Tucker WIRELINE SERVICES

DUAL INDUCTION RESISTIVITY LOG

File No. : TUL-56710
Company : RUNNING FOXES PETROLEUM, LLC
Well : MYERS 16-33
Field : CHEROKEE BASIN COAL AREA
County : BOURBON
State : KANSAS
Country : USA

Location : API#: 15-011-23755-00-00
660' FSL & 660' FEL
SE SE
Sect : 33 Twp : 23S Rge : 22W

Recorded By : B.BAILEY
Witnessed By : C.COUNTS

Date : NOV 12 2010
Run No. : 1

Permanent Datum :	GL	
Drilling Measured From :	GL	
Log Measured From:	GL	
Above Permanent Datum :	0.00	FT
Depth--Driller :	892.0	FT
Depth--Logger :	770.0	FT
Bottom Log Interval :	769.0	FT
Top Log Interval :	20.0	FT
Casing Depth--Driller:	20.0	FT
Casing Depth--Logger :	20.0	FT
Casing Diameter :	8.625	IN
Bit Size :	6.750	IN

Unit No. : 127
Location : TULSA

Elevations :

KB :		FT
DF :		FT
GL :	1041.00	FT

Additional Services

CNT
LDT

Run Number 1

Depth To Fluid	181.0	FT			
Fluid Type In Hole :	NATIVE				
Density :	0.000	SG			
Viscosity :	0.000	SEC			
pH :	0.000				
Fluid Loss :	0.000	KPPM			
Salinity :	0.000	KPPM			
				62	F
RM Source :	MEASURED				
RM :	10.000	OHMM at		62	F
RM at BHT :	8.113	OHMM at		78	F
RMF Source :	CALCULATED				
RMF :	8.500	OHMM at		62	F
RMF at BHT :	6.896	OHMM at		78	F
RMC Source :	CALCULATED				
RMC :	11.500	OHMM at		62	F
RMC at BHT :	9.329	OHMM at		78	F
Max Recorded Temp. :				78	F

Time Circulation Stopped :
Operating Rig Time, Hrs. : 2.0

- Source Serial Numbers -

Gamma	CSV-587
Neutron	N-1044

- Sonde Serial Numbers -

GRTB	GRT-BA-14
CNT	CNP-AA-116
LDTNG	LDP-NG-02
PIT	PIT-AB-14

Casing Strings

Size (IN)	Weight (LB/FT)	Bottom (FT)
8.625	32.00	20.00

- Comments -

ALL PRESENTATIONS AS PER CUSTOMER REQUEST.

GRT, CNT, LDT, PIT RAN IN COMBINATION
CALIPERS ORIENTED ON THE X-Y AXIS.
PHIN IS CALIPER CORRECTED.
2.71 G/CC USED TO CALCULATE POROSITY.
ANNULAR HOLE VOLUME CALCULATED USING 4.500" PRODUCTION CASING.
REPEAT DONE UP HOLE DUE TO DRILL PULLING TIGHT ON BOTTUM OF HOLE.
LOGGER BRIDGE AT 769.00.
SP AND SFL DISABLED AT 172' DUE TO FLUID LEVEL.
PHIN DISABLED AT 162' DUE TO FLUID LEVEL.

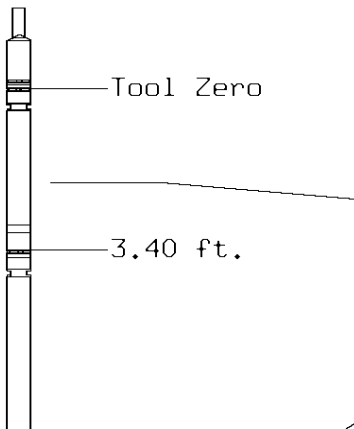
GRT: GRP.
CNT: PHIN, CLCNIN.
LDT: PORL, LCORN, PECLN, CLLDIN, LDENN, PORLLS, PECSN.
PIT: ILD, ILM, CIRD, SFLAEC, SPU.

OPERATORS:
S.DAVIS
R.AUSTIN

THANK YOU FOR USING TUCKER WIRELINE SERVICES!

Tool String Schematic

Total Tool Length - 43.29 **ft.**
Maximum Outside diameter - 4.80 **in.**
Net Weight in Air - 743.00 **lbs.**

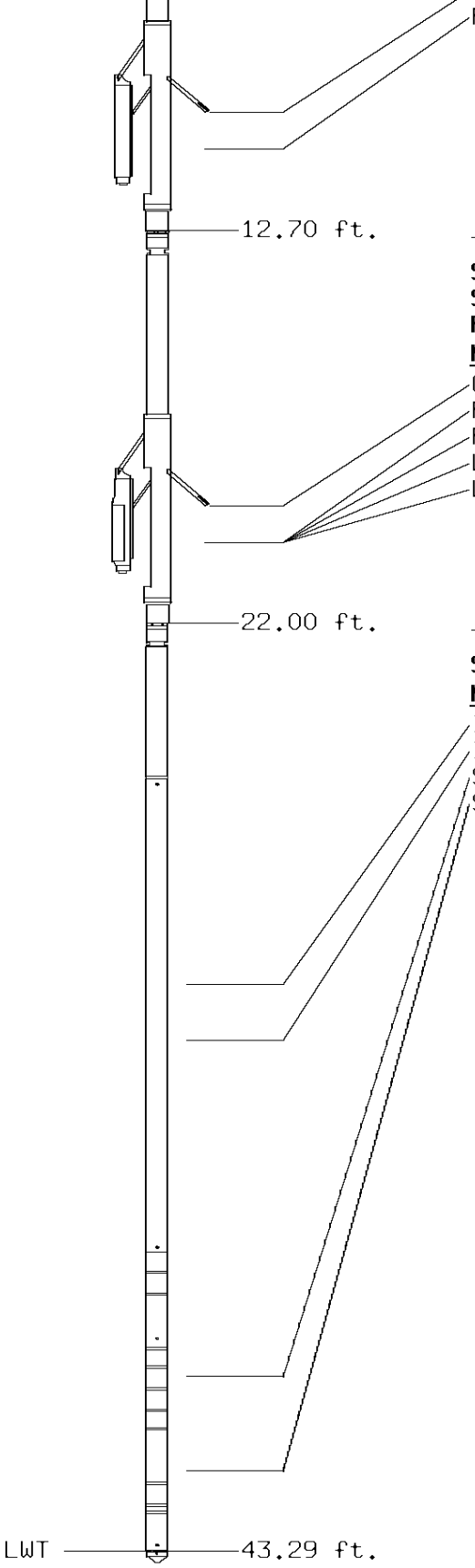


Tool: GRTB **Length:** 3.40 **ft. O.D.:** 3.60 **in.**
Sonde ID : GRT-BA-14

Measure Point	Stack Offset	Tool Offset	Bottom Offset
GRP	2.00	2.00	41.29

Tool: CNT **Length:** 9.30 **ft. O.D.:** 4.36 **in.**
Sonde ID : CNP-AA-116
Source ID : N-1044
Pad ID : CNP-AA-116

Measure Point	Stack Offset	Tool Offset	Bottom Offset
CLCN	9.40	6.00	33.89



PHIN	10.24	6.84	33.05

Tool: LDTNG **Length:** 9.30 **ft. O.D.:** 4.80 **in.**
Sonde ID : LDP-NG-02
Source ID : CSV-587
Pad ID : LDP-NG-02

Measure Point	Stack Offset	Tool Offset	Bottom Offset
CLLD	18.70	6.00	24.59
PEL	19.70	7.00	23.59
PES	20.10	7.40	23.19
LDEN	19.70	7.00	23.59
LCOR	19.70	7.00	23.59

Tool: PIT **Length:** 21.29 **ft. O.D.:** 3.62 **in.**
Sonde ID : PIT-AB-14

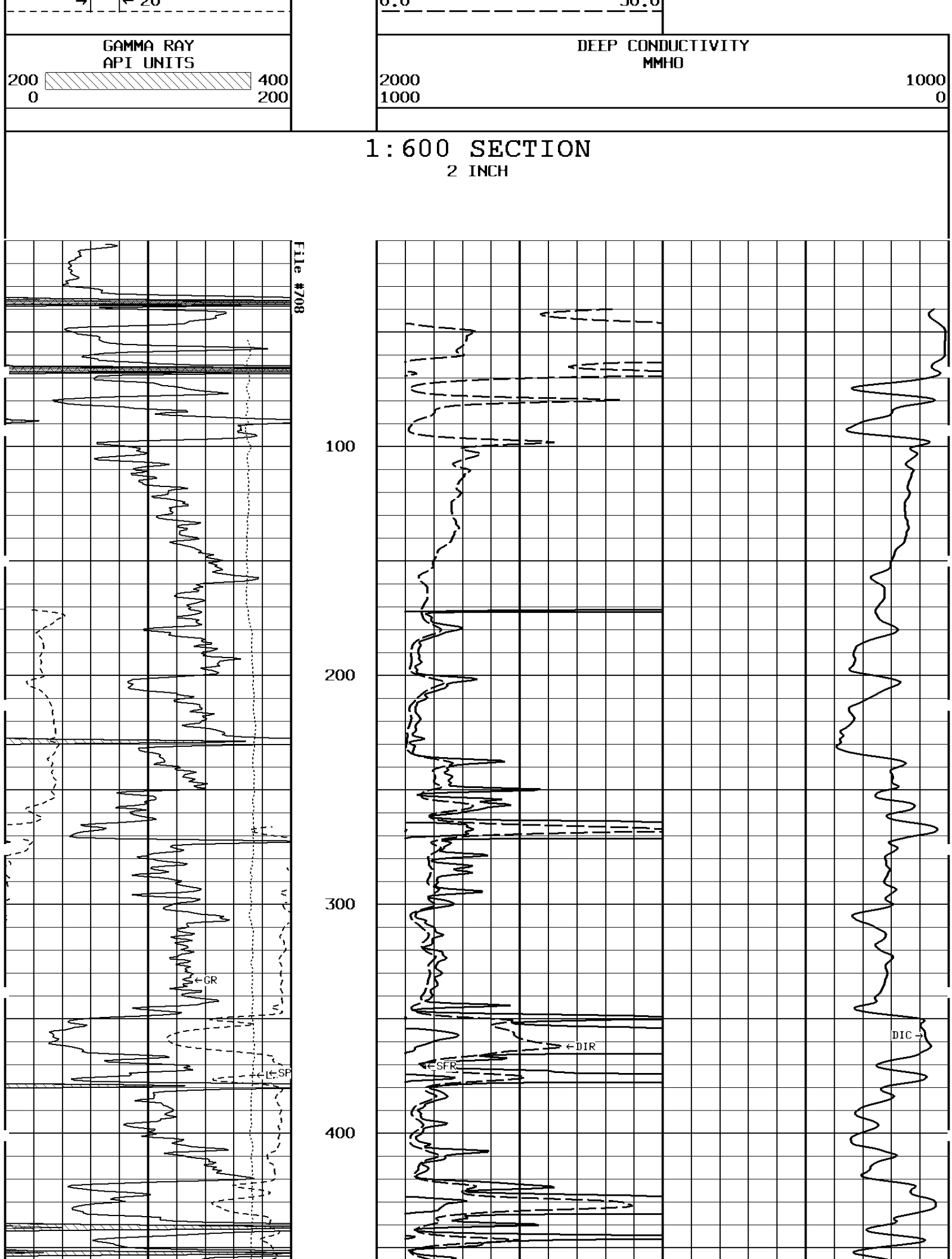
Measure Point	Stack Offset	Tool Offset	Bottom Offset
ILD	30.92	8.92	12.37
ILM	32.10	10.10	11.20
SFLU	39.49	17.49	3.81
SP	42.60	20.60	0.69

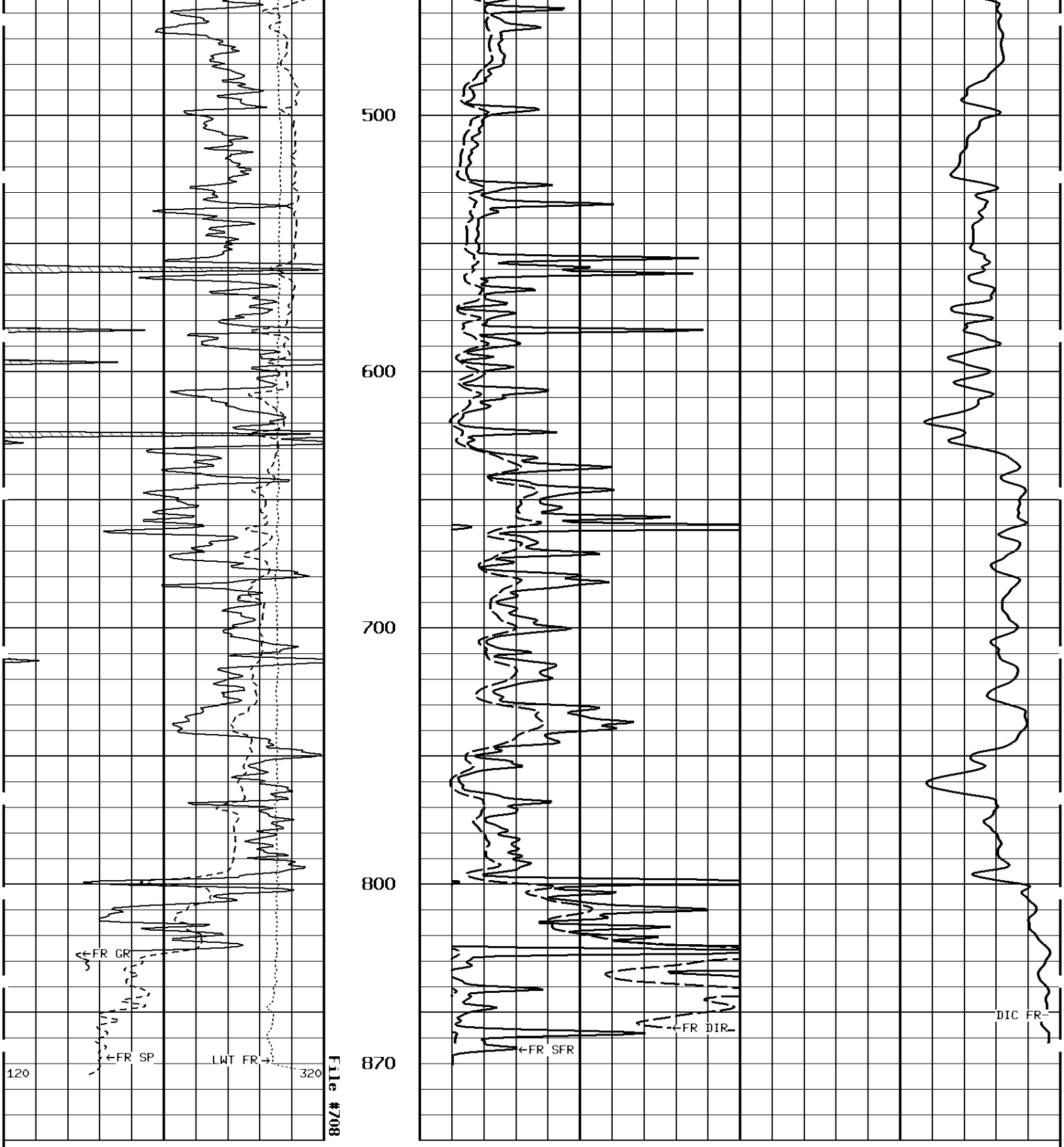
TENSION LBS	
10000	0

SHALLOW FOCUSED RESISTIVITY OHMM	
0.0	500.0
0.0	50.0

SPONTANEOUS POTENTIAL mV	
→ |	| ← 20

DEEP INDUCTION OHMM	
0.0	500.0
0.0	50.0


GAMMA RAY
API UNITS
200
0
400
200
DEEP CONDUCTIVITY
MMHO
2000
1000
1000
0
1:600 SECTION
2 INCH
File #708
100
200
300
400
←GR
←SP
←DIR
←SFR
DIC→



1:600 SECTION
2 INCH

GAMMA RAY
API UNITS
200 400
0 200

DEEP CONDUCTIVITY
MMHO
2000 1000
1000 0

SPONTANEOUS POTENTIAL
mV

DEEP INDUCTION
OHMM

→ | ← 20

TENSION
LBS
10000 0

0.0 500.0
0.0 50.0

SHALLOW FOCUSED RESISTIVITY
OHMM
0.0 500.0
0.0 50.0

TENSION
LBS
10000 0

SPONTANEOUS POTENTIAL
mV
→ | ← 20

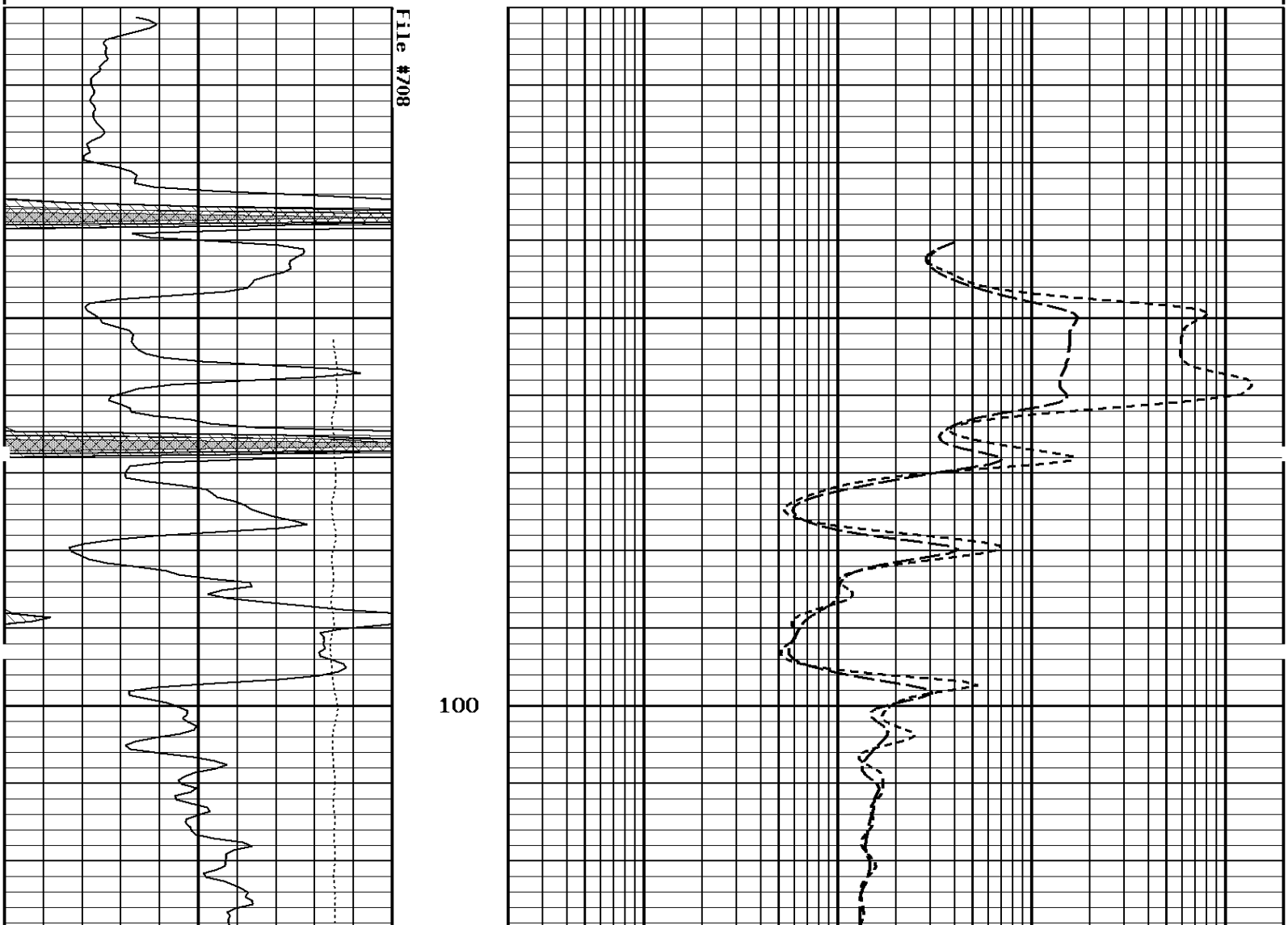
GAMMA RAY
API UNITS
200 400
0 200

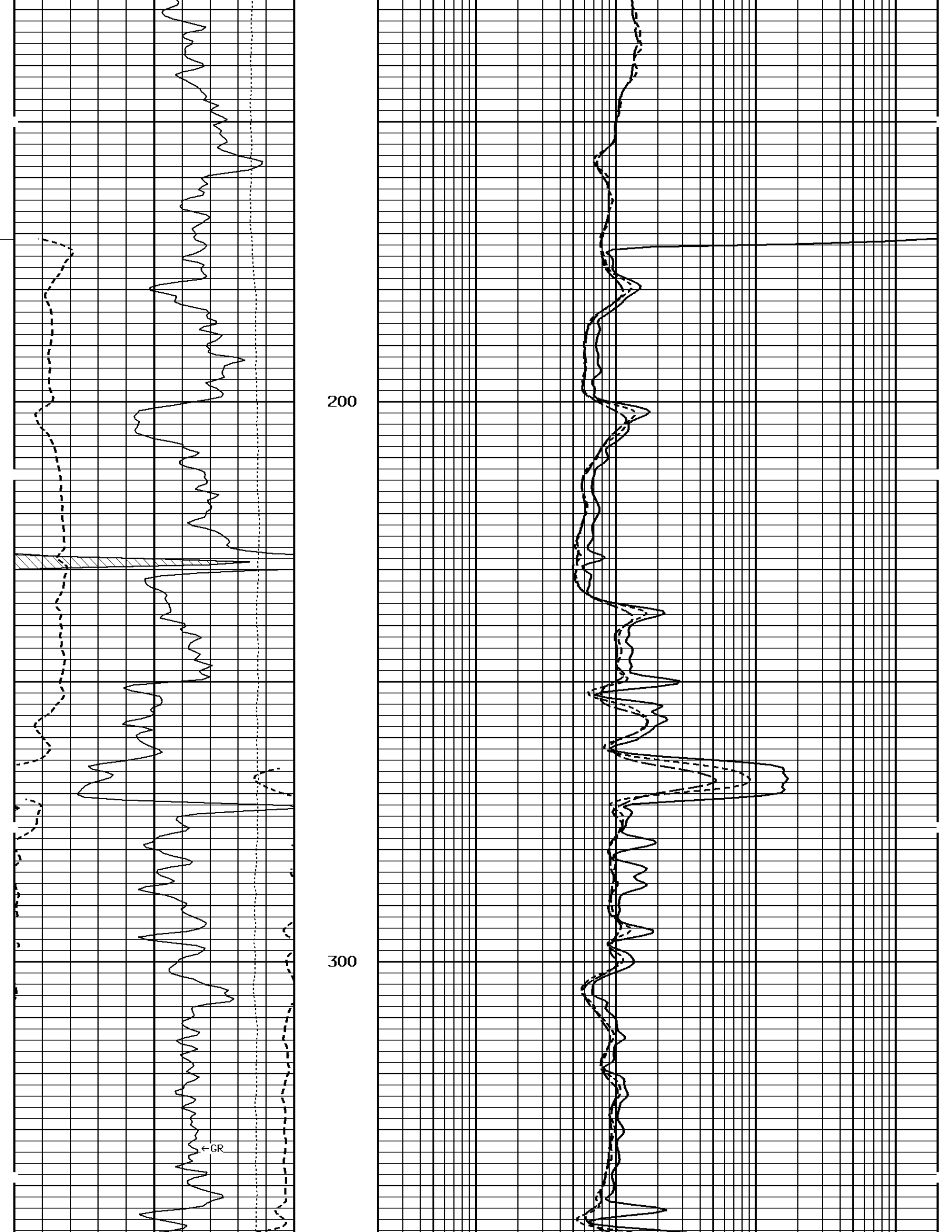
SHALLOW FOCUSED RESISTIVITY
OHMM
0.2 2000.0

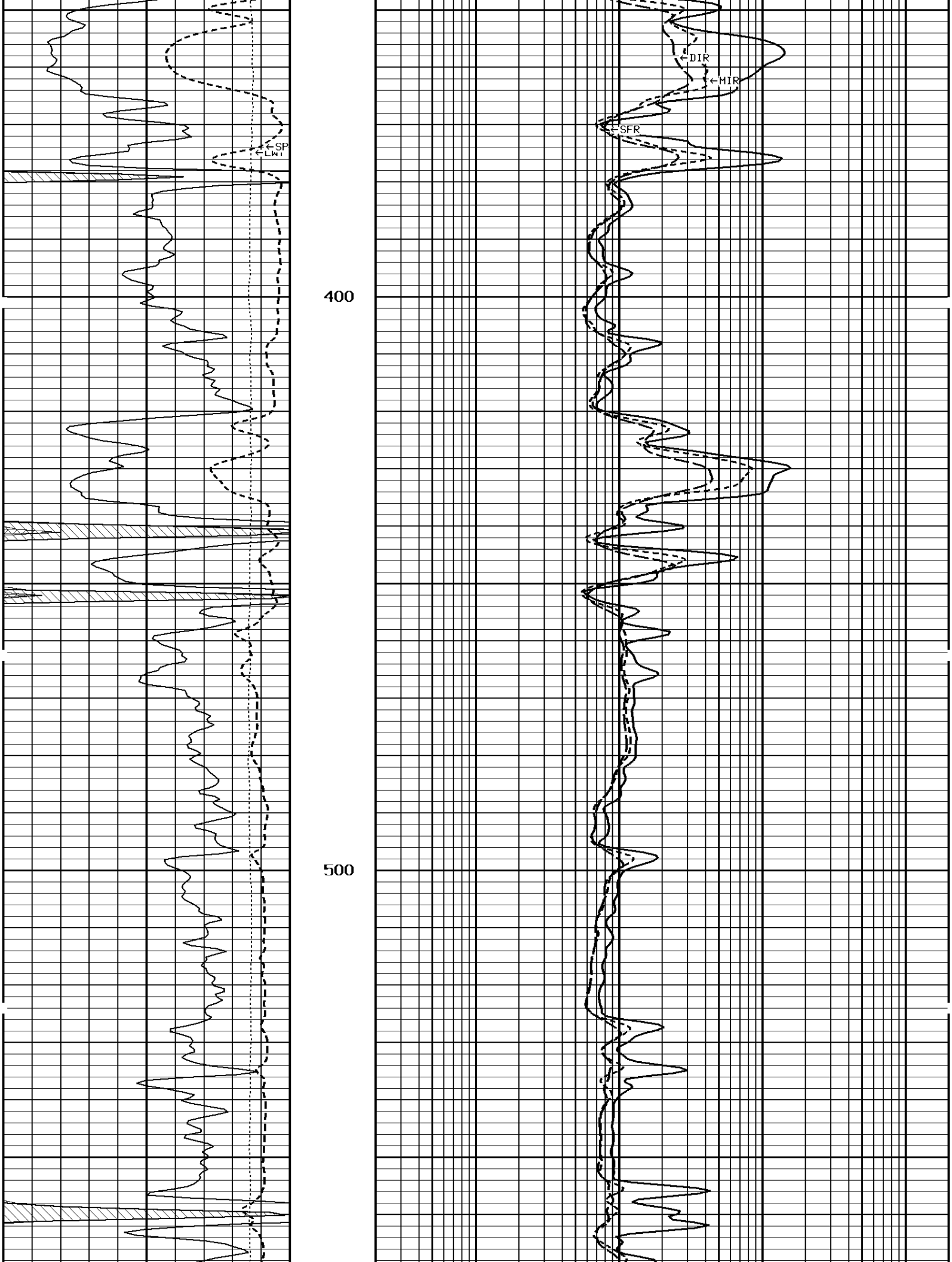
MEDIUM INDUCTION
OHMM
0.2 2000.0

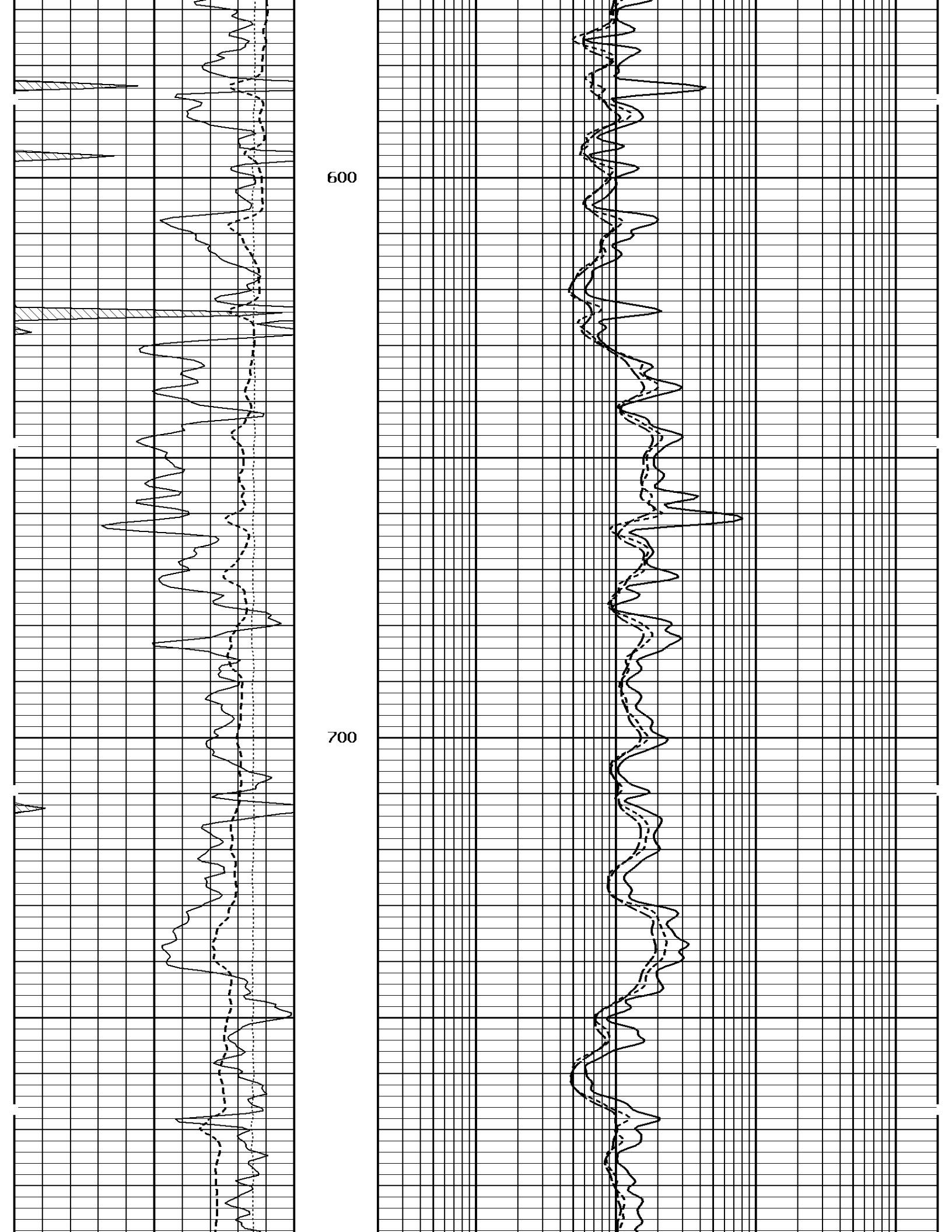
DEEP INDUCTION
OHMM
0.2 2000.0

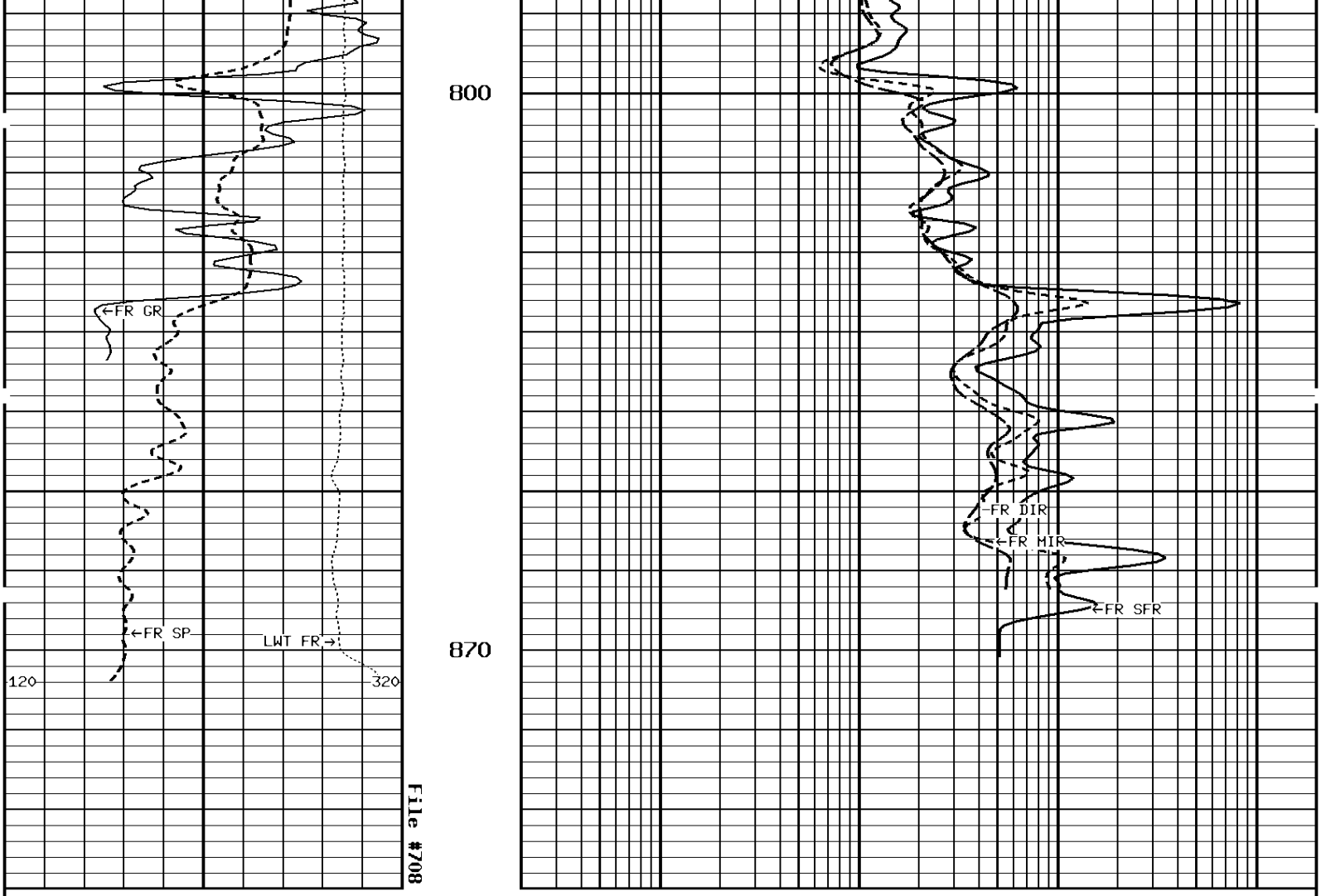
1:240 MAIN SECTION




200
300
←GR


←SP
←LW1
←DIR
←MIR
←SFR
400
500


600
700



1:240 MAIN SECTION

GAMMA RAY API UNITS	DEEP INDUCTION OHMM
200 0 400 200	0.2 2000.0
SPONTANEOUS POTENTIAL mV	**MEDIUM INDUCTION OHMM**
→ ← 20	0.2 2000.0
TENSION LBS	**SHALLOW FOCUSED RESISTIVITY OHMM**
10000 0	0.2 2000.0

* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 F

Drill Bit Size	6.750	IN
BHT Depth	892.000	F
Borehole Temperature	78.0	DEGF
Temperature Gradient	1.00	DFHF
Resistivity Of Mud	10.00	OHMM
Standoff	1.5	
Resistivity Of Mud Temperature	62.00	DEGF

TENSION
LBS

10000 0

SPONTANEOUS POTENTIAL
mV

→| |← 20

GAMMA RAY
API UNITS

200 400
0 200

SHALLOW FOCUSED RESISTIVITY
OHMM

0.2 2000.0

MEDIUM INDUCTION
OHMM

0.2 2000.0

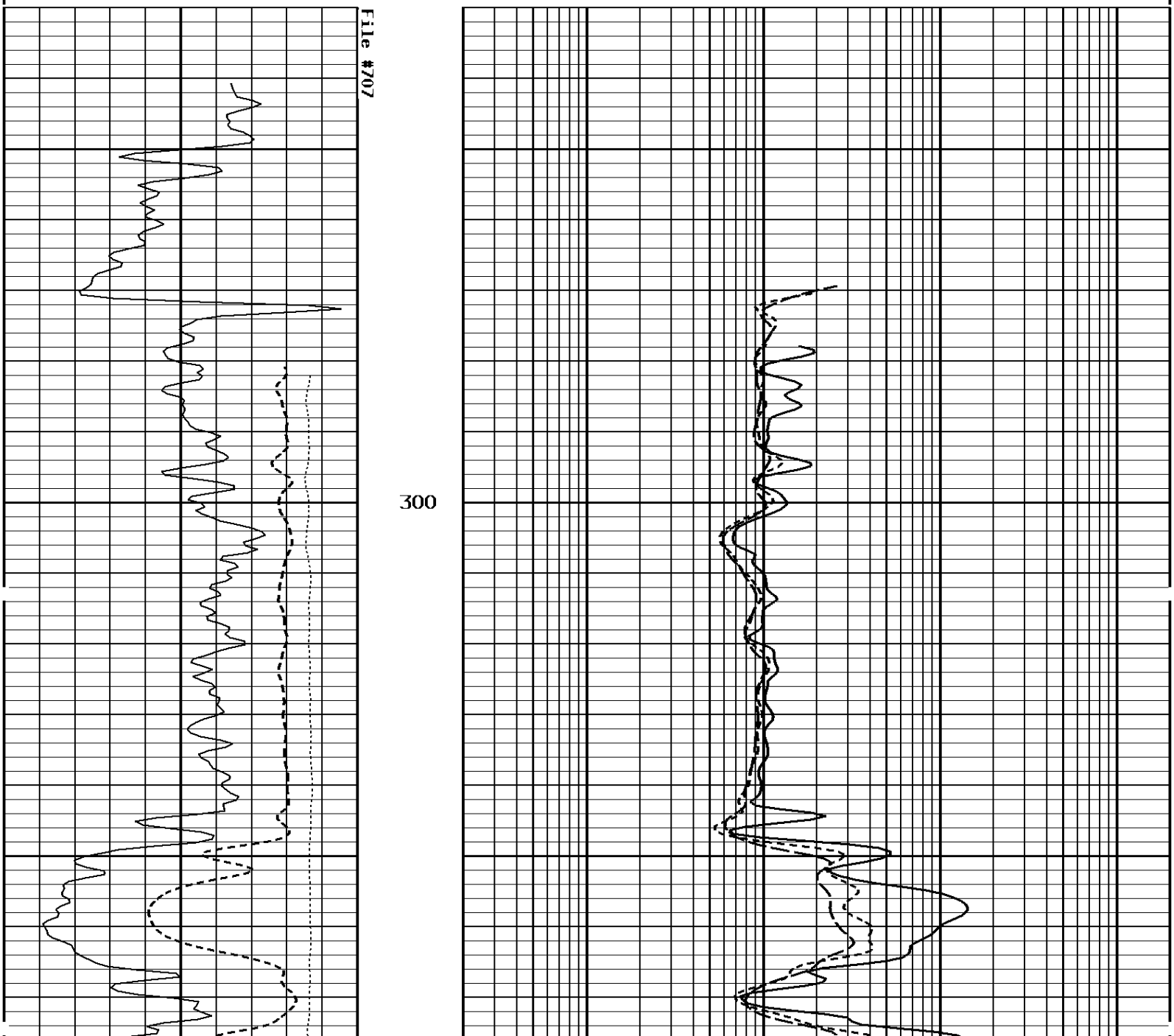
DEEP INDUCTION
OHMM

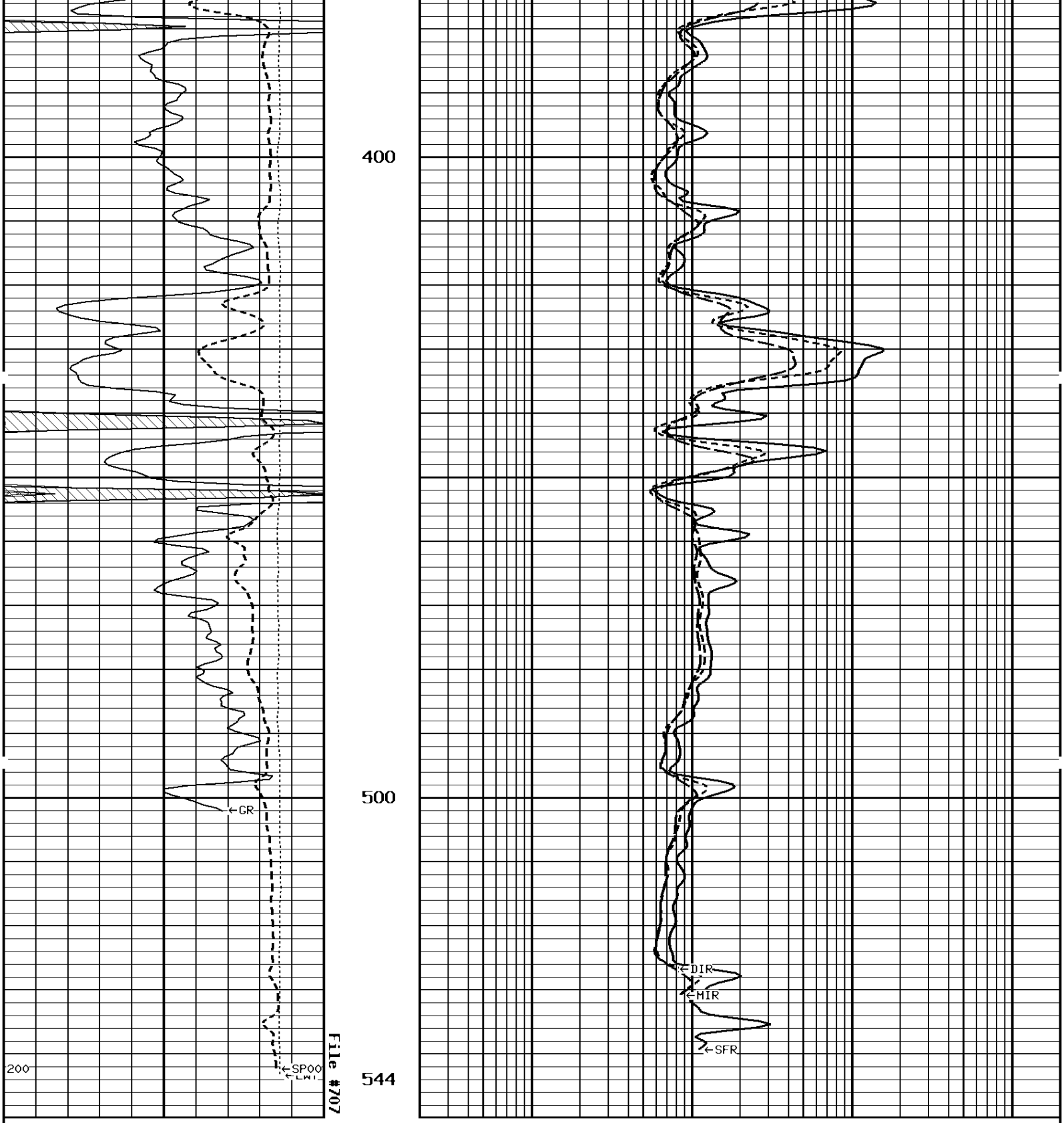
0.2 2000.0

1:240 REPEAT SECTION

File #707

300





1:240 REPEAT SECTION

GAMMA RAY API UNITS		DEEP INDUCTION OHMM
200 400 0 200		0.2 2000.0
SPONTANEOUS POTENTIAL mV		MEDIUM INDUCTION OHMM

→	← 20

TENSION LBS	
10000	0

0.2	2000.0

SHALLOW FOCUSED RESISTIVITY OHMM	
0.2	2000.0

* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 F

Drill Bit Size	6.750	IN
BHT Depth	892.000	F
Borehole Temperature	78.0	DEGF
Temperature Gradient	1.00	DFHF
Resistivity Of Mud	10.00	OHMM
Standoff	1.5	
Resistivity Of Mud Temperature	62.00	DEGF

* Calibration Summary *

Shop Calibration GRTB

Performed : 21-Aug-2009 Time : 15:26
Sensor Suite : GR-GR5 ID : GRT-BA-14

	Measured Background	Measured Jig	Units	Calibrated Jig	Units
GR	49	347	CPS	175	GRAPI

Shop Calibration PIT

Performed : 26-Oct-2010 Time : 15:25
Sensor Suite : P-IND-T ID : PIT-AB-14

Medium

	Measured R	Measured X	Calibrated R	Calibrated X	Units
Air	131258	130225	0.2	0.5	MMHOS
Zero	131068	131068	0.0	0.0	MMHOS
Reference	247800	248027	5000.0	5000.0	MMHOS
Loop	151203	173390	2699.8	991.5	MMHOS
Sonde Error			-1.8	-1.8	MMHOS
Cond			5000.0	5000.0	MMHOS

Deep

	Measured R	Measured X	Calibrated R	Calibrated X	Units
Air	128926	131285	0.1	0.0	MMHOS
Zero	131079	131071	0.0	0.0	MMHOS
Reference	231359	231399	2000.0	2000.0	MMHOS
Loop	149015	174621	1264.6	463.2	MMHOS
Sonde Error			-4.3	1.6	MMHOS
Cond			2000.0	2000.0	MMHOS

Temperature

Measured Low	Measured High	Calibrated Low	Calibrated High	Units
16980.0	56920.0	70.0	350.0	DEGF

Performed : 26-Oct-2010 Time : 15:22
Sensor Suite : SFL ID : PIT-AB-14

Internal

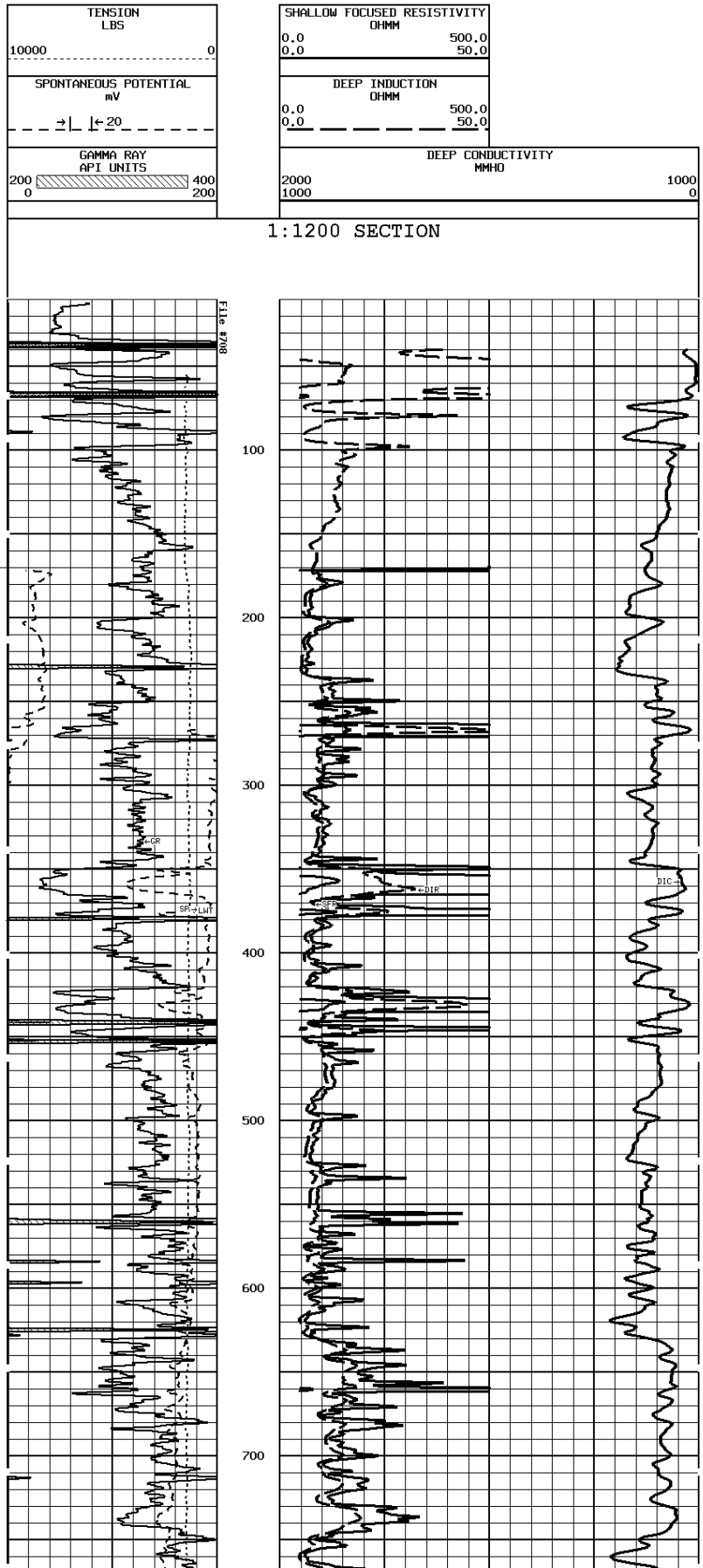
	Measured Zero	Measured Reference	Calibrated Zero	Calibrated Reference	Units
Im	32767.0	49666.0	0.0	7028.0	uA
Ib	32769.0	48864.3	0.0	1750.0	mA
MOM1	32805.5	57256.6	0.0	175.0	mV

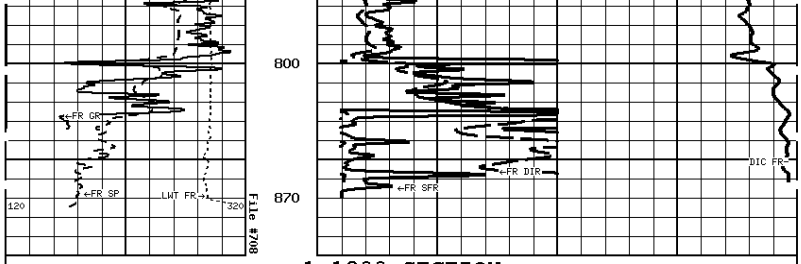
Equivalent SFL		43.97	OHMM

Performed : 26-Oct-2010 Time : 15:15
Sensor Suite : P-SP ID : PIT-AB-14

Internal

Measured		Calibrated		
Zero	Reference	Zero	Reference	Units
32789.6	58948.1	0.0	1000.0	mV





1:1200 SECTION

GAMMA RAY
API UNITS
200 400
0 200

SPONTANEOUS POTENTIAL
mV
20

TENSION
LBS
10000 0

DEEP CONDUCTIVITY
MMHO
2000 1000
1000 0

DEEP INDUCTION
OHMM
0.0 500.0
0.0 50.0

SHALLOW FOCUSED RESISTIVITY
OHMM
0.0 500.0
0.0 50.0