



RADIAL CEMENT BOND LOG

GAMMA RAY / CCL

Company **WPX ENERGY**

Well
PATTERSON SG 514-27

Field GRAND VALLEY

County **GARFIELD** State **COLORADO**

Location:	AP#:	05045210020000	Other Services
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API #: 0504521

Other Services

SHL: 1113' FSL & 1863' FWL SEC: 27
BHL: 0291' FSL & 0941' FEL SEC: 27

SEC	27	TWP	7S	RGE	96W
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Permanent Datum	G.L.	Elevation	5012
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Log Measured From	K.B.	Ft Above PD	26
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Drilling Measured From	K.B.
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Date	08-19-2013
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Run Number	Of
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Depth Driller	51
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Present Depth Driller	N
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Depin Logger	13
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Boolean Logica Interval	13
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Eligible avg	N
Top 100 inter val	30

Typical Fluid	N
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Max Recorded Temp	N
100	1
90	1
80	1
70	1
60	1
50	1
40	1
30	1
20	1
10	1
0	1

Estimated Cement Top	N
1	

Equipment Number	20
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Location	GRAN
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Recorded By	COVIN
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Witnessed By	MR. W
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Borehole Record

Run Number	Bit	From	To
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ONE	13.500"	SURFACE	112
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IWD	1.875	SURFACE	5195
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Calibration Report

Database File: 081913_wpx_patterson_sg_514-27.db
Dataset Pathname: MAIN/pass1.1
Dataset Creation: Mon Aug 19 15:27:53 2013 by Calc SCH 120430

Gamma Ray Calibration Report

Serial Number:	10007260	
Tool Model:	020	
Performed:	Sun Jun 13 13:33:21 1993	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	10009897	
Tool Model:	004	
Calibration Casing Diameter:	4.500	in
Calibration Depth:	654.517	ft

Master Calibration, performed Mon Aug 19 14:50:53 2013:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3FT	0.000	0.928	0.000	81.196	79.562	-0.006
5FT	0.000	0.905	0.000	81.196	81.827	-0.006
S1	0.000	0.853	0.000	100.000	101.303	-0.008
S2	0.000	0.903	0.000	100.000	100.818	-0.008
S3	0.000	0.947	0.000	100.000	98.129	-0.008
S4	0.000	0.944	0.000	100.000	96.340	-0.008
S5	0.000	0.942	0.000	100.000	94.269	-0.007
S6	0.000	0.954	0.000	100.000	94.392	-0.007
S7	0.000	0.922	0.000	100.000	96.253	-0.007
S8	0.000	0.894	0.000	100.000	98.622	-0.008

Calibration Report


Serial Number:	10009897
Tool Model:	004
Performed:	
Low:	Reference (degF) 0.000
High:	Reading () 1.000
	Gain = 1.000
	Offset= 0.000

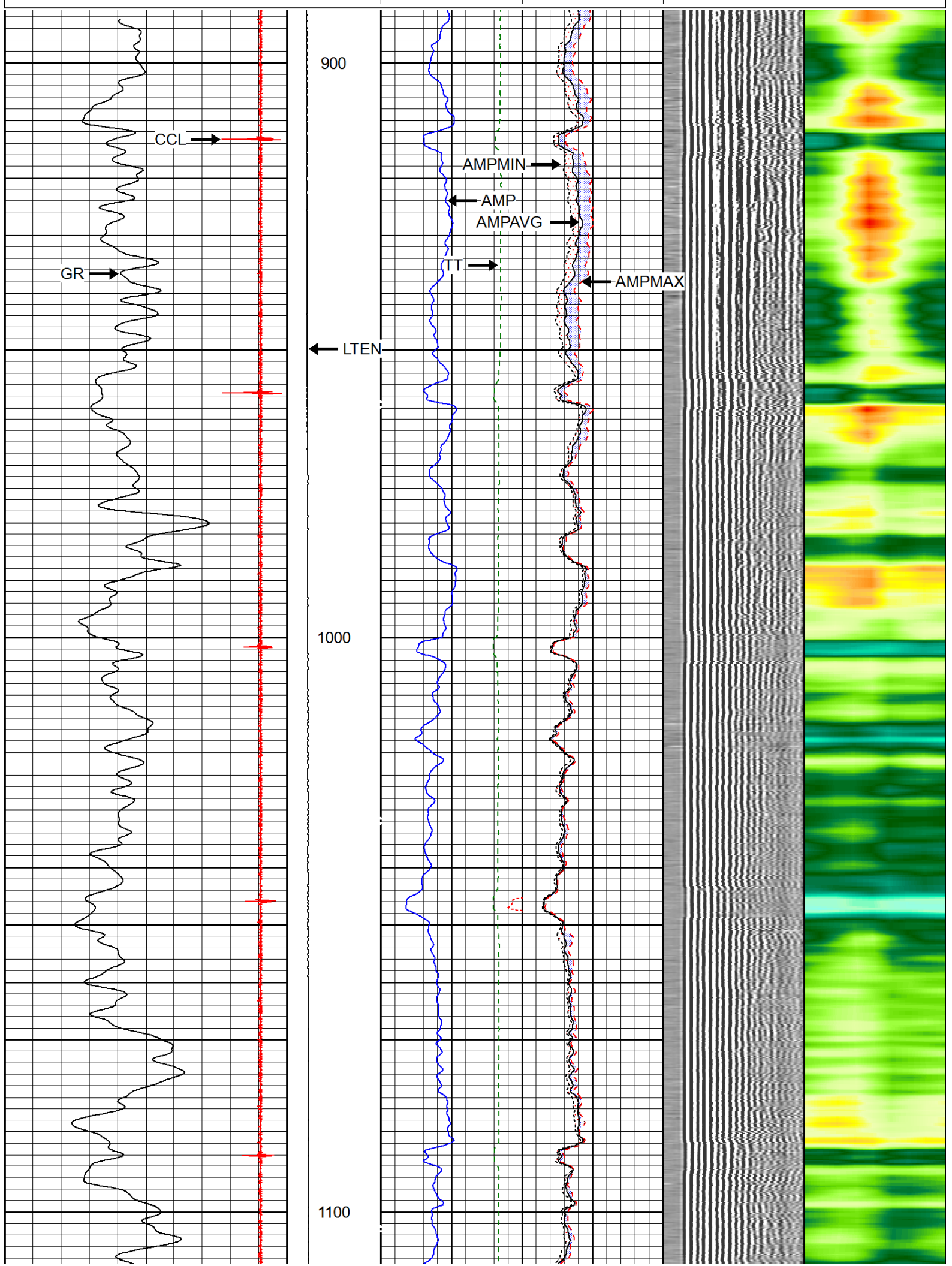


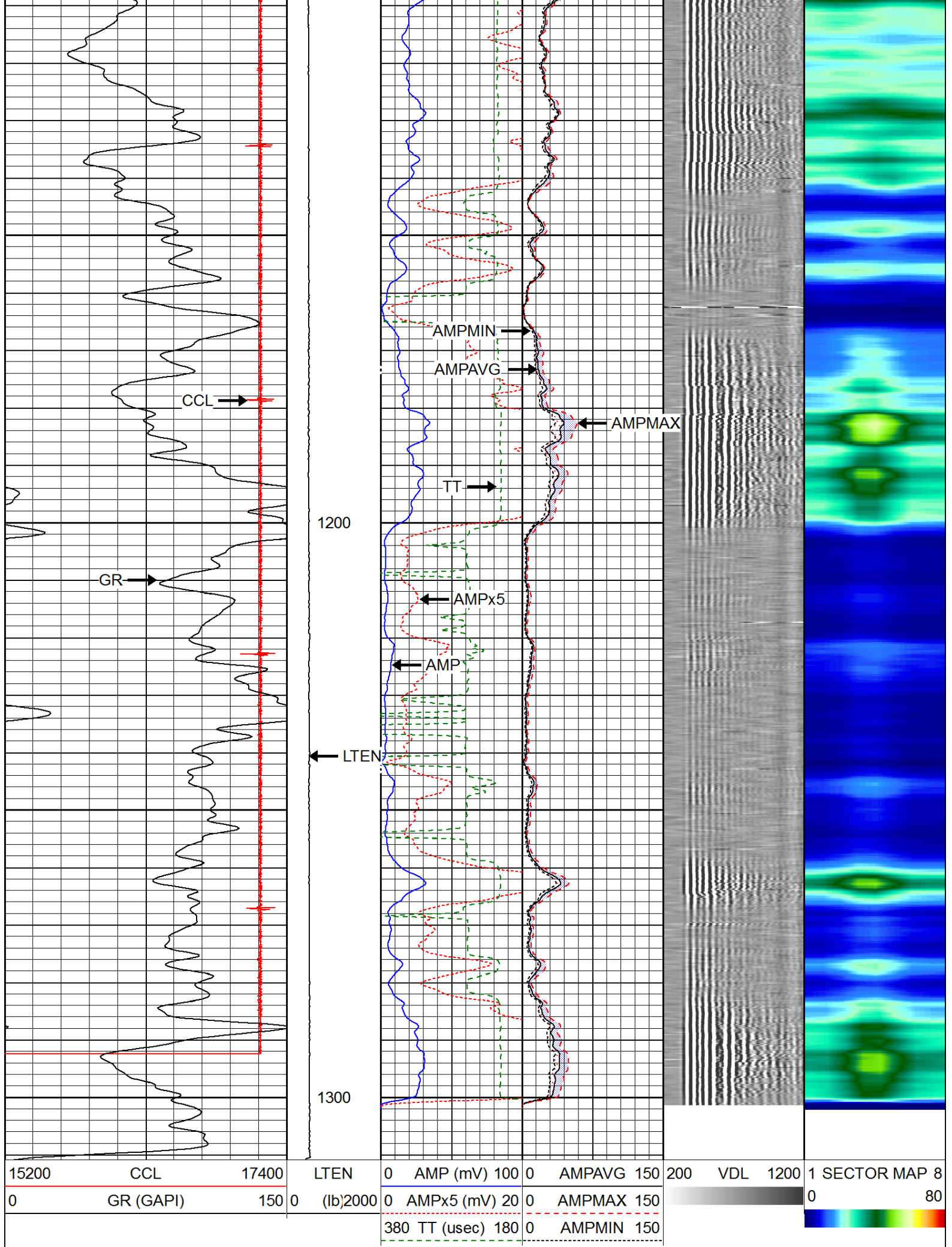
MAIN PASS

Database File:	081913_wpx_patterson_sg_514-27.db
Dataset Pathname:	MAIN/pass1.1
Presentation Format:	rmws_scbl
Dataset Creation:	Mon Aug 19 15:27:53 2013 by Calc SCH 120430
Charted by:	Depth in Feet scaled 1:240

15200	CCL	17400	LTEN	0	AMP (mV) 100	0	AMPAVG 150	200	VDL	1200	1	SECTOR MAP 8
0	GR (GAPI)	150	0	(lb)2000	0	AMPx5 (mV) 20	0	AMPMAX 150			0	80
					380	TT (usec) 180	0	AMPMIN 150				

A horizontal color scale bar ranging from blue on the left to red on the right, with a yellow-green center. It is used for visualizing data values across the different parameters listed in the table.



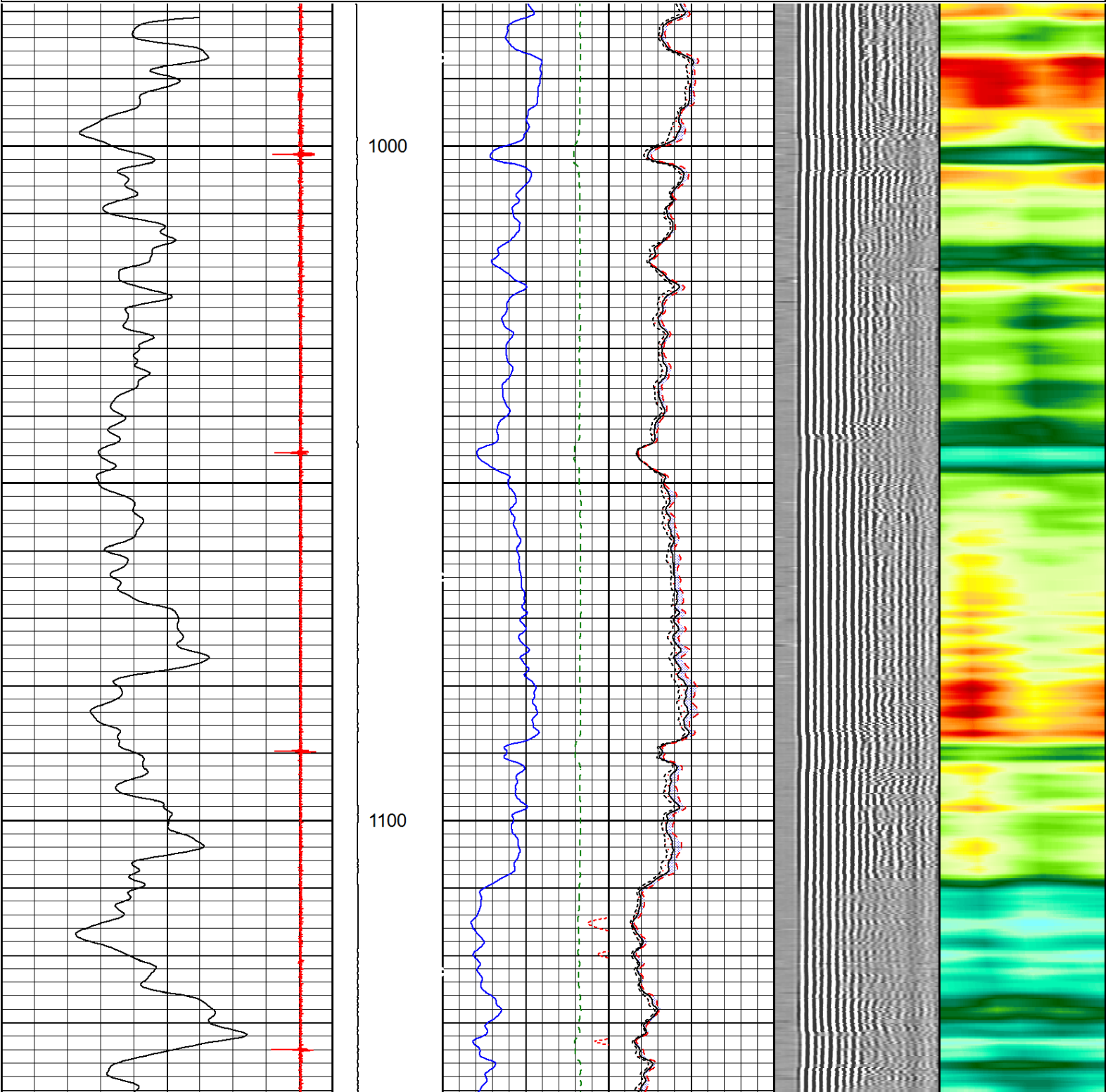


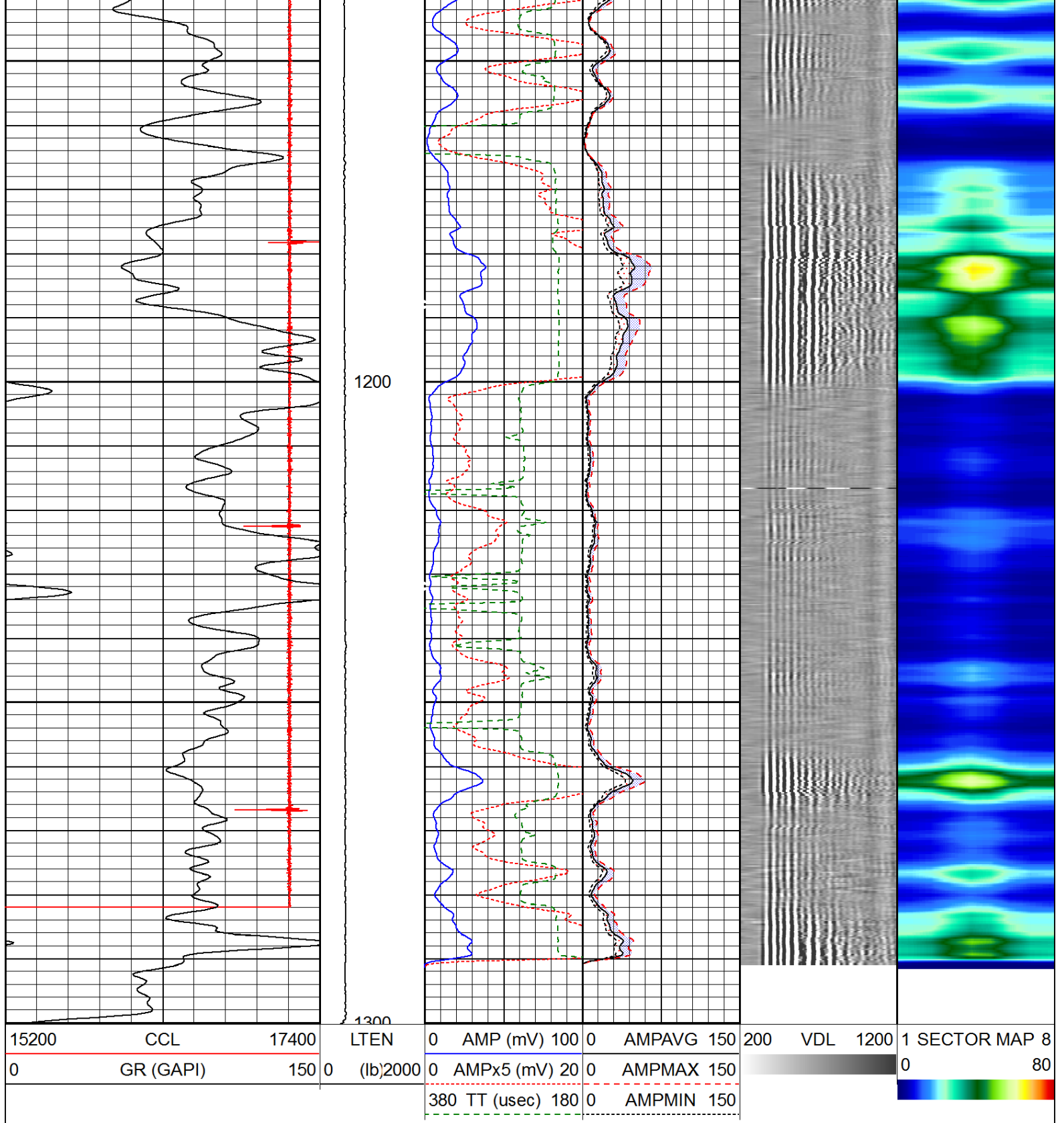


REPEAT PASS

Database File: 081913_wpx_patterson_sg_514-27.db
Dataset Pathname: REPEAT/pass1
Presentation Format: rmws_scbl
Dataset Creation: Mon Aug 19 14:55:57 2013 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240

15200	CCL	17400	LTEN	0	AMP (mV) 100	0	AMPAVG 150	200	VDL	1200	1	SECTOR MAP 8
0	GR (GAPI)	150	0	(lb)2000	0	AMPx5 (mV) 20	0	AMPMAX 150			0	80
					380	TT (usec) 180	0	AMPMIN 150				

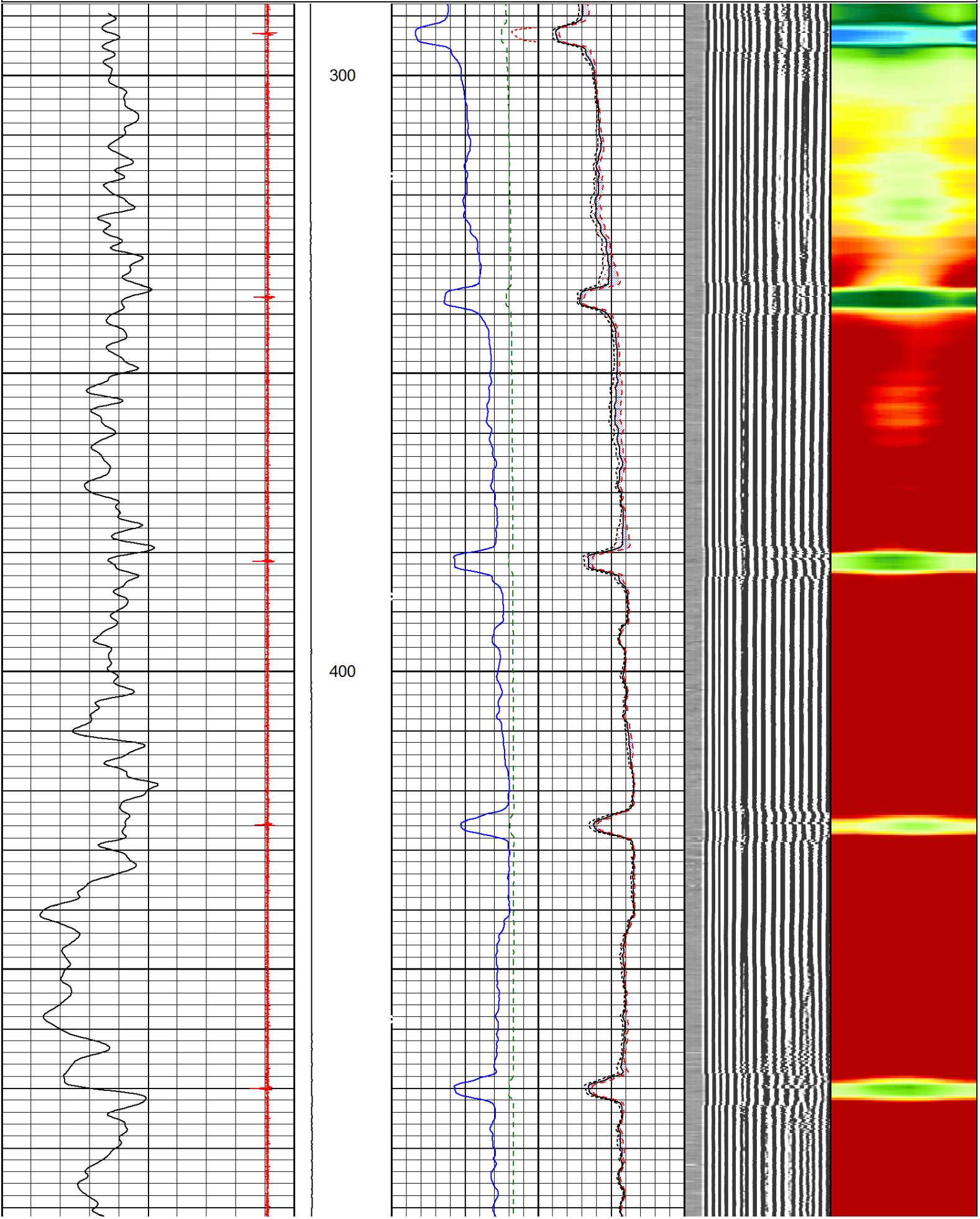


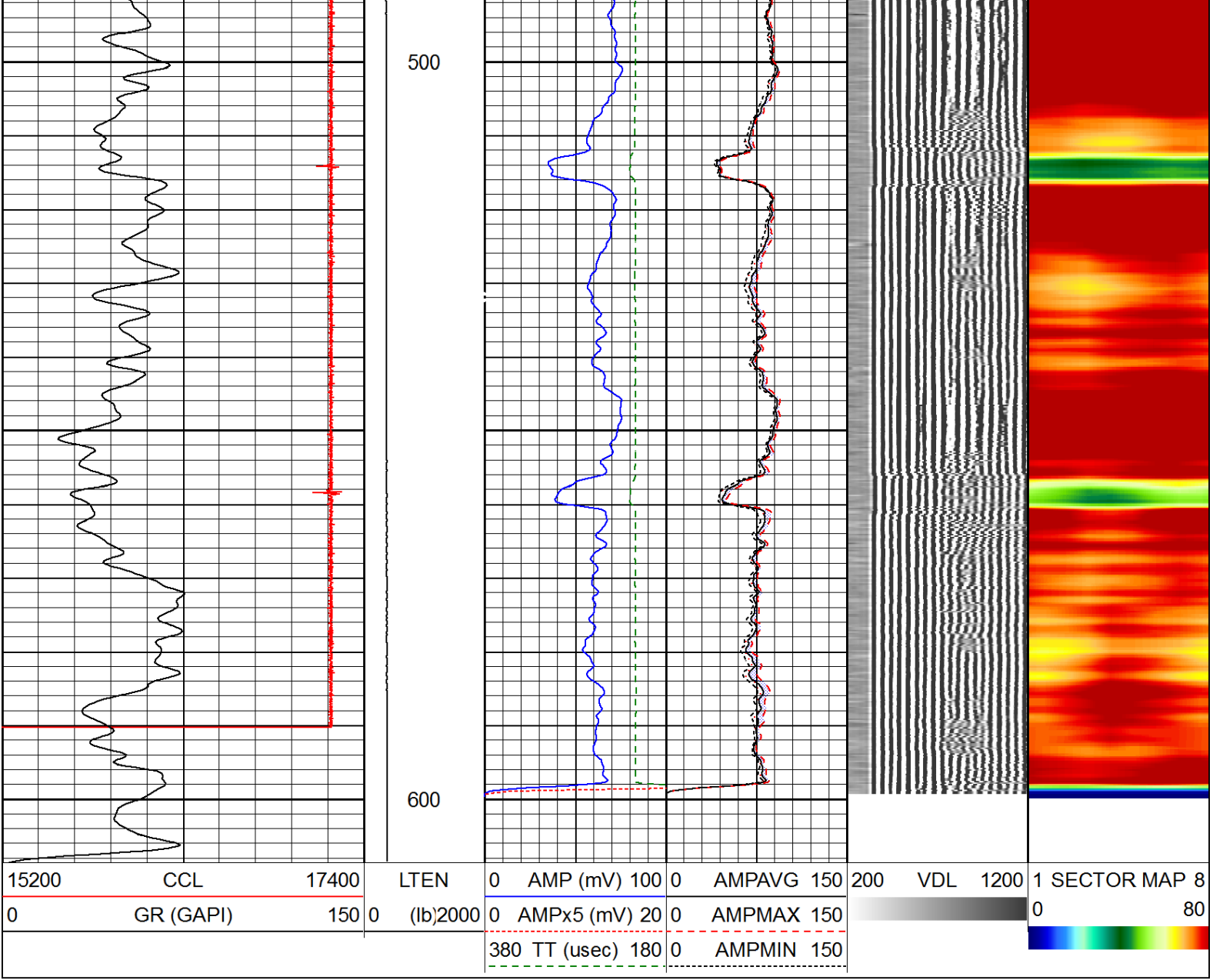


FREE PIPE PASS


Database File: 081913_wpx_patterson_sg_514-27.db
 Dataset Pathname: FREE/pass1.1
 Presentation Format: rmws_scbl
 Dataset Creation: Mon Aug 19 15:20:18 2013 by Calc SCH 120430
 Charted by: Depth in Feet scaled 1:240

15200	CCL	17400	LTEN	0	AMP (mV) 100	0	AMPAVG 150	200	VDL	1200	1	SECTOR MAP 8
0	GR (GAPI)	150	0	(lb)2000	0	AMPx5 (mV) 20	0	AMPMAX 150			0	80
					380	TT (usec) 180	0	AMPMIN 150				





Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
CCL	18.13		CHD-AES (000001) Cable Head	1.04	1.69	2.00
			XTU-002 (216415) Crossover Ultrawire Toolbus To Ultralink	1.58	1.69	6.50
			CCL-028 (10008803) CCL UW 3 1/8" SONDEX	1.61	3.13	36.00
			SDNX 6 Arm PRC 022 W/ GO ADAPTORS	3.00	2.38	22.00

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