CEMENT BOND LOG

Company	BONANZA CREEK ENERGY
Well	STATE ANTELOPE E14-31-30XRLNB
Field	WATTENBERG
County	WELD
State	COLORADO
Country	U.S.A.

Company BONANZA CREEK ENERGY OPERATING
Well STATE ANTELOPE E14-31-30XRLNB
Field WATTENBERG
County WELD
State COLORADO Country U.S.A.

Location: API # : 05-123-51160-01
660 FSL 2462 FEL
LAT: 40.350873 N LONG: 104.365929 W
SEC 31 TWP 5N RGE 62W

Other Services

			Elevation
Permanent Datum	GROUND LEVEL	Elevation 4,550'	K.B. 4,574'
Log Measured From	KB, 24' ABOVE GL		D.F. 4,573'
Drilling Measured From	KB		G.L. 4,550'

Date	11-MAR-2022
Run Number	ONE
Depth Driller	NA
Depth Logger	6,787'
Bottom Logged Interval	6,783'
Top Log Interval	SURFACE
Open Hole Size	NA
Type Fluid	WATER
Density / Viscosity	NA
Max. Recorded Temp.	211 degF
Estimated Cement Top	351'
Time Well Ready	ROA
Time Logger on Bottom	12:30
Equipment Number	504
Location	WILLISTON, ND
Recorded By	M. NETTELL
Witnessed By	D. HERRERA

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

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	9-5/8"	36 LB/FT	SURFACE	1,600'
Prot. String				
Production String	5-1/2"	17 LB/FT	SURFACE	17,112'
Liner				

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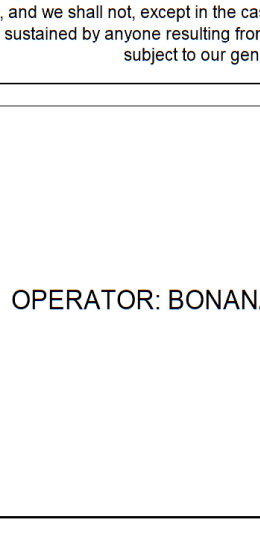
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

OPERATOR: BONANZA CREEK ENERGY OPERATING COMPANY LLC



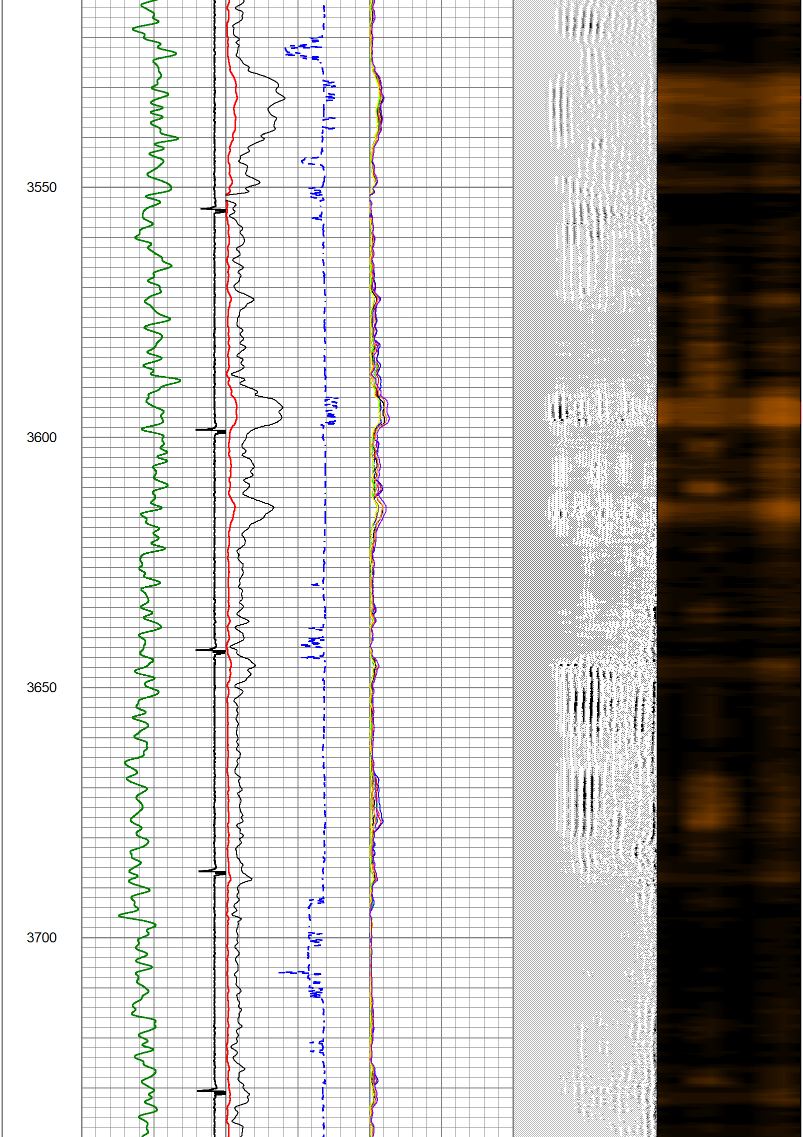
Sensor	Offset (ft)	Description	Length (ft)	O.D. (in)	Weight (lb
GCT_FMWR mSec_Count RBT_Status Error_Ct	22.80 22.80 22.80 22.80	CENT-BC275-0000 Probe 2.75" Bowspring Centralizer	2.83	2.75	24.00
RBT_HV	19.97				
RBT_Temp	17.17				
RBT_ACCZ RBT_ACCY RBT_ACCX WVFSYNC WVFS8 WVFS7 WVFS6 WVFS5 WVFS4 WVFS3 WVFS2 WVFS1 WVFCAL WVF3FT WVF5FT	15.02 15.02 15.02 15.02 15.02 15.02 15.02 15.02 15.02 15.02 15.02 15.02 15.02 15.02 14.02	RBT8-RADII-275T (FW2102-033) Probe 2.75" RADII 8 Sector Bond Tool w/ Temperature	9.20	2.75	
		CENT-BC275-0000 Probe 2.75" Bowspring Centralizer	2.83	2.75	24.00
GCT_HV	7.94				
CCL$2 CCL$1 GCT_Temp GR GCT_IntTemp	6.97 6.97 6.42 5.56 4.83	GCacc-GCT275-0000 (FW2103-050) Probe 2.75" Gamma Ray - CCL w/ Temp	4.77	2.75	55.00
		CENT-PTS275 BC275-0000 Centralizer	2.83	2.75	24.00
		Plug-FA108-0000 1.38" Bull Plug	0.33	1.38	1.00

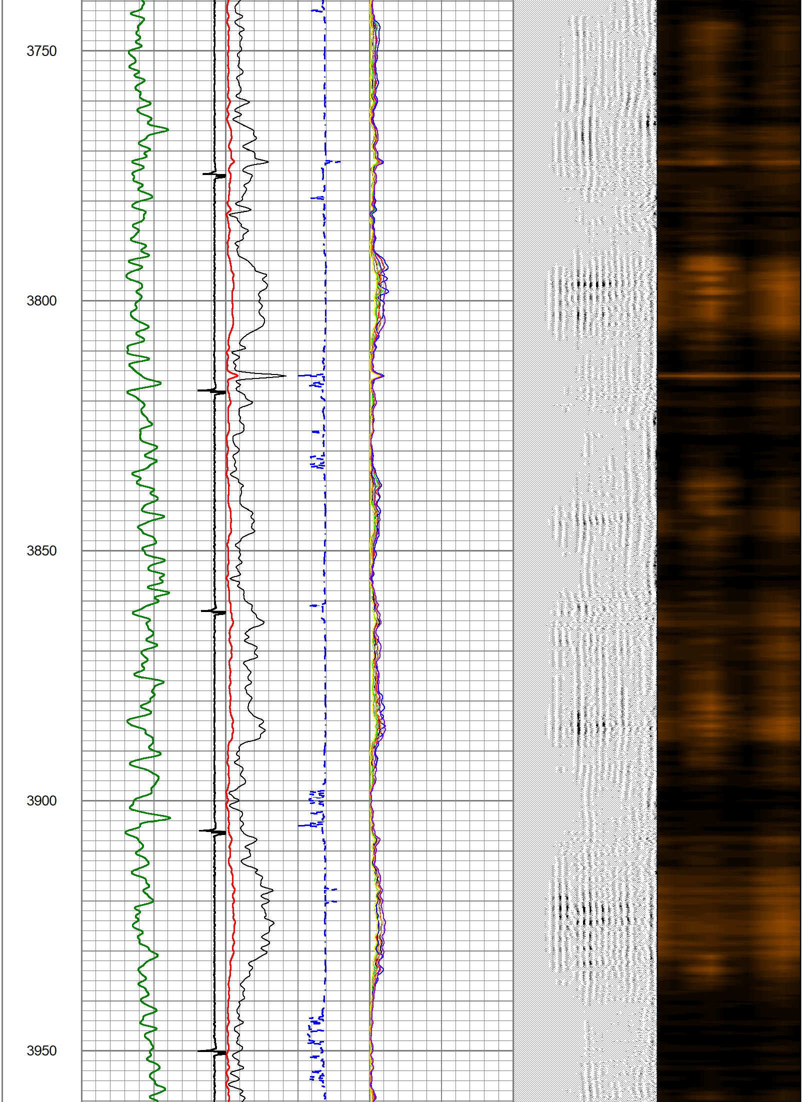
Dataset: bonanza_creek(state antelope_e14-31-30xrlnb)_cbl_03112022.db: field/well/run1/repeat1
Total length: 22.80 ft
Total weight: 128.00 lb
O.D.: 2.75 in

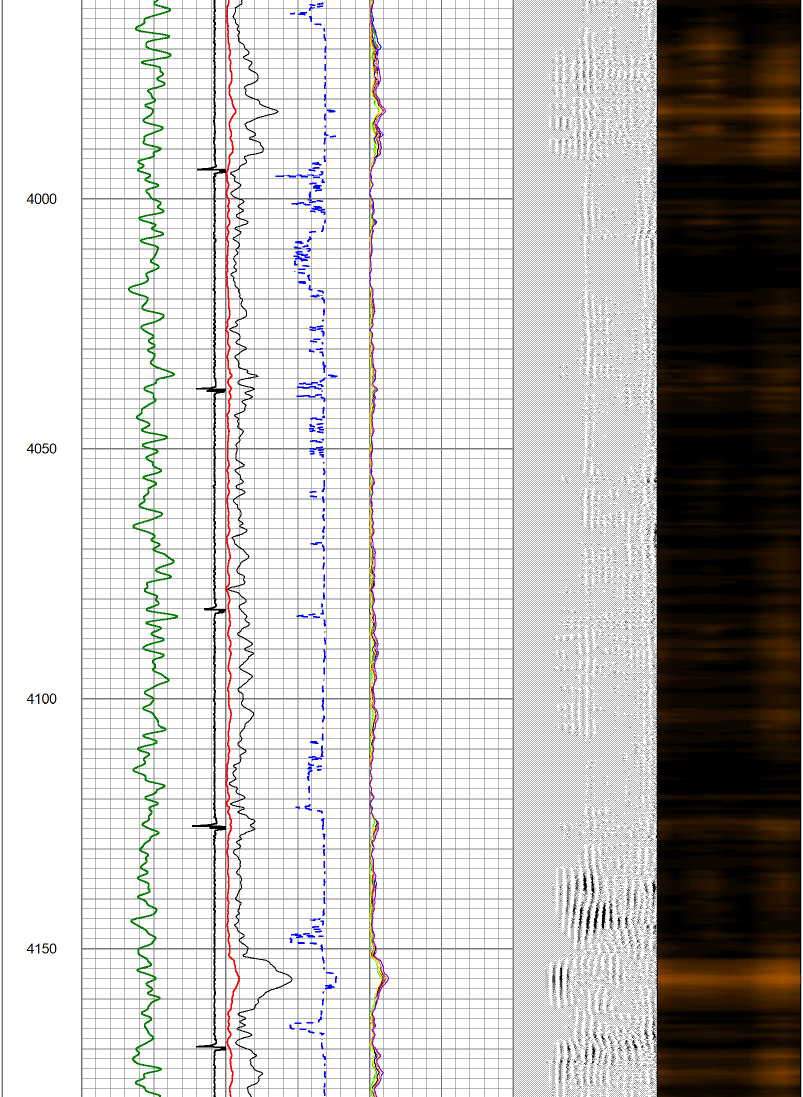
MAIN PASS

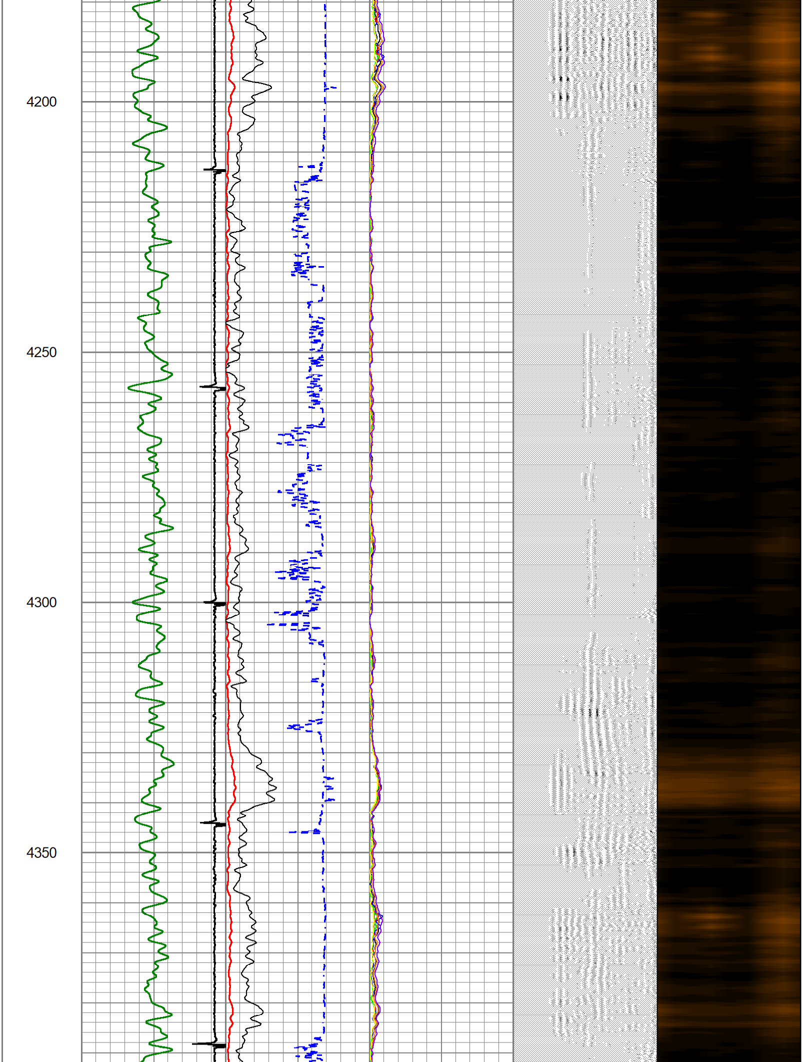
Database File	bonanza_creek(state antelope_e14-31-30xrlnb)_cbl_03112022.db
Dataset Pathname	repeat1
Presentation Format	_sfww_cbl_oasis-sectors
Dataset Creation	Fri Mar 11 13:45:25 2022
Charted by	Depth in Feet scaled 1:240

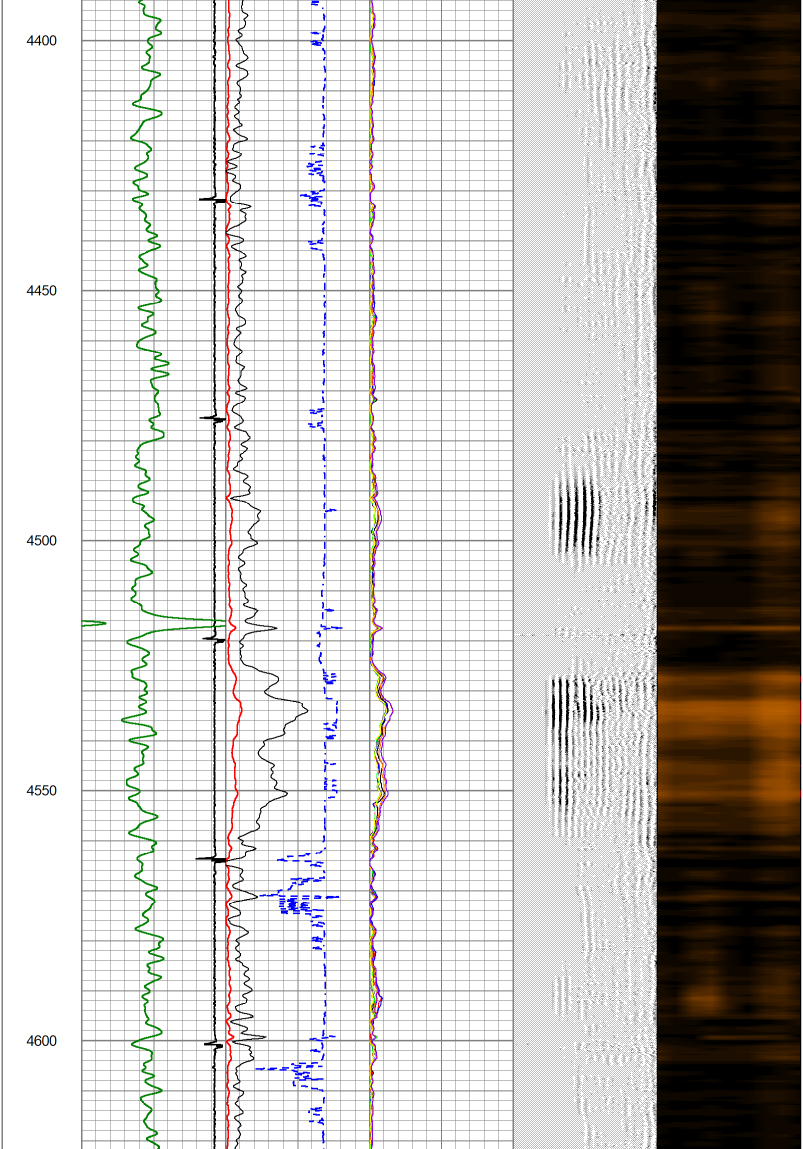
-5 CCL 5	0 AMP (mV) 100	0 AMPS1 100	200 VDL (usec) 1200
0 GR (GAPI) 150	650 TT (usec) 150	0 AMPS2 100	1 RADIAL MAP 8
	0 AMPx5 (mV) 20	0 AMPS3 100	
		0 AMPS4 100	
		0 AMPS5 100	
		0 AMPS6 100	
		0 AMPS7 100	
		0 AMPS8 100	

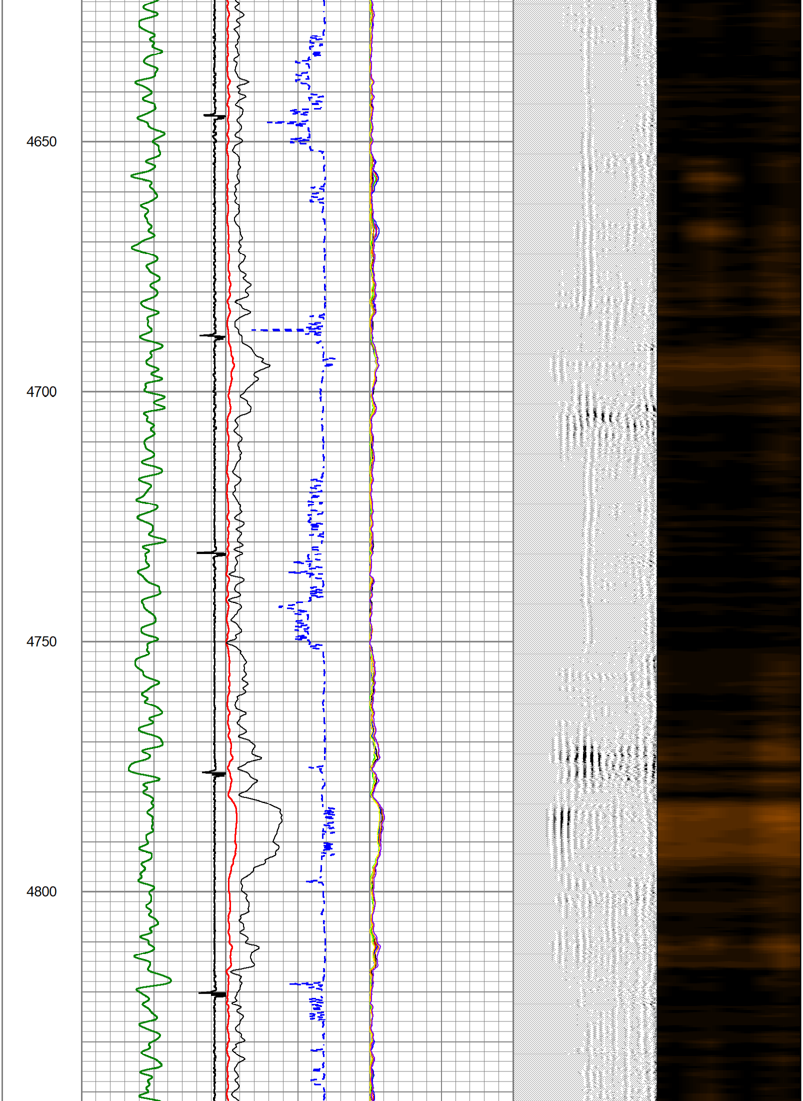


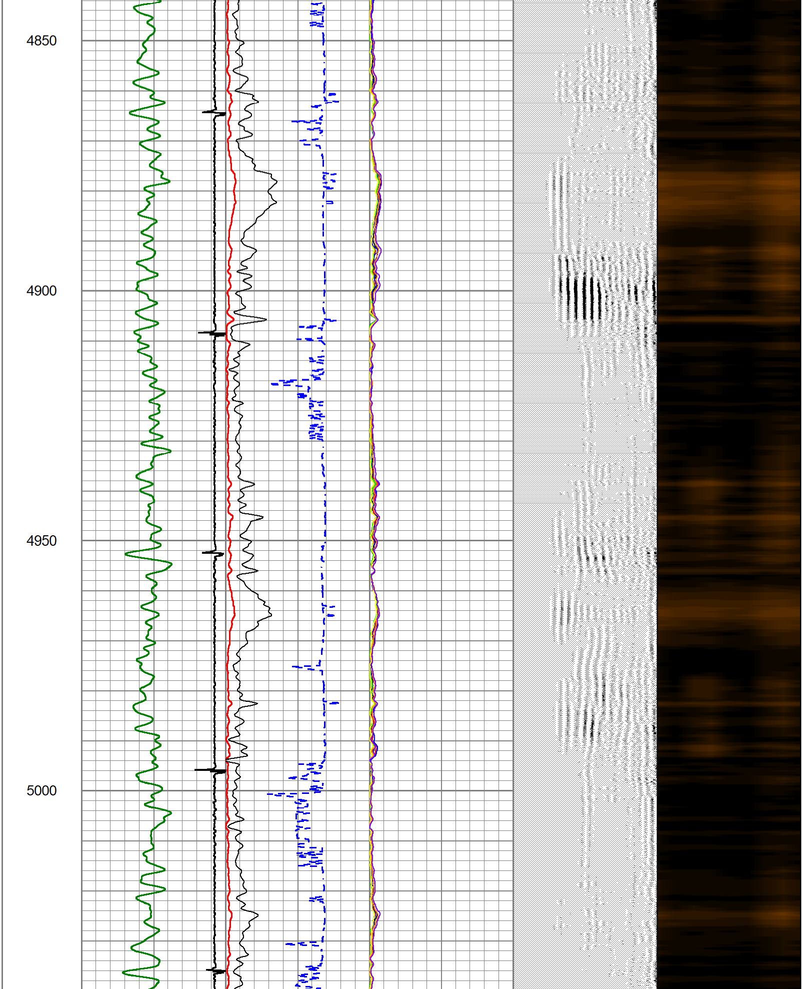


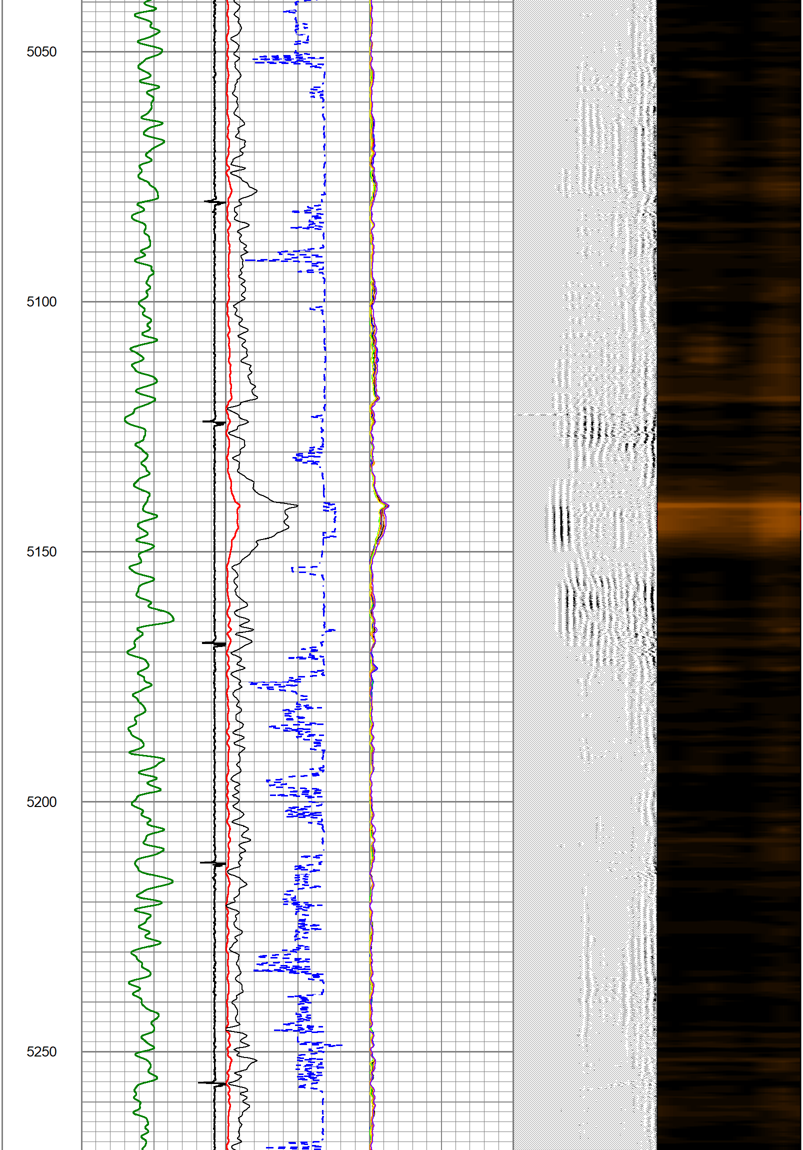


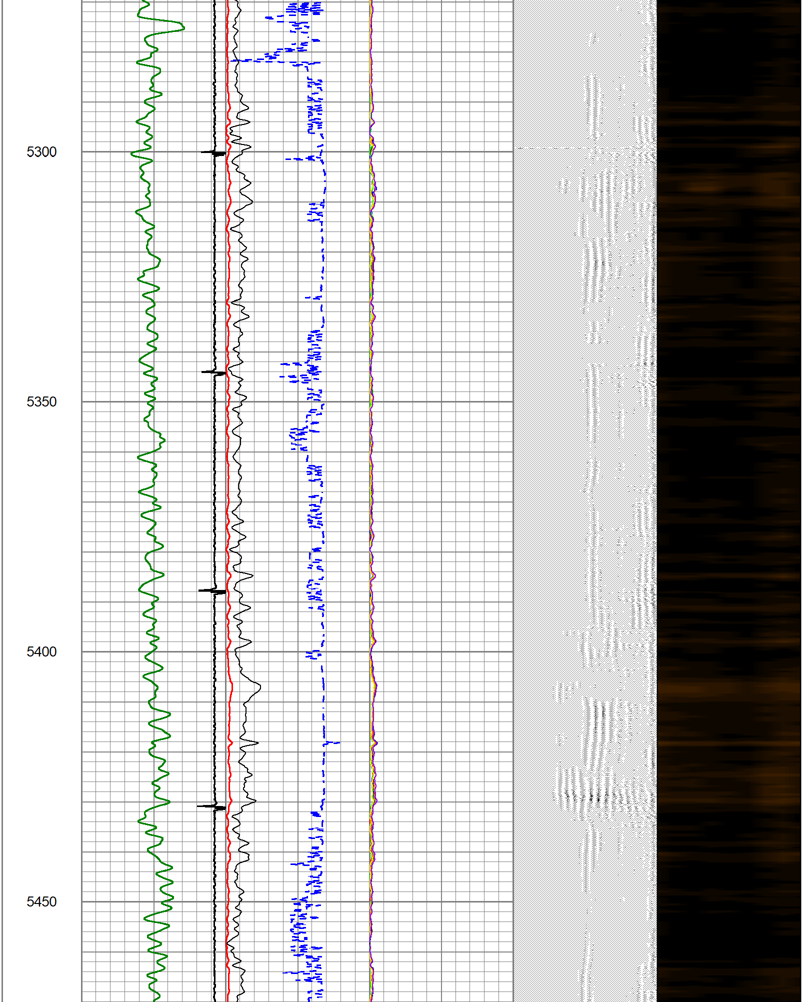


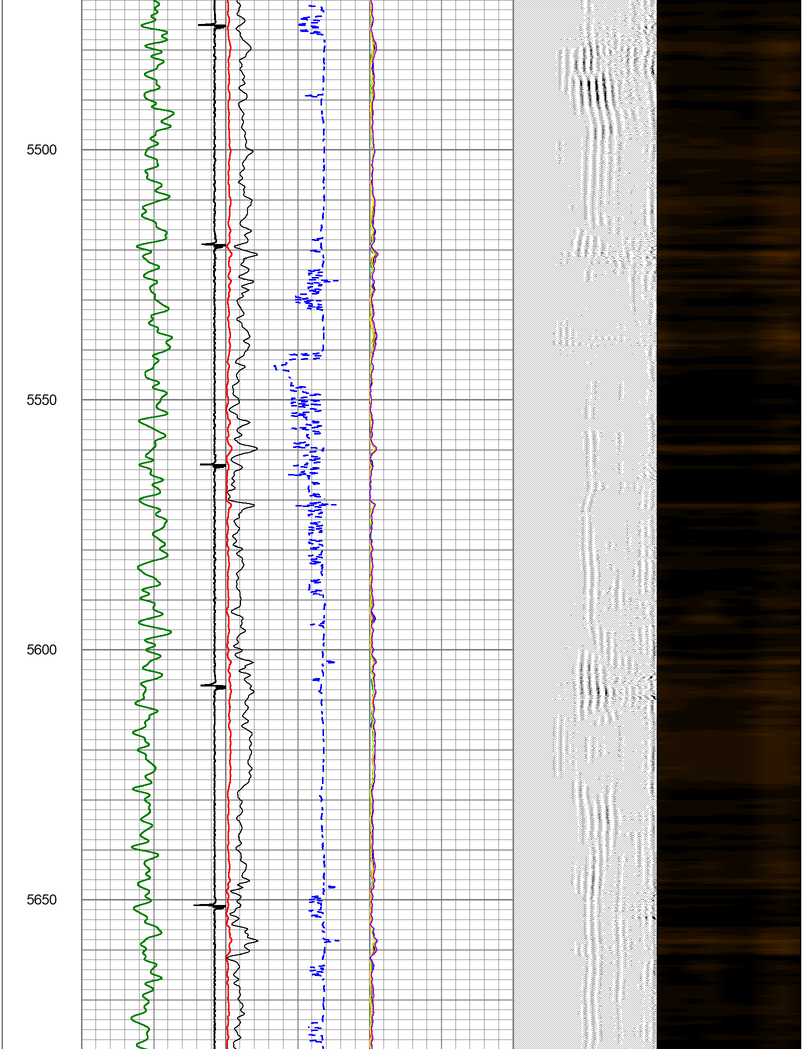


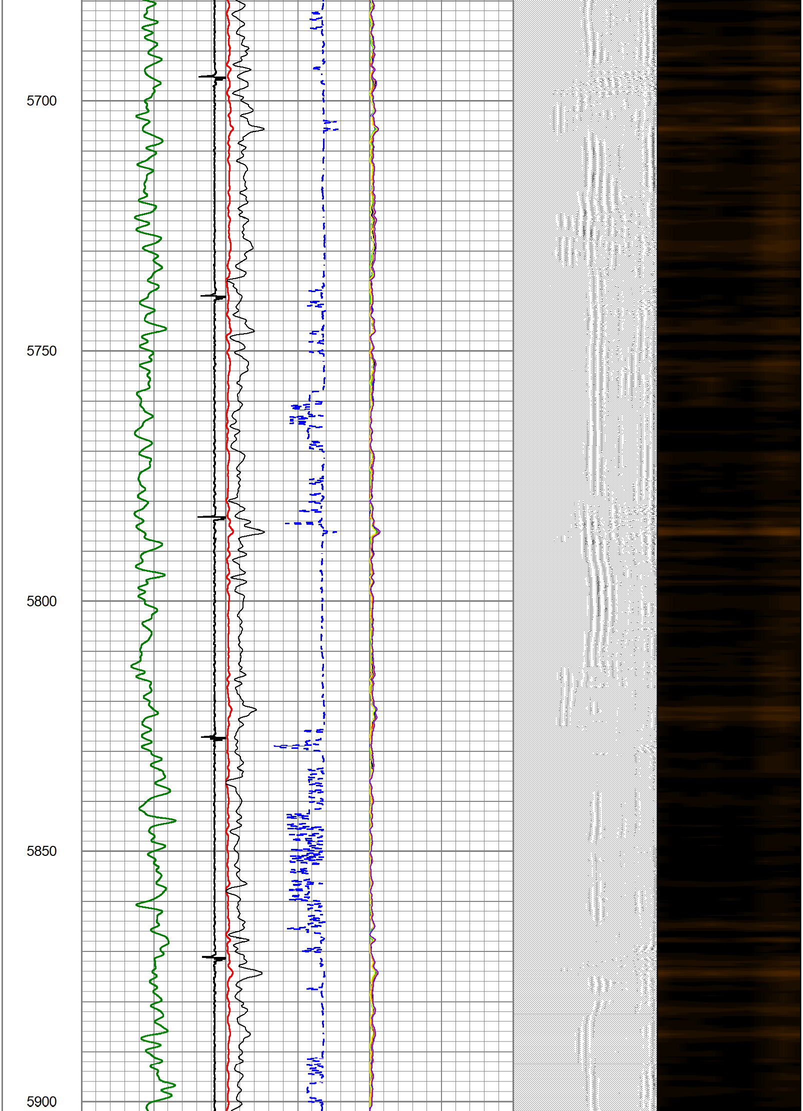


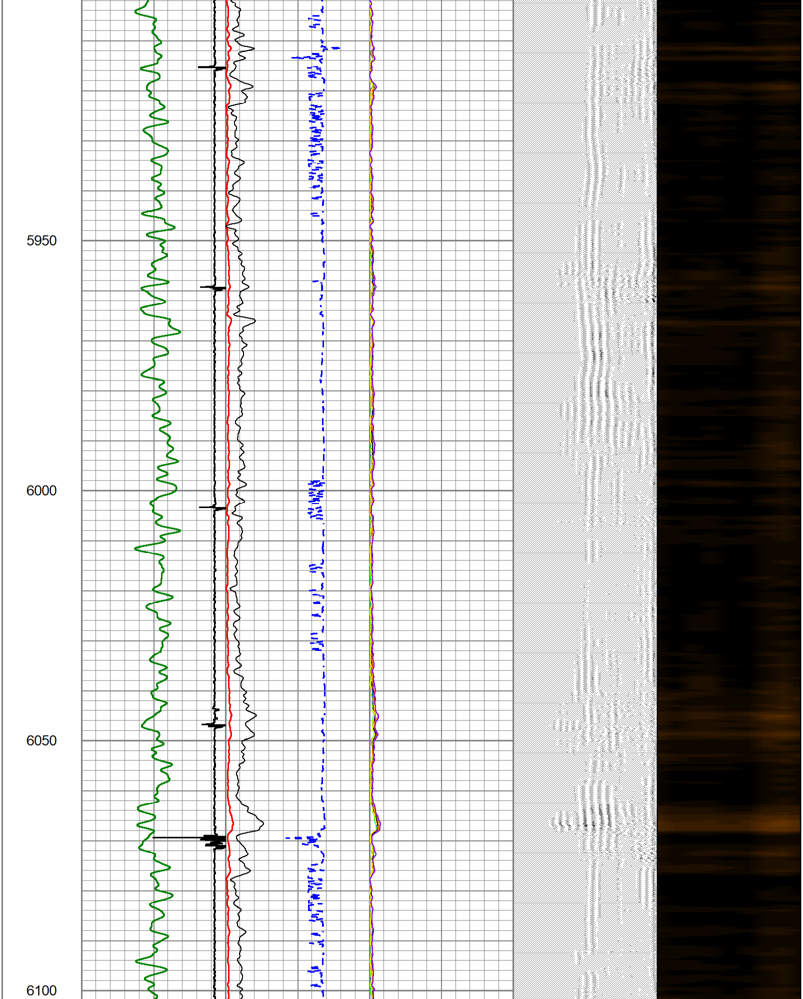


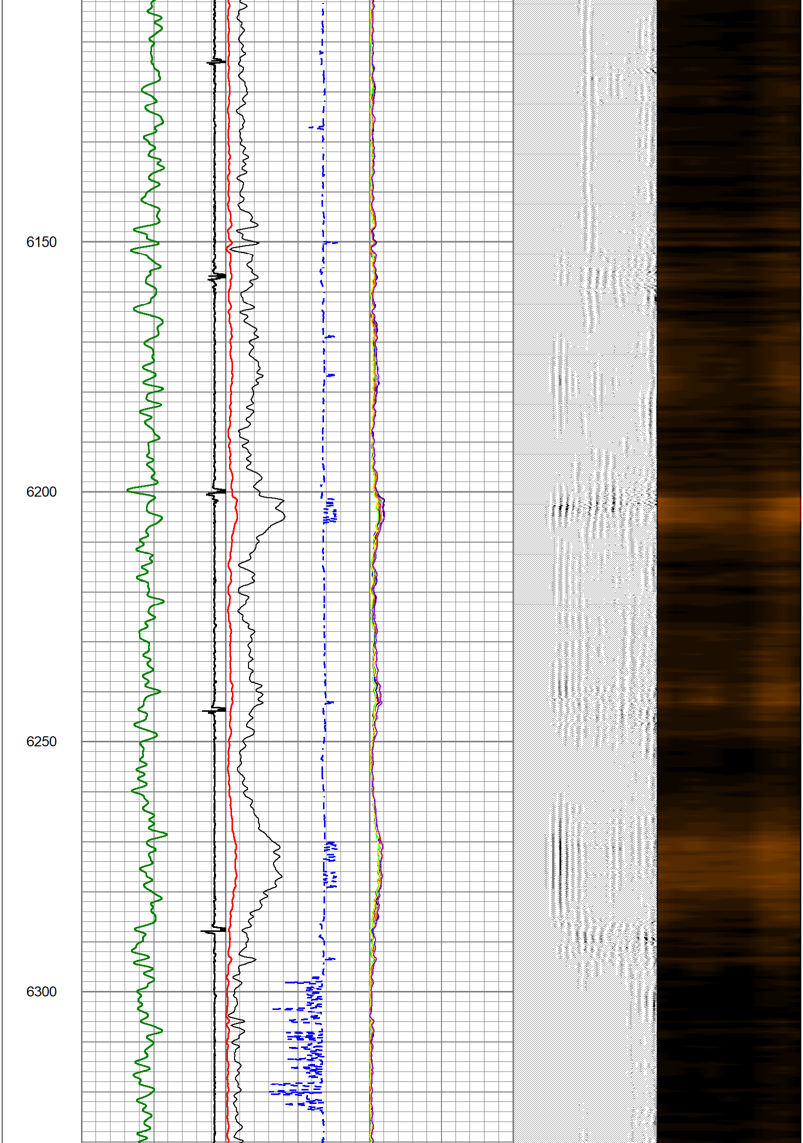


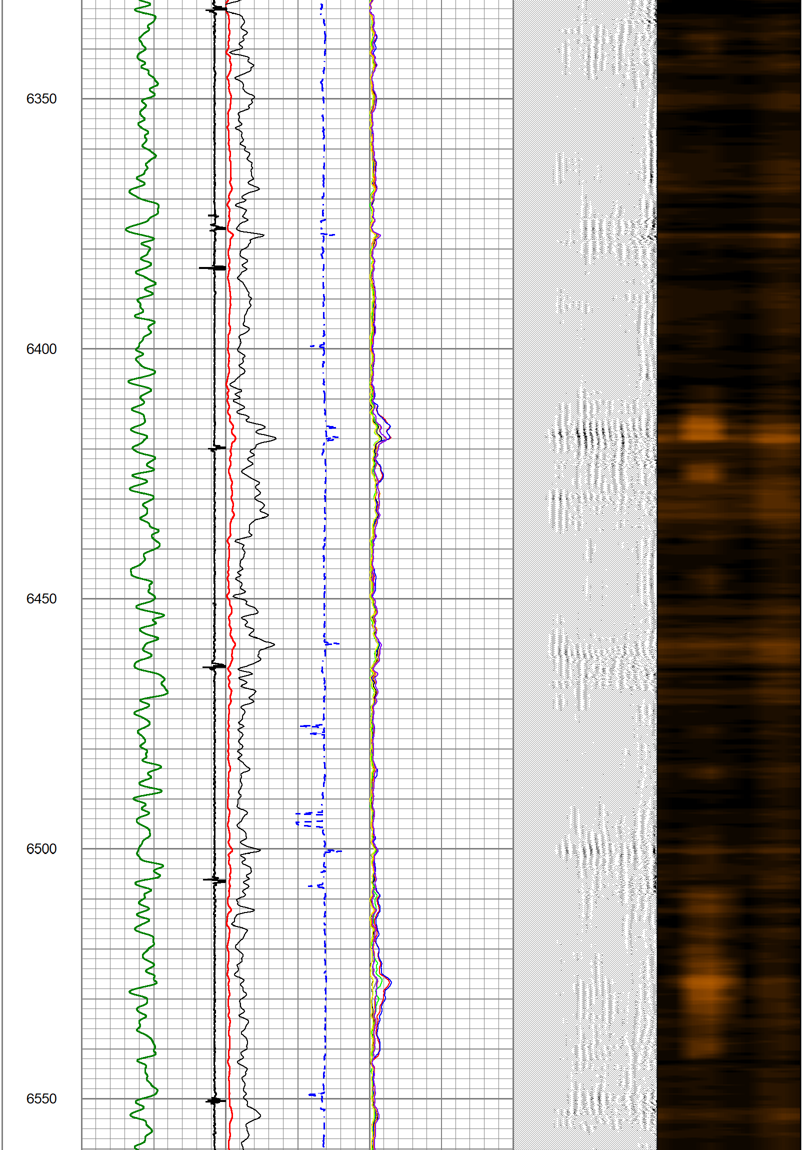


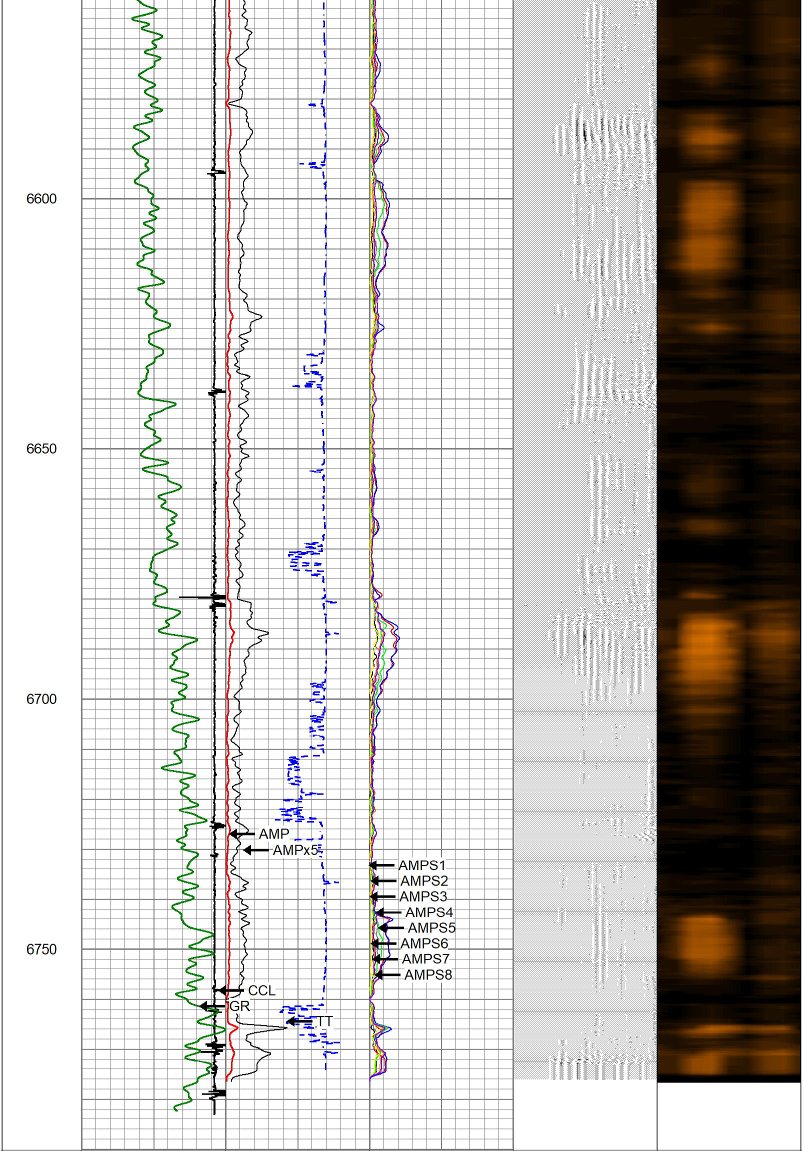










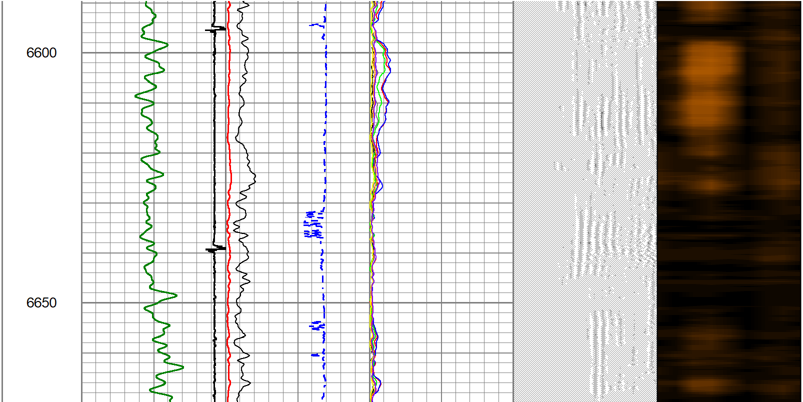


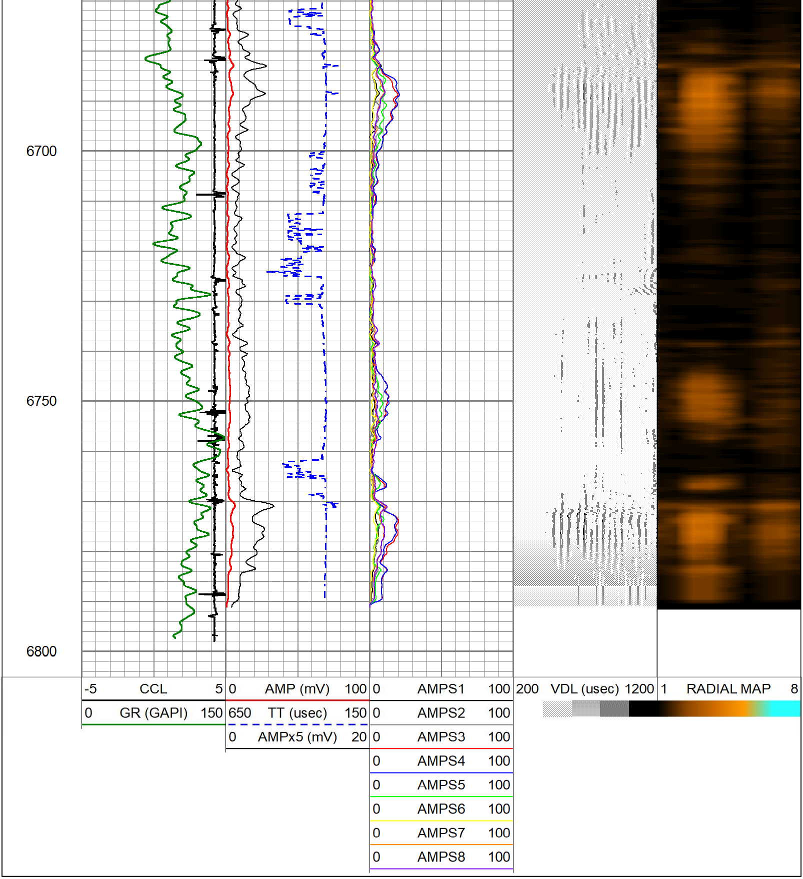
-5 CCL 5	0 AMP (mV) 100	0 AMPS1 100	200 VDL (usec) 1200	1 RADIAL MAP 8
0 GR (GAPI) 150	650 TT (usec) 150	0 AMPS2 100		
	0 AMPx5 (mV) 20	0 AMPS3 100		
		0 AMPS4 100		
		0 AMPS5 100		
		0 AMPS6 100		
		0 AMPS7 100		
		0 AMPS8 100		

REPEAT PASS

Database File	bonanza_creek(state antelope_e14-31-30xrlnb)_cbl_03112022.db
Dataset Pathname	repeat
Presentation Format	_sfww_cbl_oasis-sectors
Dataset Creation	Fri Mar 11 13:41:02 2022
Charted by	Depth in Feet scaled 1:240

-5 CCL 5	0 AMP (mV) 100	0 AMPS1 100	200 VDL (usec) 1200	1 RADIAL MAP 8
0 GR (GAPI) 150	650 TT (usec) 150	0 AMPS2 100		
	0 AMPx5 (mV) 20	0 AMPS3 100		
		0 AMPS4 100		
		0 AMPS5 100		
		0 AMPS6 100		
		0 AMPS7 100		
		0 AMPS8 100		





Calibration Report

Database File	bonanza_creek(state antelope_e14-31-30xrlnb)_cbl_03112022.db
Dataset Pathname	repeat1
Dataset Creation	Fri Mar 11 13:45:25 2022

Gamma Ray Calibration Report

Serial Number:	FW2103-050	
Tool Model:	GCT275-0000	
Performed:	Sat Dec 18 00:30:45 2021	
Calibrator Value:	120.0	GAPI
Background Reading:	30.0	cps
Calibrator Reading:	210.0	cps
Sensitivity:	0.6667	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	FW2102-033	
Tool Model:	RADII-275T	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	34.767	ft

Master Calibration, performed Fri Mar 11 09:17:46 2022:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.003	1.067	1.000	71.921	66.644	0.828
CAL	-0.002	1.005				
5'	0.002	0.983	1.000	71.921	72.361	0.825
SUM						
S1	0.002	1.012	0.000	71.921	71.208	-0.162
S2	0.003	1.018	0.000	71.921	70.820	-0.203
S3	0.003	1.023	0.000	71.921	70.509	-0.208
S4	0.002	1.018	0.000	71.921	70.751	-0.111
S5	0.003	1.014	0.000	71.921	71.169	-0.219
S6	0.004	1.007	0.000	71.921	71.730	-0.313
S7	0.004	0.997	0.000	71.921	72.447	-0.284
S8	0.004	1.060	0.000	71.921	68.080	-0.260

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.002	1.005	1.000	0.000

Air Zero Calibration, performed Fri Mar 11 09:16:39 2022:

	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

Inclinometer Calibration Report

Performed: (Not Performed)

	Low Read.	High Read.	Low Ref.	High Ref.	
X Accelerometer	0.00	1.00	0.00	1.00	gee
Y Accelerometer	0.00	1.00	0.00	1.00	gee
Z Accelerometer	0.00	1.00	0.00	1.00	gee

Log Variables

DatabaseC:\ProgramData\Warrior\Data\bonanza_creek(state antelope_e14-31-30xrlnb)_cbl_03112
Dataset field/well/run1/repeat1/_vars_

Top - Bottom

BOREID	BOTTEMP	CASEOD	CASETHCK	CASEWGHT	MAXAMPL	MINAMPL	MINATTN
in	degF	in	in	lb/ft	mV	mV	db/ft
7.875	100	5.5	0.304	177	71.9	1	0.8

PERFS	PPT	SRFTEMP	TDEPTH
	usec	degF	ft
No	0	0	0

Variable Description

BOREID : Borehole I.D.
BOTTEMP : Bottom Hole Temperature
CASEOD : Casing O.D.
CASETHCK : Casing Thickness
CASEWGHT : Casing Weight
MAXAMPL : Maximum Amplitude
MINAMPL : Minimum Amplitude
MINATTN : Minimum Attenuation
PERFS : Perforation Flag
PPT : Predicted Pipe Time
SRFTEMP : Surface Temperature
TDEPTH : Total Depth

Company	BONANZA CREEK ENERGY OPERATING COMPANY LLC		
Well	STATE ANTELOPE E14-31-30XRLNB		
Field	WATTENBERG		
County	WELD		
State	COLORADO	Country	U.S.A.