



MASTERLOG

WKF W-31A



| GENERAL | SURFACE POSITON | HOLE / CASING INFO | DATE / DEPTH | ENGINEERS |
|-------------------------|-----------------------------|----------------------------------|-------------------------------------|--------------|
| Country : AUSTRALIA | Longitude : 148 06 19.408E | 8-1/2" Hole to 3450.0m MDRT | Spud Date : 21-06-2006 | Steve Oades |
| Permit : VIC L8 | Latitude : 38 35 34.800S | | Total Depth Date : 03-07-2006 | Mark Smith |
| Field : Kingfish | MGA Co-ord X : 596265.03mE | 13-3/8" Surface Csg 1300.0m MDRT | Total Depth : 3450.0m MDRT | Noel Elliott |
| Basin : GIPPSLAND | MGA Co-ord Y : 5727807.76mN | 7" Production Csg at | True Vertical Depth : 2373.2m TVDRT | Nick Abolins |
| Well Type : DEVELOPMENT | RT to MSL : 33.43m | | Log Scale : 1/ 500 | |
| Rig Name : NABORS 453 | RT to Sea Bed : 109.56m | | | |

| ABBREVIATIONS | LITHOLOGY LEGEND | ENGINEERING LEGEND |
|---|---|---|
| MW Mud Weight FV Funnel Viscosity PV Plastic Viscosity YP Yield Point Gel Gel Strength WL Water Loss KCl Potassium Chloride Cl Chlorides Incl Inclination Az Azimuth | WOB Weight on Bit (klbs) RPM Rotations Per Min FLW Flow Rate (gpm) SPP Pump Pressure (psi) RR Re-Run Bit TG Trip Gas CG Connection Gas BG Background Gas DGP Drilled Gas Peak MM Mud Motor | CASING SHOE LINER HANGER BIT CHANGE DEVI. SURVEY SWC UNRECOV SIDEWALL CORE CORE |
| CLAYSTONE SILTSTONE SST: F - V FINE SST: MEDIUM SST: COARSE SHALE | MARL LIMESTONE DOLOMITE CHERT CONGLOMERATE COAL | WIRELINE LOGS MDT POINTS: PRESSURE ONLY SAMPLE SEAL FAILURE TIGHT |
| | BRYOZOA RADIOLARITES ECHINODS CORALS FORAMINIFERA LITHIC FRAGMENT | |
| | CARB FRAGMENT QUARTZITE INTRUSIVES GLAUCONITE PYRITE CEMENT | |

| ROP (m/hr) | DEPTH (m) (TVD) | CUTTINGS | RESERVAL GAS DATA | CUT FLUOR | DIRECT FLR | LITHOLOGY DESCRIPTIONS |
|--|-----------------|-----------|---|---------------------|-------------------------------------|------------------------|
| 500 50 5 .5 | SLIDING BAR | LITHOLOGY | C1 C2 C3 iC4 nC4 iC5 nC5 Total Gas in Units Chromatograph in PPM | 5K 100K 1000K | FOUR THREE TWO ONE SOOD | and REMARKS |
| WOB (tons) 50 25 0 | | % | | | | |
| MWD Gamma Ray (api) 0 100 200 | | | | | | |

SLIDING INDICATED BY VERTICAL BAR IN DEPTH COLUMN.

Tie In Survey: 1300.00m MD (975.11m TVD)
57.11° Inc 269.74° az

BIT #1 8 1/2"
Smith S73HPX
Jets: 5x18, 3x16
In : 1300.0m MDRT
Out : 2794.0m MDRT
Run : 1494.0m
Hrs : 52.7
Cond: 1-3-BT-ST-X-116-CT-HP

PREVIOUS WELL HISTORY
Plugged & Abandoned in June, 2006
13-3/8" Surface Csg 1300.0m MDRT
9-5/8" Production Csg cut and pulled from 1372.0m MDRT
Kick-off plug at 1277.0m MDRT

West Kingfish W-31A kick-off at 19:00 hours on 21-06-2006 from 1300.0m MDRT

Drill with 8% KCl/PPHA/Polymer Glycol-CP mud system.

Drilled to 1367.0 mMDRT (1014.7 mTVDRT)
PIT at 1300.0m MDRT 975.1 mTVDRT
660 psi 9.2 ppg EMW:13.0 ppg

CALCILUTITE: v lt gy-lt gy, slty i/p, tr foss frag, disp, sft, amor.

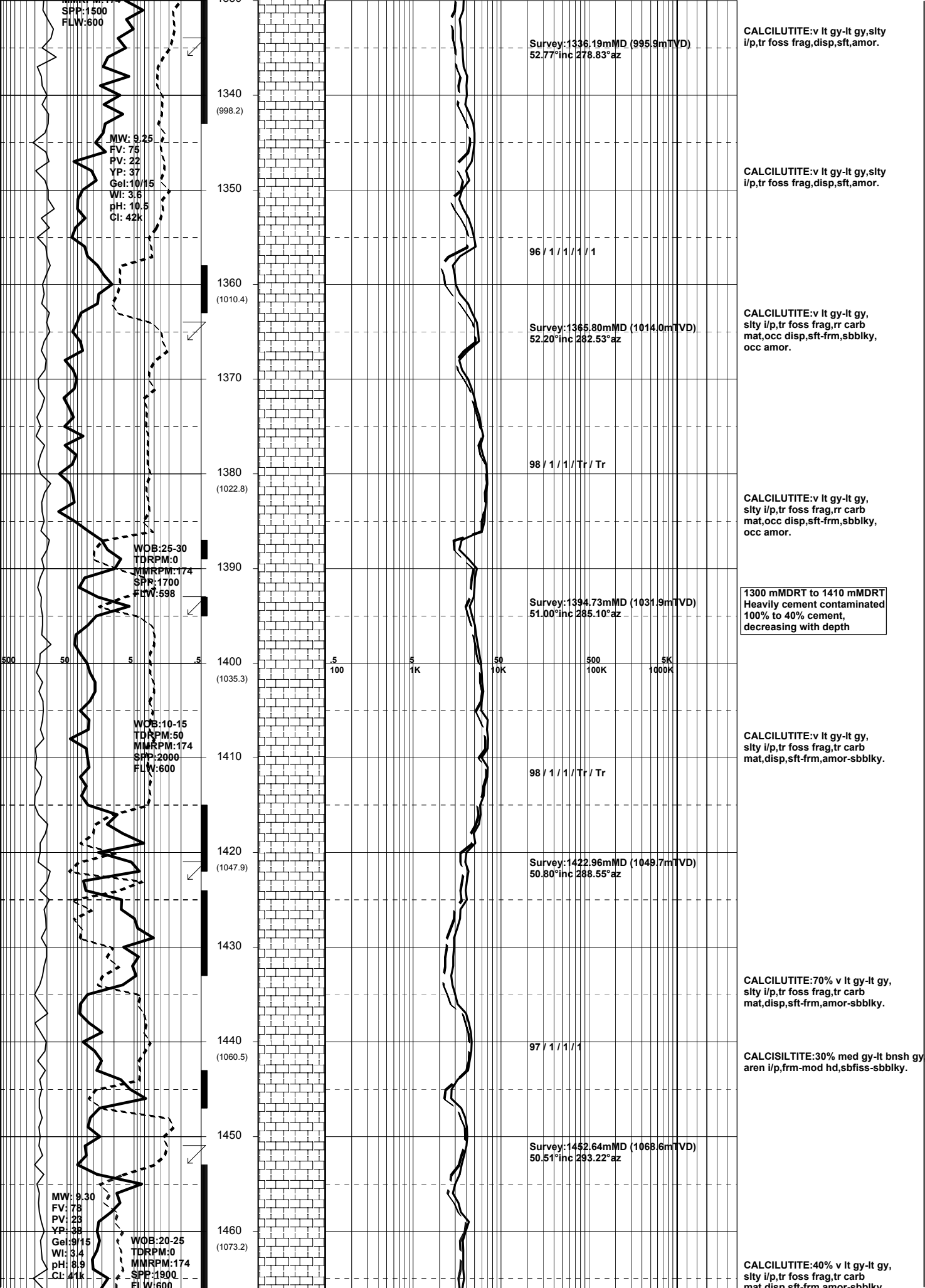
SLIDING INDICATED BY VERTICAL BAR IN DEPTH COLUMN.

MW: 8.95
FV: 50
PV: 19
YP: 26
Gel: 8/11
WI: 4.2
pH: 9.5
Cl: 40k

WOB: 5.8
TDRPM: 50
MMRPM: 174

96 / 1 / 1 / 1 / 1

22-06-06



SPP: 1500
FLW: 600

MW: 9.25
FV: 75
PV: 22
YP: 37
Gel: 10/15
WI: 3.6
pH: 10.5
Cl: 42k

WOB: 25-30
TDRPM: 0
MMRPM: 174
SPP: 1700
FLW: 598

WOB: 10-15
TDRPM: 50
MMRPM: 174
SPP: 2000
FLW: 600

MW: 9.30
FV: 75
PV: 23
YP: 38
Gel: 9/15
WI: 3.4
pH: 8.9
Cl: 41k

WOB: 20-25
TDRPM: 0
MMRPM: 174
SPP: 1900
FLW: 600

Survey: 1336.19mMD (995.9mTVD)
52.77° inc 278.83° az

CALCILUTITE: v lt gy-lt gy, slty
l/p, tr foss frag, disp, sft, amor.

CALCILUTITE: v lt gy-lt gy, slty
l/p, tr foss frag, disp, sft, amor.

96 / 1 / 1 / 1 / 1

CALCILUTITE: v lt gy-lt gy,
slty l/p, tr foss frag, rr carb
mat, occ disp, sft-frm, sbbly,
occ amor.

Survey: 1365.80mMD (1014.0mTVD)
52.20° inc 282.53° az

98 / 1 / 1 / Tr / Tr

CALCILUTITE: v lt gy-lt gy,
slty l/p, tr foss frag, rr carb
mat, occ disp, sft-frm, sbbly,
occ amor.

Survey: 1394.73mMD (1031.9mTVD)
51.00° inc 285.10° az

1300 mMDRT to 1410 mMDRT
Heavily cement contaminated
100% to 40% cement,
decreasing with depth

98 / 1 / 1 / Tr / Tr

CALCILUTITE: v lt gy-lt gy,
slty l/p, tr foss frag, tr carb
mat, disp, sft-frm, amor-sbbly.

Survey: 1422.96mMD (1049.7mTVD)
50.80° inc 288.55° az

CALCILUTITE: 70% v lt gy-lt gy,
slty l/p, tr foss frag, tr carb
mat, disp, sft-frm, amor-sbbly.

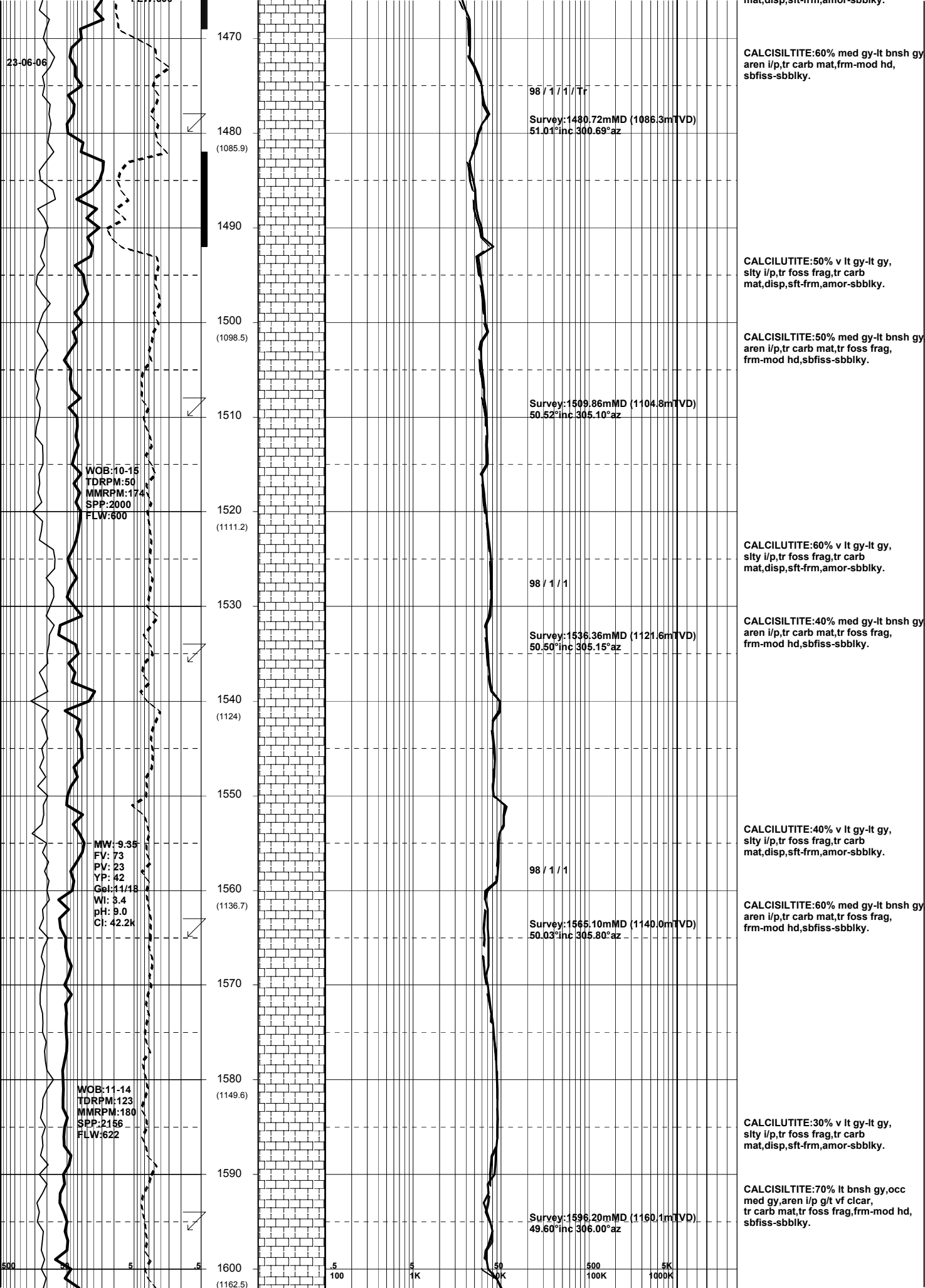
97 / 1 / 1 / 1

CALCILUTITE: 30% med gy-lt bnsh gy
aren l/p, frm-mod hd, sfbfiss-sbbly.

Survey: 1452.64mMD (1068.6mTVD)
50.51° inc 293.22° az

CALCILUTITE: 40% v lt gy-lt gy,
slty l/p, tr foss frag, tr carb
mat disp, sft-frm amor-sbbly





1610
1620 (1175.5)
1630
1640 (1188.6)
1650
1660 (1201.6)
1670
1680 (1214.7)
1690
1700 (1227.7)
1710
1720 (1240.7)
1730

WOB:11-14
TDRPM:119
MMRPM:179
SPP:2250
FLW:616

MW: 9.40
FV: 73
PV: 24
YP: 43
Gel: 11/17
WI: 3.2
pH: 8.9
Cl: 42k

WOB:11-15
TDRPM:119
MMRPM:181
SPP:2241
FLW:625

98 / 1 / 1

Survey:1625.29mMD (1179.0mTVD)
49.39°inc 306.13°az

98 / 1 / 1

Survey:1654.10mMD (1197.8mTVD)
48.92°inc 306.07°az

Survey:1682.18mMD (1215.1mTVD)
49.74°inc 307.10°az

98 / 1 / 1

Survey:1710.86mMD (1234.7mTVD)
49.37°inc 307.23°az

Survey:1738.95mMD (1253.1mTVD)

CALCILUTITE:40% v lt gy-lt gy,
silty i/p, tr foss frag, tr carb
mat, disp, sft frm, amor-sbbkly.

CALCISILTITE:60% lt bnsh gy, occ
med gy, aren i/p g/t vf clcar, tr
carb mat, tr foss frag, frm-mod hd,
sbbkly-sbfiss.

CALCILUTITE:60% v lt gy-lt gy,
silty i/p, tr foss frag, tr carb
mat, disp, sft frm, amor-sbbkly.

CALCISILTITE:40% lt bnsh gy, occ
med gy, aren i/p g/t vf clcar, tr
carb mat, tr foss frag, frm-mod hd,
sbbkly-sbfiss.

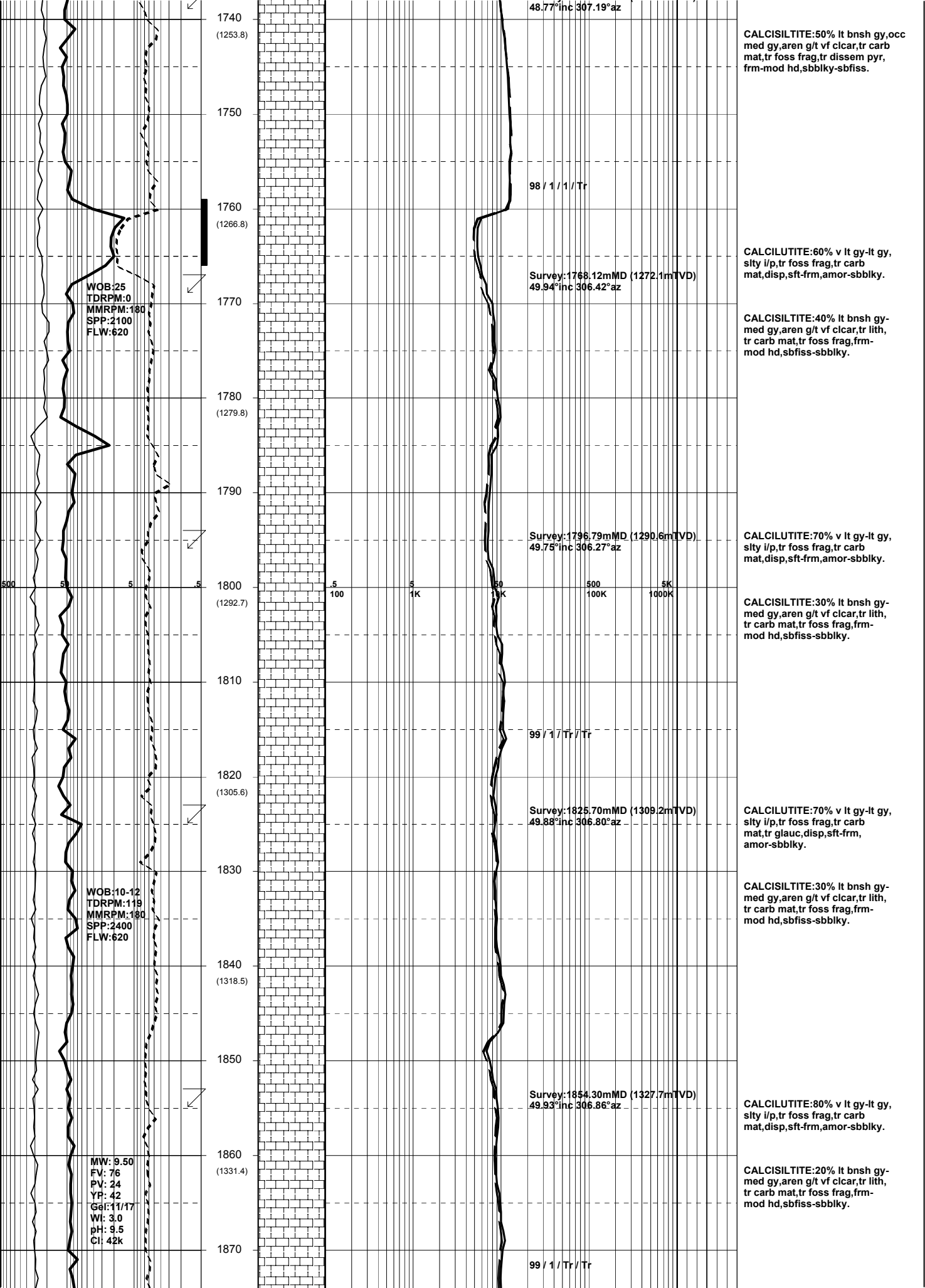
CALCISILTITE:30% lt bnsh gy, occ
med gy, aren g/t vf clcar, tr dissem
pyr, tr carb mat, tr foss frag,
frm-mod hd, sbbkly-sbfiss.

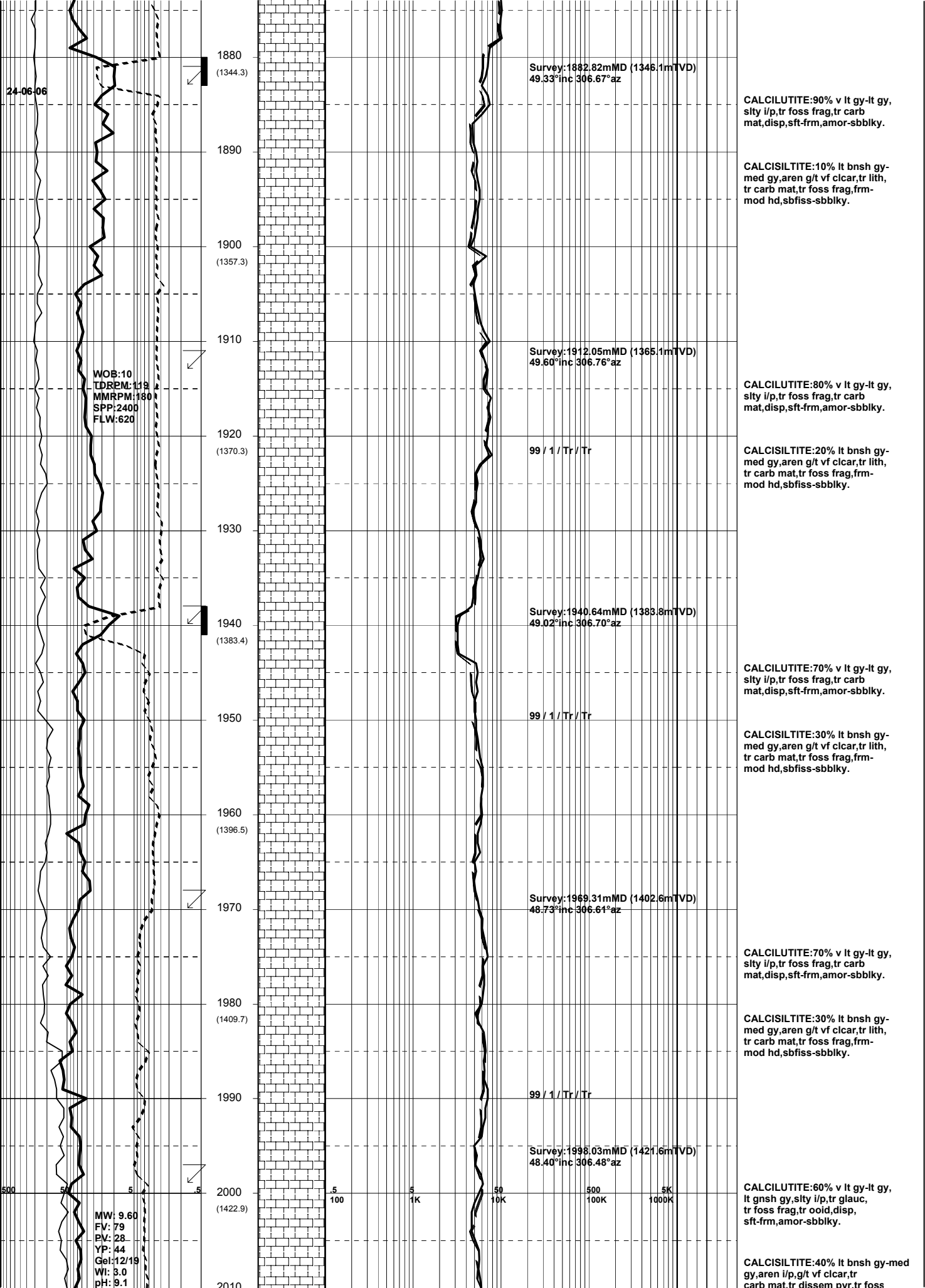
CALCILUTITE:70% v lt gy-lt gy,
silty i/p, tr foss frag, tr carb
mat, disp, sft frm, amor-sbbkly.

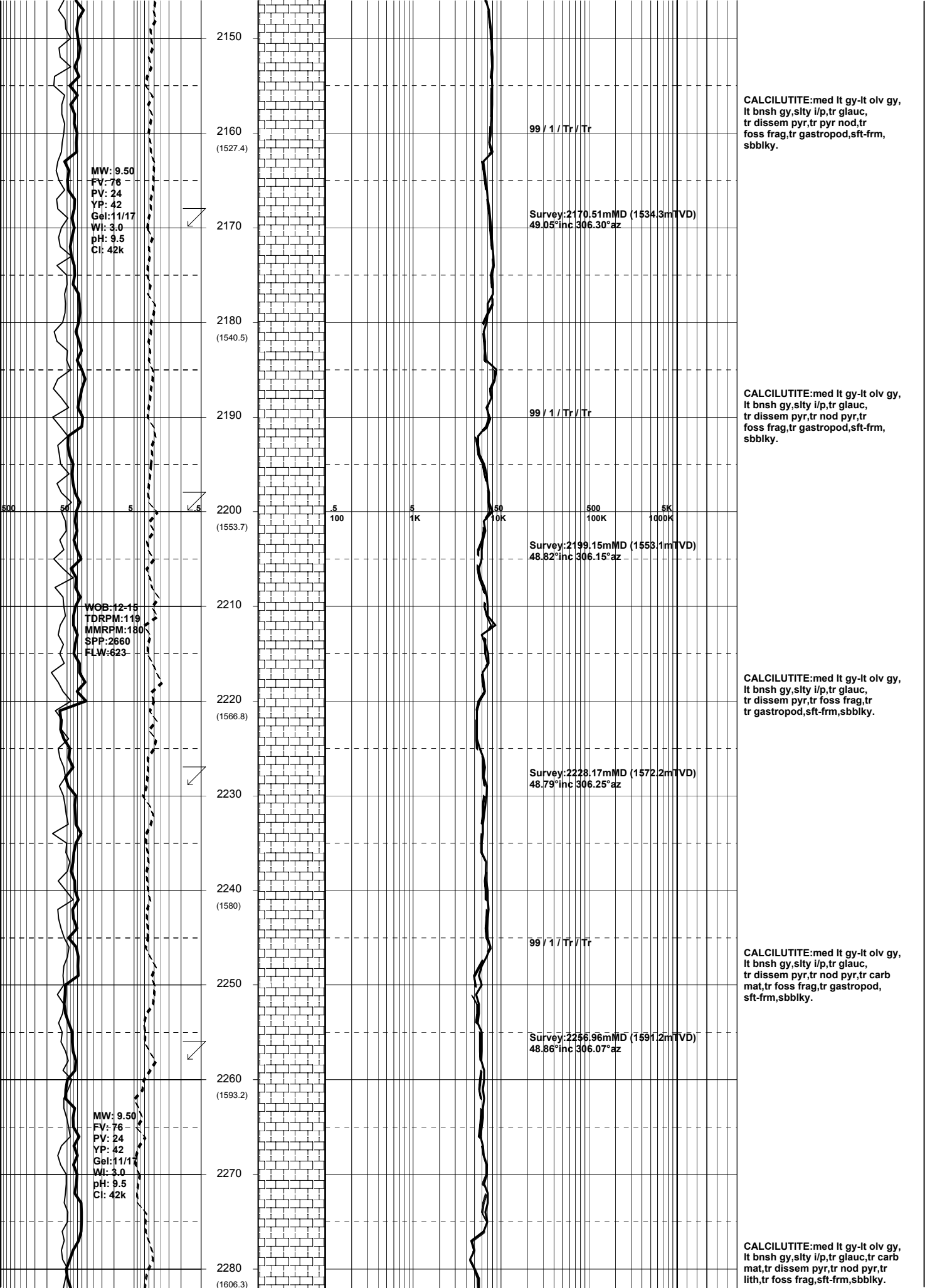
CALCILUTITE:60% v lt gy-lt gy,
silty i/p, tr foss frag, tr carb
mat, disp, sft frm, amor-sbbkly.

CALCISILTITE:40% lt bnsh gy, occ
med gy, aren g/t vf clcar, tr carb
mat, tr foss frag, tr dissem pyr,
frm-mod hd, sbbkly-sbfiss.

CALCILUTITE:50% v lt gy-lt gy,
silty i/p, tr foss frag, tr carb
mat, disp, sft frm, amor-sbbkly.







2150

2160

(1527.4)

MW: 9.50
FV: 76
PV: 24
YP: 42
Gel: 11/17
Wt: 3.0
pH: 9.5
Cl: 42k

2170

2180

(1540.5)

2190

2200

(1553.7)

WOB: 12-15
TDRPM: 119
MMRPM: 180
SPP: 2660
FLW: 623

2210

2220

(1566.8)

2230

2240

(1580)

2250

2260

(1593.2)

MW: 9.50
FV: 76
PV: 24
YP: 42
Gel: 11/17
Wt: 3.0
pH: 9.5
Cl: 42k

2270

2280

(1606.3)

99 / 1 / Tr / Tr

Survey: 2170.51mMD (1534.3mTVD)
49.05° inc 306.30° az

99 / 1 / Tr / Tr

Survey: 2199.15mMD (1553.1mTVD)
48.82° inc 306.15° az

Survey: 2228.17mMD (1572.2mTVD)
48.79° inc 306.25° az

99 / 1 / Tr / Tr

Survey: 2256.96mMD (1591.2mTVD)
48.86° inc 306.07° az

CALCILUTITE: med lt gy-lt olv gy,
lt bnsh gy, slty i/p, tr glauc,
tr disse pyr, tr pyr nod, tr
foss frag, tr gastropod, sft-frm,
sbbiky.

CALCILUTITE: med lt gy-lt olv gy,
lt bnsh gy, slty i/p, tr glauc,
tr disse pyr, tr nod pyr, tr
foss frag, tr gastropod, sft-frm,
sbbiky.

CALCILUTITE: med lt gy-lt olv gy,
lt bnsh gy, slty i/p, tr glauc,
tr disse pyr, tr foss frag, tr
tr gastropod, sft-frm, sbbiky.

CALCILUTITE: med lt gy-lt olv gy,
lt bnsh gy, slty i/p, tr glauc,
tr disse pyr, tr nod pyr, tr carb
mat, tr foss frag, tr gastropod,
sft-frm, sbbiky.

CALCILUTITE: med lt gy-lt olv gy,
lt bnsh gy, slty i/p, tr glauc, tr carb
mat, tr disse pyr, tr nod pyr, tr
lith, tr foss frag, sft-frm, sbbiky.

500

50

5

5

5

5

50

500

5K

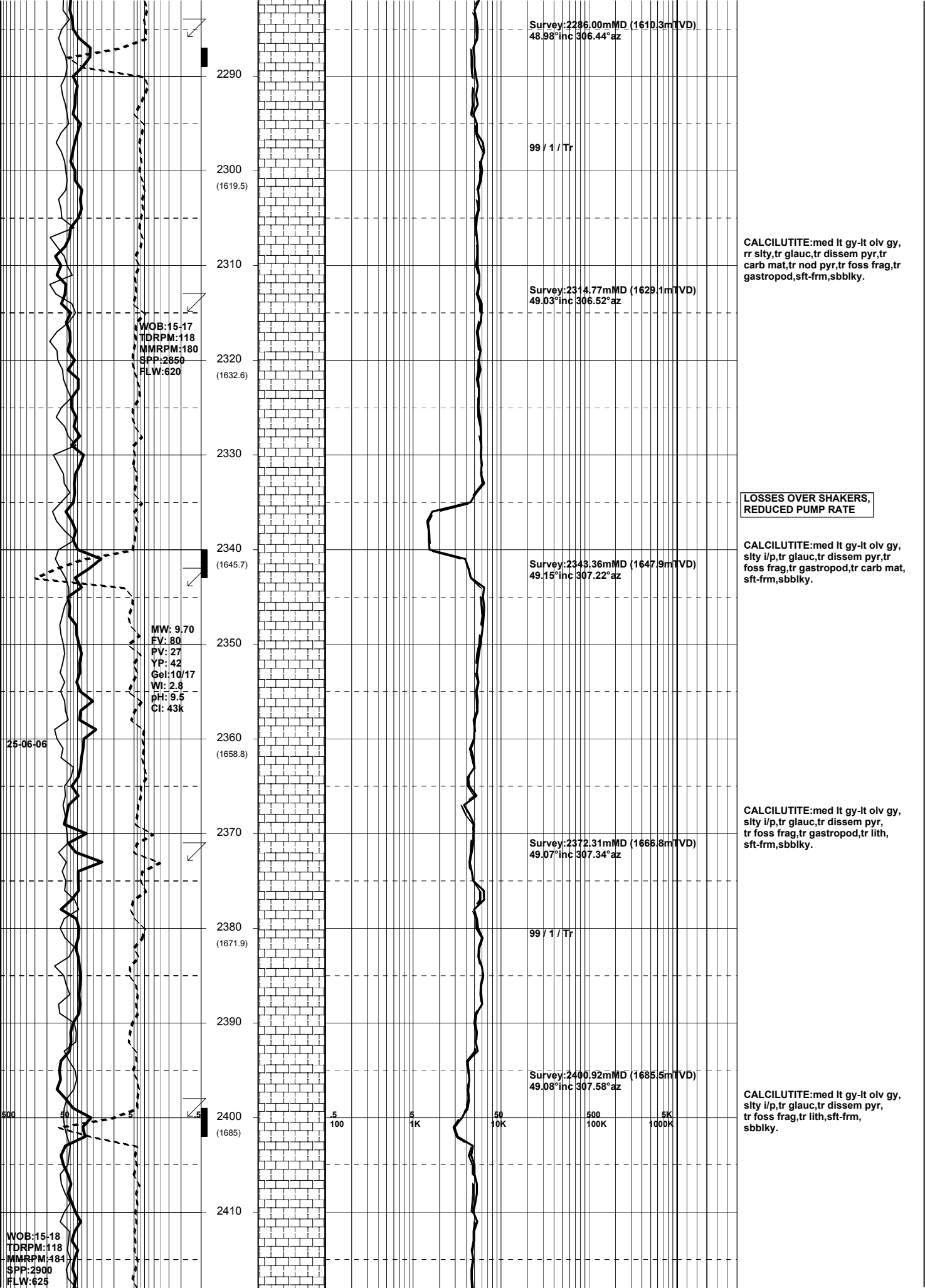
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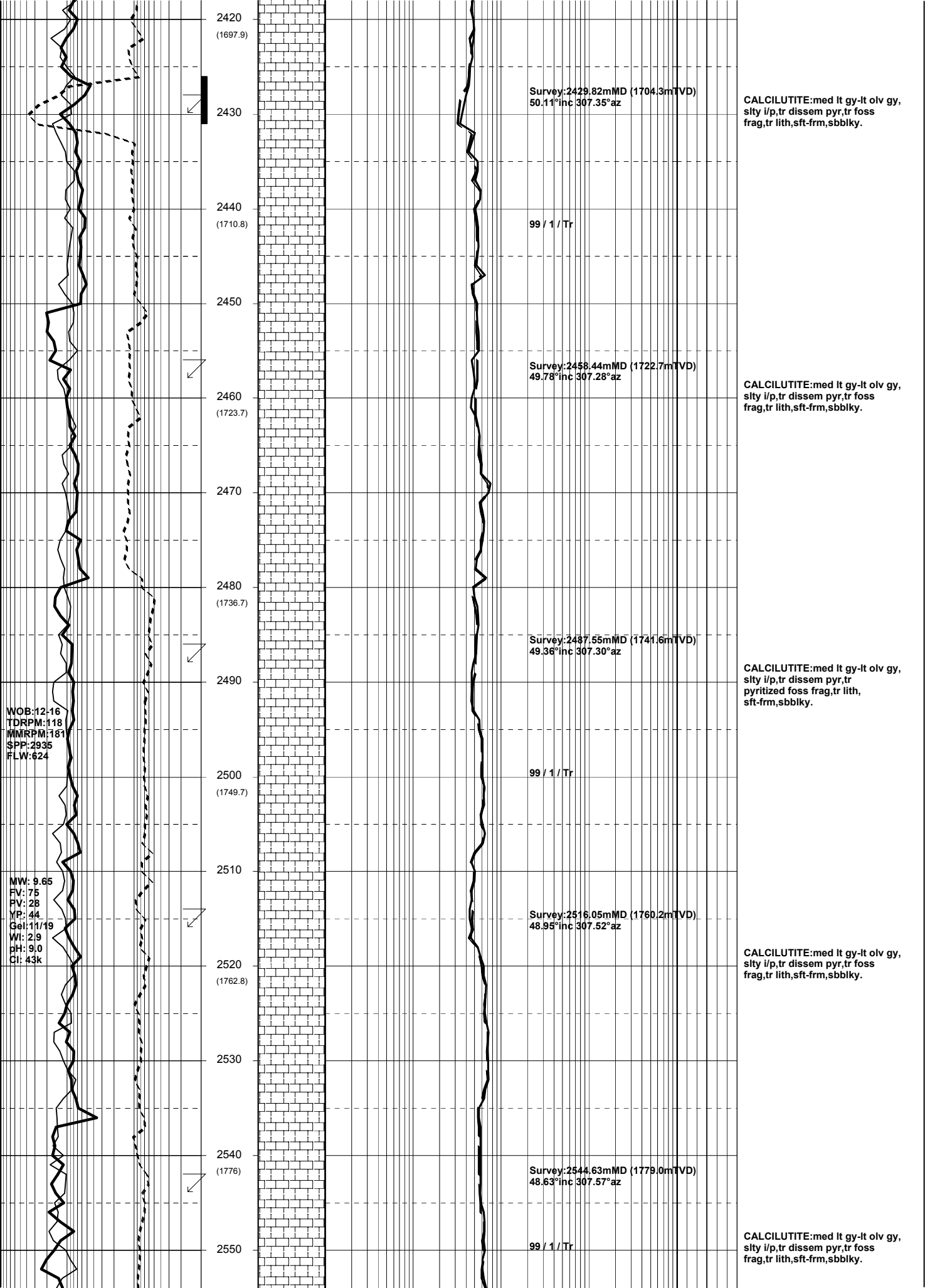
1K

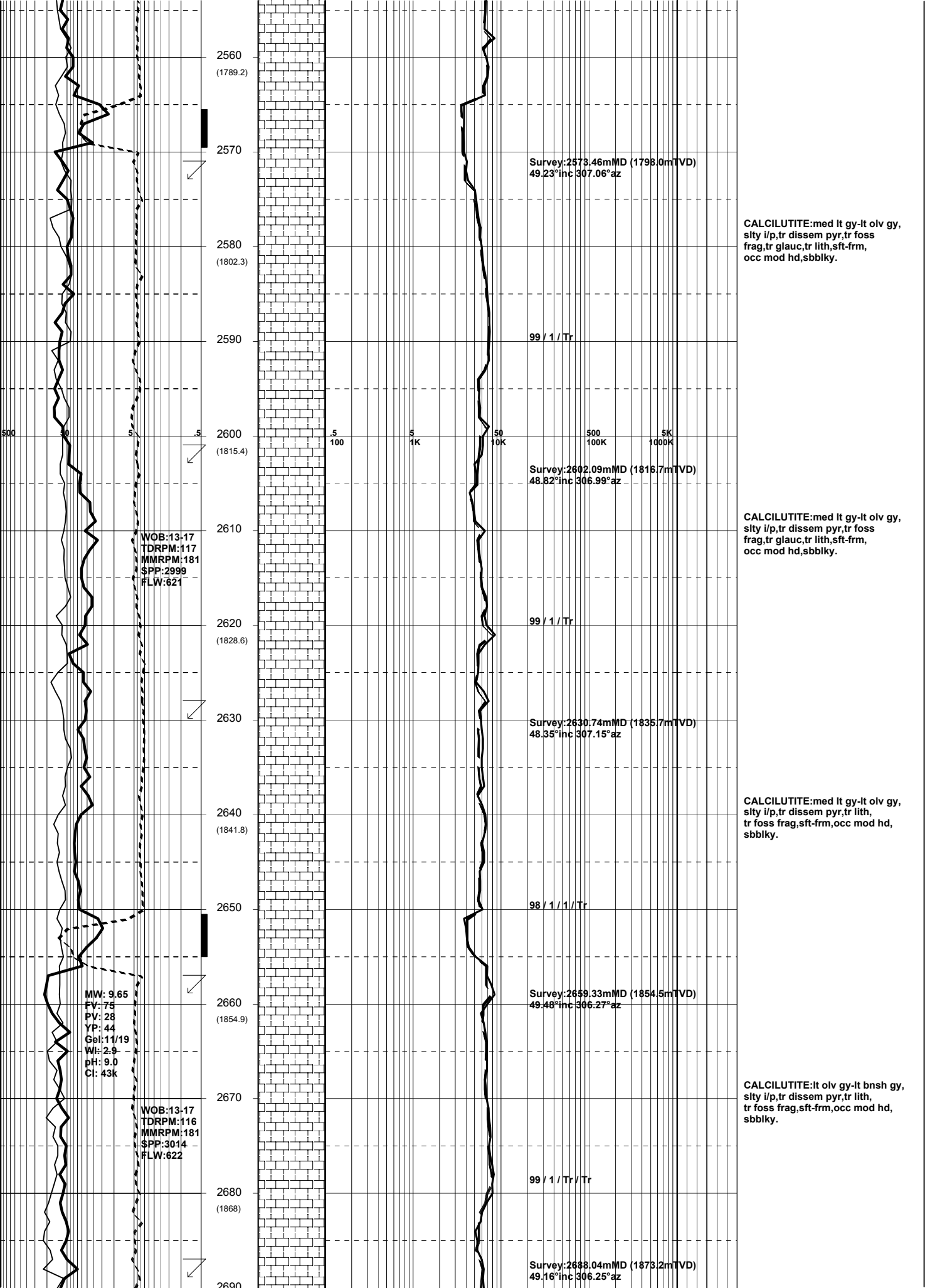
10K

100K

1000K







2560
(1789.2)

2570

2580
(1802.3)

2590

2600
(1815.4)

2610

2620
(1828.6)

2630

2640
(1841.8)

2650

2660
(1854.9)

2670

2680
(1868)

2690

Survey:2573.46mMD (1798.0mTVD)
49.23°inc 307.06°az

99 / 1 / Tr

Survey:2602.09mMD (1815.7mTVD)
48.82°inc 306.99°az

99 / 1 / Tr

Survey:2630.74mMD (1835.7mTVD)
48.35°inc 307.15°az

98 / 1 / 1 / Tr

Survey:2659.33mMD (1854.5mTVD)
49.48°inc 306.27°az

99 / 1 / Tr / Tr

Survey:2688.04mMD (1873.2mTVD)
49.16°inc 306.25°az

WOB:13-17
TDRPM:117
MMRPM:181
SPP:2999
FLW:621

MW: 9.65
FV: 75
PV: 28
YP: 44
Gel: 11/19
WI: 2.9
pH: 9.0
Cl: 43k

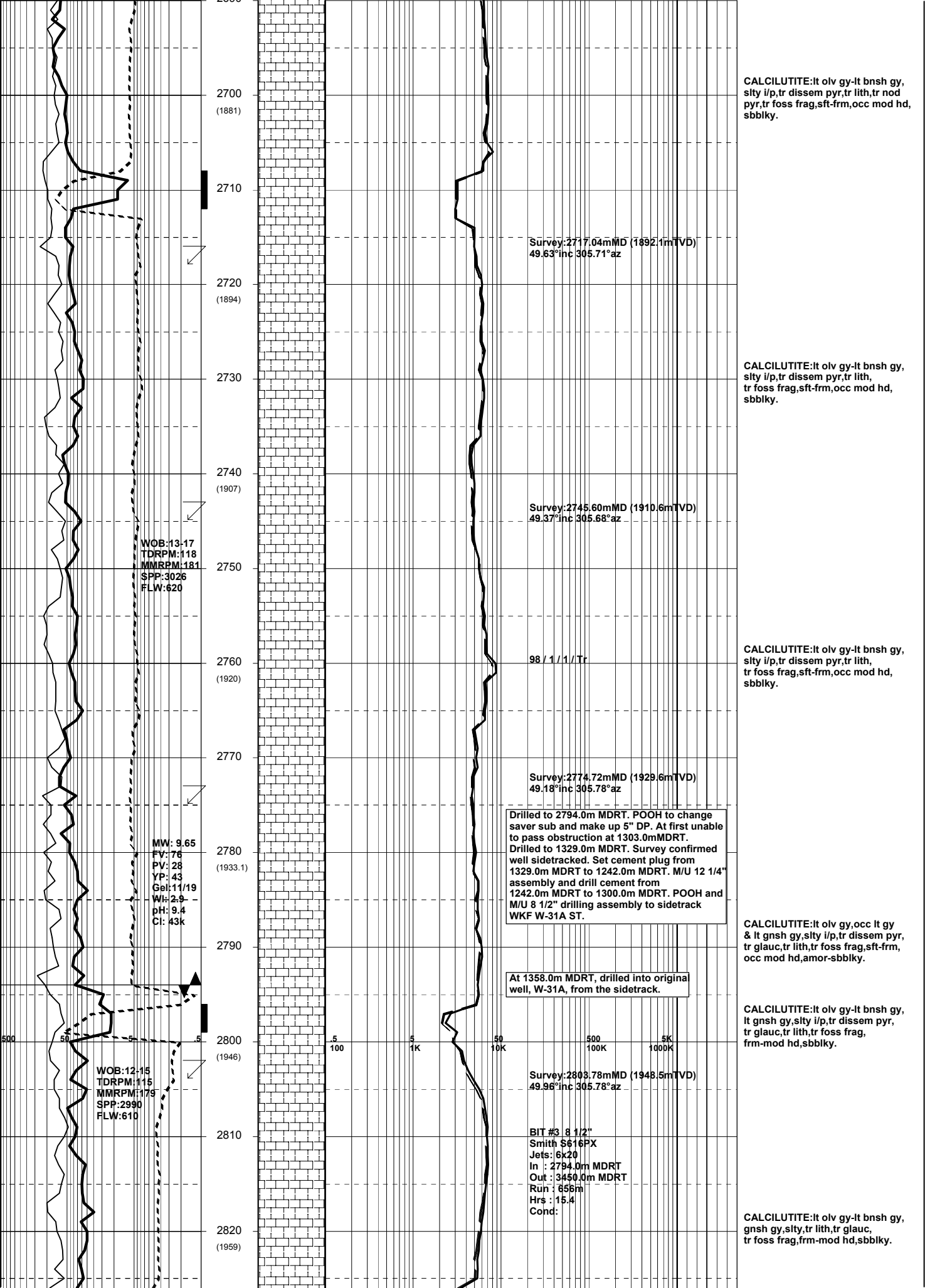
WOB:13-17
TDRPM:116
MMRPM:181
SPP:3014
FLW:622

CALCILUTITE:med lt gy-lt olv gy,
silty i/p,tr disseminated pyr,tr foss
frag,tr glauc,tr lith,sft-frm,
occ mod hd,sbbkly.

CALCILUTITE:med lt gy-lt olv gy,
silty i/p,tr disseminated pyr,tr foss
frag,tr glauc,tr lith,sft-frm,
occ mod hd,sbbkly.

CALCILUTITE:med lt gy-lt olv gy,
silty i/p,tr disseminated pyr,tr lith,
tr foss frag,sft-frm,occ mod hd,
sbbkly.

CALCILUTITE:lt olv gy-lt bnsh gy,
silty i/p,tr disseminated pyr,tr lith,
tr foss frag,sft-frm,occ mod hd,
sbbkly.



2700
(1881)

CALCILUTITE:lt olv gy-lt bnsh gy,
silty i/p,tr dissep pyr,tr lith,tr nod
pyr,tr foss frag,sft-frm,occ mod hd,
sbbkly.

2710

Survey:2717.04mMD (1892.1mTVD)
49.63°inc 305.71°az

2720
(1894)

CALCILUTITE:lt olv gy-lt bnsh gy,
silty i/p,tr dissep pyr,tr lith,
tr foss frag,sft-frm,occ mod hd,
sbbkly.

2730

Survey:2745.60mMD (1910.6mTVD)
49.37°inc 305.68°az

2740
(1907)

WOB:13-17
TDRPM:118
MMRPM:181
SPP:3026
FLW:620

2750

98 / 1 / 1 / Tr

CALCILUTITE:lt olv gy-lt bnsh gy,
silty i/p,tr dissep pyr,tr lith,
tr foss frag,sft-frm,occ mod hd,
sbbkly.

2760
(1920)

Survey:2774.72mMD (1929.6mTVD)
49.18°inc 305.78°az

2770

Drilled to 2794.0m MDRT. POOH to change
saver sub and make up 5" DP. At first unable
to pass obstruction at 1303.0mMDRT.
Drilled to 1329.0m MDRT. Survey confirmed
well sidetracked. Set cement plug from
1329.0m MDRT to 1242.0m MDRT. M/U 12 1/4"
assembly and drill cement from
1242.0m MDRT to 1300.0m MDRT. POOH and
M/U 8 1/2" drilling assembly to sidetrack
WKF W-31A ST.

2780
(1933.1)

MW: 9.65
FV: 76
PV: 28
YP: 43
Gel: 11/19
Wl: 2.9
pH: 9.4
Cl: 43k

CALCILUTITE:lt olv gy,occ lt gy
& lt gnsh gy,silty i/p,tr dissep pyr,
tr glauc,tr lith,tr foss frag,sft-frm,
occ mod hd,amor-sbbkly.

2790

At 1358.0m MDRT, drilled into original
well, W-31A, from the sidetrack.

2800
(1946)

CALCILUTITE:lt olv gy-lt bnsh gy,
lt gnsh gy,silty i/p,tr dissep pyr,
tr glauc,tr lith,tr foss frag,
frm-mod hd,sbbkly.

Survey:2803.78mMD (1948.5mTVD)
49.96°inc 305.78°az

WOB:12-15
TDRPM:115
MMRPM:179
SPP:2990
FLW:610

2810

BIT #3 8 1/2"
Smith S616PX
Jets: 6k20
In : 2794.0m MDRT
Out : 3450.0m MDRT
Run : 658m
Hrs : 15.4
Cond:

CALCILUTITE:lt olv gy-lt bnsh gy,
gnsh gy,silty i/p,tr lith,tr glauc,
tr foss frag,frm-mod hd,sbbkly.

2820
(1959)

2830

Survey:2832.31mMD (1966.9mTVD)
49.50°inc 305.25°az

2840

(1972)

2850

98 / 1 / 1 / Tr

CALCILUTITE:lt olv gy-lt bnsh gy,
gnsh gy,occ v lt gy,silty,tr lith,
tr glauc,tr foss frag,occ sft,
frm-mod hd,occ amor-sbbkly.

2860

(1985.1)

Survey:2861.11mMD (1985.8mTVD)
48.72°inc 305.24°az

2870

2880

(1998.2)

Survey:2889.66mMD (2004.5mTVD)
49.20°inc 305.47°az

CALCILUTITE:lt olv gy-lt bnsh gy,
gnsh gy,silty,tr glauc,tr disse pyr,
tr foss frag,tr lith,frm-mod hd,
sbbkly.

2890

WOB:45
TDRPM:115
MMRPM:179
SPP:3100
FLW:610

98 / 1 / 1 / Tr

2900

(2011.3)

CALCILUTITE:lt olv gy-lt bnsh gy,
gnsh gy,silty,tr glauc,tr disse pyr,
tr foss frag,tr lith,frm-mod hd,
sbbkly.

2910

Survey:2918.51mMD (2023.4mTVD)
48.85°inc 306.13°az

2920

(2024.4)

CALCILUTITE:lt olv gy-lt bnsh gy,
gnsh gy,silty,tr glauc,tr disse pyr,
tr foss frag,tr lith,frm-mod hd,
sbbkly.

2930

Lakes Entrance
2935.5mMDRT 2034.6mTVDRT
(-2001.2mTVDSS)

2940

(2037.6)

Survey:2946.57mMD (2041.9mTVD)
48.71°inc 307.42°az

CALCILUTITE:lt olv gy-lt bnsh
gy,silty,tr glauc,tr disse pyr,
tr foss frag,tr lith,frm-mod hd,
sbbkly.

MW: 9.55
FV: 60
PV: 23
YP: 35
Gbl:10/16
Wl: 3.4
pH: 9.5
Cl: 40K

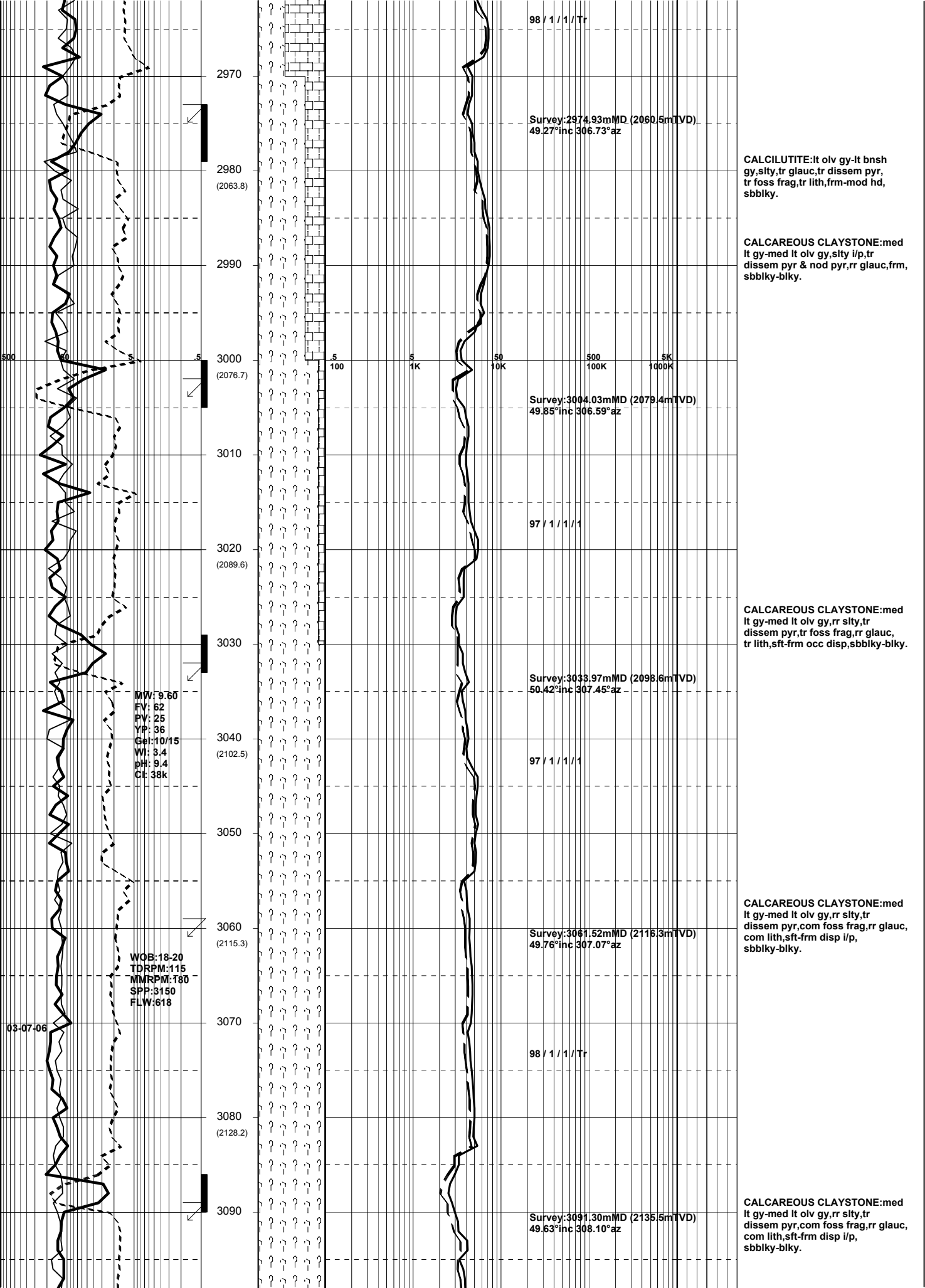
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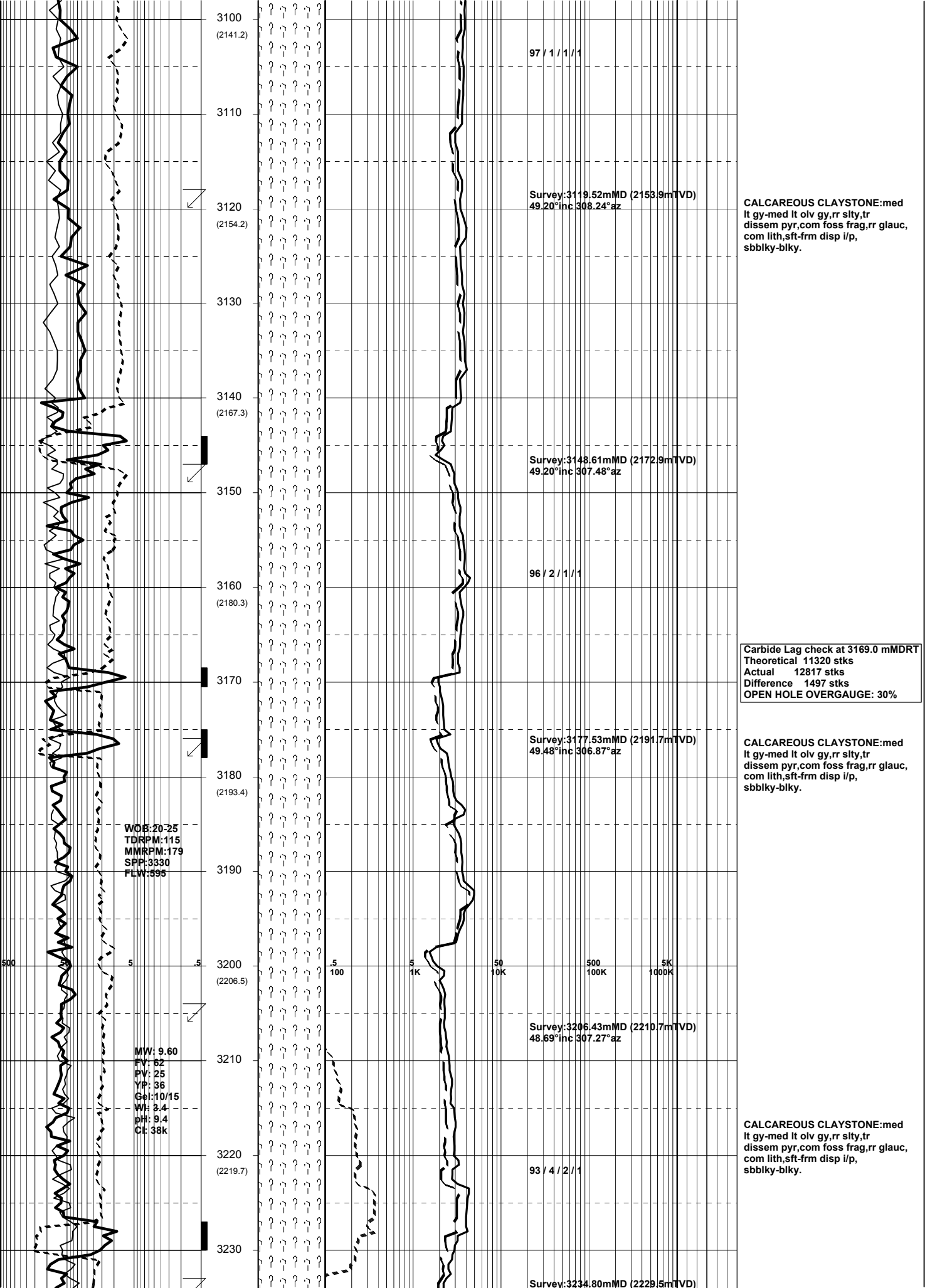
CALCAREOUS CLAYSTONE:med
lt gy-med gy,silty,mod calc,tr
dissem pyr,mod hd,sbbkly.

WOB:18-20
TDRPM:115
MMRPM:180
SPP:3200
FLW:620

2960

(2050.7)





3100
(2141.2)

97 / 1 / 1 / 1

3110

3120
(2154.2)

Survey: 3119.52mMD (2153.9mTVD)
49.20° inc 308.24° az

CALCAREOUS CLAYSTONE: med
lt gy-med lt olv gy, rr slty, tr
dissem pyr, com foss frag, rr glauc,
com lith, sft-frm disp i/p,
sbbiky-biky.

3130

3140
(2167.3)

Survey: 3148.61mMD (2172.9mTVD)
49.20° inc 307.48° az

3150

96 / 2 / 1 / 1

3160
(2180.3)

Carbide Lag check at 3169.0 mMDRT
Theoretical 11320 stks
Actual 12817 stks
Difference 1497 stks
OPEN HOLE OVERGAUGE: 30%

3170

Survey: 3177.53mMD (2191.7mTVD)
49.48° inc 306.87° az

CALCAREOUS CLAYSTONE: med
lt gy-med lt olv gy, rr slty, tr
dissem pyr, com foss frag, rr glauc,
com lith, sft-frm disp i/p,
sbbiky-biky.

3180
(2193.4)

WOB: 20-25
TDRPM: 115
MMIRPM: 179
SPP: 3330
FLW: 595

3190

3200
(2206.5)

Survey: 3206.43mMD (2210.7mTVD)
48.69° inc 307.27° az

MW: 9.60
FV: 62
PV: 25
YP: 36
Gel: 10/15
W: 3.4
pH: 9.4
Ct: 38k

3210

CALCAREOUS CLAYSTONE: med
lt gy-med lt olv gy, rr slty, tr
dissem pyr, com foss frag, rr glauc,
com lith, sft-frm disp i/p,
sbbiky-biky.

3220
(2219.7)

93 / 4 / 2 / 1

3230

Survey: 3234.80mMD (2229.5mTVD)



3240
(2232.9)

3250

3260
(2246.2)

3270

3280
(2259.5)

3290

3300
(2273)

3310

3320
(2286.5)

3330

3340
(2300.1)

3350

3360
(2313.5)

3370

48.43°inc 307.17°az

92 / 5 / 2 / 1

Survey:3263.45mMD (2248.4mTVD)
48.49°inc 306.40°az

93 / 4 / 2 / 1

88 / 6 / 4 / 2 / Tr

CALCAREOUS CLAYSTONE:lt
bnsh gy-med lt gy,slty i/p,mod
calc,tr dissemin pyr,tr lith,sft-
mod hd,amor-sbbiky.

Top of Latrobe
3288.0mMDRT 2264.9mTVDRT
(-2231.5mTVDSS)

SILTSTONE: pl bn-dk yellsh bn,
aren g/t vf SST,tr micmic,tr glauc,
frm-mod hd,sbfiss-sbbiky.

SANDSTONE:wh-pl gn,dm vf-f,
mod w srt,sa-sr,tr glauc mtx,hd
agg,ti vis/inf por,no fluor.

CLAYSTONE:off wh-v pl gy,tr
glauc pels,sft-frm,disp,amor.

SILTSTONE:1)pl bn-dk yellsh bn,
v aren g/t vf SST,tr micmic,tr
glauc,com rock flour,frm-mod hd,
sbfiss-sbbiky.

SANDSTONE:wh-pl gn,dm vf-f,
mod w srt,sa-sr,tr glauc mtx,hd
aggs,ti vis/inf por,no fluor.

SILTSTONE:2)med gy-med dk gy,
v aren g/t vf SST,com micro pyr
mtx,mod hd-hd,sbfiss-sbbiky.

Top of P1.1 Sand
3328.0mMDRT 2291.9mTVDRT
(-2258.5mTVDSS)

SANDSTONE:clr-trnsl,f-rrv crs,
p srt,sa-sr,wk pyr cmt,tr pyr nod,
dom lse,occ frac qtz grns,occ hd
aggs,pr-fr vis/inf por,no fluor.

Base of P1.1 Sand
3340.0mMDRT 2300.0mTVDRT
(-2266.6mTVDSS)

SANDSTONE:clr-trnsl,med occ
vcrs dom crs,mod w srt,sa-sr,wk
pyr cmt,tr pyr nod,dom lse,cln,fr
inf/vis por,no fluor.

FLUOR:3355-3360m:Trace dil prpnt
gn/yel fluor,v slw diffuse crsh
cut,thn fim residue.

Top of M1.2L
3357.0mMDRT 2311.5mTVDRT
(-2278.1mTVDSS)

Base of M1.2 L
3364.0mMDRT 2316.2mTVDRT
(-2282.8mTVDSS)

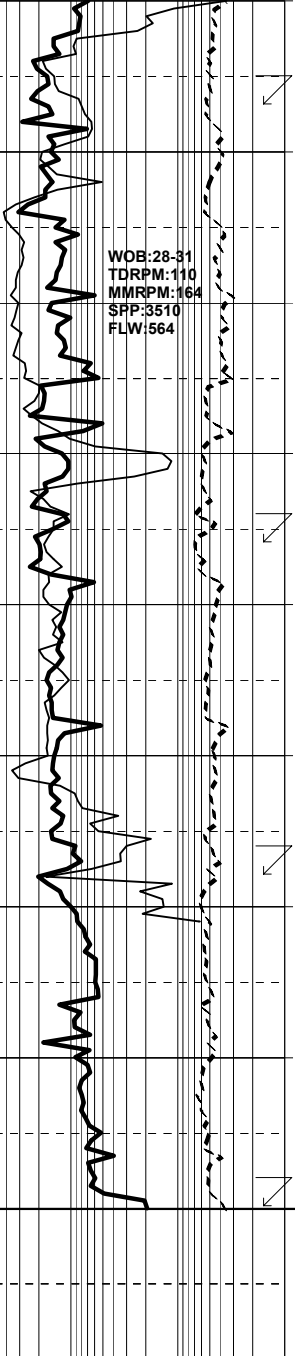
47 / 13 / 18 / 15 / 7

Survey:3348.60mMD (2305.9mTVD)
47.60°inc 306.81°az

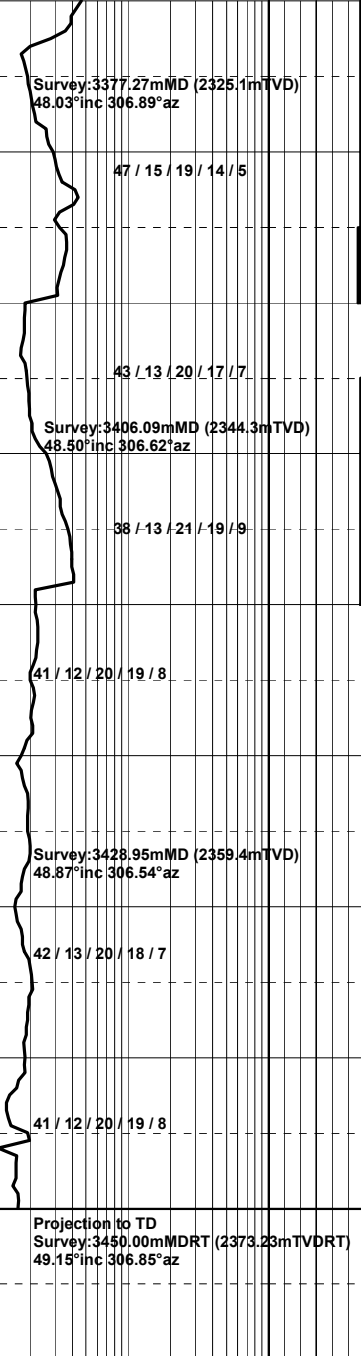
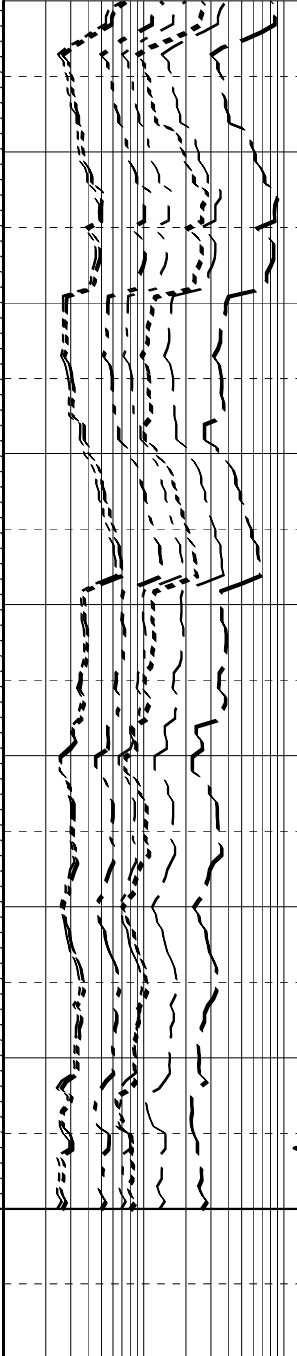
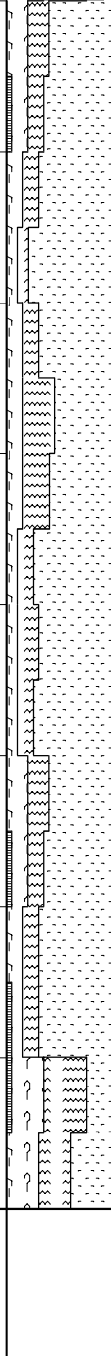
45 / 14 / 18 / 16 / 7

WOB:28-31
TDRPM:110
MMRPM:164
SPP:3510
FLW:564

MW: 9.60
FV: 62
PV: 25
YP: 36
Gel: 10/15
WL: 3.4
pH: 9.4
Cl: 38k



WOB:28-31
 TDRPM:110
 MMRPM:164
 SPP:3510
 FLW:564



Survey:3377.27mMD (2325.1mTVD)
 48.03°inc 306.89°az

47 / 15 / 19 / 14 / 5

Survey:3406.09mMD (2344.3mTVD)
 48.50°inc 306.62°az

38 / 13 / 21 / 19 / 9

Survey:3428.95mMD (2359.4mTVD)
 48.87°inc 306.54°az

42 / 13 / 20 / 18 / 7

41 / 12 / 20 / 19 / 8

Projection to TD
 Survey:3450.00mMDRT (2373.23mTVDRT)
 49.15°inc 306.85°az

Top of M1.3
 3373.5mMDRT 2322.6mTVDRT
 (-2289.2mTVDSS)

Top of PS5 Sand
 3379.5mMDRT 2326.6mTVDRT
 (-2293.2mTVDSS)

Top of PS4 Sand
 3383.5mMDRT 2329.3mTVDRT
 (-2295.9mTVDSS)

FLUOR:3370-3390m:Trace dll pnpt
 gn/yel fluor,v slw diffuse cut,
 gn/yel thn flm residue.

FLUOR:3400-3410m:Trace dll pnpt
 gn/yel fluor,v slw diffuse cut,
 thn rng residue.

Top of M1.3L
 3402.5mMDRT 2341.9mTVDRT
 (-2308.5mTVDSS)

SANDSTONE:clr-trnsl,f-v crs,p srt,
 sb-sr,wk pyr cmt,tr pyr nod,dom
 lse,gen cln,fr inf por,fluor.

SANDSTONE:clr-trnsl,f-occ v crs,
 pr srt,ca-sr,tr pyr nod,dom lse,
 gen cln,pr-fr inf & vis por,tr
 fluor.

COAL: dusky brn,earthy,frm-mod hd
 sbbkly,unevn.

Top of 1.4 Coals
 3429.0mMDRT 2359.4mTVDRT
 (-2326.0mTVDSS)

SANDSTONE:clr-trnsl,med-dom v crs,
 mod wl srt,sa-sr,occ frac qtz grs,
 wk pyr cmt,tr pyr nod,pr-fr inf
 & vis por,no fluor.

SANDSTONE:clr-trnsl,med-som v
 crs,mod wl srt,sa-sr,wk pyr cmt,
 tr pyr nod,tr off wh arg mtx,
 dom lse,gen cln,pr-fr inf &
 vis por,no fluor.

WKF W-31A reached Total Depth of
 3450.0m MDRT 2373.2m TVDRT
 (-2339.8m TVDSS) at 23:30 hours
 on 03-07-2006.