

Scale: 5.15" / 100'
Measured Depth Log

Accessories

Fossils

Fossils	F FOSSIL	- ARGILLACEOUS	GLAUCONITE
ALGAE	GASTROPOD	ARGILLITE GRAIN	GYPSIFEROUS
AMPHIPORA	OOLITE	B BENTONITE	HEAVY MINERAL
BELEMNITE	OSTRACOD	BITUMENOUS SUBSTANCE	KAOLIN
BIOLCALITE	PELECYPOD	BRECCIA FRAGMENTS	MARLSTONE
BRACHIOPOD	PELLET	C CALCAREOUS	MINERAL CRY
BRYOZOA	PISOLITE	CARBONACEOUS FLAKES	NODULES
CEPHALOPOD	PLANT REMAINS	CHTKD	PHOSPHATE
CORAL	PLANT SPORES	CHTLT	PYRITE
CRINOID	SCAPHOPOD	COAL - THIN BEDS	SALT CAST
ECHINOID	STROMATOPOROID	DOLOMITIC	SANDY
FISH		FELDSPAR	SILICEOUS
FORAMINIFERA	ANHYDRITIC	FERRUGINOUS PELLET	SILTY
		FERRUGINOUS	TUFFACEOUS

Stringer

ANHYDRITE STRINGER
BENTONITE STRINGER
COAL STRINGER
DOLOMITE STRINGER
GYPSUM STRINGER
LIMESTONE STRINGER
MARLSTONE (CALC) STRG
MARLSTONE (DOL) STRG
SANDSTONE STRINGER
SHALE STRINGER
SILTSTONE STRINGER

Minerals

Other Symbols

Oil Show

O ORGANIC	FORMATION TOP	CONNECTION GAS	CRYPTOXLN
P PINPOINT	GAS SHOW	CONNECTION DOWN	E EARTHY
V VUGGY	MINDEPTH MN DEPTH	CASING	FX FINELYXLN

- EVEN

- QUESTIONABLE
- SPOTTED STAINING

- NORMAL FAULT
- OIL SHOW
- OVERTURNED STRATA

- FORMATION TOP

Porosity

E EARTHY	CONNECTION (LEFT)	SIDEWALL CORE (LEFT)	R ROUNDED	MS MUDSTONE
F FINESTRAL	CONNECTION (RIGHT)	SIDEWALL CORE (RIGHT)	B SUBANG	PS PACKSTONE
F FRACTURE	CONNECTION GAS	SLIDE	P SUBRND	WS WACKSTONE

- FRACTURE
- INTERCRYSTALLINE
- INTEROOLITIC
- MOULDIC

Textures

CORE - LOST	CORE - RECOVERED	DST INTERVAL	FAULT	WIRELINE TESTED - LEFT	WIRELINE TESTED - RT	CHALKY
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Sorting

M MODERATE	P POOR	W WELL
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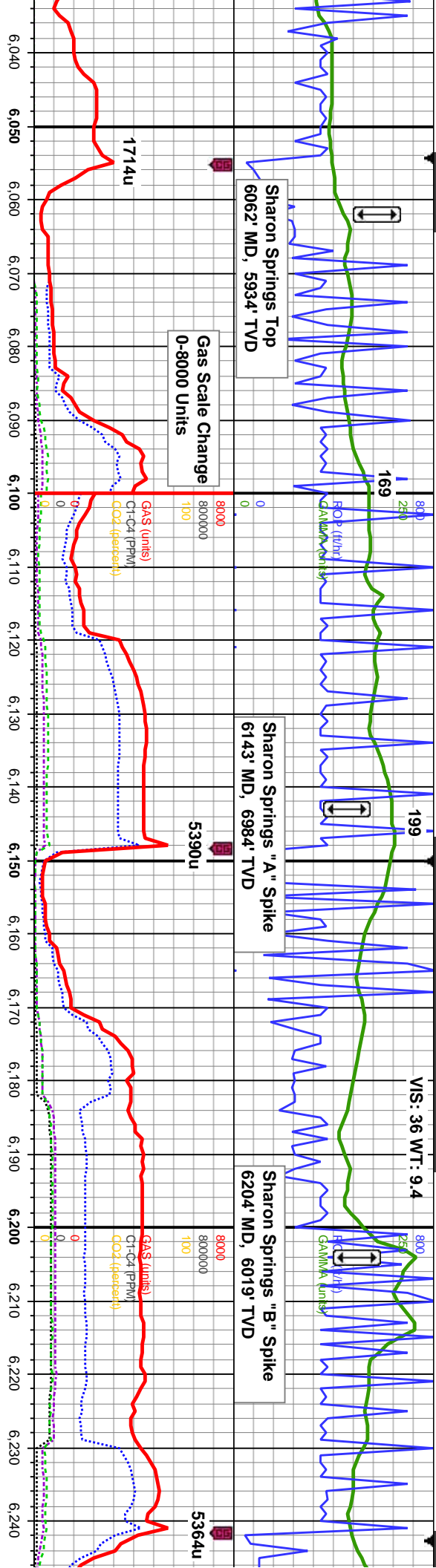


O 80202

2

CONGLOMERATE	CHALK
BRECCIA	SILTY SHALE
TILL	NO SAMPLE
BENTONITE	SHALY SANDSTONE
TUFF	SHALY SILTSTONE
IGNEOUS	
METAMORPHIC	
CEMENT	

Slide/Rotate	
<div> <div> <div>ROP</div> <div>ROP</div> <div>GAMMA</div> </div> <div> <div>Bit #:</div> <div>Type: VS513HG</div> <div>Size: 8.75</div> <div>Depth In: 458'</div> <div>Hours: 1 hrs</div> <div>Jets: 7x18</div> <div>S/N: 4008513</div> </div> </div>	
<div> <div>Total Gas & Chromatograph</div> <div> <div>GAS</div> <div>C1</div> <div>C2</div> <div>C3</div> <div>C4</div> <div>CO2</div> </div> </div>	<div> <div>800</div> <div>250</div> <div>VIS: .34 WT: 9.4</div> <div>800</div> <div>250</div> <div>ROP (ft/hr)</div> <div>109</div> </div>
<div> <div>Depth Labels</div> </div>	<div> <div>5,860</div> <div>5,870</div> <div>5,880</div> <div>5,890</div> <div>5,900</div> <div>5,910</div> <div>5,920</div> <div>5,930</div> <div>5,940</div> <div>5,950</div> <div>5,960</div> <div>5,970</div> <div>5,980</div> <div>5,990</div> <div>6,000</div> <div>6,010</div> <div>6,020</div> <div>6,030</div> </div>
<div> <div>% Lith</div> </div>	<div> <div>5800</div> <div>5800</div> </div>
<div> <div>Well Bore</div> <div>TVD</div> </div>	<div> <div> <div>COLUMBINE LOGGING INC.</div> <div>RIGGED UP ON 6/4/2015</div> <div>MANNED 2-PERSON LOGGING</div> <div>WITH BLOODHOUND GAS</div> <div>CHROMATOGRAPH UNIT #316</div> <div>BEGAN LOGGING ON</div> <div>6/8/2015 @ 05:57 MST</div> </div> <div> <div>MD: 5,915'</div> <div>Inclination: 42.1°</div> <div>Azimuth: 358.9°</div> <div>TVD: 5,833.63'</div> <div>VS: -160.13'</div> </div> <div> <div>TVD (ft)</div> </div> </div>
<div> <div>Oil Show</div> </div>	<div> <div>100% SLTY SH: med-dk gy, lt gy, sft-sl firm, some sft, sb blk-y-sb pily, occ pily, rthy, mtx; arg-sily, sl calc</div> <div>100% SLTY SH: med-dk gy, lt gy, sft-sl firm, some sft, sb blk-y-sb pily, occ pily, rthy, mtx; arg-sily, sl calc</div> <div>100% SLTY SH: med-dk gy, lt gy, sft-sl firm, some sft, sb blk-y-sb pily, occ pily, rthy, mtx; arg-sily, sl calc</div> </div>
<div> <div>Images</div> </div>	<div> <div></div> <div></div> <div></div> </div>



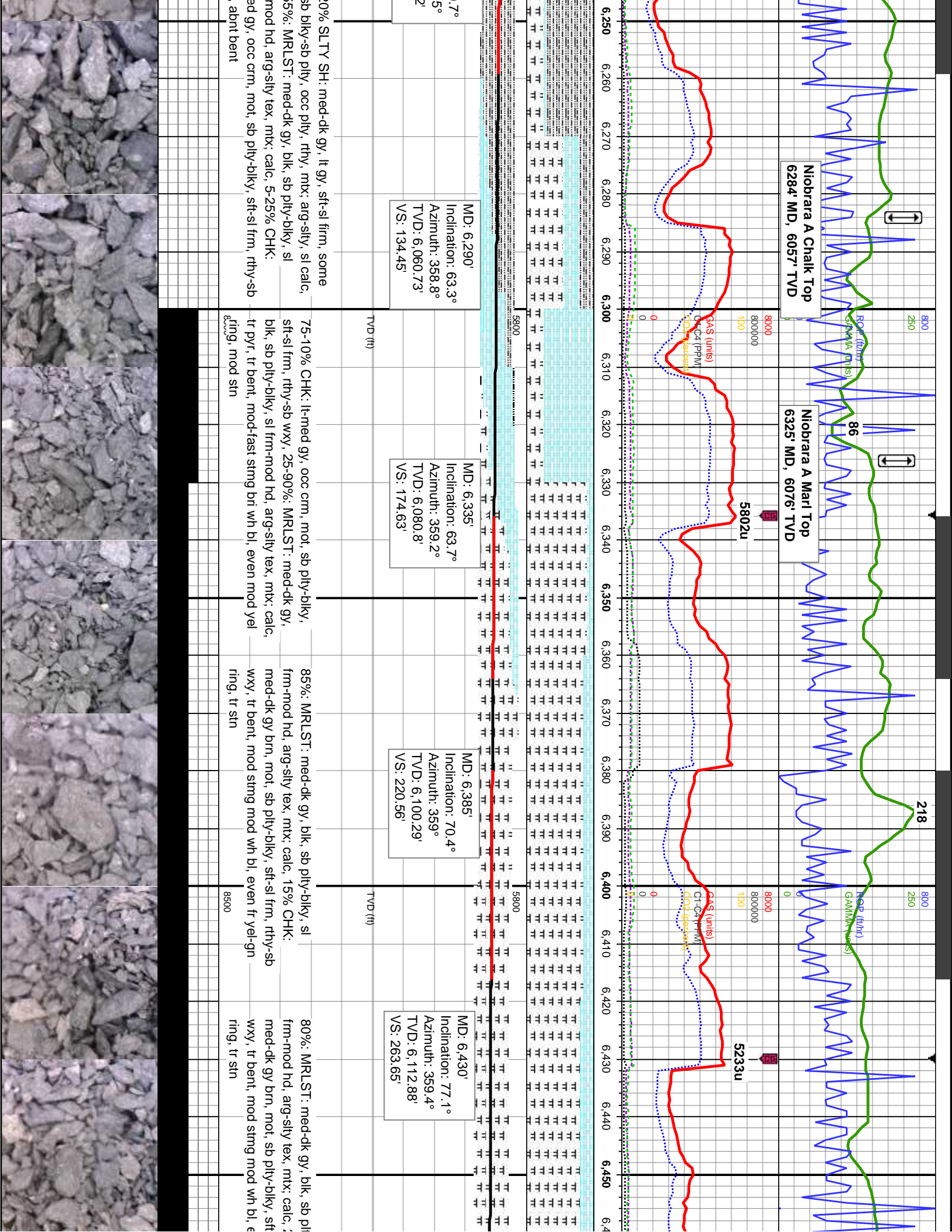
MD: 6,102'
Inclination: 50.1°
Azimuth: 358°
TVD: 5,960.55'
VS: -23.52'

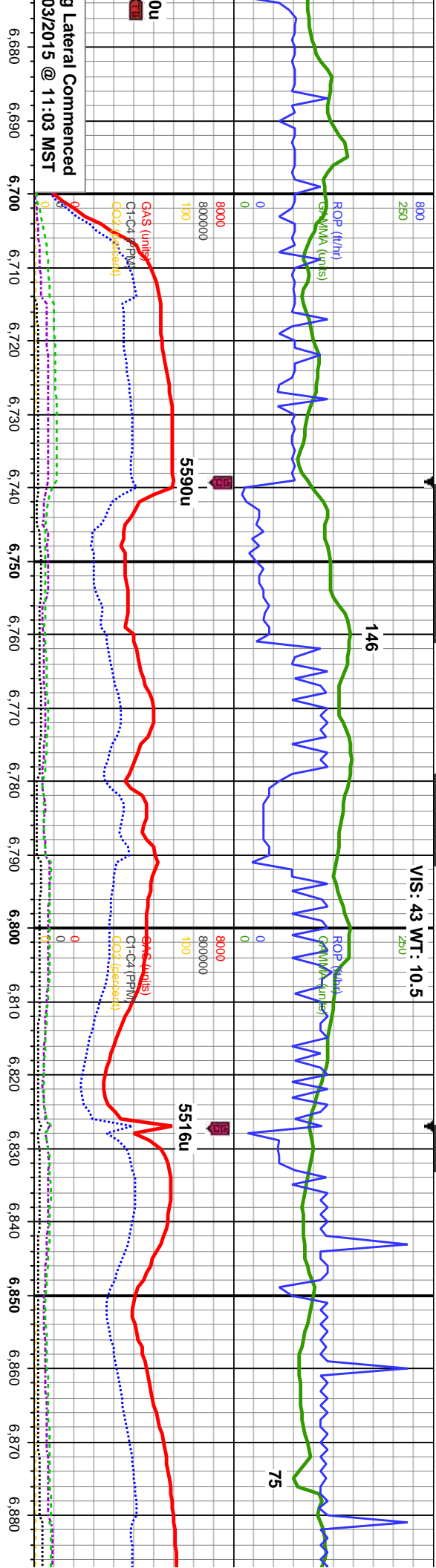
MD: 6,196'
Inclination: 58.9°
Azimuth: 357.1°
TVD: 6,015.09'
VS: 52.61'

MD: 6,241'
Inclination: 60°
Azimuth: 357°
TVD: 6,037.7°
VS: 91.33'

Depth (ft)	Log Description
6,040 - 6,050	gy, sft-sl firm, some sft, mx; arg-slt, sl calc
6,050 - 6,060	100% SLTY SH: med-dk gy, lt gy, sft-sl firm, some sft, sb blk-y-sb pily, occ pily, rthy, mt; arg-slt, sl calc
6,060 - 6,070	100% SLTY SH: med-dk gy, lt gy, sft-sl firm, some sft, sb blk-y-sb pily, occ pily, rthy, mt; arg-slt, sl calc
6,070 - 6,080	100% SLTY SH: med-dk gy, lt gy, sft-sl firm, some sft, sb blk-y-sb pily, occ pily, rthy, mt; arg-slt, sl calc
6,080 - 6,090	100% SLTY SH: med-dk gy, lt gy, sft-sl firm, some sft, sb blk-y-sb pily, occ pily, rthy, mt; arg-slt, sl calc
6,090 - 6,100	100% SLTY SH: med-dk gy, lt gy, sft-sl firm, some sft, sb blk-y-sb pily, occ pily, rthy, mt; arg-slt, sl calc
6,100 - 6,110	100% SLTY SH: med-dk gy, lt gy, sft-sl firm, some sft, sb blk-y-sb pily, occ pily, rthy, mt; arg-slt, sl calc
6,110 - 6,120	100% SLTY SH: med-dk gy, lt gy, sft-sl firm, some sft, sb blk-y-sb pily, occ pily, rthy, mt; arg-slt, sl calc
6,120 - 6,130	100% SLTY SH: med-dk gy, lt gy, sft-sl firm, some sft, sb blk-y-sb pily, occ pily, rthy, mt; arg-slt, sl calc
6,130 - 6,140	100% SLTY SH: med-dk gy, lt gy, sft-sl firm, some sft, sb blk-y-sb pily, occ pily, rthy, mt; arg-slt, sl calc
6,140 - 6,150	100% SLTY SH: med-dk gy, lt gy, sft-sl firm, some sft, sb blk-y-sb pily, occ pily, rthy, mt; arg-slt, sl calc
6,150 - 6,160	100% SLTY SH: med-dk gy, lt gy, sft-sl firm, some sft, sb blk-y-sb pily, occ pily, rthy, mt; arg-slt, sl calc
6,160 - 6,170	100% SLTY SH: med-dk gy, lt gy, sft-sl firm, some sft, sb blk-y-sb pily, occ pily, rthy, mt; arg-slt, sl calc
6,170 - 6,180	100% SLTY SH: med-dk gy, lt gy, sft-sl firm, some sft, sb blk-y-sb pily, occ pily, rthy, mt; arg-slt, sl calc
6,180 - 6,190	100% SLTY SH: med-dk gy, lt gy, sft-sl firm, some sft, sb blk-y-sb pily, occ pily, rthy, mt; arg-slt, sl calc
6,190 - 6,200	100% SLTY SH: med-dk gy, lt gy, sft-sl firm, some sft, sb blk-y-sb pily, occ pily, rthy, mt; arg-slt, sl calc
6,200 - 6,210	100% SLTY SH: med-dk gy, lt gy, sft-sl firm, some sft, sb blk-y-sb pily, occ pily, rthy, mt; arg-slt, sl calc
6,210 - 6,220	100% SLTY SH: med-dk gy, lt gy, sft-sl firm, some sft, sb blk-y-sb pily, occ pily, rthy, mt; arg-slt, sl calc
6,220 - 6,230	100% SLTY SH: med-dk gy, lt gy, sft-sl firm, some sft, sb blk-y-sb pily, occ pily, rthy, mt; arg-slt, sl calc
6,230 - 6,240	100% SLTY SH: med-dk gy, lt gy, sft-sl firm, some sft, sb blk-y-sb pily, occ pily, rthy, mt; arg-slt, sl calc







MD: 6,685'
Inclination: 85.6°
Azimuth: 359.5°
TVD: 6,153.39'
VS: 514.64'

TVD (ft)

medgy, crm-brn, mot,
sft-sl frm, rthy-wxy;
T: med-dk gy, sb
ply-biky, sft-sl frm-mod hd,
mtx, calc, tr pyr;
arg-sly tex, bri bishwh cut, bri
ring, fr str

80% CHK: lt-medgy, crm-brn, mot, sb
ply-biky, sft-sl frm, rthy-wxy; 20%: MRLST:
med-dk gy, sb ply-biky, mot, sl frm-mod hd,
arg-sly tex, mtx, calc, tr pyr; mod string, bri
bishwh cut, bri yel-gn ring, fr str

MD: 6,773'
Inclination: 87.4°
Azimuth: 0.5°
TVD: 6,158.77'
VS: 602.37'

TVD (ft)

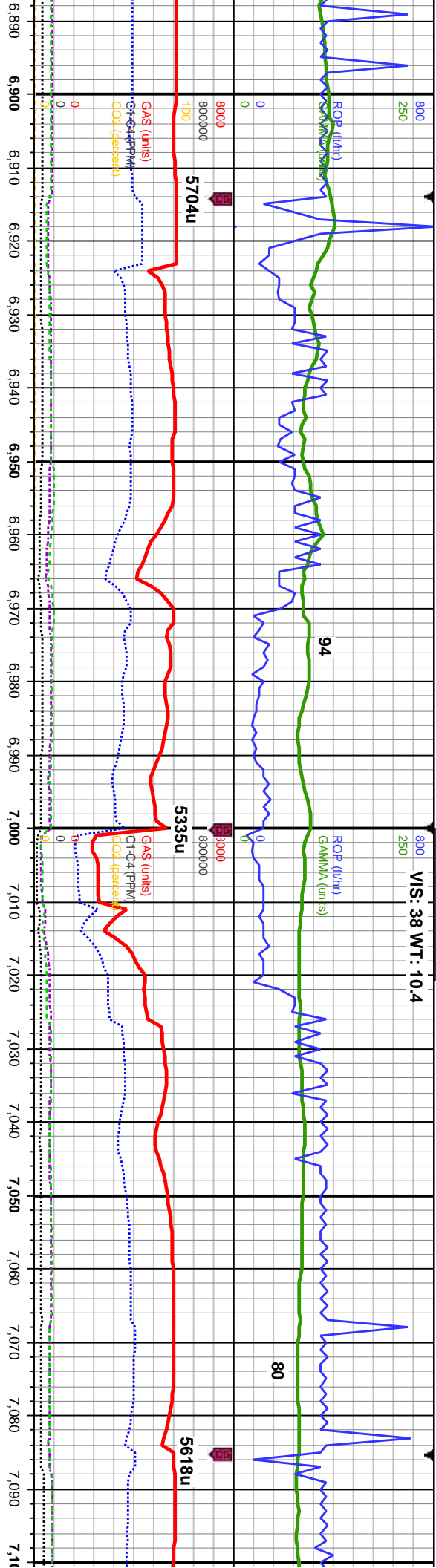
75% CHK: lt-medgy, crm-brn, mot, sb
ply-biky, sft-sl frm, rthy-wxy; 25%: MRLST:
med-dk gy, blk ip, sb ply-biky, mot, sl
frm-mod hd, arg-sly tex, mtx, calc, occ
intbd; mod string, bri bishwh cut, bri yel-gn
ring, fr str

80% CHK: lt-medgy, crm-brn, mot, sb
ply-biky, sft-sl frm, rthy-wxy; 20%: MRLST:
med-dk gy, blk ip, sb ply-biky, mot, sl
frm-mod hd, arg-sly tex, mtx, calc, occ
intbd; mod string, bri bishwh cut, bri yel-gn
ring, fr str

MD: 6,860'
Inclination: 88°
Azimuth: 359.7°
TVD: 6,162.26'
VS: 689.21'

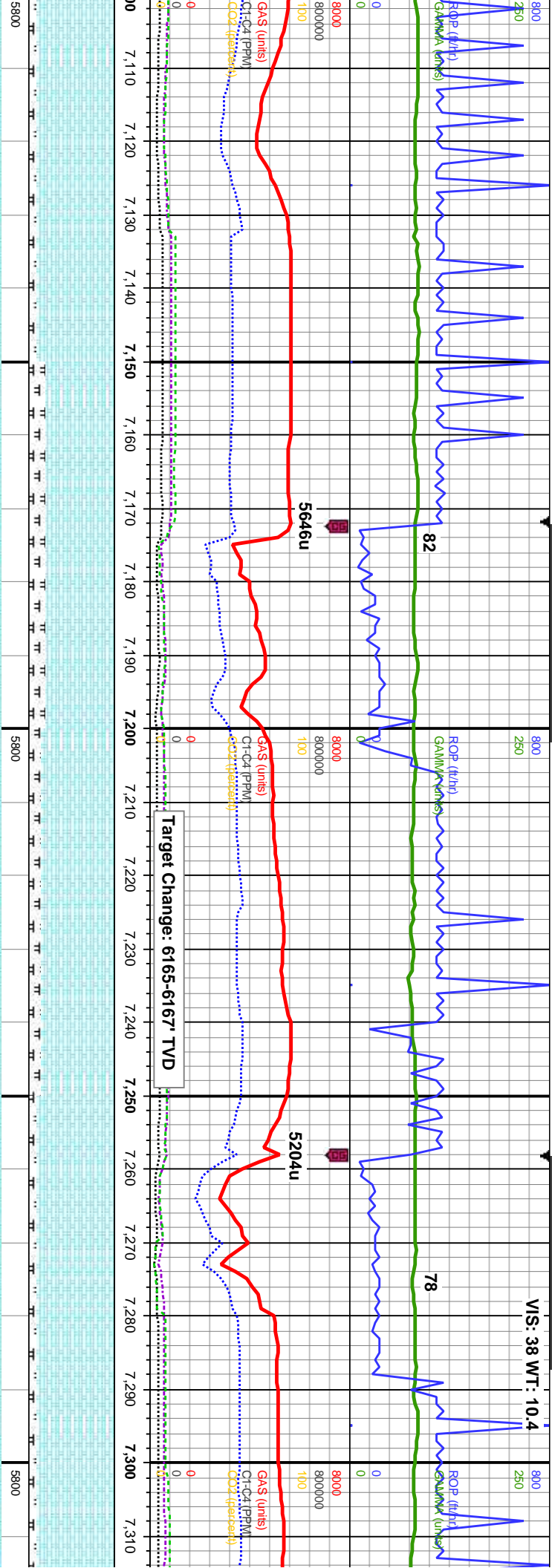
85% CHK: lt-medgy, crm-brn, mot,
ply-biky, sft-sl frm, rthy-wxy; 15%: MRLST:
med-dk gy, blk ip, sb ply-biky, mot,
frm-mod hd, arg-sly tex, mtx, calc,
mod string, bri bishwh cut, bri yel-gn
ring, fr str





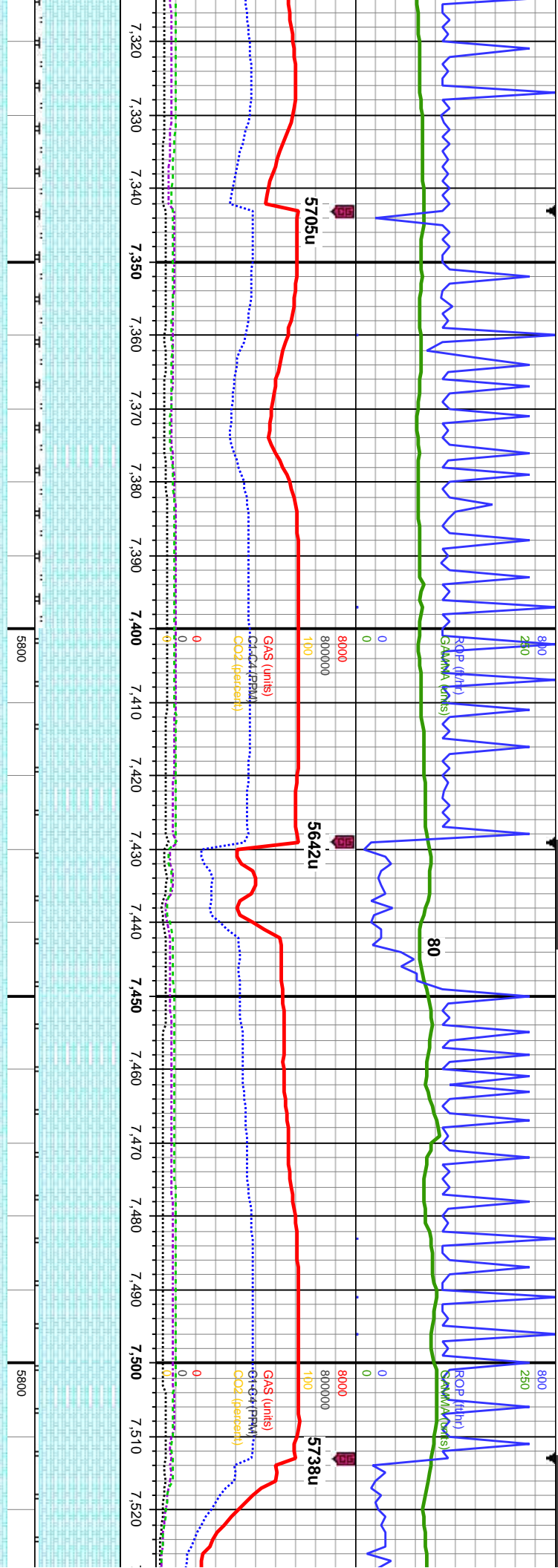
MD: 6.945' Inclination: 87.9° Azimuth: 358.9° TVD: 6,165.3' VS: 774'		MD: 7.030' Inclination: 90° Azimuth: 358.5° TVD: 6,166.86' VS: 858.76'	
TVD (ft)		TVD (ft)	
90% CHK: lt-medgy, crm-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy; 10%: MRLST: med-dk gy, blk ip, sb ply-blky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, tr Inoc; mod-fast stmg, bri blshwn cut, bri yel-gn ring, mod stn		95% CHK: lt-medgy, crm-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy; 5%: MRLST: med-dk gy, blk ip, sb ply-blky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, rr Inoc, rr bent; mod-fast stmg, bri blshwn cut, bri yel-gn ring, mod stn	
85%		85% CHK: wh-lgy, medgy, crm-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy; 15%: MRLST: med-dk gy, blk ip, sb ply-blky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, tr Inoc; mod-fast stmg, bri blshwn cut, bri yel-gn ring, mod stn	





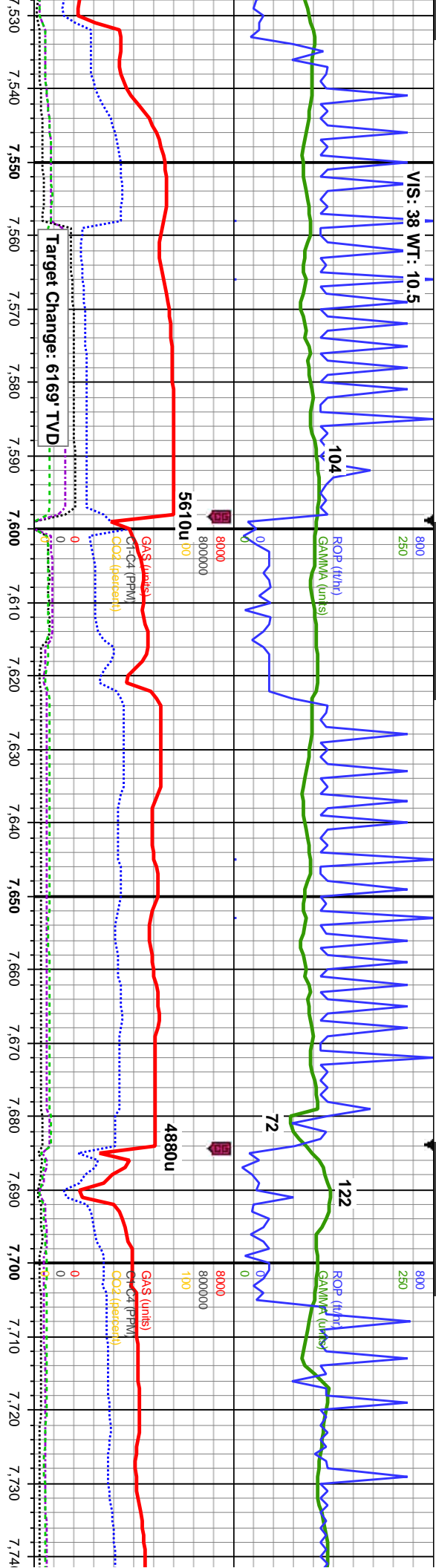
MD: 7,117' Inclination: 89.8° Azimuth: 356° TVD: 6,167.01' VS: 945.35'		MD: 7,202' Inclination: 89.4° Azimuth: 357.9° TVD: 6,167.6' VS: 1,029.91'		MD: 7,287' Inclination: 89.6° Azimuth: 1° TVD: 6,168.34' VS: 1,114.76'	
TVD (ft)		TVD (ft)		TVD (ft)	
90% CHK: wh-ilty, medgy, crm-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy; 10%: MRLST: med-dk gy, blk ip, sb ply-blky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, tr inoc; slow-mod stmg, bri blshwh cut, fnt yel-gn ring, thn str		80% CHK: wh-ilty, medgy, crm-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy; 20%: MRLST: med-dk gy, blk ip, sb ply-blky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, tr inoc and cal; slow-mod stmg, bri blshwh cut, fnt yel-gn ring, thn str		85% CHK: wh-ilty, medgy, crm-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy; 15%: MRLST: med-dk gy, blk ip, sb ply-blky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, tr inoc and cal; slow-mod stmg, bri blshwh cut, fnt yel-gn ring, thn str	
90% CHK: wh-ilty, medgy, crm-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy; 10%: MRLST: med-dk gy, blk ip, sb ply-blky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, tr inoc; slow-mod stmg, bri blshwh cut, fnt yel-gn ring, thn str		90% CHK: wh-ilty, medgy, crm-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy; 10%: MRLST: med-dk gy, blk ip, sb ply-blky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, tr inoc; slow-mod stmg, bri blshwh cut, fnt yel-gn ring, thn str		90% CHK: wh-ilty, medgy, crm-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy; 10%: MRLST: med-dk gy, blk ip, sb ply-blky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, tr inoc; slow-mod stmg, bri blshwh cut, fnt yel-gn ring, thn str	





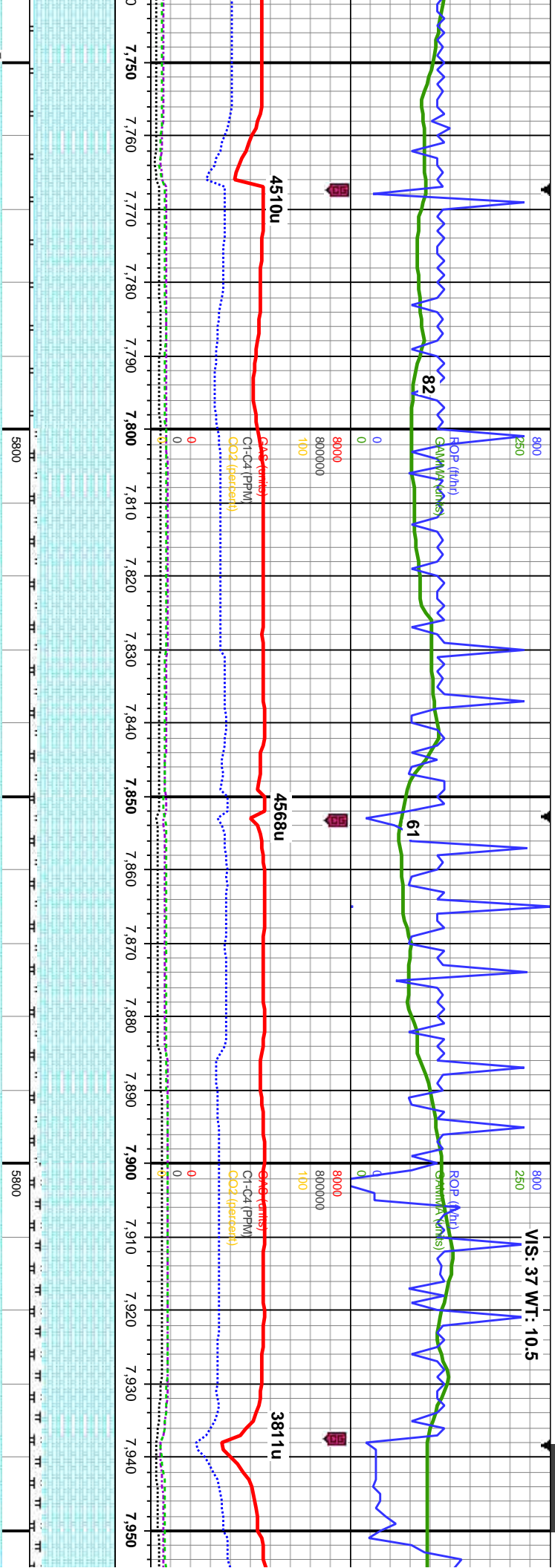
MD: 7,372' Inclination: 89.5° Azimuth: 359.7° TVD: 6,169.01' VS: 1,199.68'		90% CHK: wh-ltgy, medgy, crm-brn, mot, sb sb ply-biky, sft-sl frm, rthy-wxy, some imbd cal: 10%: MRLST: med-dk gy, sb ply-biky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, scatt cal frags: mod stmg, bri blshwn cut, mod yel-gn ring, mod str	TVD (ft)	95% CHK: wh-ltgy, medgy, crm-brn, mot, sb ply-biky, sft-sl frm, rthy-wxy, tr imbd cal: 5%: MRLST: dk gy, sb ply-biky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, tr foss cal frags: fast stmg, bri blshwn cut, bri yel-gn ring, thk str	MD: 7,457' Inclination: 90.6° Azimuth: 359.5° TVD: 6,168.94' VS: 1,284.55'	95% CHK: wh-ltgy, medgy, crm-brn, mot, sb ply-biky, sft-sl frm, rthy-wxy, tr imbd cal: 5%: MRLST: dk gy, sb ply-biky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, tr foss cal frags: fast stmg, bri blshwn cut, bri yel-gn ring, thk str	TVD (ft)	95% CHK: wh-ltgy, medgy, crm-brn, mot, sb ply-biky, sft-sl frm, rthy-w MRLST: dk gy, sb ply-bik hd, arg-sily tex, mtx, calc, tr cal frags: fast stmg, bri yel-gn ring, thk str
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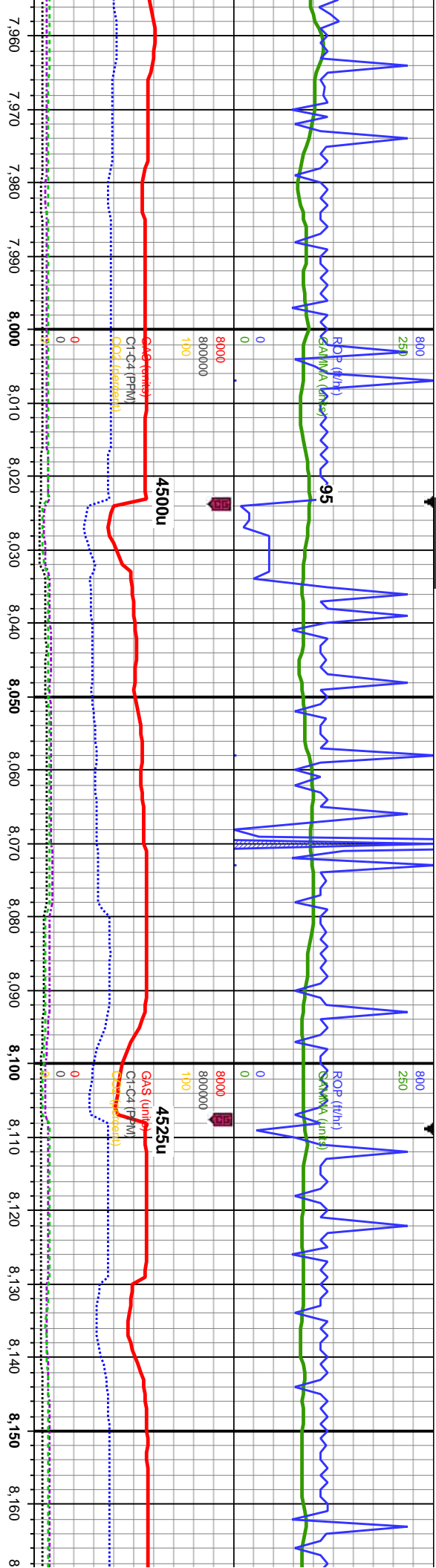
MD: 7.542' Inclination: 88.8° Azimuth: 1° TVD: 6,169.38' VS: 1,369.46'		MD: 7.627' Inclination: 87.9° Azimuth: 2.1° TVD: 6,171.83' VS: 1,454.4'		MD: 7.711' Inclination: 90.4° Azimuth: 3.4° TVD: 6,173.08' VS: 1,538.38'	
95% CHK: wh-ltgy, medgy, crm-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy, tr imbd cal; 5%: MRLST: dk gy, sb ply-blky, mot, sl frm-mod hd, arg-sly tex, mtx, calc, abnt gnshty bent, tr cal frags; fast stmg, bri blshwh cut, bri yel-gn ring, thk str	90% CHK: ltgy, med gy-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy, tr imbd cal; 10%: MRLST: dk gy, sb ply-blky, mot, sl frm-mod hd, arg-sly tex, mtx, calc, scatt gnshty bent, tr cal frags; fast stmg, bri blshwh cut, v bri yel-gn ring, thk str	90% CHK: ltgy, med gy-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy, tr imbd cal; 10%: MRLST: dk gy, sb ply-blky, mot, sl frm-mod hd, arg-sly tex, mtx, calc, scatt gnshty bent, tr cal frags; fast stmg, bri blshwh cut, v bri yel-gn ring, thk str	95% CHK: ltgy, med gy-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy, tr imbd cal; gy, sb ply-blky, mot, sl frm-mod hd, ar tex, mtx, calc, scatt cal frags; fast stmg blshwh cut, v bri yel-gn ring, thk str		





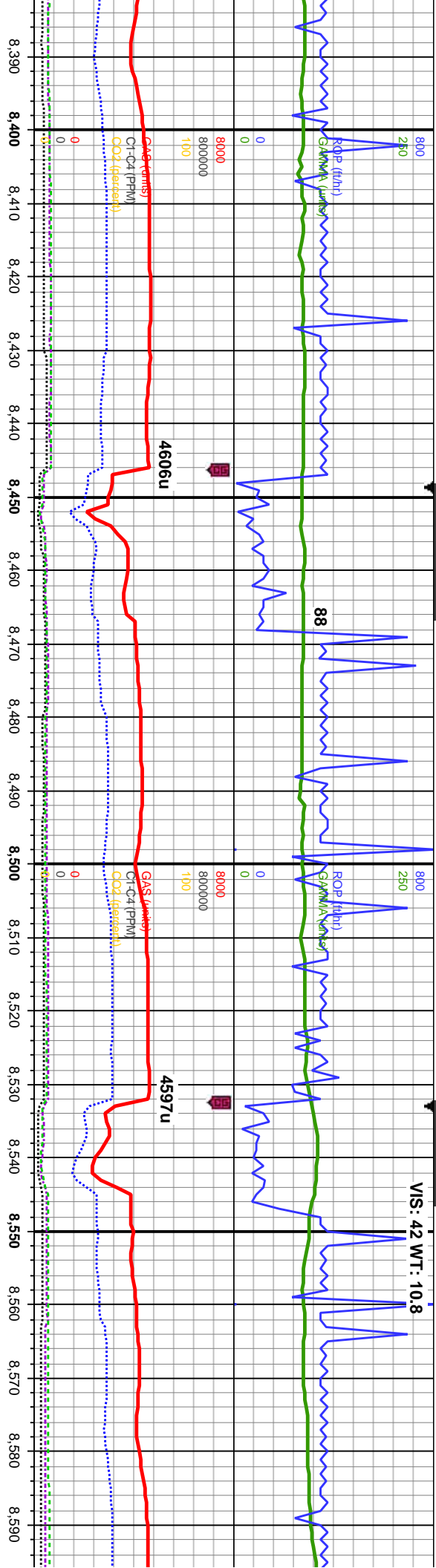
MD: 7,797' Inclination: 91.1° Azimuth: 3.1° TVD: 6,171.95' VS: 1,624.37'		MD: 7,882' Inclination: 92° Azimuth: 2.5° TVD: 6,169.65' VS: 1,709.34'	
95% CHK: ltgy, med gy-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy; 5%: MRLST: dk gy, sb ply-blky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, scatt cal frags; fast string, bri blshwh cut, v bri yel-gn ring, thk sin	90% CHK: ltgy, med gy-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy; 10%: MRLST: dk gy, sb ply-blky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, tr bent, scatt loose & imbd cal; v fast string, bri blshwh cut, v bri yel-gn ring, thk sin	90% CHK: ltgy, med gy-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy; 10%: MRLST: dk gy, sb ply-blky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, tr gshgy bent, scatt loose & imbd cal; v fast string, bri blshwh cut, v bri yel-gn ring, thk sin	85% CHK: ltgy, med gy-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy; 15%: MRLST: dk gy, sb ply-blky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, tr gshgy bent, scatt loose & imbd cal; fast string, bri blshwh cut, mod yel amb ring, thk sin
TVD (ft)		TVD (ft)	





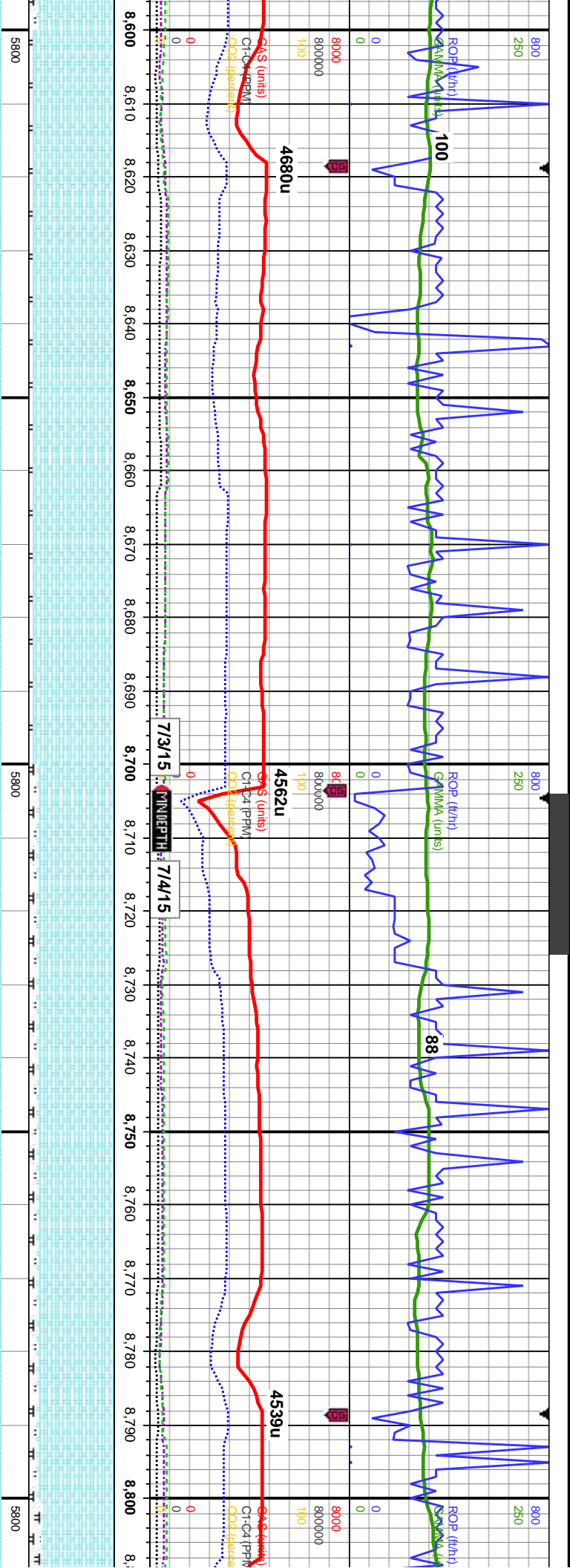
MD: 7.967' Inclination: 91.3° Azimuth: 2° TVD: 6,167.2' VS: 1,794.3'		MD: 8.052' Inclination: 90.4° Azimuth: 2.6° TVD: 6,165.94' VS: 1,879.29'		MD: 8.136' Inclination: 90.2° Azimuth: 1.6° TVD: 6,165.5' VS: 1,963.28'	
85% CHK: ltgy, med gy-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy; 15%: MRLST: dk gy, sb ply-blky, mot, sl frm-mod hd, arg-slty tex, mtx, calc, tr gnshgy bent, scatt loose & imbd cal; fast stmg, bri blshwh cut, v bri yel-gn ring, thk str		85% CHK: ltgy, med gy-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy; 15%: MRLST: dk gy, sb ply-blky, mot, sl frm-mod hd, arg-slty tex, mtx, calc, tr gnshgy bent, scatt loose & imbd cal; v fast stmg, bri blshwh cut, v bri yel-gn ring, thk str		90% CHK: ltgy, med gy-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy; 10%: MRLST: dk gy, sb ply-blky, mot, sl frm-mod hd, arg-slty tex, mtx, calc, tr gnshgy bent, tr cal frags; v fast stmg, bri blshwh cut, v bri yel-gn ring, mod str	
TVD (ft)		TVD (ft)		TVD (ft)	





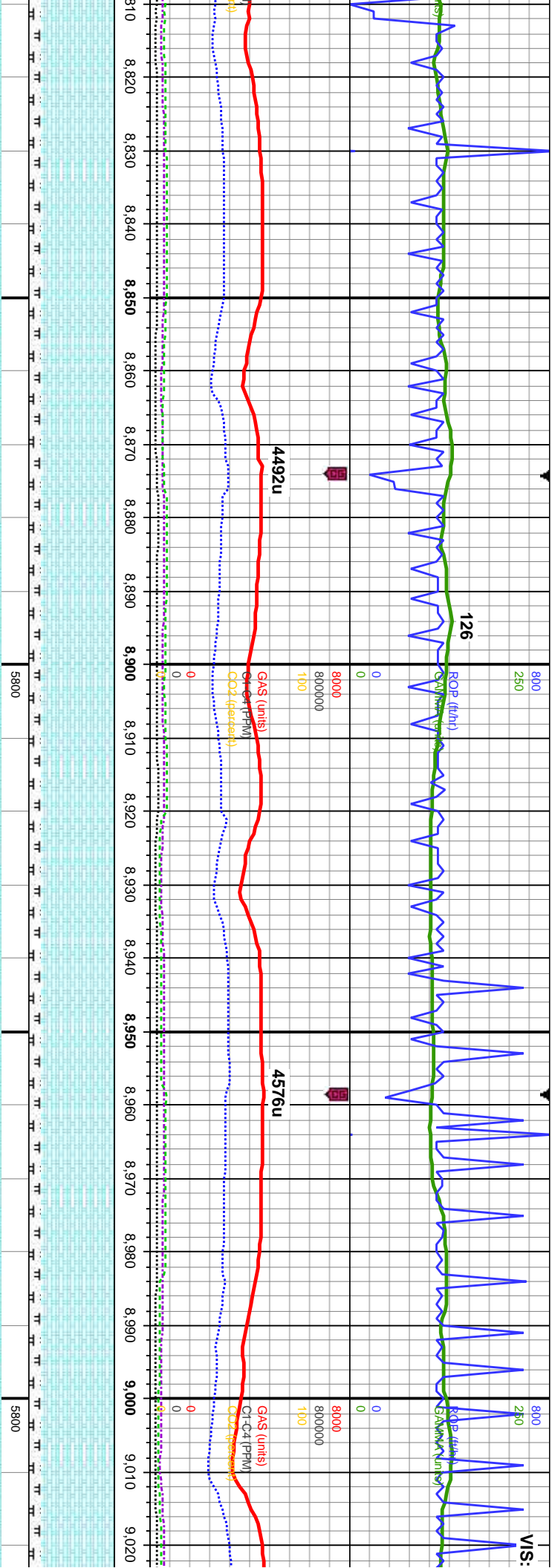
MD: 8.392' Inclination: 90.3° Azimuth: 357.3° TVD: 6,164.98' VS: 2,218.63'		MD: 8.477' Inclination: 90.4° Azimuth: 359.3° TVD: 6,164.46' VS: 2,303.36'		MD: 8.562' Inclination: 89.1° Azimuth: 359.6° TVD: 6,164.83' VS: 2,388.22'	
90% CHK: ltgy, med gy-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy; 10%: MRLST: dk gy, blk, sb ply-blky, mot, sl frm-mod hd, arg-slty tex, mtx, calc, tr cal frags; fast stmg, bri blshwh cut, mod yel amb ring, mod str		90% CHK: ltgy, med gy-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy; 10%: MRLST: dk gy, blk, sb ply-blky, mot, sl frm-mod hd, arg-slty tex, mtx, calc, tr cal frags; fast stmg, bri blshwh cut, mod yel amb ring, mod str		90% CHK: ltgy, med gy-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy; 10%: MRLST: dk gy, blk, sb ply-blky, mot, sl frm-mod hd, arg-slty tex, mtx, calc, tr cal frags; v fast stmg, bri blshwh cut, v bri yel-gn ring, mod str	





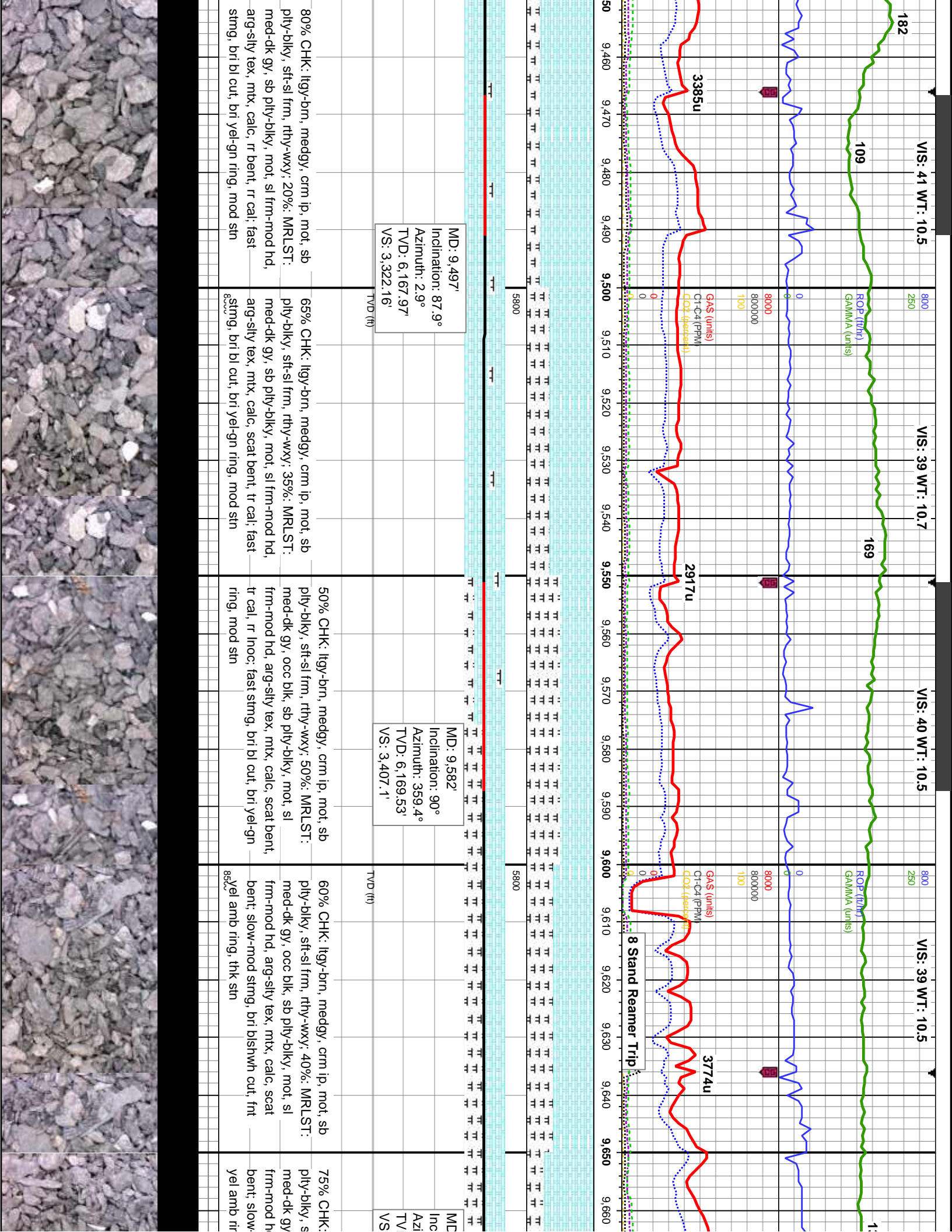
MD: 8.647' Inclination: 90.6° Azimuth: 359.3° TVD: 6.165.05' VS: 2.473.07'		MD: 8.732' Inclination: 88.8° Azimuth: 359° TVD: 6.165.5' VS: 2.557.9'	
TVD (ft)		TVD (ft)	
95% CHK: lgy, med gy-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy; 5%: MRLST: dk gy, blk, sb ply-blky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, tr cal frags; fast strng, bri bishwn cut, fr yel ring, fr str	95% CHK: lgy, med gy-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy; 5%: MRLST: dk gy, blk, sb ply-blky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, tr cal frags; fast strng, bri bishwn cut, fr yel ring, fr str	90% CHK: lgy, med gy-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy; 10%: MRLST: dk gy, blk, sb ply-blky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, scatt cal frags; fast strng, bri bishwn cut, bri yel ring, mod str	90% CHK: lgy, med gy-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy; 10%: MRLST: dk gy, blk, sb ply-blky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, scatt cal frags; fast strng, bri bishwn cut, bri yel ring, mod str
85% CH ply-blky dk gy, b arg-sily strng, b str			





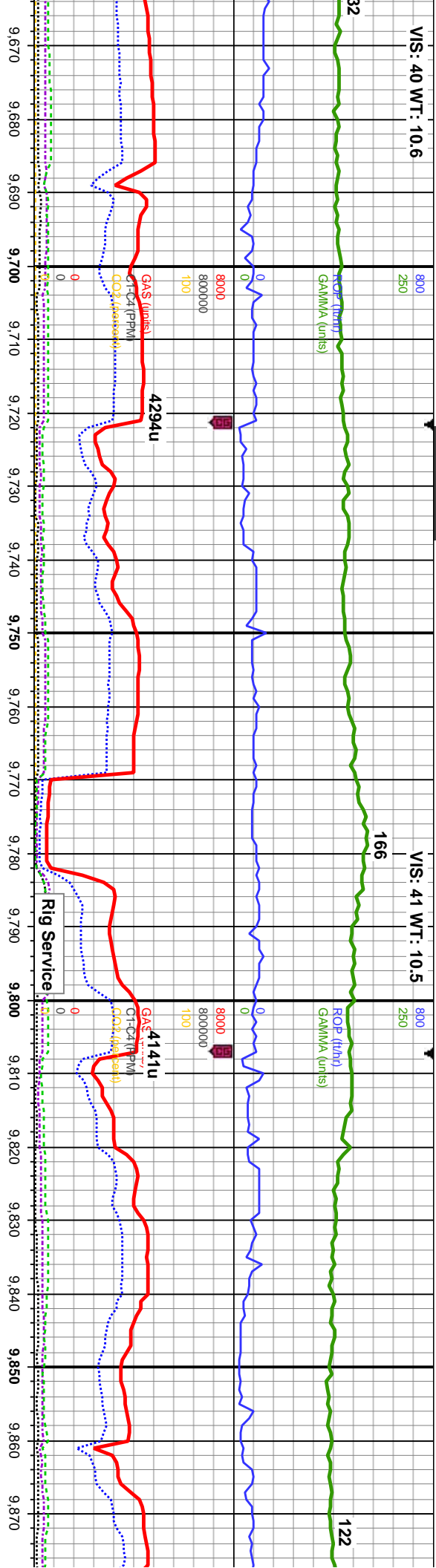
MD: 8,817' Inclination: 89.1° Azimuth: 358.8° TVD: 6,167.05' VS: 2,642.69'		85% CHK: ltgy, med gy-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy: 15%: MRLST: dk gy, blk, sb ply-blky, mot, sl frm-mod hd, arg-slty tex, mtx, calc, scatt cal frags; fast stmg, bri blshwh cut, bri yel-gn ring, mod stn	85% CHK: ltgy, med gy-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy: 15%: MRLST: dk gy, blk, sb ply-blky, mot, sl frm-mod hd, arg-slty tex, mtx, calc, scatt cal frags; fast stmg, bri blshwh cut, bri yel-gn ring, mod stn	85% CHK: ltgy, med gy-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy: 15%: MRLST: dk gy, blk, sb ply-blky, mot, sl frm-mod hd, arg-slty tex, mtx, calc, tr imbd cal, scatt foss frags; fast stmg, bri blshwh cut, bri yel-gn ring, mod stn	85% CHK: ltgy, med gy-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy: 15%: MRLST: dk gy, blk, sb ply-blky, mot, sl frm-mod hd, arg-slty tex, mtx, calc, tr imbd cal, scatt foss frags; fast stmg, bri blshwh cut, bri yel-gn ring, mod stn	85% CHK: ltgy, med gy-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy: 15%: MRLST: dk gy, blk, sb ply-blky, mot, sl frm-mod hd, arg-slty tex, mtx, calc, tr imbd cal, scatt foss frags; fast stmg, bri blshwh cut, bri yel-gn ring, mod stn
MD: 8,902' Inclination: 88.9° Azimuth: 359.7° TVD: 6,168.54' VS: 2,727.52'						
MD: 8,987' Inclination: 90.7° Azimuth: 0.4° TVD: 6,168.84' VS: 2,812.42'						





VIS: 40 WT: 10.6

VIS: 41 WT: 10.5



5800

5800

9,667'

MD: 9,752'

MD: 9,836'

Inclination: 91.3°
Azimuth: 358.7°
D: 6,168.56'
VS: 3,491.91'

Inclination: 89.8°
Azimuth: 358°
TVD: 6,167.75'
VS: 3,576.65'

Inclination: 90.6°
Azimuth: 357.2°
TVD: 6,167.45'
VS: 3,660.31'

9,667'

MD: 9,752'

MD: 9,836'

Inclination: 91.3°
Azimuth: 358.7°
D: 6,168.56'
VS: 3,491.91'

Inclination: 89.8°
Azimuth: 358°
TVD: 6,167.75'
VS: 3,576.65'

Inclination: 90.6°
Azimuth: 357.2°
TVD: 6,167.45'
VS: 3,660.31'

lgy-bm, medgy, crm ip, mot, sb
ply-blky, sft-sl frm, rthy-wxy; 25%; MRLST:
occ blk, sb ply-blky, mot, sl
d, arg-sily tex, mtx, calc, scat
mod stng, bri blshwh cut, fnt
g, thk str

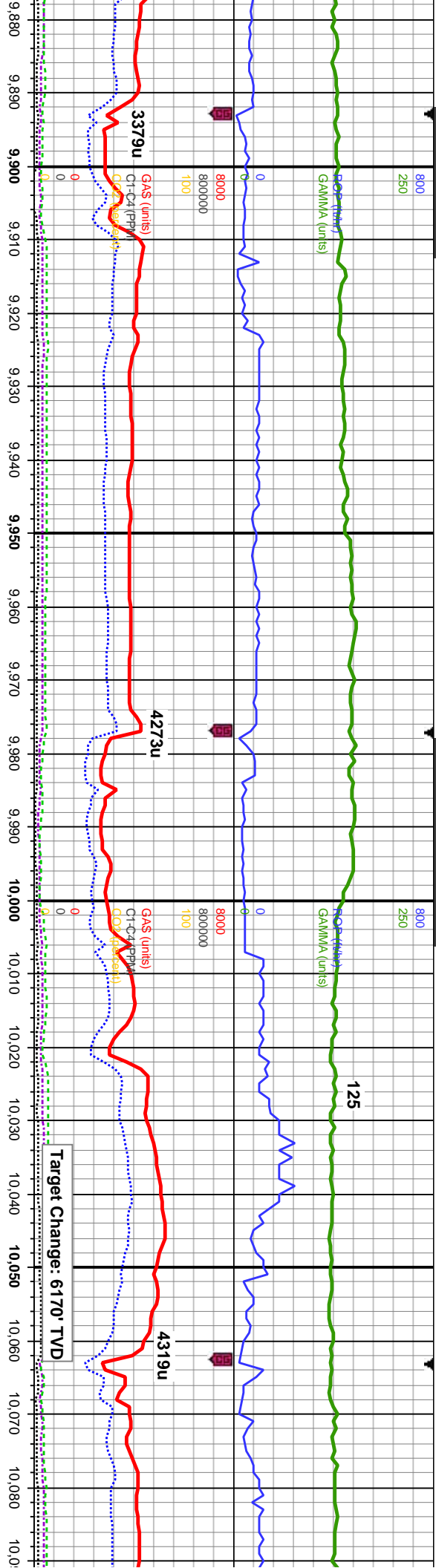
65% CHK: lt-medgy, brn-crm ip, mot, sb
ply-blky, sft-sl frm, rthy-wxy; 35%; MRLST:
med-dk gy, occ blk, sb ply-blky, mot, sl
frm-mod hd, arg-sily tex, mtx, calc, scat
bent, tr hnoc; mod-fast stng, bri blshwh
cut, fnt yel amb ring, mod str

60% CHK: lt-medgy, brn-crm ip, mot, sb
ply-blky, sft-sl frm, rthy-wxy; 40%; MRLST:
med-dk gy, occ blk, sb ply-blky, mot, sl
frm-mod hd, arg-sily tex, mtx, calc, scat
bent, tr hnoc; mod-fast stng, bri blshwh
cut, fnt yel amb ring, mod str

85% CHK: lgy, med gy-brn, mot, sb
ply-blky, sft-sl frm, rthy-wxy; 15%; MRLST:
dk gy, blk, sb ply-blky, mot, sl frm-mod hd,
arg-sily tex, mtx, calc; mod stng, bri blshwh
cut, fnt yel amb ring, thk str

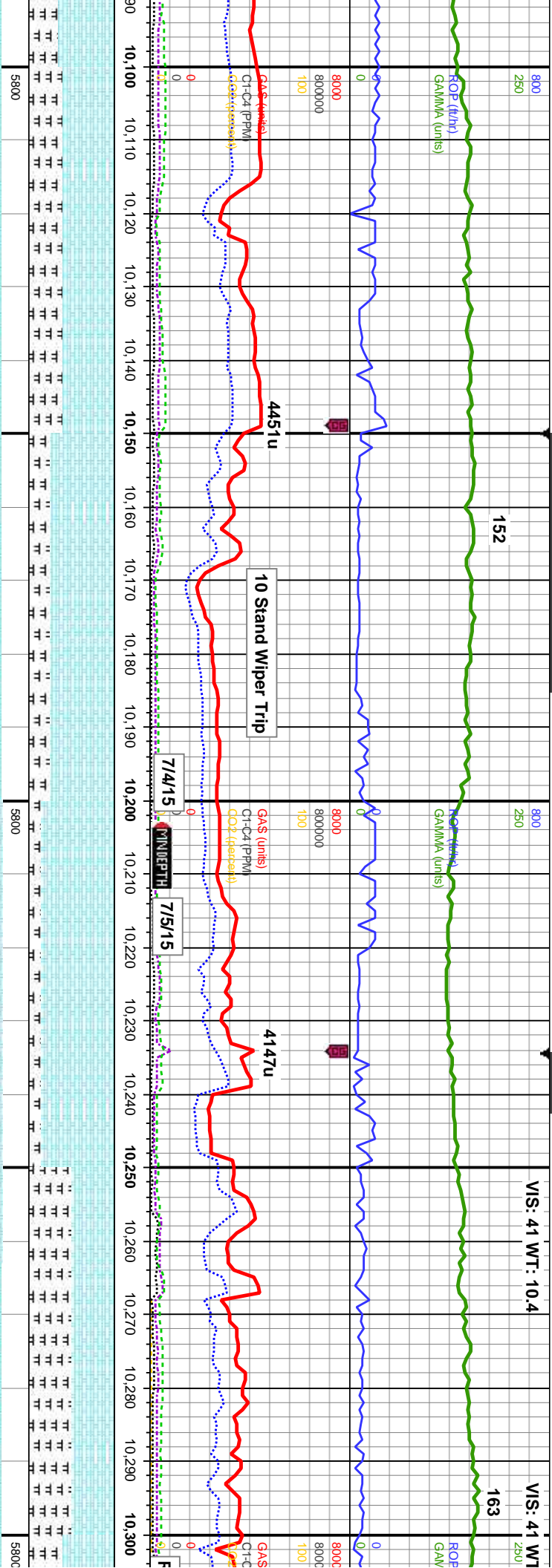
65% CHK: lt-medgy, brn-
ply-blky, sft-sl frm, rthy-w
med-dk gy, occ blk, sb pl
frm-mod hd, arg-sily tex,
mod stng, bri blshwh cut
thk str





MD: 9,921' Inclination: 90.8° Azimuth: 357.3° TVD: 6,166.41' VS: 3,744.91'		MD: 10,006' Inclination: 89.4° Azimuth: 359.8° TVD: 6,166.27' VS: 3,829.67'		MD: 10,006' Inclination: 89.4° Azimuth: 359.8° TVD: 6,166.27' VS: 3,829.67'		MD: 10,006' Inclination: 89.4° Azimuth: 359.8° TVD: 6,166.27' VS: 3,829.67'	
65% CHK: medgy, brn-crm ip, mot, sb ply-blky, sft-sl frm, rthy-wxy; 35%: MRLST: med-dk gy, occ blk, sb ply-blky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, tr inoc; fast stmg, bri blshwh cut, v bri wh grn ring, thk stn		55% CHK: medgy, brn-crm ip, mot, sb ply-blky, sft-sl frm, rthy-wxy; 45%: MRLST: med-dk gy, occ blk, sb ply-blky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, tr cal frags: fast stmg, bri blshwh cut, v bri wh grn ring, thk stn		60% CHK: medgy, brn-crm ip, mot, sb ply-blky, sft-sl frm, rthy-wxy; 40%: MRLST: med-dk gy, occ blk, sb ply-blky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, tr cal frags: fast stmg, mod blshwh cut, fnt yel amb ring, thk stn		65% CHK: medgy, brn-crm ip, mot, sb ply-blky, sft-sl frm, rthy-wxy; 35%: MRLST: med-dk gy, occ blk, sb ply-blky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, tr inoc; fast stmg, mod blshwh cut, fnt yel amb ring, thk stn	





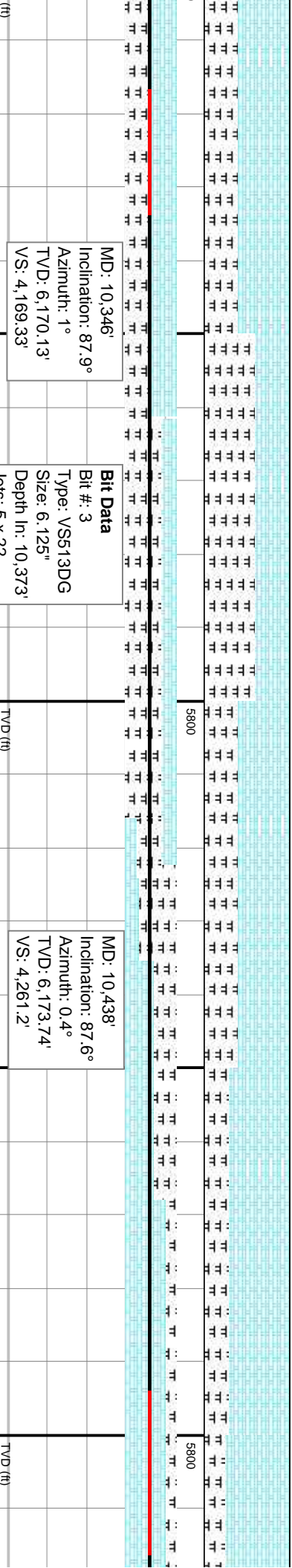
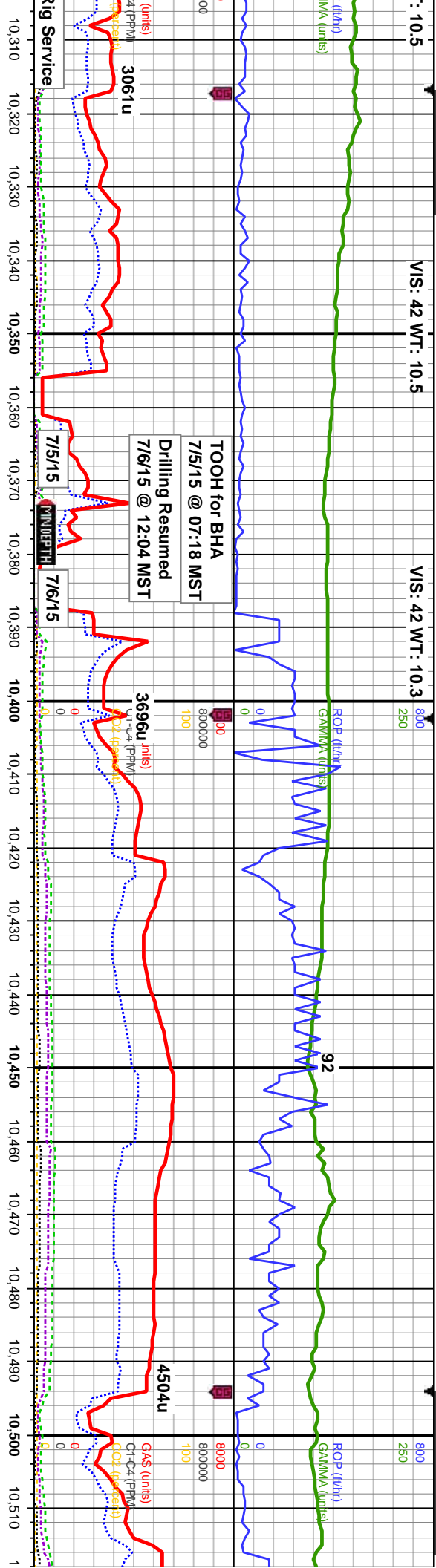
0.093'
Inclination: 91.1°
Azimuth: 0.2°
TVD: 6,165.89'
VS: 4,916.57'

MD: 10,178'
Inclination: 88.7°
Azimuth: 1.3°
TVD: 6,166.04'
VS: 4,001.51'

MD: 10,263'
Inclination: 88.9°
Azimuth: 360°
TVD: 6,167.82'
VS: 4,086.43'

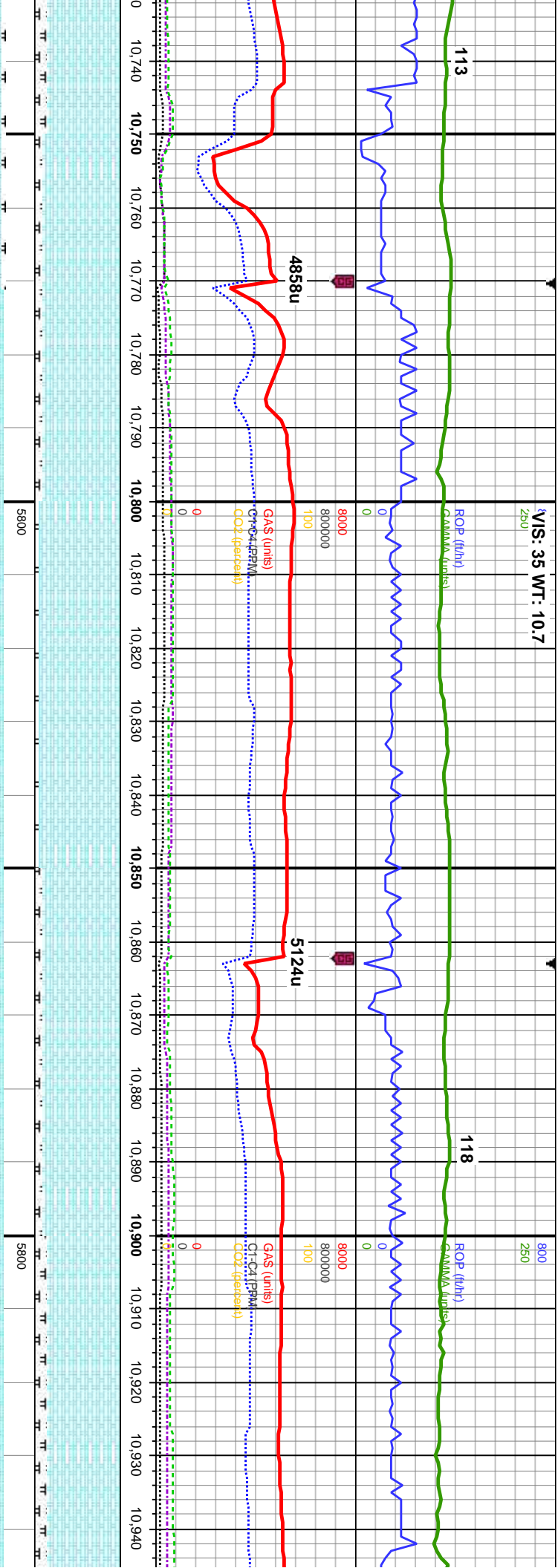
60% CHK: medgy, brn-crm ip, mot, sb ply-blky, sft-sl frm, rthy-wxy; 40%: MRLST: med-dk gy, occ blk, sb ply-blky, mot, sl frm-mod hd, arg-slty tex, mtx, calc, tr cal frags; fast stmg, mod blshwh cut, bri yel-gn ring, fr str	75% CHK: llyg, med gy-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy; 25%: MRLST: dk gy, blk, sb ply-blky, mot, sl frm-mod hd, arg-slty tex, mtx, calc, tr bent; fast stmg, mod blshwh cut, bri yel-gn ring, fr str	85% CHK: llyg, med gy-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy; 15%: MRLST: dk gy, blk, sb ply-blky, mot, sl frm-mod hd, arg-slty tex, mtx, calc; fast stmg, mod blshwh cut, bri yel-amb ring, fr str	50% CHK: llyg, medgy-brn, mot, sb ply-blky, sft-sl frm, rthy-wxy ip; 50%: MRLST: med-dk gy, blk ip, sb ply-blky, mot, sl frm-mod hd, arg-slty tex, mtx, calc, scat bent, tr inoc, tr cal; fast stmg, mod blshwh cut, bri yel-amb ring, fr str
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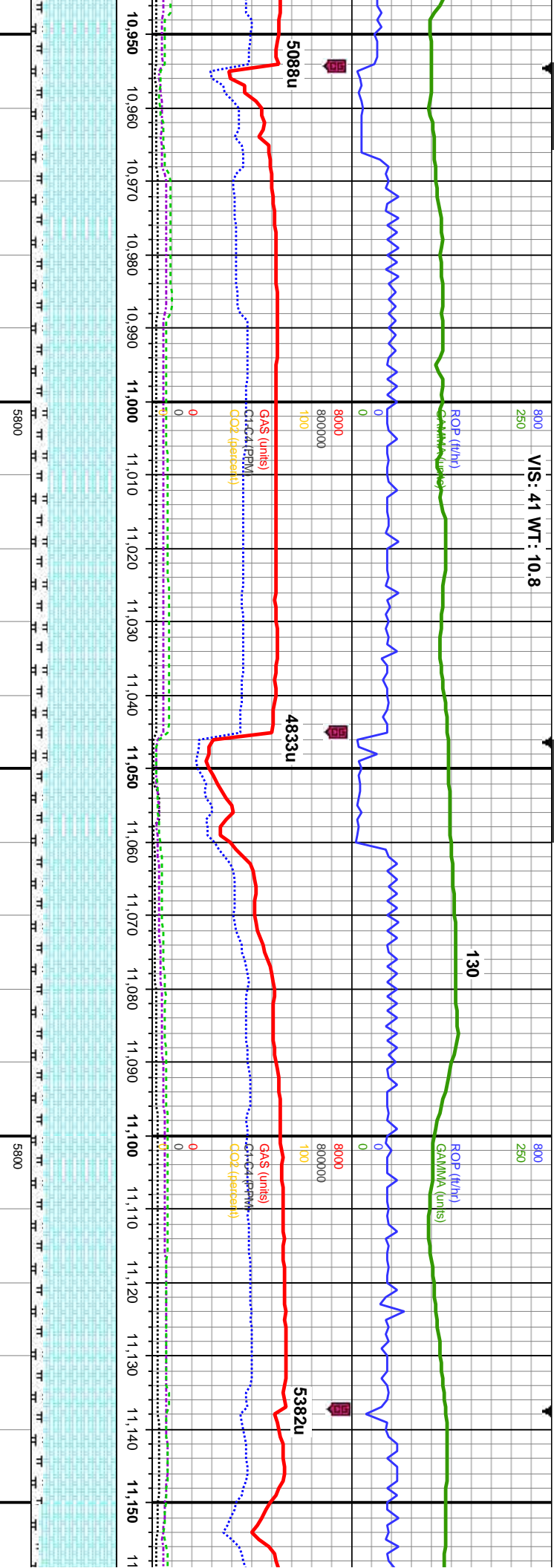
MD: 10,346' Inclination: 87.9° Azimuth: 1° TVD: 6,170.13' VS: 4,169.33'		Bit Data Bit #: 3 Type: VS513DG Size: 6.125" Depth In: 10,373' Jets: 5 x 22 S/N: 4007602		MD: 10,438' Inclination: 87.6° Azimuth: 0.4° TVD: 6,173.74' VS: 4,261.2'	
60%: MRLST: med-dk gy, blk ip, sb pty-blky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, scat bent, tr inoc, 40% CHK: lgy, medgy-brn, mot, sb pty-blky, sft-sl frm, rthy-wxy ip; 40%: MRLST: med-dk gy, blk ip, sb pty-blky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, scat bent, tr inoc, 40% CHK: lgy, medgy-brn, mot, sb pty-blky, sft-sl frm, rthy-wxy ip; mod-fast string, mod bri cut, bri yel-gn ring, fr sin		60%: MRLST: med-dk gy, blk ip, sb pty-blky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, scat bent, tr inoc, 40% CHK: lgy, medgy-brn, mot, sb pty-blky, sft-sl frm, rthy-wxy ip; mod-fast string, mod bri blshwh cut, bri yel-gn ring, fr sin		70% CHK: wh-lgy, medgy-brn, crm ip, mot, sb pty-blky, sft-sl frm, rthy-wxy; 30%: MRLST: med-dk gy, sb pty-blky, mot, sl frm-mod hd, arg-sily tex, mtx, calc, scat bent, tr cal, slow string, mod bri blshwh cut, mod yel-gn ring, mod sin	
85%		85%		85%	





MD: 10,805' Inclination: 89.8° Azimuth: 357.5° TVD: 6,175.66' VS: 4,627.24'		MD: 10,896' Inclination: 89.3° Azimuth: 358.7° TVD: 6,176.38' VS: 4,717.93'	
90% CHK: ltgy- crm, medgy-brn, crm ip, mot, sb pty-blky, sft-sl frm, rthy-wxy ip, tr imbd cal: 10%: MRLST: blk, some dk gry, sb pty-blky, mot, sl frm-mod hd, arg-slty tex, mtx, calc, tr cal frags; slow stmg, mod bri bishwh cut, mod yel grn ring, mod stn	95% CHK: ltgy- crm, medgy-brn, crm ip, mot, sb pty-blky, sft-sl frm, rthy-wxy ip, tr imbd cal: 5%: MRLST: blk, some dk gry, sb pty-blky, mot, sl frm-mod hd, arg-slty tex, mtx, calc, tr bent, tr pyr, mod-fast stmg, mod bri bishwh cut, mod yel grn ring, mod stn	90% CHK: ltgy- crm, medgy-brn, crm ip, mot, sb pty-blky, sft-sl frm, rthy-wxy ip, tr imbd cal: 10%: MRLST: blk, some dk gry, sb pty-blky, mot, sl frm-mod hd, arg-slty tex, mtx, calc; mod-fast stmg, mod bri bishwh cut, mod yel grn ring, mod stn	85% CHK: ltgy- crm, medgy-brn, crm ip, mot, sb pty-blky, sft-sl frm, rthy-wxy ip, tr imbd cal: 15%: MRLST: blk, some dk gry, sb pty-blky, mot, sl frm-mod hd, arg-slty tex, mtx, calc; mod stmg, mod bri bishwh cut, fnt yel ring, mod stn





MD: 10,988'
Inclination: 89.8°
Azimuth: 357.4°
TVD: 6,177.1'
VS: 4,809.62'

85% CHK: ltgy- crm, medgy-brn, crm ip,
mot, sb pty-blky, sft-sl frm, rthy-wxy ip, tr
imbd cal: 15%: MRLST: blk, some dk gry,
sb pty-blky, mot, sl frm-mod hd, arg-sily
tex, mtx, calc: mod stmg, mod bri blshwh
cut, fnt yel ring, mod stn

TVD (ft)

80% CHK: ltgy- crm, medgy-brn, crm ip,
mot, sb pty-blky, sft-sl frm, rthy-wxy ip, tr
imbd cal: 20%: MRLST: blk, some dk gry,
sb pty-blky, mot, sl frm-mod hd, arg-sily
tex, mtx, calc: slow-mod stmg, mod bri
blshwh cut, fnt yel-amb ring, fr stn

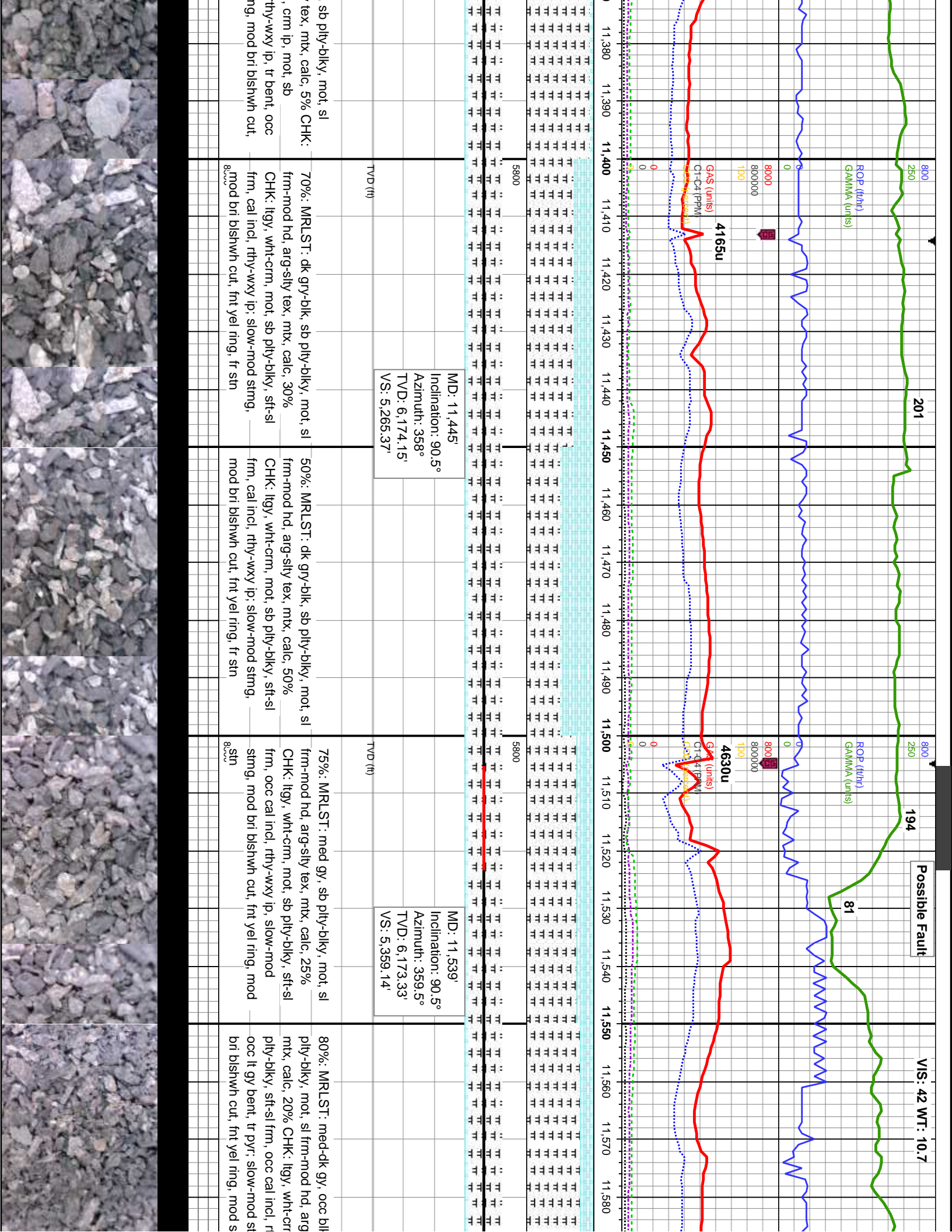
MD: 11,080'
Inclination: 90.7°
Azimuth: 359°
TVD: 6,176.7'
VS: 4,901.32'

85% CHK: ltgy- crm, medgy-brn, crm ip,
mot, sb pty-blky, sft-sl frm, rthy-wxy ip, tr
imbd cal: 15%: MRLST: blk, some dk gry,
sb pty-blky, mot, sl frm-mod hd, arg-sily
tex, mtx, calc, tr cal frags: slow-mod stmg,
mod bri blshwh cut, fnt yel-amb ring, fr stn

TVD (ft)

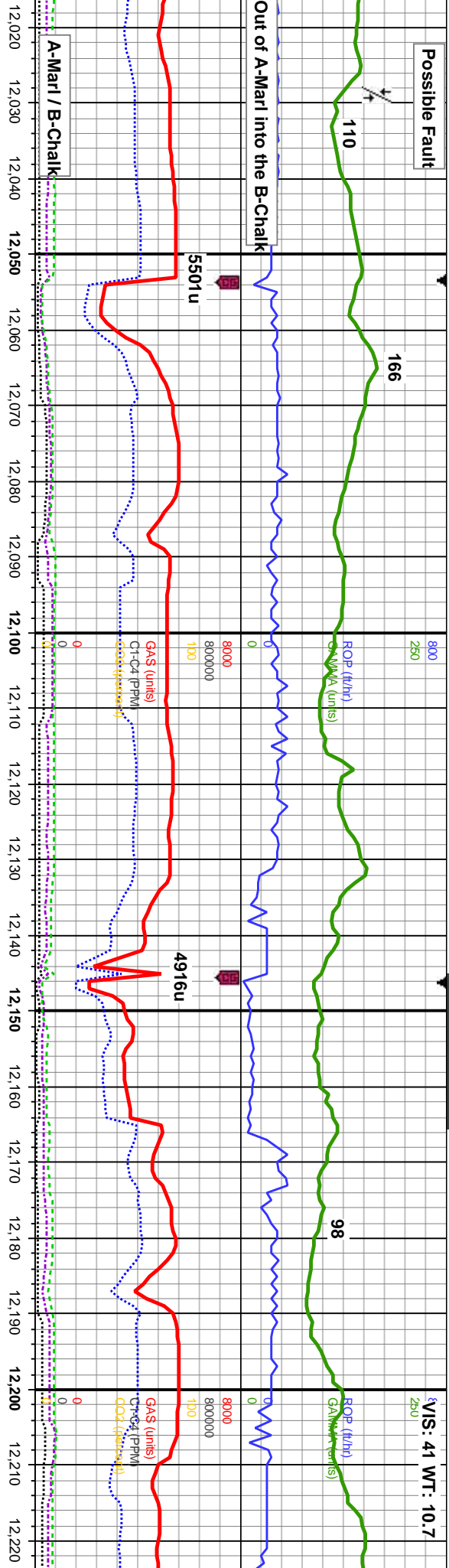
85% CHK: ltgy- crm, medgy-brn, crm ip,
mot, sb pty-blky, sft-sl frm, rthy-wxy ip, 15%:
MRLST: blk, some dk gry, sb pty-blky, mot,
sl frm-mod hd, arg-sily tex, mtx, calc, tr cal
frags: slow-mod stmg, mod bri blshwh cut,
fnt yel-amb ring, fr stn

90% C
sb pty-
MRLST
sl frm-r
scatt cc
blshwh



Possible Fault

VIS: 41 WT: 10.7

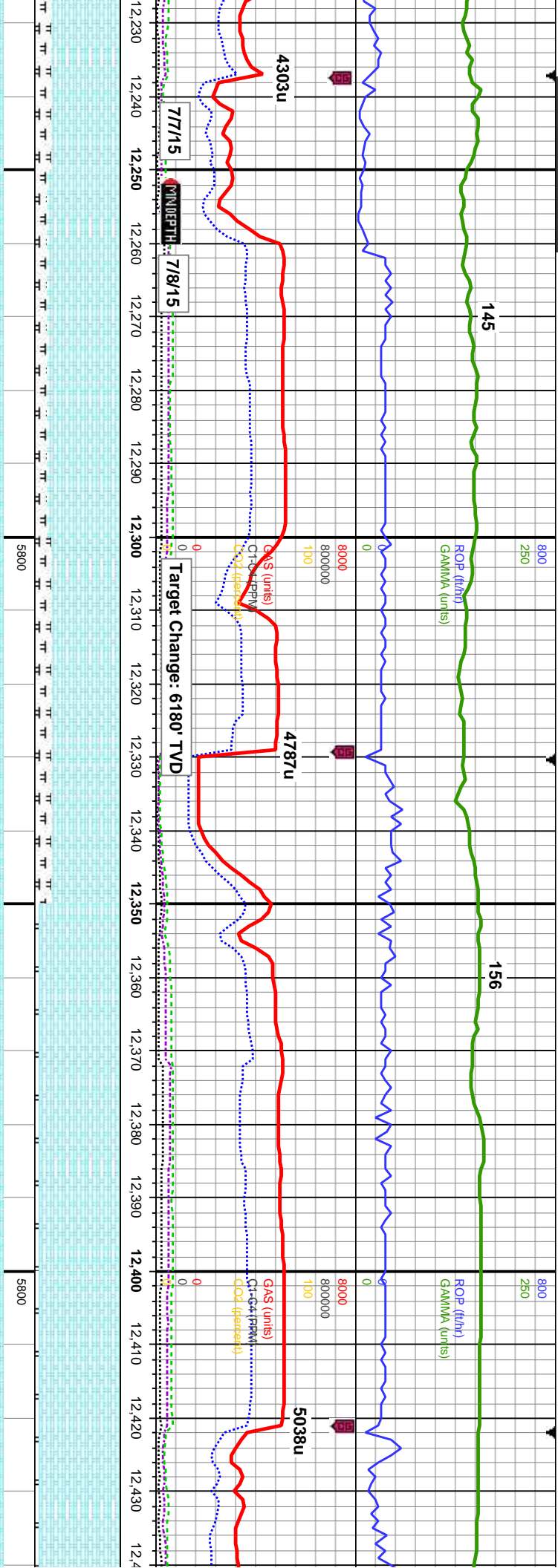


MD: 12,088'
Inclination: 87.8°
Azimuth: 2.8°
TVD: 6,174.84'
VS: 5,907.65'

MD: 12,180'
Inclination: 88°
Azimuth: 1°
TVD: 6,178.21'
VS: 5,999.57'

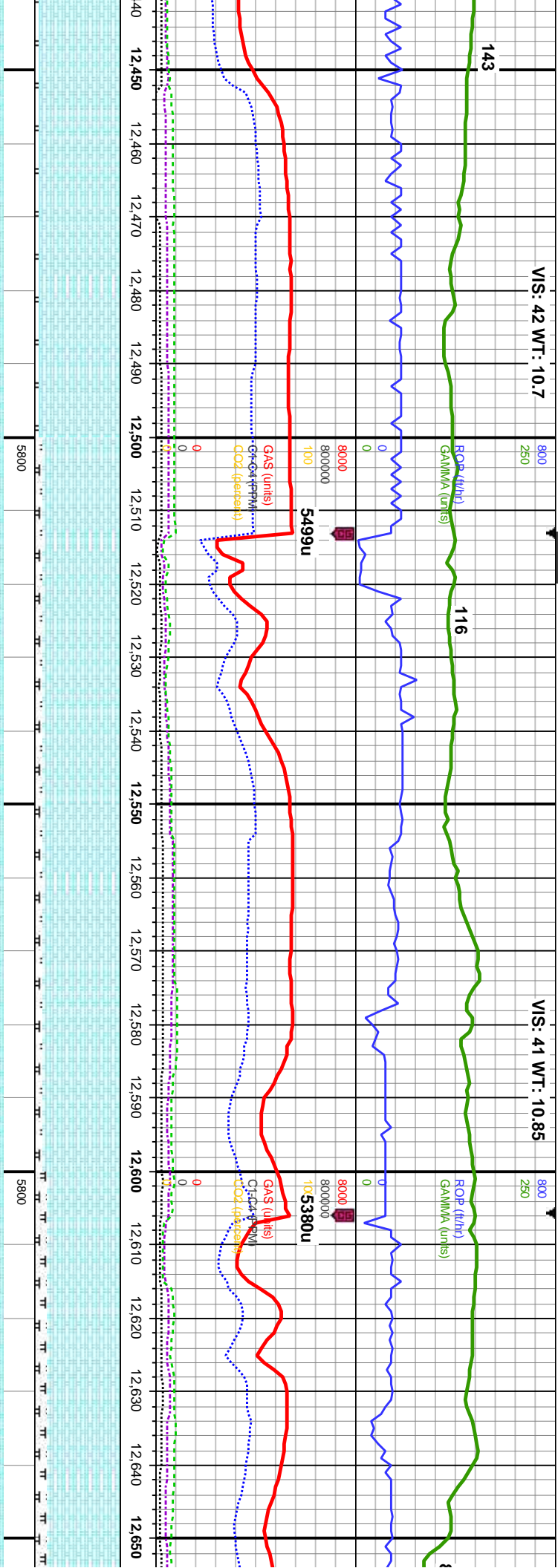
85% CHK: lt-med gy, mot, sb pty-blky, sft-sl frm, rthy-wxy ip: 15%; MRLST: med-dk gy, sb pty-blky, mot, sft-mod hd, arg-sily tex, mtx, calc, tr bent, tr cal frags; fast stmg, bri bishwh cut, bri wh grn ring, mod stn	90% CHK: lt-med gy, mot, sb pty-blky, sft-sl frm, rthy-wxy ip: 10%; MRLST: med-dk gy, sb pty-blky, mot, sft-mod hd, arg-sily tex, mtx, calc, tr bent, tr cal frags; fast stmg, bri bishwh cut, bri yel grn ring, mod stn	95% CHK: lt-med gy, mot, sb pty-blky, sft-sl frm, rthy-wxy ip, tr cal incl; 5%; MRLST: med-dk gy, sb pty-blky, mot, sft-mod hd, arg-sily tex, mtx, calc, tr cal frags; fast stmg, bri bishwh cut, bri yel grn ring, mod stn
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MD: 12,272' Inclination: 89.9° Azimuth: 0.7° TVD: 6,179.9' VS: 6,091.5'		MD: 12,364' Inclination: 90.2° Azimuth: 1.4° TVD: 6,179.82' VS: 6,183.46'	
85% CHK: med gy, some lt gry-crm, mot, sb ply-blky, sft-sl frm, rthy-wxy ip; 15%: MRLST: med-dk gy, sb ply-blky, mot, sft-mod hd, arg-sily tex, mtx, calc, occ blk sily sh, tr bent, tr cal frags; fast stmg, bri bishwh cut, bri yel gm ring, mod stn	TVD (ft)	95% CHK: lt-med gy, some crm, mot, sb ply-blky, sft-sl frm, rthy-wxy ip, tr cal incl; 5%: MRLST: med-dk gy, sb ply-blky, mot, sft-mod hd, arg-sily tex, mtx, calc, tr blk sily sh, tr bent, tr foss & cal frags; mod stmg, bri bishwh cut, dull amb ring, mod stn	TVD (ft)





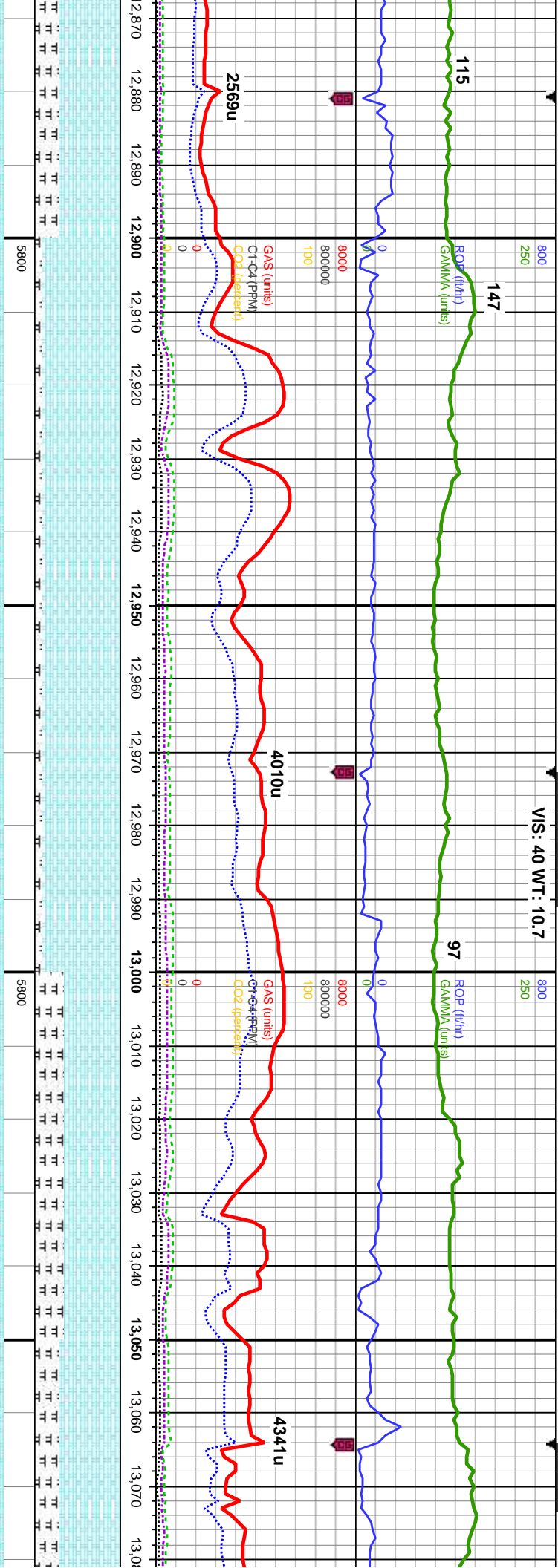
MD: 12,456'
Inclination: 90.6°
Azimuth: 1.5°
TVD: 6,179.18'
VS: 6,275.43'

MD: 12,548'
Inclination: 89.6°
Azimuth: 0.4°
TVD: 6,179.02'
VS: 6,367.38'

MD: 12,640'
Inclination: 89.8°
Azimuth: 0.1°
TVD: 6,179.5'
VS: 6,459.3'

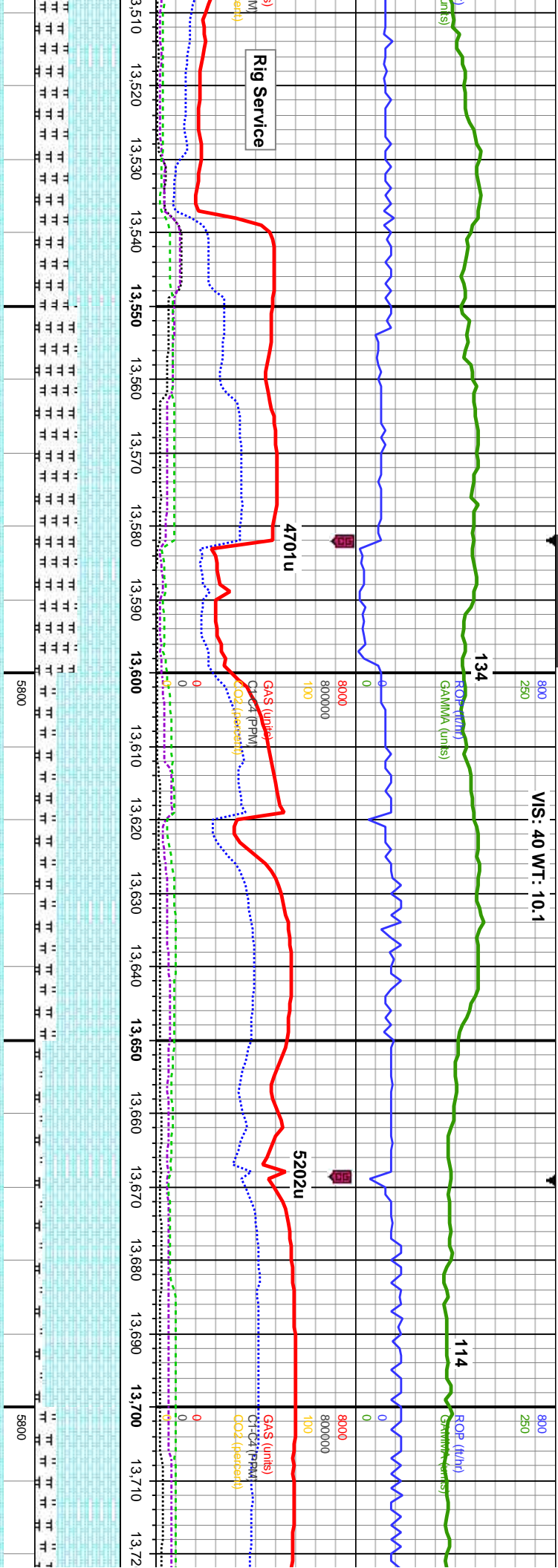
sb	95% CHK: lt-med gy, occ crm, mot, sb	90% CHK: lt-med gy, occ crm, mot, sb	90% CHK: lt-med gy, occ crm, mot, sb	85% CHK: lt-med gy, mot, sb ply-blky, mod
MR LST:	ply-blky, sft-sl frm, rthy-wxy ip: 5%: MRLST:	ply-blky, sft-sl frm, rthy-wxy ip: 10%: MRLST:	ply-blky, sft-sl frm, rthy-wxy ip: 10%: MRLST:	sft-sl frm, rthy-wxy ip: 15%: MRLST: med-dk
hd,	med-dk gy, sb ply-blky, mot, sft-mod hd,	MR LST: med-dk gy, sb ply-blky, mot,	med-dk gy, sb ply-blky, mot, sft-mod hd,	gy, blk, sb ply-blky, mot, sft-mod hd, arg-sily
od	arg-sily tex, mtx, calc, tr blk sily sh, tr bent, tr	sft-mod hd, arg-sily tex, mtx, calc, tr blk sily	arg-sily tex, mtx, calc, tr blk sily sh, tr bent, tr	tex, mtx, calc, tr blk sily sh, tr bent: fast stmg,
od	pyr, mod stmg, bri blshwh cut, dull amb	sh, tr bent: fast stmg, bri blshwh cut, bri yel	pyr, fast stmg, bri blshwh cut, bri yel gm	bri blshwh cut, bri yel gm ring, mod stn
ring, mod stn		8.5u		





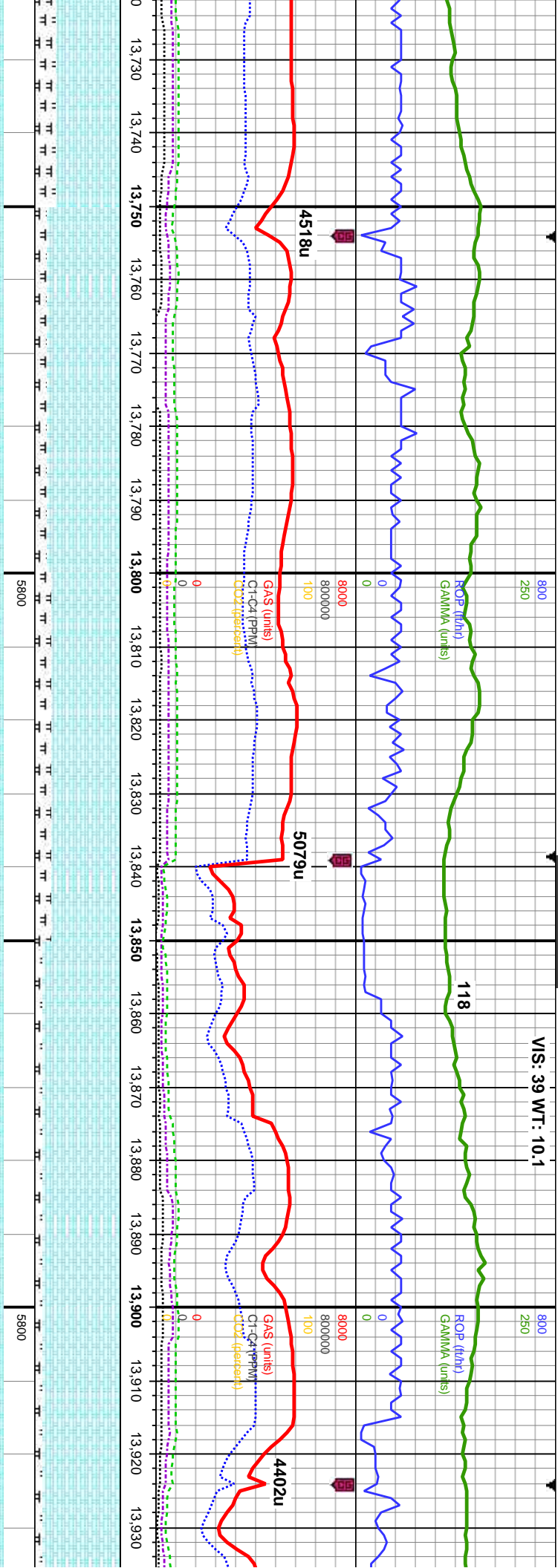
ed gy, some dk gry, mot, sb frm, rthy-wxy ip: 30%: MRLST: e blk, sb pty-blky, mot, sily tex, mtx, calc, scatt bent, sh, slow-mod string, mod bri el ring, fr sin	90% CHK: lt-med gy, some dk gry, mot, sb pty-blky, sft-sl frm, rthy-wxy ip: 10%: MRLST: med-dk gy, some blk, sb pty-blky, mot, sft-mod hd, arg-sily tex, mtx, calc, tr bent, tr pyr, some blk sily sh, slow-mod string, mod bri bishwh cut, thn uneven yel ring, fr sin	90% CHK: lt-med gy, occ dk gry, mot, sb pty-blky, sft-sl frm, rthy-wxy ip: 10%: MRLST: med-dk gy, some blk, sb pty-blky, mot, sft-mod hd, arg-sily tex, mtx, calc, tr bent, tr pyr, some blk sily sh, slow-mod string, mod bri bishwh cut, thn uneven yel ring, fr sin	65% CHK: lt-med gy, mot, sb pty-blky, sft-sl frm, rthy-wxy ip: 35%: MRLST: med-dk gy, sb pty-blky, mot, sft-mod hd, arg-sily tex, mtx, calc, tr bent, tr pyr, some blk sily sh, slow-mod string, mod bri bishwh cut, thn uneven yel ring, fr sin	70% CHK: lt-med gy, dk gy, pty-blky, sft-sl frm, rthy-wxy MRLST: med-dk gy, sb pty-blky, sft-mod hd, arg-sily tex, mtx pyr, occ cal, tr fos frags, slow mod bri bishwh cut, thn une
MD: 12,916' Inclination: 91.3° Azimuth: 0.7° TVD: 6,178.94' VS: 6,735.08'				
TVD (ft)				
MD: 13,008' Inclination: 89.6° Azimuth: 1.5° TVD: 6,178.21' VS: 6,827.04'				
TVD (ft)				





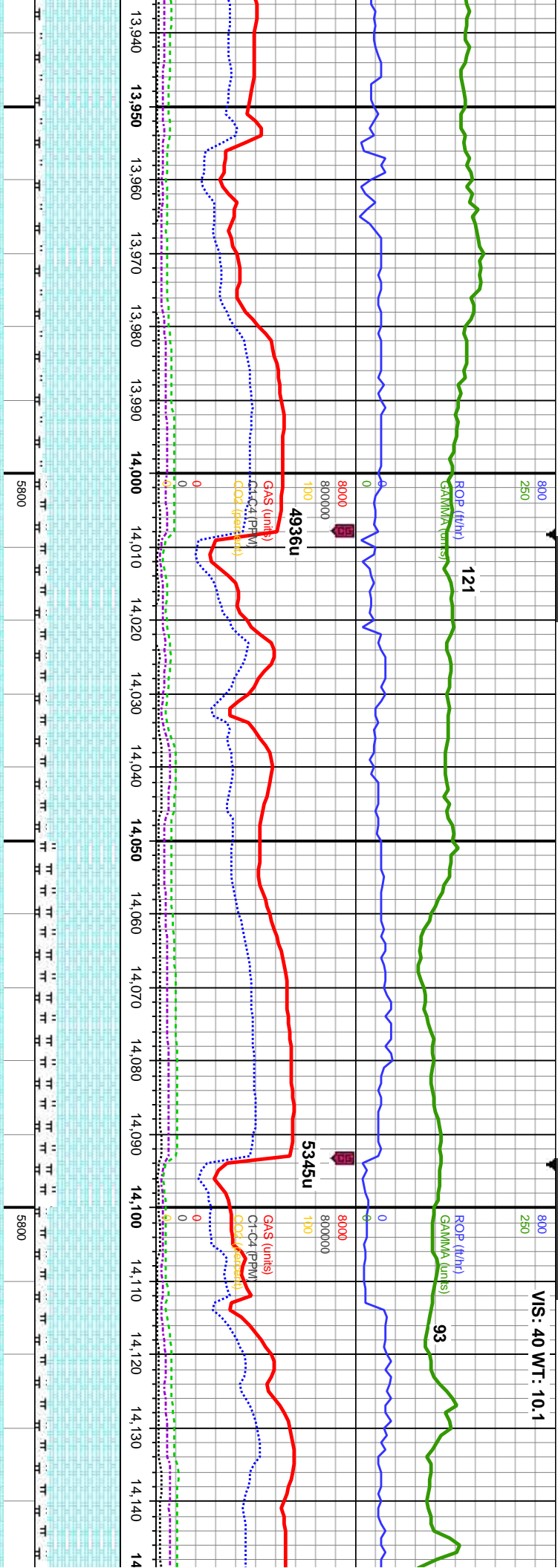
MD: 13,526' Inclination: 89.4° Azimuth: 0.5° TVD: 6,183.3' VS: 7,344.64'	CHK: lt-med gy, occ dk gy, mot, sb ply, sft-sl frm, rthy-wxy ip; 40%: med-dk gy, blk, sb ply-blky, mot, hd, arg-sily tex, mtx, calc, tr pyr, tr cal, mod stmg, bri blshwh cut, bri wh g, mod stn	50% CHK: lt-med gy, occ dk gy, mot, sb ply-blky, sft-sl frm, rthy-wxy ip; 50%: MRLST: med-dk gy, blk, sb ply-blky, mot, sft-mod hd, arg-sily tex, mtx, calc, tr bent, tr imbd cal; mod stmg, bri blshwh cut, bri wh grn ring, mod stn	MD: 13,611' Inclination: 89.8° Azimuth: 358.4° TVD: 6,183.89' VS: 7,429.49'	75% CHK: lt-med gy, occ dk gy, mot, sb ply-blky, sft-sl frm, rthy-wxy ip; 25%: MRLST: med-dk gy, blk, sb ply-blky, mot, sft-mod hd, arg-sily tex, mtx, calc, tr bent, tr imbd cal; fast stmg, bri blshwh cut, mod yel ring, mod stn	MD: 13,696' Inclination: 90.2° Azimuth: 358.8° TVD: 6,183.89' VS: 7,514.27'	90% CHK: lt-med gy, occ dk gy, mot, sb ply-blky, sft-sl frm, rthy-wxy ip; 10%: MRLST: med-dk gy, blk, sb ply-blky, mot, sft-mod hd, arg-sily tex, mtx, calc, tr bent, tr imbd cal; fast stmg, bri blshwh cut, mod yel ring, mod stn	75% CHK: lt-med g ply-blky, sft-sl frm, MRLST: med-dk gy sft-mod hd, arg-sily imbd cal; mod stmg yel ring, thk stn





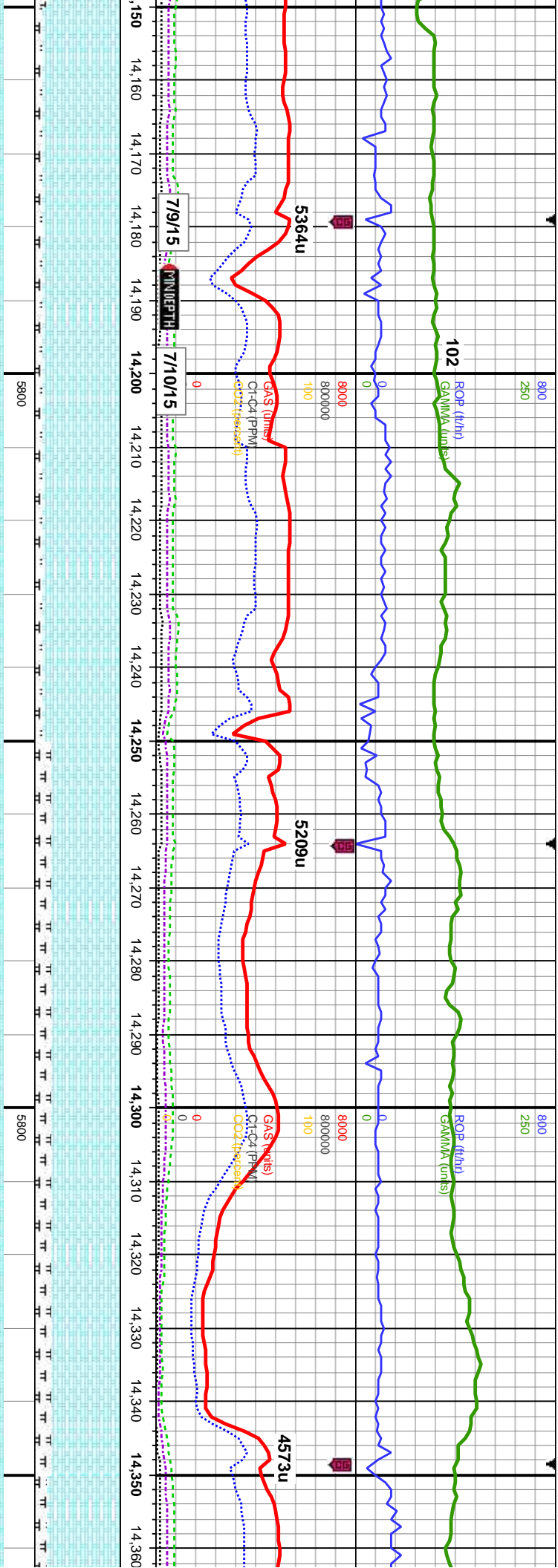
y, occ dk gy, mot, sb rthy-wxy ip: 25%: , blk, sb pty-blky, mot, tex, mtx, calc, tr bent, tr , bri bishwh cut, mod	85% CHK: lt-med gy, occ dk gy, mot, sb pty-blky, sft-sl frm, rthy-wxy ip: 15%: MRLST: med-dk gy, blk, sb pty-blky, mot, sft-mod hd, arg-sily tex, mtx, calc, tr bent, tr imbd cal; mod sting, bri bishwh cut, mod yel ring, thk stn	MD: 13,781' Inclination: 91.4° Azimuth: 358.4° TVD: 6,182.7' VS: 7,599.03'	TVD (ft)	80% CHK: lt-med gy, occ dk gy, mot, sb pty-blky, sft-sl frm, rthy-wxy ip: 20%: MRLST: med-dk gy, blk, sb pty-blky, mot, sft-mod hd, arg-sily tex, mtx, calc, tr cal frags: mod-fast sting, bri bishwh cut, mod wh yel ring, thk stn	MD: 13,866' Inclination: 89.8° Azimuth: 357.4° TVD: 6,181.81' VS: 7,683.72'	TVD (ft)	90% CHK: lt-med gy, occ dk gy, mot, sb pty-blky, sft-sl frm, rthy-wxy ip: 10%: MRLST: med-dk gy, blk, sb pty-blky, mot, sft-mod hd, arg-sily tex, mtx, calc, tr cal frags: fast sting, bri bishwh cut, l ring, mod sin	TVD (ft)
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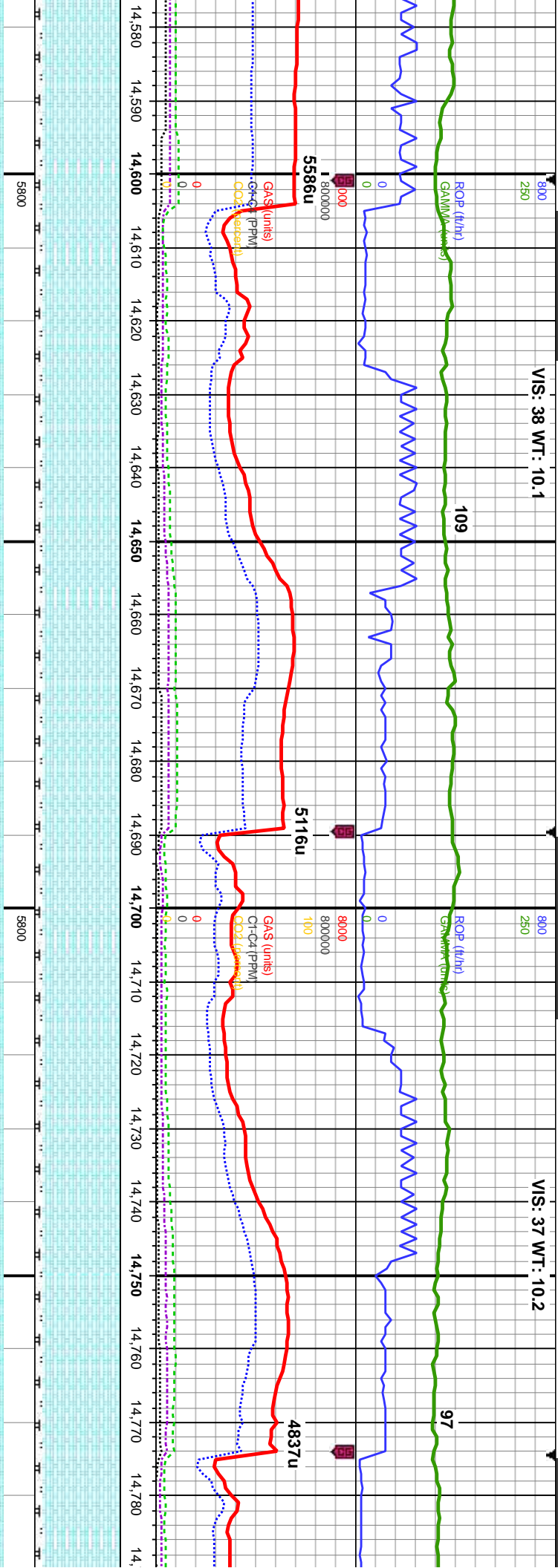
MD: 13,950' Inclination: 90.5° Azimuth: 358.7° TVD: 6,181.59' VS: 7,767.43'		MD: 14,035' Inclination: 90.7° Azimuth: 358.2° TVD: 6,180.7' VS: 7,852.19'		MD: 14,120' Inclination: 88.8° Azimuth: 358.7° TVD: 6,181.07' VS: 7,936.94'	
mot, sb	90% CHK: lt-med gy, occ dk gy, mot, sb	85% CHK: lt-med gy, occ dk gy, mot, sb	75% CHK: lt-med gy, occ dk gy, mot, sb	85% CHK: lt-med gy, occ dk gy, mot, sb	ply-blky, sft-sl frm, rthy-wxy ip, 10%:
0%:	ply-blky, sft-sl frm, rthy-wxy ip, 10%:	ply-blky, sft-sl frm, rthy-wxy ip, 15%:	ply-blky, sft-sl frm, rthy-wxy ip, 25%:	ply-blky, sft-sl frm, rthy-wxy ip, tr cal incl:	15%: MRLST: med-dk gy, blk, sb ply-blky, mot,
mot, sb	MRLST: med-dk gy, blk, sb ply-blky, mot,	MRLST: med-dk gy, blk, sb ply-blky, mot,	sft-mod hd, arg-sily tex, mtx, calc, tr cal incl,	mot, sft-mod hd, arg-sily tex, mtx, calc, tr	gyshgn bent, tr cal frags: fast string, bri
c, tr cal	sft-mod hd, arg-sily tex, mtx, calc, tr cal	tr gyshgn bent, tr cal frags: mod string, bri	mod string, bri blshwh cut, bri wh grm ring,	mod string, bri blshwh cut, bri wh grm ring,	mod string, bri blshwh cut, bri wh grm ring,
ring, mod str	ring, mod str	ring, mod str	ring, mod str	ring, mod str	ring, mod str





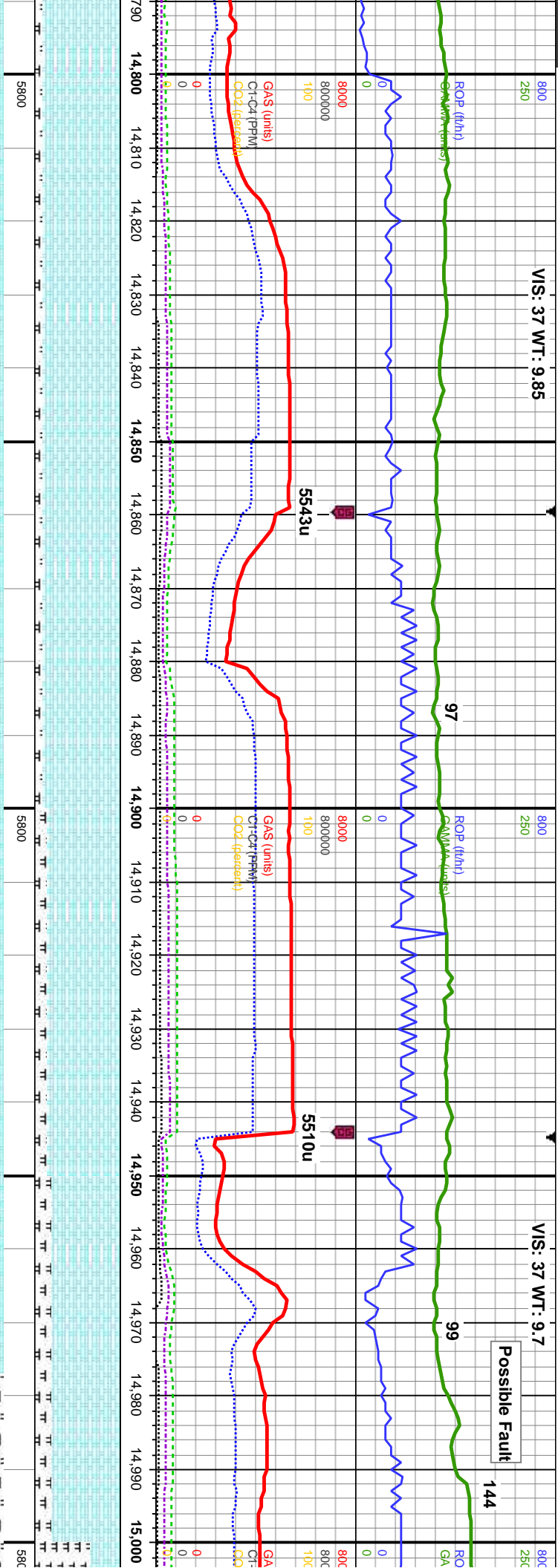
MD: 14,205' Inclination: 88.9° Azimuth: 357.8° TVD: 6,182.78' VS: 8,021.66'		MD: 14,289' Inclination: 89.4° Azimuth: 357.3° TVD: 6,184.03' VS: 8,105.3'	
90% CHK: lt-med gy, occ dk gy, mot, sb ply-blky, sft-sl frm, rthy-wxy ip, tr cal incl; 10%: MRLST: med-dk gy, blk, sb ply-blky, mot, sft-mod hd, arg-sily tex, mtx, calc, tr gysghn bent, tr cal frags; fast stmg, bri blshwn cut, bri yel gm ring, tlk stn	90% CHK: lt-med gy, occ dk gy, mot, sb ply-blky, sft-sl frm, rthy-wxy ip, tr cal incl; 10%: MRLST: med-dk gy, blk, sb ply-blky, mot, sft-mod hd, arg-sily tex, mtx, calc, tr gysghn bent, tr pyr; fast stmg, bri blshwn cut, bri wh gm ring, mod stn	80% CHK: lt-med gy, occ dk gy, mot, sb ply-blky, sft-sl frm, rthy-wxy ip, tr cal incl; 20%: MRLST: med-dk gy, blk, sb ply-blky, mot, sft-mod hd, arg-sily tex, mtx, calc, tr gysghn bent, tr pyr; fast stmg, bri blshwn cut, bri wh gm ring, mod stn	80% CHK: lt-med gy, occ crm, mot, sb ply-blky, sft-sl frm, rthy-wxy ip, tr cal incl; 20%: MRLST: med-dk gy, blk, sb ply-blky, mot, sft-mod hd, arg-sily tex, mtx, calc, tr sily sh, tr bent; mod stmg, bri blshwn cut, bri wh gm ring, mod stn





MD: 14,629' Inclination: 90° Azimuth: 356.6° TVD: 6,183.28' VS: 8,443.41'		MD: 14,714' Inclination: 88.7° Azimuth: 358.3° TVD: 6,184.25' VS: 8,528.04'	
TVD (ft)		TVD (ft)	
90% CHK: lt-med gy, occ dk gy, mot, sb ply-biky, sft-sl frm, rthy-wxy ip, occ cal incl; incl. 10%: MRLST: med-dk gy, blk, sb ply-biky, mot, sft-mod hd, arg-sily tex, mtx, calc, occ cal; mod stmg, bri blshwh	90% CHK: lt-med gy, occ dk gy, mot, sb ply-biky, sft-sl frm, rthy-wxy ip, occ cal incl; 10%: MRLST: med-dk gy, blk, sb ply-biky, mot, sft-mod hd, arg-sily tex, mtx, calc, occ cal, tr bent, tr pyr; mod stmg, bri blshwh cut, bri wh grn ring, mod str	90% CHK: lt-med gy, occ dk gy, mot, sb ply-biky, sft-sl frm, rthy-wxy ip, occ cal incl; 10%: MRLST: med-dk gy, blk, sb ply-biky, mot, sft-mod hd, arg-sily tex, mtx, calc occ cal, tr bent, tr pyr; mod stmg, bri blshwh cut, bri wh grn ring, thk str	90% CHK: lt-med gy, occ dk gy, mot, sb ply-biky, sft-sl frm, rthy-wxy ip, occ cal incl; 10%: MRLST: med-dk gy, blk, sb ply-biky, mot, sft-mod hd, arg-sily tex, mtx, calc cal, tr bent, tr pyr; mod stmg, bri blshwh cut, bri wh grn ring, thk str

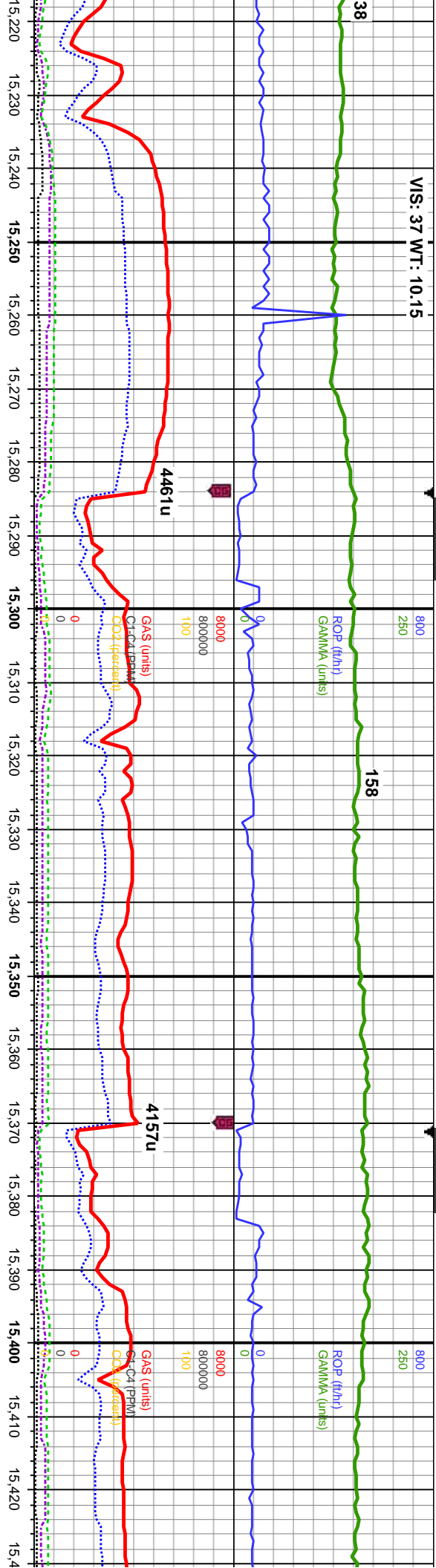




MD: 14,799' Inclination: 89.2° Azimuth: 0.2° TVD: 6,185.81' VS: 8,612.86'		MD: 14,884' Inclination: 90.1° Azimuth: 0.3° TVD: 6,186.33' VS: 8,697.77'		MD: 14,969' Inclination: 90.1° Azimuth: 359.8° TVD: 6,186.18' VS: 8,782.68'	
sb	90% CHK: lt-med gy, occ dk gy, mot, sb	sb	90% CHK: lt-med gy, occ dk gy, mot, sb	sb	80% CHK: lt-med gy, occ dk gy, mot, sb
cal incl:	ply-blky, sft-sl frm, rthy-wxy ip, occ cal incl;	cal incl:	ply-blky, sft-sl frm, rthy-wxy ip, occ cal incl;	cal incl:	ply-blky, sft-sl frm, rthy-wxy ip, occ cal incl;
ply-blky,	10%: MRLST: med-dk gy, blk, sb ply-blky,	ply-blky,	15%: MRLST: med-dk gy, blk, sb ply-blky,	ply-blky,	20%: MRLST: med-dk gy, blk, sb ply-blky,
occ	mot, sft-mod hd, arg-sily tex, mtx, calc, occ	occ	mot, sft-mod hd, arg-sily tex, mtx, calc, occ	occ	mot, sft-mod hd, arg-sily tex, mtx, calc, occ
cal:	cal: mod stmg, bri blshwh cut, bri wh grn	cal:	imbd and lse cal: mod stmg, mod blshwh	cal:	imbd and lse cal: mod stmg, mod blshwh
cut,	ring, thk sin	cut,	thin yel ring, mod sin	cut,	thin yel ring, mod sin
8		8		8	



VIS: 37 WT: 10.15



MD: 15,224'
Inclination: 90.9°
Azimuth: 0.7°
TVD: 6,183.21'
VS: 9,037.53'

med-dk gry, occ blk, sb
sl frm-mod hd, arg-sily tex,
CHK: md gy, dkgv-brn, mot,
l-sl frm, rthy-wxy ip, tr cal incl,
occ inoc frags, tr bent;
bri blshwh cut, mod yel grn

75%: MRLST: med-dk gry, occ blk, sb
ply-blky, mot, sl frm-mod hd, arg-sily tex,
mtx, calc, 25% CHK: md gy, dkgv-brn, mot,
sb ply-blky, sft-sl frm, rthy-wxy ip, tr cal incl,
scatt cal frags, occ inoc frags, tr bent;
mod-fast stmg, bri blshwh cut, mod yel grn
ring, mod str

MD: 15,309'
Inclination: 90.4°
Azimuth: 2°
TVD: 6,182.25'
VS: 9,122.49'

80%: MRLST: med-dk gry, occ blk, sb
ply-blky, mot, sl frm-mod hd, arg-sily tex,
mtx, calc, 20% CHK: md gy, dkgv-brn, mot,
sb ply-blky, sft-sl frm, rthy-wxy ip, scatt foss
& cal frags, tr bent; mod-fast stmg, bri
blshwh cut, mod yel grn ring, mod str

MD: 15,394'
Inclination: 89.4°
Azimuth: 0.9°
TVD: 6,182.39'
VS: 9,207.47'

85%: MRLST: med-dk gry, occ blk, sb
ply-blky, mot, sl frm-mod hd, arg-sily tex,
mtx, calc, 15% CHK: md gy, dkgv-brn, mot,
sb ply-blky, sft-sl frm, rthy-wxy ip, scatt foss
& cal frags, tr bent; mod-fast stmg, bri
blshwh cut, mod yel grn ring, mod str

85%: MRLST: dk gry, occ bl
mot, sl frm-mod hd, arg-sily
15% CHK: md gy, dkgv-brn,
ply-blky, sft-sl frm, rthy-wxy
cal frags, slow stmg, bri blst
yel grn ring, mod str



800	250
-----	-----

ROP (ft/hr)
GAMMA (units)

GAMMA (un

8000	800000	100
------	--------	-----

100

100

GVS (units)

THANK YOU FOR USING

TD Reached @ 15903' MD
04:25 MST on 07/11/2015

5800

Projection to Bit

MD: 15,903'

Azimuth: 0.2°

VS: 9,716.13'

MRSLST: dk gry, occ blk, sb ply-biky, mot, sl
 od hd, arg-sily tex, mtb, calc, 30% CHK: md
 gry-brn, mot, sb ply-biky, sft-sl frm, rthy-wxy
 att foss & cal frags; mod stmg, bri blshwh
 i wh grn ring, fr sin

