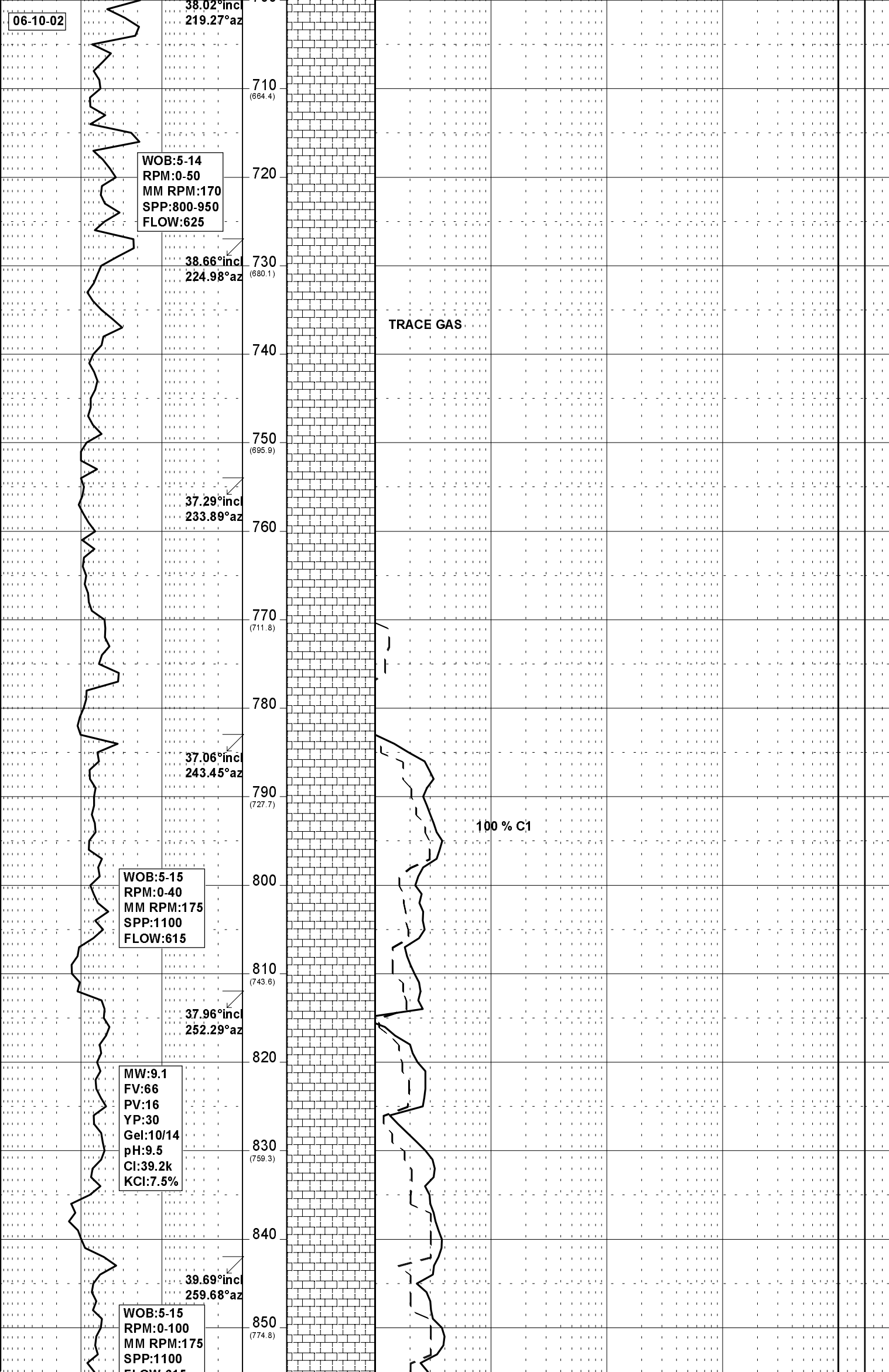




GENERAL				POSITION				HOLE / CASING INFO				DATE / DEPTH				ENGINEERS															
Country : Australia Permit : VIC L9 Field : Tuna Basin : Gippsland Well Type : Development Rig Name : NABORS 453				Local Co-ord X : 0.11 mE Local Co-ord Y : 3.05 mS AMG Co-ord X : 624224.99 mE AMG Co-ord Y : 5774222.49 mN RT to MSL : 31.32 m RT to Sea Bed : 90.72 m				12-1/4" Hole to 661.2 m 8-1/2" Hole to 2312 m 20" Conductor Shoe @ 167.4 m 13-3/8" Surface Casing @ 647.0 m 9-5/8" Intermediate Casing @ 661.2 m				Spud Date : 05-10-2002 Total Depth Date : 10-10-2002 Total Depth : 2312 m True Vertical Depth : 1446.74 m Log Scale : 1/ 500 Depth From (m): 650 To: 2330				Mark Smith Rohan Pereira Matthew Boyd															
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				WOBWeight 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><div></div>CLAYSTONE</div> <div><div></div>SILTSTONE</div> <div><div></div>SST: F - V FINE</div> <div><div></div>SST: MEDIUM</div> <div><div></div>SST: COARSE</div> <div><div></div>SHALE</div>				<div><div></div>MARL</div> <div><div></div>LIMESTONE</div> <div><div></div>DOLOMITE</div> <div><div></div>CHERT</div> <div><div></div>CONGLOMERATE</div> <div><div></div>COAL</div>				<div><div></div>BRYOZOA</div> <div><div></div>RADIOLARITES</div> <div><div></div>ECHINOIDS</div> <div><div></div>CORALS</div> <div><div></div>FORAMINIFERA</div> <div><div></div>LITHIC FRAGMENT</div>				<div><div></div>CARB FRAGMENT</div> <div><div></div>QUARTZITE</div> <div><div></div>INTRUSIVES</div> <div><div></div>GLAUCONITE</div> <div><div></div>PYRITE</div> <div><div></div>CEMENT</div>				<div><div></div>CASING SHOE</div> <div><div></div>LINER HANGER</div> <div><div></div>BIT CHANGE</div> <div><div></div>DEVIA. SURVEY</div> <div><div></div>SWC UNRECOV</div> <div><div></div>SIDEWALL CORE</div> <div><div></div>CORE</div>				<div><div></div>WIRELINE LOGS</div> <div>MDT POINTS:</div> <div><div></div>PRESSURE ONLY</div> <div><div></div>SAMPLE</div> <div><div></div>SEAL FAILURE</div> <div><div></div>TIGHT</div>			
RATE OF PENETRATION				DEPTH (m) (TVD)	CUTTINGS LITHOLOGY	TOTAL GAS & CHROMATOGRAPH DATA						CUT FLUOR	DIRECT FLUOR	CALCIMETRY % CALCITE DOLOMITE	LITHOLOGICAL DESCRIPTIONS and REMARKS																
metres/hour						C1 — — iC4 — — nC5 — —	C2 - - - - nC4 - - - -	C3 — - - iC5 — - - TG ———	Total Gas in Units Chromatograph in Percent							5K															
500	50	5	.5	650	0	100	.5 .01	5 .1	50 1	500 10	5K 100	poor fair good	0	100																	
<div>Bit #2: 8.5" Geod S73HPX Jets:8x15 In:675.2m Out:2312m Run:1650.8m Hrs:42.03 Cond:3-4-WT-A X-IN-CT-TD</div>				660			<div>TUNA A-10a SPUDDED @ 22:45 HRS ON 05-10-2002 FROM 675.2 m MDRT</div>									<div>Drill w/- KCI/PHPA/Glycol Mud System</div>															
				670 (633.1)											CALCISILTITE:v lt gy,lt gy gn,lt olv gy,com lut g/t CLCLT,com calc & foss,com glauc,tr carb & lith spk,sft-frn i/p,occ mod hd, sbblky-amor.																
				680																											
<div>MW:8.85 FV:78 PV:11 YP:24 Gel:8/10 pH:9.3 Cl:42k KCl:8.0%</div>				690 (649.2)			NO GAS									<div>No H2S or CO2 Detected</div>															
				700																											

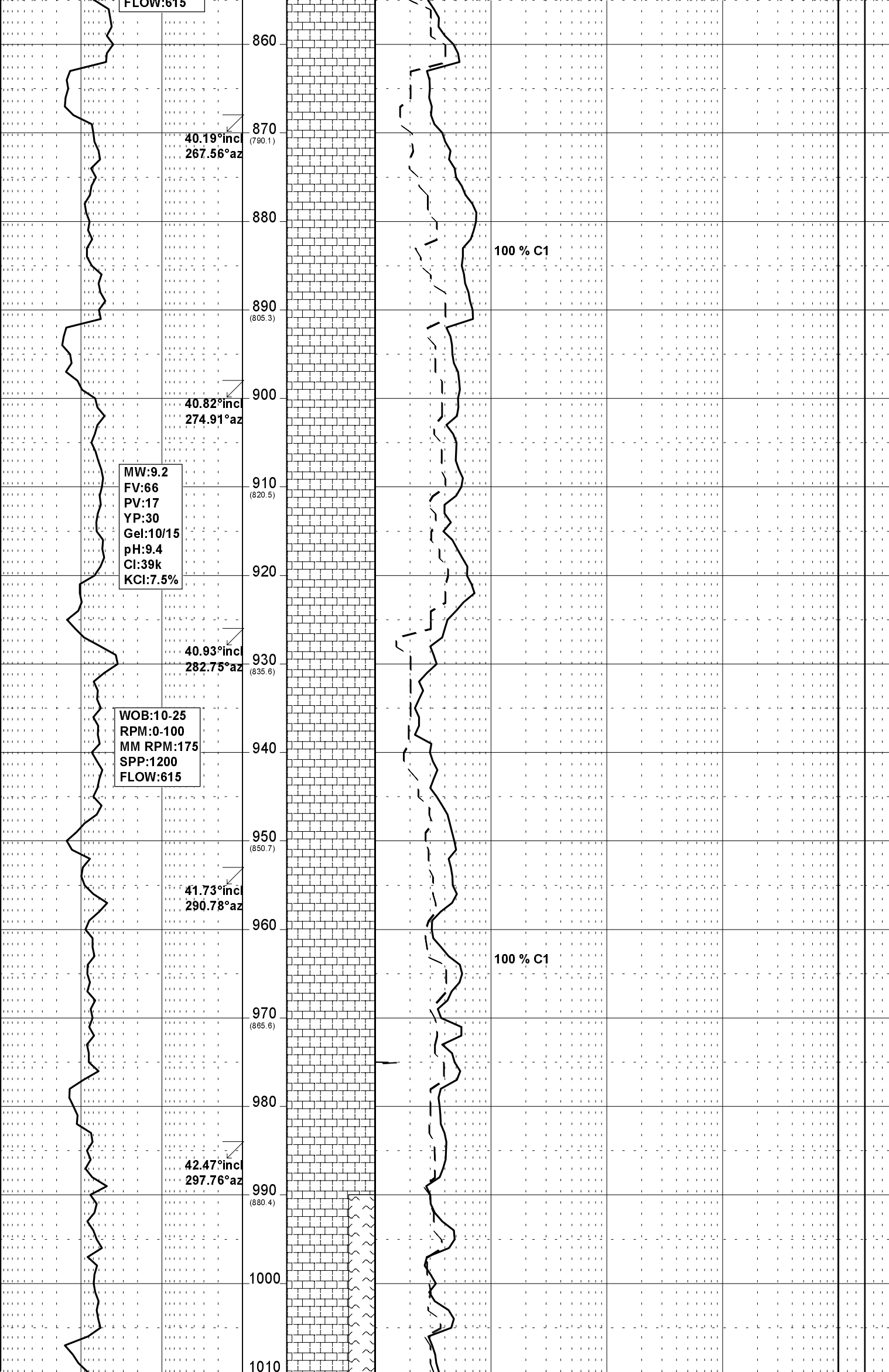


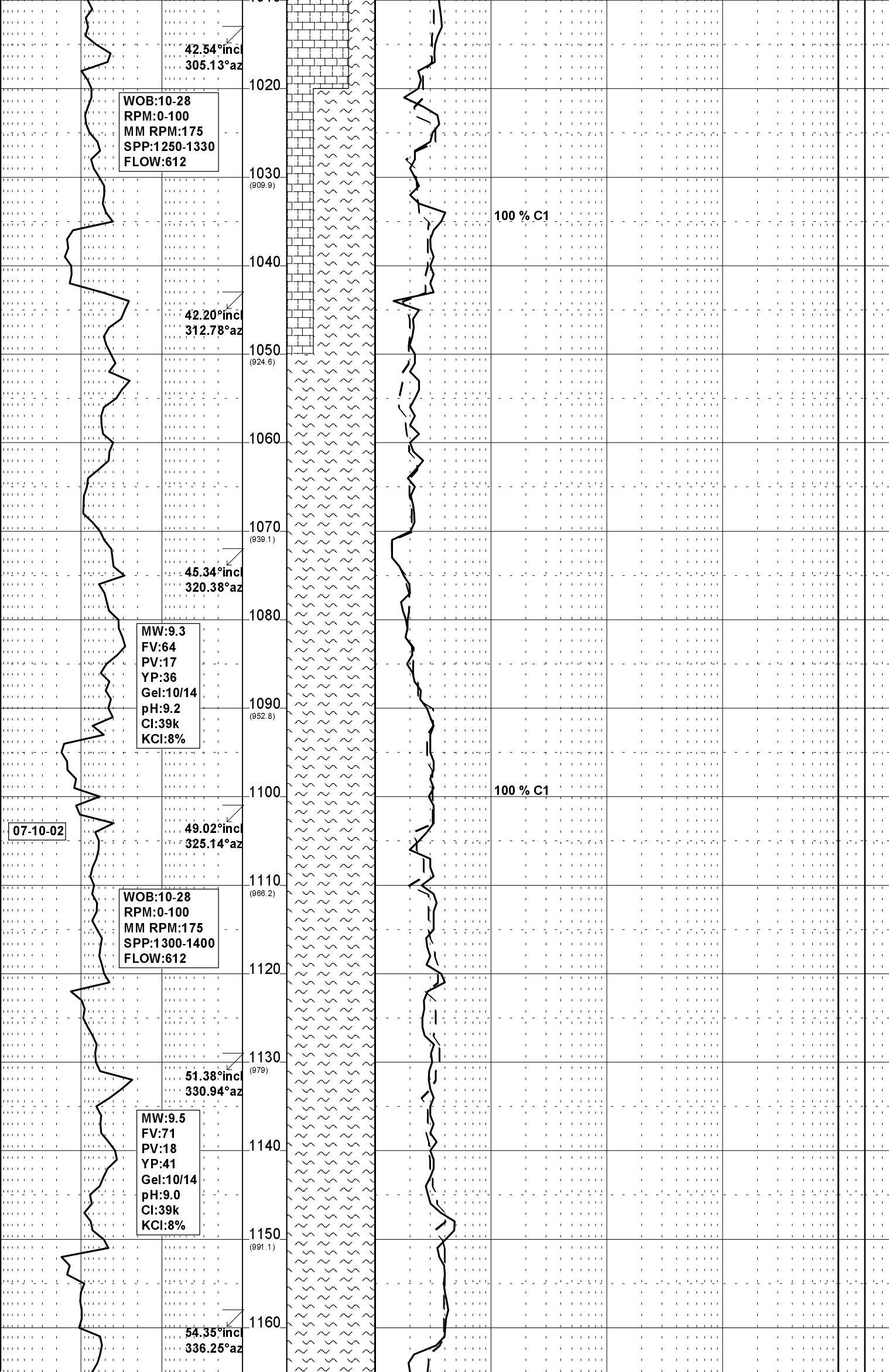
CALCILUTITE:pred v lt gy,off wh,
occ lt gy bn,com arg g/t CALC
CLYST,com calc & foss,tr glauc,
tr lith,sft-frm,occ mod hd,amor-
pred sbbiky.

CALCILUTITE:v lt gy-lt gy,lt bn
gy,lt yel gy,com arg g/t CALC
CLYST,slt slty,occ calc & foss,
occ carb spk,sft,occ mod hd,
amor-sbbiky.

CALCISILTITE:lt-med gy,lt bn gy-
bn gy,lt yel gy,lut g/t CLCLT,tr
calc & foss frag,occ carb & lith
spk,sft-frm i/p,amor-sbbiky.

CALCILUTITE:lt-med gy,lt bn gy,
v arg g/t CALC CLYST,tr dissem
pyr,occ carb spk,tr calc & foss
frag,sft-rr frm,amor-sbbiky.

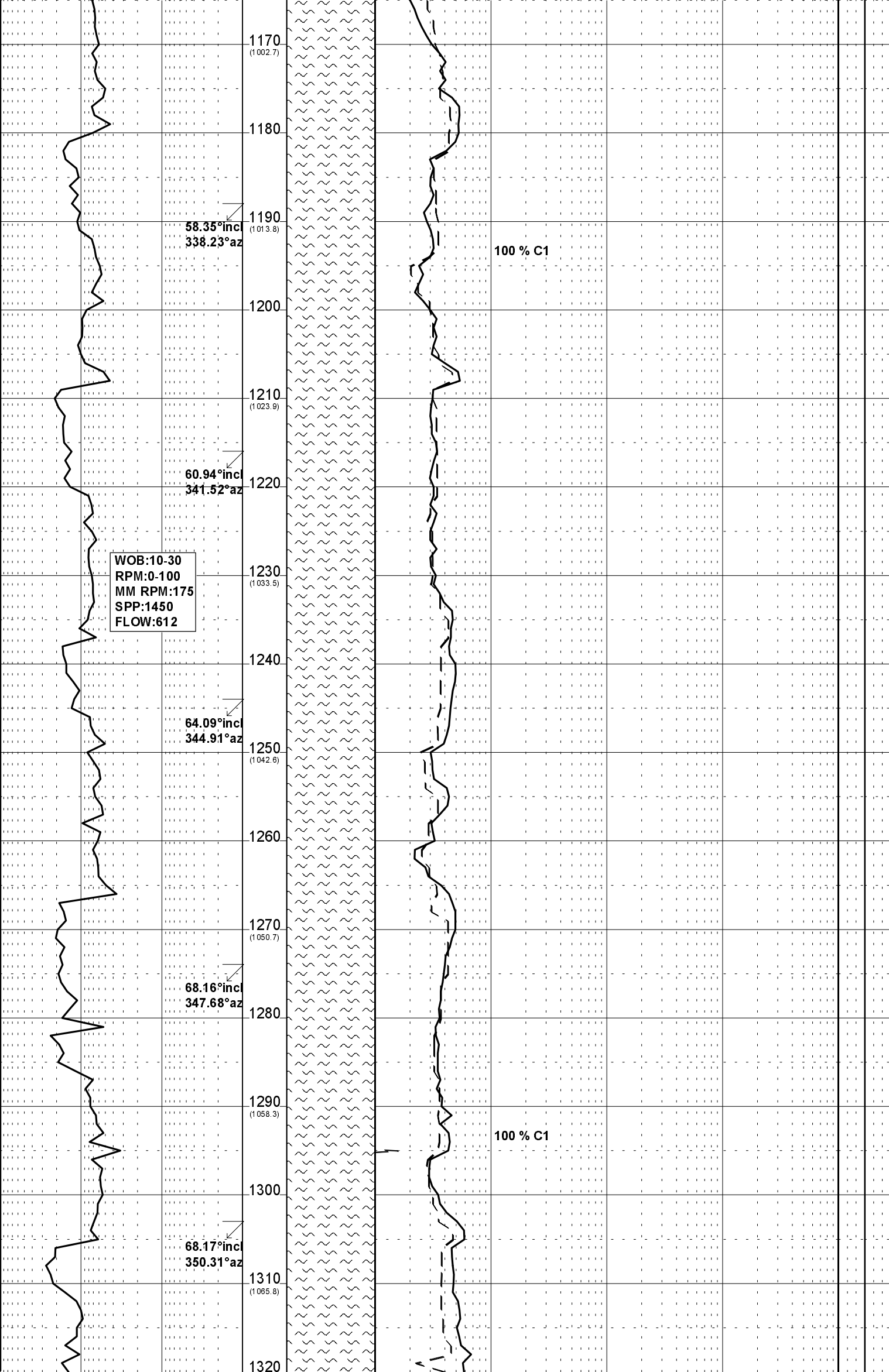




MARL:lt bn gy-lt olv gy,occ pl
yel bn,arg,g/t CALC CLYST,com
oid & dissem pyr,tr foss frag &
carb spk,frm,occ mod hd,sbbiky,
rr amor.

MARL:olv gy-med dk gy,arg,g/t
CALC CLYST,com oid & foss frag,
tr dissem pyr & carb spk,frm,occ
mod hd,sbbiky.

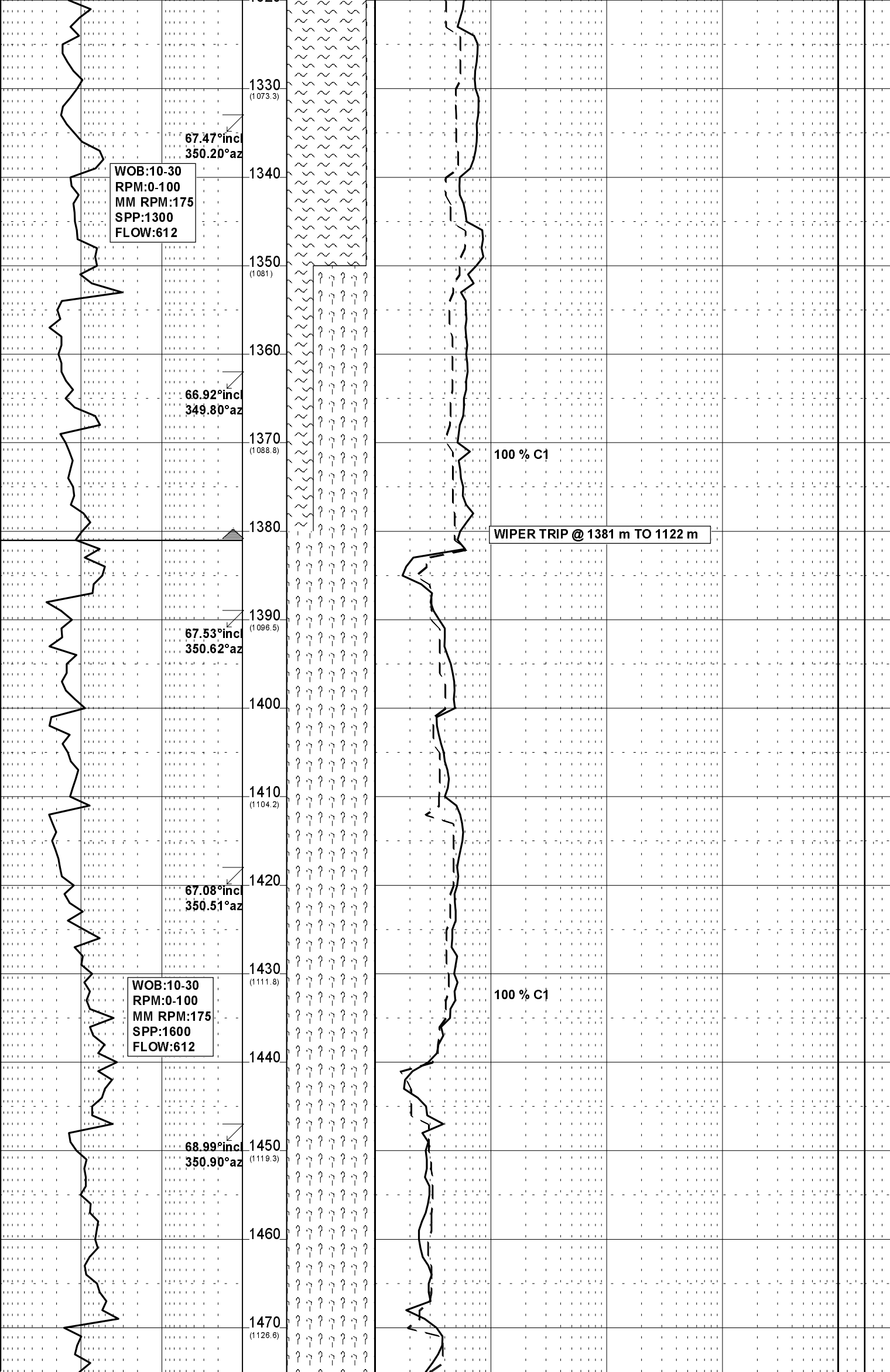
MARL:olv gy-med dk gy,arg,g/t
CALC CLYST,com oid & foss frag,
com dissem pyr,tr carb spk,frm,
occ mod hd,sbbiky.



MARL: olv gy-med dk gy, arg, g/t
CALC CLYST, com ooid & foss frag,
com dissem pyr, tr carb spk, frm-
mod hd, sbblky.

MARL: med lt gy-med gy, arg, g/t
CALC CLYST, tr dissem pyr, mntr
carb & lith spk, occ ooid, sft-frm
sbblky.

MARL: med lt gy-med gy, g/t CALC
CLYST, tr dissem pyr, tr carb flk,
tr ooid, sft-frm, sbblky.



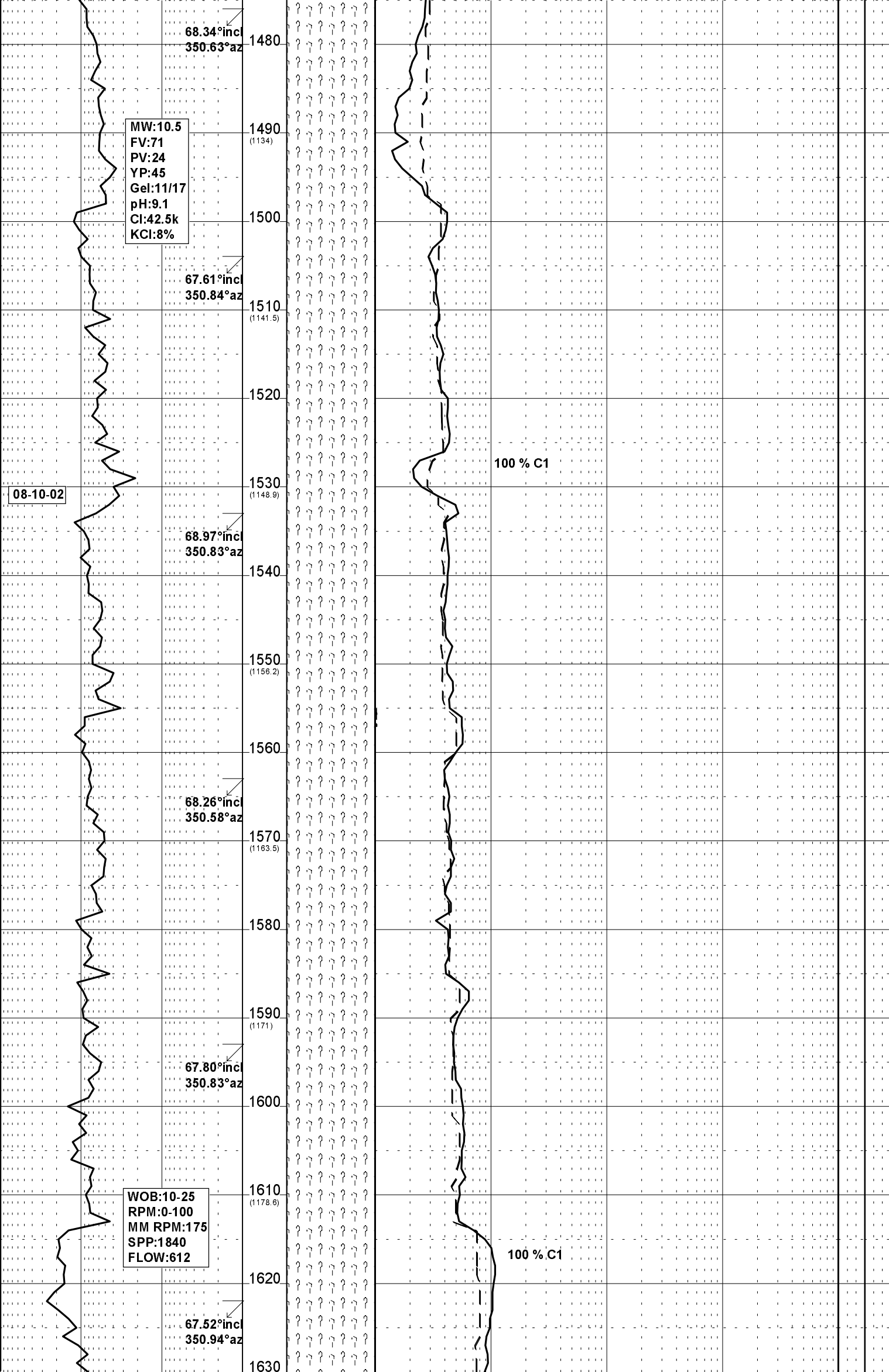
MARL:med lt gy-med gy,g/t CALC
CLYST,tr ooid,sft-frm,sbblky.

CALCAREOUS CLAYSTONE:med lt
gy-med gy,tr ooid,tr dissem
pyr,tr carb spk,sft-frm,sbblky.

CALCAREOUS CLAYSTONE:lt olv
gy-olv gy,med dk gy,occ med gy,
com dissem pyr & lens,tr ooid &
foss,sft-frm,sbfiss-blky,occ
sbblky.

CALCAREOUS CLAYSTONE:lt olv
gy-olv gy,med gy,occ med dk gy,
com dissem pyr & veins,tr ooid &
foss,sft-frm,rr mod hd,sbblky-
sbfiss,occ blky.

CALCAREOUS CLAYSTONE:lt olv
gy-olv gy,med gy,occ med dk gy,
tr ooid & foss,tr carb spk,tr
dissem pyr,sft-frm,sbblky-sbfiss
occ blky.



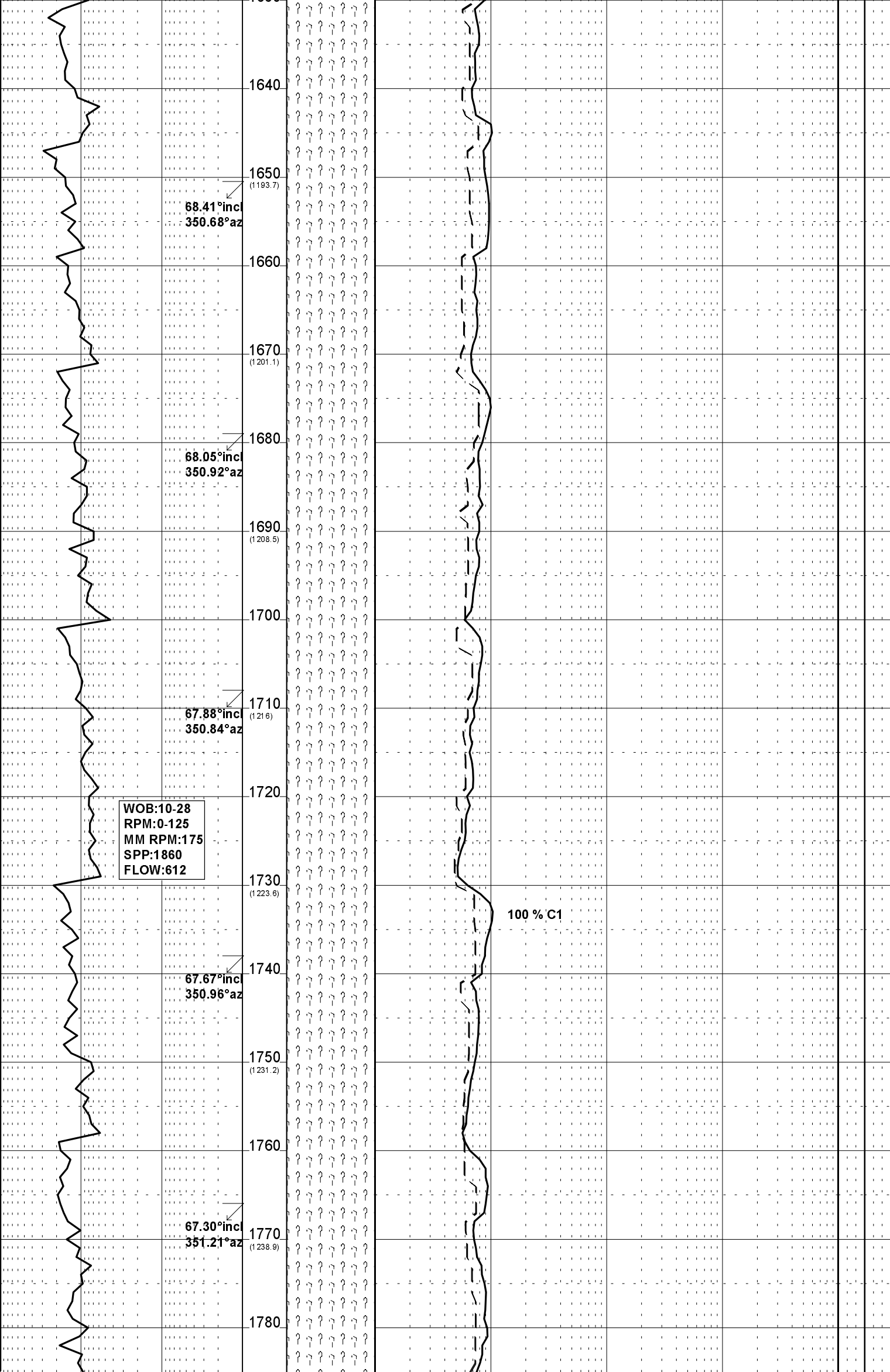
CALCAREOUS CLAYSTONE:lt gy,
mnv olv gy,tr ooid,foss frag,
sft-frm,sbbiky.

CALCAREOUS CLAYSTONE:med
gy-olv gy,lt gy,calc,tr carb
spk,tr ooid,tr foram,tr pyr repl
of foram,sft-frm,sbbiky-sbfiss.

CALCAREOUS CLAYSTONE:med lt
olv gy-med gy,olv gy,tr ooid,rr
carb spk,sft-frm,sbbiky-sbfiss.

CALCAREOUS CLAYSTONE:med lt
gy-olv gy,mnv foram,mnv ooid,tr
carb spk,sft-frm,sbbiky.

CALCAREOUS CLAYSTONE:lt gy-
med gy,olv gy i/p,tr nod pyr,mnv
ooid,mnv foss,mnv foram,tr carb
spk,sft-frm,sbbiky-sbfiss.



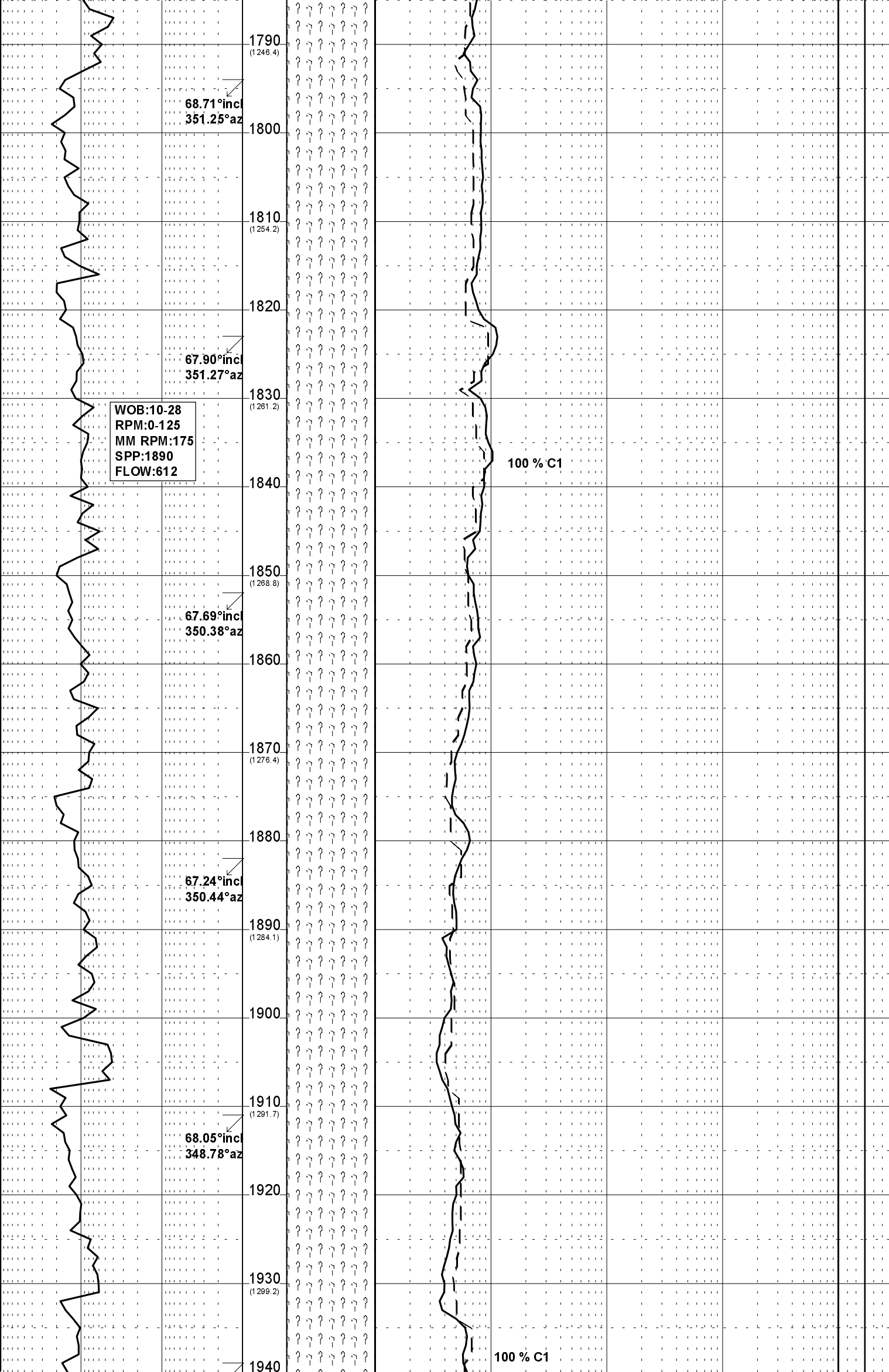
CALCAREOUS CLAYSTONE:med
gy-olv gy,med lt gy,arg i/p,mnr
foss,foram,oid,sft-frm,sbbiky-
sbfiss.

"SHOULDER EFFECT" ON
ROP CURVE DUE TO
DIFFICULT HOLE CLEANING

CALCAREOUS CLAYSTONE:olv gy-
med gy,lt med gy-lt olv gy,occ
sity,tr foram & oid,tr dissem
pyr,tr glauc,rr carb spk,sbbiky-
-sbfiss.

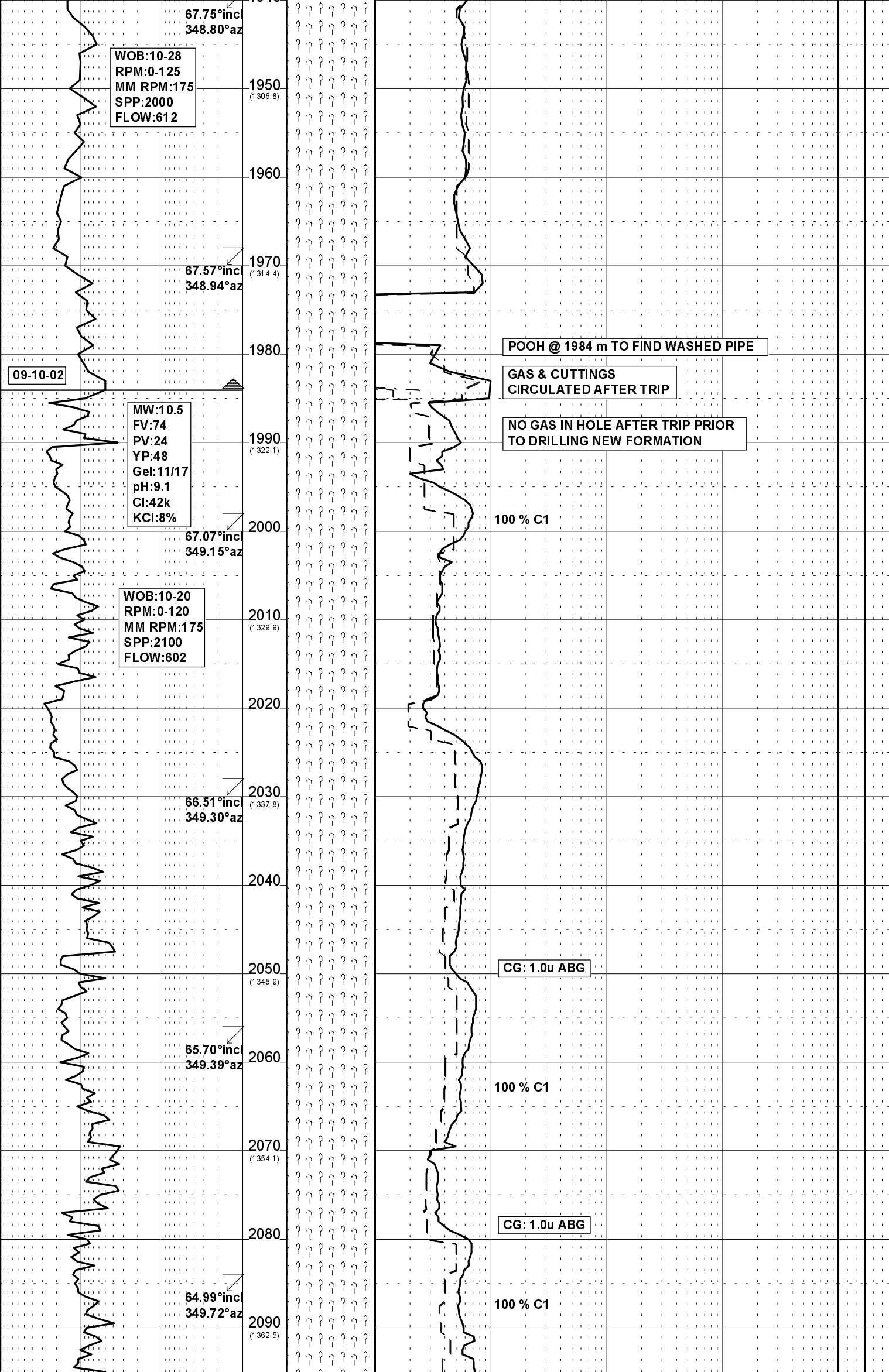
CALCAREOUS CLAYSTONE:olv gy-
med gy,lt olv gy-lt med gy,occ
sity i/p,com foram & oid,tr
dissem pyr,tr glauc,tr carb spk,
frm,sbbiky-sbfiss.

CALCAREOUS CLAYSTONE:lt olv
gy-olv gy,lt med gy,sity,com
foram & oid,tr dissem pyr &
lens,tr carb spk,tr glauc,frm,
sbbiky-sbfiss,occ biky.



CALCAREOUS CLAYSTONE:lt olv
gy-olv gy,occ med lt gy,sity,com
foram & ooid,tr dissem pyr,tr
glauc,tr carb spk,frm,sbbiky-
sbfiss,occ blk.

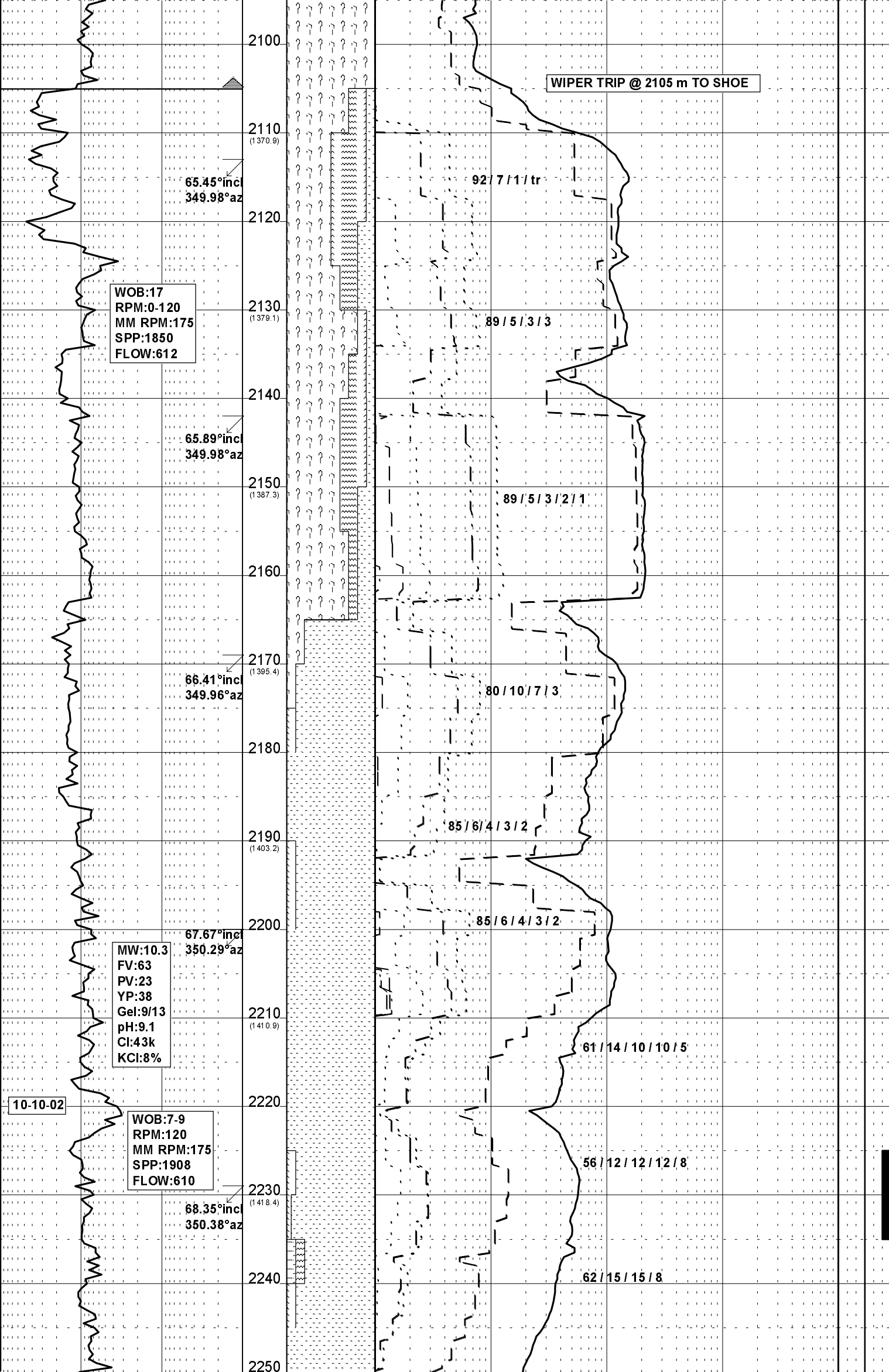
CALCAREOUS CLAYSTONE:lt olv
gy-olv gy,occ med lt gy,sity,com
foram & ooid,tr dissem pyr & nod
tr glauc,tr carb spk,frm,sbbiky-
blk,occ sbfiss.



CALCAREOUS CLAYSTONE:lt olv
gy-olv gy,occ med lt gy,sity,com
foram & ooid,rr dissem pyr &
lens,tr glauc,tr carb spk,frm,
sbbiky-blky,occ sbfiss.

CALCAREOUS CLAYSTONE:lt olv
gy-olv gy,occ med lt gy,com
dissem pyr,rr glauc grn,tr ooid,
sft-frm,sbbiky-sbfiss.

CLAYSTONE:lt olv gy-olv gy,calc,
v sity i/p,com foram & foss,tr
glauc,tr carb spk,sft-frm,sbbiky
-blky,occ sbfiss.



BARACARB ADDED TO MUD SYSTEM FROM 2105 m

CLAYSTONE:pl yel org-gy org,tr carb,occ glauc grn,v sft,amor.

SILTSTONE:lt gy-gn gy,tr vf aren i/p,mnr glauc,frm,sbbky.

SANDSTONE:mod yel bn-mod bn,dk yel org,vf-f,wl srt,sa,tr wk sid cmt,mod bn arg mtx,mnr nod pyr,mnr glauc grn,mod hd agg,pr vis por,no fluor.

CLAYSTONE:pl bn-pl yel bn,tr glauc,mnr f aren,v sft,sbbky,com amor.

SILTSTONE:med lt gy-gn gy,arg, tr glauc,tr dissem pyr,frm,sbbky-sbfiss.

SANDSTONE:pred trnsi-clr,f-med com crs,mod pr srt,sa-occ ang,rr kaol mtx,mnr dissem pyr,tr glauc grn,occ dk bn lith,pred lse,gd inf por,no fluor.

SANDSTONE:trnsi-occ clr,f-crs,pred med,occ v crs,pr srt,sa-sr,mnr pyr cmt,mnr dissem pyr,tr med dk gy arg mtx,pred lse,gd inf por,no fluor.

SANDSTONE:trnsi,com clr,milky,med-crs,com f,com v crs,pr srt,sr-sa,com nod & dissem pyr,loc com pyr cmt,mnr dk gy lith,lse,gd inf por.

FLUOR:2225m-2235m;Tr,even dll yel fluor,no cut,no res.

SILTSTONE:med gy-med dk gy,arg,g/t CLYST,frm,bky.

SANDSTONE:trnsi-clr,occ milky,

