

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well ☐ Oil Well ☐ Gas Well ☐ Dry ☐ Other b. Type of Completion ☐ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Zones ☐ Hydraulic Fracturing Other: _____						5. Lease Serial No.			
						6. If Indian, Allottee or Tribe Name			
2. Name of Operator Accepted by BLM - 08/11/2023 <i>Allison Morency</i> Petroleum Engineer - BLM						7. Unit or CA Agreement Name and No.			
						8. Well Name and Well No.			
3. Address				3a. Phone No. (Include area code)		9. API Well No.			
4. Location of Well (Report location clearly and in accordance with Federal requirements)* At surface At top prod. interval reported below At total depth						10. Field and Pool or Exploratory			
						11. Sec., T., R., M., on Block and Survey or Area			
						12. County or Parish	13. State		
14. Date Spudded		15. Date T.D. Reached		16. Date Completed ☐ D & A ☐ Ready to Prod.		17. Elevations (DF, RKB, RT, GL)*			
18. Total Depth: MD TVD		19. Plug Back T.D.: MD TVD		20. Depth Bridge Plug Set: MD TVD					
21. Type Electric & Other Mechanical Logs Run (Submit copy of each)				22. Was well cored? ☐ No ☐ Yes (Submit analysis) Was DST run? ☐ No ☐ Yes (Submit report) Directional Survey? ☐ No ☐ Yes (Submit copy)					
23. Casing and Liner Record (Report all strings set in well)									
Hole Size	Size/Grade	Wt. (#ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
24. Tubing Record									
Size	Dept Set (MD)	Packer Dept (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	
25. Producing Intervals					26. Perforation Record				
Formation		Top		Bottom	Perforated Interval	Size	No. Holes	Perf. Status	
A)									
B)									
C)									
D)									
27. Acid, Fracture, Treatment, Cement Squeeze, Post hydraulic fracturing chemical disclosures on FracFocus.org when required by state or federal regulation									
Depth Interval		Amount, Type of Material and Date of Chemical Disclosure upload on FracFocus.org as applicable							
28. Production - Interval A									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			➡						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			➡						
28a. Production - Interval B									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			➡						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			➡						

*(See instructions and spaces for additional data on page 2)

28b. Production - Interval C									
Date First Produced	Test Date	Hours Tested	Test Production ➡	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API.	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate ➡	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

28c. Production - Interval D									
Date First Produced	Test Date	Hours Tested	Test Production ➡	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API.	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate ➡	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

29. Disposition of Gas (Solid, used for fuel, vented, etc.)

30. Summary of Porous Zones (Include Aquifers): Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.						31. Formation (Log) Markers			
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Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth

32. Additional remarks (include plugging procedure).

33. Indicate which items have been attached by placing a check in the appropriate boxes:				
☐ Electrical/Mechanical Logs (1 full set req'd.)	☐ Geologic Report	☐ DST Report	☐ Directional Survey	
☐ Sundry Notice for plugging and cement verification	☐ Core Analysis	☐ Other:		

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*	
Name (please print) _____	Title _____
Signature _____	Date _____

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

INSTRUCTIONS

GENERAL: This form is designed for submitting a complete and correct well completion/recompletion report and log on all types of wells on Federal and Indian leases to a Federal agency, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal office. If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, and all types electric), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal laws and regulations. All attachments should be listed on this form, see item 33.

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

ITEM 17: Indicate which reported elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

ITEM 23: Show how reported top(s) of cement were determined, i.e. circulated (CIR), or calculated (CAL), or cement bond log (CBL), or temperature survey (TS).

NOTICES

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

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

PRINCIPAL PURPOSE: The information is to be used to evaluate the actual operations performed in the drilling, completing and testing of a well on a Federal or Indian lease.

ROUTINE USES: (1) Evaluate the equipment and procedures used during the drilling and completing/recompleting of a well. (2) The review of geologic zones and formation encountered during drilling. (3) Analyze future applications to drill in light of data obtained and methods used. (4)(5) Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this report and disclosure of the information is mandatory once a well drilled on a Federal or Indian lease is completed/recompleted.

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

The BLM collects this information to allow evaluation of the technical, safety, and environmental factors involved with drilling and completing/recompleting wells on Federal and Indian oil and gas leases.

This information will be used to analyze operations and to compare equipment and procedures actually used with those proposed and approved.

Response to this request is mandatory only if the operator elects to initiate drilling and completing/recompleting operations on an oil and gas lease.

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

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

Additional Information

Location information: 00S1

SHL: NWNE / 392 FNL / 1591 FEL / TWSP: 26S / RNG: 35E / SEC: 18 / LAT: 32.0495094 / LONG: -103.4031211

KOP: NWNE / 84 FNL / 1532 FEL / TWSP: 26S / RNG: 35E / SEC: 18 / LAT: 32.0503574 / LONG: -103.4029309

PPP: NWNE / 356 FNL / 1548 FEL / TWSP: 26S / RNG: 35E / SEC: 18 / LAT: 32.0496099 / LONG: -103.4029836

PPP: NWNE / 0 FNL / 1471 FEL / TWSP: 26S / RNG: 35E / SEC: 19 / LAT: 32.0360613 / LONG: -103.4027098

PPP: NWSE / 2643 FNL / 1402 FEL / TWSP: 26S / RNG: 35E / SEC: 18 / LAT: 32.0433211 / LONG: -103.4025012

EXIT: SWSE / 115 FSL / 1428 FEL / TWSP: 26S / RNG: 35E / SEC: 19 / LAT: 32.0218615 / LONG: -103.4025477

BHL: SWSE / 100 FSL / 1427 FEL / TWSP: 26S / RNG: 35E / SEC: 19 / LAT: 32.0218217 / LONG: -103.4025467

Attachments: 00S1

Log Attachments:

1) Wellbore_Schematic___COLOSSUS_18_19_WA_FEDERAL_COM_001H_20230621105213.pdf

2) COLOSSUS_18_19_WA_FEDERAL_COM_1H_REV1_AS_DRILLED_PLAT___Signed_20230621110406.pdf

3) Appr_C102_Plat_COLOSSUS_18_19_WA_FED_COM_1H_11.05.2021_20230621113040.pdf

4) Colossus_Fed_Com_18_19_1H_1_Inch_Mudlog_Final_20230621104726.pdf

5) Colossus_18_19_WA_Fed_Com___1H___Final_PvA_20230621105011.pdf

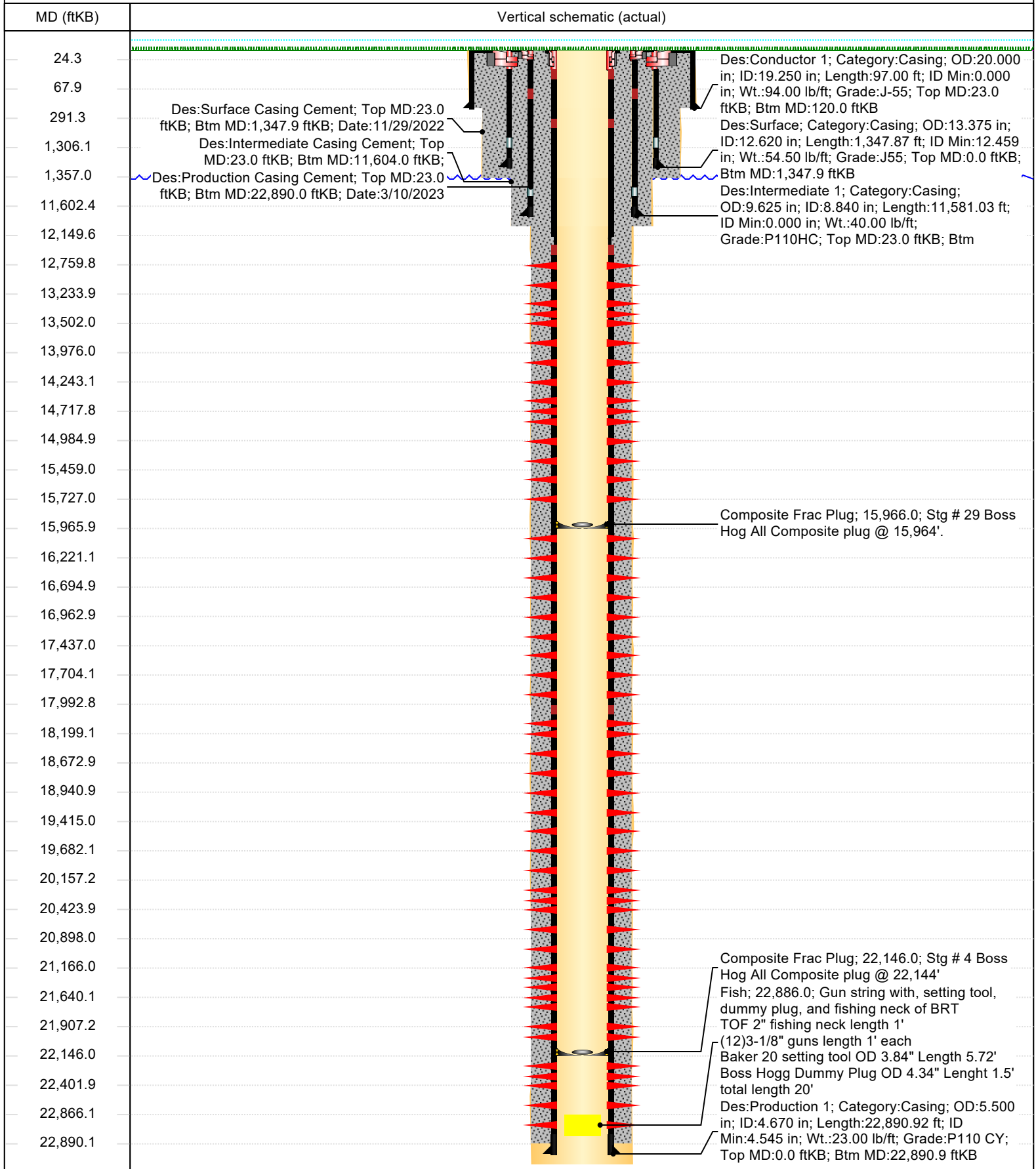


Wellbore Schematic

Well Name: COLOSSUS 18-19 WA FEDERAL COM 001H

State/Province NEW MEXICO	Country UNITED STATES	Field Name	Latitude (°) 32.04938330	Longitude (°) -103.40265930	North/South Distance (ft) 392.0	North/South Reference FNL
API/IPO UWI 3002549531	KB-Ground Distance (ft) 23.00	KB-Mud Line Distance (ft)	Ground Elevation (ft) 3,258.00	Drilling Rig Spud Date 11/28/2022	Well Original Completion Date 5/10/2023	Well First Production Date 5/12/2023

HORIZONTAL, COLOSSUS 18-19 WA FEDERAL COM 001H, 6/21/2023 11:49:07 AM



1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico

Form C-102

Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

Revised August 1, 2011

Submit one copy to appropriate

District Office

☒ AMENDED REPORT
As-Drilled

WELL LOCATION AND ACREAGE DEDICATION AS-DRILLED PLAT

¹ API Number 30-025-49531	² Pool Code 96776	³ Pool Name JABALINA; WOLFCAMP SOUTHWEST
⁴ Property Code 331689	Property Name COLOSSUS 18-19 WA FEDERAL COM	⁶ Well Number 1H
⁷ OGRID No. 372098	⁸ Operator Name MARATHON OIL PERMIAN LLC	⁹ Elevation 3258'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	18	26S	35E		392	NORTH	1591	EAST	LEA

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	19	26S	35E		100	SOUTH	1427	EAST	LEA

¹² Dedicated Acres 640.0	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

	CORNER COORDINATES NAD 83, SPCS NM EAST A - X: 831129.70' / Y: 383390.47' B - X: 831183.30' / Y: 378108.90' C - X: 831210.16' / Y: 375469.71' D - X: 831235.70' / Y: 372827.69' E - X: 828592.53' / Y: 372813.35' F - X: 828539.58' / Y: 378092.67' G - X: 828491.21' / Y: 383378.93'	CORNER COORDINATES NAD 27, SPCS NM EAST A - X: 789941.84' / Y: 383333.04' B - X: 789995.21' / Y: 378051.61' C - X: 790021.95' / Y: 375412.49' D - X: 790047.37' / Y: 372770.54' E - X: 787404.22' / Y: 372756.22' F - X: 787351.51' / Y: 378035.40' G - X: 787303.38' / Y: 383321.52'	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Adrian Covarrubias</i> 6/15/2023 Signature Date Adrian Covarrubias Printed Name E-mail Address ¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well surface location shown on this plat was plotted from field notes of the as-staked surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Data used for underground measurements were provided by others for reference only and does not constitute field measurements performed by R-Squared Global. MAY 31, 2023 Date of Survey Signature and Seal of Professional Surveyor: Certificate Number LLOYD P. SHORT 21653
	SURFACE HOLE LOCATION 392' FNL 1591' FEL, SECTION 18 0' MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST X: 829542.71' / Y: 382991.16' LAT: 32.04950942N / LON: 103.40312110W NAD 27, SPCS NM EAST X: 788354.85' / Y: 382933.75' LAT: 32.04938334N / LON: 103.40265931W	KICK OFF POINT 84' FNL 1532' FEL, SECTION 18 12164' MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST X: 829598.98' / Y: 383300.09' LAT: 32.05035739N / LON: 103.40293093W NAD 27, SPCS NM EAST X: 788411.13' / Y: 383242.68' LAT: 32.05023116N / LON: 103.40246909W	
	FIRST TAKE POINT 356' FNL 1548' FEL, SECTION 18 12760' MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST X: 829585.01' / Y: 383028.00' LAT: 32.04960985N / LON: 103.40298357W NAD 27, SPCS NM EAST X: 788397.15' / Y: 382970.59' LAT: 32.04948361N / LON: 103.40252177W	LAST TAKE POINT 115' FSL 1428' FEL, SECTION 19 22876' MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST X: 829807.05' / Y: 372934.55' LAT: 32.02186148N / LON: 103.40254771W NAD 27, SPCS NM EAST X: 788618.73' / Y: 372877.41' LAT: 32.02173509N / LON: 103.40208752W	
	BOTTOM HOLE LOCATION 100' FSL 1427' FEL, SECTION 19 22904' MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST X: 829807.46' / Y: 372920.09' LAT: 32.02182172N / LON: 103.40254679W NAD 27, SPCS NM EAST X: 788619.14' / Y: 372862.95' LAT: 32.02169533N / LON: 103.40208661W		

Distances/areas relative to NAD 83 Combined Scale Factor: 0.99985058 Convergence Angle: 0.493001

☐ Horizontal Spacing Unit

District I

1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

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1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT

Proposed
AAPD Approval

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-49531	² Pool Code 96776	³ Pool Name JABALINA; WOLFCAMP, SOUTHWEST
⁴ Property Code 331689	⁵ Property Name COLOSSUS 18-19 WA FEDERAL COM	⁶ Well Number 1H
⁷ OGRID No. 372098	⁸ Operator Name MARATHON OIL PERMIAN LLC	⁹ Elevation 3258'

¹⁰ Surface Location

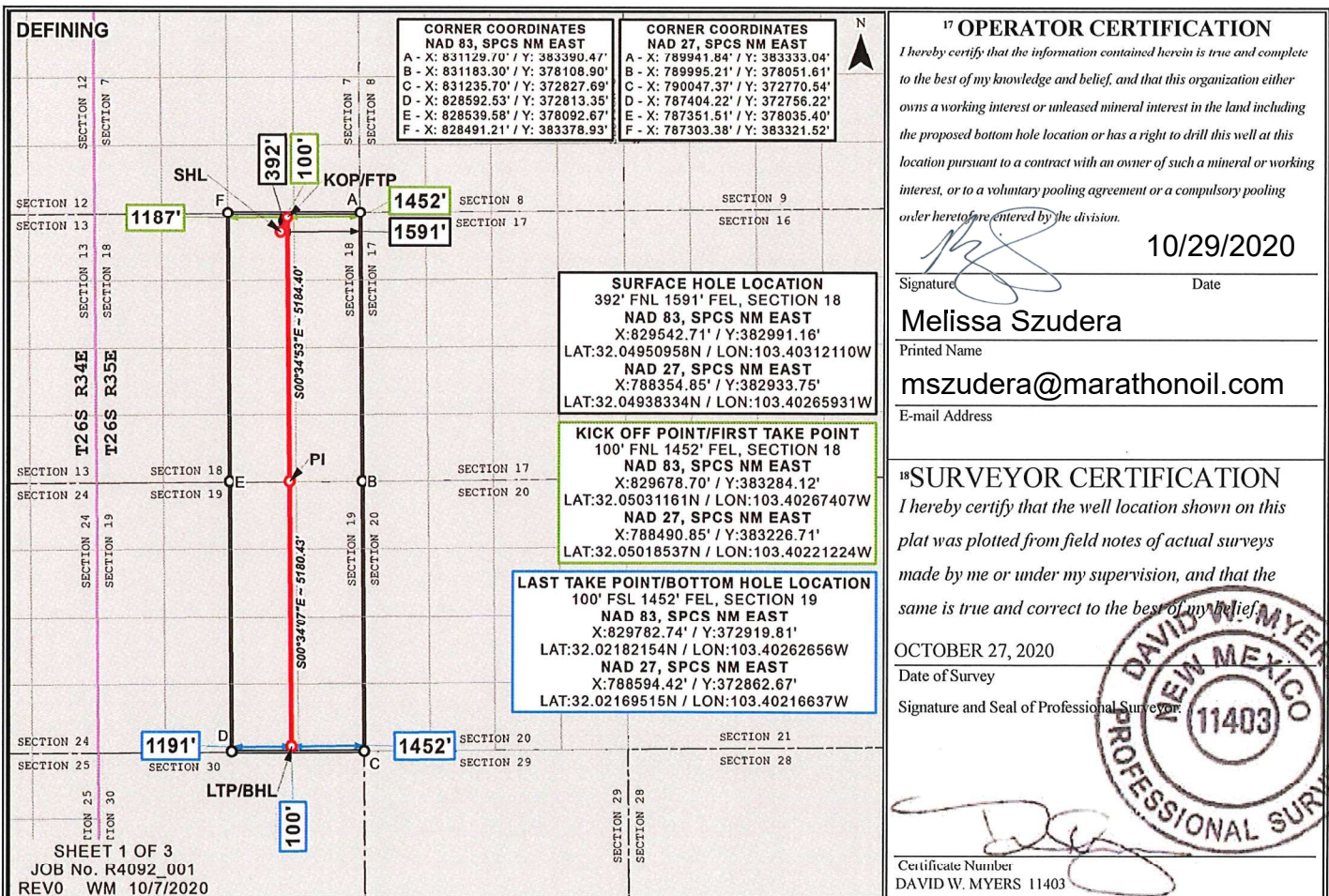
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	18	26S	35E		392	NORTH	1591	EAST	LEA

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	19	26S	35E		100	SOUTH	1452	EAST	LEA

¹² Dedicated Acres 640.0	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



Distances/areas relative to NAD 83 Combined Scale Factor: 0.99985058 Convergence Angle: 00°29'34.804"



Scale 1:1200 (1"=100') Imperial
Measured Depth Log

Well Name: Colossus Fed Com 18-19 1H
API: 30025495310000
Location: Lea Co., NM
License Number: 372098
Spud Date: 12/14/2022
Surface Coordinates: Lat (NAD 83): 32.04950958°
Long (NAD 83): -103.4031211°
Region: Southern
Drilling Completed: 3/7/2023
Bottom Hole Coordinates:
Ground Elevation (ft): 3,258' K.B. Elevation (ft): 3,283'
Logged Interval (ft): 1,357' To: 22,903' Total Depth (ft): 22,903'
Formation:
Type of Drilling Fluid: OBM (Invermul)

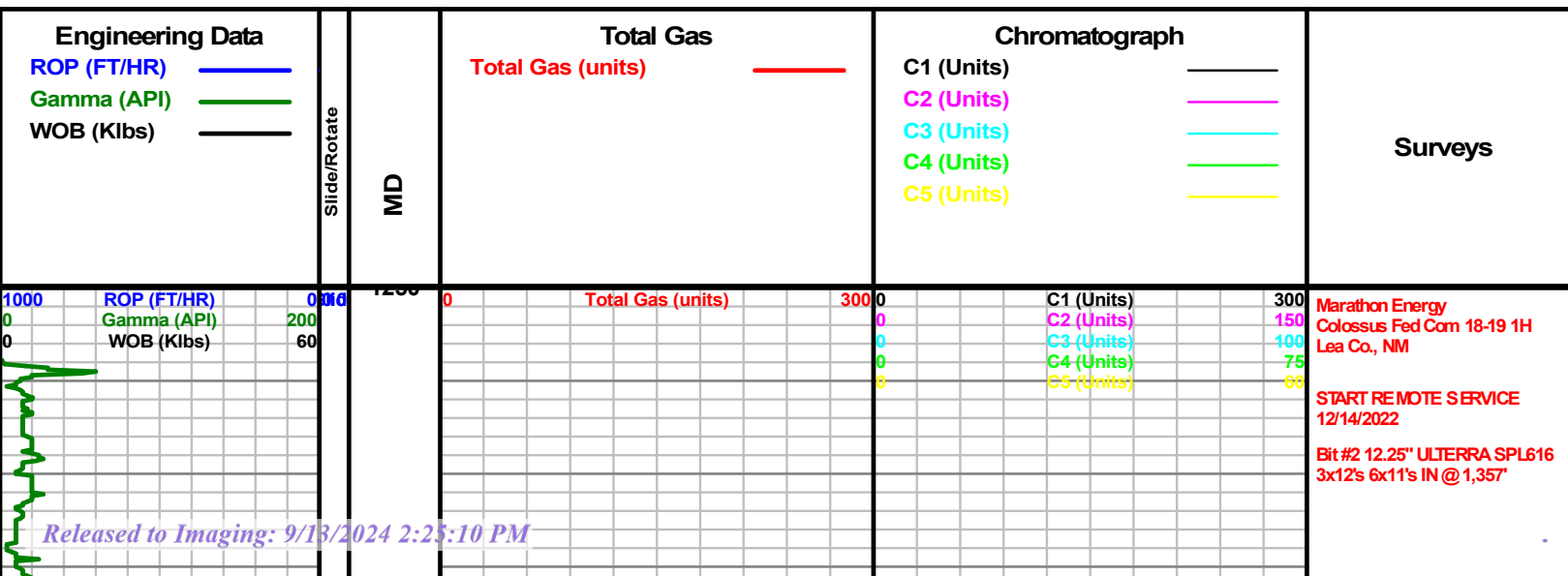
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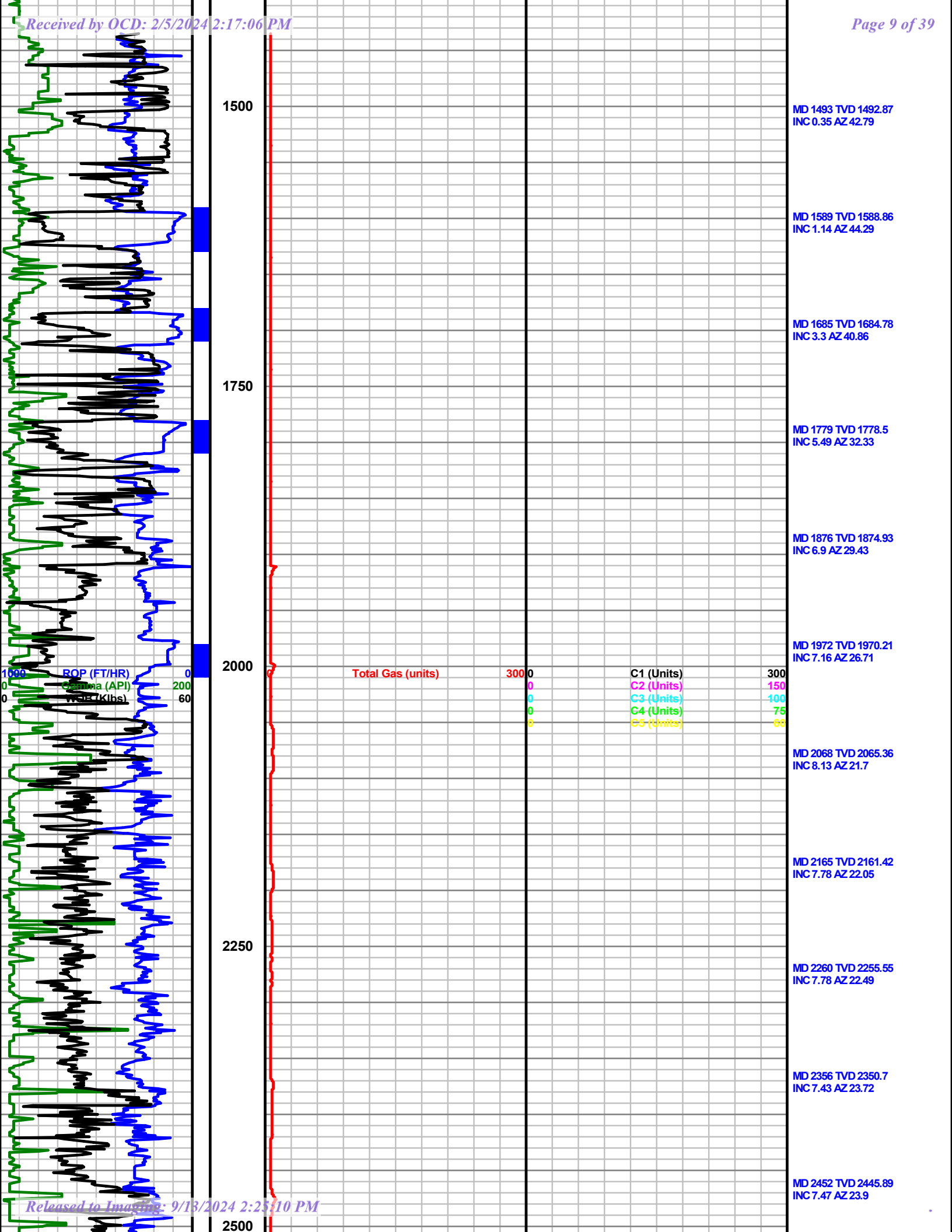
OPERATOR

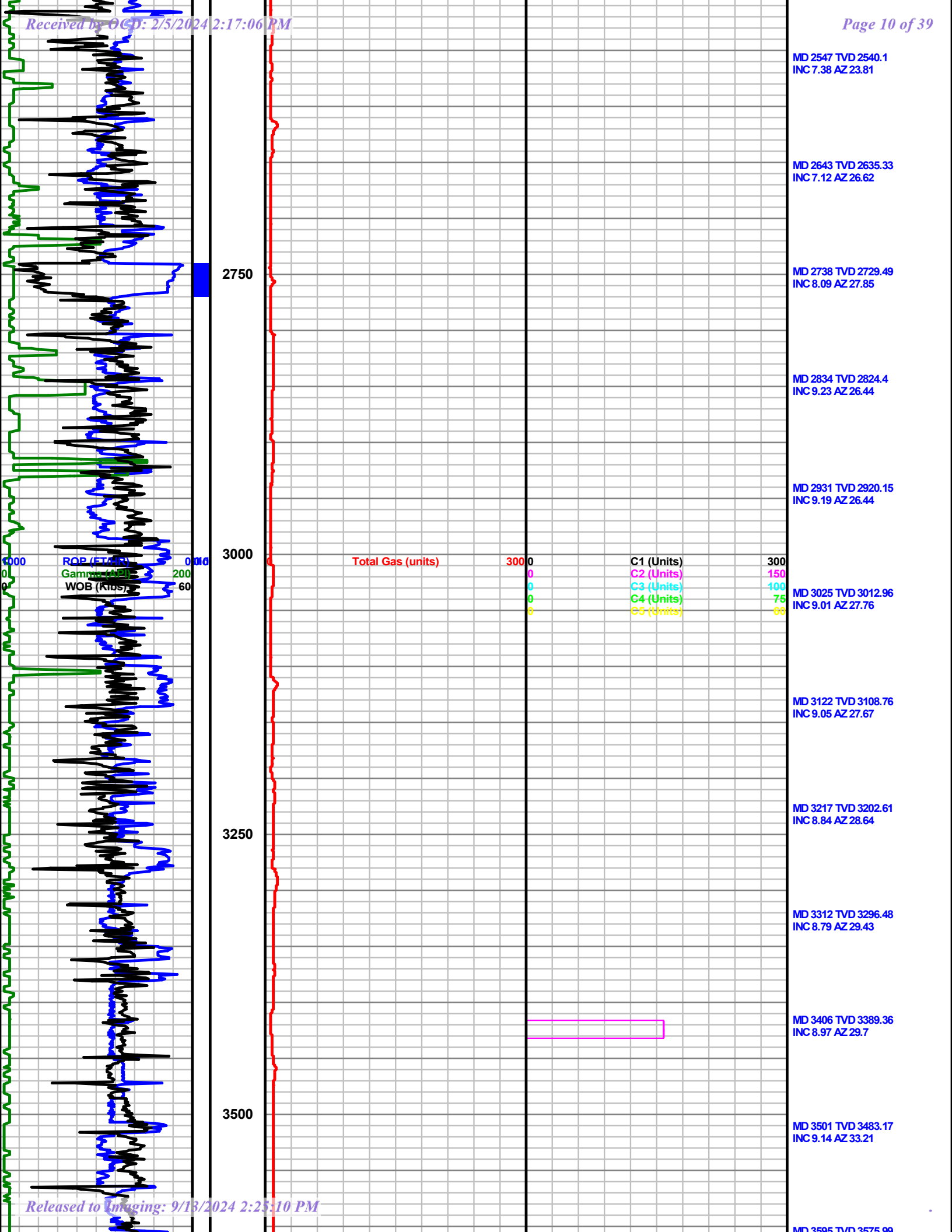
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Address: 4111 S TIDWELL RD
CARLSBAD, NM 88220

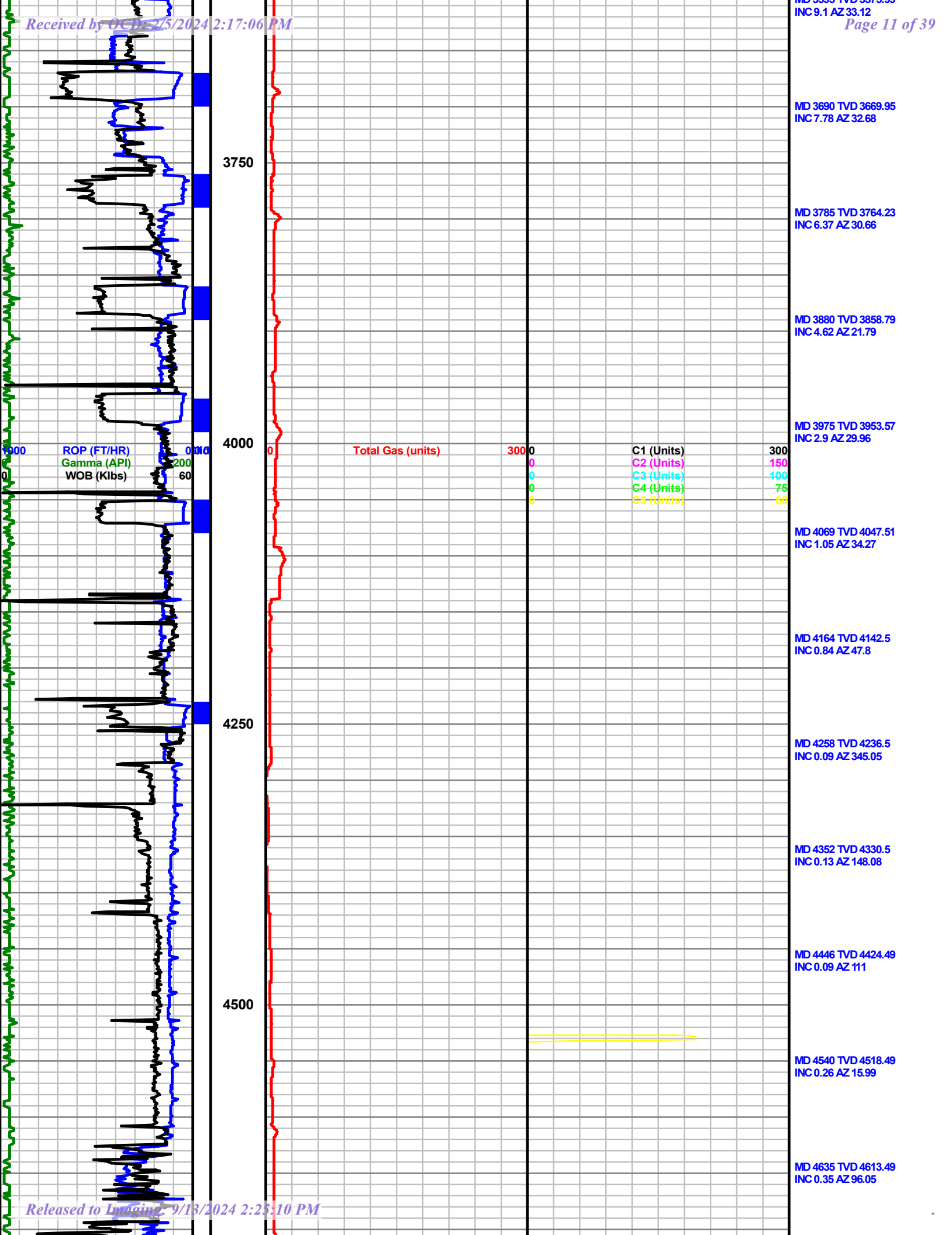
GEOLOGIST

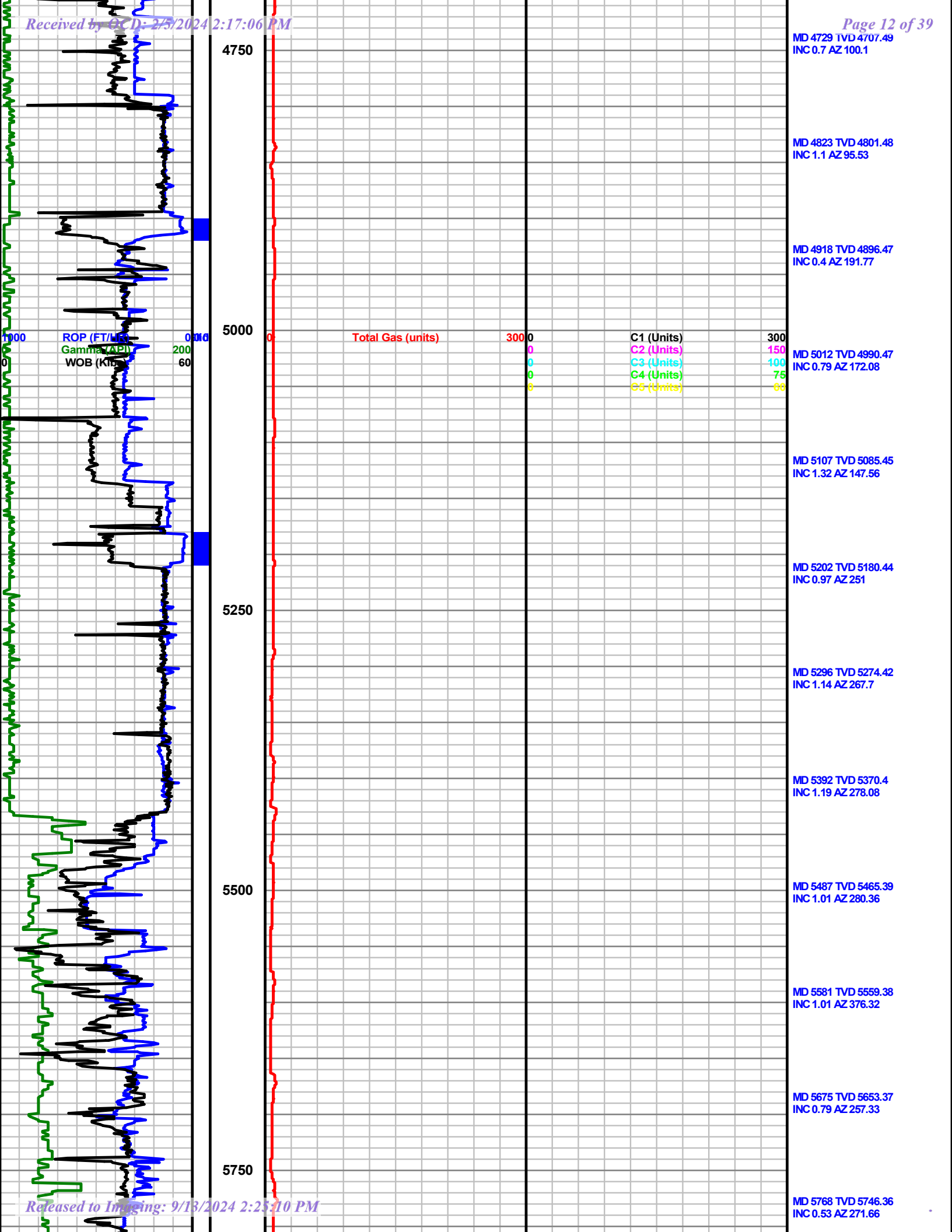
Name: Kirk Gilleran
Company: Marathon Energy
Address: 4111 S TIDWELL RD
CARLSBAD, NM 88220

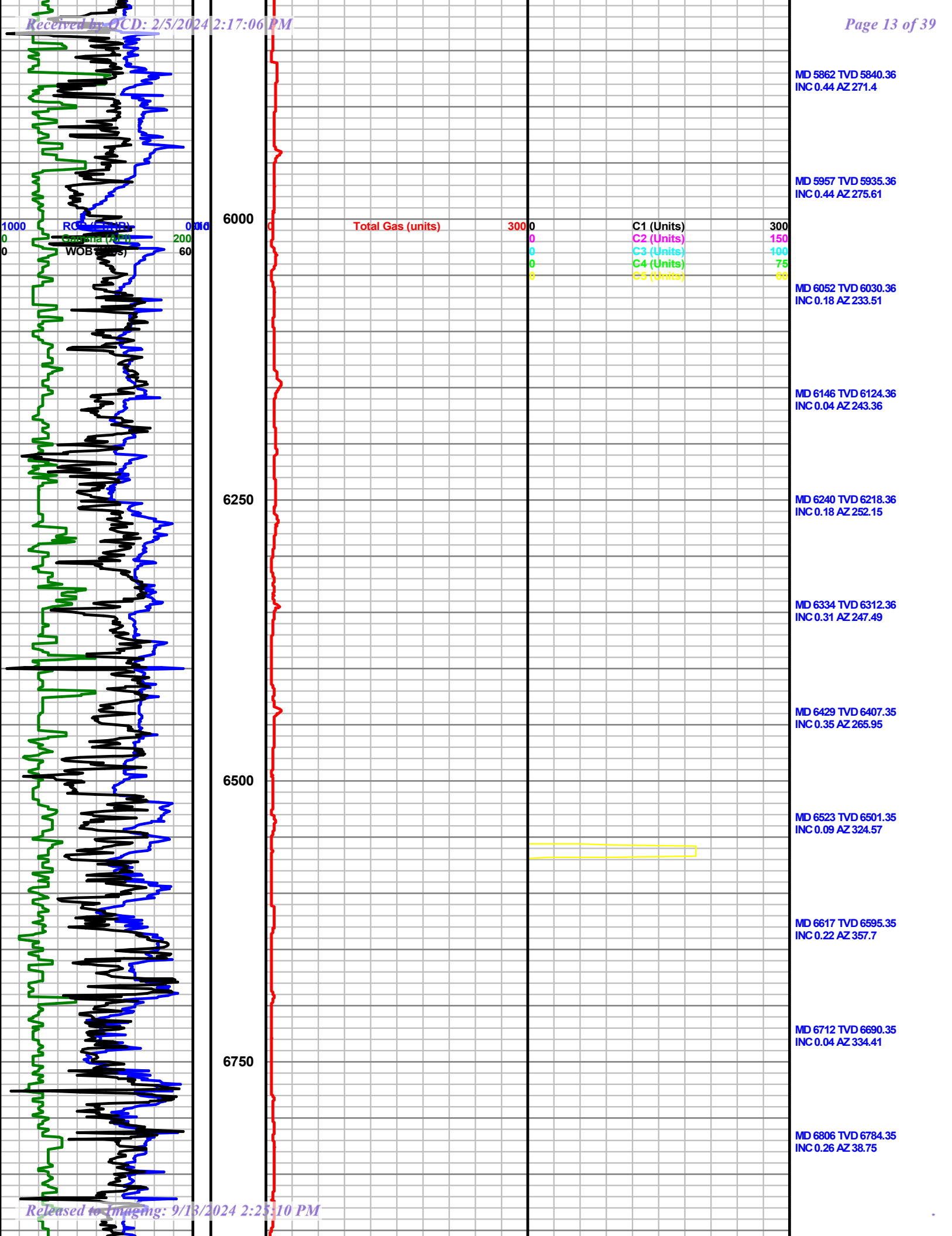


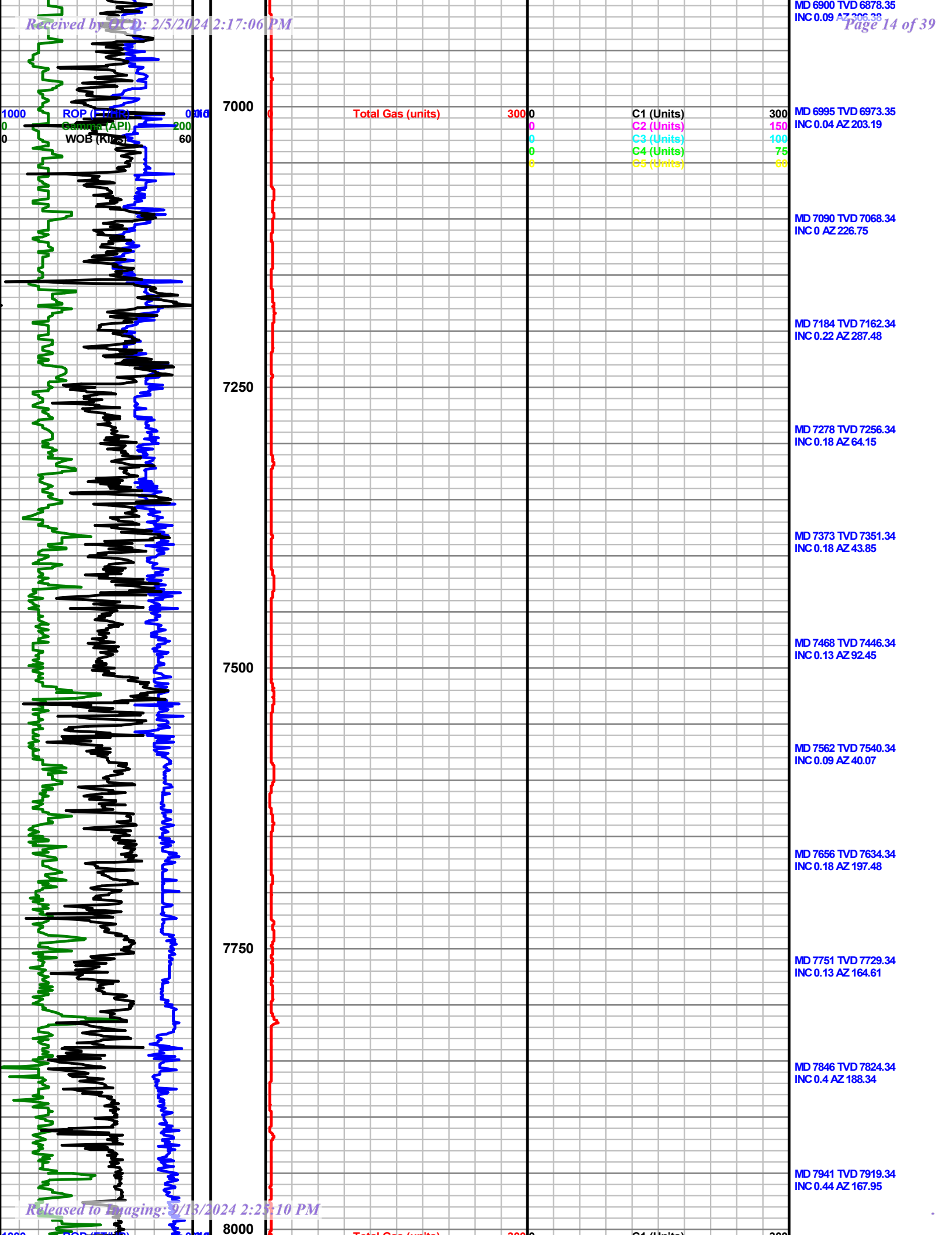


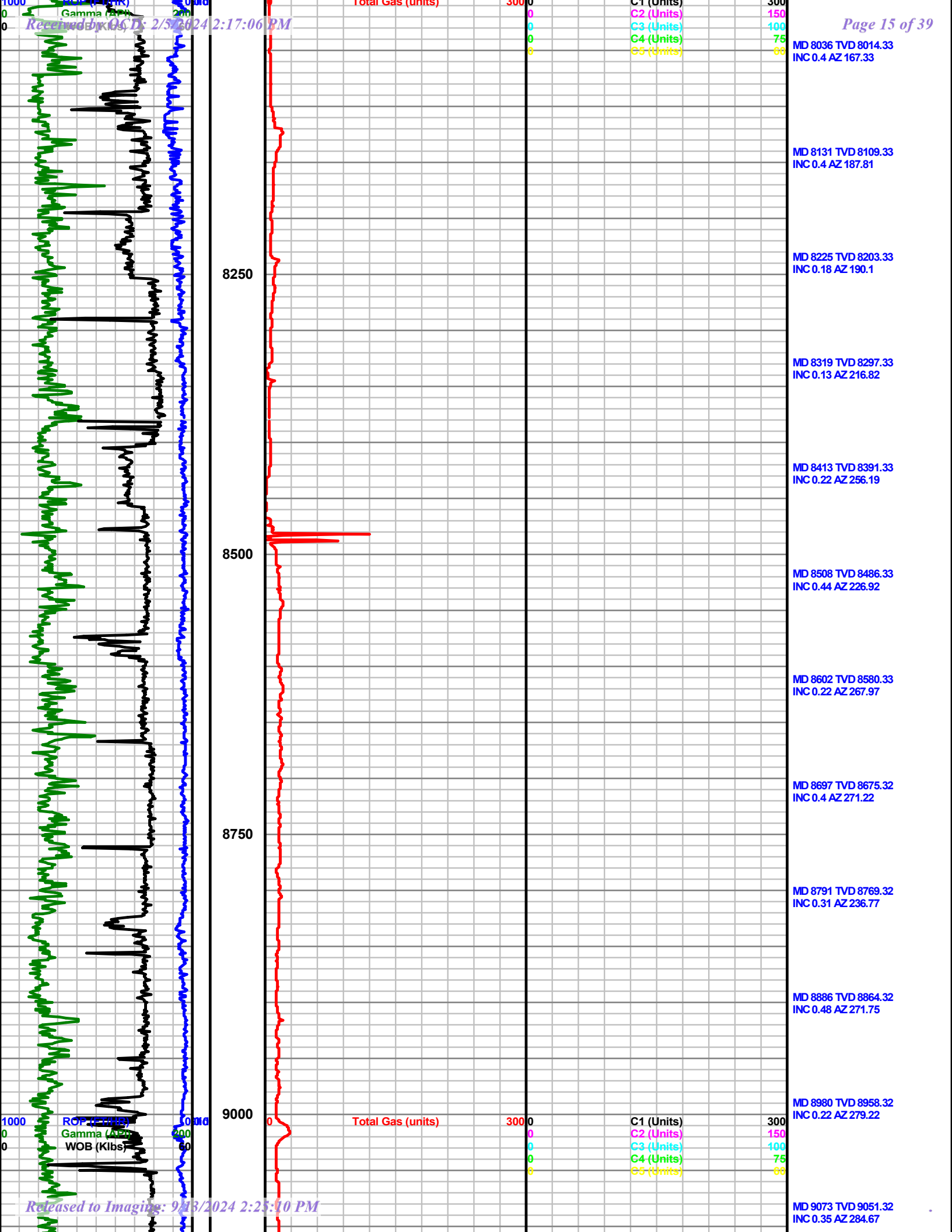






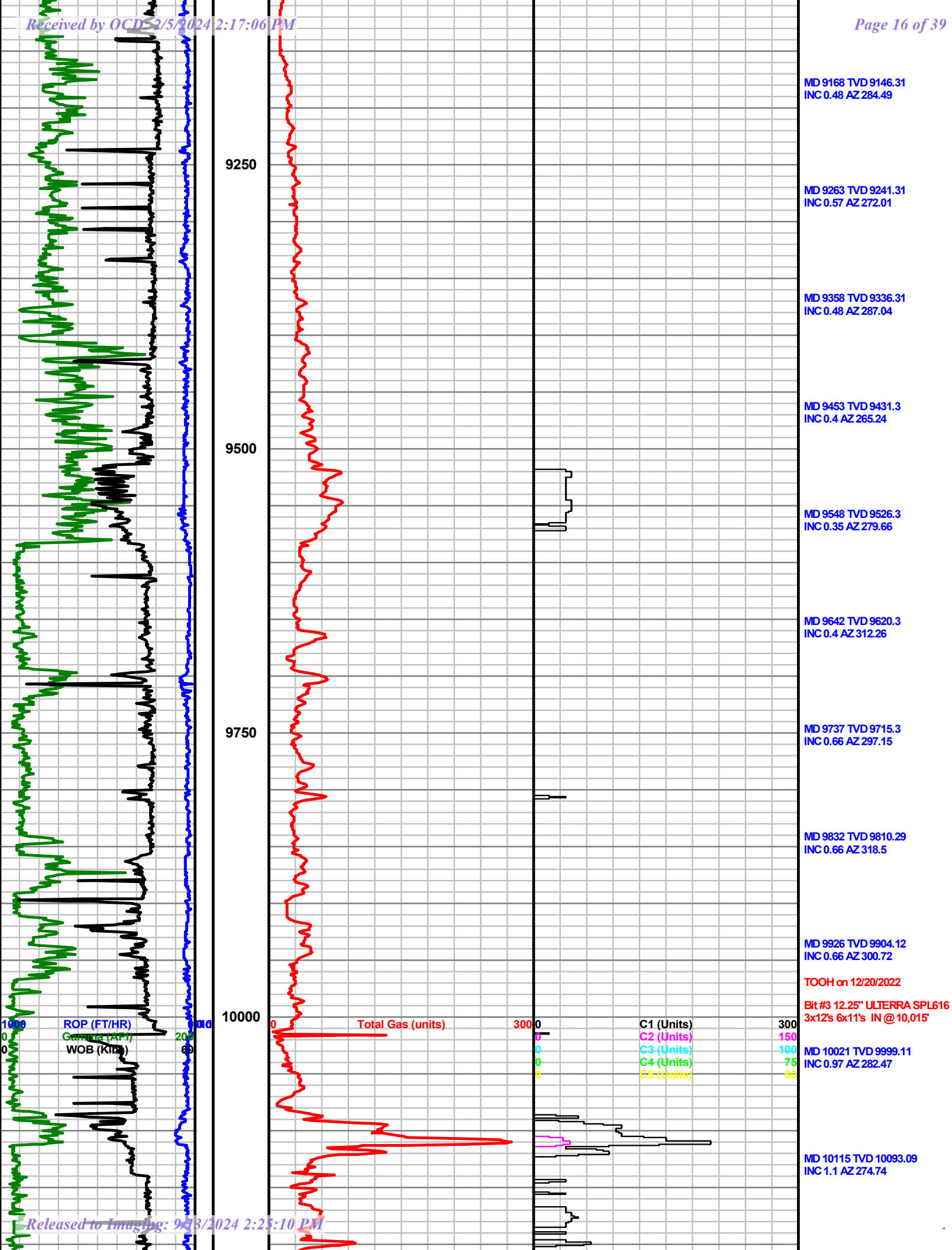


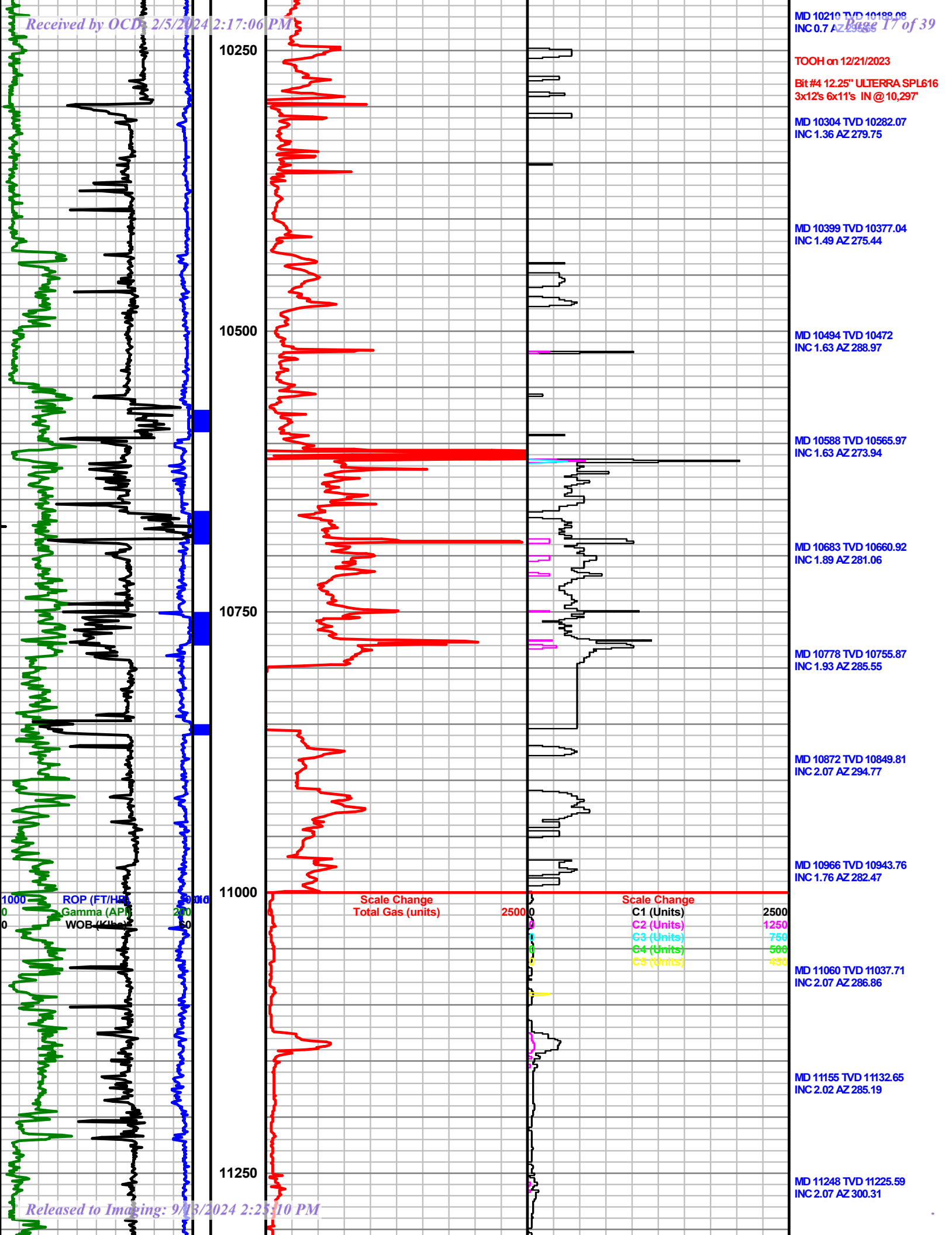


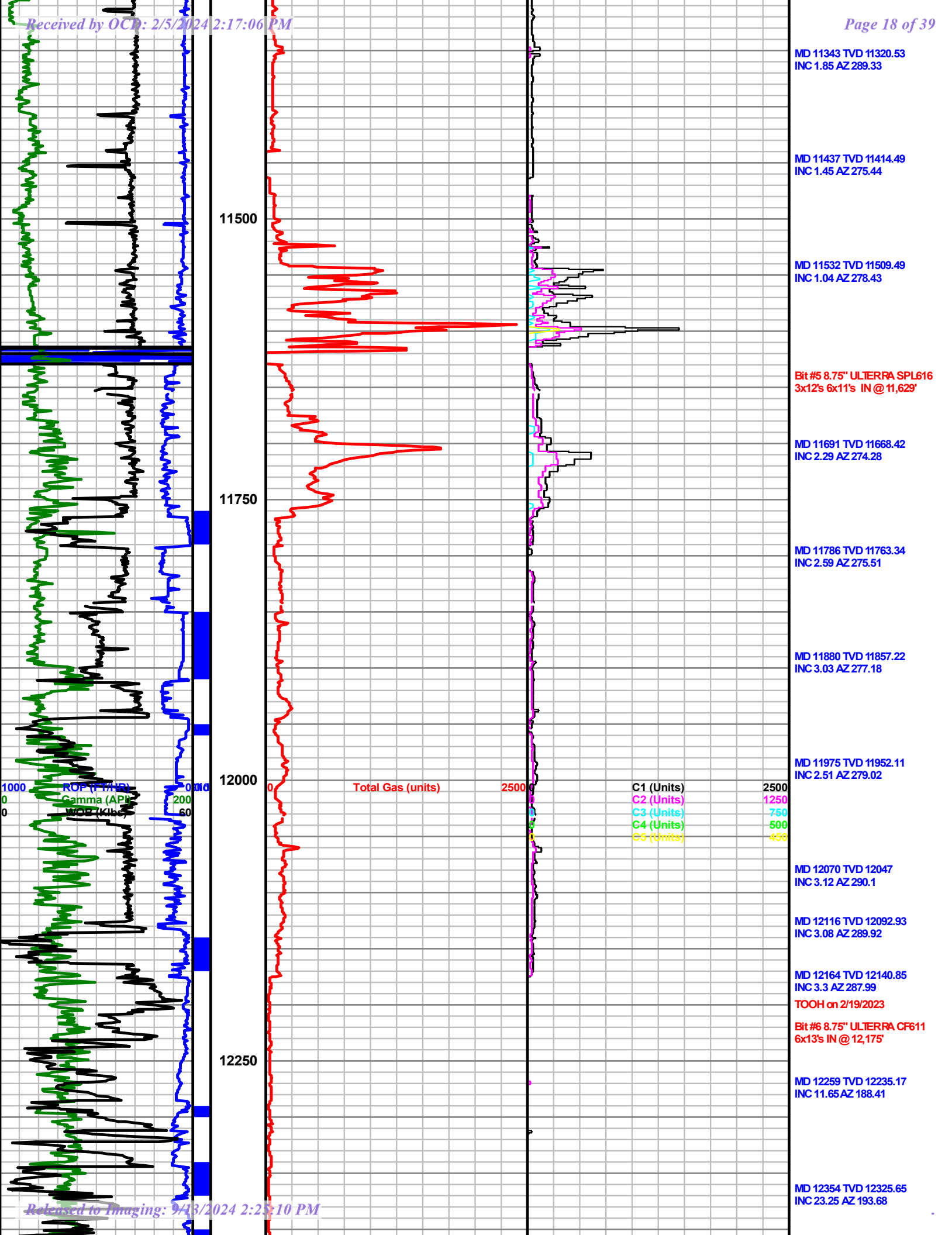


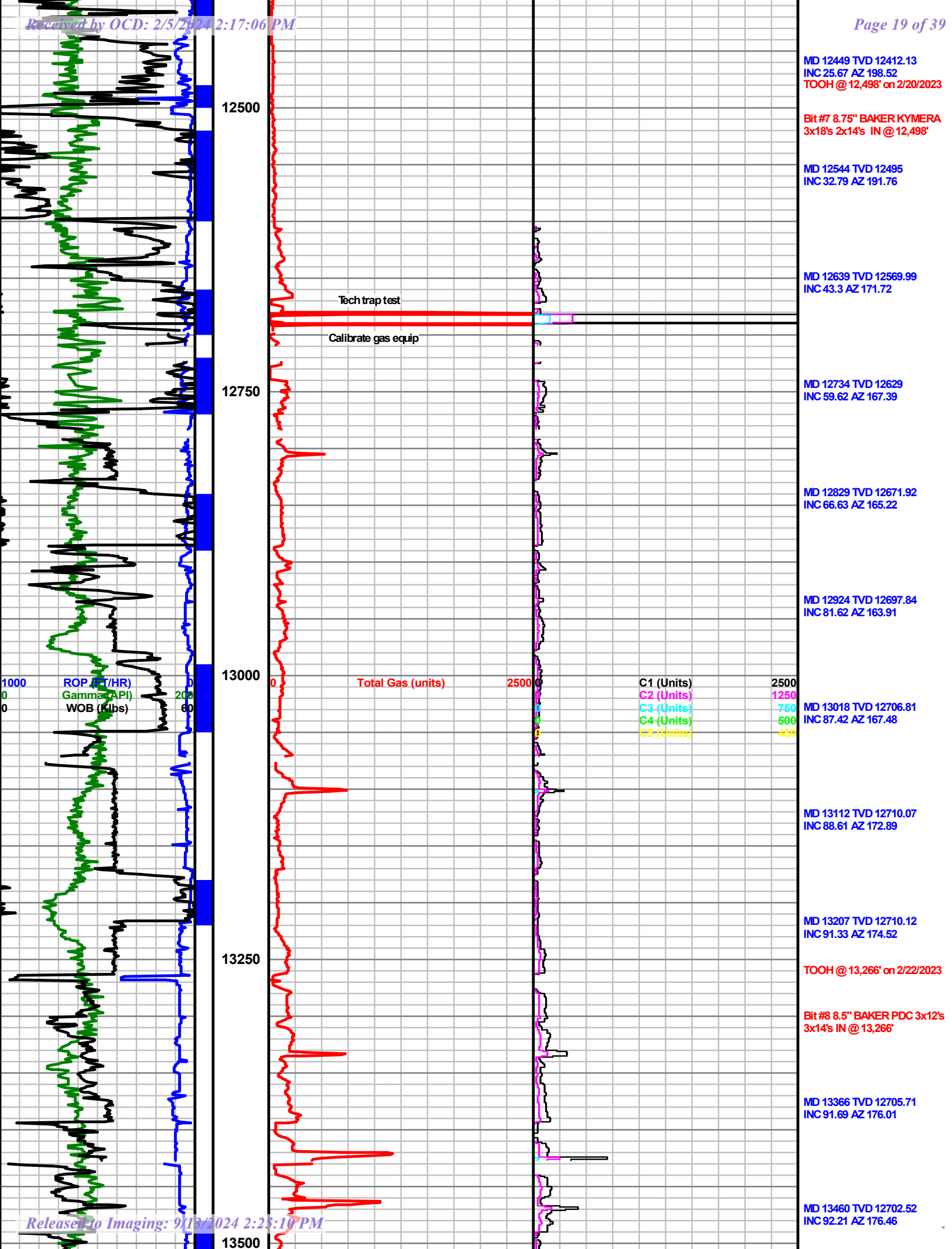
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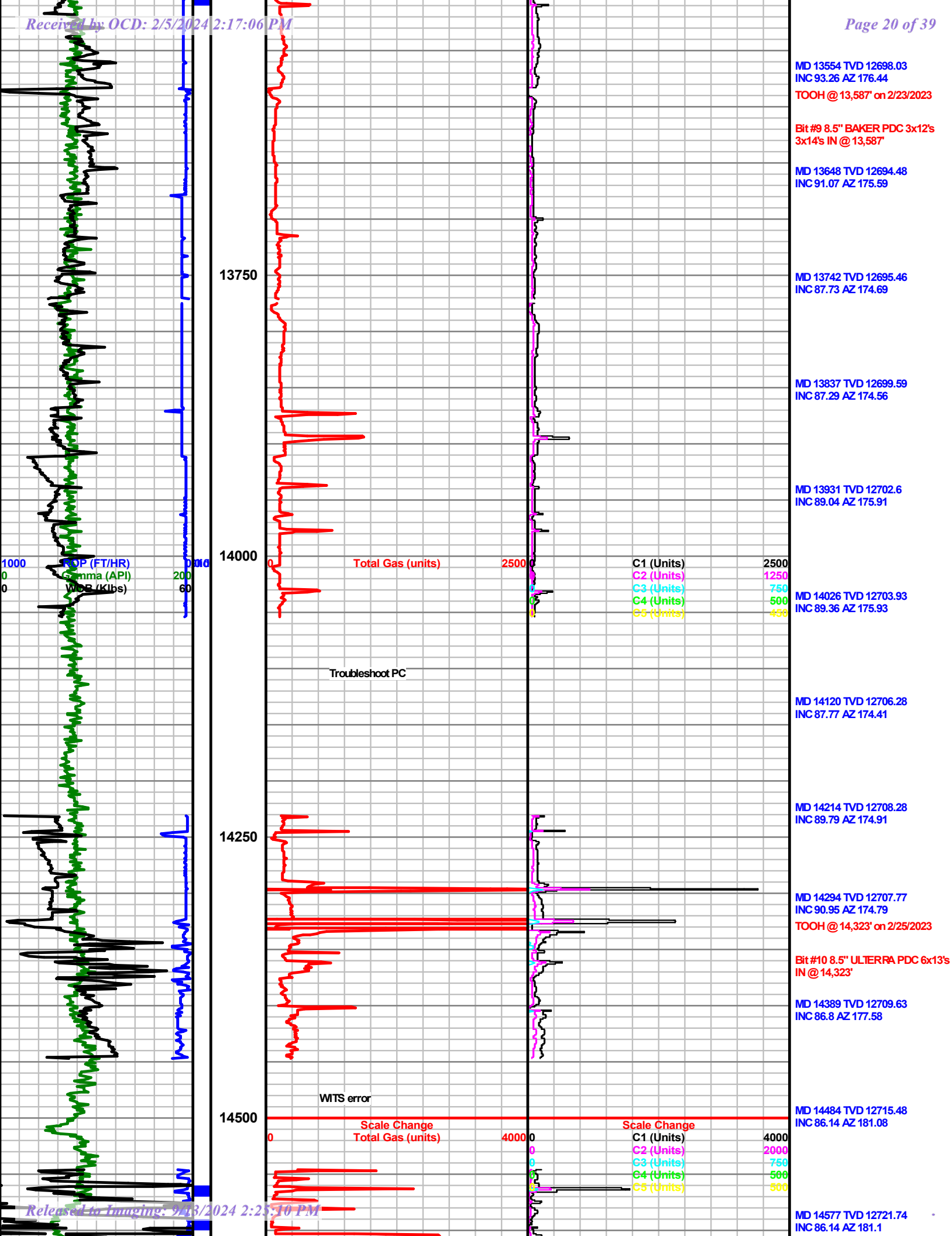
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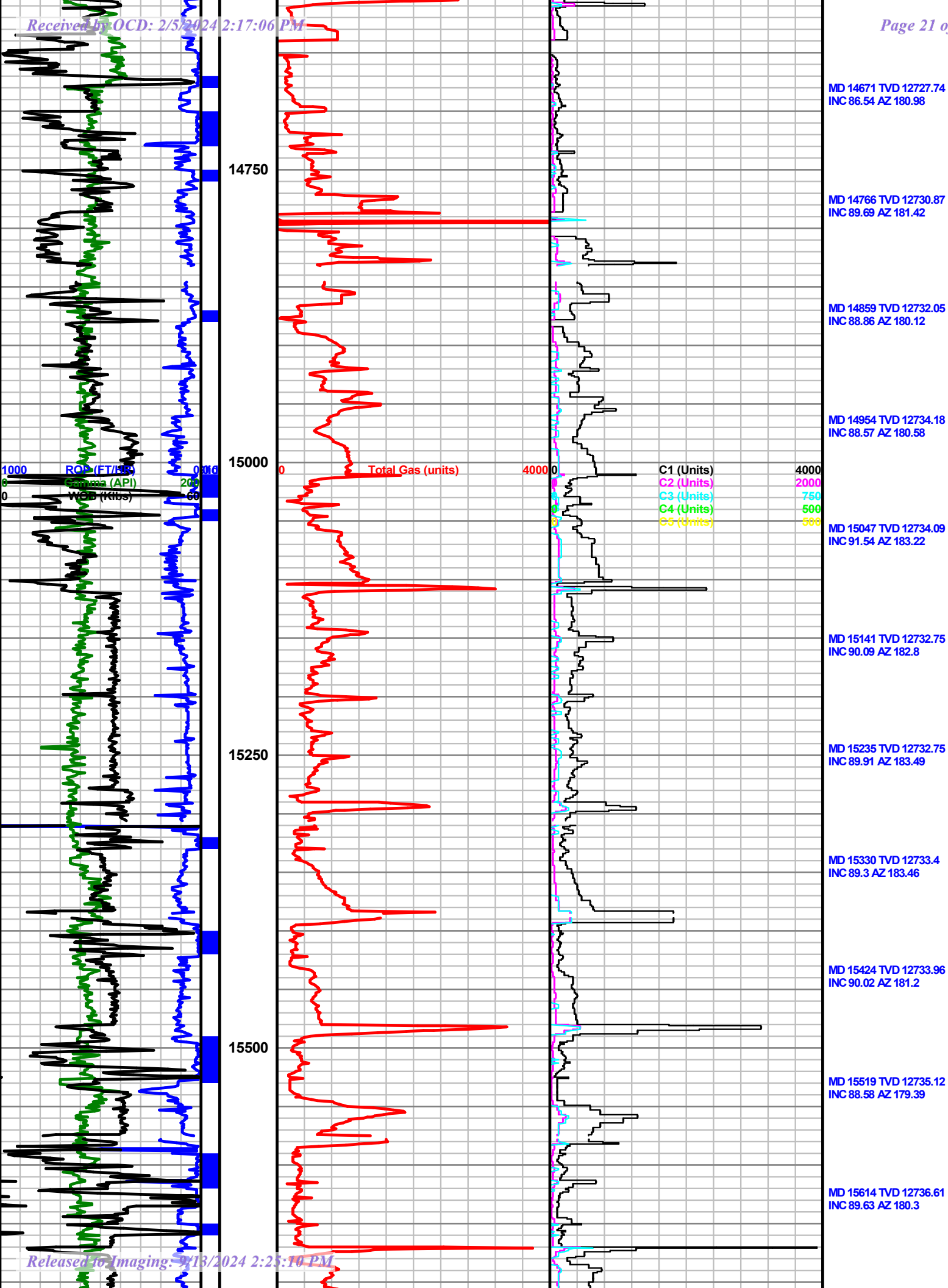












Bit #11 8.5" ULTERRA PDC 6x11's
3x10's in @ 15,786'

MD 15792 TVD 12737.91
INC 89.8 AZ 179.71

MD 15887 TVD 12736.34
INC 92.09 AZ 180.06

MD 15981 TVD 12733.06
INC 91.91 AZ 177.24

MD 16076 TVD 12729.61
INC 92.26 AZ 179.09

MD 16171 TVD 12726.7
INC 91.25 AZ 183.4

MD 16265 TVD 12725.01
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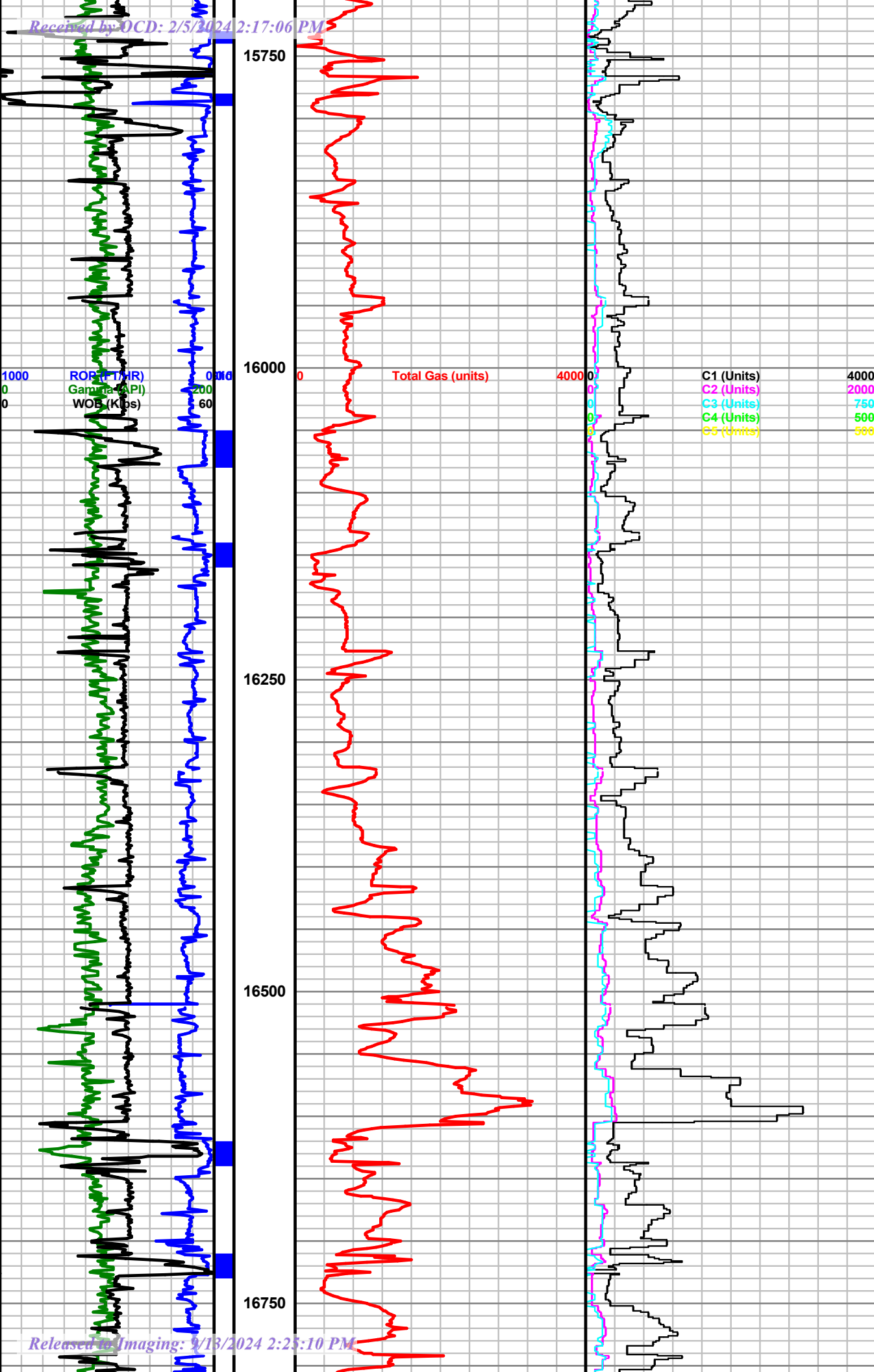
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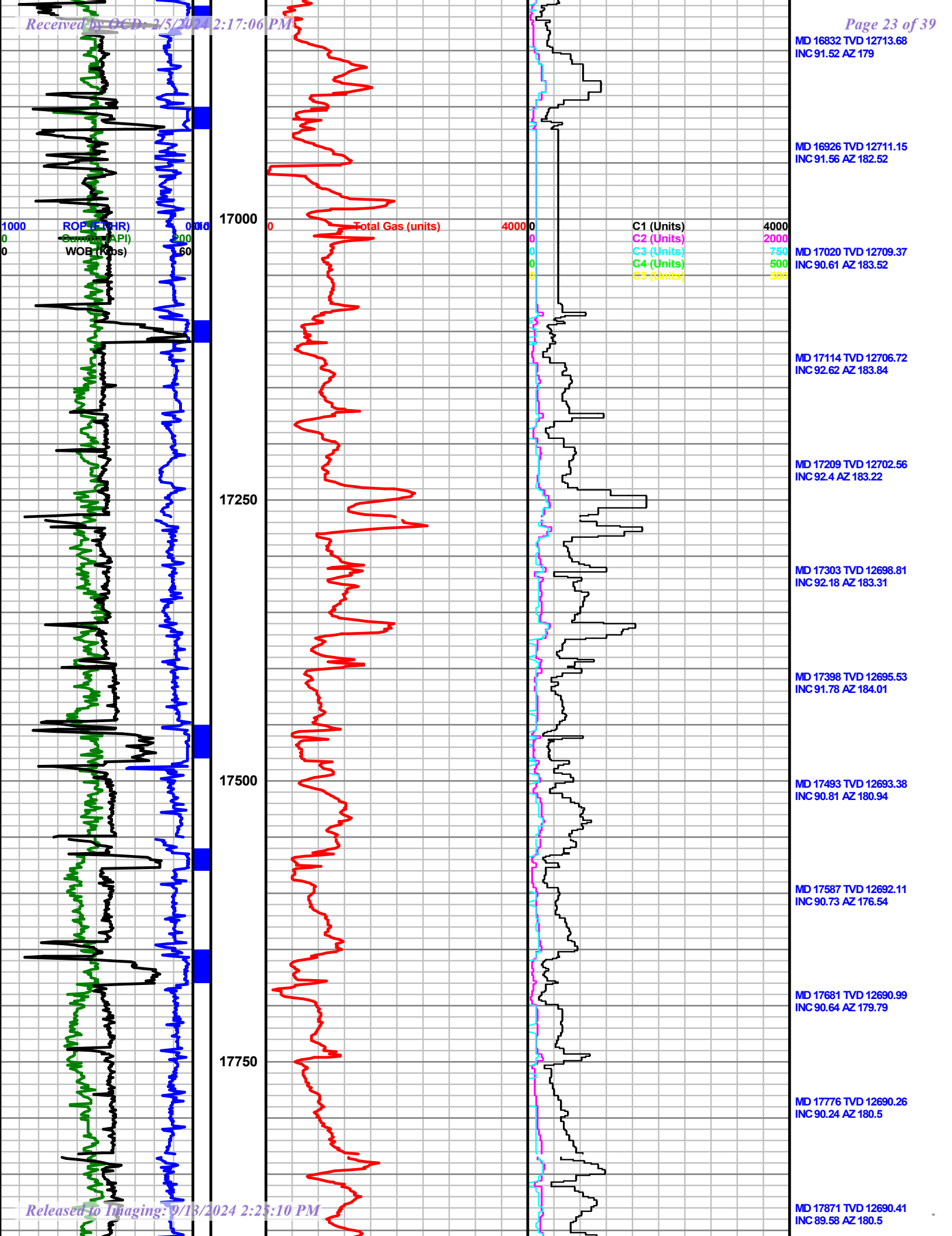
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INC 90.99 AZ 181.02

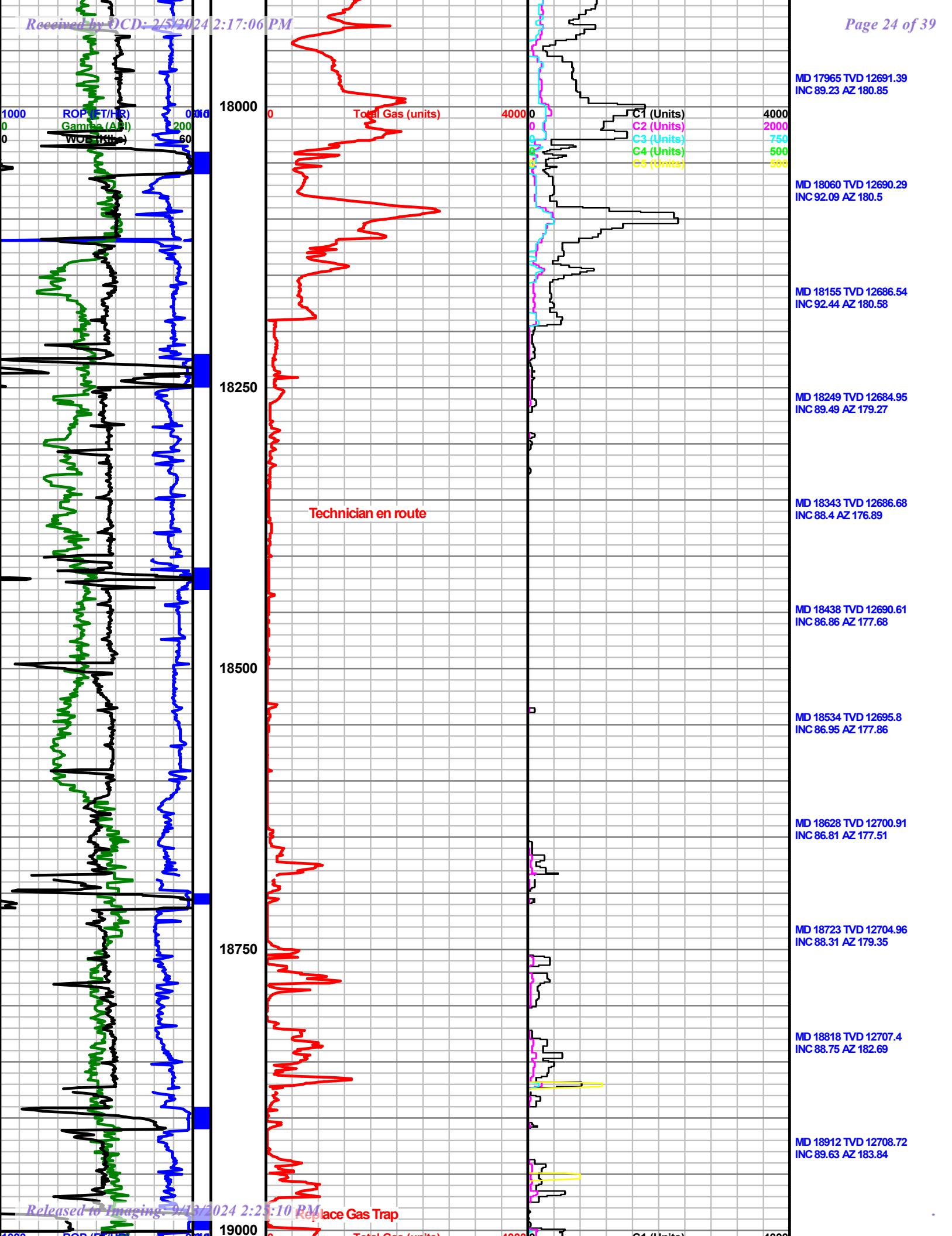
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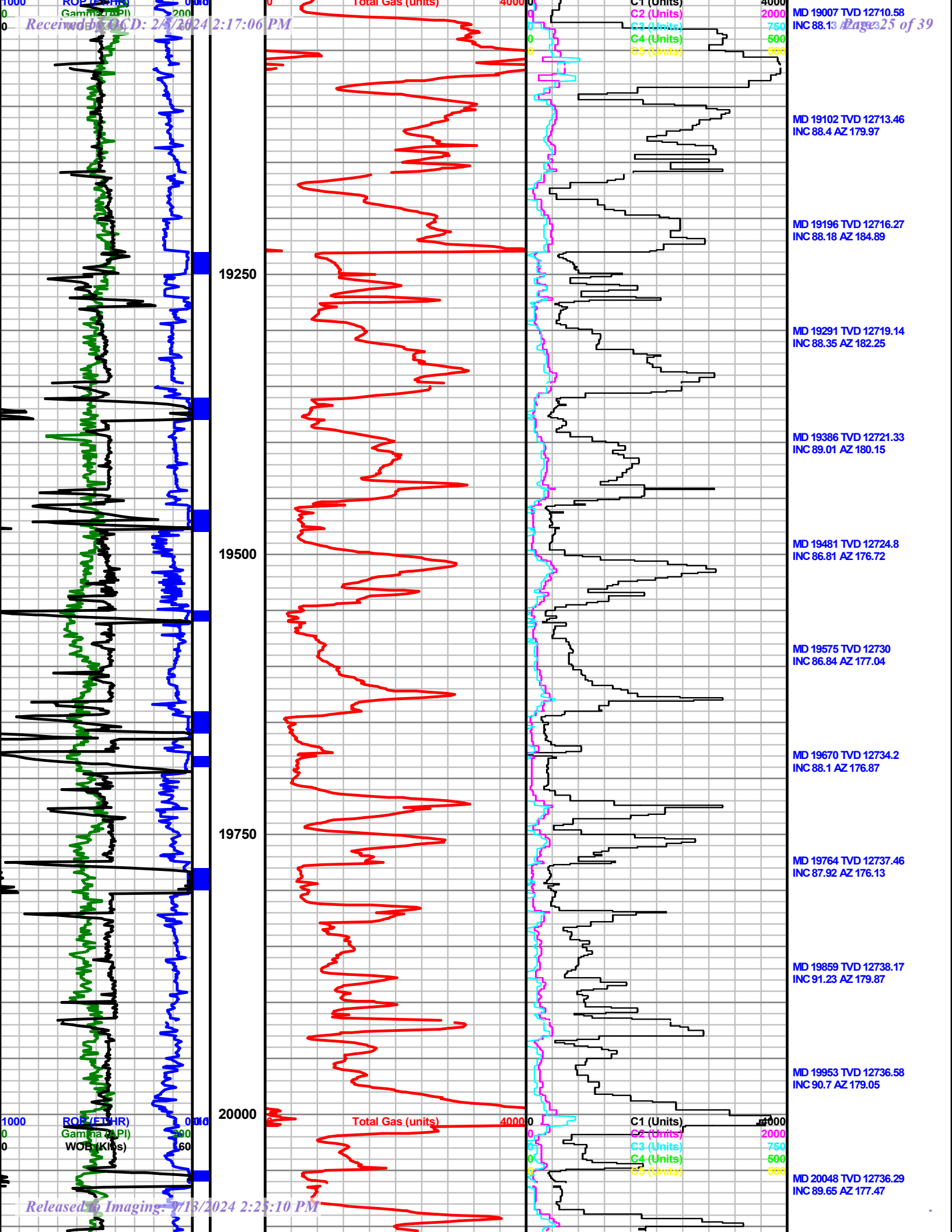
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INC 92.75 AZ 176.28

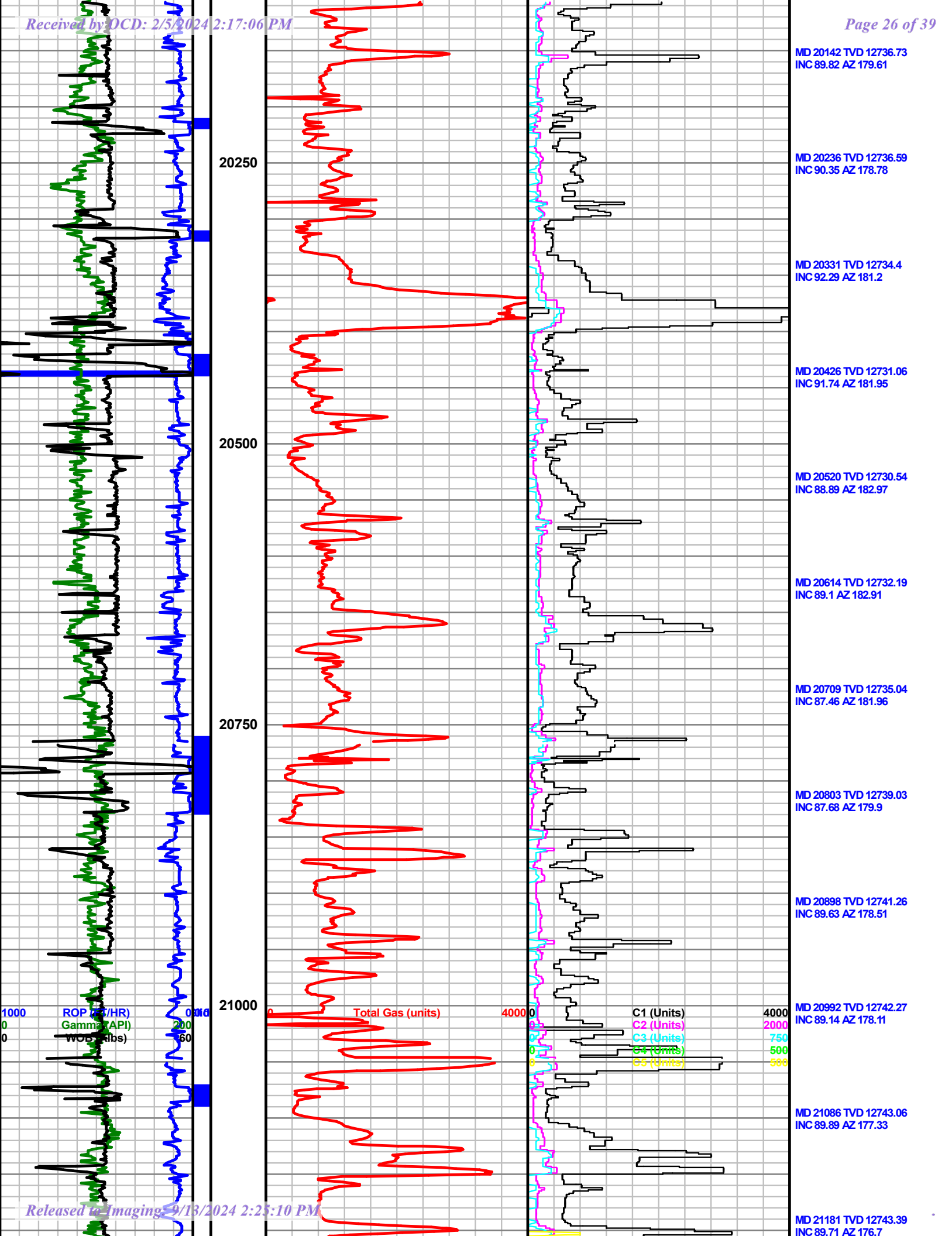
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INC 90.81 AZ 177.07

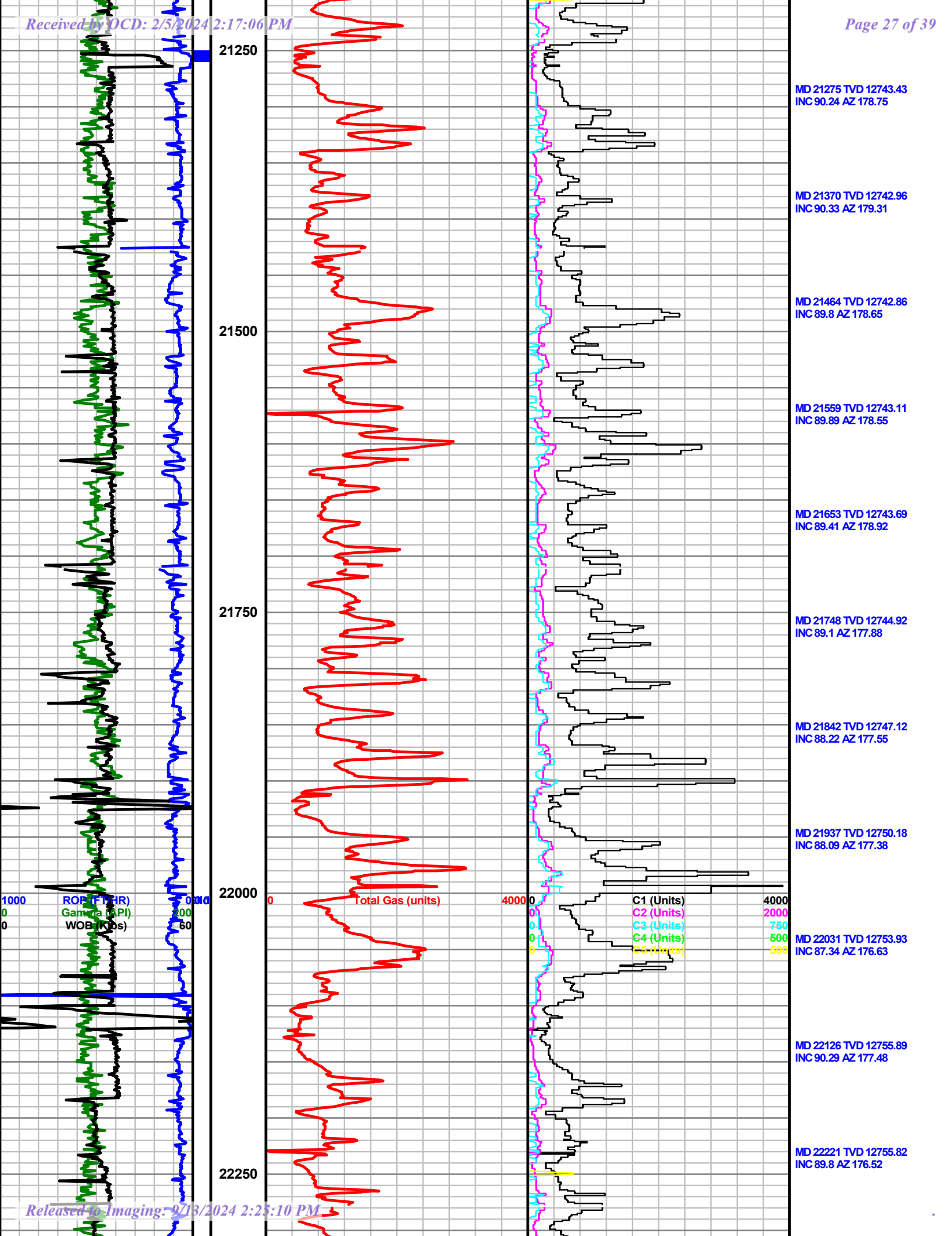


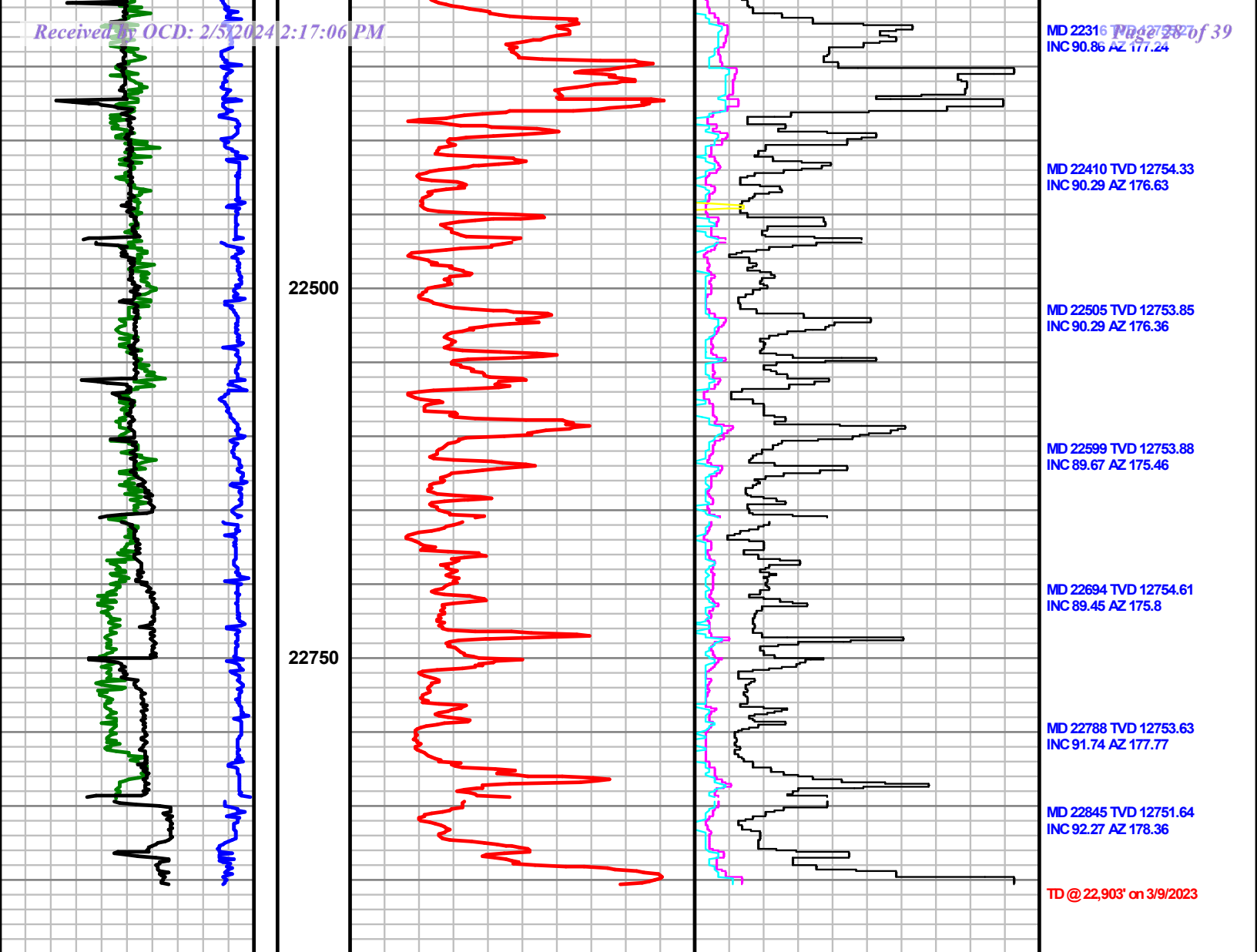














Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

WELL DETAILS: Colossus 18-19 WA Fed Com #1H					
+N/-S	+E/-W	GL @ 3258.00 Northing	Well @ 3281.50usft (Cactus 171) Easting	Latitude	Longitude
0.00	0.00	382933.73	788354.84	32° 2' 57.780 N	103° 24' 9.574 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Annotation
20236.00	90.35	178.78	12736.59	-7405.90	193.18	0.00	0.000	7407.46	Last Survey - 20236.00' MD
20295.00	90.35	178.78	12736.23	-7464.89	194.44	0.00	0.000	7466.45	PTB; Begin 2.00°/100' Drop & Turn
20497.31	90.27	174.73	12735.13	-7666.82	205.88	2.00	-91.068	7668.49	Continue 2.00°/100' Drop & Turn
20736.11	89.40	179.43	12735.81	-7905.24	218.03	2.00	100.543	7907.02	Hold 89.40° Inc; 179.43° Azm
22902.15	89.40	179.43	12758.49	-10071.06	239.58	0.00	0.000	10072.94	PBHL

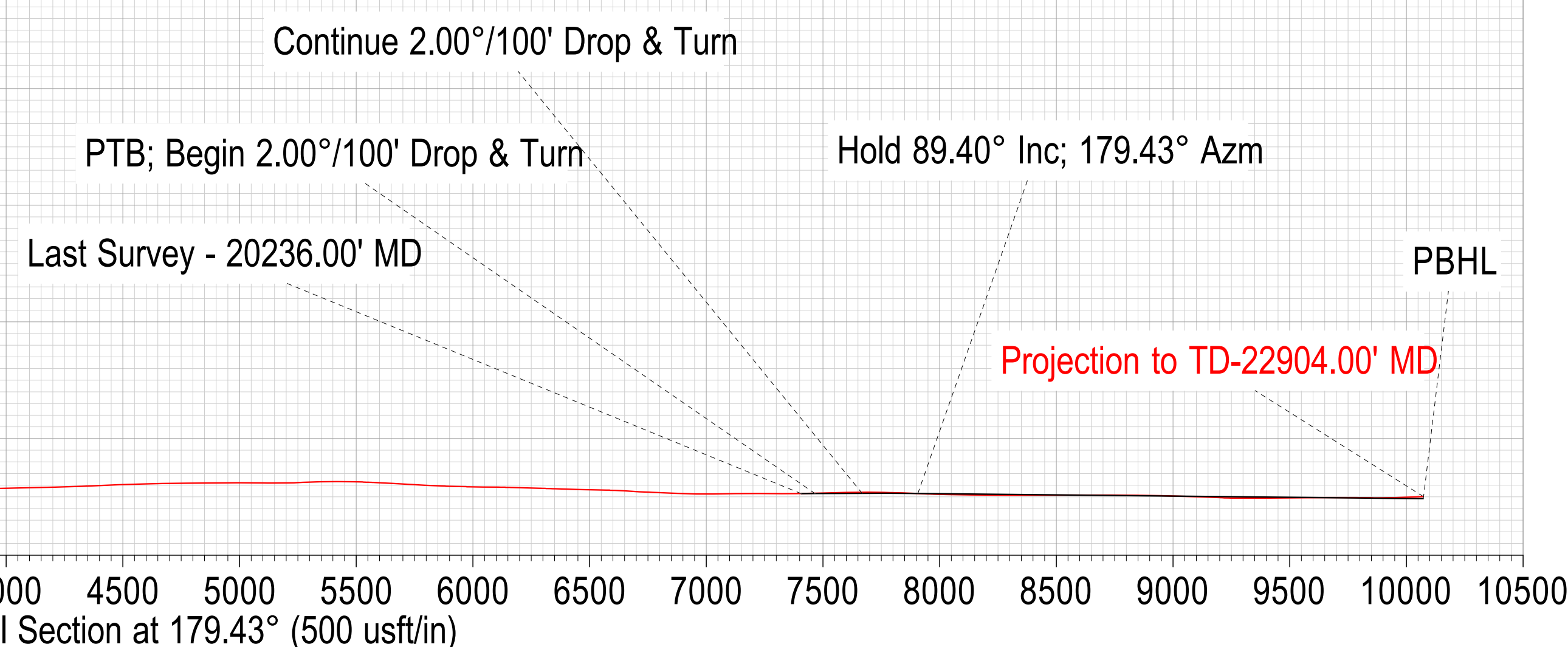
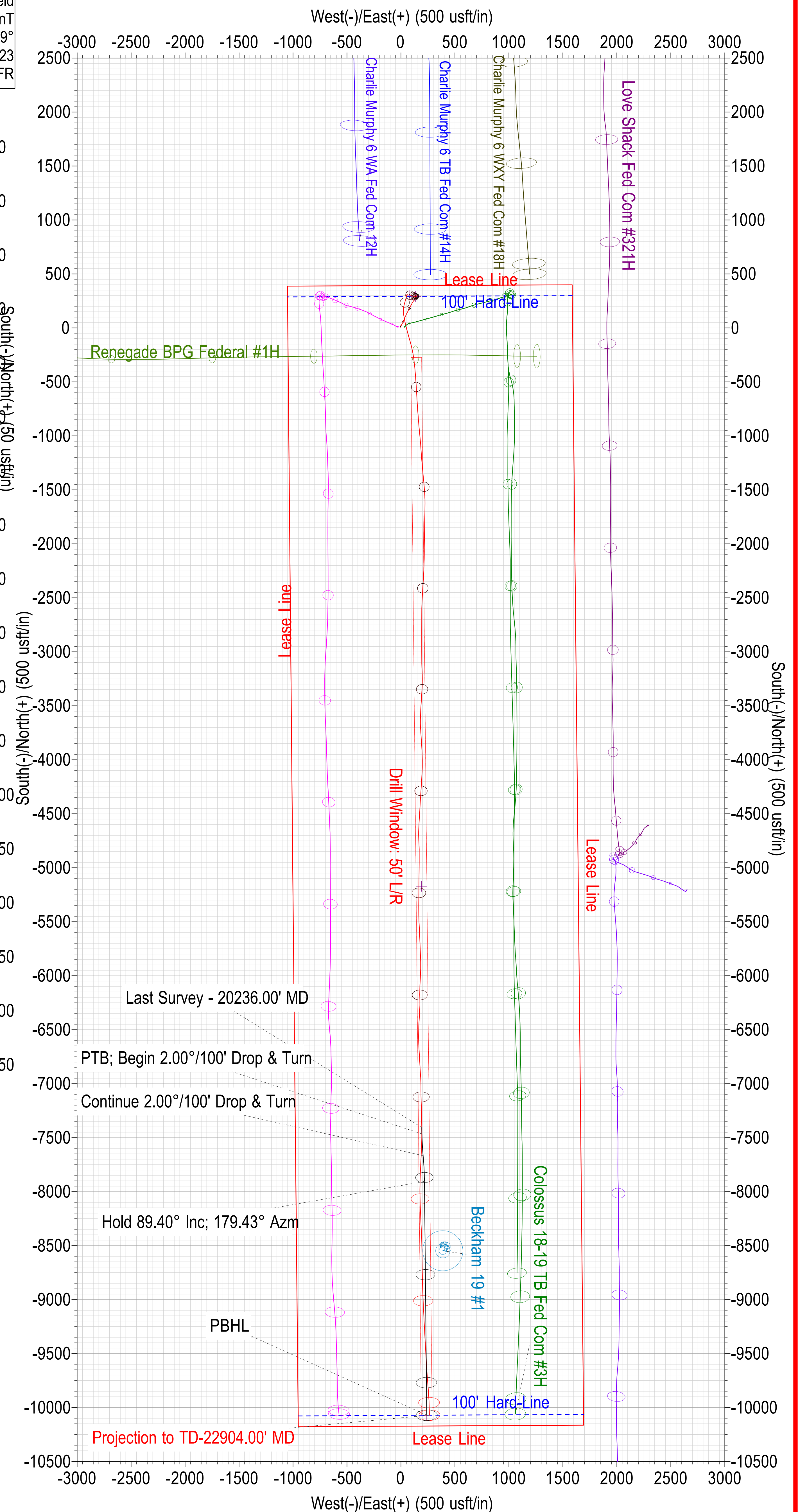
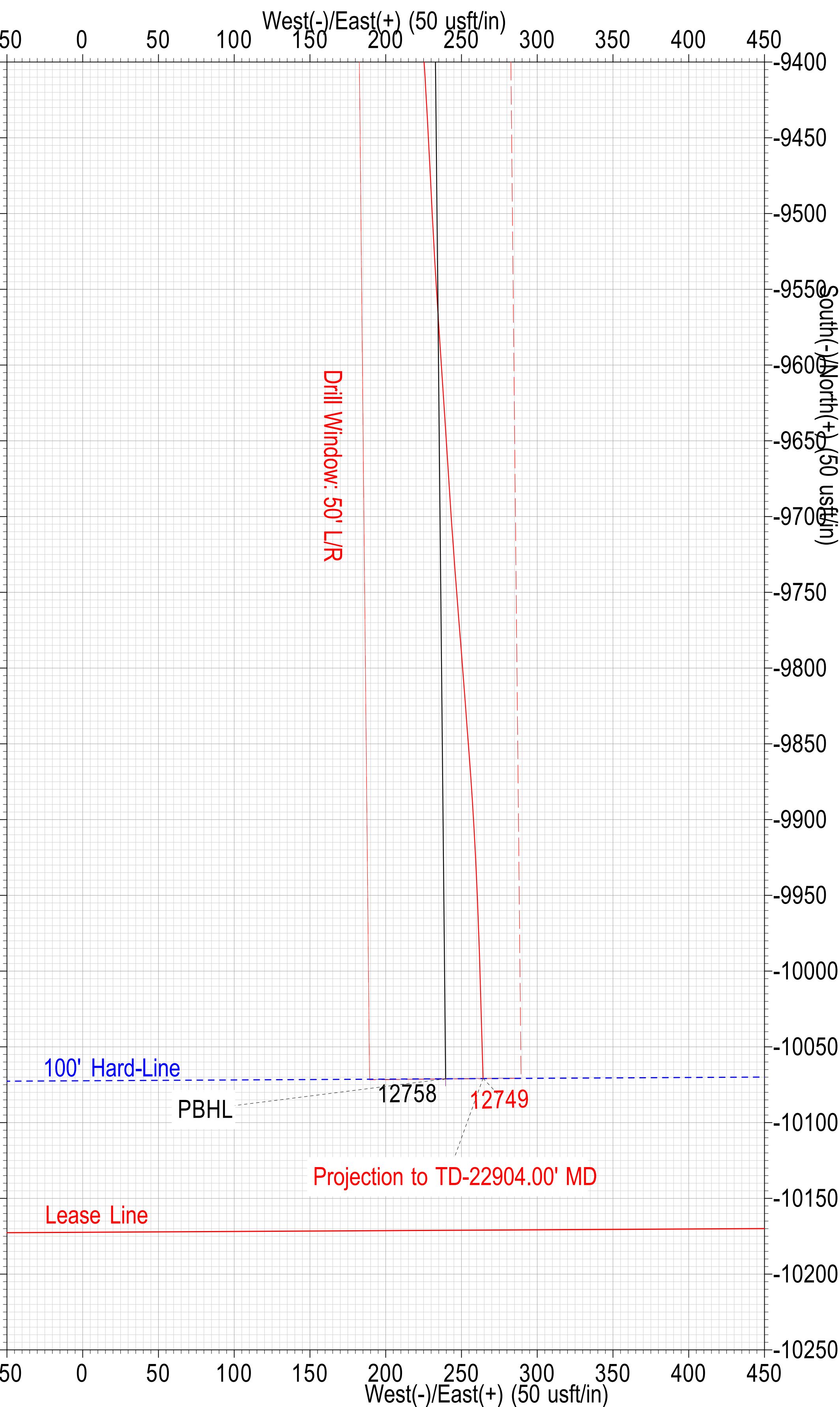
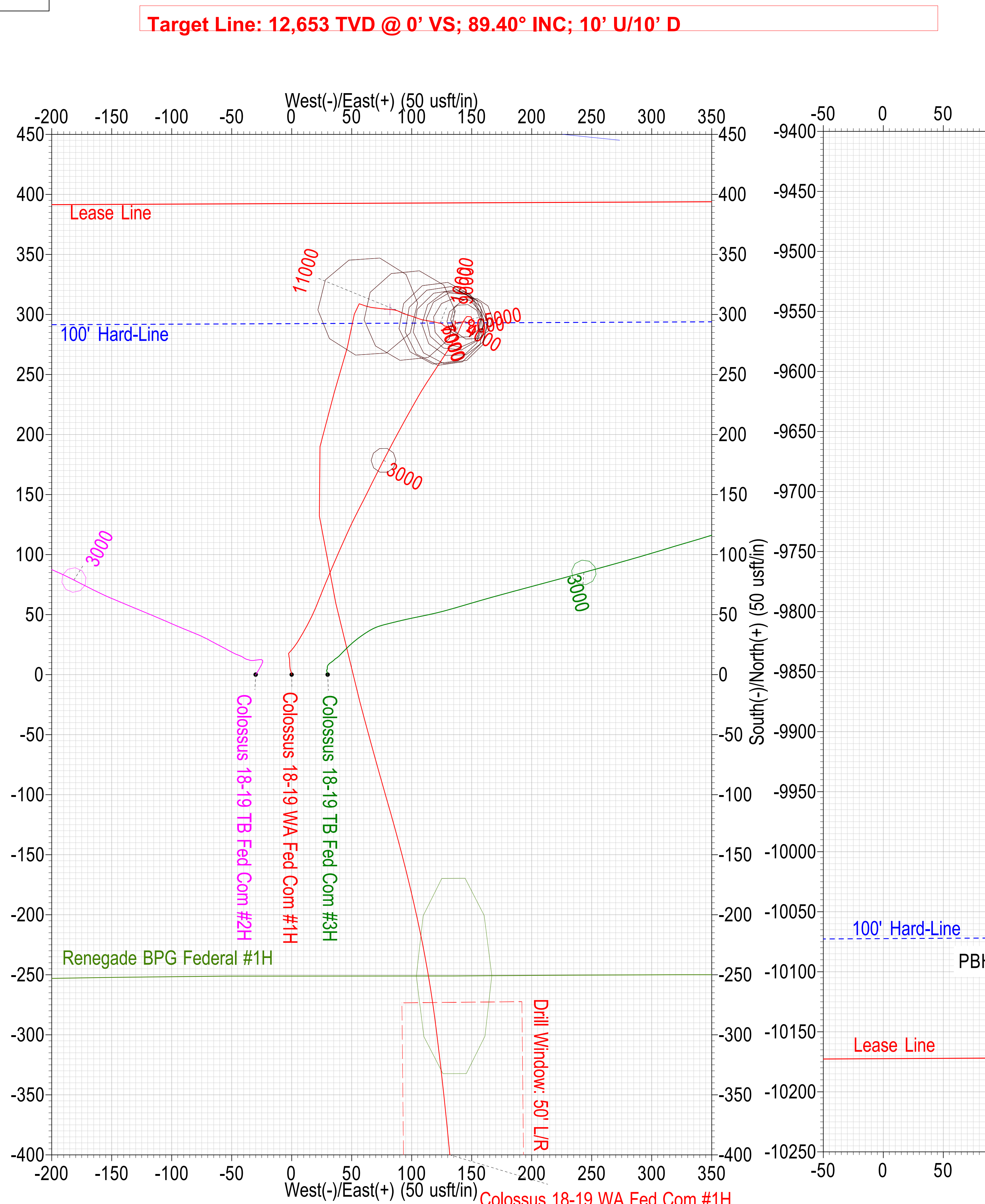
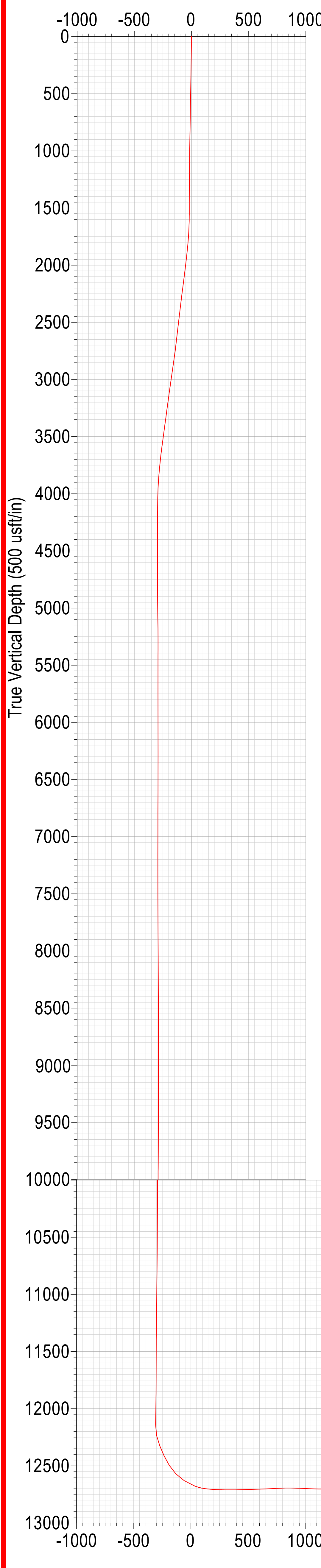
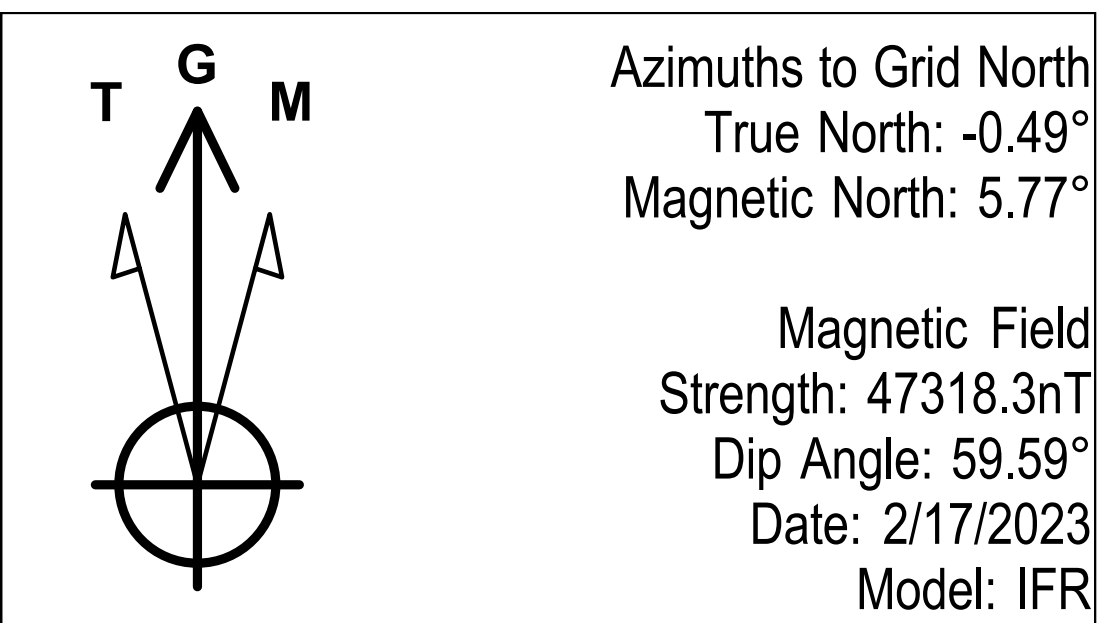
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
50' L/R Drill Window_C, 18-19 WA Fed Com #1H	12750.49	-5172.01	190.62	377761.72	788545.46	32° 2' 6.585 N	103° 24' 7.877 W
KOP_C, 18-19 WA Fed Com #1H	12233.97	304.29	81.94	383238.02	788436.78	32° 3' 0.784 N	103° 24' 8.591 W
LTP/PBHL v7_C, 18-19 WA Fed Com #1H	12758.49	-10071.06	239.58	372862.67	788594.42	32° 1' 18.103 N	103° 24' 7.799 W

SURVEY PROGRAM

Depth From	Depth To	Survey/Plan	Tool
224.00	20236.00	MS MWD + FDIR (Wellbore #1)	MWD+IFR1+FDIR
20236.00	22902.15	Design #7 (Wellbore #1)	MWD+IFR1+FDIR



To convert a Magnetic Direction to a Grid Direction, Add 5.771°
 To convert a Magnetic Direction to a True Direction, Add 6.265° East
 To convert a True Direction to a Grid Direction, Subtract 0.494°





Marathon Oil

Lea County, New Mexico (NAD 27)

Colossus Pad

Colossus 18-19 WA Fed Com #1H

Wellbore #1

Design: Surveys

Standard Survey Report

10 March, 2023





MS Directional Survey Report



Company:	Marathon Oil	Local Co-ordinate Reference:	Well Colossus 18-19 WA Fed Com #1H
Project:	Lea County, New Mexico (NAD 27)	TVD Reference:	Well @ 3281.50usft (Cactus 171)
Site:	Colossus Pad	MD Reference:	Well @ 3281.50usft (Cactus 171)
Well:	Colossus 18-19 WA Fed Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.15 Conroe DB

Project	Lea County, New Mexico (NAD 27)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Colossus Pad		
Site Position:		Northing:	382,933.75 usft
From:	Map	Easting:	788,354.84 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 2' 57.780 N
		Longitude:	103° 24' 9.574 W

Well	Colossus 18-19 WA Fed Com #1H		
Well Position	+N/-S	0.00 usft	Northing: 382,933.73 usft
	+E/-W	0.00 usft	Easting: 788,354.84 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
Grid Convergence:	0.494 °	Ground Level:	3,258.00 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination (°)
	IFR	11/20/2022	6.286
	IFR	2/17/2023	6.265
			Dip Angle (°)
			59.601
			59.593
			Field Strength (nT)
			47,342.90
			47,318.30

Design	Surveys		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.00	0.00	0.00
			Direction (°)
			179.43

Survey Program	Date 3/10/2023		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
224.00	22,904.00	MS MWD + FDIR (Wellbore #1)	MWD+IFR1+FDIR
			Description
			OWSG MWD + IFR1 + FDIR Correction

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
224.00	1.13	347.41	223.99	2.16	-0.48	-2.16	0.50	0.50	0.00	
314.00	0.98	338.85	313.97	3.74	-0.95	-3.75	0.24	-0.17	-9.51	
401.00	1.19	353.43	400.95	5.33	-1.32	-5.34	0.40	0.24	16.76	
497.00	1.12	358.14	496.94	7.26	-1.47	-7.27	0.12	-0.07	4.91	
589.00	1.08	351.69	588.92	9.02	-1.62	-9.03	0.14	-0.04	-7.01	
681.00	0.90	4.23	680.90	10.59	-1.70	-10.61	0.31	-0.20	13.63	
772.00	0.88	356.63	771.89	12.00	-1.68	-12.02	0.13	-0.02	-8.35	
955.00	0.79	341.71	954.87	14.61	-2.16	-14.63	0.13	-0.05	-8.15	



MS Directional Survey Report



Company:	Marathon Oil	Local Co-ordinate Reference:	Well Colossus 18-19 WA Fed Com #1H
Project:	Lea County, New Mexico (NAD 27)	TVD Reference:	Well @ 3281.50usft (Cactus 171)
Site:	Colossus Pad	MD Reference:	Well @ 3281.50usft (Cactus 171)
Well:	Colossus 18-19 WA Fed Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.15 Conroe DB

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
1,046.00	0.72	6.10	1,045.87	15.77	-2.30	-15.79	0.36	-0.08	26.80	
1,136.00	0.56	336.70	1,135.86	16.74	-2.41	-16.76	0.40	-0.18	-32.67	
1,226.00	0.37	358.40	1,225.86	17.43	-2.59	-17.45	0.28	-0.21	24.11	
1,288.00	0.28	38.03	1,287.86	17.75	-2.51	-17.77	0.38	-0.15	63.92	
1,398.00	0.17	48.53	1,397.86	18.07	-2.22	-18.09	0.11	-0.10	9.55	
1,493.00	0.32	37.81	1,492.86	18.37	-1.95	-18.39	0.16	0.16	-11.28	
1,589.00	1.13	42.19	1,588.85	19.29	-1.15	-19.30	0.85	0.84	4.56	
1,685.00	3.28	40.06	1,684.77	22.09	1.25	-22.08	2.24	2.24	-2.22	
1,779.00	5.57	32.02	1,778.49	28.02	5.40	-27.96	2.52	2.44	-8.55	
1,876.00	6.84	29.31	1,874.92	37.04	10.73	-36.94	1.34	1.31	-2.79	
1,972.00	7.21	26.30	1,970.19	47.43	16.19	-47.27	0.54	0.39	-3.14	
2,068.00	8.20	21.80	2,065.33	59.19	21.41	-58.97	1.21	1.03	-4.69	
2,165.00	7.87	22.13	2,161.38	71.76	26.48	-71.50	0.34	-0.34	0.34	
2,260.00	7.74	22.74	2,255.50	83.69	31.40	-83.37	0.16	-0.14	0.64	
2,356.00	7.45	23.36	2,350.65	95.36	36.37	-95.00	0.31	-0.30	0.65	
2,452.00	7.43	24.07	2,445.84	106.74	41.37	-106.33	0.10	-0.02	0.74	
2,547.00	7.39	24.13	2,540.05	117.93	46.37	-117.46	0.04	-0.04	0.06	
2,643.00	7.17	26.23	2,635.28	128.94	51.54	-128.42	0.36	-0.23	2.19	
2,738.00	8.05	27.56	2,729.44	140.15	57.24	-139.58	0.94	0.93	1.40	
2,834.00	9.28	26.26	2,824.34	153.05	63.77	-152.41	1.30	1.28	-1.35	
2,931.00	9.25	26.53	2,920.08	167.04	70.72	-166.33	0.05	-0.03	0.28	
3,025.00	9.05	27.50	3,012.88	180.36	77.50	-179.58	0.27	-0.21	1.03	
3,122.00	9.02	27.94	3,108.68	193.84	84.59	-192.99	0.08	-0.03	0.45	
3,217.00	8.90	28.67	3,202.52	206.87	91.61	-205.95	0.17	-0.13	0.77	
3,312.00	8.85	29.38	3,296.38	219.69	98.72	-218.69	0.13	-0.05	0.75	
3,406.00	9.01	29.87	3,389.24	232.37	105.93	-231.30	0.19	0.17	0.52	
3,501.00	9.10	33.45	3,483.06	245.09	113.77	-243.94	0.60	0.09	3.77	
3,595.00	9.17	33.19	3,575.87	257.56	121.97	-256.33	0.09	0.07	-0.28	
3,690.00	7.84	32.81	3,669.82	269.34	129.63	-268.04	1.40	-1.40	-0.40	
3,785.00	6.40	30.28	3,764.08	279.36	135.81	-277.99	1.55	-1.52	-2.66	
3,880.00	4.69	21.85	3,858.64	287.54	139.92	-286.13	1.99	-1.80	-8.87	
3,975.00	2.89	29.20	3,953.43	293.23	142.54	-291.80	1.96	-1.89	7.74	
4,069.00	1.12	32.61	4,047.37	296.07	144.19	-294.63	1.89	-1.88	3.63	
4,164.00	0.84	43.98	4,142.35	297.36	145.17	-295.90	0.36	-0.29	11.97	
4,258.00	0.13	11.48	4,236.35	297.96	145.67	-296.49	0.78	-0.76	-34.57	
4,352.00	0.08	158.13	4,330.35	298.00	145.72	-296.54	0.21	-0.05	156.01	
4,446.00	0.07	88.86	4,424.35	297.94	145.80	-296.48	0.09	-0.01	-73.69	
4,540.00	0.27	28.12	4,518.35	298.14	145.96	-296.67	0.26	0.21	-64.62	
4,635.00	0.34	90.19	4,613.35	298.34	146.35	-296.86	0.34	0.07	65.34	
4,729.00	0.74	95.73	4,707.34	298.27	147.23	-296.79	0.43	0.43	5.89	
4,823.00	1.20	95.97	4,801.33	298.11	148.82	-296.62	0.49	0.49	0.26	
4,918.00	0.45	187.79	4,896.32	297.64	149.75	-296.13	1.36	-0.79	96.65	
5,012.00	0.89	172.84	4,990.31	296.55	149.80	-295.04	0.50	0.47	-15.90	



MS Directional Survey Report



Company:	Marathon Oil	Local Co-ordinate Reference:	Well Colossus 18-19 WA Fed Com #1H
Project:	Lea County, New Mexico (NAD 27)	TVD Reference:	Well @ 3281.50usft (Cactus 171)
Site:	Colossus Pad	MD Reference:	Well @ 3281.50usft (Cactus 171)
Well:	Colossus 18-19 WA Fed Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.15 Conroe DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,107.00	1.39	149.86	5,085.29	294.82	150.47	-293.31	0.70	0.53	-24.19
5,202.00	1.00	254.69	5,180.28	293.60	150.24	-292.09	2.01	-0.41	110.35
5,296.00	1.25	268.03	5,274.26	293.35	148.43	-291.86	0.38	0.27	14.19
5,392.00	1.16	276.61	5,370.24	293.43	146.42	-291.96	0.21	-0.09	8.94
5,487.00	0.99	277.37	5,465.23	293.64	144.65	-292.19	0.18	-0.18	0.80
5,581.00	0.96	274.72	5,559.21	293.81	143.06	-292.37	0.06	-0.03	-2.82
5,675.00	0.83	260.75	5,653.20	293.77	141.60	-292.34	0.27	-0.14	-14.86
5,768.00	0.57	265.81	5,746.19	293.63	140.48	-292.21	0.29	-0.28	5.44
5,862.00	0.45	263.98	5,840.19	293.55	139.64	-292.15	0.13	-0.13	-1.95
5,957.00	0.42	270.98	5,935.19	293.52	138.92	-292.12	0.06	-0.03	7.37
6,052.00	0.24	238.18	6,030.19	293.42	138.41	-292.03	0.27	-0.19	-34.53
6,146.00	0.13	259.02	6,124.19	293.30	138.13	-291.91	0.14	-0.12	22.17
6,240.00	0.23	264.68	6,218.19	293.26	137.84	-291.87	0.11	0.11	6.02
6,334.00	0.32	258.48	6,312.18	293.19	137.40	-291.81	0.10	0.10	-6.60
6,429.00	0.35	274.56	6,407.18	293.16	136.85	-291.78	0.10	0.03	16.93
6,523.00	0.14	299.68	6,501.18	293.24	136.46	-291.87	0.25	-0.22	26.72
6,617.00	0.20	353.76	6,595.18	293.46	136.34	-292.09	0.17	0.06	57.53
6,712.00	0.12	335.62	6,690.18	293.71	136.28	-292.34	0.10	-0.08	-19.09
6,806.00	0.24	42.80	6,784.18	293.95	136.38	-292.58	0.24	0.13	71.47
6,900.00	0.13	334.81	6,878.18	294.19	136.47	-292.82	0.24	-0.12	-72.33
6,995.00	0.08	249.95	6,973.18	294.26	136.36	-292.89	0.15	-0.05	-89.33
7,090.00	0.10	248.73	7,068.18	294.21	136.22	-292.84	0.02	0.02	-1.28
7,184.00	0.22	300.13	7,162.18	294.27	135.99	-292.90	0.19	0.13	54.68
7,278.00	0.13	64.39	7,256.18	294.41	135.93	-293.04	0.33	-0.10	132.19
7,373.00	0.18	58.31	7,351.18	294.53	136.15	-293.16	0.06	0.05	-6.40
7,468.00	0.08	94.94	7,446.18	294.61	136.34	-293.24	0.13	-0.11	38.56
7,562.00	0.05	59.83	7,540.18	294.62	136.44	-293.25	0.05	-0.03	-37.35
7,656.00	0.17	216.37	7,634.18	294.53	136.40	-293.16	0.23	0.13	166.53
7,751.00	0.16	184.95	7,729.18	294.28	136.30	-292.91	0.09	-0.01	-33.07
7,846.00	0.38	196.01	7,824.18	293.85	136.20	-292.48	0.24	0.23	11.64
7,941.00	0.49	175.08	7,919.17	293.14	136.15	-291.77	0.20	0.12	-22.03
8,036.00	0.44	174.52	8,014.17	292.37	136.22	-291.00	0.05	-0.05	-0.59
8,131.00	0.41	195.39	8,109.17	291.68	136.16	-290.31	0.17	-0.03	21.97
8,225.00	0.24	195.72	8,203.17	291.17	136.02	-289.80	0.18	-0.18	0.35
8,319.00	0.22	211.39	8,297.17	290.83	135.88	-289.46	0.07	-0.02	16.67
8,413.00	0.23	241.41	8,391.17	290.58	135.62	-289.22	0.12	0.01	31.94
8,508.00	0.46	234.51	8,486.16	290.27	135.14	-288.91	0.25	0.24	-7.26
8,602.00	0.25	254.94	8,580.16	290.00	134.63	-288.64	0.26	-0.22	21.73
8,697.00	0.36	270.89	8,675.16	289.95	134.13	-288.60	0.15	0.12	16.79
8,791.00	0.35	244.95	8,769.16	289.83	133.58	-288.49	0.17	-0.01	-27.60
8,886.00	0.45	275.81	8,864.16	289.74	132.94	-288.41	0.25	0.11	32.48
8,980.00	0.26	266.23	8,958.16	289.77	132.36	-288.44	0.21	-0.20	-10.19
9,073.00	0.33	275.43	9,051.15	289.78	131.89	-288.45	0.09	0.08	9.89



MS Directional Survey Report



Company:	Marathon Oil	Local Co-ordinate Reference:	Well Colossus 18-19 WA Fed Com #1H
Project:	Lea County, New Mexico (NAD 27)	TVD Reference:	Well @ 3281.50usft (Cactus 171)
Site:	Colossus Pad	MD Reference:	Well @ 3281.50usft (Cactus 171)
Well:	Colossus 18-19 WA Fed Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.15 Conroe DB

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
9,168.00	0.46	282.10	9,146.15	289.89	131.24	-288.57	0.14	0.14	7.02	
9,263.00	0.56	275.21	9,241.15	290.01	130.41	-288.70	0.12	0.11	-7.25	
9,358.00	0.46	282.00	9,336.14	290.13	129.57	-288.83	0.12	-0.11	7.15	
9,453.00	0.46	265.64	9,431.14	290.18	128.82	-288.88	0.14	0.00	-17.22	
9,548.00	0.44	278.09	9,526.14	290.20	128.08	-288.91	0.10	-0.02	13.11	
9,642.00	0.40	304.11	9,620.14	290.44	127.45	-289.15	0.21	-0.04	27.68	
9,737.00	0.67	302.51	9,715.13	290.92	126.70	-289.65	0.28	0.28	-1.68	
9,832.00	0.65	315.22	9,810.13	291.60	125.86	-290.34	0.16	-0.02	13.38	
9,926.00	0.66	300.72	9,904.12	292.26	125.02	-291.00	0.18	0.01	-15.43	
10,021.00	0.91	282.84	9,999.11	292.70	123.81	-291.46	0.37	0.26	-18.82	
10,115.00	1.02	275.83	10,093.10	292.95	122.25	-291.72	0.17	0.12	-7.46	
10,210.00	0.81	293.20	10,188.09	293.31	120.79	-292.09	0.36	-0.22	18.28	
10,304.00	1.31	279.51	10,282.07	293.74	119.12	-292.54	0.59	0.53	-14.56	
10,399.00	1.45	276.51	10,377.04	294.06	116.86	-292.88	0.17	0.15	-3.16	
10,494.00	1.62	286.19	10,472.01	294.57	114.37	-293.42	0.33	0.18	10.19	
10,588.00	1.59	276.58	10,565.97	295.09	111.80	-293.96	0.29	-0.03	-10.22	
10,683.00	1.85	283.38	10,660.93	295.60	109.00	-294.50	0.35	0.27	7.16	
10,778.00	1.88	287.00	10,755.88	296.41	106.02	-295.34	0.13	0.03	3.81	
10,872.00	2.01	293.27	10,849.82	297.51	103.03	-296.47	0.27	0.14	6.67	
10,966.00	1.77	285.79	10,943.77	298.56	100.12	-297.54	0.37	-0.26	-7.96	
11,060.00	2.03	288.99	11,037.72	299.49	97.15	-298.51	0.30	0.28	3.40	
11,155.00	2.01	287.48	11,132.66	300.54	93.97	-299.59	0.06	-0.02	-1.59	
11,248.00	2.03	298.68	11,225.60	301.82	90.96	-300.90	0.42	0.02	12.04	
11,343.00	1.81	289.82	11,320.55	303.14	88.08	-302.25	0.39	-0.23	-9.33	
11,437.00	1.39	276.82	11,414.51	303.78	85.55	-302.91	0.59	-0.45	-13.83	
11,532.00	1.04	278.43	11,509.49	304.04	83.55	-303.19	0.37	-0.37	1.69	
11,691.00	2.29	274.36	11,668.42	304.49	78.96	-303.69	0.79	0.79	-2.56	
11,786.00	2.62	275.49	11,763.34	304.84	74.90	-304.08	0.35	0.35	1.19	
11,880.00	3.07	277.14	11,857.22	305.36	70.27	-304.65	0.49	0.48	1.76	
11,975.00	2.54	278.84	11,952.11	306.00	65.66	-305.33	0.56	-0.56	1.79	
12,070.00	3.12	290.19	12,046.99	307.22	61.16	-306.59	0.85	0.61	11.95	
12,116.00	3.11	289.72	12,092.92	308.07	58.81	-307.47	0.06	-0.02	-1.02	
12,164.00	3.30	287.99	12,140.85	308.94	56.27	-308.36	0.44	0.40	-3.60	
12,259.00	11.65	188.41	12,235.17	300.26	52.25	-299.72	13.28	8.79	-104.82	
12,354.00	23.25	193.69	12,325.65	272.45	46.39	-271.98	12.31	12.21	5.56	
12,449.00	25.67	198.52	12,412.13	234.72	35.41	-234.35	3.30	2.55	5.08	
12,544.00	32.79	191.76	12,495.00	189.95	23.61	-189.71	8.25	7.49	-7.12	
12,639.00	43.30	171.72	12,569.99	132.15	23.06	-131.91	16.96	11.06	-21.09	
12,734.00	59.62	167.39	12,629.00	59.41	36.79	-59.04	17.54	17.18	-4.56	
12,829.00	66.63	165.22	12,671.92	-22.85	56.89	23.41	7.65	7.38	-2.28	
12,924.00	81.62	163.91	12,697.84	-110.67	81.18	111.47	15.83	15.78	-1.38	
13,018.00	87.42	167.48	12,706.81	-201.29	104.27	202.31	7.24	6.17	3.80	
13,112.00	88.61	172.89	12,710.07	-293.82	120.27	295.00	5.89	1.27	5.76	
13,207.00	91.33	174.52	12,710.12	-388.23	130.69	389.52	3.34	2.86	1.72	



MS Directional Survey Report



Company:	Marathon Oil	Local Co-ordinate Reference:	Well Colossus 18-19 WA Fed Com #1H
Project:	Lea County, New Mexico (NAD 27)	TVD Reference:	Well @ 3281.50usft (Cactus 171)
Site:	Colossus Pad	MD Reference:	Well @ 3281.50usft (Cactus 171)
Well:	Colossus 18-19 WA Fed Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.15 Conroe DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,271.00	91.63	176.57	12,708.47	-452.02	135.66	453.34	3.24	0.47	3.20
13,366.00	91.69	176.01	12,705.72	-546.78	141.80	548.16	0.59	0.06	-0.59
13,460.00	92.21	176.46	12,702.52	-640.52	147.97	641.96	0.73	0.55	0.48
13,554.00	93.26	176.44	12,698.03	-734.23	153.79	735.72	1.12	1.12	-0.02
13,648.00	91.07	175.59	12,694.48	-827.93	160.31	829.48	2.50	-2.33	-0.90
13,742.00	87.73	174.69	12,695.46	-921.57	168.28	923.20	3.68	-3.55	-0.96
13,837.00	87.29	174.56	12,699.59	-1,016.07	177.17	1,017.78	0.48	-0.46	-0.14
13,931.00	89.04	175.91	12,702.60	-1,109.69	184.97	1,111.47	2.35	1.86	1.44
14,026.00	89.36	175.93	12,703.93	-1,204.44	191.73	1,206.28	0.34	0.34	0.02
14,120.00	87.77	174.41	12,706.28	-1,298.07	199.64	1,299.99	2.34	-1.69	-1.62
14,214.00	89.79	174.91	12,708.28	-1,391.63	208.39	1,393.64	2.21	2.15	0.53
14,294.00	90.95	174.79	12,707.77	-1,471.31	215.57	1,473.38	1.46	1.45	-0.15
14,389.00	86.80	177.58	12,709.63	-1,566.05	221.89	1,568.18	5.26	-4.37	2.94
14,484.00	86.14	181.08	12,715.48	-1,660.85	222.99	1,662.98	3.74	-0.69	3.68
14,577.00	86.14	181.10	12,721.74	-1,753.62	221.23	1,755.73	0.02	0.00	0.02
14,671.00	86.54	180.98	12,727.74	-1,847.41	219.53	1,849.50	0.44	0.43	-0.13
14,766.00	89.69	181.42	12,730.87	-1,942.33	217.54	1,944.39	3.35	3.32	0.46
14,859.00	88.86	180.12	12,732.05	-2,035.31	216.29	2,037.36	1.66	-0.89	-1.40
14,954.00	88.57	180.58	12,734.18	-2,130.28	215.71	2,132.32	0.57	-0.31	0.48
15,047.00	91.54	183.09	12,734.09	-2,223.22	212.73	2,225.22	4.18	3.19	2.70
15,141.00	90.09	182.80	12,732.75	-2,317.08	207.90	2,319.03	1.57	-1.54	-0.31
15,235.00	89.91	183.49	12,732.75	-2,410.94	202.75	2,412.84	0.76	-0.19	0.73
15,330.00	89.30	183.46	12,733.40	-2,505.76	196.99	2,507.60	0.64	-0.64	-0.03
15,424.00	90.02	181.20	12,733.96	-2,599.67	193.17	2,601.47	2.52	0.77	-2.40
15,519.00	88.58	179.39	12,735.12	-2,694.66	192.68	2,696.44	2.43	-1.52	-1.91
15,614.00	89.63	180.30	12,736.61	-2,789.65	192.93	2,791.43	1.46	1.11	0.96
15,708.00	89.45	180.19	12,737.36	-2,883.64	192.53	2,885.41	0.22	-0.19	-0.12
15,792.00	89.80	179.71	12,737.91	-2,967.64	192.61	2,969.41	0.71	0.42	-0.57
15,887.00	92.09	180.06	12,736.35	-3,062.62	192.80	3,064.39	2.44	2.41	0.37
15,981.00	91.91	177.24	12,733.06	-3,156.53	195.01	3,158.31	3.00	-0.19	-3.00
16,076.00	92.26	179.09	12,729.61	-3,251.41	198.05	3,253.22	1.98	0.37	1.95
16,171.00	91.25	183.40	12,726.70	-3,346.32	195.99	3,348.10	4.66	-1.06	4.54
16,265.00	90.81	183.92	12,725.01	-3,440.11	189.99	3,441.83	0.72	-0.47	0.55
16,359.00	90.42	183.48	12,724.00	-3,533.91	183.92	3,535.57	0.63	-0.41	-0.47
16,454.00	90.99	181.02	12,722.83	-3,628.82	180.19	3,630.44	2.66	0.60	-2.59
16,548.00	90.73	175.84	12,721.42	-3,722.75	182.77	3,724.38	5.52	-0.28	-5.51
16,642.00	92.75	176.28	12,718.56	-3,816.47	189.22	3,818.17	2.20	2.15	0.47
16,737.00	90.81	177.07	12,715.61	-3,911.26	194.73	3,913.01	2.20	-2.04	0.83
16,832.00	91.52	179.00	12,713.68	-4,006.18	197.98	4,007.95	2.16	0.75	2.03
16,926.00	91.56	182.52	12,711.15	-4,100.13	196.74	4,101.88	3.74	0.04	3.74
17,020.00	90.61	183.52	12,709.37	-4,193.98	191.79	4,195.68	1.47	-1.01	1.06
17,114.00	92.62	183.84	12,706.72	-4,287.74	185.76	4,289.38	2.17	2.14	0.34
17,209.00	92.40	183.22	12,702.56	-4,382.47	179.91	4,384.04	0.69	-0.23	-0.65



MS Directional Survey Report



Company:	Marathon Oil	Local Co-ordinate Reference:	Well Colossus 18-19 WA Fed Com #1H
Project:	Lea County, New Mexico (NAD 27)	TVD Reference:	Well @ 3281.50usft (Cactus 171)
Site:	Colossus Pad	MD Reference:	Well @ 3281.50usft (Cactus 171)
Well:	Colossus 18-19 WA Fed Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.15 Conroe DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
17,303.00	92.18	183.31	12,698.81	-4,476.24	174.56	4,477.76	0.25	-0.23	0.10
17,398.00	91.78	184.01	12,695.53	-4,570.99	168.50	4,572.44	0.85	-0.42	0.74
17,493.00	90.81	180.94	12,693.38	-4,665.86	164.40	4,667.27	3.39	-1.02	-3.23
17,587.00	90.73	176.54	12,692.11	-4,759.81	166.47	4,761.23	4.68	-0.09	-4.68
17,681.00	90.64	179.79	12,690.99	-4,853.74	169.48	4,855.19	3.46	-0.10	3.46
17,776.00	90.24	180.50	12,690.26	-4,948.74	169.24	4,950.18	0.86	-0.42	0.75
17,871.00	89.58	180.50	12,690.41	-5,043.73	168.41	5,045.16	0.69	-0.69	0.00
17,965.00	89.23	180.85	12,691.39	-5,137.72	167.30	5,139.13	0.53	-0.37	0.37
18,060.00	92.09	180.50	12,690.29	-5,232.70	166.18	5,234.09	3.03	3.01	-0.37
18,155.00	92.44	180.58	12,686.54	-5,327.62	165.29	5,329.00	0.38	0.37	0.08
18,249.00	89.49	179.27	12,684.95	-5,421.60	165.41	5,422.97	3.43	-3.14	-1.39
18,343.00	88.40	176.89	12,686.69	-5,515.52	168.56	5,516.92	2.78	-1.16	-2.53
18,438.00	86.86	177.68	12,690.61	-5,610.33	173.06	5,611.77	1.82	-1.62	0.83
18,534.00	86.95	177.86	12,695.80	-5,706.11	176.79	5,707.59	0.21	0.09	0.19
18,628.00	86.81	177.51	12,700.91	-5,799.90	180.58	5,801.41	0.40	-0.15	-0.37
18,723.00	88.31	179.35	12,704.96	-5,894.77	183.18	5,896.30	2.50	1.58	1.94
18,818.00	88.75	182.69	12,707.40	-5,989.71	181.49	5,991.22	3.55	0.46	3.52
18,912.00	89.63	183.84	12,708.72	-6,083.55	176.13	6,085.00	1.54	0.94	1.22
19,007.00	88.13	178.30	12,710.58	-6,178.47	174.36	6,179.90	6.04	-1.58	-5.83
19,102.00	88.40	179.97	12,713.46	-6,273.41	175.79	6,274.85	1.78	0.28	1.76
19,196.00	88.18	184.89	12,716.27	-6,367.26	171.81	6,368.65	5.24	-0.23	5.23
19,291.00	88.35	182.25	12,719.14	-6,462.02	165.90	6,463.35	2.78	0.18	-2.78
19,386.00	89.01	180.15	12,721.33	-6,556.97	163.91	6,558.28	2.32	0.69	-2.21
19,481.00	86.81	176.72	12,724.80	-6,651.85	166.50	6,653.18	4.29	-2.32	-3.61
19,575.00	86.84	177.04	12,730.00	-6,745.57	171.61	6,746.94	0.34	0.03	0.34
19,670.00	88.10	176.87	12,734.20	-6,840.34	176.65	6,841.76	1.34	1.33	-0.18
19,764.00	87.92	176.13	12,737.46	-6,934.11	182.38	6,935.58	0.81	-0.19	-0.79
19,859.00	91.23	179.87	12,738.17	-7,029.02	185.70	7,030.52	5.26	3.48	3.94
19,953.00	90.70	179.05	12,736.58	-7,123.00	186.58	7,124.50	1.04	-0.56	-0.87
20,048.00	89.65	177.47	12,736.29	-7,217.95	189.47	7,219.48	2.00	-1.11	-1.66
20,142.00	89.82	179.61	12,736.73	-7,311.91	191.86	7,313.46	2.28	0.18	2.28
20,236.00	90.35	178.78	12,736.59	-7,405.90	193.18	7,407.46	1.05	0.56	-0.88
20,331.00	92.29	181.20	12,734.40	-7,500.86	193.20	7,502.42	3.26	2.04	2.55
20,426.00	91.74	181.95	12,731.06	-7,595.77	190.59	7,597.29	0.98	-0.58	0.79
20,520.00	88.89	182.97	12,730.54	-7,689.67	186.56	7,691.15	3.22	-3.03	1.09
20,614.00	89.10	182.91	12,732.19	-7,783.53	181.74	7,784.95	0.23	0.22	-0.06
20,709.00	87.46	181.96	12,735.04	-7,878.40	177.70	7,879.78	1.99	-1.73	-1.00
20,803.00	87.68	179.90	12,739.03	-7,972.30	176.18	7,973.65	2.20	0.23	-2.19
20,898.00	89.63	178.51	12,741.26	-8,067.25	177.50	8,068.62	2.52	2.05	-1.46
20,992.00	89.14	178.11	12,742.27	-8,161.21	180.27	8,162.60	0.67	-0.52	-0.43
21,086.00	89.89	177.33	12,743.06	-8,255.13	184.01	8,256.55	1.15	0.80	-0.83
21,181.00	89.71	176.70	12,743.39	-8,350.00	188.95	8,351.46	0.69	-0.19	-0.66
21,275.00	90.24	178.75	12,743.43	-8,443.92	192.69	8,445.42	2.25	0.56	2.18



MS Directional Survey Report



Company:	Marathon Oil	Local Co-ordinate Reference:	Well Colossus 18-19 WA Fed Com #1H
Project:	Lea County, New Mexico (NAD 27)	TVD Reference:	Well @ 3281.50usft (Cactus 171)
Site:	Colossus Pad	MD Reference:	Well @ 3281.50usft (Cactus 171)
Well:	Colossus 18-19 WA Fed Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.15 Conroe DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
21,370.00	90.33	179.31	12,742.96	-8,538.90	194.29	8,540.41	0.60	0.09	0.59
21,464.00	89.80	179.23	12,742.86	-8,632.90	195.49	8,634.41	0.57	-0.56	-0.09
21,559.00	89.89	178.55	12,743.11	-8,727.88	197.33	8,729.41	0.72	0.09	-0.72
21,653.00	89.41	178.92	12,743.69	-8,821.85	199.41	8,823.40	0.64	-0.51	0.39
21,748.00	89.10	177.88	12,744.92	-8,916.81	202.06	8,918.37	1.14	-0.33	-1.09
21,842.00	88.22	177.55	12,747.12	-9,010.70	205.81	9,012.31	1.00	-0.94	-0.35
21,937.00	88.09	177.38	12,750.18	-9,105.56	210.01	9,107.20	0.23	-0.14	-0.18
22,031.00	87.34	176.63	12,753.93	-9,199.36	214.91	9,201.04	1.13	-0.80	-0.80
22,126.00	90.29	177.48	12,755.89	-9,294.20	219.79	9,295.93	3.23	3.11	0.89
22,221.00	89.80	176.52	12,755.82	-9,389.07	224.76	9,390.84	1.13	-0.52	-1.01
22,316.00	90.86	177.24	12,755.27	-9,483.92	229.93	9,485.74	1.35	1.12	0.76
22,410.00	90.29	176.21	12,754.33	-9,577.76	235.30	9,579.63	1.25	-0.61	-1.10
22,505.00	90.29	176.36	12,753.85	-9,672.56	241.46	9,674.49	0.16	0.00	0.16
22,599.00	89.67	175.46	12,753.88	-9,766.32	248.16	9,768.31	1.16	-0.66	-0.96
22,694.00	89.45	175.80	12,754.61	-9,861.04	255.40	9,863.10	0.43	-0.23	0.36
22,788.00	91.74	177.77	12,753.63	-9,954.88	260.67	9,956.98	3.21	2.44	2.10
22,845.00	92.27	178.36	12,751.64	-10,011.81	262.60	10,013.93	1.39	0.93	1.04
22,904.00	92.27	178.36	12,749.30	-10,070.74	264.28	10,072.87	0.00	0.00	0.00

Projection to TD-22904.00' MD

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
22,904.00	12,749.30	-10,070.74	264.28	Projection to TD-22904.00' MD

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

ACKNOWLEDGMENTS

Action 311398

ACKNOWLEDGMENTS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 311398
	Action Type: [C-105] Well (Re)Completion (C-105)

ACKNOWLEDGMENTS

☒	I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.
☒	I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion.
☐	I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 311398

CONDITIONS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 311398
	Action Type: [C-105] Well (Re)Completion (C-105)

CONDITIONS

Created By	Condition	Condition Date
plmartinez	Accepted for Record.	9/13/2024