



HIGH DEFINITION INDUCTION LOG[®]
COMPENSATED Z-BENSILOGSM
COMPENSATED NEUTRON LOG
CROSS-MULTIPOLE ARRAY ACOUSTIC LOG
GAMMA RAY LOG
CALIPER LOG

FILE NO:	COMPANY	HUSKY OIL OPERATIONS LIMITED
API NO:	WELL	LITTLE BEAR H-64
	FIELD	SLATER RIVER
	PROVINCE	NORTHWEST TERRITORIES
Ver. 3.87	LOCATION:	OTHER SERVICES
UID:	SURF LOC:	ZDL-CAL-GR-CAL
300H5500126000	LAT 64 53' 28.5"N LONG 126 11' 20.3"W	HDIL-GR-CAL, CAL
LICENSE:	BH LOC, LSD:	XUAC-GR, FLEX-DSL
482	LAT 64 53' 28.5"N LONG 126 11' 20.3"W	DSL, EI-CBIL-GR
		IMEX, DIRSUR, CBL
PERMANENT DATUM	G.L.	ELEVATION
LOG MEASURED FROM	K.B.	178.0 M
DRILL MEAS. FROM	5.2 M	ABOVE P.D.
	KELLY BUSHING	ELEVATIONS:
		KB 183.2 M
		DF
		GL 178.0 M

DATE	06-MAR-2012				
RUN	TRIP	1	1		
SERVICE ORDER	CA212311				
DEPTH DRILLER	1341.0 M				
DEPTH LOGGER	1340.2 M				
BOTTOM LOGGED INTERVAL	1334.6 M				
TOP LOGGED INTERVAL	510.0 M				
CASING DRILLER	244.5 MM			510.0 M	
CASING LOGGER	510.0 M				
BIT SIZE	222.0 MM				
TYPE OF FLUID IN HOLE	INVERT				
DENSITY	VISCOSITY	1240.0 G/L	47.0 S		
PH	FLUID LOSS	NA	NA		
SOURCE OF SAMPLE	NO SAMPLE				
RM AT MEAS. TEMP.	NA			NA	
RMF AT MEAS. TEMP.	NA			NA	
RMC AT MEAS. TEMP.	NA			NA	
SOURCE OF RMF	RMC	NO SAMPLE	NO SAMPLE		
RM AT BHT	NA			NA	
TIME SINCE CIRCULATION	8.0 HOURS				
MAX. RECORDED TEMP.	53.2 DEGC				
EDUP. NO.	LOCATION	Z008672	OH CANADA		
RECORDED BY	J. COLLIER/D. DOUCETT				
WITNESSED BY	H. ARENBURG				

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE 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.

BOREHOLE RECORD		
BIT SIZE	FROM	TO
311.0 MM	0.0 M	510.0 M
222.0 MM	510.0 M	1341.0 M

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
244.5 MM	53.6 KG/M	MA	0.0 M	510.0 M

REMARKS

RUN 1 TRIP 1: TIME STOPPED CIRCULATION: 06-MAR-2012 02:30 PM

CNC IS ZDL CALIPER CORRECTED.
 CNC AND PORZ PRESENTED IN LIMESTONE MATRIX 2.71G/CM3.

INTEGRATED TRANSIT TIME TICS EVERY: 1.0, 10.0, & 100.0 µSEC.

BOREHOLE AND TEMPERATURE CORRECTIONS HAVE BEEN APPLIED TO HDIL DATA.
 HDIL RECORDED WITH AND CORRECTED TO 38.0 MM STANDOFF.

HIGH RESOLUTION PASS PRESENTED ABOVE CAL/VER SECTION.

RIG: NABORS 23

CREW: J. COLLIER, D. DOUCETT, D. KIRMAN, D. SCHNEIDER, N. WCDERWID, P. ARENBURG

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	SWIVEL	3844XD	11908286	FREE
1	1	DHPA	4430KB	12111382	FREE
1	1	TTRM SUB	3881XB	11760038	FREE
1	1	COMM	3514XC	12079083	FREE
1	1	WTS DGR/SU	1328XB	11756674	FREE
1	1	CN	244BQA	12088884	DECENTRALIZED
1	1	ZDEN	2234ZA	168004	POD DEVICE
1	1	WTS DBL KNJ	3838QA	10293200	FREE
1	1	ORT	4401XB	Z166976	FREE
1	1	ACOUSTIC EL	1677EA	12043929	CENTRALIZED
1	1	XMAC RX HDR	1678MC	12002062	CENTRALIZED
1	1	XMAC ISO	1878PB	12083102	FREE
1	1	XMAC TX ELC	1678BA	12083108	CENTRALIZED
1	1	XMAC TX ELC	1878FA	12111388	CENTRALIZED
1	1	HDIL ELNS	1515EA	12032417	STANDOFF
1	1	HDIL MANDRL	1515MA	11997988	STANDOFF
1	1	SWIVEL	3844XD	11848158	FREE
1	1	DHPA	4430KB	12088588	FREE
1	1	TTRM SUB	3881XA	Z173348	FREE
1	1	COMM	3514XB	Z186132	FREE
1	1	WTS DGR/SU	1328XB	Z178402	FREE
1	1	CN	244BQA	12088881	DECENTRALIZED
1	1	ZDEN	2234ZA	Z172640	POD DEVICE
1	1	WTS DBL KNJ	3838QA	167194	FREE
1	1	ORT	4401XB	12039483	FREE
1	1	ACOUSTIC EL	1677EA	11981893	CENTRALIZED
1	1	XMAC RX HDR	1678MC	12138263	CENTRALIZED
1	1	XMAC ISO	1878PB	11970839	FREE
1	1	XMAC TX ELC	1678BA	12103864	CENTRALIZED
1	1	XMAC TX ELC	1878FA	12111383	CENTRALIZED
1	1	HDIL ELNS	1515EA	11988850	STANDOFF
1	1	HDIL MANDRL	1515MA	12022811	STANDOFF
1	1	CENTRALIZER	4341XA	Z173361	CENTRALIZED

INSTRUMENT CONFIGURATION

Source File: /data/husky_CA212311/run1-fdg

CABLEHEAD

Diameter : 8.8 cm
Length : 187.8 cm
Weight : 10.8 kg
Series : CABLE308
Mnemonic : CBLH
Measure Points : 83.8 cm: CABLEHEAD TOP

SWIVEL

Diameter : 8.8 cm
Length : 108.7 cm
Weight : 35.8 kg
Series : 3844XD

DOWNHOLE POWER ADAPTER

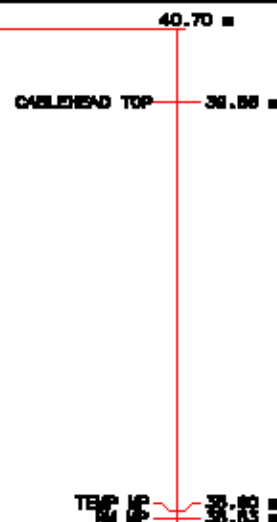
Diameter : 8.2 cm
Length : 180.7 cm
Weight : 36.1 kg
Series : 4430KB
Mnemonic : DHPA

TTRM SUB

Diameter : 9.2 cm
Length : 118.8 cm
Weight : 38.2 kg
Series : 3881XA
Mnemonic : TTRM
Measure Points : 42.2 cm: TEMP MP

WTS COMMON REMOTE

Diameter : 9.2 cm
Length : 184.0 cm
Weight : 38.2 kg
Series : 3814XD
Mnemonic : WTS



DIGITAL SPECTRALOG

Diameter : 9.2 cm
Length : 222.8 cm
Weight : 88.1 kg
Series : 1328KA
Inesonis : DGL
Measure Points: 48.8 cm: OR MP

OR MP 31.00 m

COMPENSATED NEUTRON

Diameter : 9.2 cm
Length : 231.4 cm
Weight : 88.2 kg
Series : 2448KA
Inesonis : ON
Measure Points: 80.3 cm: LBN MP
Measure Points: 85.2 cm: GBN MP

LBN MP 28.80 m
GBN MP 28.35 m

Z-DONEILLO

Diameter : 18.4 cm
Length : 341.8 cm
Weight : 163.8 kg
Series : 2238KA
Inesonis : ZDL
Measure Points: 87.3 cm: GDL MP
Measure Points: 79.4 cm: LBD MP
Measure Points: 63.2 cm: GBD MP

GDL MP 28.28 m
LBD MP 28.04 m
GBD MP 28.81 m

KNUCKLE JOINT (DOUBLE)

Diameter : 8.8 cm
Length : 141.8 cm
Weight : 40.8 kg
Series : 3838KA
Inesonis : KJUT

DIGITAL ORIENTATION

Diameter : 8.8 cm
Length : 328.4 cm
Weight : 80.0 kg
Series : 4401KB
Inesonis : ORIT
Measure Points: 0.0 cm: ORIENT MP

ORIENT MP 20.87 m

ARRAY ACQUISITION ELECTRONICS - 8 CHANNEL

Diameter : 8.8 cm
Length : 228.3 cm
Weight : 48.4 kg
Series : 1877EA
Inesonis : KAMD

CROSS MULTIPOLE ARRAY ACQUISITION

Diameter : 9.8 cm
Length : 332.4 cm
Weight : 101.8 kg
Series : 1878MD
Inesonis : KMP1
Measure Points: 157.8 cm: R8
Measure Points: 152.4 cm: R7
Measure Points: 137.2 cm: R6
Measure Points: 181.8 cm: R9
Measure Points: 108.7 cm: R4
Measure Points: 81.4 cm: R3
Measure Points: 78.2 cm: R2
Measure Points: 81.0 cm: R1

R8 16.54 m
R7 16.35 m
R6 16.25 m
R9 16.45 m
R4 16.35 m
R3 16.25 m
R2 16.35 m
R1 16.45 m

SHEAR SAVE ACQUISITION

Diameter : 9.8 cm
Length : 182.4 cm
Weight : 81.4 kg
Series : 1878PD
Inesonis : KMAC

MONOPOLE T2 12.88 m
QUADRUPOLE T5 12.88 m

MULTI-POLE ARRAY ACQUISITION

Diameter : 9.8 cm
Length : 341.3 cm
Weight : 77.3 kg
Series : 1878PA

X-DIPOLE T3 12.35 m
Y-DIPOLE T4 12.35 m

Inverse : 1000
 Measure Point: 100.0 cm: QUADRUPOLE T5
 Measure Point: 100.0 cm: MONOPOLE T3
 Measure Point: 140.0 cm: Y-DIPOLE T4
 Measure Point: 140.0 cm: X-DIPOLE T3
 Measure Point: 00.0 cm: MONOPOLE T1

MULTI-ROLE ARRAY ACQUISITION

Diameter : 8.0 cm
 Length : 131.0 cm
 Weight : 20.4 kg
 Series : 1678FA
 Inverse : 1000

HIGH DEFINITION INDUCTION TOOL

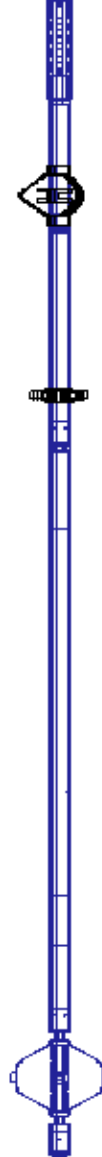
Diameter : 9.0 cm
 Length : 227.0 cm
 Weight : 100.0 kg
 Series : 1010KA
 Inverse : 1000
 Measure Point: 420.0 cm: SP MP
 Measure Point: 200.0 cm: KQTR MP

4 ARM BOW SPRING CENTRALIZER

Diameter : 8.0 cm
 Length : 120.0 cm
 Weight : 38.7 kg
 Series : 4341KA
 Inverse : 1000

BALL PLUG 3 3/8

TOTAL LENGTH: 40.70 m
 TOTAL WEIGHT: 1100.0 kg
 MAX DIAMETER: 12.4 cm



MONOPOLE T1 11.02 m
 SP MP 5.00 m
 KQTR MP 3.01 m
 0.00 m

MAIN LOG - LIMESTONE MATRIX

ECLIPS 6.11 Aug 06, 2010
 Updates: 1 Patches: 1

Wed Mar 7 01:20:18 2012

Perpht /main/62

Cplot

Pdf_Cpp /main/16

Fileview 5.51

PARAMETER AND FILTER SUMMARY REPORT

File: /data/husky_CA212311/m77evh_xc03.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 497.568 m BOTTOM DEPTH: 1340.929 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
Y AXIS CALIPER	FILTER ()	medium (1)		TOP	BOTTOM
TENSION	FILTER ()	medium (1)		"	"
GR	FILTER ()	medium (1)		"	"
FR	FILTER ()	medium (1)		"	"

CN	FILTER ()	medium (1)	..	..
CALIPER	FILTER ()	medium (1)	..	..
	FILTER (.h)	medium (1)	..	..
	FILTER (.l)	medium (1)	..	..
ZDL MED RES	FILTER (hrd1*)	medium	..	..
	FILTER (hrd1s*)	medium	..	..
	FILTER (hrd2*)	medium	..	..
	FILTER (hrd2s*)	medium	..	..
	FILTER (soft*)	medium	..	..

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	177.800	mm	TOP	BOTTOM
	CASING THICKNESS	8.000	mm	..	..
BIT SIZE	BIT SIZE	222.000	mm	..	..
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE CALIPER		..	..
	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		..	..
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	222.000	mm	..	..
	FIXED DIAMETER (mbh*)	222.000	mm	..	..
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	OIL BASE MUD		..	..

CN PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CN SALINITY CORRECTION	SALINITY	0	ppm	TOP	BOTTOM
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		..	..
	BIT SIZE BEHIND CSNG	311.000	mm	..	..

ZDL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
DENSITY POROSITY	RHOfluid	1.000	g/cm3	TOP	BOTTOM
	RHOmatrix (line)	2.710	g/cm3	..	..
ZDL	DENX TRACKING	ON		..	..

ACOUSTIC AVAN CORRELATION

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
MONOPOLE COMPRESSIONAL	FORMATION TYPE	GENERIC (MEDIUM)		TOP	BOTTOM
	CORRELATION METHOD	NTH ROOT		..	..
	RESET TAPERS			..	..
	TAPER - LEFT END	100	us/m	..	..
	TAPER - RIGHT END	420	us/m	TOP	498.272
		350	us/m	498.272	499.843
		500	us/m	499.843	501.472
		425	us/m	501.472	1284.046
		400	us/m	1284.046	1287.084
		325	us/m	1287.084	1319.555
		350	us/m	1319.555	BOTTOM
	FLOOR (UNIV. OPTION)	0.050		TOP	BOTTOM

ACOUSTIC WAVEFORM FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
WAVEFORM FILTER - FULLWAVE	SURFACE WAVE FILTER	ON		TOP	BOTTOM
	LOW FREQ CUTOFF	2000	Hz	..	..
	HIGH FREQ CUTOFF	20000	Hz	..	..

ACOUSTIC TCC CONTROL PARAMETERS

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
GENERAL TCC PARAMETERS	AGC	ON		TOP	BOTTOM
	SUBCYCLE LENGTH	50		..	..
	SUBSET	1		..	..
GENERAL MONOPOLE TCC PARAMETERS	STACK LEVEL	2		..	..
	DSP FILTER	ON		..	..
FULL WAVE MONOPOLE TCC PARAMETERS	AGC WINDOW	8064	us	..	..
	SAMPLE PERIOD	24		..	..
	RK DELAY	0	us	..	..

HDIL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
HDIL TEMPERATURE CORRECTION	TEMP CORR SOURCE	USE RKTEMP		TOP	BOTTOM
ADJUSTABLE RESISTIVITY CORRECTION	ADJ RES CORRECTION	ON		..	..

ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON	..	..
	ABC to CALCULATE		..	..
	STANDOFF	38.10	..	..
	TOOL POSITION	ECCENTERED	..	..
	Rmsd MULTIPLIER	1.000	..	..

CURVE DESCRIPTION REPORT

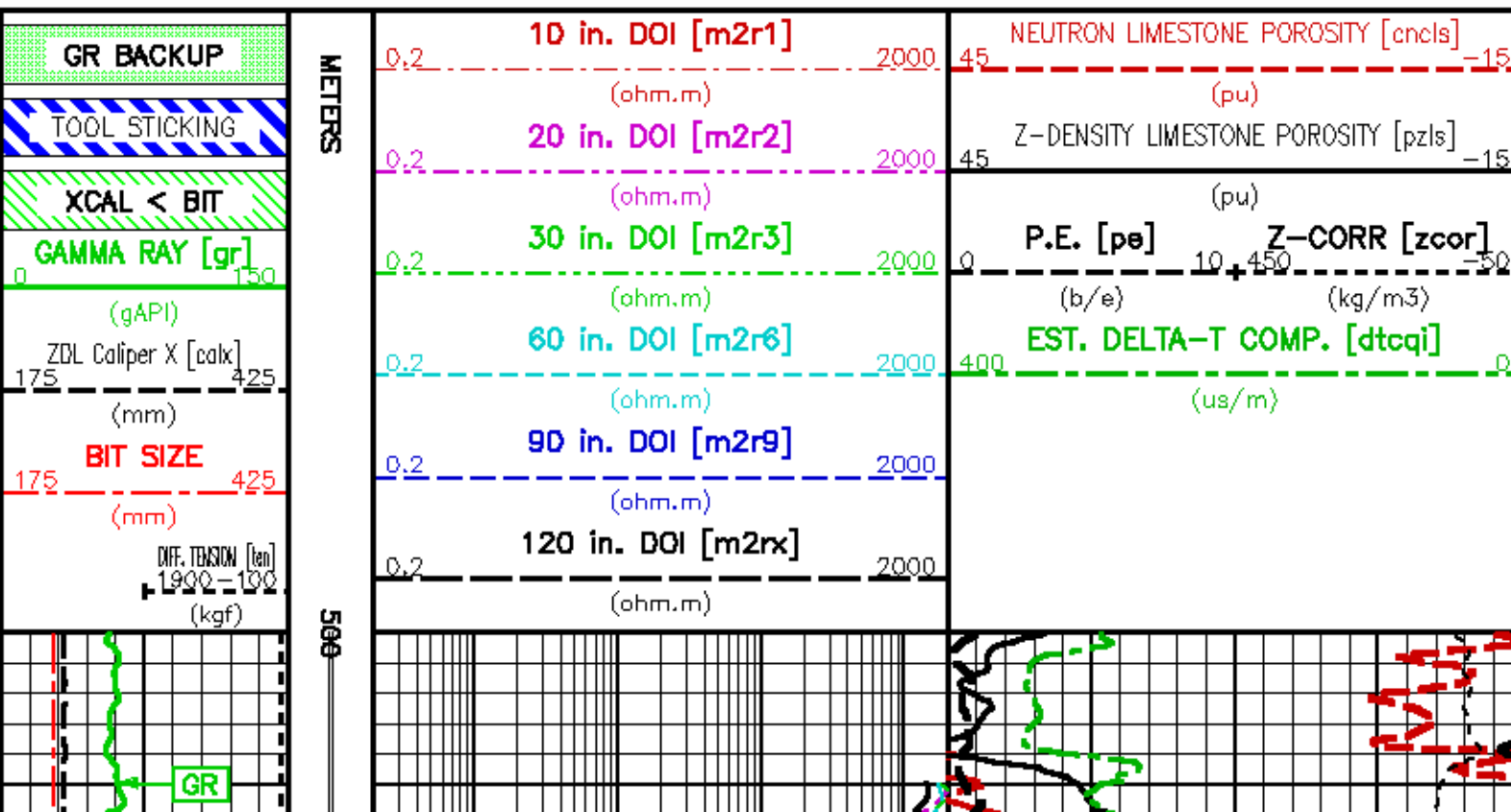
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Mar 6 22:18:03 2012	BIT SIZE
F1:CALX	Mar 6 22:18:03 2012	CALIPER FROM K-AXIS OF XY CALIPER(S)
F1:CNCLS	Mar 6 22:18:03 2012	BOREHOLE SIZE CORRECTED LIMESTONE COMPENSATED NEU POROSITY
F1:DTCQI	Mar 6 22:18:03 2012	COMPRESSIONAL WAVE SLOWNESS
F1:GR	Mar 6 22:18:03 2012	GAMMA RAY
F1:M2R1	Mar 6 22:18:03 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F1:M2R2	Mar 6 22:18:03 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 20-INCH DOI
F1:M2R3	Mar 6 22:18:03 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 30-INCH DOI
F1:M2R6	Mar 6 22:18:03 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI
F1:M2R9	Mar 6 22:18:03 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:M2RX	Mar 6 22:18:03 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 120-INCH DOI
F1:PE	Mar 6 22:18:03 2012	PHOTO ELECTRIC CROSS-SECTION
F1:PZLS	Mar 6 22:18:03 2012	POROSITY FOR LIMESTONE MATRIX
F1:TEN	Mar 6 22:18:03 2012	DIFFERENTIAL TENSION
F1:ZCOR	Mar 6 22:18:03 2012	DENSITY CORRECTION

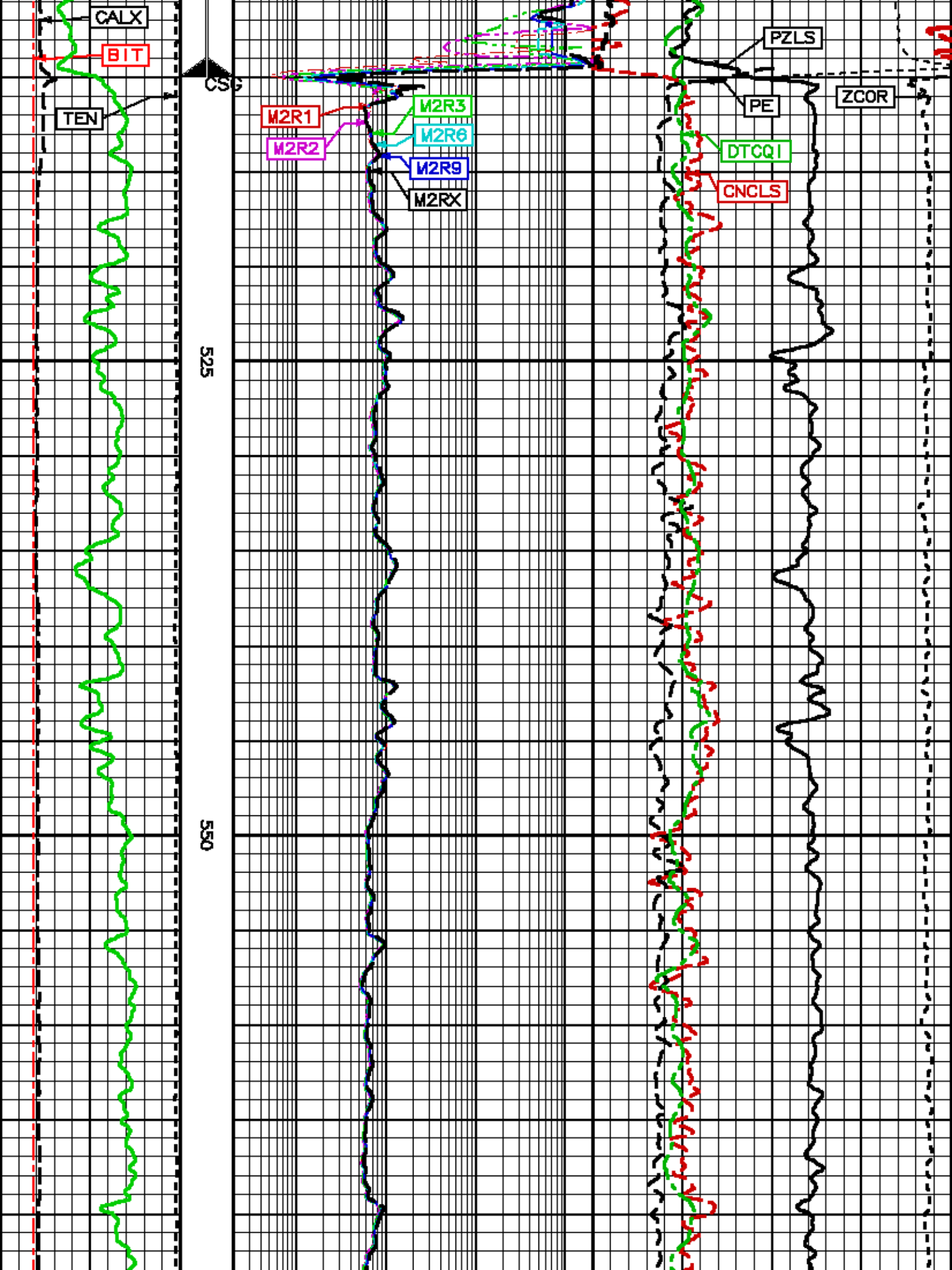
CURVE MEASURE POINT OFFSET

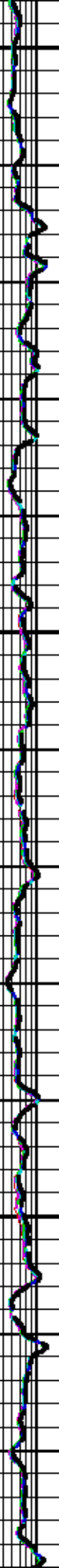
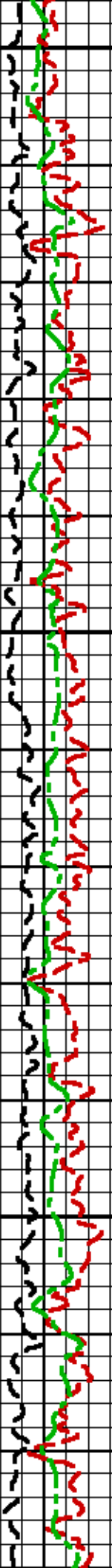
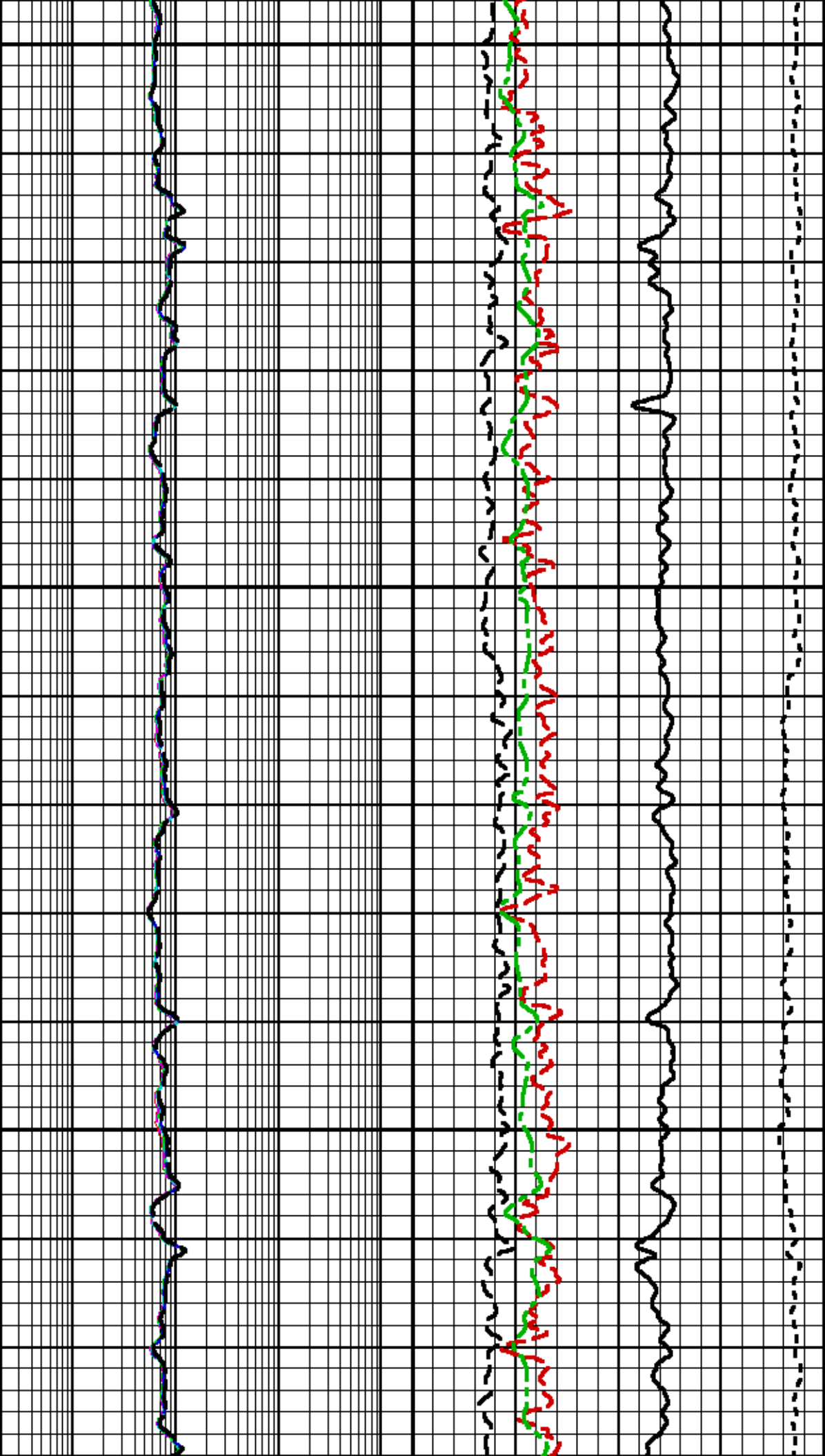
CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
BIT	0.00	GR	31.39	M2R6	3.66	PZLS	25.95
CALX	26.17	M2R1	3.66	M2R9	3.66	TEN	0.00
CNCLS	29.30	M2R2	3.66	M2RX	3.66	ZCOR	25.95
DTCQI	15.85	M2R3	3.66	PE	25.95		

Presentation : opuz\data/husky_CA212311/comp_main_b.pdf [1:240 Scale]
 Plot Interval : 500 - 1340.89 Meters

Data File 1 : F1 : opuz\data/husky_CA212311/m77wh_xe03.xtf
 Created On : Mar 6 22:18:03 2012
 Company : HUSKY OIL OPERATIONS LIMITED
 Well : LITTLE BEAR H-64
 Field : SLATER RIVER
 File Interval : 452.247 - 1340.95 Meters
 Out : m77wh_x



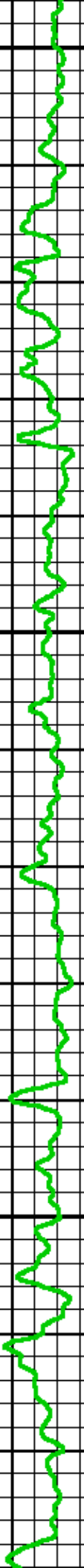


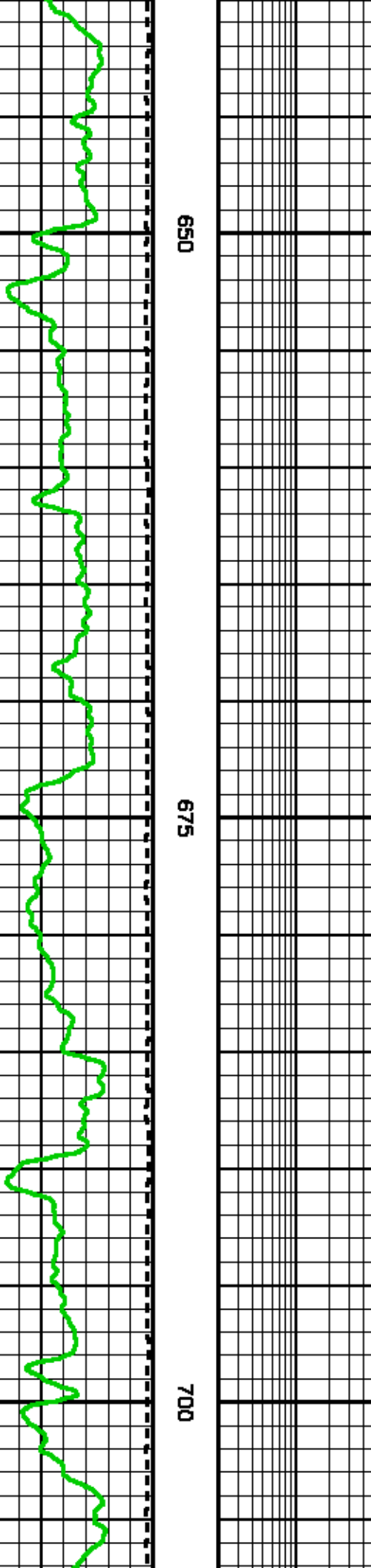
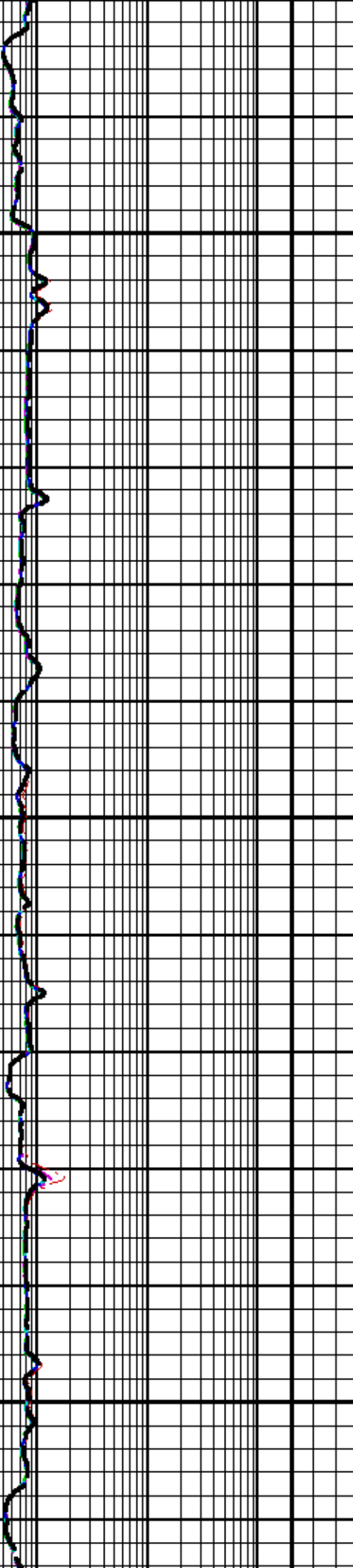
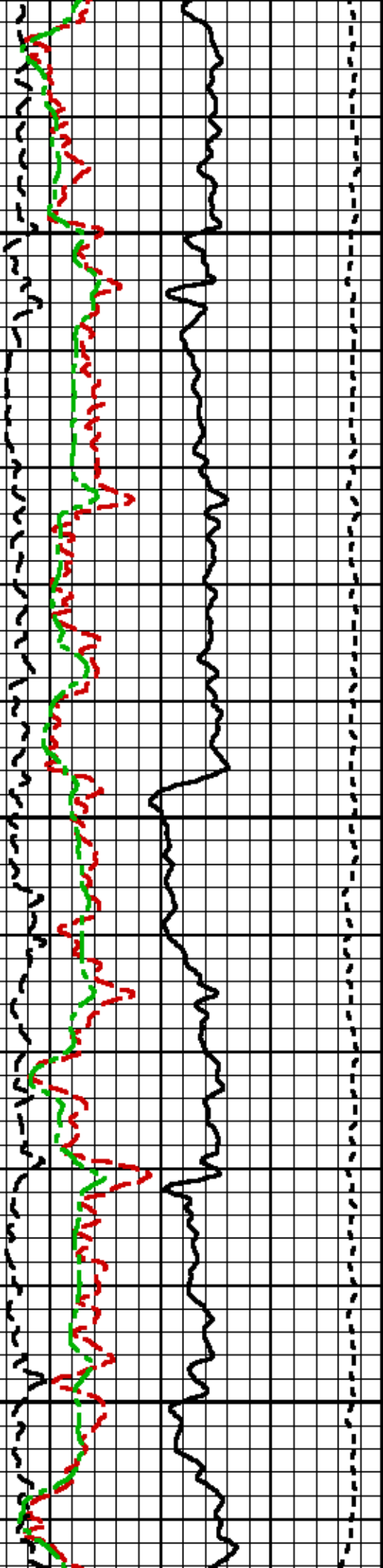


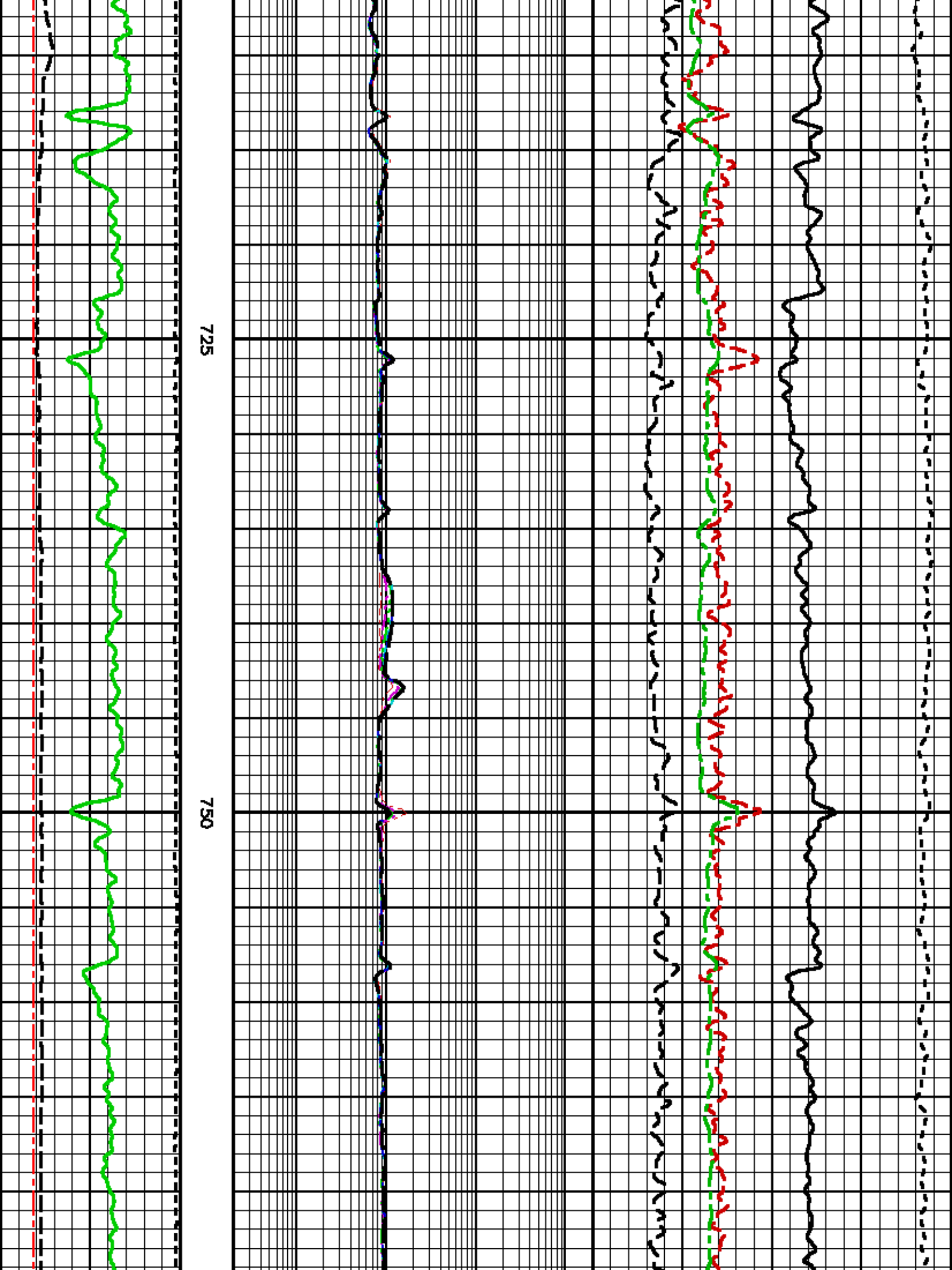
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600

625

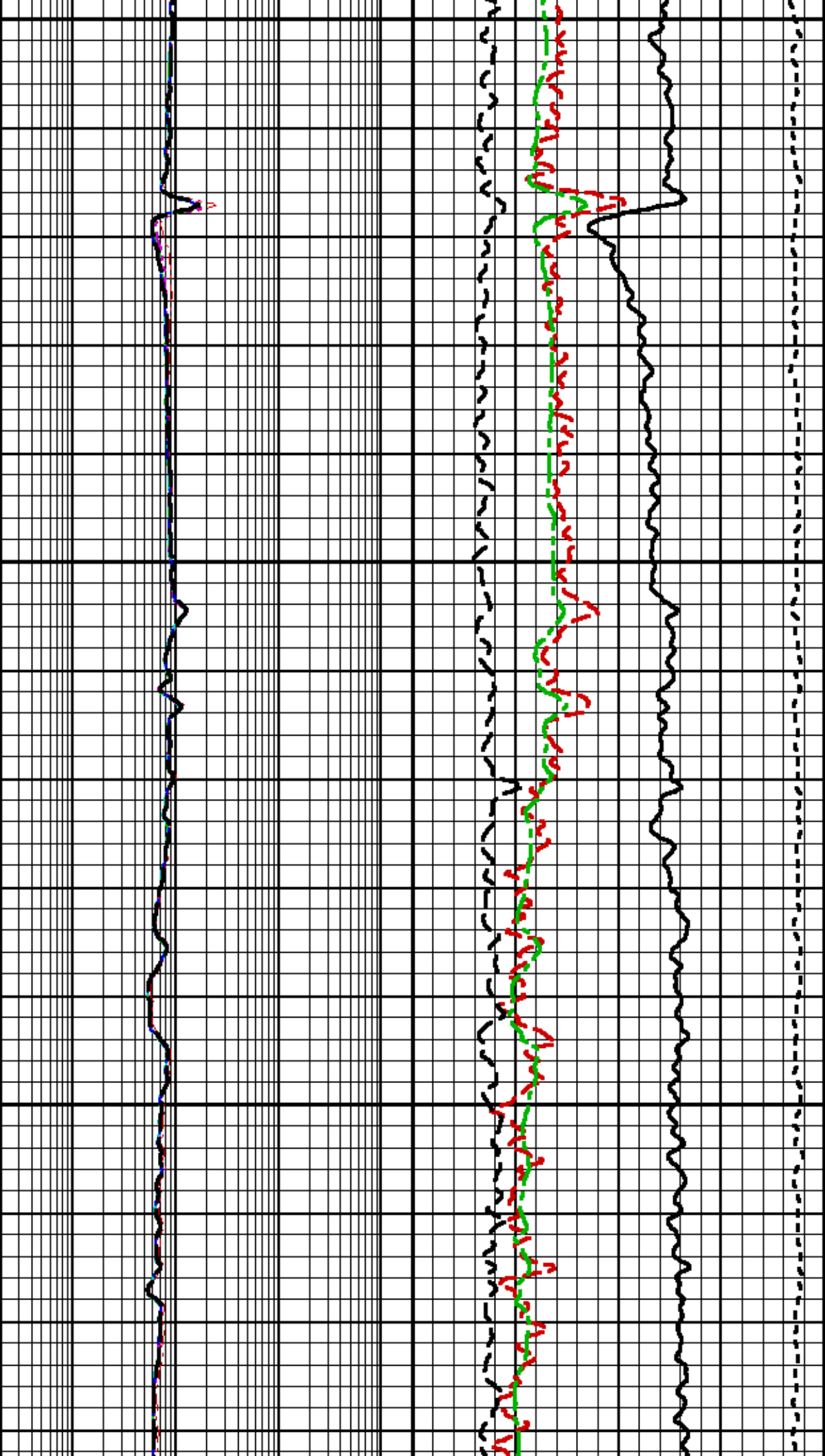






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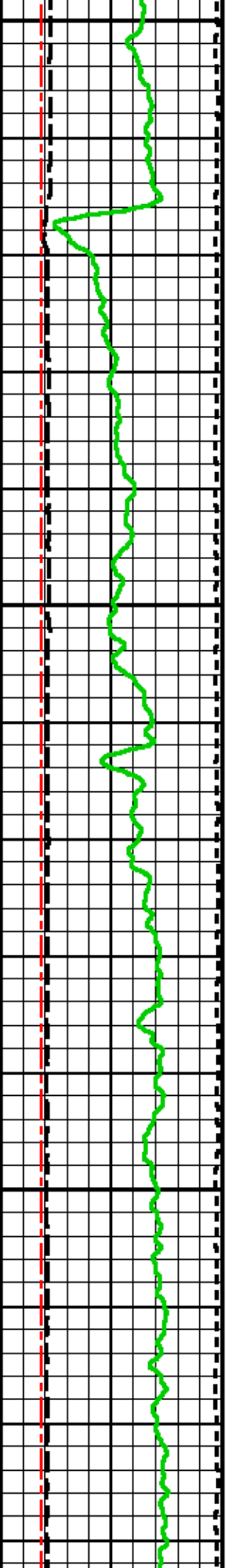
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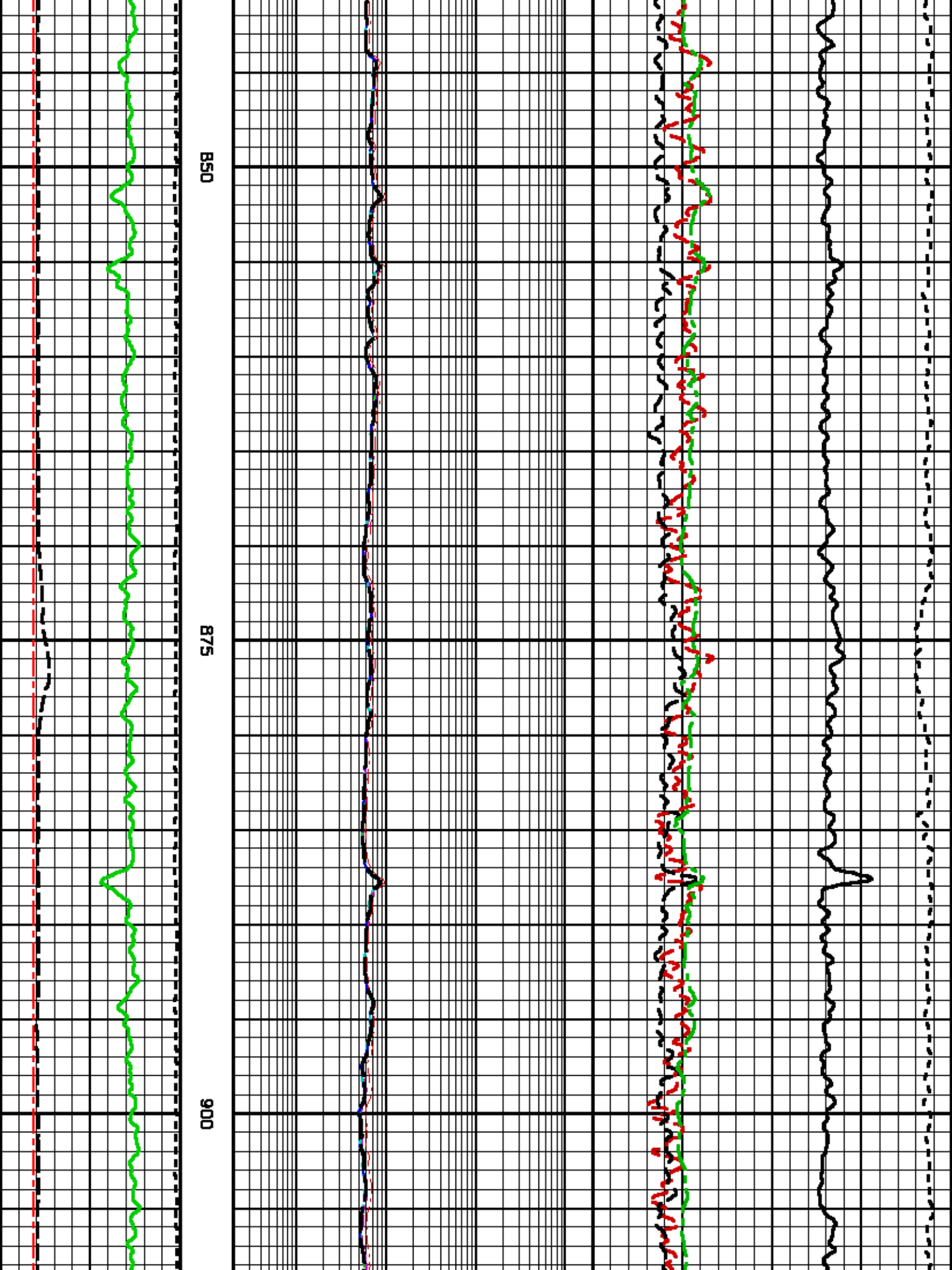


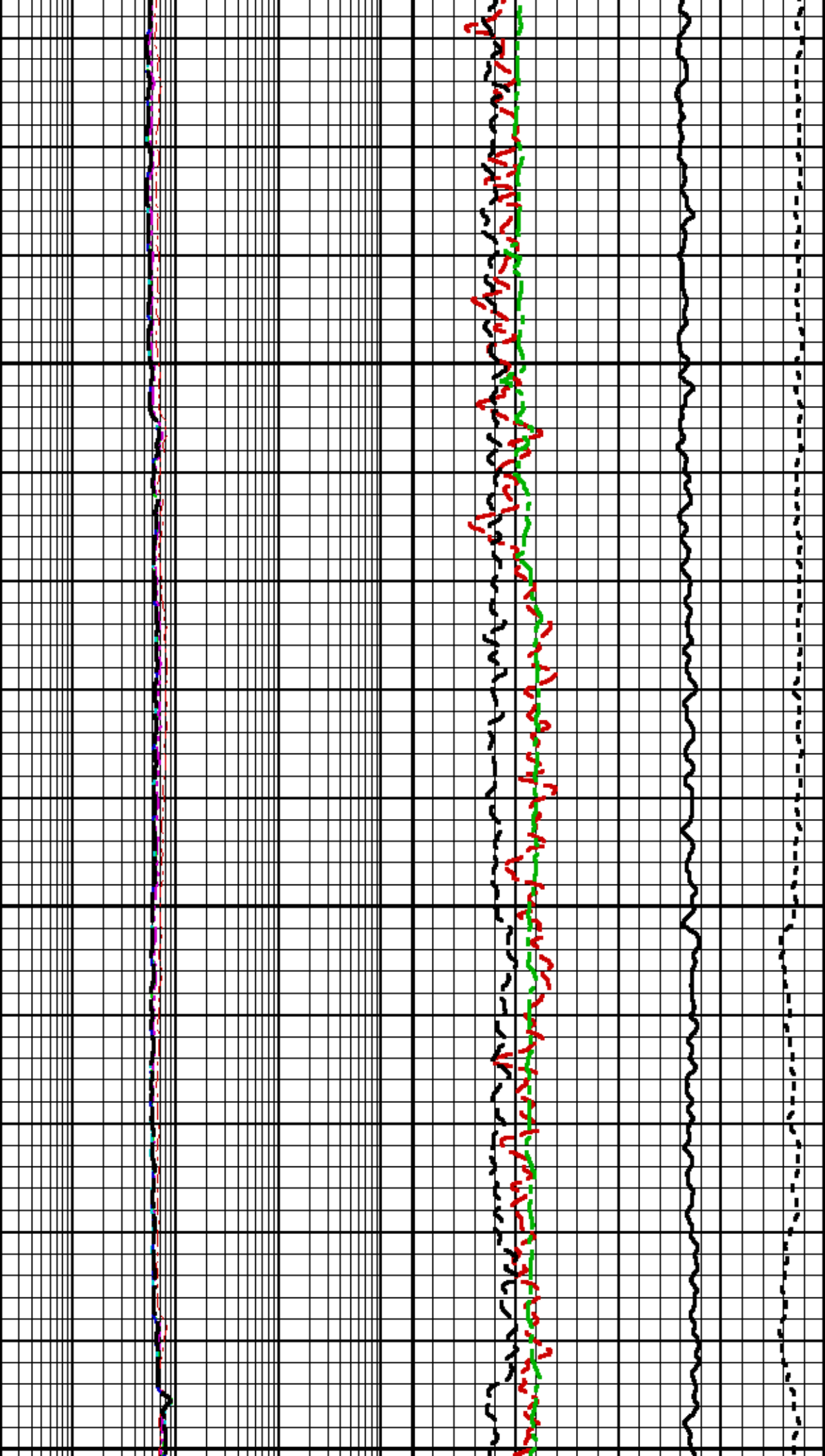
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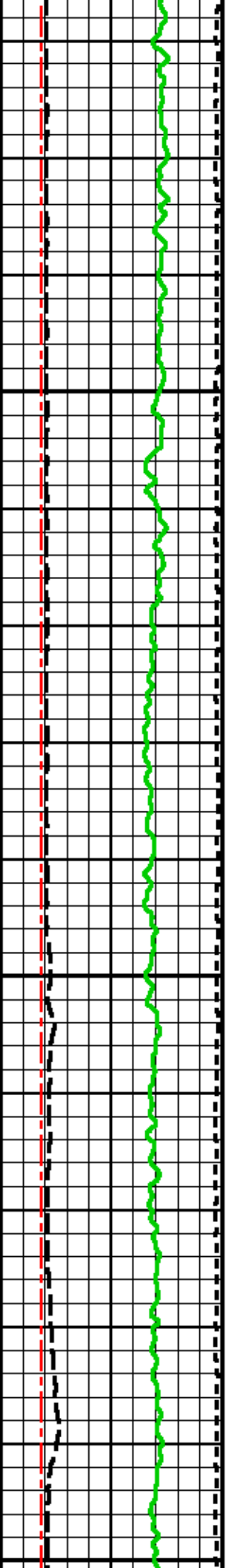


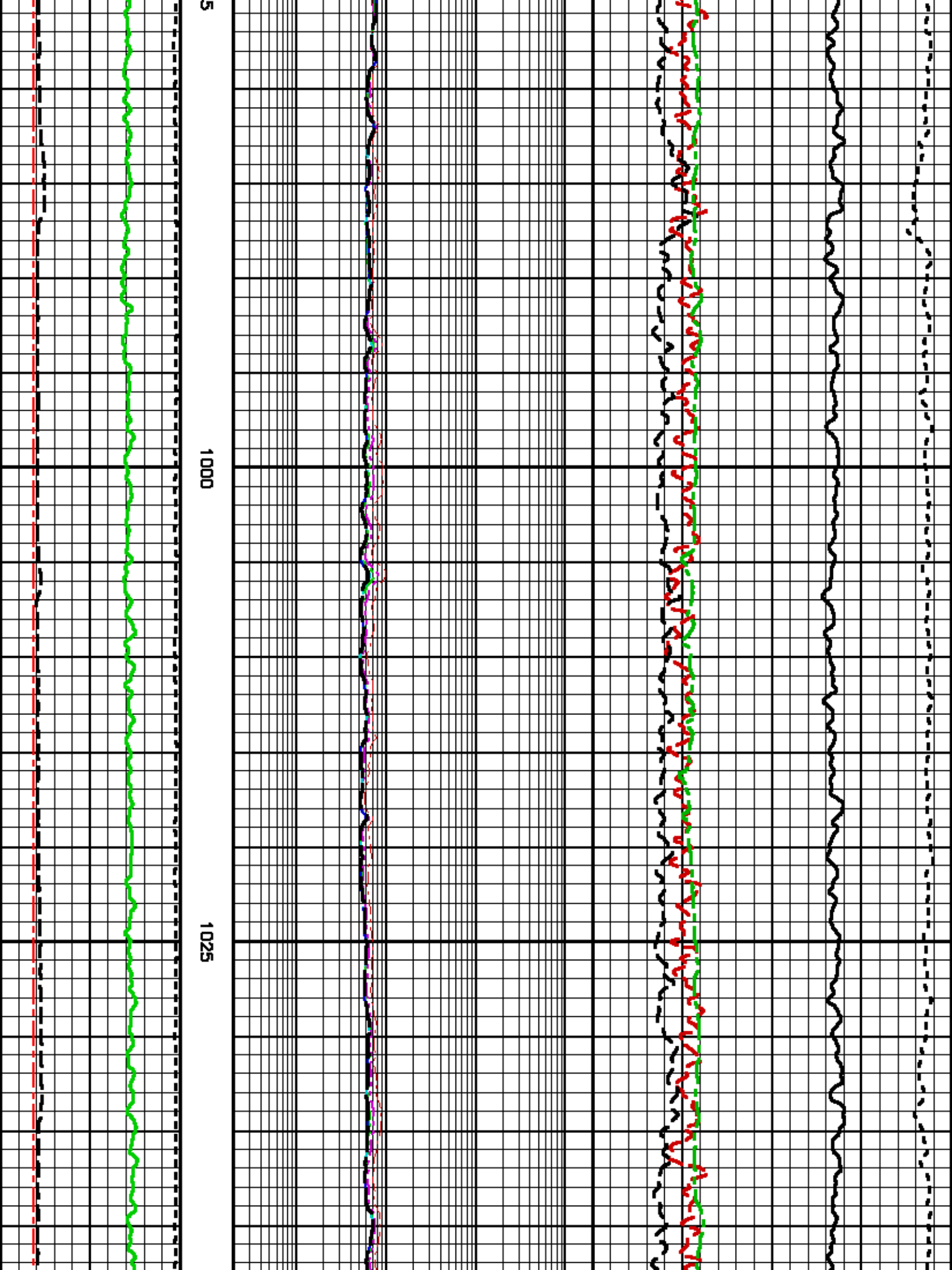


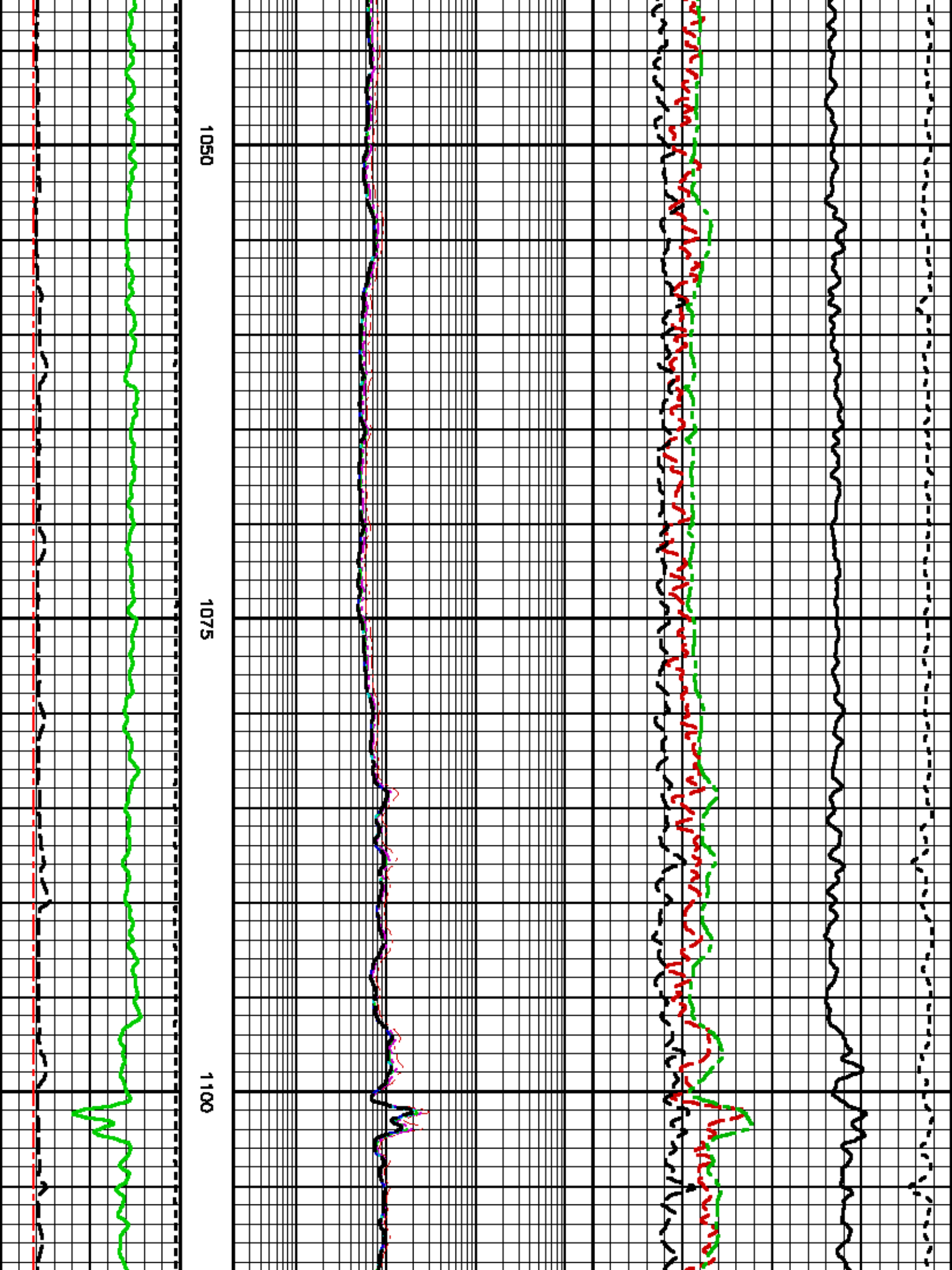
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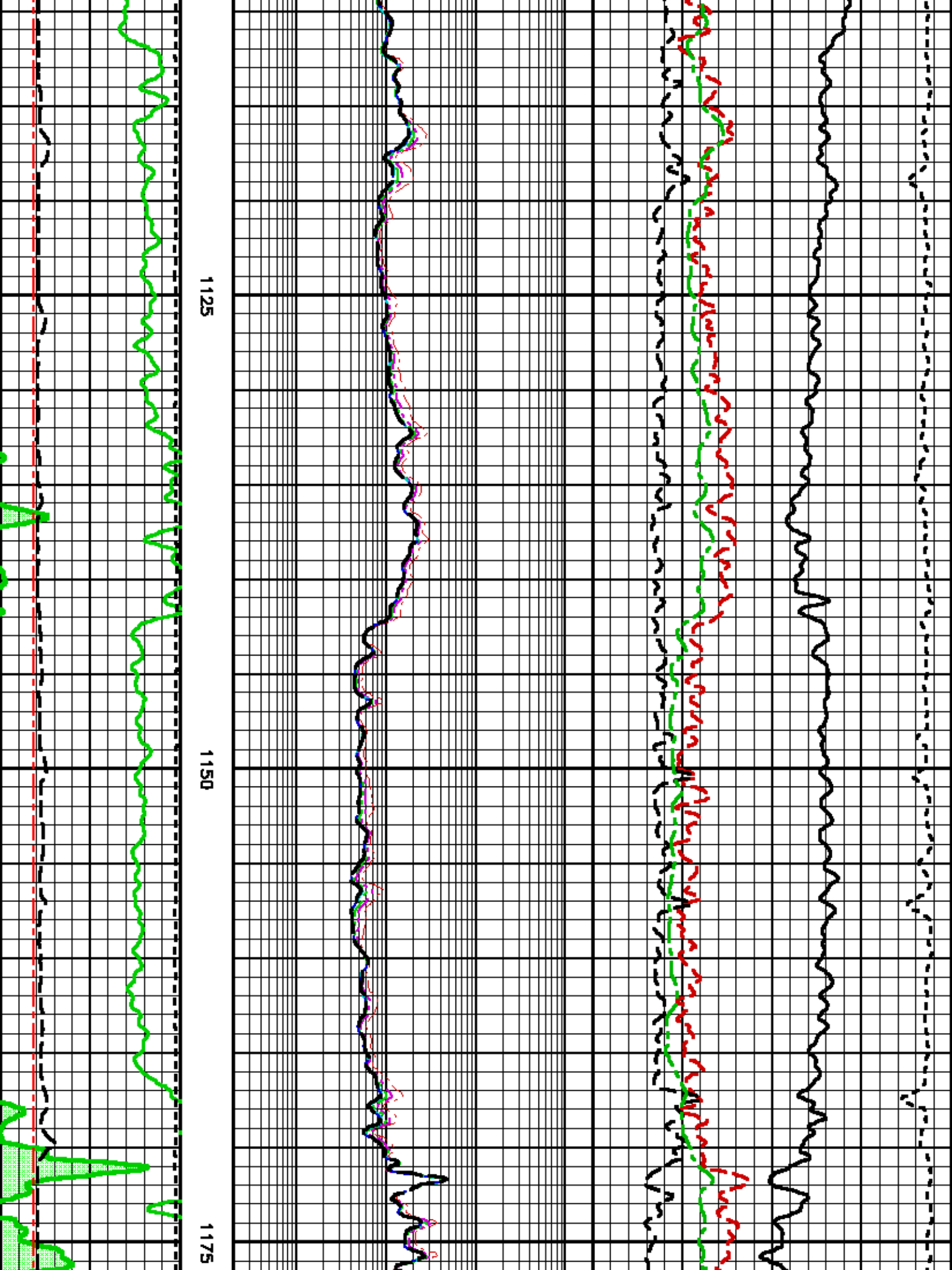
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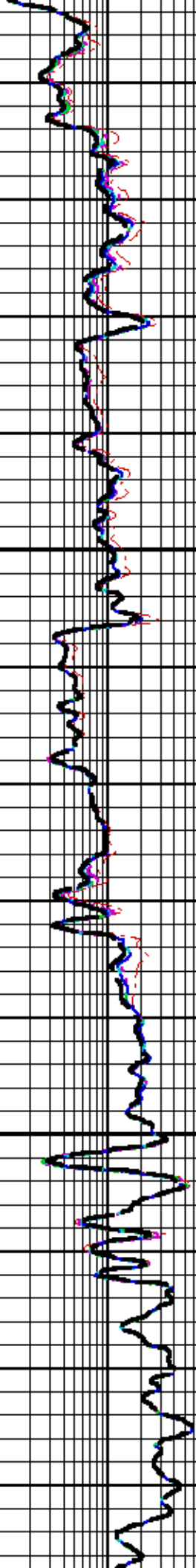
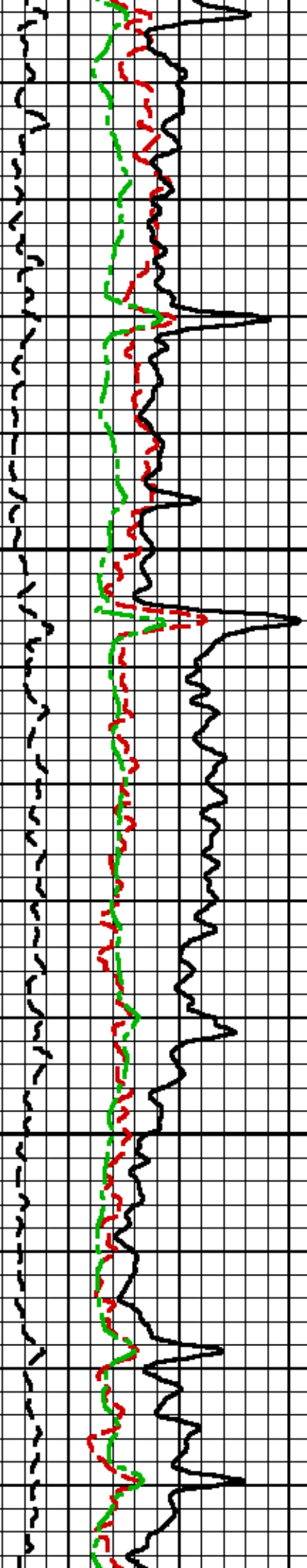
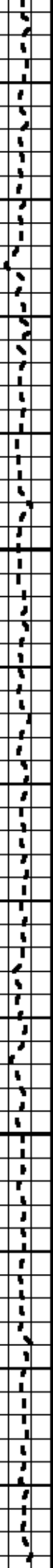
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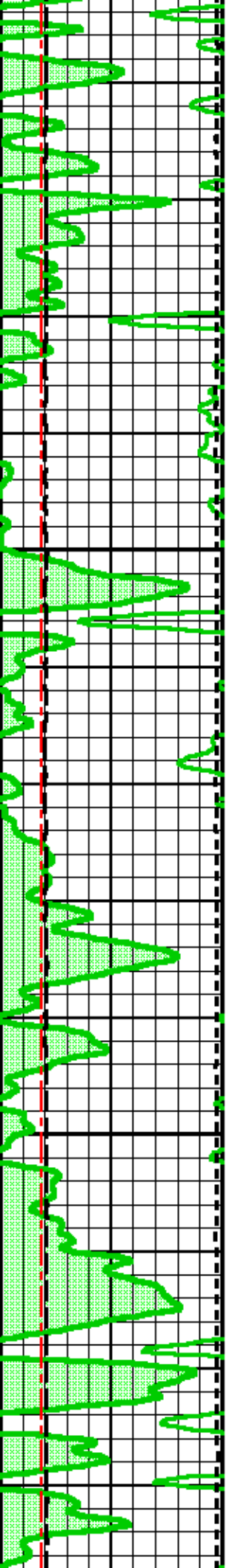


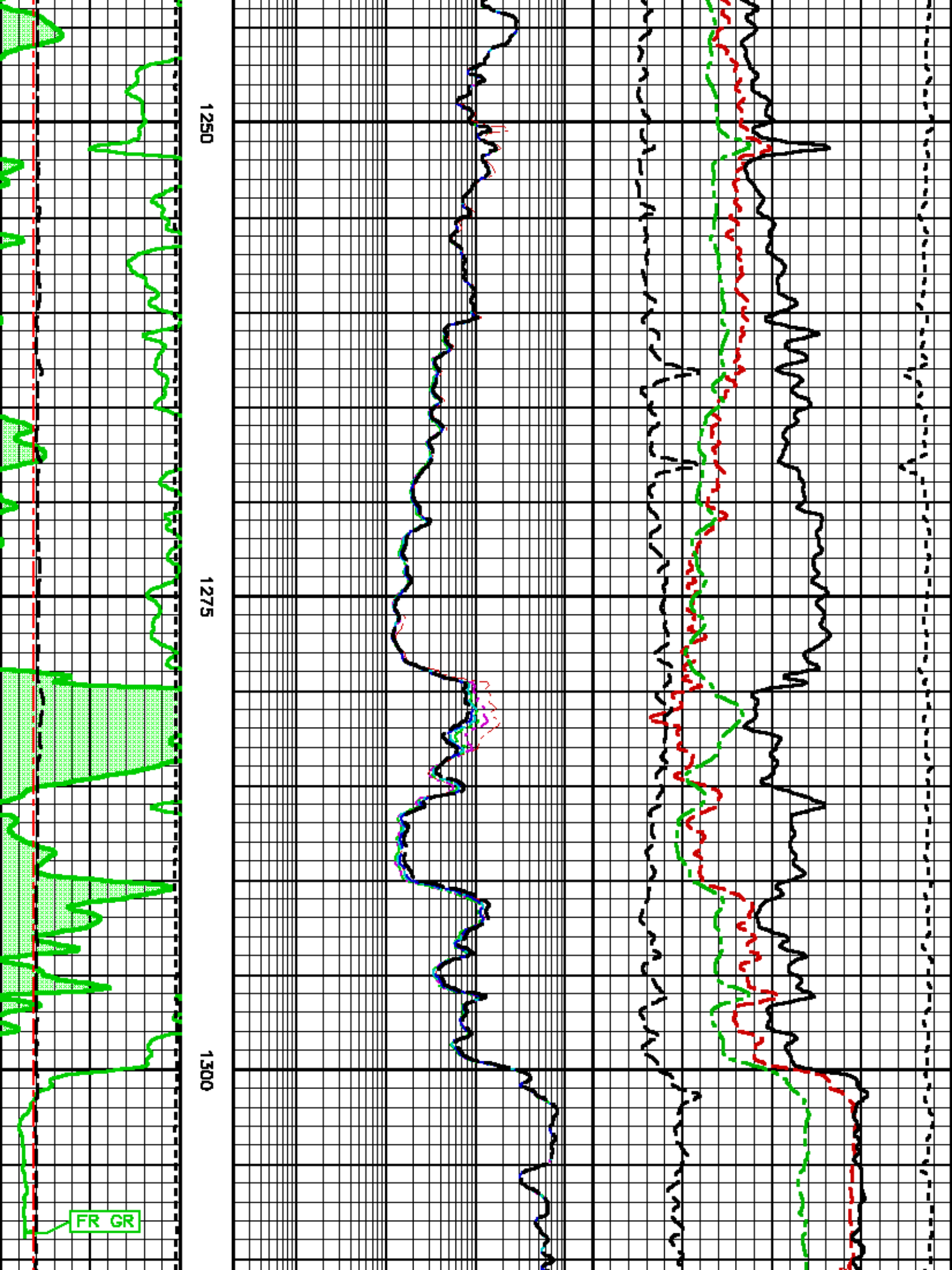


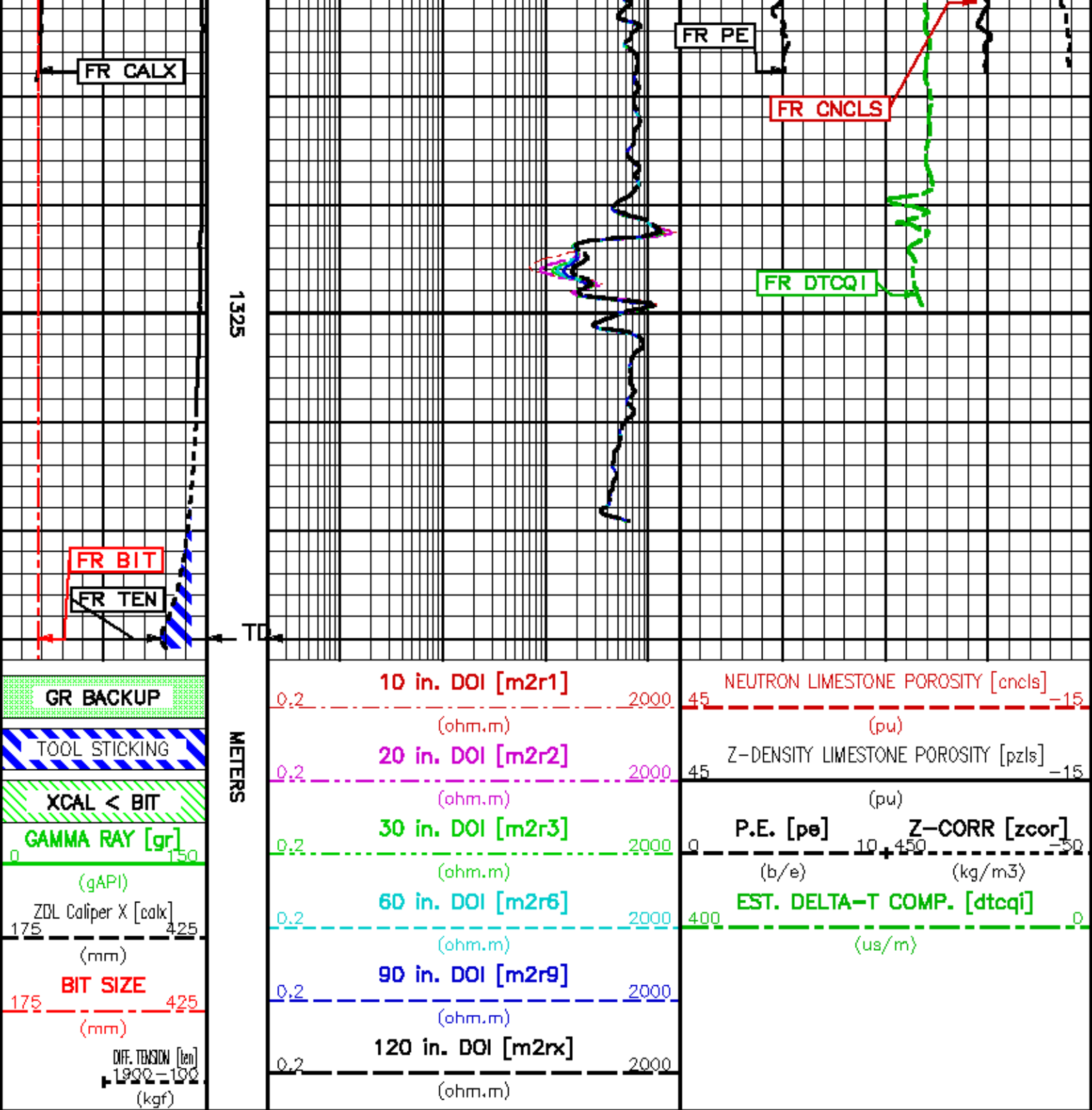


1220

1225







REPEAT LOG - LIMESTONE MATRIX

PARAMETER AND FILTER SUMMARY REPORT

File: /data/huaky_CA212311/m77evh_xc02.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 1212.809 m BOTTOM DEPTH: 1340.929 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
Y AXIS CALIPER TENSION GR CN CALIPER	FILTER ()	medium (1)		TOP	BOTTOM
	FILTER ()	medium (1)		''	''
	FILTER ()	medium (1)		''	''
	FILTER ()	medium (1)		''	''
	FILTER ()	medium (1)		''	''
	FILTER (.h)	medium (1)		''	''
	FILTER (.l)	medium (1)		''	''
ZDL MED RES	FILTER (hrd1*)	medium		''	''
	FILTER (hrd1e*)	medium		''	''
	FILTER (hrd2*)	medium		''	''
	FILTER (hrd2e*)	medium		''	''
	FILTER (soft*)	medium		''	''

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	177.800	mm	TOP	BOTTOM
	CASING THICKNESS	8.000	mm	''	''
BIT SIZE	BIT SIZE	222.000	mm	''	''
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE CALIPER		''	''
	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		''	''
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	222.000	mm	''	''
	FIXED DIAMETER (mbh*)	222.000	mm	''	''
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	OIL BASE MUD		''	''

CN PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CN SALINITY CORRECTION	SALINITY	0	ppm	TOP	BOTTOM
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		''	''
	BIT SIZE BEHIND CSNO	311.000	mm	''	''

ZDL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
DENSITY POROSITY	RHOfluid	1.000	g/cm3	TOP	BOTTOM
	RHOmatrix (line)	2.710	g/cm3	''	''
ZDL	DENX TRACKING	ON		''	''

ACOUSTIC AVAN CORRELATON

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
MONOPOLE COMPRESSIONAL	FORMATION TYPE	GENERIC (MEDIUM)		TOP	BOTTOM
	CORRELATION METHOD	NTH ROOT		''	''
	RESET TAPERS			''	''
	TAPER - LEFT END	100	us/m	''	''
	TAPER - RIGHT END	400	us/m	TOP	1280.541
		420	us/m	1280.541	1283.894
		400	us/m	1283.894	1298.219
		325	us/m	1298.219	BOTTOM
	FLOOR (UNIV. OPTION)	0.050		TOP	BOTTOM

ACOUSTIC WAVEFORM FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
WAVEFORM FILTER - FULLWAVE	SURFACE WAVE FILTER	ON		TOP	BOTTOM
	LOW FREQ CUTOFF	2000	Hz	''	''
	HIGH FREQ CUTOFF	20000	Hz	''	''

ACOUSTIC TCC CONTROL PARAMETERS

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
GENERAL TCC PARAMETERS	SUBSET	1		TOP	1328.042
	SUBCYCLE LENGTH	50		''	''
	AGC	ON		''	''

GENERAL MONOPOLE TCC PARAMETERS	DSP FILTER	ON							
	STACK LEVEL	2							
FULL WAVE MONOPOLE TCC PARAMETERS	SAMPLE PERIOD	24							
	RX DELAY	0			us				
	ACQ WINDOW	8064			us				

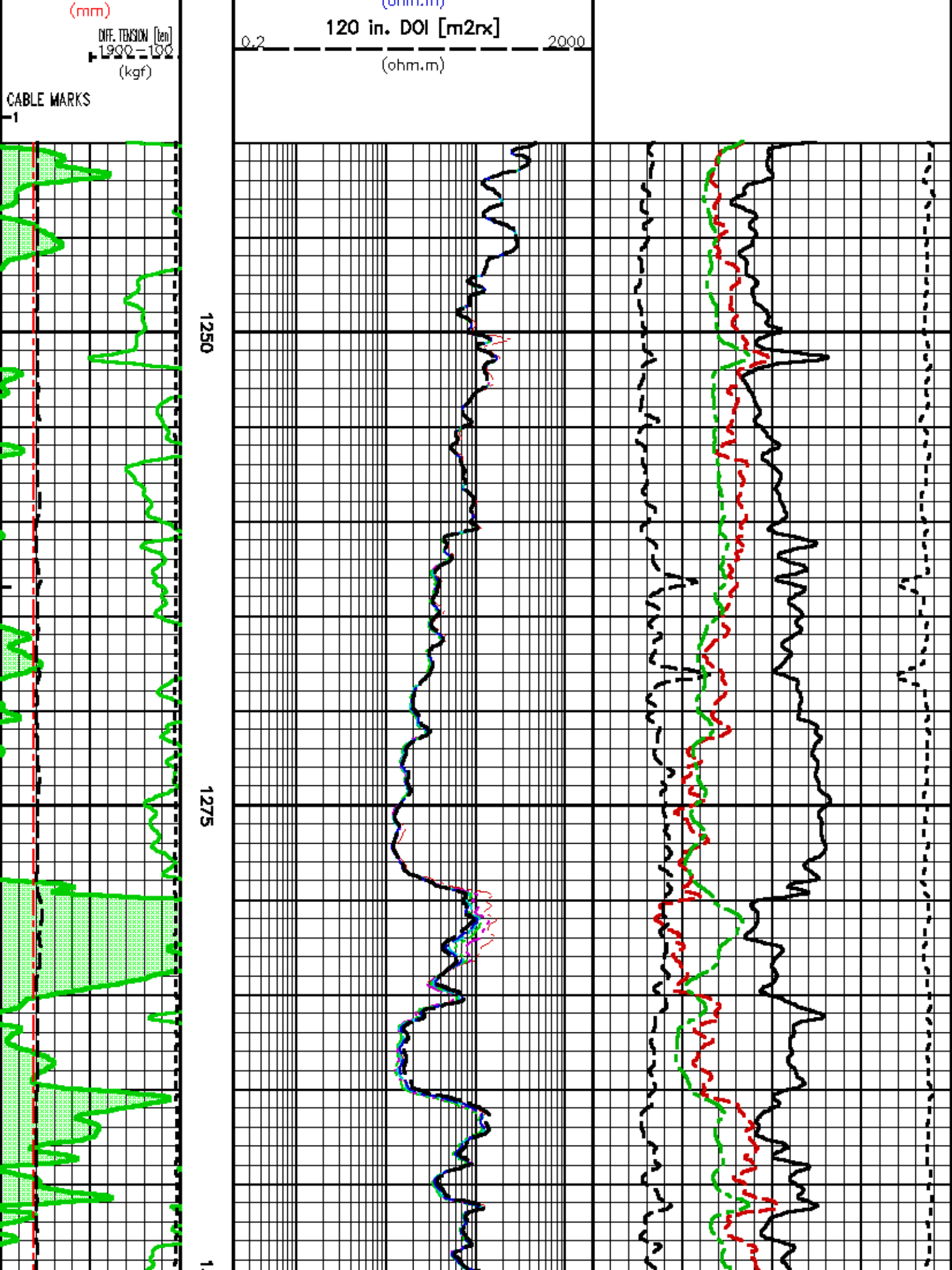
HDIL PROCESSING									
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)					
HDIL TEMPERATURE CORRECTION ADAPTIVE BOREHOLE CORRECTION	TEMP CORR SOURCE	USE RXTEMP		TOP	BOTTOM				
	ABC PROCESSING	ON		..	..				
	ABC to CALCULATE	STANDOFF		..	..				
	STANDOFF	38.10	mm	..	..				
	TOOL POSITION	ECCENTERED		..	..				
	Rmsd MULTIPLIER	1.000		..	..				

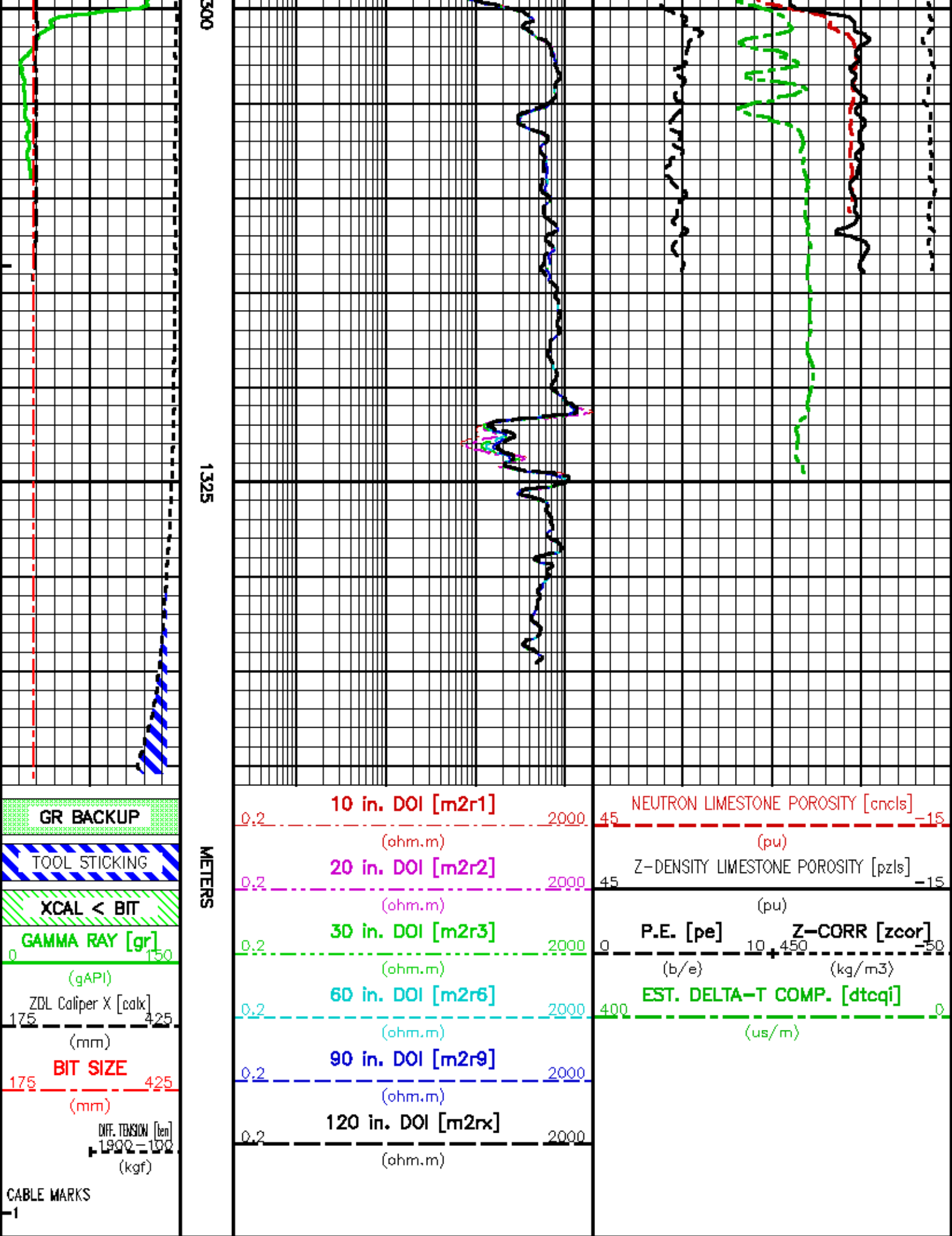
CURVE DESCRIPTION REPORT									
CURVE NAME	CREATION DATE	CURVE DESCRIPTION							
F1:BIT	Mar 8 21:45:09 2012	BIT SIZE							
F1:CALX	Mar 8 21:45:09 2012	CALIPER FROM X-AXIS OF XY CALIPER(S)							
F1:CNCLS	Mar 8 21:45:09 2012	BOREHOLE SIZE CORRECTED LIMESTONE COMPENSATED NEU POROSITY							
F1:DTCQI	Mar 8 21:45:09 2012	COMPRESSIONAL WAVE SLOWNESS							
F1:GR	Mar 8 21:45:09 2012	GAMMA RAY							
F1:M2R1	Mar 8 21:45:09 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI							
F1:M2R2	Mar 8 21:45:09 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 20-INCH DOI							
F1:M2R3	Mar 8 21:45:09 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 30-INCH DOI							
F1:M2R6	Mar 8 21:45:09 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI							
F1:M2R9	Mar 8 21:45:09 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI							
F1:M2RX	Mar 8 21:45:09 2012	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 120-INCH DOI							
F1:MDCNT	Mar 8 21:45:09 2012	NUMBER OF MAGNETIC MARKS DETECTED							
F1:PE	Mar 8 21:45:09 2012	PHOTO ELECTRIC CROSS-SECTION							
F1:PZLS	Mar 8 21:45:09 2012	POROSITY FOR LIMESTONE MATRIX							
F1:TEN	Mar 8 21:45:09 2012	DIFFERENTIAL TENSION							
F1:ZCOR	Mar 8 21:45:09 2012	DENSITY CORRECTION							

CURVE MEASURE POINT OFFSET							
CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
BIT	0.00	GR	31.59	M2R6	3.86	PZLS	25.95
CALX	26.17	M2R1	3.86	M2R9	3.86	TEN	0.00
CNCLS	29.30	M2R2	3.86	M2RX	3.86	ZCOR	25.95
DTCQI	15.85	M2R3	3.86	PE	25.95		

Presentation	: opus:/data/husky_CA212311/comp_rpt_1a.pdf [1240 Scale]
Plot Interval	: 1240 - 1340.89 Meters
Data File 1	: F1 : opus:/data/husky_CA212311/m77wrh_x002.nff
Created On	: Mar 8 21:45:09 2012
Company	: HUSKY OIL OPERATIONS LIMITED
Well	: LITTLE BEAR H-04
Field	: SLATER RIVER
File Interval	: 1177.08 - 1340.95 Meters
Out	: m77wrh_x

GR BACKUP		10 in. DOI [m2r1]		NEUTRON LIMESTONE POROSITY [cncls]	
METERS	0.2	2000	45	-15	
	(ohm.m)		(pu)		
	20 in. DOI [m2r2]	2000	45	-15	
	(ohm.m)		(pu)		
	30 in. DOI [m2r3]	2000	0	-50	
	(ohm.m)		(b/e)	(kg/m3)	
TOOL STICKING		20 in. DOI [m2r2]	2000	45	-15
XCAL < BIT		(ohm.m)		(pu)	
GAMMA RAY [gr]		30 in. DOI [m2r3]	2000	0	-50
(gAPI)		(ohm.m)		(b/e)	(kg/m3)
ZDL Caliper X [calx]		60 in. DOI [m2r6]	2000	400	0
(mm)		(ohm.m)		EST. DELTA-T COMP. [dteqi]	
BIT SIZE		90 in. DOI [m2r9]	2000		(us/m)
175 425		(ohm.m)			





HIGH RESOLUTION LOG - LIMESTONE MATRIX

ECLIPS 6.11 Aug 06, 2010
Updates: 1 Patches: 1

Wed Mar 7 02:04:25 2012

Perpl /main/62

Cplot

Pdf_Cpp /main/16

Fileview 5.51

PARAMETER AND FILTER SUMMARY REPORT

File: /data/husky_CA212511/m77evh_xc03.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 487.588 m BOTTOM DEPTH: 1340.829 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
Y AXIS CALIPER	FILTER ()	medium (1)		TOP	BOTTOM
TENSION	FILTER ()	medium (1)		"	"
GR	FILTER (.h)	medium (1)		"	"
CN	FILTER (.h)	medium (1)		"	"
CALIPER	FILTER ()	medium (1)		"	"
	FILTER (.h)	medium (1)		"	"
	FILTER (.l)	medium (1)		"	"
ZDL HIGH RES	FILTER (hrd1*)	light		"	"
	FILTER (hrd1a*)	light		"	"
	FILTER (hrd2*)	light		"	"
	FILTER (hrd2a*)	light		"	"
	FILTER (soft*)	light		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	177.800	mm	TOP	BOTTOM
	CASING THICKNESS	8.000	mm	"	"
BIT SIZE	BIT SIZE	222.000	mm	"	"
MUD DENSITY	MUD DENSITY	1.24	g/cm3	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE CALIPER		"	"
	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		"	"
	CALIPER/FIXED DIA. (zdbbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	222.000	mm	"	"
	FIXED DIAMETER (mbh*)	222.000	mm	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	OIL BASE MUD		"	"

CN PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CN SALINITY CORRECTION	SALINITY	0	ppm	TOP	BOTTOM
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		"	"
	BIT SIZE BEHIND CSNO	311.000	mm	"	"

ZDL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
DENSITY POROSITY	RHOfluid	1.000	g/cm3	TOP	BOTTOM
	RHOmatrix (line)	2.710	g/cm3	"	"

HDIL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
HDIL TEMPERATURE CORRECTION	TEMP CORR SOURCE	USE RXTEMP		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		"	"
	ABC to CALCULATE	STANDOFF		"	"
	STANDOFF	38.10	mm	"	"
	TOOL POSITION	ECCENTERED		"	"
	Revol MULTIPLE IER	1.000		"	"

CURVE DESCRIPTION REPORT

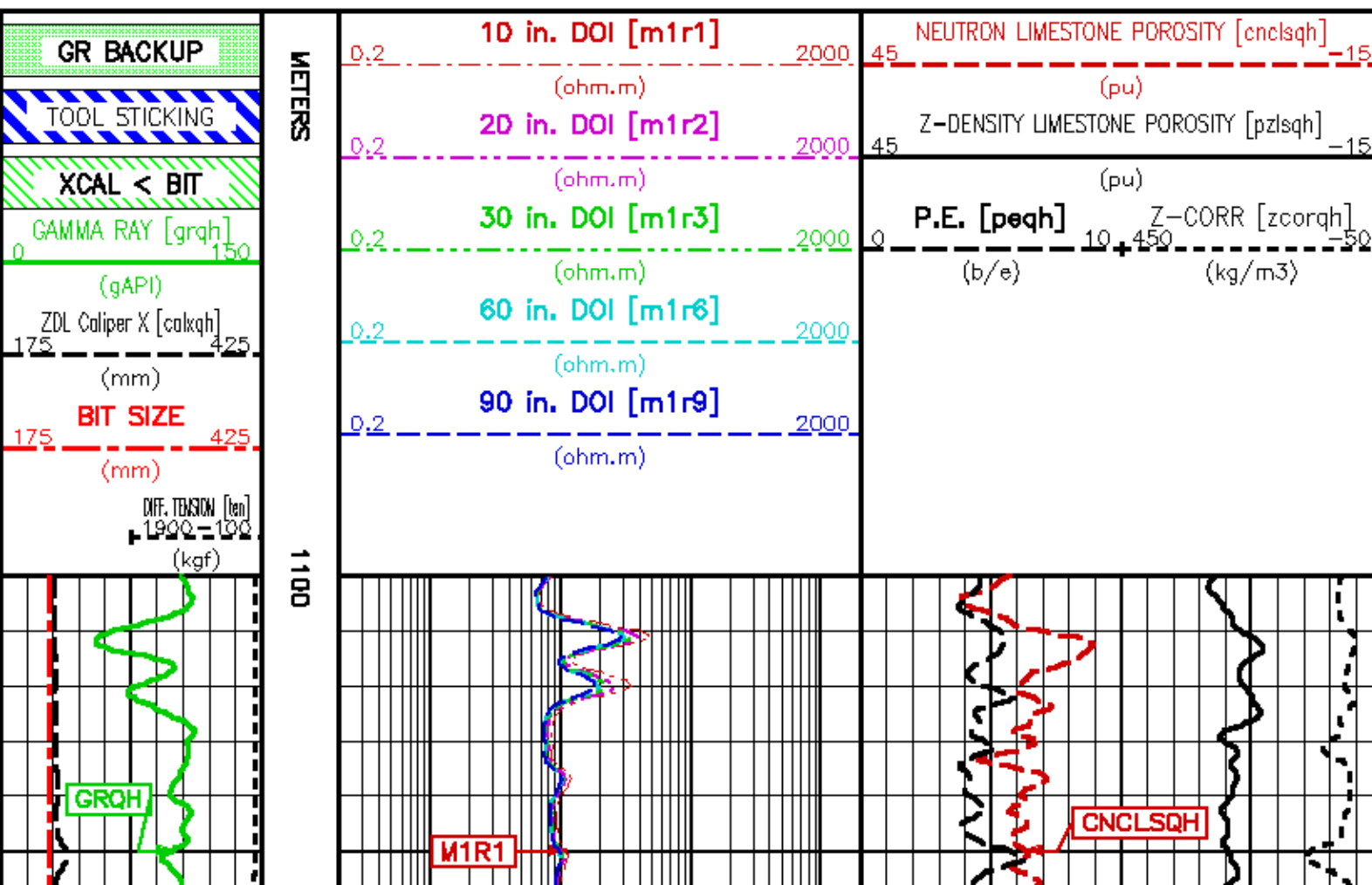
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Mar 6 22:18:03 2012	BIT SIZE
F1:CALXQH	Mar 6 22:18:03 2012	CALIPER FROM X-AXIS OF XY CALIPER(S)
F1:CNCLSQH	Mar 6 22:18:03 2012	BOREHOLE SIZE CORRECTED LIMESTONE COMPENSATED NEU POROSITY
F1:GRQH	Mar 6 22:18:03 2012	GAMMA RAY
F1:M1R1	Mar 6 22:18:03 2012	VERTICAL 1-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F1:M1R2	Mar 6 22:18:03 2012	VERTICAL 1-FOOT RESOLUTION MATCHED RESISTIVITY, 20-INCH DOI
F1:M1R3	Mar 6 22:18:03 2012	VERTICAL 1-FOOT RESOLUTION MATCHED RESISTIVITY, 30-INCH DOI
F1:M1R6	Mar 6 22:18:03 2012	VERTICAL 1-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI
F1:M1R9	Mar 6 22:18:03 2012	VERTICAL 1-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:PEQH	Mar 6 22:18:03 2012	PHOTO ELECTRIC CROSS-SECTION
F1:PZLSQH	Mar 6 22:18:03 2012	POROSITY FOR LIMESTONE MATRIX
F1:TEN	Mar 6 22:18:03 2012	DIFFERENTIAL TENSION
F1:ZCORQH	Mar 6 22:18:03 2012	DENSITY CORRECTION

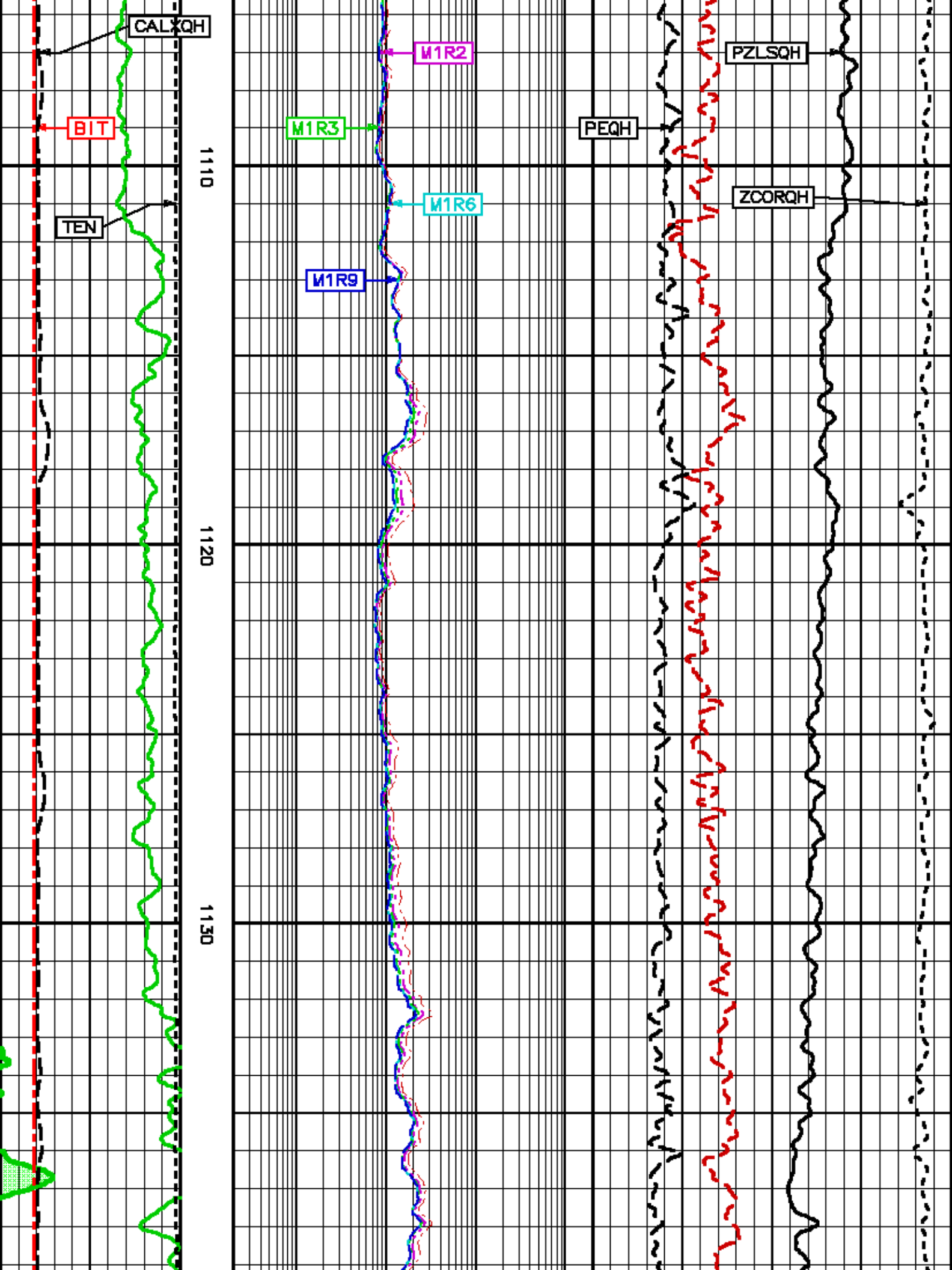
CURVE MEASURE POINT OFFSET

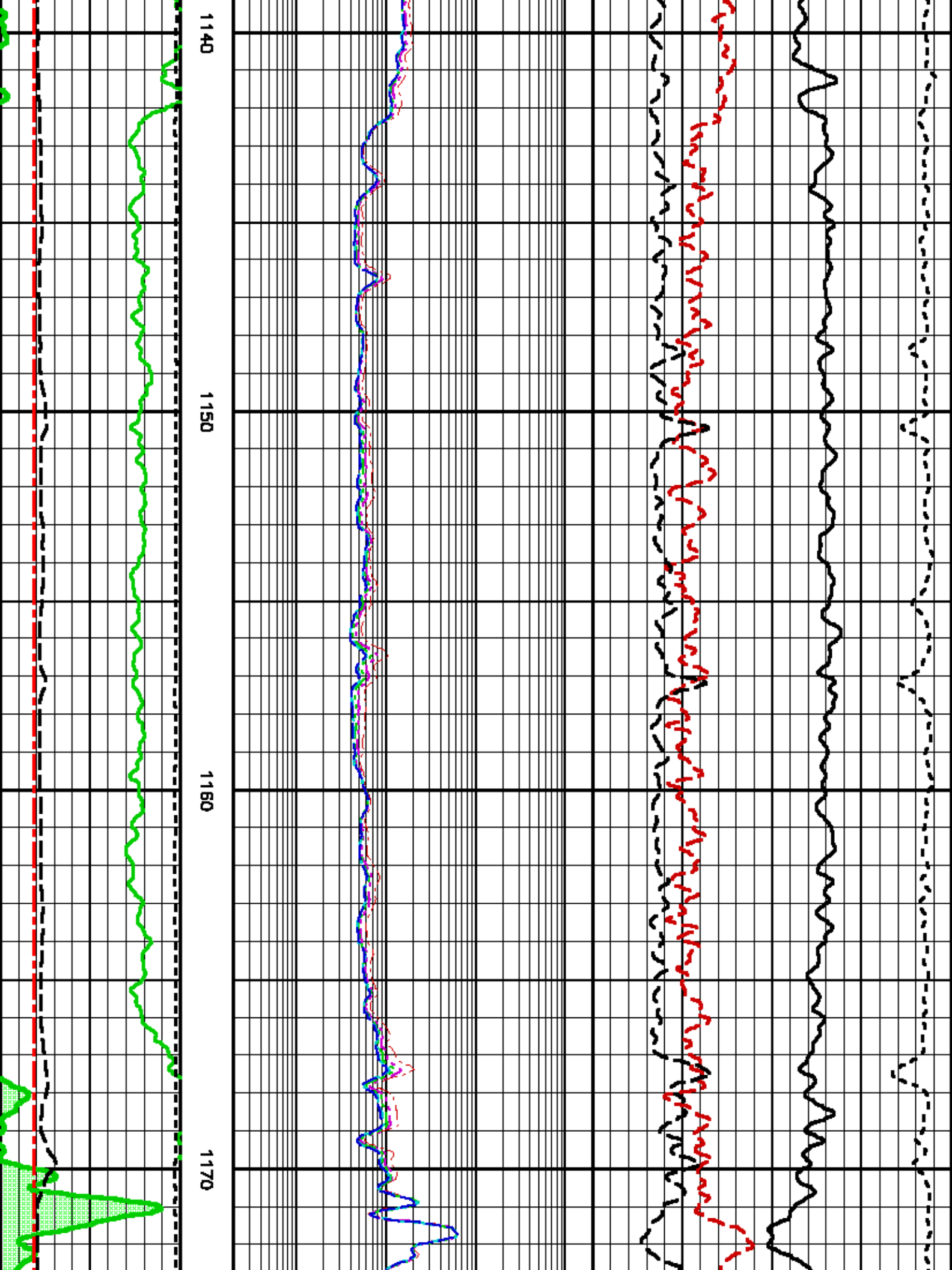
CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
BIT	0.00	M1R1	3.66	M1R9	3.66	ZCORQH	25.95
CALXQH	26.17	M1R2	3.66	PEQH	25.95		
CNCLSQH	29.30	M1R3	3.66	PZLSQH	25.95		
GRQH	31.43	M1R6	3.66	TEN	0.00		

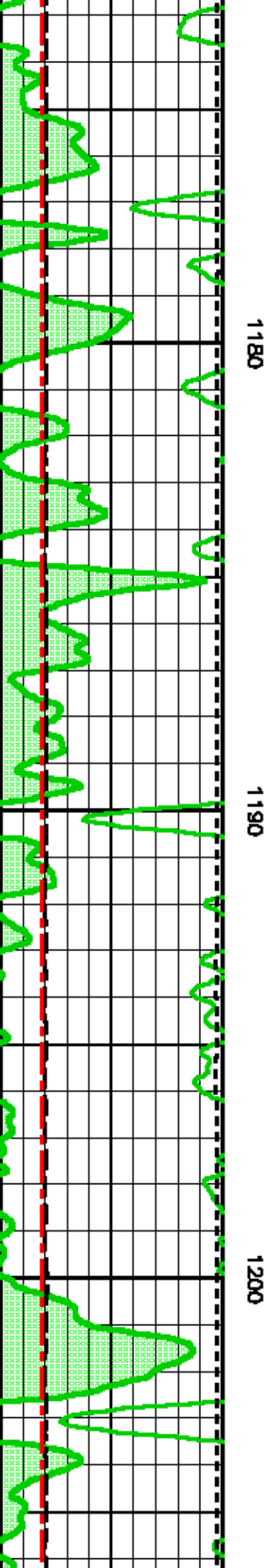
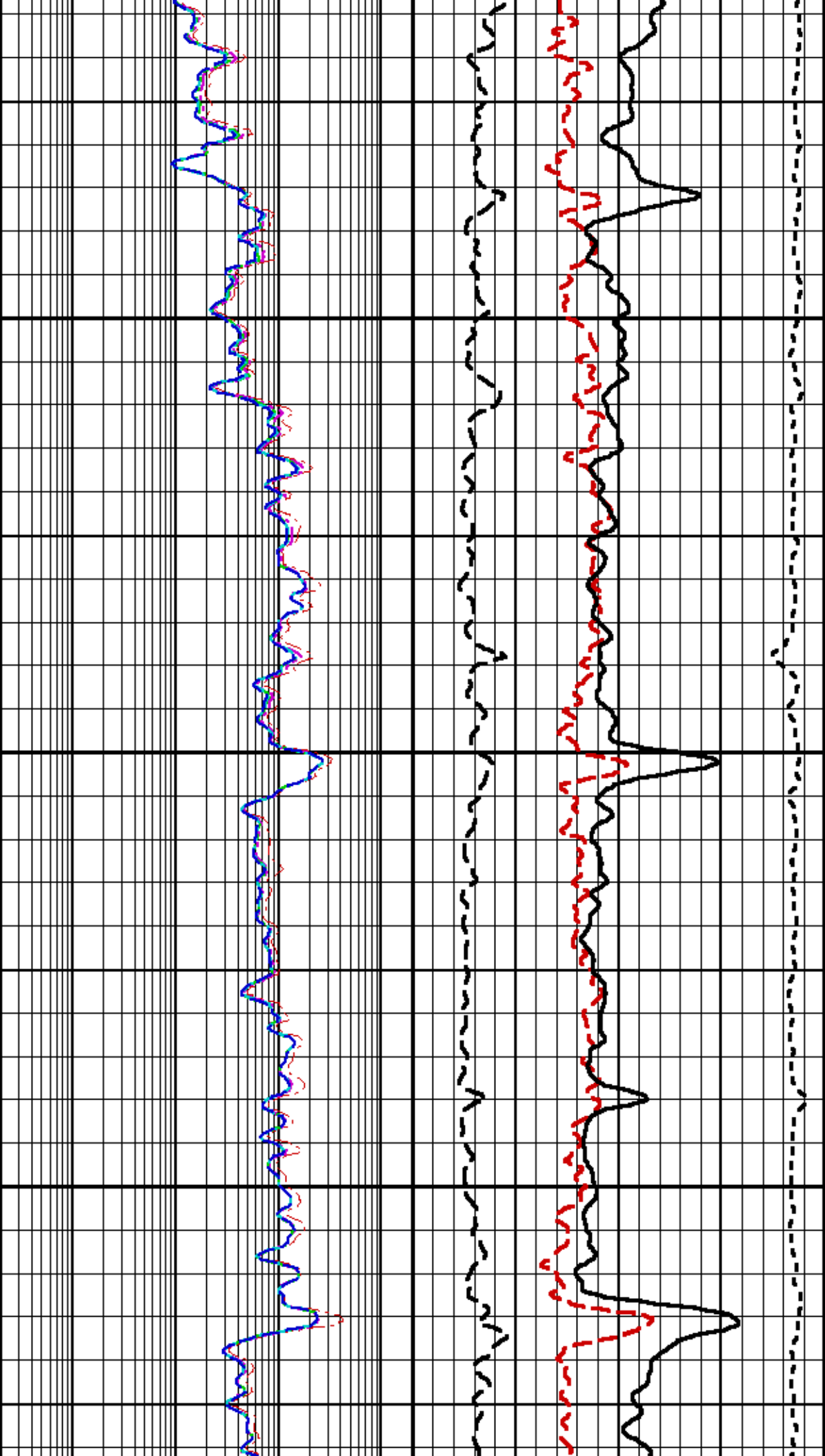
Presentation : epuzz/dat1a/husky_CA212311/comp_hires_ls.pdf [1:12D Scale]
 Plot Interval : 1100 - 1340.89 Meters

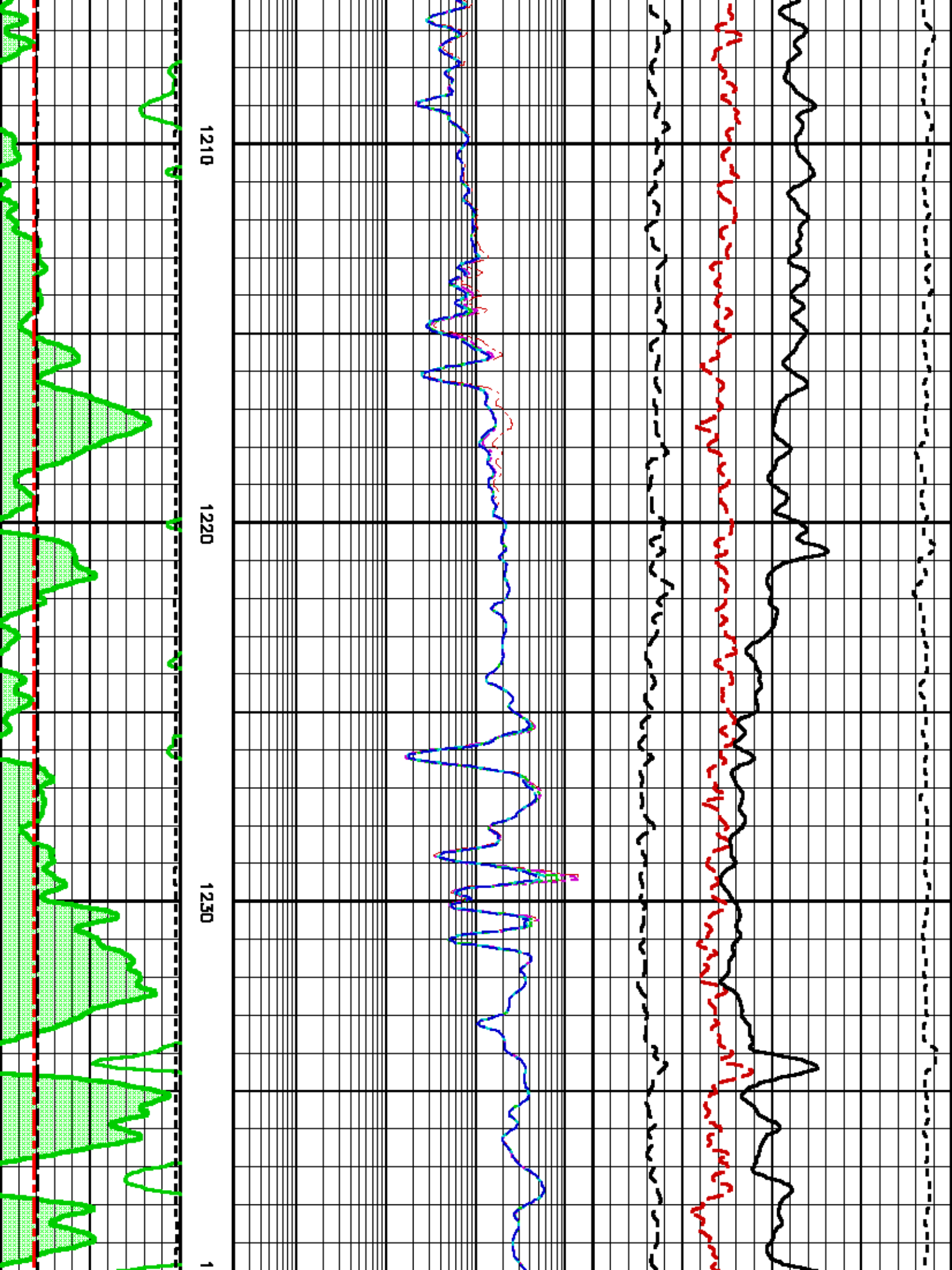
 Data File 1 : F1 : epuzz/dat1a/husky_CA212311/m77vwh_xe03.xtf
 Created On : Mar 6 22:18:03 2012
 Company : HUSKY OIL OPERATIONS LIMITED
 Well : LITTLE BEAR H-64
 Field : SLATER RIVER
 File Interval : 452.247 - 1340.83 Meters
 Oct : m77vwh_x

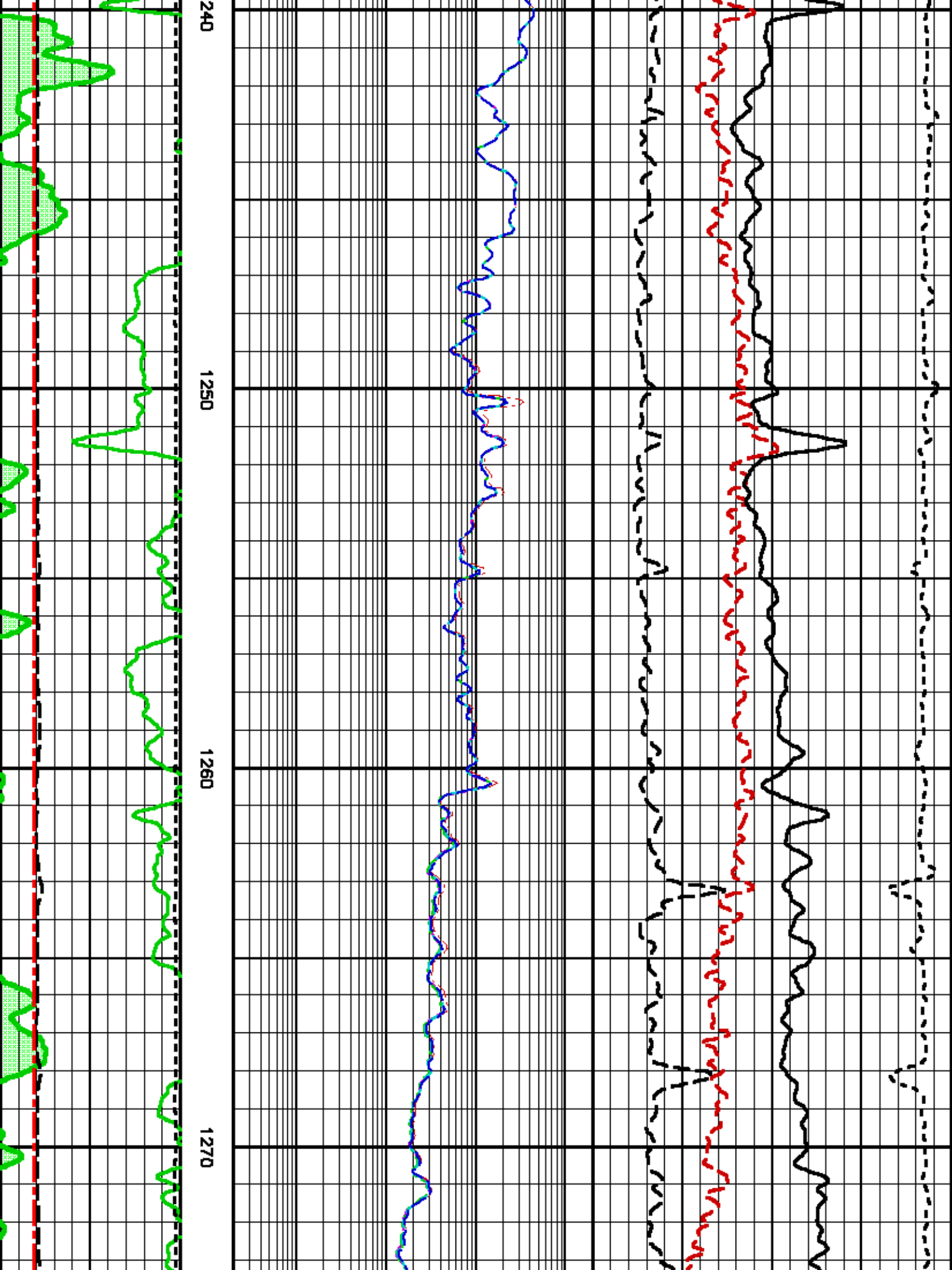


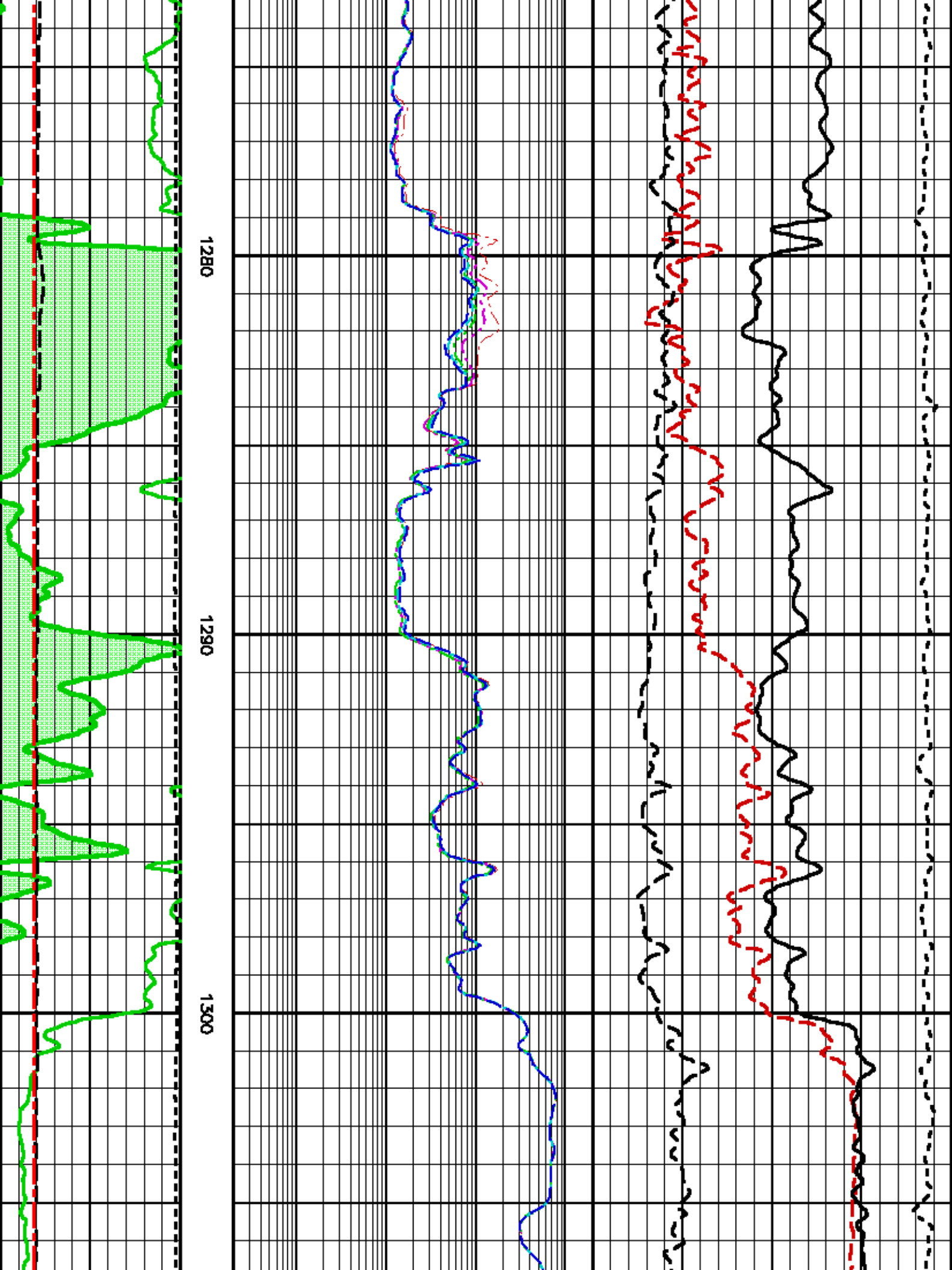


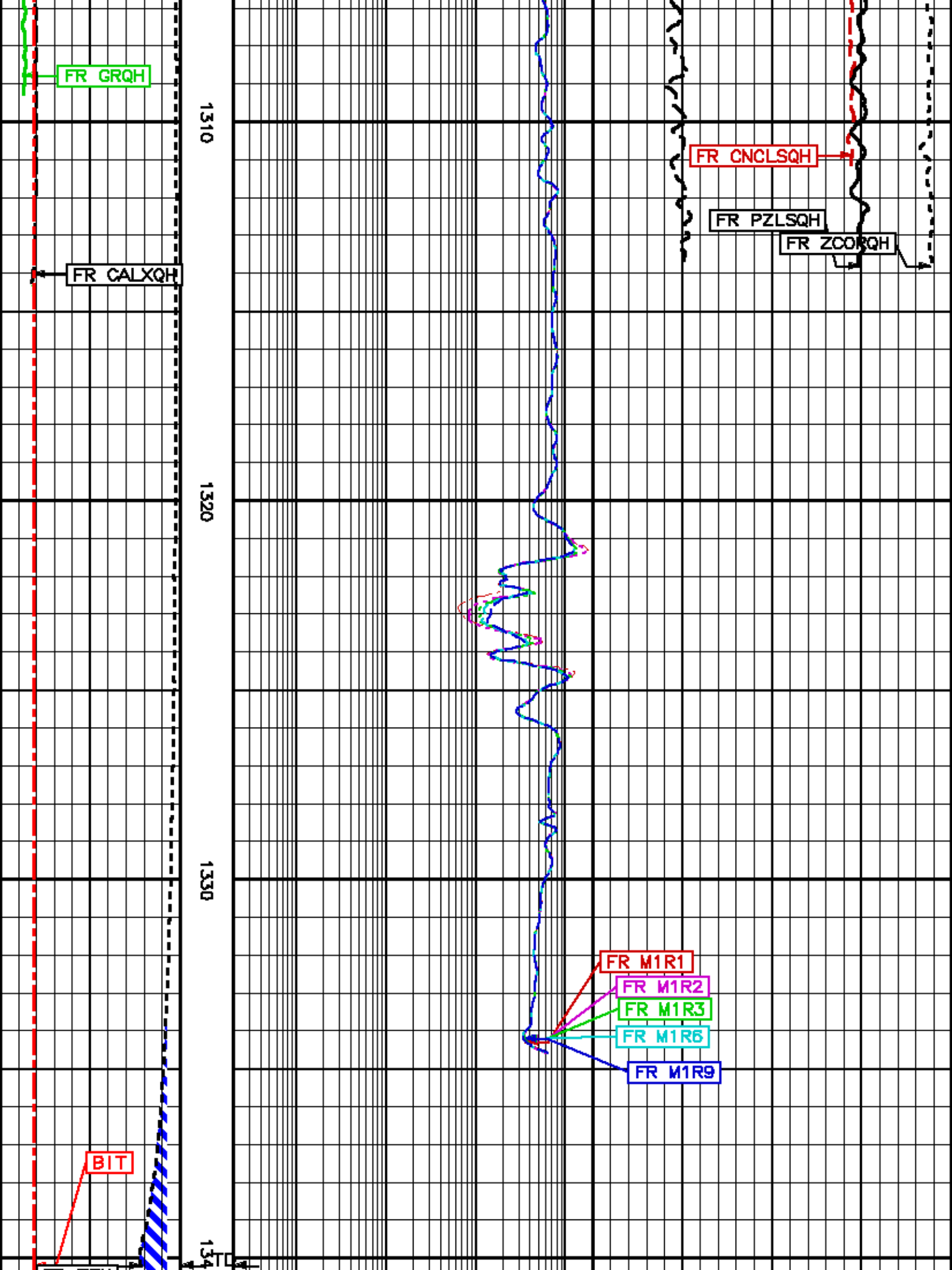


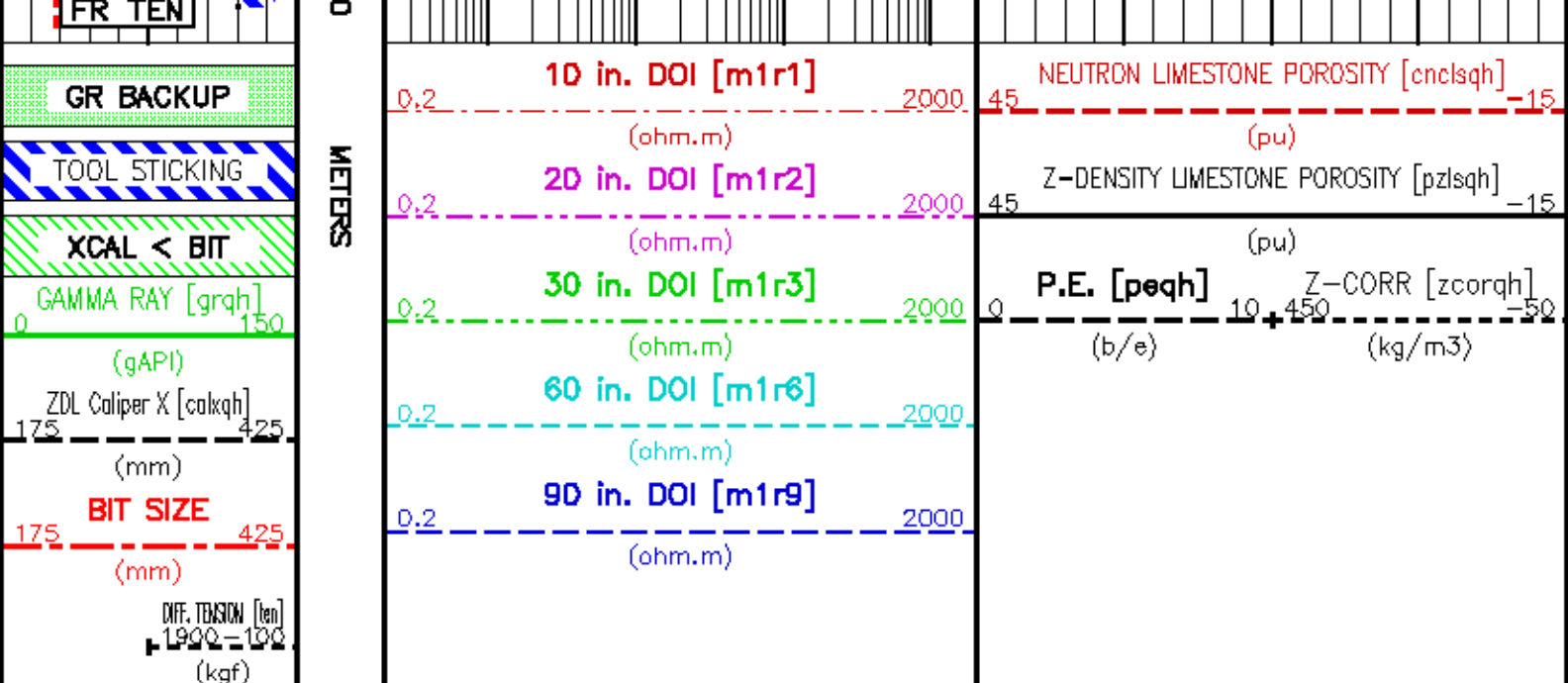












CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/husky_CA212511/m77erh_xs.tp2

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 1329XA 11756674

DATE/TIME PERFORMED: Mon Feb 27 20:16:08 2012

UNIT #: 5753XB 10108816

CALB JIG #: 4702NK DA-554

	BACKGROUND	CALBTR ON	GR DIFF	MULT	BACKGROUND	CALBTR ON	CALBTR
	(cts/s)	(cts/s)	(cts/s)		(gAPI)	(gAPI)	(gAPI)
GR	147.84	1025.36	877.5	0.171	25.27	175.27	150
			830.0 960.0				

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 1329XA 11756674

DATE/TIME PERFORMED: Mon Feb 27 20:21:47 2012

UNIT #: 5753XB 10108816

VERI JIG #: 4702NK DA-554

	BACKGROUND	CALBTR ON	MULT	BACKGROUND	CALBTR ON	DIFF.
	(cts/s)	(cts/s)		(gAPI)	(gAPI)	(gAPI)
GR	147.64	1027.87	0.171	25.24	175.70	150.46
						140.00 160.00

GR BEFORE LOG VERIFICATION SUMMARY

GR BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1329XA 11756674 DATE/TIME PERFORMED: Mon Mar 5 17:29:14 2012 DAYS SINCE CAL: 6

UNIT #: 3854SA 008672 VERI JIG #: 4702NK DA-554

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	44.80	951.49	0.171	7.66	162.65	154.99
						140.46 160.46

GR AFTER LOG VERIFICATION SUMMARY

TOOL #: 1329XA 11756674 DATE/TIME PERFORMED: Wed Mar 7 02:34:48 2012 DAYS SINCE CAL: 8

UNIT #: 3854SA 008672 VERI JIG #: 4702NK DA-554

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	59.27	927.44	0.171	10.13	158.54	148.40
						144.99 164.99

CN PRIMARY CALIBRATION SUMMARY

TOOL #: 2446XA 12088884 DATE/TIME PERFORMED: Sun Feb 26 11:34:46 2012

UNIT #: 5753XB 10108816 CALIBRATOR #: 2437XB 112675 SOURCE #: 4717XS 42201B

	MEASURED CPS	DEADTM CORR CPS	DTC SSN/LSN	NOMINAL SSN/LSN	CORRECTION FACTOR	POROSITY (pu)
LSN	566.30	574.10				
SSN	1441.22	1483.99				
RATIO			2.58490	2.75100	1.06426	
					0.97000 1.07000	
CN						21.358

CN PRIMARY VERIFICATION SUMMARY

TOOL #: 2446XA 12088884 DATE/TIME PERFORMED: Sun Feb 26 11:56:32 2012

UNIT #: 5753XB 10108816 ICE BLOCK #: 4717ND D-0216

	MEASURED CPS	DEADTM CORR CPS	DTC SSN/LSN	CORRECTION FACTOR	DTC CORR SSN/LSN	POROSITY (pu)
LSN	956.23	978.71				
SSN	1589.37	1641.58				

RATIO

1.67730

1.06426

1.78663

CN

8.944

CN BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2446XA 12088884 DATE/TIME PERFORMED: Tue Mar 6 09:20:11 2012 DAYS SINCE CAL: 8

UNIT #: 3854SA 008672 ICE BLOCK #: 4717ND D-0216

	MEASURED CPS	DEADTIME CORR CPS	DTC SSN/LSN	CORRECTION FACTOR	DTC CORR SSN/LSN	POROSITY (pu)
LSN	891.17	910.66				
SSN	1533.13	1581.66				
RATIO			1.73683	1.06426	1.85002	
CN						9.690 6.944 10.944

CN AFTER LOG VERIFICATION SUMMARY

TOOL #: 2446XA 12088884 DATE/TIME PERFORMED: Wed Mar 7 02:29:56 2012 DAYS SINCE CAL: 9

UNIT #: 3854SA 008672 ICE BLOCK #: 4717ND D-0216

	MEASURED CPS	DEADTIME CORR CPS	DTC SSN/LSN	CORRECTION FACTOR	DTC CORR SSN/LSN	POROSITY (pu)
LSN	879.84	898.84				
SSN	1632.22	1687.34				
RATIO			1.87724	1.06426	1.99981	
CN						11.483 7.690 11.690

CAL PRIMARY CALIBRATION SUMMARY

TOOL #: 2234XA 168004 DATE/TIME PERFORMED: Sat Feb 25 11:34:06 2012

UNIT #: 5753XB 10108816

	SMALL RING (mm)	LARGE RING (mm)	MULT	ADD	SMALL RING (mm)	LARGE RING (mm)
CALIPER	882.0	1550.0	0.19461	3.35328	175.000	305.000

CAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2234XA 168004 DATE/TIME PERFORMED: Tue Mar 6 21:09:56 2012 DAYS SINCE CAL: 10

UNIT #: 3854SA 008672

	I.D.	MULT	ADD	I.D. (mm)
CALIPER	1155.6	0.19461	3.35328	228.246

CAL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2234XA 168004 DATE/TIME PERFORMED: Wed Mar 7 01:02:41 2012 DAYS SINCE CAL: 10

UNIT #: 3854SA 008672

	I.D.	MULT	ADD	I.D. (mm)
CALIPER	1154.4	0.19461	3.35328	228.012
				215.546 240.946

ZDL PRIMARY CALIBRATION SUMMARY

TOOL: 2234XA 168004 DATE/TIME PERFORMED: Sat Feb 25 13:46:40 2012

UNIT: 5753XB 10108816 CALB BLKS: 2225XA 094290 CS SRC: 4703NT 16050B

	SS CS PK (Channel)	LS CS PK (Channel)	SS_BKGD (cps)	LS BKGD (cps)		
	225.0 220.0 230.0	225.6 220.0 230.0	1265.3	1693.8		
	SS (cps)	LS (cps)	SHR	DEN (kg/m3)	CORR (kg/m3)	PE (b/e)
MG (LO PE)	21668.0	11350.7	0.620 0.565 0.685	1697.000	2.000	2.140
AL	12664.6	1148.7		2700.000	-4.000	
AL + SHIM	17452.7	1981.9		2614.000	157.000	
MG + SHIM (HI PE)	10532.1	5374.3	0.251 0.210 0.270			8.550
RATIO AL + SHIM/AL	1.38 1.32 1.42	1.73 1.64 1.84				
RATIO MG/AL	1.71 1.65 1.78	9.88 9.40 10.20				

ZDL BEFORE LOG VERIFICATION SUMMARY

ZDL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2234XA 168004 DATE/TIME PERFORMED: Tue Mar 6 09:34:45 2012 DAYS SINCE CAL: 9

UNIT #: 3854SA 008672

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	1696.2	226.5	1261.4
	1593.8 1793.8	220.0 230.0	1100.0 1550.0
SS	1280.2	227.1	1278.1
	1165.3 1365.3	220.0 230.0	1100.0 1550.0
	LV (V)	PAD CURRENT (mA)	
	5.0	96.1	
	4.8 5.2	50.0 120.0	

ZDL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2234XA 168004 DATE/TIME PERFORMED: Wed Mar 7 02:27:16 2012 DAYS SINCE CAL: 10

UNIT #: 3854SA 008672

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	1675.3	225.5	1210.0
	1593.8 1793.8	220.0 230.0	1100.0 1550.0
SS	1249.2	225.3	1218.0
	1165.3 1365.3	220.0 230.0	1100.0 1550.0
	LV (V)	PAD CURRENT (mA)	
	5.0	64.0	
	4.8 5.2	50.0 120.0	

XMAC_OR PRIMARY CALIBRATION SUMMARY

TOOL #: 1678WC 12002062 DATE/TIME PERFORMED: Mon Feb 27 14:26:16 2012

UNIT #: 5753XB 10108816 ORIENTATION #: 4401XB 166976

	DEV (deg)	QA (mG)	MEAS RB (deg)	RB OFFSET (deg)	ROTATED RB (deg)
ORIT TBM CHECK	89.7	999.1	358.2		
		990.0 1010.0	357.5 2.5		
XMAC-F1 ORIENT			324.3	324.3	0.0

HDIL PRIMARY CALIBRATION SUMMARY

TOOL #: 1515WA 11997966

DATE/TIME PERFORMED: Fri Jan 6 21:11:05 2012

UNIT #: 5753XB 10108816

GRCOND ID & DATE: Nisku 0802111

ZERO DATA(mv)	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 R	-0.011 -0.200 0.200	0.001 -0.100 0.100	0.001 -0.100 0.100	-0.002 -0.100 0.100	-0.003 -0.100 0.100	-0.001 -0.100 0.100	-0.001 -0.100 0.100	-0.004 -0.100 0.100
Coil 0 Q	0.010 -1.000 1.000	0.010 -0.200 0.200	0.003 -0.100 0.100	0.001 -0.100 0.100	0.004 -0.100 0.100	0.002 -0.100 0.100	0.000 -0.100 0.100	0.004 -0.100 0.100
Coil 1 R	0.005 -0.200 0.200	-0.000 -0.100 0.100	-0.001 -0.100 0.100	0.001 -0.100 0.100	0.000 -0.100 0.100	-0.001 -0.100 0.100	-0.002 -0.100 0.100	-0.001 -0.100 0.100
Coil 1 Q	-0.001 -1.000 1.000	-0.001 -0.200 0.200	-0.003 -0.100 0.100	0.000 -0.100 0.100	0.003 -0.100 0.100	0.002 -0.100 0.100	0.002 -0.100 0.100	0.001 -0.100 0.100
Coil 2 R	0.004 -0.200 0.200	-0.003 -0.100 0.100	-0.003 -0.100 0.100	0.001 -0.100 0.100	-0.002 -0.100 0.100	0.003 -0.100 0.100	0.005 -0.100 0.100	0.005 -0.100 0.100
Coil 2 Q	-0.010 -1.000 1.000	-0.006 -0.200 0.200	-0.003 -0.100 0.100	-0.002 -0.100 0.100	-0.004 -0.100 0.100	-0.006 -0.100 0.100	-0.003 -0.100 0.100	-0.001 -0.100 0.100
Coil 3 R	-0.005 -0.100 0.100	0.001 -0.100 0.100	0.001 -0.100 0.100	0.004 -0.100 0.100	0.001 -0.100 0.100	-0.006 -0.100 0.100	-0.003 -0.100 0.100	0.003 -0.100 0.100
Coil 3 Q	-0.011 -0.500 0.500	-0.010 -0.200 0.200	-0.003 -0.100 0.100	0.001 -0.100 0.100	0.002 -0.100 0.100	0.001 -0.100 0.100	-0.002 -0.100 0.100	-0.006 -0.100 0.100
Coil 4 R	-0.036 -0.200 0.200	-0.015 -0.200 0.200	0.003 -0.200 0.200	-0.007 -0.200 0.200	-0.010 -0.200 0.200	0.005 -0.200 0.200	0.004 -0.200 0.200	-0.004 -0.200 0.200
Coil 4 Q	0.008 -1.000 1.000	0.024 -0.400 0.400	0.003 -0.200 0.200	0.001 -0.200 0.200	0.005 -0.200 0.200	-0.001 -0.200 0.200	-0.003 -0.200 0.200	0.003 -0.200 0.200
Coil 5 R	0.018 -0.400 0.400	0.007 -0.400 0.400	0.004 -0.400 0.400	0.006 -0.400 0.400	0.013 -0.400 0.400	0.017 -0.400 0.400	0.004 -0.400 0.400	-0.017 -0.400 0.400
Coil 5 Q	-0.026 -2.000 2.000	-0.014 -0.800 0.800	-0.009 -0.400 0.400	0.000 -0.400 0.400	-0.011 -0.400 0.400	0.003 -0.400 0.400	0.018 -0.400 0.400	0.012 -0.400 0.400
Coil 6 R	-0.002 -1.000 1.000	0.008 -1.000 1.000	0.001 -1.000 1.000	-0.023 -1.000 1.000	-0.012 -1.000 1.000	0.001 -1.000 1.000	-0.016 -1.000 1.000	0.020 -1.000 1.000
Coil 6 Q	-0.014 -5.000 5.000	0.003 -2.000 2.000	0.011 -1.000 1.000	-0.004 -1.000 1.000	0.019 -1.000 1.000	0.012 -1.000 1.000	-0.020 -1.000 1.000	-0.012 -1.000 1.000

ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 M	125.79 100.00 150.00	124.82 100.00 150.00	122.93 98.00 150.00	119.81 96.00 140.00	115.87 92.00 140.00	110.52 87.00 130.00	104.35 82.00 120.00	96.78 78.00 110.00
Coil 0 P	7.282 6.000 9.000	22.941 19.000 28.000	38.408 32.000 47.000	53.907 44.000 68.000	69.440 57.000 85.000	85.030 70.000 100.000	100.514 82.000 120.000	116.029 96.000 140.000
Coil 1 M	222.56 180.00 270.00	220.28 180.00 270.00	215.88 170.00 280.00	208.95 170.00 250.00	200.51 160.00 250.00	189.59 160.00 230.00	177.59 150.00 220.00	163.46 140.00 200.00
Coil 1 P	7.616 6.000 9.000	23.965 19.000 28.000	40.047 32.000 48.000	56.077 45.000 67.000	71.982 57.000 86.000	87.861 70.000 110.000	103.483 83.000 120.000	119.054 96.000 140.000
Coil 2 M	442.98 380.00 540.00	438.28 380.00 540.00	429.37 350.00 530.00	415.70 340.00 510.00	398.70 330.00 500.00	376.86 310.00 470.00	353.18 300.00 440.00	325.20 270.00 410.00
Coil 2 P	7.818 6.000 9.000	24.524 19.000 29.000	40.933 32.000 48.000	57.301 45.000 67.000	73.557 58.000 87.000	89.787 71.000 110.000	105.825 84.000 130.000	121.802 96.000 140.000
Coil 3 M	724.53 590.00 880.00	716.94 580.00 870.00	702.84 570.00 850.00	680.69 550.00 830.00	653.53 530.00 800.00	617.92 500.00 780.00	578.99 470.00 710.00	532.68 440.00 650.00
Coil 3 P	7.802 6.000 10.000	24.560 20.000 29.000	41.046 33.000 49.000	57.503 46.000 69.000	73.847 59.000 89.000	90.159 72.000 110.000	106.274 85.000 130.000	122.329 96.000 150.000
Coil 4 M	1157.0 1000.0 1300.0	1147.7 1000.0 1300.0	1124.7 1000.0 1300.0	1097.1 1000.0 1300.0	1054.5 1000.0 1300.0	1000.0 1000.0 1300.0	947.5 1000.0 1300.0	870.0 1000.0 1300.0

Coil 4 M	1133.9 900.0 1400.0	1143.7 900.0 1300.0	1124.3 900.0 1300.0	1093.1 850.0 1300.0	1054.3 800.0 1200.0	1002.2 800.0 1200.0	943.3 750.0 1100.0	872.0 700.0 1000.0
Coil 4 P	7.766 6.000 10.000	24.456 20.000 30.000	40.926 33.000 50.000	57.397 46.000 70.000	73.873 60.000 90.000	90.370 73.000 110.000	106.784 86.000 130.000	123.186 99.000 150.000
Coil 5 M	2333.3 1800.0 2800.0	2316.0 1800.0 2800.0	2281.8 1800.0 2700.0	2224.6 1800.0 2600.0	2151.4 1700.0 2500.0	2049.5 1600.0 2400.0	1931.0 1500.0 2200.0	1784.5 1400.0 2100.0
Coil 5 P	7.961 6.000 10.000	25.034 20.000 31.000	41.910 34.000 51.000	58.895 48.000 72.000	75.945 62.000 93.000	93.112 76.000 110.000	110.227 89.000 130.000	127.395 100.000 150.000
Coil 6 M	5975.6 4700.0 7100.0	5902.5 4700.0 7000.0	5764.9 4600.0 6900.0	5553.7 4400.0 6600.0	5298.2 4200.0 6400.0	4978.2 4000.0 6000.0	4629.3 3700.0 5600.0	4231.0 3400.0 5100.0
Coil 6 P	8.382 7.000 10.000	26.531 22.000 32.000	44.329 36.000 54.000	61.986 51.000 76.000	79.503 66.000 98.000	96.871 80.000 120.000	113.998 94.000 140.000	131.013 110.000 160.000

AM Factor	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 R	427 -200 800	-72 -600 200	-127 -600 100	-145 -800 50	-155 -600 20	-162 -500 20	-166 -500 20	-169 -600 20
Coil 0 Q	1368 -3000 6000	505 -1000 2000	284 -1000 1200	176 -500 900	106 -400 700	53 -400 600	8 -400 500	-30 -400 400
Coil 1 R	530 450 650	76 20 130	18 -30 60	-3 -50 40	-13 -65 30	-18 -80 20	-22 -80 10	-24 -60 10
Coil 1 Q	464 0 2500	228 0 900	148 0 600	106 0 450	81 0 350	62 0 300	48 0 250	36 0 250
Coil 2 R	177.6 140.0 230.0	27.0 0.0 51.0	8.1 -10.0 25.0	2.0 -15.0 15.0	-1.2 -16.0 10.0	-2.8 -16.0 7.0	-4.1 -16.0 5.0	-4.8 -16.0 3.0
Coil 2 Q	213.5 -200.0 1000.0	99.4 0.0 350.0	65.0 0.0 220.0	49.8 0.0 180.0	41.4 0.0 130.0	36.1 0.0 110.0	32.5 0.0 100.0	30.3 0.0 90.0
Coil 3 R	45.0 37.0 62.0	6.3 0.0 12.0	1.3 -3.0 6.0	-0.7 -4.0 4.0	-1.4 -5.0 2.0	-1.9 -5.0 1.0	-2.0 -6.0 1.0	-2.9 -6.0 1.0
Coil 3 Q	27.8 -140.0 280.0	18.1 -40.0 100.0	15.4 -20.0 70.0	15.0 -10.0 60.0	15.6 -10.0 60.0	16.8 -10.0 60.0	18.2 -10.0 60.0	19.5 -10.0 60.0
Coil 4 R	10.01 2.00 18.00	1.45 -3.00 6.00	-0.05 -3.50 3.00	-0.42 -3.90 2.00	-0.62 -4.20 2.00	-0.78 -4.50 2.00	-1.02 -4.70 2.00	-0.97 -5.00 2.00
Coil 4 Q	-11.32 -100.00 100.00	0.55 -30.00 50.00	4.17 -20.00 40.00	6.94 -10.00 40.00	9.58 -10.00 40.00	11.97 -10.00 45.00	14.38 -10.00 50.00	16.97 -10.00 60.00
Coil 5 R	1.98 -2.00 5.80	0.28 -3.20 2.40	-0.14 -4.50 3.10	-0.51 -4.70 3.20	-0.44 -4.80 3.20	-0.61 -5.00 3.30	-0.71 -5.20 3.40	-0.90 -5.40 3.50
Coil 5 Q	4.20 -60.00 70.00	3.96 -20.00 30.00	5.42 -20.00 30.00	7.28 -20.00 35.00	9.31 -20.00 45.00	11.43 -20.00 50.00	13.60 -20.00 60.00	15.73 -30.00 70.00
Coil 6 R	-1.35 -4.80 1.00	-0.14 -5.70 3.80	-0.15 -6.50 4.90	-0.47 -6.90 5.40	-0.50 -7.30 5.80	-0.54 -7.50 6.00	-0.70 -7.70 6.10	-0.60 -7.90 6.30
Coil 6 Q	-14.30 -30.00 30.00	-3.45 -20.00 25.00	0.38 -20.00 35.00	3.46 -30.00 50.00	6.21 -35.00 60.00	8.83 -40.00 70.00	11.03 -50.00 80.00	13.48 -60.00 100.00

MM Factor	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 M	0.996 0.900 1.100	0.995 0.900 1.100	0.992 0.900 1.100	0.993 0.900 1.100	0.992 0.900 1.100	0.991 0.900 1.100	0.990 0.900 1.100	0.991 0.900 1.100
Coil 0 P	0.192 -2.000 2.000	0.159 -2.000 2.000	0.228 -2.000 2.000	0.201 -2.000 2.000	0.184 -2.000 2.000	0.159 -2.000 2.000	0.163 -2.000 2.000	0.136 -2.000 2.000
Coil 1 M	0.992 0.900 1.100	0.992 0.900 1.100	0.989 0.900 1.100	0.989 0.900 1.100	0.988 0.900 1.100	0.987 0.900 1.100	0.987 0.900 1.100	0.987 0.900 1.100
Coil 1 P	0.117 -2.000 2.000	0.133 -2.000 2.000	0.211 -2.000 2.000	0.205 -2.000 2.000	0.189 -2.000 2.000	0.165 -2.000 2.000	0.127 -2.000 2.000	0.122 -2.000 2.000
Coil 2 M	0.992 0.900 1.100	0.989 0.900 1.100	0.989 0.900 1.100	0.989 0.900 1.100	0.988 0.900 1.100	0.988 0.900 1.100	0.989 0.900 1.100	0.988 0.900 1.100
Coil 2 P	0.156 -2.000 2.000	0.044 -2.000 2.000	0.014 -2.000 2.000	0.013 -2.000 2.000	0.009 -2.000 2.000	-0.007 -2.000 2.000	0.031 -2.000 2.000	0.009 -2.000 2.000

Coil 2 P	-2.000	2.000	-2.000	2.000	-2.000	2.000	-2.000	2.000	-2.000	2.000	-2.000	2.000	-2.000	2.000
Coil 3 M	0.996	0.995	0.995	0.994	0.994	0.994	0.994	0.994	0.994	0.995	0.995	0.995	0.995	0.995
Coil 3 P	0.136	0.012	-0.016	-0.040	-0.079	-0.135	-0.153	-0.172	-0.172	-0.172	-0.172	-0.172	-0.172	-0.172
Coil 4 M	1.006	1.005	1.006	1.006	1.006	1.006	1.006	1.006	1.006	1.005	1.005	1.005	1.005	1.005
Coil 4 P	0.151	0.012	-0.030	-0.050	-0.039	-0.065	-0.048	-0.118	-0.118	-0.118	-0.118	-0.118	-0.118	-0.118
Coil 5 M	1.015	1.015	1.016	1.015	1.015	1.017	1.016	1.016	1.016	1.016	1.016	1.016	1.016	1.016
Coil 5 P	-0.020	-0.211	-0.303	-0.398	-0.510	-0.652	-0.672	-0.782	-0.782	-0.782	-0.782	-0.782	-0.782	-0.782
Coil 6 M	1.009	1.011	1.011	1.010	1.011	1.017	1.017	1.015	1.015	1.015	1.015	1.015	1.015	1.015
Coil 6 P	-0.047	-0.069	-0.207	-0.208	-0.354	-0.482	-0.472	-0.624	-0.624	-0.624	-0.624	-0.624	-0.624	-0.624

PARMS TCID 0 TCID 1 Cal Temp T Factor
(degC)
IDs 1.618 0.817 14.6 1.04

HDIL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1515MA 11997966 DATE/TIME PERFORMED: Tue Mar 6 21:37:59 2012 DAYS SINCE CAL: 60

UNIT #: 38545A 008672

ZERO DATA(mv)	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 R	-0.006	0.001	0.003	-0.001	-0.003	-0.002	-0.003	-0.003
Coil 0 Q	0.006	0.006	0.005	0.004	0.002	0.001	-0.001	-0.002
Coil 1 R	0.000	0.006	0.005	0.003	-0.002	-0.003	-0.004	-0.003
Coil 1 Q	0.002	0.008	0.005	0.006	0.006	0.003	-0.003	-0.004
Coil 2 R	0.011	0.003	-0.001	-0.003	-0.002	-0.002	0.002	0.005
Coil 2 Q	-0.003	0.001	0.003	0.002	-0.005	-0.004	-0.004	-0.002
Coil 3 R	0.009	0.006	0.006	0.004	0.002	-0.006	-0.004	0.002
Coil 3 Q	-0.010	-0.005	0.001	0.004	0.004	0.003	-0.004	-0.007
Coil 4 R	-0.009	-0.002	-0.000	0.000	-0.007	0.001	-0.001	-0.002
Coil 4 Q	0.006	0.009	0.007	0.001	-0.003	0.002	-0.007	0.003
Coil 5 R	-0.010	0.008	0.009	0.006	0.002	0.008	-0.005	-0.010
Coil 5 Q	-0.007	0.003	-0.007	-0.003	0.002	0.006	0.011	0.009

Coil 6 R	0.012 -1.000 1.000	0.011 -1.000 1.000	-0.005 -1.000 1.000	0.003 -1.000 1.000	-0.017 -1.000 1.000	0.005 -1.000 1.000	0.003 -1.000 1.000	0.013 -1.000 1.000
Coil 6 Q	-0.016 -5.000 5.000	-0.004 -2.000 2.000	0.002 -1.000 1.000	0.003 -1.000 1.000	0.014 -1.000 1.000	0.002 -1.000 1.000	-0.002 -1.000 1.000	-0.005 -1.000 1.000

ELEC. GAINS 10 KHz 30 KHz 50 KHz 70 KHz 90 KHz 110 KHz 130 KHz 150 KHz

Coil 0 M	126.92 100.00 150.00	125.92 100.00 150.00	124.12 98.00 150.00	121.04 96.00 140.00	117.17 92.00 140.00	111.97 87.00 130.00	105.78 82.00 120.00	98.25 76.00 110.00
Coil 0 P	7.247 6.000 9.000	22.731 19.000 28.000	38.051 32.000 47.000	53.474 44.000 66.000	68.869 57.000 86.000	84.401 70.000 100.000	99.818 82.000 120.000	115.315 96.000 140.000
Coil 1 M	223.52 180.00 270.00	221.20 180.00 270.00	217.01 170.00 280.00	210.20 170.00 250.00	201.87 160.00 250.00	191.30 160.00 230.00	179.20 150.00 220.00	165.10 140.00 200.00
Coil 1 P	7.581 6.000 9.000	23.730 19.000 28.000	39.672 32.000 48.000	55.574 45.000 67.000	71.364 57.000 86.000	87.152 70.000 110.000	102.718 83.000 120.000	118.281 96.000 140.000
Coil 2 M	443.21 380.00 540.00	438.47 380.00 540.00	429.85 350.00 530.00	416.37 340.00 510.00	399.72 330.00 500.00	378.69 310.00 470.00	354.75 300.00 440.00	327.15 270.00 410.00
Coil 2 P	7.805 6.000 9.000	24.384 19.000 29.000	40.744 32.000 48.000	57.074 45.000 67.000	73.272 58.000 87.000	89.504 71.000 110.000	105.501 84.000 130.000	121.540 96.000 140.000
Coil 3 M	726.22 590.00 880.00	718.83 580.00 870.00	705.18 570.00 850.00	683.58 550.00 830.00	656.52 530.00 800.00	622.27 500.00 780.00	583.40 470.00 710.00	537.49 440.00 650.00
Coil 3 P	7.790 6.000 10.000	24.397 20.000 29.000	40.780 33.000 48.000	57.171 46.000 69.000	73.437 59.000 89.000	89.710 72.000 110.000	105.800 85.000 130.000	121.857 96.000 150.000
Coil 4 M	1157.3 900.0 1400.0	1147.0 900.0 1300.0	1128.5 900.0 1300.0	1098.1 850.0 1300.0	1059.8 800.0 1200.0	1009.1 800.0 1200.0	950.8 750.0 1100.0	879.5 700.0 1000.0
Coil 4 P	7.721 6.000 10.000	24.266 20.000 30.000	40.603 33.000 50.000	57.001 48.000 70.000	73.357 60.000 90.000	89.805 73.000 110.000	106.155 86.000 130.000	122.580 99.000 150.000
Coil 5 M	2319.6 1900.0 2800.0	2302.8 1900.0 2800.0	2270.7 1800.0 2700.0	2215.3 1800.0 2600.0	2144.2 1700.0 2500.0	2046.0 1600.0 2400.0	1929.5 1500.0 2200.0	1784.9 1400.0 2100.0
Coil 5 P	7.891 6.000 10.000	24.778 20.000 31.000	41.526 34.000 51.000	58.391 48.000 72.000	75.296 62.000 93.000	92.384 76.000 110.000	109.408 89.000 130.000	126.547 100.000 150.000
Coil 6 M	6054.3 4700.0 7100.0	5980.8 4700.0 7000.0	5845.8 4600.0 6900.0	5638.0 4400.0 6800.0	5382.1 4200.0 6400.0	5065.2 4000.0 6000.0	4717.9 3700.0 5800.0	4316.3 3400.0 5100.0
Coil 6 P	8.226 7.000 10.000	26.048 22.000 32.000	43.551 36.000 54.000	60.947 51.000 76.000	78.182 66.000 98.000	95.321 80.000 120.000	112.214 94.000 140.000	129.076 110.000 160.000

HDIL AFTER LOG VERIFICATION SUMMARY

TOOL #: 1515MA 11997966 DATE/TIME PERFORMED: Wed Mar 7 01:04:58 2012 DAYS SINCE CAL: 60

UNIT #: 3854SA 008672

ZERO DATA(mv) 10 KHz 30 KHz 50 KHz 70 KHz 90 KHz 110 KHz 130 KHz 150 KHz

Coil 0 R	-0.006 -0.086 0.074	0.001 -0.059 0.061	0.003 -0.027 0.033	-0.002 -0.031 0.029	-0.005 -0.033 0.027	-0.003 -0.032 0.028	-0.004 -0.033 0.027	-0.005 -0.033 0.027
Coil 0 Q	0.007 -0.034 0.046	0.008 -0.114 0.126	0.005 -0.025 0.035	0.004 -0.026 0.034	0.003 -0.026 0.032	0.002 -0.029 0.031	-0.000 -0.031 0.029	-0.002 -0.032 0.028
Coil 1 R	0.001 -0.080 0.080	0.004 -0.044 0.056	0.003 -0.025 0.035	-0.001 -0.027 0.033	-0.003 -0.032 0.028	-0.006 -0.033 0.027	-0.007 -0.034 0.028	-0.004 -0.033 0.027
Coil 1 Q	0.004 -0.398 0.402	0.008 -0.092 0.108	0.005 -0.025 0.035	0.004 -0.024 0.036	0.006 -0.024 0.036	0.003 -0.027 0.033	-0.003 -0.033 0.027	-0.005 -0.034 0.026
Coil 2 R	0.010 -0.059 0.081	0.003 -0.027 0.033	-0.001 -0.031 0.029	-0.003 -0.033 0.027	-0.001 -0.032 0.028	-0.002 -0.032 0.028	0.001 -0.028 0.032	0.003 -0.025 0.035
Coil 2 Q	0.004 -0.034 0.046	0.008 -0.114 0.126	0.005 -0.025 0.035	0.004 -0.026 0.034	0.003 -0.026 0.032	0.002 -0.029 0.031	-0.000 -0.031 0.029	-0.002 -0.032 0.028

Coil 2 Q	-0.004 -0.353 0.347	-0.001 -0.099 0.101	0.002 -0.027 0.033	0.001 -0.028 0.032	-0.002 -0.035 0.025	-0.008 -0.034 0.028	-0.003 -0.034 0.028	-0.004 -0.032 0.028
Coil 3 R	0.011 -0.031 0.048	0.007 -0.034 0.048	0.006 -0.034 0.046	0.003 -0.036 0.044	0.002 -0.038 0.042	-0.005 -0.046 0.034	-0.003 -0.044 0.038	0.001 -0.038 0.042
Coil 3 Q	-0.006 -0.210 0.190	-0.006 -0.085 0.075	0.004 -0.039 0.041	0.005 -0.036 0.044	0.006 -0.036 0.044	-0.000 -0.037 0.043	-0.008 -0.044 0.038	-0.007 -0.047 0.033
Coil 4 R	-0.012 -0.069 0.051	-0.003 -0.062 0.058	-0.002 -0.060 0.060	-0.005 -0.060 0.060	-0.005 -0.067 0.053	-0.001 -0.059 0.061	0.007 -0.061 0.058	-0.002 -0.062 0.058
Coil 4 Q	-0.003 -0.294 0.308	0.005 -0.091 0.109	0.002 -0.053 0.067	0.008 -0.059 0.061	-0.001 -0.063 0.057	-0.002 -0.058 0.062	-0.004 -0.067 0.063	0.001 -0.057 0.063
Coil 5 R	0.008 -0.130 0.110	0.008 -0.112 0.128	0.002 -0.111 0.128	0.004 -0.114 0.128	0.009 -0.118 0.122	0.011 -0.112 0.128	0.000 -0.125 0.115	-0.018 -0.130 0.110
Coil 5 Q	-0.009 -0.607 0.593	0.010 -0.247 0.253	0.002 -0.127 0.113	0.011 -0.123 0.117	-0.000 -0.118 0.122	0.008 -0.114 0.128	0.028 -0.109 0.131	0.002 -0.111 0.129
Coil 6 R	0.010 -0.298 0.312	0.012 -0.289 0.311	-0.016 -0.305 0.285	0.009 -0.297 0.303	0.010 -0.317 0.283	-0.012 -0.285 0.305	-0.020 -0.297 0.303	0.002 -0.287 0.313
Coil 6 Q	-0.016 -1.516 1.484	0.015 -0.804 0.596	0.033 -0.298 0.302	-0.004 -0.297 0.303	0.025 -0.286 0.314	-0.009 -0.298 0.302	-0.007 -0.302 0.298	-0.023 -0.305 0.285

ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 M	126.86 124.38 129.46	125.84 123.40 128.44	123.95 121.64 126.80	120.82 118.82 123.46	116.80 114.82 119.51	111.49 109.73 114.21	105.12 103.87 107.90	97.60 96.29 100.22
Coil 0 P	7.267 4.247 10.247	22.803 19.731 25.731	38.186 35.051 41.051	53.638 50.474 56.474	69.064 65.869 71.869	84.612 81.401 87.401	100.030 96.818 102.818	115.487 112.315 118.315
Coil 1 M	223.45 219.05 227.99	221.10 216.78 225.63	216.69 212.67 221.35	209.86 205.89 214.40	201.29 197.83 205.90	190.46 187.47 195.12	178.17 175.82 182.79	164.01 161.79 168.40
Coil 1 P	7.602 4.581 10.581	23.807 20.730 26.730	39.799 36.872 42.872	55.749 52.574 58.574	71.570 68.384 74.384	87.358 84.152 90.152	102.918 99.718 105.718	118.431 115.281 121.281
Coil 2 M	443.14 434.34 452.07	438.30 429.70 447.24	429.40 421.26 438.45	415.80 408.04 424.68	398.57 391.73 407.72	377.19 371.12 386.27	352.74 347.85 361.84	324.95 320.81 333.70
Coil 2 P	7.824 4.805 10.805	24.462 21.384 27.384	40.867 37.744 43.744	57.241 54.074 60.074	73.466 70.272 76.272	89.682 86.504 92.504	105.720 102.501 108.501	121.727 118.540 124.540
Coil 3 M	725.89 711.69 740.74	718.31 704.45 733.20	704.13 691.08 719.28	682.41 669.91 697.25	654.43 643.39 669.65	619.64 609.83 634.72	579.67 571.73 595.07	533.62 526.74 548.24
Coil 3 P	7.810 4.790 10.790	24.466 21.397 27.397	40.901 37.780 43.780	57.326 54.171 60.171	73.634 70.437 76.437	89.883 86.710 92.710	105.995 102.800 108.800	121.958 118.867 124.857
Coil 4 M	1157.0 1134.1 1180.4	1146.5 1124.1 1170.0	1127.1 1105.9 1151.1	1096.3 1076.1 1120.1	1056.6 1038.6 1081.0	1005.0 986.9 1029.3	945.2 931.8 969.8	873.4 861.9 897.1
Coil 4 P	7.749 4.721 10.721	24.338 21.266 27.266	40.722 37.603 43.603	57.159 54.001 60.001	73.548 70.357 76.357	89.987 86.805 92.805	106.348 103.155 109.155	122.730 119.580 125.580
Coil 5 M	2319.9 2273.2 2366.0	2302.5 2258.8 2348.9	2268.6 2225.3 2316.1	2212.7 2171.0 2259.8	2138.7 2101.3 2187.1	2038.6 2005.0 2096.9	1918.7 1890.9 1969.1	1773.2 1748.2 1820.6
Coil 5 P	7.920 4.891 10.891	24.853 21.778 27.778	41.646 38.526 44.526	58.560 55.391 61.391	75.490 72.296 78.296	92.573 89.384 95.384	109.609 106.408 112.408	126.701 123.547 129.547
Coil 6 M	6052.6 5833.2 6175.4	5977.7 5861.2 6100.5	5838.5 5728.9 5962.7	5628.6 5525.3 5750.8	5366.4 5274.5 5488.8	5043.7 4963.9 5166.5	4688.3 4623.8 4812.3	4286.1 4229.9 4402.6
Coil 6 P	8.254 5.226 11.226	26.123 23.048 29.048	43.673 40.551 46.551	61.104 57.947 63.947	78.370 75.182 81.182	95.505 92.321 98.321	112.418 109.214 115.214	129.224 126.078 132.078



COMPANY	HUSKY OIL OPERATIONS LIMITED	FILE NO:	
WELL	LITTLE BEAR H-64		
FIELD	SLATER RIVER	API NO:	
PROVINCE	NORTHWEST TERRITORIES		
LOCATION:		ELEVATIONS:	UID:
SURF LOC:		KB 183.2 M	300H64500126000
LAT 64 53' 28.5"N LONG 126 11' 20.3"W		DF	LICENSE:
BH LOC. LSD:		GL 178.0 M	462
LAT 64 53' 28.5"N LONG 126 11' 20.3"W		DATE	06-MAR-2012

