

HALLIBURTON

ARRAY COMPENSATED TRUE RESISTIVITY LOG

COMPANY		OXY USA INC	
WELL		SMU #318	
FIELD		SMU	
COUNTY		FINNEY	
STATE		KANSAS	
Permanent Datum		GL	
Log measured from		KB	
Drilling measured from		KB	
Date		17-Jul-12	
Run No.		ONE	
Depth - Driller		4891.00 ft	
Depth - Logger		4883.0 ft	
Bottom - Logged Interval		4873.0 ft	
Top - Logged Interval		3700.0 ft	
Casing - Driller		8.625 in @ 1823.0 ft	
Casing - Logger		1818.0 ft	
Bit Size		7.875 in @	
Type Fluid in Hole		WATER BASED MUD	
Density		9.6 ppq 50.00 s/qt	
PH		9.60 pH 8.0 cp/m	
Source of Sample		FLOWLINE	
Rm @ Meas. Temperature		0.390 ohmm @ 75.00 degF @	
Rmf @ Meas. Temperature		0.33 ohmm @ 75.00 degF @	
Rmc @ Meas. Temperature		0.460 ohmm @ 75.00 degF @	
Source Rmf		MEASURED MEASURED	
Rm @ BHT		0.24 ohmm @ 125.0 degF @	
Time Since Circulation		6.0 hr	
Time on Bottom		17-Jul-12 19:05	
Max. Rec. Temperature		125.0 degF @ 4883.0 ft @	
Equipment		10782954 LIBERAL	
Recorded By		T. HYDE	
Witnessed By		J. KNEESE	

COMPANY	OXY USA INC
WELL	SMU #318
FIELD	SMU
COUNTY	FINNEY
STATE	KANSAS
API No.	15-055-22161
Location	1400' FNL 1083' FEL
Other Services:	MICRO DSN/SDL BSAI
Sect.	22
Twp.	23S
Rge.	34W
Elev.	2942.0 ft
D.F.	2951.0 ft
G.L.	2942.0 ft

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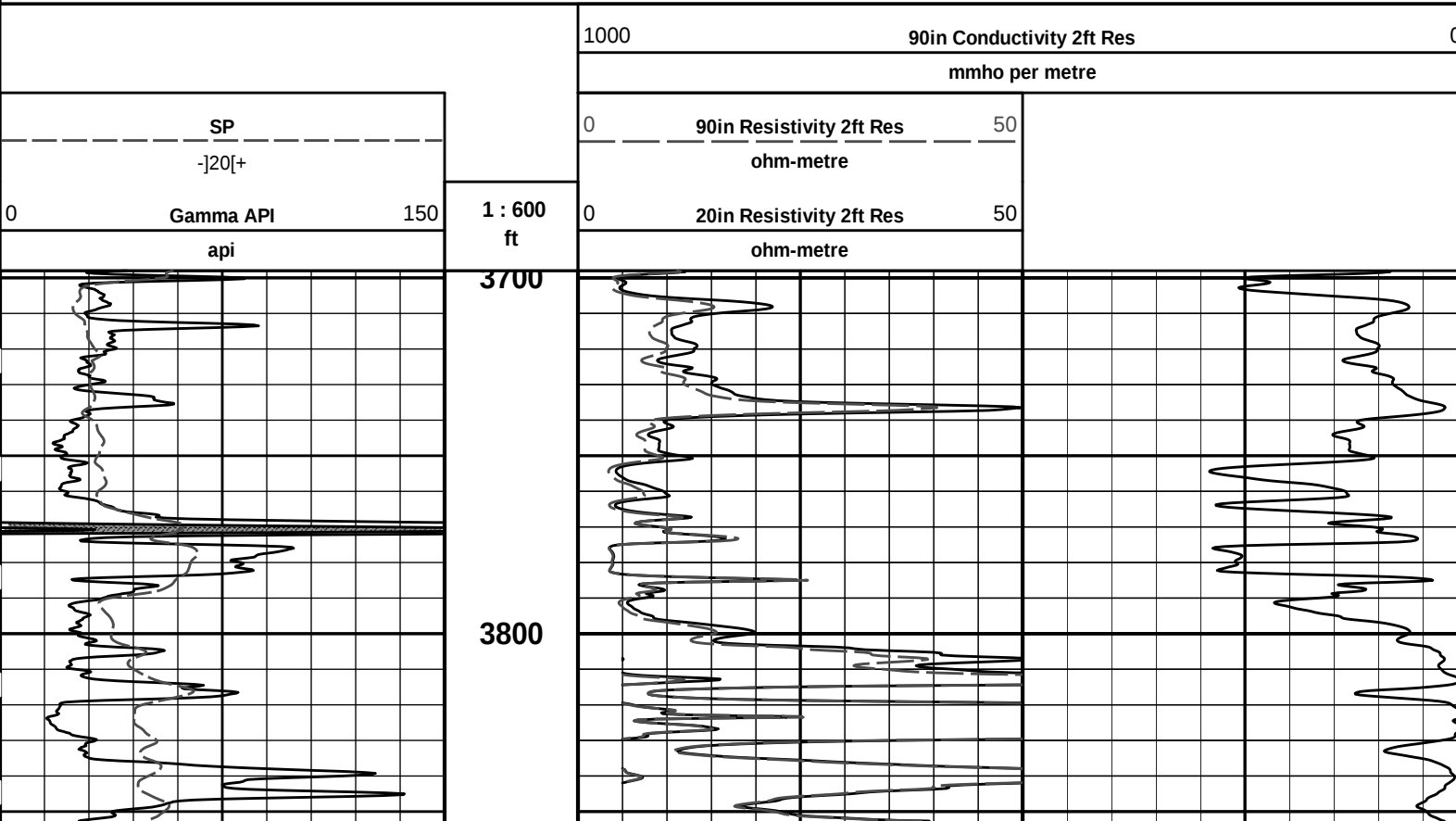
Service Ticket No.: 9670805		API Serial No.: 15-055-22161		PGM Version: WL INSITE R3.6.0 (Build 3)						
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE				RESISTIVITY SCALE CHANGES						
Date	Sample No.			Type Log	Depth	Scale Up Hole	Scale Down Hole			
Depth-Driller										
Type Fluid in Hole										
Density	Viscosity									
Ph	Fluid Loss									
Source of Sample				RESISTIVITY EQUIPMENT DATA						
Rm @ Meas. Temp	@	@		Run No.	Tool Type & No.	Pad Type	Tool Pos.	Other		
Rmf @ Meas. Temp.	@	@		ONE	ACRT	N/A	1.5" S.O.	N/A		
Rmc @ Meas. Temp.	@	@			I1256_S0784					
Source Rmf	Rmc									
Rm @ BHT	@	@								
Rmf @ BHT	@	@								
Rmc @ BHT	@	@								
EQUIPMENT DATA										
GAMMA			ACOUSTIC		DENSITY		NEUTRON			
Run No.	ONE	Run No.		Run No.		Run No.				
Serial No.	10811258	Serial No.		Serial No.		Serial No.				
Model No.	GTET	Model No.		Model No.		Model No.				
Diameter	3.625"	No. of Cent.		Diameter		Diameter				
Detector Model No.	T-102	Spacing		Log Type		Log Type				
Type	SCINT			Source Type		Source Type				
Length	8"	LSA [Y/N]		Serial No.		Serial No.				
Distance to Source	10'	FWDA [Y/N]		Strength		Strength				
LOGGING DATA										
GENERAL			GAMMA		ACOUSTIC		DENSITY		NEUTRON	

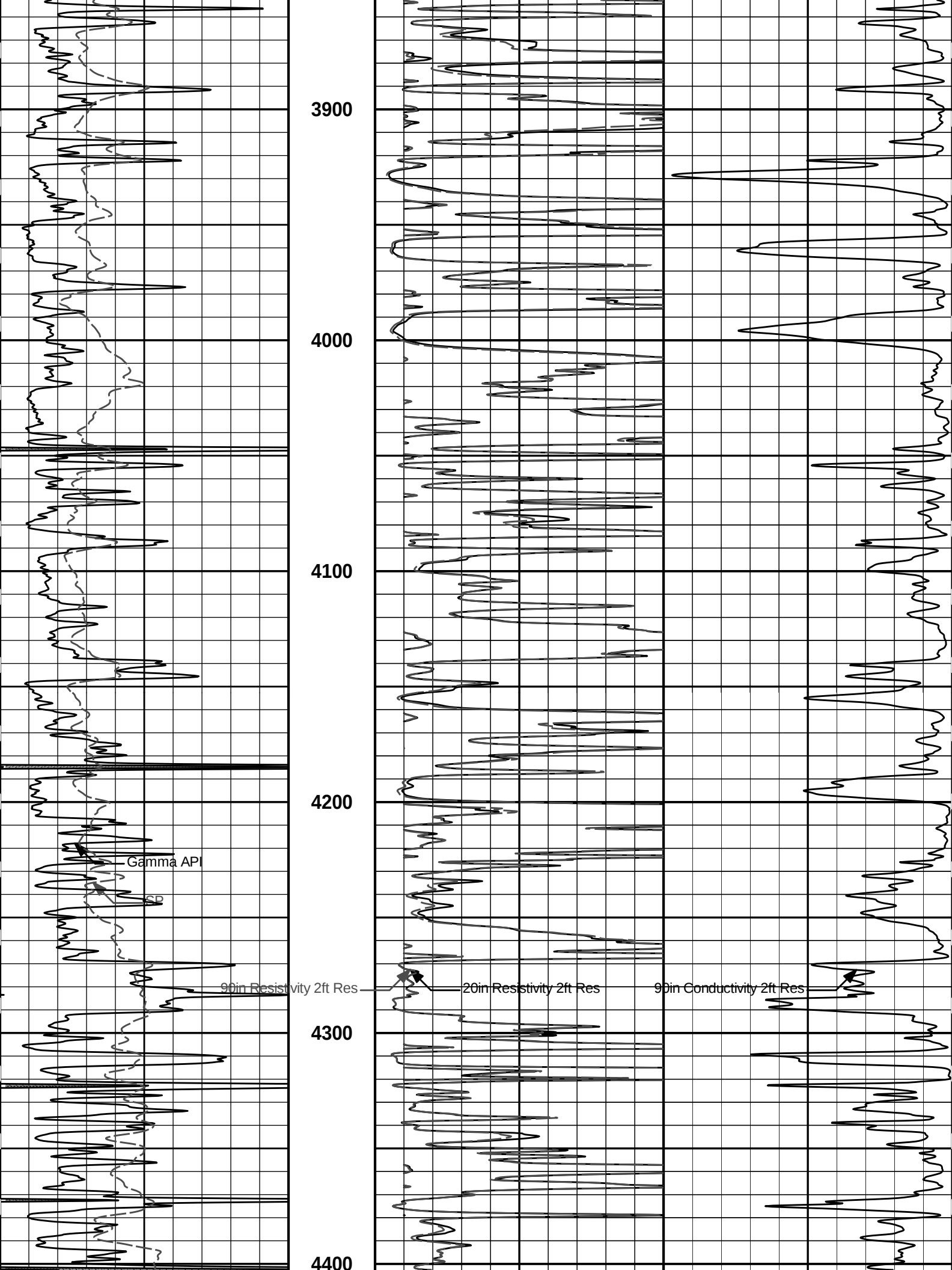
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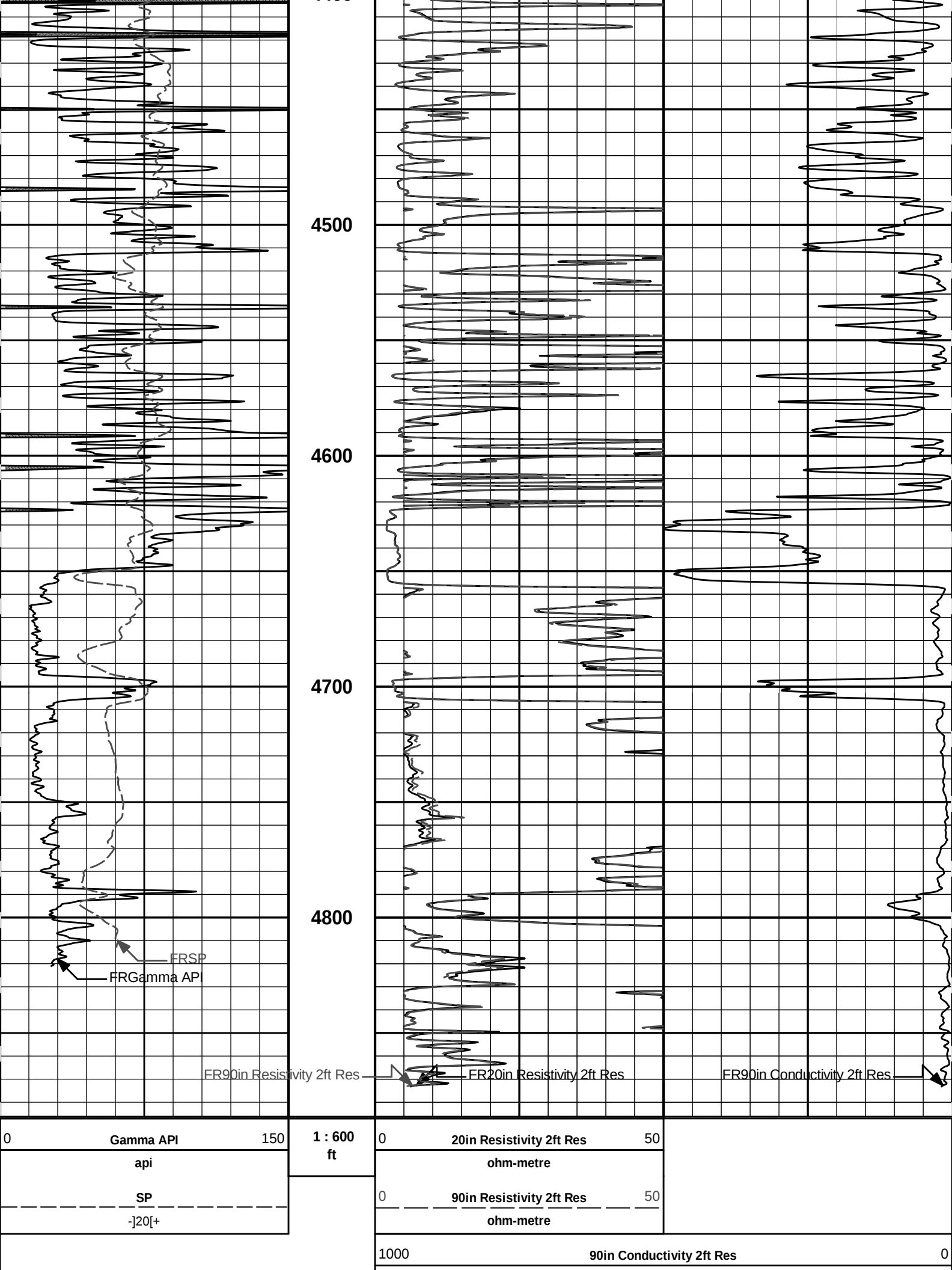
HALLIBURTON

Plot Time: 17-Jul-12 20:21:57
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Data: SMU_318\Well Based\DAQ-0001-007\
Plot File: \\LOCAL-ISMU_318\0001 SP-GTET-DSNT-SDLT-BSAT-ACRT-CH\ACRT\ACRT_2.lib

2 INCH MAIN LOG

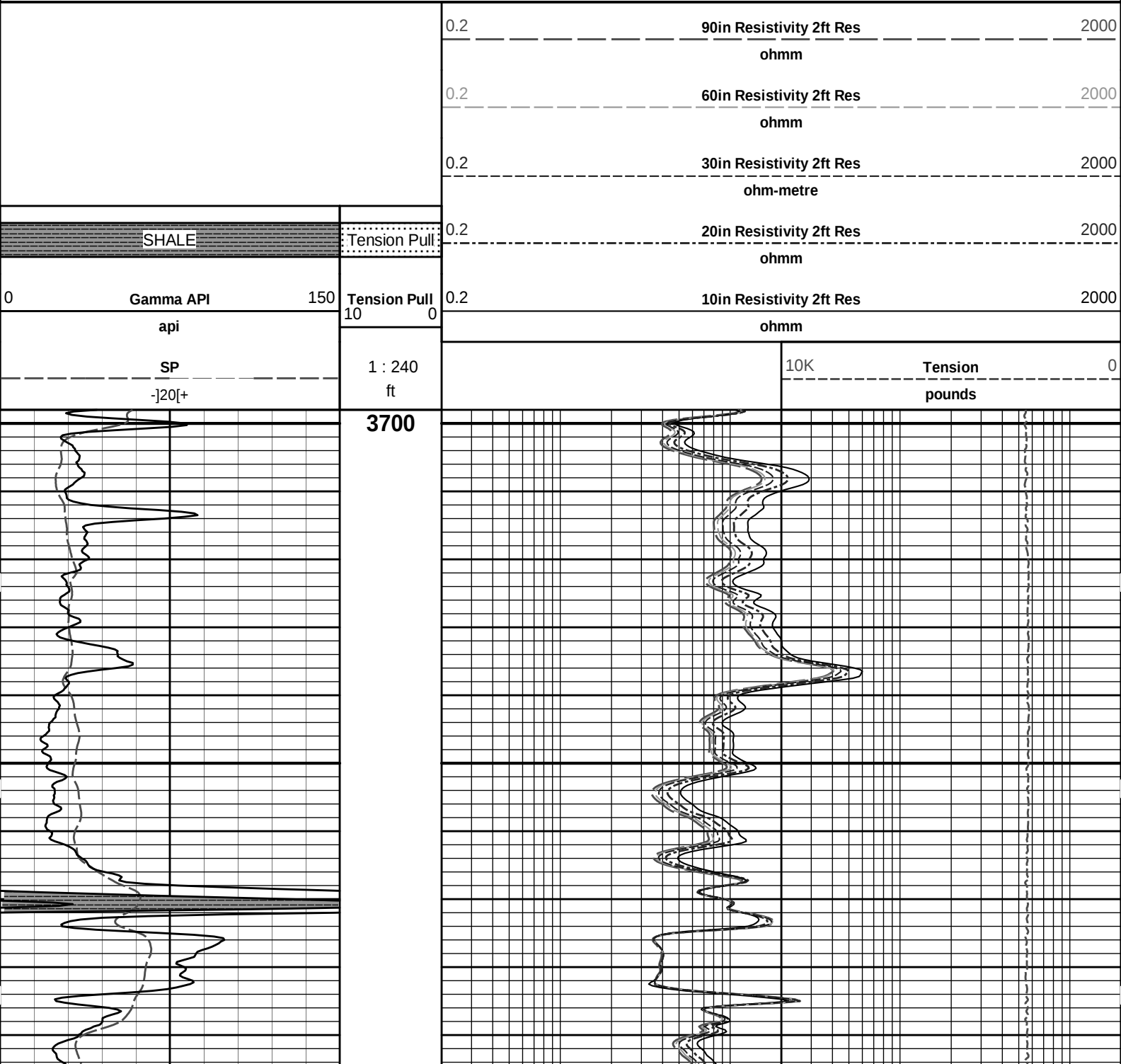


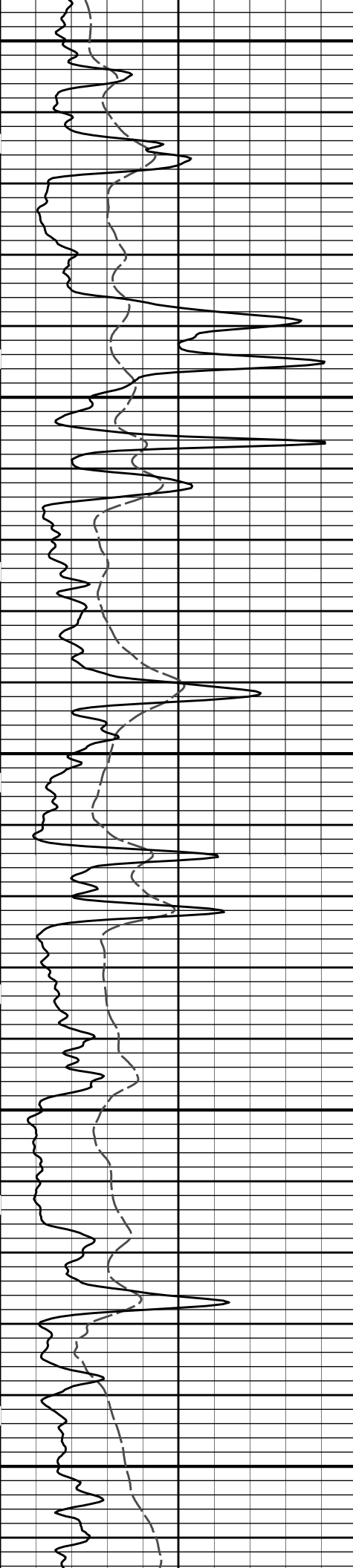




2 INCH MAIN LOG

5 INCH MAIN LOG

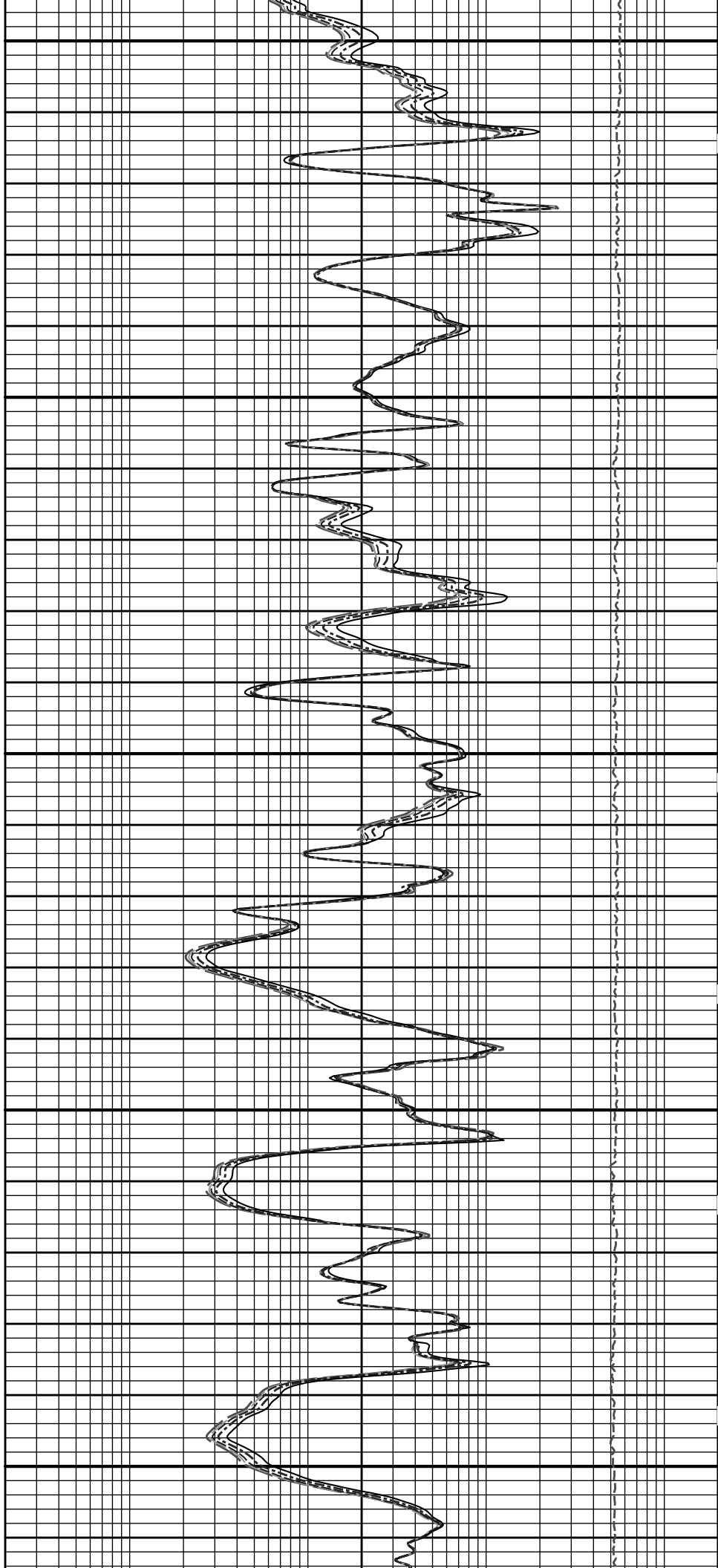


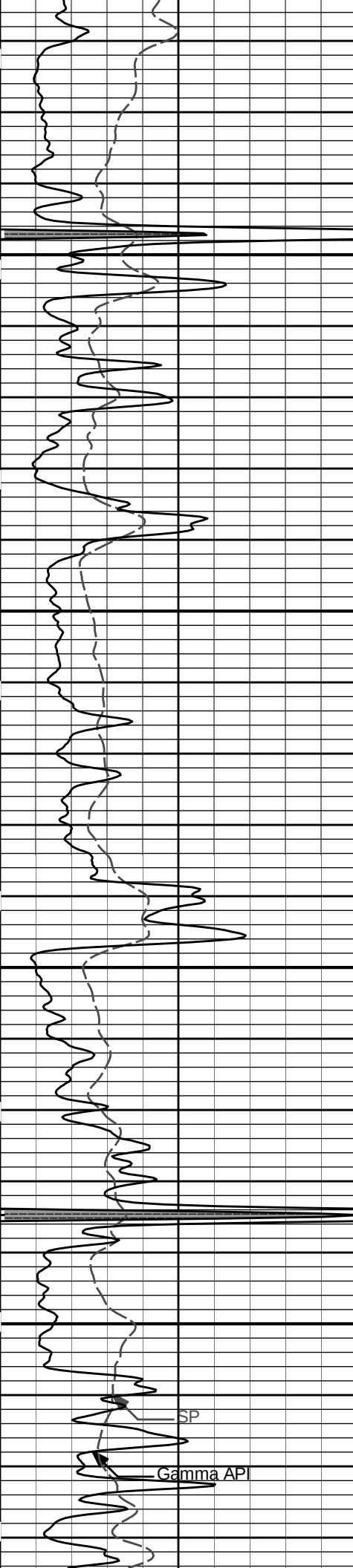


3800

3900

4000



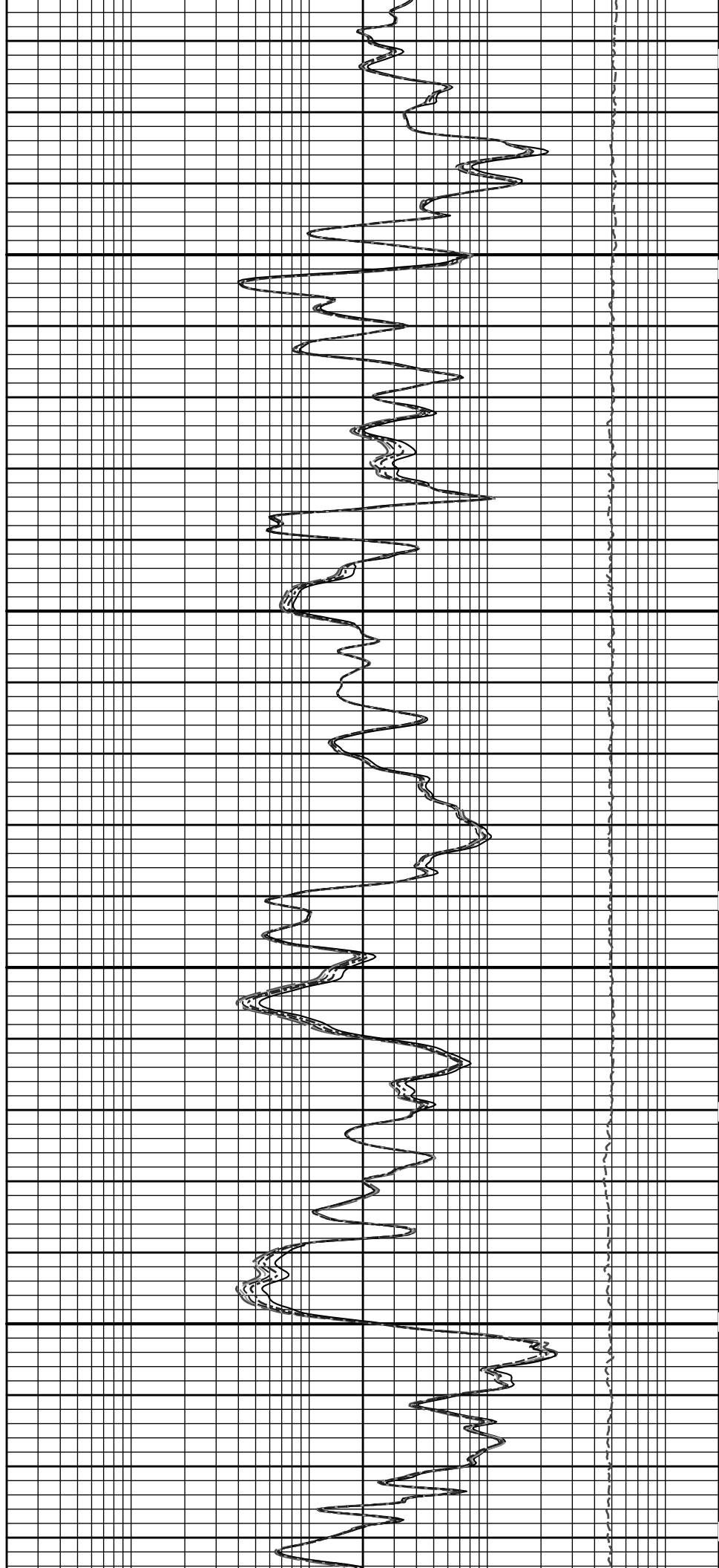


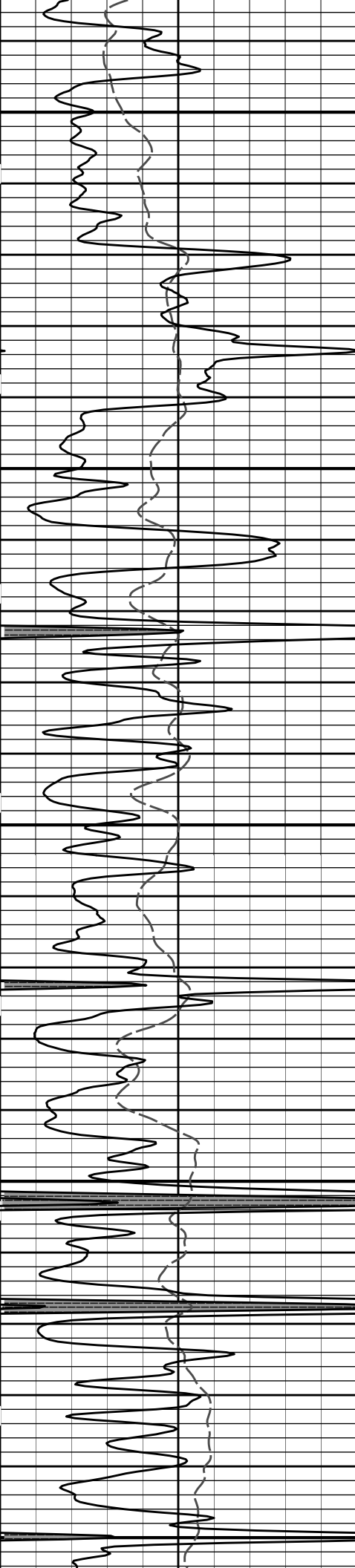
4100

4200

SP

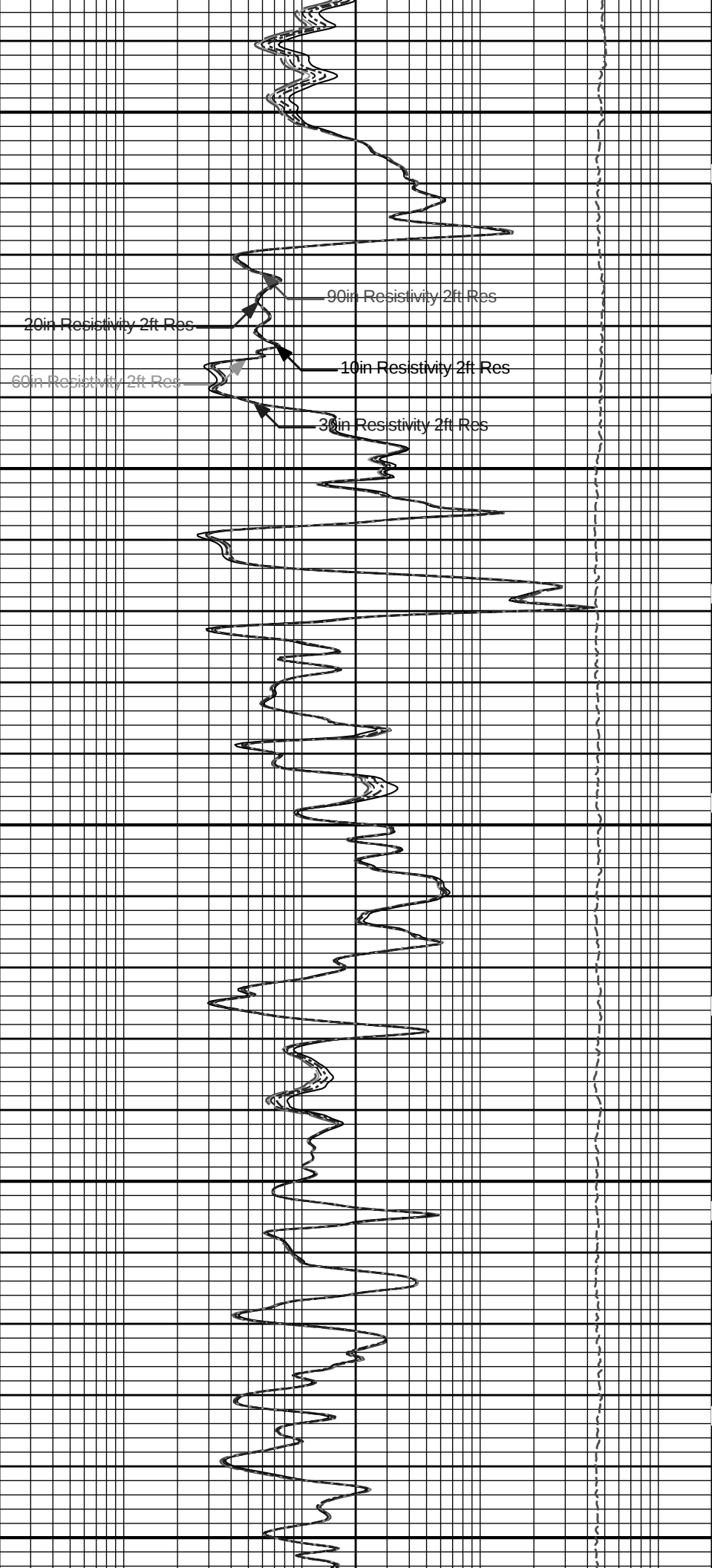
Gamma API





4300

4400



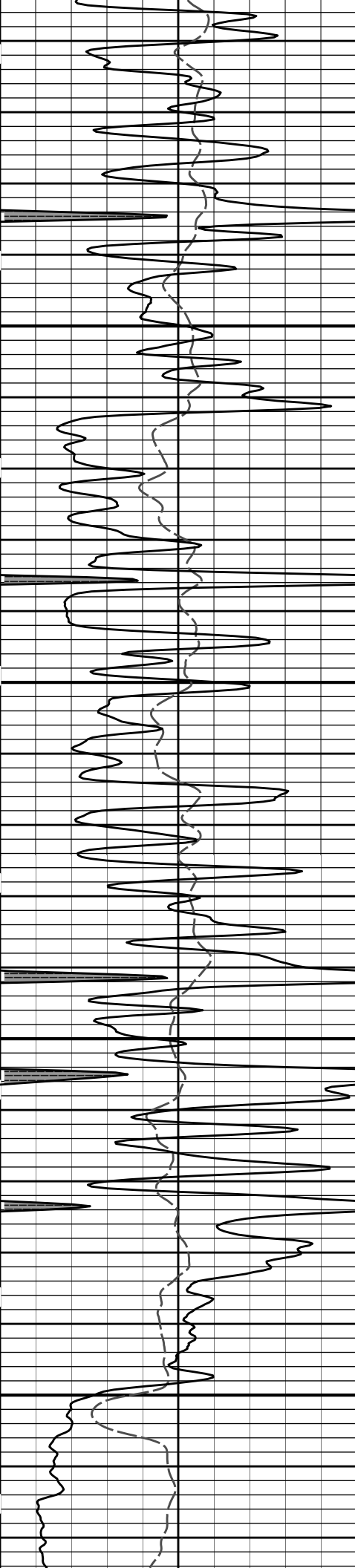
20in Resistivity 2ft Res

60in Resistivity 2ft Res

90in Resistivity 2ft Res

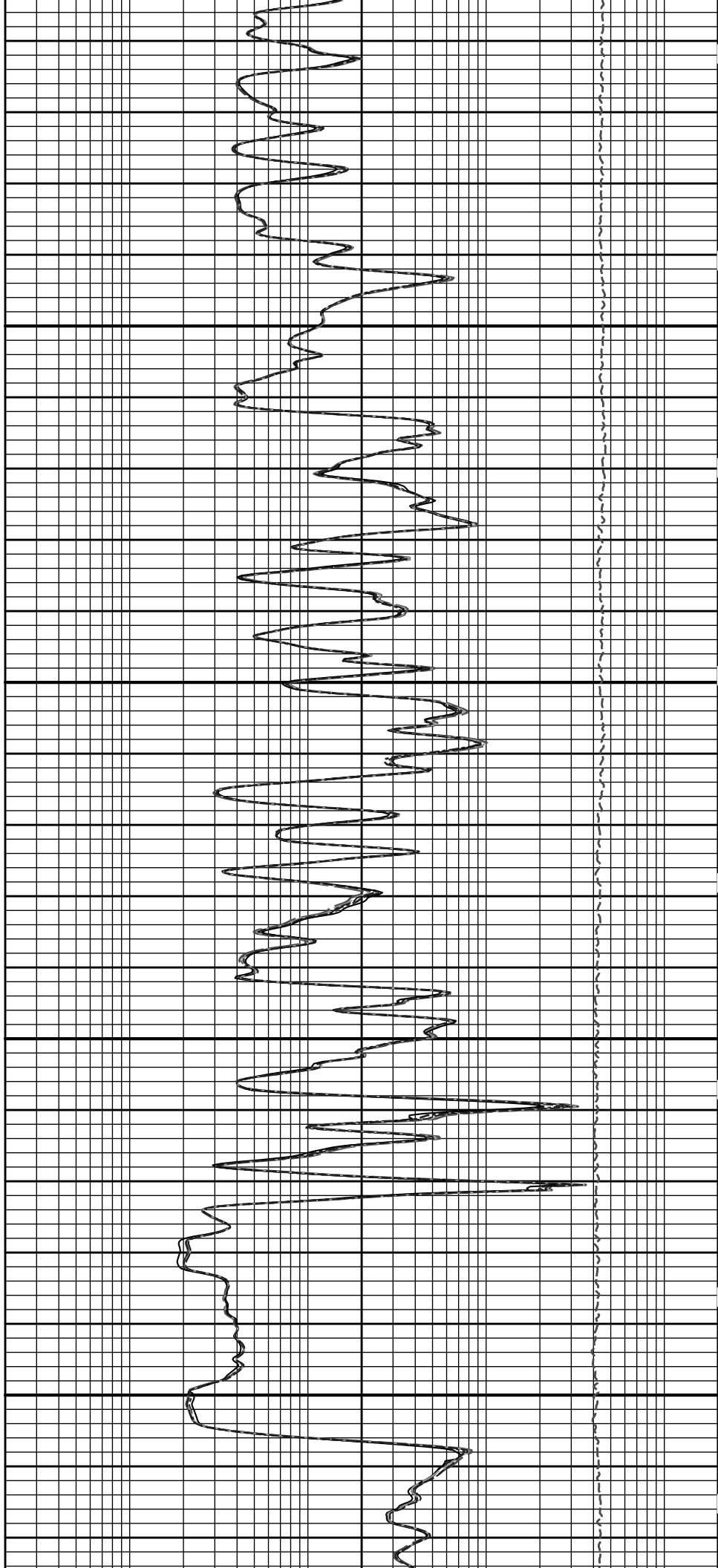
10in Resistivity 2ft Res

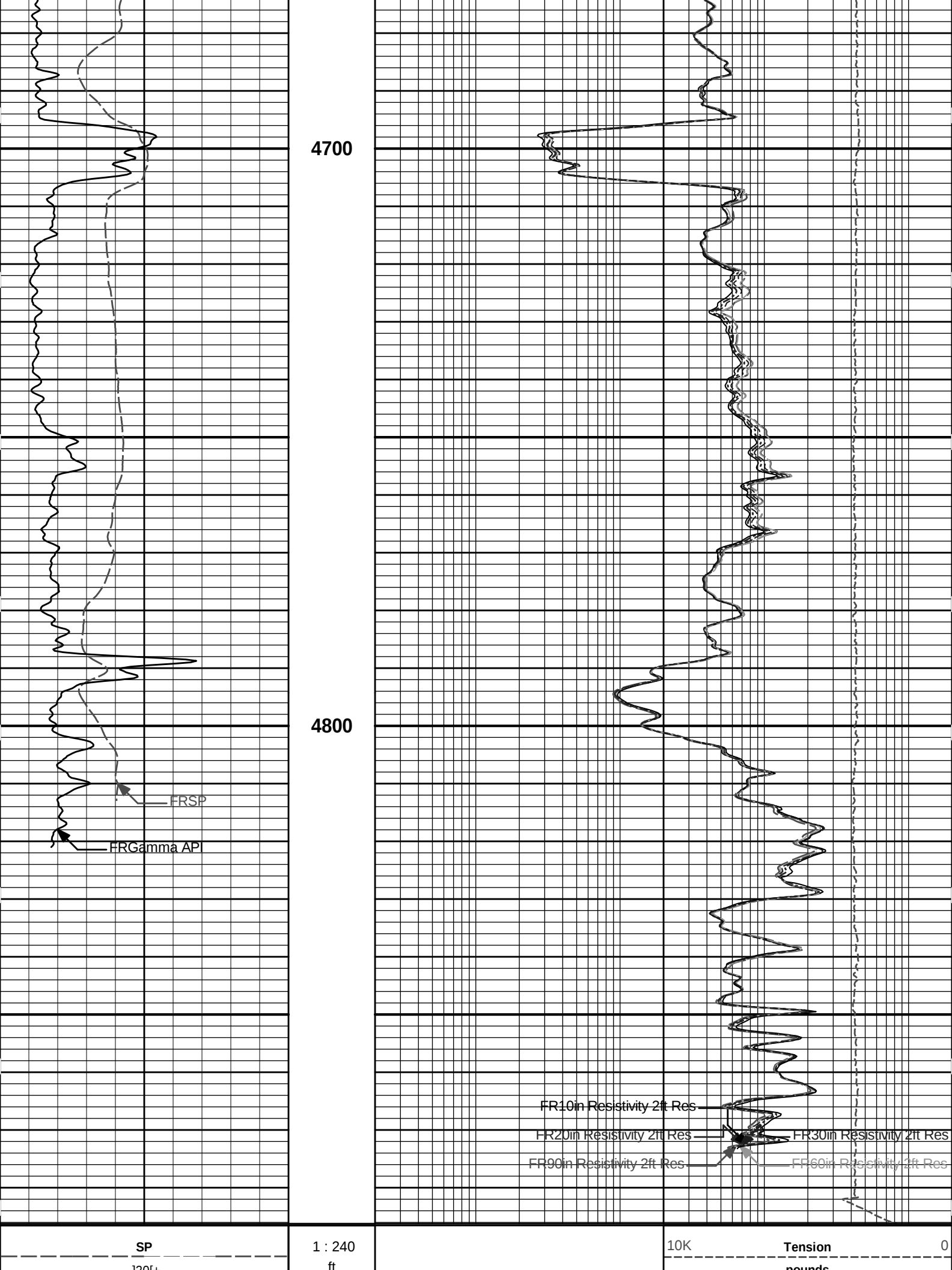
30in Resistivity 2ft Res



4500

4600





0	Gamma API	150	Tension Pull 10 0	0.2	10in Resistivity 2ft Res	2000
	api				ohmm	
	SHALE		Tension Pull	0.2	20in Resistivity 2ft Res	2000
					ohmm	
				0.2	30in Resistivity 2ft Res	2000
					ohm-metre	
				0.2	60in Resistivity 2ft Res	2000
					ohmm	
				0.2	90in Resistivity 2ft Res	2000
					ohmm	

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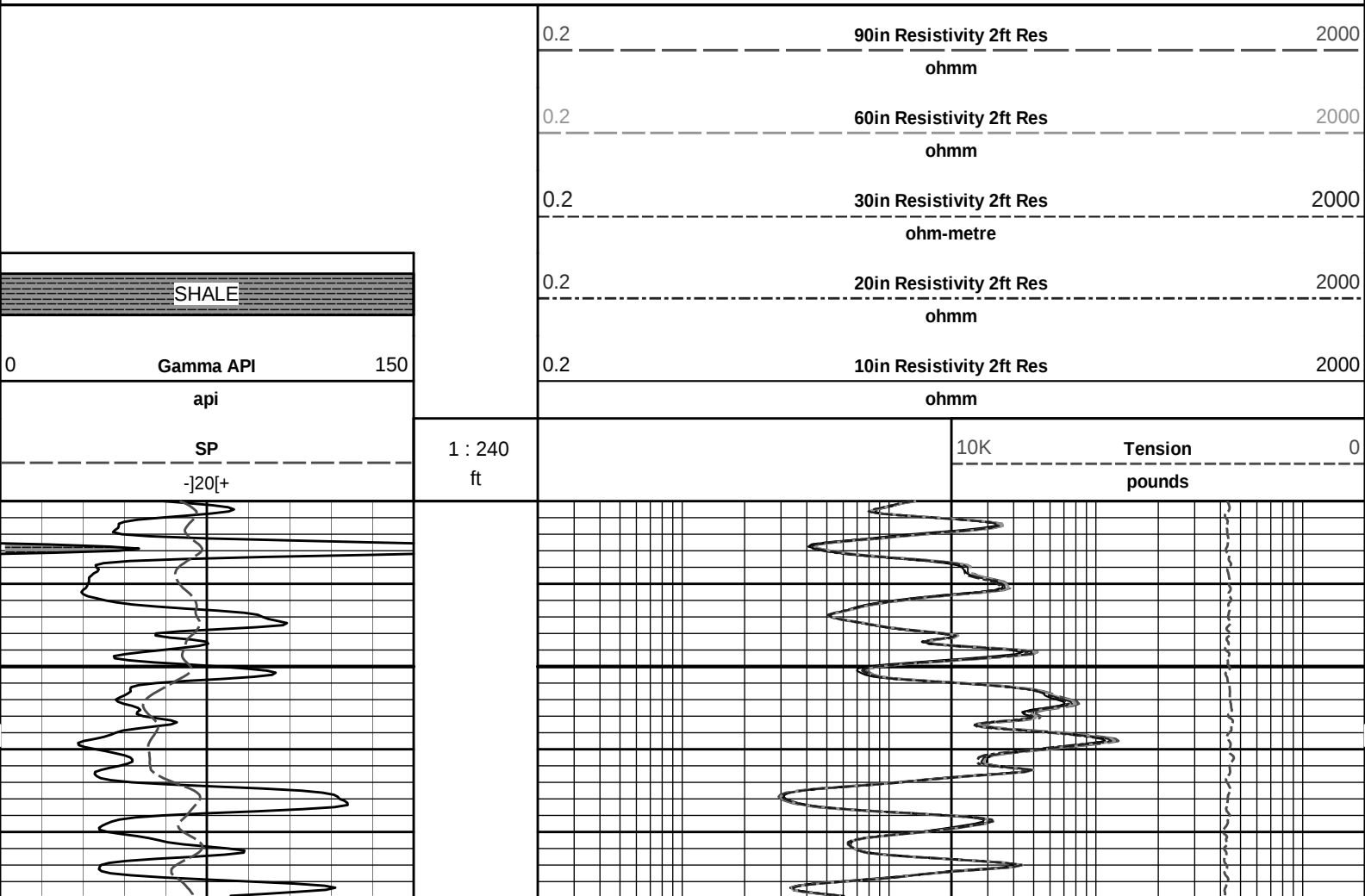
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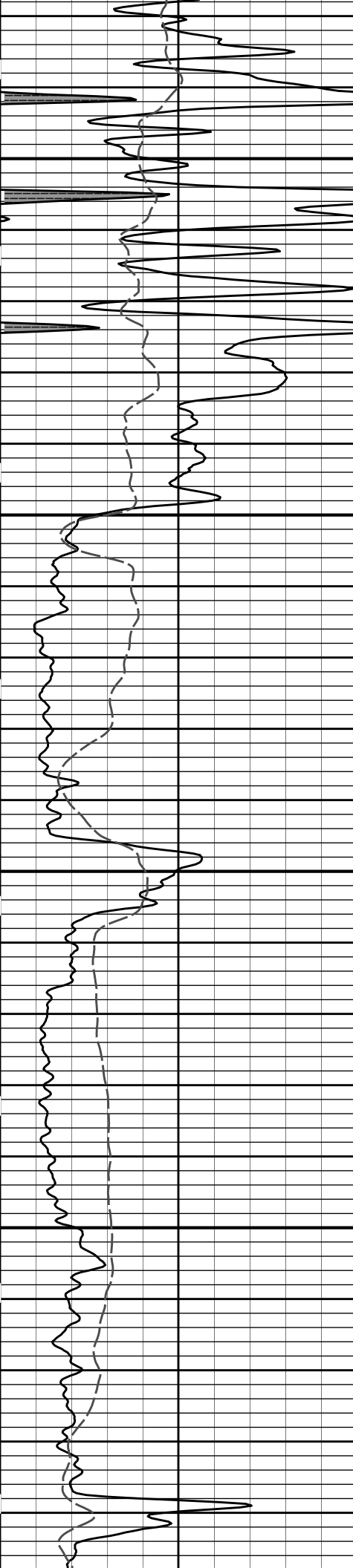
5 INCH MAIN LOG

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Plot Time: 17-Jul-12 20:22:04
Plot Range: 4530 ft to 4886.25 ft
Data: SMU_318\Well Based\DAQ-0001-006\
Plot File: \\-LOCAL-\\SMU_318\\0001 SP-GTET-DSNT-SDLT-BSAT-ACRT-CH\ACRT\ACRT_5_repeat_lib

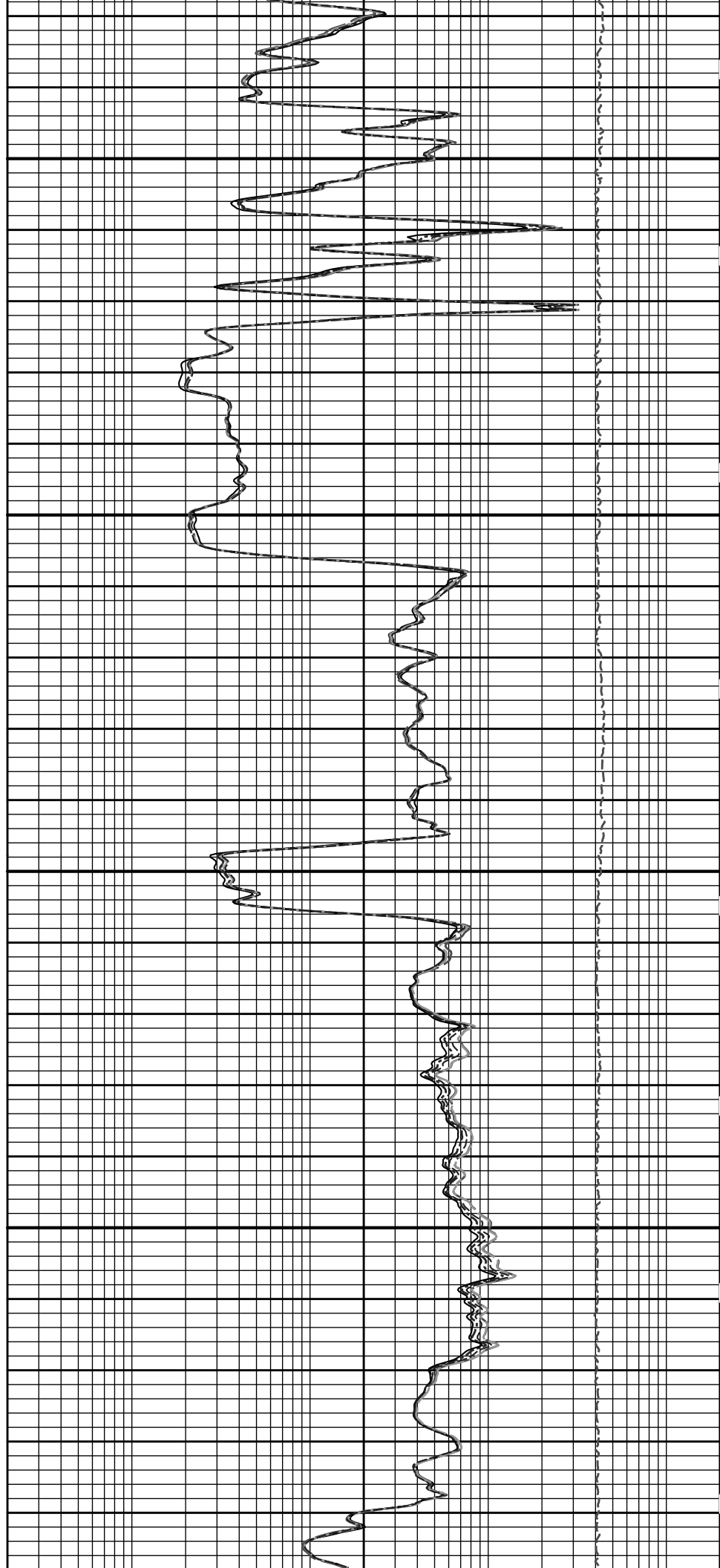
REPEAT SECTION

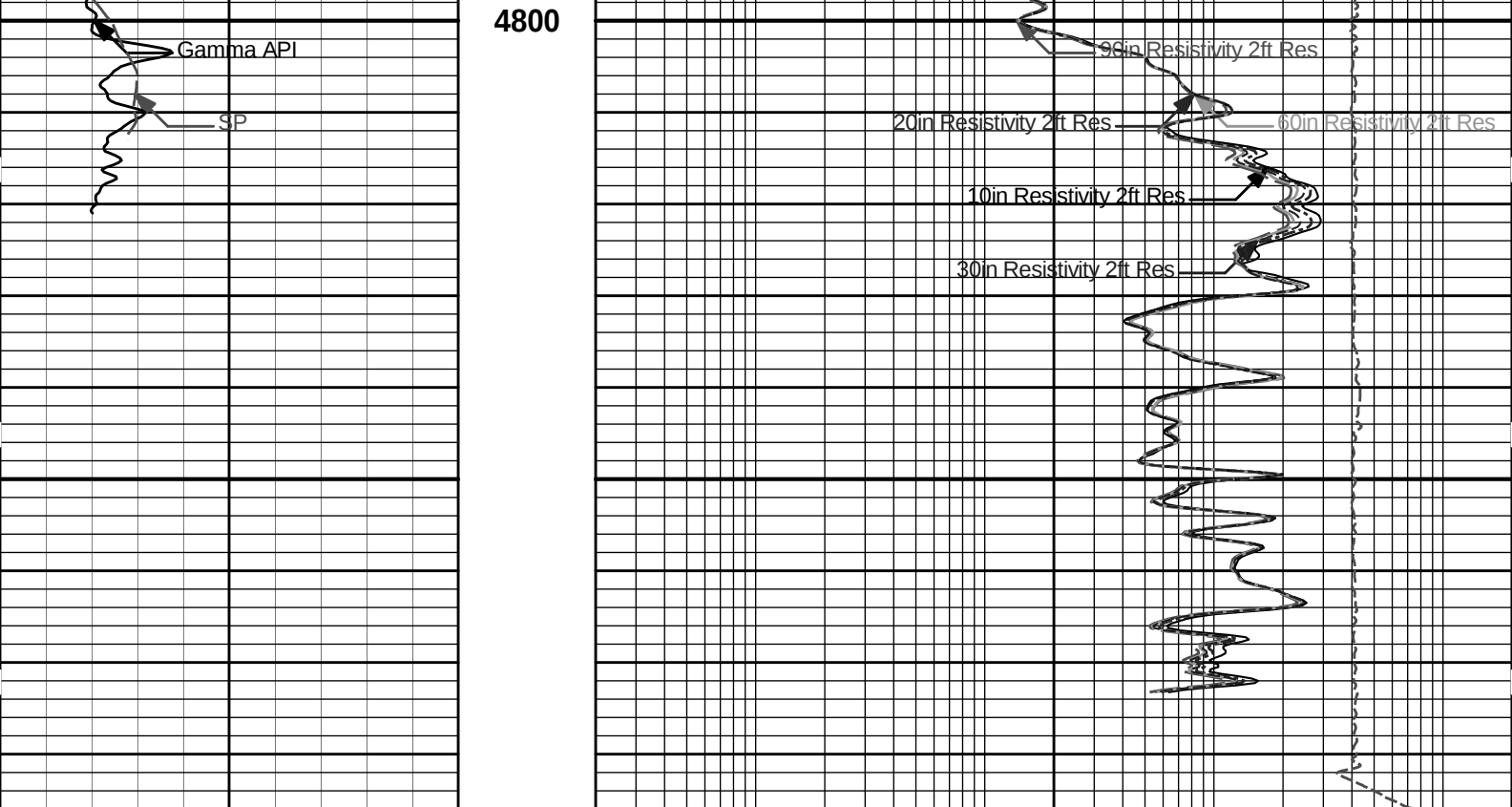




4600

4700





SP -120[+ 0 Gamma API api SHALE 150	1 : 240 ft		10K	Tension	0
				pounds	
		0.2	10in Resistivity 2ft Res		2000
			ohmm		
		0.2	20in Resistivity 2ft Res		2000
			ohmm		
		0.2	30in Resistivity 2ft Res		2000
			ohm-metre		
		0.2	60in Resistivity 2ft Res		2000
			ohmm		
		0.2	90in Resistivity 2ft Res		2000
			ohmm		

HALLIBURTON

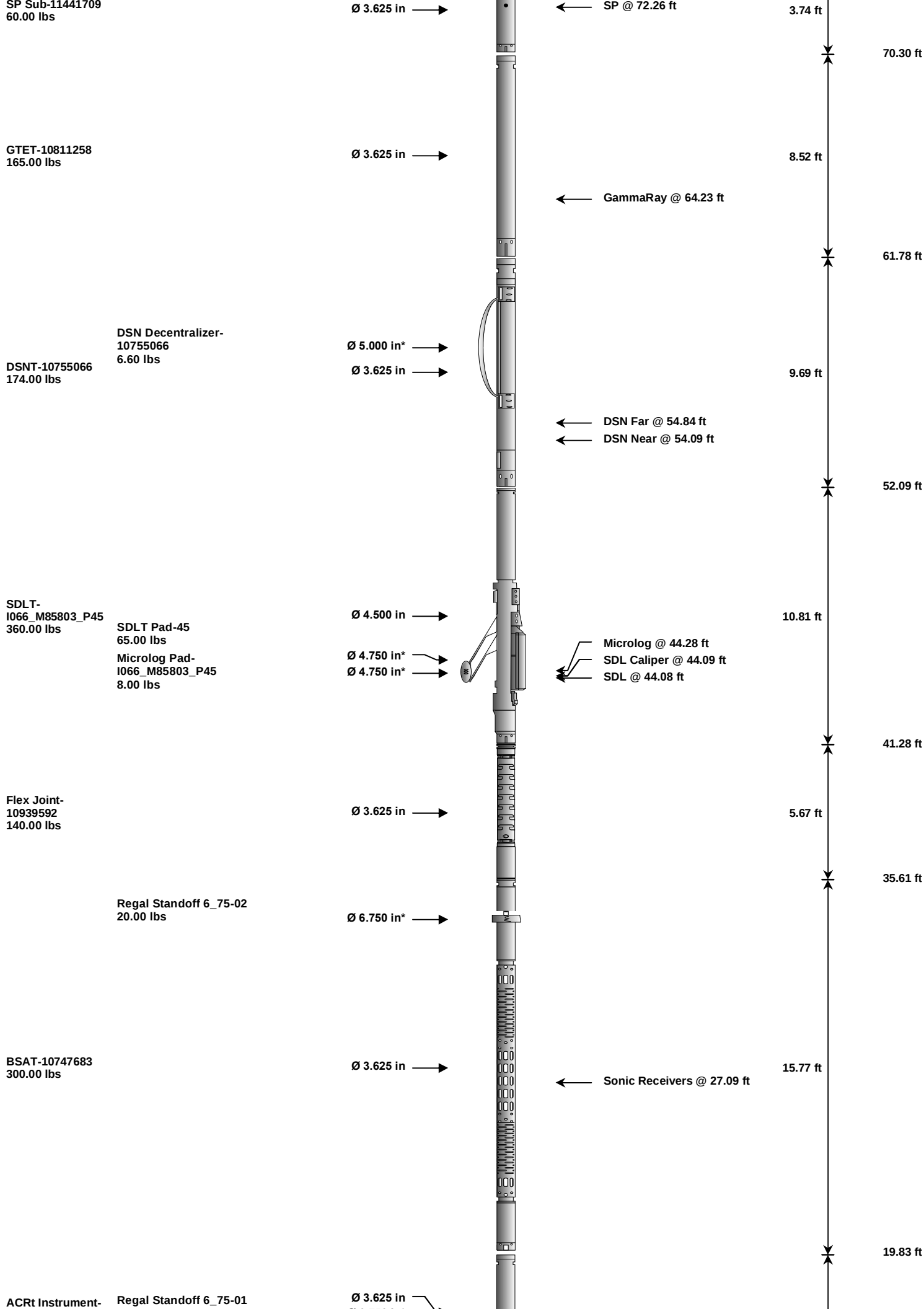
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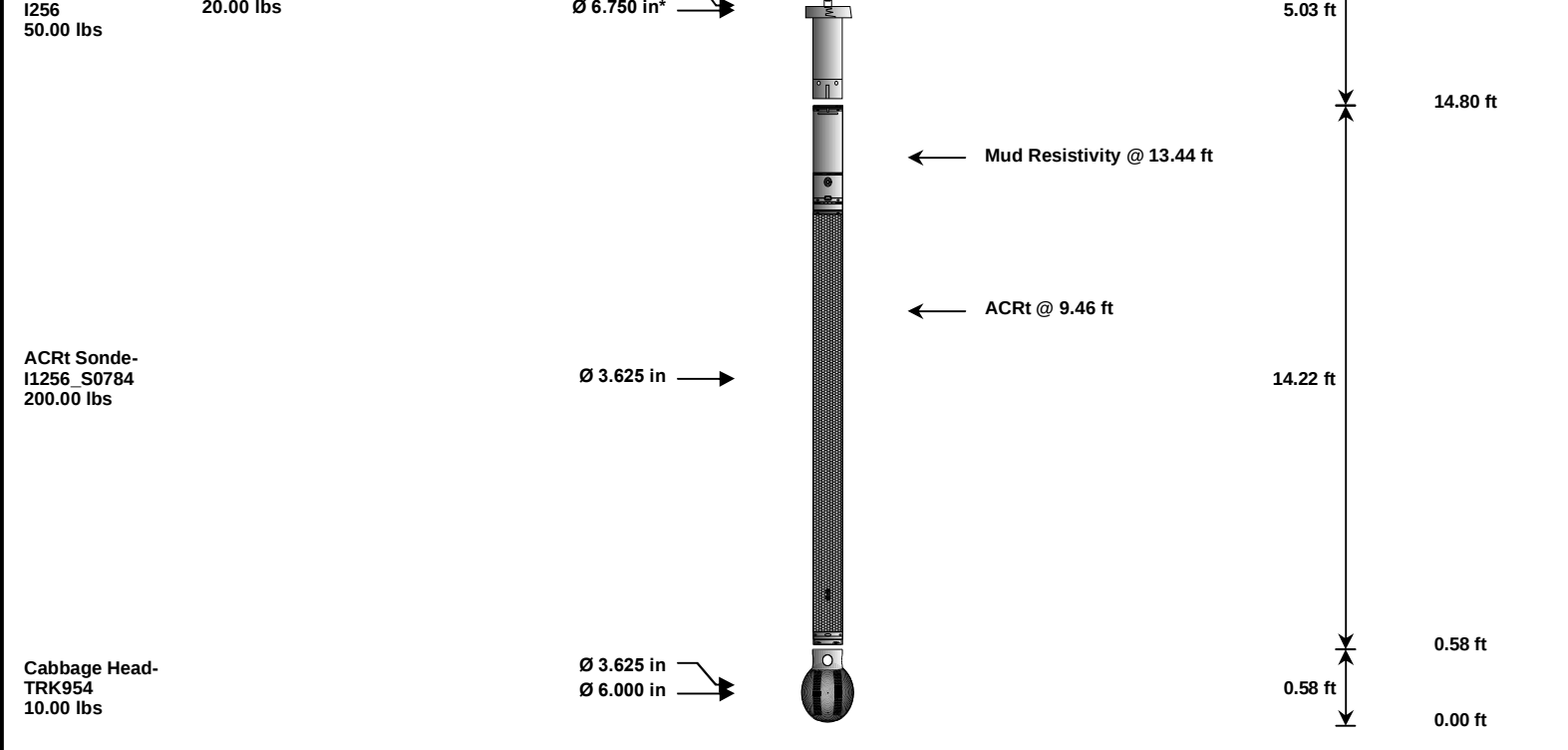
REPEAT SECTION

HALLIBURTON

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
Cable Head- PROT01 30.00 lbs		Ø 3.625 in →			1.92 ft	75.95 ft
						74.03 ft





Mnemonic		Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max.Log. Speed (fpm)
CH	Standard OH Cable Head		PROT01	30.00	1.92	74.03	300.00
SP	SP Sub		11441709	60.00	3.74	70.30	300.00
GTET	Gamma Telemetry Tool		10811258	165.00	8.52	61.78	60.00
DSNT	Dual Spaced Neutron		10755066	174.00	9.69	52.09	60.00
DCNT	DSN Decentralizer		10755066	6.60	5.13	* 55.42	300.00
SDLT	Spectral Density Tool		I066_M85803_P45	360.00	10.81	41.28	60.00
MICP	Microlog Pad		I066_M85803_P45	8.00	1.00	* 43.78	60.00
SDLP	Density Insite Pad		45	65.00	2.55	* 43.49	60.00
FLEX	Flex Joint		10939592	140.00	5.67	35.61	300.00
BSAT	Borehole Sonic Array Tool		10747683	300.00	15.77	19.83	60.00
RSOF	Regal Standoff 6.75in		02	20.00	0.52	* 33.69	300.00
ACRt	Array Compensated True Resistivity Instrument Section		I256	50.00	5.03	14.80	300.00
RSOF	Regal Standoff 6.75in		01	20.00	0.52	* 17.02	300.00
ACRt	Array Compensated True Resistivity Sonde Section		I1256_S0784	200.00	14.22	0.58	300.00
CBHD	Cabbage Head		TRK954	10.00	0.58	0.00	300.00
Total				1,608.60	75.95		
* Not included in Total Length and Length Accumulation.							
Data: SMU_318\0001 SP-GTET-DSNT-SDLT-BSAT-ACRT-CH\IDLE							
Date: 17-Jul-12 17:49:41							

HALLIBURTON

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION			
Tool Name:	GTET - 10811258	Reference Calibration Date:	29-Jun-12 10:45:01
Engineer:	T. HYDE	Calibration Date:	29-Jun-12 10:47:38
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1

Calibrator Source S/N: TB-185
Calibrator API Reference:228.00 api
Equivalent Calibrator API Reference:232.0 api

Measurement	Measured	Calibrated	Units
Background	46.1	47.6	api
Background + Calibrator	270.8	279.6	api

Calibrator			224.7			232.0			api		
NATURAL GAMMA RAY TOOL FIELD CALIBRATION											
Tool Name: GTET - 10811258						Reference Calibration Date: 29-Jun-12 10:47:38					
Engineer: T. HYDE						Calibration Date: 17-Jul-12 17:34:29					
Software Version: WL INSITE R3.6.0 (Build 3)						Calibration Version: 1					
Calibrator Source S/N: TB-185											
Calibrator API Reference:228.00 api											
Equivalent Calibrator API Reference:232.0 api											
Field Verification			Shop			Field			Units		
Background			47.6			64.0			api		
Background + Calibrator			279.6			297.2			api		
Calibrator			232.0			233.2			api		
Shop			Field			Difference			Tolerance		
232.0			233.2			-1.2			+/- 9.00		
ARRAY COMPENSATED TRUE RESISTIVITY SHOP CALIBRATION											
Tool Name: ACRt Sonde - I1256_S0784						Reference Calibration Date: 07-Jul-12 12:08:04					
Engineer: T. HYDE						Calibration Date: 11-Jul-12 09:38:13					
Software Version: WL INSITE R3.6.0 (Build 3)						Calibration Version: 1					
Host Tool Name: ACRt Instrument - I256											
TYPICAL GAIN RANGE											
Subarray	R12KHz			R36KHz			R72KHz				
	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper		
A1 (80")	0.95	1.01	1.05	0.95	1.01	1.05	0.95	1.00	1.05		
A2 (50")	0.95	1.01	1.05	0.95	1.01	1.05	0.95	1.00	1.05		
A3 (29")	0.95	1.01	1.05	0.95	1.01	1.05	0.95	1.00	1.05		
A4 (17")	0.95	1.01	1.05	0.95	1.01	1.05	0.95	1.00	1.05		
A5 (10")	N/A	N/A	N/A	0.95	1.00	1.05	0.95	0.99	1.05		
A6 (6")	N/A	N/A	N/A	0.95	0.98	1.05	0.95	0.98	1.05		
TYPICAL SONDE OFFSET RANGE											
Subarray	R12KHz			R36KHz			R72KHz				
	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper		
A1 (80")	-5	-0.61	2	-6	-4.02	-2	-8	-5.17	-2		
A2 (50")	-7	-1.85	0	-7	-3.61	0	-7	-4.31	0		
A3 (29")	-27	-16.24	-9	-9	-4.70	-3	-7	-3.29	-1		
A4 (17")	-180	-98.13	-60	-45	-32.80	-15	-39	-26.77	-13		
A5 (10")	N/A	N/A	N/A	-150	-97.06	-50	-80	-48.76	-10		
A6 (6")	N/A	N/A	N/A	175	293.49	525	90	155.40	270		
TRANSMITTER CURRENT GAIN						R-MUD VERIFICATION					
Signal	Lower	R		Upper		Signal	Lower (ohm-m)	Measured (ohm-m)	Upper (ohm-m)		
12K	0.6	0.88		1.3		Mud Cell	0.95	1.00	1.05		
36K	1.0	1.20		2.0							
72K	1.0	1.54		2.0							
PASS/FAIL SUMMARY											
GAIN RANGE CHK						PASS					
SONDE OFFSET RANGE CHK						PASS					

SONDE OFF-SET RANGE CHK		PASS				
Tx CURRENT GAIN		PASS				
Rmud VERIFICATION		PASS				
TOOL OK TO LOG						
CALIBRATION SUMMARY						
Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-10811258						
Gamma Ray Calibrator	232.0	233.2	-----	-1.2	+/- 9.00	api
ACRt Sonde-I1256_S0784						
Mud Cell	1.00	-----	-----	0.00	-----	ohm-m
Data: SMU_318\0001 SP-GTET-DSNT-SDLT-BSAT-ACRT-CHIDLE					Date: 17-Jul-12 18:31:04	

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PARAMETERS REPORT						
Depth (ft))	Tool Name	Mnemonic	Description	Value	Units	
TOP						
	SHARED	BS	Bit Size	7.875	in	
	SHARED	UBS	Use Bit Size instead of Caliper for all applications.	No		
	SHARED	MDBS	Mud Base	Water		
	SHARED	MDWT	Borehole Fluid Weight	9.600	ppg	
	SHARED	WAGT	Weighting Agent	Natural		
	SHARED	BSAL	Borehole salinity	0.00	ppm	
	SHARED	FSAL	Formation Salinity NaCl	0.00	ppm	
	SHARED	KPCT	Percent K in Mud by Weight?	0.00	%	
	SHARED	RMUD	Mud Resistivity	2.000	ohmm	
	SHARED	TRM	Temperature of Mud	75.0	degF	
	SHARED	CSD	Logging Interval is Cased?	No		
	SHARED	ICOD	AHV Casing OD	5.500	in	
	SHARED	ST	Surface Temperature	75.0	degF	
	SHARED	TD	Total Well Depth	4891.00	ft	
	SHARED	BHT	Bottom Hole Temperature	200.0	degF	
	SHARED	SVTM	Navigation and Survey Master Tool	NONE		
	SHARED	AZTM	High Res Z Accelerometer Master Tool	GTET		
	SHARED	TEMM	Temperature Master Tool	NONE		
	SHARED	BHSM	Borehole Size Master Tool	NONE		
	Rwa / CrossPlot	XPOK	Process Crossplot?	Yes		
	Rwa / CrossPlot	FCHO	Select Source of F	Automatic		
	Rwa / CrossPlot	AFAC	Archie A factor	0.6200		
	Rwa / CrossPlot	MFAC	Archie M factor	2.1500		
	Rwa / CrossPlot	RMFR	Rmf Reference	0.10	ohmm	
	Rwa / CrossPlot	TMFR	Rmf Ref Temp	75.00	degF	
	Rwa / CrossPlot	RWA	Resistivity of Formation Water	0.05	ohmm	
	Rwa / CrossPlot	ADP	Use Air Porosity to calculate CrossplotPhi	No		
	GTET	GROK	Process Gamma Ray?	Yes		
	GTET	GRSO	Gamma Tool Standoff	0.000	in	

GTET	GEOK	Process Gamma Ray EVR?	No	
GTET	TPOS	Tool Position for Gamma Ray Tools.	Eccentered	
DSNT	DNOK	Process DSN?	Yes	
DSNT	DEOK	Process DSN EVR?	No	
DSNT	NLIT	Neutron Lithology	Limestone	
DSNT	DNSO	DSN Standoff - 0.25 in (6.35 mm) Recommended	0.250	in
DSNT	DNTP	Temperature Correction Type	None	
DSNT	DPRS	DSN Pressure Correction Type	None	
DSNT	SHCO	View More Correction Options	No	
DSNT	UTVD	Use TVD for Gradient Corrections?	No	
DSNT	LHWT	Logging Horizontal Water Tank?	No	
SDLT	CLOK	Process Caliper Outputs?	Yes	
SDLT Pad	DNOK	Process Density?	Yes	
SDLT Pad	DNOK	Process Density EVR?	No	
SDLT Pad	CB	Logging Calibration Blocks?	No	
SDLT Pad	SPVT	SDLT Pad Temperature Valid?	Yes	
SDLT Pad	DTWN	Disable temperature warning	No	
SDLT Pad	DMA	Formation Density Matrix	2.710	g/cc
SDLT Pad	DFL	Formation Density Fluid	1.000	g/cc
Microlog Pad	MLOK	Process MicroLog Outputs?	Yes	
BSAT	MBOK	Compute BCAS Results?	Yes	
BSAT	FLLO	Frequency Filter Low Pass Value?	5000	Hz
BSAT	FLHI	Frequency Filter High Pass Value?	27000	Hz
BSAT	DTFL	Delta -T Fluid	189.00	uspf
BSAT	DTMT	Delta -T Matrix Type	User define	
BSAT	DTMA	Delta -T Matrix	47.60	uspf
BSAT	DTSH	Delta -T Shale	100.00	uspf
BSAT	SPEQ	Acoustic Porosity Equation	Wylie	
ACRt Sonde	RTOK	Process ACRt?	Yes	
ACRt Sonde	MNSO	Minimum Tool Standoff	1.50	in
ACRt Sonde	TCS1	Temperature Correction Source	FP Lwr & FP Upr	
ACRt Sonde	TPOS	Tool Position	Free Hanging	
ACRt Sonde	RMOP	Rmud Source	Mud Cell	
ACRt Sonde	RMIN	Minimum Resistivity for MAP	0.20	ohmm
ACRt Sonde	RMIN	Maximum Resistivity for MAP	200.00	ohmm
ACRt Sonde	THQY	Threshold Quality	0.50	
ACRt Sonde	MRFX	Fixed mud resistivity	2000	ohmm
BOTTOM				
Data: SMU_318\0001 SP-GTET-DSNT-SDLT-BSAT-ACRT-CH\IDLE			Date: 17-Jul-12 18:33:00	

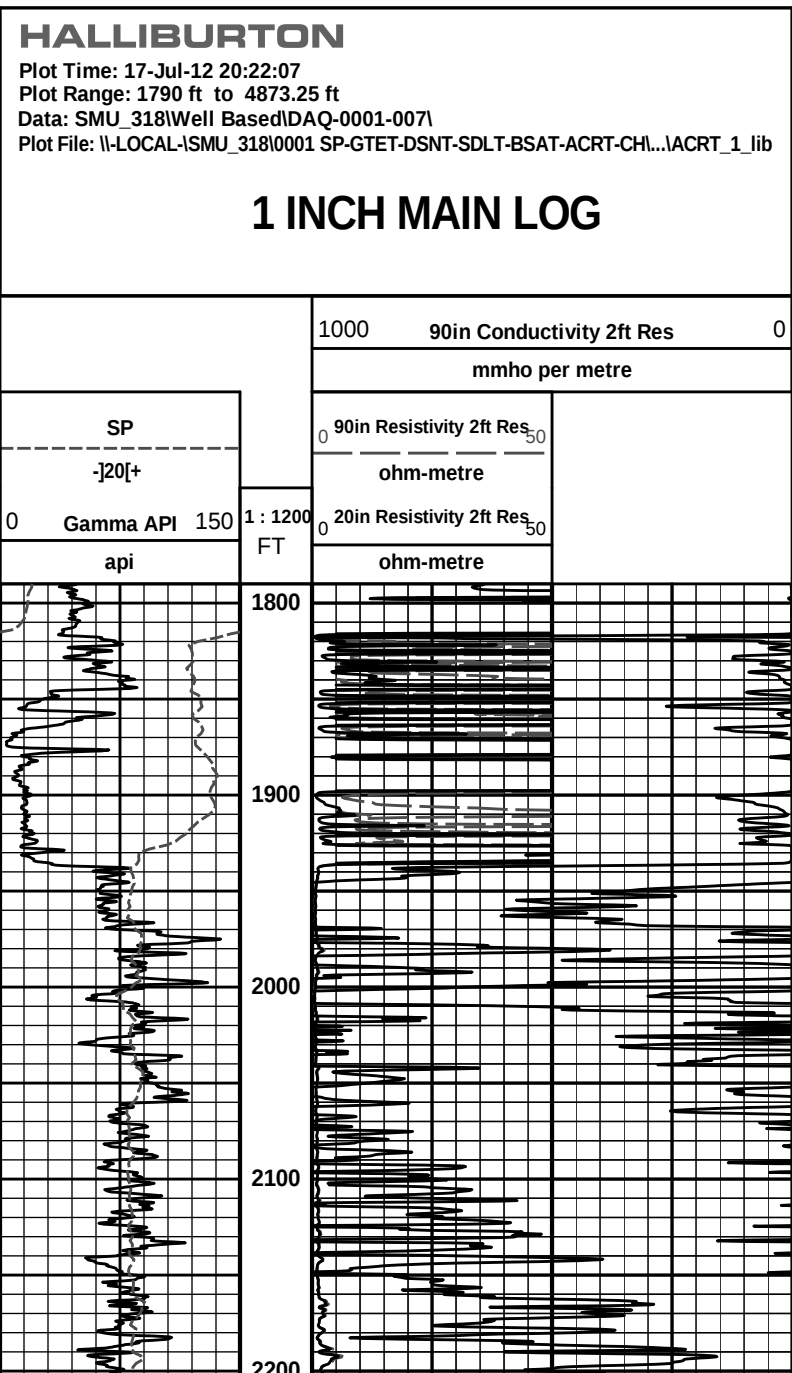
HALLIBURTON				
INPUTS, DELAYS AND FILTERS TABLE				
Mnemonic		Input Description	Delay (ft)	Filter Type
				Filter Length (ft)
Depth Panel				
TENS	Tension		0.00	NO
SP Sub				
PLTC	Plot Control Mask		72.25	NO
SP	Spontaneous Potential		72.25	BLK
SPR	Raw Spontaneous Potential		72.25	NO
SPO	Spontaneous Potential Offset		72.25	NO

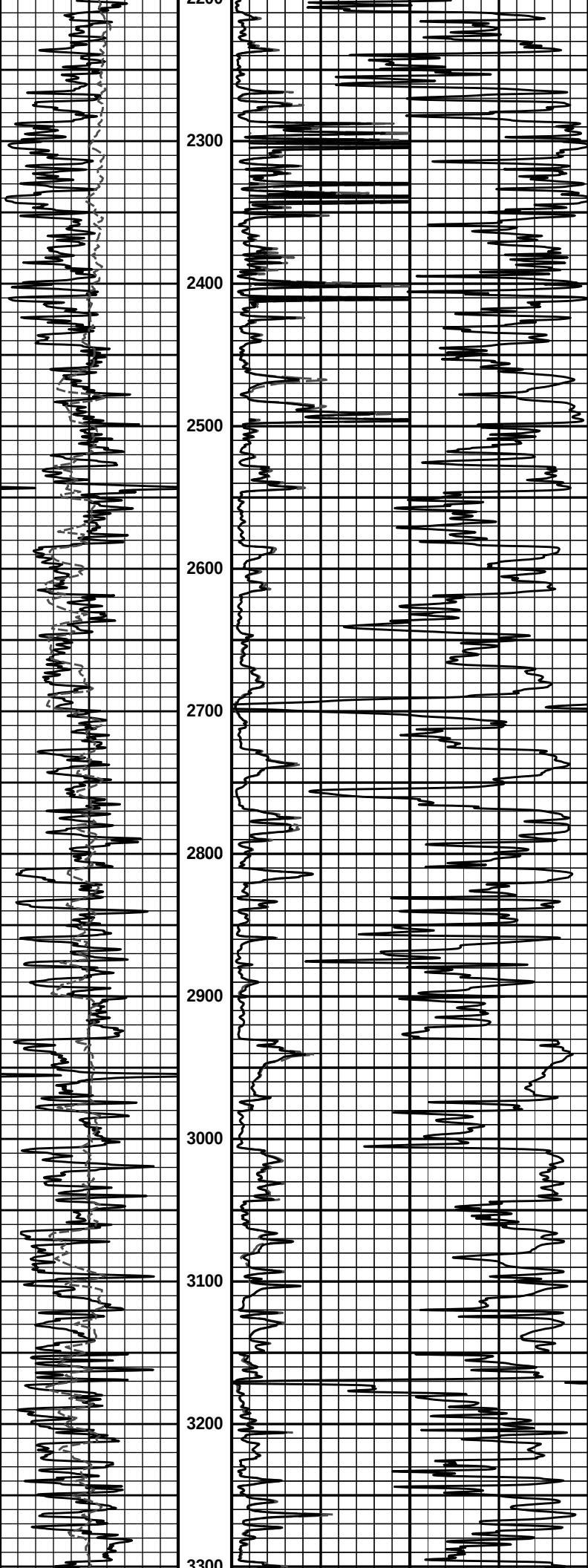
GTET				
TPUL	Tension Pull	64.23	NO	
GR	Natural Gamma Ray API	64.23	TRI	1.750
GRU	Unfiltered Natural Gamma Ray API	64.23	NO	
EGR	Natural Gamma Ray API with Enhanced Vertical Resolution	64.23	W	1.416 , 0.750
ACCZ	Accelerometer Z	0.00	BLK	0.083
DEVI	Inclination	0.00	NO	
DSNT				
TPUL	Tension Pull	53.99	NO	
RNDS	Near Detector Telemetry Counts	54.09	BLK	1.417
RFDS	Far Detector Telemetry Counts	54.84	TRI	0.583
DNTT	DSN Tool Temperature	54.09	NO	
DSNS	DSN Tool Status	53.99	NO	
ERND	Near Detector Telemetry Counts EVR	54.09	BLK	0.000
ERFD	Far Detector Telemetry Counts EVR	54.84	BLK	0.000
ENTM	DSN Tool Temperature EVR	54.09	NO	
SDLT				
TPUL	Tension Pull	44.09	NO	
PCAL	Pad Caliper	44.09	TRI	0.250
ACAL	Arm Caliper	44.09	TRI	0.250
BSAT				
TPUL	Tension Pull	27.09	NO	
STAT	Status	27.09	NO	
DLYT	Delay Time	27.09	NO	
SI	Sample Interval	27.09	NO	
TXRX	Raw Telemetry 10 Receivers	27.09	NO	
FRMC	Tool Frame Count	27.09	NO	
GMOD	Gain processing mode	19.83	NO	
ACRt Sonde				
TPUL	Tension Pull	2.97	NO	
F1R1	ACRT 12KHz - 80in R value	9.22	BLK	0.000
F1X1	ACRT 12KHz - 80in X value	9.22	BLK	0.000
F1R2	ACRT 12KHz - 50in R value	6.72	BLK	0.000
F1X2	ACRT 12KHz - 50in X value	6.72	BLK	0.000
F1R3	ACRT 12KHz - 29in R value	5.22	BLK	0.000
F1X3	ACRT 12KHz - 29in X value	5.22	BLK	0.000
F1R4	ACRT 12KHz - 17in R value	4.22	BLK	0.000
F1X4	ACRT 12KHz - 17in X value	4.22	BLK	0.000
F1R5	ACRT 12KHz - 10in R value	3.72	BLK	0.000
F1X5	ACRT 12KHz - 10in X value	3.72	BLK	0.000
F1R6	ACRT 12KHz - 6in R value	3.47	BLK	0.000
F1X6	ACRT 12KHz - 6in X value	3.47	BLK	0.000
F2R1	ACRT 36KHz - 80in R value	9.22	BLK	0.000
F2X1	ACRT 36KHz - 80in X value	9.22	BLK	0.000
F2R2	ACRT 36KHz - 50in R value	6.72	BLK	0.000
F2X2	ACRT 36KHz - 50in X value	6.72	BLK	0.000
F2R3	ACRT 36KHz - 29in R value	5.22	BLK	0.000
F2X3	ACRT 36KHz - 29in X value	5.22	BLK	0.000
F2R4	ACRT 36KHz - 17in R value	4.22	BLK	0.000
F2X4	ACRT 36KHz - 17in X value	4.22	BLK	0.000
F2R5	ACRT 36KHz - 10in R value	3.72	BLK	0.000
F2X5	ACRT 36KHz - 10in X value	3.72	BLK	0.000

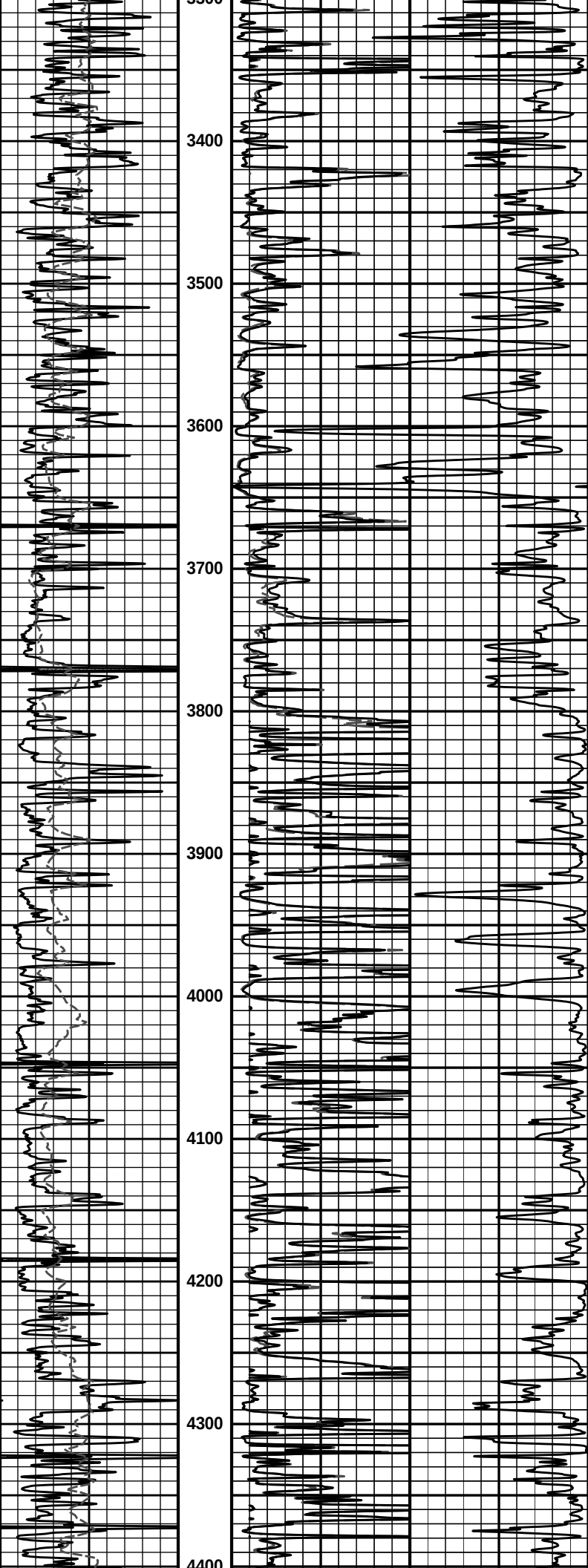
F2X5	ACRT 36KHz - 10in X value	3.72	BLK	0.000
F2R6	ACRT 36KHz - 6in R value	3.47	BLK	0.000
F2X6	ACRT 36KHz - 6in X value	3.47	BLK	0.000
F3R1	ACRT 72KHz - 80in R value	9.22	BLK	0.000
F3X1	ACRT 72KHz - 80in X value	9.22	BLK	0.000
F3R2	ACRT 72KHz - 50in R value	6.72	BLK	0.000
F3X2	ACRT 72KHz - 50in X value	6.72	BLK	0.000
F3R3	ACRT 72KHz - 29in R value	5.22	BLK	0.000
F3X3	ACRT 72KHz - 29in X value	5.22	BLK	0.000
F3R4	ACRT 72KHz - 17in R value	4.22	BLK	0.000
F3X4	ACRT 72KHz - 17in X value	4.22	BLK	0.000
F3R5	ACRT 72KHz - 10in R value	3.72	BLK	0.000
F3X5	ACRT 72KHz - 10in X value	3.72	BLK	0.000
F3R6	ACRT 72KHz - 6in R value	3.47	BLK	0.000
F3X6	ACRT 72KHz - 6in X value	3.47	BLK	0.000
RMUD	Mud Resistivity	12.76	BLK	0.000
F1RT	Transmitter Reference 12 KHz Real Signal	2.97	BLK	0.000
F1XT	Transmitter Reference 12 KHz Imaginary Signal	2.97	BLK	0.000
F2RT	Transmitter Reference 36 KHz Real Signal	2.97	BLK	0.000
F2XT	Transmitter Reference 36 KHz Imaginary Signal	2.97	BLK	0.000
F3RT	Transmitter Reference 72 KHz Real Signal	2.97	BLK	0.000
F3XT	Transmitter Reference 72 KHz Imaginary Signal	2.97	BLK	0.000
TFPU	Upper Feedpipe Temperature Calculated	2.97	BLK	0.000
TFPL	Lower Feedpipe Temperature Calculated	2.97	BLK	0.000
ITMP	Instrument Temperature	2.97	BLK	0.000
TCVA	Temperature Correction Values Loop Off	2.97	NO	
TIDV	Instrument Temperature Derivative	2.97	NO	
TUDV	Upper Temperature Derivative	2.97	NO	
TLDV	Lower Temperature Derivative	2.97	NO	
TRBD	Receiver Board Temperature	2.97	NO	
SDLT Pad				
TPUL	Tension Pull	44.08	NO	
NAB	Near Above	43.90	BLK	0.920
NHI	Near Cesium High	43.90	BLK	0.920
NLO	Near Cesium Low	43.90	BLK	0.920
NVA	Near Valley	43.90	BLK	0.920
NBA	Near Barite	43.90	BLK	0.920
NDE	Near Density	43.90	BLK	0.920
NPK	Near Peak	43.90	BLK	0.920
NLI	Near Lithology	43.90	BLK	0.920
NBAU	Near Barite Unfiltered	43.90	BLK	0.250
NLIU	Near Lithology Unfiltered	43.90	BLK	0.250
FAB	Far Above	44.26	BLK	0.250
FHI	Far Cesium High	44.26	BLK	0.250
FLO	Far Cesium Low	44.26	BLK	0.250
FVA	Far Valley	44.26	BLK	0.250
FBA	Far Barite	44.26	BLK	0.250
FDE	Far Density	44.26	BLK	0.250
FPK	Far Peak	44.26	BLK	0.250
FLI	Far Lithology	44.26	BLK	0.250
PTMP	Pad Temperature	44.09	BLK	0.920
NHV	Near Detector High Voltage	43.49	NO	
FHV	Far Detector High Voltage	43.49	NO	
ITMP	Instrument Temperature	43.49	NO	
DDHV	Detector High Voltage	43.49	NO	

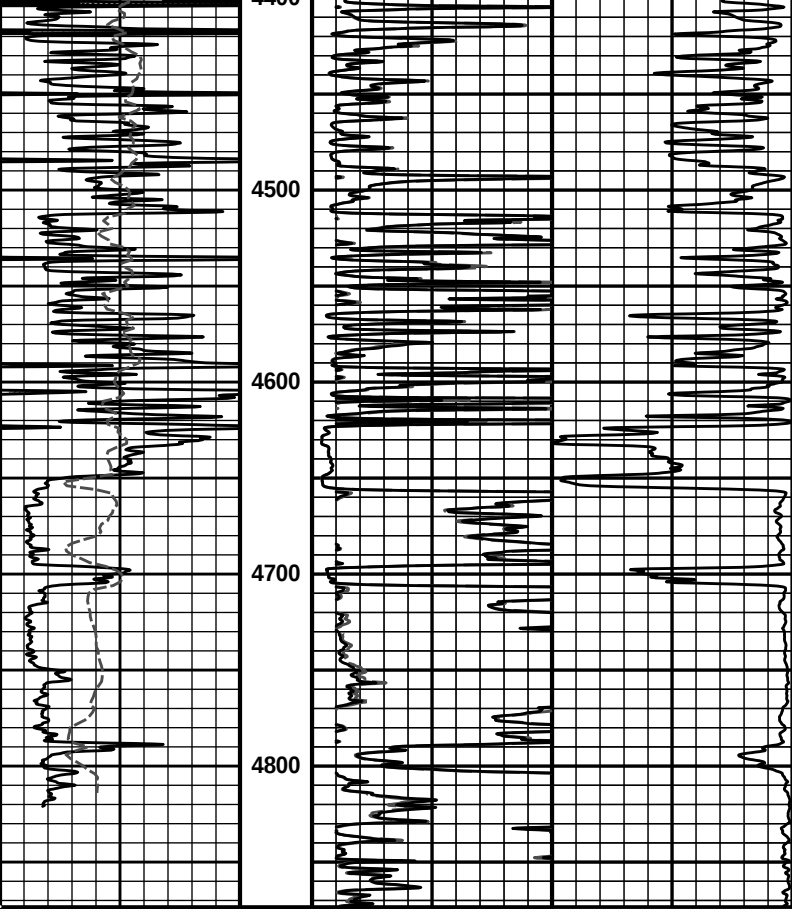
Microlog Pad				
TPUL	Tension Pull	44.28	NO	
MINV	Microlog Lateral	44.28	BLK	0.750
MNOR	Microlog Normal	44.28	BLK	0.750
Data: SMU_318\0001 SP-GTET-DSNT-SDLT-BSAT-ACRT-CH\IDLE			Date: 17-Jul-12 18:33:17	

COMPANY	OXY USA INC		
WELL	SMU #318		
FIELD	SMU		
COUNTY	FINNEY	STATE	KANSAS
HALLIBURTON		ARRAY COMPENSATED TRUE RESISTIVITY LOG	









0	Gamma API	150	1 : 1200	0	20in Resistivity 2ft Res	50	
	api		FT		ohm-metre		
	SP			0	90in Resistivity 2ft Res	50	
	- 20 +				ohm-metre		
				1000	90in Conductivity 2ft Res	0	
					mmho per metre		

HALLIBURTON

Plot Time: 17-Jul-12 20:22:11
Plot Range: 1790 ft to 4873.25 ft
Data: SMU_318\Well Based\DAQ-0001-007\
Plot File: \\LOCAL-ISMU_318\0001 SP-GTET-DSNT-SDLT-BSAT-ACRT-CHI... \ACRT_1.lib

1 INCH MAIN LOG