

Company: TEP Rocky Mountain, LLC

Well: Federal #SG 314-15

Field: Grand Valley

County: Garfield State: Colorado

Platform Express

Triple Combo

County: Garfield
Field: Grand Valley
Location: NWNW Sec. 22, T7S, R96W
Well: Federal #SG 314-15
Company: TEP Rocky Mountain, LLC

Location:		NWNW Sec. 22, T7S, R96W SHL: 917' FNL & 501' FWL Lat: 39.427801, Long: -108.10392	Elev.: K.B. 6115.00 ft G.L. 6091.00 ft D.F. 6115.00 ft
Permanent Datum:	Ground Level	Kelly Bushing	24.00 ft above Perm.Datum
Log Measured From:	Kelly Bushing		
Drilling Measured From:	Kelly Bushing		
API Serial No.	Section:	Township:	Range:
05-045-24127	22	7S	96W

Logging Date 27-Jan-2019

Run Number One

Depth Driller 1038.00 ft

Schlumberger Depth 1038.69 ft

Bottom Log Interval 1030.69 ft

Top Log Interval 107.15 ft

Casing Driller Size @ Depth 18 in @ 108.00 ft

Casing Schlumberger 107.15 ft

Bit Size 13.5 in

Type Fluid In Hole LSND

Density 9.1 lbm/gal 75 s

Fluid Loss PH 20 cm3 9.5

MUD Source of Sample Active Tank

RM @ Meas Temp 2.24 ohm.m @ 50 degF

RMF @ Meas Temp 1.9 ohm.m @ 50.05 degF

RMC @ Meas Temp 2.58 ohm.m @ 50.15 degF

Source RMF RMC Calculated

RM @ BHT RMF @ BHT 1.3 @ 91.2 1.1 @ 91.2

Max Recorded Temperatures 91.7 degF

Circulation Stopped 27-Jan-2019 06:45:00

Logger on Bottom Time 27-Jan-2019 12:30:00

Unit Number 9102

Recorded By C. Spence / A. Ng

Witnessed By Nathan Burr

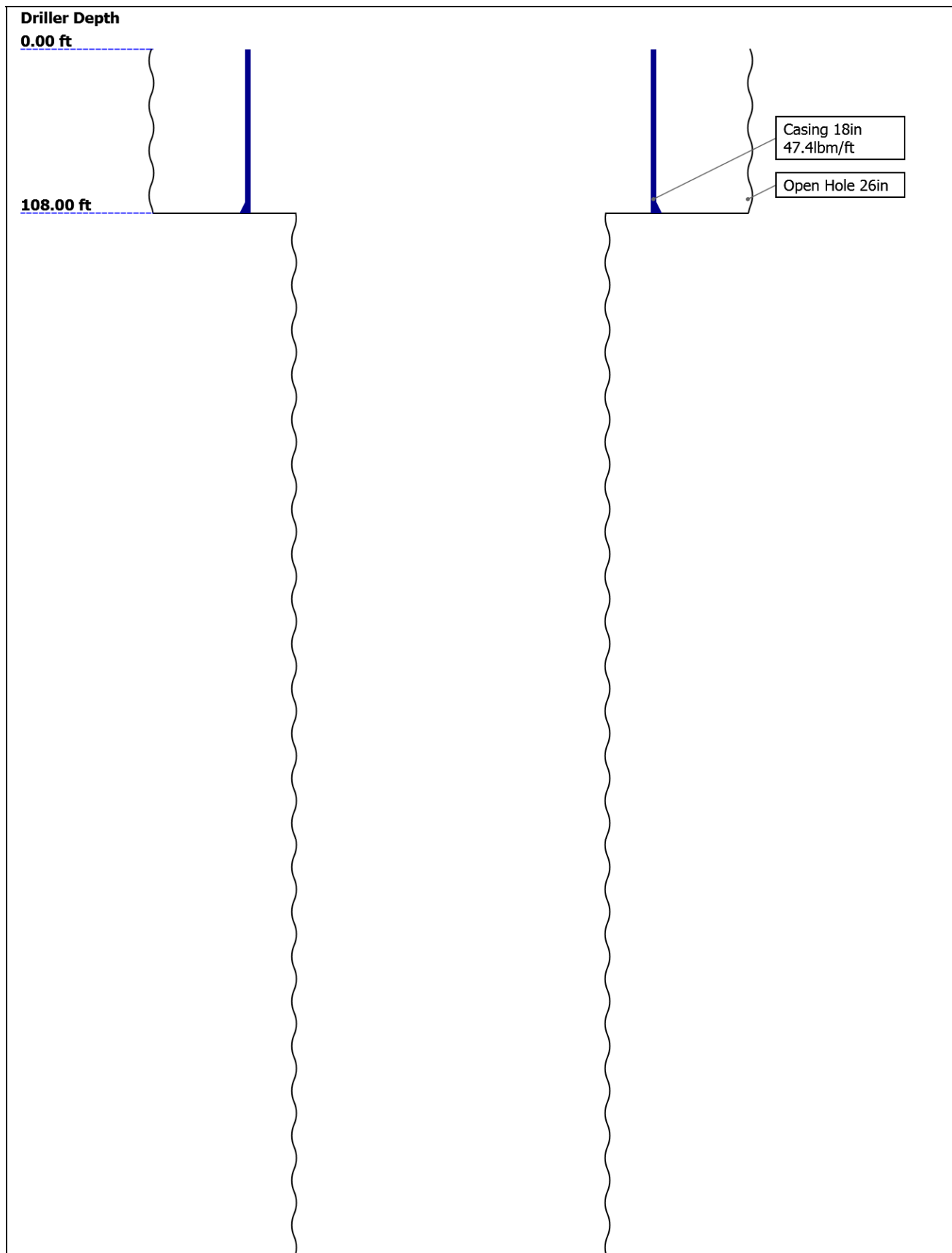
Disclaimer

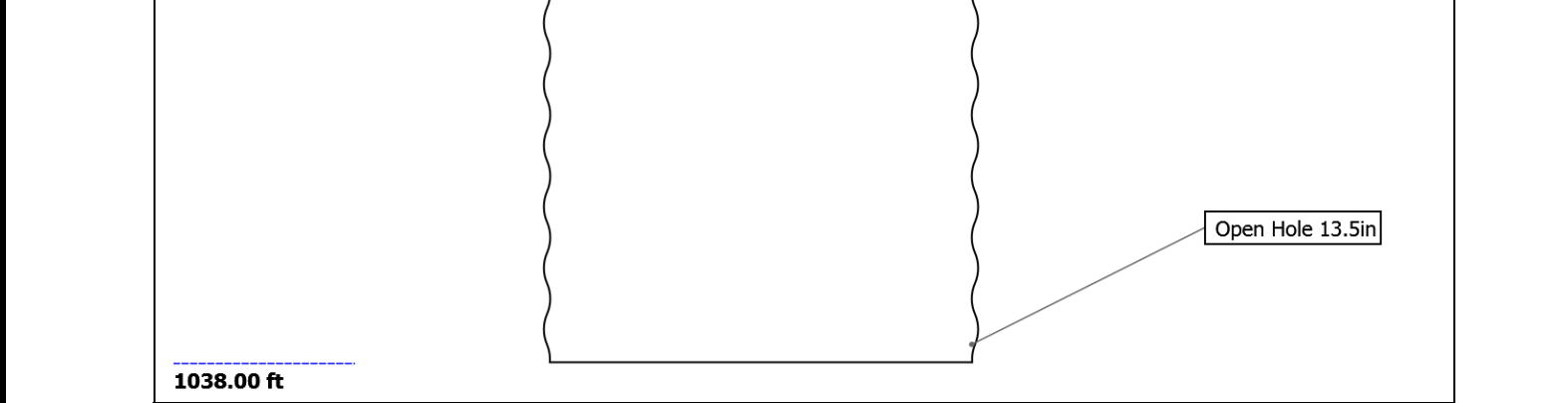
THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

Contents

- 1. Header
- 2. Disclaimer
- 3. Contents
- 4. Well Sketch
- 5. Borehole Size/Casing/Tubing Record
- 6. Remarks and Equipment Summary
- 7. Depth Summary
- 8. One 5" Triple Combo
 - 8.1 Integration Summary
 - 8.2 Software Version
 - 8.3 Composite Summary
 - 8.4 Log (EMD 5in Triple Combo)
 - 8.5 Parameter Listing
- 9. One 5" Triple Combo
 - 9.1 Composite Summary
 - 9.2 Log (EMD 5in Triple Combo RA)
- 10. Calibration Report

Well Sketch

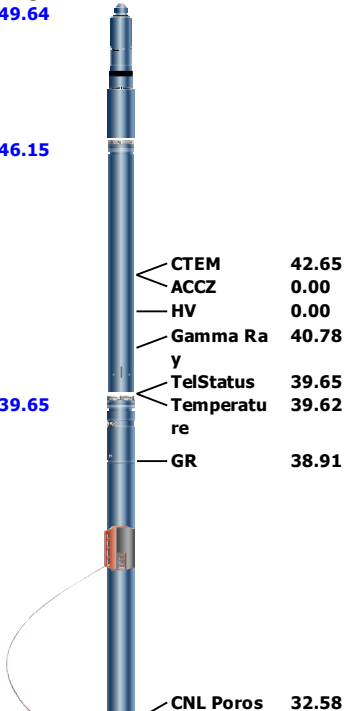


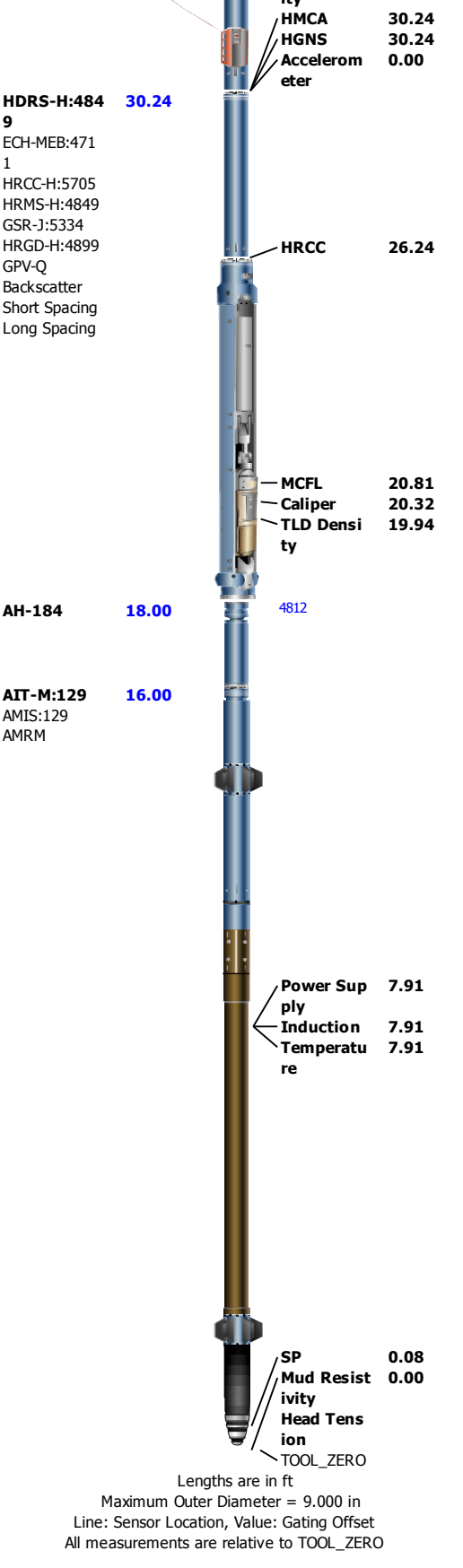


Borehole Size/Casing/Tubing Record

Bit						
Bit Size (in)	26	13.5				
Top Driller (ft)	0	108				
Top Logger (ft)	0	108				
Bottom Driller (ft)	108	1038				
Bottom Logger (ft)	108	1038.69				
Casing						
Size (in)	18					
Weight (lbm/ft)	47.4					
Inner Diameter (in)	17.511					
Grade	N/A					
Top Driller (ft)	0					
Top Logger (ft)	0					
Bottom Driller (ft)	108					
Bottom Logger (ft)	107.15					

Remarks and Equipment Summary

One: Toolstring				One: Remarks
Equip name LEH-QT LEH-QT	Length 49.64		MP name 	

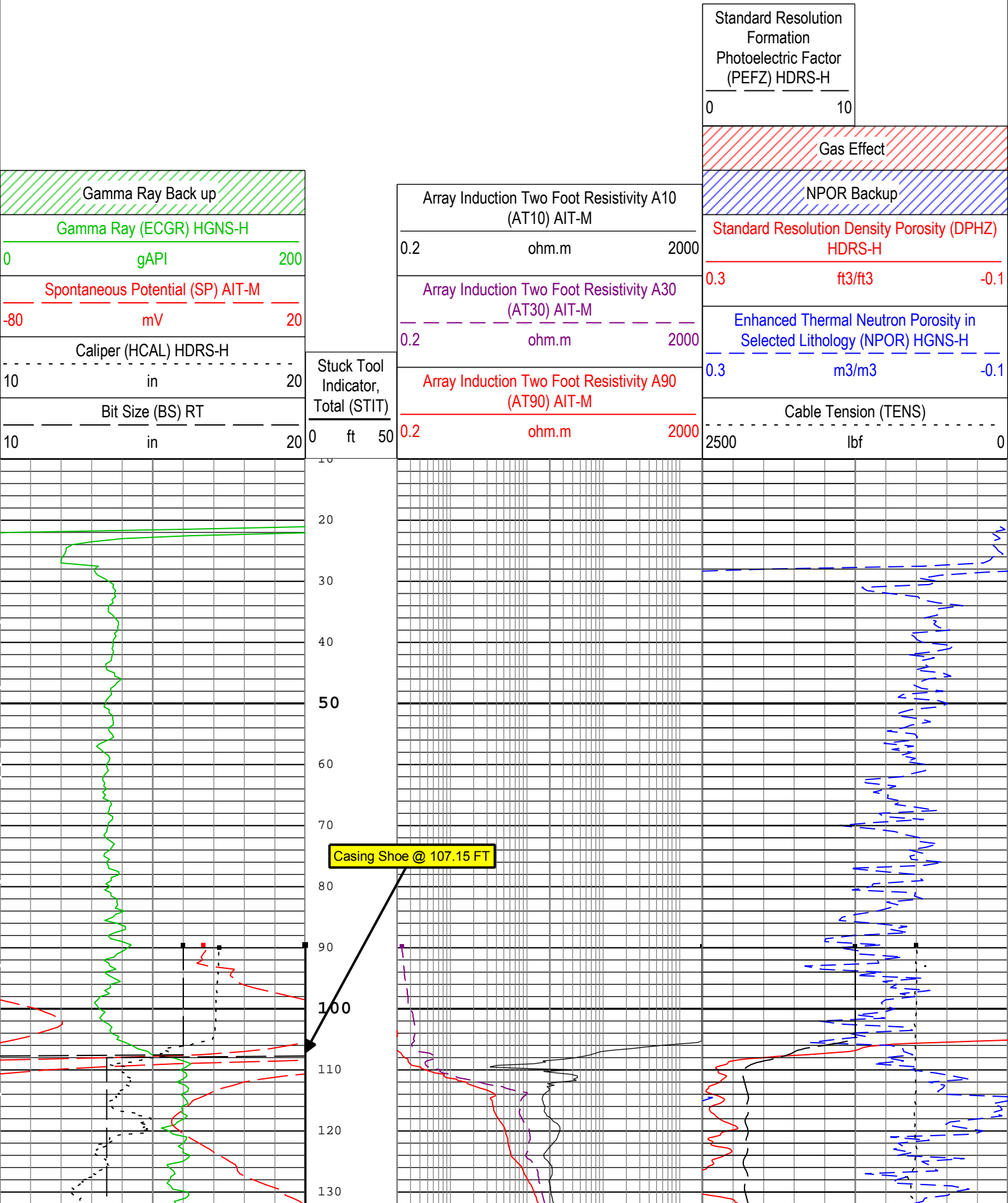


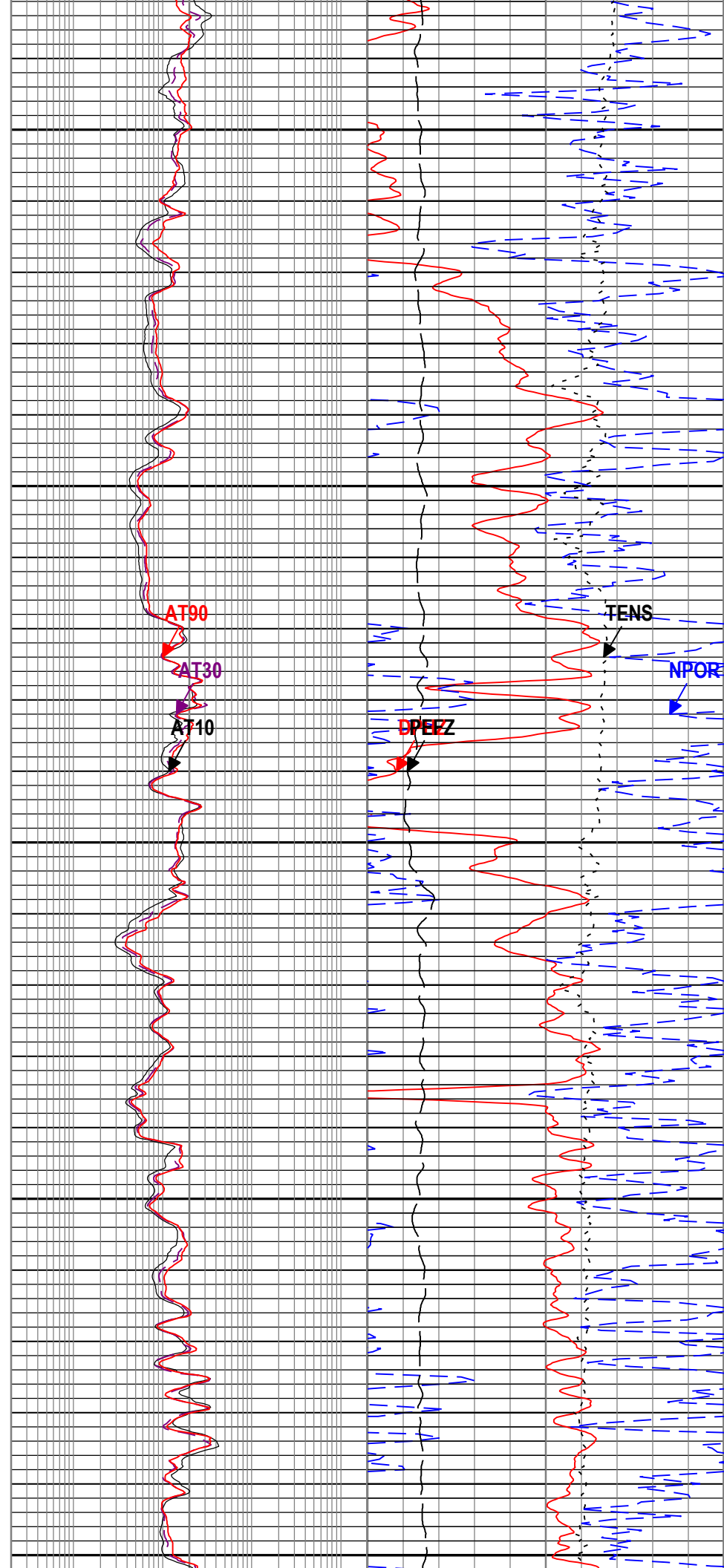
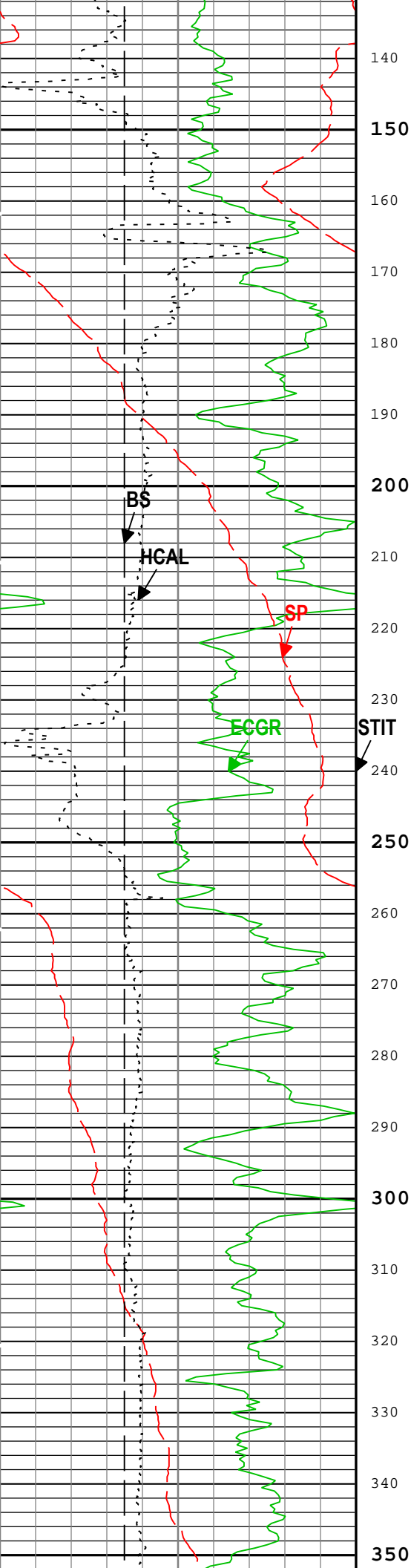
Depth Summary			
One			
Depth Measuring Device			
Type	IDW-B		
Serial Number			
Calibration Date			
Calibrator Serial Number			
Calibration Quality			

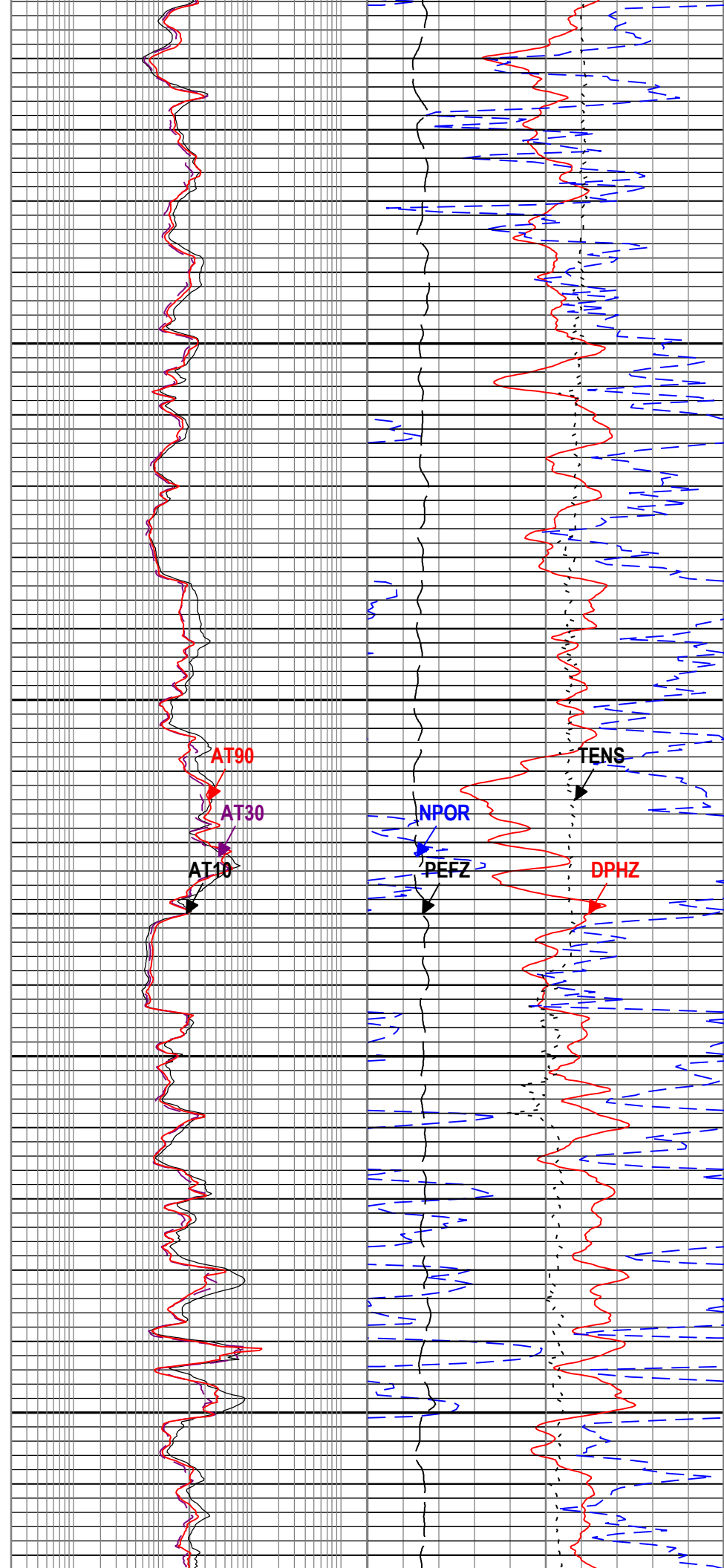
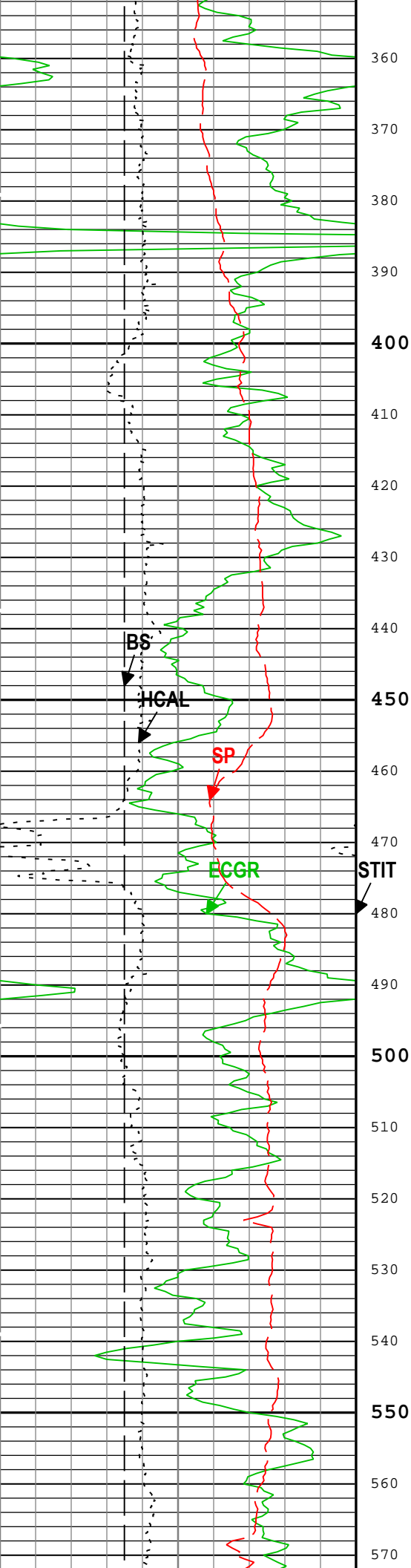
AT30	AIT-M:AMIS:AMIS	3in
AT90	AIT-M:AMIS:AMIS	3in
BS	Borehole	6in - RT
CALI	HDRS-H:HRCC-H:HRCC-H	1in
DPHZ	HDRS-H:HRMS-H:HRGD-H	2in
GR	HGNS-H:HGNS-H:HGNS-H	6in
NPOR	HGNS-H:HGNS-H:HGNS-H	6in
PEFZ	HDRS-H:HRMS-H:HRGD-H	2in

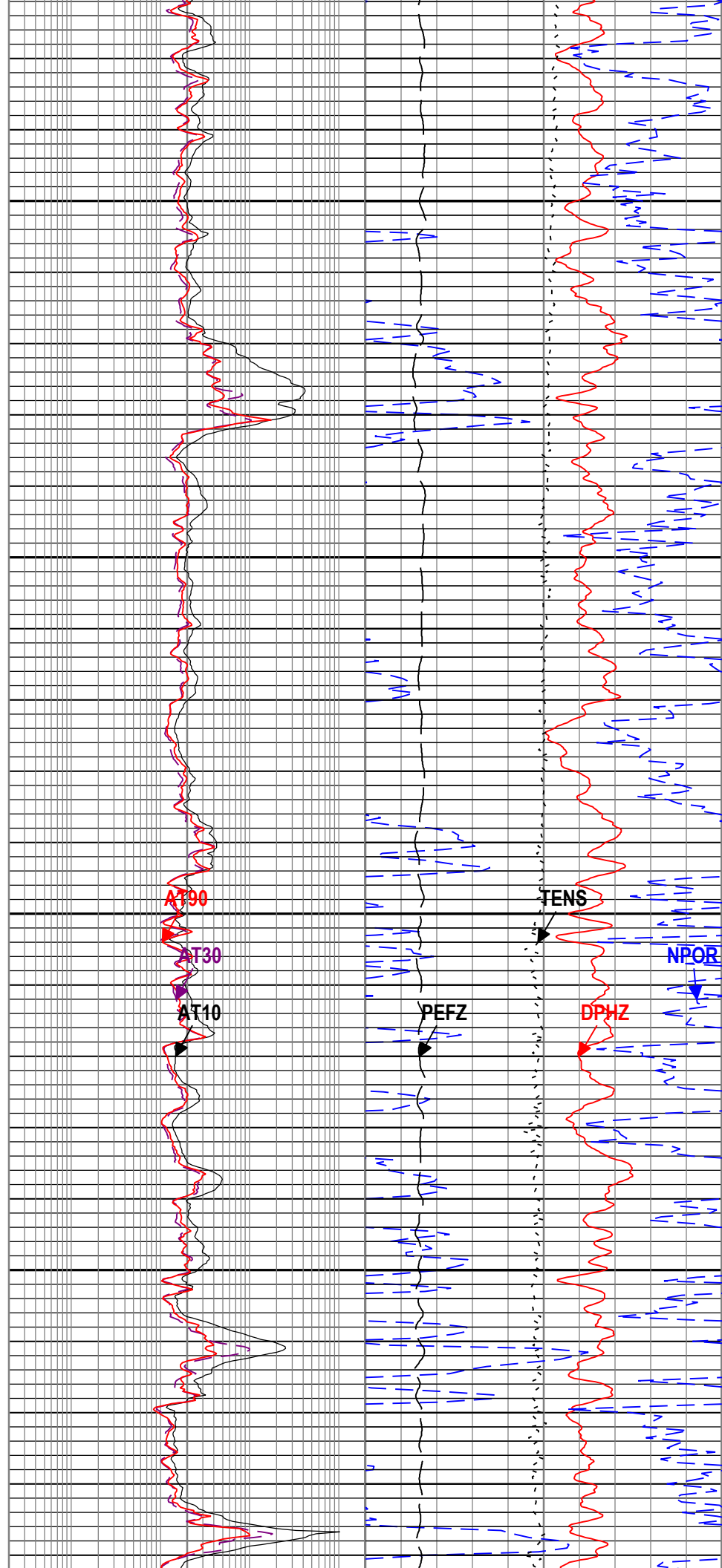
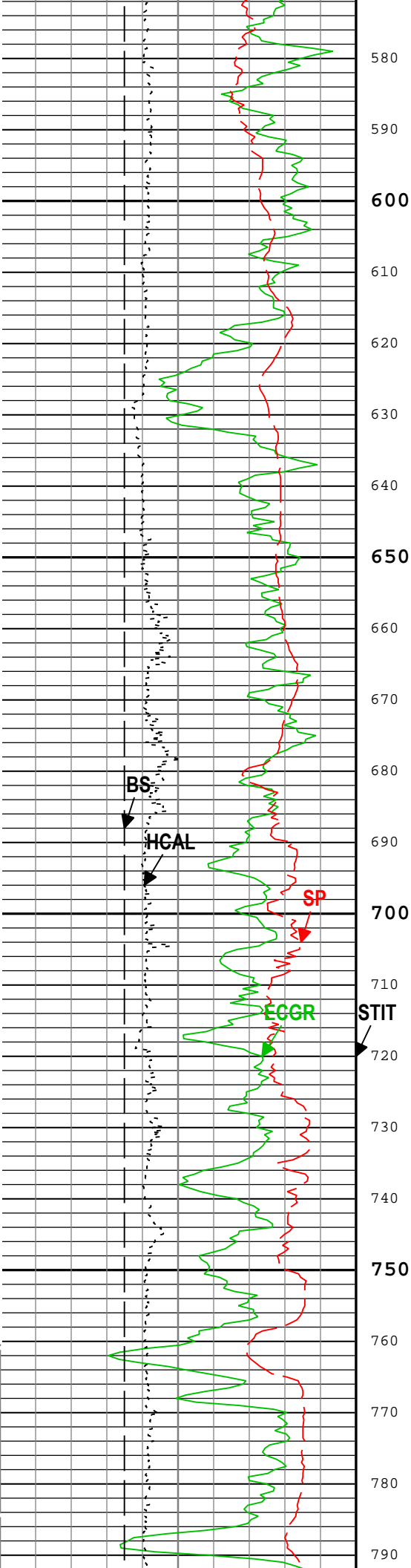
SP	AIT-M:AMIS:AMIS	6in
STIT	DepthCorrection	6in
TENS	WLWorkflow	6in
TIME_1900	WLWorkflow	0.1in

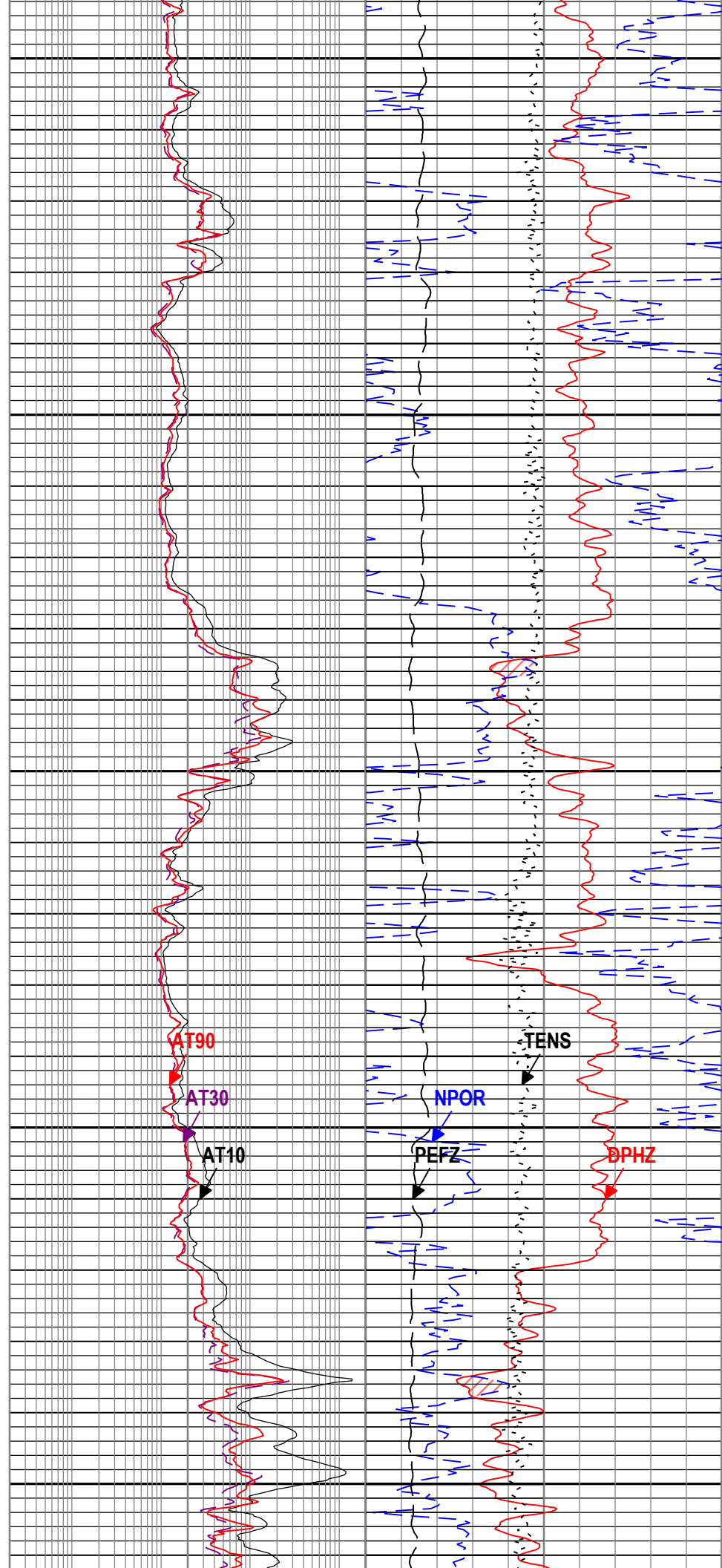
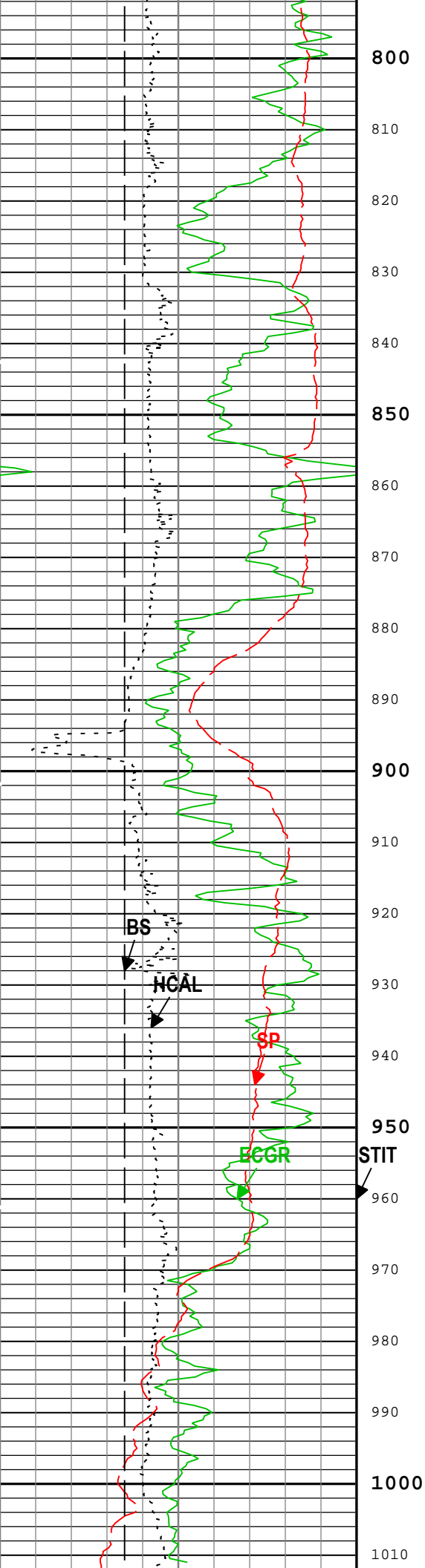
TIME_1900 - Time Marked every 60.00 (s)

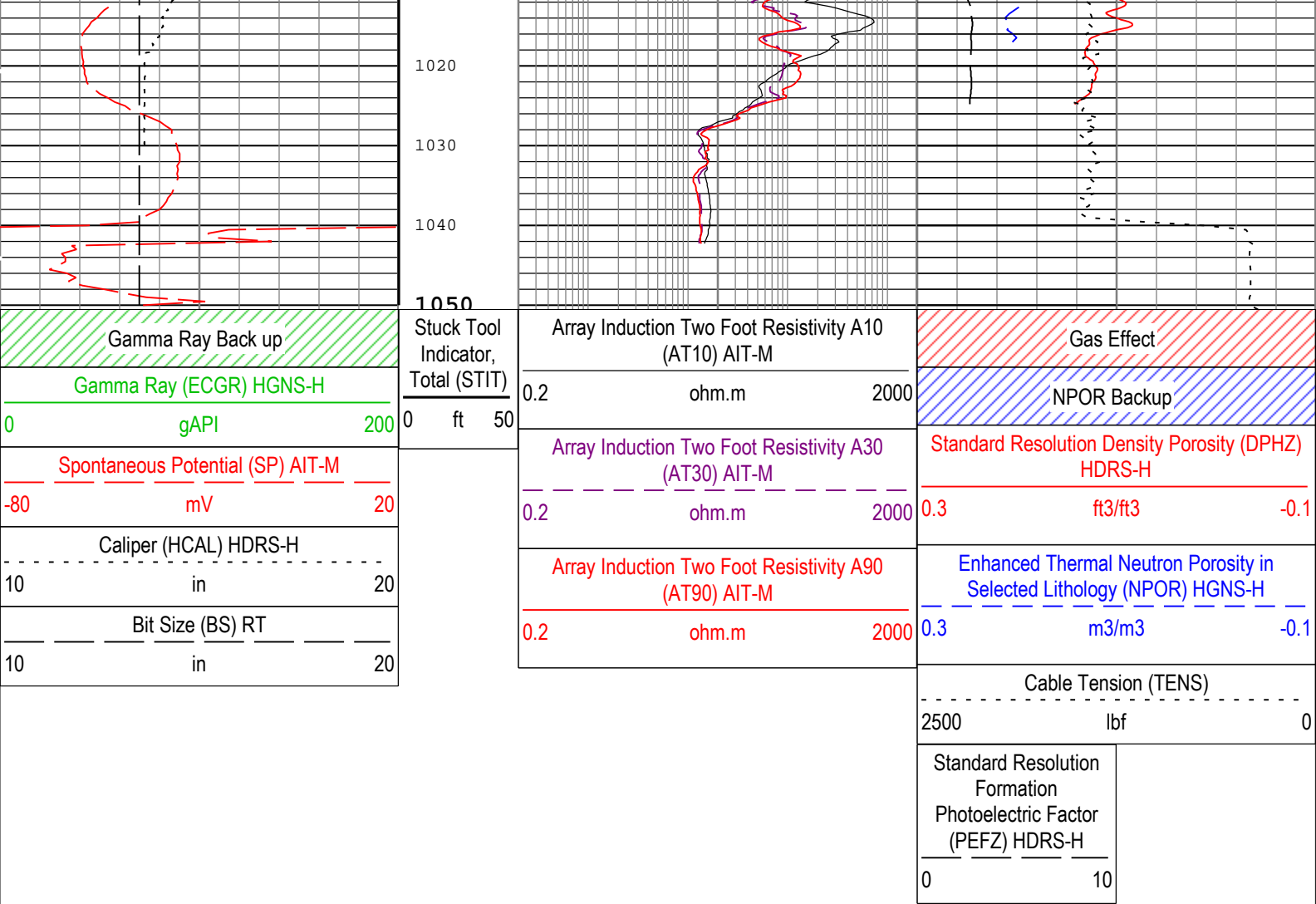












TIME_1900 - Time Marked every 60.00 (s)

Description: HGNS standard resolution porosities for Platform Express Format: Log (EMD 5in Triple Combo) Index Scale: 5 in per 100 ft Index Unit: ft
Index Type: Measured Depth Creation Date: 27-Jan-2019 14:52:12

Channel Processing Parameters				
One: Parameters				
Parameter	Description	Tool	Value	Unit
ABHM	Array Induction Borehole Correction Mode	AIT-M	Compute Standoff	
ASTA	Array Induction Tool Standoff	AIT-M	1.625	in
BARI(ISSBAR)	Barite Mud Presence Flag	Borehole	No	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BHT	Bottom Hole Temperature	Borehole	91.2	degF
BS	Bit Size	WLSESSION	Depth Zoned	in
BSAL	Borehole Salinity	Borehole	1100	ppm
CALI_SHIFT	CALI Supplementary Offset	HDRS-H	0.411	in
CBLO	Casing Bottom (Logger)	WLSESSION	107.15	ft
CDEN	Cement Density	HGNS-H	2	g/cm3
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	9.1	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
DFT_WATER	Drilling Fluid Water Type	Borehole	LSND	
DHC	Density Hole Correction	HDRS-H	Bit Size	
FD	Fluid Density	Borehole	1	g/cm3
FSAL	Formation Salinity	Borehole	0	ppm
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS(RT)	

GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	CALI	
GRSE	Generalized Mud Resistivity Selection, from Measured or Computed Mud Resistivity	Borehole	AMF	
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	CTEM	
HSCO	Hole Size Correction Option	HGNS-H	Yes	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	SANDSTONE	
MDEN	Matrix Density for Density Porosity	Borehole	2.65	g/cm3
MFST	Mud Filtrate Sample Temperature	Borehole	50.05	degF
PTCO	Pressure Temperature Correction Option	HGNS-H	Yes	
RMFS	Resistivity of Mud Filtrate Sample	Borehole	1.9	ohm.m
SOCO	Standoff Correction Option	HGNS-H	Yes	
SPDR	SP Drift Per Foot	AIT-M	0	mV/ft
TD	Total Measured Depth	Borehole	1038.69	ft

Depth Zone Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	26	10	108
BS	13.5	108	1038.69

All depth are actual.

Tool Control Parameters	
-------------------------	--

One: Parameters

Parameter	Description	Tool	Value	Unit
HMCA_BOARD_TYPE	HMCA Board Type	HGNS-H	1	
HRGD_BOARD_TYPE	HRGD Board Type	HDRS-H	WITH_HET	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	3600	ft/h

One

5" Triple Combo

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Log[6]:Up	Up	759.54 ft	1045.73 ft	27-Jan-2019 12:30:32 PM	27-Jan-2019 12:39:58 PM	ON	46.66 ft	No
One	Log[7]:Up	Up	25.65 ft	1050.28 ft	27-Jan-2019 12:48:11 PM	27-Jan-2019 1:25:58 PM	ON	47.19 ft	No

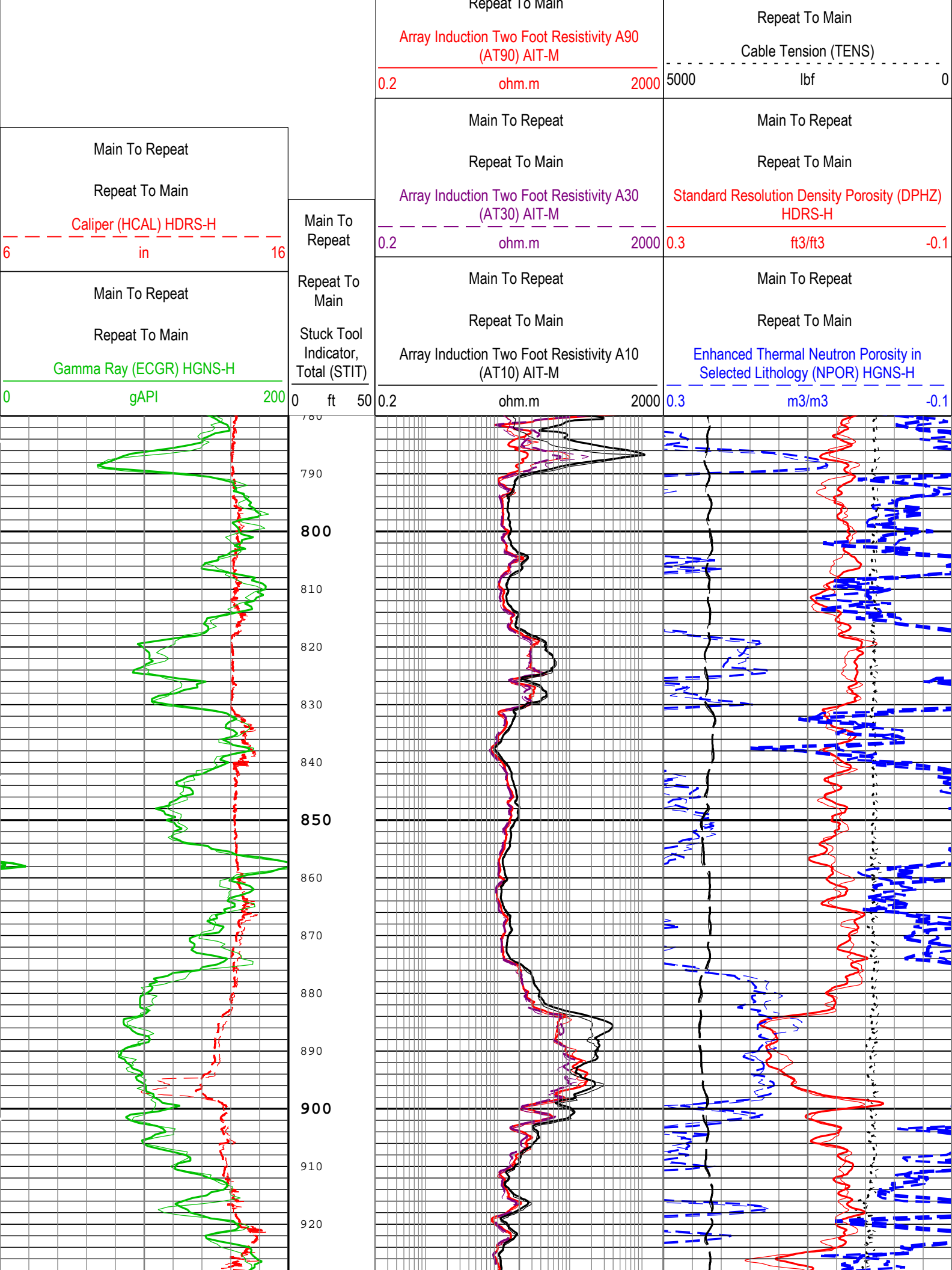
All depths are referenced to toolstring zero

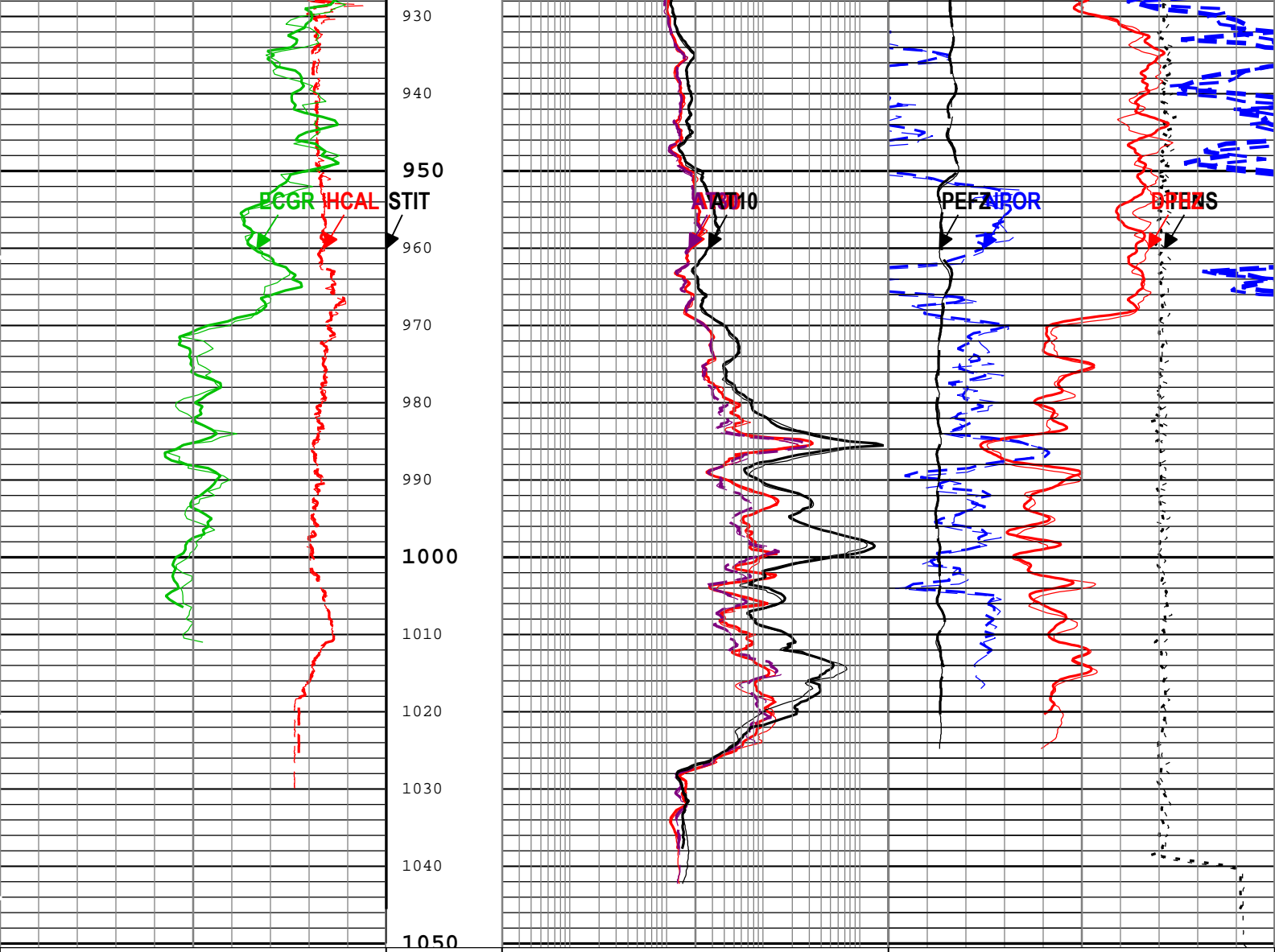
Log Company:TEP Rocky Mountain, LLC Well:Federal #SG 314-15
One: Log[7]:Up:S007

Description: HGNS standard resolution porosities for Platform Express Format: Log (EMD 5in Triple Combo RA) Index Scale: 5 in per 100 ft Index Unit: ft
Index Type: Measured Depth Creation Date: 27-Jan-2019 14:52:14

TIME_1900 - Time Marked every 60.00 (s)

	Main To Repeat Repeat To Main Standard Resolution Formation Photoelectric Factor (PEFZ) HDRS-H <hr/> 0 10
Main To Repeat Repeat To Main	Main To Repeat





Main To Repeat
Repeat To Main
Caliper (HCAL) HDRS-H
6 in 16
Main To Repeat
Repeat To Main
Gamma Ray (ECGR) HGNS-H
0 gAPI 200

Main To Repeat
Repeat To Main
Repeat To Main
Stuck Tool Indicator, Total (STIT)
0 ft 50

Main To Repeat
Repeat To Main
Array Induction Two Foot Resistivity A90 (AT90) AIT-M
0.2 ohm.m 2000
Main To Repeat
Repeat To Main
Array Induction Two Foot Resistivity A30 (AT30) AIT-M
0.2 ohm.m 2000
Main To Repeat
Repeat To Main
Array Induction Two Foot Resistivity A10 (AT10) AIT-M
0.2 ohm.m 2000

Main To Repeat
Repeat To Main
Cable Tension (TENS)
5000 lbf 0
Main To Repeat
Repeat To Main
Standard Resolution Density Porosity (DPHZ) HDRS-H
0.3 ft3/ft3 -0.1
Main To Repeat
Repeat To Main
Enhanced Thermal Neutron Porosity in Selected Lithology (NPOR) HGNS-H
0.3 m3/m3 -0.1
Main To Repeat
Repeat To Main
Standard Resolution

Standard Resolution	Formation
Photoelectric Factor (PEFZ) HDRS-H	
0	10

TIME_1900 - Time Marked every 60.00 (s)

Description: HGNS standard resolution porosities for Platform Express Format: Log (EMD 5in Triple Combo RA) Index Scale: 5 in per 100 ft Index Unit: ft
Index Type: Measured Depth Creation Date: 27-Jan-2019 14:52:14

Calibration Report

AIT-M (Array Induction Tool - M) Calibration - Run One

Primary Equipment :	File code for AIT-MA Sonde Tool Element	AMIS	129
Auxiliary Equipment :	AITM Rm/SP Bottom Nose	AMRM	

AIT Sonde Calibration - Test Loop Gain

Master (EEPROM):	19:35:50 21-Jan-2019						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Test Loop Gain - 0		Master	1.000	0.950	1.039	1.050	
Test Loop Phase - 0	deg	Master	0	-3.000	0.539	3.000	
Test Loop Gain - 1		Master	1.000	0.950	1.042	1.050	
Test Loop Phase - 1	deg	Master	0	-3.000	0.669	3.000	
Test Loop Gain - 2		Master	1.000	0.950	1.016	1.050	
Test Loop Phase - 2	deg	Master	0	-3.000	0.045	3.000	
Test Loop Gain - 3		Master	1.000	0.950	1.010	1.050	
Test Loop Phase - 3	deg	Master	0	-3.000	0.112	3.000	
Test Loop Gain - 4		Master	1.000	0.950	0.992	1.050	
Test Loop Phase - 4	deg	Master	0	-3.000	0.072	3.000	
Test Loop Gain - 5		Master	1.000	0.950	0.982	1.050	
Test Loop Phase - 5	deg	Master	0	-3.000	-0.077	3.000	
Test Loop Gain - 6		Master	1.000	0.950	0.990	1.050	
Test Loop Phase - 6	deg	Master	0	-3.000	0.284	3.000	
Test Loop Gain - 7		Master	1.000	0.950	1.011	1.050	
Test Loop Phase - 7	deg	Master	0	-3.000	-0.005	3.000	

AIT Sonde Calibration - Sonde Error Correction

Master (EEPROM):	19:35:50 21-Jan-2019						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Sonde Error Correction Real - 0	mS/m	Master	-----	-231.000	-83.167	119.000	
Sonde Error Correction Quad - 0		Master	-----	-2250.000	-316.754	2250.000	
Sonde Error Correction Real - 1	mS/m	Master	-----	114.000	167.806	204.000	
Sonde Error Correction Quad - 1		Master	-----	-625.000	110.009	625.000	
Sonde Error Correction Real - 2	mS/m	Master	-----	66.000	107.589	156.000	
Sonde Error Correction Quad - 2		Master	-----	-350.000	-82.171	350.000	
Sonde Error Correction Real - 3	mS/m	Master	-----	39.000	58.227	89.000	
Sonde Error Correction Quad - 3		Master	-----	-250.000	20.054	250.000	
Sonde Error Correction Real - 4	mS/m	Master	-----	15.000	25.302	35.000	
Sonde Error Correction Quad - 4		Master	-----	-63.000	7.066	63.000	
Sonde Error Correction Real - 5	mS/m	Master	-----	4.000	11.986	24.000	
Sonde Error Correction Quad - 5		Master	-----	-50.000	10.548	50.000	
Sonde Error Correction Real - 6	mS/m	Master	-----	5.000	9.775	15.000	
Sonde Error Correction Quad - 6		Master	-----	-30.000	-2.755	30.000	
Sonde Error Correction Real - 7	mS/m	Master	-----	-5.000	-1.574	5.000	
Sonde Error Correction Quad - 7		Master	-----	-30.000	-10.719	30.000	

AIT Mud Calibration - Mud Calibration Gain

Master (EEPROM):	19:35:50 21-Jan-2019						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Coarse Gain		Master	1.000	0.800	0.815	1.200	
Fine Gain		Master	1.000	0.800	0.815	1.200	

AIT Electronics Check - Thru Calibration Check

Master (EEPROM):		19:35:50 21-Jan-2019			Before (Measured):		11:46:25 27-Jan-2019	
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit		
Thru Cal Mag - 0	V	Master	----	0.366	0.622	0.854		
		Before	----	0.366	0.622	0.854		
		Before-Master	----	----	0.000	----		
Thru Cal Phase - 0	deg	Master	----	137.000	-174.143	-103.000		
		Before	----	137.000	-174.082	-103.000		
		Before-Master	----	----	0.061	----		
Thru Cal Mag - 1	V	Master	----	0.762	1.276	1.778		
		Before	----	0.762	1.276	1.778		
		Before-Master	----	----	0.000	----		
Thru Cal Phase - 1	deg	Master	----	136.000	-175.242	-104.000		
		Before	----	136.000	-175.180	-104.000		
		Before-Master	----	----	0.062	----		
Thru Cal Mag - 2	V	Master	----	0.372	0.632	0.868		
		Before	----	0.372	0.632	0.868		
		Before-Master	----	----	0.000	----		
Thru Cal Phase - 2	deg	Master	----	132.000	-178.822	-108.000		
		Before	----	132.000	-178.761	-108.000		
		Before-Master	----	----	0.061	----		
Thru Cal Mag - 3	V	Master	----	0.420	0.715	0.980		
		Before	----	0.420	0.715	0.980		
		Before-Master	----	----	0.000	----		
Thru Cal Phase - 3	deg	Master	----	131.000	-179.595	-109.000		
		Before	----	131.000	-179.535	-109.000		
		Before-Master	----	----	0.060	----		
Thru Cal Mag - 4	V	Master	----	0.804	1.338	1.876		
		Before	----	0.804	1.338	1.876		
		Before-Master	----	----	0.000	----		
Thru Cal Phase - 4	deg	Master	----	125.000	174.179	-115.000		
		Before	----	125.000	174.240	-115.000		
		Before-Master	----	----	0.061	----		
Thru Cal Mag - 5	V	Master	----	1.176	1.945	2.744		
		Before	----	1.176	1.945	2.744		
		Before-Master	----	----	0.000	----		
Thru Cal Phase - 5	deg	Master	----	122.000	172.534	-118.000		
		Before	----	122.000	172.593	-118.000		
		Before-Master	----	----	0.059	----		
Thru Cal Mag - 6	V	Master	----	1.176	1.942	2.744		
		Before	----	1.176	1.942	2.744		
		Before-Master	----	----	0.000	----		
Thru Cal Phase - 6	deg	Master	----	121.000	172.576	-119.000		
		Before	----	121.000	172.635	-119.000		
		Before-Master	----	----	0.059	----		
Thru Cal Mag - 7	V	Master	----	0.846	1.396	1.974		
		Before	----	0.846	1.396	1.974		
		Before-Master	----	----	0.000	----		
Thru Cal Phase - 7	deg	Master	----	115.000	171.775	-125.000		
		Before	----	115.000	171.827	-125.000		
		Before-Master	----	----	0.052	----		
SPA Zero	mV	Master		-50.000	-0.117	50.000		
		Before		-50.000	-0.103	50.000		
		Before-Master	----	----	0.014	----		
SPA Plus	mV	Master		941.000	990.569	1040.000		
		Before		941.000	990.651	1040.000		
		Before-Master	----	----	0.082	----		
Temperature Zero	V	Master		-0.050	0.000	0.050		
		Before		-0.050	0.000	0.050		
		Before-Master	----	----	0.000	----		
Temperature Plus	V	Master		0.870	0.918	0.960		
		Before		0.870	0.918	0.960		
		Before-Master	----	----	0.000	----		

HDRS-H (HILT Density and Rxo Sonde, 150 degC) Calibration - Run One

Primary Equipment :

HILT High-Resolution Control Cartridge, 150 degC	HRCC-H	5705
HILT Resistivity Gamma-Ray Density Device, 150 degC	HRGD-H	4899

Auxiliary Equipment :

HRDD Backscatter Detector	Backscatter	
HRDD Long Spacing Detector	Long Spacing	
HRDD Short Spacing Detector	Short Spacing	
Cesium 137 Gamma-Ray Logging Source	GSR-J	5334
HILT High-Resolution Control Cartridge, 150 degC	HRCC-H	5705
HILT High-Resolution Mechanical Sonde, 150 degC	HRMS-H	4849

Calibration Parameter :

Small Ring Size (Caliper Calibration Small Ring)	8.00
Large Ring Size (Caliper Calibration Large Ring)	11.00

HDRS Caliper Calibration - Caliper Accumulations

Before (Measured): 15:26:27 26-Jan-2019

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Small Ring	in	Before	8.00	6.00	7.11	10.00	
Large Ring	in	Before	11.00	8.25	10.68	13.75	

HDRS Density Calibration - Inversion Results

Master (EEPROM): 13:48:32 25-Jan-2019

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Rho Aluminum	g/cm3	Master	2.596	2.586	2.597	2.606	
Rho Magnesium	g/cm3	Master	1.686	1.676	1.686	1.696	
Pe Aluminum		Master	2.570	2.470	2.538	2.670	
Pe Magnesium		Master	2.650	2.550	2.650	2.750	

HDRS Density Calibration - Deviation Summary

Master (EEPROM): 13:48:32 25-Jan-2019

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Average Deviation	%	Master	0	-0.6000	0.3045	0.6000	
BS Max Deviation	%	Master	0	-1.6000	0.5356	1.6000	
SS Average Deviation	%	Master	0	-1.0000	0.3745	1.0000	
SS Max Deviation	%	Master	0	-2.5000	0.8248	2.5000	
LS Average Deviation	%	Master	0	-1.5000	0.6734	1.5000	
LS Max Deviation	%	Master	0	-3.5000	1.6045	3.5000	

HDRS Density Calibration - Background Summary

Master (EEPROM): 13:48:32 25-Jan-2019 Before (Measured): 14:52:12 26-Jan-2019

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Window Ratio		Master	1.0000		0.7409		
		Before	0.7409	0.7038	0.7409	0.7779	
		Before-Master	-----	-----	0.0000	-----	
BS Window Sum	1/s	Master	1		29100		
		Before	29100	27645	29093	30556	
		Before-Master	-----	-----	-7	-----	
SS Window Ratio		Master	1.0000		0.4789		
		Before	0.4789	0.4549	0.4785	0.5028	
		Before-Master	-----	-----	-0.0004	-----	
SS Window Sum	1/s	Master	1		12125		
		Before	12125	11519	12126	12731	
		Before-Master	-----	-----	1	-----	
LS Window Ratio		Master	1.0000		0.3005		
		Before	0.3005	0.2855	0.2972	0.3155	
		Before-Master	-----	-----	-0.0033	-----	
LS Window Sum	1/s	Master	1		1328		
		Before	1328	1262	1320	1394	
		Before-Master	-----	-----	-8	-----	

		Before	1328	1262	1320	1394	
		Before-Master	-----	-----	-8	-----	

HDRS Density Calibration - Photo-multiplier High Voltages

Master (EEPROM):		13:48:32 25-Jan-2019		Before (Measured):		14:52:12 26-Jan-2019	
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS PM High Voltage	V	Master		1000	1433	2400	
		Before		1000	1450	2400	
		Before-Master	-----	-100	17	100	
SS PM High Voltage	V	Master		1000	1255	2400	
		Before		1000	1266	2400	
		Before-Master	-----	-100	11	100	
LS PM High Voltage	V	Master		1000	1292	2400	
		Before		1000	1303	2400	
		Before-Master	-----	-100	11	100	

HDRS Density Calibration - Crystal Quality Resolutions

Master (EEPROM):		13:48:32 25-Jan-2019		Before (Measured):		14:52:12 26-Jan-2019	
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Crystal Resolution	%	Master		5.00	11.69	25.00	
		Before		5.00	11.82	25.00	
		Before-Master	-----	-1.00	0.13	1.00	
SS Crystal Resolution	%	Master		5.00	9.25	20.00	
		Before		5.00	9.22	20.00	
		Before-Master	-----	-1.00	-0.03	1.00	
LS Crystal Resolution	%	Master		5.00	8.95	20.00	
		Before		5.00	8.84	20.00	
		Before-Master	-----	-1.00	-0.11	1.00	

HDRS MCFL Calibration - MCFL Accumulations

Before (Measured):		11:44:35 27-Jan-2019					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Main Resistivity	ohm.m	Before	3875	3565	3886	4185	
Deep Resistivity	ohm.m	Before	3830	3524	3828	4136	
Shallow Resistivity	ohm.m	Before	3830	3524	3839	4136	

HGNS-H (HILT Gamma-Ray and Neutron Sonde, 150 degC) Calibration - Run One

Primary Equipment :						
	HILT Gamma-Ray and Neutron Sonde, 150 degC		HGNS-H		3730	
Auxiliary Equipment :						
	HGNS Accelerometer, 150 degC		HACCZ-H		1537	
	AmBe Neutron Logging Source		NSR-F		5203	
Calibration Parameter :						
	Water Temperature					
	Housing Size					
	JIG-BKG (Jig minus background reference)		165			

HGNS Accelerometer Calibration - Accelerometer Accumulations

Before (Measured):		11:43:52 27-Jan-2019					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
AZ Vertical Measurement	ft/s2	Before	32.2	31.5	32.1	32.8	

HGNS Accelerometer EEPROM - Accelerometer EEPROM Read

Master (EEPROM):		17:00:00 14-Mar-2002					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Accelerometer Manufacturer		Master			QAT_160		
Accelerometer Reference Temperature	degF	Master		30.2	77.0	122.0	
Accelerometer Coefficients - 0		Master	-----	-----	-530.200	-----	
Accelerometer Coefficients - 1		Master	-----	-----	-13.059	-----	
Accelerometer Coefficients - 2		Master	-----	-----	-0.001	-----	

Accelerometer Coefficients - 3		Master	-----	-----	0.000	-----	
Accelerometer Coefficients - 4		Master	-----	-----	2.721	-----	
Accelerometer Coefficients - 5		Master	-----	-----	0.000	-----	
Accelerometer Coefficients - 6		Master	-----	-----	0.000	-----	
Accelerometer Coefficients - 7		Master	-----	-----	0.000	-----	
Accelerometer Coefficients - 8		Master	-----	-----	298.900	-----	
Accelerometer Coefficients - 9		Master	-----	-----	1.007	-----	

HGNS Neutron Calibration - HGNS Neutron Accumulations

Master (EEPROM):		15:45:32 25-Jan-2019		Before (Measured):		14:48:42 26-Jan-2019	
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Near Zero Measurement	1/s	Master	0	5.0	28.0	40.0	
		Before	0	5.0	27.7	40.0	
		Before-Master	-----	-4.2	-0.3	4.2	
Far Zero Measurement	1/s	Master	0	5.0	27.8	40.0	
		Before	0	5.0	28.0	40.0	
		Before-Master	-----	-4.2	0.2	4.2	
Near Plus Measurement	1/s	Master	6031.0	4700.0	4997.0	6900.0	
		Before	-----	-----	-----	-----	
		Before-Master	-----	-----	-----	-----	
Far Plus Measurement	1/s	Master	2793.0	1900.0	2067.0	2900.0	
		Before	-----	-----	-----	-----	
		Before-Master	-----	-----	-----	-----	
Near Corrected Plus Measurement	1/s	Master		4700.0	5069.0	6900.0	
		Before	-----	-----	-----	-----	
		Before-Master	-----	-----	-----	-----	
Far Corrected Plus Measurement	1/s	Master		1900.0	2103.0	2900.0	
		Before	-----	-----	-----	-----	
		Before-Master	-----	-----	-----	-----	

HGNS Gamma-Ray Calibration - Gamma-Ray Accumulations

Before (Measured):		16:43:16 26-Jan-2019					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
RGR Zero Measurement	gAPI	Before	30.0	0	74.4	120.0	
RGR Plus Measurement	gAPI	Before	185.4	157.1	169.8	206.3	
GR Calibration Gain		Before	0.89	0.80	0.97	1.05	

EDTC-B (Enhanced Digital Telemetry Cartridge - Version B) Calibration - Run One

Primary Equipment :			
EDTC-B	EDTC-B	8127	
Calibration Parameter :			
Plus Reference			

EDTC-B Accelerometer Calibration - EDTC-B Accelerometer Calibration

Before (Measured):		11:43:22 27-Jan-2019					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
AZ Vertical Measurement	ft/s2	Before	32.19	31.53	31.97	32.84	

EDTC-B Memory Data - EDTC-B Memory Data

Master (EEPROM):		12:20:44 27-Jan-2019					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Initial PMT HV	V	Master			1497.000		
Accelerometer Serial Number		Master			168		
Accelerometer Coefficients - 0		Master	-----	-----	2.936E+000	-----	
Accelerometer Coefficients - 1		Master	-----	-----	3.006E-004	-----	
Accelerometer Coefficients - 2		Master	-----	-----	6.917E-008	-----	
Accelerometer Coefficients - 3		Master	-----	-----	-8.141E-008	-----	
Accelerometer Coefficients - 4		Master	-----	-----	1.931E-009	-----	
Accelerometer Coefficients - 5		Master	-----	-----	-1.461E-011	-----	
Accelerometer Coefficients - 6		Master	-----	-----	3.732E-014	-----	
Accelerometer Coefficients - 7		Master	-----	-----	-3.204E-003	-----	
Accelerometer Coefficients - 8		Master	-----	-----	6.270E-005	-----	

Accelerometer Coefficients - 9		Master	-----	-----	-1.193E-007	-----		
Accelerometer Coefficients - 10		Master	-----	-----	-8.018E-010	-----		
Accelerometer Coefficients - 11		Master	-----	-----	2.123E-012	-----		
Gamma-Ray Detector Serial Number		Master			77039			

EDTC-B Gamma-Ray Calibration - Gamma Ray Coefficients

Before (Measured):		15:29:46 26-Jan-2019						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit		
Gamma Ray Gain - 0		Before	-----	-----	-----	-----		

EDTC-B Gamma-Ray Calibration - Gamma Ray Accumulations

Before (Measured):		15:29:46 26-Jan-2019						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit		
RGR Zero Measurement	gAPI	Before		0	61.747	120.000		
RGR Plus Measurement - 0	gAPI	Before	-----	-----	-----	-----		

Company:	TEP Rocky Mountain, LLC	Schlumberger
Well:	Federal #SG 314-15	
Field:	Grand Valley	
County:	Garfield	
State:	Colorado	
Platform Express		
Triple Combo		