



FORMATION EVALUATION LOG

RATE OF PENETRATION		INTERPRETED LITHOLOGY	MD meters 1:500	LITHOLOGY	CORE	OIL SHOWS	TOTAL GAS	CHROMATOGRAPH				REMARKS
ROP (0-100m/hr)								Methane ppm				
100	10							1	1	10000		
90	20							1	1	10000		
80	30							1	1	10000		
70	40							1	1	10000		
60	50							1	1	10000		
50	60							1	1	10000		
40	70							1	1	10000		
30	80							1	1	10000		
20	90							1	1	10000		
10	100							1	1	10000		
Backup ROP (100-200m/hr)												
200	110											
190	120											
180	130											
170	140											
160	150											
150	160											
140	170											
130	180											
120	190											
110	200											
WOB (klb)												
5	50											
10												
15												
20												
25												
30												
35												
40												
45												
50												

RR1 311mm (12-1/4")
Reed EHP 41KPR
Jets: 3x18
In: 16m Out: 302m
Drilled: 286m in 5.7hrs

WOB: 0.1 - 8.0 klbf
RPM: 80

340mm (13-3/8") casing shoe
at 15.65mMD

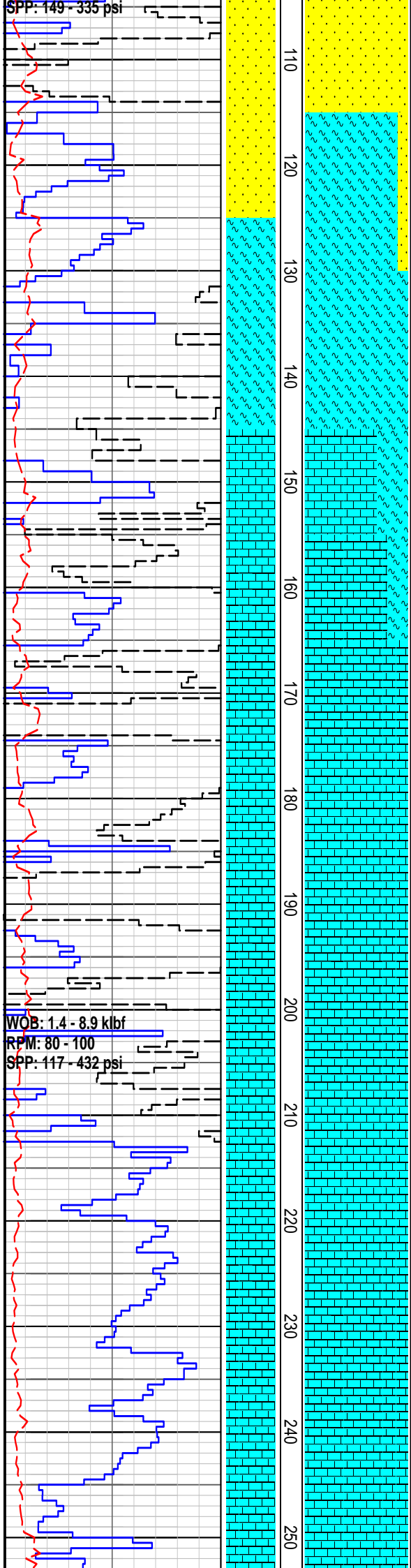
SANDSTONE: lt m yel or, v f-crs, dom m, sbang-rnd, pr srt, n cmt, tr yel or arg & slt mtrx, qtz, clr-mky qtz gr w/yel-brn Fe ox stn, tr blk c detr, uncons, v f por, n fluor

SILTY CLAYSTONE: m gry, abd disp v f-v crs qtz sd gr, v sft, v disp, stky, n fiss

SANDSTONE: lt gry, v f-v crs, dom m, sbang-rnd, dom rnd, pr srt, n cmt, com-abd m gry arg & slt mtrx, quartzose w/clr-op qtz gr w/gry brn stn, com gry-blk & brn cht lit, com crs clr detr, uncons, v gd inf por, n fluor

SPP: 149 - 335 psi

WOB: 1.4 - 8.9 kbf
RPM: 80 - 100
SPP: 117 - 432 psi

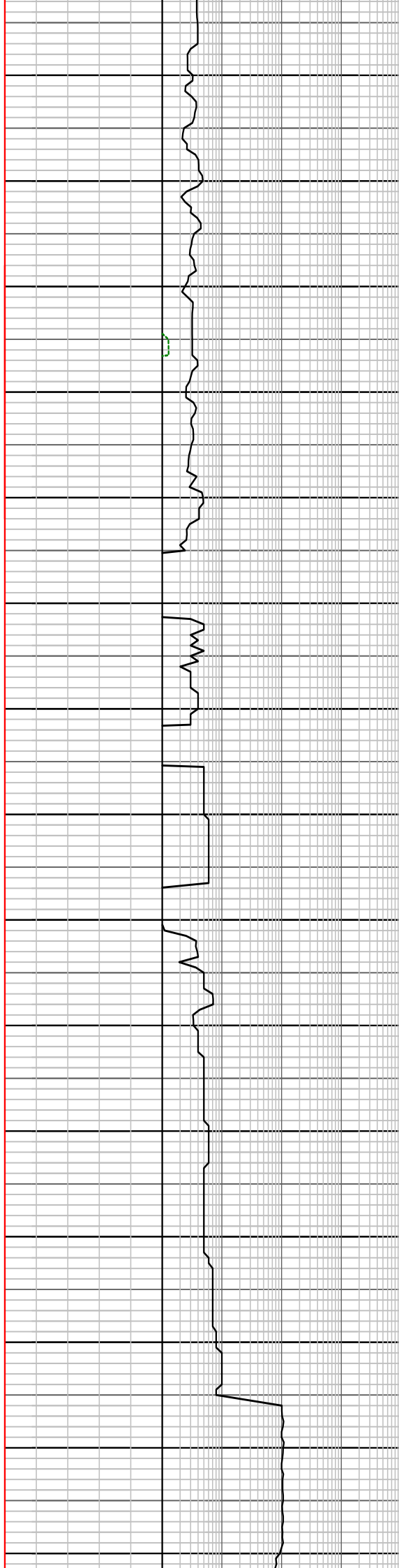
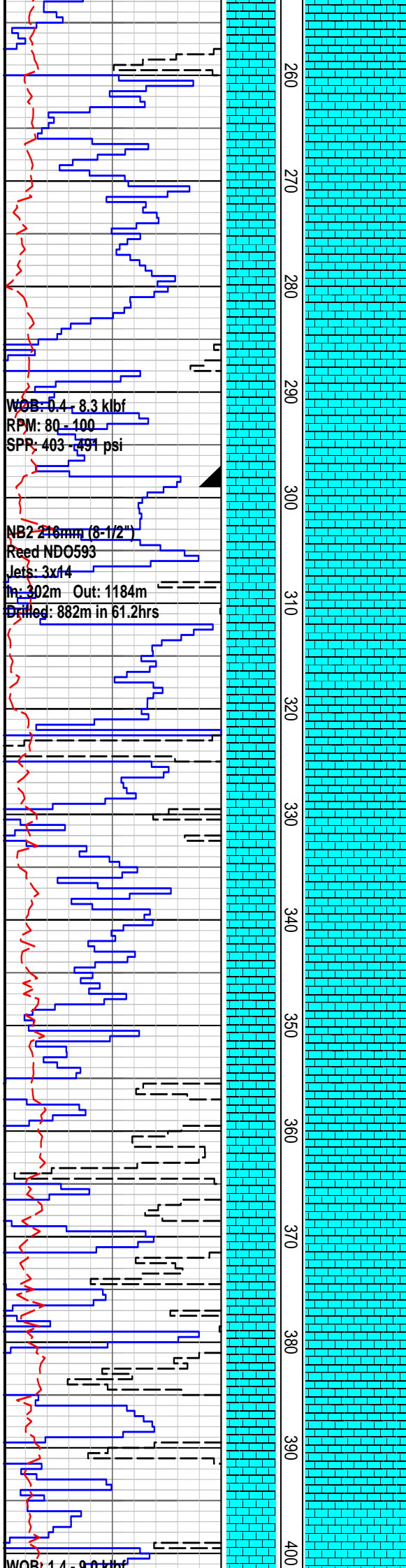


MARL: lt gry-m gry, m gn gry-m brn gry, com-abd foss frags incl bry, shell frags, forams, v sft, v disp, n fiss

CALCARENITE: lt gry-lt brn gry, f-m gr, wk calc cmt, abnt foss frag incl bry, forams, shell frags, mod argill, tr-com vf-f qtz gr, rr m gn glauc, p vis por, n fluor

CALCARENITE: lt gry-lt brn gry, f-m gr, wk calc cmt, abd foss frags incl bry, forams, shell frags, mod argill, tr-com v f-f qtz gr, rr m gn glauc, p vis por, n fluor

CALCARENITE: lt gry-lt brn gry, f-m gr, wk calc cmt, abd foss frags incl bry, forams, shell frags, mod argill, tr-com v f-f qtz gr, rr m gn glauc, p vis por, n fluor



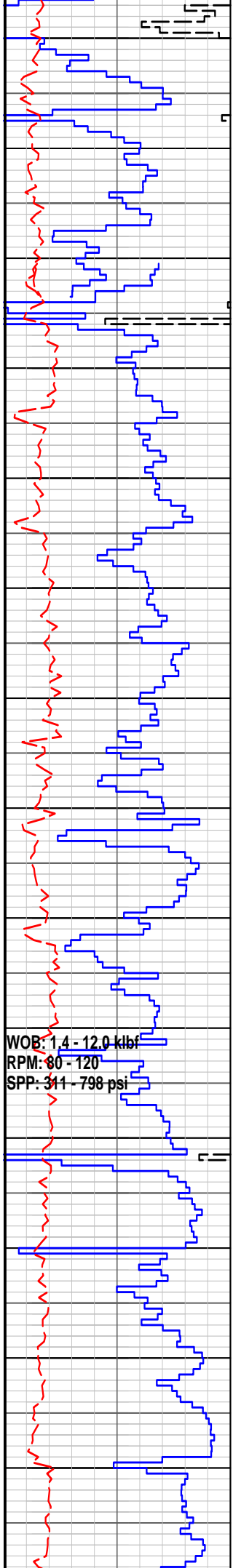
CALCARENITE: lt gry-lt brn gry, rr lt gn gry, f-m gr, wk calc cmt, abd foss frags incl bry, forams, shell frags, sli argill, rr v f-f qtz gr, rr m gn glauc, p vis por, n fluor

244mm (9-5/8") casing shoe at 299mMD

CALCARENITE: lt gry-lt brn gry, rr lt gn gry, f-m gr, wk calc cmt, abd bry, forams, shell frags, mod argill, rr-com v f-f qtz gr, tr gn glauc gn glauc, p vis por, n fluor

CALCARENITE: lt gry-lt brn gry, rr lt gn gry, f-m gr, wk calc cmt, abd bry, forams, shell frags, mod argill, rr v f-f qtz gr, tr gn glauc, p vis por, n fluor

WOB: 1.4 - 12.0 klbf
RPM: 80 - 120
SPP: 465 - 598 psi



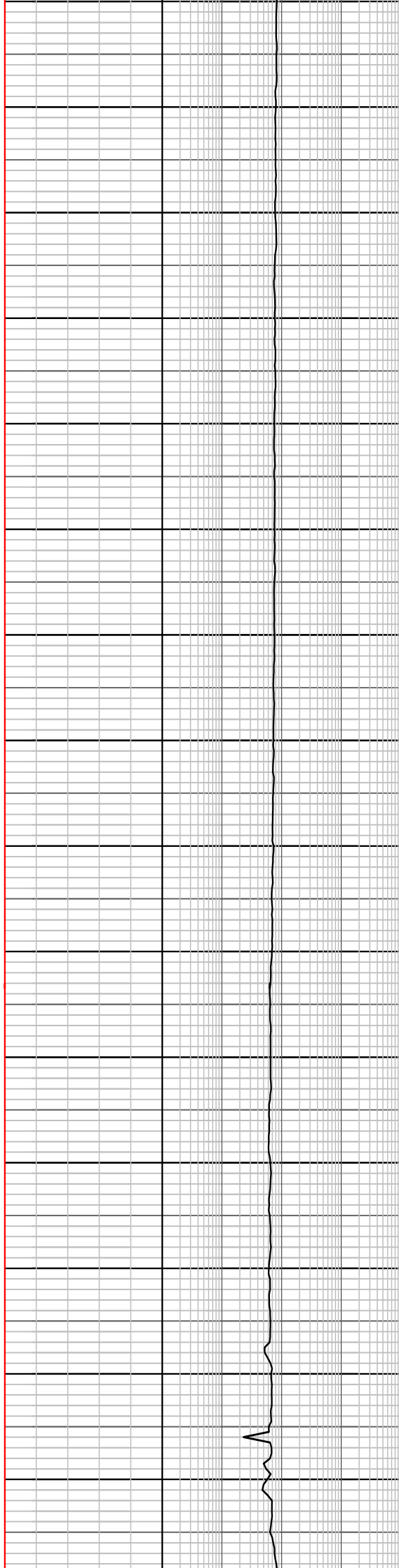
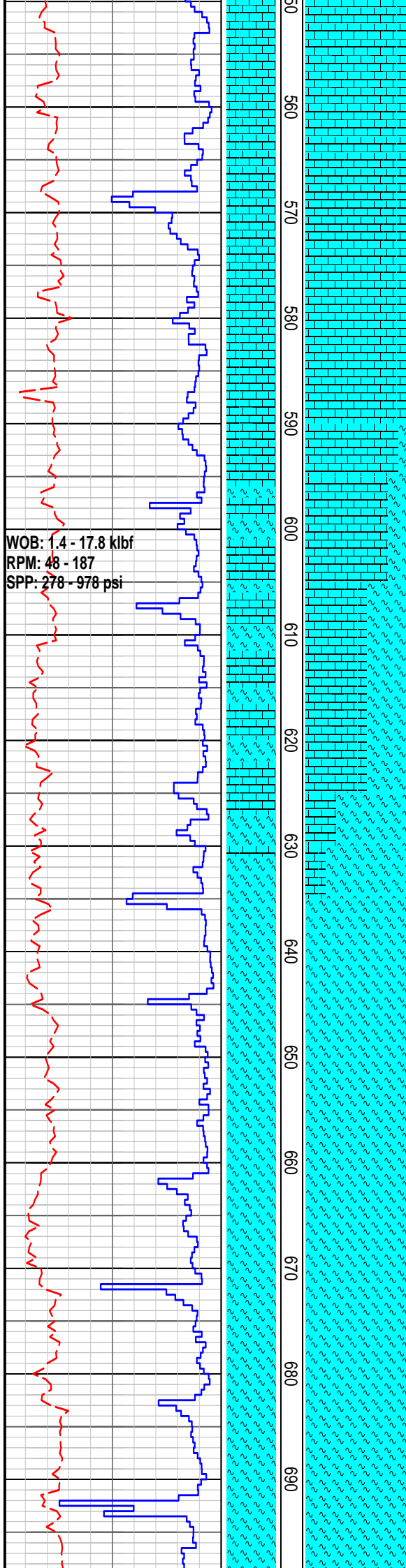
410
420
430
440
450
460
470
480
490
500
510
520
530
540

CALCARENITE: off wh-lt m gry-lt brn
gry, f-m gr, wk-mod strong calc cmt,
abd bry, forams, shell frags, mod
argill, rr v f-f qtz gr, tr gn glauc, p vis
por, n fluor

CALCARENITE: off wh-lt m gry-lt brn
gry, f-m gr, wk-mod strong calc cmt,
abd bry, forams, shell frags, n-mod
argill, rr v f-f qtz gr, tr gn glauc, p vis
por, n fluor

Survey at 472m
N25degSE
2 degs

CALCARENITE: off wh-lt m gry-lt brn
gry, f-m gr, wk-mod strong calc cmt,
abd bry, forams, shell frags, mod
argill, rr v f-f qtz gr, tr gn glauc, p vis
por, n fluor



CALCARENITE: off wh-lt m gry-lt brn gry, f-m gr, wk-strong calc cmt, com bry, tr echinoid spines, forams & shell frags, n-mod argill, rr v f-f qtz gr, tr-com gn glauc, fri, v p vis

MARL: m gry-m brn, v calc grd to CLCLT, tr foss frags, sft, stky, n fiss

CALCILUTITE: lt gry-m gry-m lt gry, sli-v argill, grd i/p to MRL, oft v f calcerenitic, grd CLCAR, tr foss frags, sft, stky, n fiss

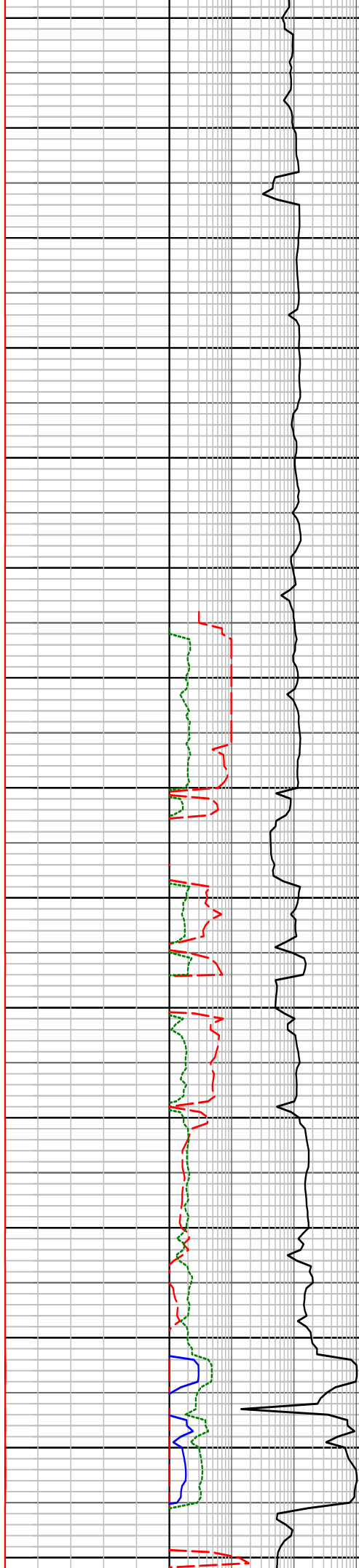
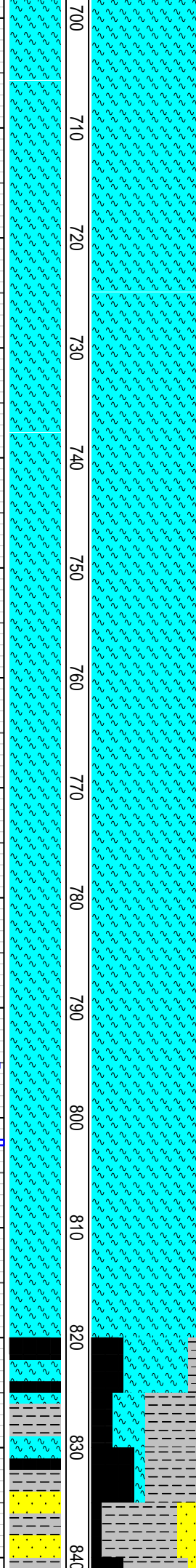
MARL: v lt-m gry-gn gry-brn gry, v calc grd i/p to off wh argil calc CLCLT tr foss frags, sft, stky, n fiss

Survey at 687m
N86degsE
2 degs

WOB: 5.0 - 14.0 klbf
RPM: 80 - 128
SPP: 278 - 978 psi

WOB: 3.0 - 15.0 klbf
RPM: 50 - 116
SPP: 420 - 940 psi

700
710
720
730
740
750
760
770
780
790
800
810
820
830
840



Run Carbide at 699m
MW: 9.0ppg Vis: 41
Average hole size: 8.90inch

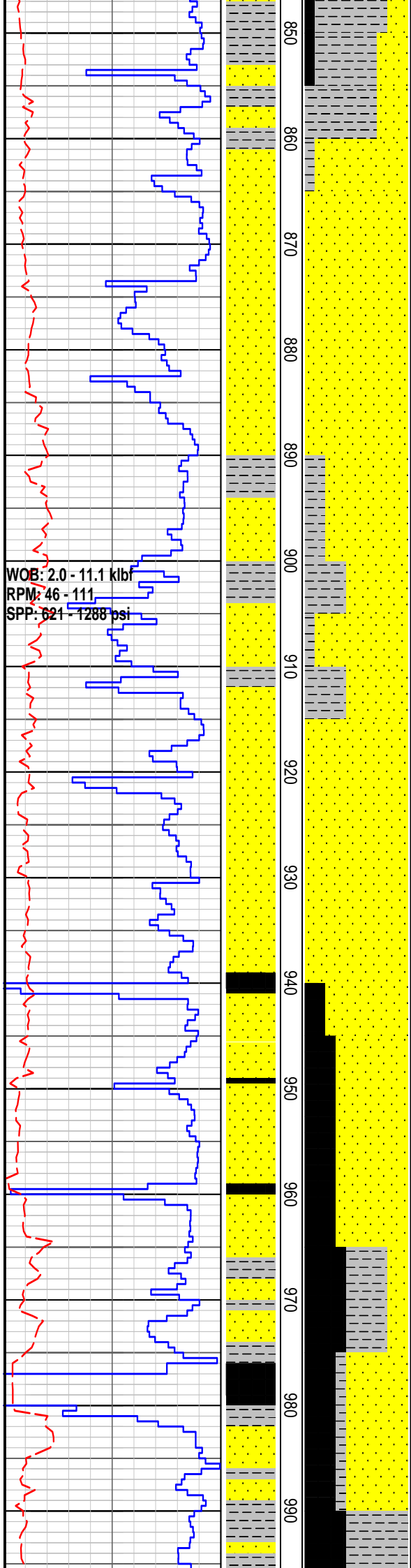
MARL: v lt-m gry-gn gry-brn gry, occ
lt-m brn gry, mod-v calc, tr foss frags,
sft, stky, n fiss

MARL: lt-m gn gry-lt m gry, mod-v
calc, tr foss frags, sft, stky, n fiss

MARL: lt-m gn gry-lt m gry, mod-v
calc, tr foss frags, sft, tr glauc, stky, n
fiss

COAL: m brn-blk, irreg-blky frac, ea
lstr, sli-dom v argil, frm-mod hd

SANDSTONE: lt-m brn, vf-m gr, dom
vf, ang-sbrnd, p-mod srtd, v wk sil
cmt, abd lt brn argil & slt mtrx,
quartzose w/clr-opq qtz gr, tr crs clr
mic flks, tr blk c detr, rr pyr, fri, v p inf
por, n fluor



CLAYSTONE: lt-dk brn, dom m brn, sl
silty and f aren i/p, v sli-mod carb, tr
blk coal flk, tr amber, sft, v disp, n fiss

SANDSTONE: lt brn gry, vf-v crs, dom
m-crs, sbang-rnd, p-mod srtd, wk sil
cmt, tr-com lt brn argill & slt mtrx,
quartzose w/clr-op qtz gr w/mnr brn
stn, tr gr gry & blk cht lit, tr blk c detr,
fri, gd-v gd inf por, n fluor

CLAYSTONE: lt-dk brn, dom m brn, sl
silty and f aren i/p, v sli-mod carb, tr
blk coal flk, tr amber, sft, v disp, n fiss

Survey at 917m
N50degSE
3 degs

SANDSTONE: lt brn gry, vf-v crs, dom
m-crs, sbang-rnd, p srtd, wk sil cmt,
tr-com lt brn argill & slt mtrx,
quartzose w/clr-op qtz gr w/mnr brn
stn, tr gr gry & blk cht lit, tr blk c detr,
fri, gd-v gd inf por, n fluor

CLAYSTONE: m-dk brn, sli slty & f
aren i/p, mod-v carb, tr blk c flks, sft,
v disp, n fiss

COAL: m brn-blk, irr-blky frac, ea lstr,
sli-dom v argill, tr amb, frm-mod hd

WOB: 0.5 - 11.9 klbf
RPM: 14 - 141
SPP: 364 - 1233 psi

WOB: 0.5 - 9.1 klbf
RPM: 31 - 121
SPP: 287 - 1234 psi

1000
1010
1020
1030
1040
1050
1060
1070
1080
1090
1100
1110
1120
1130
1140

CLAYSTONE: m-dk brn, sli slty & i
aren, mod-v carb, tr blk c flks, sft, v
disp, n fiss

COAL: m brn-blk, irr-blky frac, ea lstr,
sli-dom v argill, tr amb, frm-mod hd

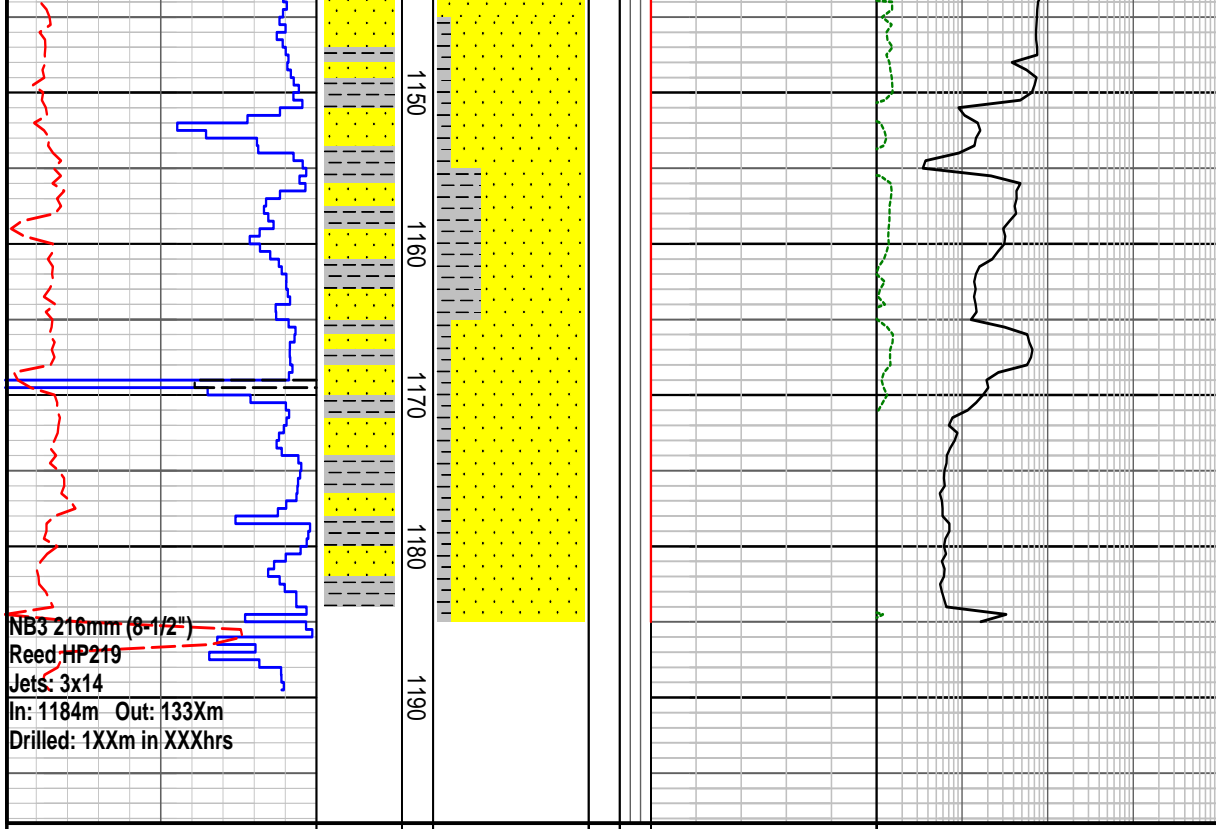
COAL: m brn-blk, irr-blky frac, ea lstr,
sli-dom v argill, tr amb, frm-mod hd

Survey at 1079m
N88degsE
3 degs

SANDSTONE: lt brn gry, vf-pbl, dom
m-crs, sbang-rnd, v p srted, wk sil cmt,
com lt brn argill & slt mtrx, qtz
w/clr-op quartzose gr w/mnr or brn
stn, tr gn gry & blk cht lith, tr-com blk
c detr, fri, g inf por, n fluor

COAL: m brn-dom blk, irr-blky frac,
ea-sbvlt lstr, sli-v argill, tr amb, mod
hd. The Coal has no natural fluor but
gives a wk dull lt yel rn crsh cut fluor.
The amb has mod bri sol lt-m yel
natural fluor and gives a wk v slo
strmg lt yell cut fluor

SANDSTONE: v lt gry-lt brn gy, vf-gt,
dom m-crs, ang-sbrnd, v p srted, wk sil
cmt, com wh-lt brn argill & slt mtrx,
quartzose w/clr-op qtz gr, tr gn gry
& blk cht lith, tr-com blk c detr, fri, g
inf por, no fluor



CLAYSTONE: wh-m brn, v slt & v aren
i/p, kao i/p, sli-mod carb, tr blk c flks,
tr micrmic, frm, v disp & washing
f/spl, n fiss

FORMATION EVALUATION LOG

RATE OF PENETRATION										LITHOLOGY	INTERPRETED	MD meters 1-500	LITHOLOGY	CORE	OIL SHOWS	TOTAL GAS	CHROMATOGRAPH				REMARKS
ROP (0-100m/hr)																	Methane ppm				
Backup ROP (100-200m/hr)																	Ethane ppm				
WOB (klb)																	Propane ppm				
100	90	80	70	60	50	40	30	20	10								1	10000			
200	190	180	170	160	150	140	130	120	110								1	10000			
5	10	15	20	25	30	35	40	45	50								1	10000			
																	iso-Butane ppm				
																	n-Butane ppm				
																	iso-Pentane ppm				
																	n-Pentane ppm				
																	10 100 1000 10000				