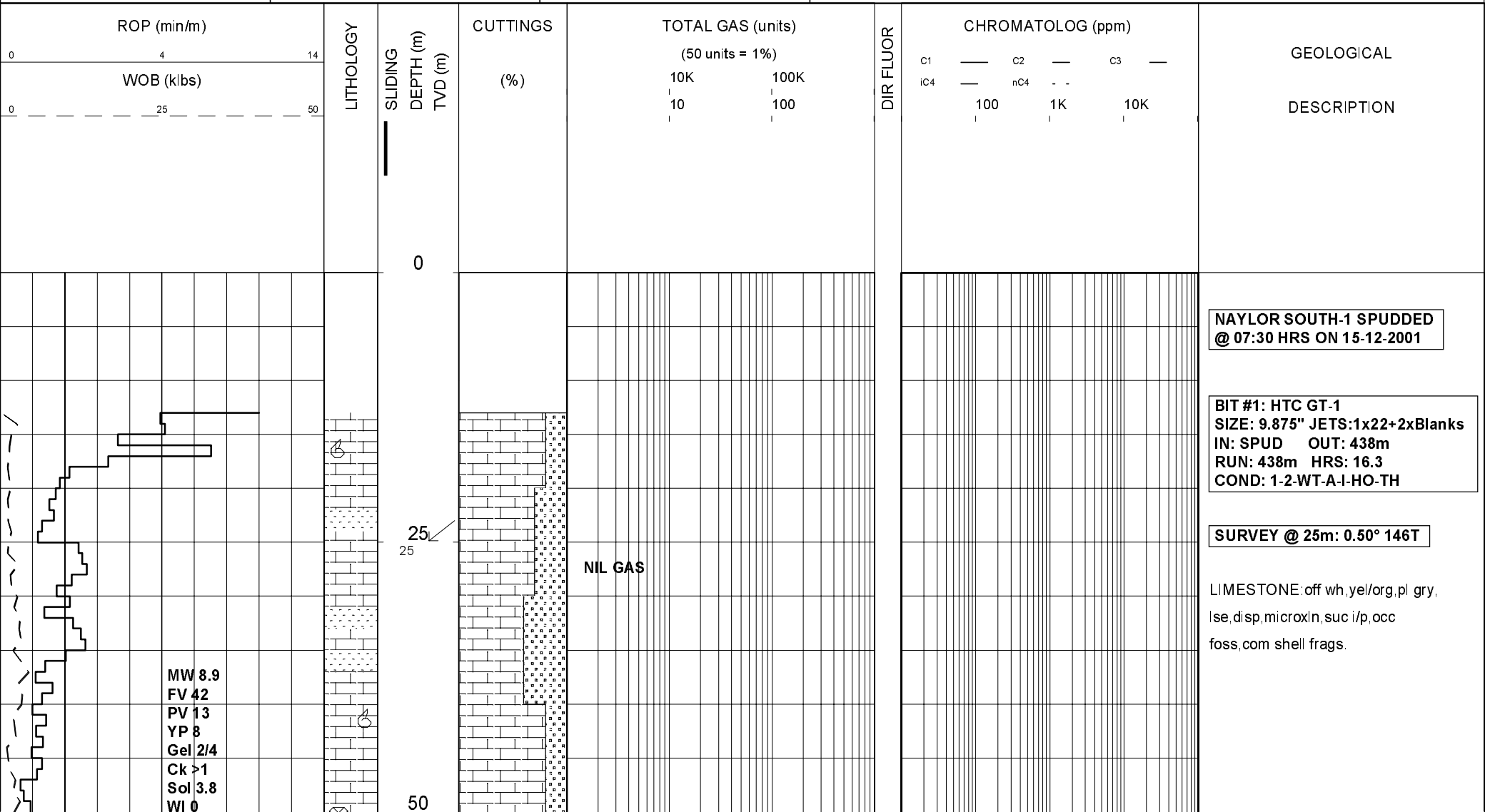


Field : NAYLOR SOUTH	Rotary table : 53.0m	Rig : OD&E-30	Open Hole: 9.875" 438m	Cased Hole: 7.625" 434m	Loggers : S.SENNIS
Block: OTWAY BASIN, PEP-154	Ground level : 48.3m	Spud date : 15-12-2001	6.75" 2243m		D.VAN DER AA
State : VICTORIA	GDA 94 Co-ordinates :	TD date : 26-12-2001			J.HOBDAY
Country : AUSTRALIA	Lat. : 38° 32' 15.68" S (PRELIM.)	Total depth : 2243mMD(2224.21mTVD)			
Scale : 1/ 500	Long. : 142° 48' 43.51" E (PRELIM.)	Final status : Plugged & Abandoned			

LITHOLOGY	ACCESSORIES	DRILLING DATA	ABBREVIATIONS	
<ul style="list-style-type: none"> Conglomerate Coarse Sandstone Med Sandstone Fine Sandstone VF Sandstone Siltstone Carb. Siltstone Calc. Siltstone Clay Limestone Dolomite Coal Anhydrite Gypsum Igneous Volcanic Metamorphic Cement 	<ul style="list-style-type: none"> Pyrite Siderite Glauconite Feldspar Mica Ferrous Chert Calcareous Dolomitic Carbonaceous Lithoclast Breccia Foraminifera Corals Inoceramus Bryozoa Plant remains Fossils 	<ul style="list-style-type: none"> Casing Shoe Bit trip Wiper Trip Core DST Deviation survey 	<ul style="list-style-type: none"> BOPD - Barrels of Oil Per Day BWPD - Barrels of Water Per Day CG - Connection Gas CO - Circulate Out COND - Condensate c/c - Crush Cut DST - Drill Stem Test FLOW - Flow Rate (gal/min) GCM - Gas Cut Mud GCW - Gas Cut Water GTS - Gas To Surface INJ - Injection of Mist (bbls/hr) LCM - Lost Circulation Material MMCFD - Million Cubic Feet / Day NGTS - No Gas To Surface NOTS - No Oil To Surface NR - No Returns OCM - Oil Cut Mud 	
		<p style="text-align: center;">MUD DATA</p> <p>MW - Mud Weight (lb/gal) FV - Funnel Viscosity (s/qt) PV - Plastic Viscosity (cps) YP - Yield Point (lb/100ftsq) Gel - Gel Strength (10sec) WL - Water Loss (cc/30min) pH - Acidity / Alkalinity Ck - Cake (32nd/inch) Sol - Solids (% vol) Cl - Chlorides (mg/l)</p>	<ul style="list-style-type: none"> OG - Over Gauge OH - Open Hole OTS - Oil To Surface Q - Flow Rate REC - Recovery Rmf - Resistivity mud filtrate ROP - Rate Of Penetration RPM - Revolutions Per Minute RTSTM - Rate Too Small To Measure Rw - Resistivity water r/r - ring residue SCFM - Standard Cubic Ft/Min (air) SGCM - Slightly Gas Cut Mud SPM - Strokes Per Minute SPP - Stand Pipe Pressure SWC - Side-Wall Core TG - Trip Gas WOB - Weight On Bit 	



pH 8.5
Cl 6.5k

SANDSTONE: clr-off wh, pl gry, f-
med, mod srt, sa-sr i/p, com calc,
lse, pr-fr inf por, no fluor.

LIMESTONE: off wh-crm, clr i/p,
microxln, suc i/p, com foss frags,
com shell frags, fri-lse.

SURVEY @ 99m: 0.25° 248T
MARL: pl gry, -pl brn/gry, med gry
i/p, v calc, occ foss frags, sft-v
sft i/p, sbbkly, disp i/p.

MARL: lt-med gry, lt olv/gry, tr lt
bn/gy, v calc, tr foss frags, sft-
-occ frm, sbbkly-amorph.

SURVEY @ 136m: 0.75° 182T

SURVEY @ 155m: 0.85° 357T
MARL: lt-med gy, tr pl bn/gy, v
calc, com foss frags, v sft-sft,
stky, disp, amorph.

JET FROM 153m-157m

JET FROM 164m-168m

SURVEY @ 174m: 3.00° 002T

MARL: pl-med gy, com, calc, com foss
frags, com shell frags, disp, v sft
amorph.

WOB 5-10 klbs
RPM 90-100
SPP 500 psi
FLOW 280 gpm

NIL GAS

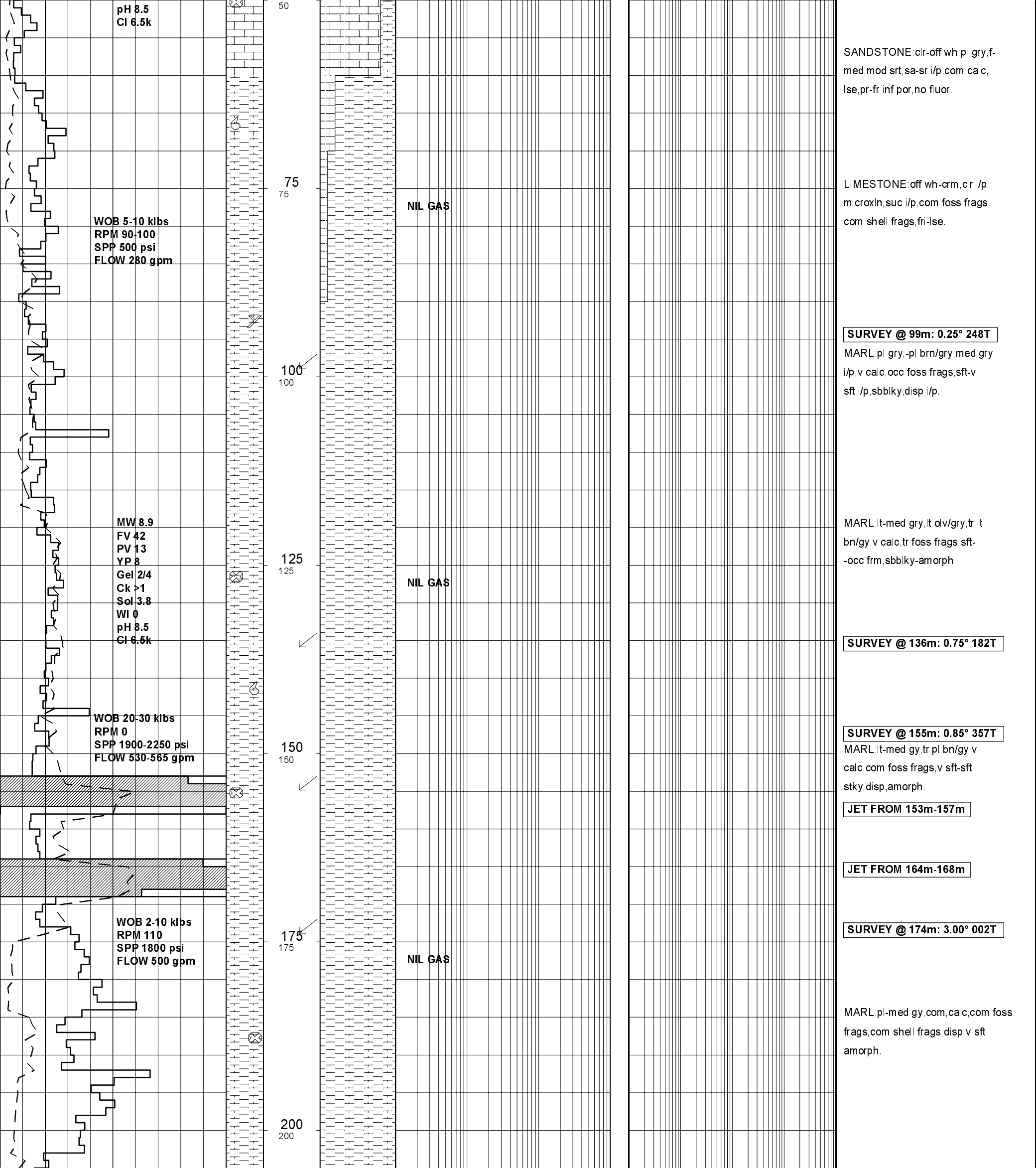
MW 8.9
FV 42
PV 13
YP 8
Gel 2/4
Ck >1
Sol 3.8
WI 0
pH 8.5
Cl 6.5k

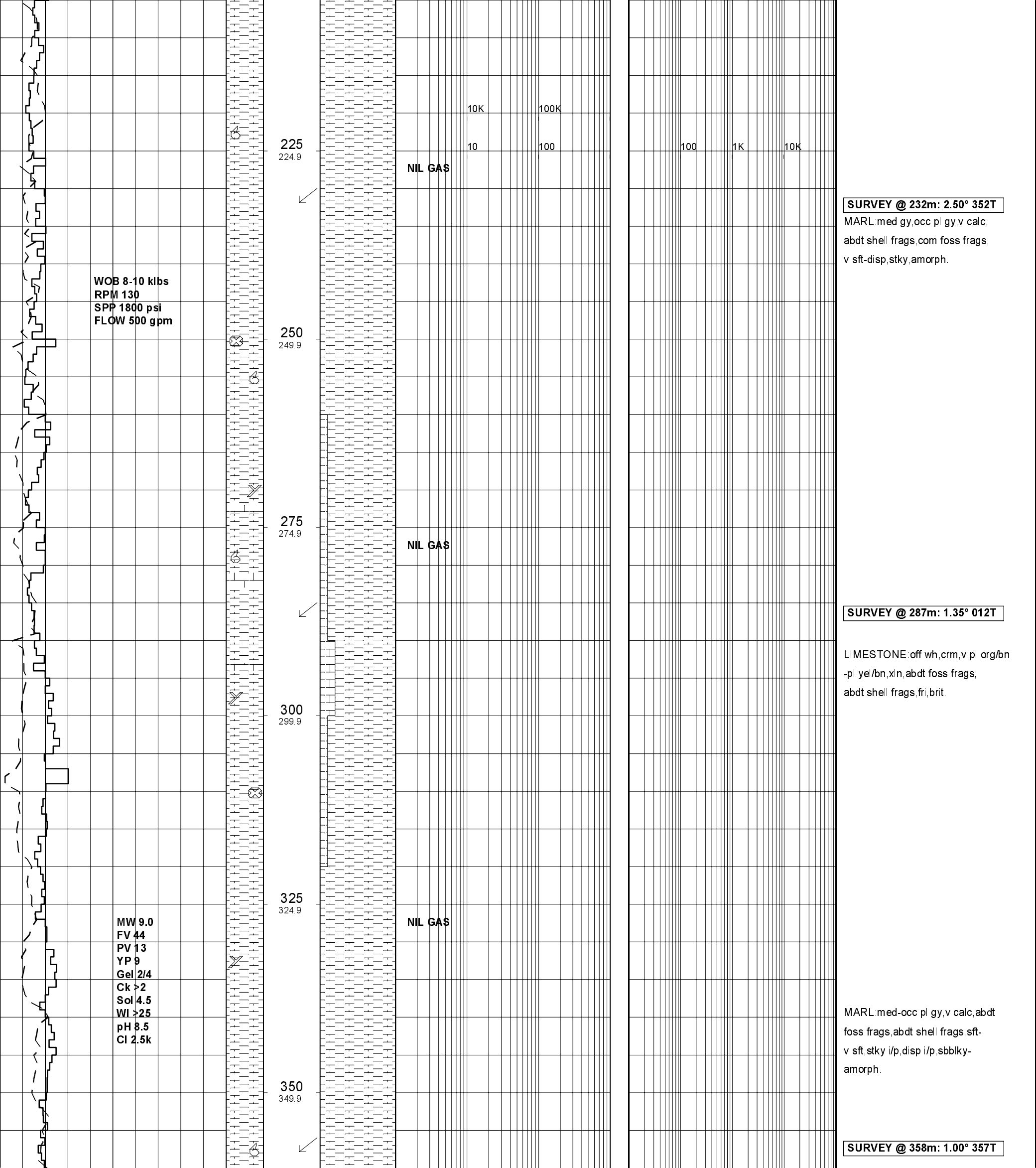
NIL GAS

WOB 20-30 klbs
RPM 0
SPP 1900-2250 psi
FLOW 530-565 gpm

WOB 2-10 klbs
RPM 110
SPP 1800 psi
FLOW 500 gpm

NIL GAS





WOB 8-10 klbs
 RPM 130
 SPP 1800 psi
 FLOW 500 gpm

MW 9.0
 FV 44
 PV 13
 YP 9
 Gel 2/4
 Ck >2
 Sol 4.5
 WL >25
 pH 8.5
 CI 2.5k

225
 224.9

NIL GAS

10K 100K
 10 100
 100 1K 10K

250
 249.9

275
 274.9

NIL GAS

300
 299.9

325
 324.9

NIL GAS

350
 349.9

SURVEY @ 232m: 2.50° 352T

MARL: med gy, occ pl gy, v calc,
 abdt shell frags, com foss frags,
 v sft-disp, stky, amorph.

SURVEY @ 287m: 1.35° 012T

LIMESTONE: off wh, crm, v pl org/bn
 -pl yel/bn, x/n, abdt foss frags,
 abdt shell frags, fri, brit.

MARL: med-occ pl gy, v calc, abdt
 foss frags, abdt shell frags, sft-
 v sft, stky i/p, disp i/p, sbbkly-
 amorph.

SURVEY @ 358m: 1.00° 357T

WOB 8-10 klbs
RPM 130
SPP 2100 psi
FLOW 500 gpm

375
374.9

NIL GAS

10K

100K

10

100

100

1K

10K

MARL: med gy, v calc, abdt foss
frags, abdt shell frags, v sft-sft
stky, disp i/p, amorph-occ sbbiky

400
399.9

425
424.9

NIL GAS

SURVEY @ 425m: 1.25° 002T

7.625" CASING SHOE
SET @ 434m

BIT #2: Hughes STR554A3X
SIZE: 6.75" JETS: 2x11, 2x9
IN: 438m OUT: 1650m
RUN: 1212m HRS: 39.4
COND: 6-2-WT-S-X-I-RO-BHA

MARL: pl-med gy, strng calc, com
foss frags, v sft-frm, amorph.

MW 8.5
FV 34
PV 3
YP 4
Gel 1/1
Ck <1
Sol 0.1
WI >35
pH 9
CI 17k

450
449.8

CLIFTON FM:
460mRT (-407mTVDSS)

WOB 5 klbs
RPM 123
SPP 710 psi
FLOW 315 gpm

475
474.8

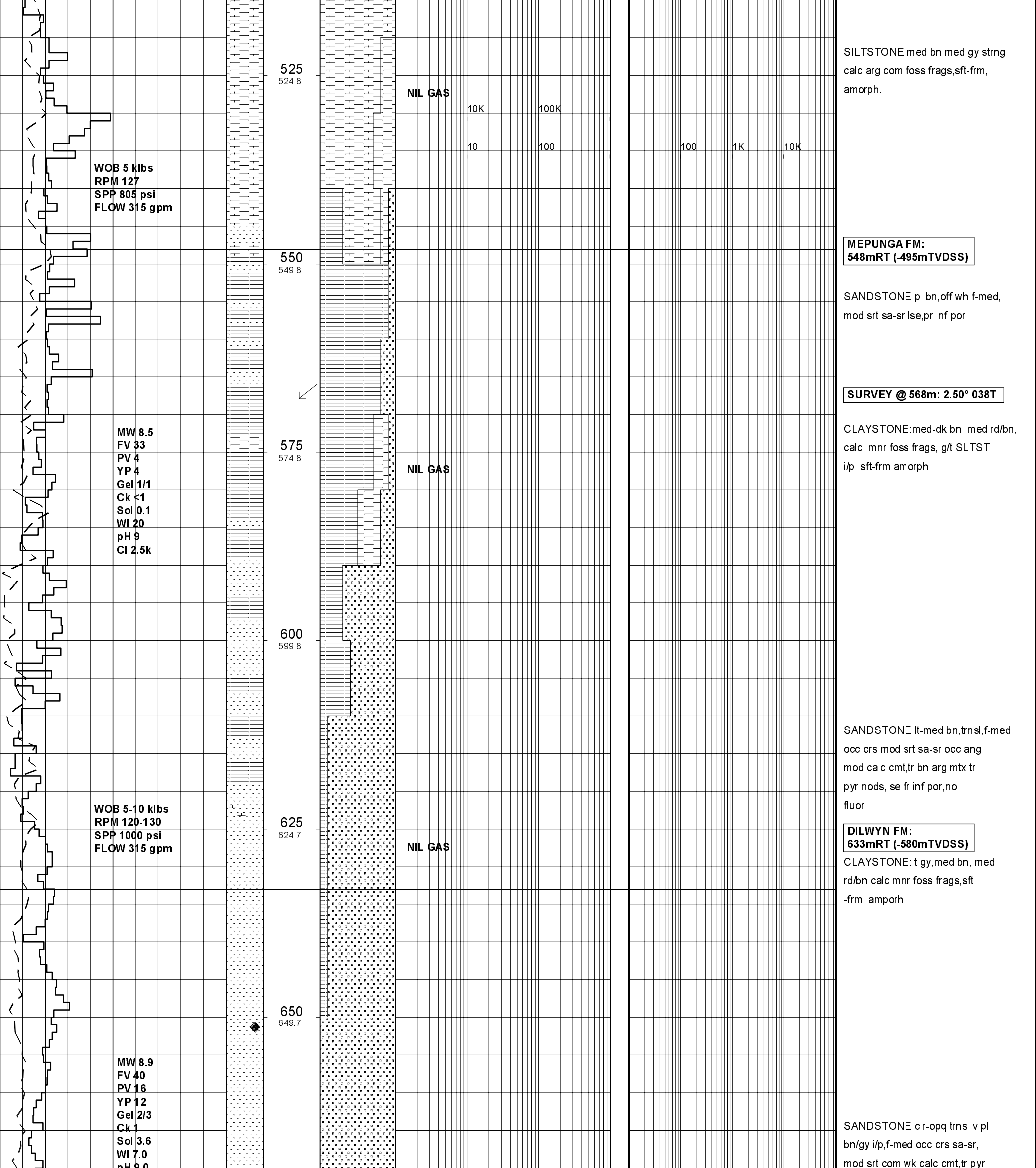
NIL GAS

SILTSTONE: org-rd/bn, com Fe stn,
aren g/t f SST, calc, sft, amorph.

SANDSTONE: org-rd/bn, com Fe stn,
vf-med grns, crs i/p, pr srt, r-sr,
com arg rd/bn mtx, calc cmt, lse-
frm, pr inf por, no fluor.

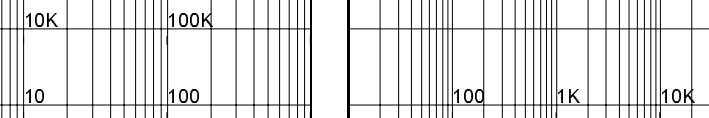
500
499.8

MARL: pl-med gy/bn, pl gy/gn, strng
calc, tr foss frags, v sft, amorph



525
524.8

NIL GAS



SILTSTONE: med bn, med gy, strng calc, arg, com foss frags, sft-frm, amorph.

**MEPUNGA FM:
548mRT (-495mTVDSS)**

SANDSTONE: pl bn, off wh, f-med, mod srt, sa-sr, lse, pr inf por.

SURVEY @ 568m: 2.50° 038T

CLAYSTONE: med-dk bn, med rd/bn, calc, mnr foss frags, g/t SLTST i/p, sft-frm, amorph.

550
549.8

WOB 5 klbs
RPM 127
SPP 805 psi
FLOW 315 gpm

575
574.8

NIL GAS

MW 8.5
FV 33
PV 4
YP 4
Gel 1/1
Ck <1
Sol 0.1
WI 20
pH 9
CI 2.5k

600
599.8

SANDSTONE: lt-med bn, trnsi, f-med, occ crs, mod srt, sa-sr, occ ang, mod calc cmt, tr bn arg mtx, tr pyr nods, lse, fr inf por, no fluor.

625
624.7

NIL GAS

**DILWYN FM:
633mRT (-580mTVDSS)**

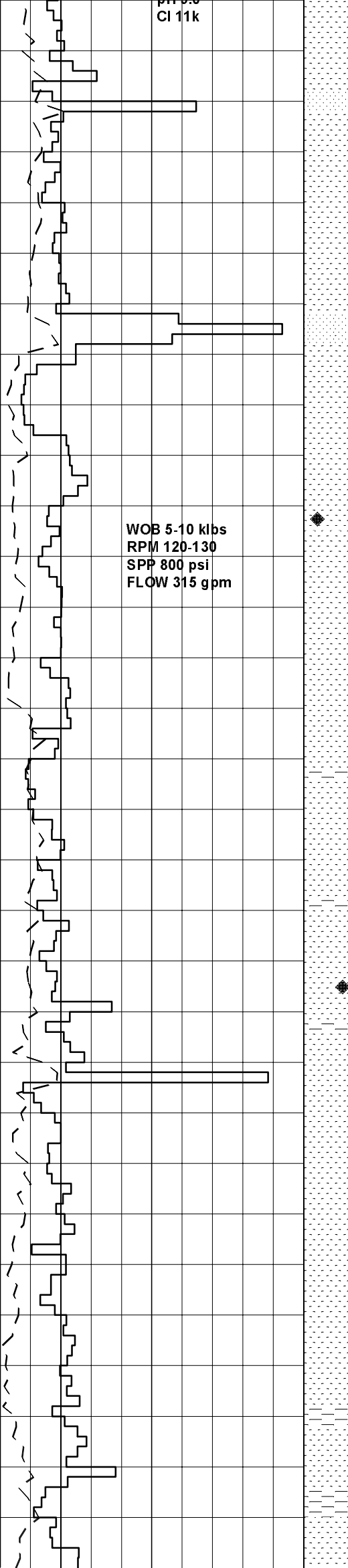
CLAYSTONE: lt gy, med bn, med rd/bn, calc, mnr foss frags, sft-frm, amorph.

WOB 5-10 klbs
RPM 120-130
SPP 1000 psi
FLOW 315 gpm

650
649.7

MW 8.9
FV 40
PV 16
YP 12
Gel 2/3
Ck 1
Sol 3.6
WI 7.0
pH 9.0

SANDSTONE: clr-opq, trnsi, v pl bn/gy i/p, f-med, occ crs, sa-sr, mod srt, com wk calc cmt, tr pyr



675
674.7

700
699.7

725
724.7

750
749.6

775
774.6

800
799.6

825

NIL GAS

NIL GAS

NIL GAS

NIL GAS

10K 100K

10 100 100 1K 10K

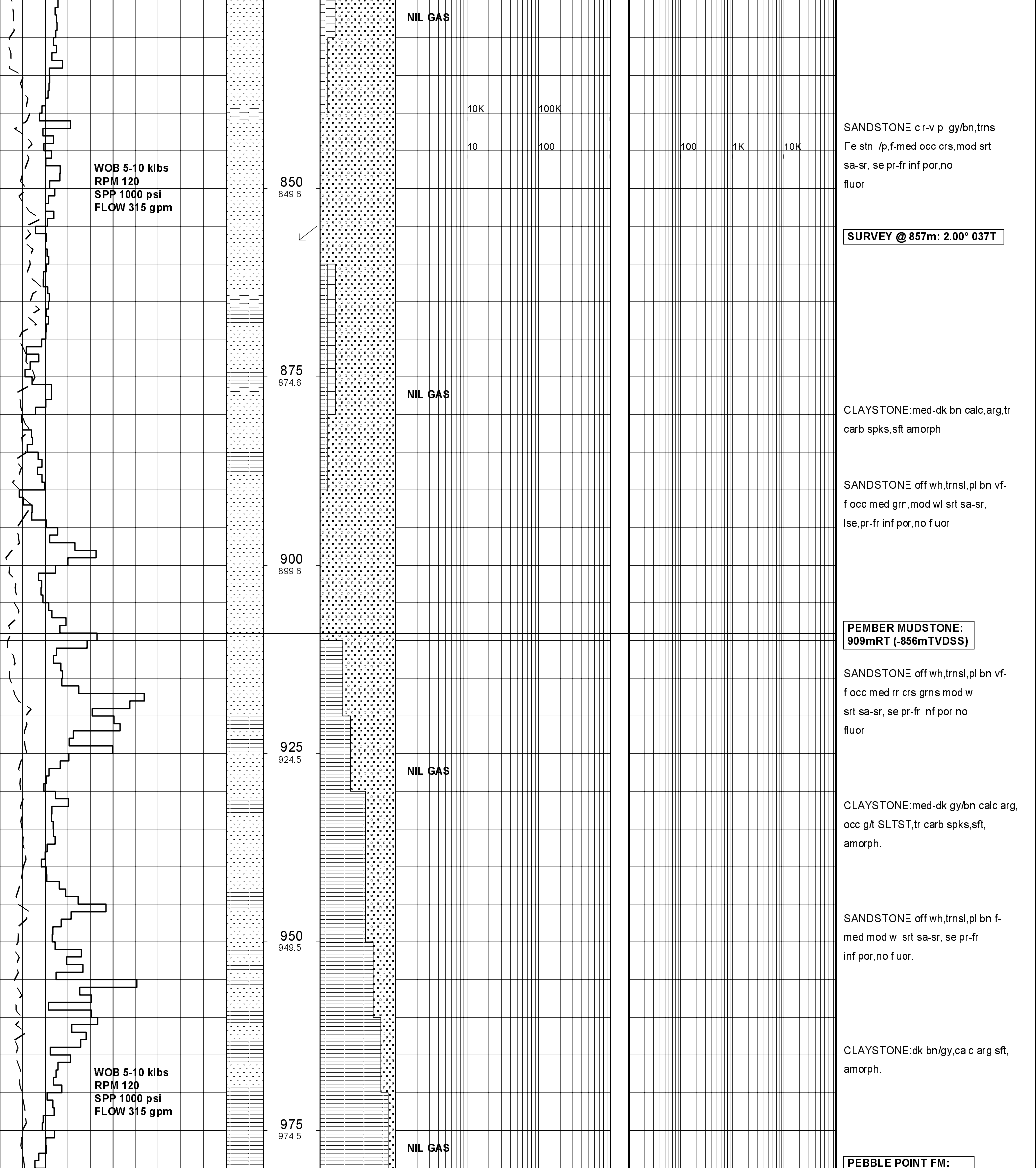
SURVEY @ 712m: 2.13° 053T

nods,lse,fr inf por,no fluor.

SANDSTONE: cir-v pl bn/gy, trnsl,
f-med, occ vf, rr crs, mod srt, sa-
sr, lse, fr inf por, no fluor.

SANDSTONE: cir-v pl bn/gy, trnsl,
Fe stn i/p, f-med, occ crs, tr vf,
mod por srt, sa-sr, tr pyr nods,
lse, fr inf por, no fluor.

SILTSTONE: (Tr)lt-med bn-bn/gy,
arg, calc, tr pyr, sft, disp, amorph



980mRT (-927mTVDSS)

SANDSTONE: pl bn/org, off wh, f-
crs, pred med, mod-pr srt, sa-sr,
lse, occ fri, pr vis & inf por, no
fluor.

CLAYSTONE: dk bn/gy, calc, arg, tr
foss frags, sft, amorph.

SURVEY @ 1010m: 1.63° 023T

SANDSTONE: pl bn/org, occ off wh,
f-med, pred f, occ crs, mod-pr srt,
sa-sr, tr calc, lse, pr-fr inf por,
no fluor.

CLAYSTONE: med-dk bn/gy, tr calc,
gt SLTST i/p, sft, amorph.

SANDSTONE: pl bn, off wh, occ trnsi
f-med, occ crs, mod wl-wl srt, sr-
sa, occ rnd, lse, fr inf & vis por,
no fluor.

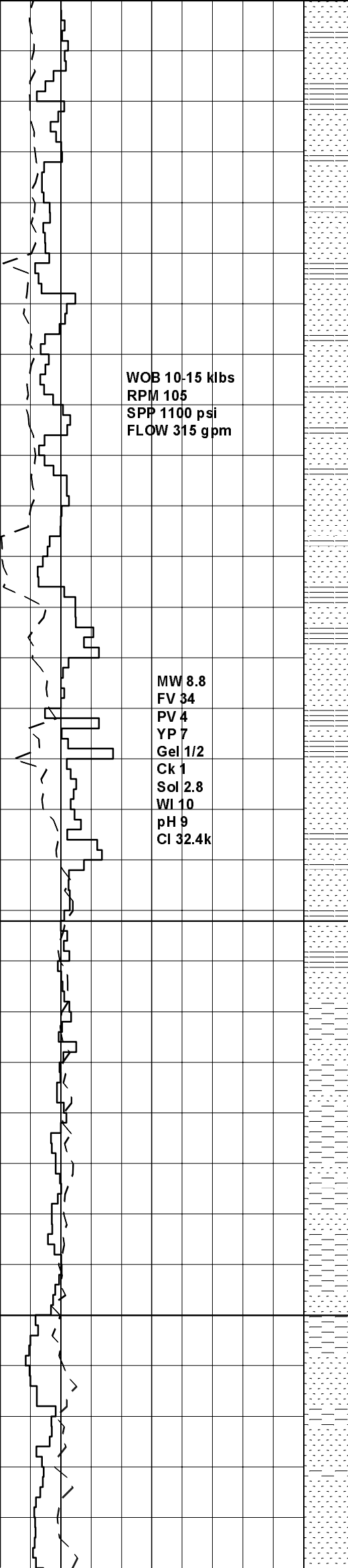
**MASSACRE SHALE:
1071mRT (-1017mTVDSS)**

SILTSTONE: med-dk gy/bn, occ lt pl
bn, arg, aren i/p, occ calc, sft-
frm, mod hd i/p, pred blk.

SANDSTONE: clr-trnsi, pl bn, vf-
med, rr crs, pr srt, sr-sa, occ calc
mtx, rr pyr, lse, pr-fr inf & vis
por, no fluor.

**TIMBOON SST:
1110mRT (-1056mTVDSS)**

SANDSTONE: off wh, clr-trnsi, occ
pl bn, vf-crs, occ v crs, pr srt,
sr-sa, lse, pr inf por, no fluor.



WOB 10-15 klbs
RPM 105
SPP 1100 psi
FLOW 315 gpm

MW 8.8
FV 34
PV 4
YP 7
Gel 1/2
Ck 1
Sol 2.8
WI 10
pH 9
CI 32.4k

1000
999.5

1025
1024.5

1050
1049.5

1075
1074.5

1100
1099.5

1125
1124.4

NIL GAS

NIL GAS

NIL GAS

10K 100K
10 100

100 1K 10K

WOB 10-15 klbs
RPM 105
SPP 1015 psi
FLOW 317 gpm

1150
1149.4

10K

100K

10

100

100

1K

10K

SILTSTONE:lt-med gy/bn,lt bn,tr
calc,com arg,aren i/p,com carb
spks,sft,amorph.

SURVEY @ 1163m: 2.00° 000T

MW 8.9
FV 40
PV 16
YP 12
Gel 2/3
Ck 1
Sol 3.6
WL 7.0
pH 9.0
CI 11k

1175
1174.4

NIL GAS

SANDSTONE:clr-trnsl,mlky,off wh,
occ pl bn,vf-med,pred f,occ crs,
pr srt,sa-sr,tr ang,lse,pr inf &
vis por,no fluor.

1200
1199.4

SANDSTONE:clr-trnsl,mlky,off wh,
vf-med,pred f,rr crs,mod srt,sa-
sr,lse,pr inf por,no fluor.

WOB 10-15 klbs
RPM 105
SPP 1500 psi
FLOW 317 gpm

1225
1224.4

NIL GAS

MW 8.9
FV 40
PV 16
YP 12
Gel 2/3
Ck 1
Sol 3.6
WL 7
pH 9
CI 32.4k

1250
1249.4

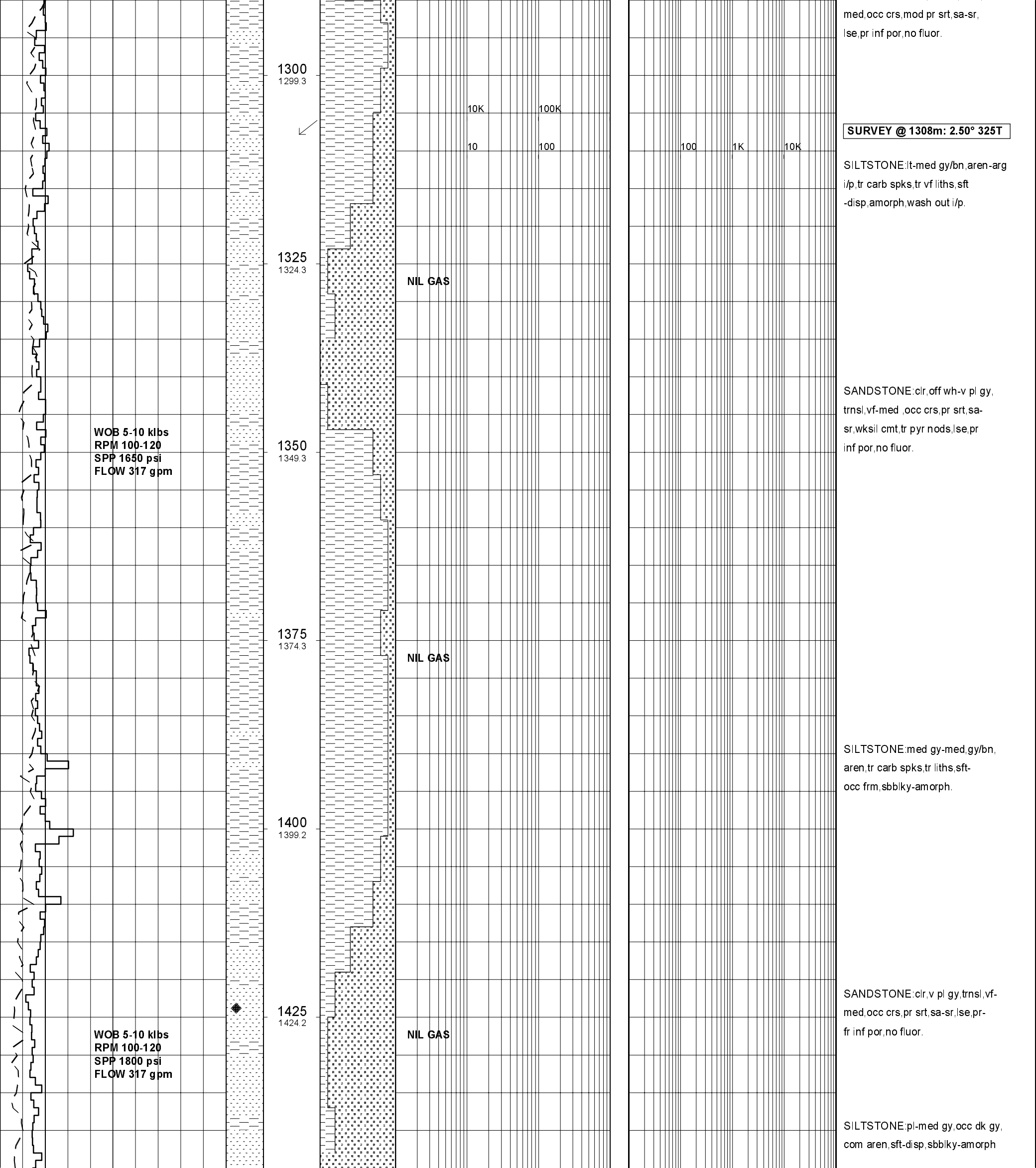
**PAARATTE FM:
1252mRT (-1198mTVDSS)**

SILTSTONE:lt-med gry,aren,tr arg
i/p,occ carb spks and lams,tr vf
liths,sft-disp i/p,amorph.

1275
1274.3

NIL GAS

SANDSTONE:clr,off wh,tnsl,vf-



SURVEY @ 1308m: 2.50° 325T

SILTSTONE:lt-med gy/bn,aren-arg
i/p,tr carb spks,tr vf liths,sft
-disp,amorph,wash out i/p.

SANDSTONE:clr,off wh-v pl gy,
trnsl,vf-med ,occ crs,pr srt,sa-
sr,wksil cmt,tr pyr nods,lse,pr
inf por,no fluor.

SILTSTONE:med gy-med gy/bn,
aren,tr carb spks,tr liths,sft-
occ frm,sbbky-amorph.

SANDSTONE:clr,v pl gy,trnsl,vf-
med,occ crs,pr srt,sa-sr,lse,pr-
fr inf por,no fluor.

SILTSTONE:pl-med gy,occ dk gy,
com aren,sft-disp,sbbky-amorph

WOB 5-10 klbs
RPM 100-120
SPP 1650 psi
FLOW 317 gpm

WOB 5-10 klbs
RPM 100-120
SPP 1800 psi
FLOW 317 gpm

1300
1299.3

1325
1324.3

1350
1349.3

1375
1374.3

1400
1399.2

1425
1424.2

NIL GAS

NIL GAS

NIL GAS

10K

100K

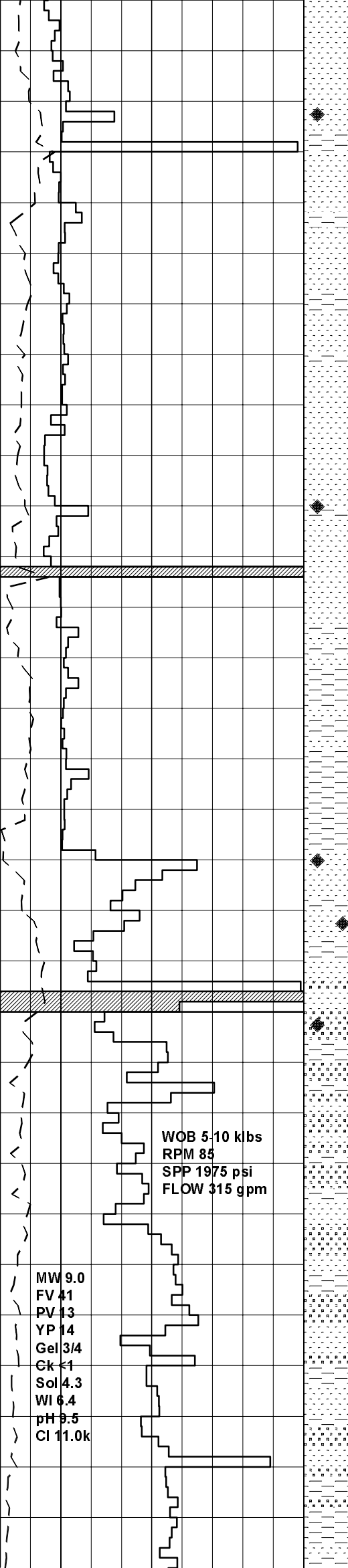
10

100

100

1K

10K



1450
1449.2

1475
1474.2

1500
1499.1

1525
1524.1

1550
1549.1

1575
1574.1

1600

NIL GAS

NIL GAS

NIL GAS

SANDSTONE: cr, trnsl, tr pl gy, vf-crs, occ v crs, pr srt, sa-sr, tr pyr, lse, pr inf por, no fluor.

SILTSTONE: med-pl bn/gy, med gy, com aren, g/t vf SST i/p, sft frm, sbblky-amorph.

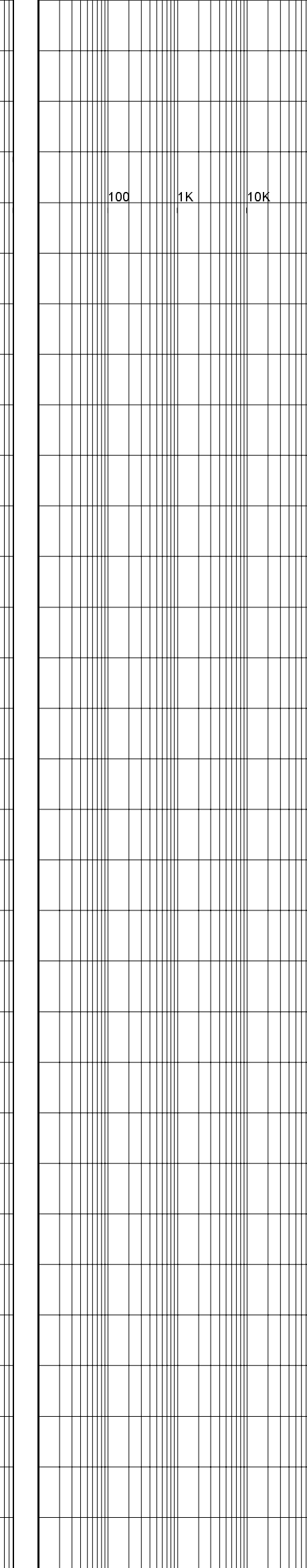
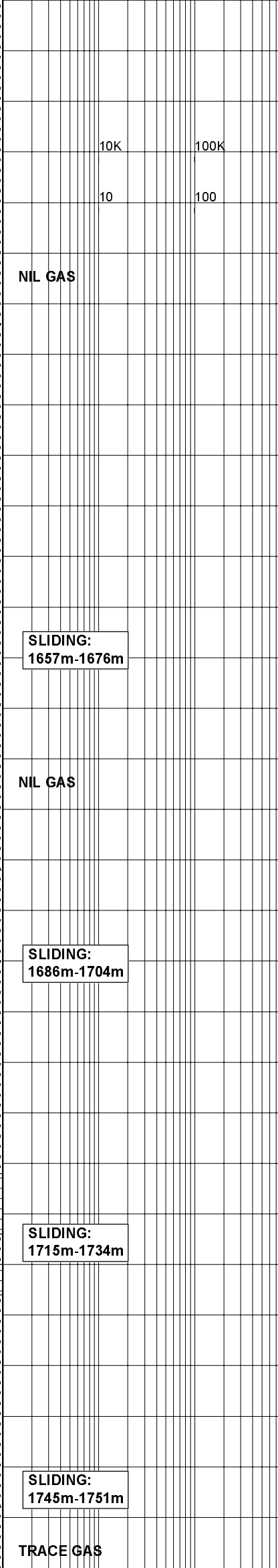
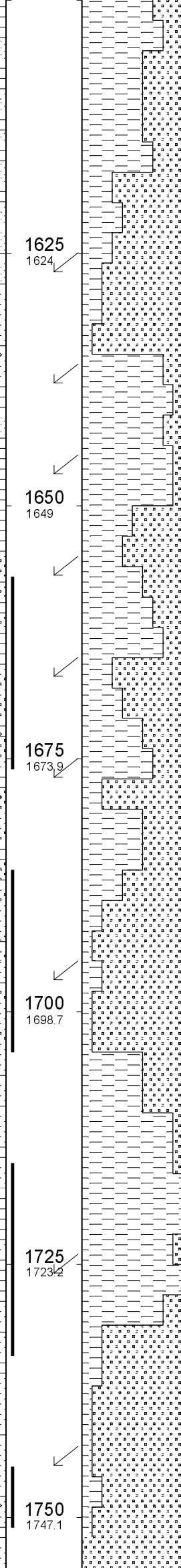
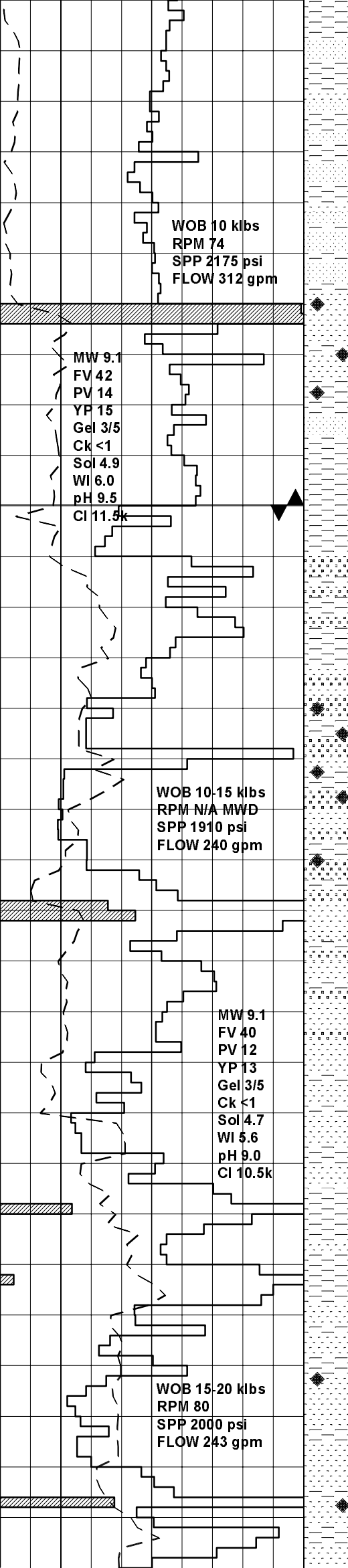
SILTSTONE: lt-med gy, occ dk gy, arg, aren, micmic, carb spks, frm-hd, sbfiss-sbblky, occ amorph.

SANDSTONE: cr-trnsl, mlky, off wh, pl bn, f-crs, pred med, pr srt, sa-sr, ang i/p, mod sil cmt, off wh arg mtx, com pyr nods, pred lse, pr inf por, no fluor.

SILTSTONE: med-dk gy, aren i/p, com carb spks, sft-disp, sbblky-amorph.

WOB 5-10 klbs
RPM 85
SPP 1975 psi
FLOW 315 gpm

MW 9.0
FV 41
PV 13
YP 14
Gel 3/4
Ck <1
Sol 4.3
WI 6.4
pH 9.5
Cl 11.0k



SANDSTONE: clr-trnsl, tr pl gy-off
wh, vf-v crs, pred f, pr srt, sa-sr,
wk sil cmt, loc pyr nod, lse, pr
inf por, no fluor.

SURVEY @ 1627m: 3.00° 278T

SURVEY @ 1638m: 3.32° 266T
SILTSTONE: lt-med gy, occ dk gy,
aren, pyr i/p, sft-mod hd, sbbiky-
amorph.

FILTRATE: 0.30 @ 72° F

SURVEY @ 1647m: 3.34° 263T

BIT #3: Smith XR32TDGPS
SIZE: 6.75" JETS: 3x12
IN: 1650m OUT: 1819m
RUN: 169m HRS: 18.3
COND: 5-5-WT-A-E-I-ER-PR

SURVEY @ 1657m: 3.20° 253T

SURVEY @ 1667m: 3.26° 207T
SILTSTONE: pl-med gy, arg i/p, com
calc, sft-disp, amorph.

SURVEY @ 1677m: 4.81° 182T

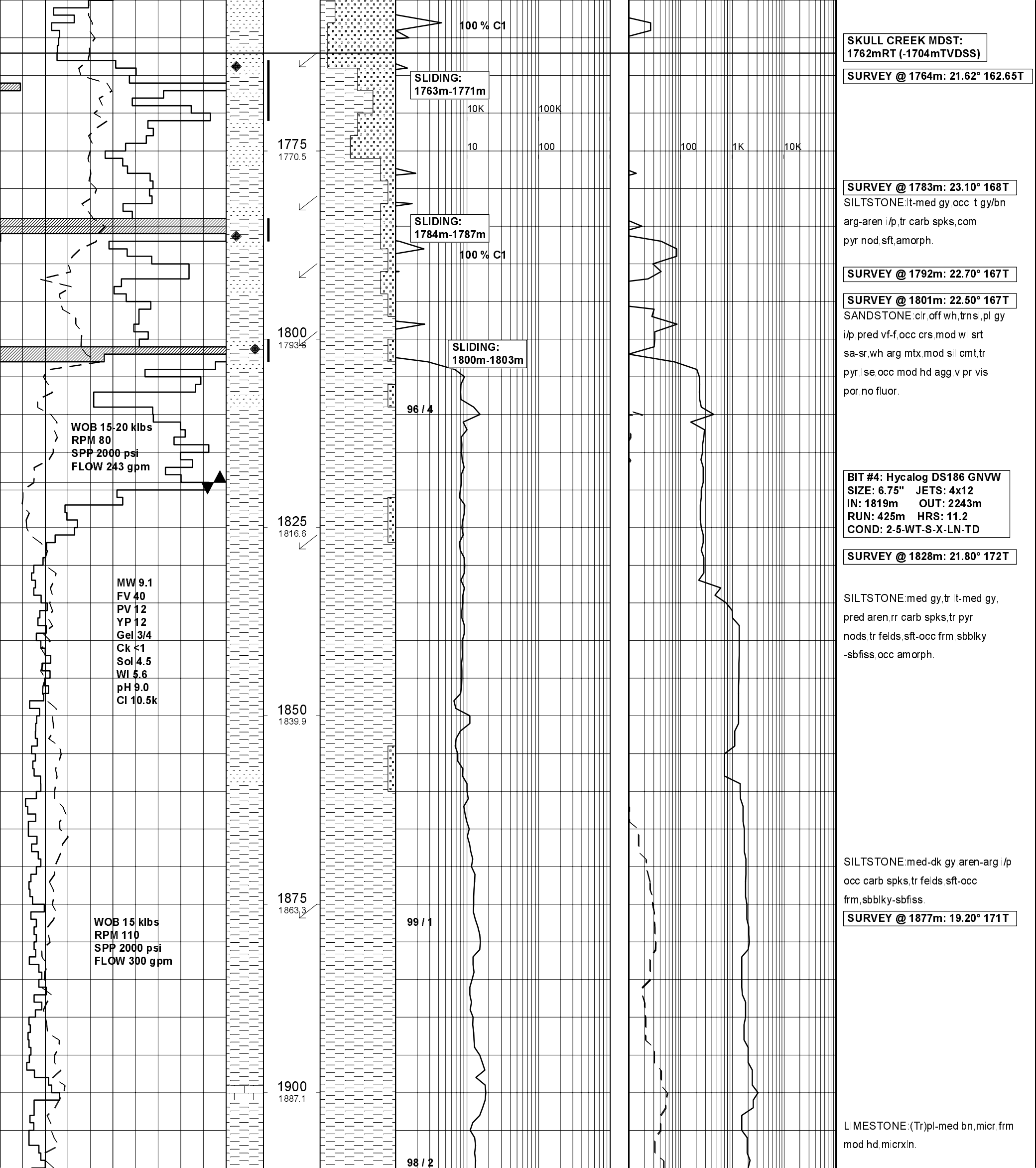
SANDSTONE: clr-trnsl, occ mlky, vf-
v crs, bimodal srt, sa-sr, tr wh
arg mt, occ pyr nod, lse, no
fluor.

SURVEY @ 1697m: 8.23° 163T

SILTSTONE: pl-med gy, pred lt gy,
arg i/p, com calc, sft-disp,
amorph.

SURVEY @ 1726m: 14.35° 156.17T

SURVEY @ 1745m: 18.15° 158.3T
SANDSTONE: clr-v pl gy, trnsl, occ
mlky, f-med, occ vf-crs, mod pr
srt, occ pyr, dom lse, tr fri aggs,
fr-pr inf por, ti vis por, no
fluor.



**SKULL CREEK MDST:
1762mRT (-1704mTVDSS)**

SURVEY @ 1764m: 21.62° 162.65T

SURVEY @ 1783m: 23.10° 168T

SILTSTONE:lt-med gy,occ lt gy/bn
arg-aren i/p,tr carb spks,com
pyr nod,sft,amorph.

SURVEY @ 1792m: 22.70° 167T

SURVEY @ 1801m: 22.50° 167T

SANDSTONE:cr,off wh,trnsl,pl gy
i/p,pred vf-f,occ crs,mod wl srt
sa-sr,wh arg mtx,mod sil cmt,tr
pyr,lse,occ mod hd agg,v pr vis
por,no fluor.

BIT #4: Hycalog DS186 GNWW

SIZE: 6.75" JETS: 4x12
IN: 1819m OUT: 2243m
RUN: 425m HRS: 11.2
COND: 2-5-WT-S-X-LN-TD

SURVEY @ 1828m: 21.80° 172T

SILTSTONE:med gy,tr lt-med gy,
pred aren,rr carb spks,tr pyr
nods,tr felds,sft-occ frm,sbbiky
-sbfiss,occ amorph.

SILTSTONE:med-dk gy,aren-arg i/p
occ carb spks,tr felds,sft-occ
frm,sbbiky-sbfiss.

SURVEY @ 1877m: 19.20° 171T

LIMESTONE:(Tr)pl-med bn,micr frm
mod hd,micrxln.

100% C1

SLIDING:
1763m-1771m

100% C1

SLIDING:
1784m-1787m

SLIDING:
1800m-1803m

96 / 4

99 / 1

98 / 2

1775
1770.5

1800
1793.6

1825
1816.6

1850
1839.9

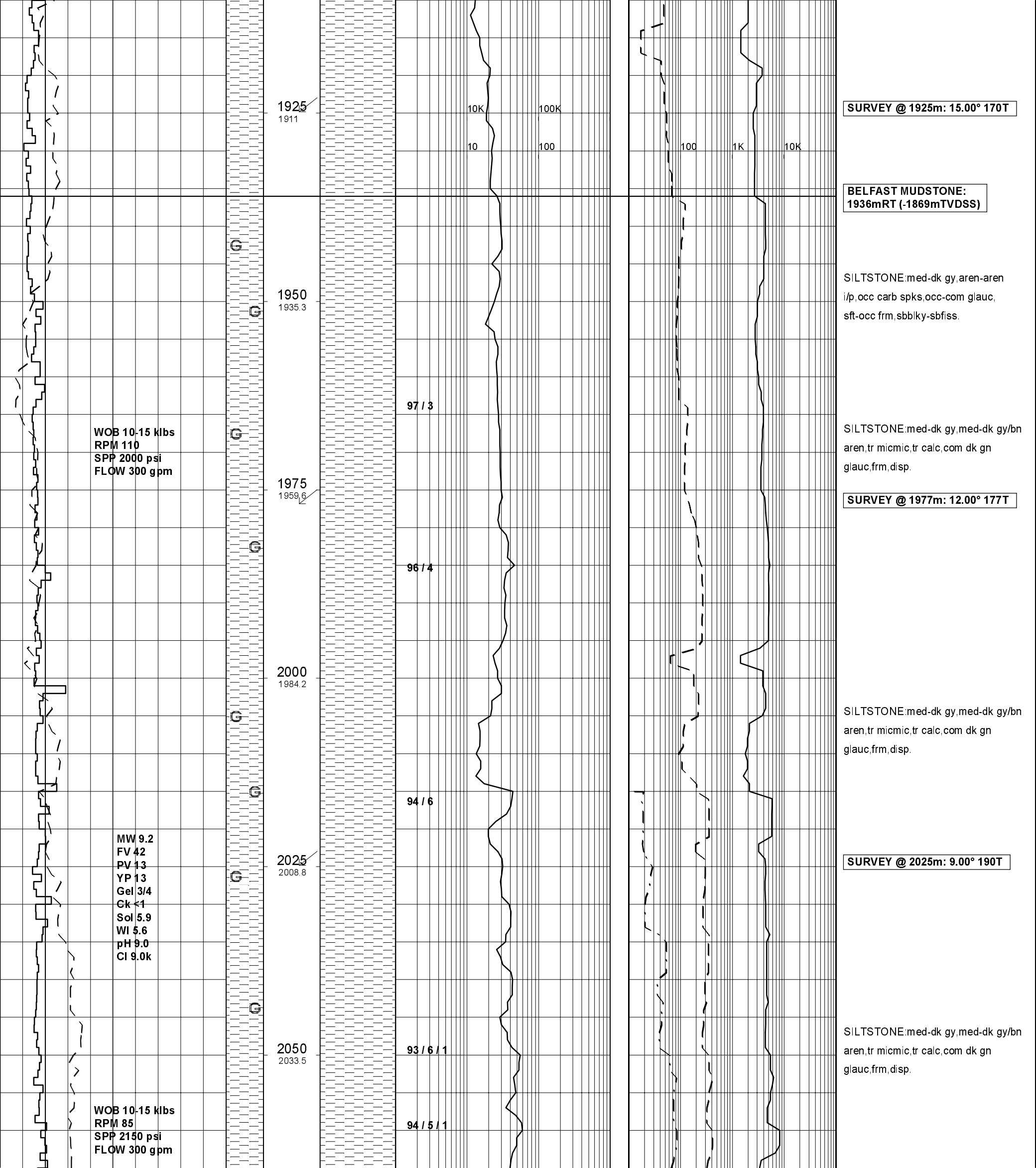
1875
1863.3

1900
1887.1

WOB 15-20 klbs
RPM 80
SPP 2000 psi
FLOW 243 gpm

MW 9.1
FV 40
PV 12
YP 12
Gel 3/4
Ck <1
Sol 4.5
Wl 5.6
pH 9.0
Cl 10.5k

WOB 15 klbs
RPM 110
SPP 2000 psi
FLOW 300 gpm



1925
1911

10K 100K
10 100

SURVEY @ 1925m: 15.00° 170T

**BELFAST MUDSTONE:
1936mRT (-1869mTVDSS)**

1950
1935.3

97 / 3

SILTSTONE: med-dk gy, aren-aren
i/p, occ carb spks, occ-com glauc,
sft-occ frm, sbbky-sbfiss.

WOB 10-15 klbs
RPM 110
SPP 2000 psi
FLOW 300 gpm

1975
1959.6

96 / 4

SILTSTONE: med-dk gy, med-dk gy/bn
aren, tr micmic, tr calc, com dk gn
glauc, frm, disp.

SURVEY @ 1977m: 12.00° 177T

2000
1984.2

94 / 6

SILTSTONE: med-dk gy, med-dk gy/bn
aren, tr micmic, tr calc, com dk gn
glauc, frm, disp.

MW 9.2
FV 42
PV 13
YP 13
Gel 3/4
Ck <1
Sol 5.9
WI 5.6
pH 9.0
CI 9.0k

2025
2008.8

SURVEY @ 2025m: 9.00° 190T

2050
2033.5

93 / 6 / 1

SILTSTONE: med-dk gy, med-dk gy/bn
aren, tr micmic, tr calc, com dk gn
glauc, frm, disp.

WOB 10-15 klbs
RPM 85
SPP 2150 psi
FLOW 300 gpm

94 / 5 / 1

SURVEY @ 2068m: 7.50° 193T

FLAXMANS FM:
2072m (-2002mTVDSS)

2075
2058.3

10K 100K
10 100

93 / 5 / 2

92 / 6 / 2 / Tr

SANDSTONE: clr-trnsl, mlky-off wh, vf-med, pred f, sa-sr, hd sil cmt, wh arg mtx, pred lse, occ hd, pr inf por, no fluor.

SILTSTONE: pl-med gy, med-dk gy/bn, vf aren, com carb spks, com glauc, calc, tr micmic, tr pyr, frm-mod hd sbbiky-disp.

2100
2083

94 / 5 / 1

WAARRE FM (UNIT C):
2097m (-2026mTVDSS)

SANDSTONE: clr, trnsl, off wh, vf-v crs, pred med, pr srt, ang-sa, occ wk sil cmt, tr off wh arg mtx, lse -mod hd, pr-fr vis por, no fluor.

SILTSTONE: pl-med gy, med gy/bn, com vf aren, com carb spks & lam, frm-mod hd, sbbiky-sbfiss.

2125
2107.8

92 / 6 / 2 / Tr

SURVEY @ 2116m: 8.00° 219T

WAARRE FM (UNIT B):
2133.5m (-2062.5mTVDSS)

SILTSTONE: pl-med gy, vf aren, com carb spks & lam, mnr calc, frm-mod hd, sbbiky-sbfiss.

WOB 15 klbs
RPM 110
SPP 2100 psi
FLOW 290 gpm

2150
2132.5

91 / 7 / 2 / Tr

SANDSTONE: off wh, clr, trnsl, occ pl gy, vf-f, occ crs, wl srt-bimod, sa-sr, mod hd sil cmt, tr calc mtx com arg mtx, tr glauc, tr pyr, mod hd-hd, vpr vis & inf por, no fluor

WAARRE FM (UNIT A):
2161m (-2090mTVDSS)

SILTSTONE: pl bn, pl-med bn/gy, med -dk gy, aren, tr glauc, tr calc, frm -mod hd, sbfiss, sbbiky.

MW 9.4
FV 43
PV 14
YP 14
Gel 3/4
Ck <1
Sol 5.9
Wl 5.5
pH 9.0
Cl 8.0k

2175
2157.2

93 / 6 / 1

EUMERALLA FM:
2193m (-2121mTVDSS)

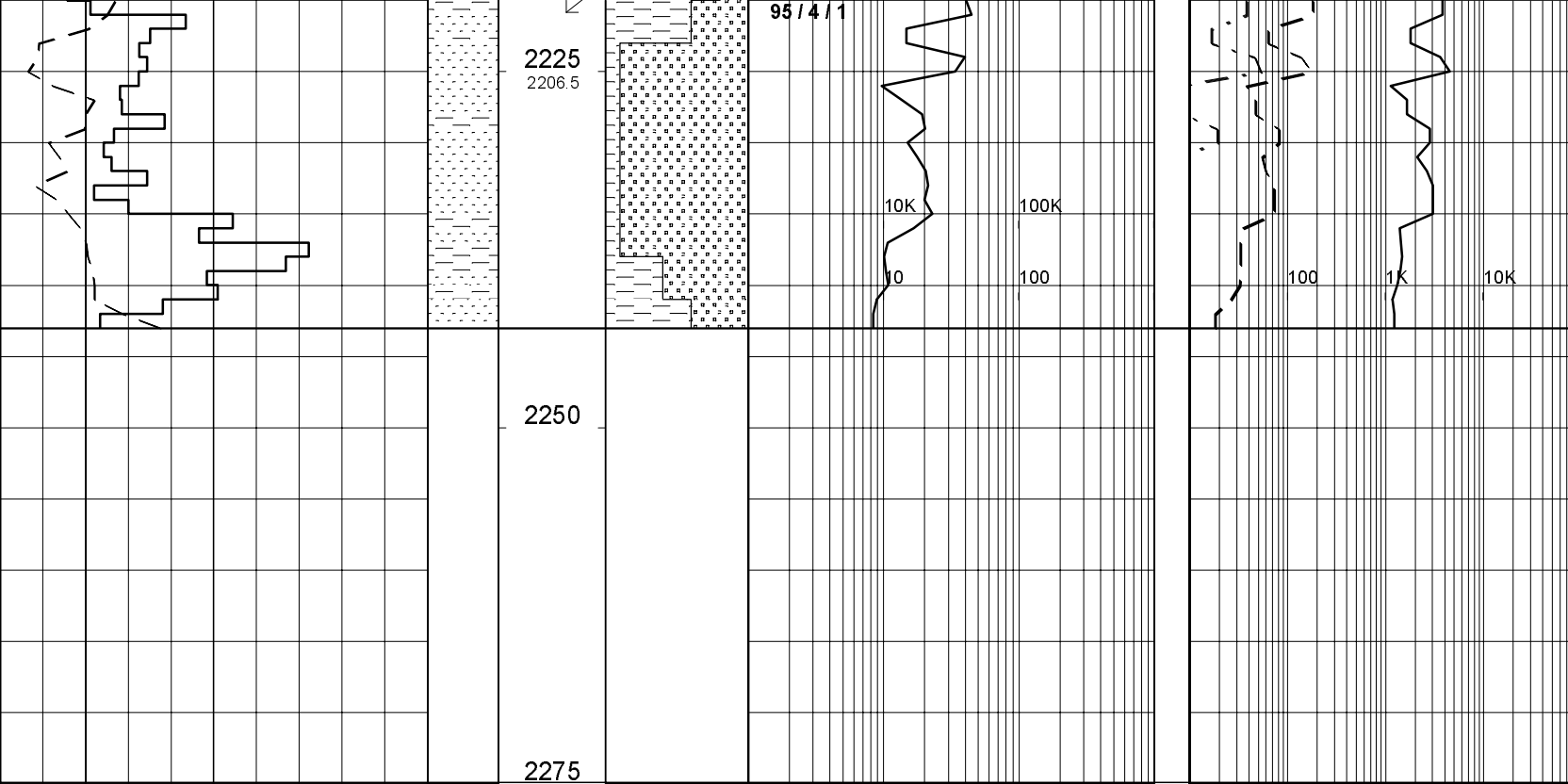
SANDSTONE: off wh-v lt gry, occ lt gn/gy, occ clr-trnsl, f-med, pred f mod wl srt, sa-sr, com wk calc cmt com-abdt wh arg mtx, occ liths, tr pyr, fri-occ lse, pr vis & inf por no fluor.

2200
2181.8

93 / 5 / 2

SURVEY @ 2200m: 10.50° 245T

SURVEY @ 2221m: 10.50° 2471



SILTSTONE: med gy-med gy/bn, com
pl blu/gy, arg, tr vf aren, tr vf
vf micmic i/p, frm, occ sft, rr mod
hd, sbbky.

NAYLOR SOUTH-1 REACHED TD
@ 04:30 HRS ON 26-12-2001

DRILLERS DEPTH:
2243mMD (2224.21mTVD)

ELECTRIC LOGS RUN @ TD
RUN #1:
GR-DLS-MRS-LCS-CAL
RUN #2:
GR-PDS-CNS