



INTEQ



## INTEQ LOG SUITE

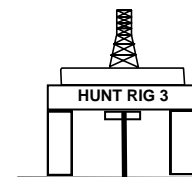
Formation Evaluation 1:200 Scale  
Drilling Data Plot 1:500 Scale

## ABBREVIATIONS

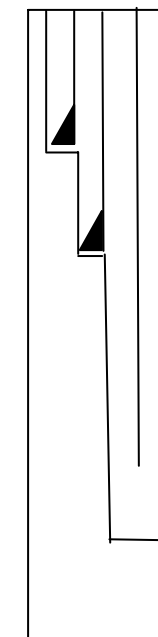
NB	New Bit	MD	Measured Depth
RR	Rerun Bit	GPM	Gallons per Min
CB	Core Bit	PP	Pump Pressure
WOB	Weight on Bit	MW	Mud Weight sg
RPM	Revs per Minute	FV	Funnel Viscosity
FLC	Flow Check	F	Filtrate - API
FCG	Flow Check Gas	FC	Filter Cake
PR	Poor Returns	PV	Plastic Viscosity
NR	No Returns	YP	Yield Point
BG	Background Gas	Sol	Solids %
WTG	Wiper Trip Gas	Sd	Sand %
TG	Trip Gas	Cl	Chlorides
POG	Pumps Off Gas	RM	Mud Resistivity
CG	Connection Gas	EMW	Eq. Mud weight
SWG	Swab Gas	TVD	True Vertical Depth

## LITHOLOGY SYMBOLS

Limestone Ls	Dolomite Dol	Marl Mrl	Argillaceous Limestone Arg Lst
Claystone Clyst	Siltstone Slst	Sandstone Sst	Conglomerate Cgl
Coal C	Fossil Fragments FF	No Returns NR	Cement Cmt
Volcanics Volc	Glaucinite Glauc	Pyrite Pyr	Chert Cht



Ground Elevation: 200.0 m  
MDKB(AMSL)  
Rig Floor Elevation(AMSL) :  
204.0 m



Set 340mm (13-3/8") Casing at  
104.8 mMDKB

Set 244mm (9-5/8") Casing at  
338.0 mMDKB

Drilled 216mm (8-1/2") Sidetrack  
hole from 860m to 1679.0 mMDKB

Company Overseas Energy Holdings Ltd

Well Westwood-1 ST-1

Permit SEL5-05

Region Tasmania (Australia)

Designation Exploration

Coordinates 41° 31' 9.3" S  
147° 2' 2.5" E

Drill floor elevation 4.0 m

Total Depth 1679.0 mMDKB

Contractor Hunt Energy

Rig Rig 3

Type Land Rig

LOG INTERVAL  
Depth 860.0 – 1679.0 mMDRT

Date 19 December 09 – 01 January 10  
Scale 1 : 200

Data Engineers Dedi Permana, Shaharizad  
Shahadan

Loggers Amit Saxena, Rahul Gadhe

	Casing Seat		Wireline Logs
	Liner Hanger		Tripping Symbol
	Cored Interval		Sidewall Core
	Unrecovered		No Recovery
	Fluorescence		No Recovery
	Test Interval		No Recovery
	Mechanical Sidewall Core		No Recovery



Company : Overseas Energy Holdings Ltd

Well : Westwood 1

Interval : -7.00 - 1686.98 meters

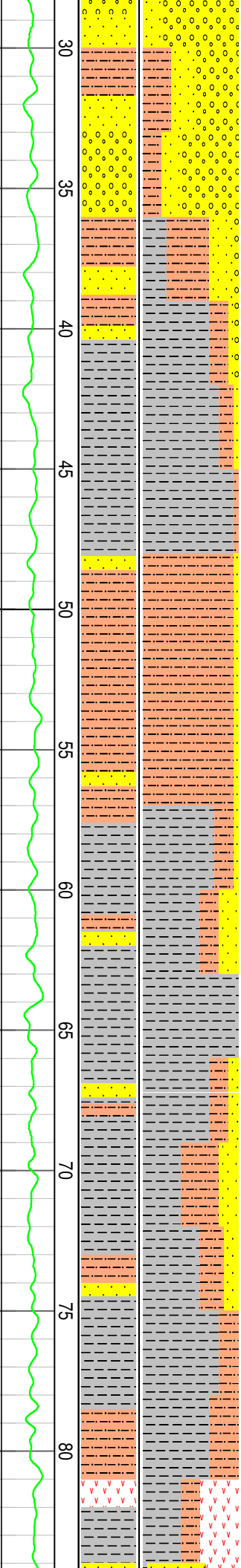
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## FORMATION EVALUATION LOG

ROP m/hr Gamma Ray API WOB klbf Surf RPM RPM	CORE MD meters	INTERPRETED LITHOLOGY	LITHOLOGY %	TOTAL GAS & RESISTIVITY Total Gas 0.1   1   10   100 %	OIL FLUORESCENCE P F G	CHROMATOGRAPH	REMARKS
						Methane ppm Ethane Propane iso-Butane n-Butane iso-Pentane n-Pentane ppm	
	1200						
	-5						
	0						
Spaulding Rig drilled 203mm(8") pilot hole to 112m with Air							
	5						
	10						
	15						
	20						
	25						

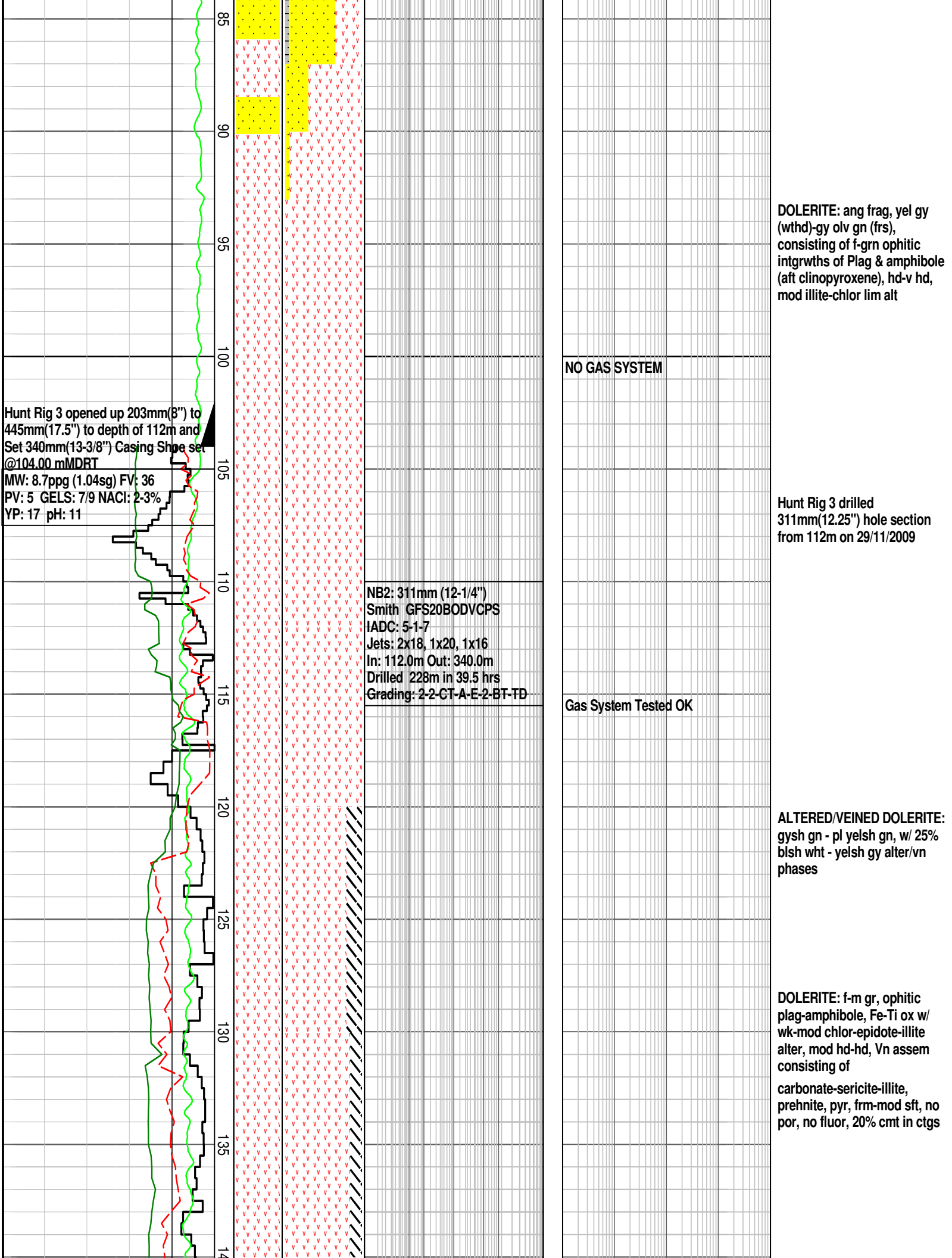


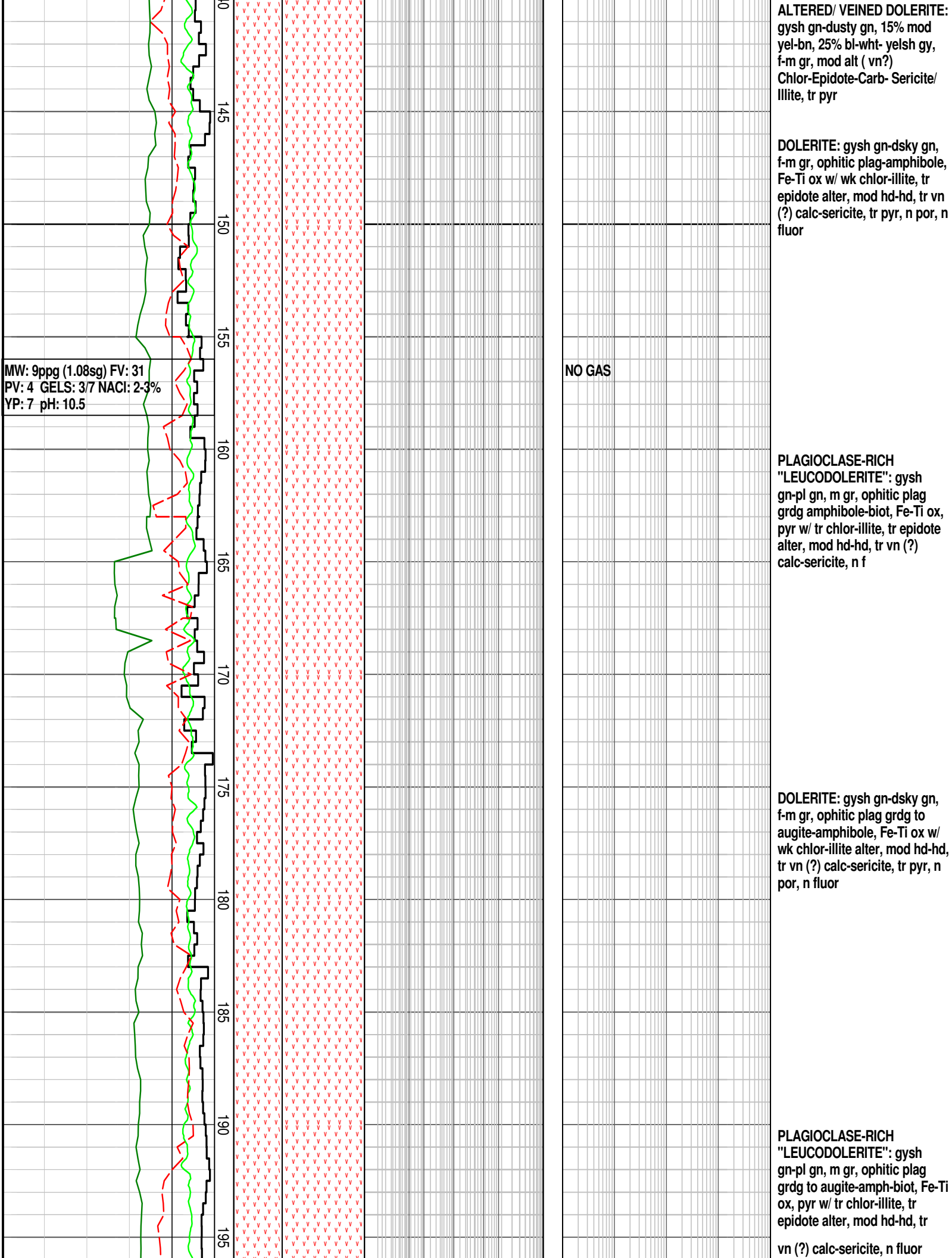
NO GAS SYSTEM

**CLAYSTONE:** mod rd brn, sft, sbblky

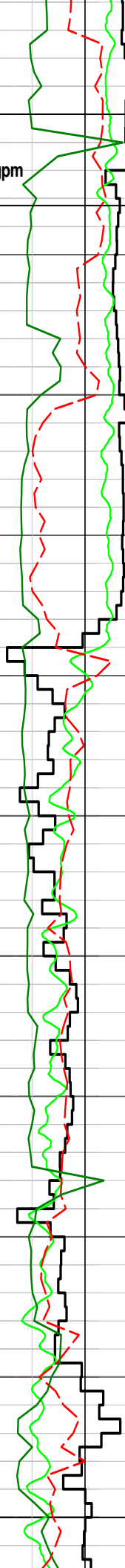
**FELDSPATHIC SANDSTONE:**  
off wht pl gy Plag fspr, m-v crs,  
sbang-sbrndd, pr srted, uncons,  
tr ang dolerite frag (Cvg?)

**SILTSTONE:** mod rd brn-gn gy,  
frm, sbblky-sbfis, loc aren

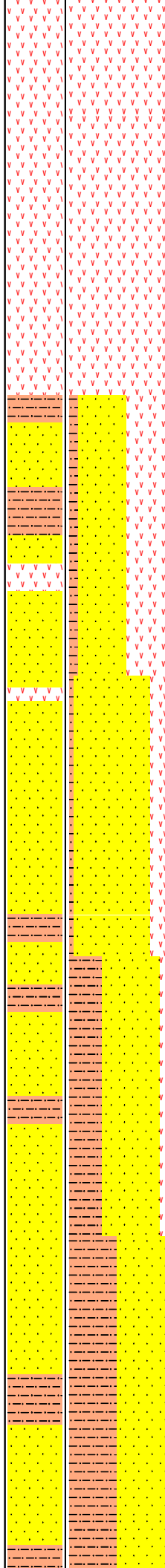




WOB: 2 - 34 klbf  
RPM: 29 - 94  
FLOW: 278 - 597 gpm  
SPP: 256 - 563 psi



200  
205  
210  
215  
220  
225  
230  
235  
240  
245  
250



NO GAS

FG

SILTSTONE: mod yel,  
blky-sbfis, frm-mod hd

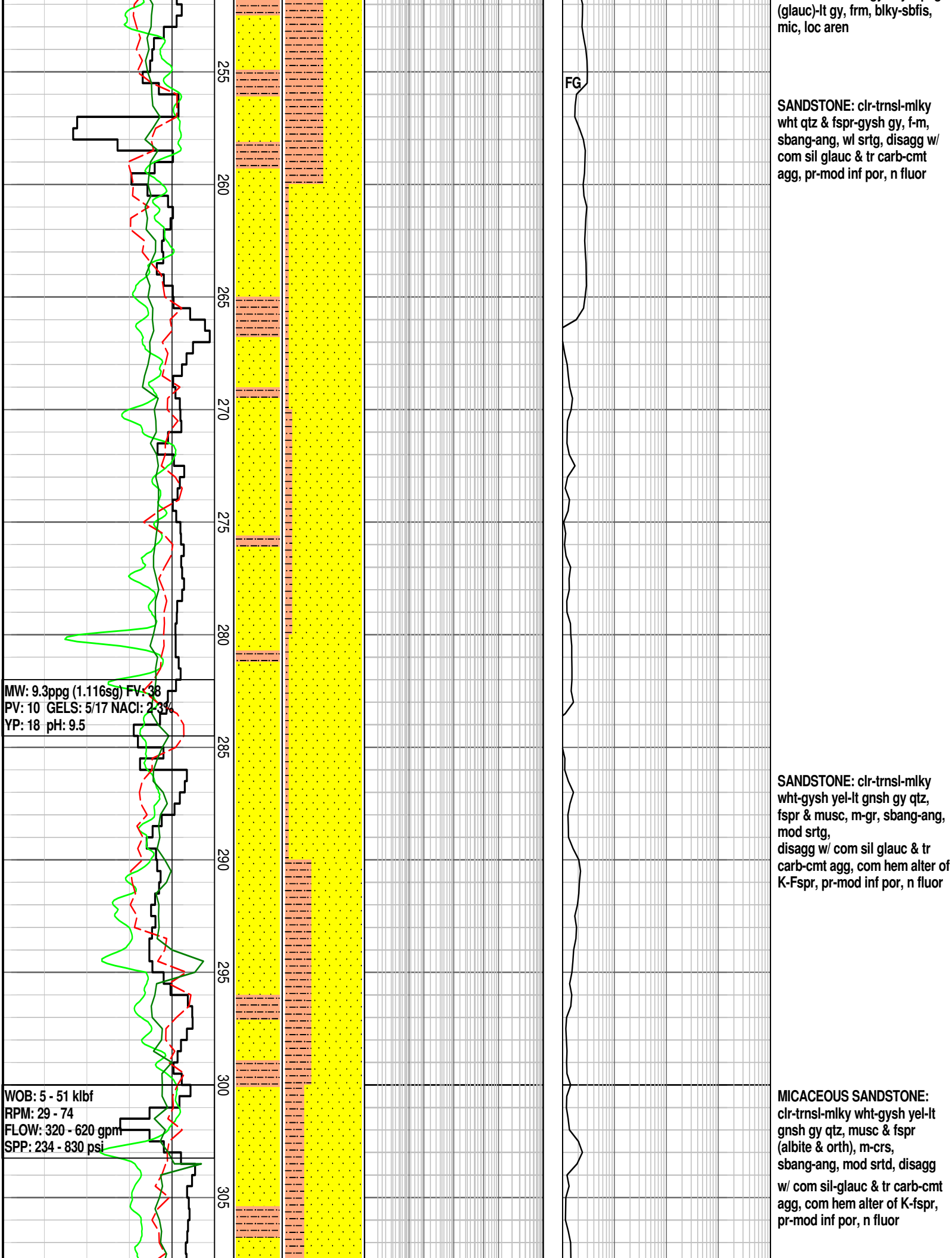
HORNFELS: yelsh gn-pl gn, vf,  
epidote-chlor alter sltst chilled  
dolerite

SANDSTONE: clr-trnsl-mlky  
wht qtz fspr, m-crs,  
sbang-sbrnodd, mod-pr srtg,  
disagg w/ occ sil & carb-cmt  
agg, tr glauc, pr-mod inf por, n  
fluor

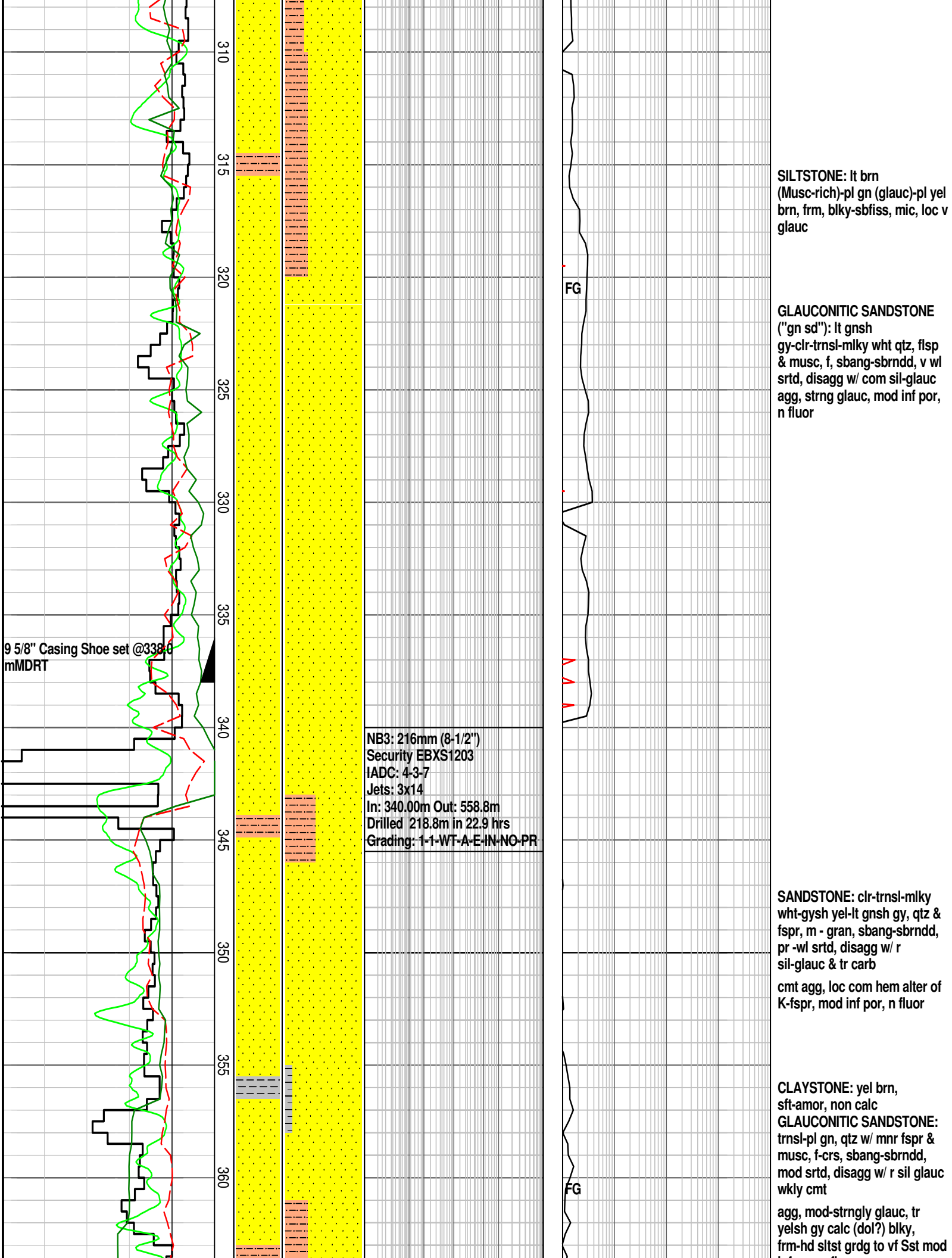
DOLERITE: gysh gn-dsky gn,  
f-m gr, ophitic plag-amphibole,  
Fe-Ti ox w/ wk chlor-illite alter,  
mod hd-hd, tr vn (?)  
calc-sericite, tr pyr, n por, n  
fluor

SILTSTONE: mod yel-pl yelsh  
brn-pl gn (glauc)- lt gy,  
blky-sbfiss, loc aren, carb frag,  
sft-frm

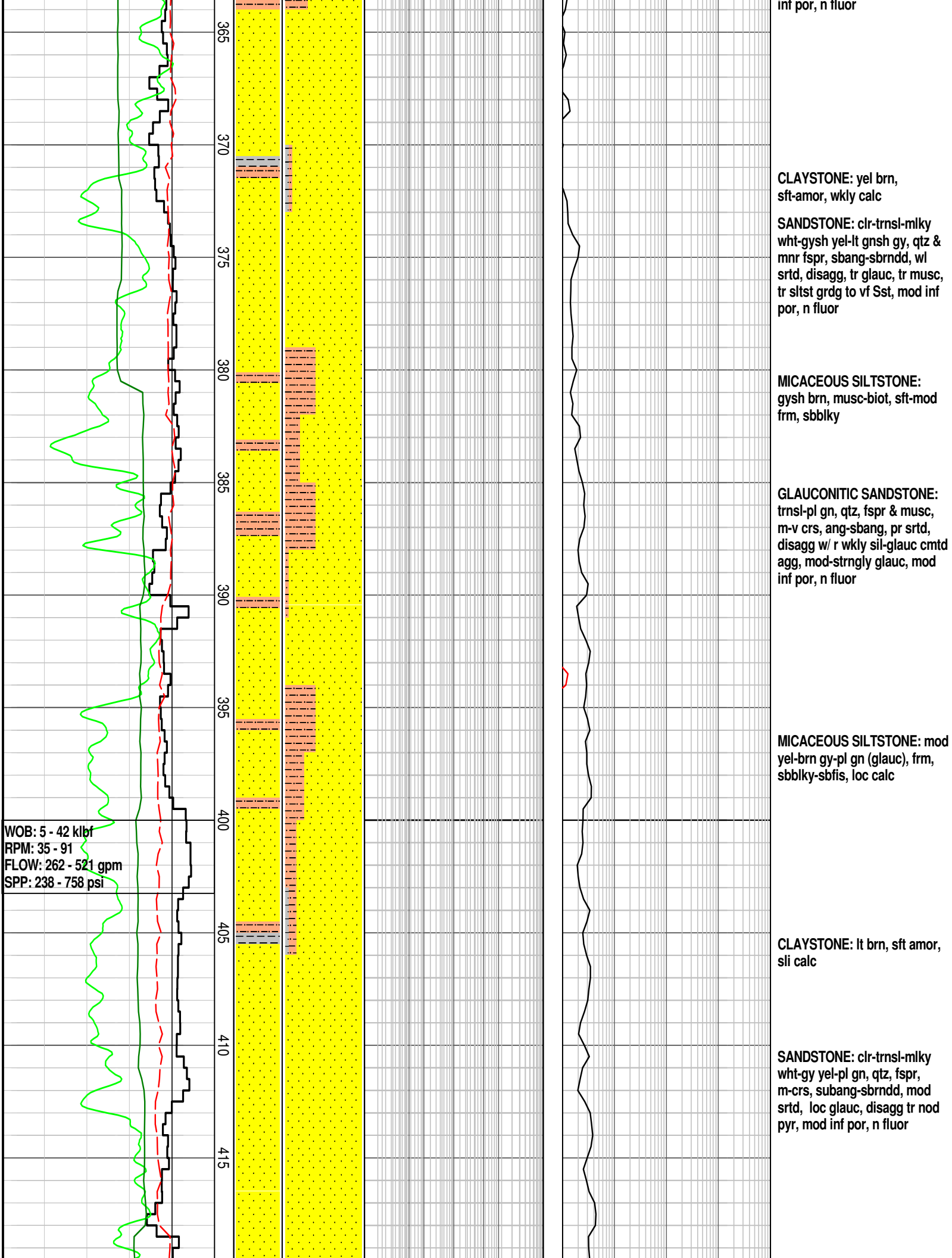
SILTSTONE: olv gy-m yel-pl gn

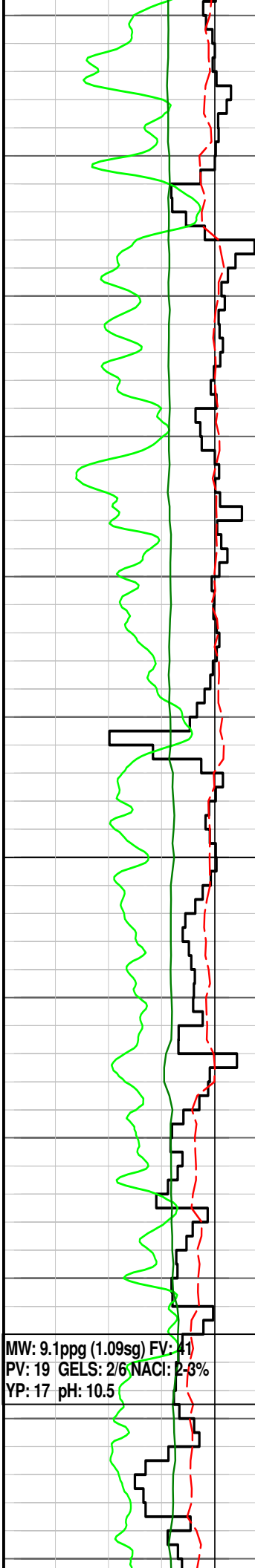




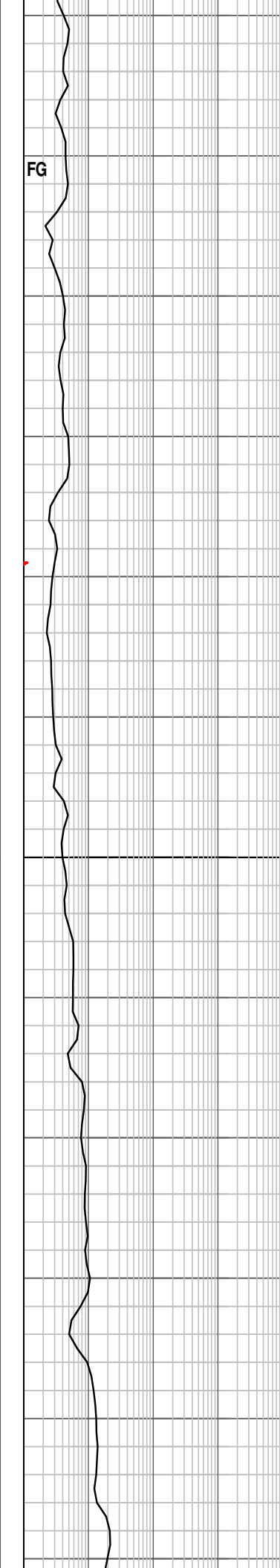
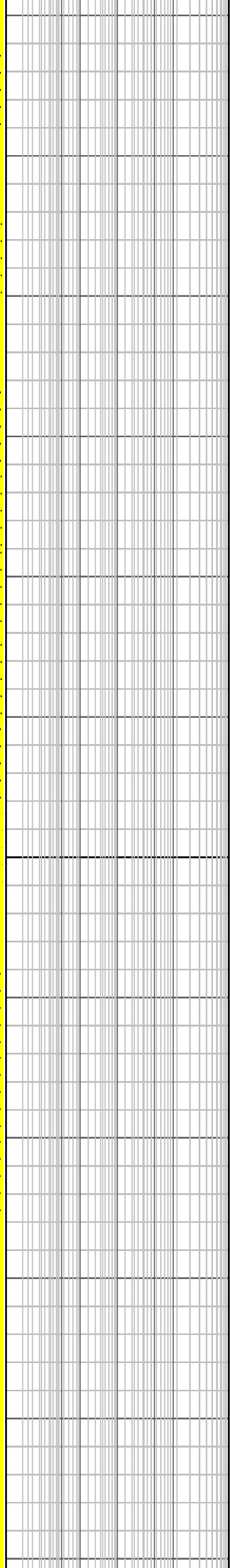
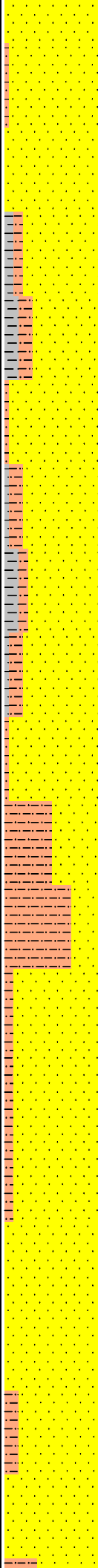
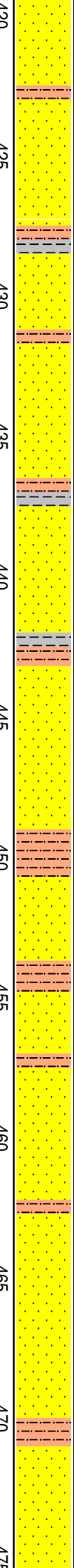








420  
425  
430  
435  
440  
445  
450  
455  
460  
465  
470  
475



SILTSTONE: pl olv-lt brn, frm, blky, loc aren, v f biot/carb flks(?)

GLAUCONITIC SANDSTONE: trnsl-pl gn, qtz, fspr & musc, m, sbang, wl srted, disag w/ r wkly cmted agg, mod-strngly glauc, mod inf por, n fluor

CLAYSTONE: lt brn, sft amor, sli calc

SILTSTONE: pl olv-lt brn, frm, blky, loc aren, v f biot & musc

SANDSTONE: clr-trnsl-milky wht-gysh yel-pl gn, qtz, fspr, m, ang-subang, wl srted, loc mod glauc, disag, tr nod pyr, mod inf por, n fluor

SILTSTONE: pl olv-lt brn, frm, blky, loc aren, v f biot & musc

SANDSTONE: clr-trnsl-milky wht-gysh yel-pl gn, qtz, fspr, f-v crs, ang-subang, pr srted, loc mod glauc, disag, mod inf por, n fluor

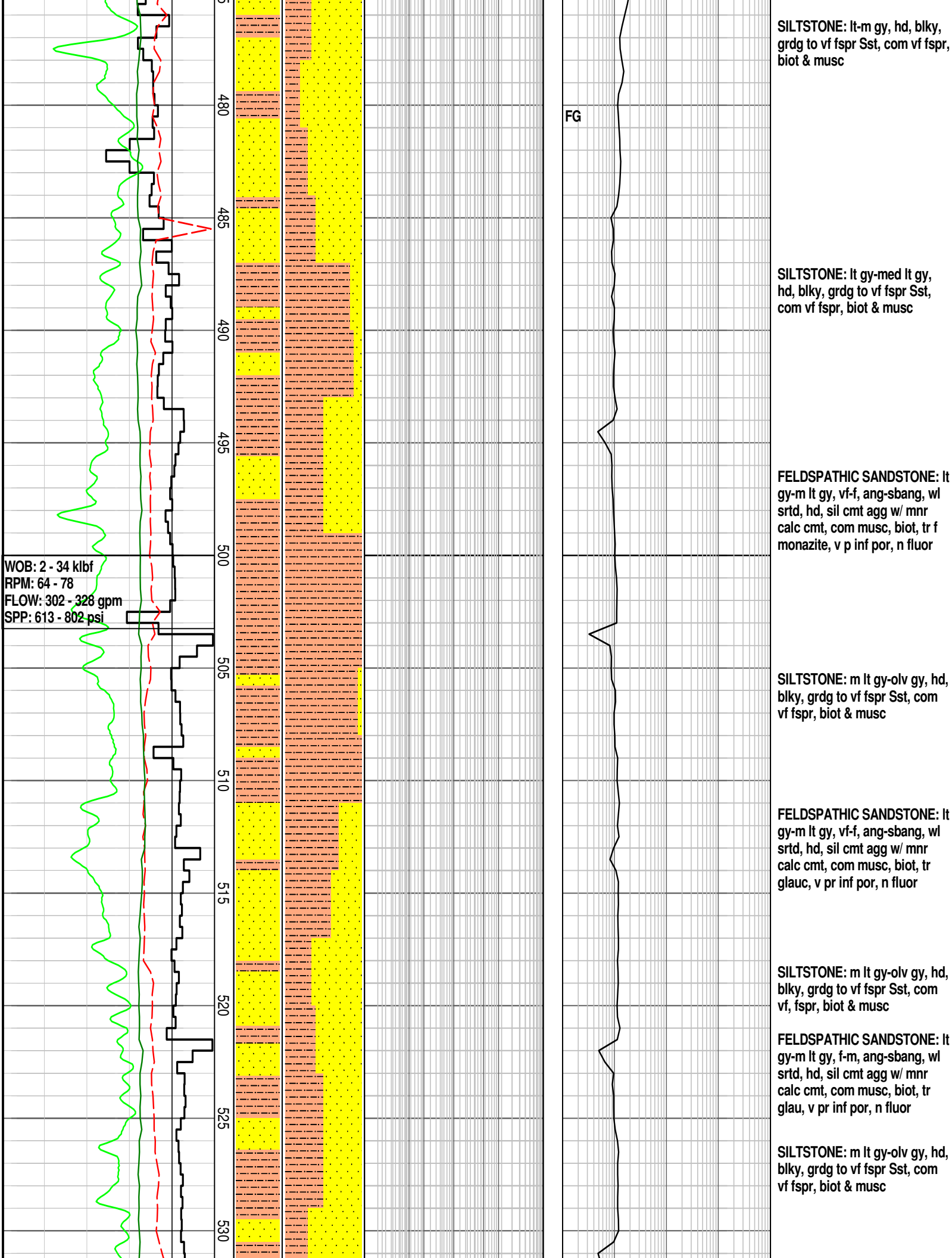
SILTSTONE: lt gy, frm, blky, grdg to vf Sst, com vf, fspr, biot & musc

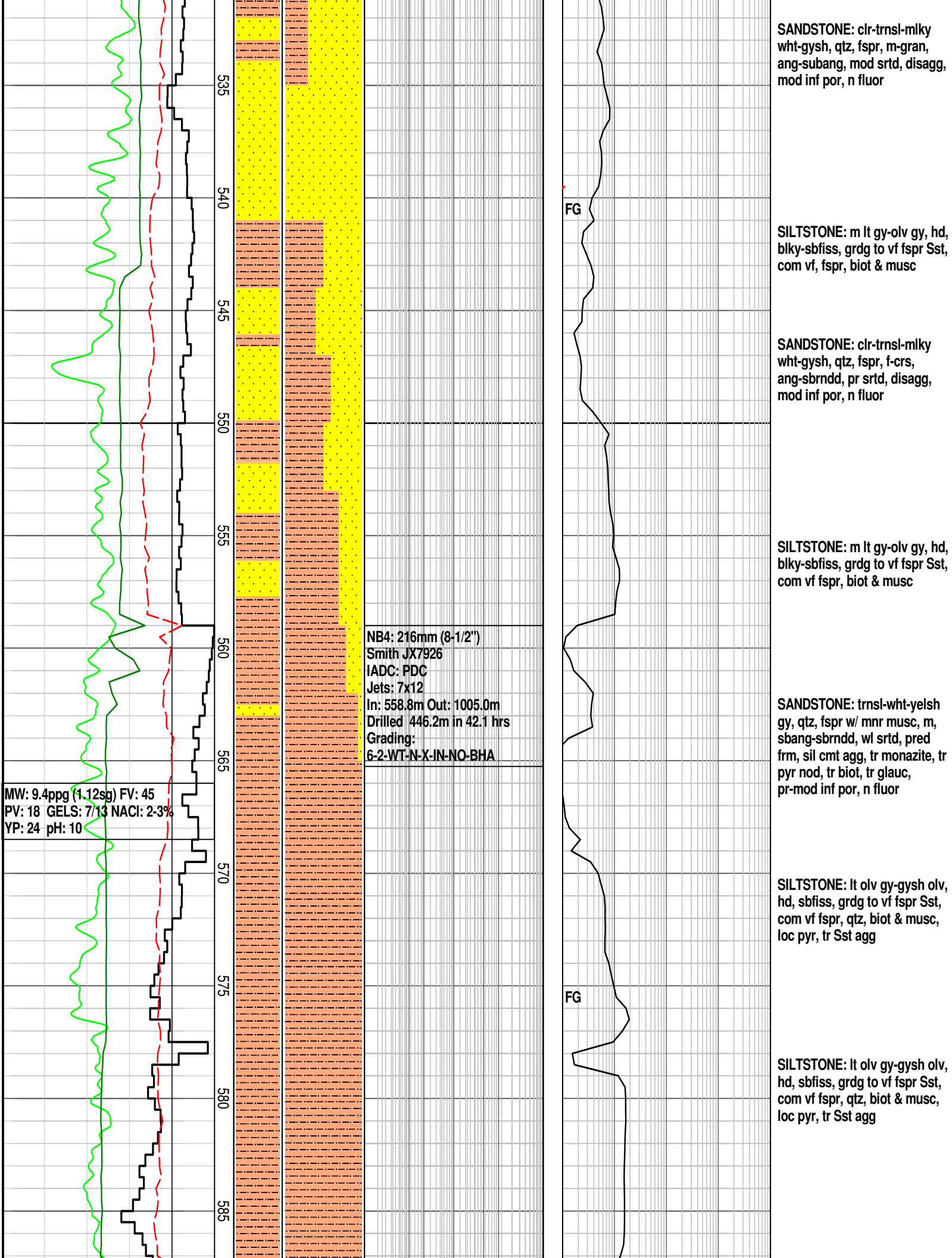
MICACEOUS SANDSTONE: clr-trnsl-milky wht-gysh yel-lt gy qtz, fspr, f-v crs, ang-sbang, wl srted, sil cmt, p inf por, n fluor

SANDSTONE: clr-trnsl-milky wht-gysh yel-pl gn, qtz, fspr, f-v crs, ang-subang, pr srted, loc mod glauc, com calc cmt, f sd agg, mod inf por, n fluor

MICACEOUS SANDSTONE: clr-trnsl-milky wht-gysh yel-lt gy qtz, fspr, musc & biot, vf-f, sbang-ang, wl srted, sil cmt agg, pr inf por, n fluor

MW: 9.1ppg (1.09sg) FV: 41  
PV: 19 GELS: 2/6 NACI: 2-3%  
YP: 17 pH: 10.5





WOB: 8 - 39 klbf  
RPM: 65 - 107  
FLOW: 272 - 456 gpm  
SPP: 407 - 1250 psi

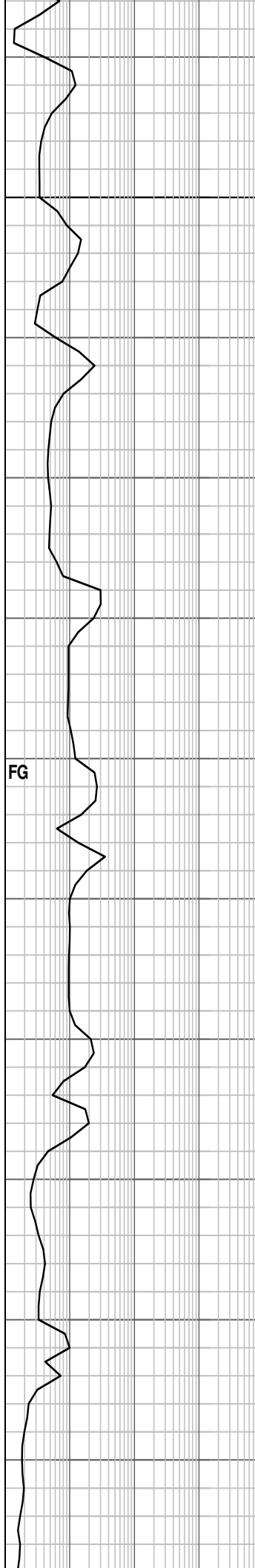
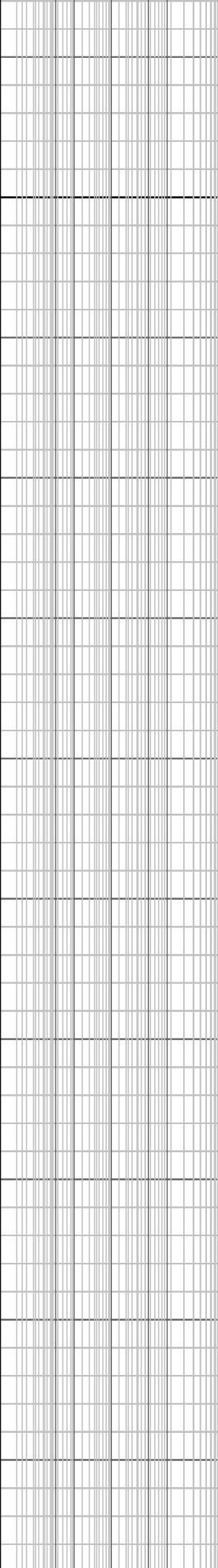
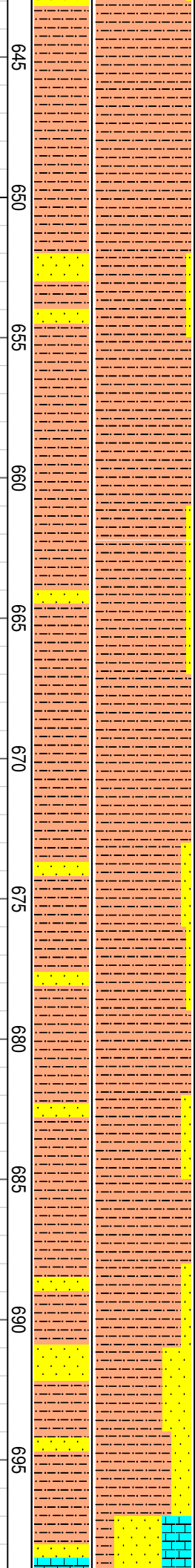
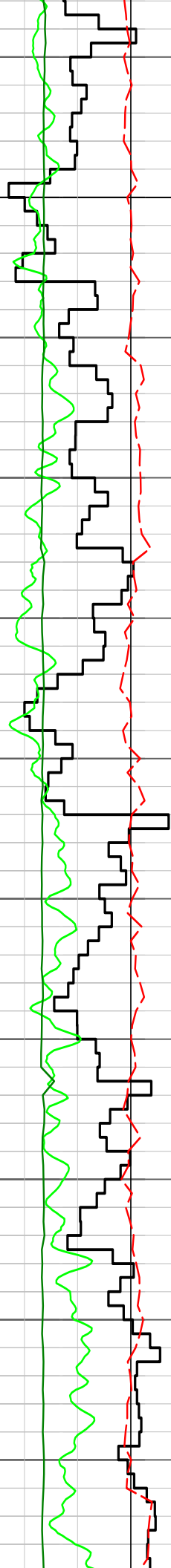
590  
595  
600  
605  
610  
615  
620  
625  
630  
635  
640

SANDSTONE: trnsl-wht-yelsh  
gy, qtz, fspr w/ mnr musc, f-m,  
sbang-sbrnodd, wl srtd, pred  
frm, sil cmt agg, tr monazite, tr  
pyr nod, tr biot, tr glauc,  
pr-mod inf por, n fluor

FG

SANDSTONE: trnsl-wht-yelsh  
gy, qtz, mnr fspr , f-crs,  
sbrnodd, pr srtd, disagg, tr pyr  
nod, pr-mod inf por, n fluor

SILTSTONE: lt olv gy-gysh olv,  
frm-hd, blk-y-sbfis, grdg to vf  
fspr Sst, pyr, com vf fspr, qtz,  
biot & musc



SILTSTONE: lt olv gy-gysh olv, frm-hd, blk-y-sbfis, grdg to vf fspr Sst, pyr, com vf fspr, qtz, biot & musc

SILTSTONE: lt olv gy-gysh olv, frm-hd, blk-y-sbfis, grdg to vf fspr Sst, pyr, com vf fspr, qtz, biot & musc, tr disagg m sd

SANDSTONE: trns-l-trnsp, wht-yel gy, qtz & fspr, f-gran, sbrndd, pr srted, disagg, tr pyr nod, mod inf por, n fluor

FG

SILTSTONE: lt olv gy-gy olv, hd, sbfis, grdg to v f-f qtz fspr Sst, pyr, com f fspr, qtz, biot & musc

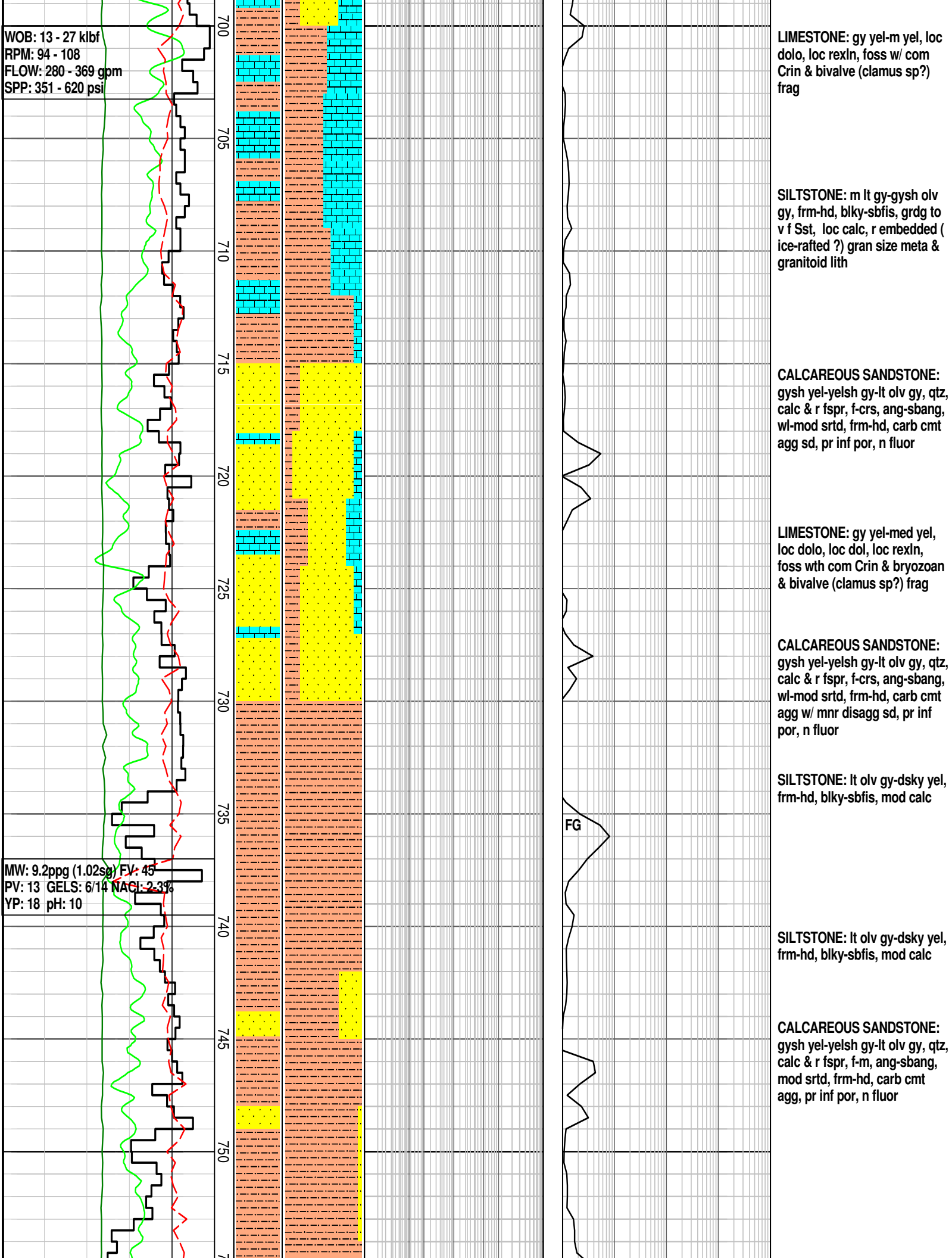
SILTSTONE: lt olv gy-gy olv, hd, sbfis, grdg to v f-f qtz fspr Sst, pyr, com v f fspr, qtz, biot & musc, gran sized qtz lith embedded in slt (glaciomarine, ice-rafted debris)

SANDSTONE: trns-l-trnsp, wht-yel gy, qtz & fspr, f-gran, ang-sbrndd, pr srted, disagg, com xln calc, mod inf por, n fluor

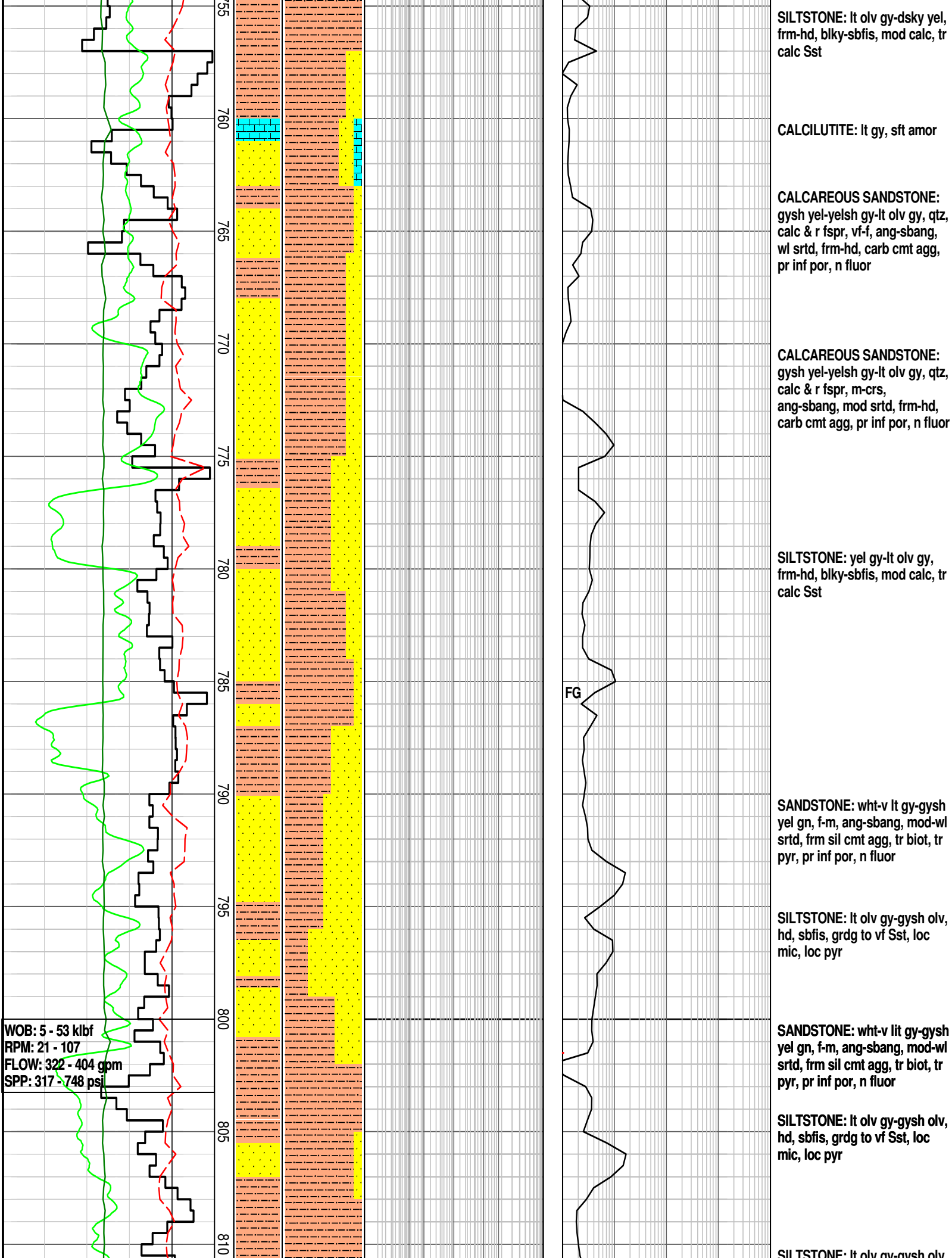


WOB: 13 - 27 klbf  
RPM: 94 - 108  
FLOW: 280 - 369 gpm  
SPP: 351 - 620 psi

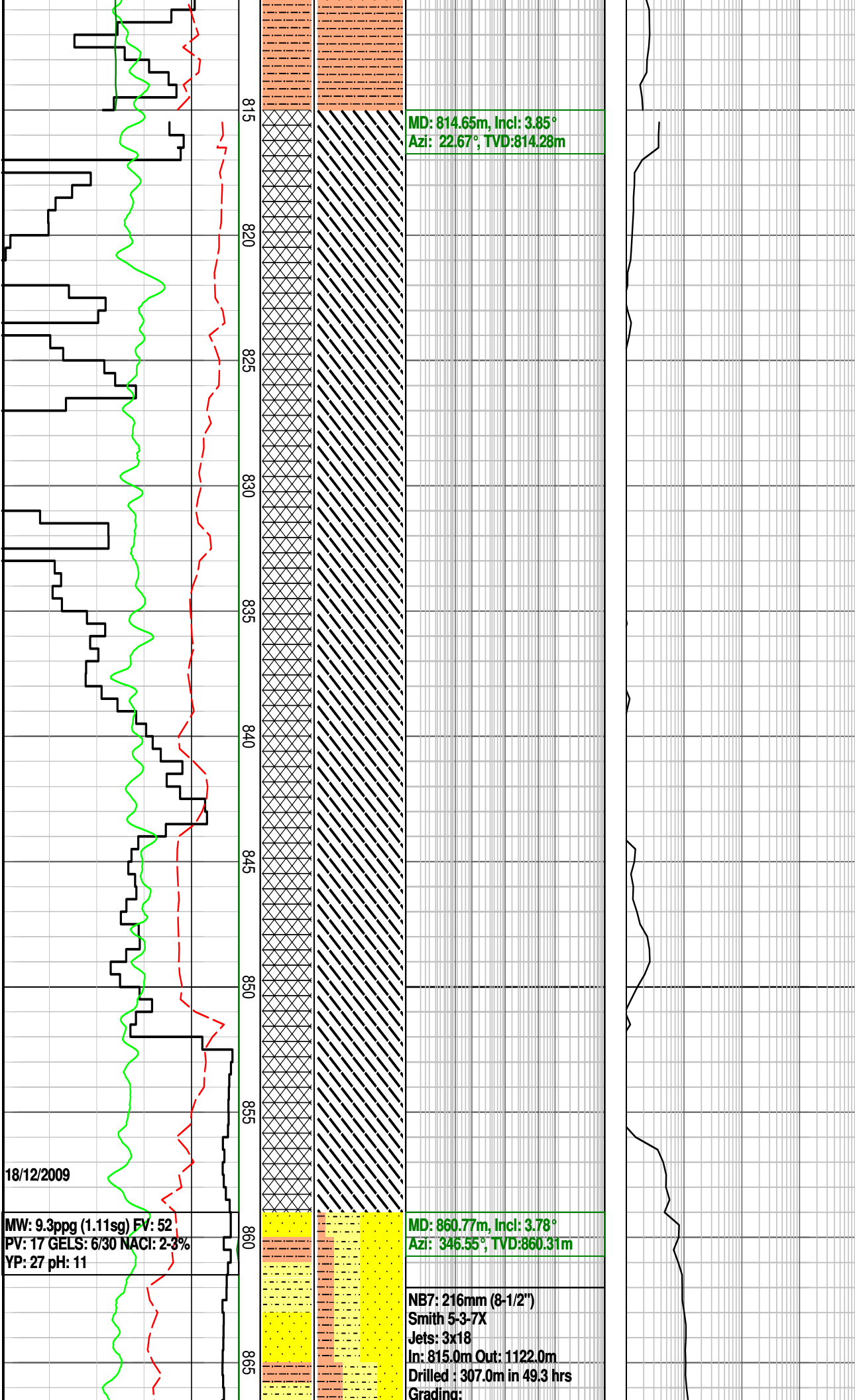
MW: 9.2ppg (1.02sg) FV: 45  
PV: 13 GELS: 6/14 NACL: 2.3%  
YP: 18 pH: 10







SANDSTONE: m gy-gy, vf-f, hd, sbfis, grdg to vf Sst, loc mic, loc pyr, tr qtz gran, tr Sst



MD: 814.65m, Incl: 3.85°  
Azi: 22.67°, TVD:814.28m

18/12/2009

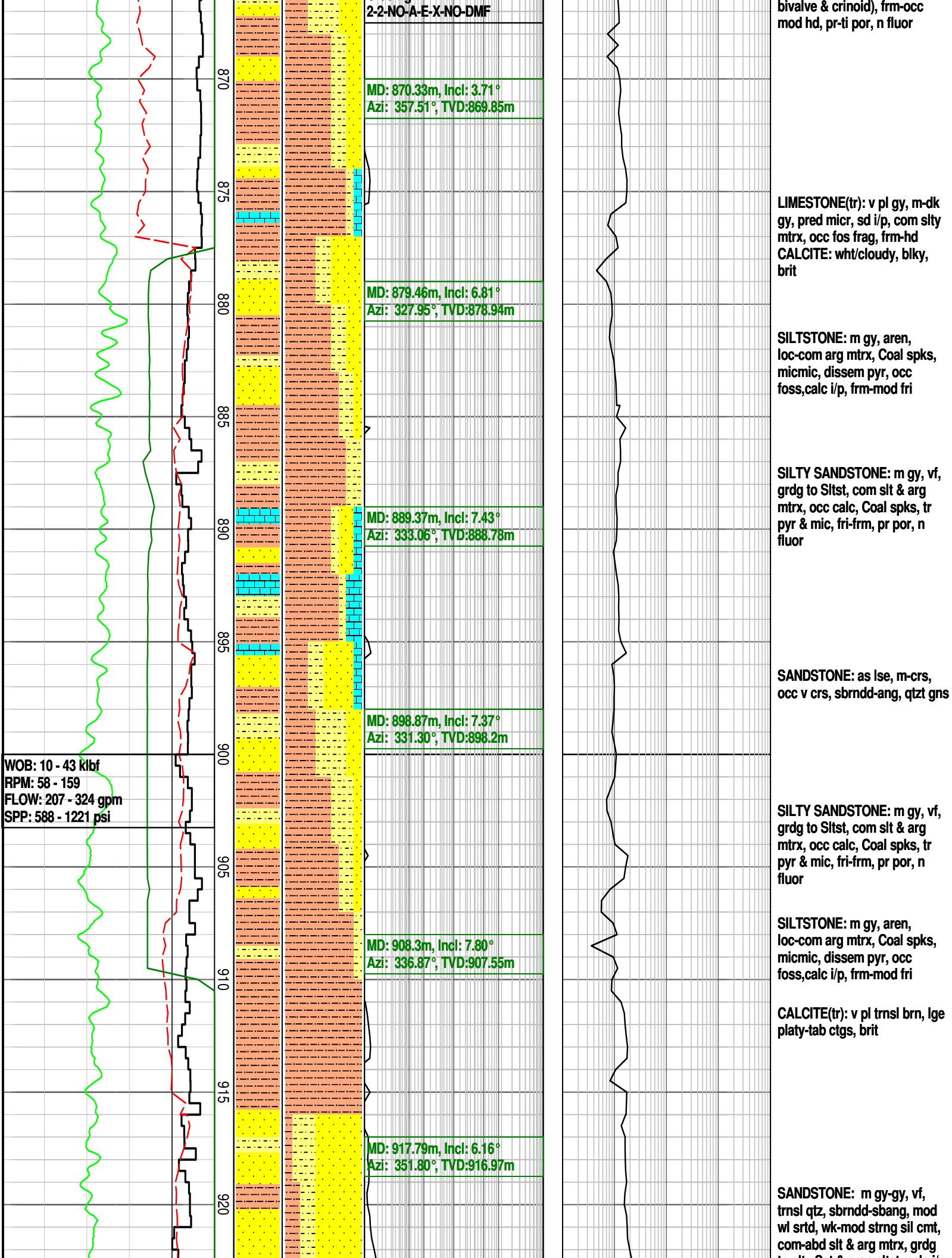
MW: 9.3ppg (1.11sg) FV: 52  
PV: 17 GELS: 6/30 NACI: 2-3%  
YP: 27 pH: 11

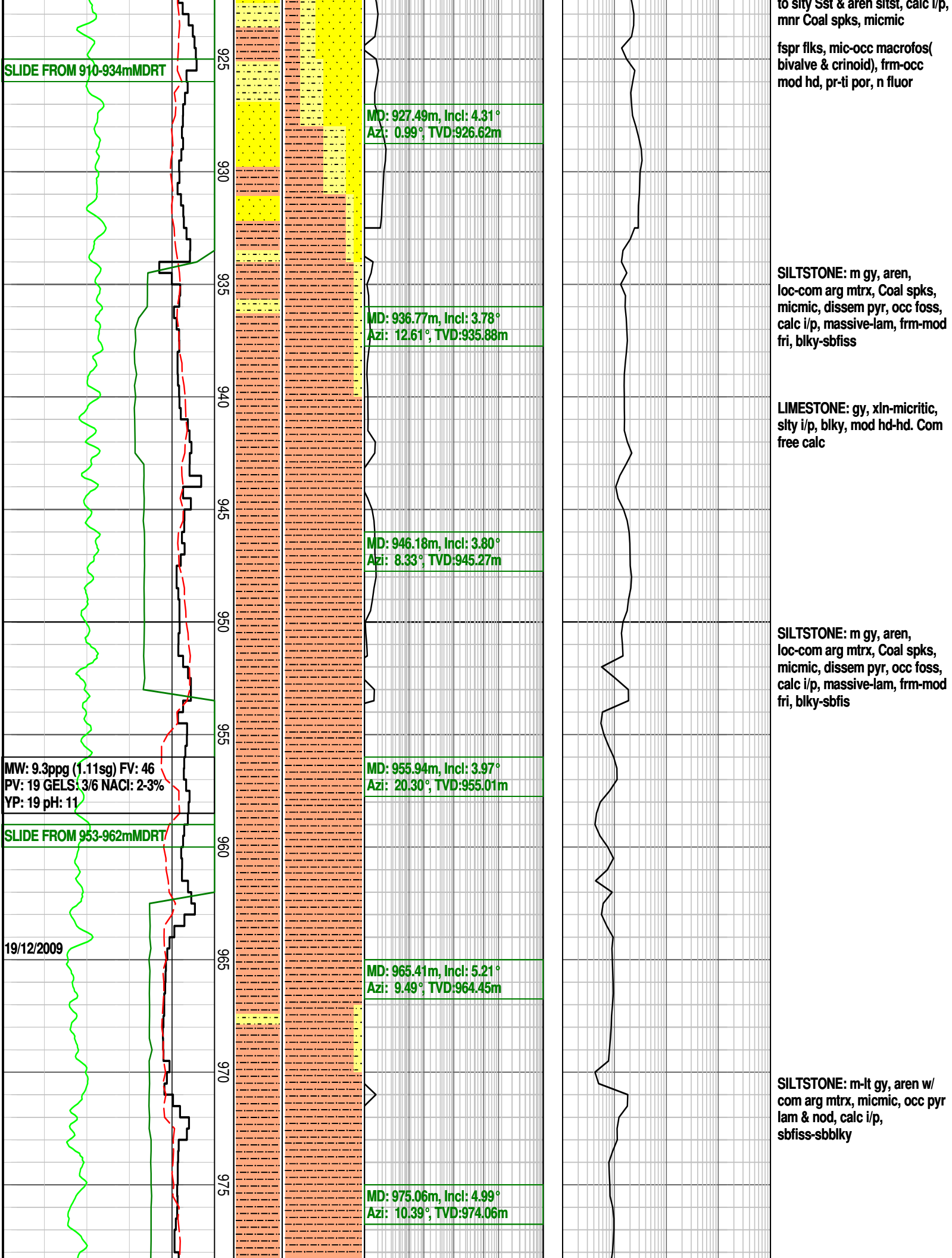
MD: 860.77m, Incl: 3.78°  
Azi: 346.55°, TVD:860.31m

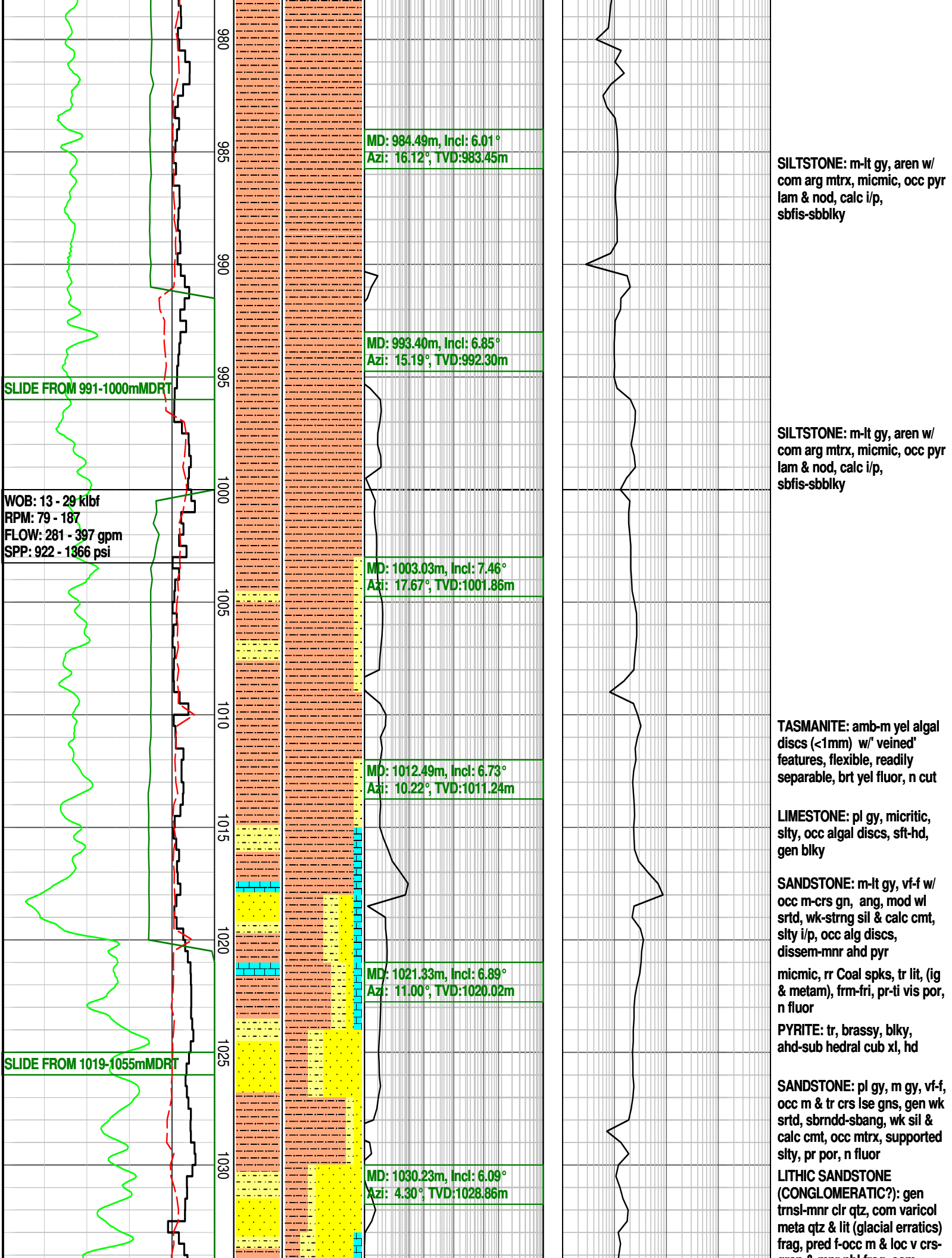
NB7: 216mm (8-1/2")  
Smith 5-3-7X  
Jets: 3x18  
In: 815.0m Out: 1122.0m  
Drilled : 307.0m in 49.3 hrs  
Grading:

Sidetrack WESTWOOD1 ST1  
@860.0m MDRT on 19 DEC  
2009 at 00:30 Hrs

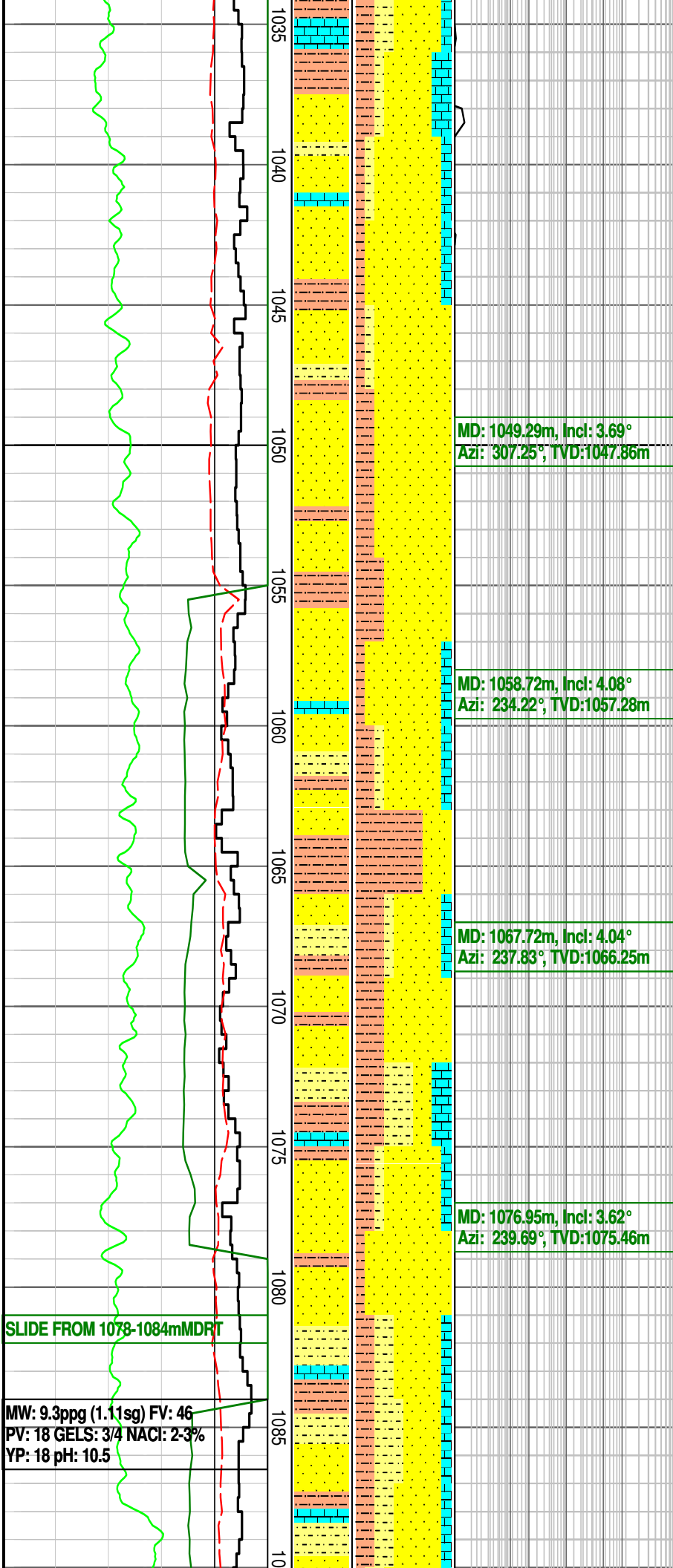
SANDSTONE: m gy-gy, vf-f,  
occ m, trnsi qtz, sbrndd-sbang,  
mod wl srtd, wk-mod strng sil  
cmt, com-abd slit & arg mtrx,  
grdg to slty Sst & aren sltst,  
calc i/p, mnr Coal spks,  
micmic  
fspr flks, mic-occ macrofos(











gran & mnfr pbl frag, com  
rddd-sbrnodd &  
& pit qtz gns, pr srted, disagg to  
mnfr agg w/ wk sil cmt, occ  
mtrx supported. Erratics  
include gns & frag of trnsf-op  
wht qtz, gy-gy brn qtz,  
metaqtz w/ com silicified &  
welded sd bas, or/pnk grt frag,  
gen disagg, pr por, n fluor

SILTSTONE: m-dk gy,  
arg-aren, com as sft & amor rk  
flour, com mic lit, tr pyr & mic,  
sbbkly- occ sbfis

SANDSTONE: pred pl trnsf gy  
gn, trnsf & occ clr qtz, vf-v crs,  
occ gran, rddd-sbang, elong  
i/p, prly srted, disagg, occ calc  
cmt, com frag of metamorphic  
& ig erratics, pr inf por,

SILTY SANDSTONE: m-dk gy,  
vf-f, com slt sz qtz gns, arg &  
com slty mtrx, mnfr carb? spks,  
tr pyr, micmic, lit, calc i/p,  
frm-mod fri, ti vis por, n fluor

SILTY SANDSTONE: m-dk gy,  
vf-f, com slt sz qtz gns, arg &  
com slty mtrx, mnfr carb? spks,  
tr pyr, micmic, lit, calc i/p,  
frm-mod fri, ti vis por, n fluor

LITHIC SANDSTONE: varicol,  
gen f-m, occ crs & loc pbl frag,  
trnsf-v pl gn, qtz, com-abd blk  
meta Sst, basalt, metam & ig  
gns, ang-sbrnodd, pr strd, gen  
dissagg, pr inf por, n fluor

20/12/2009

SLIDE FROM 1093-1102mMDRT

WOB: 11 - 25 kbf  
RPM: 80 - 173  
FLOW: 248 - 395 gpm  
SPP: 1024 - 1364 psi

SLIDE FROM 1112-1121mMDRT

MW: 9.3ppg (1.11sg) FV: 44  
PV: 19 GELS: 3/4 NACI: 2-3%  
YP: 16 pH: 10.5

10m DEPTH CORRECTED AFTER  
BIT TRIP

SAMPLES FROM 1123.0mMDRT ARE  
10.0m DEPTH CORRECTED  
START RECORDING DATA F/1117m

SLIDE FROM 1127-1155mMDRT

90  
1095  
1100  
1105  
1110  
1115  
1120  
1125  
1130  
1135  
1140  
1145

MD: 1107.58m, Incl: 7.35°  
Azi: 314.52°, TVD:1106.00m

carbide check at possum belly

MD: 1117.22m, Incl: 9.10°  
Azi: 319.84°, TVD:1115.54m

NB8: 216mm (8-1/2")  
Smith PJ4480  
Jets: 3x18  
In: 1112.0m Out: 1389.0m  
Drilled : 277.0m in 60.9 hrs  
Grading:  
3-2-NO-A-E-X-NO-DMF

MD: 1126.42m, Incl: 8.71°  
Azi: 317.80°, TVD:1124.63m

MD: 1135.59m, Incl: 6.39°  
Azi: 314.77°, TVD:1133.72m

MD: 1144.80m, Incl: 3.29°  
Azi: 320.98°, TVD:1142.99m

SILTSTONE: m-dk gy,  
arg-aren, com as sft & amor rk  
flour, com mic lit, tr pyr & mic,  
sbbly- occ sbfis

META SILTSTONE: dk gy,  
aren, gen silicif, com mic on  
clvg surf, shaly, fis-sbfis,  
splnty i/p

META SILTY SANDSTONE:  
blk-v dk gy, vf, sbrndd-sbang,  
wl srtd, silicif agg, slty lam i/p,  
com calc cmt, blk-occ sb fis,  
n por , n fluor

LITHIC SANDSTONE: varicol,  
gen f-m, occ crs & loc pbl frag,  
trns-l-v pl gn, qtz, com-abd blk  
meta Sst, basalt, metam & ig  
gns, ang-sbrndd, pr strd, gen  
dissagg, pr inf por, n fluor

LIMESTONE: mott, m-lt gy, occ  
off wht, pred xln, slty i/p, mod  
hd-hd, blk

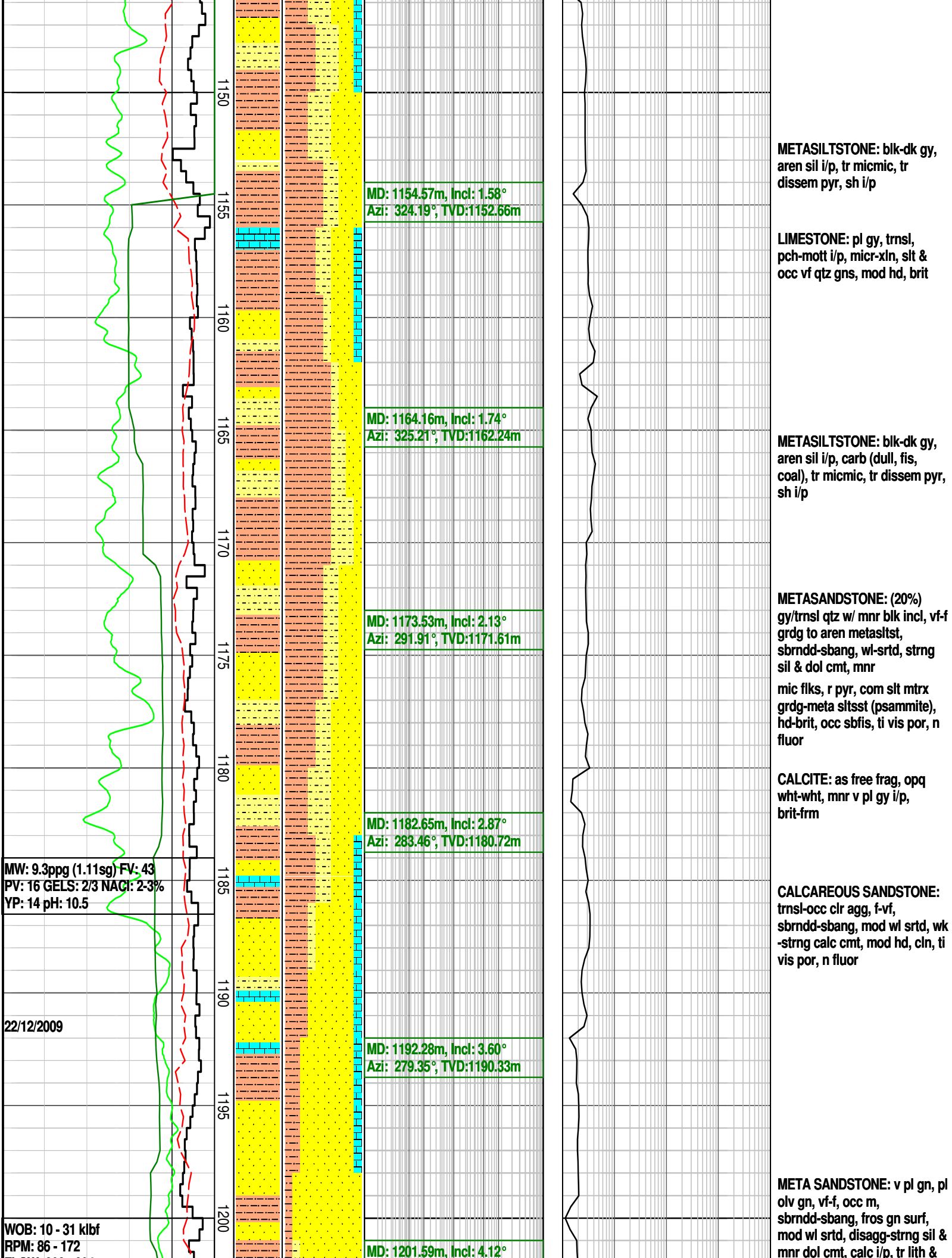
SANDSTONE: f-m, mod wl  
srtd, sbrndd-sbang,  
disagg-occ strng sil cmt, calc  
i/p, occ slt mtrx, pr inf por, no  
fluor

SILTY SANDSTONE: m-dk gy,  
f-vf grdg to aren Sltst, occ m,  
sbrndd-sbang, mod wl srtd,  
wk-mod strng calc cmt, com  
slty mtrx, tr micmic, mod fri, pr  
vis por, n fluor

META SILTSTONE: dk gy,  
aren, gen silicif, com mic on  
clvg surf, shaly, fis-sbfis,  
splnty i/p

META SANDSTONE: as above  
w/ 10% pbl frag, trns-l-wht qtz,  
n fluor





FLOW: 292 - 394 gpm  
SPP: 1138 - 1394 psi

Azi: 273.45°, TVD:1199.62m

pyr, mod hd, ti inf por, n fluor

SLIDE FROM 1207-1228mMDRT

META SILTY SANDSTONE: m  
brn-brnsh blk, vf grdg to sltst,  
silicif, micmic, calc i/p, brit-frn

MW: 9.3ppg (1.11sg) FV: 40  
PV: 17 GELS: 3/4 NACI: 2-3%  
YP: 16 pH: 10.5

MD: 1229.54m, Incl: 3.47°  
Azi: 189.10°, TVD:1227.57m

META SANDSTONE: pl gy gn,  
pl gn-trnsl wht qtz, vf-m, occ  
crs, tr gran & pbl frag, pr srted ,  
sbrn-dd-sbang, occ wl rnd,  
elong i/p, occ frosted gn surf,  
silicif agg w/ com ocld mtrx &  
mtrx & metallic sheen, occ blk  
liths, phyl slty lam i/p, gran-xln  
tex, hd-v hd, ti por, n fluor

MD: 1239.14m, Incl: 4.06°  
Azi: 188.67°, TVD:1237.09m

metallic sheen, occ blk liths,  
phyl slty lam i/p, gran-xln tex,  
hd-v hd, ti por, n fluor

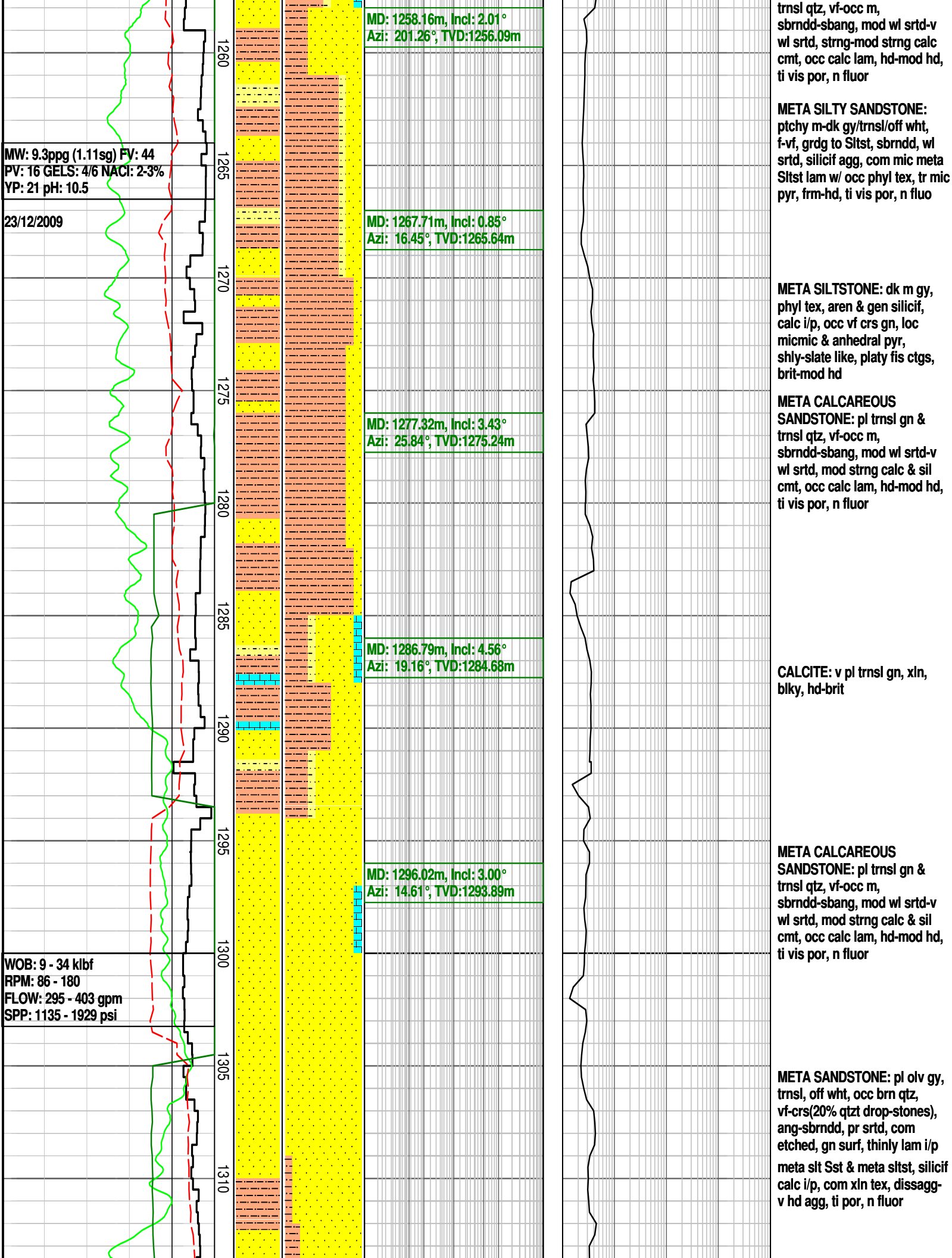
MD: 1248.68m, Incl: 3.92°  
Azi: 192.53°, TVD:1246.62m

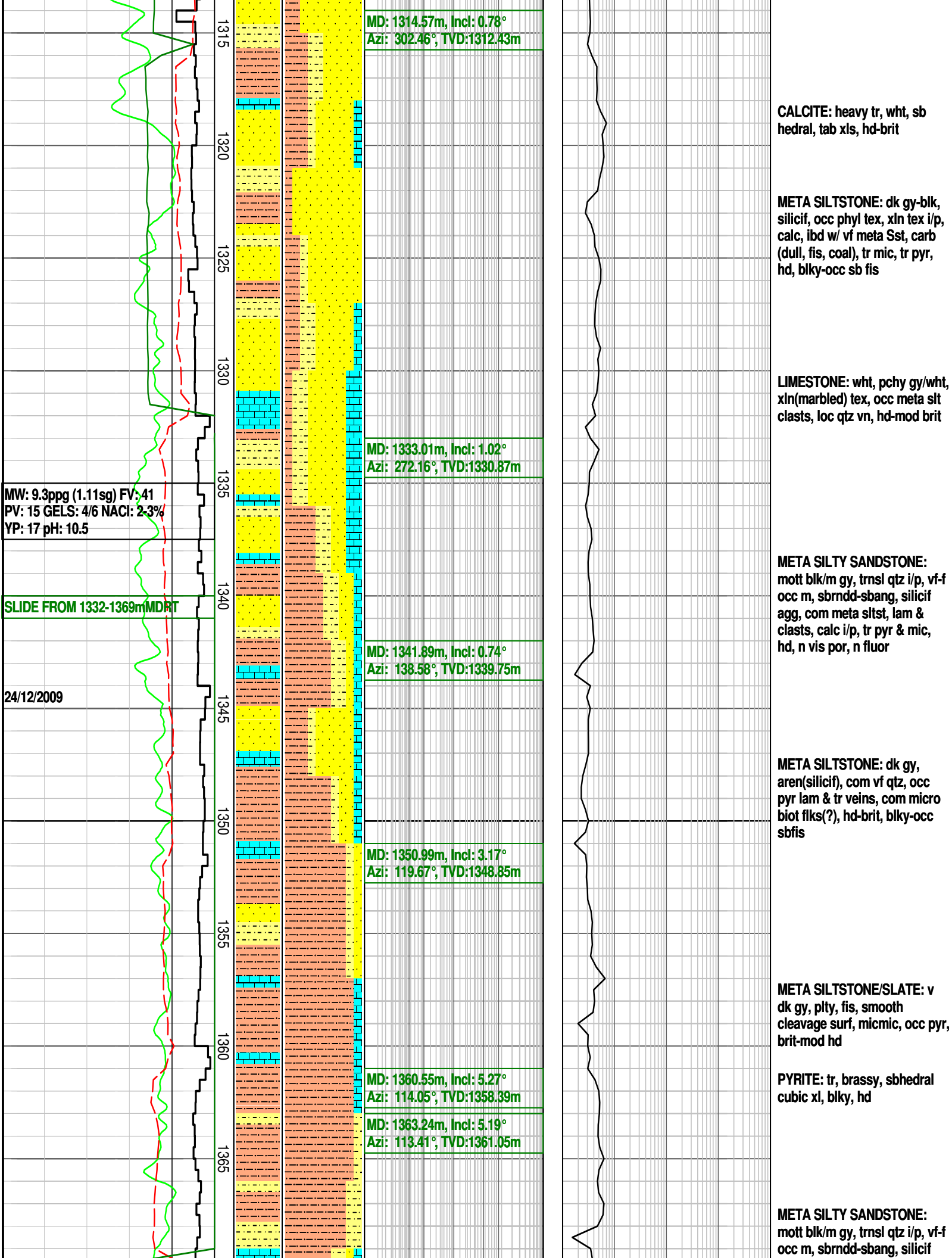
META SILTSTONE: dk m gy,  
phyl i/p, com mic lam, gen  
silicif, micmic, occ pyr, brit,  
hd, sbfis

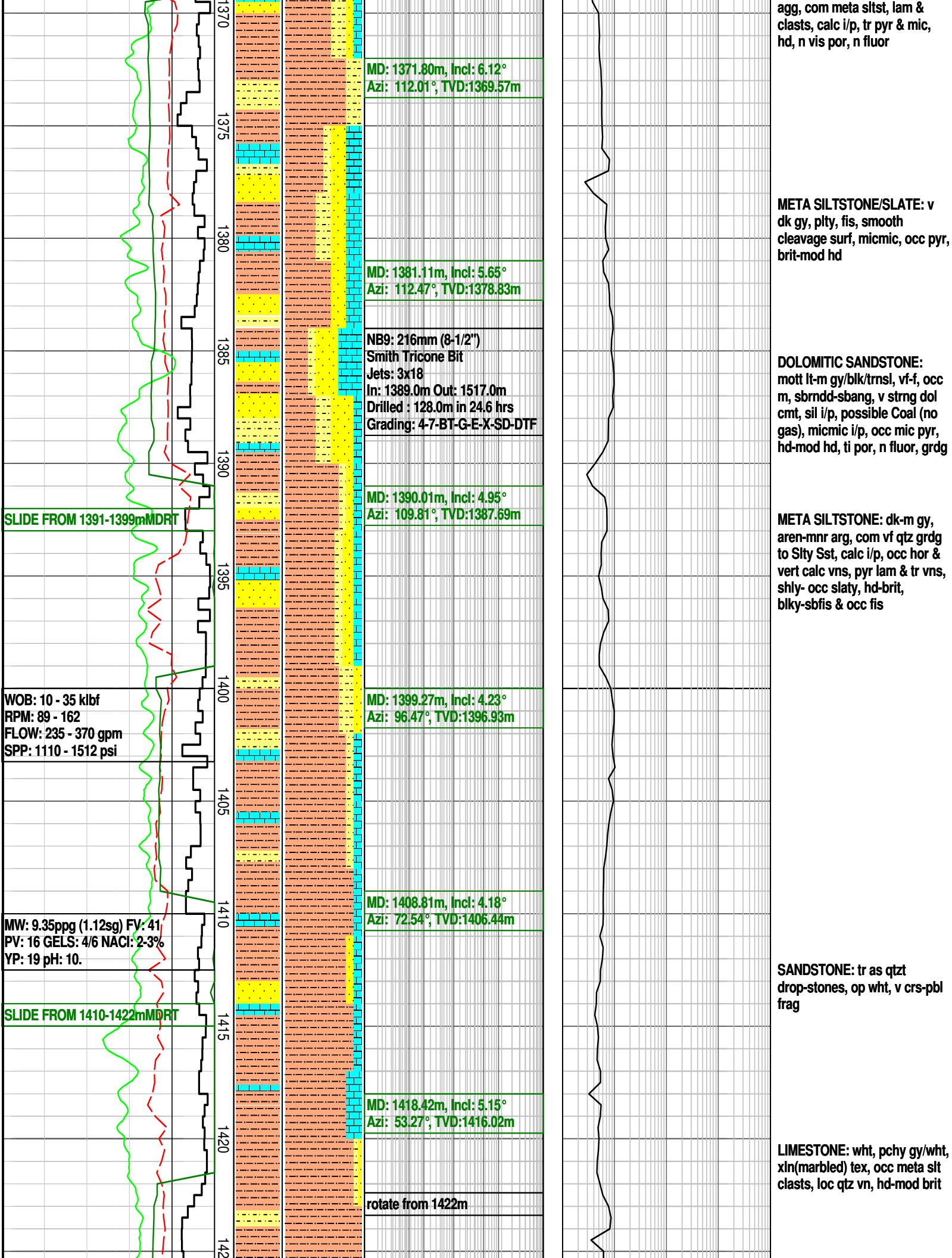
SLIDE FROM 1253-1280mMDRT

META SILTSTONE: dk m gy,  
phyl tex, aren & gen silicif,  
calc i/p, occ vf crs gn, loc  
micmic & anhedral pyr,  
shly-slate like, platy fis ctgs,  
brit-mod hd

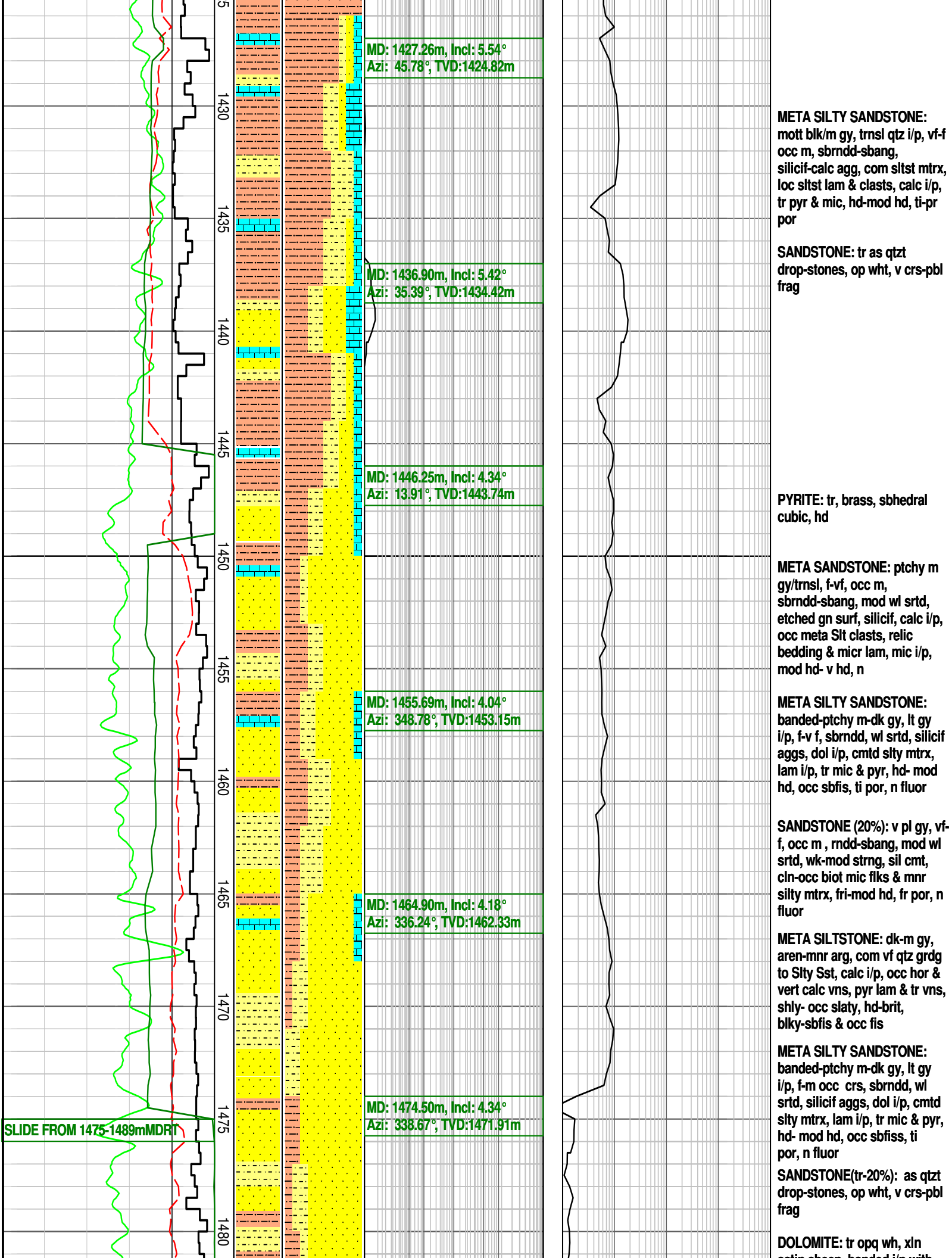
META CALCAREOUS  
SANDSTONE: pl trnsl gn &











satin sheen, banded i/p with  
Slt & v f Sst, blkly, v hd

**META SILTSTONE:** silver gy,  
metallic lustre, phyl, abd  
micmic on crenulated clvg  
surfs, occ vf Sltly Sst lam, plty,  
frm-brit, sb fis

**META SANDSTONE:** mott, lt  
gy/blk/trnsl, vf-m, gen f (occ  
crs qtz frags)-drop stones, pr  
srted, sbrndd-ang(bit  
fractured), etched gn surfs,  
silicif agg w/ xln & sucrosic

tex, loc relic slty mtrx grdg to  
Meta Sltly Sst, dl blk Coal flks(  
no gas), micmic i/p, hd, ti-n vis  
por, n fluor

**META SILTSTONE:** dk-m gy,  
aren-mnr arg, com vf qtz grdg  
to Sltly Sst, calc i/p, occ hor &  
vert calc vns, pyr lam & tr vns,  
shly- occ slaty, hd-brit,  
blkly-sbfis & occ fis

**CALCITE(tr):** wht, amor, hd-brit

**META SILTY SANDSTONE:**  
bndd-ptchly m-dk gy, lt gy i/p,  
f-m occ crs, sbrndd, wl srted,  
silicif aggs, dol i/p, cmted slty  
mtrx, lam i/p, tr mic & pyr, hd-  
mod hd, occ sbfiss, ti  
por, n fluor

**META SILTSTONE:** v dk gy,  
shly, smooth flat surf, phyl i/p  
w/ abd micmic, plty, splin,  
sbfis-fis

**META SANDSTONE:** lt-m gy &  
trnsl qtz, vf-f, occ m & loc crs-v  
crs qtz gn, sbrndd-sbang,  
mod wl srted, strng-wk sil cmt,  
occ silicif agg, fri-hd, fr-ti por,  
n fluor

**MICACEOUS SANDSTONE(Tr):**  
pl gy qtz, f-vf, rndd-sbang, wl  
srted, wk- no cmt, abd lge  
silvery brn biot flks, fri, gd inf

MD: 1483.85m, Incl: 4.80°  
Azi: 337.44°, TVD:1481.23m

MD: 1493.44m, Incl: 5.48°  
Azi: 326.78°, TVD:1490.78m

MD: 1500.78m, Incl: 5.36°  
Azi: 315.25°, TVD:1498.10m

MD: 1510.34m, Incl: 6.56°  
Azi: 295.48°, TVD:1507.61m

NB10: 216mm (8-1/2")  
Reed Insert R30APDH  
Jets: 3x18  
In: 1517.0m Out: 1604.0m  
Drilled : 87.0m in 18.4 hrs  
Grading:6-4-BT-G-E-X-SD-BHA

MD: 1519.95m, Incl: 8.6°  
Azi: 278.70°, TVD:1517.12m

MD: 1529.57m, Incl: 10.26°  
Azi: 268.54°, TVD:1526.62m

MW: 9.3ppg (1.11sg) FV: 40  
PV: 16 GELS: 4/6 NACI: 2-3%  
YP: 20 pH: 10.5

SLIDE FROM 1493-1504mMDRT

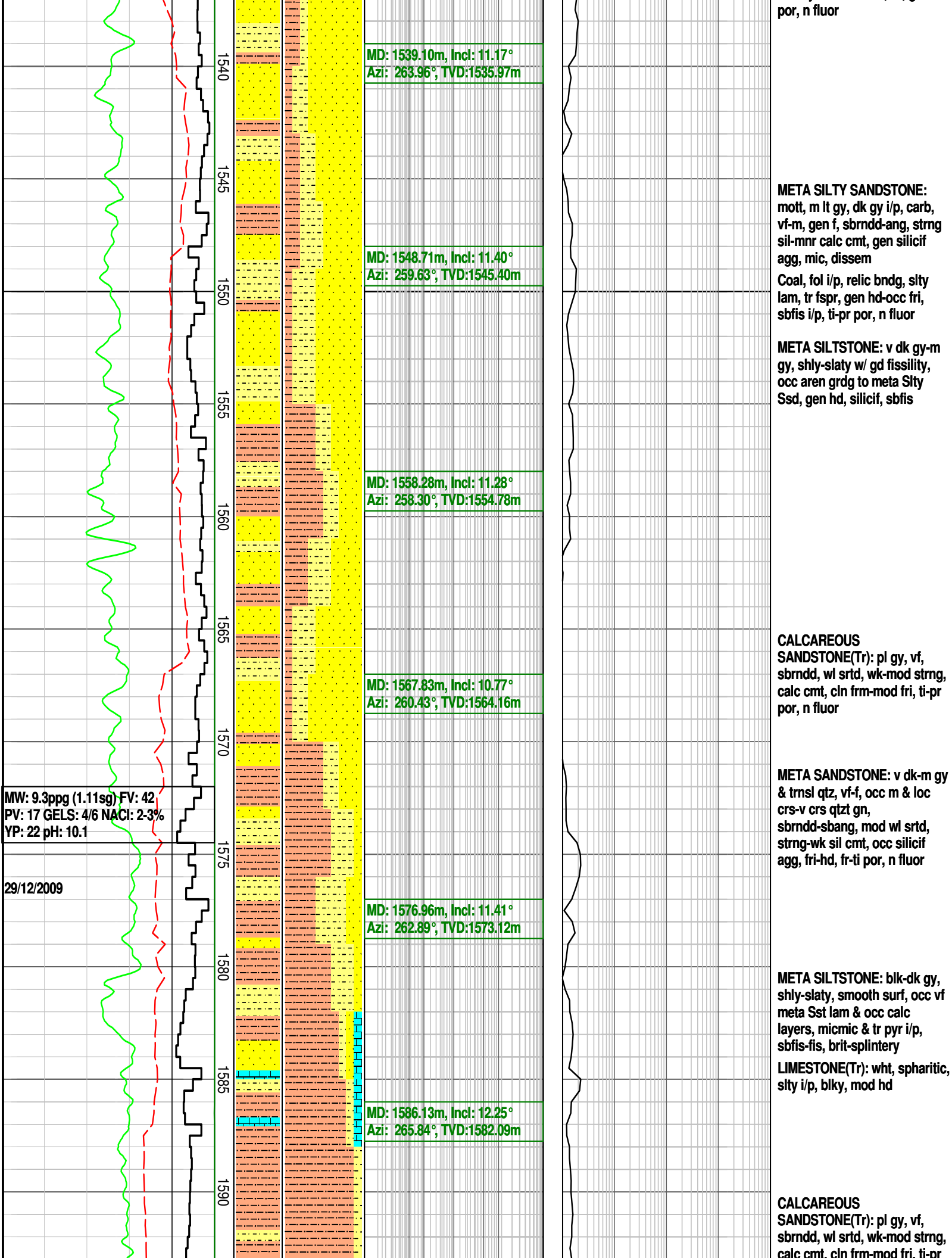
27/12/2009

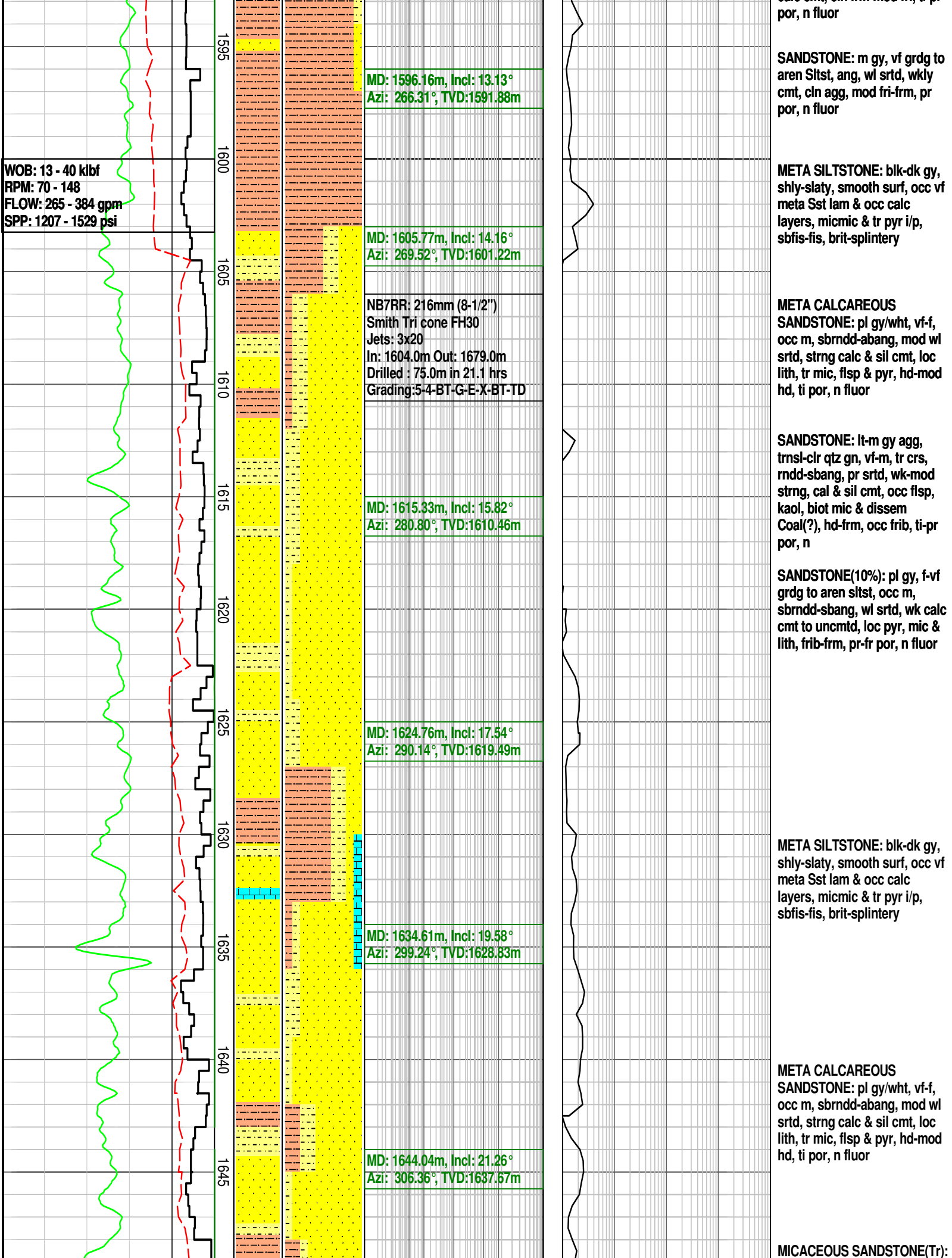
WOB: 12 - 35 klbf  
RPM: 81 - 169  
FLOW: 277 - 368 gpm  
SPP: 1006 - 1468 psi

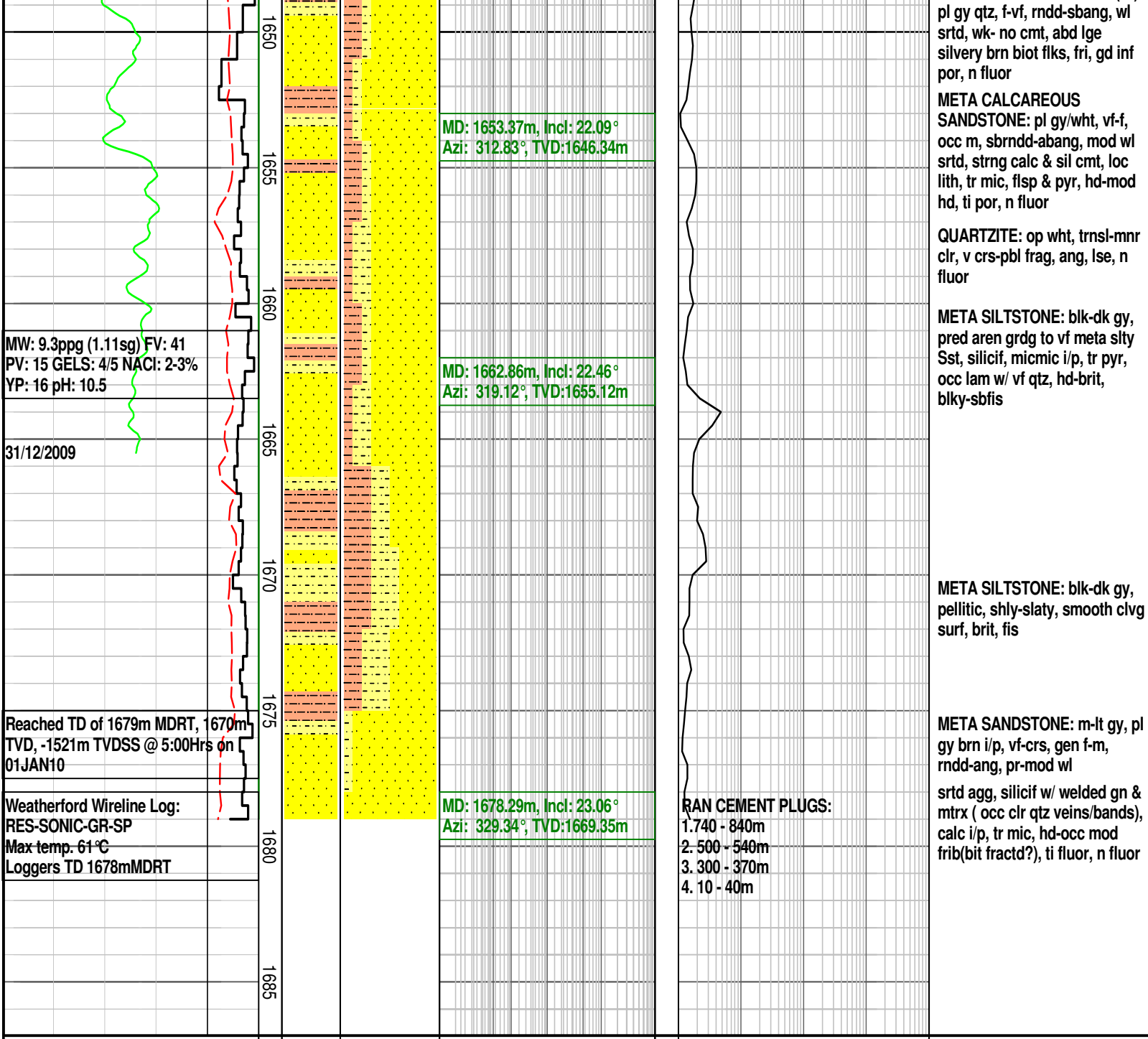
MW: 9.3ppg (1.11sg) FV: 41  
PV: 15 GELS: 4/6 NACI: 2-3%  
YP: 21 pH: 10.2

SLIDE FROM 1512-1625mMDRT









FORMATION EVALUATION LOG

