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Pioneer Energy Services

RADIAL BOND LOG
CCL/VDL
GAMMA RAY

Company	CARRIZO (NIOBRARA) LLC
Well	TIMBRO RANCH 2-34-10-59
Field	WATTENBURG
County	WELD
State	COLORADO

Company CARRIZO (NIOBRARA) LLC
Well TIMBRO RANCH 2-34-10-59
Field WATTENBURG
County WELD State COLORADO

Location: API #: 05-123-40525
LAT: 40.78625 LONG: -103.96321
SEC 3 TWP 9N RGE 59W

Other Services

Permanent Datum Elevation 5067'
Log Measured From KB 17'
Drilling Measured From

Elevation
K.B. 5084'
D.F.
G.L. 5067'

Date	2/21/2015
Run Number	1
Depth Driller	NA
Depth Logger	6246'
Bottom Logged Interval	6246'
Top Log Interval	SURFACE
Open Hole Size	8.75"
Type Fluid	WATER
Density / Viscosity	NA
Max. Recorded Temp.	NA
Estimated Cement Top	900'
Time Well Ready	11:30
Time Logger on Bottom	12:00
Equipment Number	1
Location	FT. MORGAN
Recorded By	TIM REESE
Witnessed By	KIRK W.

Borehole Record				Tubing Record		
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	9.625"	36	SURFACE	1400'
Prot. String				
Production String	7"	23	SURFACE	6393'
Liner	4.5"	11.6	5738'	10663'

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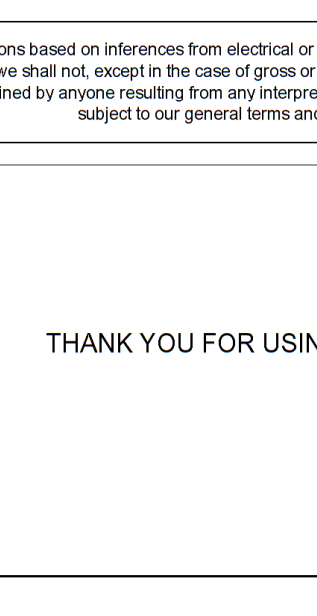
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

Comments

THANK YOU FOR USING PIONEER ENERGY SERVICES



Sensor	Offset (ft)	Description	Len (ft)	OD (in)	Wt (lb)
		CSS_MID	2.79	3.00	36.00
WVF3FT WVFCAL WVFS1 WVFS2 WVFS3 WVFS4 WVFS5 WVFS6 WVFS7 WVFS8 WVF5FT	11.71 11.71 11.71 11.71 11.71 11.71 11.71 11.71 11.71 11.71 10.63	RBT-Probe (130433) Probe Radii Bond Tool with Digital Telemetry	8.92	2.75	90.00
		PTS275	2.83	2.75	
CCL GR	3.63 2.30	GR_CCL-Probe (110249) Probe Gamma CCL	4.54	2.75	100.00

Dataset: timbro ranch 2-34-10-59.db: field/well/run1/pass3
Total Length: 19.08 ft
Total Weight: 226.00 lb
O.D. 3.00 in

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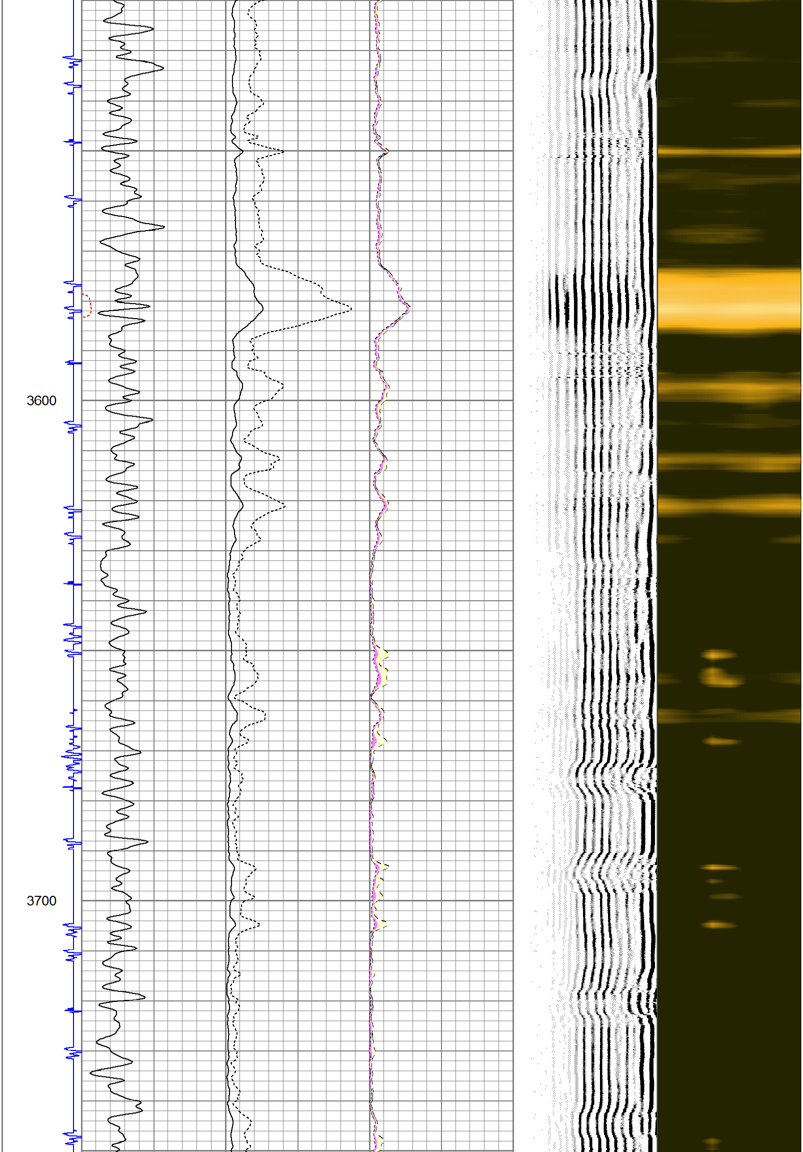
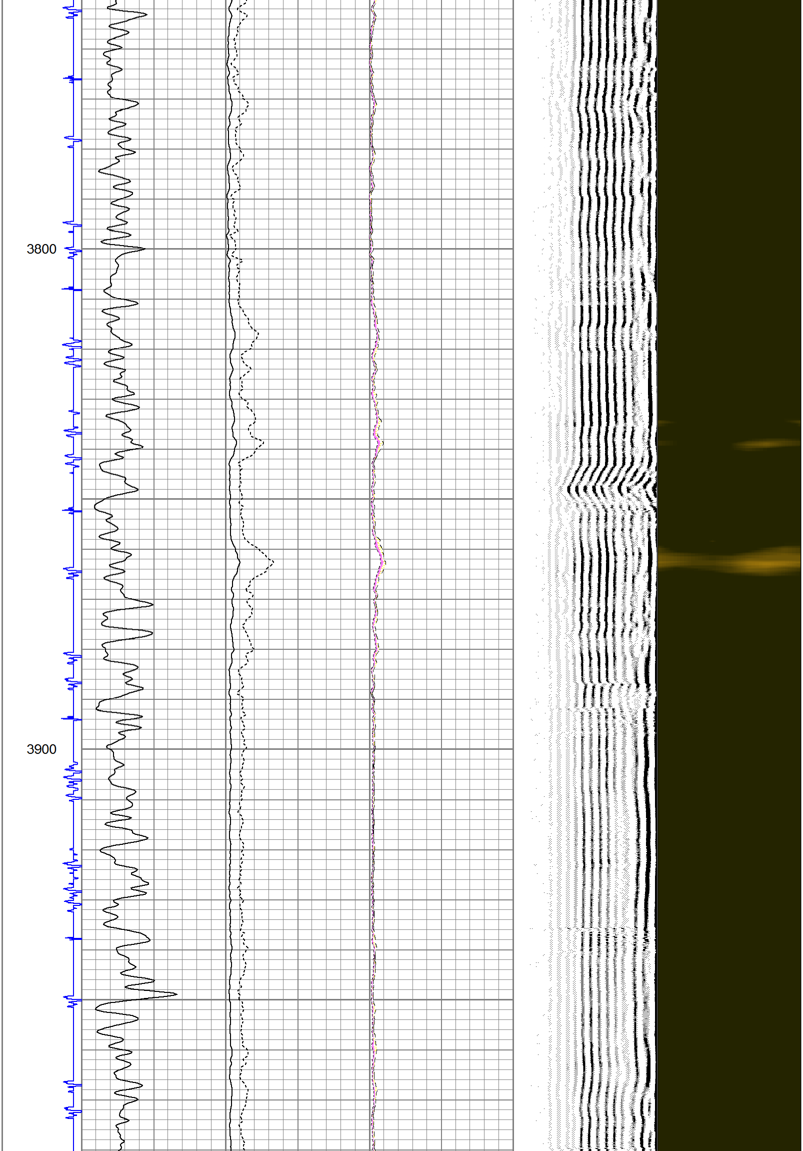
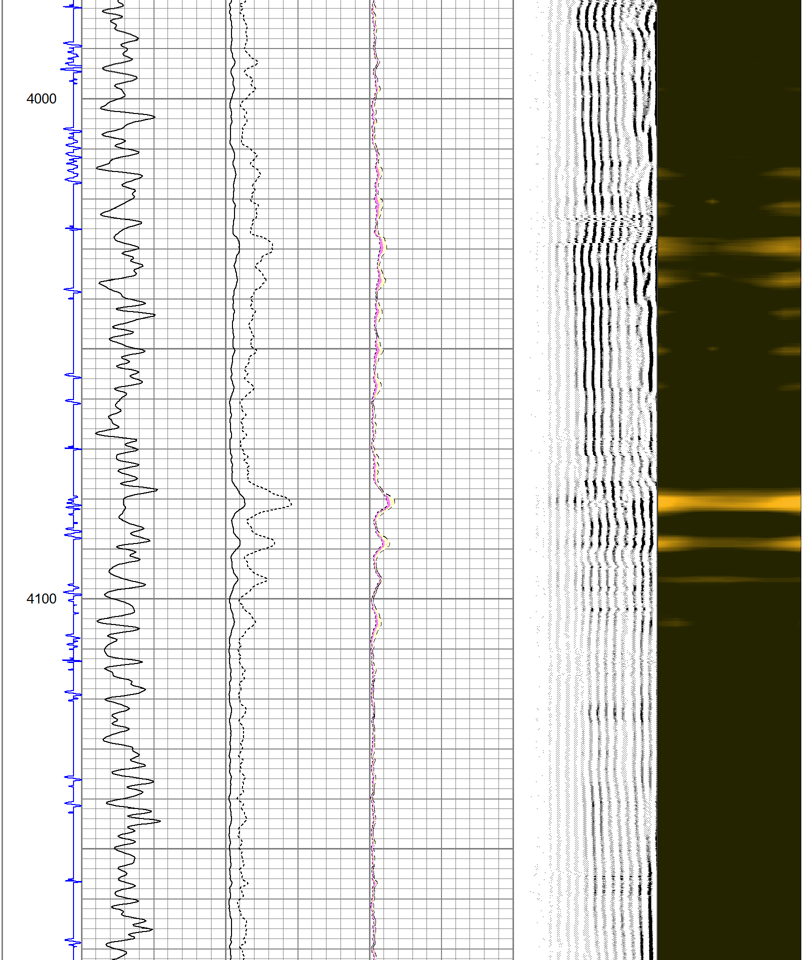
MAIN LOG

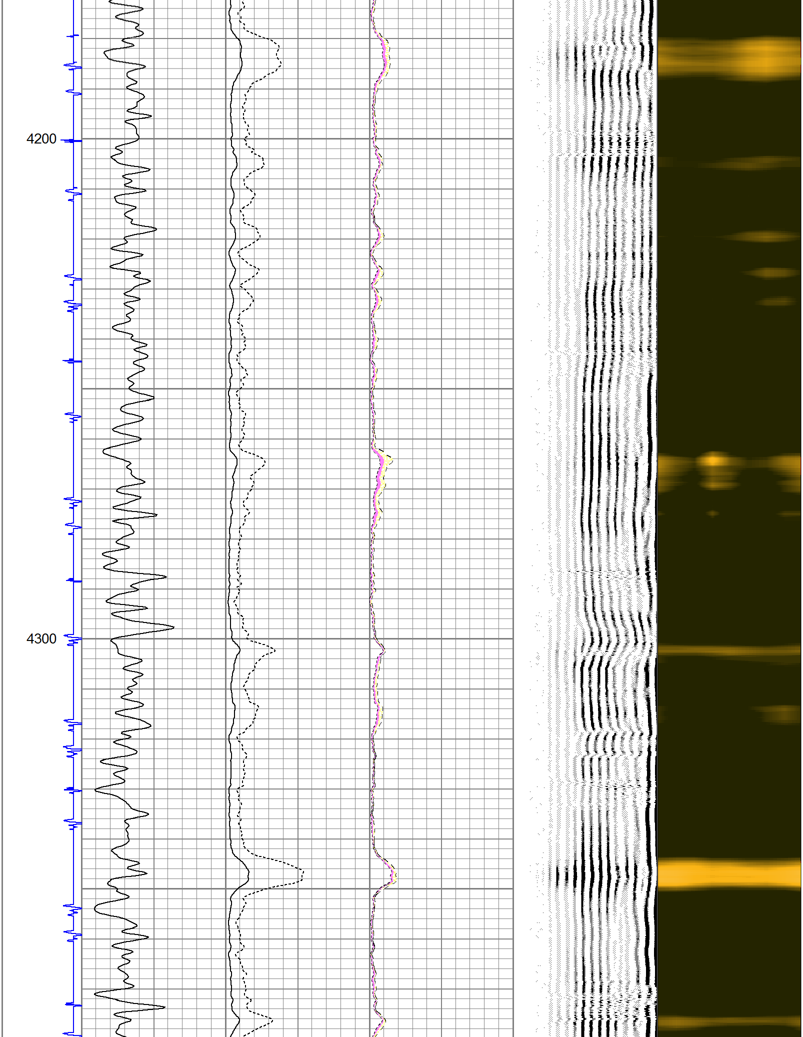
1000 PSI APPLIED AT SURFACE

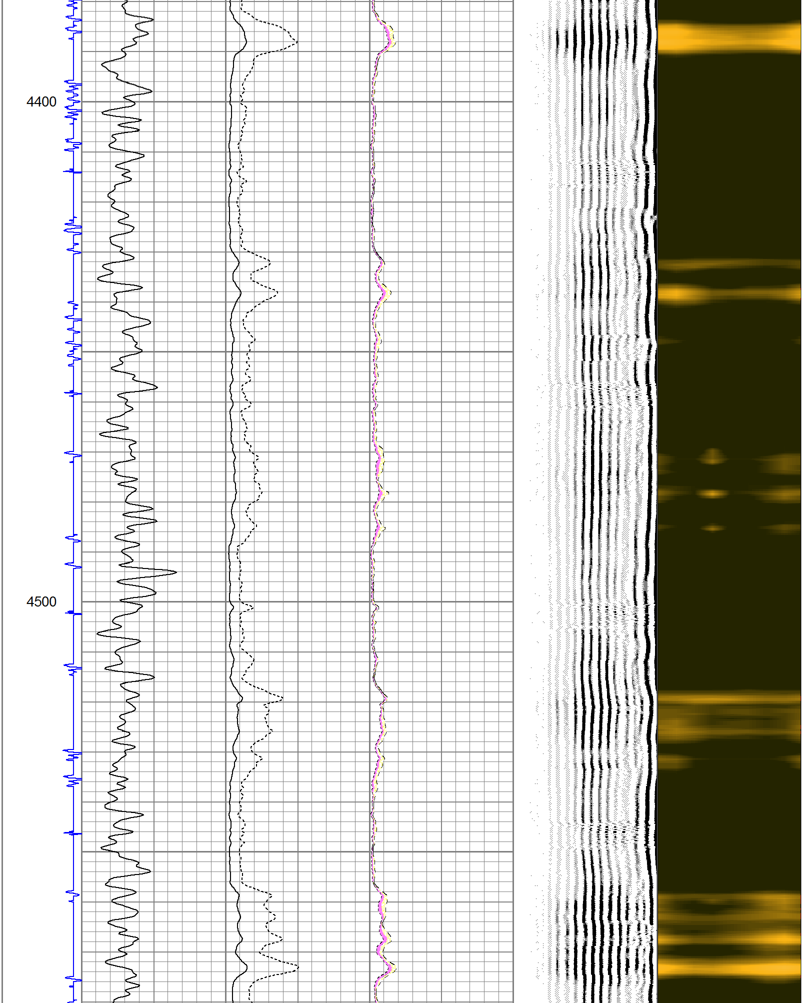
Database File: timbro ranch 2-34-10-59.db
Dataset Pathname: merge2
Presentation Format: scbl02
Dataset Creation: Sat Feb 21 14:16:43 2015
Charted by: Depth in Feet scaled 1:240

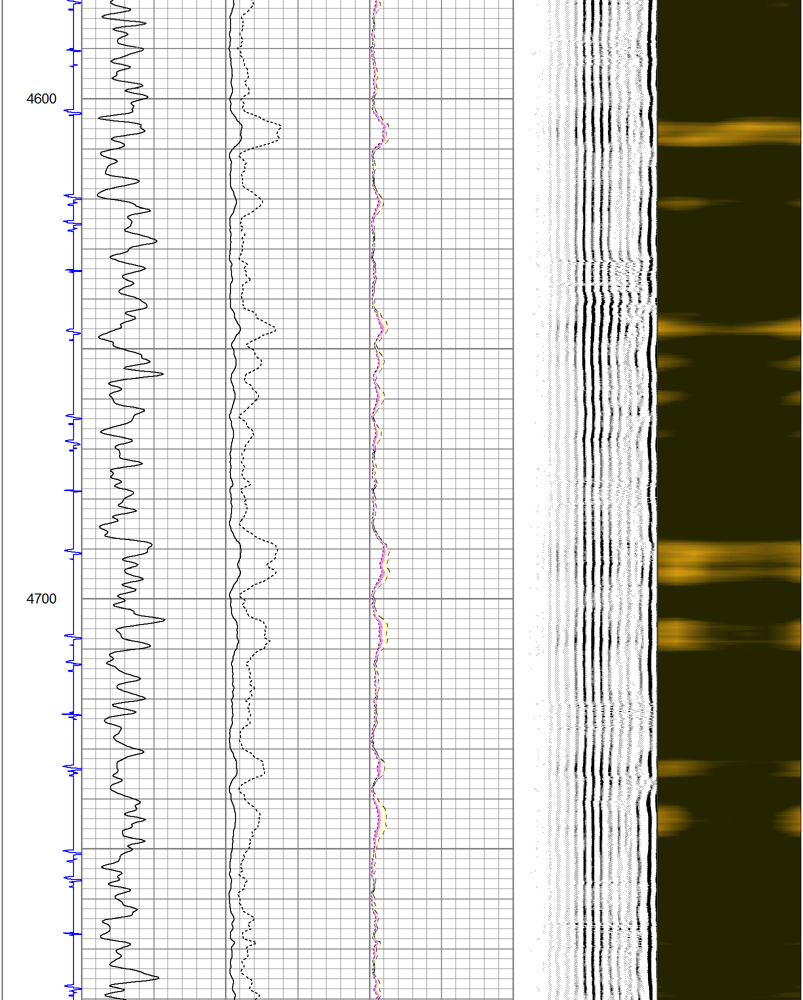


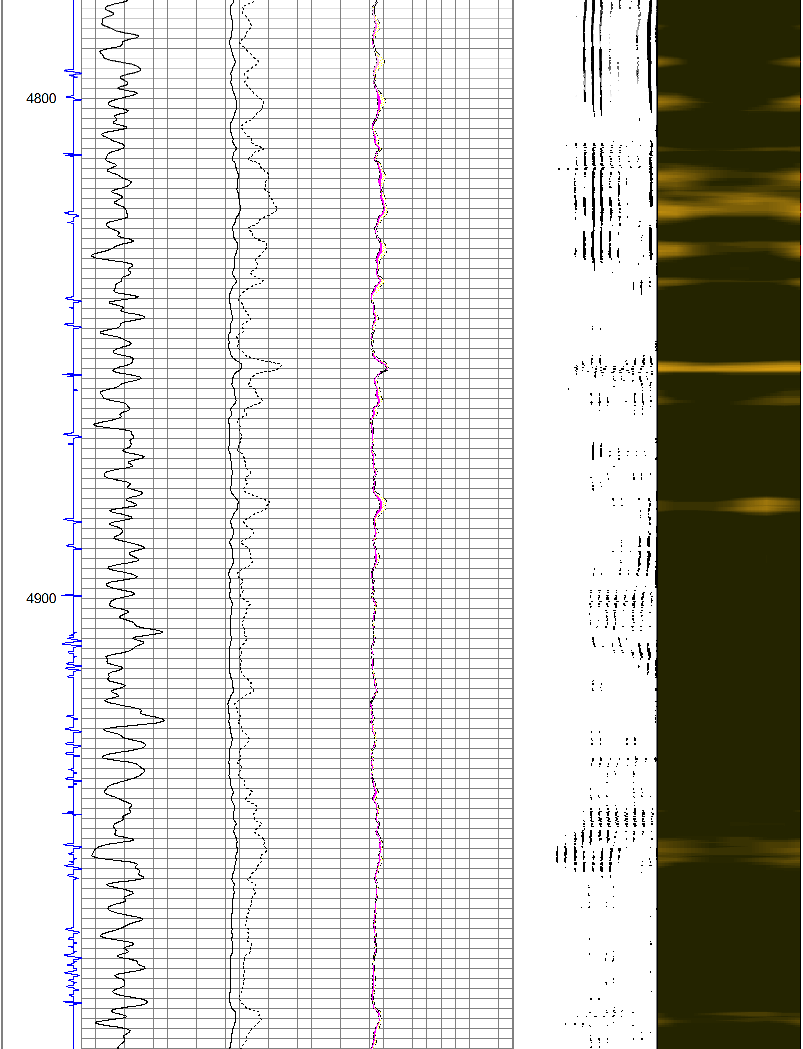


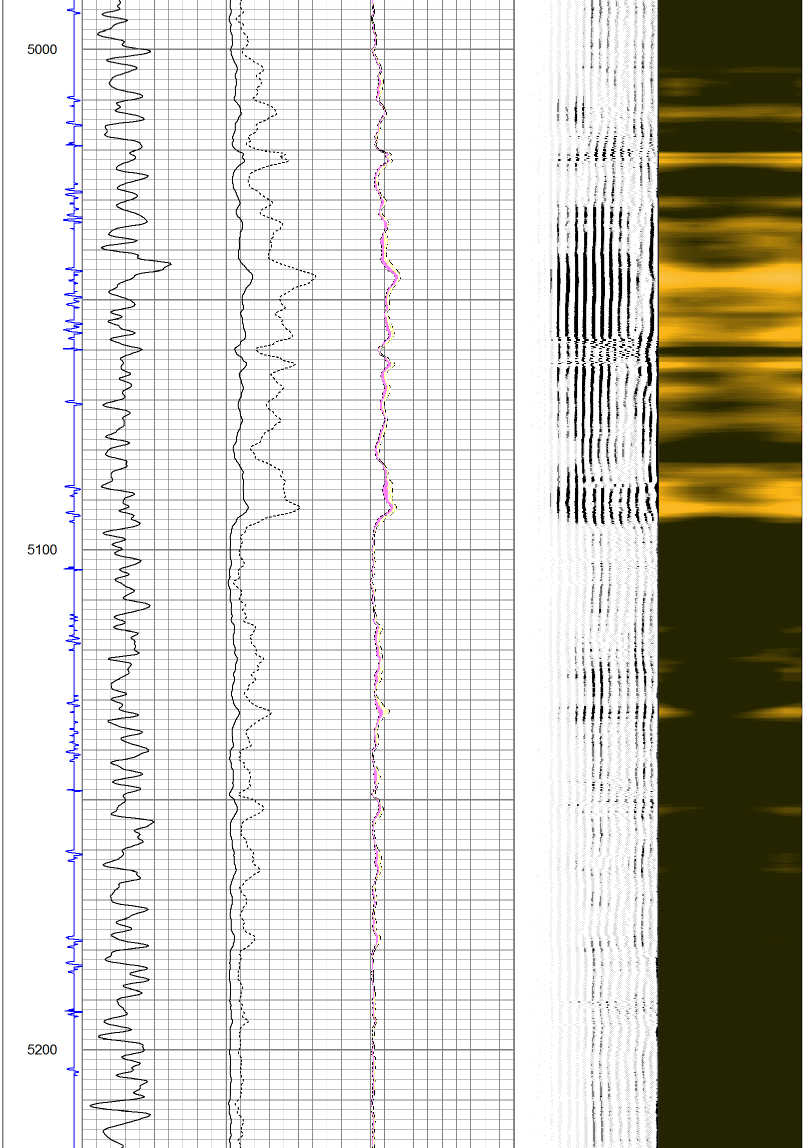


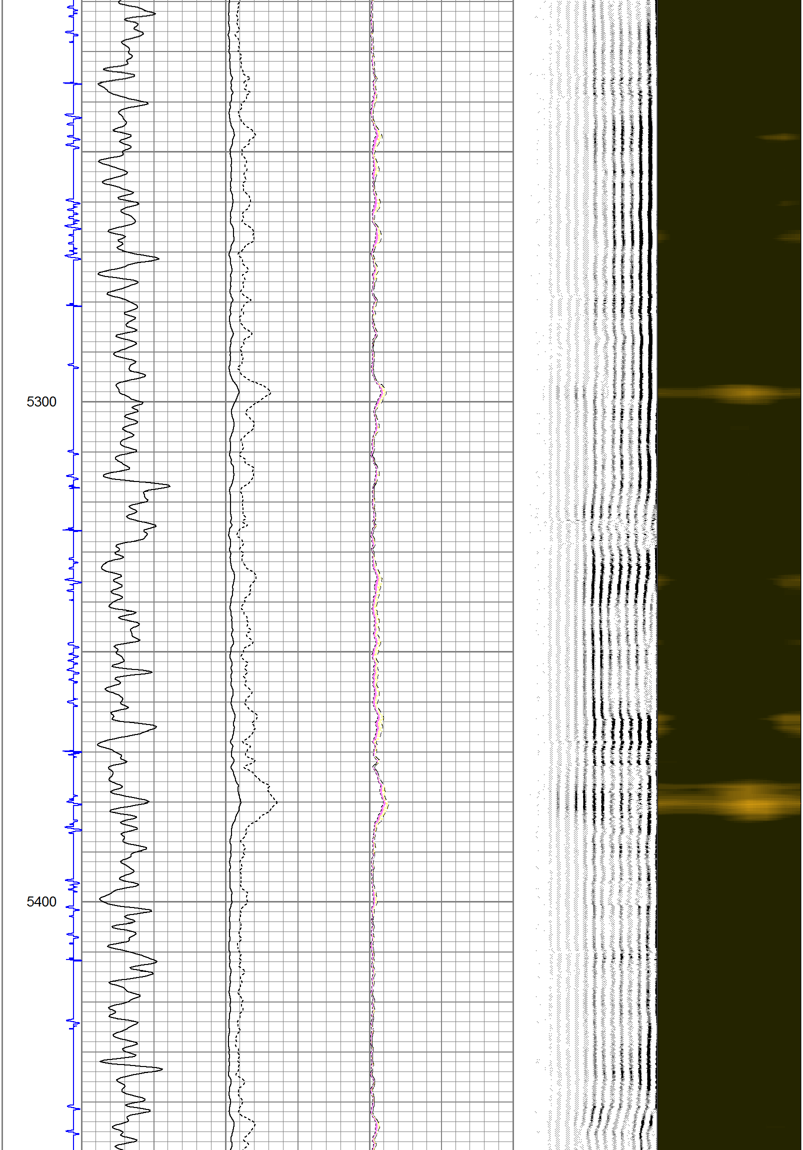


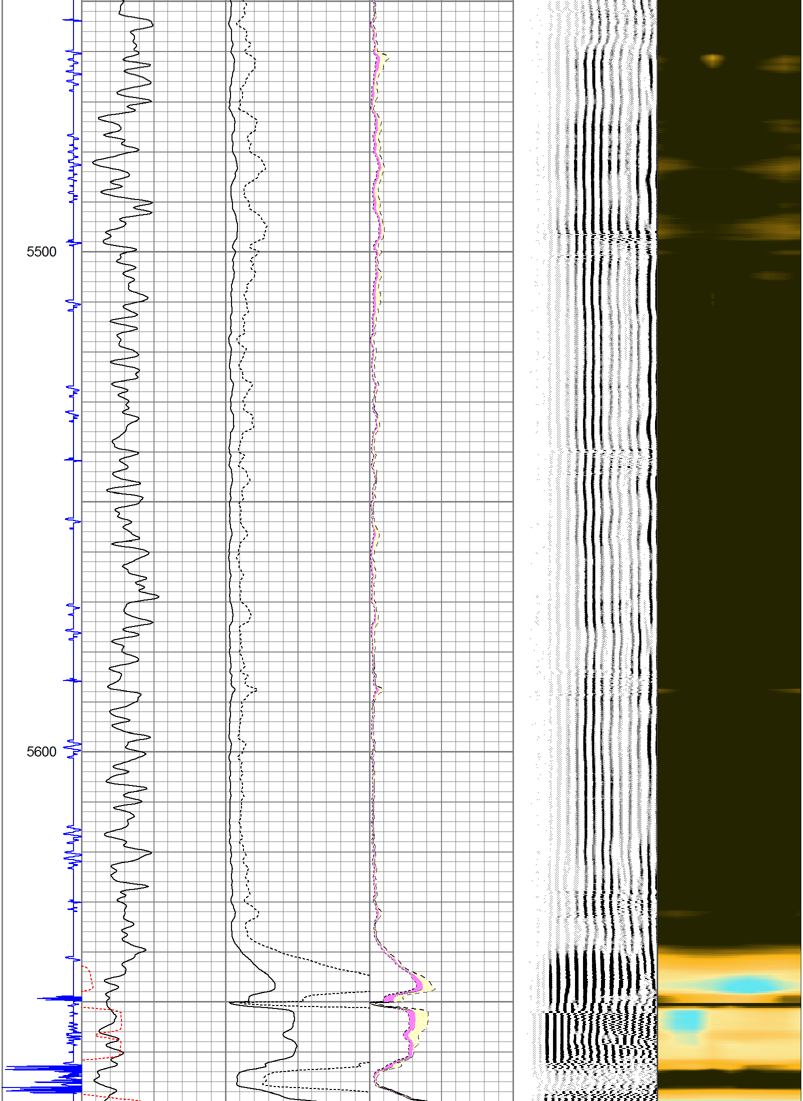


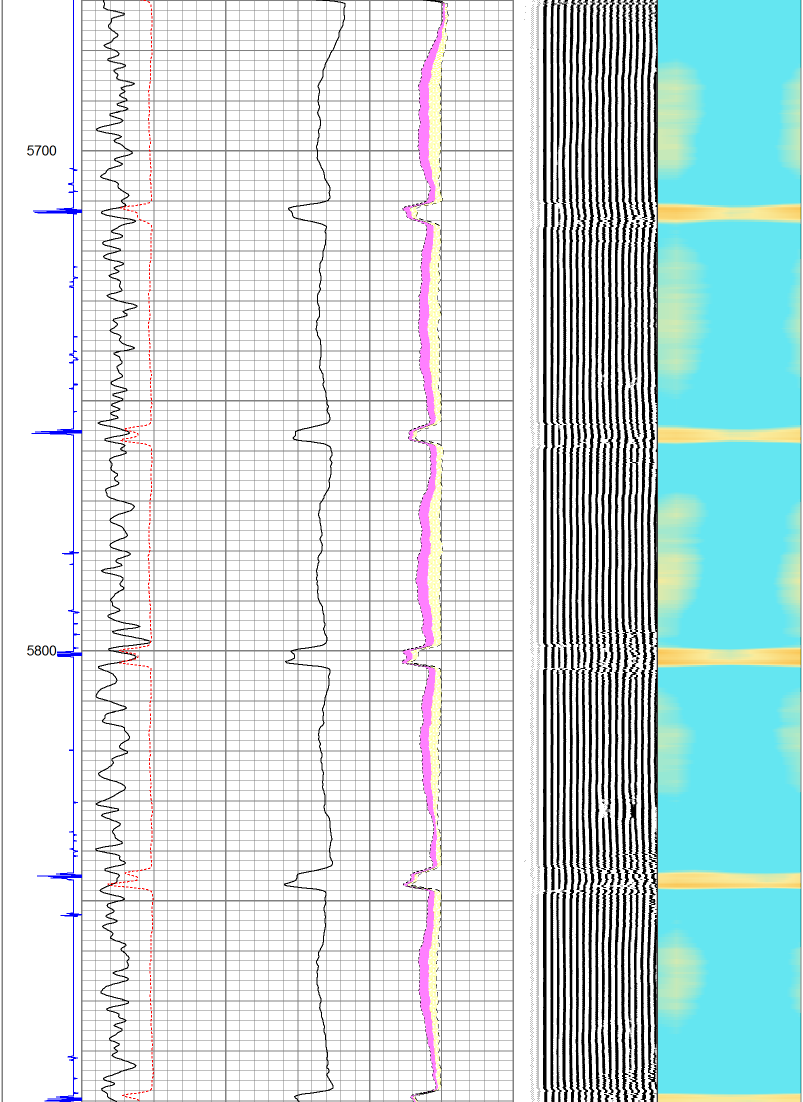


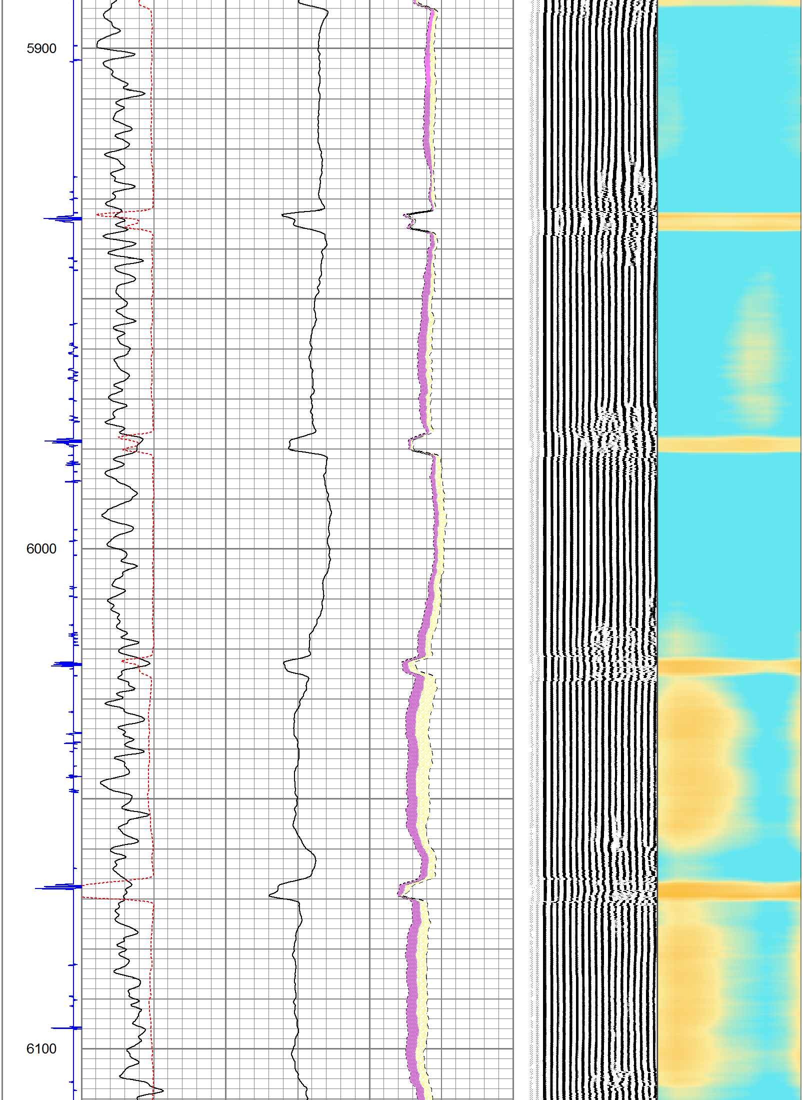


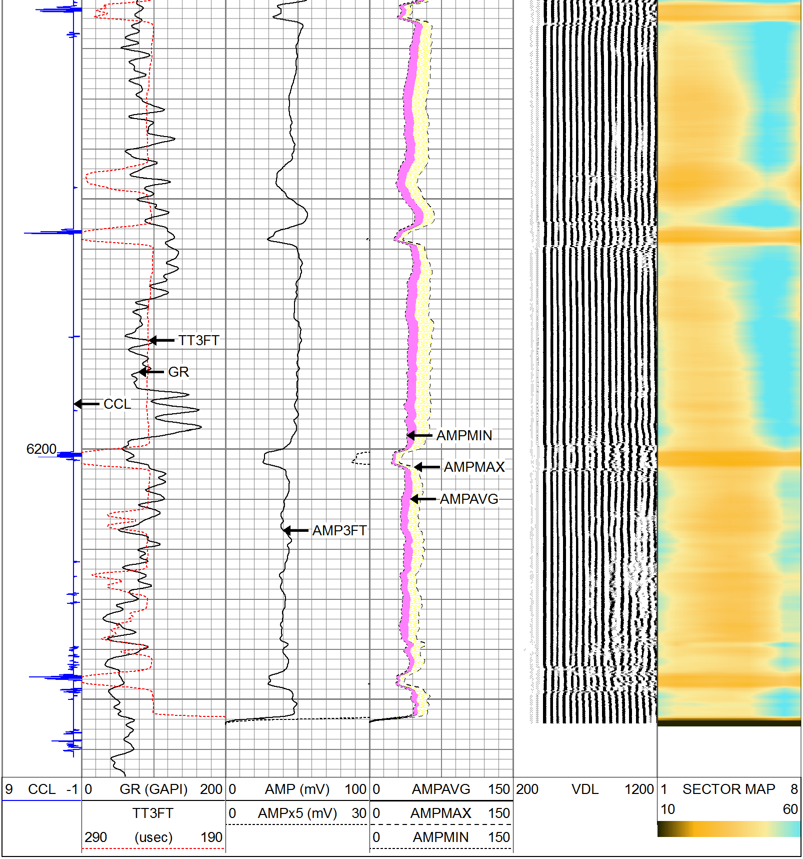












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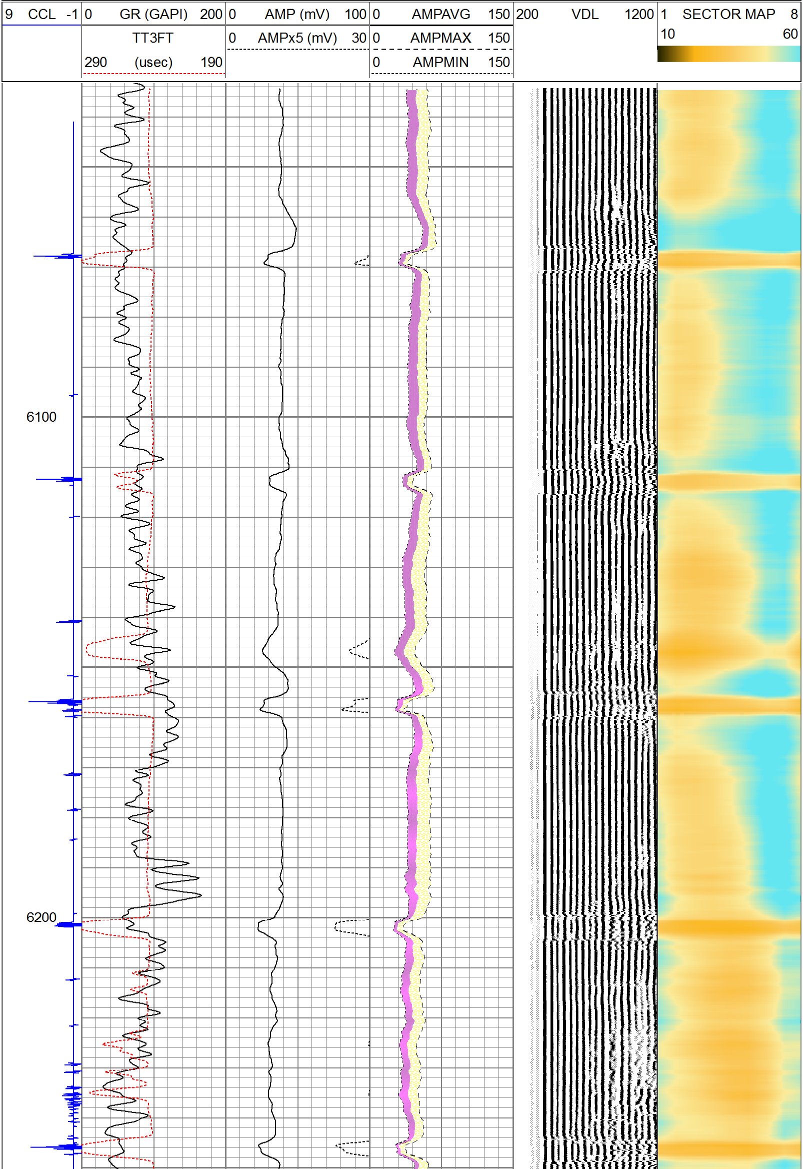
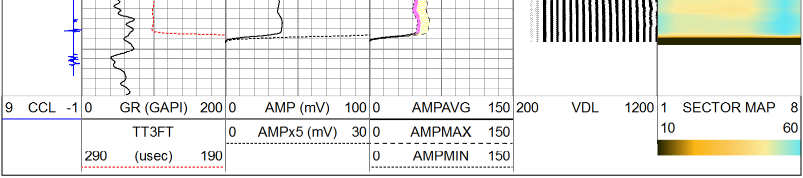
REPEAT SECTION

1000 PSI APPLIED AT SURFACE

Database File: timbro ranch 2-34-10-59.db
Dataset Pathname: merge2.1
Presentation Format: scbl02
Dataset Creation: Sat Feb 21 14:07:33 2015
Charted by: Depth in Feet scaled 1:240





Calibration Report

Database File:	timbro ranch 2-34-10-59.db
Dataset Pathname:	merge2
Dataset Creation:	Sat Feb 21 14:16:43 2015

Gamma Ray Calibration Report

Serial Number:	110249	
Tool Model:	Probe	
Performed:	Thu Dec 04 11:34:32 2014	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.9000	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	130433	
Tool Model:	Probe	
Calibration Casing Diameter:	7.000	in
Calibration Depth:	210.550	ft

Master Calibration, performed Sat Feb 21 13:26:45 2015:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.020	0.603	1.000	62.000	104.628	-1.121
CAL	0.011	0.595				
5'	0.008	0.553	1.000	62.000	111.996	0.101
SUM						
S1	0.018	0.558	0.000	100.000	185.202	-3.312
S2	0.020	0.582	0.000	100.000	177.687	-3.499
S3	0.019	0.608	0.000	100.000	169.711	-3.175
S4	0.019	0.635	0.000	100.000	162.294	-3.045
S5	0.016	0.639	0.000	100.000	160.551	-2.600
S6	0.017	0.626	0.000	100.000	164.138	-2.827
S7	0.020	0.600	0.000	100.000	172.567	-3.533
S8	0.023	0.571	0.000	100.000	182.737	-4.273

Internal Reference Calibration, performed Wed Dec 31 17:00:00 1969:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.011	0.595	1.000	0.000

Air Zero Calibration, performed Wed Dec 31 17:00:00 1969:

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000
S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000

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State COLORADO