Initial Application Part I

This application is placed in file for record. It MAY or MAY NOT have been reviewed to be determined Administratively Complete

Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:
10/28/2022		SWD	pAZS2233440365

ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Geological & Engineering Bureau –
1220 South St. Francis Drive, Santa Fe, NM 87505

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Applicant: Enduring Resources ~~IV~~, LLC **OGRID Number:** 372286
Well Name: NEU 2207-16B ~~WSW~~ SWD No. 1 **API:** ~~SJ-4301 POD1~~
Pool: SWD Entrada **Pool Code:** 96436

SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED BELOW

1) **TYPE OF APPLICATION:** Check those which apply for [A]
A. Location – Spacing Unit – Simultaneous Dedication
☐ NSL ☐ NSP (PROJECT AREA) ☐ NSP (PRORATION UNIT) ☐ SD

B. Check one only for [I] or [II]
[I] Commingling – Storage – Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM
[II] Injection – Disposal – Pressure Increase – Enhanced Oil Recovery
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

FOR OCD ONLY
☐ Notice Complete
☐ Application Content Complete

2) **NOTIFICATION REQUIRED TO:** Check those which apply.
A. ☒ Offset operators or lease holders
B. ☐ Royalty, overriding royalty owners, revenue owners
C. ☒ Application requires published notice
D. ☒ Notification and/or concurrent approval by SLO
E. ☐ Notification and/or concurrent approval by BLM
F. ☒ Surface owner
G. ☒ For all of the above, proof of notification or publication is attached, and/or,
H. ☐ No notice required

3) **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Khem Suthiwan
Print or Type Name

Khem Suthiwan
Signature

Date

303-350-5721
Phone Number

ksuthiwan@enduringresources.com
e-mail Address

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____Secondary Recovery _____Pressure Maintenance ____X____Disposal _____Storage
Application qualifies for administrative approval? _____Yes _____No

II. OPERATOR: Enduring Resources IV, LLC.

ADDRESS: 200 Energy Court, Farmington, New Mexico 87401

CONTACT PARTY: Khem Suthiwan PHONE: 303-350-5721

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? _____Yes ___X_____No
If yes, give the Division order number authorizing the project:
_____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: Khem Suthiwan TITLE: Regulatory Manager

SIGNATURE: Khem Suthiwan DATE: 10/28/2022

E-MAIL ADDRESS: ksuthiwan@enduringresources.com

XV. If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal:
_____

Side 2

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Side 1

INJECTION WELL DATA SHEET

OPERATOR: _____Enduring Resources IV, LLC_____

WELL NAME & NUMBER: _____SJ-4301 (NEU 2207-16B WSW)_____

WELL LOCATION: 1185' FNL, 1365' FEL_____O_____16_____22N_____7W_____
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: _____17.5"_____ Casing Size:___13 3/8" J55____

Cemented with: _____414 sx. ***or*** _____ ft^3

Top of Cement: _____Surface___ Method Determined: ___circ.____

Intermediate Casing

Hole Size: _____ Casing Size:_____

Cemented with: _____ sx. ***or*** _____ ft^3

Top of Cement: _____ Method Determined: _____

Production Casing

Hole Size: _____8.75"____ Casing Size:____7" L80____

Cemented with: ____945 sx. ***or*** _____ ft^3

Top of Cement: ____surface__ Method Determined: ____circ.__

Total Depth: ____7304' PBTD

Injection Interval

_____6925'_feet to_7114'___

(Perforated or Open Hole; indicate which) **Perforated**

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 4 ½”_____Lining Material: Internally coated corrosion resistant tubing_

Type of Packer: _____7” x 4 ½” AS1-Packer_____

Packer Setting Depth: ____6900’_____

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? _____Yes ___X____No

   If no, for what purpose was the well originally drilled? _____Water diversion for oil well fracturing_

   _____

2. Name of the Injection Formation: _____Entrada_____

3. Name of Field or Pool (if applicable): _____Entrada Pool 964360_____

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. _____No, N/A_____

   _____

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: _Fruitland -400’, Pictured Cliffs-700’, Mancos-3,325’, Gallup-3,525’, Dakota-5,090’

   _____

   _____

III. Well Data

a) Tabular information
   i) Name: NEU 2207-16B WSW
      API: SJ-4301 POD1
      ULSTR: O-16-22N-07W
      Footages: 1185' FNL 1365' FEL
   ii) Surface Casing: 13 3/8" outer diameter, 54.5#, J-55 Steel, set to 387.7 feet. Pump 20 barrels (bbls) FW spacer & 92.5 bbls Type G cmt (440 sxs) @ 15.8 PPG, drop plug & disp w/ 52. bbls H2O, bump plug @ 178 psi, circ 38 bbls good cmt to surface. Check float, Shut in cement head, floats wouldn't hold. Wait 3 hrs, check float, remove cement head, secure casing.
   iii) Production Casing: 7" outer diameter, 26#, HCL-80 LTC Steel, set to 7,392 feet, plug back total depth 7,304 feet.
   iv) Injection Tubing: 4 1/2", J-55, Internally plastic-coated set @ 6,900'
   v) Packer: 7" x 4-1/2" AS1-X Packer @ 6,900'.

b) Additional Information
   i) Injection Pool: Entrada
   ii) Injection Interval: 6,925' – 7114' (perforated)
   iii) Original Purpose: The well, NEU 2207-16B WSW was originally used as a water diversion well for oil well fracturing.
   iv) Other Intervals: None, N/A
   v) Oil/Gas Zones: Fruitland Formation-400', Pictured Cliffs-700', Mancos Shale-3,325', Gallup Sandstone-3,525', Dakota Sandstone-5090'. The top of the Entrada is at 6,236 feet. The bottom of the closest overlying productive formation is at 5,360 feet. There will be 876 feet between the highest perforation and the bottom of the Dakota. A current wellbore diagram is included as Enclosure B and proposed wellbore diagram as Enclosure C.

IV. Proof of Notice

Enclosure D includes two active wells and one plugged and abandoned well that are within the half-mile area of review. The total vertical depth (TVD) of the deepest active well, N. Escavada Unit #317H, is 4,960 feet. The plugged and abandoned well, Dana State #001, has a TVD of 4,983 feet and is approximately 0.1 miles from the N Escavada Unit 2207-16B WSW. Top of the Entrada is 6,236 feet. Well schematic and plugging details are included as Enclosure E. Well details of the other two active wells within the ½ mile area of review are included as Enclosure F.

Enduring Resources IV, LLC. is the only oil and gas lease holders within the area of review. Notification of this application was given to the State of New Mexico via certified mail. In addition, the proof of publication is provided in Enclosure G. Notice of this application was published in the *Rio Rancho Observer,* a newspaper of general circulation in Sandoval County, New Mexico, as well as surrounding counties.

The following statement was advertised in the *Rio Rancho Observer* on October 27, 2022:

> Ms. Khem Suthiwan, Regulatory Manager at Enduring Resources, LLC. 200 Energy Court, Farmington, New Mexico 87401 (303-350-5721), wishes to provide notification for the submittal of an Application for Authorization to Inject to the New Mexico Oil Conservation Division

(NMOCD). The application requests the use of existing water supply well N Escavada Unit 2207-16B, permitted with the New Mexico Office of the State Engineer, for the use as a Class II injection well. The well is located in Sandoval County, New Mexico at latitude 36.14407256°N longitude -107.5762770°W. This well will be used to inject fluids produced from the enhanced recovery of oil and/or natural gas in the San Juan Basin. Fluids will be injected into the Entrada Formation at depths between 6,925 feet and 7,114 feet below ground surface. Maximum injection rates and pressures are anticipated to be 20,000 barrels of water per day and 1,385 pounds per square inch, respectively. Interested parties may contact the Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505, within 15 days.

Part VII. Proposed Operation

1) The proposed injection well will be used to dispose of produced water from wellbores operated by Enduring Resources, LLC. Maximum injection rate will be 20,000 barrels of water per day (bwpd) with an average of 8,000 bwpd.
2) The system will be closed.
3) The proposed average and maximum injection pressure will be 800 pounds per square inch (psi) psi average, with a maximum of 1,385 psi.
4) Injection fluid will be from present and future Enduring Resources, LLC wells in the San Juan Basin. Water analysis is attached as Enclosure H.
5) The Entrada has not been proven productive within the area of review. In general, Entrada water near recharge zones (basin fringe) has a specific conductance of < 1,500 micro ohms (µmhos). Stone et all in *Hydrology and Water Resources of San Juan Basin, New Mexico* wrote, “Generally, however, water from the Entrada is not suitable for drinking, especially in deeper parts of the basin.” Water sample analysis from the well formation is included as Enclosure I.

Part VIII. Geologic Data

The proposed injection interval is the Entrada sandstone; Entrada (96436) pool. The Entrada formation underlies the Todilto formation. The Entrada is described as a fine to very fine-grained sandstone with fair to good porosity and permeability. The top of the Entrada is at 6,225 feet. The bottom of the closest overlying productive formation (Dakota) is at 5,350 feet. There will be 875 feet between the highest perforation and the bottom of the Dakota. Surface casing was set at 388’ bgs. Production casing was run past the Entrada interval and set at 7,304’ bgs. The Entrada sandstone is a very porous and permeable aeolian sandstone. It has produced oil elsewhere in the San Juan Basin (e.g. Eagle Mesa, Leggs, Media, Ojo Encino, Paper Wash, Snake Eyes Field). The current wellbore diagram is included as Enclosure B and the proposed wellbore diagram is included as Enclosure C.

The expected formation tops are as follows:

Ojo Alamo	70’
Kirtland	290’
Fruitland	400’
Pictured Cliffs	700’
Lewis	875’
Chacra	1,040’
Cliff House	1,425’
Menefee	2,175’

Point Lookout	3,100’
Mancos	3,325’
Gallup	3,525’
Base Greenhorn	5,040’
Dakota	5,090’
Morrison	5,350’
Todilto	6,170’
Entrada	6,225’

Point of Diversion data (POD) obtained from the New Mexico Office of the State Engineer (NMOSE) on 10/7/2022 indicates there are no water wells located within 1 mile of the proposed NEU 2207-16B water disposal well.

The NMOSE POD dataset also indicates the closest surface water diversion to the NEU 2207-16B water disposal well is SJ-04301-POD 5, which is located 5.27 miles southeast from NEU 2207-16B water disposal well.

IX. Stimulation Program

There is no proposed stimulation record.

X. Logging and Test Data

A triple combo log is attached as Enclosure J.

XI. Fresh Water Wells

A search for freshwater wells within one mile of the proposed disposal well was conducted using the New Mexico Office of the State Engineer website at http://nmwrrs.ose.state.nm.us/nmwrrs/index.html. The search returned no freshwater wells within one mile of the SJ-4301 POD1. A map showing the locations of the nearest wells is included as Enclosure K.

XII. Statement of Geologic and Engineering Data

Enduring Resources, LLC is not aware of any geologic or engineering data that may indicate the Entrada is in hydrologic connection with any underground sources of water. There is a greater than 5,000 feet vertical separation and multiple shale zones between the top of the Entrada and the bottom of known existing water wells in the area. Closest Quaternary fault zone is miles to the east in the Rio Grande Valley. There are many injection and disposal wells active in the Entrada formation in New Mexico.

X

Costin McQueen
Program Geologist (Contractor)

NEU 2207-16B

Sandoval Co., NM
1185’ FNL, 1365’ FEL, Sec. 16, T22N, R07W
36.143567°N, 107.576013°W
CONVERSION TO SALTWATER DISPOSAL

ENDURING RESOURCES, LLC

Well Construction Data:

- Production Casing Info: 7” 26# HCL-80 LTC @ 7,392’
  - PBTD = 7,304’
  - Fill @ 7,166’

Injection Well Data

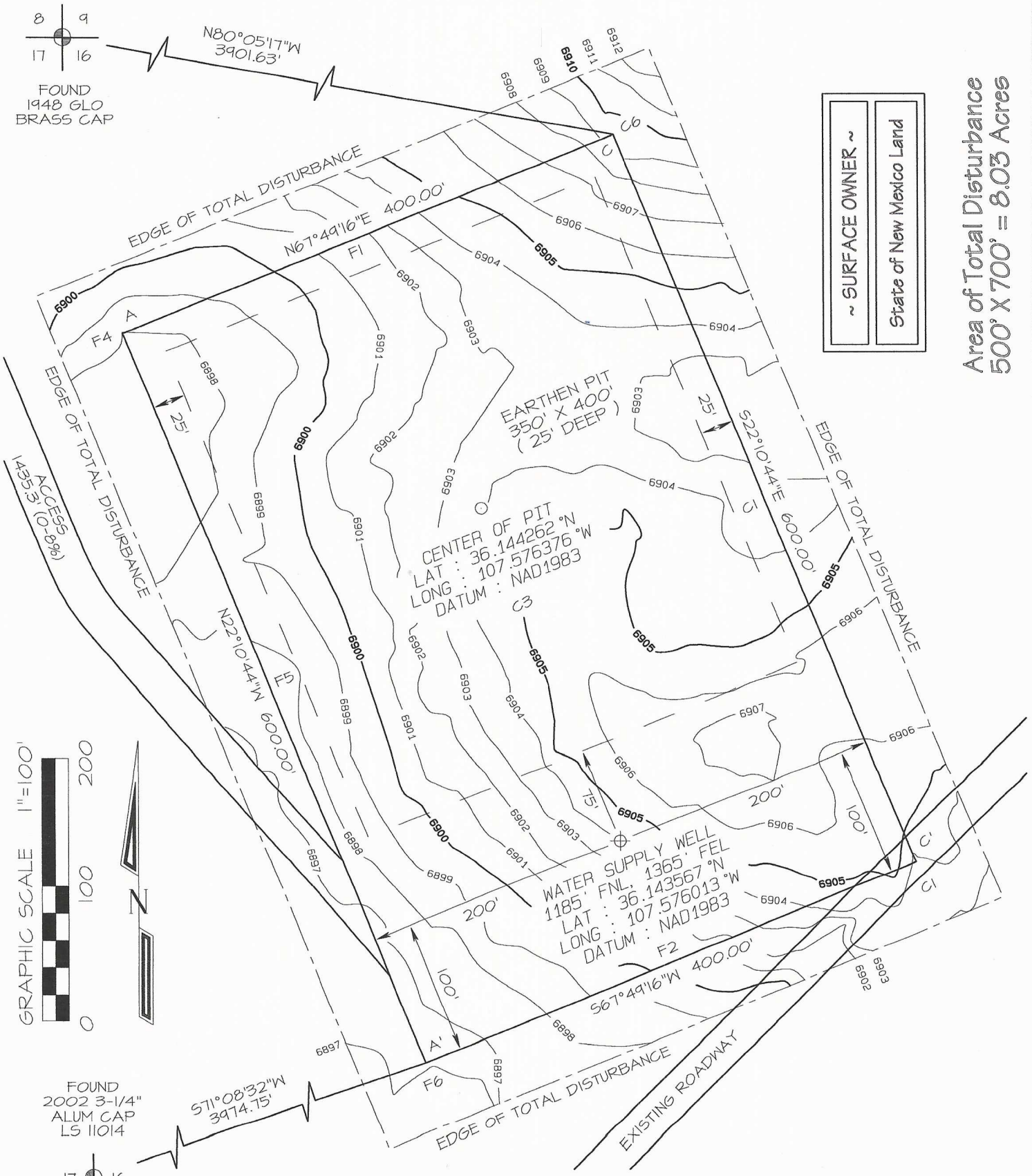
- Tubing info: 4-1/2” plastic lined
- Packer = 7” x 4-1/2” AS1-X packer @ 6900’
- Formation = Entrada
- Name of Field/Pool = Entrada Pool 964360
- Injection interval = 6925’ – 7114’ (perforated)
  - See wellbore diagram for perf depths and shot count
  - Hole size = 0.45”

Proposed Operation

- Purpose and Use: Water disposal into Entrada formation
- Source of Water to be Used: Produced water from present and future wellbores operated by Enduring Resources
- Injection Rate = 20,000 bwpd max, 8,000 bwpd average
- Injection Pressure = 1,385 psi max, 800 psi average
- Closed system

ENCLOSURE A: SURVEY PLAT

ENDURING RESOURCES NEU 2207-16B WATER RECYCLE FACILITY
LOCATED IN NW/4 NE/4 OF SECTION 16, T22N, R7W, NMPM
SANDOVAL COUNTY, NEW MEXICO ELEVATION: 6902'
LAT: 36.144072°N LONG: 107.576276°W DATUM: NAD1983

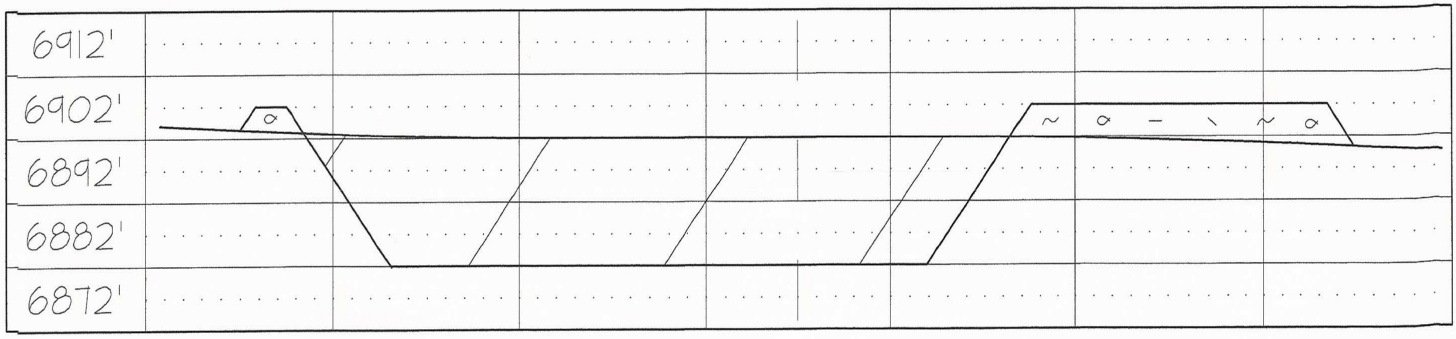


Steel T-Posts have been set to define Edge of Disturbance limits which are 50' offset from the edge of staked fracturing site.

ENDURING RESOURCES, LLC NEU 2207-16B WATER RECYCLE FACILITY
LOCATED IN NW/4 NE/4 OF SECTION 16, T22N, R7W, NMPM
SANDOVAL COUNTY, NEW MEXICO ELEVATION: 6902'

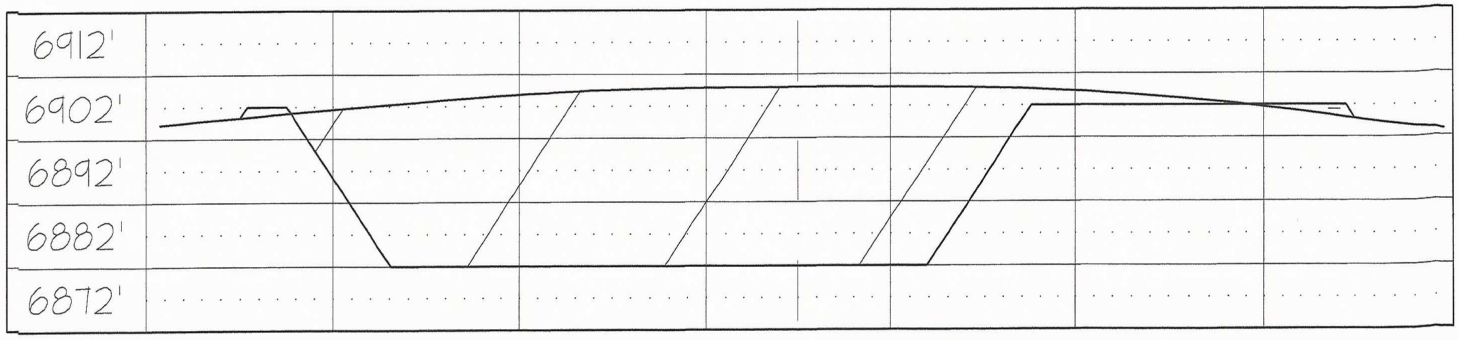
HORIZONTAL SCALE 1"=100' C/L VERTICAL SCALE 1"=30'

A-A'



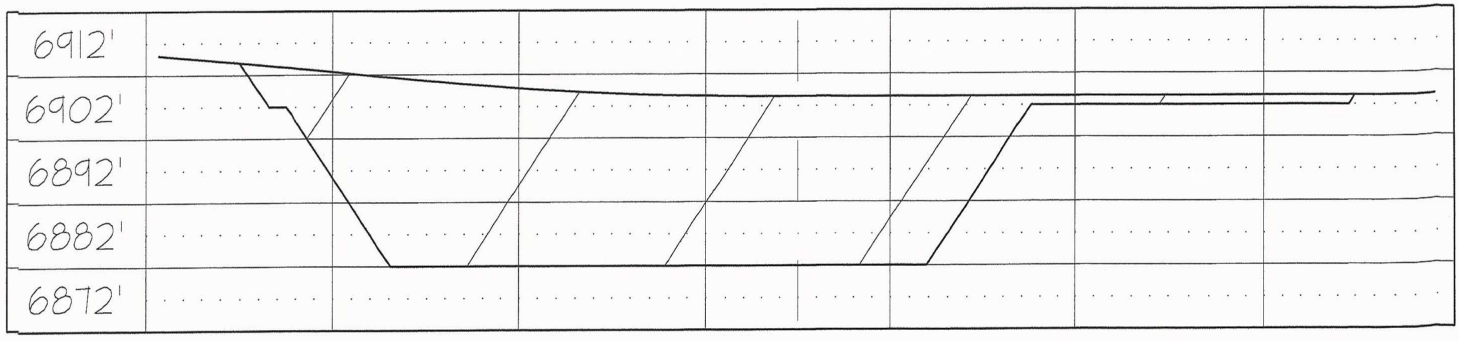
HORIZONTAL SCALE 1"=100' C/L VERTICAL SCALE 1"=30'

B-B'



HORIZONTAL SCALE 1"=100' C/L VERTICAL SCALE 1"=30'

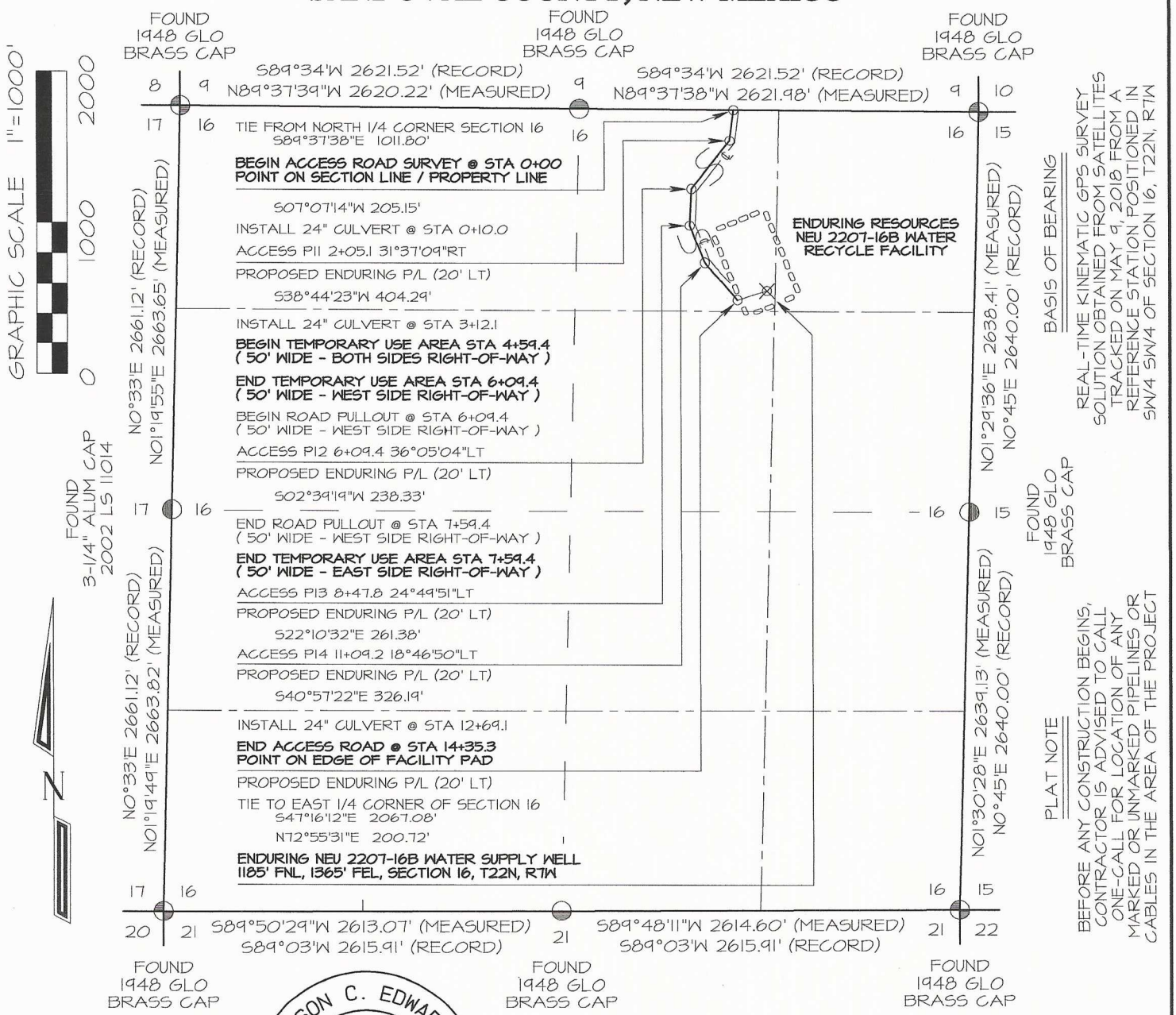
C-C'



EDWARDS SURVEYING, INC. IS NOT LIABLE FOR LOCATION OF UNDERGROUND UTILITIES OR PIPELINES.

CONTRACTOR SHOULD CONTACT ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED UNDERGROUND UTILITIES OR PIPELINES ON WELLPAD AND/OR ACCESS ROAD AT LEAST TWO WORKING DAYS PRIOR TO CONSTRUCTION.

ENDURING RESOURCES, LLC NEU 2207–16B WATER RECYCLE FACILITY
PROPOSED ACCESS ROAD SURVEY LOCATED IN THE NW/4 NE/4 OF SECTION 16, T22N, R7W, NMPM SANDOVAL COUNTY, NEW MEXICO



BASIS OF BEARING

REAL-TIME KINEMATIC GPS SURVEY SOLUTION OBTAINED FROM SATELLITES TRACKED ON MAY 9, 2018 FROM A REFERENCE STATION POSITIONED IN SW/4 SW/4 OF SECTION 16, T22N, R7W

PLAT NOTE

BEFORE ANY CONSTRUCTION BEGINS, CONTRACTOR IS ADVISED TO CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED PIPELINES OR CABLES IN THE AREA OF THE PROJECT

~ SURFACE OWNERSHIP ~ State of New Mexico Land	
0+00 TO 14+35.3	1435.3 FT / 87.0 RODS

JASON C. EDWARDS NEW MEXICO 15269 REGISTERED PROFESSIONAL SURVEYOR

I, Jason C. Edwards, a registered Professional Surveyor under the laws of the State of New Mexico, hereby certify that this plat was prepared from field notes of an actual survey meeting the minimum requirements of the standards for easement surveys and is true and correct to the best of my knowledge and belief.

JASON C. EDWARDS Date: May 23, 2018

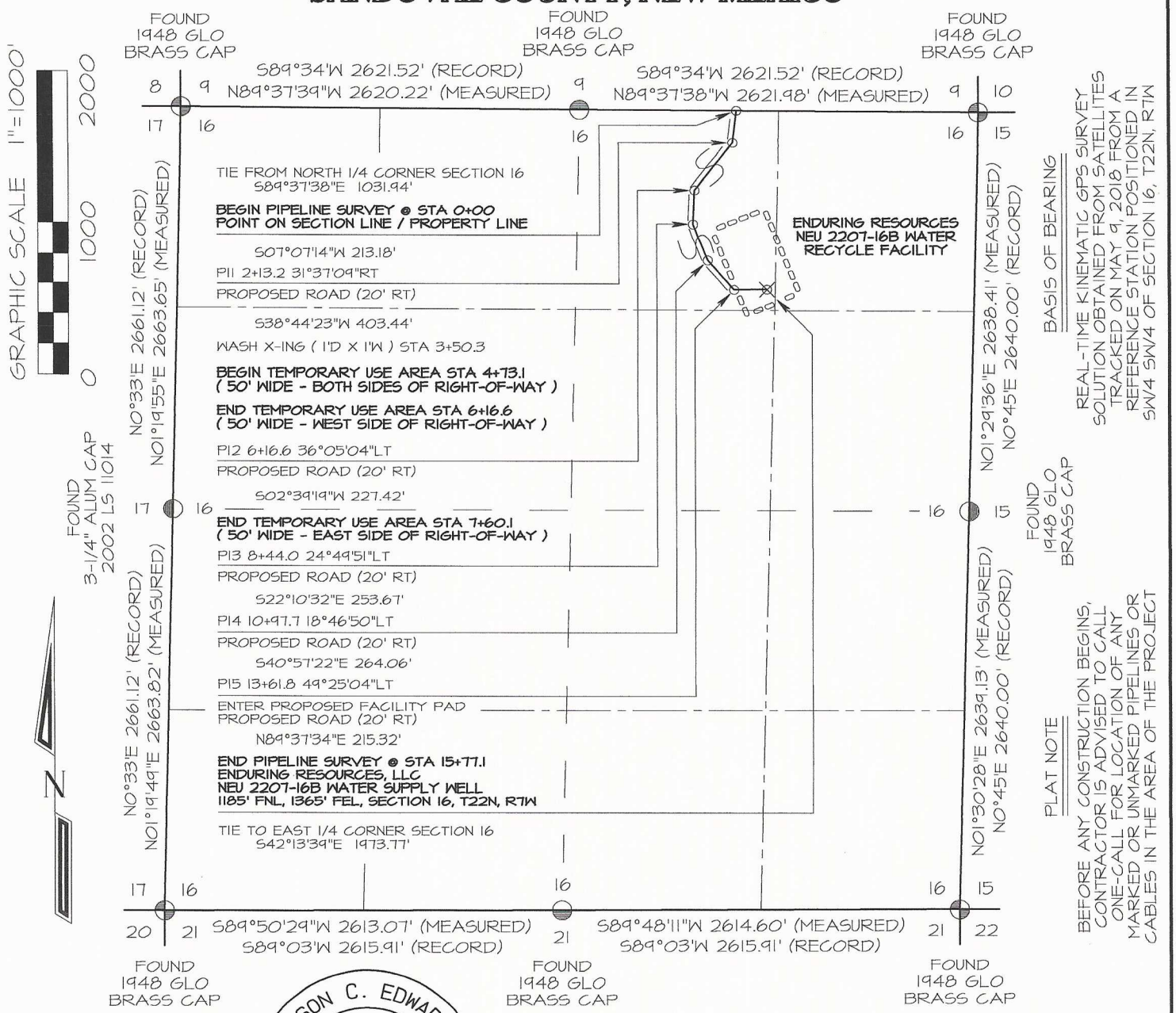
Jason C. Edwards, P.L.S.
New Mexico L.S. #15269

Prepared for:
ENDURING RESOURCES, LLC
332 ROAD 3100
AZTEC, NM 87410

Land Surveyor:
Jason C. Edwards
Mailing Address:
Post Office Box 6612
Farmington, NM 87499
Business Address:
111 East Pinon Street
Farmington, NM 87402
(505) 486-1695 (Office)
ncesurveys@comcast.net
NCE SURVEYS, INC.

SHEET 3 OF 4 | FILENAME: 2216API | CHECKED BY: JCE | DRAWN BY: EDO

ENDURING RESOURCES, LLC NEU 2207-16B WATER RECYCLE FACILITY
PROPOSED PIPELINE SURVEY LOCATED IN THE NW/4 NE/4 OF SECTION 16, T22N, R7W, NMPM SANDOVAL COUNTY, NEW MEXICO



~ SURFACE OWNERSHIP ~ State of New Mexico Land	
0+00 TO 15+77.1	1577.1 FT / 95.6 RODS

JASON C. EDWARDS NEW MEXICO 15269 REGISTERED PROFESSIONAL SURVEYOR

I, Jason C. Edwards, a registered Professional Surveyor under the laws of the State of New Mexico, hereby certify that this plat was prepared from field notes of an actual survey meeting the minimum requirements of the standards for easement surveys and is true and correct to the best of my knowledge and belief.

JASON C. EDWARDS Date: May 23, 2018

Jason C. Edwards, P.L.S.
New Mexico L.S. #15269

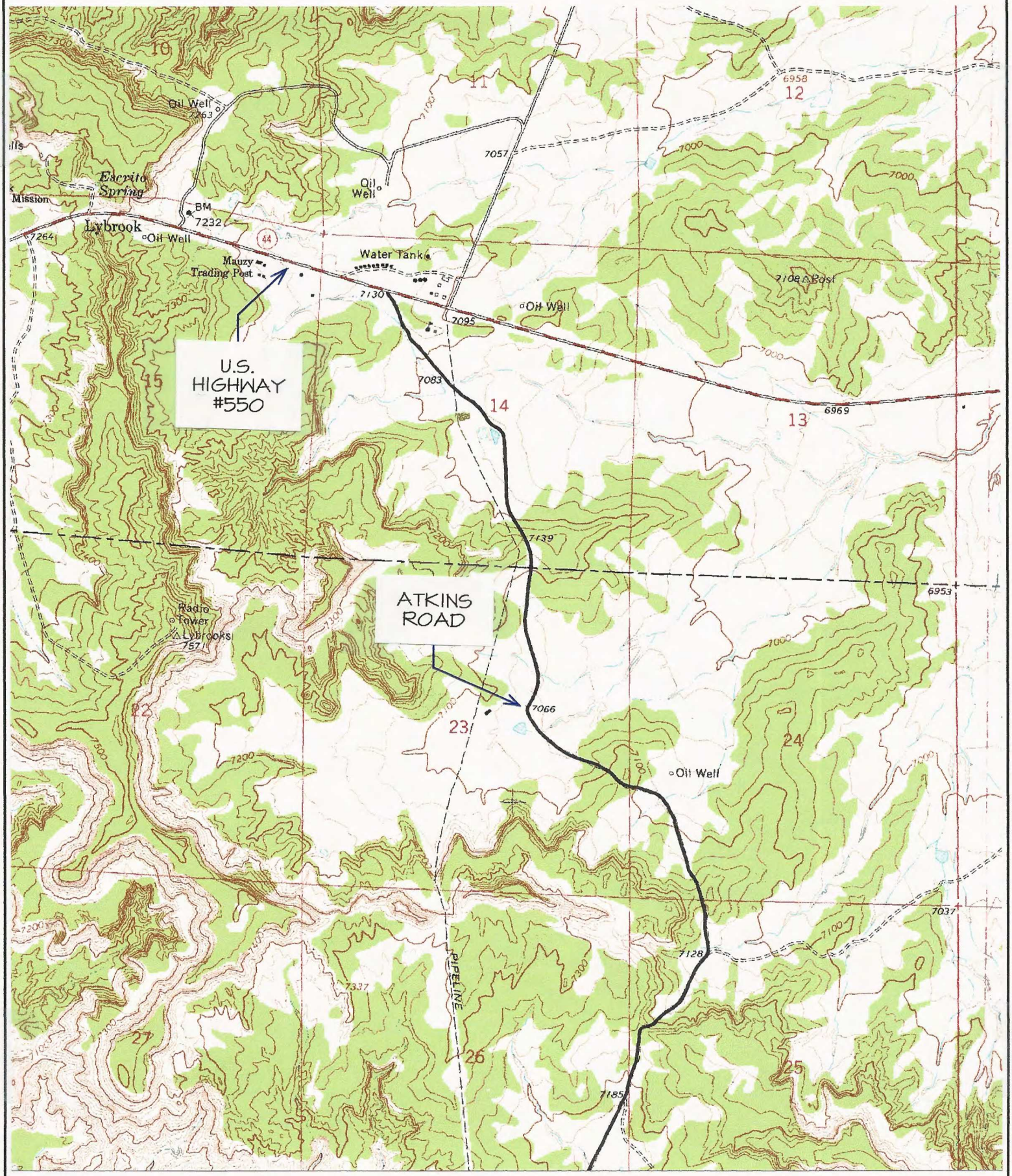
Prepared for:
ENDURING RESOURCES, LLC
332 ROAD 3100
AZTEC, NM 87410

Land Surveyor:
Jason C. Edwards
Mailing Address:
Post Office Box 6612
Farmington, NM 87499
Business Address:
111 East Pinon Street
Farmington, NM 87402
(505) 486-1695 (Office)
ncesurveys@comcast.net
NCE SURVEYS, INC.

SHEET 4 OF 4 | CHECKED BY: JCE
FILENAME: 22716GPI | DRAWN BY: EDO

ENDURING RESOURCES, LLC NEU 2207-16B WATER RECYCLE FACILITY

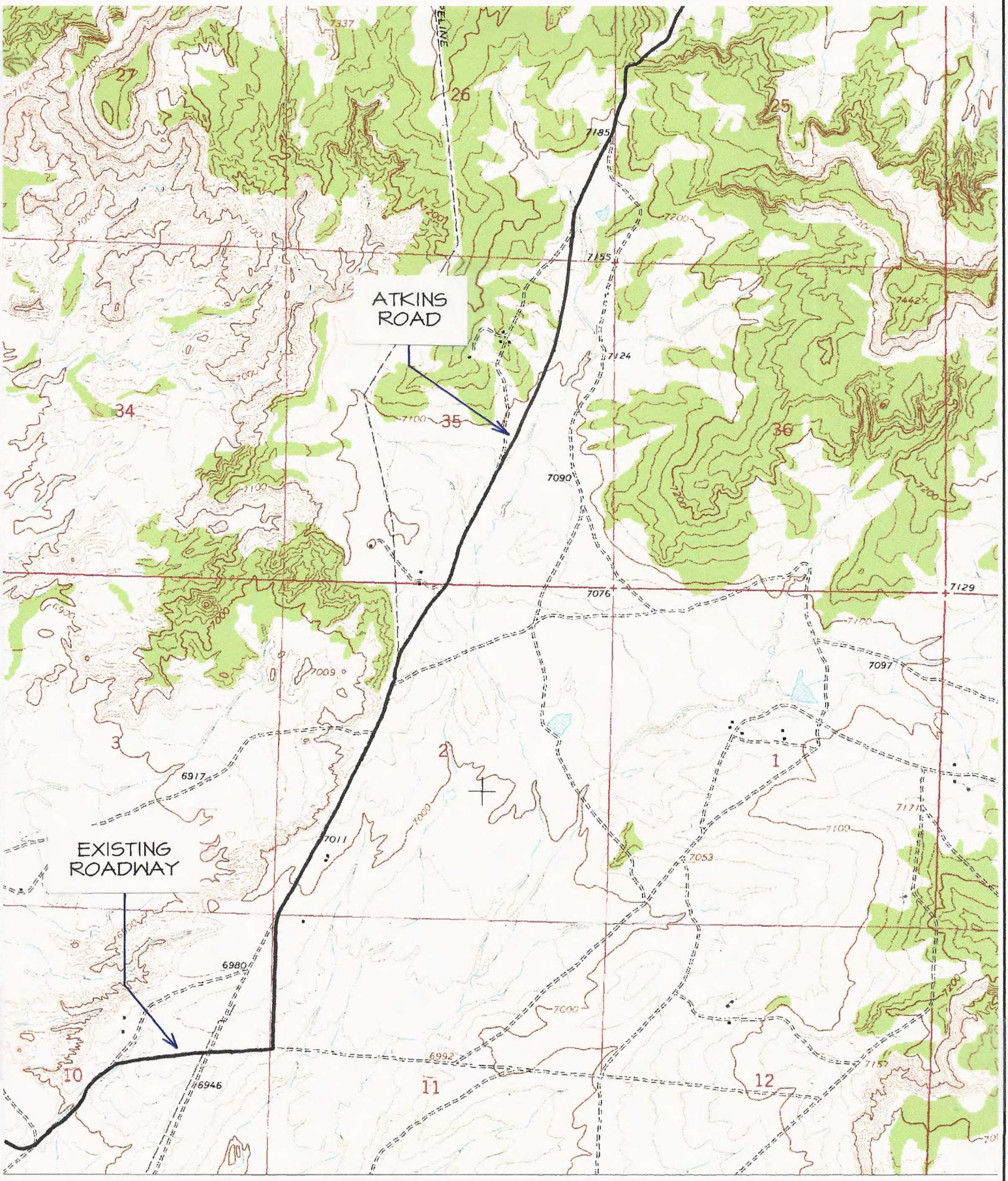
1185' FNL & 1365' FEL, SECTION 16, T22N, R7W, N.M.P.M.
SANDOVAL COUNTY, NEW MEXICO



NAME OF TOPO MAP : LYBROOK ⊕ PRODUCING WELL ⊗ PLUGGED & ABANDONED WELL

ENDURING RESOURCES, LLC NEU 2207-16B WATER RECYCLE FACILITY

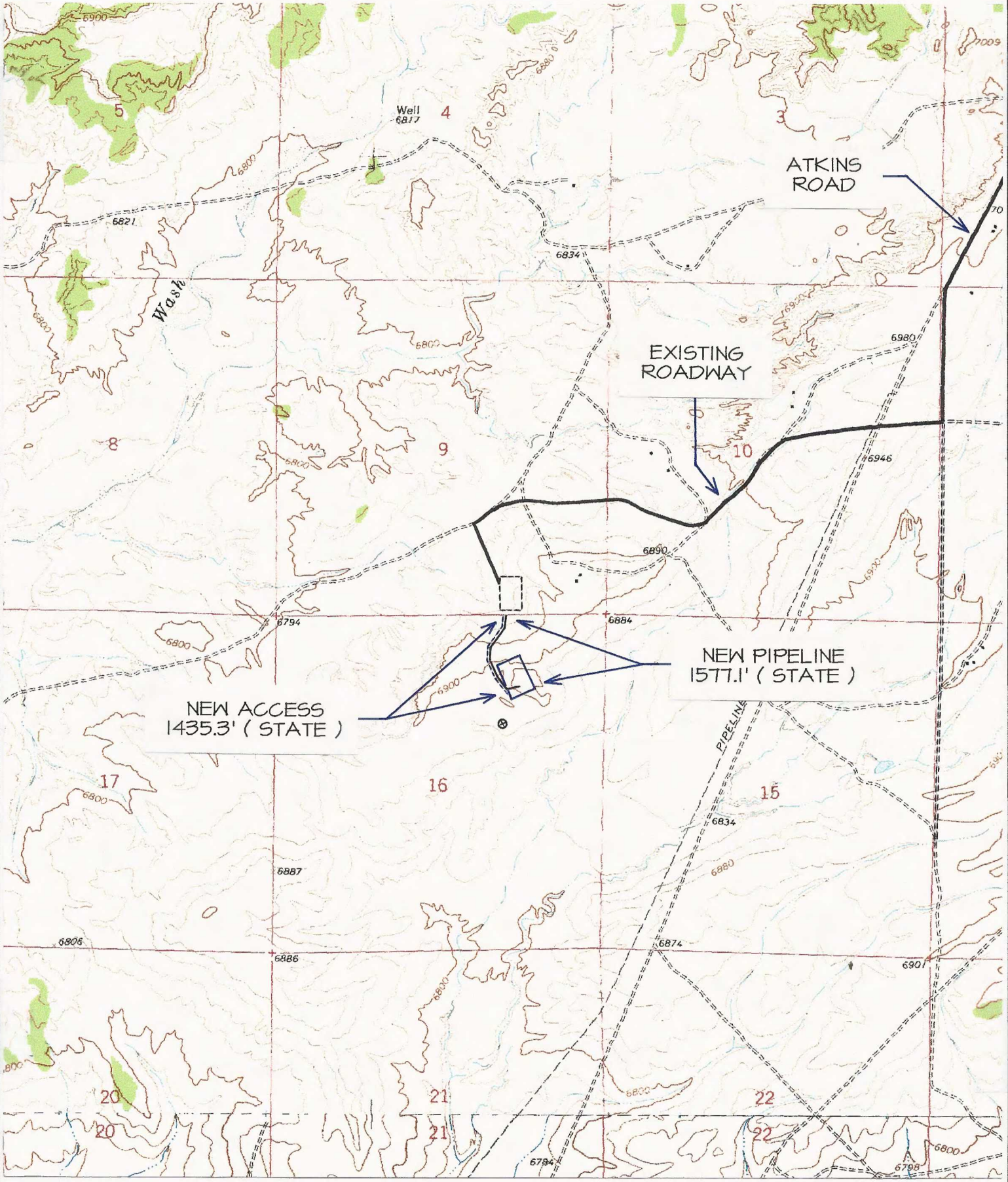
1185' FNL & 1365' FEL, SECTION 16, T22N, R7W, N.M.P.M.
SANDOVAL COUNTY, NEW MEXICO



NAME OF TOPO MAP : LYBROOK ⊕ PRODUCING WELL ⊗ PLUGGED & ABANDONED WELL

ENDURING RESOURCES, LLC NEU 2207-16B WATER RECYCLE FACILITY

1185' FNL & 1365' FEL, SECTION 16, T22N, R7W, N.M.P.M.
SANDOVAL COUNTY, NEW MEXICO



NAME OF TOPO MAP : LYBROOK ⊕ PRODUCING WELL ⊗ PLUGGED & ABANDONED WELL

Directions from the Intersection of US Hwy 550 & US Hwy 64

in Bloomfield, NM to Enduring Resources, LLC NEU 2207-16B Water Recycle Facility

1185' FNL & 1365' FEL, Section 16, T22N, R7W, N.M.P.M., Sandoval County, NM

Latitude: 36.143567°N Longitude: 107.576013°W Datum: NAD1983

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 48.9 miles to Mile Marker 103.1;

Go Right (Southerly) on Atkins Road for 5.9 miles to 4-way intersection;

Go Right (Westerly) exiting Atkins Road onto existing roadway for 1.6 miles to fork in roadway;

Go Left (Southerly) on existing roadway for 0.2 miles to existing Enduring N Escavada Unit #317H location, from south edge of existing location and section 16 section line which begin new access continues for an additional 1435.3' to staked Enduring NEU 2207-16B Water Recycle Facility location.

June 6, 2018

NEW MEXICO STATE APPLICATION
ENDURING RESOURCES, LLC
NEU 2207-16B WATER RECYCLE FACILITY
NW/4 NE/4 SECTION 16
TOWNSHIP 22 NORTH, RANGE 7 WEST, N.M.P.M.
SANDOVAL COUNTY, NEW MEXICO

A strip of land 30 feet wide across a portion of Section 16, Township 22 North, Range 7 West, N.M.P.M., Sandoval County, New Mexico being 10 feet to west side and 20 feet to east side, perpendicular to the following described centerline:

Commencing at the North Quarter-Section Corner of said Section 16, thence S89°37'38"E a distance of 1011.80 feet to the "true point-of-beginning" for this description;
Thence S07°07'14"W a distance of 205.15 feet to a point;
Thence S38°44'23"W a distance of 404.29 feet to a point;
Thence S02°39'19"W a distance of 238.33 feet to a point;
Thence S22°10'32"E a distance of 261.38 feet to a point;
Thence S40°57'22"E a distance of 326.19 feet to the "true point-of-ending" for this description from whence the East Quarter-Section Corner of said Section 16 bears S47°16'12"E a distance of 2067.08 feet.

The above described strip of land totals 1435.34 feet or 86.990 rods in length, contains 0.989 acres more or less, and is allocated by 40-acre tracts as follows:

Section 16	NW/4 NE/4	1435.34 Feet	86.990 Rods	0.989 Acre(s)
	Total	1435.34 Feet	86.990 Rods	0.989 Acre(s)

BASIS OF BEARING: REAL-TIME KINEMATIC GPS SURVEY SOLUTION OBTAINED FROM SATELLITES TRACKED ON MAY 9, 2018 FROM A REFERENCE STATION POSITIONED IN THE SW/4 SW/4 SECTION 16, T22N, R7W, SANDOVAL COUNTY, NEW MEXICO.

SURVEYOR'S CERTIFICATION

I, JASON C. EDWARDS, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15269, DO HEREBY CERTIFY THAT THIS SURVEY DESCRIPTION AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I FURTHER CERTIFY THAT THIS SURVEY IS NOT A LAND DIVISION OR SUBDIVISION AS DEFINED IN THE NEW MEXICO SUBDIVISION ACT.

JASON C. EDWARDS
JASON C. EDWARDS, NEW MEXICO LS #15269
REFERENCE DRAWING: 22716AP1

ENCLOSURE B: CURRENT WBD

N Escavada Unit 227 16B WSW - Current

API #:30-043-XXXXX

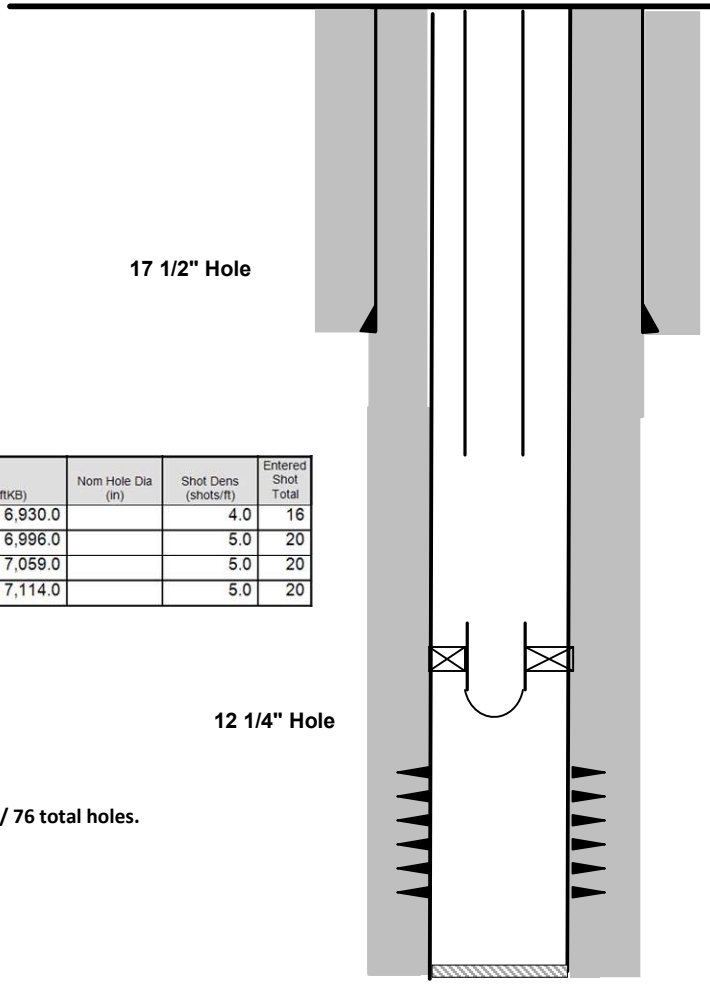
SHL:	**1185' FNL**	**1365' FEL**	**Sec: 16**	**Twnshp: 22N**	**Rge: 7W**
BHL:	**1185' FNL**	**1365' FEL**	**Sec: 16**	**Twnshp: 22N**	**Rge: 7W**

Spud Date: 9/20/2018
Completion Date: 10/13/2018

Lat: 36.143567 N Long: 107.576013 W
Entrada
County: Sandoval NM
Elevation: 6917'

Created By: mwarp 11/9/2018
Modified By: TJOYCE 6/24/19
Modified By: Clongwell 10/6/2022

Current Wellbore



17 1/2" Hole

12 1/4" Hole

Perf'd @ 6925'-7,114' , w/ 76 total holes.

Top (ftKB)	Btm (ftKB)	Nom Hole Dia (in)	Shot Dens (shots/ft)	Entered Shot Total
6,925.0	6,930.0		4.0	16
6,991.0	6,996.0		5.0	20
7,049.0	7,059.0		5.0	20
7,109.0	7,114.0		5.0	20

13 3/8" Surface 54.5# J-55 @ 387.7'. Circulated cmt to surface w/ 414 sx Class G cmt.

7" Production 26# HCL-80 to 7,392' (LT&C). **PBTD = 7,302'**. 80 bbls tuned spacer, lead 184 bbls 12.3# Econocem (525 sxs). Tail 101 bbl 13.3# Extendacem (420 sxs). Displaced w/ 280 bbls H20, dropped plug, floats held. Circulated 40 bbl good cement to surface. Top of tail 4,352'.

BHA Detail: (10/6/2022)
2 3/8" tubing at 3,013'
Packer with pump out plug set at 6,859'

ENCLOSURE C: PROPOSED WBD

N Escavada Unit 227-16B - Proposed

API #:30-043-XXXXX

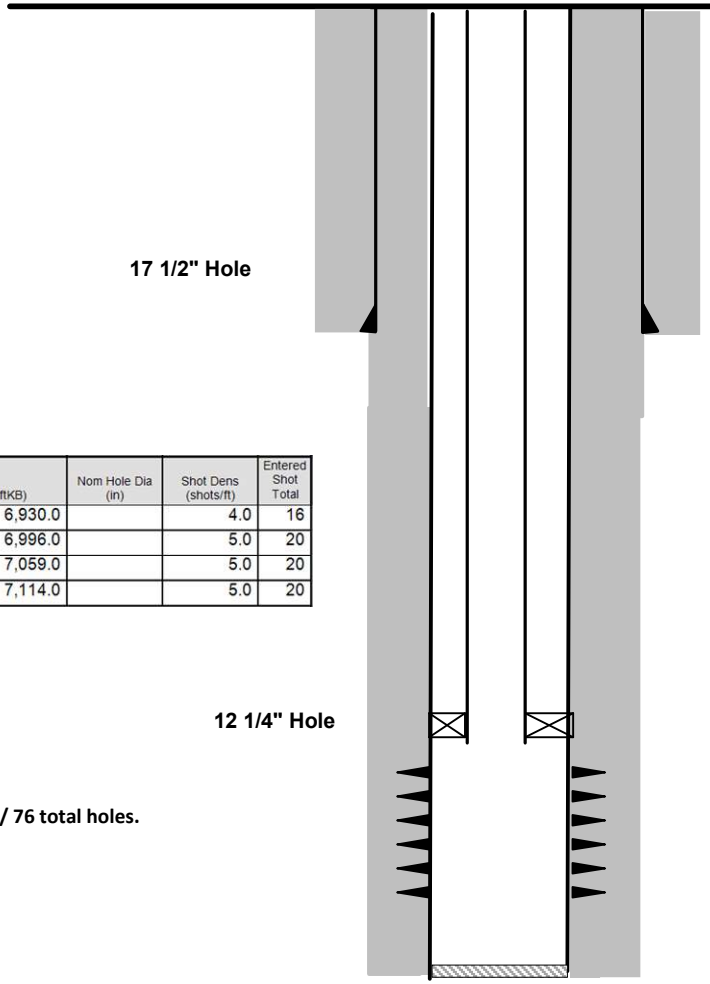
SHL: 1185' FNL 1365' FEL Sec: 16 Twnshp: 22N Rge: 7W
BHL: 1185' FNL 1365' FEL Sec: 16 Twnshp: 22N Rge: 7W

Spud Date: 9/20/2018
Completion Date: 10/13/2018

Lat: 36.143567 N Long: 107.576013 W
Entrada
County: Sandoval NM
Elevation: 6917'

Created By: Clongwell 10/6/2022

Current Wellbore



17 1/2" Hole

12 1/4" Hole

Top (ftKB)	Btm (ftKB)	Nom Hole Dia (in)	Shot Dens (shots/ft)	Entered Shot Total
6,925.0	6,930.0		4.0	16
6,991.0	6,996.0		5.0	20
7,049.0	7,059.0		5.0	20
7,109.0	7,114.0		5.0	20

Perf'd @ 6925'-7,114' , w/ 76 total holes.

13 3/8" Surface 54.5# J-55 @ 387.7'.
Circulated cmt to surface w/ 414 sx
Class G cmt. BURST = 2730 psi

7" Production 26# HCL-80 to 7,392' (LT&C).
PBTD = 7,302'. 80 bbls tuned spacer, lead 184 bbls 12.3# Econocem (525 sxs). Tail 101 bbl 13.3# Extendacem (420 sxs). Displaced w/ 280 bbls H20, dropped plug, floats held. Circulated 40 bbl good cement to surface. Top of tail 4,352'.

BHA Detail:
4 ½" Plastic Lined Tubing
7" x 4 ½" AS1-X Packer at 6,900'

ENCLOSURE D: ABULATION OF DATA

Wells Located within 1/2 mile radius of proposed SWD well (N Escavada Unit 2207-16B WSW POD 1)														
Count	API	Name	Type	Status	OGRID	County	ULSTR	Footage	Plug Date	Entrada Penetration	Spud Date	Measured Depth	True Vertical Depth	Current Operator
1	30-043-20165	DANA STATE #001	Oil	Plugged (site released)	10413	Sandoval	G-16-22N-07W	1710 FNL 1710 FEL	2/16/2009	No	3/15/1975	4983'	4983'	HICKS OIL & GAS INC
2	30-043-21295	N ESCAVADA UNIT #317H	Oil	Active	372286	Sandoval	O-09-22N-07W	228 FSL 1547 FEL	--	No	9/25/2017	15115'	4960'	ENDURING RESOURCES, LLC
3	30-043-21301	N ESCAVADA UNIT #318H	Oil	Active	372286	Sandoval	O-09-22N-07W	268 FSL 1548 FEL	--	No	9/26/2017	12922'	4944'	ENDURING RESOURCES, LLC
Wells Located within 2 mile radius of proposed SWD well (N Escavada Unit 2207-16B WSW POD 1)														
1	30-043-21286	N ESCAVADA UNIT #328H	Oil	Active	372286	Sandoval	I-10-22N-07W	1918 FSL 1267 FEL	--	No	6/13/2017	11004'	5074'	ENDURING RESOURCES, LLC
2	30-043-20281	DOME FEDERAL 15-22-7 #001	Gas	Active	6515	Sandoval	P-15-22N-07W	900 FSL 1190 FEL	--	No	1/16/1979	1950'	1950'	DUGAN PRODUCTION CORP
3	30-043-20203	PRE-ONGARD WELL #002	Gas	Plugged (site released)	214263	Sandoval	C-23-22N-07W	800 FNL 1640 FWL	5/16/1985	No	1/28/1976	0	2004'	PRE-ONGARD WELL OPERATOR
4	30-043-20252	PRE-ONGARD WELL #005	Gas	Plugged (site released)	214263	Sandoval	A-22-22N-07W	790 FNL 790 FEL	4/16/1985	No	12/31/9999	0	0	PRE-ONGARD WELL OPERATOR
5	30-043-20449	DOME NAVAJO 3 22 7 #001	Oil	Active	6515	Sandoval	J-03-22N-07W	1660 FSL 1980 FEL	--	No	2/13/1980	5208'	5208'	DUGAN PRODUCTION CORP
6	30-043-21285	N ESCAVADA UNIT #314H	Oil	Active	372286	Sandoval	I-10-22N-07W	1900 FSL 1275 FEL	--	No	6/12/2017	13900'	5093'	ENDURING RESOURCES, LLC
7	30-043-21284	N ESCAVADA UNIT #313H	Oil	Active	372286	Sandoval	I-10-22N-07W	1937 FSL 1259 FEL	--	No	6/14/2017	12847'	5106'	ENDURING RESOURCES, LLC
8	30-043-20484	DOME FEDERAL 10-22-7 #001	Gas	Active	6515	Sandoval	H-10-22N-07W	1560 FNL 860 FEL	--	No	9/10/1980	2320'	2320'	DUGAN PRODUCTION CORP
9	30-043-21294	N ESCAVADA UNIT #312H	Oil	Active	372286	Sandoval	O-11-22N-07W	515 FSL 2378 FEL	--	No	9/13/2017	15435'	5093'	ENDURING RESOURCES, LLC
10	30-043-21302	N ESCAVADA UNIT #311H	Oil	Active	372286	Sandoval	O-11-22N-07W	524 FSL 2339 FEL	--	No	9/14/2017	13425'	5148'	ENDURING RESOURCES, LLC
11	30-043-21313	W ESCAVADA UNIT #306H	Oil	Active	372286	Sandoval	M-17-22N-07W	517 FSL 220 FWL	--	No	12/6/2018	15420'	4673'	ENDURING RESOURCES, LLC
12	30-043-21309	W ESCAVADA UNIT #305H	Oil	Active	372286	Sandoval	M-17-22N-07W	497 FSL 220 FWL	--	No	12/5/2018	15745'	4703'	ENDURING RESOURCES, LLC
13	30-043-20480	DOME NAVAJO 17-22-07 #002	Gas	Active	6515	Sandoval	K-17-22N-07W	1820 FSL 1570 FWL	--	No	9/19/1980	1920'	1920'	DUGAN PRODUCTION CORP
14	30-043-20347	PRE-ONGARD WELL #001	Gas	Plugged (site released)	214263	Sandoval	I-17-22N-07W	1660 FSL 1060 FEL	5/13/1983	No	7/17/1978	0	1875'	PRE-ONGARD WELL OPERATOR
15	30-043-20319	DOME RUSTY 20-22-7 #001	Gas	Active	6515	Sandoval	P-20-22N-07W	790 FSL 790 FEL	--	No	6/23/1978	2150'	2150'	DUGAN PRODUCTION CORP
16	30-043-20408	DOME NAVAJO 20-22-7 #001	Gas	Active	6515	Sandoval	H-20-22N-07W	1600 FNL 990 FEL	--	No	1/9/1979	3700'	3700'	DUGAN PRODUCTION CORP
17	30-043-21307	W ESCAVADA UNIT #304H	Oil	Active	372286	Sandoval	P-17-22N-07W	235 FSL 248 FEL	--	No	7/7/2018	15864'	4855'	ENDURING RESOURCES, LLC
18	30-043-21305	W ESCAVADA UNIT #302H	Oil	Active	372286	Sandoval	P-17-22N-07W	235 FSL 208 FEL	--	No	7/6/2018	13638'	4857'	ENDURING RESOURCES, LLC
19	30-043-20165	DANA STATE #001	Oil	Plugged (site released)	10413	Sandoval	G-16-22N-07W	1710 FNL 1710 FEL	2/16/2009	No	3/15/1975	4983'	4983'	HICKS OIL & GAS INC
20	30-043-20345	PRE-ONGARD WELL #001	Gas	Plugged (site released)	214263	Sandoval	F-09-22N-07W	1590 FNL 1700 FWL	4/18/1989	No	8/3/1978	0	1975'	PRE-ONGARD WELL OPERATOR
21	30-043-20309	CHACRA #002	Gas	Active	6515	Sandoval	O-21-22N-07W	1160 FSL 1600 FEL	--	No	12/12/1977	2004'	2004'	DUGAN PRODUCTION CORP
22	30-043-21108	SHAW COM #001	Gas	Active	6515	Sandoval	M-16-22N-07W	990 FSL 660 FWL	--	No	5/16/2011	1400'	1349'	DUGAN PRODUCTION CORP
23	30-043-21306	W ESCAVADA UNIT #303H	Oil	Active	372286	Sandoval	P-17-22N-07W	235 FSL 228 FEL	--	No	7/6/2018	15588'	4826'	ENDURING RESOURCES, LLC
24	30-043-21112	BASIE COM #001	Gas	Active	6515	Sandoval	D-21-22N-07W	990 FNL 800 FWL	--	No	5/5/2011	1400'	1348'	DUGAN PRODUCTION CORP
25	30-043-21888	N ESCAVADA UNIT #315H	Oil	Active	372286	Sandoval	L-10-22N-07W	1583 FSL 250 FWL	--	No	9/18/2017	13308'	5000'	ENDURING RESOURCES, LLC
26	30-043-21295	N ESCAVADA UNIT #317H	Oil	Active	372286	Sandoval	O-09-22N-07W	228 FSL 1547 FEL	--	No	9/25/2017	15115'	4960'	ENDURING RESOURCES, LLC
27	30-043-21300	N ESCAVADA UNIT #316H	Oil	Active	372286	Sandoval	L-10-22N-07W	1590 FSL 211 FWL	--	No	9/20/2017	14580'	5010'	ENDURING RESOURCES, LLC
28	30-043-20282	NAVAJO 21-22-7 #001	Gas	Plugged (site released)	6515	Sandoval	A-21-22N-07W	1040 FNL 1190 FEL	12/17/2001	No	5/30/1978	1882'	1882'	DUGAN PRODUCTION CORP
29	30-043-20308	CHACRA #001	Gas	Active	6515	Sandoval	D-10-22N-07W	1070 FNL 880 FWL	--	No	2/9/1978	2105'	2105'	DUGAN PRODUCTION CORP
30	30-043-21301	N ESCAVADA UNIT #318H	Oil	Active	372286	Sandoval	O-09-22N-07W	268 FSL 1548 FEL	--	No	9/26/2017	12922'	4944'	ENDURING RESOURCES, LLC
31	30-043-21299	N ESCAVADA UNIT #330H	Oil	Temporary Abandonment	372286	Sandoval	L-10-22N-07W	1587 FSL 231 FWL	--	No	9/19/2017	12088'	4943'	ENDURING RESOURCES, LLC
32	30-043-20264	PRE-ONGARD WELL #007	Gas	Plugged (site released)	214263	Sandoval	M-22-22N-07W	790 FSL 1150 FWL	4/16/1985	No	4/16/1977	0	2015'	PRE-ONGARD WELL OPERATOR
33	30-043-20346	NAVAJO 10-22-7 #001	Gas	Active	6515	Sandoval	N-10-22N-07W	1180 FSL 1790 FWL	--	No	7/13/1978	2050'	2050'	DUGAN PRODUCTION CORP
34	30-043-21298	N ESCAVADA UNIT #331H	Oil	Active	372286	Sandoval	L-10-22N-07W	1594 FSL 192 FWL	--	No	9/21/2017	11025'	4915'	ENDURING RESOURCES, LLC
35	30-043-20542	DOME TESERO 22 #004	Oil	Active	6515	Sandoval	C-22-22N-07W	850 FNL 1700 FWL	--	No	2/21/1981	5000'	5000'	DUGAN PRODUCTION CORP
36	30-043-21287	N ESCAVADA UNIT #329H	Oil	Active	372286	Sandoval	I-10-22N-07W	1881 FSL 1282 FEL	--	No	5/26/2016	11210'	5032'	ENDURING RESOURCES, LLC

ENCLOSURE : DANA STATE #001 P&A DETAILS

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
May 27, 2004

WELL API NO. 30-043-20165
5. Indicate Type of Lease STATE [X] FEE [ ]
6. State Oil & Gas Lease No. K04844 EXPIRED 4/30/2004

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: DANA STATE
1. Type of Well: Oil Well [X] Gas Well [ ] Other
8. Well Number: 1
2. Name of Operator: HICKS OIL & GAS, INC
9. OGRID Number: 10413
3. Address of Operator: P.O. Box 3307, FARMINGTON, NM 87499-3307
10. Pool name or Wildcat: RUSTY GALLUP
4. Well Location
Unit Letter G : 1710 feet from the NORTH line and 1710 feet from the EAST line
Section 16 Township 22N Range 7W NMPM County SANDOVAL
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6891 GR

Pit or Below-grade Tank Application [ ] or Closure [ ]
Pit type ____ Depth to Groundwater ____ Distance from nearest fresh water well ____ Distance from nearest surface water ____
Pit Liner Thickness: ____ mil Below-Grade Tank: Volume ____ bbls; Construction Material ____

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	[ ]	PLUG AND ABANDON	[X]	REMEDIAL WORK	[ ]	ALTERING CASING	[ ]
TEMPORARILY ABANDON	[ ]	CHANGE PLANS	[ ]	COMMENCE DRILLING OPNS.	[ ]	P AND A	[ ]
PULL OR ALTER CASING	[ ]	MULTIPLE COMPL	[ ]	CASING/CEMENT JOB	[ ]		
OTHER:	[ ]			OTHER:	[ ]		

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

HICKS OIL & GAS, INC PLANS TO PLUG & ABANDON SUBJECT WELL PER THE ATTACHED.

RCVD APR 16 '08
OIL CONS. DIV.
DIST. 3

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines [X], a general permit [ ] or an (attached) alternative OCD-approved plan [ ].**

SIGNATURE [signature] TITLE AGENT DATE 4/15/2008

Type or print name JIM HICKS E-mail address: hoginc@qwest.net Telephone No. 505-327-4902

For State Use Only

APPROVED BY: [signature] TITLE Deputy Oil & Gas Inspector, District #3 DATE APR 23 2008

Conditions of Approval (if any): Add Chacra plug, Inside and outside pipe

PLUG AND ABANDONMENT PROCDURE

Dana State #1
Wildcat Gallup
1710' FNL & 1710' FEL, Section 16, T22N, R7W
Sandoval County, New Mexico, API #30-043-20165

Note: All cement volumes use 100% excess outside pipe and 50' excess inside pipe. The stabilizing wellbore fluid will be 8.3 ppg, sufficient to balance all exposed formation pressures. All cement will be ASTM Type G, mixed at 15.8 ppg with a 1.15 cf/sx yield.

1. Install and test location rig anchors. Prepare blow pit. Comply with all NMOCD, BLM, and Hicks safety regulations. MOL and RU daylight pulling unit. Conduct safety meeting for all personnel on location. NU relief line and blow down well; kill with water as necessary. ND wellhead and NU BOP. Test BOP.

2. TOH and tally 2.375" tubing, total tally, 4714'. If necessary LD tubing and PU workstring. Round trip 4.5" gauge ring or casing scraper to 4736'.

3. **Plug #1 (Gallup perforations and top, 4736' – 4636'):** TIH and set CR at 4736'. Pressure test tubing to 1000 PSI. Pressure test casing to 800 PSI. *If casing does not test then spot or tag subsequent plugs as appropriate.* Spot 12 sxs Type III cement above CR to isolate the Gallup interval. TOH with tubing.

4. **Plug #2 (Mesaverde top, 2444' – 2344'):** Perforate 3 squeeze holes at 2444'. Attempt to establish rate into squeeze holes if the casing pressure tested. Set 4.5" cement retainer at 2394'. Establish rate into squeeze holes. Mix and pump 52 sxs cement, squeeze 40 sxs outside the 4.5" casing and leave 12 sxs inside the casing to cover the Mesaverde top. TOH with tubing.

→ Plug 3 Chacra Top 1990 plug inside/outside Perf @ 1980 Squeeze.

5. **Plug #~~4~~ (Pictured Cliffs, Fruitland, Kirtland tops, 1467' – 1052'):** Perforate 3 squeeze holes at 1467'. Attempt to establish rate into squeeze holes if the casing pressure tested. Set 4.5" cement retainer at 1417'. Establish rate into squeeze holes. Mix and pump 202 sxs cement, squeeze 165 sxs outside the 4.5" casing and leave 37 sxs inside the casing to cover through the Kirtland top. TOH with tubing.

6. **Plug #~~5~~ (Ojo Alamo top, 961' – 861'):** Perforate 3 squeeze holes at 961'. Attempt to establish rate into squeeze holes if the casing pressure tested. Set 4.5" cement retainer at 911'. Establish rate into squeeze holes. Mix and pump 52 sxs cement, squeeze 40 sxs outside the 4.5" casing and leave 12 sxs inside the casing to cover the Ojo Alamo top. TOH and LD tubing.

7. **Plug #~~6~~ (8.625"casing shoe and surface, 182' - Surface)**: Perforate 3 squeeze holes at 182'. Establish circulation out the bradenhead valve with water. Mix and pump approximately 75 sxs cement down the 4.5" casing to circulate good cement out bradenhead valve. Shut well in and WOC.

8. ND BOP and cut off wellhead below surface casing flange. Install P&A marker with cement to comply with regulations. RD, MOL and cut off anchors. Restore location per ~~BLM~~ OCD stipulations.

Dana State #1

Proposed P&A

Wildcat Gallup

1710' FNL & 1710' FEL, NE, Section 16, T-22-N, R-7-W

Sandoval County, NM / API #30-043-20165

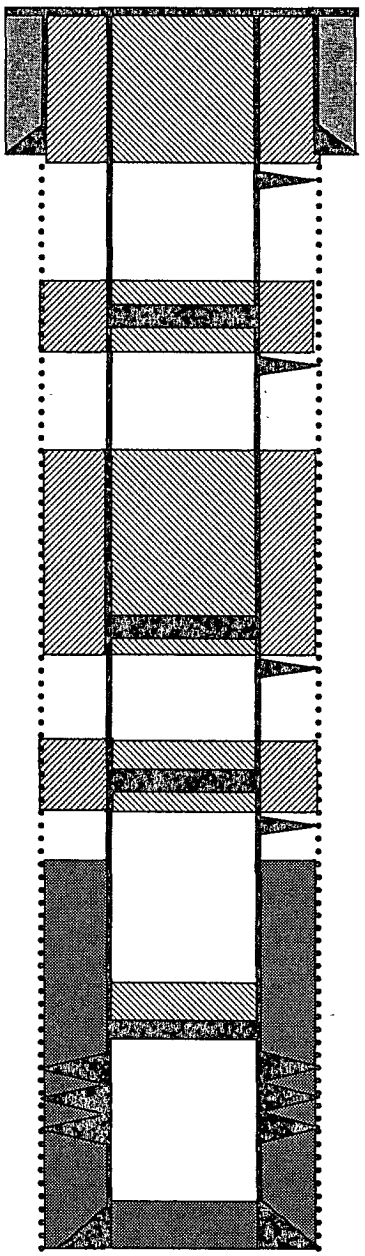
Today's Date: **2/7/2008**

Spud: 3/15/75

Completion: 7/14/75

Elevation: 6891' Gl
6904' KB

12.25" hole



8.625" 24#, Grade H Casing set @ 132'
Cement with 90 sxs (Circulated to Surface)

Perforate @ 182'

Plug #5: 182' – 0'
Type G Cement, 75 sxs

Ojo Alamo @ 911'

Cmt Retainer @ 911'

Perforate @ 961'

Plug #4: 961' – 861'
Type G Cement, 52 sxs:
40 outside and 12 inside

Kirtland @ 1102'

Fruitland @ 1182'

Plug #3: 1467' – 1052'
Type G Cement, 202 sxs:
165 outside and 37 inside

Pictured Cliffs @ 1417'

Cmt Retainer @ 1417'

Perforate @ 1467'

Mesaverde @ 2394'

Cmt Retainer @ 2394'

Perforate @ 2444'

TOC @ 2517' (Calc, 75%)

Plug #2: 2444' – 2344'
Type G Cement, 52 sxs:
40 outside and 12 inside

Plug #1: 4736' – 4636'
Type G Cement, 12 sxs

Set CR @ 4736'

Gallup @ 4785'

Gallup Perforations:
4786' – 4936'

7.875" hole

4.5" 10.5#, Casing set @ 4980'
Cemented with 600 sxs (748 cf)

TD 4983'
PBTD 4946'

Submit 3 Copies To Appropriate District Office
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1000 Rio Brazos Rd , Aztec, NM 87410
District IV
1220 S. St. Francis Dr , Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
May 27, 2004

WELL API NO. 30-~~045~~-20165 043

5. Indicate Type of Lease STATE X FEE

6. State Oil & Gas Lease No. K-04844 expired 4/30/04

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name **Dana State**

1. Type of Well: X Oil Well Gas Well Other

8. Well Number **1**

2. Name of Operator **Hicks Oil & Gas, Inc.**

9. OGRID Number **10413**

3. Address of Operator **P.O. Box 3307, Farmington, NM 87499-3307**

10. Pool name or Wildcat **Rusty Gallup**

4. Well Location
Unit Letter **G** : **1710** feet from the **North** line and **1710** feet from the **East** line
Section **16** Township **22N** Range **7W** NMPM **Sandoval** County

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* **6891** ' GL ' KB

Pit or Below-grade Tank Application ☐ or Closure ☐

Pit type_____ Depth to Groundwater_____ Distance from nearest fresh water well_____ Distance from nearest surface water_____

Pit Liner Thickness: _____ mil Below-Grade Tank: Volume _____ bbls; Construction Material _____

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	X
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
OTHER:	☐			OTHER:			☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

RCVD MAR 9 '09
OIL CONS. DIV.
DIST. 3

Hicks Oil & Gas, Inc. plugged and abandoned this well per the attached report.
2-16-09

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.**

SIGNATURE _____ TITLE **Agent** DATE 03/03/09

Jim Hicks
Type or print name E-mail address: hoginc@qwest.net Telephone No. 505-327-4902

For State Use Only

APPROVED BY: Kelly E. Roberts TITLE Deputy Oil & Gas Inspector, District #3 DATE MAR 18 2009

Conditions of Approval (if any):

A-PLUS WELL SERVICE, INC.
P.O. BOX 1979
Farmington, New Mexico 87499
505-325-2627 * fax: 505-325-1211

Hicks Oil & Gas, Inc. February 20, 2009
Dana State #1 Page 1 of 2

1710' FNL & 1710' FEL, Section 16, T-22-N, R-7-W
Sandoval County, NM
Lease Number: K04844 **Plug & Abandonment Report**
API #30-043-20165

Plugging Summary: Notified NMOCD on 2/9/09

2/09/09 Road rig and equipment to location. Chain up equipment. MOL and RU. Open up well, no pressure. LD polish rod with stuffing box. TOH and LD 203 - ¾" rods and 2" topset pump. ND wellhead. PU on tubing; free. MU 8.625" companion flange. NU BOP and test. PU on tubing and LD donut. SI well. SDFD.

2/10/09 Open up well; no pressure. TOH and tally 160 joints 2.375" tubing, SN and saw tooth collar. Total tally, 4887'. Round trip 4.5" casing scraper to 4885'. TIH and set 4.5" DHS cement retainer at 4738'. Pressure test tubing to 1000 PSI. Sting out of CR. Load casing with 5.5 bbls of water. Circulate well clean with 75 bbls of water. Attempt to pressure test casing; leak 1 bpm at 750 PSI.
Plug #1 with CR at 4738', spot 16 sxs Class B cement (19 cf) inside casing from 4738' up to 4528' to isolate the Gallup interval. Note: excess cement due to casing leak.
SI well and WOC overnight. SDFD.

2/11/09 Open up well; no pressure. TIH with tubing and tag plug #1 at 4550'. TOH with tubing. Perforate 3 squeeze holes at 2444'. TIH and set 4.5" DHS cement retainer at 2393'. Attempt to establish rate into squeeze holes; pressured up to 800 PSI and held. Sting out of CR. Attempt to pressure test casing; leak 1 bpm at 750 PSI; establish circulation out bradenhead valve. Kelly Roberts, NMOCD representative, approved procedure change to set inside plug only.
Plug #2 with CR at 2393', spot 12 sxs Class B cement (15 cf) inside casing from 2393' to 2235' to cover the Mesaverde top.
PUH and WOC overnight. SI well. SDFD.

2/12/09 Open up well; no pressure. Load casing with 8.5 bbls of water. Shut in casing and pump 2 more bbls of water; establish circulation out bradenhead. SI bradenhead and establish rate 1 bpm at 750 PSI into casing leak. RIH with wireline and tag cement from plug #2 at 2246'. Perforate 3 squeeze holes 2030'. TIH with 4.5" DHS cement retainer and set at 1982'. Sting into CR. Establish rate under the CR at 1 bpm at 200 PSI.
Plug #3 with CR at 1982', mix and pump 52 sxs Class B cement (62 cf) with 2% $CaCl_2$, squeeze 28 sxs below CR and outside 4.5" casing and leave 24 sxs inside casing above the CR from 1982' up to 1880' to cover the Chacra top. Note: While pumping below CR, communication established out the casing valve. Reverse circulate after LD 4 joints tubing. Derrick Vigil, NMOCD, approved plug.

A-PLUS WELL SERVICE, INC.
P.O. BOX 1979
Farmington, New Mexico 87499
505-325-2627 * fax: 505-325-1211

Hicks Oil & Gas, Inc. February 20, 2009
Dana State #1 Page 2 of 2

Plugging Summary Continued:

2/12/09 **Continued:** TOH and WOC. RIH with wireline and tag cement from plug #3 at 1652'. Perforate 3 squeeze holes at 1467'. TIH with 4.5" DHS cement retainer and set at 1417'. Establish rate 1 bpm at 500 PSI with ½ bpm returns out casing valve. Pressure test tubing to 1000 PSI, held OK.
Plug #4 and 5 combined, with CR at 1417', mix and pump 202 sxs Class B cement (239 cf), squeeze 170 sxs below CR and outside 4.5" casing and leave 32 sxs inside casing above the CR from 1467' up to 996' cover the Pictured Cliffs, Fruitland and Kirtland tops.
PUH and WOC overnight. SI well. SDFD.

2/16/09 Open up well; no pressure. Attempt to pressure test casing, leak ¾ bpm at 700 PSI. RIH with wireline and tag cement from plug #4 at 861'. Note: Cement tagged high where the Ojo Alamo was to be spotted. Procedure change approved Derrick Vigil, NMOCD. Perforate 3 squeeze holes at 182'. TIH with 4.5" DHS cement retainer and set at 132'. Sting out of CR. Pressure test casing to 800 PSI. Sting into CR and establish rate 1 bpm at 250 PSI with good returns out BH.
Plug #6 with CR at 132', mix and pump 81 sxs Class B cement (96 cf), squeeze 65 sxs below CR and circulate cement to surface; SI bradenhead and pressured up to 1000 PSI; sting out of CR and pressure was 500 PSI; spot 16 sxs inside casing above CR from 132' to surface, circulate good returns out casing valve to pit. Note: Leave bradenhead SI. TOH and LD tubing.
SI well and WOC. ND BOP. Issue Hot Work Permit. Cut off wellhead. Found cement at surface. RD. Set P&A marker with 15 sxs cement. MOL.

Derrick Vigil, NMOCD representative, was on location.

Submit One Copy To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St , Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr , Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised November 3, 2011

WELL API NO. ~~30-045-20165~~ 30-043-20165
5. Indicate Type of Lease STATE X☐ FEE ☐
6. State Oil & Gas Lease No. K-04844 EXPIRED 4/30/2004

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: DANA STATE
1. Type of Well. X☐Oil Well ☐ Gas Well ☐ Other
8. Well Number 1
2. Name of Operator: HICKS OIL & GAS, INC.
9. OGRID Number: 10413
3. Address of Operator: P.O. BOX 3307, FARMINGTON, NM 87499-3307
10. Pool name or Wildcat: RUSTY GALLUP

4. Well Location
Unit Letter G : 1710 feet from the NORTH line and 1710 feet from the EAST line
Section 16 Township 22N Range 7W NMPM County SANDOVAL

RCVD MAY 8 '12
OIL CONS. DIV.

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
6891' GR

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
OTHER: ☐		☒ **Location is ready for OCD inspection after P&A**	

X☐ All pits have been remediated in compliance with OCD rules and the terms of the Operator's pit permit and closure plan.
X☐ Rat hole and cellar have been filled and leveled. Cathodic protection holes have been properly abandoned.
X☐ A steel marker at least 4" in diameter and at least 4' above ground level has been set in concrete. It shows the

OPERATOR NAME, LEASE NAME, WELL NUMBER, API NUMBER, QUARTER/QUARTER LOCATION OR UNIT LETTER, SECTION, TOWNSHIP, AND RANGE. All INFORMATION HAS BEEN WELDED OR PERMANENTLY STAMPED ON THE MARKER'S SURFACE.

X☐ The location has been leveled as nearly as possible to original ground contour and has been cleared of all junk, trash, flow lines and other production equipment.
X☐ Anchors, dead men, tie downs and risers have been cut off at least two feet below ground level.
X☐ If this is a one-well lease or last remaining well on lease, the battery and pit location(s) have been remediated in compliance with OCD rules and the terms of the Operator's pit permit and closure plan. All flow lines, production equipment and junk have been removed from lease and well location.
X☐ All metal bolts and other materials have been removed. Portable bases have been removed. (Poured onsite concrete bases do not have to be removed.)
X☐ All other environmental concerns have been addressed as per OCD rules.
X☐ Pipelines and flow lines have been abandoned in accordance with 19.15.35.10 NMAC. All fluids have been removed from non-retrieved flow lines and pipelines.
X☐ If this is a one-well lease or last remaining well on lease: all electrical service poles and lines have been removed from lease and well location, except for utility's distribution infrastructure.

When all work has been completed, return this form to the appropriate District office to schedule an inspection.

SIGNATURE _____ TITLE AGENT DATE 5/7/2012

TYPE OR PRINT NAME JIM HICKS 505-327-4902 E-MAIL: hoginc1001@qwestoffice net

For State Use Only
APPROVED BY: _____ TITLE Deputy Oil & Gas Inspector, District #3 DATE 9/17/12
Conditions of Approval (if any): AV

ENCLOSURE : ADDITIONAL AOR WELL DETAILS

30-043-21295 N ESCAVADA UNIT #317H [321250]

General Well Information

Operator:	[372286] ENDURING RESOURCES, LLC		
Status:	Active	**Direction:**	Horizontal
Well Type:	Oil	**Multi-Lateral:**	No
Work Type:	New	**Mineral Owner:**	Navajo
		Surface Owner:	Navajo
Surface Location:	O-09-22N-07W 228 FSL 1547 FEL		
Lat/Long:	36.147444,-107.576574 NAD83		
GL Elevation:	6864		
KB Elevation:		**Sing/Mult Compl:**	Single
DF Elevation:		**Potash Waiver:**	False

Proposed Formation and/or Notes

ESCAVADA N;MANCOS

Depths

Proposed:	15046	**True Vertical Depth:**	4960
Measured Vertical Depth:	15115	**Plugback Measured:**	15065

Formation Tops

Formation	Top	Producing	Method Obtained
Ojo Alamo Formation	762		
Kirtland Formation	965		
Pictured Cliffs Formation	1302		
Lewis Formation	1411		

Quick Links
- General Well Information
- History
- Comments
- Operator
- Pits
- Casing
- Well Completions
- Financial Assurance
- Compliance
- Reported Releases
- Orders
- Production
- Transporters
- Points of Disposition

Associated Images
- Well Files (27)
- Well Logs (0)
- Well Admin Orders

New Searches
- New Facility Search
- New Incident Search
- New Operator Search
- New Pit Search
- New Spill Search
- New Tank Search
- New Well Search

Chacra Mesa Member	1715		
Cliff House Formation	2908		
Menefee Formation	2942		
Point Lookout Formation	3885		
Mancos Formation	4052		
Gallup Formation	4410		

Event Dates

Initial APD Approval:	08/17/2017		
Most Recent APD Approval:	04/19/2018	**Current APD Expiration:**	08/17/2019
APD Cancellation:			
APD Extension Approval:			
Spud:	09/25/2017	**Gas Capture Plan Received:**	08/09/2017
Approved Temporary Abandonment:		**TA Expiration:**	
Shut In:			
Plug and Abandoned Intent Received:		**PNR Expiration:**	
Well Plugged:		**Last MIT/BHT:**	04/02/2020
Site Release:			
Last Inspection:	04/02/2020		

History

Effective Date	Property	Well Number	Operator	C-101 Work Type	Well Type	Well Status	Apd Cancelled	Plug Date
04/19/2018	[321250] N ESCAVADA UNIT	#317H	[372286] ENDURING RESOURCES, LLC	New	Oil	Active		
08/17/2017	[316006] N ESCAVADA UNIT	#317H	[120782] WPX ENERGY PRODUCTION, LLC	New	Oil	New		

Comments

Pits

No Pits Found

Casing

			Boreholes, Strings and Equipment Specifications			Specifications for Strings and Tubing			Strings Cemented and Intervals			Cement and Plug Description		
String/Hole Type	Taper	Date Set	Diameter	Top	Bottom (Depth)	Grade	Length	Weight	Bot of Cem	Top of Cem	Meth	Class of Cement	Sacks	Pressure Test (Y/N)
Hole 1	1	09/25/2017	12.250	0	335		0	0.0	0	0			0	No
Surface Casing	1	09/25/2017	9.625	0	330	J-55	0	36.0	330	0	Circ		0	Yes
Hole 2	1	11/22/2017	8.750	335	5674		0	0.0	0	0			0	No
Intermediate 1 Casing	1	11/23/2017	7.000	0	5663	J-55	0	23.0	5663	0	Circ		0	Yes
Hole 3	1	12/01/2017	6.125	5674	15115		0	0.0	0	0			0	No
Liner 1	1	12/02/2017	4.500	4650	15113	P-110	0	11.6	15113	5511	Circ		0	No
Tubing 1	1	05/08/2019	2.875	0	4653	L-80	0	6.5	0	0			0	No

Well Completions

[98172] ESCAVADA N; MANCOS (OIL)

Status: Active
Last Produced: 07/01/2022
Bottomhole Location: J-05-22N-07W 1839 FSL 2284 FEL
Lat/Long: 36.166432,-107.596702 NAD83
Acreage: 440 08-22N-07W Units: A
09-22N-07W Units: D E F J K O P
05-22N-07W Units: J O P
DHC: No
Consolidation Code: Unitization
Production Method: Flowing

Well Test Data

Production Test:	02/09/2019	**Test Length:**	24 hours
Flowing Tubing Pressure:	516 psi	**Flowing Casing Pressure:**	412 psi
Choke Size:	0.340 inches	**Testing Method:**	Flowing
Gas Volume:	2616.0 MCF	**Oil Volume:**	384.0 bbls
Gas-Oil Ratio:	6813 Kcf / bbl	**Oil Gravity:**	0.0 Corr. API
Disposition of Gas:	Sold	**Water Volume:**	1320.0 bbls

Perforations

Date	Top Measured Depth (Where Completion Enters Formation)	Bottom Measured Depth (End of Lateral)	Top Vertical Depth	Bottom Vertical Depth
10/18/2018	5745	14998	4893	4955

Notes

Event Dates

Initial Effective/Approval:	08/17/2017		
Most Recent Approval:	02/09/2019	**TA Expiration:**	
Confidential Requested On:	12/31/2018	**Confidential Until:**	05/09/2019
Test Allowable Approval:	01/09/2019	**Test Allowable End:**	
TD Reached:	12/07/2017	**DHC:**	
Deviation Report Received:	No	**Rig Released:**	12/03/2017
Directional Survey Run:	Yes	**Logs Received:**	No
Directional Survey Received:	Yes	**Closure Pit Plat Received:**	
First Oil Production:	02/09/2019	**First Gas Production:**	02/11/2019
First Injection:			
Ready to Produce:	02/09/2019	**Completion Report Received:**	02/08/2019
C-104 Approval:	01/09/2019	**New Well C-104 Approval:**	03/04/2019
Plug Back:			
Authorization Revoked Start:		**Revoked Until:**	

Well Completion History

Effective Date	Property	Well Number	Operator	Completion Status	TA Expiration Date
02/09/2019	[321250] N ESCAVADA UNIT	#317H	[372286] ENDURING RESOURCES, LLC	Active	
01/10/2019	[321250] N ESCAVADA UNIT	#317H	[372286] ENDURING RESOURCES, LLC	Active	
04/19/2018	[321250] N ESCAVADA UNIT	#317H	[372286] ENDURING RESOURCES, LLC	New, Not Drilled	
08/17/2017	[316006] N ESCAVADA UNIT	#317H	[120782] WPX ENERGY PRODUCTION, LLC	New, Not Drilled	

Financial Assurance

Effective	Bond Type	Base	Balance	Issuer	Cash/Surety	Cancellation Date
06/30/2017	Blanket	250000	250000	RLI INSURANCE COMPANY	Surety	

Requests to release bonds must be submitted in writing. You may send an e-mail to OCDAdminComp@state.nm.us or fax a letter to (505) 476-3462.

Compliance

Note that Financial Assurance and Inactive Well Compliance are documented in separate reports (Inactive Well Report, Financial Assurance Report).

Also note that some compliance issues are addressed at the operator level so not listed under each well.

Reported Releases

The reported release volumes are sourced from C-141 submissions.

Earliest Reported Release in OCD Records: 02/20/2019 **Last:** 02/20/2019 Show All Reported Releases

	Release Volumes				Additional Details			
	BBLS	LBS	MCF	UNK	Type	Product	Severity	Status
⊞ 2019 (1)	0	0	0	0				
Grand Total:	0	0	0	0				

Orders

3RF-35-0

Applicant:	[372286] ENDURING RESOURCES, LLC		
Contact:	Andrea Felix	**Approved By:**	
Reviewer:	Cory Smith	**Issuing Office:**	Aztec

Processing Dates

Received:	10/17/2018	**Ordered:**	11/01/2018
Approved:	11/01/2018	**Denied:**	
Expiration:		**Cancelled:**	

Production / Injection

The production & injection volumes are sourced from monthly production reports (C-115) submissions.

Earliest Production in OCD Records: 2/2019 **Last** 7/2022 Show All Production Export to Excel

	Production				Injection				
Time Frame	Oil (BBLS)	Gas (MCF)	Water (BBLS)	Days P/I	Water (BBLS)	Co2 (MCF)	Gas (MCF)	Other	Pressure
⊞ 2019	56,297	745,999	74,342	333	0	0	0	0	N/A
⊞ 2020	14,435	296,964	15,251	327	0	0	0	0	N/A
⊞ 2021	10,773	232,661	4,598	365	0	0	0	0	N/A
⊞ 2022	4,758	112,066	177	212	0	0	0	0	N/A
Grand Total:	86,263	1,387,690	94,368	1,237	0	0	0	0	N/A

Transporters

Transporter	Product	Most Recent for Property
[25244] WILLAMS FOUR CORNERS, LLC	Gas	7/2022
[248440] WESTERN REFINING COMPANY, L.P.	Oil	7/2022

Points of Disposition

ID	Type	Description	Pool(s)
4033786	Gas	N ESCAVADA UNIT #317H	[98172] ESCAVADA N; MANCOS (OIL)
4033785	Oil	N ESCAVADA UNIT #317H	[98172] ESCAVADA N; MANCOS (OIL)

30-043-21301 N ESCAVADA UNIT #318H [321250]

General Well Information

Operator:	[372286] ENDURING RESOURCES, LLC		
Status:	Active	**Direction:**	Horizontal
Well Type:	Oil	**Multi-Lateral:**	No
Work Type:	New	**Mineral Owner:**	Navajo
		Surface Owner:	Navajo
Surface Location:	O-09-22N-07W 268 FSL 1548 FEL		
Lat/Long:	36.147554,-107.576575 NAD83		
GL Elevation:	6864		
KB Elevation:		**Sing/Mult Compl:**	Single
DF Elevation:		**Potash Waiver:**	False

Proposed Formation and/or Notes

ESCAVADA N;MANCOS

Depths

Proposed:	12851	**True Vertical Depth:**	4944
Measured Vertical Depth:	12922	**Plugback Measured:**	12873

Formation Tops

Formation	Top	Producing	Method Obtained
Ojo Alamo Formation	764		
Kirtland Formation	967		
Pictured Cliffs Formation	1295		
Lewis Formation	1397		

Quick Links
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- Operator
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- Financial Assurance
- Compliance
- Orders
- Production
- Transporters
- Points of Disposition

Associated Images
- Well Files (23)
- Well Logs (0)
- Well Admin Orders

New Searches
- New Facility Search
- New Incident Search
- New Operator Search
- New Pit Search
- New Spill Search
- New Tank Search
- New Well Search

Chacra Mesa Member	1685		
Cliff House Formation	2791		
Menefee Formation	2816		
Point Lookout Formation	3691		
Mancos Formation	3849		
Gallup Formation	4187		

Event Dates

Initial APD Approval:	08/10/2017		
Most Recent APD Approval:	04/19/2018	**Current APD Expiration:**	08/10/2019
APD Cancellation:			
APD Extension Approval:			
Spud:	09/26/2017	**Gas Capture Plan Received:**	08/04/2017
Approved Temporary Abandonment:		**TA Expiration:**	
Shut In:			
Plug and Abandoned Intent Received:		**PNR Expiration:**	
Well Plugged:		**Last MIT/BHT:**	04/02/2020
Site Release:			
Last Inspection:	04/02/2020		

History

Effective Date	Property	Well Number	Operator	C-101 Work Type	Well Type	Well Status	Apd Cancelled	Plug Date
04/19/2018	[321250] N ESCAVADA UNIT	#318H	[372286] ENDURING RESOURCES, LLC	New	Oil	Active		
08/10/2017	[316006] N ESCAVADA UNIT	#318H	[120782] WPX ENERGY PRODUCTION, LLC	New	Oil	New		

Comments

Pits

No Pits Found

Casing

			Boreholes, Strings and Equipment Specifications			Specifications for Strings and Tubing			Strings Cemented and Intervals			Cement and Plug Description		
String/Hole Type	Taper	Date Set	Diameter	Top	Bottom (Depth)	Grade	Length	Weight	Bot of Cem	Top of Cem	Meth	Class of Cement	Sacks	Pressure Test (Y/N)
Hole 1	1	09/26/2017	12.250	0	339		0	0.0	0	0			0	No
Surface Casing	1	09/26/2017	9.625	0	334	J-55	0	36.0	334	0	Circ		0	Yes
Hole 2	1	11/24/2017	8.750	339	5444		0	0.0	0	0			0	No
Intermediate 1 Casing	1	11/25/2017	7.000	0	5434	J-55	0	23.0	5434	0	Circ		0	Yes
Hole 3	1	11/28/2017	6.125	5444	12922		0	0.0	0	0			0	No
Liner 1	1	11/28/2017	4.500	5274	12921	P-110	0	11.6	12921	5274	Circ		0	No
Tubing 1	1	05/10/2019	2.875	0	4961	L-80	0	6.5	0	0			0	No
Packer	1	05/10/2019	0.000	0	4950		0	0.0	0	0			0	No

Well Completions

[98172] ESCAVADA N; MANCOS (OIL)

Status: Active
Bottomhole Location: O-05-22N-07W 346 FSL 2279 FEL
Lat/Long: 36.162333,-107.596783 NAD83
Acreage: 360 08-22N-07W Units: A B H
09-22N-07W Units: E K L N O
05-22N-07W Units: O
DHC: No

Last Produced: 07/01/2022
Consolidation Code: Unitization
Production Method: Flowing

Well Test Data

Production Test:	02/10/2019	**Test Length:**	24 hours
Flowing Tubing Pressure:	388 psi	**Flowing Casing Pressure:**	450 psi
Choke Size:	0.480 inches	**Testing Method:**	Flowing
Gas Volume:	2040.0 MCF	**Oil Volume:**	600.0 bbls
Gas-Oil Ratio:	3400 Kcf / bbl	**Oil Gravity:**	0.0 Corr. API
Disposition of Gas:	Sold	**Water Volume:**	1200.0 bbls

Perforations

Date	Top Measured Depth (Where Completion Enters Formation)	Bottom Measured Depth (End of Lateral)	Top Vertical Depth	Bottom Vertical Depth
10/13/2018	5555	12849	4881	4943

Notes

Event Dates

Initial Effective/Approval:	08/10/2017		
Most Recent Approval:	02/10/2019	**TA Expiration:**	
Confidential Requested On:	12/31/2018	**Confidential Until:**	05/10/2019
Test Allowable Approval:	01/09/2019	**Test Allowable End:**	
TD Reached:	11/28/2017	**DHC:**	
Deviation Report Received:	No	**Rig Released:**	11/29/2017
Directional Survey Run:	Yes	**Logs Received:**	No
Directional Survey Received:	Yes	**Closure Pit Plat Received:**	
First Oil Production:	02/10/2019	**First Gas Production:**	02/11/2019
First Injection:			
Ready to Produce:	02/10/2019	**Completion Report Received:**	02/08/2019
C-104 Approval:	01/09/2019	**New Well C-104 Approval:**	02/11/2019
Plug Back:			
Authorization Revoked Start:		**Revoked Until:**	

Well Completion History

Effective Date	Property	Well Number	Operator	Completion Status	TA Expiration Date
02/10/2019	[321250] N ESCAVADA UNIT	#318H	[372286] ENDURING RESOURCES, LLC	Active	
01/10/2019	[321250] N ESCAVADA UNIT	#318H	[372286] ENDURING RESOURCES, LLC	Active	
04/19/2018	[321250] N ESCAVADA UNIT	#318H	[372286] ENDURING RESOURCES, LLC	New, Not Drilled	
08/10/2017	[316006] N ESCAVADA UNIT	#318H	[120782] WPX ENERGY PRODUCTION, LLC	New, Not Drilled	

Financial Assurance

Effective	Bond Type	Base	Balance	Issuer	Cash/Surety	Cancellation Date
06/30/2017	Blanket	250000	250000	RLI INSURANCE COMPANY	Surety	

Requests to release bonds must be submitted in writing. You may send an e-mail to OCDAdminComp@state.nm.us or fax a letter to (505) 476-3462.

Compliance

Note that Financial Assurance and Inactive Well Compliance are documented in separate reports (Inactive Well Report, Financial Assurance Report).

Also note that some compliance issues are addressed at the operator level so not listed under each well.

Orders

3RF-35-0

Applicant:	[372286] ENDURING RESOURCES, LLC		
Contact:	Andrea Felix	**Approved By:**	
Reviewer:	Cory Smith	**Issuing Office:**	Aztec

Processing Dates

Received:	10/17/2018	**Ordered:**	11/01/2018
Approved:	11/01/2018	**Denied:**	
Expiration:		**Cancelled:**	

Production / Injection

The production & injection volumes are sourced from monthly production reports (C-115) submissions.

Earliest Production in OCD Records: 2/2019 **Last** 7/2022 Show All Production Export to Excel

	Production				Injection				
Time Frame	Oil (BBLS)	Gas (MCF)	Water (BBLS)	Days P/I	Water (BBLS)	Co2 (MCF)	Gas (MCF)	Other	Pressure
⊞ 2019	100,666	736,739	89,214	329	0	0	0	0	N/A
⊞ 2020	50,124	427,568	23,749	327	0	0	0	0	N/A

⊞ 2021	26,252	217,082	10,573	365	0	0	0	0	N/A
⊞ 2022	12,403	59,894	4,521	212	0	0	0	0	N/A
Grand Total:	189,445	1,441,283	128,057	1,233	0	0	0	0	N/A

Transporters

Transporter	Product	Most Recent for Property
[25244] WILLAMS FOUR CORNERS, LLC	Gas	7/2022
[248440] WESTERN REFINING COMPANY, L.P.	Oil	7/2022

Points of Disposition

ID	Type	Description	Pool(s)
4033790	Gas	N ESCAVADA UNIT #318H	[98172] ESCAVADA N; MANCOS (OIL)
4033789	Oil	N ESCAVADA UNIT #318H	[98172] ESCAVADA N; MANCOS (OIL)

ENCLOSURE G: PROOF OF NOTICE

Ms. Khem Sullivan, Regulatory Manager at Enduring Resources, LLC. 200 Energy Court, Farmington, New Mexico 87401 (303-350-5721), wishes to provide notification for the submittal of an Application for Authorization to Inject to the New Mexico Oil Conservation Division (NMOCD). The application requests the use of existing water supply well N Escavada Unit 2207-16B, permitted with the New Mexico Office of the State Engineer, for the use as a Class II injection well. The well is located in Sandoval County, New Mexico at latitude 36.14407256°N longitude -107.5762770°W. This well will be used to inject fluids produced from the enhanced recovery of oil and/or natural gas in the San Juan Basin. Fluids will be injected into the Entrada Formation at depths between 6,925 feet and 7,114 feet below ground surface. Maximum injection rates and pressures are anticipated to be 20,000 barrels of water per day and 1,385 pounds per square inch, respectively. Interested parties may contact the Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505, within 15 days.

Observer: October 27, 2022

AFFIDAVIT OF PUBLICATION

STATE OF NEW MEXICO

County of Sandoval SS

David Montoya, the undersigned, authorized Representative of Rio Rancho Observer, on oath states that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Session Laws of 1937; that payment therefore has been made of assessed as court cost; and that the notice, copy of which is hereto attached, was published in said paper in the regular edition, for 1 time(s) on the following date(s):

10/27/2022

David Montoya

CHRISTINA MARIE WHITE
Notary Public - State of New Mexico
Commission # 1122050
My Comm. Expires Jul 26, 2026

Sworn and subscribed before me, a Notary Public, in and for the County of Sandoval and State of New Mexico this 27 day of October of 2022

PRICE $51.72

Statement to come at the end of month.

ACCOUNT NUMBER 1105916

NMSLO

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

NM State Land Office
PO Box 1148
Santa Fe, NM 87504

9590 9402 6590 1028 9636 65

2. Article Number *(Transfer from service label)*

7020 2450 0001 1930 9986

PS Form 3811, July 2020 PSN 7530-02-000-9053 — Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature — X — ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* — C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☑ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ ail Restricted Delivery
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at *www.usps.com®*.

OFFICIAL USE

Certified Mail Fee
$

Extra Services & Fees *(check box, add fee as appropriate)*
- ☐ Return Receipt (hardcopy) $
- ☐ Return Receipt (electronic) $
- ☐ Certified Mail Restricted Delivery $
- ☐ Adult Signature Required $
- ☐ Adult Signature Restricted Delivery $

Postage
$

Total Postage and Fees
$

Postmark Here

Sent To Hicks Oil & Gas, Inc.
Street and Apt. No., or PO Box No. PO Box 3307
City, State, ZIP+4® Farmington, NM 87499-3307

PS Form 3800, April 2015 PSN 7530-02-000-9047 — See Reverse for Instructions

7020 2450 0001 1930 9993

PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT OF THE RETURN ADDRESS, FOLD AT DOTTED LINE
CERTIFIED MAIL®

7020 2450 0001 1930 9986

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee
$

Extra Services & Fees (check box, add fee as appropriate)
- ☐ Return Receipt (hardcopy) $
- ☐ Return Receipt (electronic) $
- ☐ Certified Mail Restricted Delivery $
- ☐ Adult Signature Required $
- ☐ Adult Signature Restricted Delivery $

Postage
$

Total Postage and Fees
$

Postmark Here

Sent To NMSLO
Street and Apt. No., or PO Box No. PO Box 1148
City, State, ZIP+4® Santa Fe, NM 87504

PS Form 3800, April 2015 PSN 7530-02-000-9047 — See Reverse for Instructions

Hicks

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Hicks Oil & Gas, Inc.
PO Box 3307
Farmington, NM 87499-3307

9590 9402 5066 9092 7148 87

2. Article Number *(Transfer from service label)*

7020 2450 0001 1930 9993

PS Form 3811, July 2015 PSN 7530-02-000-9053 — Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature — X — ☐ Agent ☐ Addressee

B. Received by (Printed Name) — C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
- ☐ Adult Signature
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- ☑ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Return Receipt for Merchandise
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

ENDURING RESOURCES, LLC

6300 S Syracuse Way, Suite 525 Centennial, CO 80111
Farmington Field Office: 505.636.9720 | Main Office: 303.573.1222

October 28, 2022

Via Certified Mail (Article 7020 2450 0001 1930 9993)

Hicks Oil & Gas, Inc.
PO Box 3307
Farmington, NM 87499-3307

Re: North Escavada Unit 2207-16B WSW
NMOSE Permit No. SJ-4301 POD 1
Sandoval County, NM

To Whom it May Concern:

Enduring Resources, LLC (Enduring) is applying (C-108 Application enclosed) to convert its North Escavada U 2207-16B WSW well into a Salt Water Disposal Well. The subject well was initially drilled in 2018 by Enduring to target the Entrada Formation as a water sypply well for oil and gas development.

Pursuant to Section 19.15.26 of the New Mexico Administrative Code, this letter serves as formal notice of the SWD conversion. No action is needed unless you have any questions or objections.

- Well Name: North Escavada Unit 2207-16B WSW
- NMOSE Permit: SJ-4301 POD 1
- Location: B-16, T22N-R07W
- Injection Interval: 6,925' to 7,114'
- Proposed Disposal Zone: Entrada Pool (Pool Code: 964360)
- Applicant Name: Enduring Resources, LLC
- Applicant Address: 6300 S Syracuse Way, Suite 525, Centennial, CO 80111

If you have any questions or concerns, please contact the undersigned using the information provided below.

Sincerely,

Khem Suthiwan
Regulatory Manager
Enduring Resources, LLC
303.350.5721 – Office
720.662.5218 – Cell

ENDURING RESOURCES, LLC

6300 S Syracuse Way, Suite 525 Centennial, CO 80111
Farmington Field Office: 505.636.9720 | Main Office: 303.573.1222

October 28, 2022

Via Certified Mail (Article 7020 2450 0001 1930 9986)

NM State Land Office
PO Box 1148
Santa Fe, NM 87504

Re: North Escavada Unit 2207-16B WSW
NMOSE Permit No. SJ-4301 POD 1
Sandoval County, NM

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Sincerely,

Khem Suthiwan
Regulatory Manager
Enduring Resources, LLC
303.350.5721 – Office
720.662.5218 – Cell

ENCLOSURE H: INJECTION FLUID ANALYSIS

Creedence Energy Services
Analytical Services
5930 16th Ave W
Williston, ND 58801

Complete Water Analysis

Company:	Enduring	**Sample ID:**	202211939
Well Name:	NE 16 Pond	**Analysis Date:**	5/23/2022
Field:		**Sample Date:**	5/16/2022
State:	NM	**Analyst:**	Melyssa Ostler
Well Type:		**Report Date:**	5/24/2022
Sample Point:	Pond		

Field Data		Anions	mg/L	Cations	mg/L
pH:	7.73	**Chlorides (Cl-):**	21088	**Sodium (Na+):**	13010
	mg/L	**Sulfates (SO42-):**	305.7	**Magnesium (Mg+):**	59.37
Bicarbonate (HCO3-):	1256.42	**Boron (B):**	7.795	**Potassium (K+):**	232.9
aqueous CO2:	0	**Phosphorous (P):**	0	**Calcium (Ca2+):**	216.1
aquesous H2S:	0			**Strontrium (Sr2+):**	39.37
				Barium (Ba2+):	4.933
				Iron (Fe2+):	2.985
Specific Gravity	**g/mL**	**Analysis Values**		**Zinc (Zn2+):**	0.197
Measured:				**Manganese (Mn2+):**	1.379
Calculated:	1.024713	**Calculated TDS:**	36376	**Lead (Pb):**	0
Conductivity	units	**Cation/Anion Ratio:**	0.055	**Copper (Cu2+):**	0.256
				Silica (Si):	116.2

ENCLOSURE I: ENTRADA ANALYSIS

Analytical Report
Lab Order **1810596**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: John Shomaker & Assoc.
Client Sample ID: First Formation
Project: Enduring Resources
Collection Date: 10/9/2018 11:52:00 AM
Lab ID: 1810596-002 **Matrix:** AQUEOUS **Received Date:** 10/10/2018 12:40:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Fluoride	5.8	0.50	*	mg/L	5	10/10/2018 7:26:00 PM	R54788
Chloride	1400	100	*	mg/L	200	10/12/2018 3:31:22 AM	R54823
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	10/10/2018 7:26:00 PM	R54788
Bromide	1.5	0.50		mg/L	5	10/10/2018 7:26:00 PM	R54788
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	10/10/2018 7:26:00 PM	R54788
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	10/10/2018 7:38:25 PM	R54788
Sulfate	6100	100	*	mg/L	200	10/12/2018 3:31:22 AM	R54823
SM2510B: SPECIFIC CONDUCTANCE						Analyst:	**MRA**
Conductivity	13000	10		µmhos/c	2	10/15/2018 3:53:19 PM	R54896
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst:	**KS**
Total Dissolved Solids	10200	200	*D	mg/L	1	10/15/2018 4:39:00 PM	40981
SM4500-H+B / 9040C: PH						Analyst:	**MRA**
pH	7.93		H	pH units	1	10/11/2018 3:01:50 PM	R54833
EPA METHOD 200.7: METALS						Analyst:	**JLF**
Calcium	1100	100		mg/L	100	10/16/2018 7:07:08 PM	40970
Magnesium	72	10		mg/L	10	10/16/2018 7:03:08 PM	40970
Potassium	320	10		mg/L	10	10/16/2018 7:03:08 PM	40970
Sodium	3300	100		mg/L	100	10/16/2018 7:07:08 PM	40970

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Schlumberger

Company: Enduring Resources, LLC

Well: North Escavada Unit 2207-16B-WSW

Field: Sandoval

County: Sandoval State: New Mexico

Platform Express

Triple Combo

County:	Sandoval
Field:	Sandoval
Location:	T21N R5W Sec. 3
Well:	North Escavada Unit 2207-16B-WSW
Company:	Enduring Resources, LLC

Location: T21N R5W Sec. 3
Lat: 36.08386621 Long: -107.34345973

Elev.: K.B. 6920.00 ft
G.L. 6902.00 ft
D.F. 6919.00 ft

Permanent Datum: Ground Level Elev.: 6902.00 f
Log Measured From: Kelly Bushing 18.00 ft above Perm.Datum
Drilling Measured From: Kelly Bushing

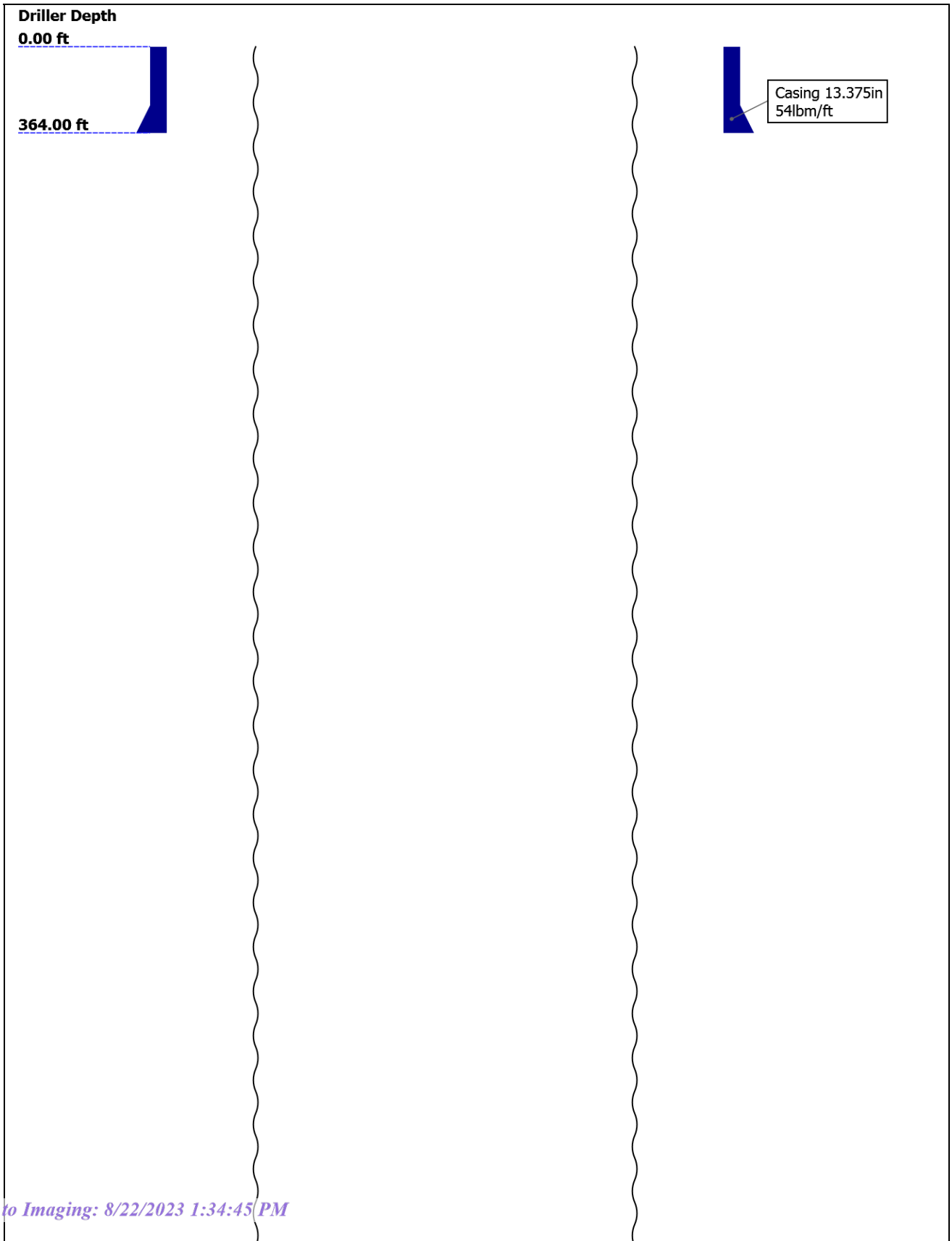
API Serial No.	Section:	Township:	Range:
30-043-00000	3	21N	5W

Logging Date		02-Oct-2018			
Run Number		One			
Depth Driller		7400.00 ft			
Schlumberger Depth		7400.00 ft			
Bottom Log Interval		7403.00 ft			
Top Log Interval		379.00 ft			
Casing Driller Size @ Depth		13.375 in @ 364.00 ft			
Casing Schlumberger		379 ft			
Bit Size		8.5 in			
Type Fluid In Hole		WBM			
MUD	Density	Viscosity	8.6 lbm/gal	26 s	
	Fluid Loss	PH	30 cm3	11	
	Source of Sample		Active Tank		
RM @ Meas Temp			0.18 ohm.m @ 68 degF		
RMF @ Meas Temp			0.14 ohm.m @ 68 degF		
RMC @ Meas Temp			0.28 ohm.m @ 68 degF		
Source RMF	RMC			Pressed	
RMF @ BHT	RMF @ BHT		0.08 @ 159.65	0.06 @ 159.65	
Max Recorded Temperatures			160 degF		
Circulation Stopped	Time		02-Oct-2018	06:00:00	
Logger on Bottom	Time		02-Oct-2018	15:15:00	
Unit Number	Location:		9102	Fort Morgan	
Recorded By			Stephen Tang		
Witnessed By			Tim Dingman		

Disclaimer

Contents

Well Sketch



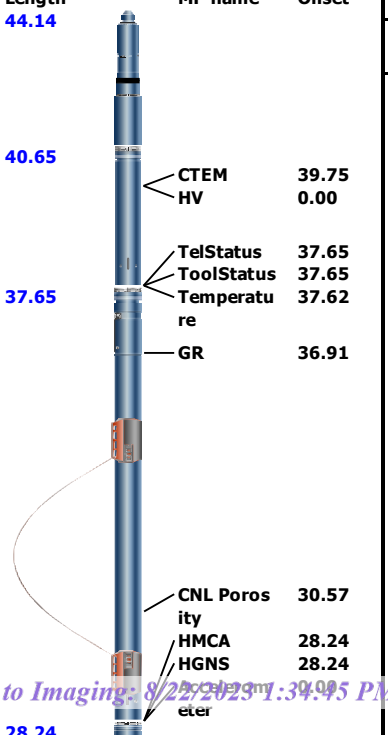
Borehole Size/Casing/Tubing Record

Bit						
Bit Size (in)	8.5					
Top Driller (ft)	0					
Top Logger (ft)	0					
Bottom Driller (ft)	7400					
Bottom Logger (ft)	7400					
Casing						
Size (in)	13.375					
Weight (lbm/ft)	54					
Inner Diameter (in)	12.614					
Grade	N/A					
Top Driller (ft)	0					
Top Logger (ft)	0					
Bottom Driller (ft)	364					
Bottom Logger (ft)	379					

Remarks and Equipment Summary

One: Toolstring

Equip name	Length	MP name	Offset
LEH-QT LEH-QT	44.14		
DTC-H ECH-KC DTC-H	40.65	**CTEM** **HV**	**39.75** **0.00**
		TelStatus **ToolStatus**	**37.65** **37.65**
HGNS-H HGNH NSR-F:5203 NPV-N HACCZ-H:4264 HMCA-H HGNS-H	37.65	**Temperature**	**37.62**
		GR	**36.91**
		CNL Porosity	**30.57**
		HMCA	**28.24**
		HGNS	**28.24**
		Accelerometer	**0.00**
HDRS-H	28.24		



One: Remarks

Toolstring ran as per toolsketch.

Logs processed on a sandstone matrix 2.68 g/cc

ECH-MEB
HRMS-H
HRMS-H
Backscatter:2
6784
Long Spacing
GSR-J:5259
GPV-Q
HRGD-H:4957
Short Spacing

AIT-M:129 **16.00**
AMIS:129
AMRM:129

Lengths are in ft
Maximum Outer Diameter = 9.000 in
Line: Sensor Location, Value: Gating Offset
All measurements are relative to TOOL_ZERO

Depth Summary

	One		
Depth Measuring Device			
Type	IDW-B		
Serial Number			
Calibration Date			
Calibrator Serial Number			
Calibration Cable Type			
Wheel Correction 1	0		
Wheel Correction 2	0		
Tension Device			
Type	CMTD-B/A		

Serial Number			
Calibration Date			
Calibrator Serial Number			
Number of Calibration Points	0		

Logging Cable			
Type	7-46NT-XS		
Serial Number			
Length	24000.00 ft		
Conveyance Type	Wireline		
Rig Type	Aztec		

One:Depth Control Parameters		Depth Control Remarks
Log Sequence	First Log In the Well	All Schlumberger depth procedures followed.
Rig Up Length At Surface		IDW used as primary depth device.
Rig Up Length At Bottom		Z-Chart used as secondary depth device.
Rig Up Length Correction		
Stretch Correction		
Tool Zero Check At Surface		

One

5" Triple Combo

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Log[4]:Up	Up	202.25 ft	7409.99 ft	02-Oct-2018 3:14:11 PM	02-Oct-2018 5:15:36 PM	ON	2.60 ft	Yes

All depths are referenced to toolstring zero

Log

Company:Enduring Resources, LLC Well:North Escavada Unit 2207-16B-WSW

One: Log[4]:Up:S004

Description: HGNS standard resolution porosities for Platform Express Format: Log (TripleCombo-5) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 02-Oct-2018 17:50:55

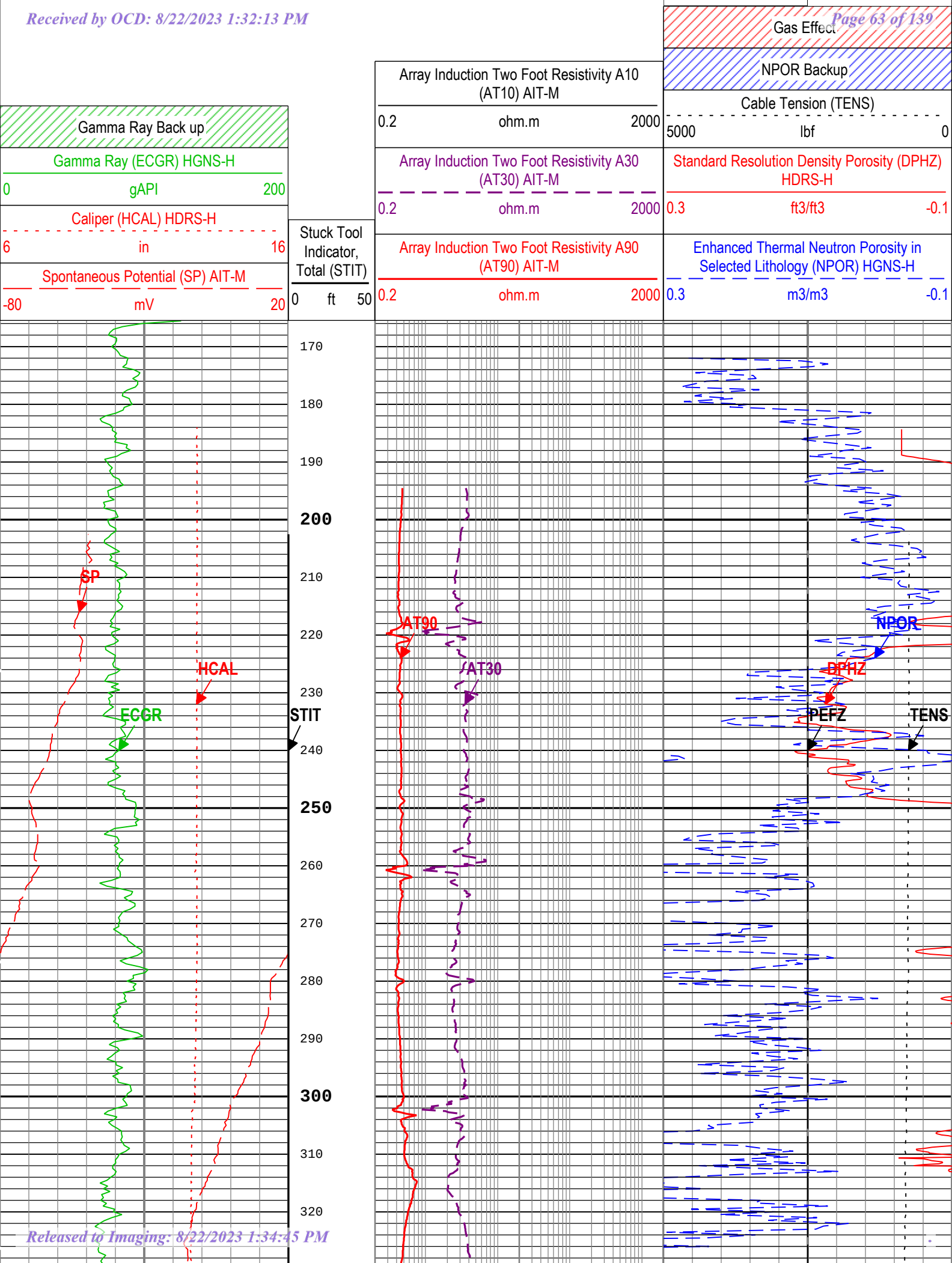
Channel	Source	Sampling
AT10	AIT-M:AMIS:AMIS	3in
AT30	AIT-M:AMIS:AMIS	3in
AT90	AIT-M:AMIS:AMIS	3in
CALI	HDRS-H:HRCC-H:HRCC-H	1in
DPHZ	HDRS-H:HRMS-H:HRGD-H	2in
GR	HGNS-H:HGNS-H:HGNS-H	6in
NPOR	HGNS-H:HGNS-H:HGNS-H	6in
PEFZ	HDRS-H:HRMS-H:HRGD-H	2in
SP	AIT-M:AMIS:AMIS	6in
STIT	DepthCorrection	6in
TENS	WLWorkflow	6in
TIME_1900	WLWorkflow	0.1in

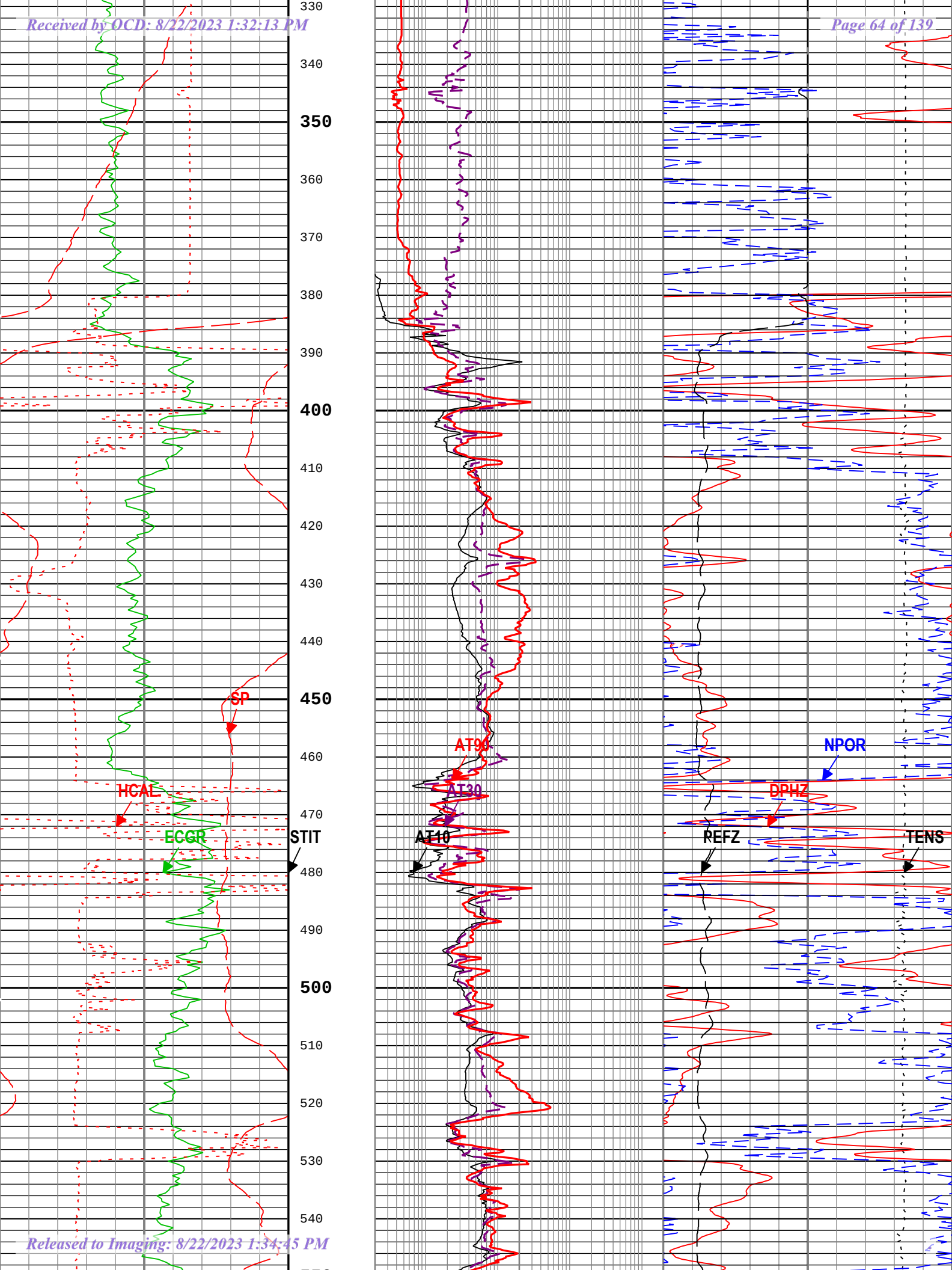
TIME_1900 - Time Marked every 60.00 (s)

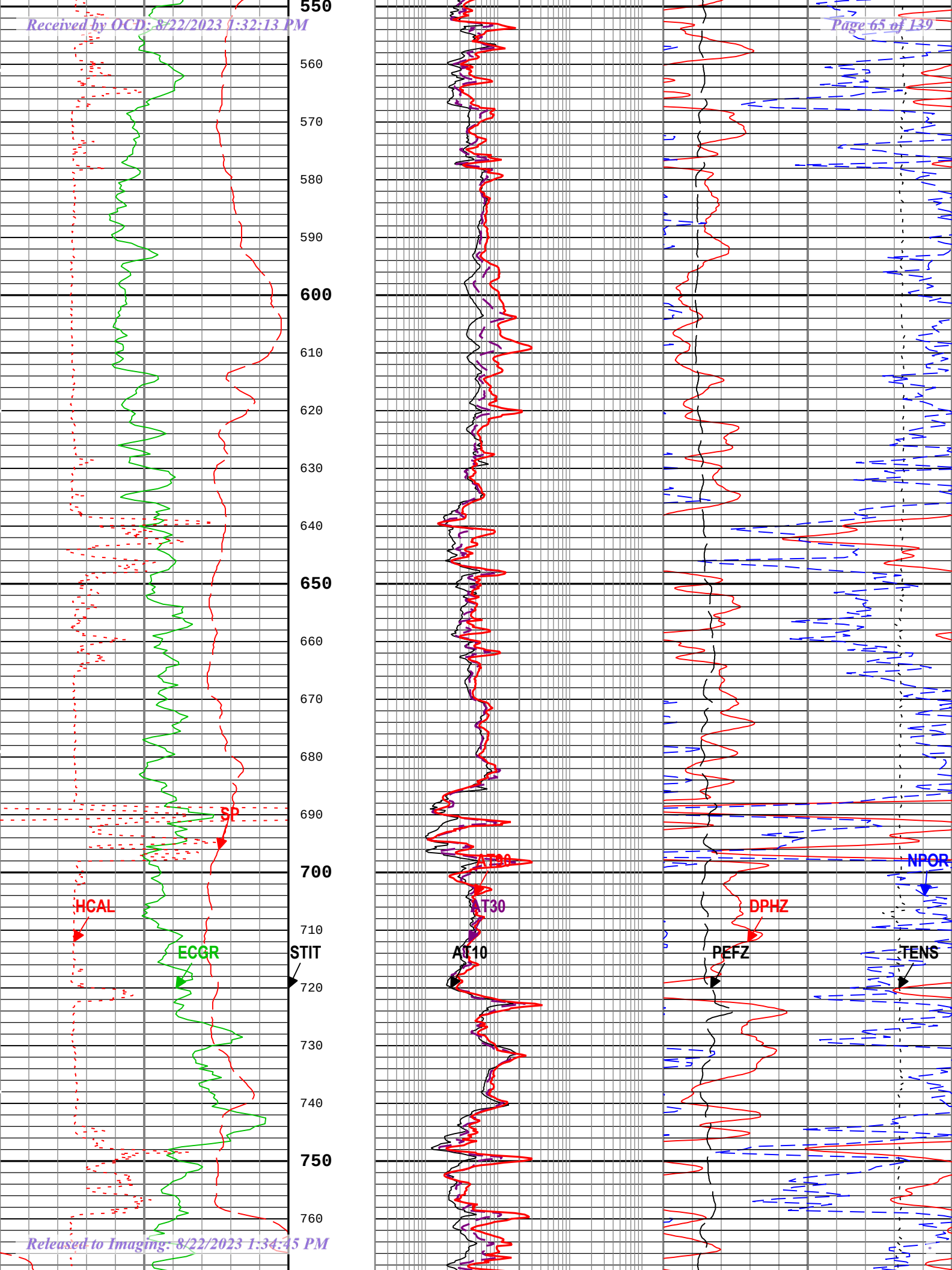
Standard Resolution Formation Photoelectric Factor (PEFZ) HDRS-H

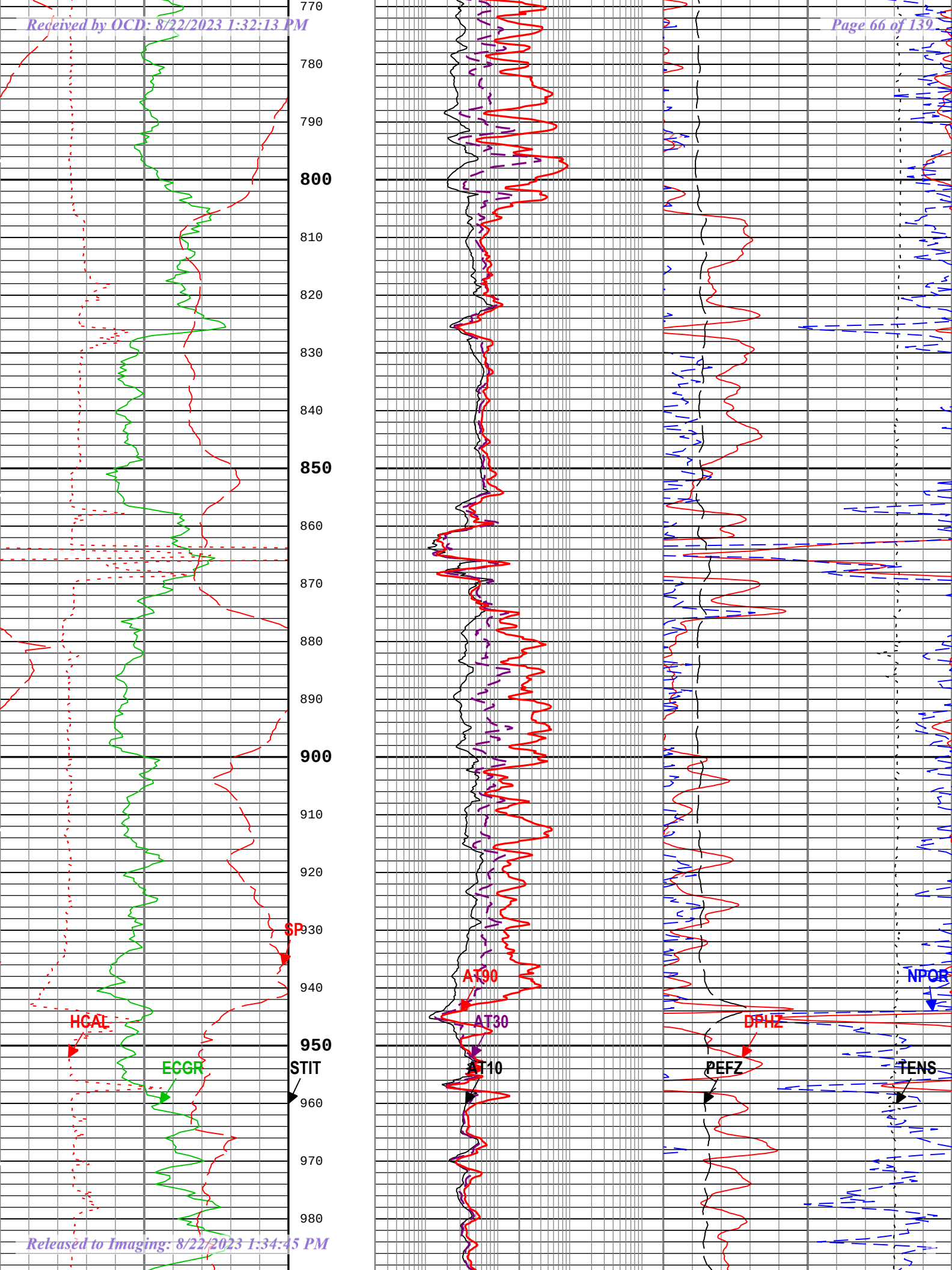
0 10

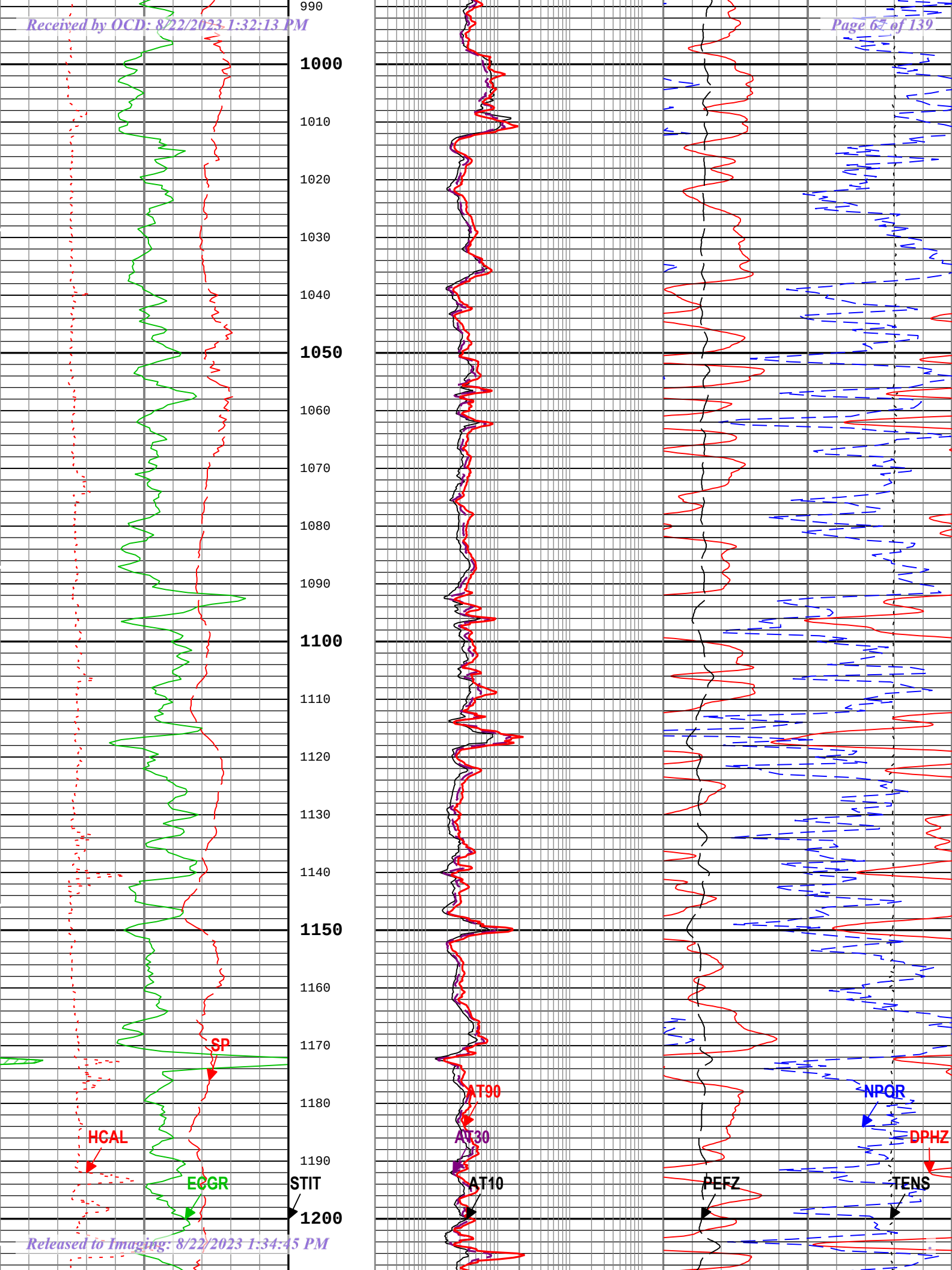
ENCLOSURE J: TRIPLE COMBO LOG

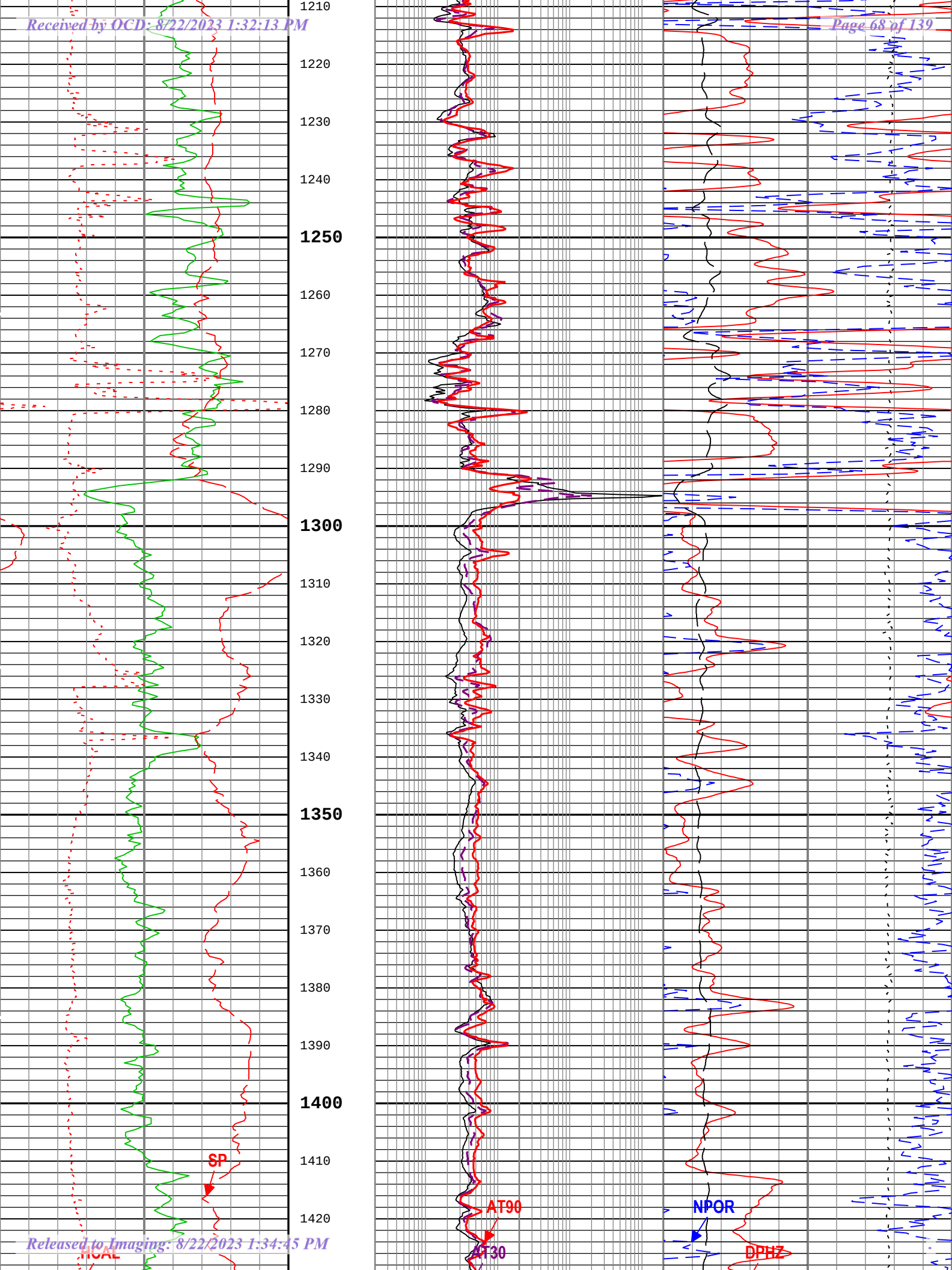


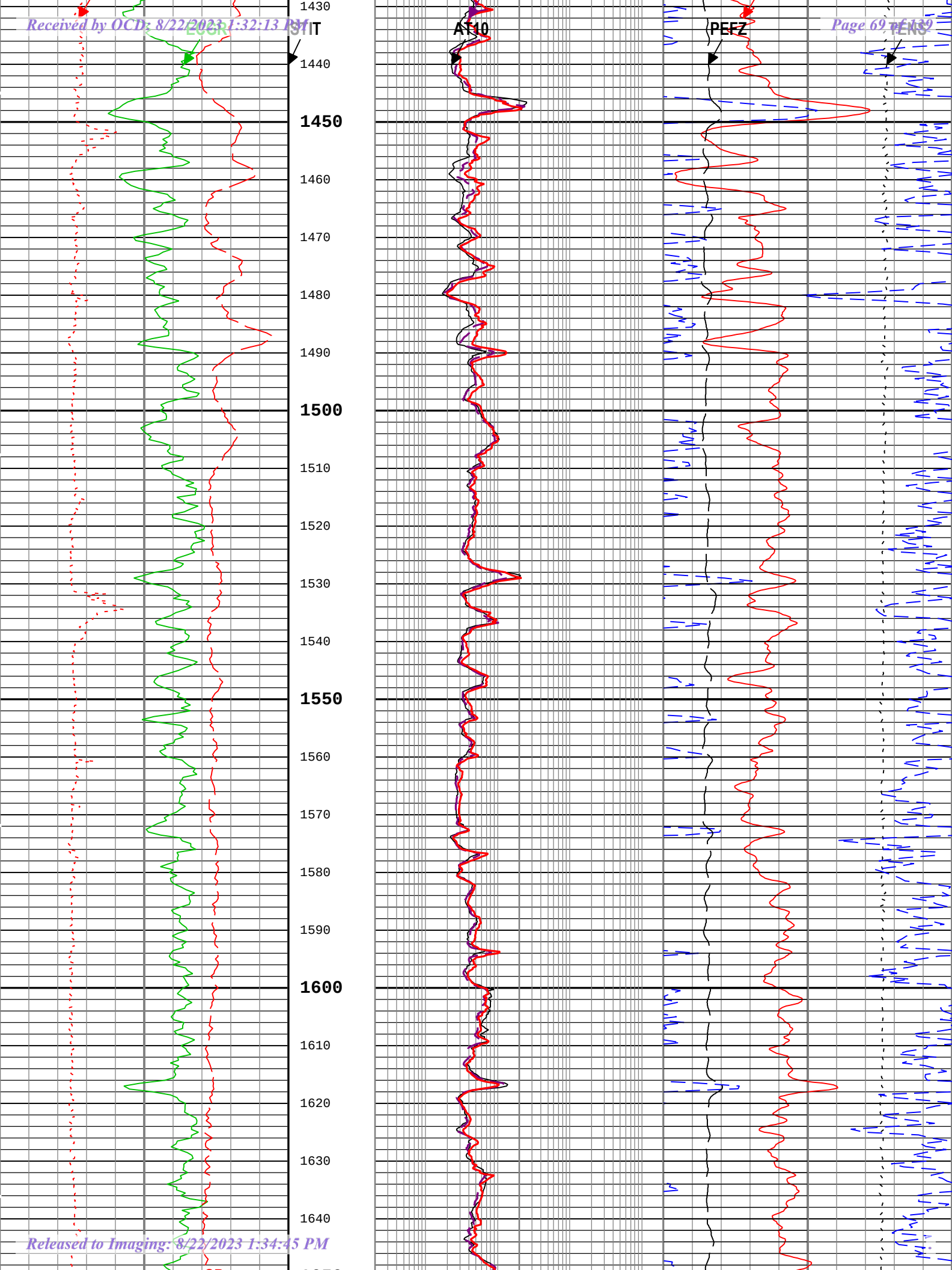


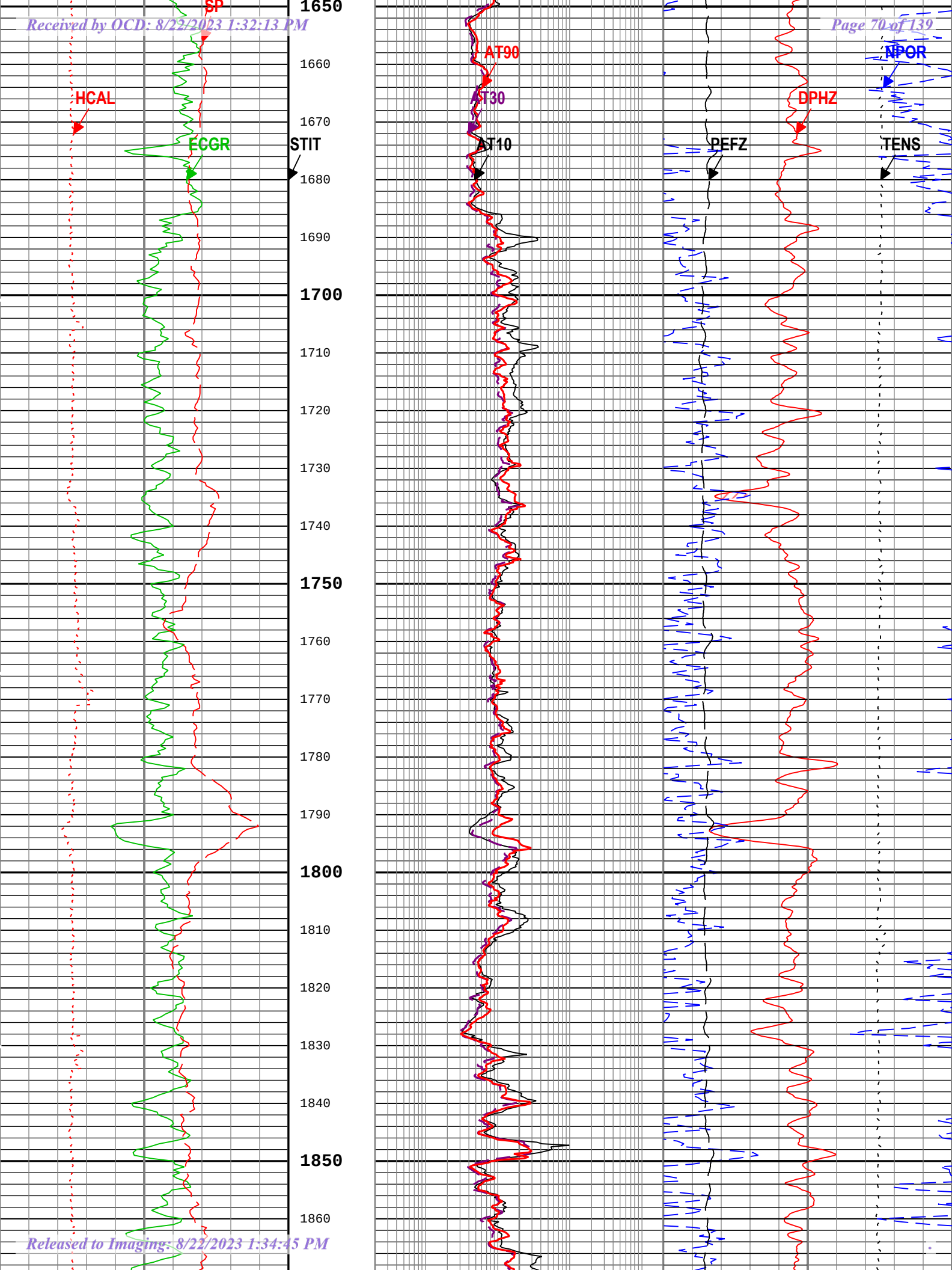


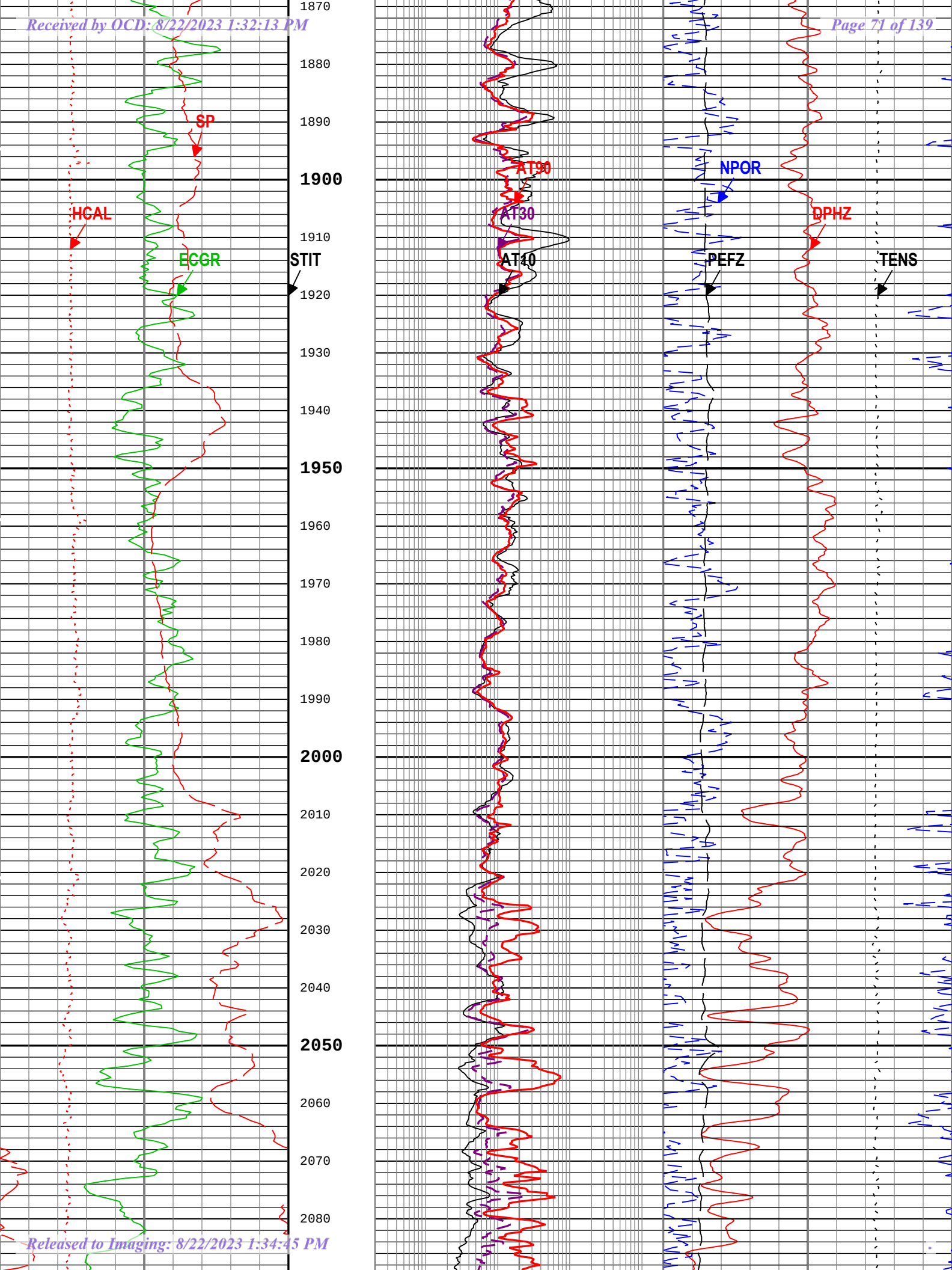








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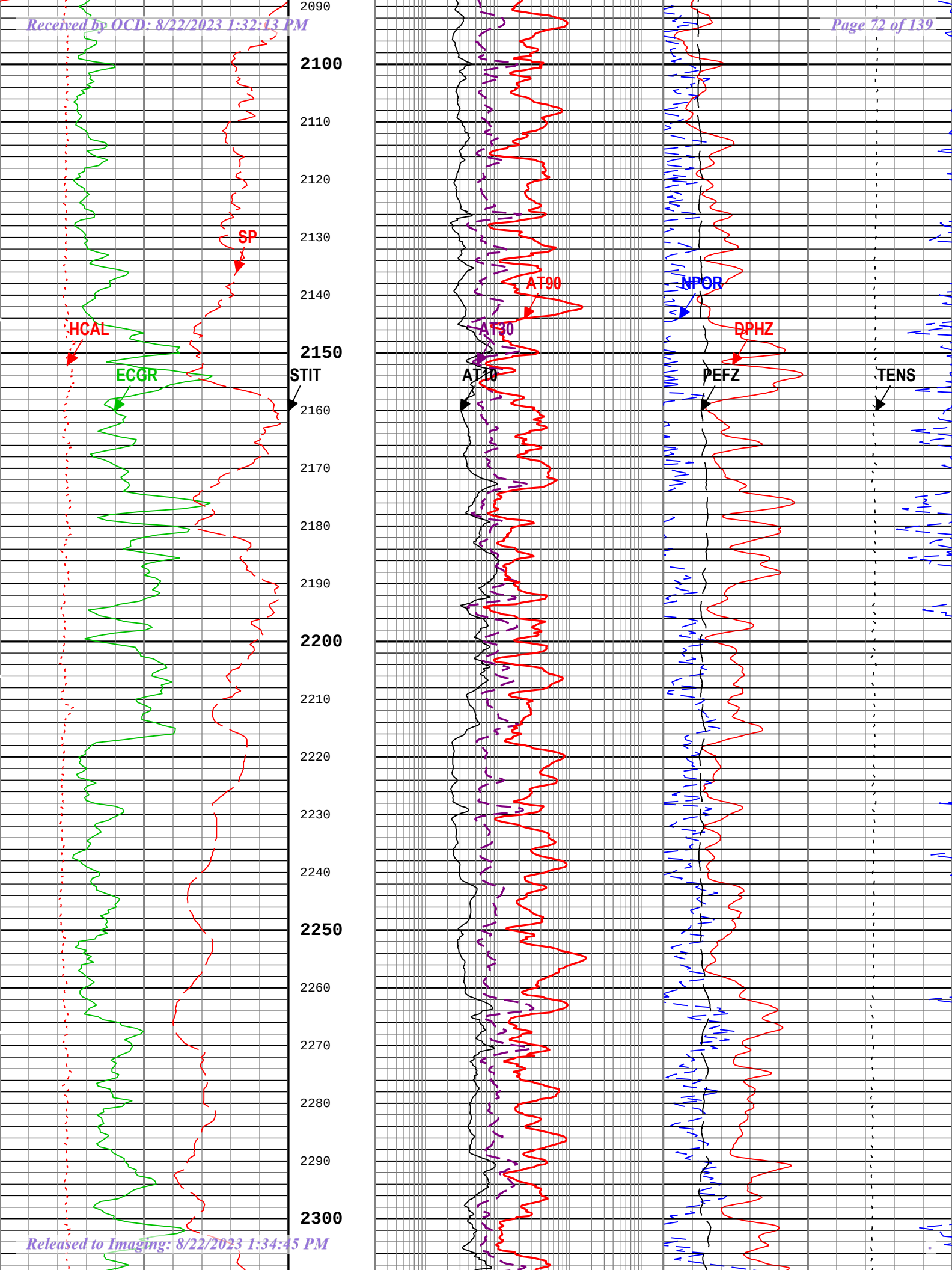
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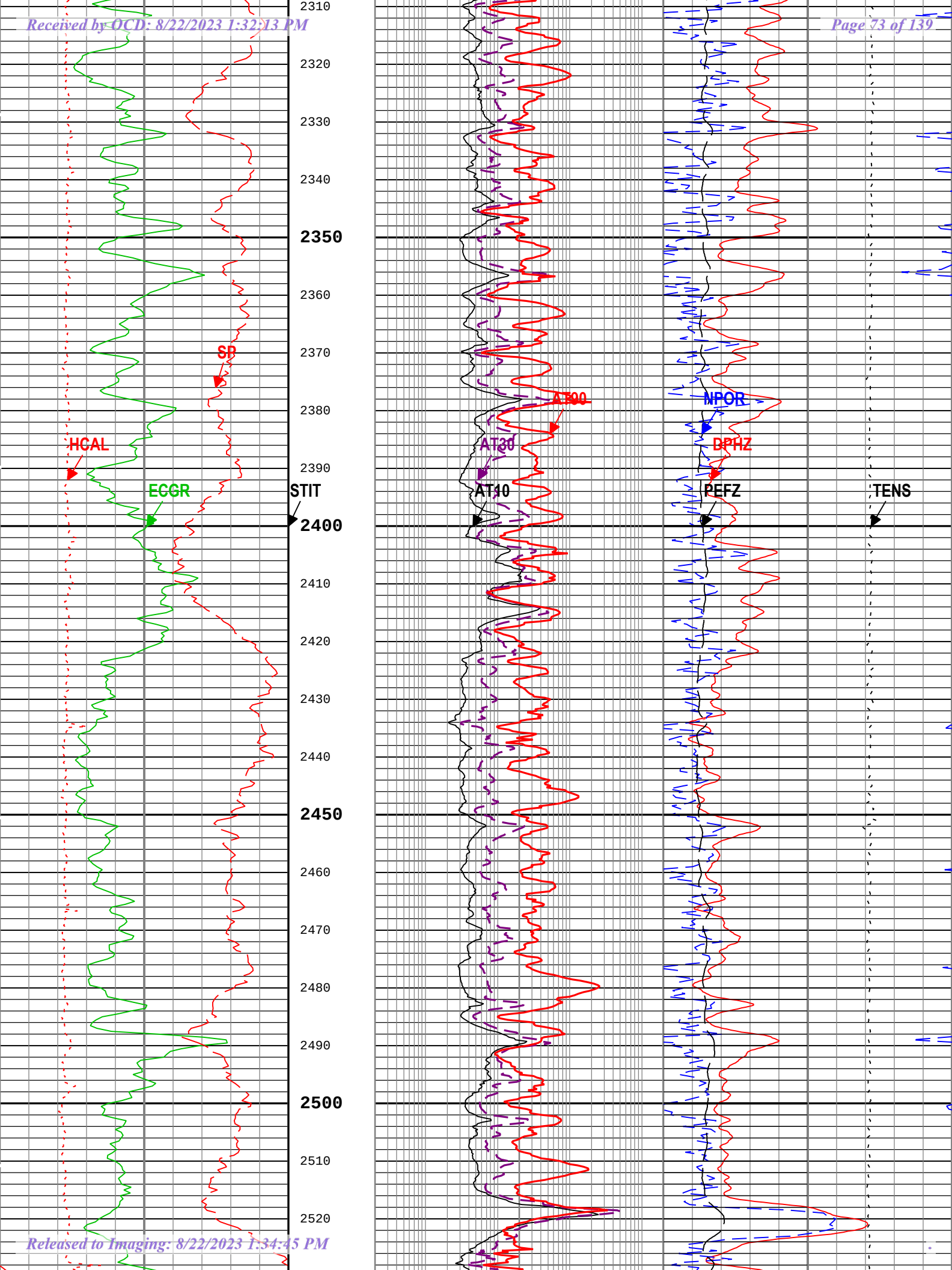
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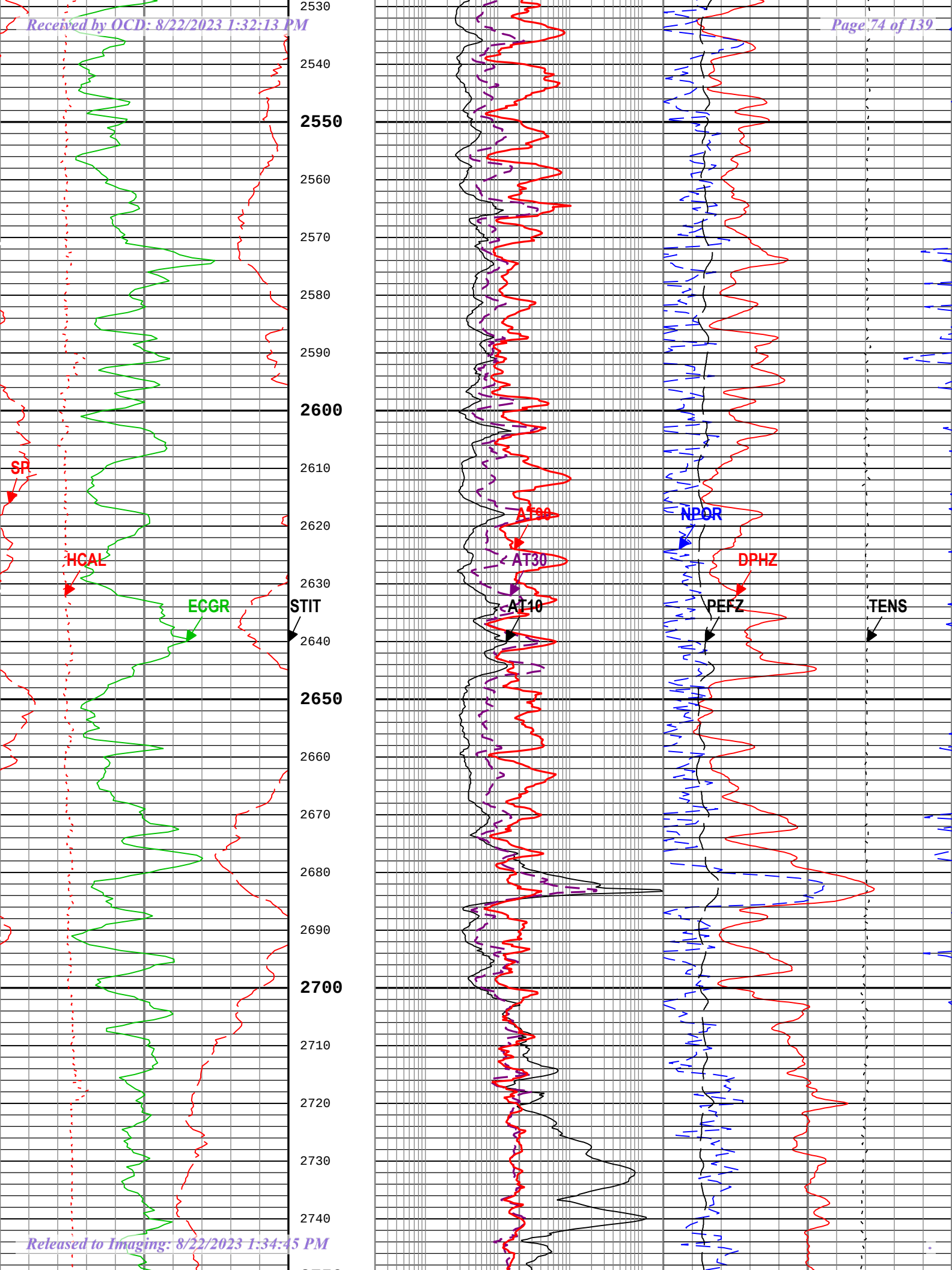
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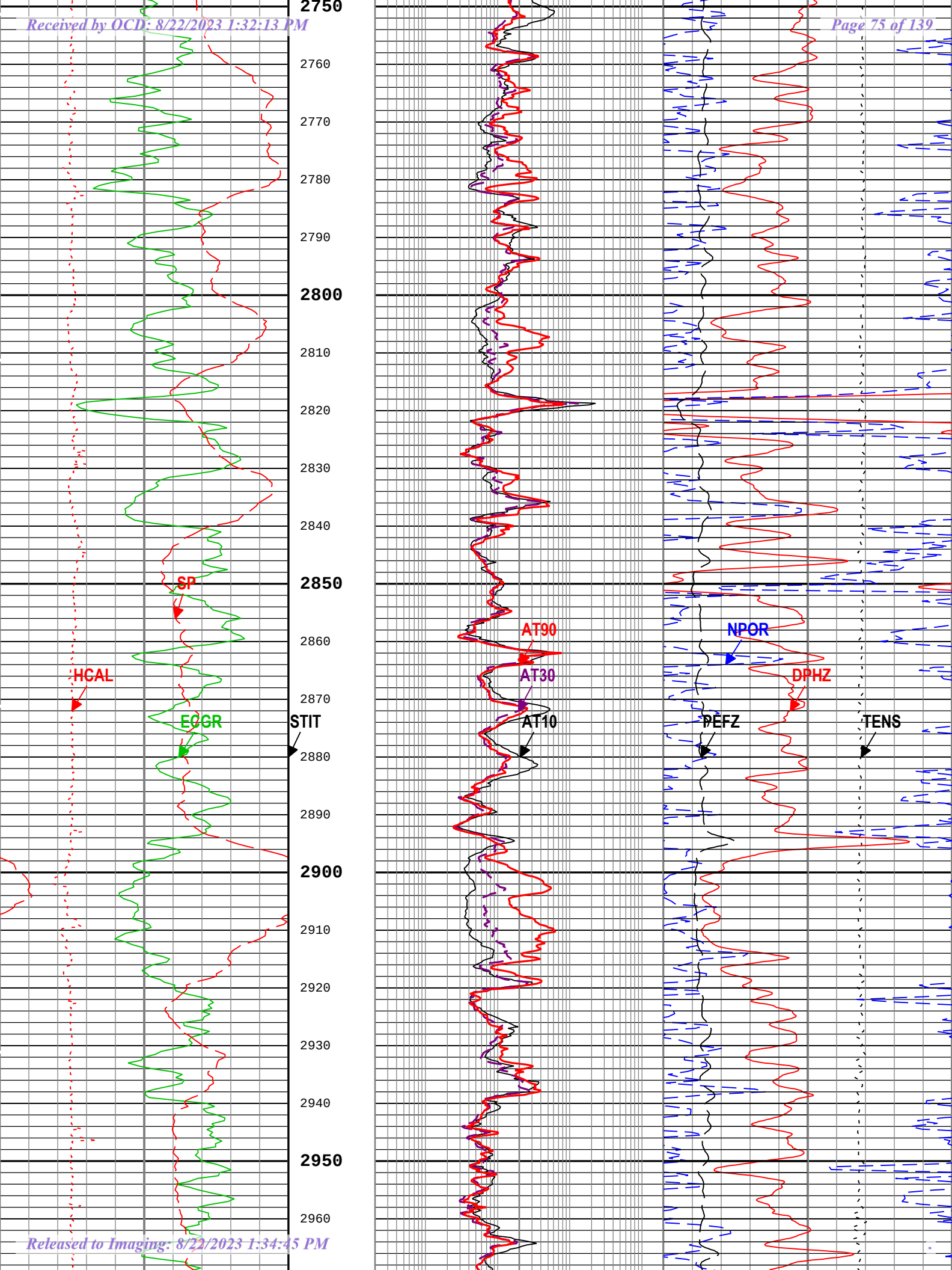
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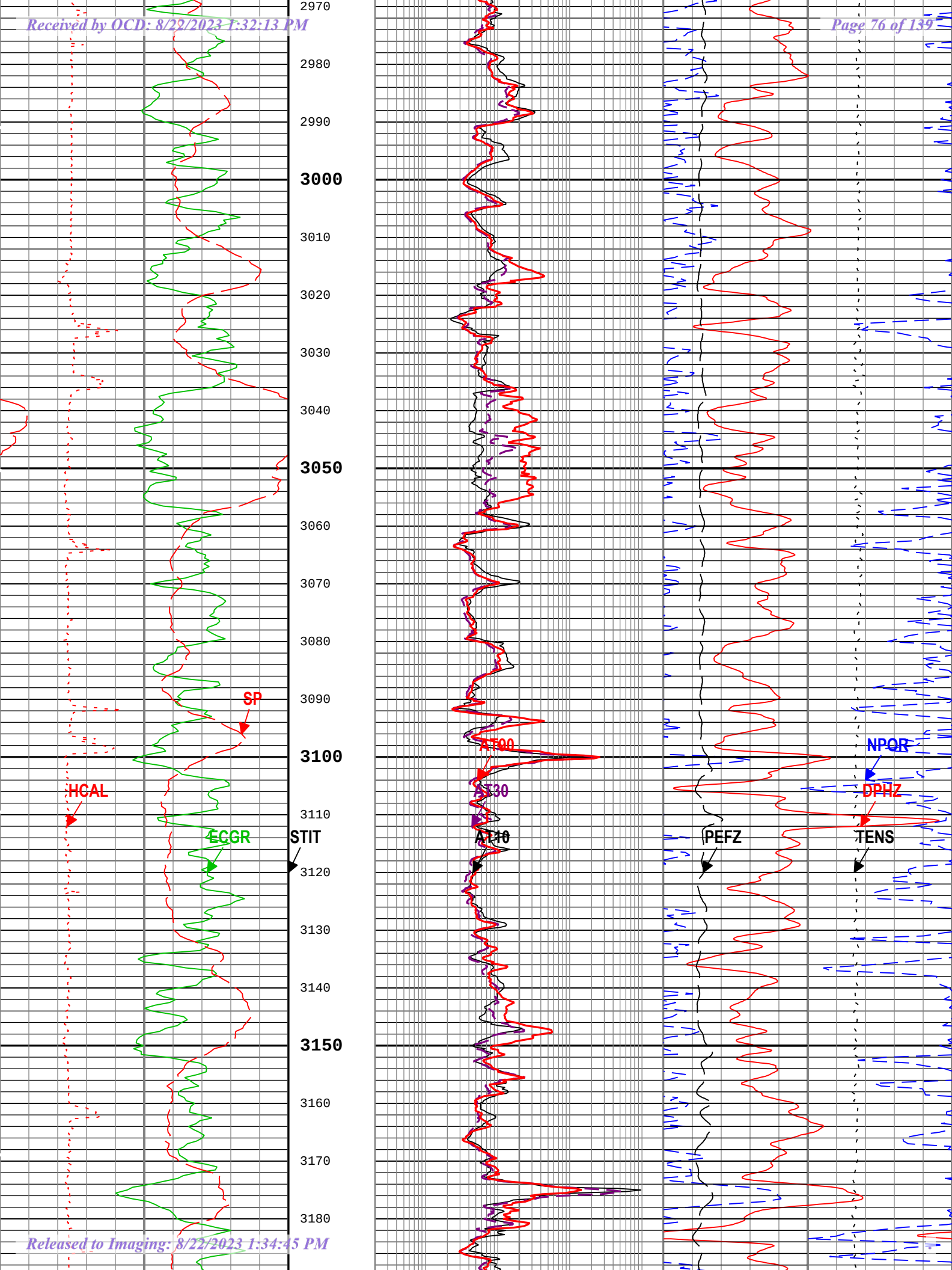

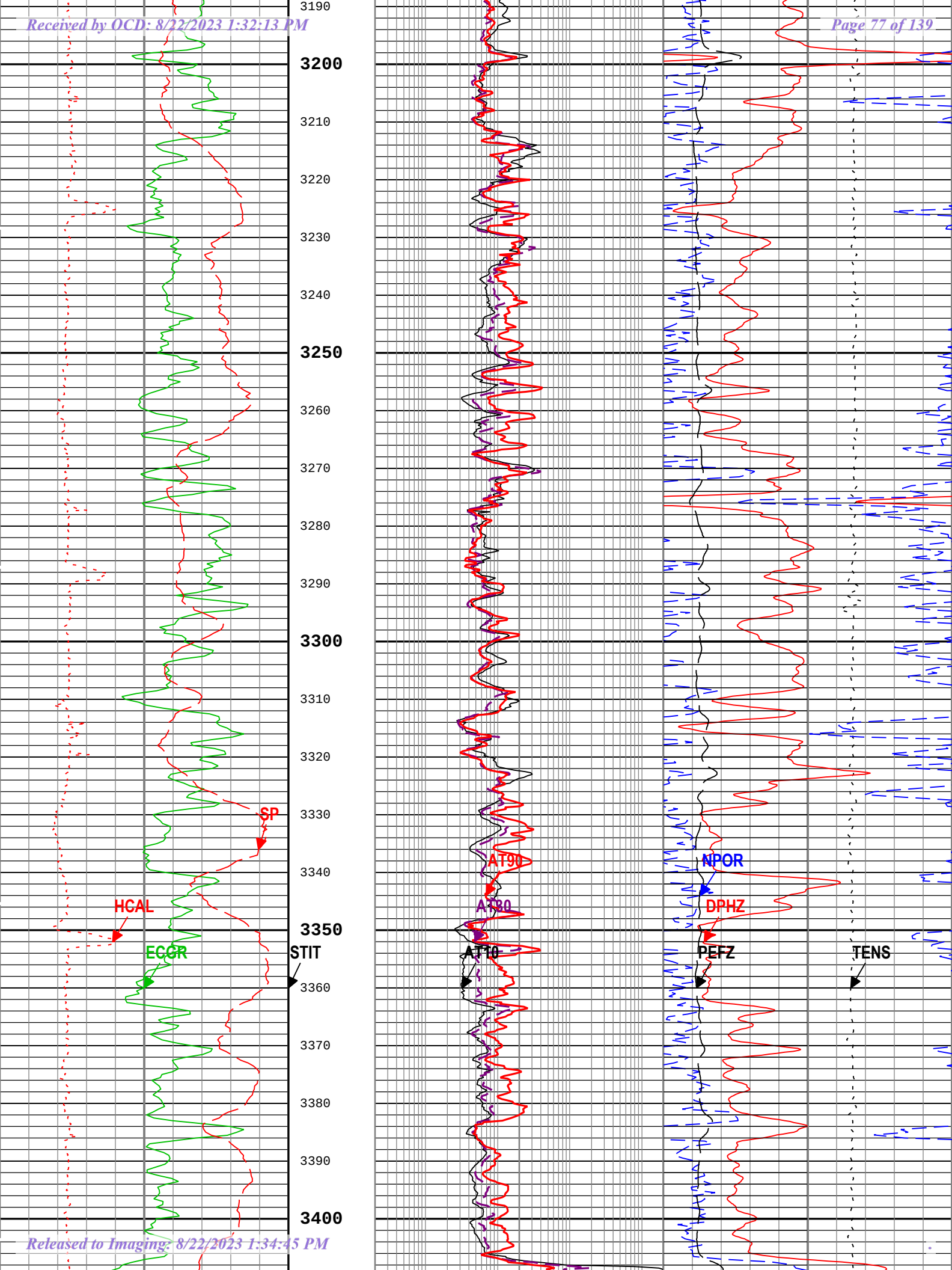

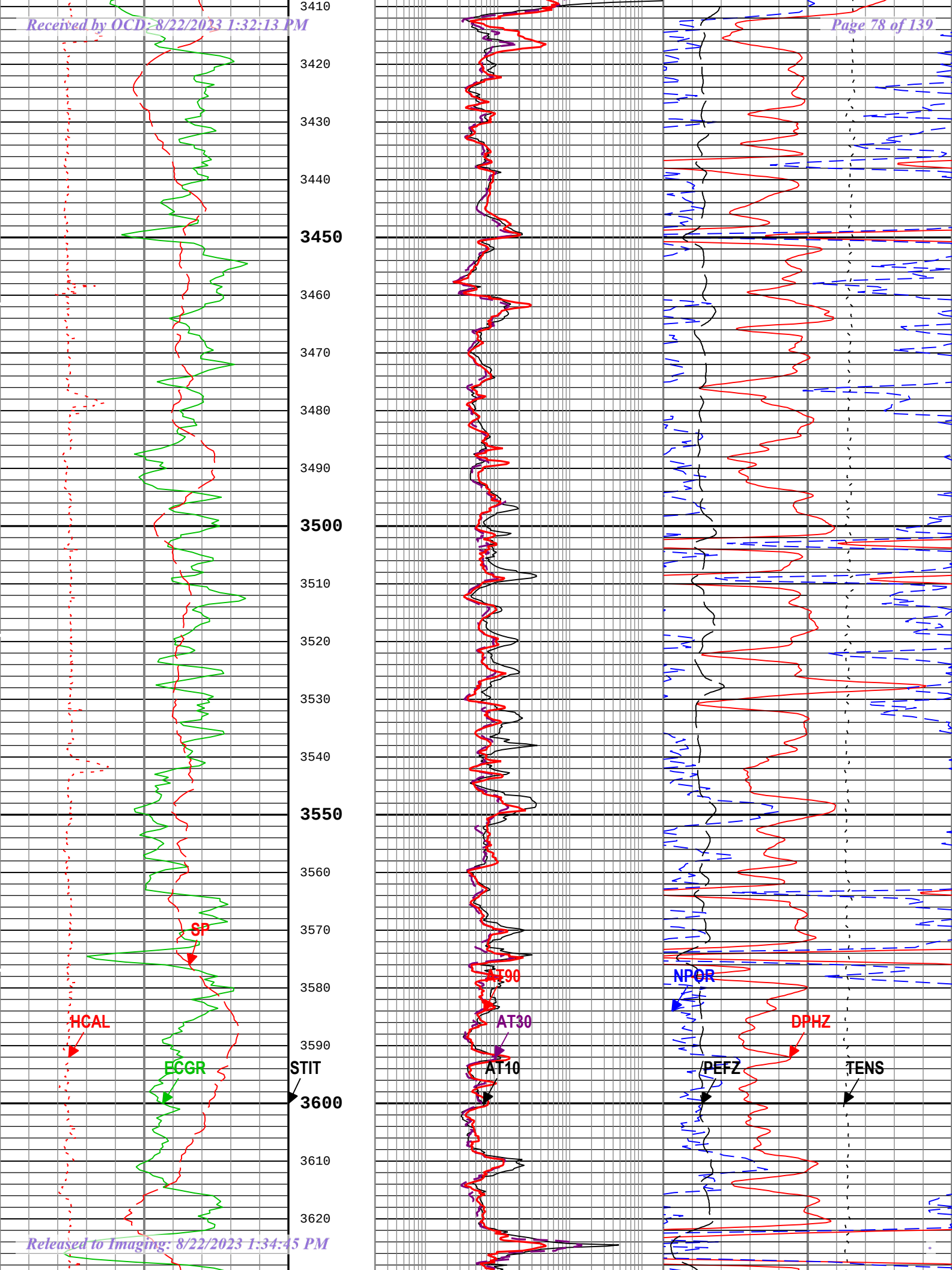

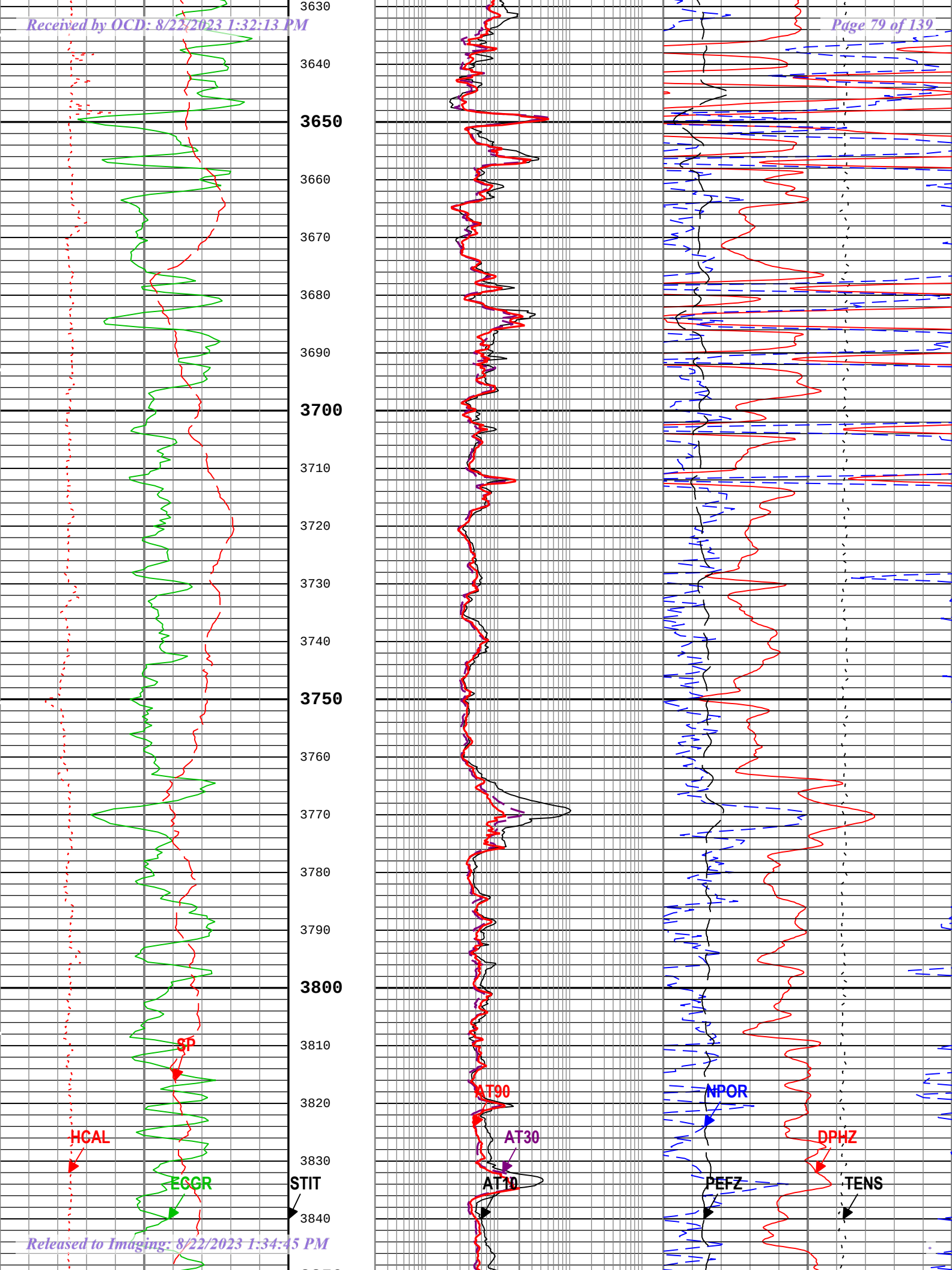

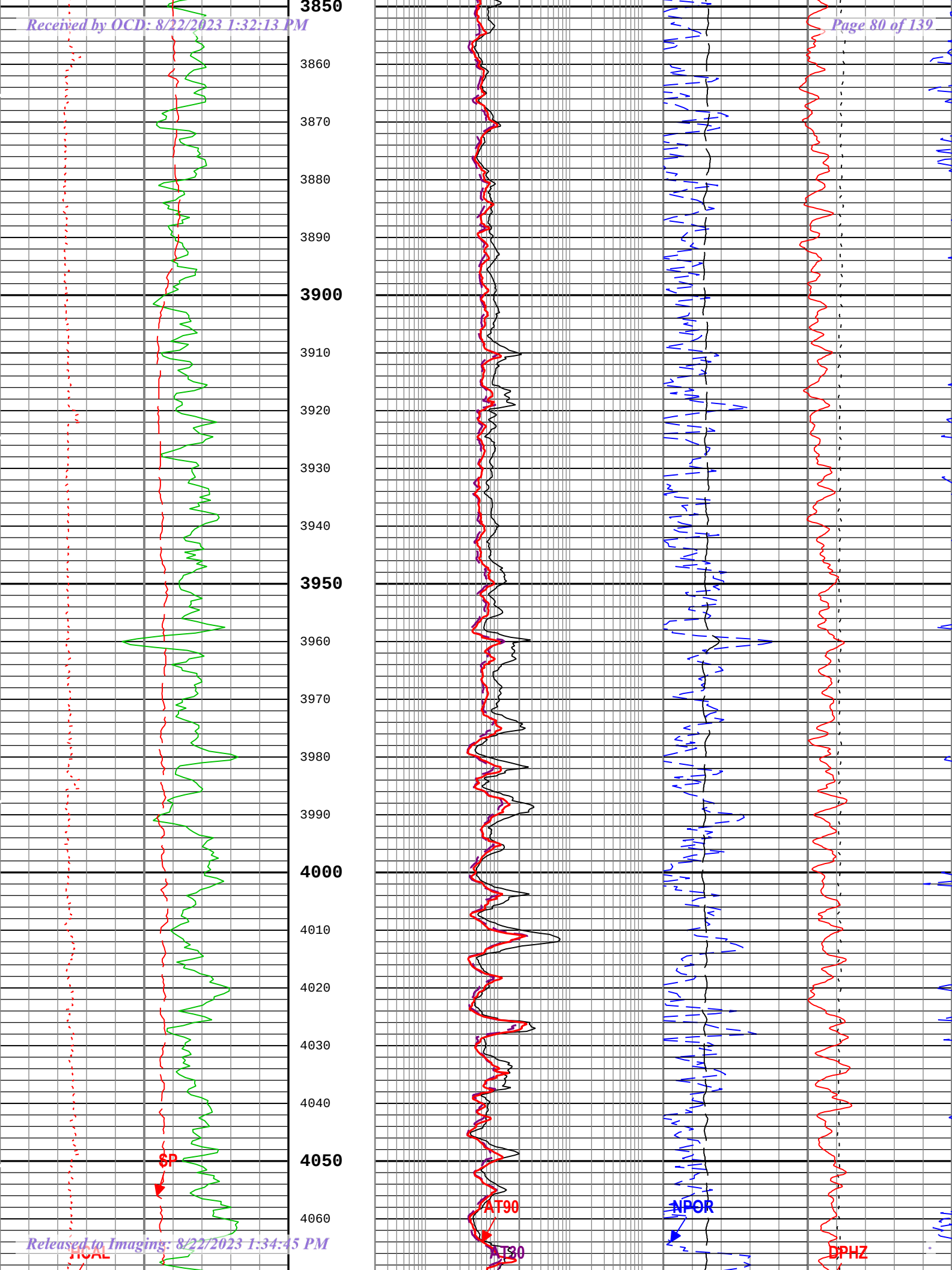

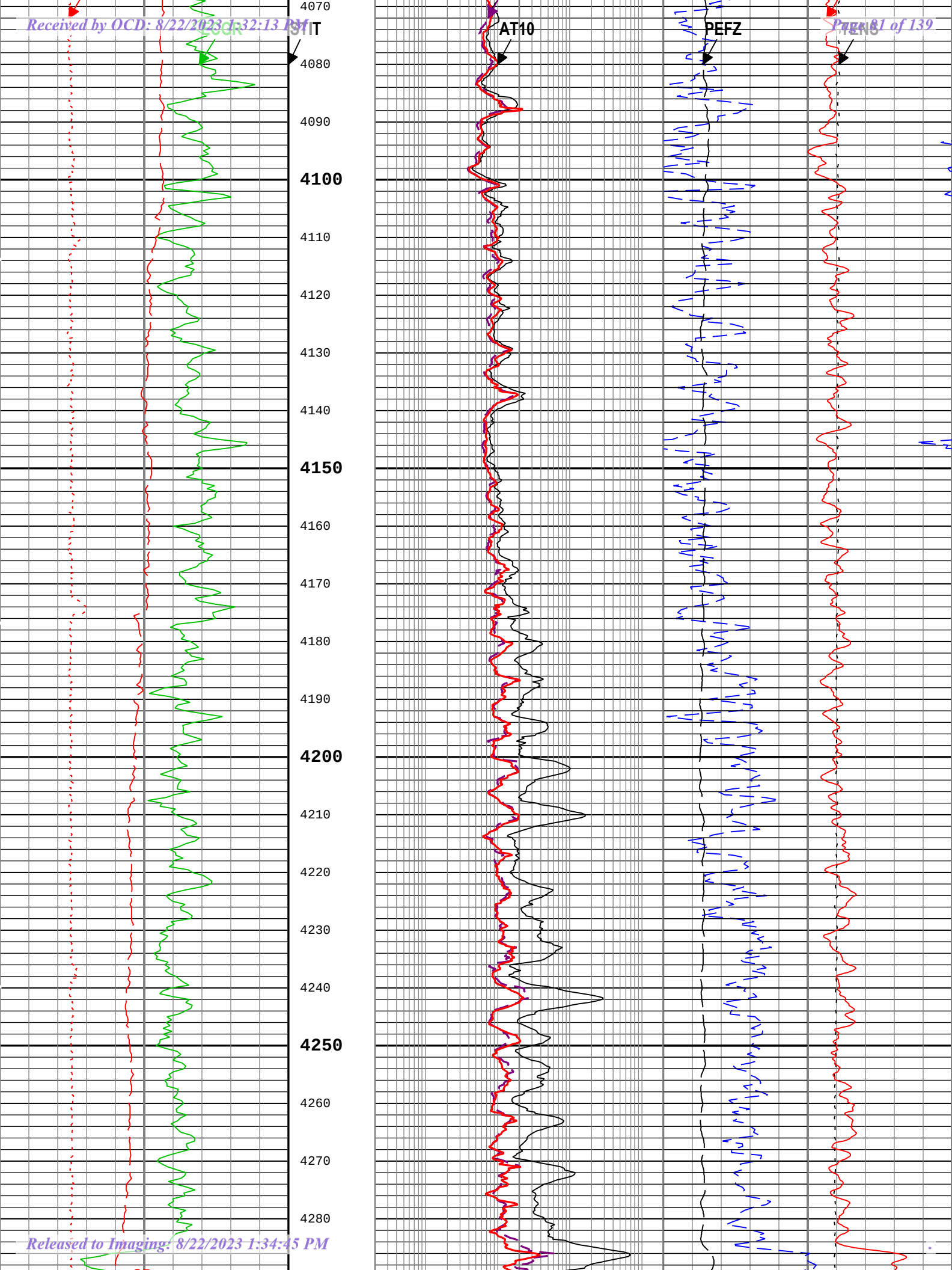

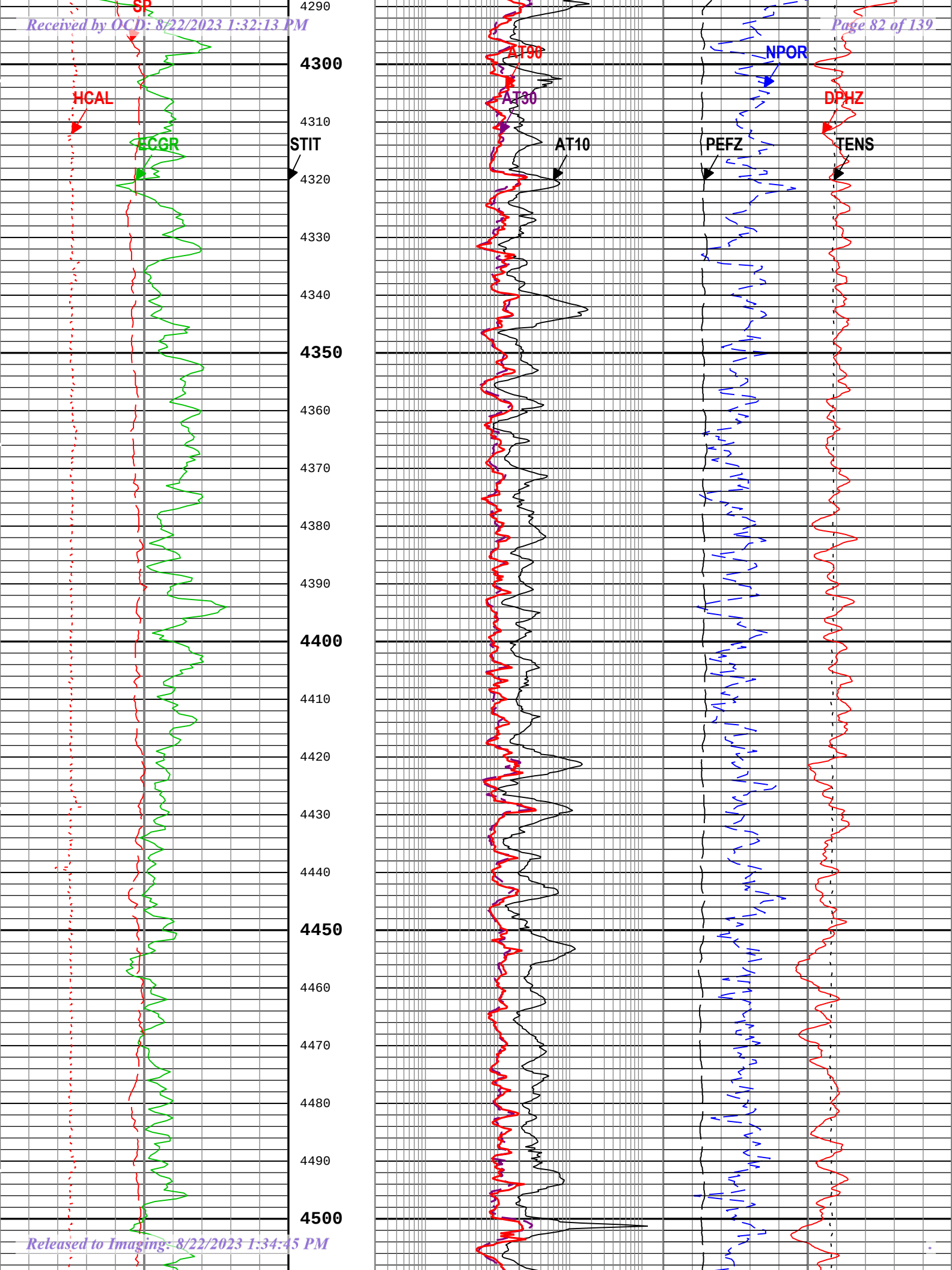

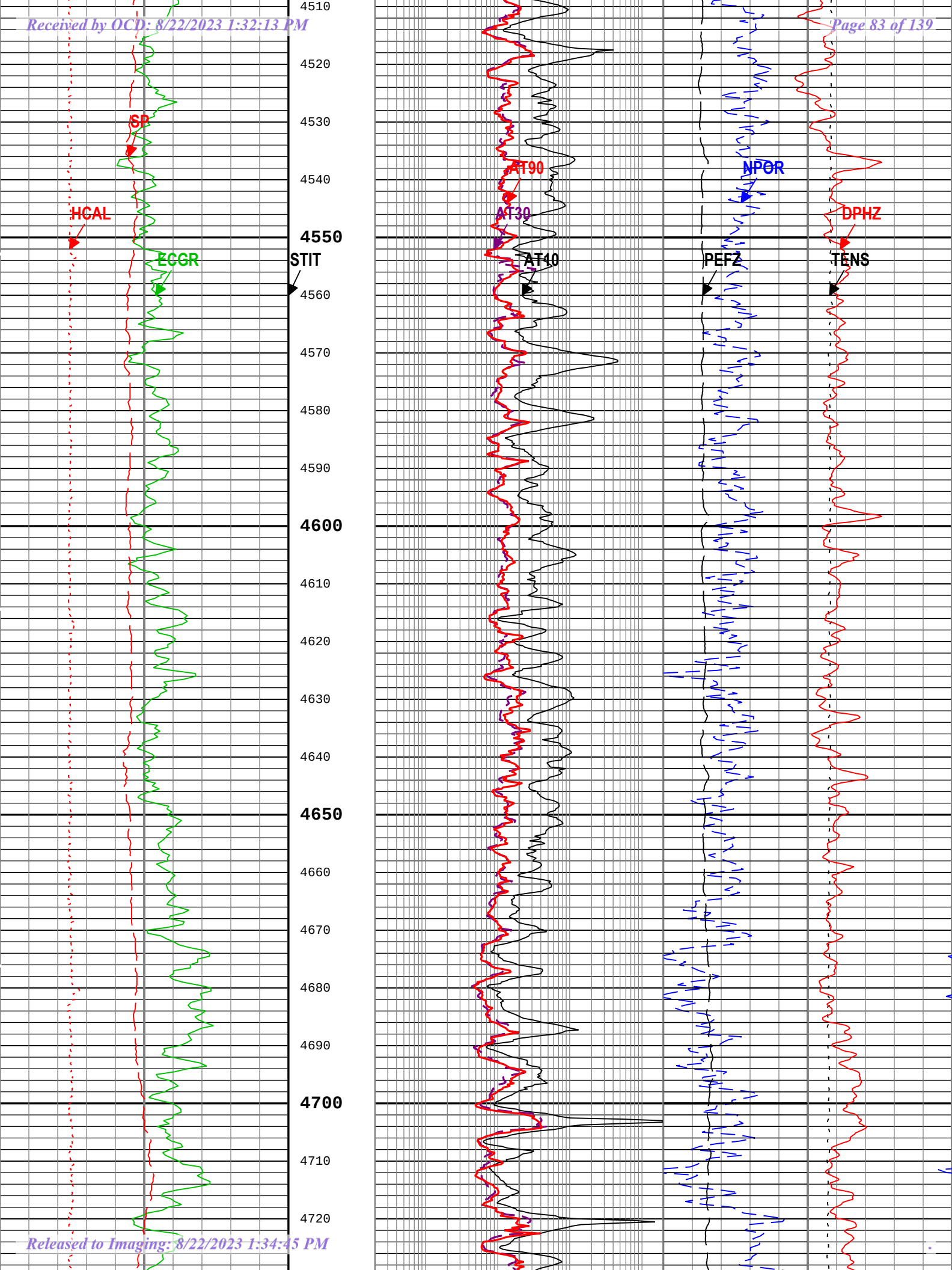
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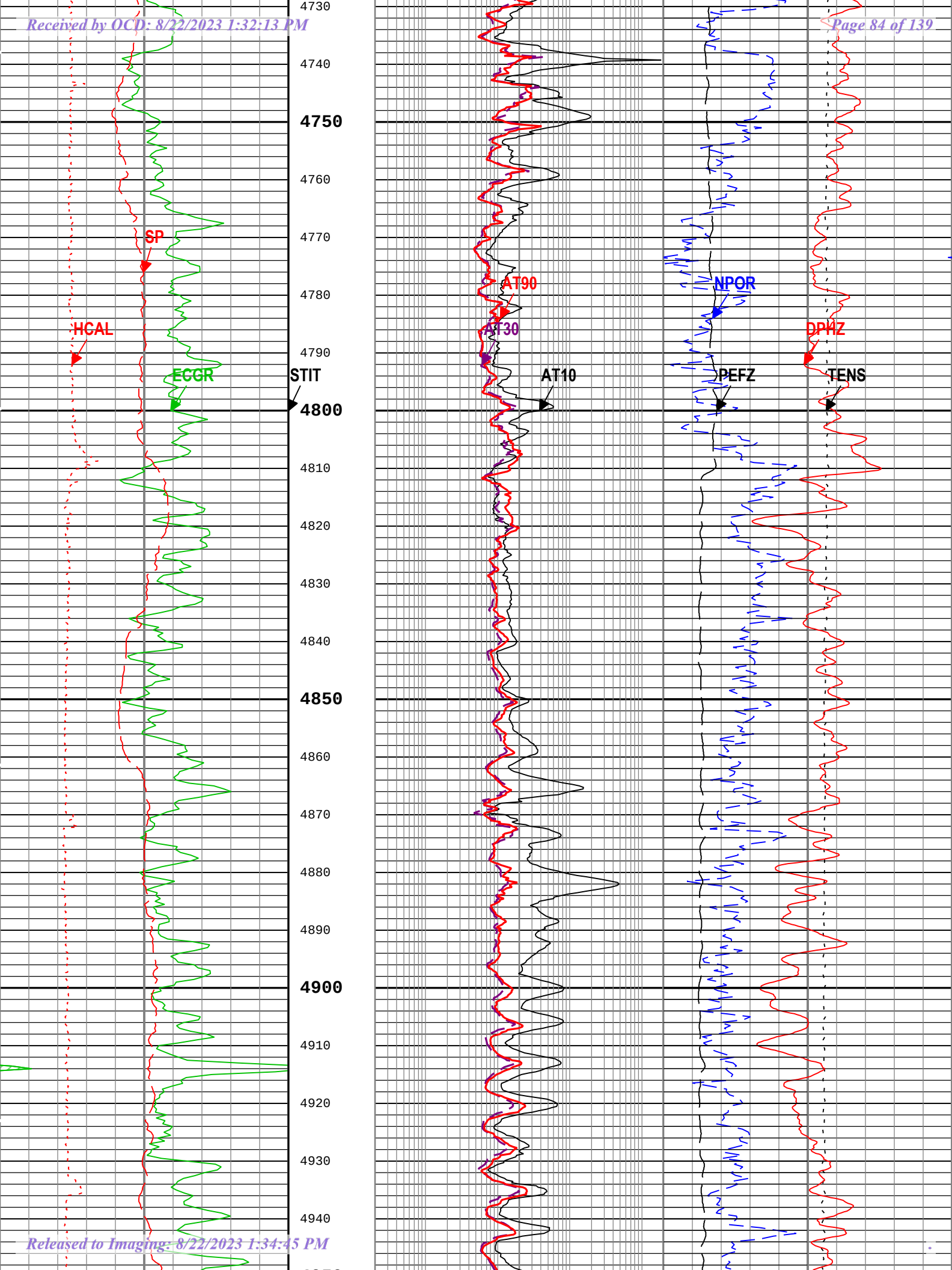

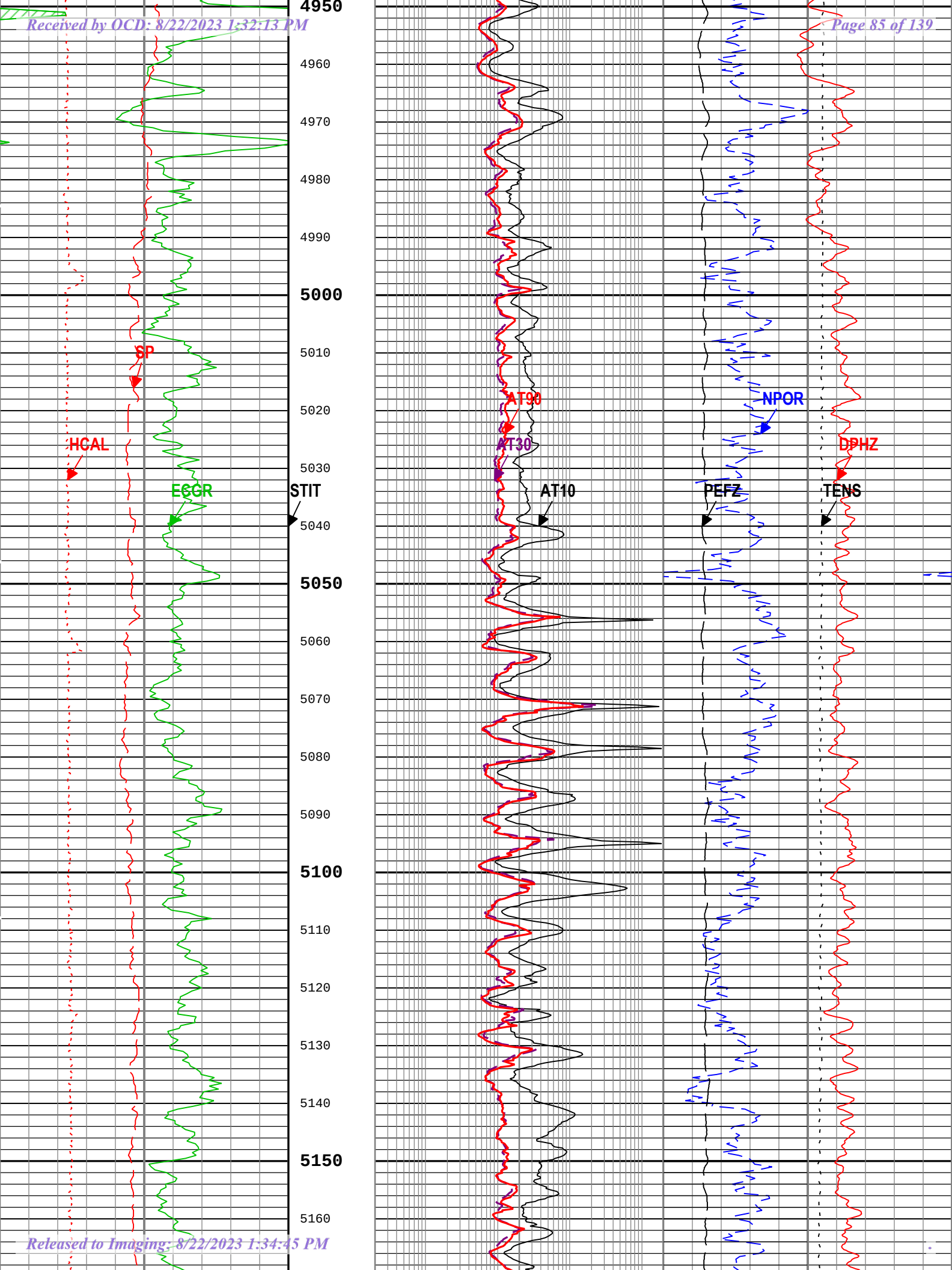
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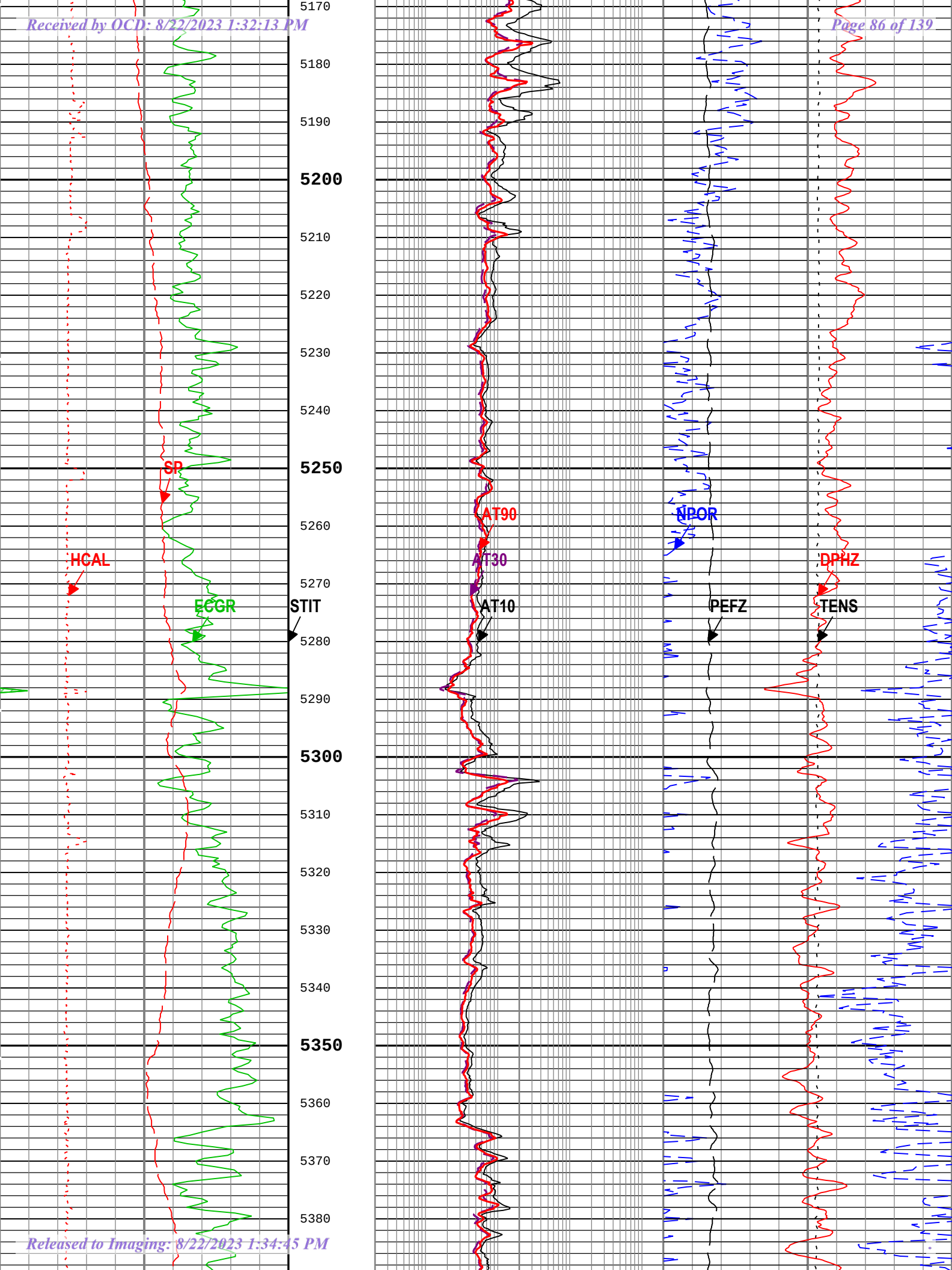

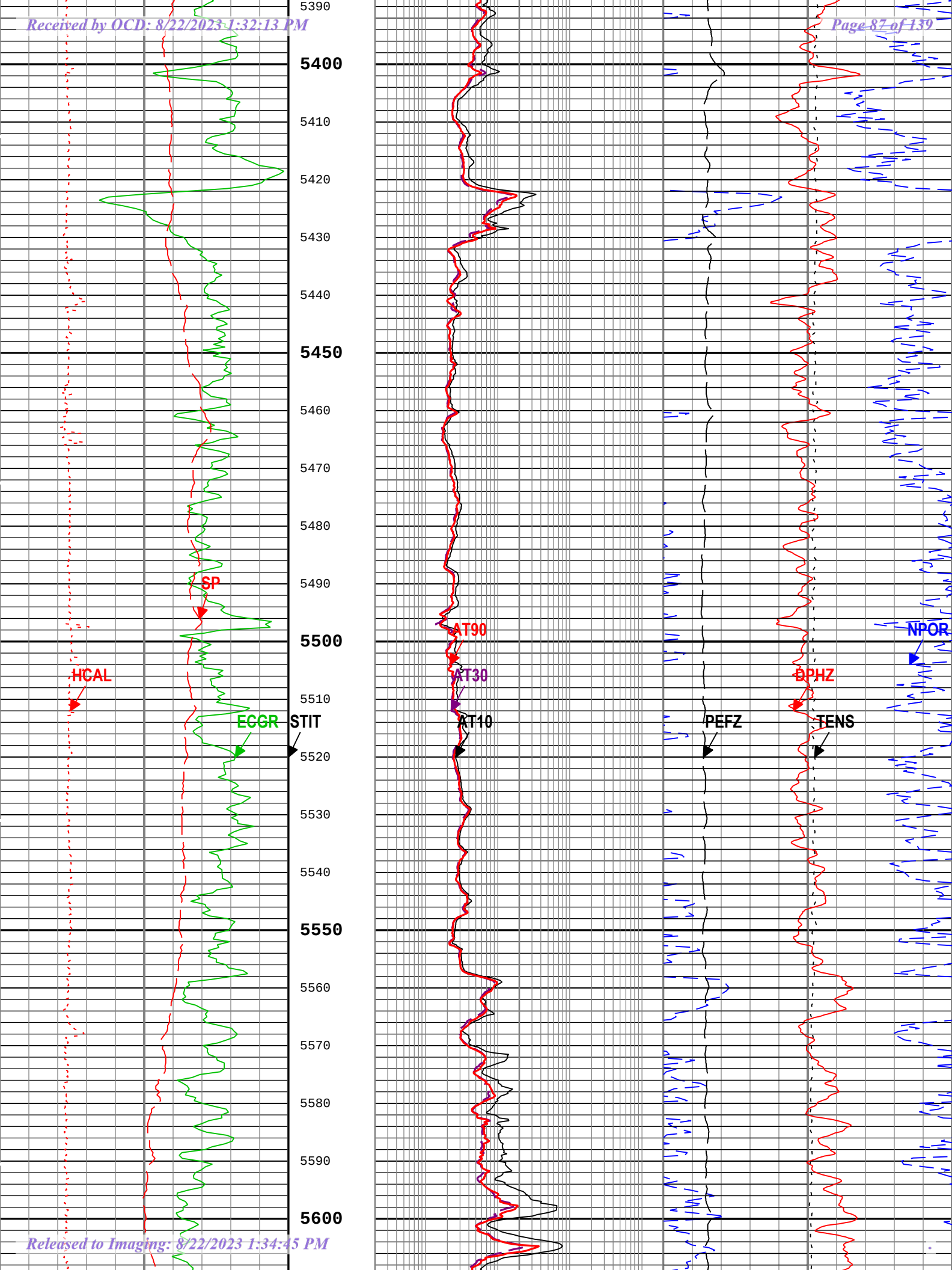
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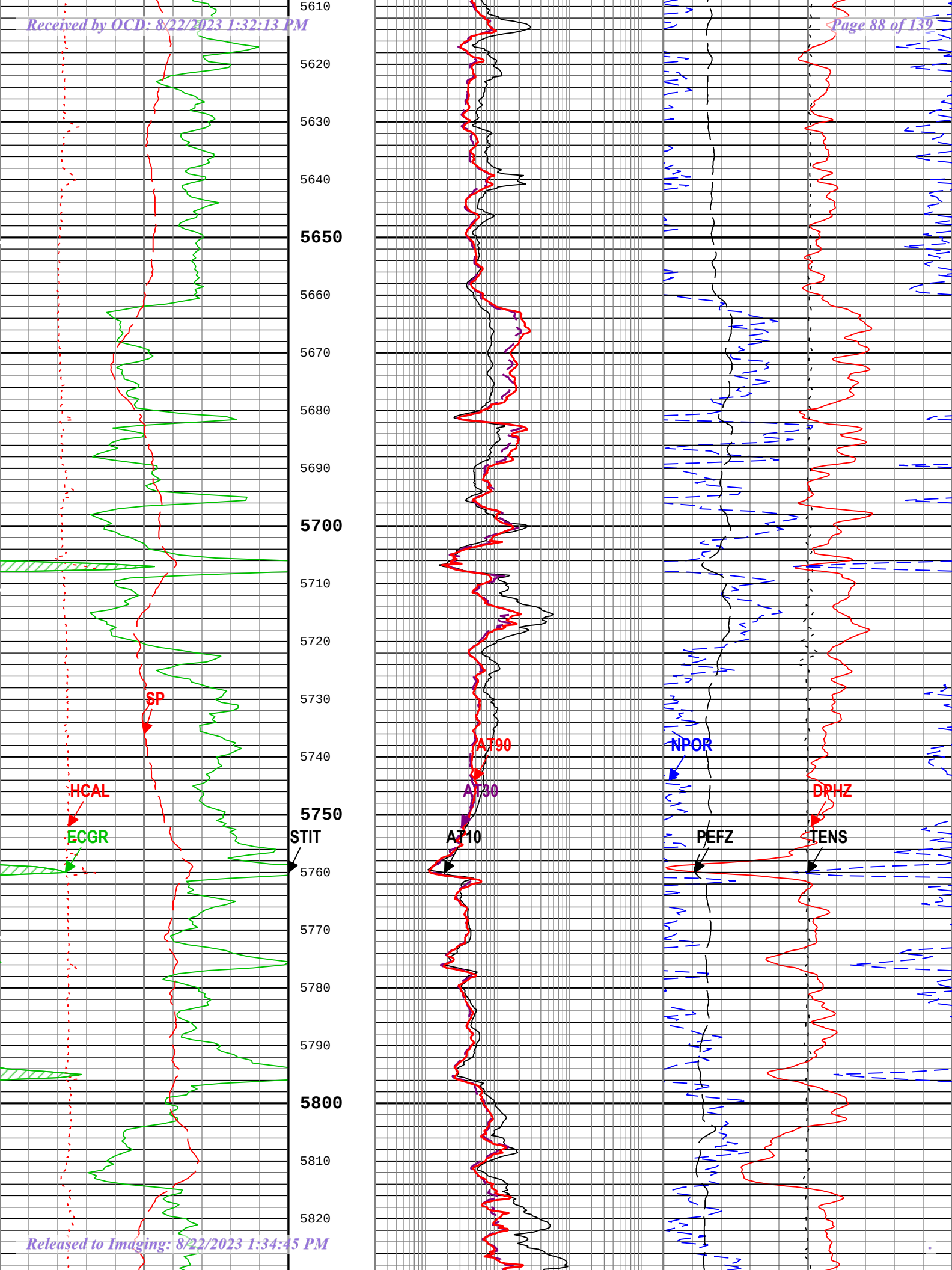
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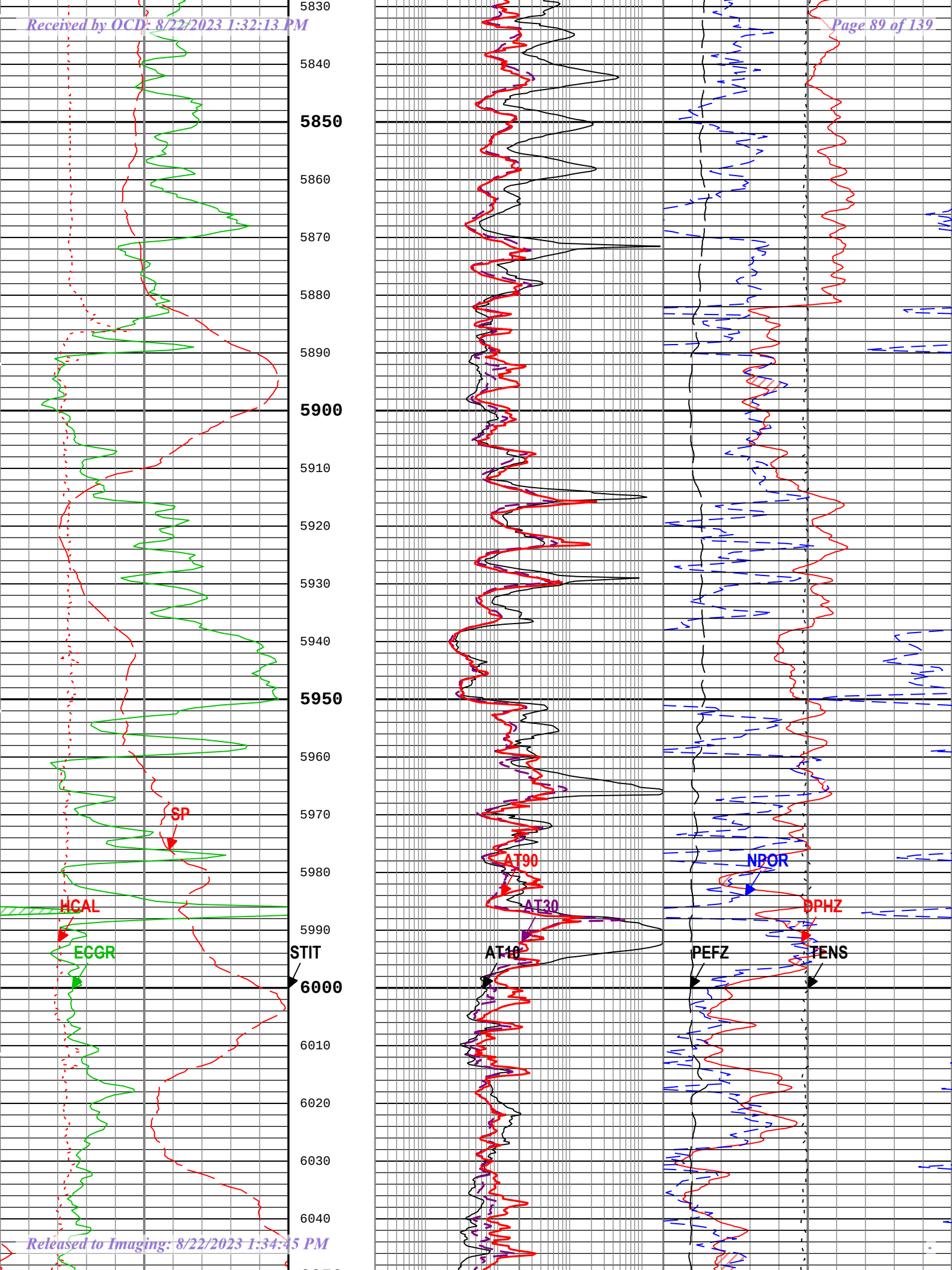

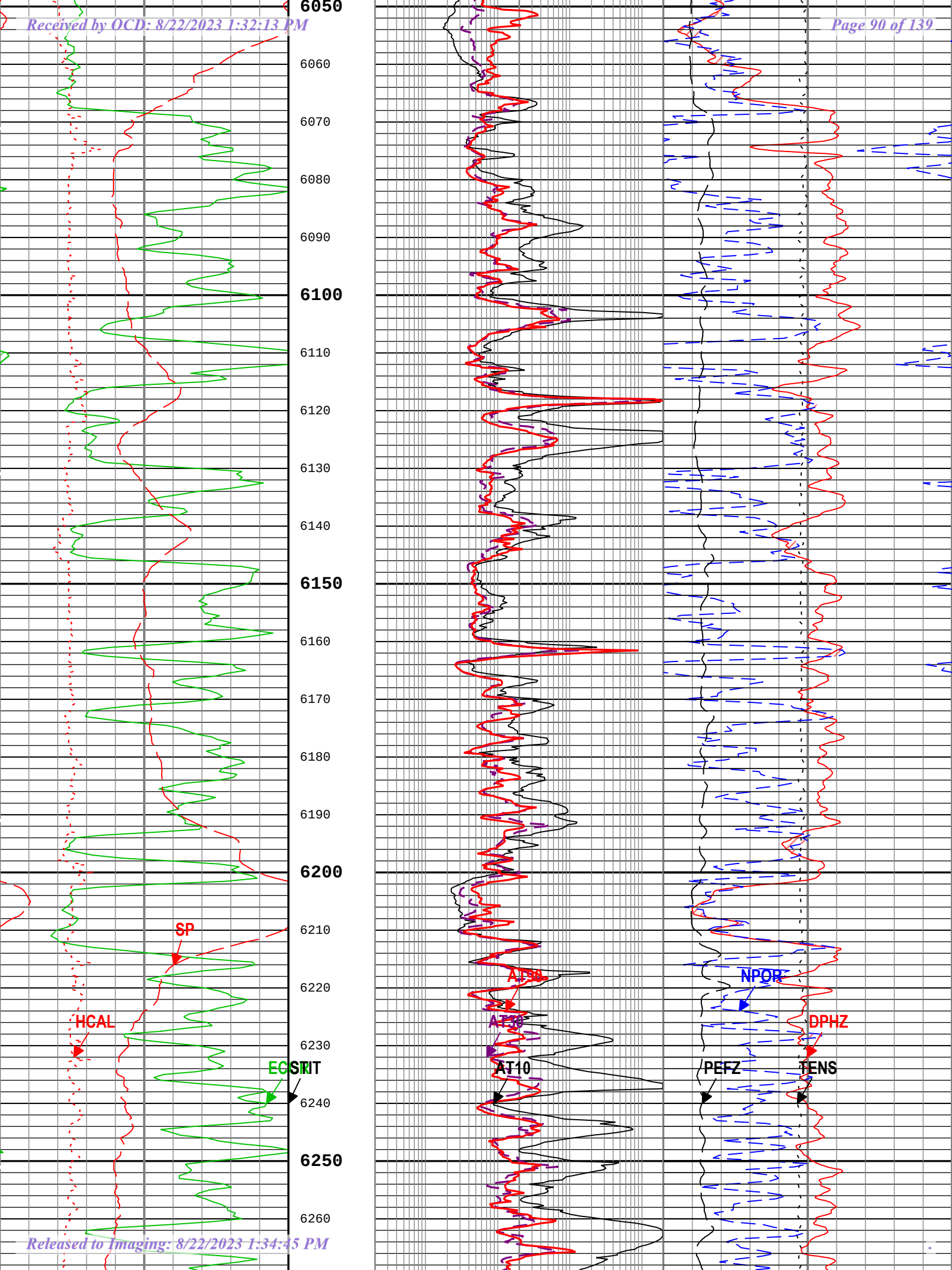
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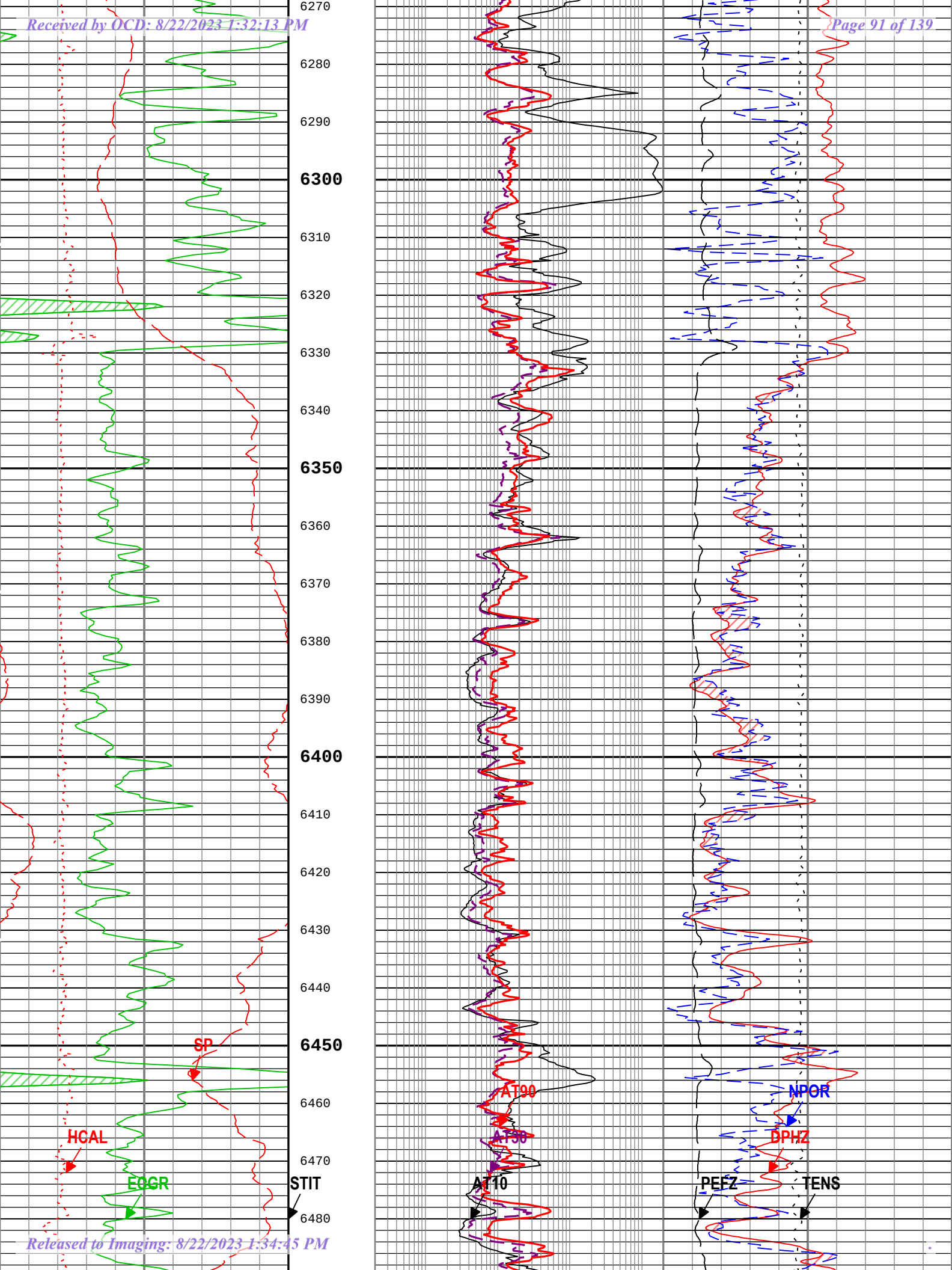

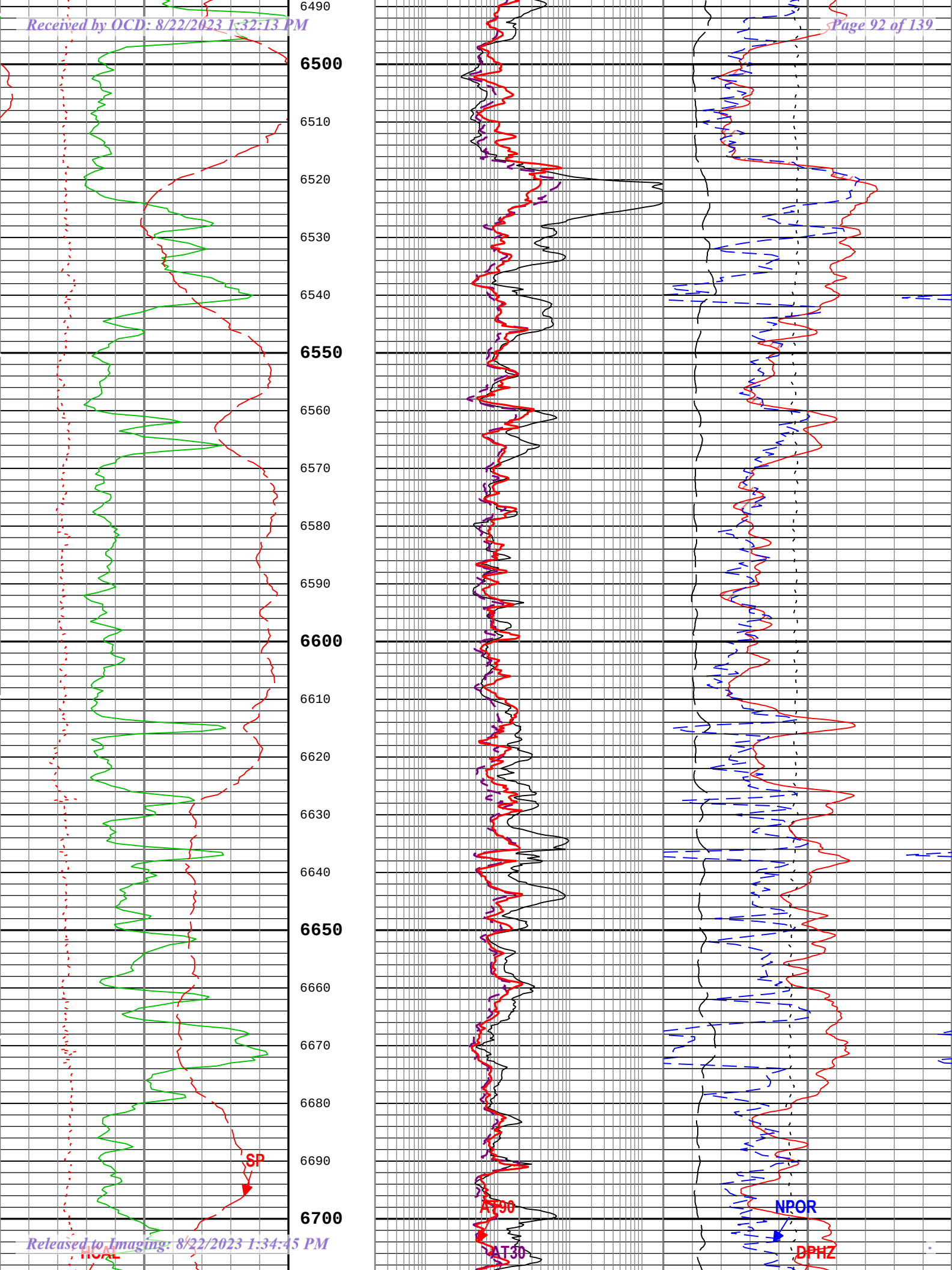

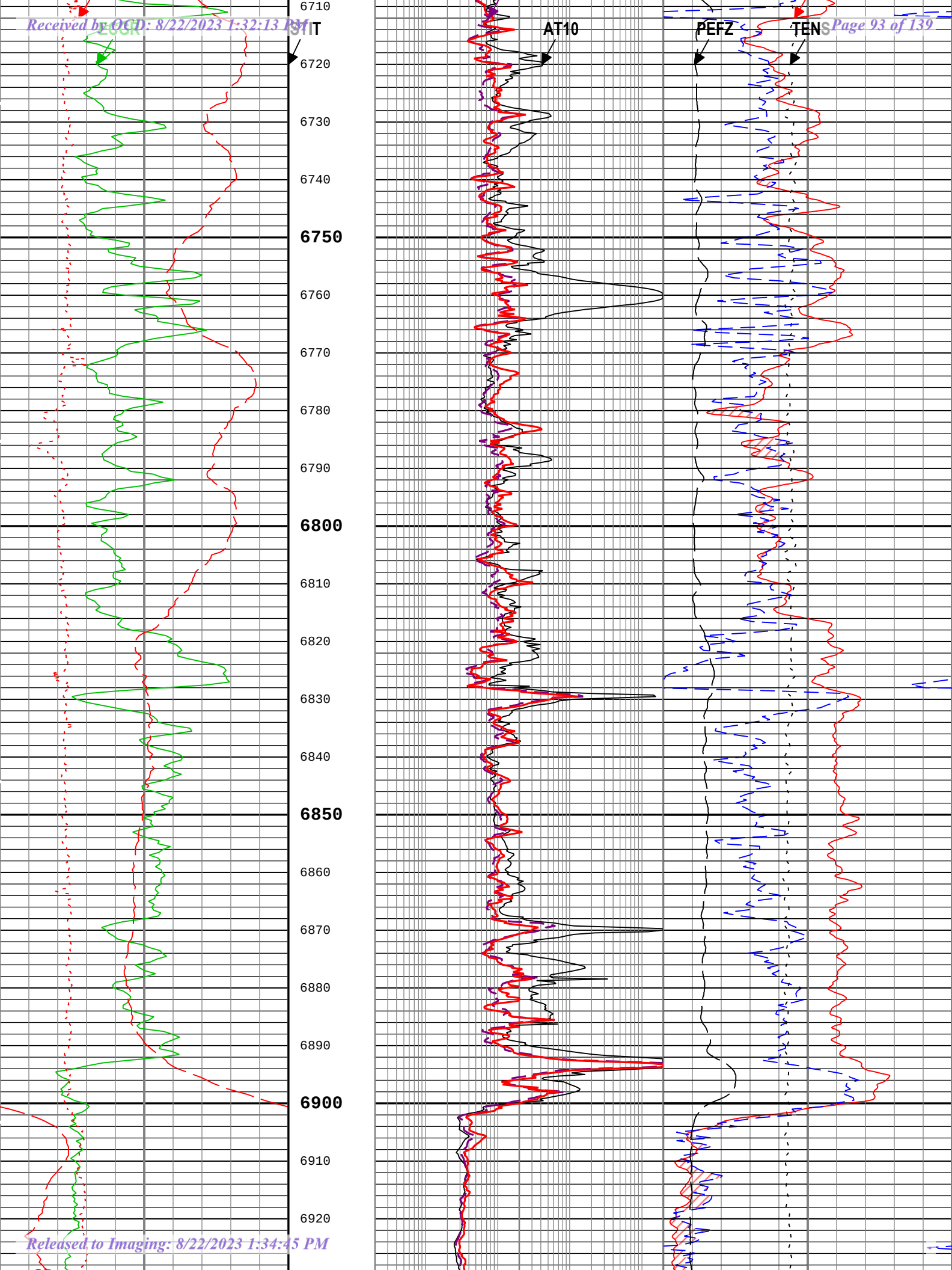

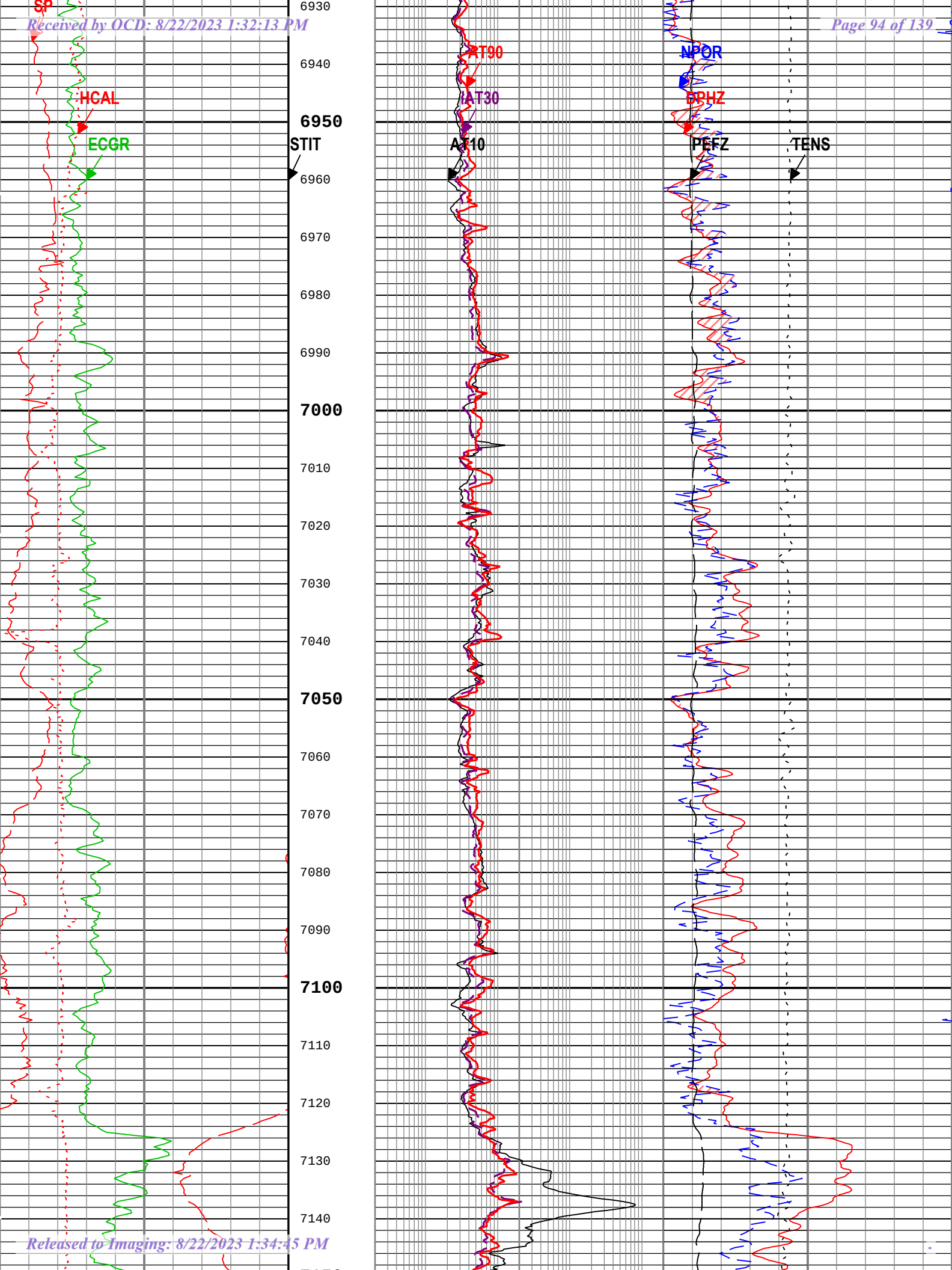

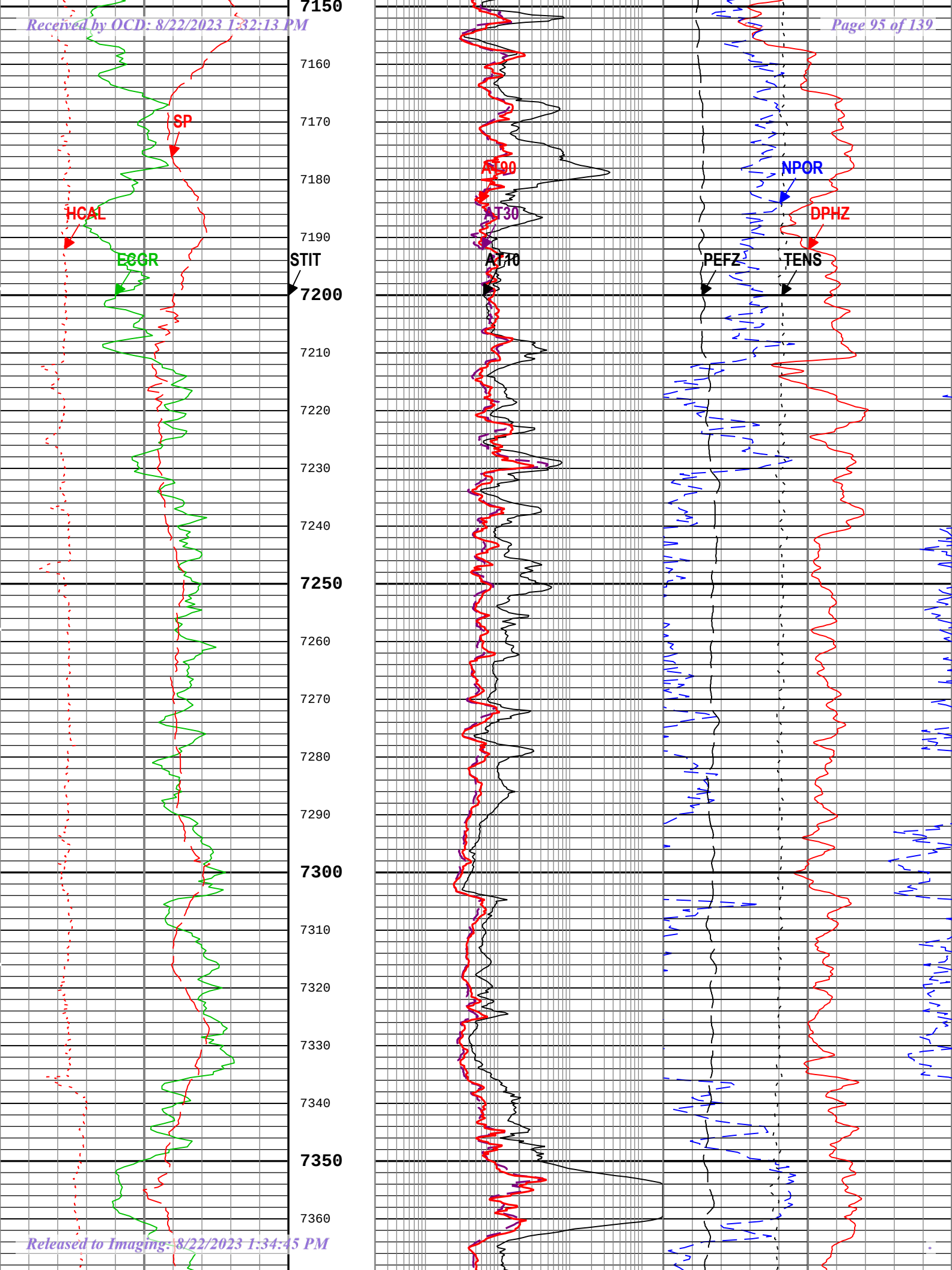
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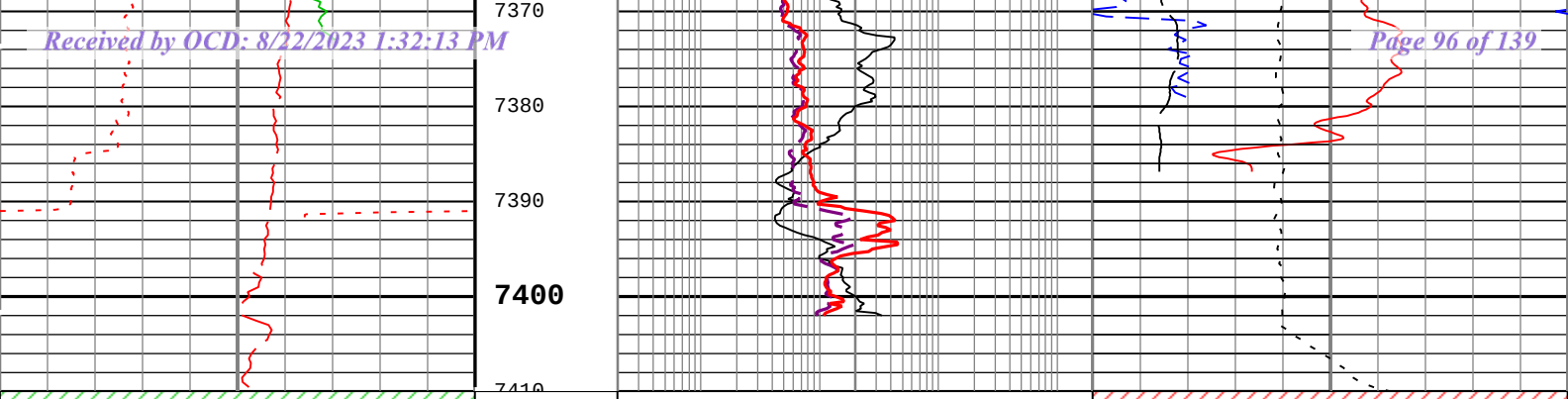

Gamma Ray Back up

Gamma Ray (ECGR) HGNS-H
0 gAPI 200

Caliper (HCAL) HDRS-H
6 in 16

Spontaneous Potential (SP) AIT-M
-80 mV 20

Stuck Tool Indicator, Total (STIT)
0 ft 50

Array Induction Two Foot Resistivity A10 (AT10) AIT-M
0.2 ohm.m 2000

Array Induction Two Foot Resistivity A30 (AT30) AIT-M
0.2 ohm.m 2000

Array Induction Two Foot Resistivity A90 (AT90) AIT-M
0.2 ohm.m 2000

Gas Effect

NPOR Backup

Cable Tension (TENS)
5000 lbf 0

Standard Resolution Density Porosity (DPHZ) HDRS-H
0.3 ft3/ft3 -0.1

Enhanced Thermal Neutron Porosity in Selected Lithology (NPOR) HGNS-H
0.3 m3/m3 -0.1

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

TIME_1900 - Time Marked every 60.00 (s)

Description: HGNS standard resolution porosities for Platform Express Format: Log (TripleCombo-5) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 02-Oct-2018 17:50:55

Channel Processing Parameters

One: Parameters

Parameter	Description	Tool	Value	Unit
ABHM	Array Induction Borehole Correction Mode	AIT-M	Compute Standoff	
ASTA	Array Induction Tool Standoff	AIT-M	0.6	in
BARI(ISSBAR)	Barite Mud Presence Flag	Borehole	No	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BHT	Bottom Hole Temperature	Borehole	159.65	degF
BS	Bit Size	WLSESSION	8.5	in
BSAL	Borehole Salinity	Borehole	0	ppm
CALI_SHIFT	CALI Supplementary Offset	HDRS-H	-0.268	in
CBLO	Casing Bottom (Logger)	WLSESSION	379	ft
CDEN	Cement Density	HGNS-H	2	g/cm3
DFD	Drilling Fluid Density	Borehole	8.6	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
DFT_WATER	Drilling Fluid Water Type	Borehole	WBM	
DHC	Density Hole Correction	HDRS-H	Bit Size	
FD	Fluid Density	Borehole	1	g/cm3
FSAL	Formation Salinity	Borehole	0	ppm
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS(RT)	

GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	CALI	
GRSE	Generalized Mud Resistivity Selection, from Measured or Computed Mud Resistivity	Borehole	AMF	
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	CTEM	
HSCO	Hole Size Correction Option	HGNS-H	Yes	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	SANDSTONE	
MDEN	Matrix Density for Density Porosity	Borehole	2.68	g/cm3
MFST	Mud Filtrate Sample Temperature	Borehole	68	degF
RMFS	Resistivity of Mud Filtrate Sample	Borehole	0.14	ohm.m
SOCO	Standoff Correction Option	HGNS-H	Yes	
SPDR	SP Drift Per Foot	AIT-M	0	mV/ft

Tool Control Parameters

One: Parameters

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

One

5" Triple Combo

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Log[2]:Up	Up	7077.42 ft	7409.50 ft	02-Oct-2018 3:00:48 PM	02-Oct-2018 3:06:27 PM	ON	3.12 ft	Yes
One	Log[4]:Up	Up	202.25 ft	7409.99 ft	02-Oct-2018 3:14:11 PM	02-Oct-2018 5:15:36 PM	ON	2.60 ft	Yes

All depths are referenced to toolstring zero

Log

Company:Enduring Resources, LLC Well:North Escavada Unit 2207-16B-WSW

One: Log[4]:Up:S004

Description: HGNS standard resolution porosities for Platform Express Format: Log (TripleCombo-5 RA) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 02-Oct-2018 17:51:13

TIME_1900 - Time Marked every 60.00 (s)

Main To Repeat

Repeat To Main

Standard Resolution Formation Photoelectric Factor (PEFZ) HDRS-H

0 10

Main To Repeat

Repeat To Main

Array Induction Two Foot Resistivity A90 (AT90) AIT-M

0.2 ohm.m 2000

Main To Repeat

Repeat To Main

Cable Tension (TENS)

5000 lbf 0

Main To Repeat

Repeat To Main

Caliper (HCAL) HDRS-H

6 in 16

Main To Repeat

Repeat To Main

Array Induction Two Foot Resistivity A30

Main To Repeat

Repeat To Main

Standard Resolution Density Porosity (DPHZ)

Spontaneous Potential (SP) AIT-M

-80 mV 20

Main To Repeat

Repeat To Main

Gamma Ray (ECGR) HGNS-H

0 gAPI 200

Main To Repeat

Repeat To Main

Stuck Tool Indicator, Total (STIT)

0 ft 50

(AT30) AIT-M

0.2 ohm.m 2000

Main To Repeat

Repeat To Main

Array Induction Two Foot Resistivity A10 (AT10) AIT-M

0.2 ohm.m 2000

HDRS-H

0.3 ft3/ft3 -0.1

Main To Repeat

Repeat To Main

Enhanced Thermal Neutron Porosity in Selected Lithology (NPOR) HGNS-H

0.3 m3/m3 -0.1

170
180
190
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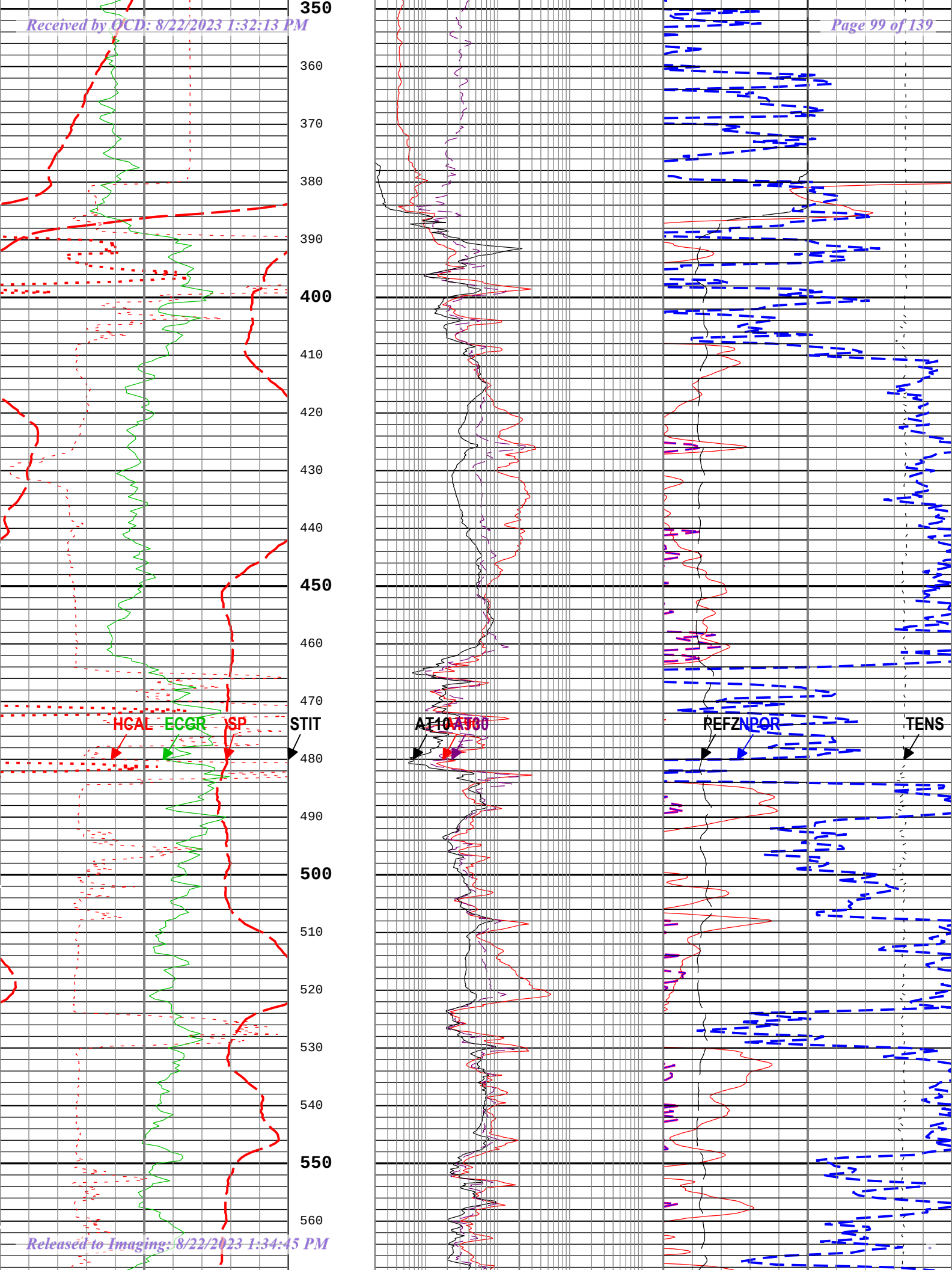
340

SP ECGR HCAL STIT AT90 AT30 PEFZ NEOB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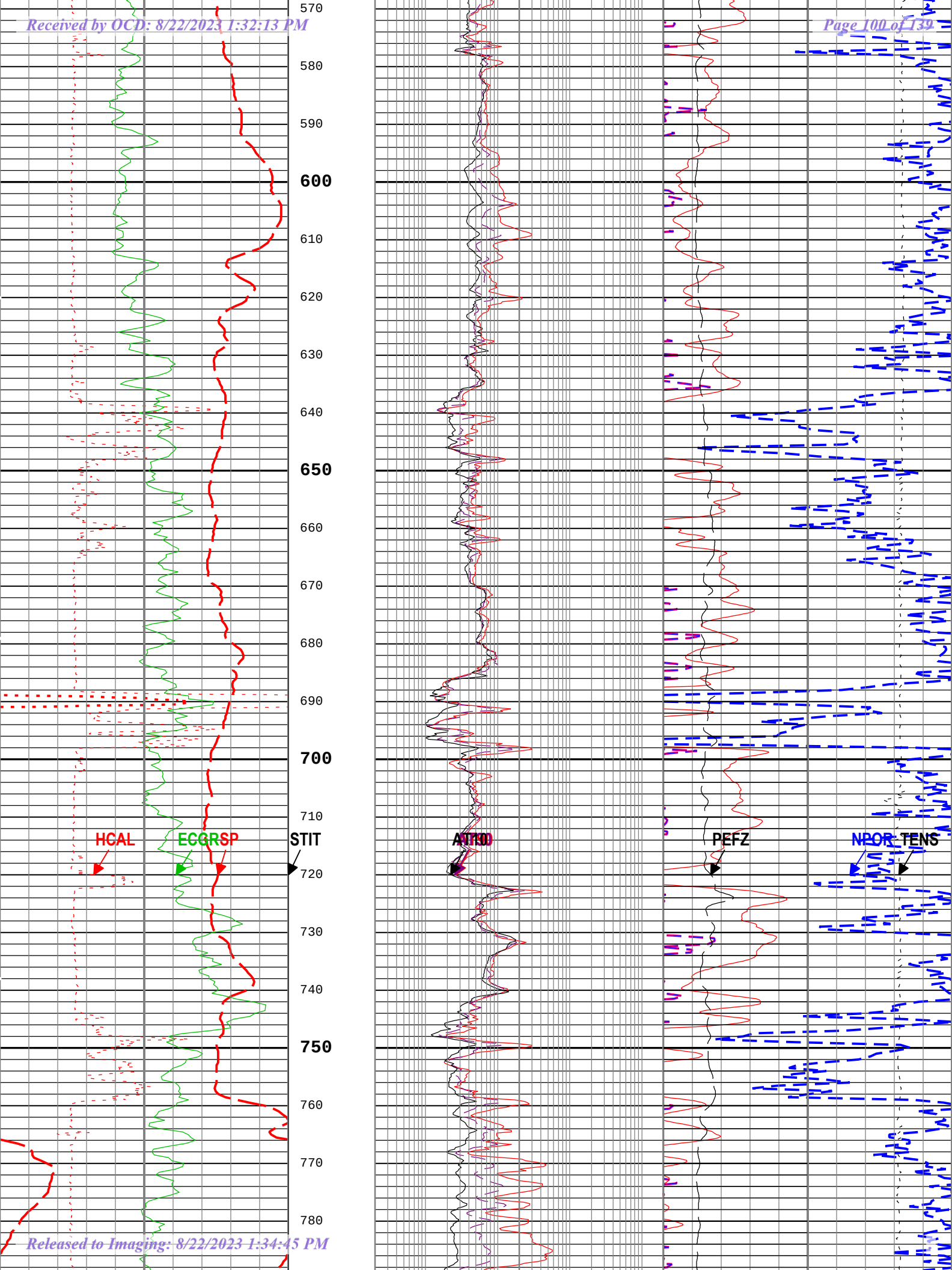

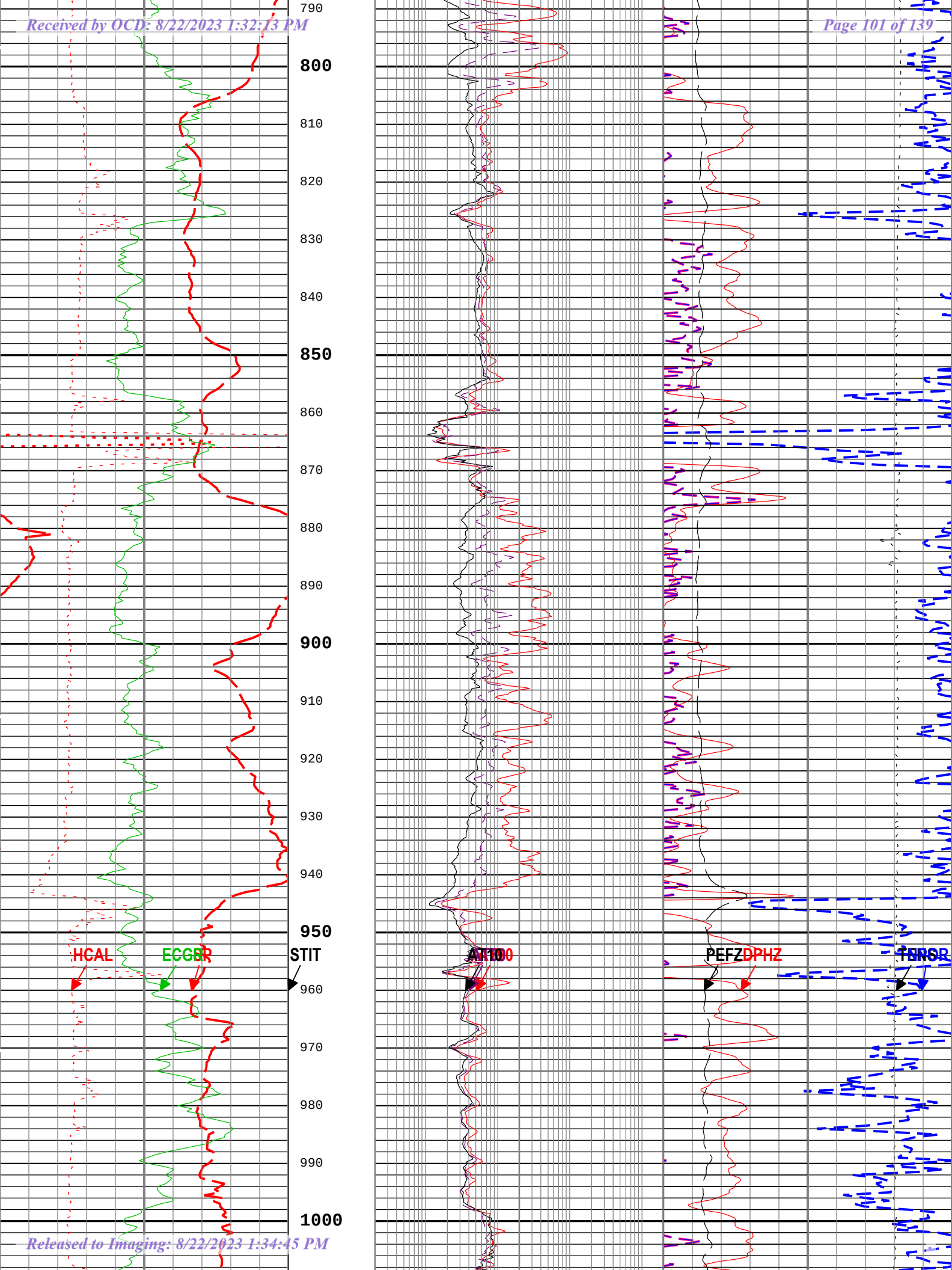
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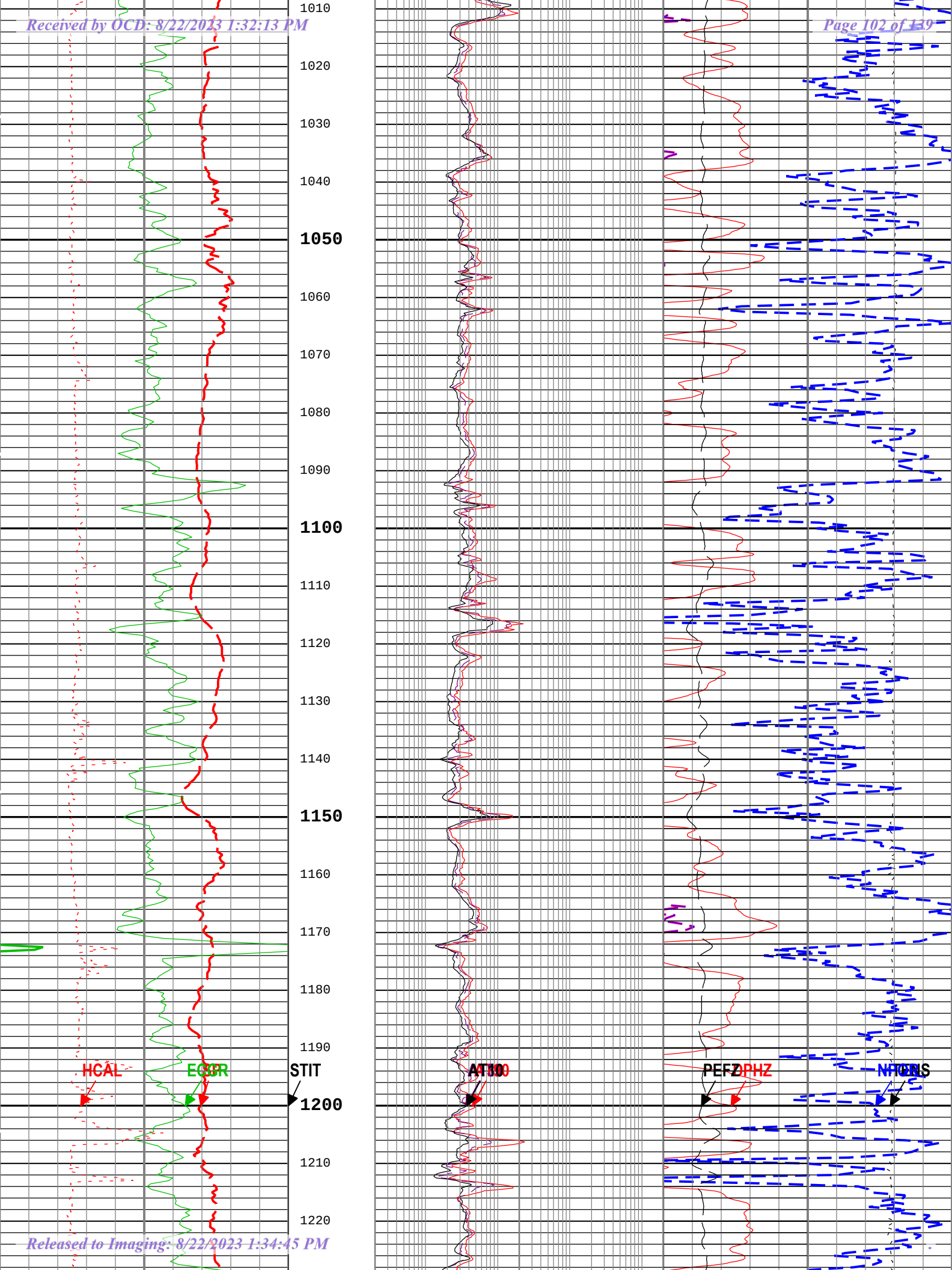

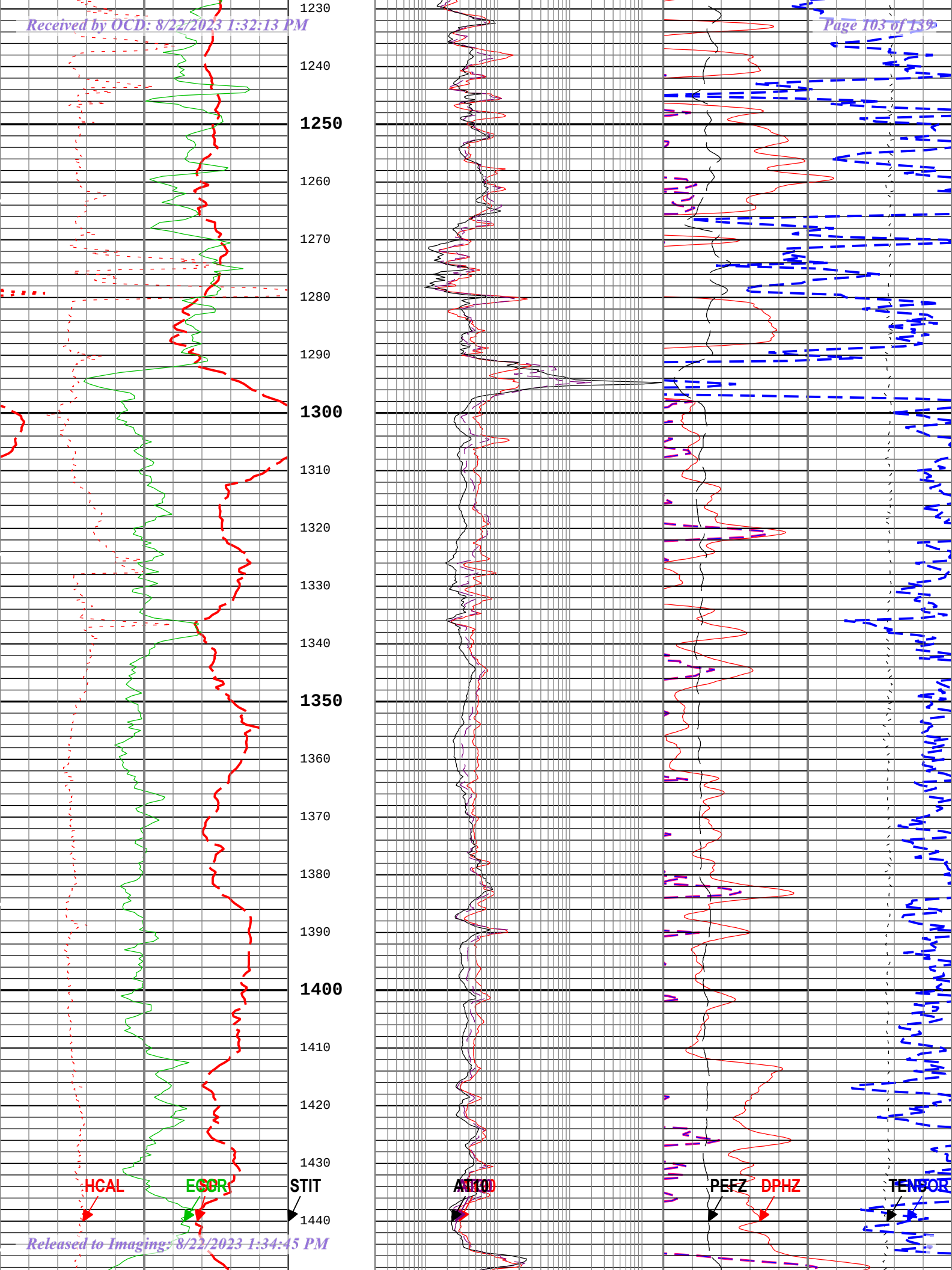

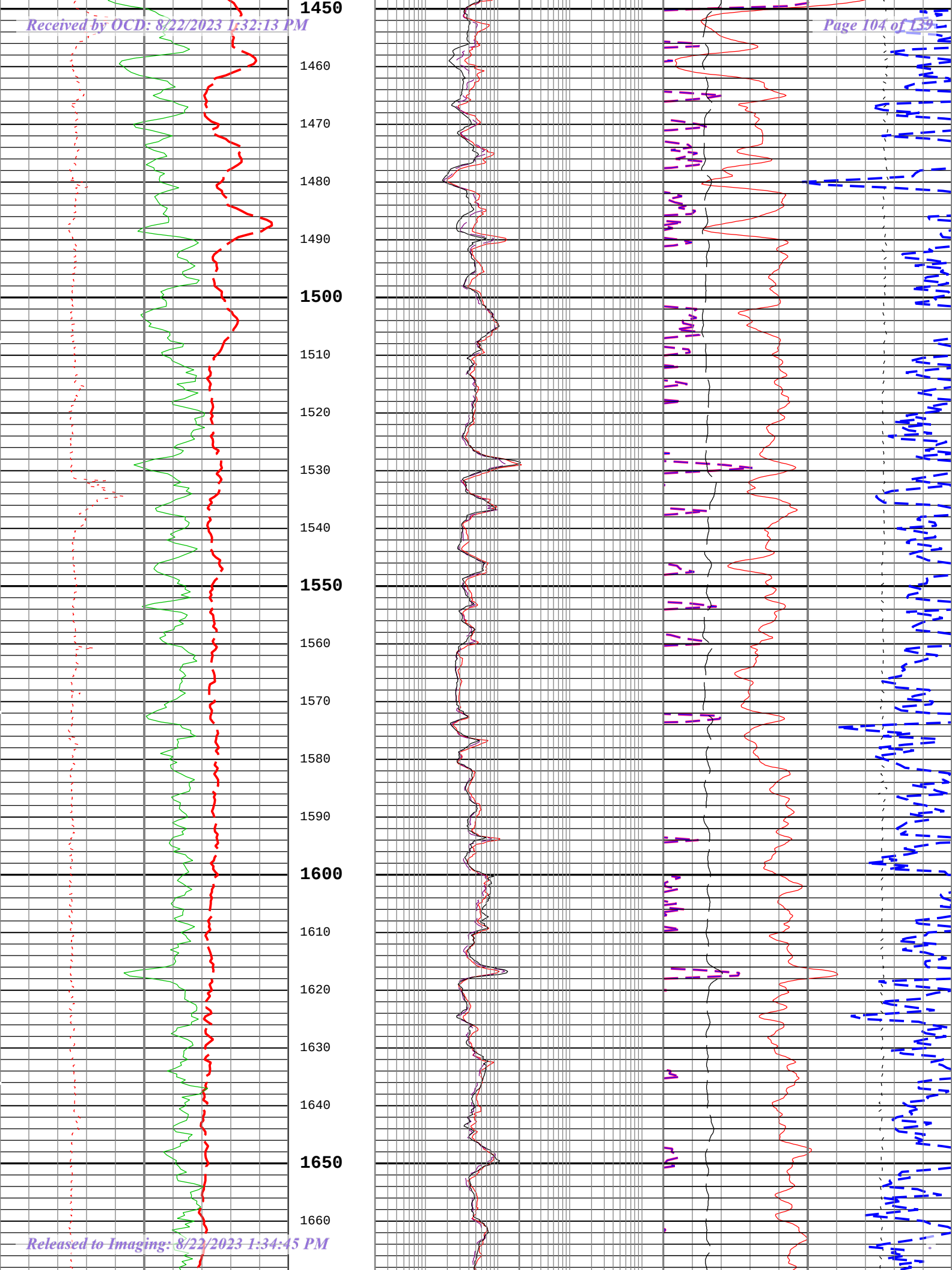

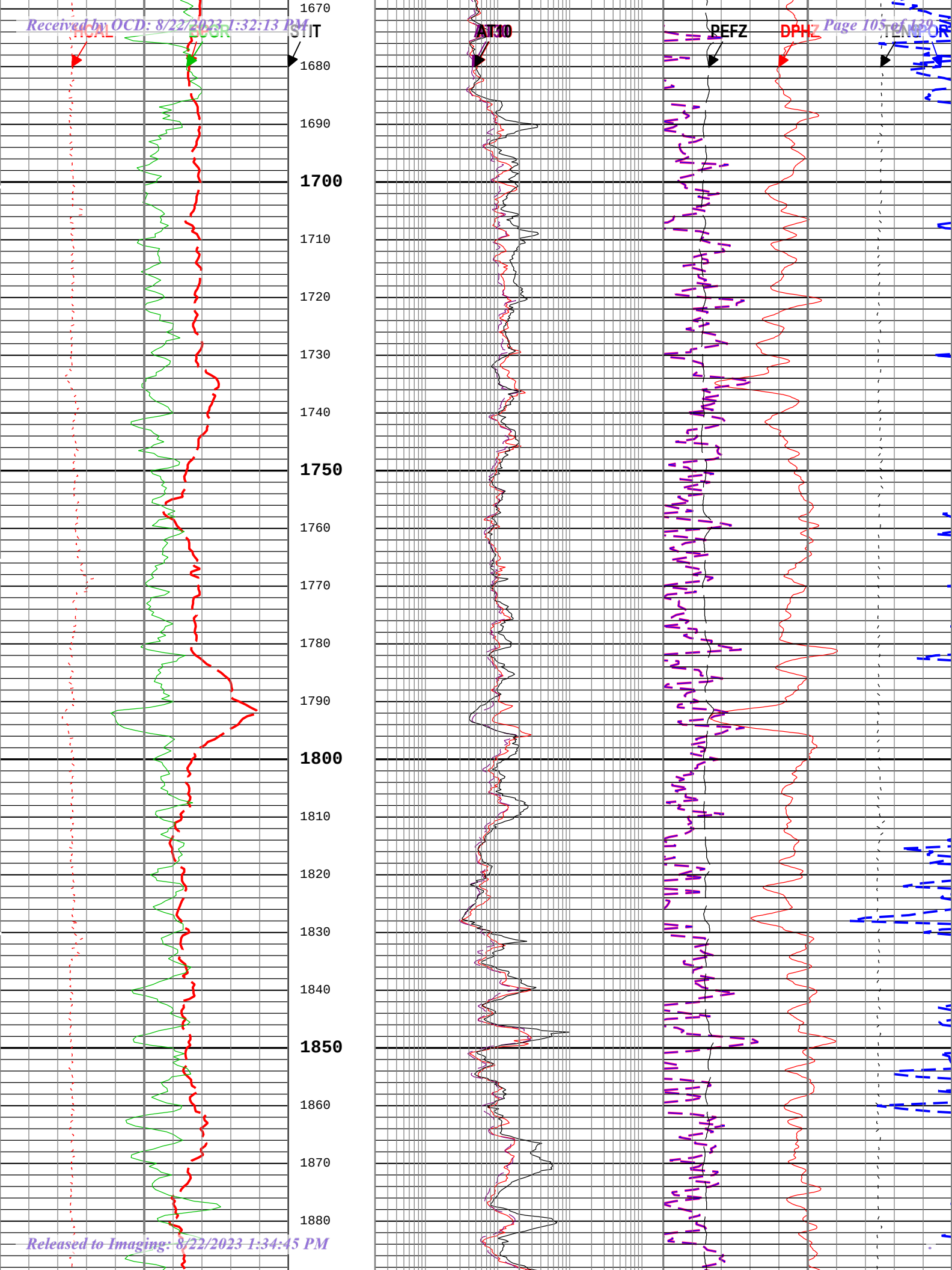

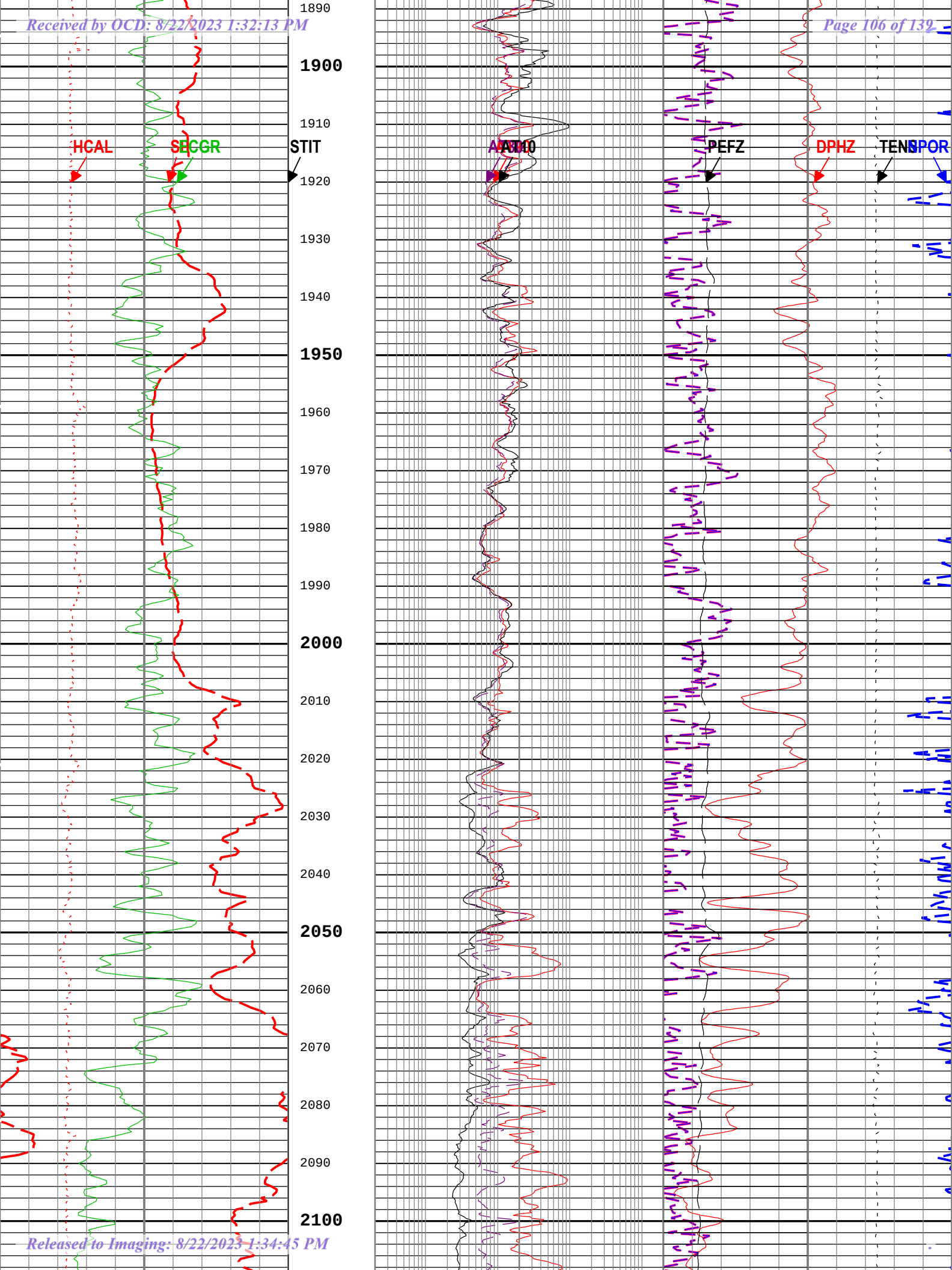
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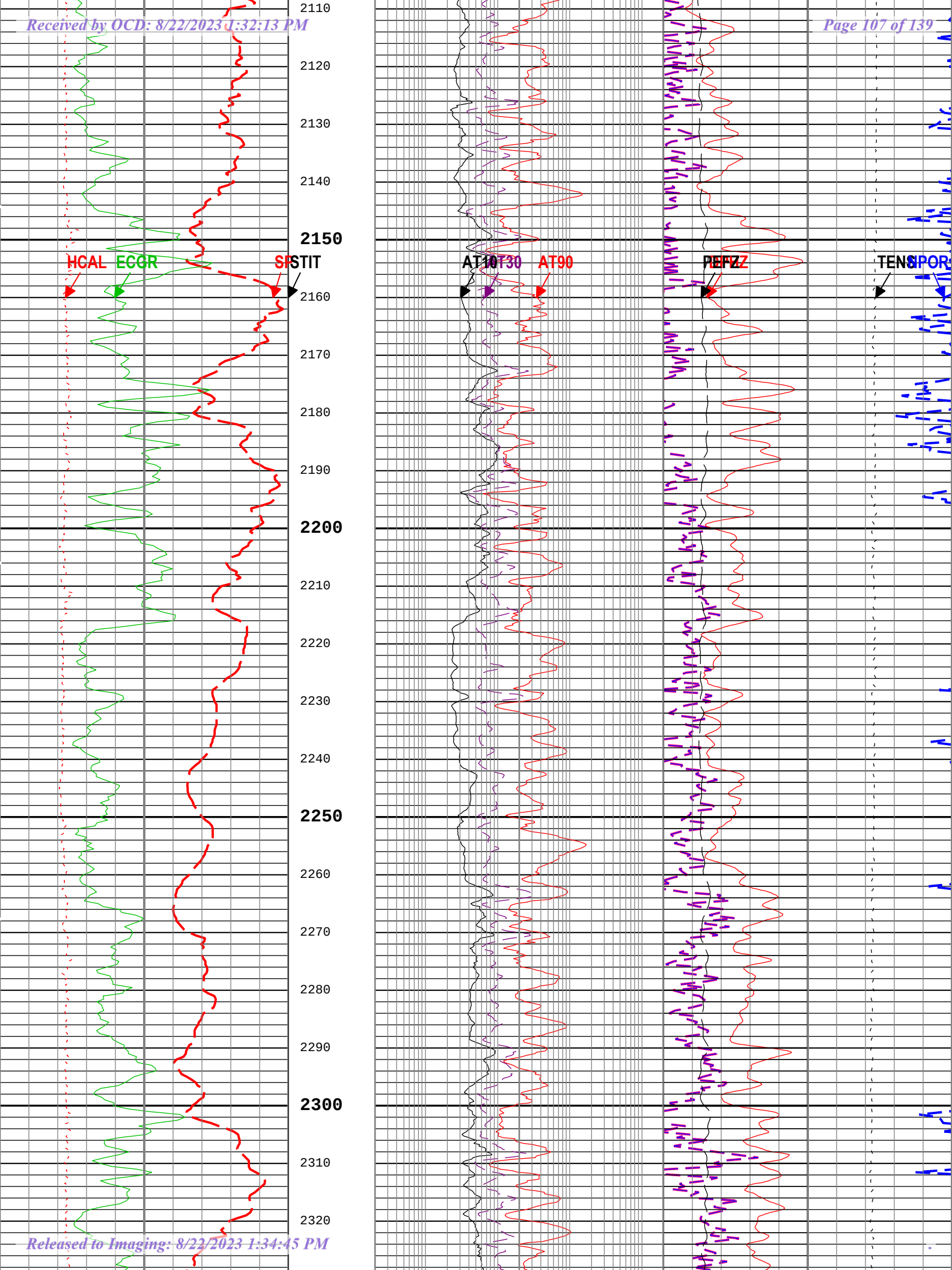
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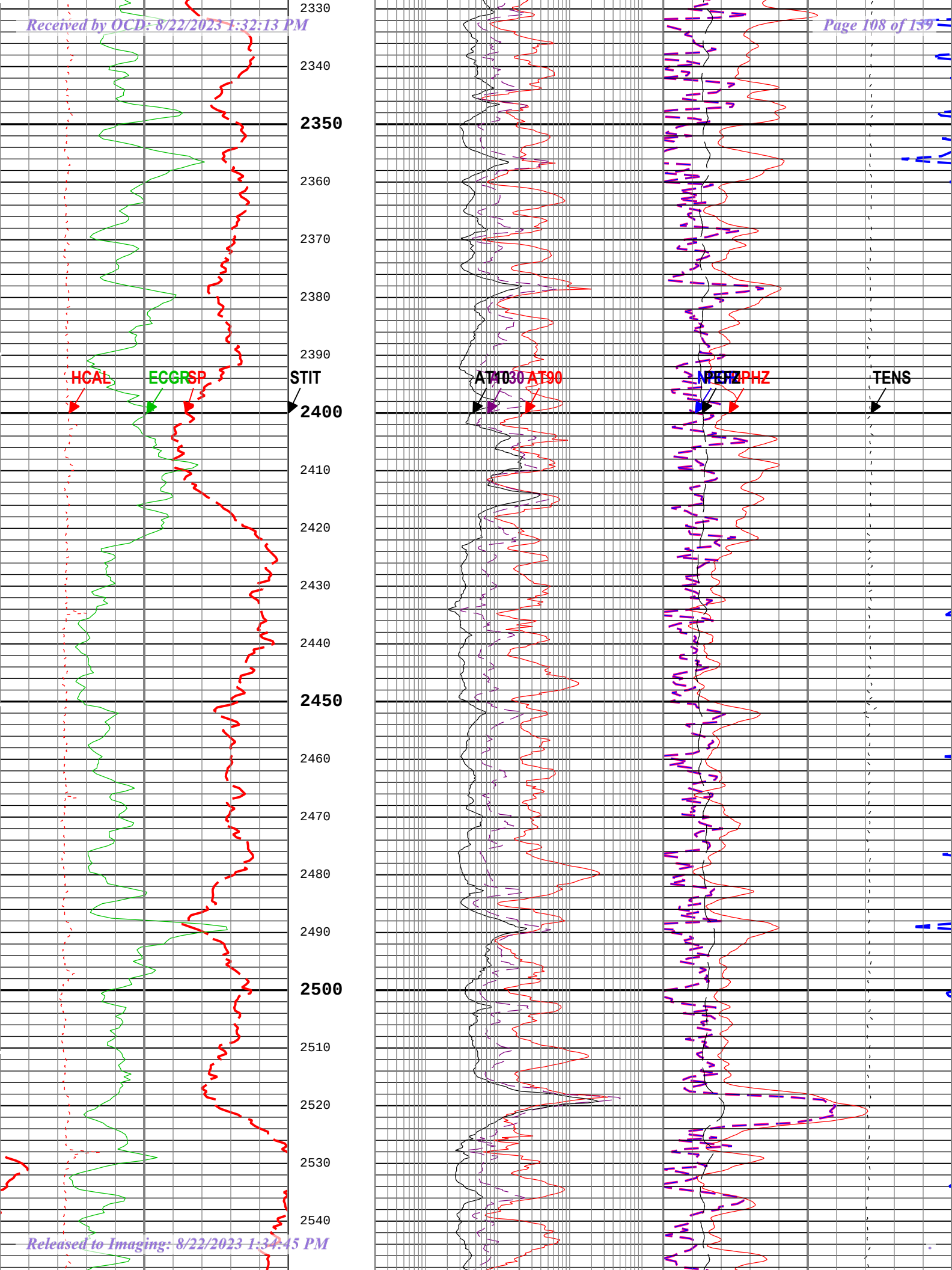
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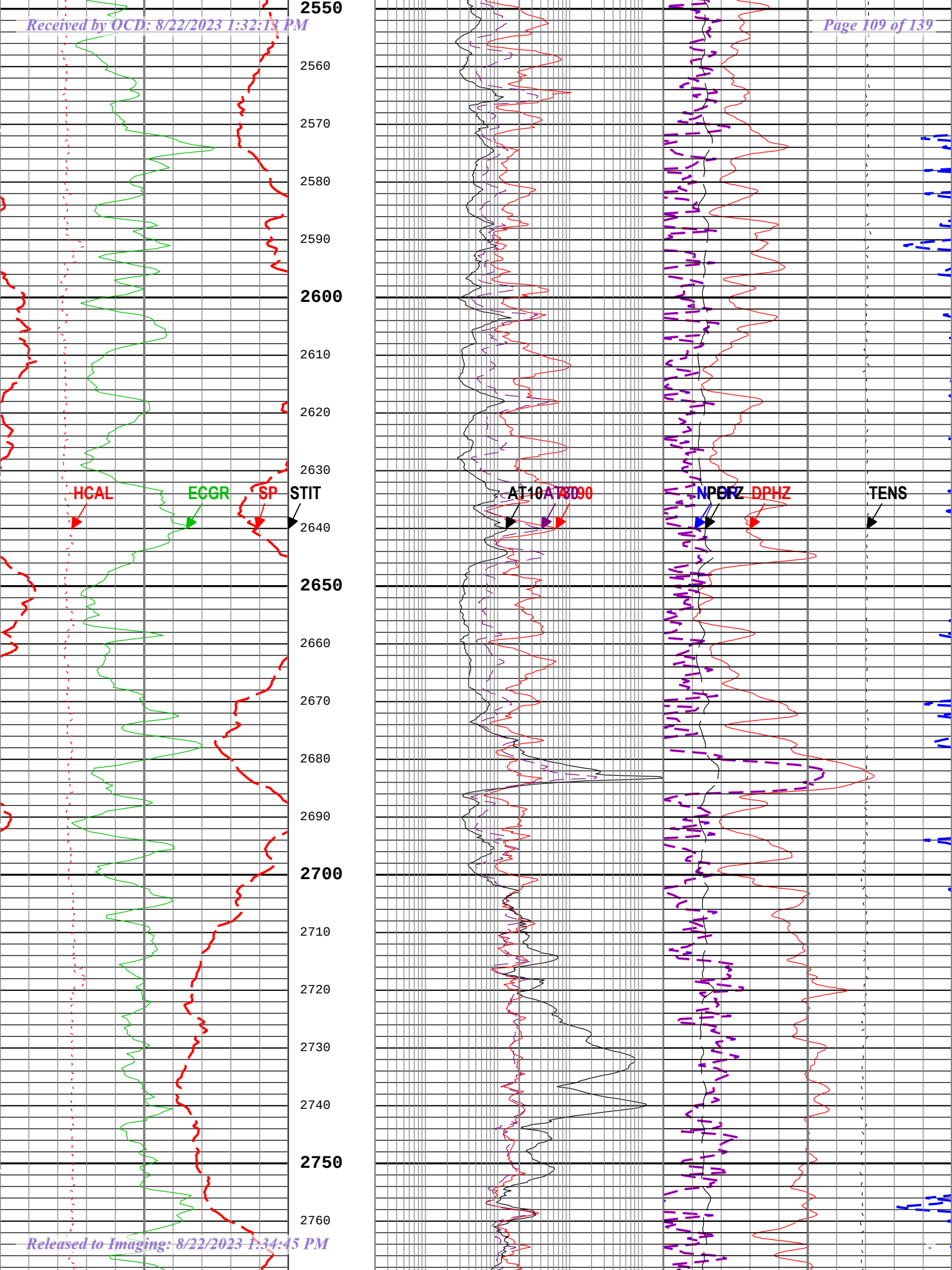
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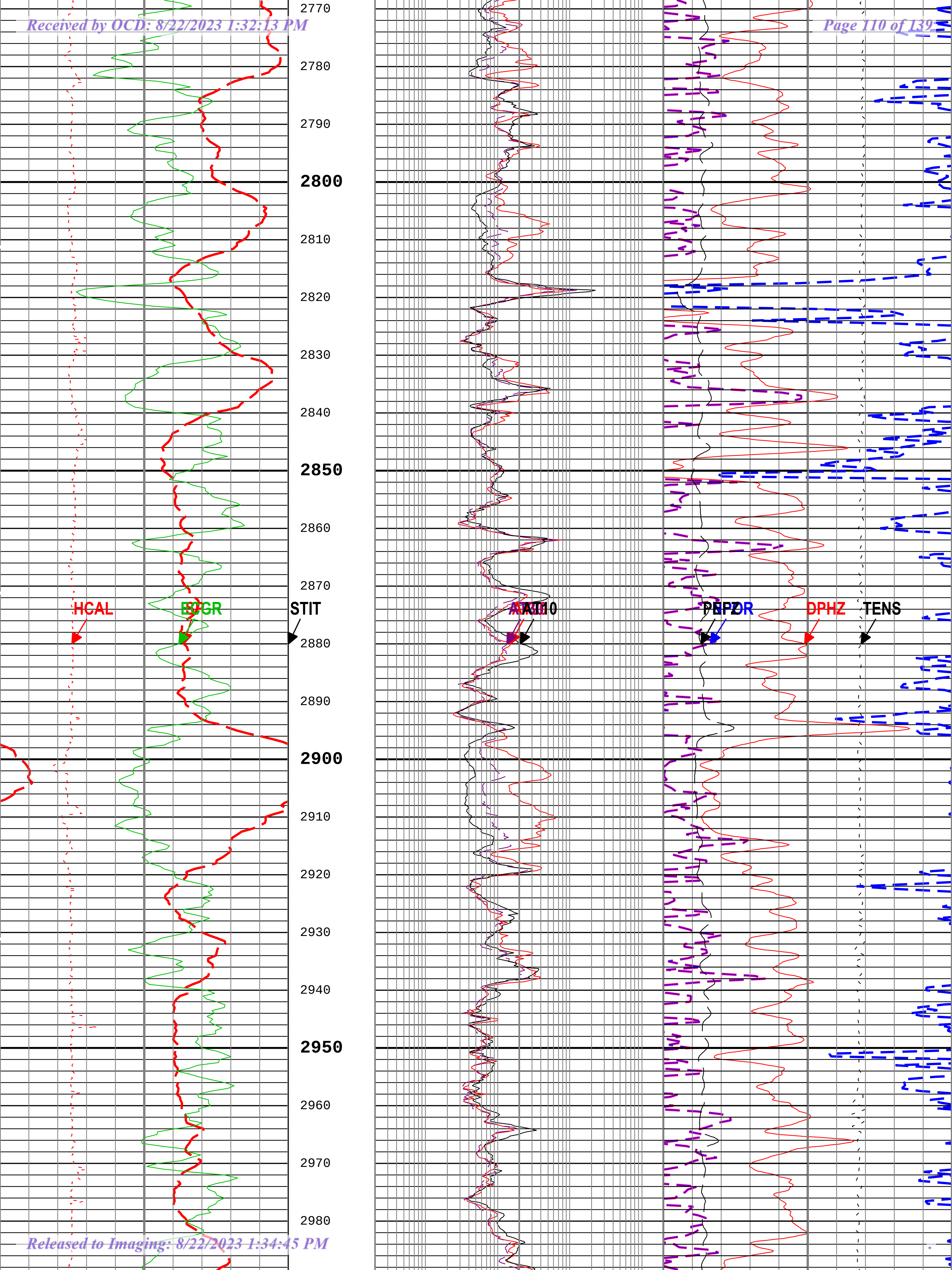
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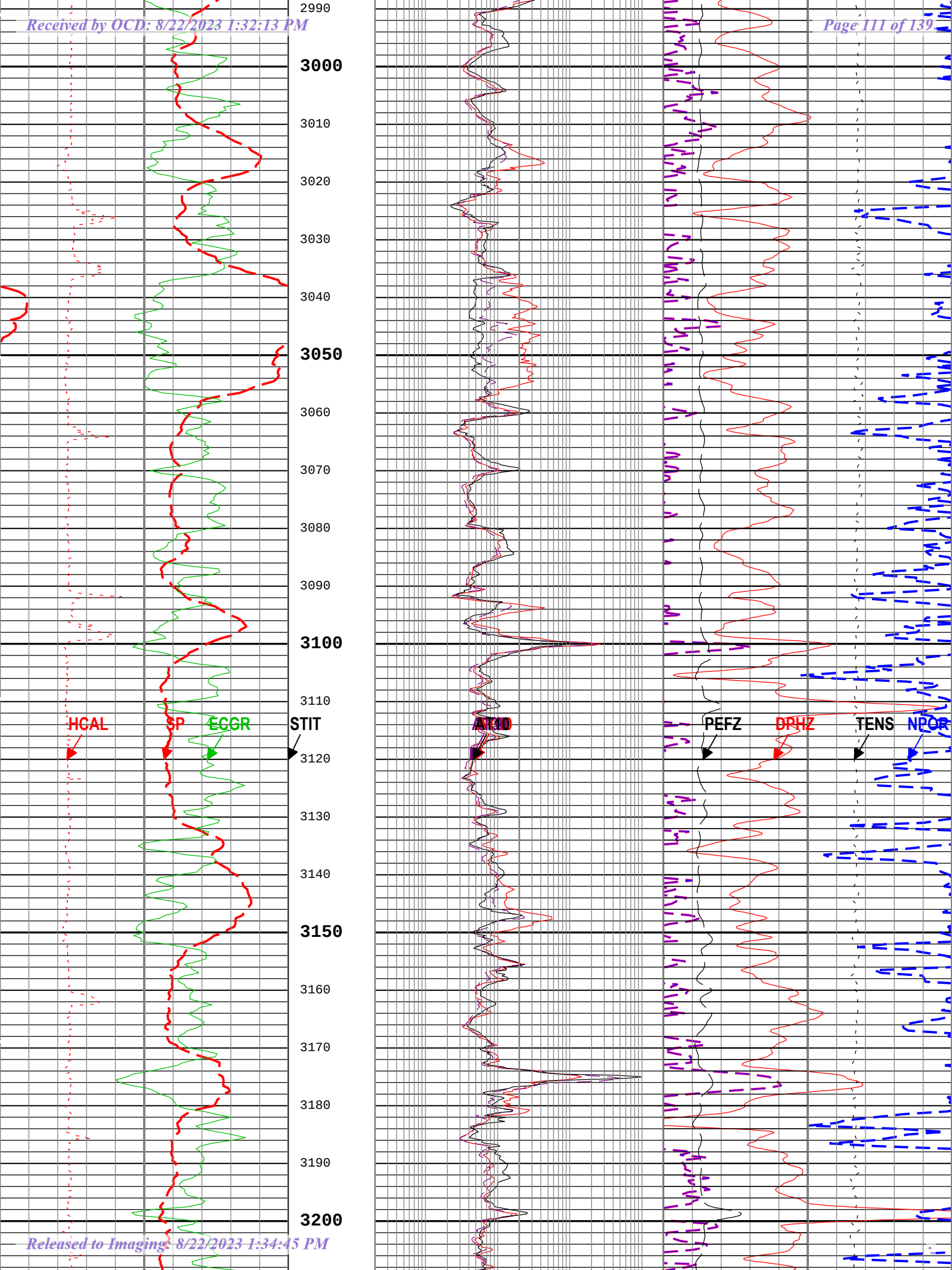

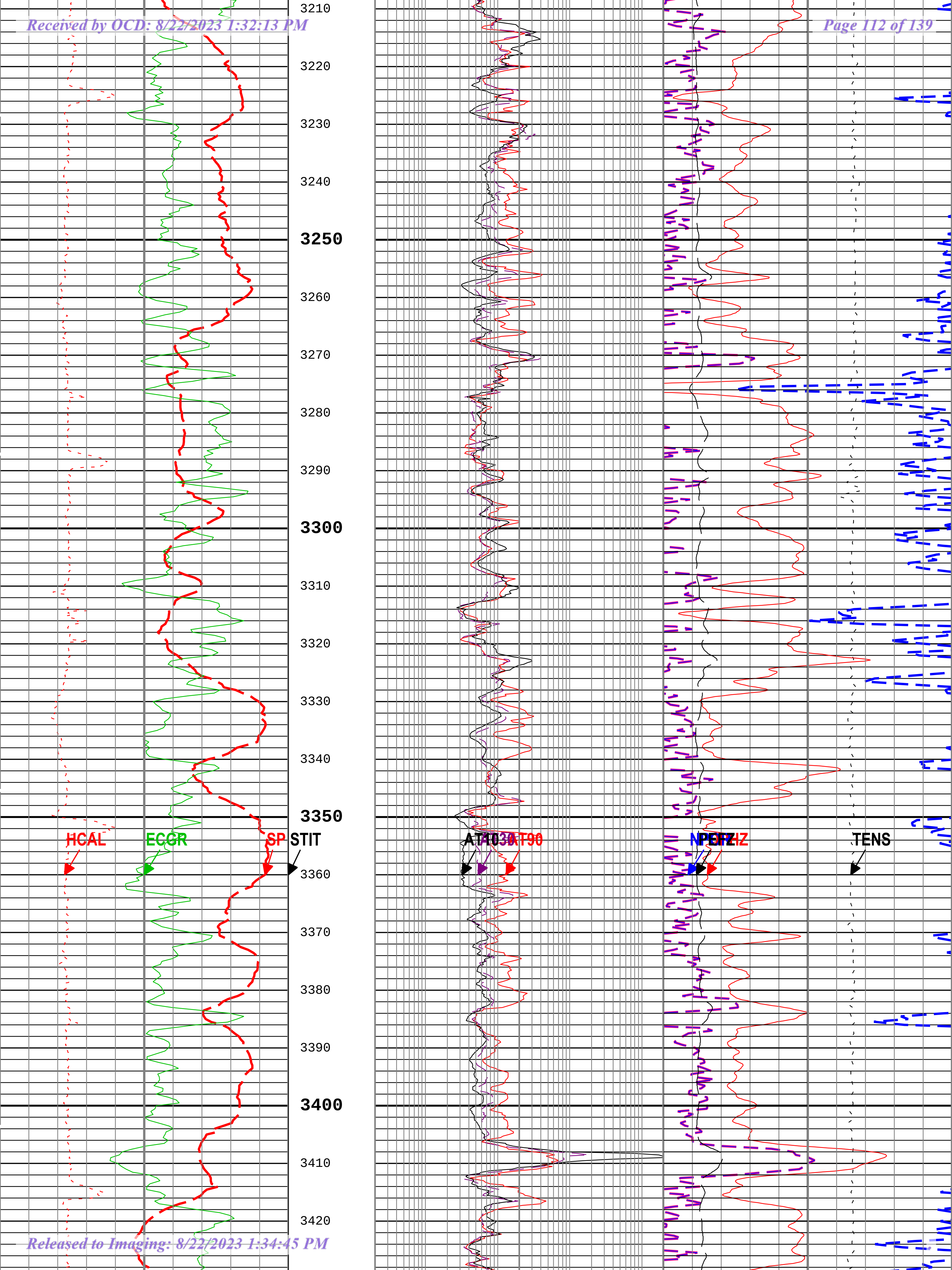

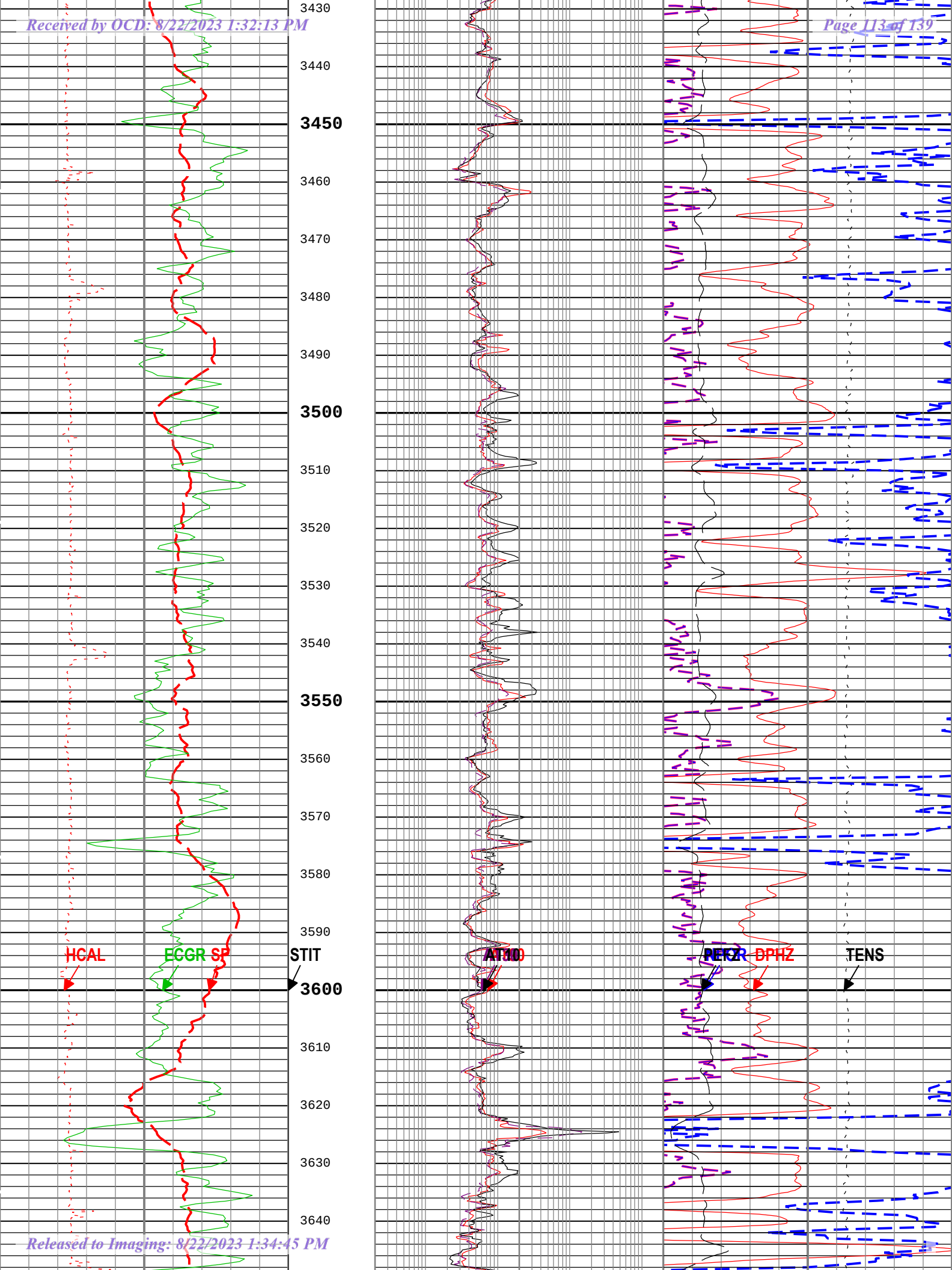
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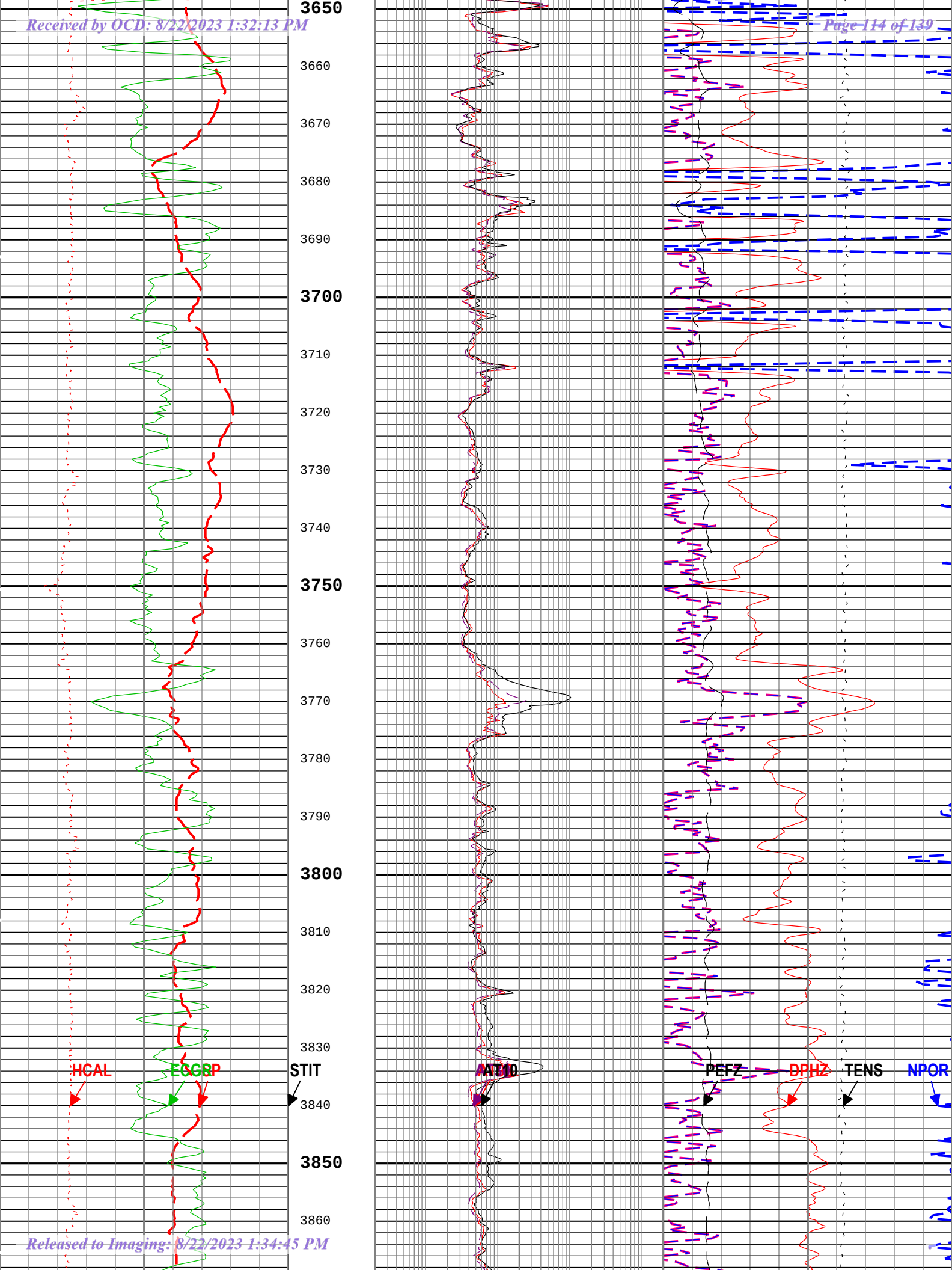

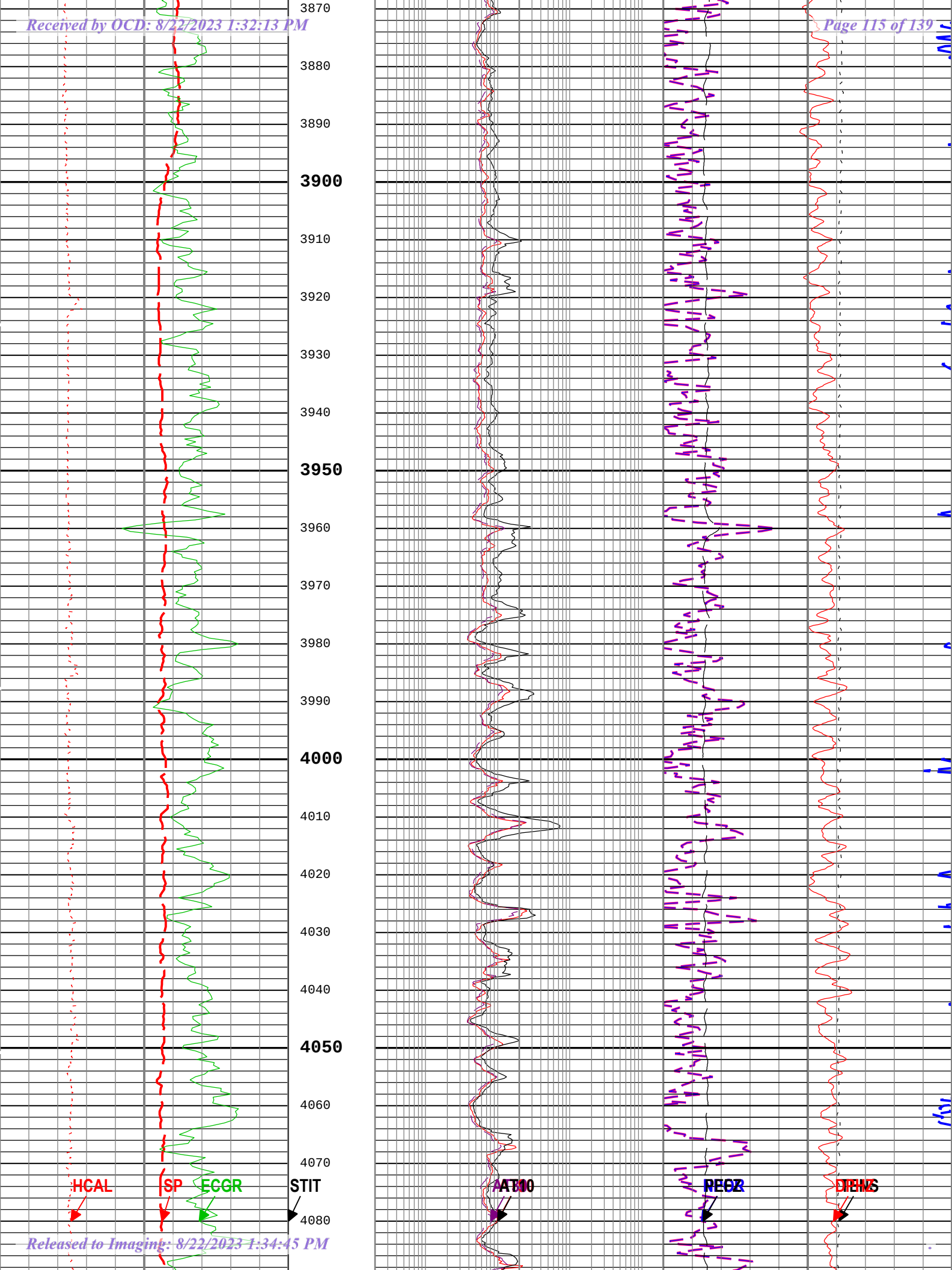
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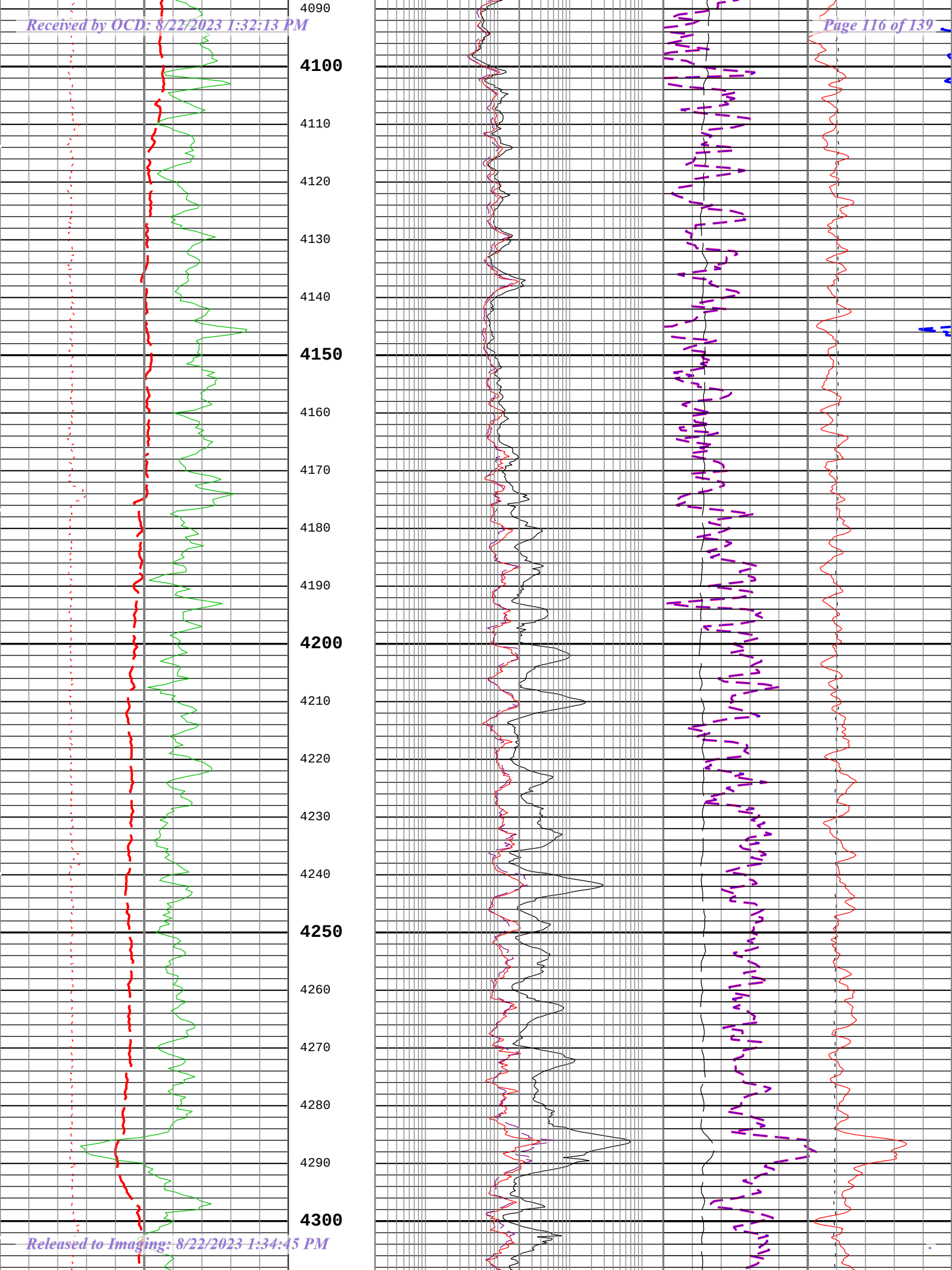

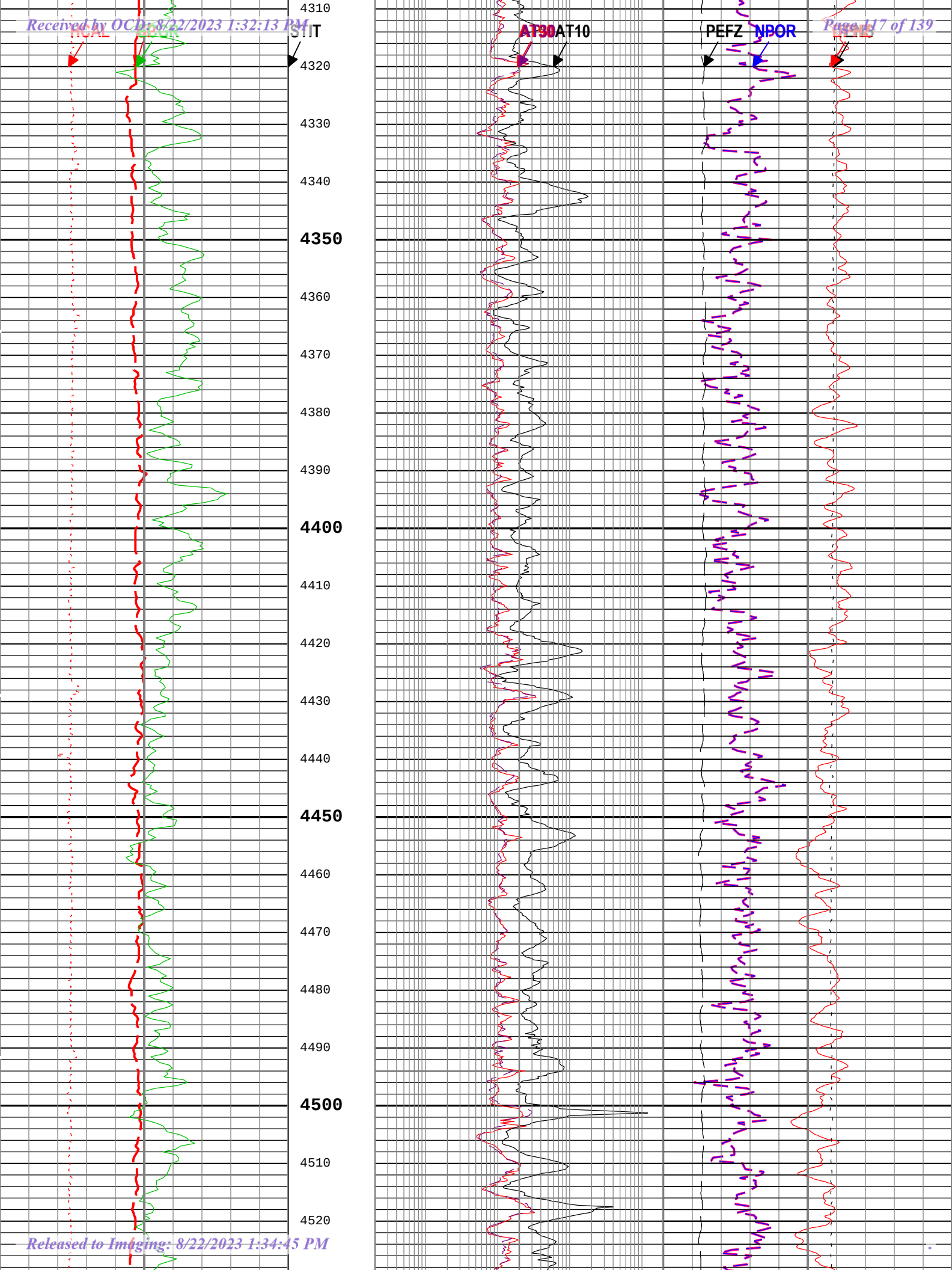

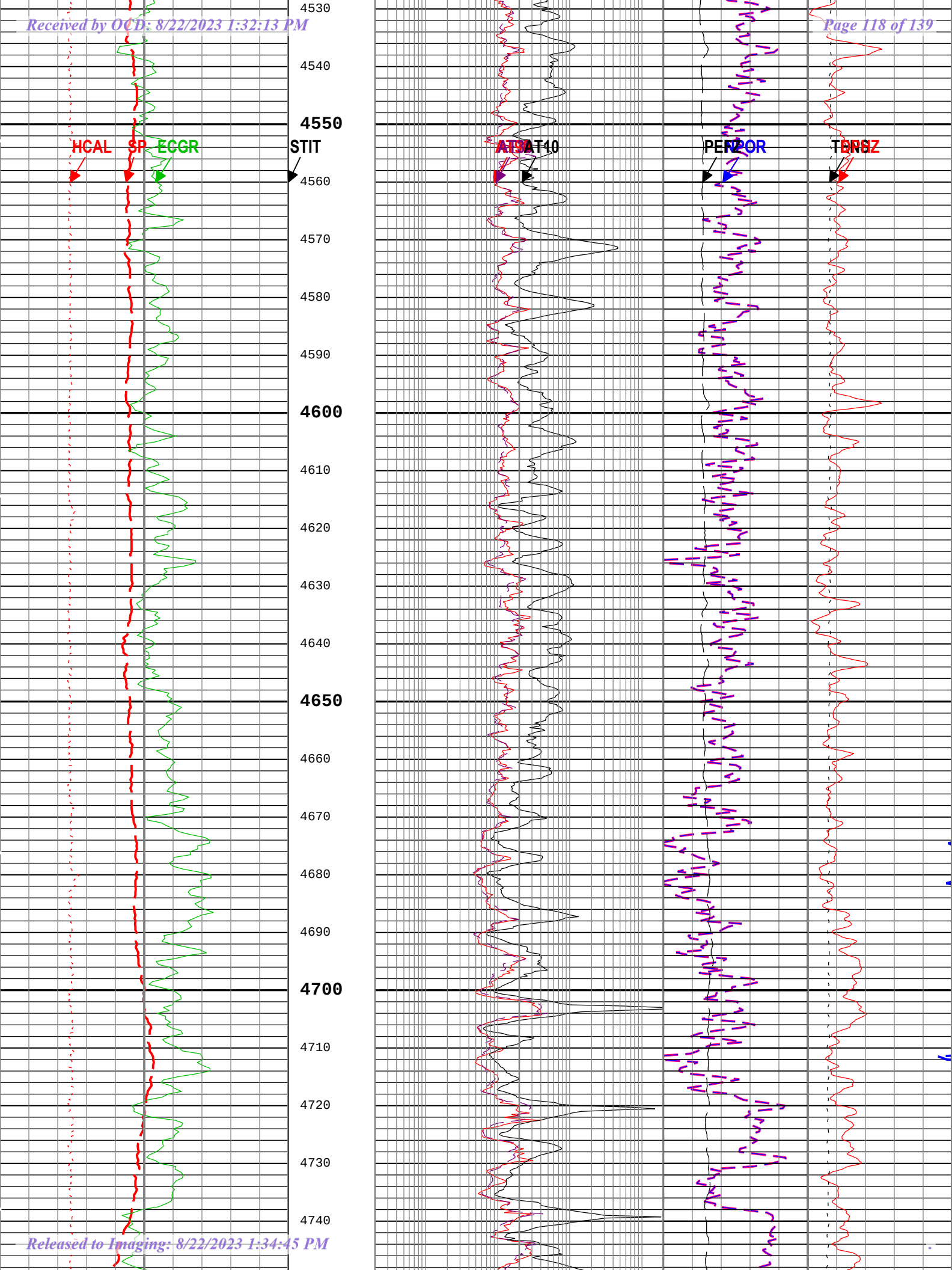

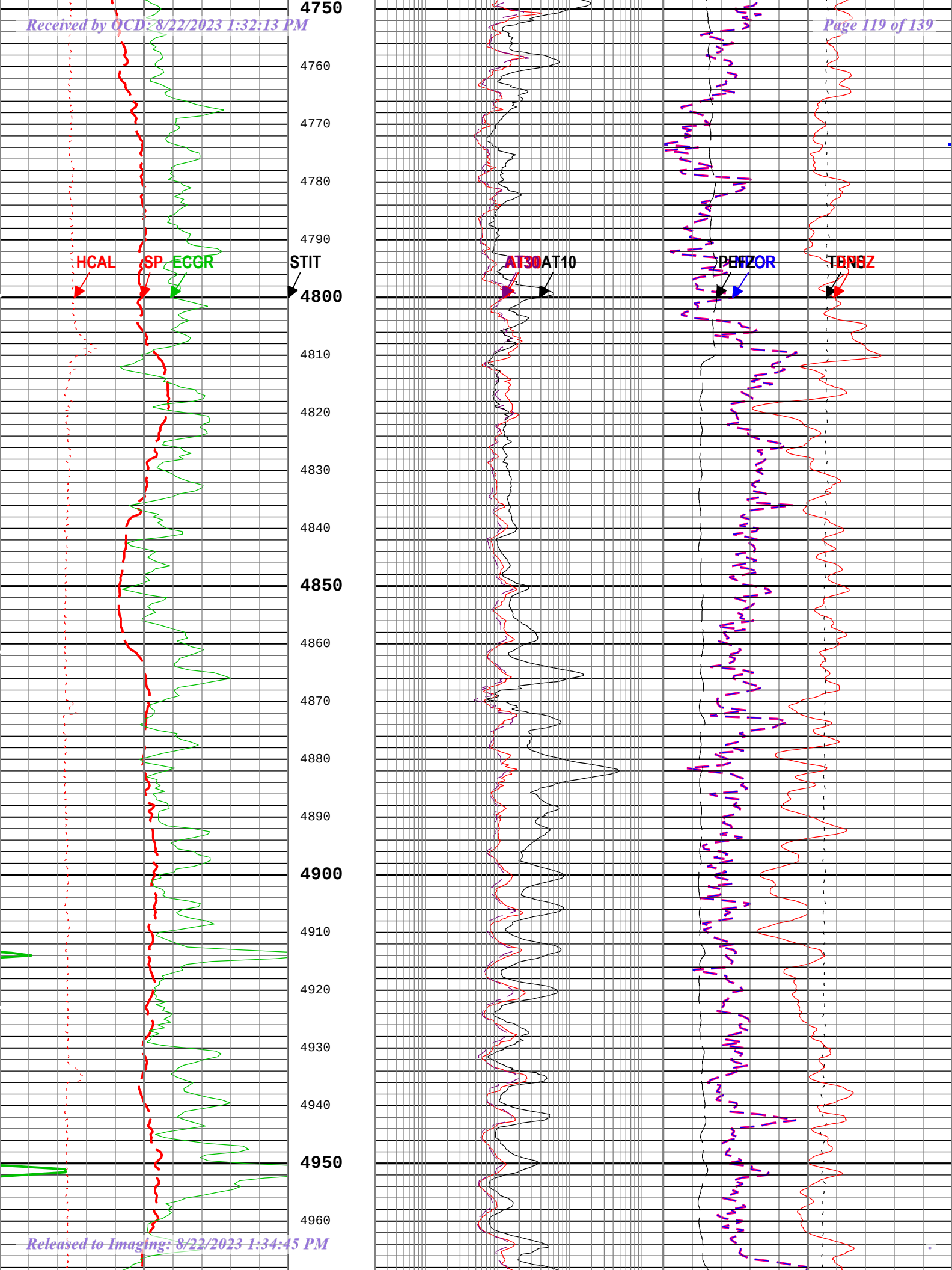

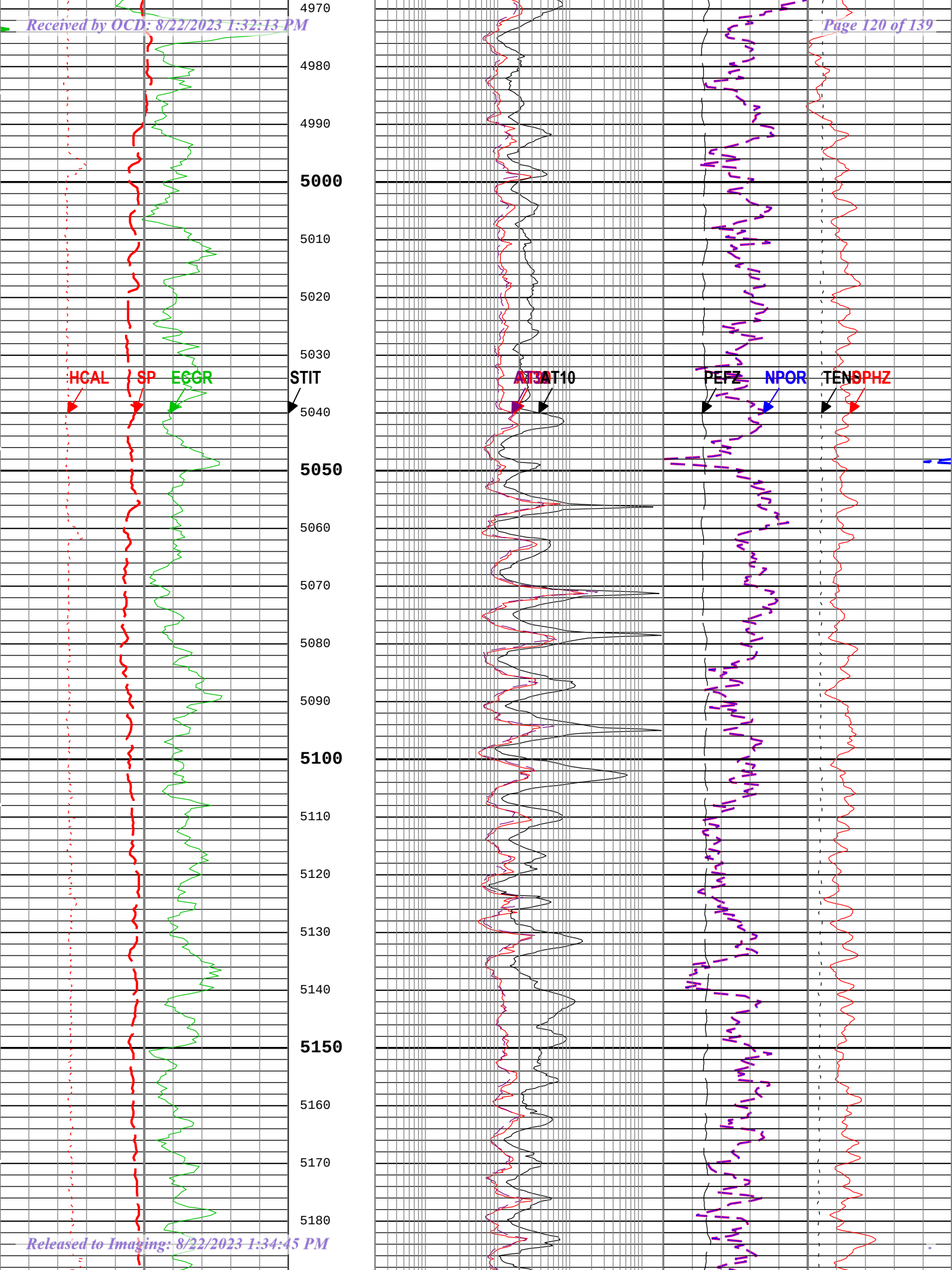

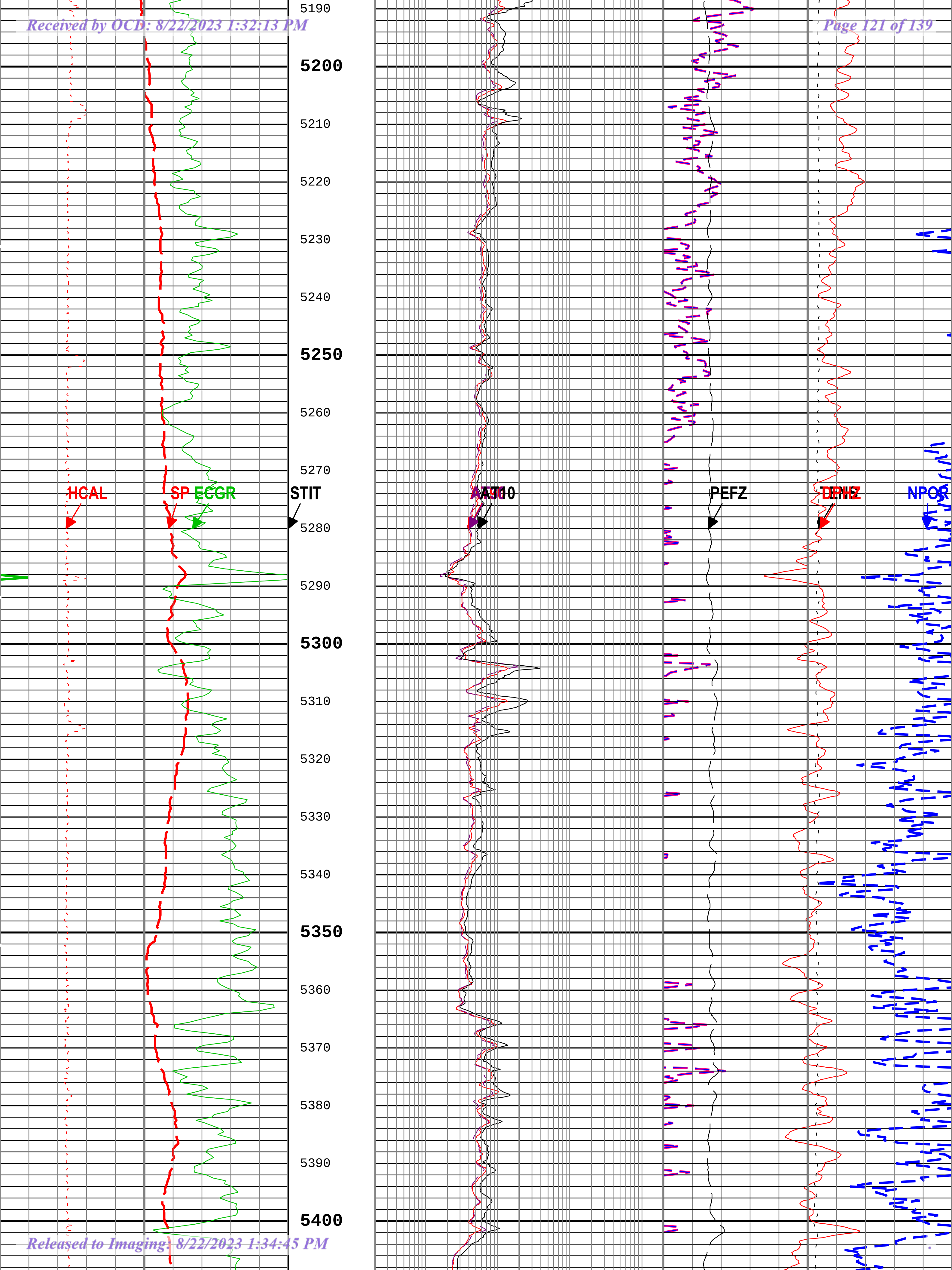

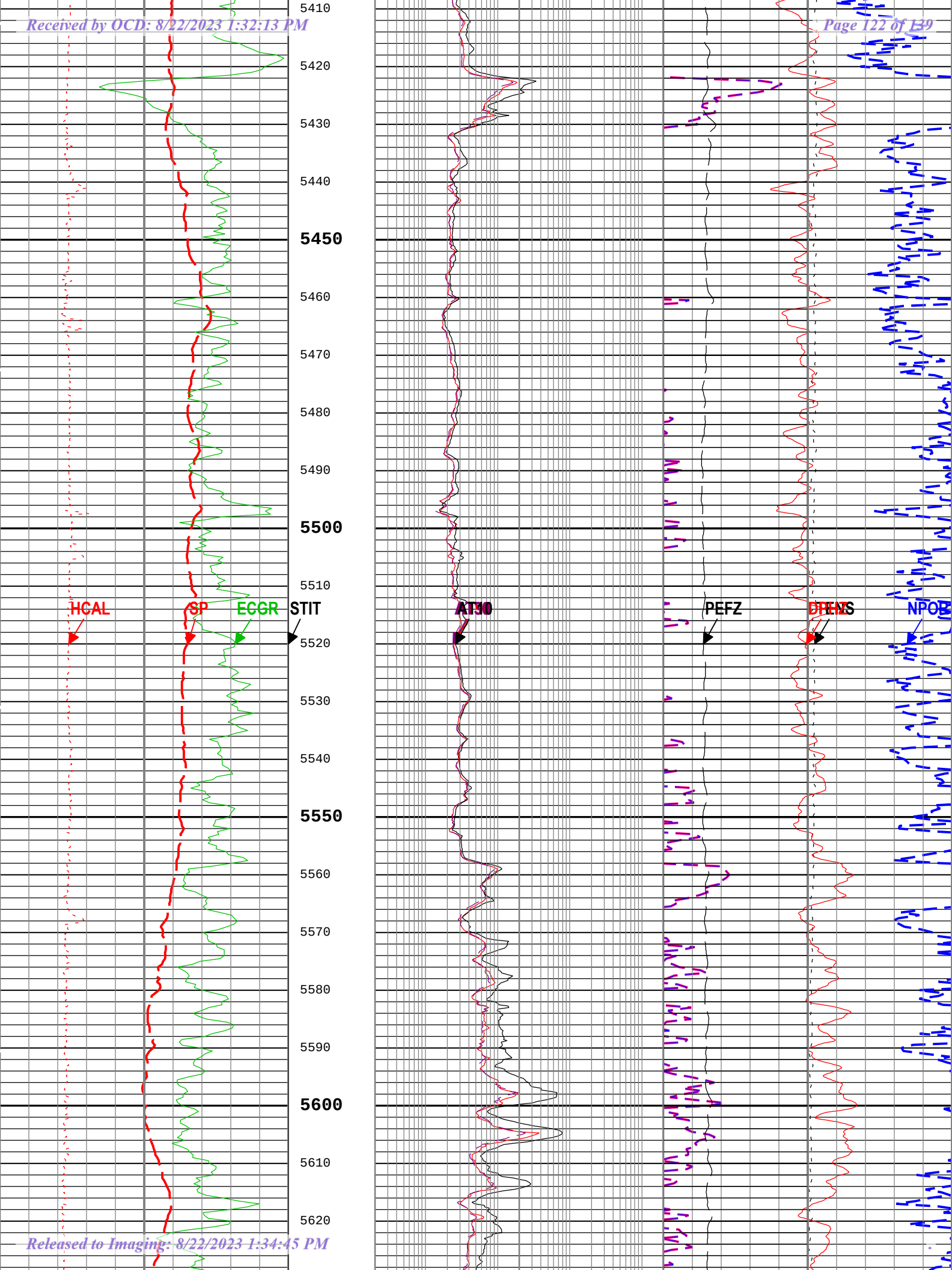

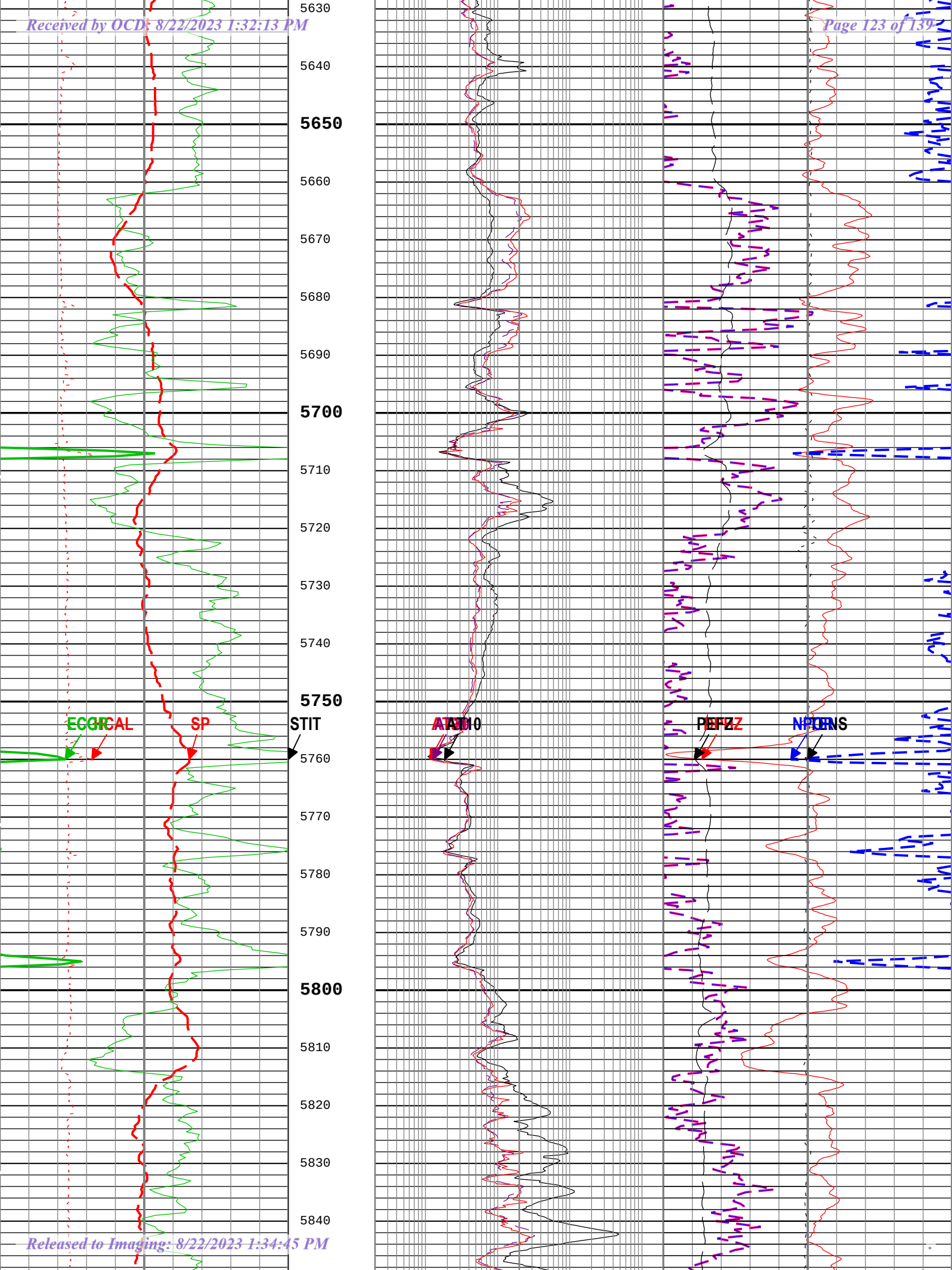

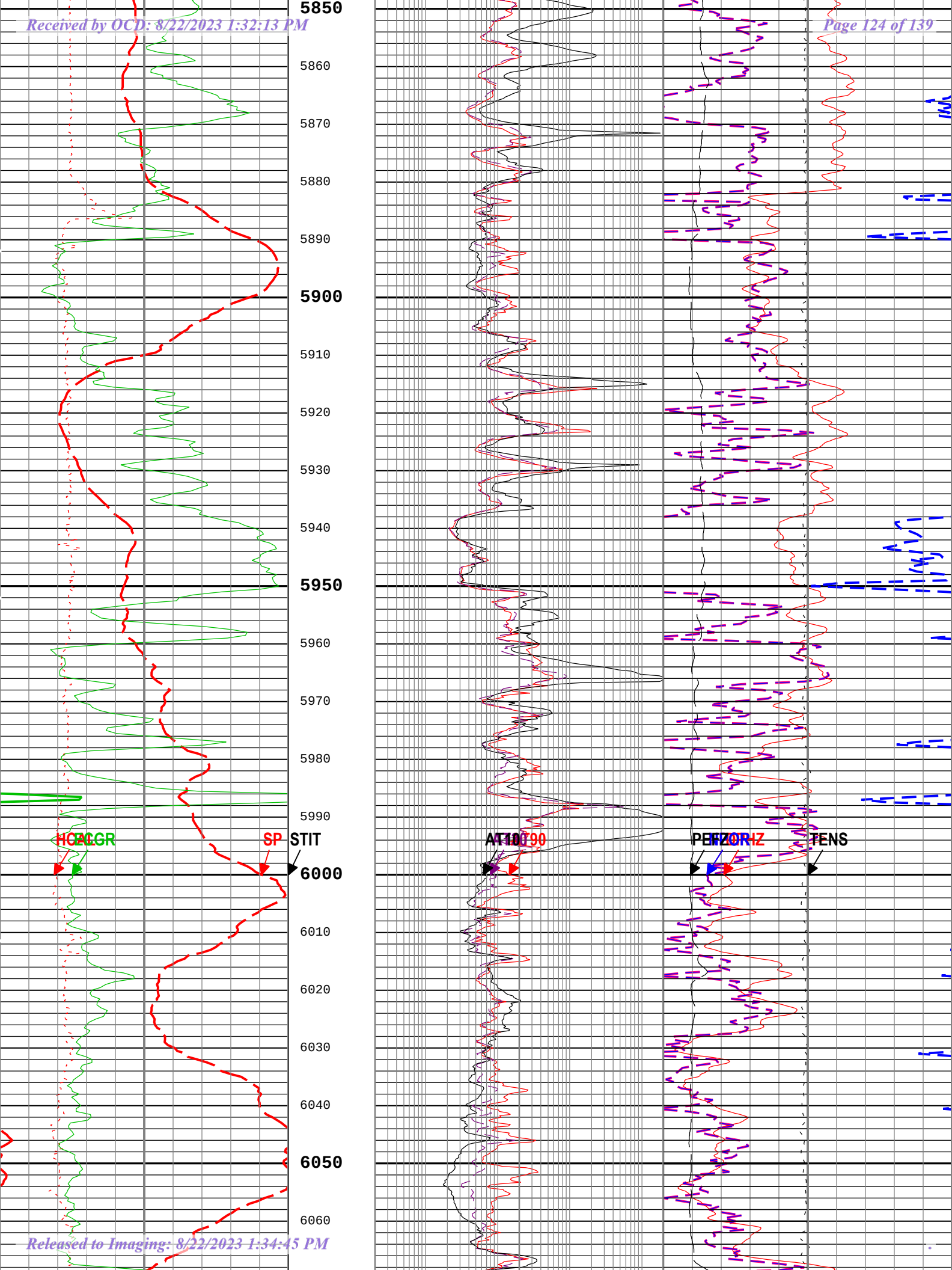
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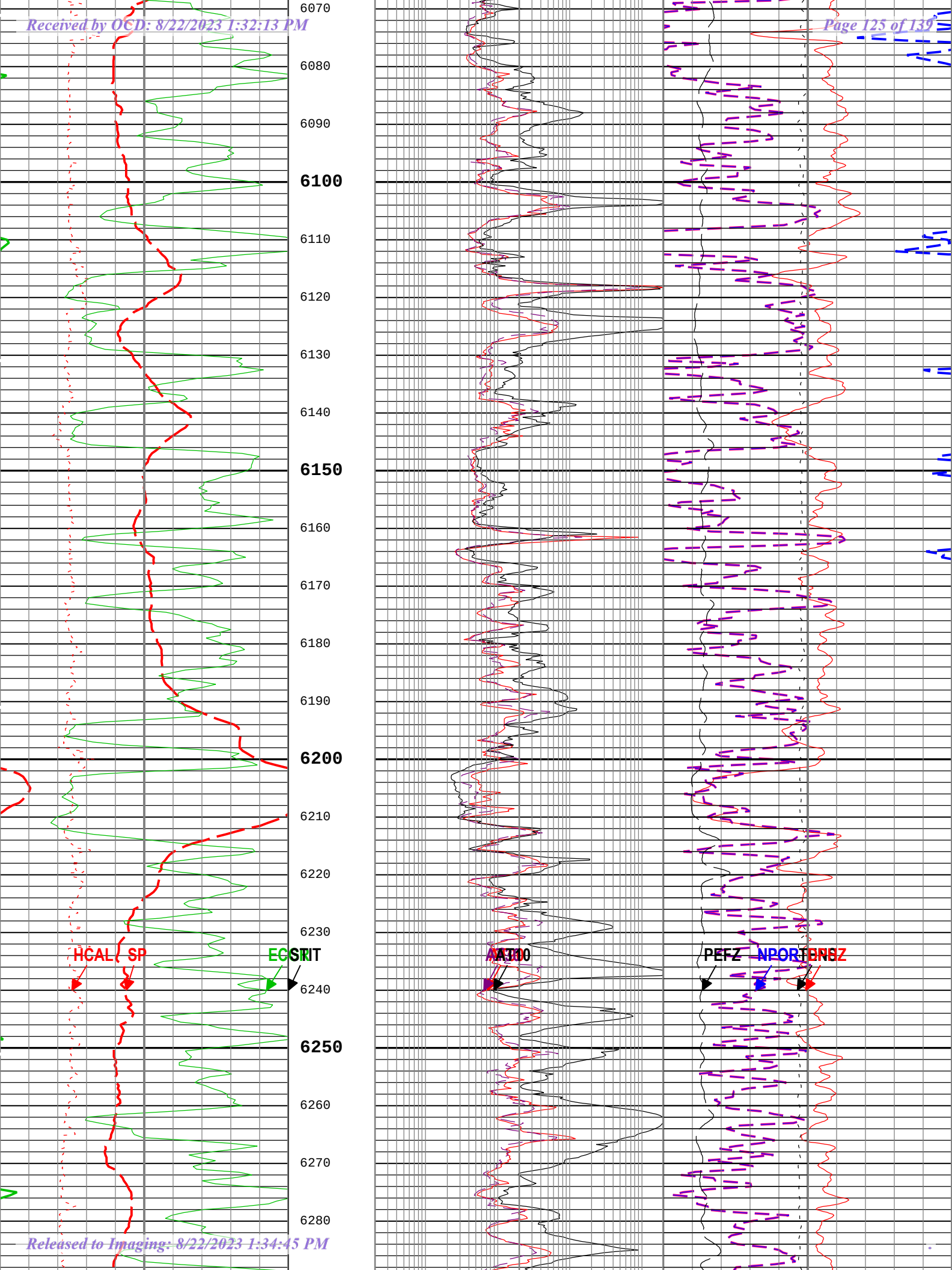
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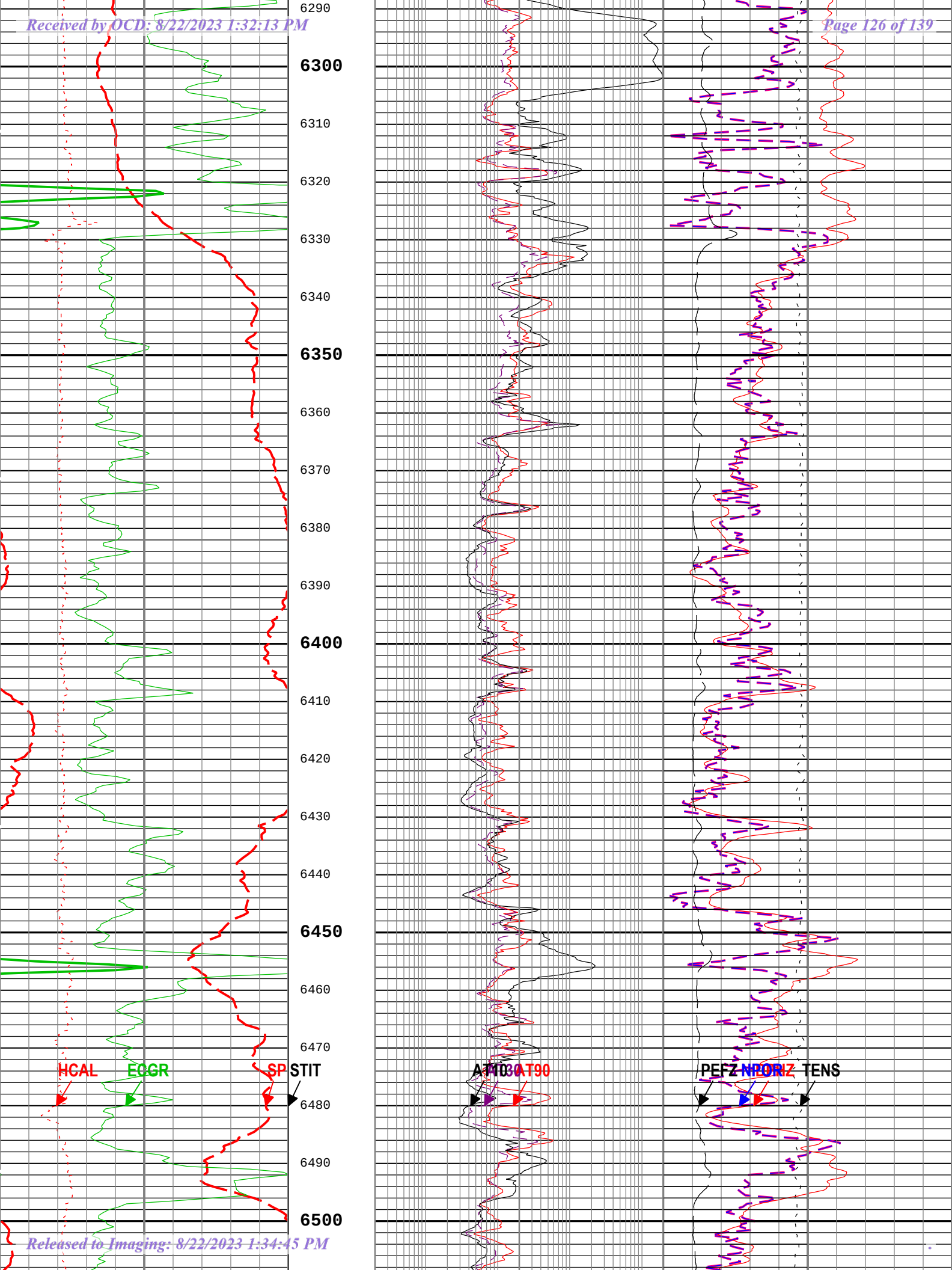
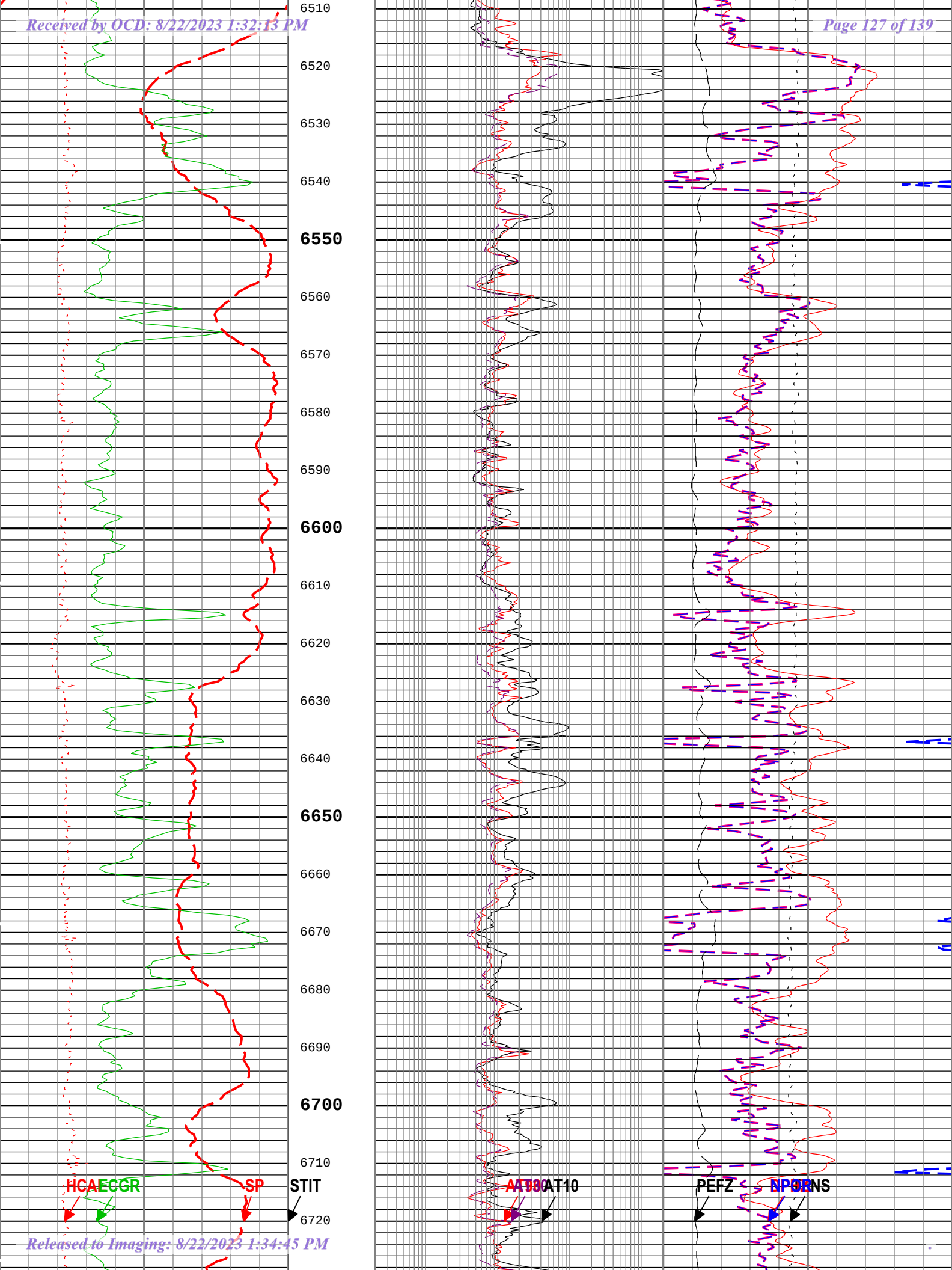
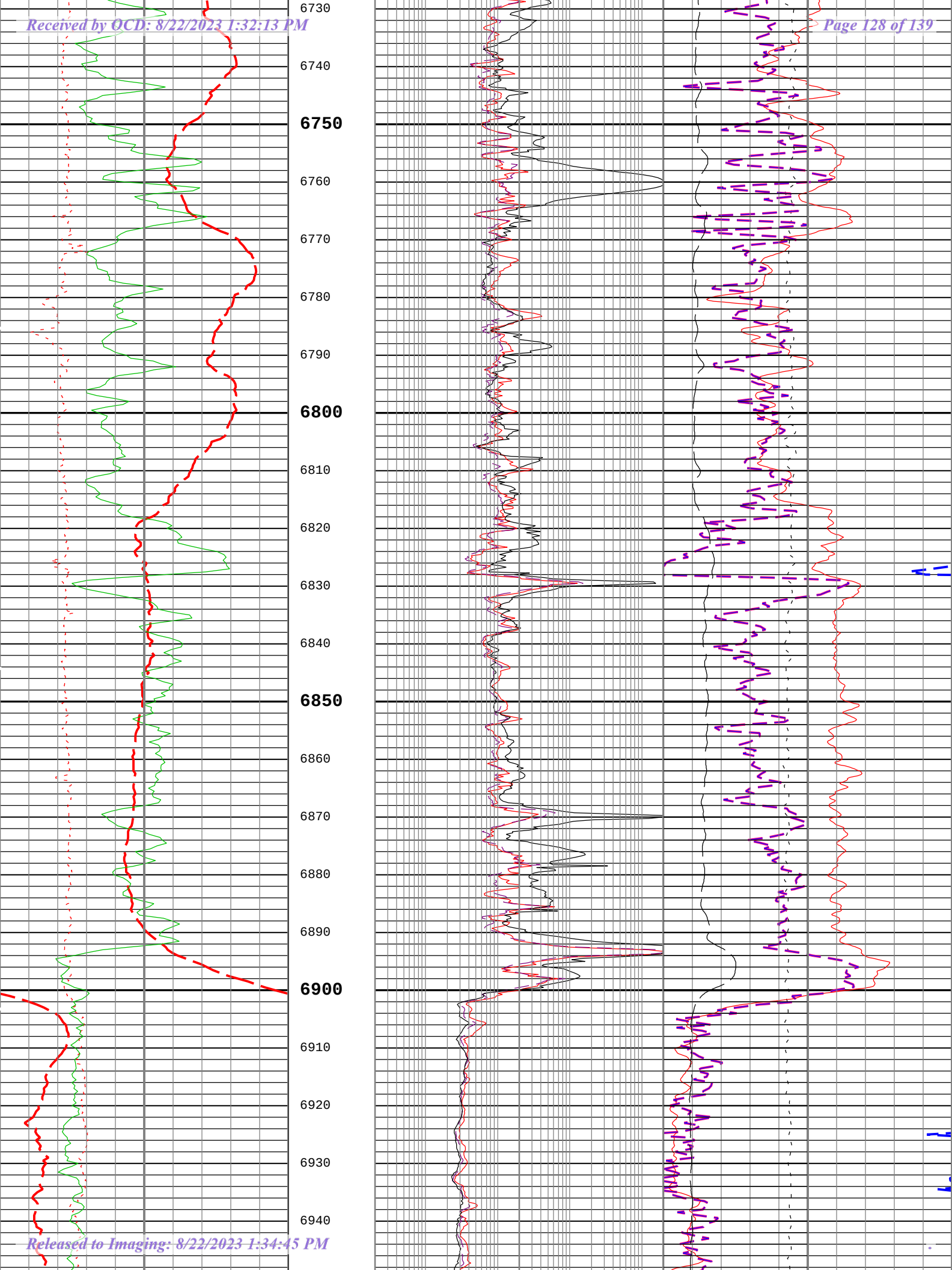
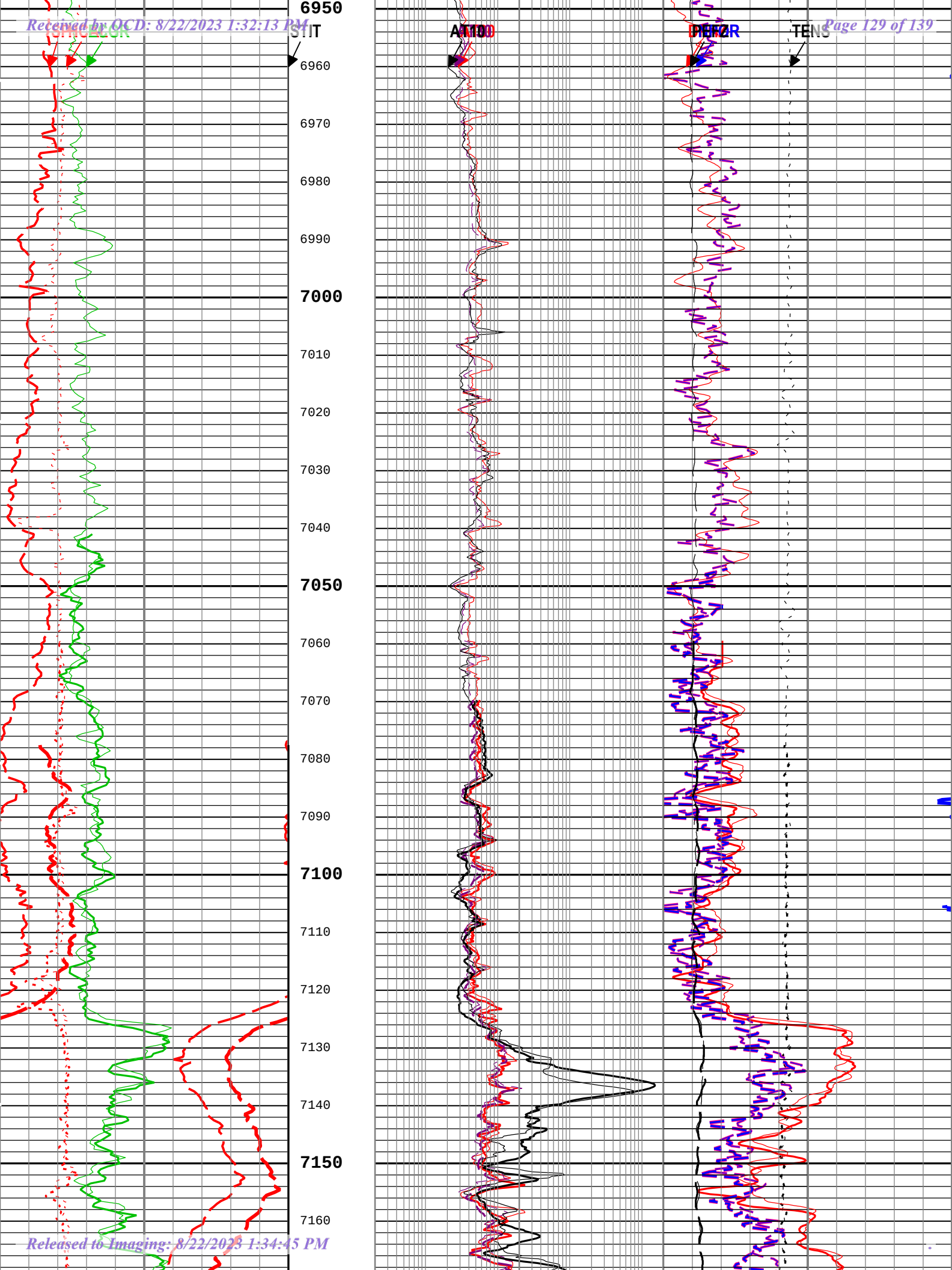
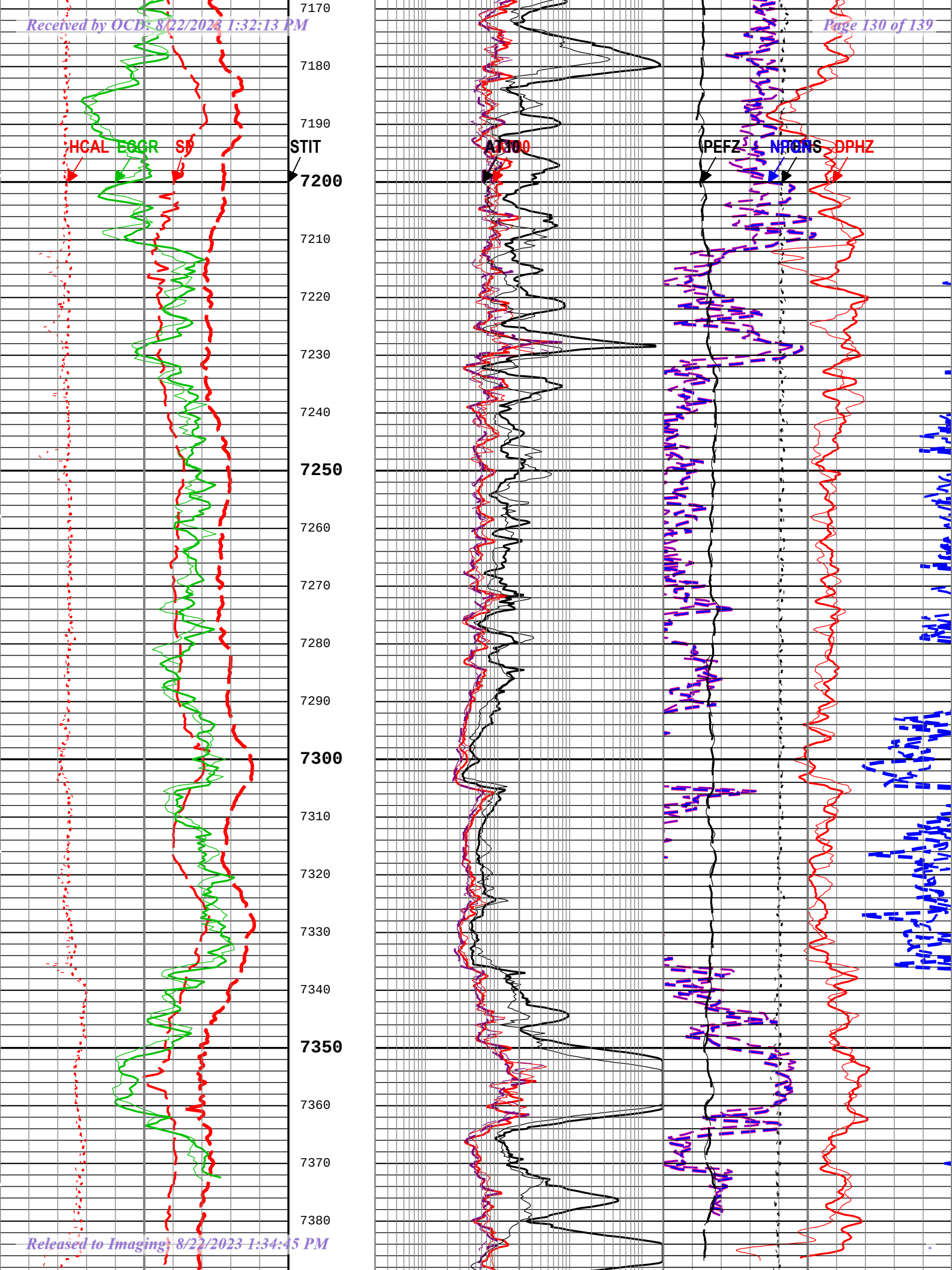
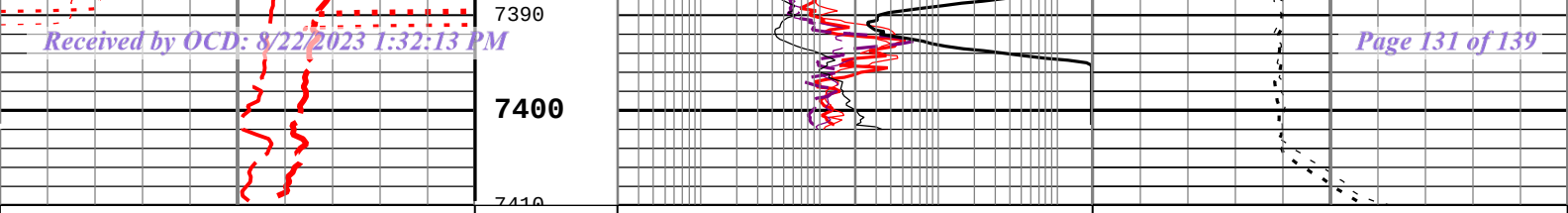












Main To Repeat

Repeat To Main

Caliper (HCAL) HDRS-H

6 in 16

Main To Repeat

Repeat To Main

Spontaneous Potential (SP) AIT-M

-80 mV 20

Main To Repeat

Repeat To Main

Gamma Ray (ECGR) HGNS-H

0 gAPI 200

Main To Repeat

Repeat To Main

Stuck Tool Indicator, Total (STIT)

0 ft 50

Main To Repeat

Repeat To Main

Array Induction Two Foot Resistivity A90 (AT90) AIT-M

0.2 ohm.m 2000

Main To Repeat

Repeat To Main

Array Induction Two Foot Resistivity A30 (AT30) AIT-M

0.2 ohm.m 2000

Main To Repeat

Repeat To Main

Array Induction Two Foot Resistivity A10 (AT10) AIT-M

0.2 ohm.m 2000

Main To Repeat

Repeat To Main

Cable Tension (TENS)

5000 lbf 0

Main To Repeat

Repeat To Main

Standard Resolution Density Porosity (DPHZ) HDRS-H

0.3 ft3/ft3 -0.1

Main To Repeat

Repeat To Main

Enhanced Thermal Neutron Porosity in Selected Lithology (NPOR) HGNS-H

0.3 m3/m3 -0.1

Main To Repeat

Repeat To Main

Standard Resolution Formation Photoelectric Factor (PEFZ) HDRS-H

0 10

TIME_1900 - Time Marked every 60.00 (s)

Description: HGNS standard resolution porosities for Platform Express Format: Log (TripleCombo-5 RA) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 02-Oct-2018 17:51:13

Channel Processing Parameters

One: Parameters

Parameter	Description	Tool	Value	Unit
ABHM	Array Induction Borehole Correction Mode	AIT-M	Compute Standoff	
ASTA	Array Induction Tool Standoff	AIT-M	0.6	in
BARI(ISSBAR)	Barite Mud Presence Flag	Borehole	No	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BHT	Bottom Hole Temperature	Borehole	159.65	degF
BS	Bit Size	WLSESSION	8.5	in
BSAL	Borehole Salinity	Borehole	0	ppm
CALI_SHIFT	CALI Supplementary Offset	HDRS-H	-0.268	in
CBLO	Casing Bottom (Logger)	WLSESSION	379	ft
CDEN	Cement Density	HGNS-H	2	g/cm3
DFD	Drilling Fluid Density	Borehole	8.6	lbm/gal
DFT	Drilling Fluid Type	Borehole	Water	
DFT_WATER	Drilling Fluid Water Type	WBM		

DPT_WATER	Drilling Fluid Water Type	Borehole	WBM	
DHC	Density Hole Correction	HDRS-H	Bit Size	
FD	Fluid Density	Borehole	1	g/cm3
FSAL	Formation Salinity	Borehole	0	ppm
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS(RT)	
GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	CALI	
GRSE	Generalized Mud Resistivity Selection, from Measured or Computed Mud Resistivity	Borehole	AMF	
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	CTEM	
HSCO	Hole Size Correction Option	HGNS-H	Yes	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	SANDSTONE	
MDEN	Matrix Density for Density Porosity	Borehole	2.68	g/cm3
MFST	Mud Filtrate Sample Temperature	Borehole	68	degF
RMFS	Resistivity of Mud Filtrate Sample	Borehole	0.14	ohm.m
SOCO	Standoff Correction Option	HGNS-H	Yes	
SPDR	SP Drift Per Foot	AIT-M	0	mV/ft

Tool Control Parameters

One: Parameters

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

Calibration Report

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

Primary Equipment :

File code for AIT-MA Sonde Tool Element	AMIS	129

Auxiliary Equipment :

AITM Rm/SP Bottom Nose	AMRM	129

AIT Sonde Calibration - Test Loop Gain

Master (EEPROM): 23:48:37 08-Apr-2017

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Test Loop Gain - 0		Master	1.000	0.950	1.010	1.050
Test Loop Phase - 0	deg	Master	0	-3.000	0.610	3.000
Test Loop Gain - 1		Master	1.000	0.950	1.009	1.050
Test Loop Phase - 1	deg	Master	0	-3.000	0.696	3.000
Test Loop Gain - 2		Master	1.000	0.950	1.008	1.050
Test Loop Phase - 2	deg	Master	0	-3.000	0.140	3.000
Test Loop Gain - 3		Master	1.000	0.950	1.004	1.050
Test Loop Phase - 3	deg	Master	0	-3.000	0.205	3.000
Test Loop Gain - 4		Master	1.000	0.950	0.988	1.050
Test Loop Phase - 4	deg	Master	0	-3.000	0.153	3.000
Test Loop Gain - 5		Master	1.000	0.950	0.981	1.050
Test Loop Phase - 5	deg	Master	0	-3.000	-0.005	3.000
Test Loop Gain - 6		Master	1.000	0.950	0.987	1.050
Test Loop Phase - 6	deg	Master	0	-3.000	0.336	3.000
Test Loop Gain - 7		Master	1.000	0.950	1.007	1.050
Test Loop Phase - 7	deg	Master	0	-3.000	0.048	3.000

AIT Sonde Calibration - Sonde Error Correction

Master (EEPROM): 23:48:37 08-Apr-2017

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Sonde Error Correction Real - 0	mS/m	Master	-----	-231.000	-81.582	119.000
Sonde Error Correction Quad - 0		Master	-----	-2250.000	-104.509	2250.000
Sonde Error Correction Real - 1	mS/m	Master	-----	114.000	161.716	204.000

Sonde Error Correction Quad - 1		Master	-----	-625.000	154.766	625.000
Sonde Error Correction Real - 2	mS/m	Master	-----	66.000	107.095	156.000
Sonde Error Correction Quad - 2		Master	-----	-350.000	-64.698	350.000
Sonde Error Correction Real - 3	mS/m	Master	-----	39.000	58.376	89.000
Sonde Error Correction Quad - 3		Master	-----	-250.000	28.165	250.000
Sonde Error Correction Real - 4	mS/m	Master	-----	15.000	25.047	35.000
Sonde Error Correction Quad - 4		Master	-----	-63.000	11.675	63.000
Sonde Error Correction Real - 5	mS/m	Master	-----	4.000	11.837	24.000
Sonde Error Correction Quad - 5		Master	-----	-50.000	12.163	50.000
Sonde Error Correction Real - 6	mS/m	Master	-----	5.000	9.663	15.000
Sonde Error Correction Quad - 6		Master	-----	-30.000	-2.239	30.000
Sonde Error Correction Real - 7	mS/m	Master	-----	-5.000	-1.442	5.000
Sonde Error Correction Quad - 7		Master	-----	-30.000	-10.316	30.000

AIT Mud Calibration - Mud Calibration Gain

Master (EEPROM): 23:48:37 08-Apr-2017

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Coarse Gain		Master	1.000	0.800	0.976	1.200
Fine Gain		Master	1.000	0.800	0.971	1.200

AIT Electronics Check - Thru Calibration Check

Master (EEPROM): 23:48:37 08-Apr-2017

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Thru Cal Mag - 0	V	Master	-----	0.366	0.621	0.854
Thru Cal Phase - 0	deg	Master	-----	137.000	-173.590	-103.000
Thru Cal Mag - 1	V	Master	-----	0.762	1.276	1.778
Thru Cal Phase - 1	deg	Master	-----	136.000	-174.683	-104.000
Thru Cal Mag - 2	V	Master	-----	0.372	0.632	0.868
Thru Cal Phase - 2	deg	Master	-----	132.000	-178.262	-108.000
Thru Cal Mag - 3	V	Master	-----	0.420	0.715	0.980
Thru Cal Phase - 3	deg	Master	-----	131.000	-179.038	-109.000
Thru Cal Mag - 4	V	Master	-----	0.804	1.338	1.876
Thru Cal Phase - 4	deg	Master	-----	125.000	174.750	-115.000
Thru Cal Mag - 5	V	Master	-----	1.176	1.944	2.744
Thru Cal Phase - 5	deg	Master	-----	122.000	173.115	-118.000
Thru Cal Mag - 6	V	Master	-----	1.176	1.941	2.744
Thru Cal Phase - 6	deg	Master	-----	121.000	173.156	-119.000
Thru Cal Mag - 7	V	Master	-----	0.846	1.396	1.974
Thru Cal Phase - 7	deg	Master	-----	115.000	172.435	-125.000
SPA Zero	mV	Master		-50.000	-0.104	50.000
SPA Plus	mV	Master		941.000	990.202	1040.000
Temperature Zero	V	Master		-0.050	0.000	0.050
Temperature Plus	V	Master		0.870	0.917	0.960

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

Primary Equipment :

HILT High-Resolution Control Cartridge, 150 degC	HRCC-H	
HILT Resistivity Gamma-Ray Density Device, 150 degC	HRGD-H	4957

Auxiliary Equipment :

HRDD Backscatter Detector	Backscatter	26784
HRDD Long Spacing Detector	Long Spacing	
HRDD Short Spacing Detector	Short Spacing	
Cesium 137 Gamma-Ray Logging Source	GSR-J	5259
HILT High-Resolution Control Cartridge, 150 degC	HRCC-H	
HILT High-Resolution Mechanical Sonde, 150 degC	HRMS-H	

Calibration Parameter :

Small Ring Size

Large Ring Size

HDRS Density Calibration - Inversion Results

Master (EEPROM): 18:01:40 29-Sep-2018

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Rho Aluminum	g/cm3	Master	2.596	2.586	2.597	2.606
Rho Magnesium	g/cm3	Master	1.686	1.676	1.689	1.696
Pe Aluminum		Master	2.570	2.470	2.563	2.670
Pe Magnesium		Master	2.650	2.550	2.591	2.750

HDRS Density Calibration - Deviation Summary

Master (EEPROM): 18:01:40 29-Sep-2018

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
BS Average Deviation	%	Master	0	-0.6000	0.5817	0.6000
BS Max Deviation	%	Master	0	-1.6000	1.2730	1.6000
SS Average Deviation	%	Master	0	-1.0000	0.3079	1.0000
SS Max Deviation	%	Master	0	-2.5000	1.4753	2.5000
LS Average Deviation	%	Master	0	-1.5000	1.0802	1.5000
LS Max Deviation	%	Master	0	-3.5000	3.1908	3.5000

HDRS Density Calibration - Background Summary

Master (EEPROM): 18:01:40 29-Sep-2018

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
BS Window Ratio		Master	1.0000		0.7472	
BS Window Sum	1/s	Master	1		24154	
SS Window Ratio		Master	1.0000		0.4936	
SS Window Sum	1/s	Master	1		10695	
LS Window Ratio		Master	1.0000		0.3032	
LS Window Sum	1/s	Master	1		1192	

HDRS Density Calibration - Photo-multiplier High Voltages

Master (EEPROM): 18:01:40 29-Sep-2018

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
BS PM High Voltage	V	Master		1000	1320	2400
SS PM High Voltage	V	Master		1000	1419	2400
LS PM High Voltage	V	Master		1000	1346	2400

HDRS Density Calibration - Crystal Quality Resolutions

Master (EEPROM): 18:01:40 29-Sep-2018

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
BS Crystal Resolution	%	Master		5.00	11.61	25.00
SS Crystal Resolution	%	Master		5.00	9.62	20.00
LS Crystal Resolution	%	Master		5.00	8.77	20.00

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

Primary Equipment :

HILT Gamma-Ray and Neutron Sonde, 150 degC	HGNS-H	

Auxiliary Equipment :

HGNS Accelerometer, 150 degC	HACCZ-H	4264
AmBe Neutron Logging Source	NSR-F	5203

Calibration Parameter :

Water Temperature (Calibration Tank Water Temperature)	76.0
Housing Size (Thermal Housing Size)	3.38
JIG-BKG (Jig minus background reference)	160

HGNS Accelerometer EEPROM - Accelerometer EEPROM Read

Master (EEPROM): 18:00:00 14-Jun-2005

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Accelerometer Manufacturer		Master			QAT_160	
Accelerometer Reference Temperature	degF	Master		30.2	77.0	122.0
Accelerometer Coefficients - 0		Master	-----	-----	5359.000	-----
Accelerometer Coefficients - 1		Master	-----	-----	-15.426	-----

Accelerometer Coefficients - 2		Master	-----	-----	0.015	-----	
Accelerometer Coefficients - 3		Master	-----	-----	0.000	-----	
Accelerometer Coefficients - 4		Master	-----	-----	2.742	-----	
Accelerometer Coefficients - 5		Master	-----	-----	0.000	-----	
Accelerometer Coefficients - 6		Master	-----	-----	0.000	-----	
Accelerometer Coefficients - 7		Master	-----	-----	0.000	-----	
Accelerometer Coefficients - 8		Master	-----	-----	299.400	-----	
Accelerometer Coefficients - 9		Master	-----	-----	1.009	-----	

HGNS Neutron Calibration - HGNS Neutron Accumulations

Master (EEPROM): 18:59:08 29-Sep-2018

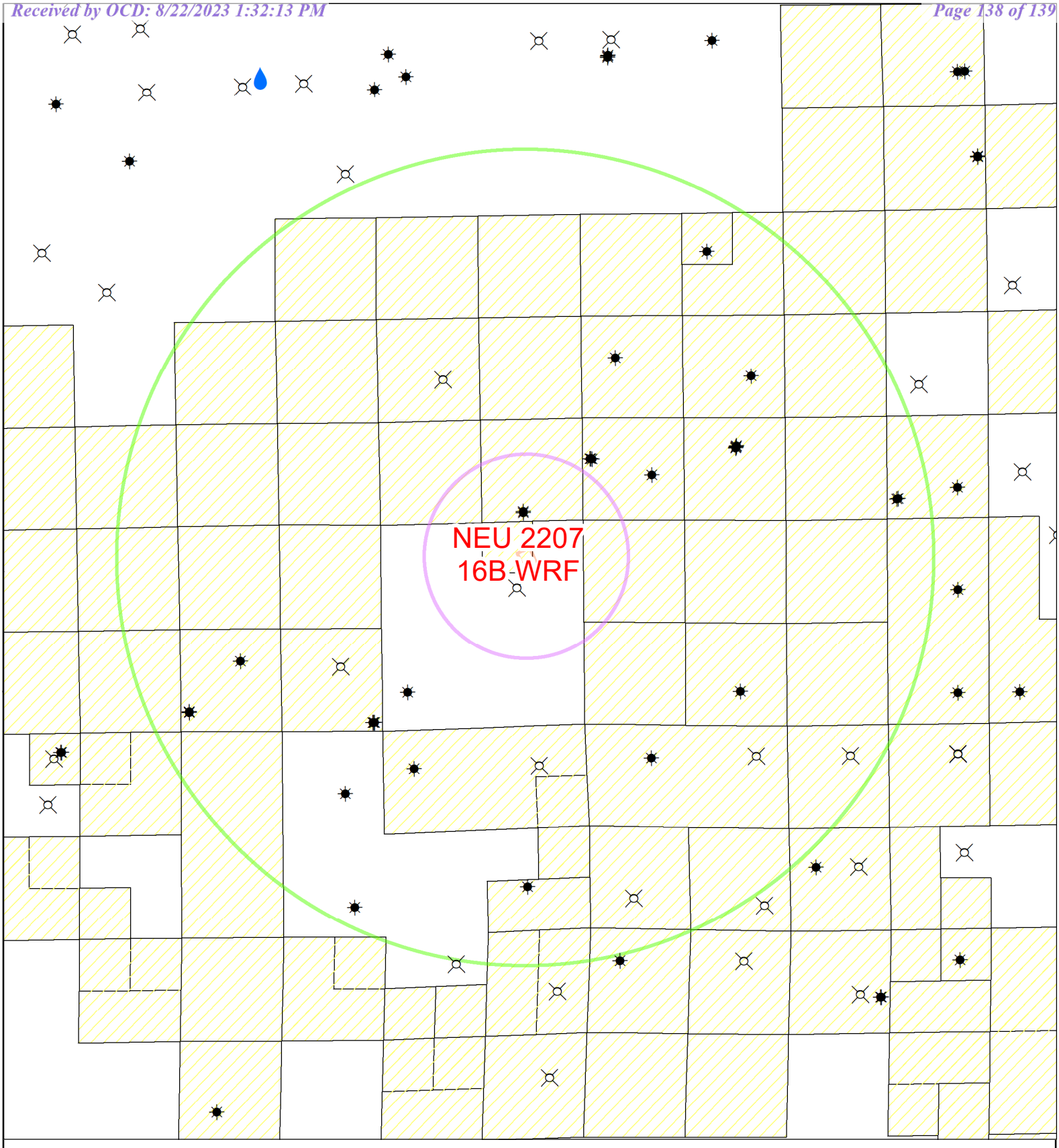
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Near Zero Measurement	1/s	Master	0	5.0	27.6	40.0	
Far Zero Measurement	1/s	Master	0	5.0	27.6	40.0	
Near Plus Measurement	1/s	Master	6031.0	4700.0	5023.0	6900.0	
Far Plus Measurement	1/s	Master	2793.0	1900.0	2144.0	2900.0	
Near Corrected Plus Measurement	1/s	Master		4700.0	4991.0	6900.0	
Far Corrected Plus Measurement	1/s	Master		1900.0	2114.0	2900.0	

Company:	Enduring Resources, LLC
Well:	North Escavada Unit 2207-16B-WSW
Field:	Sandoval
County:	Sandoval
State:	New Mexico

Schlumberger

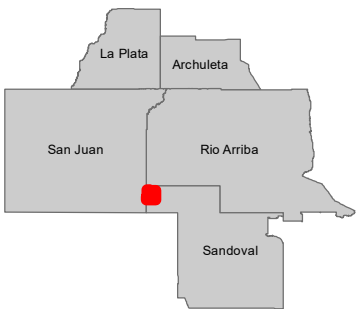
Platform Express
Triple Combo

ENCLOSURE K: WELL LOCATION AND NEAREST WELLS



2207-16B WSW Area of Review

- Active
- Plugged (site released)
- Temporary Abandonment
- OSE Points of Diversion
- Half Mile Buffer
- 2 Mile Buffer
- Leases
- Pads



ENDURING RESOURCES, LLC

Data Source Statement:
BLM-FFO, Enduring Resources GIS, ESRI Inc., NCE Surveys, USGS

0 0.5 1 2 Miles

NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US	Author: drogers	Date: 10/7/2022

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

CONDITIONS

Action 255583

CONDITIONS

Operator: ENDURING RESOURCES, LLC 6300 S Syracuse Way, Suite 525 Centennial, CO 80111	OGRID: 372286
	Action Number: 255583
	Action Type: [IM-SD] Admin Order Support Doc (ENG) (IM-AAO)

CONDITIONS

Created By	Condition	Condition Date
pgoetze	None	8/22/2023