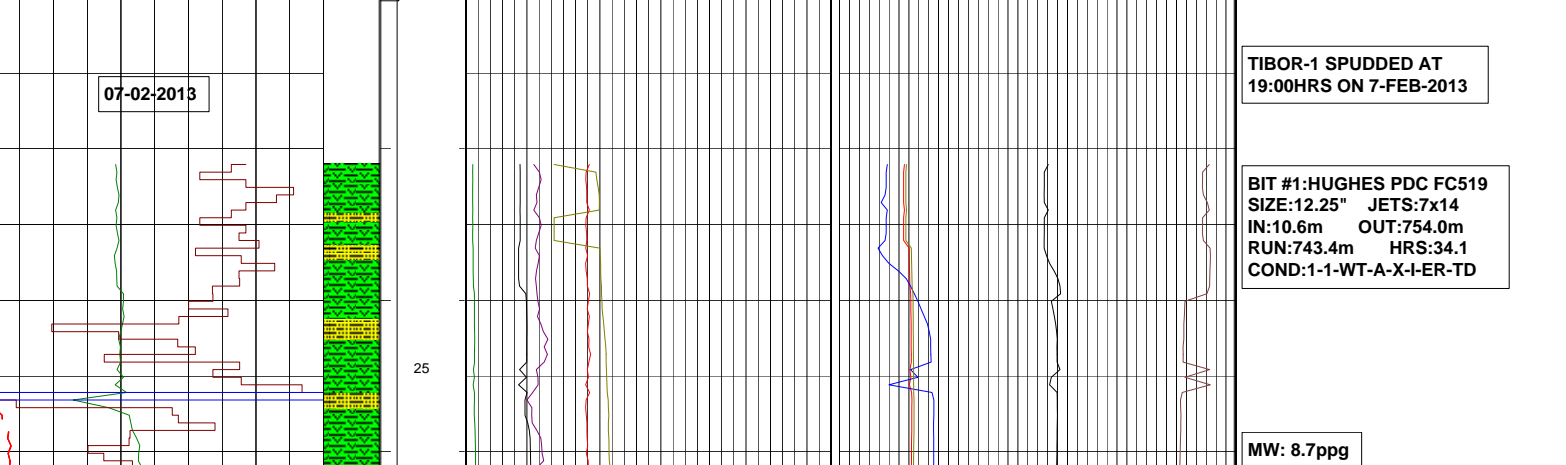
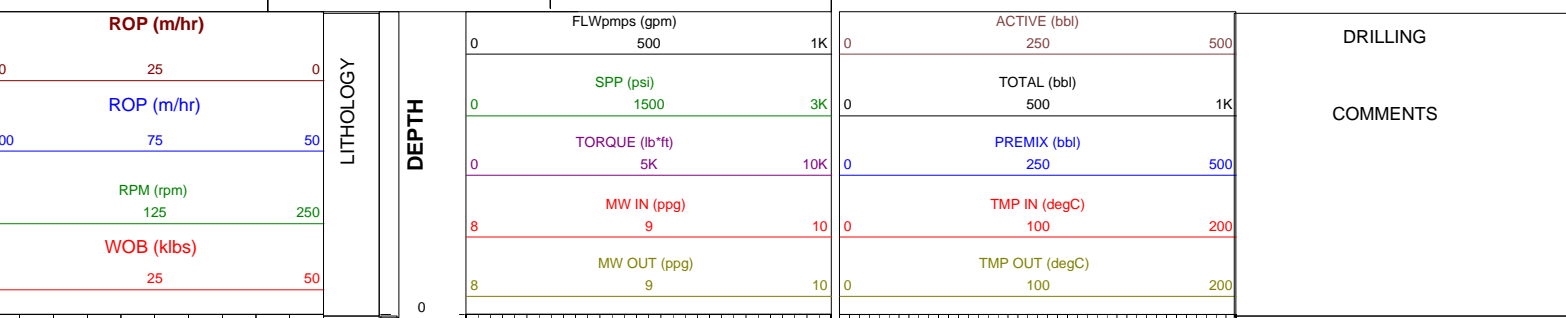


# DRILLING LOG

## TIBOR-1

Field : EXPLORATION	Rotary Table: 140.0 m	Rig : ENSIGN 918	Open Hole:	Cased Hole:	Loggers : SAM OTTOY
Permit : ATP 539	Ground Level : 135.0 m	Spud Date : 07-02-2013	12-1/4" : 754m	9-5/8" :	JOSHUA MARDEN
State : QLD	Datum: GDA 94	TD Date : 18-02-2013	8-1/2" :	7" : m	PRAMOD GADHE
Country : Australia	Lat. : 25°52' 17.796"S	Total Depth : 1723.0 mMDRT			DENNIS MALAZANI
Scale: 1/ 500	Long : 141° 16' 19.413"E	Final Status : PLUGGED & ABANDONED			

<b>LITHOLOGY</b> Sandstone Siltstone Claystone Shale Limestone Dolomite Coal Mudstone Evaporite Calcarenite Cement	<b>ACCESSORIES</b> Pyrite Glauconite Mica Chert Pyrite Fossils Iron Breccia Argillaceous Carbonaceous Foraminifera	Casing shoe Deviation survey Dst Core Wiper Trip	<b>ABBREVIATIONS</b> BOPD - Barrels of Oil Per Day BWPD - Barrels of Water Per Day CG - Connection Gas CO - Circulate Out COND - Condensate c/c - Crush Cut DST - Drill Stem Test FLOW - Flow Rate (gal/min) GCM - Gas Cut Mud GCW - Gas Cut Water GTS - Gas To Surface INJ - Injection of Mist (bbls/hr) LCM - Lost Circulation Material MMCFD - Million Cubic Feet / Day NGTS - No Gas To Surface NOTS - No Oil To Surface NR - No Returns OCM - Oil Cut Mud OG - Over Gauge OH - Open Hole OTS - Oil To Surface Q - Flow Rate REC - Recovery Rmf - Resistivity mud filtrate ROP - Rate Of Penetration RPM - Revolutions Per Minute RTSTM - Rate Too Small To Measure Rw - Resistivity water r/r - Ring Residue SCFM - Standard Cubic Ft/Min (air) SGCM - Slightly Gas Cut Mud SPM - Strokes Per Minute SPP - Stand Pipe Pressure SWC - Side-Wall Core TG - Trip Gas WOB - Weight On Bit
<b>MUD DATA</b> MW - Mud Weight (lb/gal) FV - Funnel Viscosity (s/qt) PV - Plastic Viscosity (cps) YP - Yield Point (lb/100ftsq) Gel - Gel Strength (10sec) WL - Water Loss (cc/30min) pH - Acidity / Alkalinity Ck - Cake (32nd/inch) Sol - Solids (% vol) Cl - Chlorides (mg/l)			



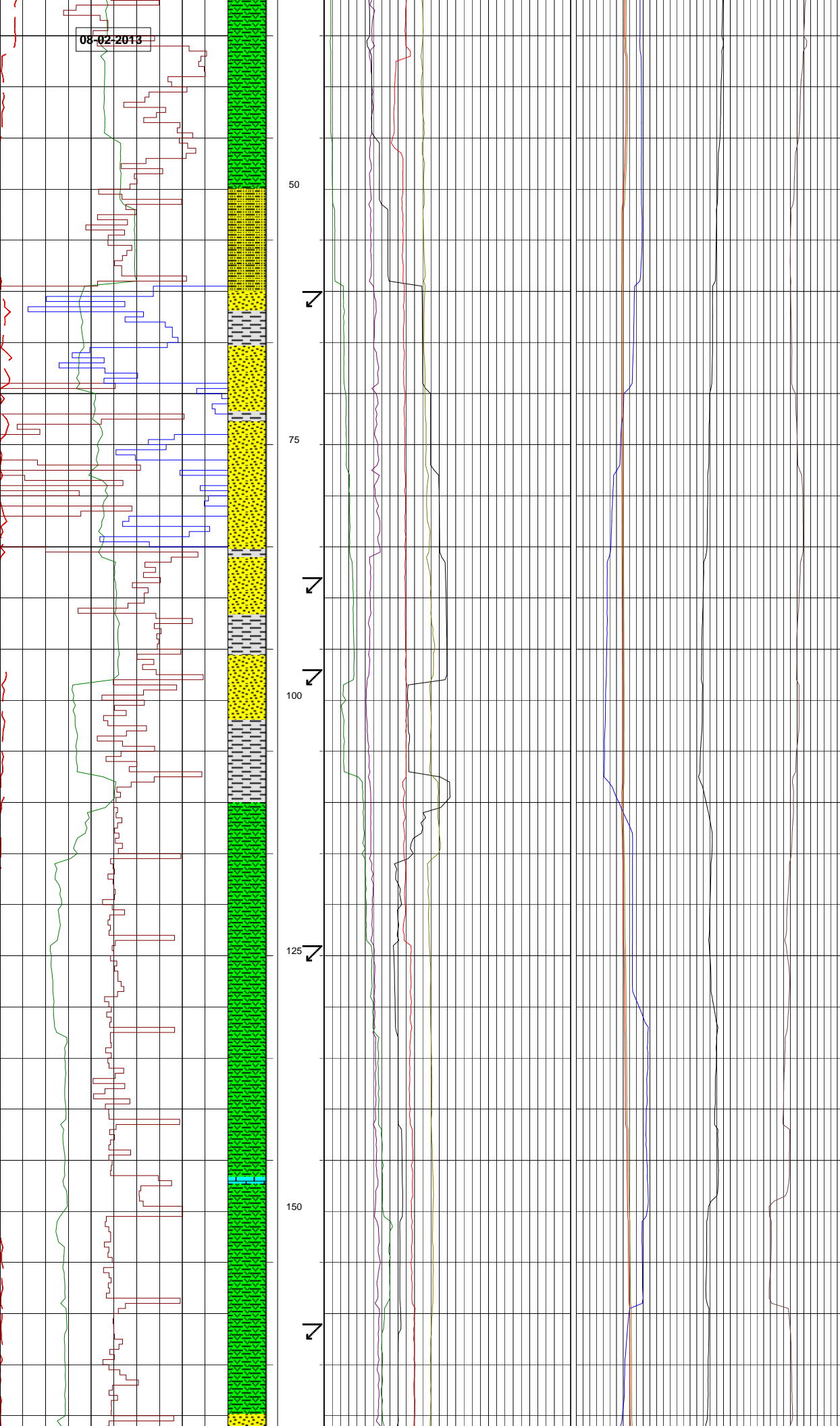
PV: 7  
YP: 4  
GEL: 2/4  
pH: 9.5  
CL: 24.3K  
KCL: 5.0

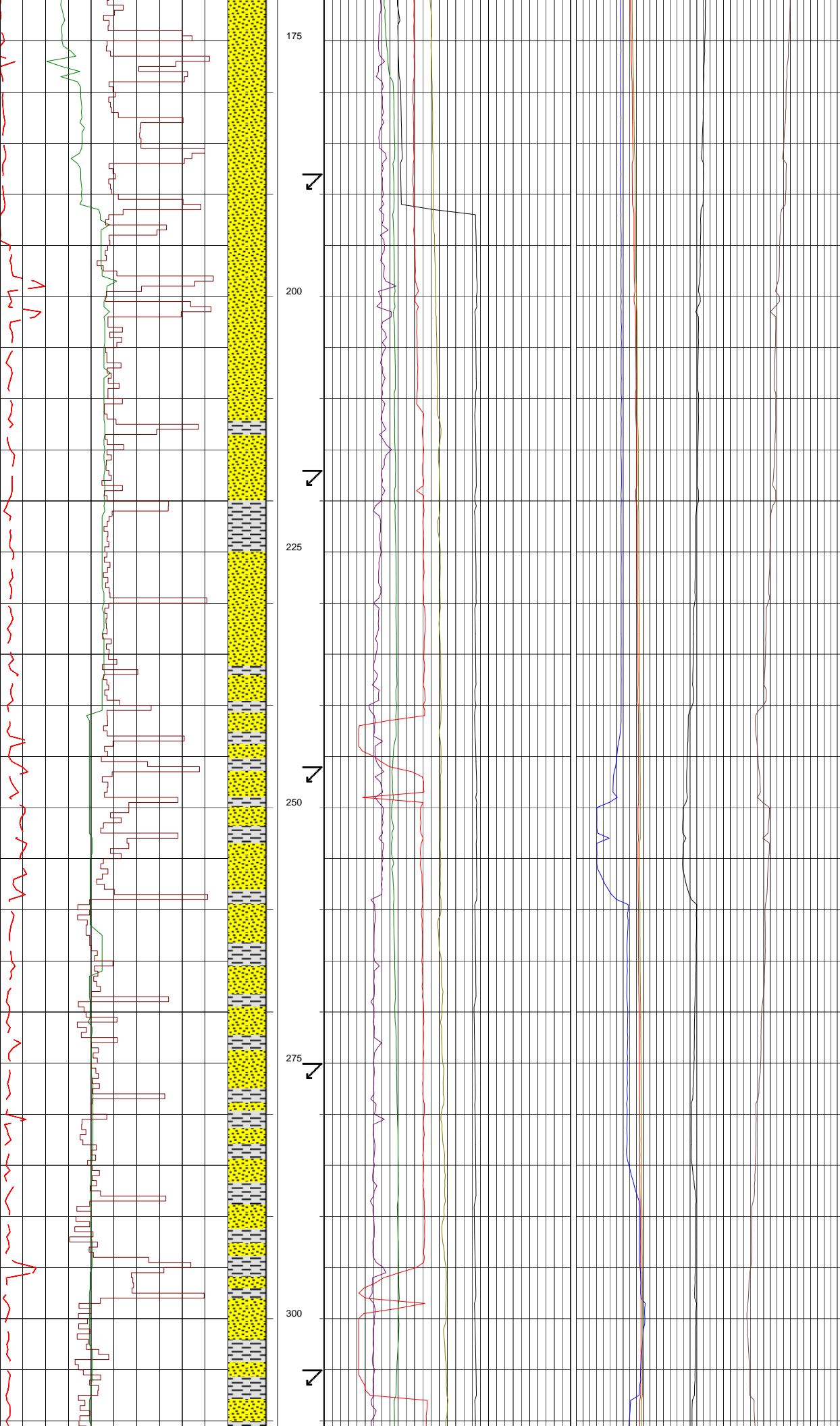
WOB: 0-4 klbs  
RPM: 33-89  
SPP: 0-1 psi  
FLW: 91-405 gpm  
TRQ: 2.4-4.0 klb\*ft

WOB: 0-2 klbs  
RPM: 88-101  
SPP: 102-367 psi  
FLW: 224-498 gpm  
TRQ: 1.6-2.2 klb\*ft

WOB: 0-2 klbs  
RPM: 88-110  
SPP: 209-721 psi  
FLW: 281-511 gpm  
TRQ: 1.7-2.1 klb\*ft

08-02-2019



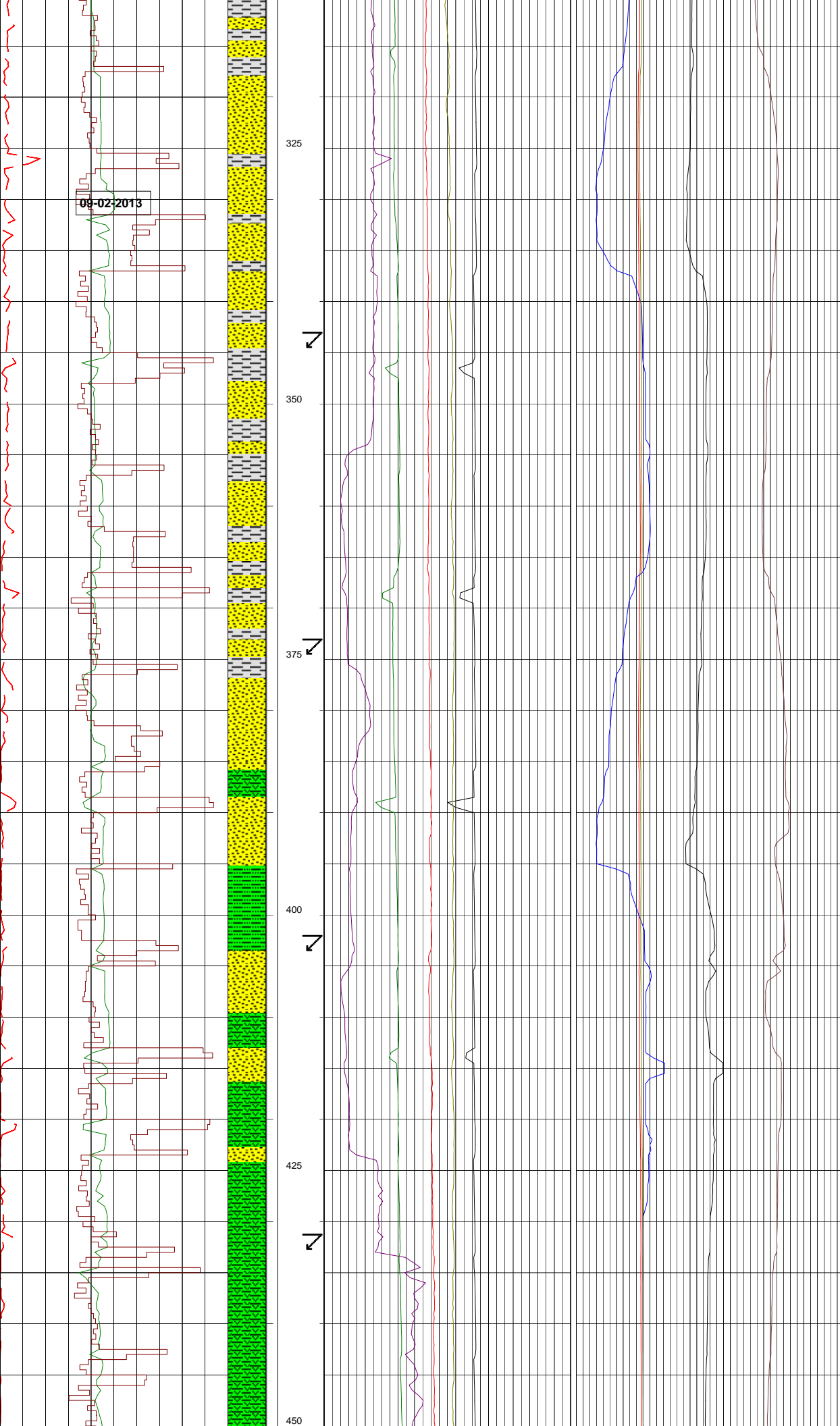


MW: 8.8ppg  
FV: 48  
PV: 13  
YP: 17  
GEL: 5/12  
pH: 9.5  
CL: 22.4K  
KCL: 4.5

WOB: 0-9 klbs  
RPM: 101-112  
SPP: 725-855 psi  
FLW: 295-620 gpm  
TRQ: 2.0-2.3 kib\*ft

WOB: 1-6 klbs  
RPM: 99-112  
SPP: 700-860 psi  
FLW: 300-615 gpm  
TRQ: 2.0-3.0 kib\*ft

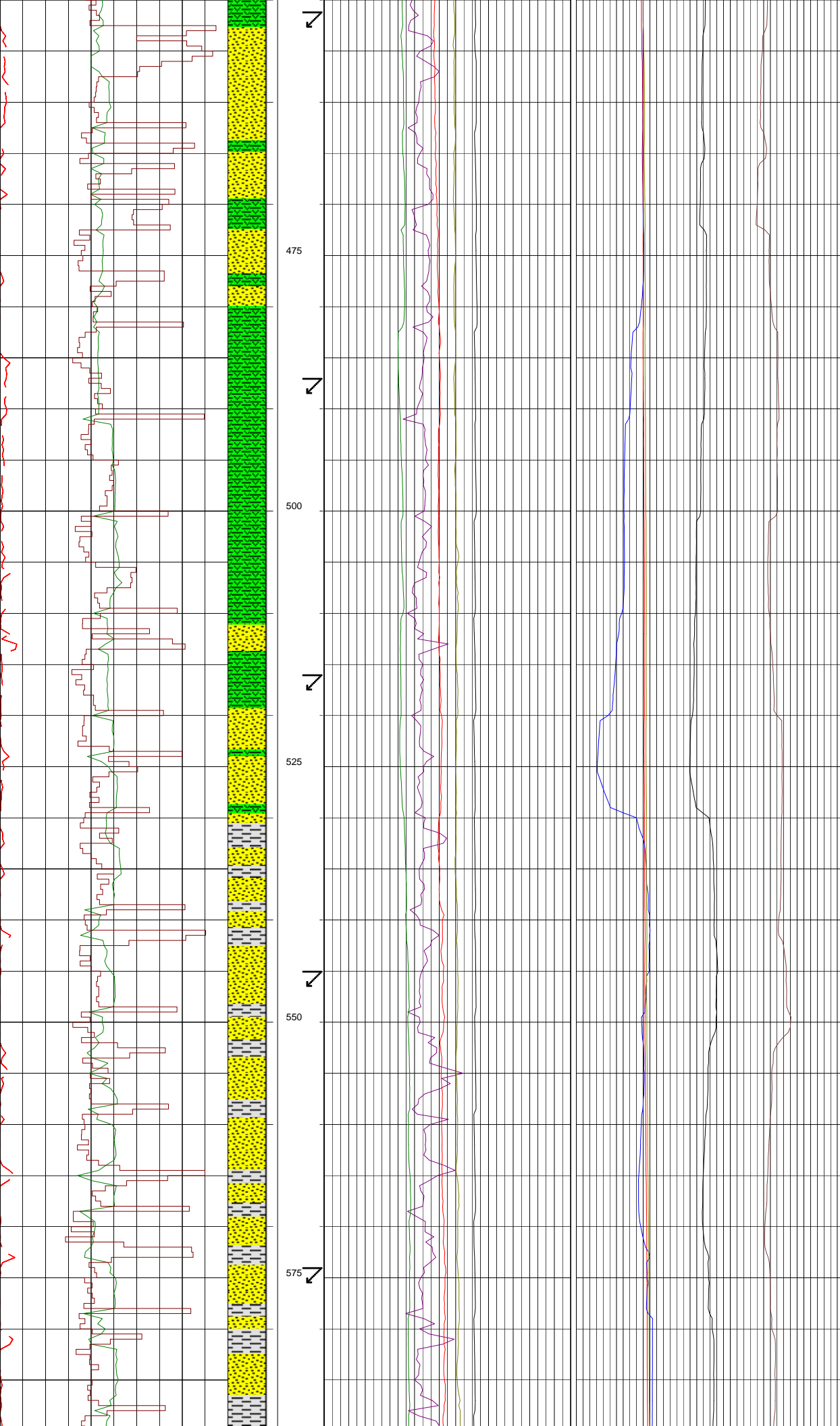
WOB: 1-7 klbs  
RPM: 97-112  
SPP: 818-916 psi  
FLW: 608-619 gpm  
TRQ: 1.8-2.5 kib\*ft



09-02-2013

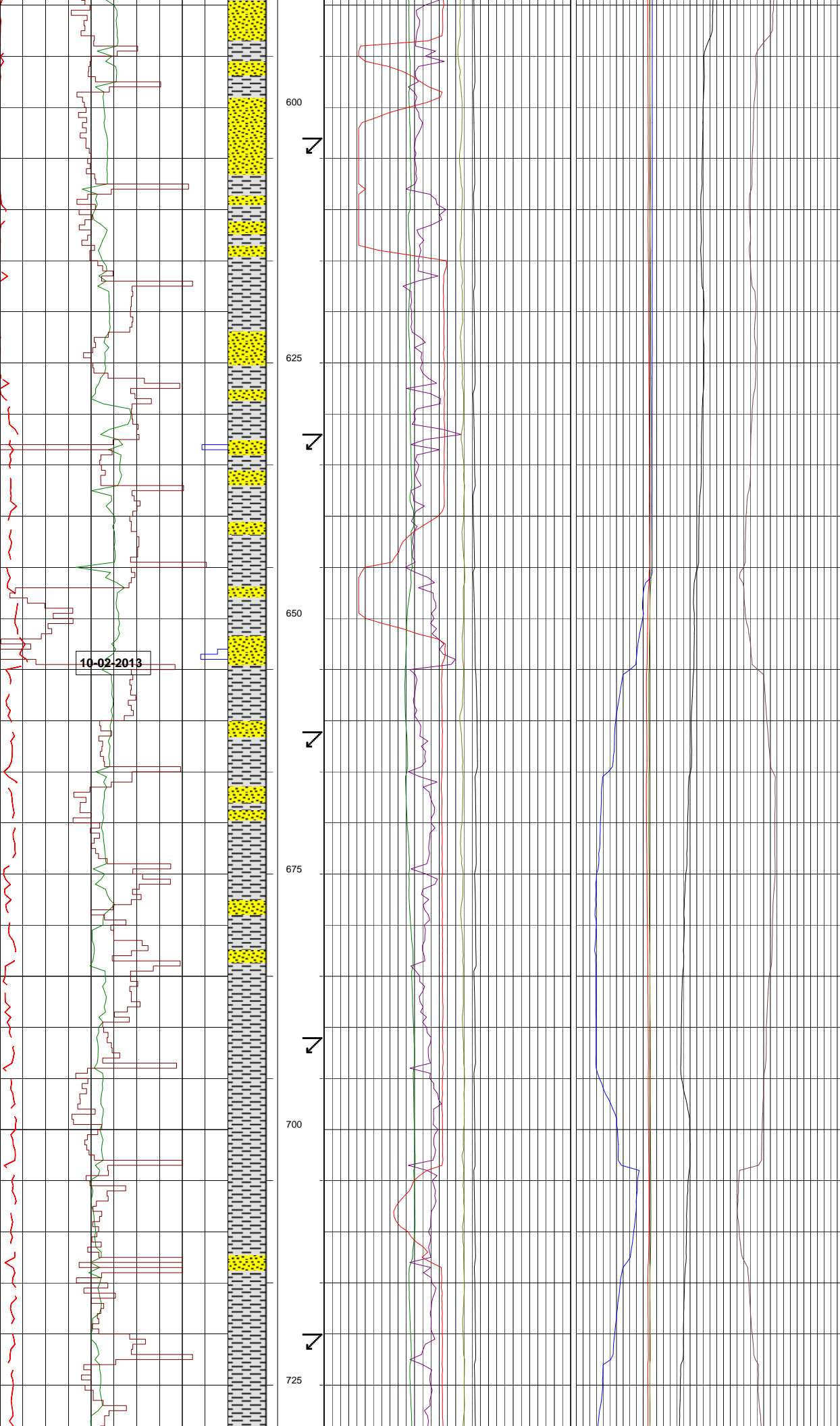
WOB: 1-8 klbs  
RPM: 90-126  
SPP: 746-910 psi  
FLW: 547-619 gpm  
TRQ: 1.8-2.7 kb\*ft

WOB: 1-4 klbs  
RPM: 91-116  
SPP: 628-924 psi  
FLW: 501-615 gpm  
TRQ: 1.1-2.7 kb\*ft



**WOB: 0-3 klbs**  
**RPM: 91-134**  
**SPP: 900-982 psi**  
**FLW: 606-621 gpm**  
**TRQ: 3.2-5.0 klb\*ft**

**WOB: 0-3 klbs**  
**RPM: 85-133**  
**SPP: 931-1054 psi**  
**FLW: 607-616 gpm**  
**TRQ: 3.3-5.6 klb\*ft**

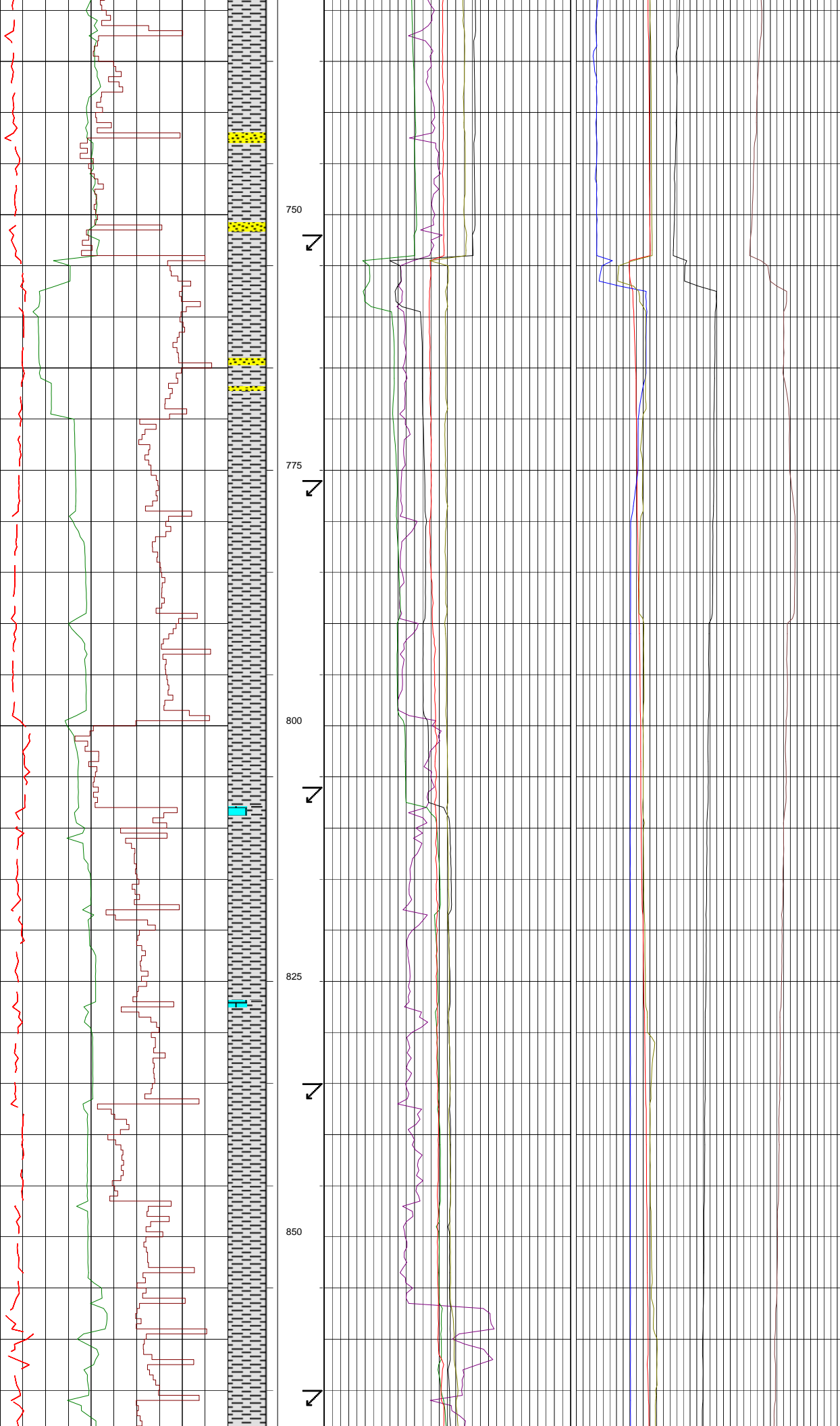


**WOB: 0-2 kibs**  
**RPM: 90-130**  
**SPP: 1022-1060 psi**  
**FLW: 605-613 gpm**  
**TRQ: 3.2-5.2 kib\*ft**

**WOB: 1-4 kibs**  
**RPM: 83-114**  
**SPP: 1008-1091 psi**  
**FLW: 604-613 gpm**  
**TRQ: 3.2-5.5 kib\*ft**

**WOB: 1-6 kibs**  
**RPM: 99-131**  
**SPP: 982-1101 psi**  
**FLW: 607-622 gpm**  
**TRQ: 3.4-5.2 kib\*ft**

10-02-2013



MW: 9.0ppg  
FV: 43  
PV: 12  
YP: 17  
GEL: 6/11/17  
pH: 9.5  
CL: 22.6K  
KCL: 4.0

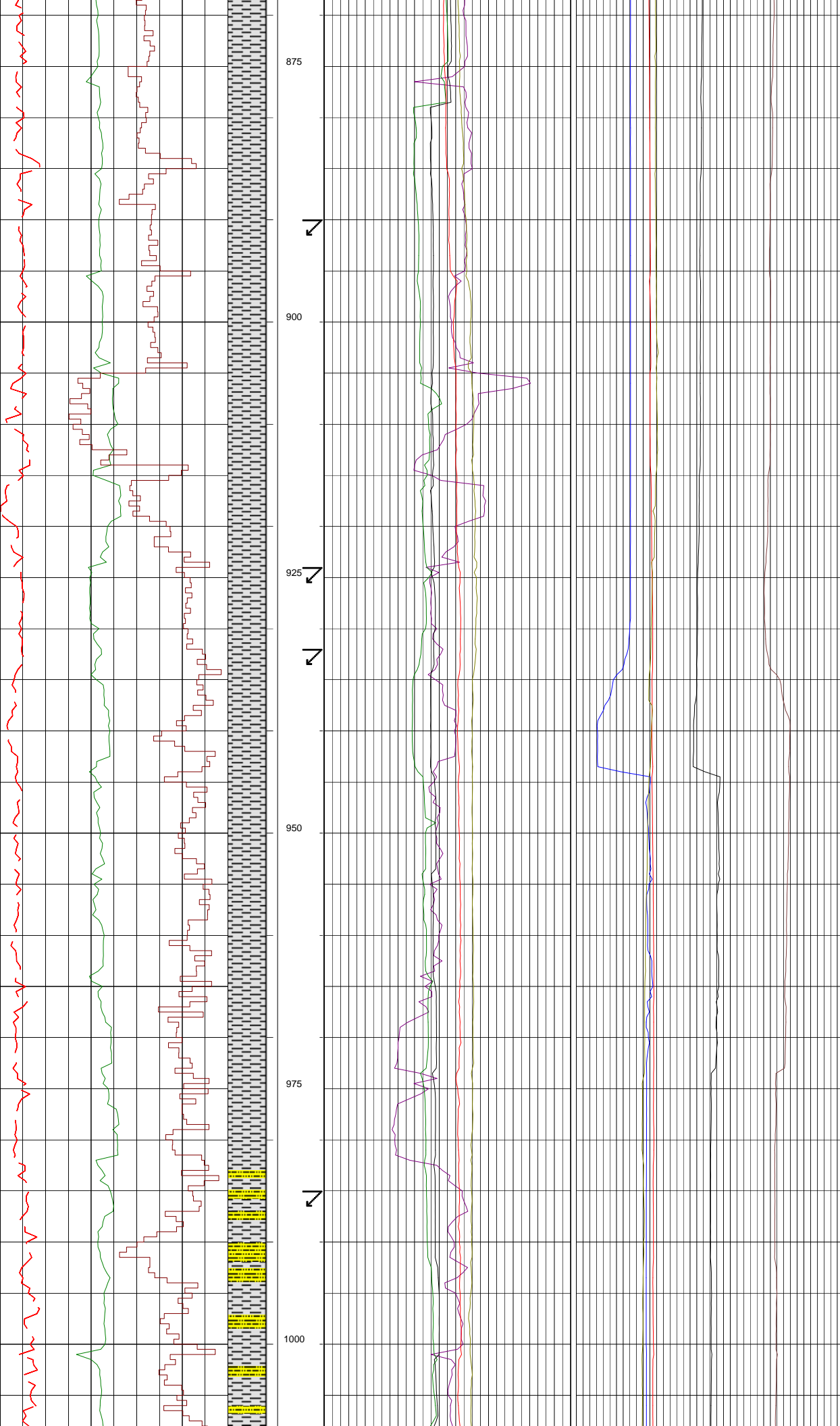
WOB: 1-6 klbs  
RPM: 99-131  
SPP: 982-1101 psi  
FLW: 607-622 gpm  
TRQ: 3.4-5.2 klb\*ft

BIT #2:HUGHES PDC Q505F  
SIZE:8.5" JETS:5x12  
IN:754m OUT:1486m  
RUN:732m HRS:58.8  
COND:3-4-BT-A-X-I-NR-HP

MW: 8.9ppg  
FV: 43  
PV: 10  
YP: 17  
GEL: 6/10/15  
pH: 9.5  
CL: 22.5K  
KCL: 4.0

MW: 8.9ppg  
FV: 42  
PV: 9  
YP: 17  
GEL: 6/10/14  
pH: 9.5  
CL: 23.3K  
KCL: 4.5

WOB: 0.8-8.6 klbs  
RPM: 73-117  
SPP: 979-1509 psi  
FLW: 421-517 gpm  
TRQ: 2.9-6.9 klb\*ft



MW: 8.9ppg  
FV: 42  
PV: 9  
YP: 17  
GEL: 6/11/15  
pH: 9.5  
CL: 23.8K  
KCL: 4.5

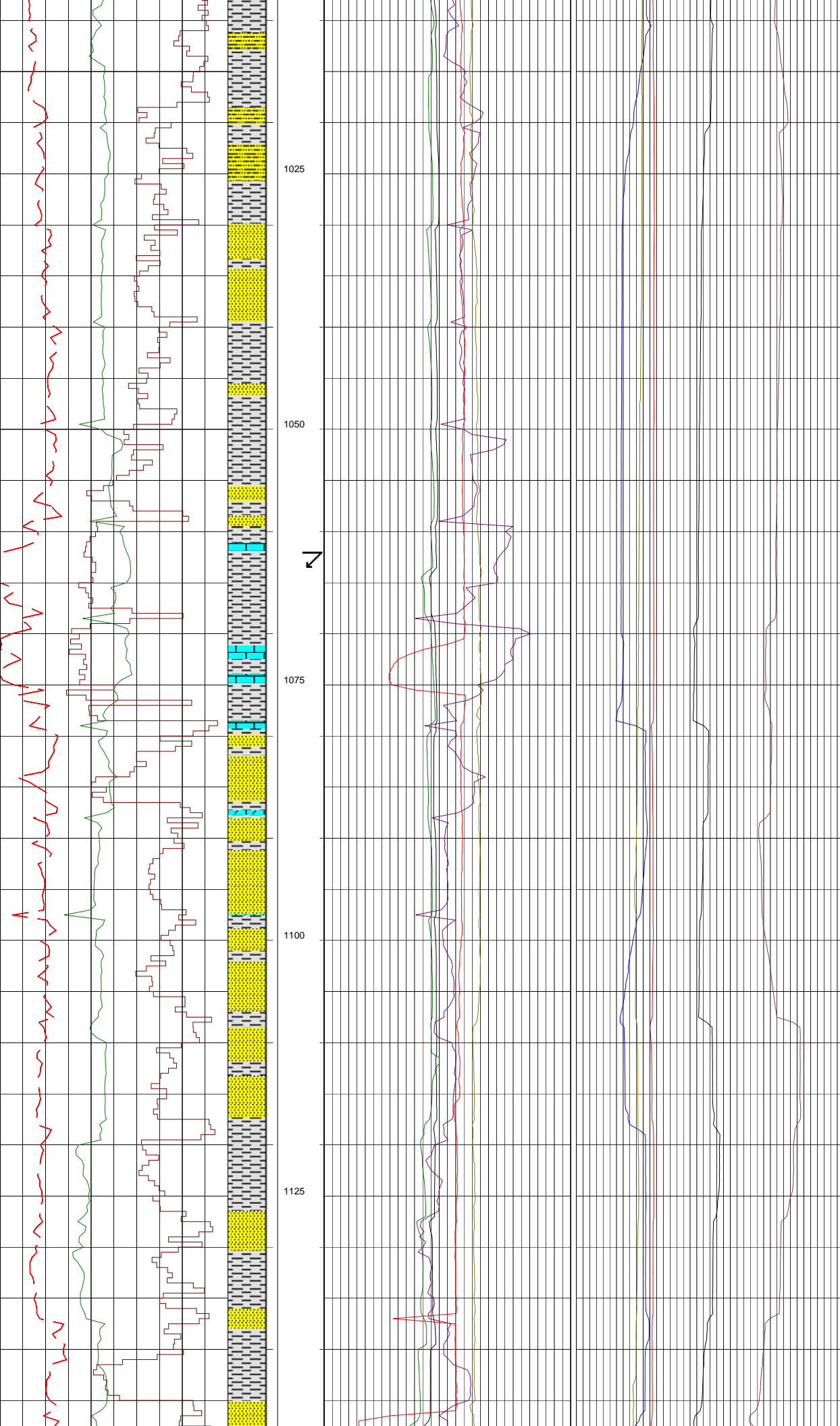
WOB: 0.8-8.7 klbs  
RPM: 73-117  
SPP: 979-1509 psi  
FLW: 421-517 gpm  
TRQ: 2.9-6.9 klb\*ft

WOB: 1-7 klbs  
RPM: 97-133  
SPP: 1071-1430 psi  
FLW: 431-454 gpm  
TRQ: 3.6-8.3 klb\*ft

MW: 9.0ppg  
FV: 41  
PV: 10  
YP: 16  
GEL: 5/11/17  
pH: 9.5  
CL: 23.1K  
KCL: 4.5

WOB: 0-13 klbs  
RPM: 84-145  
SPP: 1180-1374 psi  
FLW: 427-467 gpm  
TRQ: 2.7-8.4 klb\*ft

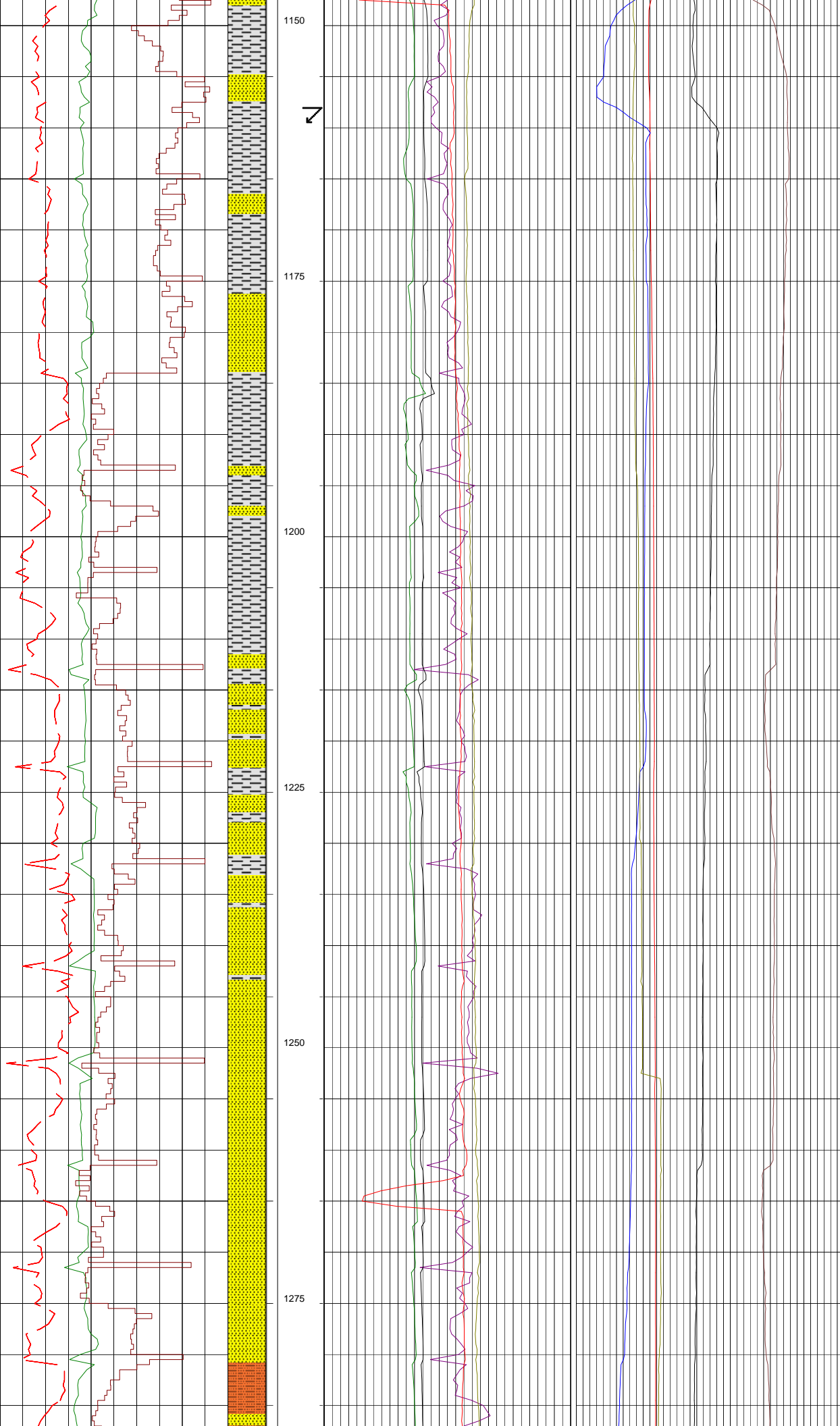




**WOB: 0-13 klbs**  
**RPM: 87-145**  
**SPP: 1180-1339 psi**  
**FLW: 427-460 gpm**  
**TRQ: 3.7-8.4 klb\*ft**

**WOB: 1-13.5 klbs**  
**RPM: 71-145**  
**SPP: 1118-1354 psi**  
**FLW: 427-461 gpm**  
**TRQ: 3.7-8.3 klb\*ft**

**MW: 9.0ppg**  
**FV: 40**  
**PV: 10**  
**YP: 15**



GEL: 5/9/14  
 pH: 9.0  
 CL: 21.4K  
 KCL: 4.0

MW: 9.0ppg  
 FV: 41  
 PV: 11  
 YP: 16  
 GEL: 5/10/14  
 pH: 9.5  
 CL: 27.5K  
 KCL: 4.0

WOB: 1-15 klbs  
 RPM: 74-103  
 SPP: 960-1234 psi  
 FLW: 377-448 gpm  
 TRQ: 3.6-6.2 klb\*ft

WOB: 1-17 klbs  
 RPM: 71-107  
 SPP: 1033-1135 psi  
 FLW: 390-409 gpm  
 TRQ: 3.8-7.0 klb\*ft

MW: 9.0ppg  
 FV: 40  
 PV: 11  
 YP: 15  
 GEL: 5/10/16  
 pH: 9.5  
 CL: 23.1K  
 KCL: 4.0

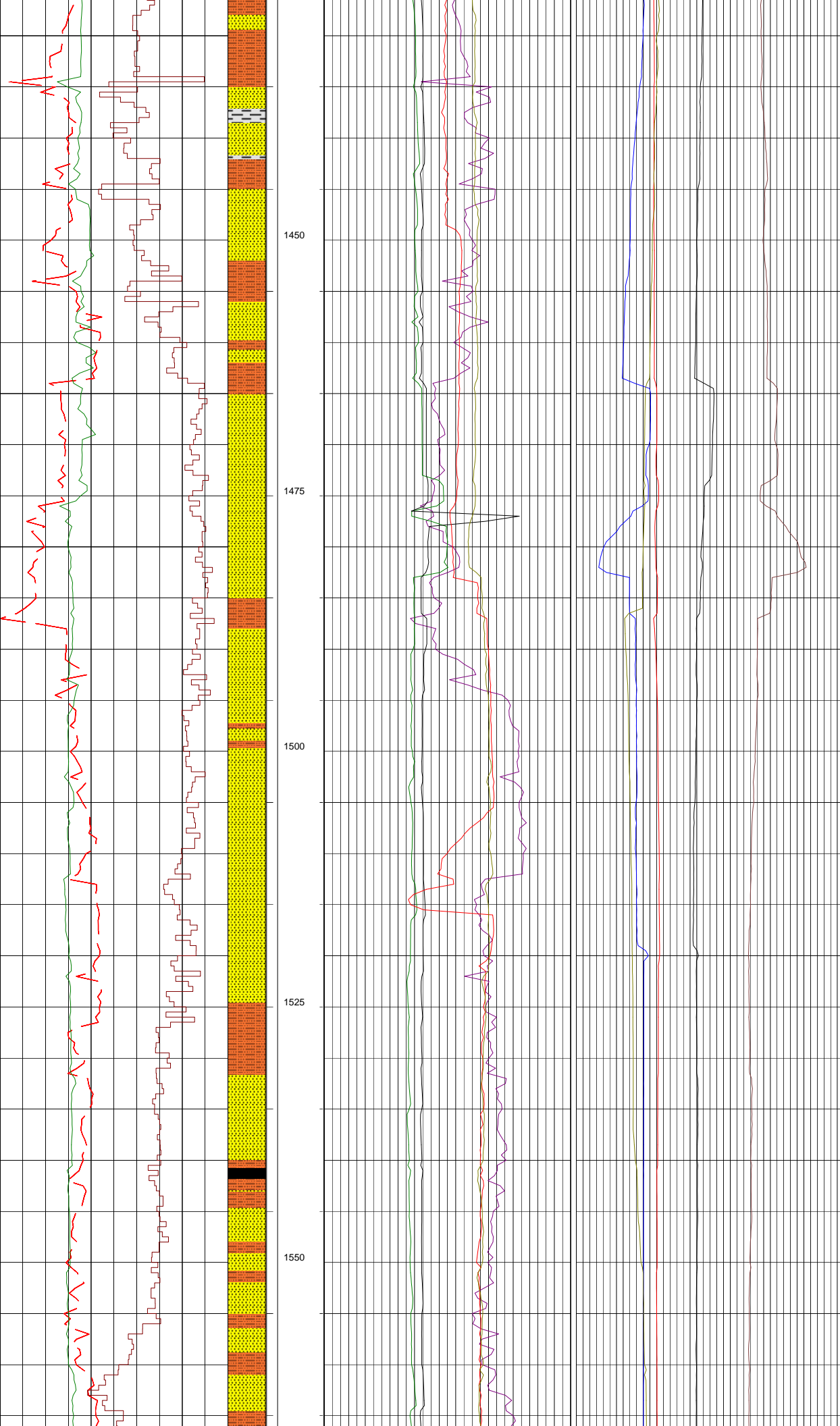


**WOB: 2-15 klbs**  
**RPM: 58-108**  
**SPP: 1056-1137 psi**  
**FLW: 388-405 gpm**  
**TRQ: 3.5-6.7 klb\*ft**

**WOB: 2-15 klbs**  
**RPM: 58-110**  
**SPP: 1070-1145 psi**  
**FLW: 390-405 gpm**  
**TRQ: 3.5-6.3 klb\*ft**

**MW: 9.1ppg**  
**FV: 40**  
**PV: 10**  
**YP: 16**  
**GEL: 5/10/16**  
**pH: 9.5**  
**CL: 23.4K**  
**KCL: 4.0**

**WOB: 4-17 klbs**  
**RPM: 68-101**  
**SPP: 1068-1199 psi**  
**FLW: 390-409 gpm**  
**TRQ: 4.7-8.4 klb\*ft**

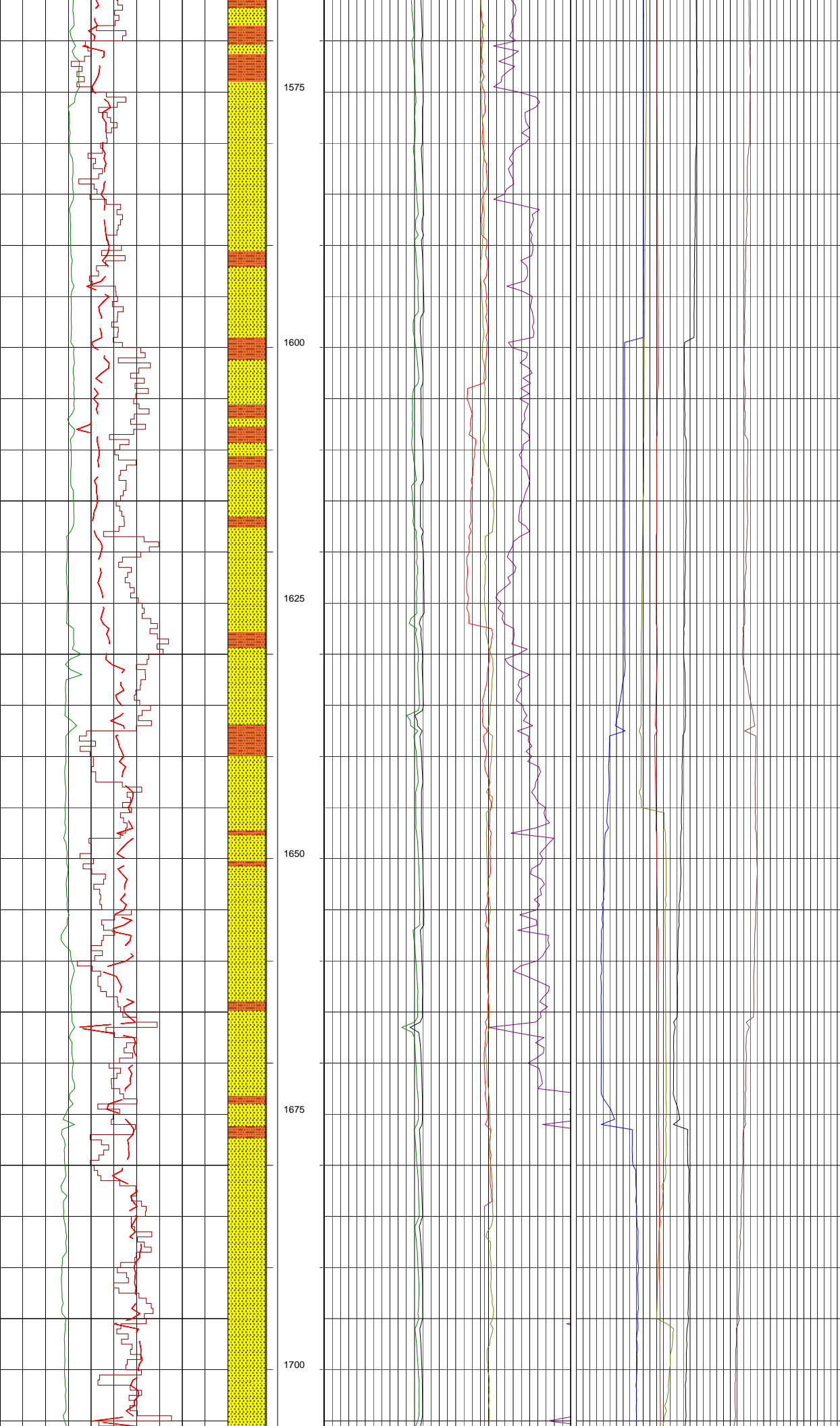


**WOB: 4-17 klbs**  
**RPM: 68-101**  
**SPP: 1068-1199 psi**  
**FLW: 390-409 gpm**  
**TRQ: 4.7-8.4 klb\*ft**

**BIT #3:HUGHES PDC DP505X**  
**SIZE:8.5" JETS:7x11**  
**IN:1486m OUT:1723m**  
**RUN:237m HRS:15.5**  
**COND:1-1-CT-A-X-I-RR-TD**

**WOB: 0-22 klbs**  
**RPM: 70-86**  
**SPP: 1008-1129 psi**  
**FLW: 393-417 gpm**  
**TRQ: 3.5-8.2 klb\*ft**

**MW: 9.3ppg**  
**FV: 46**  
**PV: 13**



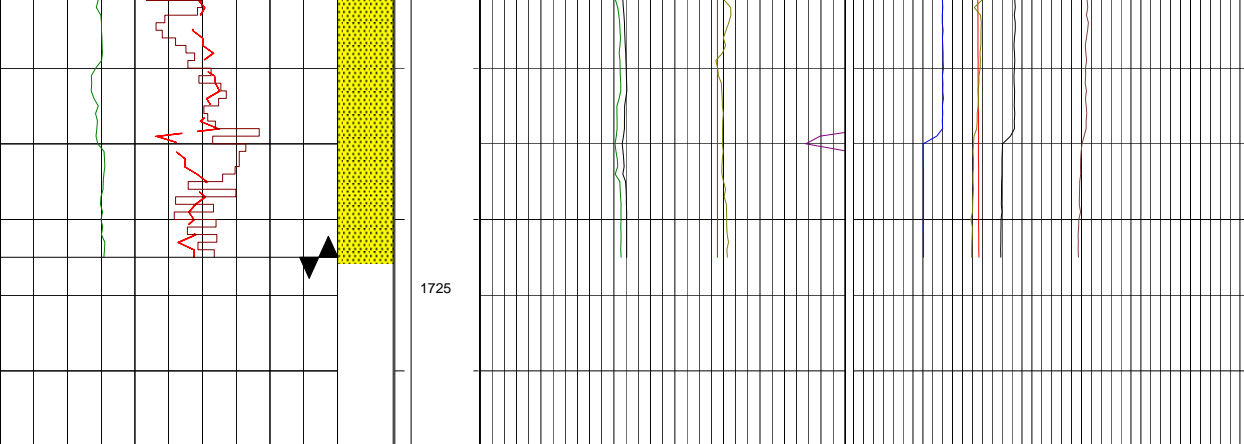
YP: 20  
GEL: 7/14/19  
pH: 9.5  
CL: 24.5K  
KCL: 4.0

WOB: 16-24 klbs  
RPM: 73-84  
SPP: 1065-1151 psi  
FLW: 390-406 gpm  
TRQ: 6.8-8.7 klb\*ft

WOB: 14-30 klbs  
RPM: 67-90  
SPP: 945-1166 psi  
FLW: 349-406 gpm  
TRQ: 5.9-10.8 klb\*ft

MW: 9.3ppg  
FV: 45  
PV: 13  
YP: 19  
GEL: 6/14/20  
pH: 9.5  
CL: 25.6K  
KCL: 4.0

WOB: 16-31 klbs  
RPM: 67-82  
SPP: 945-1166 psi  
FLW: 349-405 gpm  
TRQ: 6.6-11.0 klb\*ft



1725

TIBOR-1 REACHED TD @ 11:30  
HRS ON 18-02-2013