

Schlumberger

Company: **STORM CAT ENERGY (USA) OPERATING CORP**

Well: KAMALMAZ 1-13H

Field: B-43

County: **VAN BUREN** State: **ARKANSAS**

ELEMENTAL CAPTURE SPECTROSCOPY

UNPROCESSED









GAMMA RAY

County: VAN BUREN			
Field: B-43			
Location: SHL: 2520' FSL & 887' FEL			
Well: KAMALMAZ 1-13H			
Company: STORM CAT ENERGY (USA) O			
LOCATION			
Permanent Datum: _____ Log Measured From: _____ Drilling Measured From: _____	GROUND LEVEL KELLY BUSHING KELLY BUSHING	Elev.: _____ 22.0 ft above Perm. Datum	
SHL: 2520' FSL & 887' FEL		Elev.: K.B. 1664 ft G.L. 1642 ft D.F. 1663 ft	
API Serial No. 03-141-10166	Section 13	Township 11N	Range 17W

[illegible]

Logging Date	23-Aug-2007				
Run Number	ONE				
Depth Driller	1851 ft				
Schlumberger Depth	1843 ft				
Bottom Log Interval	1809 ft				
Top Log Interval	575 ft				
Casing Driller Size @ Depth	9.625 in @ 564 ft			@	
Casing Schlumberger	567 ft				
Bit Size	8.750 in				
Type Fluid In Hole	FRESH WATER MUD				
Density	9 lbm/gal	55 s			
Fluid Loss	PH	9.5			
Source Of Sample	MEASURED				
RM @ Measured Temperature	0.983 ohm.m	@ 85 degF	@		
RMF @ Measured Temperature	0.836 ohm.m	@ 85 degF	@		
RMC @ Measured Temperature	1.376 ohm.m	@ 85 degF	@		
Source RMF	CALCULATED				
RM @ MRT	0.932 @ 90	0.793 @ 90	@		@
Maximum Recorded Temperatures	90 degF	90	90		
Circulation Stopped	22-Aug-2007		20.00		
Logger On Bottom	23-Aug-2007		8.25		
Unit Number	2215	FORT SMITH, AR			
Recorded By	KIM FANTROY / ELVIRA AARON				
Witnessed By	TOM MAJORS / MATT HUMPHREYS				

Logging Date			
Run Number			
Depth Driller			
Schlumberger Depth			
Bottom Log Interval			
Top Log Interval			
Casing Driller Size @ Depth		@	
Casing Schlumberger			
Bit Size			
Type Fluid In Hole			
Density	Viscosity		
Fluid Loss	PH		
Source Of Sample			
RM @ Measured Temperature		@	
RMF @ Measured Temperature		@	
RMC @ Measured Temperature		@	
Source RMF	RMC		
RM @ MRT	RMF @ MRT	@	@
Maximum Recorded Temperatures			
Circulation Stopped	Time		
Logger On Bottom	Time		
Unit Number	Location		
Recorded By			
Witnessed By			

ECS ERRORS INSIDE CASING POSSIBLY DUE TO					
EMEX VOLTAGE FOR FIM BEING TURNED OFF AT THE TIME.					
.					
.					
.					
.					
.					
YOUR CREW: N. CARTER					
THANK YOU FOR CHOOSING SCHLUMBERGER					
RUN 1			RUN 2		
SERVICE ORDER #:		11863124	SERVICE ORDER #:		
PROGRAM VERSION:		15C0-309	PROGRAM VERSION:		
FLUID LEVEL:		30 ft	FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP
EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		
SURFACE EQUIPMENT					
GSR-U/Y 632501 WITM (DTS)-A					
DOWNHOLE EQUIPMENT					
LEH-QT LEH-QT 2865			50.0		
DTC-H ECH-KC 9562 DTCH0-A 8485 DTCH1-A	CTEM TelStatus ToolStatu		<div><div>46.1</div><div>44.0</div></div>	47.0	
SGT-N SGH-K 9562 SGC-TB 9717 SGD-TAB	Gamma Ray		<div><div>43.1</div></div>	44.0	
ECC-A ECH-A 42 ECC-A 12	ECC Statu		<div><div>36.8</div></div>	38.5	
ECS-A ECS-A 10 NSR-F 5010 ECSD-A 10 ECSH-A 10	Detector		<div><div>33.8</div></div>	35.0	
AH-184 AH-184				28.4	
AH-184 AH-184				26.4	
FBST-B ECH-MRA 6743 FBCC-A AH-185 1850 FBSH-A				24.4	

The diagram shows a vertical column with a base. The base is labeled "Tension DHRU" and "TOOL ZERO". The column has several sections, including a shaded section near the base. Labels "PADS", "FBCC", "FBSC", "HV", and "DF" are positioned near the base. A scale bar at the bottom indicates a range from 0.0 to 1.3.

Input DLIS Files

Output DLIS Files

OP System Version: 15C0-309

warning

MAIN PASS

Dry Wt. Iron

**Dry Wt.
Excess Iron**

LQC
I1--->I3

error

warning

	<div><div>10000</div><div>0</div></div>	Aluminum	Carbon	Calcium	<div><div>0</div><div>(W/W) 0.2</div></div>	Carbon	Hydrogen	
Anhydrite	Cable Speed (CS) (F/HR)	DWAL (DWAL_WALK2)	DWSI (DWSI_WALK2)	DWCA (DWCA_WALK2)	DXFE (DXFE_WALK2)	DWSU (DWSU_WALK2) (W/W)	DWTI (DWTI_WALK2) (W/W)	normal
	<div><div>0</div><div>5000</div></div>	<div><div>0</div><div>(W/W) 0.2</div></div>	<div><div>0</div><div>(W/W) 0.5</div></div>	<div><div>0</div><div>(W/W) 0.5</div></div>	<div><div>0</div><div>(W/W) 0.2</div></div>	<div><div>0</div><div>0.25</div></div>	<div><div>0</div><div>0.05</div></div>	

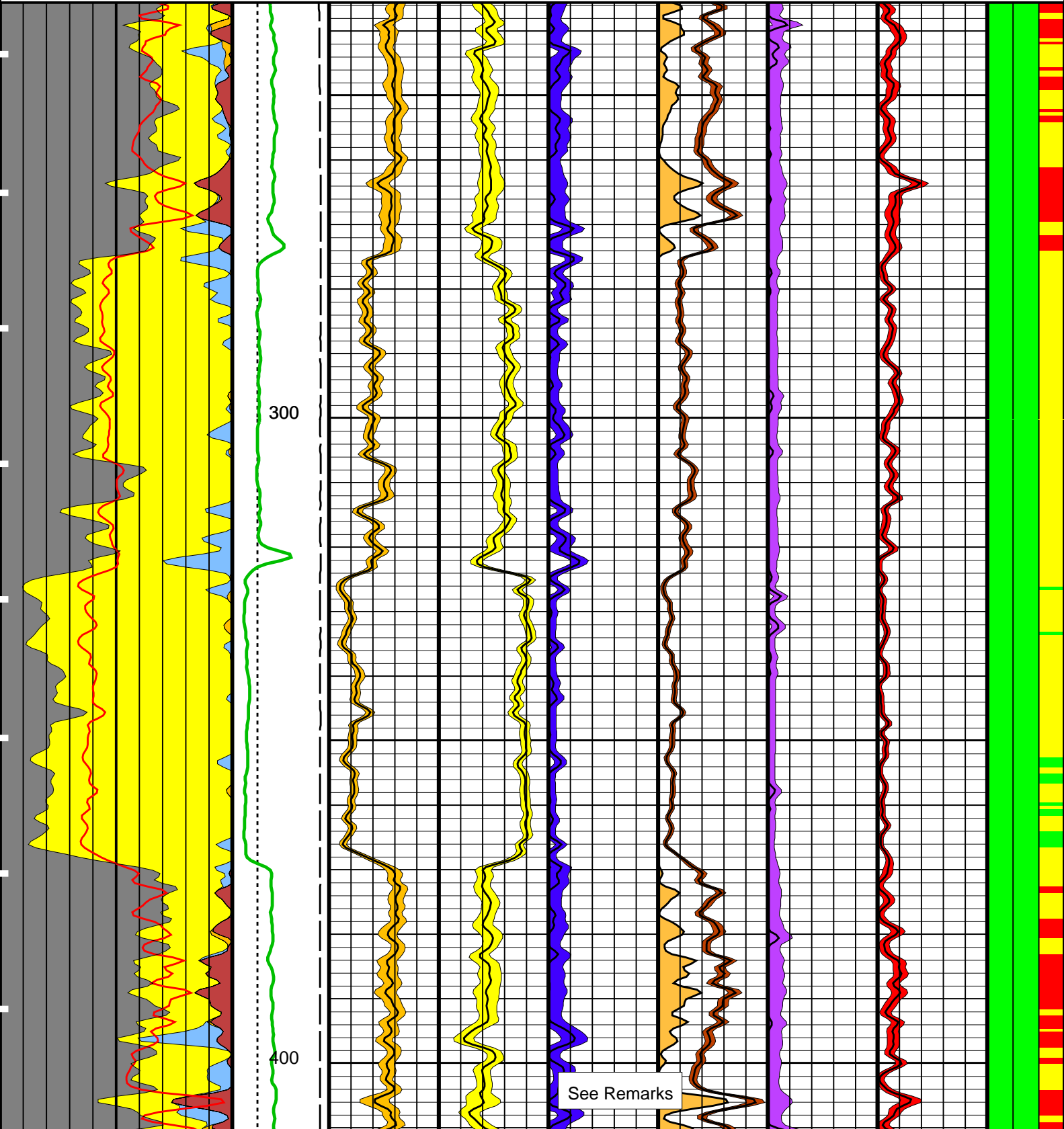
LQC Track

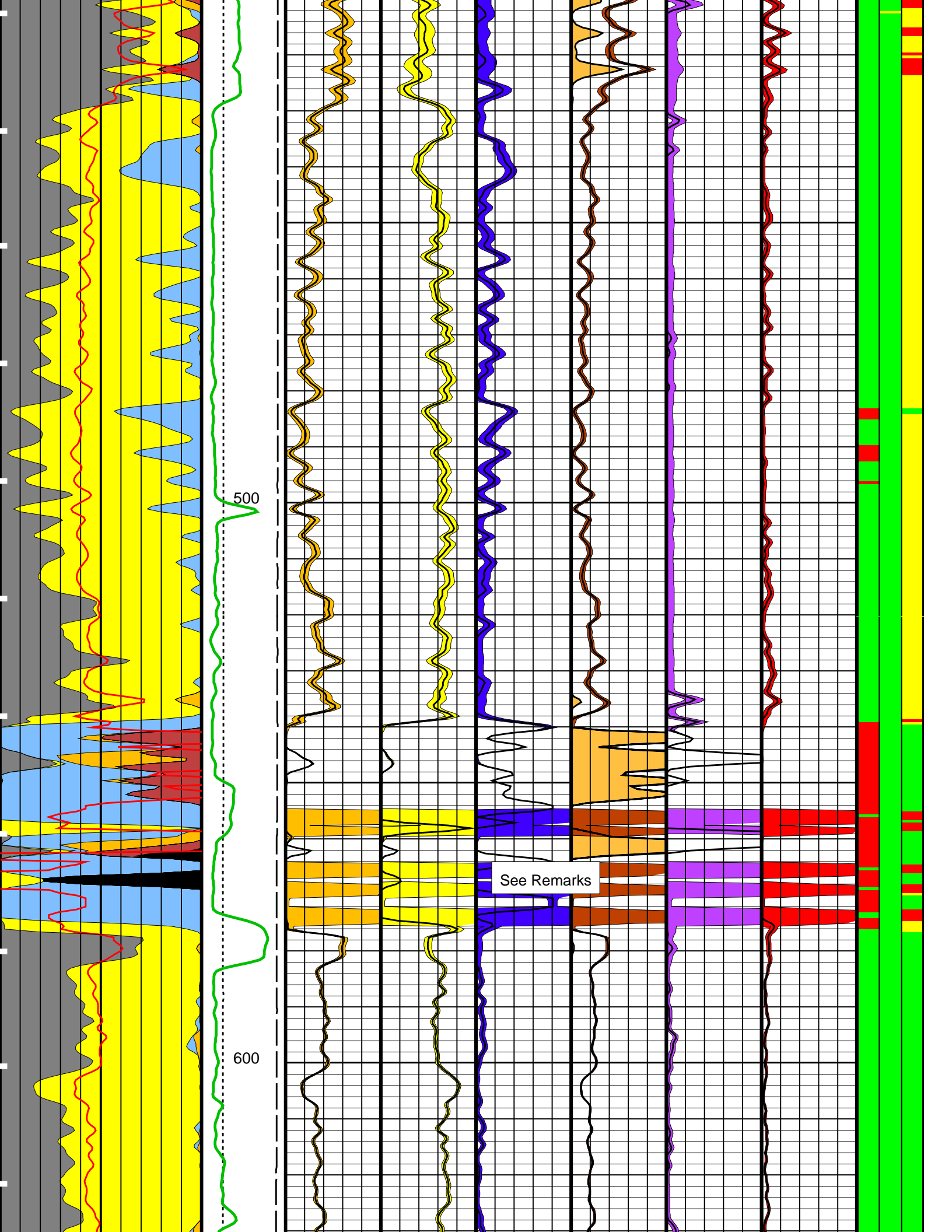
Left(I1) ----> Right(I3)

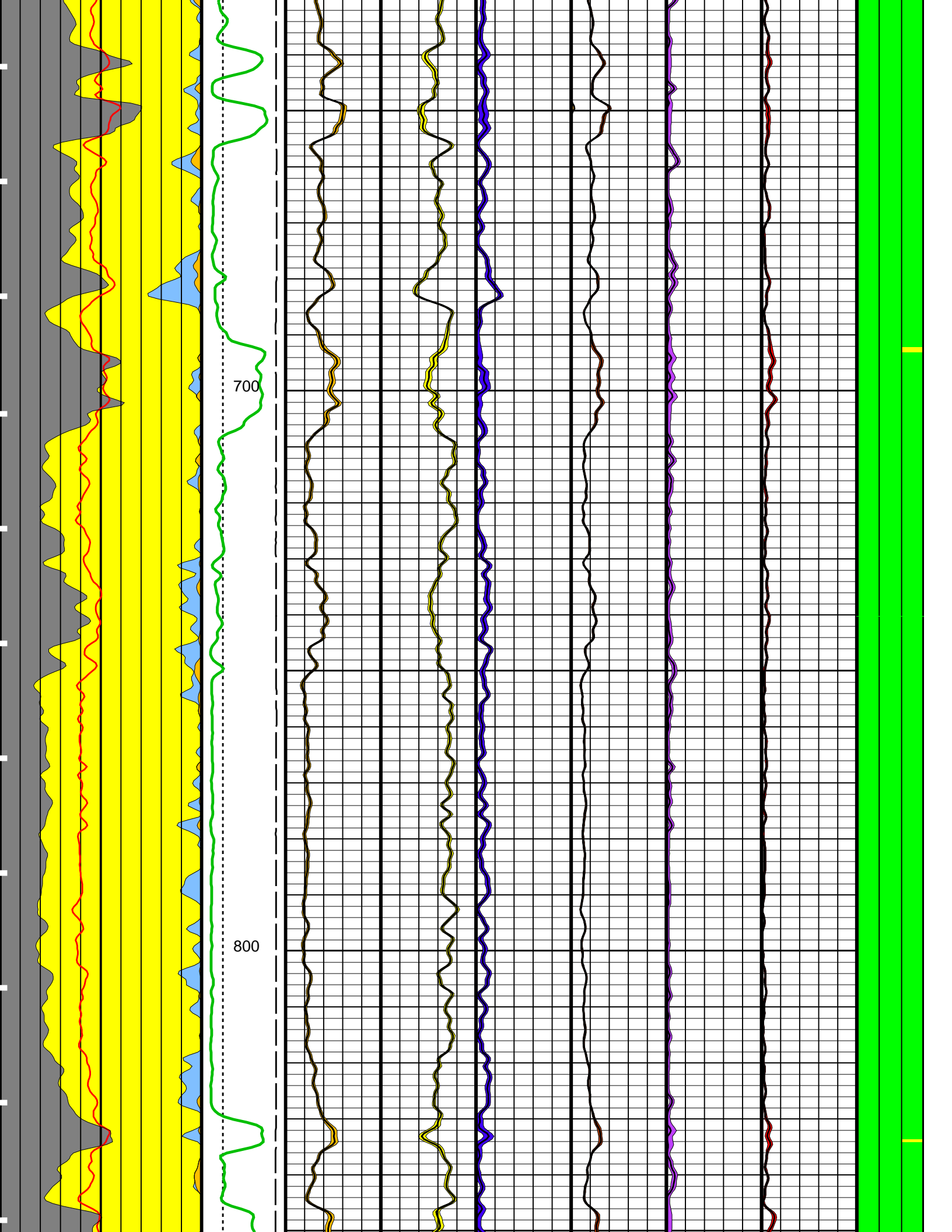
I1: ECS Hardware: Photomultiplier (QC_PMT)

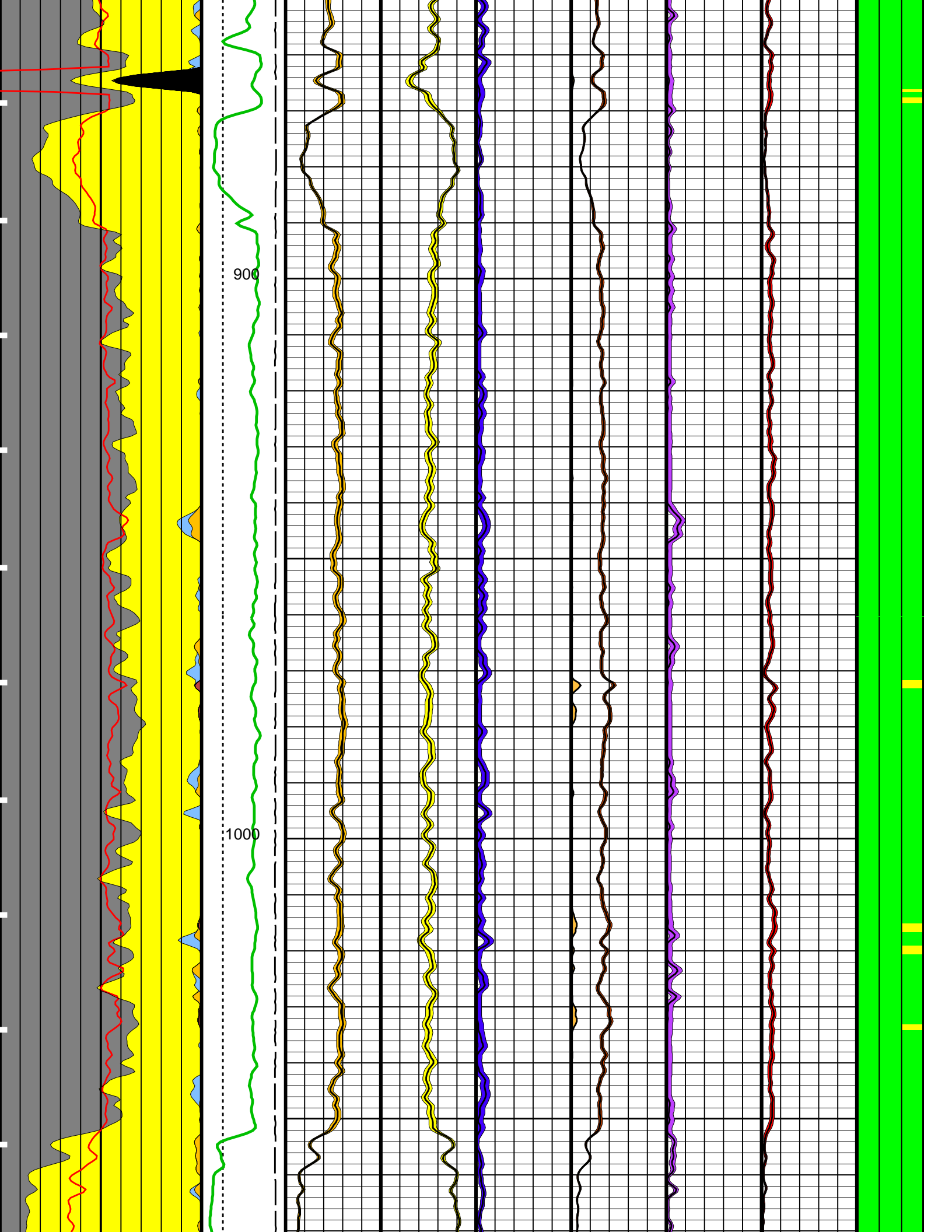
I2: ECS Hardware: BGO Crystal Temperature (ECST)

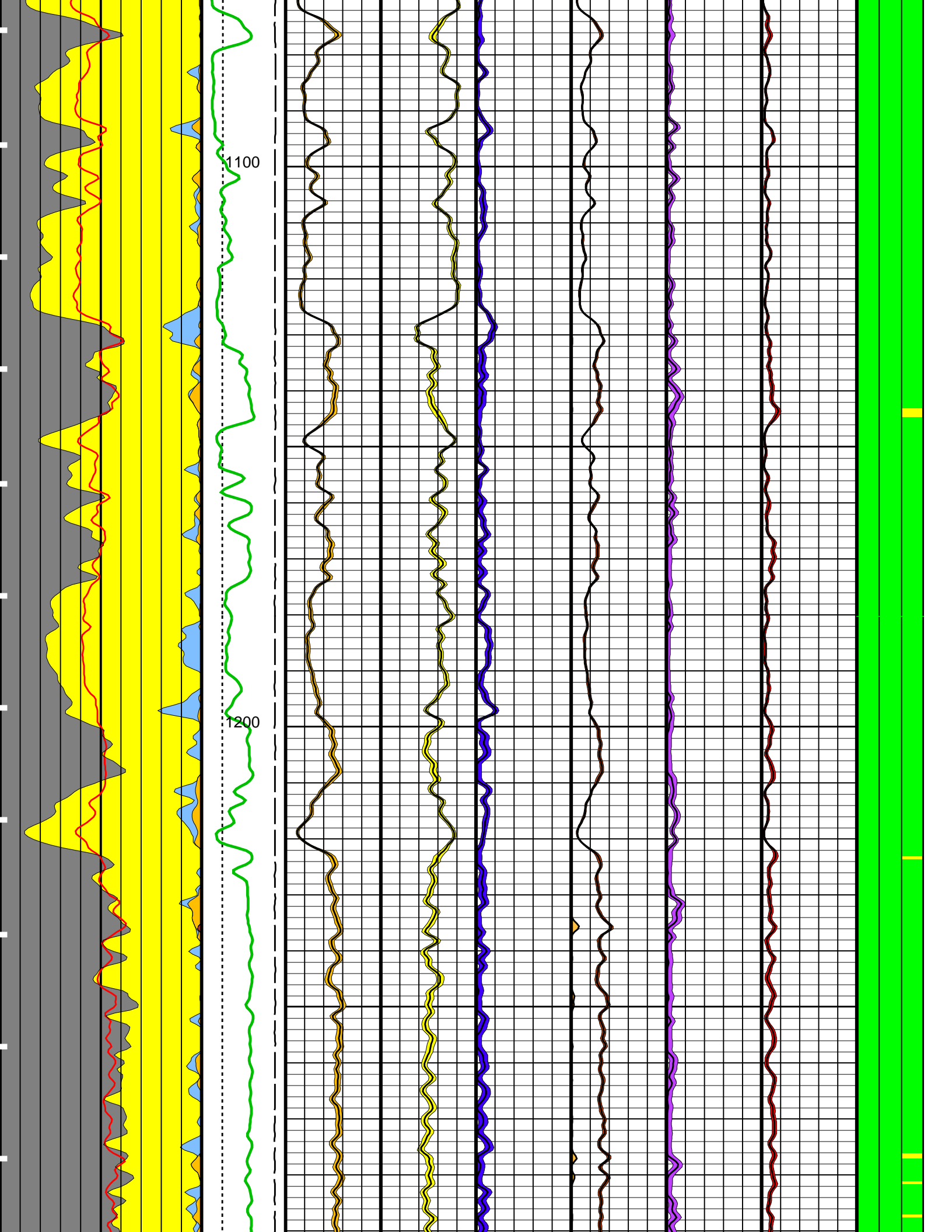
I3: ECS Data Quality: Elemental Statistical Uncertainty (ESUF_WALK2)

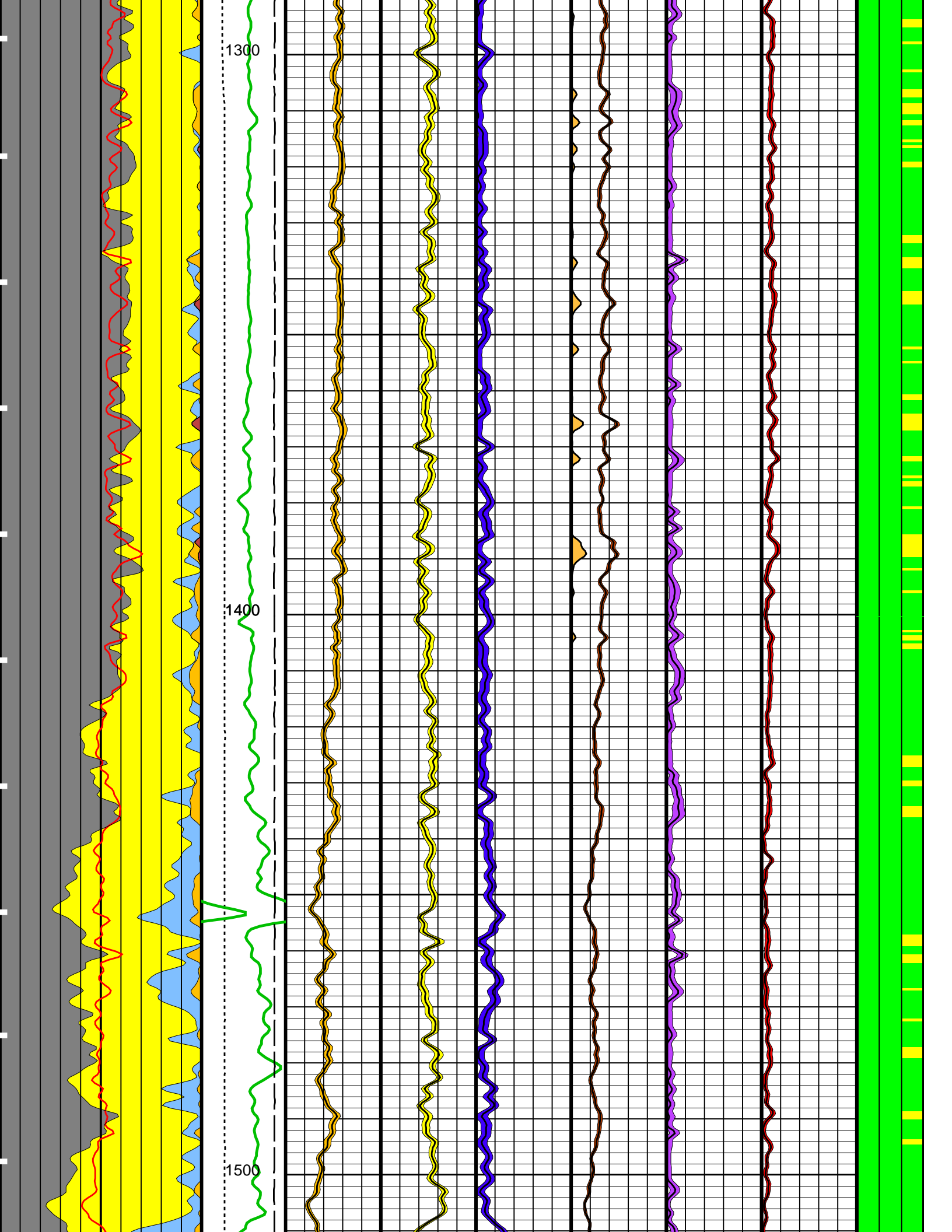


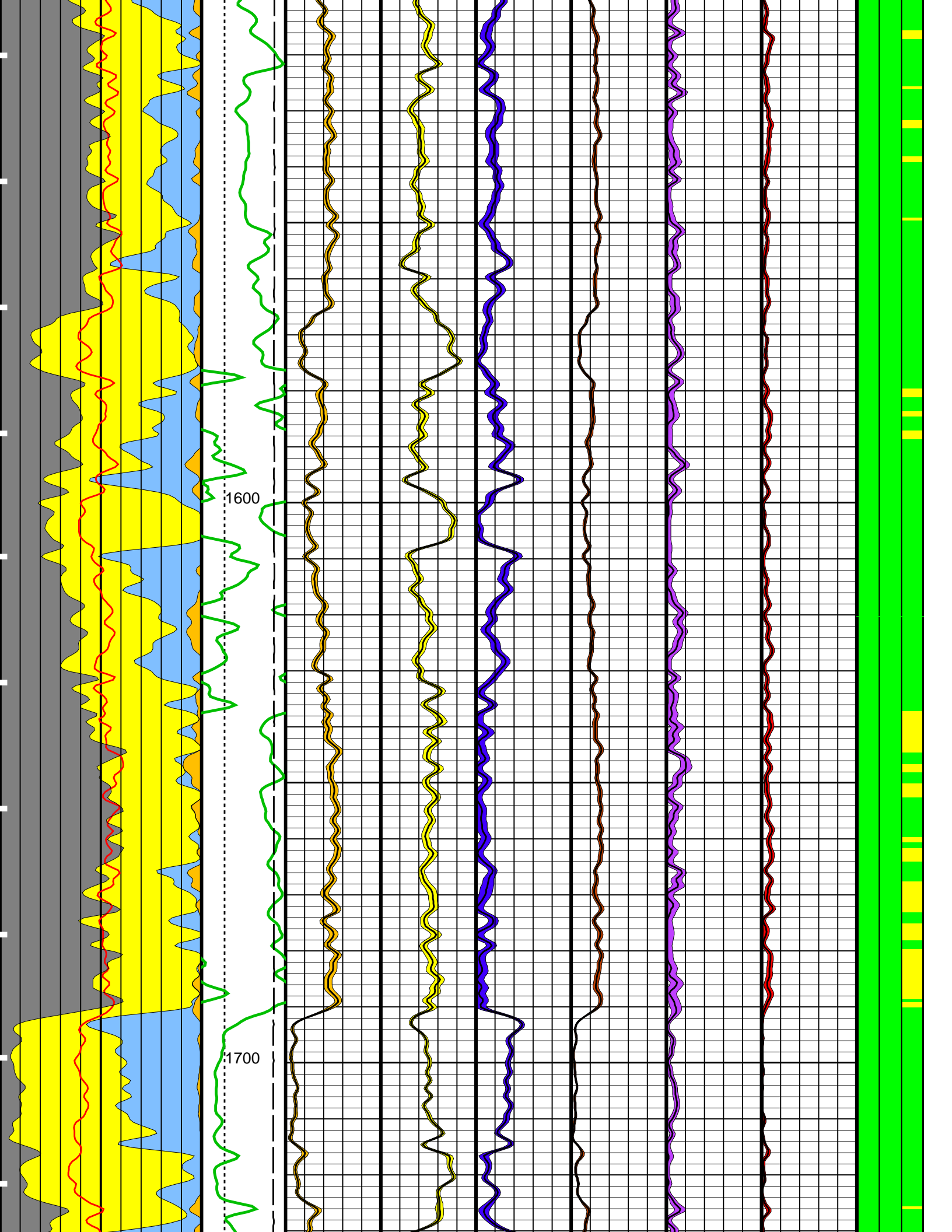














LQC Track

Left(I1) ----> Right(I3)

I1: ECS Hardware: Photomultiplier (QC_PMT)

I2: ECS Hardware: BGO Crystal Temperature (ECST)

I3: ECS Data Quality: Elemental Statistical Uncertainty (ESUF_WALK2)

Anhydrite	Cable Speed (CS) (F/HR) 05000	DWAL (DWAL_WALK2) (W/W) 0.2	DWSI (DWSI_WALK2) (W/W) 0.5	DWCA (DWCA_WALK2) (W/W) 0.5	DXFE (DXFE_WALK2) (W/W) 0.2	DWSU (DWSU_WALK2) (W/W) 0.25	DWTI (DWTI_WALK2) (W/W) 0.05	normal
Clay	Tension (TENS) (LBF) 100000	Dry Wt. Aluminum	Dry Wt. Silicon	Dry Wt. Calcium	DWFE (DWFE_WALK2) (W/W) 0.2	Dry Wt. Sulfur	Dry Wt. Titanium	warning
Carbonate	Gamma Ray (GR) (GAPI) 0200				Dry Wt. Excess Iron			error
Coal					Dry Wt. Iron			LQC I1---->I3
Pyrite								
Q-F-M								
Siderite								

Salt		MAIN PASS	
Matrix Density (RHGE_WALK2)			
2.5	(G/C3)	3	
PIP SUMMARY			
Time Mark Every 60 S			
Parameters			
DLIS Name	Description	Value	
ECS-A: Elemental Capture Spectroscopy Tool			
SPEC_BARITE_MUD_FLAG	Barite Mud Flag for Spectroscopy Processing	On	
SPEC_CSG_DEPTH	Casing Depth for Spectroscopy Processing	539	FT
SPEC_ELE_STD_SHFT_FAC	Calibration Factor for Elemental Spectral Standards	0.1	
SPL_CLAY_MODEL	SpectroLith Clay Model	Arenite	
SPL_SULFUR_MINERAL	SpectroLith Sulfur Mineral Option	Pyrite	
System and Miscellaneous			
DO	Depth Offset for Playback	7.5	FT
PP	Playback Processing	NORMAL	
Format: ECS_SpectroLith_PB		Vertical Scale: 5" per 100' Graphics File Created: 23-Aug-2007 10:08	
OP System Version: 15C0-309			
MCM			
FBST-B	15C0-309	ECS-A	15C0-309
ECC-A	15C0-309	SGT-N	15C0-309
DTC-H	15C0-309		
Input DLIS Files			
DEFAULT	FMI_ECS_029LUP	FN:27 PRODUCER	23-Aug-2007 08:48 1845.0 FT 221.5 FT
Output DLIS Files			
DEFAULT	FMI_ECS_031PUP	FN:29 PRODUCER	23-Aug-2007 10:08
Input DLIS Files			
DEFAULT	FMI_ECS_025LUP	FN:23 PRODUCER	23-Aug-2007 08:24 1835.0 FT 1536.5 FT
Output DLIS Files			
DEFAULT	FMI_ECS_028PUP	FN:26 PRODUCER	23-Aug-2007 08:44 1842.5 FT 1550.5 FT
OP System Version: 15C0-309			
MCM			
FBST-B	15C0-309	ECS-A	15C0-309
ECC-A	15C0-309	SGT-N	15C0-309
DTC-H	15C0-309		
PIP SUMMARY			
Time Mark Every 60 S			
Matrix Density (RHGE_WALK2)			
2.5	(G/C3)	3	
Salt			
Siderite		REPEAT SECTION	
Q-F-M			
Pyrite			

Coal					Dry Wt. Iron				LQC I1---->I3
Carbonate	Gamma Ray (GR) (GAPI)				Dry Wt. Excess Iron				error
	0200								
Clay	Tension (TENS) (LBF)	Dry Wt. Aluminum	Dry Wt. Silicon	Dry Wt. Calcium	DWFE (DWFE_ WALK2)	Dry Wt. Sulfur	Dry Wt. Titanium	warning	
	100000				0(W/W) 0.2				
Anhydrite	Cable Speed (CS) (F/HR)	DWAL (DWAL_ WALK2)	DWSI (DWSI_ WALK2)	DWCA (DWCA_ WALK2)	DXFE (DXFE_ WALK2)	DWSU (DWSU_ WALK2)	DWTI (DWTI_ WALK2)	normal	
	05000	0(W/W) 0.2	0(W/W) 0.5	0(W/W) 0.5	0(W/W) 0.2	0(W/W)	00.05		
						00.25			

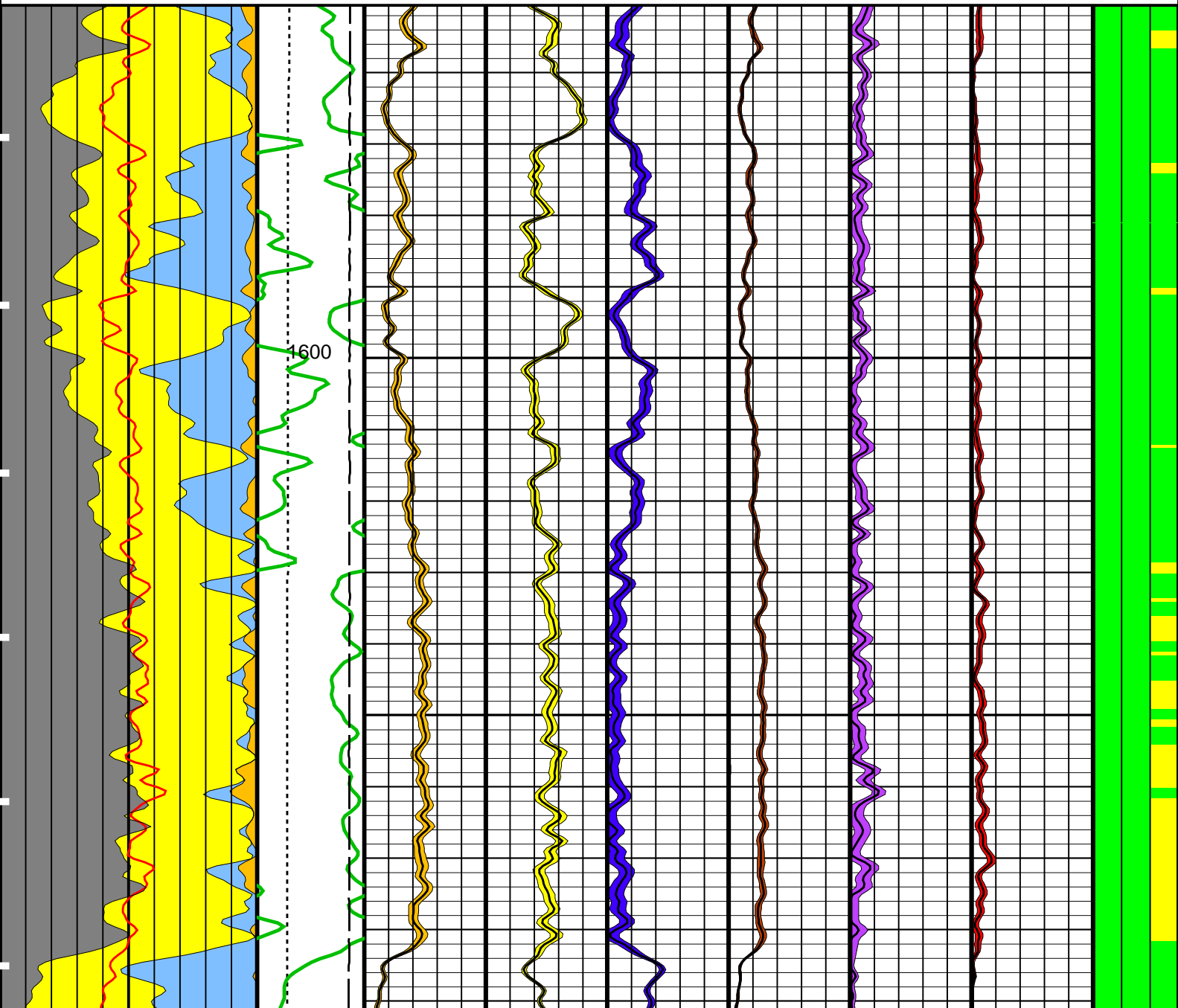
LQC Track

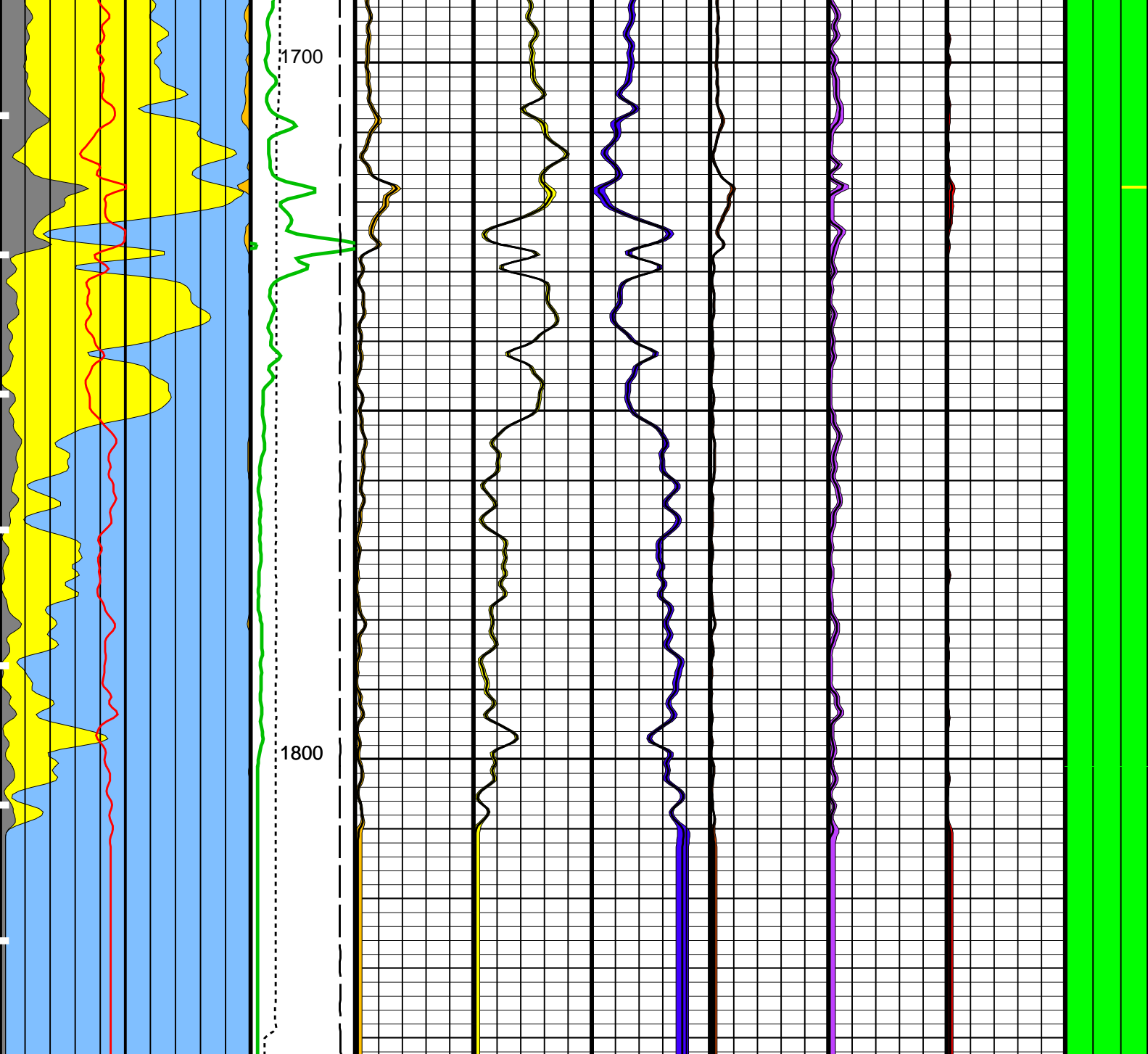
Left(I1) ----> Right(I3)

I1: ECS Hardware: Photomultiplier (QC_PMT)

I2: ECS Hardware: BGO Crystal Temperature (ECST)

I3: ECS Data Quality: Elemental Statistical Uncertainty (ESUF_WALK2)





LQC Track

Left(I1) ----> Right(I3)

I1: ECS Hardware: Photomultiplier (QC_PMT)

I2: ECS Hardware: BGO Crystal Temperature (ECST)

I3: ECS Data Quality: Elemental Statistical Uncertainty (ESUF_WALK2)

Anhydrite	Cable Speed (CS) (F/HR)	DWAL (DWAL_ WALK2)	DWSI (DWSI_ WALK2)	DWCA (DWCA_ WALK2)	DXFE (DXFE_ WALK2)	DWSU (DWSU_ WALK2)	DWTI (DWTI_ WALK2)	normal
	05000	0(W/W) 0.2	0(W/W) 0.5	0(W/W) 0.5	0(W/W) 0.2	00.25	00.05	
Clay	Tension (TENS) (LBF)	Dry Wt. Aluminum	Dry Wt. Silicon	Dry Wt. Calcium	DWFE (DWFE_ WALK2)	Dry Wt. Sulfur	Dry Wt. Titanium	warning
	100000				0(W/W) 0.2			
Carbonate	Gamma Ray (GR) (GAPI)				Dry Wt. Excess Iron			error
	0200							

Coal

Pyrite

Q-F-M

Siderite

Salt

Matrix Density (RHGE_WALK2)
2.5 (G/C3) 3

Dry Wt. Iron

LQC
I1---->I3

REPEAT SECTION

PIP SUMMARY

Time Mark Every 60 S

Parameters		
DLIS Name	Description	Value
ECS-A: Elemental Capture Spectroscopy Tool		
SPEC_BARITE_MUD_FLAG	Barite Mud Flag for Spectroscopy Processing	On
SPEC_CSG_DEPTH	Casing Depth for Spectroscopy Processing	-991.75 FT
SPEC_ELE_STD_SHFT_FAC	Calibration Factor for Elemental Spectral Standards	0.1
SPL_CLAY_MODEL	SpectroLith Clay Model	Arenite
SPL_SULFUR_MINERAL	SpectroLith Sulfur Mineral Option	Pyrite
System and Miscellaneous		
DO	Depth Offset for Playback	7.5 FT
PP	Playback Processing	NORMAL

Format: ECS_SpectroLith_PB

Vertical Scale: 5" per 100'

Graphics File Created: 23-Aug-2007 08:45

OP System Version: 15C0-309

MCM

FBST-B	15C0-309	ECS-A	15C0-309
ECC-A	15C0-309	SGT-N	15C0-309
DTC-H	15C0-309		

Input DLIS Files						
DEFAULT	FMI_ECS_025LUP	FN:23	PRODUCER	23-Aug-2007 08:24	1835.0 FT	1536.5 FT
Output DLIS Files						
DEFAULT	FMI_ECS_028PUP	FN:26	PRODUCER	23-Aug-2007 08:44		

Company: STORM CAT ENERGY (USA) OPERATING CORP

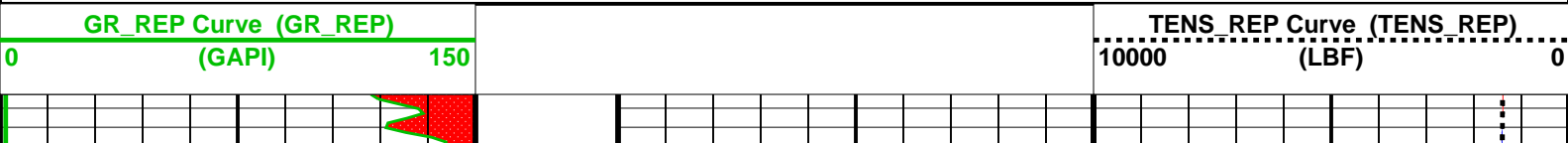
Well: KAMALMAZ 1-13H

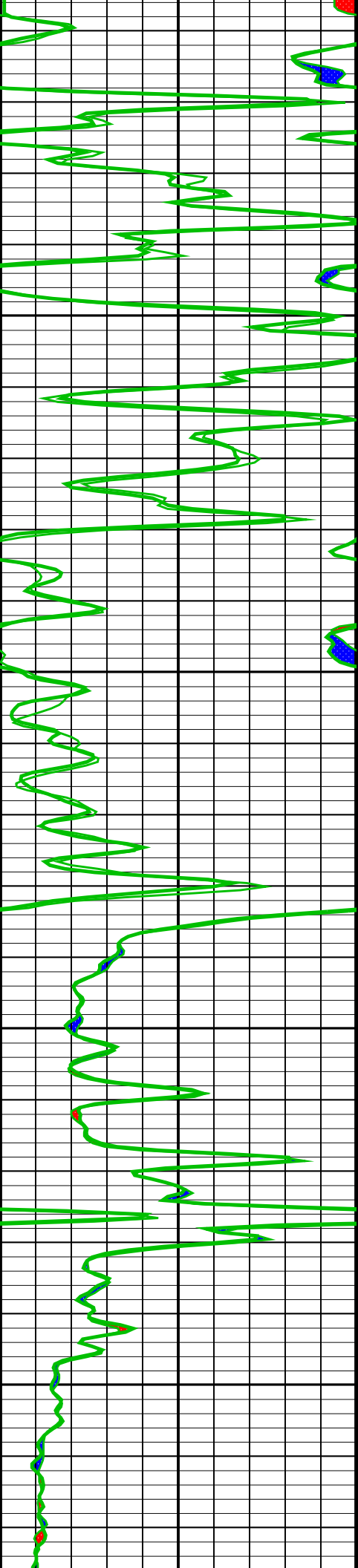
Input DLIS Files						
DEFAULT	FMI_ECS_028PUP	FN:26	PRODUCER	23-Aug-2007 08:44	1842.5 FT	1550.5 FT
Output DLIS Files						
DEFAULT	FMI_ECS_029LUP	FN:27	PRODUCER	23-Aug-2007 08:48		

OP System Version: 15C0-309

MCM

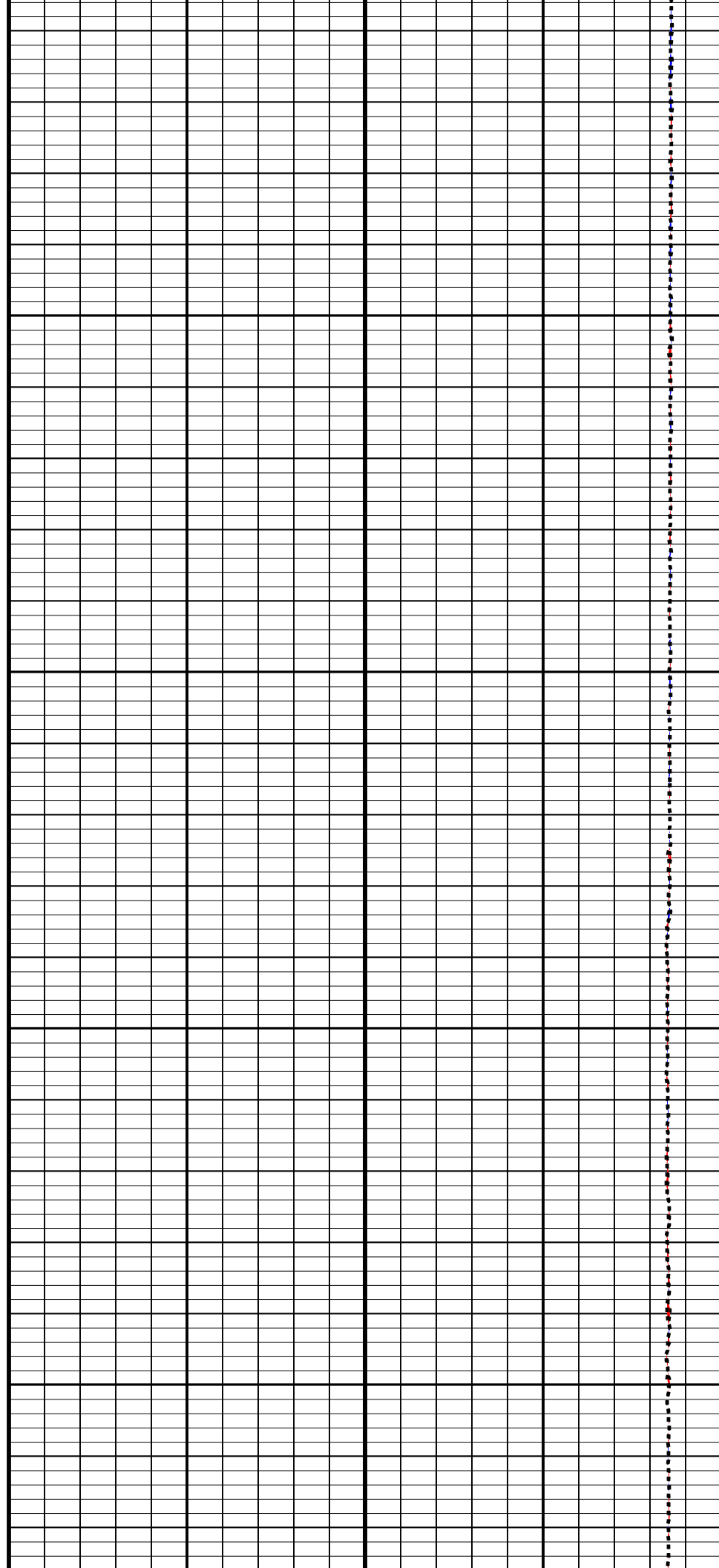
FBST-B	15C0-309	ECS-A	15C0-309
ECC-A	15C0-309	SGT-N	15C0-309
DTC-H	15C0-309		

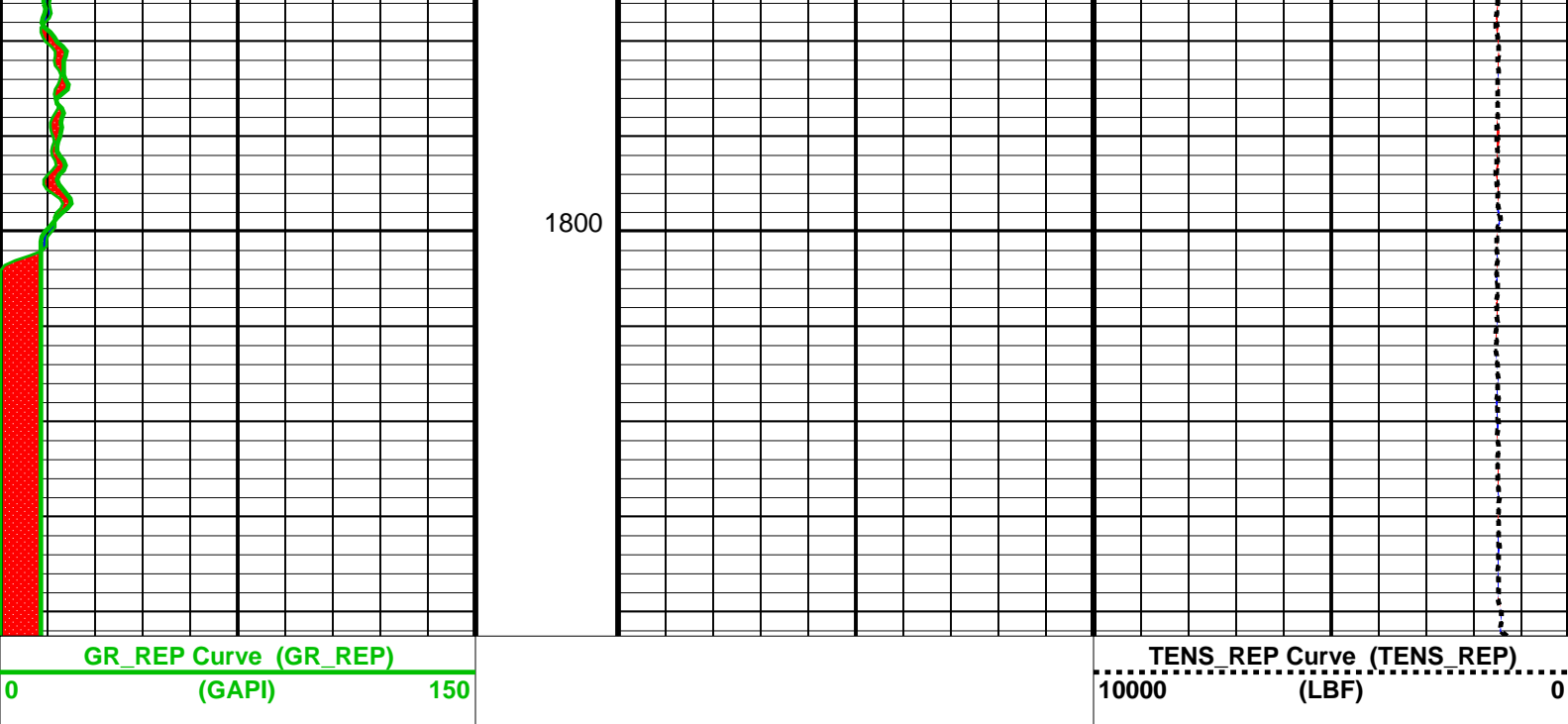




1600

1700





Parameters		
DLIS Name	Description	Value
DORL	System and Miscellaneous Depth Offset for Repeat Analysis	0.0 FT
Format: CORRELATION_REP Vertical Scale: 5" per 100' Graphics File Created: 23-Aug-2007 08:48		

OP System Version: 15C0-309			
MCM			
FBST-B	15C0-309	ECS-A	15C0-309
ECC-A	15C0-309	SGT-N	15C0-309
DTC-H	15C0-309		

Input DLIS Files						
DEFAULT	FMI_ECS_028PUP	FN:26	PRODUCER	23-Aug-2007 08:44	1842.5 FT	1550.5 FT
Output DLIS Files						
DEFAULT	FMI_ECS_029LUP	FN:27	PRODUCER	23-Aug-2007 08:48		

Company:	STORM CAT ENERGY (USA) OPERATING CORP	Schlumberger
Well:	KAMALMAZ 1-13H	
Field:	B-43	
County:	VAN BUREN	
State:	ARKANSAS	
ELEMENTAL CAPTURE SPECTROSCOPY UNPROCESSED GAMMMA RAY		