

MASTERLOG

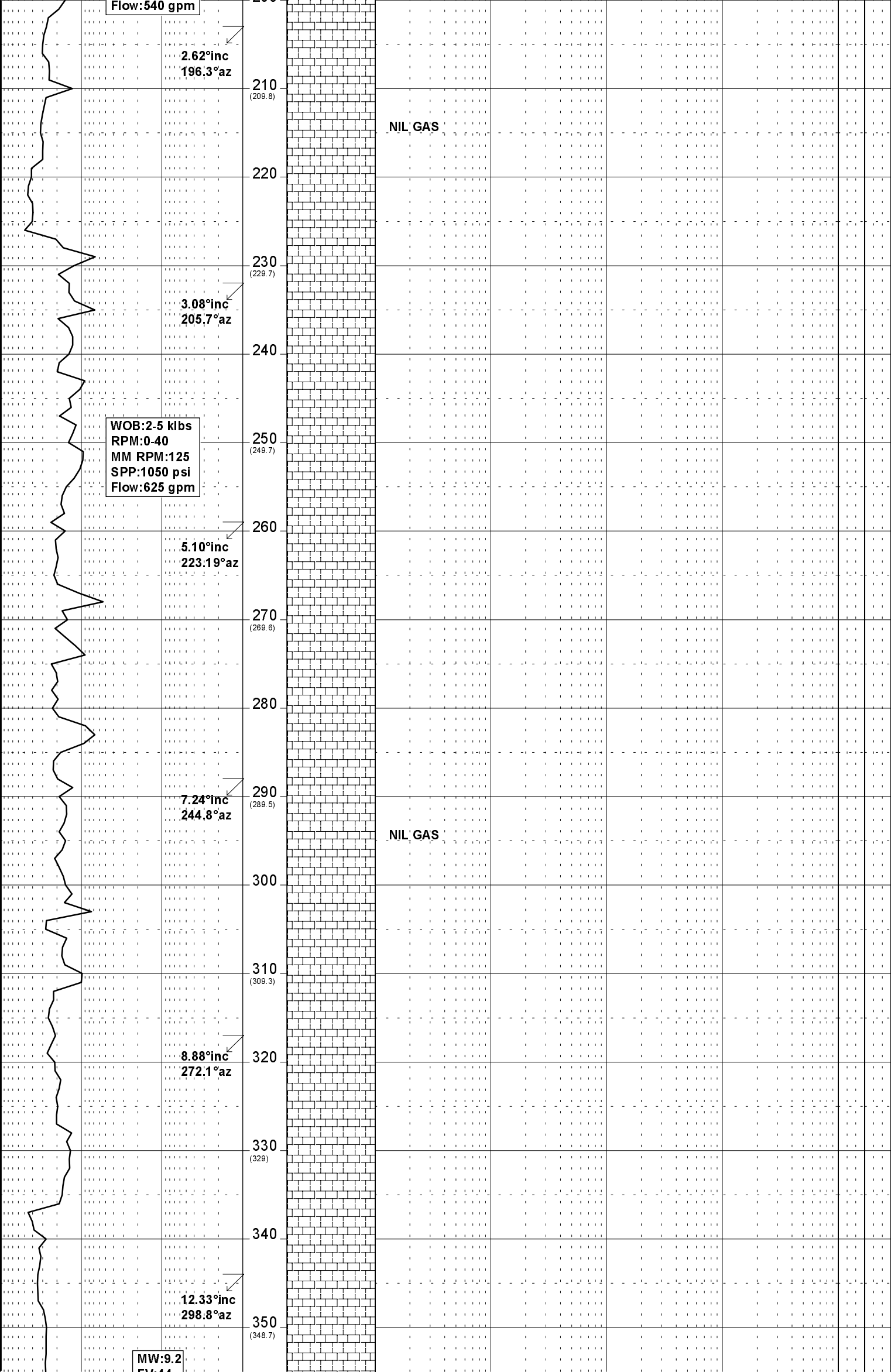
WEST TUNA W-9



GENERAL	POSITION	HOLE / CASING INFO	DATE / DEPTH	ENGINEERS
Country : AUSTRALIA Permit : VIC L4 Field : WEST TUNA Basin : GIPPSLAND Well Type : DEVELOPMENT Rig Name : NABORS 453	Local Co-ord X : 4.02 mE Local Co-ord Y : -1.54 mN AMG Co-ord X : 621,486.71 mE AMG Co-ord Y : 5,771,795.21 mN RT to MSL : 34.69 m RT to Sea Bed : 95.69 m	12-1/4" Hole to 842 m 8-1/2" Hole to 3012 m 20" Conductor @ 168 m 9-5/8" Surface casing @ 836 m 7" Production casing @ 3003.6 m	Spud Date : 05-09-2001 Total Depth Date : 15-09-2001 Total Depth : 3012.0 m True Vertical Depth : 1446.38 m Log Scale : 1/ 500 Depth From (m): 150 To: 3050	Mark Smith Matt Boyd Phil Rady

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	<div> CLAYSTONE</div> <div> SILTSTONE</div> <div> SST: F - V FINE</div> <div> SST: MEDIUM</div> <div> SST: COARSE</div> <div> SHALE</div> <div> MARL</div> <div> LIMESTONE</div> <div> DOLOMITE</div> <div> CHERT</div> <div> CONGLOMERATE</div> <div> COAL</div> <div> BRYOZOA</div> <div> RADIOLARITES</div> <div> ECHINOIDs</div> <div> CORALS</div> <div> FORAMINIFERA</div> <div> LITHIC FRAGMENT</div> <div> CARB FRAGMENT</div> <div> QUARTZITE</div> <div> INTRUSIVES</div> <div> GLAUCONITE</div> <div> PYRITE</div> <div> CEMENT</div>	<div> CASING SHOE</div> <div> LINER HANGER</div> <div> BIT CHANGE</div> <div> DEVIA. SURVEY</div> <div> SWC UNRECOV</div> <div> SIDEWALL CORE</div> <div> CORE</div> <div> WIRELINE LOGS</div> <div>MDT POINTS:</div> <div> PRESSURE ONLY</div> <div> SAMPLE</div> <div> SEAL FAILURE</div> <div> TIGHT</div>

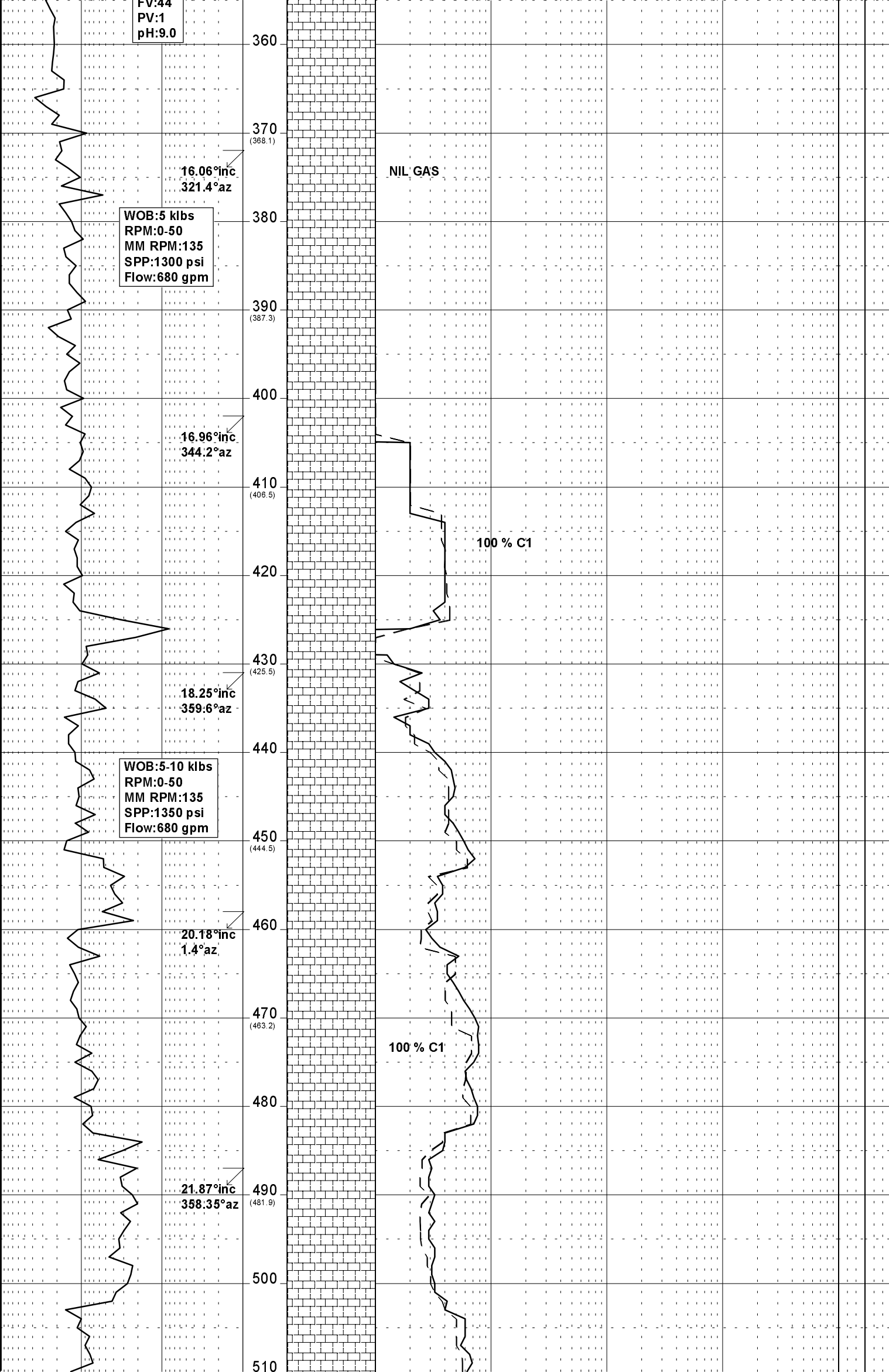
RATE OF PENETRATION metres/hour	DEPTH (m) (TVD)	CUTTINGS LITHOLOGY %	TOTAL GAS & CHROMATOGRAPH DATA					CUT FLUOR	DIRECT FLUOR	CALCIMETRY % CALCITE DOLOMITE	LITHOLOGICAL DESCRIPTIONS and REMARKS
			C1 iC4 nC5	C2 nC4	C3 iC5 TG	Total Gas in Units Chromatograph in Percent					
500 50 5 .5	150	0 100	.5 .01	5 .1	50 1	500 10	5K 100	good good good fair poor	0 100		
<div>05-09-2001</div> <div></div>	160										
	170 (170.1)										
	180										
	190 (190.1)										
	200										
											<div>WEST TUNA W-9 SPUDDED @ 03:00 HRS ON 05-09-2001</div> <div>CALCARENITE: yel gy, v lt gy, med dk gy, trnsl, f-med, occ crs-v crs, mod srt, abdt foss frag, lse-fri, occ mod hd, v gd inf por, fr vis por, no fluor.</div>



AQUAGEL/SEAWATER
SPUD MUD SYSTEM

CALCARENITE:lt gy-lt olv gy,yel
gy i/p,gn gy i/p,med-crs,arg
i/p,com foss frag,fri-mod hd,pr-
fr vis por,no fluor.

CALCARENITE:lt gy-lt olv gy,f-
dom med,occ crs,arg i/p,com foss
frag,fri-mod hd i/p,pr-fr vis
por,no fluor.

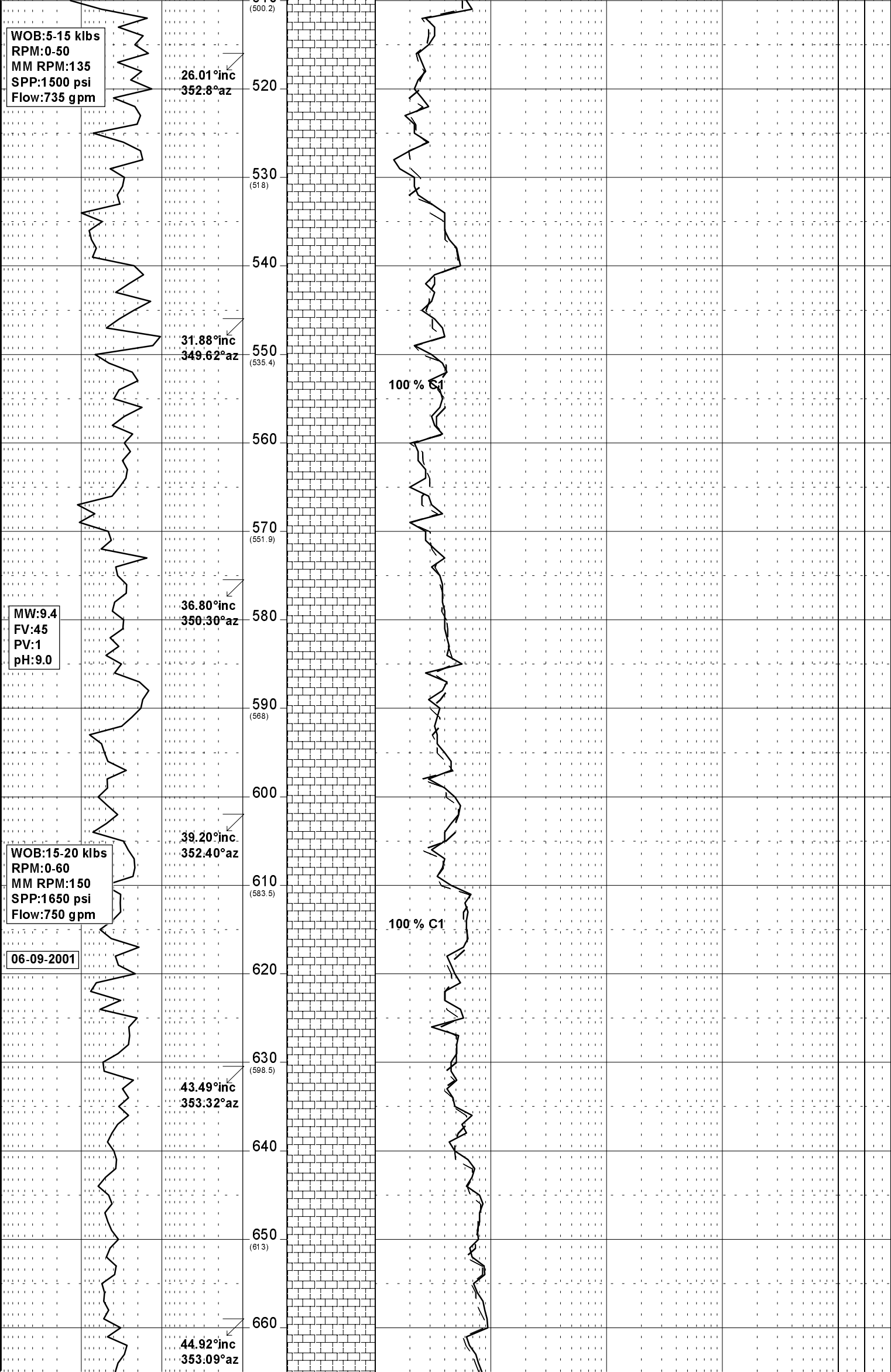


CALCARENITE:lt olv gy-lt gy,f-med, arg i/p, com foss frag, frm, fri-mod hd i/p, occ lse, pr-fr vis & inf por, no fluor.

CALCARENITE:lt olv gy-lt gy, olv gy i/p, f-pred med, abdt arg, mnr foss frag, lith frag i/p, fri-mod hd, pr vis por, no fluor.

CALCARENITE:lt olv gy-lt gy, yel gy, f-occ med, com-abdt arg, mnr-com foss frag, tr lith & glauc frag, fri-mod hd, pr vis por, no fluor.

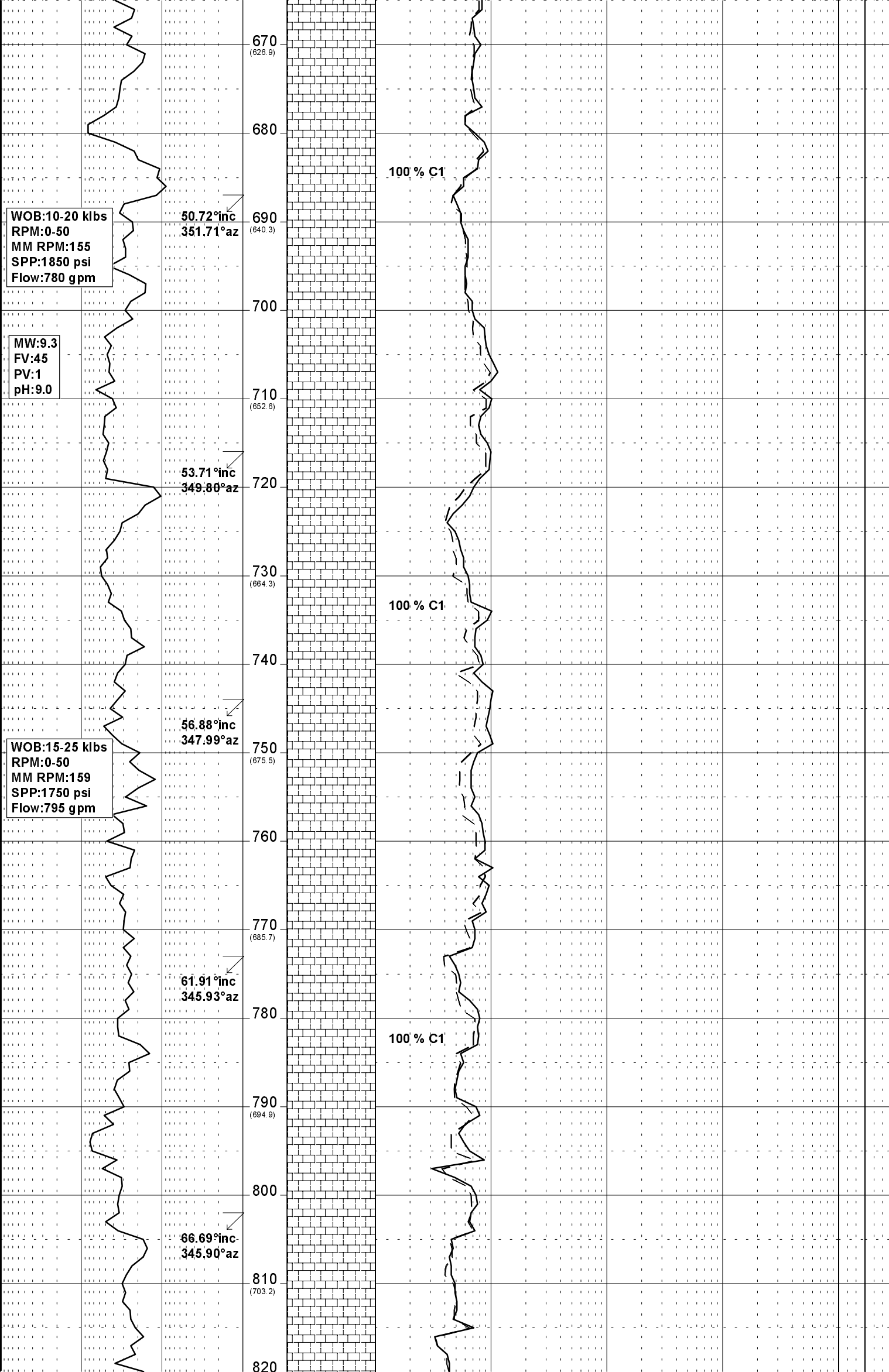
CALCARENITE:lt olv gy-lt gy, yel gy, f-rr med, com-abdt arg, mnr-com foss frag, occ lith & carb spk, tr glauc grn, fri-mod hd, pr vis por, no fluor.



CALCARENITE:lt olv gy-lt gy,yel
gy,f,abdt arg,mnr foss frag,tr
carb,tr dissem pyr,tr glauc grn,
fri-mod hd i/p,pr vis por,no
fluor.

CALCARENITE:lt olv gy,mnr yel gy
i/p,f-med,com lut,com foss frag,
tr foram,tr ooid,rr dissem pyr,
fri-occ mod hd,v pr vis por,no
fluor.

CALCARENITE:lt olv gy,gn gy i/p,
lt yel gy,med,com f,com lut,com
ooid,tr foss frag,tr glauc,fri,
mod hd i/p,v pr vis por,no fluor

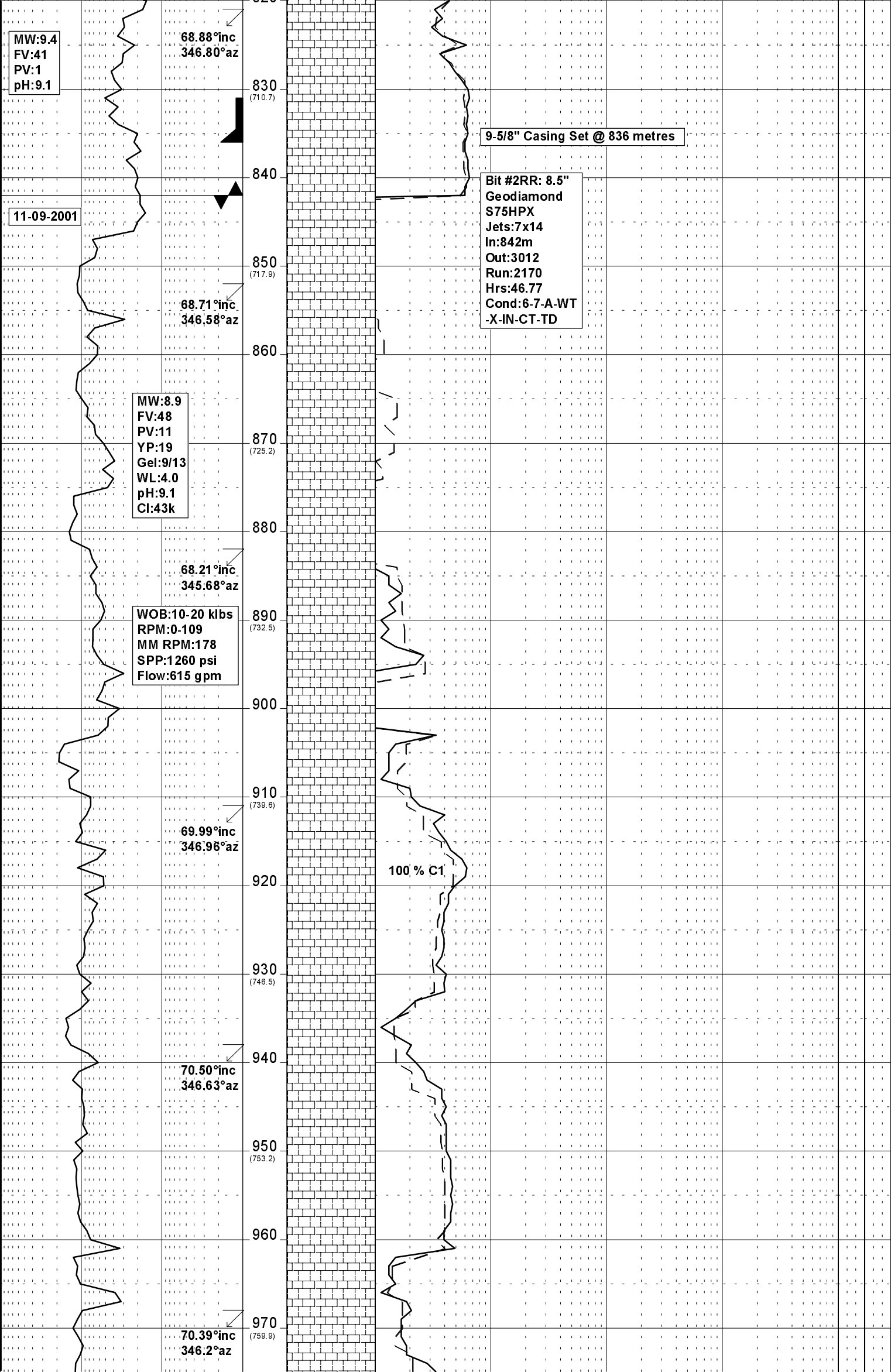


CALCARENITE:lt gy,lt olv gy,mnr gn gy,f-occ med,com arg,com ooid rr dissem pyr,tr foss frag,mod hd,occ fri,v pr vis por,no fluor

CALCARENITE:lt gy,lt olv gy,f,rr med,com arg,mnr ooid & foram,occ foss frag,tr carb & glauc spk, fri-mod hd,v pr vis por,no fluor

CALCARENITE:lt gy,lt olv gy,f-rr med,com arg,mnr ooid & foram,occ foss frag,tr carb spk,rr dissem & nod pyr,fri-mod hd,v pr vis por,no fluor.

CALCARENITE:lt gy,lt olv gy,f-med,arg,occ foss,tr ooid,rr carb spk,rr nod pyr,fri,com mod hd, v pr vis por,no fluor.



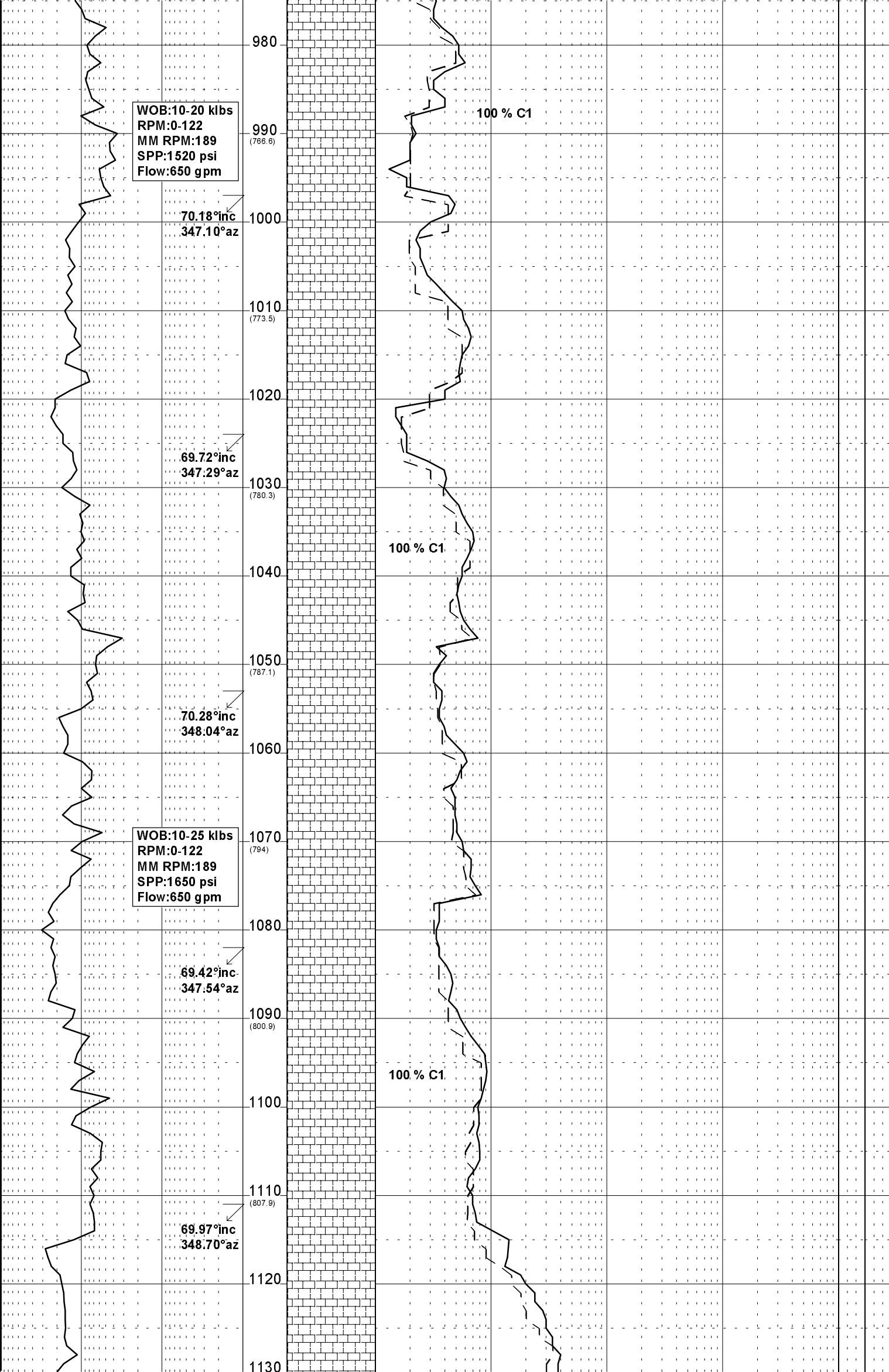
Total Depth 12.25" Phase @ 842m

KCI/PHPA/POLYMER
MUD SYSTEM

CALCULUTITE:lt gy,lt olv gy,tr
carb spk,rr foss frag,sft,com
frm,sbbiky,amor.

CALCULUTITE:lt gy,lt olv gy,tr
vf aren,tr micro carb spk,rr
ooid,sft,sbbiky,amor i/p.

CALCULUTITE:lt olv gy,lt olv bn
i/p,g/t CLSLT i/p,tr carb spk,
rr ooid,sft-frm,sbbiky.

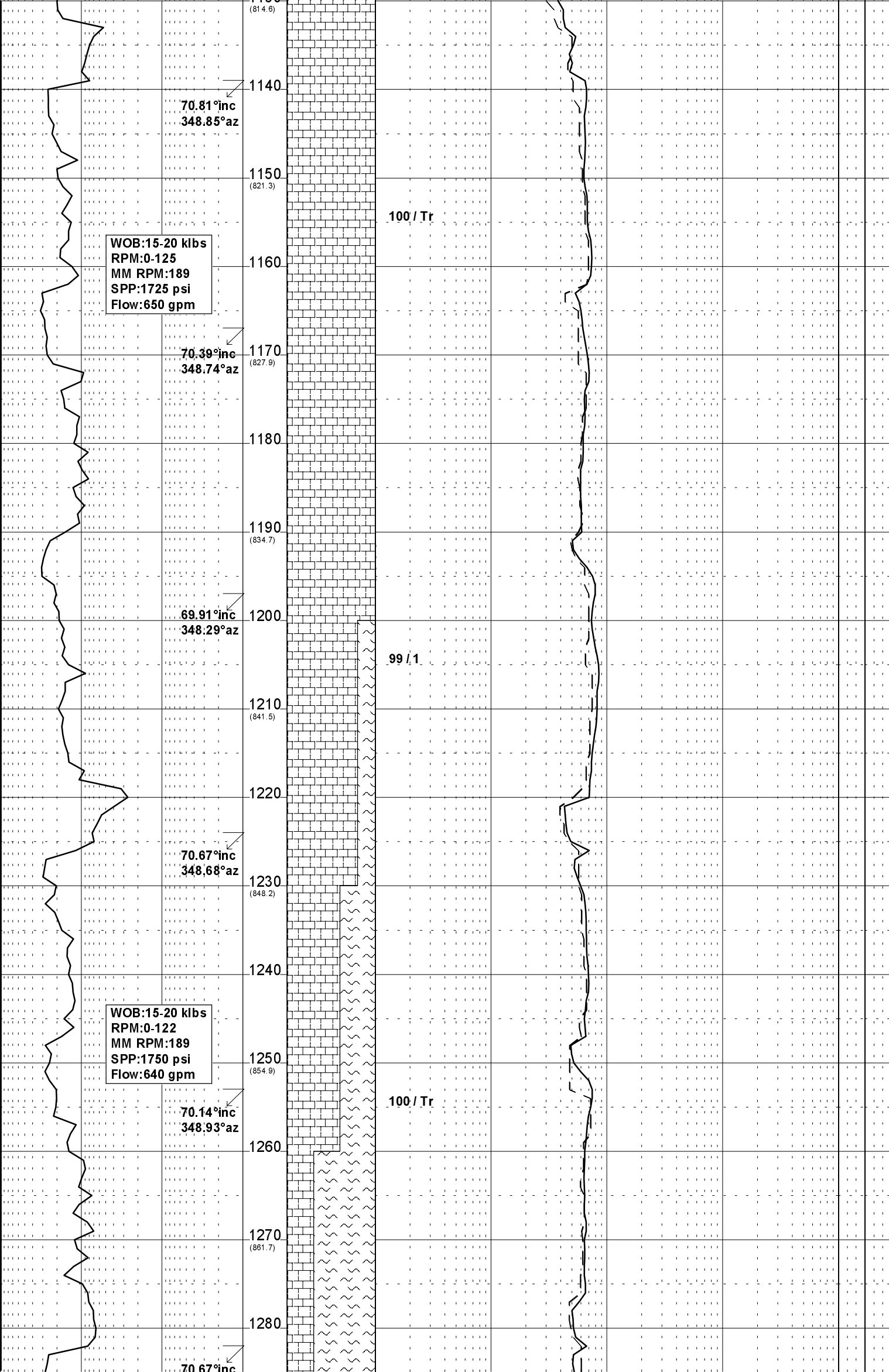


CALCILUTITE:v lt gy-lt olv gy,
occ med gy,v arg,occ g/t CLSLT,
tr carb spk,tr micro foss,tr
spar Calcite,sft-rr frm,amor-
sbbiky.

CALCILUTITE:lt gy-lt olv gy,rr
med gy,v arg,occ g/t CLSLT,tr
micro foss,tr carb spk,tr dissem
pyr,sft-occ frm,amor-sbbiky.

CALCILUTITE:lt gy-lt olv gy,rr
med gy,v arg,occ g/t CLSLT,tr-
mnr micr foss (forams,oid),rr
dissem & nod pyr,tr carb spk,
sft-occ frm,amor-sbbiky.

CALCILUTITE:lt gy-lt olv gy,occ
med gy,v arg,g/t CLSLT i/p,tr
micro foss,tr dissem pyr,tr carb
spk,tr-rr spar Calcite,sft-occ

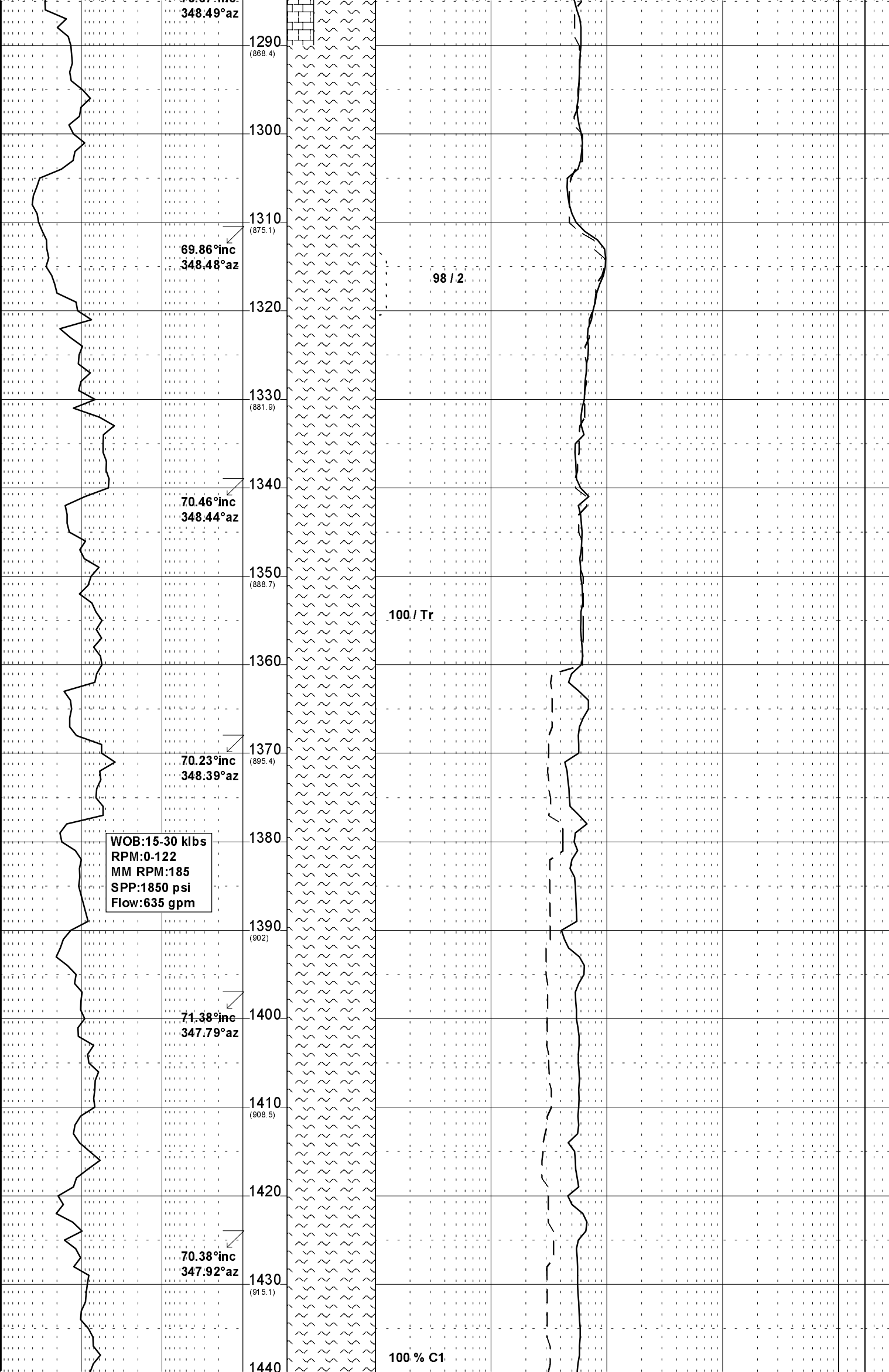


frm, amor-sbblky.

CALCILUTITE: lt gy-lt olv gy, occ
med gy, v arg, tr micro foss
(foram), tr ooid, tr dissem pyr, tr
carb spk, tr spar Calcite, sft-frm
amor-sbblky.

CALCILUTITE: v lt gy-lt olv gy,
occ med gy, v arg g/t MARL, tr
micro foss, tr ooid, tr dissem pyr
tr mir, sft-frm, occ hd, sbblky-
brit i/p.

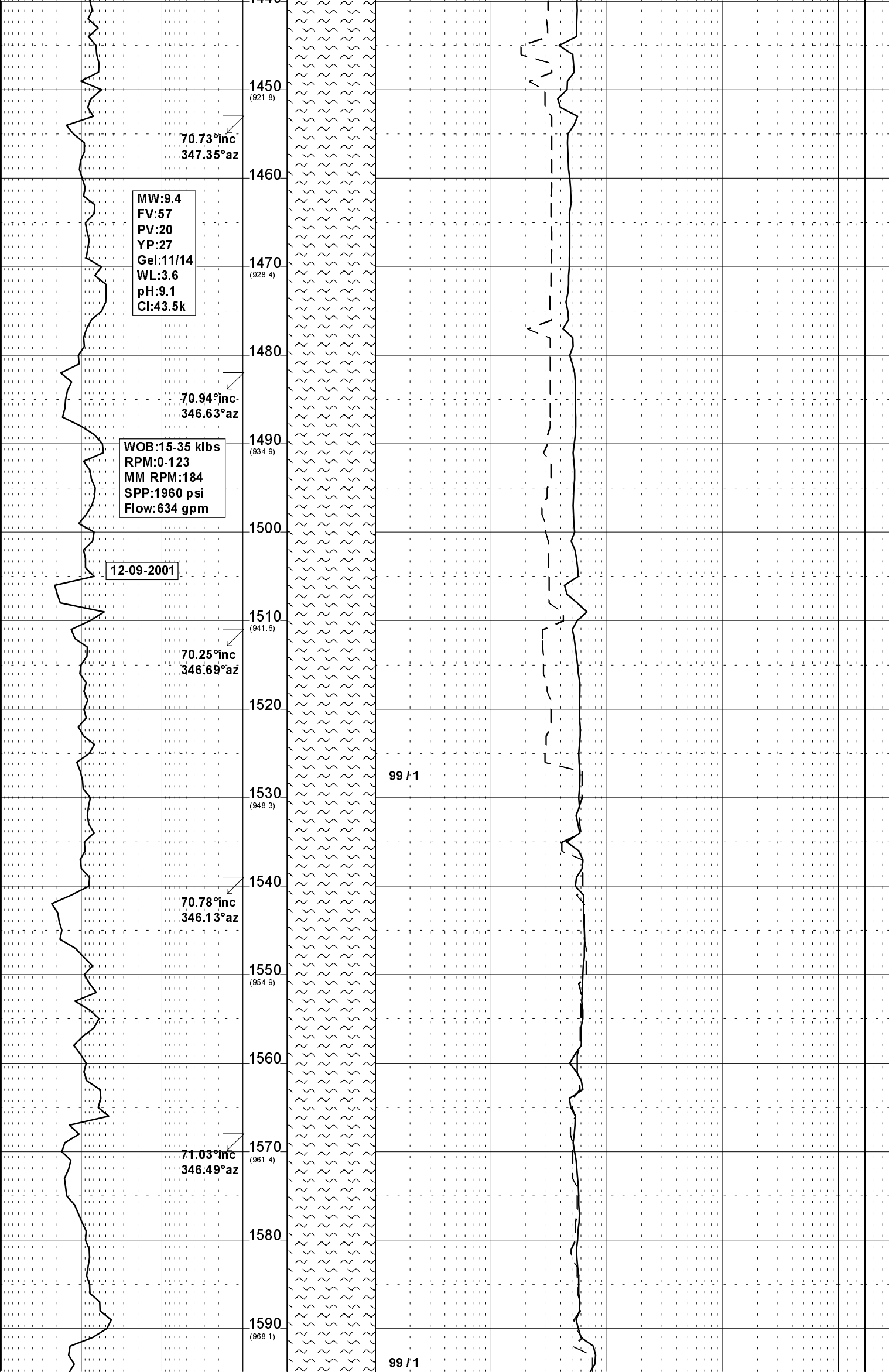
MARL: lt olv gy-olv gy, v arg, rr
micro carb pk, tr micro foss, v
sft-rr frm, amor-sbblky.



MARL:lt olv gy-olv gy,v arg,tr
carb spk,rr foss frag,sft,occ
frm,sbbiky.

MARL:lt olv gy-med gy,olv gy,v
arg,tr ooid,tr micro carb spk,rr
dissem pyr,sft,occ frm,sbbiky,
com amor.

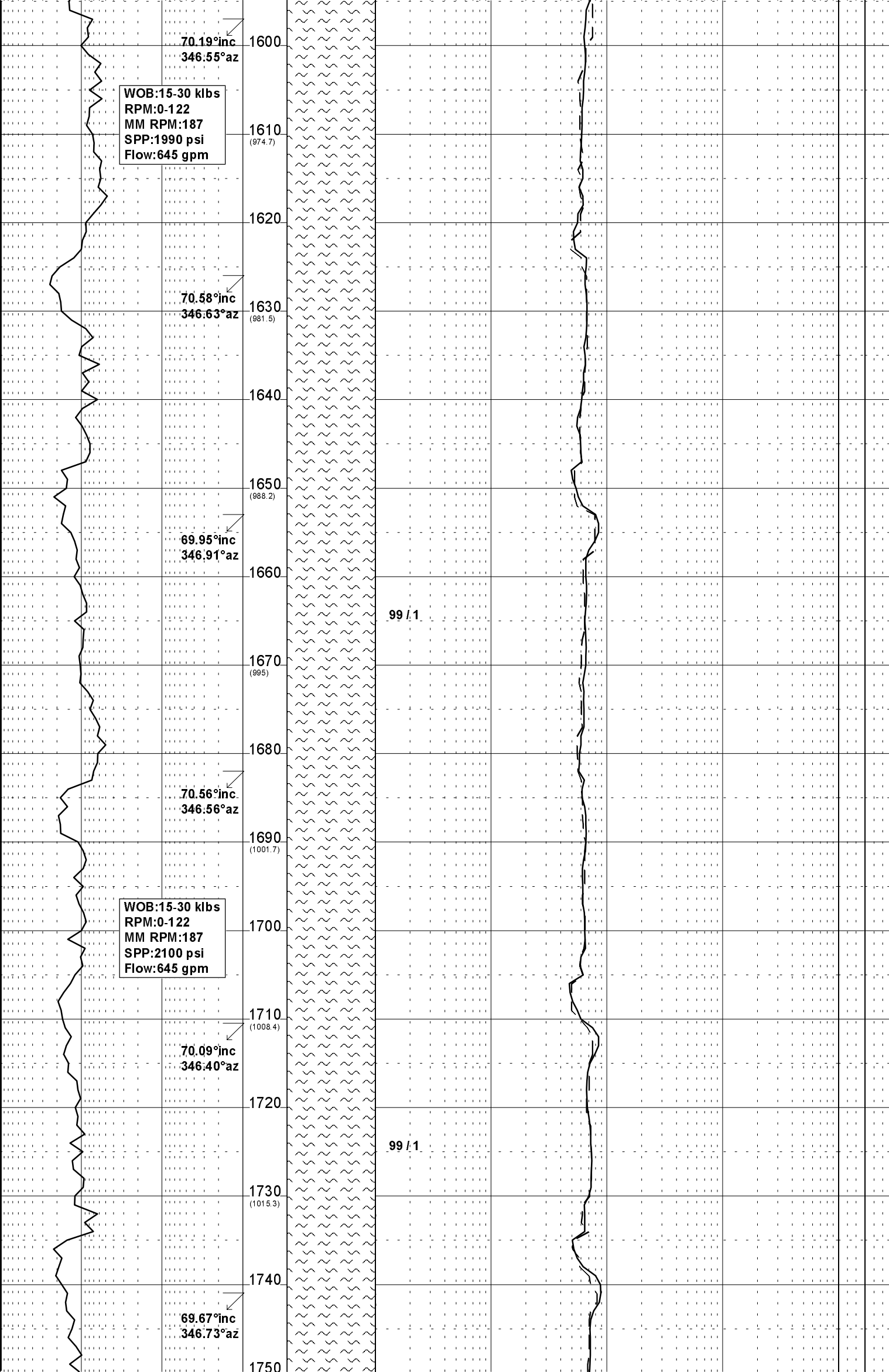
MARL:lt olv gy-med gy,olv gy,
arg,tr ooid,tr carb spk,sft-frm,
sbbiky.



MARL:lt olv gy,med gy,olv gy,v
arg,rr micro carb spk,tr dissem
pyr,tr nod pyr,tr xln Calcite,
sft,sbblky.

MARL:lt olv gy-olv gy,med gy i/p
arg,tr micro carb spk,rr dissem
pyr,sft,frm i/p,sbblky,amor
i/p.

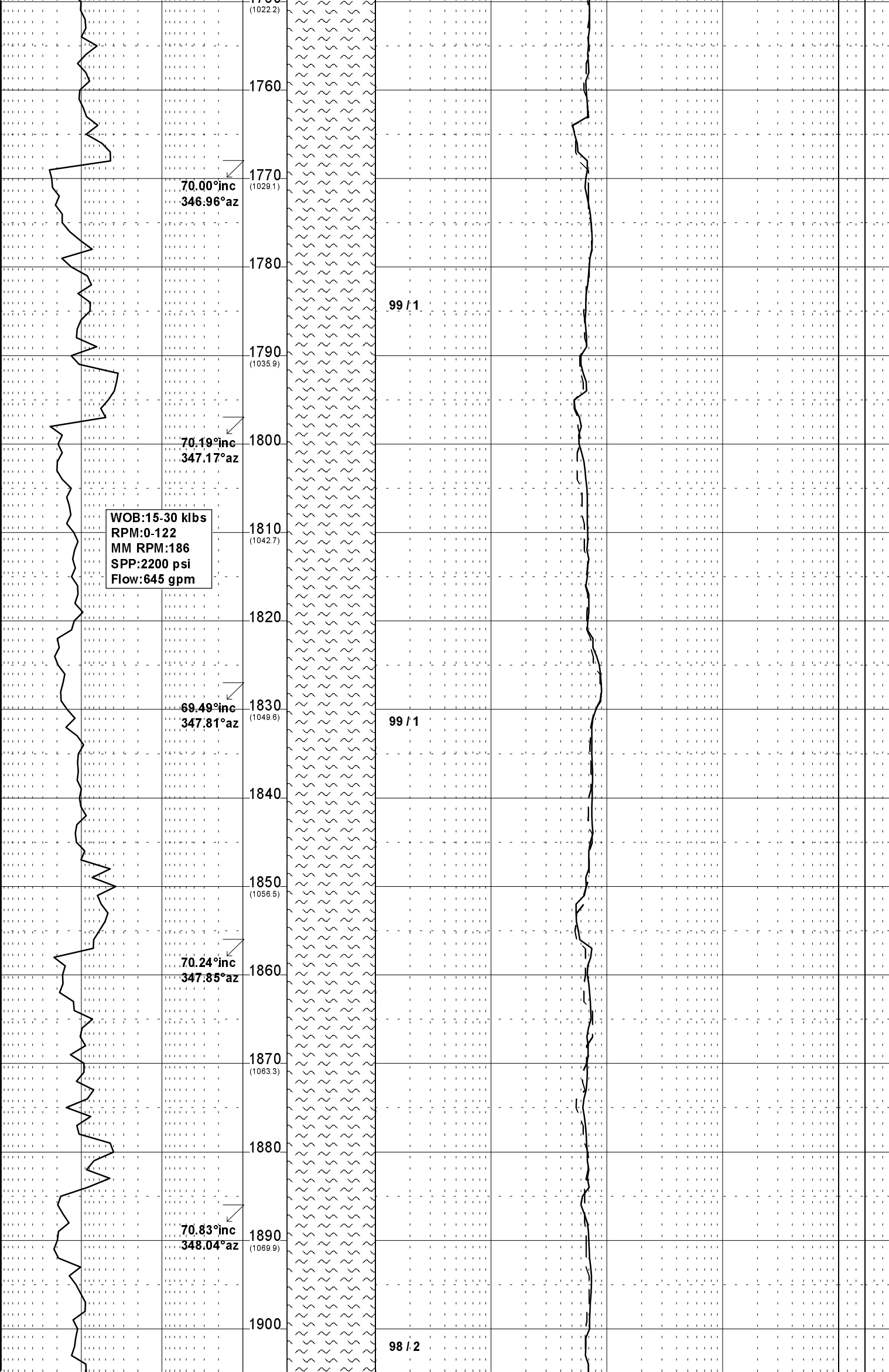
MARL:lt olv gy-olv gy,mnr med gy
i/p,arg,tr carb spk,tr ooid,rr
dissem pyr,frm,com sft,sbblky.



MARL:lt olv gy-med gy,arg,sity
i/p,rr carb spk,tr ooid,tr
dissem pyr,sft-frm i/p,sbblky.

MARL:lt olv gy-med gy,arg,sity
i/p,tr carb spk,rr dissem pyr,
tr ooid,sft-rr frm,sbblky.

MARL:lt olv gy-olv gy,med gy,
arg,sity i/p,tr carb spk,tr ooid
tr dissem pyr,tr micro foss,sft-
rr frm,sbblky.

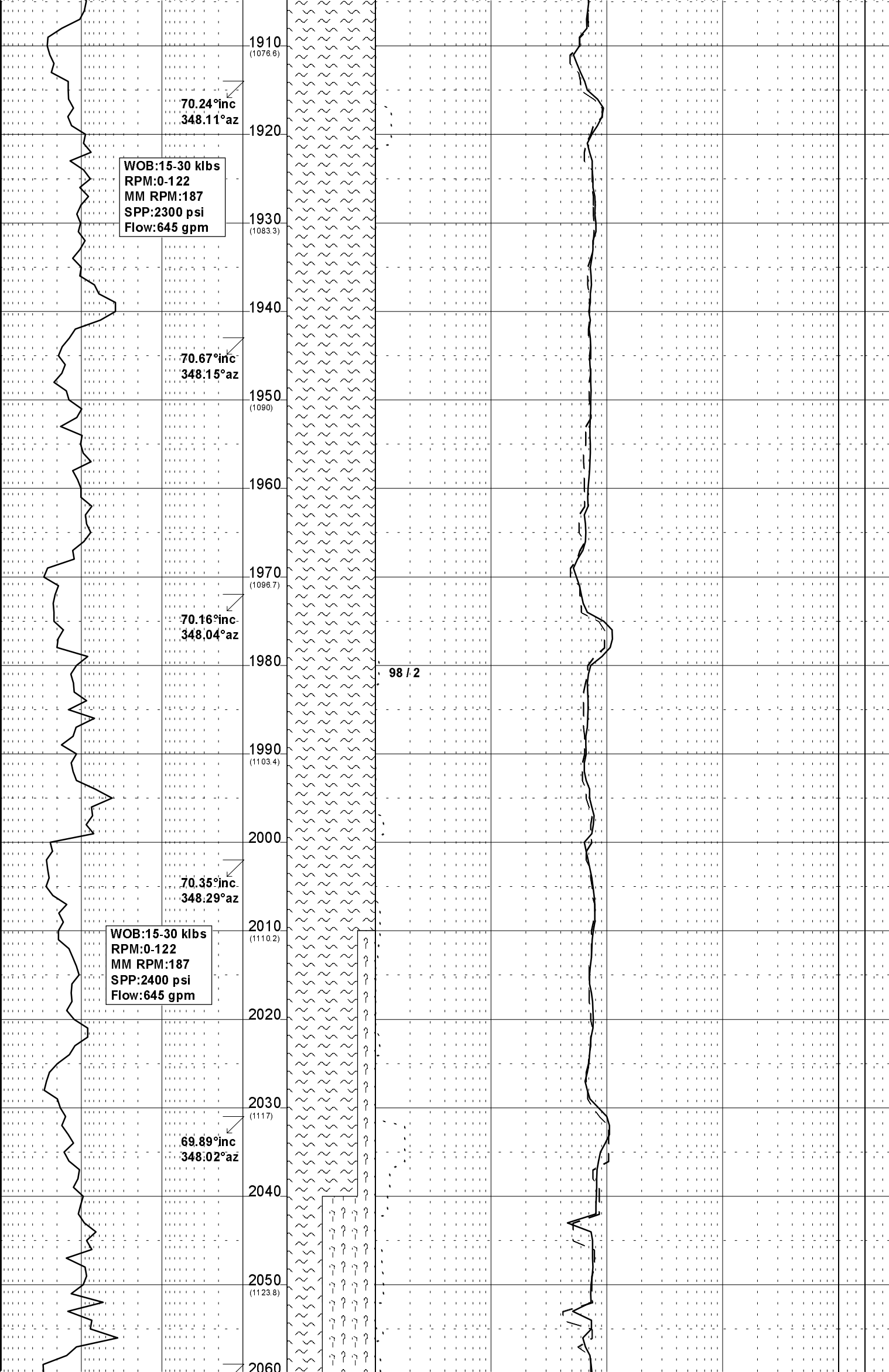


MARL:lt olv gy-olv gy,med gy,
arg,slty i/p,tr carb spk,tr ooid
tr dissem pyr,sft-rr frm,sbbiky

MARL:lt olv gy,lt-med gy,arg,
slty i/p,tr carb spk,tr dissem
pyr,tr ooid,tr micro foss
(foram),sft-rr frm,sbbiky.

MARL:lt olv gy-olv gy,med gy,
arg,slty i/p,tr carb spk,tr ooid
tr dissem pyr,sft-rr frm,sbbiky

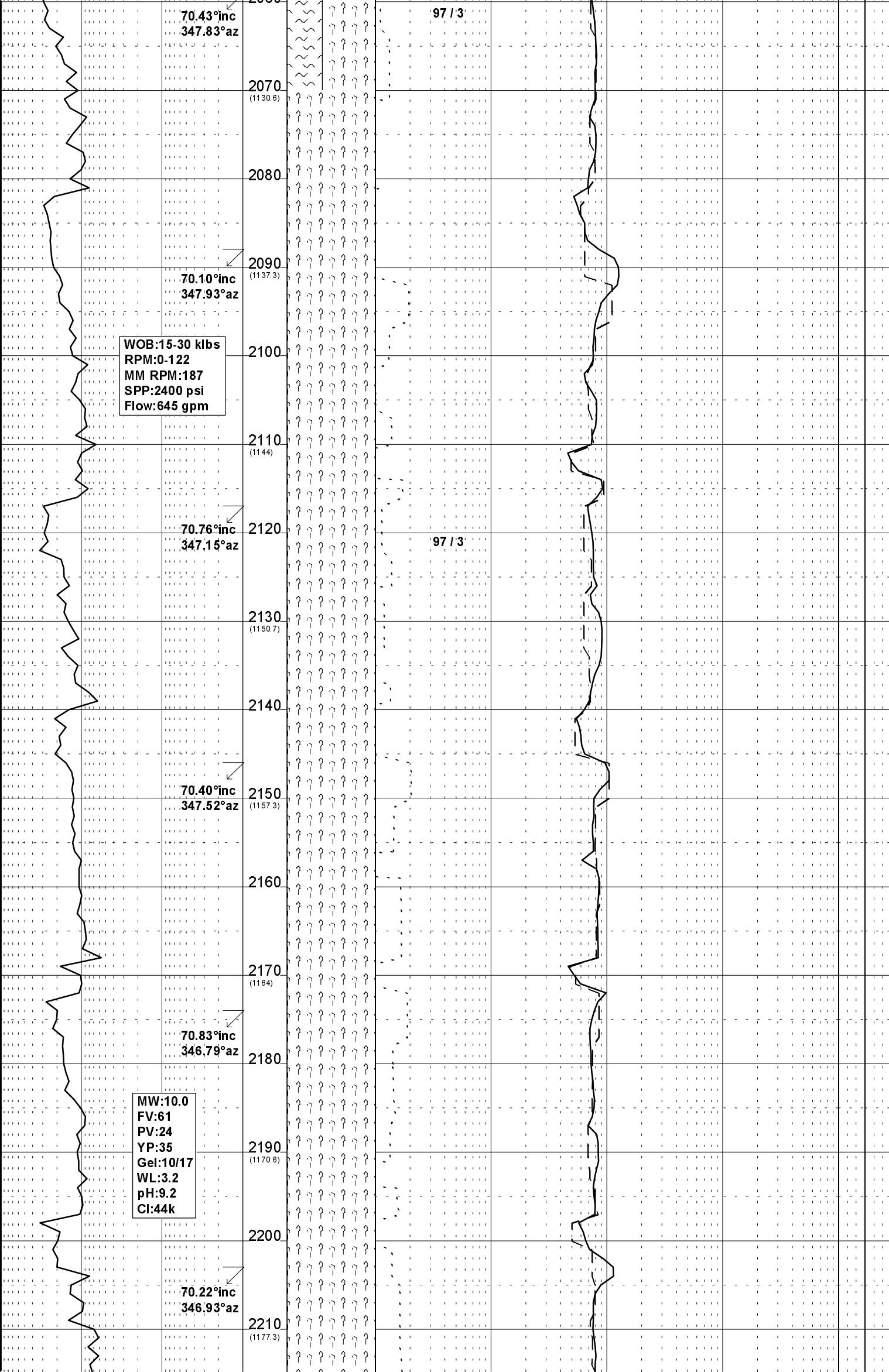
MARL:lt olv gy-olv gy,med gy,
arg,slty i/p,tr dissem pyr,tr



oolid, tr carb spk, sft-rr frm, sbblky.

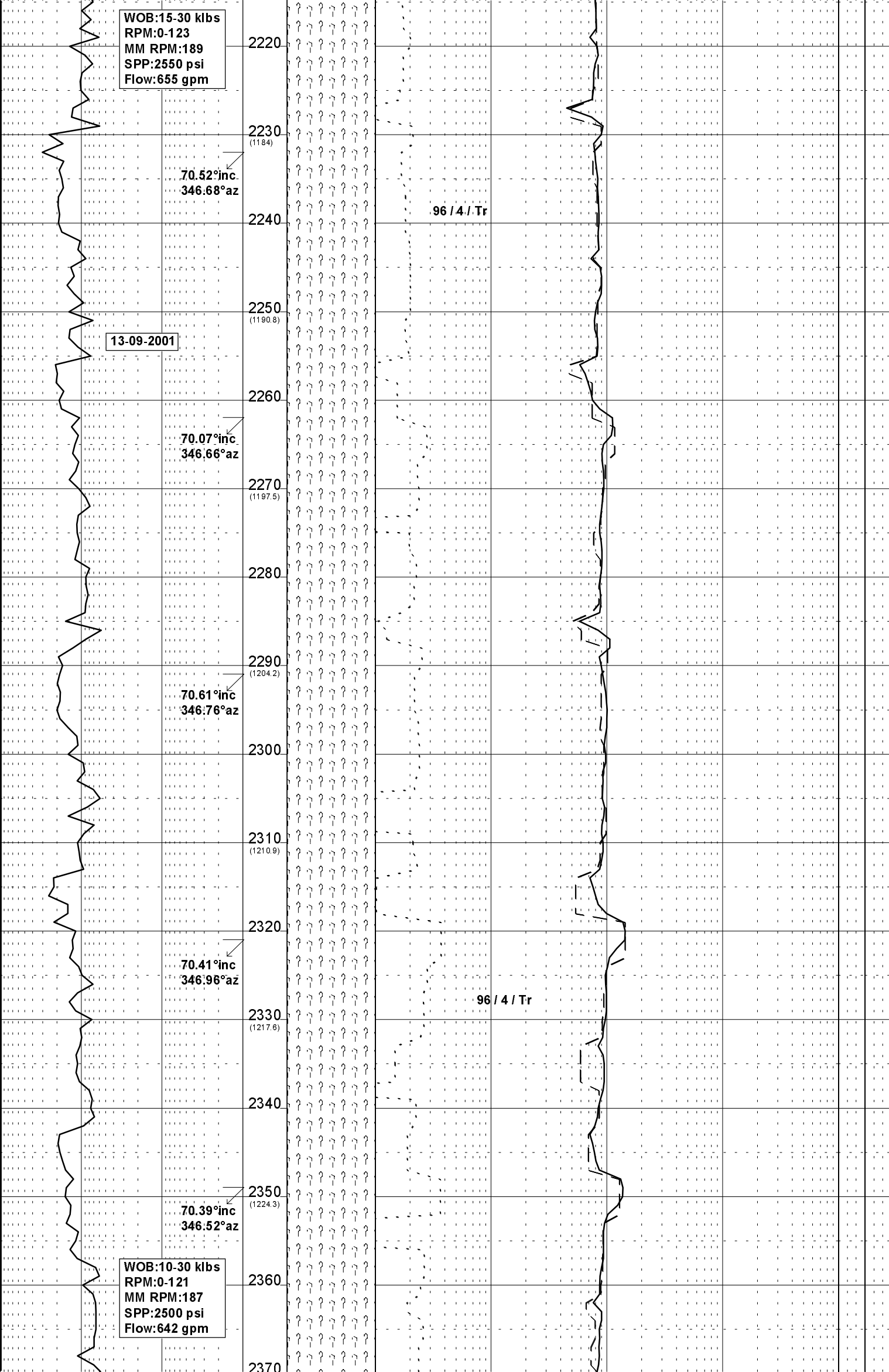
MARL:lt olv gy-olv gy, med gy, arg, slty i/p, tr dissem & nod pyr tr ooid, tr micro foss, tr carb spk, tr glauc, sft-rr frm, sbblky.

CLAYSTONE:lt gy, occ lt olv gy, v calc, tr slty i/p, rr micro carb spk, rr micro foss, sft-frm, sbblky



CLAYSTONE:lt gy,occ lt olv gy,
v calc,tr slty i/p,tr dissem pyr
tr micro foss,tr carb spk,sft-
frm,sbbiky.

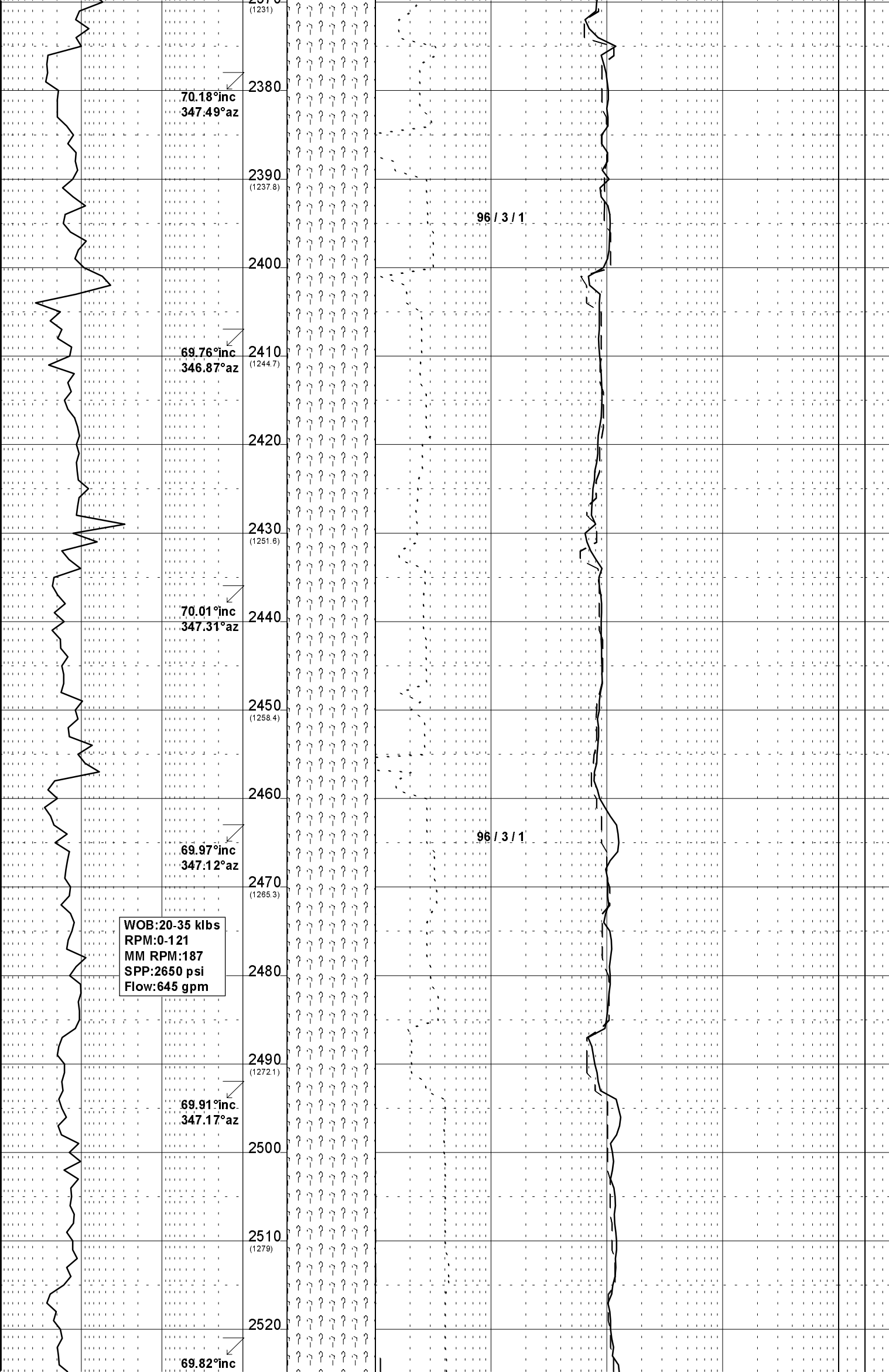
CLAYSTONE:lt gy,occ med gy,v
calc,slty i/p,tr dissem pyr,tr
micro foss,rr ooid,sft-frm,
sbbiky-blky.

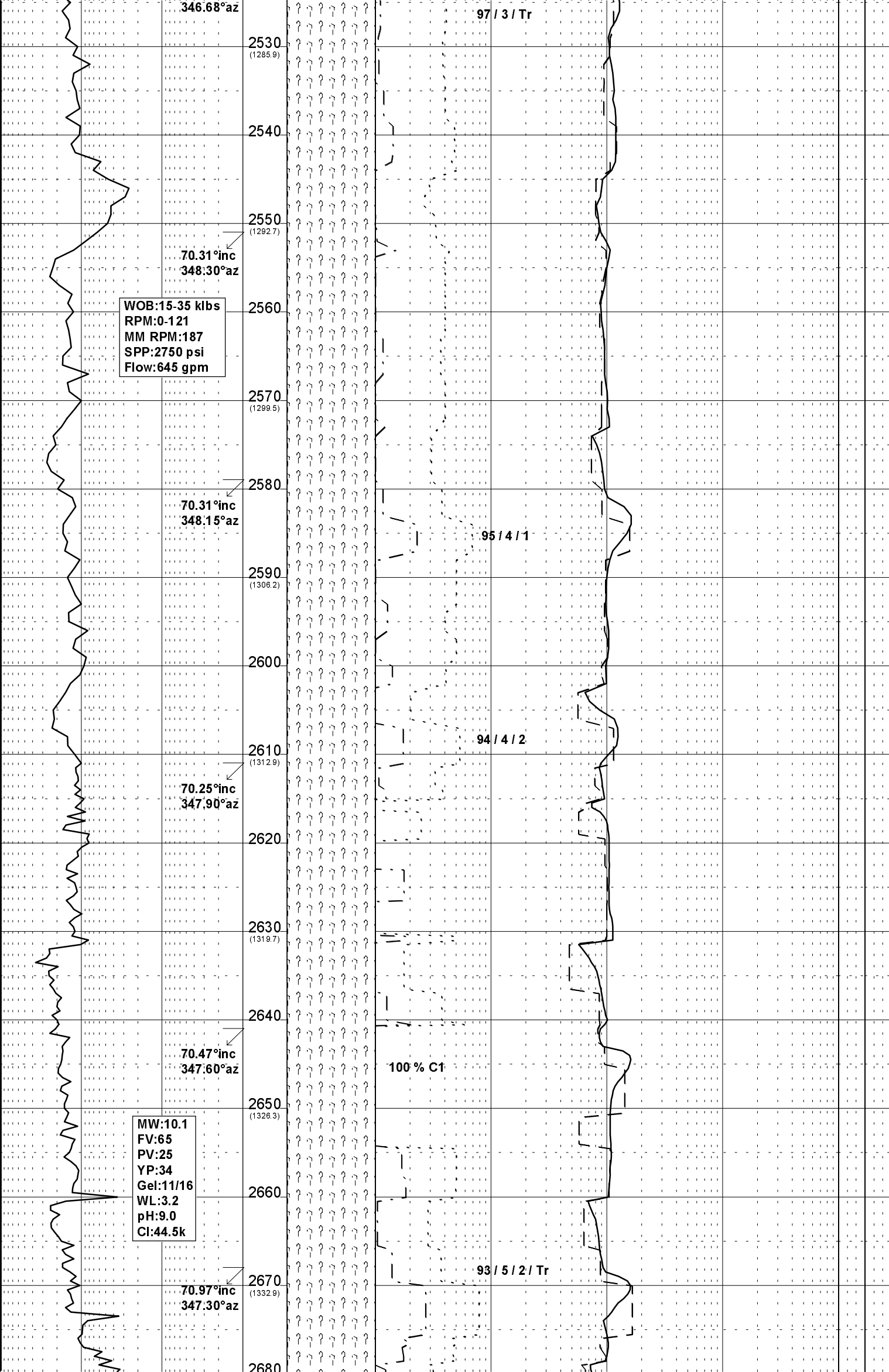


CLAYSTONE:lt gy,occ med gy,occ
lt olv gy,calc,tr slty,tr dissem
pyr,tr ooid,sft-frn,sbblky.

CLAYSTONE:lt gy,lt olv gy i/p,
occ med gy,calc,tr slty i/p,tr
micro foss,rr ooid,tr carb spk,
sft-frn,sbblky-blky.

CLAYSTONE:lt gy,occ med gy,calc,
occ slty,tr ooid,occ dissem pyr,
tr micro carb spk,sft,com frn,
sbblky.



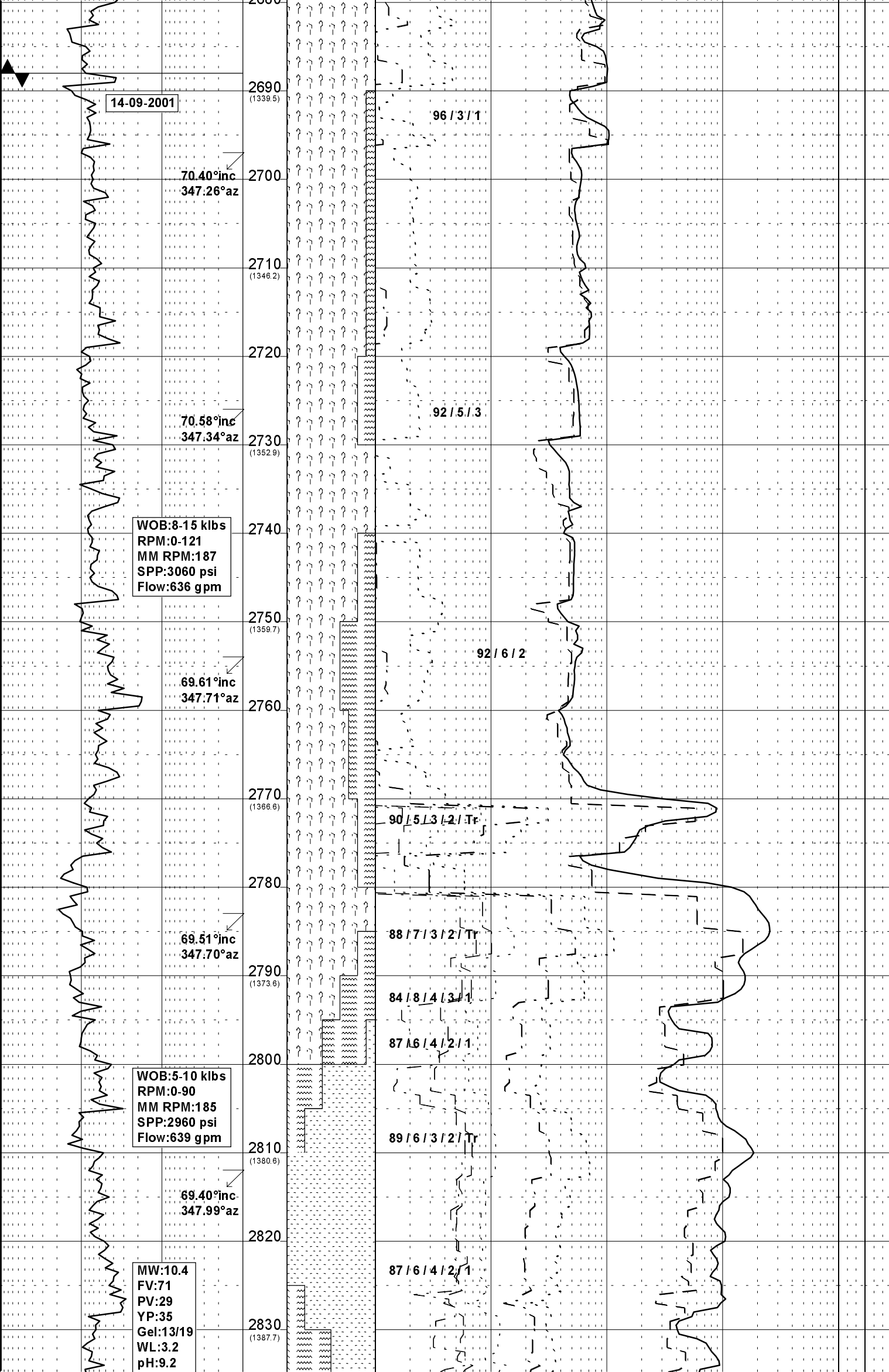


CLAYSTONE:lt-med gy,bn gy i/p,
calc,occ sity,tr glauc,tr dissem
pyr,rr micro foss,tr micro carb,
tr ooid,sft-frn,sbblky.

CLAYSTONE:v lt gy-med gy i/p,
calc,tr dissem pyr,tr foss,tr
Calcite frag,sft-frn,sbblky-
blky.

CLAYSTONE:v lt gy-med gy,calc,tr
pyr,sft-frn,occ mod hd,sbblky-
blky.

CLAYSTONE:v pl gy-gy bn,mnr
dissem pyr,frm-mod hd,occ sft,rr
glauc,sbblky-blky.



WIPER TRIP TO SHOE @ 2688m

CLAYSTONE:v pl gy-med gy,pl bn
ip,calc,tr-mnr dissem pyr,frm-
mod hd,occ mod hd-hd,blky-
sbbiky.

SILTSTONE:med-occ dk gy,calc,v
arg,g/t CLYST i/p,tr carb spk,
tr dissem pyr,sft-frm,sbbiky-
blky.

SILTSTONE:med gy,occ lt gy,arg,
occ vf arg,g/t CLST i/p,rr carb
spk,rr ooid,rr dissem pyr,frm,
com sft,sbbiky-blky.

CLAYSTONE:lt gy-lt gy bn,sity
i/p,vf aren i/p,g/t SLTST,mnr
dissem pyr,tr dissem & nod glauc
frm,sbbiky.

CARBIDE LAG CHECK @ 2750m
THEOR RETURN : 7450 STKS
ACTUAL RETURN: 8300 STKS
22.5% OG IN OPEN HOLE

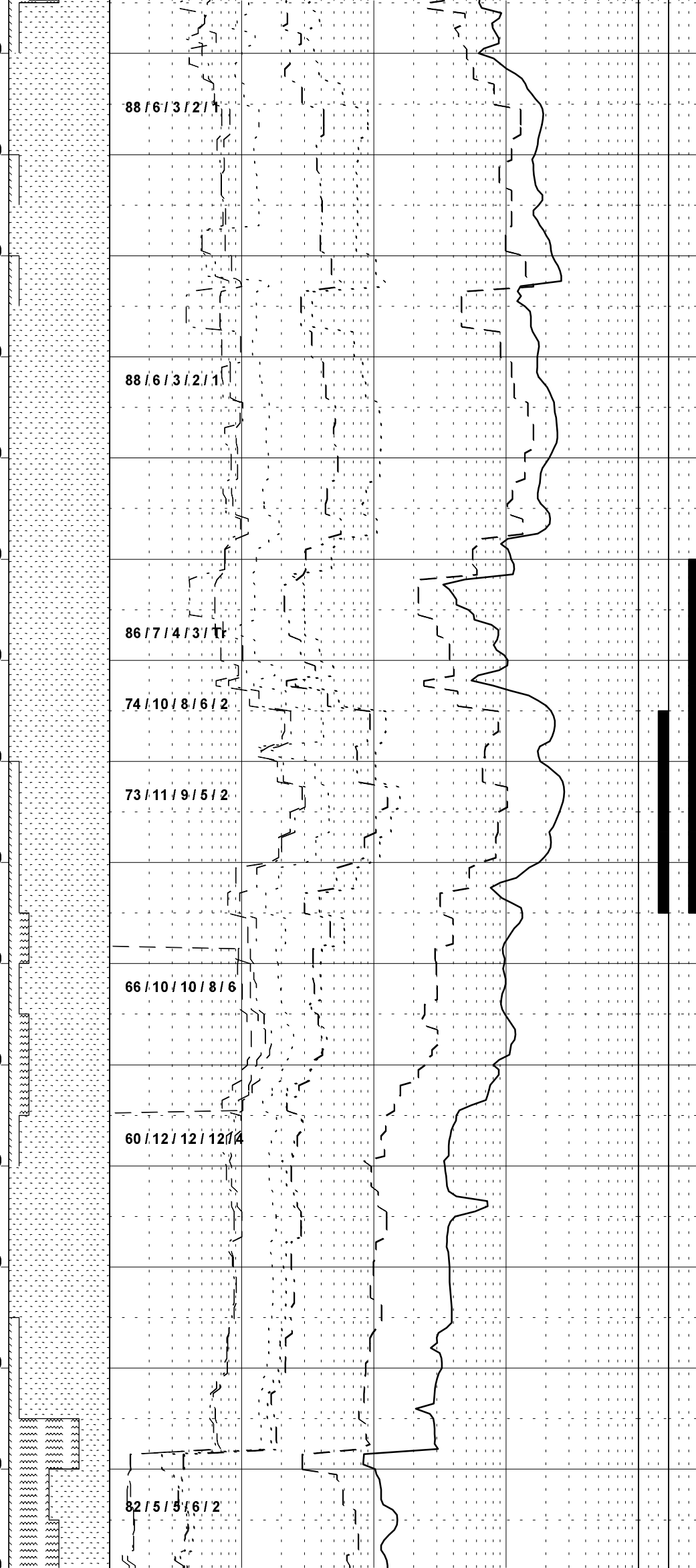
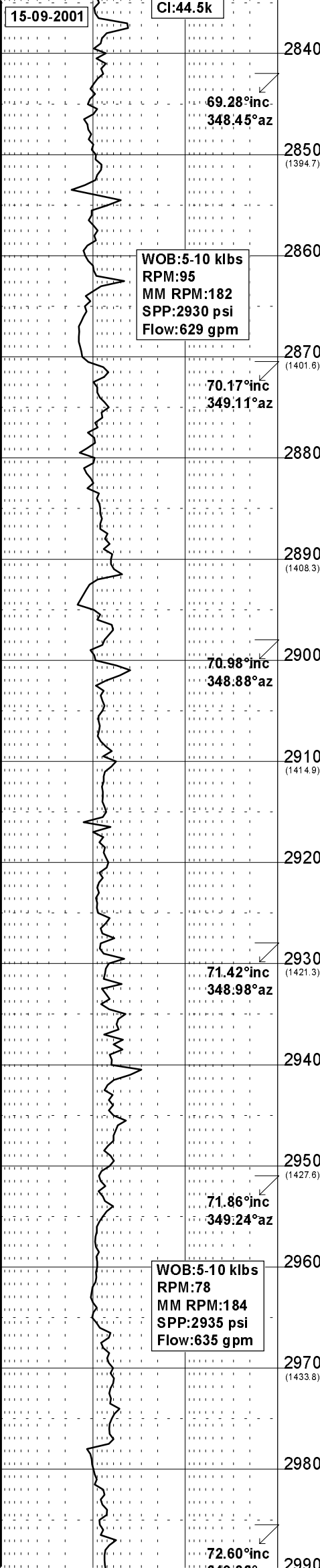
CLAYSTONE:dk yel org,off wh,lt
gy-med gy,lt bn,mott gn gy,aren
i/p,nod glauc i/p,occ med qtz
grn,v sft,sbbiky.

SILTSTONE:dk yel org,lt-med bn,
gn bn i/p,arg-aren,g/t vf SST
i/p,glauc,occ nod glauc,tr carb,
v sft-frm,brit i/p,blky-amorph.

SANDSTONE:clr-trnsl,opq,med-pred
crs,mnr f,occ v crs,pr srt,sa-
ang,occ nod pyr,tr pyr cmt,rr
nod glauc,pred cln & lse,fr-gd
inf por,no fluor.

SANDSTONE:clr-trnsl,crs-pred v
crs,mod-wl srt,ang-sr,occ v ang
frac qtz shrd,tr pyr & sil cmt,
rr nod pyr,lse-rr fri agg,gd inf
por,no fluor.

SILTSTONE:med lt gy-med gy,lt
arg-v ara,micmic i/p,dissem pvr



arg v arg,mod,mod sp,mod pyr,
i/p,v sft frm,sbblky-blky,occ
amorph.

SANDSTONE:clr-trnsl,occ lt gy,
crs-v crs,occ med,mod srt,sa-ang
occ v ang & frac,mnr pyr cmt,occ
nod pyr,gen lse,gd inf por,no
fluor.

SILTSTONE:med lt gy-med gy,lt gy
bn,arg,pyr i/p,sft frm,blky-
sbblky.

SANDSTONE:clr-trnsl,mlky i/p,
crs-v crs,com med,pr srt,sa-sr,
mnr-loc com pyr cmt,mnr nod pyr,
pred cln & lse,gd inf por,no
fluor.

FLUORESCENCE:2890m-2905m;
Tr,dll yel gn,ppt,no dir cut,
no CC,no RR.

SANDSTONE:trnsl-clr,mlky,med-
crs,pred crs,mod srt,sa-sr,wk
sil cmt,rr-loc mnr pyr cmt,occ
nod pyr,pred cln & lse,fr-gd inf
por.

FLUORESCENCE:2905m-2925m;
Tr,dll-mod brt yel gn ppt,
tr CC,tr dll yel RR.

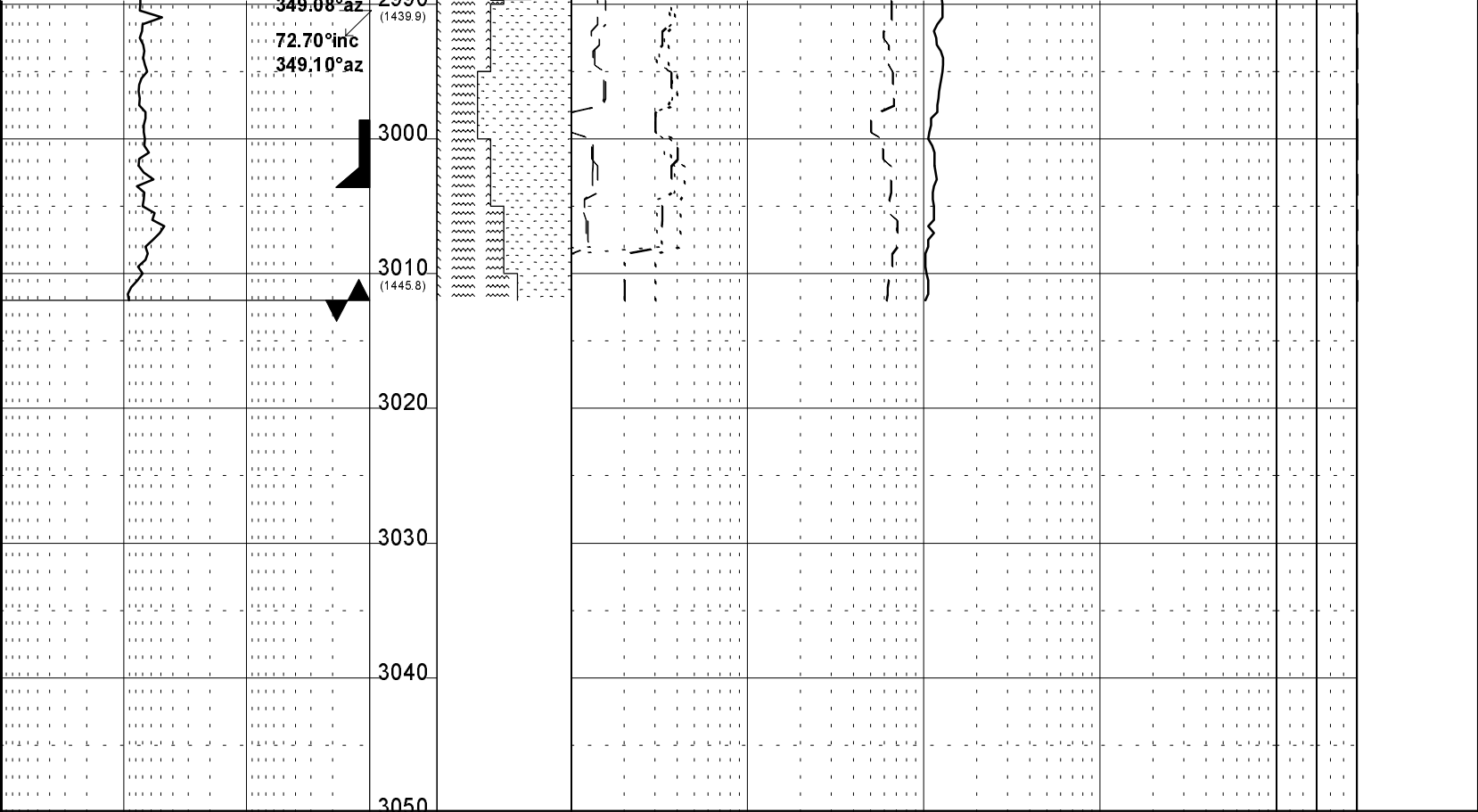
SANDSTONE:clr-trnsl,med-crs,occ
v crs,pr srt,sa-sr,mnr pyr cmt,
mnr nod pyr,pred cln & lse,gd
inf por.

SILTSTONE:lt gy bn,occ dk bn,occ
lt gy gn,arg,aren i/p,rr micro
carb spk,tr dissem pyr,sft,blky-
amorph,occ sbfiss.

SANDSTONE:trnsl,clr,med-crs,occ
v crs,pr srt,sa-sr,tr slty mtz
tr pyr cmt,pred cln & lse,fr-gd
inf por,no fluor.

SILTSTONE:pl-med gy,gy bn,gn gy
i/p,arg,mod hd-hd,sbfiss-sbblky

5 STD WIPER TRIP @ 2979m



SANDSTONE:trnsl-frstd,m-crs,occ
v crs grns,pr srtd,sr-rnd,occ sa
-sr,pr cmt,com slty mtx,lse,pr
inf por,no fluor.

**7" Production Casing
Set @ 3003.6 metres**

**Projected Survey @ 3012.0m
Incl: 73.08° Azi: 349.1°
TVD: 1446.38m**

**WEST TUNA W-9 REACHED TD
@ 12:30 HRS ON 15-09-2001**

**DRILLERS TOTAL DEPTH:
3012m (1446.39mTVD)**