

FORMATION EVALUATION LOG

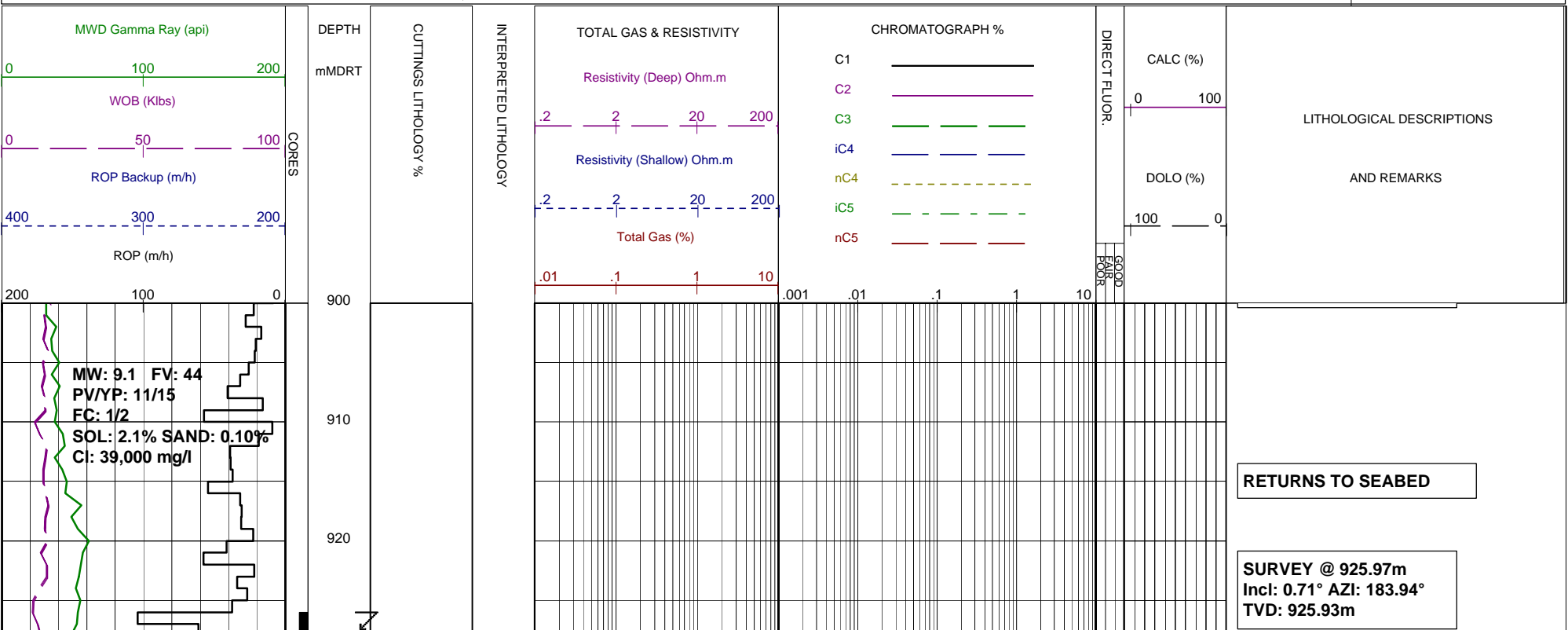
WELL : TREFOIL-2



FROM (m): 900 TO (m): 2340 SCALE: 1/ 500

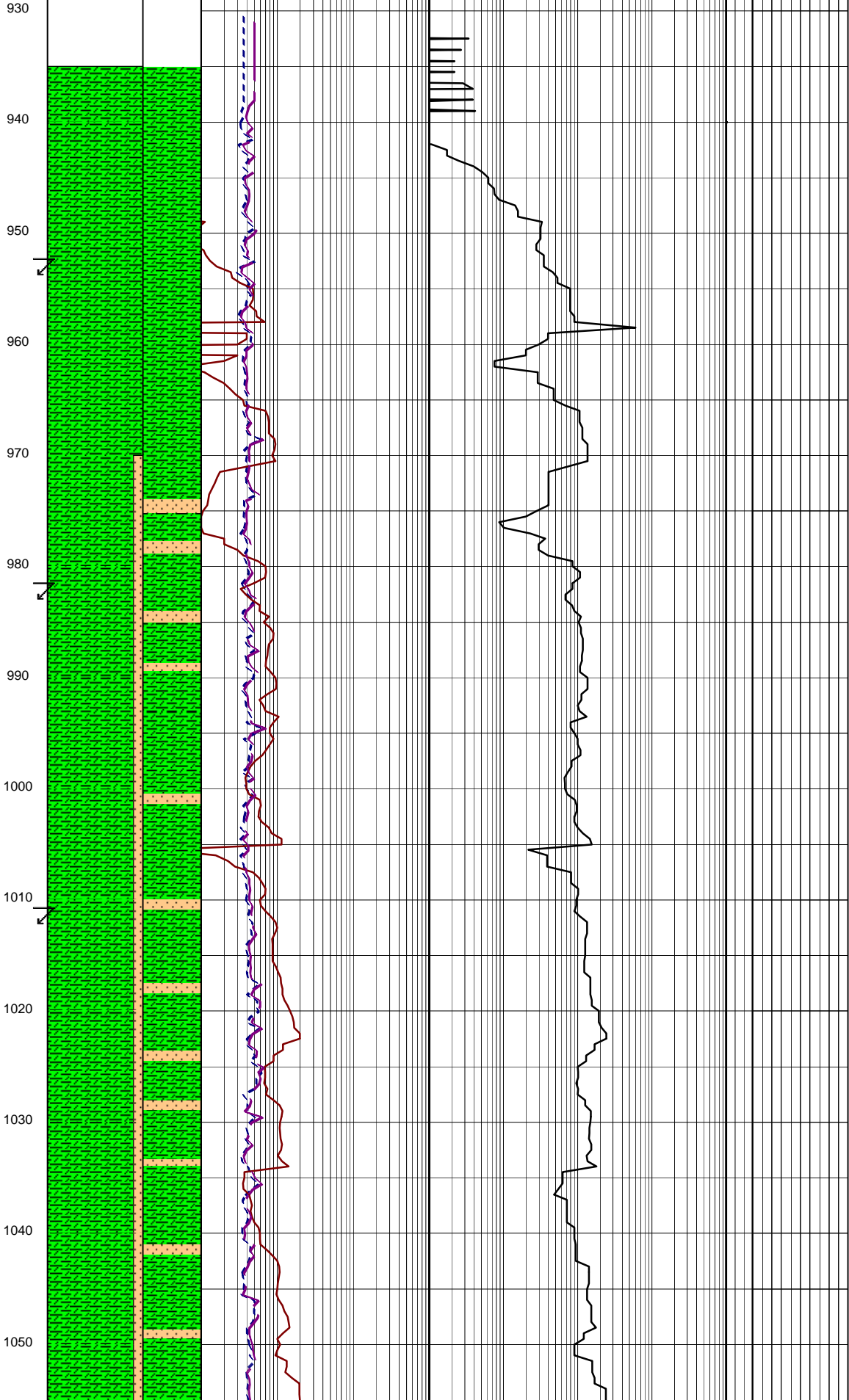
Country : Region : Field : Permit : Well Type : Rig Name :	AUSTRALIA TASMANIA TREFOIL T/18P APPRAISAL KAN TAN 4	Latitude : Longitude : X (m) : Y (m) : RT-Sealevel (m MSL) : RT-Seabed (m) :	: 39 53' 07.93" S : 145 22' 14.62" E : 360690.389 : 5583676.588 : 26 : 95	CASING SHOE SIZE / DEPTH 762mm (30") at (m MDRT) : 340mm (13 3/8") at (m MDRT) : 245mm (9 5/8") at (m MDRT) :	153.00 930.00 :	Spud Date : Total Depth Date : Total Depth (m MDRT) : Total Depth (m TVSS) : Status :	: 06-10-2009 : : : :
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ABBREVIATIONS		LITHOLOGY LEGEND				ENGINEERING	
MW MUD WEIGHT FV FUNNEL VISCOSITY PV PLASTIC VISCOSITY YP YIELD POINT FC FILTER CAKE SOL SOLIDS CR CIRCULATE RETURNS SD SAND - % S SALINITY - PPM RM MUD RESISTIVITY RMF MUD FILTRATE C CARBIDE TEST LAT LOGGED AFTER TRIP DS DEVIATION SURVEY	NB NEW BIT RR RERUN BIT CB CORE BIT WOB WEIGHT ON BIT RPM REVS PER MINUTE FLC FLOW CHECK WL FILTRATE PR POOR RETURNS NR NO RETURNS BG BACKGROUND GAS TG TRIP GAS STG SHORT TRIP GAS CG CONNECTION GAS SG SWAB GAS SVG SURVEY GAS	Dolomite Calcuridite Calcarenite Calcsiltite Calculutite Sandy claystone Silty claystone Calcareous Claystone Argil Calculutite	Claystone Siltstone Sandstone Coal Intrusive Volcanics Volcaniclastics tuff Cement	Argil Siltstone Sandy Siltstone Calcareous Siltstone Argil Sandstone Calcareous sandstone Dolomitic sandstone Silty sandstone	Calcareous Dolomitic Fossils Foraminiferae Carbonaceous Chert Pyrite Glauconite Mica	Test FIT or LOT Mud loss Mud gain Deviation survey Core Casing shoe Calcimetry	



0.5m DATABASE STARTED @ 938m
15-10-2009
BIT # 3: 311mm (12.25")
REED PDC RSX616M
JETS: 8x13
IN:935m OUT:2271m
RUN:1336m HRS:39.2
COND: 1-1-BT-N-X-I-CT-PP

WOB: 6-15 klbs
RPM: 119-259
GPM: 916-1120
SPP: 1788-2712 psi



340mm (13.375") CASING SHOE
SET @ 930m MDRT

445mm (17.5") SECTION TD
@ 935m MDRT @ 06:00hrs ON
10th OCTOBER 2009

DRILL AHEAD 311mm(12.25")
HOLE SECTION FROM 935m MDRT
@ 16:00HRS on 15th OCT 2009

CONDUCT LOT @ 930m
15.15ppg EMW.

CLAYSTONE:med gry,v sft-sft,
rr frm,amorph-sblky,tr bryz &
shell frgs,tr pyr,35% calc clay.

SURVEY @ 952.44m
Incl: 0.80° AZI: 188.49°
TVD: 952.40m

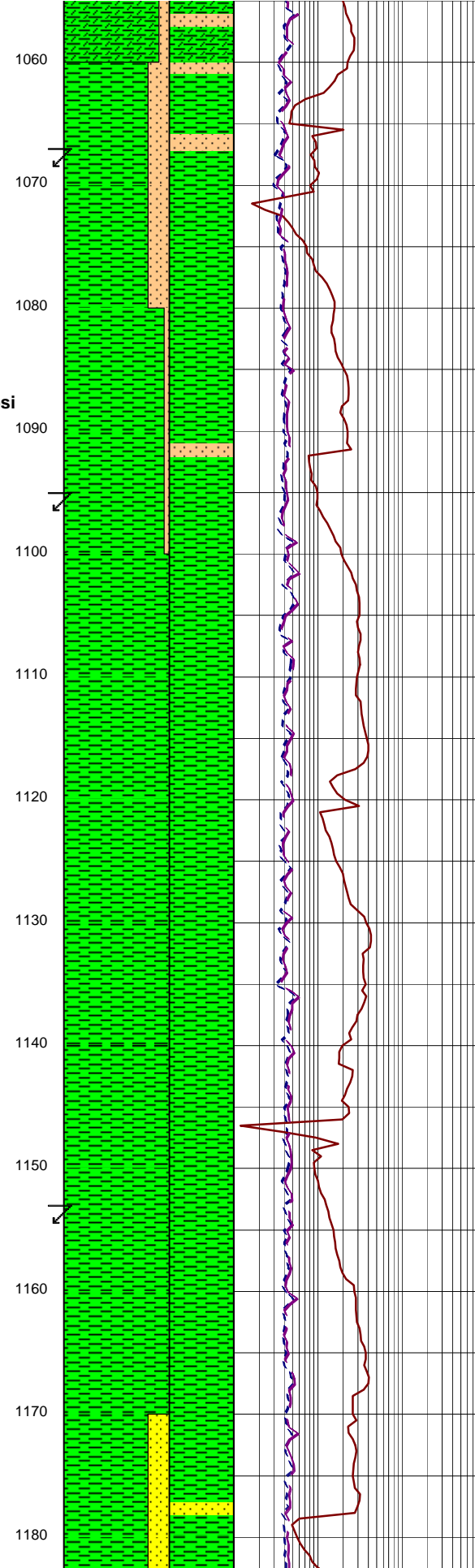
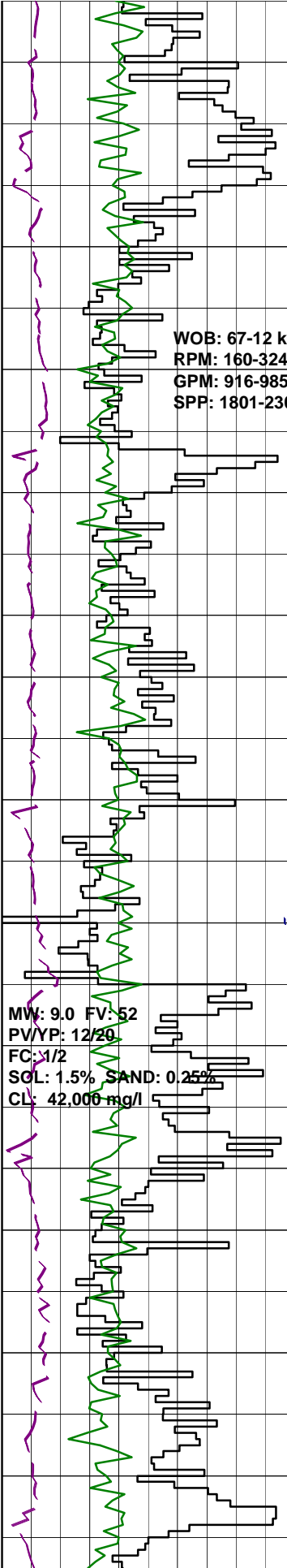
SILTSTONE:med dk gry,frm-
hd,ang-sbblky,tr byrz & foram,
tr shell frg,30% calc clay.

SURVEY @ 981.35m
Incl: 0.71° AZI: 192.99°
TVD: 981.31m

SURVEY @ 1010.2m
Incl: 0.83° AZI: 198.72°
TVD: 1010.16m

CLAYSTONE:med-occ lt gry,sft-
occ frm,amorph-sblky,mnr
micmic,tr bryz,tr forams,tr
shell frg,30% calc.

CLAYSTONE:med-occ lt gry,sft-
occ frm,amorph-sblky,mnr
micmic,tr bryz,tr forams,tr
shell frg,30% calc.



SURVEY @ 1067.16m
Incl: 0.87° AZI: 190.96°
TVD: 1067.16m

CALCAREOUS CLAYSTONE:med-dk gry,
sft-frm,blky-sbblky,tr micmic,foss
frags,forams,10% calc cly.

SURVEY @ 1095.87m
Incl: 0.84° AZI: 194.49°
TVD: 1095.82m

CLAYSTONE:med- dk gry,sft-frm,
sbblky-blky,tr micmic,shell frags,
corals,tr vf pyr aggs,10% calc cly.

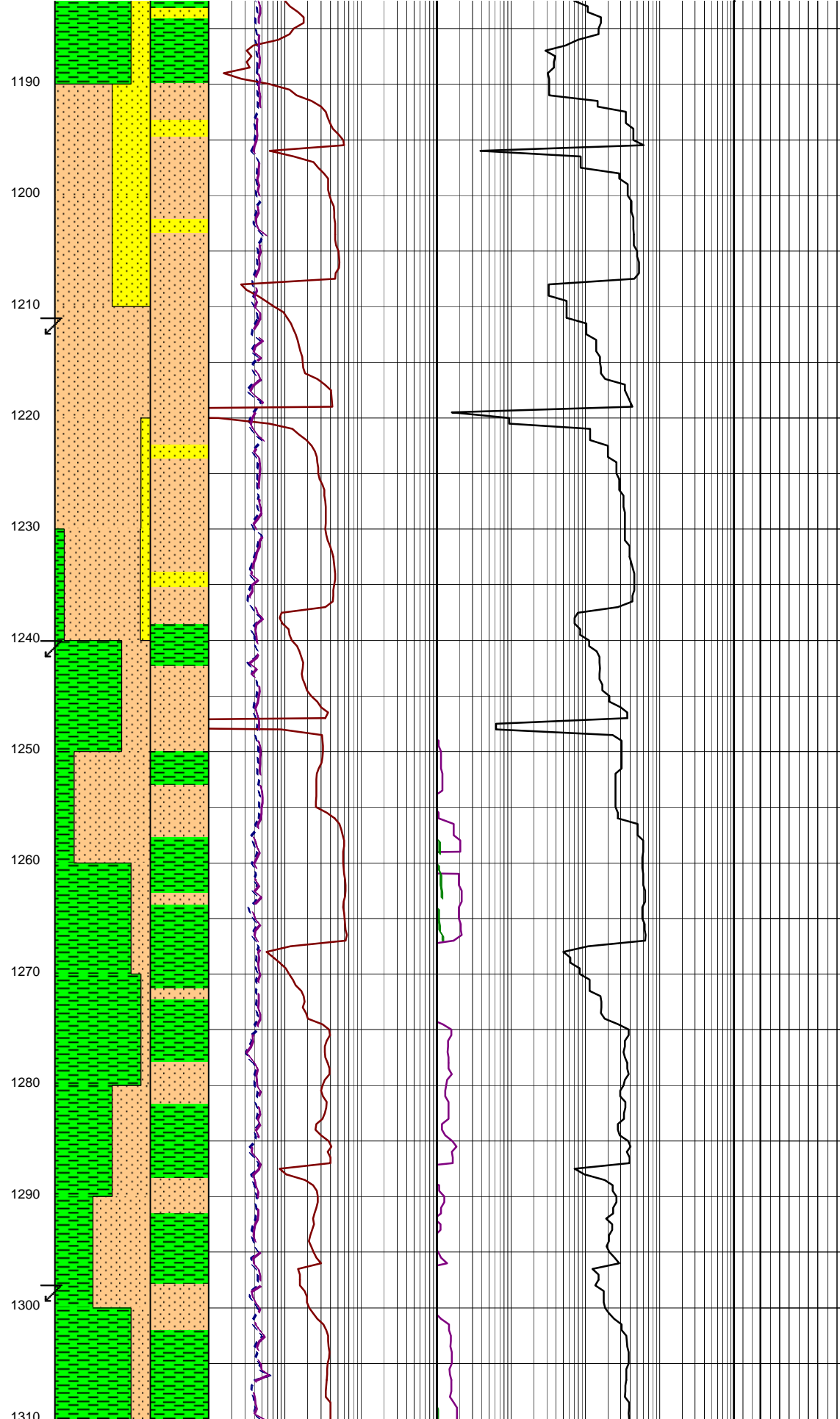
SURVEY @ 1153.51m
Incl: 1.11° AZI: 191.81°
TVD: 1153.45m

CLAYSTONE:med-dk gry,olv gry,
sft-frm,sbblky-blky,tr micmic,shell
frags,5% calc cly.

CLAYSTONE:olv gry,drk grn/gry,
sft-frm,sbblky-blky,tr grd to sbfiss,
tr vfg pyg as repl,tr shell frags,
tr micmic,5% calc cly.

WOB: 6-10 klbs
RPM: 109-238
GPM: 977-992
SPP: 2304-2322 psi

WOB: 1-12klbs
RPM: 236-256
GPM: 998-1008
SPP: 2323-2304psi



SURVEY @ 1152.36m
Incl: 1.27° AZI: 187.06°
TVD: 1182.29m

SANDSTONE:lt olv gry,med gry,v sft-fri,vf grns,sbang-sbrnd,wl srt,sph-sbsph,tr lith frags,10% pr calc cmt,gd vis por,no fluor.

SURVEY @ 1211.30m
Incl: 0.97° AZI: 182.631°
TVD: 1211.23m

SILTSTONE:med gry,med-lt gry,sft,sbblky,tr carb lam,tr lith frags,tr calc cly.

SANDSTONE:lt olv gry,med gry,v sft-fri aggs,vf grns,sbang-sbrnd,wl srt,sph-sbsph,tr lith frags,10% pr calc cmt,gd vis por,no fluor.

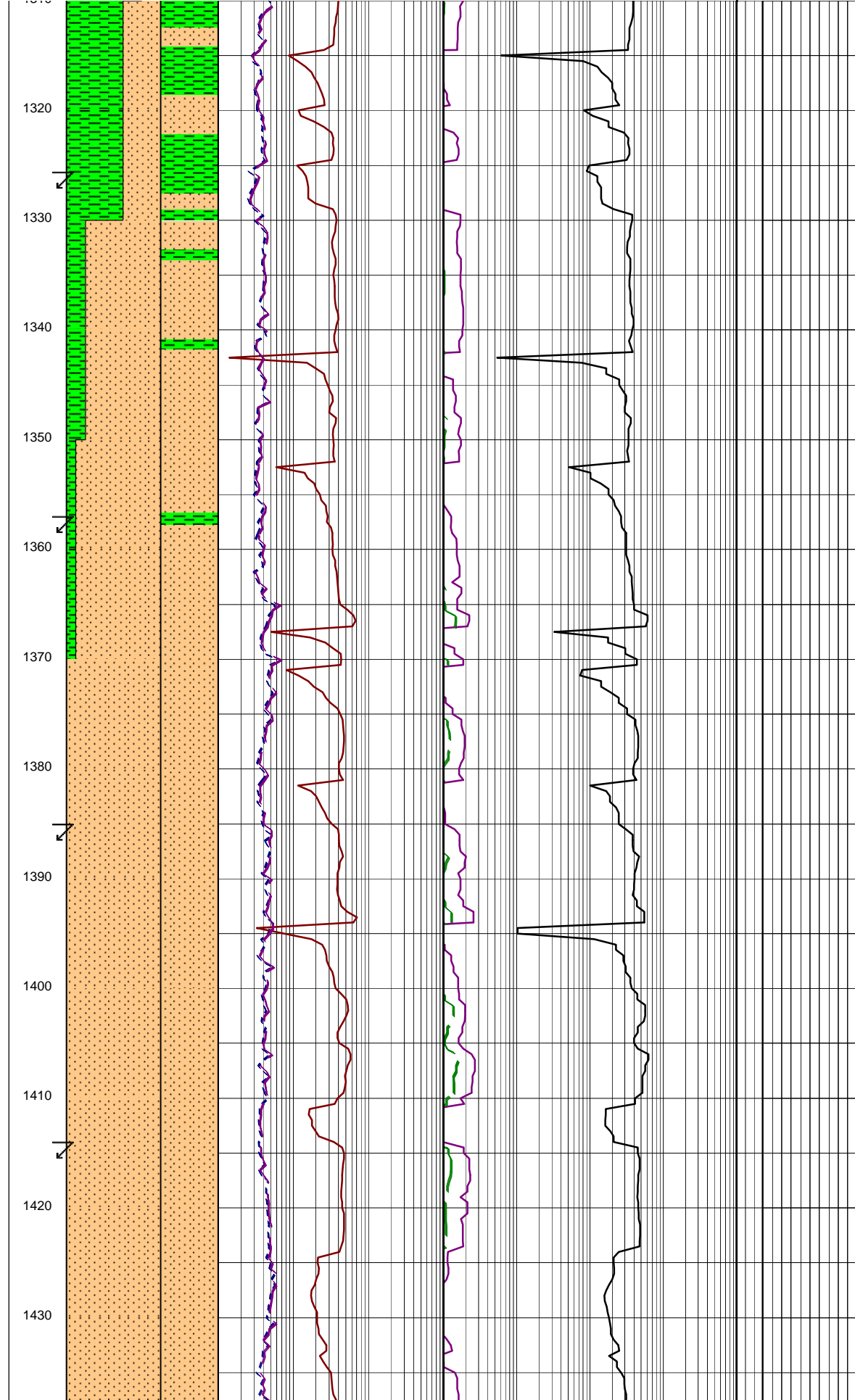
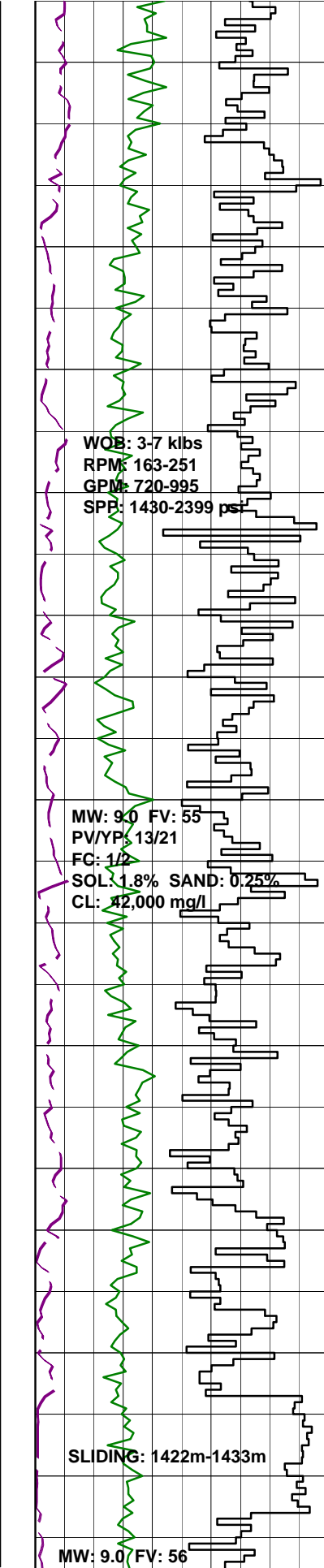
SURVEY @ 1240.32m
Incl: 1.00° AZI: 184.76°
TVD: 1240.24m

CLAYSTONE:olv gry,sft-frm,sbblky-blky,tr shell frags,lith frags,forams,5% calc cly,10% cly.

SURVEY @ 1298.71m
Incl: 1.13° AZI: 178.12°
TVD: 1298.62m

SILTSTONE:med gry,med-lt gry,sft-frm,sbblky,tr shell frags,lith frags,forams,5%calc clay,10% cly.

CLAYSTONE:olv gry,dk grn/gry,sft-frm,sbblky,tr forams,2% micmic,tr f grn pyr aggs,10% calc cly.



SILTSTONE: med gry, med-lt gry, sft-frm, sbblky, 1% shell frags, tr rd/brn, dol lmst, tr lith frags, forams, f grn pyr aggs, 5% calc cly, 10% cly.

SURVEY @ 1327.95m
Incl: 1.27° AZI: 184.82°
TVD: 1327.86m

SILTSTONE: olv gry, med-dk gry, sft-frm, sbblky-blky, tr alt lith frags, tr carb spks, tr vf disseminated pyr, tr glauc grns, 5% cly, 15% calc cly, grd to loc arg sltst.

SURVEY @ 1357.12m
Incl: 1.31° AZI: 184.97°
TVD: 1357.02m

SILTSTONE: olv gry, med-dk gry, sft-frm, sbblky-blky, tr lith frags, tr carb spks, tr vf disseminated pyr, tr glauc grns, 5% calc cly.

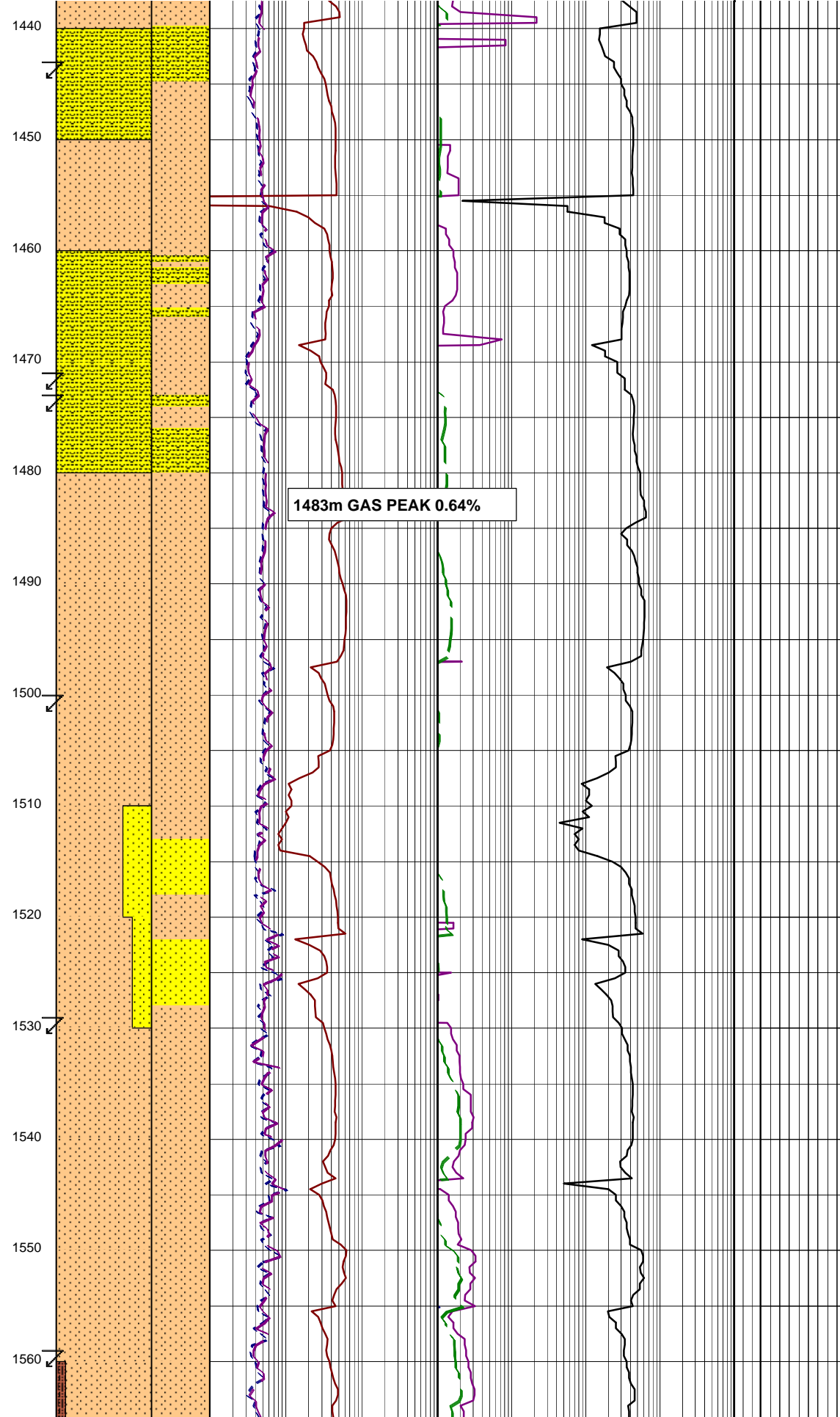
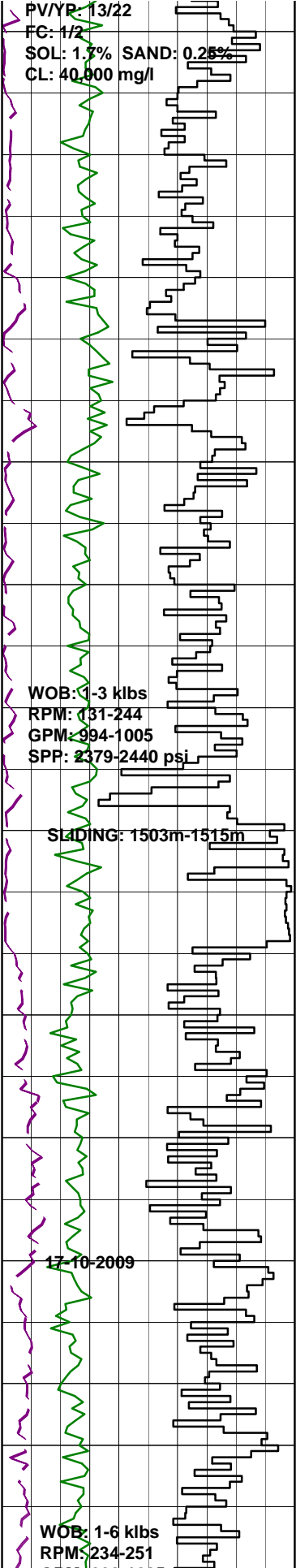
SURVEY @ 1385.95m
Incl: 1.43° AZI: 187.08°
TVD: 1385.84m

SILTSTONE: olv gry, med-dk gry, med gry, sft-frm, sbblky-blky, tr alt lith frags, tr carb spks, tr vf disseminated pyr, tr glauc grns, 5% calc cly, 15% cly, grd to arg sltst.

SURVEY @ 1414.18m
Incl: 1.33° AZI: 186.15°
TVD: 1414.68m

SILTSTONE: olv gry, med-dk gry, med gry, sft-frm, sbblky-blky, i/p with 10 % vf grn qtz grns, tr alt lith frags, tr carb spks, tr vf disseminated pyr, tr glauc grns, 5% calc cly, 15% cly, grd to arg sltst.

SILTY SANDSTONE: olv gry, med-dk gry, vf grns, sbrnd, wl srt, sbsph-sph qtz grns w/ 0-20% lith comp sft-



qtz grns, tr 0-20% lith compnt,
frm, sbblky-sbfiss, tr carb spks, 5%
calc cmt, pr vis por, no fluor.

CARBIDE LAG CHECK @ 1438m
THEOR. STKS: 5872
ACTUAL STKS: 6090
OPEN HOLE O.G: 4.2%

SURVEY @ 1443.26m
Incl: 1.42° AZI: 189.23°
TVD: 1443.14m

SILTY SANDSTONE: olv gry, med
dk gry, vf grns, sbrnd, wl
srt, sbsphr to sphr qrtz grns
with 0 to 20% lithic cmpnt,
sft-frm, sblky-sbfiss, tr
carb spks, 5% calc cmt, pr vis por,
no fluor.

SURVEY @ 1471.76m
Incl: 1.41° AZI: 188.77°
TVD: 1471.63m

SILTSTONE: olv gry, med gry,
tr dk gry, sft-frm, sbblky,
tr carb spks, lithic frags, glauc,
5% calcareous clay, 10% very fine
qrtz sand.

SURVEY @ 1500.56m
Incl: 1.44° AZI: 186.77°
TVD: 1500.42m

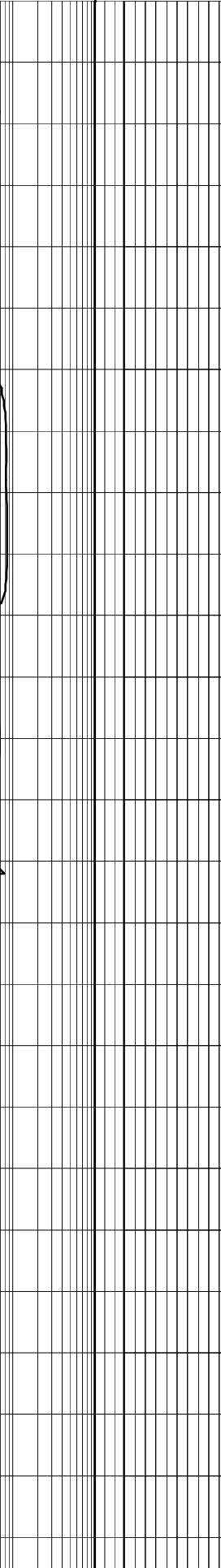
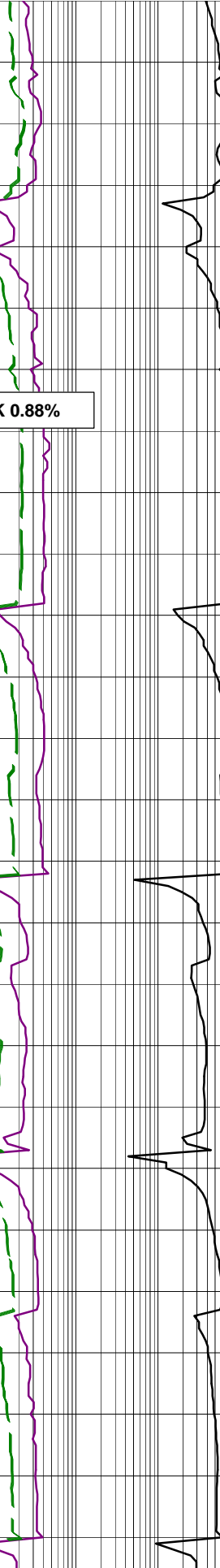
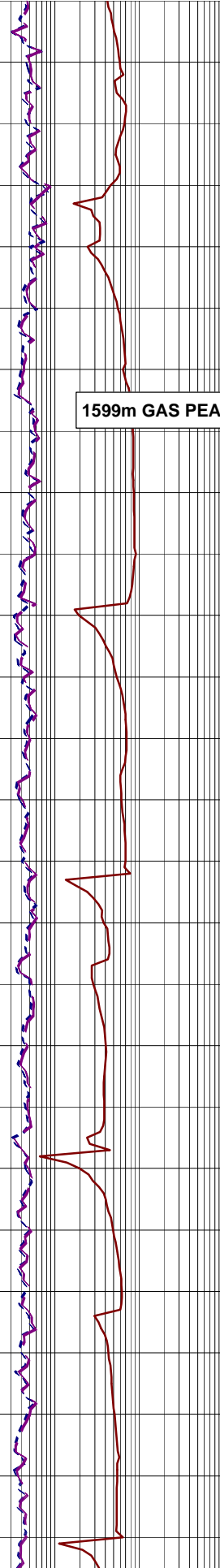
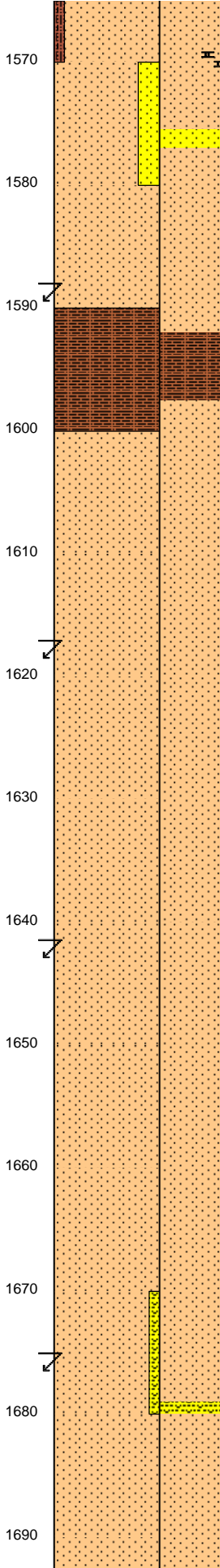
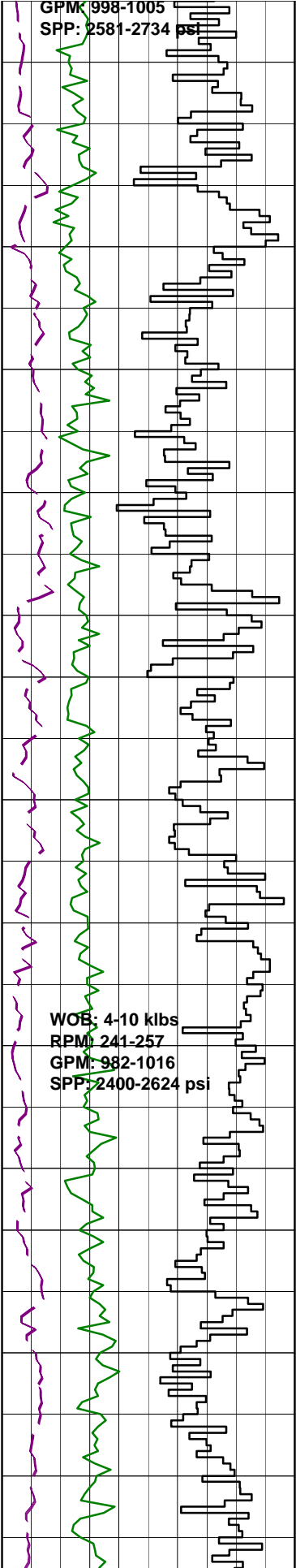
SILTSTONE: olv gry, med dk gry,
sft-frm, tr fri, ang to sbblky,
tr carb spks, calcite crys, glauc,
lithic frags, 5% calc clay, 10%
clay, 15% vf qrtz sand.

SANDSTONE: med dk gry, dk gry,
vf grn, sbrnd, wl srt, sbspher-
spher qrtz grns with 10-15%
lithic frag, 5% calc clay cmt,
10% clay comp, por vis por, no
fluor.

SURVEY @ 1529.74m
Incl: 1.02° AZI: 177.87°
TVD: 1529.59m

SILTSTONE: olv gry, sft-frm,
sbblky, tr glauc, lithic frags,
5% calc clay, 15% clay, 10% vf
qrtz grns, tr v lt gry
highly degraded volcanics.

SURVEY @ 1559m
Incl: 1.11° AZI: 183.32°
TVD: 1558.85m



SANDSTONE:med blu gry,
vf grn,sbrnd,wl srt to v
wl srt,spher qrtz grns
with 10% lithic comp,mod
hd-hd,ang-sbblky,tr micmic,
hgly cmt,10% calc cmt,
10% clay comp,no vis por,
no fluor.

SURVEY @ 1588.15m
Incl: 1.05° AZI: 181.86°
TVD: 1587m

SANDY SILTSTONE:olv gry,med
dk gry,sft frm,ang-sbblky,
tr carb spks,glauc,lithic
frags,micmic,shell
frags,5% calc clay,10% clay,
20% vf qrtz sand.

SILTSTONE:olv gry,med gry,sft-
frm,sbblky,tr carb spks,glauc,
lithic frags,shell frags,5% calc
clay,15% clay.

SURVEY @ 1617.27m
Incl: 1.14° AZI: 175.03°
TVD: 1617.11m

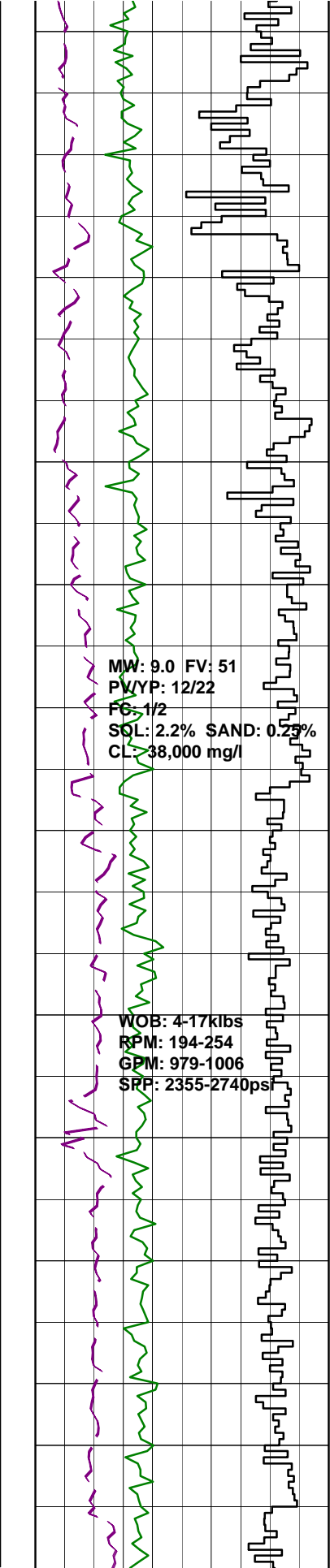
SILTSTONE:olv gry,sft frm,
sbblky,tr carb spks,glauc,
lithic frag,5% calc clay,10%
clay,5% very fine qrtz sand.

SURVEY @ 1646.32m
Incl: 1.17° AZI: 184.16°
TVD: 1646m

SILTSTONE:olv gry,sft frm,
sbblky,tr carb spks,glauc,
tr lithic frag,tr shell frag,
5% calc clay,10% clay,5%
vf qrtz sand.

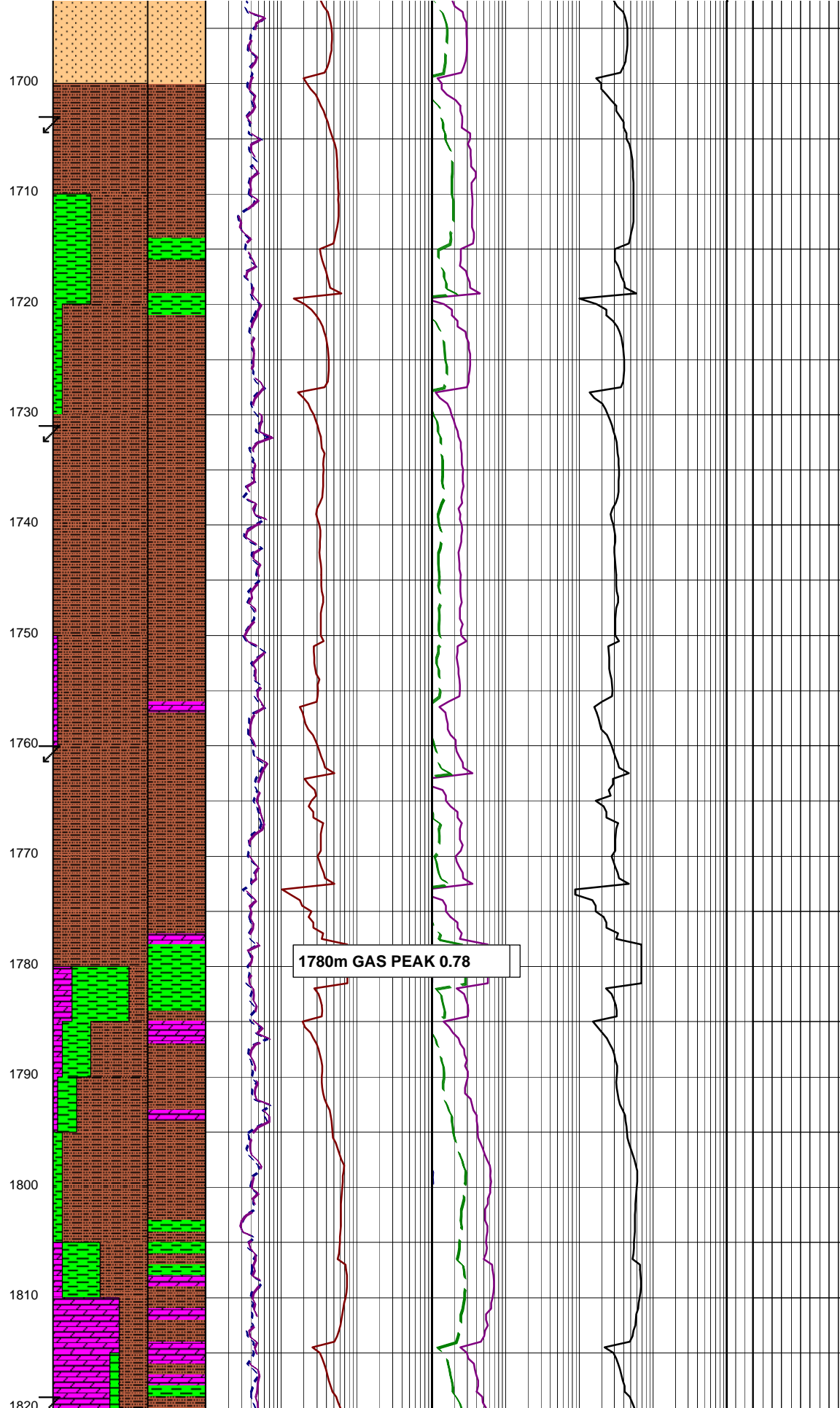
SURVEY @ 1675.15m
Incl: 1.31° AZI: 182.99°
TVD: 1672.97m

SILTY SANDSTONE:med blu/gry,med gry,
vf grns,sbrnd,wl-v wl srt,sbspher qtz
grns w/ 10% lith comp,mod hd-hd aggs,
ang-sbblky,tr micmic,tr calc xtal,tr
shell frags,high cmted,10% calc cmt,
25% clt no vis por no fluor



MW: 9.0 FV: 51
PV/YP: 12/22
FG: 1/2
SQL: 2.2% SAND: 0.25%
CL: 38,000 mg/l

WOB: 4-17klbs
RPM: 194-254
GPM: 979-1006
SRP: 2355-2740psi



1780m GAS PEAK 0.78

SURVEY @ 1703.61m
Incl: 1.02° AZI: 183.90°
TVD: 1703.43m

CLAYSTONE: olv/blk, sft-frn, sbblky, tr micmic, tr carb spks, 5% calc clay.

SURVEY @ 1731.98m
Incl: 1.12° AZI: 176.27°
TVD: 1731.79m

ARGILLACEOUS SILTSTONE: olv/gry, sft-frn, sbblky, tr micmic, tr pyr aggs, tr lith frags, tr foss frags, tr glauc, tr dol, 5% calc clay, 25% vf qrtz sand.

SURVEY @ 1760.71m
Incl: 1.20° AZI: 179.48°
TVD: 1760.52m

ARGILLACEOUS SILTSTONE: olv/gry, sft-frn, sbblky, tr micmic, tr glauc, 5% calc clay, 25% clay.

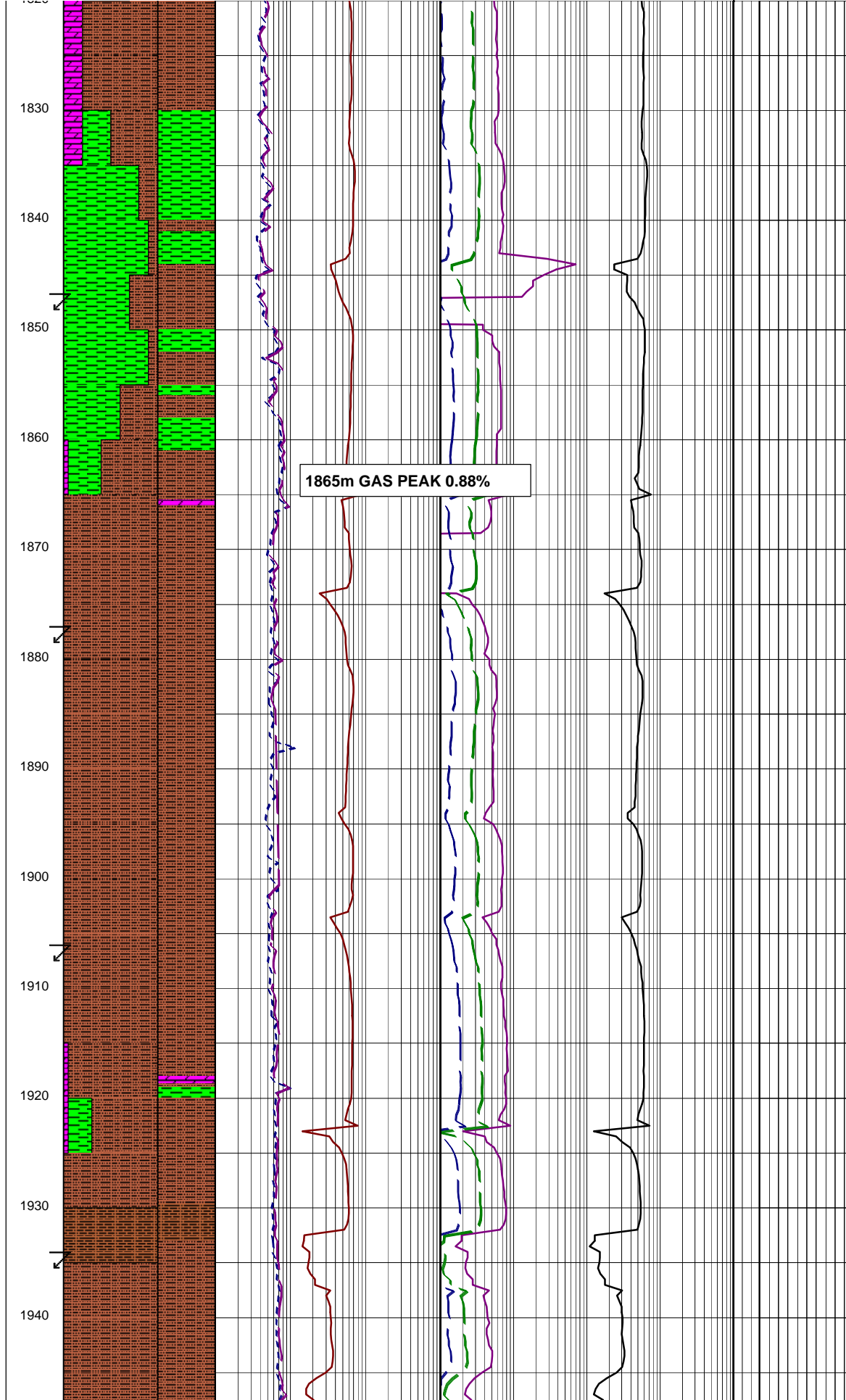
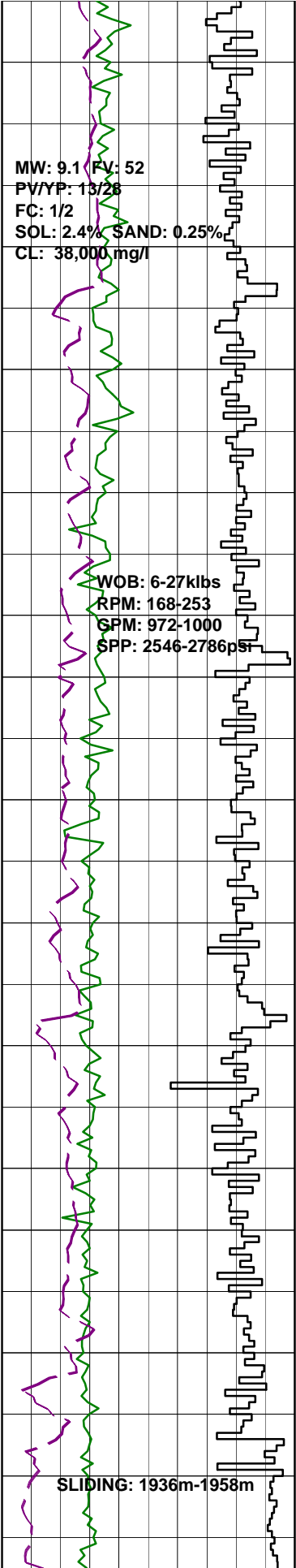
DOLOMITE: pl yel/brn, dk yel/brn, sft-v hd, spil-sbconch frac, xln-ea i/p, tr opq cal xtal.

ARGILLACEOUS SILTSTONE: olv/gry, sft-frn, sbblky, tr micmic, tr pyr aggs, tr lith frags, tr foss frags, 5% calc clay, 5% vf qrtz sand.

SURVEY @ 1790.08m
Incl: 1.13° AZI: 181.99°
TVD: 1789.88m

CLAYSTONE: dsky brn, brn/gry, sft, sbblky-stky, tr micmic & glauc.

SURVEY @ 1819.45m
Incl: 1.17° AZI: 182.72°
TVD: 1819.27m



Incl: 1.17° AZI: 182.73°
TVD: 1819.24m

ARGILLACEOUS SILTSTONE: olv/gry, yel/brn i/p, olb/blk, sft-frm, sbblky, tr micmic, 25% clay.

DOLOMITE: pl yel/brn, dk yel/brn, sft-v hd, splin-sbconch frac, xln-ea i/p.

CARBIDE LAG CHECK @ 1843m
THEOR. STKS: 7680
ACTUAL STKS: 8502
OPEN HOLE O.G: 4.2

SURVEY @ 1848.52m
Incl: 1.17° AZI: 190.32°
TVD: 1848.314m

CLAYSTONE: olv blk, olv gry, tr dk yel brn, sft-frm, sbblky-blky, micromicas.

DOLOMITE: pl yel brn, frm-hd, splin-conch frac i/p, ea.

ARGILLACEOUS SILTSTONE: brn blk, sft-frm, sbblky, tr micmic, lithic frag, glauc grns, pyr, 5% vf qrtz grns, 25% clay.

SURVEY @ 1877.80m
Incl: 1.13° AZI: 190.92°
TVD: 1877.58m

ARGILLACEOUS SILTSTONE: brn blk, olv blk, sft-frm, sbblky-blky, tr micmic, lithic frag, glauc grns, pyr, 25% clay.

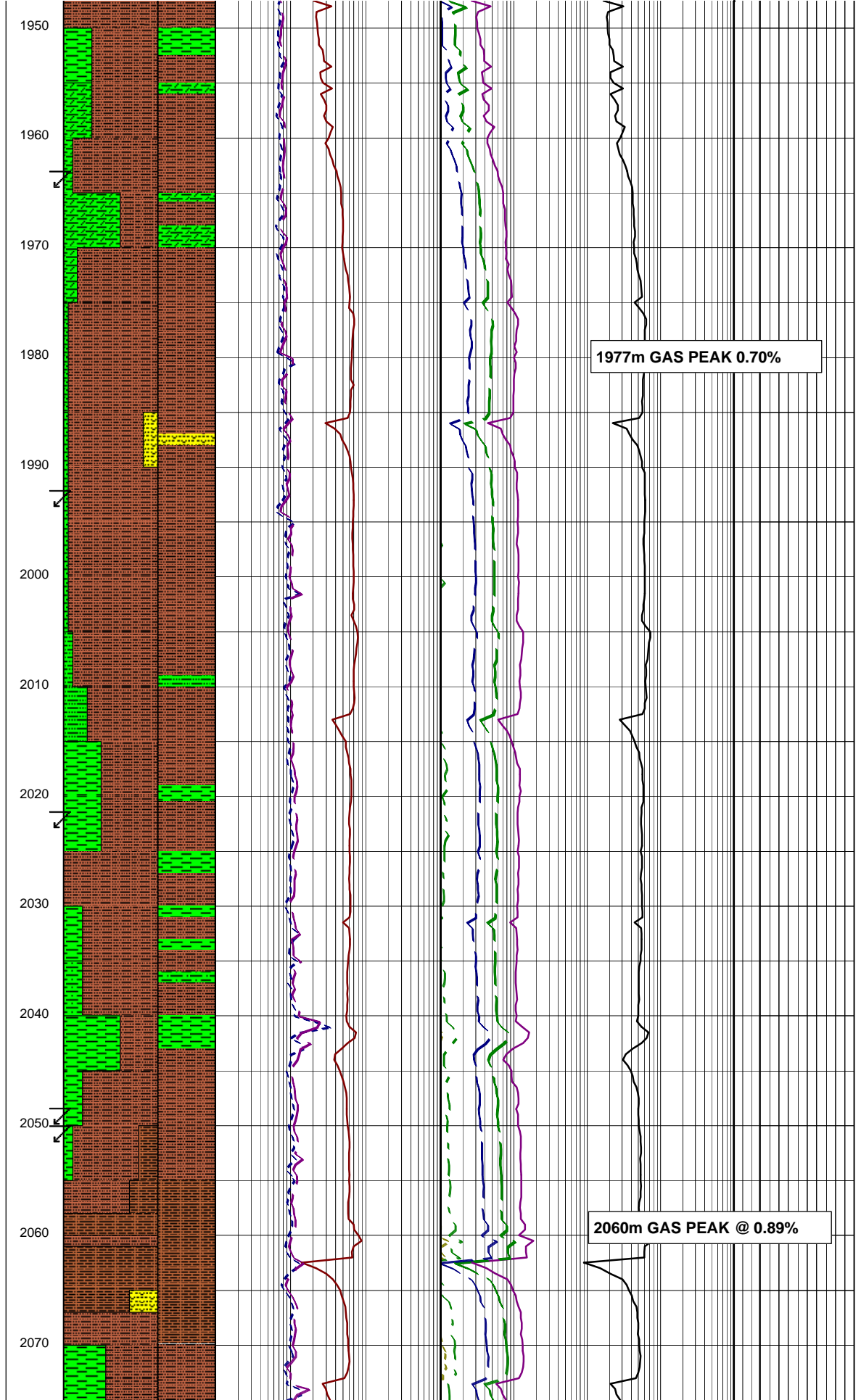
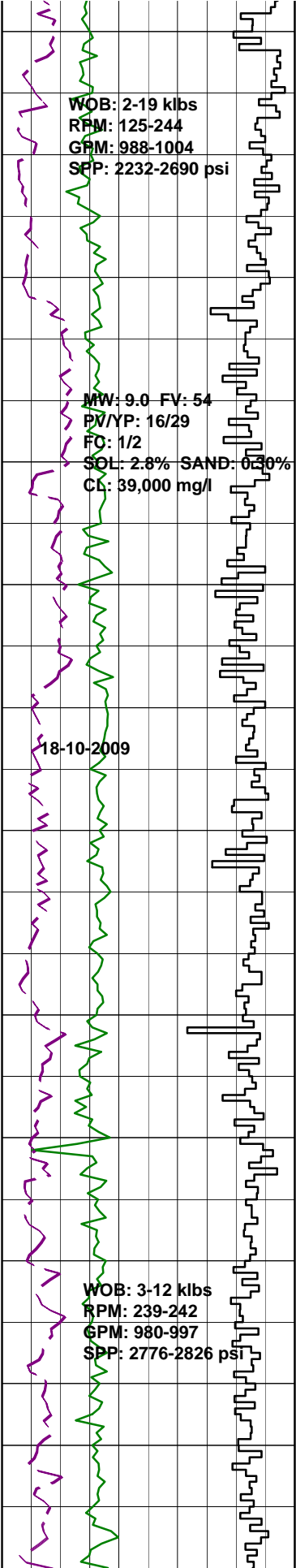
ARGILLACEOUS SILTSTONE: brn blk, olv blk, sft-frm, sbblky-blky, tr micmic, lithic frag, glauc grns, pyr, tr dolomite, 30% clay.

DOLOMITE: pl yel brn, dk yel brn, frm-hd, splin frac, xln-microxln i/p.

CLAYSTONE: med gry, drk gry, vf-sft, amorph-sbblky, tr micmic, lithic frag, 10% silt sized frac.

SURVEY @ 1934.67m
Incl: 1.08° AZI: 194.42°
TVD: 1934.44m

ARGILLACEOUS SILTSTONE: brn blk, olv blk, sft-frm, sbblky,, tr



micmic,dolomite,20% clay,10% vf
qrtz sand grns.

CLAYSTONE:brn blk,olv blk,v
sft-sft,amorph to sbbly,lr
micmic,lr glauc,10% silt sized
frac.

SURVEY @ 1963.22m
Incl 0.48° AZI:64.50°
TVD:1962.99m

ARGILLACEOUS SILTSTONE:brn blk,
olv blk,sft-frn,sbbly,lr
shell frag,lithic frag,glauc,
20% clay,5% v fine qrtz sand.

SILTY SANDSTONE:brn blk,olv
blk,vf grn,sbrnd,wl-v wl srt,
sub sphr qrtz grns,sft-fri,
sbbly,lr lithic frag,15% clay,
25% silt.

SURVEY @ 1992.33m
Incl 0.56° AZI:59.70°
TVD:2021.23m

CALCAREOUS CLAYSTONE:med gry,
med lt gry,frm-mod hd,sbbly,lr
lr calcite vein,lithic frag,shell
frag,10% silt.

SURVEY @ 2021.46m
Incl 0.59° AZI:61.98°
TVD:2021.23m

ARGILLACEOUS SILTSTONE:brn
blk,olv blk,sft-fri,amorph-
sbbly,lr carb spks,lithic
frag,35% clay,5% calc clay.

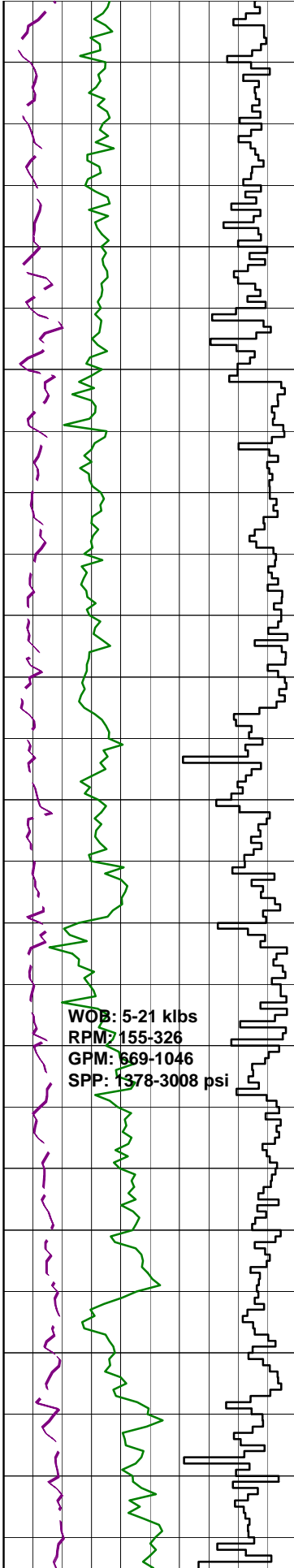
CLAYSTONE:med gry,med dk gry,
mod hd-hd,ang-sbbly,lr
shell frag,micmic,calcite vein,
10% calc clay,15% silt.

SURVEY @ 2050.74m
Incl 0.68° AZI:78.76°
TVD:2050.5m

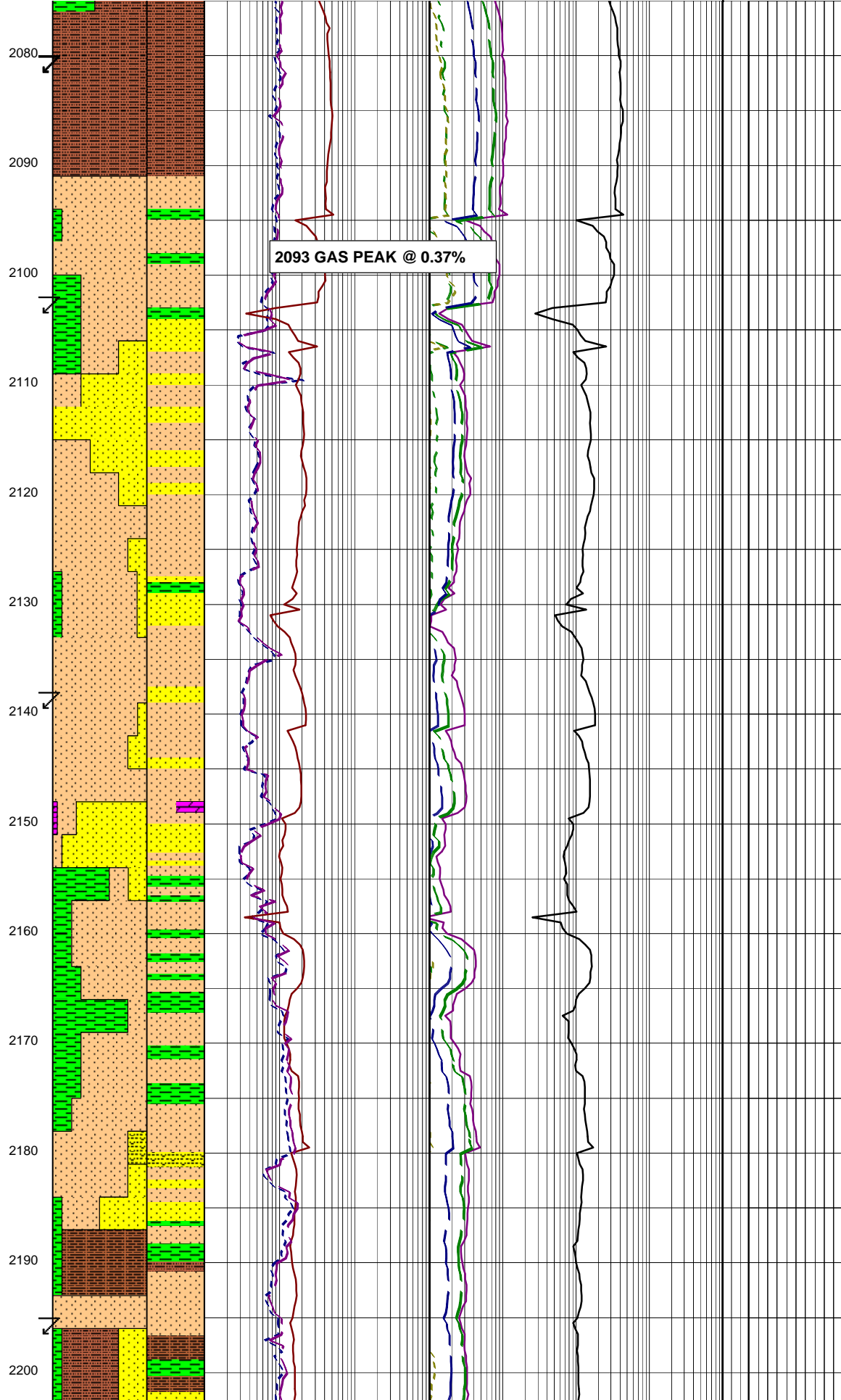
SANDY SILTSTONE:brn blk,olv
blk,sft-fri,sbbly,lr lith
frag,10% clay,30% vf qrtz sand.

SILTY SANDSTONE:olv gry,lt olv/gry,
sbrnd,wl srt,sbsph wtz grns w/ 10%
lith comp,frm-mod hd,lr shell frags,
micmic,lith frags,10% calc cmt,pr-nil
vis por,no fluor.

CLAYSTONE:brn/blk,olv/blk,v sft-sft,



WOB: 5-21 klbs
RPM: 155-326
GPM: 669-1046
SPP: 1378-3008 psi



2093 GAS PEAK @ 0.37%

sbblky, tr lith frags, 15% silt.

SURVEY @ 2080.19m
Incl 0.61° AZI: 81.26°
TVD: 2079.95m

SILTSTONE: olv/blk, sft-frm, sbblky,
tr lith frags, alt i/p, tr micmic, tr
carb spks, 10% disseminated v/cr sbrnd
qtz grns, 10% cly.

SURVEY @ 2102.2m
Incl 0.68° AZI: 80.27°
TVD: 2101.96m

SANDSTONE: dk grn/gry, mott, dsky yel/
grn, lt gry, vf grns, 30% f grns, v sft-
frm, sbrnd-sbang, mod wl srt, 10% glauc
grns & cly, 15% cly, pr vis por, no fluor.

CLAYSTONE: dk yel/brn, gry/grn, frm,
sbblky, tr carb mat, tr vd pyr, tr cal.

SANDSTONE: mult col, olv/gry, dark grn/
gry, mott, dsky yel/grn, lt gry, qtzos,
vf grns, 30% f grns, v sft-frm, sbrnd-
sbang, mod-wl srt, 0-10% glauc grns, 15%
cly, pr vis por, no fluor.

SILTSTONE: brn/gry, olv/gry, sbblky,
10% cly, 10% vf cly qtz grns,

SURVEY @ 2138.04m
Incl 0.69° AZI: 75.36°
TVD: 2137.80m

DOLOMITE: brn/gry, mod hd, conch-splin
frac, tr glauc grns.

SANDSTONE: clr, opq, pol, frstd, lse qtz
grns, 20% med, 40% crs, 30% v crs, 10%
gran, ang-rnd, v pr-pr srt, sbling-sph,
tr wh cly mtx adh to srf, fr vis por
inf, no fluor.

SILTSTONE: brn blk, olv blk,
sft-fri, tr carb lam, lithic
frags, 10% clay, 10% vf qtz
sand grns.

CLAYSTONE: med blu gry, olv
gry, med gry, sft-frm, sbblky,
tr micmic, 5% clac clay.

SILTY SANDSTONE: brn blk, olv
gry, sbrnd, wl srt sbspher, vf,
clr, pol qtz grns, sft-fri, tr
lith frags, 10% calc cmt, 5% rock
fluor, pr vis por, no fluor.

SURVEY @ 2195.19m
Incl 0.63° AZI: 82.85°
TVD: 2194.94m

CLAYSTONE: med blu gry, olv
gry, med gry, frm, sbblky, tr
micmic, calcite veining.

