Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Butterball 15C-10HZ
API: 05123409990000
Location: Weld County, CO.
License Number:
Region: DJ Basin
Spud Date: 4/13/2015
Drilling Completed: 4/16/2015
Surface Coordinates: 597'FNL & 1489'FEL, SEC.10

Bottom Hole Coordinates: 85'FSL & 1700'FEL, SEC.10
Ground Elevation (ft): 4920'
K.B. Elevation (ft): 4936'
Logged Interval (ft): 7000' To: 13122'
Total Depth (ft): 13122'
Formation: Codell
Type of Drilling Fluid: Synthetic Base Mud

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

OPERATOR

Company: Anadarko Petroleum Corporation
Address: 1099 18th Street, Suite 1800
Denver, CO 80202-1918

GEOLOGIST

Name: Ben Thompson / Walter MacPhee
Company: Great Divide Consulting, Inc.
Address: 11990 North Grant Street, Suite 220
Northglenn, CO 80233

ROCK TYPES

Anhy
Bent
Brec
Cht
Clyst
Coal
Congl
Dol
Gyp
Igne
Lmst
Meta
Mrleb59
Mrlst
Salt
Shale
Shcol
Shgy
Sltst
Ss
Till

ACCESSORIES

MINERAL

Anhy
Arggrn
Arg
Bent
Bit
Brecfrag
Calc
Carb
Chtdk
Chtlt
Dol
Feldspar
Ferrpel
Ferr
Glau
Gyp
Hvymin
Kaol
Marl
Minxl
Nodule
Phos
Pyr
Salt
Sandy
Silt
Sil
Sulphur
Tuff

FOSSIL

Algae
Amph
Belm
Bioclst
Brach
Bryozoa
Cephal
Coral
Crin
Echin
Fish
Foram
Fossil
Gastro
Oolite
Ostra
Pelec
Pellet
Pisolite
Plant
Strom

STRINGER

Anhy
Arg
Bent
Coal
Dol
Gyp
Ls
Mrst
Sltstrg
Ssstrg

TEXTURE

Boundst
Chalky
Cryxln
Earthy
Finexln
Grainst
Lithogr
Microxln
Mudst
Packst
Wackest

OTHER SYMBOLS

POROSITY

Earthy
Fenest
Fracture
Inter
Moldic
Organic
Pinpoint
Vuggy

SORTING

Well
Moderate
Poor

ROUNDING

Rounded
Subrnd
Subang
Angular

OIL SHOW

Even
Spotted
Ques
Dead

INTERVAL

Core
Dst

EVENT

Rft
Sidewall

Data Curves ROP (min/ft) MWD GR (API) (units)	3 / 200 — ROP (min/ft) / MWD GR (API) (units) — 0 / 0
Slide/Rotate	
Depth	50 · 7300 · 7350 · 7400
Well Bore Cross Section	7000 TVD · 7300 · 7600
Photos	Zoom: 1.0 Exposure 86ms
Oil Shows	
Connections	
TG Total Gas (Units)	2000 · Total Gas · 0 · MW 9.2 / VIS 55

Sharon Spgs Top @ 7290' MD / 7116'TVD

Niobrara A Top @ 7391' MD / 7202' TVD

Niobrara B To

MD 7271 TVD 7099.61
INC 26.78 AZ 192.67
VS -1114.82

MD 7366 TVD 7181.41
INC 34.24 AZ 188.13
VS -1067.35

SH 100%: ltgy-gy, plty-sbplty, slty, sft, sl cal, nsfc. SS tr.

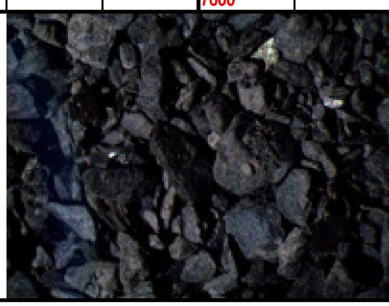
SH 100%: ltgy-gy, plty-sbplty, slty, sft, sl cal, nsfc. Bent tr.

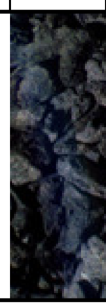
SH 100%: ltgy-gy, plty-sbplty, slty, sft, sl cal, nsfc. Bent tr.

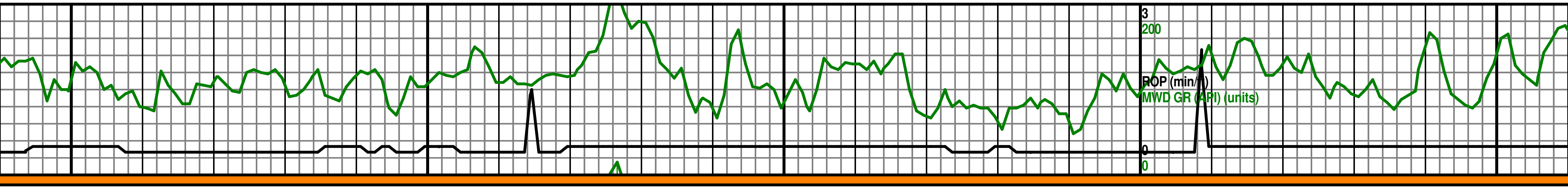
SH 85%: gy-drkgy, plty-sbplty, slty, sft, v calc.
Chalk 15%: ltgy-gy, wh bnd chk, extr calc, occ intbd biocl, shly, frm, sbplty, no sfl, fst str wh cut.
Tr Pyr.

Chalk 50%:
intbd biocl,
Mrlst 30%:
abnd intbd
SH 20%: gy-

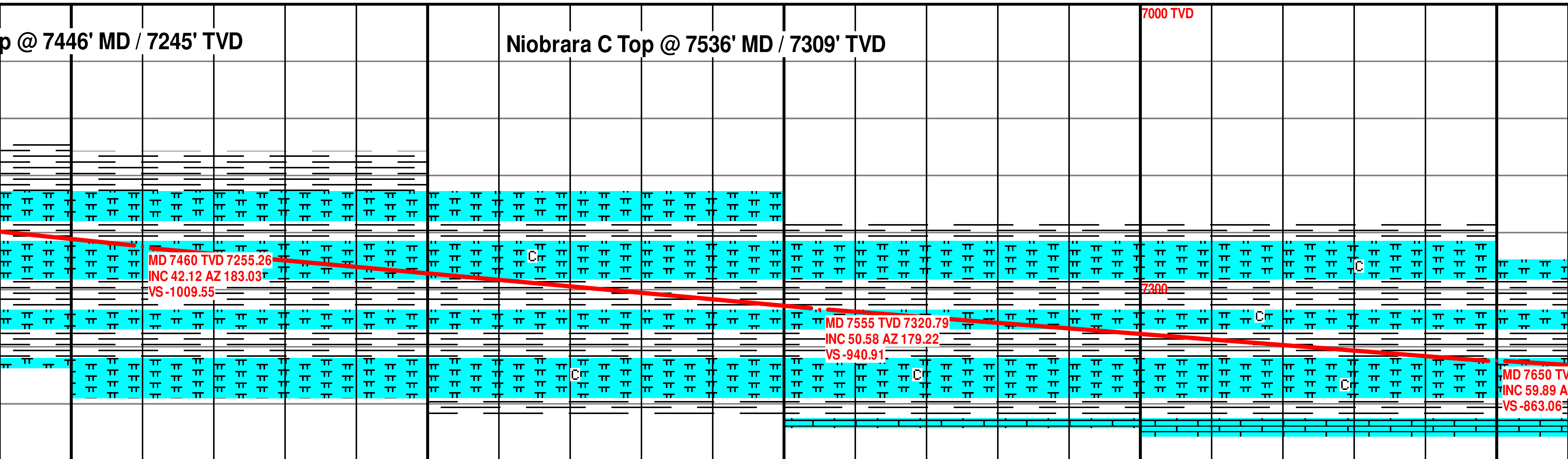
Zoom: 1.0
Exposure 86ms







7450 | 7500 | 7550 | 7600 | 7650



ltgy-gy, wh bnd chk, extr calc, occ shly, frm, sbplty, no sfl, fst str wh cut. tgy-mdgy, v calc, biocl, frm, sbplty, no sfl, slw str wh cut. -drkgy, plty-sbplty, slty, sft, v calc.

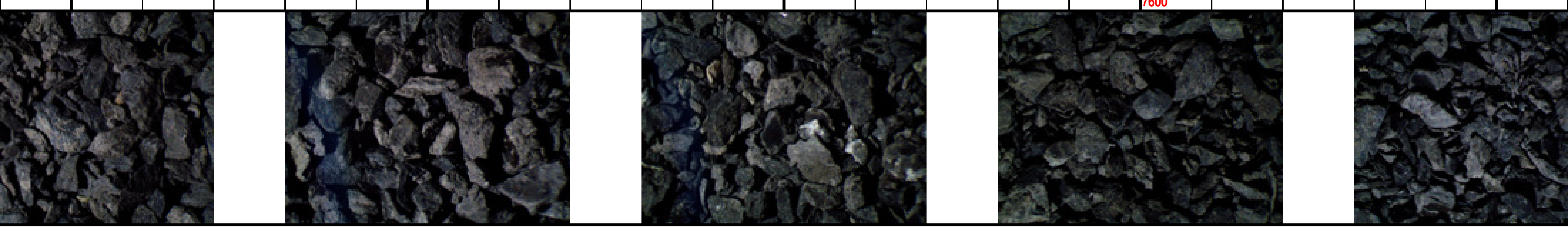
Mrlst 85%: ltgy-mdgy, v calc, abnd intbd biocl, frm, sbplty, no sfl, slw str wh cut. Chalk 10%: ltgy-gy, wh bnd chk, extr calc, occ intbd biocl, shly, frm, sbplty, no sfl, fst str wh cut. SH 5%: gy-drkgy, plty-sbplty, slty, sft, v calc.

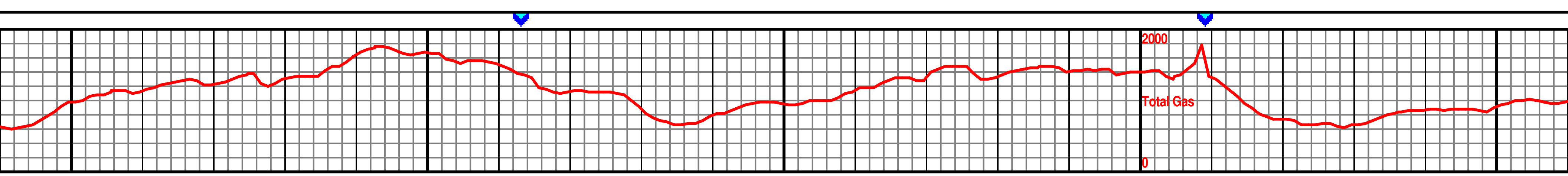
Mrlst 80%: ltgy-mdgy, v calc, abnd intbd biocl, frm, sbplty, no sfl, slw str wh cut. Chalk 15%: ltgy-gy, wh bnd chk, extr calc, occ intbd biocl, shly, frm, sbplty, no sfl, fst str wh cut. SH 5%: gy-drkgy, plty-sbplty, slty, sft, v calc.

Mrlst 70%: ltgy-mdgy, v calc, abnd intbd biocl, frm, sbplty, no sfl, slw str wh cut. Chalk 25%: ltgy-gy, wh bnd chk, extr calc, occ intbd biocl, shly, frm, sbplty, no sfl, fst str wh cut. SH 5%: gy-drkgy, plty-sbplty, slty, sft, v calc.

Mrlst 60%: ltgy-mdgy, v calc, abnd intbd biocl, frm, sbplty, no sfl, sl cut. Chalk 35%: ltgy-gy, wh bnd chk, e occ intbd biocl, shly, frm, sbplty, no s cut. SH 5%: gy-drkgy, plty-sbplty, slty

7600





3
200
ROP (min/ft)
MWD GR (API) (units)
0
0

7700 7750 7800 7850

7000 TVD

Fort Hayes Top @ 7812' MD / 7443' TVD

7300

D 7374.91
Z 175.96

MD 7745 TVD 7418.13
INC 65.96 AZ 175.24
VS -778.81

MD 7840 TVD 7451.25
INC 73.21 AZ 176.16
VS -690.13

w str wh
extr calc,
fl, fst str wh
, sft, v calc.

Chalk 50%: ltgy-gy, wh bnd chk, extr calc, occ intbd biocl, shly, frm, sbplty, no sfl, fst str wh cut. Mrlst 40%: ltgy-mdgy, v calc, abnd intbd biocl, frm, sbplty, no sfl, slw str wh cut. SH 10%: gy-drkgy, plty-sbplty, slty, sft, v calc.

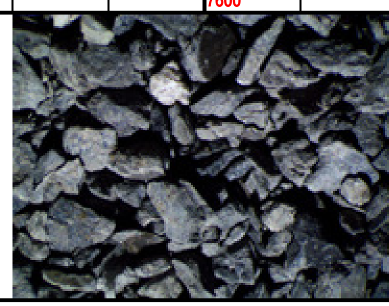
Chalk 75%: ltgy-gy, wh bnd chk, extr calc, occ intbd biocl, shly, frm, sbplty, no sfl, fst str wh cut. Mrlst 20%: ltgy-mdgy, v calc, intbd biocl, frm, sbplty, no sfl, slw str wh cut. SH 5%: gy-drkgy, plty-sbplty, slty, sft, v calc.

Chalk 85%: ltgy-gy, wh bnd chk, extr calc, occ intbd biocl, shly, frm, sbplty, no sfl, fst str wh cut. Mrlst 10%: ltgy-mdgy, v calc, intbd biocl, frm, sbplty, no sfl, slw str wh cut. SH 5%: gy-drkgy, plty-sbplty, slty, sft, v calc.

7600

LS 98%: ltgy, blky, frm-hrd, v calc, crypxln-mxln, nsf, nsfc. SH 2%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

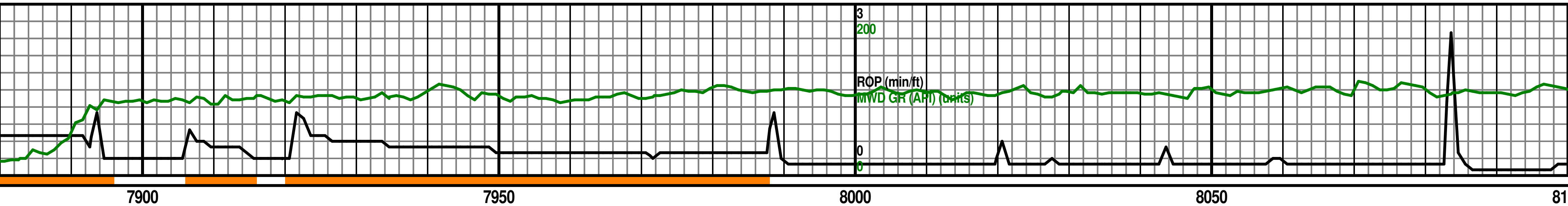



MW 9.2 / VIS 56

MW 9.2 / VIS 54

2000
Total Gas
0



7450 TVD

Codell Top @ 7891'MD / 7464'TVD

Curve TD of 7990' MD Achieved @ 3:22AM 4/15/2015. Continued drilling into lateral section.

MD 8030 TVD 7477.35
INC 88.74 AZ 178.58
VS -502.83

Scale Change
7500

MD 7935 TVD 7471.57
INC 82.06 AZ 178.77
VS -597.56

MD 7990 TVD 7476.26
INC 88.15 AZ 179.12
VS -542.8

LS 99%: ltgy, blky, frm-hrd, v calc, crypxln-mxln, nsf, nsfc. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

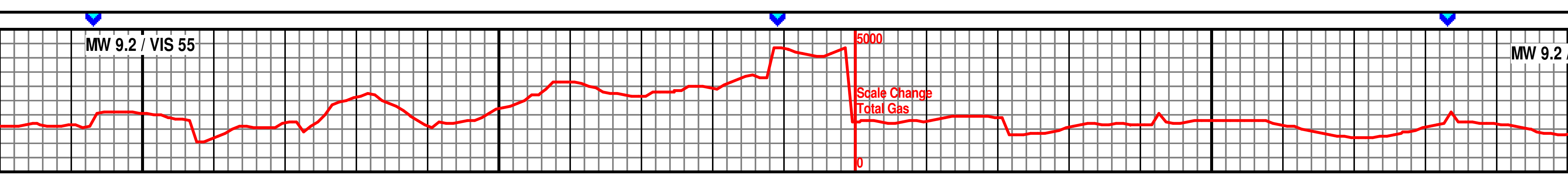
SS 98%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 2%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

7550

SS 99%: gy-dkgy-wht clr, md cal, carb incl, fri. SH 1 slty, grty, sft, sl cal.



3
200
ROP (min/ft)
MWD GR (API) (units)
0
0

00 8150 8200 8250 8300

7450 TVD

MD 8125 TVD 7479.41
INC 88.77 AZ 177.61
VS -407.93

MD 8220 TVD 7480.56
INC 89.84 AZ 178.34
VS -313.02

MD 8
INC 9
VS -2

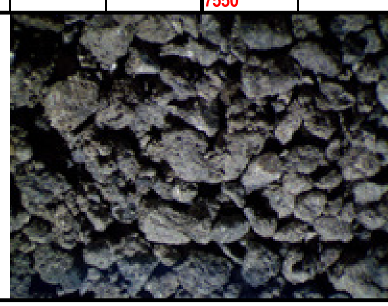
7500

, vfg-fg, rnd-sub rnd, sft,
%: dkgy, plty-sbplty,

SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

7550

SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.



/ VIS 55
5000
Total Gas
0
MW 9.2 / VIS 55

3
200
ROP (min/ft)
MWD GR (API) (units)
0
0

8350 8400 8450 8500

7450 TVD

315 TVD 7480.67
0.03 AZ 178.49
18.08

MD 8410 TVD 7480.37
INC 90.34 AZ 178.23
VS -123.14

MD 8504 TVD 7479.69
INC 90.49 AZ 178.4
VS -29.2

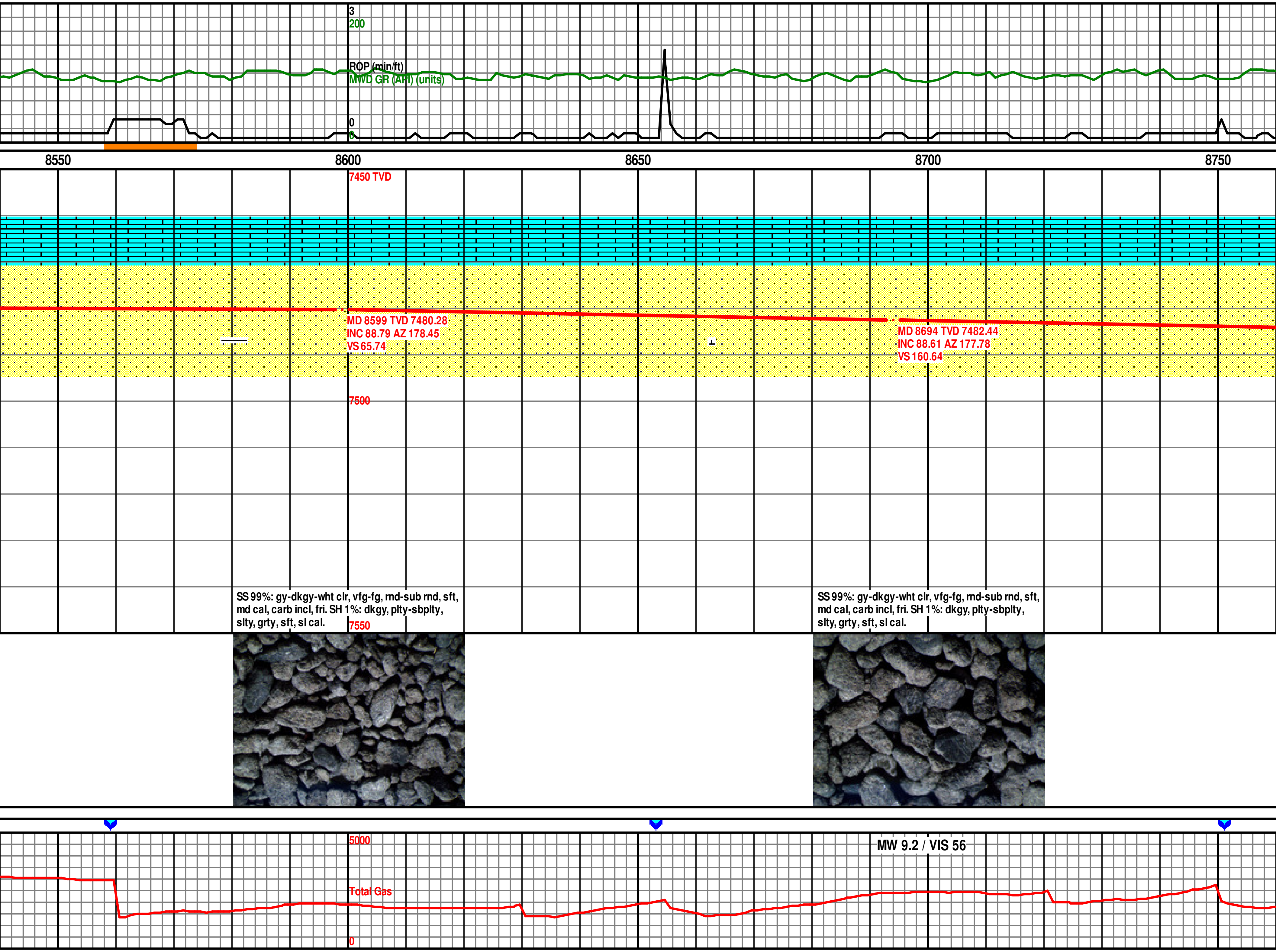
7500

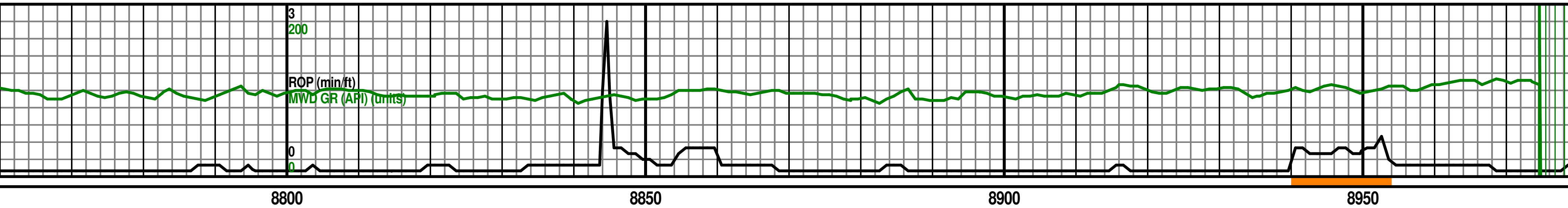
SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

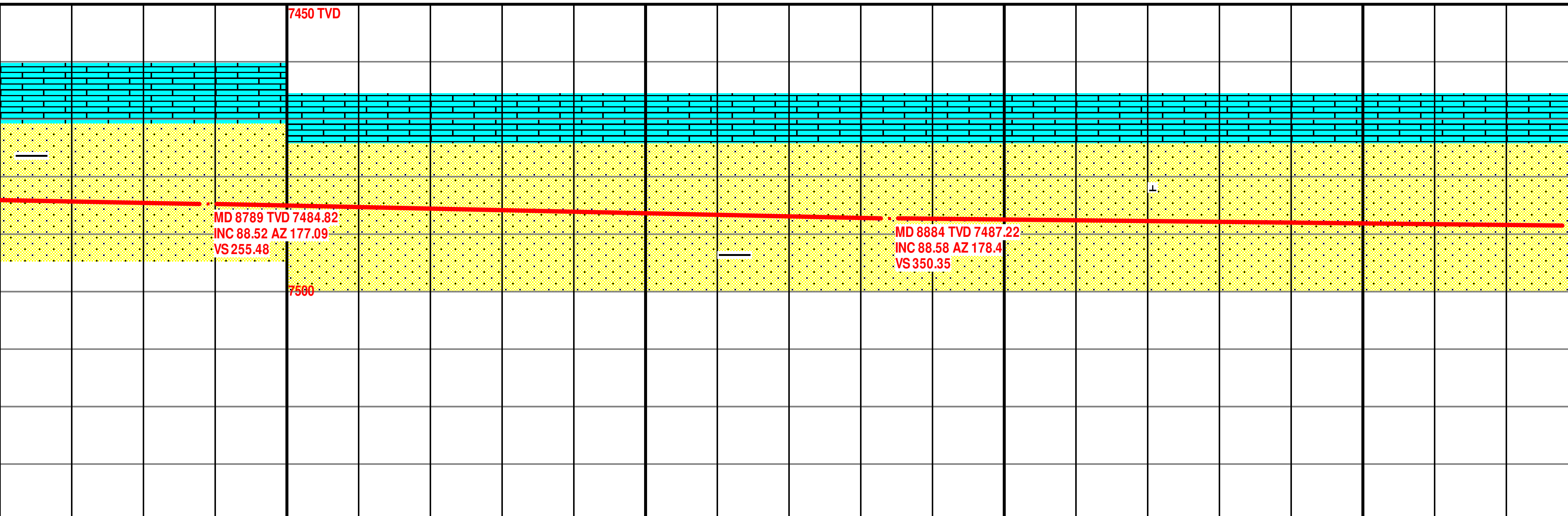
SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

7550

5000
MW 9.2 / VIS 56
Total Gas
0

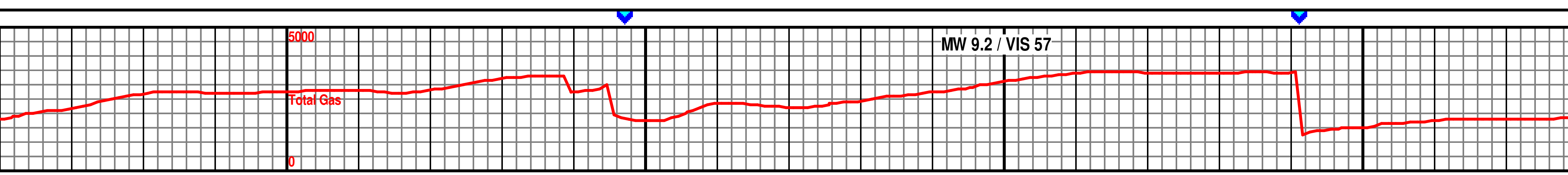

3
200
ROP (min/ft)
MWD GR (API) (units)
0
0
8550
8600
8650
8700
8750
7450 TVD
MD 8599 TVD 7480.28
INC 88.79 AZ 178.45
VS 65.74
MD 8694 TVD 7482.44
INC 88.61 AZ 177.78
VS 160.64
7500
SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.
7550
SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.
5000
MW 9.2 / VIS 56
Total Gas
0

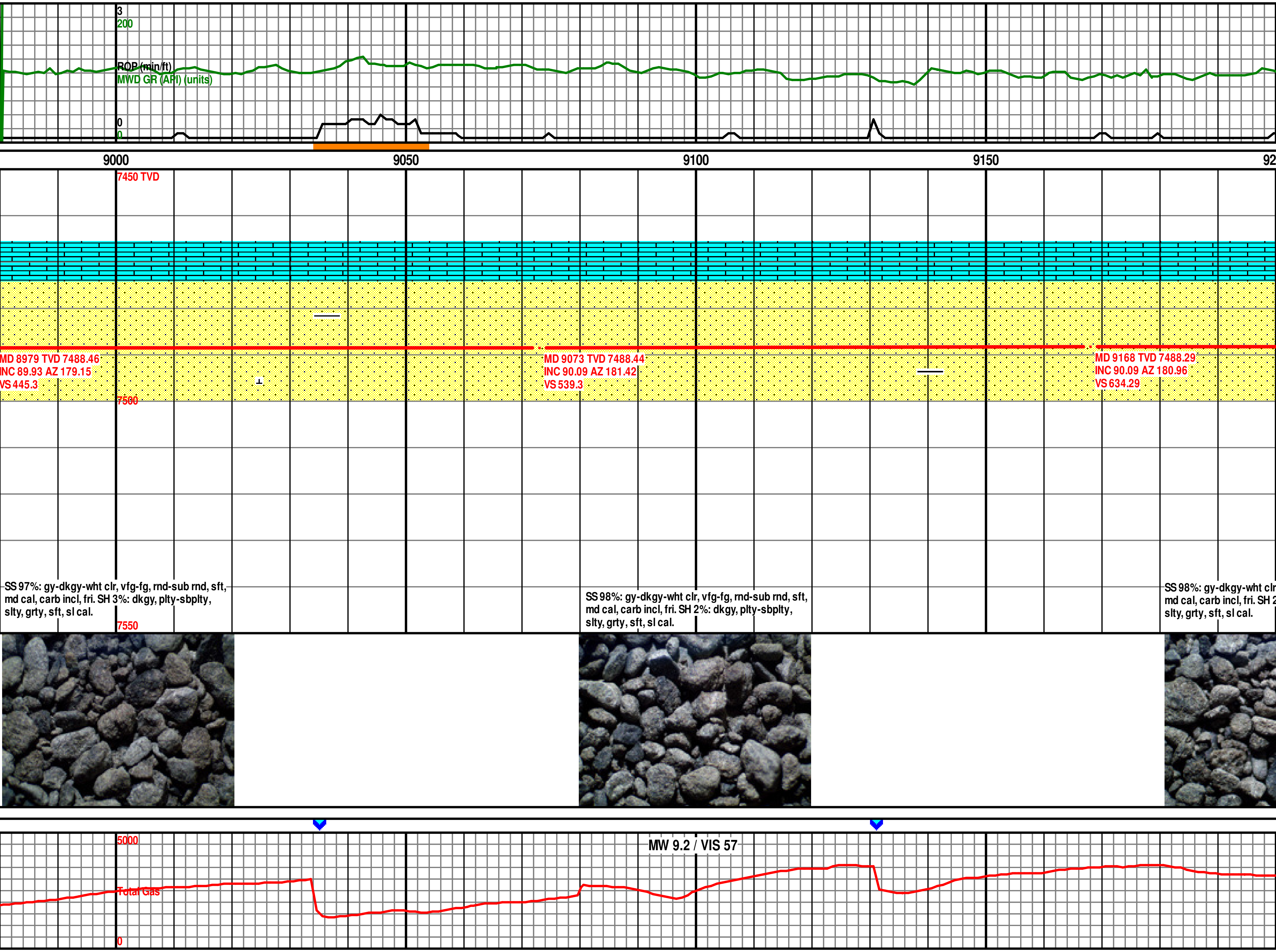




SS 98%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 2%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

SS 97%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 3%: dkgy, plty-sbplty, slty, grty, sft, sl cal.





3
200
ROP (min/ft)
MWD GR (API) (units)
0
0
9000
9050
9100
9150
92
7450 TVD
MD 8979 TVD 7488.46
INC 89.93 AZ 179.15
VS 445.3
MD 9073 TVD 7488.44
INC 90.09 AZ 181.42
VS 539.3
MD 9168 TVD 7488.29
INC 90.09 AZ 180.96
VS 634.29
7500
SS 97%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 3%: dkgy, plty-sbplty, slty, grty, sft, sl cal.
SS 98%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 2%: dkgy, plty-sbplty, slty, grty, sft, sl cal.
SS 98%: gy-dkgy-wht clr
md cal, carb incl, fri. SH 2
slty, grty, sft, sl cal.
7550
MW 9.2 / VIS 57
5000
Total Gas
0

3
200
ROP (min/ft)
MWD GR (API) (units)
0
0

3
200
ROP (min/ft)
MWD GR (API) (units)
0
0

00 | 9250 | 9300 | 9350 | 9400

7450 TVD

7450 TVD

MD 9263 TVD 7488.35
INC 89.84 AZ 182.41
VS 729.26

MD 9357 TVD 7488.28
INC 90.24 AZ 182.64
VS 823.19

7500

7500

, vfg-fg, rnd-sub rnd, sft,
2%: dkgy, plty-sbplty,

SS 98%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 2%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

SS 98%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 2%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

7550

7550

5000
MW 9.2 / VIS 57
Total Gas
0

5000
Total Gas
0

3
200
ROP (min/ft)
MWD GR (API) (units)
0
0

9450 9500 9550 9600

7450 TVD

MD 9452 TVD 7488.01
INC 90.09 AZ 181.92
VS 918.14

MD 9547 TVD 7487.99
INC 89.93 AZ 181.48
VS 1013.11

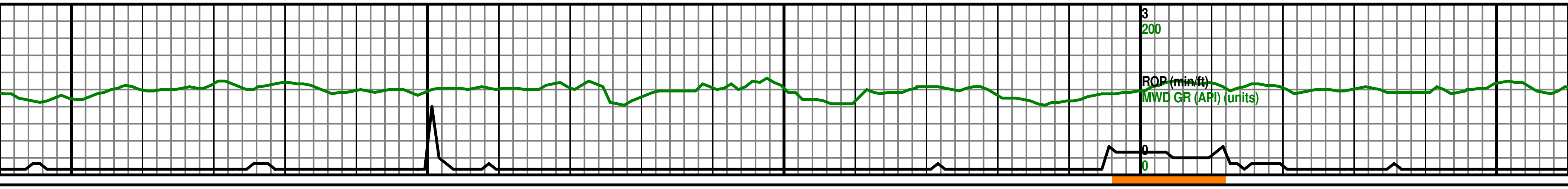
7500

SS 95%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 5%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

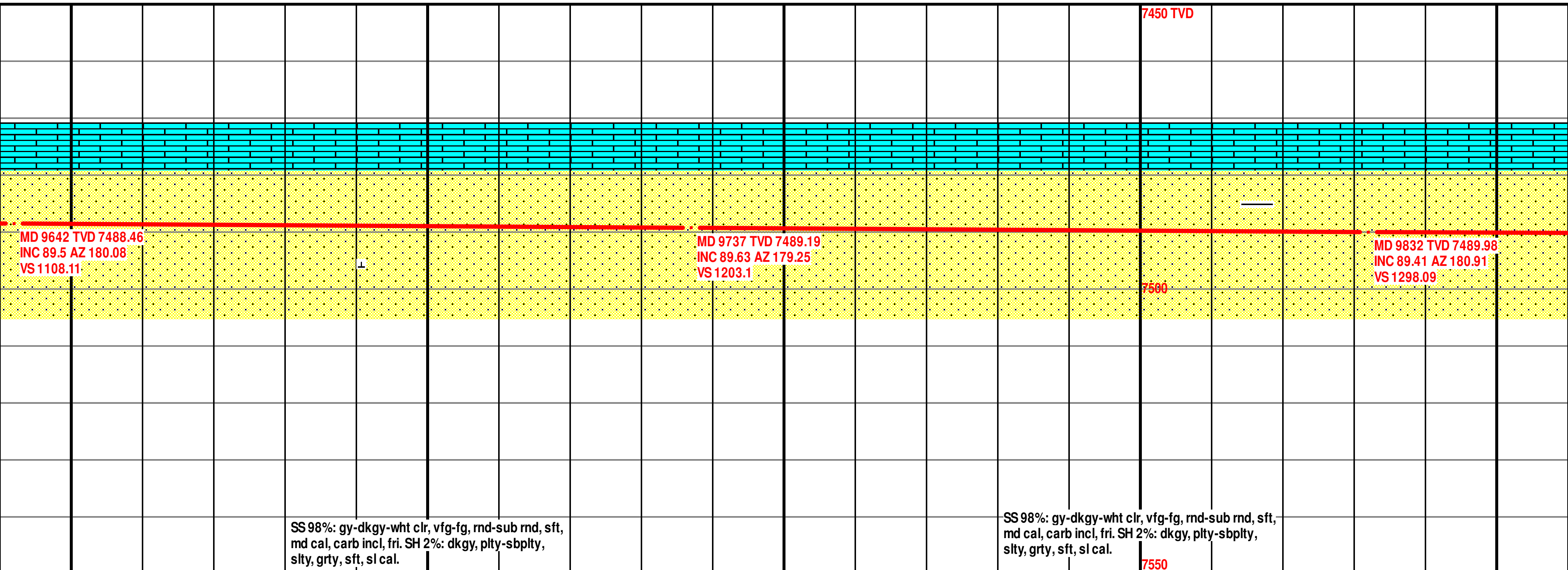
SS 95%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 5%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

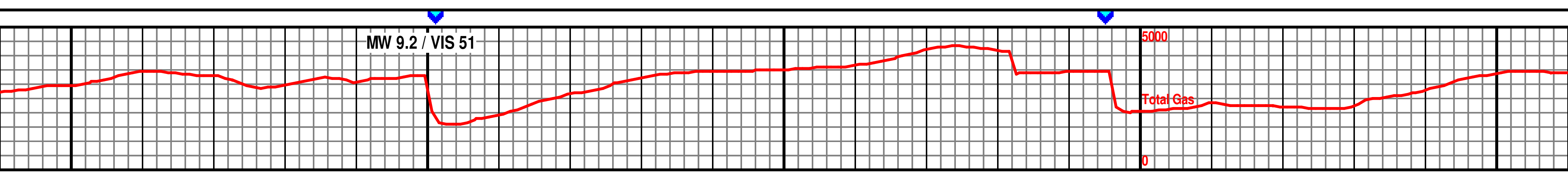
7550

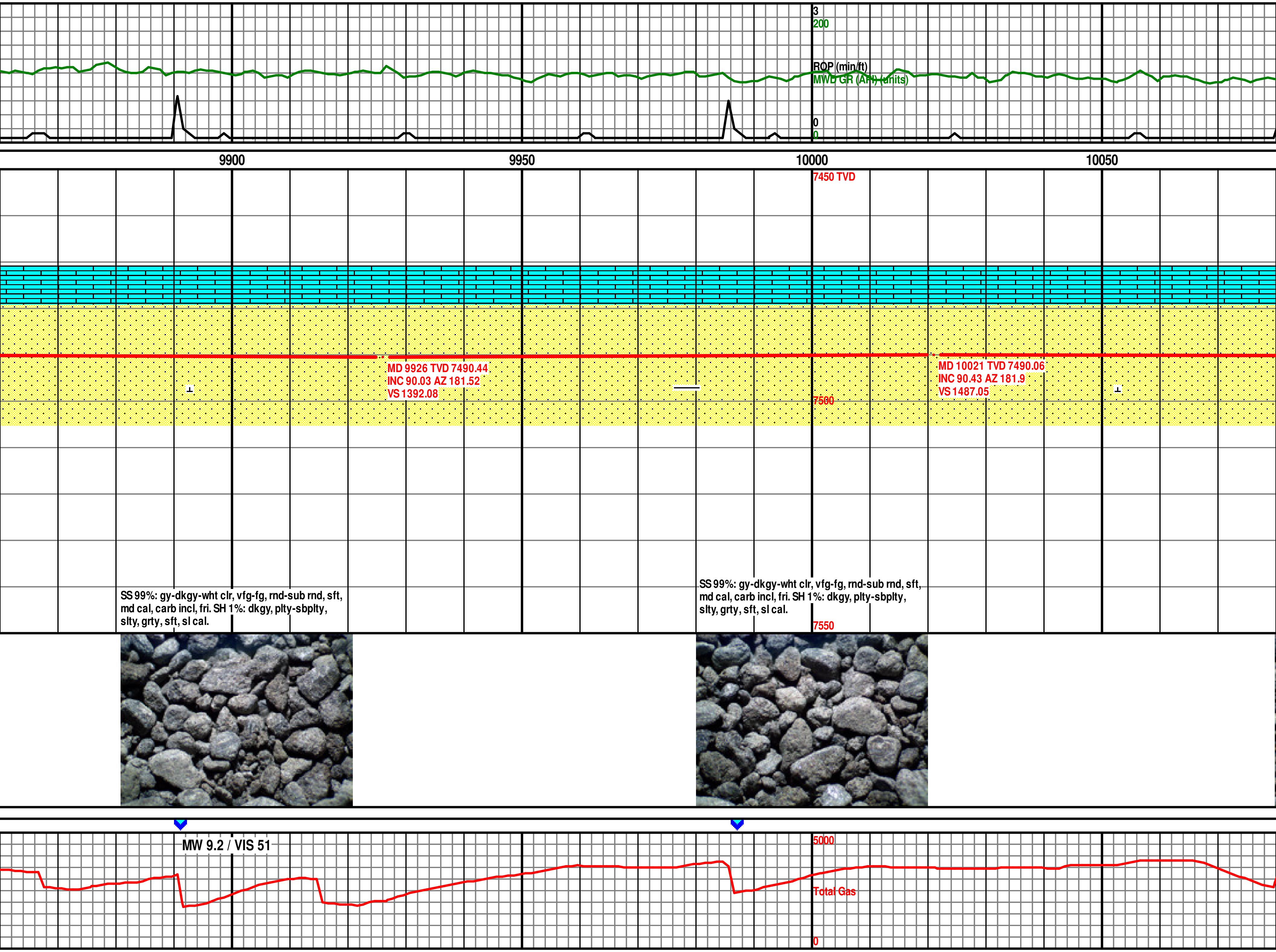
MW 9.2 / VIS 57
5000
Total Gas
0



9650 9700 9750 9800 9850






3
200
ROP (min/ft)
MWD GR (API) (units)
0
0
9900
9950
10000
10050
7450 TVD
MD 9926 TVD 7490.44
INC 90.03 AZ 181.52
VS 1392.08
MD 10021 TVD 7490.06
INC 90.43 AZ 181.9
VS 1487.05
7500
SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.
SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.
7550
MW 9.2 / VIS 51
5000
Total Gas
0

3
200
ROP (min/ft)
MWD GR (API) (units)
0
0

10100 10150 10200 10250 103

7450 TVD

MD 10115 TVD 7490.29
INC 89.29 AZ 180.35
VS 1581.04

MD 10210 TVD 7491.39
INC 89.38 AZ 179.62
VS 1676.03

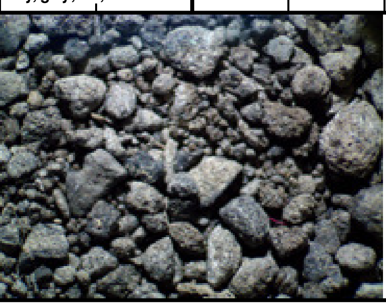
7500

SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

SS 99%: gy-dkgy-wht clr
md cal, carb incl, fri. SH 1
slty, grty, sft, sl cal.

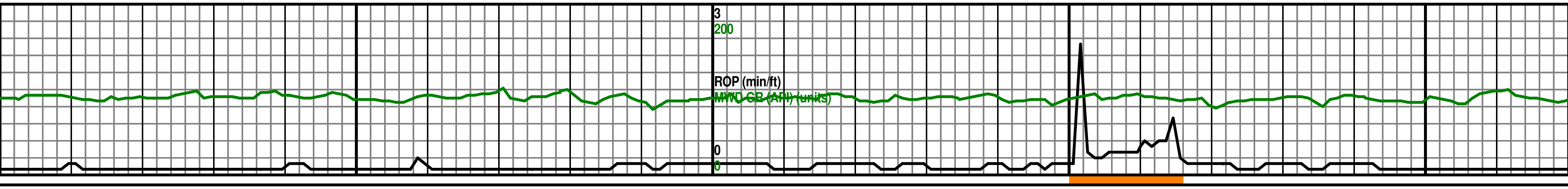
7550



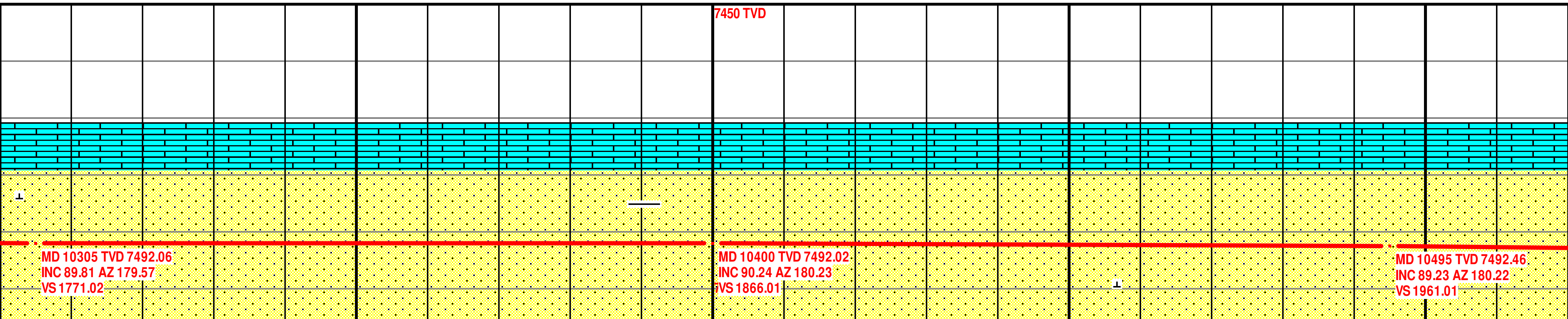
MW 9.2 / VIS 53

5000
Total Gas
0

MW 9.2



300 10350 10400 10450 10500

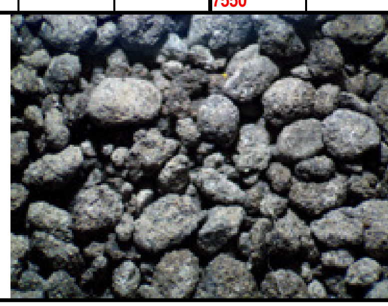


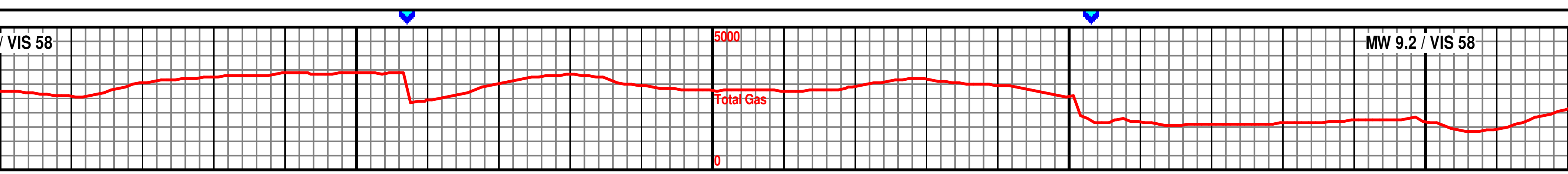
, vfg-fg, rnd-sub rnd, sft,
1%: dkgy, plty-sbplty,

SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

7550

SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.





3
200

ROP (min/ft)
MWD GR (API) (units)

0
0

10550 10600 10650 10700

7450 TVD

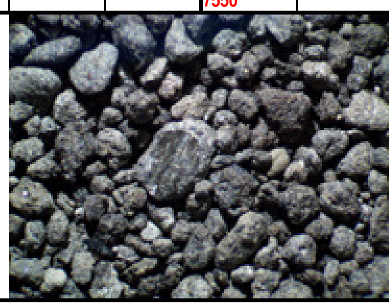
MD 10589 TVD 7493.63
INC 89.35 AZ 179.41
VS 2055

MD 10684 TVD 7494.37
INC 89.75 AZ 179.22
VS 2149.98

SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

7550



5000

MW 9.2 / VIS 53

Total Gas

0

3
200
ROP (min/ft)
MWD GR (API) (units)
0
0

10750 10800 10850 10900 10950

7450 TVD

MD 10779 TVD 7494.97
INC 89.53 AZ 177.46
VS 2244.91

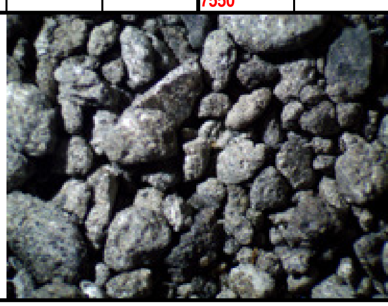
7500

MD 10874 TVD 7495.97
INC 89.26 AZ 177.46
VS 2339.78

SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

7550

SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.



5000
MW 9.2 / VIS 59
MW 9.2 / VIS 58
Total Gas
0

3
200
ROP (min/ft)
MWD GR (API) (units)
0
0

11000 11050 11100 11150

7450 TVD

7500

MD 10968 TVD 7497.54
INC 88.83 AZ 178.53
VS 2433.69

MD 11063 TVD 7498.61
INC 89.88 AZ 179.86
VS 2528.66

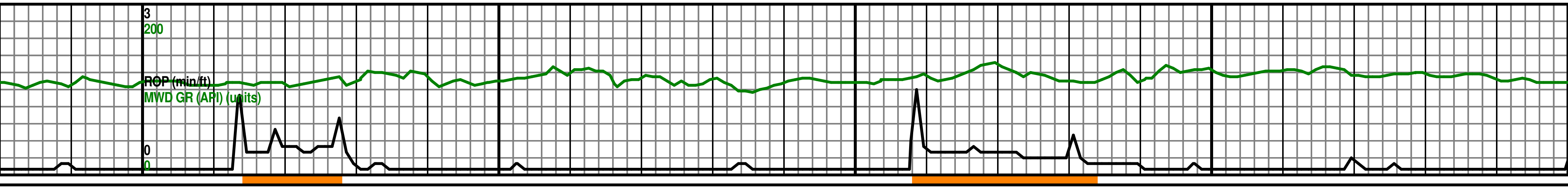
MD 11158 TVD 7498.82
INC 89.87 AZ 179.64
VS 2623.65

SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

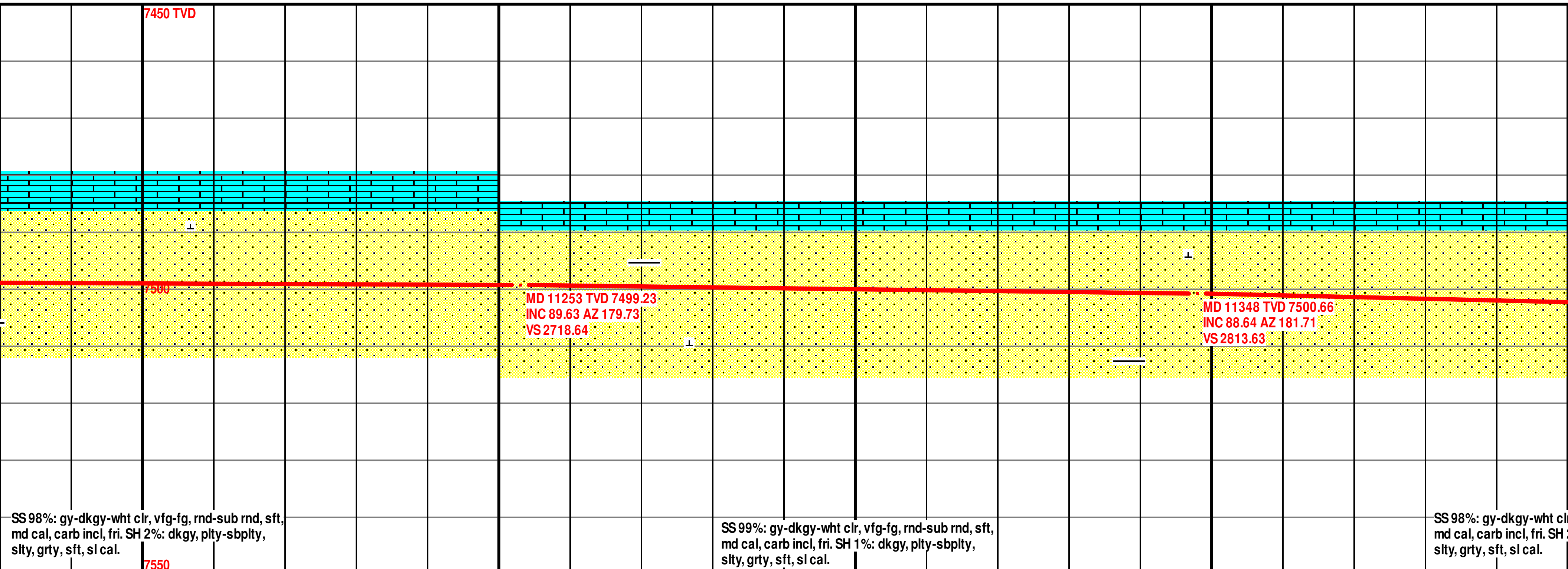
7550

SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

5000
MW 9.2 / VIS 55
MW 9.2 / VIS 57
Total Gas
0



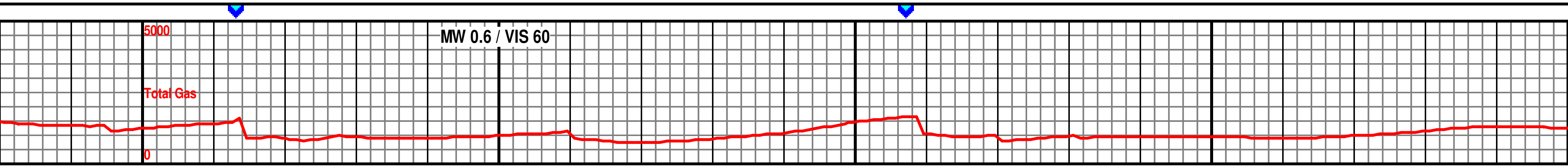
11200 11250 11300 11350 114

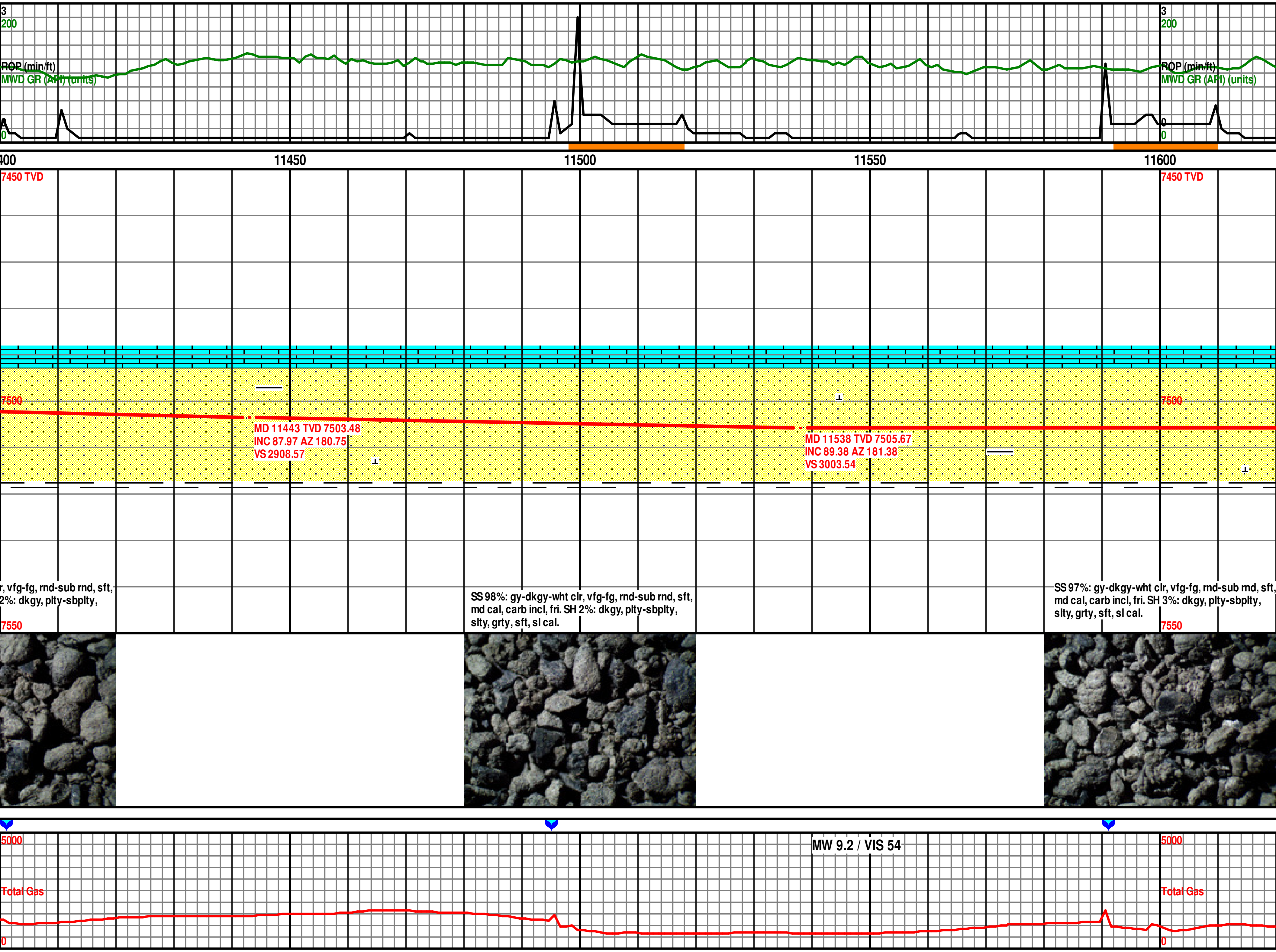


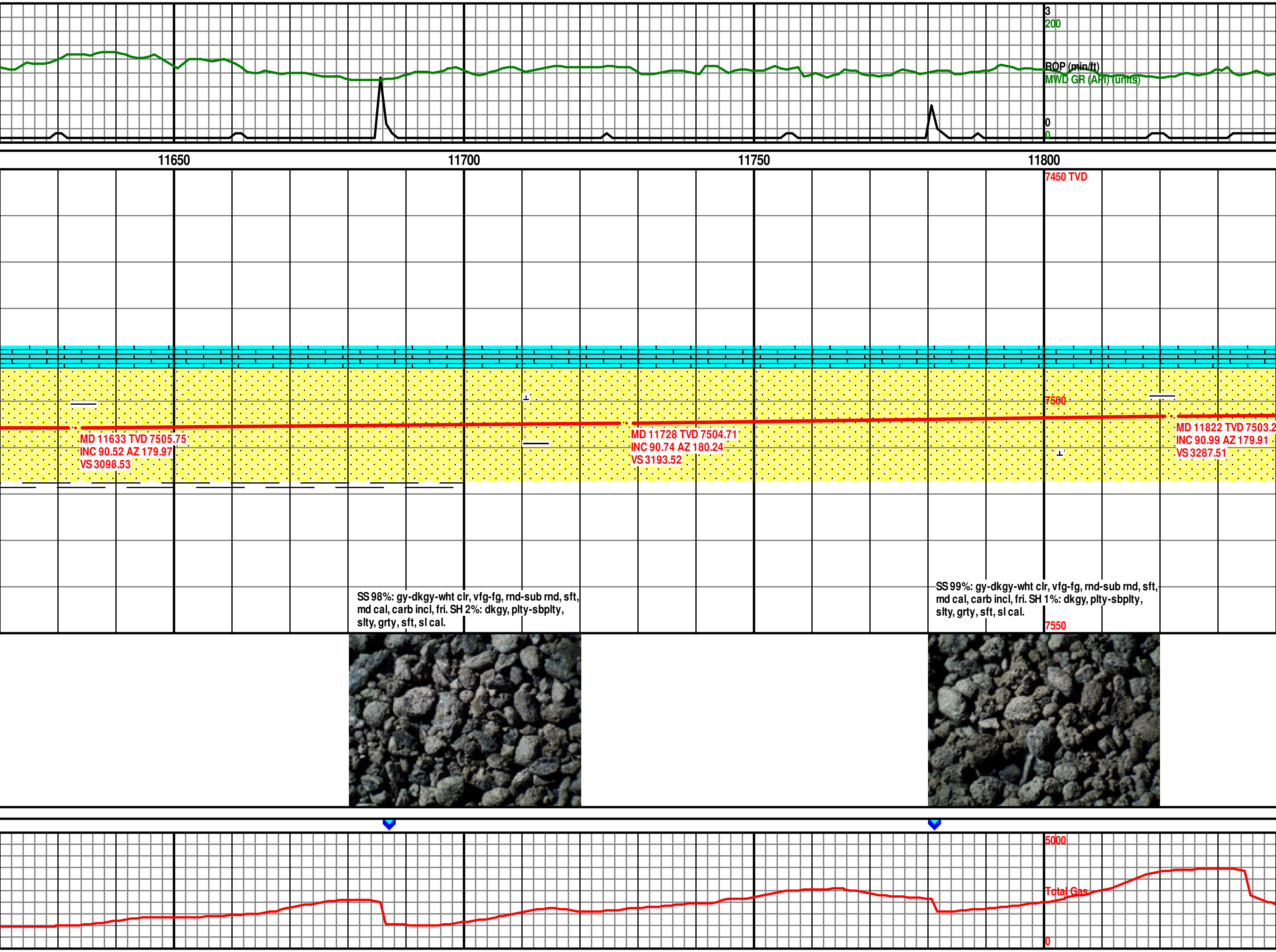
SS 98%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 2%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

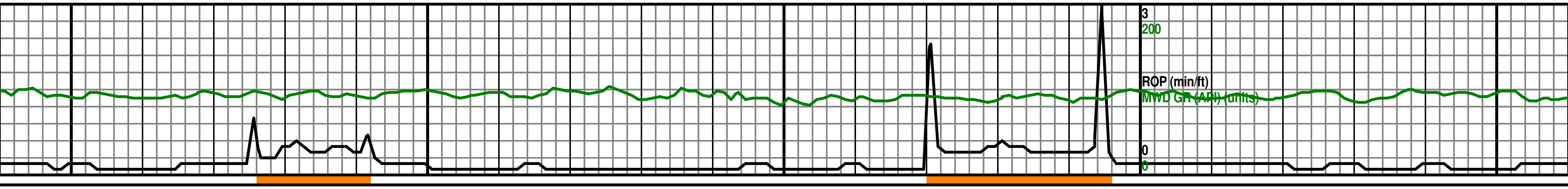
SS 98%: gy-dkgy-wht cl… md cal, carb incl, fri. SH … slty, grty, sft, sl cal.




3
200
ROP (min/ft)
MWD GR (API) (units)
0
400
11450
11500
11550
11600
7450 TVD
7500
MD 11443 TVD 7503.48
INC 87.97 AZ 180.75
VS 2908.57
MD 11538 TVD 7505.67
INC 89.38 AZ 181.38
VS 3003.54
r, vfg-fg, rnd-sub rnd, sft,
2%: dkgy, plty-sbplty,
SS 98%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 2%: dkgy, plty-sbplty, slty, grty, sft, sl cal.
SS 97%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 3%: dkgy, plty-sbplty, slty, grty, sft, sl cal.
7550
MW 9.2 / VIS 54
5000
Total Gas
0



3
200
ROP (min/ft)
MWD GR (API) (units)
0
0
11650
11700
11750
11800
7450 TVD
7500
MD 11633 TVD 7505.75
INC 90.52 AZ 179.97
VS 3098.53
MD 11728 TVD 7504.71
INC 90.74 AZ 180.24
VS 3193.52
MD 11822 TVD 7503.2
INC 90.99 AZ 179.91
VS 3287.51
SS 98%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 2%: dkgy, plty-sbplty, slty, grty, sft, sl cal.
SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.
7550
5000
Total Gas
0



11850 11900 11950 12000 12050

7450 TVD

7500

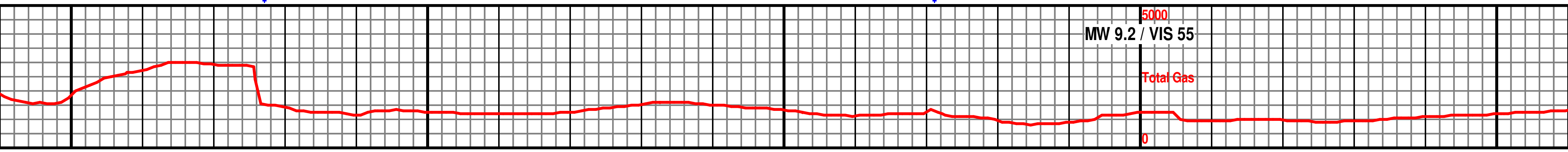
MD 11917 TVD 7502.21
INC 90.31 AZ 180.25
VS 3382.5

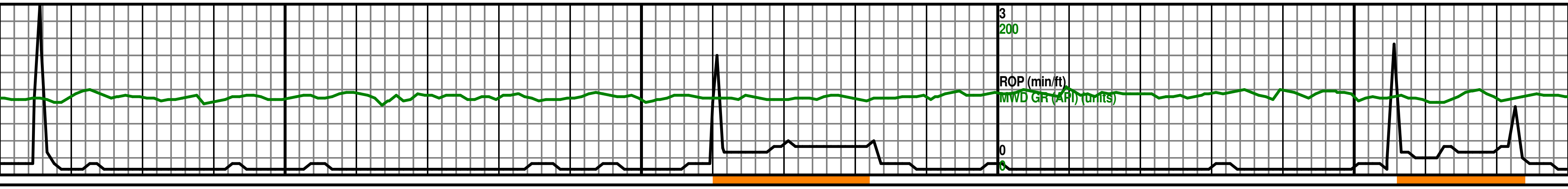
MD 12012 TVD 7502.19
INC 89.72 AZ 181.26
VS 3477.5

SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

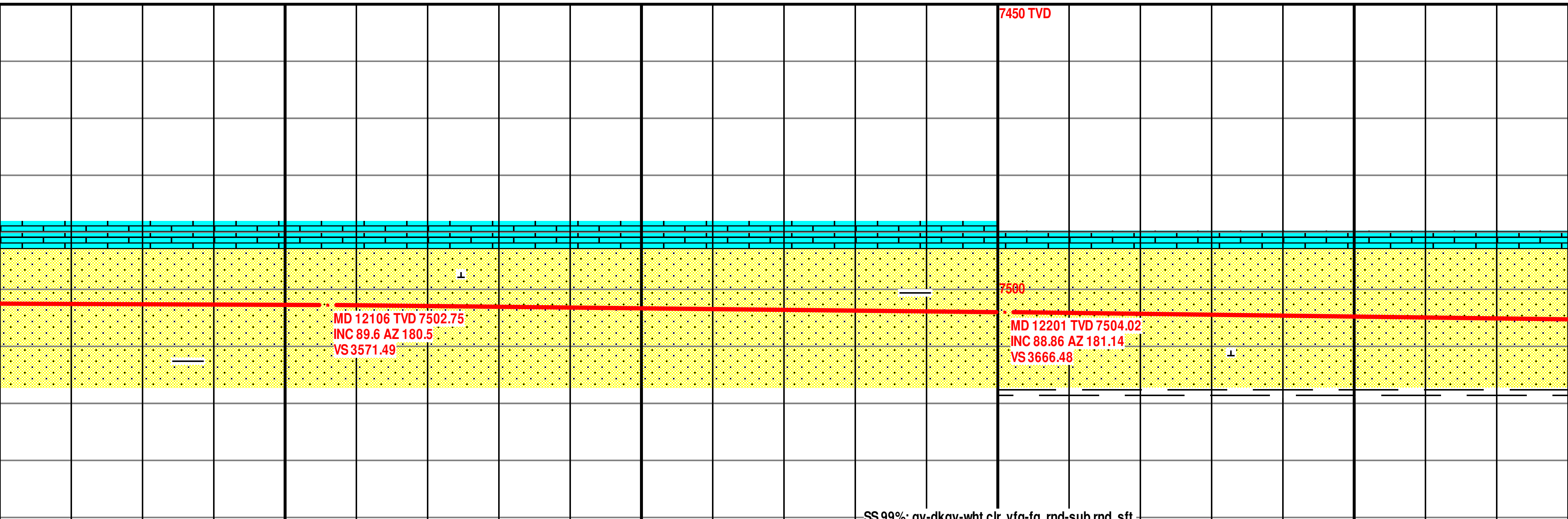
SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

7550



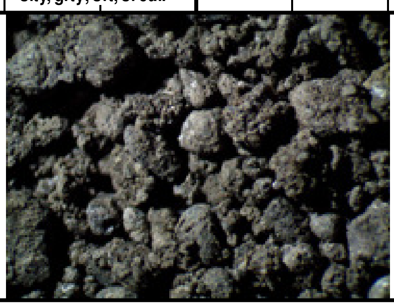


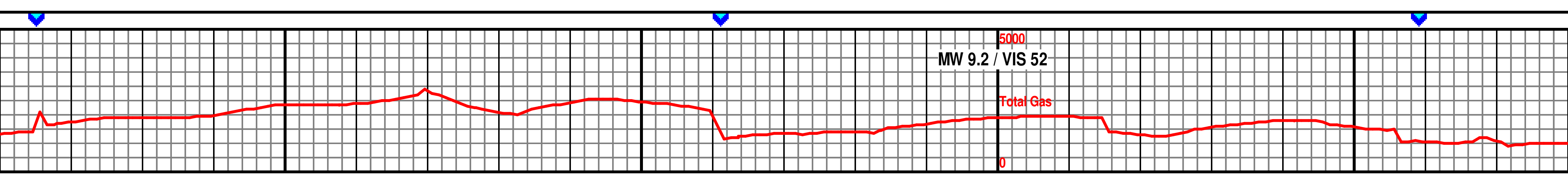
12100 12150 12200 12250

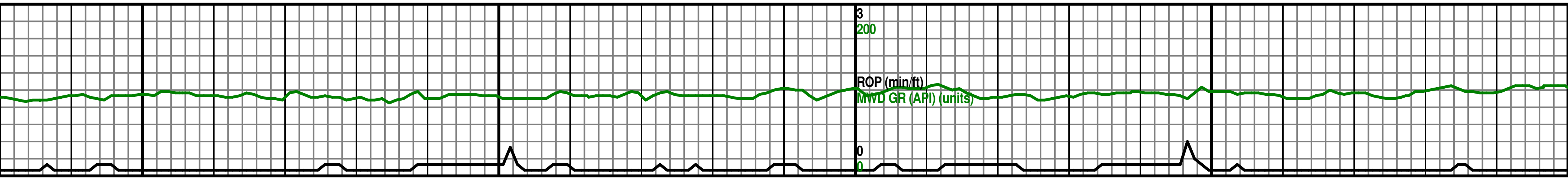


SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

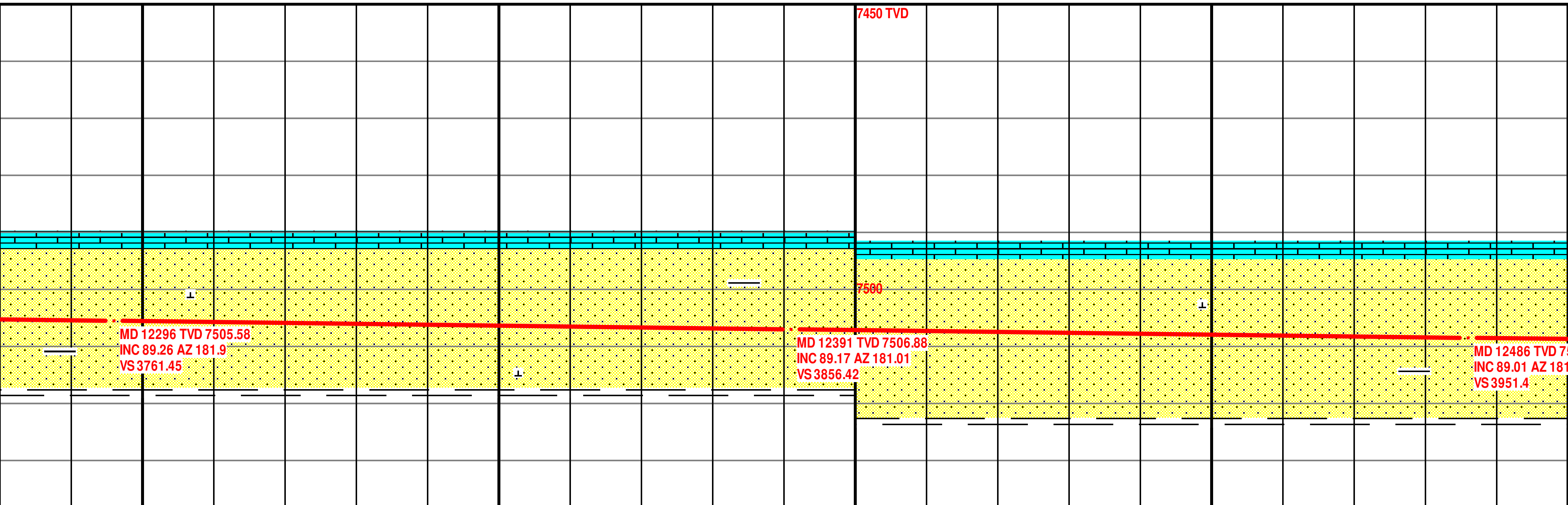
SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.







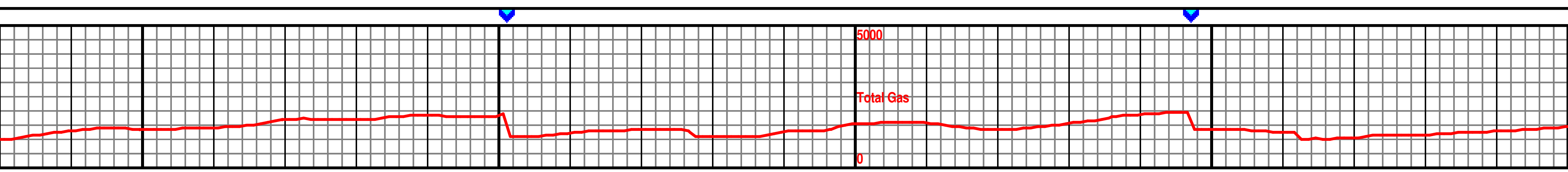
12300 12350 12400 12450 125



SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

SS 99%: gy-dkgy-wht clr md cal, carb incl, fri. SH 1 slty, grty, sft, sl cal.



3
200
ROP (min/ft)
MWD GR (API) (units)
0
0

500 12550 12600 12650 12700

7450 TVD

7500

508.39
.05

MD 12581 TVD 7509.85
INC 89.23 AZ 181.02
VS 4046.39

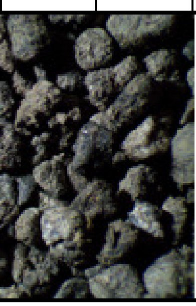
MD 12676 TVD 7511.08
INC 89.29 AZ 180.5
VS 4141.38

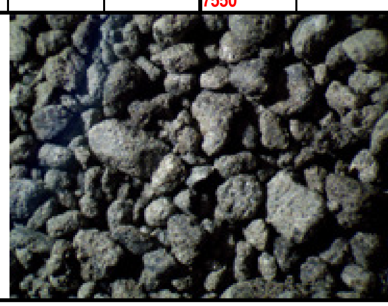
, vfg-fg, rnd-sub rnd, sft,
1%: dkgy, plty-sbplty,

SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

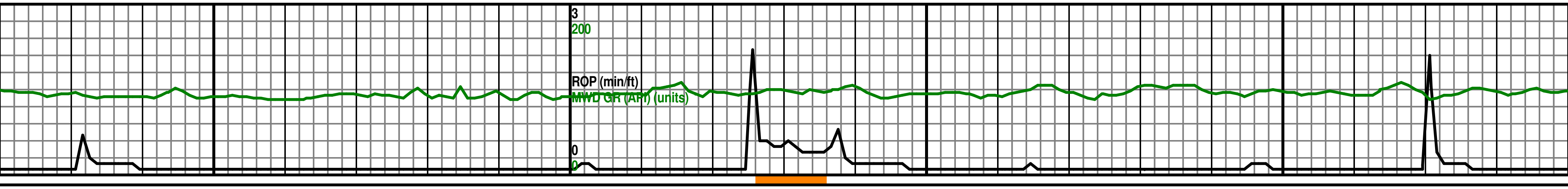
7550

SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

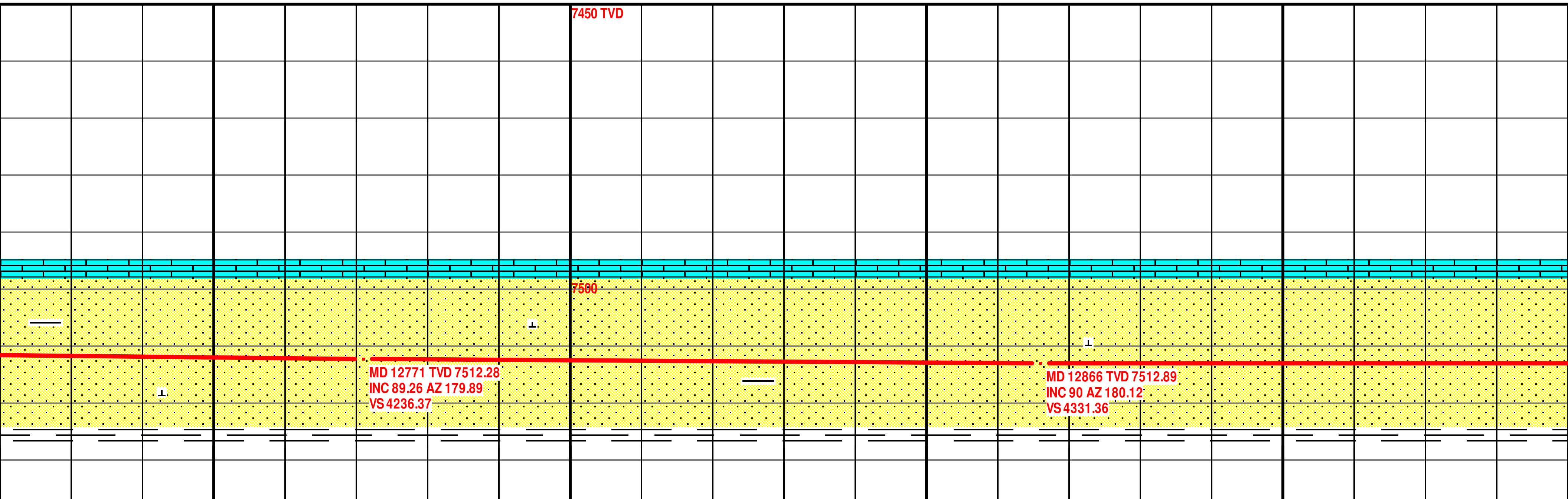




5000
MW 9.2 / VIS 54
Total Gas
0

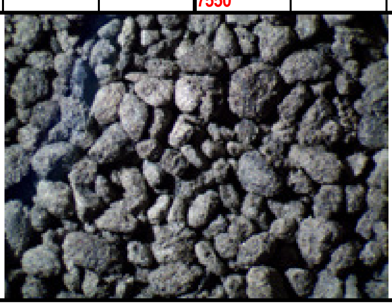


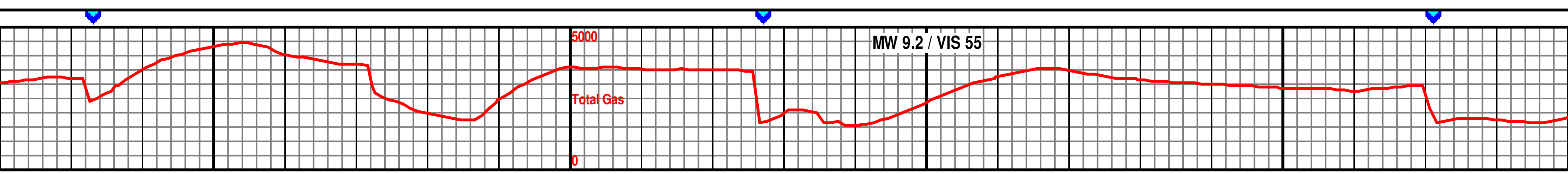
12750 12800 12850 12900

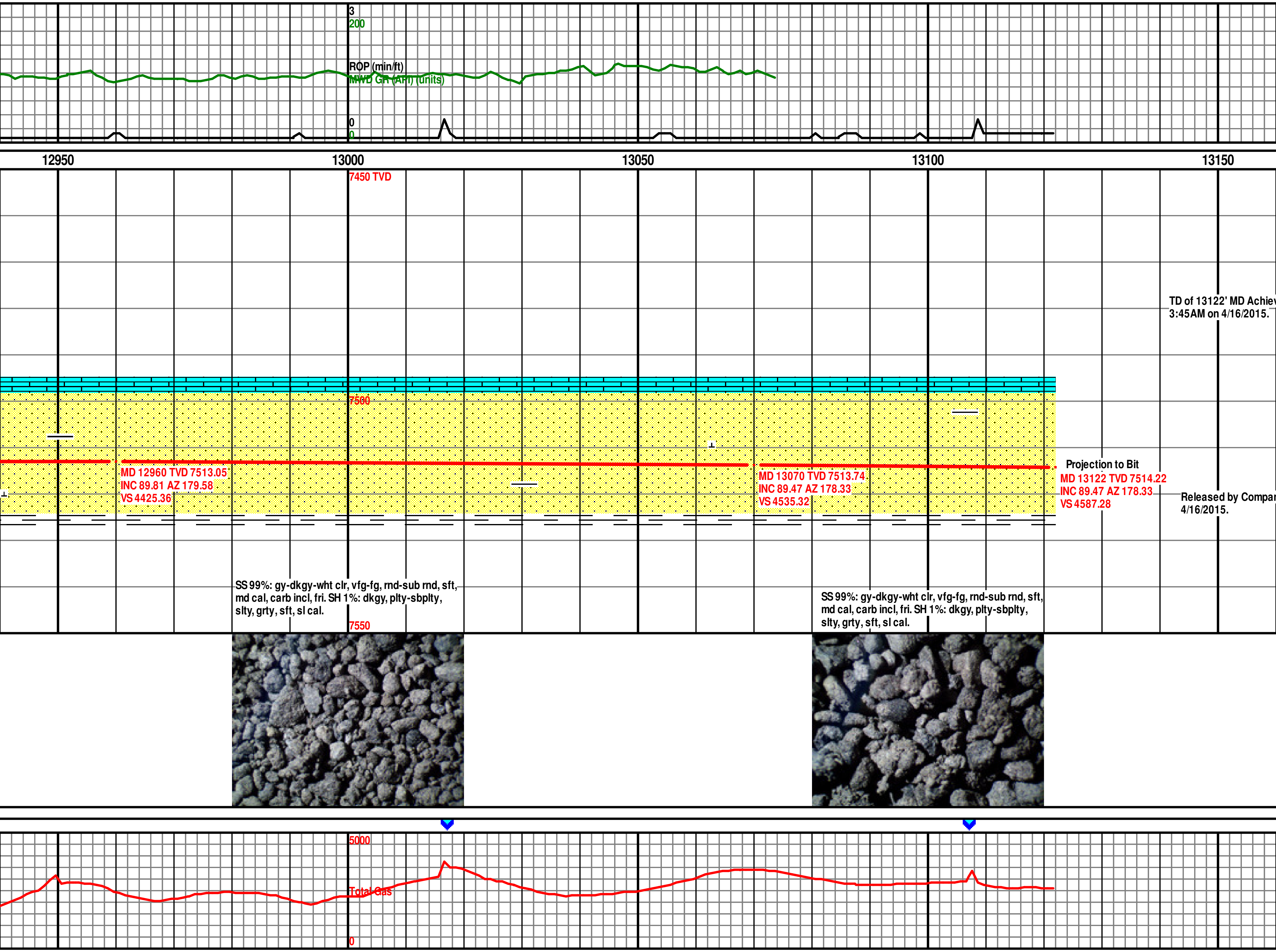


SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.

SS 98%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 2%: dkgy, plty-sbplty, slty, grty, sft, sl cal.







3
200
ROP (min/ft)
MWD GR (API) (units)
0
0
12950
13000
13050
13100
13150
7450 TVD
TD of 13122' MD Achiev
3:45AM on 4/16/2015.
7500
Projection to Bit
MD 12960 TVD 7513.05
INC 89.81 AZ 179.58
VS 4425.36
MD 13070 TVD 7513.74
INC 89.47 AZ 178.33
VS 4535.32
MD 13122 TVD 7514.22
INC 89.47 AZ 178.33
VS 4587.28
Released by Compar
4/16/2015.
SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.
7550
SS 99%: gy-dkgy-wht clr, vfg-fg, rnd-sub rnd, sft, md cal, carb incl, fri. SH 1%: dkgy, plty-sbplty, slty, grty, sft, sl cal.
5000
Total Gas
0

ved at

ny Man