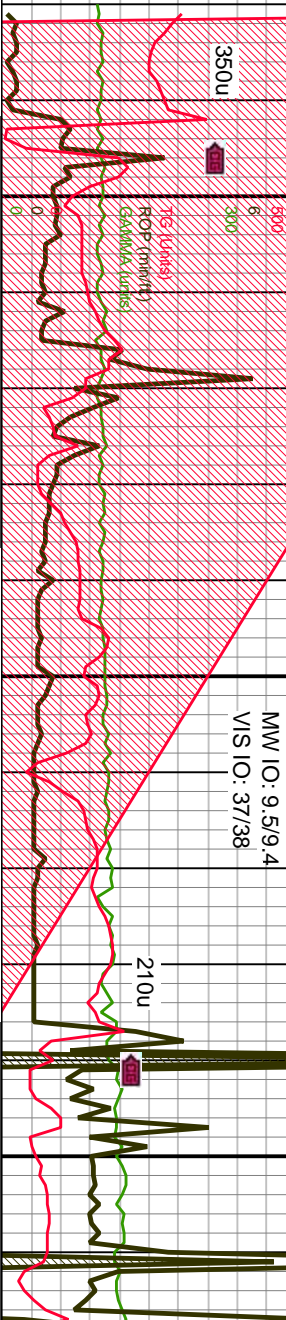


ROP
TG
ROF
GAMMA

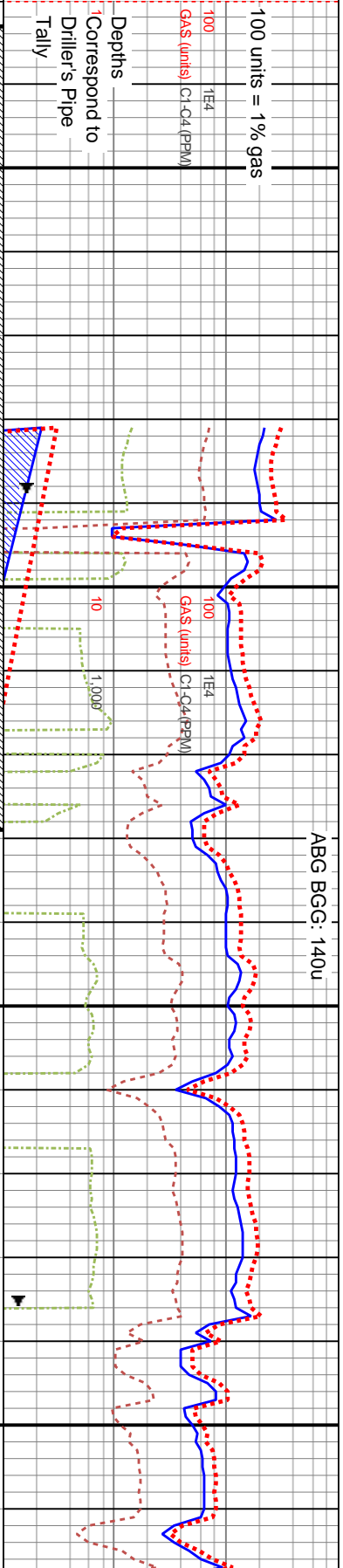
Extraction O&G
Diamond Valley East 2
Weld County, Colorado
Spud Date: 10-15-14
Surface Casing @ 790'
2-man Logging / Geosteering Began:
10-16-14



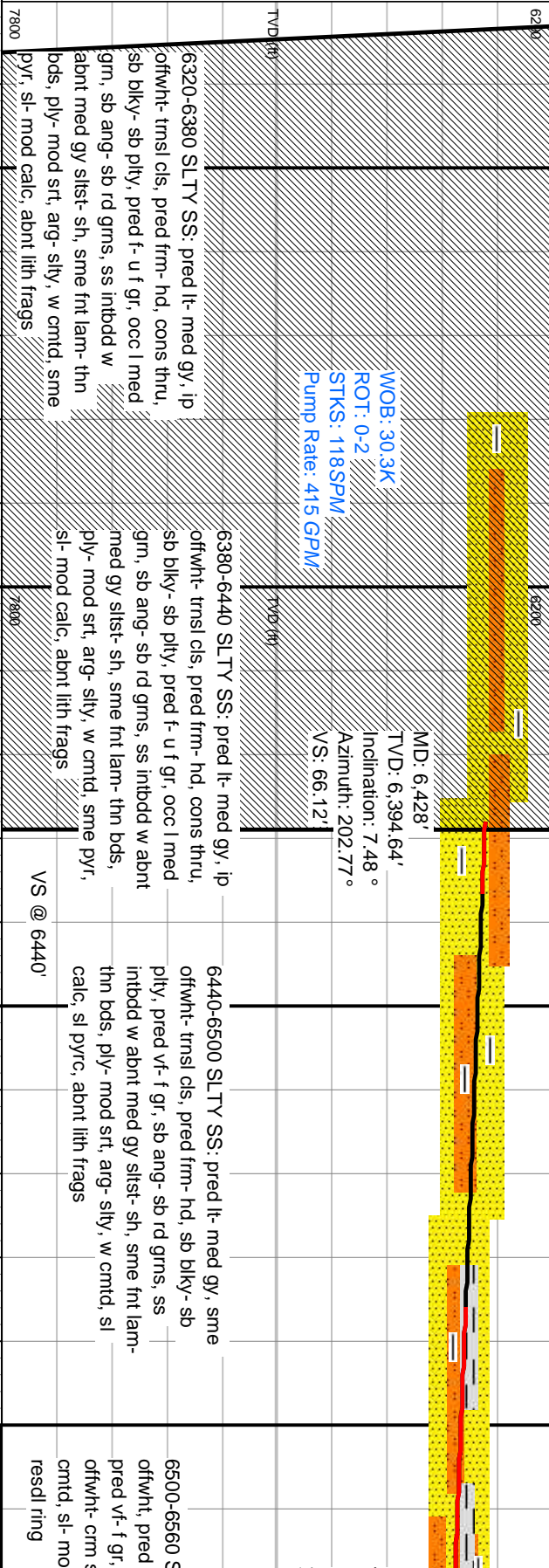
Slide/Rotate
Depth Labels



Total Gas & Chromatograph
GAS
C1
C2
C3
C4



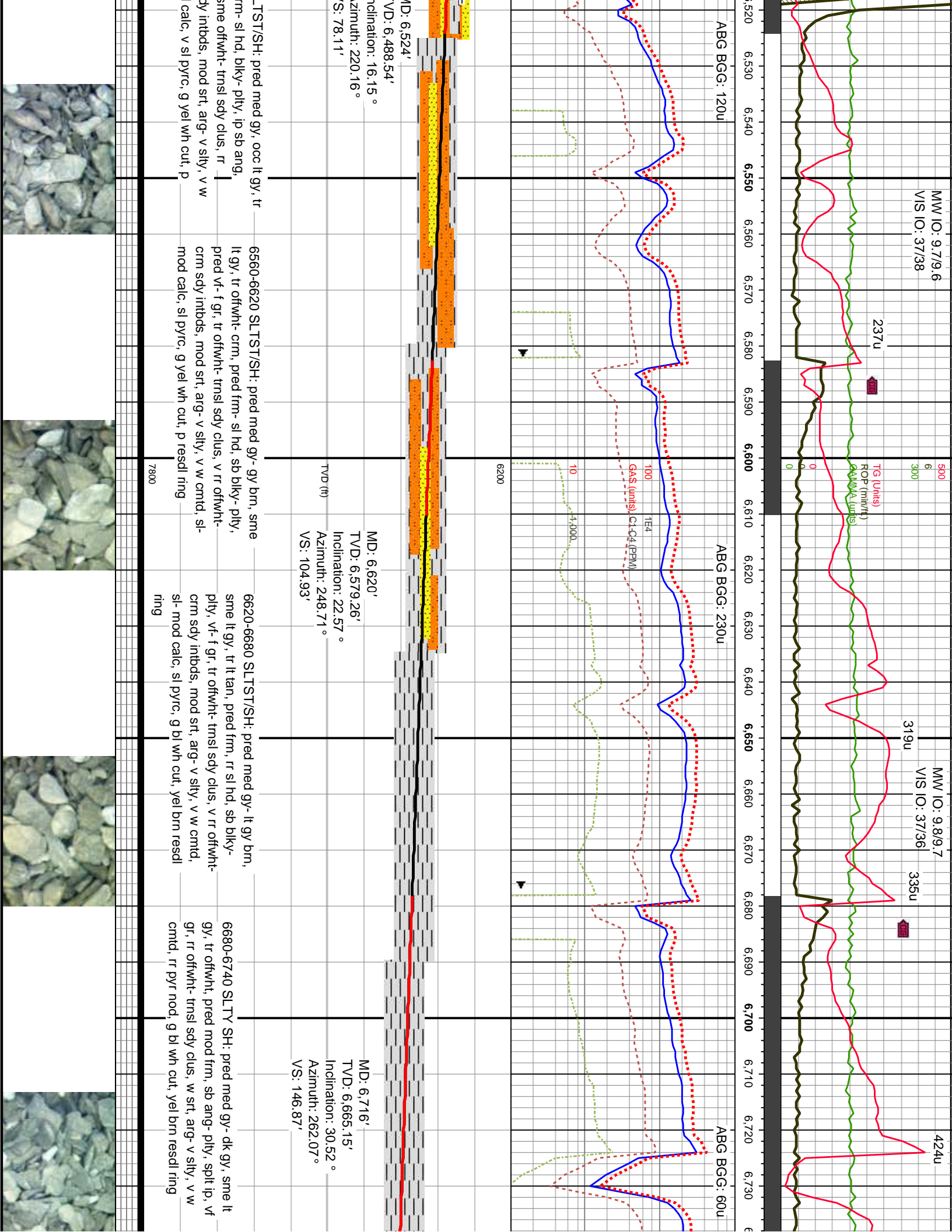
Well Bore
TVD

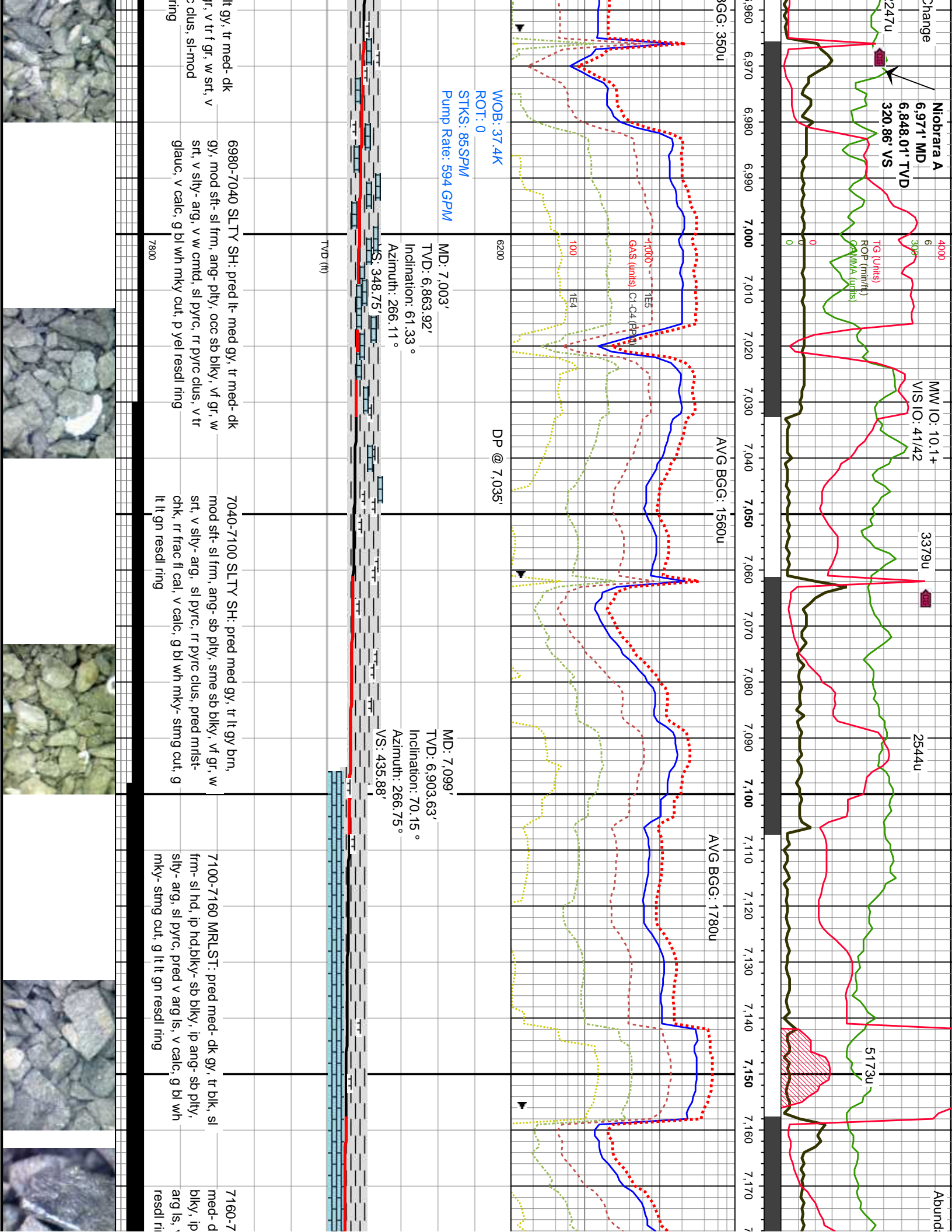


Oil Show



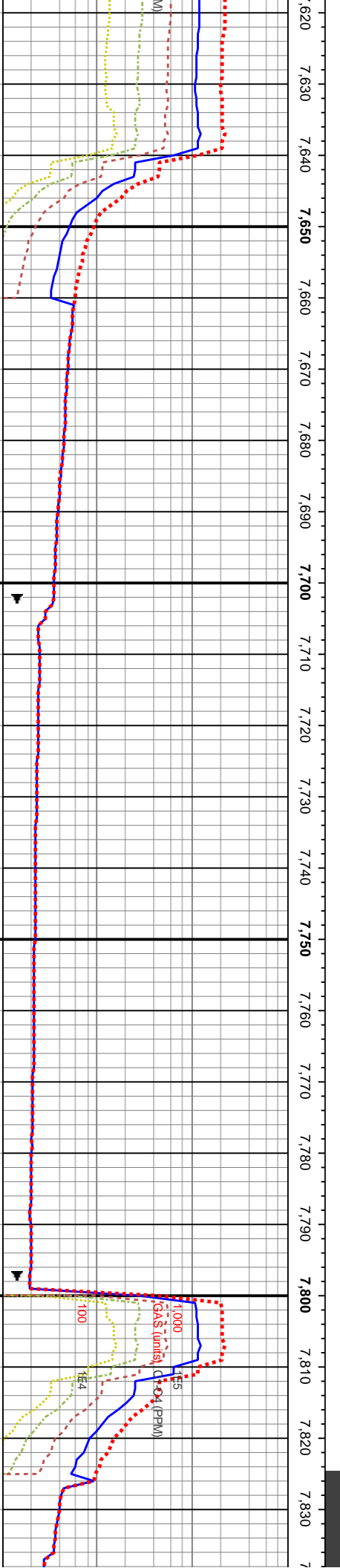
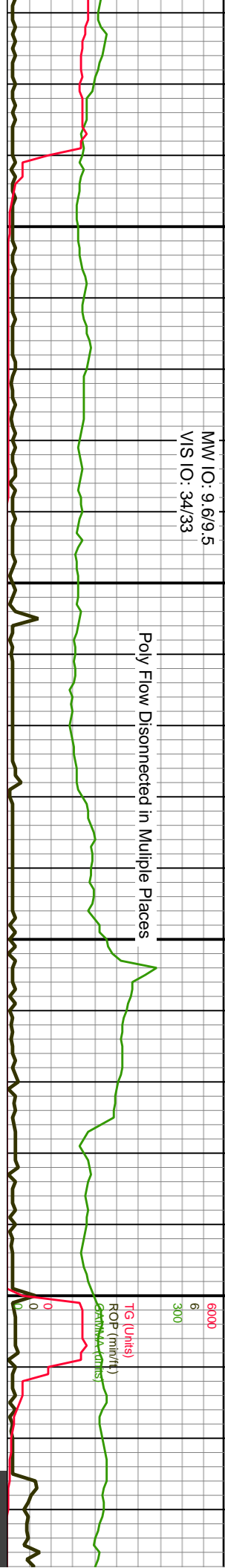
Images





MW IO: 9.6/9.5
VIS IO: 34/33

Poly Flow Disconnected in Multiple Places



MD: 7,638'
TVD: 6,959.05'
Inclination: 88.71 °
Azimuth: 268.32 °
VS: 968.17'

MD: 7,734'
TVD: 6,960.83'
Inclination: 89.16 °
Azimuth: 267.3 °
VS: 1,064.13'

WOB: 26K
ROT: 0
STKS: 75SPM
Pump Rate: 264 GPM

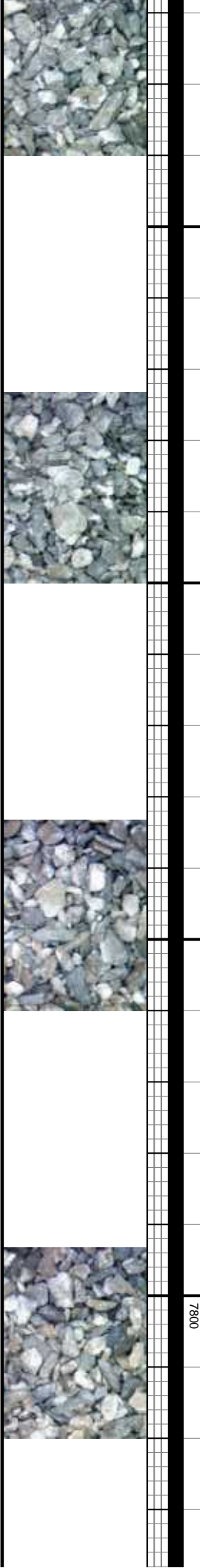
MD: 7,830'
TVD: 6,961.98'
Inclination: 89.47 °
Azimuth: 267.81 °
VS: 1,160.11'

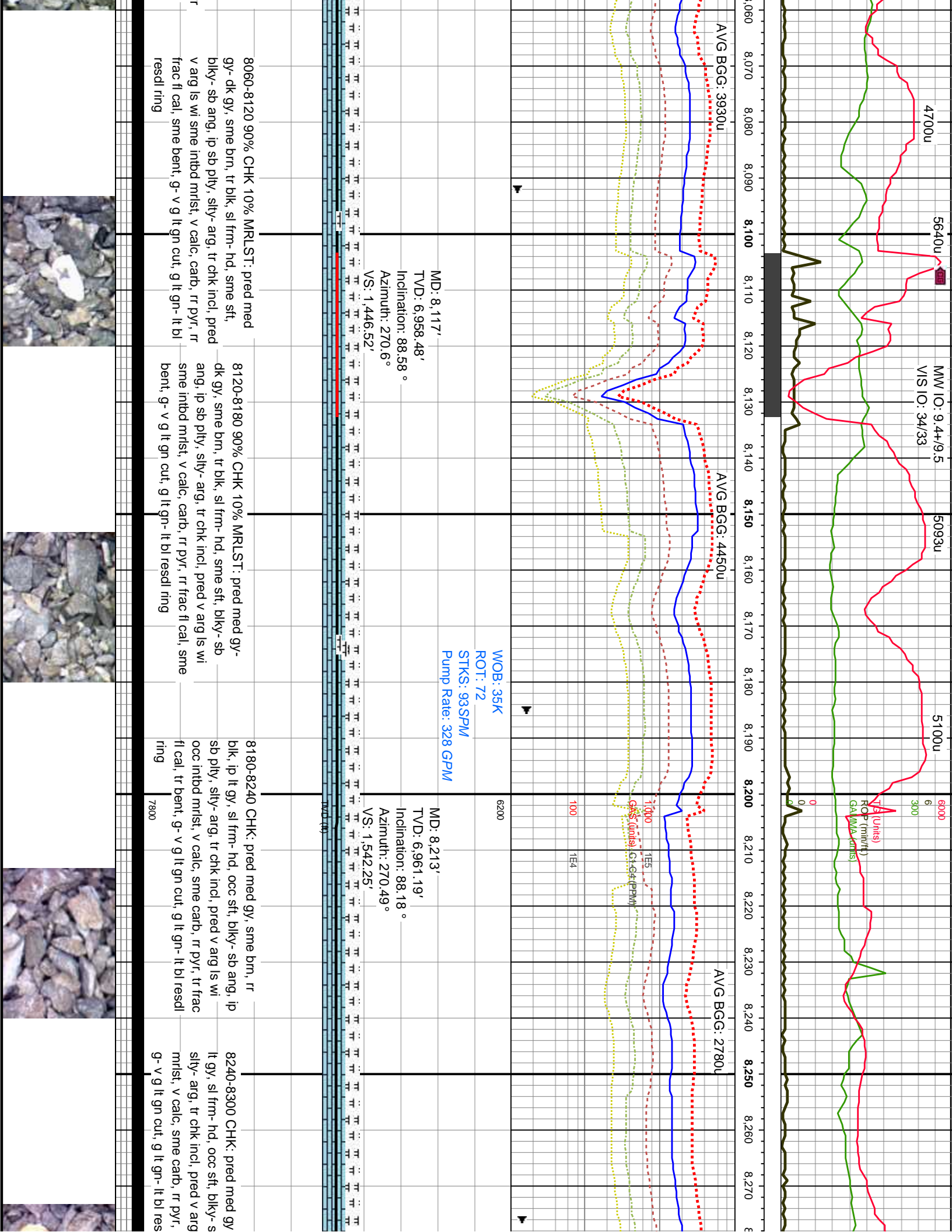
7640-7700 80% CHK 20% MRLST: pred med gy, sme lt gy- gy brn, v occ dk gy- blk, sl frm- sl hd, sb blk- sb ang, ip sb pily, stly- v arg, tr pyr, pred v arg ls, v calc, carb, v rr bent, fr- g lt bl wh cut, g lt- lt gn resdl ring

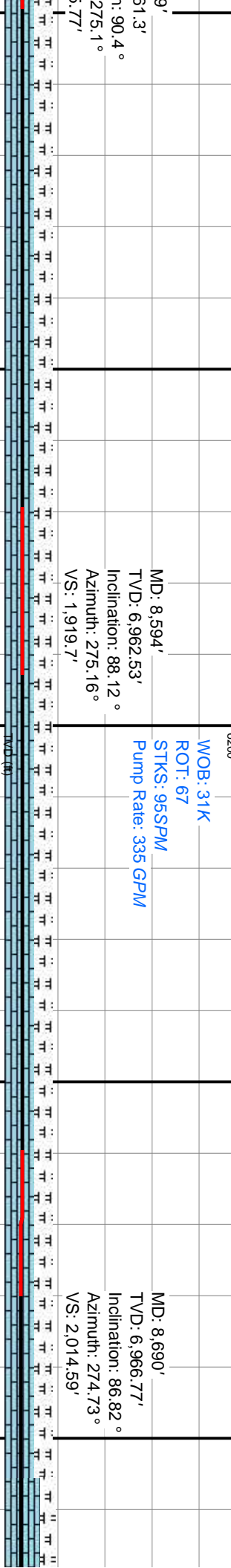
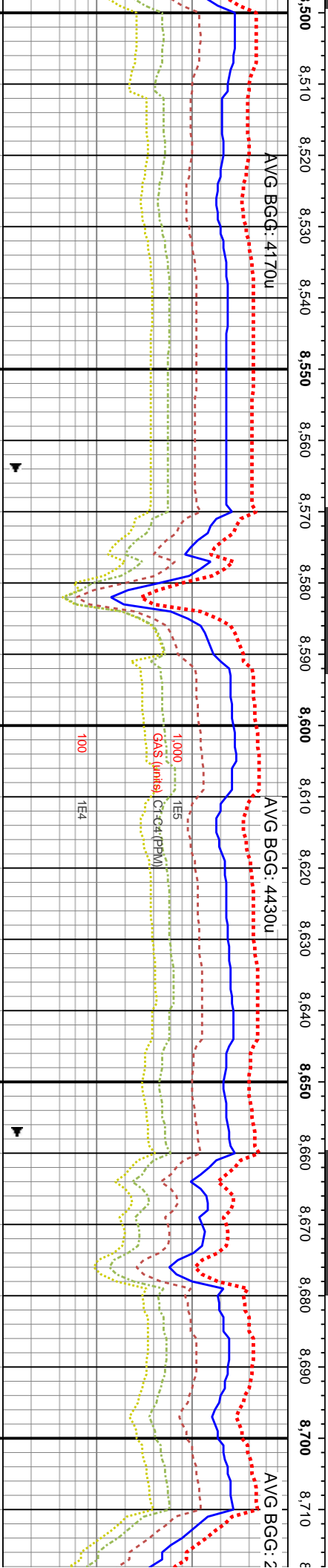
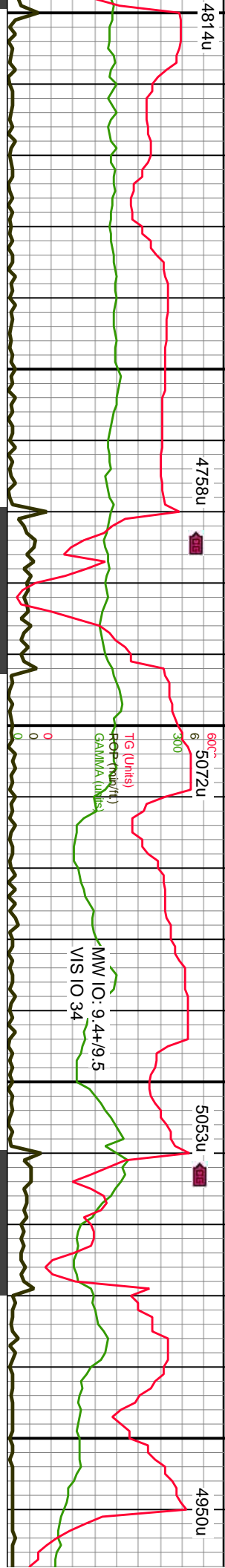
7700-7760 90% CHK 10% MRLST: pred med gy, lt gy- lt gy brn, v occ dk gy, sl frm- hd, sb blk- sb ang, ip sb pily, stly- v arg, rr chk incl, pred v arg ls, v calc, carb, rr frac fl cal, fr- g lt bl wh cut, g lt- lt gn resdl ring

7760-7820 90% CHK 10% MRLST: pred lt- med gy, sme lt gy brn, v occ dk gy, sl frm- hd, blk- sb ang, ip sb pily, stly- arg, rr chk incl, pred v arg ls, v calc, carb, rr frac fl cal, fr- g lt bl wh cut, g lt- lt gn resdl ring

7820-7880 90%
gy, sme brn, tr ip sb pily, stly- inbd mist, v c cut, g lt gn- lt b

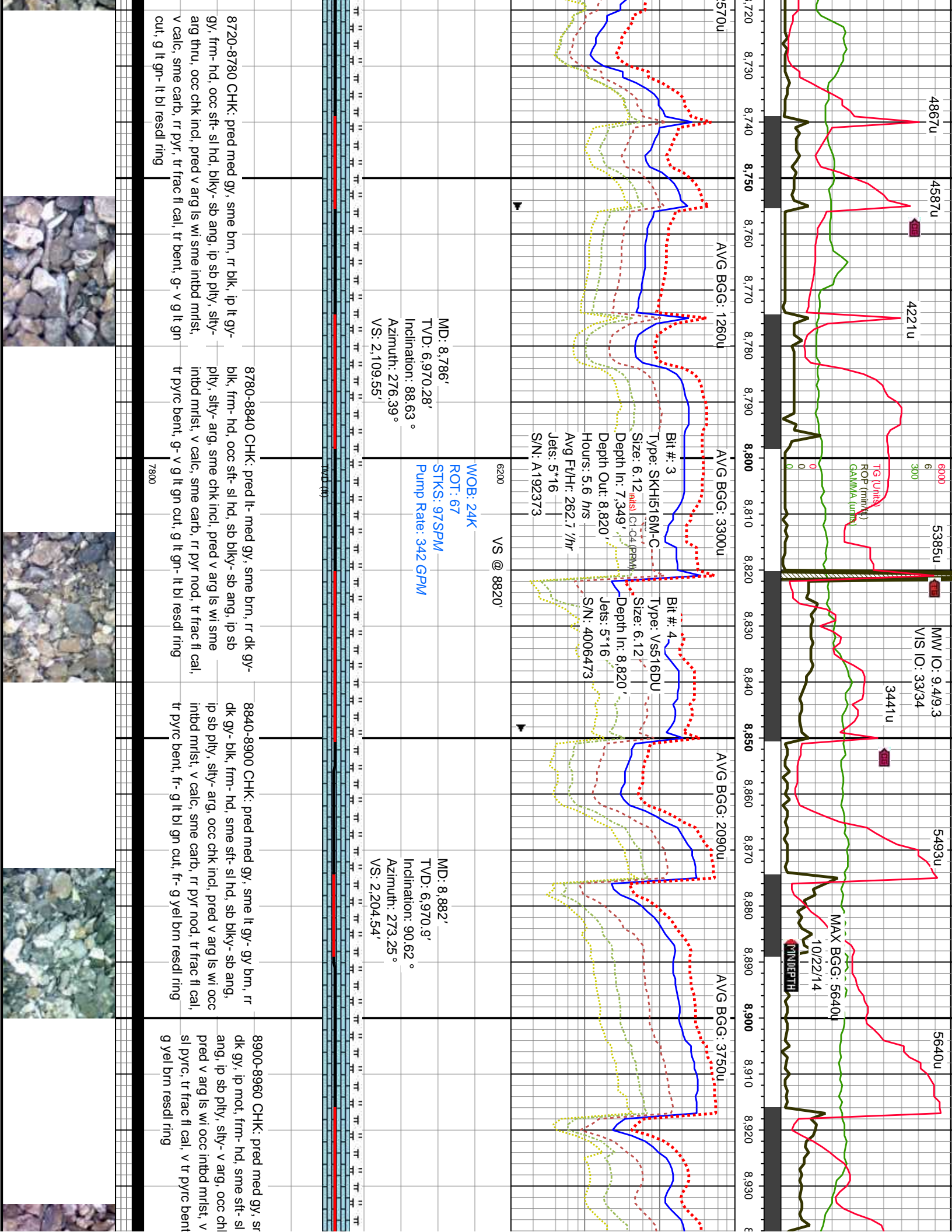


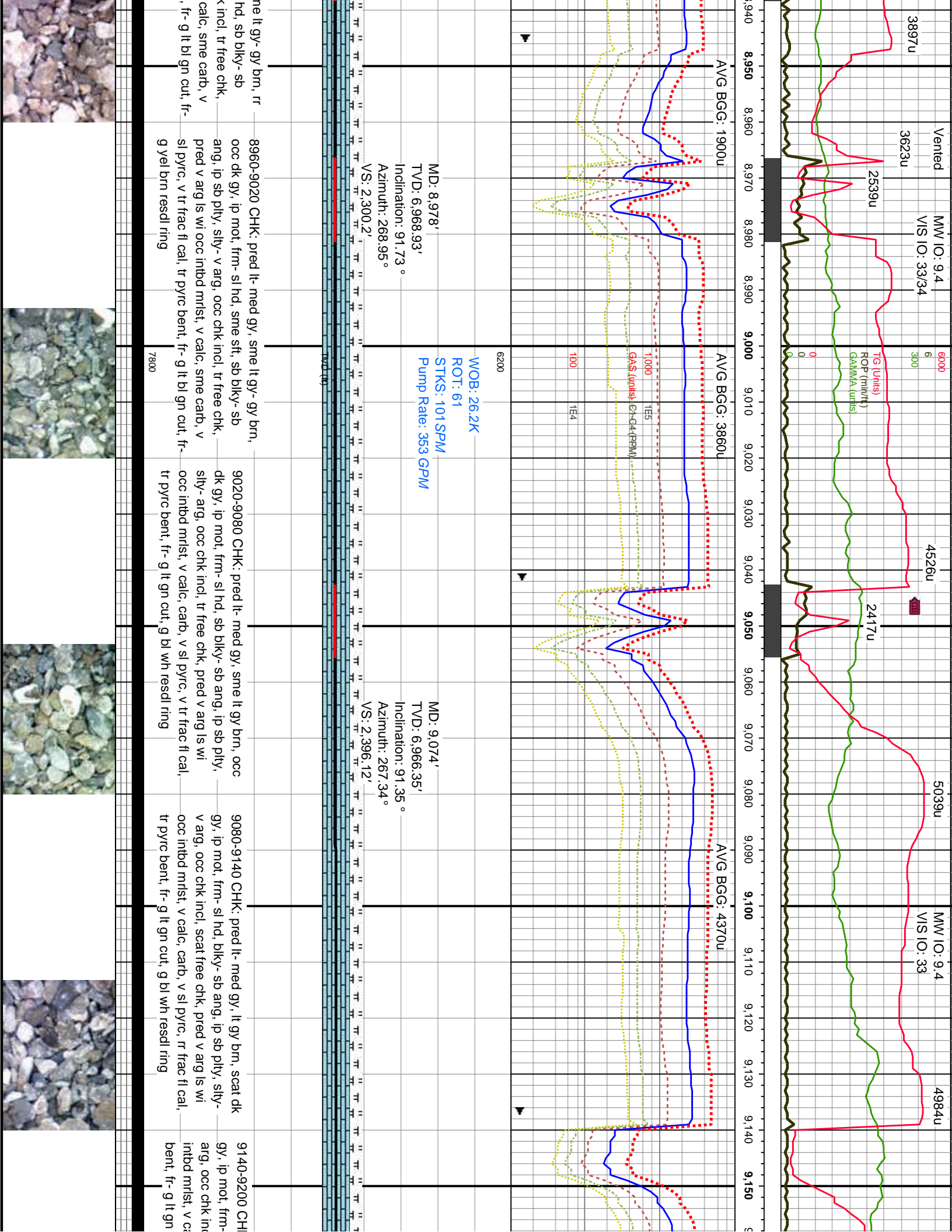


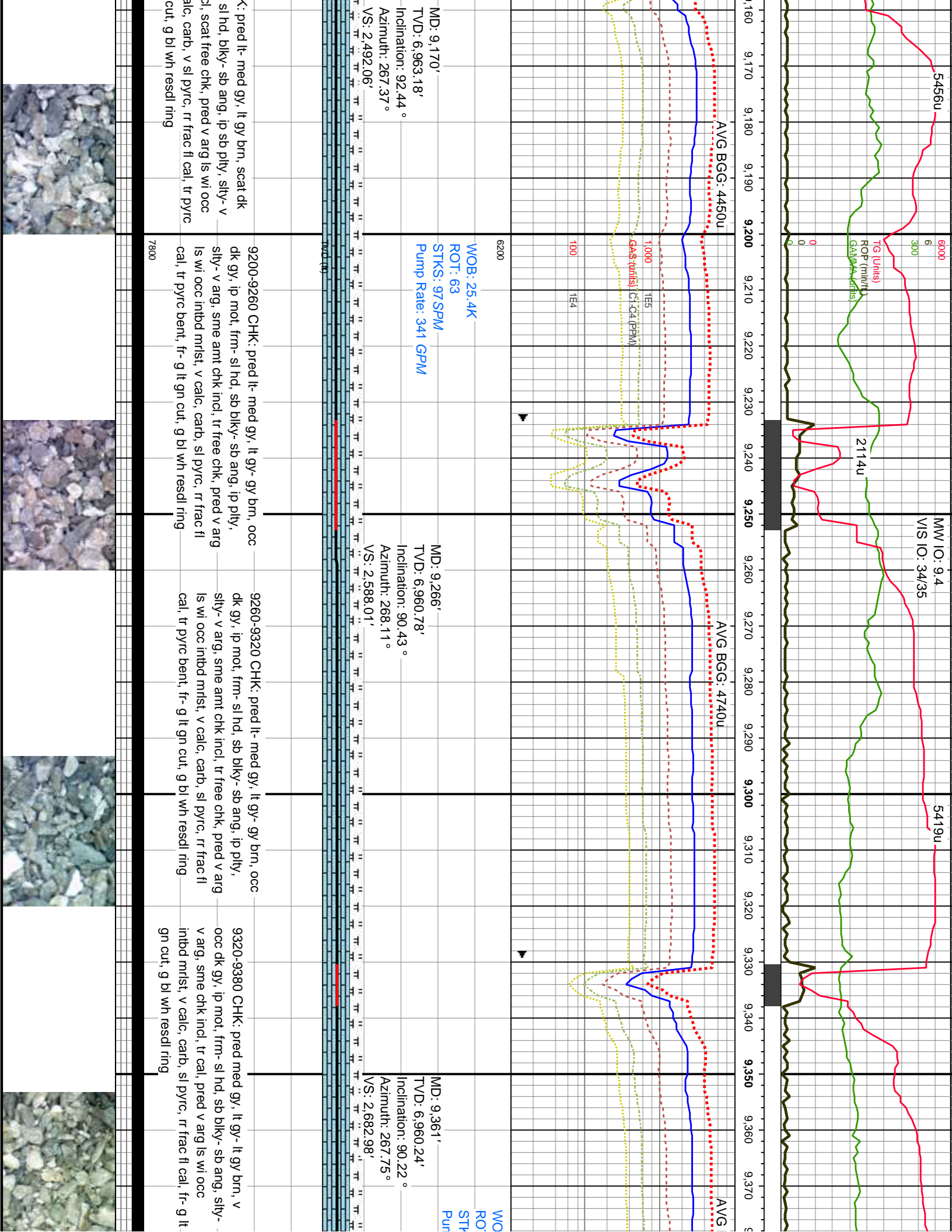


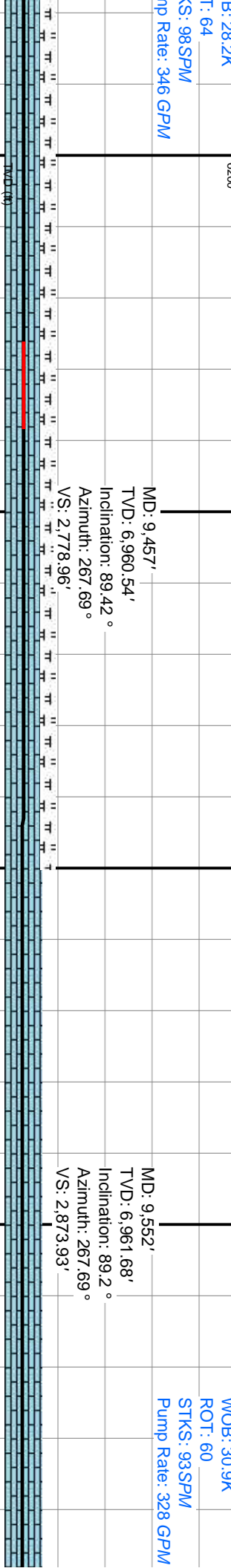
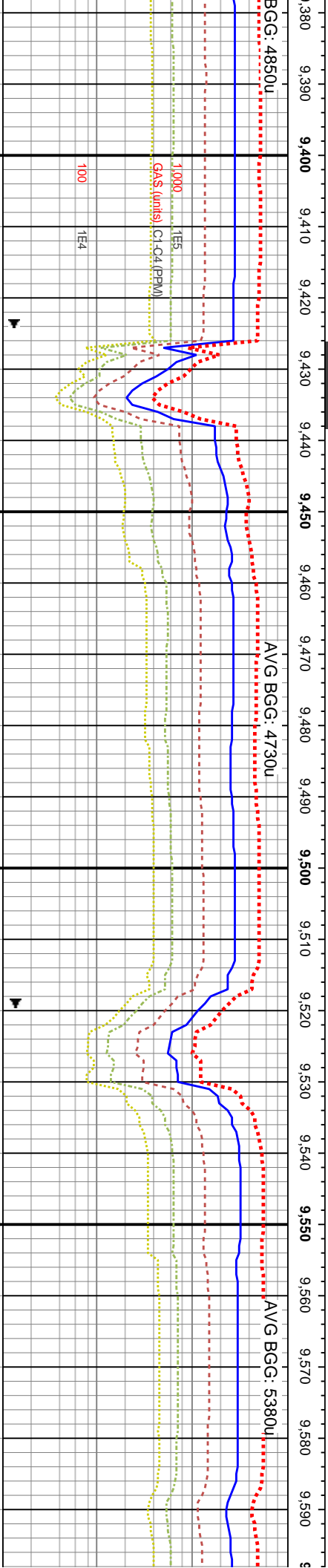
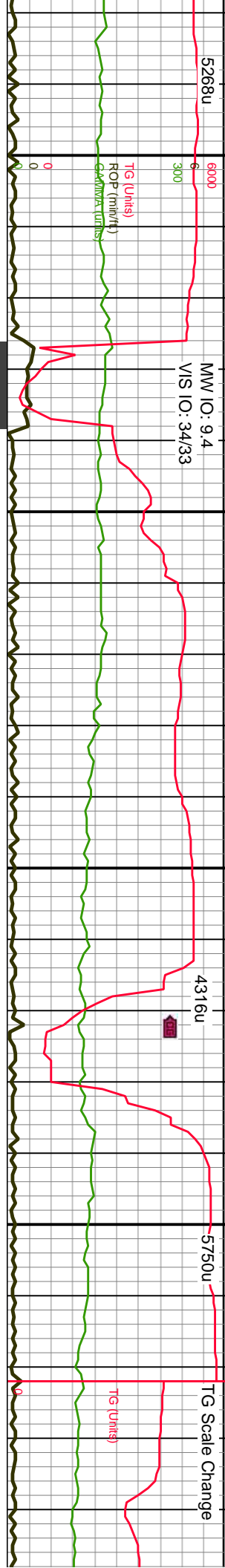
400 CHK: pred med gy, sme brn, rr gy, sl frm- hd, occ sft, blk- sb ang, ip sly- arg, tr chk incl, pred v arg ls wi d mrlst, v calc, sme carb, rr pyr, tr frac bent, g- v g lt gn cut, g lt gn- lt bl resdl	8540-8600 CHK: pred med gy, sme brn, rr blk, ip lt gy, sl frm- hd, occ sft, blk- sb ang, ip sb pily, sly- arg, tr chk incl, pred v arg ls wi occ intbd mrlst, v calc, sme carb, rr pyr, tr frac fl cal, tr bent, g- v g lt gn cut, g lt gn- lt bl resdl ring	8600-8660 CHK: pred med gy, sme brn, rr blk, ip lt gy- gy, frm- hd, occ sft- sl hd, blk- sb ang, ip sb pily, sly- arg thru, occ chk incl, pred v arg ls wi sme intbd mrlst, v calc, sme carb, rr pyr, tr frac fl cal, tr bent, g- v g lt gn cut, g lt gn- lt bl resdl ring	8660-8720 CHK: pred med gy, sme brn, rr blk, ip lt gy- gy, frm- hd, occ sft- sl hd, blk- sb ang, ip sb pily, sly- arg thru, occ chk incl, pred v arg ls wi sme intbd mrlst, v calc, sme carb, rr pyr, tr frac fl cal, tr bent, g- v g lt gn cut, g lt gn- lt bl resdl ring
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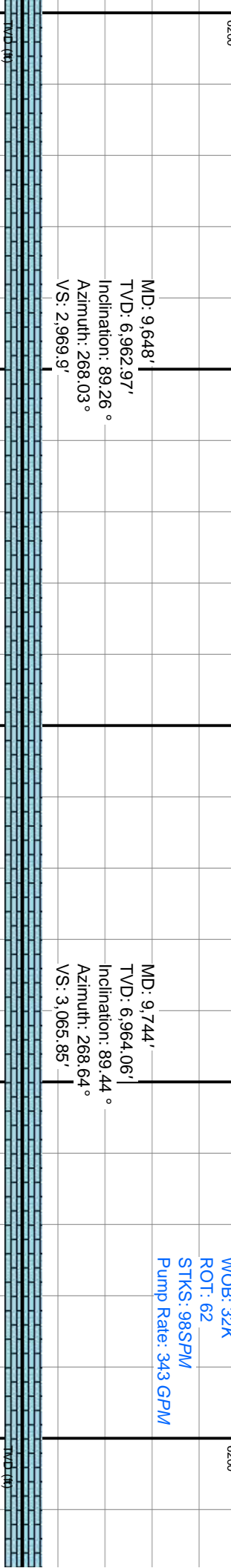
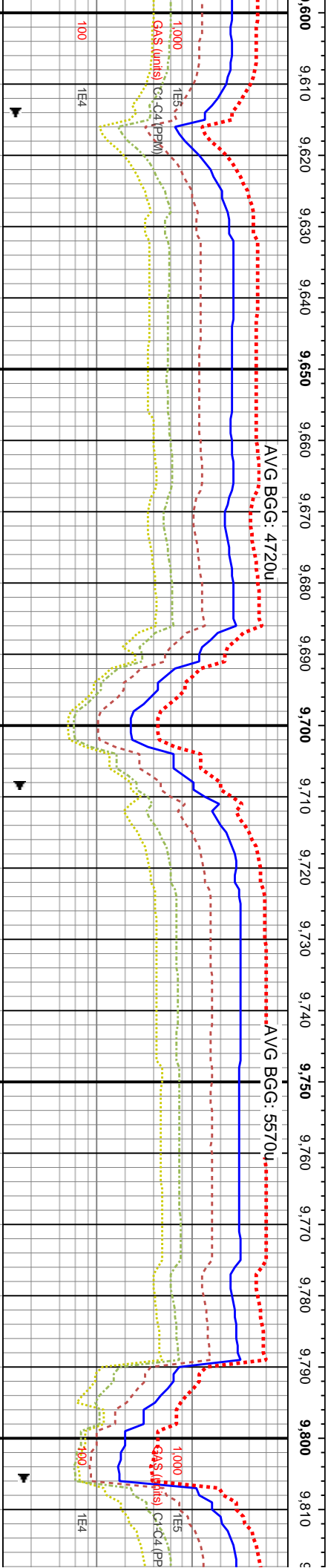
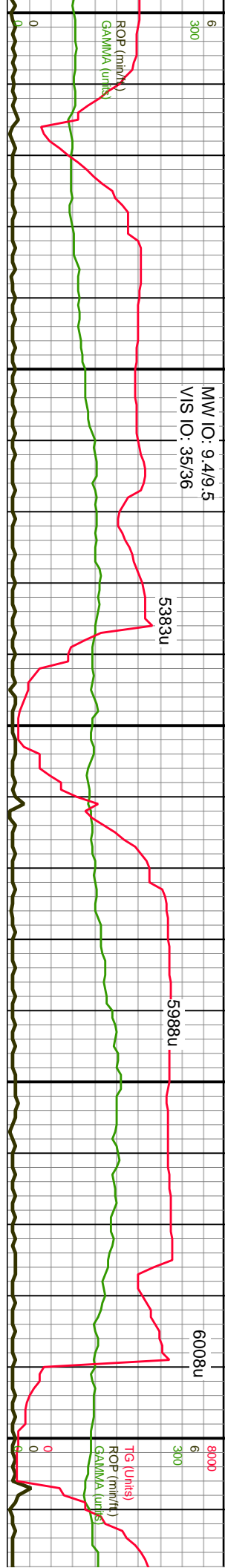






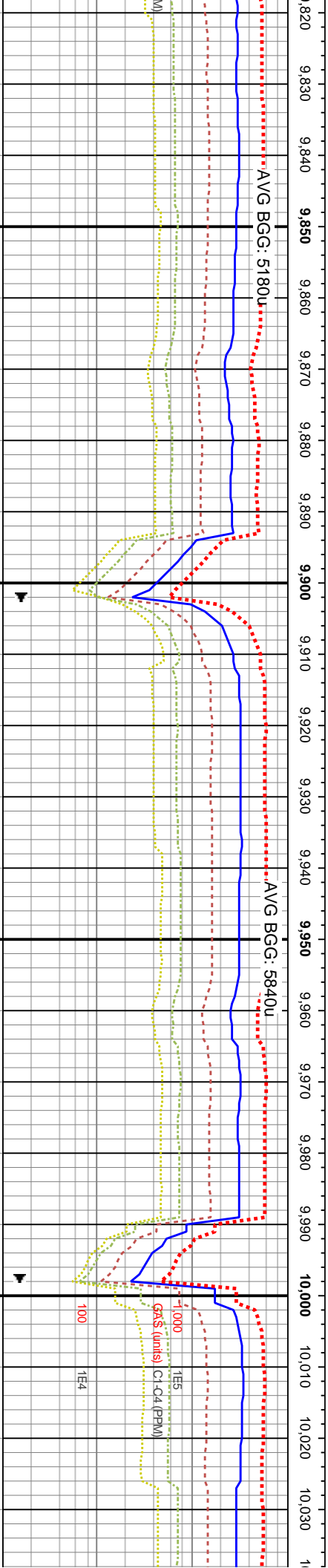
9380-9440 CHK: pred med gy, lt gy- lt gy brn, v occ dk gy, ip mot, frm- sl hd, sb blk- sb ang, silty- v arg, sme chk incl, tr cal, pred v arg ls wi occ intbd mlst, v calc, carb, sl pyrc, rr frac fl cal, fr- g lt gn cut, g bl wh resdl ring	9440-9500 CHK: pred lt- med gy, lt gy- lt gy brn, v occ dk gy, sl frm- sl hd, sb blk- sb ang, sb ply ip, silty- v arg, occ chk incl, tr cal, pred v arg ls wi sme intbd mlst, v calc, carb, v sl pyrc, rr frac fl cal, fr- g lt gn cut, g bl wh resdl ring	9500-9560 CHK: pred lt- med gy, sme lt gy brn, v occ dk gy, ip mot, sl frm- sl hd, sb blk- sb ang, sb ply ip, silty- v arg, occ chk incl, tr cal, pred v arg ls wi sme amt intbd mlst, v calc, carb, rr frac fl cal, fr- g lt gn cut, g bl wh resdl ring	9560-9620 CHK: pred lt gy, sme r ip mot, sl frm- sl hd, sb blk- sb ang, v arg, rr chk incl, v tr cal, pred v a intbd mlst, v calc, carb, rr frac fl c bl wh resdl ring
7800			





med gy- lt gy brn, sg, sb ply ip, silty- arg ls wi sme amt cal, fr- g lt gn cut, g bl wh resd ring	9620-9680 CHK: pred lt gy, sme med gy- lt gy brn, ip mot, sl frm- sl hd, sb blk- sb ang, sb ply ip, silty- v arg, tr chk incl, v tr cal, pred v arg ls wi sme amt intbd mrlst, v calc, carb, rr frac fl cal, fr- g lt gn cut, g bl wh resd ring	9860-9740 CHK: pred gy, ip lt gy, sme med gy- lt gy brn, sl frm- sl hd, sb blk- sb ang, sb ply ip, silty- v arg, occ chk incl, tr cal, pred v arg ls wi occ intbd mrlst, v calc, ip carb, rr frac fl cal, g lt gn cut, g bl wh resd ring	9740-9800 CHK: pred gy, ip lt gy, sme med gy- lt gy brn, sl frm- sl hd, sb blk- sb ang, sb ply ip, silty- v arg, occ chk incl, tr cal, pred v arg ls wi occ intbd mrlst, v calc, ip carb, rr frac fl cal, g lt gn cut, g bl wh resd ring	9800-9860 CHK: brn, sl frm- sl hc arg, occ chk inc mrlst, v calc, ip resd ring
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MD: 9,840'
TVD: 6,964.72'
Inclination: 89.78 °
Azimuth: 269.16 °
VS: 3,161.77'

MD: 9,936'
TVD: 6,964.54'
Inclination: 90.43 °
Azimuth: 269.58 °
VS: 3,257.65'

WOB: 32K
ROT: 62
STKS: 97SPM
Pump Rate: 341 GPM

MD: 10,031'
TVD: 6,964.62'
Inclination: 89.47
Azimuth: 268.92
VS: 3,352.55'

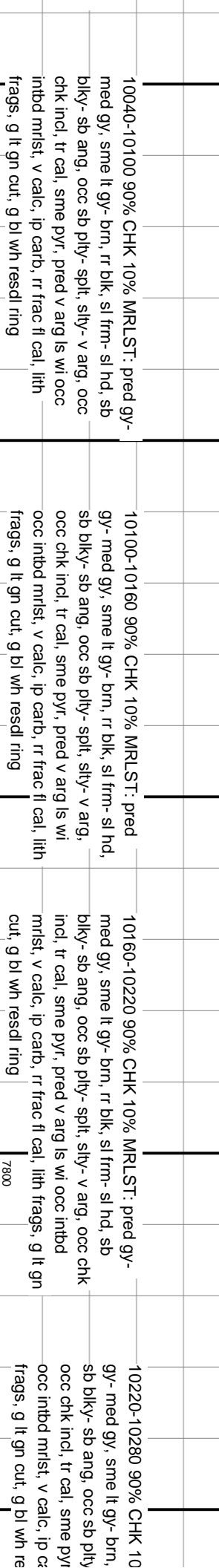
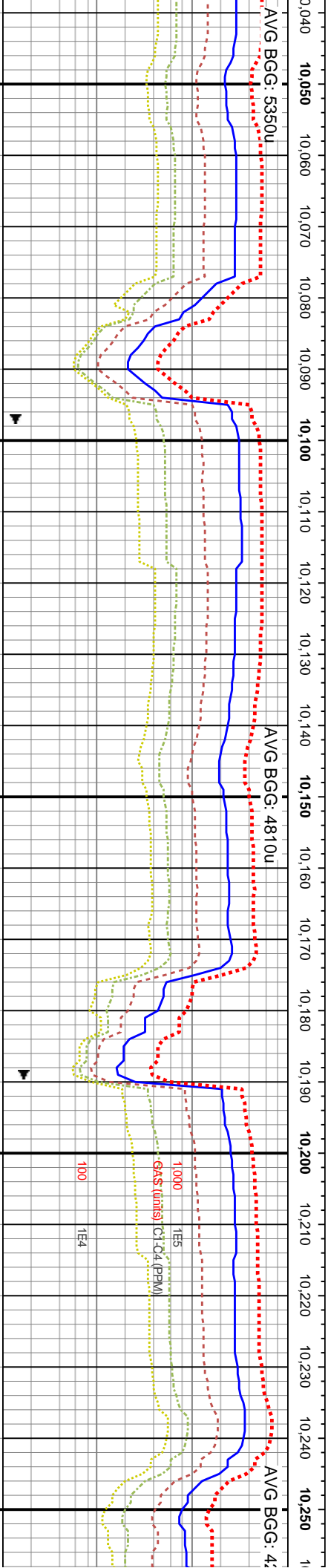
pred gy, ip lt gy, sme med gy- lt gy
sb blk- sb ang, sb pty ip, slty- v
lt cal, pred v arg ls wi occ intbd
carb, rr frac fl cal, g lt gn cut, g bl wh

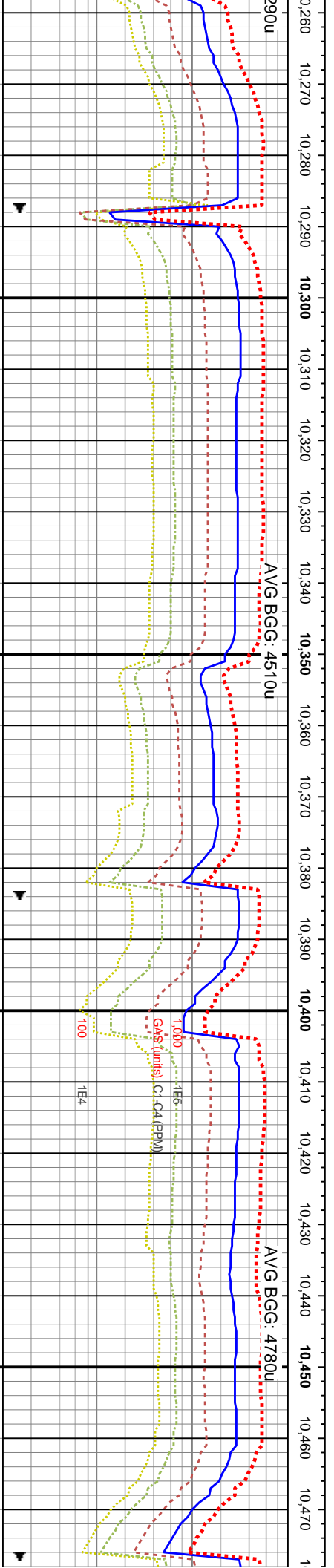
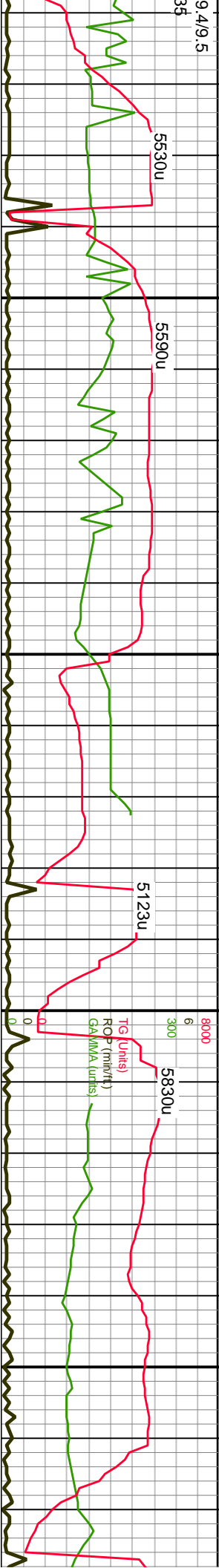
9860-9920 CHK: pred gy, ip lt gy, sme med
gy- lt gy brn, sl frm- sl hd, sb blk- sb ang, sb
pty ip, slty- v arg, occ chk incl, tr cal, pred v
arg ls wi occ intbd mlst, v calc, ip carb, rr
frac fl cal, g lt gn cut, g bl wh resdl ring

9920-9980 CHK: pred gy, tr lt gy, sme med gy-
lt gy brn, sl frm- sl hd, sb blk- sb ang, sb pty
ip, slty- v arg, occ chk incl, tr cal, pred v arg ls wi
occ intbd mlst, v calc, ip carb, rr frac fl cal, g lt
gn cut, g bl wh resdl ring

9980-10040 CHK: pred gy, tr lt gy, sme med
gy- lt gy brn, sl frm- sl hd, sb blk- sb ang, sb
pty ip, slty- v arg, occ chk incl, tr cal, pred v
arg ls wi occ intbd mlst, v calc, ip carb, rr
frac fl cal, g lt gn cut, g bl wh resdl ring





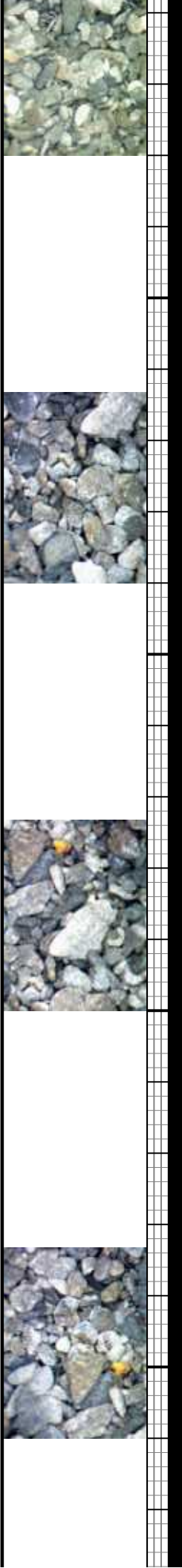


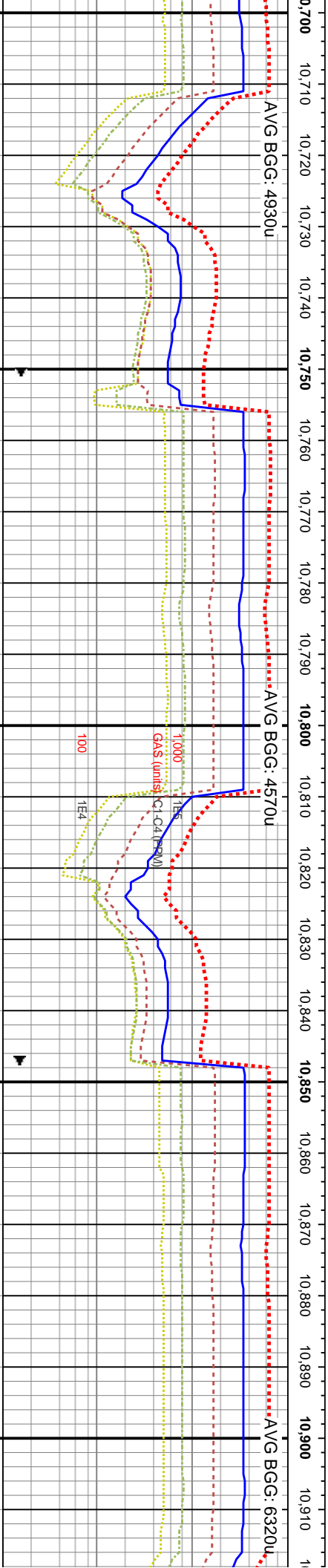
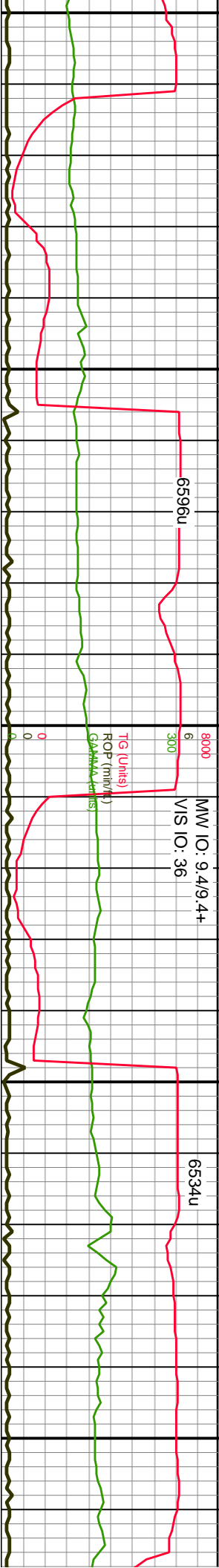
MD: 10,319'
TVD: 6,968.72'
Inclination: 89.32 °
Azimuth: 269.11 °
VS: 3,640.23'

WOB: 25K
ROT: 63
STKS: 96SPM
Pump Rate: 336 GPM

MD: 10,415'
TVD: 6,969.05'
Inclination: 90.28 °
Azimuth: 268.97 °
VS: 3,736.14'

10280-10340 CHK: pred gy- med gy, sme lt gy- brn, pred sl frm- sl hd, sb blk- sb ang, occ sb ply- split, sily- v arg, occ chk incl, v tr cal, sme pyr, pred v arg ls wi occ intbd mrlst, v calc, ip carb, rr frac fl cal, lith frags, g lt gn cut, g bl wh resdl ring	10340-10400 CHK: pred gy- med gy, sme lt gy- brn, pred sl frm- sl hd, sb blk- sb ang, occ sb ply- split, sily- v arg, occ chk incl, v tr cal, sme pyr, pred v arg ls wi occ intbd mrlst, v calc, ip carb, rr frac fl cal, lith frags, g lt gn cut, g bl wh resdl ring	10400-10460 CHK: pred gy- med gy, sme lt gy- brn, pred sl frm- sl hd, sb blk- sb ang, occ sb ply- split, sily- v arg, occ chk incl, v tr cal, sme pyr, pred v arg ls wi occ intbd mrlst, v calc, ip carb, rr frac fl cal, lith frags, g lt gn cut, g bl wh resdl ring	10460-10520 CHK: pred gy- med gy, sme lt gy- brn, pred sl frm- sl hd, sb blk- sb ang, occ sb ply- split, sily- v arg, occ chk incl, v tr cal, sme pyr, pred v arg ls wi occ intbd mrlst, v calc, ip carb, rr frac fl cal, lith frags, g lt gn cut, g bl wh resdl ring
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WOB: 19K
ROT: 67
STKS: 94SPM
Pump Rate: 331 GPM
MD: 10,783'
TVD: 6,967.04'
Inclination: 90.15 °
Azimuth: 271.41 °
VS: 4,103.44'

MD: 10,875'
TVD: 6,966.45'
Inclination: 90.58 °
Azimuth: 272.36 °
VS: 4,195.04'

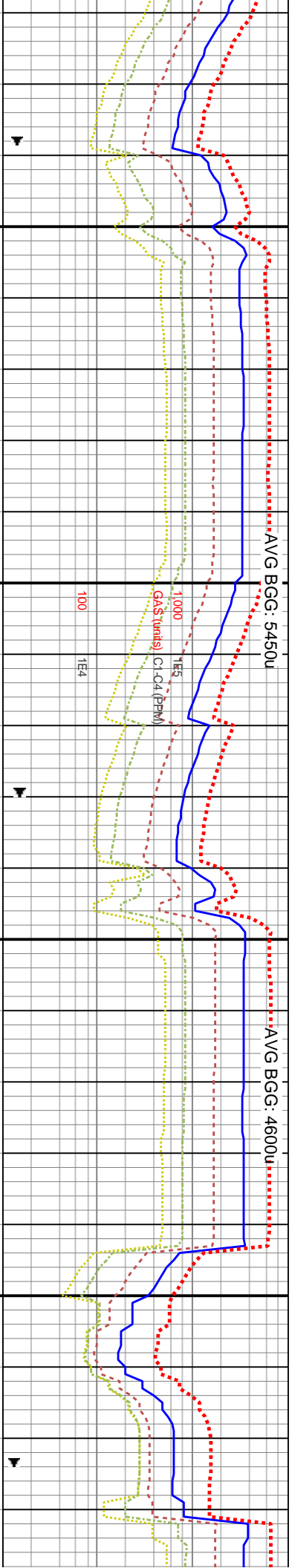
10700-10760 CHK: pred gy, sme lt gy- brn, ip med gy, pred frm- hd, sb blk- sb ang, occ sb ply- spl, slty- v arg, occ chk incl, v tr cal- frac fl cal, tr pyr, pred v arg ls wi occ intbd mrlst, v calc, ip carb, rr frac fl cal, lith frags, g lt gn cut, g bl wh resdl ring

10760-10820 CHK: pred gy, sme lt gy- brn, ip med gy, pred frm- hd, occ sl frm, sb blk- sb ang, occ sb ply- spl, sme slty- v arg, sme chk incl, tr cal- frac fl cal, tr pyr, pred sl- v arg ls wi intbd mrlst, v calc, ip carb, lith frags, g lt gn cut, g bl wh resdl ring

10820-10880 CHK: pred gy, sme lt gy- brn, ip med gy, pred frm- hd, occ sl frm, sb blk- sb ang, occ sb ply- spl, sme slty- v arg, sme chk incl, tr cal- frac fl cal, tr pyr, pred sl- v arg ls wi intbd mrlst, v calc, ip carb, lith frags, g lt gn cut, g bl wh resdl ring

10880-10940 CHK: pred ip med gy, pred frm- hd, sb ang, occ sb ply- spl, sme chk incl, tr cal- frac v arg ls wi intbd mrlst, v frags, g lt gn cut, g bl wh

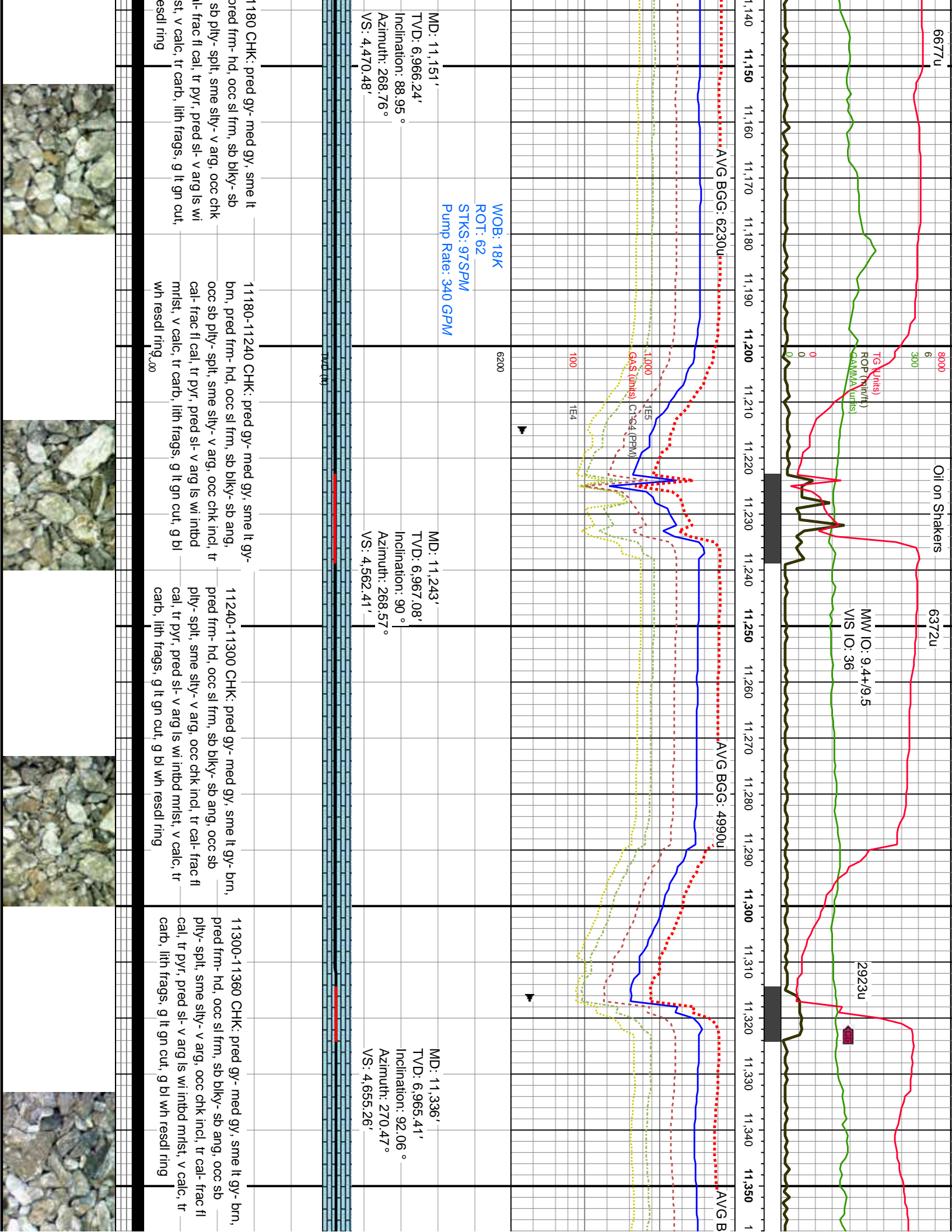


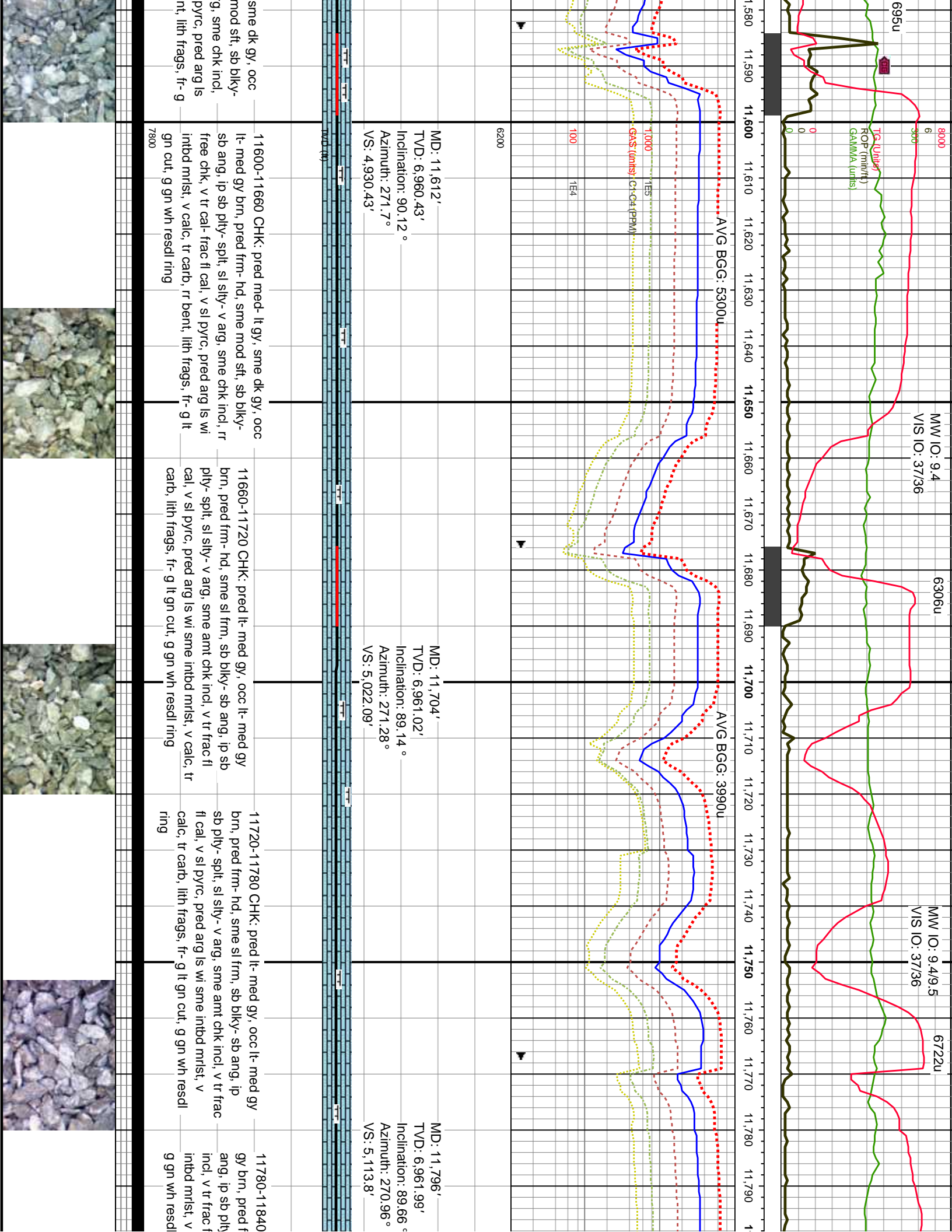


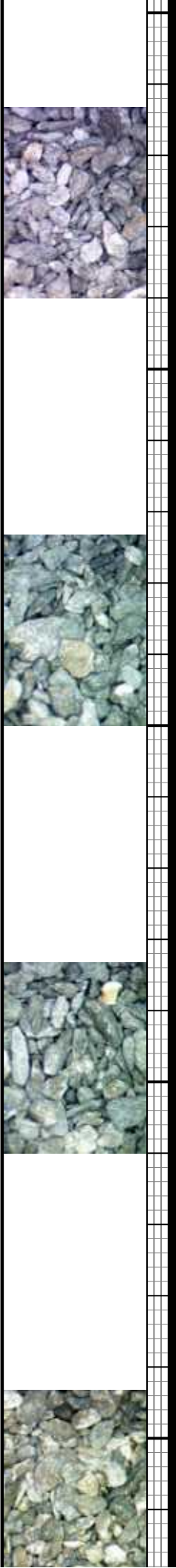
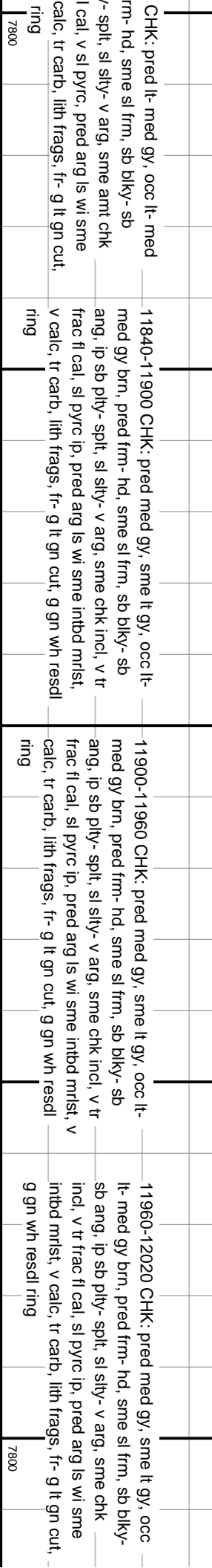
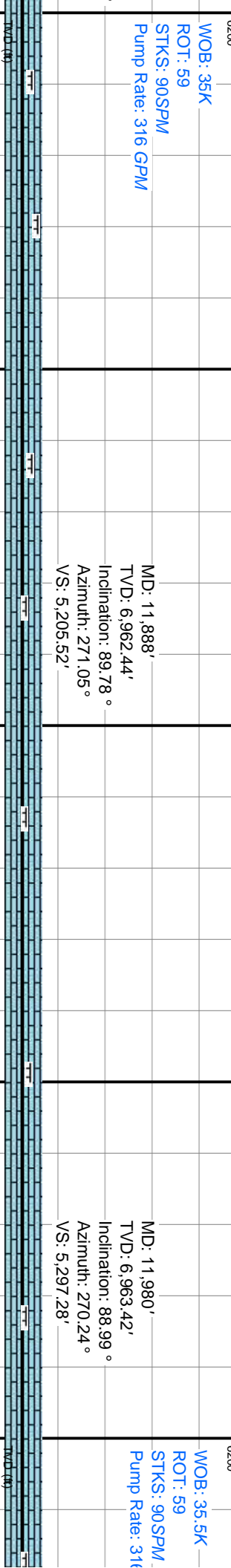
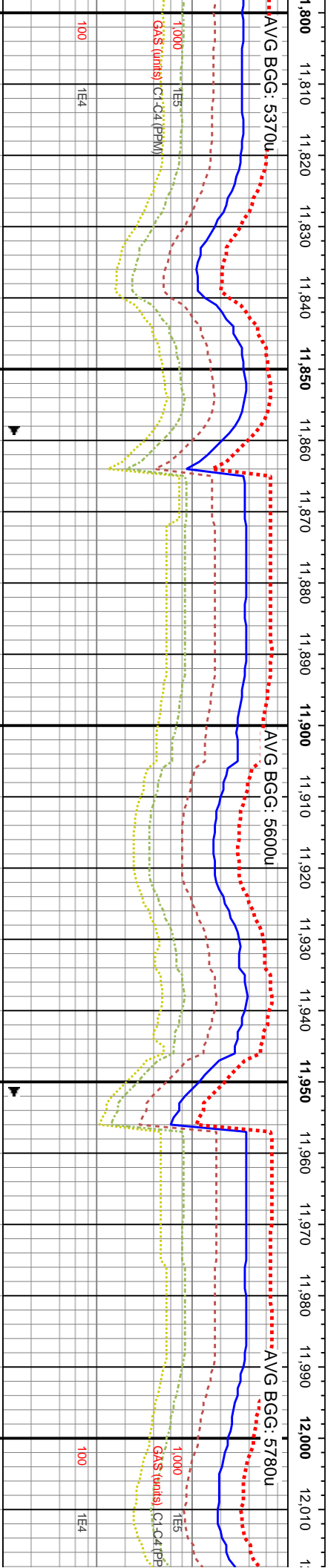
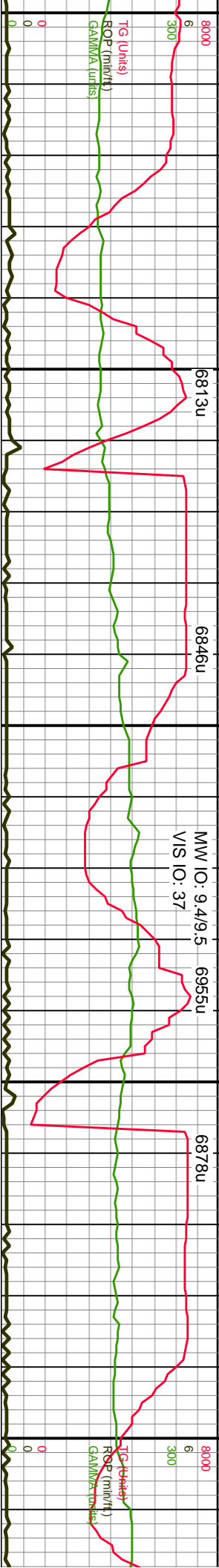
MD: 11,059'
TVD: 6,965.3'
Inclination: 89.88 °
Azimuth: 269.09 °
VS: 4,378.56'

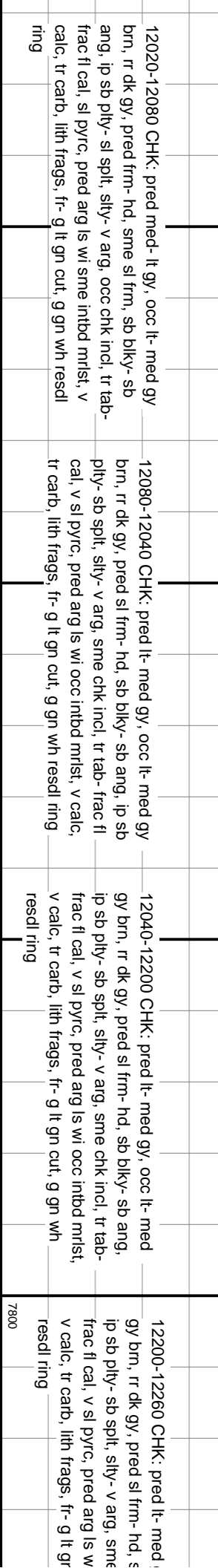
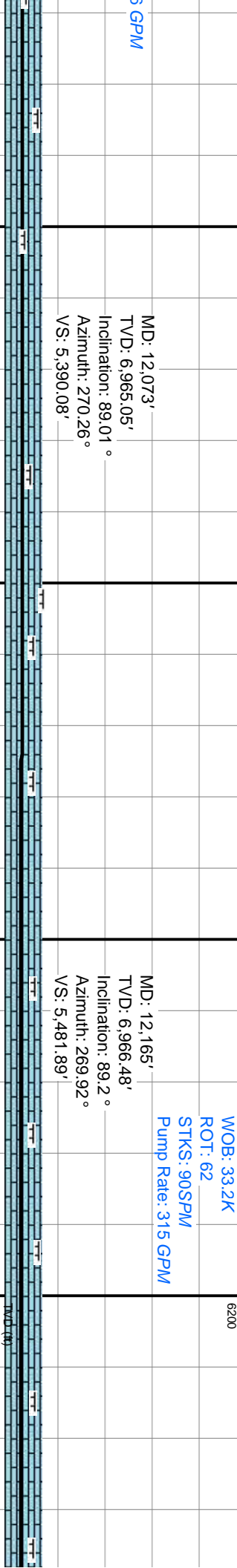
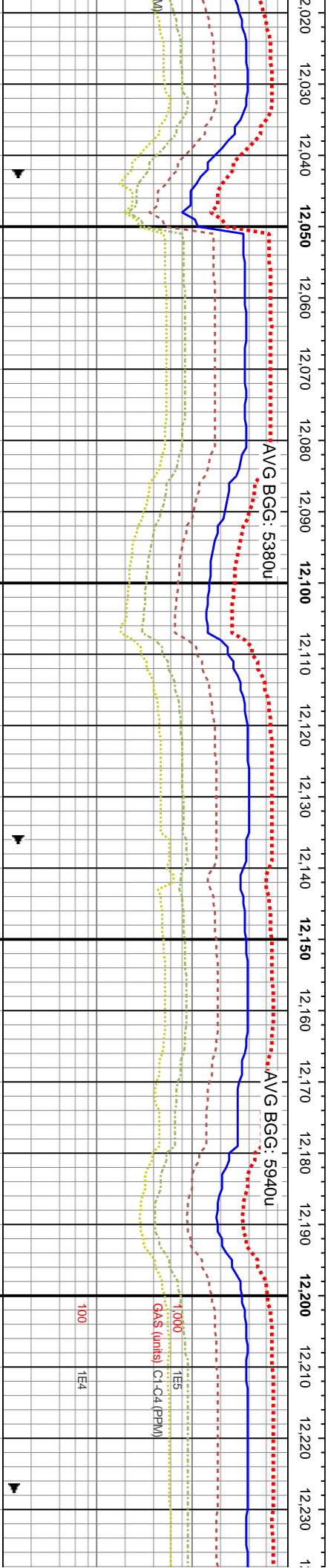
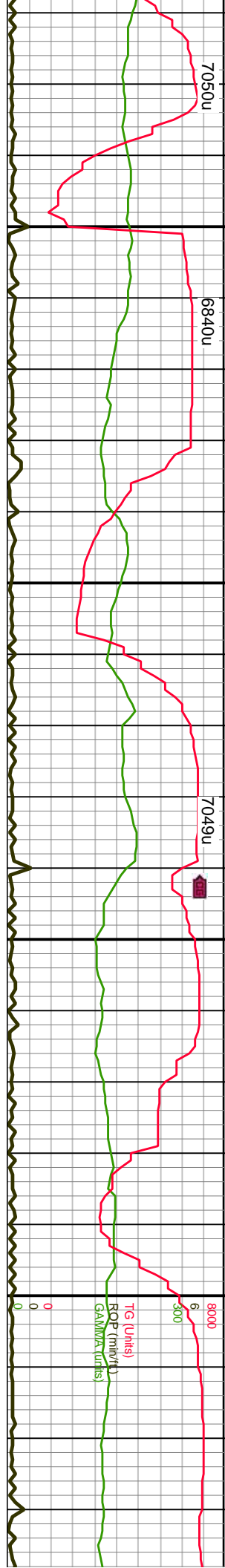
11120-1
gy- brn, l
ang, occ
incl, tr ce
intbd mrl
g bl wh r

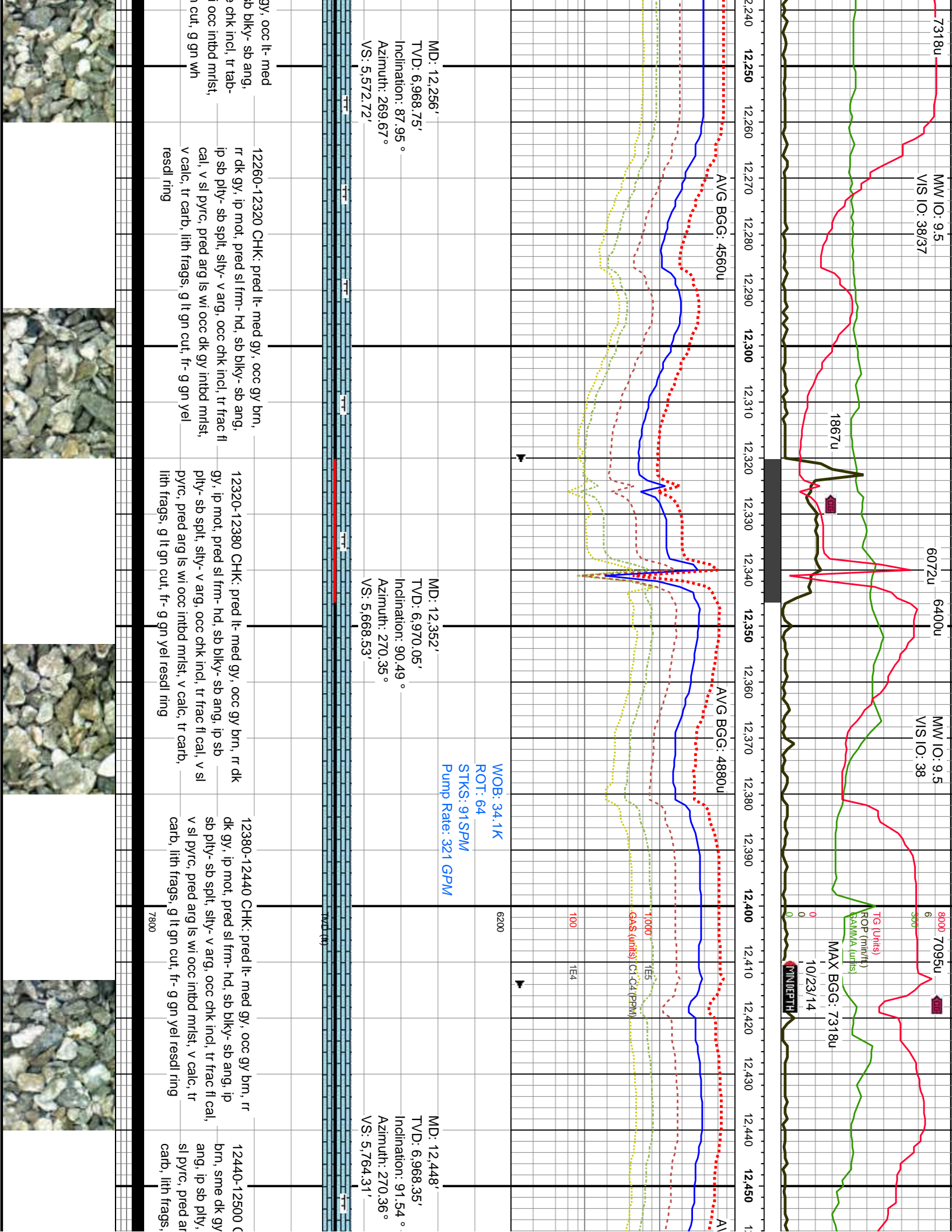


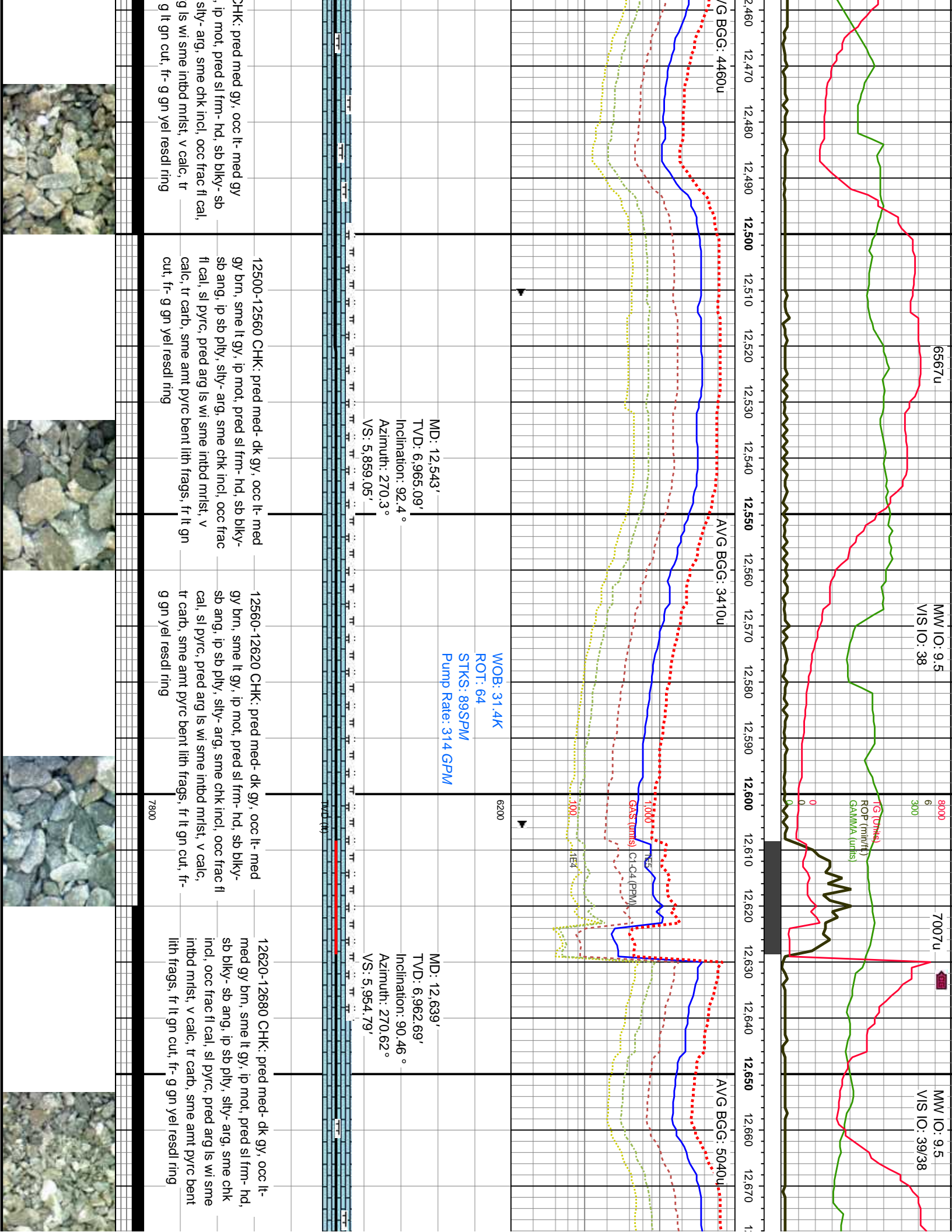


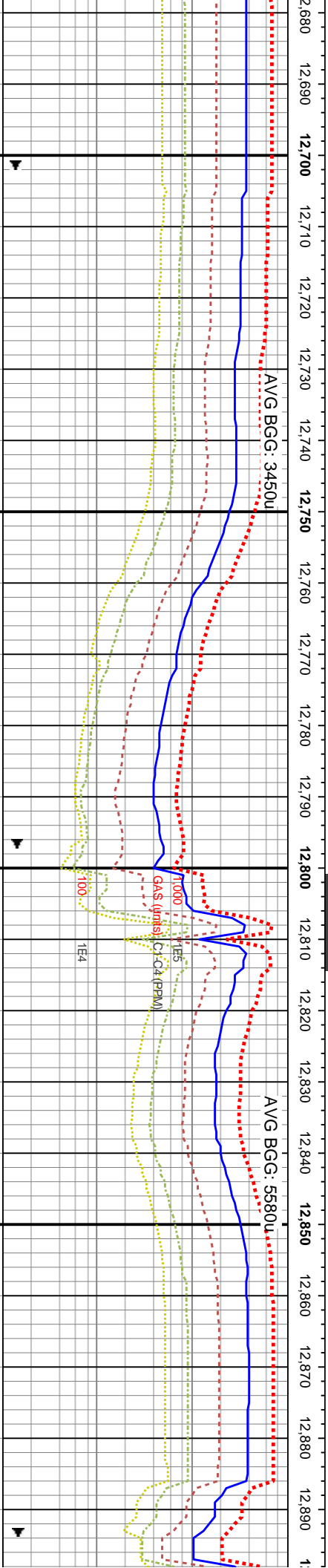
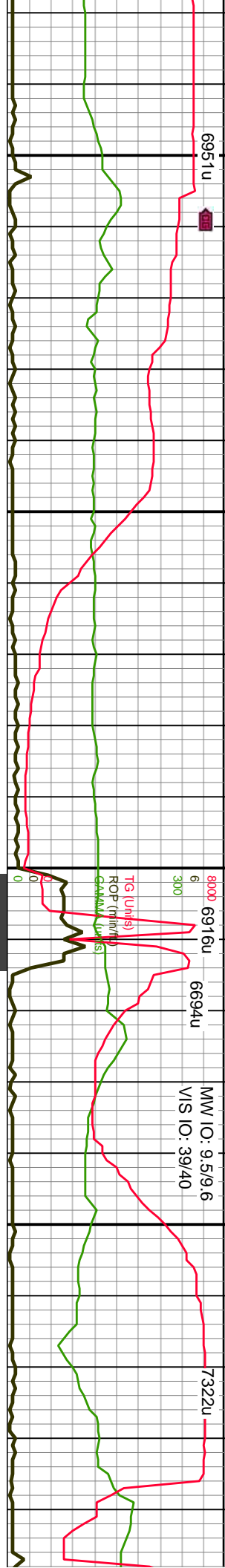












MD: 12,734'
TVD: 6,961.41'
Inclination: 91.08 °
Azimuth: 271.06 °
VS: 6,049.52'

WOB: 36.2K
ROT: 5-32
STKS: 93SPM
Pump Rate: 325 GPM

MD: 12,830'
TVD: 6,960.74'
Inclination: 89.72 °
Azimuth: 270.64 °
VS: 6,145.25'

AVG BGG: 5580u

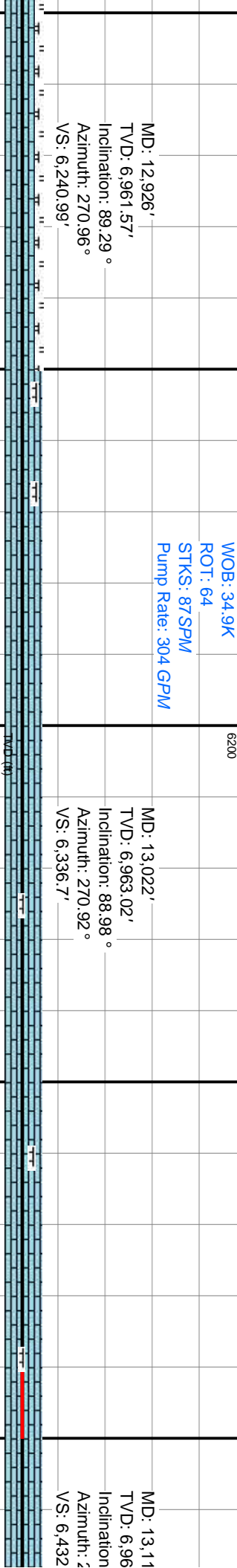
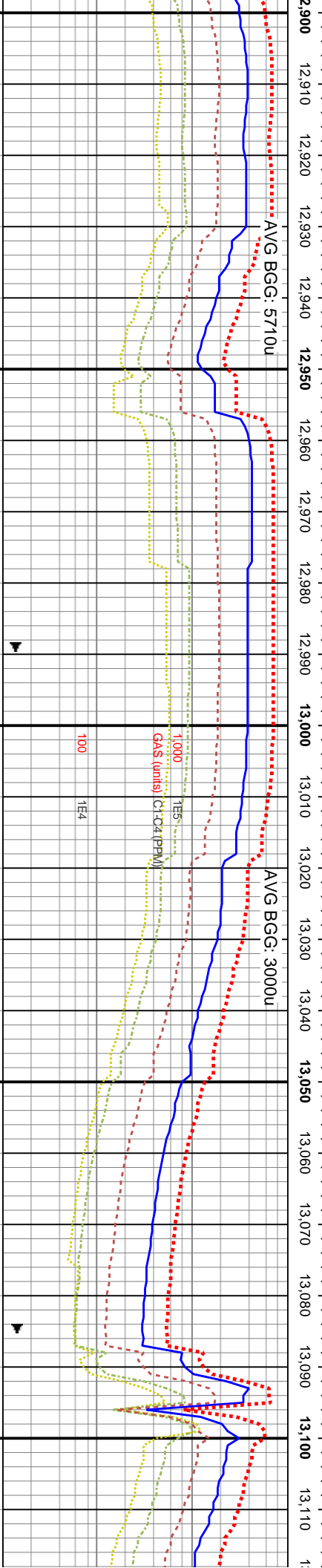
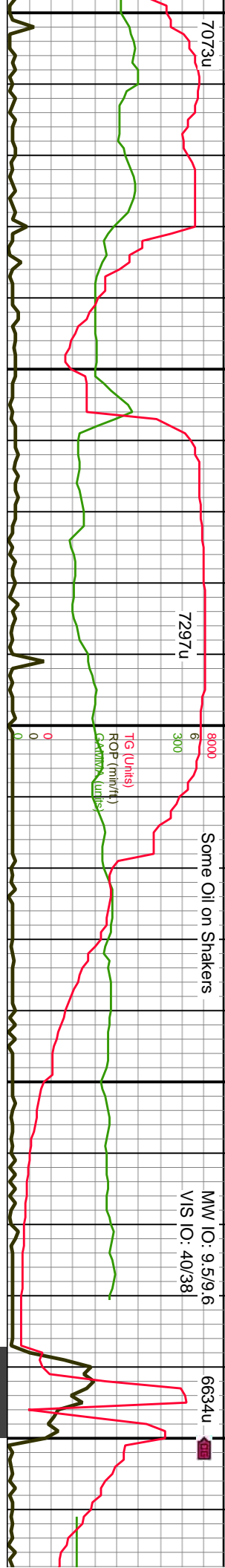
12680-12740 CHK: pred med- dk gy, occ lt- med gy brn, ip mot, pred frm- hd, sb blk- sb ang, ip sb pty- spt, silty- arg, sme chk incl, scat free- frac fl cal, sl pyrc, pred arg ls wi sme inbtd mst, v calc, tr carb, lith frags, fr lt gn cut, fr- g gn yel resd ring

12740-12800 CHK: pred med- dk gy, occ lt- med gy brn, ip mot, pred frm- hd, sb blk- sb ang, ip sb pty- spt, silty- arg, sme chk incl, scat free- frac fl cal, sl pyrc, pred arg ls wi sme inbtd mst, v calc, tr carb, lith frags, fr lt gn cut, fr- g gn yel resd ring

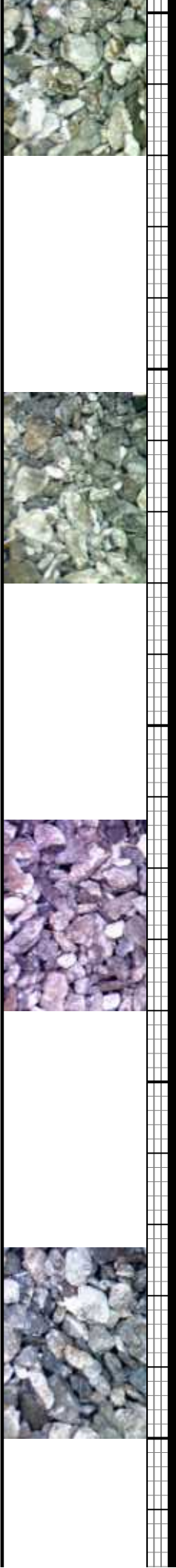
12800-12860 CHK: pred med- dk gy, occ lt- med gy brn, ip mot, pred frm- hd, sb blk- sb ang, ip sb pty- spt, silty- arg, sme chk incl, scat free- frac fl cal, sl pyrc, pred arg ls wi sme inbtd mst, v calc, tr carb, lith frags, fr lt gn cut, fr- g bl wh resd ring

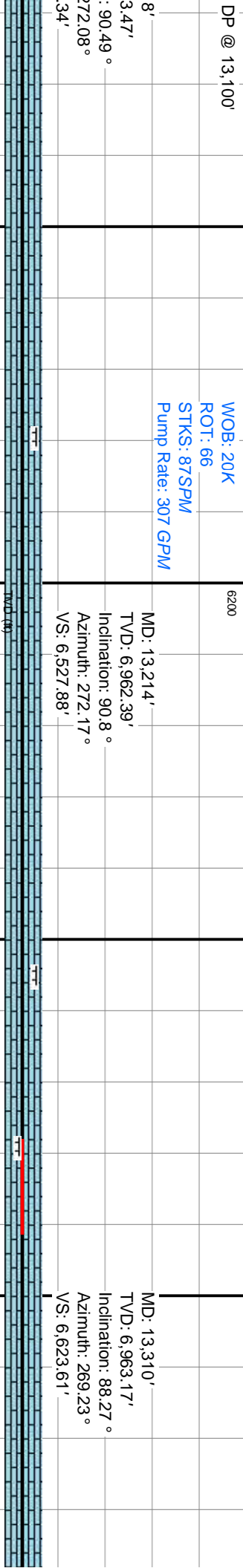
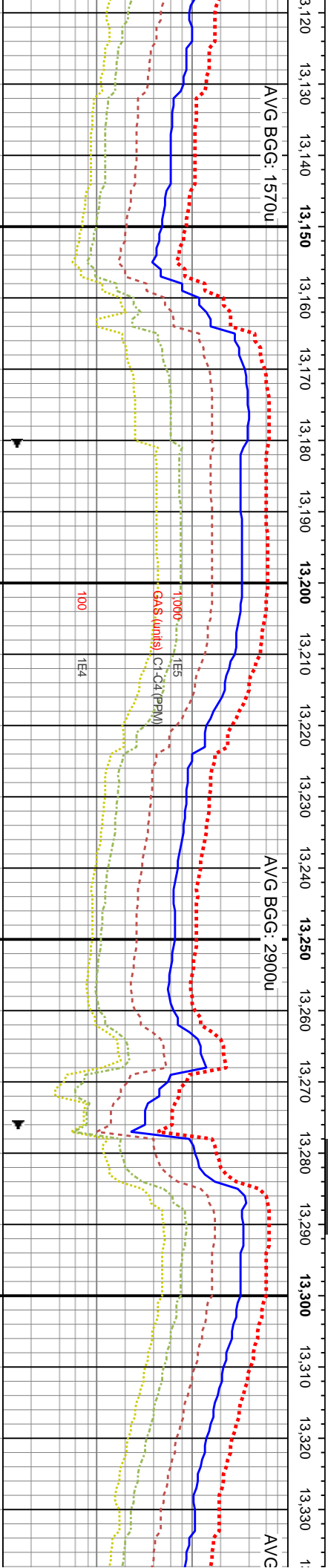
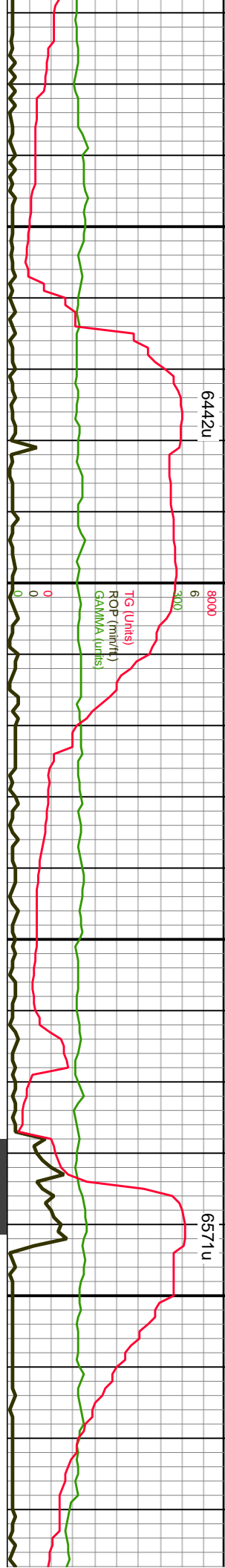
12860-12920 CHK: pred med- dk gy, occ lt- med gy brn, ip mot, pred frm- hd, sb blk- sb ang, ip sb pty- spt, silty- arg, sme chk incl, scat free- frac fl cal, sl pyrc, pred arg ls wi sme inbtd mst, v calc, tr carb, lith frags, fr lt gn cut, fr- g bl wh resd ring



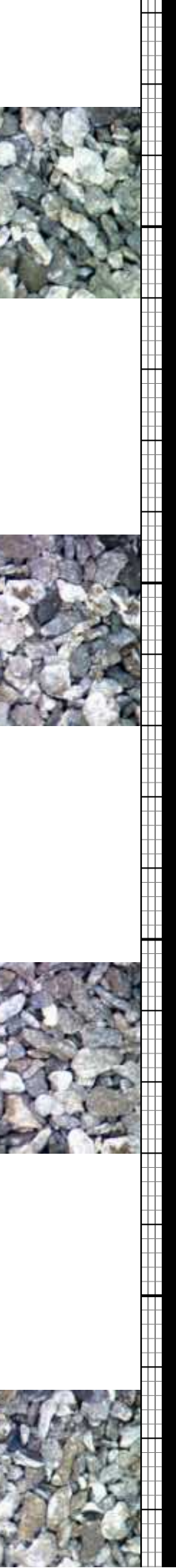


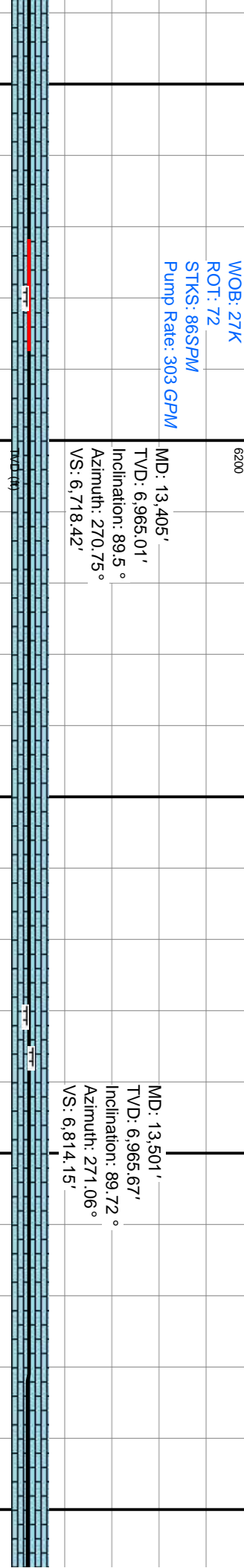
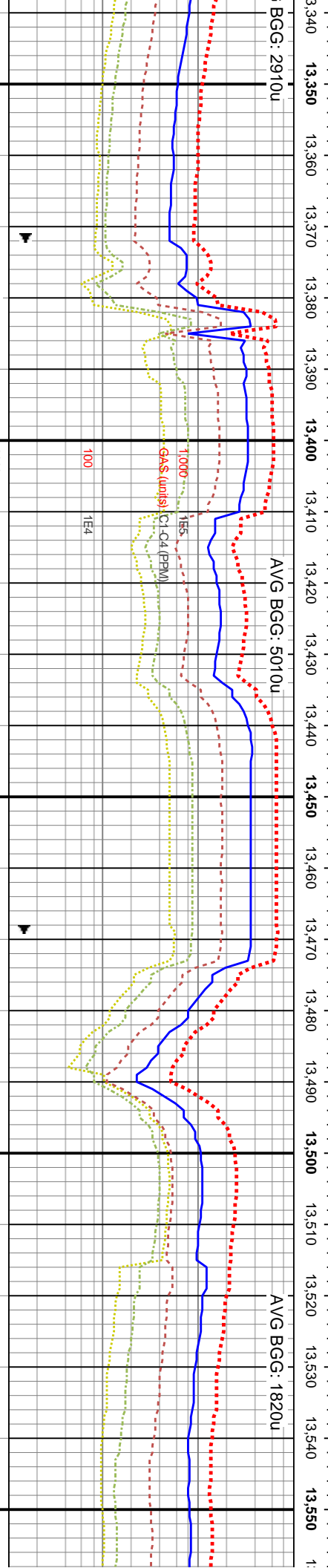
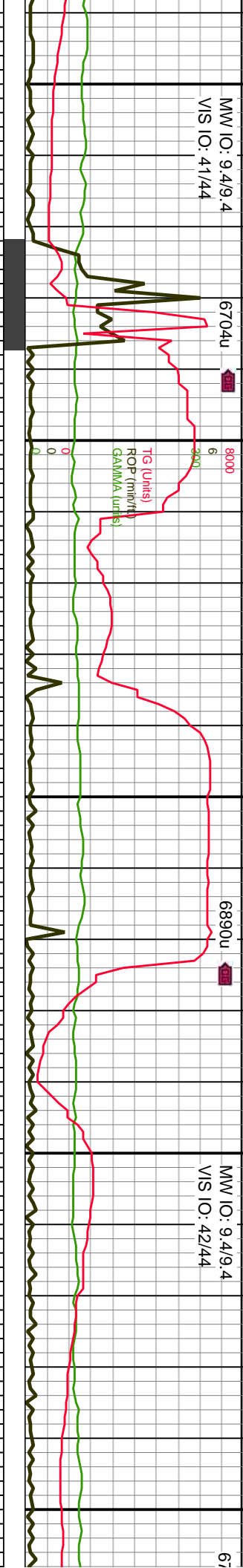
12920-12980 CHK: pred med- dk gy, occ lt- gy, sme gy brn, ip mot, pred sl frm- hd, sb blk- sb ang, ip sb pily, silty- arg, sme chk incl, scat free chk, occ frac fl cal, sl pyrc, pred arg ls wi sme intbd mrlst, v calc, tr carb, lith frags, fr lt gn yel cut, fr- g bl wh resdl ring	12980-13040 CHK: pred lt- med gy, occ dk gy, sme lt gy brn, ip mot, pred sl frm- hd, sb blk- sb ang, ip sb pily, silty- arg, sme chk incl, scat free chk, occ tab- frac fl cal, sl pyrc, pred arg ls wi sme intbd mrlst, v calc, tr carb, lith frags, fr lt gn yel cut, fr- g bl wh resdl ring	13040-13100 CHK: pred med- lt gy, occ dk gy- gy brn, ip mot, pred sl frm- hd, sb blk- sb ang, ip sb pily, silty- arg, sme chk incl, scat free chk, occ tab- frac fl cal, sl pyrc, pred arg ls wi sme intbd mrlst, v calc, tr carb, lith frags, fr lt gn yel cut, fr- g bl wh resdl ring	13100-13110 CHK: pred med- lt gy, occ dk gy- gy brn, ip mot, pred sl frm- hd, sb blk- sb ang, ip sb pily, silty- arg, sme chk incl, scat free chk, occ frac fl cal, sl pyrc, pred arg ls wi sme intbd mrlst, v calc, tr carb, lith frags, fr lt gn yel cut, fr- g bl wh resdl ring
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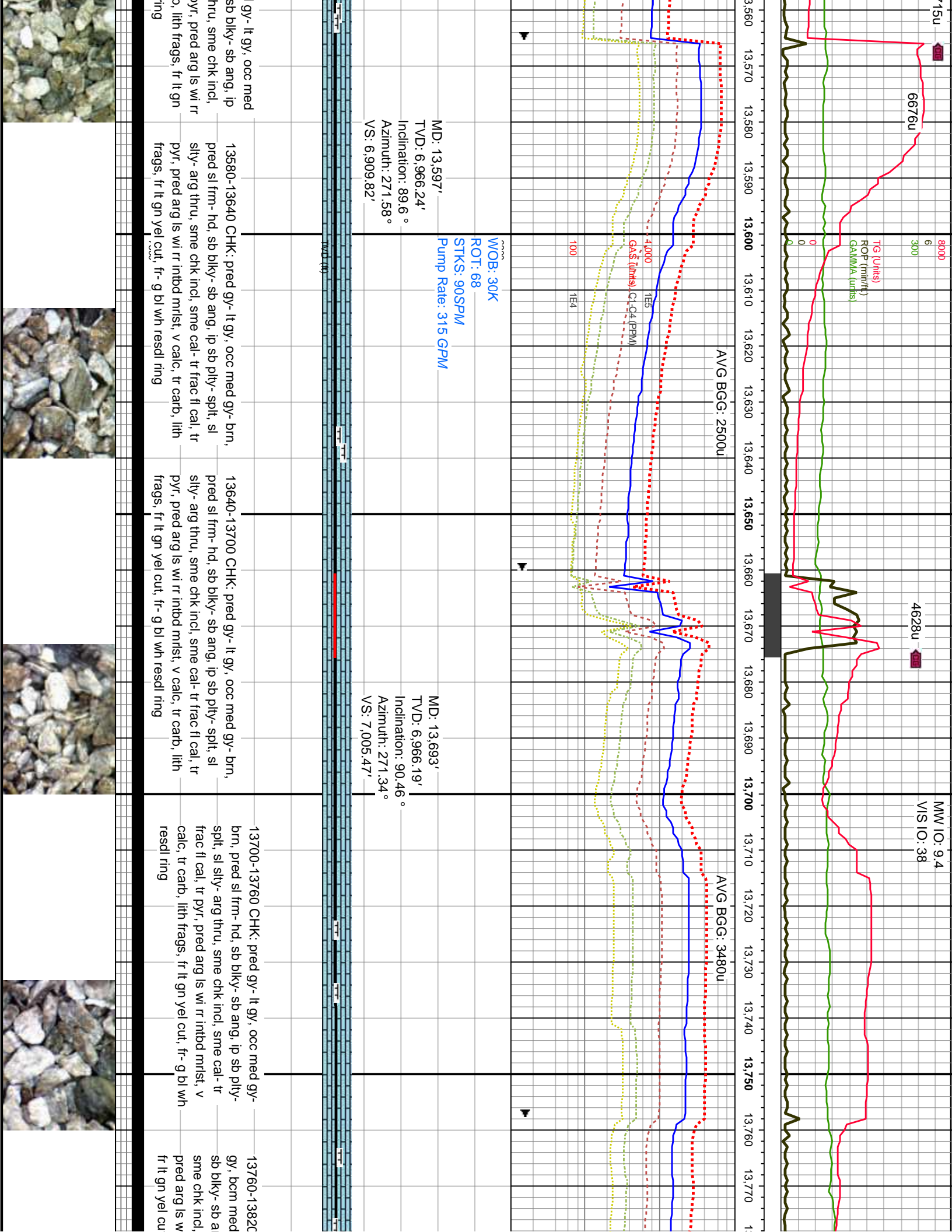
3160 CHK: pred med- lt gy, occ dk gy- not, pred sl frm- hd, sb blk- sb ang, ip silty- arg, sme chk incl, sme cal- tr frac pyrc, pred arg ls wi rr intbd mlst, v carb, lith frags, fr lt gn yel cut, fr- g bl wh	13160-13220 CHK: pred med- lt gy, occ dk gy- brn, ip mot, pred sl frm- hd, sb blk- sb ang, ip sb pily, silty- arg, sme chk incl, sme cal- tr frac fl cal, sl pyrc, pred arg ls wi rr intbd mlst, v calc, tr carb, lith frags, fr lt gn yel cut, fr- g bl wh resd ring	7800
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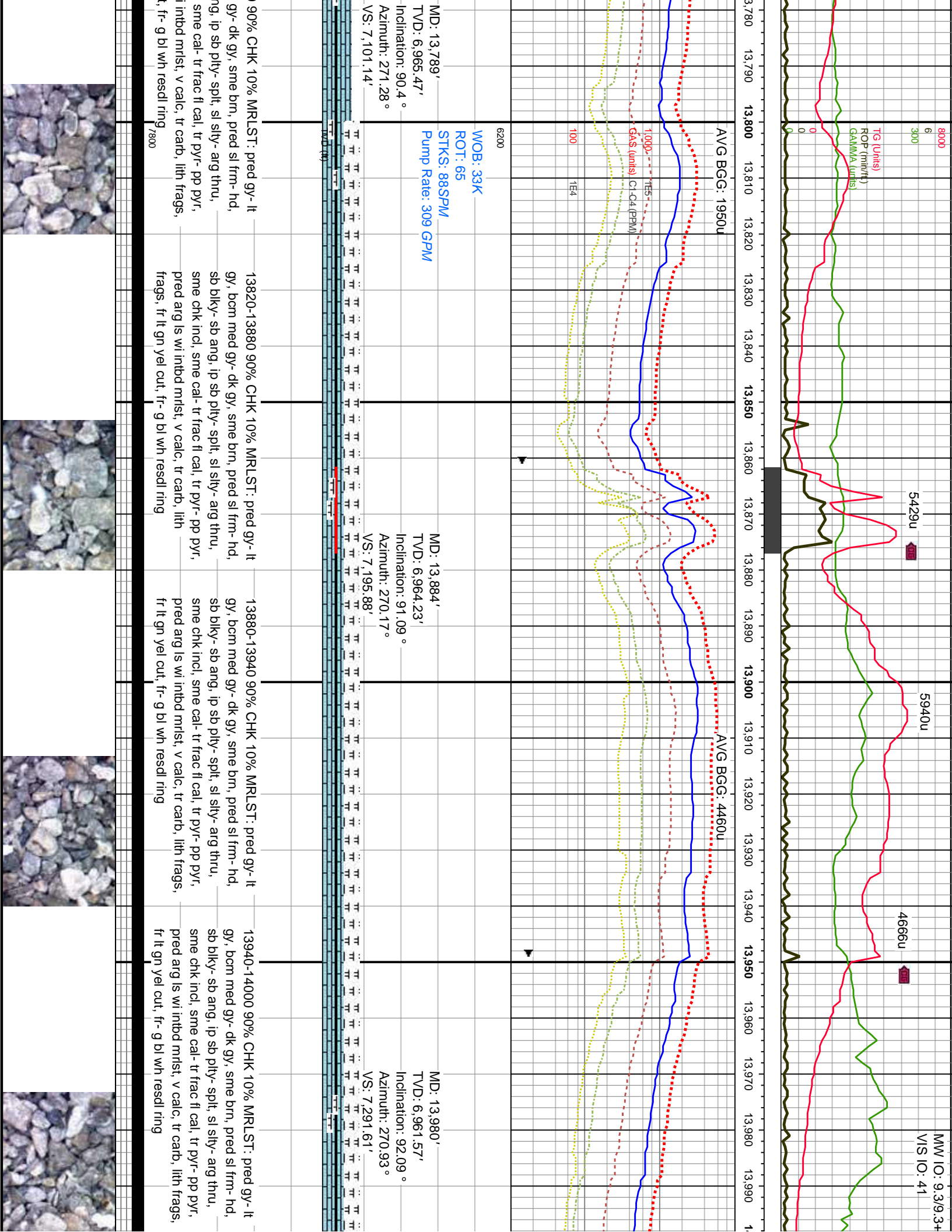


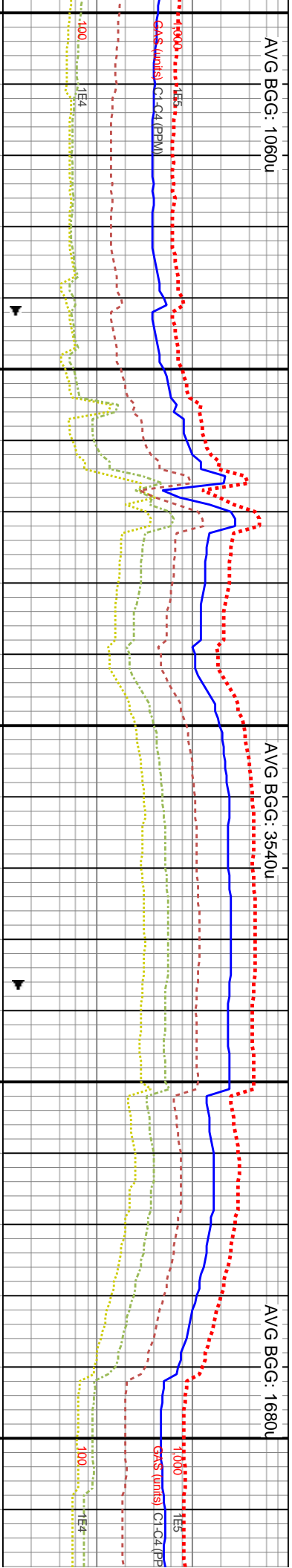
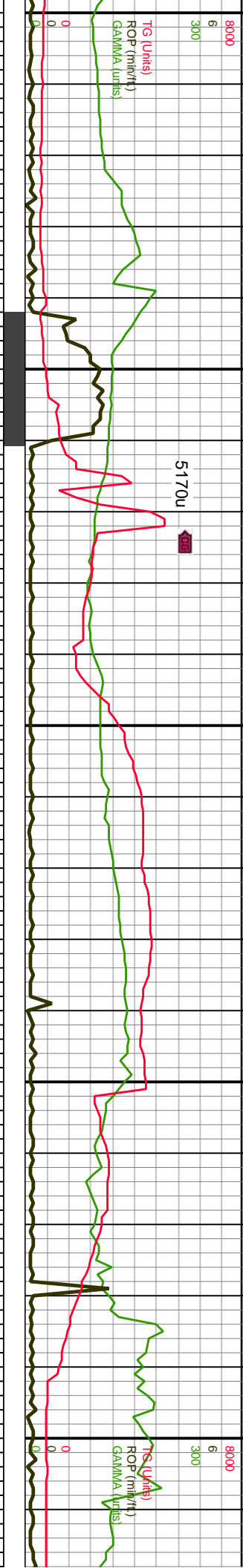


13340-13400 CHK: pred med- lt gy, occ dk gy- brn, ip mot, pred sl frm- hd, sb blk- sb ang, ip sb ply, silty- arg, sme chk incl, sme cal- tr frac fl cal, sl pyrc, pred arg ls wi rr intbd mlst, v calc, tr carb, lith frags, fr lt gn yel cut, fr- g bl wh resd ring	13400-13460 CHK: pred med- lt gy, occ dk gy- brn, ip mot, pred sl frm- hd, sb blk- sb ang, ip sb ply, silty- arg, sme chk incl, sme cal- tr frac fl cal, sl pyrc, pred arg ls wi rr intbd mlst, v calc, tr carb, lith frags, fr lt gn yel cut, fr- g bl wh resd ring	13460-13520 CHK: pred gy- lt gy, occ med gy- brn, pred sl frm- hd, sb blk- sb ang, ip sb ply- spl, sl silty- arg thru, sme chk incl, sme cal- tr frac fl cal, tr pyr, pred arg ls wi rr intbd mlst, v calc, tr carb, lith frags, fr lt gn yel cut, fr- g bl wh resd ring	13520-13580 CHK: pred gy- brn, pred sl frm- hd, sb blk- spl, sl silty- arg t sme cal- tr frac fl cal, tr f intbd mlst, v calc, tr carb, lith frags, fr lt gn yel cut, fr- g bl wh resd ring
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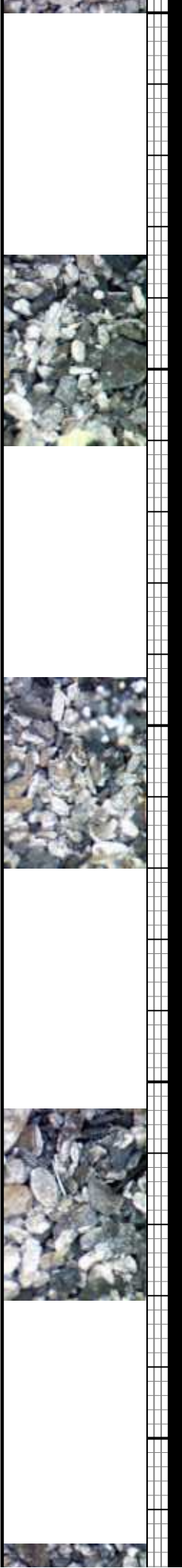




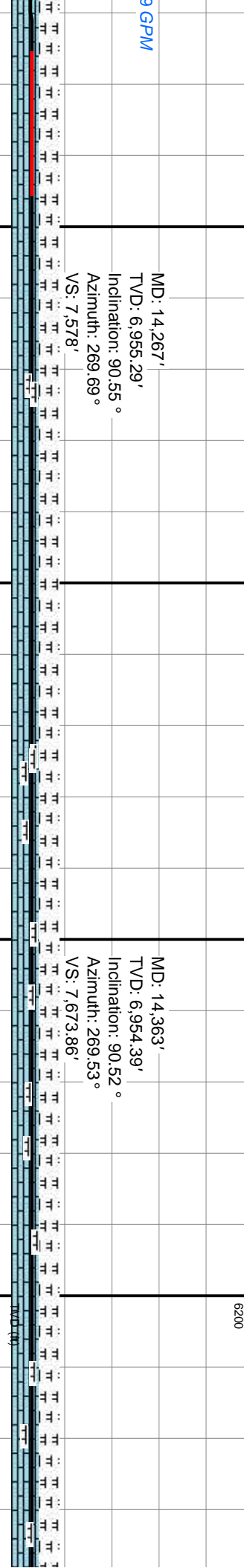
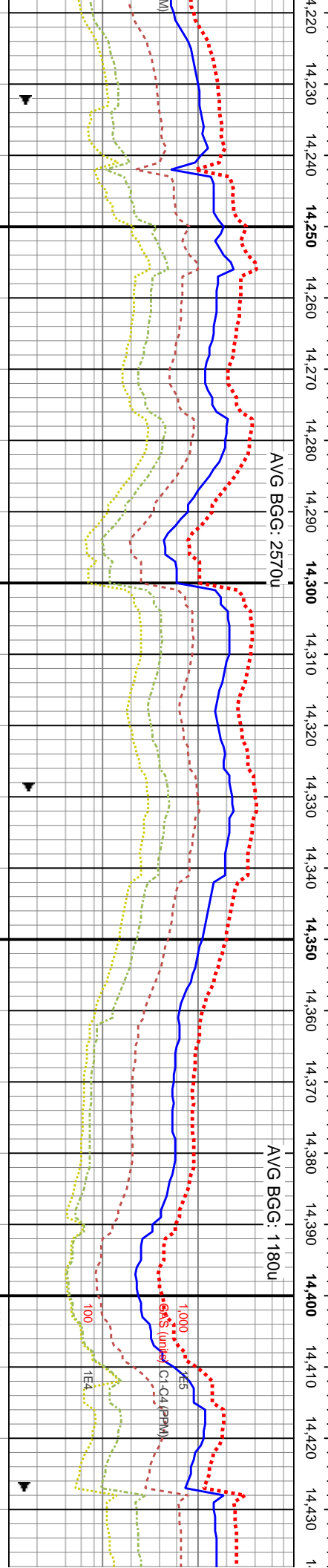
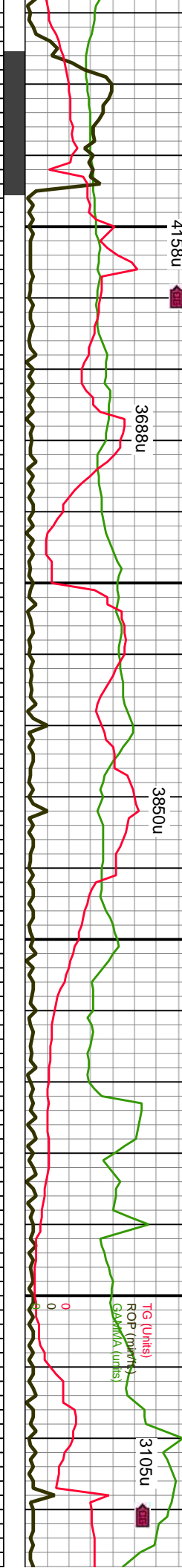




WOB: 33K ROT: 65 STKS: 86SPM Pump Rate: 304 GPM		MD: 14,076' TVD: 6,958.99' Inclination: 90.99 ° Azimuth: 269.43° VS: 7,387.38'		WOB: 33K ROT: 65 STKS: 88SPM Pump Rate: 300	
14000-14060 80% CHK 20% MRLST: pred gy- lt gy, ip med gy- dk gy, sme brn, pred sl frm- hd, ip sl frm, pred sb blk, ip sb pty- spl, sl sily- arg thru, sme chk incl, sme cal- tr frac fl cal, tr pyr- pp pyr, pred arg ls wi abnt intbd mist, v calc, tr carb, lith frags, fr lt gn yel cut, fr- g bl wh resdl ring		14060-14120 80% CHK 20% MRLST: pred gy- lt gy, ip med gy- dk gy, sme brn, pred sl frm- hd, ip sl frm, pred sb blk, ip sb pty- spl, sl sily- arg thru, sme chk incl, sme cal- tr frac fl cal, tr pyr- pp pyr, pred arg ls wi abnt intbd mist, v calc, tr carb, lith frags, fr lt gn yel cut, fr- g bl wh resdl ring		14120-14180 80% CHK 20% MRLST: pred gy- lt gy, ip med gy- dk gy, sme brn, pred sl frm- hd, ip sl frm, pred sb blk, ip sb pty- spl, sl sily- arg thru, sme chk incl, sme cal- tr frac fl cal, tr pyr- pp pyr, pred arg ls wi abnt intbd mist, v calc, tr carb, lith frags, fr lt gn yel cut, fr- g bl wh resdl ring	
14180-14240 80% CHK 20% MRLST: pred gy- lt gy, ip med gy- dk gy, sme brn, pred sl frm- hd, ip sl frm, pred sb blk, ip sb pty- spl, sl sily- arg thru, sme chk incl, sme cal- tr frac fl cal, tr pyr- pp pyr, pred arg ls wi abnt intbd mist, v calc, tr carb, lith frags, fr lt gn yel cut, fr- g bl wh resdl ring		MD: 14,171' TVD: 6,956.97' Inclination: 91.45 ° Azimuth: 270.5° VS: 7,482.19'			



MW IO: 9.4/9.4+
VIS IO: 38/40



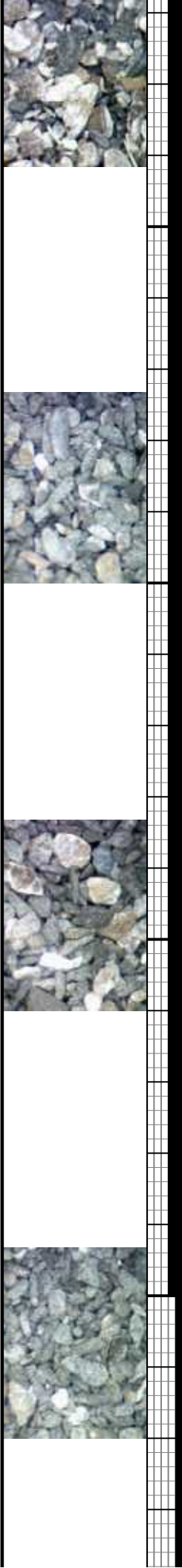
MD: 14.267'
TVD: 6,955.29'
Inclination: 90.55 °
Azimuth: 269.69 °
VS: 7.578'

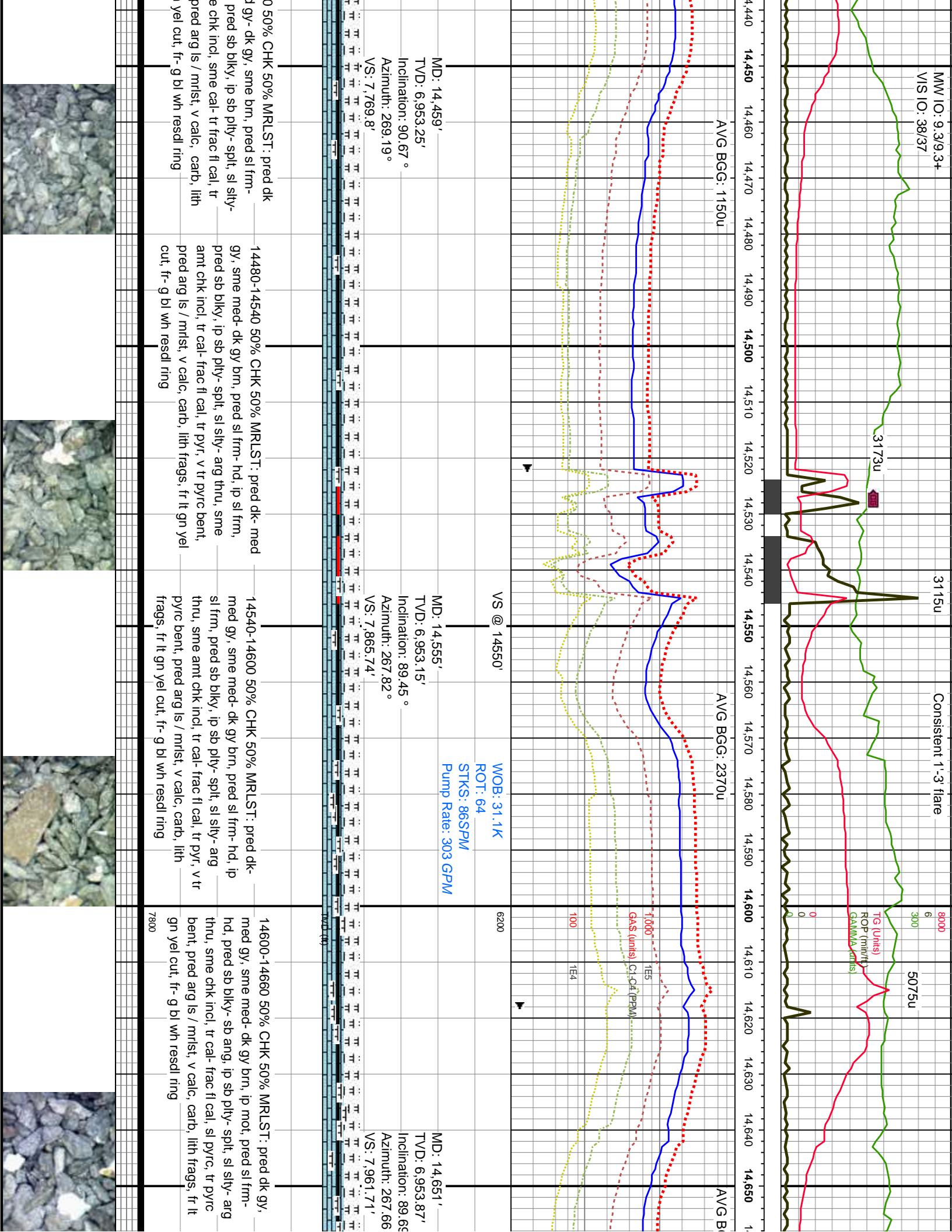
MD: 14.363'
TVD: 6,954.39'
Inclination: 90.52 °
Azimuth: 269.53 °
VS: 7.673.86'

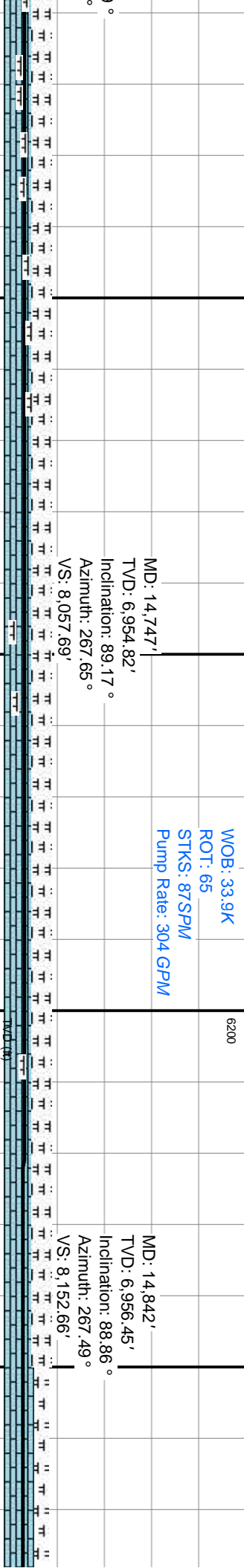
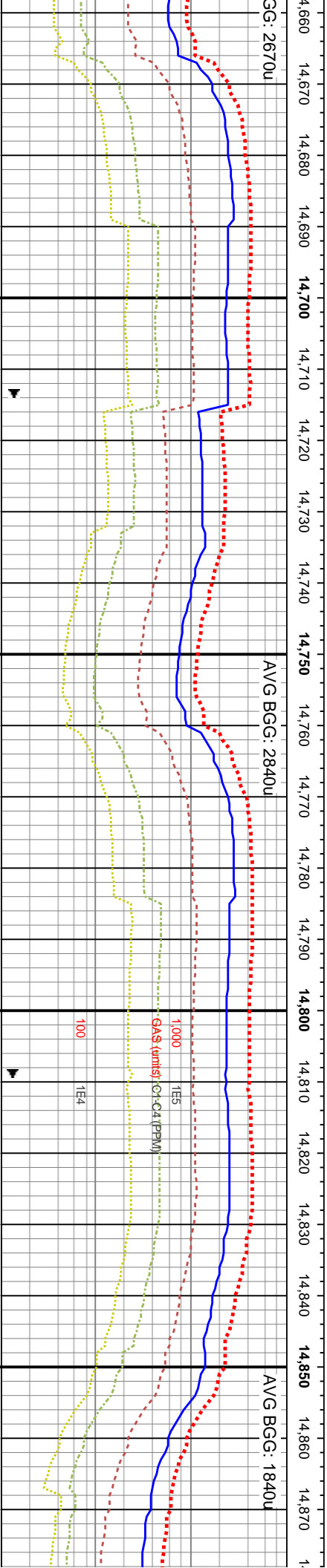
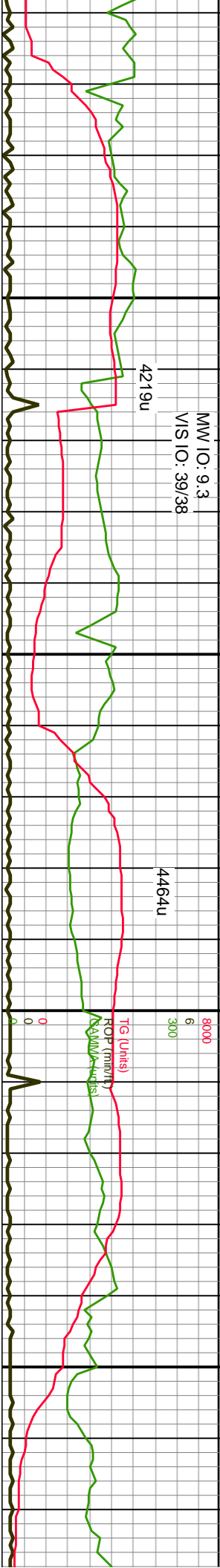
14240-14300 70% CHK 30% MRLST: pred gy- lt gy, bcn med gy- dk gy, sme brn, pred sl frm- hd, ip sl frm, pred sb blkly, ip sb ply- splt, sl slty- arg thru, sme chk incl, sme cal- tr frac fl cal, tr pyr- pp pyr, pred arg ls wi abnt inbnd mnst, v calc, tr carb, lith frags, fr lt gn yel cut, fr- g bl wh resdl ring

14300-14360 60% CHK 40% MRLST: pred dk gy, sme med gy- dk gy, sme brn, pred sl frm- hd, ip sl frm, pred sb blkly, ip sb ply- splt, sl slty- arg thru, sme chk incl, sme cal- tr frac fl cal, tr pyr- pp pyr, pred arg ls / mnst, v calc, carb, lith frags, fr lt gn yel cut, fr- g bl wh resdl ring

14360-14420 60% CHK 40% MRLST: pred dk gy, sme med gy- dk gy, sme brn, pred sl frm- hd, ip sl frm, pred sb blkly, ip sb ply- splt, sl slty- arg thru, sme chk incl, sme cal- tr frac fl cal, tr pyr- pp pyr, pred arg ls / mnst, v calc, carb, lith frags, fr lt gn yel cut, fr- g bl wh resdl ring

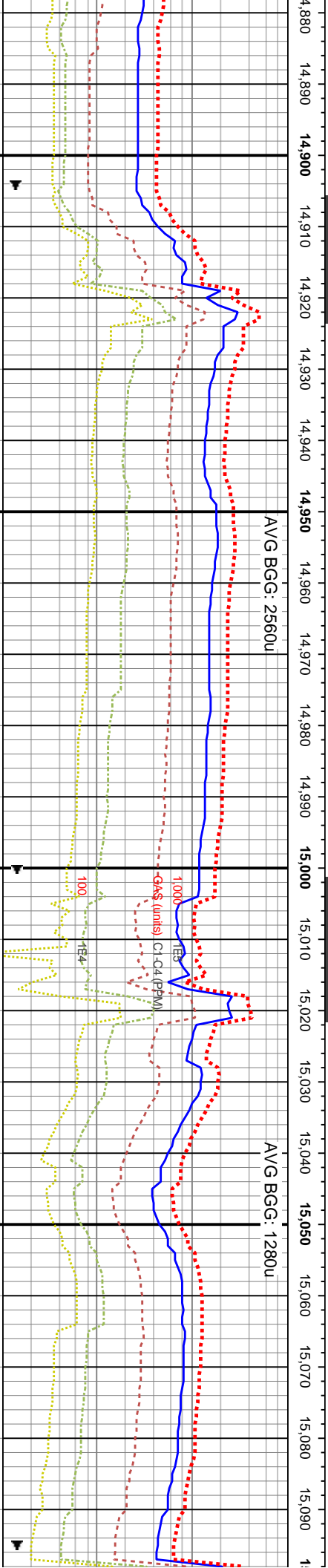
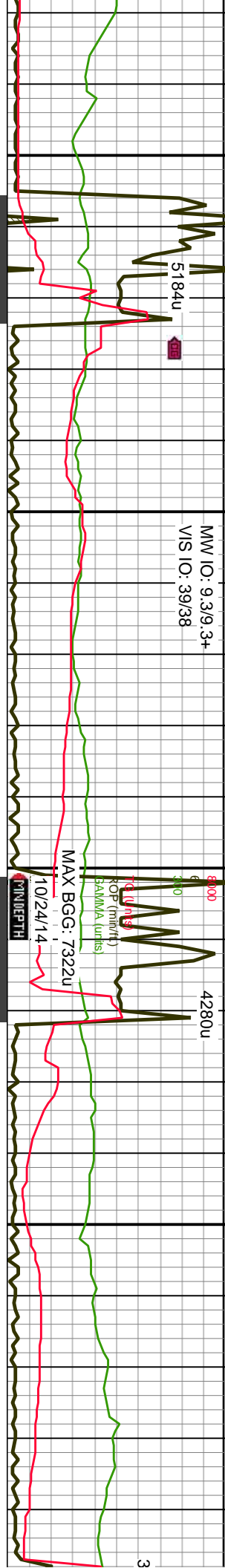






14660-14720 70% CHK 30% MRLST: pred med gy, lt gy- gy brn, sme med- dk gy, pred sl frm- hd, pred sb blk- sb ang, ip sb ply- spl, sl slty- arg, sme amt chk incl, v tr frac fl cal, sl pyrc, tr pyrc bent, pred arg ls / mrlst, v calc, carb, lith frags, fr- g lt yel wh cut, fr- g bl wh resdl ring	14720-14780 70% CHK 30% MRLST: pred med gy, lt gy- gy brn, sme med- dk gy, pred sl frm- hd, pred sb blk- sb ang, ip sb ply- spl, sl slty- arg, sme amt chk incl, v tr frac fl cal, sl pyrc, tr pyrc bent, pred arg ls / mrlst, v calc, carb, lith frags, fr- g lt yel wh cut, fr- g bl wh resdl ring	14780-14840 80% CHK 20% MRLST: pred med gy, lt gy- gy brn, sme med- dk gy, pred sl frm- hd, pred sb blk- sb ang, ip sb ply- spl, sl slty- arg, sme amt chk incl, v tr frac fl cal, sl pyrc, tr pyrc bent, pred arg ls / mrlst, v calc, carb, lith frags, fr- g lt yel wh cut, fr- g bl wh resdl ring	14840-14900 90% CHK 10% MF
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MD: 14,938'
TVD: 6,958.68'
Inclination: 88.48 °
Azimuth: 268.16 °
VS: 8,248.61'

WOB: 31.4K
ROT: 63
STKS: 87SPM
Pump Rate: 307 GPM

MD: 15,034'
TVD: 6,959.41'
Inclination: 90.65 °
Azimuth: 270.79 °
VS: 8,344.48'

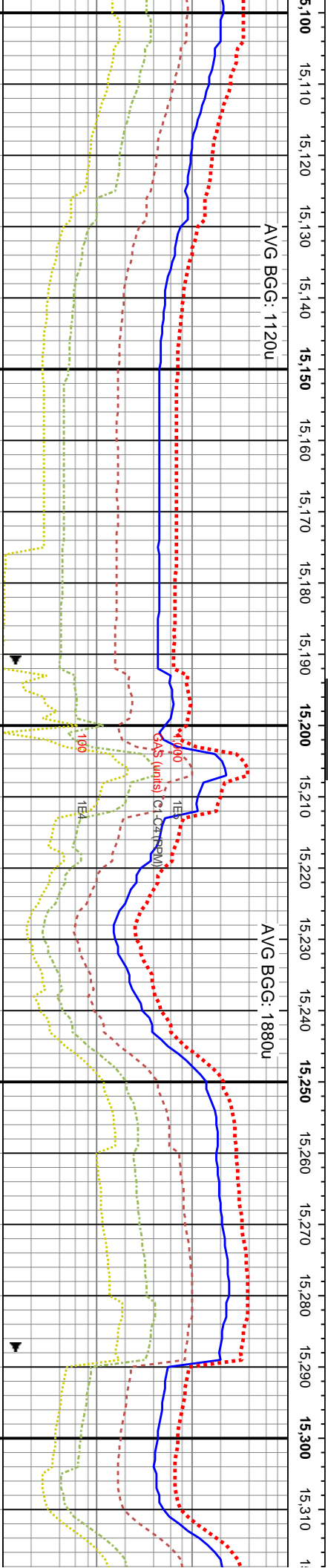
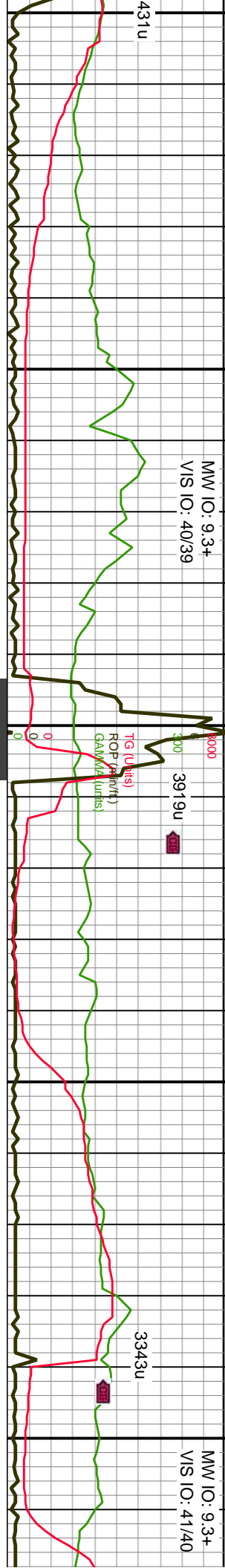


14900-14960 CHK: pred lt- med gy, lt gy- gy brn, occ med- dk gy, pred sl frm- hd, pred sb blk- sb ang, ip sb pty- spl, sl stly- v arg, sme chk incl, tr cal- frac fl cal, sl pyrc, tr pyrc bent, pred arg ls wi sme intbnd mrlst, v calc, carb, lith frags, g lt gn wh cut, g bl wh resdl ring

14960-15020 CHK: pred lt- med gy, lt gy- gy brn, occ med- dk gy, pred sl frm- hd, pred sb blk- sb ang, ip sb pty- spl, sl stly- v arg, sme chk incl, tr cal- frac fl cal, sl pyrc, tr pyrc bent, pred arg ls wi sme intbnd mrlst, v calc, carb, lith frags, g lt gn wh cut, g bl wh resdl ring

15020-15080 CHK: pred med gy, lt gy- gy brn, occ med- dk gy, pred sl frm- hd, pred sb blk- sb ang, ip sb pty- spl, stly- v arg, sme chk incl, tr cal- frac fl cal, sl pyrc, tr pyrc bent, pred arg ls wi sme intbnd mrlst, v calc, v carb, lith frags, g lt gn wh cut, g bl wh resdl ring





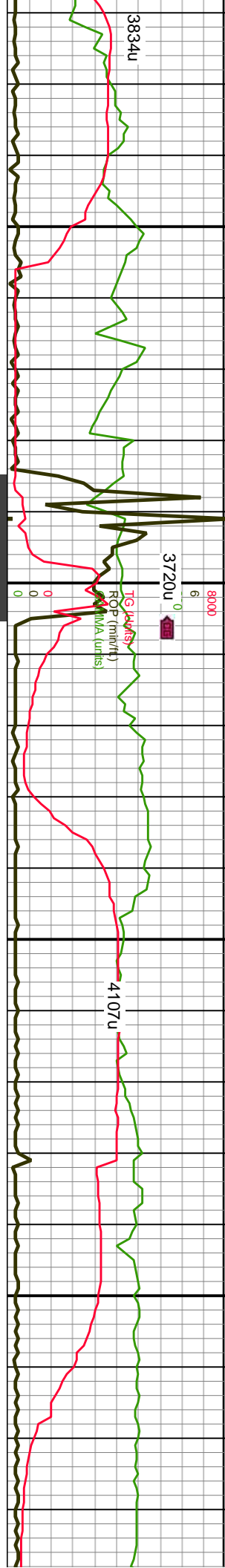
MD: 15,129'
TVD: 6,957.67'
Inclination: 91.45 °
Azimuth: 270.44 °
VS: 8,439.22'

MD: 15,225'
TVD: 6,956.36'
Inclination: 90.12 °
Azimuth: 271.55 °
VS: 8,534.93'

MD: 15
TVD: 6
Inclination: 90.12 °
Azimuth: 271.55 °
VS: 8.6

CHK: pred lt- med gy, sme lt gy- gy k gy, pred sl frm- hd, pred blk- ang, lty- v arg, sme amt chk incl, tr frac fl bent, pred arg ls wi sme intbdd carb, lith frags, fr- g lt gn wh cut, g bl	15140-15200 CHK: pred med- lt gy, sme lt gy brn, occ dk gy, pred sl frm- hd, pred blk- ang, ip sb pty- split, silty- v arg, sme amt chk incl, tr frac fl cal, sl pyrc, tr pyrc bent, pred arg ls wi sme intbdd mst, v calc, v carb, lith frags, fr- g lt gn wh cut, g bl wh resd ring	15200-15260 CHK: pred med- lt gy, sme lt gy brn, occ dk gy, pred sl frm- hd, pred blk- ang, ip sb pty- split, silty- v arg, amt chk incl, tr frac fl cal, sl pyrc, tr pyrc bent, pred arg ls wi sme intbdd mst, v calc, v carb, lith frags, fr- g lt gn wh cut, g bl wh resd ring	15260-15320 90% CHK 10% MRLST: pred lt-mec gy, sme lt gy- gy brn, v occ dk gy, pred sl frm- hd, pred blk- ang, ip sb pty- split, silty- v arg, amt ch incl, tr frac fl cal, sl pyrc, tr pyrc bent, pred arg ls v occ intbdd mst, v calc, v carb, lith frags, fr- g lt gn wh cut, g bl wh resd ring
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AVG BGG: 2120u

AVG BGG: 2580u

1000
100
1E4
GAS (units)
C-1-C4 (PPM)

DP @ 15,350'

WOB: 87K
ROT: 444
STKS: 90SPM
Pump Rate: 315 GPM

321'
955.66'
Inclination: 90.71 °
Azimuth: 271.16 °
VS: 8,726.27'

MD: 15,417'
TVD: 6,955.5'
Inclination: 89.66 °
Azimuth: 271.18 °
VS: 8,726.27'

MD: 15,512'
TVD: 6,955.94'
Inclination: 89.81 °
Azimuth: 271.52 °
VS: 8,820.94'

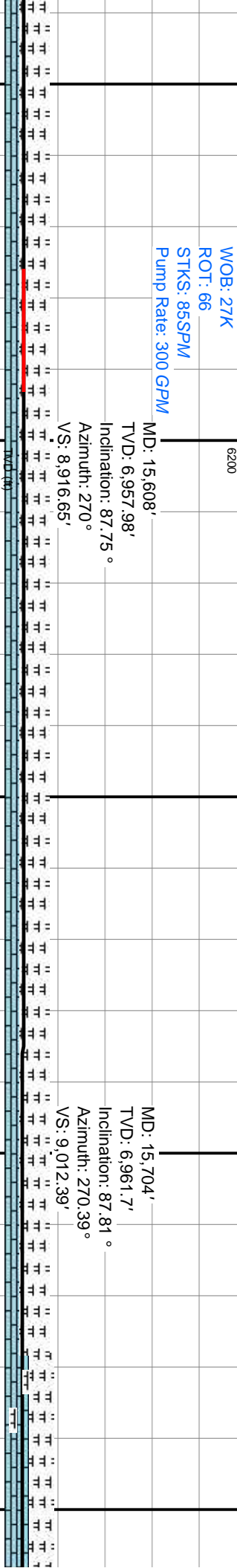
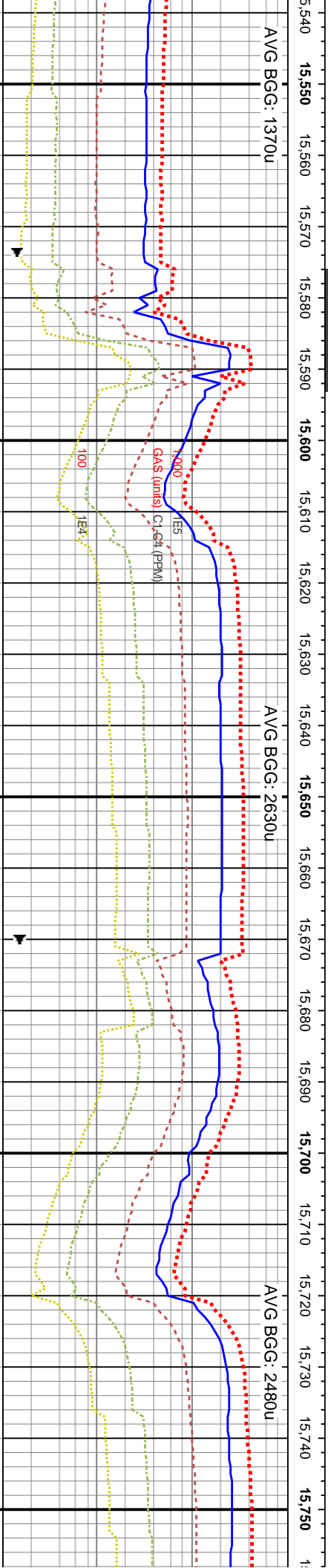
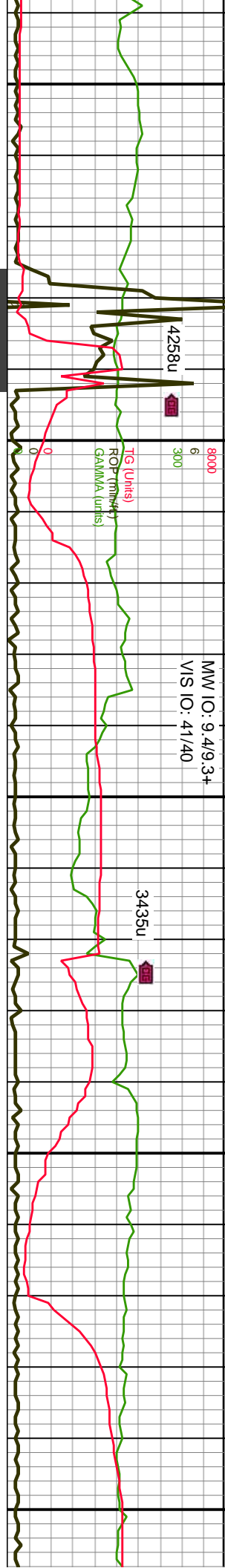
15320-15380 60% CHK 40% MRLST: pred
med- dk gy, sme lt gy- gy, ip dk gy, pred sl frm-
hd, pred blk- ang, ip sb ply- spl, silty- v arg, rr
chk incl, sl pyrc, sme pyrc bent, pred v arg ls-
inbddd mrlst, v calc, v carb, lith frags, fr- g lt gn
cut, g bl wh resd ring

15380-15440 60% CHK 40% MRLST: pred
med- dk gy, sme lt gy- gy, ip dk gy, pred sl frm-
hd, pred blk- ang, ip sb ply- spl, silty- v arg, rr
chk incl, sl pyrc, sme pyrc bent, pred v arg ls-
inbddd mrlst, v calc, v carb, lith frags, fr- g lt gn
wh cut, g bl wh resd ring

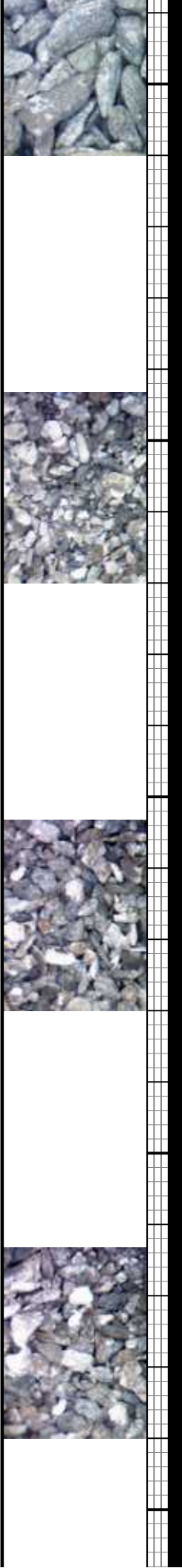
15440-15500 50% CHK 50% MRLST: pred
med- dk gy, sme lt gy- gy, ip dk gy, pred sl frm-
hd, pred blk- ang, ip sb ply- spl, silty- v arg, rr
chk incl, sl pyrc, sme pyrc bent, pred v arg ls-
inbddd mrlst, v calc, v carb, lith frags, fr- g lt gn
wh cut, g bl wh resd ring

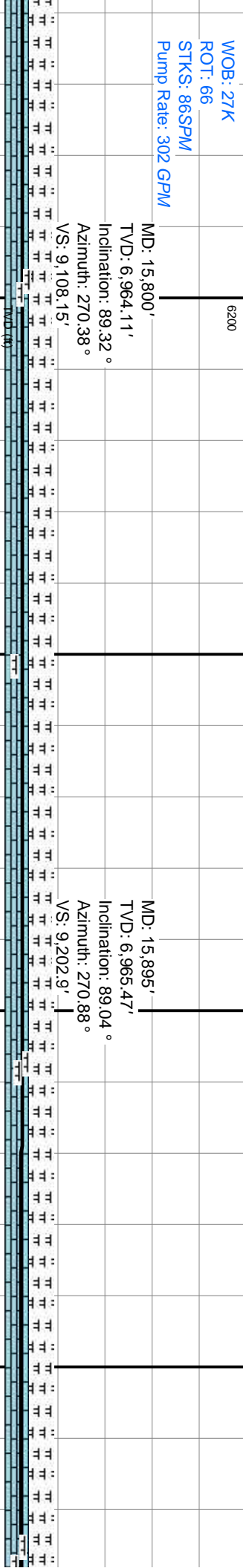
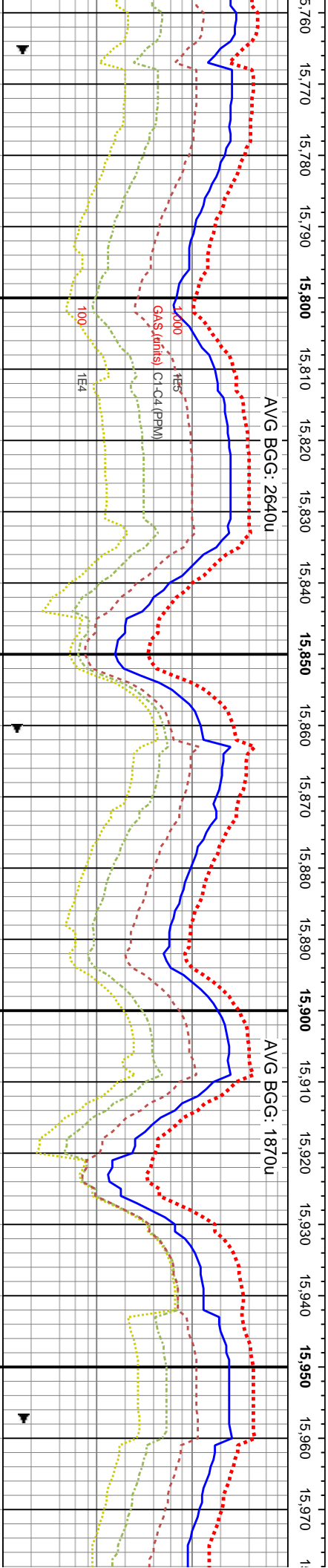
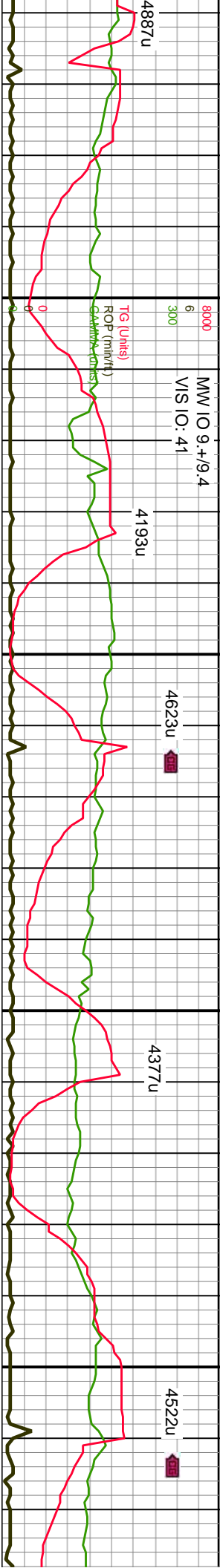
15500-15560 50% CHK 50% MRLST: pred
med- dk gy, sme lt gy- gy, ip dk gy, pred sl frm-
hd, pred blk- ang, ip sb ply- spl, silty- v arg, rr
chk incl, sl pyrc, sme pyrc bent, pred v arg ls-
inbddd mrlst, v calc, v carb, lith frags, fr- g lt gn
wh cut, g bl wh resd ring



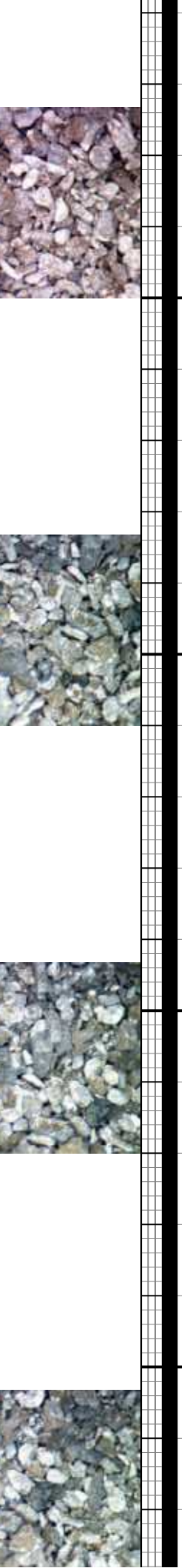


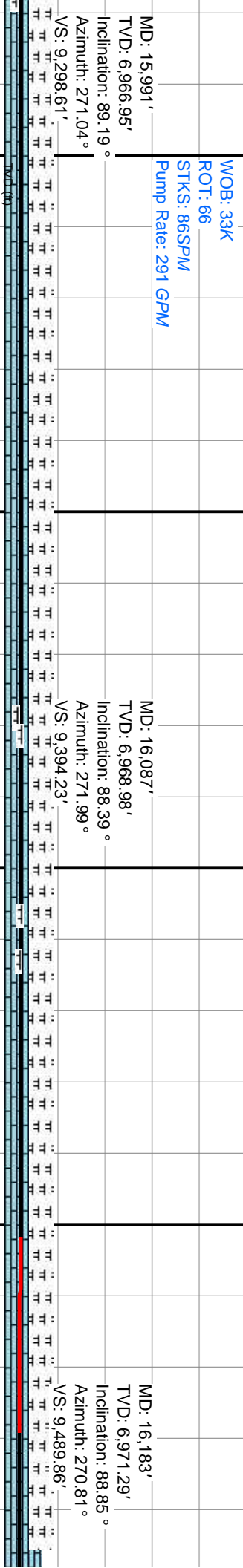
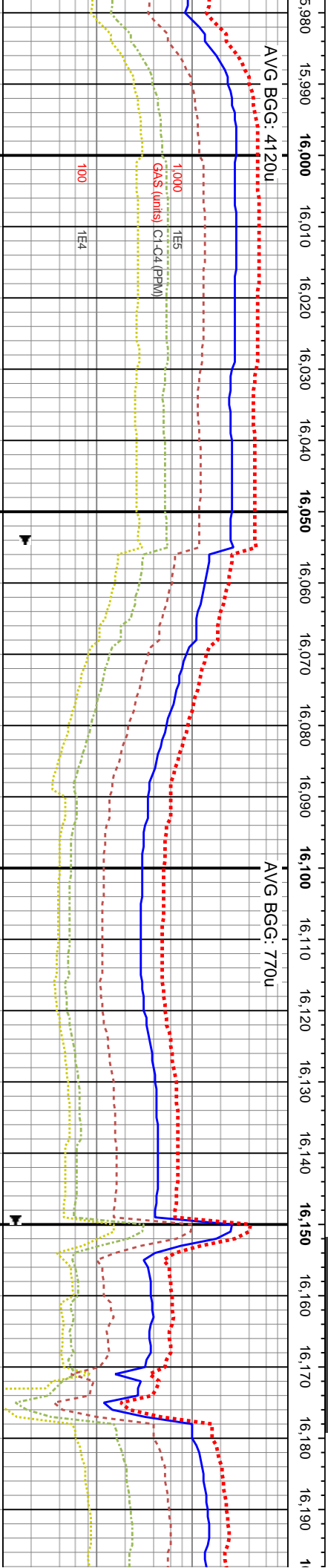
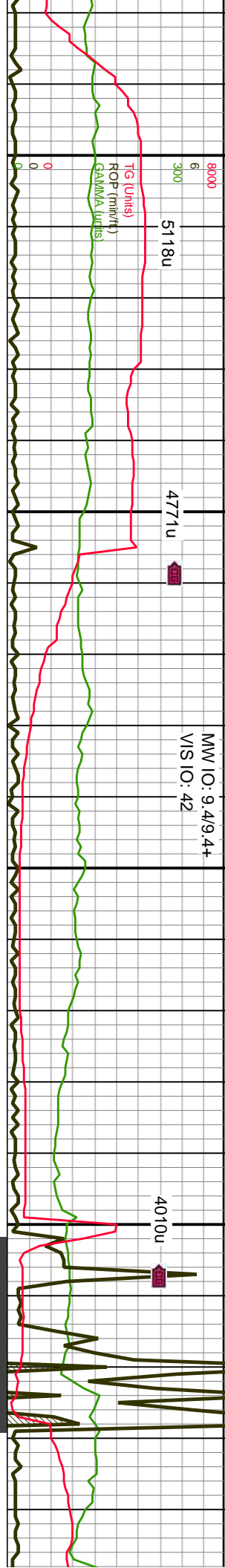
15560-15620 70% CHK 30% MRLST:	15620-15680 80% CHK 20% MRLST:	15680-15740 90% CHK 10% MRLST:	15740-15800 10% MRLST:
pred med gy- gy, sme lt gy- dk gy, pred sl frm- hd, pred blk- ang, ip sb ply- spilt, silty- v arg, tr chk incl, sl pyrc, tr pyrc bent, pred v arg ls w sme intbdd mrlst, v calc, v carb, lith frags, fr- g lt gn wh cut, g bl wh resdl ring	gy, sme lt gy- dk gy, pred sl frm- hd, pred blk- ang, ip sb ply- spilt, silty- v arg, tr chk incl, sl pyrc, tr pyrc bent, pred v arg ls w sme intbdd mrlst, v calc, v carb, lith frags, fr- g lt gn wh cut, g bl wh resdl ring	gy, sme lt gy- dk gy, pred sl frm- hd, pred blk- ang, ip sb ply- spilt, silty- v arg, tr chk incl, sl pyrc, tr pyrc bent, pred v arg ls w sme intbdd mrlst, v calc, v carb, lith frags, fr- g lt gn wh cut, g bl wh resdl ring	tr dk gy, pred v arg ls w sme intbdd mrlst, v calc, v carb, lith frags, fr- g lt gn wh cut, g bl wh resdl ring





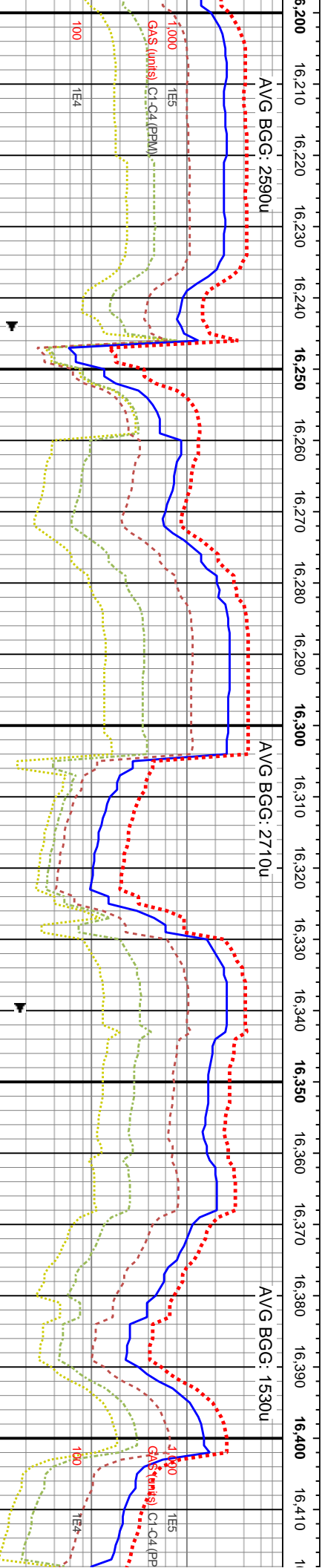
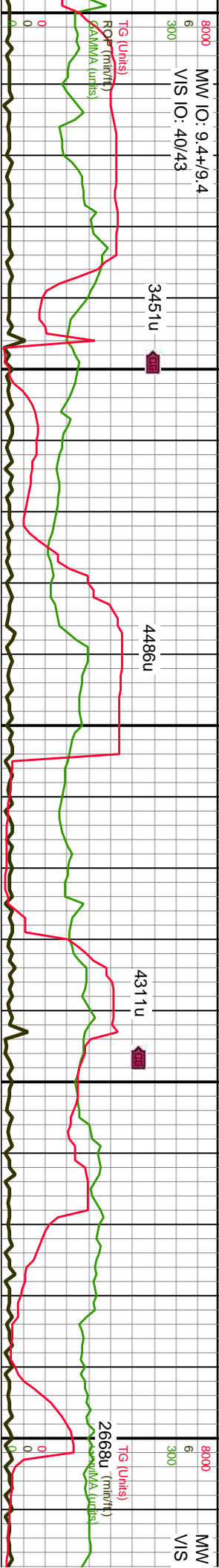
WOB: 27K ROT: 66 STKS: 86SPM Pump Rate: 302 GPM	MD: 15,800' TVD: 6,964.11' Inclination: 89.32 ° Azimuth: 270.38 ° VS: 9,108.15'	15800-15860 CHK: pred- gy- lt gy, sme med gy, med gy, tr dk gy, pred sl frm- hd, pred blk- ang, ip sb blk- v arg, sme chk incl, sl pyrc, tr frac fl cal, pred v arg ls w occ intbdd mlst, v calc, occ carb, lith frags, fr- g lt gn wh cut, g bl wh resd ring
MD: 15,895' TVD: 6,965.47' Inclination: 89.04 ° Azimuth: 270.88 ° VS: 9,202.9'	15860-15920 CHK: pred- gy- lt gy, sme med gy, tr dk gy, pred sl frm- hd, pred blk- ang, ip sb blk- v arg, sme chk incl, sl pyrc, tr frac fl cal, pred v arg ls w occ intbdd mlst, v calc, occ carb, lith frags, fr- g lt gn wh cut, g bl wh resd ring	15920-15980 CHK: pred- gy- lt gy, sme med gy, tr dk gy, pred sl frm- hd, pred blk- ang, ip sb blk- v arg, sme chk incl, sl pyrc, tr frac fl cal, pred v arg ls w occ intbdd mlst, v calc, occ carb, lith frags, fr- g lt gn wh cut, g bl wh resd ring





MD: 15,991' TVD: 6,966.95' Inclination: 89.19 ° Azimuth: 271.04 ° VS: 9,298.61'	15980-16040 CHK: pred-gy- lt gy, sme med gy, tr dk gy, pred sl frm- hd, pred blk- ang, ip sb ply- spl, sly- v arg, sme chk incl, sl pyrc, tr frac fl cal, pred v arg ls w occ intbdd mrlst, v calc, occ carb, lith frags, fr- g lt gn wh cut, g bl wh resd ring
MD: 16,087' TVD: 6,968.98' Inclination: 88.39 ° Azimuth: 271.99 ° VS: 9,394.23'	16040-16100 90% CHK 10% MRLST: pred-gy- lt gy, sme med gy, tr dk gy, pred sl frm- hd, pred blk- ang, ip sb ply- spl, sly- v arg, sme chk incl, sl pyrc, tr cal- rr frac fl cal, pred v arg ls w about intbdd mrlst, v calc, occ carb, lith frags, fr- g lt gn wh cut, g bl wh resd ring
MD: 16,183' TVD: 6,971.29' Inclination: 88.85 ° Azimuth: 270.81 ° VS: 9,489.86'	16100-16160 90% CHK 10% MRLST: pred-gy- lt gy, sme med gy, tr dk gy, pred sl frm- hd, pred blk- ang, ip sb ply- spl, sly- v arg, sme chk incl, sl pyrc, tr cal- rr frac fl cal, pred v arg ls w about intbdd mrlst, v calc, occ carb, lith frags, fr- g lt gn wh cut, g bl wh resd ring
MD: 16,183' TVD: 6,971.29' Inclination: 88.85 ° Azimuth: 270.81 ° VS: 9,489.86'	16160-16220 90% CHK 10% MRLST: pred-gy- lt gy, sme med gy, tr dk gy, pred sl frm- hd, pred blk- ang, ip sb ply- spl, sly- v arg, sme chk incl, sl pyrc, tr cal- rr frac fl cal, pred v arg ls w about intbdd mrlst, v calc, occ carb, lith frags, fr- g lt gn wh cut, g bl wh resd ring





WOB: 31K
ROT: 69
STKS: 83SPM
Pump Rate: 290 GPM

MD: 16,279'
TVD: 6,973.32'
Inclination: 88.73 °
Azimuth: 271.59 °
VS: 9,585.52'

TVD (ft)

TVD (ft)

MRLST: pred gy,
pred sl frm- hd, pred
sme med gy- arg, sme chk
pred v arg ls w abnt
, rr bent, lith frags,
resdl ring

16220-16280 90% CHK 10% MRLST: pred gy,
sme med gy- lt gy, tr dk gy, pred sl frm- hd, pred
biky- ang, ip sb ply- split, silty- v arg, sme chk incl,
tr pyr, sme cal- tab cal, pred v arg ls w abnt intbdd
mrlst, v calc, occ carb, rr bent, lith frags, fr- g lt gn
wh cut, g bl wh resdl ring

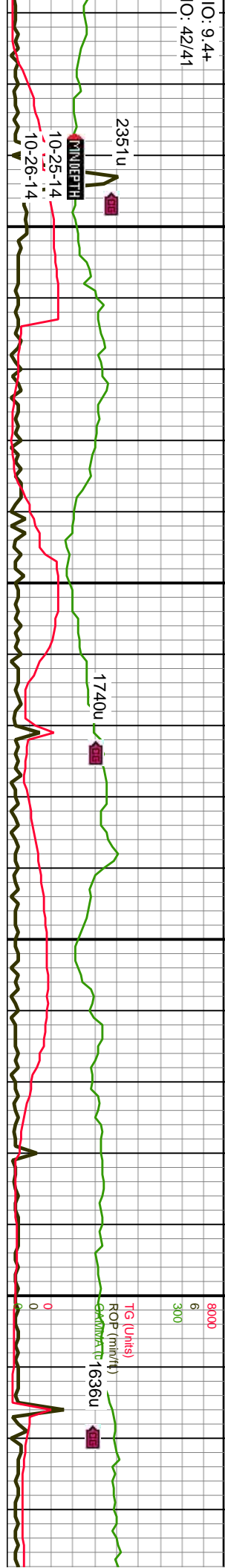
16280-16340 90% CHK 10% MRLST: pred gy,
sme med gy- lt gy, tr dk gy, pred sl frm- hd, pred
biky- ang, ip sb ply- split, silty- v arg, sme chk incl,
tr pyr, sme cal- tab cal, pred v arg ls w abnt intbdd
mrlst, v calc, occ carb, rr bent, lith frags, fr- g lt gn
wh cut, g bl wh resdl ring

16340-16400 90% CHK 10% MRLST: pred gy,
sme med gy- lt gy, tr dk gy, pred sl frm- hd,
pred biky- ang, ip sb ply- split, silty- v arg, sme
chk incl, tr pyr, sme cal- tab cal, pred v arg ls w
abnt intbdd mrlst, v calc, occ carb, rr bent, lith
frags, fr- g lt gn wh cut, g bl wh resdl ring

16400-1646
dk gy, ip gy-
sb ply- split,
cal, pred v e
carb, sme b
resdl ring

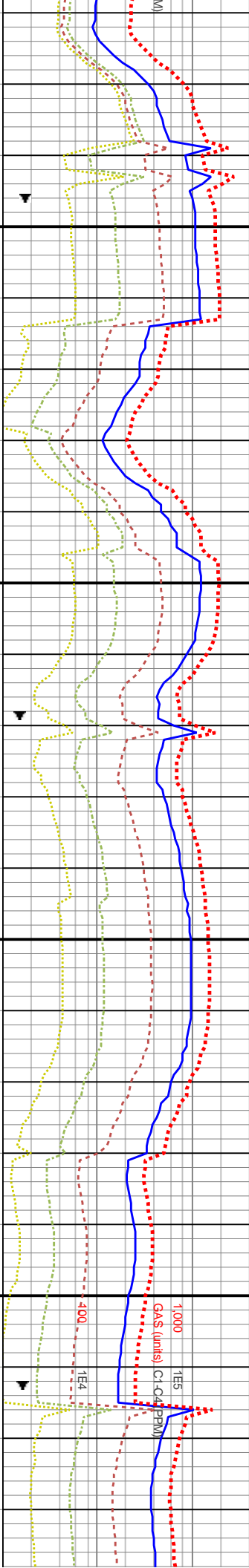
7800





AVG BGG: 1150u

AVG BGG: 950u



3PPM

MD: 16,458'
TVD: 6,978.99'
Inclination: 87.84 °
Azimuth: 271.42 °
VS: 9,763.83'

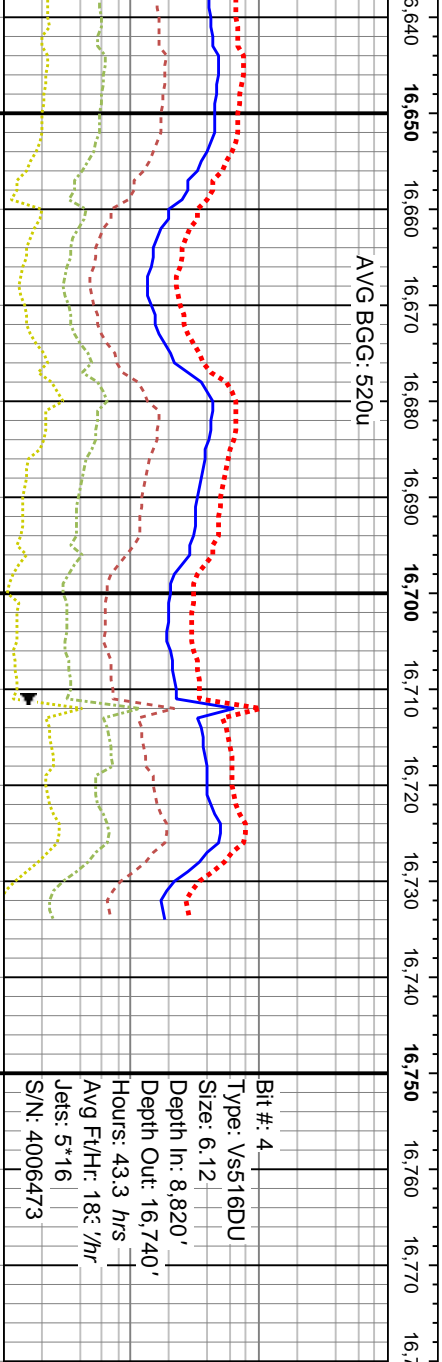
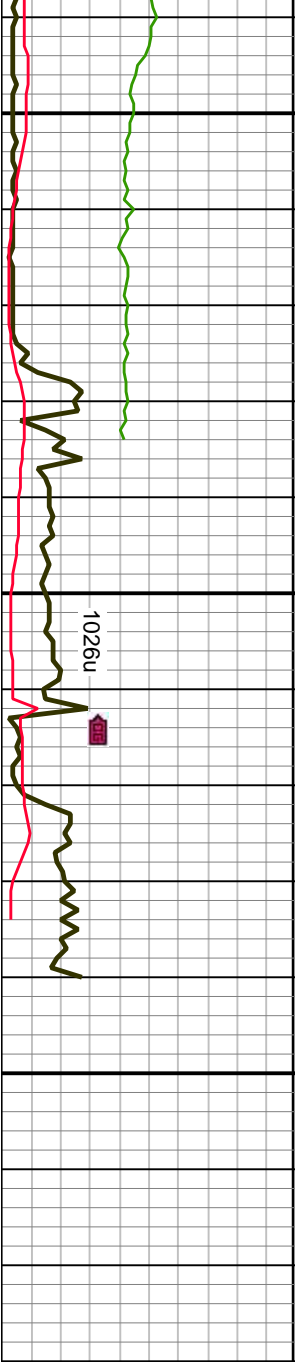
MD: 16,554'
TVD: 6,982.82'
Inclination: 87.59 °
Azimuth: 270.57 °
VS: 9,859.47'

WOB: 26K
ROT: 67
STKS: 88SPM
Pump Rate: 309 GPM



16460-16520 90% CHK 10% MRLST: pred med- lt gy, pred sl frm- hd, pred blk- ang, ip silty- v arg, sme chk incl, tr pyr, sme arg ls w abnt intbdd mlst, v calc, occ bent, lith frags, fr- g lt gn wh cut, g bl wh	16520-16580 90% CHK 10% MRLST: pred med- dk gy, ip gy- lt gy, pred sl frm- hd, pred blk- ang, ip sb pty- spl, silty- v arg, sme chk incl, tr pyr, sme cal, pred v arg ls w abnt intbdd mlst, v calc, occ carb, sme bent, lith frags, fr- g lt gn wh cut, g bl wh	16580-16640 90% CHK 10% MRLST: pred med- dk gy, ip gy- lt gy, pred sl frm- hd, pred blk- ang, ip sb pty- spl, silty- v arg, sme chk incl, tr pyr, sme cal, pred v arg ls w abnt intbdd mlst, v calc, occ carb, sme bent, lith frags, fr- g lt gn wh cut, g bl wh
DP @ 16,443'		





MD: 16,649' TVD: 6,986.84' Inclination: 87.56 ° Azimuth: 270.4° VS: 9,954.16'		MD: 16,740' TVD: 6,990.52' Inclination: 87.59 ° Azimuth: 269.72° VS: 10,044.95'		TD @ 1045hrs on 10-26-14	
16640-16700 90% CHK 10% MRLST: pred med-dk gy, ip gy- lt gy, pred sl frm- hd, pred blk- ang, ip sb ply- spl, sly- v arg, sme chk incl, sme pyr, sme cal- frac fl cal, pred v arg ls w abnt intbdd mrlst, v calc, occ carb, sme bent, lith frags, fr- g lt gn wh cut, g bl wh resd ring		16700-16740 90% CHK 10% MRLST: pred med- dk gy, ip gy- lt gy, pred sl frm- hd, pred blk- ang, ip sb ply- spl, sly- v arg, sme chk incl, sme pyr, sme cal- frac fl cal, pred v arg ls w abnt intbdd mrlst, v calc, occ carb, sme bent, lith frags, fr- g lt gn wh cut, g bl wh resd ring			
