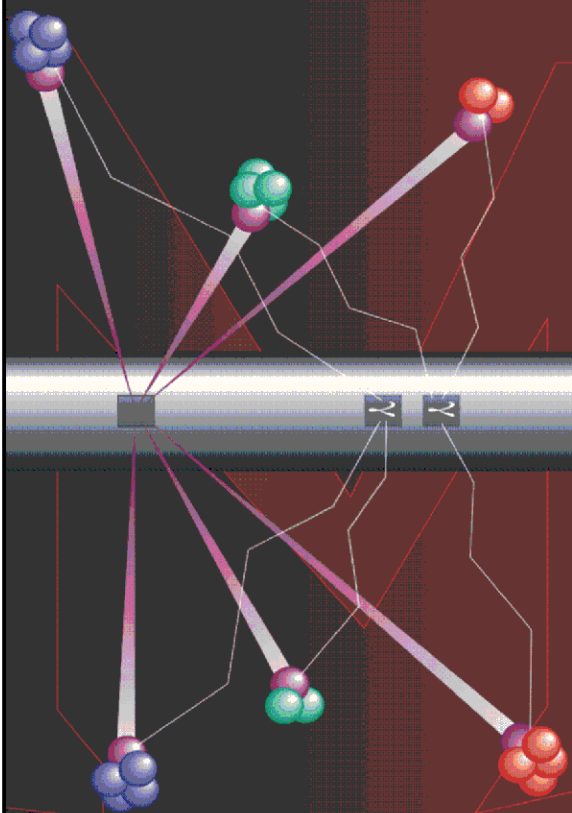


Pulsed Neutron Formation Evaluation



NEO Neutron Emulated Openhole

COMPANY LARAMIE ENERGY II LLC

WELL CC 0697-03-12E

FIELD GRAND VALLEY

COUNTY GARFIELD STATE COLORADO

LOCATION:

SEE REMARKS SECTION

SEC 3 TWP 6S RGE 97W

ELEVATIONS:

KB 8458.0 FT DF GL 8428.0 FT

DATE 31-AUG-2018 ECC CALGARY GEOSCIENCE

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE THE CUSTOMER THE BENEFIT OF THEIR BEST JUDGEMENT. BUT SINCE ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS, WE CANNOT, AND WE DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION. WE SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES, OR EXPENSES WHATSOEVER INCURRED OR SUSTAINED BY THE CUSTOMER RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR EMPLOYEES.

COMPUTATION PARAMETERS

COMPUTATION	LOGS USED: <u>RPM-C</u>		PROGRAM: <u>NEO</u>	
	CENTER: <u>CALGARY GEOSCIENCE</u>	LOG ANALYST: <u>A. KOTOV</u>		DATE: <u>04-SEP-2018</u>
FIELD DATA	LOCATION: <u>GRAND JCT.</u>		ENGINEER: <u>M.BAUKA/US138184</u>	DATE: <u>31-AUG-2018</u>
FROM	TO			
<u>4605 FT</u>	<u>9673 FT</u>			

REMARKS

LOCATION:
SHL: 2831.0' FNL & 1309.0' FEL
BHL: 2831.0' FNL & 1309.0' FEL

TRAINING WELL: CC 0697-03-17W
TNPH - NEUTRON POROSITY
TBIT90 - DEEP RESITIVITY
NNZDEN - BULK DENSITY EMULATED USING GUNDERSON 0994-13-06W AS
TRAINING WELL.

ANY ERRORS IN THE TRAINING WELL OPEN HOLE DATA CAN PERPETUATE TROUGH AS AN ERROR IN THE EMULATED RESULTS.

OPEN HOLE LOG IS DEPTH REFERENCE LOG

ANALYST: ALEXANDR KOTOV

NEO RESULTS FOR CC 0697-03-12E (G-SAND)

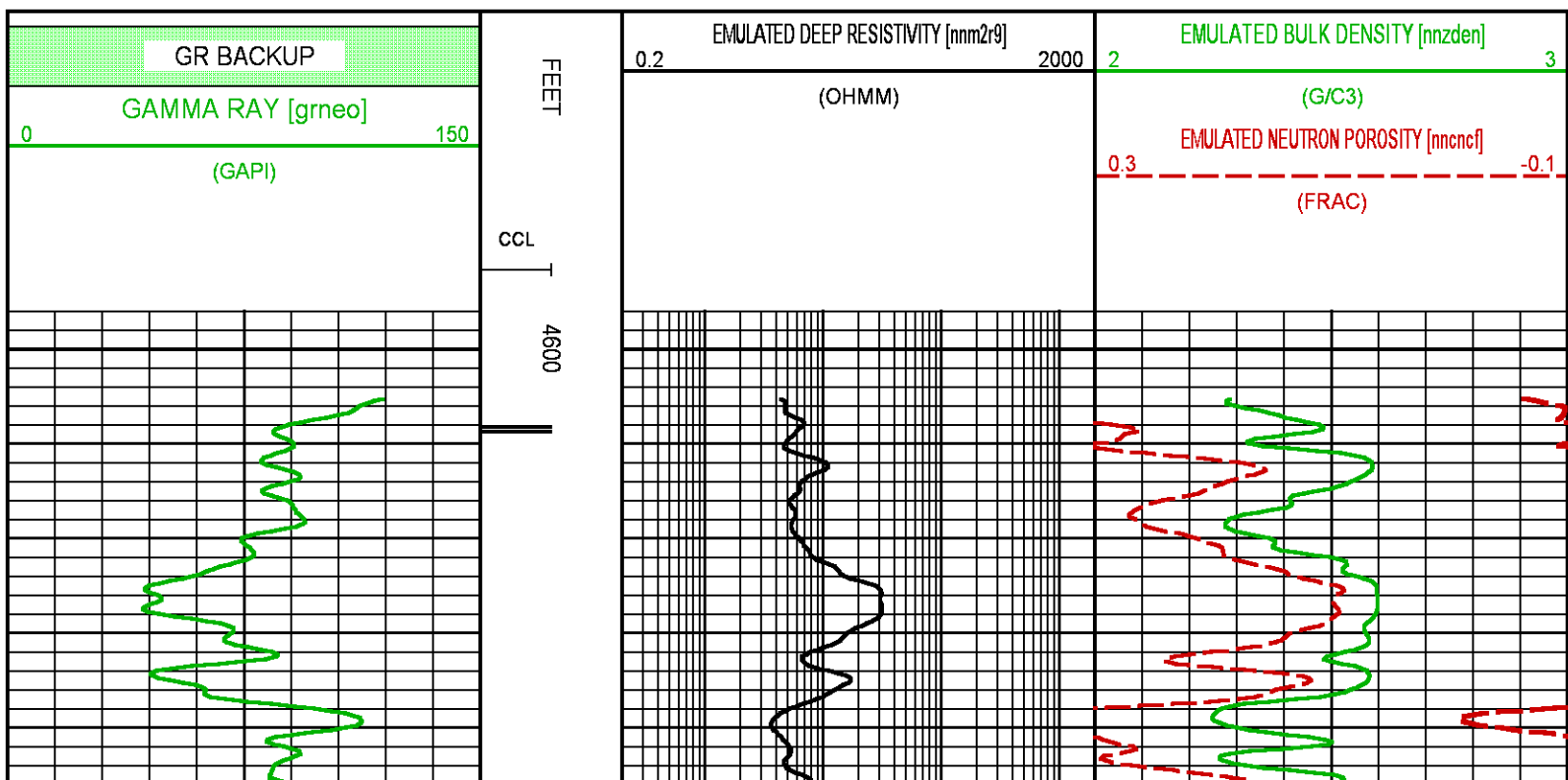
ECLIPS ECPLLOT from ECLIPS 7.0 WFM 6.0.7905.1 Wed 08/23/2017 09:02:35.01

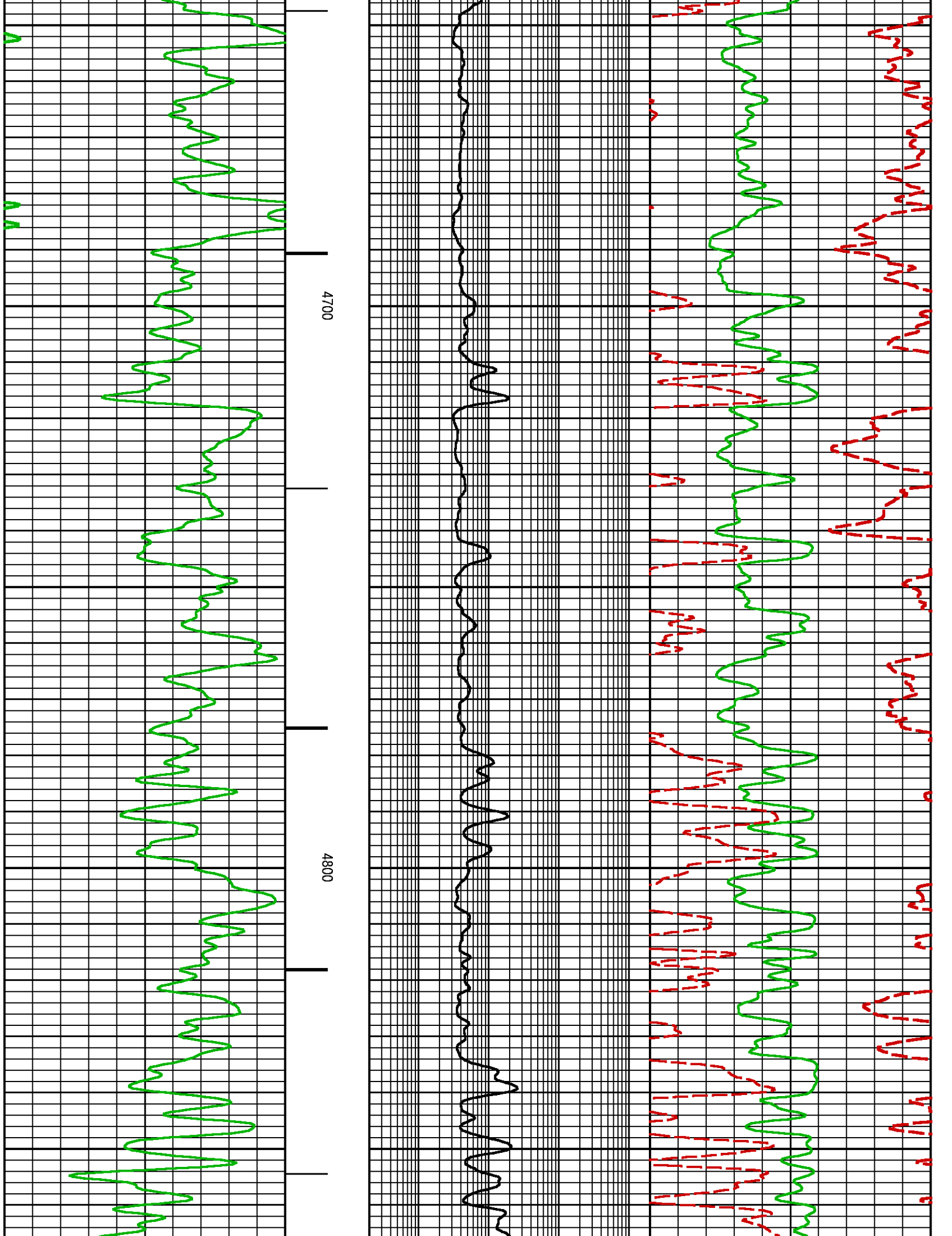
Plotted: Tue Sep 04 14:05:07 2018

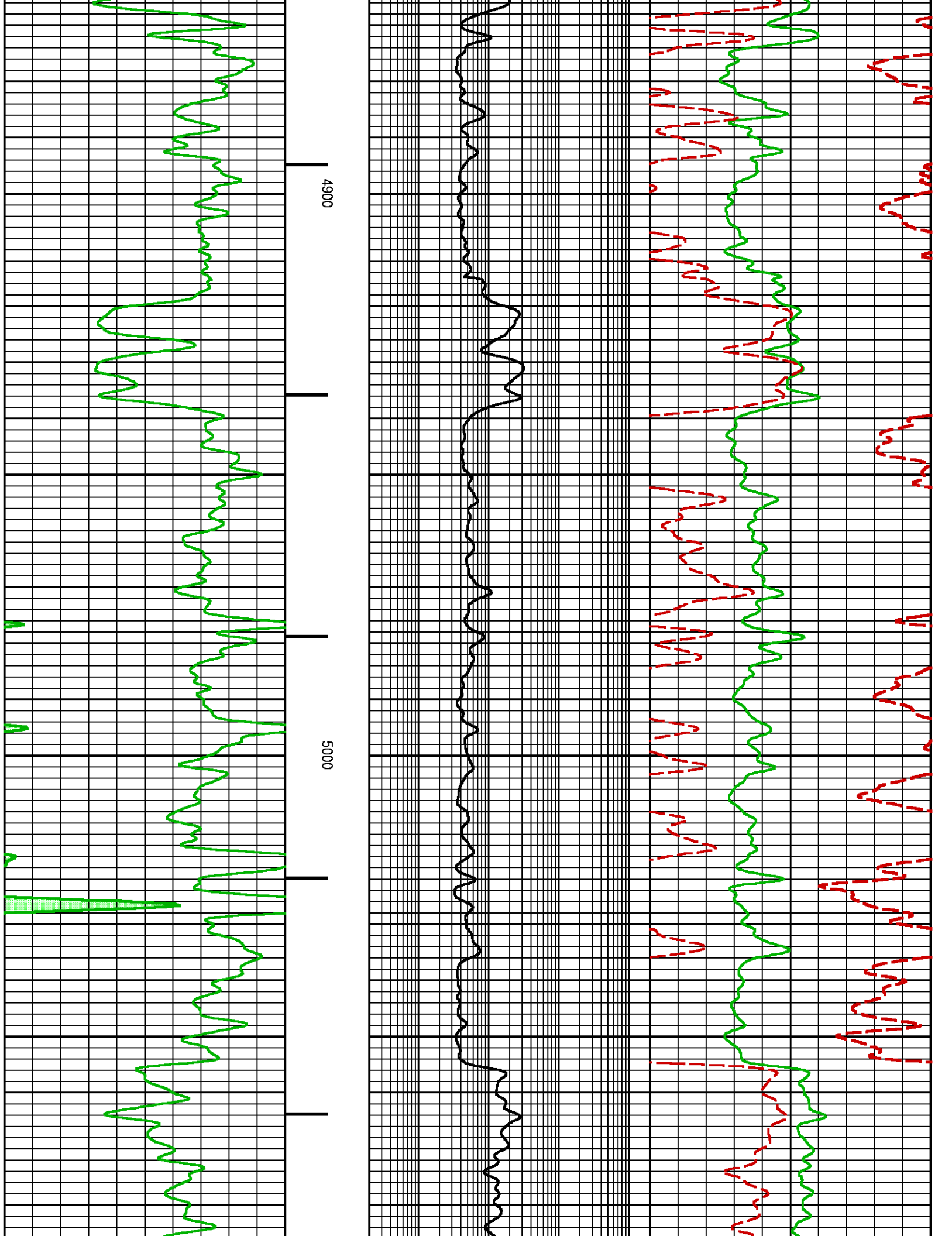
CURVE MEASURE POINT OFFSET

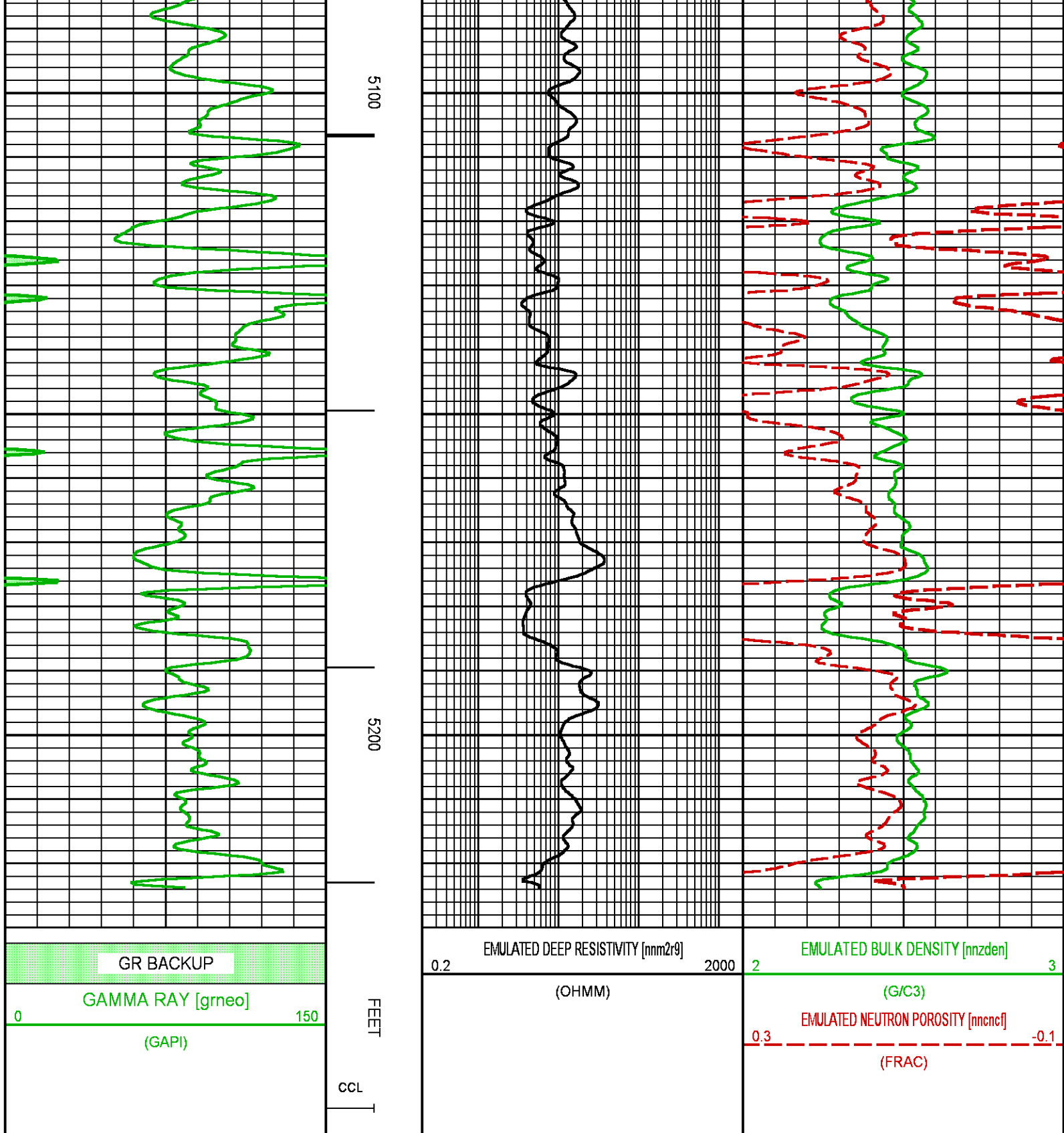
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	0.00	NNCNCf	0.00	NNZDEN	0.00		
GRNEO	0.00	NNM2R9	0.00				

Project : NA
User : kotoale
Presentation : BHI1F65XZ1:d:\Ape_Projects\LARAMIE_CC_0697_03_12E_NEO\
NEO_PRESENTATION_LARAMIE_G-Sand.pdf [5"/100' Scale]
Plot Interval : 4596 - 5230 Feet
Data File 1 : F1 : BHI1F65XZ1:D:\Ape_Projects\LARAMIE_CC_0697_03_12E_NEO\Merged_Set_Final.xtf
Created On : N/A
Company : LARAMIE ENERGY LLC
Well : CC 0697-03-12E
Field : GRAND VALLEY
File Interval : 4605.25 - 9673.25 Feet
OCT : NA









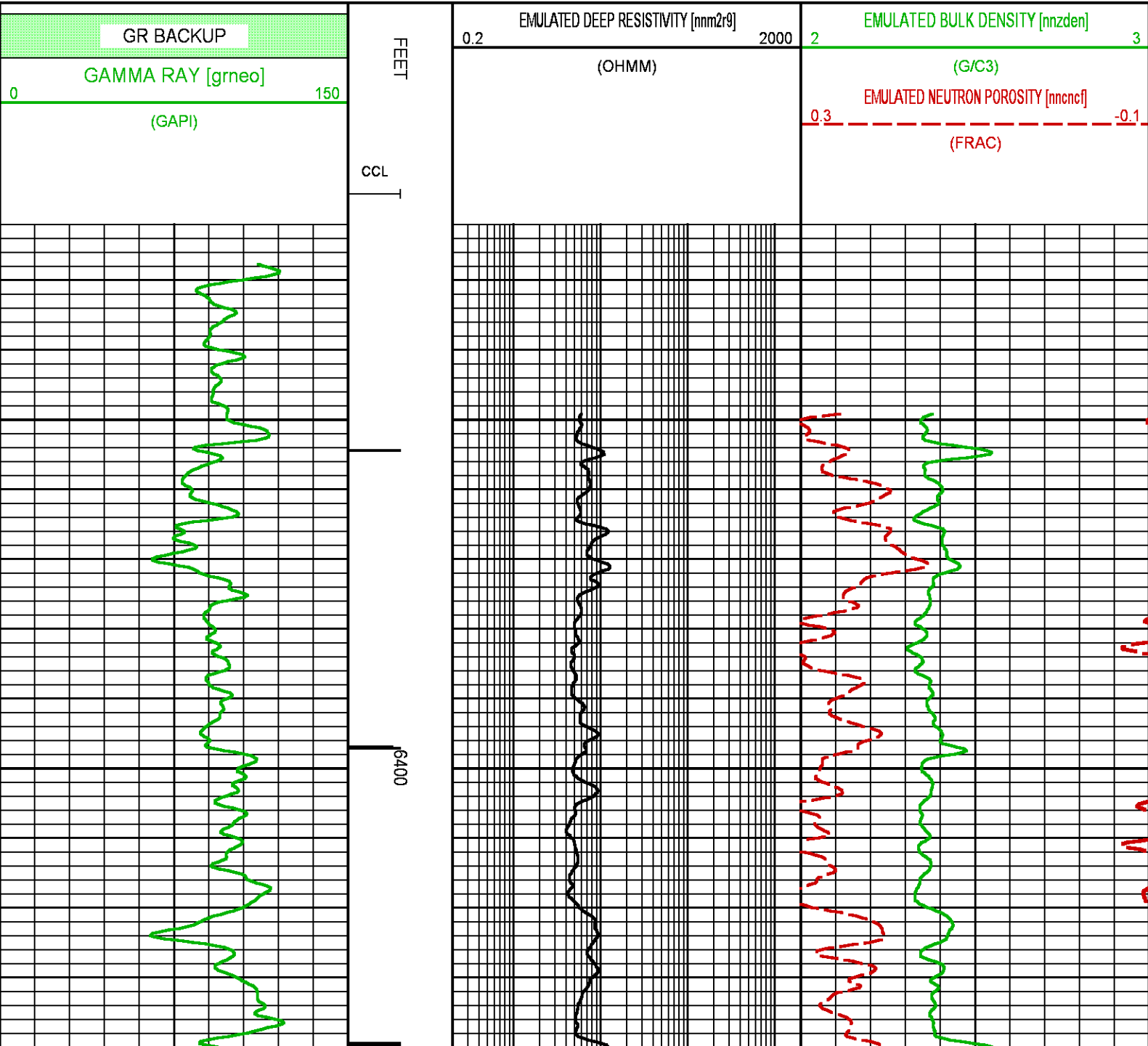
NEO RESULTS FOR CC 0697-03-12E (MAIN)

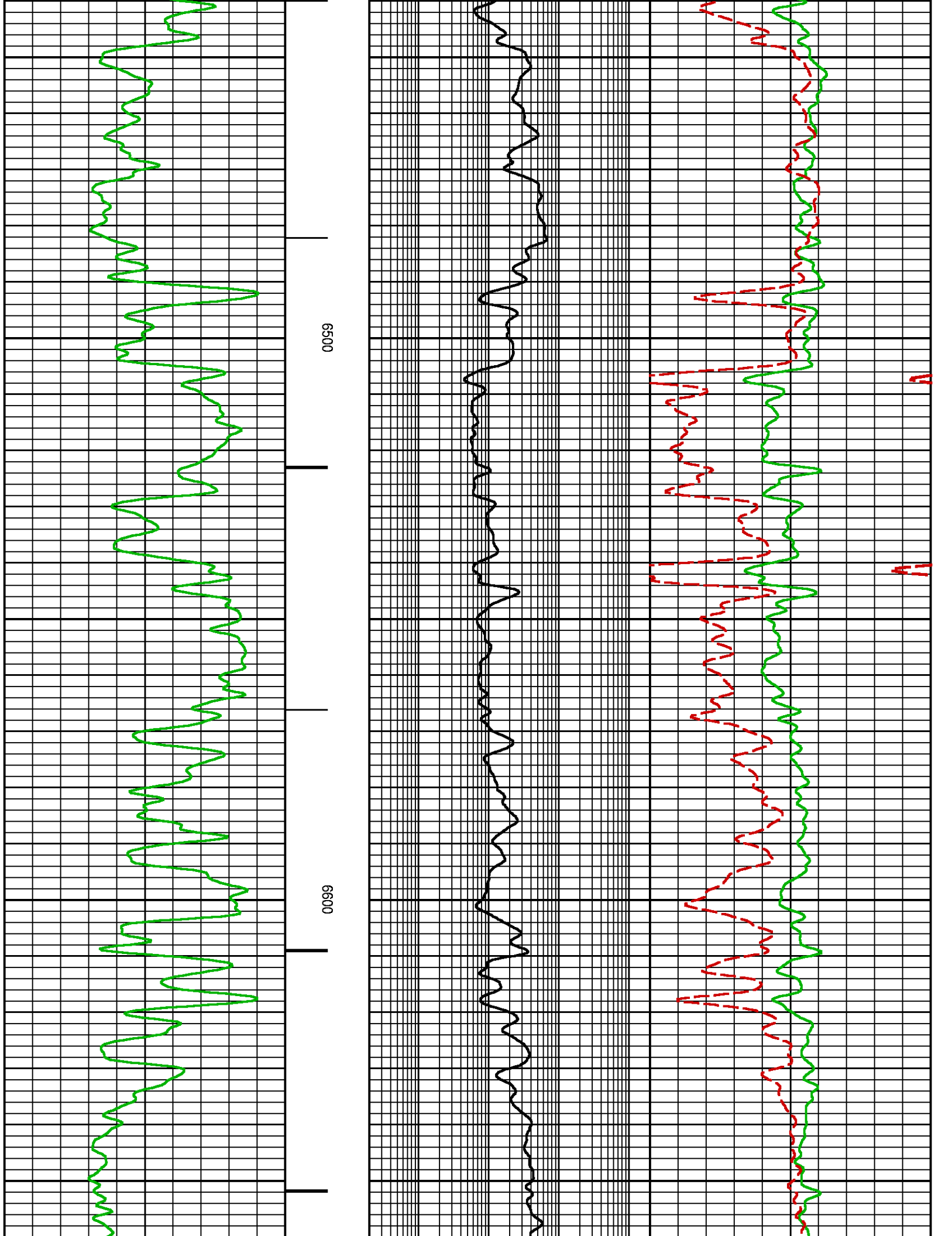
CURVE MEASURE POINT OFFSET

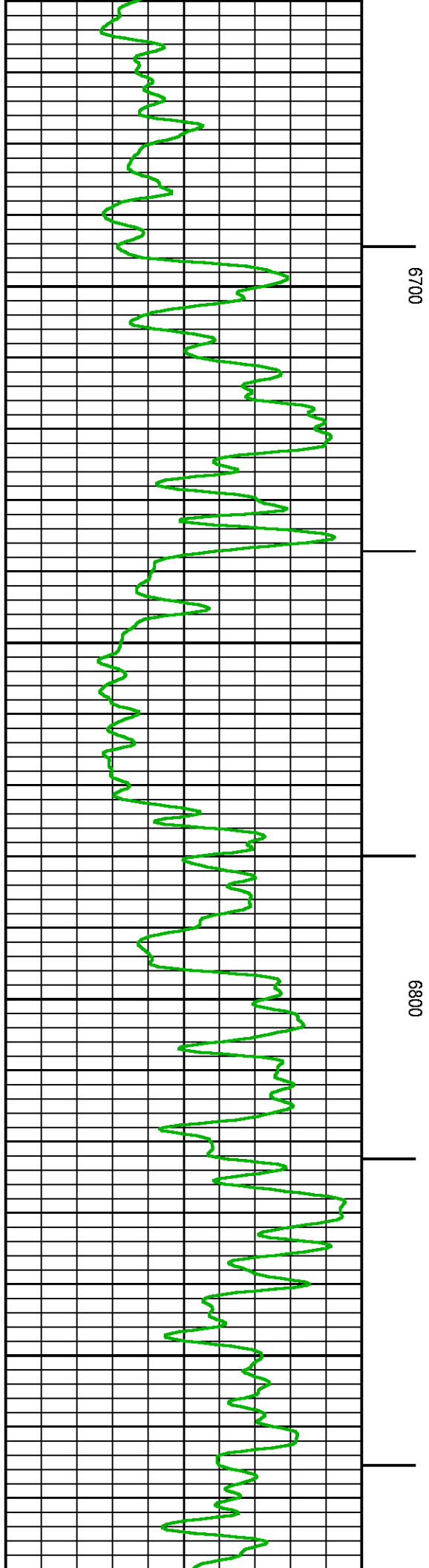
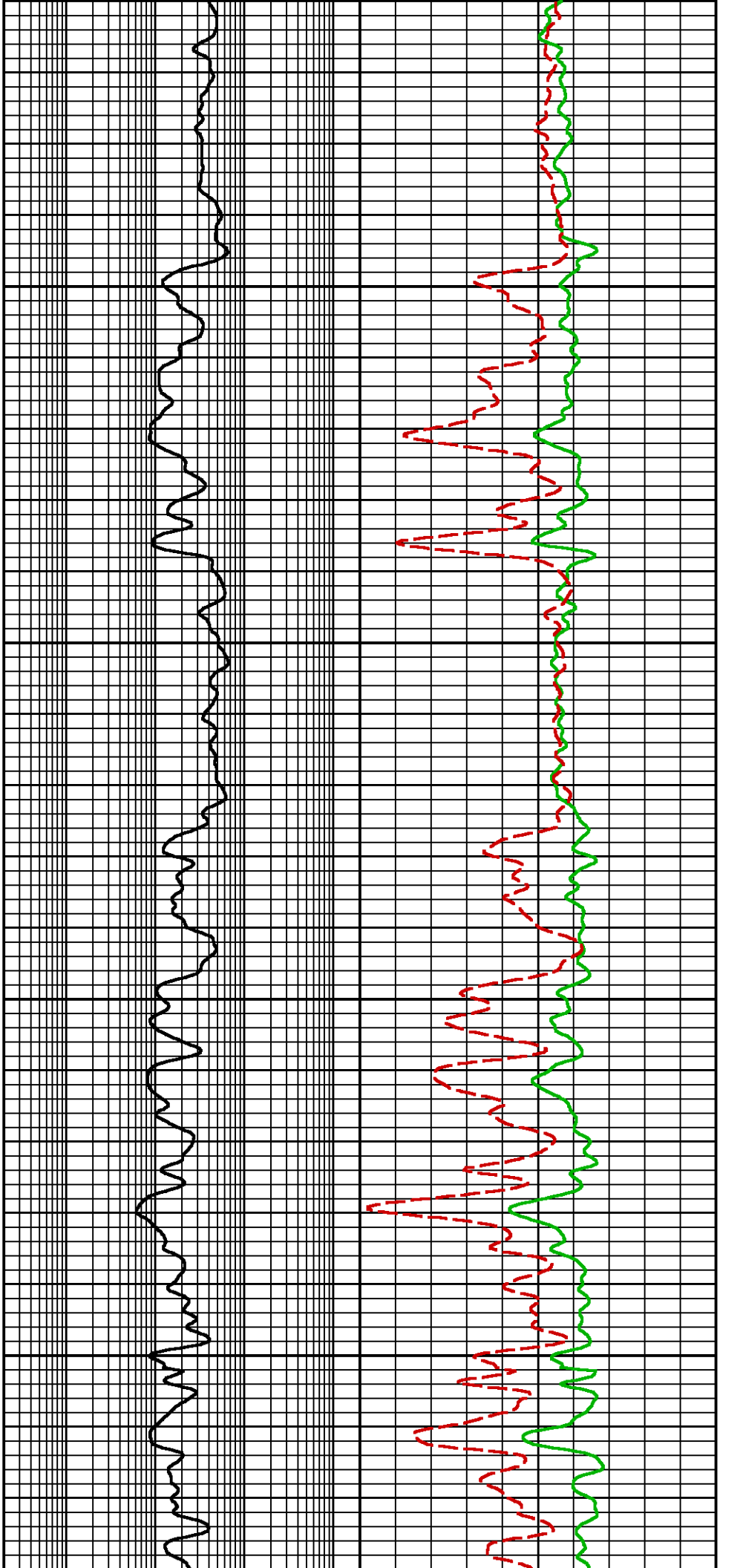
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	0.00	NNCNCf	0.00	NNZDEN	0.00		
GRNEO	0.00	NNM2R9	0.00				

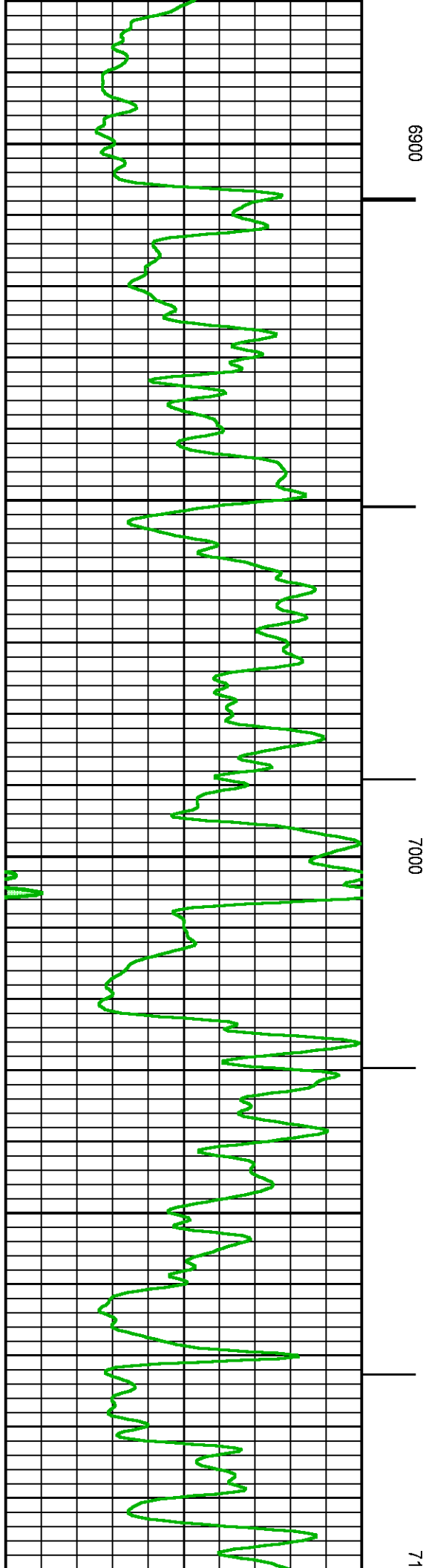
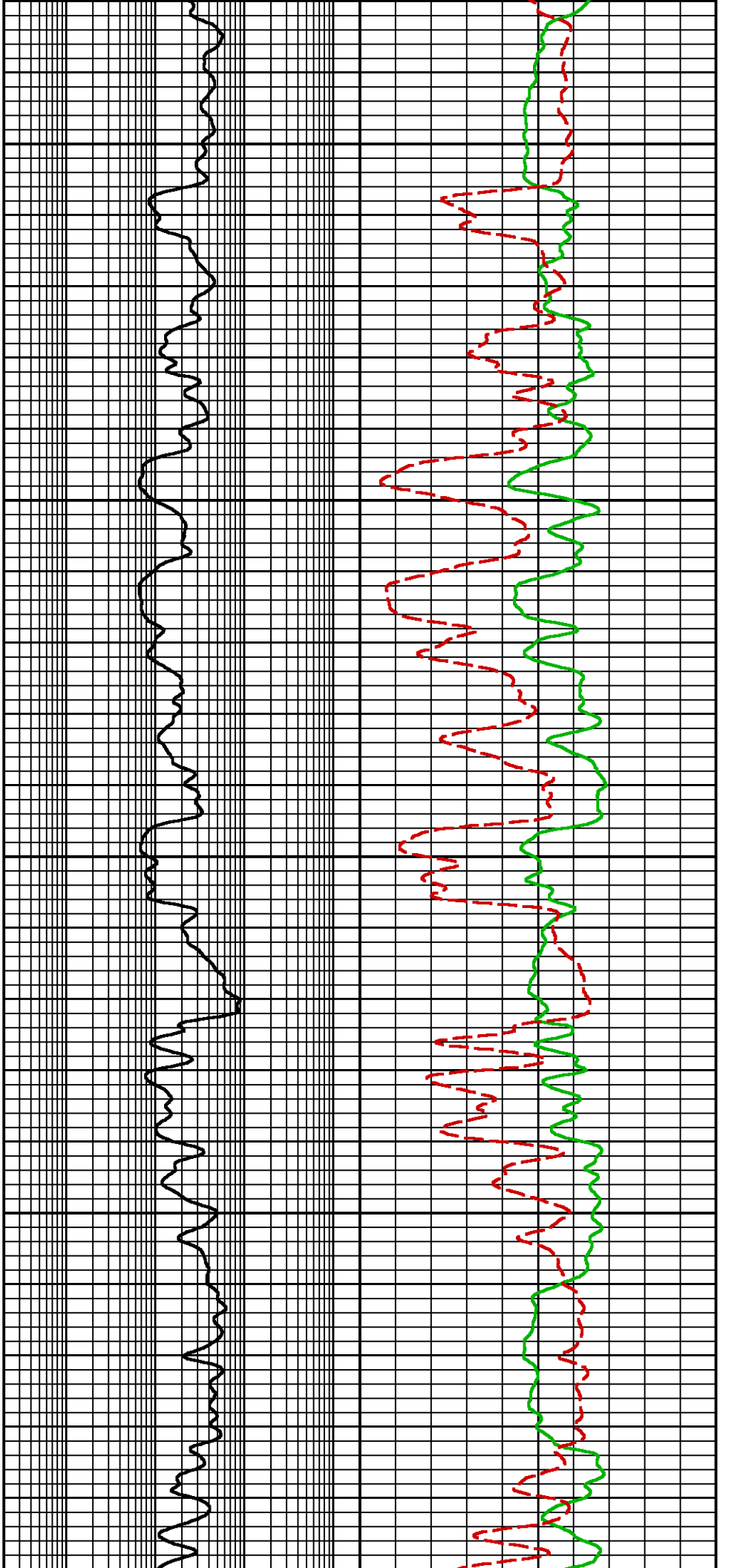
Project : NA
User : kotoale
Presentation : BHI1F65XZ1:D:\Ape_Projects\LARAMIE_CC_0697_03_12E_NEO\NEO_PRESENTATION_LARAMIE_MAIN.pdf [5"/100" Scale]
Plot Interval : 6322 - 9683 Feet

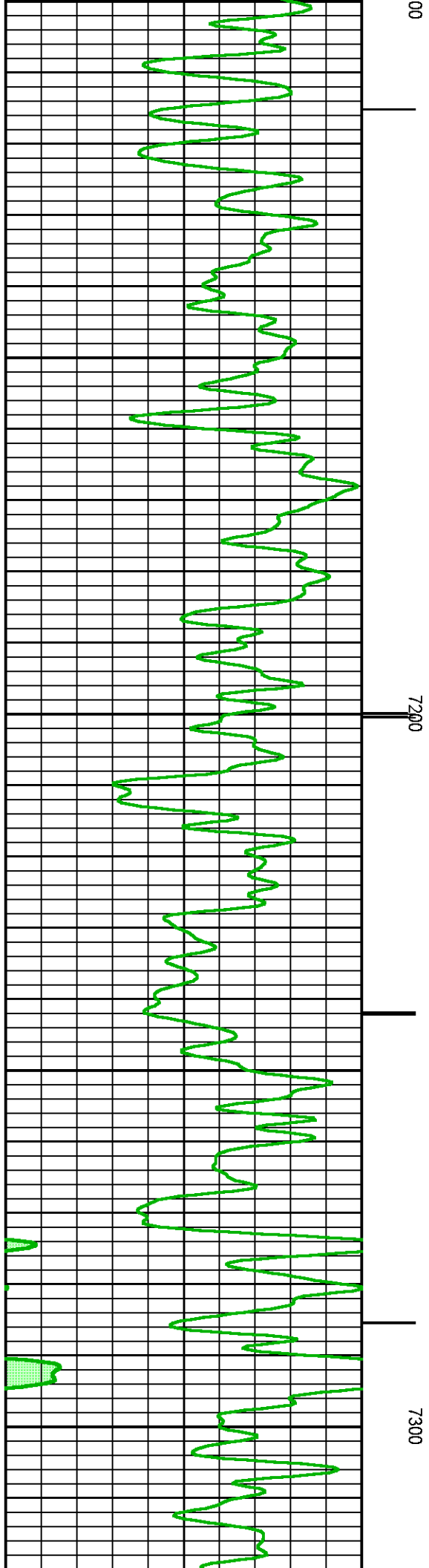
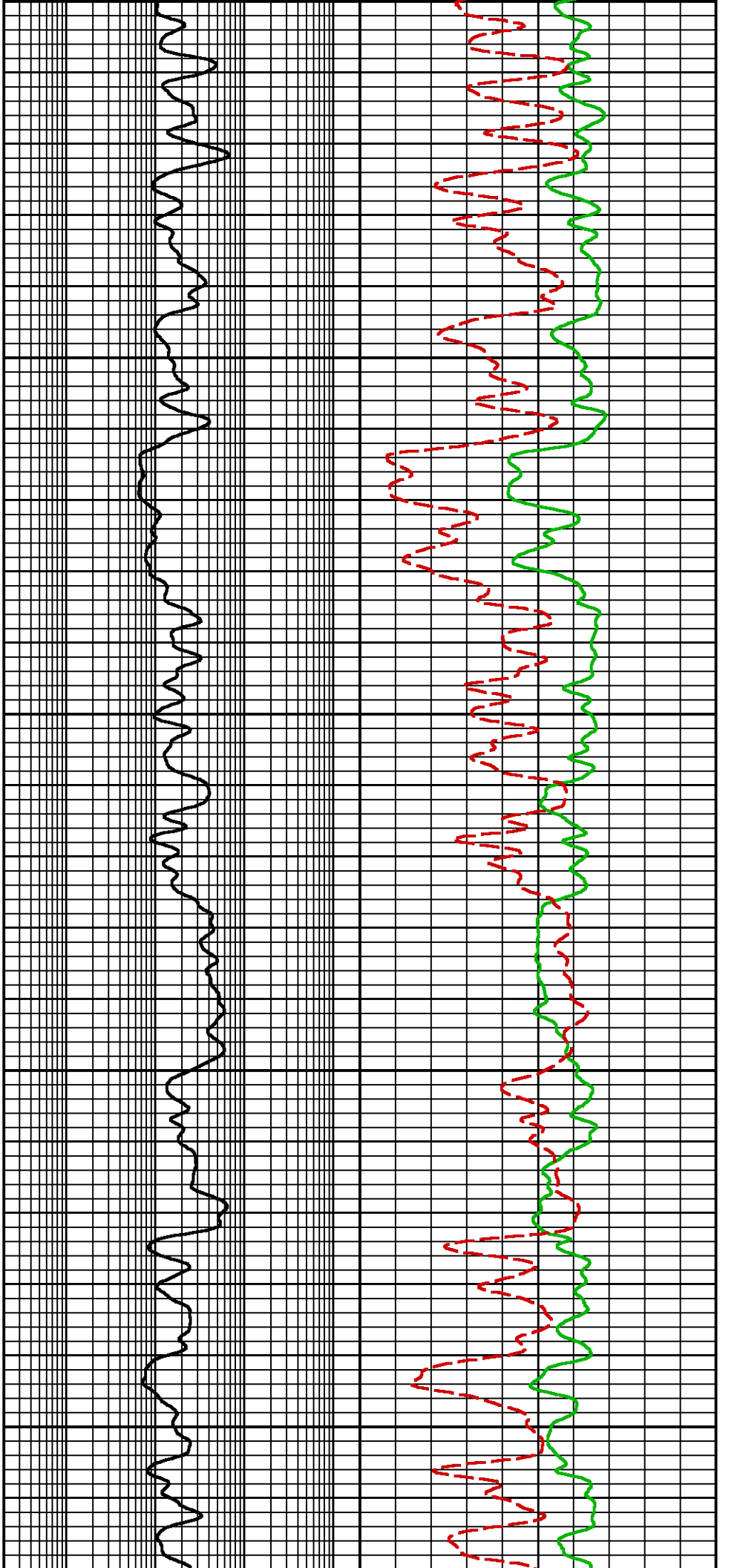
Data File 1 : F1 : BHI1F65XZ1:D:\Ape_Projects\LARAMIE_CC_0697_03_12E_NEO\Merged_Set_Final.xtf
Created On : N/A
Company : LARAMIE ENERGY LLC
Well : CC 0697-03-12E
Field : GRAND VALLEY
File Interval : 4605.25 - 9673.25 Feet
OCT : NA

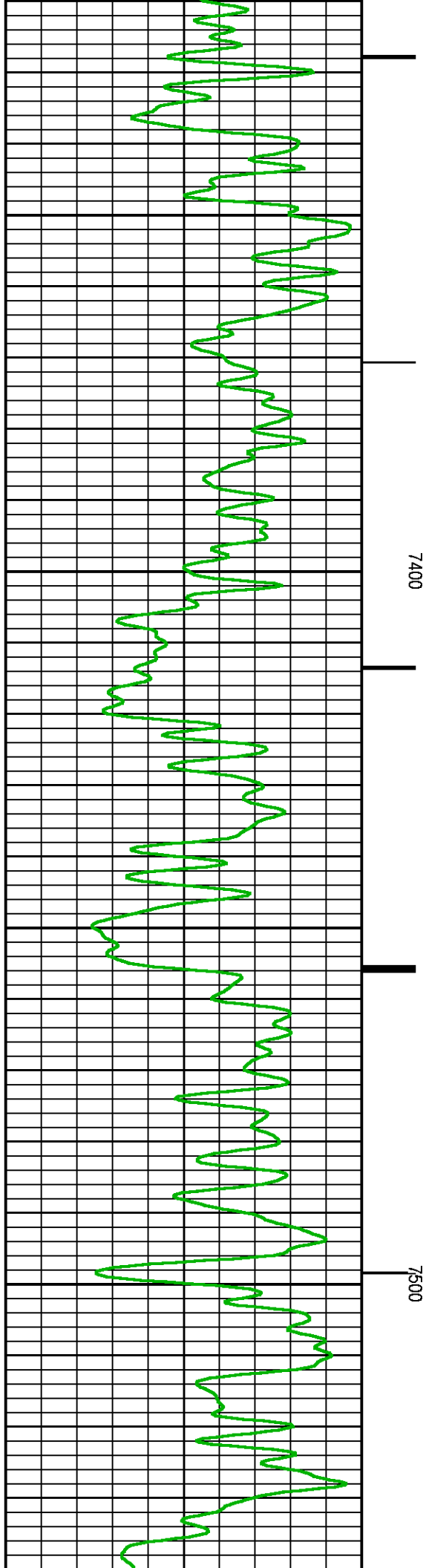
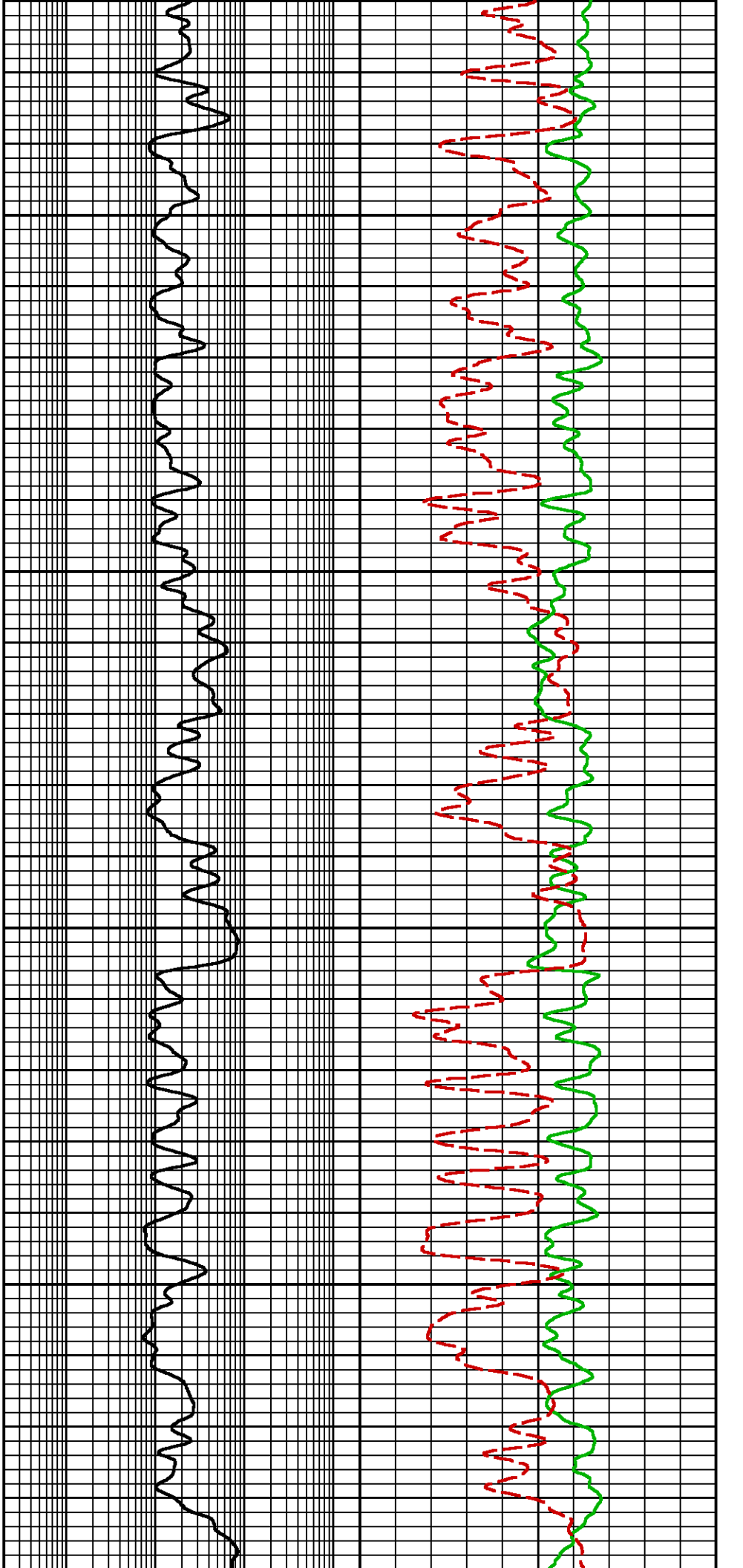


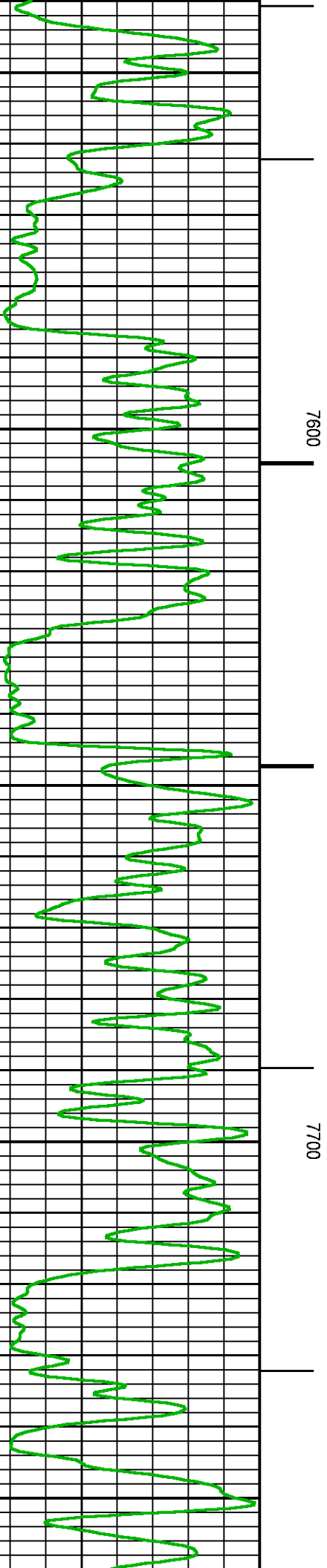
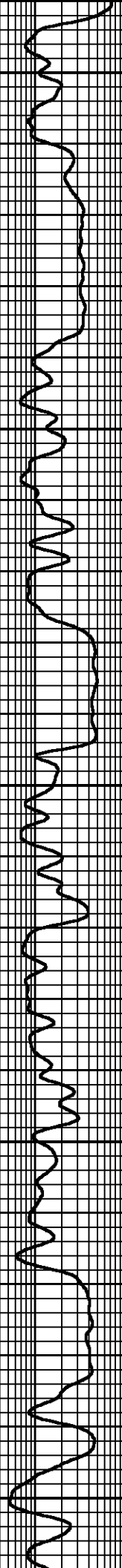
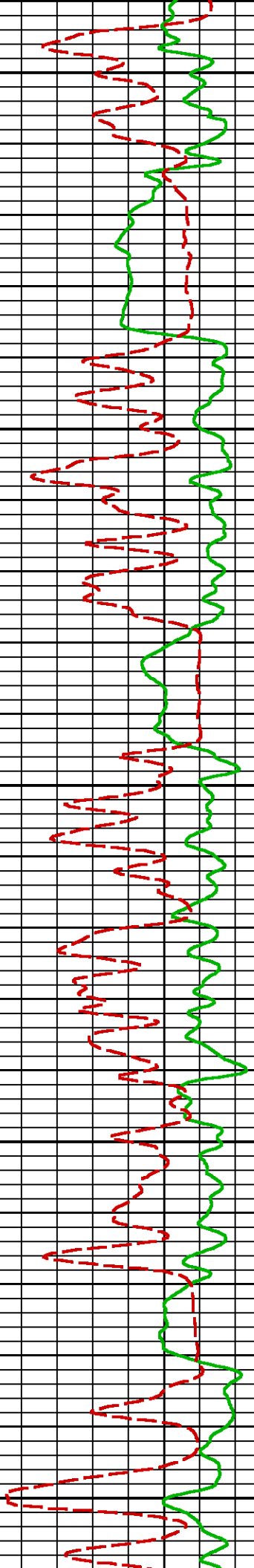






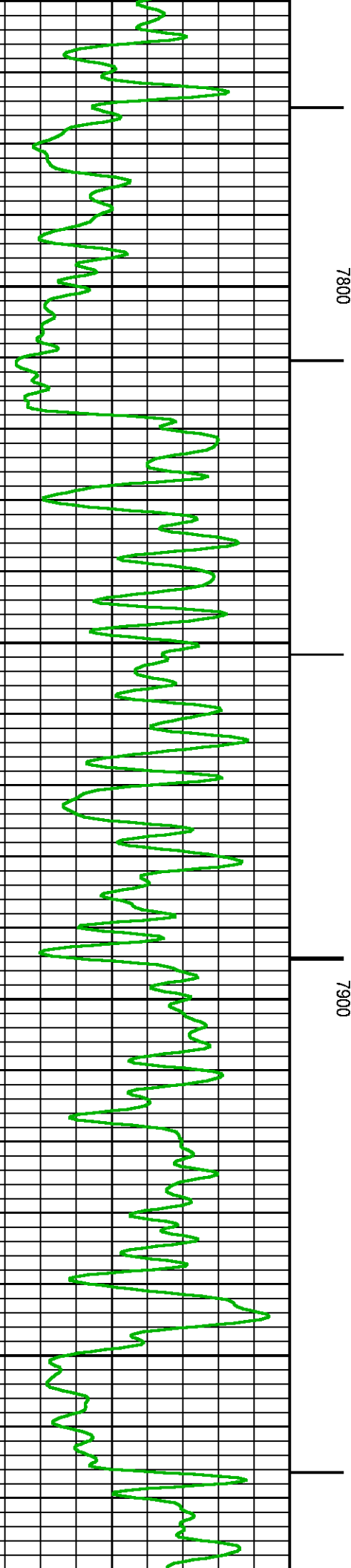
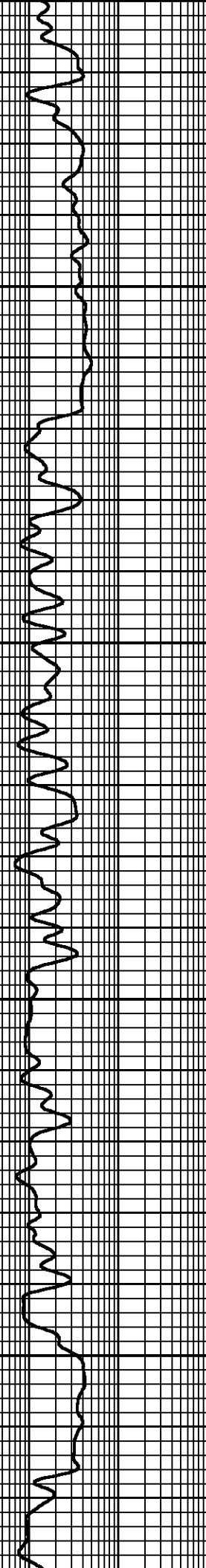
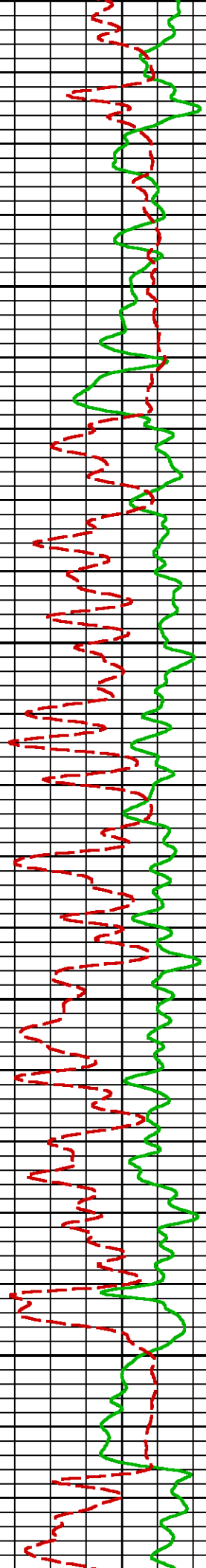


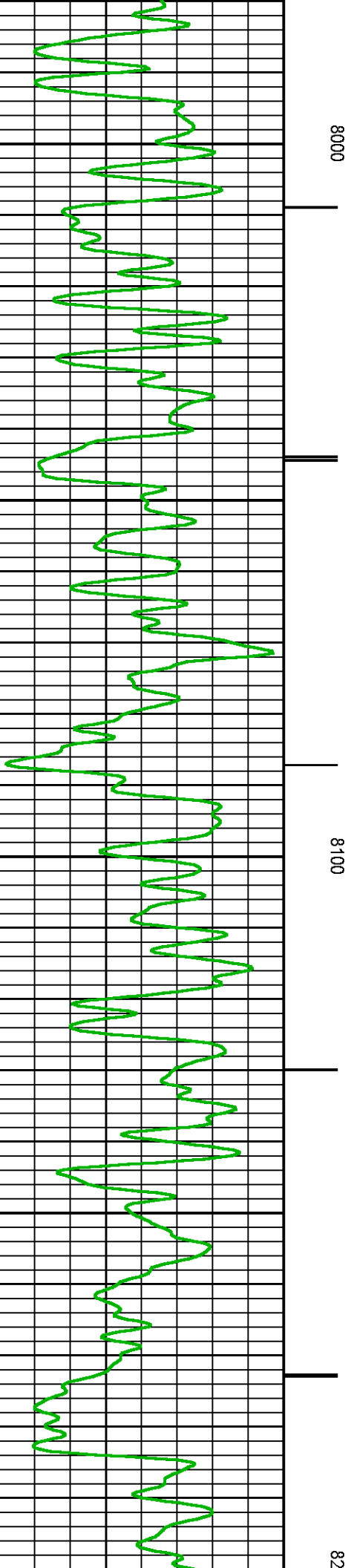
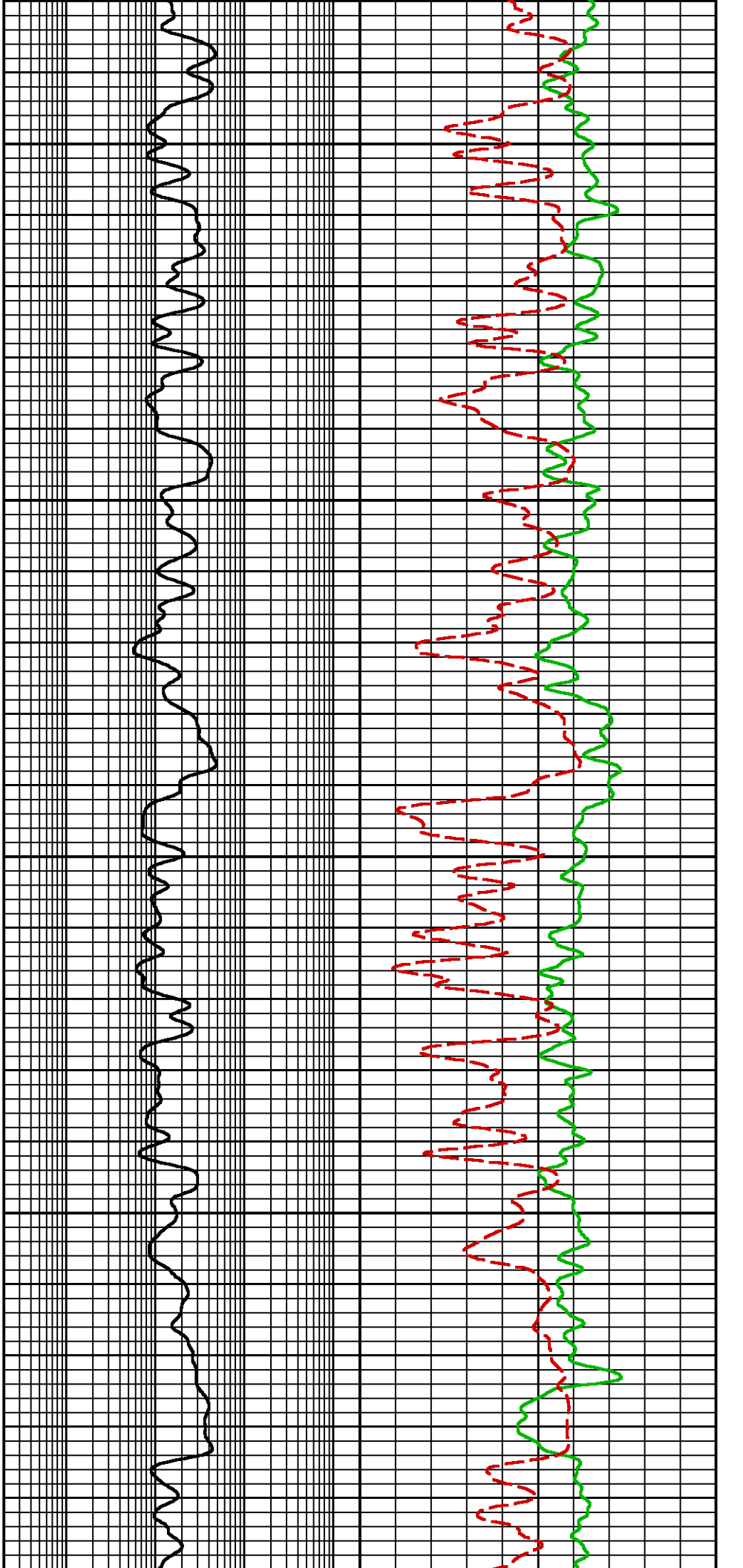


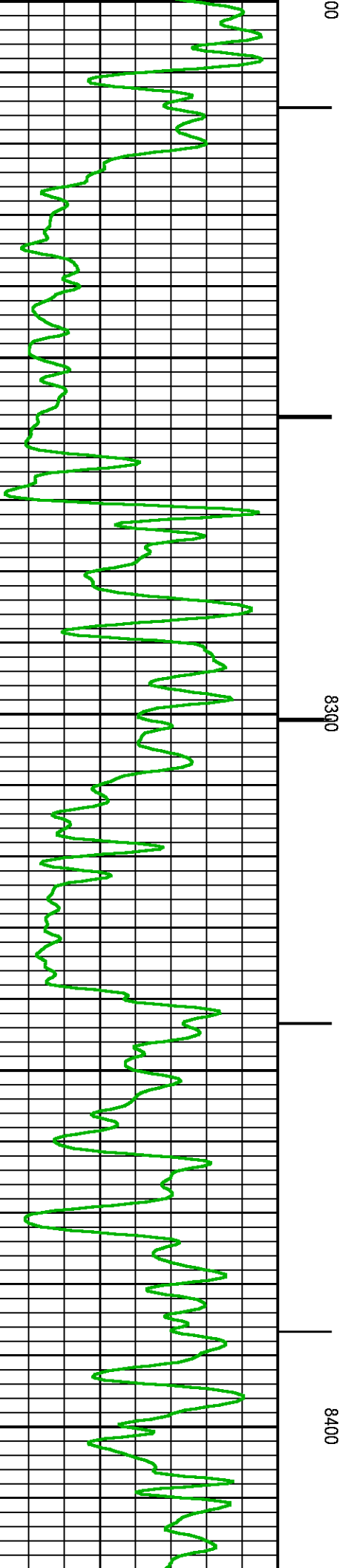
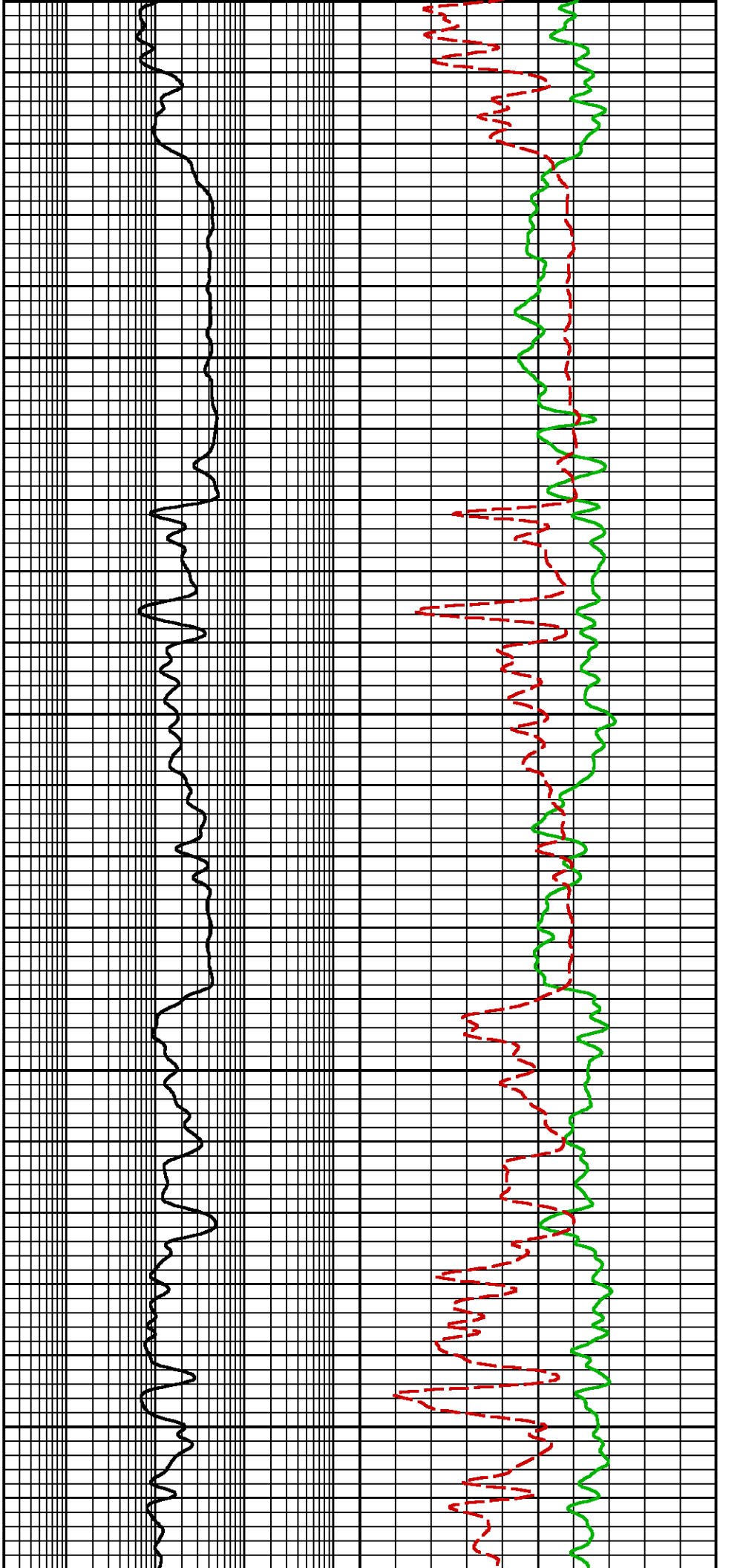


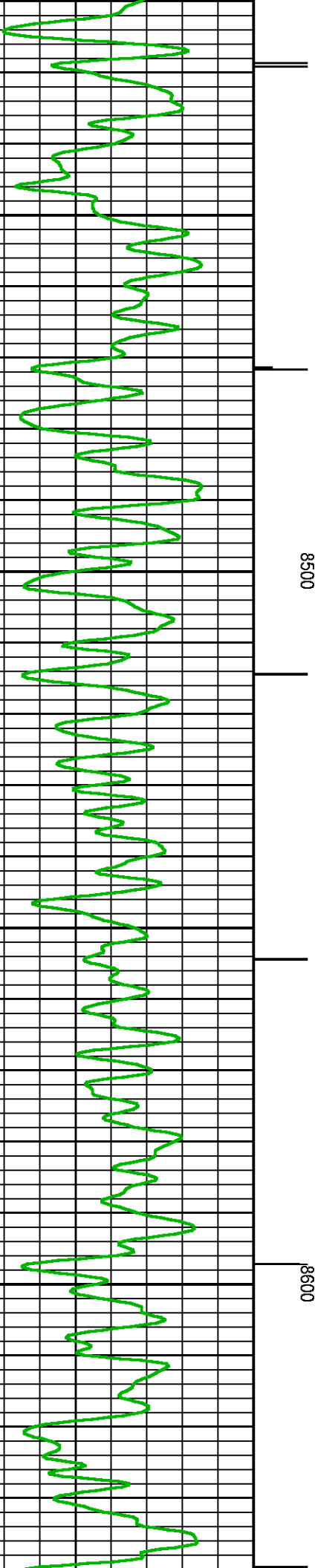
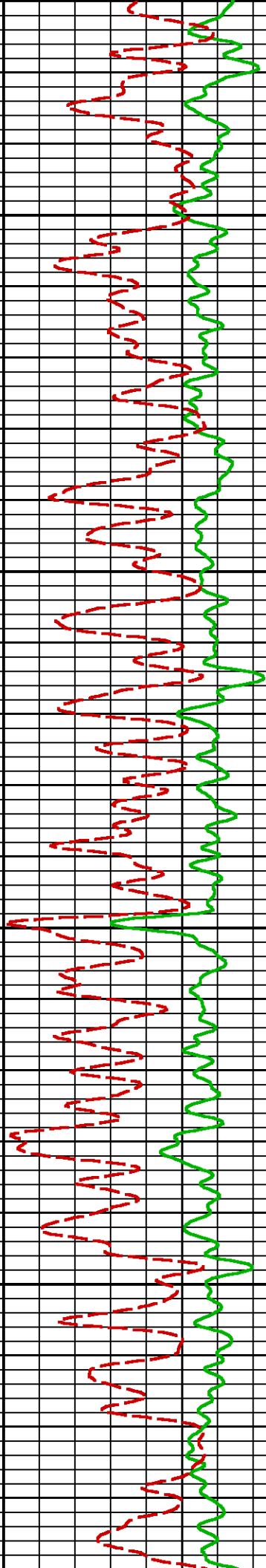
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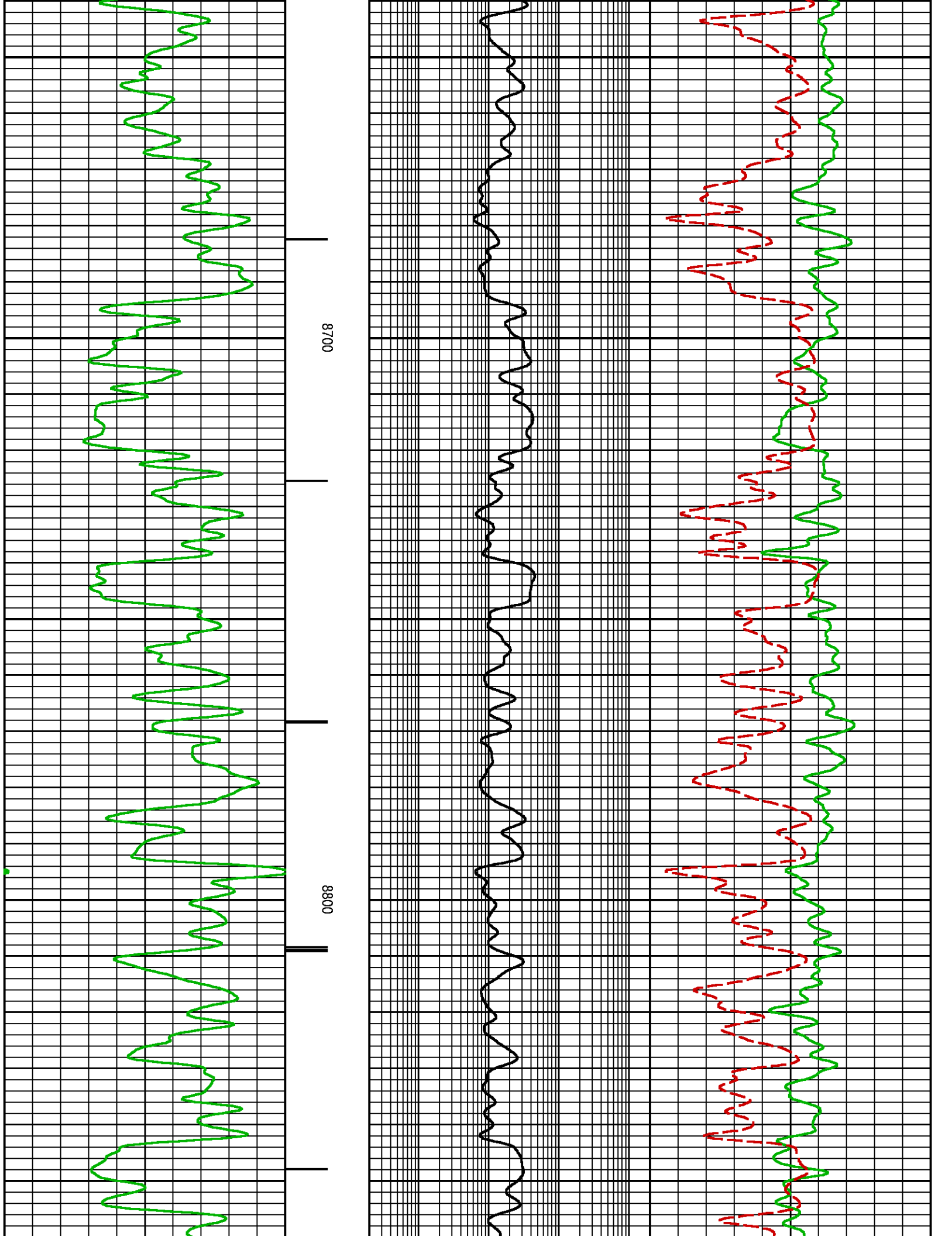
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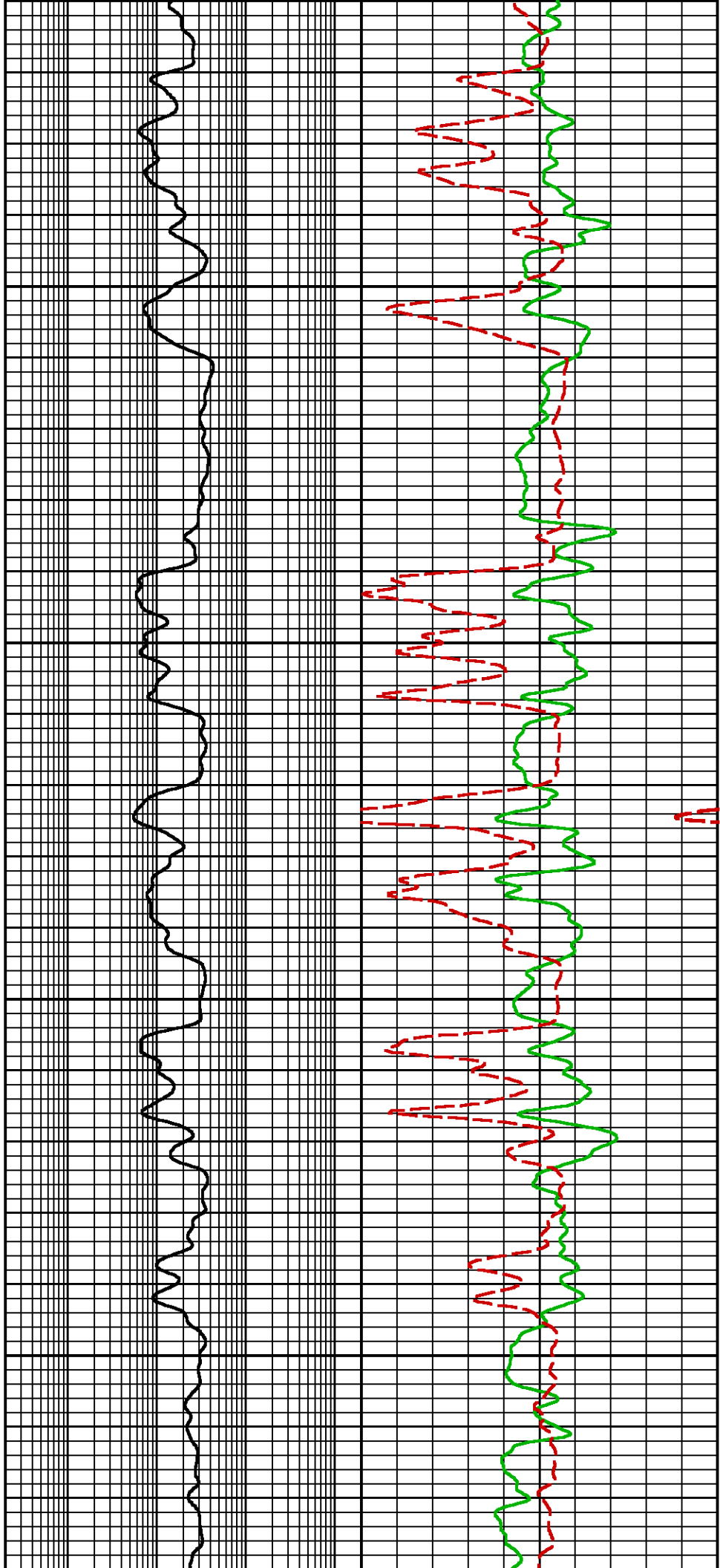
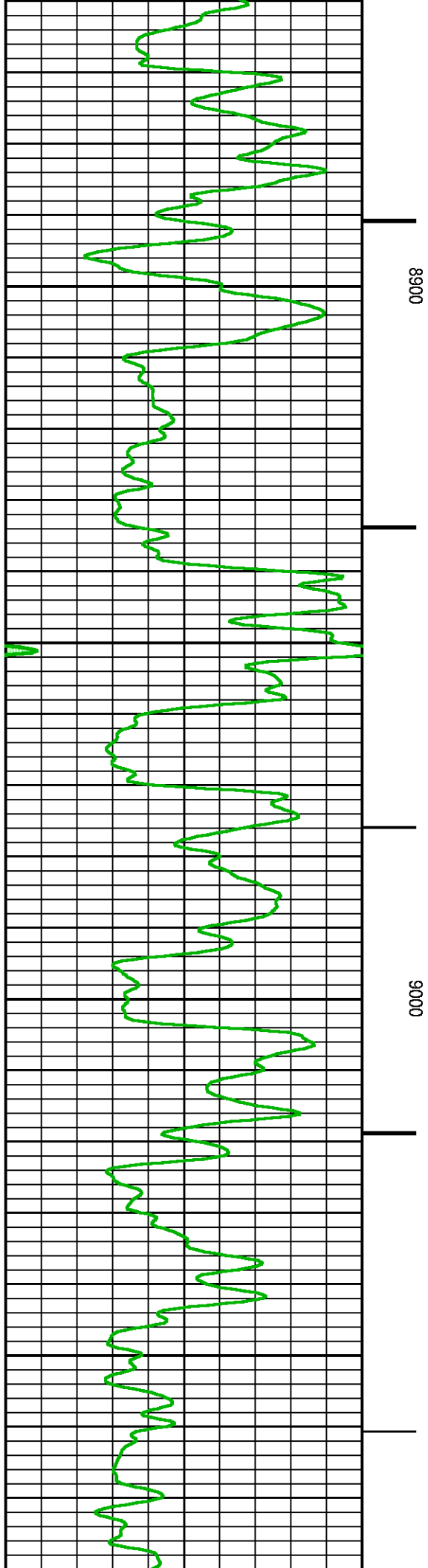


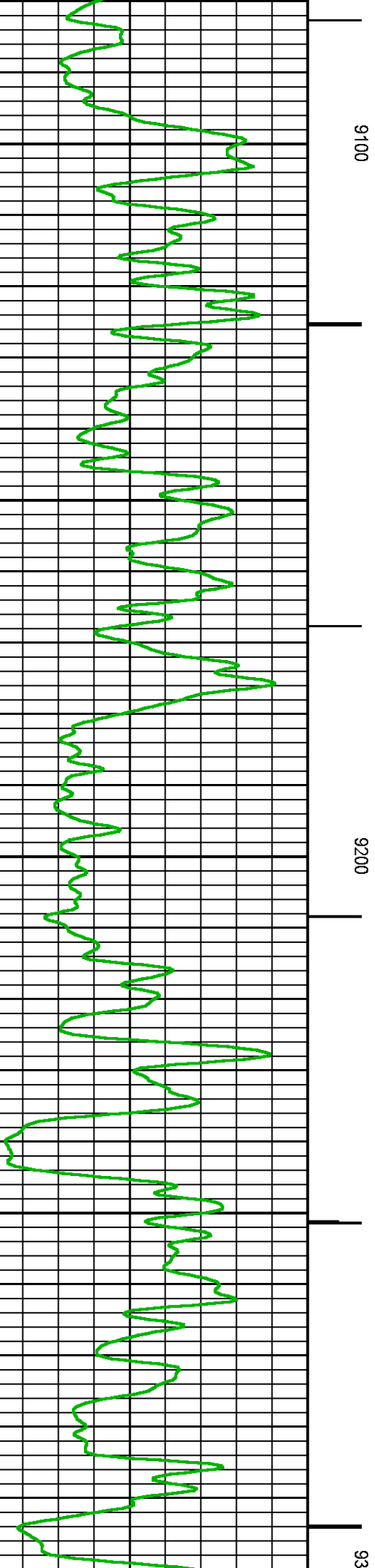
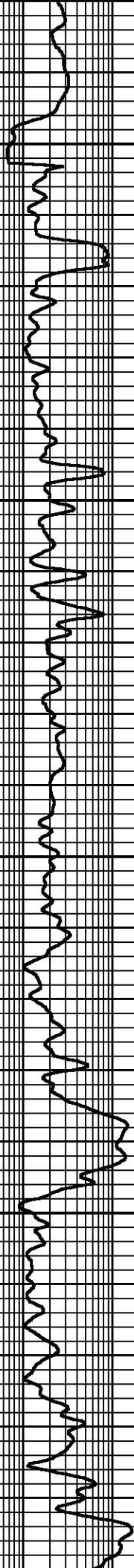
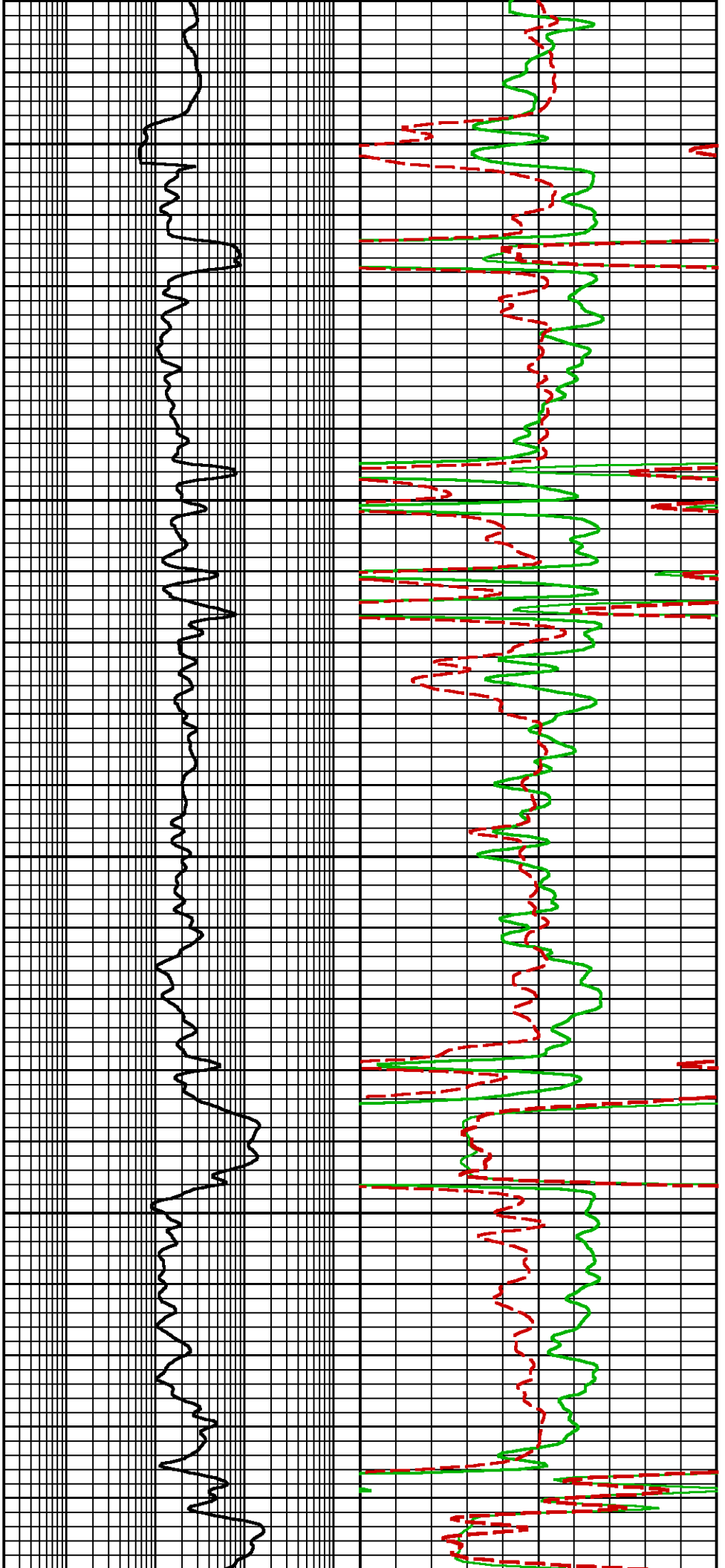


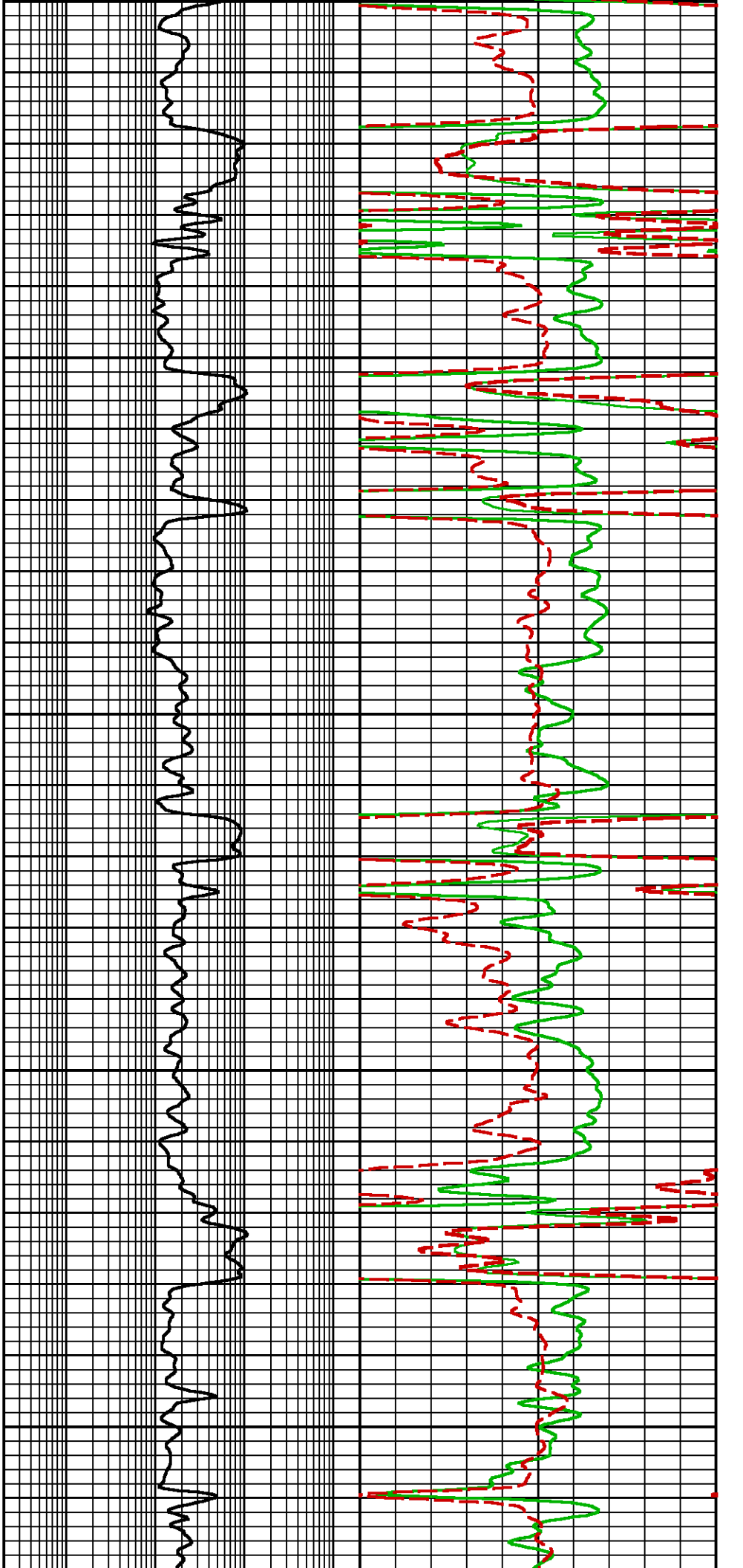








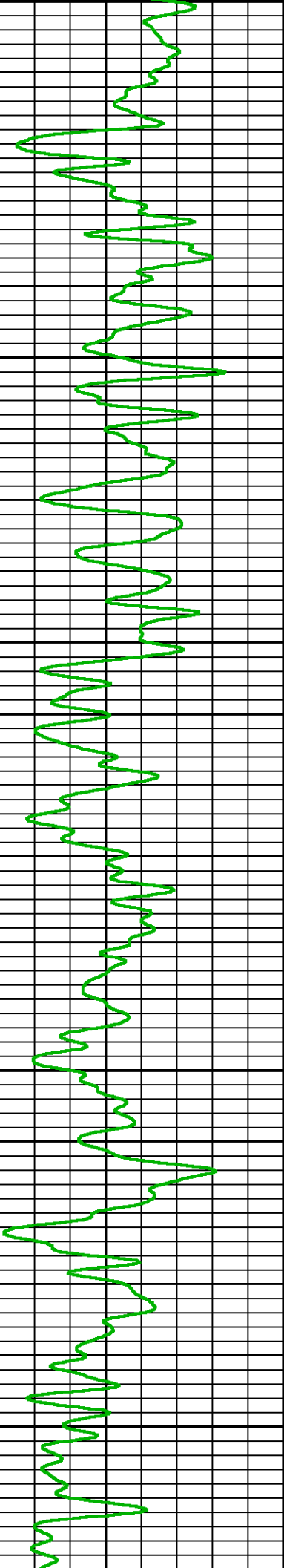


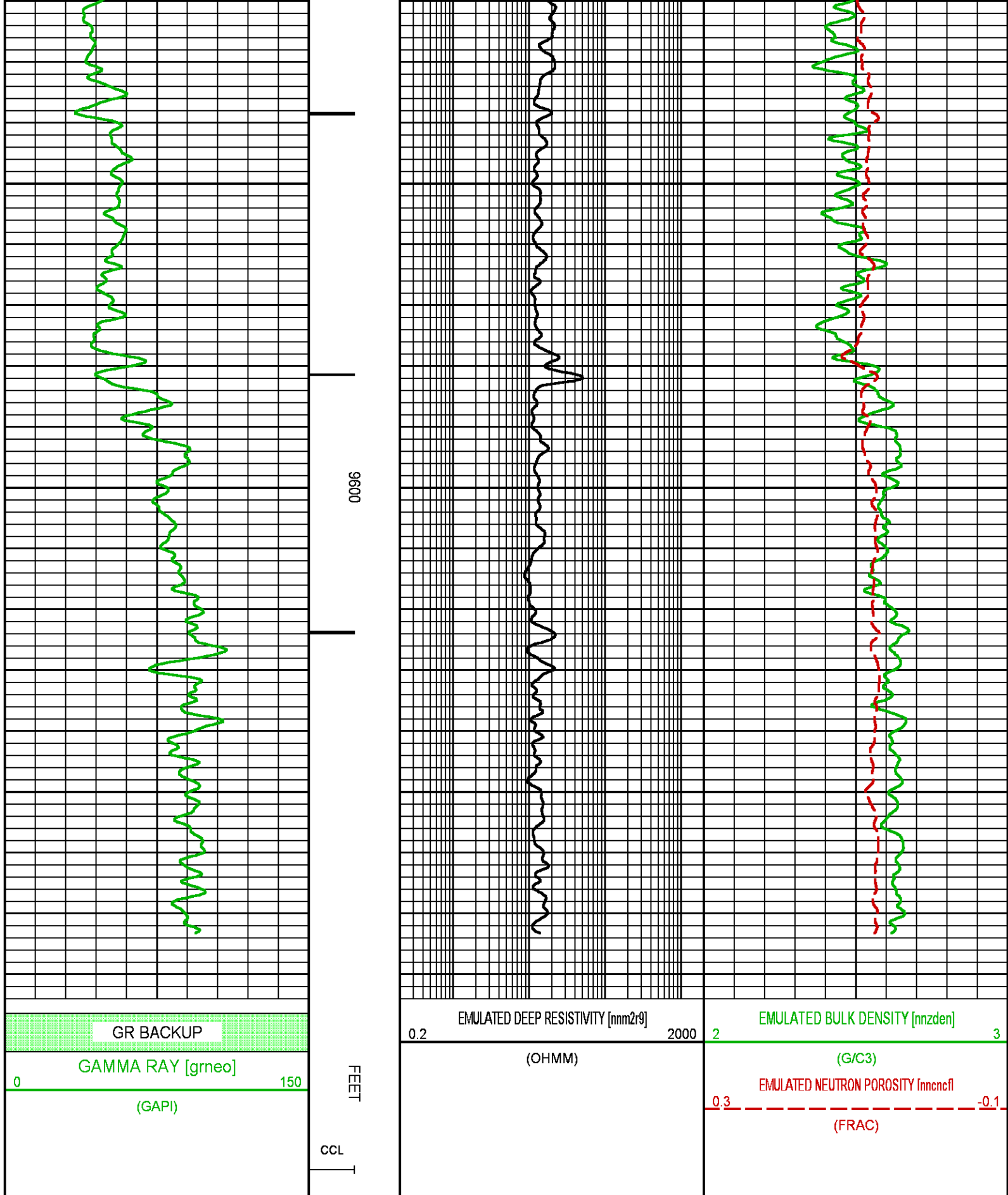


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9400

9500





COUNTY GARFIELDSTATE COLORADO05045238030000

LOCATION:

SEE REMARKS SECTION

ELEVATIONS:

KB 8458.0 FT

DF

GL 8428.0 FT

SEC 3 TWP 6S RGE 97WDATE 31-AUG-2018Pulsed Neutron
Formation Evaluation