RMWS
ROCKY MOUNTAIN WIRELINE SERVICE

CEMENT BOND LOG
GAMMA RAY / CCL

Company	BILL BARRETT CORPORATION		
Well	KAUFMAN 23D - 24 - 692		
Field	MAMM CREEK		
County	GARFIELD	State	COLORADO
Location:	API #: 05 - 045 - 19648		Other Services 3.75" GAUGE RING
	SHL: 1779' FSL & 2415' FEL BHL: 2447' FSL & 1970' FWL		
	SEC 24 TWP 6S RGE 92W		
Permanent Datum	G.L.	Elevation 5843'	Elevation K.B. 5866' D.F. 5585' G.L. 5843'
Log Measured From	K.B.	Ft Above PD 23'	
Drilling Measured From	K.B.		

Date	10 - 20 - 2011	
Run Number	TWO	
Depth Driller	7695'	
Present Depth Driller	NA	
Depth Logger	7547'	
Bottom Logged Interval	7546'	
Top Log Interval	4490'	
Fluid Level	SURFACE	
Type Fluid	WATER	
Max. Recorded Temp.	211.3° F	
Estimated Cement Top	5090'	
Equipment Number	208	
Location	GRAND JCT.	
Recorded By	INGRAM	HARRIS
Witnessed By	MR. ETTER	

Borehole Record				Casing Record		
Run Number	Bit	From	To	Size	Weight	From	To
ONE	8.750"	853'	5814'	9.625"	36#	SURFACE	853'
TWO	7.880"	5814'	7695'	4.5"	11.6#	SURFACE	7695'

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

WARRIOR 7.0 SOFTWARE - Comments

NOTE: LOG WAS DEPTH CORRELATED USING RMWS CBL DATED 9-9-11
SHORT JOINT: 5650' TO 5685' & 6268' TO 6297'
MAIN PASS 5" = 100'
TEMP PASS 2" = 100'
CSG PSI = 1500

Calibration Report

Database File: kaufman_23d_24_692_cbl_102011.db
Dataset Pathname: MAIN/pass1.2
Dataset Creation: Thu Oct 20 11:29:35 2011 by Calc Std Casedhole 10121

Gamma Ray Calibration Report

Serial Number:	217693	
Tool Model:	020	
Performed:	Sun Oct 16 08:24:07 2011	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.8000	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	1123	
Tool Model:	004	
Calibration Casing Diameter:	4.500	in
Calibration Depth:	149.229	ft

Master Calibration, performed Thu Oct 20 11:28:54 2011:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3FT	-0.006	1.114	1.000	81.196	71.571	1.439
5FT	-0.003	1.028	1.000	81.196	77.747	1.263
S1	-0.004	1.185	0.000	100.000	84.059	0.377
S2	-0.007	1.154	0.000	100.000	86.142	0.578
S3	-0.002	1.120	0.000	100.000	89.127	0.197
S4	-0.003	1.140	0.000	100.000	87.507	0.282
S5	-0.002	1.133	0.000	100.000	88.063	0.209
S6	-0.003	1.123	0.000	100.000	88.812	0.263
S7	-0.001	1.117	0.000	100.000	89.407	0.094
S8	-0.001	1.152	0.000	100.000	86.703	0.102

Calibration Report

Serial Number: 1123
Tool Model: 004
Performed:

	Reference (degF)	Reading ()
Low:	0.000	0.000
High:	1.000	1.000
	Gain = 1.000	Offset= 0.000

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MAIN PASS

CSG PSI = 1500

Database File: kaufman_23d_24_692_cbl_102011.db
Dataset Pathname: MAIN/pass1.2
Presentation Format: rmws_dsc
Dataset Creation: Thu Oct 20 11:29:35 2011 by Calc Std Casedhole 10121
Charted by: Depth in Feet scaled 1:240

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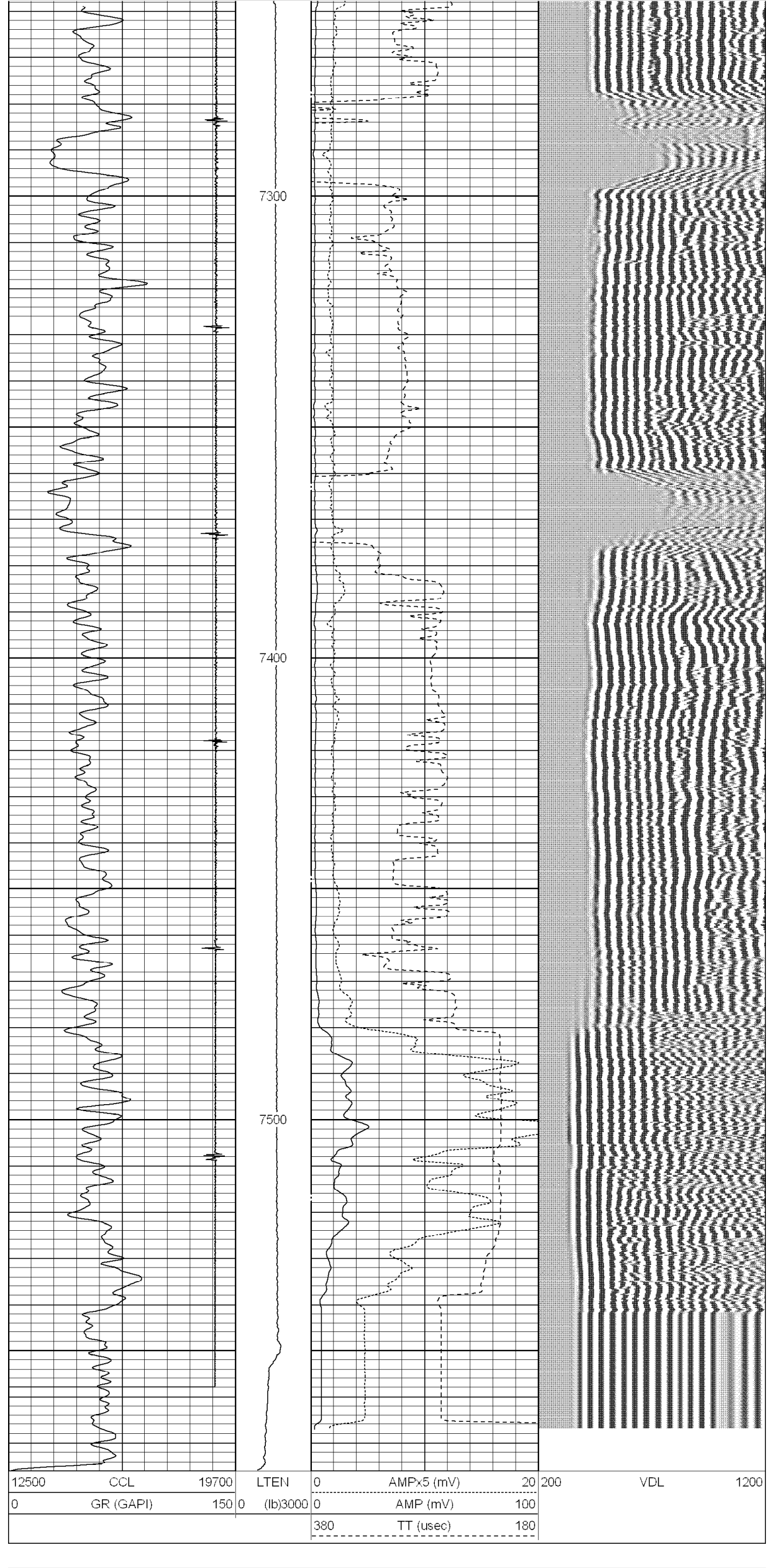
REPEAT PASS

Database File: kaufman_23d_24_692_cbl_102011.db
Dataset Pathname: REPEAT/pass1.1
Presentation Format: rmws_dsc
Dataset Creation: Thu Oct 20 11:31:36 2011 by Calc Std Casedhole 10121
Charted by: Depth in Feet scaled 1:240



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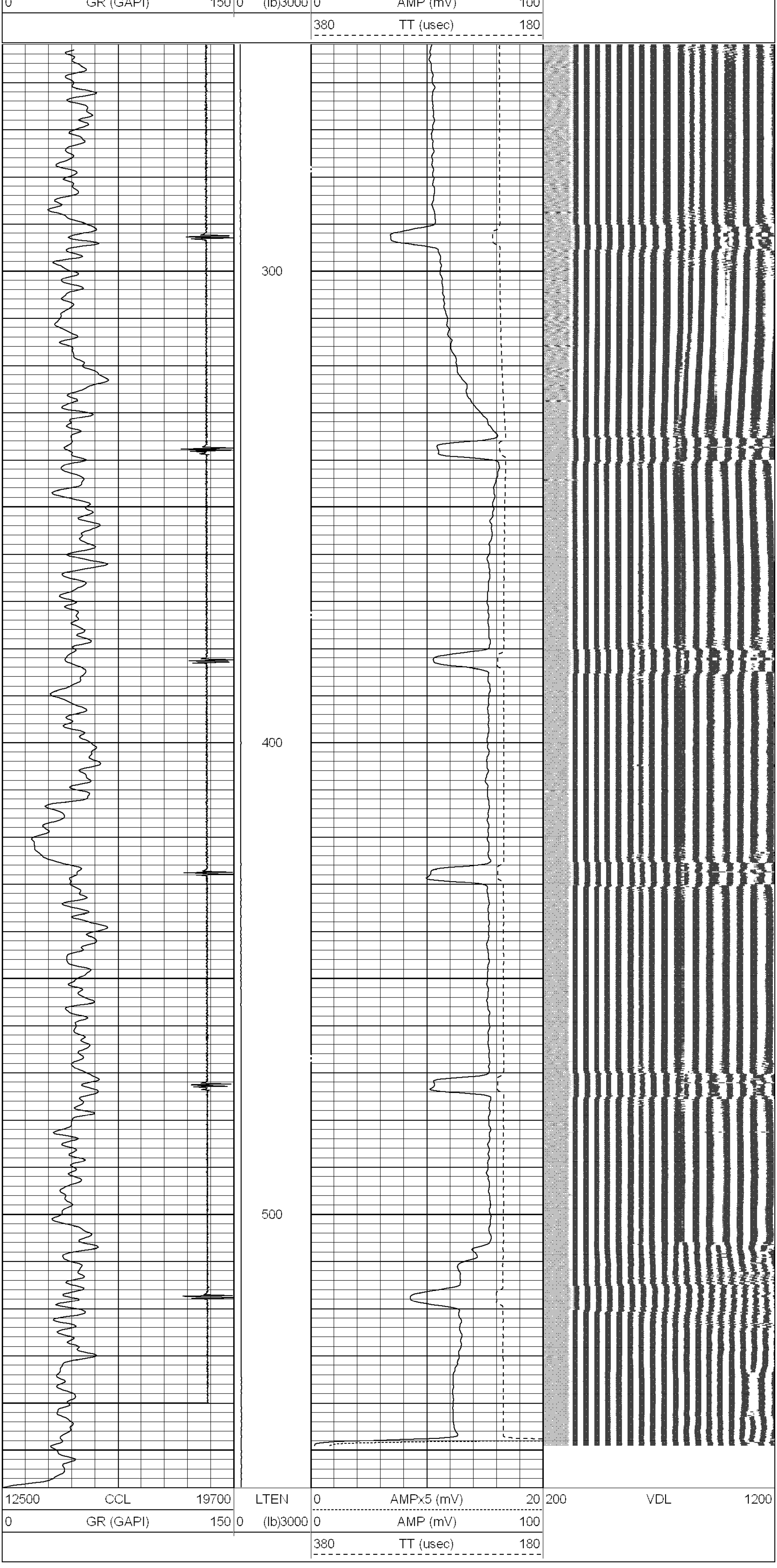
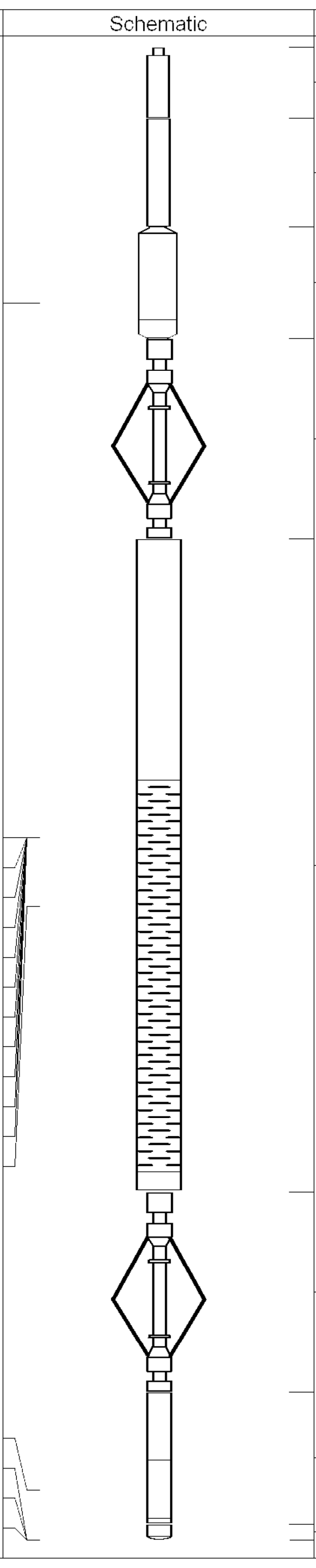
FREE PIPE PASS

Database File: kaufman_23d_24_692_cbl_102011.db
Dataset Pathname: FREEPIPE/pass1.1
Presentation Format: rmws_dsc
Dataset Creation: Thu Oct 20 11:30:47 2011 by Calc Std Casedhole 10121
Charted by: Depth in Feet scaled 1:240

12500 CCL 19700	LTEN	0 AMPx5 (mV) 20	200 VDL 1200



Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			CHD-AES (000001) Cable Head	1.04	1.69	2.00
			XTU-002 (217219) Crossover Ultrawire Toolbus To Ultralink	1.58	1.69	6.50
CCL	17.93		CCL-028 (1036) CCL UW 3 1/8" SONDEX	1.61	3.13	36.00
			PRC-062 (C-1099) 4ARM 2 3/4" ROLLER	2.90	2.75	34.00
WVF3FT WVFS1 WVFS2 WVFS3 WVFS4 WVFS5 WVFS6 WVFS7 WVFS8 CBLTEMP CBLROT WVF5FT	10.18 10.18 10.18 10.18 10.18 10.18 10.18 10.18 10.18 10.18 10.18 9.18		RBT-004 (1123) Radial Bond Tool (UW 3 1/8)	9.47	3.13	140.00
			PRC-062 (C-1100) 4ARM 2 3/4" ROLLER	2.90	2.75	34.00
GR TSTAMP	0.72 0.00		PGR-020 (217693) Production Gamma Ray	1.93	1.69	9.50
ITEMPX HVOLTX	0.00 0.00		BUL-006 (212965) Bullnose Terminator	0.22	1.69	1.20

Dataset:	kaufman_23d_24_692_cbl_102011.db: field/well/MAIN/pass1.2
Total Length:	21.65 ft
Total Weight:	263.20 lb
O.D.	3.13 in

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State	COLORADO