

**Tucker**  
WIRELINE SERVICES

DUAL INDUCTION  
RESISTIVITY LOG

File No. : TUL-56878  
Company : RUNNING FOXES PETROLEUM, LLC  
Well : GROSS 11-6B-1  
Field :  
Country : BOURBON  
State : KANSAS  
Country : USA

Location : API#: 15-011-23771-00-00  
2465' FSL & 1960' FWL  
NE NW NE SW

Sect : 6 Twp : 25S Rge : 24E

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

Date : JAN 3 2011  
Run No. : 1

Permanent Datum : GL  
Drilling Measured From : GL  
Log Measured From : GL  
Above Permanent Datum : 0.00 FT

Depth--Driller : 523.0 FT  
Depth--Logger : 507.0 FT  
Bottom Log Interval : 506.0 FT  
Top Log Interval : 20.0 FT

Casing Depth--Driller: 20.0 FT  
Casing Depth--Logger : 20.0 FT  
Casing Diameter : 7.000 IN

Bit Size : 5.628 IN  
Unit No. : 127  
Location : TULSA

Elevations :  
KB : FT  
DF : FT  
GL : 898.00 FT

**Additional Services**

CNT  
LDT

The customer is hereby warned that by providing the log data herein, T. W. S. does not agree to provide any interpretation of log data, conversion of log data to physical rock parameters or recommendations. T. W. S. does not guarantee or warrant either expressly or impliedly, the accuracy of any interpretation of log data, conversion of log data to physical rock parameters or recommendations which may be given by T. W. S. personnel. Any interpretation, conversion or recommendation is not part of the consideration for the agreement between the parties and is not part of any part of the charge by T. W. S. for its services. Any user of the log data is warned that said user is not entitled to rely on interpretations, conversions or recommendations as aforesaid.

**Run Number 1**

Depth To Fluid 0.0 FT  
Fluid Type In Hole : NATIVE  
Density : 0.000 SG  
Viscosity : 0.000 SEC  
pH : 0.000  
Fluid Loss : 0.000  
Salinity : 0.000 KPPM

RM Source : MEASURED  
RM : 10.000 OHMM at 55 F  
RM at BHT : 7.463 OHMM at 76 F

RMF Source : CALCULATED  
RMF : 8.500 OHMM at 55 F  
RMF at BHT : 6.343 OHMM at 76 F

RMC Source : CALCULATED  
RMC : 11.500 OHMM at 55 F

RMC : 11.500 OHMM at 55 F  
 RMC at BHT : 8.582 OHMM at 76 F  
 Max Recorded Temp. : 76 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\_B PIT-CA-074

**Casing Strings**

Size (IN)	Weight (LB/FT)	Bottom (FT)
7.000	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 2.875" PRODUCTION CASING.  
 HOLE TOP FILLED.  
 SFL AND SP EFFECTED BY OIL IN HOLE.

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

OPERATORS:  
 M.BURKE  
 R.NITZ

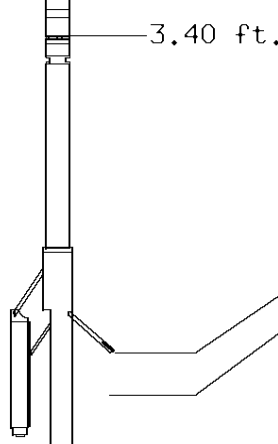
THANK YOU FOR USING TUCKER WIRELINE SERVICES!

**Tool String Schematic**

Total Tool Length - 43.49 ft.  
 Maximum Outside diameter - 4.80 in.  
 Net Weight in Air - 743.00 lbs.

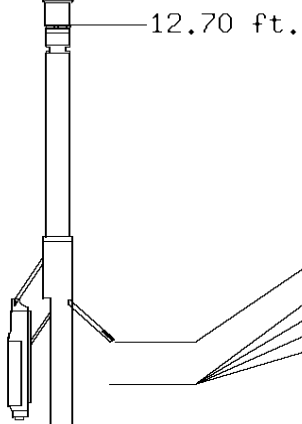


<b>Tool:</b> GRTB	<b>Length:</b> 3.40 ft.	<b>O.D.:</b> 3.60 in.
<b>Sonde ID</b>	: GRT-BA-14	
<b>Measure Point</b>	<b>Stack Offset</b>	<b>Tool Offset</b>
GRP	2.00	2.00
		<b>Bottom Offset</b>
		41.49



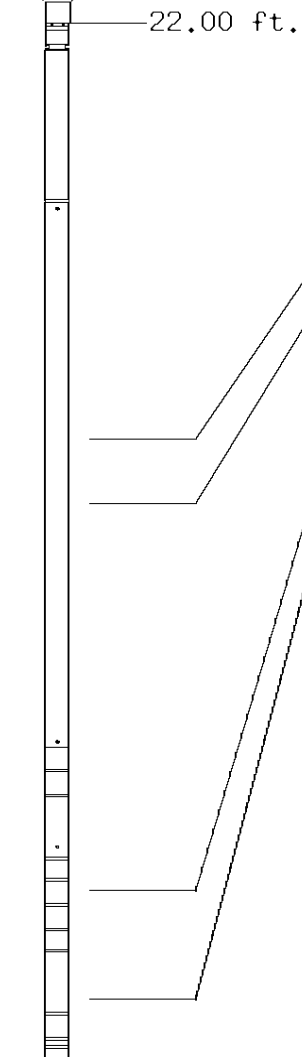
**Tool:** CNT      **Length:** 9.30 ft. **O.D.:** 4.36 in.  
**Sonde ID** : CNP-AA-116  
**Source ID** : N-1044  
**Pad ID** : CNP-AA-116

Measure Point	Stack Offset	Tool Offset	Bottom Offset
CLCN	9.40	6.00	34.09
PHIN	10.24	6.84	33.25



**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	24.79
PEL	19.70	7.00	23.79
PES	20.10	7.40	23.39
LDEN	19.70	7.00	23.79
LCOR	19.70	7.00	23.79



**Tool:** PIT      **Length:** 21.49 ft. **O.D.:** 3.62 in.  
**Sonde ID** : PIT-CA-074

Measure Point	Stack Offset	Tool Offset	Bottom Offset
ILD	30.92	8.92	12.56
ILM	32.10	10.10	11.39
SFLU	39.49	17.49	4.00
SP	42.60	20.60	0.88



TENSION  
LBS

10000 0

SPONTANEOUS POTENTIAL  
mV

→ | ← 20

GAMMA RAY  
API UNITS

200 0 400 200

SHALLOW FOCUSED RESISTIVITY  
OHMM

0.0 500.0  
0.0 50.0

DEEP INDUCTION  
OHMM

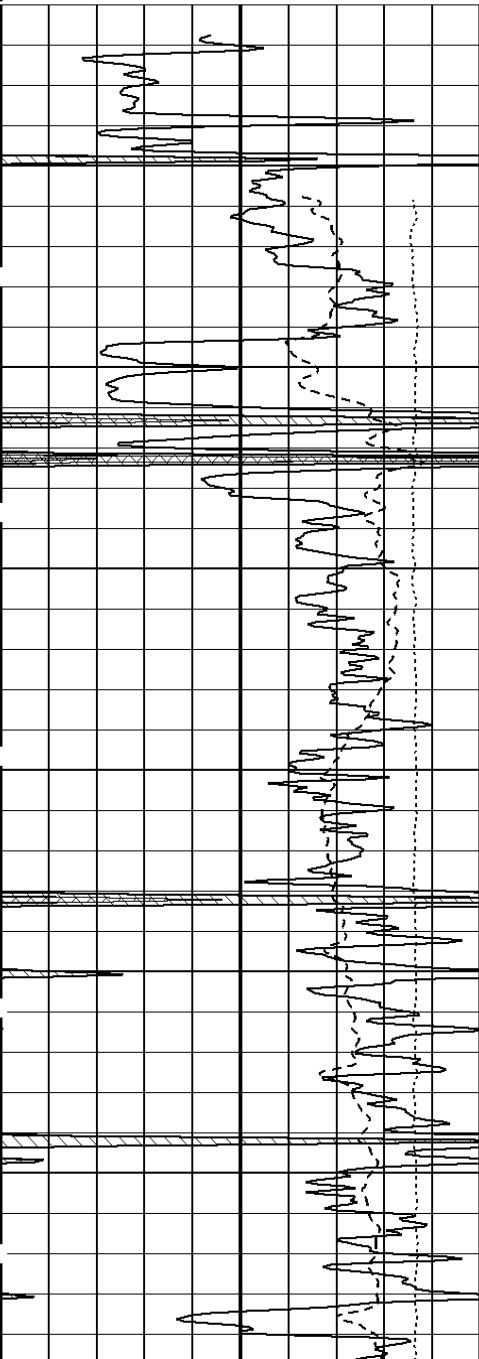
0.0 500.0  
0.0 50.0

DEEP CONDUCTIVITY  
MMHO

2000 1000  
1000 0

1:600 SECTION  
2 INCH

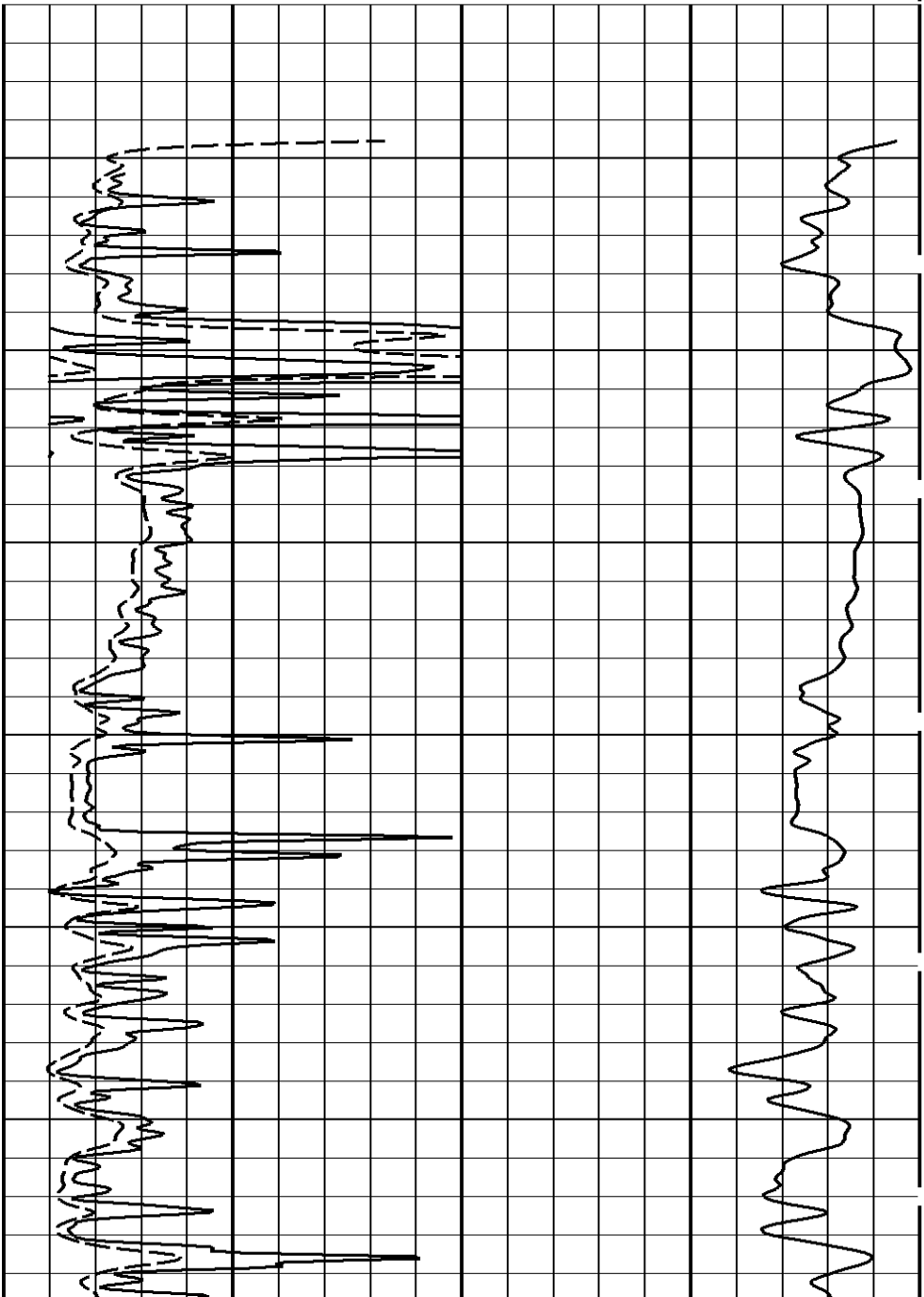
File #715

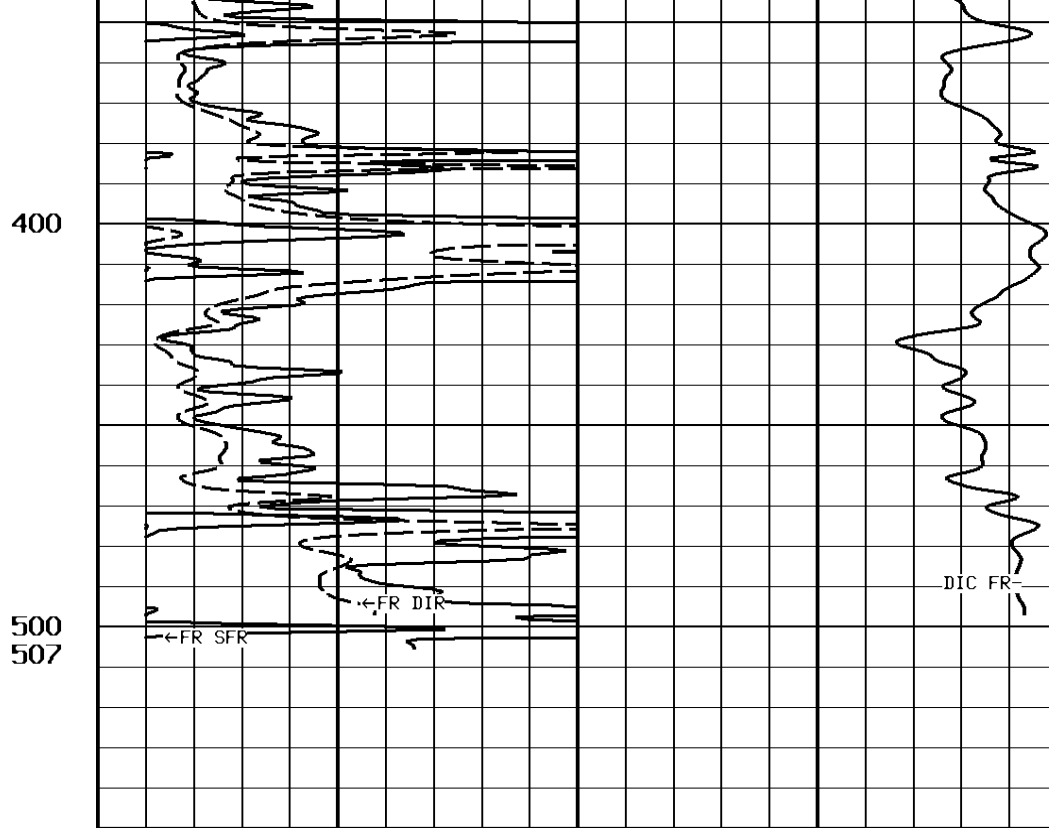
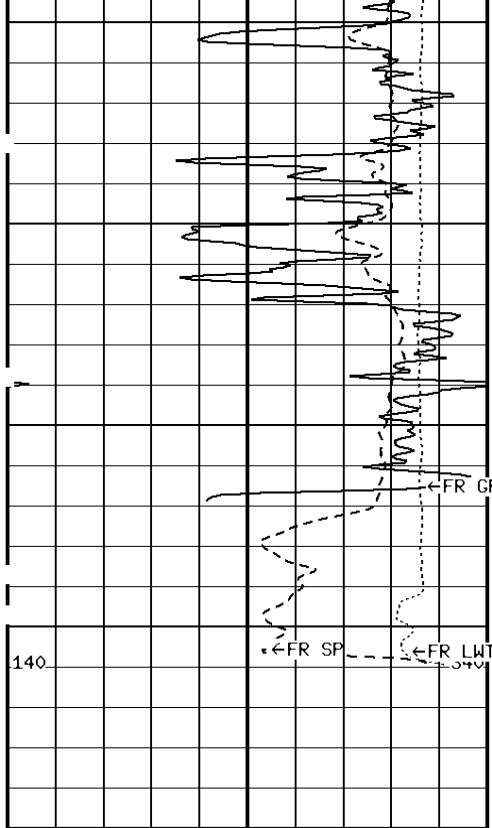


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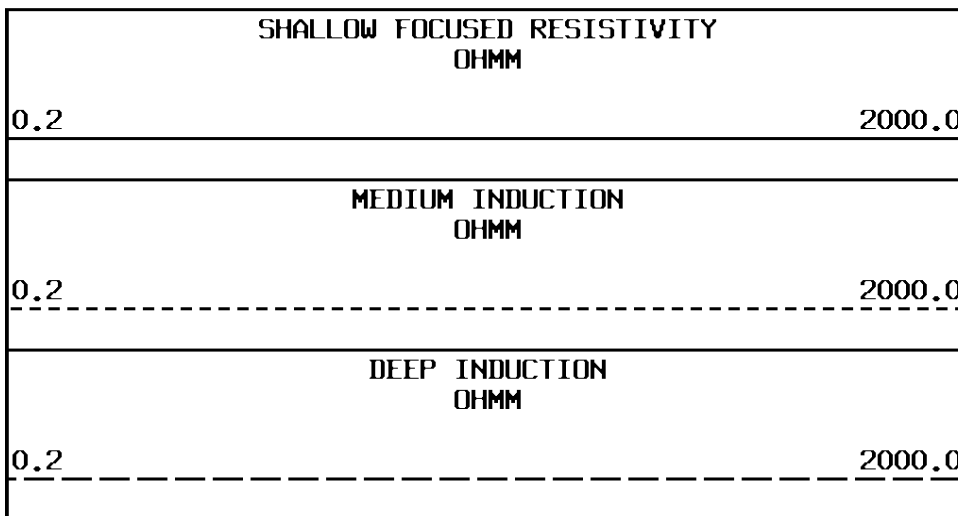
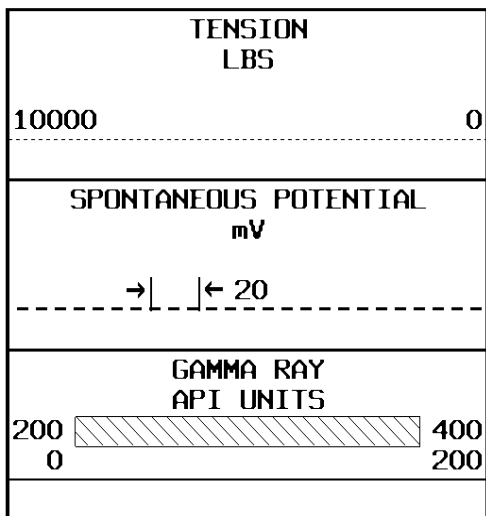
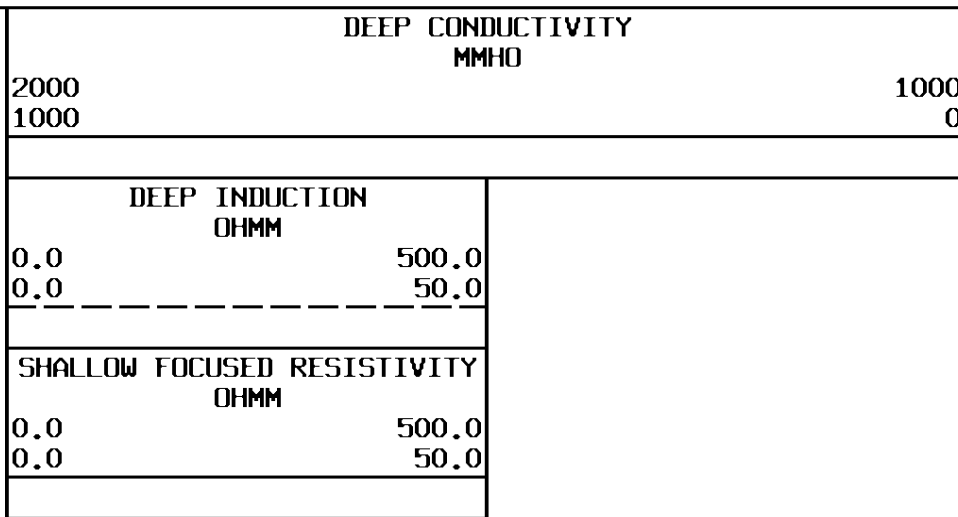
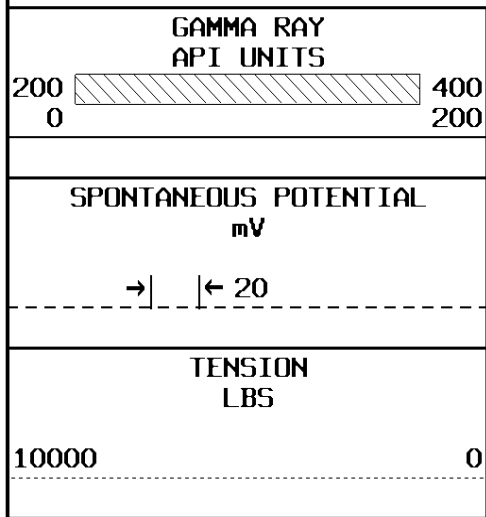
200

300



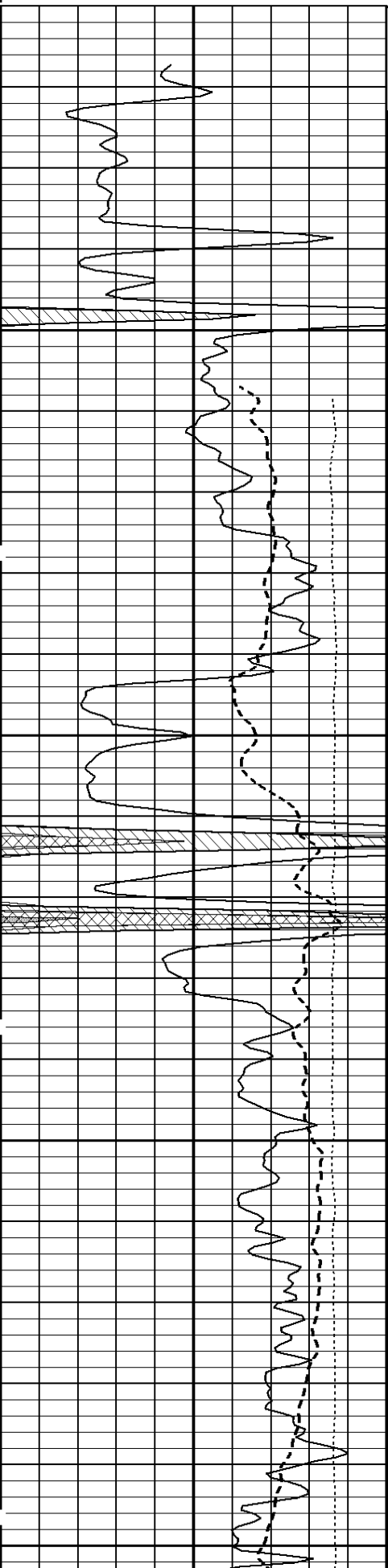


1:600 SECTION  
2 INCH



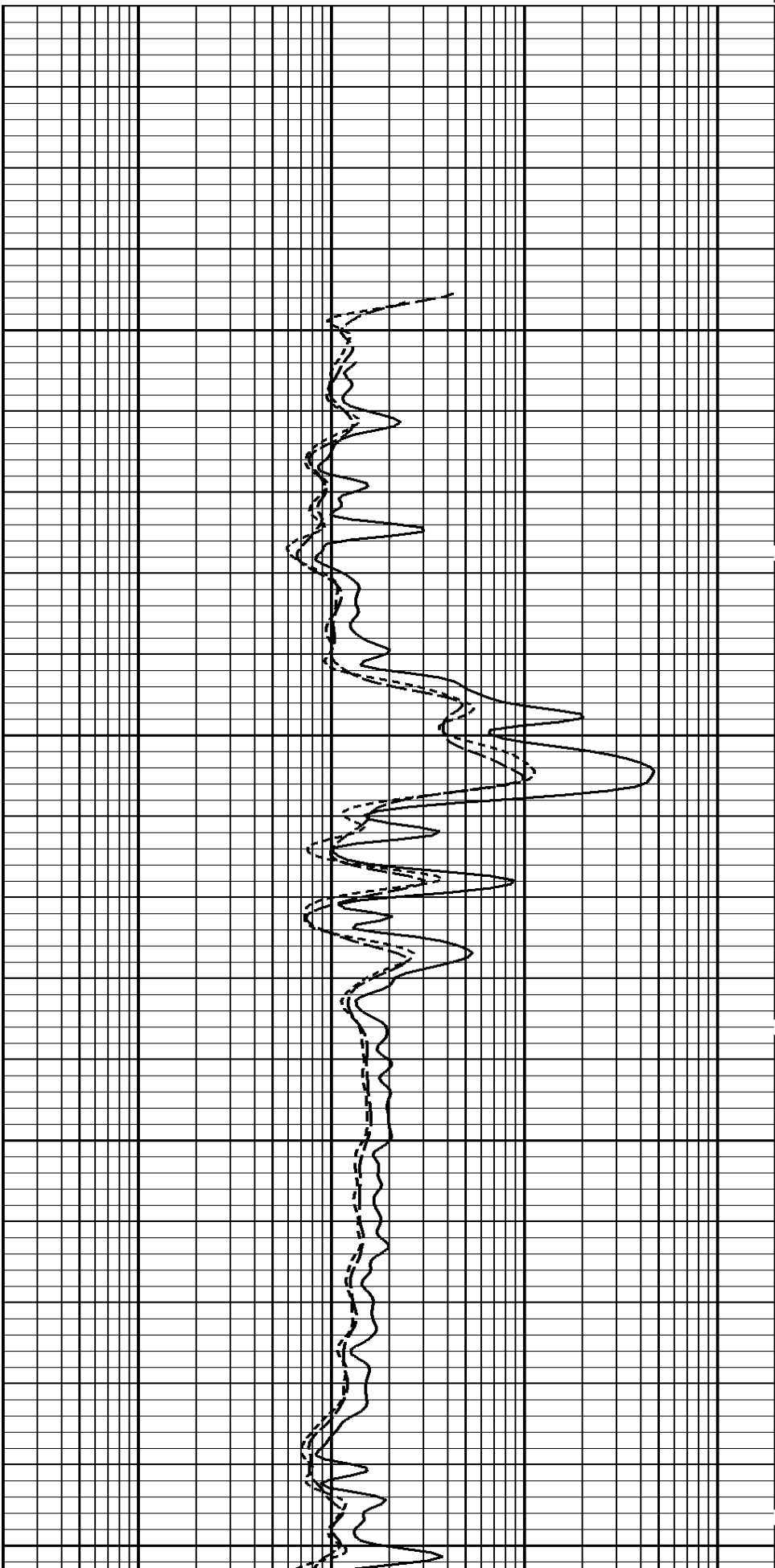
1:240 MAIN SECTION

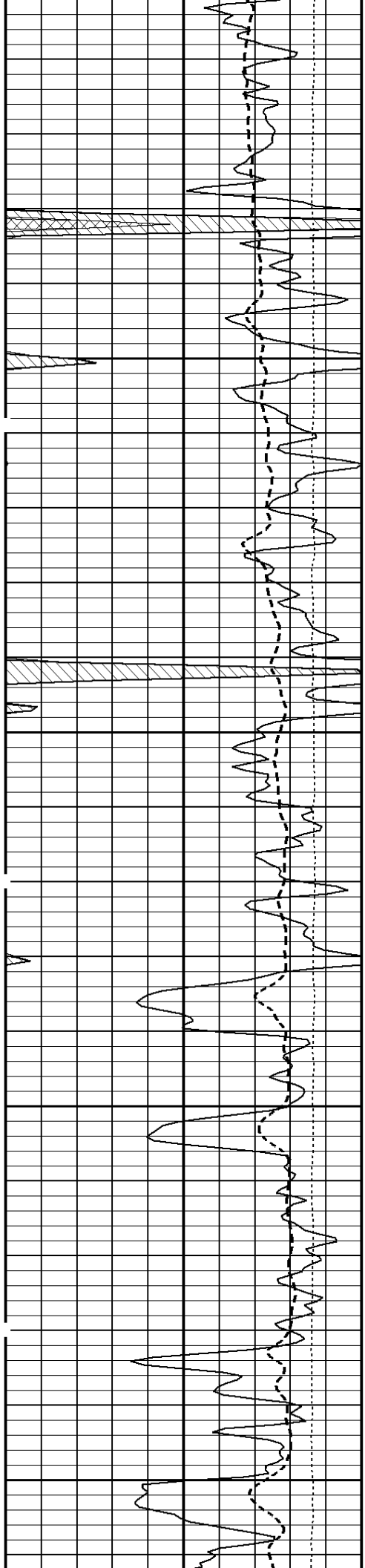
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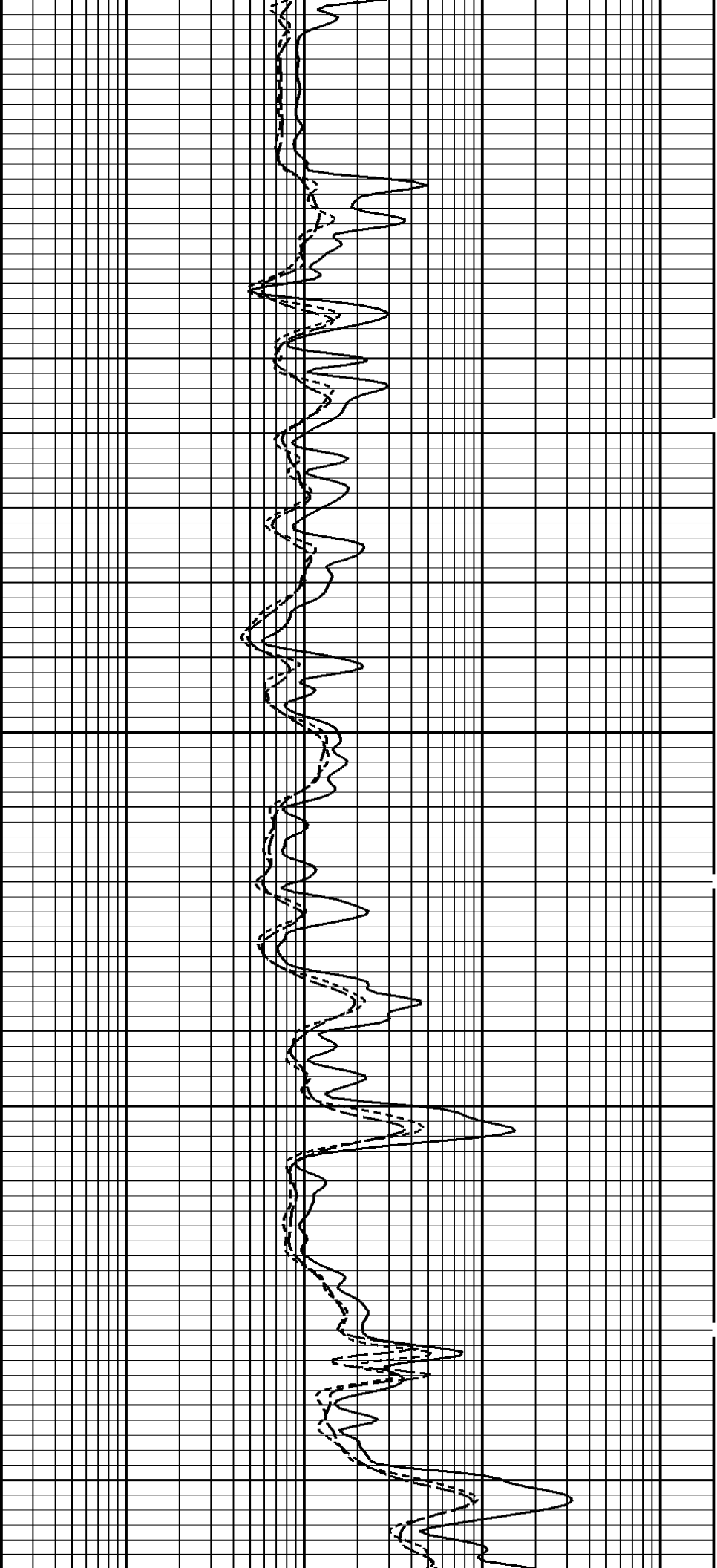
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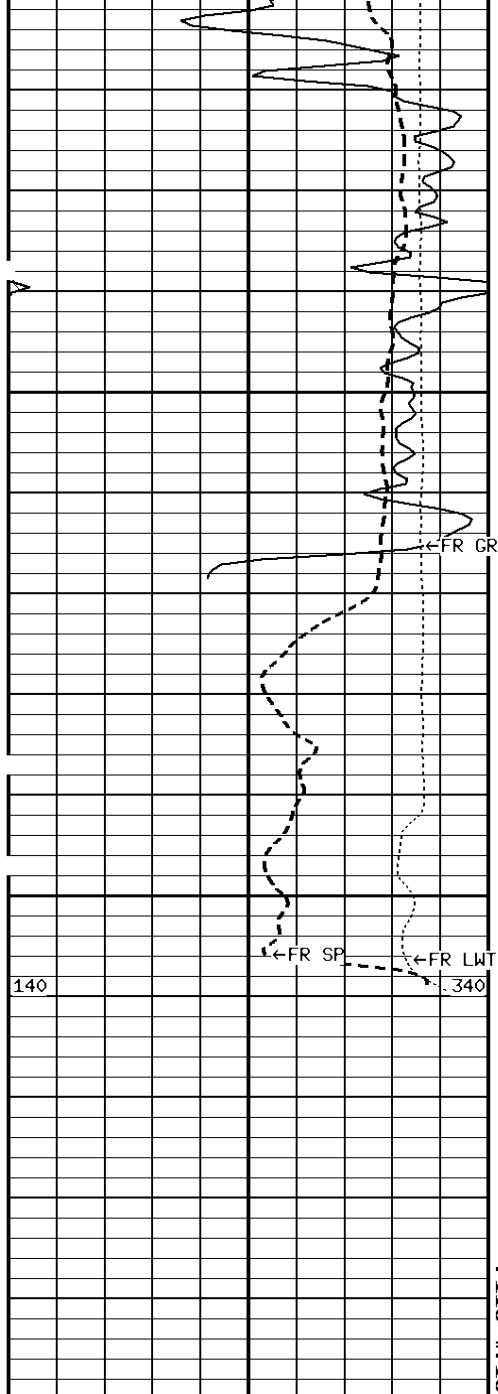




300

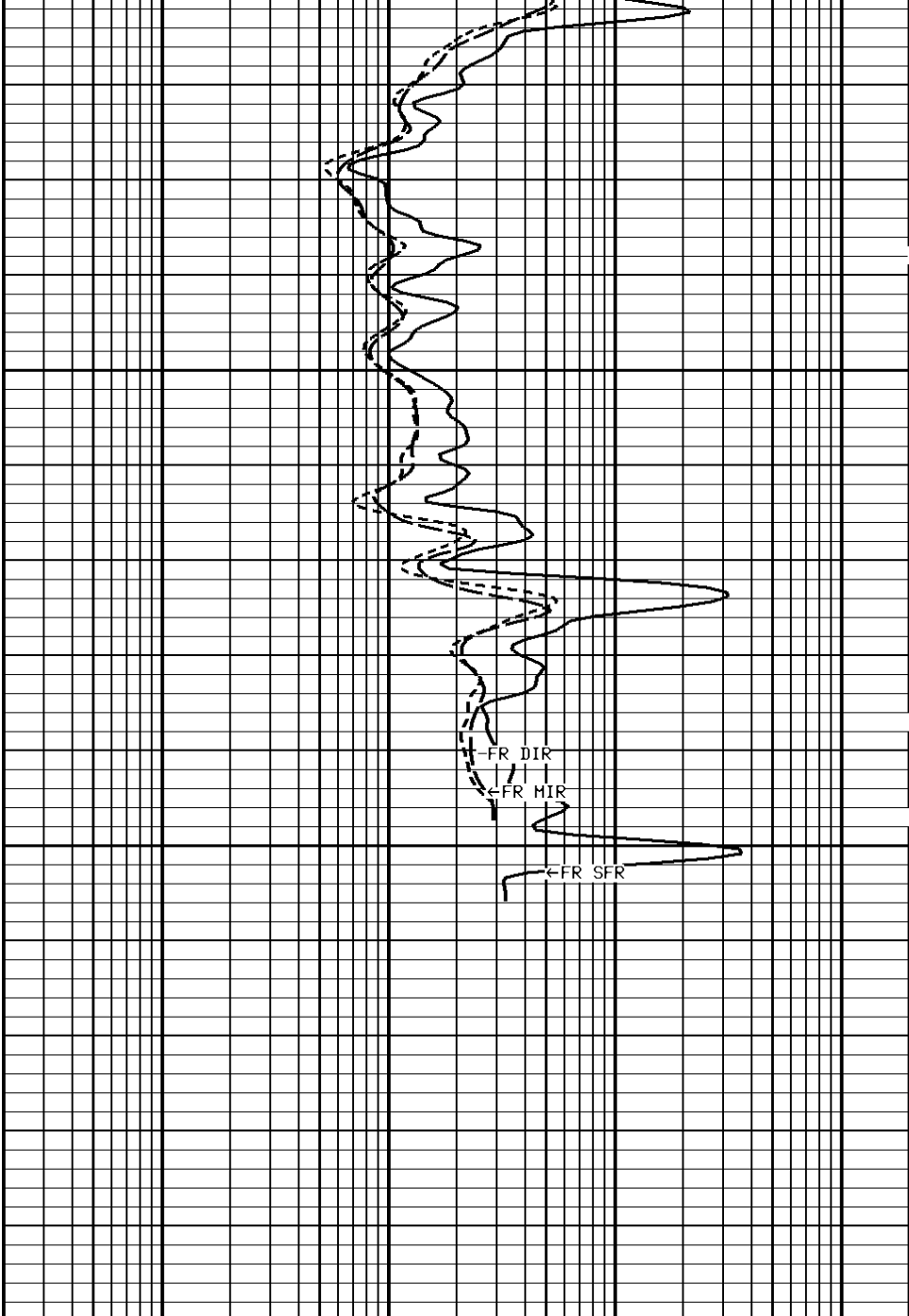
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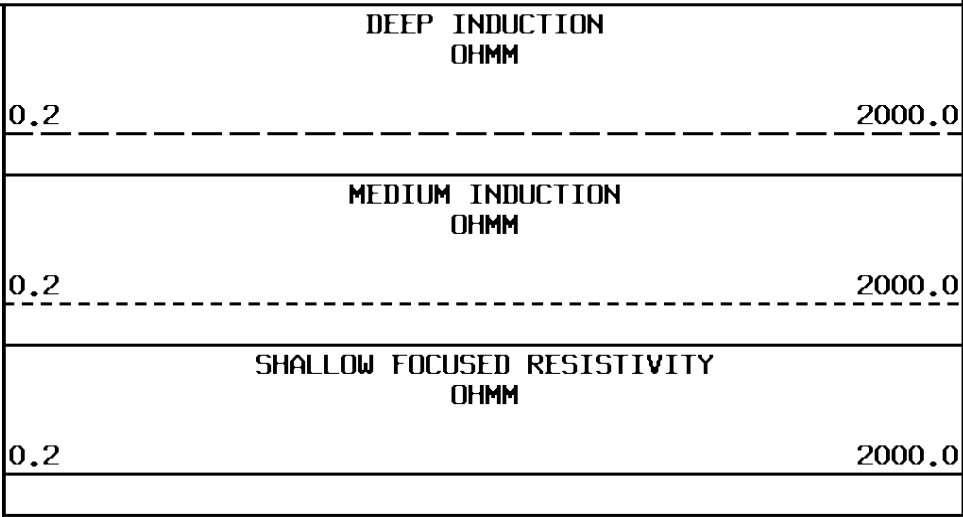
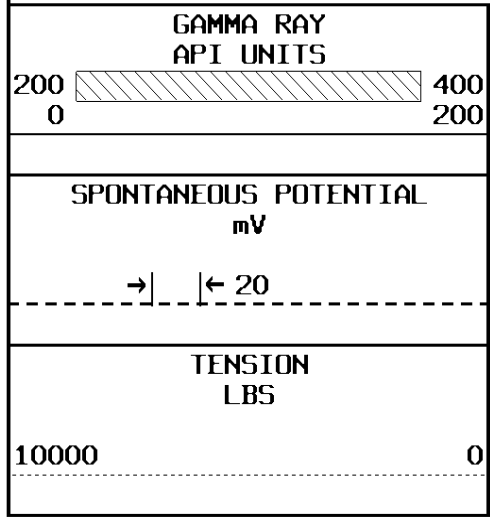


File #715

500  
507

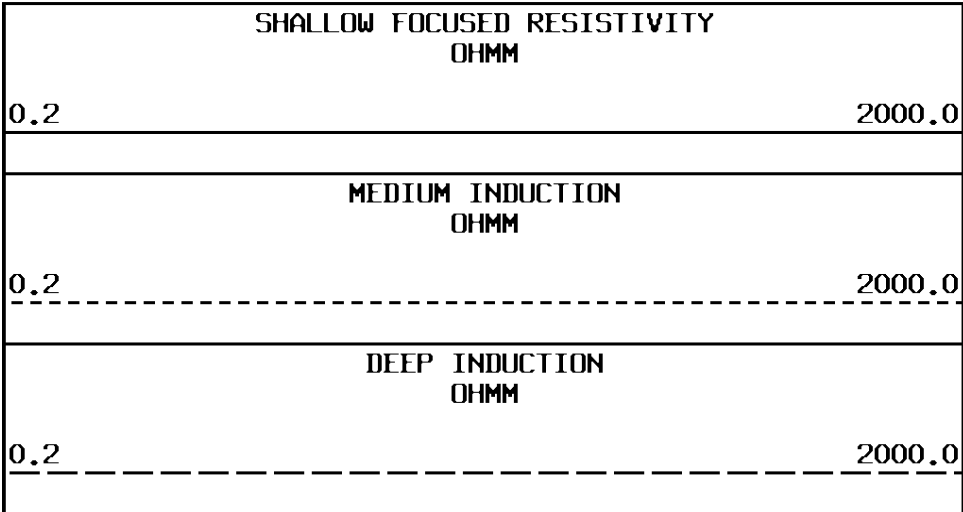
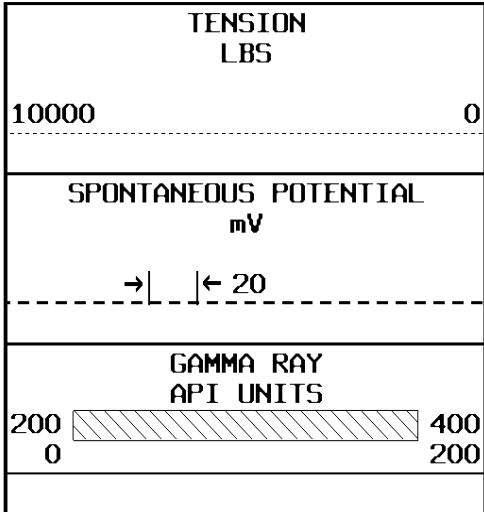


1:240 MAIN SECTION

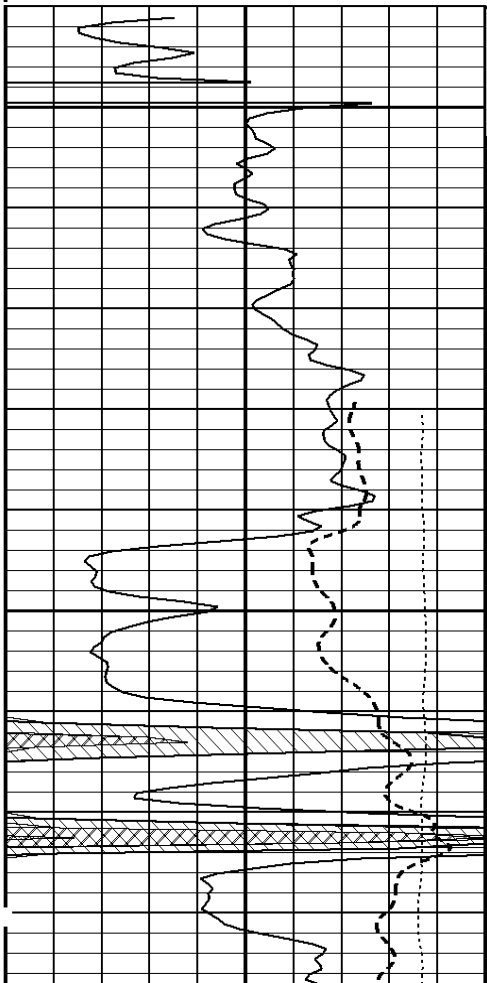


\* Borehole Zone Factors \*

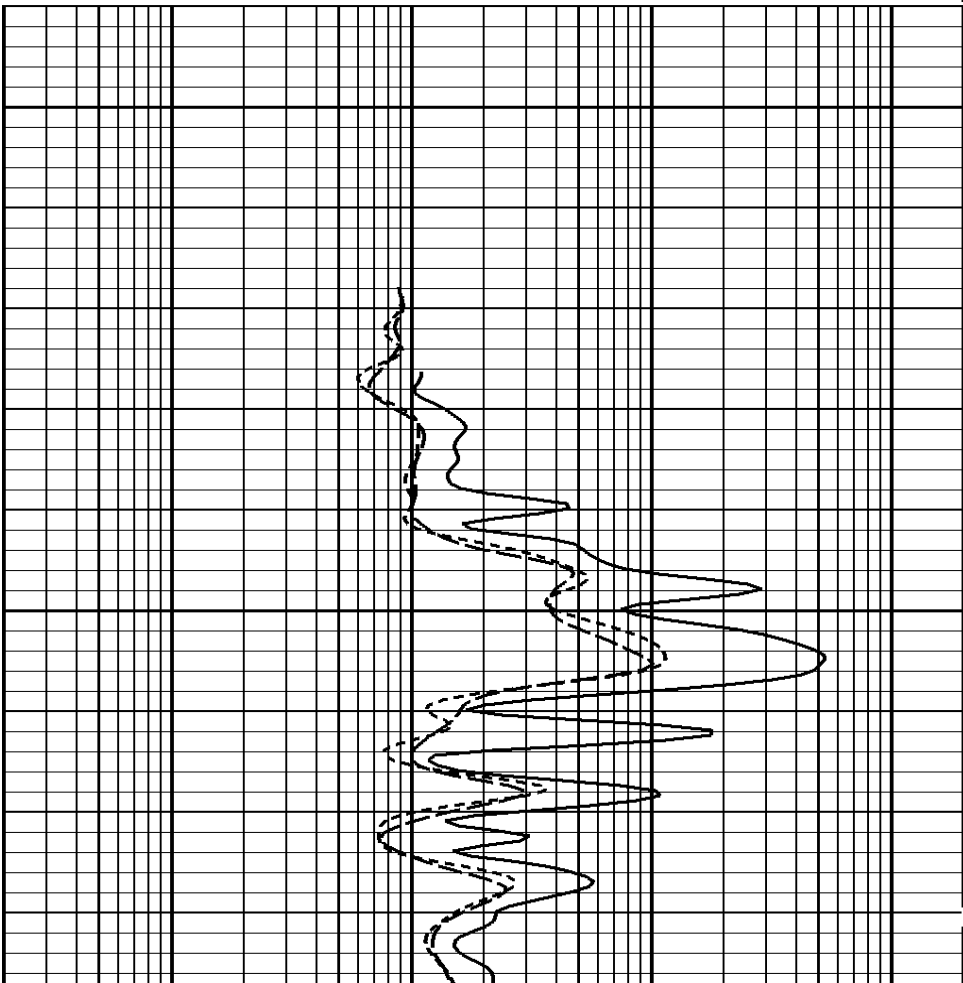
Zone 1 99999.0 to 0.0 F		
Drill Bit Size_____	5.625	IN
BHT Depth_____	525.000	F
Borehole Temperature_____	76.0	DEGF
Temperature Gradient_____	1.00	DFHF
Resistivity Of Mud_____	10.00	OHMM
Standoff_____	1.5	
Resistivity Of Mud Temperature_____	55.00	DEGF

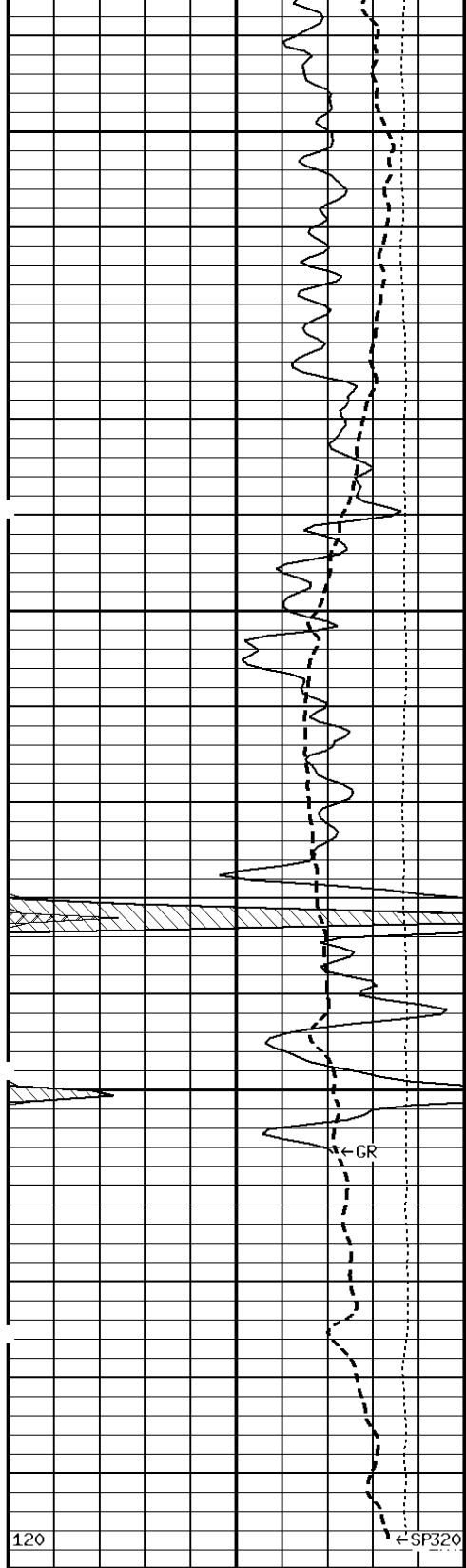


1:240 REPEAT SECTION



100

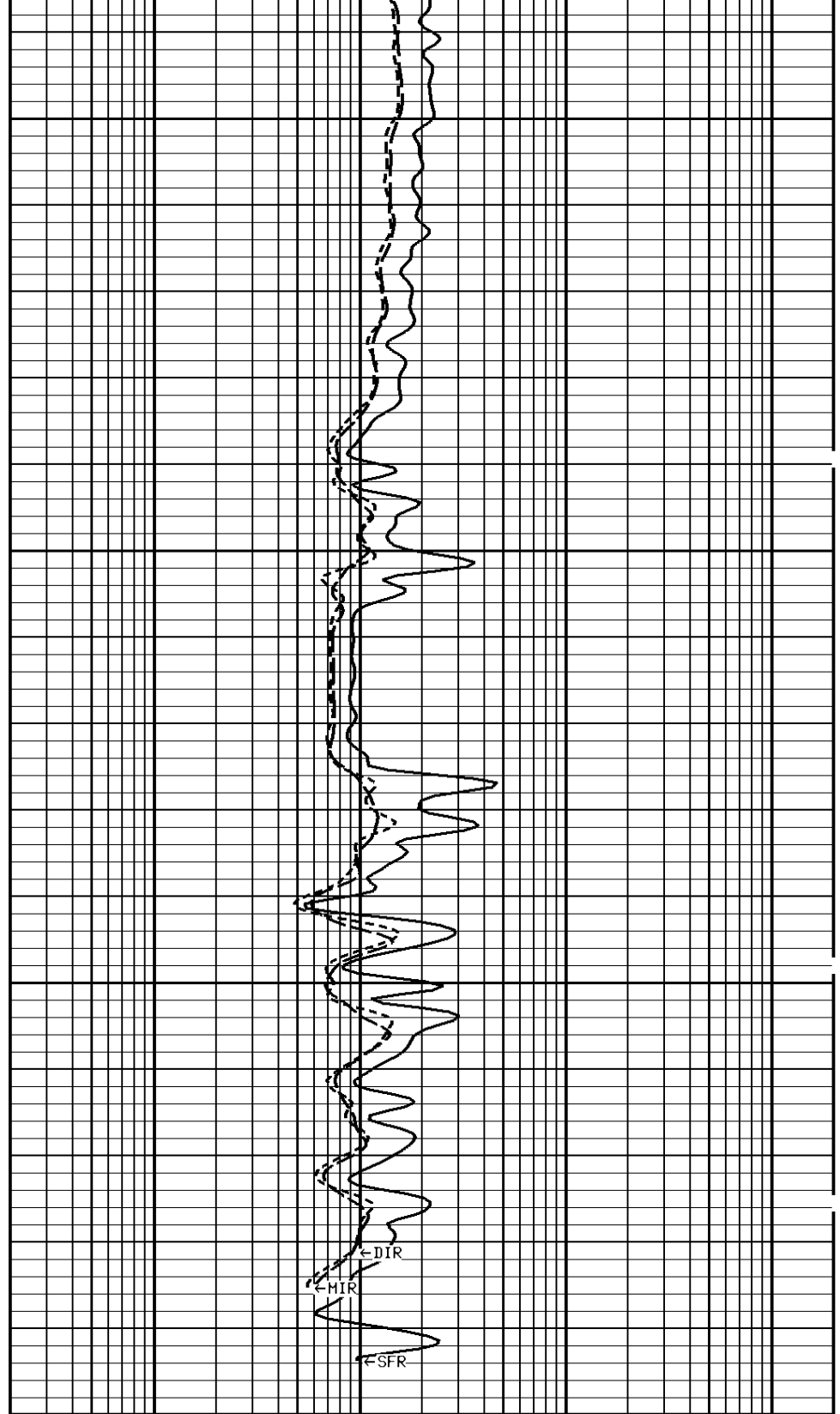




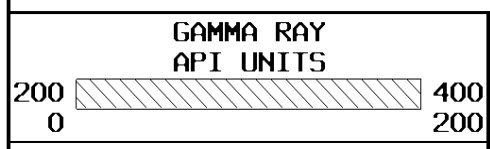
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200

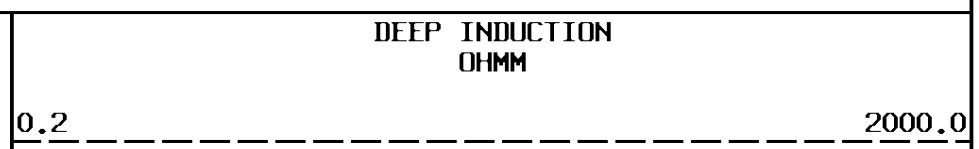
298



1:240 REPEAT SECTION



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_____	5.625	IN
BHT Depth_____	525.000	F
Borehole Temperature_____	76.0	DEGF
Temperature Gradient_____	1.00	DFHF
Resistivity Of Mud_____	10.00	OHMM
Standoff_____	1.5	
Resistivity Of Mud Temperature_____	55.00	DEGF

\* Calibration Summary \*

<b>Shop Calibration</b>					
<b>GRTB</b>					
Performed : 21-Aug-2009			Time : 15:26		
Sensor Suite : GR-GR5			ID : GRT-BA-14		
	Measured	Units	Calibrated	Units	
GR	Background	Jig	Jig	GRAPI	
	49	347	175		
<b>Shop Calibration</b>					
<b>PIT_B</b>					
Performed : 26-Oct-2010			Time : 15:00		
Sensor Suite : P-IND-T			ID : PIT-CA-074		
Medium					
	Measured		Calibrated		Units
	R	X	R	X	
Air	129085	131631	1.8	-0.9	MMHOS
Zero	131073	131069	0.0	0.0	MMHOS
Reference	250510	250460	5000.0	5000.0	MMHOS
Loop	150493	177054	2800.2	1005.1	MMHOS
Sonde Error			-0.2	-17.5	MMHOS
Cond			5000.0	5000.0	MMHOS
Deep					
	Measured		Calibrated		Units
	R	X	R	X	
Air	129182	131225	0.2	-0.5	MMHOS
Zero	131070	131069	0.0	0.0	MMHOS
Reference	234261	234640	2000.0	2000.0	MMHOS
Loop	150874	177126	1307.0	465.5	MMHOS
Sonde Error			-5.0	-6.0	MMHOS
Cond			2000.0	2000.0	MMHOS
Temperature					
	Measured		Calibrated		Units
	Low	High	Low	High	
	16980.0	56920.0	70.0	350.0	DEGF
Performed : 26-Oct-2010			Time : 14:24		
Sensor Suite : SFL			ID : PIT-CA-074		
Internal					
	Measured		Calibrated		Units

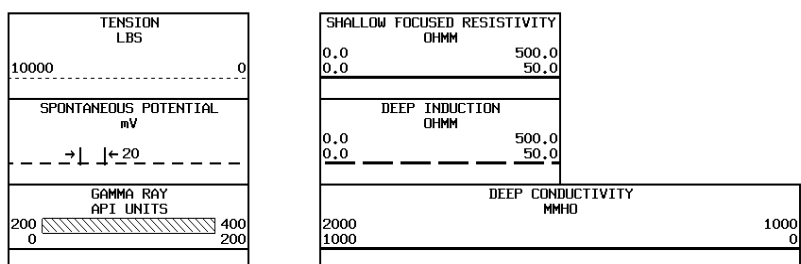
	Zero	Reference	Zero	Reference	Units
Im	32797.7	48515.7	0.0	7028.0	uA
Ib	32772.2	49422.5	0.0	1750.0	mA
MOM1	32741.3	56808.0	0.0	175.0	mV
Equivalent SFL				43.97	OHMM

Performed : 26-Oct-2010      Time : 13:58  
 Sensor Suite : P-SP            ID : PIT-CA-074

		Internal			
	Measured	Reference	Calibrated	Reference	Units
Zero	32766.9	58975.1	0.0	1000.0	mV

Performed : 10-SEP-2010      Time : 12:00  
 Sensor Suite : P-RMUD        ID : PIT-CA-074

		Internal			
	Measured	Reference	Calibrated	Reference	Units
Rmi	0.0	34825.0	0.0	290.6	mA
Rmv	0.0	34825.0	0.0	290.6	mV
Equivalent Rm				0.0871	OHMM



1:1200 SECTION

