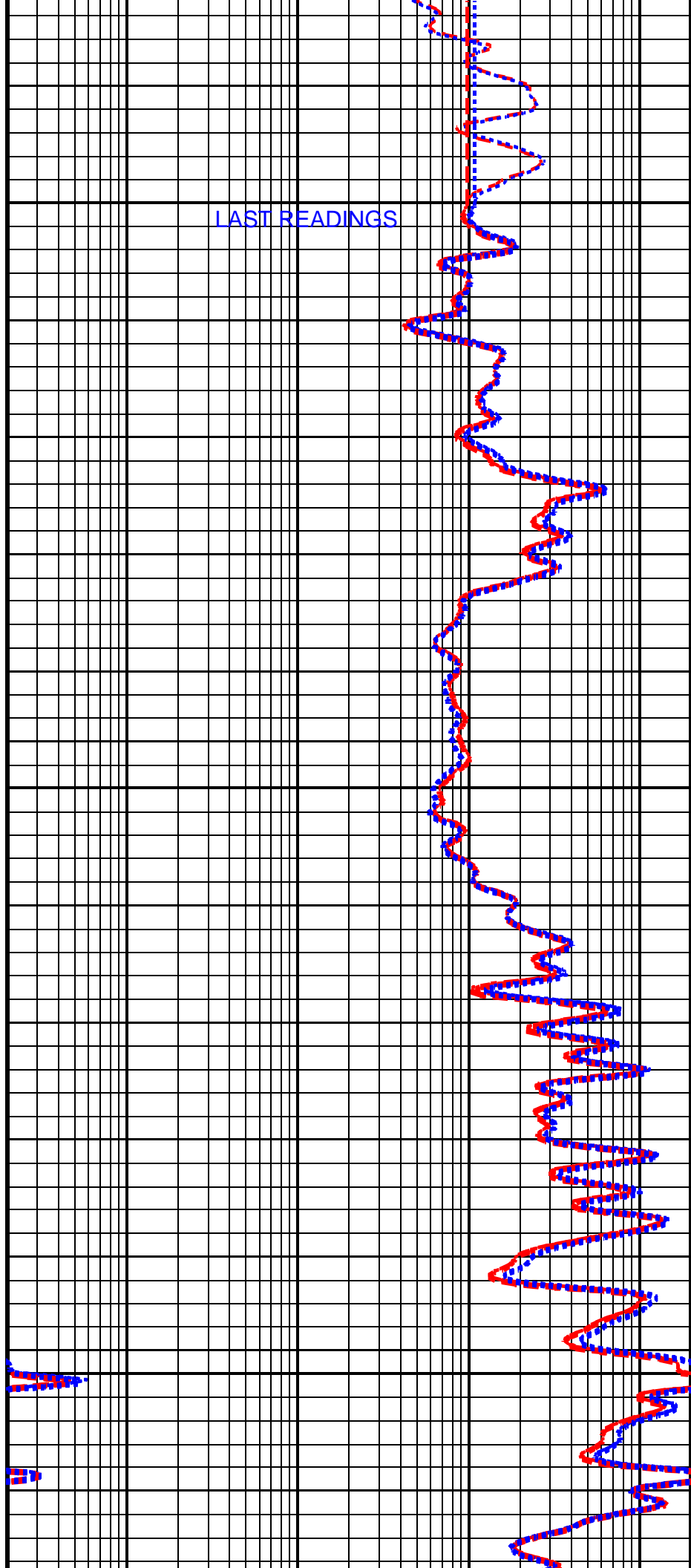


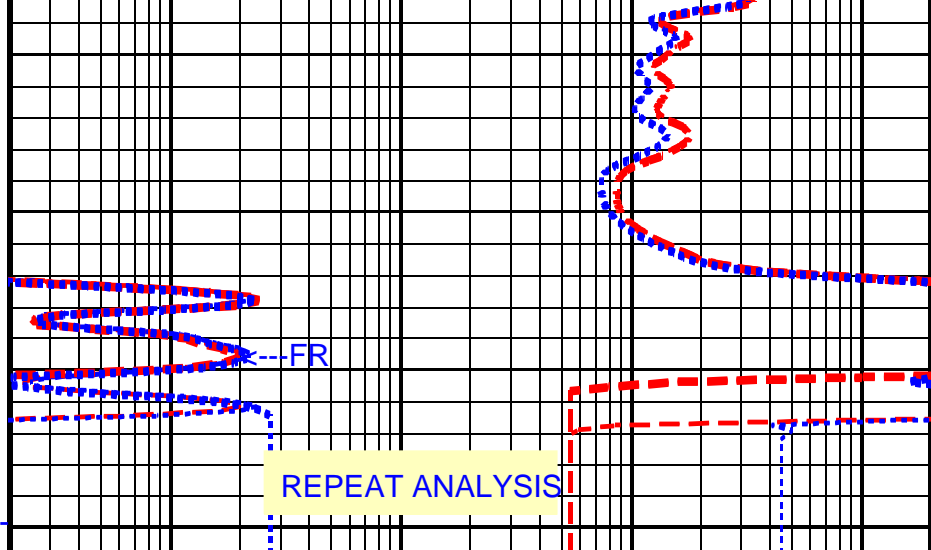
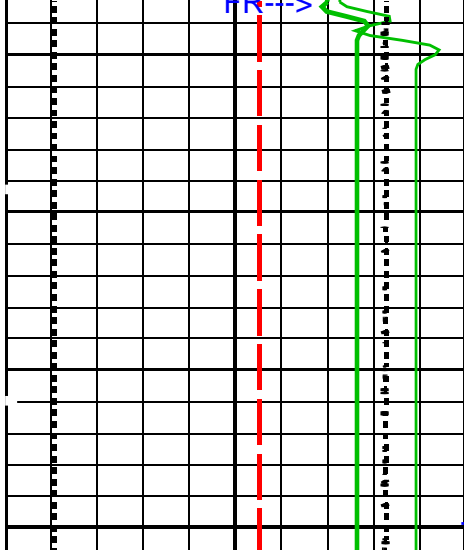
1500

1525

1550

LAST READINGS





<b>BS_REP Curve (BS_REP)</b>	
50	300
(MM)	
<b>GR_STGC_REP Curve (GR_STGC_REP)</b>	
0	150
(GAPI)	
<b>SP_REP Curve (SP_REP)</b>	
-80	20
(MV)	
<b>TENS_REP Curve (TENS_REP)</b>	
20000	0
(N)	

<b>LLD_REP Curve (LLD_REP)</b>	
0.2	2000
(OHMM)	
<b>LLS_REP Curve (LLS_REP)</b>	
0.2	2000
(OHMM)	

**PIP SUMMARY**

Time Mark Every 60 S

**Parameters**

DLIS Name	Description	Value
BS	Bit Size	75.770 MM
DO	Depth Offset	1.2 M
DORL	Depth Offset Repeat Analysis	1.2 M
DPRF	DEEP REFERENCE POWER	550 NW
KFAC	K FACTOR	SOND
LLOO	LATEROLOG LOOP	OFF
PLRM	POWER LOOP REFERENCE MODE	DEEP
PP	Playback Processing	NORMAL
SPNV	SP Next Value	-25 MV
SPRF	SHALLOW REFERENCE POWER	550 NW

Format: DLT\_REP Vertical Scale: 1:240 Graphics File Created: 18-Jan-2001 20:40

**OP System Version: 9C0-413**  
MCM

MDLT-A	OP9-KP2	DTA-A	OP9-KP2
STGC-B	OP9-KP2	BSP	OP9-KP2

**Input DLIS Files**

DEFAULT	MDLT .011	FN:10 PRODUCER	18-Jan-2001 17:51	1575.4 M	866.9 M
DEFAULT	MDLT .009	FN:8 PRODUCER	18-Jan-2001 17:12	1574.6 M	1499.0 M

**Output DLIS Files**

DEFAULT	MDLT .014	FN:13 PRODUCER	18-Jan-2001 20:40
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Measurement	Nominal	Master	Before	After	Change	Limit	Units
MEDIUM DUAL LATEROLOG - A Wellsite Calibration - DLT ELECTRONICS CALIBRATION Laterolog Measurement							
Before: 18-JAN-2001 16:40							
MEASURED LLD	31.62	N/A	31.52	N/A	N/A	0.9000	OHMM
MEASURED LLS	31.62	N/A	31.07	N/A	N/A	0.9000	OHMM
SLIM Telemetry Gamma-ray Cartridge - B Wellsite Calibration - Detector Calibration							
Before: 17-JAN-2001 16:44							
Gamma Ray (Jig - Bkg)	144.9	N/A	144.9	N/A	N/A	13.17	GAPI
Gamma Ray (Calibrated)	155.1	N/A	155.1	N/A	N/A	15.00	GAPI

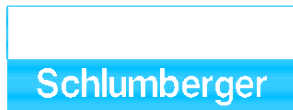
MEDIUM DUAL LATEROLOG - A / Equipment Identification			
Primary Equipment:			
Auxiliary Equipment:			
Medium Dual Laterolog Electrode		MDLE -	710
Medium Dual Laterolog Sonde		MDLS - A	710
Medium Dual Laterolog Housing B		MDLH - B	
Medium Dual Laterolog Cartridge		MDLC - A	710
Adapter Head 189		AH - 189	
Medium Dual Laterolog Housing A		MDLH - A	
Medium Dual Laterolog Digital Interface		MDLI - A	710
Laterolog Control Module		LCM - AA	974

SLIM Telemetry Gamma-ray Cartridge - B / Equipment Identification			
Primary Equipment:			
STGC Gamma-ray & Accelerometer Cartridge		STGC - B	
STGC Telemetry Cartridge		STGC - A	
Auxiliary Equipment:			
SLIM Electronics Cartridge Housing		STGH - B	8007

SLIM Telemetry Gamma-ray Cartridge - B Wellsite Calibration											
Detector Calibration											
Phase	Gamma Ray Background	GAPI	Value	Phase	Gamma Ray (Jig - Bkg)	GAPI	Value	Phase	Gamma Ray (Calibrated)	GAPI	Value
Before			8.447	Before			144.9	Before			155.1
	0	30.00	120.0		131.7	144.9	158.0		140.1	155.1	170.1
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)

Before: 17-JAN-2001 16:44

<b>COMPANY:</b>	<b>DEER LAKE OIL &amp; GAS INC.</b>	BOTTOM LOG INTERVAL	1571 m			
		SCHLUMBERGER DEPTH	1575 m			
		<b>WELL:</b>	<b>DEER LAKE OIL &amp; GAS ET AL WESTERN ADVENTURE N</b>	DEPTH DRILLER	1584 m	
		<b>FIELD:</b>		KELLY BUSHING	92.5 m	
		<b>PROVINCE:</b>		NEWFOUNDLAND	DRILL FLOOR	92.5 m
				GROUND LEVEL	90 m	



**DUAL LATEROLOG**