



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

# Well Completion Print

05/08/2023

<b>Operator Name</b> MARATHON OIL PERMIAN LLC SHL SENE Sec 14 25S 34E	<b>Well Name</b> ENDER WIGGINS 14 WA FED COM <b>County</b> LEA	<b>Well Number</b> 19H  <b>State</b> NM	<b>US Well Number</b> 3002547020  <b>Lease Number(s)</b> NMNM113419
<b>Well Type</b> OIL WELL	<b>Well Status</b> Drilling Well	<b>Agreement Name</b>	<b>Agreement Number(s)</b>
<b>Allottee/Tribe Name</b>	<b>Well Pad Name</b> ENDER WIGGINS FC 25 34 14	<b>Well Pad Number</b> 290	<b>ID</b> 10400032773

## Section 1 - General

**Well Completion Report Id:** 86836

**Submission Date:** 12-14-2022

**BLM Office:** Carlsbad Field Office

**User:** ADRIAN COVARRUBIAS

**Title:** regulatory Compliance

**Federal/Indian:** FEDERAL

**Lease Number:** NMNM113419

**Lease Acres:**

**Agreement in place?:** NO

**Federal or Indian Agreement:**

**Agreement Number:**

**Agreement Name:**

**Keep this Well Completion Report confidential?:**

**APD Operator:** MARATHON OIL PERMIAN LLC

## Section 2 - Well

**Field/Pool or Exploratory:**

**Pool Name:** WOLFCAMP; SOUTH

**Field Name:** PITCHFORK RANCH

**Well Type:** OIL WELL

**Spud Date:** 05-25-2022

**Date Total Measured Depth Reached:** 07-03-2022

**Drill & Abandon or Ready To Produce:** READY TO

**Well Class:** HORIZONTAL

## Section 3 - Geologic

Formation Name	Lithology	Describe Lithology	Elevation	TVD	MD	Mineral Resources	Describe Mineral
LAMAR	SANDSTONE, SHALE		-2047	5405	5427	OIL	
BELL CANYON	SANDSTONE, SHALE		-2072	5430	5453	OIL	

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**Section 3 - Geologic**

Formation Name	Lithology	Describe Lithology	Elevation	TVD	MD	Mineral Resources	Describe Mineral
CHERRY CANYON	OTHER	Sands/Carbonates	-3248	6606	6635	OIL	
BRUSHY CANYON	OTHER	Sands/Carbonate	-4675	8033	8066	OIL	
BONE SPRING	OTHER	Sands/Carbonate	-5955	9313	9346	OIL	
BONE SPRING 1ST	OTHER, SANDSTONE	Carbonates	-5955	9313	9346	NATURAL GAS, OIL	
BONE SPRING 2ND	OTHER, SANDSTONE	Carbonates	-7553	10911	10945	NATURAL GAS, OIL	
BONE SPRING 3RD	OTHER, SANDSTONE	Carbonates	-8643	12001	12035	NATURAL GAS, OIL	
WOLFCAMP	OTHER, SANDSTONE, SHALE	Carbonates	-9103	12461	12580	NATURAL GAS, OIL	

**Completion and Completed**

**Completion Data**

Wellbore Code	Completion Code	Interval Number	Case Number	Lease Number	Well Completion Type	Describe Well Completion Type	Completion Status	Date Completed	Date First Produced	Formation	Interval Top (MD)	Interval Bottom (MD)	Interval Perforated?	Perforation Size	Number of Holes	Status of Interval
00	S1	1	NMNM113419	NMNM113419	NEW		POW	10-15-2022	10-14-2022	WOLFCA MP	12974	20624	Y	.41	744	OPEN

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<b>Allottee/Tribe Name</b>	<b>Well Pad Name</b> ENDER WIGGINS FC 25 34 14	<b>Well Pad Number</b> 290	<b>Agreement Name</b> <b>Agreement Number(s)</b> ID 10400032773

**Treatment Data**

Wellbore Code	Completion Code	Interval Number	Interval Treated?	Treatment Type	Total Fluid (bbls)	Total Proppant (lbs)	Treatment Remarks
00	S1	1	Y	FRAC	459879	19110234	

**Production Data**

Wellbore Code	Completion Code	Interval Number	API Oil Gravity	Gas Gravity	Production Method	Describe Production	Disposition of Gas	Describe Disposition
00	S1	1			FLows FROM WELL		SOLD	

**Test Data**

Wellbore Code	Completion Code	Interval Number	Test Date	Hours Tested	24-Hour Rate Oil (bbls)	24-Hour Rate Gas (MCF)	24-Hour Rate Water(BWPD)	Gas-Oil Ratio (SCF/Bbl)	Choke Size	Tubing Pressure Shut-In (psi)	Casing Pressure (psi)
00	S1	1	10/23/2022	24	2417	4040	4244	1671	38/64		2495

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**Well Location**

**Survey Type:** RECTANGULAR

**Survey Number:** R3816

**Datum:** NAD83

**Vertical Datum:** NAVD88

**Reference Datum:**

	State	Meridian	County	Latitude	Longitude	Elevation (MSL)	MD (ft)	TVD (ft)	Lease Type	Lease Number	Plug TVD (ft)	Plug MD (ft)	Plug Type	NS-Foot	NS-Indicator	EW-Foot	EW-Indicator	Township	Range	Section	Direction
SHL	NEW MEXICO	NEW MEXICO PRINCIPAL	LEA	32.1308862	-103.435967	3358	N/A	N/A	FEE	FEE				2490	FNL	1166	FEL	25S	34E	14	SE
KOP Well bore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	LEA	32.1291579	-103.4363736	-8162	11543	11520	FEE	FEE				2160	FNL	1292	FEL	25S	34E	14	NW
PPP Well bore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	LEA	32.1449849	-103.4362399	-9406	18116	12764	FEDERAL	NMNM108476				2639	FSL	1252	FEL	25S	34E	11	SE
PPP Well bore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	LEA	32.1377299	-103.4362639	-9344	15474	12702	FEDERAL	NMNM113419				0	FSL	1259	FEL	25S	34E	11	SE
PPP Well bore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	LEA	32.1308727	-103.4364616	-9242	12974	12600	FEE	FEE				2495	FNL	1319	FEL	25S	34E	14	SE
EXIT Well bore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	LEA	32.1518693	-103.4361317	-9377	20624	12735	FEDERAL	NMNM108476				135	FNL	1219	FEL	25S	34E	11	NE
BHL Well bore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	LEA	32.1519631	-103.4361293	-9377	20658	12735	FEDERAL	NMNM108476				101	FNL	1219	FEL	25S	34E	11	NE

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<b>Agreement Name</b>		<b>Agreement Number(s)</b>	

**Casing, Liner and Tubing**

**Casing and Liner**

Wellbore Code	Casing String Type	Hole Size	Top Setting Depth (MD)	Bottom Setting Depth (MD)	Casing Size	Wt(lbs/ft)	Casing Grade	Describe Other Casing Grade	Joint	Other Joint	Amount Pulled (ft)
00	SURFACE	17.5	0	989	13.375	54.5	J-55		BUTT		
00	INTERMEDIATE	12.25	0	11528	9.625	40	P-110		BUTT		
00	PRODUCTION	8.75	0	20648	5.5	23	P-110		OTHER	TLW	

**Cementing**

Wellbore Code	Casing String Type	Stage Tool Depth	Cement Lead Type	Cement Lead Qty (sks)	Cement Lead Yield (cu.ft/sks)	Cement Lead Top (MD)	Cement Tail Type	Cement Tail Qty (sks)	Cement Tail Yield (cu.ft/sks)	Cement Tail Top (MD)	Total (Lead + Tail) Cement Slurry Volume
00	SURFACE		Class C	580	1.67	0	Class C	200	1.33		219.9
00	INTERMEDIATE		NeoCem	1865	3.55	0	NeoCem	495	4.08		1538.8
00	PRODUCTION		Class H	2185	2.13	0	Class H	2480	1.27		1389.8

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### Logs

Wellbore Code	Log Upload	Was Well Cored?	Was DST Run?	Directional Survey?	Geologic Report	Wellbore Diagram
00	YES	NO	NO	YES	NO	YES

### Operator

I hereby certify that the foregoing and attached information is complete and correct as determined from all available records. 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 any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Well Completion Reports through this system satisfies regulations requiring a submission of Form 3160-4 or a Well Completion Report.

**Name:** MARATHON OIL PERMIAN LLC

**Signed By:** ADRIAN COVARRUBIAS

**Title:** regulatory Compliance Representative

**Signed on:** 12/14/2022

**Street Address:** 990 TOWN & COUNTRY BLVD

**City:** HOUSTON

**State:** TX

**Zip:** 77024

**Phone:** (713)296-3368

**Email address:** acovarrubias@marathonoil.com

### Field

**Representative Name:**

**Street Address:**

**City:**

**State:**

**Zip:**

**Phone:**

**Extension:**

**Email address:**

### Attachments

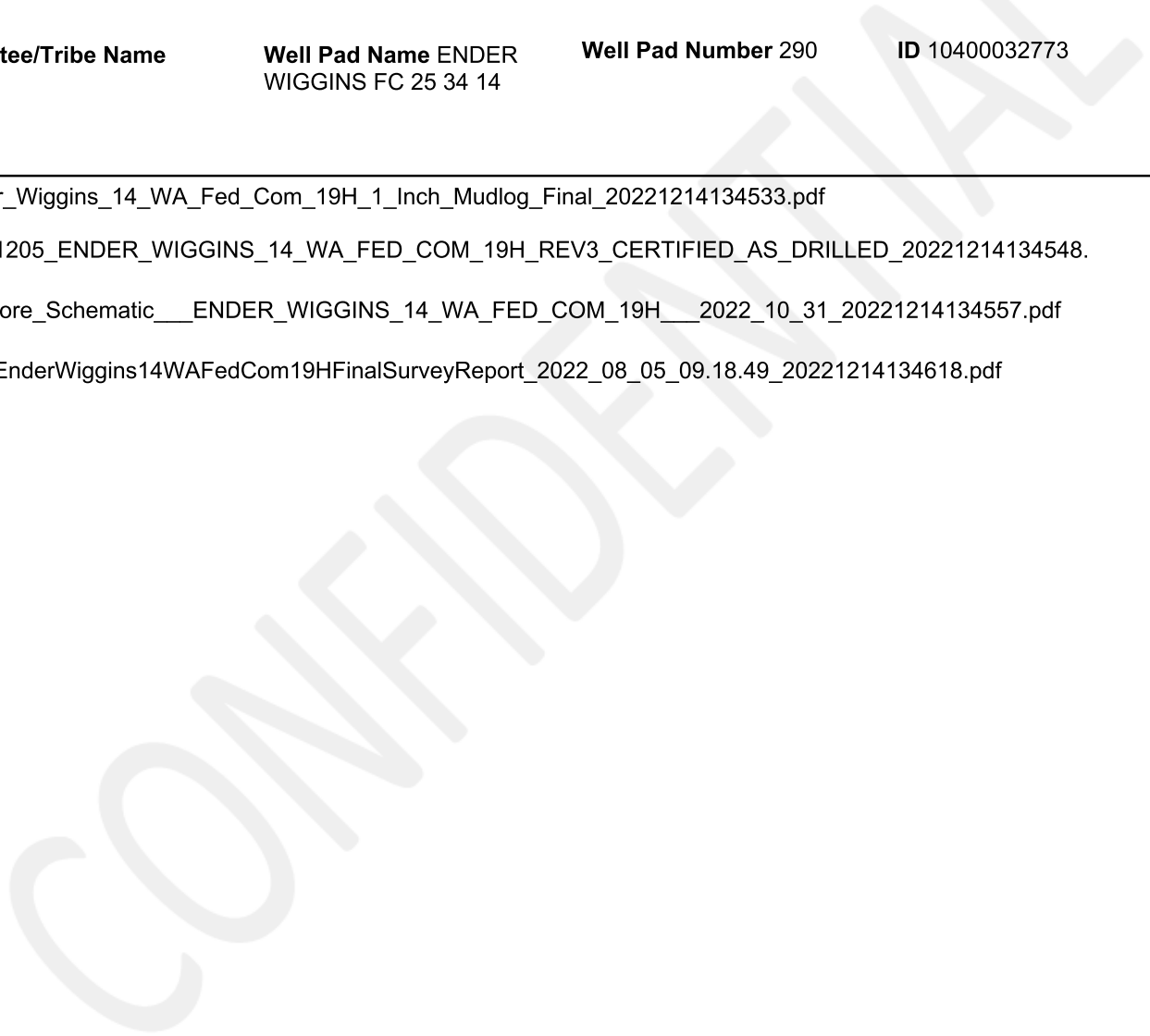
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Ender\_Wiggins\_14\_WA\_Fed\_Com\_19H\_1\_Inch\_Mudlog\_Final\_20221214134533.pdf

20221205\_ENDER\_WIGGINS\_14\_WA\_FED\_COM\_19H\_REV3\_CERTIFIED\_AS\_DRILLED\_20221214134548.pdf

Wellbore\_Schematic\_\_ENDER\_WIGGINS\_14\_WA\_FED\_COM\_19H\_\_2022\_10\_31\_20221214134557.pdf

WD\_EnderWiggins14WAFedCom19HFinalSurveyReport\_2022\_08\_05\_09.18.49\_20221214134618.pdf





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

Well Name: Ender Wiggins 14 WA Fed Com 19H  
 API: 30-025-47020  
 Location: Lea Co., NM  
 License Number: 327335  
 Spud Date: 5/29/2022  
 Surface Coordinates: Lat (NAD 83): 32.13088713°  
 Long (NAD 83): -103.4359669°  
 Region: Southern  
 Drilling Completed: 7/04/2022  
 Bottom Hole Coordinates:  
 Ground Elevation (ft): 3,358' K.B. Elevation (ft): 3,382'  
 Logged Interval (ft): 990' To: 20,658' Total Depth (ft): 20,658'  
 Formation:  
 Type of Drilling Fluid: OBM (Invermul)

Printed by MudLog from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

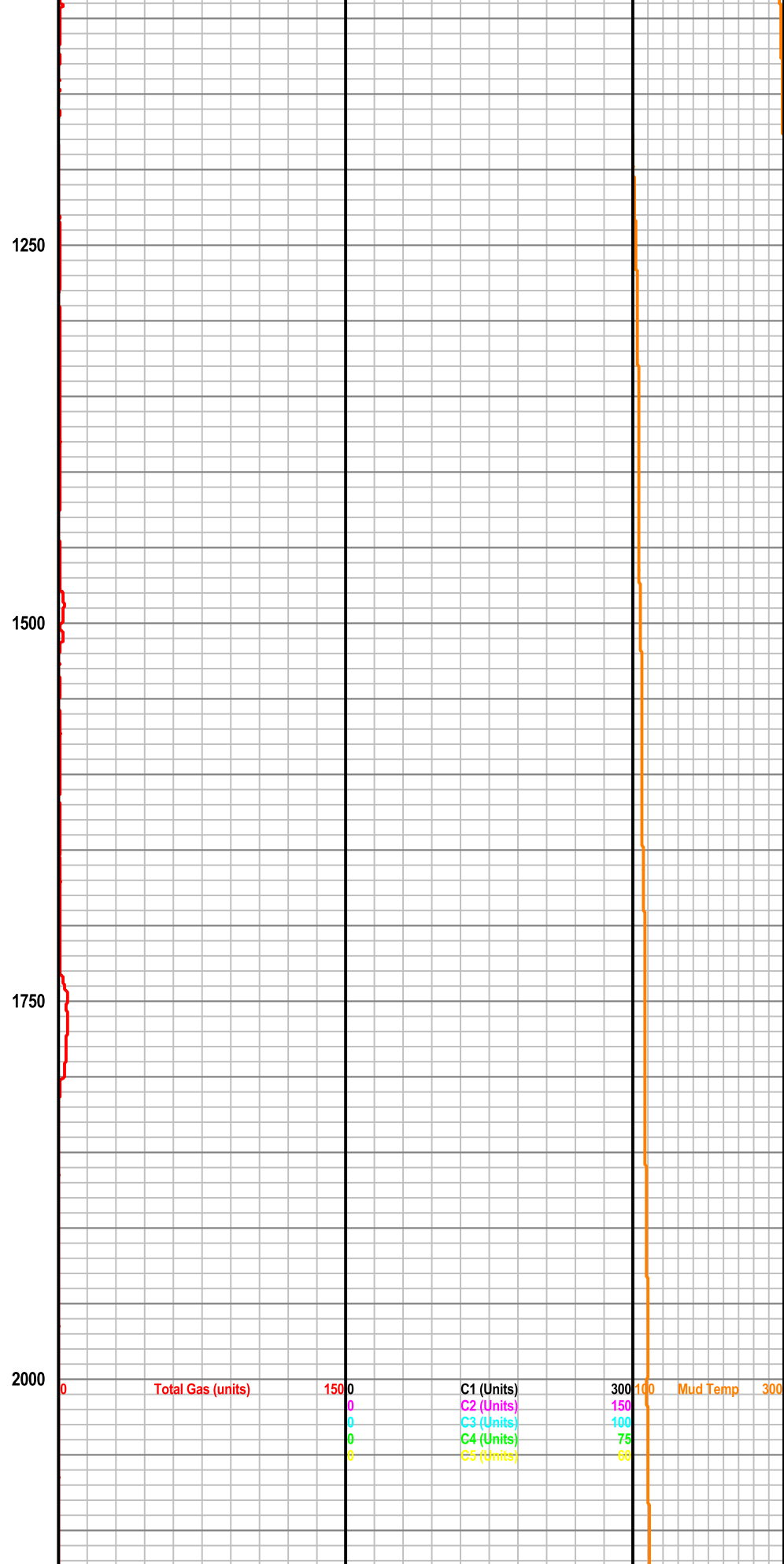
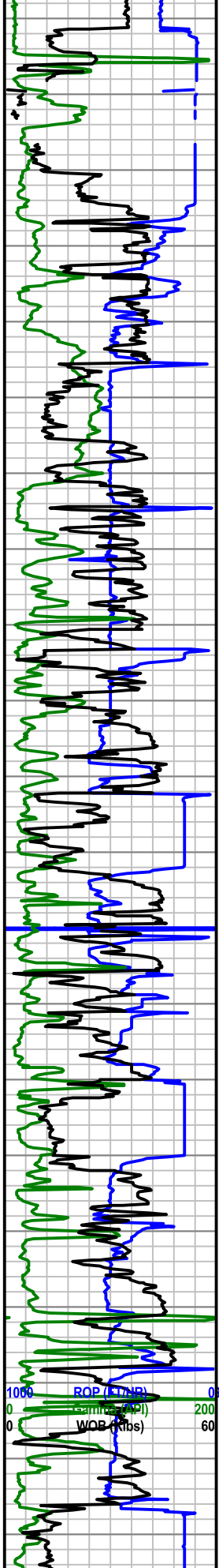
Company: Marathon Oil  
 Address: 4111 S TIDWELL RD  
 CARLSBAD, NM 88220

GEOLOGIST

Name: Jordan Coe  
 Company: Marathon Energy  
 Address: 4111 S TIDWELL RD  
 CARLSBAD, NM 88220

Engineering Data		Slide/Rotate	MD	Total Gas		Chromatograph					Mud Temp		Surveys
ROP (FT/HR)	Gamma (API)			WOB (Klbs)	Total Gas (units)		C1 (Units)	C2 (Units)	C3 (Units)	C4 (Units)	C5 (Units)	Mud Temp (°F)	
1000	200	60	0	1500	300	150	100	75	66	300			Marathon Energy Ender Wiggins 25 34 12 WA Fed Com 19H Lea Co.,NM START REMOTE SERVICE 6/16/2022 Bit #2 12.25" Ulettra, SPL616 9x11's in @988' MD 1027 TVD 1026.88 INC 0.72 AZ 261.19
0	0	0	1000	1500	300	150	100	75	66	300			





MD 1117 TVD 1116.87  
 INC 0.9 AZ 228.95

MD 1206 TVD 1205.85  
 INC 1.3 AZ 213.92

MD 1301 TVD 1300.81  
 INC 2.19 AZ 212.01

MD 1395 TVD 1394.71  
 INC 3.15 AZ 206.45

MD 1490 TVD 1489.5  
 INC 4.37 AZ 202.63

MD 1584 TVD 1583.13  
 INC 5.83 AZ 204.88

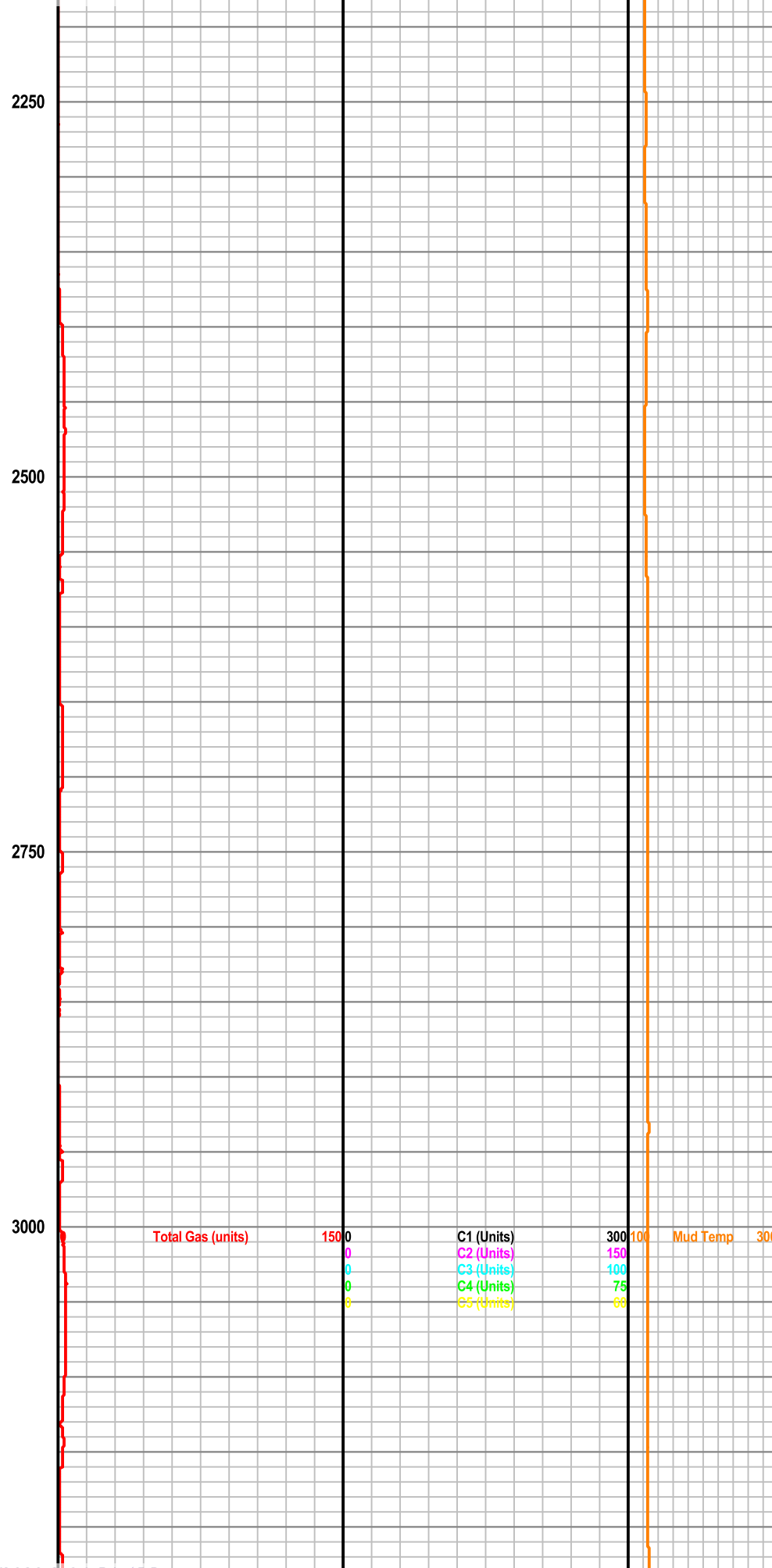
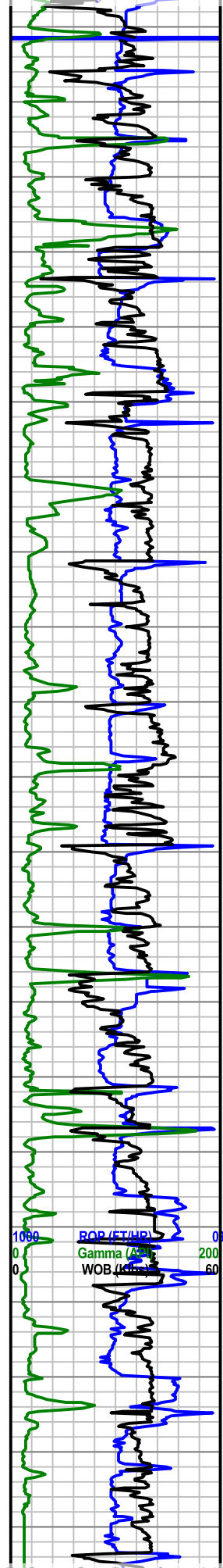
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MD 1774 TVD 1771.9  
 INC 6.51 AZ 199.73

MD 1868 TVD 1865.3  
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MD 1963 TVD 1959.73  
 INC 6.12 AZ 190.74

MD 2057 TVD 2053.2  
 INC 6.03 AZ 190.11



MD 2246 TVD 2241.14  
INC 5.94 AZ 186.84

MD 2340 TVD 2334.63  
INC 6.05 AZ 185.25

MD 2435 TVD 2429.09  
INC 6.14 AZ 187.05

MD 2530 TVD 2523.56  
INC 6.05 AZ 187.26

MD 2624 TVD 2617.05  
INC 5.88 AZ 184.87

MD 2719 TVD 2711.55  
INC 5.89 AZ 185.09

MD 2813 TVD 2805.04  
INC 6 AZ 182.04

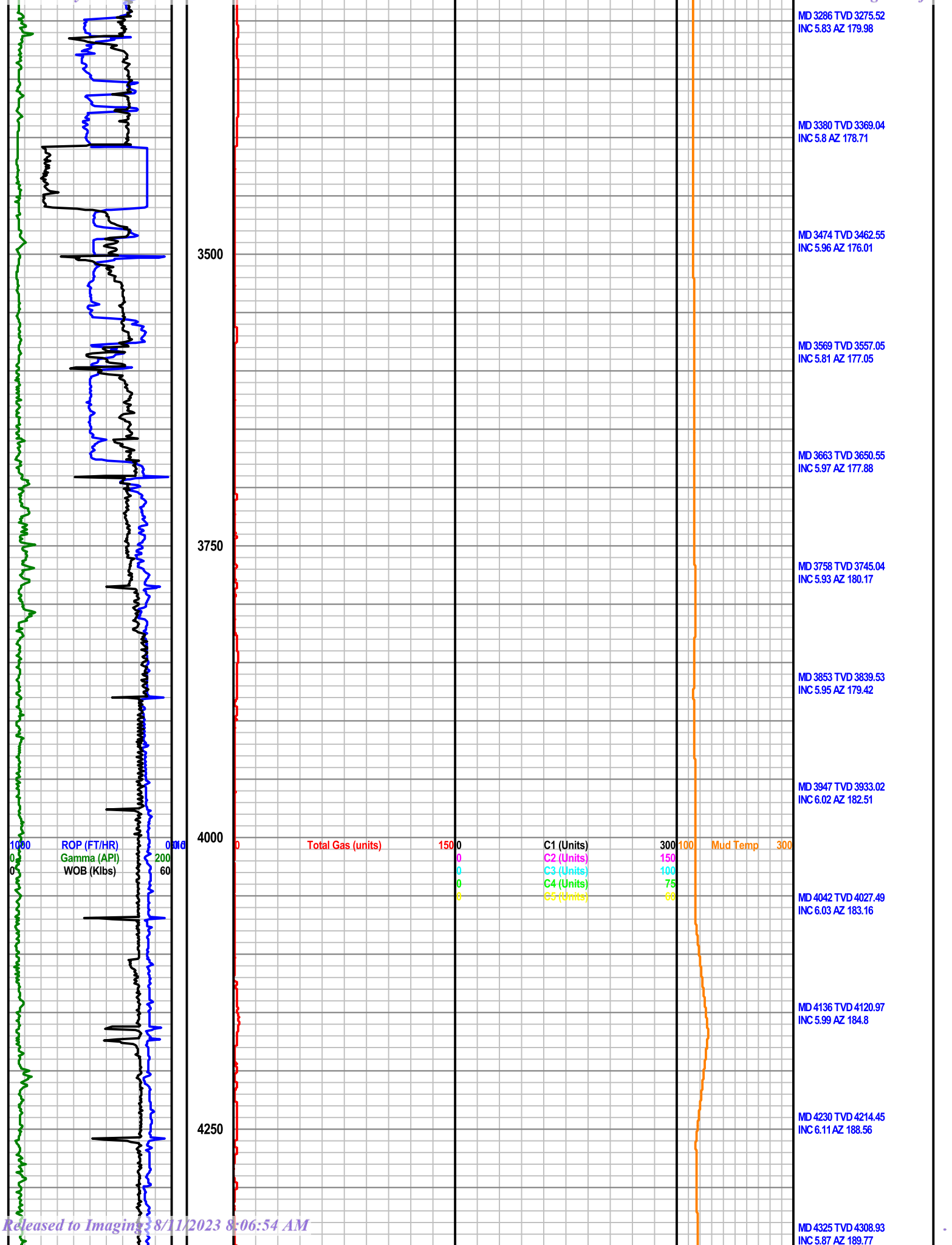
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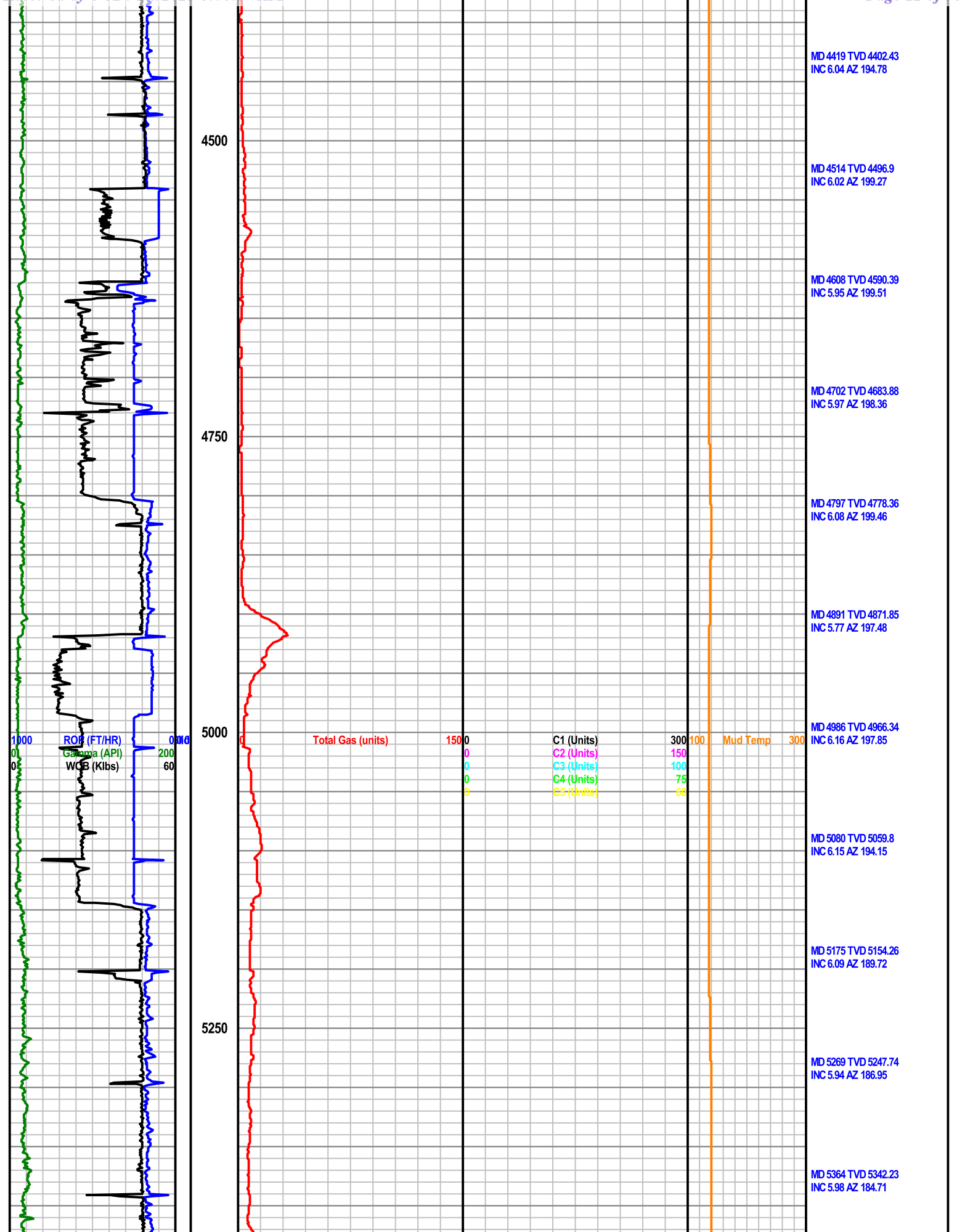
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INC 5.9 AZ 181.39

MD 3095 TVD 3085.54  
INC 5.9 AZ 180.93

MD 3191 TVD 3181.03  
INC 5.96 AZ 179.78

3250







MD 5553 TVD 5530.19  
INC 6.12 AZ 180.21

MD 5647 TVD 5623.64  
INC 6.25 AZ 175.53

MD 5742 TVD 5718.08  
INC 6.16 AZ 172.36

MD 5836 TVD 5811.55  
INC 6.09 AZ 170.24

MD 5931 TVD 5906  
INC 6.22 AZ 171.47

MD 6025 TVD 5999.46  
INC 5.99 AZ 171.37

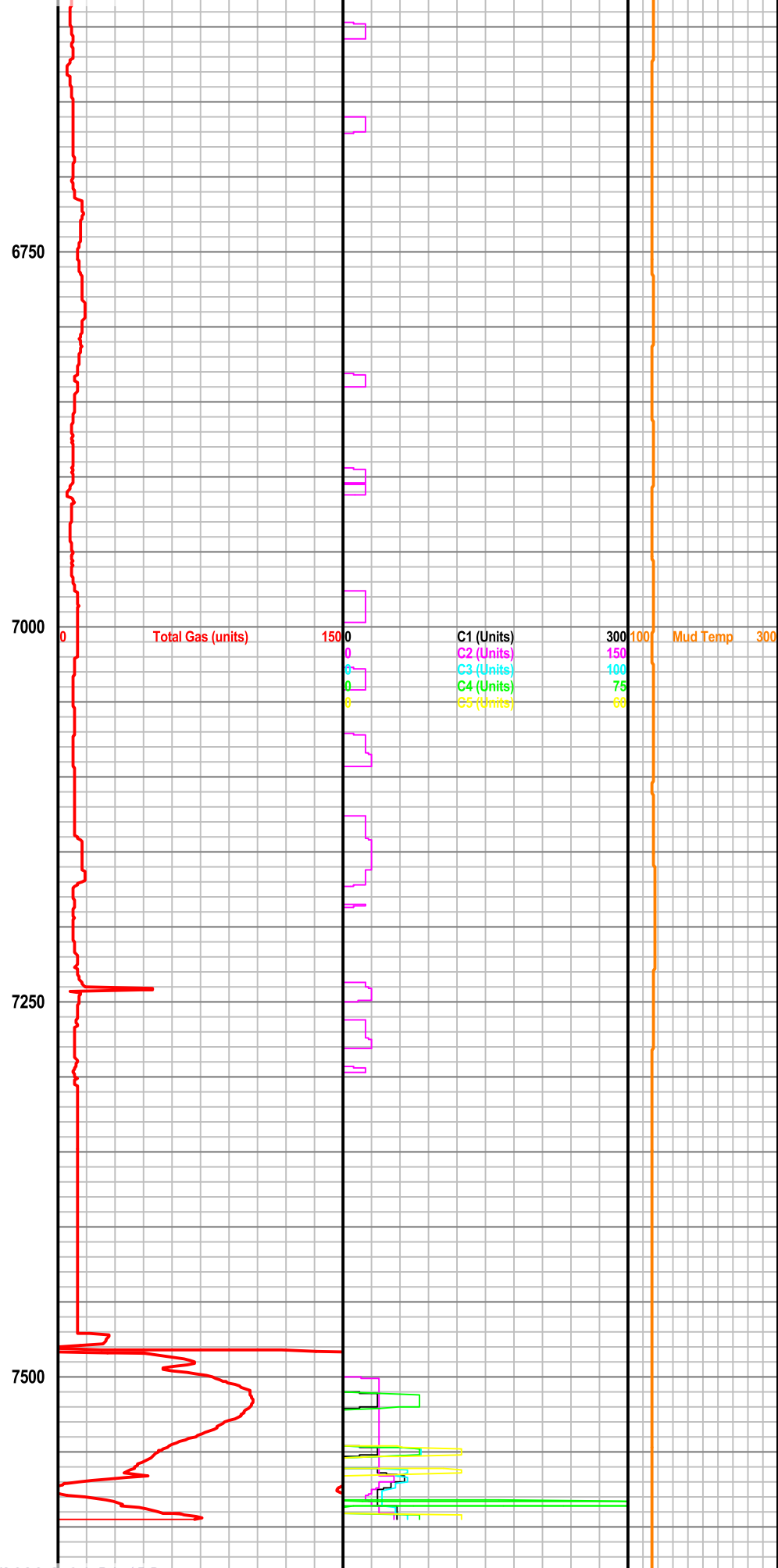
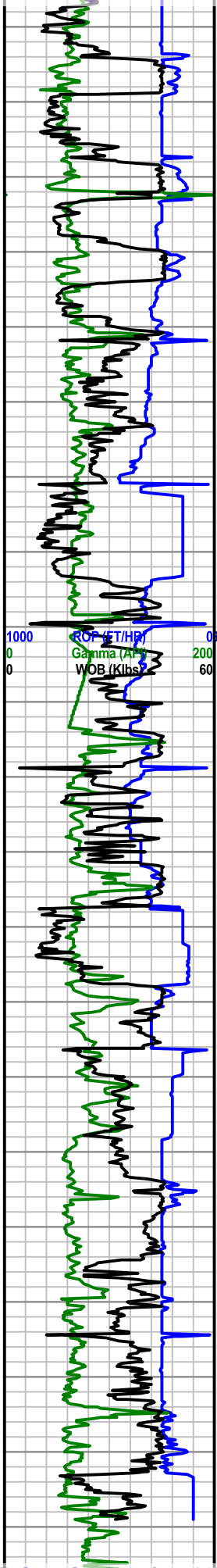
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INC 6.19 AZ 174.35

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MD 6403 TVD 6375.31  
INC 6.19 AZ 179.46

MD 6498 TVD 6469.75  
INC 6.21 AZ 181.36



MD 6592 TVD 6563.2  
INC 6.22 AZ 184.34

MD 6687 TVD 6657.64  
INC 6.21 AZ 184.87

MD 6781 TVD 6751.1  
INC 6.08 AZ 186.56

MD 6876 TVD 6845.57  
INC 6.09 AZ 188.84

MD 6971 TVD 6940.02  
INC 6.17 AZ 190.76

MD 7065 TVD 7033.48  
INC 6.13 AZ 190.34

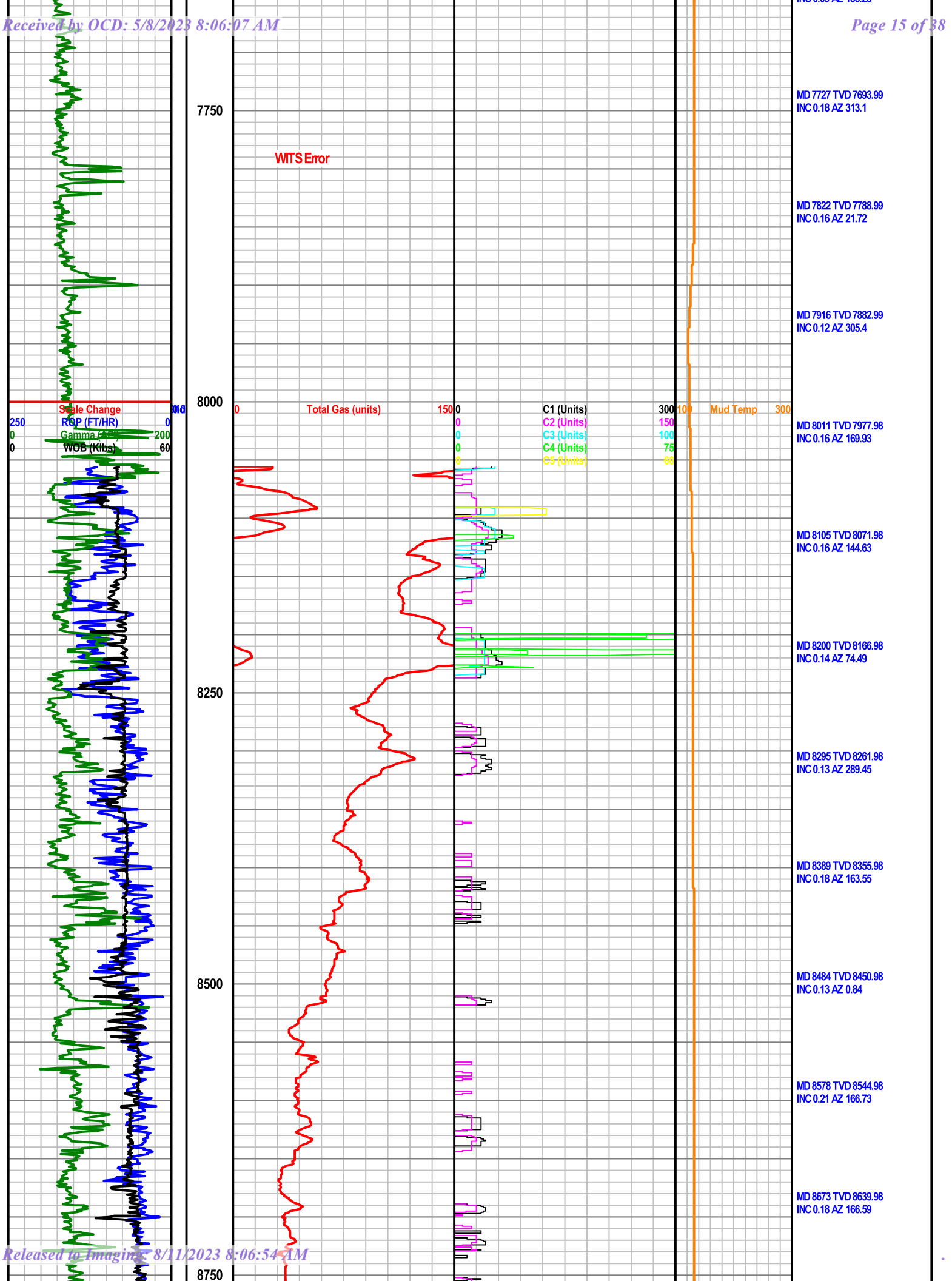
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INC 6.24 AZ 191.15

MD 7254 TVD 7221.42  
INC 5.73 AZ 188.04

MD 7349 TVD 7316.1  
INC 3.57 AZ 175.67

MD 7444 TVD 7411  
INC 1.71 AZ 145.33

MD 7538 TVD 7504.99  
INC 0.22 AZ 49.42



250  
0  
0  
ROP (FT/HR)  
Gamma (API)  
WOB (Klbs)

9000

9250

9500

9750

Total Gas (units)

Scale Change  
Total Gas (units)

1500

3000

C1 (Units)  
C2 (Units)  
C3 (Units)  
C4 (Units)  
C5 (Units)

Scale Change  
C1 (Units)  
C2 (Units)  
C3 (Units)  
C4 (Units)  
C5 (Units)

300  
150  
100  
75  
66

2000  
1000  
500  
150  
100

Mud Temp 300

MD 8862 TVD 8828.98  
INC 0.1 AZ 246.66

MD 8956 TVD 8922.98  
INC 0.14 AZ 216.61

MD 9051 TVD 9017.98  
INC 0.14 AZ 66.62

MD 9145 TVD 9111.98  
INC 0.2 AZ 112.33

MD 9240 TVD 9206.98  
INC 0.23 AZ 91.94

MD 9334 TVD 9300.98  
INC 0.11 AZ 160.13

MD 9429 TVD 9395.98  
INC 0.05 AZ 239.37

MD 9524 TVD 9490.98  
INC 0.09 AZ 202.36

MD 9618 TVD 9584.98  
INC 0.28 AZ 82

MD 9721 TVD 9687.98  
INC 0.66 AZ 300.65

TOOH @ 9,776' 6/21/2022

Bit #3 12.25" Halliburton,  
GT75DM/HEO 5x11's & 5x12's in  
@ 9,776'

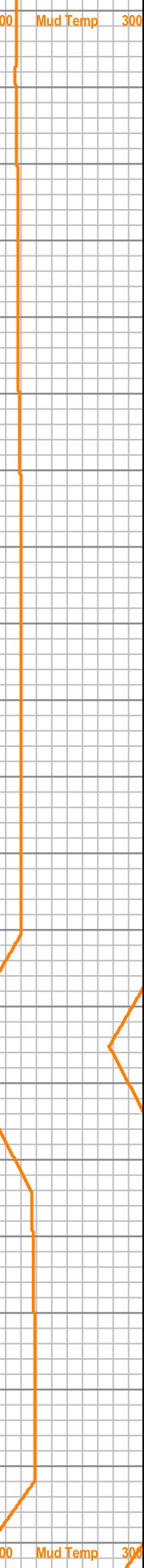
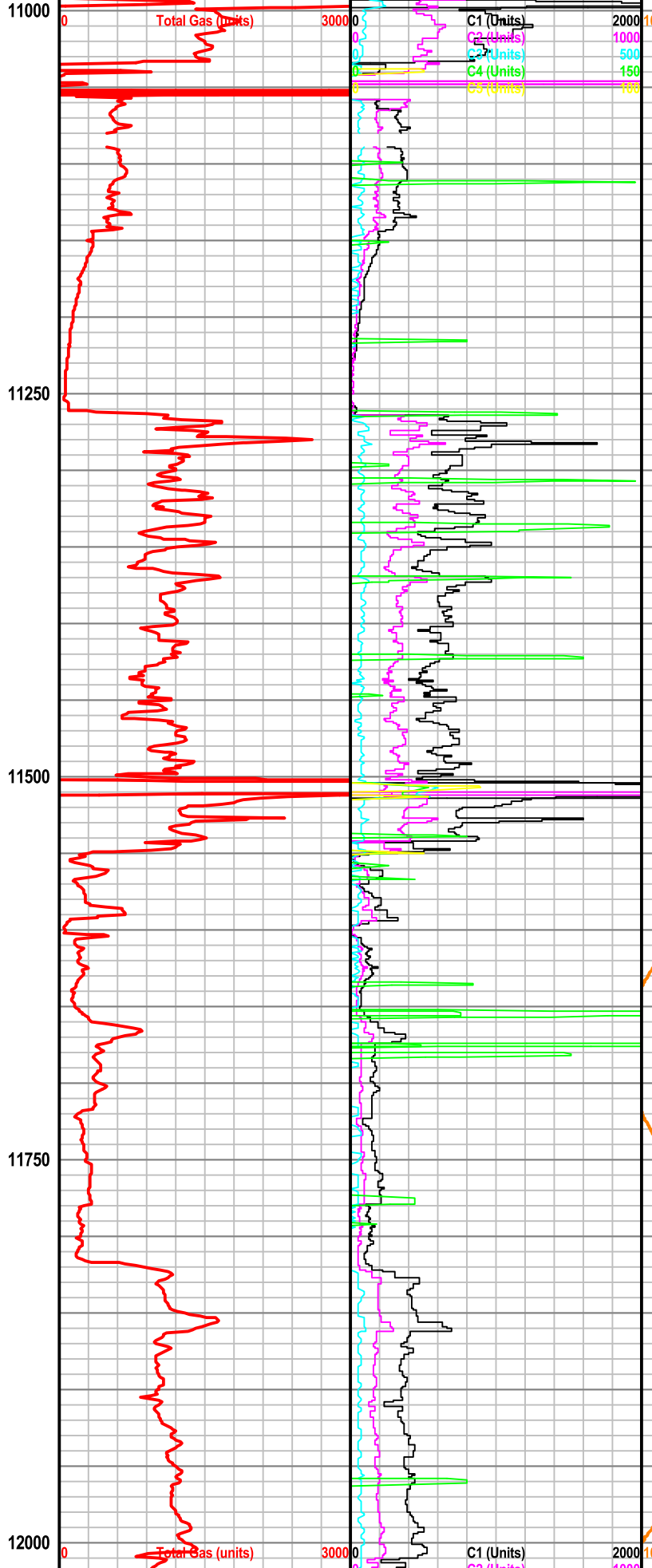
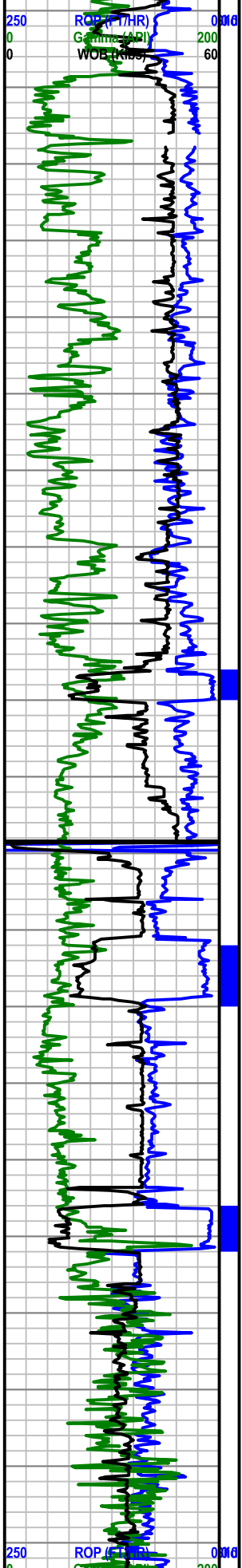
MD 9815 TVD 9781.97  
INC 0.68 AZ 252.88



250 ROP (FT/HR) 0.016  
0 Gamma (API) 100  
0 WOB (Klbf) 60

10000 0 Total Gas (units) 3000  
C1 (Units) 2000  
C2 (Units) 1000  
C3 (Units) 500  
C4 (Units) 150  
C5 (Units) 100  
100 Mud Temp 300

MD 9910 TVD 9876.96  
INC 0.84 AZ 245.5  
  
MD 10004 TVD 9970.95  
INC 0.93 AZ 269.08  
  
MD 10099 TVD 10065.93  
INC 1.44 AZ 281.13  
  
MD 10193 TVD 10159.9  
INC 1.77 AZ 289.09  
  
MD 10288 TVD 10254.86  
INC 1.22 AZ 304.18  
  
MD 10382 TVD 10348.85  
INC 1.06 AZ 322.43  
  
MD 10477 TVD 10443.84  
INC 0.57 AZ 313.82  
  
MD 10571 TVD 10537.83  
INC 0.27 AZ 229.79  
  
MD 10666 TVD 10632.83  
INC 0.54 AZ 249.49  
  
MD 10761 TVD 10727.83  
INC 0.5 AZ 230.48  
  
MD 10855 TVD 10821.82  
INC 0.52 AZ 247.96



MD 11044 TVD 11010.8  
INC 1.26 AZ 259.25

MD 11139 TVD 11105.78  
INC 1.42 AZ 252.7

MD 11233 TVD 11199.72  
INC 2.44 AZ 249.75

MD 11328 TVD 11294.61  
INC 3.14 AZ 259.41

MD 11423 TVD 11389.45  
INC 3.41 AZ 264.57

TOOH @ 11,543' 6/24/2022

Bit #4 8.75" Smith, XS616 6x15's  
in @ 11,543'

MD 11554 TVD 11520.18  
INC 4.04 AZ 275.39

MD 11623 TVD 11589.02  
INC 3.87 AZ 308.6

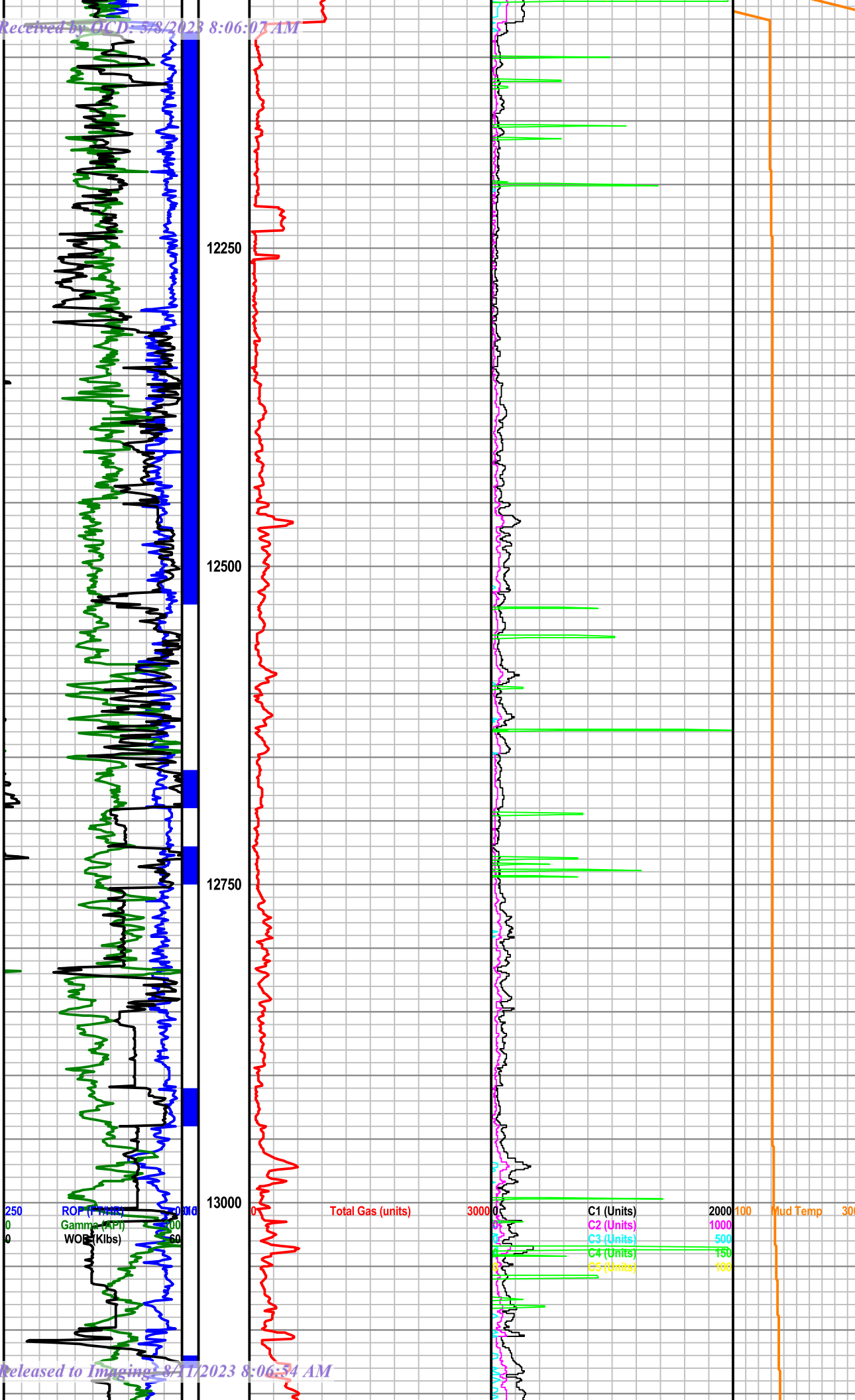
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MD 11811 TVD 11776.65  
INC 2.65 AZ 346.58

MD 11905 TVD 11870.57  
INC 2.07 AZ 329.67

MD 12000 TVD 11965.51  
INC 1.96 AZ 307.08

MD 12022 TVD 11987.5  
INC 1.95 AZ 301.77



MD 12095 TVD 12060.4  
INC 4.07 AZ 326.61

Bit #5 8.75" Baker, K5M525E  
2x14's & 2x18's & 1x15 in @  
12,073'

MD 12190 TVD 12153.95  
INC 15.04 AZ 341.97

MD 12284 TVD 12241.74  
INC 26.38 AZ 347.77

MD 12378 TVD 12322.3  
INC 35.45 AZ 347.88

MD 12473 TVD 12393.67  
INC 46.96 AZ 352.05

MD 12567 TVD 12453.3  
INC 54.3 AZ 358.49

MD 12631 TVD 12488.7  
INC 58.54 AZ 3.23

MD 12662 TVD 12503.84  
INC 62.97 AZ 3.98

MD 12757 TVD 12542.23  
INC 69.33 AZ 4.92

MD 12851 TVD 12572.17  
INC 73.52 AZ 4.71

MD 12946 TVD 12595.46  
INC 78.09 AZ 4.1

MD 13040 TVD 12613.33  
INC 79.99 AZ 3.01

MD 13135 TVD 12627.13  
INC 82.3 AZ 3.10

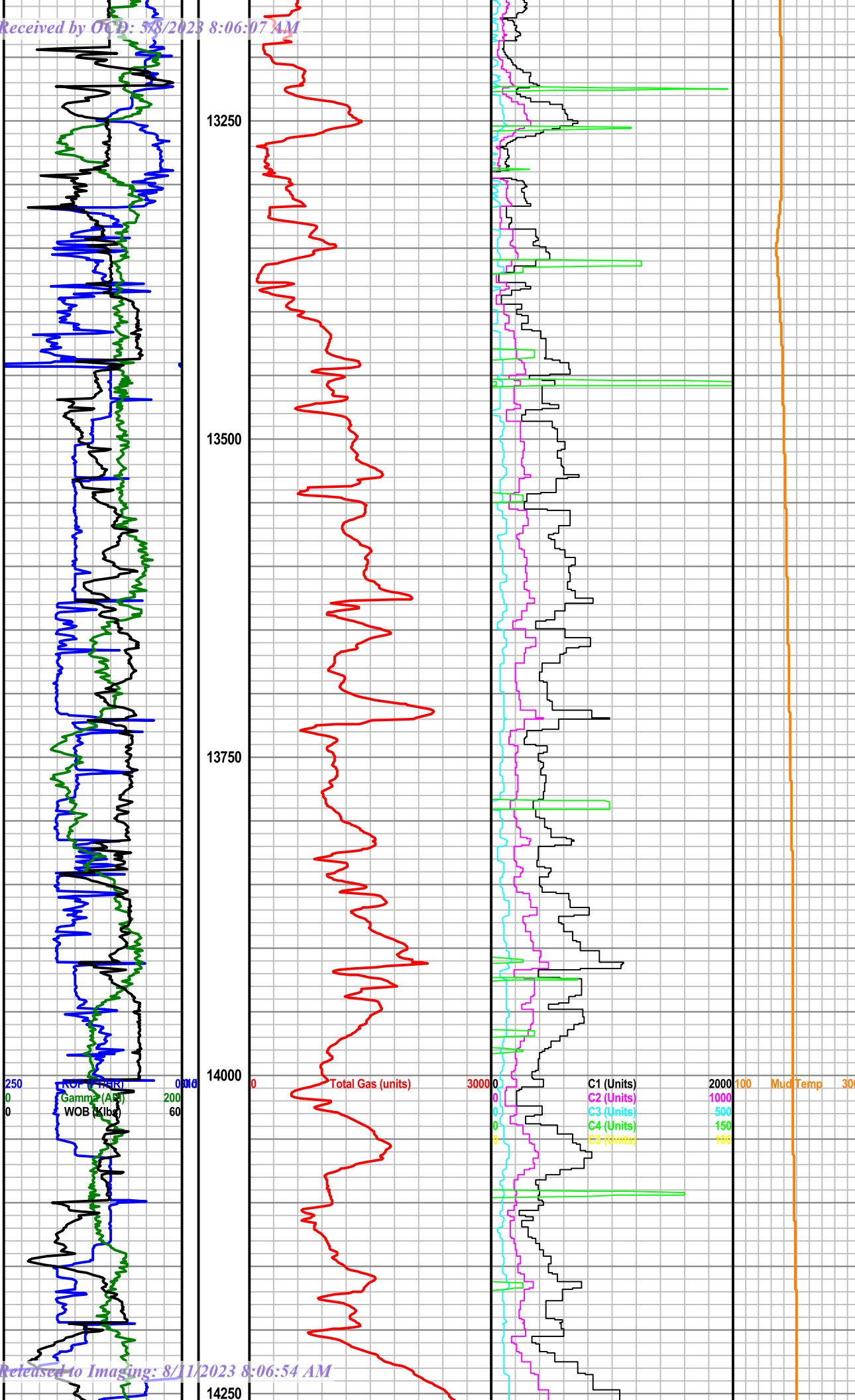
250 ROP (ft/min)  
0 Gamma (API)  
0 WOB (Klbs)

Total Gas (units)

C1 (Units)  
C2 (Units)  
C3 (Units)  
C4 (Units)  
C5 (Units)

2000  
1000  
500  
150  
100

100 Mud Temp 300



MD 13229 TVD 12635.56  
INC 86.41 AZ 3.14

MD 13260 TVD 12637.32  
INC 87.11 AZ 3.08

MD 13312 TVD 12640.06  
INC 86.85 AZ 2.56

TOOH @ 13,318' 6/30/2022

Bit #6 8.75" Ultra, CF616  
2x12's & 4x13's in @ 13,318'

MD 13407 TVD 12643.67  
INC 88.79 AZ 0.44

MD 13501 TVD 12647.27  
INC 86.82 AZ 0.18

MD 13595 TVD 12652.01  
INC 87.4 AZ 0.84

MD 13690 TVD 12655.92  
INC 87.88 AZ 0.13

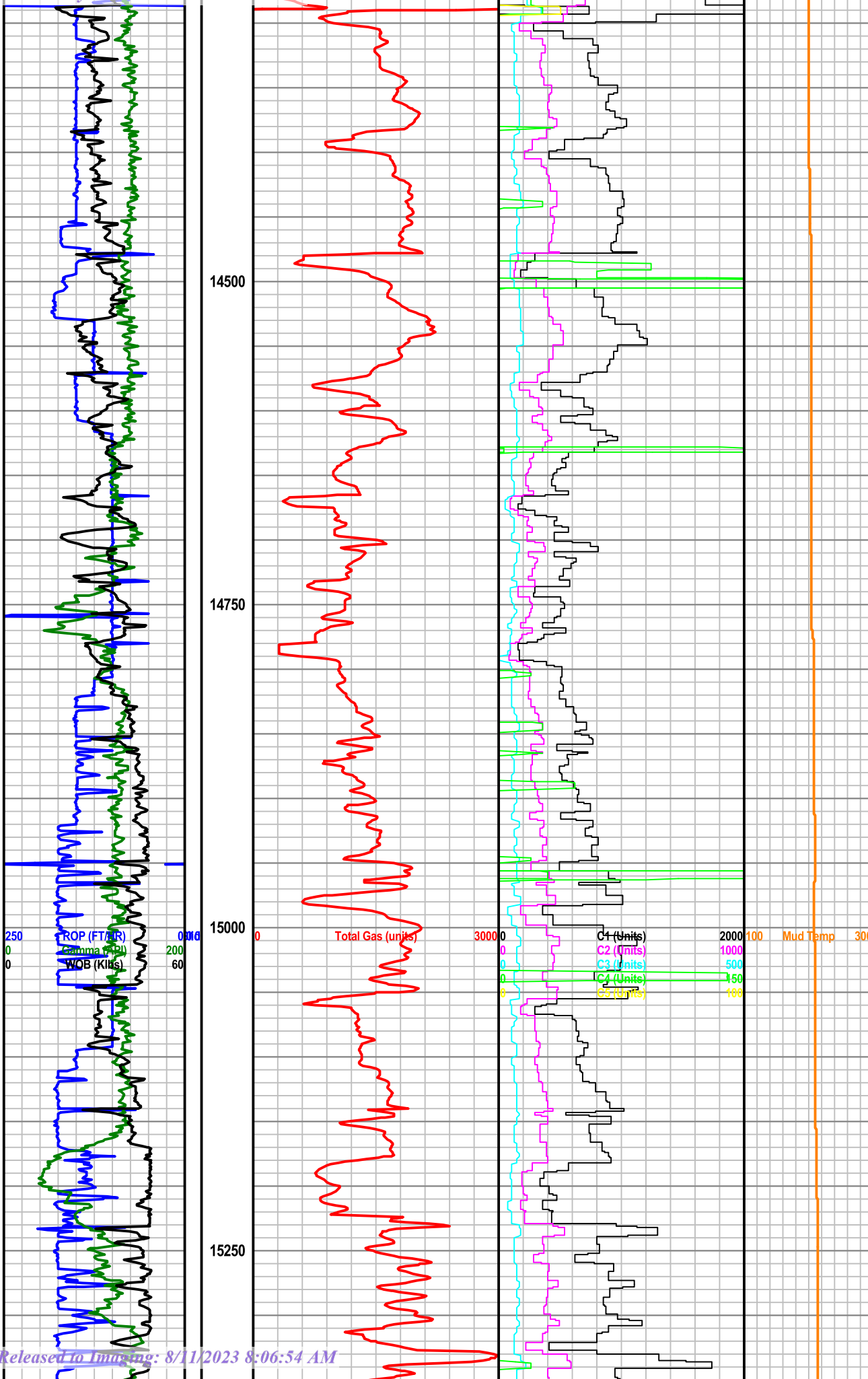
MD 13784 TVD 12659.63  
INC 87.6 AZ 1.07

MD 13879 TVD 12663.09  
INC 88.22 AZ 2.2

MD 13973 TVD 12664.68  
INC 89.85 AZ 0.93

MD 14068 TVD 12663.75  
INC 91.27 AZ 0.52

MD 14162 TVD 12662.56  
INC 90.18 AZ 0.42



MD 14351 TVD 12663.08  
INC 88.94 AZ 0.25

MD 14446 TVD 12665.39  
INC 88.27 AZ 0.83

14500

MD 14540 TVD 12670.44  
INC 85.58 AZ 358.1

MD 14635 TVD 12677.27  
INC 86.17 AZ 359.2

14750

MD 14729 TVD 12682.79  
INC 87.1 AZ 1.49

MD 14823 TVD 12686.79  
INC 88.02 AZ 1.48

15000

MD 14918 TVD 12690.1  
INC 87.99 AZ 0.64

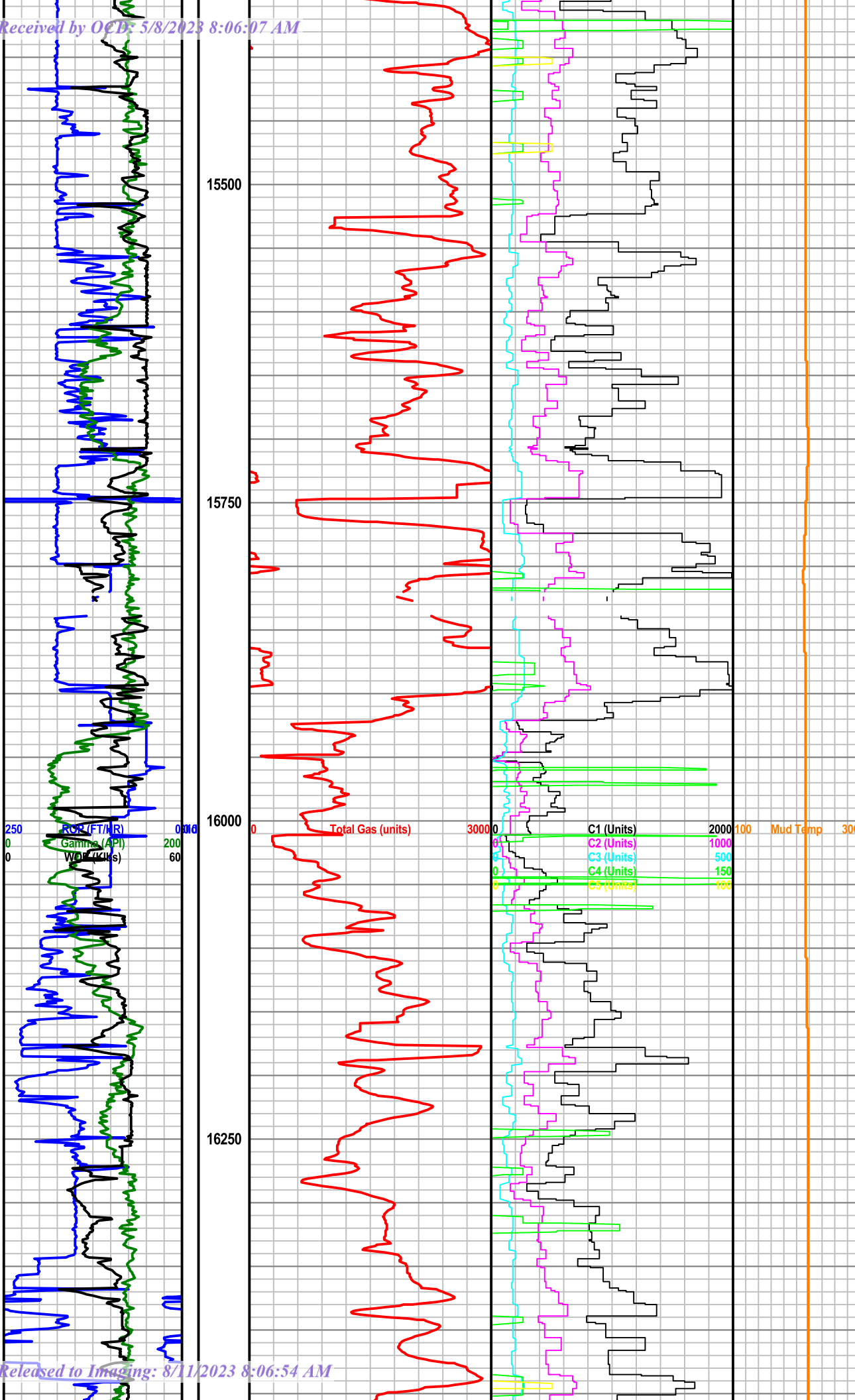
MD 15013 TVD 12693.35  
INC 88.08 AZ 0.91

MD 15107 TVD 12695.93  
INC 88.78 AZ 0.84

15250

MD 15202 TVD 12697.57  
INC 89.24 AZ 0.71

MD 15296 TVD 12698.63  
INC 89.47 AZ 0.59



MD 15391 TVD 12700.45  
INC 88.33 AZ 359.76

MD 15485 TVD 12702.06  
INC 89.71 AZ 1.52

MD 15580 TVD 12703  
INC 89.16 AZ 0.29

MD 15674 TVD 12704.42  
INC 89.11 AZ 1

MD 15768 TVD 12706.61  
INC 88.22 AZ 359.71

MD 15863 TVD 12711.47  
INC 85.91 AZ 358.43

MD 15957 TVD 12717.7  
INC 86.49 AZ 359.96

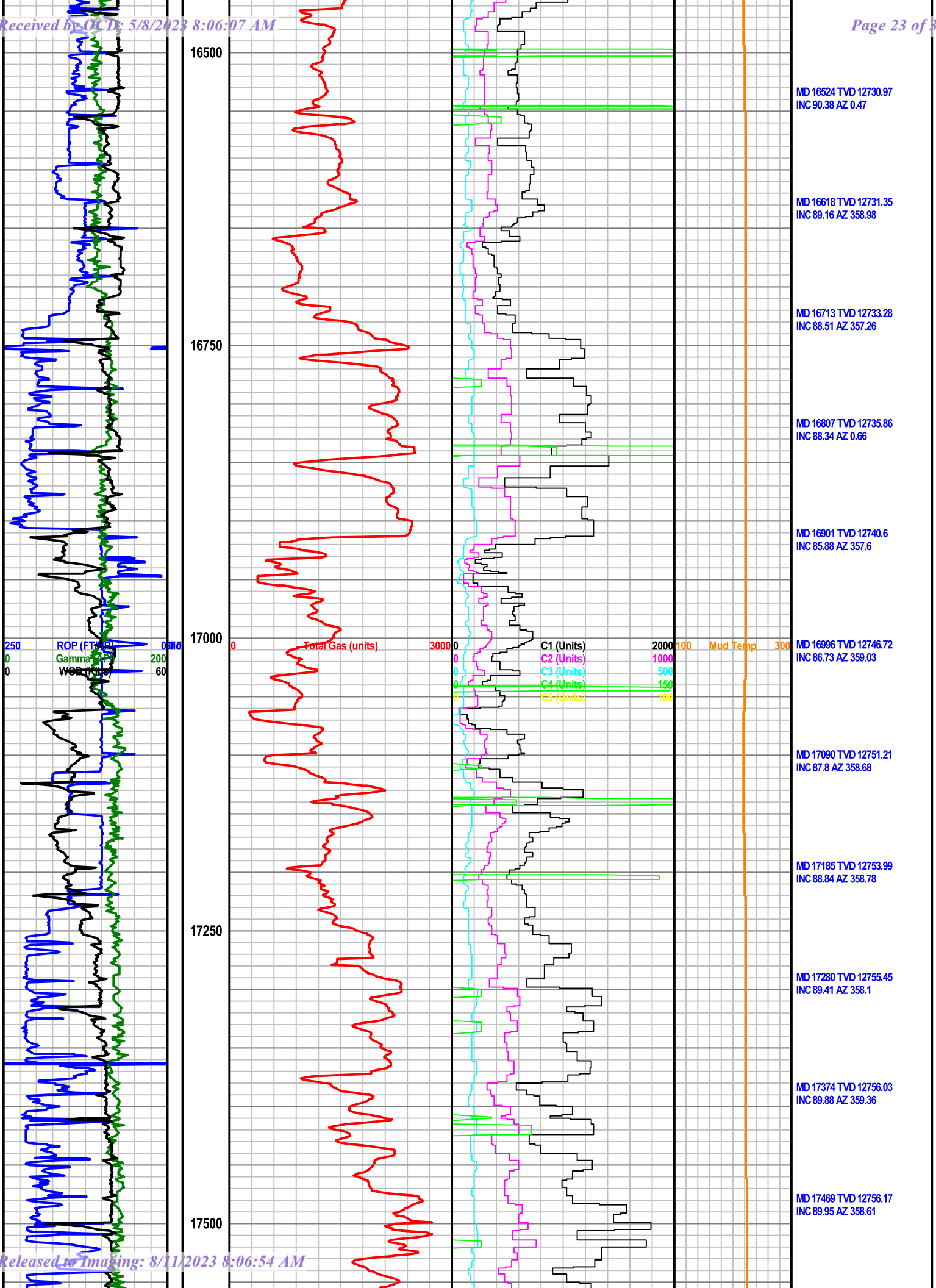
MD 16052 TVD 12721.68  
INC 88.71 AZ 2.57

MD 16146 TVD 12723.97  
INC 88.5 AZ 3.4

MD 16240 TVD 12726.71  
INC 88.16 AZ 4.34

MD 16335 TVD 12729.77  
INC 88.14 AZ 2.99

MD 16429 TVD 12731.29  
INC 90.01 AZ 3.39



MD 16524 TVD 12730.97  
INC 90.38 AZ 0.47

MD 16618 TVD 12731.35  
INC 89.16 AZ 358.98

MD 16713 TVD 12733.28  
INC 88.51 AZ 357.26

MD 16807 TVD 12735.86  
INC 88.34 AZ 0.66

MD 16901 TVD 12740.6  
INC 85.88 AZ 357.6

MD 16996 TVD 12746.72  
INC 86.73 AZ 359.03

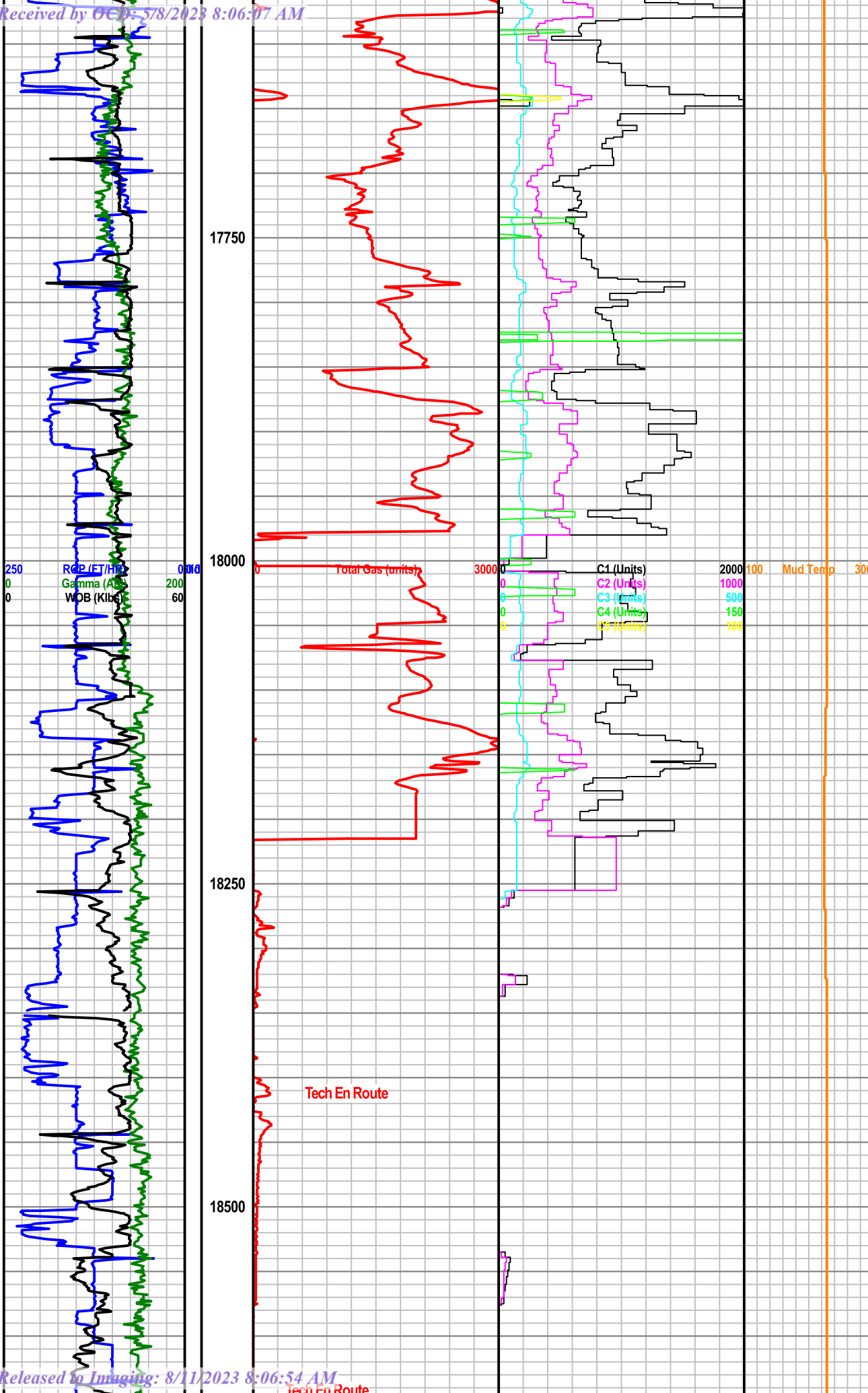
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MD 17185 TVD 12753.99  
INC 88.84 AZ 358.78

MD 17280 TVD 12755.45  
INC 89.41 AZ 358.1

MD 17374 TVD 12756.03  
INC 89.88 AZ 359.36

MD 17469 TVD 12756.17  
INC 89.95 AZ 358.61



17750

18000

18250

18500

MD 17658 TVD 12758.39  
INC 87.53 AZ 357.44

MD 17752 TVD 12761.53  
INC 88.64 AZ 357.24

MD 17847 TVD 12762.48  
INC 90.22 AZ 359.64

MD 17941 TVD 12761.96  
INC 90.41 AZ 358.2

MD 18036 TVD 12762.8  
INC 88.58 AZ 356.4

MD 18130 TVD 12764.86  
INC 88.9 AZ 358.5

MD 18225 TVD 12765.17  
INC 90.73 AZ 0.15

MD 18319 TVD 12764.94  
INC 89.55 AZ 357.35

MD 18414 TVD 12765.89  
INC 89.3 AZ 358.63

MD 18508 TVD 12768.09  
INC 88.02 AZ 357.74

MD 18603 TVD 12771.12  
INC 88.33 AZ 357.69

250 ROP (FT/Hr)  
0 Gamma (API)  
0 WOB (Kil)

Total Gas (units)

C1 (Units)  
C2 (Units)  
C3 (Units)  
C4 (Units)

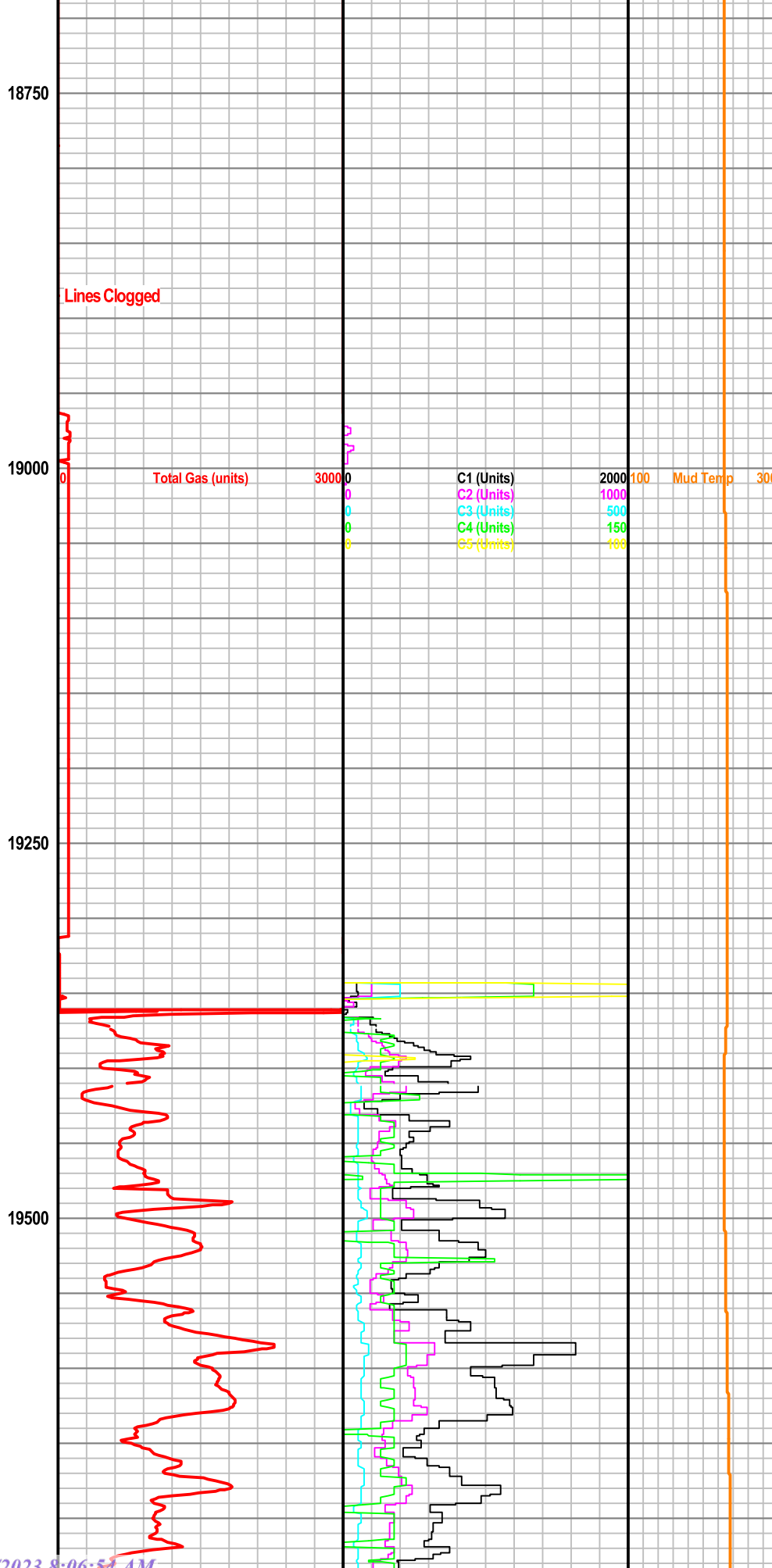
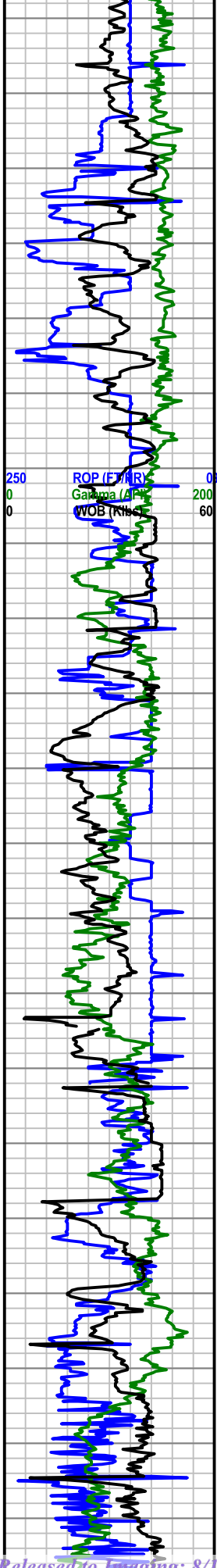
2000  
1000  
500  
150  
100

Mud Temp

Tech En Route

Tech En Route





MD 18697 TVD 12772.95  
INC 89.44 AZ 357.48

MD 18792 TVD 12771.68  
INC 92.09 AZ 359.5

MD 18886 TVD 12769.49  
INC 90.58 AZ 358.76

MD 18981 TVD 12769.89  
INC 88.93 AZ 357.53

MD 19075 TVD 12771.16  
INC 89.53 AZ 358.68

MD 19170 TVD 12773.55  
INC 87.59 AZ 356.74

MD 19264 TVD 12775.89  
INC 89.55 AZ 0.08

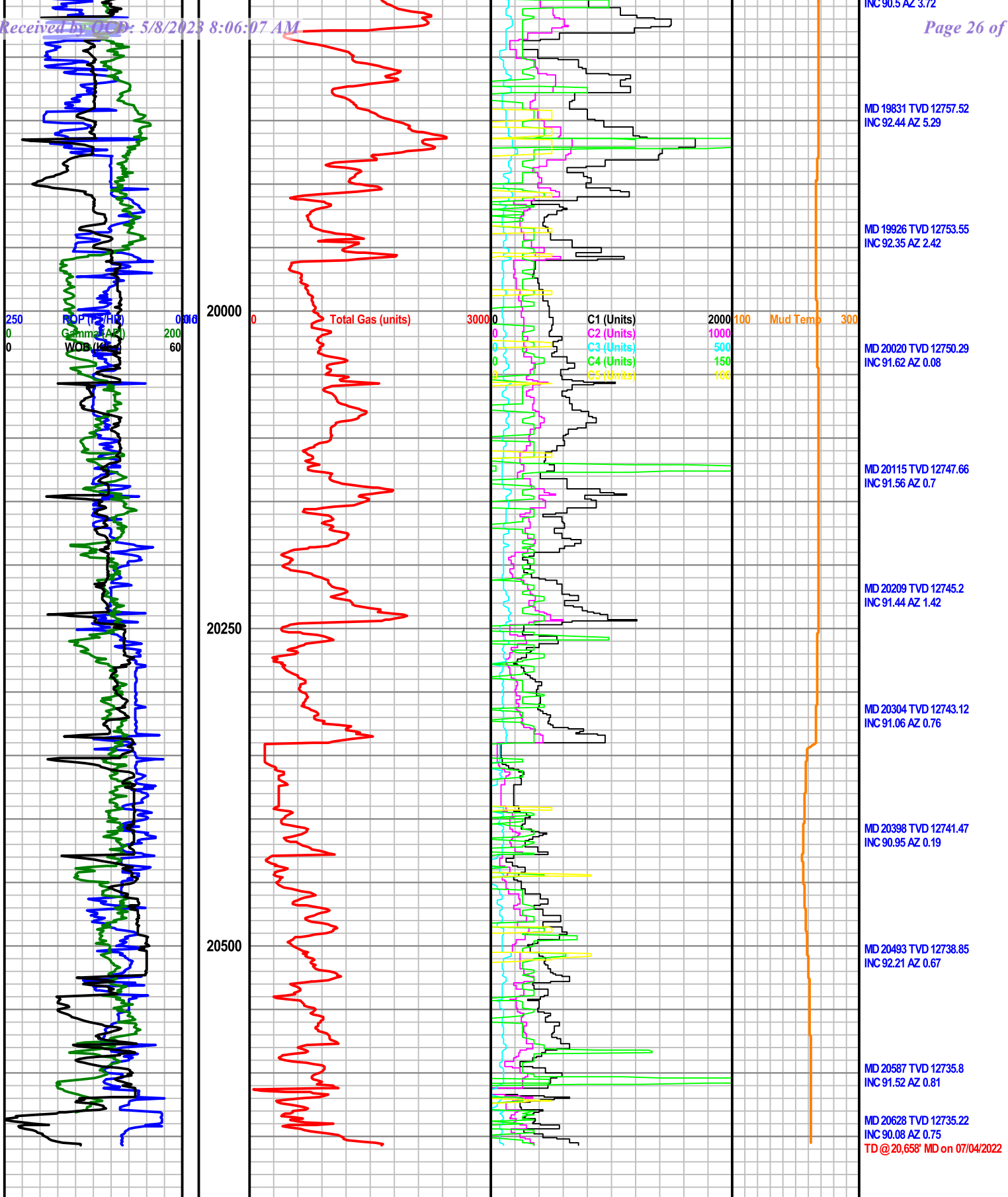
MD 19359 TVD 12773.64  
INC 93.17 AZ 3.53

MD 19454 TVD 12769.38  
INC 91.96 AZ 2.04

MD 19548 TVD 12765.69  
INC 92.55 AZ 2.8

MD 19643 TVD 12761.95  
INC 91.96 AZ 4.23

MD 19737 TVD 12759.93



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  
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

**WELL LOCATION AND ACREAGE DEDICATION AS-DRILLED PLAT**

<sup>1</sup> API Number <b>30-025-47020</b>	<sup>2</sup> Pool Code <b>96994</b>	<sup>3</sup> Pool Name <b>PITCHFORK RANCH; WOLFCAMP (SOUTH)</b>
<sup>4</sup> Property Code <b>322429</b>	Property Name <b>ENDER WIGGINS 14 WA FED COM</b>	
<sup>7</sup> OGRID No. <b>372098</b>	<sup>8</sup> Operator Name <b>MARATHON OIL PERMIAN LLC.</b>	
		<sup>6</sup> Well Number <b>19H</b>
		<sup>9</sup> Elevation <b>3358'</b>

<sup>10</sup> 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>H</b>	<b>14</b>	<b>25S</b>	<b>34E</b>		<b>2489</b>	<b>NORTH</b>	<b>1166</b>	<b>EAST</b>	<b>LEA</b>
<sup>11</sup> 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
<b>A</b>	<b>11</b>	<b>25S</b>	<b>34E</b>		<b>101</b>	<b>NORTH</b>	<b>1219</b>	<b>EAST</b>	<b>LEA</b>
<sup>12</sup> Dedicated Acres <b>480.0</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code		<sup>15</sup> Order No.					

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.

**<sup>17</sup> 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.*

*[Signature]* **12/14/2022**  
Signature Date

**Adrian Covarrubias**  
Printed Name

E-mail Address

**<sup>18</sup> 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.*

**December 05, 2022**  
Date of Survey

*[Signature]*  
Signature and Seal of Professional Surveyor

**LLOYD P. SHORT 21653**  
Certificate Number

**CORNER COORDINATES NAD 83, SPCS NM EAST**  
A - X: 817639.91' / Y: 412351.77'  
B - X: 817618.10' / Y: 414990.73'  
C - X: 817573.89' / Y: 420269.32'  
D - X: 820223.16' / Y: 420283.84'  
E - X: 820265.61' / Y: 415005.00'  
F - X: 820286.63' / Y: 412366.15'

**CORNER COORDINATES NAD 27, SPCS NM EAST**  
A - X: 776453.56' / Y: 412293.69'  
B - X: 776431.87' / Y: 414932.58'  
C - X: 776387.92' / Y: 420211.03'  
D - X: 779037.14' / Y: 420225.52'  
E - X: 779079.34' / Y: 414946.82'  
F - X: 779100.24' / Y: 412308.05'

**BOTTOM HOLE LOCATION**  
101' FNL 1219' FEL, SECTION 11  
20658' MEASURED DEPTH IN FEET  
**NAD 83, SPCS NM EAST**  
X: 819005.30' / Y: 420176.52'  
LAT: 32.15196310N / LON: 103.43612934W  
**NAD 27, SPCS NM EAST**  
X: 777819.30' / Y: 420118.22'  
LAT: 32.15183781N / LON: 103.43566029W

**LAST TAKE POINT**  
135' FNL 1219' FEL, SECTION 11  
20624' MEASURED DEPTH IN FEET  
**NAD 83, SPCS NM EAST**  
X: 819004.85' / Y: 420142.42'  
LAT: 32.15186939N / LON: 103.43613171W  
**NAD 27, SPCS NM EAST**  
X: 777818.85' / Y: 420084.12'  
LAT: 32.15174409N / LON: 103.43566267W

**FIRST TAKE POINT**  
2495' FNL 1319' FEL, SECTION 14  
12974' MEASURED DEPTH IN FEET  
**NAD 83, SPCS NM EAST**  
X: 818966.36' / Y: 412503.08'  
LAT: 32.13087274N / LON: 103.43646162W  
**NAD 27, SPCS NM EAST**  
X: 777780.00' / Y: 412444.99'  
LAT: 32.13074733N / LON: 103.43599383W

**KICK OFF POINT**  
2160' FSL 1292' FEL, SECTION 14  
11543' MEASURED DEPTH IN FEET  
**NAD 83, SPCS NM EAST**  
X: 818998.78' / Y: 411879.47'  
LAT: 32.12915794N / LON: 103.43637367W  
**NAD 27, SPCS NM EAST**  
X: 777812.39' / Y: 411821.39'  
LAT: 32.12903252N / LON: 103.43590598W

**SURFACE HOLE LOCATION**  
2489' FNL 1166' FEL, SECTION 14  
0' MEASURED DEPTH IN FEET  
**NAD 83, SPCS NM EAST**  
X: 819119.45' / Y: 412509.65'  
LAT: 32.13088731N / LON: 103.43596694W  
**NAD 27, SPCS NM EAST**  
X: 777933.09' / Y: 412451.56'  
LAT: 32.13076189N / LON: 103.43549916W

Distances/areas relative to NAD 83 Combined Scale Factor: 0.99985058 Convergence Angle: 00°28'24.77529" LLOYD P. SHORT 21653

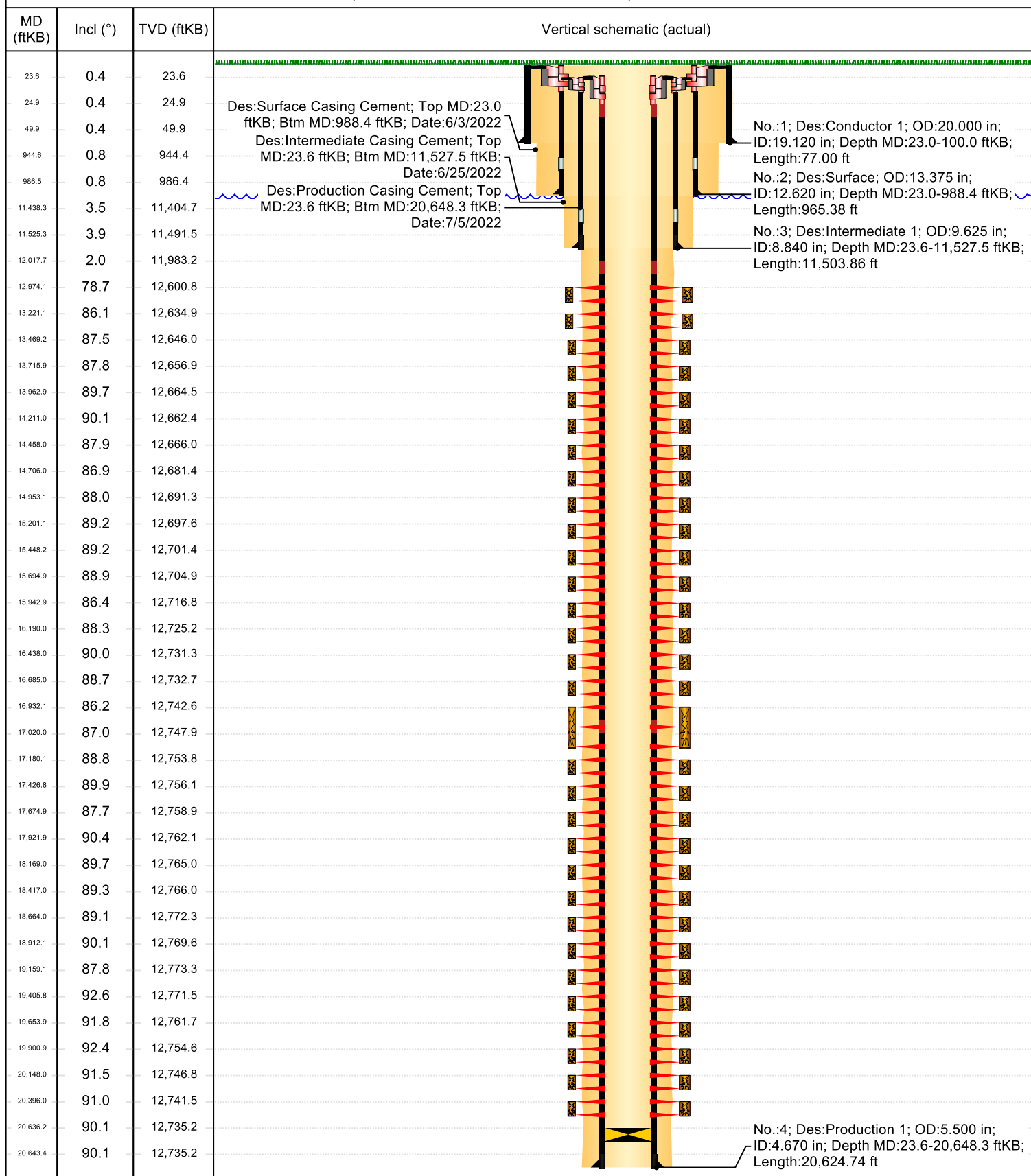


## Wellbore Schematic

**Well Name: ENDER WIGGINS 14 WA FED COM 19H**

State/Province NEW MEXICO	Country UNITED STATES	Field Name	Latitude (°) 32.13076170	Longitude (°) -103.43549910	North/South Distance (ft) 2,490.0	North/South Reference FNL
API/ IPO UWI 3002547020	KB-Ground Distance (ft) 23.00	KB-Mud Line Distance (ft)	Ground Elevation (ft) 3,358.00	Drilling Rig Spud Date 6/3/2022	Well Original Completion Date 10/12/2022	Well First Production Date 10/14/2022

HORIZONTAL, ENDER WIGGINS 14 WA FED COM 19H, 10/31/2022 8:14:47 AM





# Marathon Oil Permian LLC

Lea County, NM (NAD27 NME)

Ender Wiggins 14

Ender Wiggins 14 WA Fed Com 19H

OH / 69900

Design: Surveys (Cactus 169)

## Standard Survey Report

20 July, 2022





Survey Report



<b>Company:</b>	Marathon Oil Permian LLC	<b>Local Co-ordinate Reference:</b>	Well Ender Wiggins 14 WA Fed Com 19H
<b>Project:</b>	Lea County, NM (NAD27 NME)	<b>TVD Reference:</b>	RKB @ 3381.60usft (Cactus 169)
<b>Site:</b>	Ender Wiggins 14	<b>MD Reference:</b>	RKB @ 3381.60usft (Cactus 169)
<b>Well:</b>	Ender Wiggins 14 WA Fed Com 19H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH / 69900	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys (Cactus 169)	<b>Database:</b>	USA Compass

<b>Project</b>	Lea County, NM (NAD27 NME)		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	New Mexico East 3001		

<b>Site</b>	Ender Wiggins 14				
<b>Site Position:</b>		<b>Northing:</b>	412,451.19 usft	<b>Latitude:</b>	32° 7' 50.739168 N
<b>From:</b>	Map	<b>Easting:</b>	777,933.08 usft	<b>Longitude:</b>	103° 26' 7.797048 W
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.478 °

<b>Well</b>	Ender Wiggins 14 WA Fed Com 19H					
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	412,451.19 usft	<b>Latitude:</b>	32° 7' 50.739168 N
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	777,933.08 usft	<b>Longitude:</b>	103° 26' 7.797048 W
<b>Position Uncertainty</b>		1.00 usft	<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b>	3,358.00 usft

<b>Wellbore</b>	OH / 69900				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IFR	6/2/2022	6.341	59.710	47,504.00000000

<b>Design</b>	Surveys (Cactus 169)				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	359.54	

<b>Survey Program</b>	<b>Date</b>	7/4/2022			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
0.00	20,658.00	Phoenix MWD Surveys (OH / 69900)	MWD+HRGM	OWSG MWD + HRGM	

<b>Survey</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
163.00	0.36	278.81	163.00	0.08	-0.51	0.08	0.22	0.22	0.00	
<b>First Phoenix MWD Survey</b>										
223.00	0.41	276.73	223.00	0.13	-0.91	0.14	0.09	0.08	-3.47	
313.00	0.37	266.93	313.00	0.15	-1.52	0.17	0.09	-0.04	-10.89	
400.00	0.62	233.92	399.99	-0.14	-2.18	-0.12	0.42	0.29	-37.94	
495.00	0.53	255.04	494.99	-0.55	-3.02	-0.53	0.24	-0.09	22.23	
584.00	0.87	241.71	583.98	-0.98	-4.01	-0.95	0.42	0.38	-14.98	
674.00	1.24	247.51	673.97	-1.68	-5.51	-1.63	0.43	0.41	6.44	
764.00	1.67	258.53	763.94	-2.31	-7.70	-2.25	0.57	0.48	12.24	
853.00	1.44	256.60	852.90	-2.83	-10.05	-2.75	0.27	-0.26	-2.17	



Survey Report



<b>Company:</b>	Marathon Oil Permian LLC	<b>Local Co-ordinate Reference:</b>	Well Ender Wiggins 14 WA Fed Com 19H
<b>Project:</b>	Lea County, NM (NAD27 NME)	<b>TVD Reference:</b>	RKB @ 3381.60usft (Cactus 169)
<b>Site:</b>	Ender Wiggins 14	<b>MD Reference:</b>	RKB @ 3381.60usft (Cactus 169)
<b>Well:</b>	Ender Wiggins 14 WA Fed Com 19H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH / 69900	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys (Cactus 169)	<b>Database:</b>	USA Compass

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)
917.00	0.89	247.52	916.89	-3.20	-11.30	-3.11	0.90	-0.86	-14.19
1,027.00	0.72	261.19	1,026.88	-3.64	-12.77	-3.53	0.23	-0.15	12.43
1,117.00	0.90	228.95	1,116.87	-4.19	-13.86	-4.08	0.54	0.20	-35.82
1,206.00	1.30	213.92	1,205.85	-5.48	-14.95	-5.36	0.55	0.45	-16.89
1,301.00	2.19	212.01	1,300.81	-7.92	-16.51	-7.78	0.94	0.94	-2.01
1,395.00	3.15	206.45	1,394.71	-11.75	-18.62	-11.60	1.06	1.02	-5.91
1,490.00	4.37	202.63	1,489.50	-17.43	-21.17	-17.26	1.31	1.28	-4.02
1,584.00	5.83	204.88	1,583.13	-25.07	-24.56	-24.87	1.57	1.55	2.39
1,679.00	6.84	203.04	1,677.54	-34.65	-28.80	-34.42	1.08	1.06	-1.94
1,774.00	6.51	199.73	1,771.90	-44.93	-32.83	-44.66	0.53	-0.35	-3.48
1,868.00	6.45	196.13	1,865.30	-55.01	-36.10	-54.72	0.44	-0.06	-3.83
1,963.00	6.12	190.74	1,959.73	-65.11	-38.53	-64.80	0.71	-0.35	-5.67
2,057.00	6.03	190.11	2,053.20	-74.90	-40.33	-74.57	0.12	-0.10	-0.67
2,152.00	6.15	187.43	2,147.67	-84.86	-41.86	-84.52	0.32	0.13	-2.82
2,246.00	5.94	186.84	2,241.14	-94.68	-43.09	-94.33	0.23	-0.22	-0.63
2,340.00	6.05	185.25	2,334.63	-104.44	-44.12	-104.08	0.21	0.12	-1.69
2,435.00	6.14	187.05	2,429.09	-114.47	-45.21	-114.10	0.22	0.09	1.89
2,530.00	6.05	187.26	2,523.56	-124.48	-46.46	-124.10	0.10	-0.09	0.22
2,624.00	5.88	184.87	2,617.05	-134.19	-47.50	-133.80	0.32	-0.18	-2.54
2,719.00	5.89	185.09	2,711.55	-143.89	-48.34	-143.50	0.03	0.01	0.23
2,813.00	6.00	182.04	2,805.04	-153.61	-48.95	-153.21	0.36	0.12	-3.24
2,908.00	5.89	182.95	2,899.53	-163.44	-49.37	-163.03	0.15	-0.12	0.96
3,002.00	5.90	181.39	2,993.03	-173.08	-49.74	-172.68	0.17	0.01	-1.66
3,095.00	5.90	180.93	3,085.54	-182.64	-49.93	-182.23	0.05	0.00	-0.49
3,191.00	5.96	179.78	3,181.03	-192.56	-49.99	-192.15	0.14	0.06	-1.20
3,286.00	5.83	179.98	3,275.52	-202.31	-49.97	-201.91	0.14	-0.14	0.21
3,380.00	5.80	178.71	3,369.04	-211.84	-49.86	-211.43	0.14	-0.03	-1.35
3,474.00	5.96	176.01	3,462.55	-221.45	-49.42	-221.05	0.34	0.17	-2.87
3,569.00	5.81	177.05	3,557.05	-231.18	-48.83	-230.78	0.19	-0.16	1.09
3,663.00	5.97	177.88	3,650.55	-240.81	-48.40	-240.42	0.19	0.17	0.88
3,758.00	5.93	180.17	3,745.04	-250.66	-48.23	-250.26	0.25	-0.04	2.41
3,853.00	5.95	179.42	3,839.53	-260.49	-48.20	-260.09	0.08	0.02	-0.79
3,947.00	6.02	182.51	3,933.02	-270.28	-48.36	-269.89	0.35	0.07	3.29
4,042.00	6.03	183.16	4,027.49	-280.24	-48.86	-279.84	0.07	0.01	0.68
4,136.00	5.99	184.80	4,120.97	-290.06	-49.54	-289.65	0.19	-0.04	1.74
4,230.00	6.11	188.56	4,214.45	-299.89	-50.69	-299.48	0.44	0.13	4.00
4,325.00	5.87	189.77	4,308.93	-309.68	-52.27	-309.25	0.29	-0.25	1.27
4,419.00	6.04	194.78	4,402.43	-319.20	-54.35	-318.75	0.58	0.18	5.33
4,514.00	6.02	199.27	4,496.90	-328.74	-57.27	-328.27	0.50	-0.02	4.73
4,608.00	5.95	199.51	4,590.39	-337.98	-60.52	-337.48	0.08	-0.07	0.26
4,702.00	5.97	198.36	4,683.88	-347.21	-63.69	-346.69	0.13	0.02	-1.22
4,797.00	6.08	199.46	4,778.36	-356.65	-66.92	-356.10	0.17	0.12	1.16
4,891.00	5.77	197.48	4,871.85	-365.85	-70.00	-365.27	0.39	-0.33	-2.11



Survey Report



<b>Company:</b>	Marathon Oil Permian LLC	<b>Local Co-ordinate Reference:</b>	Well Ender Wiggins 14 WA Fed Com 19H
<b>Project:</b>	Lea County, NM (NAD27 NME)	<b>TVD Reference:</b>	RKB @ 3381.60usft (Cactus 169)
<b>Site:</b>	Ender Wiggins 14	<b>MD Reference:</b>	RKB @ 3381.60usft (Cactus 169)
<b>Well:</b>	Ender Wiggins 14 WA Fed Com 19H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH / 69900	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys (Cactus 169)	<b>Database:</b>	USA Compass

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)	
4,986.00	6.16	197.85	4,966.34	-375.25	-73.00	-374.65	0.41	0.41	0.39	
5,080.00	6.15	194.15	5,059.80	-384.94	-75.77	-384.32	0.42	-0.01	-3.94	
5,175.00	6.09	189.72	5,154.26	-394.84	-77.87	-394.20	0.50	-0.06	-4.66	
5,269.00	5.94	186.95	5,247.74	-404.58	-79.30	-403.93	0.35	-0.16	-2.95	
5,364.00	5.98	184.71	5,342.23	-414.39	-80.30	-413.73	0.25	0.04	-2.36	
5,458.00	5.98	183.77	5,435.71	-424.16	-81.02	-423.49	0.10	0.00	-1.00	
5,553.00	6.12	180.21	5,530.19	-434.16	-81.37	-433.49	0.42	0.15	-3.75	
5,647.00	6.25	175.53	5,623.64	-444.27	-80.99	-443.61	0.55	0.14	-4.98	
5,742.00	6.16	172.36	5,718.08	-454.48	-79.91	-453.82	0.37	-0.09	-3.34	
5,836.00	6.09	170.24	5,811.55	-464.39	-78.39	-463.75	0.25	-0.07	-2.26	
5,931.00	6.22	171.47	5,906.00	-474.45	-76.77	-473.82	0.19	0.14	1.29	
6,025.00	5.99	171.37	5,999.47	-484.33	-75.28	-483.71	0.24	-0.24	-0.11	
6,120.00	6.11	174.75	6,093.94	-494.27	-74.07	-493.66	0.40	0.13	3.56	
6,214.00	6.19	174.35	6,187.40	-504.29	-73.12	-503.69	0.10	0.09	-0.43	
6,309.00	6.11	176.64	6,281.85	-514.44	-72.32	-513.84	0.27	-0.08	2.41	
6,403.00	6.19	179.46	6,375.31	-524.50	-71.98	-523.90	0.33	0.09	3.00	
6,498.00	6.21	181.36	6,469.75	-534.76	-72.05	-534.16	0.22	0.02	2.00	
6,592.00	6.22	184.34	6,563.20	-544.92	-72.56	-544.32	0.34	0.01	3.17	
6,687.00	6.21	184.87	6,657.64	-555.17	-73.38	-554.56	0.06	-0.01	0.56	
6,781.00	6.08	186.56	6,751.10	-565.18	-74.38	-564.56	0.24	-0.14	1.80	
6,876.00	6.09	188.84	6,845.57	-575.16	-75.73	-574.53	0.25	0.01	2.40	
6,971.00	6.17	190.76	6,940.02	-585.15	-77.46	-584.51	0.23	0.08	2.02	
7,065.00	6.13	190.34	7,033.48	-595.05	-79.30	-594.40	0.06	-0.04	-0.45	
7,160.00	6.24	191.15	7,127.93	-605.11	-81.21	-604.44	0.15	0.12	0.85	
7,254.00	5.73	188.04	7,221.42	-614.77	-82.86	-614.08	0.64	-0.54	-3.31	
7,349.00	3.57	175.67	7,316.10	-622.41	-83.30	-621.72	2.49	-2.27	-13.02	
7,444.00	1.71	145.33	7,411.00	-626.53	-82.27	-625.85	2.38	-1.96	-31.94	
7,538.00	0.22	49.42	7,504.99	-627.56	-81.33	-626.89	1.86	-1.59	-102.03	
7,633.00	0.09	135.23	7,599.99	-627.50	-81.14	-626.83	0.24	-0.14	90.33	
7,727.00	0.18	313.10	7,693.99	-627.45	-81.20	-626.78	0.29	0.10	189.22	
7,822.00	0.16	21.72	7,788.99	-627.22	-81.26	-626.55	0.20	-0.02	72.23	
7,916.00	0.12	305.40	7,882.99	-627.05	-81.29	-626.37	0.19	-0.04	-81.19	
8,011.00	0.16	169.93	7,977.99	-627.12	-81.34	-626.45	0.27	0.04	-142.60	
8,105.00	0.16	144.63	8,071.98	-627.35	-81.25	-626.68	0.07	0.00	-26.91	
8,200.00	0.14	74.49	8,166.98	-627.43	-81.06	-626.76	0.18	-0.02	-73.83	
8,295.00	0.13	289.45	8,261.98	-627.37	-81.05	-626.69	0.27	-0.01	-152.67	
8,389.00	0.18	163.55	8,355.98	-627.47	-81.11	-626.80	0.29	0.05	-133.94	
8,484.00	0.13	0.84	8,450.98	-627.51	-81.06	-626.84	0.32	-0.05	-171.27	
8,578.00	0.21	166.73	8,544.98	-627.57	-81.02	-626.90	0.36	0.09	176.48	
8,673.00	0.18	166.59	8,639.98	-627.88	-80.95	-627.21	0.03	-0.03	-0.15	
8,767.00	0.20	127.87	8,733.98	-628.13	-80.78	-627.46	0.14	0.02	-41.19	
8,862.00	0.10	246.66	8,828.98	-628.26	-80.73	-627.59	0.28	-0.11	125.04	
8,956.00	0.14	216.61	8,922.98	-628.39	-80.87	-627.72	0.08	0.04	-31.97	





Survey Report



<b>Company:</b>	Marathon Oil Permian LLC	<b>Local Co-ordinate Reference:</b>	Well Ender Wiggins 14 WA Fed Com 19H
<b>Project:</b>	Lea County, NM (NAD27 NME)	<b>TVD Reference:</b>	RKB @ 3381.60usft (Cactus 169)
<b>Site:</b>	Ender Wiggins 14	<b>MD Reference:</b>	RKB @ 3381.60usft (Cactus 169)
<b>Well:</b>	Ender Wiggins 14 WA Fed Com 19H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH / 69900	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys (Cactus 169)	<b>Database:</b>	USA Compass

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)	
9,051.00	0.14	66.62	9,017.98	-628.43	-80.83	-627.76	0.28	0.00	-157.88	
9,145.00	0.20	112.33	9,111.98	-628.45	-80.58	-627.78	0.15	0.06	48.63	
9,240.00	0.23	91.94	9,206.98	-628.52	-80.23	-627.85	0.09	0.03	-21.46	
9,334.00	0.11	160.13	9,300.98	-628.61	-80.01	-627.95	0.23	-0.13	72.54	
9,429.00	0.05	239.37	9,395.98	-628.72	-80.02	-628.05	0.12	-0.06	83.41	
9,524.00	0.09	202.36	9,490.98	-628.81	-80.08	-628.14	0.06	0.04	-38.96	
9,618.00	0.28	82.00	9,584.98	-628.84	-79.88	-628.18	0.36	0.20	-128.04	
9,721.00	0.66	300.65	9,687.98	-628.51	-80.14	-627.84	0.87	0.37	-137.23	
9,815.00	0.68	252.88	9,781.97	-628.39	-81.14	-627.72	0.58	0.02	-50.82	
9,910.00	0.84	245.50	9,876.96	-628.85	-82.32	-628.17	0.20	0.17	-7.77	
10,004.00	0.93	269.08	9,970.95	-629.15	-83.71	-628.45	0.40	0.10	25.09	
10,099.00	1.44	281.13	10,065.93	-628.93	-85.65	-628.22	0.59	0.54	12.68	
10,193.00	1.77	289.09	10,159.90	-628.23	-88.18	-627.50	0.42	0.35	8.47	
10,288.00	1.22	304.18	10,254.86	-627.18	-90.40	-626.43	0.71	-0.58	15.88	
10,382.00	1.06	322.43	10,348.85	-625.93	-91.76	-625.17	0.42	-0.17	19.41	
10,477.00	0.57	313.82	10,443.84	-624.90	-92.64	-624.14	0.53	-0.52	-9.06	
10,571.00	0.27	229.79	10,537.83	-624.72	-93.14	-623.95	0.64	-0.32	-89.39	
10,666.00	0.54	249.49	10,632.83	-625.02	-93.73	-624.25	0.32	0.28	20.74	
10,761.00	0.50	230.48	10,727.83	-625.44	-94.47	-624.67	0.19	-0.04	-20.01	
10,855.00	0.52	247.96	10,821.82	-625.87	-95.18	-625.08	0.17	0.02	18.60	
10,950.00	0.82	263.97	10,916.82	-626.10	-96.26	-625.31	0.37	0.32	16.85	
11,044.00	1.26	259.25	11,010.80	-626.36	-97.94	-625.56	0.48	0.47	-5.02	
11,139.00	1.42	252.65	11,105.78	-626.91	-100.09	-626.08	0.23	0.17	-6.95	
11,233.00	2.44	249.75	11,199.72	-627.95	-103.08	-627.10	1.09	1.09	-3.09	
11,328.00	3.14	259.41	11,294.61	-629.13	-107.54	-628.24	0.89	0.74	10.17	
11,423.00	3.41	264.57	11,389.45	-629.87	-112.91	-628.94	0.42	0.28	5.43	
11,554.00	4.04	275.40	11,520.18	-629.81	-121.38	-628.81	0.72	0.48	8.27	
11,623.00	3.87	308.60	11,589.02	-628.12	-125.62	-627.10	3.28	-0.25	48.12	
11,717.00	3.98	332.63	11,682.81	-623.25	-129.60	-622.19	1.74	0.12	25.56	
11,811.00	2.65	346.58	11,776.65	-618.24	-131.60	-617.16	1.64	-1.41	14.84	
11,905.00	2.07	329.67	11,870.57	-614.66	-132.97	-613.57	0.96	-0.62	-17.99	
12,000.00	1.96	307.08	11,965.51	-612.20	-135.13	-611.09	0.84	-0.12	-23.78	
12,022.00	1.95	301.77	11,987.50	-611.77	-135.75	-610.66	0.82	-0.05	-24.14	
12,095.00	4.07	326.74	12,060.40	-608.95	-138.22	-607.82	3.35	2.90	34.21	
12,190.00	15.03	342.04	12,153.95	-594.37	-143.89	-593.20	11.74	11.54	16.11	
12,284.00	26.38	347.77	12,241.74	-562.26	-152.10	-561.02	12.25	12.07	6.10	
12,378.00	35.45	347.88	12,322.30	-515.10	-162.27	-513.78	9.65	9.65	0.12	
12,473.00	46.96	352.05	12,393.67	-453.56	-172.89	-452.16	12.45	12.12	4.39	
12,567.00	54.30	358.49	12,453.30	-381.24	-178.66	-379.79	9.43	7.81	6.85	
12,631.00	58.54	3.23	12,488.70	-327.97	-177.81	-326.53	9.05	6.63	7.41	
12,662.00	62.97	3.98	12,503.84	-300.98	-176.10	-299.55	14.45	14.29	2.42	
12,757.00	69.33	4.92	12,542.23	-214.40	-169.35	-213.03	6.76	6.69	0.99	
12,851.00	73.52	4.71	12,572.17	-125.63	-161.87	-124.33	4.46	4.46	-0.22	
12,946.00	78.09	4.10	12,595.46	-33.83	-154.80	-32.58	4.85	4.81	-0.64	



Survey Report



<b>Company:</b>	Marathon Oil Permian LLC	<b>Local Co-ordinate Reference:</b>	Well Ender Wiggins 14 WA Fed Com 19H
<b>Project:</b>	Lea County, NM (NAD27 NME)	<b>TVD Reference:</b>	RKB @ 3381.60usft (Cactus 169)
<b>Site:</b>	Ender Wiggins 14	<b>MD Reference:</b>	RKB @ 3381.60usft (Cactus 169)
<b>Well:</b>	Ender Wiggins 14 WA Fed Com 19H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH / 69900	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys (Cactus 169)	<b>Database:</b>	USA Compass

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)
13,040.00	79.99	3.01	12,613.33	58.28	-149.08	59.47	2.32	2.02	-1.16
13,135.00	83.30	3.19	12,627.14	152.12	-144.00	153.27	3.49	3.48	0.19
13,229.00	86.41	3.14	12,635.56	245.58	-138.83	246.69	3.31	3.31	-0.05
13,260.00	87.11	3.08	12,637.32	276.49	-137.15	277.58	2.27	2.26	-0.19
13,312.00	86.85	2.56	12,640.06	328.35	-134.60	329.42	1.12	-0.50	-1.00
13,407.00	88.79	0.44	12,643.67	423.24	-132.12	424.29	3.02	2.04	-2.23
13,501.00	86.82	0.18	12,647.27	517.17	-131.61	518.21	2.11	-2.10	-0.28
13,595.00	87.40	0.84	12,652.01	611.04	-130.77	612.07	0.93	0.62	0.70
13,690.00	87.88	0.13	12,655.92	705.96	-129.97	706.98	0.90	0.51	-0.75
13,784.00	87.60	1.07	12,659.63	799.88	-128.98	800.89	1.04	-0.30	1.00
13,879.00	88.22	2.20	12,663.09	894.77	-126.28	895.76	1.36	0.65	1.19
13,973.00	89.85	0.93	12,664.68	988.72	-123.71	989.68	2.20	1.73	-1.35
14,068.00	91.27	0.52	12,663.75	1,083.71	-122.51	1,084.65	1.56	1.49	-0.43
14,162.00	90.18	0.42	12,662.56	1,177.69	-121.74	1,178.63	1.16	-1.16	-0.11
14,257.00	90.12	359.91	12,662.31	1,272.69	-121.46	1,273.63	0.54	-0.06	-0.54
14,351.00	88.94	0.25	12,663.08	1,366.69	-121.33	1,367.62	1.31	-1.26	0.36
14,446.00	88.27	0.83	12,665.39	1,461.65	-120.44	1,462.57	0.93	-0.71	0.61
14,540.00	85.58	358.06	12,670.44	1,555.50	-121.34	1,556.42	4.10	-2.86	-2.95
14,635.00	86.17	359.20	12,677.27	1,650.22	-123.61	1,651.16	1.35	0.62	1.20
14,729.00	87.10	1.49	12,682.79	1,744.05	-123.04	1,744.98	2.63	0.99	2.44
14,823.00	88.02	1.48	12,686.79	1,837.93	-120.61	1,838.84	0.98	0.98	-0.01
14,918.00	87.99	0.64	12,690.10	1,932.86	-118.85	1,933.75	0.88	-0.03	-0.88
15,013.00	88.08	0.91	12,693.35	2,027.79	-117.57	2,028.67	0.30	0.09	0.28
15,107.00	88.78	0.84	12,695.93	2,121.75	-116.13	2,122.61	0.75	0.74	-0.07
15,202.00	89.24	0.71	12,697.57	2,216.72	-114.85	2,217.57	0.50	0.48	-0.14
15,296.00	89.47	0.59	12,698.63	2,310.71	-113.78	2,311.55	0.28	0.24	-0.13
15,391.00	88.33	359.76	12,700.45	2,405.69	-113.49	2,406.52	1.48	-1.20	-0.87
15,485.00	89.71	1.52	12,702.06	2,499.67	-112.44	2,500.49	2.38	1.47	1.87
15,580.00	89.16	0.29	12,703.00	2,594.65	-110.94	2,595.45	1.42	-0.58	-1.29
15,674.00	89.11	1.00	12,704.42	2,688.63	-109.88	2,689.43	0.76	-0.05	0.76
15,768.00	88.22	359.71	12,706.61	2,782.60	-109.30	2,783.39	1.67	-0.95	-1.37
15,863.00	85.91	358.43	12,711.47	2,877.45	-110.84	2,878.25	2.78	-2.43	-1.35
15,957.00	86.49	359.96	12,717.70	2,971.23	-112.16	2,972.04	1.74	0.62	1.63
16,052.00	88.71	2.57	12,721.68	3,066.11	-110.06	3,066.90	3.60	2.34	2.75
16,146.00	88.50	3.40	12,723.97	3,159.96	-105.17	3,160.70	0.91	-0.22	0.88
16,240.00	88.16	4.34	12,726.71	3,253.70	-98.82	3,254.39	1.06	-0.36	1.00
16,335.00	88.14	2.99	12,729.77	3,348.46	-92.75	3,349.09	1.42	-0.02	-1.42
16,429.00	90.01	3.39	12,731.29	3,442.29	-87.52	3,442.89	2.03	1.99	0.43
16,524.00	90.38	0.47	12,730.97	3,537.23	-84.33	3,537.79	3.10	0.39	-3.07
16,618.00	89.16	358.98	12,731.35	3,631.22	-84.78	3,631.79	2.05	-1.30	-1.59
16,713.00	88.51	357.26	12,733.28	3,726.15	-87.89	3,726.73	1.94	-0.68	-1.81
16,807.00	88.34	0.66	12,735.86	3,820.08	-89.60	3,820.68	3.62	-0.18	3.62
16,901.00	85.88	357.60	12,740.60	3,913.93	-91.02	3,914.54	4.17	-2.62	-3.26



Survey Report



<b>Company:</b>	Marathon Oil Permian LLC	<b>Local Co-ordinate Reference:</b>	Well Ender Wiggins 14 WA Fed Com 19H
<b>Project:</b>	Lea County, NM (NAD27 NME)	<b>TVD Reference:</b>	RKB @ 3381.60usft (Cactus 169)
<b>Site:</b>	Ender Wiggins 14	<b>MD Reference:</b>	RKB @ 3381.60usft (Cactus 169)
<b>Well:</b>	Ender Wiggins 14 WA Fed Com 19H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH / 69900	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys (Cactus 169)	<b>Database:</b>	USA Compass

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)	
16,996.00	86.73	359.03	12,746.72	4,008.69	-93.81	4,009.32	1.75	0.89	1.51	
17,090.00	87.80	358.68	12,751.21	4,102.57	-95.68	4,103.20	1.20	1.14	-0.37	
17,185.00	88.84	358.78	12,754.00	4,197.50	-97.79	4,198.15	1.10	1.09	0.11	
17,280.00	89.41	358.10	12,755.45	4,292.45	-100.37	4,293.12	0.93	0.60	-0.72	
17,374.00	89.88	359.36	12,756.03	4,386.43	-102.46	4,387.11	1.43	0.50	1.34	
17,469.00	89.95	358.61	12,756.17	4,481.41	-104.14	4,482.10	0.79	0.07	-0.79	
17,563.00	89.92	358.28	12,756.28	4,575.38	-106.69	4,576.08	0.35	-0.03	-0.35	
17,658.00	87.53	357.44	12,758.39	4,670.28	-110.24	4,671.01	2.67	-2.52	-0.88	
17,752.00	88.64	357.24	12,761.53	4,764.12	-114.60	4,764.89	1.20	1.18	-0.21	
17,847.00	90.22	359.64	12,762.48	4,859.07	-117.18	4,859.86	3.02	1.66	2.53	
17,941.00	90.41	358.20	12,761.96	4,953.05	-118.95	4,953.85	1.55	0.20	-1.53	
18,036.00	88.58	356.40	12,762.80	5,047.94	-123.43	5,048.76	2.70	-1.93	-1.89	
18,130.00	88.90	358.50	12,764.86	5,141.81	-127.61	5,142.67	2.26	0.34	2.23	
18,225.00	90.73	0.15	12,765.17	5,236.80	-128.73	5,237.66	2.59	1.93	1.74	
18,319.00	89.55	357.35	12,764.94	5,330.77	-130.78	5,331.64	3.23	-1.26	-2.98	
18,414.00	89.30	358.63	12,765.89	5,425.70	-134.11	5,426.60	1.37	-0.26	1.35	
18,508.00	88.02	357.74	12,768.09	5,519.63	-137.09	5,520.55	1.66	-1.36	-0.95	
18,603.00	88.33	357.69	12,771.12	5,614.50	-140.87	5,615.45	0.33	0.33	-0.05	
18,697.00	89.44	357.48	12,772.95	5,708.40	-144.83	5,709.38	1.20	1.18	-0.22	
18,792.00	92.09	359.50	12,771.68	5,803.34	-147.34	5,804.34	3.51	2.79	2.13	
18,886.00	90.58	358.76	12,769.49	5,897.30	-148.76	5,898.31	1.79	-1.61	-0.79	
18,981.00	88.93	357.53	12,769.89	5,992.25	-151.84	5,993.27	2.17	-1.74	-1.29	
19,075.00	89.53	358.68	12,771.16	6,086.19	-154.95	6,087.23	1.38	0.64	1.22	
19,170.00	87.59	356.74	12,773.55	6,181.07	-158.74	6,182.15	2.89	-2.04	-2.04	
19,264.00	89.55	0.08	12,775.89	6,274.99	-161.35	6,276.08	4.12	2.09	3.55	
19,359.00	93.17	3.53	12,773.64	6,369.88	-158.36	6,370.95	5.26	3.81	3.63	
19,454.00	91.96	2.04	12,769.39	6,464.67	-153.75	6,465.70	2.02	-1.27	-1.57	
19,548.00	92.55	2.80	12,765.69	6,558.51	-149.78	6,559.51	1.02	0.63	0.81	
19,643.00	91.96	4.23	12,761.95	6,653.26	-143.96	6,654.20	1.63	-0.62	1.51	
19,737.00	90.50	3.72	12,759.93	6,747.01	-137.45	6,747.90	1.65	-1.55	-0.54	
19,831.00	92.44	5.29	12,757.52	6,840.68	-130.07	6,841.50	2.65	2.06	1.67	
19,926.00	92.35	2.42	12,753.55	6,935.37	-123.69	6,936.14	3.02	-0.09	-3.02	
20,020.00	91.62	0.08	12,750.29	7,029.29	-121.64	7,030.04	2.61	-0.78	-2.49	
20,115.00	91.56	0.70	12,747.66	7,124.25	-120.99	7,124.99	0.66	-0.06	0.65	
20,209.00	91.44	1.42	12,745.20	7,218.20	-119.25	7,218.92	0.78	-0.13	0.77	
20,304.00	91.06	0.76	12,743.12	7,313.16	-117.45	7,313.87	0.80	-0.40	-0.69	
20,398.00	90.95	0.19	12,741.47	7,407.14	-116.67	7,407.84	0.62	-0.12	-0.61	
20,493.00	92.21	0.67	12,738.85	7,502.10	-115.95	7,502.79	1.42	1.33	0.51	
20,587.00	91.52	0.81	12,735.80	7,596.04	-114.74	7,596.72	0.75	-0.73	0.15	
20,628.00	90.08	0.75	12,735.22	7,637.03	-114.18	7,637.70	3.52	-3.51	-0.15	
<b>Final Phoenix MWD Survey</b>										
20,658.00	90.08	0.75	12,735.18	7,667.03	-113.79	7,667.70	0.00	0.00	0.00	
<b>Projection to TD</b>										



Survey Report



<b>Company:</b>	Marathon Oil Permian LLC	<b>Local Co-ordinate Reference:</b>	Well Ender Wiggins 14 WA Fed Com 19H
<b>Project:</b>	Lea County, NM (NAD27 NME)	<b>TVD Reference:</b>	RKB @ 3381.60usft (Cactus 169)
<b>Site:</b>	Ender Wiggins 14	<b>MD Reference:</b>	RKB @ 3381.60usft (Cactus 169)
<b>Well:</b>	Ender Wiggins 14 WA Fed Com 19H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH / 69900	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys (Cactus 169)	<b>Database:</b>	USA Compass

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
163.00	163.00	0.08	-0.51	First Phoenix MWD Survey	
20,628.00	12,735.22	7,637.03	-114.18	Final Phoenix MWD Survey	
20,658.00	12,735.18	7,667.03	-113.79	Projection to TD	

**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 214459

**ACKNOWLEDGMENTS**

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 214459
	Action Type: [C-105] Well (Re)Completion (C-105)

**ACKNOWLEDGMENTS**

<input checked="" type="checkbox"/>	I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.
<input checked="" type="checkbox"/>	I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion.

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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 214459

**CONDITIONS**

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 214459
	Action Type: [C-105] Well (Re)Completion (C-105)

**CONDITIONS**

Created By	Condition	Condition Date
plmartinez	Future submittals only need the C-105 Completion Report not the Well Log or the Survey. Well Log is submitted separately and the Survey is in the C-104 Completion Packet.	8/11/2023