

Décollement Consulting Inc.



Scale: 5" / 100'
Measured Depth Log

Well Name North Platte Federal 11-14-22HNC

Location NW/NW Section 22, T5N - R63W

State CO

County Weld

Country USA

Rig Number Xtreme 22

API Number 05-123-40195

Field Wattenberg

Region D.J. Basin

Drilling Completed 5/28/2015

Spud Date 5/4/2015

Surface Coordinates 657 FNL x 1205 FWL (Lat: 40.390340, -104.426818)

Bottom Hole Coordinates 470 FSL x 620 FWL (Lat: 40.378965, -104.428902)

Ground Elevation 4,657'

K.B. Elevation 4,674'

Logged Interval 7,095' To 11,190'

Total Depth 11,190'

Formation Niobrara "C" Chalk

Type of Drilling Fluid Water Based Mud

Operator

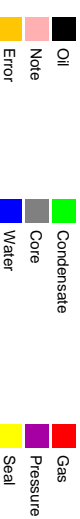
Address Bonanza Creek Energy, Inc.
410 17th Street, Suite 1500
Denver, CO. 80202

Geologist

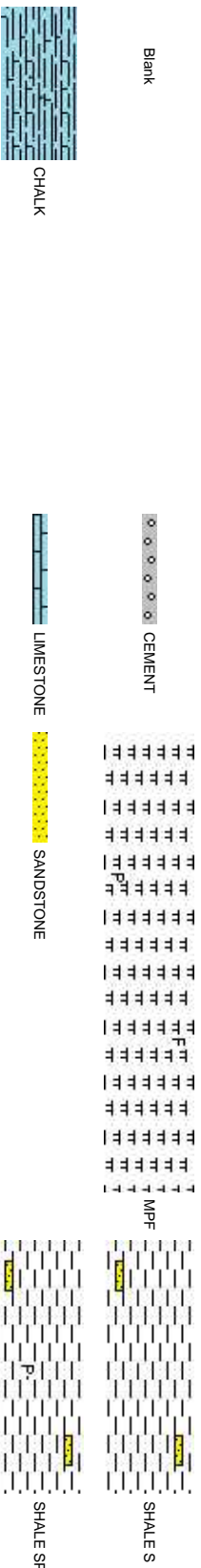
Name Scott Sawyer / Paul Givens
Company Decollement Consulting, Inc.
Address 13300 Braun Rd.
Golden, CO. 80401



Zone Color Coding



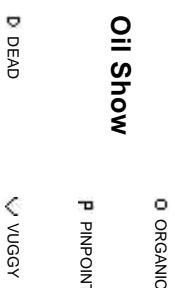
Rock Types



Accessories

F FOSSIL	- ARGILLACEOUS	↘ GLAUCONITE
GASTROPOD	/ ARGILLITE GRAIN	≡ GYPSIFEROUS
ALGAE	B BENTONITE	HEAVY MINERAL
AMPHIPORA	BITUMENOUS SUBSTANCE	K KAOLIN
BELEMNITE	BRECCIA FRAGMENTS	TT MARLSTONE
BIOCLASTIC	⌋ CALCAREOUS	MINERAL CRYSTALS
BRACHIOPOD	CARBONACEOUS FLAKES	NODULES
PISOLUTE	▲ CHITDK	PHOSPHATE PELLETS
PLANT REMAINS	△ CHTLT	◆ LIMESTONE STRINGER
PLANT SPORES	△ CHTLT	TT MARLSTONE (CALC) STRG
SCAPHOPOD	— COAL - THIN BEDS	TT MARLSTONE (DOL) STRG
CRINOID	△ DOLOMITIC	SANDSTONE STRINGER
ECHINOID	+ FELDSPAR	— SHALE STRINGER
FISH	FERRUGINOUS PELLET	△ SILICEOUS
FORAMINIFERA	≡ ANHYDRITIC	△ SILTY
		↘ TUFFACEOUS
		SILTSTONE STRINGER

Oil Show



Engine



Porosity




Other Symbols

 FORMATION TOP

L LITHOGRAPHIC

Rounding

 GAS SHOW

MX MICROXLN

 MN DEPTH


A ANGULAR

MS MUDSTONE

 NORMAL FAULT

R ROUNDED

PS PACKSTONE

 OIL SHOW

B SUBANG

WS WACKESTONE

Sorting


 OVERTURNED STRATA

P SUBRND

Sorting

 REVERSE FAULT

Textures

 SIDEWALL CORE (LEFT)

M MODERATE

 SIDEWALL CORE (RIGHT)


B3 BOUNDSTONE

P POOR


 SLIDE

C CHALKY

W WELL

 SURVEY


CX CRYPTOXLN

 TRIP GAS

E EARTHY

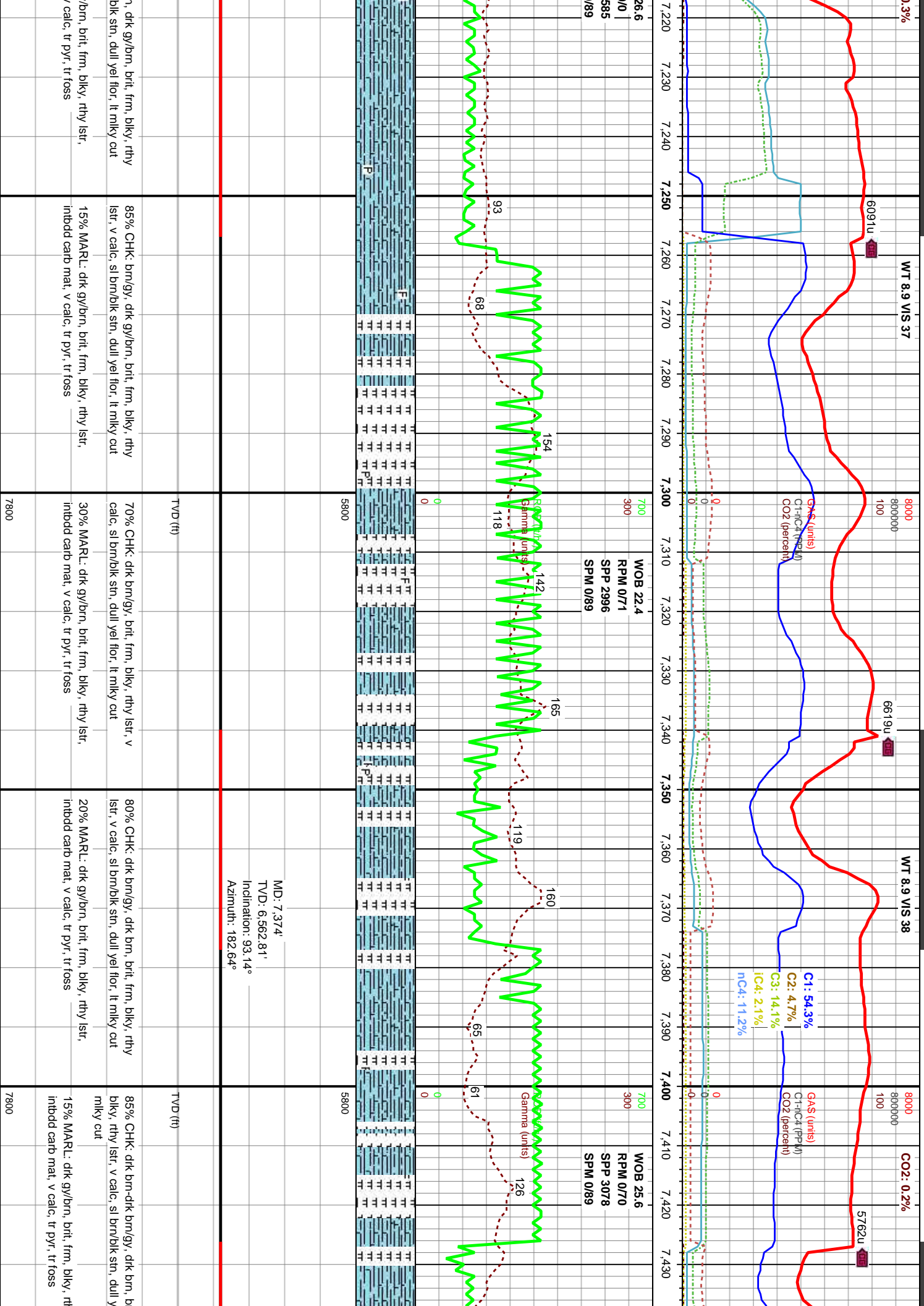
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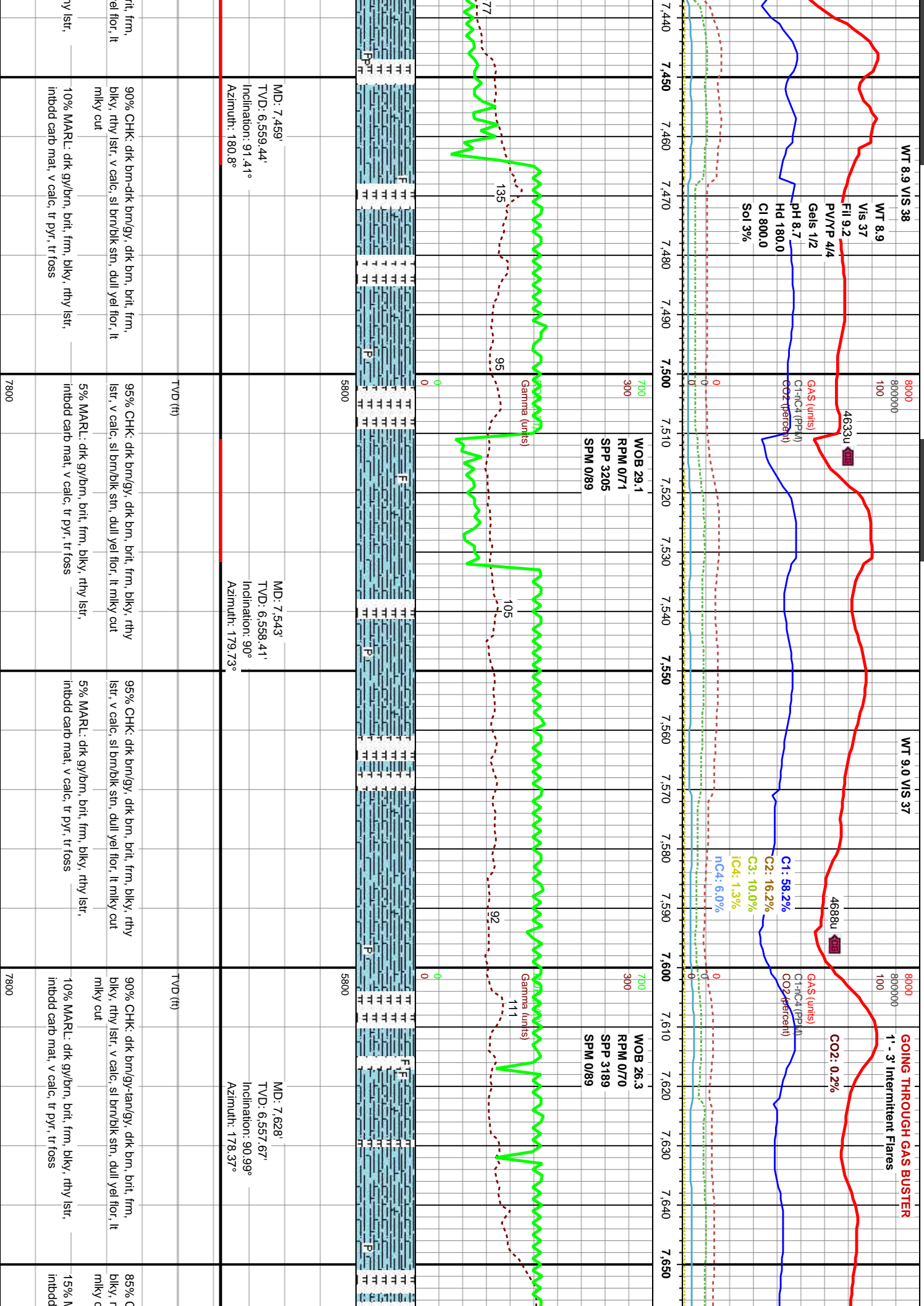
FX FINELYXLN

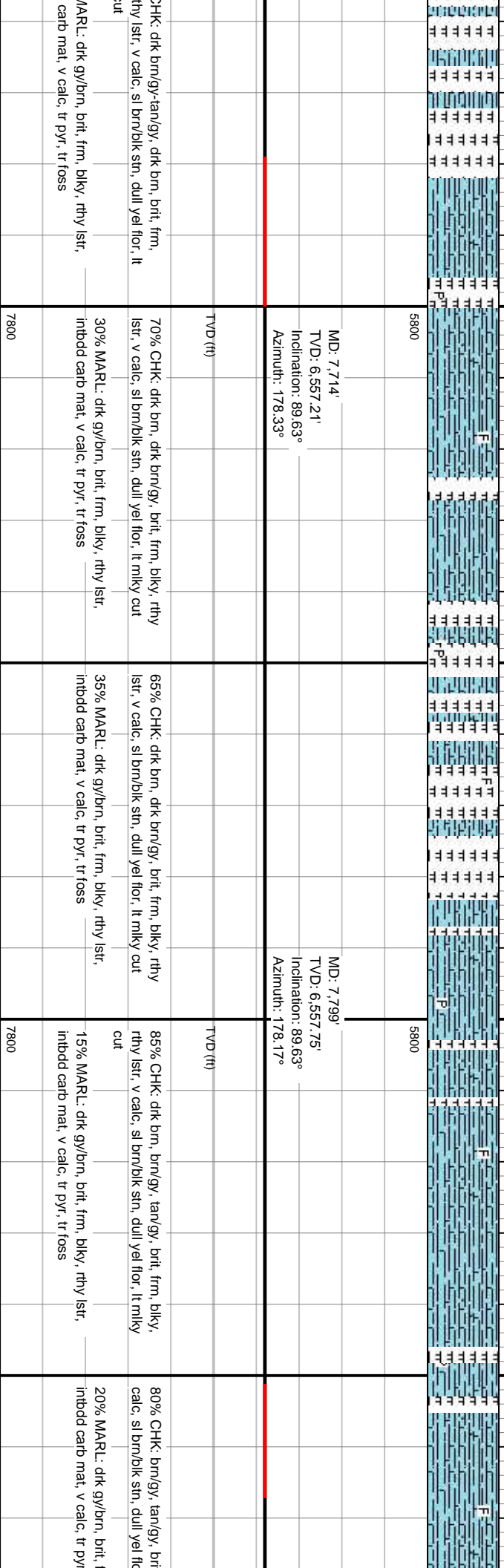
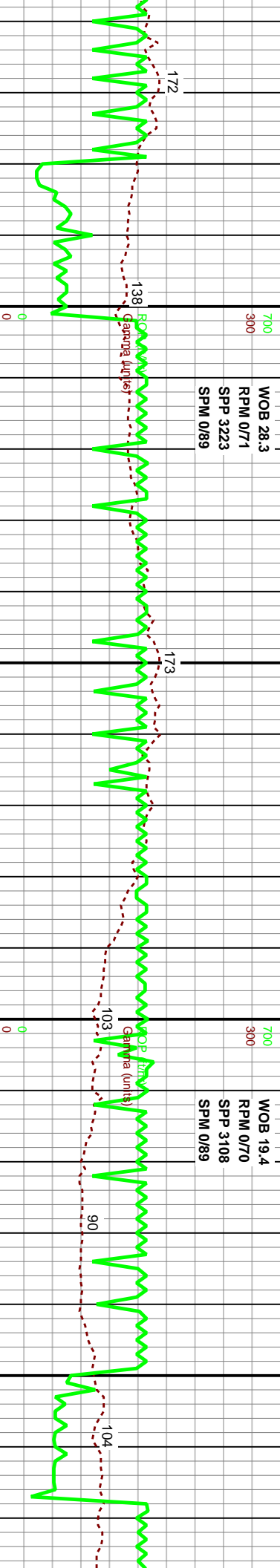
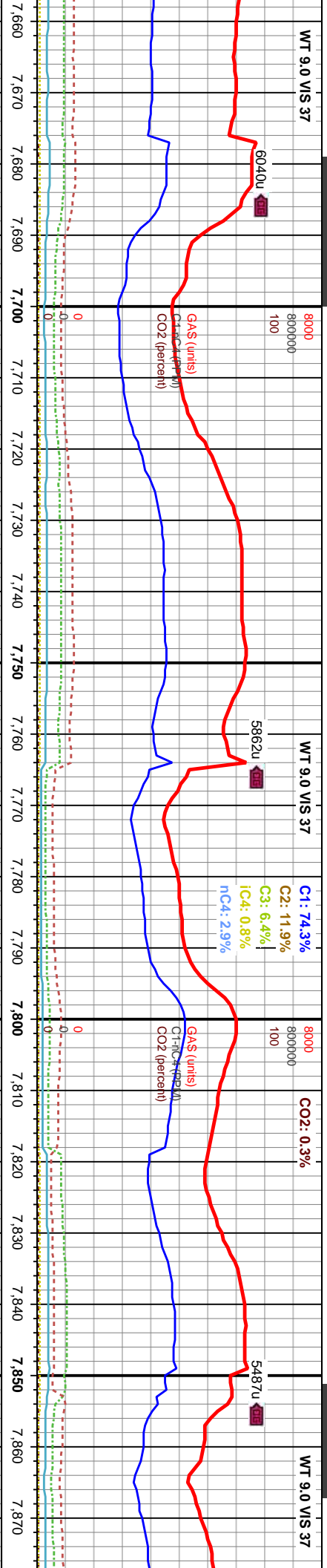
 WIRELINE TESTED - RT

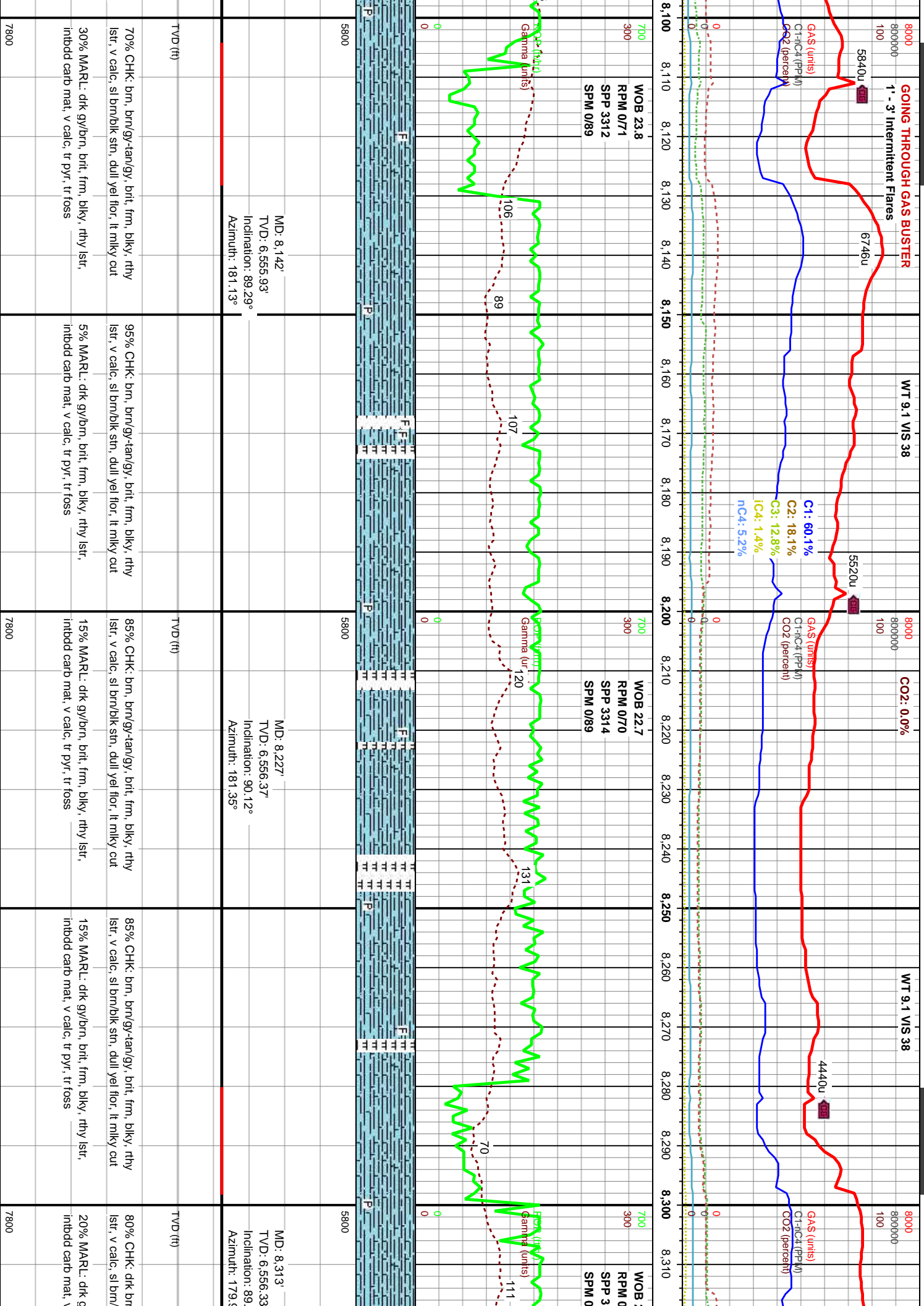
GS GRAINSTONE

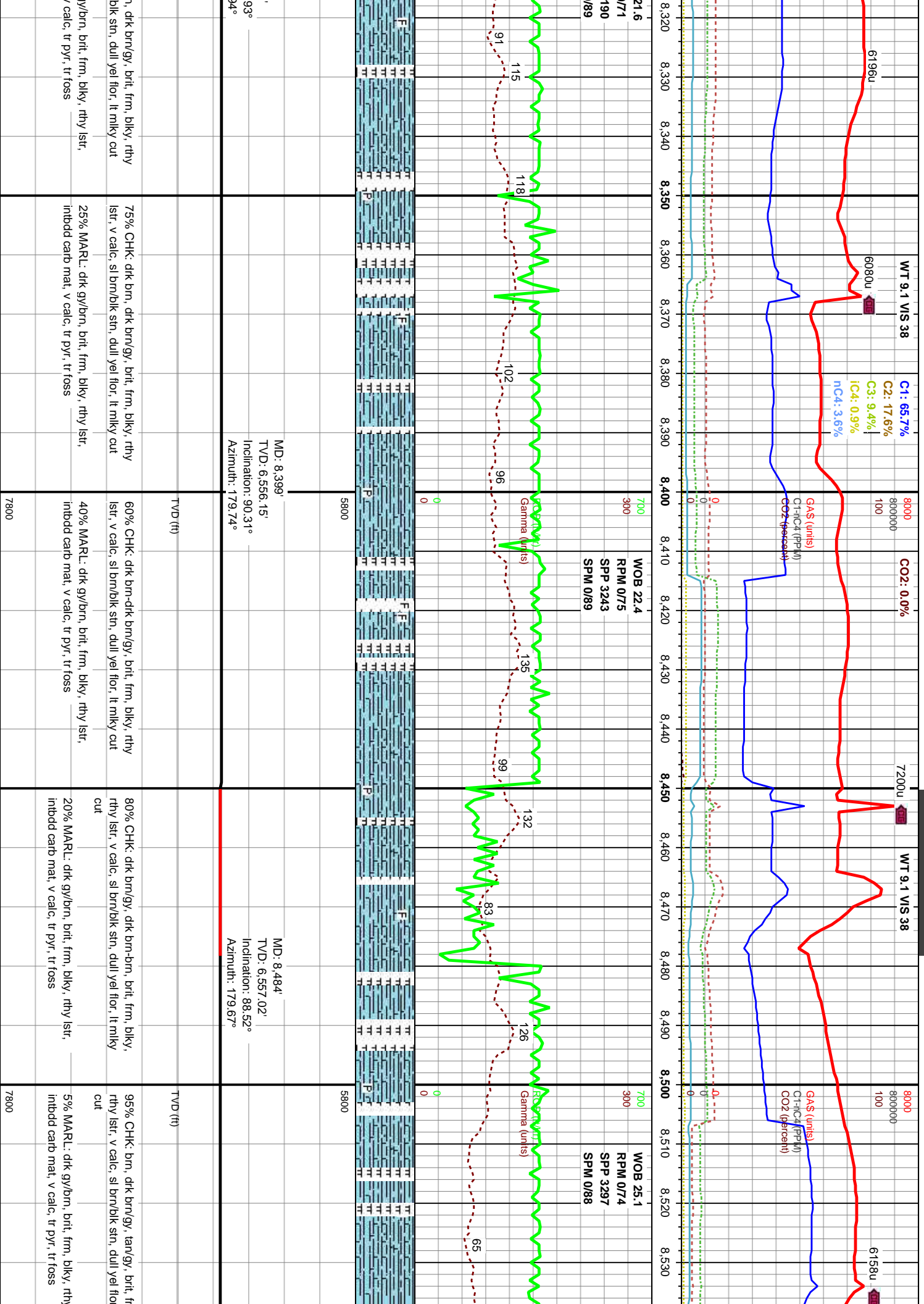
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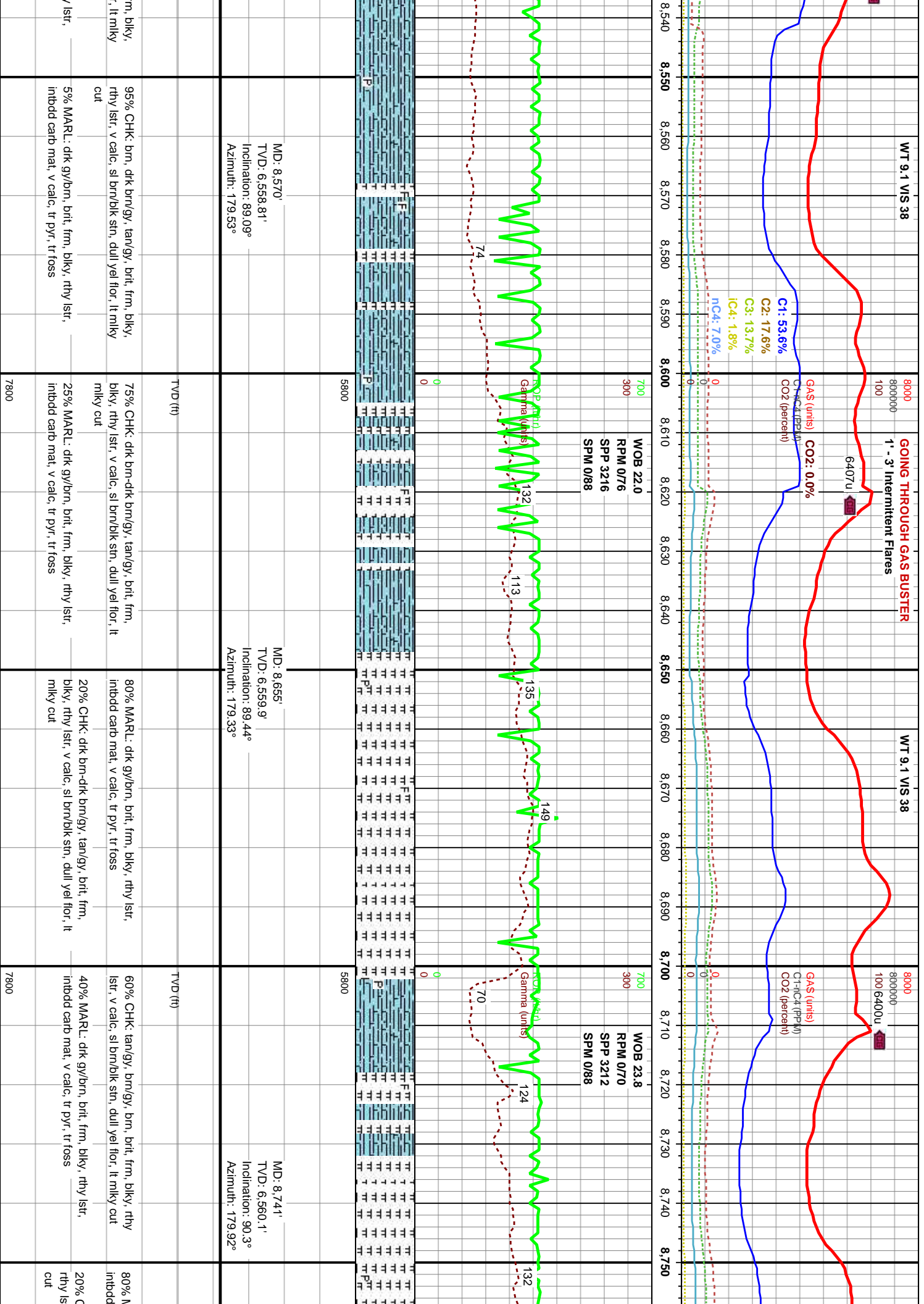


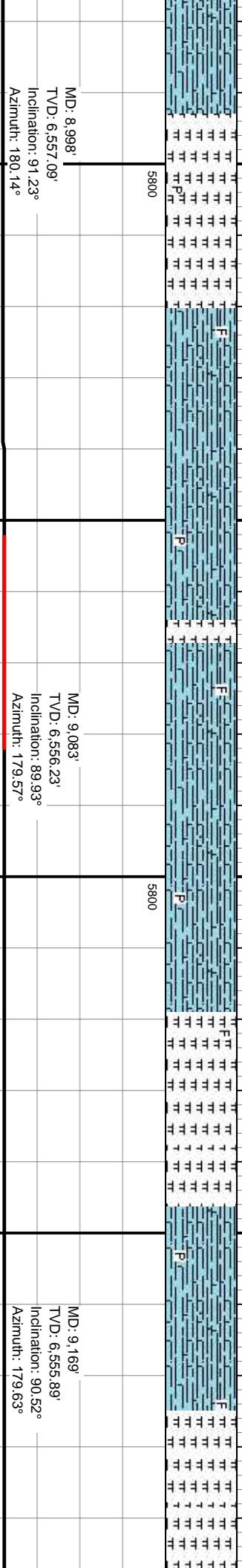
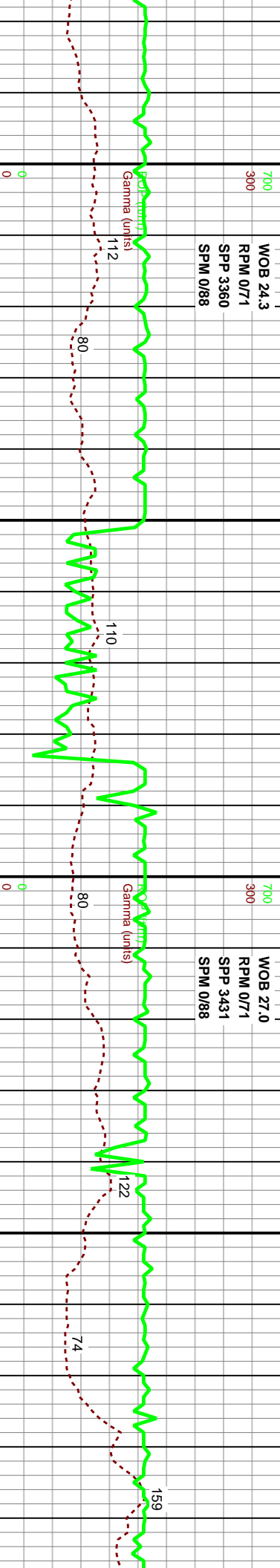
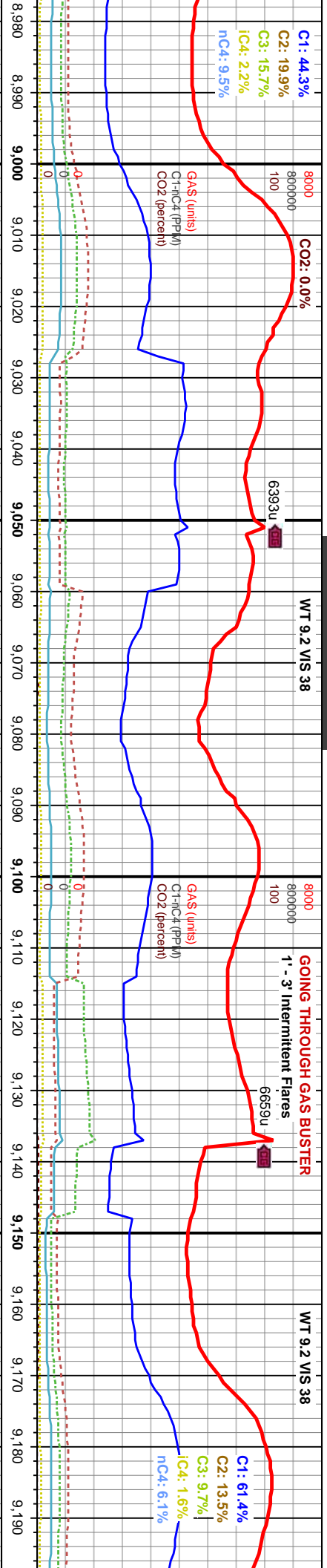




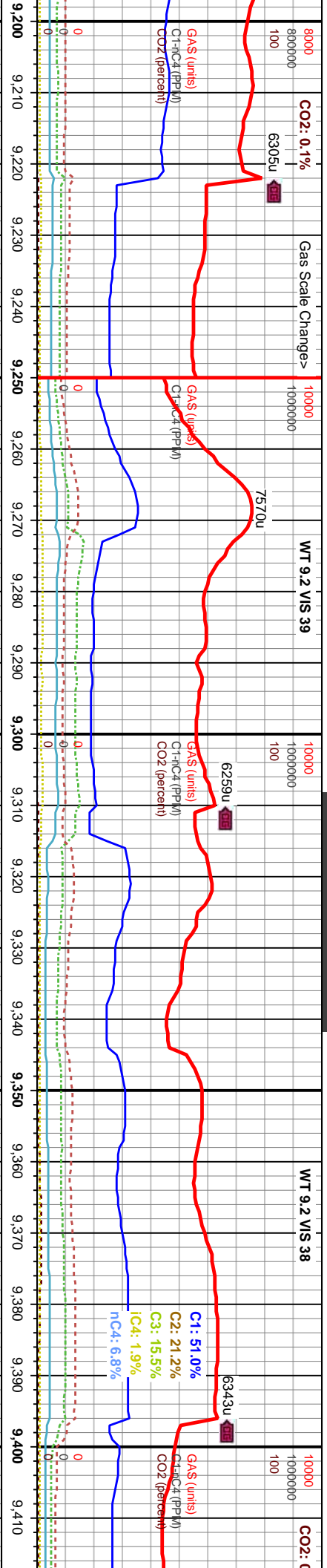




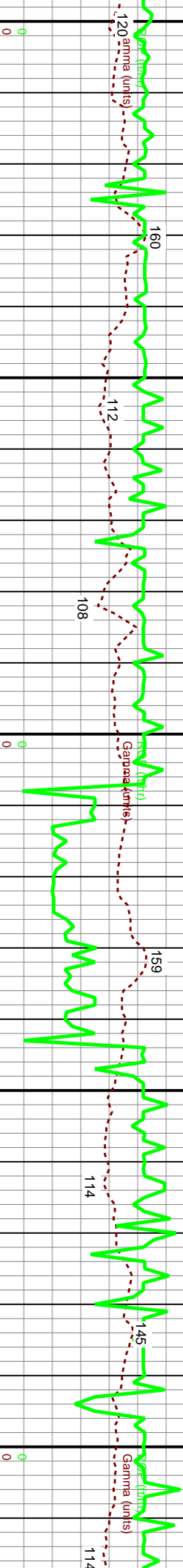




MD: 8.998' TVD: 6,557.09' Inclination: 91.23° Azimuth: 180.14°	MD: 9.083' TVD: 6,556.23' Inclination: 89.93° Azimuth: 179.57°	MD: 9.169' TVD: 6,555.89' Inclination: 90.52° Azimuth: 179.63°
5800	5800	5800
7800	7800	7800
60% CHK: brn, brn/gy, tan/gy, brit, frm, blk, rthy lstr, v calc, sl brn/blk stn, dull yel flr, lt mlky cut	90% CHK: brn-dk brn, brn/gy, tan/gy, brit, frm, blk, rthy lstr, v calc, sl brn/blk stn, dull yel flr, lt mlky cut	60% MARL: dk gy/brn, frm-sft, occ brit, blk, rthy lstr, inbdd carb mat, v calc, tr pyr, tr foss
40% MARL: dk gy/brn, brit, frm, blk, rthy lstr, inbdd carb mat, v calc, tr pyr, tr foss	10% MARL: dk gy/brn, frm-sft, occ brit, blk, rthy lstr, inbdd carb mat, v calc, tr pyr, tr foss	40% CHK: dk brn, frm-sft, occ brit, blk, rthy lstr, inbdd carb mat, v calc, tr pyr, tr foss



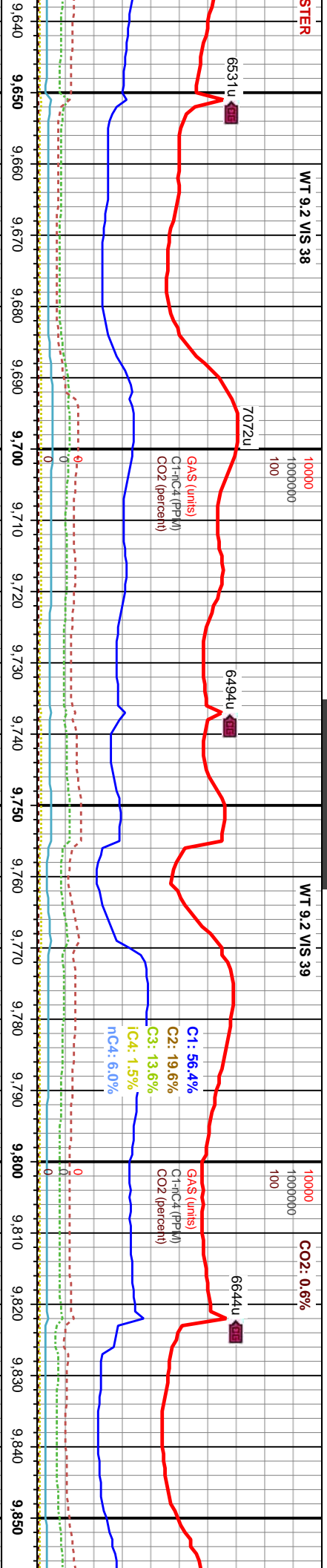
700 300	WOB 25.3 RPM 071 SPM 3415 SPM 0/88	700 300	WOB 39.6 RPM 0/0 SPM 2471 SPM 0/88	700 300	WOB 0 RPM 0 SPM 3 SPM 0
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Gamma (units)
Gamma (units)

MD: 9.256' TVD: 6,554.88' Inclination: 90.83° Azimuth: 179.44°	MD: 9.340' TVD: 6,555.04' Inclination: 88.95° Azimuth: 179.17°
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TVD (ft)	TVD (ft)	TVD (ft)	TVD (ft)
85% MARL: dk gy/brn, frm-sft, blk, rthy lstr, intbdd carb mat, v calc, tr pyr, tr foss	90% MARL: dk gy/brn, dk gy, frm-sft, blk, rthy lstr, intbdd carb mat, v calc, tr pyr, tr foss	90% MARL: dk gy/brn, dk gy, frm-sft, blk, rthy lstr, intbdd carb mat, v calc, tr pyr, tr foss	80% MARL: dk g lstr, intbdd carb m
15% CHK: dk bm, dk brn/gy, brn, frm-sft, occ brt, blk, rthy lstr, v calc, sl brn/blk stn, dull yel flr, lt mlky cut	10% CHK: lt-brn brn, brn/gy, tan/wh, frm-sft, occ brt, blk, rthy lstr, v calc, sl brn/blk stn, dull yel flr, lt mlky cut	10% CHK: lt-brn brn, brn/gy, tan/wh, frm-sft, occ brt, blk, rthy lstr, v calc, sl brn/blk stn, dull yel flr, lt mlky cut	20% CHK: lt-brn brn
5800	5800	5800	5800
7800	7800	7800	7800



Marl Stringer in the "C" Chalk

Marl S

MD: 9,681'
TVD: 6,556.66'
Inclination: 90.86°
Azimuth: 179.23°

MD: 9,767'
TVD: 6,556.76'
Inclination: 89.01°
Azimuth: 179.77°

MD: 9,852'
TVD: 6,558.04'
Inclination: 89.2°
Azimuth: 179.6°

TVD (ft)

TVD (ft)

TVD (ft)

80% MARL: dk gy/brn, m-dk gy, blk, frm-sft, blk, rthy lstr, intbdd carb mat, v calc, tr pyr, tr foss

85% MARL: dk gy/brn, m-dk gy, blk, frm-sft, blk, rthy lstr, intbdd carb mat, v calc, tr pyr, tr foss

85% MARL: dk gy/brn, dk gy, blk, frm-sft, blk, rthy lstr, intbdd carb mat, v calc, tr pyr, tr foss

90% MARL: dk gy/brn, dk gy, blk, frm-sft, blk, rthy lstr, intbdd carb mat, v calc, tr pyr, tr foss

90% MARL: dk gy/brn, dk gy, blk, frm-sft, blk, rthy lstr, intbdd carb mat, v calc, tr pyr, tr foss

20% CHK: brn/wh, m-dk brn/gy, gy/wh, frm-sft, occ brt, blk, rthy lstr, v calc, sl brn/blk sn, dull yel flr, lt mlky cut

15% CHK: m-dk brn, m-dk brn/gy, gy/wh, frm-sft, occ brt, blk, rthy lstr, v calc, sl brn/blk sn, dull yel flr, lt mlky cut

15% CHK: m-dk brn, m-dk brn/gy, gy/wh, frm-sft, occ brt, blk, rthy lstr, v calc, sl brn/blk sn, dull yel flr, lt mlky cut

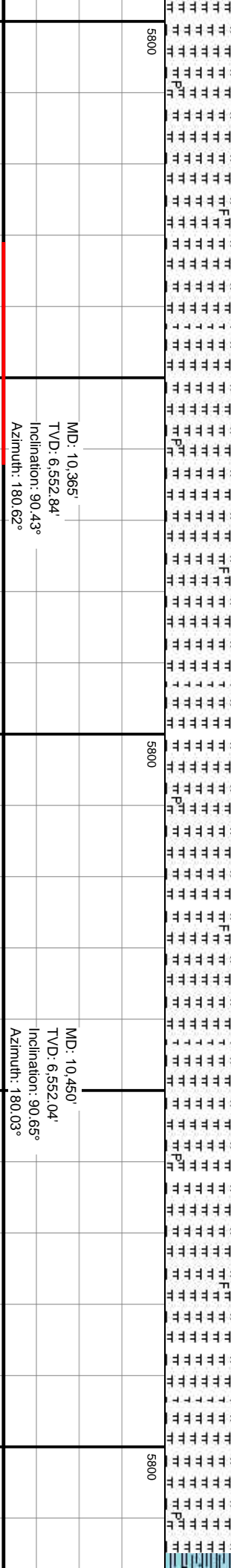
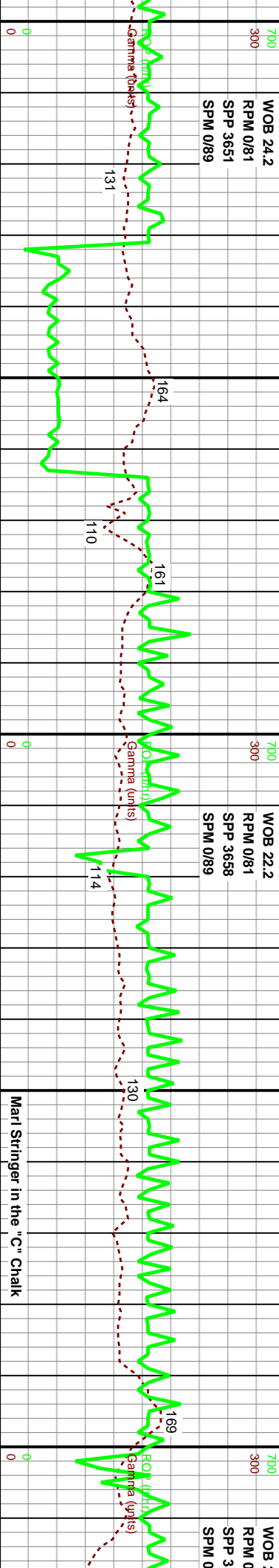
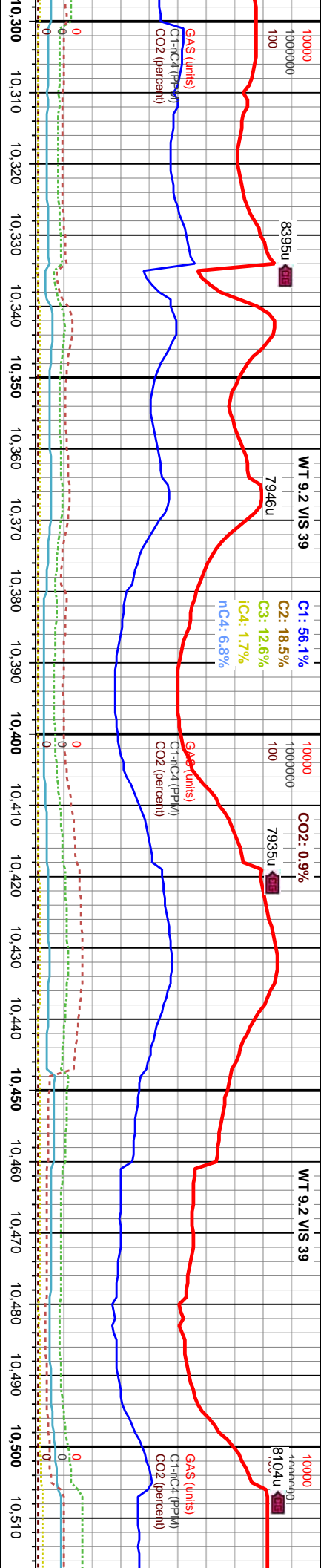
10% CHK: m-dk brn, m-dk brn/gy, gy/wh, frm-sft, occ brt, blk, rthy lstr, v calc, sl brn/blk sn, dull yel flr, lt mlky cut

10% CHK: m-dk brn, m-dk brn/gy, gy/wh, frm-sft, occ brt, blk, rthy lstr, v calc, sl brn/blk sn, dull yel flr, lt mlky cut

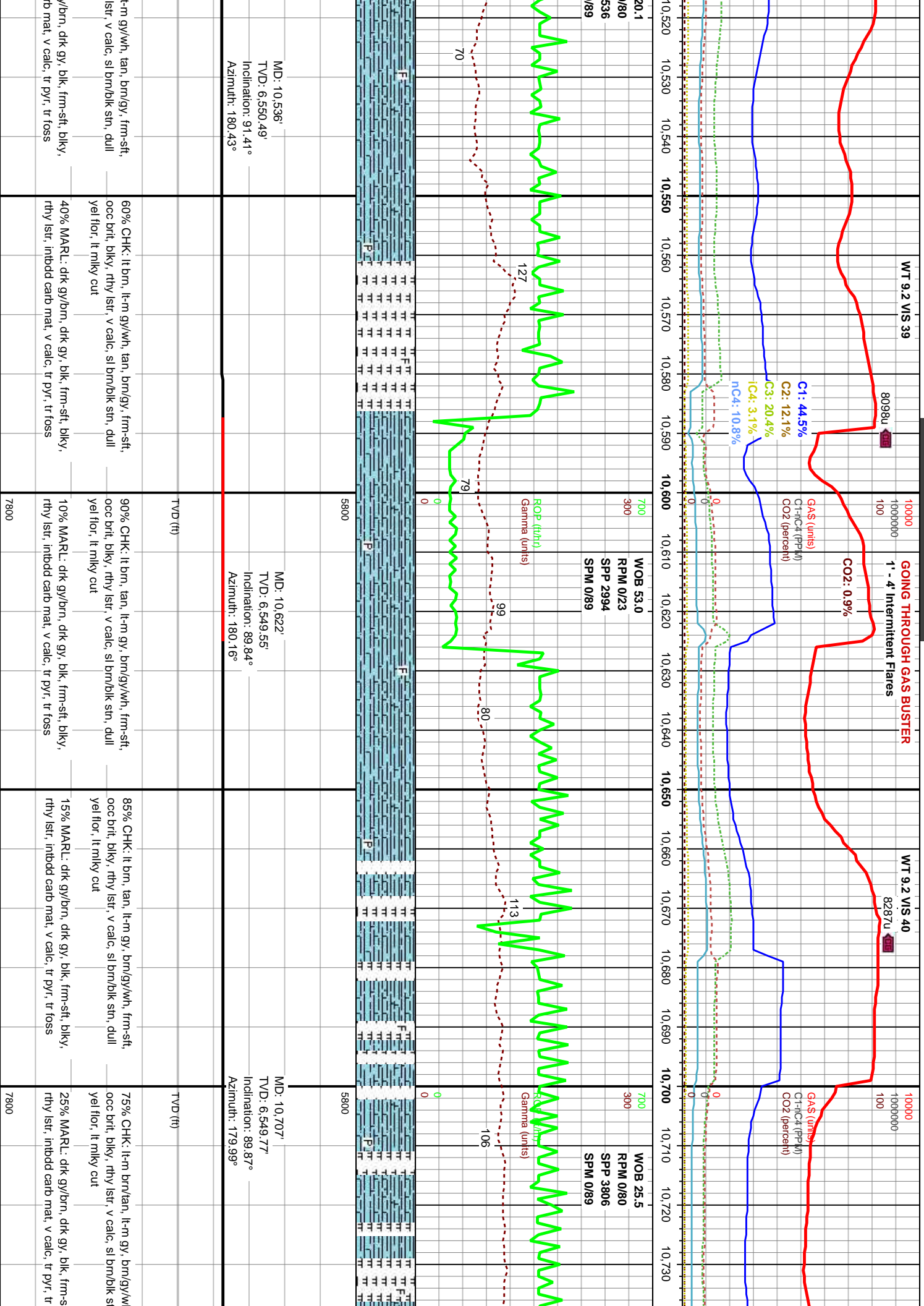
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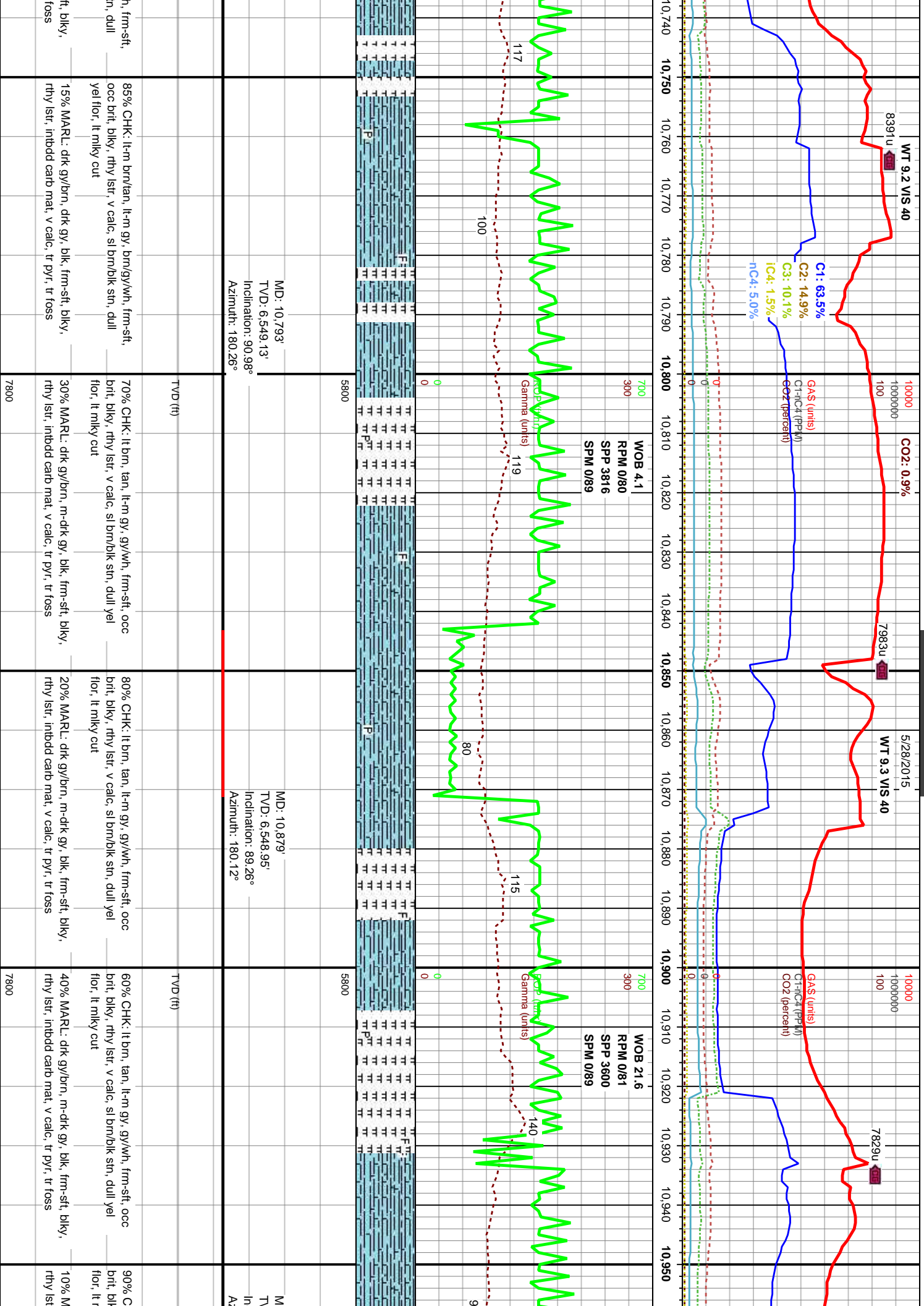
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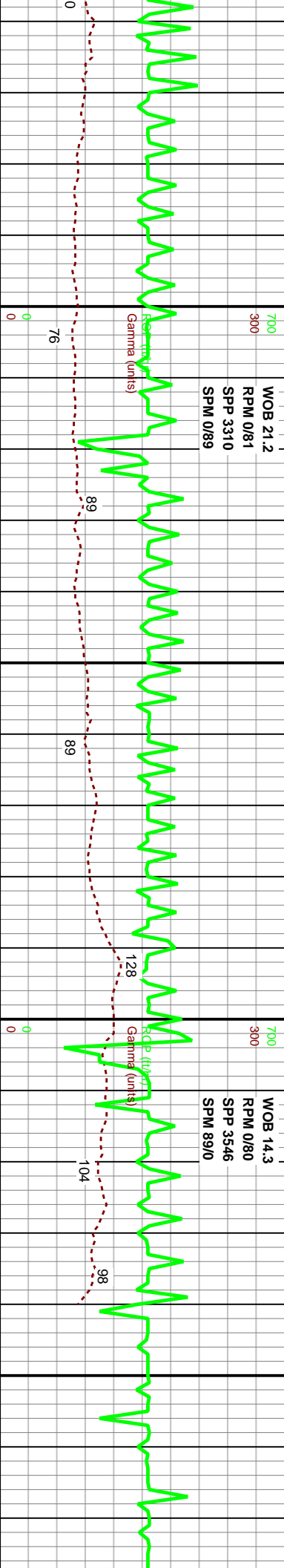
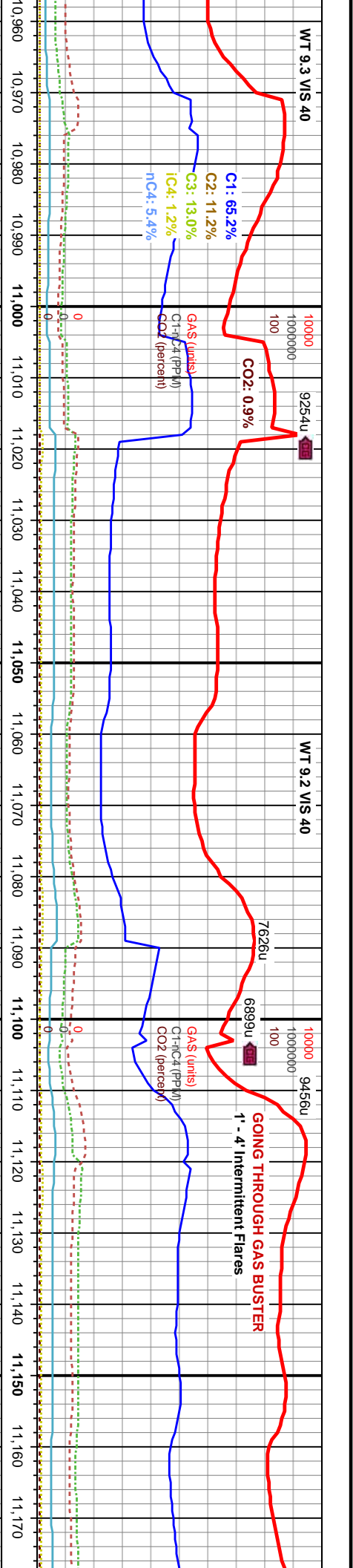
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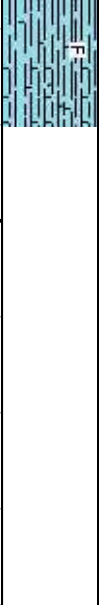
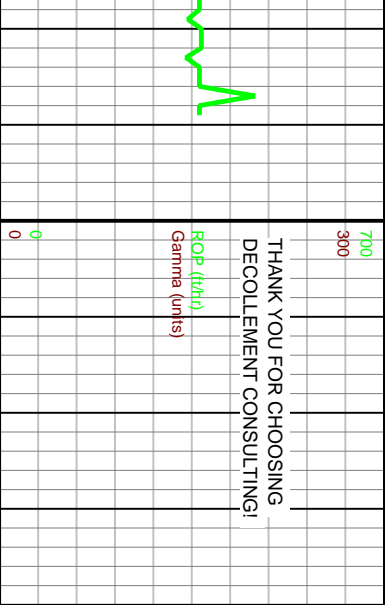
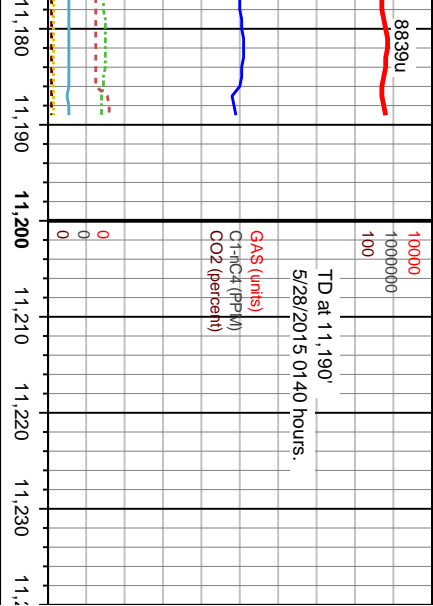
100% MARL: dk gy/brn, m-dk gy, blk, frm-stf, blkly, rthy lstr, intbdd carb mat, v calc, tr pyr, tr foss cut	100% MARL: dk gy/brn, m-dk gy, blk, frm-stf, blkly, rthy lstr, intbdd carb mat, v calc, tr pyr, tr foss cut	100% MARL: dk gy/brn, m-dk gy, blk, frm-stf, blkly, rthy lstr, intbdd carb mat, v calc, tr pyr, tr foss cut	70% CHK: lt brn, lt occ brit, blkly, yel flor, lt milky cut
Tr CHK: dk brn, dk gy/wh, frm-stf, occ brit, blkly, rthy lstr, v calc, sl brn/blk stn, dull yel flor, lt milky cut	Tr CHK: dk brn, dk gy/wh, frm-stf, occ brit, blkly, rthy lstr, v calc, sl brn/blk stn, dull yel flor, lt milky cut	Tr CHK: dk brn, dk gy/wh, frm-stf, occ brit, blkly, rthy lstr, v calc, sl brn/blk stn, dull yel flor, lt milky cut	30% MARL: dk gy rthy lstr, intbdd ca







D: 10.964'		MD: 11.050'		MD: 11.135'	
D: 6.549.66'		TVD: 6.549.07'		TVD: 6.546.93'	
Inclination: 89.78°		Inclination: 91.01°		Inclination: 91.88°	
Azimuth: 179.97°		Azimuth: 180.46°		Azimuth: 180.47°	
5800		5800		7800	
TVD (ft)		TVD (ft)		TVD (ft)	
95% CHK: lt-m brn, tan, lt gy, gy/wh, frm-sft, occ brt, blk, rthy lstr, v calc, sl brn/blk str, dull yel flr, lt milky cut		70% CHK: lt-m brn, tan, lt gy, gy/wh, frm-sft, occ brt, blk, rthy lstr, v calc, sl brn/blk str, dull yel flr, lt milky cut		30% MARL: m-dk gy/brn, m-dk gy, frm-sft, blk, rthy lstr, inbdd carb mat, v calc, tr pyr, tr foss	
5% MARL: m-dk gy/brn, m-dk gy, frm-sft, blk, rthy lstr, inbdd carb mat, v calc, tr pyr, tr foss		30% MARL: m-dk gy/brn, m-dk gy, frm-sft, blk, rthy lstr, inbdd carb mat, v calc, tr pyr, tr foss		30% MARL: m-dk gy/brn, m-dk gy, frm-sft, blk, rthy lstr, inbdd carb mat, v calc, tr pyr, tr foss	
7800		7800		7800	



MD: 11,190'

TVD: 6,545.12'

Inclination: 91.88°

Azimuth: 180.47°

TVD (ft)

wh, frm-sft, occ brit,

< str, dull yel flor, lt

dk gy, frm-sft, blk y,

lc, tr pyr, tr foss

7800

