UIC - I - ___5____

MECHANICAL INTEGRITY TEST (MITs)

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

OCT 25 2018 PM01:58

MECHANICAL INTEGRITY TEST REPORT
(TA OR UIC)

Date of Test 10-3-18 Operator AguaMoss LLC API # 30-0 45-28653

Property Name Sunco Disposal Well # 1 Location: Unit ___ Sec 2 Twn 29 Rge 12

Land Type:
State ____
Federal ____
Private ✓
Indian ____

Well Type:
Water Injection ____
Salt Water Disposal ✓
Gas Injection ____
Producing Oil/Gas ____
Pressure obervation ____

Temporarily Abandoned Well (Y/N): ____ TA Expires: ____

Casing Pres. 800 Tbg. SI Pres. ____ Max. Inj. Pres. ____
Bradenhead Pres. 0 Tbg. Inj. Pres. ____
Tubing Pres. 1300
Int. Casing Pres. N/A

Pressured annulus up to 1040 psi. for 30 mins. Test passed/failed

REMARKS:
Class I - MIT Prior to start injection for falloff test
Bled casing to 0 Prior to MIT
BH-0- during whole test
Approval Comes from Santa Fe Office

By _____ Witness Monica Kuehling
(Operator Representative) (NMOCD)

Manager
(Position)

Revised 02-11-02

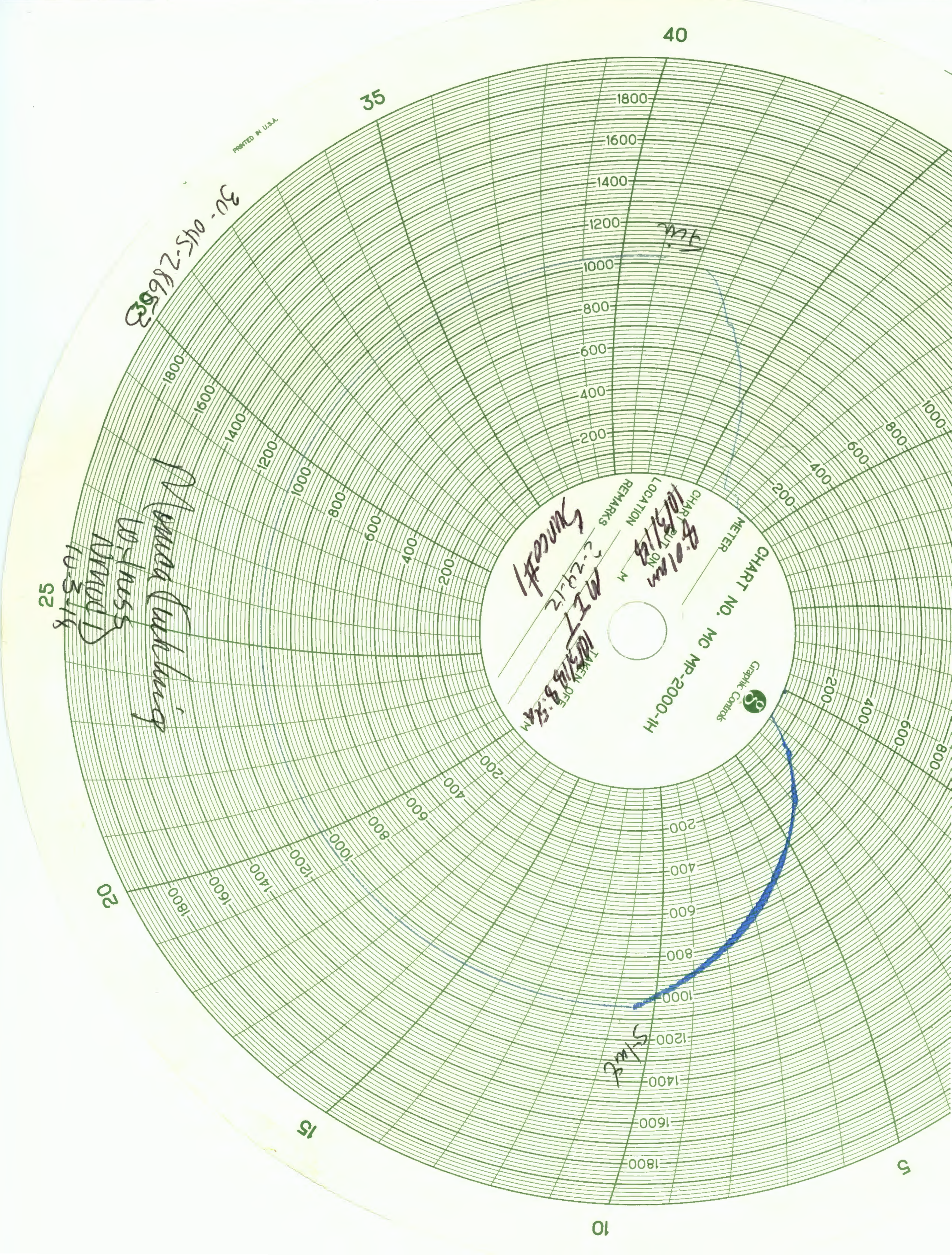
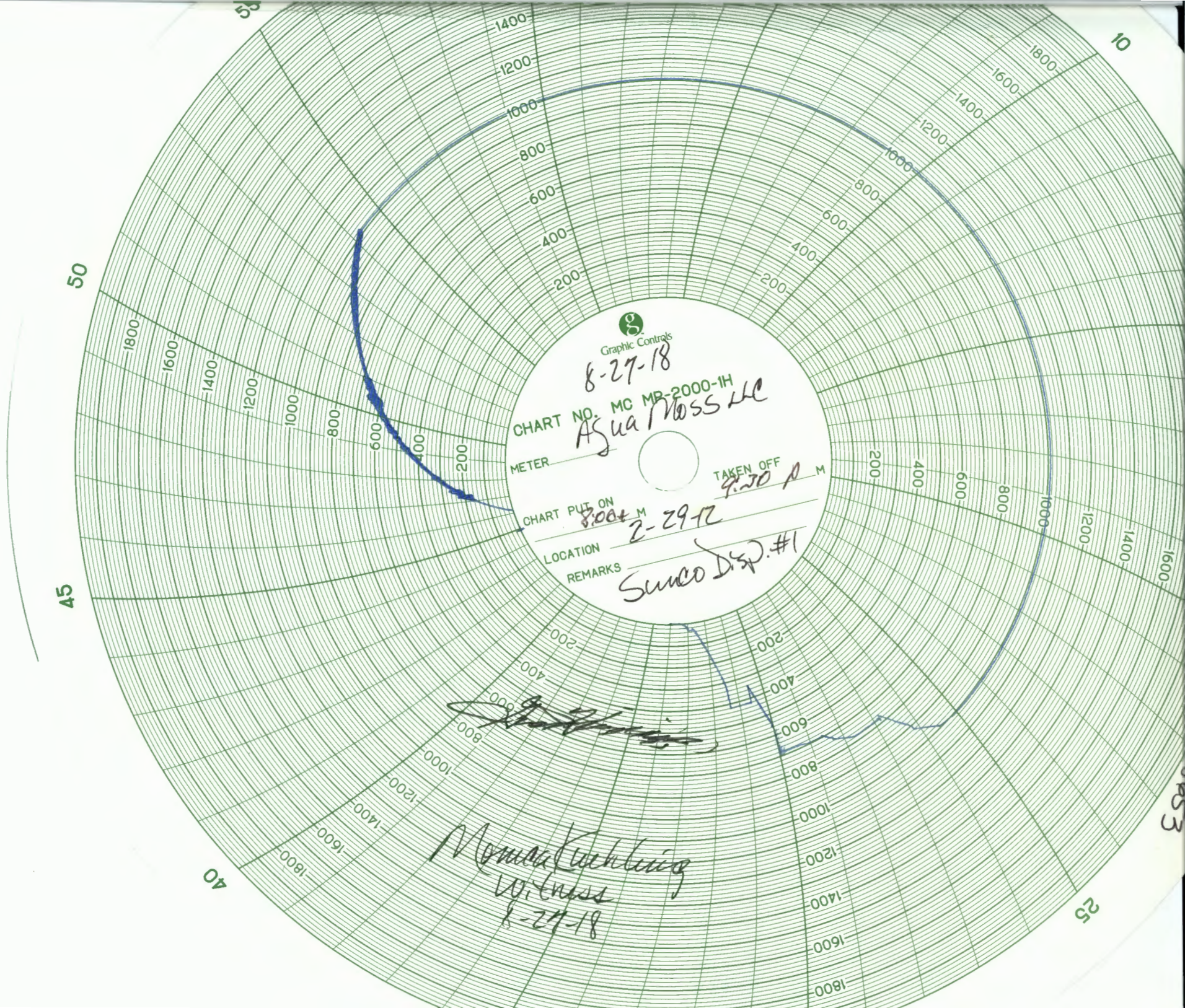


CHART NO. MC MP-2000-1H
Graphic Controls
METER
CHART PUT ON
LOCATION
REMARKS
TAKEN OFF
PRINTED IN U.S.A.
30-045-28663


Graphic Controls
8-27-18
CHART NO. MC MP-2000-1H
METER Agua Moss LLC
CHART PUT ON 8:00A M
TAKEN OFF 4:30 P M
LOCATION 2-29-12
REMARKS Sunco Disp. #1
Monica Kuehling
Witness
8-27-18

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, July 26, 2018 3:08 PM
To: 'Philana Thompson'; Ryan Davis (rdavis@merrion.bz); Ryan Merrion (ryan@merrion.bz)
Cc: Sanchez, Daniel J., EMNRD; Goetze, Phillip, EMNRD; Griswold, Jim, EMNRD; Powell, Brandon, EMNRD; Kuehling, Monica, EMNRD
Subject: UICI-005 UIC Class I (NH) SUNCO Well No. 1 (API# 30-045-28653) Disposal Well Agua Moss, LLC MIT Chart 7-26-2018
Attachments: 2018-07-26 Sunco MIT Packet.pdf

Philana, et al.:

The New Mexico Oil Conservation Division (OCD) has completed its review of the above subject well Static Annulus MIT conducted this morning.

OCD hereby **approves** the MIT.

Agua Moss, LLC may **resume** operations at its earliest convenience.

Thank you for your cooperation in this matter.

Mr. Carl J. Chavez, CHMM (#13099)
UIC Program Quality Assurance Officer
New Mexico Oil Conservation Division
Energy Minerals and Natural Resources Department
1220 South St Francis Drive
Santa Fe, New Mexico 87505
Ph. (505) 476-3490
E-mail: CarlJ.Chavez@state.nm.us
"Why not prevent pollution, minimize waste to reduce operating costs, reuse or recycle, and move forward with the rest of the Nation?" (To see how, go to: http://www.emnrd.state.nm.us/OCD and see "Publications")

From: Philana Thompson <pthompson@merrion.bz>
Sent: Thursday, July 26, 2018 11:30 AM
To: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Subject: Fwd: Sunco MIT Chart

Philana Thompson
Merrion Oil & Gas
Sent from my iPhone

Begin forwarded message:

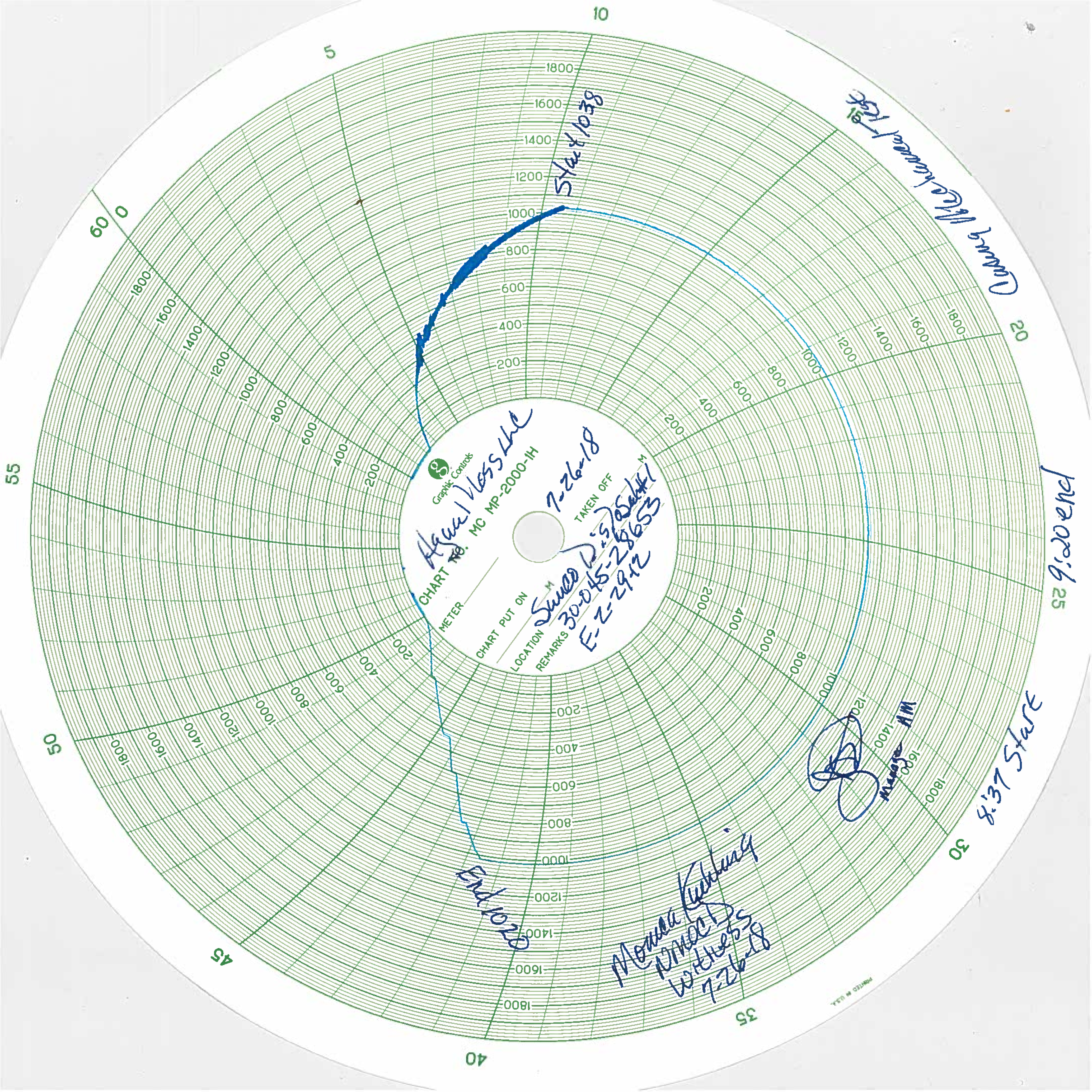
> **From:** Shacie Murray <shacie@merrion.bz>
> **Date:** July 26, 2018 at 11:14:54 AM MDT

To: Philana Thompson <pthompson@merrion.bz>
Subject: Sunco MIT Chart

Attached.

Shacie Murray

Merrion Oil & Gas
Production Engineer
(505) 330-7605
shacie@merrion.bz


Graphic Controls
CHART NO. MC MP-2000-1H
METER
CHART PUT ON
TAKEN OFF
LOCATION
REMARKS
7-26-18
30-045-28653
Start 1038
End 1020
9:20 end
8:37 Start
Witness
7-26-18

JADE SALES & SERVICE, INC.

(505) 325-6173

CONTENT AND METER REPORT

GAS

FROM _____ STA NO. _____

~~LEASE~~ MERRION OIL + GAS SYSTEM _____

LEGAL DESCR. _____ GAS TO _____

DATE OF TEST 7/25/18 TIME OF TEST 0800 EFFECTIVE DATE 7/25/18

METER DATA			RECORDER DATA		AP CALIBRATION			
TYPE CONNECTION	FLG ☐ 0	PIPE ☐ 1		FLOW COMPUTER ☐	APP D W	ATMOS + D W	FOUND	LEFT
METER TUBE SIZE	▲		RECORDER S/N OR MFG	BARTON	0			0
ORIFICE INSTALLED	▲		~~DIFF~~ RANGE	S/N-202A-195391	400			400
ORIFICE REMOVED	▲		STATIC RANGE	2000 #	1000			1000
ORIFICE S/N	▲		TEMP RANGE		1600			1600
AV DIFF			AV STATIC		2000			2000
SAMPLE TAKEN	YES ☐	NO ☐	TYPE OF TEST	CHECK ☐ SETTLE ☐ ORIFICE ☐	0			0

TESTER AARON ESTRADA SCH #

DP CALIBRATION		
APP DW	FOUND	LEFT

WITNESS

REMARKS —

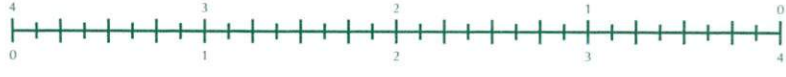
BARTON - 1 - PEN - 2000 # RECORDER.

TEST SOURCE: BETA

0-3000 # S/N: 3247007

CERTIFICATION DATE: 3/26/18

TEMP CALIBRATION		
THERM	FOUND	LEFT



MESA
MEASUREMENT

Certificate of Calibration
13197

Calibration Data

Range :	0 to 3000 PSIG (HP Transducer)
Stated Accuracy :	+/- 0.025% of Full Scale

Standard :	PM600-A20M
Serial No.:	3247007

Step	Reference's Indicated Value	As Found Calibrator's Reading	As Left Calibrator's Reading	Acceptance Minimum	Limits Maximum
1	0.00	0.0	Left, As Found	-0.4	0.4
2	3000.00	2999.6	Left, As Found	2999.2	3000.8
3	2700.00	2699.7	Left, As Found	2699.2	2700.8
4	2400.00	2399.7	Left, As Found	2399.2	2400.8
5	2100.00	2099.7	Left, As Found	2099.2	2100.8
6	1800.00	1799.9	Left, As Found	1799.2	1800.8
7	1500.00	1500.0	Left, As Found	1499.2	1500.8
8	1200.00	1199.9	Left, As Found	1199.2	1200.8
9	900.00	900.0	Left, As Found	899.2	900.8
10	600.00	600.0	Left, As Found	599.2	600.8
11	300.00	300.0	Left, As Found	299.2	300.8
12	0.00	0.0	Left, As Found	-0.4	0.4

Range :	0 to 30 Volts DC
Stated Accuracy :	+/- 0.015% of Reading + 0.002V

Standard :	M3001
Serial No.:	9499092

Step	Reference's Indicated Value	As Found Calibrator's Reading	As Left Calibrator's Reading	Acceptance Minimum	Limits Maximum
1	0.000	0.000	Left, As Found	-0.002	0.002
2	15.000	15.000	Left, As Found	14.996	15.004
3	30.000	30.000	Left, As Found	29.993	30.007

Range :	4 to 20 mA DC Current
Stated Accuracy :	+/- 0.015% of Reading + 0.002mA

Standard :	M3001
Serial No.:	9499092

Step	Reference's Indicated Value	As Found Calibrator's Reading	As Left Calibrator's Reading	Acceptance Minimum	Limits Maximum
1	4.000	FAILED	Left, As Found	3.997	4.003
2	12.000	FAILED	Left, As Found	11.996	12.004
3	20.000	FAILED	Left, As Found	19.995	20.005

Range :	25° Fahrenheit to 200° Fahrenheit
Stated Accuracy :	+/- 0.2° F (0.1°C)

Standard :	RTD-100
Serial No.:	2915

Step	Reference's Indicated Value	As Found Calibrator's Reading	As Left Calibrator's Reading	Acceptance Minimum	Limits Maximum
1	25.00	*24.71	25.05	24.80	25.20
2	100.00	*99.6	100.04	99.80	100.20
3	200.00	*199.45	200.03	199.80	200.20

* Indicates "Out of Tolerance"

MESA
MEASUREMENT

Certificate of Calibration
13197

Customer Information

Jade Sales & Service
5240 Hwy 64
Farmington, NM 87401

Tech: Adrian Velarde
PO #: TBD
Account #: JSS-115

Instrument Identification

Description: Digital Pressure Calibrator
Manufacture: Beta Calibrators
Accuracy: Manufacturer's Specifications

Model: 321
Serial #: 9622076

Certification Information

Reason For Service: Maintenance of Accuracy
Type Of Calibration: Pneumatic Gauge
As Found Condition: Out of Tolerance (RTD)
As Left Condition: In Tolerance (All)
Procedure: Mfr's 100055-3
Technician Remarks: Previous calibration by JM Test on 08/25/2015

Attested By:
Technician: Steve Olsen
Cal Date: 26-Mar-2018
Cal Due: 26-Mar-2019
Temperature: 23 +/- 3.0° C
Relative Humidity: 20% - 60%

This instrument has been calibrated using standards with accuracies traceable to the National Institute of Standards and Technology, derived from natural physical constants, derived from ratio measurements, or compared consensus standards.

MESA MEASUREMENT's calibrations, as applicable, are performed in compliance with the requirements of ANSI/NCSL Z540-1-1994, ISO 10012-1 & ISO/IEC 17025 Quality Standards.

The results contained herein relate only to the item calibrated. Calibration due dates appearing on the Certificate of Calibration and label are determined by the client for administrative purposes and do not imply continued conformance to specification.

Calibration Data

Range :	0 to 800 In.H2O @ 60° Fahrenheit
Stated Accuracy :	+/- 0.025% of Full Scale

Standard :	PM600-G200K
Serial No.:	3231005

Step	Reference's Indicated Value	As Found Calibrator's Reading	As Left Calibrator's Reading	Acceptance Minimum	Limits Maximum
1	0.000	0.00	0.00	-0.05	0.05
2	800.000	800.12	800.12	799.80	800.20
3	720.000	720.13	720.13	719.80	720.20
4	640.000	640.09	640.08	639.80	640.20
5	560.000	560.09	560.08	559.80	560.20
6	480.000	480.06	480.06	479.80	480.20
7	400.000	400.06	400.05	399.80	400.20
8	320.000	320.04	320.03	319.80	320.20
9	240.000	240.02	240.01	239.80	240.20
10	160.000	160.02	160.00	159.80	160.20
11	80.000	80.02	80.00	79.80	80.20
12	0.000	0.04	0.02	-0.05	0.05

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, July 12, 2018 4:58 PM
To: Ryan Merrion (ryan@merrion.bz); Ryan Davis (rdavis@merrion.bz); 'pthompson@merrion.bz'
Cc: Sanchez, Daniel J., EMNRD; Griswold, Jim, EMNRD; Goetze, Phillip, EMNRD; Powell, Brandon, EMNRD; Kuehling, Monica, EMNRD
Subject: UIC Class I (NH) SUNCO Well No. 1 (API# 30-045-28653) Disposal Well (UICI-005) C-103 Form Dated by Operator 6/14/2018 and Approved by OCD with Conditions June 21, 2018

Ladies and Gentlemen:

The New Mexico Oil Conservation Division (OCD) has received and reviewed all requested information associated with the above subject temperature survey run by Blue Jet, Inc. on June 26, 2018.

OCD concurs with Merrion Oil & Gas (Operator) and Blue Jet, Inc.'s Temperature Survey (survey) findings and conclusions, which confirm fluid injection is into the Pt. Lookout Formation. The survey did not detect any anomalous temperature fluxes above the injection zone beyond an established temperature gradient during four temperature survey runs.

OCD hereby directs the Operator to comply with the remainder of the OCD approved C-103 Form with Conditions from June 21, 2018.

Please contact Monica Kuehling (Aztec District Office) to schedule the witnessing of the first and consecutive (contingent of availability) Annulus Pressure Tests (30 min.) under static well conditions. Monica will communicate on the chart recorder (include copy of chart recorder calibration sheet with calibration performed less than 3 months from date of MIT), clock speed (function of chart time), spring (spring weight is a function of test pressure), and chart (4-hr. or less) with chart test information (i.e., test type, date, start pressure, end pressure, and witness signatures).

Upon conclusion of the MIT, and within 5 business days, the original MIT chart shall be sent to Carl Chavez (CarlJ.Chavez@state.nm.us) in Santa Fe with a copy to OCD Aztec in order for OCD Santa Fe to issue the final "pass/fail" (Generally +/-10% Pressure Differential) determination.

OCD thanks everyone involved for their cooperation and professionalism in this matter.

Please contact me if you have questions.

Respectfully,

Mr. Carl J. Chavez, CHMM (#13099)
UIC Program Quality Assurance Officer
New Mexico Oil Conservation Division
Energy Minerals and Natural Resources Department
1220 South St Francis Drive
Santa Fe, New Mexico 87505
Ph. (505) 476-3490
E-mail: CarlJ.Chavez@state.nm.us

"Why not prevent pollution, minimize waste to reduce operating costs, reuse or recycle, and move forward with the rest of the Nation?" (To see how, go to: http://www.emnrd.state.nm.us/OCD **and see "Publications")**

From: Ryan Merrion <ryan@merrion.bz>
Sent: Tuesday, July 10, 2018 3:42 PM
To: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Subject: Fwd: Agua Moss Sunco Well Mtg.(UICI-5) C-103 Form Dated by Operator 6/14/2018

Ryan Merrion
Production Engineer

MERRION OIL & GAS

ryan@merrion.bz
(303) 653-2231

---------- Forwarded message ----------
From: **Danny Seip** <dseip@bluejetinc.com>
Date: Tue, Jul 3, 2018 at 12:58 PM
Subject: RE: Agua Moss Sunco Well Mtg.(UICI-5) C-103 Form Dated by Operator 6/14/2018
To: Ryan Merrion <ryan@merrion.bz>, Ryan Davis <rdavis@merrion.bz>, daniel.sanchez@state.nm.us, Jim.Griswold@state.nm.us, Phillip.Goetze@state.nm.us, Jeff Davis <jdaguamoss@hotmail.com>, Philana Thompson <pthompson@merrion.bz>, Shacie Murray <shacie@merrion.bz>, charlie.perrin@state.nm.us
Cc: dseip@bluejetinc.com

Hello All,

06/26/2018,

RU Wireline, Crane and Grease injection system- Tubing: 1500 psig. Casing: 850 psig. RIH will 1-7/16" Digital Temp tool and CCL logging from 700' to T.D. (4509') BASE TEMP LOG. The base log showed a natural gradient from 700' to the packer. Just below the packer a significant decrease in temp through the zone of injection. Temp tool was then placed at 4200' while 100 bbls of fluid was pumped waiting for 1:20 minutes after pumping the 1st down pass (TEMP PASS 1) was logged, 4200-4509' recording lower temperatures from 4200- 4509 approximately 29 degrees. After a down time of 30 minutes the 2nd down pass (TEMP PASS 2) was recorded from 4200-4509, at 4200 the temperature had increased about 4 degrees from pass 1 at 4270' the temperatures of both pass we the same temperature indicating fluid entry into the zone of interest due to the slow recovery of temperature over time. we then logged from 4509' to 65' confirming after a time of 2-1/2 hrs the all temperature's above the Pt. Lookout had return to natural gradient.

With all of this information at hand it definitely confirms fluid injection into the Pt. Lookout formation.

Thank you,

Danny L. Seip

President / CEO

Blue Jet, Inc.

700 East Murray Dr.

Farmington, New Mexico, 87401

Cell: 505-320-0172

Off: 505-325-5584

Email: dseip@bluejetinc.com

From: Ryan Merrion [mailto:ryan@merrion.bz]
Sent: Tuesday, July 03, 2018 12:08 PM
To: Danny Seip
Subject: Fwd: Agua Moss Sunco Well Mtg.(UICI-5) C-103 Form Dated by Operator 6/14/2018

Danny,

As per the NMOCD's request, can you please provide your observations and conclusions for the Sunco 1 temperature survey.

Thanks,

Ryan Merrion

Production Engineer

ryan@merrion.bz

(303) 653-2231

---------- Forwarded message ----------
From: **Chavez, Carl J, EMNRD** <CarlJ.Chavez@state.nm.us>
Date: Tue, Jul 3, 2018 at 11:58 AM
Subject: RE: Agua Moss Sunco Well Mtg.(UICI-5) C-103 Form Dated by Operator 6/14/2018
To: Ryan Merrion <ryan@merrion.bz>
Cc: Ryan Davis <rdavis@merrion.bz>, "Sanchez, Daniel J., EMNRD" <daniel.sanchez@state.nm.us>, "Griswold, Jim, EMNRD" <Jim.Griswold@state.nm.us>, "Goetze, Phillip, EMNRD" <Phillip.Goetze@state.nm.us>, Jeff Davis <jdaguamoss@hotmail.com>, Philana Thompson <pthompson@merrion.bz>, Shacie Murray <shacie@merrion.bz>, "Perrin, Charlie, EMNRD" <charlie.perrin@state.nm.us>

Ryan, et al.:

The New Mexico Oil Conservation Division UIC Director Daniel Sanchez is requiring a third-party review of the temperature log with observations with conclusions by Blue Jet™.

Please submit at your earliest convenience.

Thank you for your cooperation in this matter.

Mr. Carl J. Chavez, CHMM (#13099)

New Mexico Oil Conservation Division

Energy Minerals and Natural Resources Department

1220 South St Francis Drive

Santa Fe, New Mexico 87505

Ph. (505) 476-3490

E-mail: CarlJ.Chavez@state.nm.us

"Why not prevent pollution, minimize waste to reduce operating costs, reuse or recycle, and move forward with the rest of the Nation?" (To see how, go to: http://www.emnrd.state.nm.us/OCD **and see "Publications")**

From: Ryan Merrion <ryan@merrion.bz>
Sent: Tuesday, July 3, 2018 11:45 AM

To: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Cc: Ryan Davis <rdavis@merrion.bz>; Sanchez, Daniel J., EMNRD <daniel.sanchez@state.nm.us>; Griswold, Jim, EMNRD <Jim.Griswold@state.nm.us>; Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>; Jeff Davis <jdaguamoss@hotmail.com>; Philana Thompson <pthompson@merrion.bz>; Shacie Murray <shacie@merrion.bz>; Perrin, Charlie, EMNRD <charlie.perrin@state.nm.us>
Subject: Re: Agua Moss Sunco Well Mtg.(UICI-5) C-103 Form Dated by Operator 6/14/2018

Please see the attached logs which show the temperature survey above 700'.

Thanks,

Ryan Merrion

Production Engineer

MERRION OIL & GAS

ryan@merrion.bz

(303) 653-2231

On Wed, Jun 27, 2018 at 4:01 PM, Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us> wrote:

> Ryan:
>
> The New Mexico Oil Conservation Division is in receipt of the survey results and will respond soon.

Thank you.

Mr. Carl J. Chavez, CHMM (#13099)

UIC Program Quality Assurance Officer

New Mexico Oil Conservation Division

Energy Minerals and Natural Resources Department

1220 South St Francis Drive

Santa Fe, New Mexico 87505

Ph. (505) 476-3490

E-mail: CarlJ.Chavez@state.nm.us

"Why not prevent pollution, minimize waste to reduce operating costs, reuse or recycle, and move forward with the rest of the Nation?" (To see how, go to: http://www.emnrd.state.nm.us/OCD **and see "Publications")**

From: Ryan Merrion <ryan@merrion.bz>
Sent: Wednesday, June 27, 2018 2:36 PM
To: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Cc: Ryan Davis <rdavis@merrion.bz>; Sanchez, Daniel J., EMNRD <daniel.sanchez@state.nm.us>; Griswold, Jim, EMNRD <Jim.Griswold@state.nm.us>; Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>; Jeff Davis <jdaguamoss@hotmail.com>; Philana Thompson <pthompson@merrion.bz>; Shacie Murray <shacie@merrion.bz>; Perrin, Charlie, EMNRD <charlie.perrin@state.nm.us>
Subject: Re: Agua Moss Sunco Well Mtg.(UICI-5) C-103 Form Dated by Operator 6/14/2018

Carl, et al,

Philana is out of the office today, but I wanted to get the temperature survey results to you. Please see the report below:

06/22/2018

Tubing: 0 psig. Casing: 825 psig. Rig up Tefteller slickline. RIH with a spear and equalized tubing plug. Tubing pressure increased to 1475 psig. RIH with an overshot and retrieved tubing plug at 4,460'. Shut in tubing and rigged down Tefteller.

06/26/2018

Tubing: 1500 psig. Casing: 850 psig. RU BlueJet Inc wireline. RIH with base temperature log and surveyed from 700' KB to 4506' KB. Pulled logging tools up to 3,989' KB. Injected 100 bbls of water down tubing at 75 bbl/hr. Please see the following table:

Tubing (psig)	Casing (psig)	Time
1700	850	9:04 AM
1800	775	9:15 AM
1825	500	9:30 AM
1900	420	10:00 AM
1920	410	10:25 AM

Temperature at the tool depth decreased from 128 deg F to 86 deg F during injection. After injecting fluid, two log runs were made from 4200'KB to 4506'KB. The timeframe for these log intervals was 30 minutes and 1:20 minutes after injecting fluid. The final temperature survey was completed coming out of hole. Tubing was shut in and wireline rigged down. Final casing pressure was 800 psig.

Log Interpretation:

The baseline temperature survey (TEMP) shows a normal temperature gradient from surface down to the packer. Below the packer, temperature significantly decreases around the interval of injection. TEMP Pass #2 and #3 were ran 30 minutes and 1:20 minutes after injecting 100 bbls of fluid. Both temperature curves converge and maintain temperature at the perforation interval 4,350'-4,460'. Thermal warming effects take place above the injection interval as time progresses. No major anomalies off temperature gradient were noticed above the packer. From these temperature survey results, Agua Moss believes injection is still maintained within the Pt. Lookout formation. Please see attached.

Please let me know if you have any questions.

Thanks,

Ryan Merrion

Production Engineer

ryan@merrion.bz

(303) 653-2231

BLUEJET INC. PERFORATING LOGGING

TEMPERATURE SURVEY
1 7/16" DIGITAL TEMP TOOL
FINAL PRINT

Company	AGUA MOSS, LLC
Well	SUNCO DISPOSAL NO. 1
Field	FLORA VISTA MESAVERDE
County	SAN JUAN
State	N.M.

Company AGUA MOSS, LLC
Well SUNCO DISPOSAL NO. 1
Field FLORA VISTA MESAVERDE
County SAN JUAN **State** N.M.

Location: API # : NA
1595 FNL & 1005 FWL
SEC 2 TWP 29N RGE 12W

Permanent Datum	G.L.	Elevation	5859
Log Measured From	KB		
Drilling Measured From	KB		

Other Services	Elevation
	K.B. 5874
	D.F. 5873
	G.L. 5859

Date	6/26/2018
Run Number	1
Depth Driller	4711
Depth Logger	4506
Bottom Logged Interval	4506
Top Log Interval	3990
Open Hole Size	
Type Fluid	H20
Density / Viscosity	NA
Max. Recorded Temp.	
Estimated Cement Top	
Time Well Ready	7:45 AM
Time Logger on Bottom	9:00 AM
Equipment Number	D6 TEMP 005
Location	FRM
Recorded By	ETHAN RISLEY
Witnessed By	RYAN MERRION

Borehole Record

Run Number	Bit	From	To
ONE	12.25	0	235
	7.875	235	4760

Tubing Record

Size	Wgt/Ft	Top	Bottom

Casing Record

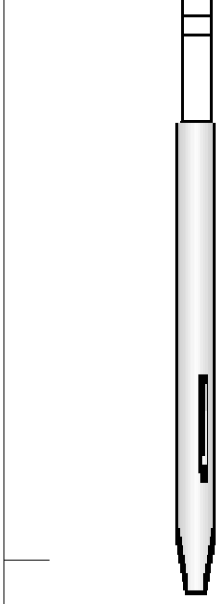
	Size	Wgt/Ft	Size	Weight	From	To
Surface String	8.625	24#			0	235
Prot. String	5.5	15.5#			235	4760
Production String						
Liner						

<<< Fold Here >>>

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

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
CCL	3.00		CCL-SPCL (SPCL1)	1.35	1.69	10.00



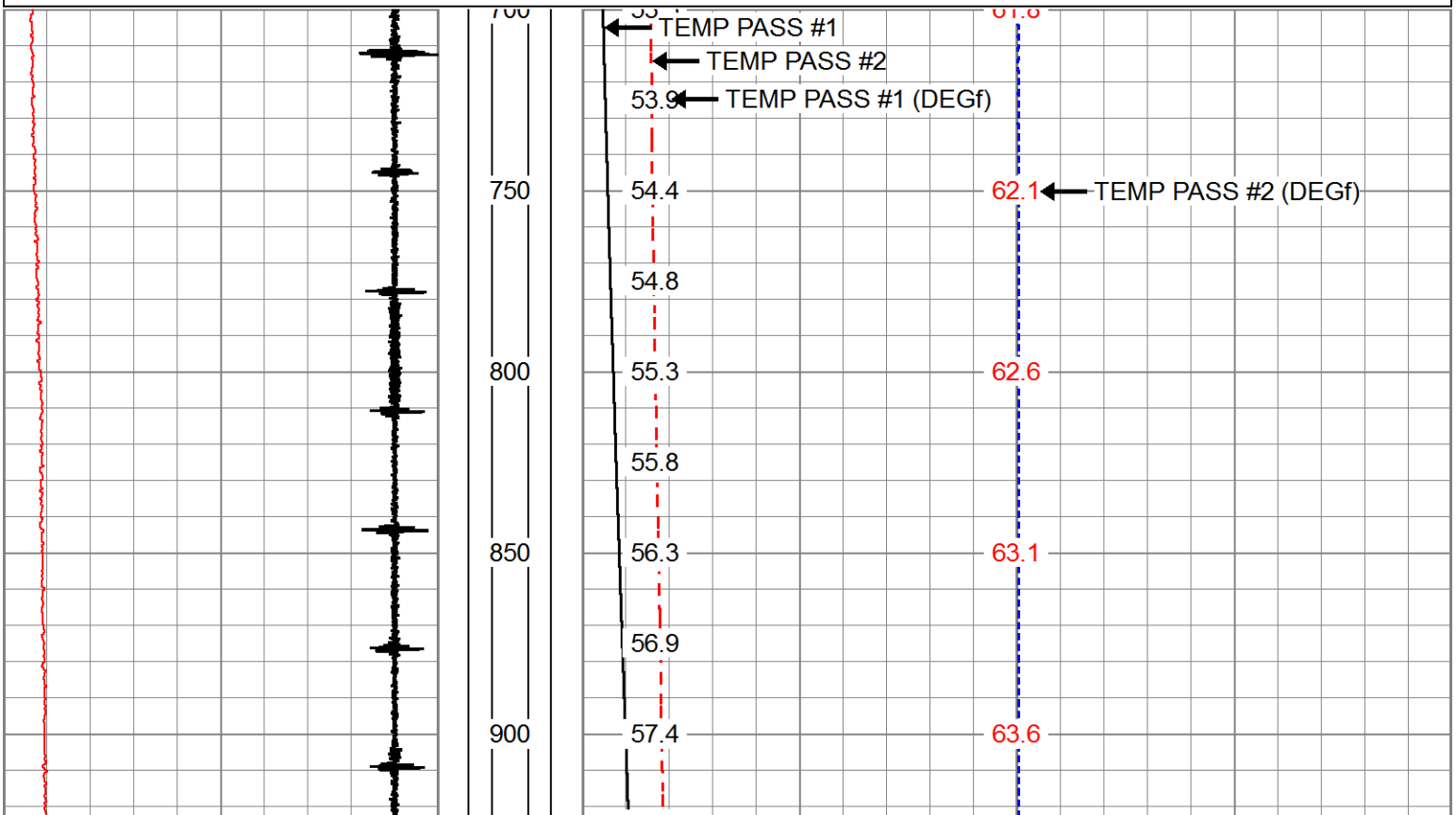
			1 11/16" Logging CCL			
			TEMP-Comprobe (FW1302-005) Comprobe Temperature Tool	2.30	1.44	4.00
TEMP	0.17					

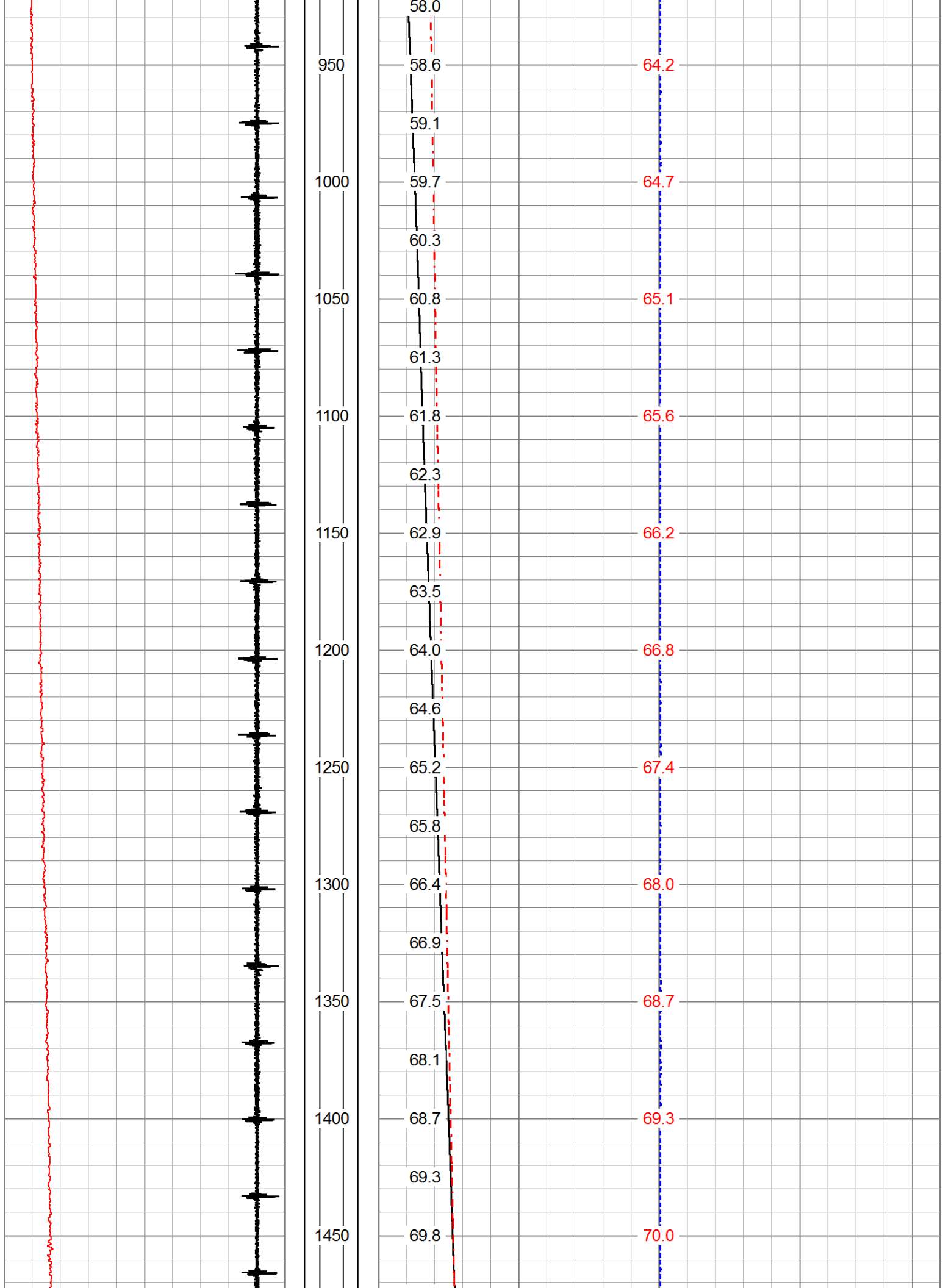
Dataset:	merrionsunco#1swdtemp.db: field/well/run1/pass2.C
Total length:	3.65 ft
Total weight:	14.00 lb
O.D.:	1.69 in

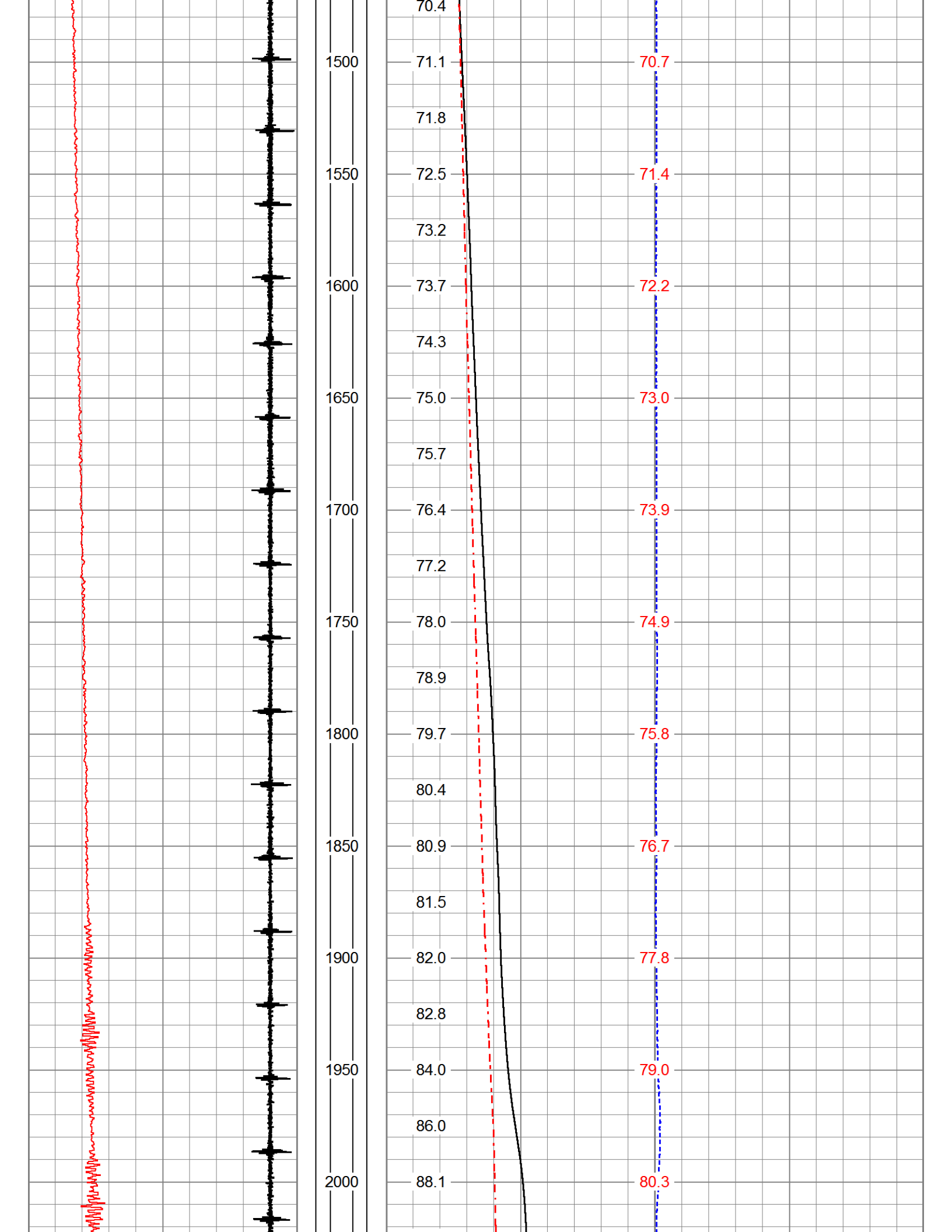
Database File	merrionsunco#1swdtemp.db
Dataset Pathname	pass2.C
Presentation Format	temp
Dataset Creation	Tue Jun 26 13:38:22 2018
Charted by	Depth in Feet scaled 1:600

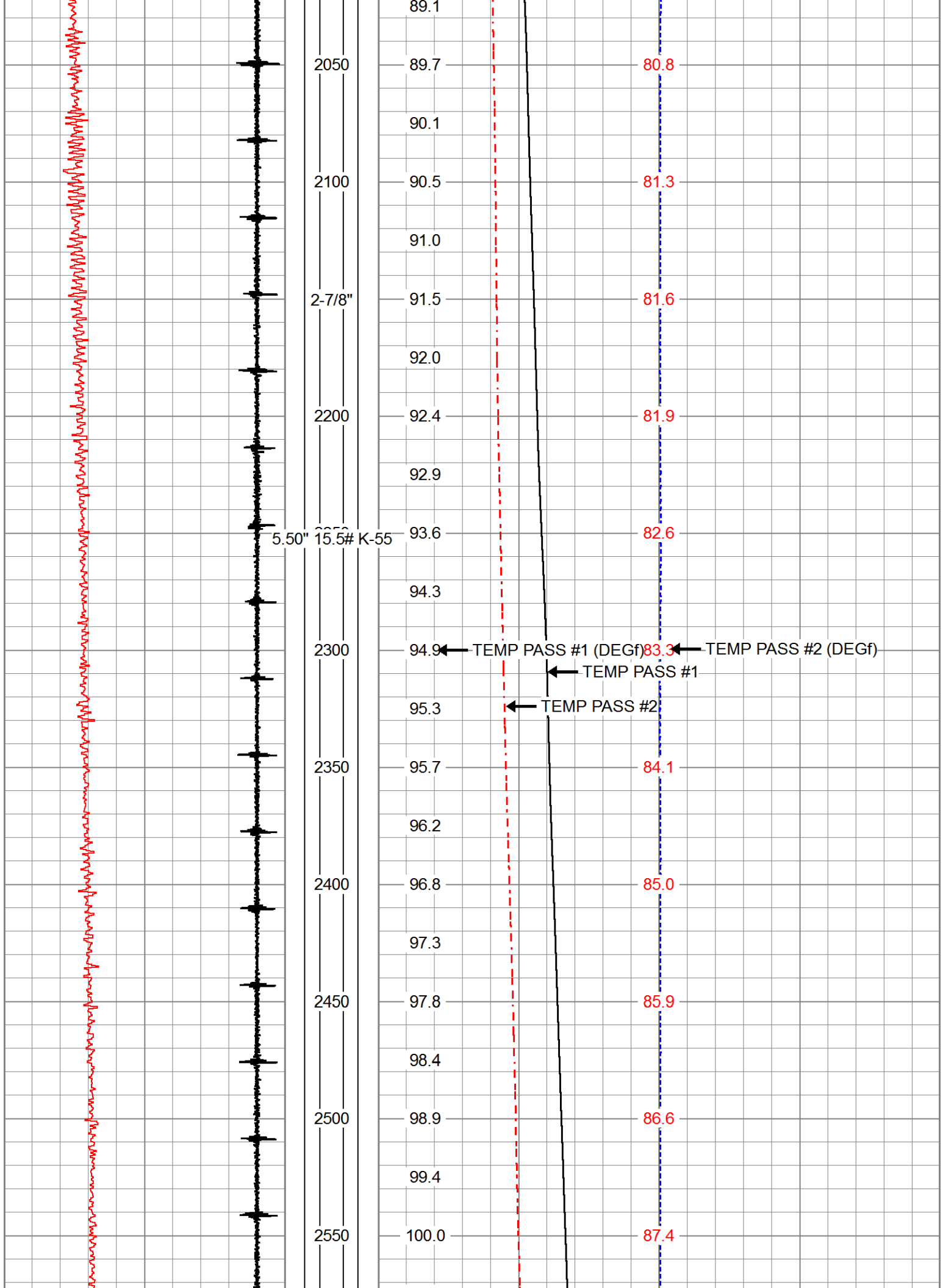
9	CCL	-1
0	LTEN (lb)	1700

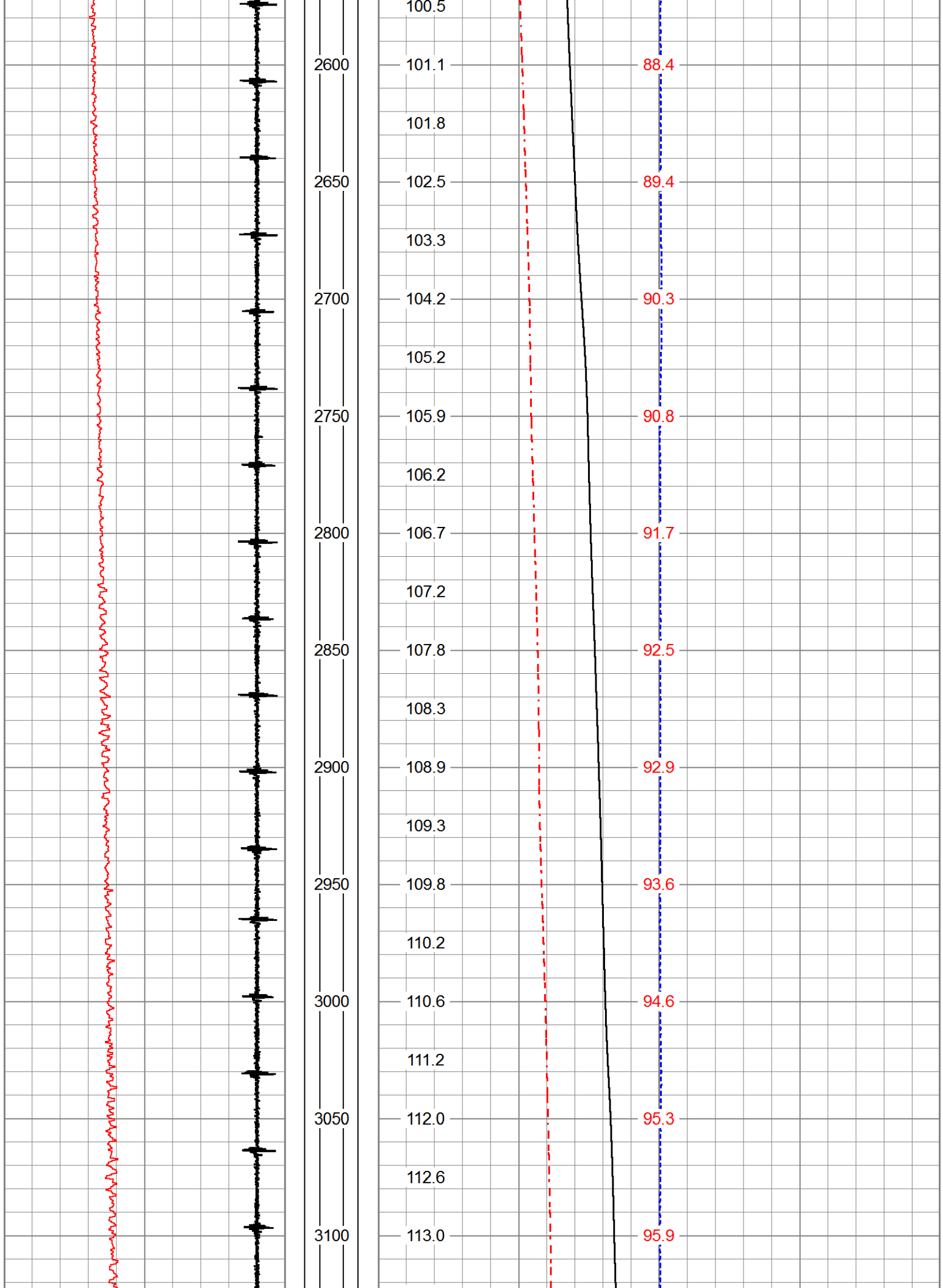
50	TEMP (degF)	200
-5	DTMP (degF)	5
50	TEM2 (degF)	200

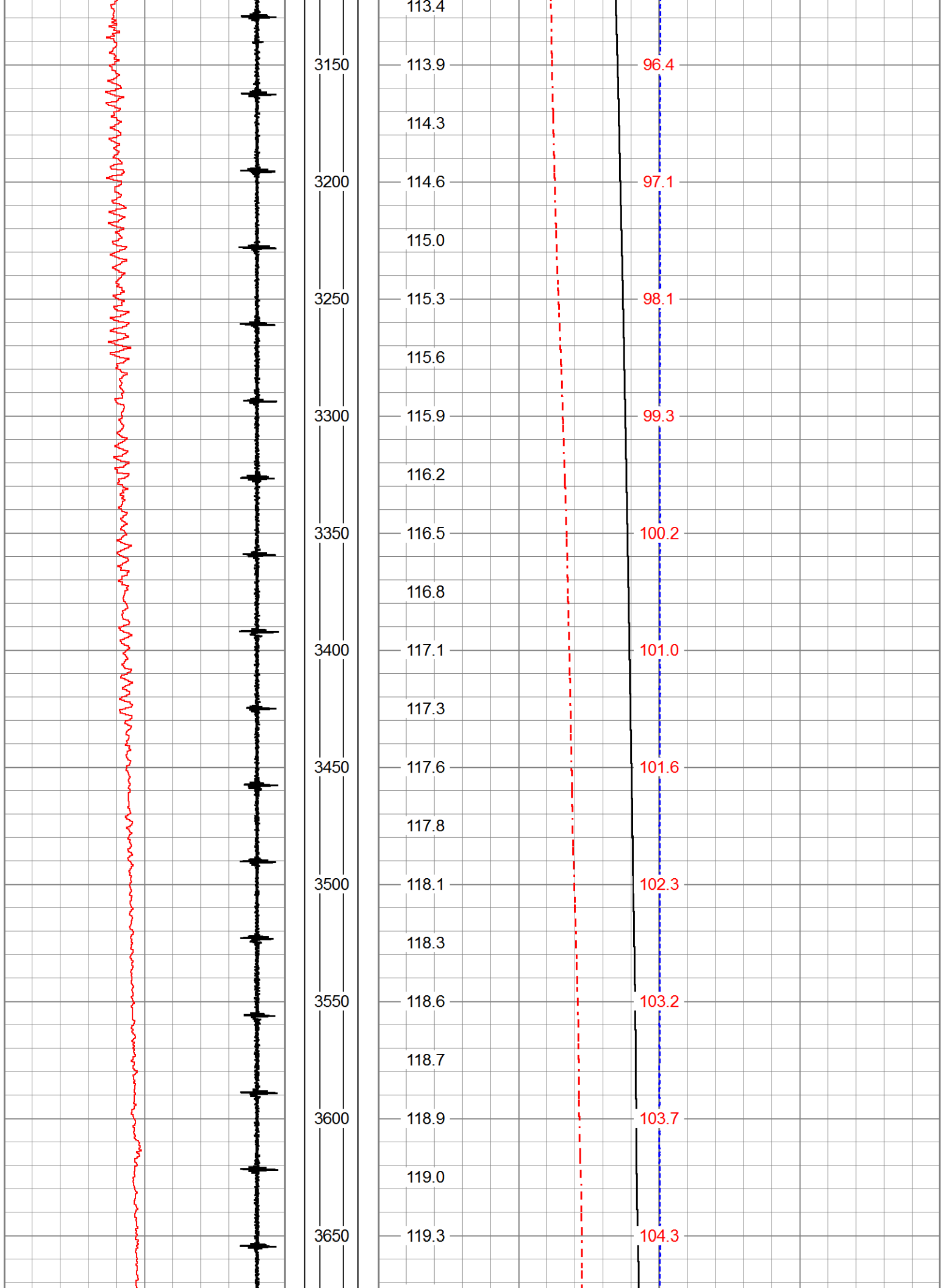


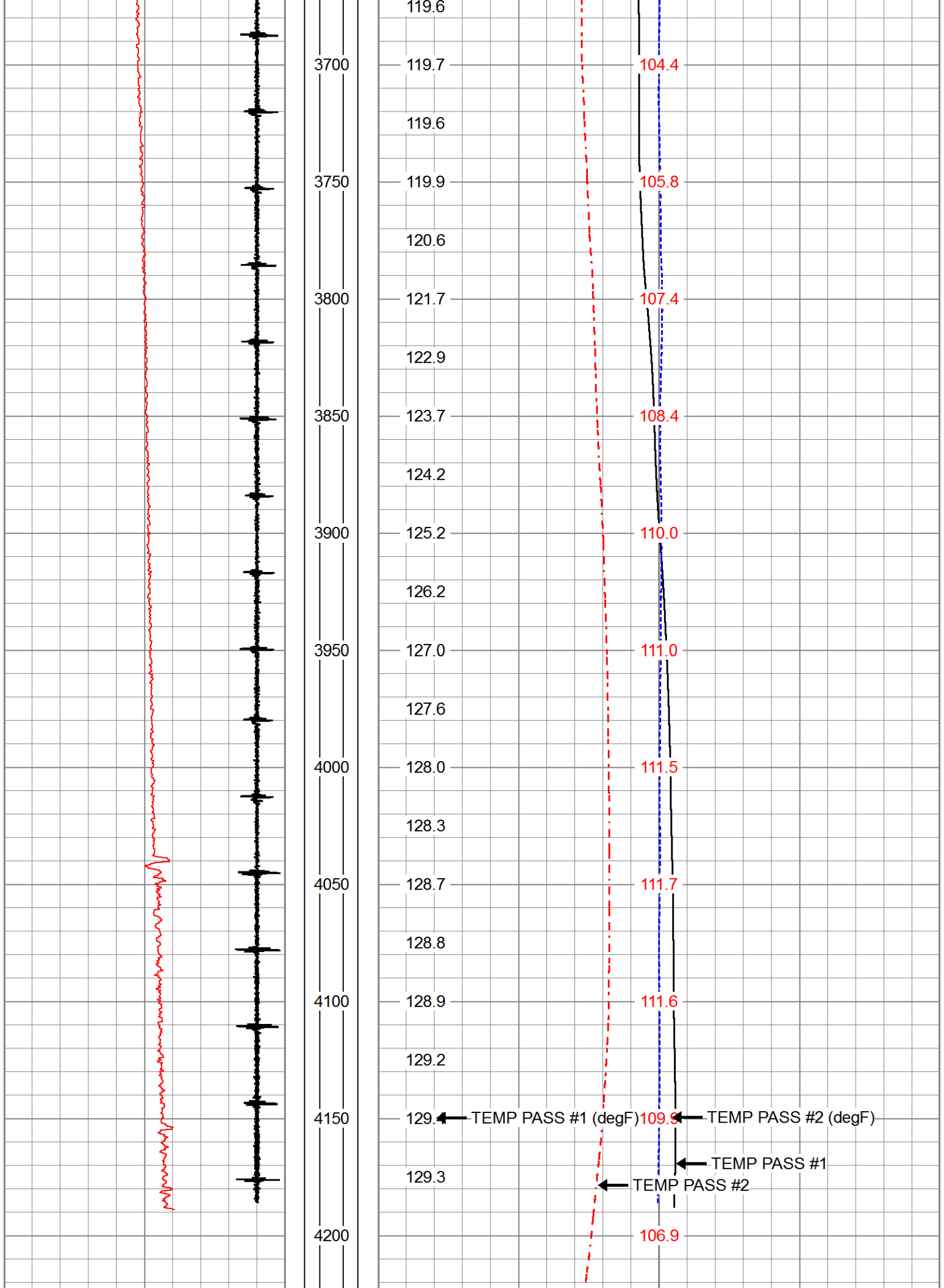

950
1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
58.0
58.6
59.1
59.7
60.3
60.8
61.3
61.8
62.3
62.9
63.5
64.0
64.6
65.2
65.8
66.4
66.9
67.5
68.1
68.7
69.3
69.8
64.2
64.7
65.1
65.6
66.2
66.8
67.4
68.0
68.7
69.3
70.0

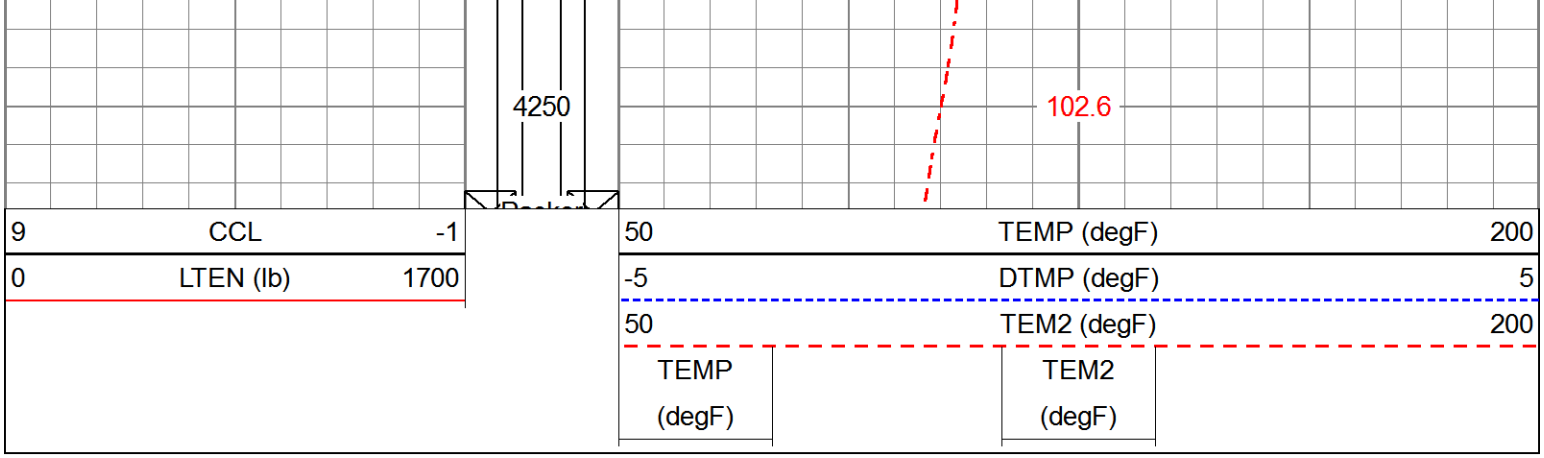

1500
1550
1600
1650
1700
1750
1800
1850
1900
1950
2000
70.4
71.1
71.8
72.5
73.2
73.7
74.3
75.0
75.7
76.4
77.2
78.0
78.9
79.7
80.4
80.9
81.5
82.0
82.8
84.0
86.0
88.1
70.7
71.4
72.2
73.0
73.9
74.9
75.8
76.7
77.8
79.0
80.3


89.1
2050
89.7
80.8
90.1
2100
90.5
81.3
91.0
2-7/8"
91.5
81.6
92.0
2200
92.4
81.9
92.9
5.50" 15.5# K-55
93.6
82.6
94.3
2300
94.9
TEMP PASS #1 (DEGf)
83.3
TEMP PASS #2 (DEGf)
TEMP PASS #1
95.3
TEMP PASS #2
2350
95.7
84.1
96.2
2400
96.8
85.0
97.3
2450
97.8
85.9
98.4
2500
98.9
86.6
99.4
2550
100.0
87.4

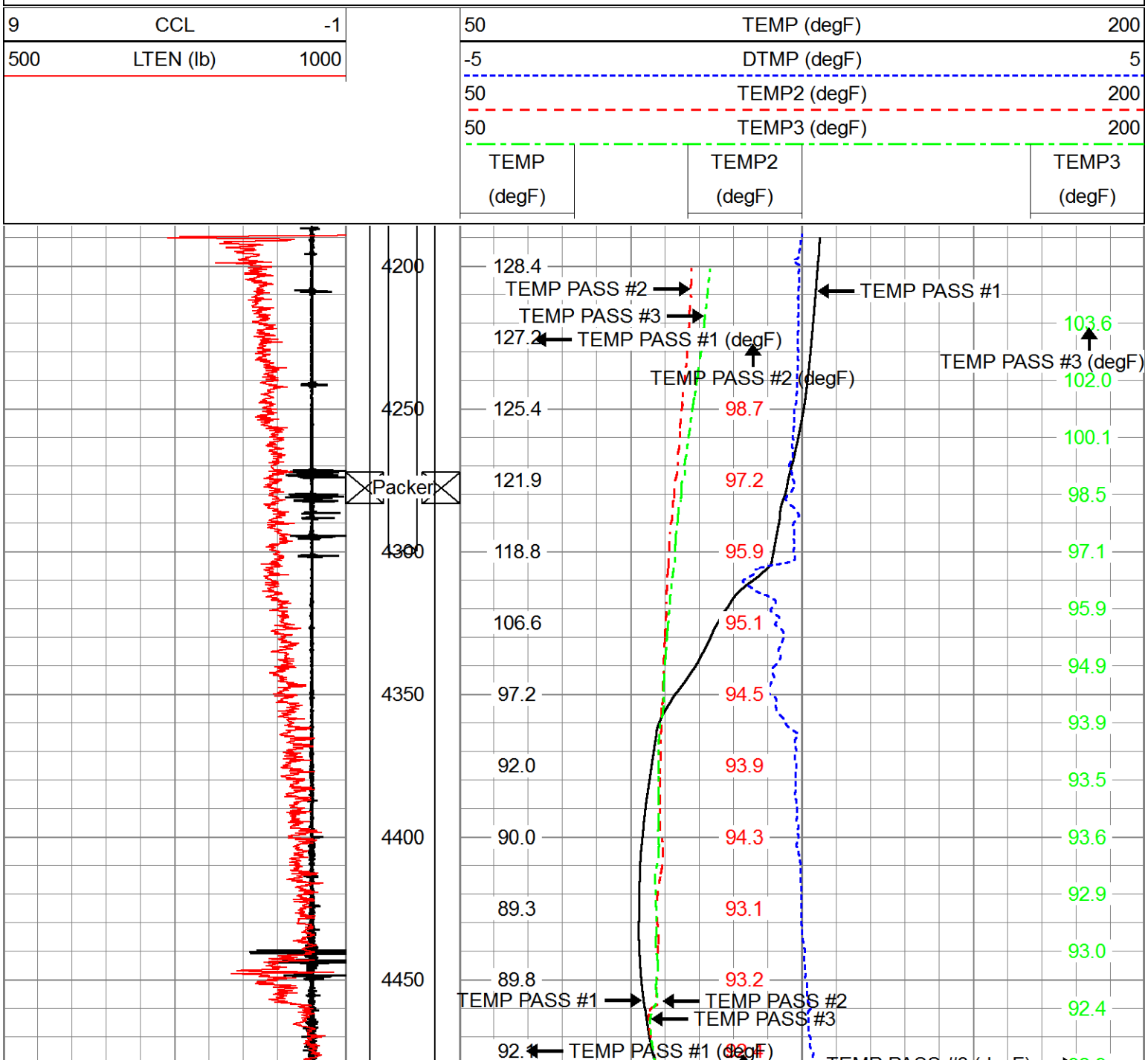

100.5
2600
101.1
88.4
101.8
2650
102.5
89.4
103.3
2700
104.2
90.3
105.2
2750
105.9
90.8
106.2
2800
106.7
91.7
107.2
2850
107.8
92.5
108.3
2900
108.9
92.9
109.3
2950
109.8
93.6
110.2
3000
110.6
94.6
111.2
3050
112.0
95.3
112.6
3100
113.0
95.9

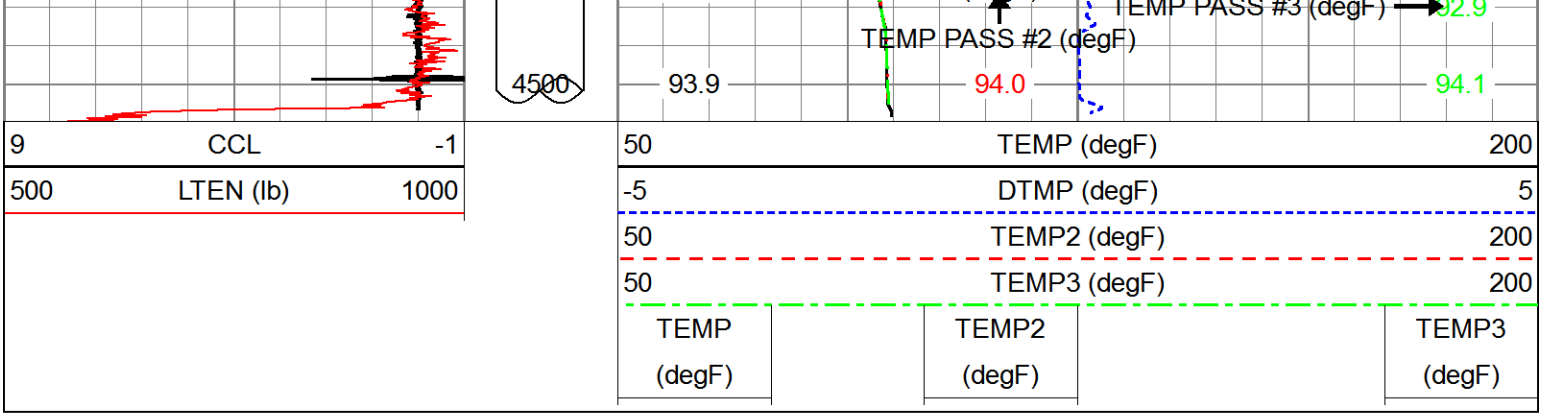

3150
3200
3250
3300
3350
3400
3450
3500
3550
3600
3650
113.4
113.9
114.3
114.6
115.0
115.3
115.6
115.9
116.2
116.5
116.8
117.1
117.3
117.6
117.8
118.1
118.3
118.6
118.7
118.9
119.0
119.3
96.4
97.1
98.1
99.3
100.2
101.0
101.6
102.3
103.2
103.7
104.3


3700
3750
3800
3850
3900
3950
4000
4050
4100
4150
4200
119.6
119.7
104.4
119.6
119.9
105.8
120.6
121.7
107.4
122.9
123.7
108.4
124.2
125.2
110.0
126.2
127.0
111.0
127.6
128.0
111.5
128.3
128.7
111.7
128.8
128.9
111.6
129.2
129.4
TEMP PASS #1 (degF)
109.9
TEMP PASS #2 (degF)
TEMP PASS #1
129.3
TEMP PASS #2
106.9

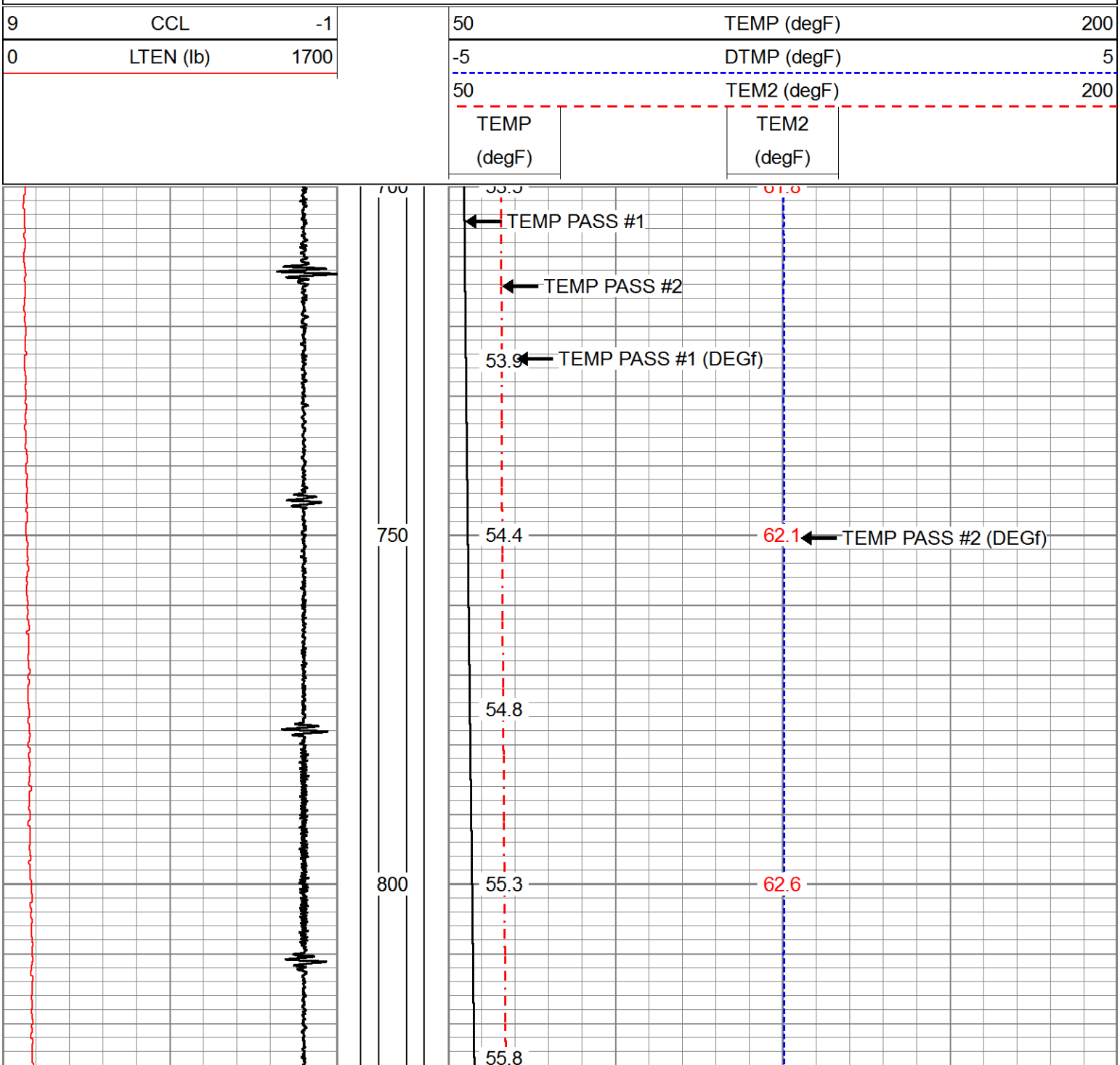


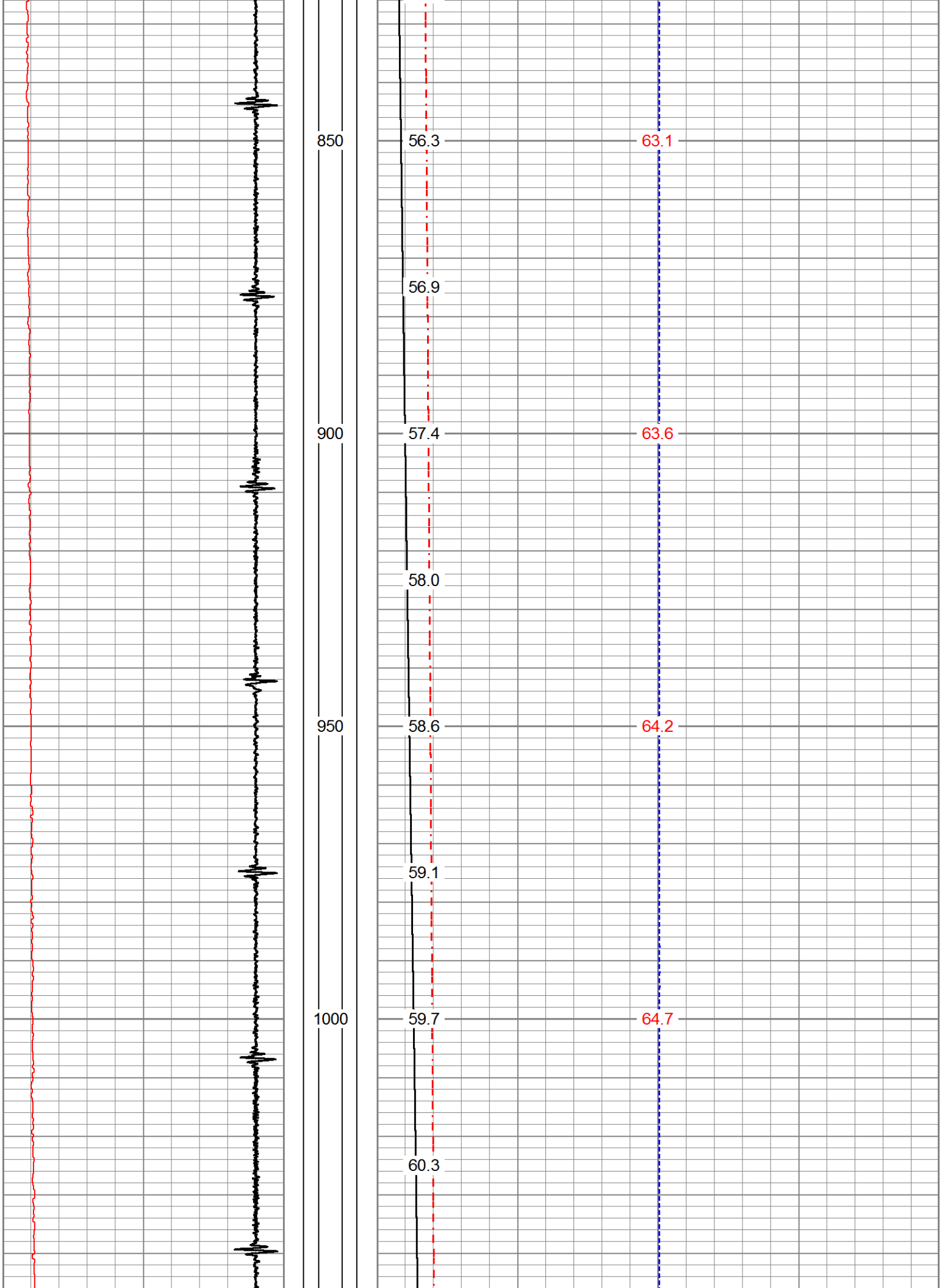
Database File	merrionsunco#1swdtemp.db
Dataset Pathname	pass2.B
Presentation Format	temp
Dataset Creation	Tue Jun 26 13:29:59 2018
Charted by	Depth in Feet scaled 1:600

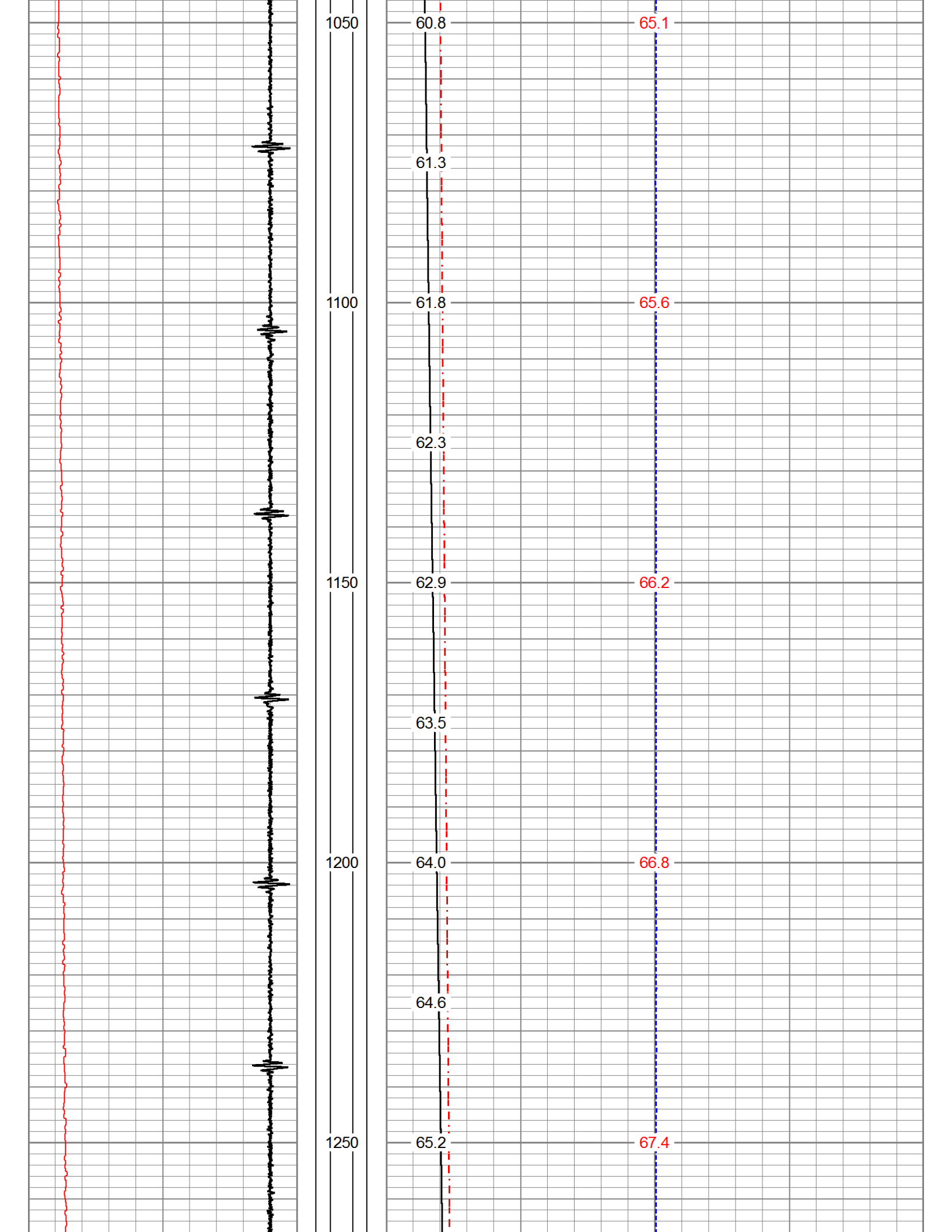


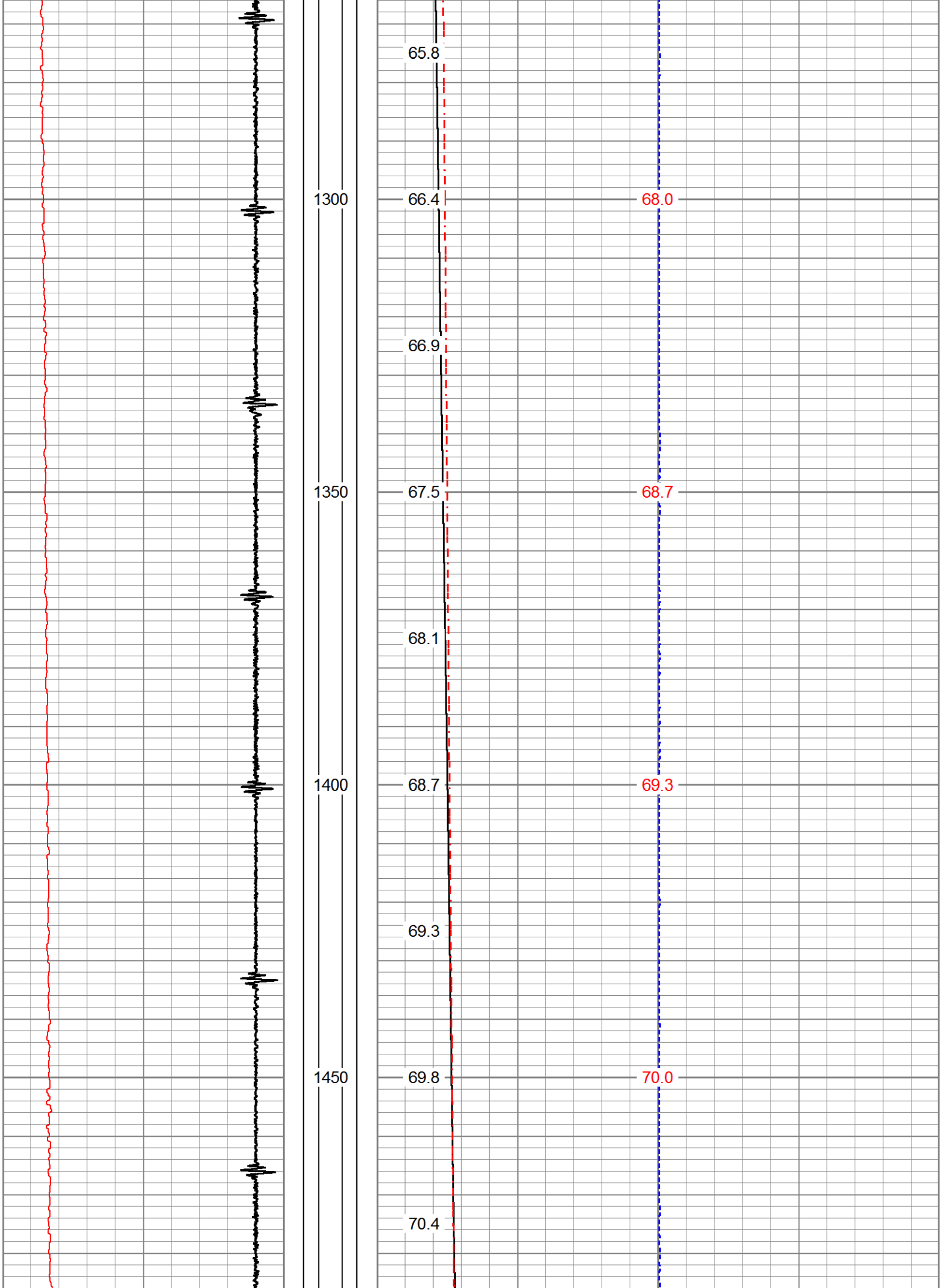


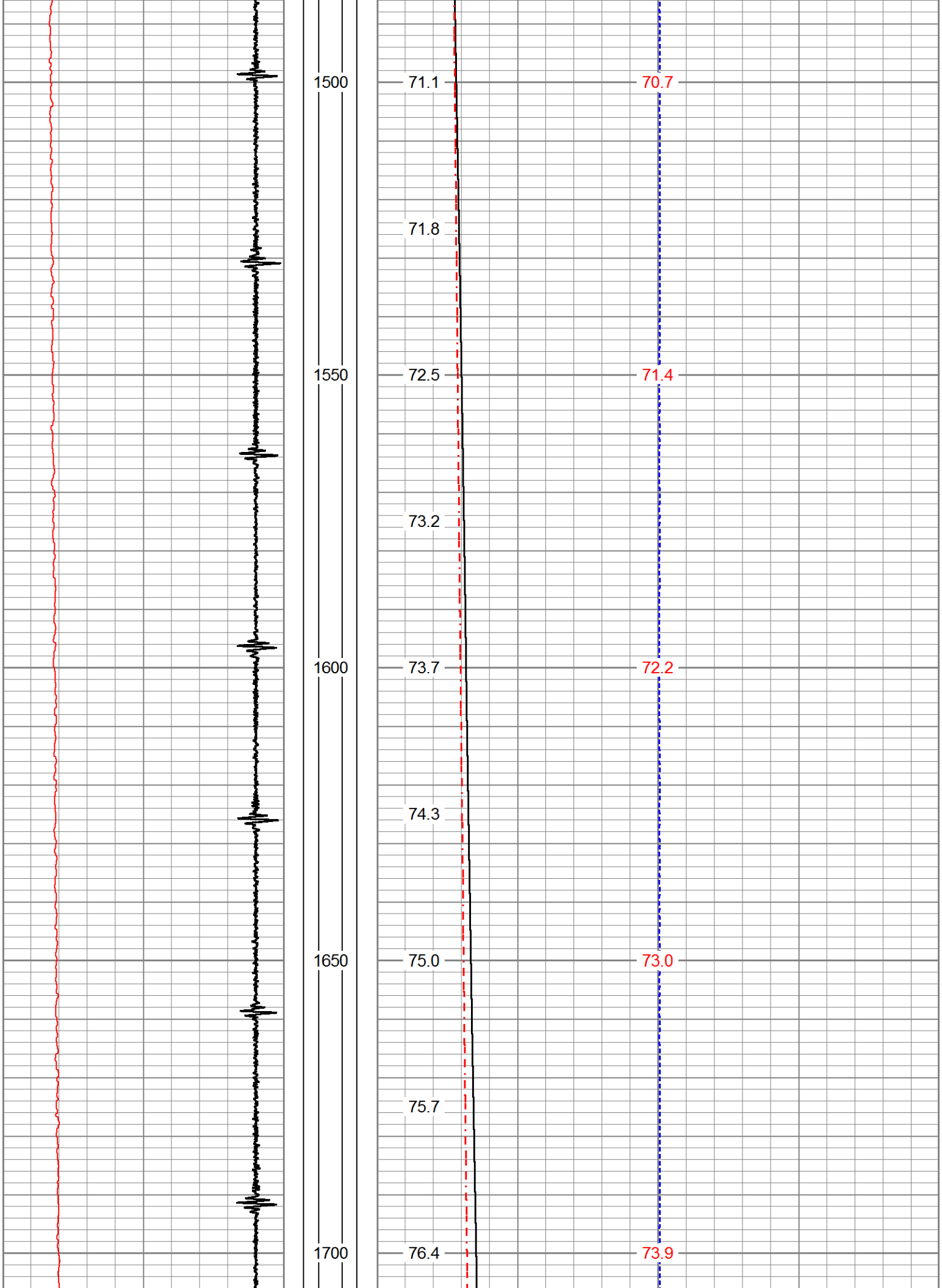
Database File	merrionsunco#1swdtemp.db
Dataset Pathname	pass2.C
Presentation Format	temp
Dataset Creation	Tue Jun 26 13:38:22 2018
Charted by	Depth in Feet scaled 1:240

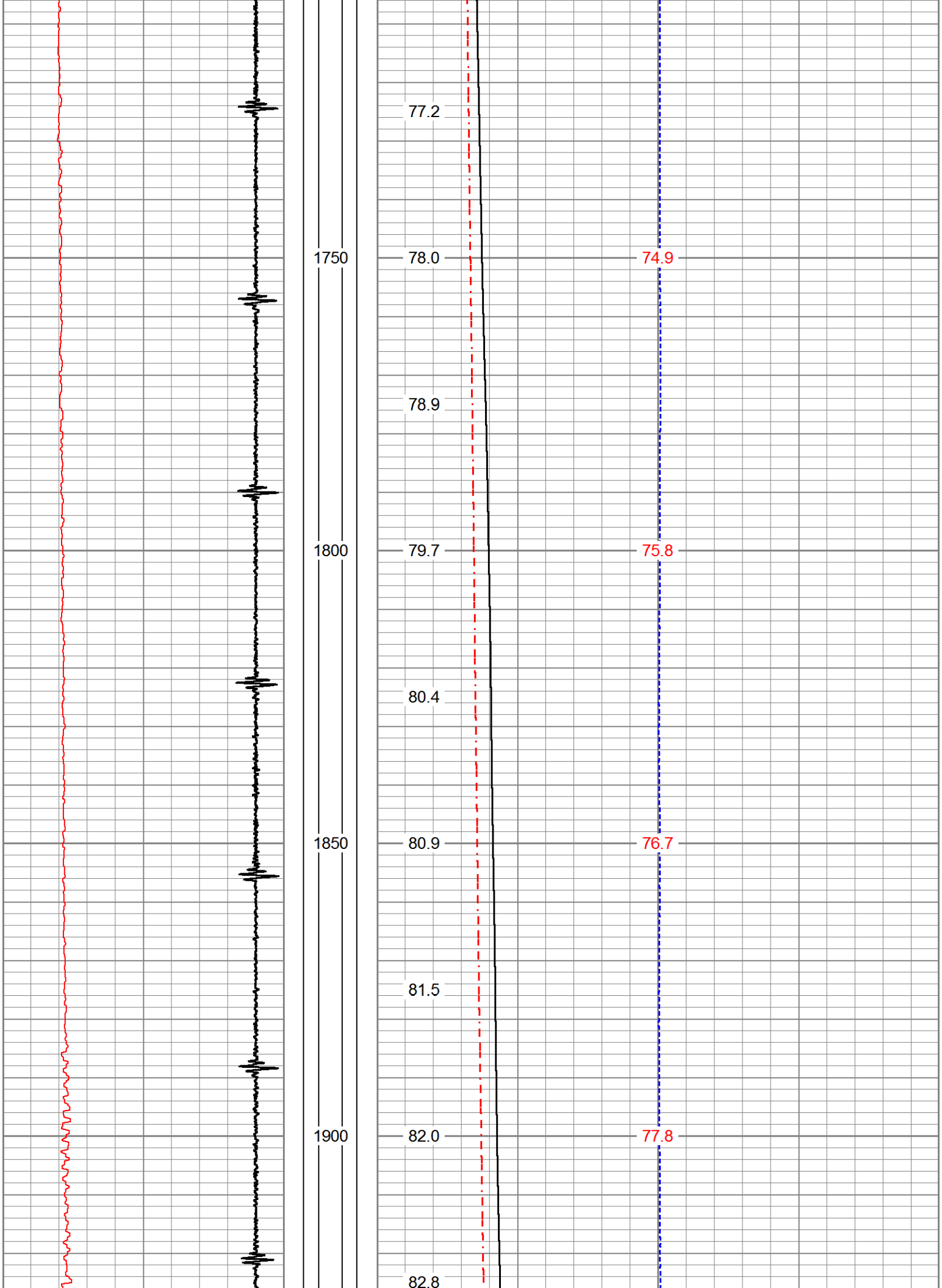


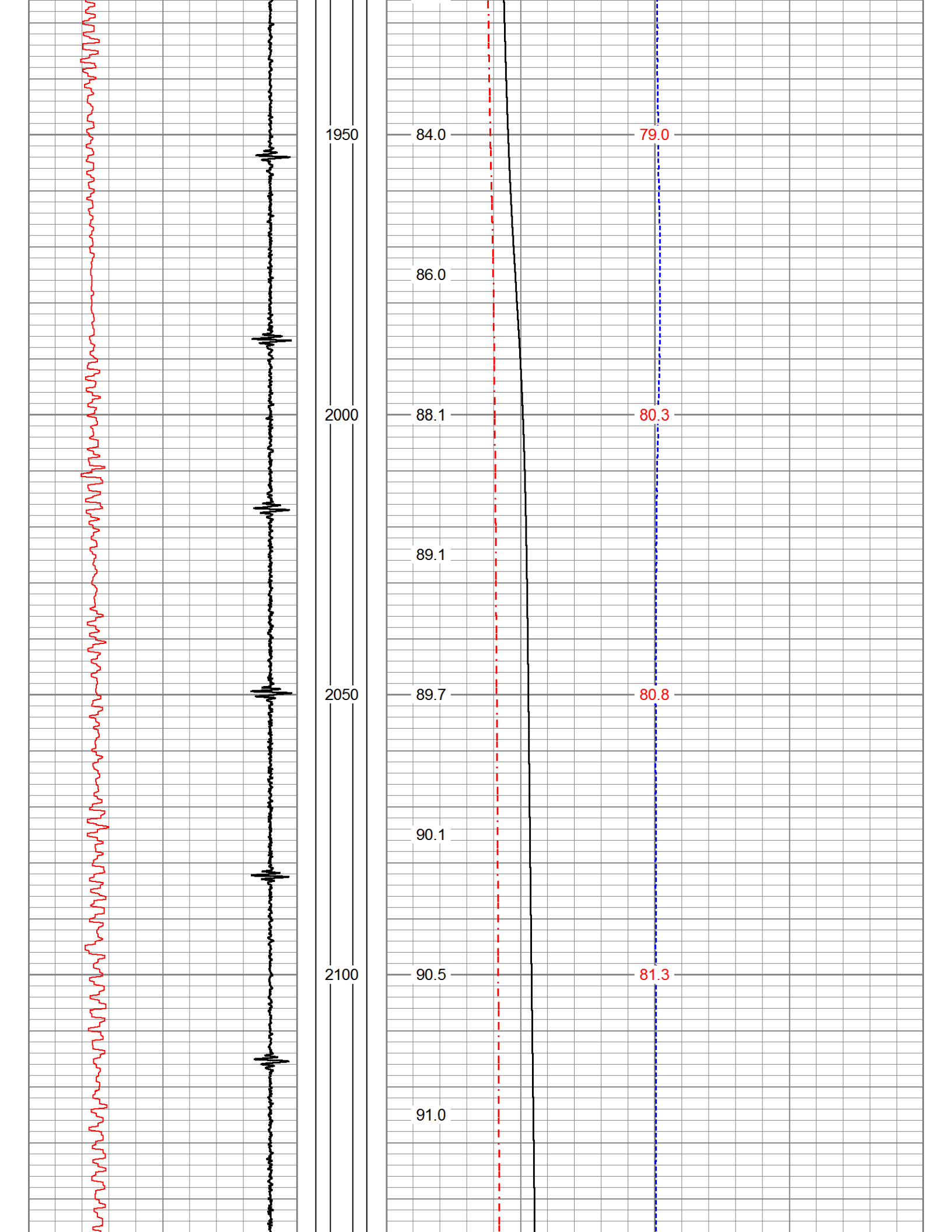

850
56.3
63.1
56.9
900
57.4
63.6
58.0
950
58.6
64.2
59.1
1000
59.7
64.7
60.3

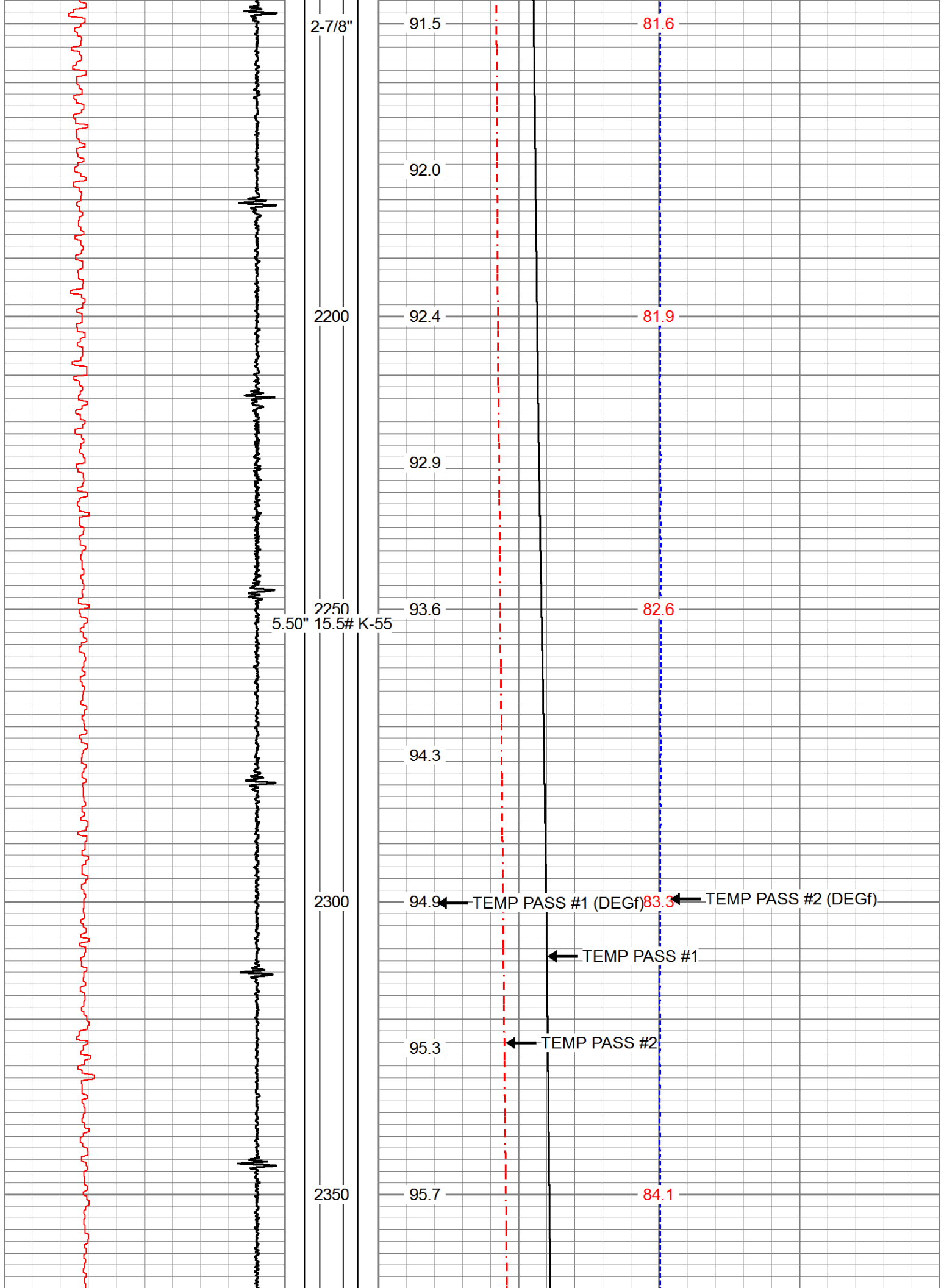

1050
60.8
65.1
61.3
1100
61.8
65.6
62.3
1150
62.9
66.2
63.5
1200
64.0
66.8
64.6
1250
65.2
67.4

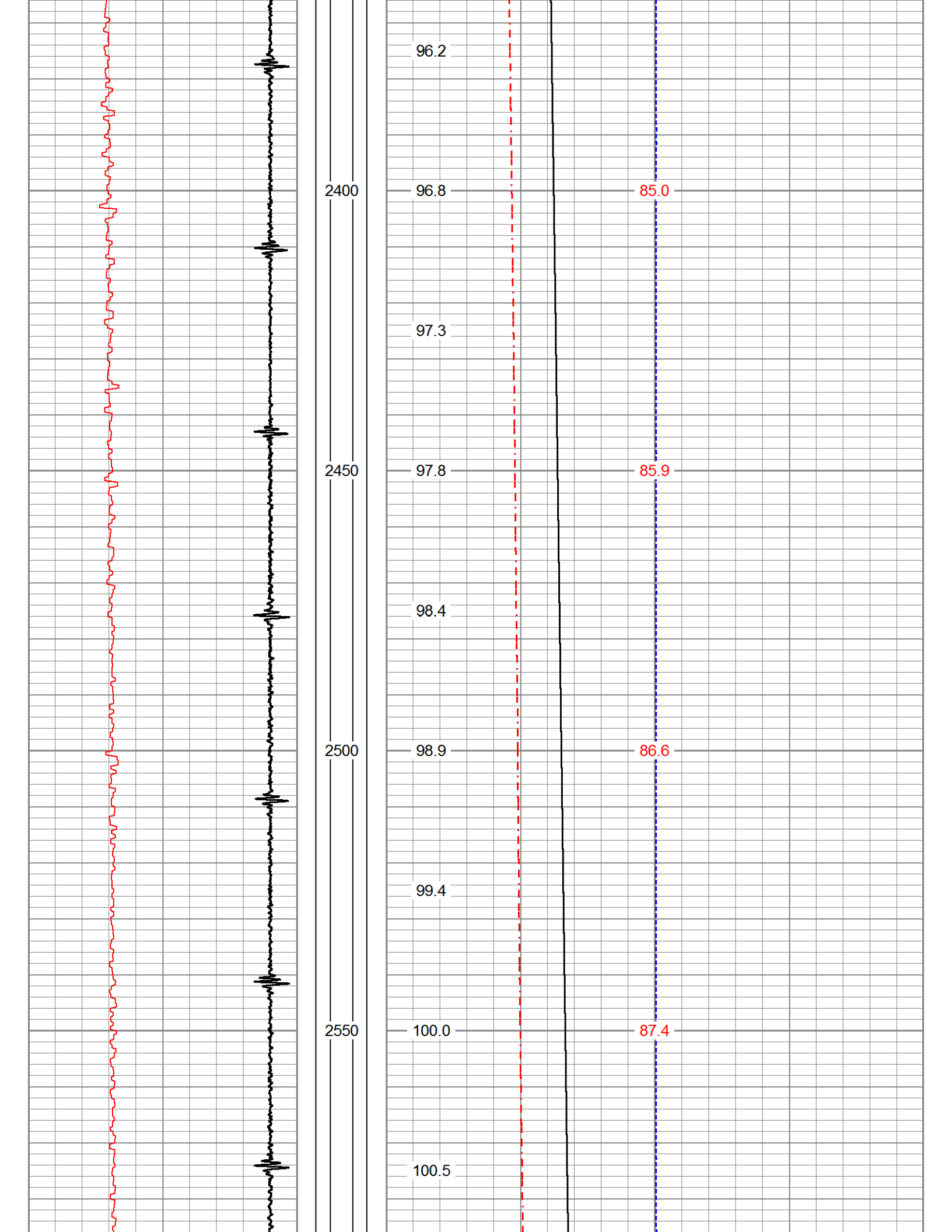

65.8
1300
66.4
68.0
66.9
1350
67.5
68.7
68.1
1400
68.7
69.3
69.3
1450
69.8
70.0
70.4

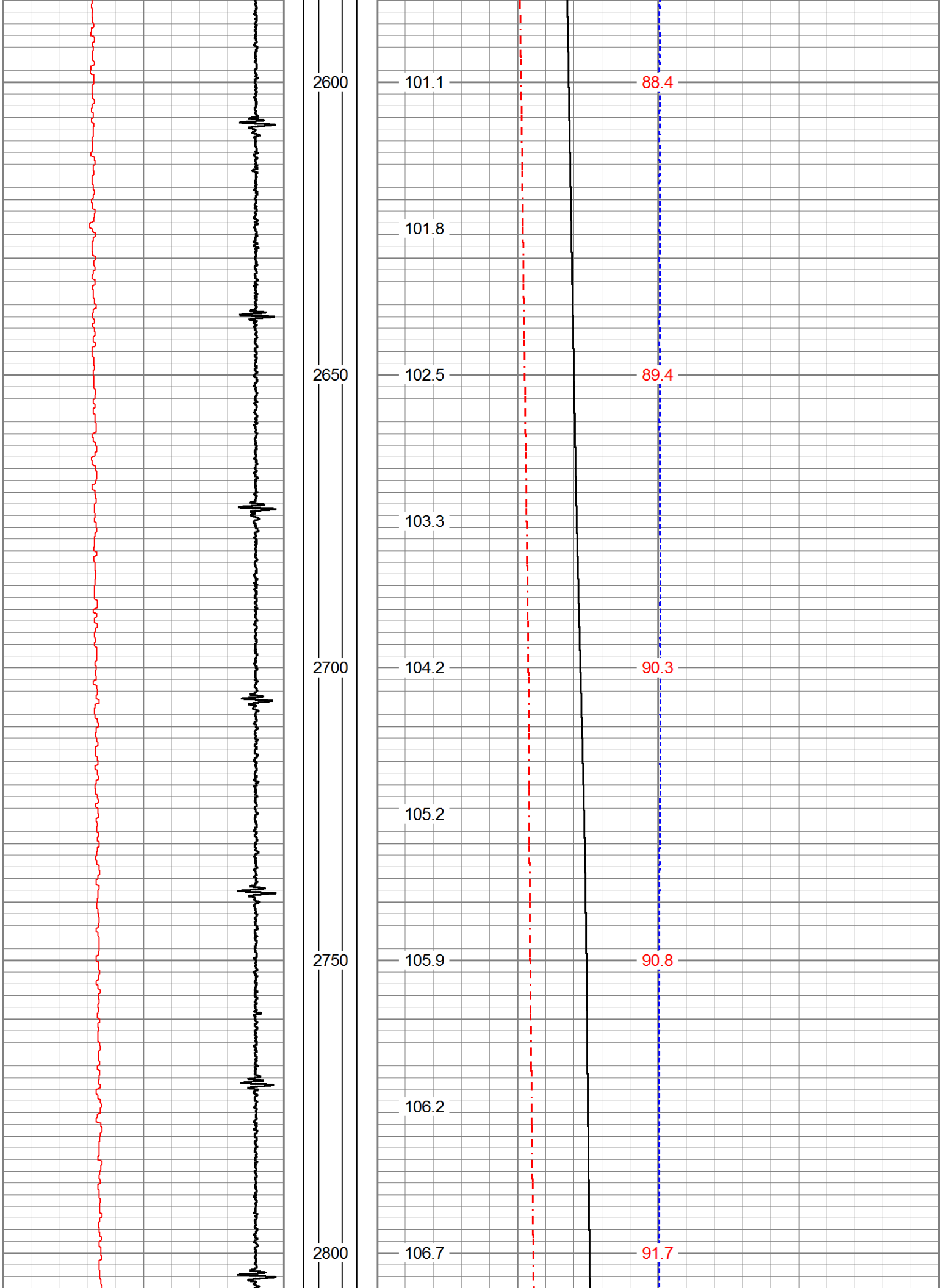

1500
71.1
70.7
71.8
1550
72.5
71.4
73.2
1600
73.7
72.2
74.3
1650
75.0
73.0
75.7
1700
76.4
73.9

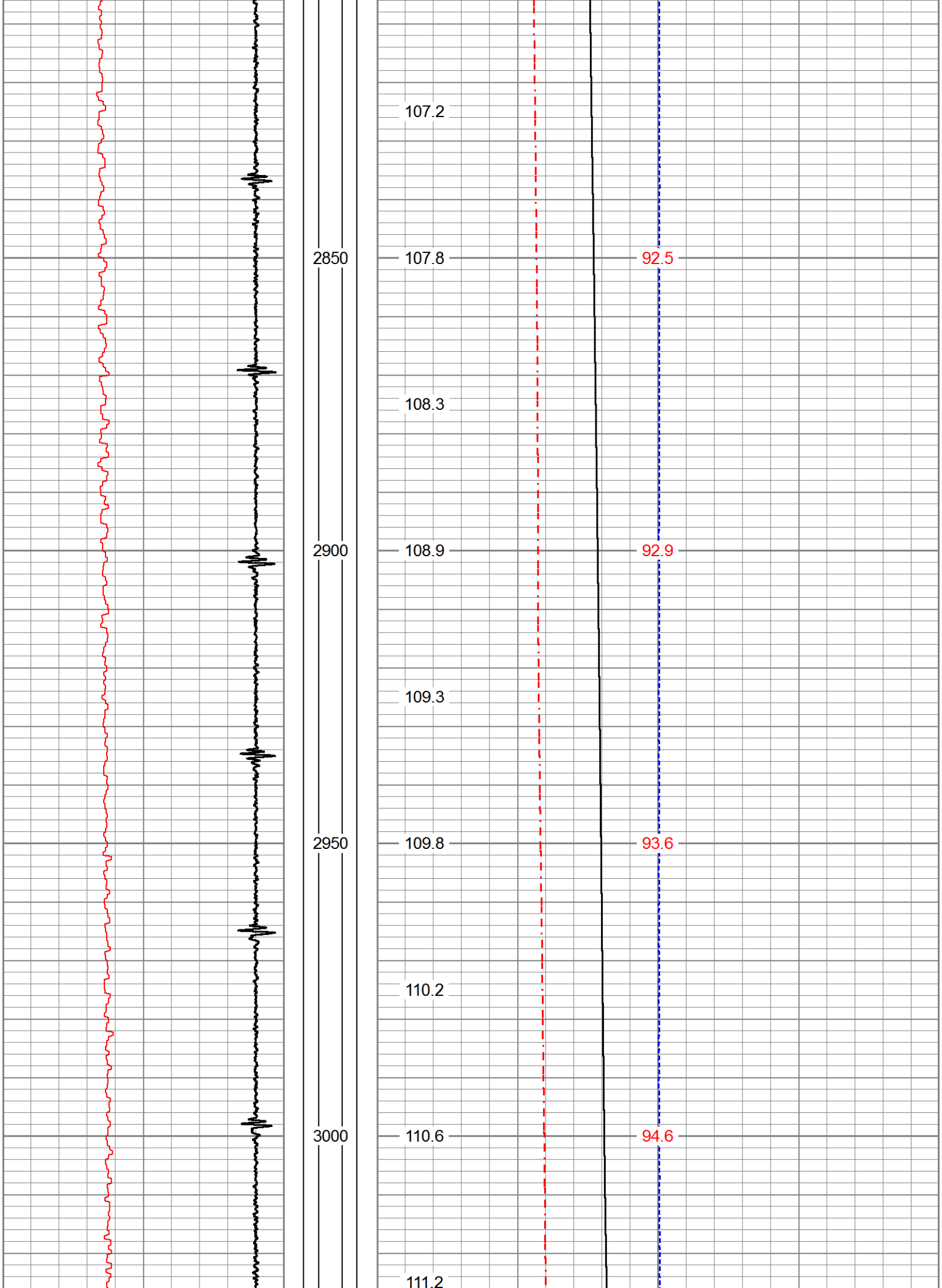

77.2
1750
78.0
74.9
78.9
1800
79.7
75.8
80.4
1850
80.9
76.7
81.5
1900
82.0
77.8
82.8

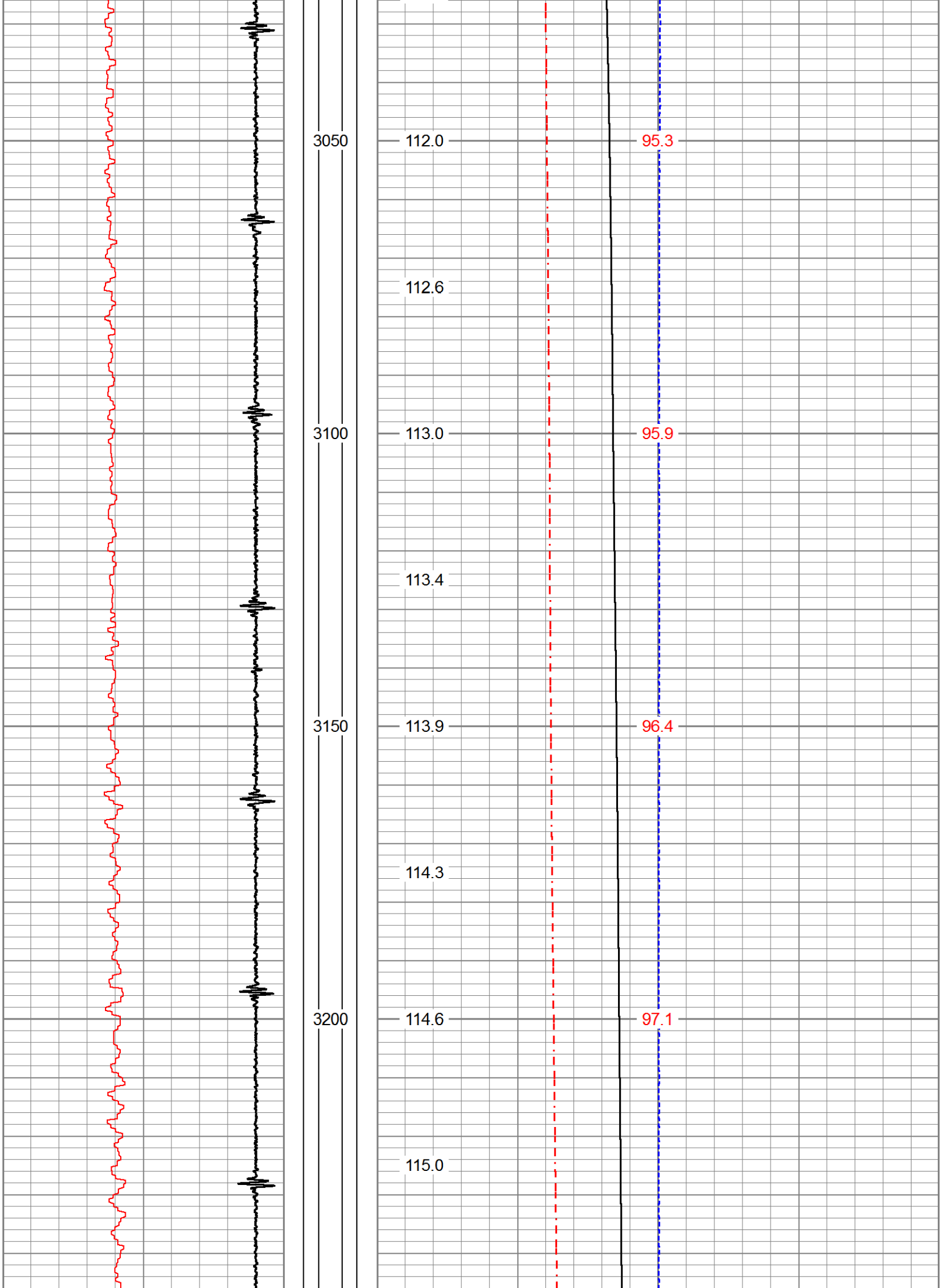

1950
84.0
79.0
86.0
2000
88.1
80.3
89.1
2050
89.7
80.8
90.1
2100
90.5
81.3
91.0

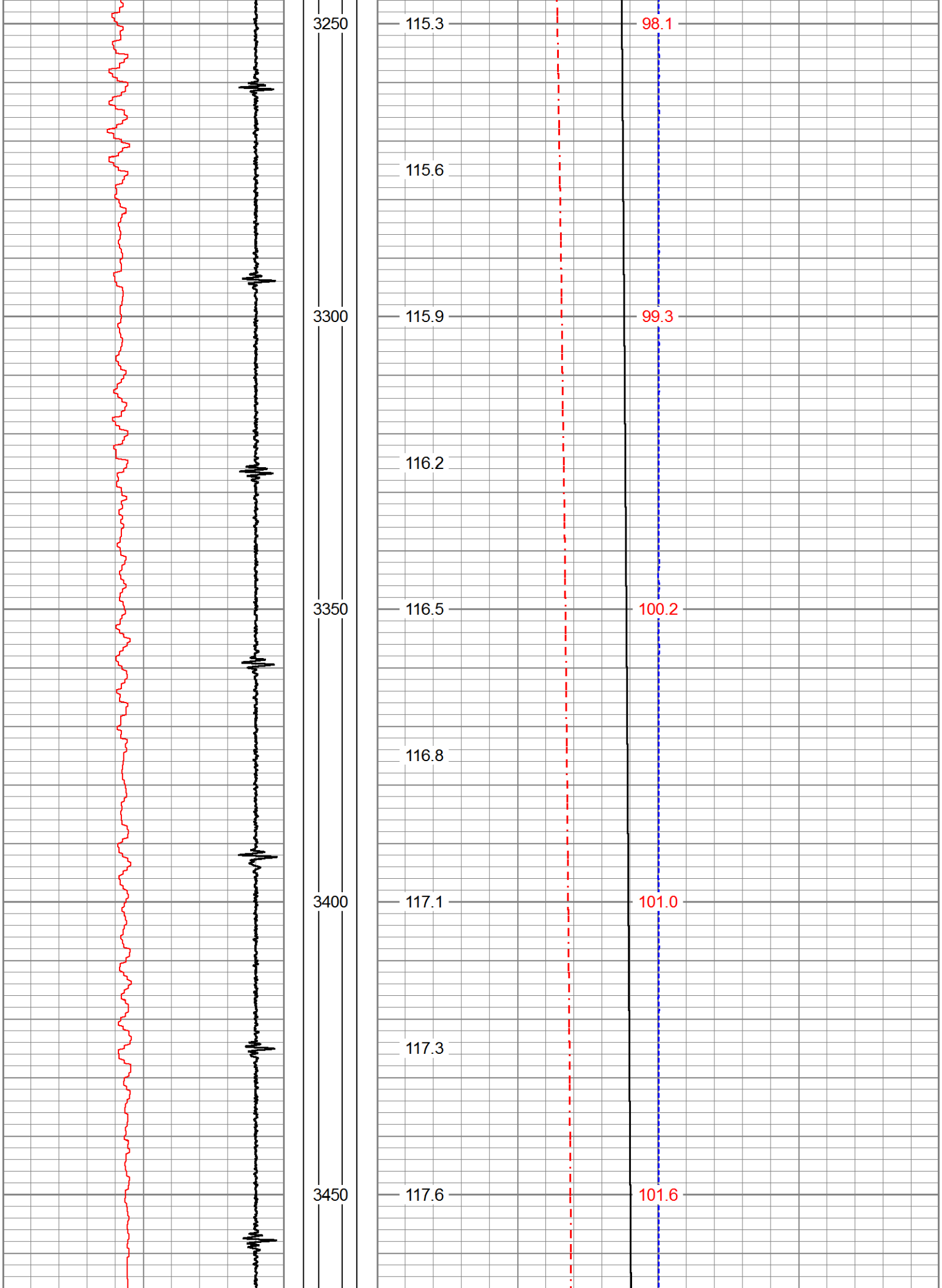

2-7/8"
91.5
81.6
92.0
2200
92.4
81.9
92.9
2250
93.6
82.6
5.50" 15.5# K-55
94.3
2300
94.9
TEMP PASS #1 (DEGf)
83.3
TEMP PASS #2 (DEGf)
TEMP PASS #1
95.3
TEMP PASS #2
2350
95.7
84.1

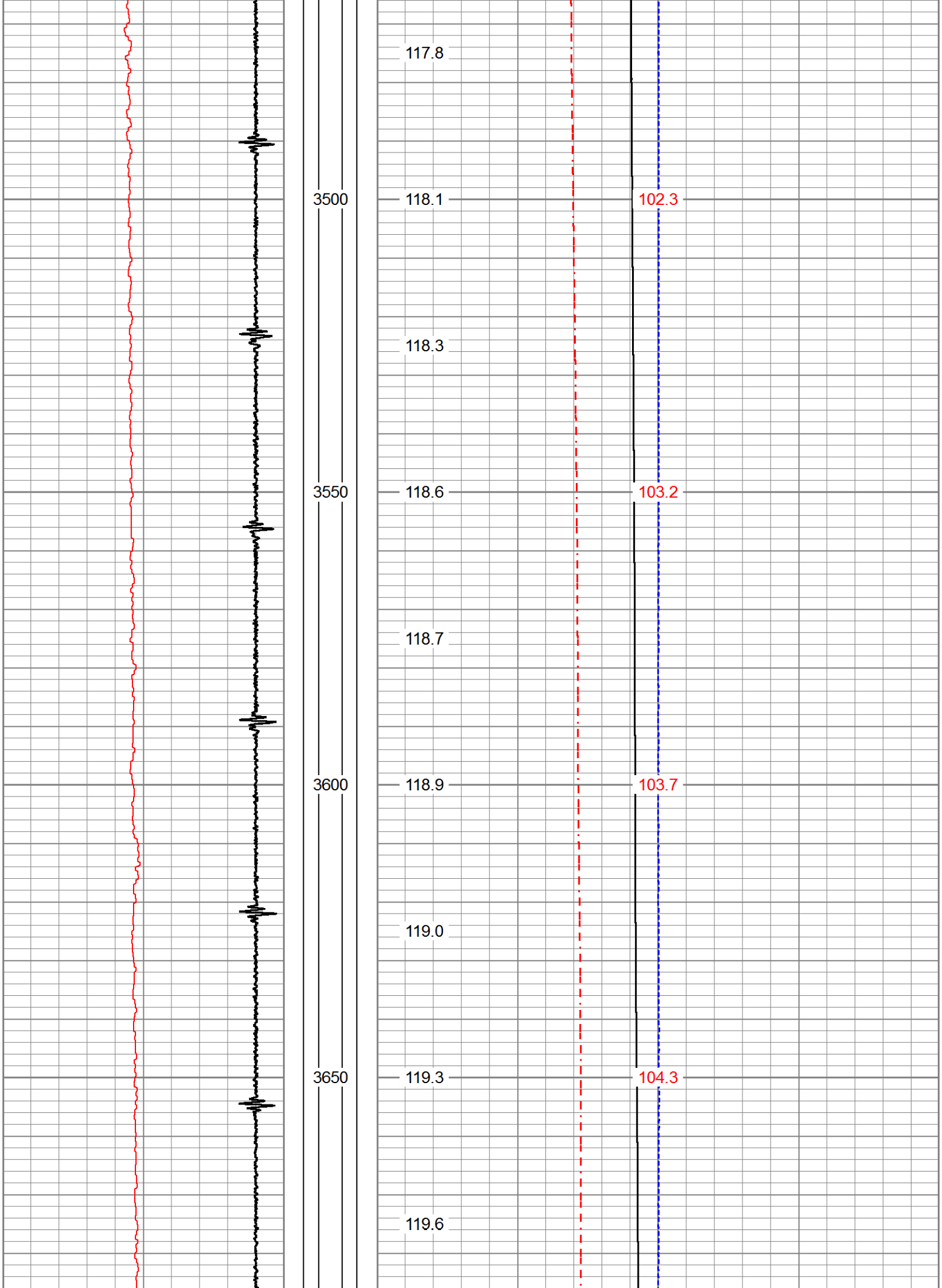

96.2
2400
96.8
85.0
97.3
2450
97.8
85.9
98.4
2500
98.9
86.6
99.4
2550
100.0
87.4
100.5

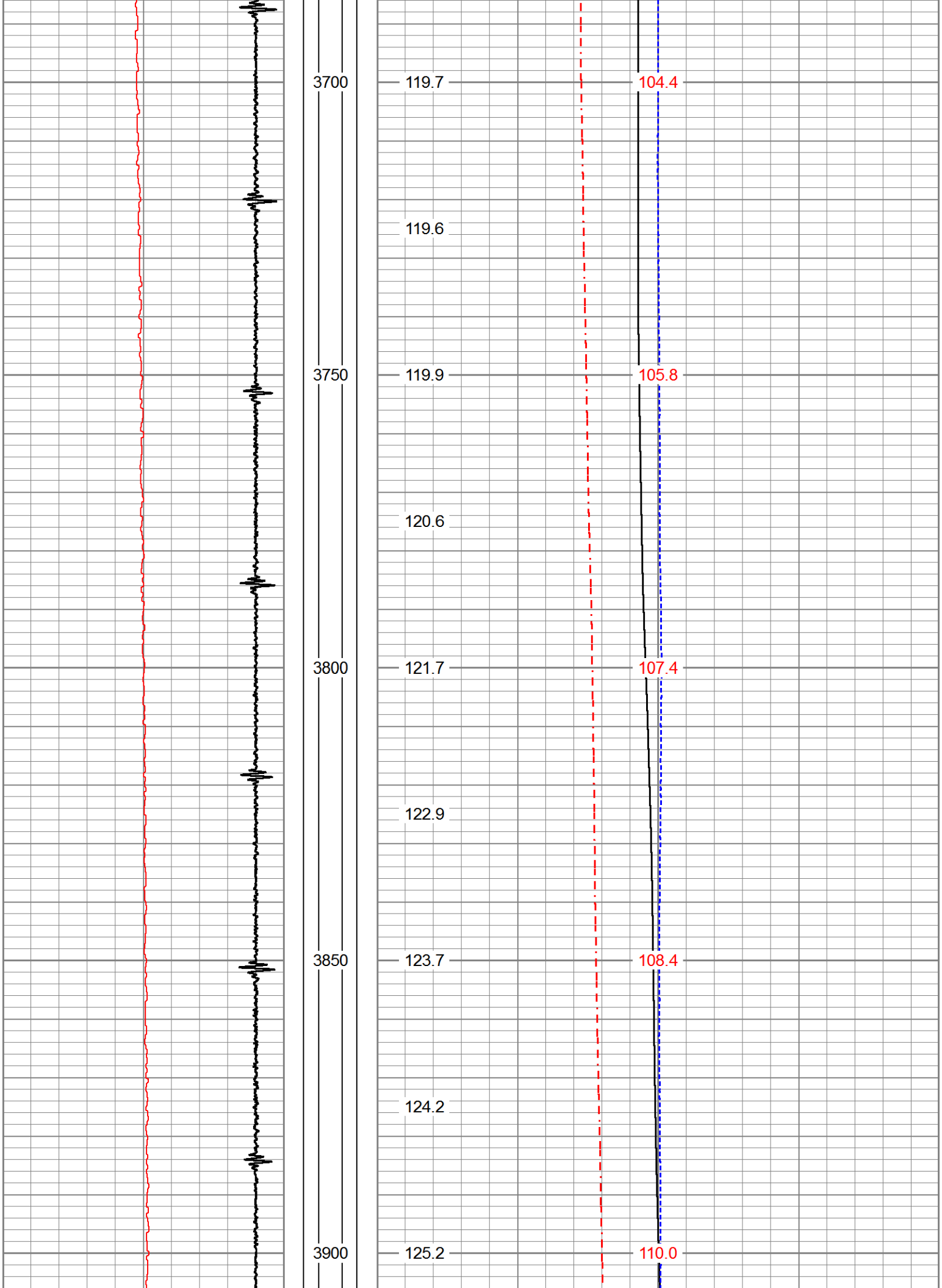

2600
101.1
88.4
101.8
2650
102.5
89.4
103.3
2700
104.2
90.3
105.2
2750
105.9
90.8
106.2
2800
106.7
91.7

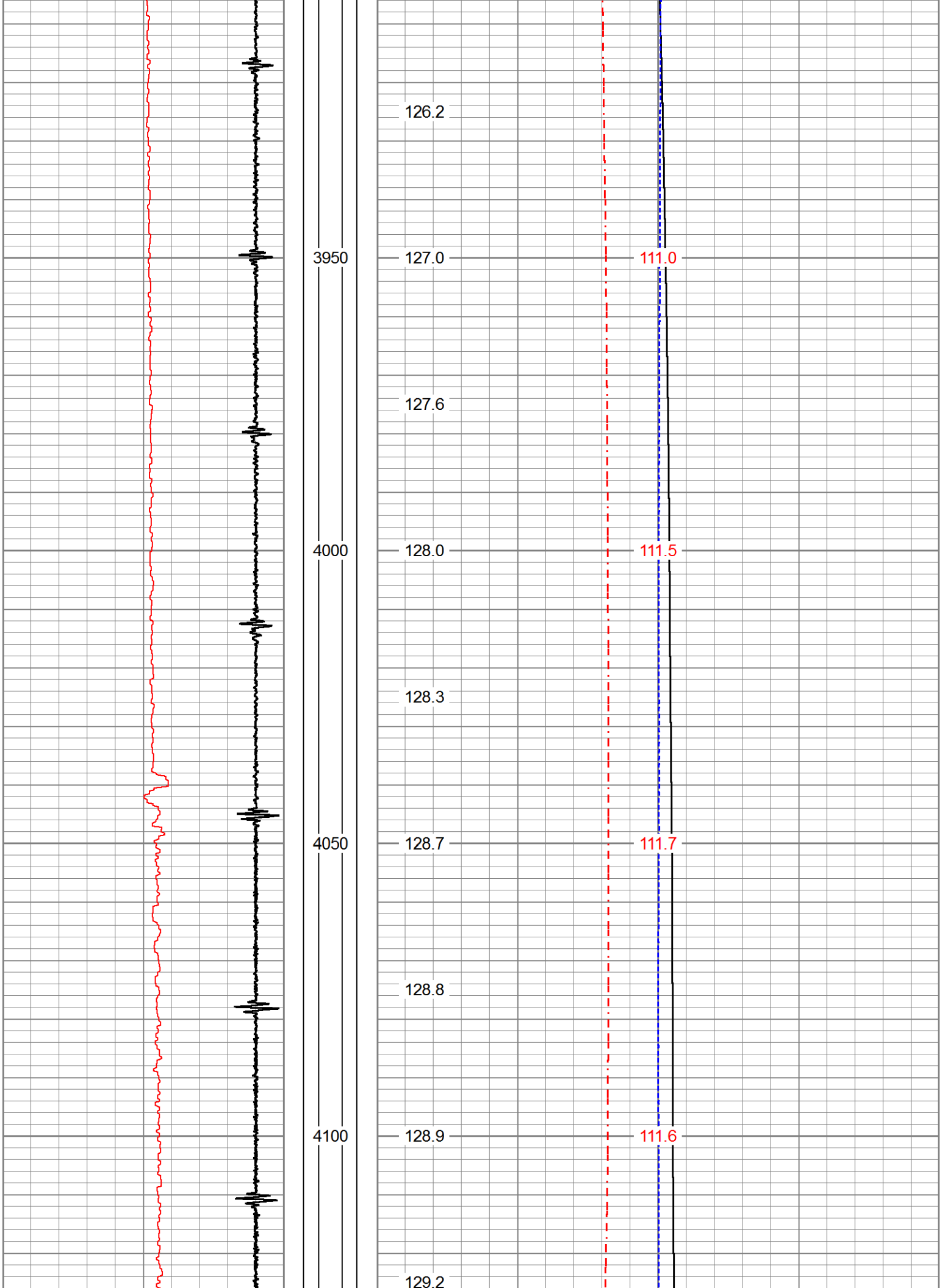

107.2
2850
107.8
92.5
108.3
2900
108.9
92.9
109.3
2950
109.8
93.6
110.2
3000
110.6
94.6
111.2

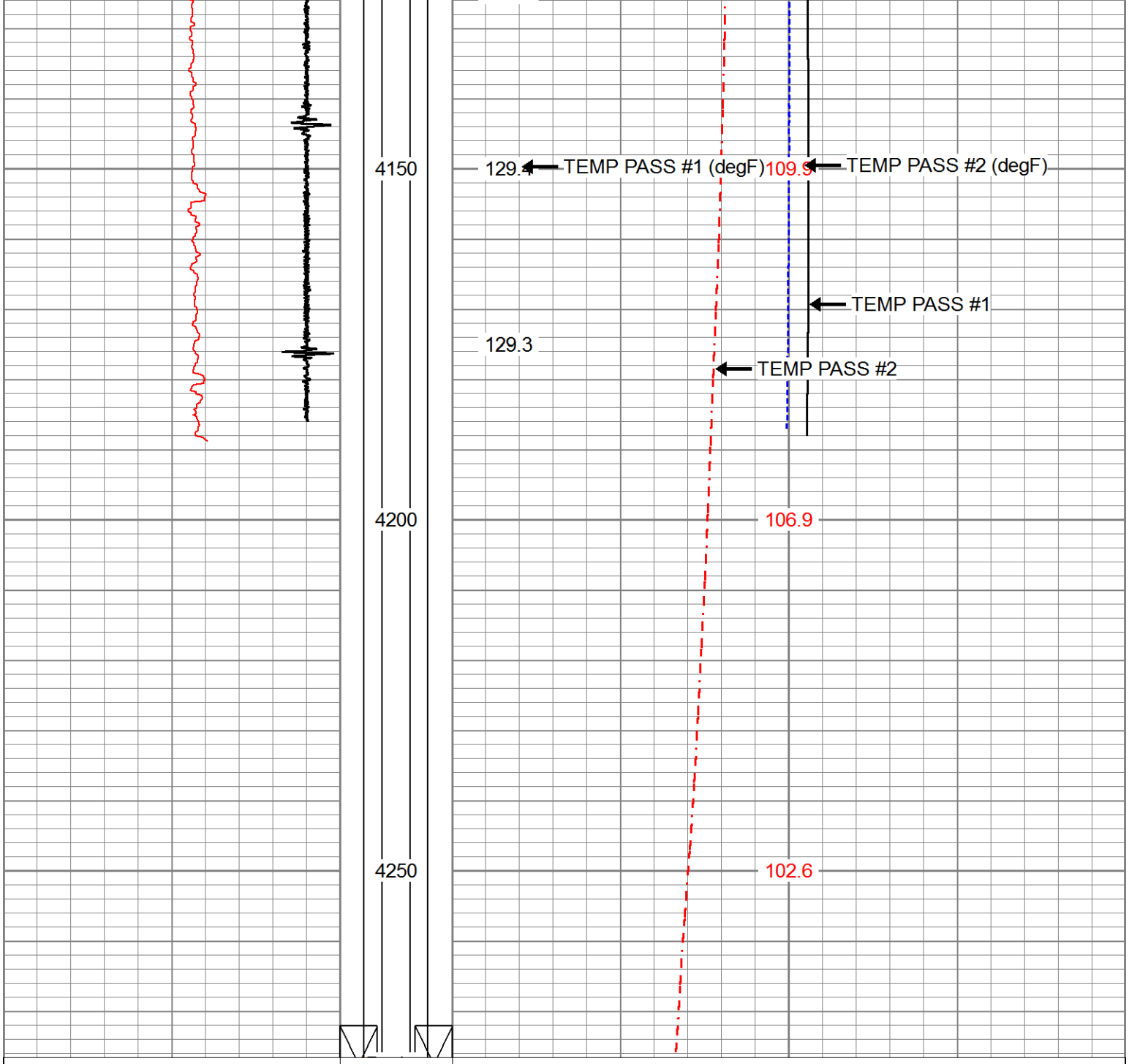

3050
112.0
95.3
112.6
3100
113.0
95.9
113.4
3150
113.9
96.4
114.3
3200
114.6
97.1
115.0


3250
115.3
98.1
115.6
3300
115.9
99.3
116.2
3350
116.5
100.2
116.8
3400
117.1
101.0
117.3
3450
117.6
101.6


117.8
3500
118.1
102.3
118.3
3550
118.6
103.2
118.7
3600
118.9
103.7
119.0
3650
119.3
104.3
119.6


3700
119.7
104.4
119.6
3750
119.9
105.8
120.6
3800
121.7
107.4
122.9
3850
123.7
108.4
124.2
3900
125.2
110.0


126.2
3950
127.0
111.0
127.6
4000
128.0
111.5
128.3
4050
128.7
111.7
128.8
4100
128.9
111.6
129.2



9	CCL	-1
0	LTEN (lb)	1700

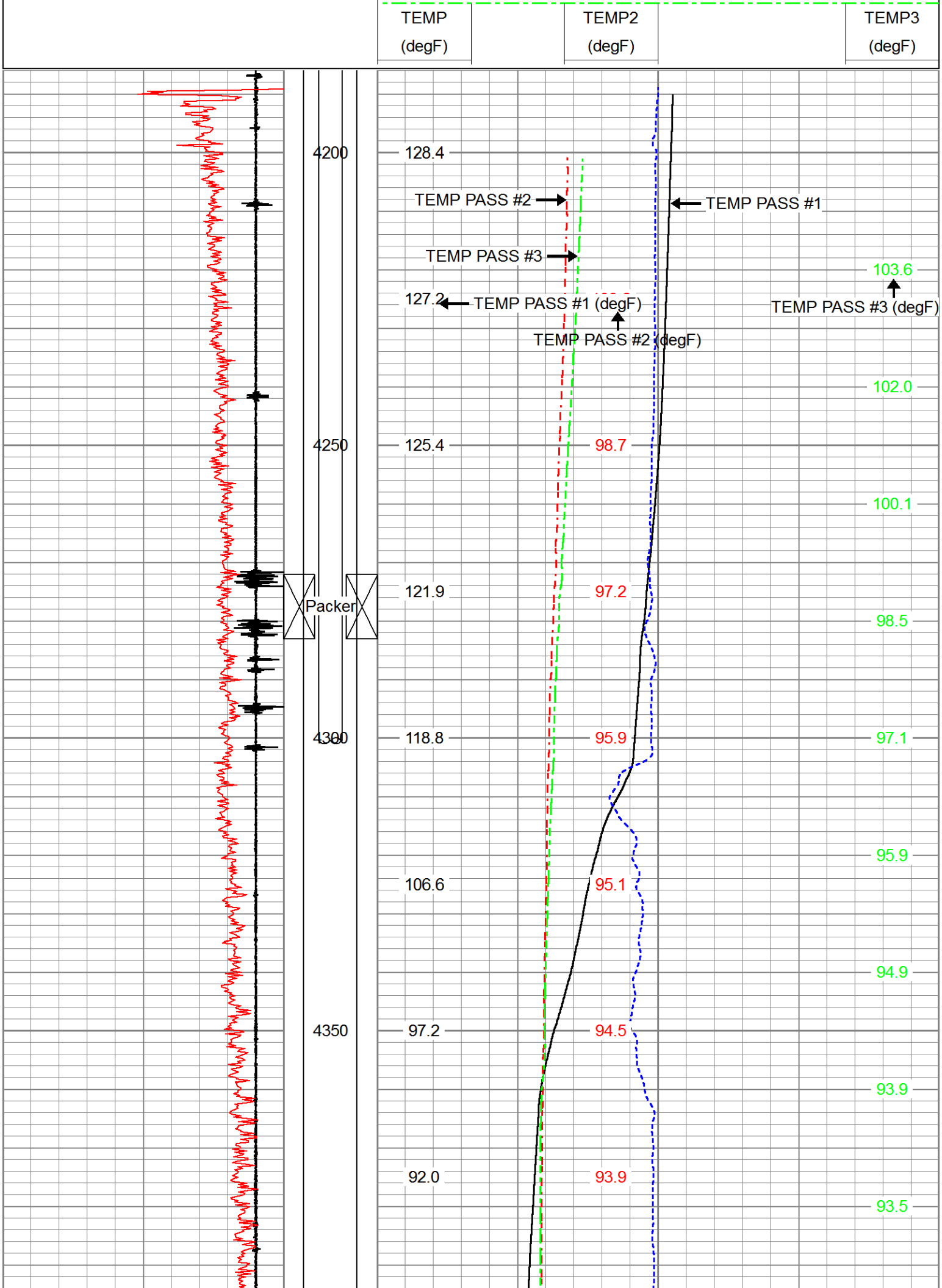
50	TEMP (degF)	200
-5	DTMP (degF)	5
50	TEM2 (degF)	200

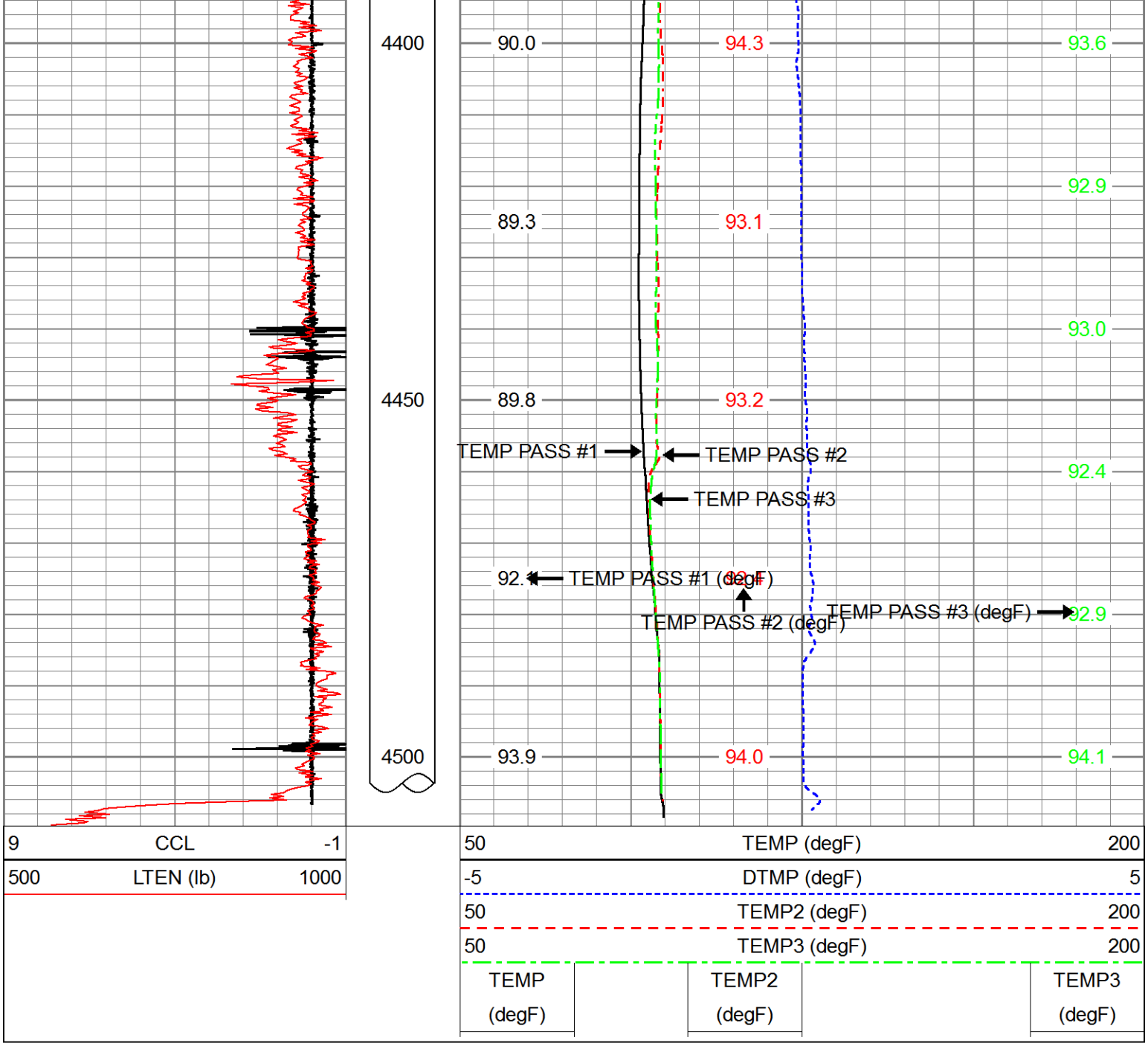
TEMP (degF) TEM2 (degF)

Database File	merrionsunco#1swdtemp.db
Dataset Pathname	pass2.B
Presentation Format	temp
Dataset Creation	Tue Jun 26 13:29:59 2018
Charted by	Depth in Feet scaled 1:240

9	CCL	-1
500	LTEN (lb)	1000

50	TEMP (degF)	200
-5	DTMP (degF)	5
50	TEMP2 (degF)	200
50	TEMP3 (degF)	200


TEMP
(degF)
TEMP2
(degF)
TEMP3
(degF)
4200
4250
4300
4350
128.4
125.4
121.9
118.8
106.6
97.2
92.0
TEMP PASS #2
TEMP PASS #1
TEMP PASS #3
127.2
TEMP PASS #1 (degF)
TEMP PASS #2 (degF)
98.7
97.2
95.9
95.1
94.5
93.9
103.6
TEMP PASS #3 (degF)
102.0
100.1
98.5
97.1
95.9
94.9
93.9
93.5
Packer



Calibration Report

Database File	merrionsunco#1swdtemp.db
Dataset Pathname	pass2.C
Dataset Creation	Tue Jun 26 13:38:22 2018

Temperature Calibration Report

Serial Number:	FW1302-005
Tool Model:	Comprobe
Performed:	Thu Aug 25 10:11:23 2016

Point #	Reading		Reference	
1	723.97	cps	70.00	degF
2	1134.76	cps	118.00	degF
3	1726.70	cps	174.00	degF
4		cps		degF
5		cps		degF
6		cps		degF
7		cps		degF
8		cps		degF

9	cps	degF
10	cps	degF