

Well Information

Operator: **ConocoPhillips Canada Resources Corp.**

Well Name: **COPRC Loon Creek O-6**

Location: **Unit O, Section 6, Grid 65-10 127-00**

UWI: **300O066510127000**

Pool / Field: **Undefined / Loon Creek**

Well License #: **470**

Province / State: **Northwest Territories**

Country: **Canada**

Elevations

Reference:	Ground	Ground:	252.4 m
Cut(-) / Fill(+):		Kelly Bushing:	257.6 m
K.B. to Ground:	5.2 m	Casing Flange:	252.73 m

Total Depth

Measurement Type	Measured Depth	True Vertical Depth
Drillers TD (Tally)	1856 m	1855.94 m
Drillers TD (Strap or SLM)	m	m
Loggers TD	1857.6 m	1857.54 m

Well Co - Ordinates

	Longitude	Latitude	Well Type:
Surface Co-Ordinates:	127 00 30.7 W	65 05 51.5 N	Vertical
Int. Casing Co-Ordinates:			NS: EW:
Bottom Hole Co-Ordinates:			NS: 9.69 Meters North EW: 28.17 Meters East of the surface location.
UTM Surface Co-Ordinates:	Northing: 7220618.3		Easting: 593560.14

Drilling Fluid Summary

Fluid Type	From	To
Spud Mud & Gel Chem	0 m	600 m
Invert (Versaclean)	600 m	1856 m

Casing Summary

Type	Hole Size	Casing Size	Landed At
Surface	311 mm	244.5 mm	596.78 m

Well Summary

Spud Date: Jan 26, 2013 @ 12:00hrs Contractor: Beaver Drilling Ltd.

TD Date: Feb 14, 2013 @ 06:35hrs Rig Release Date:

Work Schedule

Contractor	Geologist	Log Interval	Dates Logged
Black Gold Geotechnical	Dave Lawrence	0 m - 1856 m	Jan 24, 2013 - Feb 14, 2013

Remarks

Legend

Rock Types and Thin Beds

Whole Bed	Stringer	Nodule	Breccia	Clast	Pebble	Grain	Rock Type
							Anhydrite - primary
							Anhydrite - secondary
							Argillite
							Barite
							Bentonite
							Breccia
							Cement
							Conglomerate - mixed
							Conglomerate - dark chert
							Conglomerate - light chert
							Conglomerate - varicolored chert
							Chert - dark
							Chert - fossiliferous
							Chert - light
							Chert - tripolitic
							Chert - varicolored
							Claystone - colored
							Claystone - gray
							Coal
							Dolomite
							Ferruginous
							Feldspar
							Gypsum
							Igneous - acidic
							Igneous - basic
							Igneous - metamorphic
							Muddy IHS burrowed
							Muddy Inclined Heterolithic Strata
							Limestone - grain supported
							Limestone - mud supported
							Marlstone - calcareous
							Marlstone - dolomitic
							Mud breccia
							Mudstone
							Paleosol
							Phosphate
							Quartz
							Salt
							Shale - black
							Shale - dark gray
							Shale - medium gray
							Shale - light gray
							Shale - brown
							Shale - green
							Shale - red
							Siderite
							Sandstone
							Siltstone
							Sandy IHS burrowed
							Sandy Inclined Heterolithic Strata
							Till - glacial
							Volcanic (Tuff)
							Welded Volcanic (Tuff)

Textures

C	Chalky	e	Earthy	mx	Microcrystalline
CX	Cryptocrystalline	L	Lithographic		Slickenside
MS	Mudstone	GS	Grainstone	BFS	Bafflestone
WS	Wackestone	FLS	Floatstone	BS	Bindstone
PS	Packstone	RS	Rudstone	FS	Framestone

Accessories

	Anhydritic		Gibbsitic
	Argillaceous		Illitic
	Baritic		Kaolinitic
	Bentonitic		Lithic Fragment
	Bituminous		Marly - calcareous
	Calcareous		Marly - dolomitic
	Carbonaceous		Micromicaceous
	Cherty - dark		Mixed layer clayey
	Cherty - fossiliferous		Montmorillonitic
	Cherty - light		Phosphate pellets
	Cherty - tripolitic		Pyritic
	Cherty - varicolored		Salt casts
	Chloritic		Sandy
	Clayey		Sideritic
	Dolomitic		Siliceous
	Ferruginous staining		Silty
	Fractures		Stylolitic
	Glaucinitic		Tuffaceous
	Gypsiferous		Zeolitic

Fossils (Rock Builders)

	Aggregate grains		Foraminifera
	Algae - laminations		Fossil
	Algae - non descript		Fragmental
	Algae - ootoid		Gastropod
	Algae - skeletal		Graptolite
	Amphipora		Hydrozoa
	Belemnite		Intraclast
	Bioclastic		Mollusc
	Brachiopod		Oncolite
	Bryozoa		Oolite
	Calciphaera		Ostracod
	Cephalopod		Pelecypod
	Chaetetes		Pellet
	Coated grain		Pisolite
	Conodont		Plant Remains
	Coral		Plant Spores
	Coral - branching		Scaphopod
	Coral - head		Spicule
	Coral - colonial		Sponge
	Coral - solitary		Stromatoporoid
	Crinoid		Stromatoporoid - bulbous
	Diatom		Stromatoporoid - massive
	Echnoid		Stromatoporoid - tabular
	Echnoid - spine		Tentaculites
	Fish Remains		Trilobite
	Euryamphipora		

Matrix

	Argillaceous		Marl - calcareous
	Bafflestone		Marl - dolomitic
	Bentonite		Micrite
	Bindstone		Mixed Clay
	Bituminous		Montmorillonite
	Clay		Mudstone
	Chlorite		Packstone
	Floatstone		Rudstone
	Framestone		Sand
	Gibbsite		Silt
	Grainstone		Sparry Calcite
	Illite		Wackestone
	Kaolinite		Zeolite

Miscellaneous Grains

	Biotite		Mineral crystal		Orthoclase
	Glauconite		Mineral - dark		Plagioclase
	Mica flakes		Muscovite		Sand grain

Porosity Type Track

E	Earthy - low permeability - crystals / grains less than 1 / 16 mm		
☐	Fenestral - voids from gas bubbles - shrinkage cracks - birdseye texture		
X	Intercrystalline - Interfragmental - Intergranular		
F	Fracture	O	Organic - Bridged - Intrafossil
◇	Interoolitic - Interpelletoidal	P	Pinpoint - voids less than 1/ 16 mm
~	Moldic	V	Vuggy - voids greater than 1 / 16 mm

Oil Show Track

●	Even staining (75 - 100% of the rock is stained) - fluoresces in solvent
◐	Spotted staining (50 - 75% of the rock is stained) - fluoresces in solvent
◑	Spotted staining (25 - 50% of the rock is stained) - fluoresces in solvent
◒	Spotted staining (1 - 25% of the rock is stained) - fluoresces in solvent
○	Questionable oil staining - No fluorescents in solvent
D	Dead oil staining - asphaltic - bitumen - pyrobitumen etc.
F	Fluoresces - no visible oil staining

Trace Fossil Track

An	Anconichnus	Ar	Arenicolites	At	Arthropycus	As	Asterosoma
Au	Aulichnites	Be	Bergaueria	Cg	Camborygma	Cf	Celliforma
Cb	Chabutulithes	Ch	Chondrites	Cl	Climactichnites	Co	Conichnus
Cp	Cosmoraphe	C	Cruziana	Cy	Cylindrichnus	Da	Dactylodites
Dm	Dimorphichnus	D	Diplocraterion	Ea	Eatonichnus	En	Entobia
Et	Entomichnus	Esc	Escape Traces	Ga	Gastrochaenolites	Gl	Glossifungites
G	Gyrolithes	Gy	Gyrophyllites	H	Helminthopsis	K	Kouphichnium
L	Lockeia	Lo	Lorenzina	Mp	Macanopsis	Ma	Macaronichnus
Mo	Monocraterion	Ne	Neonereites	N	Nereites	O	Ophiomorpha
Pa	Palaeophycus	Pd	Paleodictyon	Pc	Paleohelcura	Pl	Paleoscolytus
Pt	Petalichnus	Py	Phycodes	Ph	Phycosiphon	P	Planolites
Pm	Psammichnites	Ps	Psilonichnus	Rh	Rhizocorallium	Rg	Rogerella
Ro	Rosselia	Ru	Rusophycus	Sb	Scalarituba	Sc	Schaubcylindrichnus
Sy	Scoyenia	Si	Siphonichnus	S	Skolithos	Sp	Spirophycus
Su	Subphyllochorda	Syn	Synaeresis Cracks	Te	Teichichnus	Tr	Terebellina
Td	Teredolites	Th	Thalassinoides	Tc	Trichichnus	Tp	Trichophycus
Ty	Trypanites	Z	Zoophycos				

Sedimentary Structures

	Ball and pillow		Bioturb-churned		Bioturb-slightly		Bioturb-moderate
	Bioturb-mod well		Bioturb-well		Boudinage		Burrows
	Clastic Dike		Clastic sill		Desiccation crack		Dish structure
	Fault-Large scale		Fault-Small scale		Flame structure		Flute mark
	Geopetal		Groove casts		Gutter casts		Load casts
	Inclined heterolithic strata				Mud chips		Mud drapes
	Neptunian dike		Pit marks		Pull-a-part		Rill marks
	Rip up clasts		Roots / root trace		Scour and Fill		Slump structure
	Swash marks		Syneresis crack		Teepee structure		Tool marks
	Water Escape						

Sedimentary Bedding Contacts

BIO	Bioturbated	BORED	Bored	CAL	Caliche / calcrete	COR	Corrosional	DC	Dessication cracks
EX	Exposure	FS	Flooding surface	GLOSS	Glossifungites	GRAD	Gradational	HG	Hardground
INCL	Inclined - sharp	IRR	Irregular - sharp	MFS	Maximum flooding surface			MC	Mud cracks
NOD	Nodular	PB	Parasequence boundary	RS	Ravinement surface	RSE	Regressive surface of erosion		
ROOT	Rooted	SCOUR	Scour	SB	Sequence boundary	SHARP	Sharp	TRUN	Truncation
TSE	Transgressive surface of erosion			UNCON	Unconformity	WAVY	Wavy		

Cement

	Anhydritic		Gypsiferous
	Baritic		Hematitic
	Bituminous		Limonitic
	Calcareous		Pyritic
	Chert - dark		Salt
	Chert - light		Sideritic
	Dolomitic		Siliceous
	Ferruginous		

Sorting Track

vP	Very poorly sorted - > 10 phi size grade classes
P	Poorly sorted - 6-10 phi size grade classes
M	Moderately sorted - 3-6 phi size grade classes
mW	Moderately well sorted - 2-3 phi size grade classes
W	Well sorted - < 2 phi size grade classes

Rounding Track

vA	Very Angular	r	Subrounded
A	Angular	R	Rounded
a	Subangular	wR	Well Rounded

Framework Track

Framework is a ratio between clastic material greater than 1/16 mm and primary void filler less than 1/16 mm.
? indicates questionable interpretation

Core Track

	Indicates
	Cored Interval
	Indicates Lost Core

Test Track

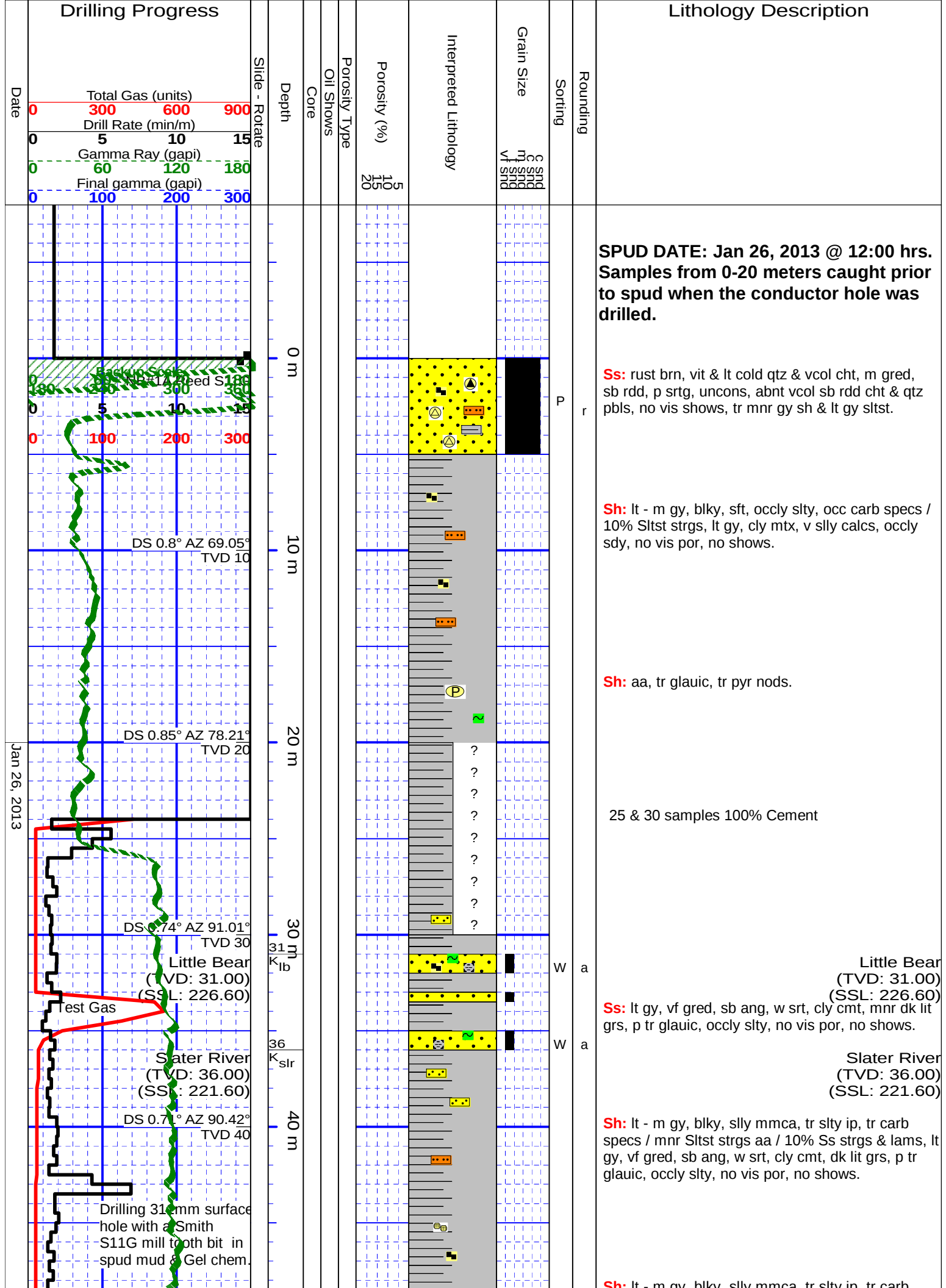
	Indicates
	Tested
	Interval

Sedimentary Structures Bedding / Cross Bedding

	Centimeter bedding		Inverted graded bedding
	Decimeter bedding		Massive bedding
	Millimeter bedding		Normal graded bedding
	Chevron x-bedding		Herringbone x-bedding
	Sigmoidal x-bedding		Hummocky x-bedding
	Swaley x-bedding		Planar/Tabular x-bedding
	Trough x-bedding		

Sedimentary Structures Laminations / Cross Laminations

	Climbing ripple xlam		Contorted/Slumped lams
	Current ripple xlam		Flaser laminations
	High angle xlam		High angle parallel lams
	Lenticular lams		Low angle xlam
	Low angle para lam		Parallel laminations
	Trough xlam		Varved laminations
	Wave ripple xlam		Wavy laminations



SPUD DATE: Jan 26, 2013 @ 12:00 hrs. Samples from 0-20 meters caught prior to spud when the conductor hole was drilled.

Ss: rust brn, vit & lt cold qtz & vcol cht, m gred, sb rdd, p srtg, uncon, abnt vcol sb rdd cht & qtz pbls, no vis shows, tr mntr gy sh & lt gy sltst.

Sh: lt - m gy, blk, sft, occlly slty, occ carb specs / 10% sltst strgs, lt gy, cly mt, v sly calcs, occlly sdy, no vis por, no shows.

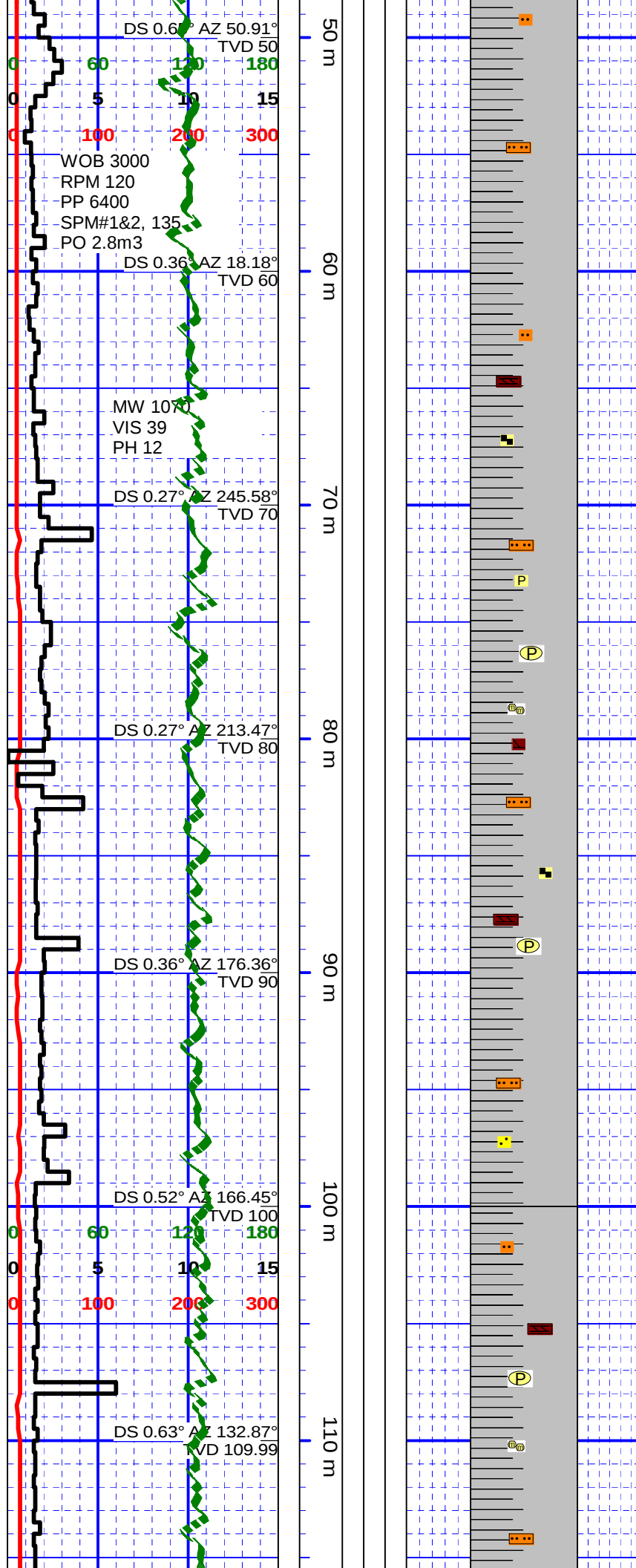
Sh: aa, tr glauc, tr pyr nods.

25 & 30 samples 100% Cement

Little Bear (TVD: 31.00) (SSL: 226.60)
Ss: lt gy, vf gred, sb ang, w srt, cly cmt, mntr dk lit grs, p tr glauc, occlly slty, no vis por, no shows.

Slater River (TVD: 36.00) (SSL: 221.60)
Sh: lt - m gy, blk, sly mmca, tr slty ip, tr carb specs / mntr sltst strgs aa / 10% Ss strgs & lams, lt gy, vf gred, sb ang, w srt, cly cmt, dk lit grs, p tr glauc, occlly slty, no vis por, no shows.

Sh: lt - m gy, blk, sly mmca, tr slty ip, tr carb



Sh: lt - m gy, blk, sly mmca, tr slty ip, tr carb specs.

Sh: lt - m gy, blk, sly mmca, tr slty ip, tr carb specs / 10% Sltst strgs aa ip / Sltst lt gy brn, sdy, sidic, shy, tt, no shows.

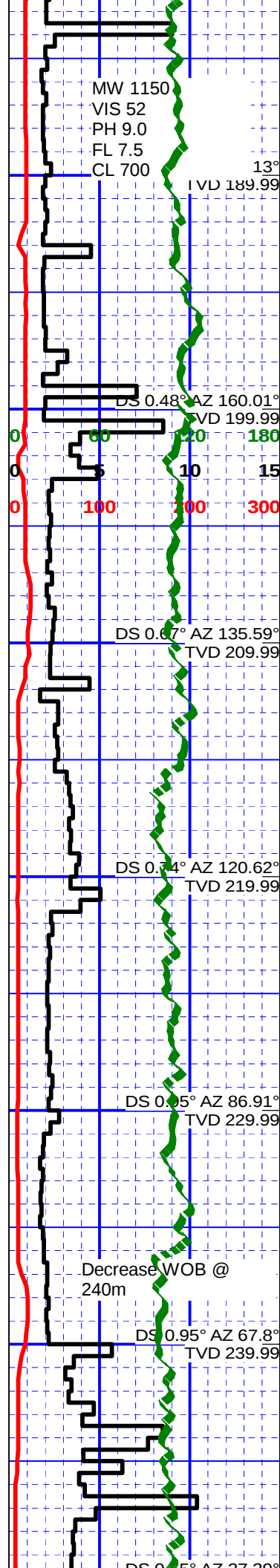
Sh: lt - m gy, tr gy brn ip, blk, sly mmca, tr slty ip, tr carb specs, sidic ip / tr brn sid frags / mntr Sltst strgs aa.

Sh: predly m gy, blk, plty ip, sly mmca, tr slty, sft - frm, mntr dism pyr & tr pyr nods, mntr Sltst strgs, lt gy, cly mtz, tr calcs, tr dk lit grs, tt, no vis show.

Sh: lt - m gy, tr gy brn ip, blk, tr plty, sly mmca, tr slty ip, tr carb specs, pyr nods, mntr sidic ip / tr brn sid frags / mntr Sltst strgs aa.

Sh: lt - m gy, tr gy brn ip, blk, plty ip, sly mmca, tr slty ip, occly sdy, tr carb specs, pyric / occ pyr nods, mntr sidic ip / tr brn sid frags / mntr Sltst strgs, lt - m gy, cly mtz, sly sdy, tr dk lit grs, tt, no shows.

Sh: lt - m gy, tr gy brn ip, blk, plty ip, sft - sly frm, sly mmca, tr slty ip, tr sdy, tr carb specs, pyric / tr pyr nods, mntr sidic ip / tr brn sid frags.



190 m

200 m

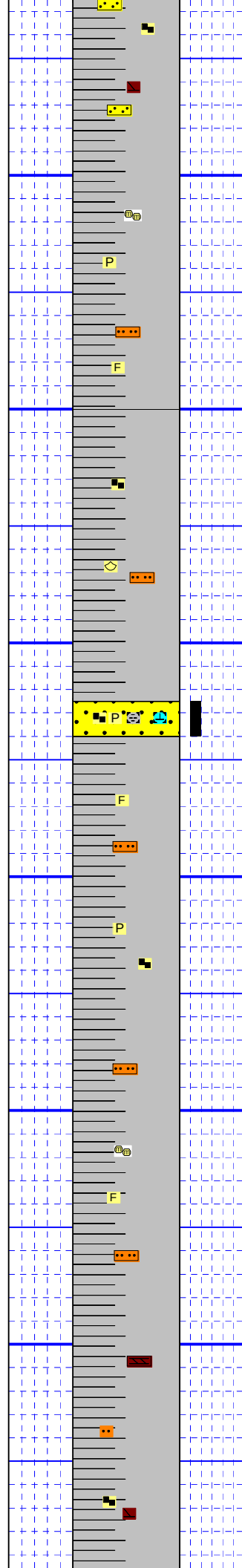
210 m

220 m

230 m

240 m

250 m



mW a

Sh: lt - m gy, blkly, plty ip, modly frm, slyly mmca, occly slty, tr sdy ip, slyly sidic ip, tr pyric / tr pyr nods / 10% Ss lams lt gy, s&p, l f gred, sb ang, modly w srt, calcs, slyly carb, tr glauic, shy ip, tt, no show.

Sh: predly Sh aa.

Sh: predly m gy, blkly, tr plty, slyly mmca, modly frm, tr mnr carb specs, tr inoc, tr pyr, mnr Sltst strgs aa.

Sh: aa, incrg slty, tr mnr shell frags (bracs?), tr sidic / 5% Sltst strgs, m gy, cly mtx, pyric, shy, sdy ip, occly grds to vf gred ss ip, tt, no shows.

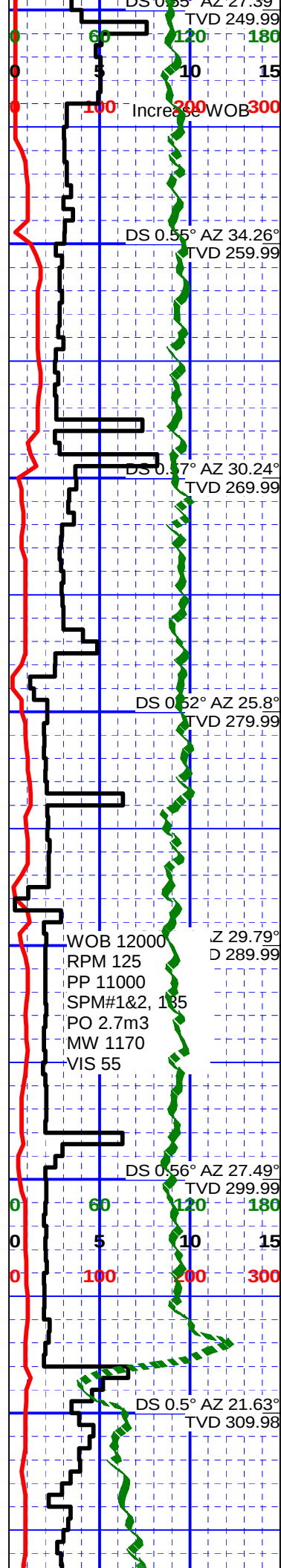
Ss: lt - m gy, vf gred, sb ang, modly w srt, calcs & cly cmt, carb grs, slyly pyric, slty, shy, tt, no shows.

Sh: predly m gy, blkly, tr plty, slyly mmca, modly frm, tr mnr carb specs, tr inoc, tr pyr, mnr Sltst strgs, lt - m gy, cly & calcs cmt, carb grs, shy, tr pyric, tt, no shows.

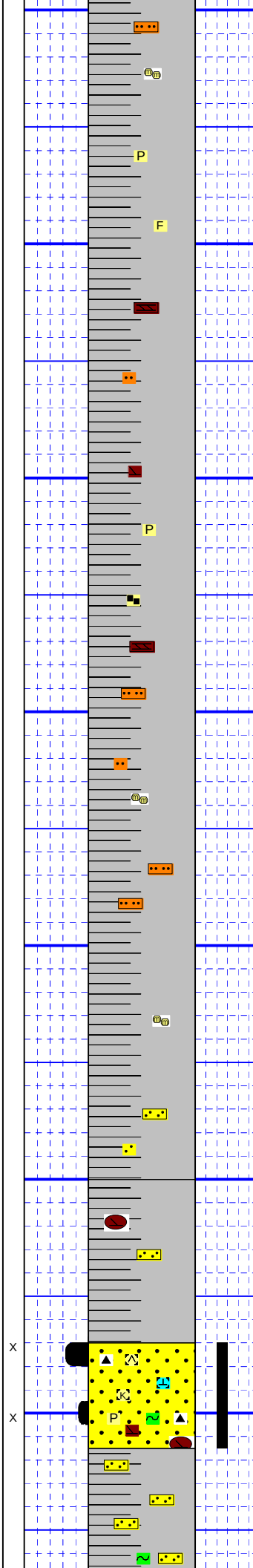
Sh: predly m gy, blkly, tr plty, slyly mmca, modly frm, tr mnr carb specs, tr inoc, tr pyr, mnr Sltst strgs, lt - m gy, cly & calcs cmt, carb grs, shy, tr pyric, tt, no shows.

Sh: predly m gy, blkly, tr plty, slyly mmca, modly frm, tr mnr carb specs, tr inoc, tr pyr, mnr Sltst strgs, lt - m gy, cly & calcs cmt, carb grs, shy, tr pyric, tt, no shows.

Sh: predly m gy, blkly, tr plty, slyly mmca, modly frm, tr mnr carb specs, tr inoc, tr pyr, tr sidic / mnr Sltst strgs, lt - m gy, cly & calcs cmt, carb grs, shy, tr pyric, tt, no shows.



250 m
260 m
270 m
280 m
290 m
300 m
310 m



Sh: predly m gy, blkly, tr plty, sly mmca, sly slty, modly frm, tr mnrcarb specs, tr pyric, tr sidic / tr brn sid frags, tr inoc.

Sh: predly m gy, blkly, tr plty, sly mmca, sly slty, modly frm, tr mnrcarb specs, tr pyric, tr sidic / tr brn sid frags.

Sh: predly m gy, blkly, tr plty, sly mmca, modly frm, tr mnrcarb specs, tr pyric, sly slty ip, tr sidic / tr brn sid frags / tr mnrcarb strgs, m gy, cly cmt, tt, no shows.

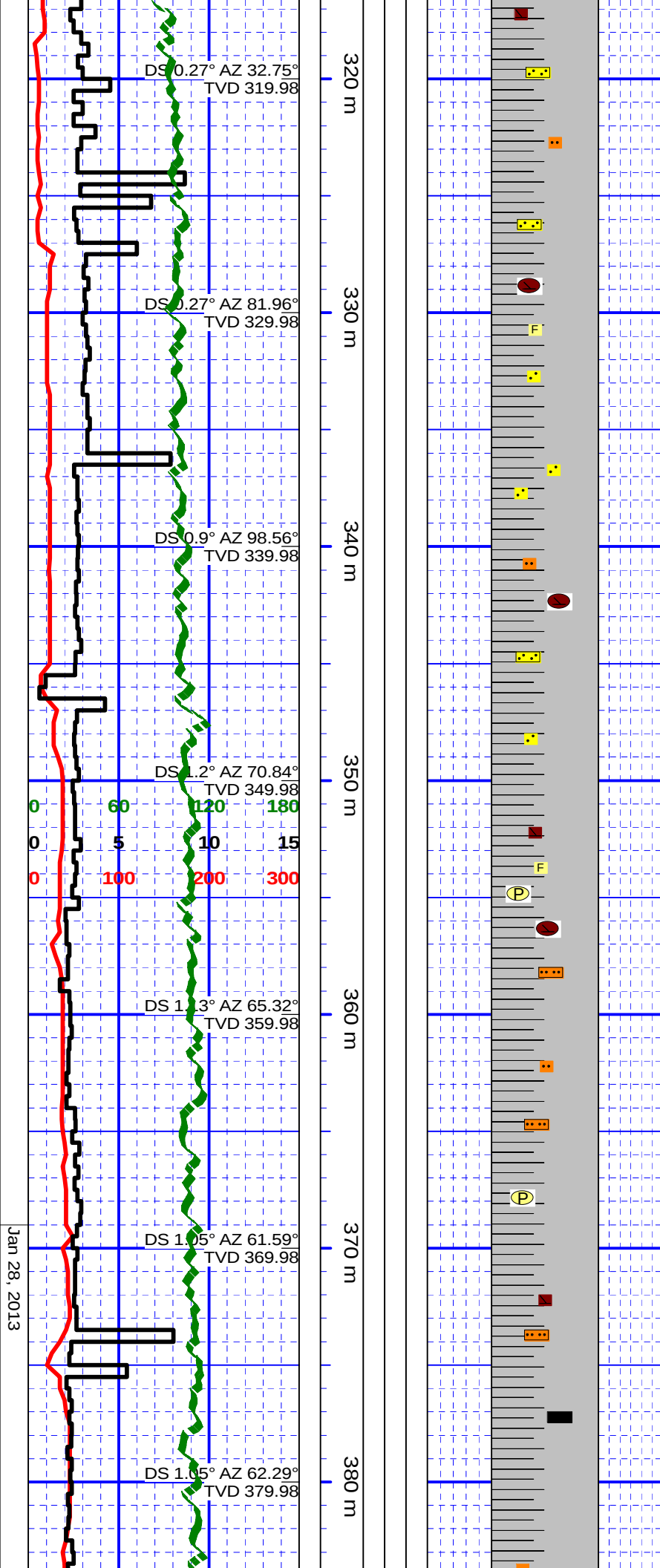
Sh: predly m gy, blkly, tr plty, sly mmca, modly frm, tr mnrcarb specs, tr pyric, sly slty ip, tr sidic / tr brn sid frags / 5% Sltst strgs, m gy, cly cmt, sdy, grds to vf gred ss ip, carb specs, tt, no shows.

Sh: predly m gy, mnrcarb sb fis, sly mmca, sly aren, tr dism pyr, tr sid frags / 5% Ss lams, lt gy, vf gred, sb ang, w srt, cly & calcs cmt, sly slty, no vis por, no shows

Sh: predly m gy, mnrcarb sb fis, sly mmca, sly aren, modly frm, tr dism pyr / 5% Ss lams aa.

Ss: s&p, f gred, sb ang, modly w srt, sils & sly calcs cmt, kao mtz ip, occ dk lit grs, p tr pyric, p - fr intgran por 8%, no vis shows.

Ss: lt gy, s&p, f gred, sb ang, modly w srt, sils & sly calcs cmt, kao cmt ip, dk lit grs, tr glaucic, tr pyric, sly sidic, tt - p intgran por 4%, no vis shows / occ brn sid frags (nods?)



Sh: predly m gy, mnr sb fis, sllly mmca, sllly aren, tr pyr, occly sidic / brn sid frags in sample / 10% Ss lams & strgs lt - m gy, lt gy brn, l f gred, sb ang, modly w srt, sils & sllly calcs, kao mtx ip, sidic, tr glauic, pyr, dk lit grs, incrg shy, no vis por or show.

Sh: It - m gy, modly frm,, tr carb specs, tr inoc, occly cold brn (sidic) / tr brn sid frags, slty & slly aren ip / 5% Ss lams & strgs aa.

Sh: aa, incrg aren / 5% ss strgs & lams aa.

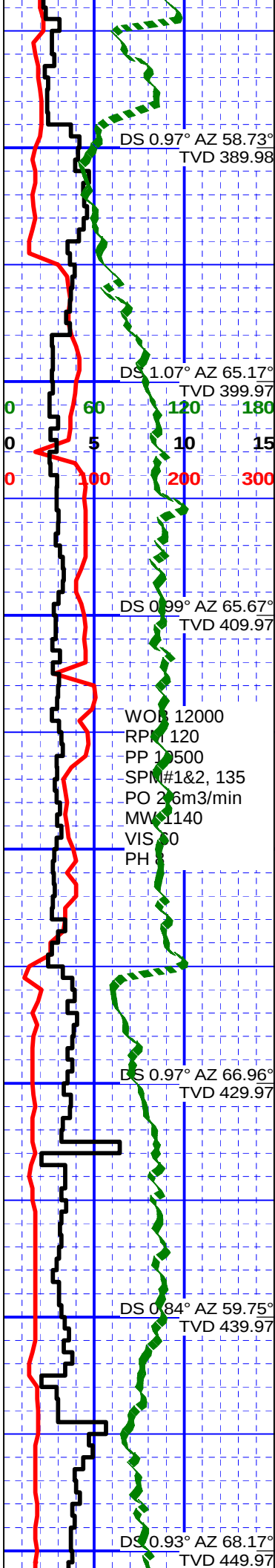
Sh: lt - m gy, modly frm,, tr carb specs, tr inoc, occlly cold brn (sidic) / tr bnr sid frags, slty & slly aren ip / 5% Ss lams & strgs aa.

Sh: lt - m gy, modly frm,, tr carb specs, tr inoc, occlly lt gy brn (sidic), tr brn sid frags (nods), mnr slty & slly sdy ip, tr pyr nods / tr Slstt lams & lenses, lt gy, cly & slly calcs cmt, no vis por, or show.

Sh: lt - m gy, modly frm,, tr carb specs, tr inoc, occlly lt gy brn (sidic), tr brn sid frags (nods), occlly slly slty & slly sdy ip, tr pyr nods / tr Sltst lams aa.

Sh: lt - m gy, modly frm., tr carb specs, tr inoc, occlly lt gy brn (sidic), tr brn sid frags (nods), occlly slly slty & slly sdy ip, tr pyr nods / tr Slst lams aa.

Sh: aa / tr mnr coal lenses.



390 m

400 m

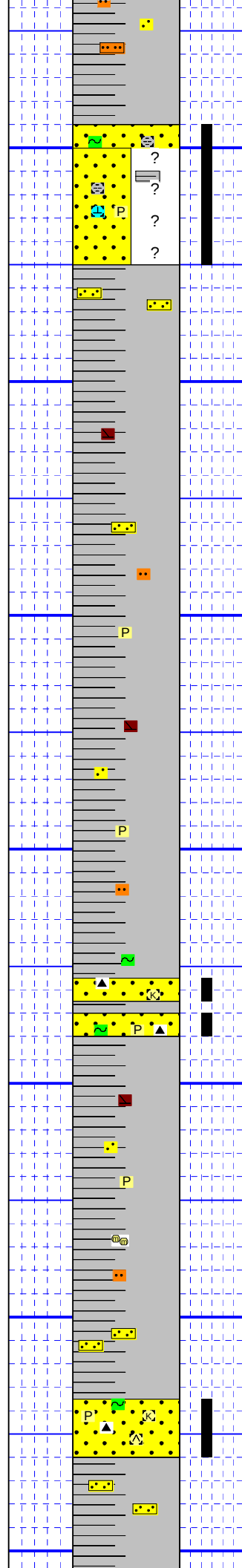
410 m

420 m

430 m

440 m

450 m



M

mW

mW

Sh: lt - m gy, mnr sb fis, modly frm, sly mmca, tr inoc, occlly lt gy brn (sidic), tr brn sid frags (nods), occlly sly slty & sly sdy ip, tr pyr nods / tr Slstst lams aa.

Sh: aa / 20% Ss lt - m gy, s&p, u f gred, sb ang, m srtg, qtz & cht, cly mtx, sly calcs, tr sils cmt, occ dk lit grs, tr glauc grs, pyirc, occlly shy / occ m gy sh lenses, no vis por, no shows.

Missed sample @ 395 meters

Sh: lt - m gy, mnr sb fis, modly frm, sly mmca, mnr lt gy brn sh (sidic), tr slty & sly sdy ip, tr pyric / mnr Ss lams aa.

Sh: lt - m gy, mnr sb fis, modly frm, sly mmca, mnr lt gy brn sh (sidic), tr slty & sly sdy ip, tr pyric / mnr Ss lams aa.

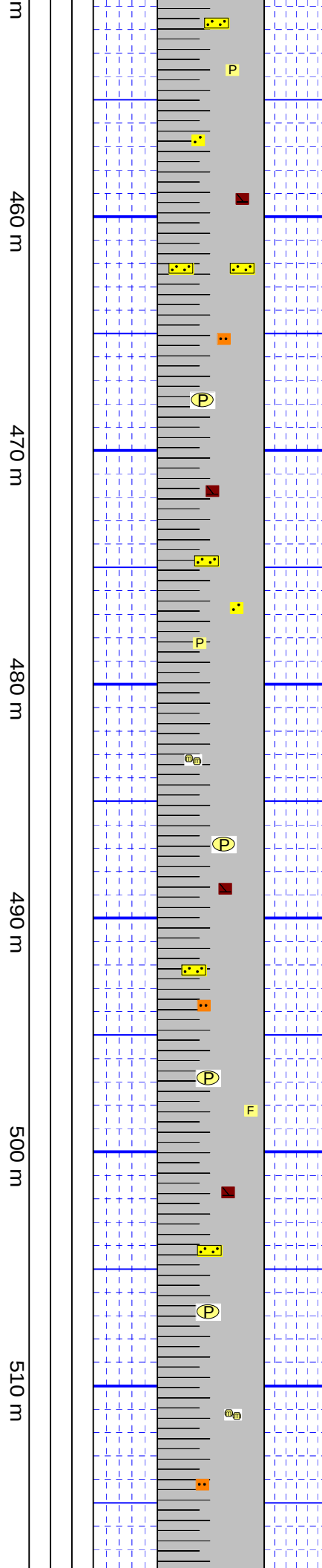
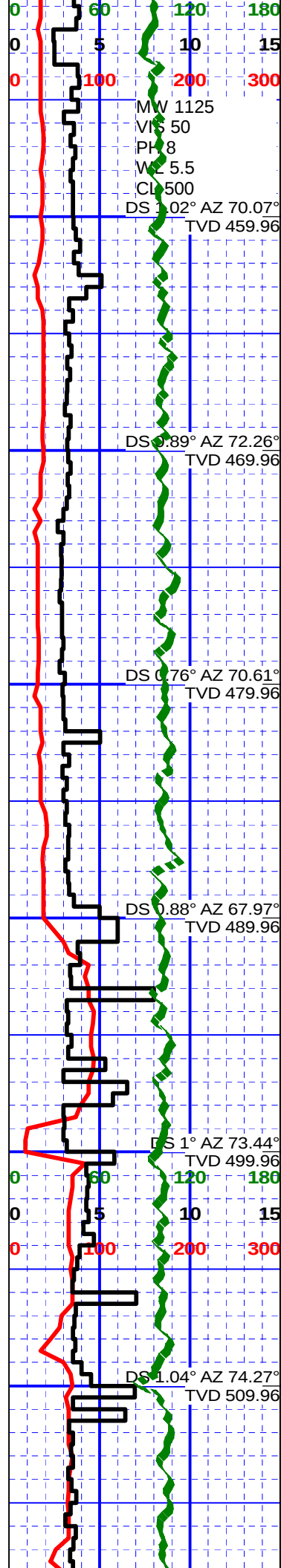
Sh: lt - m gy, mnr sb fis, modly frm, sly mmca, mnr lt gy brn sh (sidic), tr slty & sly sdy ip, tr pyric / mnr Ss lams aa.

Sh: aa, incrg aren, bcmg glauc.

Ss: s&p, u f gred, sb ang, modly w srt, kao mtx, sly sils, dk lit grs, p tr glauc, tr pyric, no vis por or shows.

Sh: predly m gy, modly frm, sbfis ip, sly mmca, mnr lt gy brn sh (sidic), tr slty & sly sdy ip, tr pyric. / 5% Ss strgs aa.

Ss: lt gy, s&p, u f gred, sb ang, modly w srt, kao mtx, sly sils, dk lit grs, p tr glauc, tr pyric, no vis por or shows.



Sh: predly m gy, modly frm, sbfis ip, slly mmca, mnrlt gy brn sh (sidic), tr slty & slly sdy ip, tr pyric.

Sh: predly m gy, modly frm, sbfis ip, slly mmca, mnrlt gy brn sh (sidic), tr slty & tr sdy ip, tr pyric, tr pyr nods.

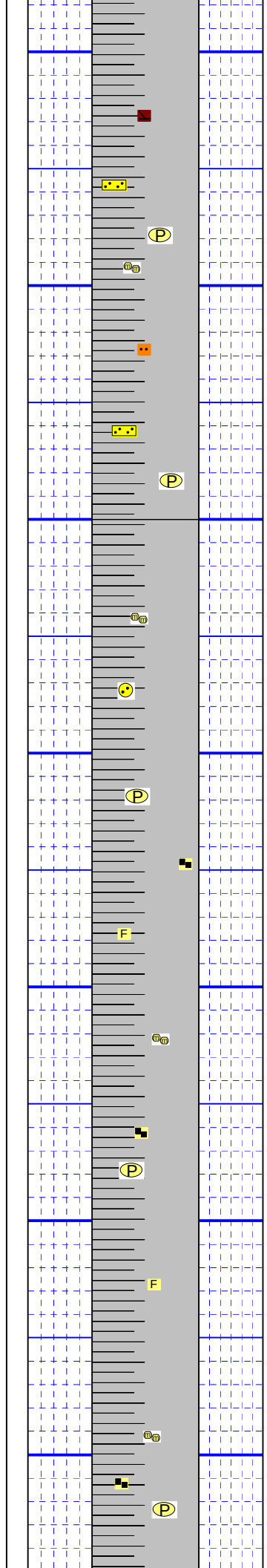
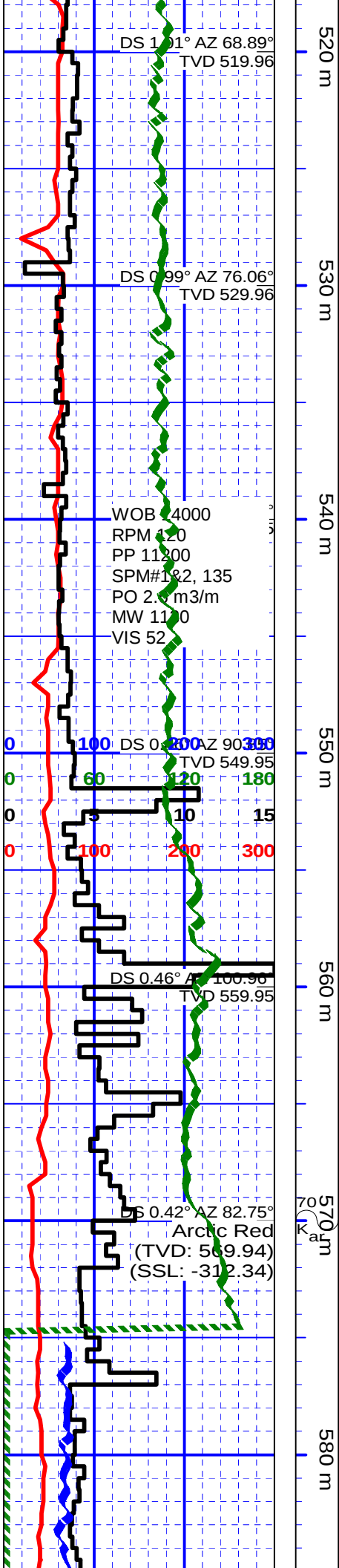
Sh: predly m gy, modly frm, sbfis ip, slly mmca, mnrlt gy brn sh (sidic), tr slty & tr sdy ip, tr pyric, tr pyr nods / 5% Ss aa.

Sh: predly m gy, modly frm, sbfis ip, slly mmca, mnrlt gy brn sh (sidic), tr slty & tr sdy ip, tr pyric, tr pyr nods.

Sh: predly m gy, mnrlt sbfis, slly mmca, slly slty, pyr nods, mnrlt gy brn sidic sh / tr Ss lams aa, tr amb.

Sh: predly m gy, mnrlt sbfis, slly mmca, slly slty, pyr nods, mnrlt gy brn sidic sh / tr Ss lams aa.

Sh: predly m gy, sbfis ip, slly mmca, tr slty, tr pyr nods, mnrlt gy brn sidic sh.



Sh: predly m gy, sbfis ip, slty ip, slly mmca, modly frm, tr pyr nods, tr mnr lt gy brn sidic sh, tr mnr Ss lenses aa.

Sh: predly m gy, sbfis ip, slty ip, slly mmca, modly frm, tr pyr nods, tr mnr Ss lenses aa.

Sh: predly m gy, sbfis ip, slty ip, slly mmca, modly frm, tr pyr nods, tr mnr Ss lenses aa.

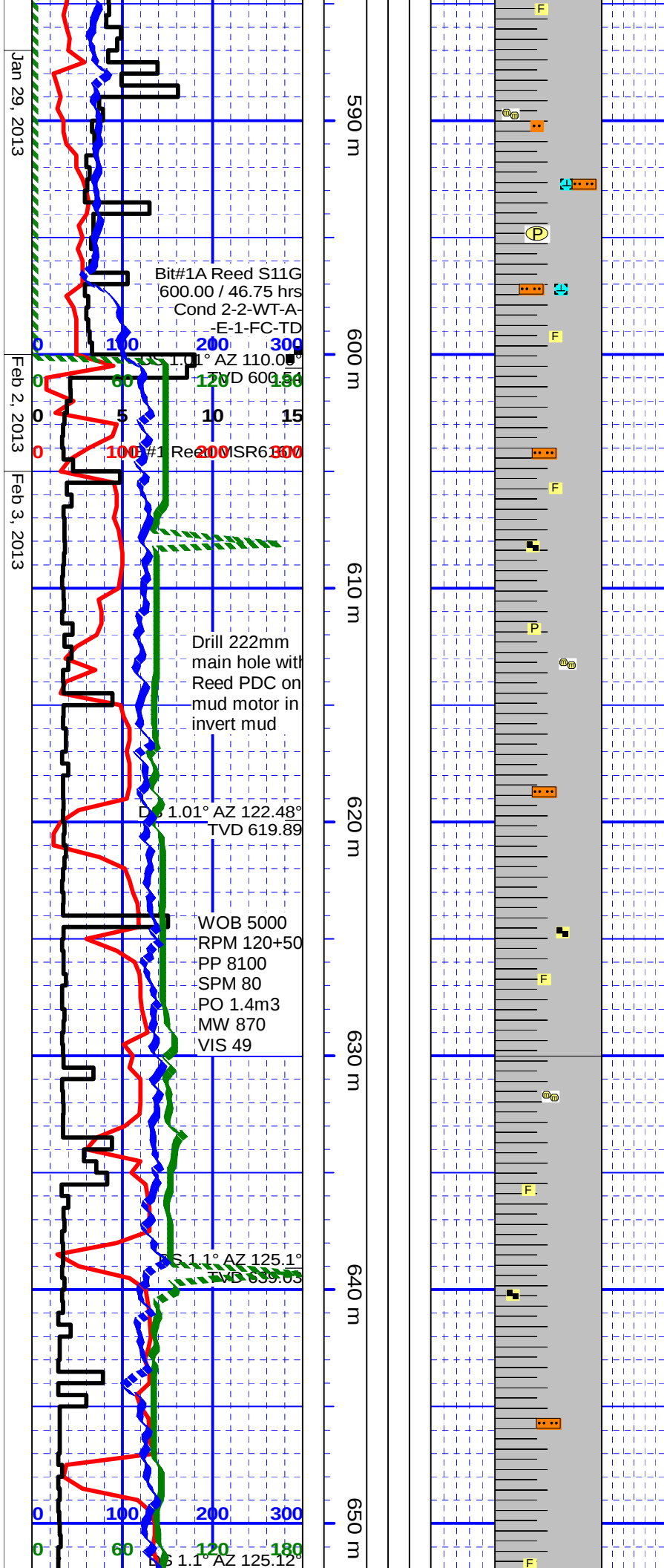
Sh: m gy, mnr dk gy, incrg sbfis ip, slly carb, slly mmca, tr pyr, tr inoc.

Sh: m gy, mnr dk gy, incrg sbfis, incrg carb, slly mmca, tr pyr nods, inoc.

Sh: m gy, mnr dk gy, occlly sbfis, carb ip, slly mmca, tr pyr nods, inoc.

Sh: m gy, occlly dk gy, occlly sbfis, carb ip, mmca,

Arctic Red
(TVD: 569.94)
(SSL: -312.34)



Sh: m - occlly dk gy, sbfis ip, slly carb ip, occlly mmca, slly slty ip, pyr nods, inoc / tr mntr Slst lams, lt - m gy, calcs & cly cmt, tr carb specs, sdy ip, no vis por, no shows.

**Surface hole TD 600m @ 19:45hrs,
Jan 29/13
Casing set @ 597 meters.**

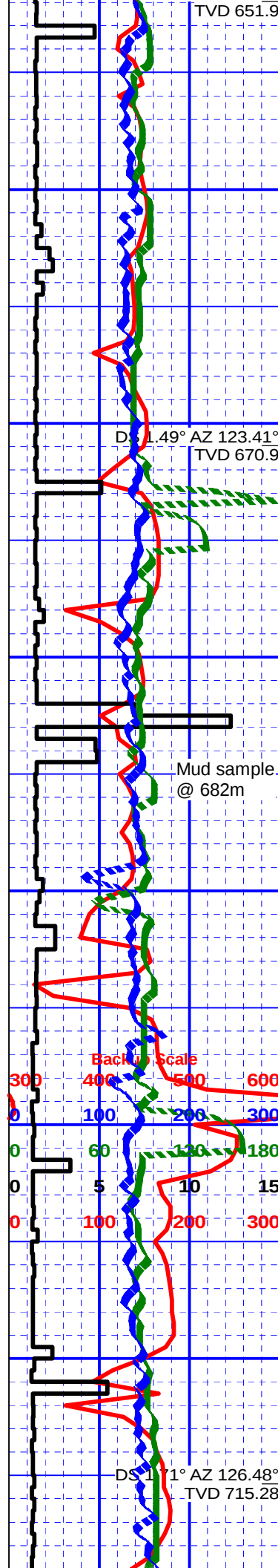
Sh: m - dk gy, sbfis ip, slly carb ip, occlly mmca, slly slty ip / mntr Slst lams, lt - m gy, calcs & cly cmt, tr carb specs, no vis por, no shows.

Sh: m - dk gy, sbfis ip, slly carb ip, occlly mmca, slly slty ip / mntr Slst strgs & lams aa.

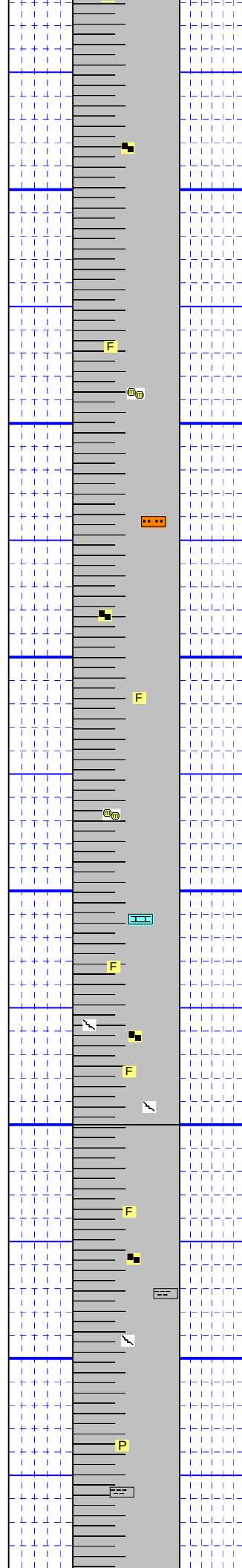
Sh: m - dk gy, sbfis, slly carb, occlly slly mmca, tr pyr, tr inoc., p tr slst lams aa.

Sh: m - dk gy, sbfis, slly carb, occlly slly mmca, tr pyr, tr inoc., p tr slst lams aa.

Sh: m - dk gy, sbfis, slly carb, occlly slly mmca, tr pyr, tr inoc., p tr slst lams aa.



660 m
670 m
680 m
690 m
700 m
710 m



Sh: m - dk gy, sbfis, slly carb, occlly slly mmca, inoc., tr Sltst strgs lt - m gy, calcs & cly cmt, tt, no show.

Sh: m - dk gy, sbfis, slly carb, occlly slly mmca, inoc, p tr sltst lams aa.

Sh: m - dk gy, sbfis, slly carb, occlly slly mmca, inoc, p tr sltst lams aa.

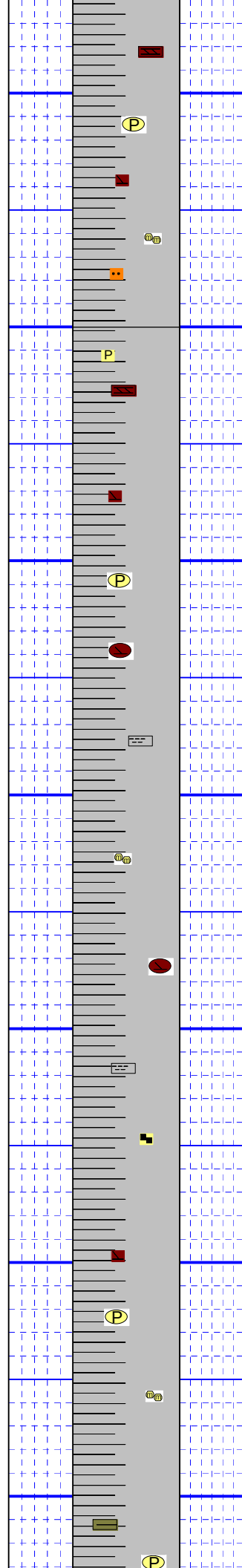
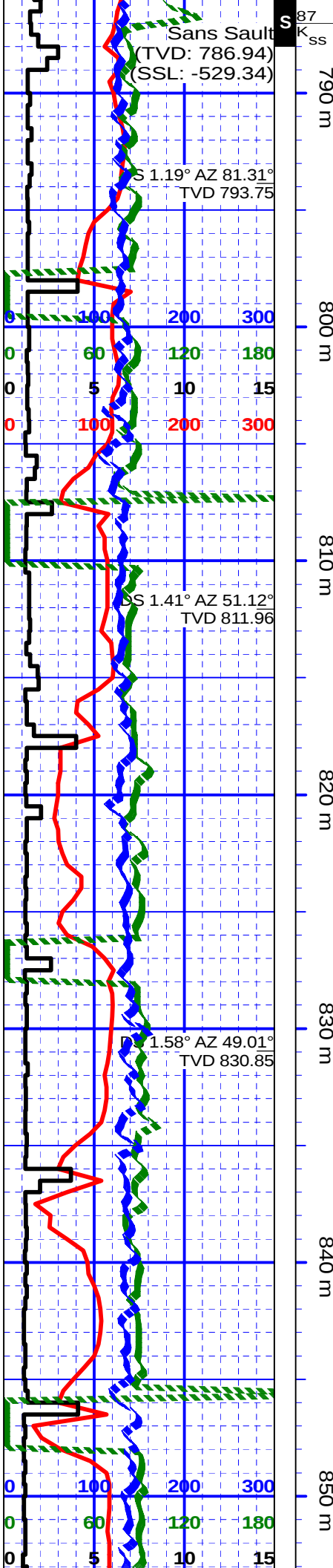
Sh: m - dk gy, sbfis, slly carb, occlly slly mmca, inoc.

Sh: aa / tr mnr ls lams, mot crn wh, sft, chly, tr small fracs infilled / calc, dns.

Sh: m - dk gy, sbfis, slly carb, occlly slly mmca, g tr inoc.

Sh: m - dk gy, sbfis, slly carb, occlly slly mmca, g tr inoc, tr small fracs infilled / wh calc & crm chky ls ip.

Sh: aa , p tr pyr / tr mnr lt gy clyst lams, sft, wxy.



Sans Sault (TVD: 786.94) (SSL: -529.34)

Sh: predly m gy, sbfis, slly wxy tex ip, slly mmca ip, slly carb, slly slty ip, tr pyr nods, occlly slly sidic / occ brn sid frags / tr lt gy brn sidic clyst lams.

Sh: m / mnr dk gy, sbfis ip, slly mmca ip, slly carb, slly slty ip, tr pyr nods & dism pyr, occlly slly sidic / occ brn sid frags.

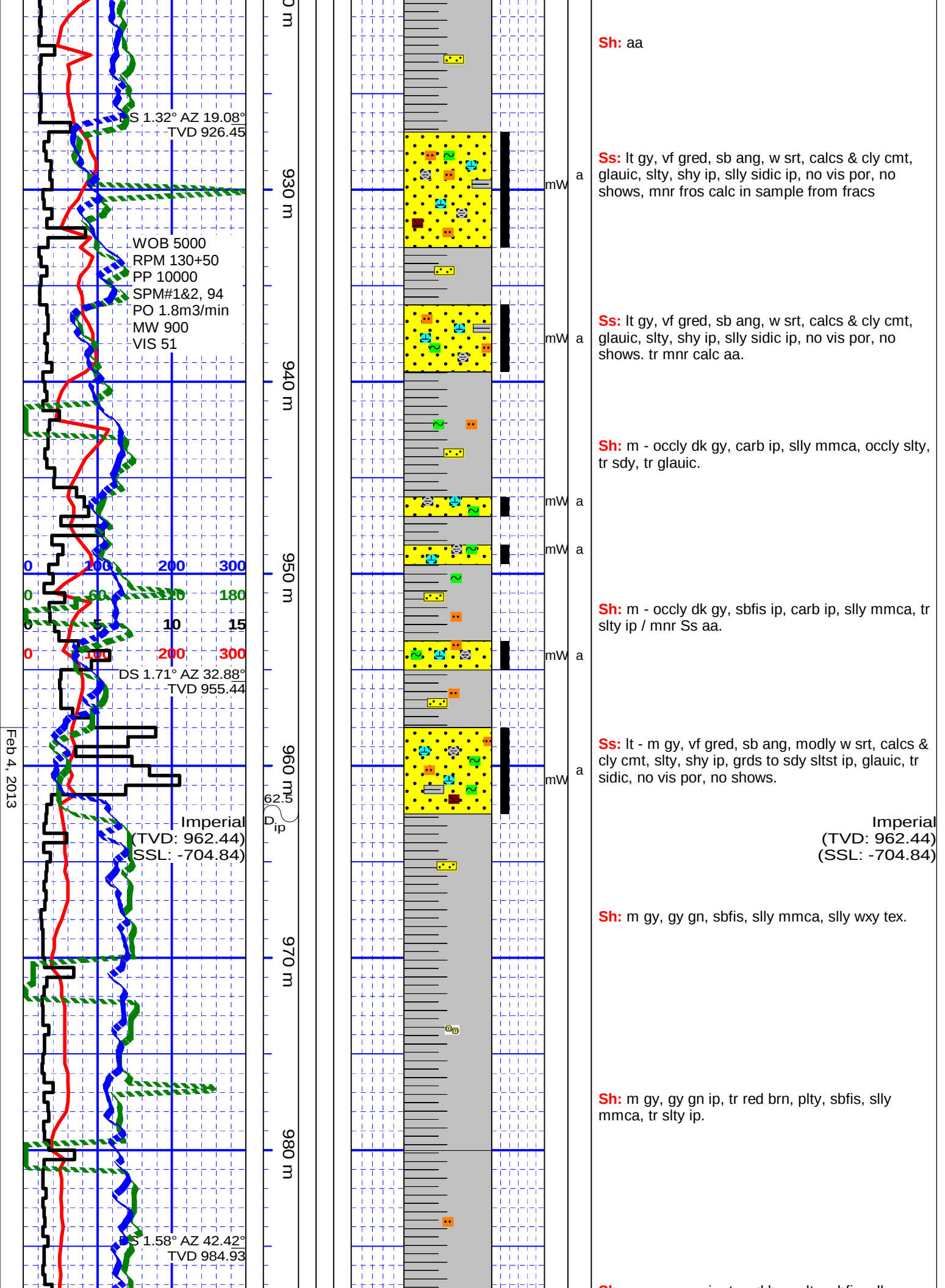
Sh: m - dk gy, sbfis, slly mmca, slly carb, tr pyr nods, occlly sidic / tr brn sid frags (nods?), tr mnr lt gy clyst lams.

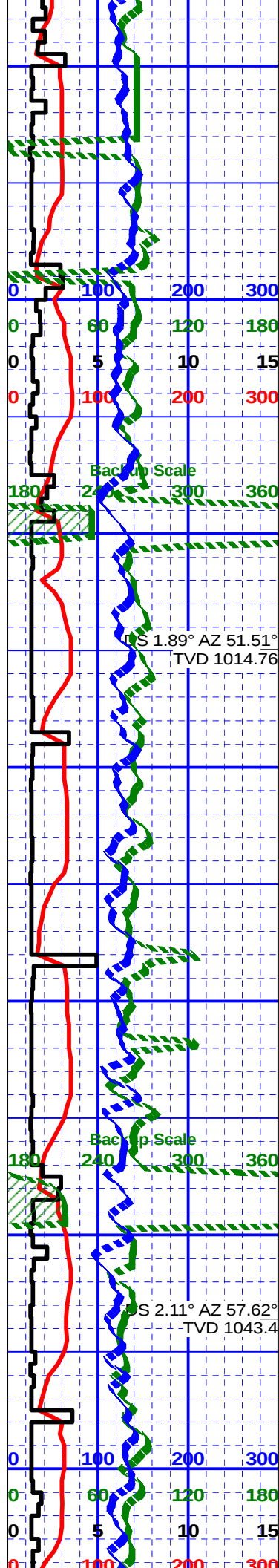
Sh: m - occlly dk gy, sbfis, slly mmca, slly carb, tr pyr nods, occlly sidic / tr brn sid frags (nods?)

Sh: m - occlly dk gy, sbfis, slly mmca, slly carb, tr pyr nods, occlly sidic / tr brn sid frags / tr mnr lt gy clyst lams aa.

Sh: m - occlly dk gy, sbfis, slly mmca, slly carb, tr pyr nods, occlly sidic / tr brn sid frags.

Sh: m - occlly dk gy, sbfis, slly mmca, slly carb, tr pyr nods, occlly sidic / tr brn sid frags / tr mnr lt gn sh lams, sft, wxy tex.





990 m

1000 m

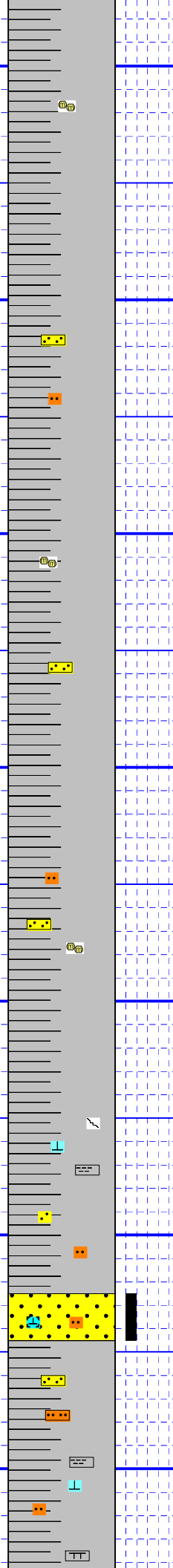
1010 m

1020 m

1030 m

1040 m

1050 m



W a

Sh: m gy, gy gn ip, tr red brn, plty, sbfis, slyy mmca, tr slty ip.

Sh: m gy, gy gn ip, tr red brn, plty, sbfis, slyy mmca, tr slty ip.

Sh: m gy, gy gn ip, tr red brn, plty, sbfis, slyy mmca, tr slty ip / occ intbd Ss strgs, lt - m gy, gy gn, vf gred, sb ang, w srt, calcs & cly cmt, shy, tt, no shows.

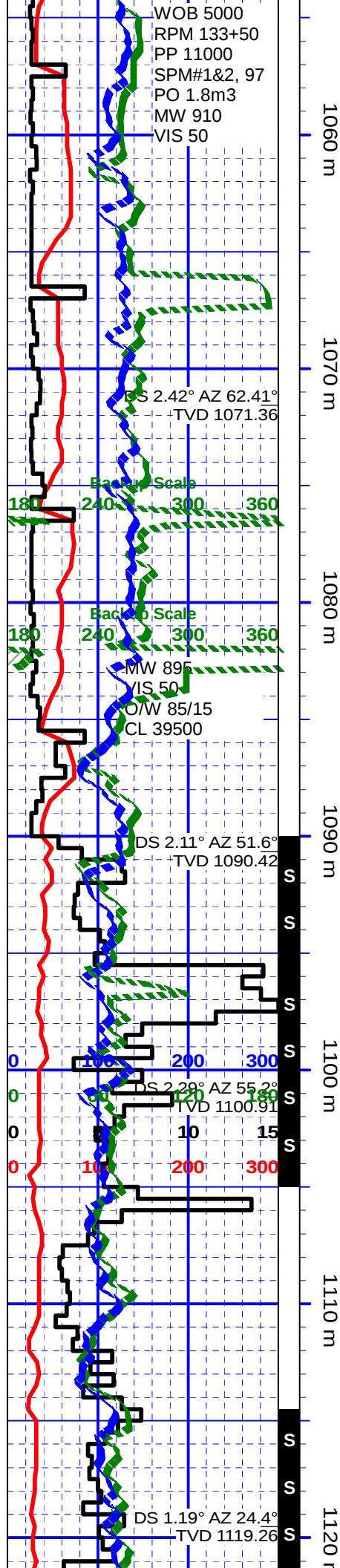
Sh: m gy, gy gn ip, tr red brn, plty, sbfis, slyy mmca, tr slty ip / occ intbd Ss strgs, lt - m gy, gy gn, vf gred, sb ang, w srt, calcs & cly cmt, shy, tt, no shows.

Sh: m gy, gy gn ip, tr red brn, plty, sbfis, slyy mmca, tr slty ip / occ 5% intbd Ss strgs, lt - m gy, gy gn, vf gred, sb ang, w srt, calcs & cly cmt, shy, tt, no shows.

Sh: lt - m gy, sbfis ip, slyy mmca, occlly slty, slyy calcs ip, grds to shy slty ip, tr fros calc (mnr fracs) tr mnr lt gy clyst strgs, tr mnr Ss strgs aa.

Ss: lt gy, vf gred, sb ang, w srt, calcs & cly cmt, tr dk lit grs, grds to sdy sltst ip, slty, shy, tt, no shows.

Sh: predly m gy, sbfis ip, slyy mmca, occlly slty, slyy calcs ip, grds to shy slty ip, tr mnr Ss strgs aa.



1060 m

1070 m

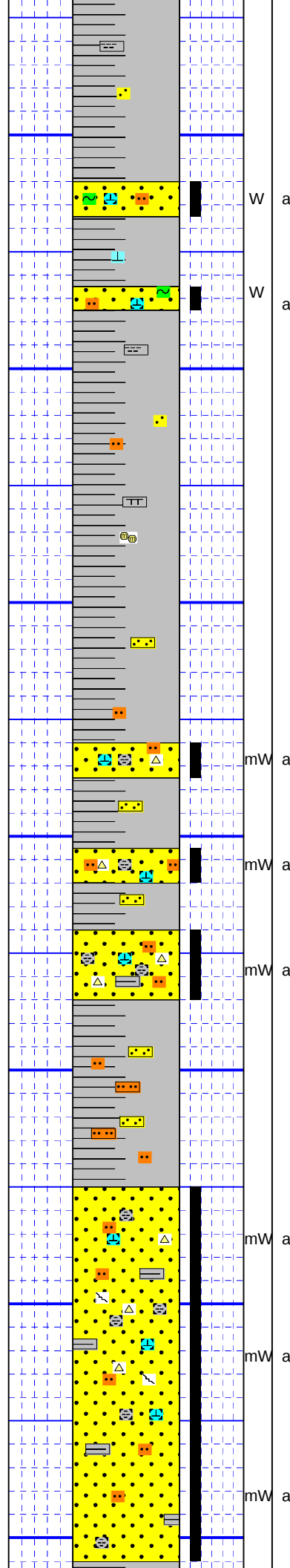
1080 m

1090 m

1100 m

1110 m

1120 m



W a

W a

mW a

mW a

mW a

mW a

mW a

mW a

Sh: predly m gy, sbfis ip, slly mmca, occ slly wxy tex, occly slty, slly sdy ip / occ intbd clyst lt gy, sft, slly calcs.

Ss: lt gy, vf gred, sb ang, w srt, qtz & lt cold cht, calcs & cly cmt, slty, shy, p tr glauc, tr dk lit grs, occly grds to sdy sltst, no vis por, no shows.

Sh: lt - m gy, sbfis ip, slly mmca, occ slly wxy tex, occly slty, tr sdy / occ intbd clyst lt gy, sft, slly calcs, grds to mrlst ip.

Sh: aa

Ss: lt gy, vf gred, sb ang, modly w srt, qtz & lt cold cht, calcs & cly cmt, tr mntr dk lit grs, slty, occly shy, no vis por or shows.

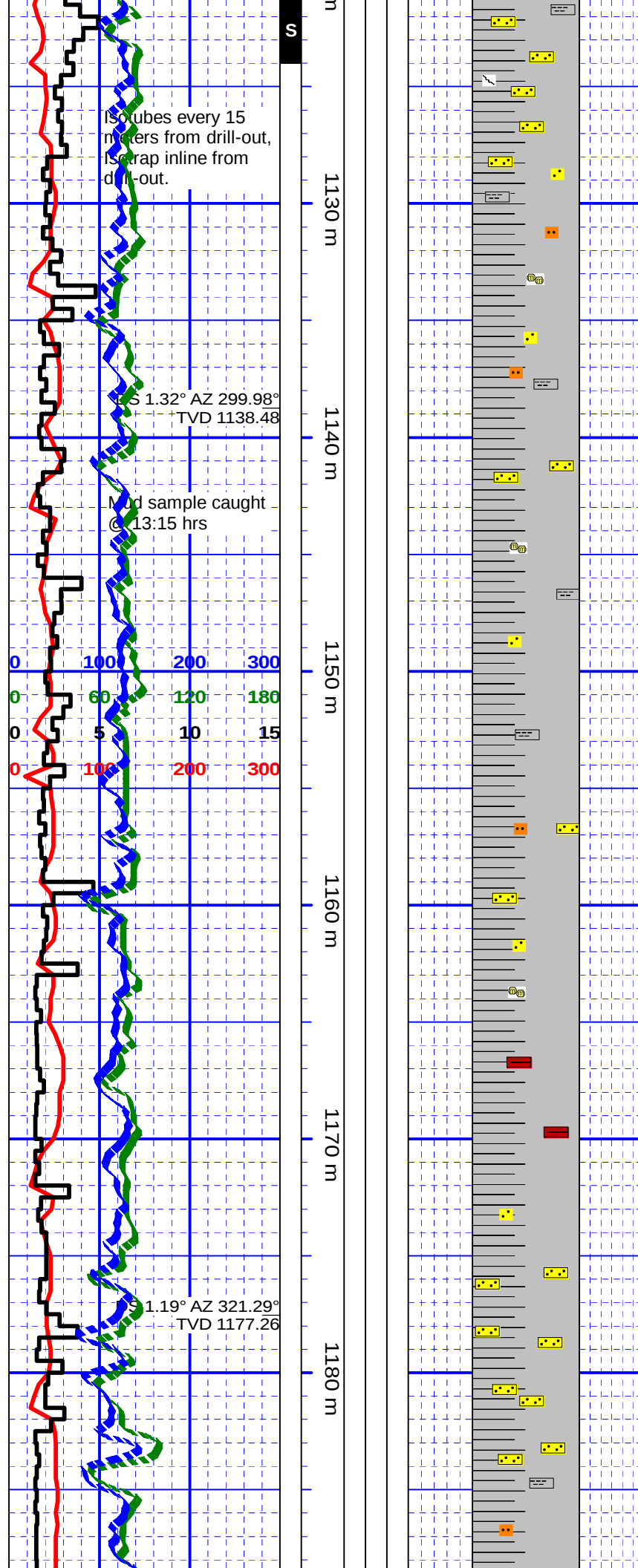
Ss: lt gy, vf gred, sb ang, modly w srt, qtz & lt cold cht, calcs & cly cmt, tr mntr dk lit grs, slty, occly shy, no vis por or shows.

Sh: aa / abnt crm clyst, sft, calcs, grds to mrlst ip, occly sdy & slly slty.

Ss: lt gy, vf gred, sb ang, modly w srt, qtz & lt cold cht, calcs & cly cmt, tr mntr dk lit grs, slty, occly grds to sdy sltst ip, occly shy, no vis por or shows.

Ss: aa, occ red brn ss, fer, tr fros calc in sample indicating fracs.

Ss: lt gy, vf gred, sb ang, modly w srt, qtz & lt cold cht, calcs & cly cmt, tr mntr dk lit grs, slty, occly shy, slly sidic ip, no vis por or shows.



Sh: m gy / mnr lt & dkr gy, sbfis ip, occlly slty & sdy, slly mmca, occ intbd lt gy & rust gy clyst, v sft, occlly grds to mrlst ip, fros calc in sample ab.

Sh: m gy / mnr lt & dkr gy, sbfis ip, occlly slty & sdy, slly mmca, occ intbd lt gy clyst, v sft, occlly grds to mrlst ip.

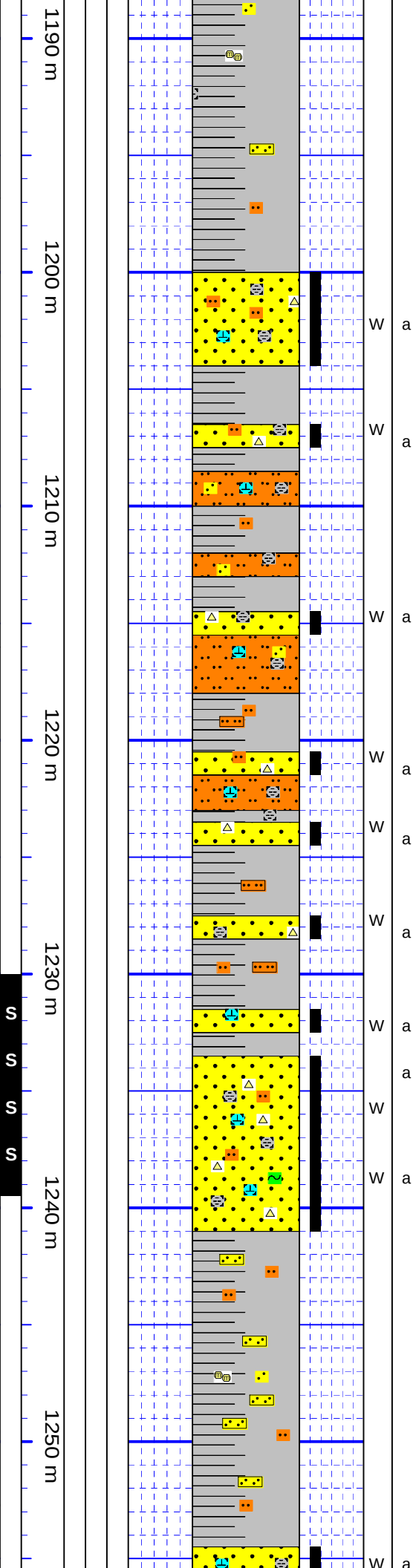
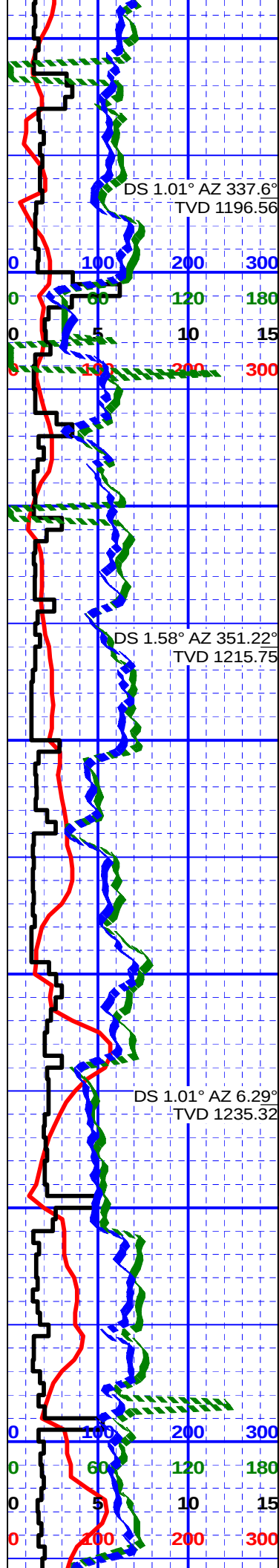
Sh: m gy / mnr lt & dkr gy, sbfis ip, occlly slty & sdy, slly mmca, occ intbd lt gy clyst, v sft, occlly grds to mrlst ip / mnr Ss strgs aa.

Sh: m gy / mnr lt & dkr gy, sbfis ip, occlly slty & sdy, slly mmca, tr clyst aa / 10% intbd Ss strgs aa.

Sh: aa, tr mnrr red gy fer sh strgs.

Sh: aa / 10-15% Ss strgs crm - lt gy, vf gred, sb ang, w srt, qtz & lt cold cht, calcs & cly cmt, tr dk lit grs, slty, shy, tt, no shows.

Sh: lt - m gy, mnrr dk gy aa.



Sh: m - dk gy, sbfis ip, sly carb, sly mmca, slty & tr sdy ip, occlly grds to shy sltst ip / 5% Ss strgs aa.

Ss: crm, vf gred, sb ang, w srt, qtz & lt cold cht, calcs & cly cmt, slty, p tr dk lit grs, p tr arkic, no vis por or shows.

Slstst: lt - m gy, cly cmt, calcs ip, shy, sdy, grds to vf gred ss ip, tr dk lit grs, tt, no shows.

Slstst: lt - m gy, cly cmt, calcs ip, shy, sdy, grds to vf gred ss ip, tr dk lit grs, tt, no shows.

Slstst: lt - m gy, cly cmt, calcs ip, shy, sdy, grds to vf gred ss ip, tr dk lit grs, tt, no shows.

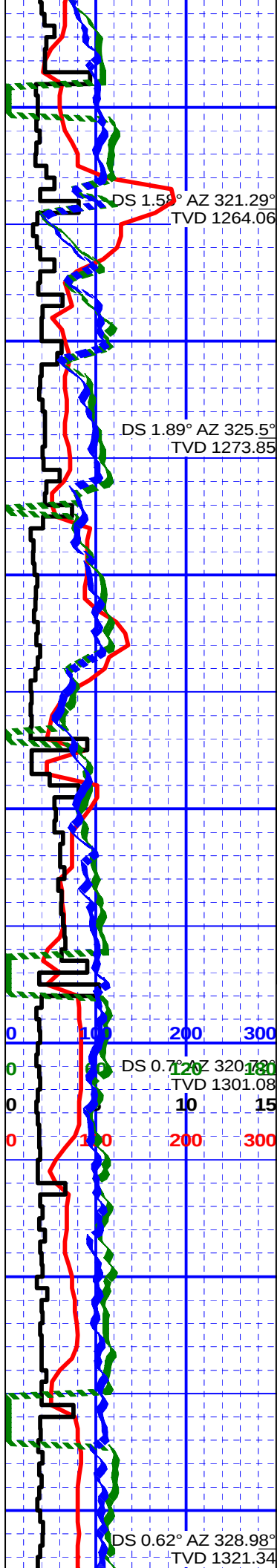
Sh: m - occlly dk gy, sbfis ip, sly carb ip, occlly v slty, tr sdy, sly mmca, sly wxy tex ip.

Ss: v lt gy, vf gred, sb ang, w srt, qtz & lt cold cht, calcs & cly cmt, slty, shy ip, tr dk lit grs, p tr glaucic, grds to sltst, tt, no shows.

Sh: m - occlly dk gy, sbfis ip, sly carb ip, occlly v slty, tr sdy, sly mmca, sly wxy tex ip.

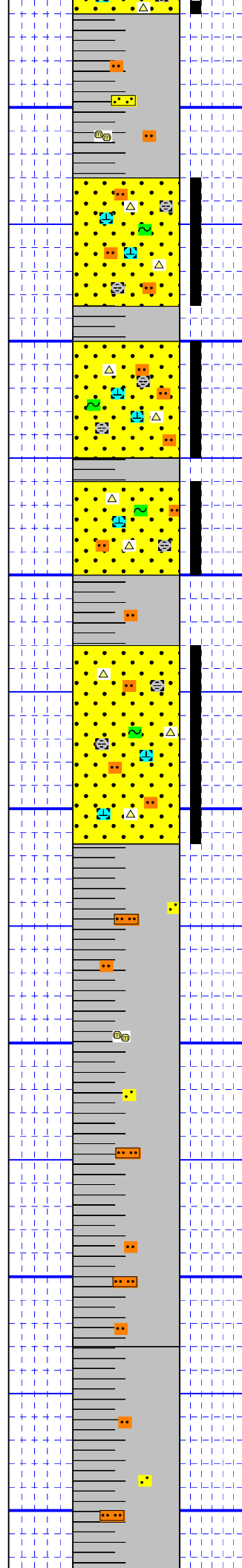
Sh: m - occlly dk gy, sbfis ip, sly carb ip, occlly v slty, tr sdy, sly mmca, sly wxy tex ip.

Ss: v lt gy, vf gred, sb ang, w srt, qtz & lt cold



1260 m
1270 m
1280 m
1290 m
1300 m
1310 m
1320 m

S
S
S
S



mW a
mW a
mW a
mW a
mW a

Ss: v lt gy, vf gred, sb ang, w srt, qtz & lt cold, calcs & cly cmt, slty, shy ip, tr dk lit grs, p tr glauic, grds to sltst, tt, no shows.

Ss: lt gy, vf gred, sb ang, modly w srt, qtz & lt cold, calcs & cly cmt, tr glauic, slty, shy ip, tr dk lit grs, tt, no shows.

Ss: lt gy, vf gred, sb ang, modly w srt, qtz & lt cold, calcs & cly cmt, tr glauic, slty, shy ip, tr dk lit grs, tt, no shows.

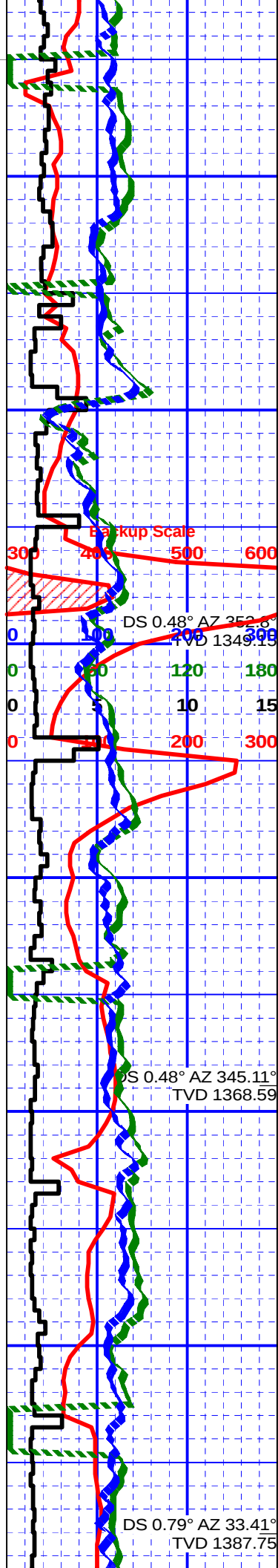
Ss: lt gy, vf gred, sb ang, modly w srt, qtz & lt cold, calcs & cly cmt, tr glauic, slty, shy ip, tr dk lit grs, tt, no shows. Occlly grds to sdy Slstst ip.

Sh: m gy, blkly, slty, sdy ip, slly mmca, grds to shy sltst ip.

Sh: m gy, blkly, slty, sdy ip, slly mmca, grds to shy sltst ip.

Sh: m gy, blkly, slty, sdy ip, slly mmca, grds to shy sltst ip.

Feb 5, 2013



1330 m

1340 m

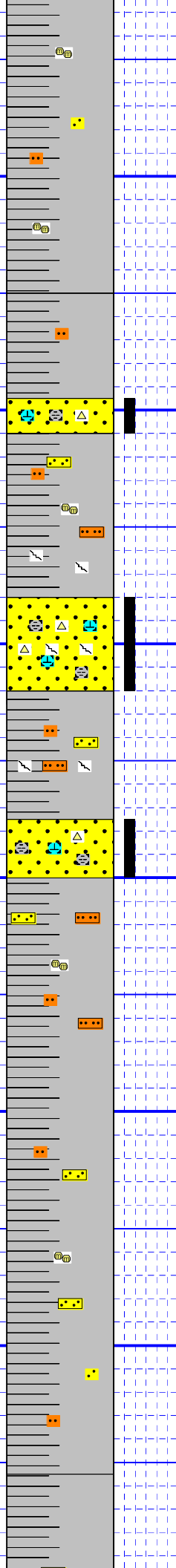
1350 m

1360 m

1370 m

1380 m

1390 m



mW a

mW a

mW a

Sh: m gy, blkly, slty, sdy ip, slly mmca, grds to shy sltst ip.

Sh: m gy, blkly, slty, sdy ip, slly mmca, grds to shy sltst ip.

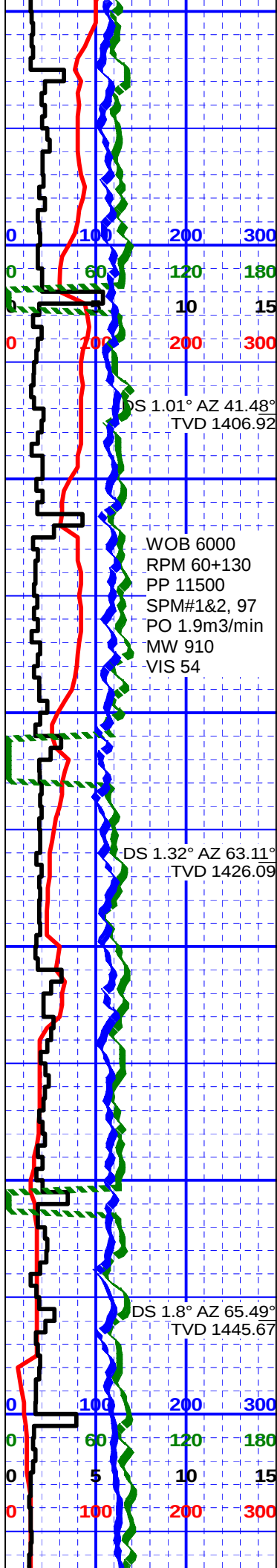
Ss: lt gy, vf gred, sb ang, modly w srt, qtz & lt cold, calcs & cly cmt, tr glauc, slty, shy ip, tr dk lit grs, tr fros calc (fracs)no vis por, no shows.

Ss: lt gy, vf gred, sb ang, modly w srt, qtz & lt cold, calcs & cly cmt, tr glauc, slty, shy ip, tr dk lit grs, tr fros calc (fracs)no vis por, no shows.

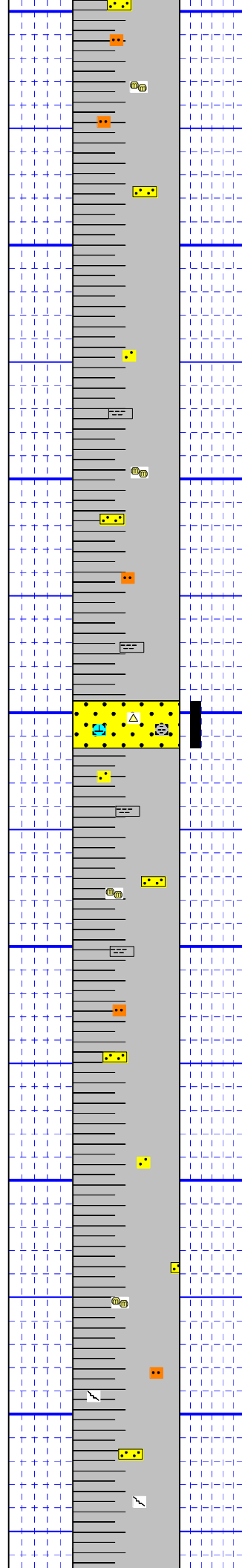
Sh: m gy, dk gy ip, sbfis ip, slly mmca, occly slty, tr sdy, slly carb ip / 10% Ss aa.

Sh: m gy, dk gy ip, sbfis ip, slly mmca, occly slty, tr sdy, slly carb ip / 5% Ss strgs aa.

Sh: m gy, dk gy ip, sbfis ip, slly mmca, occly slty, tr sdy, slly carb ip / 5% Ss strgs aa.



1400 m
1410 m
1420 m
1430 m
1440 m
1450 m



W a

Sh: m gy, dk gy ip, sbfis ip, slly mmca, occlly slty, tr sdy, slly carb ip / 5% Ss strgs aa.

Sh: m gy, dk gy ip, sbfis ip, slly mmca, occlly slty, tr sdy, slly carb ip / 5% Ss strgs aa.

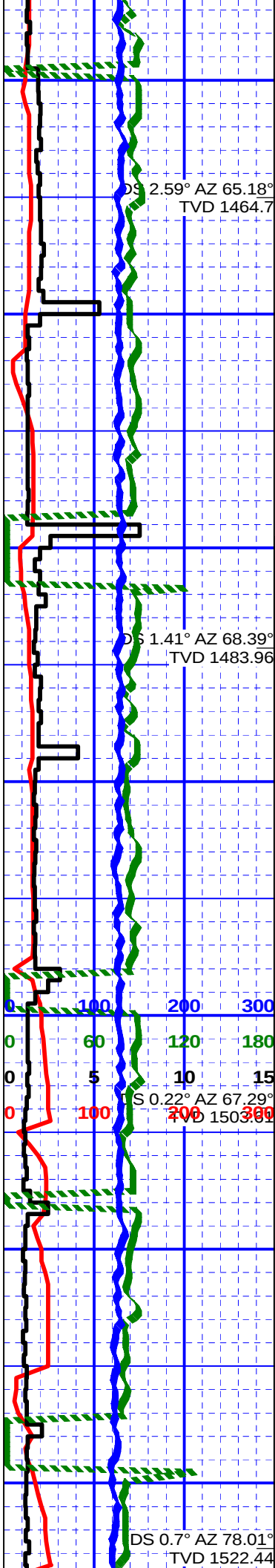
Sh: aa

Ss: lt gy, l vf gred, sb ang, w srt, qtz & lt cold cht, calcs & cly cmt, slty, shy ip, tr dk lit grs, grds to sdy sltst ip, tt, no shows

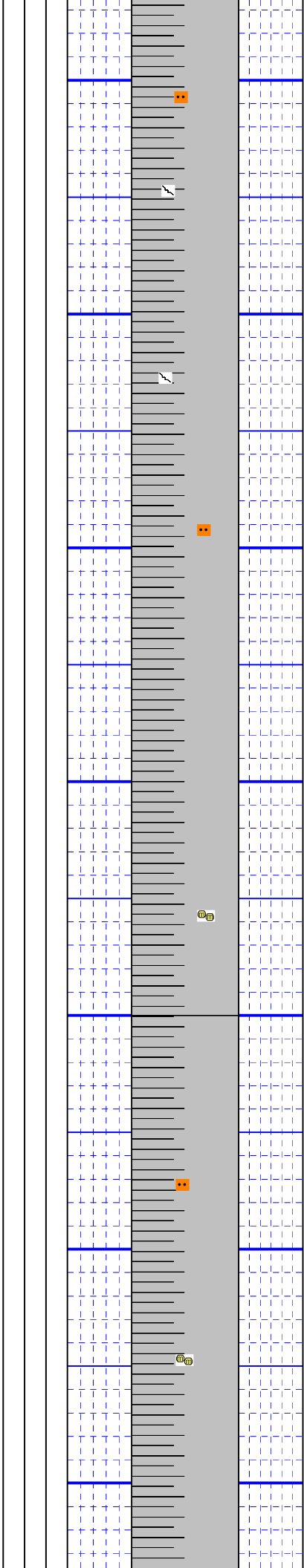
Sh: m gy, dk gy ip, sbfis ip, slly mmca, occlly slty, tr sdy, slly carb ip / occ lt gy Clyst, sft, occlly slty, slly calcs ip, grds to mrlst ip / 5% Ss strgs aa.

Sh: m gy, mnr dk gy ip, sbfis ip, slly mmca, occlly slty, tr sdy, slly carb ip, tr mnrr SS lams aa.

Sh: m gy, mnrr dk gy, sbfis ip, slly mmca, tr slty ip / tr fros calc in sample (mnrr fracs?)



1460 m
1470 m
1480 m
1490 m
1500 m
1510 m
1520 m



Sh: m - occly dk gy, plty, fis, slly mmca, slly wxy
tex, tr slty ip.

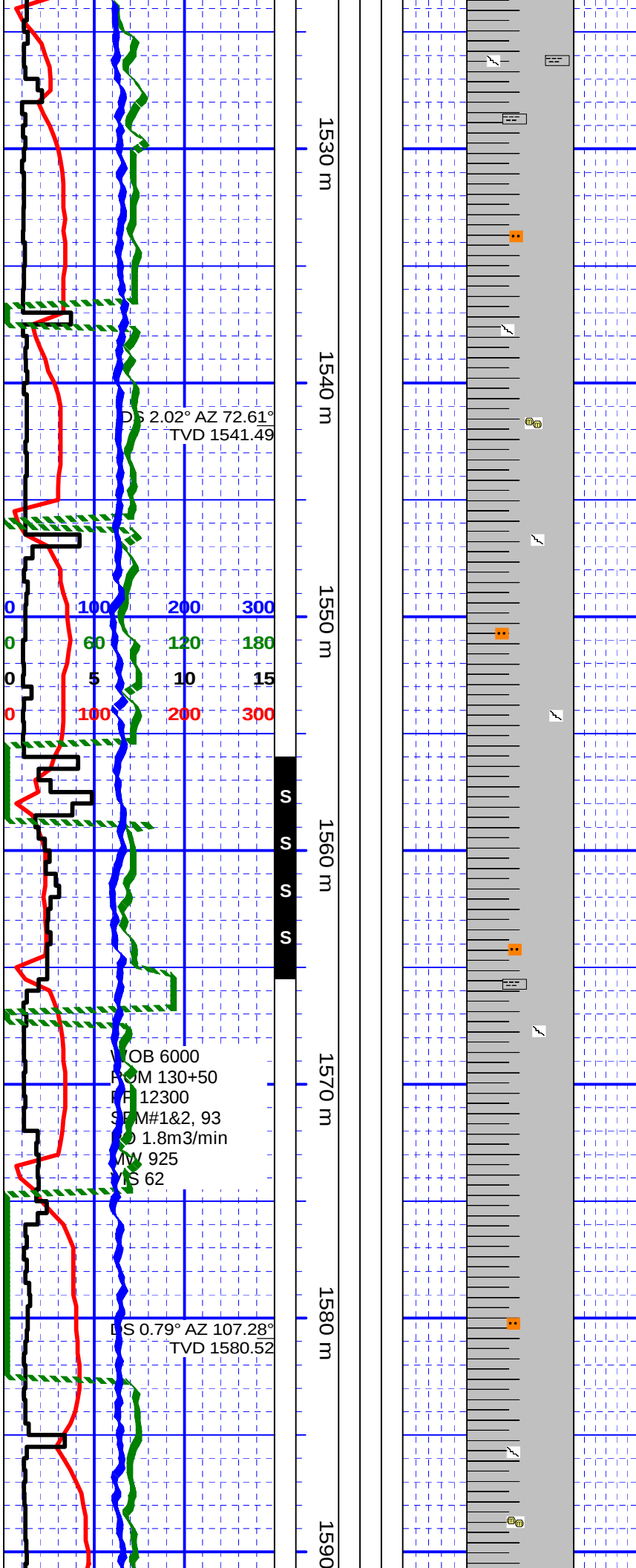
Sh: m - occly dk gy, plty, fis, slly mmca, slly wxy
tex, tr slty ip.

Sh: m - occly dk gy, plty, fis, slly mmca, slly wxy
tex, tr slty ip.

Sh: m - occly dk gy, plty, fis, slly mmca, slly wxy
tex, tr slty ip.

Sh: m - dk gy, sbfis, slly mmca, slly wxy tex, tr
slty ip.

Sh: m - dk gy, sbfis, slly mmca, slly wxy tex, tr
slty ip.



Sh: m - dk gy, sbfis, slly mmca, slly wxy tex, tr slty ip / mnr Clyst strgs aa / tr fros calc in sample from pos fracs.

Sh: predly m gy, plty, sbfis, slly mmca, p tr slty ip, tr clyst aa, tr fros calc aa.

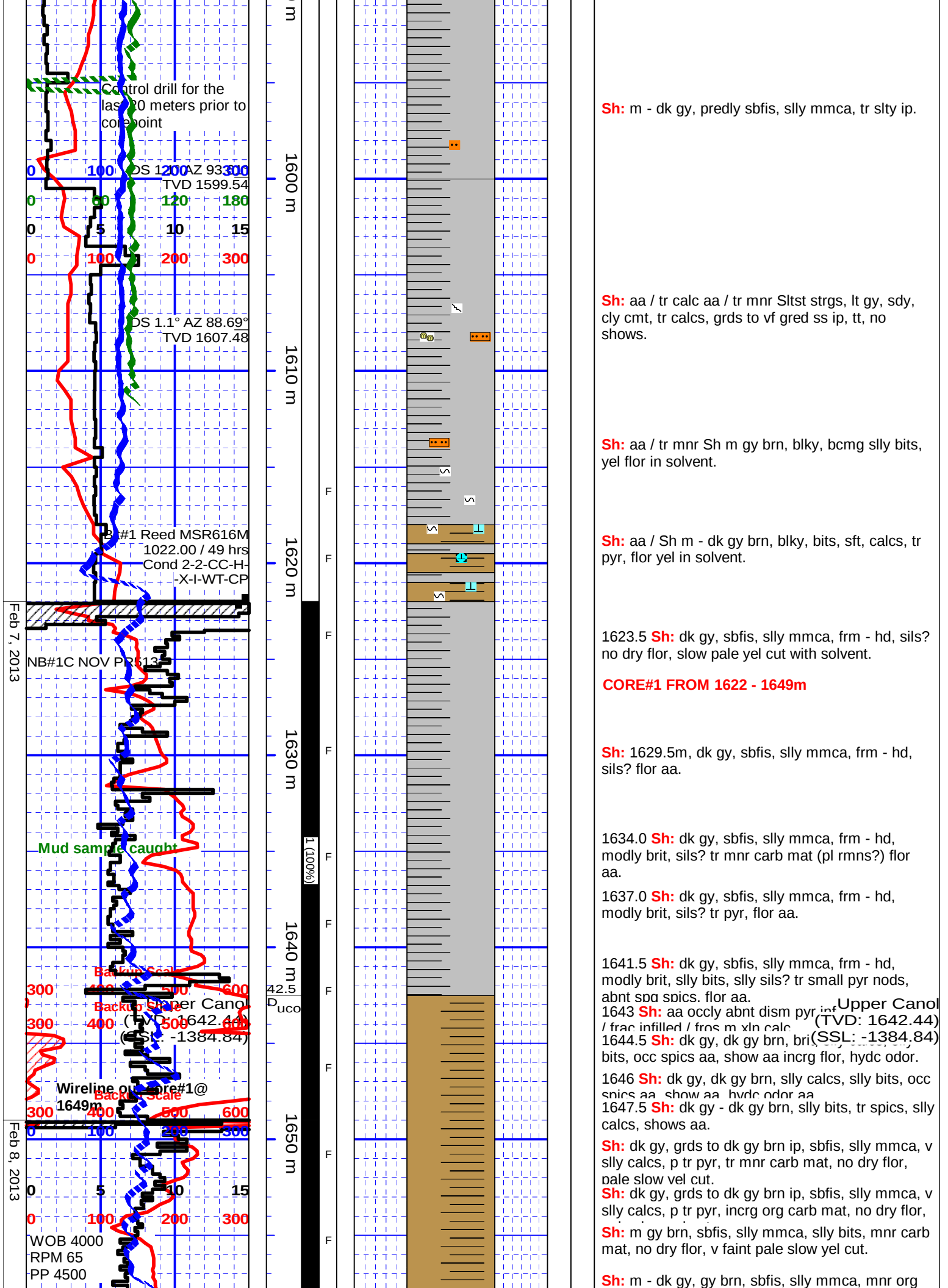
Sh: aa.

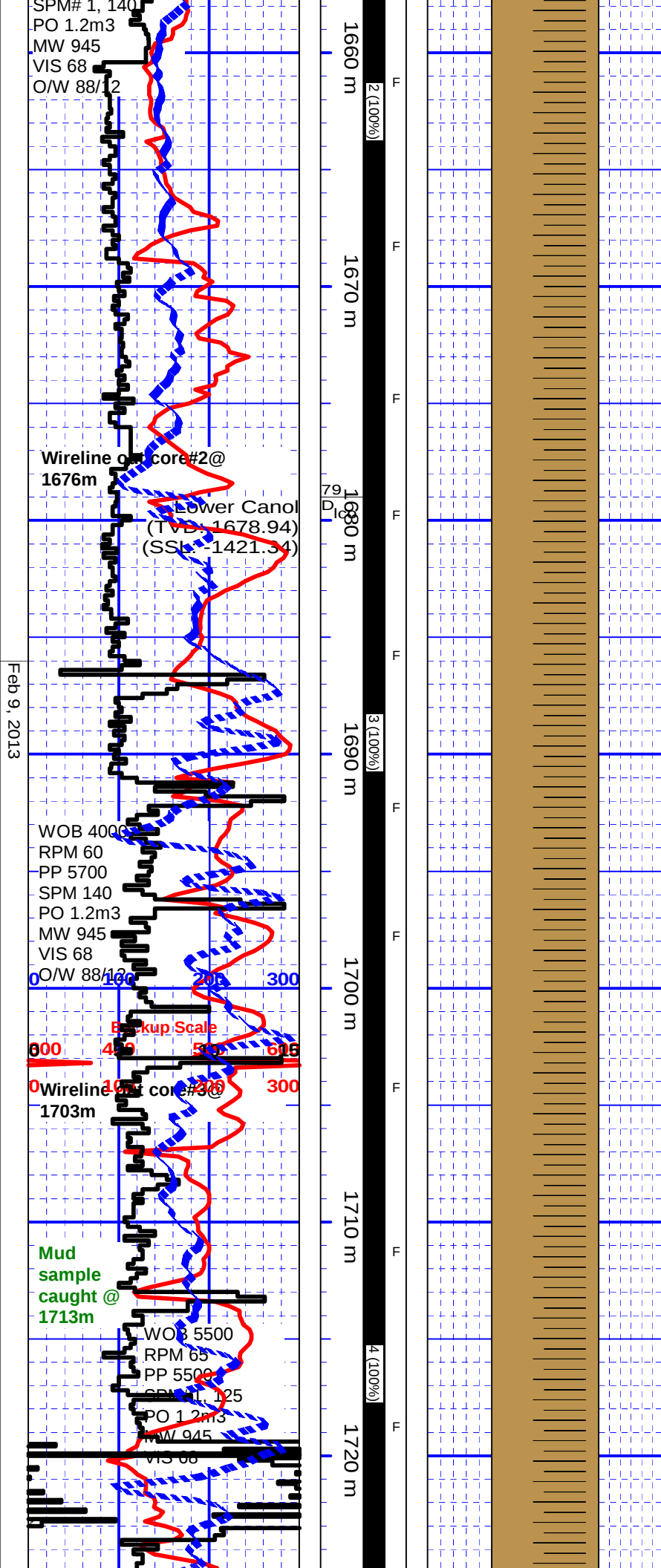
Sh: predly m gy, plty, sbfis, slly mmca, p tr slty ip, tr clyst aa, tr fros calc aa.

Sh: predly m gy, sbfis, slly mmca, p tr slty ip, tr clyst aa, tr fros calc aa.

Sh: predly m gy, mnrc dk gy, predly sbfis, slly mmca, tr slty ip.

Sh: predly m gy, incrg dk gy, predly sbfis, slly mmca, tr slty ip, tr mnrc fros cxln calc (fracs?)





carb mat, freq dism pyr, no dry flor, v faint pale slow vel cut.
Sh: gy brn, sbfis, sly mmca, sly bits, mnrg carb mat, no dry flor, v faint pale slow yel cut.

CORE#2 FROM 1649 - 1676m

Sh: gy brn, sbfis, sly mmca, sly bits, mnrg carb mat, tr sly slty, tr dism pyr, no dry flor, v faint pale slow yel cut.

Sh: gy brn, sbfis, sly mmca, sly bits, mnrg carb mat, tr sly slty, no dry flor, v faint pale slow yel cut.

Sh: gy brn, sbfis, sly mmca, sly bits, mnrg carb mat, tr sly slty, tr dism pyr, no dry flor, v faint pale slow vel cut.

Sh: gy brn, sbfis, sly mmca, sly bits, mnrg carb mat, tr sly slty, tr dism pyr, no dry flor, v faint

Sh: gy brn, sbfis, sly mmca, sly bits, mnrg carb mat, tr sly slty, no dry flor, v faint pale slow vel cut.

Sh: gy brn, fis, sly mmca, frm - hd, bcmg sils? sly bits, mnrg carb mat, tr sly slty, no dry flor,

CORE#3 FROM 1676.0 - 1703.0m

CUT: 27.0m, REC: 27.0m Lower Canol (TVD: 1678.94) (SSL: -1421.34)

Sh: dk gy brn, fis, sly mmca, frm - hd, bcmg brit, carb org mat, faint shows aa.

Sh: aa, incrg dism pyr, micro fracs infilled / pyr.

Sh: gy brn, fis, sly mmca, frm - hd, sly sils? occlly brit, sh lamd / pyr, tr lamd / sdy sh ip, faint shows aa.

Sh: aa, abnt dism pyr, abnt unident fos (pl rmn) casts lined / carb mat, tr spics?

Sh: gy brn, fis, sly mmca, frm - hd, sils? brit, carb org mat, tr pyr aa, faint shows aa.

Sh: dk gy brn - blk, sils, brit, hd, tr unident fos casts? mnrg pyr aa, faint show aa.

Sh: dk gy brn, aa, sils? , tr occlly specd / lt & dk rdd cht, shows aa.

Sh: dk gy brn, sils, hd, brit, sly mmca, dism pyr, tr micro fracs, v faint slow pale yel cut.

Sh: dk gy - dk gy brn, fis, splty, mmca incrg sly, sils? dism pyr, abnt carb org mat, no dry flor, slow pale yel stmg cut. No vis o bldg from core thru.

Sh: aa, abnt dism pyr.

Sh: dk gy brn, hd, sbfis, sly mmca, mnrg dism pyr, mnrg carb org mat, faint flor aa.

CORE#4, 1703.0 - 1730.0m, Cut: 27.0m, Rec: 27.0m

Sh: dk gy brn, hd, sils?, sly mmca, dism pyr, mnrg carb org mat, unident fos casts, (brac?) faint flor aa.

Sh: dk gy brn, hd, sils?, sly mmca, dism pyr, mnrg carb org mat, faint flor aa.

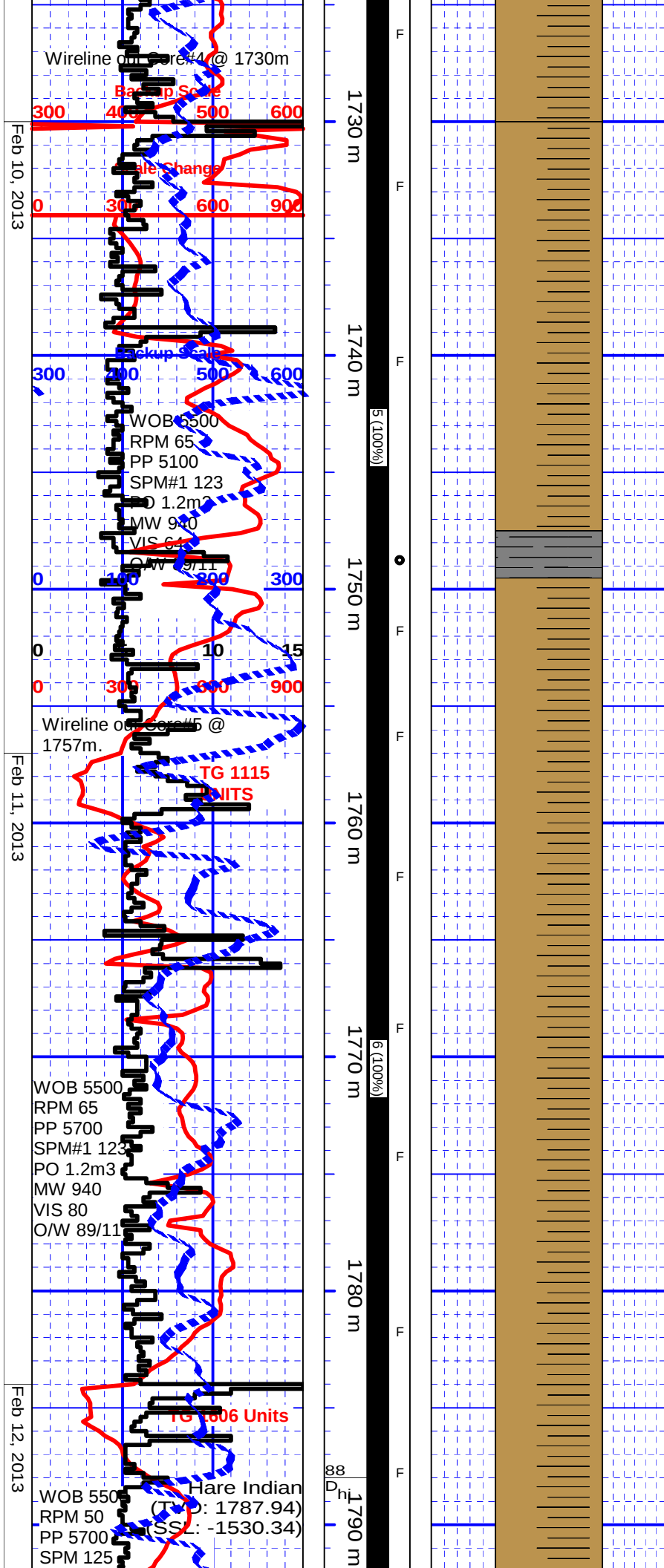
Sh: dk gy brn, hd, sils?, v sly calcs, sly mmca, dism pyr, mnrg carb org mat, mnrg thin bioturb lavers. faint flor aa.

Sh: dk gy brn, hd, sils?, v sly calcs, sly mmca, dism pyr, mnrg carb org mat, poss hydc odor, faint flor aa.

Sh: aa, hd, brit, lamd / brn cht strgs?

Sh: dk gy brn - occlly blk aa, lamd / brn cht strgs

Sh: gy brn, hd, brit, sils, incrg calcs, sly mmca,



dism pyr, carb org mat, flor aa.

Sh: dk gy brn, hd, brit, sbfis, sils, sily calcs, sily mmca, tr dism pyr, tr org mat aa, tr v slow flor aa.

Sh: dk gy brn, hd, brit, sbfis, sils, sily calcs, sily mmca, tr dism pyr, tr org mat aa, tr v slow flor aa. No vis o bldg from core thru.

Core#5 1730-1757, Cut:27m, Rec:

Sh: dk gy brn, sbfis, sily sils, sily calcs, mmca, no vis pyr, tr org mat aa, slow pale yel stmg cut flor.

Sh: dk gy brn, hd, brit, sily sils? incrg calcs, sily mmca, tr dism pyr, sily calcs, shows aa.

Sh: dk gy brn, aa, incrg calcs, sily mmca, incrg carb org mat, thin fracs infilled / fros vf xln calc, shows aa.

Sh: dk gy brn, calcs, frm, less brit, sbfis, sily mmca, tr dism pyr, mnrcarb org mat, flor aa.

Sh: dk gy brn, incrg calcs, frm, sbfis, sily mmca, tr dism pyr, mnrcarb org mat, flor aa. Core appeared fracd at end of sleeve.

Sh: aa / strgs bioturb sh, dk gy, brit, tr v small fracs?

Sh: v dk gy brn - blk, carb, occly v calcs, tr small fracs, occ brit, strong hydc odor, wxy lstr with scr, g fast yel stmg cut flor.

Sh: dk gy brn, calcs, frm, sbfis, sily mmca, brit ip, tr dism pyr, mnrcarb org mat, flor aa.

Sh: dk gy brn, calcs, frm, sbfis, sily mmca, dism pyr / pyr lamd within sh, abnt carb org mat, flor

Sh: dk gy brn, calcs, frm, sbfis, splty, sily mmca, tr dism pyr, mnrcarb org mat, flor aa. No vis o bldg from core thru.

Sh: dk gy brn, calcs, frm, sbfis, sily mmca, thin lamd pyr with sh, mnrcarb org mat, flor aa.

Core#6, 1757-1784, Cut:27m, Rec:27m

Sh: dk gy brn - occly blk, sily calcs, hd, brit, fis, carb / carb org mat, sily mmca, mnrcarb org mat, flor aa.

Sh: dk gy brn, sily calcs, hd, brit, fis, sils? sily mmca, tr pyr, occ carb org mat, flor aa.

Sh: v dk gy brn, sily calcs, frm - hd, brit, fis, sily mmca, no vis pyr, occ carb org mat, flor aa.

Sh: dk gy brn, sily calcs, frm - hd, sbfis, sily mmca, no vis pyr, occ carb org mat, flor aa.

Sh: dk gy brn, sily calcs, frm - hd, plty, fis, sily mmca, no vis pyr, occ carb org mat, flor aa.

Sh: dk gy brn - blk, sily calcs, frm, sbfis, sily mmca, tr dism pyr, tr micro fracs? occ carb org mat, flor aa.

Sh: dk gy brn, sily calcs, frm - hd, plty, fis, sily mmca, no vis pyr, occ carb org mat, flor aa.

Sh: dk gy brn, sily calcs, frm - hd, plty, sbfis, sily mmca, tr pyr, occ carb org mat, flor aa.

Sh: dk gy brn, sily calcs, frm, plty, sbfis, sily mmca, no vis pyr, occ carb org mat, flor aa. No vis o bldg from core thru.

Sh: dk gy brn - v dk gy, plty, fis, sily mmca, sily calcs, abnt carb org mat, sily mmca, abnt dism

Core#7, 1784-1811m, Cut:27, Rec: 27m

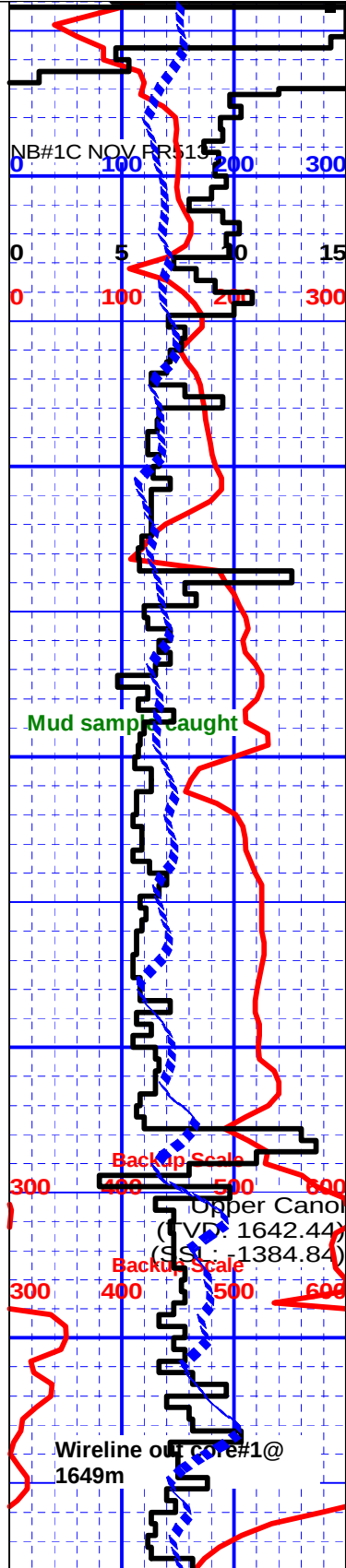
Sh: dk gy brn - v dk gy, plty, fis, Hare Indian sily mmca, non calcs, carb org (TVD: 1787.94) mat. sily mmca, dism pyr lamd (SSL: -1530.34)

Sh: v dk gy, plty, fis, sily mmca, abnt carb org

Lithology Description									
Rounding									
Sorting									
Grain Size									
Interpreted Lithology									
Porosity (%)									
Oil Shows									
Core									
Depth									
Slide - Rotate									
Drilling Progress									
Date									

Expanded Core Log (1:120) Feb 7, 2013
Core #1 Interval: 1622.00m to 1649.00m Cut: 27m Recovered: 27m (100%)

Feb 7, 2013



Date

Slide - Rota

Depth

Core

Porosity Ty

Oil Shows

Porosity (%)

Interpreted Lith

Grnd

Grnd

Grnd

Grnd

Grnd

Grnd

Grnd

Grnd

Grnd

Grnd

Grnd

Grnd

Grnd

Grnd

Grnd

Grnd

Grnd

Grnd

Grnd

Grnd

Grnd

Grnd

Grnd

1623.5 **Sh**: dk gy, sbfis, sly mmca, frm - hd, sils?
no dry flor, slow pale yel cut with solvent.

CORE#1 FROM 1622 - 1649m

Sh: 1629.5m, dk gy, sbfis, sly mmca, frm - hd,
sils? flor aa.

1634.0 **Sh**: dk gy, sbfis, sly mmca, frm - hd,
modly brit, sils? tr mn carb mat (pl rmns?) flor aa.

1637.0 **Sh**: dk gy, sbfis, sly mmca, frm - hd,
modly brit, sils? tr pyr, flor aa.

1641.5 **Sh**: dk gy, sbfis, sly mmca, frm - hd,
modly brit, sly bits, sly sils? tr small pyr nods,
abnt spg spics, flor aa.

1643 **Sh**: aa occly abnt dism pyr ^{inf}Upper Canol
/ frac infilled / fros m xln calc. (TVD: 1642.44)
(SSL: -1384.84)

1644.5 **Sh**: dk gy, dk gy brn, brit, sly calcs, sly
bits, occ spics aa, show aa incrg flor, hydc odor.

1646 **Sh**: dk gy, dk gy brn, sly calcs, sly bits, occ
spics aa, show aa, hydc odor aa.

1647.5 **Sh**: dk gy - dk gy brn, sly bits, tr spics, sly
calcs, shows aa.

Expanded Core Log (1:120) Feb 8, 2013
Core #2 Interval: 1649.00m to 1676.00m Cut: 27m Recovered: 27m (100%)

Feb 8, 2013

WOB 4000
RPM 65
PP 4500
SPM# 1, 140
PO 1.2m3
MW 945
VIS 68
O/W 88/12

1650 m
1655 m
1660 m
1665 m
1670 m
1675 m

2 (100%)

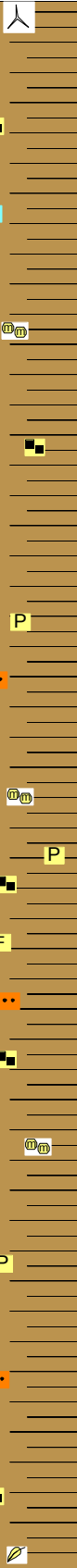
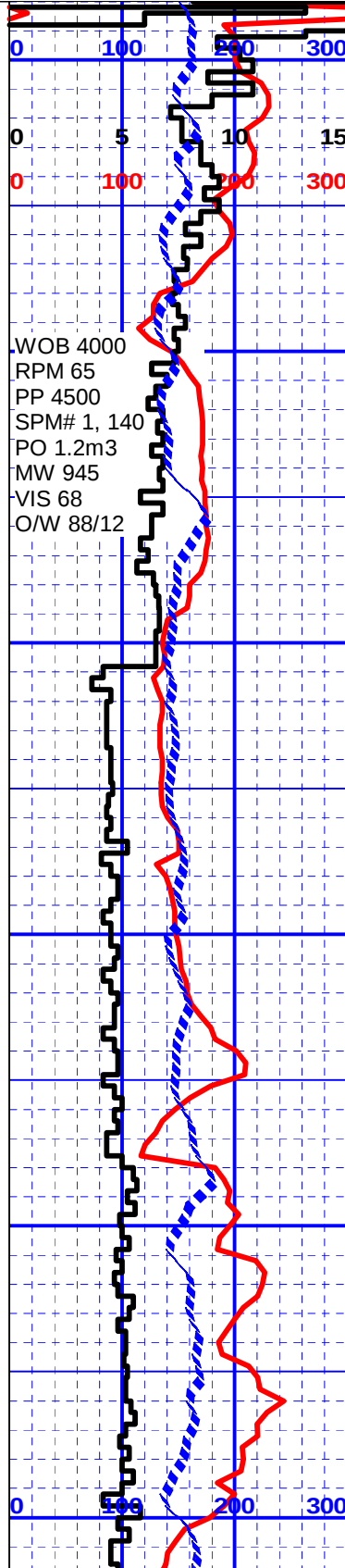
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Sh: dk gy, grds to dk gy brn ip, sbfis, sllly mmca, v sllly calcs, p tr pyr, tr mntr carb mat, no dry flor, pale slow yel cut.

Sh: dk gy, grds to dk gy brn ip, sbfis, sllly mmca, v sllly calcs, p tr pyr, incrg org carb mat, no dry flor, pale slow yel cut.

Sh: m gy brn, sbfis, sllly mmca, sllly bits, mntr carb mat, no dry flor, v faint pale slow yel cut.

Sh: m - dk gy, gy brn, sbfis, sllly mmca, mntr org carb mat, freq dism pyr, no dry flor, v faint pale slow yel cut.

Sh: gy brn, sbfis, sllly mmca, sllly bits, mntr org carb mat, no dry flor, v faint pale slow yel cut.

CORE#2 FROM 1649 - 1676m

Sh: gy brn, sbfis, sllly mmca, sllly bits, mntr org carb mat, tr sllly slty, tr dism pyr, no dry flor, v faint pale slow yel cut.

Sh: gy brn, sbfis, sllly mmca, sllly bits, mntr org carb mat, tr sllly slty, no dry flor, v faint pale slow yel cut.

Sh: gy brn, sbfis, sllly mmca, sllly bits, mntr org carb mat, tr sllly slty, tr dism pyr, no dry flor, v faint pale slow yel cut.

Sh: gy brn, sbfis, sllly mmca, sllly bits, mntr org carb mat, tr sllly slty, tr dism pyr, no dry flor, v faint pale slow yel cut.

Sh: gy brn, sbfis, sllly mmca, sllly bits, mntr org carb mat, tr sllly slty, no dry flor, v faint pale slow yel cut.

Final gamma (gapi)
Gamma Ray (gapi)
Drill Rate (min/m)
Total Gas (units)

Slide - Rota

Depth

Core

Porosity Ty

Oil Shows

Porosity (%)

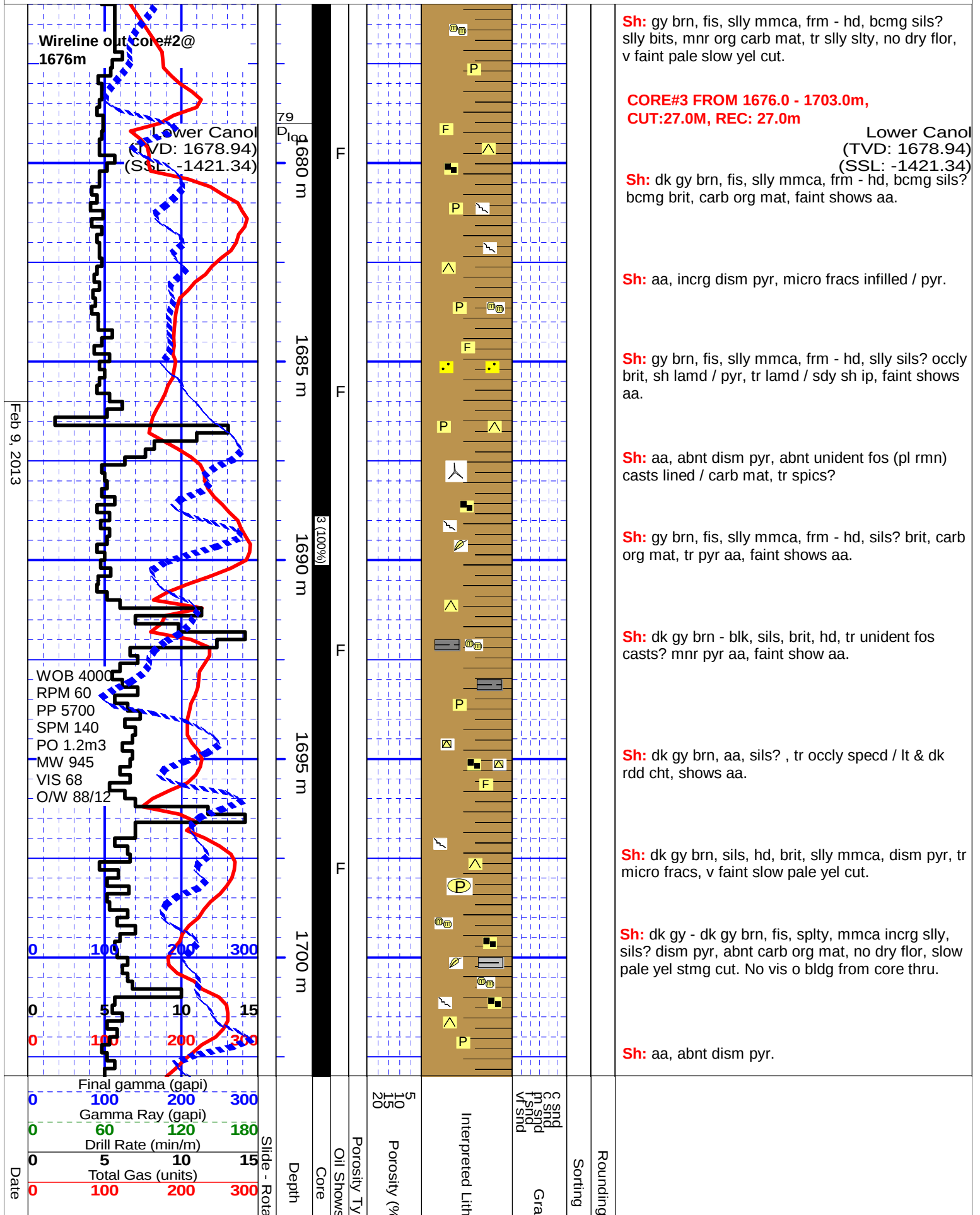
Interpreted Lith

Core
Gamma
Drill Rate
Total Gas

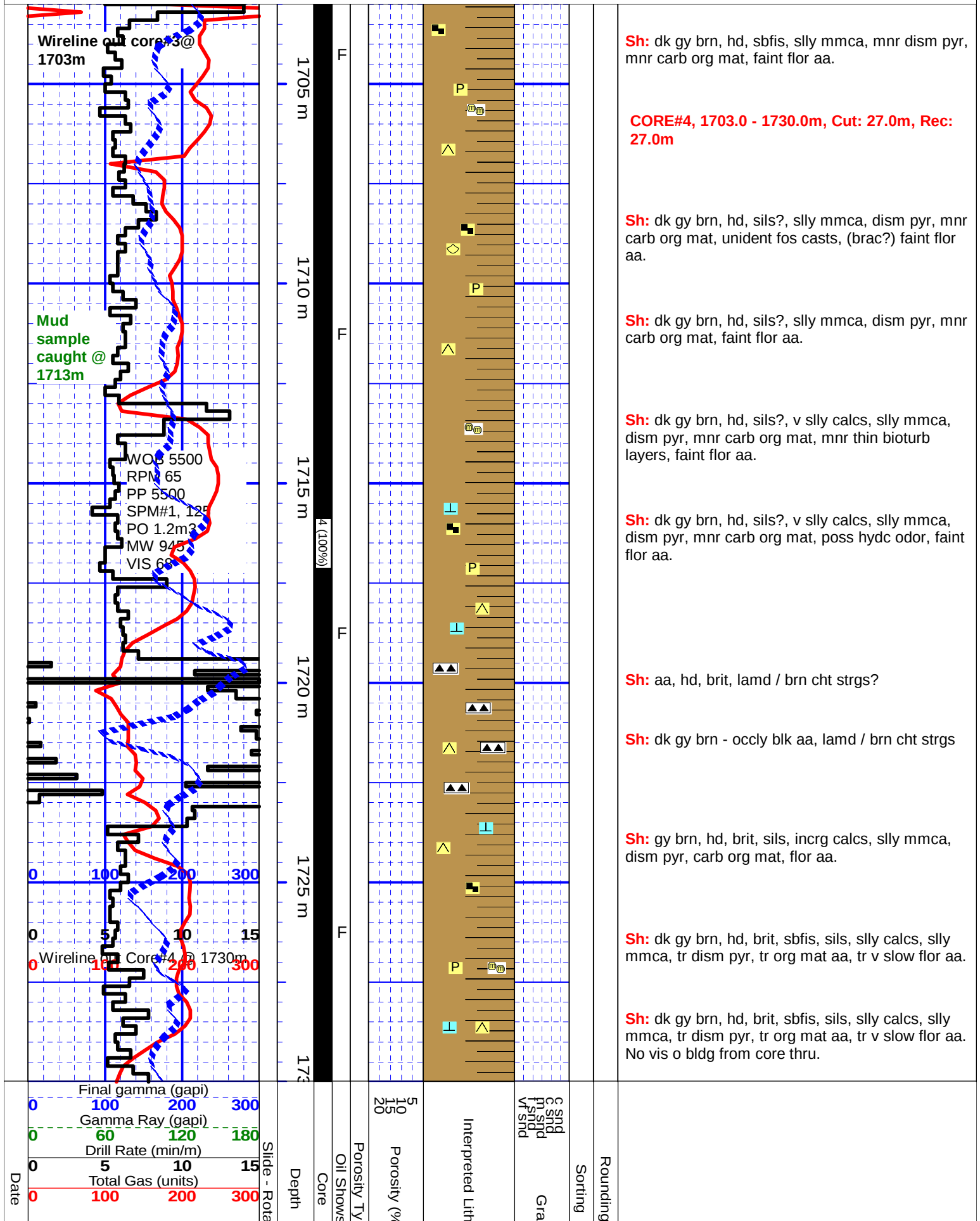
Sorting

Rounding

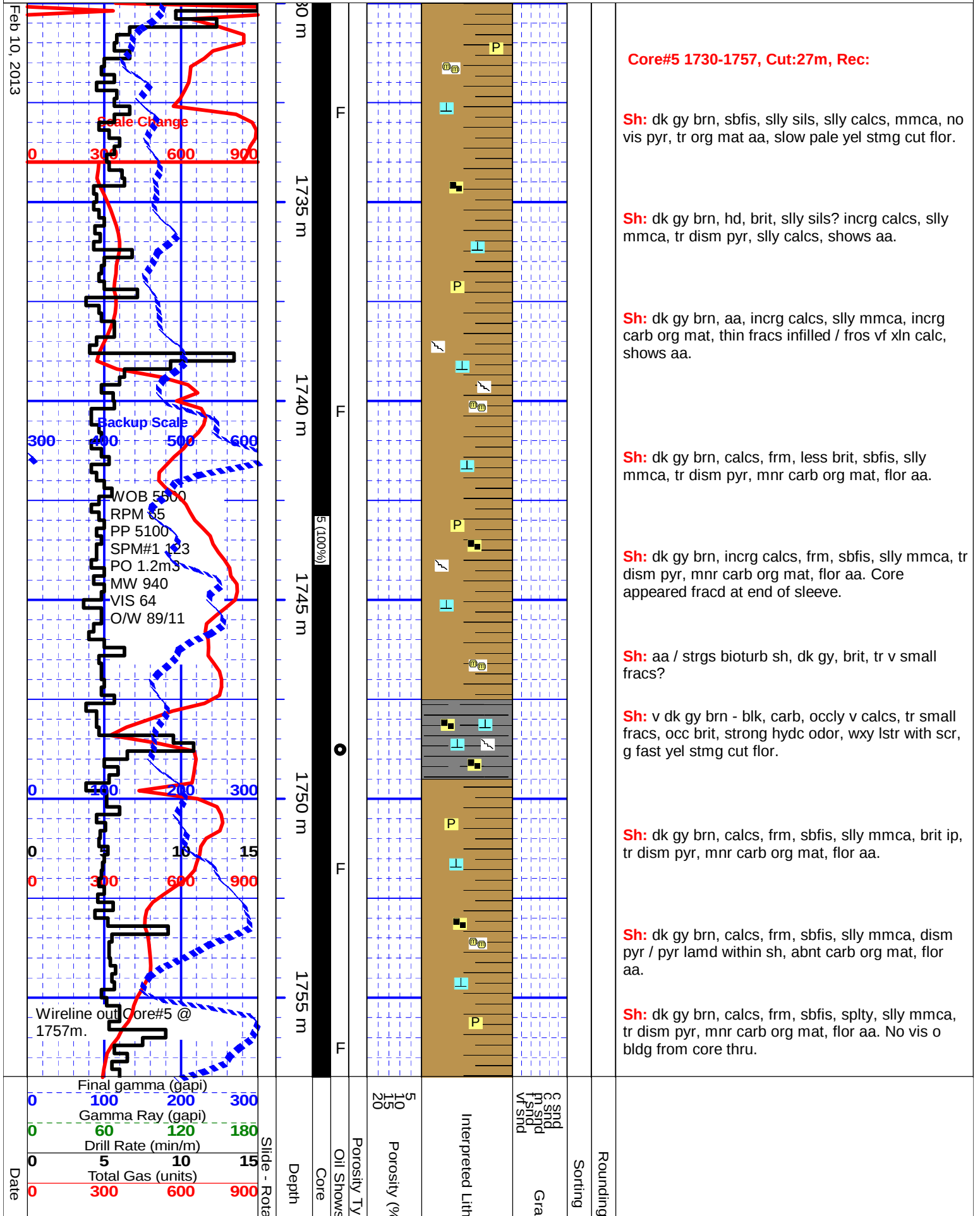
Expanded Core Log (1:120) Feb 8, 2013
Core #3 Interval: 1676.00m to 1703.00m Cut: 27m Recovered: 27m (100%)



Expanded Core Log (1:120) Feb 9, 2013
Core #4 Interval: 1703.00m to 1730.00m Cut: 27m Recovered: 27m (100%)

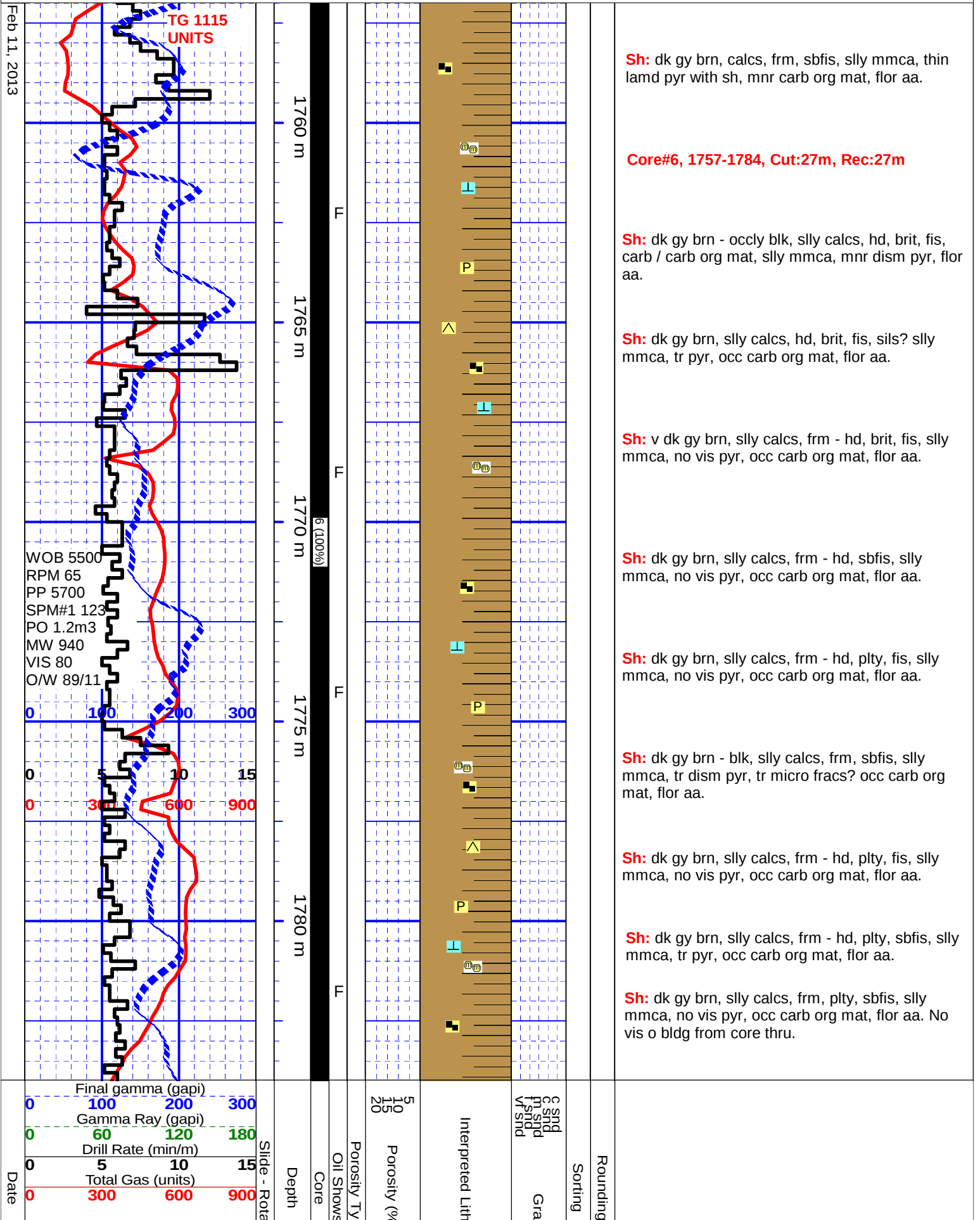


Expanded Core Log (1:120) Feb 10, 2013
Core #5 Interval: 1730.00m to 1757.00m Cut: 27m Recovered: 27m (100%)

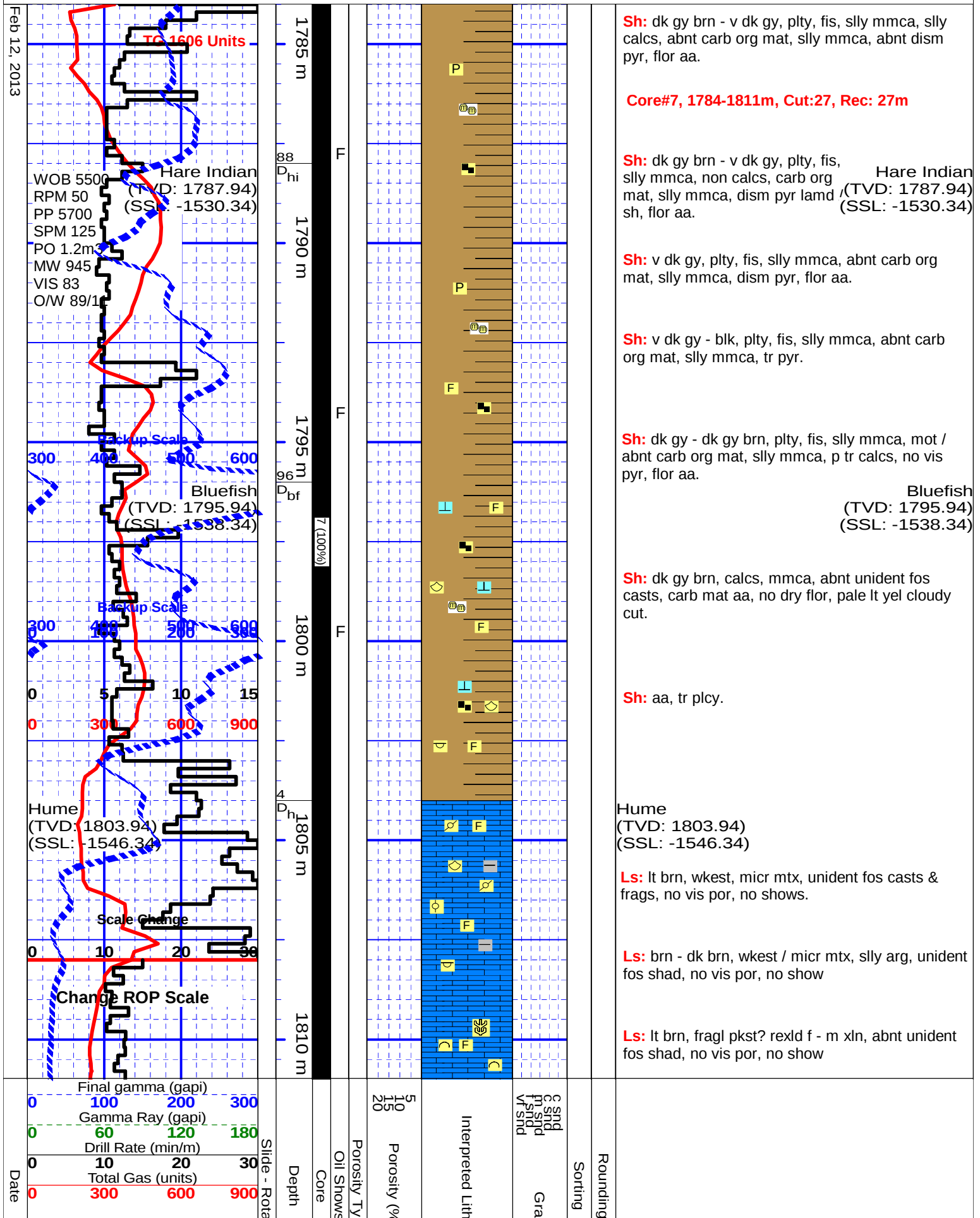


Core #6 Interval: 1757.00m to 1784.00m Cut: 27m Recovered: 27m (100%)

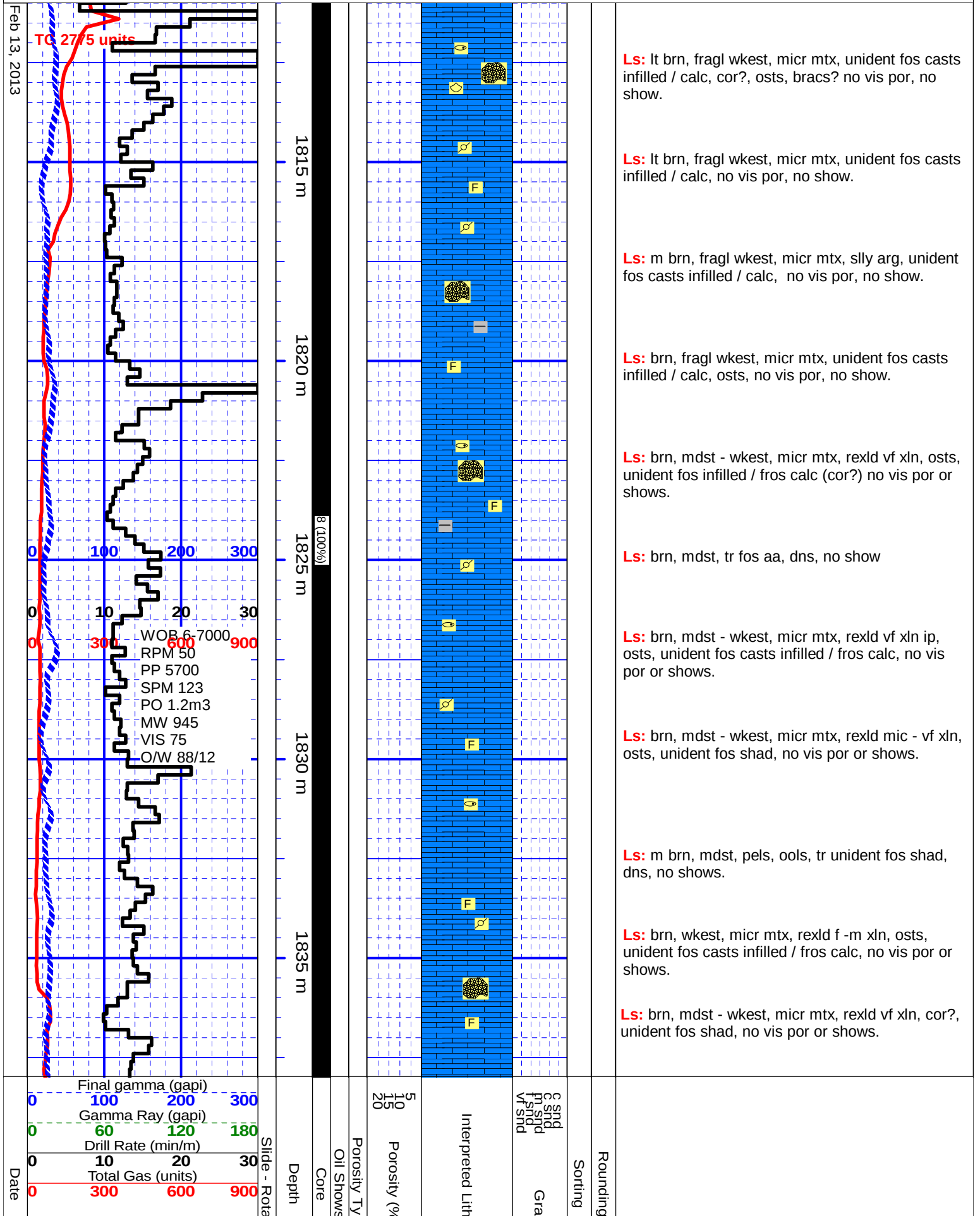
Core #6 Interval: 1757.00m to 1784.00m Cut: 27m Recovered: 27m (100%)



Expanded Core Log (1:120) Feb 12, 2013
Core #7 Interval: 1784.00m to 1811.00m Cut: 27m Recovered: 27m (100%)



Expanded Core Log (1:120) Feb 13, 2013
Core #8 Interval: 1811.00m to 1838.00m Cut: 27m Recovered: 27m (100%)



Expanded Core Log (1:120) Feb 14, 2013
Core #9 Interval: 1838.00m to 1856.00m Cut: 18m Recovered: 17.7m (98.33%)

