

Scale: 5" / 100'
Measured Depth Log

Well Name Pavistma South Well #3

Location 460' FWL 1096' FSL NWSW Sec. 32 T6N R67W

State Colorado

Country USA

API Number 05-123-36650-0000

Region DJ Basin

Spud Date 9-04-13

Surface Coordinates Lat: 40.440460
Long: -104.924860

County Weld

Rig Number Frontier #10

Field Wattenburg

Drilling Completed 9-06-13

Ground Elevation 4954

Logged Interval 5000 To 7,661'

Formation Niobrara

Type of Drilling Fluid Fresh Water

K.B. Elevation 4976.5

Total Depth TBD

Open

Company Tekton Windsor LLC

Address 640 Plaza Drive #290
Highlands Ranch, CO 80129

Geoc

Name Dominic Pitre / Dan Scott

Company Empirica

6741 Satsuma Dr.
Houston, TX 77041
(713)-466-7400

Oil

ML-056

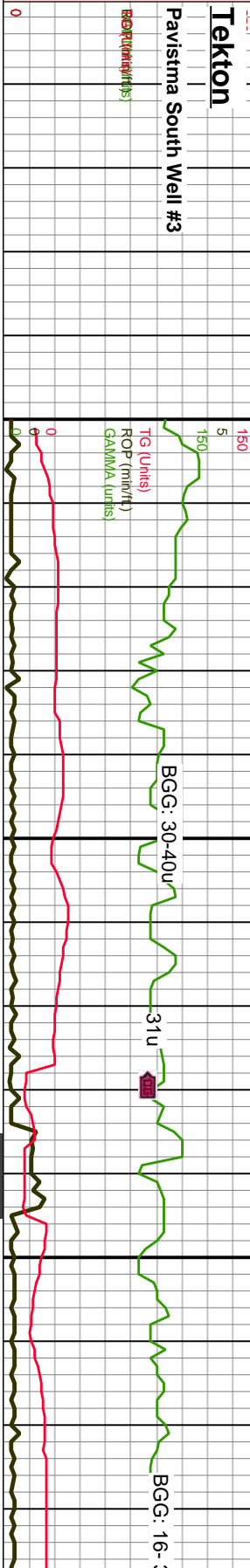
2 Man Logging Service
Start Date: 8-26-13
Release Date: TBD

Rock

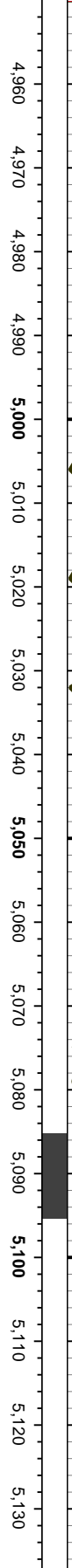
Legend for Rock types:

- UNKNOWN
- ANHYDRITE
- GYPSUM
- SALT
- SIDERITE or LIMONITE
- LIMESTONE
- DOLOMITE
- CHEERT
- COAL
- MARLSTONE
- CLAYSTONE
- SHALE

ROP
 TG
 ROF
 GAMMA

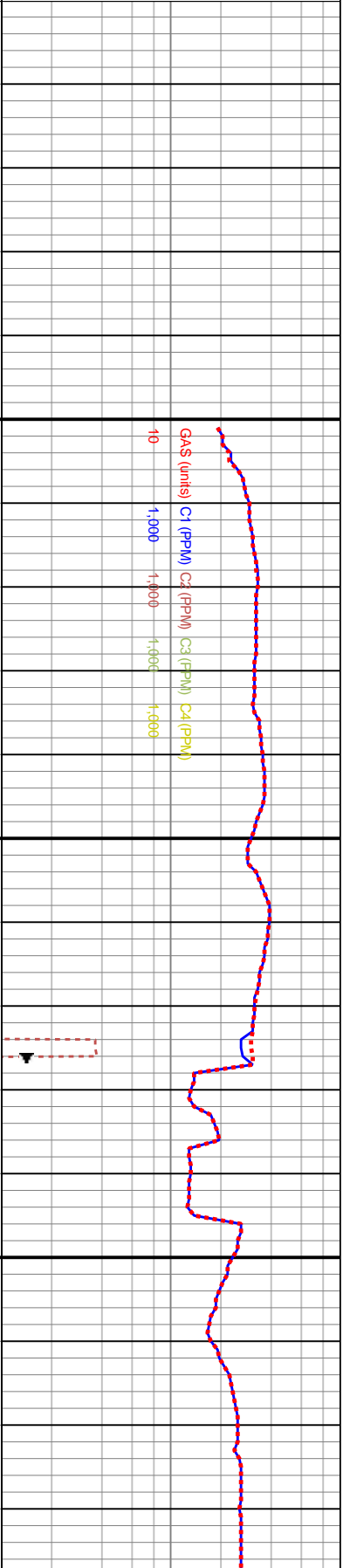


Slide/Rotate
 Depth Labels



Total Gas & Chromatograph

GAS
 C1
 C2
 C3
 C4

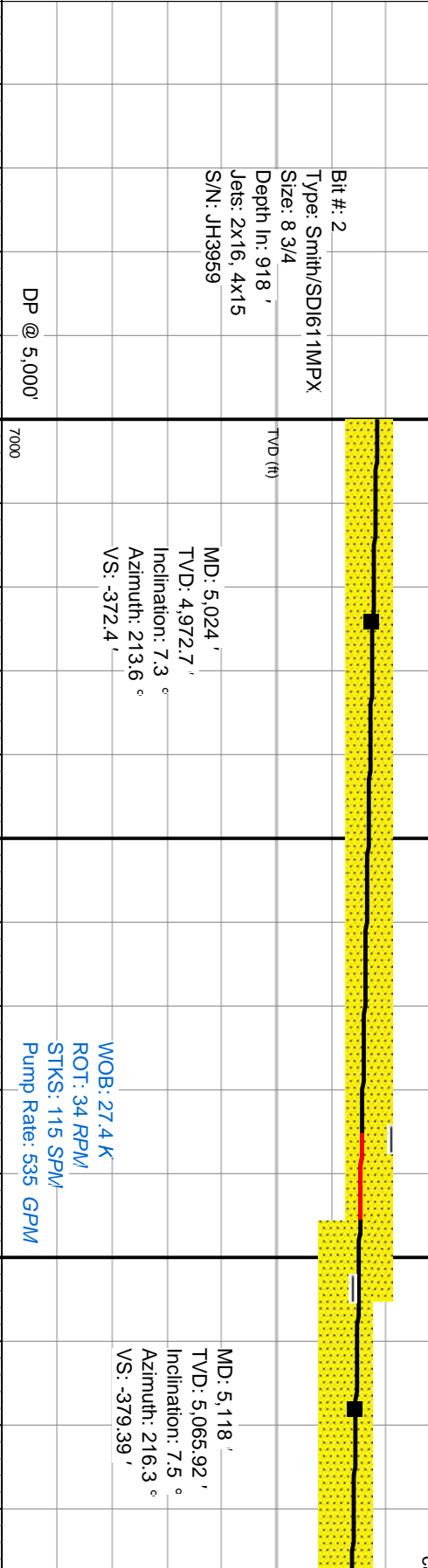


4000 5000-5060 SS: pred gy, ip lt gy- off wh, mod frm to mod hd, blkly- pily, v f gr, occ f gr, silty- arg, ply srt, pred sil cnt, occ calc, occ lith frags, pp por

5060-5120 SS: pred gy, ip lt gy- off wh, mod frm to mod hd, blkly- pily, v f gr, occ f gr, silty- arg, ply srt, pred sil cnt, occ calc, occ lith frags, pp por

51 mc gr ca

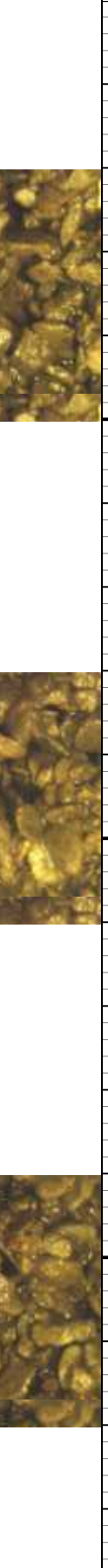
Well Bore
 TVD

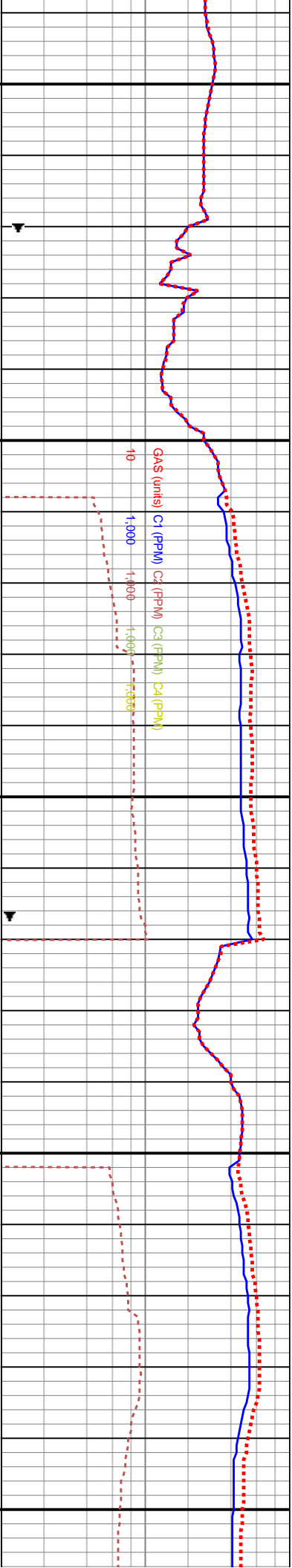
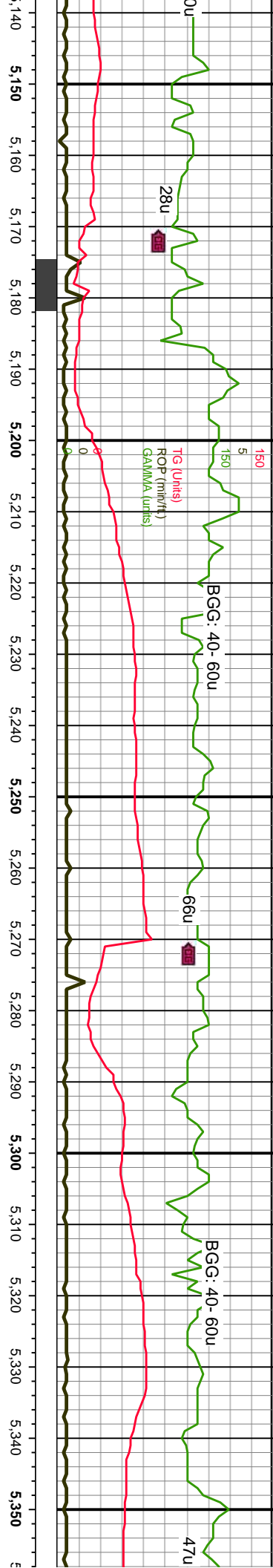


Oil Show



Images



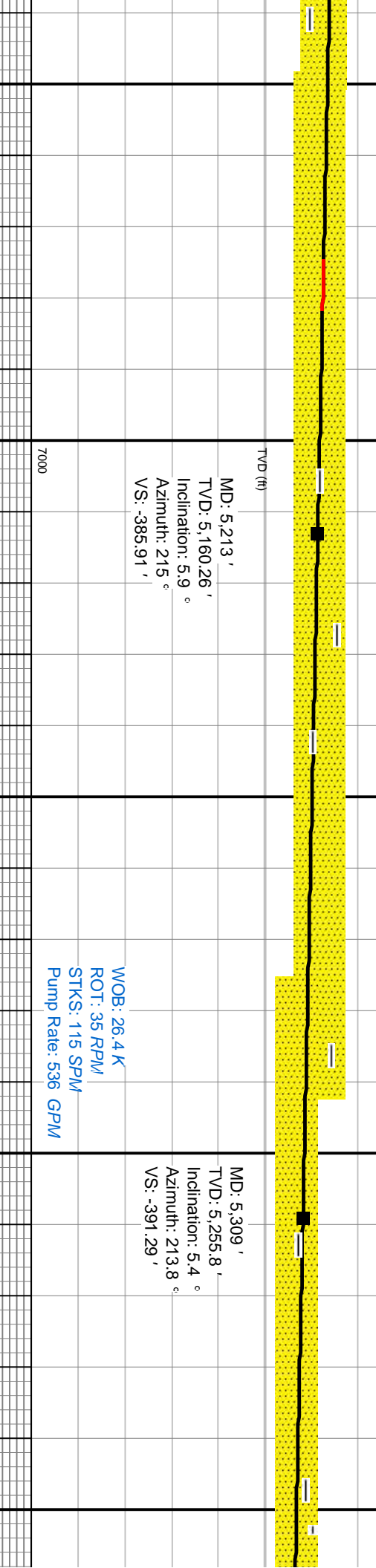


20-5180 SS: pred gy, ip lt gy- off wh, mod frm to mod hd, blkly- pily, v f gr, occ f stly- arg, ply srt, pred sil cmt, occ calc, occ lith frags, pp por

5180-5240 SS: pred gy, ip lt gy- off wh, mod frm to mod hd, blkly- pily, v f gr, occ f gr, stly- arg, ply srt, pred clus, ip uncons, pred sil cmt, occ calc, occ lith frags, pp por. SLTY SH: med gy, frm, pily

5240-5300 SS: pred gy, ip lt gy- off wh, mod frm to mod hd, blkly- pily, v f gr, occ f gr, stly- arg, ply srt, pred clus, ip uncons, calc, occ lith frags, pp por. SLTY SH: med gy, frm, pily

5300-5360 SS: pred gy, ip lt gy- off wh, mod frm to mod hd, blkly- pily, v f gr, occ f gr, stly- arg, ply srt, pred clus, ip uncons, calc, occ lith frags, pp por. SLTY SH: med gy, frm, pily

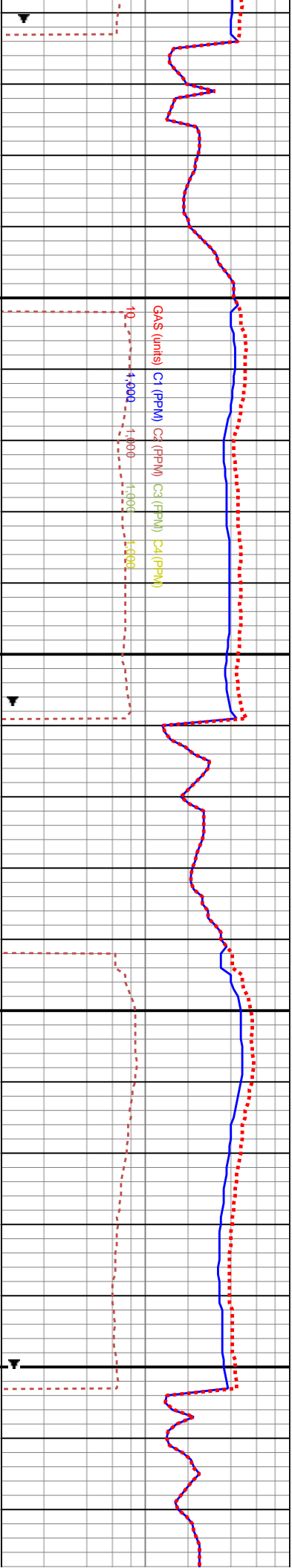
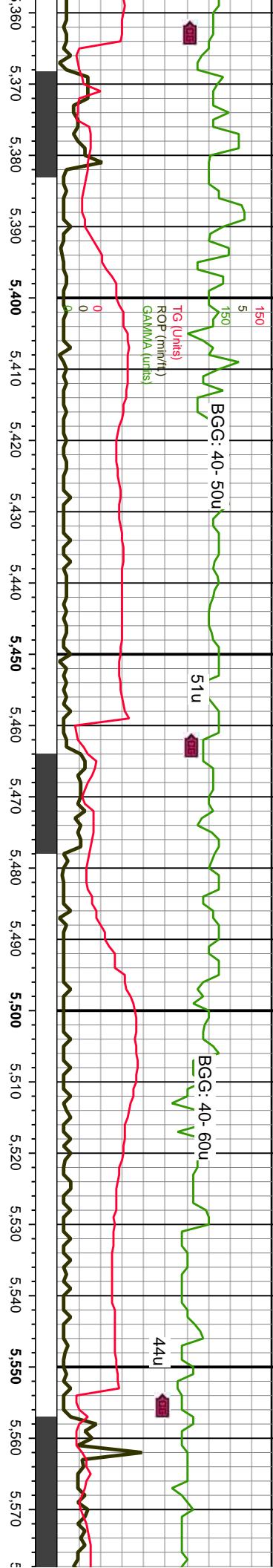


MD: 5,213 '
 TVD: 5,160.26 '
 Inclination: 5.9 °
 Azimuth: 215 °
 VS: -385.91 '

WOB: 26.4 K
 ROT: 35 RPM
 STKS: 115 SPM
 Pump Rate: 536 GPM

MD: 5,309 '
 TVD: 5,255.8 '
 Inclination: 5.4 °
 Azimuth: 213.8 °
 VS: -391.29 '

7000



5360-5420 SS: pred gy, ip lt gy- off wh, mod frm to mod hd, blk- ply, v f gr, occ f gr, silty-arg, ply srt, pred clus, ip uncon, calc, occ lith frags, pp por; SLTY SH: med gy, frm, ply

5420-5480 SS: pred gy, ip lt gy, tr off wh, mod frm to mod hd, blk- ply, v f gr, occ f gr, silty-arg, ply srt, pred clus, occ uncon, calc, occ lith frags, pp por, tr SLTY SH

5480-5540 SS: pred gy, ip lt gy, tr off wh, mod frm to mod hd, blk- ply, v f gr, occ f gr, silty-arg, ply srt, pred clus, occ uncon, calc, occ lith frags, pp por, tr SLTY SH

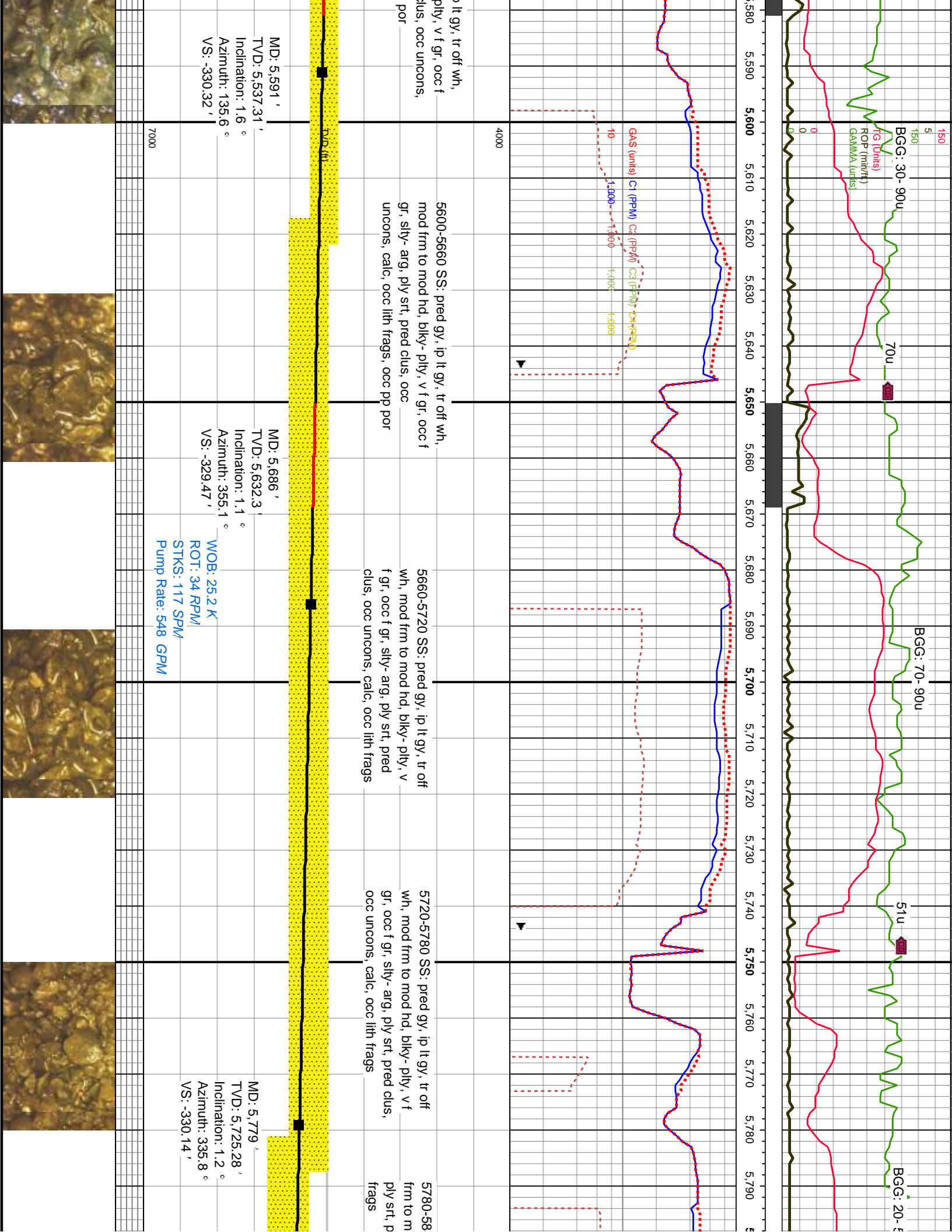
5540-5600 SS: pred gy, ip mod frm to mod hd, blk- gr, silty-arg, ply srt, pred c calc, occ lith frags, occ pp

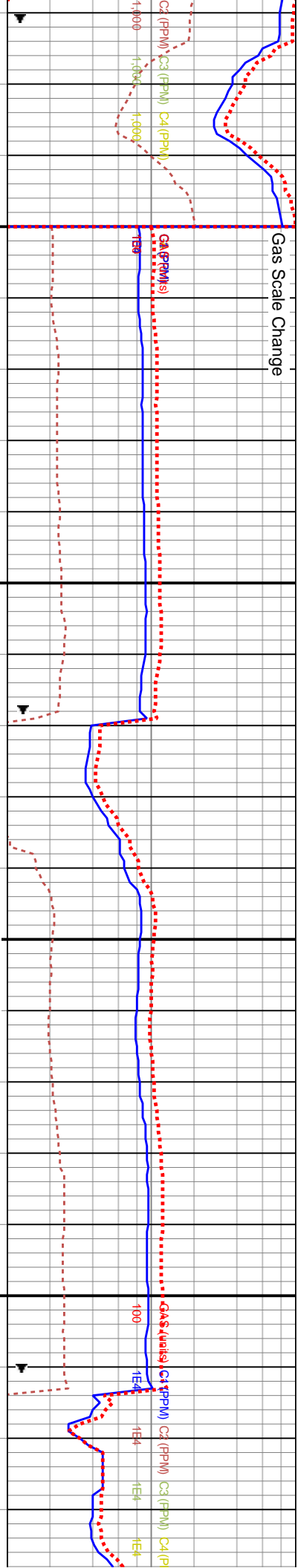
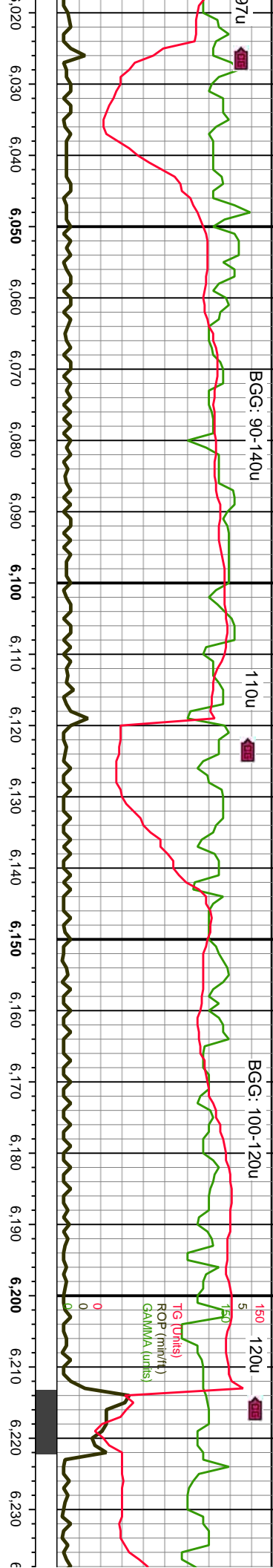
MD: 5,403 '
TVD: 5,349.5 '
Inclination: 3.7 °
Azimuth: 201.5 °
VS: -394.9 '

WOB: 27.1 K
ROT: 34 RPM
STKS: 117 SPM
Pump Rate: 549 GPM

MD: 5,497 '
TVD: 5,443.36 '
Inclination: 2.5 °
Azimuth: 181.8 °
VS: -396.1 '

7000





6020-6080 SS: pred gy, ip lt gy, tr off wh, mod frm to mod hd, pred ptky, ip blk, pred v f gr, silty- v arg, ply srt, pred clus, occ uncons, pred calc, occ lith frags, no vis por; STLY SH: med gy, frm- hd, ptky, calc, arg

6080-6140 SS: pred gy, ip lt gy, tr off wh, mod frm to mod hd, pred ptky, ip blk, pred v f gr, silty- v arg, ply srt, pred clus, occ uncons, pred calc, occ lith frags, no vis por; STLY SH: med gy, frm- hd, ptky, calc, arg

MD: 6,156'
 TVD: 6,102.21'
 Inclination: 1.2°
 Azimuth: 256.7°
 VS: -336.25'

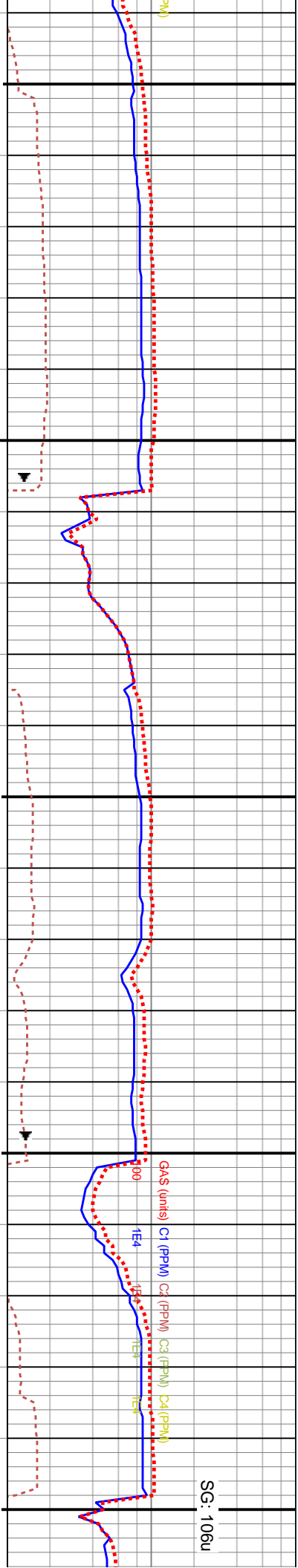
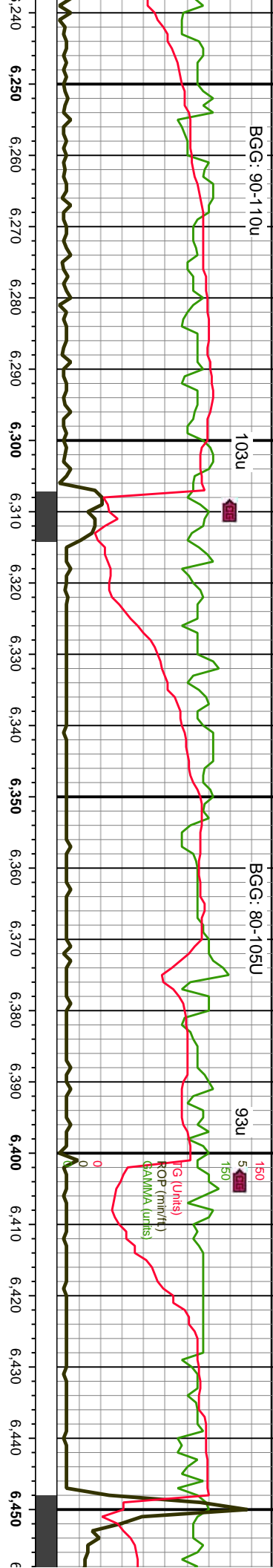
6140-6200 SS: pred gy, ip lt gy, tr off wh, mod frm to mod hd, pred ptky, ip blk, pred v f gr, silty- v arg, ply srt, pred clus, occ uncons, pred calc, occ lith frags, no vis por, tr SLTY SH

6200-6260 SS: p wh, mod frm to r blk, pred v f gr, clus, occ uncons frags, no vis por,

MD: 6,062'
 TVD: 6,008.24'
 Inclination: 1.4°
 Azimuth: 251.1°
 VS: -334.29'

WOB: 25 K
 ROT: 37 RPM
 STKS: 115 SPM
 Pump Rate: 535 GPM



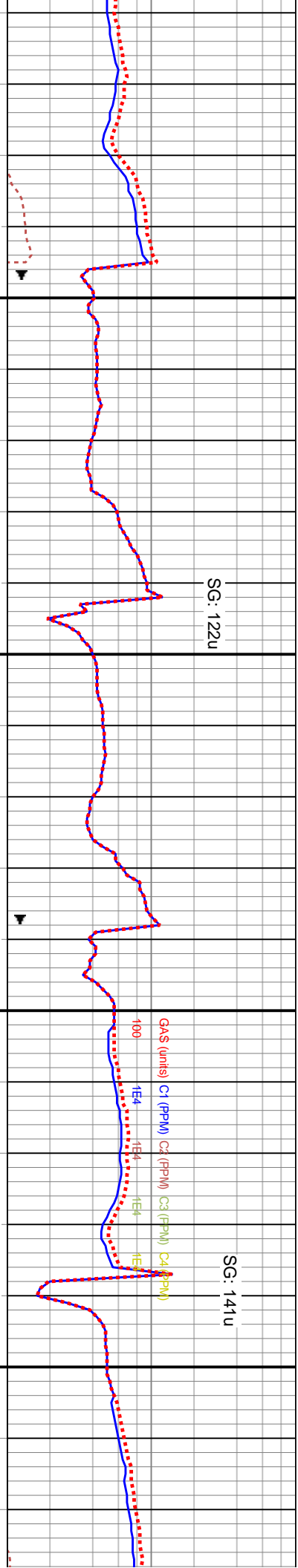
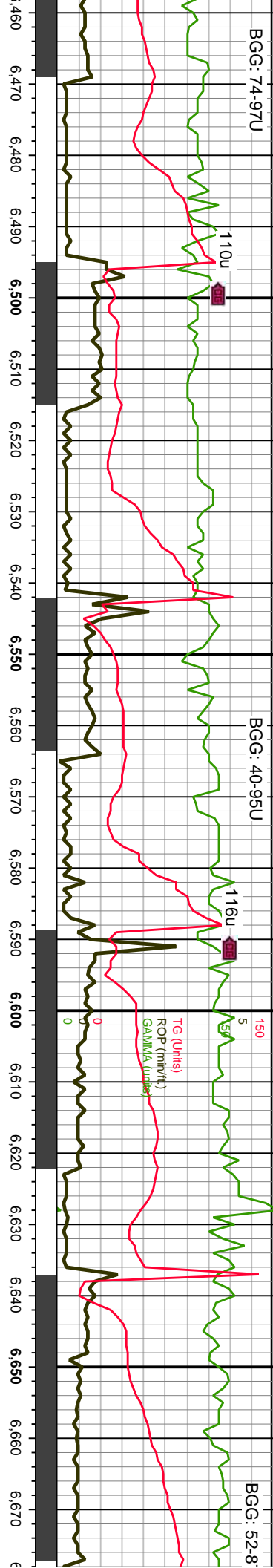


Depth (ft)	MD (ft)	TVD (ft)	Inclination (°)	Azimuth (°)	VS (ft)	Description
6250 - 6320	6,251'	6,197.21'	0.7°	116.6°	-336.65'	pred gy, ip lt gy, tr off mod hd, pred pty, ip sily- v arg, ply srt, pred pred calc, occ lith tr SLTY SH
6320 - 6380	6,346'	6,292.19'	1.5°	85.8°	-334.88'	6260-6320 SS: pred gy, ip lt gy, tr off wh, mod frm to mod hd, pred pty, ip biky, pred v f gr, sily- v arg, ply srt, pred clus, occ uncons, pred calc, occ lith frags, no vis por, tr SLTY SH
6380 - 6440	6,393'	6,339.18'	1°	90.1°	-333.87'	6320-6380 SS: pred gy, ip lt gy, tr off wh, mod frm to mod hd, pred pty, ip biky, pred v f gr, sily- v arg, ply srt, pred clus, occ uncons, pred calc, occ lith frags, no vis por, tr SLTY SH
6440 - 6450	6,440'	6,386.17'	1°	89.7°	-333.05'	6380-6440 SS: pred gy, ip lt gy, tr off wh, mod frm to mod hd, pred pty, ip biky, pred v f gr, sily- v arg, ply srt, pred clus, occ uncons, pred calc, occ lith frags, no vis por, tr SLTY SH

WOB: 24.9 K
 ROT: 35 RPM/
 STKS: 117 SPM/
 Pump Rate: 546 GPM

7000

DS @ 6

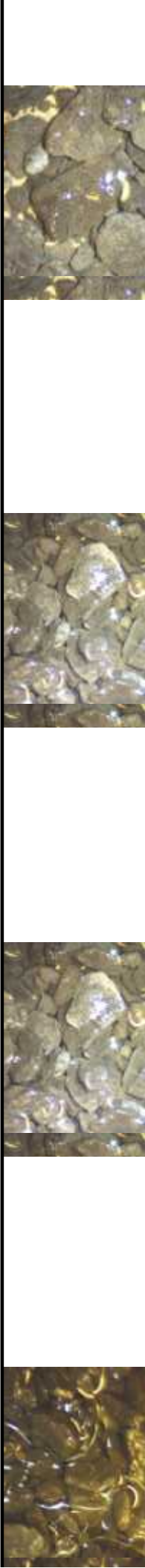
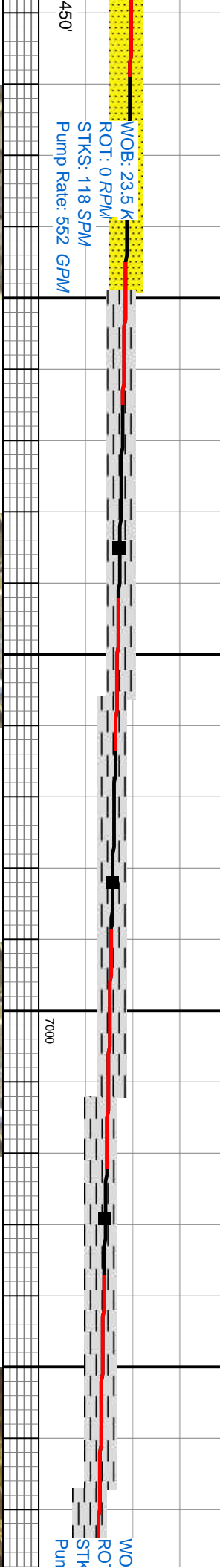


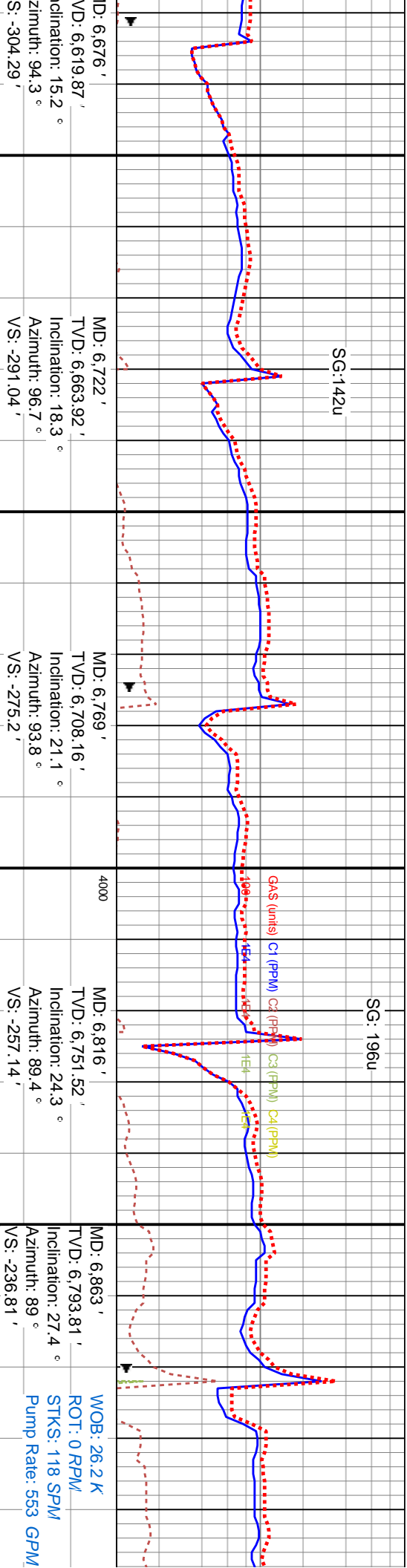
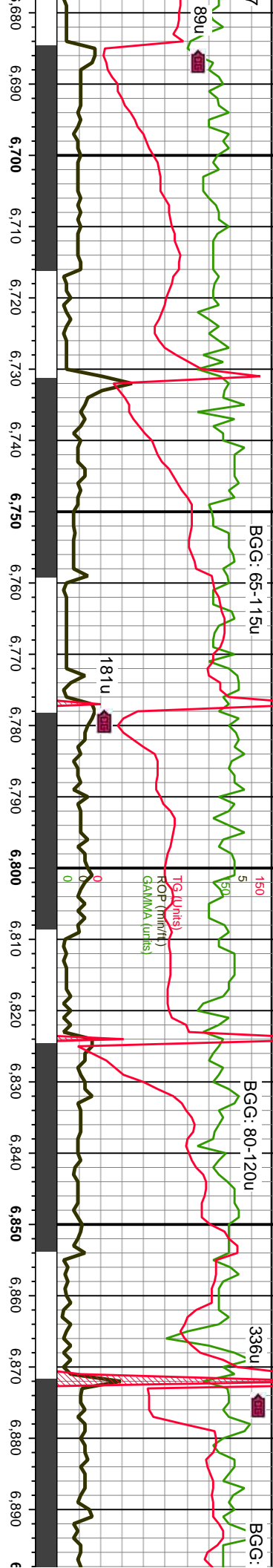
6500 SS; pred gy, ip lt gy, tr off
 frm to mod hd, pred pfty, ip
 ed v f gr, silty- v arg, ply str, pred
 oc uncons, pred calc, occ lith
 o vis por, tr SLTY SH

6500-6560 SLTY SH: pred gy- md gy, frm, ip sl frm-
 hd, blk- split, ip pit md cuttings, sm tex, v sil- sl calc,
 tr ss

6560-6620 SLTY SH: pred gy- md gy, frm, ip sl frm-
 hd, blk- split, ip pit md cuttings, sm tex, v sil- sl calc,
 tr ss

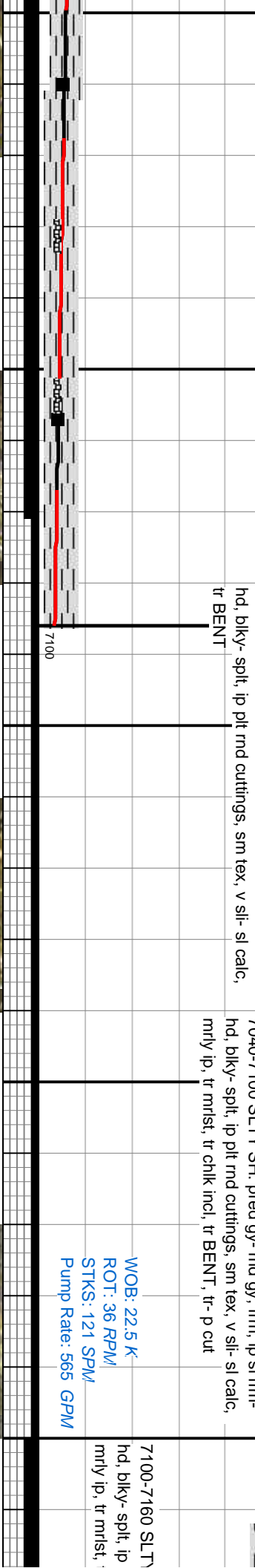
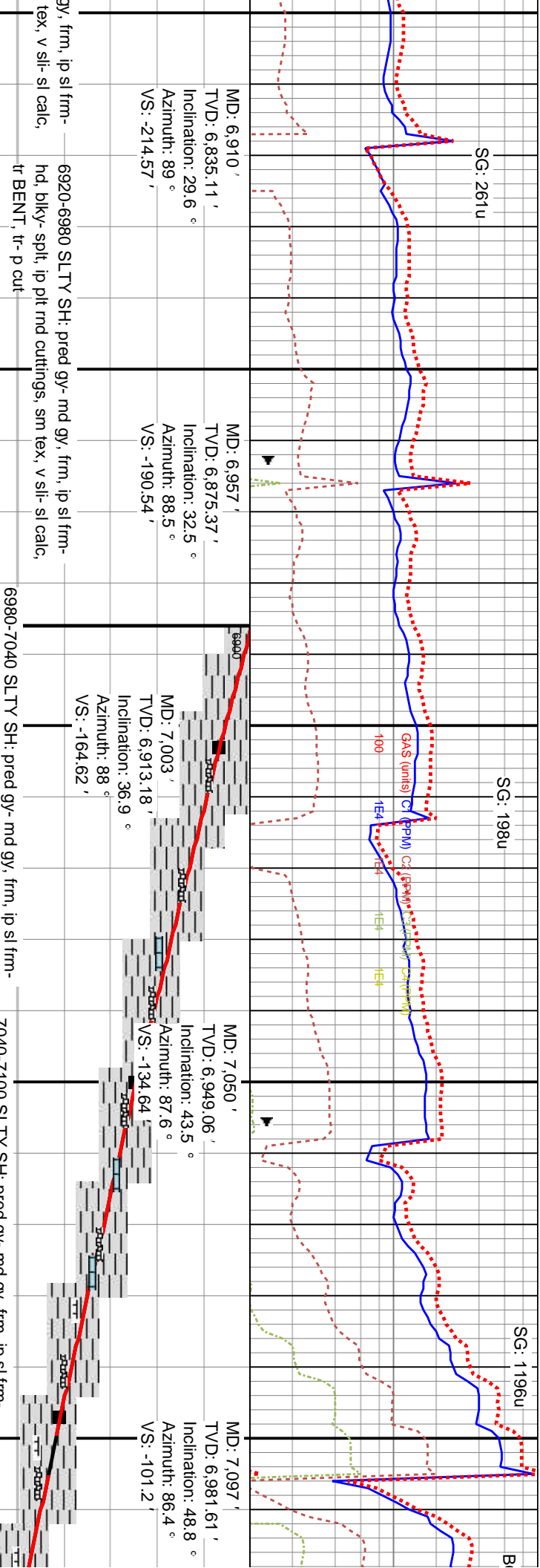
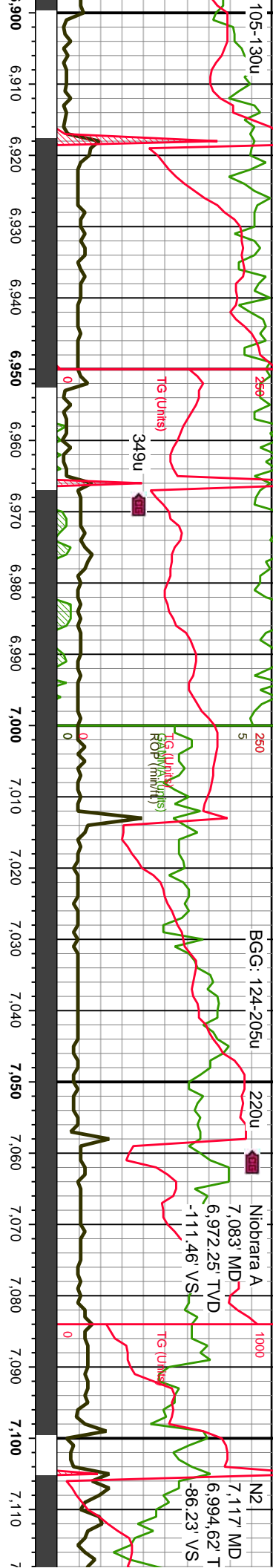
6620-6680 SLTY SH: pred gy- md gy, frm, ip sl frm-
 hd, blk- split, ip pit md cuttings, sm tex, v sil- sl calc,
 tr ss





MD	TVD	Inclination	Azimuth	VS	Formation
6:676'	6:619.87'	15.2°	94.3°	-304.29'	6680-6740 SLTY SH: pred gy- md gy, frm, ip sl frm- hd, blk- spl, ip pit md cuttings, sm tex, v sil- sl calc
6:722'	6:663.92'	18.3°	96.7°	-291.04'	6740-6800 SLTY SH: pred gy- md gy, frm, ip sl frm- hd, blk- spl, ip pit md cuttings, sm tex, v sil- sl calc
6:769'	6:708.16'	21.1°	93.8°	-275.2'	6800-6860 SLTY SH: pred gy- md gy, frm, ip sl frm- hd, blk- spl, ip pit md cuttings, sm tex, v sil- sl calc
6:816'	6:751.52'	24.3°	89.4°	-257.14'	6860-6920 SLTY SH: pred gy- md gy, frm, ip sl frm- hd, blk- spl, ip pit md cuttings, sm tex, v sil- sl calc





MD: 6.910 '
 TVD: 6.835.11 '
 Inclination: 29.6 °
 Azimuth: 89 °
 VS: -214.57 '

MD: 6.957 '
 TVD: 6.875.37 '
 Inclination: 32.5 °
 Azimuth: 88.5 °
 VS: -190.54 '

MD: 7.003 '
 TVD: 6.913.18 '
 Inclination: 36.9 °
 Azimuth: 88 °
 VS: -164.62 '

MD: 7.050 '
 TVD: 6.949.06 '
 Inclination: 43.5 °
 Azimuth: 87.6 °
 VS: -134.64 '

MD: 7.097 '
 TVD: 6.981.61 '
 Inclination: 48.8 °
 Azimuth: 86.4 °
 VS: -101.2 '

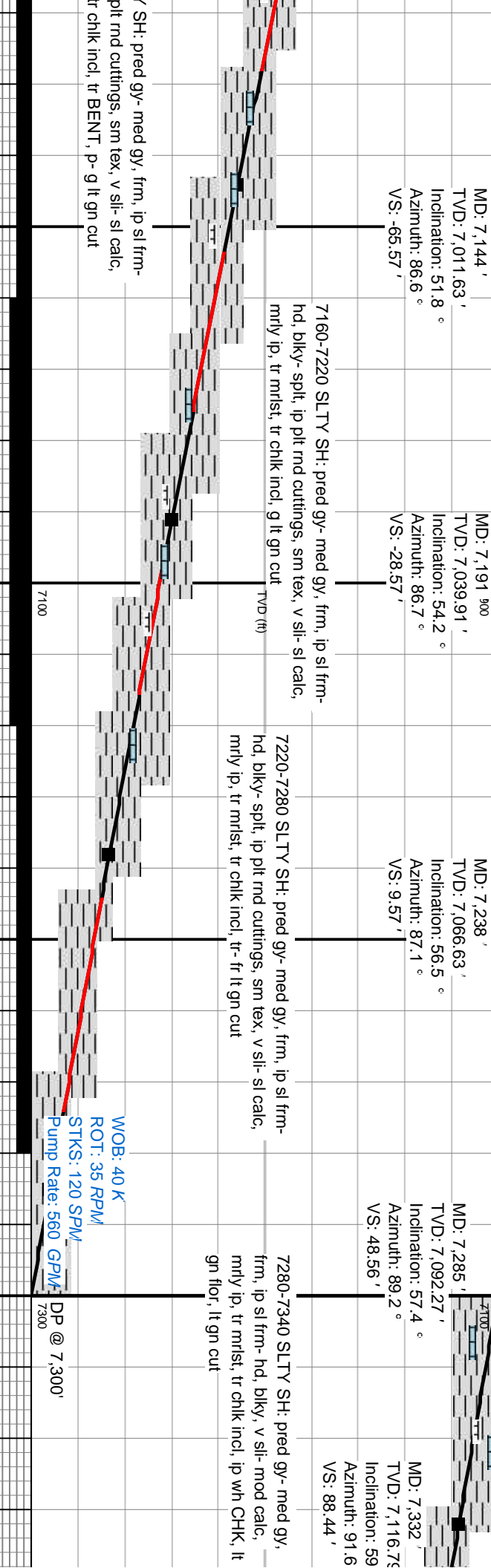
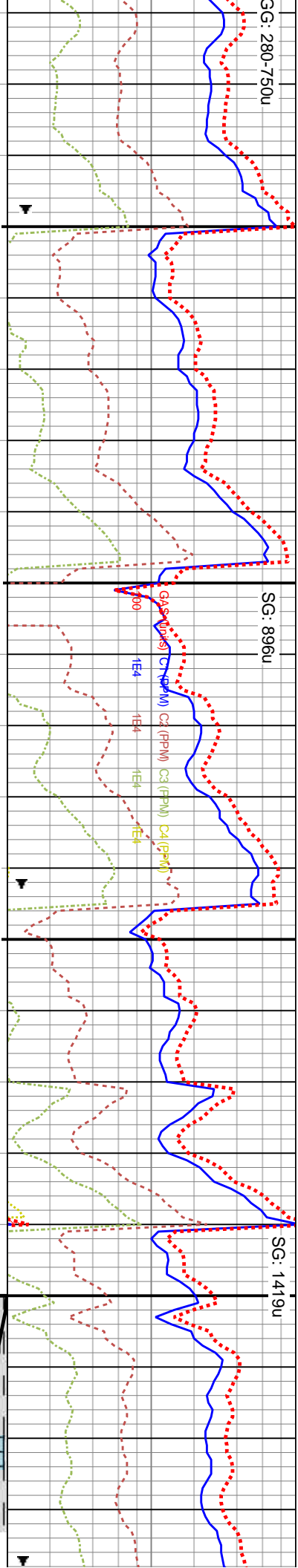
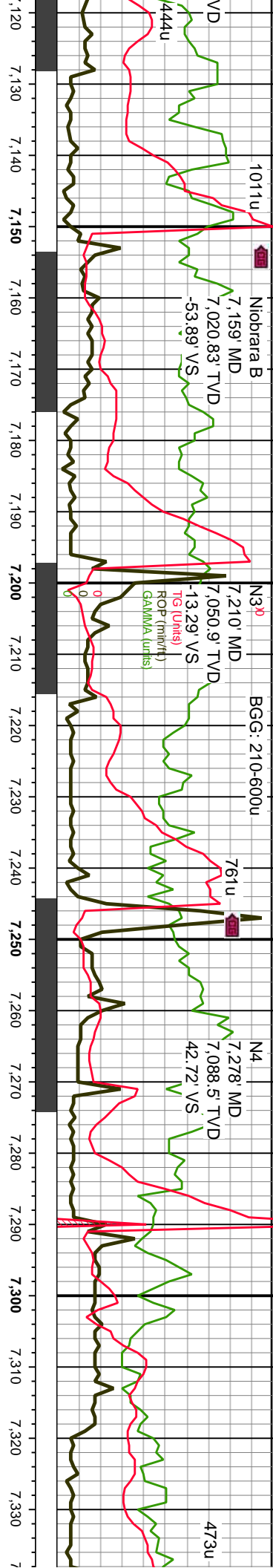
6920-6980 SLTY SH: pred gy- md gy, frm, ip sl frm-
 hd, blk- split, ip pit md cuttings, sm tex, v sil- sl calc,
 tr BENT, tr- p cut

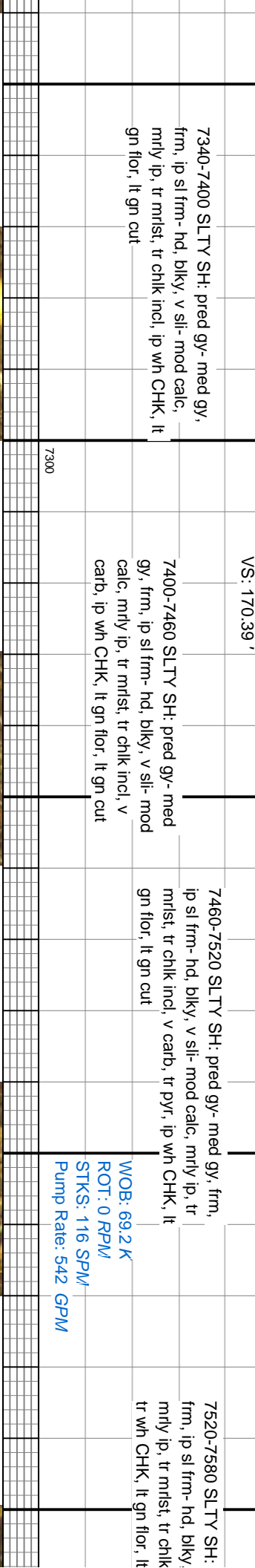
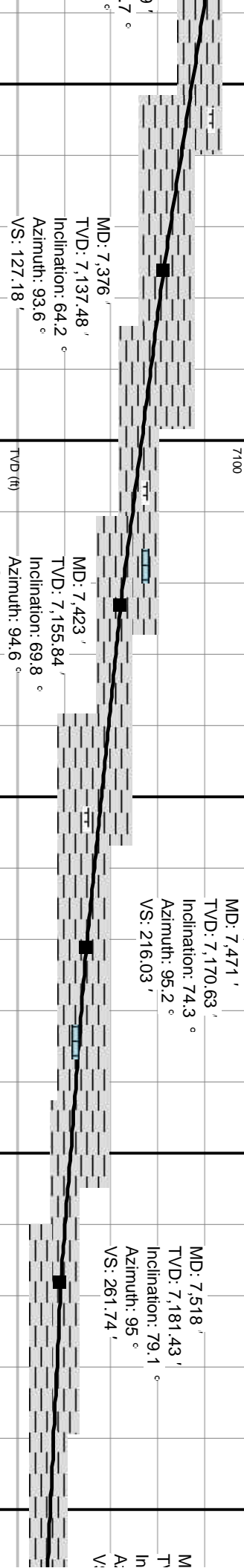
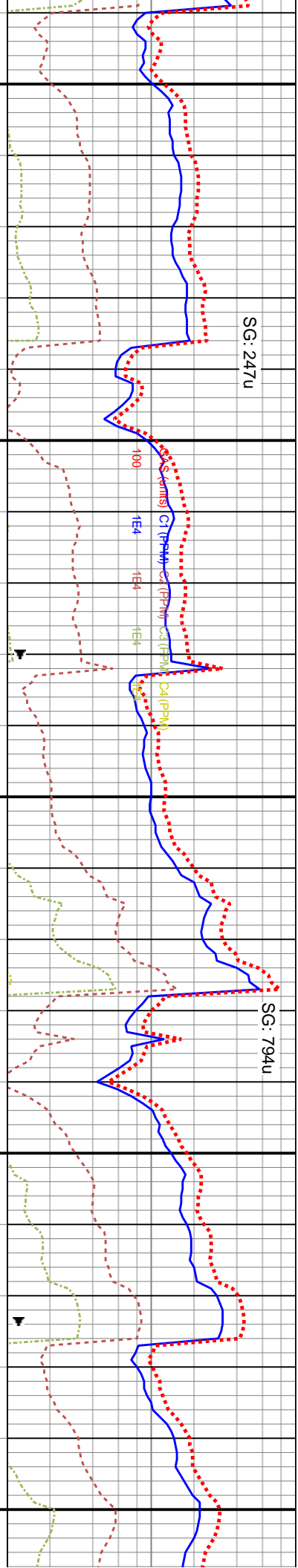
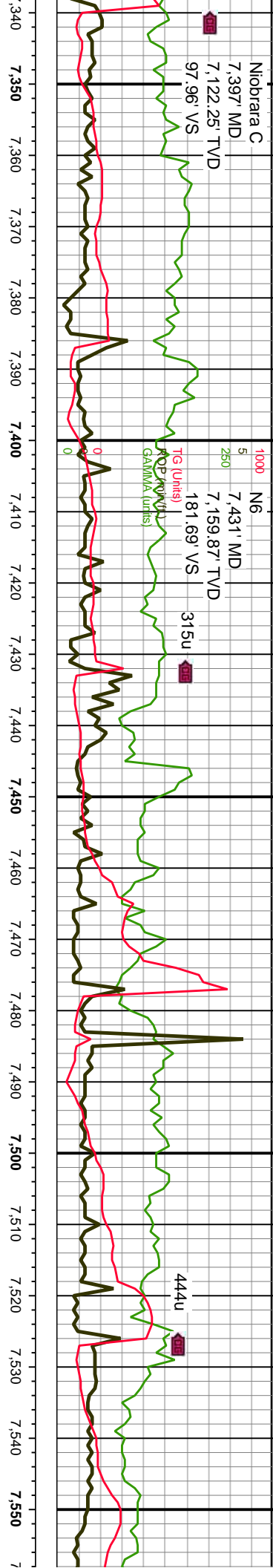
6980-7040 SLTY SH: pred gy- md gy, frm, ip sl frm-
 hd, blk- split, ip pit md cuttings, sm tex, v sil- sl calc,
 tr BENT

7040-7100 SLTY SH: pred gy- md gy, frm, ip sl frm-
 hd, blk- split, ip pit md cuttings, sm tex, v sil- sl calc,
 mly ip, tr mrst, tr chlk incl, tr BENT, tr- p cut

7100-7160 SLTY
 hd, blk- split, ip
 mly ip, tr mrst,

WOB: 22.5 K
 ROT: 36 RPM
 STKS: 121 SPM
 Pump Rate: 565 GPM





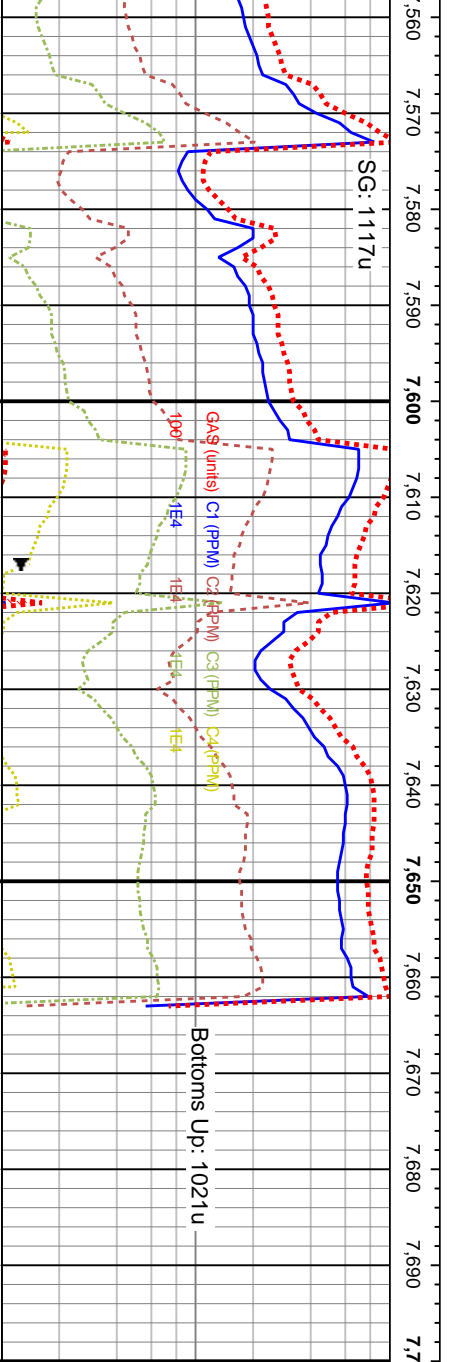
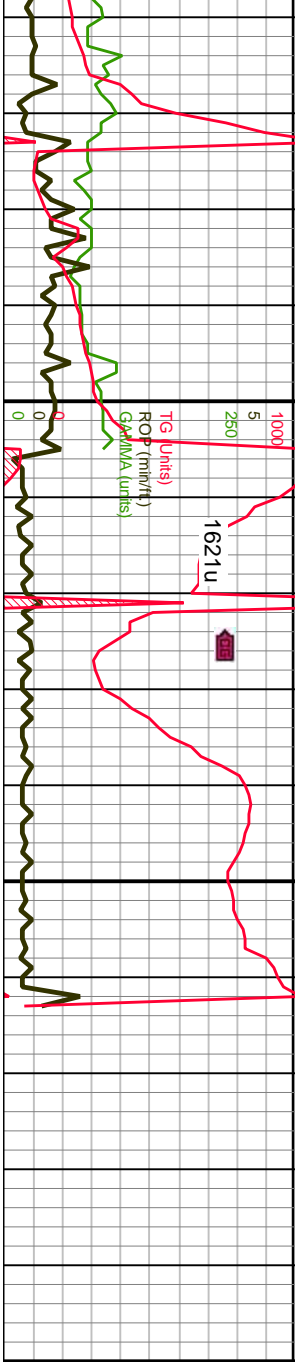
7340-7400 SLTY SH: pred gy- med gy, frm, ip sl frm- hd, blkly, v sli- mod calc, mrlly ip, tr mrlst, tr chlk incl, ip wh CHK, lt gn flor, lt gn cut

7400-7460 SLTY SH: pred gy- med gy, frm, ip sl frm- hd, blkly, v sli- mod calc, mrlly ip, tr mrlst, tr chlk incl, v carb, ip wh CHK, lt gn flor, lt gn cut

7460-7520 SLTY SH: pred gy- med gy, frm, ip sl frm- hd, blkly, v sli- mod calc, mrlly ip, tr mrlst, tr chlk incl, v carb, tr pyr, ip wh CHK, lt gn flor, lt gn cut

7520-7580 SLTY SH: frm, ip sl frm- hd, blkly, mrlly ip, tr mrlst, tr chlk tr wh CHK, lt gn flor, lt

WOB: 69.2 K
ROT: 0 RPM
STKS: 116 SPM
Pump Rate: 542 GPM



D: 7,566 '
 /D: 7,188.24 '
 Inclination: 84.6 °
 Azimuth: 94.8 °
 S: 309.23 '
 MD: 7,607 '
 TVD: 7,190.63 '
 Inclination: 88.7 °
 Azimuth: 94.8 °
 VS: 350.13 '
 MD: 7,661 '
 TVD: 7,190.63 '
 Inclination: 88.7 °
 Azimuth: 94.8 °
 Curve TD Reached on 9-06-13 @ 1100hrs

pred gy- med gy, v sli- mod calc, incl, v carb, tr pyr, gn cut	7580-7640 SLTY SH: pred gy- med gy, frm, ip sl frm- hd, blkv, v sli- mod calc, mrly ip, tr mist, tr chlk incl, v carb, tr pyr, tr wh CHK, abnt lt gn flor, g lt gn cut	7300
---	---	------

