

Well Information

Operator: Devon Canada Corporation
 Well Name: Devon et al Kotaneelee L-38/ST1
 Location: L-38
 UWI: 300L386010124000-ST1
 Pool: Nahanni
 Field: Kotaneelee
 Province / State: Yukon
 Country: Canada



Tel: (403) 262-9229
 Fax: (403) 265-0377
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Elevations

Reference: Ground **Ground:** 803.65 m
 Cut(-) / Fill(+): -0.6 m **Kelly Bushing:** 810.4 m
 K.B. to Ground: 6.75 m **Casing Flange:** m

Total Depth

Measurement Type	Measured Depth	True Vertical Depth
Drillers TD (Tally)	4543 m	3853.51 m
Drillers TD (Strap or SLM)	4543 m	3853.51 m
Loggers TD	m	m

Surface Co - Ordinates

Well Type: Deviated **Longitude:** 1240723.6 **Latitude:** 600732.4
 N / S Co - Ordinates: _____
 E / W Co - Ordinates: _____

Bottom Hole Co - Ordinates

Longitude: _____ **Latitude:** _____
 N / S Co - Ordinates: _____
 E / W Co - Ordinates: _____

Drilling Fluid Summary

Fluid Type	From	To
VersaClean	1150 m	4543 m

Casing Summary

Type	Hole Size	Casing Size	Landed At
Surface	444.5 mm	339.7 mm	920.7 m
Intermediate	311 mm	244.5 mm	3311 m

Well Summary

Spud Date: Aug 22, 2004 @ 17:45hrs **Contractor:** Akita Rig #58
 TD Date: Jan 13, 2005 @ 14:15hrs **Rig Release Date:** _____

Work Schedule

Contractor	Geologist	Log Interval	Dates Logged
ProGeo Consultants	P.Wasylyk; D.Creaser; B.Campbell	150 m - 4543 m	Oct 2, 2004 - Jan 13, 2005

Remarks

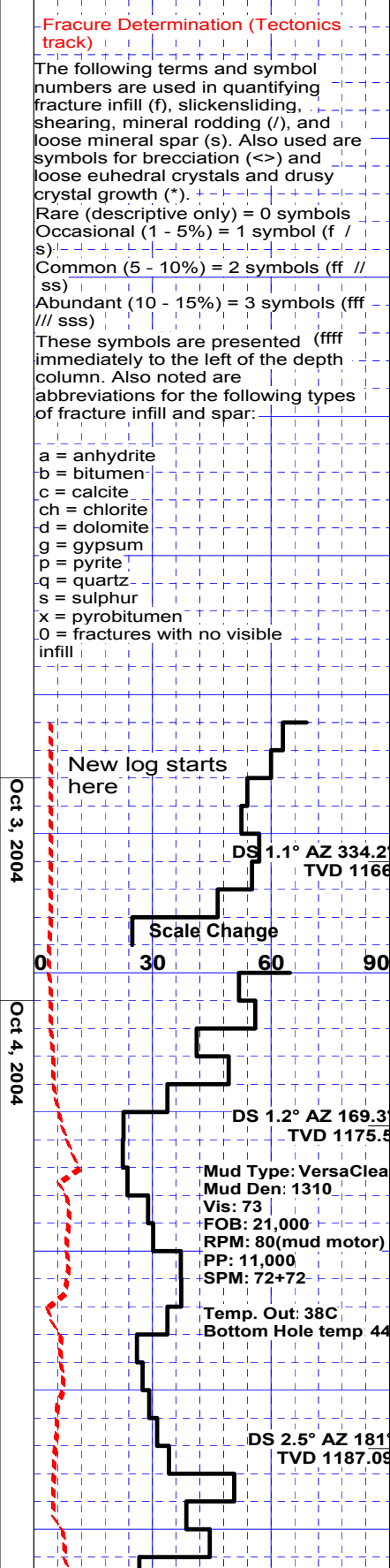
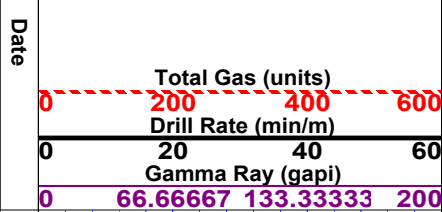
Plugged back to intermediate casing
Prepare to sidetrack to L-38a

Legend

	Cement (Rock)		Kaolinite (Matrix)
	Shale black (Rock)		Bentonite (Matrix)
	Sandstone (Rock)		Marlstone calcareous (Matrix)
	Siltstone (Rock)	F	Fracture (Porosity)
	Shale dark gray (Rock)	X	Intercrystalline - interfragmental - intergranular (Porosity)
	Chert tripolitic (Rock)		Dolomite (Grain)
	Limestone mud supported (Rock)		Quartz (Grain)
	Limestone grain supported (Rock)	■	Coal (Grain)
	Marlstone calcareous (Rock)	▲	Chert dark (Grain)
	Shale medium gray (Rock)		Bentonite (Grain)
	Marlstone dolomitic (Rock)		Crinoid (Fossil)
	Shale light gray (Rock)	•	Sandy (Accessory)
	Coal (Rock)	••	Silty (Accessory)
	Chert dark (Rock)	~	Bituminous (Accessory)
	Dolomite (Rock)	■	Carbonaceous (Accessory)
	Sandstone (Stringers)	≡K	Kaolinitic (Accessory)
	Shale Brown (Stringers)	P	Pyritic (Accessory)
	Siltstone (Stringers)	—	Argillaceous (Accessory)
	Dolomite (Stringers)	L	Calcareous (Accessory)
	Shale black (Stringers)	↘	Fracture (Accessory)
	Chert tripolitic (Stringers)		Micromicaceous (Accessory)
	Marlstone calcareous (Stringers)	F	Fossil (Fossil)
	Limestone mud supported (Stringers)	△	Siliceous (Accessory)
	Limestone grain supported (Stringers)		
	Shale dark gray (Stringers)		
	Marlstone dolomitic (Stringers)		
	Bentonite (Stringers)		
	Siderite (Stringers)		
	Chert dark (Stringers)		
	Shale gray (Stringers)		
	Coal (Breccia)		
	Breccia (Clasts)		
	Quartz (Clasts)		
	Dolomite (Pebbles)		
	Siliceous (Cement)		
	Dolomitic (Cement)		
	Calcareous (Cement)		
	Bituminous (Matrix)		

Drilling Progress

Lithology Description



-Fracture Determination (Tectonics track)

The following terms and symbol numbers are used in quantifying fracture infill (f), slickensiding, shearing, mineral rodding (/), and loose mineral spar (s). Also used are symbols for brecciation (<->) and loose euohedral crystals and drusy crystal growth (*).

Rare (descriptive only) = 0 symbols
 Occasional (1 - 5%) = 1 symbol (f / s)
 Common (5 - 10%) = 2 symbols (ff // ss)
 Abundant (10 - 15%) = 3 symbols (fff /// sss)

These symbols are presented (ffff) immediately to the left of the depth column. Also noted are abbreviations for the following types of fracture infill and spar:

- a = anhydrite
- b = bitumen
- c = calcite
- ch = chlorite
- d = dolomite
- g = gypsum
- p = pyrite
- q = quartz
- s = sulphur
- x = pyrobitumen
- 0 = fractures with no visible infill

Date	Tectonics	Depth	Slide - Rotate Test	Oil Shows	Porosity Type	Porosity (%)	Interpreted Lithology	Grain Size (mm)	Sorting	Rounding
		1140 m				18				
		1150 m				18				
		1160 m				18				
		1170 m				18				
		1180 m				18				
		1190 m				18				

Side-Track 1

Run cement plug and plug back from 1502 to 1056 meters. Polish plug to 1150 meters and attempt to kick-off. Time drill from 1150 to 1160.7 meters. First attempt to kick off failed. Pull out of hole and set new angle on mud motor. Run in hole and attempt to kick-off a second time at 1160.7 meters. Second attempt successful. Time drill to 1168 meters.

New log starts here

Sh: dk gy - dk brnsh gy - brnsh blk, blk, sbfis, silty slty, bits, carb ip, tr dism & occ pyr grs, rr Crin frags, occ ls strgs, occ wh kao strgs, occ ss & sltst strgs, brit.

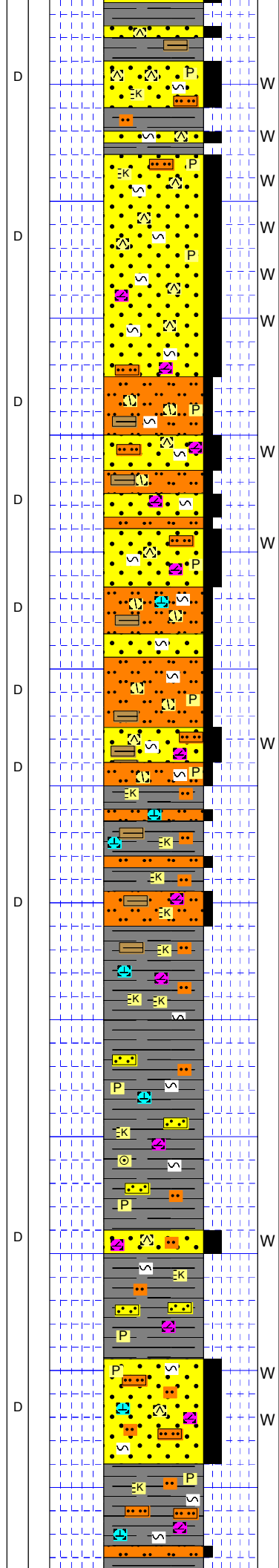
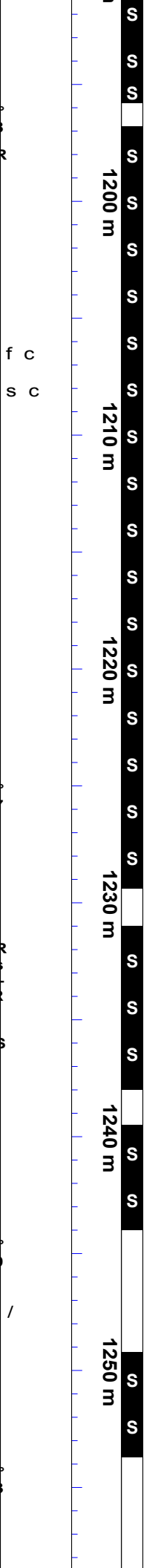
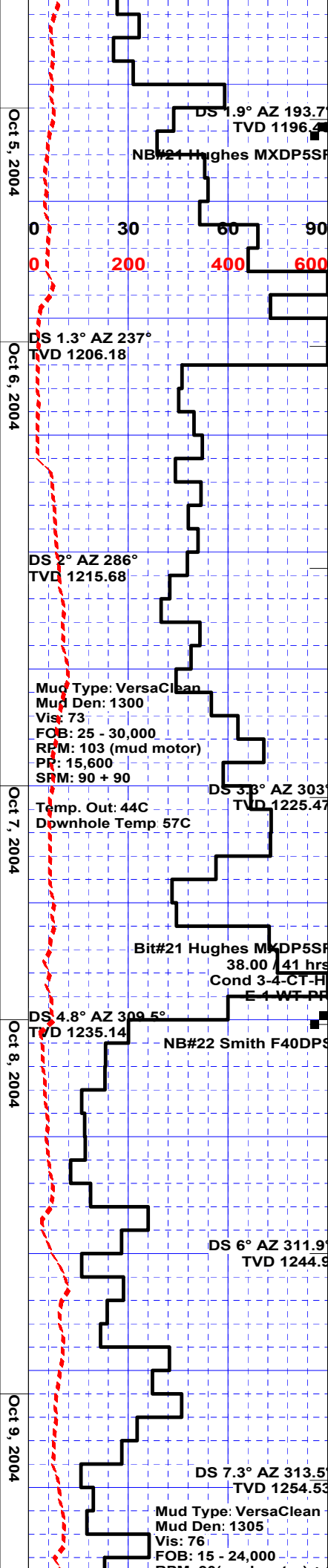
Sh: blk - brnsh blk - dk gy, blk, fis ip, occlly v slty, v bits, sft, easily hydrated, carb ip, tr dism & occ pyr grs, occ wh kao strgs.

Note: Due to higher mud weight, samples are more representative of the actual formation with far less cavings than the original hole.

Sh: blk - brnsh blk - dk gy, blk, fis ip, occlly v slty, v bits, sft, easily hydrated, carb ip, tr dism & occ pyr grs, occ wh kao strgs also / mnr ss, lt gy, qtzs, v f gred.

Sh: blk - brnsh blk - dk gy, blk, fis ip, occlly v slty, v bits, sft, easily hydrated, carb ip, v slly dolc, tr dism & occ pyr grs, occ wh kao strgs.

Sh: wh. clr & op atzqs ars. atzqs. slt - v f gred.



Sh: blk - brnsh blk - dk gy, blk, fis ip, occlly v slty, v bits, sft, easily hydrated, carb ip, v sily dolc, tr dism & occ pyr grs, occ wh kao strgs.

Ss: lt - m brn, qtz, tr wh lit mat, tr dk lit grs, v f gred, w srt, sbang - sbrdd, v hd, sil cmt, tt, com bit throughout, rr pyrbit filled fracs, tr - com dism pyr mixed / pyrbit in fracs.

Ss: aa, bcmg v arg, sily calcs, dol & sil cmt, bcmg slty / intbd v kaoic sltst, v bits, soft, com dism pyr in bit, com pyrbit flks, also / mnr sh, blk, blk - sbfis, v bits, lg mica flks.

Sltst: dk brn - brnsh blk, arg grdg - v slty sh, v bits, sft (fri) ip grdg - hd, py cmt, tt, com pyr bit flks, tr - com dism pyr.

Ss: lt - m brn, qtz, tr wh lit mat, tr dk lit grs, v f gred, w srt, sbang - sbrdd, v hd, sil cmt, tt, com bit throughout, rr pyrbit filled fracs, tr - com dism pyr mixed / pyrbit in fracs.

Note: Due to higher mud weight, samples are more representative of the actual formation with far less cavings than the original hole.

Sltst: dk brn - brnsh blk, arg grdg - v slty sh, v bits, sft (fri) ip grdg - hd, py cmt, tt, com pyr bit flks, tr - com dism pyr.

Ss: lt - m brn, qtz, tr wh lit mat, tr dk lit grs, v f gred, w srt, sbang - sbrdd, v hd, sil cmt, tt, com bit throughout, rr pyrbit filled fracs, tr - com dism pyr mixed / pyrbit in fracs.

Sh: sltst grdg - sh, blk - brnsh blk, blk - sbfis, v bits, v kaoic mtx, calcs ip, mnr dol cmt, v pyric ip / dism pyr & pyr filled fracs, slty, occlly grdg - sltst, sh occlly bcmg v hd, micmica, com - abnt pyrbit flks.

Sh: blk - brnsh blk, blk - sbfis, v bits, v kaoic mtx, calcs ip, mnr dol cmt, v pyric ip / dism pyr & pyr filled fracs, slty, occlly grdg - sltst, sh occlly bcmg v hd, micmica, com - abnt pyrbit flks.

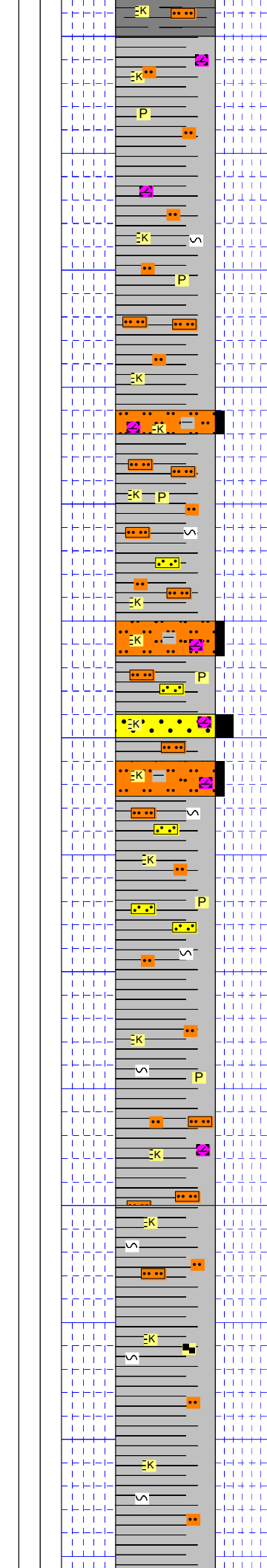
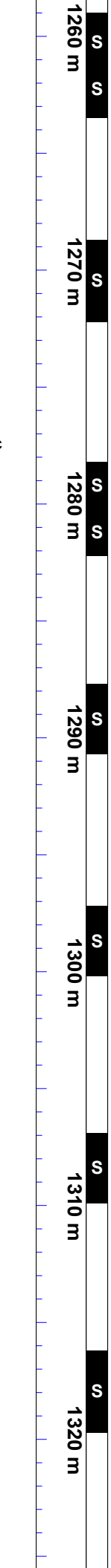
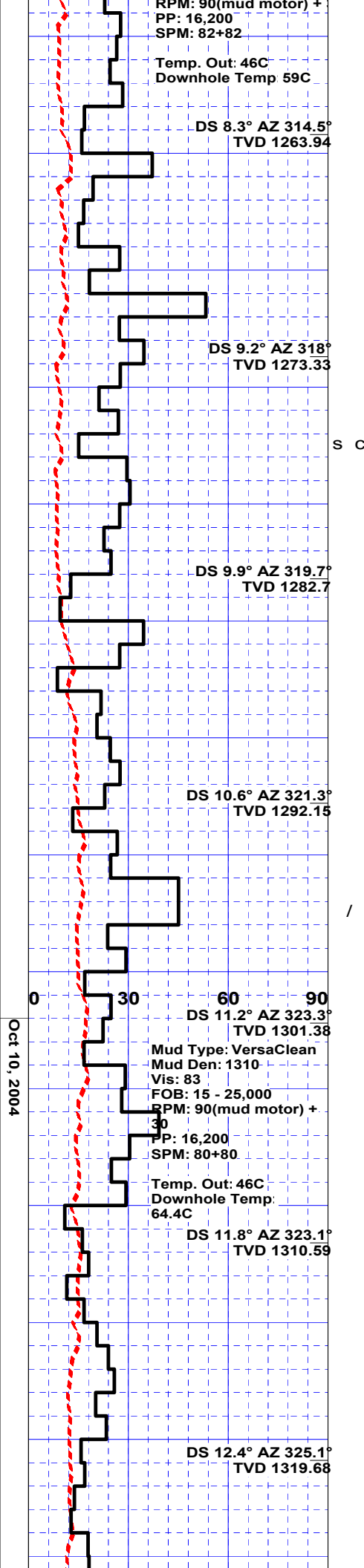
Sh: dk brnsh gy - dk gy, blk - sbfis, sft - modly hd, v bits, v slty ip, kaoic ip, v pyric (dism pyr), / tr sh, lt brnsh gy, blk, v foss (crins).

Ss: lt - m gy brn, aa, slty, grdg - sltst ip, sily arg, mainly dol & sil cmt, mnr calc cmt, tt, com bit stn, com dism pyr.

Ss: lt gy, qtzs, v f gred, sbrdd - sbang, w srt, modly - v hd, sil & calc cmt, sily dolc, mnr kaot in mtx, tt - v p (3%) intgran por, com bit stn, grdg - or intbd / sltst ip, com dism pyr & pyrbit lined fracs.

Sh: dk brnsh gy, blk, sbfis, easily hydrated, py ind - w ind, mnr calc filled fracs, tr - com dism pyr, tr pyrbit flks, kaoic ip, slty ip grdg - v arg sltst.

Sltst: lt gy, qtzs, modly - v hd, sil & calc cmt, sily dolc, mnr kaot in mtx, tt, com bit stn, grdg - or intbd / slty sh, com dism pyr &



pyrbit lined fracs.

Sh: dk brnsh gy, blkly, sft - modly ind, easily hyd, bits, v slty, dism pyr throughout, grdg ip - sltst (10-20%), lt - m gy, qtzs, arg, sily calcs, sily dolic, kaolic, tt, tr - com bit stn, com dism pyr.

Sh: dk brnsh gy, blkly, sft - modly ind, easily hyd, swelling shales, bits, v slty, dism pyr throughout

Sh: dk brnsh gy, blkly, sft - modly ind, easily hyd, bits, v slty, dism pyr throughout, mnr kaot lams, tr calc filled fracs.

Sltst: lt - dk gy, qtzs, v arg, modly hd, dolic, sily calcs, kaolic, tr dism pyr, tr - com pyrbit flks, tr calcs fos frags.

Sh: dk brnsh gy, blkly, sft - modly ind, easily hyd, swelling shales, bits, v slty, dism pyr throughout, mnr kaot lams, tr calc filled fracs.

Sltst: lt - dk gy, qtzs, occlly grdg - v f gred ss, v arg, modly hd, dolic, sily calcs, kaolic, tr dism pyr, tr - com pyrbit flks, tr calcs fos frags.

Sh: dk gy (note colour change), blkly, py - modly ind, slty, easily hydrated, swelling shales, com dism pyr, sily dolic, tr wh calc xls.

Sltst: m - dk gy, qtzs, arg, modly hd, v kaolic, dolic, sily calcs, tt, tr pyr, tr pyrbit flks.

Sltst: m - dk gy, qtzs, arg, modly hd, v kaolic, dolic, sily calcs, tt, tr pyr, tr pyrbit flks.

W a Ss: lt - m gy, qtzs, slt - v f gred, sbrdd - sbang, w srt, modly hd - hd, dol & calc cmt, sily kaolic, tt, ns.

Sh: dk gy - brnsh blk, blkly, py - modly ind, bits, sily slty.

Ss: lt - m gy, qtzs, slt - v f gred, sbrdd - sbang, w srt, modly hd - hd, dol & calc cmt, sily kaolic, tt, ns.

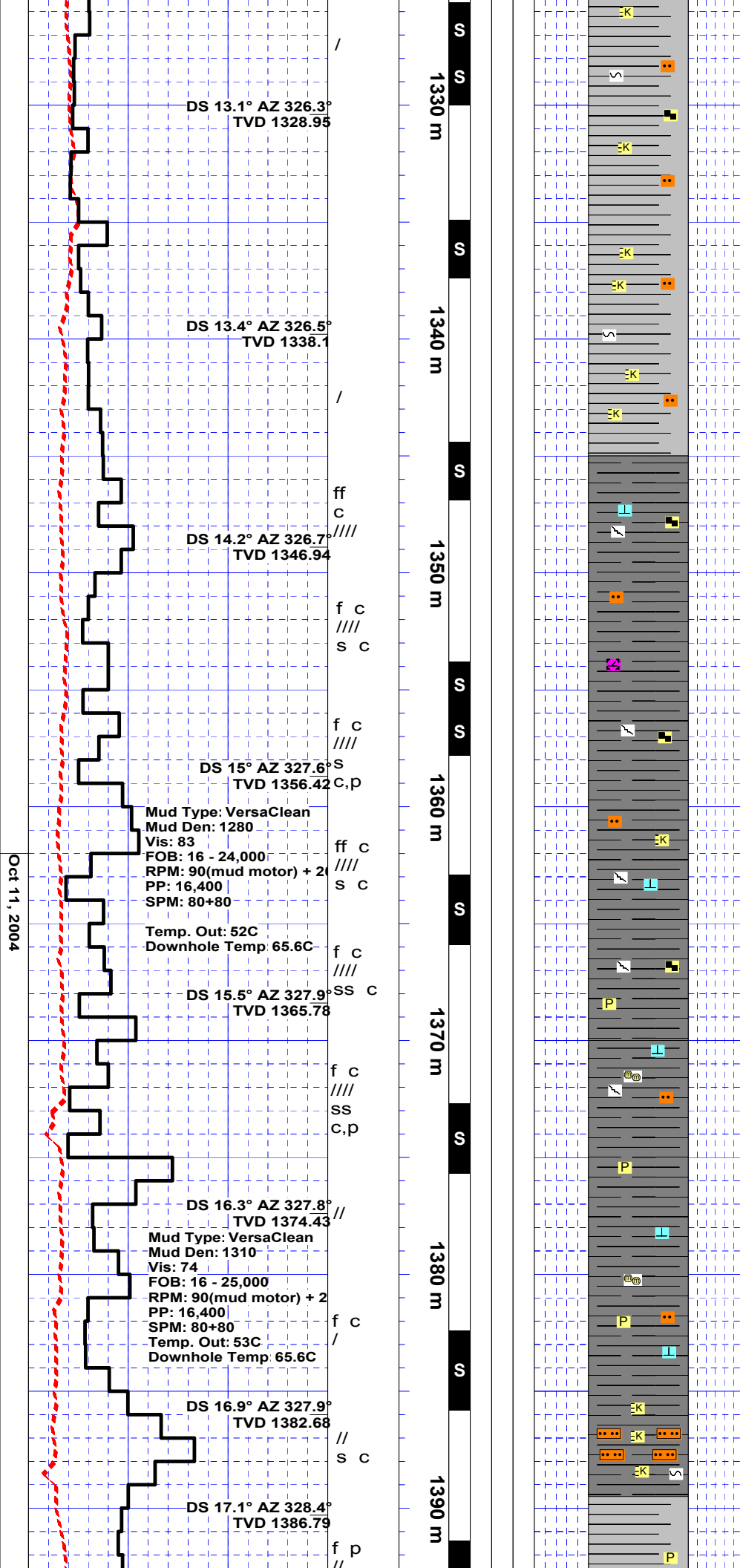
Sh: dk gy - dk brnsh gy, blkly - sbfis, py - modly ind, easily hyd, swelling shales, slty, kaolic ip, tr wh calc xls, tr dism pyr, tr carb lams, tr - com pyrbit specs, bits, sily dolic, / mnr sltst lams (up to 10%), m - dk gy, qtzs, arg, modly hd, v kaolic, dolic, sily calcs, tt, tr pyr, tr pyrbit flks, grdg occlly - v f gred ss.

Sh: dk brnsh gy, blkly - sbfis, py - modly ind, easily hyd, swelling shales, slty, kaolic ip, tr wh calc xls, tr dism pyr, bits, sily dolic, also / tr sltst, aa.

Sh: dk brnsh gy, blkly - sbfis, py - modly ind, easily hyd, slty, kaolic ip, tr wh calc xls, tr dism pyr, bits, sily dolic.

Sh: dk brnsh gy, blkly - sbfis, py - modly ind,

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easily hyd, swelling shales, lty, kaolic ip, tr wh calc xls, com dism pyr, bits, sily dolc.

Sh: dk brnsh gy, blkly - sbfis, py - modly ind, easily hyd, swelling shales, slty, incrg kaot ip, tr wh calc xls, tr dism pyr, bits, sily dolc.

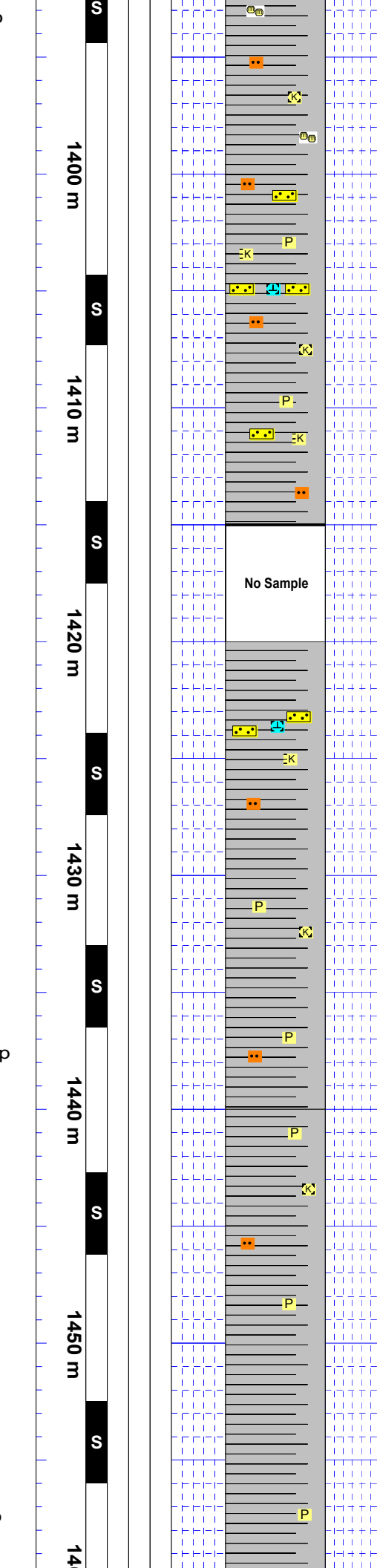
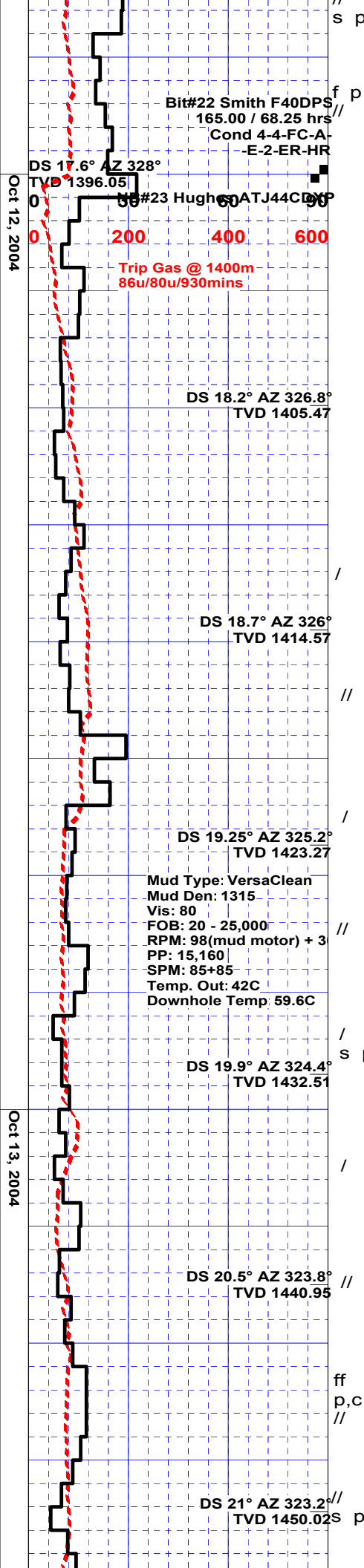
Sh: blk, blkly - sbfis, eaasily hyd, swelling shales, py - modly ind, tr - com carb flks, slty slty, sily dolc, rr kaot lams, tr calc filled fracs, tr lse wh calc xls.

Sh: dk gy - blk (50%), blkly - sbfis, w ind, sily micmica, sily slty, com dism pyr, tr pyr nods, tr pyr lined fracs, com sks, tr calc lined fracs, tr loose calc xls intbd / sh, dk brnsh gy (50%), blkly - sbfis, easily hyd, swelling shales, py - modly ind.

Sh: dk gy - blk (50%), blkly - sbfis, w ind, sily micmica, sily slty, com dism pyr, tr pyr nods, tr pyr lined fracs, com sks, tr calc lined fracs, tr loose calc xls intbd / sh, dk brnsh gy (50%), blkly - sbfis, easily hyd, swelling shales, py - modly ind.

Slstst: m brnsh gy, qtzs, arg, v kaolic, sily calcs, modly hd, tt, ns, com pyrbit stn or flks, tr dism pyr.

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Sh: dk gy (50%), blkly - sbfis, w ind, sily micmica, sily slty, com dism pyr, tr pyr nods, tr pyr lined frags, com sks, intbd / sh, dk brnsh gy (50%), blkly - sbfis, easily hyd, swelling shales, py - modly ind.

Sh: dk gy - brnsh gy (30%), blkly - sbfis, sily slty, modly ind, tr pyr filled frags, tr pyr nods, intbd / sh(70%), blk - brnsh gy, blkly, easily hydratred, swelling shales, py ind.

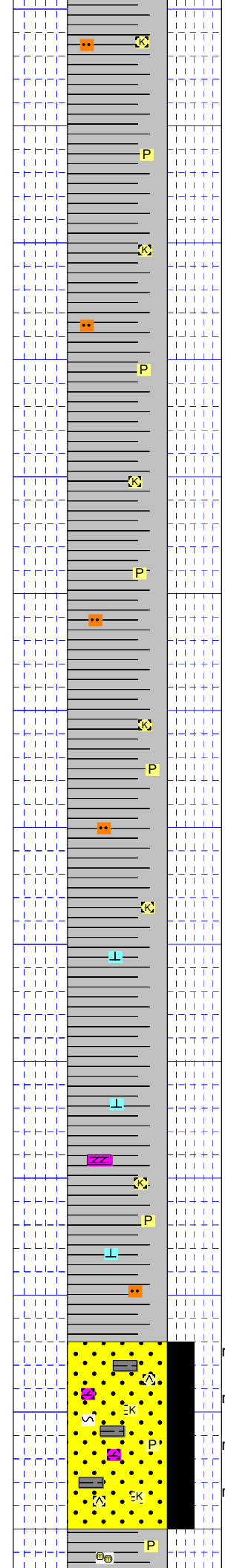
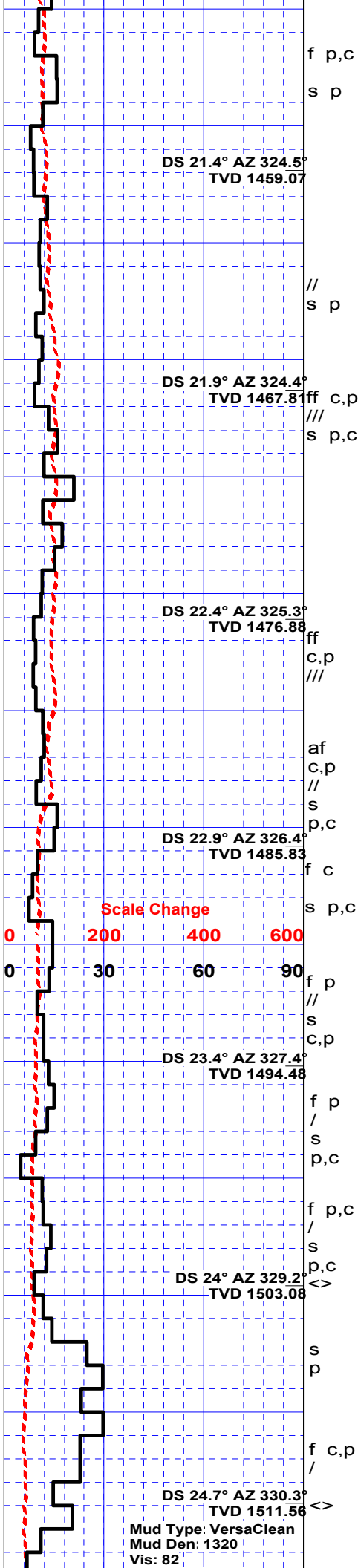
Ss: lt - m gy, qtzs, slt - v f gred, sbrdd - sbang, w srt, hd, v arg ip, v slty ip occlly grdg - arg sltst, calc cmt, sily dolic, kaocic ip, tt, ns

Sh: dk gy (30%), blkly - sbfis, sily slty, modly ind, rr pyr, intbd / sh(70%), dk gy - blk, blkly, easily hydratred, swelling shales, py ind, / mnr intbd sltst & ss (<5%), aa.

Sh: dk gy (30%), blkly - sbfis, sily slty, modly ind, rr pyr, tr calc xls, tr calc vng, intbd / sh(70%), dk gy - blk, blkly, easily hydratred, swelling shales, py ind, / mnr intbd sltst & ss (<5%), lt - m gy, qtzs, slt - v f gred, sbrdd - sbang, w srt, hd, v arg ip, v slty ip occlly grdg - arg sltst, calc cmt, sily dolic, kaocic ip, tt, ns

Sh: dk gy (30%), blkly - sbfis, sily slty, modly ind, tr - com pyr filled frags & pyr nods, intbd / sh(70%), dk gy - blk, blkly, easily hydratred, swelling shales, py ind.

Sh: dk gy (30%), blkly - sbfis, sily slty, modly ind, tr pyr filled frags & pyr nods, intbd / sh(70%), dk gy - blk, blkly, easily hydratred, swelling shales, py ind.



Sh: dk gy - dk brnsh gy (70%), blkly - sbfis, sily slty, modly ind, tr - com pyr filled fracs & pyr nods, sksd, intbd / sh(30%), dk gy - blk, blkly, easily hydratred, swelling shales, py ind.

Sh: dk gy - occlly dk gysh brn, blkly - sbfis, sily slty, modly - w ind, mnr pyr lined fracs, com sks, mnr loose calc xls & pyr nods, intbd / sh (30%), dk gy, blkly, easily hyd, py ind.

Sh: aa, / mnr dol (<5%), dk brnsh gy, crpxl, v arg, v hd, tt, ns.

Sh: dk gy - occlly dk gysh brn, blkly - sbfis, sily slty, modly - w ind, mnr pyr lined fracs, com sks, mnr loose calc xls & pyr nods, intbd / sh (30%), dk gy, blkly, easily hyd, swelling shales, py ind.

Ss: m - dk gy, qtzs, slt - f gred, occlly grd - v sdy sh, sbrdd - ang, modly - w srt, hd, v arg ip, dol & sil cmt, tr kaot mtx, tt, ns, tr dism pyr, tr pyrbit stn.

Ss: lt - m - dk gy, qtzs, slt - f gred, occlly grd - v sdy sh, sbrdd - ang, modly - w srt, hd, v arg ip, dol & sil cmt, tr kaot mtx, tt, ns, tr dism pyr, tr pyrbit stn.

Sh: dk gy - occlly dk gysh brn, blkly - sbfis, sily slty, modly - w ind, mnr pyr lined fracs, com sks, mnr loose calc xls & pyr nods, intbd

Oct 14, 2004

FOB: 20 - 28,000
RPM: 98(mud motor) +
PP: 15,800
SPM: 85+85

Temp. Out: 50C
Downhole Temp 66.7C

DS 25.4° AZ 331.7°
TVD 1520.44

Golata
(TVD: 1523.87)
(SSL: -713.47)

DS 25.7° AZ 331°
TVD 1529.19

DS 26.1° AZ 332°
TVD 1537.64

DS 26.5° AZ 332.7°
TVD 1546.07

DS 26.6° AZ 333.1°
TVD 1554.66

DS 26.7° AZ 334.1°
TVD 1563.33

DS 27.1° AZ 334.5°
TVD 1571.98

f c

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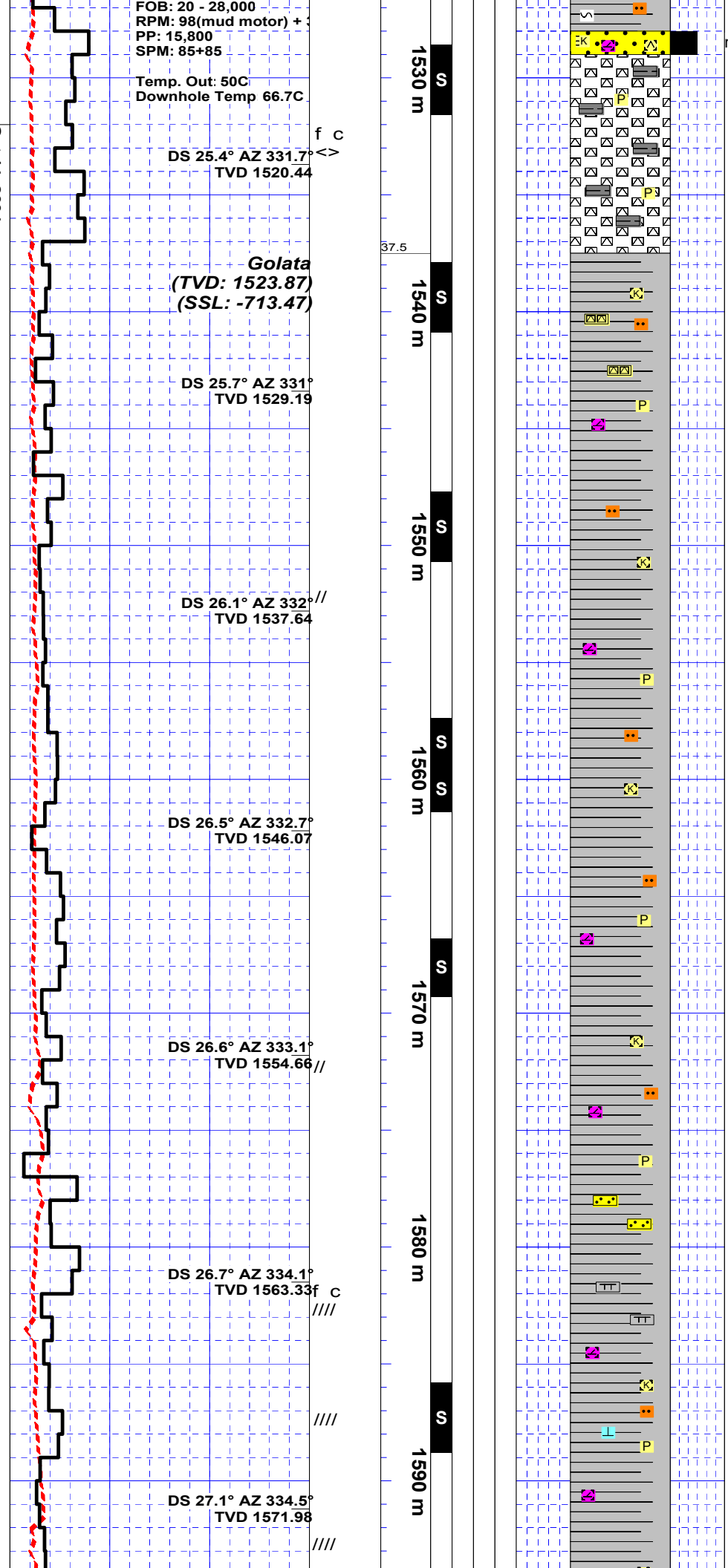
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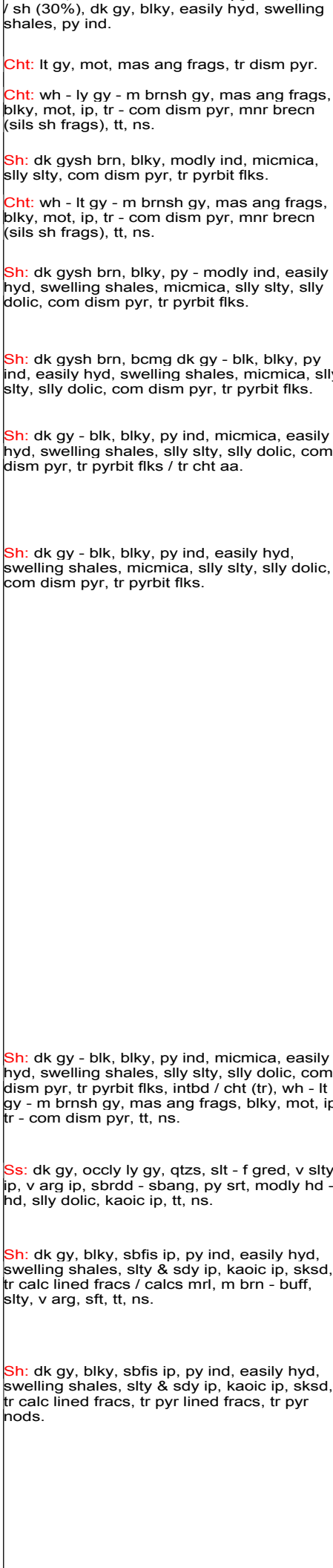
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37.5

1530 m
1540 m
1550 m
1560 m
1570 m
1580 m
1590 m



mV a



/ sh (30%), dk gy, blk, bkly, easily hyd, swelling shales, py ind.

Cht: lt gy, mot, mas ang frags, tr dism pyr.

Cht: wh - ly gy - m brnsh gy, mas ang frags, blk, mot, ip, tr - com dism pyr, mnr brecc (sils sh frags), tt, ns.

Sh: dk gysh brn, blk, modly ind, micmica, sily slty, com dism pyr, tr pyrbit flks.

Cht: wh - lt gy - m brnsh gy, mas ang frags, blk, mot, ip, tr - com dism pyr, mnr brecc (sils sh frags), tt, ns.

Sh: dk gysh brn, blk, py - modly ind, easily hyd, swelling shales, micmica, sily slty, sily dolc, com dism pyr, tr pyrbit flks.

Sh: dk gysh brn, bcmg dk gy - blk, blk, py ind, easily hyd, swelling shales, micmica, sily slty, sily dolc, com dism pyr, tr pyrbit flks.

Sh: dk gy - blk, blk, py ind, micmica, easily hyd, swelling shales, sily slty, sily dolc, com dism pyr, tr pyrbit flks / tr cht aa.

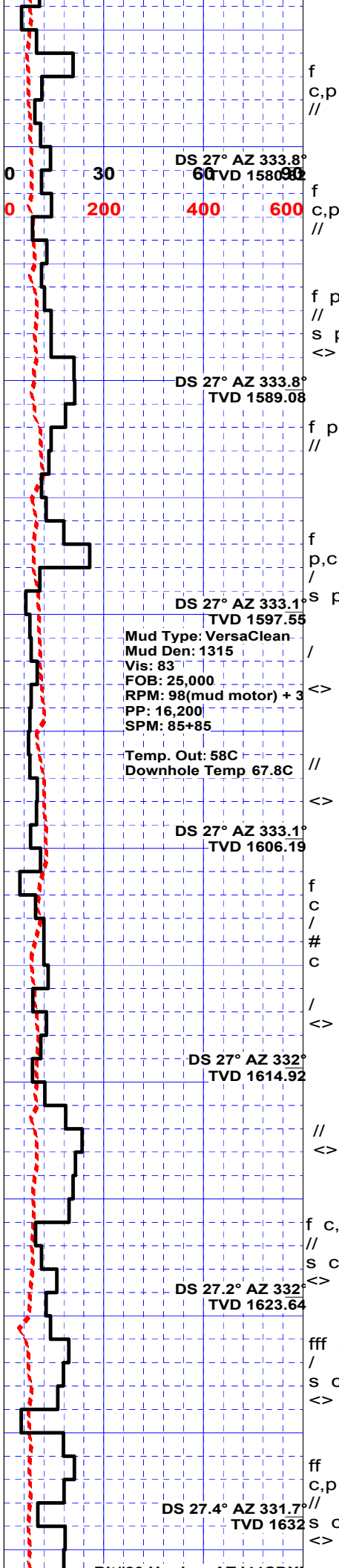
Sh: dk gy - blk, blk, py ind, easily hyd, swelling shales, sily slty, sily dolc, com dism pyr, tr pyrbit flks, intbd / cht (tr), wh - lt gy - m brnsh gy, mas ang frags, blk, mot, ip, tr - com dism pyr, tt, ns.

Ss: dk gy, occlly ly gy, qtzs, slt - f gred, v slty ip, v arg ip, sbrdd - sbang, py srt, modly hd - hd, sily dolc, kaoc ip, tt, ns.

Sh: dk gy, blk, sbfis ip, py ind, easily hyd, swelling shales, slty & sdy ip, kaoc ip, sksd, tr calc lined fracs / calcs mrl, m brn - buff, slty, v arg, sft, tt, ns.

Sh: dk gy, blk, sbfis ip, py ind, easily hyd, swelling shales, slty & sdy ip, kaoc ip, sksd, tr calc lined fracs, tr pyr lined fracs, tr pyr nods.

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1600 m S

1610 m S

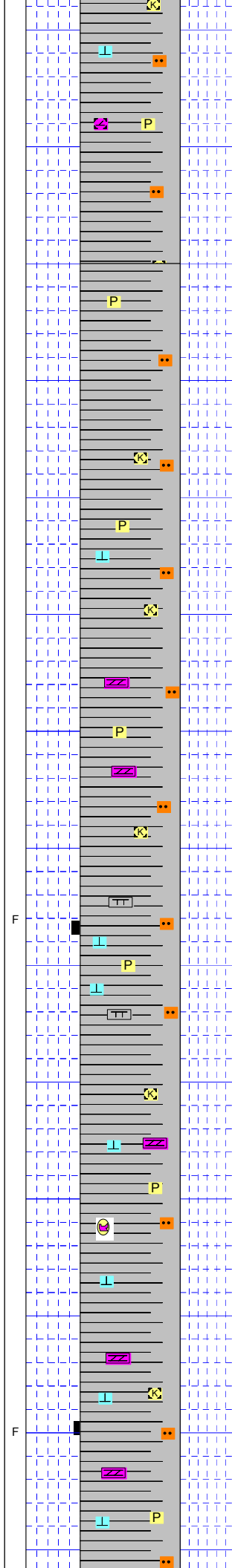
1620 m S

1630 m S

1640 m S

1650 m S

1660 m S



Sh: dk gy - blk, blkly - sbfis, py ind, easily hyd, swelling shales, slty, tr loose pyr & pyr lined fracs, sksd, cren, tr brecd sh.

Sh: dk gy - blk, blkly - sbfis, py ind, easily hyd, swelling shales, slty, tr loose pyr & pyr lined fracs, sksd, cren, tr brecd sh.

Sh: dk gy - blk, blkly - sbfis, py ind, easily hyd, swelling shales, slty, tr loose pyr & pyr lined fracs, tr wh calc lined fracs, sksd, cren, tr brecd sh.

Sh: dk gy - blk, blkly - sbfis, py ind, easily hyd, swelling shales, slty, tr disp pyr, sksd, cren, tr brecd sh / mnr (tr) dol, dk brn, crpxl, v hd, v arg, tt, ns..

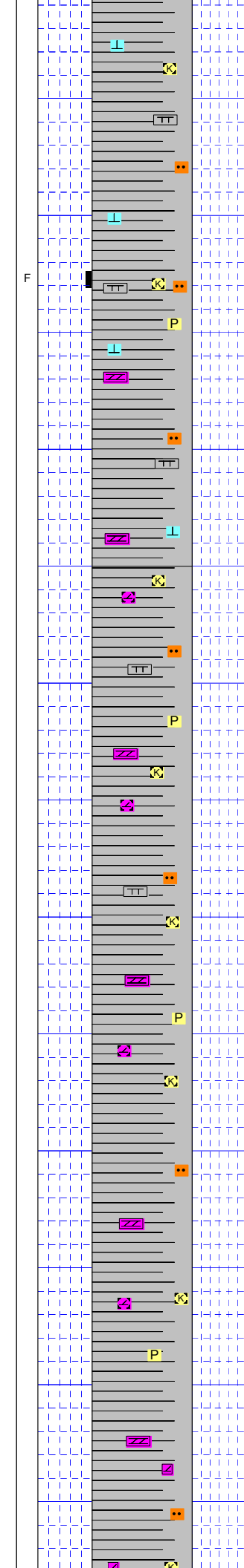
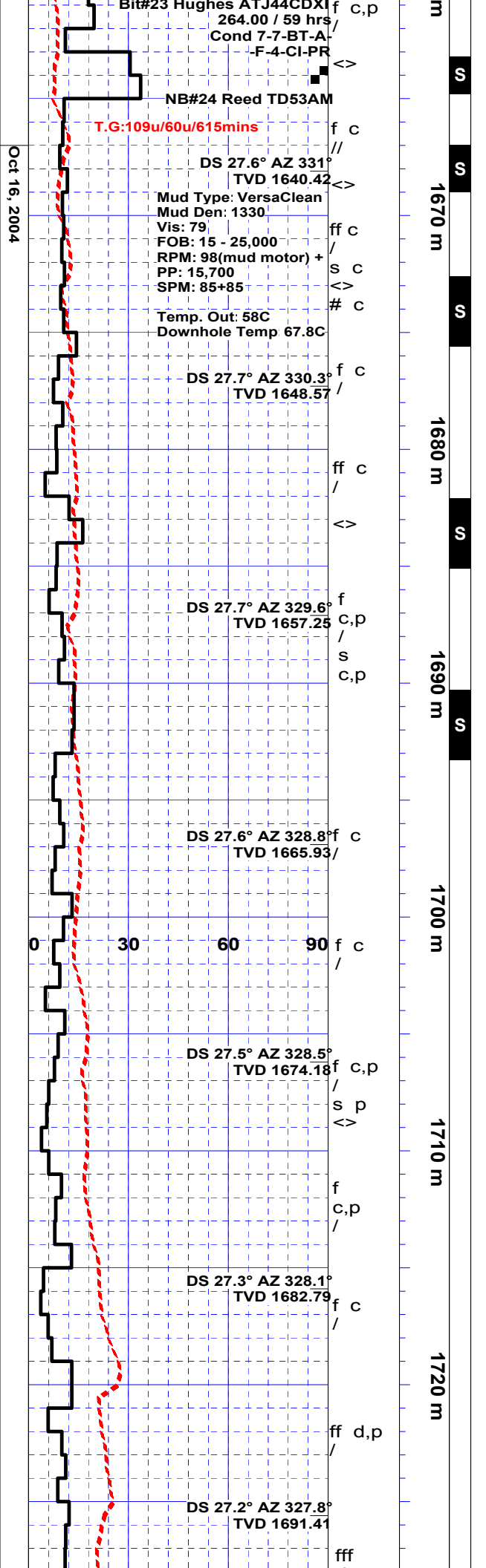
Sh: dk gy - blk, blkly - sbfis, py ind, easily hyd, swelling shales, slty, tr disp pyr, sksd, cren, tr brecd sh, / mnr (5%) marl, m - dk brn, sft, arg, calcs, tt, ns.

Sh: dk gy - blk, blkly - sbfis, py ind, easily hyd, swelling shales, slty, tr - com disp pyr, sksd, brecd, / tr calcs mlrst, m - dk brn, sft, v arg, tt, ns also / dol (tr), dk brnsh blk, crpxl, v arg, v hd, tt, ns.

Sh: dk gy - blk, blkly - sbfis, py ind, easily hyd, swelling shales, slty, com disp pyr, sksd, brecd, tr wh calc spar, / tr dolc mlrst, m - dk brn, sft, v arg, tt, ns also / dol (tr), dk brnsh blk, crpxl, v arg, v hd, tt, ns, & / sltst (tr), lt gy - s&p, qtzs, com dk lit grs, hd, sils, sily dolc, tt, ns.

Sh: aa, tr euhed calc xls, v p frac por.

Sh: dk gy - blk, blkly - sbfis, py ind, easily hyd, swelling shales, slty, com disp pyr, sksd, brecd, tr wh calc spar, / dol (tr), dk brnsh blk, crpxl, v arg, v hd, tt, ns.



Sh: dk gy - blk, blkly - sbfis, py ind, easily hyd, swelling shales, slty, calcs grd - calcs mrlst ip, com dism pyr, sksd, brecc, tr calc lined fracs, tr wh calc spar, tr bit, / mrlst (up to 10%), buff - dk brn, sft, py ind, v arg, v calcs, tt, ns

Dol: Brnsh blk, crpxk, v arg, v hd, tt, ns.

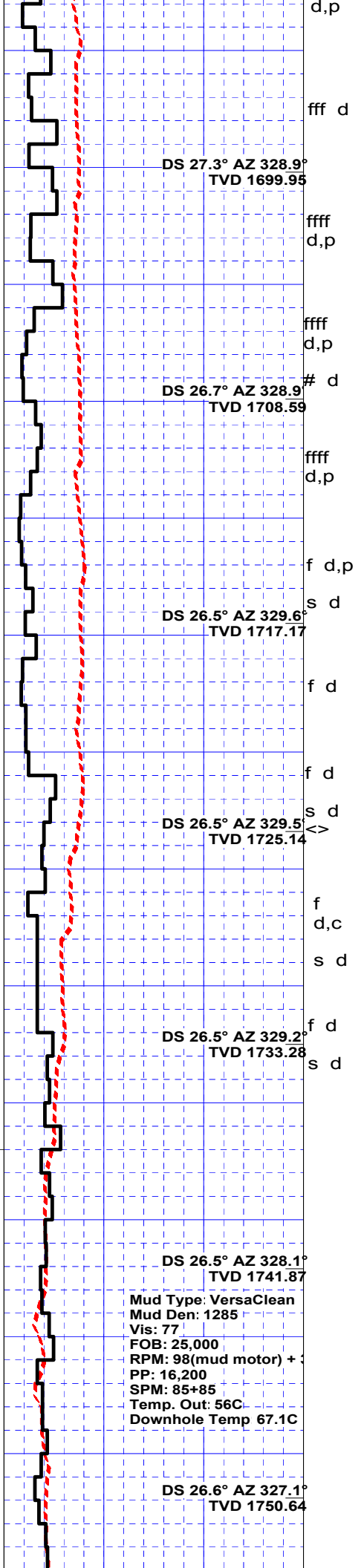
Sh: dk gy - blk, blkly - sbfis, py ind, easily hyd, swelling shales, slty, calcs grd - calcs mrlst ip, dolc ip, com - abnt dism pyr, sksd, tr calc lined fracs, tr wh calc spar, tr bit, / mrlst (up to 5%), buff - dk brn, sft, py ind, v arg, v calcs, tt, ns also / dol (up to 10%), dk gysh brn, crpxl, arg, v hd, tt, ns.

Sh: dk gy - blk, blkly - sbfis, py ind, easily hyd, swelling shales, slty, calcs grd - calcs mrlst ip, dolc ip, com - abnt dism pyr, sksd, tr calc lined fracs, tr wh calc spar, tr bit, / mrlst (up to 10%), buff - dk brn, sft, py ind, v arg, v calcs, tt, ns also / dol (up to 10%), dk gysh brn, crpxl, arg, v hd, tt, ns.

Sh: dk gy - blk, blkly - sbfis, py ind, easily hyd, swelling shales, slty, calcs grd - calcs mrlst ip, dolc ip, com - abnt dism pyr, sksd, tr calc lined fracs, tr wh calc spar, tr bit, / mrlst (up to 10%), buff - dk brn, sft, py ind, v arg, v calcs, tt, ns also / dol (tr), dk gysh brn, crpxl, arg, v hd, tt, ns.

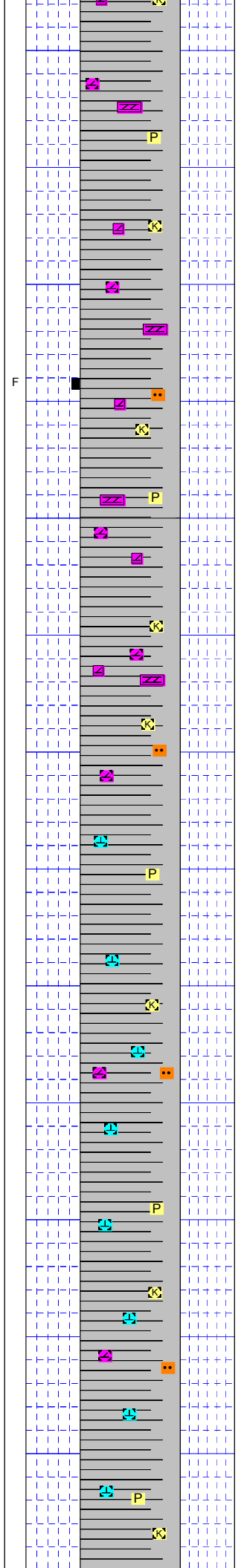
Sh: dk gy - blk, blkly - sbfis, py - w ind, easily hyd (40%), swelling shales, slty, dolc ip, calcs ip, tr - com dism pyr, sksd, abnt dol lined fracs, tr - com wh c xln dol spar, also / dol (up to 10%), dk gysh brn, crpxl, arg, v hd, tt, ns.

Oct 17, 2004



Mud Type: VersaClean
 Mud Den: 1285
 Vis: 77
 FOB: 25,000
 RPM: 98(mud motor) +
 PP: 16,200
 SPM: 85+85
 Temp. Out: 56C
 Downhole Temp 67.1C

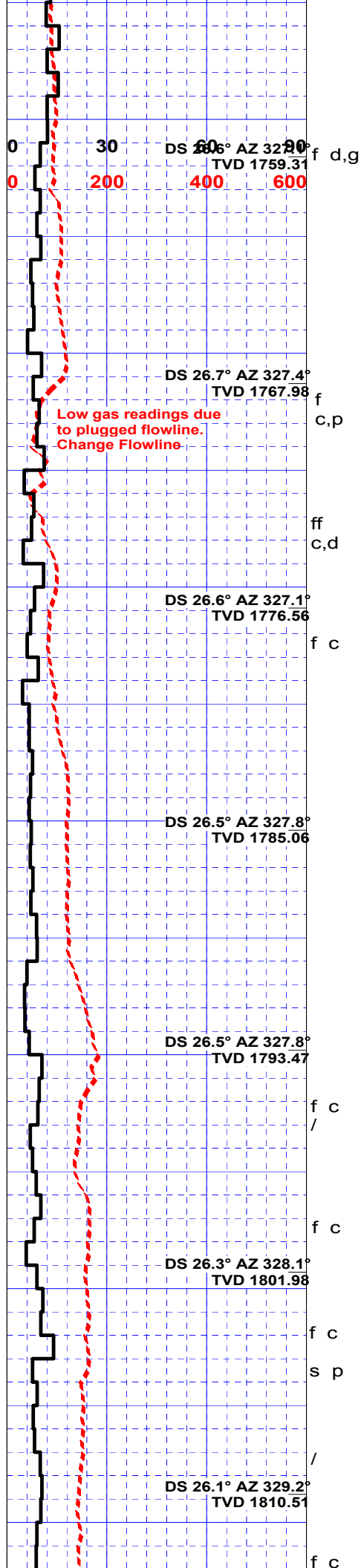
1730 m
1740 m
1750 m
1760 m
1770 m
1780 m
1790 m



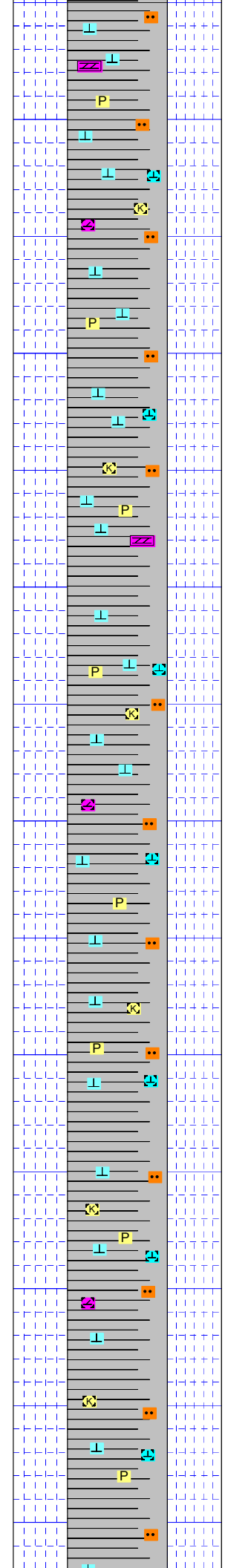
Sh: dk gy - blk, blkly - sbfis, py - w ind, easily hyd (40%), swelling shales, slty, dolc ip, calcs ip, tr - com dism pyr, sksd, abnt dol lined fracs, tr - com wh c xln dol spar, also / dol (up to 10%), dk gysh brn, crpxl, arg, v hd, tt, ns.

Sh: aa, bcmg slly calcs with decreasing fractures.

Sh: dk gy - blk, blkly - sbfis, py - w ind, easily hyd (40%), swelling shales, slly slty, bcmg v calcs ip, dolc ip, tr dism pyr, no fracturing present.



1800 m
1810 m
1820 m
1830 m
1840 m
1850 m
1860 m



Sh: dk gy, blkly - sbfis, sily slty, easily hydrated, swelling shales, py - modly ind, v calcs, com dism pyr, / tr sltst, m gy, qtzs, tr glau, com dism pyr, hd, sil cmt, tt, ns.

Sh: dk gy, blkly - sbfis, sily slty, easily hydrated, swelling shales, py - modly ind, v calcs, com dism pyr, / tr dol, dk brnsh gy, crpxl, arg, v hd, tt, ns.

Sh: dk gy, blkly - sbfis, sily slty, easily hydrated, swelling shales, py - modly ind, v calcs, com dism pyr, tr healed fracs filled / dol & pyr, intbd / tr dol, dk brnsh gy, crpxl, arg, v hd, tt, ns also / tr ls, dk brns gy, crpxl, arg, v hd, tt, ns.

Sh: dk gy, blkly - sbfis, sily slty, easily hydrated, swelling shales, py - modly ind, v calcs, com dism pyr, tr healed fracs filled / dol & pyr, intbd / dol (up to 5%), dk brnsh gy, crpxl, arg, v hd, tt, ns also / tr ls, dk gy, crpxl, carb flks, arg, dolc. v hd, tt, ns.

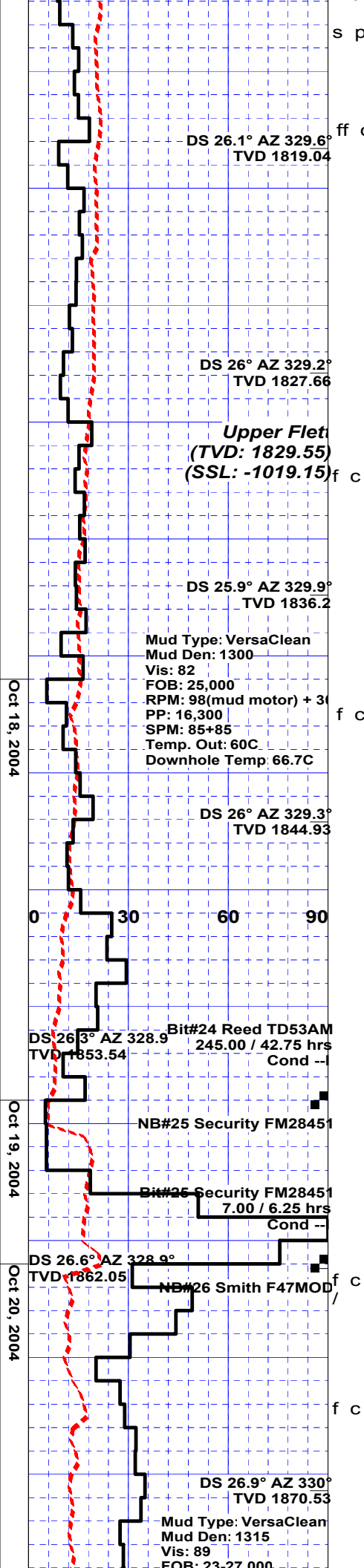
Sh: dk gy, blkly - sbfis, sily slty, easily hydrated, swelling shales, py - modly ind, v calcs, com dism pyr, tr healed fracs filled / calc, intbd / tr dol, dk brnsh gy, crpxl, arg, v hd, tt, ns.

Sh: dk gy, blkly - sbfis, sily slty, easily hydrated, swelling shales, py - modly ind, sily - modly calcs, com dism pyr.

Sh: dk gy, blkly - sbfis, sily slty, easily hydrated, swelling shales, py - modly ind, sily - modly calcs, com dism pyr, tr healed fracs filled / calc, tr sks.

Sh: dk gy, blkly - sbfis, sily slty, easily hydrated, swelling shales, py - modly ind, sily - modly calcs, com dism pyr, tr healed fracs filled / calc.

Sh: dk gy, blkly - sbfis, sily slty, easily hydrated, swelling shales, py - modly ind, sily - modly calcs, com dism pyr, tr healed fracs filled / calc.



1870 m

1880 m

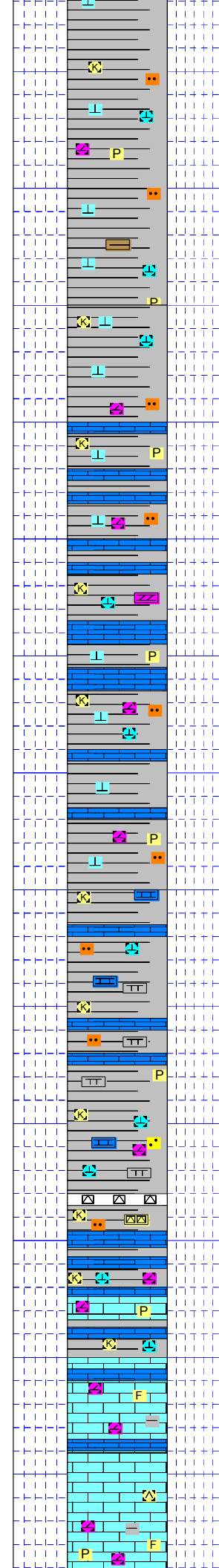
1890 m

1900 m

1910 m

1920 m

1



Sh: dk gysh brn - dk gy, blk - sbfis, sily bits, sily slty, easily hydrated, swelling shales, py - modly ind, modly calcs, com dism pyr.

Sh: dk gy - dk gysh brn, blk - sbfis, py - modly ind, easily hyd, swelling shales, slty ip, v calcs, com dism pyr, intbd / dol (tr), dk brnsh gy, crpxl, arg, v hd, tt, ns.

Ls: m brnsh gy, micric, occlly micxl, v arg, easily hydrated ip, py - modly ind, tt, ns, tr dism pyr.

Ls: m brnsh gy, micric, occlly micxl, v arg, easily hydrated ip, py - modly ind, tt, ns, tr dism pyr.

Dol: m - dk gysh brn, crpxl, micric ip, v arg, hd, tt, ns.

Sh: dk gy - dk gysh brn, blk - sbfis, py - modly ind, easily hyd, swelling shales, slty ip, v calcs, sily dolc, com dism pyr, tr healed calc filled fracs.

Ls: lt brnsh gy - buff - m - dk gysh brn, micric - micxl, v arg, py - modly ind, sily dolc, tt, ns.

Sh: dk gy - dk gysh brn, blk - sbfis, py - modly ind, easily hyd, swelling shales, lty ip, v calcs, sily dolc, com dism pyr, tr healed calc filled fracs.

Ls: lt brnsh gy - buff - m - dk gysh brn, micric - micxl, v arg, py - modly ind, sily dolc, tt, ns.

Sh: dk gy - dk gysh brn, blk - sbfis, py - modly ind, easily hyd, swelling shales, slty ip, v calcs, sily dolc, com dism pyr.

Sh: dk gy - dk gysh brn, blk - sbfis, py - modly ind, easily hyd, swelling shales, slty ip, v calcs grdg - v arg mrlst, sily dolc, com dism pyr.

Ls: lt brnsh gy - buff - m - dk gysh brn, micric - micxl, v arg, py - modly ind, sily dolc, tt, ns.

Ls: lt brnsh gy - buff - m - dk gysh brn - blk, micric - micxl, v arg, py - modly ind, sily dolc, grdg - v dolc ip (dolc ls - limy dol), tt, ns.

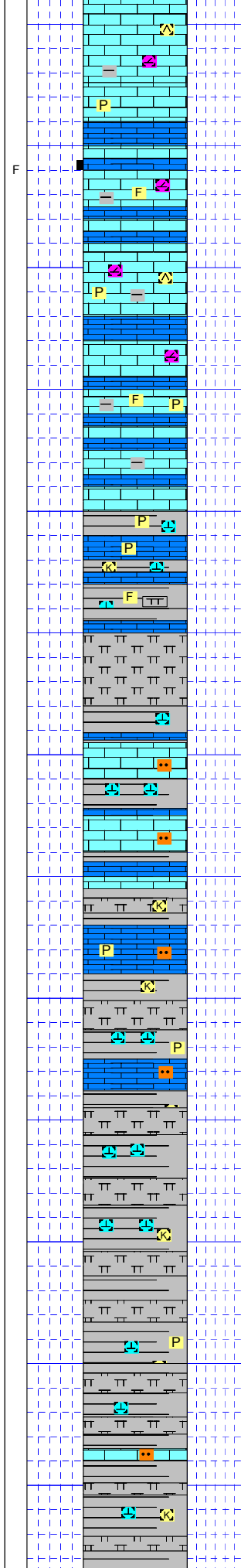
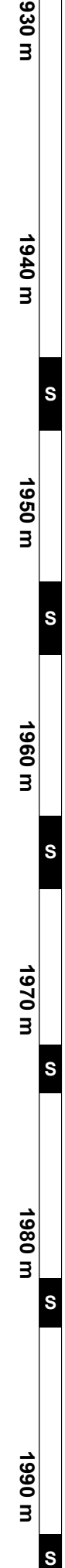
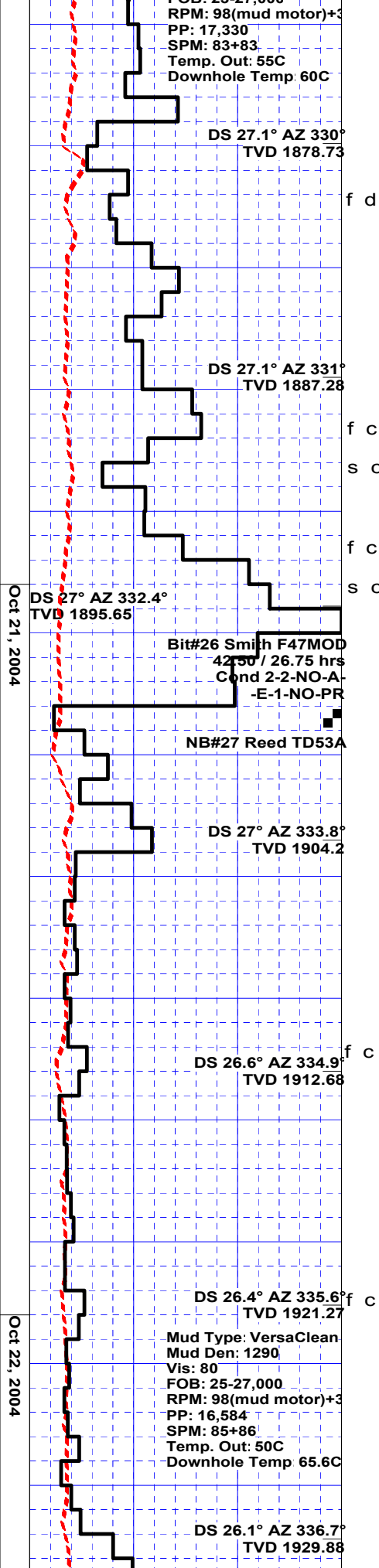
Cht: lt - m gy - blk, tripic, mas, sild ls, mot ip, sdy ip (clr qtz grs), tt, ns.

Ls: mainly m - dk brnsh gy, occlly wh - buff, micric - micxl, occlly f - m grdg, v arg, v kaolic ip, modly hd, dolc ip grdg - limy dol ip, tt, ns, micfoss, com dis pyr & pyr coated grs.

Sh: dk gy, blk - sbfis, p ind & easily hyd ip (v kaolic), bcmg less kaolic, modly ind, sily slty, calcs ip, dolc ip, com carb or pyrbit flks, com dism pyr, tr calc filled healed fracs, tr skss.

Ls: blk - brnsh blk (35%), crpxl - micxl, pyrbits, dolc, v hd, slty, tt, ns, com dism pyr, intbd / ls (65%), lt gy - buff, micric, chky, micxl, modly hd, sily dolc, slty, tt, ns, micfoss, tr healed fracs lined / calc.

Ls: blk - brnsh blk (35%), crpxl - micxl, pyrbits, arg, dolc grdg - limy dol ip, sils ip, v hd, slty, tt, ns, com dism pyr, intbd / ls (65%), lt gy - buff, micric, chky, micxl, modly hd, sily



dolic, slty, tt, ns, com pyr, micfoss.

Ls: blk - brnsh blk (35%), crpxl - micxl, pyrbits, arg, dolic, v hd, slty, tt, ns, com dism pyr, intbd / ls (65%), lt gy - buff, micric, chky, micxl, modly hd, slty dolic, slty, tt, ns, micfoss, tr healed fracs lined / dol.

Ls: blk - brnsh blk (35%), crpxl - micxl, pyrbits, arg, dolic, v hd, slty, tt, ns, com dism pyr, intbd / ls (65%), m - dk gy - buff, micric, chky, micxl, modly hd, slty dolic, slty, tt, ns, micfoss

Ls: blk - brnsh blk (35%), crpxl - micxl, pyrbits, arg, v hd, slty, tt, ns, com dism pyr, intbd / ls (65%), m - dk gy - buff, micric, chky, occlly micxl, modly hd, slty, tt, ns, micfoss.

Sh: dk gy - dk brnsh gy, blk - sbfis, v arg, py - modly ind, com dism pyr, pyrbits flks, calcs grd - mrlst (40%) ip.

Ls: m - dk gy - buff, micric, chky, occlly micxl, modly hd, slty, tt, ns, micfoss intbd / ls, blk - brnsh blk, crpxl - micxl, pyrbits, arg, v hd, slty, tt, ns, com dism pyr.

Sh: dk gy - dk brnsh gy, blk - sbfis, v arg, py - modly ind, tr dism pyr, calcs grd - mrlst (60%).

Ls: blk - brnsh blk, crpxl - micxl, pyrbits, arg, v hd, slty, tt, ns, com dism pyr.

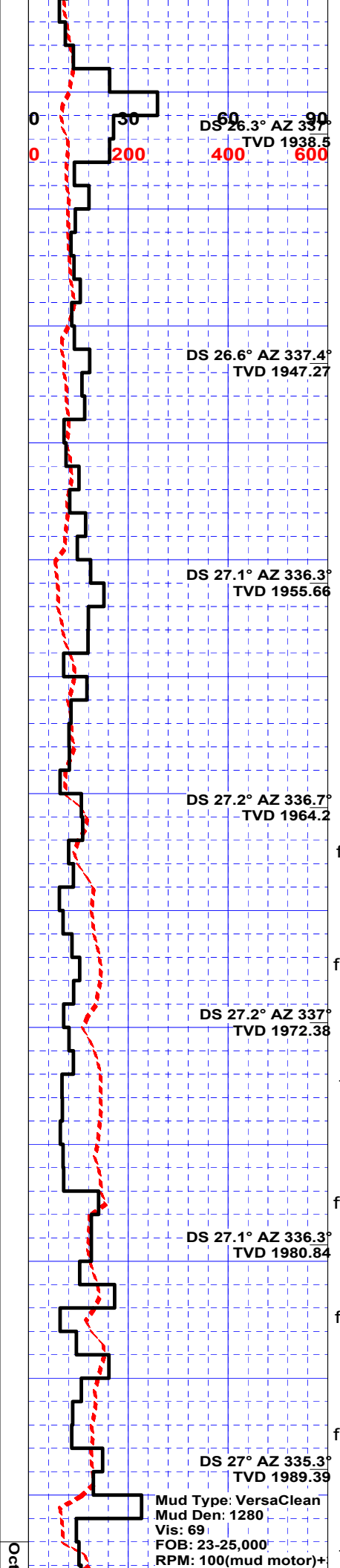
Sh: dk gy - dk brnsh gy, blk - sbfis, v arg, py - modly ind, tr dism pyr, calcs grd - mrlst (60%).

Sh: dk gy - dk brnsh gy, blk - sbfis, v arg, py - modly ind, tr dism pyr, calcs grd - mrlst (40%).

Sh: dk gy - dk brnsh gy, blk - sbfis, v arg, py - modly ind, tr dism pyr, calcs grd - mrlst (20%) / tr ls, blk, crpxl, v hd, slty dolic, tt, ns, pyrbits.

Sh: dk gy - dk brnsh gy, blk - sbfis, v arg, py - modly ind, trdism pyr, calcs grd - mrlst (10-20%).

Sh: dk gy - occlly blk, blk - sbfis, com dism pyr slty, py - modly ind, easily hyd swelling



2000 m S

2010 m S

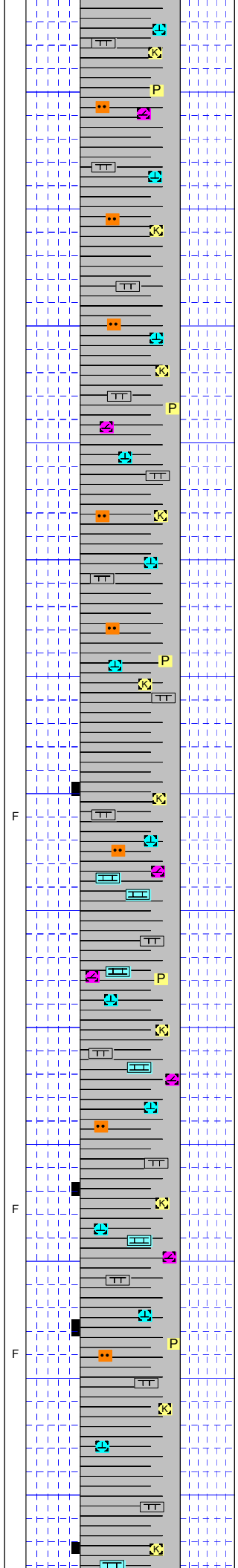
2020 m S

2030 m

2040 m

2050 m S

2060 m S



py, dk gy, py, modly ind, easily hyd, swelling shales, kaolic, calcs, occlly grdg - arg mrlst (10%) ip.

Sh: dk gy, blkly - sbfis, py - modly ind, easily hyd, swelling shales, kaolic, calcs, doloc, com dism pyr, tr calc filled healed fracs, grdg ip - mrlst (10%).

Ls: dk gy - blk, occlly buff, crpxl - micric, pyrbits, v hd, v doloc, grdg - limy dol ip, sily pyric, sily stly, tt, ns.

Sh: dk gy, blkly - sbfis, py - modly ind, easily hyd, swelling shales, kaolic, calcs, doloc, com dism pyr, tr calc filled healed fracs, grdg ip - mrlst (10%) / tr ls, dk gy - blk, occlly buff, crpxl - micric, pyrbits, v hd, v doloc, grdg - limy dol ip, sily pyric, sily stly, tt, ns.

Sh: dk gy, blkly - sbfis, py - modly ind, easily hyd, swelling shales, kaolic, calcs, doloc, com dism pyr, tr calc filled healed fracs, grdg ip - mrlst (10%) / tr ls, dk gy - blk, occlly buff, crpxl - micric, pyrbits, v hd, v doloc, grdg - limy dol ip, sily pyric, sily stly, tt, ns.

Oct

22, 2004

PP: 16,400
SPM: 88+87
Temp. Out: 53C
Downhole Temp 71.1C

DS 27° AZ 335.3°
TVD 1997.67

DS 26.9° AZ 335.3°
TVD 2006.32

DS 27° AZ 335.3°
TVD 2014.88

DS 27.1° AZ 335.3°
TVD 2023.43

DS 27.1° AZ 334.9°
TVD 2031.97

DS 27.1° AZ 335.6°
TVD 2040.16

DS 26.9° AZ 335.3°
TVD 2048.54

Mud Type: VersaClean
Mud Den: 1280
Vis: 69
FOB: 23-25,000
RPM: 100(mud motor)+30
DP: 40,490

2070 m

2080 m

2090 m

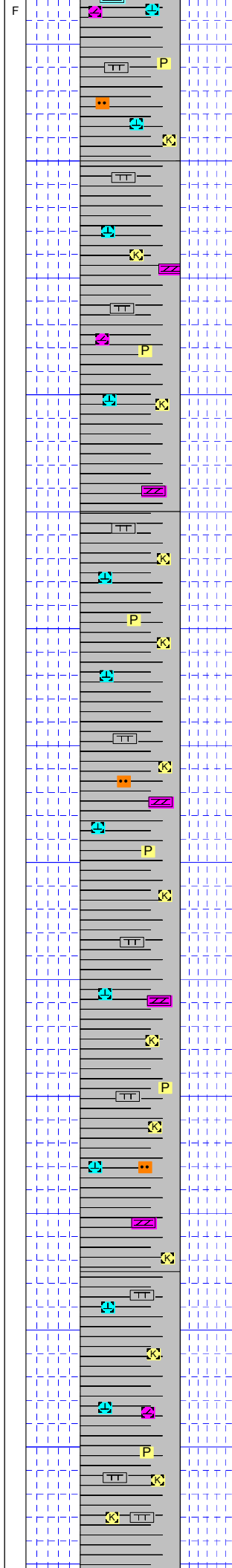
2100 m

2110 m

2120 m

2130 m

S



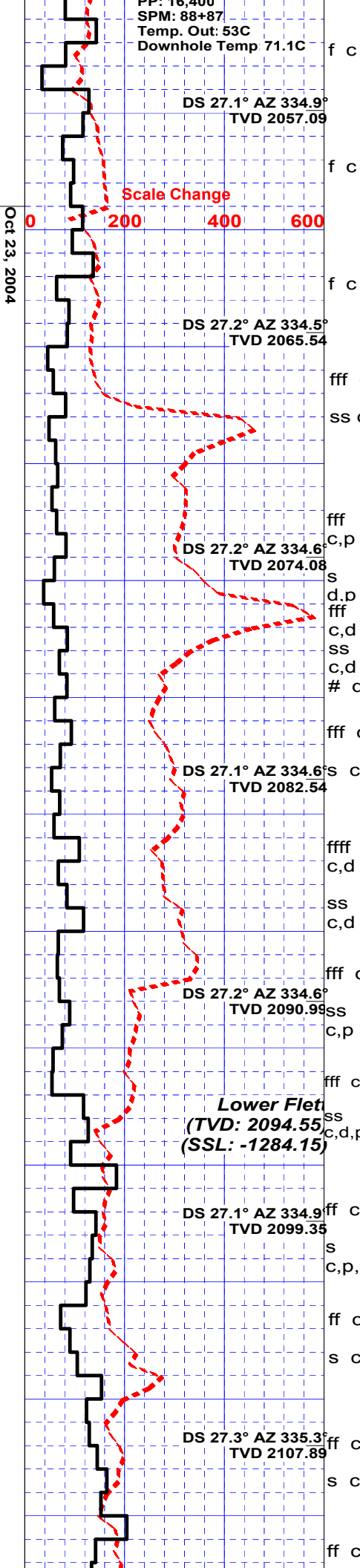
Sh: dk gy, blkly - sbfis, py - modly ind, easily hyd, swelling shales, kaolic, calcs, dolic, com dism pyr, tr calc filled healed fracs, grdg ip - buff cold (ip) mrlst (10%) / dol (up to 10%), dk gy - blk, occlly buff, crpxl - micric, pyrbits, v hd, calcs, sily pyric, sily slty, tt, ns.

Sh: dk gy, occlly lt gy, blkly - sbfis, py - modly ind, easily hyd, swelling shales, kaolic, calcs, dolic, com dism pyr, tr calc filled healed fracs, grdg ip - mrlst (10%) / dol (up to 10%), dk gy - blk, occlly buff, crpxl - micric, pyrbits, v hd, calcs, sily pyric, sily slty, tt, ns.

Sh: dk gy, blkly - sbfis, py - modly ind, easily hyd, swelling shales, kaolic, calcs, dolic, com dism pyr, tr calc filled healed fracs, grdg ip - mrlst (10%) / dol (up to 10%), dk gy - blk, occlly buff, crpxl - micric, pyrbits, v hd, calcs, sily pyric, sily slty, tt, ns.

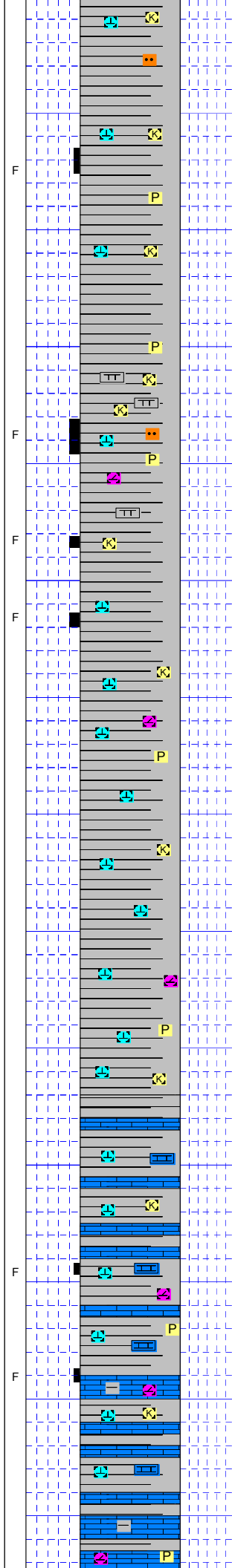
Sh: dk gy, blkly - sbfis, py - modly ind, easily hyd, swelling shales, kaolic, calcs, dolic, com dism pyr, tr calc filled healed fracs.

Sh: dk gy, blkly - sbfis, py - modly ind, easily hyd, swelling shales, kaolic, calcs, dolic, com dism pyr, tr calc filled healed fracs intbd / mrlst (up to 20%) buff - wh, kaolic, py ind, v arg, tt, ns.



Oct 23, 2004

0 m
2140 m
2150 m
2160 m
2170 m
2180 m
2190 m



Sh: dk gy, blkly - sbfis, py - modly ind, easily hyd, swelling shales, kaolic, calcs, dolic, com dism pyr, tr calc filled healed fracs intbd / mrlst (up to 20%) buff - wh, kaolic, py ind, v arg, tt, ns.

Sh: dk gy, blkly - sbfis, py - modly ind, easily hyd, swelling shales, kaolic, calcs, dolic, com dism pyr, tr calc filled healed fracs, tr dol spar, tr pyr nods, intbd / mrlst (tr) buff - wh, kaolic, py ind, v arg, tt, ns.

Sh: dk gy, blkly - sbfis, py - modly ind, easily hyd, swelling shales, kaolic, calcs, dolic, com dism pyr, tr calc filled healed fracs.

Sh: dk gy - occlly brnsh blk, blkly - sbfis, py - modly ind, easily hyd, swelling shales, kaolic, calcs, dolic, com dism pyr, tr calc filled healed fracs.

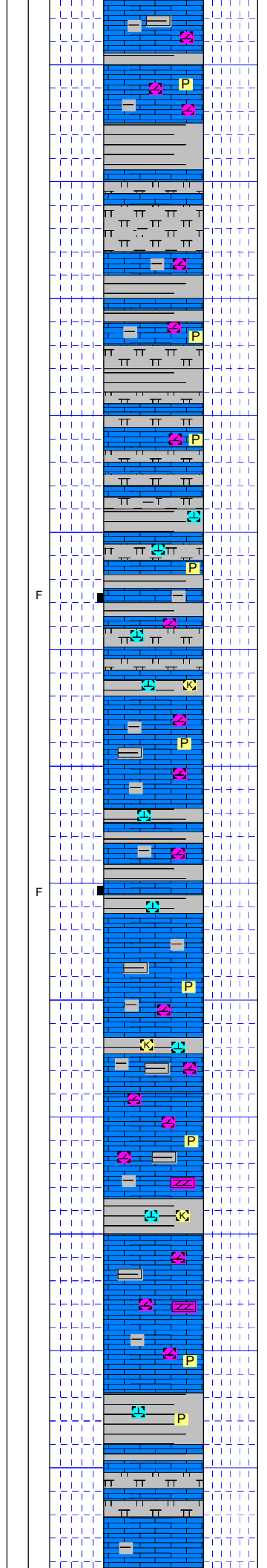
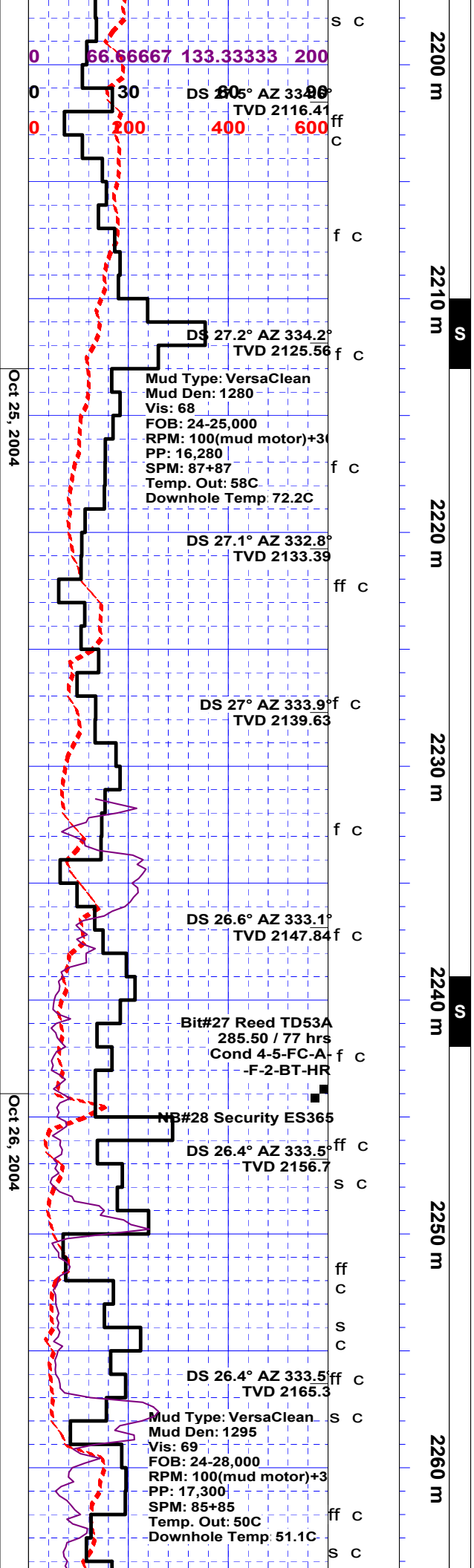
Sh: dk gy - occlly brnsh blk, blkly - sbfis, py - modly ind, easily hyd, swelling shales, kaolic, calcs, dolic, com dism pyr, tr calc filled healed fracs.

Ls: dk gy - blk - occlly buff, micric - crpxl, arg, bits, dolic, v hd - occlly modly hd, tt, tr micfos, tr frac por.

Ls: dk gy - blk (50%), micric, v arg, dolic, micfoss, tt, ns / ls, buff (50%), lt - m gy, micric - micxl, sly arg, tt, ns.

Sh: dk gy - occlly brnsh blk, blkly - sbfis, py - modly ind, easily hyd, swelling shales, kaolic, calcs, dolic, com dism pyr, tr calc filled healed fracs.

Ls: buff, m, dk gy, micric, micxl, v arg in



Ls: buff - m - dk gy, micric - micxl, v arg ip, dolic, tt, ns, com pyr, tr healed fracs filled / calc, tr - com micfoss.

Ls: buff - m - dk gy, micric - micxl, v arg ip, dolic, tt, ns, com pyr, tr healed fracs filled / calc, tr - com micfoss.

Sh: dk gy - occlly brnsh blk, blkly - sbfis, w - modly ind, calcs, dolic, com dism pyr, tr calc filled healed fracs.

Mrlc: wh - buff - dk gy, chky, arg, calcs, sft, tt, ns.

Sh: dk gy - occlly brnsh blk, blkly - sbfis, py - modly ind, easily hyd, swelling shales, kaolic, v calcs, dolic, com dism pyr, tr calc filled healed fracs.

Ls: buff - m - dk gy - blk, micric - micxl, v arg ip, dolic, tt, ns, com pyr, tr healed fracs filled / calc, tr - com micfoss.

Mrlc: wh - buff - dk gy, chky, arg, calcs, sft, tt, ns.

Ls: buff - m - dk gy - blk, micric - micxl, v arg ip, dolic, tt, ns, com pyr, tr healed fracs filled / calc, tr - com micfoss.

Ls: buff - m - dk gy - blk, mainly micric, crpxl - v f xln ip, v arg ip, dolic, tt, ns, com pyr, tr healed fracs filled / calc, tr - com micfoss.

Mrlc: wh - buff - dk gy, chky, arg, calcs, sft, tt, ns.

Ls: buff - m - dk gy - blk, mainly micric, crpxl - v f xln ip, v arg ip, dolic, grdg - calcs mrlst ip, tt, ns, com pyr, tr healed fracs filled / calc, tr - com micfoss.

Ls: buff - m - dk gy - blk, mainly micric, crpxl - v f xln ip, v arg ip, dolic, grdg - calcs mrlst ip, tt, ns, com pyr, tr healed fracs filled / calc, tr - com micfoss.

Sh: dk gy - occlly brnsh blk, blkly - sbfis, py - modly ind, easily hyd, sily swelling sh, kaolic, v calcs, dolic, com dism pyr.

Ls: buff (mot) - lt - m - dk gy - brnsh blk, micric, crpxl, dolic grdg - limy dol ip, slty, modly - v hd, tt, tr v p frac por, com pyrbit throughout, com dism pyr.

Sh: dk gy - brnsh blk, blkly - sbfis, py - modly ind, calcs, dolic ip, easily hyd ip, sily kaolic, tr - com dism pyr.

Ls: buff (mot) - lt - m - dk gy - brnsh blk, micric, crpxl, dolic grdg - limy dol ip, slty, modly - v hd, tt, tr v p frac por, com pyrbit throughout, com dism pyr.

Sh: dk gy - brnsh blk, blkly - sbfis, py - modly ind, calcs, dolic ip, easily hyd ip, sily kaolic, tr - com dism pyr.

Ls: m - dk gy - brnsh blk, micric, crpxl, dolic grdg - limy dol ip, slty, modly - v hd, bcmg v arg, tt, tr v p frac por, com pyrbit throughout, com dism pyr.

Mrlc: wh, sft, chky, tt, ns.

Sh: dk gy - brnsh blk, blkly - sbfis, py - modly ind, calcs, dolic ip, easily hyd ip, sily kaolic, tr - com dism pyr.

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DS 26.4° AZ 334.6°
TVD 2173.9

DS 26.5° AZ 334.2°
TVD 2182.49

DS 26.6° AZ 336°
TVD 2190.99

Mud Type: VersaClean
Mud Den: 1285
Vis: 61
FOB: 25,000
RPM: 100(mud motor)+30
PP: 16,600
SPM: 85+85
Temp. Out: 51C
Downhole Temp 67.8C

DS 26.7° AZ 336°
TVD 2199.66

DS 26.8° AZ 336.7°
TVD 2208.14

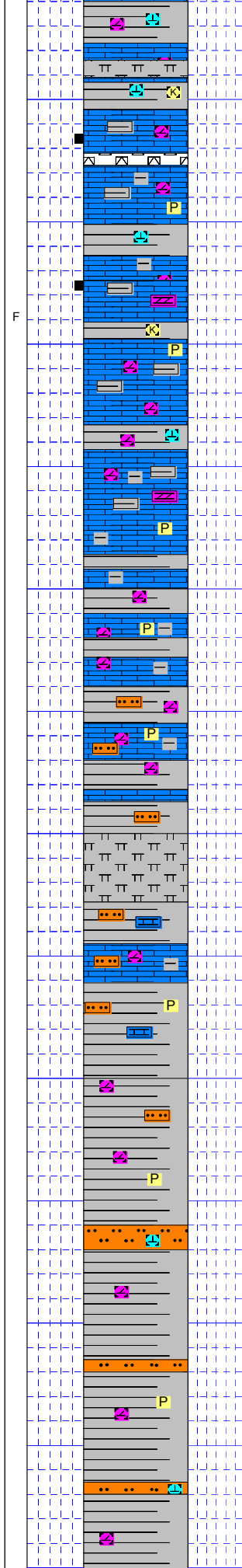
DS 26.9° AZ 337.4°
TVD 2216.8

DS 27.2° AZ 337.4°
TVD 2225.17

Mud Type: VersaClean
Mud Den: 1300
Vis: 65
FOB: 25 - 30,000
RPM: 100(mud motor)+
PP: 17,400
SPM: 85+85
Temp. Out: 57C
Downhole Temp 72.2C

ff c / SS C
ff c,p
SS C
fff c
SS C
ff c,p
S C
fff c / S C
f c
f c,p
f c
f c
S C
f c
S C
f c
f c
f c

2270 m
2280 m
2290 m
2300 m
2310 m
2320 m
2330 m



Ls: m - dk gy - brnsh blk, micric, crpxl, dolc grdg - limy dol ip, slty, modly - v hd, bcmg v arg, tt, tr v p frac por, com pyrbit throughout, com dism pyr.

Mrlc: wh, sft, chky, tt, ns.

Ls: m - dk gy - brnsh blk, micric, crpxl, dolc grdg - limy dol ip, slty, modly - v hd, bcmg v arg, tt, tr v p frac por, com pyrbit throughout, com dism pyr.

Cht: mot - m gy, mas ang frags, slly calcs & dolc, com dism pyr, tt, ns.

Ls: m - dk gy - brnsh blk, micric, crpxl, dolc grdg - limy dol ip, slty, modly - v hd, bcmg v arg, tt, tr v p frac por, com pyrbit throughout, com dism pyr.

Sh: dk gy - brnsh blk, blk - sbfis, py - modly ind, calcs, dolc ip, easily hyd ip, slly kaoic, tr sks, tr - com dism pyr.

Sh: dk gy - dk brnsh gy, blk - sbfis, py ind, easily hyd ip, dolc ip, com - abnt dism pyr.

Ls: blk - dk gy, micric - crpxl, v hd, v slty ip (grdg - sltst), dolc, tt, ns, com - abnt dism pyr, / mnr cht, mot, mas ang frags, v hd, com micfoss.

Sltst: m - dk brnsh gy, qtzs, v hd, calcs ip, dolc ip, tt, ns.

Sh: dk gy - dk brnsh gy, blk - sbfis, py ind, easily hyd ip, dolc ip, com - abnt dism pyr.

Ls: blk - dk gy, micric - crpxl, v hd, v slty ip (grdg - sltst), dolc, tt, ns, com - abnt dism pyr, / mnr cht, mot, mas ang frags, v hd, com micfoss.

Mrlc: buff - lt - m gy, v arg, sft, tt, ns.

Sltst: m - dk brnsh gy, qtzs, v hd, calcs ip, dolc ip, tt, ns, grdg ip - v f gred ss (wh - lt gy, slly dolc).

Sh: dk gy - dk brnsh gy, blk - sbfis, py ind, easily hyd ip, dolc ip, com - abnt dism pyr / tr sltst, m - dk brnsh gy, qtzs, v hd, calcs ip, dolc ip, tt, ns, grdg ip - v f gred ss (wh - lt gy, slly dolc).

Ls: blk - dk gy, micric - crpxl, v hd, v slty ip (grdg - sltst), dolc, tt, ns, com - abnt dism pyr, / mnr cht, mot, mas ang frags, v hd, com micfoss.

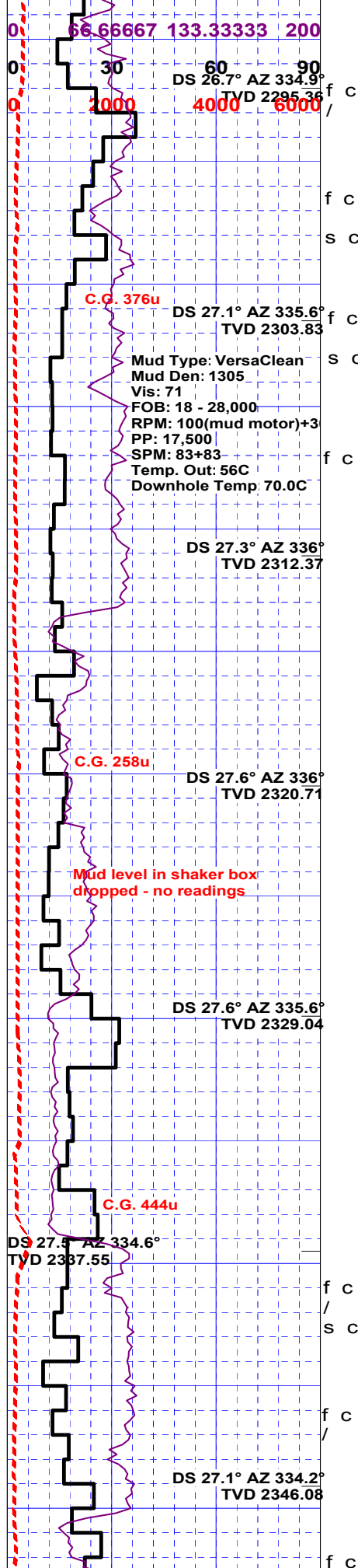
Sh: dk gy - dk brnsh gy, blk - sbfis, bits, py ind, easily hyd ip, dolc ip, com - abnt dism pyr.

Sh: dk gy - dk brnsh gy, blk - sbfis, py ind, easily hyd ip, dolc ip, com - abnt dism pyr / tr sltst, m - dk brnsh gy, qtzs, v hd, calcs ip, dolc ip, tt, ns, grdg ip - v f gred ss (wh - lt gy, slly dolc).

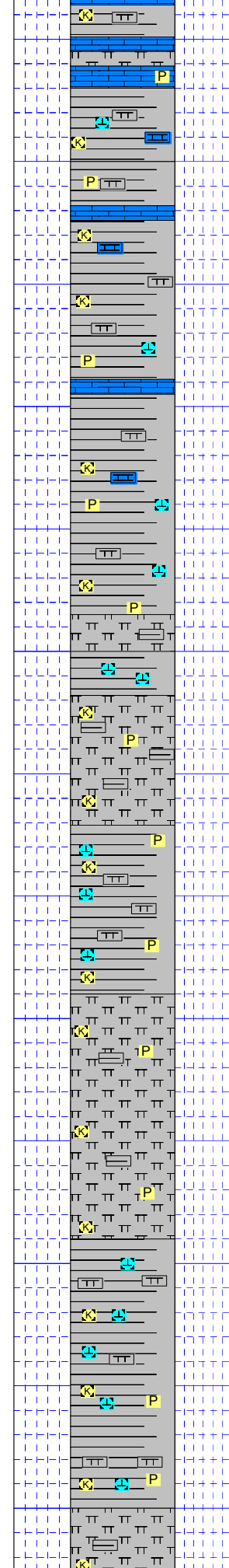
Sh: dk gy - dk brnsh gy, blk - sbfis, bits, py ind, easily hyd ip, dolc ip, com - abnt dism pyr.

Sltst: m - dk brnsh gy, qtzs, sdy ip, v hd, calcs ip, dolc ip, tt, ns.

Sh: dk gy - dk brnsh gy, blk - sbfis, bits, py ind, easily hyd ip, dolc ip, com - abnt dism pyr.



2400 m
2410 m
2420 m
2430 m
2440 m
2450 m
2460 m



Sh: dk gy - m brnsh gy, blk - sbfis, py ind ip, bits ip, calcs, sly dolc, com dism pyr.

Mrlc: mot - buff - wh - lt gy, py ind, chky, arg, bits, tt, ns.

Sh: dk gy - dk brnsh gy, blk - sbfis, easily hyd, py ind, v calcs, grd - v arg mrlst, kaoc ip, com dism pyr tr milky wh calc spar, tr healed fracs / tr ls, dk gy - blk, micric - crpxl, v arg, bits, v hd, tt, ns.

Sh: dk gy - dk brnsh gy, blk - sbfis, easily hyd, py ind, v calcs, grd - v arg mrlst (up - 75%), kaoc, com dism pyr tr milky wh calc spar, tr healed fracs.

Sh: dk brnsh gy (py ind) - occlly blk (modly - w ind), blk - sbfis, easily hyd, v calcs, grd - v arg mrlst (up - 75%), kaoc, com dism pyr tr milky wh calc spar, tr healed fracs.

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C.G.:153u

DS 26.9° AZ 333.9°
TVD 2354.54

2470 m

DS 26.2° AZ 334.2°
TVD 2363.22

2480 m

Mud Type: VersaClean
Mud Den: 1315
Vis: 69
FOB: 25 - 27,000
RPM: 92(mud motor)+2
PP: 17,300
SPM: 82+82
Temp. Out: 58C
Downhole Temp: 75.6C

DS 26° AZ 333.5°
TVD 2371.84

2490 m

Banfi
8074u (TVD: 2376.87)
(SSL: -1566.47)

DS 25.9° AZ 333.5°
TVD 2380.38

2500 m

C.G.:5440u/3500u

DS 26° AZ 333.5°
TVD 2388.48

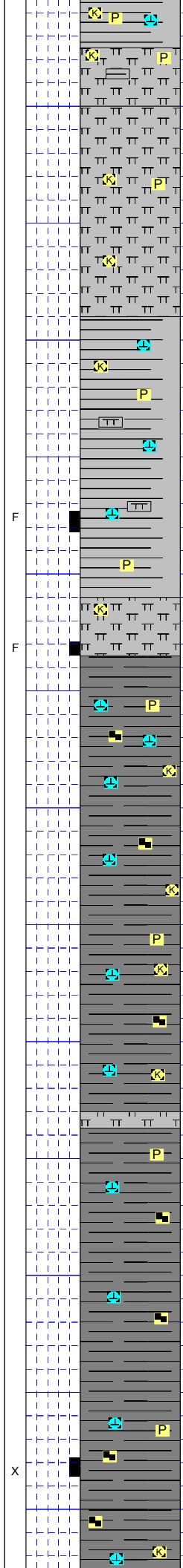
2510 m

DS 26.1° AZ 334.9°
TVD 2397.19

2520 m

C.G.:2914u/2800u
DS 26.2° AZ 334.6°
TVD 2405.72

2530 m



Sh: blk, modly ind, blkly - sbfis, sily carb, calcs, grd - less calcs, tr - com dism pyr, tr milky wh calc spar, com healed fracs, tr skss.

Sh: mainly blk, occlly dk brnsh gy, py - modly ind, blkly - sbfis, easily hyd ip, v calcs, grd - less calcs, kaoic, com dism pyr, com milky wh calc spar, com - abnt healed fracs, com - abnt skss / mlrst (up to 20%), blk - occlly buff - m - dk gy, py ind, v arg, tt, ns.

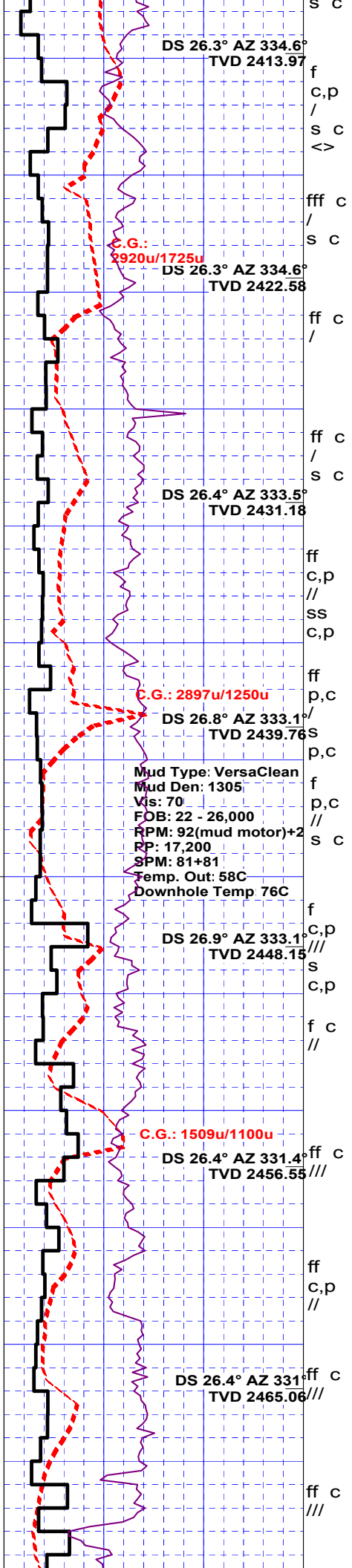
Sh: mainly blk, occlly dk brnsh gy, py - modly ind, blkly - sbfis, easily hyd ip, calcs, grd - less calcs, kaoic, com dism pyr, com milky wh calc spar, com - abnt healed fracs, tr skss.

Sh: blk, modly ind, blkly - sbfis, sily carb, calcs, grd - less calcs, tr - com dism pyr, tr milky wh calc spar, com healed fracs, tr skss / tr ls, buff, micric, modly hd, sily kaoic, v arg, tt, ns.

Sh: blk, modly ind, blkly - sbfis, sily carb, calcs, grd - less calcs, tr - com dism pyr, tr milky wh calc spar, com healed fracs, tr skss.

Sh: blk - occlly dk gy, blkly - fis ip, sily calcs, carb ip, bits ip, modly - py ind, easily hyd ip, kaoic ip, com - abnt dism pyr, tr pyr nods, tr fracs filled / calc & pyr, tr calc spar.

Nov 1, 2005



2540 m

2550 m

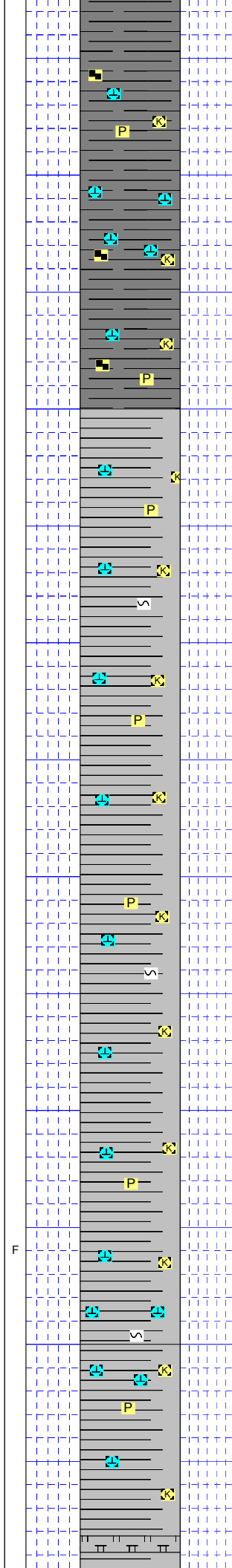
2560 m

2570 m

2580 m

2590 m

26



Sh: blk - occlly dk gy, blkly - fis ip, sllly calcs
grdg - mrlst (10%), carb ip, bits ip, modly - py
ind, easily hyd ip, kaocic ip, com - abnt dism
pyr, tr pyr nods, tr fracs filled / calc & pyr, tr
calc spar.

Sh: blk - occlly dk gy, blkly - fis ip, sllly calcs,
carb ip, bits ip, modly - py ind, easily hyd ip,
kaocic ip, com - abnt dism pyr, tr pyr nods, tr
fracs filled / calc & pyr, tr calc spar.

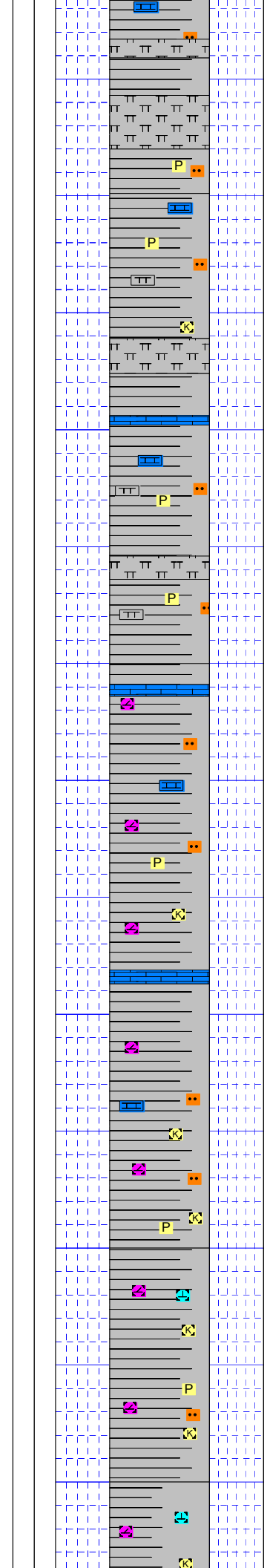
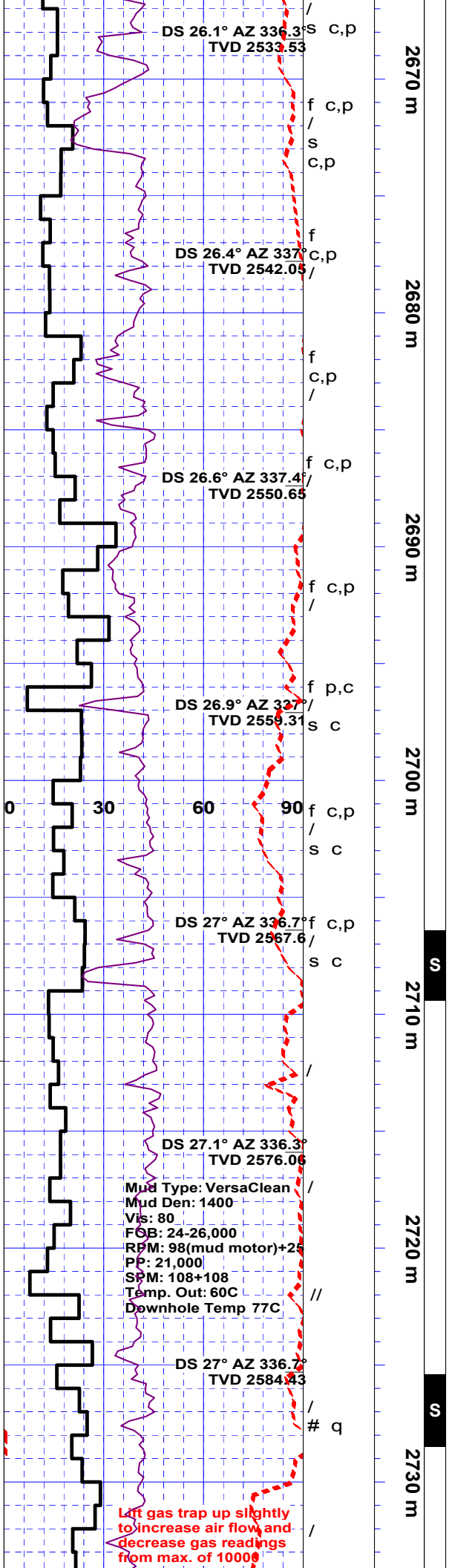
Sh: dk gy - occlly blk, blkly - fis ip, sllly calcs,
carb ip, bits ip, modly - py ind, easily hyd ip,
kaocic ip, com - abnt dism pyr, tr fracs filled /
calc & pyr, tr calc spar, tr skss.

Sh: dk gy, blkly - fis ip, sllly calcs, carb ip, bits
ip, modly - py ind, easily hyd ip, kaocic ip,
com - abnt dism pyr, tr fracs filled / calc &
pyr, tr calc spar, com skss.

Sh: dk gy, blkly - fis ip, sllly calcs grdg - mrlst
(10%), carb ip, bits ip, modly - py ind, easily
hyd ip, kaocic ip, com - abnt dism pyr, tr fracs
filled / calc & pyr, tr calc spar, com skss.

Sh: dk gy, blkly - fis ip, sllly calcs, carb ip, bits
ip, modly - py ind, easily hyd ip, kaocic ip,
com - abnt dism pyr, tr fracs filled / calc &
pyr, tr calc spar, com skss.

Nov 4, 2004



Sh: dk gy - blk - m gy brn, blk - sbfis, py - modly ind, sily calcs, sily slty, com dism pyr, tr loose calc & pyr, also / ls (tr - 5%), brnsh blk, crpxl - micxl, v hd, arg, pyrbits, dolc, tt, ns.

Sh: m - dk gy, blk - sbfis, py - modly ind, sily calcs grd - mrlst ip (10%), sily slty, sily kaoic, com dism pyr, tr fracs lined / calc & pyr, tr loose calc & pyr, also / ls (tr - 5%), brnsh blk, crpxl - micxl, v hd, arg, pyrbits, dolc, tt, ns.

Sh: m - dk gy, blk - sbfis, py - modly ind, v sily calcs, sily kaoic, sily slty, com dism pyr, tr fracs lined / calc & pyr, tr loose calc & pyr.

Sh: m - dk gy, blk - sbfis, py - modly ind, sily calcs grd - mrlst ip (10%), sily slty, sily kaoic, com dism pyr, tr fracs lined / calc & pyr, tr loose calc & pyr, also / ls (tr - 5%), brnsh blk, crpxl - micxl, v hd, arg, pyrbits, dolc, tt, ns.

Sh: m - dk gy, blk - sbfis, py - modly ind, dolc, v sily calcs, sily slty, sily kaoic, com dism pyr, tr fracs lined / calc & pyr, tr loose calc, also / ls (tr - 5%), brnsh blk, crpxl - micxl, v hd, arg, pyrbits, dolc, tt, ns.

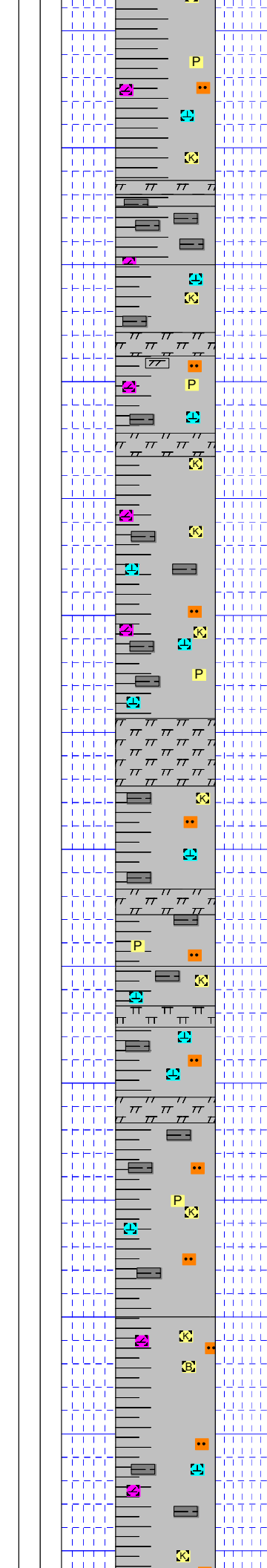
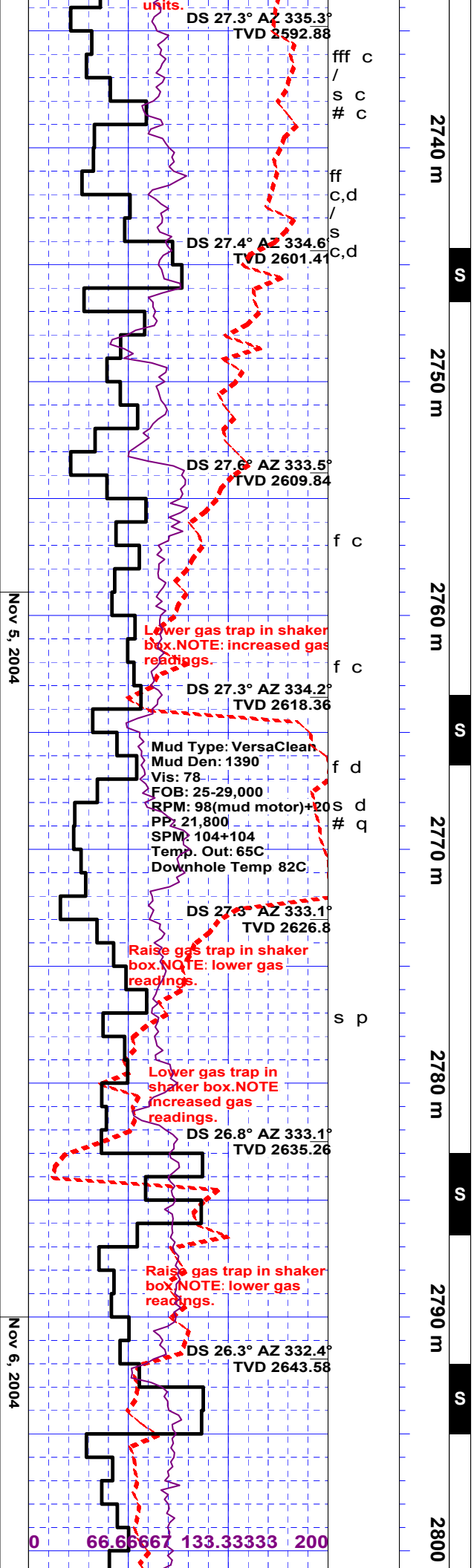
Sh: m - dk gy, blk - sbfis, py - modly ind, dolc, v sily calcs, sily slty, sily kaoic, com dism pyr, tr fracs lined / calc & pyr, tr loose calc, / ls (tr - 5%), brnsh blk, crpxl - micxl, v hd, arg, pyrbits, dolc, tt, ns / ss (tr), wh, qtzs, v f gred, sbrdd, w srt, modly hd, dol cmt, tt - p intgran por, ns.

Sh: m - dk gy - blk, blk - sbfis, py - modly ind, dolc, v sily calcs, sily slty, sily kaoic, com dism pyr, / slts (tr), wh - lt gy - m brnsh gy, qtzs, occlly v f gred, sbrdd, w srt, v hd, sil cmt, tt, ns.

Sh: m - dk gy - blk, blk - sbfis, py - modly ind, dolc, v sily calcs, sily slty, sily kaoic, com dism pyr, tr euhed clr qtz xls, / slts (tr), wh - lt gy - m brnsh gy, qtzs, occlly v f gred, sbrdd, w srt, v hd, sil cmt, tt, ns.

Sh: lt - m - dk gy, blk - sbfis, py - modly ind, dolc, v sily calcs, sily slty, sily kaoic, com dism pyr, / slts (tr), wh - lt gy - m brnsh gy, qtzs, occlly v f gred, sbrdd, w srt, v hd, sil cmt, tt, ns.

Lift gas trap up slightly to increase air flow, and decrease gas readings from max. of 10000



Sh: lt - m - dk gy, blkly - sbfis, py - modly ind, dolic, v sily calcs, sily slty, sily kaolic, com dism pyr, tr euhed calc xls, / slts (tr), wh - lt gy - m brnsh gy, qtzs, occlly v f gred, sbrdd, w srt, v hd, sil cmt, tt, ns.

Sh: lt - m - dk gy (50%) - blk (50%), blkly - sbfis, py - modly ind, dolic, v sily calcs, sily slty, sily kaolic, com dism pyr, tr calc & dol xls, tr - com healed fracs, / slts (tr), wh - lt gy - m brnsh gy, qtzs, occlly v f gred, sbrdd, w srt, v hd, sil cmt, tt, ns.

Sh: lt - m gy (80%) - blk (20%), blkly - sbfis, py - modly ind, easily hyd, sily dolic, v sily calcs, sily slty, kaolic, com dism pyr.

Sh: lt - m gy (90%) - blk (10%), blkly - sbfis, py - modly ind, easily hyd, sily dolic grdg - mrlst ip, sily calcs, sily slty, kaolic, tr - com dism pyr.

Sh: lt - m gy (80%) - blk (20%), blkly - sbfis, py - modly ind, easily hyd, sily dolic grdg - mrlst ip, modly calcs, sily slty, kaolic, tr - com dism pyr, tr dol filled healed fracs & spar, tr looose euhed clr qtz xls.

Sh: lt - m gy (80%) - blk (20%), blkly - sbfis, py - modly ind, easily hyd, sily dolic grdg - mrlst ip, modly calcs, sily slty, kaolic, tr - com dism pyr.

Sh: lt - m gy (80%) - blk (20%), blkly - sbfis, py - modly ind, easily hyd, sily dolic, modly calcs grdg - mrlst ip, sily slty, kaolic, tr - com dism pyr, tr loose pyr nods.

Sh: lt - m gy (80%) - blk (20%), blkly - sbfis, py - modly ind, easily hyd, sily dolic grdg - mrlst ip, sily calcs, sily slty, kaolic, tr - com dism pyr / ss (tr), lt gy, qtzs, v f gred, sbrdd, w srt, v hd, sil cmt, tt, ns.

Sh: lt - m gy (90%) - blk (10%), blkly - sbfis, py - modly ind, easily hyd, sily dolic grdg - mrlst ip, sily calcs, sily slty, kaolic, tr - com dism pyr.

Sh: lt - m gy, blkly - sbfis, py - modly ind, easily hyd, sily dolic grdg - mrlst ip, sily calcs, sily slty, kaolic, tr - com dism pyr.

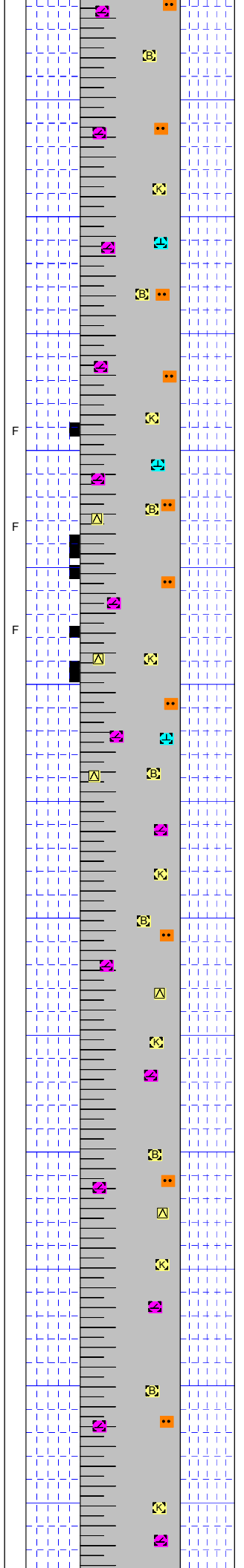
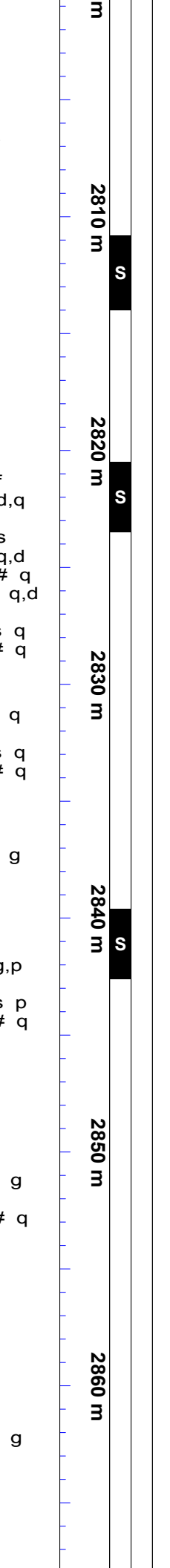
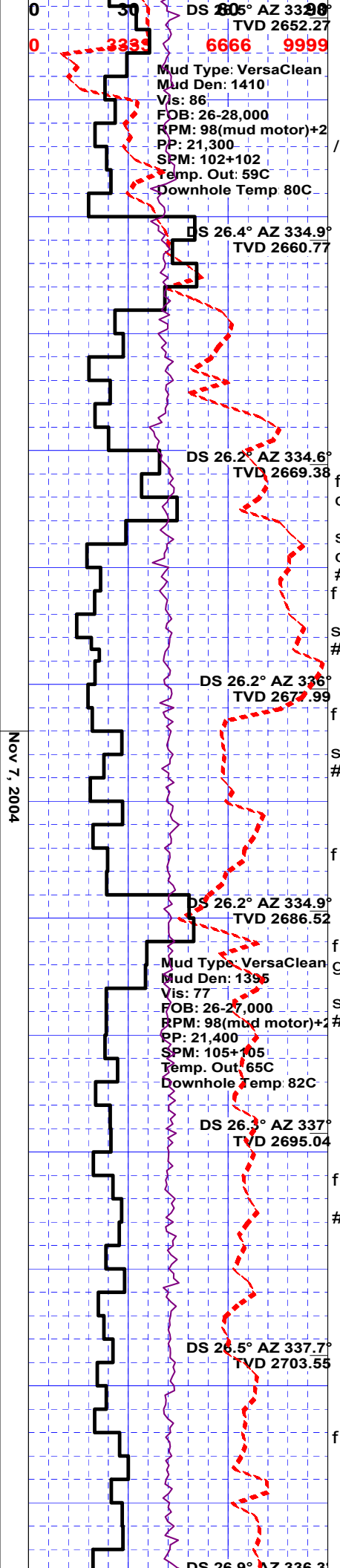
Sh: lt - m gy (90%) - blk (10%), blkly - sbfis, py - modly ind, easily hyd, mainly dolic, sily calcs, sily slty, kaolic, bentic, tr dism pyr, tr pyr nods.

Sh: lt - m gy, blkly - sbfis, py - modly ind,

Nov 5, 2004

Nov 6, 2004

0 66.6667 133.3333 200



easily hyd, mainly dolic, sily cals, sily slty, kaolic, bentic, tr dism pyr.

Sh: lt - m gy, blkly - sbfis, py - modly ind, easily hyd, mainly dolic, sily cals, sily slty, kaolic, bentic, tr dism pyr, tr loose pyr.

Sh: lt - m gy, blkly - sbfis, py - modly ind, easily hyd, mainly dolic, sily cals, sily slty, kaolic, bentic, tr dism pyr, tr - com euhed clr qtz & wh dol xls.

Sh: lt gy, blkly - sbfis, py - modly ind, easily hyd, sily dolic, sily slty, kaolic, bentic.

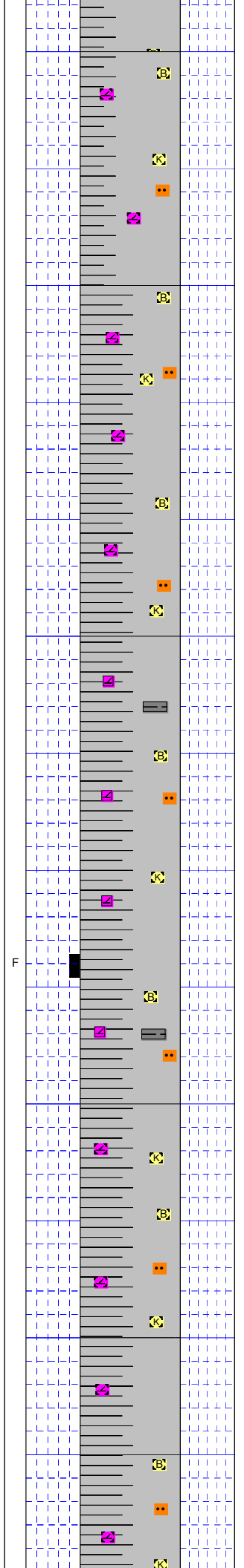
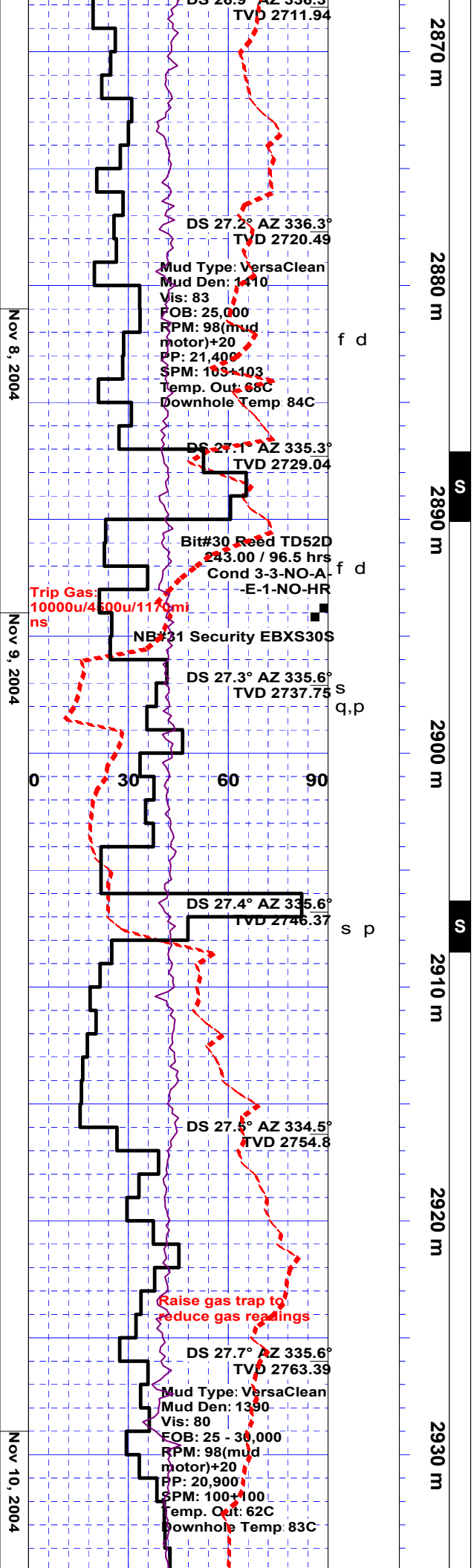
Sh: lt - m gy, blkly - sbfis, py - modly ind, easily hyd, sily dolic, sily slty, kaolic, bentic, tr dism pyr, tr - com euhed clr qtz xls, tr loose pyr.

sh: lt gy, blkly - sbfis, py - modly ind, easily hyd, sily dolic, sily slty, kaolic, bentic.

Sh: lt gy, blkly - sbfis, py - modly ind, easily hyd, sily dolic, sily slty, kaolic, bentic, tr euhed clr qtz xls.

Sh: lt gy, blkly - sbfis, py - modly ind, easily hyd, sily dolic, sily slty, kaolic, bentic.

Nov 7, 2004



Sh: lt gy, blkly - sbfis, py - modly ind, easily hyd, sily dolic, sily slty, kaoic, bentic.

Sh: lt - m gy, blkly - sbfis, py - modly ind, easily hyd, sily dolic, sily slty, kaoic, bentic.

Sh: lt - m gy, blkly - sbfis, py - modly ind, easily hyd, sily dolic, sily slty, kaoic, bentic / sh (tr - 10%), dk gy - blk.

Sh: lt - m gy, blkly - sbfis, py - modly ind, easily hyd, sily dolic, sily slty, kaoic, bentic / sh (tr), dk gy - blk.

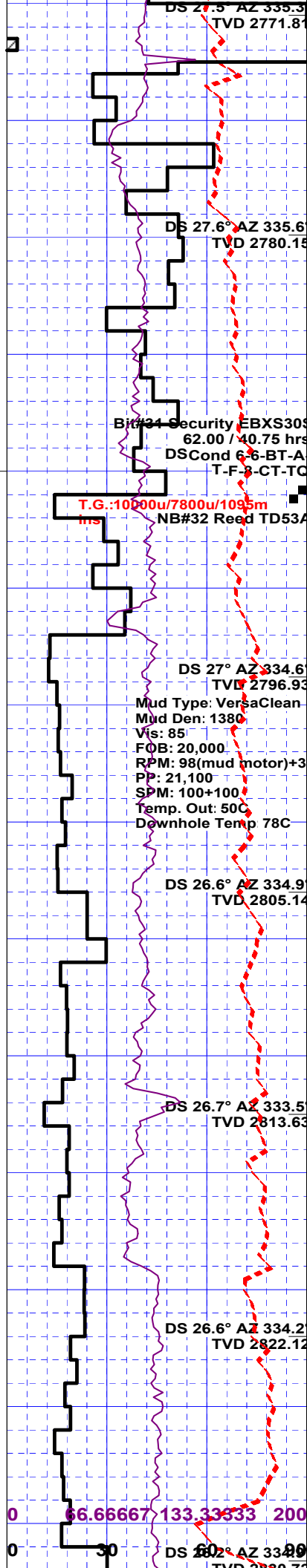
Sh: lt - m gy, blkly - sbfis, py - modly ind, easily hyd, sily dolic, sily slty, kaoic, bentic / sh (tr - 10%), dk gy - blk.

Sh: lt - m gy, blkly - sbfis, py - modly ind, easily hyd, sily dolic, sily slty, kaoic, bentic / sh (tr), dk gy - blk.

Sh: lt - m gy, blkly - sbfis, py - modly ind, easily hyd, sily dolic, sily slty, kaoic, bentic / sh (tr - 10%), dk gy - blk also / ls (tr), blk, crpxl - micxl, arg, v hd, dolic, tt, pyrbits.

Sh: mainly m gy, blkly - sbfis, py - modly ind, easily hyd, sily dolic, sily slty, kaoic, bentic / sh (tr - 10%), dk gy - blk.

Nov 11, 2004



2940 m

2950 m

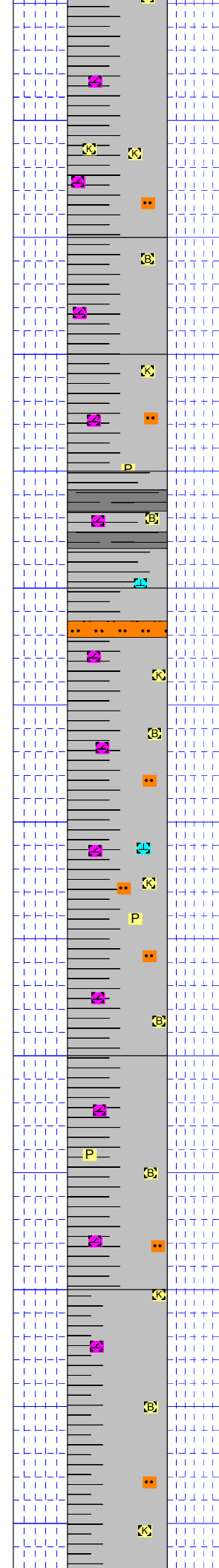
2960 m

2970 m

2980 m

2990 m

3000 m



Sh: mainly m gy, blkly - sbfis, py - modly ind, easily hyd, sily dolic, sily slty, kaolic, bentic / sh (tr - 10%), dk gy - blk.

Sh: dk gy - blk (50%) - m gy (50%), blkly - sbfis, py - modly ind, easily hyd, dolic, sily calcs, sily slty, kaolic, bentic, tr dism pyr.

Sh: m - dk gy - occlly blk, blkly - sbfis, py - modly ind, easily hyd, dolic, sily calcs, sily slty, kaolic, bentic, tr dism pyr / sltst (tr), m - dk gy, qtzs, v arg, tt, ns.

Sh: m - dk gy, blkly - sbfis, py - modly ind, easily hyd, dolic, sily calcs, sily slty, kaolic, bentic, tr dism pyr.

Sh: m - dk gy, blkly - sbfis, waxy, py - modly ind, easily hyd, dolic, sily calcs, sily slty, kaolic, bentic, tr dism pyr.

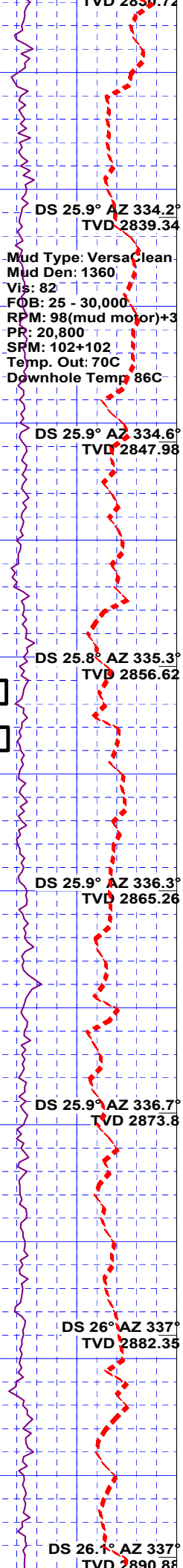
Sh: lt gy, occlly m - dk gy - blk, blkly - sbfis, waxy, py - modly ind, easily hyd, sily dolic, sily slty, kaolic, bentic, tr dism pyr.

66.66667 133.33333 200

0 30

DS 26.2° AZ 334.0°
TVD 2830.71

Nov 13, 2004



3010 m

3020 m

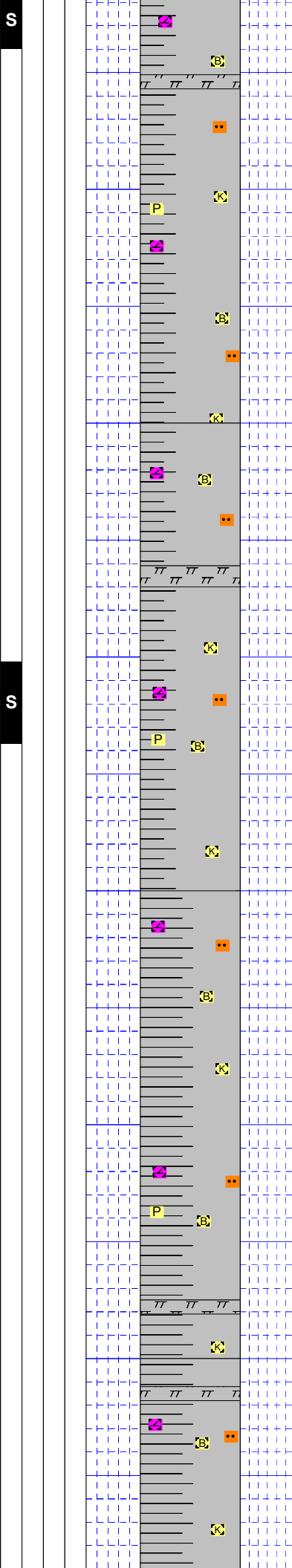
3030 m

3040 m

3050 m

3060 m

3



Sh: lt gy, occlly m - dk gy - blk, blkly - sbfis, waxy, py - modly ind, easily hyd, sily dolic, sily slty, kaolic, bentic, tr dism pyr / tr sltst, m gy brn, qtzs, arg, dol cmt, v hd, tt, ns.

Sh: lt gy, occlly m - dk gy - blk, blkly - sbfis, waxy, py - modly ind, easily hyd, sily dolic, sily slty, kaolic, bentic, tr dism pyr, rr rdd dol nods, v hd.

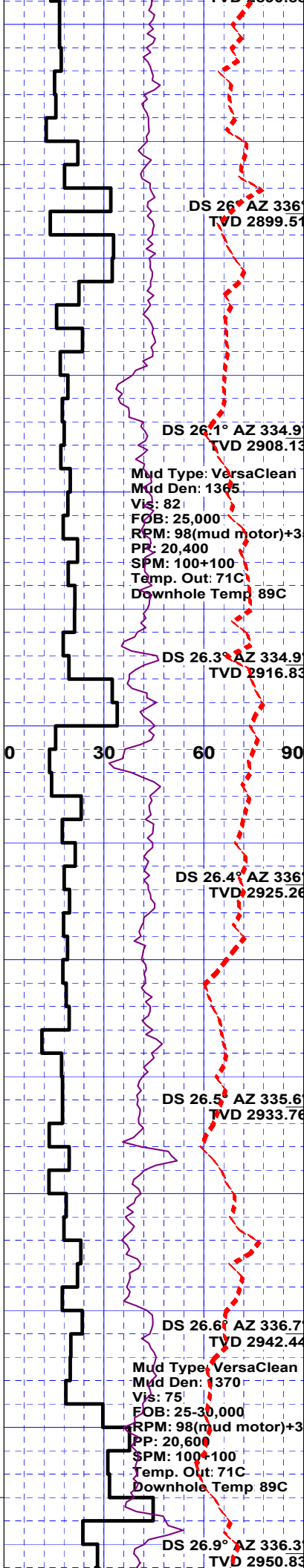
Sh: lt gy, occlly m - dk gy - blk, blkly - sbfis, waxy, py - modly ind, easily hyd, modly dolic (dolic mrlst ip), sily slty, kaolic, bentic, tr dism pyr.

Sh: m gy, rr blk, blkly - sbfis, waxy, py - modly ind, easily hyd, modly dolic (dolic mrlst ip), sily slty, kaolic, bentic, tr dism pyr.

Sh: m gy, rr blk, blkly - sbfis, waxy, py - modly ind, easily hyd, modly dolic (dolic mrlst ip), sily slty, kaolic, bentic, tr dism pyr.

Nov 14, 2004

Nov 15, 2004



DS 26.0° AZ 336.9°
TVD 2899.51

DS 26.1° AZ 334.9°
TVD 2908.13

Mud Type: VersaClean
Mud Den: 1365
Vis: 82
FOB: 25,000
RPM: 98(mud motor)+3
PP: 20,400
SPM: 100+100
Temp. Out: 71C
Downhole Temp: 89C

DS 26.3° AZ 334.9°
TVD 2916.83

DS 26.4° AZ 336°
TVD 2925.26

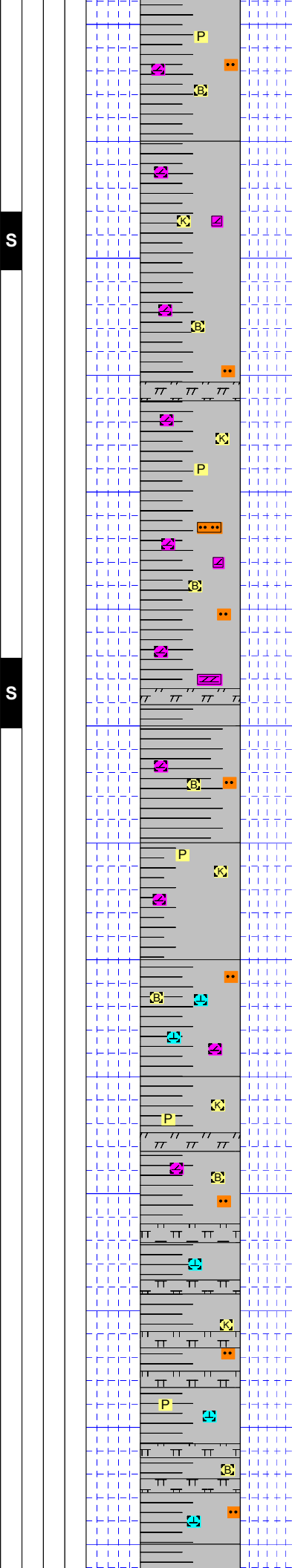
DS 26.5° AZ 335.6°
TVD 2933.76

DS 26.6° AZ 336.7°
TVD 2942.44

Mud Type: VersaClean
Mud Den: 1370
Vis: 75
FOB: 25-30,000
RPM: 98(mud motor)+3
PP: 20,600
SPM: 100+100
Temp. Out: 71C
Downhole Temp: 89C

DS 26.9° AZ 336.3°
TVD 2950.83

3070 m
3080 m
3090 m
3100 m
3110 m
3120 m
3130 m



Sh: m gy, blkly - sbfis, waxy ip, py - modly ind, easily hyd, modly dolic (dolic mrlst ip), sily slty, kaocic, bentic, tr disp pyr, tr m gy dol nods, tr dol filled healed fracs.

Sh: m gy, blkly - sbfis, waxy ip, py - modly ind, easily hyd, modly dolic (dolic mrlst ip), sily slty, kaocic, bentic, tr disp pyr, tr dol, dk gy, micxl, v arg, hd, tt, ns, tr dol filled healed fracs.

Sh: m gy, blkly - sbfis, waxy ip, py - modly ind, easily hyd, modly dolic (dolic mrlst ip), sily slty, kaocic, bentic, tr disp pyr, tr loose dol spar.

Sh: m gy, blkly - sbfis, waxy ip, py - modly ind, easily hyd, modly dolic (dolic mrlst ip), sily slty, kaocic, bentic, tr disp pyr, tr sltst, m gy, qtzs, v calcs, v arg, py ind, tt, ns, also / tr m gy dol nods.

Sh: m gy, blkly - sbfis, waxy ip, py - modly ind, easily hyd, modly dolic (dolic mrlst ip), sily slty, kaocic, bentic, tr disp pyr, also / dol (tr), m gy, micxl - micric, modly hd, calcs, arg, pyric, tt, ns..

Sh: m - dk gy, blkly - sbfis, waxy ip, py - modly ind, easily hyd, modly dolic (dolic mrlst ip), sily slty, kaocic, bentic, tr disp pyr.

Sh: lt - m gy, blkly - sbfis, waxy ip, py - modly ind, easily hyd, modly dolic (dolic mrlst ip), sily slty, kaocic, bentic, tr disp pyr.

Sh: m gy, rr dk gy, blkly - sbfis, waxy ip, py - modly ind, easily hyd, modly dolic (dolic mrlst ip), calcs ip, sily slty, kaocic, bentic, tr disp pyr.

Sh: m gy, up to 10% blk, blkly - sbfis, waxy ip, py - modly ind, easily hyd, dolic (dolic mrlst ip), incrgly calcs ip, sily slty, kaocic, bentic, tr disp pyr.

Sh: m - dk gy, occlly blk, blkly - sbfis, waxy ip, py - modly ind, easily hyd, bcmg calcs / calcs mrlst, sily slty, kaocic, bentic, tr disp pyr, tr calcite & pyr filled fracs.

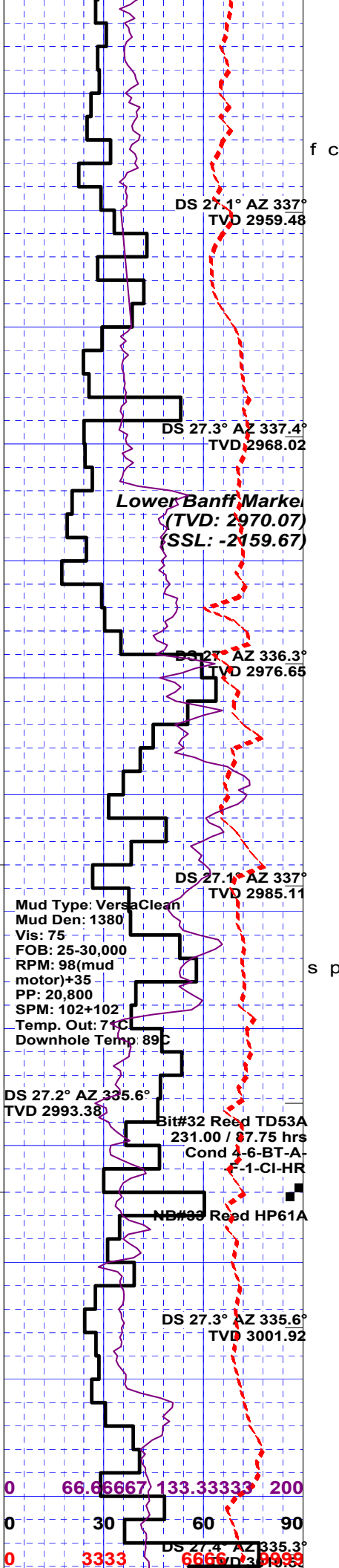
Sh: lt - m - dk gy, occlly blk, blkly - sbfis, waxy ip, py - modly ind, easily hyd, bcmg calcs / calcs mrlst, sily slty, kaocic, bentic, tr disp pyr.

Sh: m - dk gy, occlly blk, blkly - sbfis, waxy ip, py - modly ind, easily hyd, bcmg v calcs /

0004

Nov 16, 2004

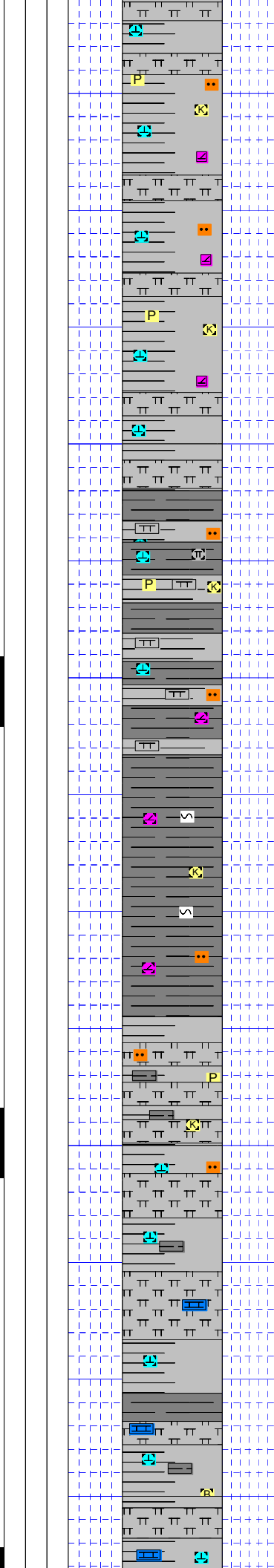
Nov 17, 2004



Mud Type: VersaClean
 Mud Den: 1380
 Vis: 75
 FOB: 25-30,000
 RPM: 98(mud motor)+35
 PP: 20,800
 SPM: 102+102
 Temp. Out: 71C
 Downhole Temp: 89C

Lower Banff Marker
 (TVD: 2970.07)
 (SSL: -2159.67)

3140 m
 3150 m
 3160 m
 3170 m
 3180 m
 3190 m
 3200 m



py - modly ind, easily hyd, bcmg v calcs / calcs mrlst, sily sily, kaolic, bentic, tr dism pyr.

Sh: m - dk gy, occlly blk, blkly - sbfis, waxy ip, py - modly ind, easily hyd, bcmg v calcs / calcs mrlst, sily sily, kaolic, bentic, tr dism pyr, tr calc filled fracs, tr rdd dol nods.

Sh: m - dk gy, occlly blk, blkly - sbfis, waxy ip, py - modly ind, easily hyd, bcmg v calcs / calcs mrlst, sily sily, kaolic, bentic, tr dism pyr, tr m gy rdd dol nods.

Sh: m - dk gy, occlly blk, blkly - sbfis, waxy ip, py - modly ind, easily hyd, bcmg v calcs / calcs mrlst, sily sily, kaolic, bentic, tr dism pyr, tr ls, blk, micxl - crpxl, v hd, v arg, sily dolic, tt, ns.

Sh: m - dk gy, occlly blk, blkly - sbfis, waxy ip, py - modly ind, easily hyd, bcmg v calcs / calcs mrlst, sily sily, kaolic, bentic, tr dism pyr.

Sh: m gy (40%) - dk gy - blk (60%), blkly - sbfis, waxy ip, py - modly ind, easily hyd, modly - v calcs / calcs mrlst, sily sily, kaolic, bentic, tr dism pyr.

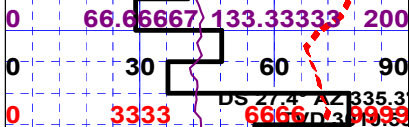
Sh: dk gy - blk, blkly - sbfis, waxy ip, py - modly ind, easily hyd, bcmg dolc ip, sily sily, sily kaolic, tr dism pyr, tr pyr nods.

Sh: m gy (70%) - dk gy - blk (30%), blkly - sbfis, waxy ip, py - modly ind, easily hyd, modly - v calcs / calcs mrlst, sily sily, kaolic, bentic, tr dism pyr.

Sh: m gy (85%), blkly - sbfis, waxy ip, py - modly ind, easily hyd, v calcs / calcs mrlst, sily sily, kaolic, bentic, tr dism pyr / sh (15%) dk gy - blk, sbfis, modly ind, sily bits also / ls (up to 10%), m gy, micric, modly hd, v arg, tt, ns.

Sh: m gy (90%), blkly - sbfis, waxy ip, py - modly ind, easily hyd, v calcs / calcs mrlst, sily sily, kaolic, bentic, tr dism pyr / sh (10%) dk gy - blk, sbfis, modly ind, sily bits also / ls (up to 10%), m gy, micric, modly hd, v arg, tt, ns.

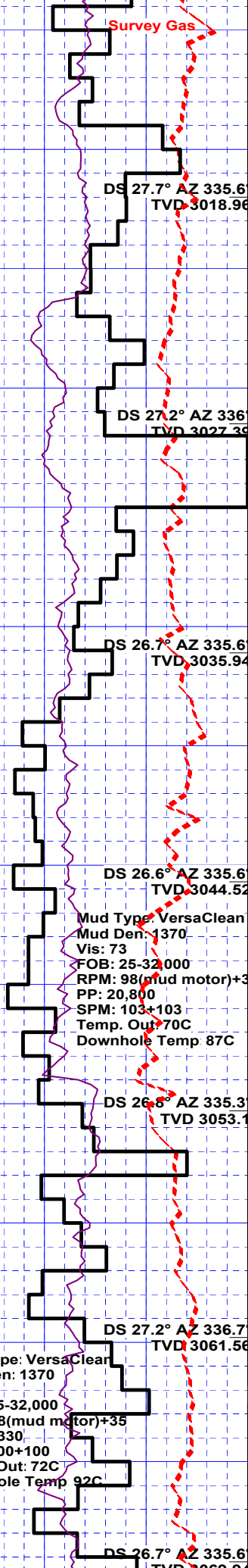
Sh: m gy, blkly - sbfis, waxy ip, py - modly ind, easily hyd, v calcs ip grgd - calcs mrlst, bcmg sily dolc in sily sily, kaolic, bentic, tr



Nov 18, 2004

Nov 19, 2004

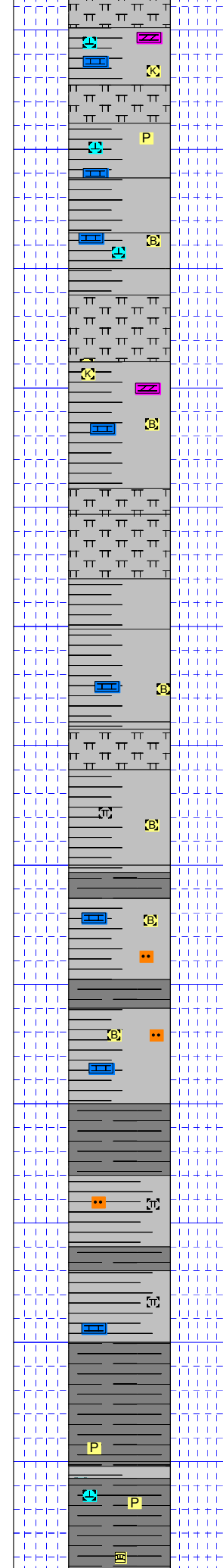
Nov 20, 2004



Mud Type: VersaClean
 Mud Den: 1370
 Vis: 73
 FOB: 25-32,000
 RPM: 98(mud motor)+3
 PP: 20,800
 SPM: 103+103
 Temp. Out: 70C
 Downhole Temp 87C

Mud Type: VersaClean
 Mud Den: 1370
 Vis: 78
 FOB: 25-32,000
 RPM: 98(mud motor)+35
 PP: 20,330
 SPM: 100+100
 Temp. Out: 72C
 Downhole Temp 92C

3210 m
 3220 m
 3230 m
 3240 m
 3250 m
 3260 m
 3270 m



... sily dolc ip, sily sily, kaoc, bentic, tr
 dism pyr / sh (up to 10%) dk gy - blk, sbfis,
 modly ind, sily bits also / varying amounts of
 ls, m gy, micric, py ind - modly hd, v arg, tt,
 ns & / dol (tr), m gy, micxl, modly hd, arg, tt,
 ns.

Sh: m gy, blk - sbfis, waxy ip, py - modly
 ind, easily hyd ip, v calcs ip grdg - calcs
 mrlst, bcmg sily dolc ip, sily sily, kaoc,
 bentic, tr dism pyr, / varying amounts of ls,
 m gy, micric, py ind - modly hd, v arg, tt, ns &
 / dol (tr), m gy, micxl, modly hd, arg, tt, ns.

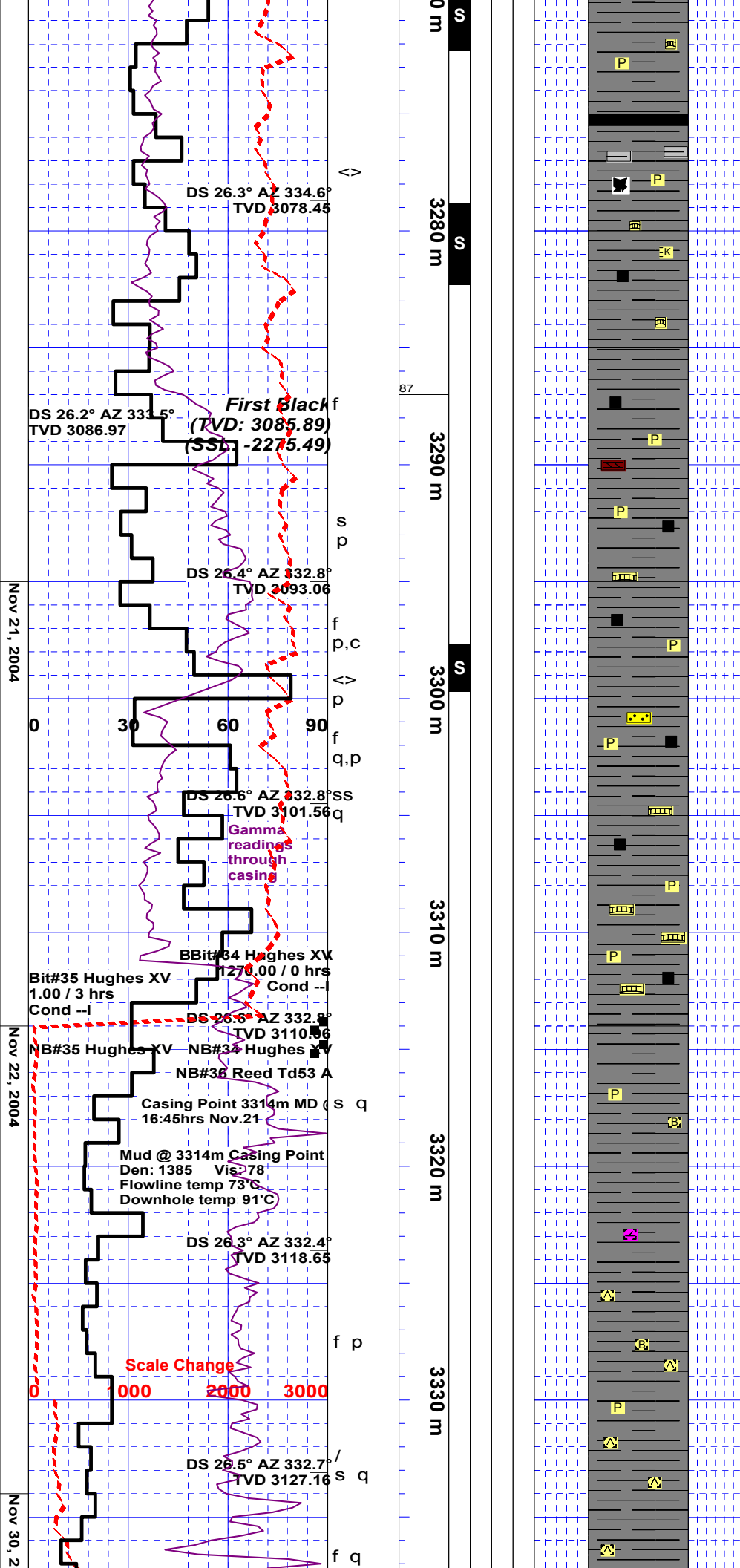
Sh: m dk gy, blk - sbfis, waxy ip, py - modly
 ind, easily hyd ip, v calcs ip grdg - calcs
 mrlst, bcmg sily dolc ip, sily sily, kaoc,
 bentic, tr dism pyr, / varying amounts of ls,
 m gy, micric, py ind - modly hd, v arg, tt, ns &
 10% blk sh.

Sh: m gy tan (85%), blk - sbfis, waxy ip, py -
 modly ind, easily hyd, v calcs / calcs mrlst,
 sily sily - sdy, kaoc, bentic, tr dism pyr / sh
 (15%) dk gy - blk, sbfis, modly ind, sily bits
 also / ls (up to 10%), m gy, micric, modly hd,
 v arg, tt, ns.

Sh: m gy tan (65%), blk - sbfis, waxy ip, py -
 modly ind, easily hyd, v calcs / calcs mrlst,
 sily sily - sdy, kaoc, bentic, tr dism pyr / sh
 (35%) dk gy - blk, sbfis, modly ind, sily bits
 also / ls (up to 10%), m gy, micric, modly hd,
 v arg, tt, ns.

Sh: (60%) blk - dk gy, sbfis, modly ind, sily
 bits also / sh (40%) m gy tan, blk - sbfis,
 waxy ip, py - modly ind, easily hyd, v calcs /
 calcs mrlst, sily sily - sdy, kaoc, bentic, tr
 dism pyr / up to 5% trns dol rhombs (mud
 additives)

Sh: blk - dk gy, sbfis - blk, modly ind, soft -
 brit, sl - mod bits, cen - sily brec ip, also / sh
 (5%) m gy tan, blk - sbfis, waxy ip, py -
 modly ind, easily hyd, wk calcs / mnr calcs
 mrlst, sily sily - sdy, kaoc, bentic, tr



Sh: blk - dk gy, sbfis - blk, modly ind, soft - brit, sily bits, brec ip, cren ip, carb strgs grd - coal, blk, shaly; also / sh (15%) m gy tan, blk - sbfis, py - modly ind, easily hyd, wk calcs, sily slty - sdy, kaoic / kao infilling frac, bentic, tr - com dism pyr / up to 1% trns dol rhombs (mud additives)

Sh: blk, sbfis - blk, modly ind, brit - firm, sl - mod bits, cren ip, sl - modly carb / carb frags, mnr pyr, wk calcs, also / sh blk - dk gy brn, soft, bentic, tr - com pyr, blk, easily hyd (slight decrease in the bentic shales)

Sh: blk, sbfis - blk, modly ind, brit - firm, sl - mod bits, modly carb / carb frags, mnr pyr, wk calcs, also / sh (15-20%) blk - dk gy brn, soft, bentic, kaoic ip, tr - com pyr, blk, easily hyd; mnr Sid strgs brn, hd, mas, shaly.

Sh: blk, sbfis - blk, modly ind ip, v sils ip (tr, v hd, sild sh), brit - firm, sl - mod bits, modly carb / carb frags, mnr pyr, wk calcs, also / sh (15-20%) blk - dk gy brn, soft, bentic, kaoic ip, tr - com pyr, blk, easily hyd / mnr ss, trnsi qtz, f - m gr, strg - loose, sh ctd, ns, no por.

Sh: blk, sbfis - blk, modly ind, brit - firm, sl - mod bits, modly carb / carb frags, mnr pyr, wk calcs, also / sh (40%) blk - dk gy brn, soft, bentic, kaoic ip, com pyr, blk, easily hyd.

Ran 241 joints of 244.5mm, 79.62kg/m, L-80, LT & C, Range 111 Summit casing. Cemented by Sanjel, lead with 49.4 tonnes of Thixlite HT + 0.5% CFL-3 + 0.55% LTR + 3% LCC-1, tailed with 76 tonnes Thermal 40 + 0.9% CFL-4 + 1% LCC-1 + 2% SPC-11 + 0.2% LTR. Landed at 3311.0m. Plug down at 08:30 hrs; 11 - 27 - 2004; with good cement returns to surface.

Sh: blk, blk, mas, py - modly ind, sily bits, sily carb, tr dism pyr, sily dolc, sily bent, tr rdd lt brn dol nods.

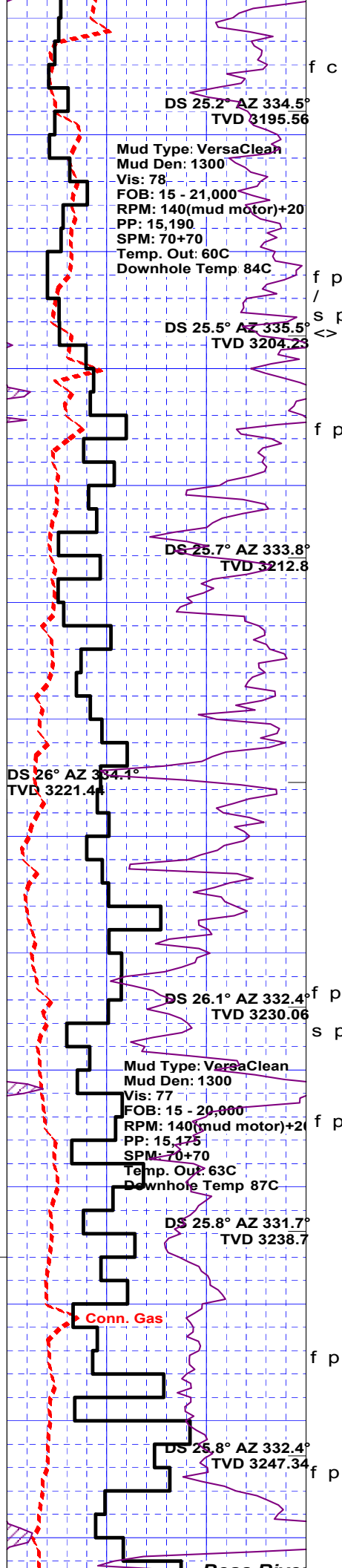
Sh: blk, blk, mas, py - modly ind ip, v sils ip (10%, v hd, sild sh), sily bits, sily carb, tr dism pyr, sily dolc, sily bent, / tr ss, lt - m gy, qtzs, v f - f gred, sbrdd - sbang, w srt, hd, sils, arg, tt, ns, tr blk bit specs also / tr cht, yel, mas ang frag.

Sh: blk, blk, mas, py - modly ind ip, v sils ip (10-20%, v hd, sild sh), sily bits, sily carb, tr dism pyr, sily dolc, sily bent.

Sh: blk, blk, mas, py - modly ind ip, v sils ip (10-20%, v hd, sild sh), sily bits, sily carb, tr dism pyr, sily dolc, sily bent, tr m brn sils

Dec 1, 2004

Dec 2, 2004



3410 m

3420 m

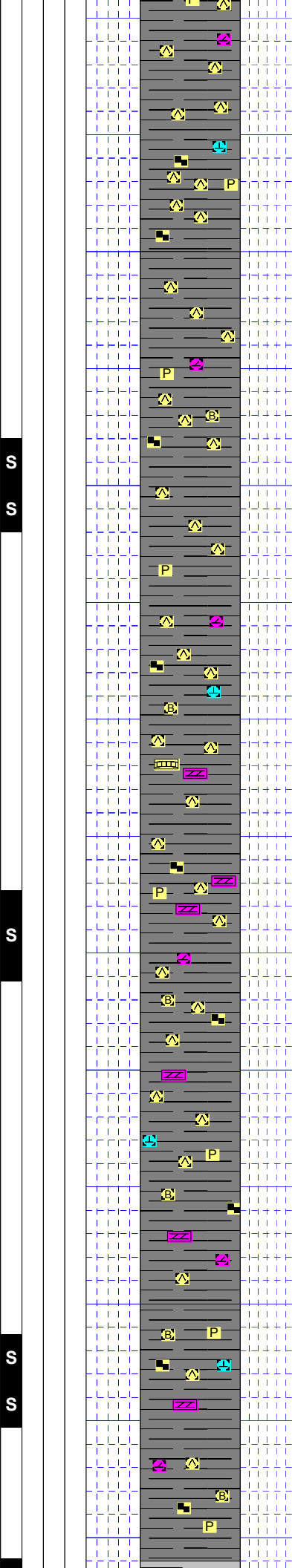
3430 m

3440 m

3450 m

3460 m

3470 m



Sh: blk, blkly, v sils ip (60-70%, v hd, sild sh), modly ind ip, carb, tr - com dism pyr, tr calc filled fracs, v silly dolic, sillycalcs.

Sh: blk, blkly, occlly sbfis, modly ind ip, v sils ip (40%, v hd, sild sh), carb, com - abnt dism pyr, v silly dolic.

Sh: blk, blkly, occlly sbfis, modly ind ip, v sils ip (30-40%, v hd, sild sh), carb, com - abnt dism pyr, v silly dolic, tr wh bent.

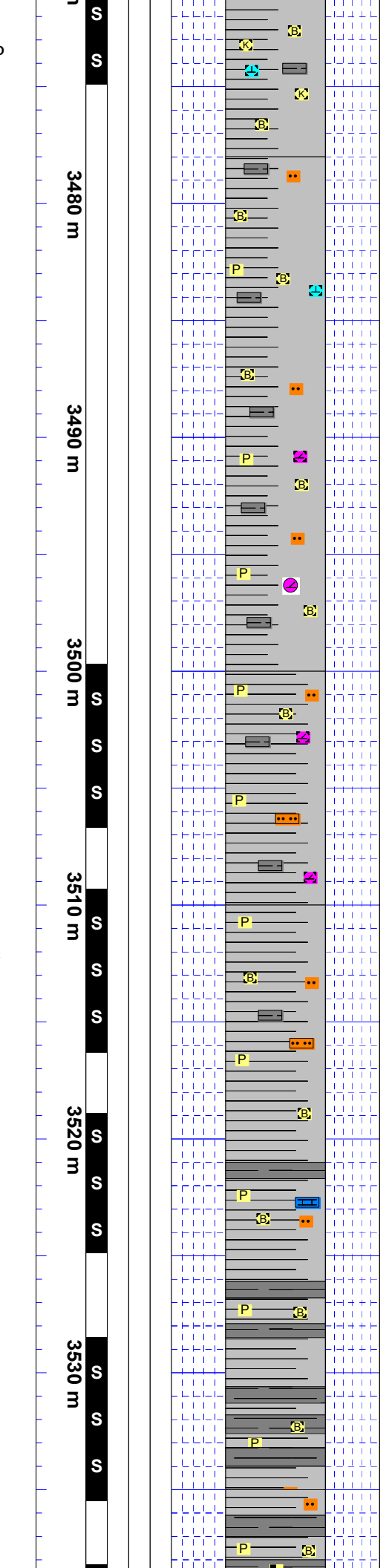
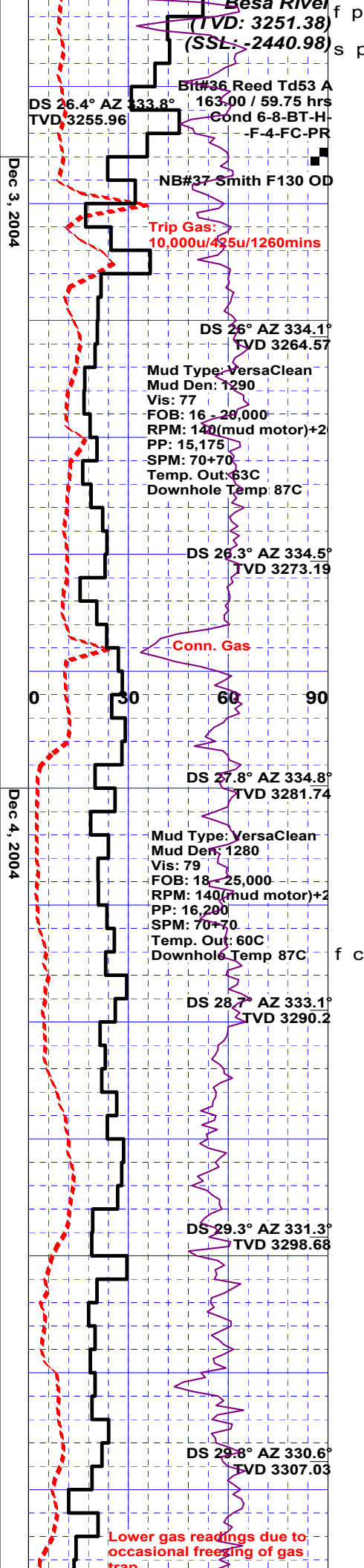
Sh: blk, blkly, occlly sbfis, modly ind ip, v sils ip (30%, v hd, sild sh), carb, com - abnt dism pyr, v silly dolic, modly bentic, / tr dol, lt - m gy, micxl - v f xln, aarg, silly calcs, tt, ns.

Sh: blk, blkly, occlly sbfis, modly ind ip, v sils ip (30%, v hd, sild sh), carb, com - abnt dism pyr, v silly dolic, modly bentic, / dol (up to 10%), lt - m gy, micxl - v f xln, aarg, silly calcs, tt, ns.

Sh: blk, blkly, occlly sbfis, modly ind ip, v sils ip (10-20%, v hd, sild sh), carb, com - abnt dism pyr, v silly dolic, modly bentic / thin wh bent lams, calcs ip, easily hyd ip, / dol (up to 5%), lt - m gy, micxl - v f xln, arg, silly calcs, tt, ns.

Sh: blk, blkly, occlly sbfis, modly ind ip, v sils ip (15-20%, v hd, sild sh), carb, com - abnt dism pyr, v silly dolic, modly bentic / tr m gy bent grs, also / thin wh bent lams, calcs ip, easily hyd ip, & / dol, tr, lt - m gy, micxl - v f xln, arg, silly calcs, tt, ns.

Sh: blk (60%), blkly, occlly sbfis, modly ind ip, v sils ip (15%, v hd, sild sh), carb, com - abnt



dism pyr, v sily dolc, modly bentic / sh (40%), m gy, rthy, occlly blk, v sft, bentic, kaocic, / dol, tr, lt - m gy, micxl - v f xln, arg, sily calcs, tt, ns.

Sh: m gy, rthy, mas, occlly blk, py ind, sily, bentic, com dism pyr, / sh, tr, blk, blk, modly ind, carb, com dism pyr.

Sh: m gy, rthy, mas, occlly blk, py ind, sily, bentic, easily hyd, com dism pyr, sily dolc / sh (15%), blk, blk, modly ind, carb, com dism pyr.

Sh: m gy, rthy, mas, occlly blk, py ind, sily, bentic, easily hyd, com dism pyr, / sh (15%), blk, blk, modly ind, carb, com dism pyr also / dol nods, tr, m gy brn.

Sh: dk gy, rr m gy, rthy, mas, occlly blk, py ind, sily / tr thin sltst lams (dk gy, qtzs, dolc, modly hd), bentic, easily hyd, com dism pyr, sily dolc / sh (5%), blk, blk, modly ind, carb, com dism pyr.

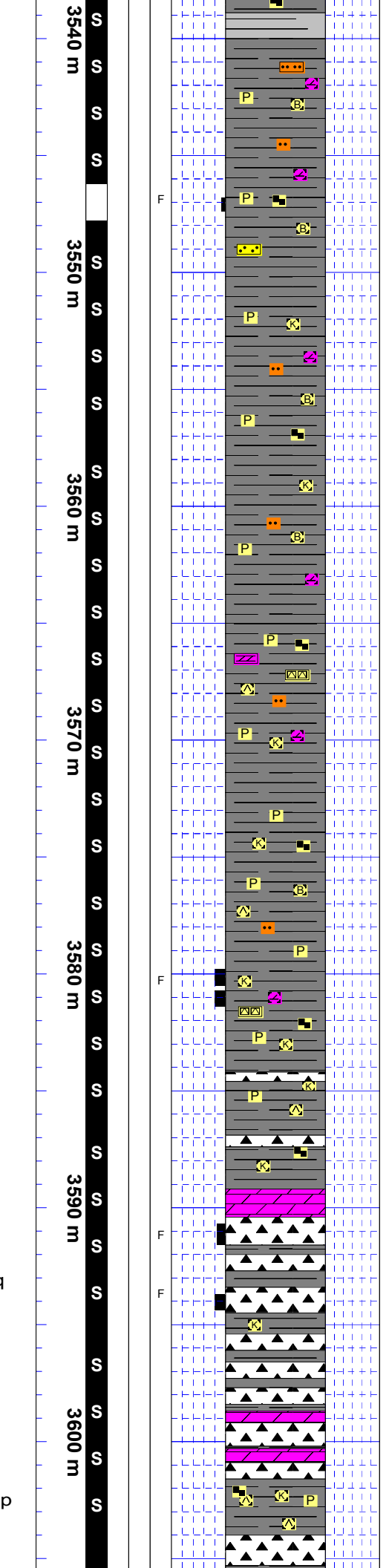
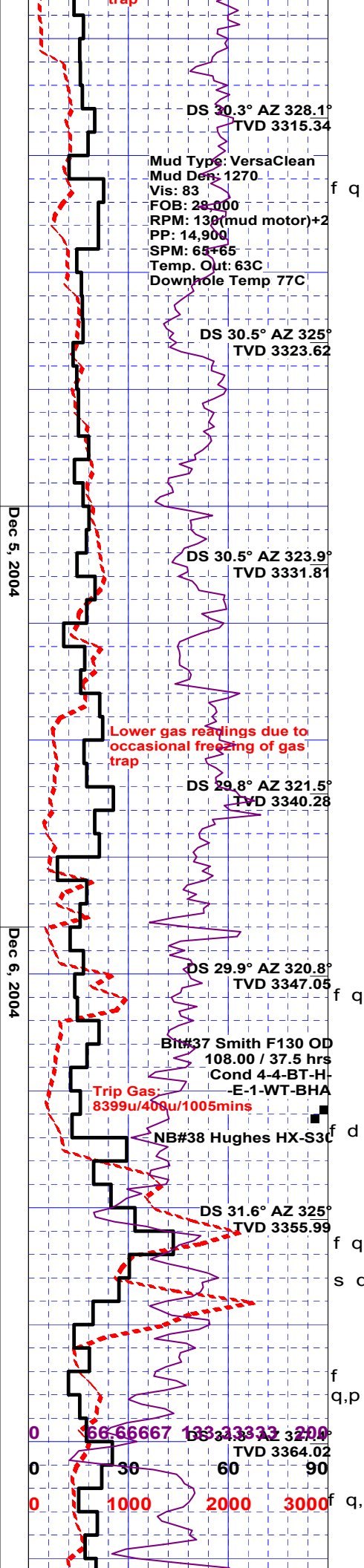
Sh: dk gy, rr m gy, rthy, mas, occlly blk, py ind, sily / tr thin sltst lams (dk gy, qtzs, dolc, modly hd), com dism pyr, sily dolc / sh (5%), blk, blk, modly ind, carb, com dism pyr.

Sh: dk gy - blk, rthy, sbfis - blk, py - modly ind, dism pyr throughout, sily bentic.

Sh: m - dk gy, rr blk, rthy, mas, occlly blk, py ind, sily / tr thin sltst lams (lt gy, qtzs, dolc, modly hd, pyrbit stn), bentic, com dism pyr, sily dolc / sh (5%), blk, blk, modly ind, carb, com dism pyr.

Sh: dk gy - occlly blk, rthy, sbfis - blk, py - modly ind, dism pyr throughout, sily bentic.

Sh: dk gy - blk, rthy, sbfis - blk, py - modly ind, dism pyr throughout, sily bentic.



Sh: blk, occlly dk gy - brnsh blk, sbfis - blkly, rthy ip, carb ip, py - modly ind, sily slty, dism pyr throughout, sily bentic, sily dolic / tr sltst, lt gy, qtzs, arg, modly hd, dolic, tt, ns.

Sh: blk, occlly dk gy - brnsh blk, sbfis - blkly, rthy ip, carb ip, py - modly ind, sily slty, dism pyr throughout, sily bentic, sily dolic / tr ss, blk, qtzs, v f gred, sbang, w srt, arg, v hd, dolic, tt, ns.

Sh: blk, occlly dk gy - brnsh blk, sbfis - blkly, rthy ip, carb ip, py - modly ind, sily slty, kaoic ip, dism pyr throughout, sily bentic, decrg dolic.

Sh: blk, occlly dk gy - brnsh blk, sbfis - blkly, rthy ip, carb ip, py - modly ind, sily slty, kaoic ip, abnt dism pyr throughout / thin pyr lams, sily bentic, sily dolic / dol, (tr - 5%), blk, micxl, pyrbits, v hd, tt, ns.

Cht: blk, sild sh, blkly, v hd, tt, ns.

Sh: blk, occlly dk gy - brnsh blk, sbfis - blkly, rthy ip, carb ip, py - modly ind, sily slty, kaoic ip, abnt dism pyr throughout / thin pyr lams, sily bentic, sily dolic / dol, (tr), blk, micxl, pyrbits, v hd, tt, ns.

Sh: blk, occlly dk gy - brnsh blk, sbfis - blkly, rthy ip, carb ip, py - modly ind, sily slty, kaoic ip, abnt dism pyr throughout / thin pyr lams, sily bentic, sily dolic.

Cht: blk, sild sh, blkly, v hd, tt, ns.

Sh: blk, occlly dk gy - brnsh blk, sbfis - blkly, rthy ip, carb ip, py - modly ind, sily slty, sily kaoic, abnt dism pyr throughout / thin pyr lams, sily dolic.

Cht: blk, sild sh, blkly, v hd, tt, ns, tr dol lined fracs

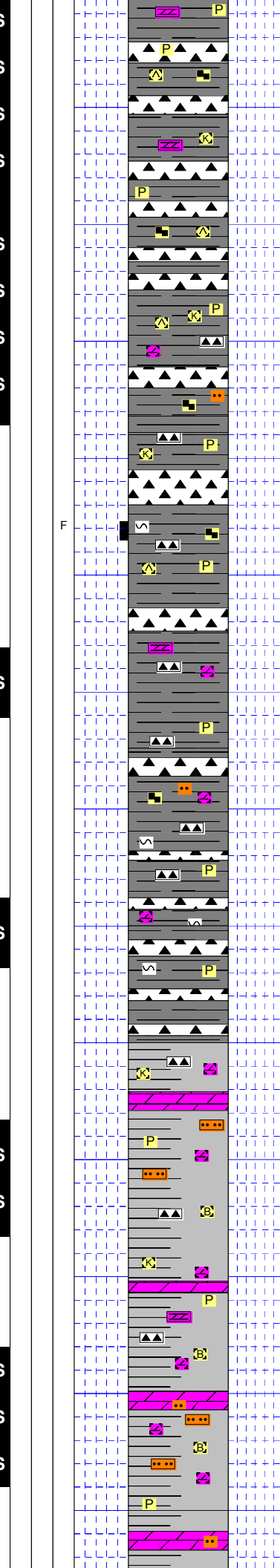
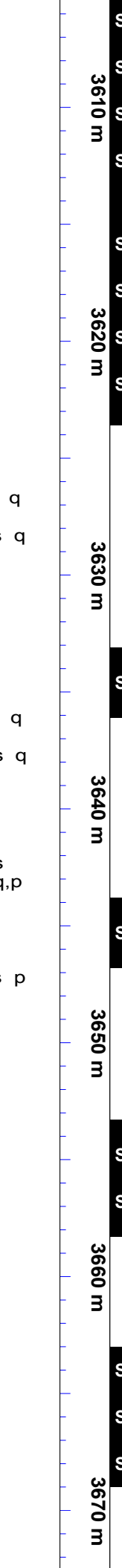
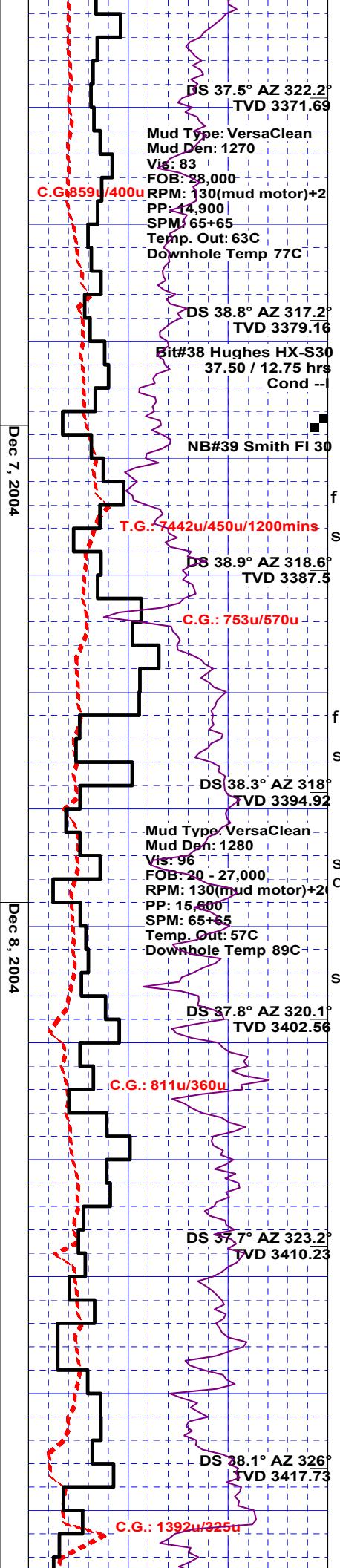
Dol: specd, lg blkly frags, mainly blk / wh dol grs, v f gred, v arg, modly hd, tt, ns, pyrbits.

Cht: blk, sild sh, blkly, v hd, tt, ns, tr qtz lined fracs, tr loose qtz grs.

Sh: blk, occlly dk gy - brnsh blk, sbfis - blkly, rthy ip, carb ip, py - modly ind, sily slty, sily kaoic, abnt dism pyr throughout / thin pyr lams, sily dolic / sh (20%), dk brn, bits, rthy, py ind.

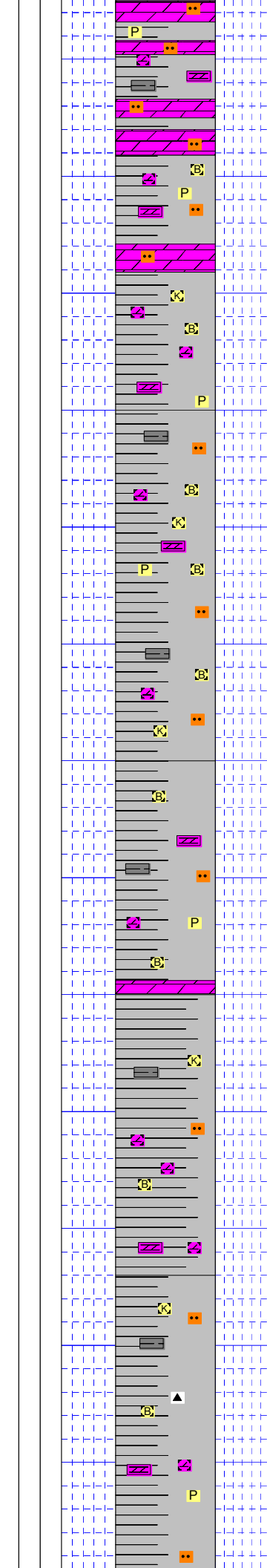
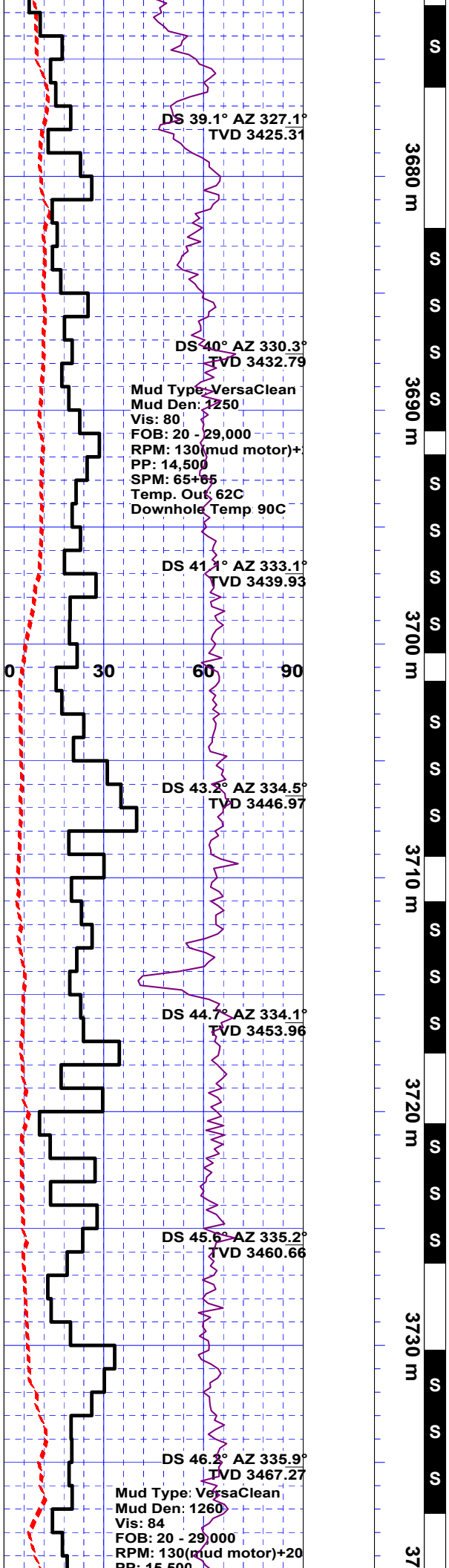
Cht: blk, sild sh, blkly, v hd, tt, ns, tr qtz lined fracs.

Sh: blk, occlly dk gy - brnsh blk, sbfis - blkly, rthy ip, carb ip, py - modly ind, sily slty, sily kaoic, abnt dism pyr throughout / thin pyr lams, sils.



Cht: blk, sild sh, blk, v hd, tt, ns, tr qtz & dol lined fracs.
Dol: m gy, micxl, v arg, modly hd, tt, ns.
Sh: blk, occlly dk gy - brnsh blk, sbfis - blk, rthy ip, carb ip, py - modly ind, sily slty, sily kaocic, abnt dism pyr throughout / thin pyr lams, sily sils.
Dol: m gy, micxl, v arg, modly hd, tt, ns.
Sh: blk, occlly dk gy - brnsh blk, sbfis - blk, rthy ip, carb ip, py - modly ind, sily slty, sily kaocic, abnt dism pyr throughout / thin pyr lams, sily sils.
Cht: blk, sild sh, blk, v hd, tt, ns.
Sh: blk, occlly dk gy - brnsh blk, sbfis - blk, rthy ip, carb ip, py - modly ind, sily slty, sily kaocic, abnt dism pyr throughout / thin pyr lams, sily sils.
Sh: blk, occlly brnsh blk, blk - rthy, py - modly ind, occlly w ind, kaocic ip, bits ip, carb ip, sily slty ip, occlly v dolic, occlly v sils, com dism pyr.
Cht: blk, blk, sild sh, brit frac, v hd, com dism pyr.
Sh: blk, occlly brnsh blk, blk - rthy, py - modly ind, occlly w ind, kaocic ip, bits ip, carb ip, sily slty ip, occlly v dolic, occlly v sils, com dism pyr, / sh (<5%), m gy, v sft, kaocic.
Dol: blk, micxl, arg, modly hd, pyrbits, tt, ns.
Sh: blk, occlly brnsh blk, blk - rthy, py - modly ind, occlly w ind, kaocic ip, bits ip, carb ip, sily slty ip, occlly v dolic, occlly v sils, com dism pyr.
Cht: blk, blk, sild sh, brit frac, v hd, com dism pyr.
Cht: blk, blk, sild sh, brit frac, v hd, com dism pyr.
Dol: blk - m - dk gy, micxl, arg, modly hd, pyrbits, tt, ns.
Sh: m gy, rthy, occlly blk, bentic, kaocic, dolic, dism pyr.
Dol: blk - m - dk gy, micxl, arg, modly hd, pyrbits, tt, ns.
Siltst: m gy, qtzs, arg, v hd, v sils, tt, ns.
Sh: m gy, rthy, occlly blk, bentic, easily hyd ip, kaocic, dolic, dism pyr / siltst (up to 5%), m gy, qtzs, arg, v hd, v sils, tt, ns also / cht (up to 5%), blk, blk, sild sh, brit frac, v hd, com dism pyr.
Sh: m gy, rthy, occlly blk, bentic, easily hyd ip, kaocic, dolic, dism pyr / siltst (up to 15%), m gy, qtzs, arg, v hd, v sils, tt, ns.
Sh: m gy, rthy, occlly blk, bentic, easily hyd ip, kaocic, dolic, dism pyr / cht (up to 5%), blk, blk, sild sh, brit frac, v hd, com dism pyr.

Dec 9, 2004



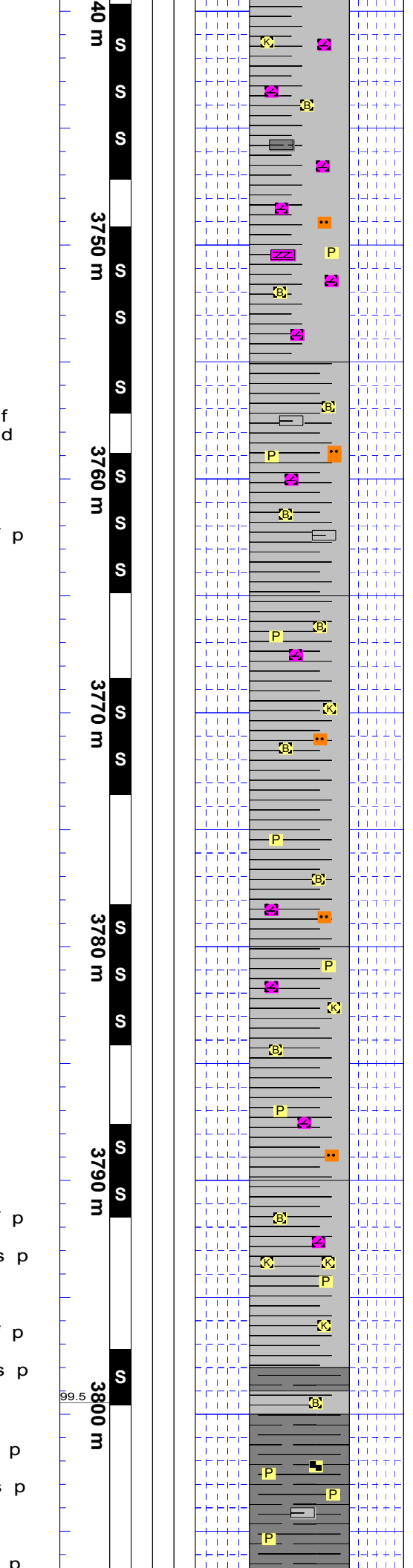
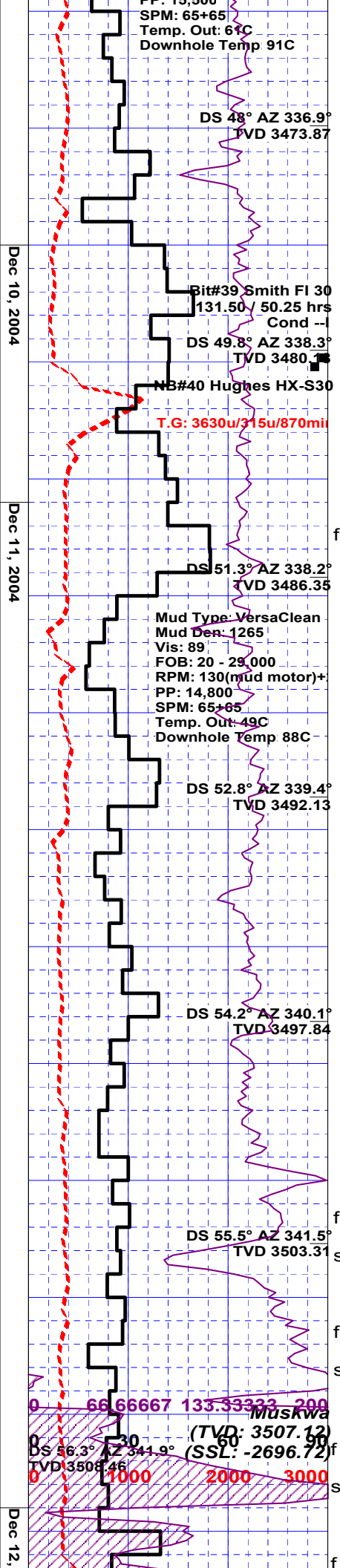
Dol: blk - m - dk gy, micxl, v slty, arg, modly hd, pyrbits, tt, ns.

Sh: m gy, occlly blk, rthy, occlly blkly - sbfis, bentic, easily hyd ip, kaolic, dolic, dism pyr / dol (up to 10%), blk - m - dk gy, micxl, v slty, arg, modly hd, pyrbits, tt, ns.

Sh: m gy - dk gy, rthy (mrlst), occlly blkly - sbfis, sft, bentic, easily hyd ip, kaolic, dolic, dism pyr / sh (tr), blk, blkly, v sils / dol (tr - 5%), blk - m - dk gy, micxl, v slty, arg, modly hd, pyrbits, tt, ns.

Sh: m - mainly dk gy, rthy (mrlst), occlly blkly - sbfis, sft, bentic, easily hyd ip, kaolic, dolic, dism pyr / sh (tr), blk, blkly, v sils / dol (tr - 5%), blk - m - dk gy, micxl, v slty, arg, modly hd, pyrbits, tt, ns.

Sh: m - dk gy, rthy (mrlst), occlly blkly - sbfis, sft, bentic, easily hyd ip, kaolicly dolic, tr floating cht grs (blk, c gred, sbrdd), tr - com dism pyr / sh (tr), blk, blkly, v sils / dol (tr - 5%), blk - m - dk gy, micxl, v slty, arg, modly hd, pyrbits, tt, ns.



Sh: m - mainly dk gy, rthy (mrlst), occlly blkly - sbfis, sft, bentic, easily hyd ip, kaoc, incrgly dolc, dism pyr / cht (tr), blk, blkly, sild sh, v sils / dol (tr - 5%), blk - m - dk gy, micxl, v slty, arg, modly hd, pyrbits, tt, ns.

Sh: m - mainly dk gy, rthy (mrlst), occlly blkly - sbfis, sft, bentic, easily hyd ip, kaoc, silty dolc, dism pyr / cht (tr), blk, blkly, sild sh, v sils / dol (tr), blk - m - dk gy, micxl, v slty, arg, modly hd, pyrbits, tt, ns.

Sh: m - dk gy, rthy (mrlst), occlly blkly - sbfis, sft, bentic, easily hyd ip, kaoc, silty dolc, tr - com dism pyr bcmg fis ip & incrg w ind ip / cht (tr), blk, sild sh, blkly, v sils / dol (tr), blk - m - dk gy, micxl, v slty, arg, modly hd, pyrbits, tt, ns.

Sh: m - dk gy, rthy (mrlst), occlly blkly - sbfis, sft, bentic, easily hyd ip, kaoc, silty dolc, tr - com dism pyr bcmg fis ip & incrg w ind ip / cht (tr - 5%), blk, sild sh, blkly, v sils / dol (tr - 5%), blk - m - dk gy, micxl, v slty, arg, modly hd, pyrbits, tt, ns.

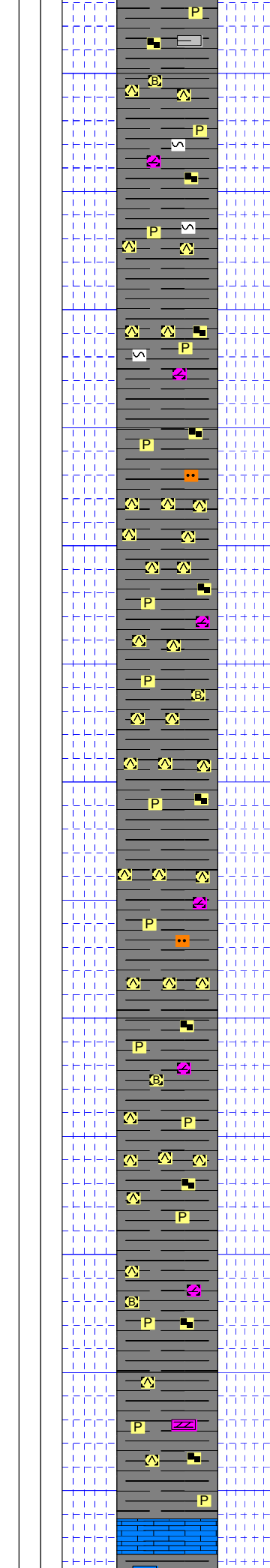
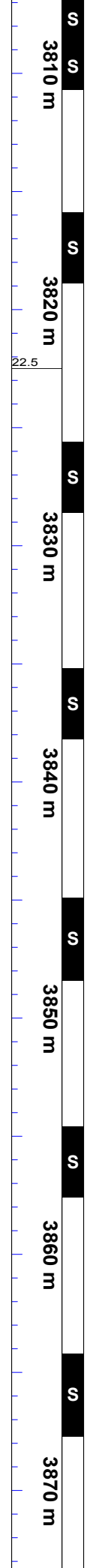
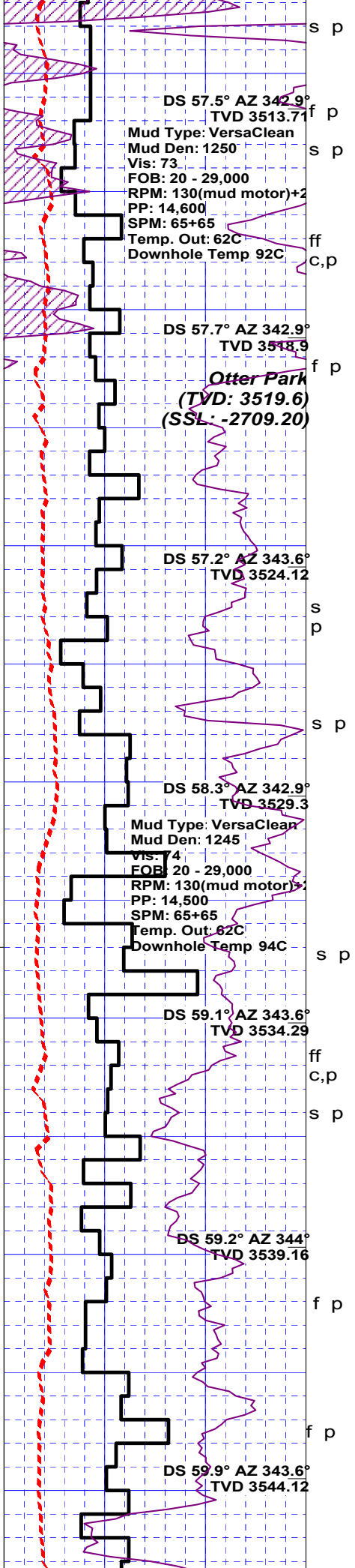
Sh: m - dk gy, rthy (mrlst), occlly blkly - sbfis, sft, bentic, easily hyd ip, kaoc, v silty dolc, tr - com dism pyr bcmg fis ip & incrg w ind ip, sh bcmg blk (10%), fis, modly ind, pyric / cht (tr), blk, sild sh, blkly, v sils / dol (tr - 5%), blk - m - dk gy, micxl, v slty, arg, modly hd, pyrbits, tt, ns.

Sh: blk, blkly - fis, occlly rthy, sils ip, silty carb, pyric, p - modly ind, occlly w ind, occlly bcmg m - dk gy, rthy, py ind, bentic, kaoc, also / dol (tr - 5%), m gy - occlly dk gy, micxl - crpxl, v hd, arg, tt, ns.

Dec 10, 2004

Dec 11, 2004

Dec 12,



Sh: blk - brnsh blk, blkly - fis, occlly rthy, sils ip, sily carb, sily bits, pyric, p - modly ind, occlly w ind, sily dolic bcmg blk (up to 20%), blkly, v hd, sils - sild sh (cht), / sh (tr), m gy, fis, wxy, sft, bentic, also / dol (tr - 5%), m gy - occlly dk gy, micxl - crpxl, v hd, arg, tt, ns.

Sh: blk - brnsh blk, blkly - fis, occlly rthy, sils ip, sily carb, sily bits, pyric, p - modly ind, occlly w ind, sily dolic bcmg blk (up to 5%), blkly, v hd, sils - sild sh (cht), / dol (tr - 5%), m gy - occlly dk gy, micxl - crpxl, v hd, arg, tt, ns.

Sh: blk - brnsh blk, blkly - fis, occlly rthy, sils ip, sily carb, sily bits, pyric, p - modly ind, occlly w ind, sily dolic bcmg blk (up to 25%), blkly, v hd, sils - sild sh (cht), / dol (tr - 5%), m gy - occlly dk gy, micxl - crpxl, foss ip, pyric, v hd, arg, tt, ns.

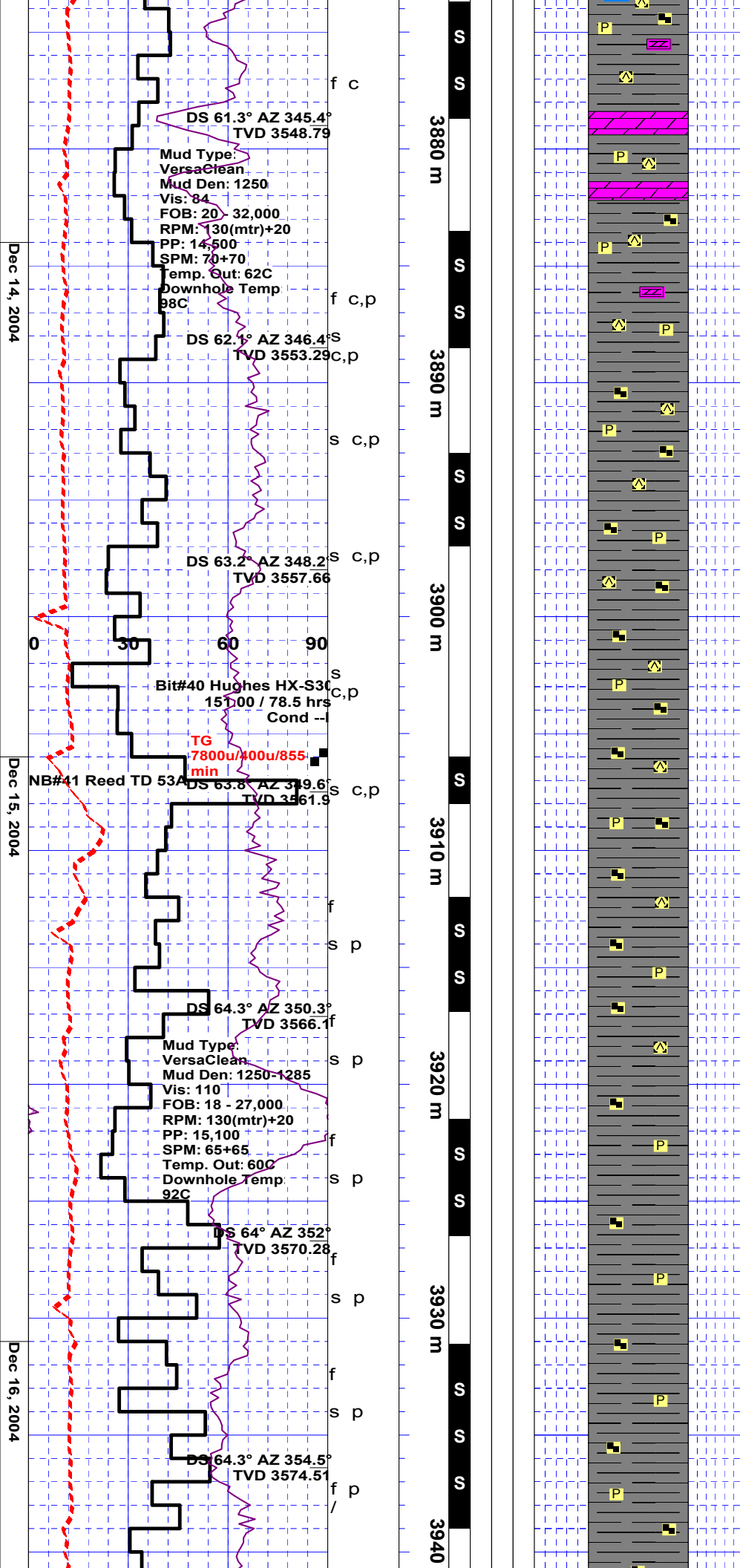
Sh: blk - occlly brnsh blk, blkly - fis, occlly rthy (sft), sils ip, sily carb, sily bits, pyric, p - modly ind, occlly w ind, sily dolic / sh, blk (up to 25%), blkly, v hd, sils - sild sh (cht).

Sh: blk - occlly brnsh blk, blkly - fis, occlly rthy, sils ip, sily carb, sily bits, pyric, p - modly ind, occlly w ind, sily dolic, / sh, blk (up to 25%), blkly, v hd, sils - sild sh (cht), / dol (tr), m gy - occlly dk gy, micxl - crpxl, pyric, v hd, arg, tt, ns.

Sh: blk - occlly brnsh blk, blkly - fis, occlly rthy, sily sils, sily carb, sily bits, pyric, p - modly ind, occlly w ind, sily dolic, / sh, blk (up to 25%), blkly, v hd, sils - sild sh (cht).

Sh: blk - occlly brnsh blk, blkly - fis, occlly rthy, sily sils, sily carb, sily bits, pyric, p - modly ind, occlly w ind, sily dolic, / sh, blk (up to 10%), blkly, v hd, sils - sild sh (cht), also / ss, tr, wh, qtzs, silt - v f gred, sbrdd, w srt, v hd, dolic, tt, ns.

Ls: wh - blk (mot), micric, v arg, pyrbits, sft, tt, ns.



Sh: blk - occlly brnsh blk, blkly - fis, occlly rthy, sly sils, sly carb, sly bits, pyric, p - modly ind, occlly w ind, sly dolic, / sh, blk (up to 10%), blkly, v hd, sils - sild sh (cht), also / dol, tr, blk, micxl, v hd, arg, prybits, tt, ns.

Sh: blk - occlly brnsh blk, blkly - fis, occlly rthy, sly sils, sly carb, sly bits, pyric, p - modly ind, occlly w ind, sly dolic, / sh, blk (up to 10%), blkly, v hd, sils - sild sh (cht).

Dol: blk, micxl, v hd, arg, prybits, tt, ns.

Sh: blk - occlly brnsh blk, blkly - fis, occlly rthy, sly sils, sly carb, sly bits, pyric, p - modly ind, occlly w ind, sly dolic, / sh, blk (up to 10%), blkly, v hd, sils - sild sh (cht), also / dol, tr, blk, micxl, v hd, arg, prybits, tt, ns.

Sh: blk - occlly brnsh blk, blkly, sbfis - modly fis / ireg clvg, occlly rthy, sly sils, comly carb, sly bits, pyric, p - modly ind, occlly w ind, sly dolic, / sh, blk (up to 10%), blkly, v hd, sils - sild sh.

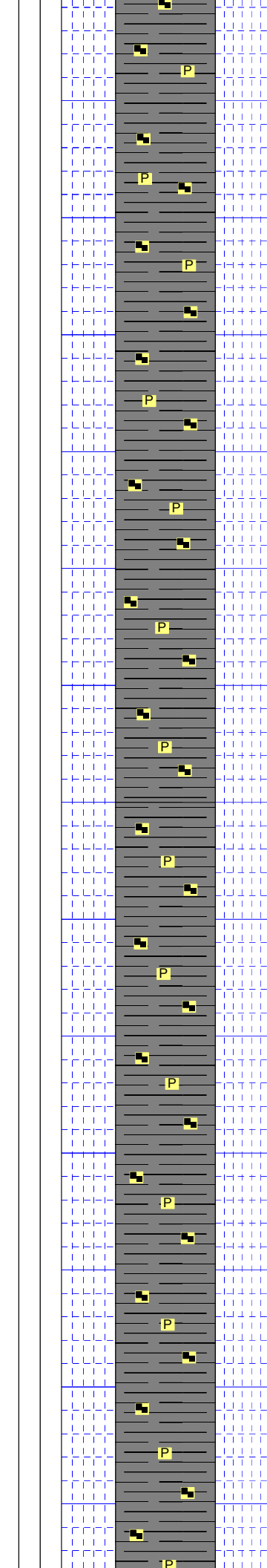
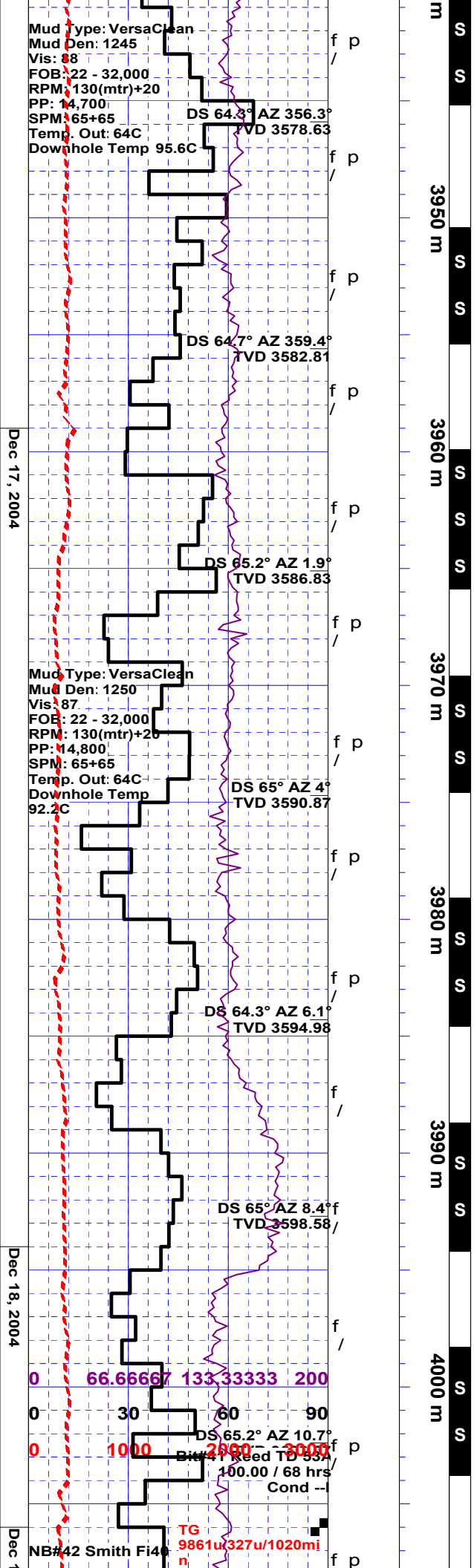
Sh: blk - occlly brnsh blk, blkly, sbfis - modly fis / ireg clvg, occlly rthy, sly sils, comly carb, sly bits, pyric, p - modly ind, occlly w ind, / sh, blk (up to 10%), blkly, v hd, sils - sild sh.

Sh: blk - occlly brnsh blk, amor - blkly in mnr pt, sbfis - rrlly modly fis / ireg clvg, occlly rthy, sly sils, comly carb, sly bits, pyric, p - modly ind, occlly w ind, / sh, blk (up to 5%), blkly, v hd, sils - sild sh.

Sh: brnsh blk - blk, amor - blkly, sbfis - occlly modly fis / ireg clvg in mnr pt, occlly rthy, comly carb, sly bits, pyric, py - modly ind, firm - brit.

Sh: dk brnsh gy - blk, blkly - amor, sbfis - occlly modly fis / ireg clvg in mnr pt, occlly rthy, comly carb, sly bits, pyric, py - modly ind, firm - brit.

Sh: dk brnsh gy - blk, blkly - amor - tab in mnr pt, sbfis - occlly modly fis / ireg clvg, occlly rthy, sks, comly carb, sly bits, pyric, py - modly ind, firm - brit.



Sh: dk brnsh gy - blk, blkly - amor - tab in mnr pt, sbfis - occlly modly fis / ireg clvg, occlly rthy, sks, comly carb, sily bits, pyric, py - modly ind, firm - brit.

Sh: dk brnsh gy - blk, blkly - amor - tab in mnr pt, sbfis - occlly modly fis / ireg clvg, occlly rthy, sks, comly carb, sily bits, pyric, py - modly ind, firm - brit.

Sh: dk brnsh gy - blk, rthy - rsns, blkly - amor - tab in mnr pt, sbfis - occlly modly fis / ireg clvg, sks, comly carb, sily bits, pyric, py - modly ind, firm - brit.

Sh: dk brnsh gy - blk, rthy - rsns, blkly - amor - tab in mnr pt, sbfis - occlly modly fis / ireg clvg, sks, comly carb, sily bits, pyric, py - modly ind, firm - brit.

Sh: aa but bcmg more tab and fisty incrg.

Sh: dk brnsh gy - blk, rthy - rsns, blkly - amor - tab ip, sbfis - occlly modly fis / ireg clvg - fis, sks, comly carb, sily bits, pyric, py - w ind, firm - brit.

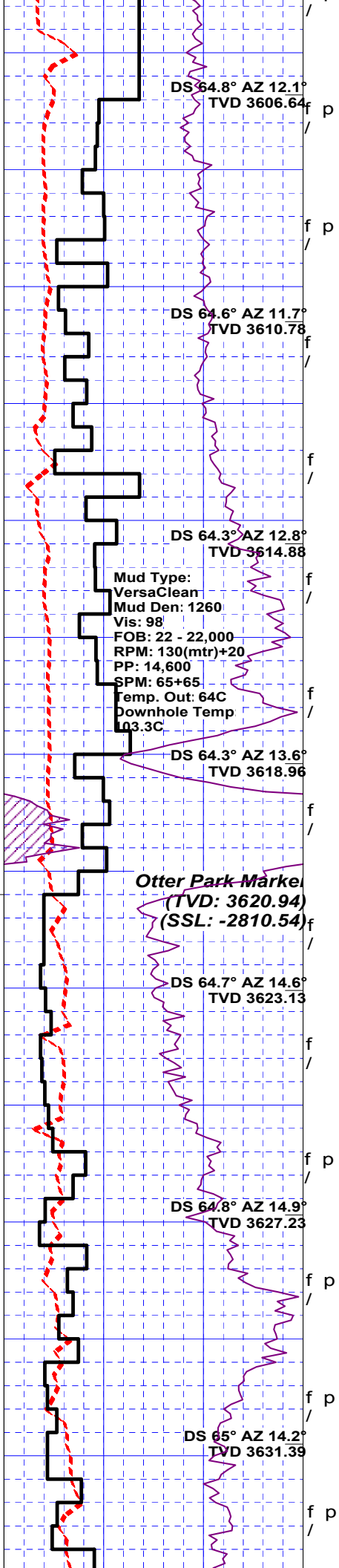
Sh: dk brnsh gy - blk, rthy - rsns, blkly - amor - tab ip, sbfis - occlly modly fis / ireg clvg - fis, sks, comly carb, sily bits, pyric, py - w ind, firm - brit.

Dec 17, 2004
Dec 18, 2004
Dec 1

TG 9861u327u/1020mi
NB#42 Smith Fi4

9, 2004

Dec 20, 2004



4010 m S

4020 m

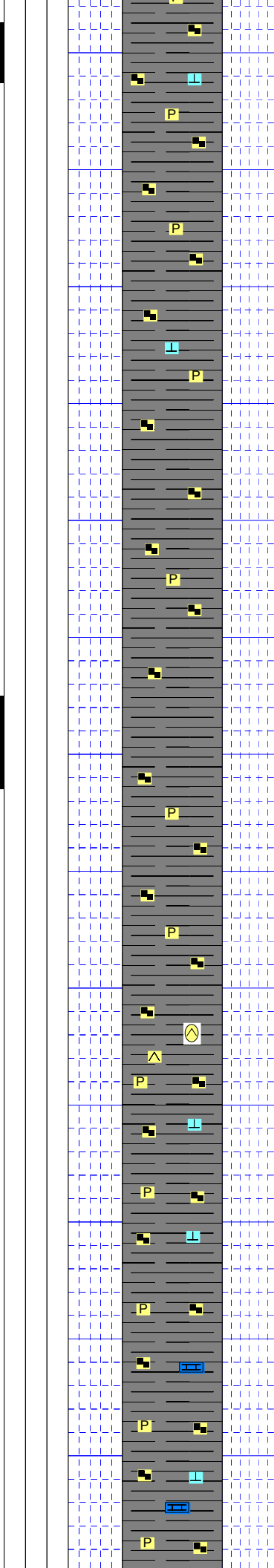
4030 m

4040 m S S

4050 m

4060 m

4070 m



Sh: aa / rr clr calcite vns.

Sh: dk brnsh gy - blk, rthy - rsns, blk - amor - tab ip, sbfis - occlly modly fis / ireg clvg - fis, sks, comly carb, slyly bits, pyric, py - w ind, firm - brit.

Sh: aa but mnly dk brnsh gy and amor / occ clr - wh calcite ptchs and or vns.

Sh: dk brnsh gy - blk, rthy - rsns, blk - amor - tab ip, sbfis - occlly modly fis / ireg clvg - fis, sks, rr wh calcite ptchs and or vns, comly carb, slyly bits, pyric, py - w ind, firm - brit.

Sh: dk brnsh gy - blk, rthy - rsns, blk - amor - tab ip, sbfis - occlly modly fis / ireg clvg - fis, sks, rr wh calcite ptchs and or vns, comly carb, slyly bits, pyric, py ind, firm - brit.

Sh: dk brnsh gy - blk, rthy - rsns, blk - amor - tab ip, sbfis - occlly modly fis / ireg clvg - fis, sks, rr wh calcite ptchs and or vns, comly carb, slyly bits, pyric, py - w ind, firm - brit.

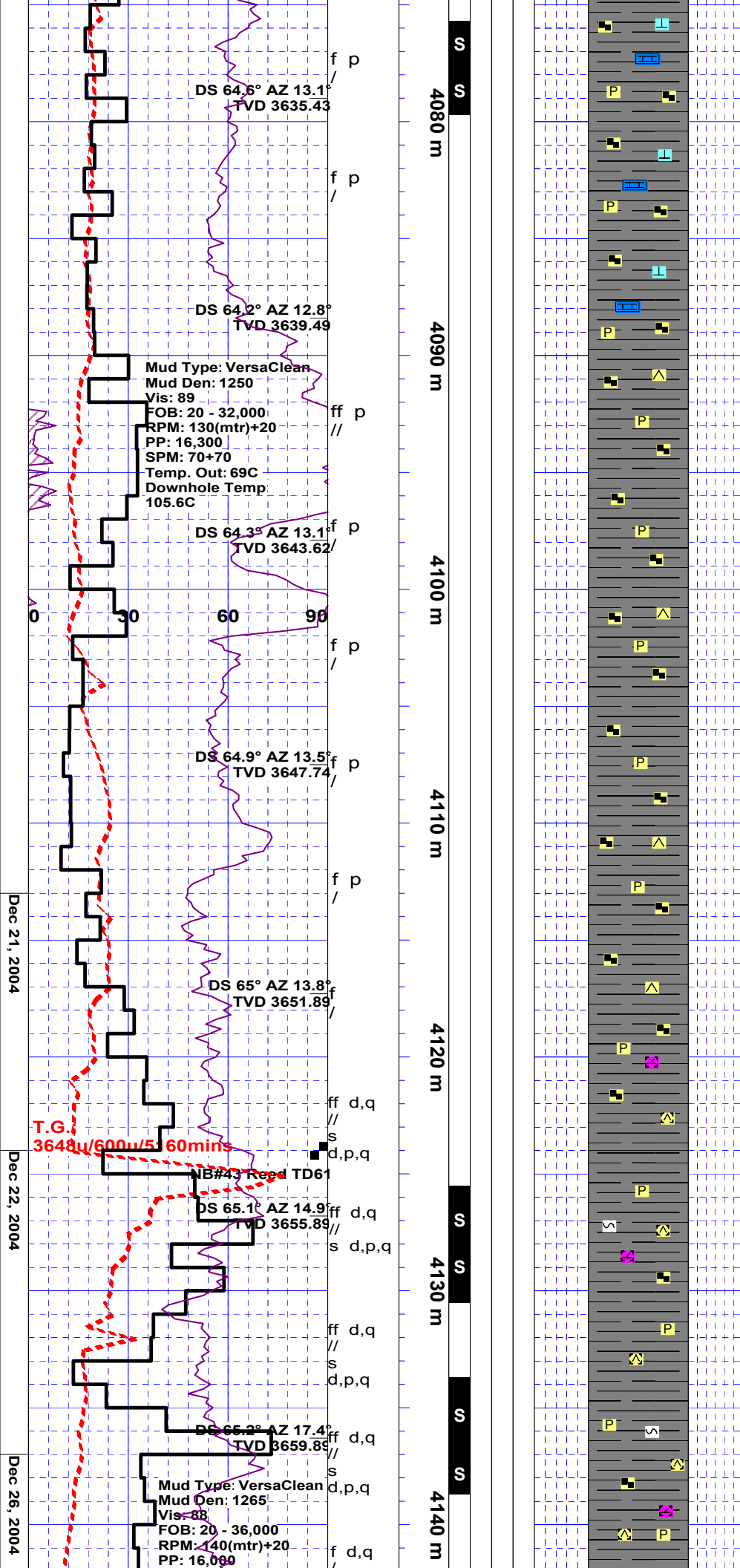
Sh: dk brnsh gy - blk, rthy - rsns, blk - amor - tab ip, sbfis - occlly modly fis / ireg clvg - fis, slyly micmica, sks, rr wh calcite ptchs and or vns, comly carb, slyly bits, pyric, py - w ind, firm - brit.

Sh: aa / rr clr qtz vns? also sh which is blk, blk sbfis, sils, v hd.

Sh: dk brnsh gy - blk, rthy - rsns, blk - tab - amor in mntr pt, sbfis - occlly modly fis / ireg clvg - fis, slyly micmica, sks, rr wh calcite ptchs and or vns, comly carb, slyly bits, pyric, py - w ind, firm - brit.

Sh: aa w rr wh ls strgs.

Sh: dk brnsh gy - blk, rthy - rsns, blk - tab - amor in mntr pt, sbfis - occlly modly fis / ireg clvg - fis, slyly micmica, sks, occ wh ls strgs, rr wh calcite ptchs and or vns, comly carb, slyly bits, pyric, modly - w ind, firm - brit.



Sh: dk brnsh gy - blk, rthy - rsns, blkly - tab - amor in mnr pt, sbfis - occlly modly fis / ireg clvg - fis, sily micmica, sks, occ wh ls strgs, rr wh calcite ptchs and or vns, comly carb, sily bits, pyric, w ind, firm - brit.

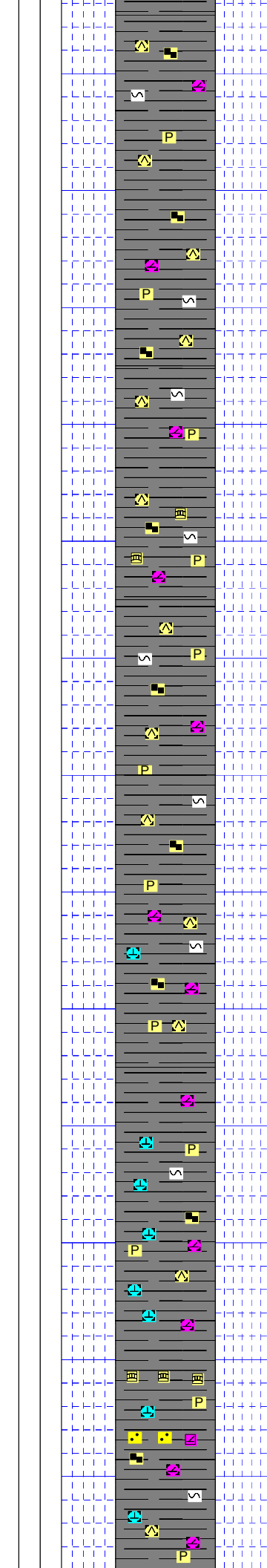
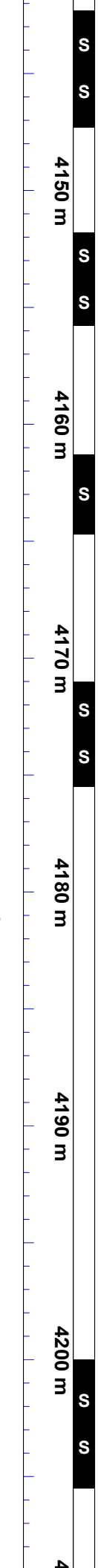
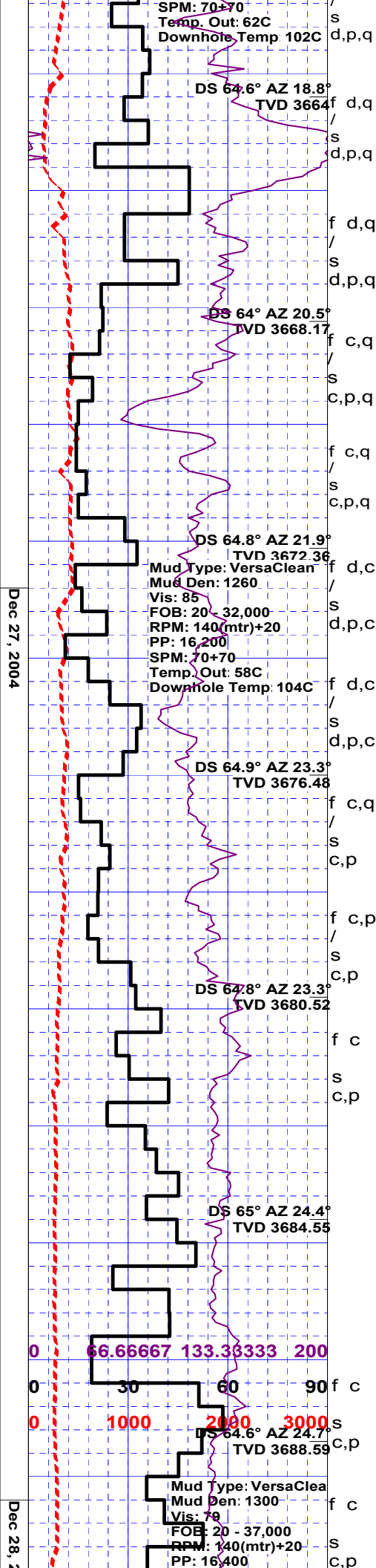
Sh: blk, rsns - gsy, blkly - tab, sbfis - occlly modly fis / ireg clvg - fis, micmica, com sks, occ wh ls strgs, rr wh calcite ptchs and or vns, comly carb, sily bits, sily pyric, w ind, firm - hd.

Sh: blk, rthy, blkly - tab, sbfis - occlly modly fis / ireg clvg, micmica, occ sks, rr wh ls strgs, rr wh calcite ptchs and or vns, comly carb, sily bits, sily pyric, modly w - w ind, firm - brit.

Sh: blk, rsns - gsy, blkly - tab, sbfis - occlly modly fis / ireg clvg - fis, micmica, sils, com sks, occ wh ls strgs, rr wh calcite ptchs and or vns, comly carb, sily bits, sily pyric, w ind, firm - hd.

Sh: blk - dk gy, rsns, blkly - tab, sbfis - occlly modly fis / ireg clvg - fis, micmica, sils, com sks, comly carb, sily bits, sily pyric, w ind, firm - hd.

Sh: blk (30%), amor, sft, bits, com dism pyr, sily dolc, easily hyd, / sh (70%), blk, blkly, sbfis ip / ireg clvg, micmica ip, v sils, carb, com - abnt dism pyr, w ind (v hd), com sks, com fracs lined / dol & rr qtz, com dol, pyr & rr qtz spar, also / sltst (tr), lt - m gy, qtzs, dolc, arg, bits, tt, ns.



Sh: blk (30%), amor, sft, bits, com dism pyr, sily dolc, easily hyd, / sh (70%), blk, blk, sbfis ip / ireg clvg, micmica ip, v sils, carb, com - abnt dism pyr, w ind (v hd), decrg sks, fracs & spar.

Possible sloughing shales over drilling break due to low mud weight (1220kg/m3).

Sh: sh, blk, blk, sbfis ip / ireg clvg, micmica ip, v sils, carb, tr bent, com - abnt dism pyr, w ind (v hd), tr skss, blk, amor, sft, bits, com dism pyr, sily dolc, easily hyd, / dol (tr), blk, micxl, arg, bits, tt, ns.

Sh: sh, blk, blk, sbfis ip / ireg clvg, micmica ip, v sils, carb, sily dolc, com - abnt dism pyr, w ind (v hd), tr skss, tr fracs healed / calc, / sh (up to 20%), blk, amor, sft, bits, com dism pyr, tr bent, sily dolc, easily hyd.

Sh: bcmg sily calcs.

Sh: blk, blk, sbfis ip / ireg clvg, micmica ip, v sils, carb, sily dolc, com - abnt dism pyr, w ind (v hd), tr skss, tr fracs healed / calc, / sh (up to 20%), blk, amor, sft, bits, com dism pyr, tr bent, sily dolc, easily hyd also / slst (tr), lt gy - lt gy brn, qtzs, dolc, hd, tt, ns.

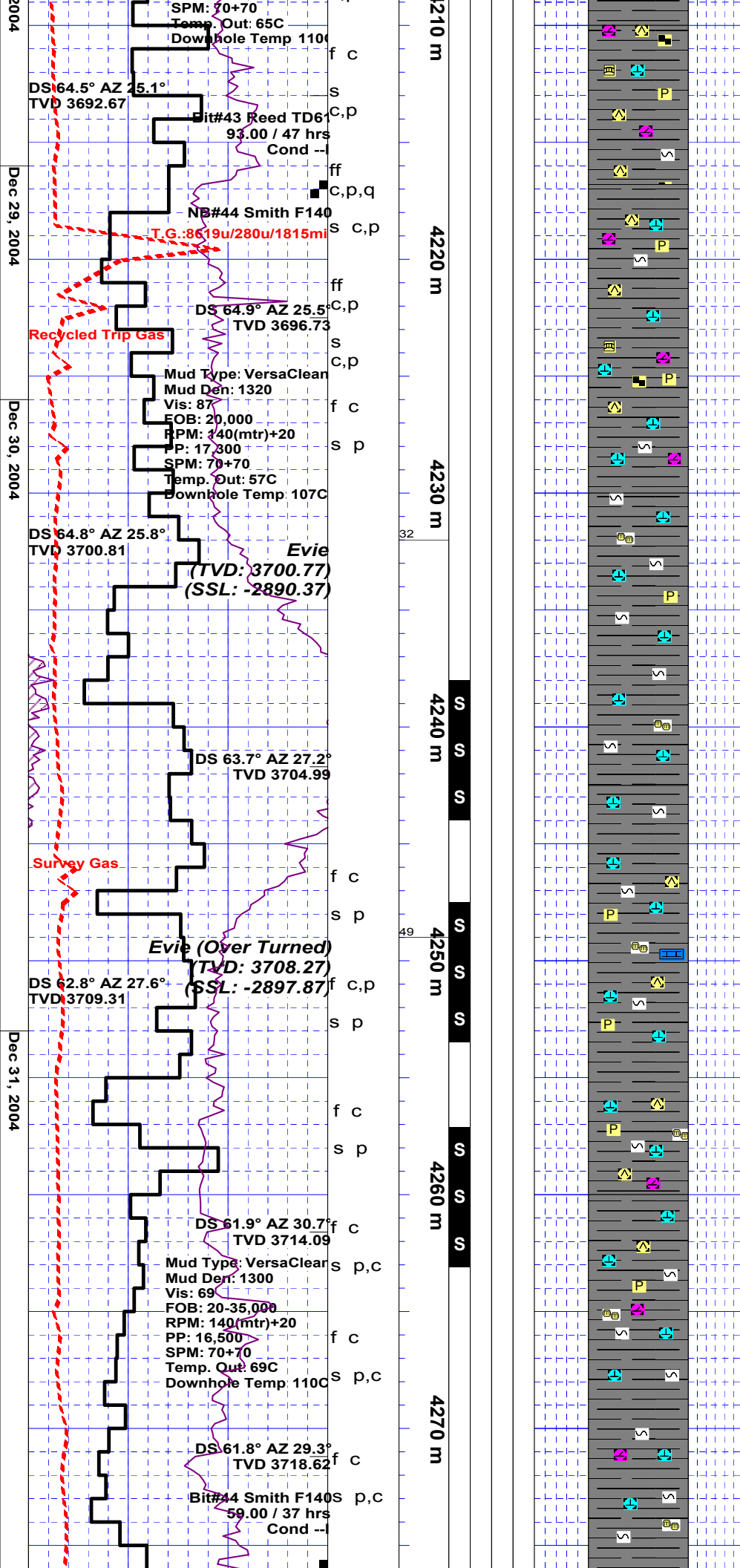
Sh: up to 80%, blk, amor, sft, bits, com dism pyr, v calcs, sily dolc, easily hyd, / sh, blk, blk, sbfis ip / ireg clvg, micmica ip, v sils, carb, sily dolc, com - abnt dism pyr, w ind (v hd), tr fracs healed / calc.

Sh: up to 30%, blk, amor, sft, bits, com dism pyr, v calcs, sily dolc, easily hyd, / sh (up to 70%), blk, blk, sbfis ip / ireg clvg, micmica ip, v sils, carb, sily dolc, com - abnt dism pyr, w ind (v hd), tr fracs healed / calc, also / abnt buff cold bent grs.

com - abnt loose qtzs grs (f gred, sbang), tr buff cold rdd dol grs.

Sh: blk, blk, sbfis ip / ireg clvg, micmica ip, v sils, carb, sily dolc, com - abnt dism pyr, w ind (v hd), / sh (up to 30%), blk, amor, sft, bits, com dism pyr, v calcs, sily dolc, easily hyd, tr fracs healed / calc.

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Sh: blk, blkly, sbfis ip / ireg clvg, micmica ip, v sils, carb, sily doloc, com - abnt dism pyr, w ind (v hd) intbd / sh (up to 30%), blk, amor, sft, bits, com dism pyr, v calcs, sily doloc, easily hyd, tr fracs healed / calc, tr - com bent grs, tr pyr spar.

Sh: blk, blkly, sbfis ip / ireg clvg, micmica ip, v sils, tr conch frac, carb, sily doloc, com - abnt dism pyr, w ind (v hd) intbd / sh (20-40%), blk, amor, sft, bits, com dism pyr, v calcs, sily doloc, easily hyd, tr fracs healed / calc, pyr & qtz, tr pyr spar.

Sh: blk, blkly, sbfis ip / ireg clvg, micmica ip, v sils, tr conch frac, carb, sily doloc, com - abnt dism pyr, w ind (v hd) intbd / sh (up to 70%), blk, amor, sft, bits, com dism pyr, v calcs, sily doloc, easily hyd, tr fracs healed / calc, tr pyr spar, tr lt brn bent grs.

Sh: blk, amor, occlly blkly, sft, py ind, micmica, bits, v calcs ip, doloc ip, no vis fracs, tr pyr spar.

Sh: blk, amor, py ind, sft, bits, v calcs, sily doloc, micmica ip, tr dism pyr, intbd / sh, blk (up to 30%), blkly, sbfis ip / ireg clvg, micmica ip, v sils, tr conch frac, carb, sily doloc, com - abnt dism pyr, w ind (v hd), tr calc lined fracs, tr fracs, tr pyr spar.

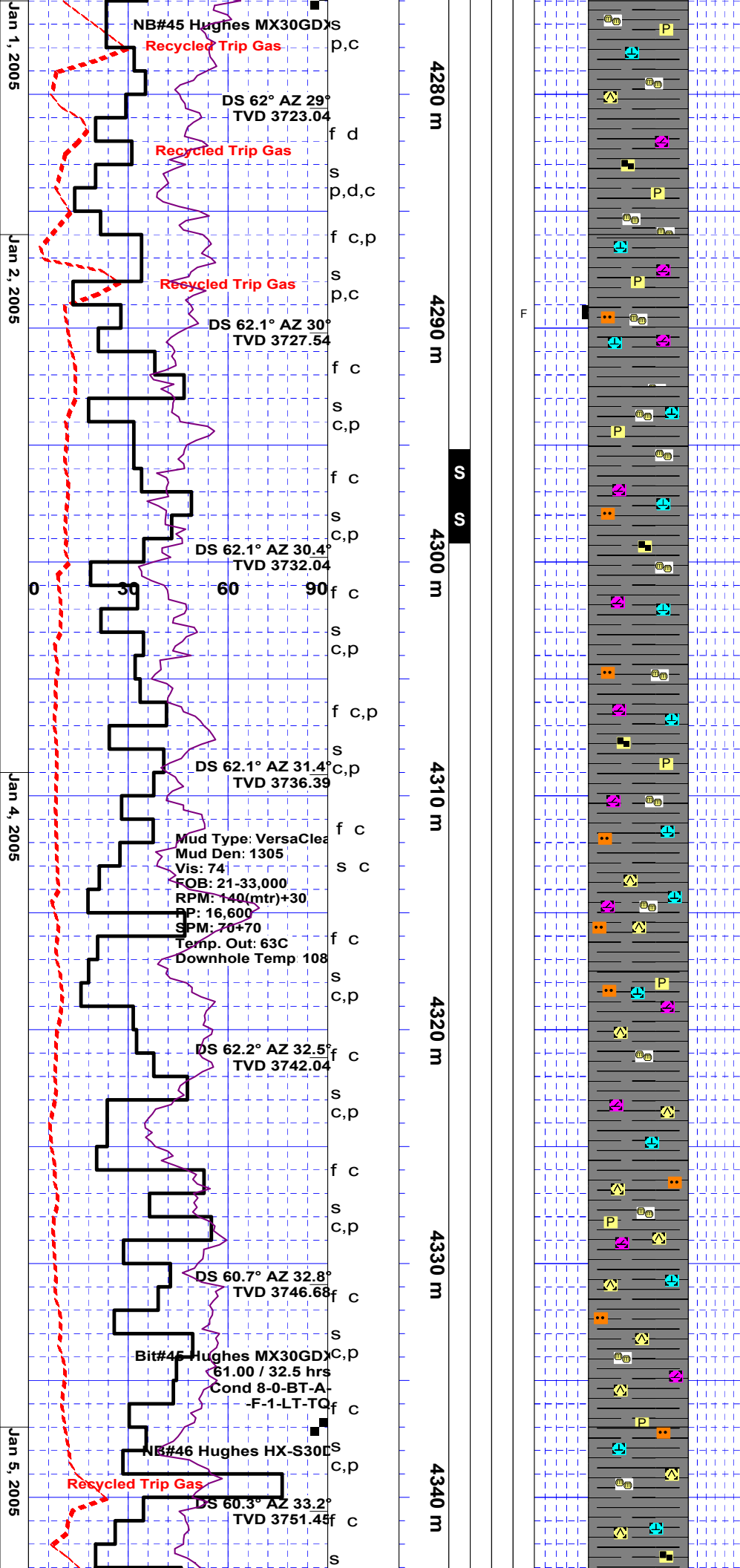
Ls: tr, m gy, micxl, hd, tt, ns.

Sh: blk, blkly, sbfis ip / ireg clvg, micmica ip, v sils, tr conch frac, carb, sily doloc, com - abnt dism pyr, w ind (v hd), tr calc lined fracs, tr pyr spar, / tr sltst, lt gy, modly hd, sily doloc, arg, tt, ns.

Sh: aa, / up to 20% sh, blk, amor, py ind, sft, bits, v calcs, sily doloc, micmica ip, tr dism pyr

Sh: aa, tr redsh brn sid grs.

Sh: blk, amor, py ind, sft, v bits, v calcs, sily doloc, micmica ip, intbd / sh, blk (up to 40%), blkly, sbfis ip / ireg clvg, micmica ip, modly sils, tr conch frac, carb, sily doloc, tr - com dism pyr, w ind (v hd), tr calc lined fracs, tr pyr spar.



Sh: blk, bcmg fis ip (splintery) / occ ireg clvg, micmica ip, dolc, calcs, sily sils, tr conch frac, carb, tr - com dism pyr, w ind (v hd), tr calc & dol lined fracs, tr pyr, calc & dol, spar, / decrg sft bits sh.

Sh: blk, bcmg fis ip (splintery) / occ ireg clvg, micmica ip, dolc, calcs, sily sils, tr conch frac, carb, modly - w ind, tr - com dism pyr, tr calc & pyr lined fracs, tr pyr, calc & dol, spar, / intbd sft bits sh (10 - 20%), also / rr m gysh brn sh.

Sh: blk, blk, bcmg fis ip, micmica ip, dolc, calcs, sily sils, sily carb, modly - w ind, slty, tr dism pyr, tr calc lined fracs, tr pyr & calc spar, / mnr intbd sft bits sh, also / lt - m gy sh.

Sh: blk, blk, bcmg fis ip, micmica ip, dolc, calcs, sily sils, sily carb, modly - w ind, slty, ireg dism pyr, tr calc lined fracs, tr pyr & calc spar, / mnr intbd sft bits sh, also / lt - m gy sh. up to 10% blk, v hd, sils sh.

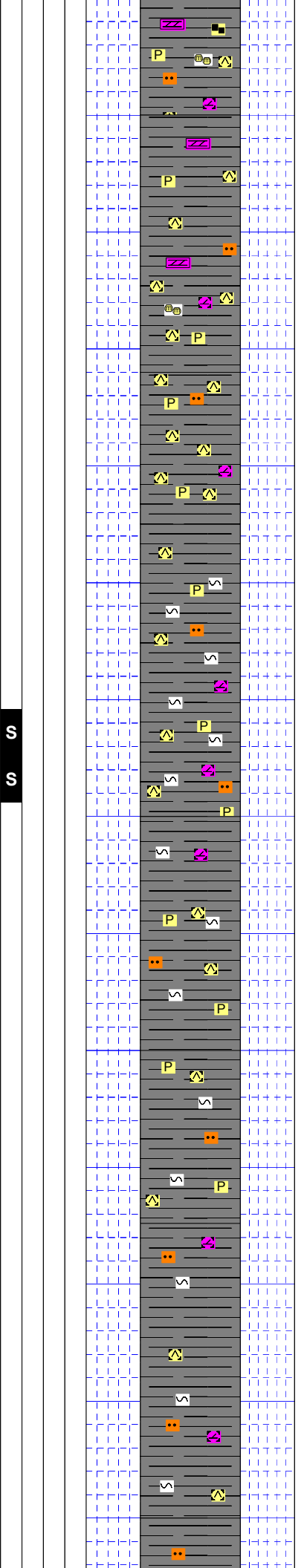
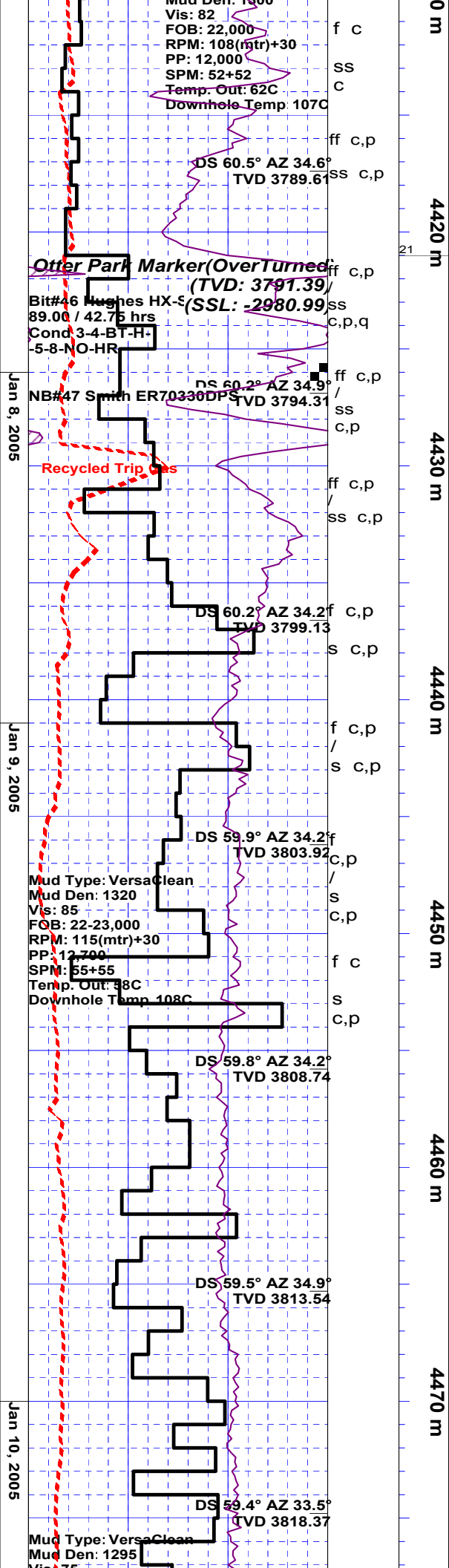
Sh: blk, bcmg dk gy ip, blk, sbfis ip, micmica ip, dolc, calcs, tr calcs wh specs, incrgly sils, sily carb, modly - w ind, slty, ireg clvg, com dism pyr, tr calc lined fracs, tr pyr & calc spar.

Differential pressure increase from 4329.5 to 4332 meters

Presssure spike @ 4334.4 meters

Incrgly sils

Sh: blk, blk, sbfis ip, ireg clvg, micmica ip, dolc, incrgly calcs, tr calcs wh specs, incrgly sils, sily carb, modly - w ind, slty, com dism pyr, tr calc lined fracs, tr pyr & calc spar.



Sh: blk, blk, sbfis ip, ireg clvg, micmica ip, sily dolc, incrgly sils, carb, modly - w ind, slty, com dism pyr, tr calc lined fracs, tr calc & pyr spar, up to 10% blk, bits, sft, sh also / rr dol, blk, crpxl - micxl, v carb, tt, ns.

Sh: blk, blk, sbfis ip, ireg clvg, micmica ip, sily dolc, incrgly sils, carb, modly - w ind, slty, com dism pyr, tr - com calc lined fracs, tr - com calc & pyr spar / dol (10-20%), blk, crpxl - micxl, v carb, arg, tt, ns.

Sh: blk, blk, sbfis ip, ireg clvg, micmica ip, sily dolc, incrgly sils, carb, modly - w ind, slty, com dism pyr, tr - com calc lined fracs, tr - com calc & pyr spar, tr qtz spar, / dol (10-20%), blk, crpxl - micxl, v carb, arg, tt, ns.

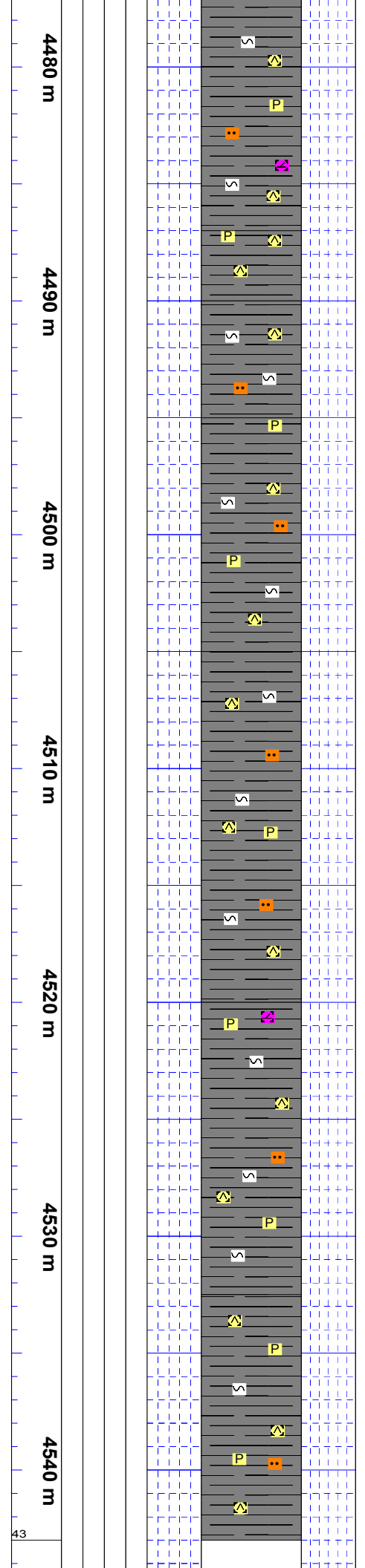
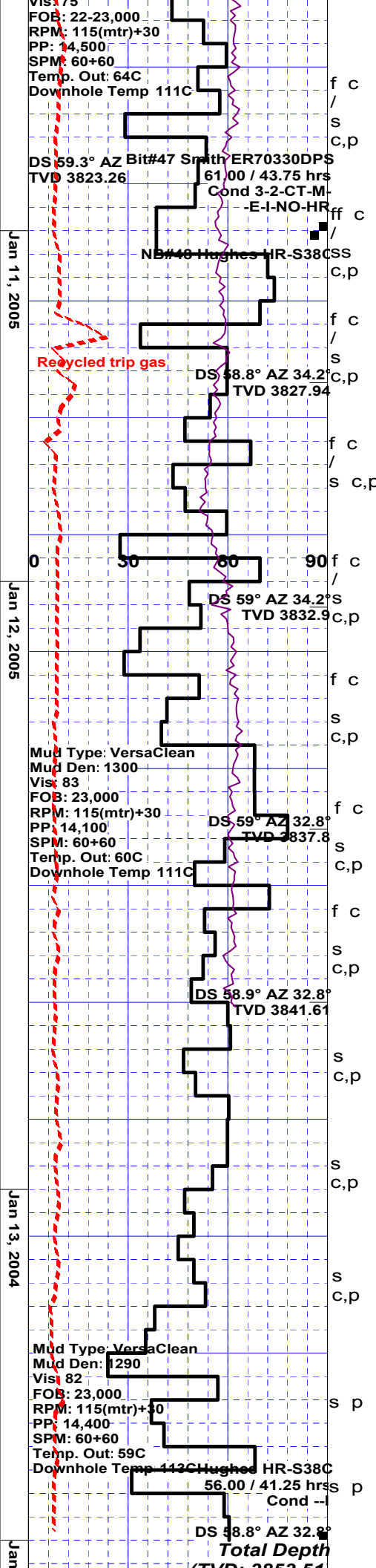
Sh: blk, blk, ireg clvg, ocly sbfis ip, ocly micmica, v sils, intbd / v sily dolc sh, carb, w ind, v hd, ocly modly ind, slty, com dism pyr, tr - com calc lined fracs, tr - com calc & pyr spar, intbd / dol (5%), grdg - rr, blk, crpxl - micxl, v carb, arg, tt, ns.

Sh: blk - brnsh blk (30%), amor, sft, dolc ip, v bits, intbd / sh, blk (70%), blk, ireg clvg, ocly sbfis ip, ocly micmica, v sils, intbd / v sily dolc sh, carb, w ind, v hd, ocly modly ind, slty, com dism pyr, tr calc lined fracs, tr calc & pyr spar, intbd / dol (rr), blk, crpxl - micxl, v carb, arg, tt, ns.

Sh: blk - brnsh blk (70%), amor, sft, dolc ip, v bits, intbd / sh, blk (30%), blk, ireg clvg, ocly sbfis ip, ocly micmica, v sils, intbd / v sily dolc sh, carb, w ind, v hd, ocly modly ind, slty, com dism pyr, tr calc lined fracs, tr calc & pyr spar, intbd / dol (rr), blk, crpxl - micxl, v carb, arg, tt, ns.

Sh: blk - brnsh blk (70%), amor, sft, dolc ip, v bits, intbd / sh, blk (30%), blk, ireg clvg, ocly sbfis ip, ocly micmica, v sils, intbd / v sily dolc sh, carb, w ind, v hd, ocly modly ind, slty, com dism pyr.

Sh: blk, amor, ocly blk, ocly sbfis, sft (py ind), v sily dolc ip, bits, sily slty.



Sh: aa, grdg - sh, blk, blk, ireg frac, sbfis ip, hd (w ind), sils, v sily doloc, com - abnt dism pyr, com calc lined & filled fracs, com calc spar, tr pyr spar.

Sh: grdg back - sh, blk - brnsh blk, amor, bits appearance, occlly blk, occlly sbfis, sft (py ind), v sily doloc ip, sily slty, intbd / sh (30%), blk, blk, ireg frac, sbfis ip, hd (w ind), sils, v sily doloc, tr dism pyr, trcalc lined & filled fracs, tr calc spar, tr pyr spar.

Sh: blk, blk, ireg frac, sbfis ip, hd (w ind), sils, v sily doloc, tr dism pyr, trcalc lined & filled fracs, tr calc spar, tr pyr spar intbd / sh (40%), blk - brnsh blk, amor, bits appearance, occlly blk, occlly sbfis, sft (py ind), v sily doloc ip, sily slty.

Sh: blk - brnsh blk, amor, bits appearance, occlly blk, occlly sbfis, sft (py ind), v sily doloc ip, sily slty intbd / sh, blk (20-30%), blk, ireg frac, sbfis ip, hd (w ind), sils, v sily doloc, tr dism pyr, trcalc lined & filled fracs, tr calc spar, tr pyr spar.

Sh: blk - dk gy, amor, bits appearance, occlly blk, occlly sbfis, sft (py ind), v sily doloc ip, sily slty intbd / sh, blk (20-30%), blk, ireg frac, sbfis ip, hd (w ind), sils, v sily doloc, tr dism pyr, tr calc spar, tr pyr spar.

Sh: blk - dk gy, amor, bits appearance, occlly blk, occlly sbfis, sft (py ind), v sily doloc ip, sily slty intbd / sh, blk (20-30%), blk, ireg frac, sbfis ip, hd (w ind), sils, v sily doloc, tr dism pyr, tr pyr spar.

End of Sidetrack 1 (one). Plugged back to intermediate casing point.
 For continuation of strip log see Devon et al Kotaneelee L-38A

