

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Well Name: BILLIKEN 7 FEDERAL

Well Location: T26S / R35E / SEC 7 /
LOT 4 / 32.0524207 / -103.4146532

County or Parish/State: LEA /
NM

Well Number: 1H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM115000

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002542687

Operator: DEVON ENERGY
PRODUCTION COMPANY LP

Notice of Intent

Sundry ID: 2897273

Type of Submission: Notice of Intent

Type of Action: Plug and Abandonment

Date Sundry Submitted: 02/23/2026

Time Sundry Submitted: 01:45

Date proposed operation will begin: 04/30/2026

Procedure Description:

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

D4Y5_00071_Devon_Billiken_7_Fed_1H_IBC_Cement_20260223134532.pdf

BILLIKEN_7_FEDERAL_001H_BLM_NOI_P_A_SIGNED_WBD_20260223134509.pdf

**APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED**

Well Name: BILLIKEN 7 FEDERAL

Well Location: T26S / R35E / SEC 7 / LOT 4 / 32.0524207 / -103.4146532

County or Parish/State: LEA / NM

Well Number: 1H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM115000

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002542687

Operator: DEVON ENERGY PRODUCTION COMPANY LP

Operator

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: JEFF YOUNG

Signed on: FEB 23, 2026 01:45 PM

Name: DEVON ENERGY PRODUCTION COMPANY LP

Title: Production Data Analyst

Street Address: 333 W SHERIDAN AVE

City: OKLAHOMA CITY State: OK

Phone: (405) 228-2480

Email address: JEFF.YOUNG@DVN.COM

Field

Representative Name:

Street Address:

City: State: Zip:

Phone:

Email address:

APPROVED by Long Vo
Petroleum Engineer
Carlsbad Field Office
575-988-50402
LVO@BLM.GOV

Lea County Notification: 575-689-5981

Eddy County Notification: BLM_NM_CFO_PluggingNotifications@BLM.GOV

Secondary Contact: 575-361-2822

Form 3160-5
(October 2024)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0220
Expires: October 31, 2027

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well

Oil Well Gas Well Other

8. Well Name and No.

2. Name of Operator

9. API Well No.

3a. Address

3b. Phone No. (include area code)

10. Field and Pool or Exploratory Area

4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)

11. Country or Parish, State

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

**See Attached
for Revised Procedure**

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Title

Signature

Date

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Long Vo



Title

Petroleum Engineer

Date

3-29-2026

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Carlsbad Field Office

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Additional Information

Location of Well

0. SHL: LOT 4 / 660 FSL / 200 FWL / TWSP: 26S / RANGE: 35E / SECTION: 7 / LAT: 32.0524207 / LONG: -103.4146532 (TVD: 0 feet, MD: 0 feet)

PPP: LOT 4 / 660 FSL / 200 FWL / TWSP: 26S / RANGE: 35E / SECTION: 7 / LAT: 0.0 / LONG: 0.0 (TVD: 0 feet, MD: 0 feet)

BHL: SESE / 650 FSL / 470 FEL / TWSP: 26S / RANGE: 35E / SECTION: 7 / LAT: 0.0 / LONG: 0.0 (TVD: 8930 feet, MD: 13612 feet)

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2025

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No. **NMNM125401**

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well

Oil Well Gas Well Other

8. Well Name and No. **BILLIKEN 7 FEDERAL 1H**

2. Name of Operator **DEVON ENERGY PRODUCTION COMPANY, LP**

9. API Well No. **30-025-42687**

3a. Address **333 W SHERIDAN AVE, OKLAHOMA CITY, OK 73102-5015**

3b. Phone No. (include area code)
(405) 228-2480

10. Field and Pool or Exploratory Area
JABALINA; DELAWARE, SOUTHWEST

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
M-07-26S-35E Lot: 4 660 FSL 200 FWL

11. Country or Parish, State
LEA, NEW MEXICO

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
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- MIRU P&A unit TOOH with 2 7/8 Tbg and Rods ~ 9204'.
- Set 5 1/2" CIBP at 8566'. Leak test. 500 psi/30min. CBL (11/30/2015) on file. TOC @ 2850'.
- Dump Bail 35' CI H @ 8566'-8531'. WOC & tag. (KOP @ 8616')
- Spot 25 sx CI H w/1% calcium chloride @ 7745'-7617'. (Brushy Canyon @ 7745')
- Spot 25 sx CI C @ 6463'-6260'. (Cherry Canyon @ 6413')
- Spot 64 sx CI C @ 5565'-4926'. WOC 4hrs & Tag (Shoe @ 5396', Delaware @ 5375', Bell Canyon @ 5515')
- Spot 25 sx CI C @ 3581'-3370'. WOC 4 hrs & tag. (Castile @ 3531')
- Perf @ 1495', Sqz 138 sx CI C @ 1495'-1030'. WOC 4 hrs & tag. (Salt @ 1445')
- Perf @ 150', Circ 50 sx CI C @ 150' to surface. Verify at surface.
- Cut wellhead off 3' BGL, set dry hole marker.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)
JEFF YOUNG

Title **PRODUCTION**

Signature



Date

02/23/2026

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Long Vo



Title **Petroleum Engineer**

Date **3-29-2026**

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Office **Carlsbad Field Office**

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WELLBORE DIAGRAM - CURRENT

WELL: **BILLIKEN 7 FEDERAL 1H** OPERATOR: DEVON ENERGY PRODUCTION CO LP SPUD DATE: 9/19/2015
 COUNTY: LEA DUWI NUMBER: TD: 13,711' MD (KB)
 STATE: NM TVD: 9,276' TVD (KB)
 API: 30-025-42687 PBTD: 13,664' MD (KB)
 LOCATION: M-07-26S-35E Lot 4 660 FSL 200 FWL KB ELEVATION: 3,296.0' (30' KB)
 AREA-FIELD: RATTLESNAKE FG GL ELEVATION: 3,266.0'
 FORMATION: JABALINA; DELAWARE, SOUTHWEST SURFACE LAT/LONG: 32.0523030 -103.4144770

CASING RECORD

SURFACE CASING									
O.D.	WT./FT.	GRADE	THD	TOP	BTM	NO. JTS.	BIT SZ.	SX CMT.	TOP CMT.
13-3/8"	54.50#	J-55	BTC	0'	1,150'	26	17-1/2"	1,255	0'
Circ 132 bbls to surf									
INTERMEDIATE CASING									
O.D.	WT./FT.	GRADE	THD	TOP	BTM	NO. JTS.	BIT SZ.	SX CMT.	TOP CMT.
9-5/8"	40.00#	J-55	BTC	0'	5,396'	118	12-1/4"	1,765	0'
Circ cmt to surf									
PRODUCTION LINER									
O.D.	WT./FT.	GRADE	THD	TOP	BTM	NO. JTS.	BIT SZ.	SX CMT.	TOP CMT.
5-1/2"	17.00#	P-110	BTC	0'	13,711'	341	8-3/4"	1,990	2,850'
CBL 11-30-15									

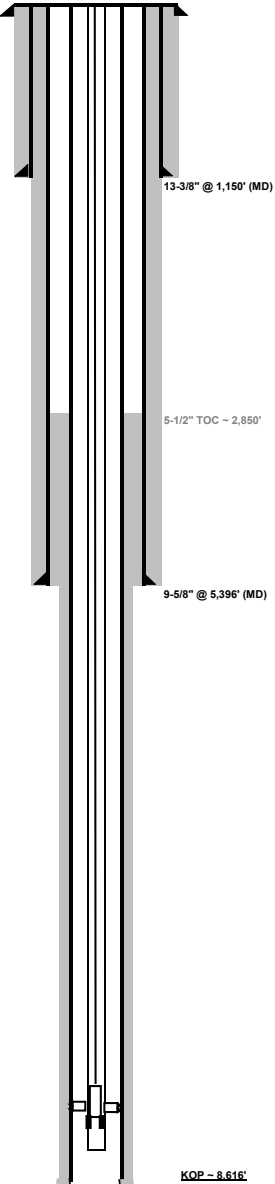
PERFORATION RECORD

ZONE - Stage	TOP	BOTTOM
16	9,285	13,384

Formation	Depth (TVD) from KB
Rustler	1085
Top of Salt	1445
Delaware	5375
Bell Canyon	5515
Cherry Canyon	6413
Brushy Canyon	7745
Lower Brushy Canyon	9047
Lower Brushy Canyon Target	9099
1st Bone Spring Lime	9292

Item Description	OD Nominal	Length	Joints	Top Depth
TUBING HANGER	2.875	0	1.00	30.0
TUBING	2.875	8428.2	258	8458.2
TUBING DRAIN	2.875	0.6	1	8458.8
TUBING	2.875	65.34	2	8524.1
SEATING NIPPLE MECH HD	2.875	1.1	1	8525.2
TUBING PUP JOINT	2.875	4.1	1	8529.3
DESANDER-GAS SEPARATOR	3.5	17.12	1	8546.5
ANCHOR CATCHER - SLIMLINE	4.5	3.75	1	8550.2
TUBING	2.875	653.89	20	9204.1
BULL PLUG	2.875	0.6	1	9204.7
			EOT	9204.7

Item Description	OD Nominal	Length	Joints	Top Depth
POLISH ROD - LINER	1 1/2	30	1	14.5
PONY ROD	1.23	27	1	44.5
FIBERGLASS SUCKER ROD	1.23	4,387.50	117	71.5
SUCKER ROD	1	2100	84	4459.0
SUCKER ROD	7/8	1600	64	6559.0
SINKER BAR	1 5/8	300	12	8159.0
SHEAR TOOL	1 5/8	1	1	8459.0
ROD CENTRALIZER	1 5/8	4	1	8460.0
ROD PUMP	1 1/2	30	1	8464.0
			EOT	8494.0



KQP - 8,616'

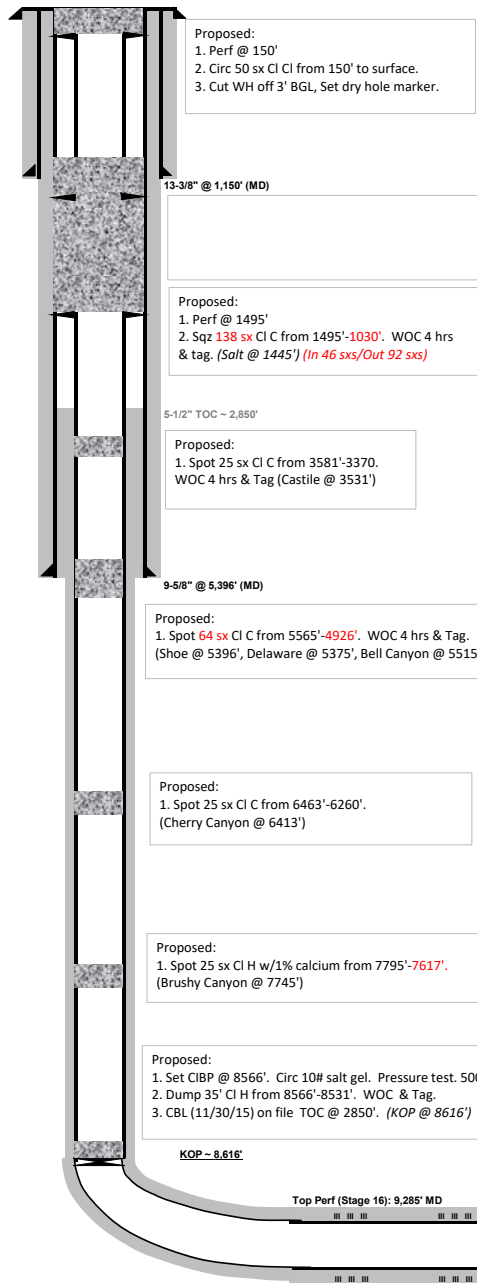
Top Perf (Stage 16): 9,285' MD

Bottom Perf (Stage 1): 13,384' MD

5-1/2" @ 13,711' (MD)
 TD @ 13,711' (MD)
 PBTD @ 13,664' (MD)
 (9,276' TVD)



WELLBORE DIAGRAM - PROPOSED



WELL: BILLIKEN 7 FEDERAL 1H	OPERATOR: DEVON ENERGY PRODUCTION CO LP	SPUD DATE: 9/19/2015
COUNTY: LEA	DUWI NUMBER:	TD: 13,711' MD (KB)
STATE: NM		TVD: 9,276' TVD (KB)
API: 30-025-42687		PBTD: 13,664' MD (KB)
LOCATION: M-07-26S-35E Lot: 4 660 FSL 200 FWL		KB ELEVATION: 3,296.0' (30' KB)
AREA-FIELD: RATTLESNAKE FG		GL ELEVATION: 3,266.0'
FORMATION: JABALINA, DELAWARE, SOUTHWEST		SURFACE LAT/LONG: 32.0523030 -103.4144770

CASING RECORD

SURFACE CASING									
O.D.	WT./FT.	GRADE	THD	TOP	BTM	NO. JTS.	BIT SZ.	SX CMT.	TOP CMT.
13-3/8"	54.50#	J-55	BTC	0'	1,150'	26	17-1/2"	1,255	0'

Circ 132 bits to surf

INTERMEDIATE CASING									
O.D.	WT./FT.	GRADE	THD	TOP	BTM	NO. JTS.	BIT SZ.	SX CMT.	TOP CMT.
9-5/8"	40.00#	J-55	BTC	0'	5,396'	118	12-1/4"	1,765	0'

Circ cmt to surf

PRODUCTION LINER									
O.D.	WT./FT.	GRADE	THD	TOP	BTM	NO. JTS.	BIT SZ.	SX CMT.	TOP CMT.
5-1/2"	17.00#	P-110	BTC	0'	13,711'	341	8-3/4"	1,990	CBL 11-30-15

PERFORATION RECORD

ZONE - Stage	TOP	BOTTOM
16	9,285	13,384

Formation	Depth (TVD) from KB
Rustler	1085
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Delaware	5375
Bell Canyon	5515
Cherry Canyon	6413
Brushy Canyon	7745
Lower Brushy Canyon	9047
Lower Brushy Canyon Target	9099
1st Bone Spring Lime	9292

REVISED

10:51 am, Mar 29, 2026

5-1/2" @ 13,711' (MD)
 TD @ 13,711' (MD)
 PBTD @ 13,664' (MD)
 (9,276' TVD)

**BUREAU OF LAND MANAGEMENT
Carlsbad Field Office
620 East Greene Street
Carlsbad, New Mexico 88220
575-234-5972**

**Permanent Abandonment of Federal Wells
Conditions of Approval**

Failure to comply with the following Conditions of Approval may result in a Notice of Incidents of Noncompliance (INC) in accordance with 43 CFR 3163.1.

Plugging operations shall commence within **ninety (90)** days from the approval date of this Notice of Intent to Abandon.

If you are unable to plug the well by the 90th day provide this office, prior to the 90th day, with the reason for not meeting the deadline and a date when we can expect the well to be plugged. Failure to do so will result in enforcement action.

The rig used for the plugging procedure cannot be released and moved off without the prior approval of the authorized officer. Failure to do so may result in enforcement action.

Notification: Contact the appropriate BLM office at least 24 hours prior to the commencing of any plugging operations. For wells in Chaves and Roosevelt County, call 575-627-0272; Lea County, call 575-689-5981. Eddy County, please email notifications to: [BLM NM CFO PluggingNotifications@BLM.GOV](mailto:BLM_NM_CFO_PluggingNotifications@BLM.GOV). The Eddy County inspector on call phone, 575-361-2822, will remain active as a secondary contact.

Blowout Preventers: A blowout preventer (BOP), as appropriate, shall be installed before commencing any plugging operation. The BOP must be installed and maintained as per API and manufacturer recommendations. The minimum BOP requirement is a 2M system for a well not deeper than 9,090 feet; a 3M system for a well not deeper than 13,636 feet; and a 5M system for a well not deeper than 22,727 feet.

Mud Requirement: Mud shall be placed between all plugs. Minimum consistency of plugging mud shall be obtained by mixing at the rate of 25 sacks (50 pounds each) of gel per 100 barrels of water. Minimum nine (9) pounds per gallon.

Cement Requirement: Sufficient cement shall be used to bring any required plug to the specified depth and length. Any given cement volumes on the proposed plugging procedure are merely estimates and are not final. Unless specific approval is received, no plug except the surface plug shall be less than 25 sacks of cement. Any plug that requires a tag will have a minimum WOC time of 4 hours for Class C or accelerated cement (calcium chloride) and 6 hours for Class H. Tagging the plug means running in the hole with a string of tubing or drill pipe and placing sufficient weight on the plug to ensure its integrity. Other methods of tagging the plug may be approved by the BLM authorized officer or BLM field representative.

In lieu of a cement plug across perforations in a cased hole (not for any other plugs), a bridge plug set within 50 feet to 100 feet above the perforations shall be capped with 25 sacks of cement. If a bailer is used to cap this plug, 35 feet of cement shall be sufficient. **Before pumping or bailing cement on top of CIBP, tag will be required to verify depth. Based on depth, a tag of the cement may be deemed necessary.**

Unless otherwise specified in the approved procedure, the cement plug shall consist of either Neat Class "C", for up to 7,500 feet of depth or Neat Class "H", for deeper than 7,500 feet plugs.

Fluid used to mix the cement in R111Q shall be saturated with the salts common to the section penetrated, and in suitable proportions but not less than 1% and not more than 3% calcium chloride by weight of cement will be considered the desired mixture whenever possible.

Above Ground Level Marker: If outside of Lesser Prairie-Chicken Habitat an above ground level marker shall be utilized. All casing shall be cut-off at the base of the cellar or 3 feet below final restored ground level (whichever is deeper). **The BLM is to be notified *BY PHONE* (numbers listed in 2. Notifications) a minimum of 4 hours prior to the wellhead being cut off to verify that cement is to surface in the casing and all annuluses. Wellhead cut off shall commence within fourteen (14) calendar days of the well being plugged. If the cut off cannot be done by the 14th day, the BLM is to be contacted with justification to receive an extension for completing the cut off.**

The well bore shall then be capped with a 4-inch pipe, 10-feet in length, 4 feet above ground and embedded in cement, unless otherwise noted in COA (requirements will be attached). The following information shall be permanently inscribed on the dry hole marker: well name and number, name of the operator, lease serial number, surveyed location (quarter-quarter section, section, township and range or other authorized survey designation acceptable to the authorized officer such as metes and bounds). A weep hole shall be left if a metal plate is welded in place.

Below Ground Level Marker: If within Lesser Prairie-Chicken Habitat a below ground level marker shall be utilized. All casing shall be cut-off at the base of the cellar or 3 feet below final restored ground level (whichever is deeper). **The BLM is to be notified *BY PHONE* (numbers listed in 2. Notifications) a minimum of 4 hours prior to the wellhead being cut off to verify that cement is to surface in the casing and all annuluses. Wellhead cut off shall commence within fourteen (14) calendar days of the well being plugged. If the cut off cannot be done by the 14th day, the BLM is to be contacted with justification to receive an extension for completing the cut off.**

Upon the plugging and subsequent abandonment of wells that are located in lesser prairie-chicken habitat, the casings shall be cut-off at the base of the cellar or 3 feet below final restored ground level (whichever is deeper). The well bore shall then be covered with a metal plate at least ¼ inch thick and welded in place. A weep hole shall be left in the plate and/or casing. The following information shall be permanently inscribed on the plate: well name and number, name of operator, lease serial number, surveyed location (quarter-quarter section, section, township and range or other authorized survey designation acceptable to the authorized officer such as metes and bounds).

NMOCD also requires the operator to notify NMOCD when this type of dry hole marker is used. This can be done on the subsequent report of abandonment which is submitted to the BLM after the well is plugged. State that a below ground cap was installed as required in the COA's from the BLM.

Operator to verify the ground marker type with the BLM before setting dry hole Marker.

Subsequent Plugging Reporting: Within 30 days after plugging work is completed, file via the AFMSS 2 WISx Module a Subsequent Report of Plugging and Abandonment to BLM. Please include the following information:

- The report should give in detail the manner in which the plugging work was carried out, the Extent (by depths) of cement plugs placed, and the size and location (by depths) of casing left In the well.
- The final copy of CBL.
- Any email correspondence regarding changes to originally approved procedure.
- Show date well was plugged.

Trash: All trash, junk and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

Following the submission and approval of the Subsequent Report of Abandonment, surface restoration will be required. See attached reclamation objectives.

Timing Limitation Stipulation/ Condition of Approval for Lesser Prairie-Chicken:

From March 1st through June 15th annually, abandonment activities will be allowed except between the hours from 3:00 am and 9:00 am. Normal vehicle use on existing roads will not be restricted.



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Carlsbad Field Office
620 E. Greene St.
Carlsbad, New Mexico 88220-6292
www.blm.gov/nm



In Reply Refer To: 1310

Reclamation Objectives and Procedures

Reclamation Objective: Oil and gas development is one of many uses of the public lands and resources. While development may have a short- or long-term effect on the land, successful reclamation can ensure the effect is not permanent. During the life of the development, all disturbed areas not needed for active support of production operations should undergo “interim” reclamation in order to minimize the environmental impacts of development on other resources and uses. At final abandonment, well locations, production facilities, and access roads must undergo “final” reclamation so that the character and productivity of the land and water are restored.

The long-term objective of final reclamation is to set the course for eventual ecosystem restoration, including the restoration of the natural vegetation community, hydrology, and wildlife habitats. In most cases this means returning the land to a condition approximating or equal to that which existed prior to the disturbance. The final goal of reclamation is to restore the character of the land and water to its pre-disturbance condition. The operator is generally not responsible for achieving full ecological restoration of the site. Instead, the operator must achieve the short-term stability, visual, hydrological, and productivity objectives of the surface management agency and take steps necessary to ensure that long-term objectives will be reached through natural processes.

To achieve these objectives, remove any/all contaminants, scrap/trash, equipment, pipelines and powerlines **(Contact service companies, allowing plenty of time to have the risers and power lines and poles removed prior to reclamation, don't wait till the last day and try to get them to remove infrastructure)**. Strip and remove caliche, contour the location to blend with the surrounding landscape, re-distribute the native soils, provide erosion control as needed, rip (across the slope and seed as specified in the original APD COA. **This will apply to well pads, facilities, and access roads.** Barricade access road at the starting point. If reserve pits have not reclaimed due to salts or other contaminants, submit a plan for approval, as to how you propose to provide adequate restoration of the pit area.

The Application for Permit to Drill or Reenter (APD, Form 3160-3), Surface Use Plan of Operations must include adequate measures for stabilization and reclamation of disturbed lands. Oil and Gas operators must plan for reclamation, both interim and final, up front in the APD process as per Onshore Oil and Gas Order No. 1.

For wells and/or access roads not having an approved plan, or an inadequate plan for surface reclamation (either interim or final reclamation), the operator must submit a proposal describing the procedures for reclamation. For interim reclamation, the appropriate time for submittal would be when filing the Well Completion or Recompletion Report and Log (Form 3160-4). For final reclamation, the appropriate time for submittal would be when filing the Notice of Intent, or the Subsequent Report of Abandonment, Sundry Notices and Reports on Wells (Form 3160-5). Interim reclamation is to be completed within 6 months of well completion, and final reclamation is to be completed within 6 months of well abandonment.

The operator must file a Subsequent Report Plug and Abandonment (Form 3160-5) following the plugging of a well.

Previous instruction had you waiting for a BLM specialist to inspect the location and provide you with reclamation requirements. If you have an approved Surface Use Plan of Operation and/or an approved Sundry Notice, you are free to proceed with reclamation as per approved APD. If you have issues or concerns, contact a BLM specialist to assist you. It would be in your interest to have a BLM specialist look at the location and

access road prior to the removal of reclamation equipment to ensure that it meets BLM objectives. Upon conclusion submit a Form 3160-5, Subsequent Report of Reclamation. This will prompt a specialist to inspect the location to verify work was completed as per approved plans.

The approved Subsequent Report of Reclamation will be your notice that the native soils, contour and seedbed have been reestablished. If the BLM objectives have not been met the operator will be notified and corrective actions may be required.

It is the responsibility of the operator to monitor these locations and/or access roads until such time as the operator feels that the BLM objective has been met. If after two growing seasons the location and/or access roads are not showing the potential for successful revegetation, additional actions may be needed. When you feel the BLM objectives have been met submit a Final Abandonment Notice (FAN), Form 3160-5, stating that all reclamation requirements have been achieved and the location and/or access road is ready for a final abandonment inspection.

At this time the BLM specialist will inspect the location and/or access road. If the native soils and contour have been restored, and the revegetation is successful, the FAN will be approved, releasing the operator of any further liability of the location and/or access road. If the location and/or access road have not achieved the objective, you will be notified as to additional work needed or additional time being needed to achieve the objective.

If there are any questions, please feel free to contact any of the following specialists:

Jim Amos
Supervisory Petroleum Engineering Tech/Environmental Protection Specialist
575-234-5909 (Office), 575-361-2648 (Cell)

Arthur Arias
Environmental Protection Specialist
575-234-6230

Crisha Morgan
Environmental Protection Specialist
575-234-5987

Jose Martinez-Colon
Environmental Protection Specialist
575-234-5951

Angela Mohle
Environmental Protection Specialist
575-234-9226

Robert Duenas
Environmental Protection Specialist
575-234-2229

Terry Gregston
Environmental Protection/HAZMAT Specialist
575-234-5958

Company: Devon
 Well: Billiken 7 Fed 1H
 Field: Rattlesnake
 County: Lea State: New Mexico

County: Lea
 Field: Rattlesnake
 Location: 600' FSL & 200' FWL
 Well: Billiken 7 Fed 1H
 Company: Devon

Location:		600' FSL & 200' FWL	Elev.:	K.B. 3327.00 ft
		STR 7-26S-35E		G.L. 3297.00 ft
				D.F. 3326.00 ft
Permanent Datum:	Ground Level			3297.00 f
Log Measured From:	Kelly Bushing		30.00 ft	above Perm.Datum
Drilling Measured From:	Kelly Bushing			
API Serial No. 30-025-42687	Section: 7	Ownership: 26S	Range: 35E	

Logging Date	30-Nov-2015
Run Number	1A
Depth Driller	13710.00 ft
Schlumberger Depth	13710.00 ft
Bottom Log Interval	8800.00 ft
Top Log Interval	200.00 ft
Casing Fluid Type	Salt Brine
Serinity	
Density	9 lbm/gal
Fluid Level	8.00 ft
BI CASING/TUBING STRING	
BI Size	8.50 in
BI Weight	5381.00 ft
BI Length	13710.00 ft
Casing/Tubing Size	5.5 in
Weight	17 lbm/ft
Grade	N/A
Finish	0.00 ft
To	13710.00 ft
Recorded Temperatures	
Log on Bottom	30-Nov-2015
Time	12:41:00
UI Number	9113
Location:	Midland
Recorded By	Stephanie Anderson
Witnessed By	Josh Howard

Disclaimer

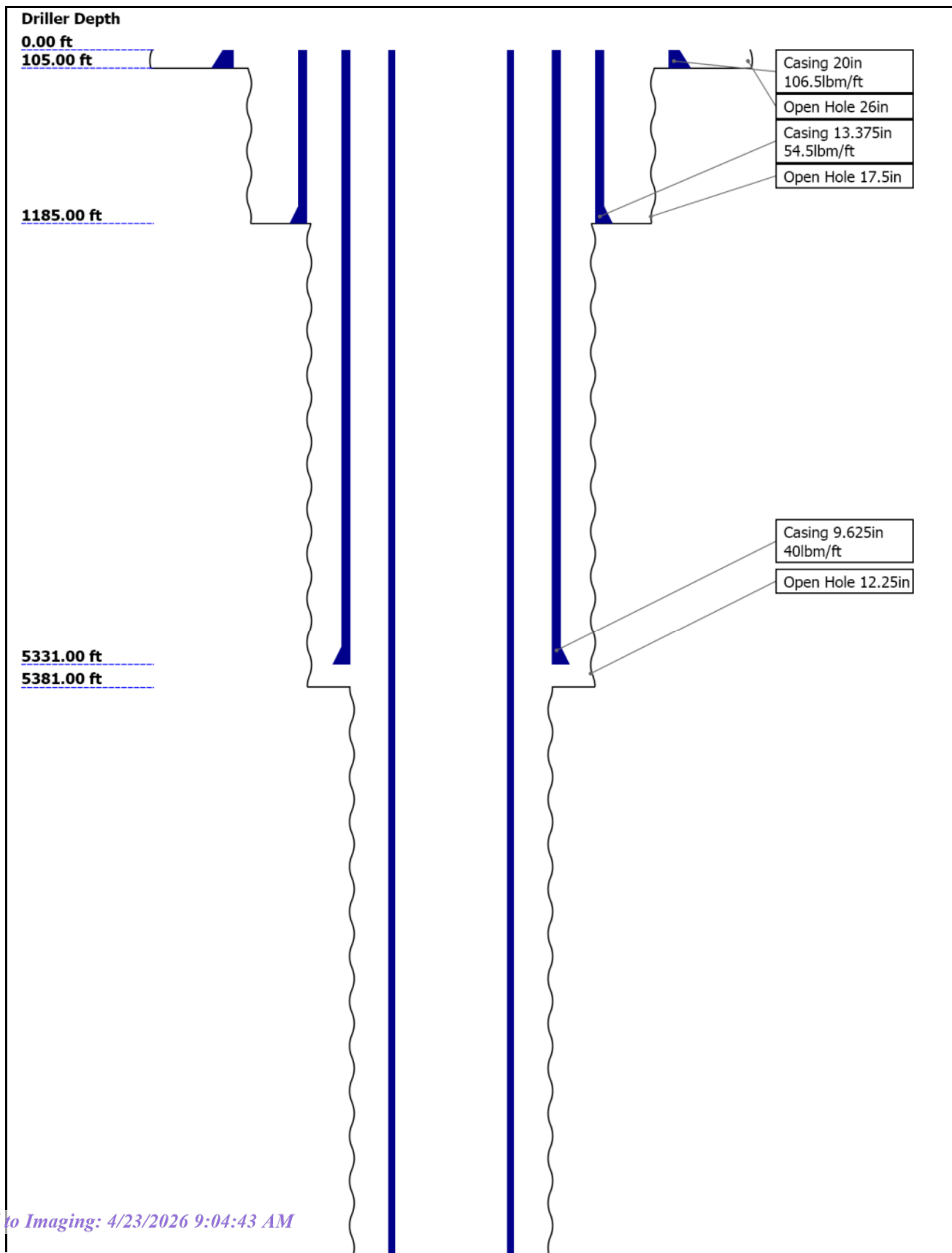
THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (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.

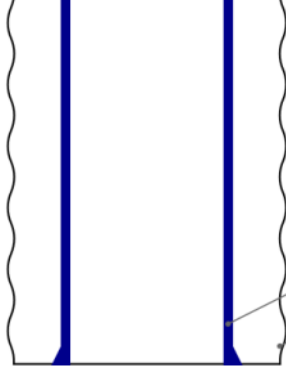
Contents

1. Header	11.5 Parameter Listing
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3. Contents	13. XYZ (USI Acoustic Impedance of Mud vs Depth 6.0 in)
4. Well Sketch	14. Tail
5. Borehole Size/Casing/Tubing Record	
6. Remarks and Equipment Summary	
7. Depth Summary	
8. USI Fluid Properties Measurement	
9. 1A Main Pass - 1700psi	
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9.3 Log (Goodwin)	
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- 11. 1A Repeat Pass - Opsi
 - 11.1 Integration Summary
 - 11.2 Software Version
 - 11.3 Composite Summary
 - 11.4 Log (USI IBC SLG)

Well Sketch





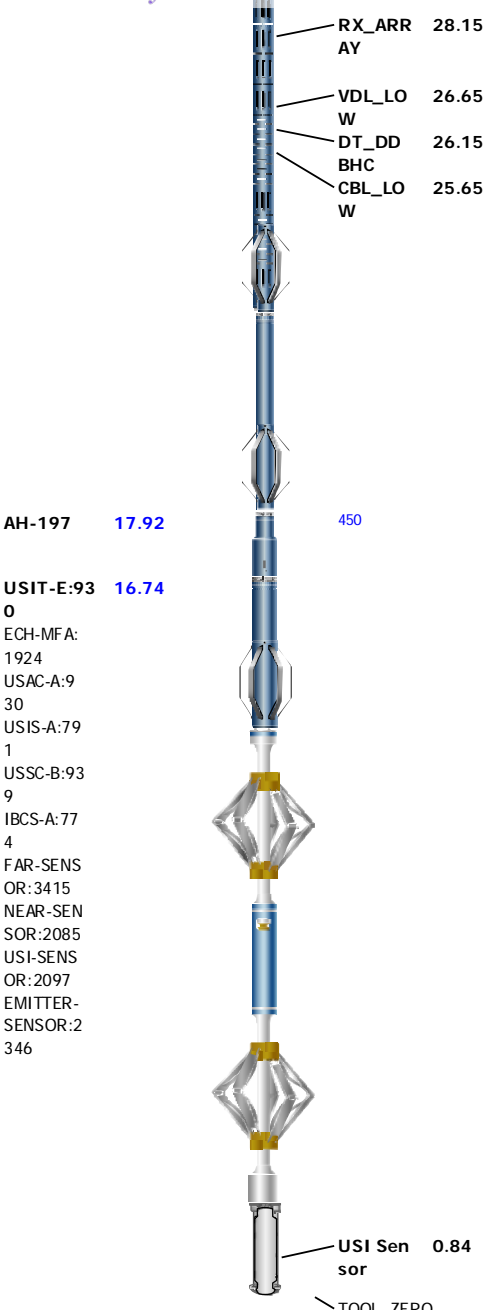
13710.00 ft

Borehole Size/Casing/Tubing Record

Bit						
Bit Size (in)	26	17.5	12.25	8.5		
Top Driller (ft)	0	105	1185	5381		
Top Logger (ft)	0	105	1185	5381		
Bottom Driller (ft)	105	1185	5381	13710		
Bottom Logger (ft)	105	1185	5381	13710		
Casing						
Size (in)	20	13.375	9.625	5.5		
Weight (lbm/ft)	106.5	54.5	40	17		
Inner Diameter (in)	19	12.615	8.835	4.892		
Grade	N/A	N/A	N/A	N/A		
Top Driller (ft)	0	0	0	0		
Top Logger (ft)	0	0	0	0		
Bottom Driller (ft)	105	1185	5331	13710		
Bottom Logger (ft)	105	1185	5331	13710		

Remarks and Equipment Summary

1A: Toolstring				1A: Remarks	
Equip name	Length	MP name	Offset	Logging objective: Cement Evaluation from curve to surface. Toolstring run as per toolsketch. 3 GEMCO, 2 inlines, Holuma kit and small hole kit used for centralization. Main and repeat pass correlated to short joint at 7634ft. Casing: 5.5" 17# HCP-110. Interm. Casing 9.625" 40# HCK-55 Main pass logged at 1000psi repeat logged at 0psi. SLB TD: 9200ft. Cementing Data: Lead 10.2# Expected free pipe amplitude: 71mV. IBC Resolution: 10 deg, 6 inch. USIT zoned with ICE processing. Fluid velocity: Automatic. Acoustic Impedance: Free Pipe Normalization. Int Rad: 2.446in, Ex Rad: 2.75in. Thick: .304in.	
LEH-QC	46.71				
CAL-YA:0	44.25				
543					
CAL-YA:05		CCL	43.46		
43					
EDTC-B:8	40.75				
429					
EDTH-B:79					
3					
EDTG-A:7		CTEM	37.25		
7379		ACCZ	0.00		
EDTC-B:84		HV	0.00		
29		Gamma Ray	35.38		
		TelStatu	34.25		
AH-199	34.25	s	182		
SSLT-B:8	33.21				
027					
SSAS-BB:8		VDL_FA	31.65		
027		R			
SSL		CBL_UP	30.65		
016					



AH-197 17.92 450

USIT-E:93 16.74

ECH-MFA:
1924
USAC-A:9
30
USIS-A:79
1
USSC-B:93
9
IBCS-A:77
4
FAR-SENS
OR:3415
NEAR-SEN
SOR:2085
USI-SENS
OR:2097
EMITTER-
SENSOR:2
346

USI Sen 0.84
sor

TOOL_ZERO

Lengths are in ft
Maximum Outer Diameter = 6.250 in
Line: Sensor Location, Value: Gating Offset
All measurements are relative to TOOL_ZERO

Depth Summary

1A

Depth Measuring Device

Type	IDW-JA
Serial Number	5920
Calibration Date	18-Jun-2015
Calibrator Serial Number	
Calibration Cable Type	7-46 AXS
Wheel Correction 1	-3
Wheel Correction 2	-5

Tension Device

Type	CMTD-B/A
Serial Number	5289
Calibration Date	10-Nov-2015
Calibration Number	39503
Number of Calibration Points	10

Logging Cable			
Type	7-46A-XS		
Serial Number			
Length	28400.00 ft		
Conveyance Type	Wireline		
Rig Type	Land		

1A:Depth Control Parameters		Depth Control Remarks	
Log Sequence	First Log In the Well	All Schlumberger depth procedures followed.	
Rig Up Length At Surface		IDW primary depth control device.	
Rig Up Length At Bottom		Z-Chart secondary depth control device.	
Rig Up Length Correction		Correlated to marker joint at 7634ft.	
Stretch Correction			
Tool Zero Check At Surface			

USIT - Fluid Properties Measurement

Run Name	Pass Name	Start Depth(ft)	Stop Depth(ft)
Run 1	Main[4]:Up	8801.78	154.99

Fluid Velocity = "Automatic".
CFVL equals DFSL channel

Start Depth(ft)	Stop Depth(ft)	Start Value(us/ft)	End Value(us/ft)
-----------------	----------------	--------------------	------------------

Mud Impedance = "FreePipe Norm."
 Free Pipe normalization zone is : 83.51m(273.98ft) to 91.26m(299.40ft)
 MUD_N_FRP = 1.06
 DFD = 1.08g/cm3(9.00lbm/gal)
 CZMD median computed in free pipe normalization interval = 1.70 MRayl

Start Depth(ft)	Stop Depth(ft)	Start Value(Mrayl)	End Value(Mrayl)
-----------------	----------------	--------------------	------------------

1A

Main Pass - 1700psi

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
1A	Main[4]:Up	Up	154.99 ft	8801.78 ft	30-Nov-2015 12:16:29 PM	30-Nov-2015 3:53:30 PM	ON	-1.98 ft	Yes

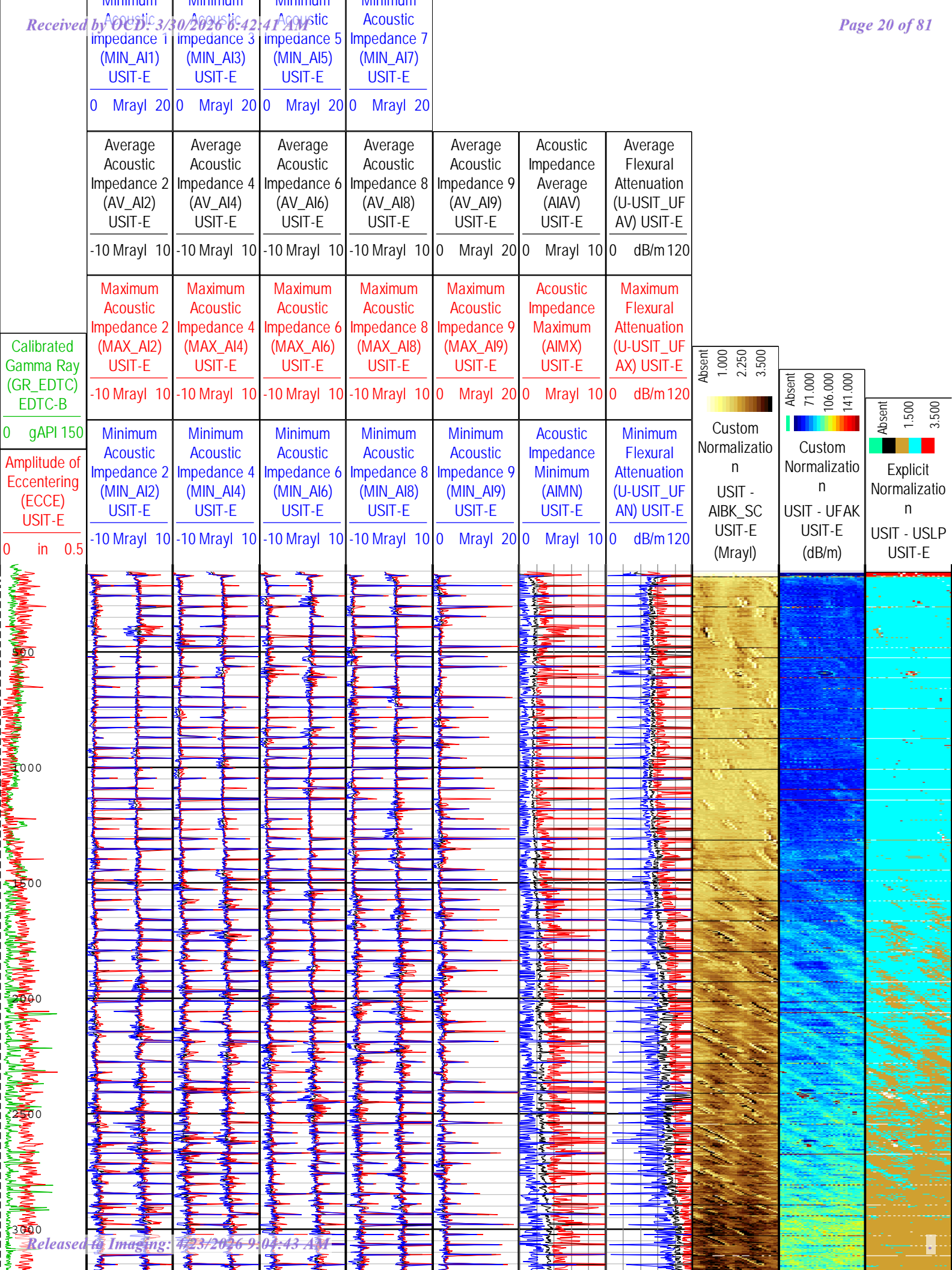
All depths are referenced to toolstring zero

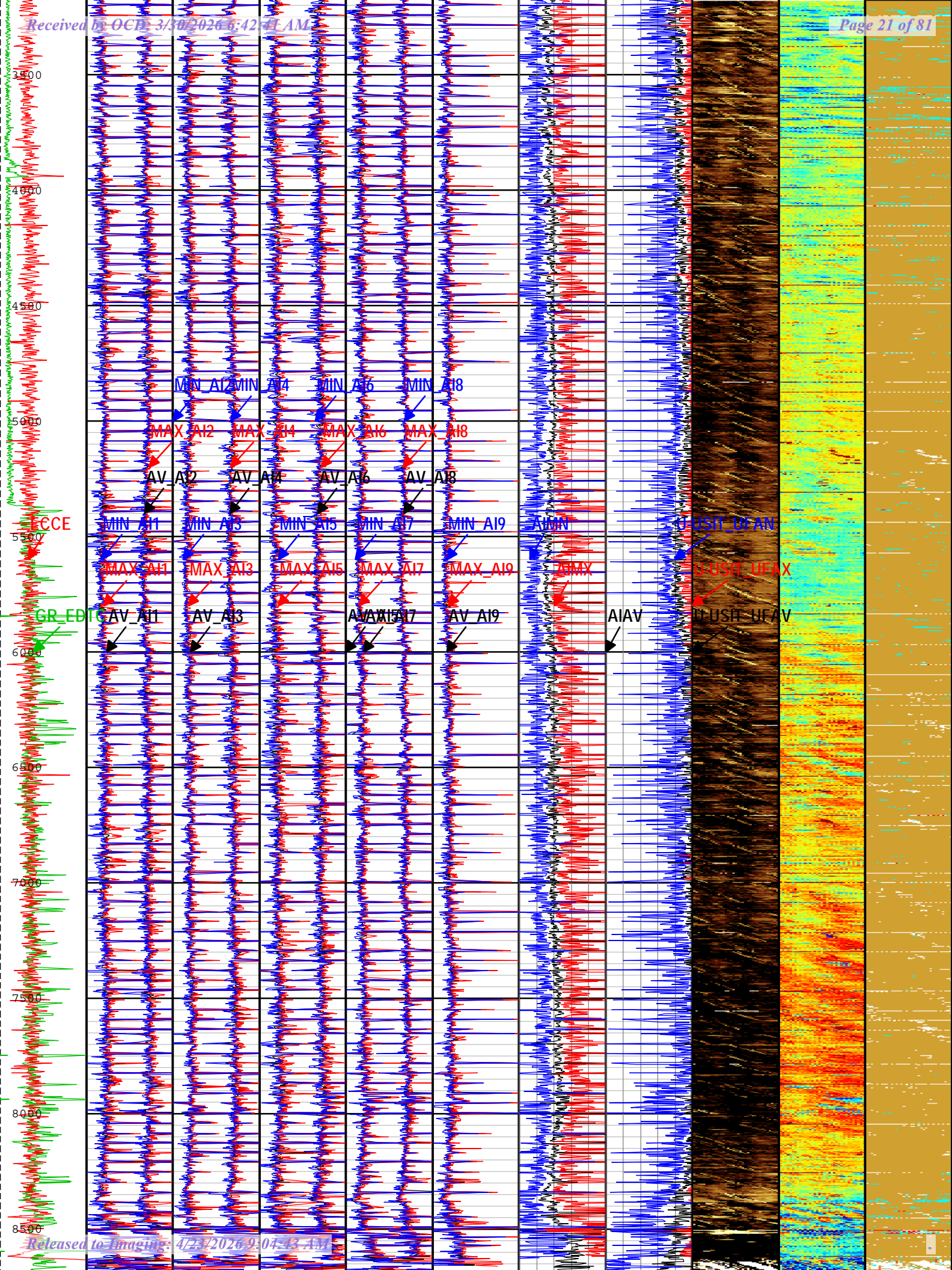
Log	Company:Devon	Well:Billiken 7 Fed 1H
		1A: Main[4]:Up:S008

Description: USI Goodwin Format: Log (Goodwin) Index Scale: 0.2 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 30-Nov-2015 20:14:27

TIME_1900 - Time Marked every 60.00 (s)

Average Acoustic Impedance 1 (AV_AI1) USIT-E	Average Acoustic Impedance 3 (AV_AI3) USIT-E	Average Acoustic Impedance 5 (AV_AI5) USIT-E	Average Acoustic Impedance 7 (AV_AI7) USIT-E
0 Mrayl 20	0 Mrayl 20	0 Mrayl 20	0 Mrayl 20
Maximum Acoustic Impedance 1 (MAX_AI1) USIT-E	Maximum Acoustic Impedance 3 (MAX_AI3) USIT-E	Maximum Acoustic Impedance 5 (MAX_AI5) USIT-E	Maximum Acoustic Impedance 7 (MAX_AI7) USIT-E
0 Mrayl 20	0 Mrayl 20	0 Mrayl 20	0 Mrayl 20
Minimum	Minimum	Minimum	Minimum





ECCE

GR_EDT

MIN_A12 MIN_A14 MIN_A16 MIN_A18

MAX_A12 MAX_A14 MAX_A16 MAX_A18

AV_A12 AV_A14 AV_A16 AV_A18

MIN_A11 MIN_A13 MIN_A15 MIN_A17 MIN_A19

MAX_A11 MAX_A13 MAX_A15 MAX_A17 MAX_A19

AV_A11 AV_A13 AV_A15 AV_A17 AV_A19

AV

USIT_UFAN

USIT_UFAX

USIT_UFAX

Calibrated Gamma Ray (GR_EDTC) EDTC-B 0 gAPI 150	Average Acoustic Impedance 1 (AV_AI1) USIT-E	Average Acoustic Impedance 3 (AV_AI3) USIT-E	Average Acoustic Impedance 5 (AV_AI5) USIT-E	Average Acoustic Impedance 7 (AV_AI7) USIT-E	Average Acoustic Impedance 9 (AV_AI9) USIT-E	Acoustic Impedance Average (AIAV) USIT-E	Average Flexural Attenuation (U-USIT_UF AV) USIT-E
	0 Mrayl 20	0 Mrayl 20	0 Mrayl 20	0 Mrayl 20	0 Mrayl 20	0 Mrayl 10	0 dB/m 120
Amplitude of Eccentering (ECCE) USIT-E 0 in 0.5	Maximum Acoustic Impedance 1 (MAX_AI1) USIT-E	Maximum Acoustic Impedance 3 (MAX_AI3) USIT-E	Maximum Acoustic Impedance 5 (MAX_AI5) USIT-E	Maximum Acoustic Impedance 7 (MAX_AI7) USIT-E	Maximum Acoustic Impedance 9 (MAX_AI9) USIT-E	Acoustic Impedance Maximum (AIMX) USIT-E	Maximum Flexural Attenuation (U-USIT_UF AX) USIT-E
	0 Mrayl 20	0 Mrayl 20	0 Mrayl 20	0 Mrayl 20	0 Mrayl 20	0 Mrayl 10	0 dB/m 120
	Minimum Acoustic Impedance 1 (MIN_AI1) USIT-E	Minimum Acoustic Impedance 3 (MIN_AI3) USIT-E	Minimum Acoustic Impedance 5 (MIN_AI5) USIT-E	Minimum Acoustic Impedance 7 (MIN_AI7) USIT-E	Minimum Acoustic Impedance 9 (MIN_AI9) USIT-E	Acoustic Impedance Minimum (AIMN) USIT-E	Minimum Flexural Attenuation (U-USIT_UF AN) USIT-E
	0 Mrayl 20	0 Mrayl 20	0 Mrayl 20	0 Mrayl 20	0 Mrayl 20	0 Mrayl 10	0 dB/m 120
	Average Acoustic Impedance 2 (AV_AI2) USIT-E	Average Acoustic Impedance 4 (AV_AI4) USIT-E	Average Acoustic Impedance 6 (AV_AI6) USIT-E	Average Acoustic Impedance 8 (AV_AI8) USIT-E			
	-10 Mrayl 10	-10 Mrayl 10	-10 Mrayl 10	-10 Mrayl 10			
	Maximum Acoustic Impedance 2 (MAX_AI2) USIT-E	Maximum Acoustic Impedance 4 (MAX_AI4) USIT-E	Maximum Acoustic Impedance 6 (MAX_AI6) USIT-E	Maximum Acoustic Impedance 8 (MAX_AI8) USIT-E			
	-10 Mrayl 10	-10 Mrayl 10	-10 Mrayl 10	-10 Mrayl 10			
	Minimum Acoustic Impedance 2 (MIN_AI2) USIT-E	Minimum Acoustic Impedance 4 (MIN_AI4) USIT-E	Minimum Acoustic Impedance 6 (MIN_AI6) USIT-E	Minimum Acoustic Impedance 8 (MIN_AI8) USIT-E			
	-10 Mrayl 10	-10 Mrayl 10	-10 Mrayl 10	-10 Mrayl 10			

TIME_1900 - Time Marked every 60.00 (s)

Description: USI Goodwin Format: Log (Goodwin) Index Scale: 0.2 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 30-Nov-2015 20:14:27

Channel Processing Parameters

1A: Parameters

Parameter	Description	Tool	Value	Unit
ISSBAR	Barite Mud Presence Flag	Borehole	No	
BS	Bit Size	WLSESSION	Depth Zoned	in
CDEN	Cement Density	USIT-E	10.2	lbm/gal
CMTY(U-USIT_CEMT)	Cement Type	USIT-E	Light Cement	
THNO	Nominal Casing Thickness - Zoned along logger depths	WLSESSION	0.304	in
DFD	Drilling Fluid Density	Borehole	9	lbm/gal
DFT	Drilling Fluid Type	Borehole	Water	
D1MD	Borehole Fluid Slowness	Borehole	198	us/ft

FD	Fluid Density	USIT-E	10	lbm/gal
FDII	FPM Data Interpolation Interval	USIT-E	0	ft
HEMA	Hematite Presence Flag	Borehole	No	
IBC_FRP_OFFSET	IBC Flexural Offset from Free Pipe	USIT-E	-5.67	dB/m
FSOD	USIT IBC Fluid Slowness Fits Casing Outer Diameter	USIT-E	0_OFF	
IBC_FVEL_SEL	IBC Fluid Velocity Selection	USIT-E	Automatic	
IBC_OFFSET_SEL	IBC Flexural Offset Selector	USIT-E	UFAO	
IBC_ZMUD_SEL	IBC Mud Impedance Selection	USIT-E	FreePipe Norm.	
ICE_PROCESS	ICE Processing	USIT-E	Yes	
IMAR	Image Rotation	USIT-E	Off	
MEAS_WLEN	Tcube Processing Window Length in Measurement Mode	USIT-E	18.79	us
MUD_N_FRP	Free Pipe Mud Normalization Factor	USIT-E	1.06	
MUD_N_INV	IBC Inversion Mud Normalization Factor	USIT-E	0	
U-USIT_OCDI	Outer Casing Diameter	USIT-E	0	in
U-USIT_OCSH	Outer Casing Shoe	USIT-E	0	ft
U-USIT_OCWE	Outer Casing Weight	USIT-E	0	lbm/ft
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	USIT-E	1.7	Mrayl
U-USIT_UFAO	SIT Flexural Attenuation Offset	USIT-E	-13.99	dB/m
UFGDE	Fiberglass Density	USIT-E	16.27	lbm/gal
UFGPS	Fiberglass Processing Selection	USIT-E	No	
UFGVL	Fiberglass Velocity	USIT-E	9678.48	ft/s
U-USIT_UIAP	IBC Answer Product Enabled	USIT-E	SolidLiquidGasMap	
ZMUD	Acoustic Impedance of Mud	Borehole	1.7	Mrayl

Depth Zone Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	17.5	120	1185
BS	12.25	1185	5381
BS	8.5	5381	8800.5

All depth are actual.

Tool Control Parameters

1A: Parameters

Parameter	Description	Tool	Value	Unit
AGMN	Minimum Gain of Cartridge	USIT-E	-12	dB
AGMX	Maximum Gain of Cartridge	USIT-E	54	dB
U-USIT_DDT5	USIC Downhole Decimation for T5 only	USIT-E	0_NONE	
EMXV	EMEX Voltage	USIT-E	40	V
TMUC	Type of Mud	USIT-E	BRI	
U-USIT_UFWB	Far Receiver Window Begin Time	USIT-E	Time Zoned	us
U-USIT_UFWE	Far Receiver Window End Time	USIT-E	Time Zoned	us
ULOG	Logging Objective	USIT-E	MEASUREMENT	
UMFR	Modulation Frequency	USIT-E	333333	Hz
U-USIT_UNWB	Near Receiver Window Begin Time	USIT-E	Time Zoned	us
U-USIT_UNWE	Near Receiver Window End Time	USIT-E	Time Zoned	us
USFR	Ultrasonic Sampling Frequency	USIT-E	500000	Hz
UPAT	USIT Emission Pattern	USIT-E	Pattern 500 KHz	
UWKM	USIT Working Mode	USIT-E	10 deg at 6.0 in LF	
USIT_DEPTHLOG	Starting Depth Log for Ultrasonics	USIT-E	8803	ft
U-USIT_UTAN	Transducer Angles	USIT-E	33_DEG	
VRES	Vertical Resolution	USIT-E	6.0 in	

Time Zone Parameters

Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
U-USIT_UFWB	134	30-Nov-2015 12:16:29	30-Nov-2015 13:22:09	8801.78	6492.66
U-USIT_UFWB	128.75	30-Nov-2015 13:22:09	30-Nov-2015 15:53:30	6492.66	154.99
U-USIT_UFWE	174	30-Nov-2015 12:16:29	30-Nov-2015 14:01:54	8801.78	4774.03
U-USIT_UFWE	183.48	30-Nov-2015 14:01:54	30-Nov-2015 15:53:30	4774.03	154.99
U-USIT_UNWB	103	30-Nov-2015 12:16:29	30-Nov-2015 13:22:12	8801.78	6490.49
U-USIT_UNWB	94.35	30-Nov-2015 13:22:12	30-Nov-2015 15:53:30	6490.49	154.99
U-USIT_UNWE	143	30-Nov-2015 12:16:29	30-Nov-2015 13:47:12	8801.78	5414.2
U-USIT_UNWE	147.52	30-Nov-2015 13:47:12	30-Nov-2015 14:01:56	5414.2	4773.05
U-USIT_UNWE	153.77	30-Nov-2015 14:01:56	30-Nov-2015 15:53:30	4773.05	154.99
WINE	70.74	30-Nov-2015 12:16:29	30-Nov-2015 13:13:45	8801.78	6846.98
WINE	70.91	30-Nov-2015 13:13:45	30-Nov-2015 13:25:33	6846.98	6349.08
WINE	74.35	30-Nov-2015 13:25:33	30-Nov-2015 14:01:58	6349.08	4770.98
WINE	81.23	30-Nov-2015 14:01:58	30-Nov-2015 15:53:30	4770.98	154.99

All depth are at tool zero.

1A

Main Pass - 1000psi

Software Version

Acquisition System	Version
Maxwell 2014 SP3	5.3.47551.3100
Application Patch	Maxwell_NPD-PNX-2014-SP3_5.3.54796

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
1A	Main[4]:Up	Up	154.99 ft	8801.78 ft	30-Nov-2015 12:16:29 PM	30-Nov-2015 3:53:30 PM	ON	-1.98 ft	Yes

All depths are referenced to toolstring zero

Log

Company:Devon Well:Billiken 7 Fed 1H
1A: Main[4]:Up:S008

Description: USI IBC SLG Format: Log (USI IBC SLG) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 30-Nov-2015 20:14:34

TIME_1900 - Time Marked every 60.00 (s)

USIT Processing Flags (UFLG[0]) USIT-E

- 1 - UFLG 1 Value within [0.0 - 1.5] - : UTIM Error
- 2 - UFLG 2 Value within [1.5 - 2.5] - : Pulse Origin Not Detected
- 3 - UFLG 3 Value within [2.5 - 3.5] - : WINLEN Error
- 4 - UFLG 4 UFLG 5 UFLG 6 Value within [3.5 - 6.5] - : Casing Thickness Error
- 5 - UFLG 7 UFLG 8 UFLG 9 Value within [6.5 - 10] - : Loop Processing Error

Amplitude of Eccentering (ECCE) USIT-E

0 in 0.5

0 gAPI 150

Motor Revolution Speed (RSAV) USIT-E
6 c/s 7.5

Casing Collar Locator Ultrasonic (CCLU) USIT-E
-19 in 1

Casing Collar Locator Amplitude (CCL) CAL-YA
-19 1

Explicit Normalization USIT - USIT Processing Flags (UFLG) USIT-E
USIT Processing Flags (UFLG[0]) USIT-E

Amplitude of Wave Minimum (AWMN) USIT-E
0 dB 75
Amplitude of Wave Average (AWAV) USIT-E
0 dB 75
Amplitude of Wave Maximum (AWMX) USIT-E
0 dB 75

Acoustic Impedance Minimum (AIMN) USIT-E
-1 Mrayl 9
Acoustic Impedance Average (AIAV) USIT-E
-1 Mrayl 9
Acoustic Impedance Maximum (AIMX) USIT-E
-1 Mrayl 9

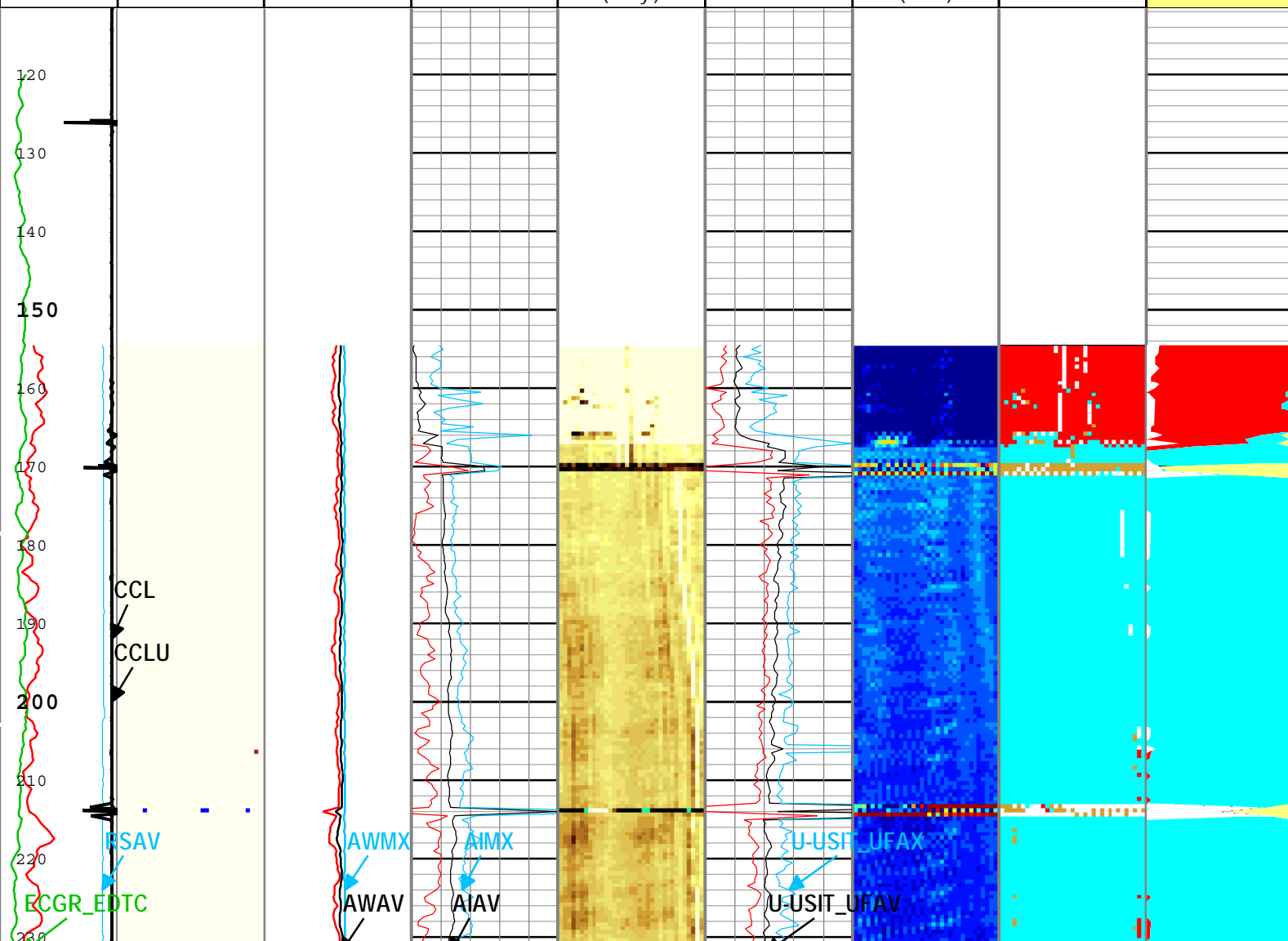
Custom Normalization USIT - Acoustic Impedance (AIBK) USIT-E (Mrayl)
Custom Normalization USIT - Acoustic Impedance (AIBK) USIT-E (Mrayl)

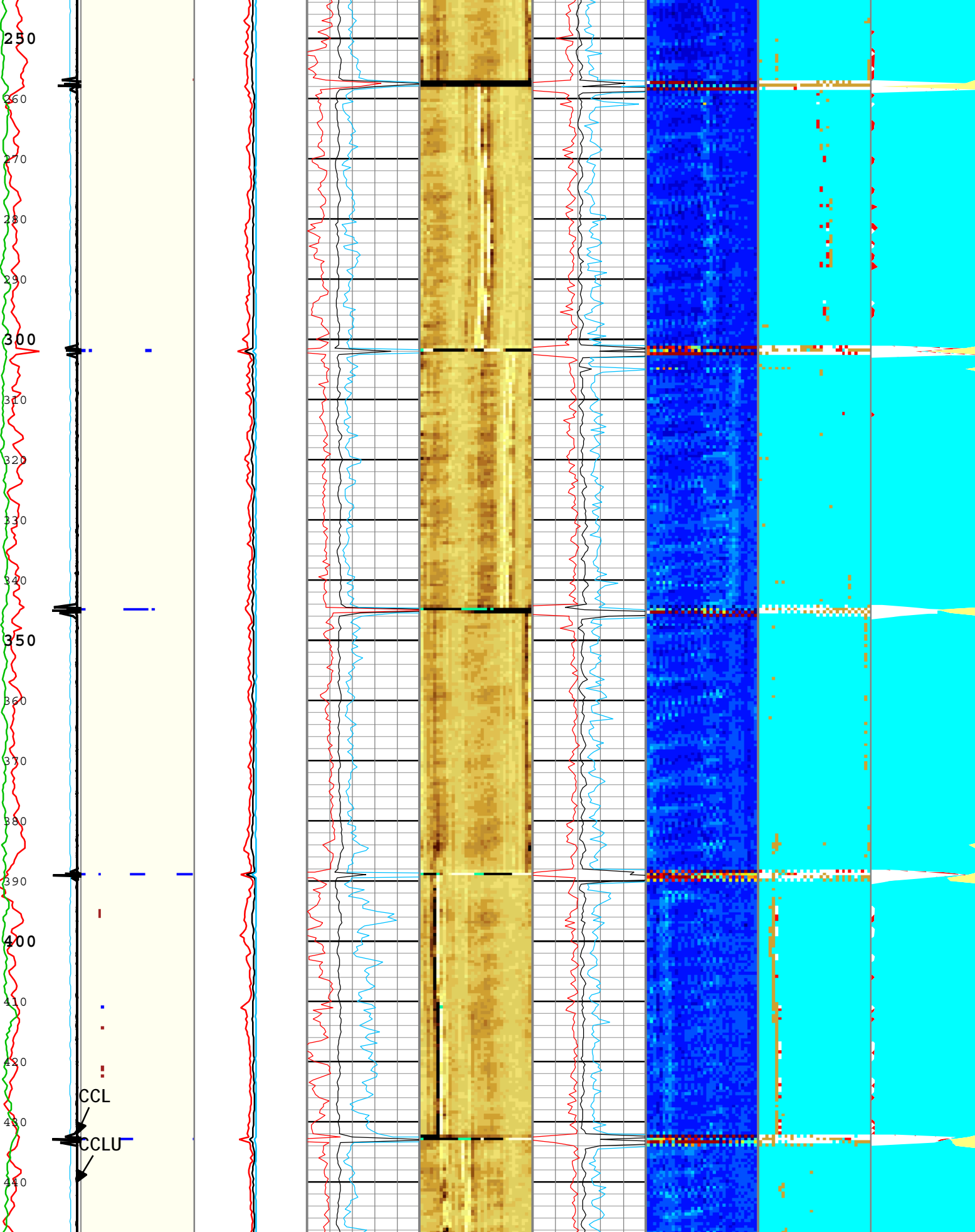
Minimum Flexural Attenuation (U-USIT_UFAN) USIT-E
20 dB/m 120
Average Flexural Attenuation (U-USIT_UFAV) USIT-E
20 dB/m 120
Maximum Flexural Attenuation (U-USIT_UFAX) USIT-E
20 dB/m 120

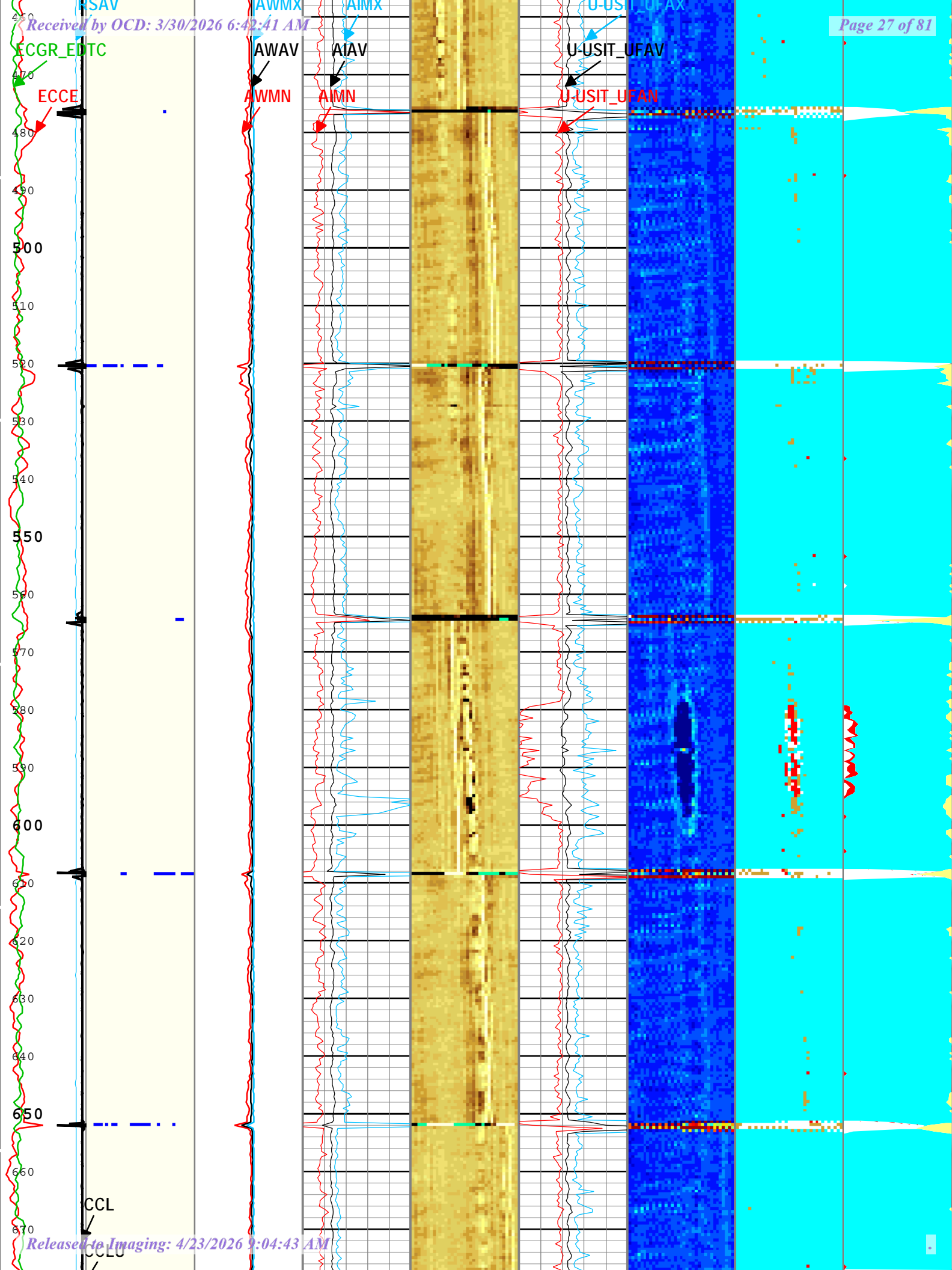
Custom Normalization USIT - Flexural Attenuation (UFAK) USIT-E (dB/m)

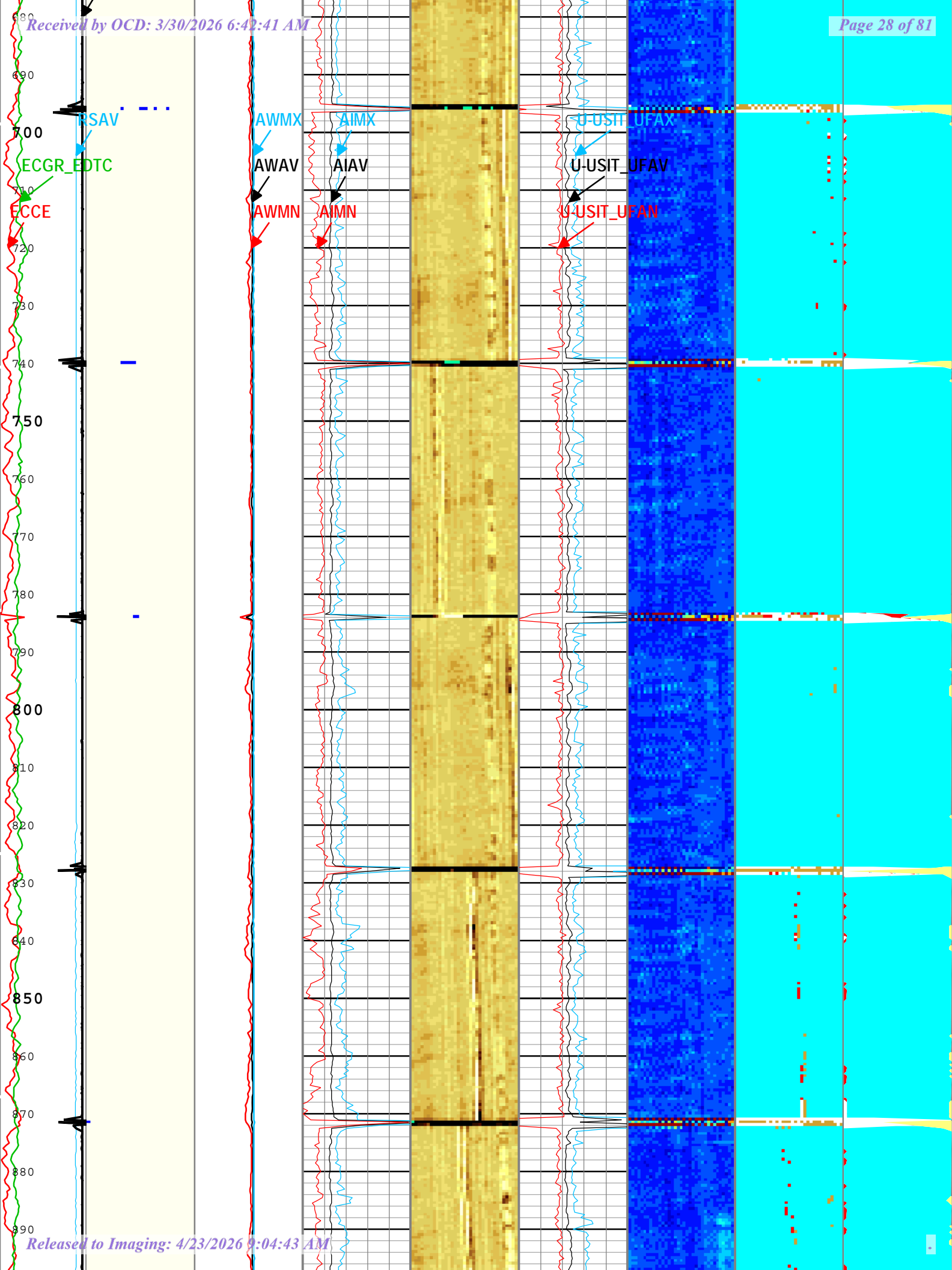
Explicit Normalization USIT - Solid Liquid Gas Sorted Color Map (USLP) USIT-E

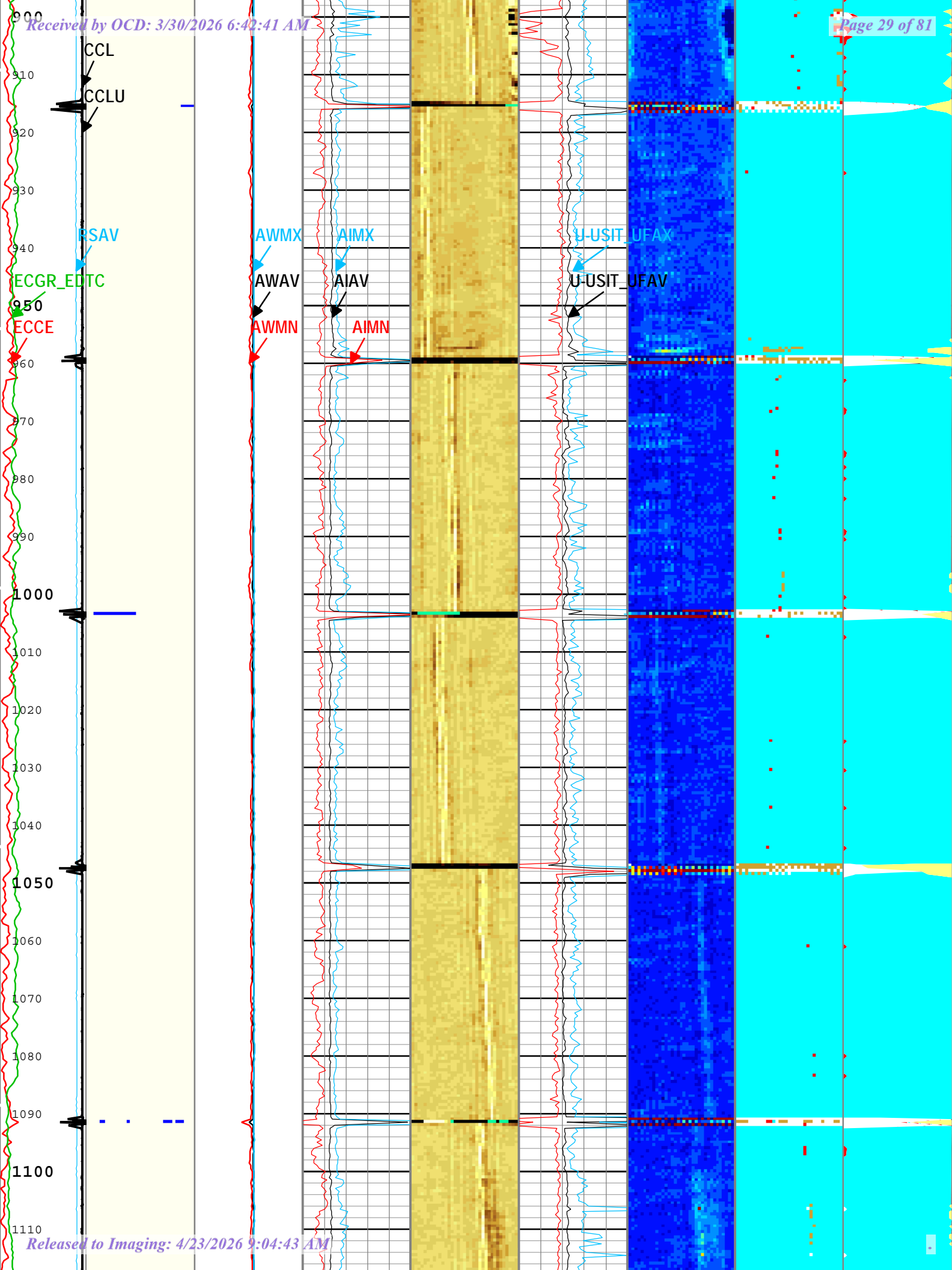
SLG White Points Ratio (USLGWR) USIT-E	1	0
SLG Liquid Ratio (USLGLR) USIT-E	1	0
SLG Cement Ratio (USLGCR) USIT-E	1	0
White points		
Gas		
Liquid		
Cement		

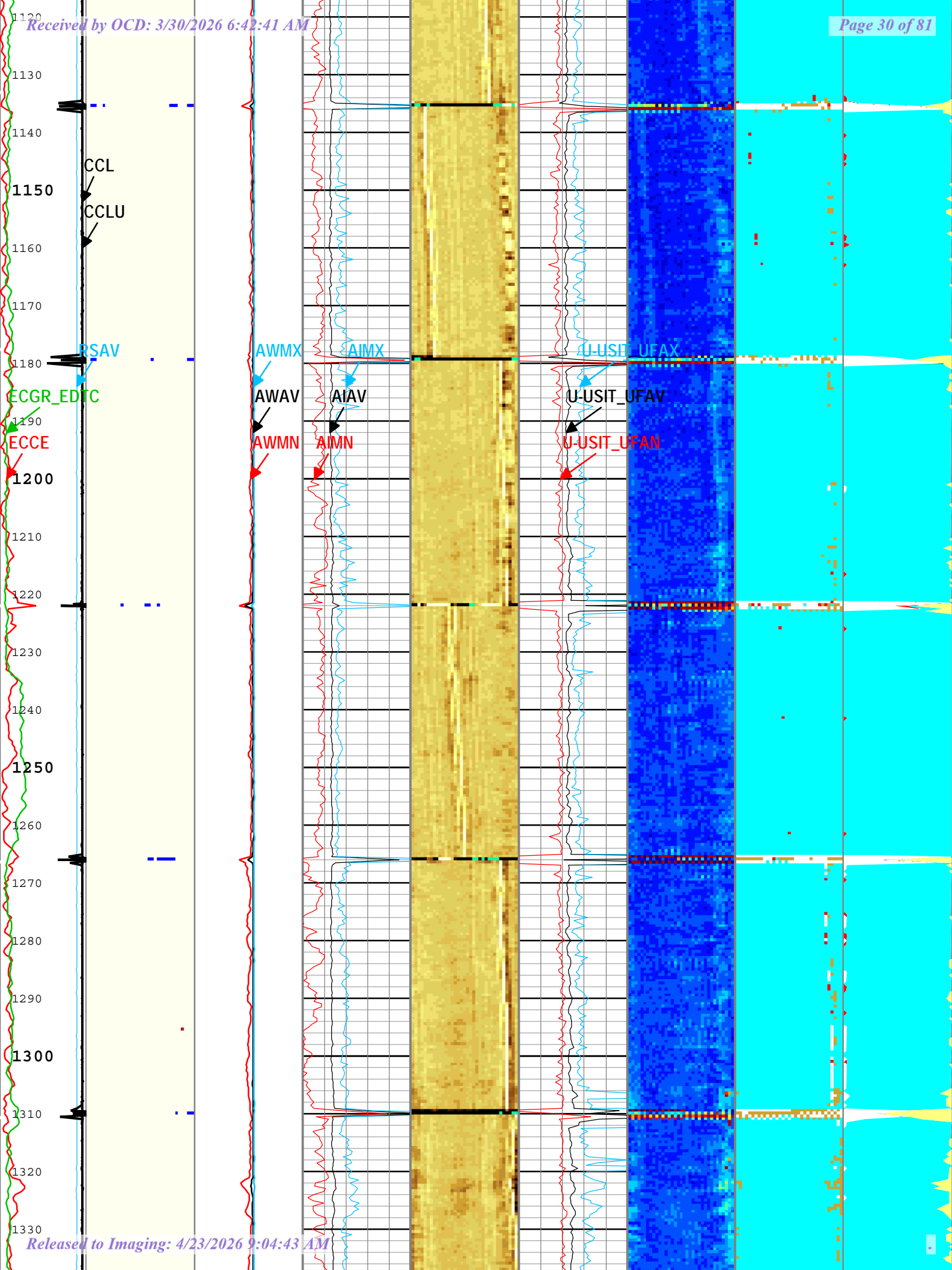


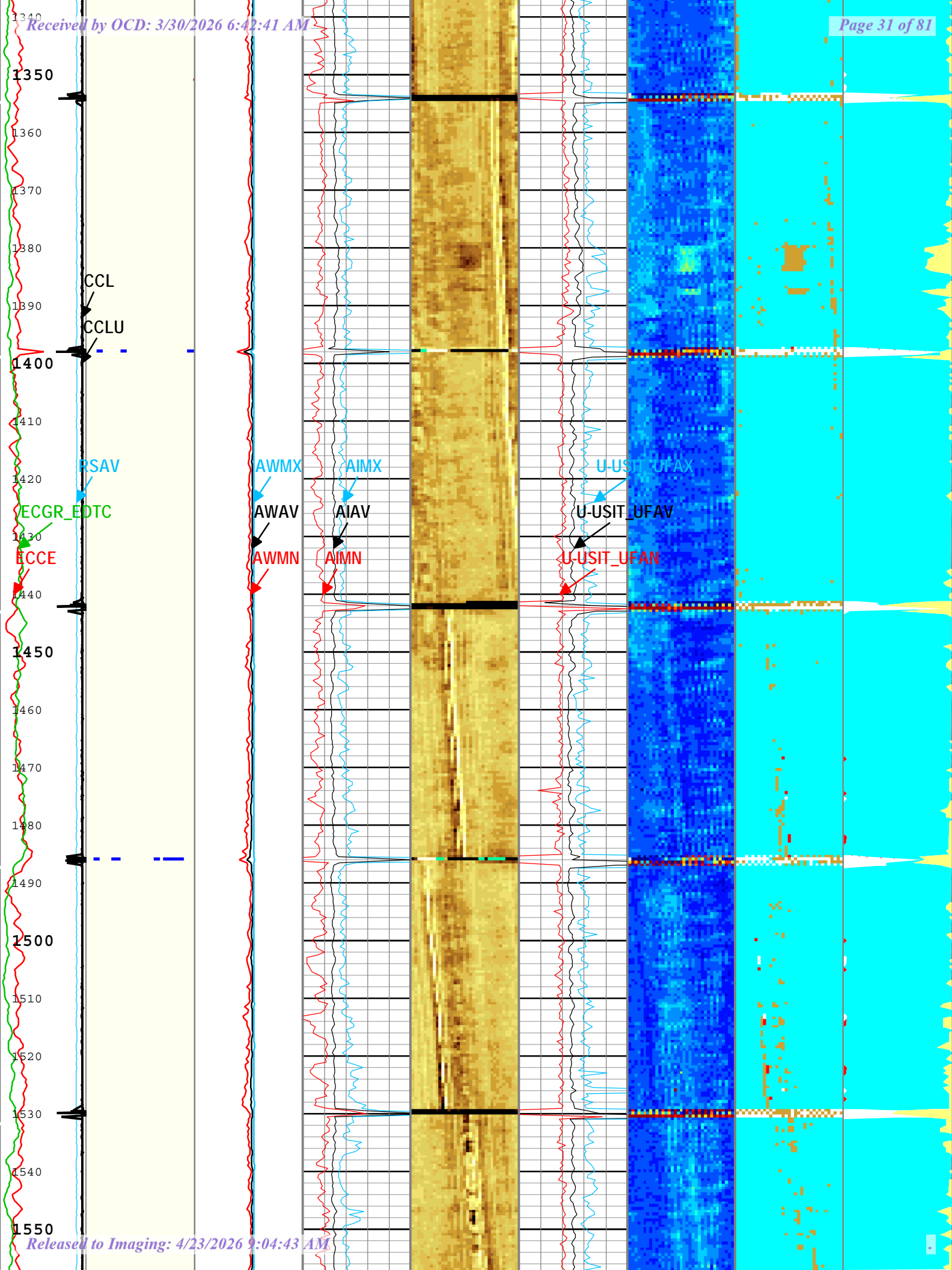


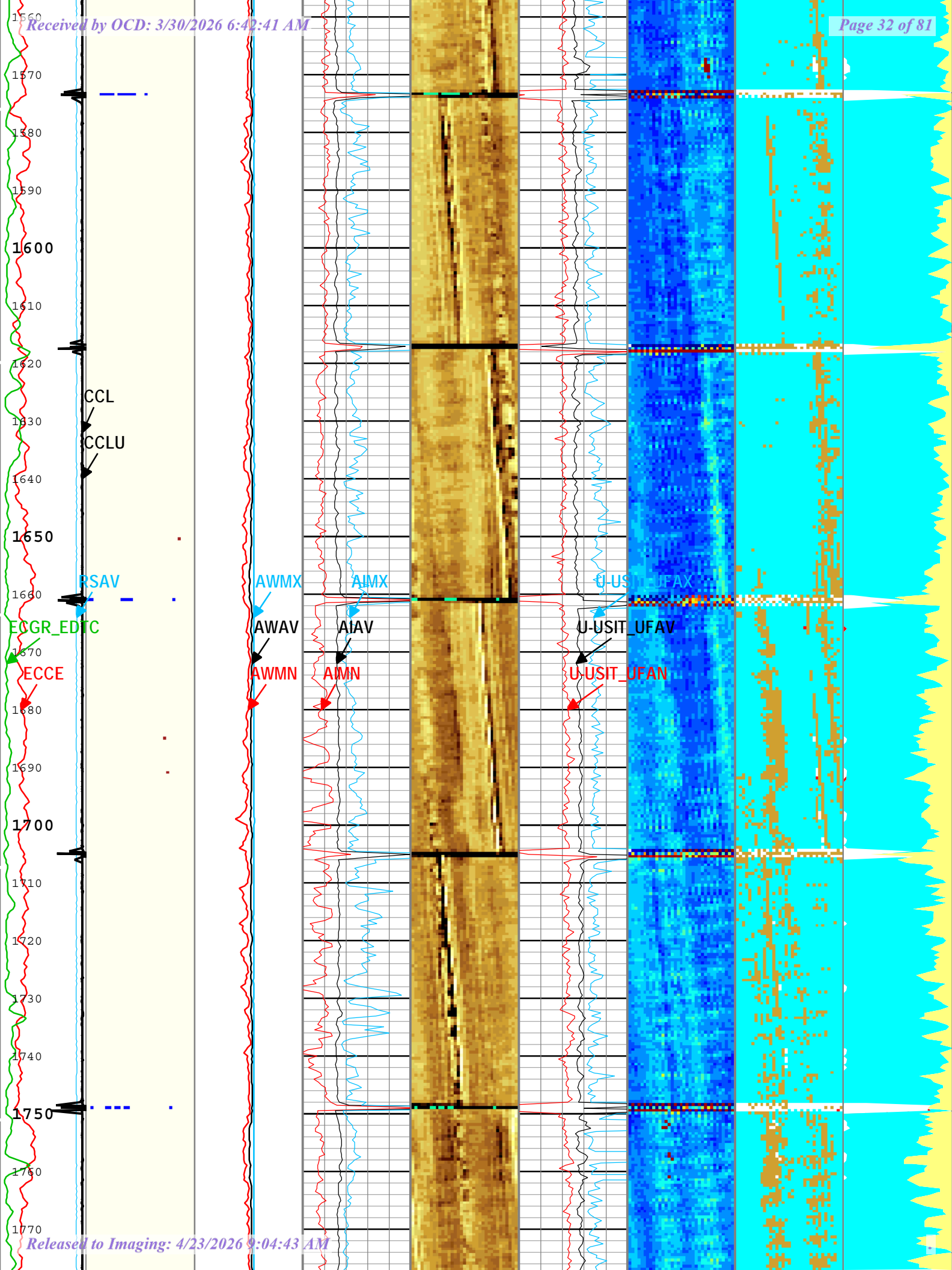












1600

CCL

CCLU

1650

RSAV

ECGR_EDTC

ECCE

1700

1750

AWMX

AWAV

AWMN

AIMX

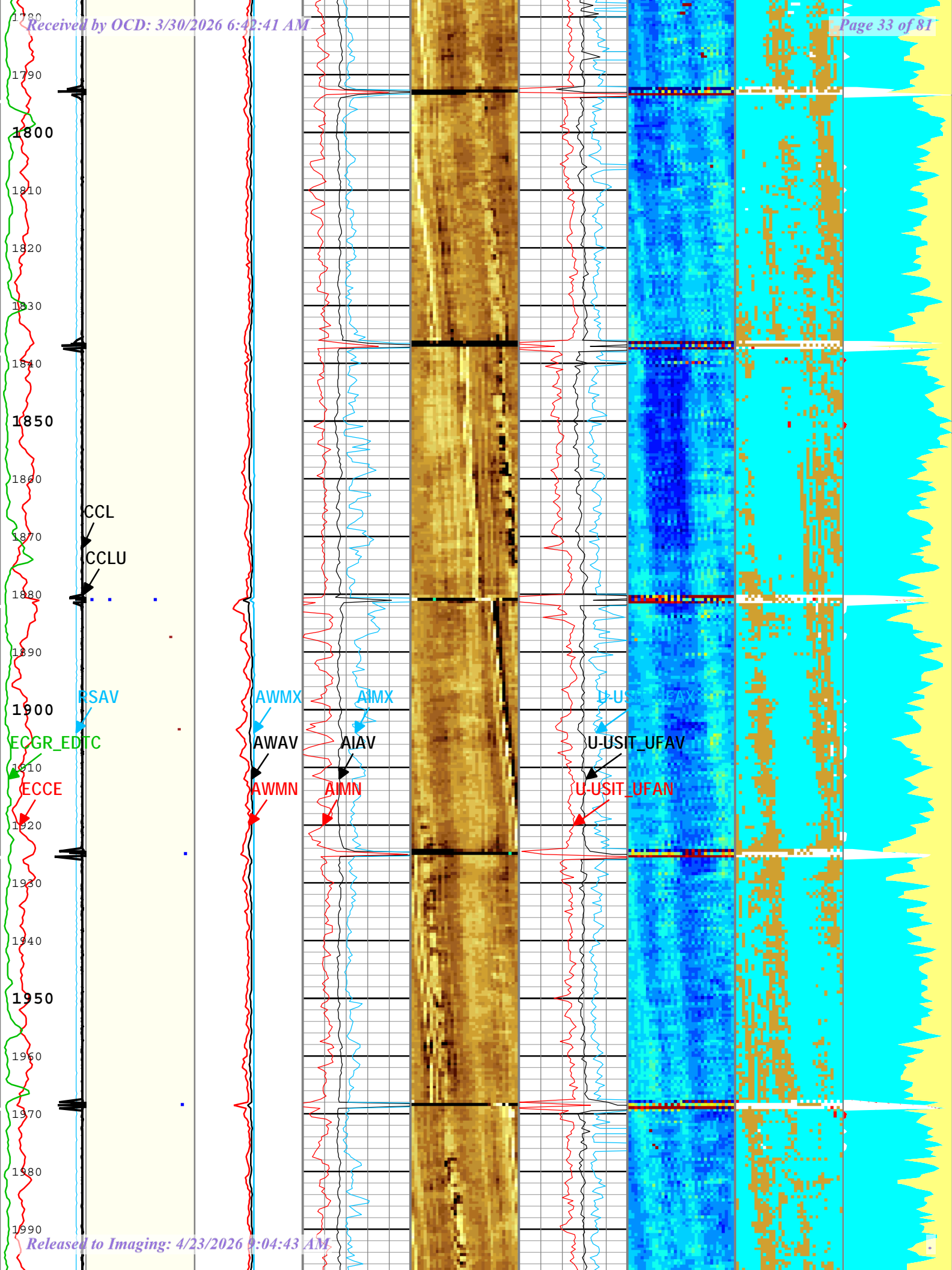
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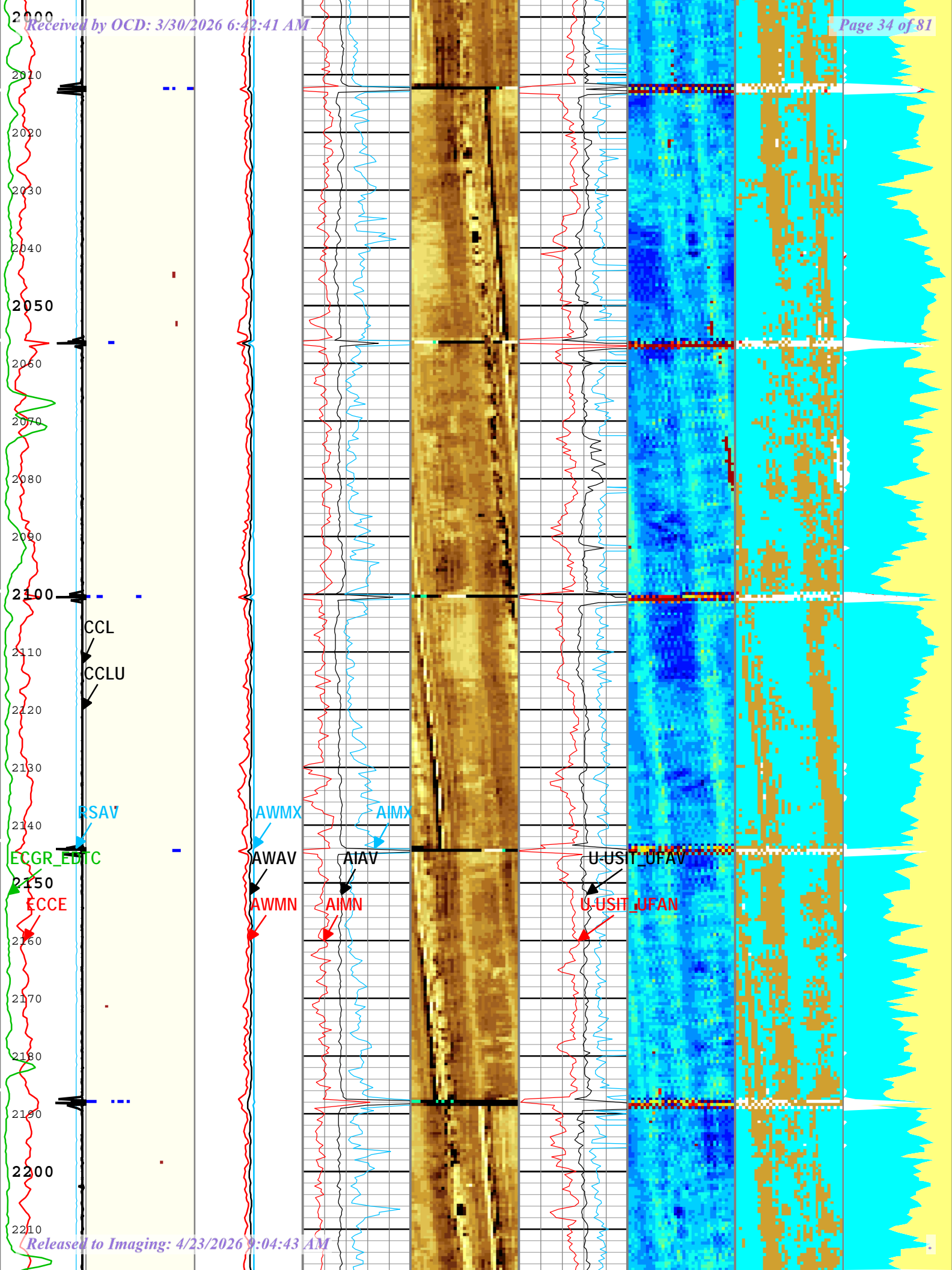
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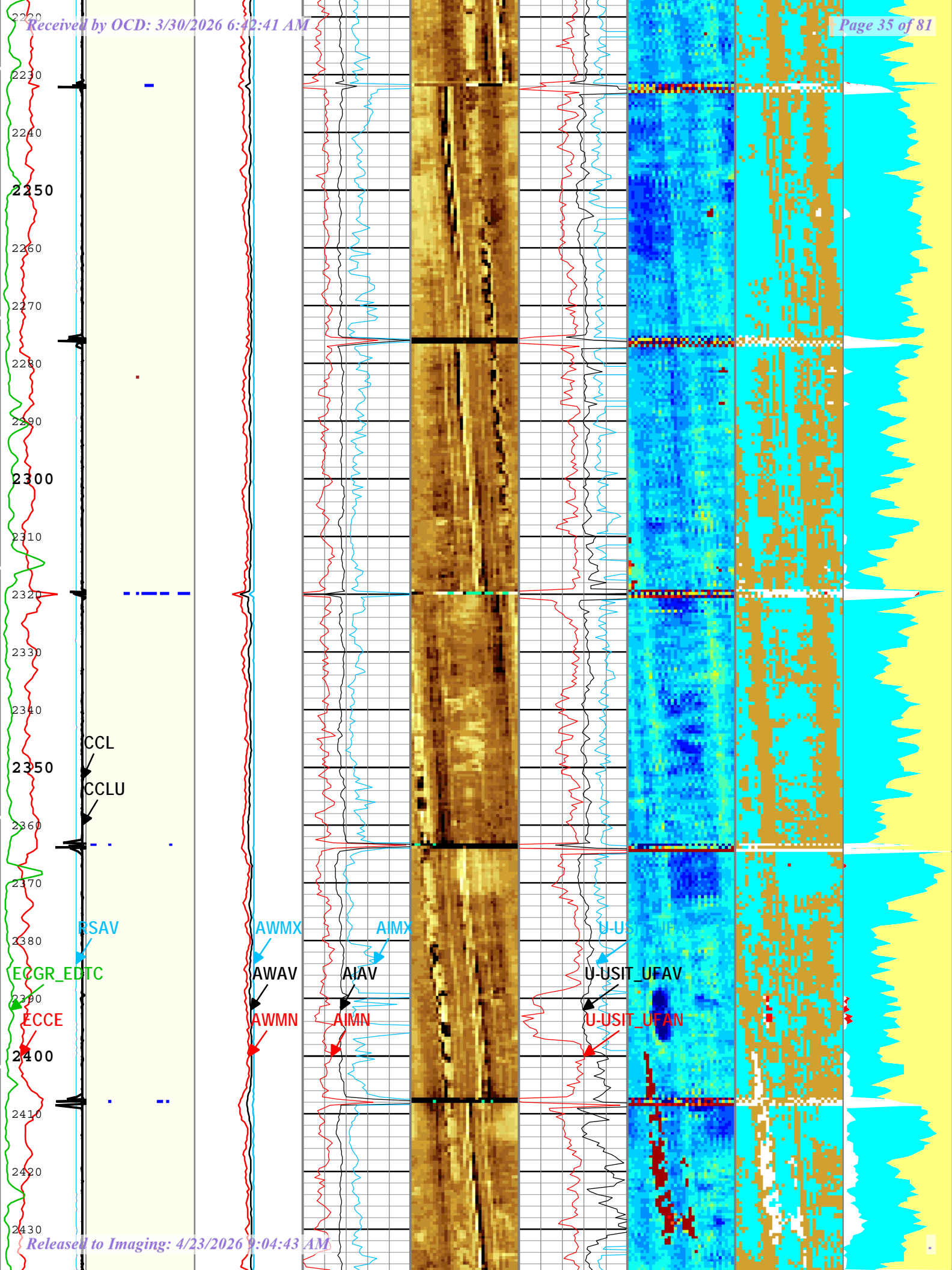
U-USIT_UFAX

U-USIT_UFAV

U-USIT_UFAN







2250

2300

2350

2400

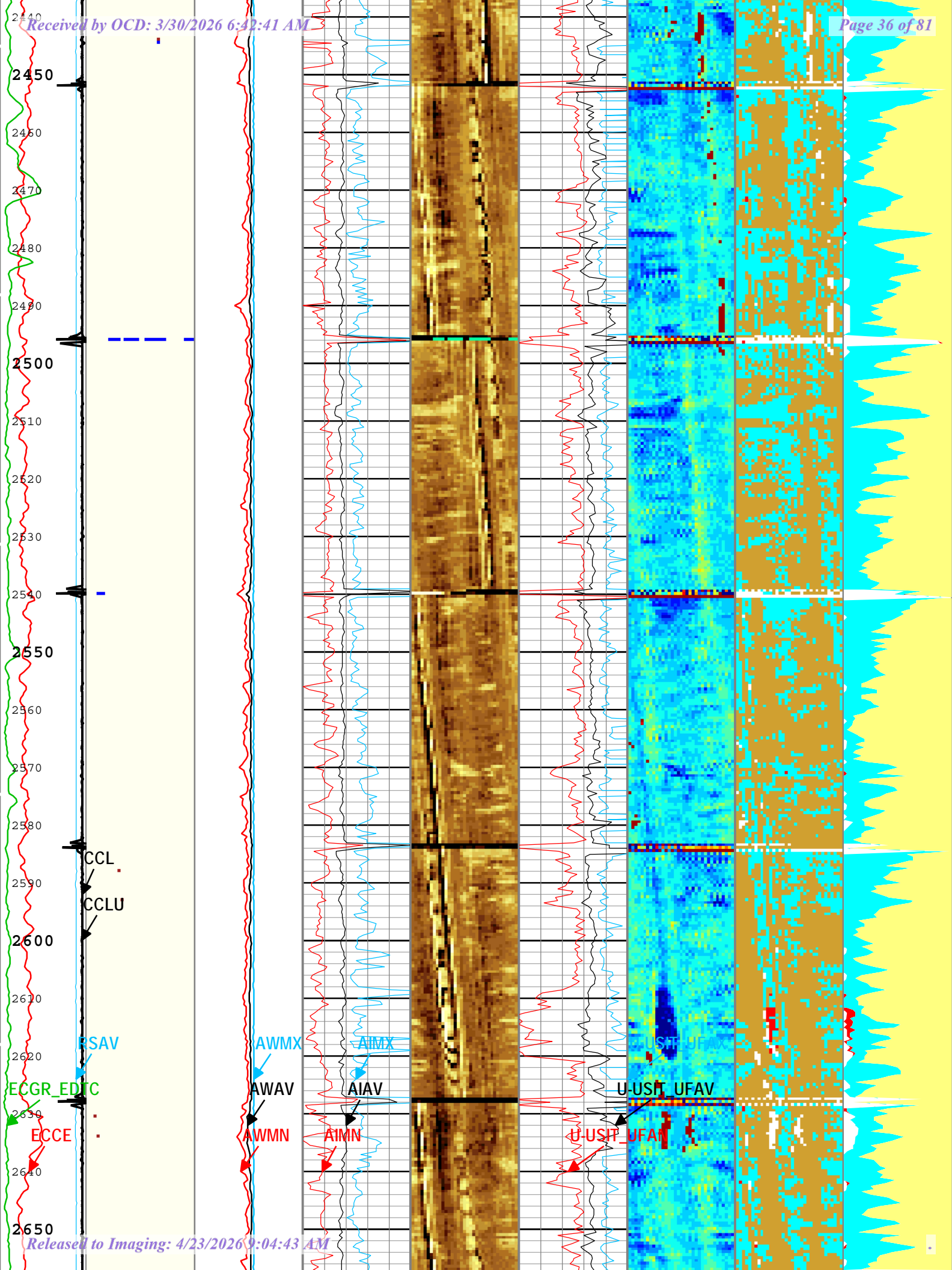
CCL
CCLU

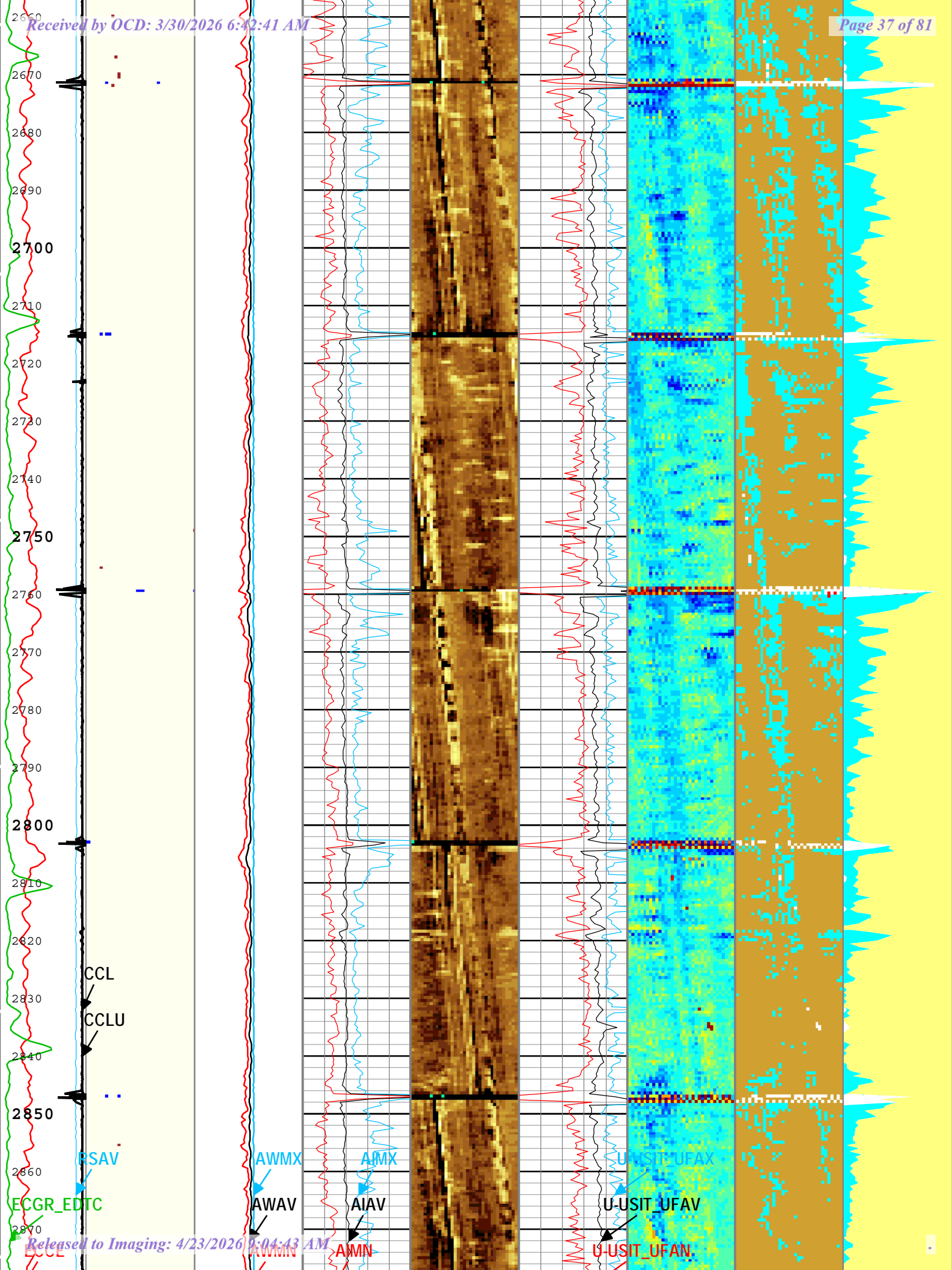
BSAV
ECGR_EDTC
ECCE

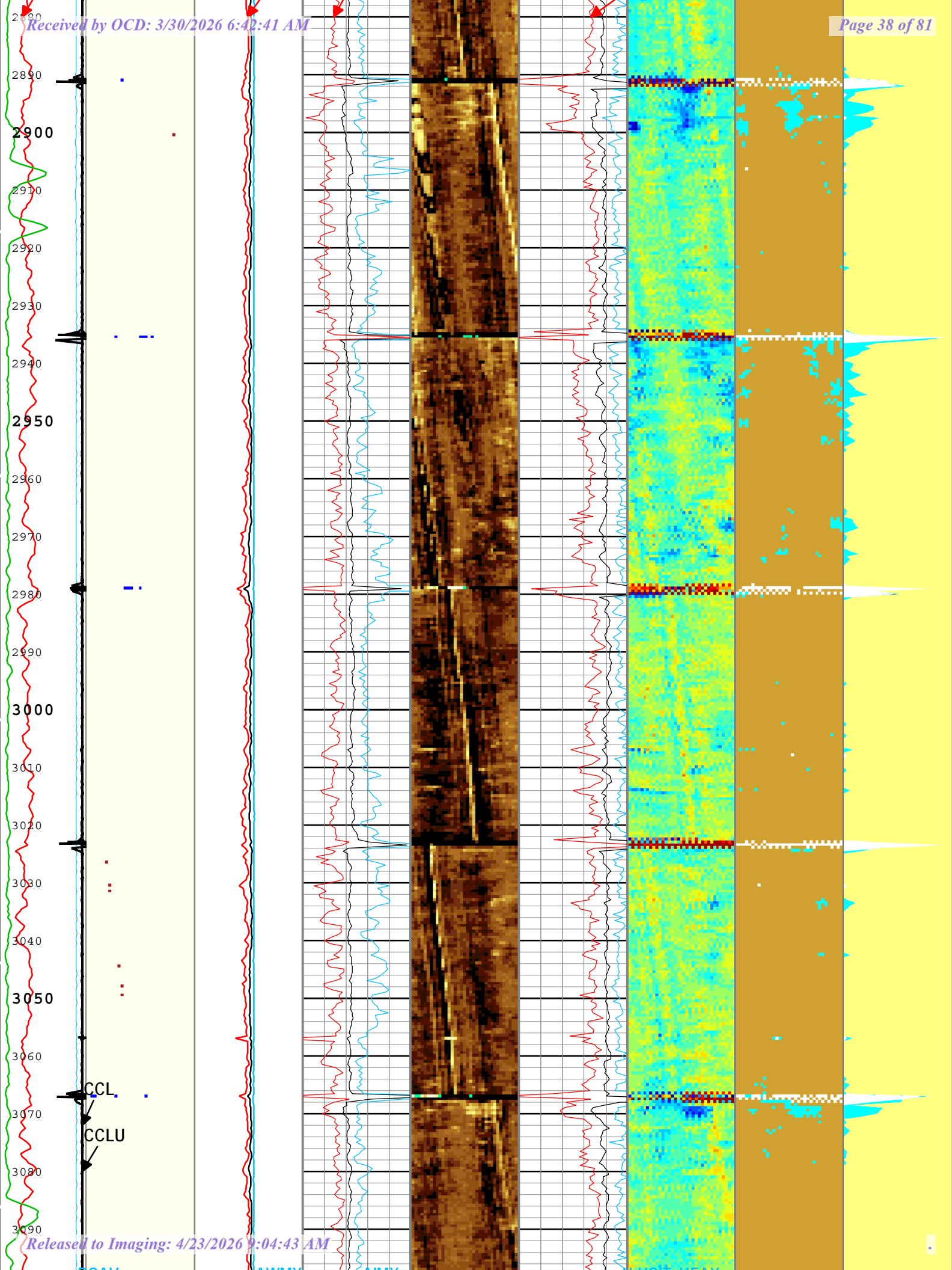
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AWAV
AWMN

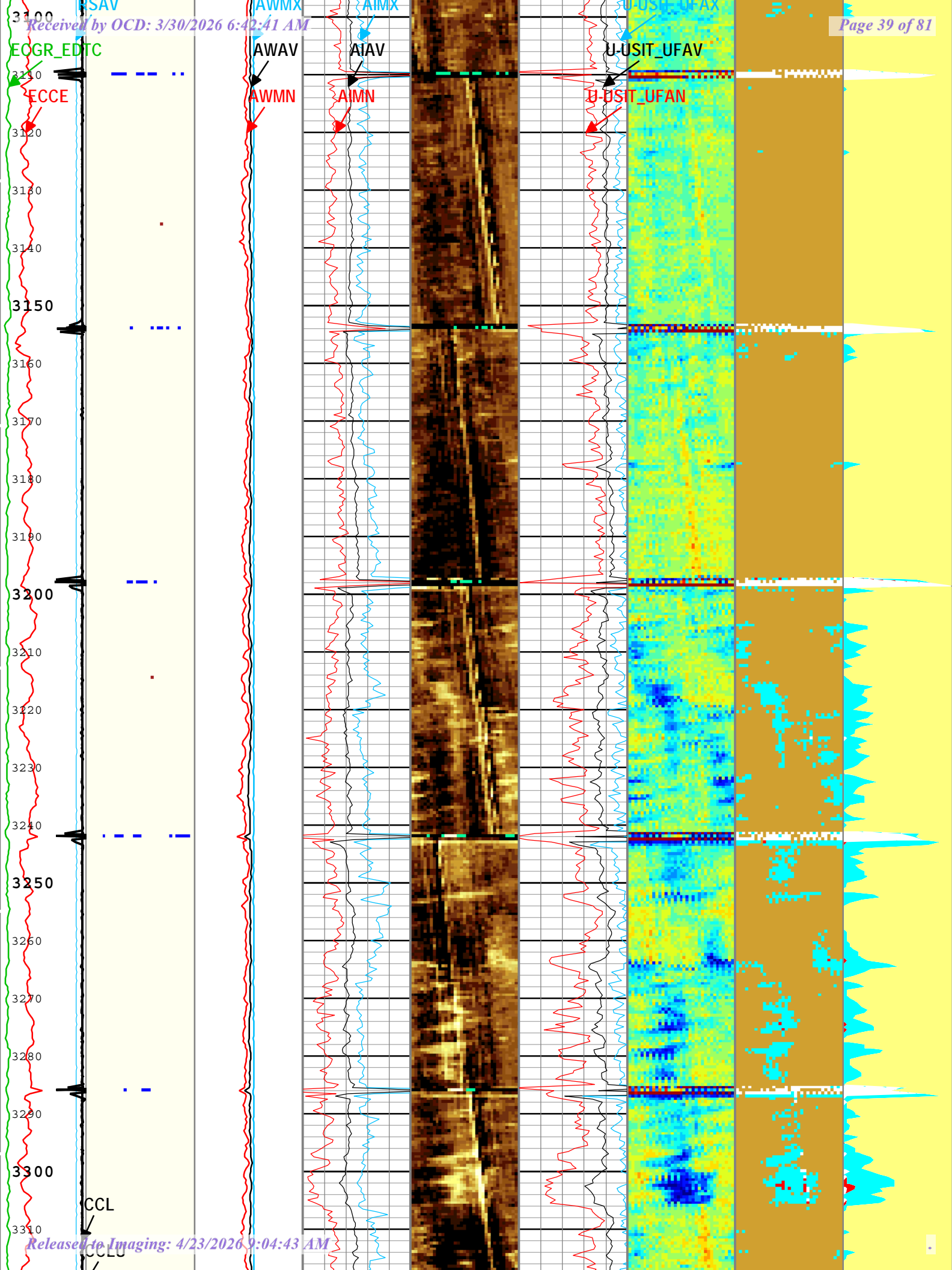
AIMX
AIAV
AIMN

U-USIT_UFAV
U-USIT_UFAN









Received by OCD: 3/30/2026 6:42:41 AM

ECGR_EDTC

ECCE

3150

3200

3250

3300

CCL

Released to Imaging: 4/23/2026 9:04:43 AM

AWAV

AWMN

AIAV

AIMN

U-USIT_UFAV

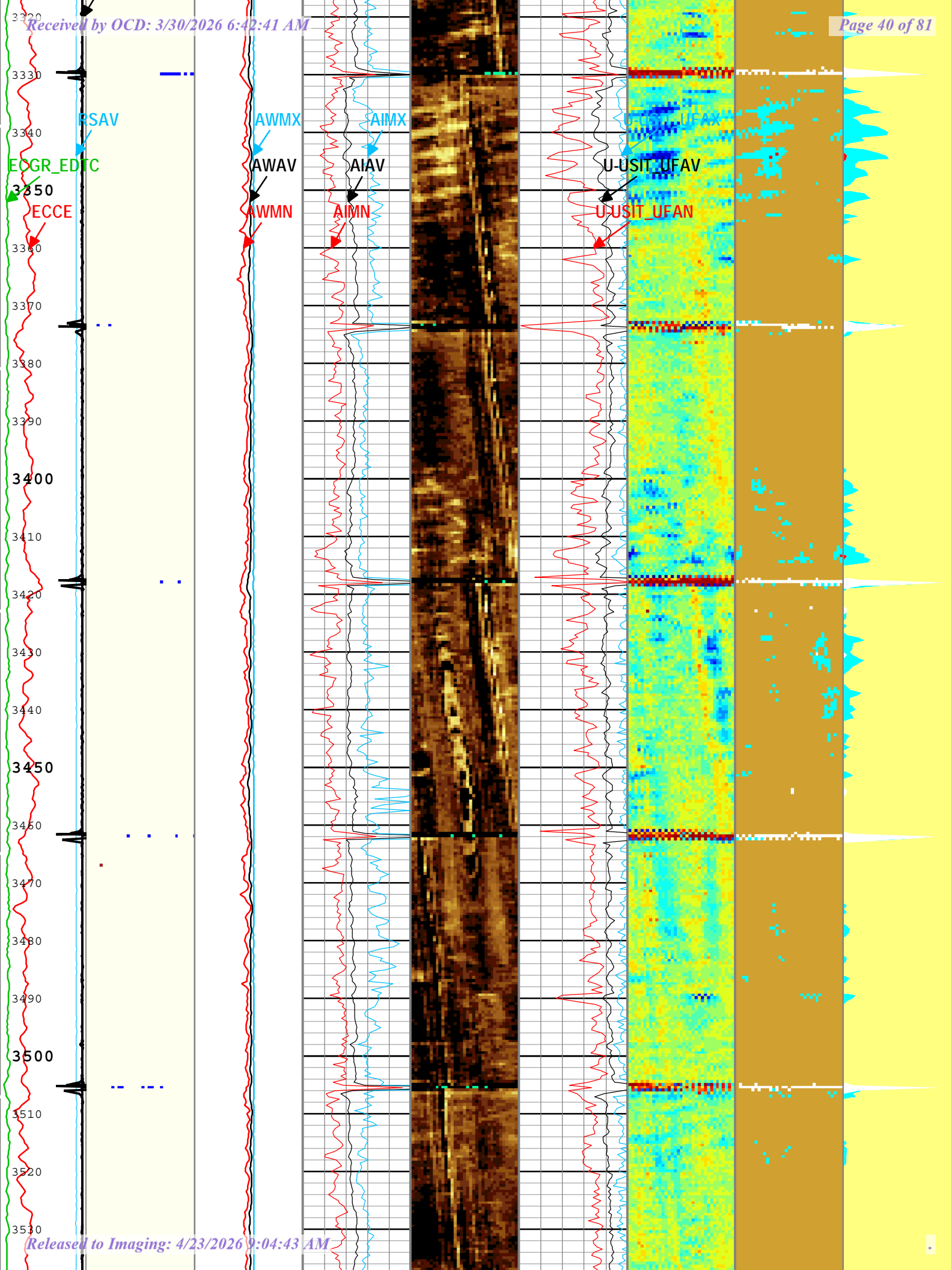
U-USIT_UFAN

AWMX

AIMX

U-USIT_UFAX

SAV



ECGR_EDTC

ECCE

AWMX

AWAV

AWMN

AIMX

AIAV

AIMN

U-USIT_UFAV

U-USIT_UFAN

3320

3330

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3390

3400

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3480

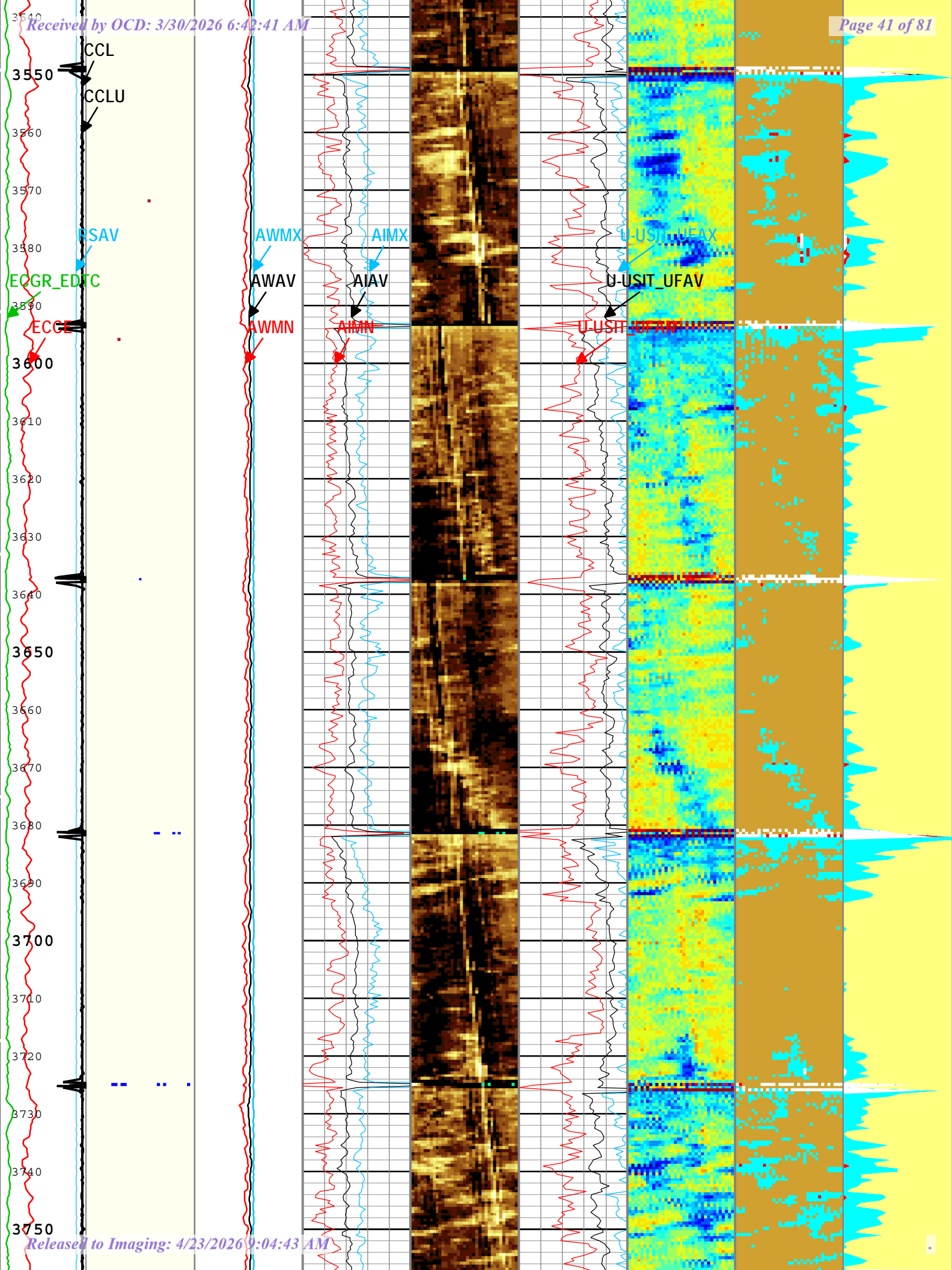
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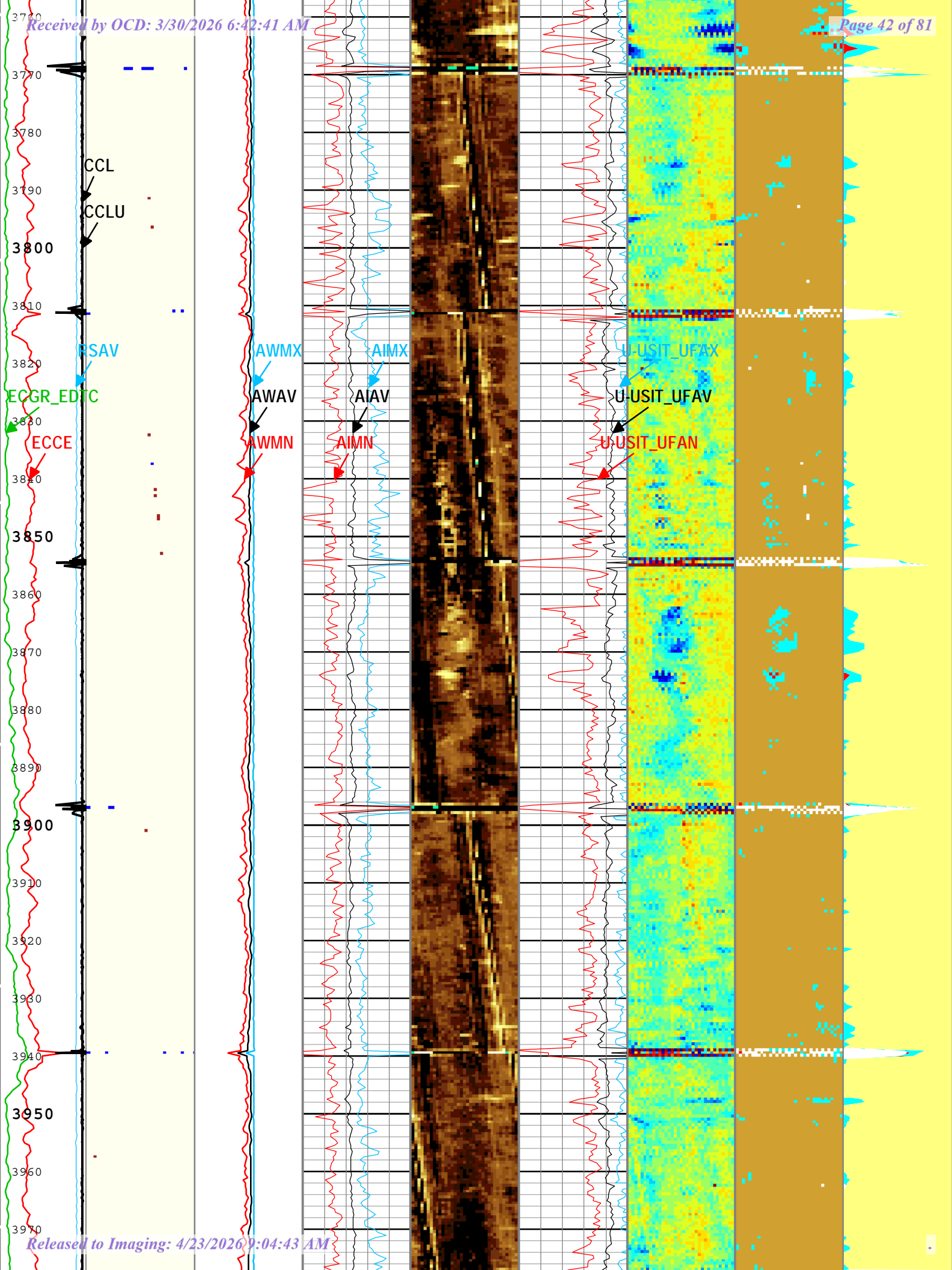
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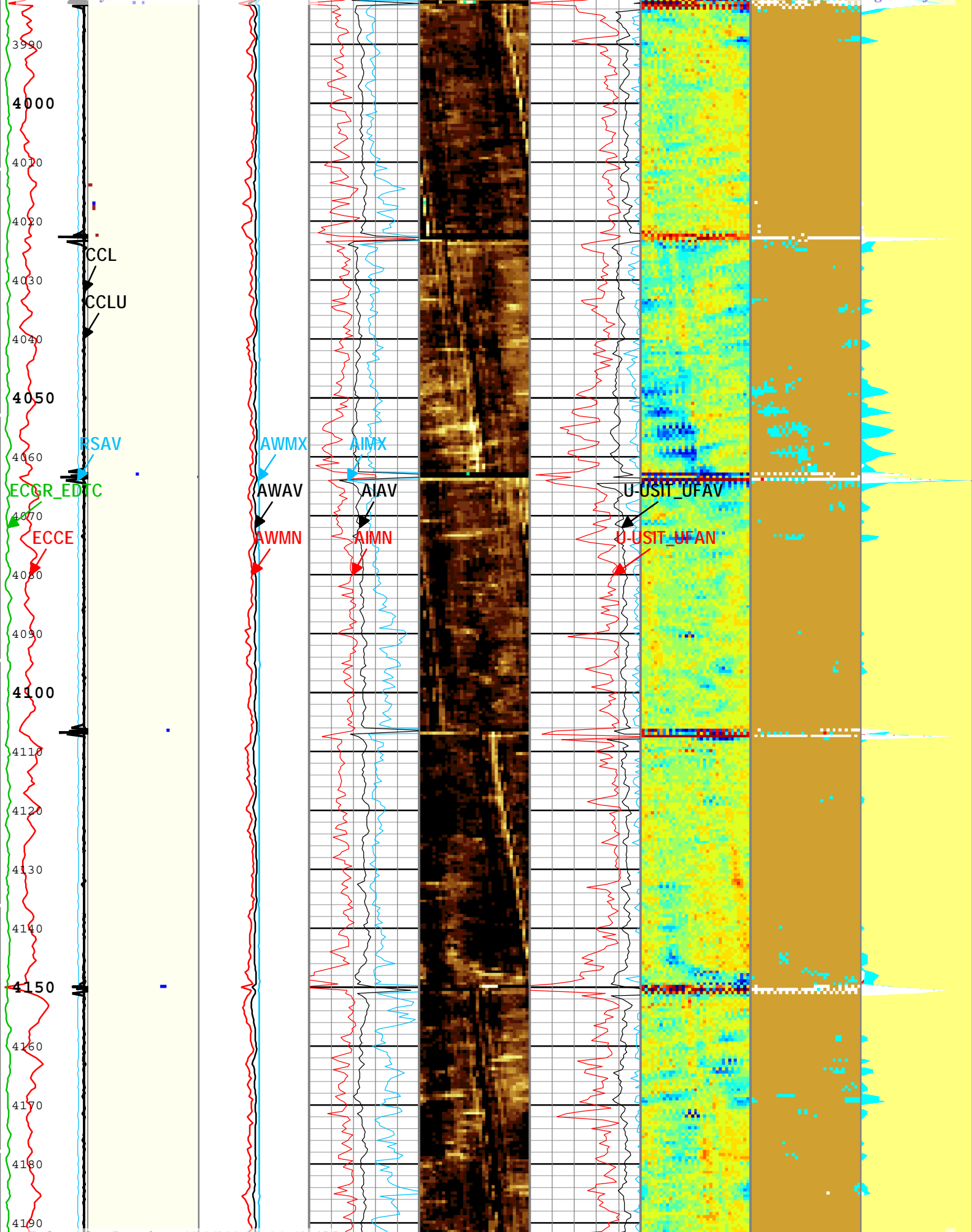
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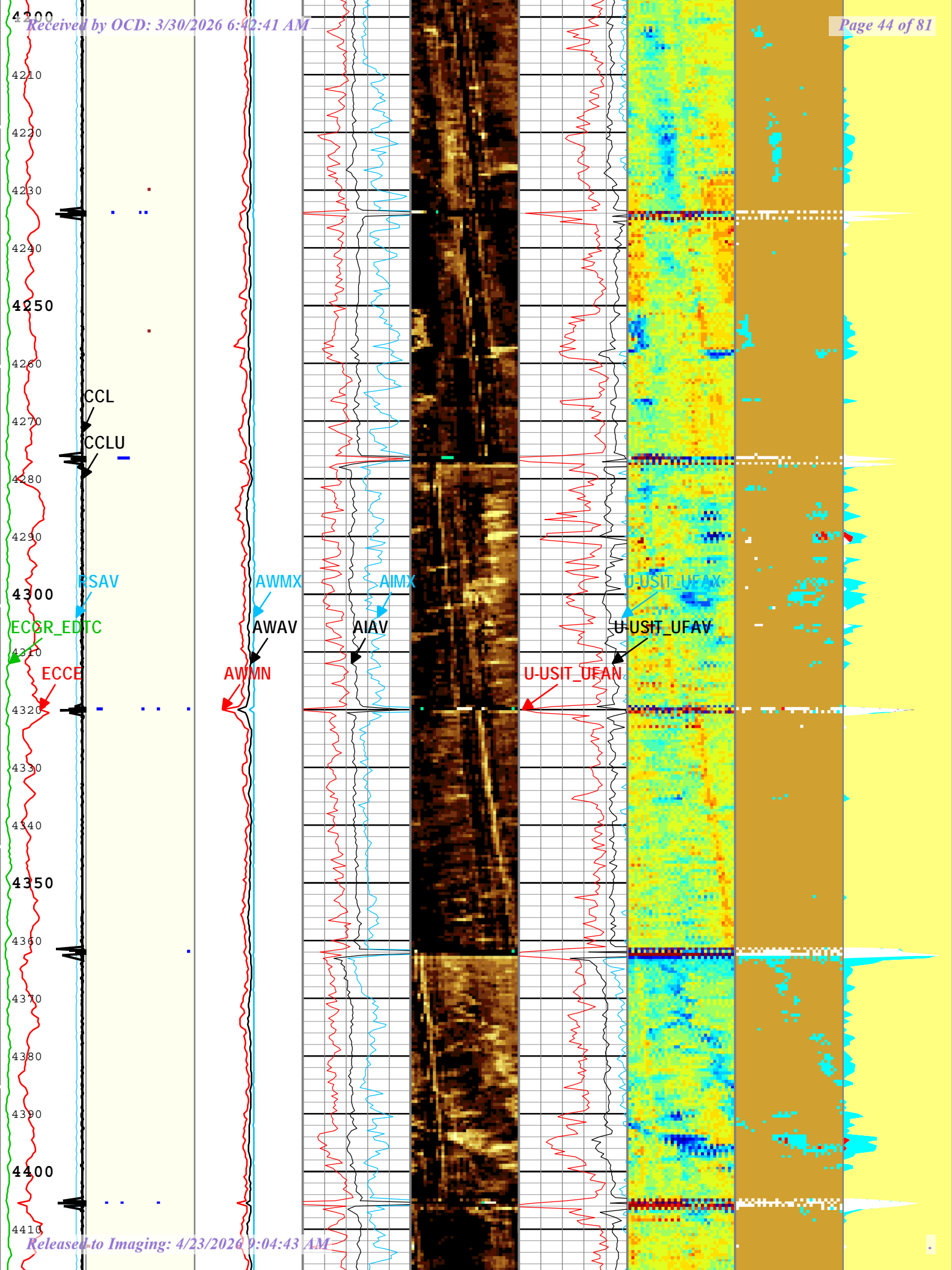
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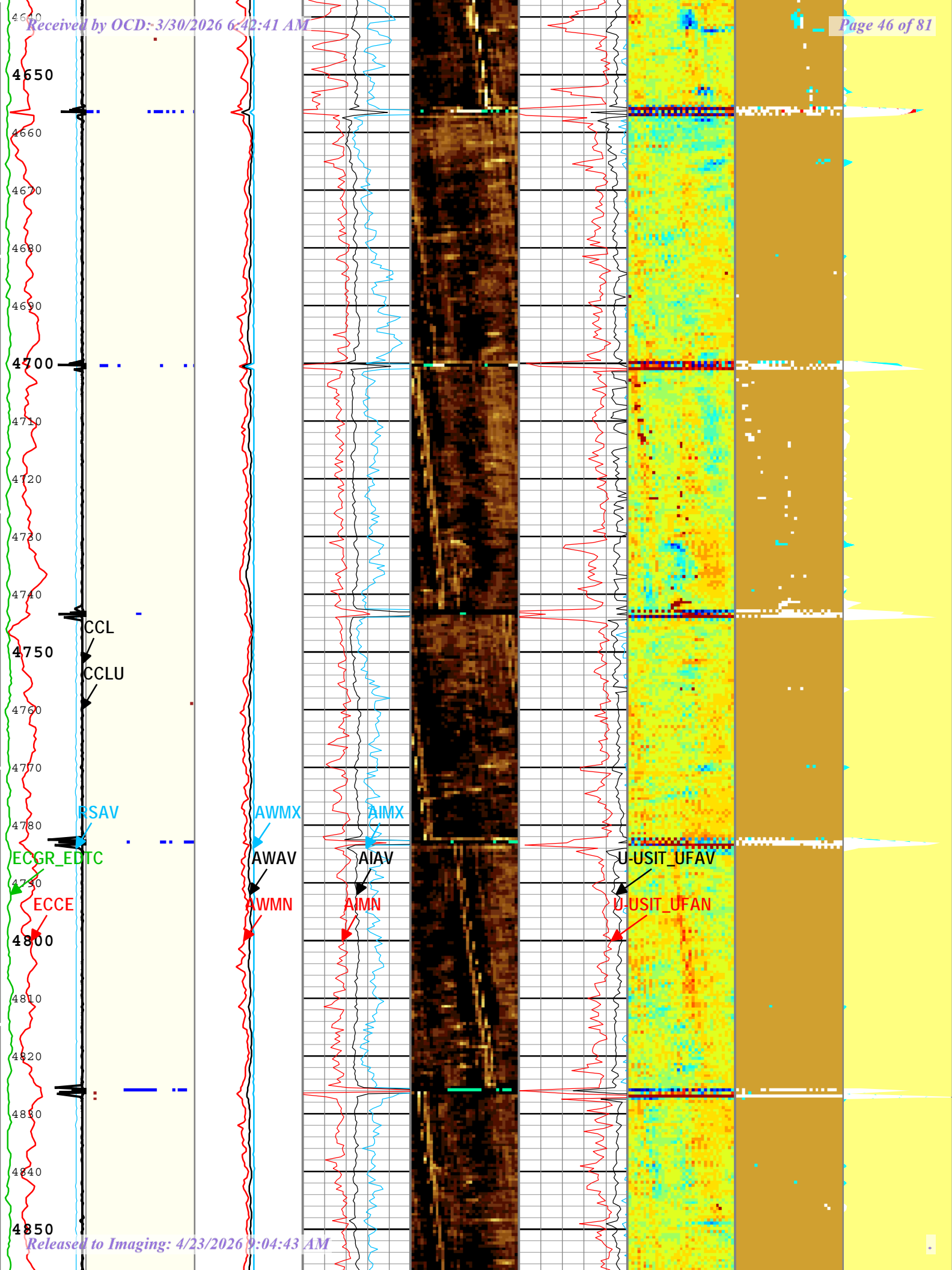
3530











4650
4660
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4690
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4850

CCL
CCLU

RAV

ECGR_EDTC

ECCE

AWMX

AWAV

AWMN

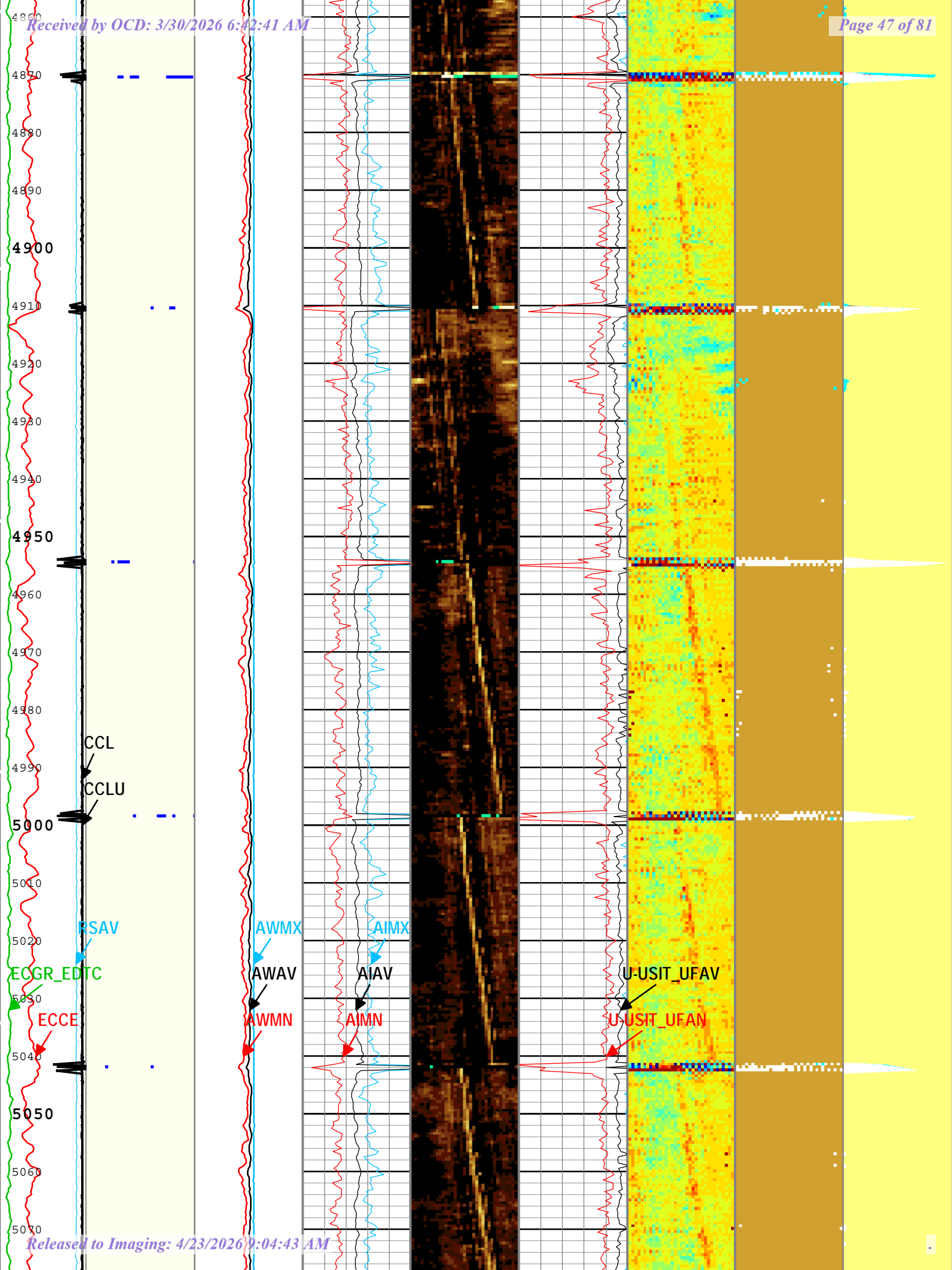
AIMX

AIAV

AIMN

U-USIT_UFAV

U-USIT_UFAN



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5070

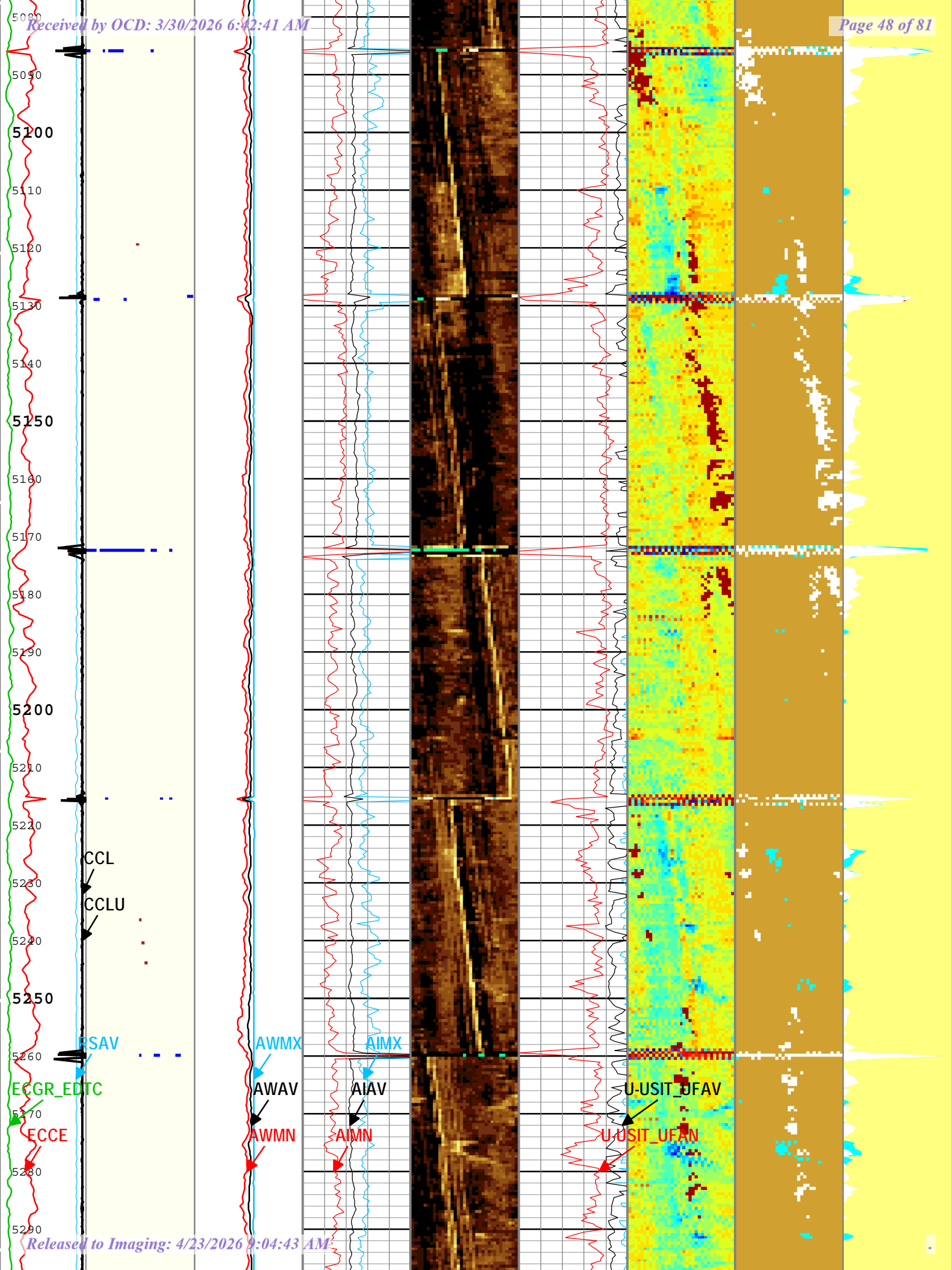
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CCLU

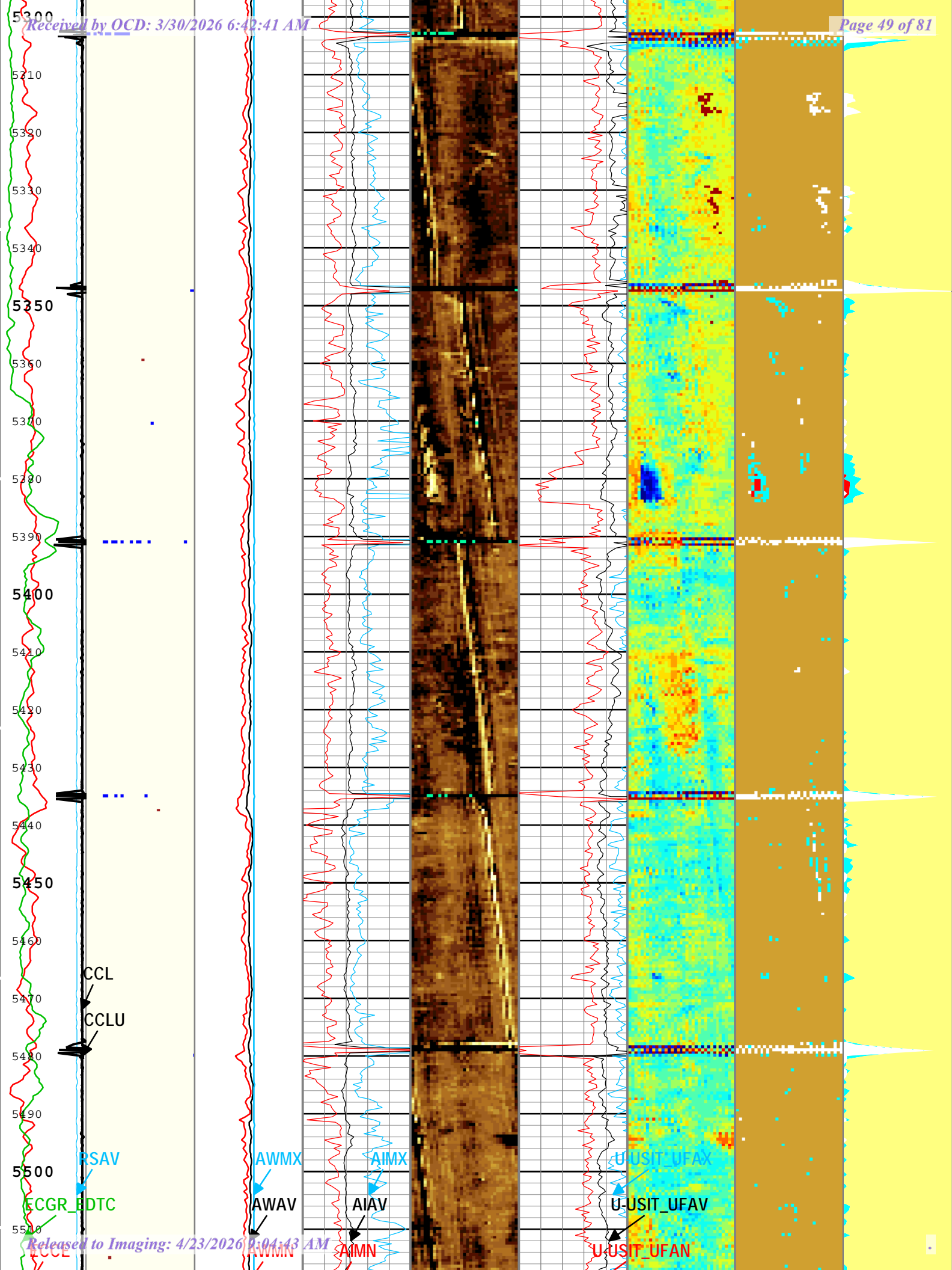
R SAV
ECGR_EDTC
ECCE

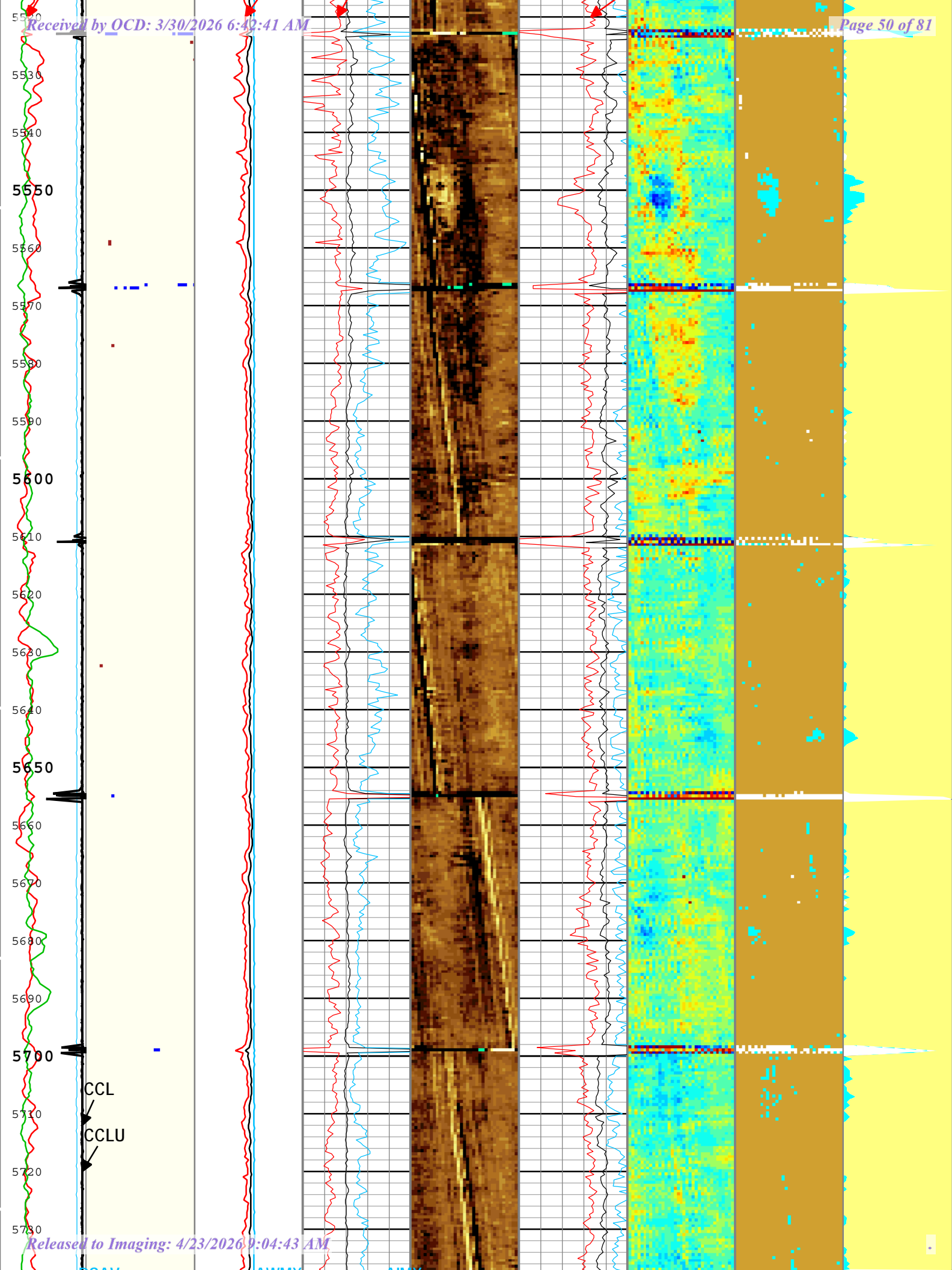
AWMX
AWAV
AWMN

AIMX
AIAV
AIMN

U-USIT_UFAV
U-USIT_UFAN







Received by OCD: 3/30/2026 6:42:41 AM

ECGR_EDTC

ECCE

5750

5760

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5870

5880

5890

5900

5910

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CCL

CCLU

Released to Imaging: 4/23/2026 9:04:43 AM

AWMX

AWAV

AWMN

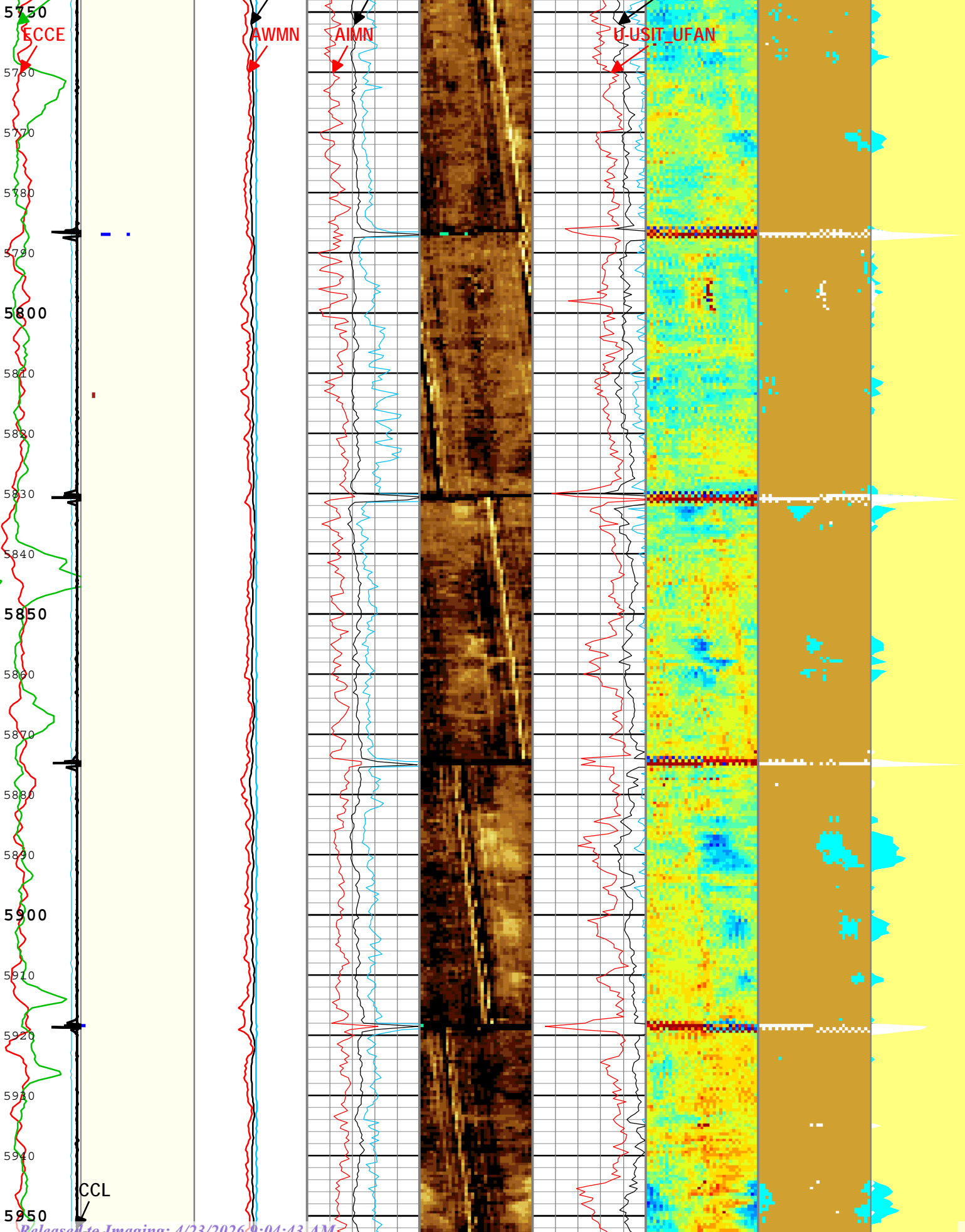
AIAV

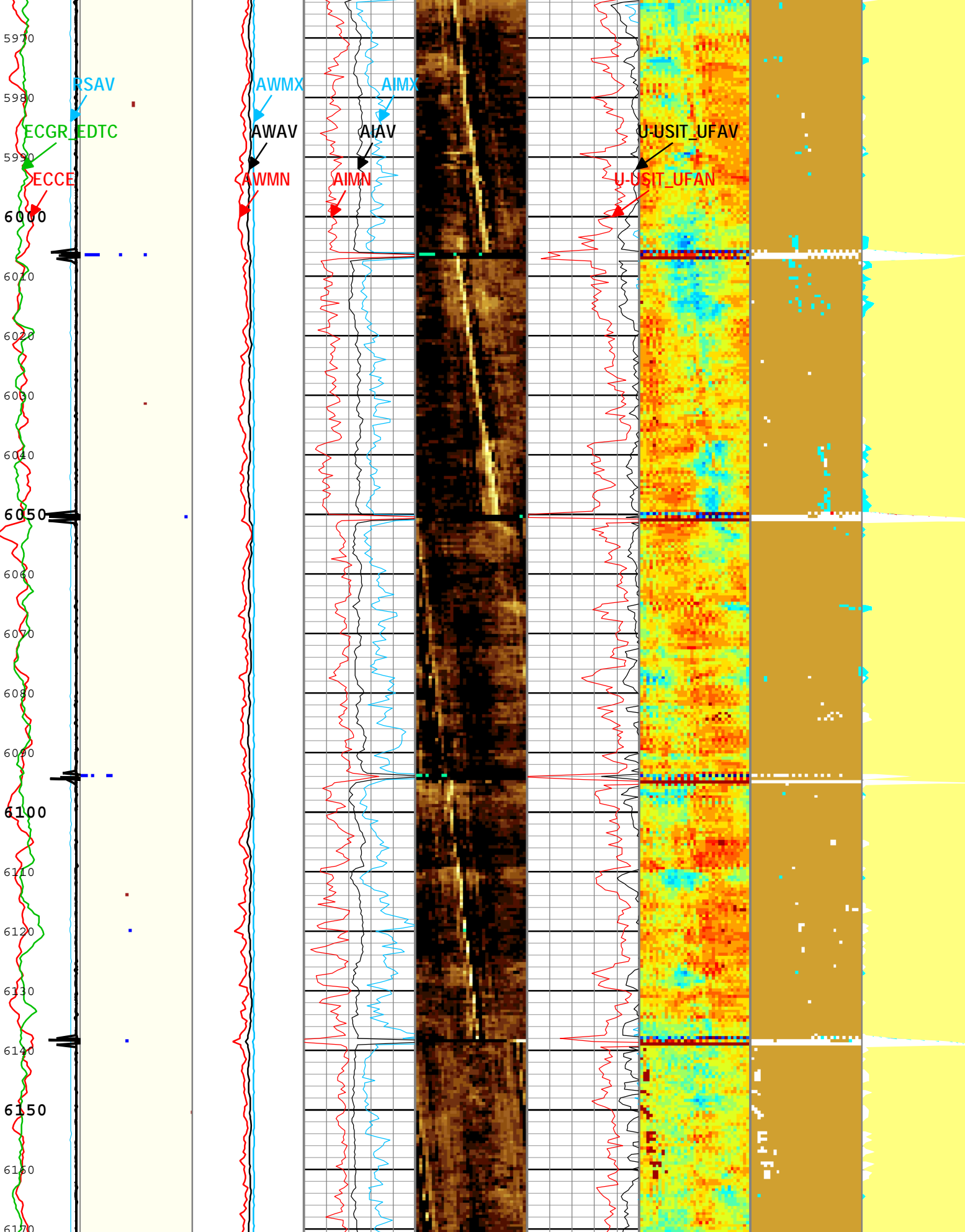
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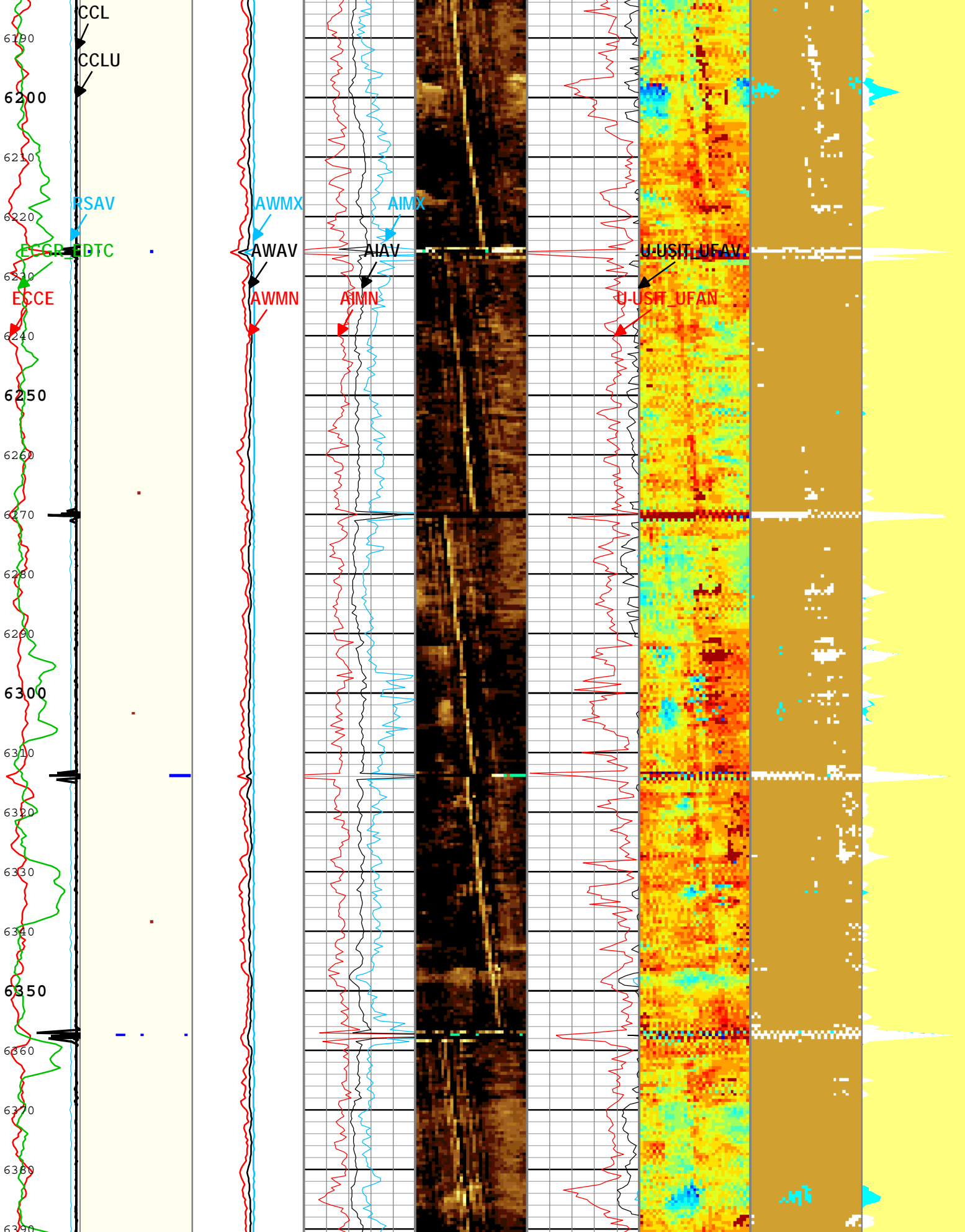
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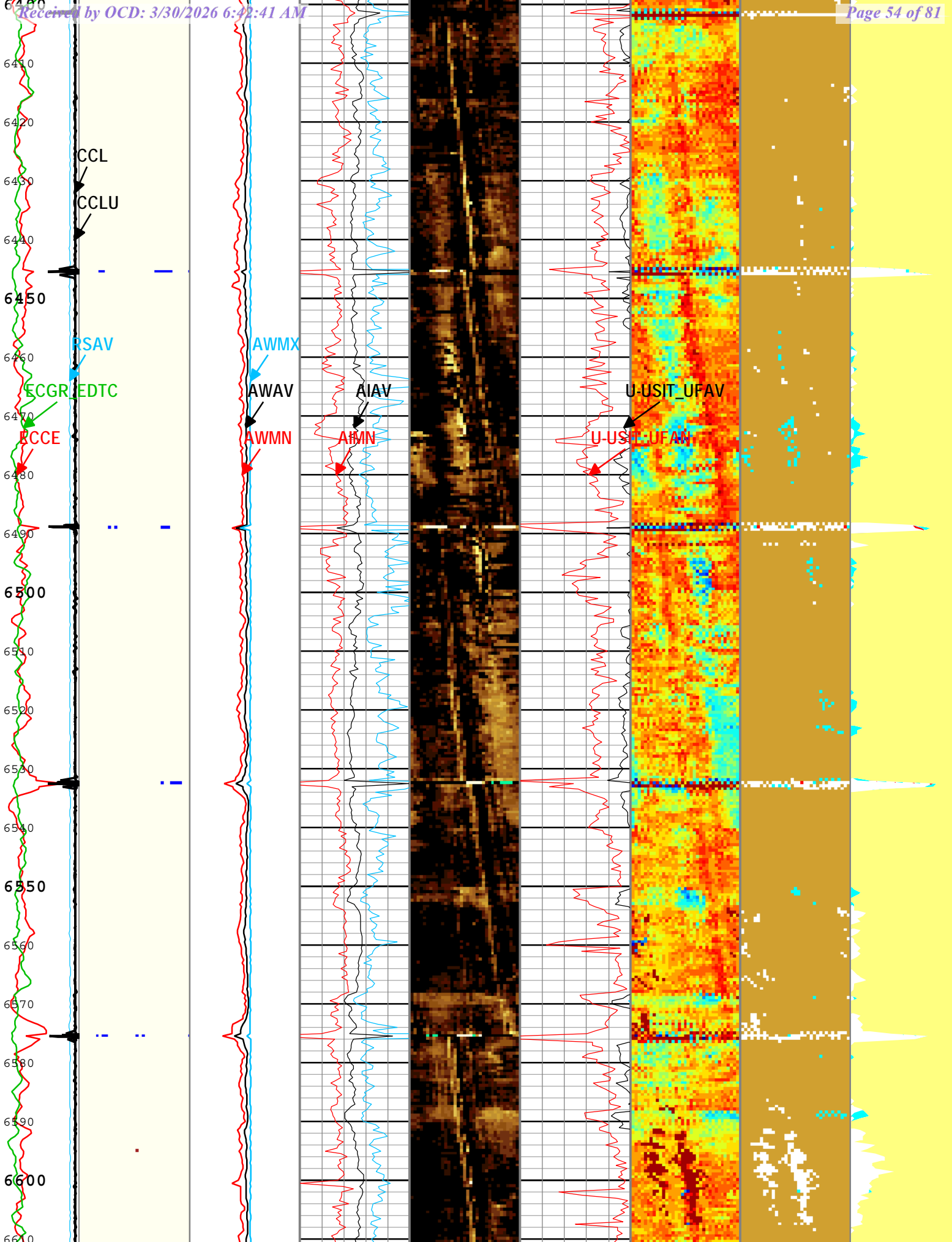
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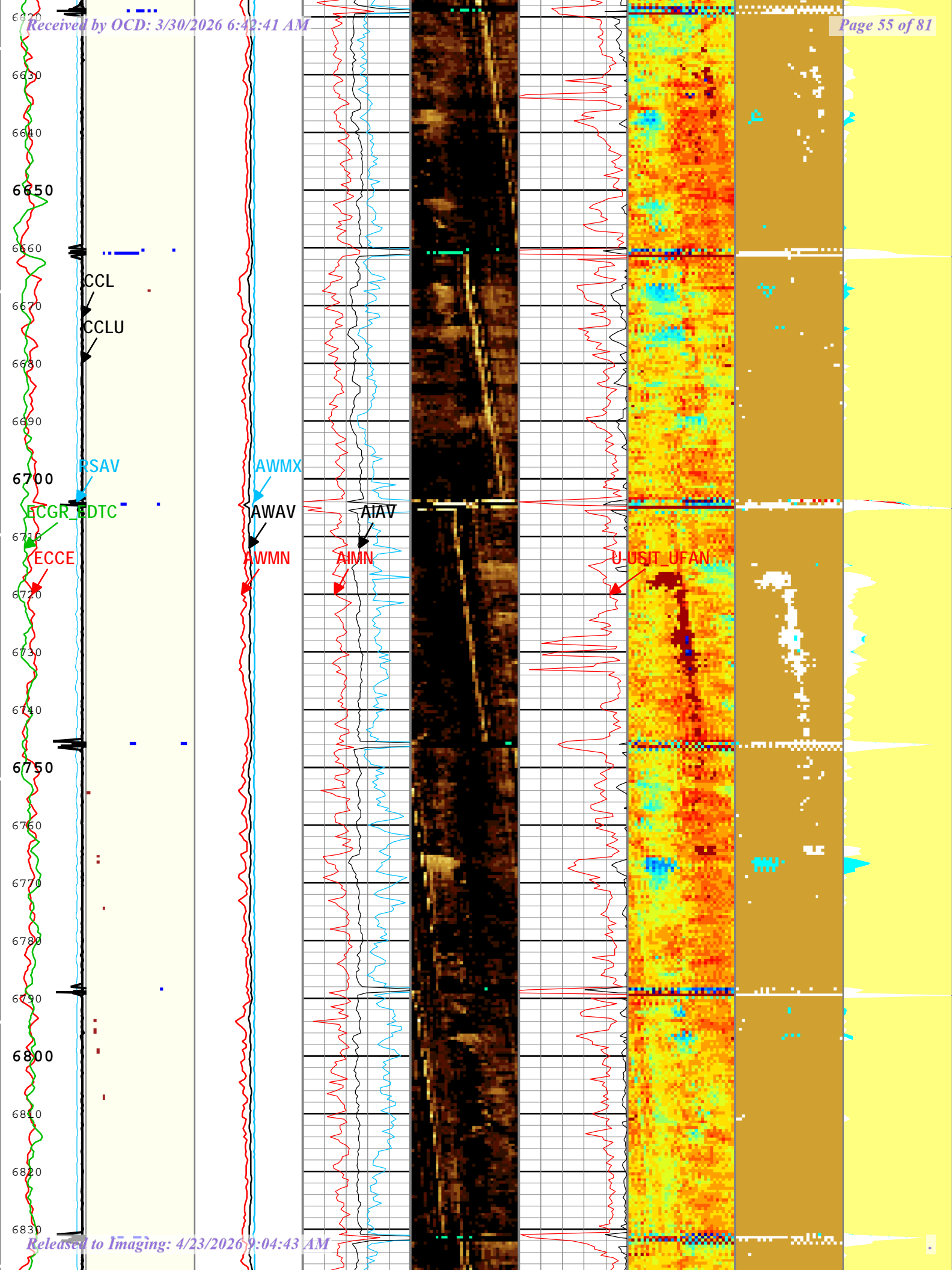
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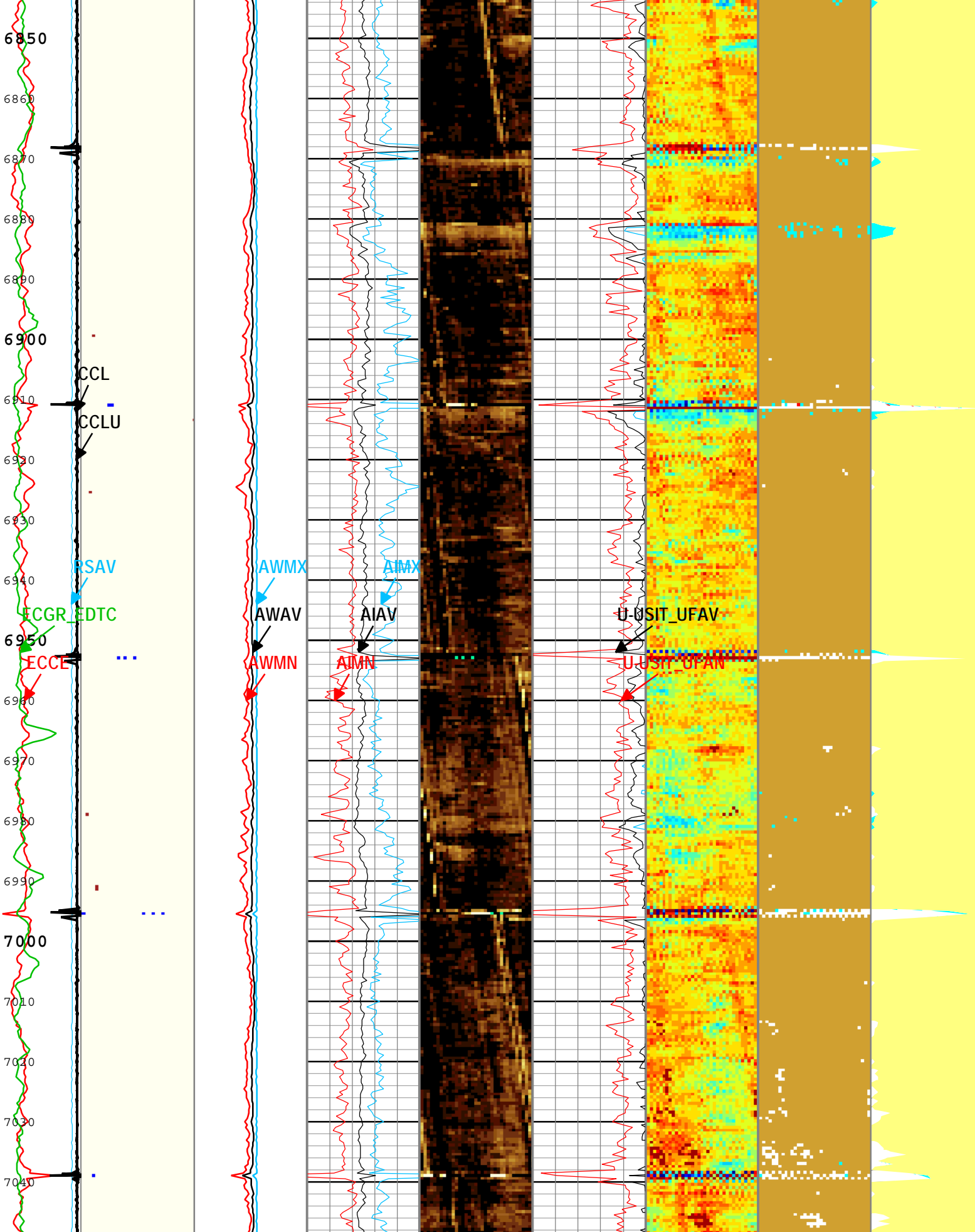


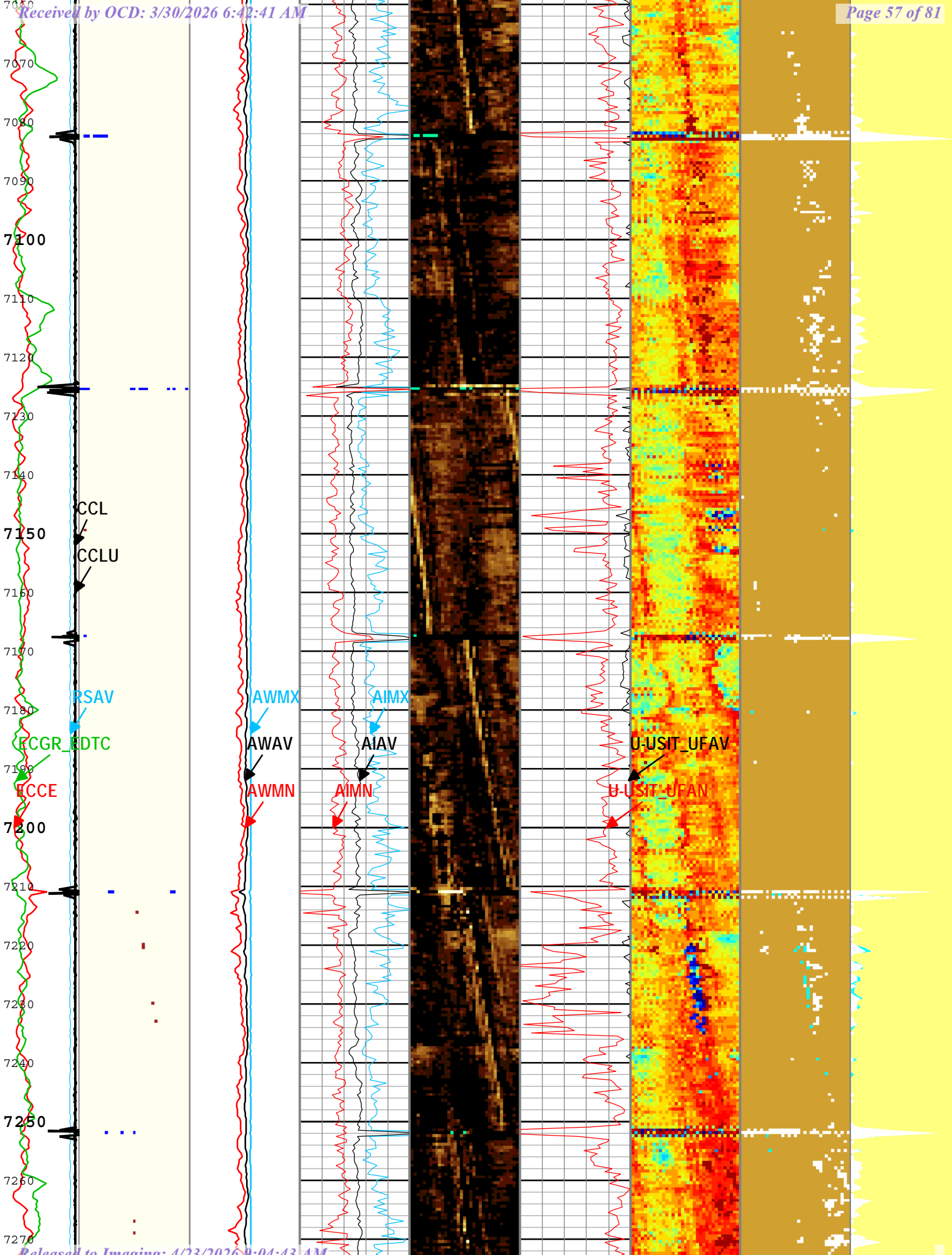


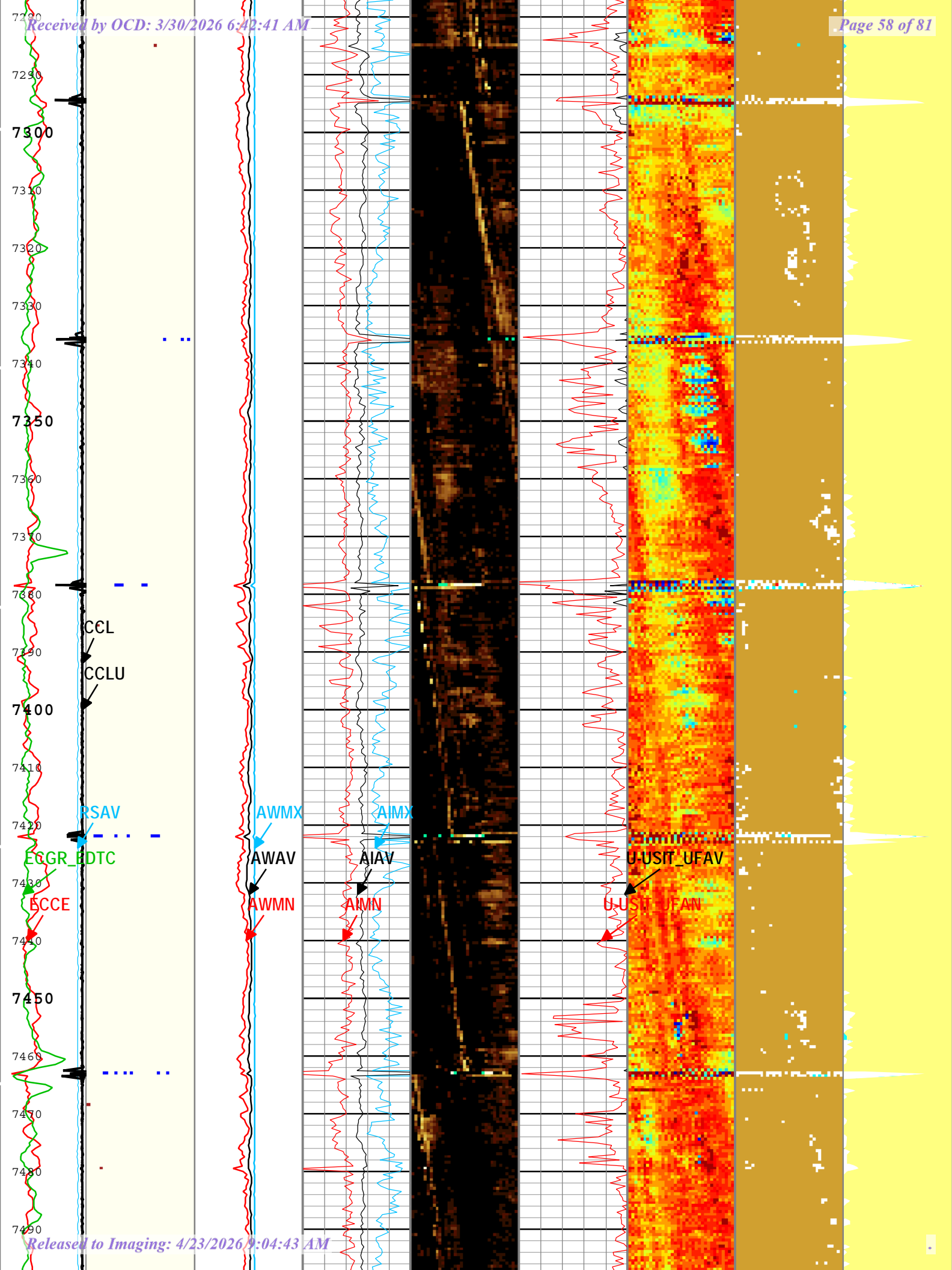


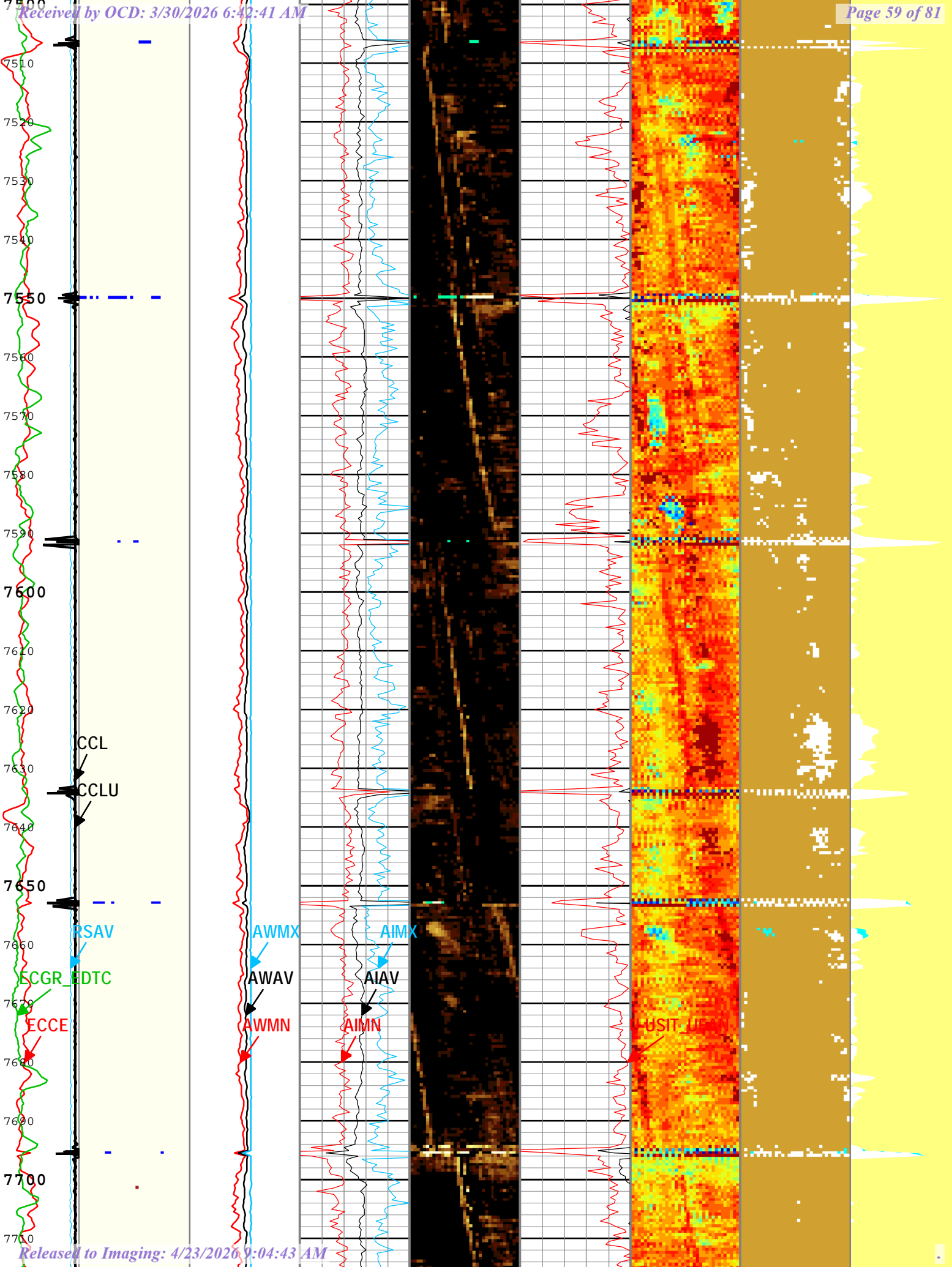


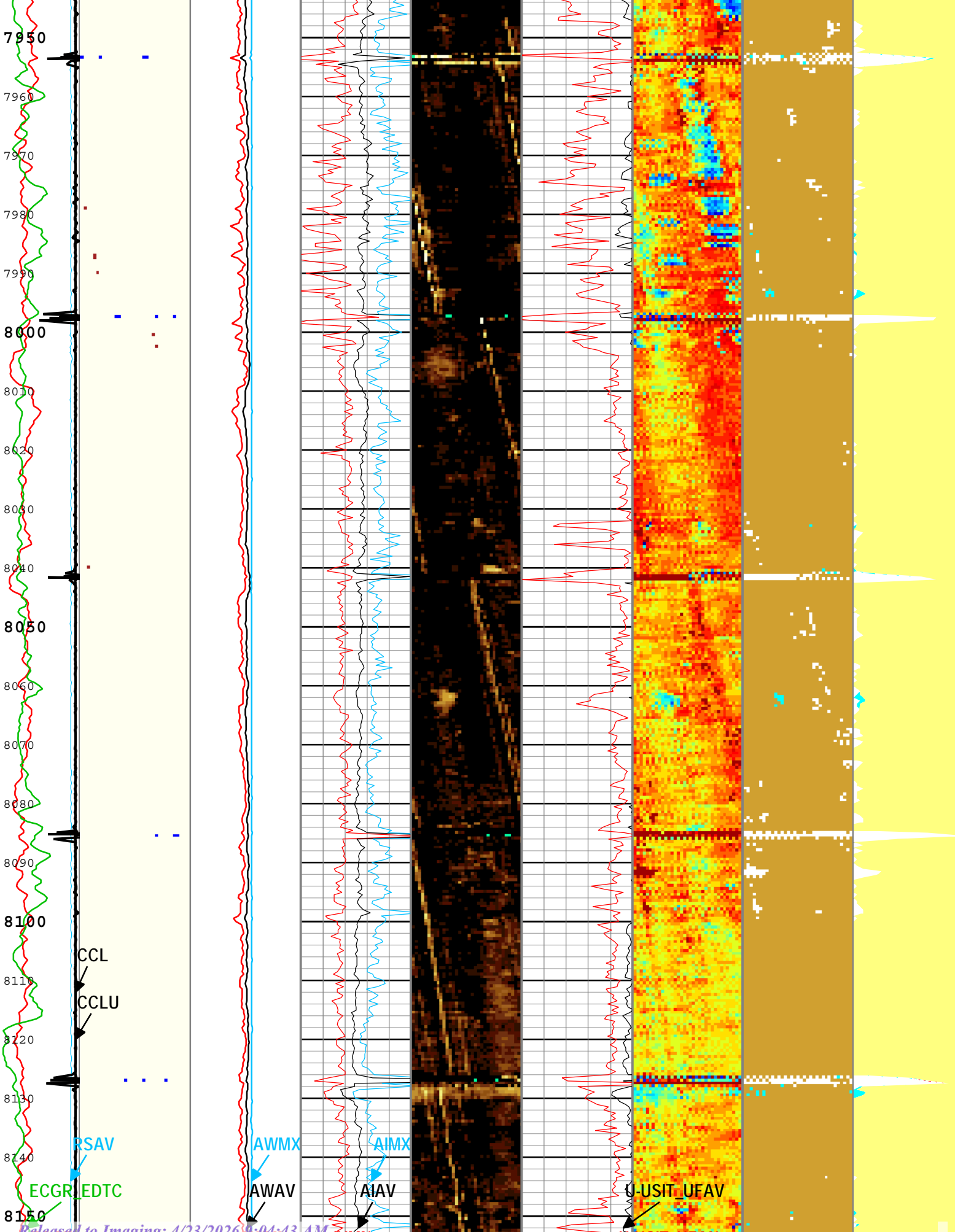


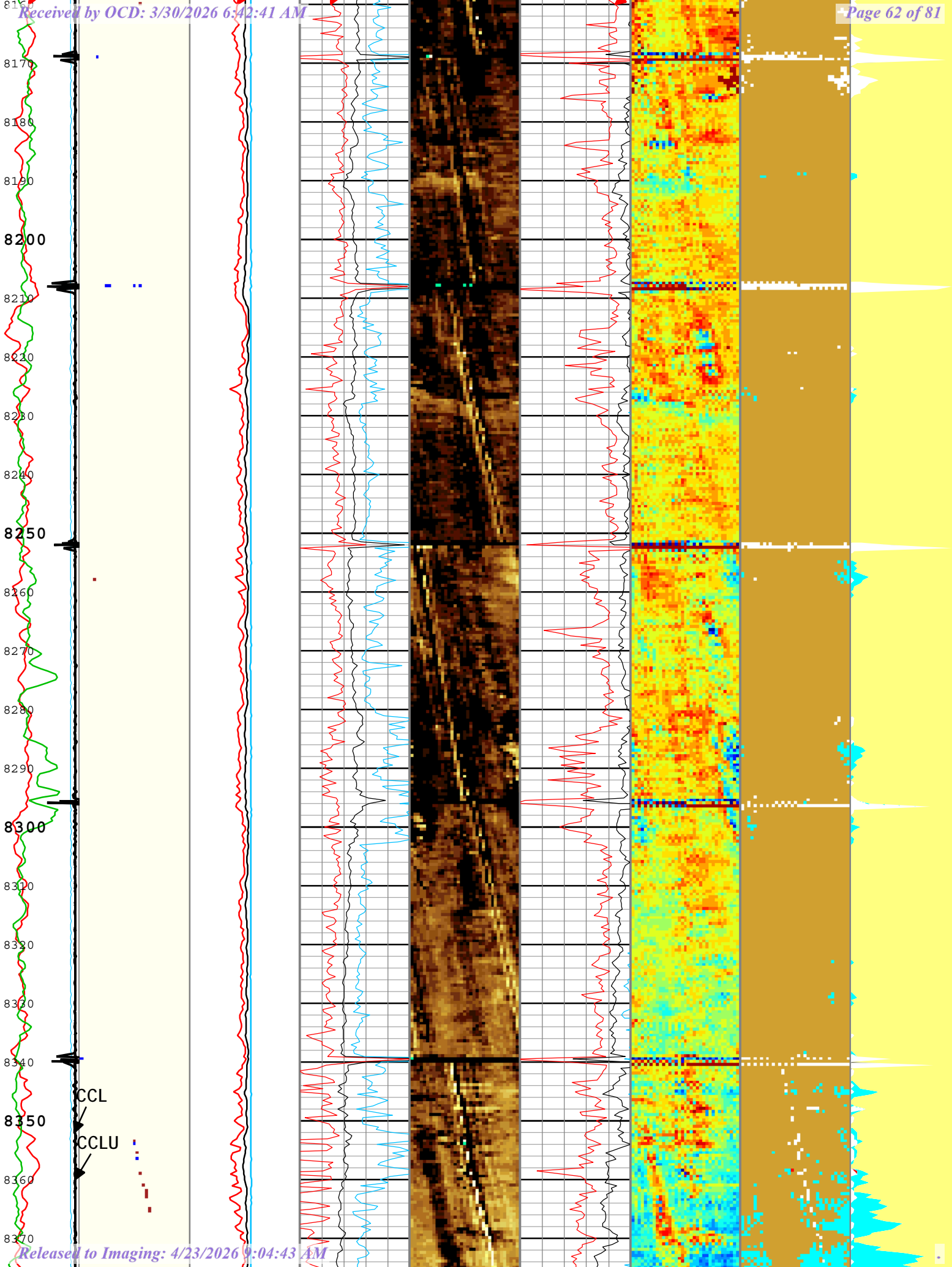




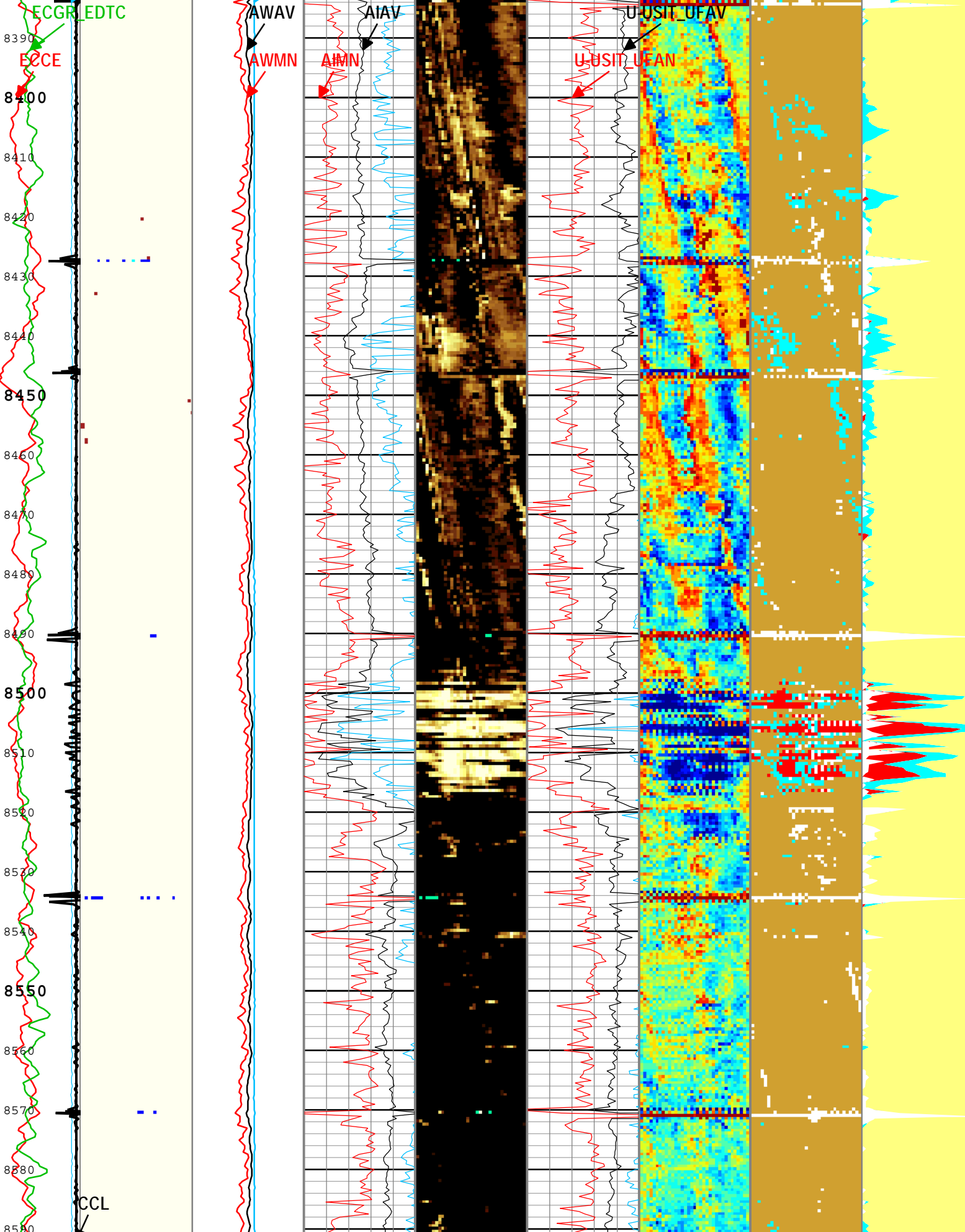


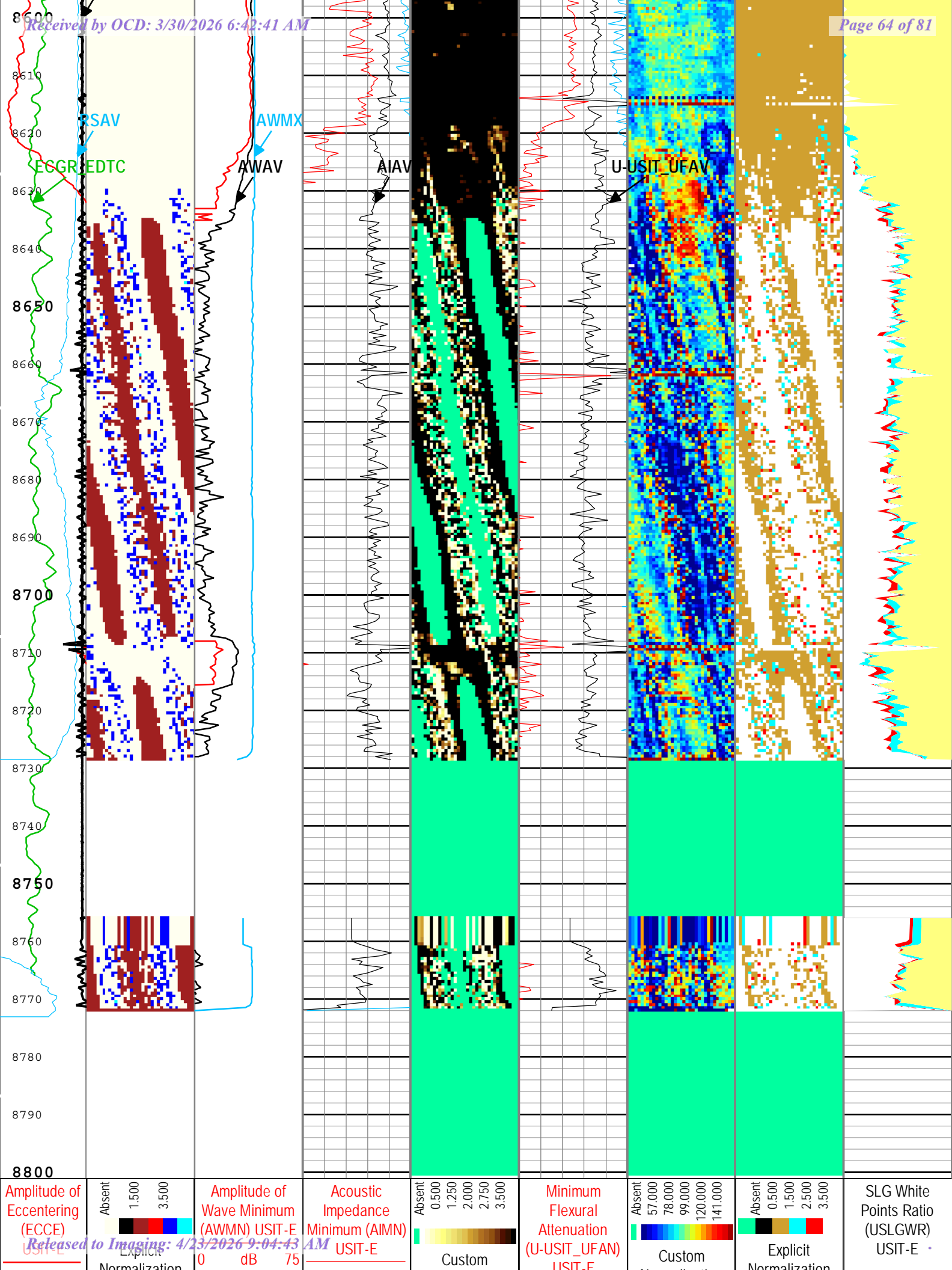






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0 in 0.5	Normalization	USIT - E	20 dB/m 120	Normalization	USIT - Solid Liquid Gas Sorted Color Map (USLP) USIT-E	1	0
Received by USIBCD US/30/2015 12:04:11 AM Gamma Ray (ECGR_EDT C) EDTC-B	Processing Flags (UFLG) USIT-E	Wave Average (AWAV) USIT-E	Average Flexural Attenuation (U-USIT_UFAV) USIT-E	USIT - Flexural Attenuation (UFAK) USIT-E (dB/m)	USIT - Solid Liquid Gas Sorted Color Map (USLP) USIT-E	1	0
0 gAPI 150	USIT Processing Flags (UFLG[0]) USIT-E	Amplitude of Wave Maximum (AWMX) USIT-E	20 dB/m 120	USIT - Acoustic Impedance (AIBK) USIT-E (Mrayl)	USIT - Solid Liquid Gas Sorted Color Map (USLP) USIT-E	1	0
Motor Revolution Speed (RSAV) USIT-E	1	0 dB 75	Average Flexural Attenuation (U-USIT_UFAV) USIT-E	USIT - Acoustic Impedance (AIBK) USIT-E (Mrayl)	USIT - Solid Liquid Gas Sorted Color Map (USLP) USIT-E	1	0
6 c/s 7.5		Amplitude of Wave Maximum (AWMX) USIT-E	Maximum Flexural Attenuation (U-USIT_UFAX) USIT-E	USIT - Acoustic Impedance (AIBK) USIT-E (Mrayl)	USIT - Solid Liquid Gas Sorted Color Map (USLP) USIT-E	1	0
Casing Collar Locator Ultrasonic (CCLU) USIT-E		0 dB 75	20 dB/m 120	USIT - Acoustic Impedance (AIBK) USIT-E (Mrayl)	USIT - Solid Liquid Gas Sorted Color Map (USLP) USIT-E	1	0
-19 in 1		Amplitude of Wave Maximum (AWMX) USIT-E	20 dB/m 120	USIT - Acoustic Impedance (AIBK) USIT-E (Mrayl)	USIT - Solid Liquid Gas Sorted Color Map (USLP) USIT-E	1	0
Casing Collar Locator Amplitude (CCL) CAL-YA		0 dB 75	20 dB/m 120	USIT - Acoustic Impedance (AIBK) USIT-E (Mrayl)	USIT - Solid Liquid Gas Sorted Color Map (USLP) USIT-E	1	0
-19 1		Amplitude of Wave Maximum (AWMX) USIT-E	20 dB/m 120	USIT - Acoustic Impedance (AIBK) USIT-E (Mrayl)	USIT - Solid Liquid Gas Sorted Color Map (USLP) USIT-E	1	0

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SLG Liquid Ratio (USLG LR) USIT-E	1	0
SLG Cement Ratio (USLG CR) USIT-E	1	0
White points		
Gas		
Liquid		
Cement		

USIT Processing Flags (UFLG[0]) USIT-E

1 - UFLG 1 Value within [0.0 - 1.5] - : UTIM Error

2 - UFLG 2 Value within [1.5 - 2.5] - : Pulse Origin Not Detected

3 - UFLG 3 Value within [2.5 - 3.5] - : WINLEN Error

4 - UFLG 4 UFLG 5 UFLG 6 Value within [3.5 - 6.5] - : Casing Thickness Error

5 - UFLG 7 UFLG 8 UFLG 9 Value within [6.5 - 10] - : Loop Processing Error

TIME_1900 - Time Marked every 60.00 (s)

Description: USI IBC SLG Format: Log (USI IBC SLG) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 30-Nov-2015 20:14:35

Channel Processing Parameters

1A: Parameters

Parameter	Description	Tool	Value	Unit
ISSBAR	Barite Mud Presence Flag	Borehole	No	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Cased	
BS	Bit Size	WLSESSION	Depth Zoned	in
CBLO	Casing Bottom (Logger)	WLSESSION	13710	ft
CCL_MULTIPLIER	Casing Collar Locator Multiplier	CAL-YA	1	
CDEN	Cement Density	USIT-E	10.2	lbm/gal
CDEN	Cement Density	EDTC-B	16.69	lbm/gal
CMTY(U-USIT_CEMT)	Cement Type	USIT-E	Light Cement	
THNO	Nominal Casing Thickness - Zoned along logger depths	WLSESSION	0.304	in
DFD	Drilling Fluid Density	Borehole	9	lbm/gal
DFT	Drilling Fluid Type	Borehole	Water	
DTMD	Borehole Fluid Slowness	Borehole	198	us/ft
FD	Fluid Density	USIT-E	10	lbm/gal
FDII	FPMI Data interpolation interval	USIT-E	0	ft

GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS	
GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	BS	
HEMA	Hematite Presence Flag	Borehole	No	
IBC_FRP_OFFSET	IBC Flexural Offset from Free Pipe	USIT-E	-5.67	dB/m
FSOD	USIT IBC Fluid Slowness Fits Casing Outer Diameter	USIT-E	0_OFF	
IBC_FVEL_SEL	IBC Fluid Velocity Selection	USIT-E	Automatic	
IBC_OFFSET_SEL	IBC Flexural Offset Selector	USIT-E	UFAO	
IBC_ZMUD_SEL	IBC Mud Impedance Selection	USIT-E	FreePipe Norm.	
ICE_PROCESS	ICE Processing	USIT-E	Yes	
IMAR	Image Rotation	USIT-E	Off	
MEAS_WLEN	Tcube Processing Window Length in Measurement Mode	USIT-E	18.79	us
MUD_N_FRP	Free Pipe Mud Normalization Factor	USIT-E	1.06	
MUD_N_INV	IBC Inversion Mud Normalization Factor	USIT-E	0	
U-USIT_OCDI	Outer Casing Diameter	USIT-E	0	in
U-USIT_OCSH	Outer Casing Shoe	USIT-E	0	ft
U-USIT_OCWE	Outer Casing Weight	USIT-E	0	lbm/ft
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	USIT-E	1.7	Mrayl
U-USIT_UFAO	SIT Flexural Attenuation Offset	USIT-E	-13.99	dB/m
UFGDE	Fiberglass Density	USIT-E	16.27	lbm/gal
UFGPS	Fiberglass Processing Selection	USIT-E	No	
UFGVL	Fiberglass Velocity	USIT-E	9678.48	ft/s
U-USIT_UIAP	IBC Answer Product Enabled	USIT-E	SolidLiquidGasMap	
ZMUD	Acoustic Impedance of Mud	Borehole	1.7	Mrayl

Depth Zone Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	17.5	111.58	1185
BS	12.25	1185	5381
BS	8.5	5381	8801

All depth are actual.

Tool Control Parameters

1A: Parameters

Parameter	Description	Tool	Value	Unit
AGMN	Minimum Gain of Cartridge	USIT-E	-12	dB
AGMX	Maximum Gain of Cartridge	USIT-E	54	dB
U-USIT_DDT5	USIC Downhole Decimation for T5 only	USIT-E	0_NONE	
EMXV	EMEX Voltage	USIT-E	40	V
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	2700	ft/h
TMUC	Type of Mud	USIT-E	BRI	
U-USIT_UFWB	Far Receiver Window Begin Time	USIT-E	Time Zoned	us
U-USIT_UFWE	Far Receiver Window End Time	USIT-E	Time Zoned	us
ULOG	Logging Objective	USIT-E	MEASUREMENT	
UMFR	Modulation Frequency	USIT-E	333333	Hz
U-USIT_UNWB	Near Receiver Window Begin Time	USIT-E	Time Zoned	us
U-USIT_UNWE	Near Receiver Window End Time	USIT-E	Time Zoned	us
USFR	Ultrasonic Sampling Frequency	USIT-E	500000	Hz
UPAT	USIT Emission Pattern	USIT-E	Pattern 500 KHz	
UWKM	USIT Working Mode	USIT-E	10 deg at 6.0 in LF	
USIT_DEPTHLOG	Starting Depth Log for Ultrasonics	USIT-E	8803	ft
U-USIT_UTAN	Transducer Angles	USIT-E	33_DEG	

VRES	Vertical Resolution	USIT-E	6.0 in	Page 67 of 81
WINB	Window Begin Time	USIT-E	30.74	us
WINE	Window End Time	USIT-E	Time Zoned	us

Time Zone Parameters

Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
U-USIT_UFWB	134	30-Nov-2015 12:16:29	30-Nov-2015 13:22:09	8801.78	6492.66
U-USIT_UFWB	128.75	30-Nov-2015 13:22:09	30-Nov-2015 15:53:30	6492.66	154.99
U-USIT_UFWE	174	30-Nov-2015 12:16:29	30-Nov-2015 14:01:54	8801.78	4774.03
U-USIT_UFWE	183.48	30-Nov-2015 14:01:54	30-Nov-2015 15:53:30	4774.03	154.99
U-USIT_UNWB	103	30-Nov-2015 12:16:29	30-Nov-2015 13:22:12	8801.78	6490.49
U-USIT_UNWB	94.35	30-Nov-2015 13:22:12	30-Nov-2015 15:53:30	6490.49	154.99
U-USIT_UNWE	143	30-Nov-2015 12:16:29	30-Nov-2015 13:47:12	8801.78	5414.2
U-USIT_UNWE	147.52	30-Nov-2015 13:47:12	30-Nov-2015 14:01:56	5414.2	4773.05
U-USIT_UNWE	153.77	30-Nov-2015 14:01:56	30-Nov-2015 15:53:30	4773.05	154.99
WINE	70.74	30-Nov-2015 12:16:29	30-Nov-2015 13:13:45	8801.78	6846.98
WINE	70.91	30-Nov-2015 13:13:45	30-Nov-2015 13:25:33	6846.98	6349.08
WINE	74.35	30-Nov-2015 13:25:33	30-Nov-2015 14:01:58	6349.08	4770.98
WINE	81.23	30-Nov-2015 14:01:58	30-Nov-2015 15:53:30	4770.98	154.99

All depth are at tool zero.

1A

Repeat Pass - Opsi

Software Version

Acquisition System	Version
Maxwell 2014 SP3	5.3.47551.3100
Application Patch	Maxwell_NPD-PNX-2014-SP3_5.3.54796

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
1A	Repeat[3]:Up	Up	8391.20 ft	9264.95 ft	30-Nov-2015 11:53:30 AM	30-Nov-2015 12:16:01 PM	ON	-3.12 ft	Yes

All depths are referenced to toolstring zero

Log

Company: Devon Well: Billiken 7 Fed 1H
1A: Repeat[3]:Up:S008

Description: USI IBC SLG Format: Log (USI IBC SLG) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 30-Nov-2015 20:14:46

TIME_1900 - Time Marked every 60.00 (s)

USIT Processing Flags (UFLG[0]) USIT-E

- 1 - UFLG 1 Value within [0.0 - 1.5] - : UTIM Error
- 2 - UFLG 2 Value within [1.5 - 2.5] - : Pulse Origin Not Detected
- 3 - UFLG 3 Value within [2.5 - 3.5] - : WINLEN Error
- 4 - UFLG 4 UFLG 5 UFLG 6 Value within [3.5 - 6.5] - : Casing Thickness Error
- 5 - UFLG 7 UFLG 8 UFLG 9 Value within [6.5 - 10] - : Loop Processing Error

Amplitude of Eccentering (ECCE)
USIT-E
Released to Imaging: 4/23/2026 9:04:43 AM

0 in 0.5

Garrett
(ECGR_EDT
C) EDTC-B

0 gAPI 150

Motor
Revolution
Speed
(RSAV)
USIT-E
6 c/s 7.5

Casing
Collar
Locator
Ultrasonic
(CCLU)
USIT-E
-19 in 1

Casing
Collar
Locator
Amplitude
(CCL)
CAL-YA
-19 1

SLG White
Points Ratio
(USLGWR)
USIT-E
1 0

SLG Liquid Ratio
(USLGLR)
USIT-E
1 0

SLG Cement
Ratio (USLGCR)
USIT-E
1 0

White points
Gas
Liquid
Cement

Absent 1.500 3.500
Explicit
Normalization
USIT - USIT
Processing
Flags (UFLG)
USIT-E
USIT Processing
Flags (UFLG[0])
USIT-E

Amplitude of
Wave Minimum
(AWMN) USIT-E
0 dB 75

Amplitude of
Wave Average
(AWAV) USIT-E
0 dB 75

Amplitude of
Wave Maximum
(AWMX) USIT-E
0 dB 75

Acoustic
Impedance
Minimum (AIMN)
USIT-E
-1 Mrayl 9

Acoustic
Impedance
Average (AIAV)
USIT-E
-1 Mrayl 9

Acoustic
Impedance
Maximum (AIMX)
USIT-E
-1 Mrayl 9

Absent 0.500 1.250 2.000 2.750 3.500

Custom
Normalization
USIT - Acoustic
Impedance
(AIBK) USIT-E
(Mrayl)

Absent 2.599 2.981 3.363 3.745

Custom
Normalization
USIT - Acoustic
Impedance
(AIBK) USIT-E
(Mrayl)

Minimum
Flexural
Attenuation
(U-USIT_UFAN)
USIT-E
20 dB/m 120

Average
Flexural
Attenuation
(U-USIT_UFAV)
USIT-E
20 dB/m 120

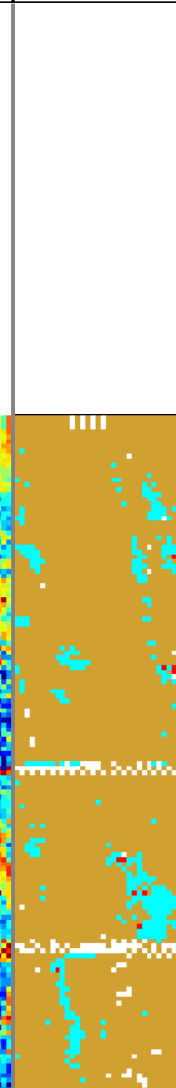
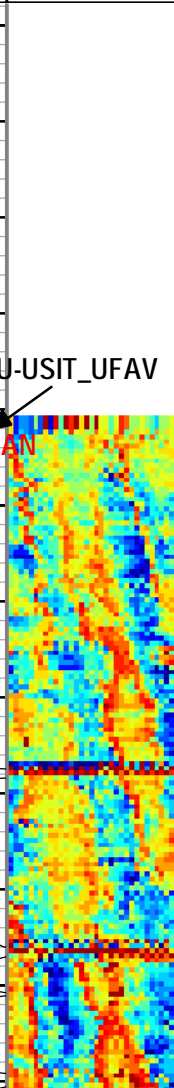
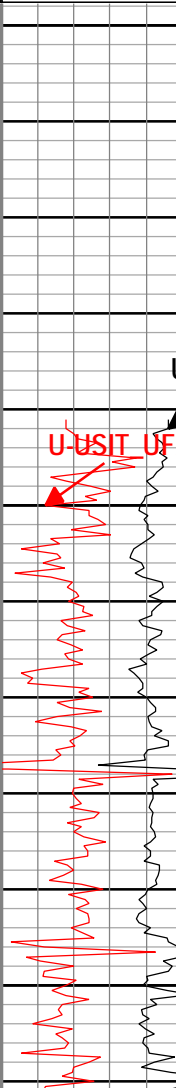
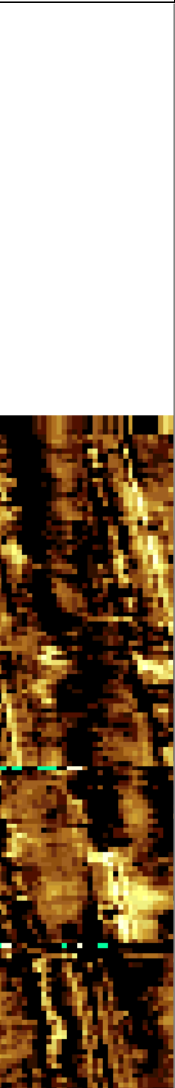
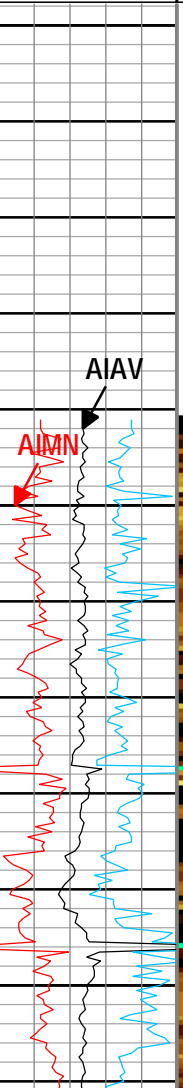
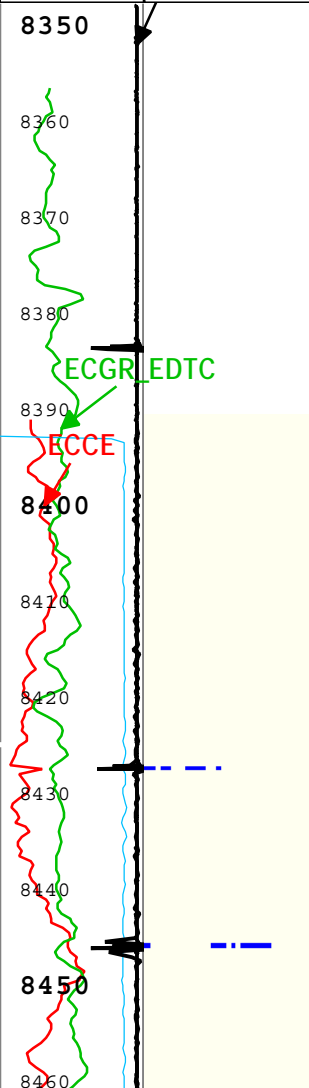
Maximum
Flexural
Attenuation
(U-USIT_UFAX)
USIT-E
20 dB/m 120

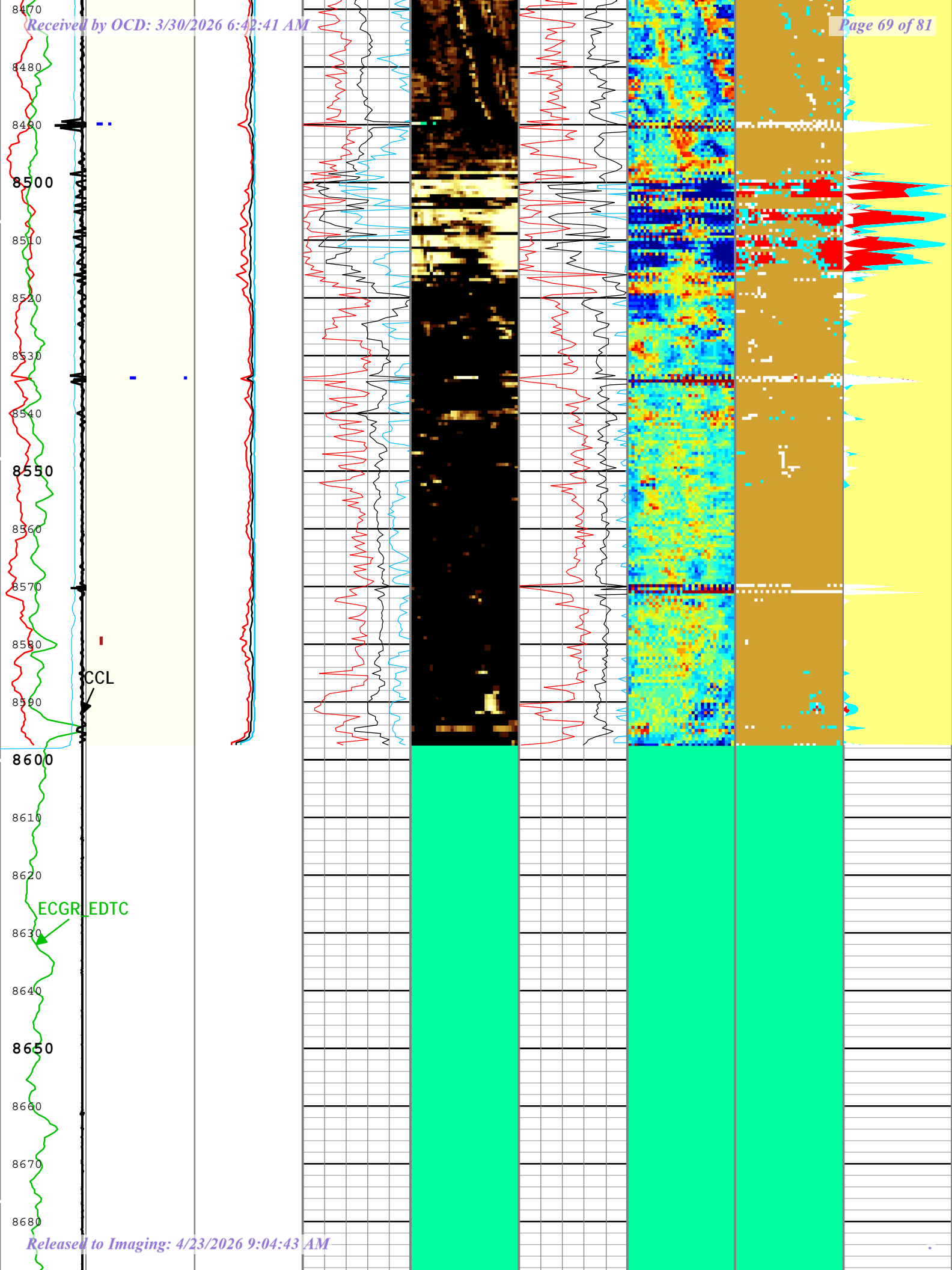
Absent 57,000 78,000 99,000 120,000 141,000

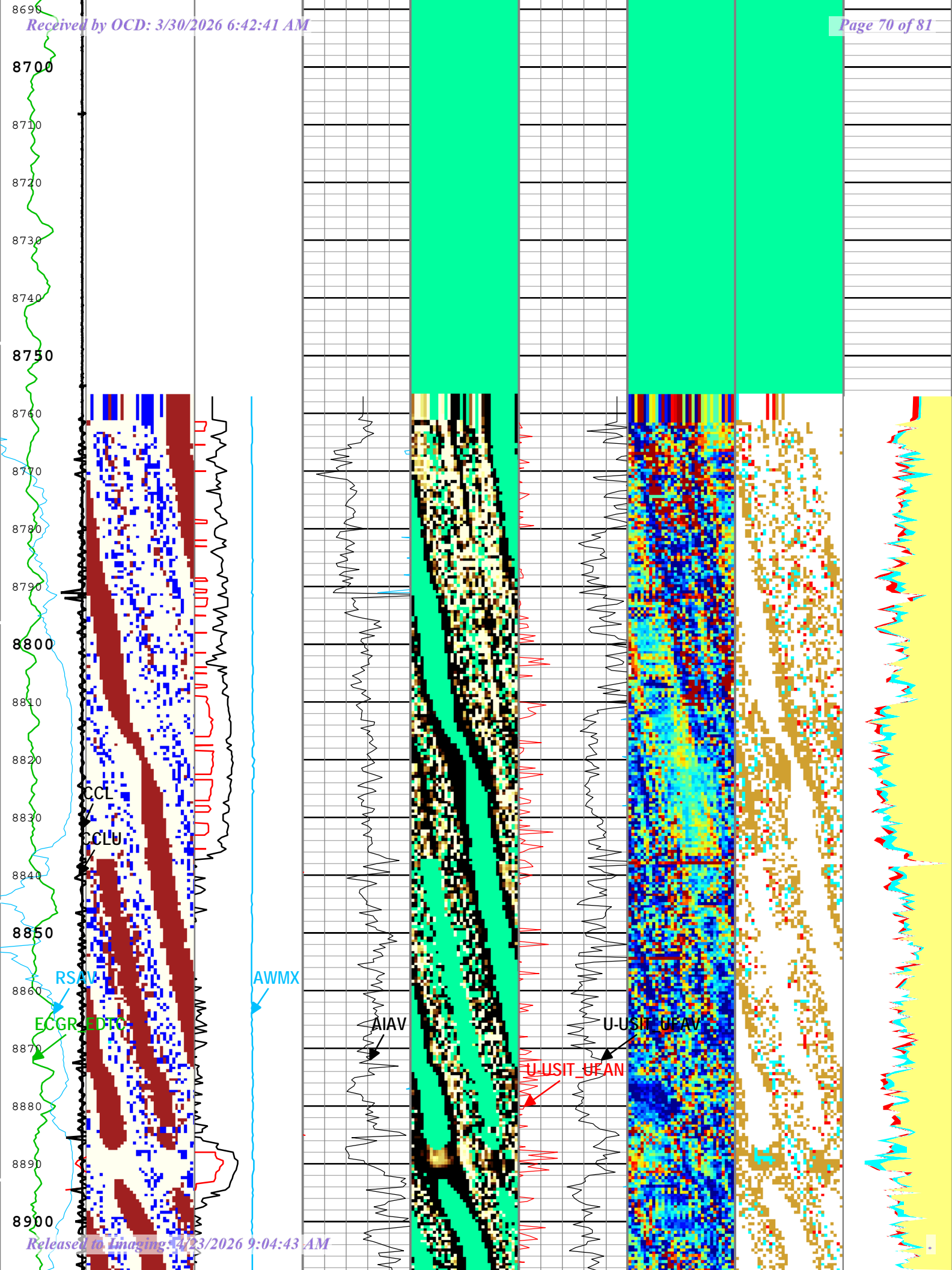
Custom
Normalization
USIT - Flexural
Attenuation
(UFAK) USIT-E
(dB/m)

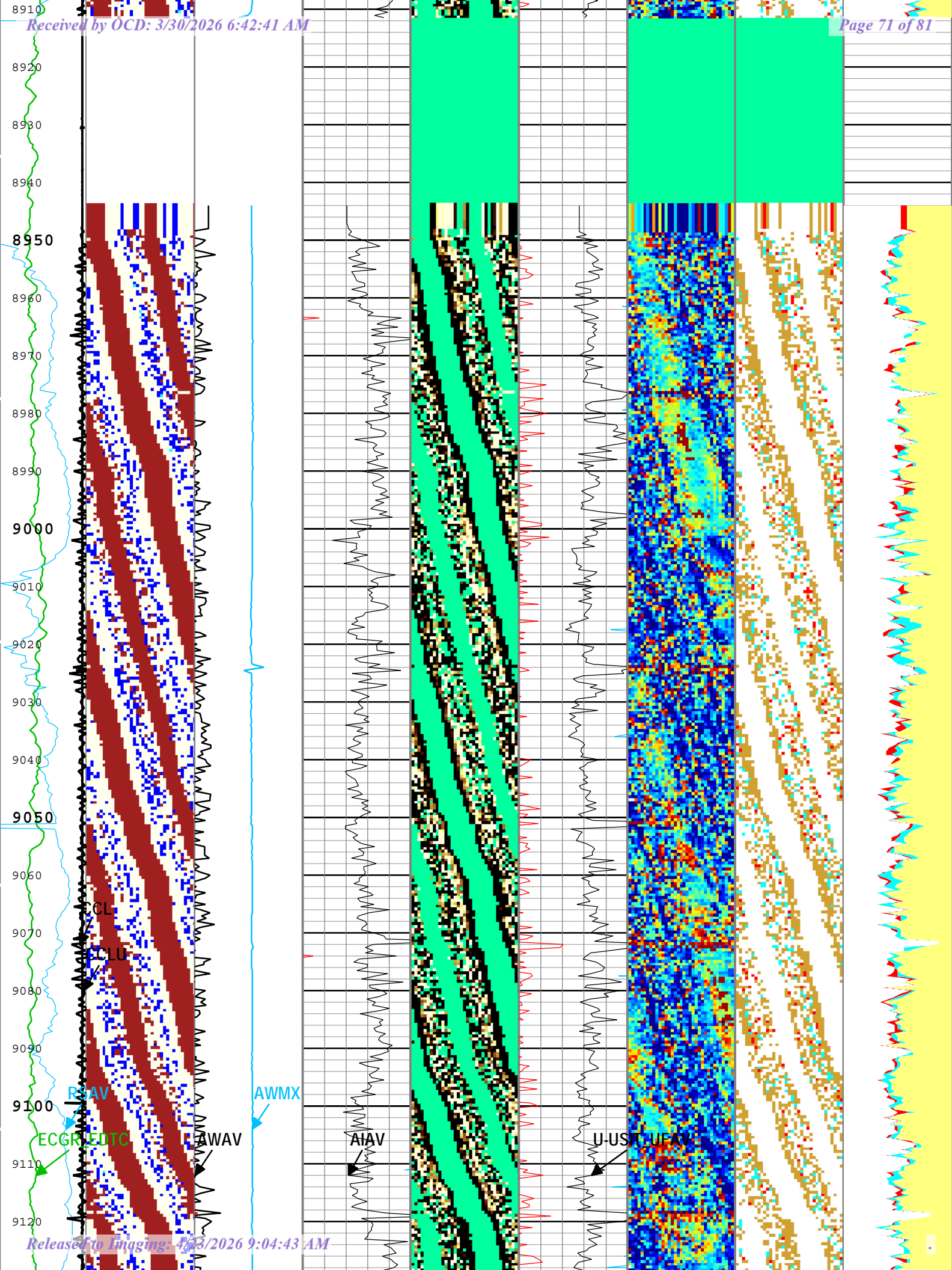
Absent 0.500 1.500 2.500 3.500

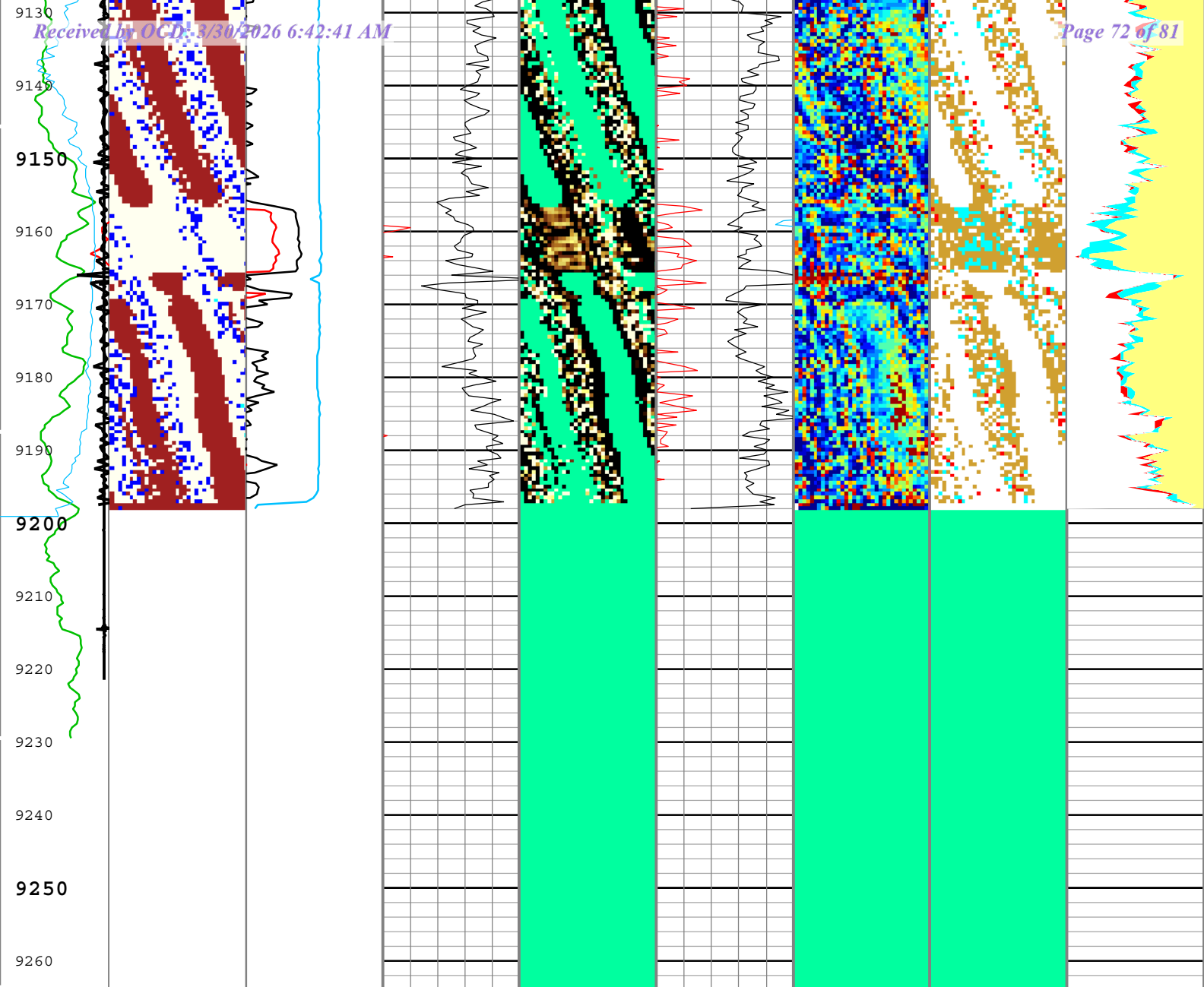
Explicit
Normalization
USIT - Solid
Liquid Gas
Sorted Color
Map (USLP)
USIT-E











<p>Amplitude of Eccentering (ECCE) USIT-E</p> <p>0 in 0.5</p>	<p>Absent 1.500 3.500</p> <p>Explicit Normalization</p> <p>USIT - USIT Processing Flags (UFLG) USIT-E</p>	<p>Amplitude of Wave Minimum (AWMN) USIT-E</p> <p>0 dB 75</p>	<p>Acoustic Impedance Minimum (AIMN) USIT-E</p> <p>-1 Mrayl 9</p>	<p>Absent 0.500 1.250 2.000 2.750 3.500</p> <p>Custom Normalization</p> <p>USIT - Acoustic Impedance (AIBK) USIT-E (Mrayl)</p>	<p>Minimum Flexural Attenuation (U-USIT_UFAN) USIT-E</p> <p>20 dB/m 120</p>	<p>Absent 57.000 78.000 99.000 120.000 141.000</p> <p>Custom Normalization</p> <p>USIT - Flexural Attenuation (UFAK) USIT-E (dB/m)</p>	<p>Absent 0.500 1.500 2.500 3.500</p> <p>Explicit Normalization</p> <p>USIT - Solid Liquid Gas Sorted Color Map (USLP) USIT-E</p>	<p>SLG White Points Ratio (USLGWR) USIT-E</p> <p>1 0</p>
<p>Gamma Ray (ECGR_EDT C) EDTC-B</p> <p>0 gAPI 150</p>	<p>USIT Processing Flags (UFLG[0]) USIT-E</p> <p>1 5</p>	<p>Amplitude of Wave Average (AWAV) USIT-E</p> <p>0 dB 75</p>	<p>Acoustic Impedance Average (AIAV) USIT-E</p> <p>-1 Mrayl 9</p>	<p>Absent 2.599 2.981 3.363 3.745</p> <p>Custom Normalization</p> <p>USIT - Acoustic Impedance (AIBK) USIT-E (Mrayl)</p>	<p>Average Flexural Attenuation (U-USIT_UFAV) USIT-E</p> <p>20 dB/m 120</p>			<p>SLG Liquid Ratio (USLGLR) USIT-E</p> <p>1 0</p>
<p>Motor Revolution Speed (RSAV) USIT-E</p> <p>6 c/s 7.5</p>		<p>Amplitude of Wave Maximum (AWMX) USIT-E</p> <p>0 dB 75</p>	<p>Acoustic Impedance Maximum (AIMX) USIT-E</p> <p>-1 Mrayl 9</p>		<p>Maximum Flexural Attenuation (U-USIT_UFAX) USIT-E</p> <p>20 dB/m 120</p>			<p>SLG Cement Ratio (USLGC R) USIT-E</p> <p>1 0</p>
<p>Casing Collar Locator Ultrasonic (CCLU) USIT-E</p>								<p>White points</p> <p>Gas</p> <p>Liquid</p> <p>Cement</p>

Casing	
Collar	
Locator	
Amplitude (CCL)	
CAL-YA	
-19	1

USIT Processing Flags (UFLG[0]) USIT-E

- 1 - UFLG 1 Value within [0.0 - 1.5] - : UTIM Error
- 2 - UFLG 2 Value within [1.5 - 2.5] - : Pulse Origin Not Detected
- 3 - UFLG 3 Value within [2.5 - 3.5] - : WINLEN Error
- 4 - UFLG 4 UFLG 5 UFLG 6 Value within [3.5 - 6.5] - : Casing Thickness Error
- 5 - UFLG 7 UFLG 8 UFLG 9 Value within [6.5 - 10] - : Loop Processing Error

TIME_1900 - Time Marked every 60.00 (s)

Description: USI IBC SLG Format: Log (USI IBC SLG) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 30-Nov-2015 20:14:46

Channel Processing Parameters

1A: Parameters

Parameter	Description	Tool	Value	Unit
ISSBAR	Barite Mud Presence Flag	Borehole	No	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Cased	
BS	Bit Size	WLSESSION	8.5	in
CBLO	Casing Bottom (Logger)	WLSESSION	13710	ft
CCL_MULTIPLIER	Casing Collar Locator Multiplier	CAL-YA	1	
CDEN	Cement Density	USIT-E	10.2	lbm/gal
CDEN	Cement Density	EDTC-B	16.69	lbm/gal
CMTY(U-USIT_CEMT)	Cement Type	USIT-E	Light Cement	
THNO	Nominal Casing Thickness - Zoned along logger depths	WLSESSION	0.304	in
DFD	Drilling Fluid Density	Borehole	9	lbm/gal
DFT	Drilling Fluid Type	Borehole	Water	
DTMD	Borehole Fluid Slowness	Borehole	198	us/ft
FD	Fluid Density	USIT-E	10	lbm/gal
FDII	FPM Data Interpolation Interval	USIT-E	0	ft
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS	
GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	BS	
HEMA	Hematite Presence Flag	Borehole	No	
IBC_FRP_OFFSET	IBC Flexural Offset from Free Pipe	USIT-E	-5.67	dB/m
FSOD	USIT IBC Fluid Slowness Fits Casing Outer Diameter	USIT-E	0_OFF	
IBC_FVEL_SEL	IBC Fluid Velocity Selection	USIT-E	Automatic	
IBC_OFFSET_SEL	IBC Flexural Offset Selector	USIT-E	UFAO	
IBC_ZMUD_SEL	IBC Mud Impedance Selection	USIT-E	FreePipe Norm.	
ICE_PROCESS	ICE Processing	USIT-E	Yes	
IMAR	Image Rotation	USIT-E	Off	
MEAS_WLEN	Tcube Processing Window Length in Measurement Mode	USIT-E	18.79	us
MUD_N_FRP	Free Pipe Mud Normalization Factor	USIT-E	1.06	
MUD_N_INV	IBC Inversion Mud Normalization Factor	USIT-E	0	
U-USIT_OCDI	Outer Casing Diameter	USIT-E	0	in
U-USIT_OCSH	Outer Casing Shoulder	USIT-E	0	ft
U-USIT_OCWE	Outer Casing Weight	USIT-E	0	lbm/ft

U-USIT_DES7	Drilling Fluid Specific Acoustic Impedance	USIT-E	1.7	Mrayl
U-USIT_UFAO	SIT Flexural Attenuation Offset	USIT-E	-13.99	dB/m
UFGDE	Fiberglass Density	USIT-E	16.27	lbm/gal
UFGPS	Fiberglass Processing Selection	USIT-E	No	
UFGVL	Fiberglass Velocity	USIT-E	9678.48	ft/s
U-USIT_UIAP	IBC Answer Product Enabled	USIT-E	SolidLiquidGasMap	
ZMUD	Acoustic Impedance of Mud	Borehole	1.7	Mrayl

Tool Control Parameters

1A: Parameters

Parameter	Description	Tool	Value	Unit
AGMN	Minimum Gain of Cartridge	USIT-E	-12	dB
AGMX	Maximum Gain of Cartridge	USIT-E	Time Zoned	dB
U-USIT_DDT5	USIC Downhole Decimation for T5 only	USIT-E	0_NONE	
EMXV	EMEX Voltage	USIT-E	40	V
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	2700	ft/h
TMUC	Type of Mud	USIT-E	BRI	
U-USIT_UFWB	Far Receiver Window Begin Time	USIT-E	Time Zoned	us
U-USIT_UFWE	Far Receiver Window End Time	USIT-E	Time Zoned	us
ULOG	Logging Objective	USIT-E	MEASUREMENT	
UMFR	Modulation Frequency	USIT-E	333333	Hz
U-USIT_UNWB	Near Receiver Window Begin Time	USIT-E	Time Zoned	us
U-USIT_UNWE	Near Receiver Window End Time	USIT-E	Time Zoned	us
USFR	Ultrasonic Sampling Frequency	USIT-E	500000	Hz
UPAT	USIT Emission Pattern	USIT-E	Pattern 500 KHz	
UWKM	USIT Working Mode	USIT-E	10 deg at 6.0 in LF	
USIT_DEPTHLOG	Starting Depth Log for Ultrasonics	USIT-E	9267	ft
U-USIT_UTAN	Transducer Angles	USIT-E	33_DEG	
VRES	Vertical Resolution	USIT-E	6.0 in	
WINB	Window Begin Time	USIT-E	30.74	us
WINE	Window End Time	USIT-E	Time Zoned	us

Time Zone Parameters

Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
AGMX	18	30-Nov-2015 11:53:30	30-Nov-2015 11:56:05	9264.95	9183.98
AGMX	54	30-Nov-2015 11:56:05	30-Nov-2015 12:16:01	9183.98	8391.2
U-USIT_UFWB	134	30-Nov-2015 11:53:30	30-Nov-2015 12:03:42	9264.95	8858.34
U-USIT_UFWB	115.46	30-Nov-2015 12:03:42	30-Nov-2015 12:16:01	8858.34	8391.2
U-USIT_UFWE	174	30-Nov-2015 11:53:30	30-Nov-2015 12:03:51	9264.95	8851.37
U-USIT_UFWE	189.74	30-Nov-2015 12:03:51	30-Nov-2015 12:04:04	8851.37	8841.02
U-USIT_UFWE	195.99	30-Nov-2015 12:04:04	30-Nov-2015 12:16:01	8841.02	8391.2
U-USIT_UNWB	103	30-Nov-2015 11:53:30	30-Nov-2015 12:03:45	9264.95	8855.83
U-USIT_UNWB	79.49	30-Nov-2015 12:03:45	30-Nov-2015 12:16:01	8855.83	8391.2
U-USIT_UNWE	143	30-Nov-2015 11:53:30	30-Nov-2015 12:04:00	9264.95	8844.23
U-USIT_UNWE	150.64	30-Nov-2015 12:04:00	30-Nov-2015 12:16:01	8844.23	8391.2
WINE	70.74	30-Nov-2015 11:53:30	30-Nov-2015 12:04:06	9264.95	8839.41
WINE	80.66	30-Nov-2015 12:04:06	30-Nov-2015 12:04:21	8839.41	8826.84
WINE		30-Nov-2015 12:04:21	30-Nov-2015 12:16:01	8826.84	8391.2

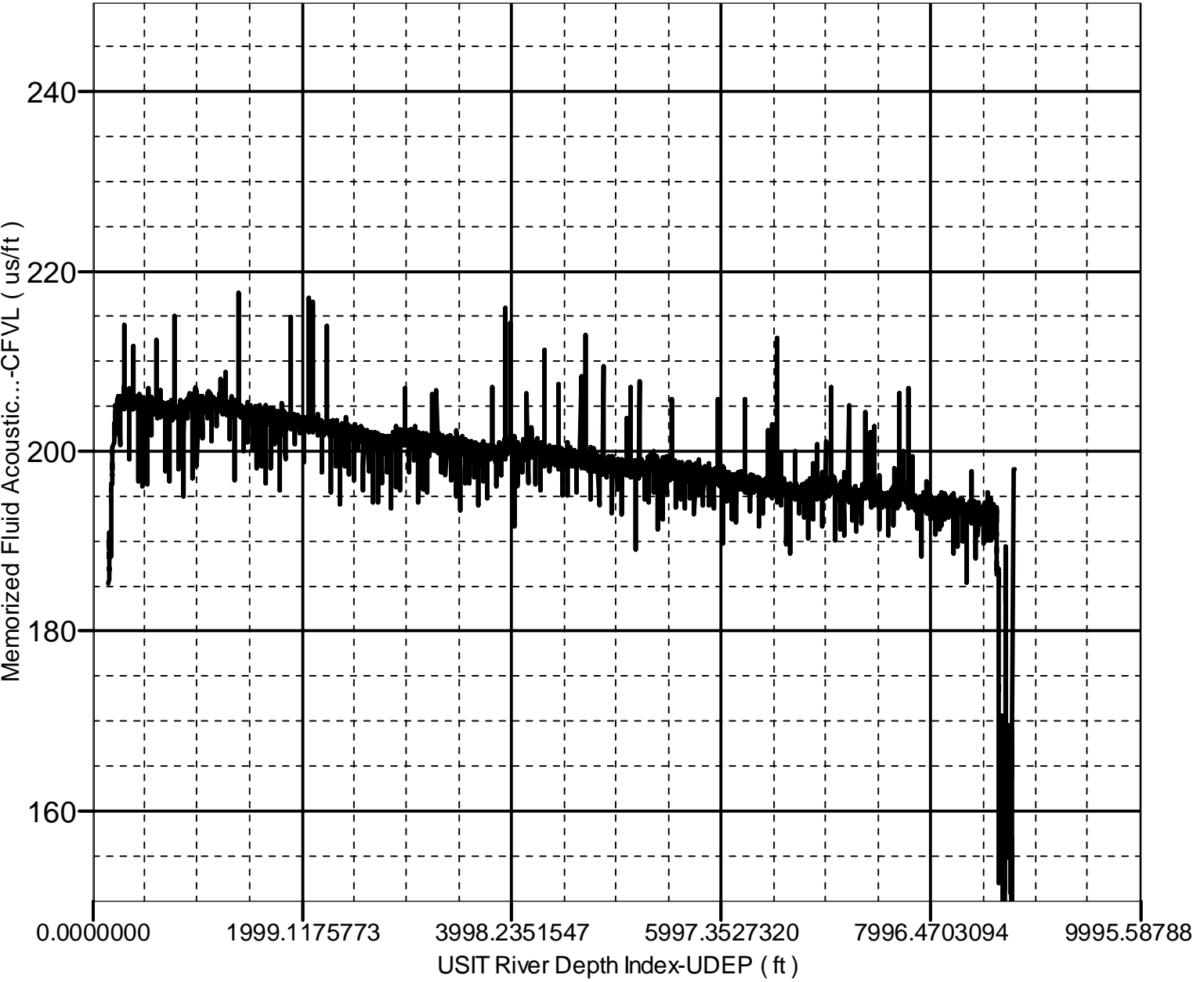
XYZ

Fluid Acoustic Slowness vs Depth

2D Cross Plot

Index Range: From 8801.00 to 154.50 ft

— UDEP-CFVL



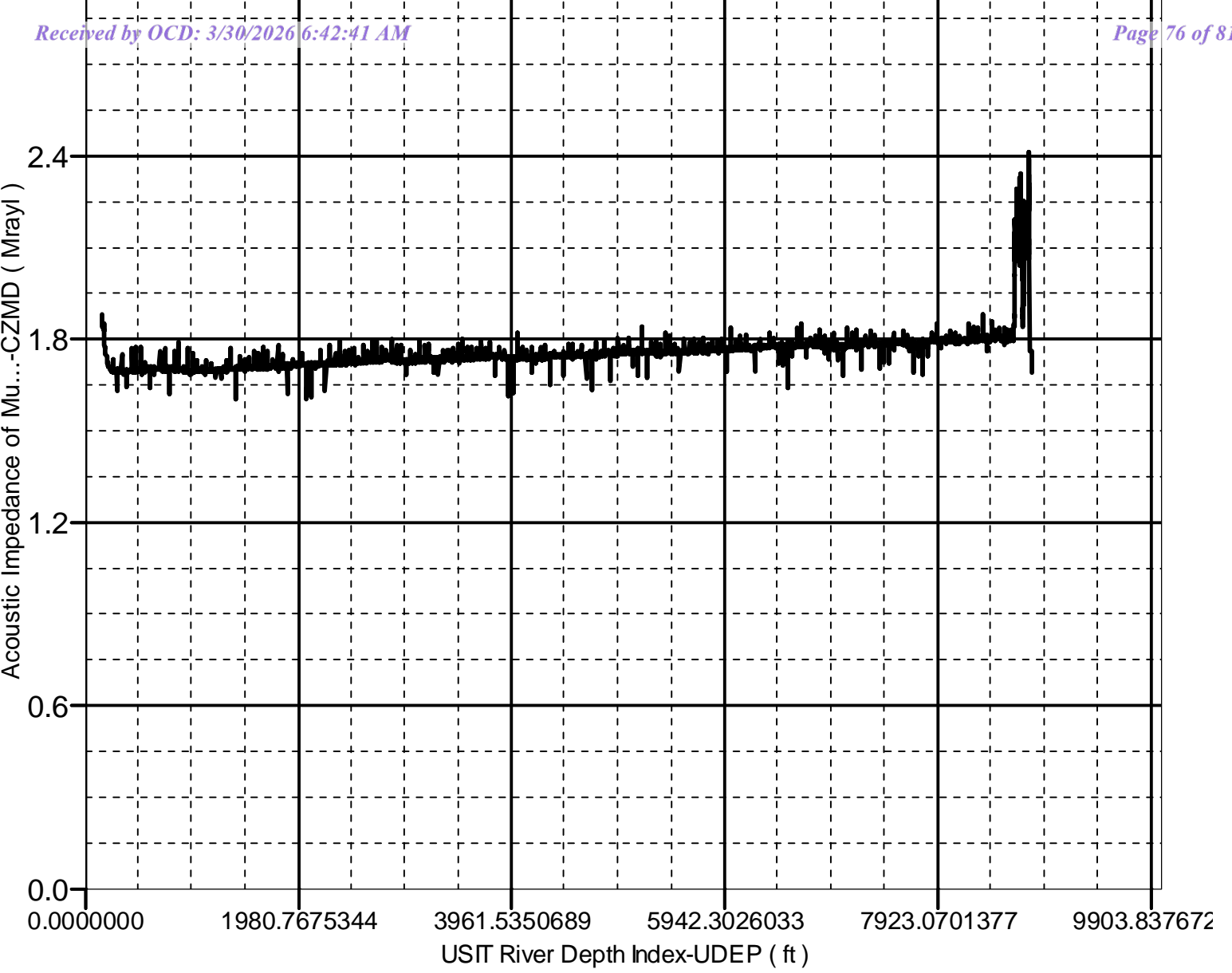
XYZ

Acoustic Impedance of Mud vs Depth

2D Cross Plot

Index Range: From 8801.00 to 154.50 ft

— UDEP-CZMD



Company:	Devon	Schlumberger
Well:	Billiken 7 Fed 1H	
Field:	Rattlesnake	
County:	Lea	
State:	New Mexico	

UltraSonic Imager
Cement Print
Gamma Ray

Sundry ID		2897273					
Plug Type	Top	Bottom	Length	Tag	Sacks	Cement Class	Notes
Surface Plug	0.00	100.00	100.00	Tag/Verify	45.00	C	Perf and circulate from 150' to surface.
13.375 inch- Shoe Plug	1123.15	1235.00	111.85	Tag/Verify			
Top of Salt @ 1406	1341.94	1456.00	114.06	Tag/Verify	138.00	C	Perf and squeeze from 1495' to 1030'. WOC and Tag. (In 46 sxs/Out 92 sxs)
Spacer Plug @ 3531	3445.69	3581.00	135.31	If solid base no need to Tag (CIBP present and/or Mechanical Integrity Test), If Perf & Sqz then Tag, Leak Test all CIBP if no Open Perforations	25.00	C	Spot cement from 3581' to 3370'.
Base of Salt @ 5027	4926.73	5077.00	150.27	Tag/Verify			
Delaware @ 5360	5256.40	5410.00	153.60	If solid			
9.625 inch- Shoe Plug	5277.19	5431.00	153.81	Tag/Verify	64.00	C	Spot cement from 5565' to 4926'. WOC and Tag.
Spacer Plug @ 7745	7617.55	7795.00	177.45	If solid base no need to Tag (CIBP present and/or Mechanical Integrity Test), If Perf & Sqz then Tag, Leak Test all CIBP if no Open Perforations	25.00	H	Spot cement from 7795' to 7617'.
KOP @ 8616	8479.84	8666.00	186.16	If solid			

				If solid base no need to Tag (CIBP present and/or Mechanical Integrity Test), If Perf & Sqz then Tag, Leak Test all CIBP if no Open Perforations			
CIBP Plug	8531.00	8566.00	35.00		5.00	H	Set CIBP at 8566'. Leak test CIBP. Dump bail 35' on top.
5.5 inch- Shoe Plug	13522.90	13760.00	237.10	Tag/Verify			

No more than 2000' is to be allowed between plugs in open hole, and no more than 3000' between plugs in cased hole.
Class H >7500'
Class C <7500'

Fluid used to mix the cement in R111P shall be saturated with the salts common to the section penetrated, and in suitable proportions, but not more than 3% calcium chloride by weight of cement will be considered the desired mixture whenever possible.

Medium, Secretary: Top of salt to surface If no salt take the deepest fresh water or Karst Depth

High, Critical: Bottom of Karst to surface or Deepest fresh water, whichever is greater
R111P: 50 Feet from Base of Salt to surface.

Class C: 1.32 ft³/sx
Class H: 1.06 ft³/sx

Onshore Order 2.III.G Drilling Abandonment Requirements: "All formations bearing usable-quality water, oil, gas, or geothermal resources, and/or a prospectively valuable deposit of minerals shall be protected.

Cave Karst/Potash Cement Requirement:

Wild Life

13.375 inch- Shoe Plug @
9.625 inch- Shoe Plug @
5.5 inch- Shoe Plug @

Low

Within Lesser Prairie Chicken Area

1185.00
5381.00
13710.00 TOC @ 2850 to

CIBP @ 8566.00

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 568679

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 568679
	Action Type: [C-103F] NOI Plug & Abandon (C-103F)

CONDITIONS

Created By	Condition	Condition Date
gcordero	CBL is NOT on file	4/23/2026
gcordero	A Cement Bond Log (CBL) is required for all Plug & Abandons (P&A) unless a CBL is currently on file with the OCD that can be used to properly evaluate the cement behind the casing.	4/23/2026
gcordero	Submit Cement Bond Logs (CBL) prior to submittal of C-103P.	4/23/2026
gcordero	Adhere to current Plug & Abandon (P&A) Conditions Of Approvals (COA).	4/23/2026