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Mudlog TVD

COMPANY	EXXONMOBIL
WELL	PCU 296-6B2
FIELD	PICEANCE CREEK UNIT
REGION	ROCKY MOUNTIANS
COORDINATES	LAT 39.905269000 LON 108.205030000
ELEVATION	GL 7363.9 KB 7390.9
COUNTY, STATE	RIO BLANCO CO
API INDEX	051031154500
SPUD DATE	01-24-2011
CONTRACTOR	HELMRICH AND PAYNE
CO. REP.	SCOTT ARENBURG
RIG/TYPE	215 / FLEX 3
LOGGING UNIT	MLU 51
GEOLOGISTS	G.BAKER, D.CLAAR B.MARSH, B.JOHANNING
ADD. PERSONS	I.FAROOQUI K.WALLANDER
CO. GEOLOGIST	WILLIAM HOFFMAN

LOG INTERVAL

DEPTHS: 145' **TO** 10,275'
DATES: 01-24-2011 **TO** 02-17-2011
SCALE: 5" = 100'

CASING DATA

17" **AT** 145'
10.75" **AT** 4,627'
AT
AT

MUD TYPES

LSDN **TO** 10,275'
TO
TO
TO

HOLE SIZE

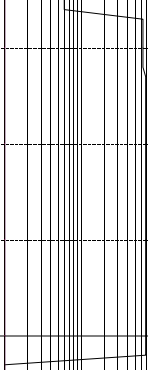
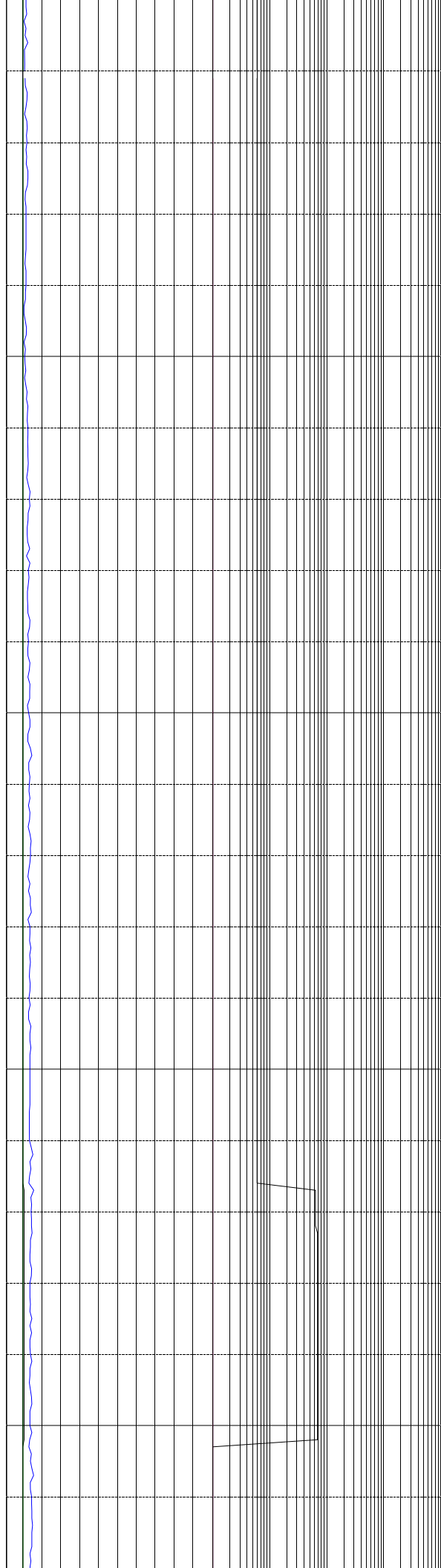
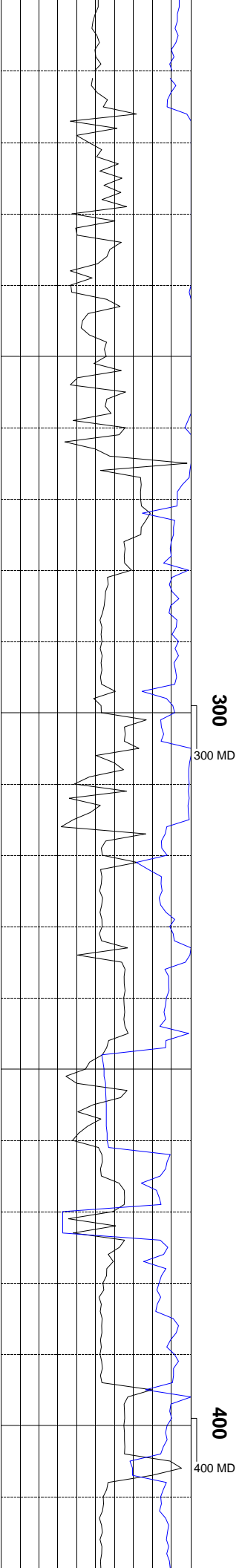
20" **TO** 145'
14.75" **TO** 4,627'
9.875" **TO** 10,275'
TO

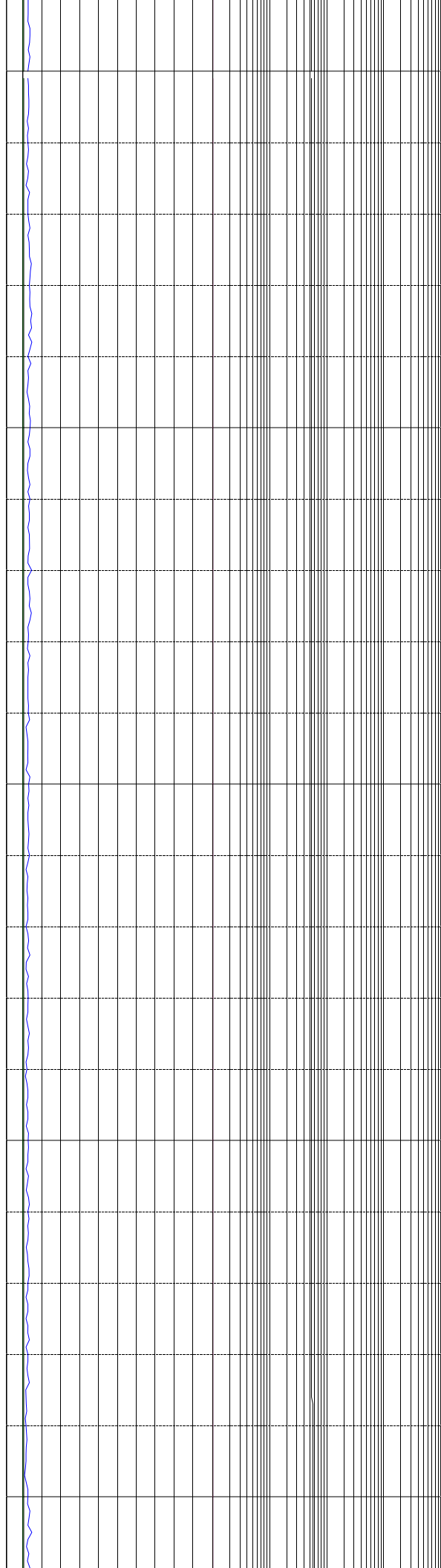
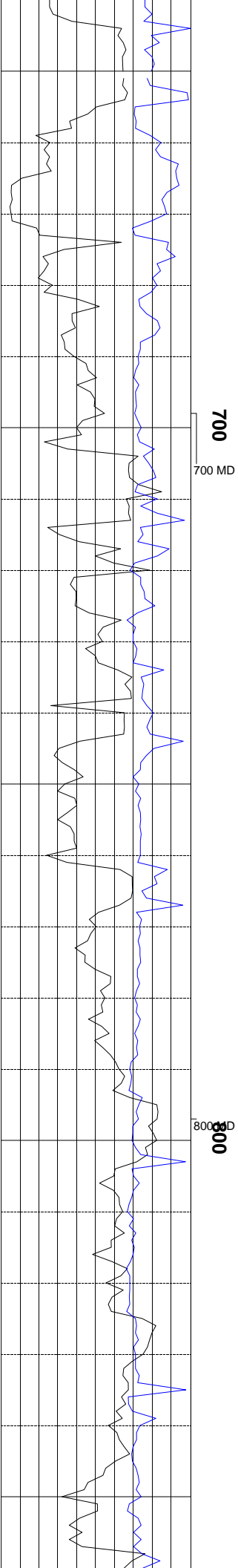
ABBREVIATIONS

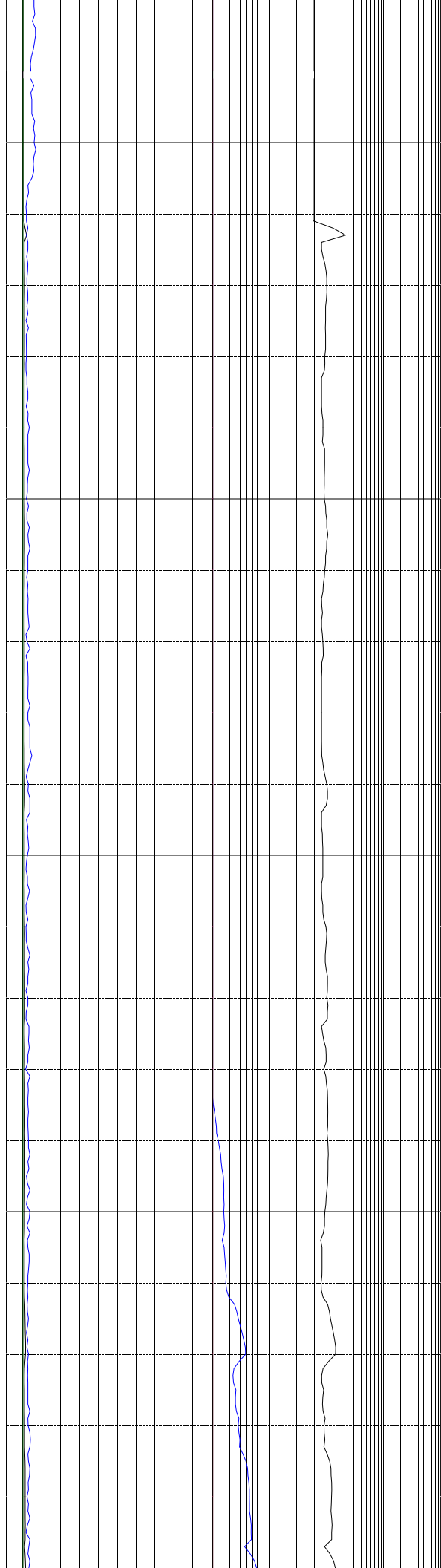
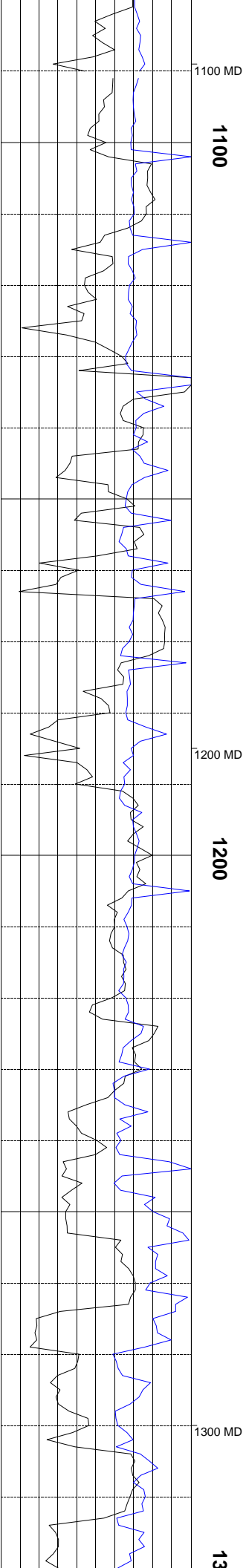
<i>NB</i> NEWBIT	<i>PV</i> PLASTIC VISCOSITY	<i>LC</i> LOST CIRCULATION
<i>RRB</i> RERUN BIT	<i>YP</i> YIELD POINT	<i>CO</i> CIRCULATE OUT
<i>CB</i> CORE BIT	<i>FL</i> FLUID LOSS	<i>NR</i> NO RETURNS
<i>WOB</i> WEIGHT ON BIT	<i>CL</i> PPM CLORIDE ION	<i>TG</i> TRIP GAS
<i>RPM</i> ROTARY REV/MIN	<i>Rm</i> MUD RESISTIVITY	<i>SG</i> SURVEY GAS
<i>PP</i> PUMP PRESSURE	<i>Rmf</i> FILTRATE RESISTIVITY	<i>WG</i> WIPER GAS
<i>SPM</i> STROKES/MIN	<i>PR</i> POOR RETURNS	<i>CG</i> CONNECTION GAS
<i>MW</i> MUD WEIGHT	<i>LAT</i> LOGGED AFTER TRIP	
<i>VIS</i> FUNNEL VISCOSITY	<i>LAS</i> LOGGED AFTER SURVEY	

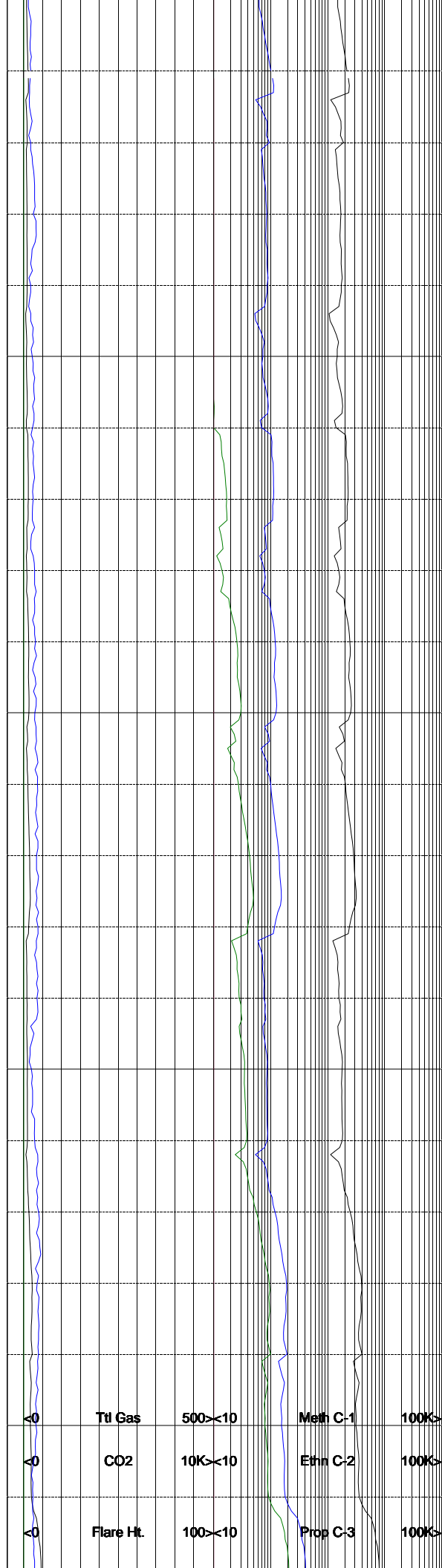
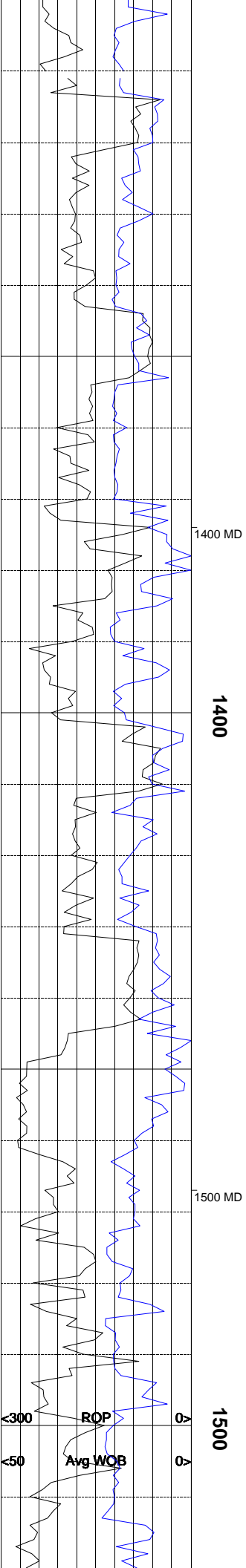
ALTERED ZONE	CHERT - GLASSY	FELSIC SILIC DIKE	MARL - CALC	SANDSTONE
ANDESITE	CHERT - PORCEL	FOSSIL	METAMORPHICS	SANDSTONE-TUFFACEOUS
ANHYDRITE	CHERT - TIGER STRIPE	GABBRO	MUDSTONE	SERICITIZATION
BASALT	CHERT - UNDIFF	GLASSY TUFF	OBSIDIAN	SERPENTINE
BENTONITE	CLAY	GRANITE	PALEOSOL	SHALE
BIOTITIZATION	CLAY-MUDSTONE	GRANITE WASH	PHOSPHATE	SHALE TUFFACEOUS
BRECCIA	CLYST-TUFFACEOUS	GRANODIORITE	PORCELANITE	SHELL FRAGMENTS
CALCARENITE	CHLORITIZATION	GYPSUM	PORCELANEOUS CLYST	SIDERITE
CALCAREOUS TUFF	COAL	HALITE	PYRITE	SILICIFICATION
CALCILUTITE	CONGLOMERATE	HORNBL-QTZ-DIO	PYROCLASTICS	SILTSTONE
CARBONATES	CONGL. SAND	IGNEOUS (ACIDIC)	QUARTZ DIORITE	SILTST-TUFFACEOUS
CARBONACEOUS MAT	CONGL. SANDSTONE	IGNEOUS (BASIC)	QUARTZ LATITE	TUFF
CARBONACEOUS SH	COQUINA	INTRUSIVES	QUARTZ MONZONITE	VOLCANICLASTICS SEDS
CEMENT CONTAM.	DACITE	KAOLINITIC	RECRYSTALLIZED CALCITE	VOLCANICS
CHALK	DIATOMITE	LIMESTONE	RHYOLITE	
CRYSTALLINE TUFF	DIORITE	LITHIC TUFF	SALT	
CHERT - ARGILL	DOLOSTONE	MARL - DOLO	SAND	

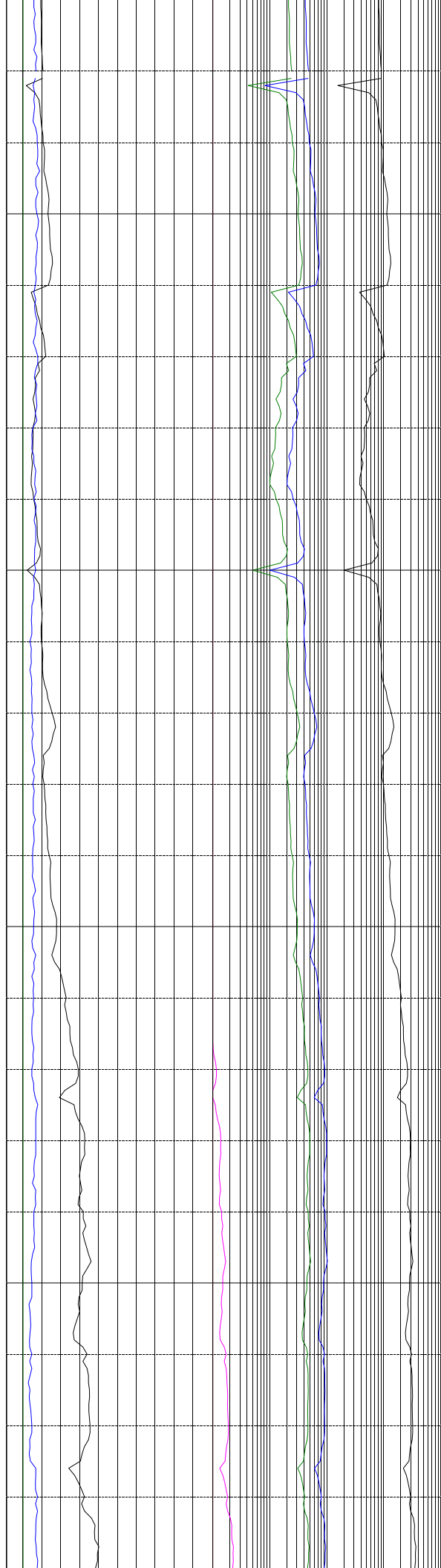
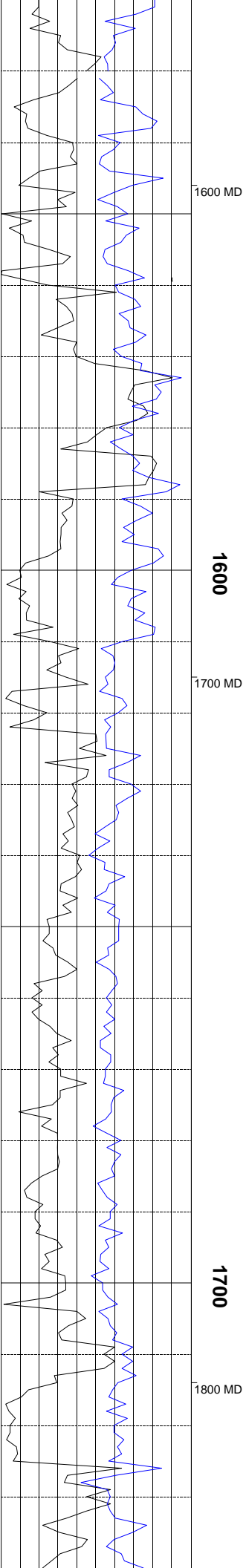
EXXONMOBIL			PCU 296-6B2			2/21/2011											
<div><300ROP0></div> <div>ft/hr</div> <div><50Avg WOB0></div> <div>klbs</div>			TVD Depth			Lithology			<div>MGS</div> <div><0Ttl Gas500></div> <div>units</div> <div><0CO210K></div> <div>ppm</div> <div><0Flare Ht.100></div> <div>ft</div> <div><10Meth C-1100K></div> <div>ppm</div> <div><10Ethn C-2100K></div> <div><10Prop C-3100K></div> <div><10Butn C-4100K></div> <div><10Pent C-5100K></div>			Interp. Lith			Remarks Survey Data, Mud Reports, Other Info.		
			</														

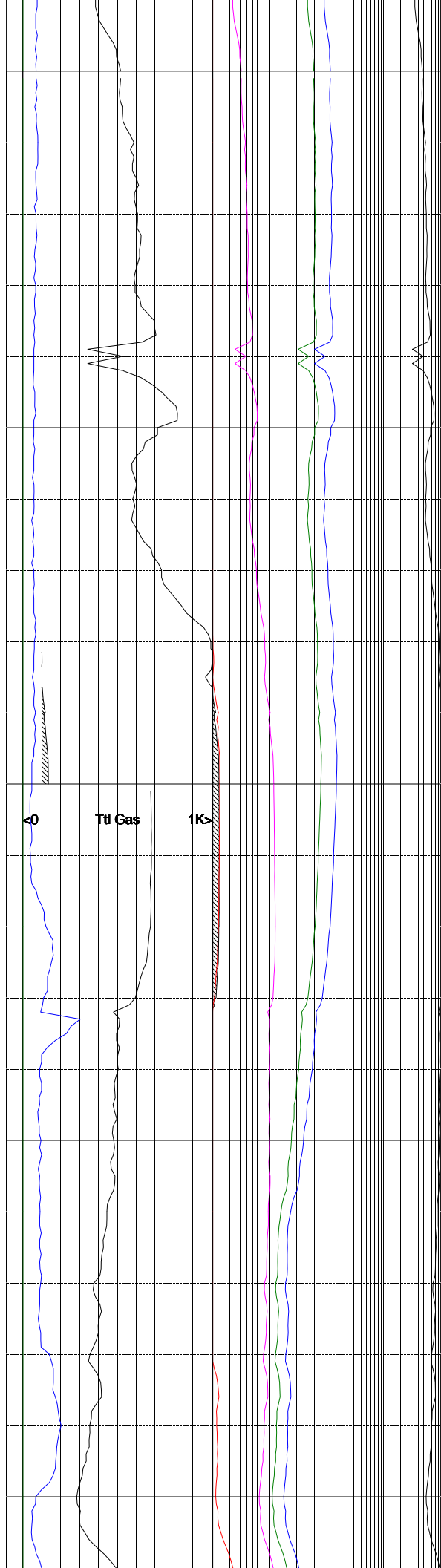
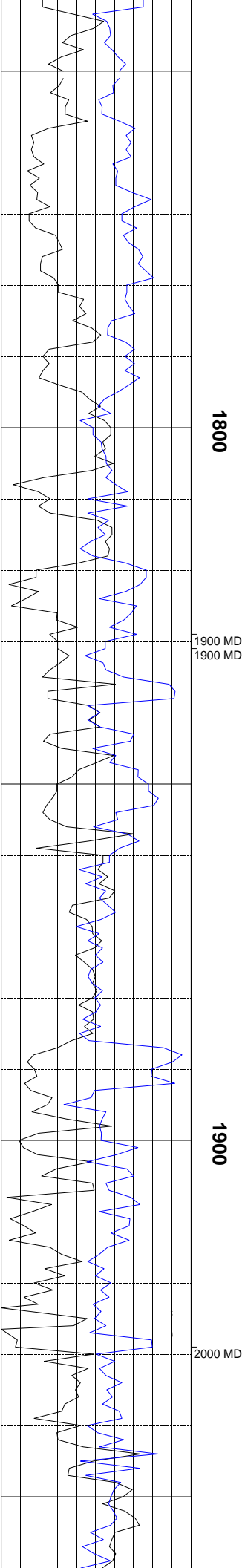


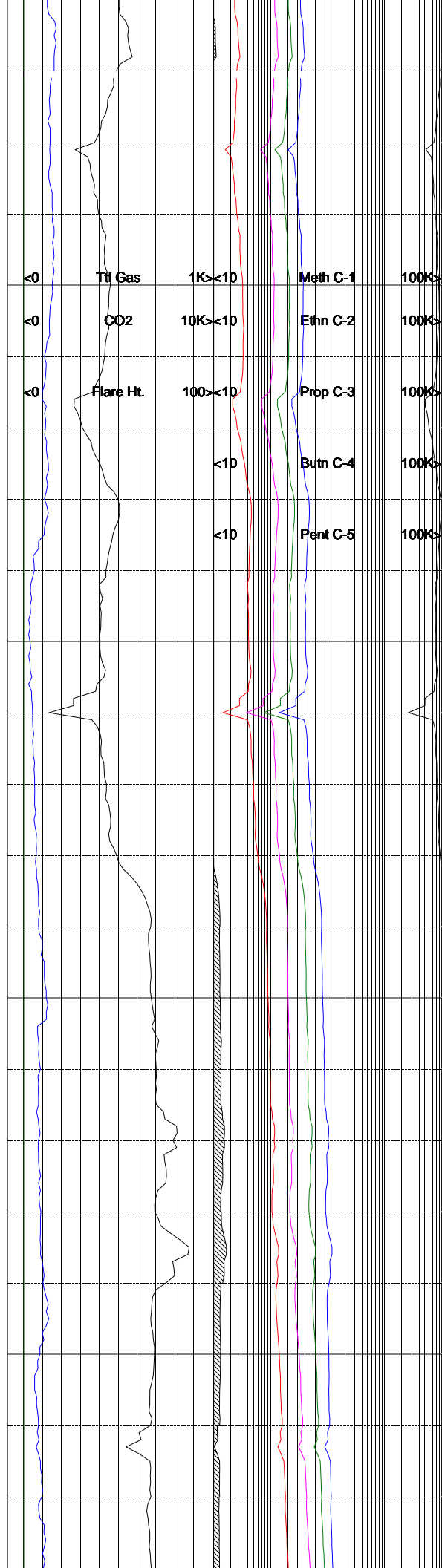
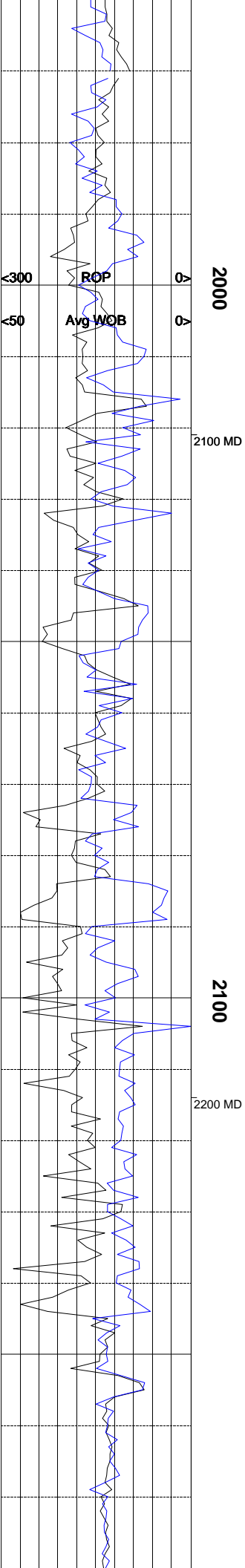


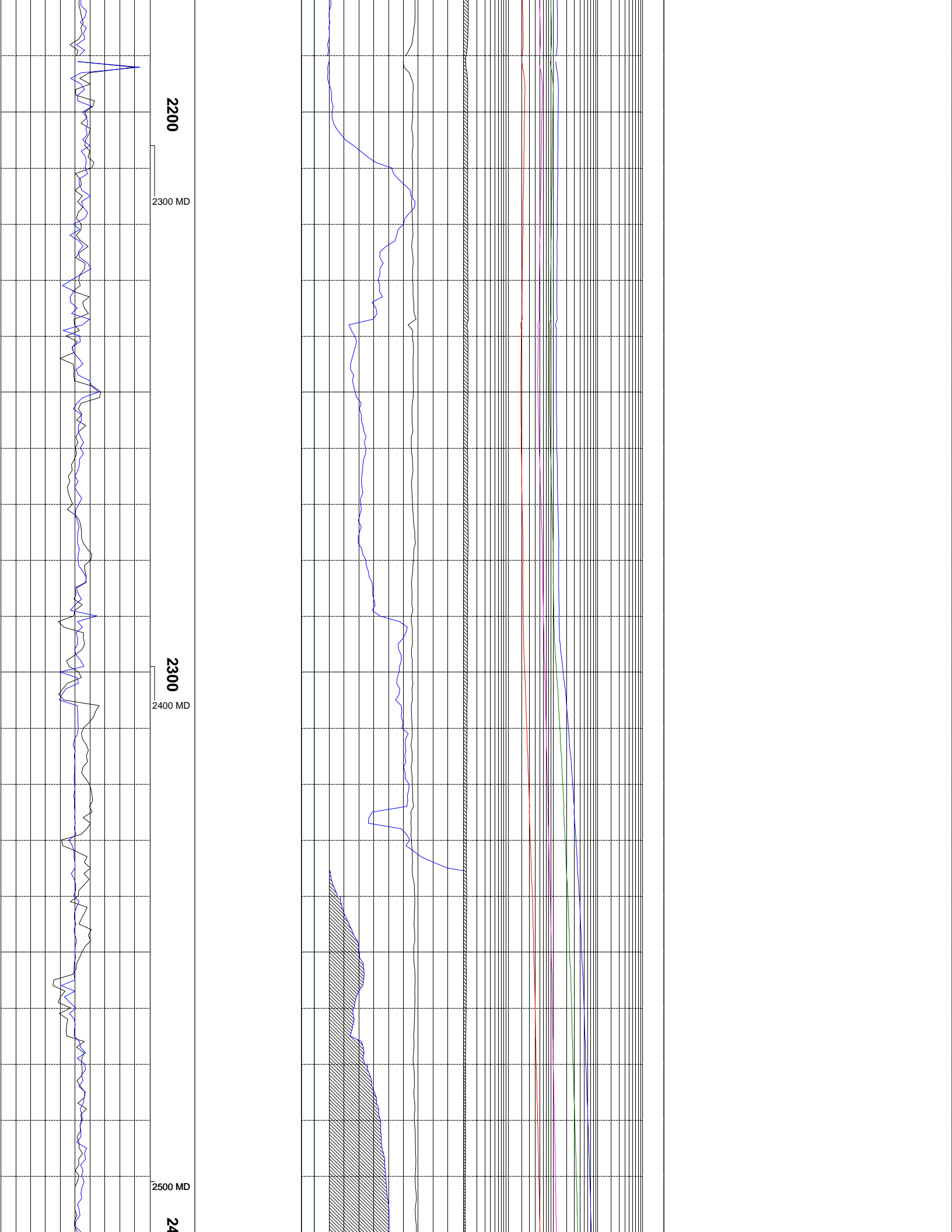


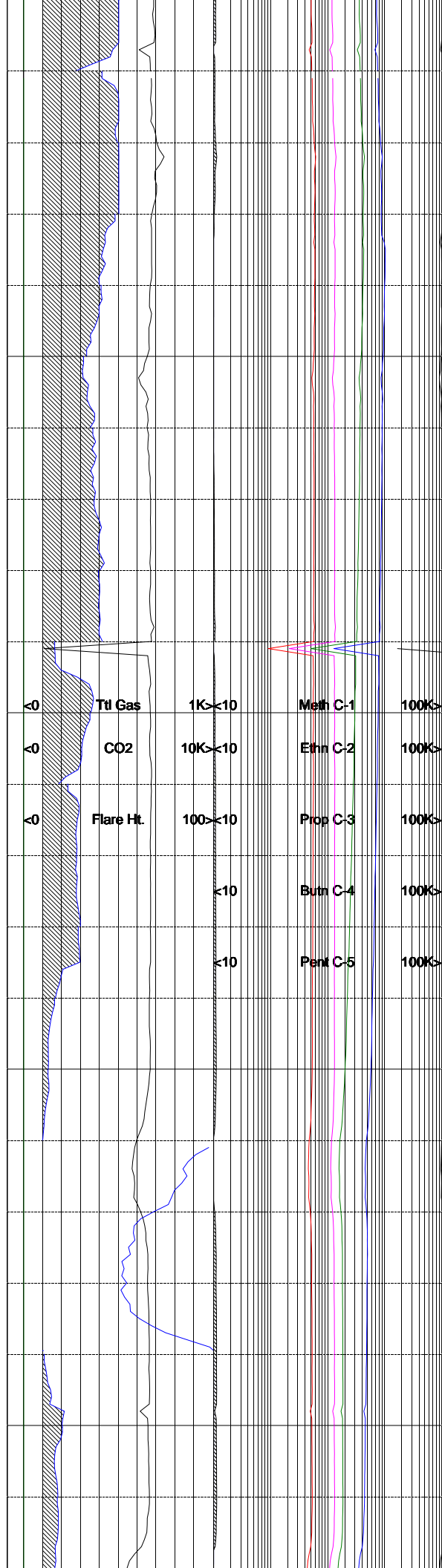
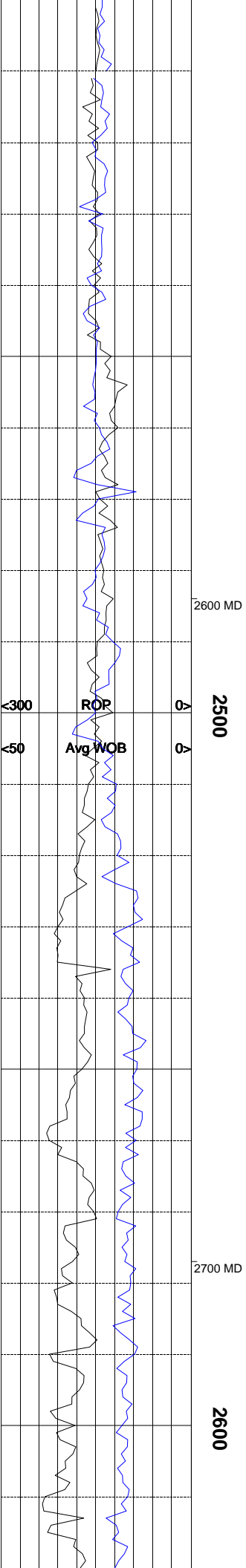


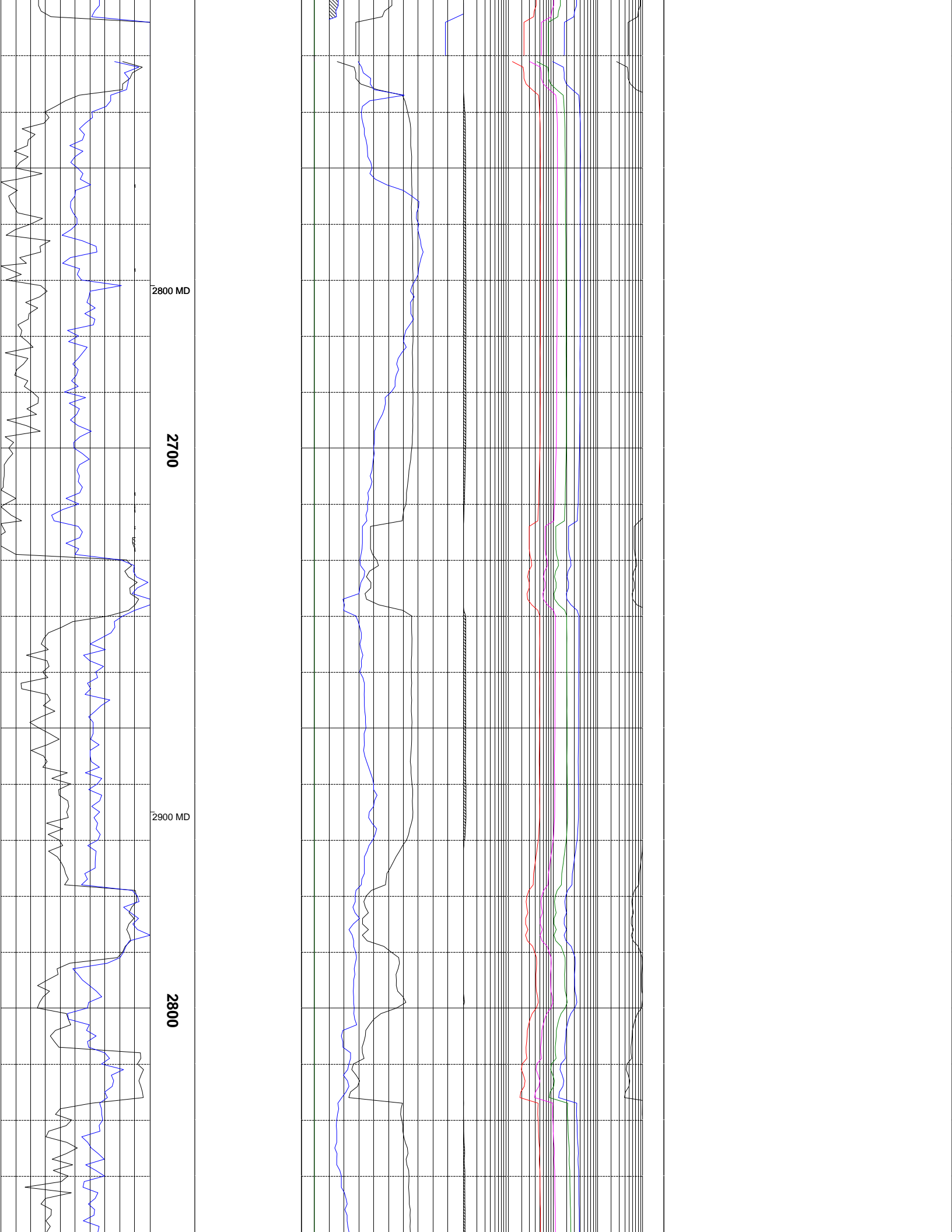


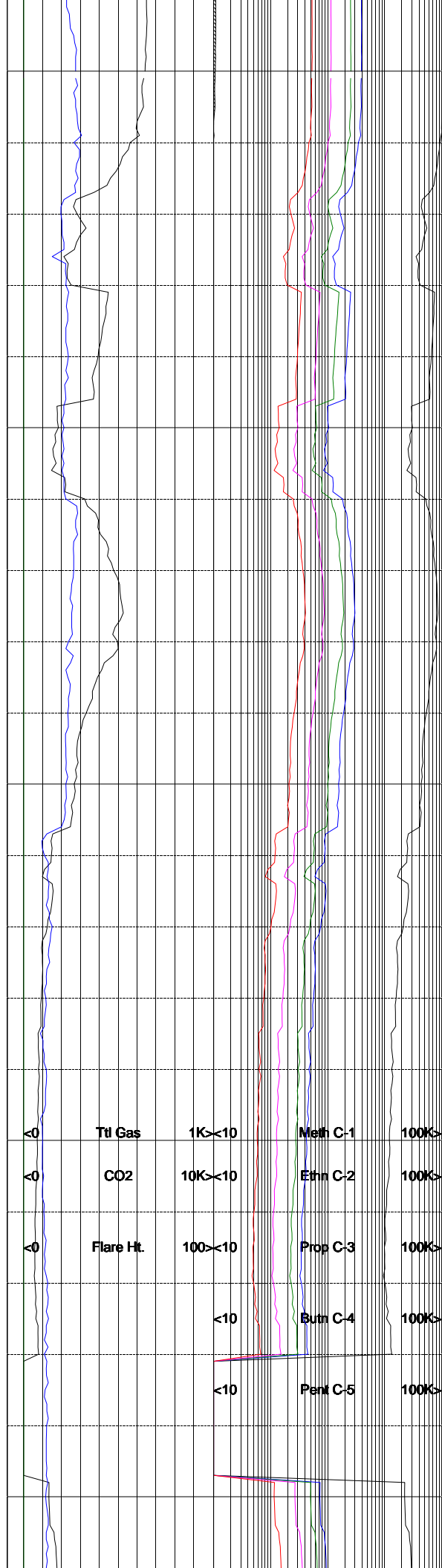
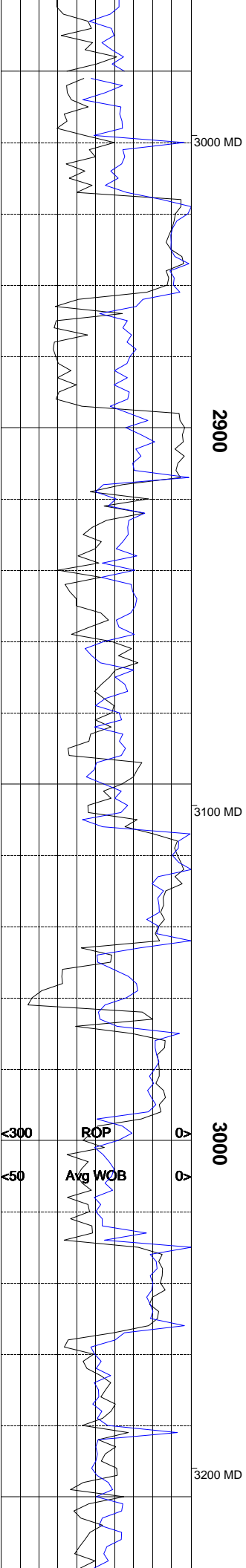


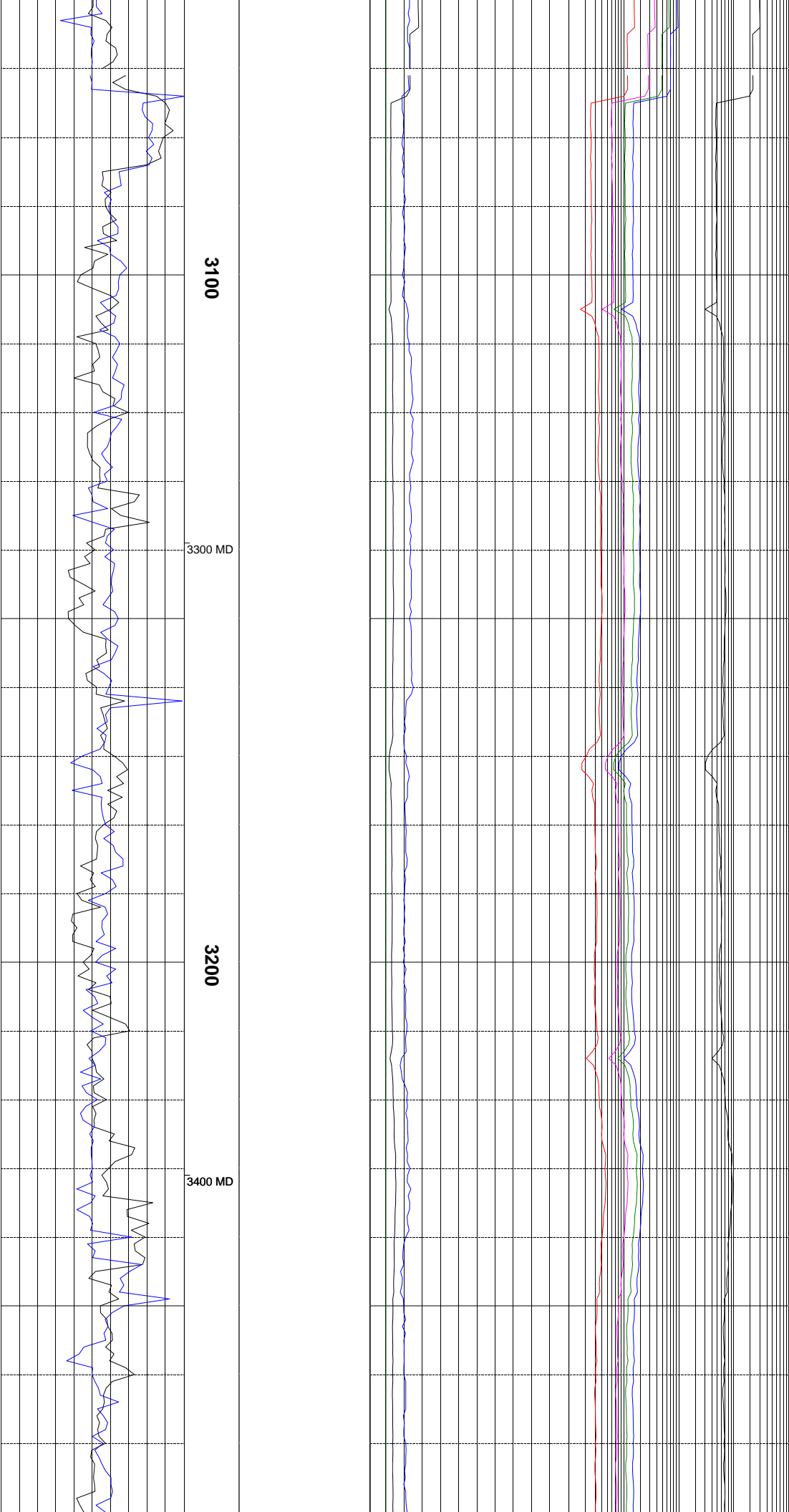










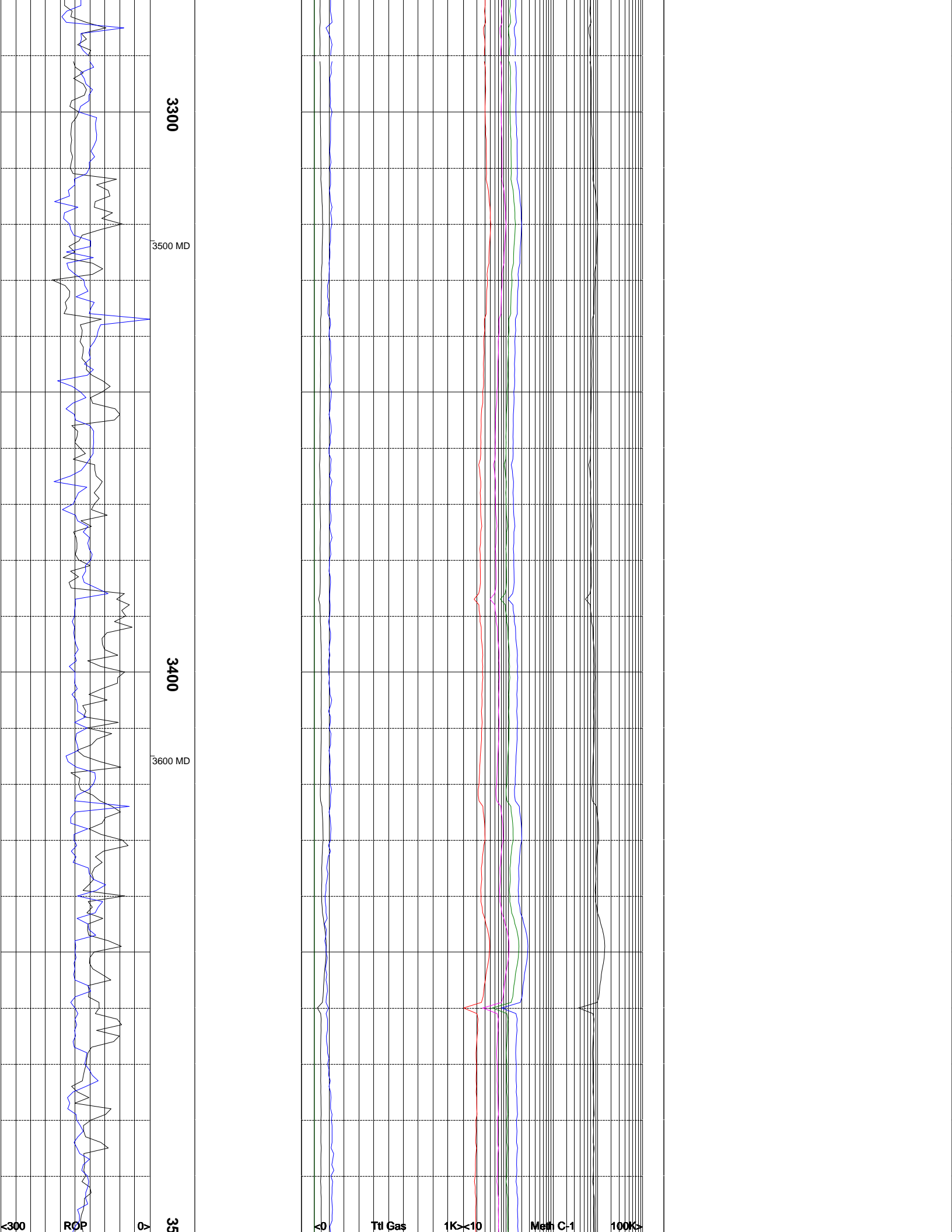


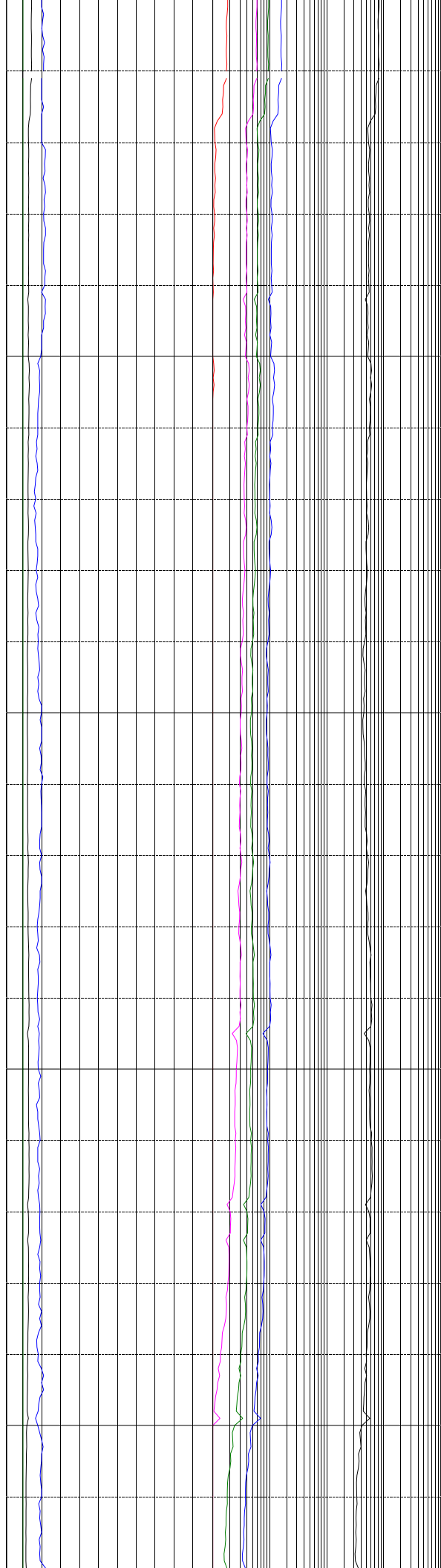
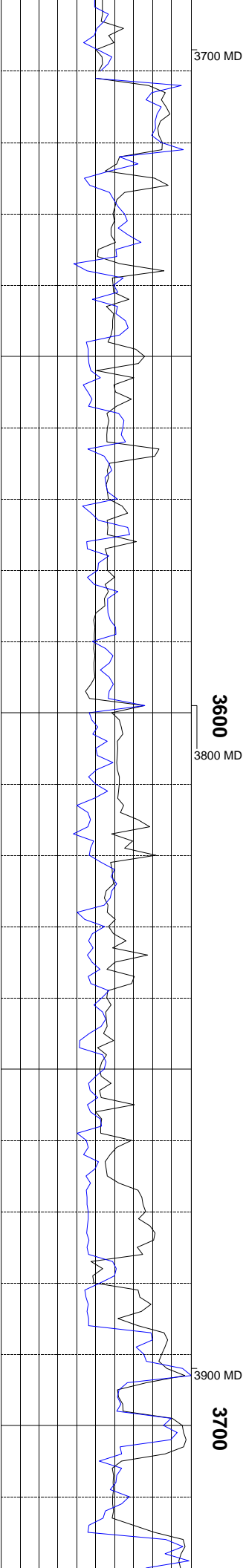
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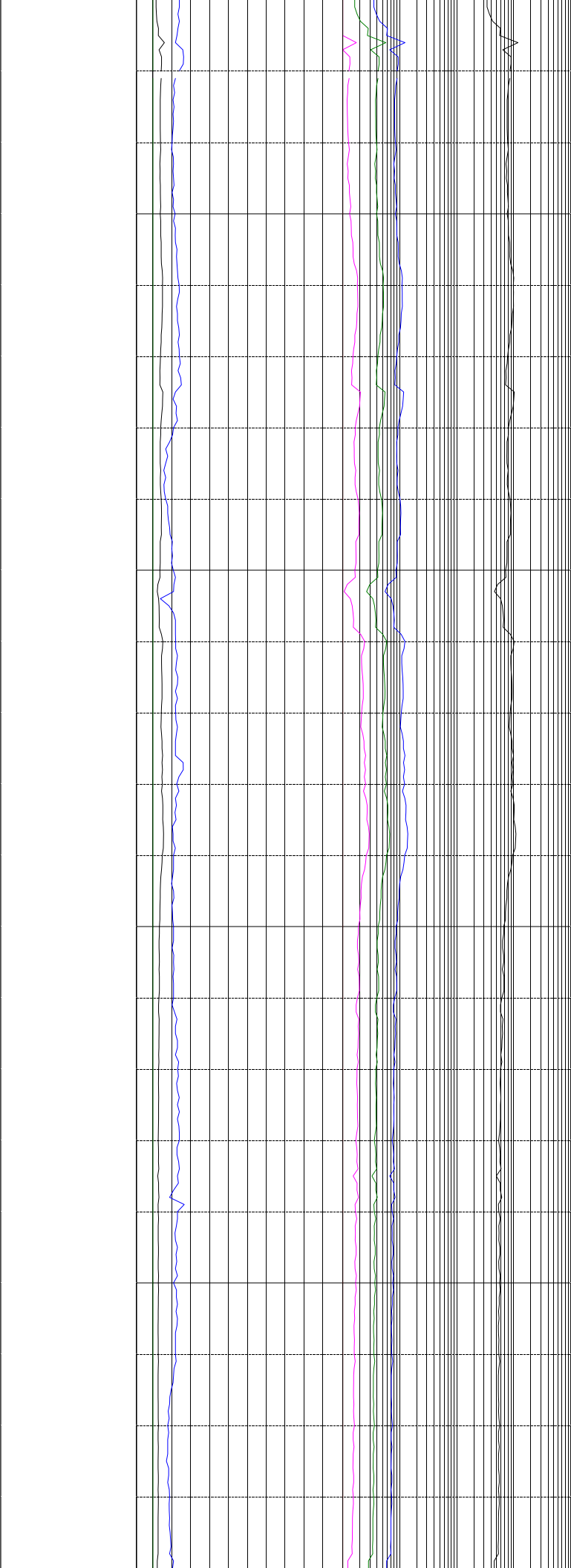
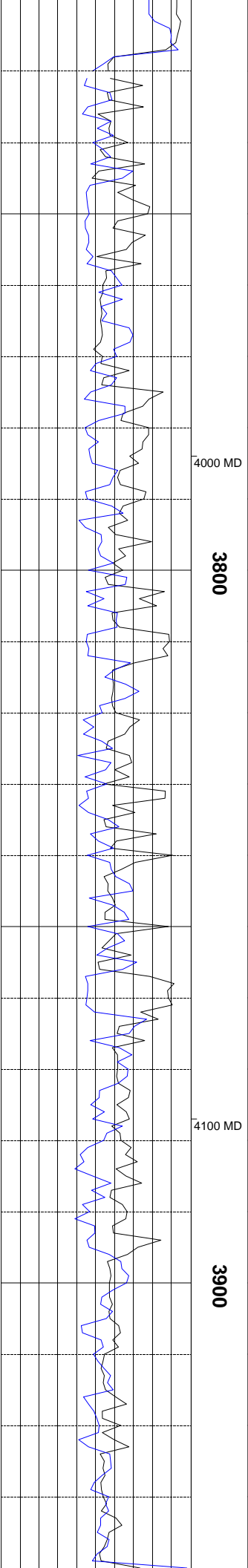
3300 MD

3200

3400 MD







ALL ROCK COLORS ARE REFERENCED TO THE

GSA ROCK COLOR CHART, ROCK CONSTITUENTS

ARE DESCRIBED WET AND LISTED IN ORDER OF

MOST ABUNDANT TO LEAST ABUNDANT, ALL

SAMPLE DEPTHS ARE REFERENCED TO RKB.

GAS CHROMATOGRAPHY EQUIPMENT IS

CALIBRATED TO A TEST GAS COMPOSED OF

METHANE = 10000 PPM

ETHANE = 1000 PPM

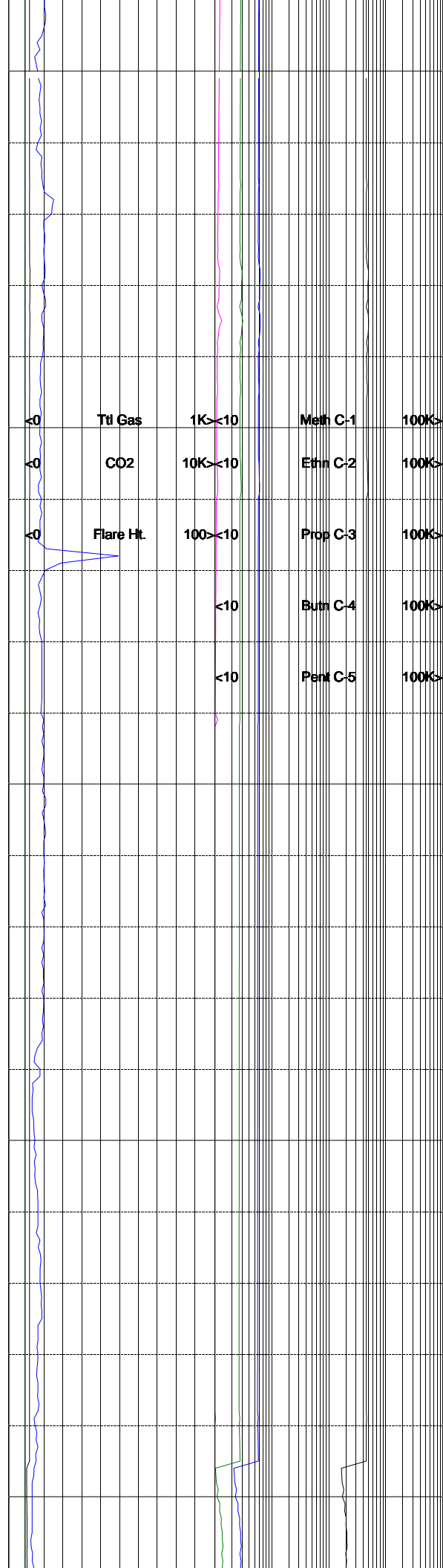
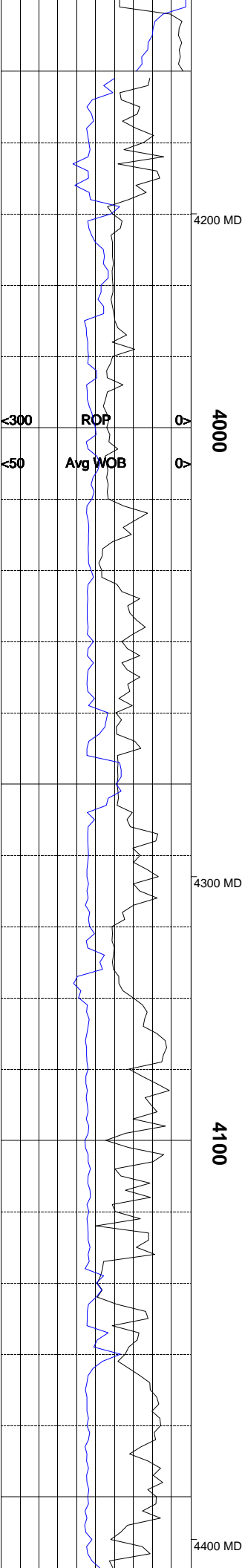
PROPANE = 1000 PPM

I-BUTANE = 1000 PPM

N- BUTANE = 1000 PPM

I- PENTANE = 1000 PPM

N- PENTANE = 1000 PPM



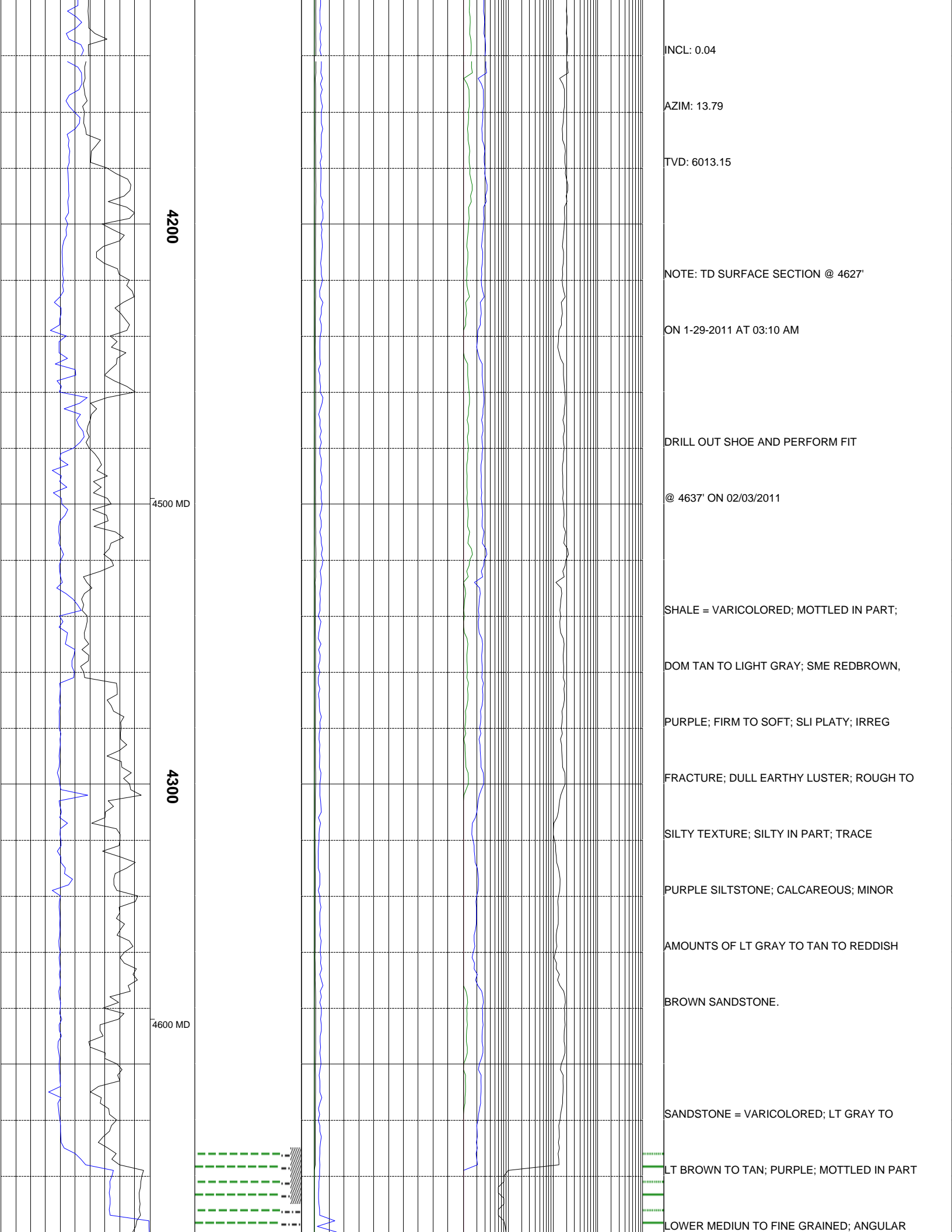
CO2 IS CALIBRATED TO A TEST GAS COMPOSED OF 100000 PPM

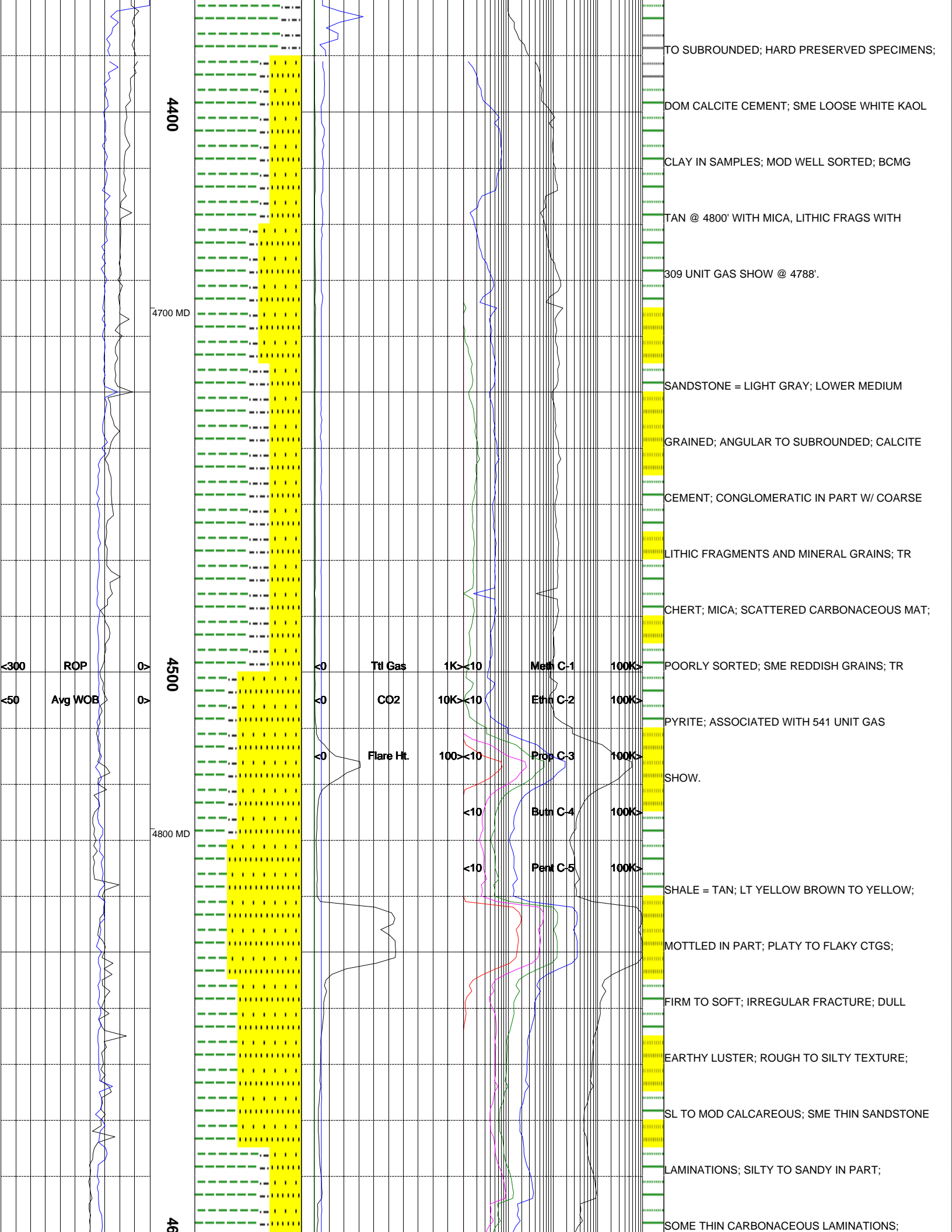
CONNECTION GAS, TRIP GAS, AND WIPER GAS ARE NOTED ON THE MUDLOG, FLARE HEIGHTS AND DEPTHS OF GAS BUSTER USAGE ARE ALSO NOTED.

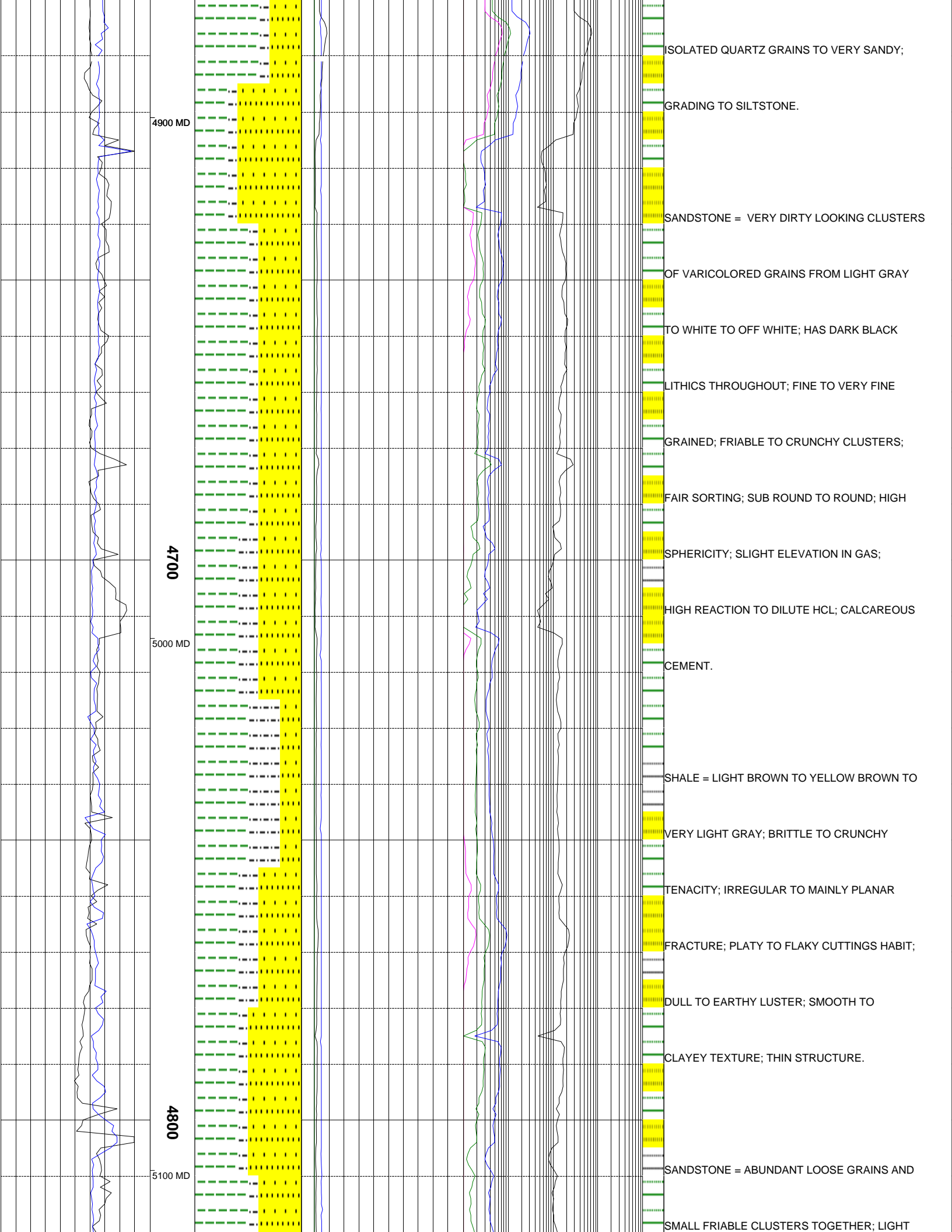
EARLY CONNECTION GASES REPRESENTING UP HOLE GAS INTERVALS BLEEDING INTO THE BOREHOLE ARE COMMON IN THE PRODUCTION INTERVAL.

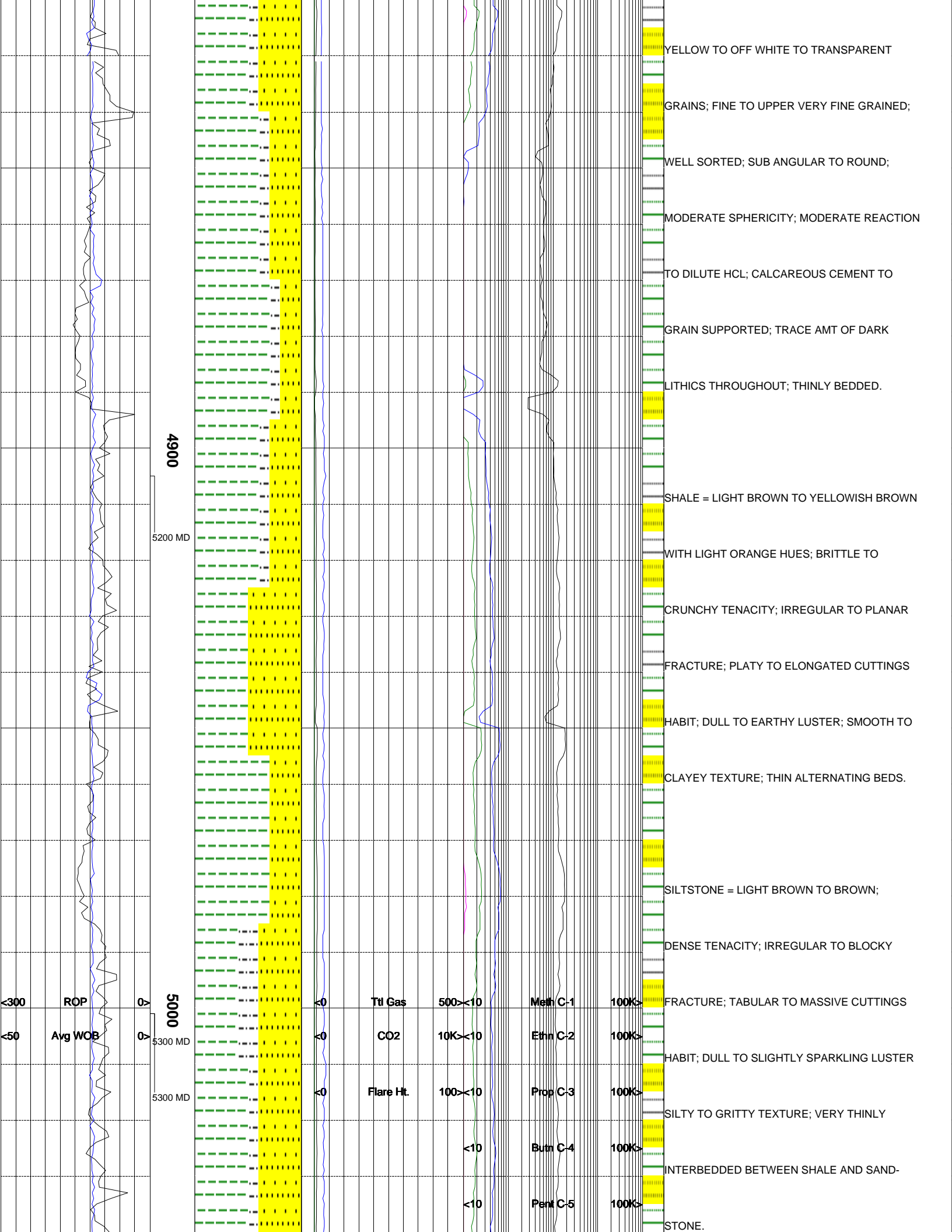
EVIDENCE OF FRACTURE FILL IS NOTED ON THE LOG USING THE LITHOLOGY SYMBOL FOR METAMORPHICS. THE 10% DOES NOT REPRESENT 10% FRACTURE FILL IN SAMPLE. IT ONLY INDICATES THAT FRACTURE FILL HAS BEEN OBSERVED OVER THE INTERVAL.

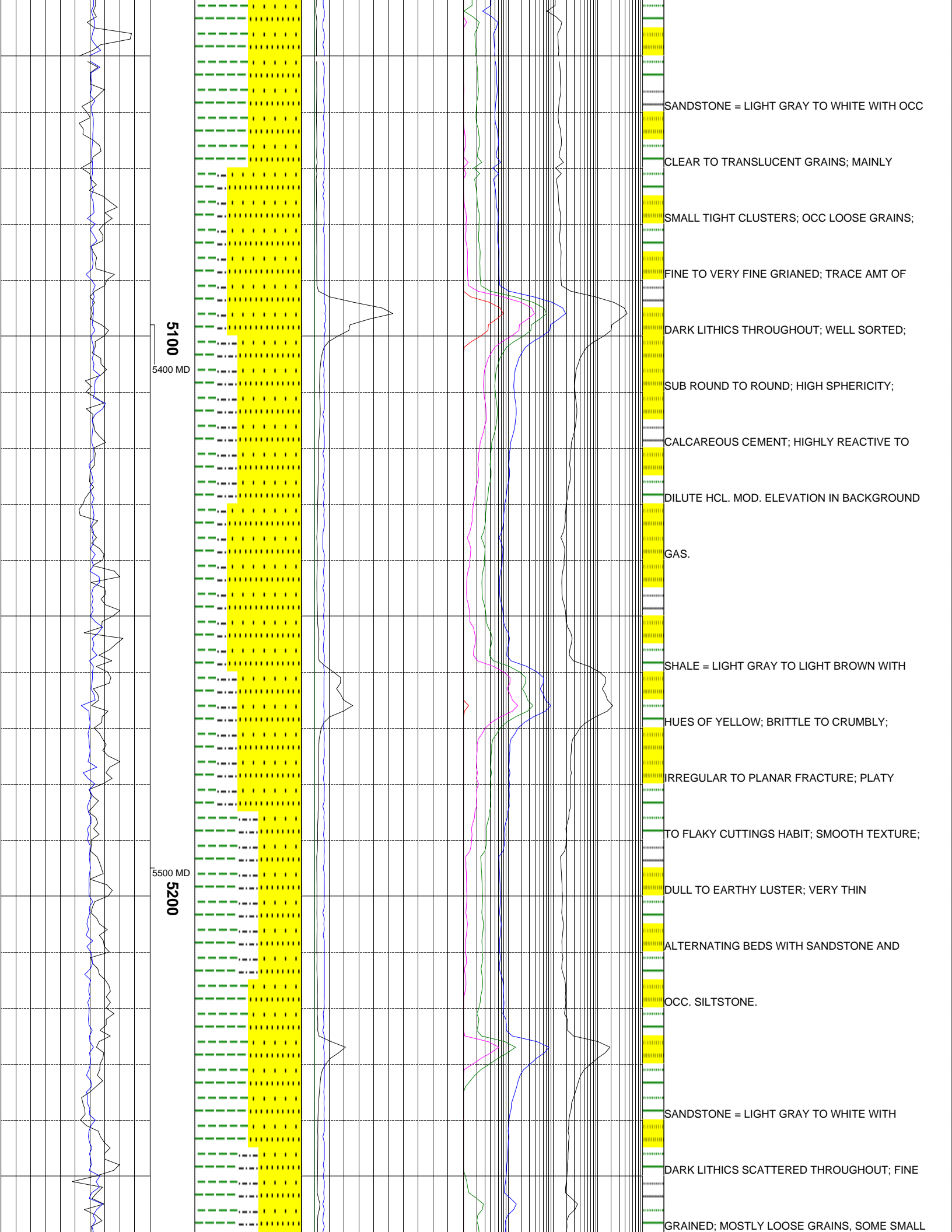
SURVEY DATA AT 6323' MD











5100
5400 MD

5500 MD
5200

SANDSTONE = LIGHT GRAY TO WHITE WITH OCC

CLEAR TO TRANSLUCENT GRAINS; MAINLY

SMALL TIGHT CLUSTERS; OCC LOOSE GRAINS;

FINE TO VERY FINE GRAINED; TRACE AMT OF

DARK LITHICS THROUGHOUT; WELL SORTED;

SUB ROUND TO ROUND; HIGH SPHERICITY;

CALCAREOUS CEMENT; HIGHLY REACTIVE TO

DILUTE HCL. MOD. ELEVATION IN BACKGROUND

GAS.

SHALE = LIGHT GRAY TO LIGHT BROWN WITH

HUES OF YELLOW; BRITTLE TO CRUMBLY;

IRREGULAR TO PLANAR FRACTURE; PLATY

TO FLAKY CUTTINGS HABIT; SMOOTH TEXTURE;

DULL TO EARTHY LUSTER; VERY THIN

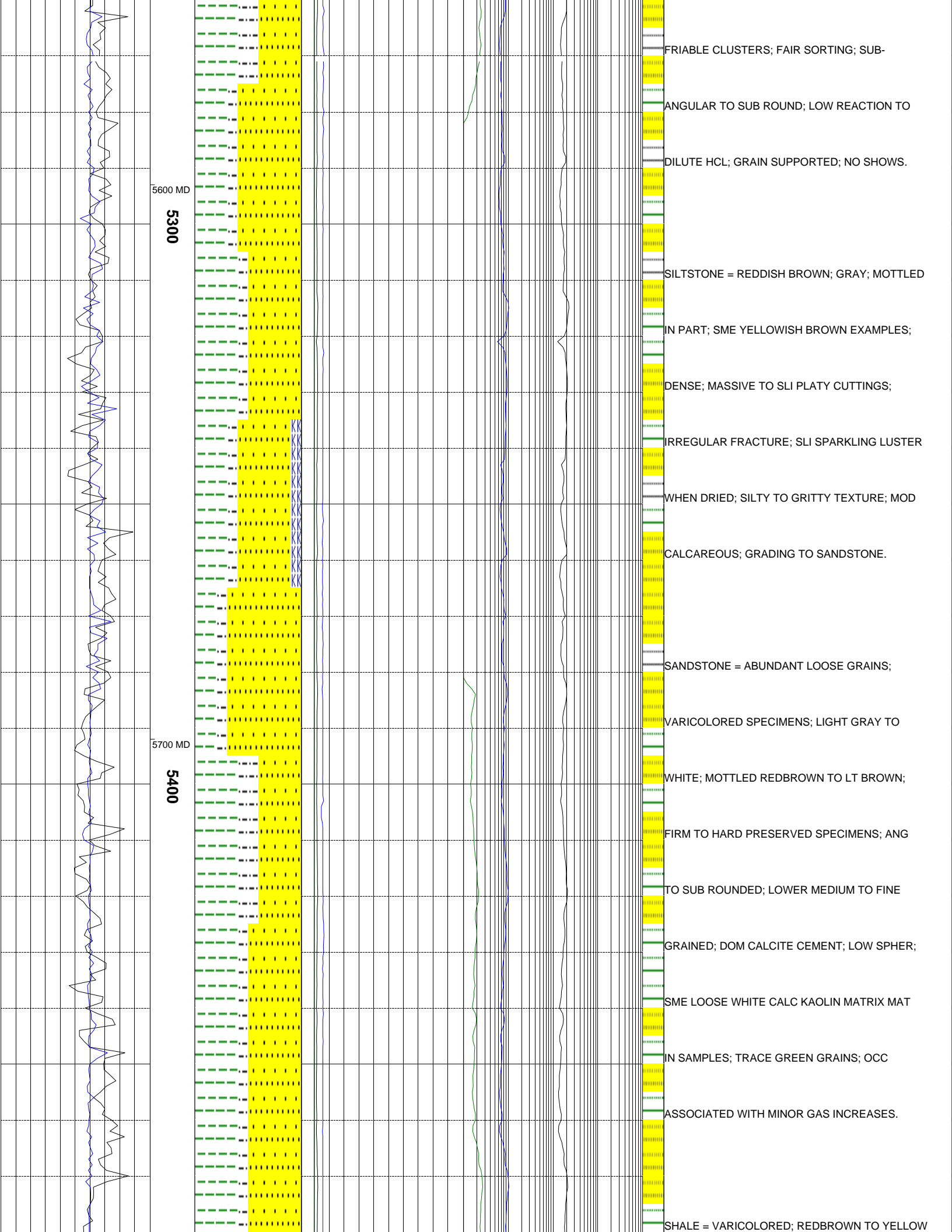
ALTERNATING BEDS WITH SANDSTONE AND

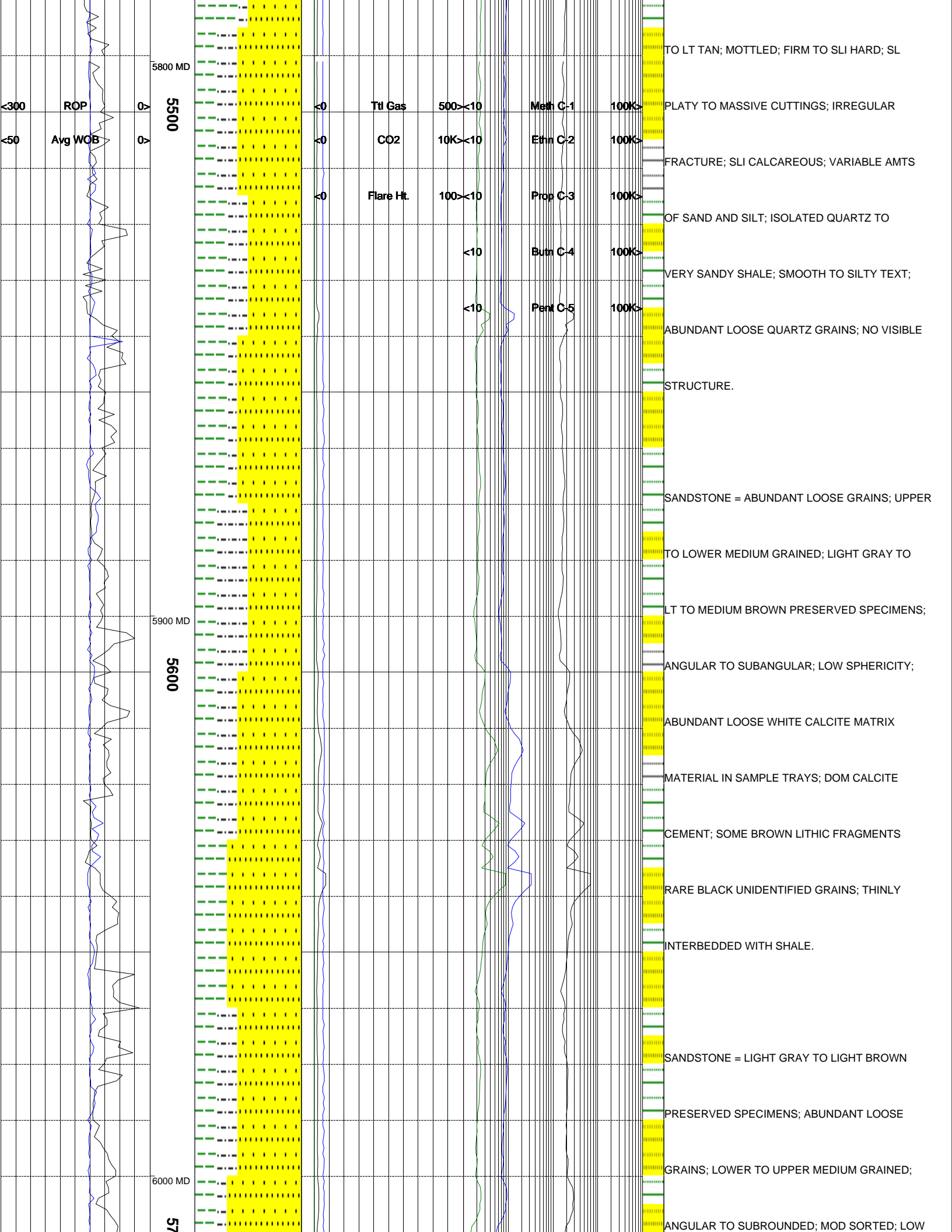
OCC. SILTSTONE.

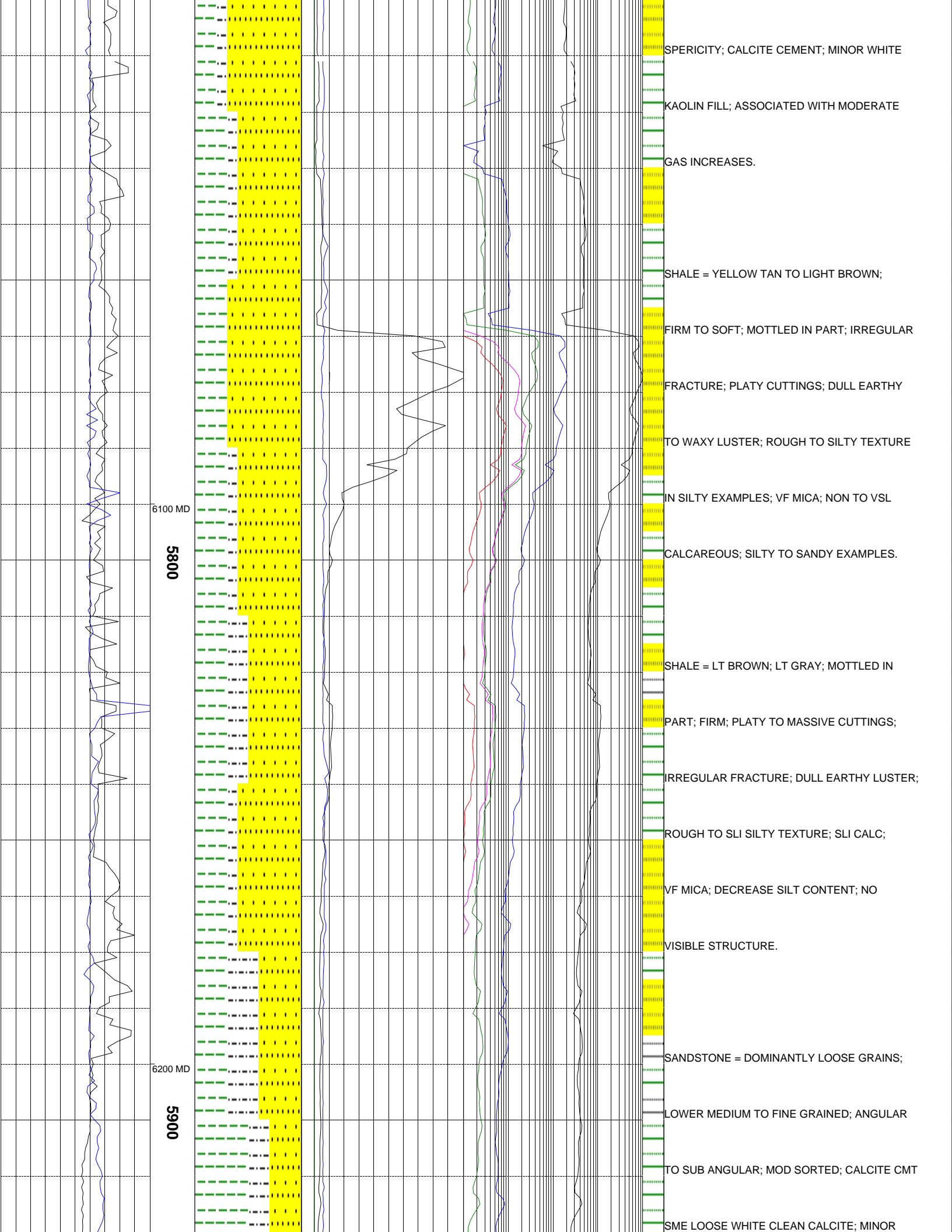
SANDSTONE = LIGHT GRAY TO WHITE WITH

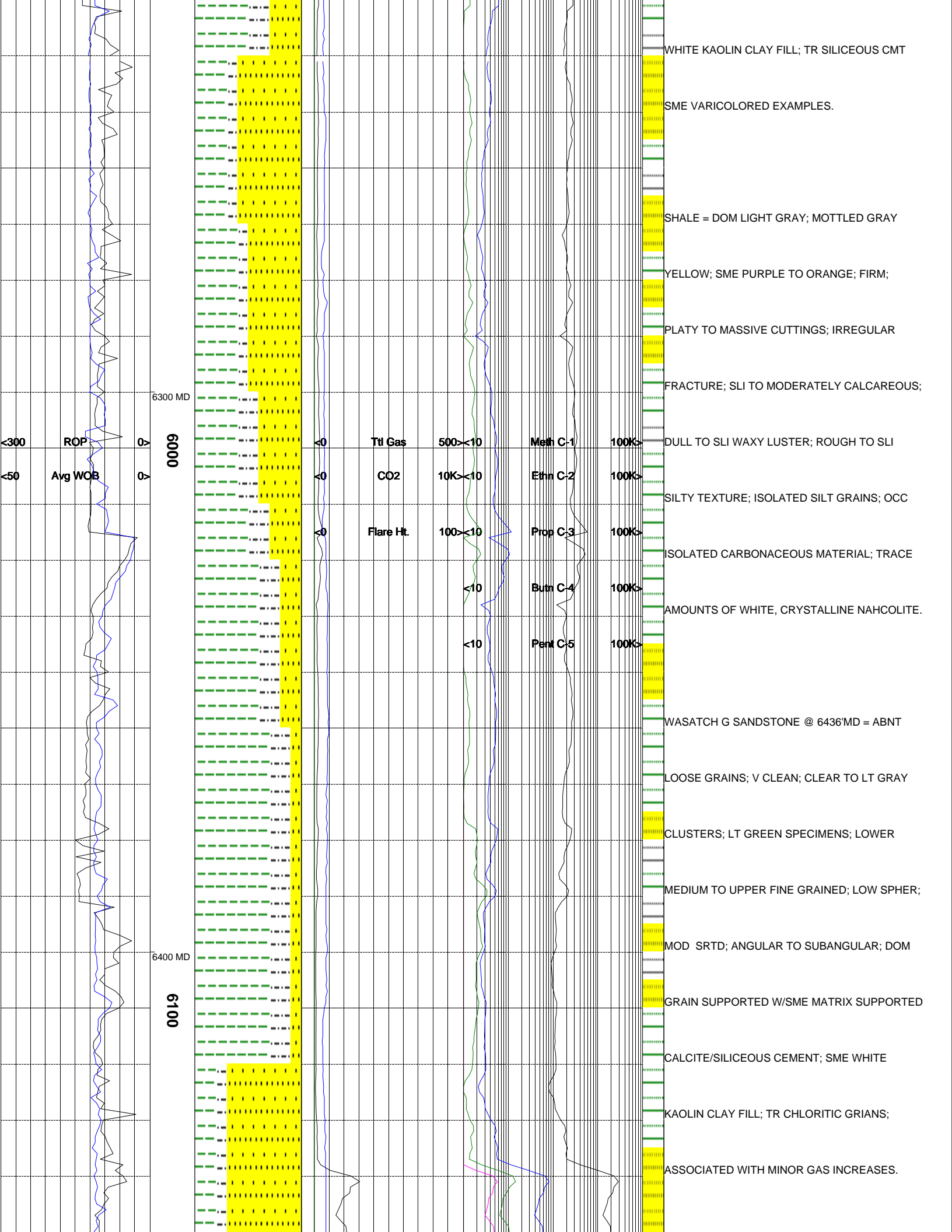
DARK LITHICS SCATTERED THROUGHOUT; FINE

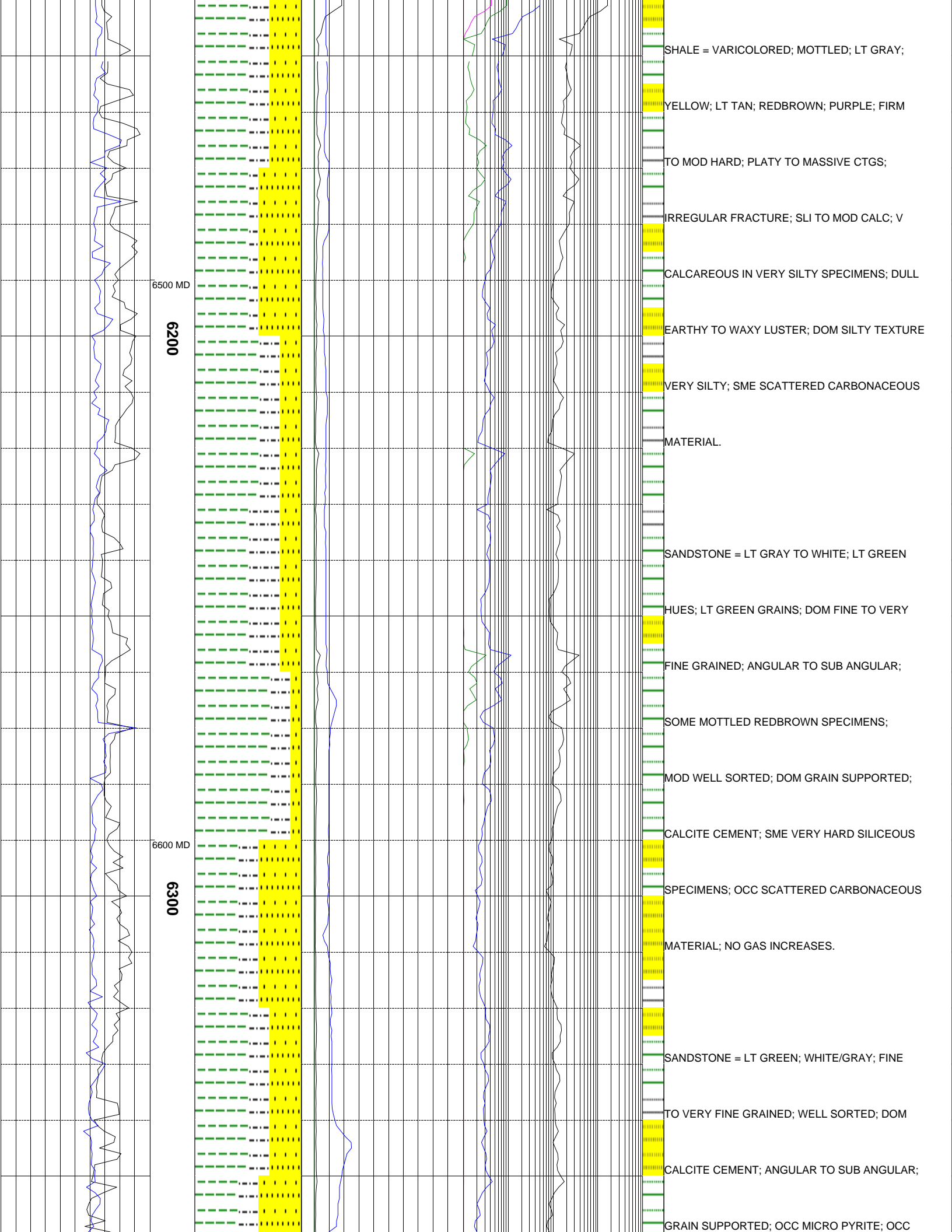
GRAINED; MOSTLY LOOSE GRAINS, SOME SMALL

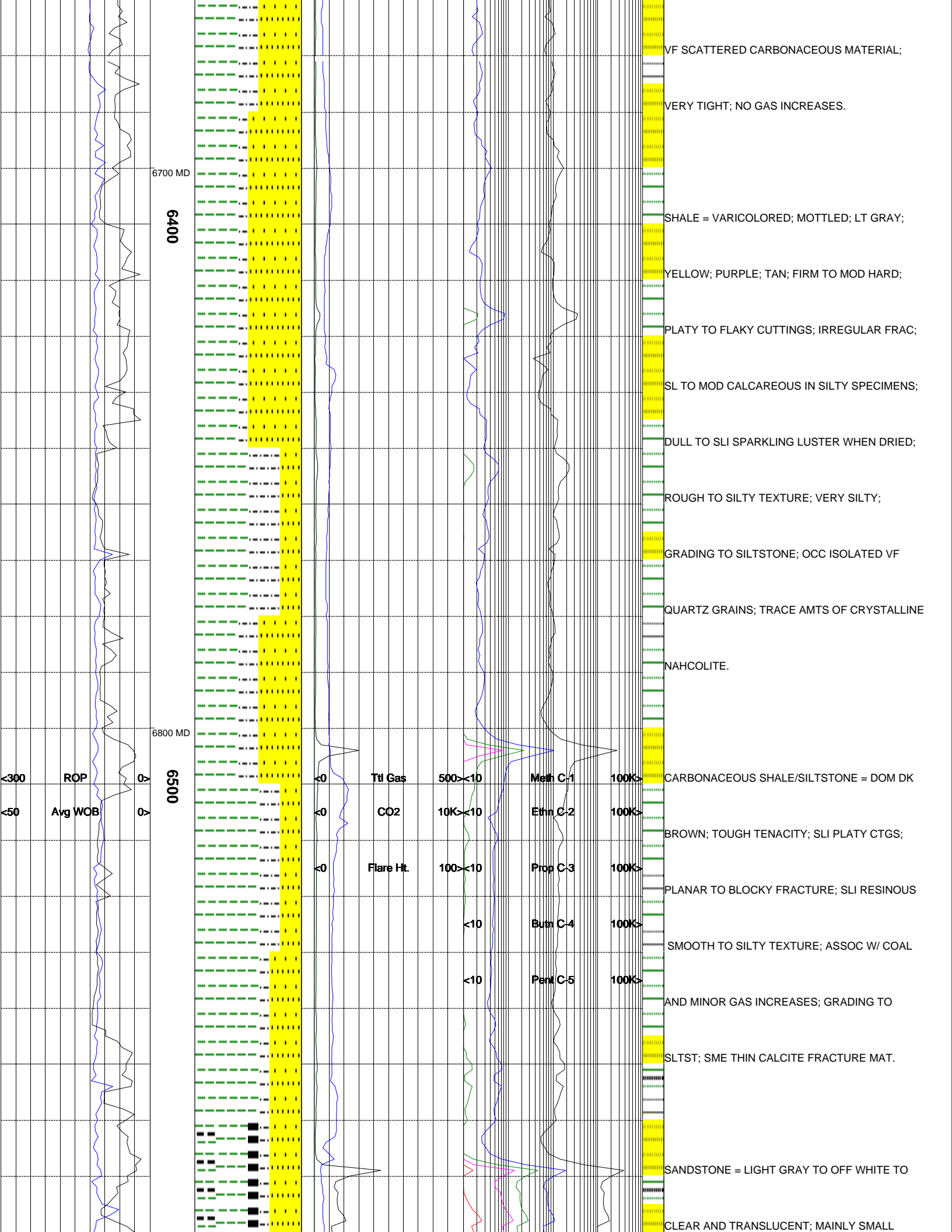


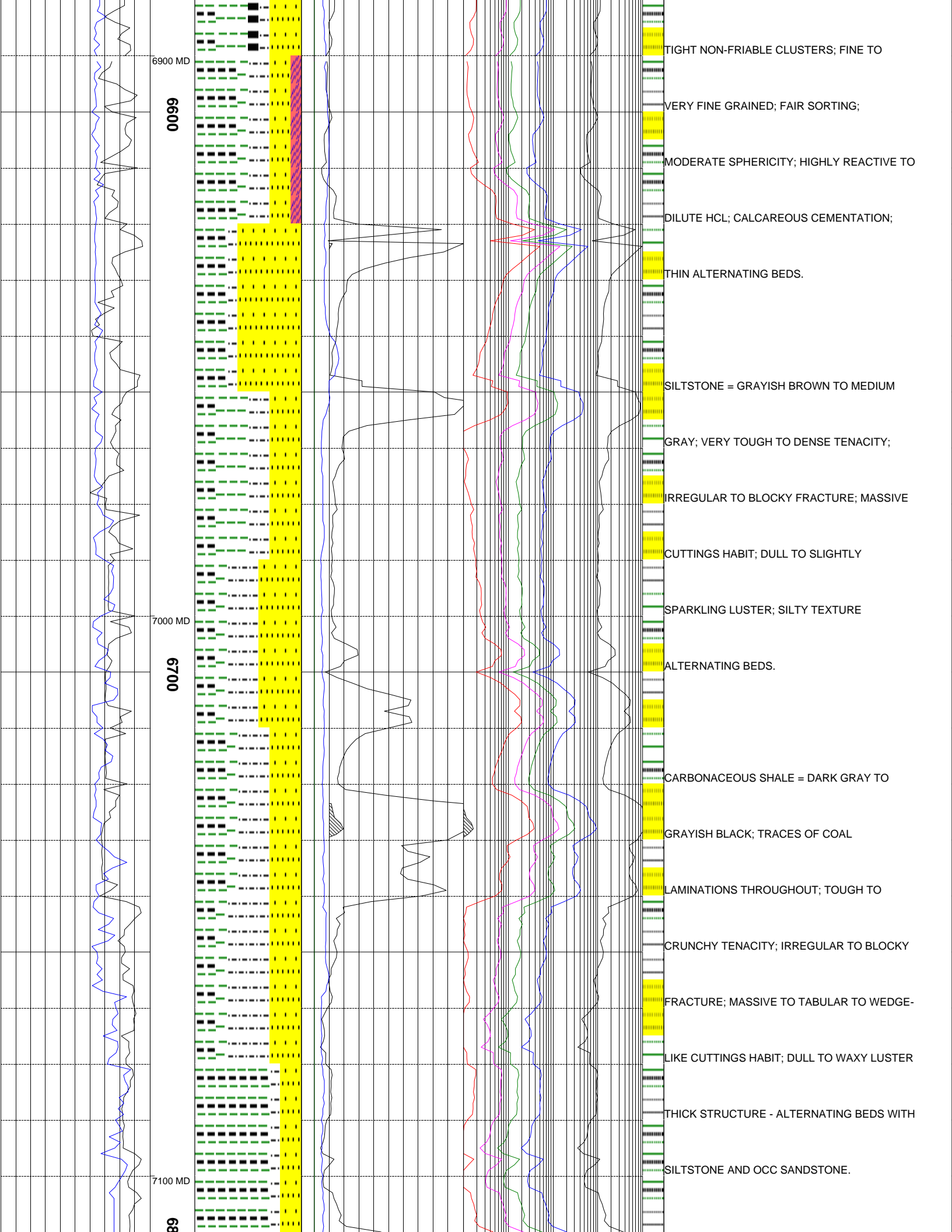


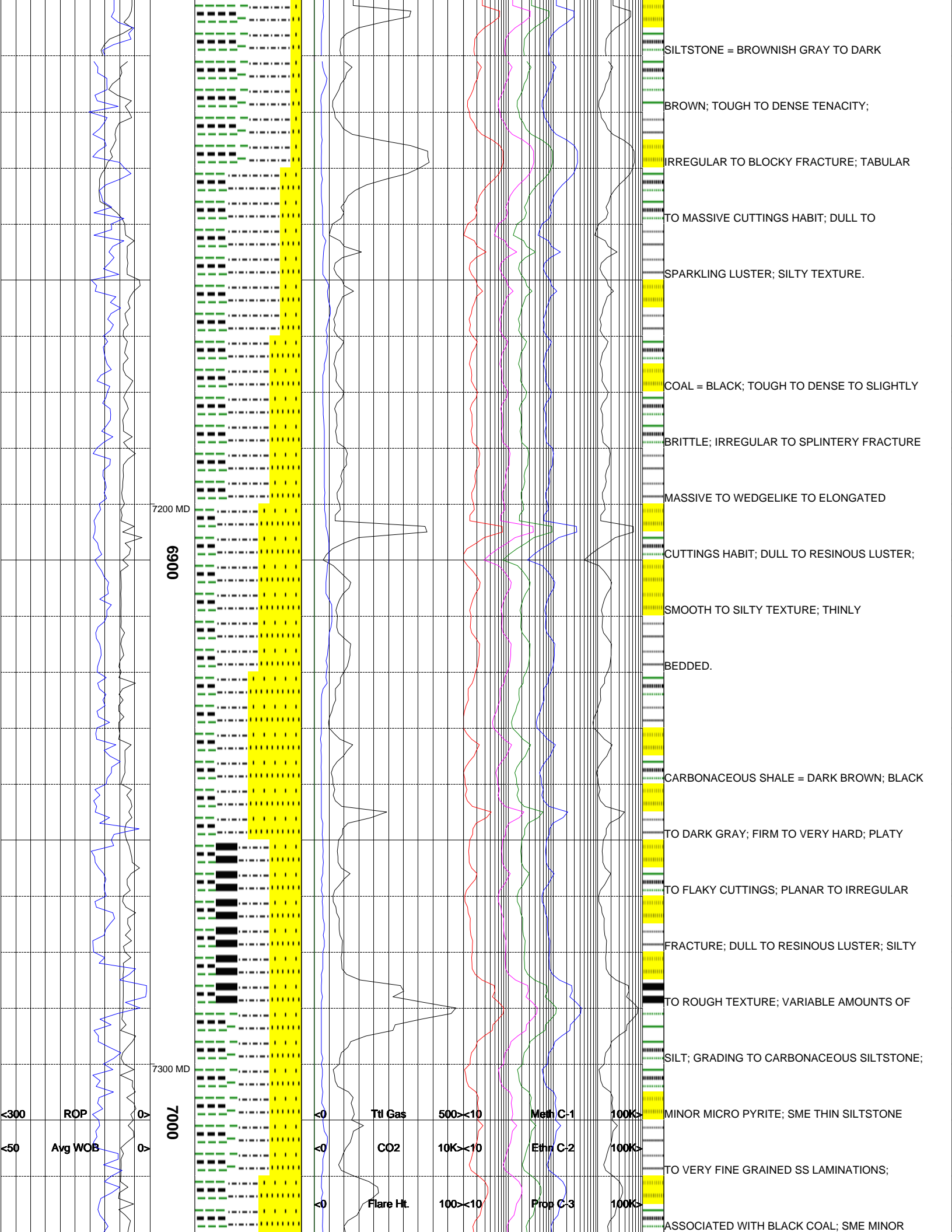


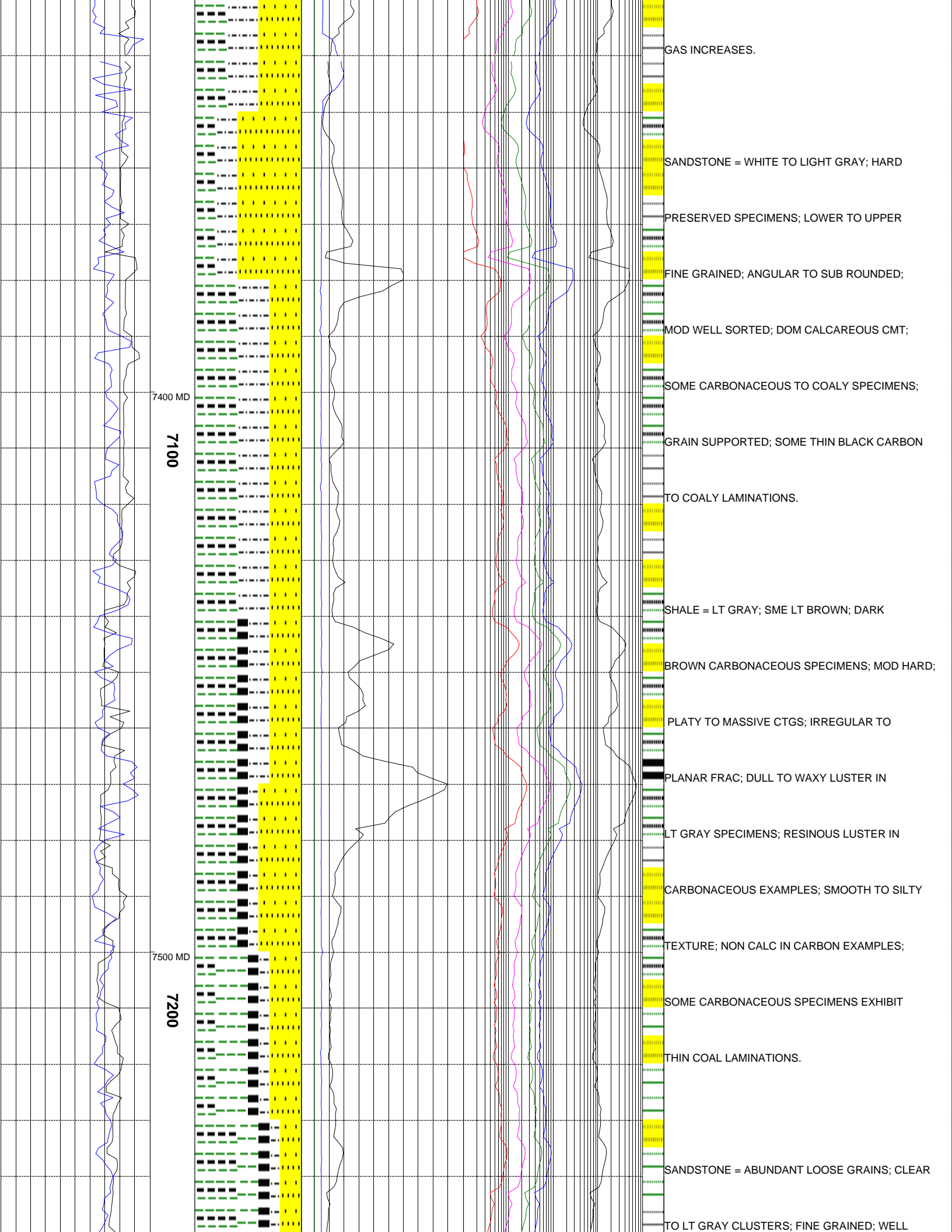


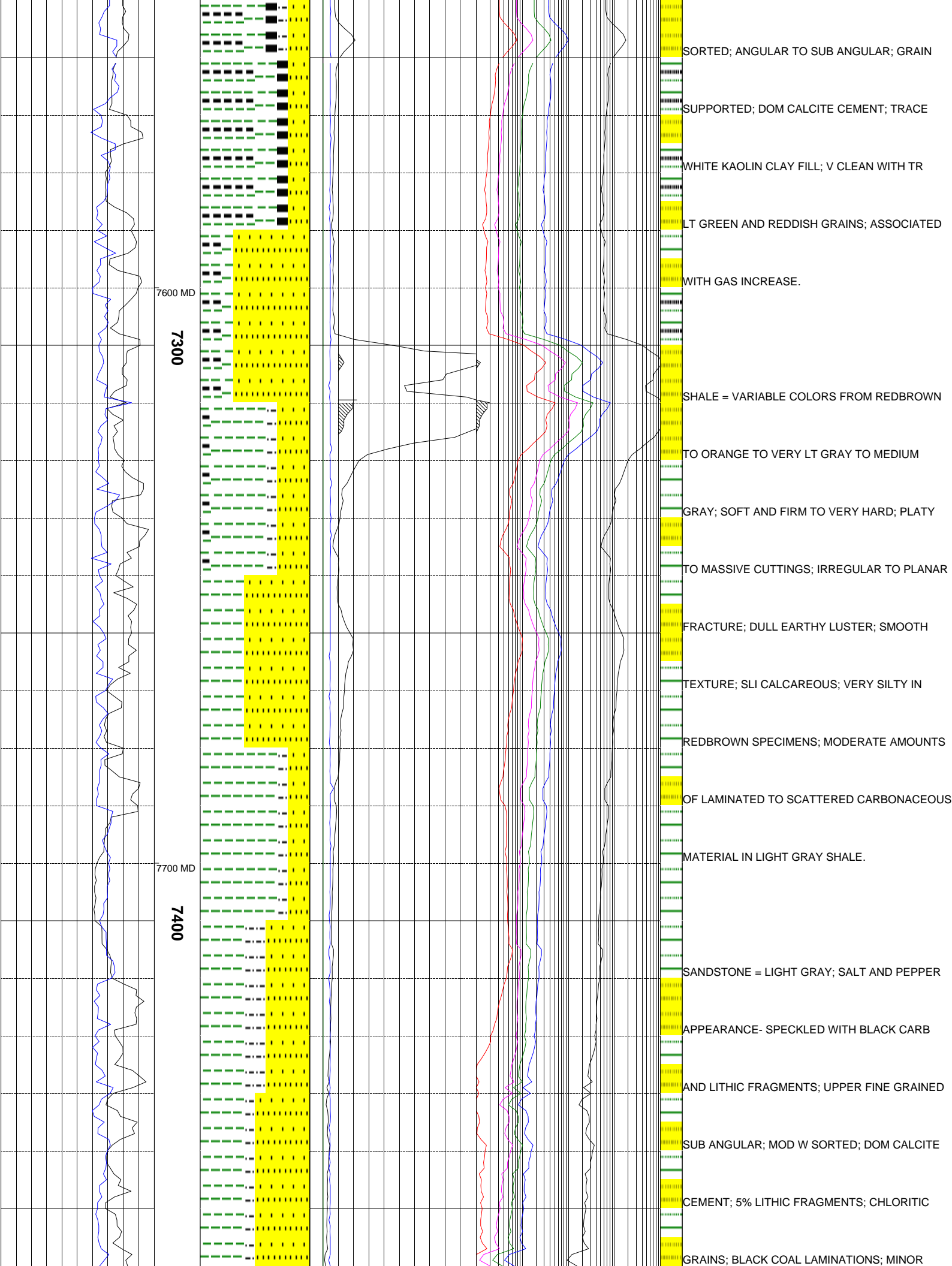


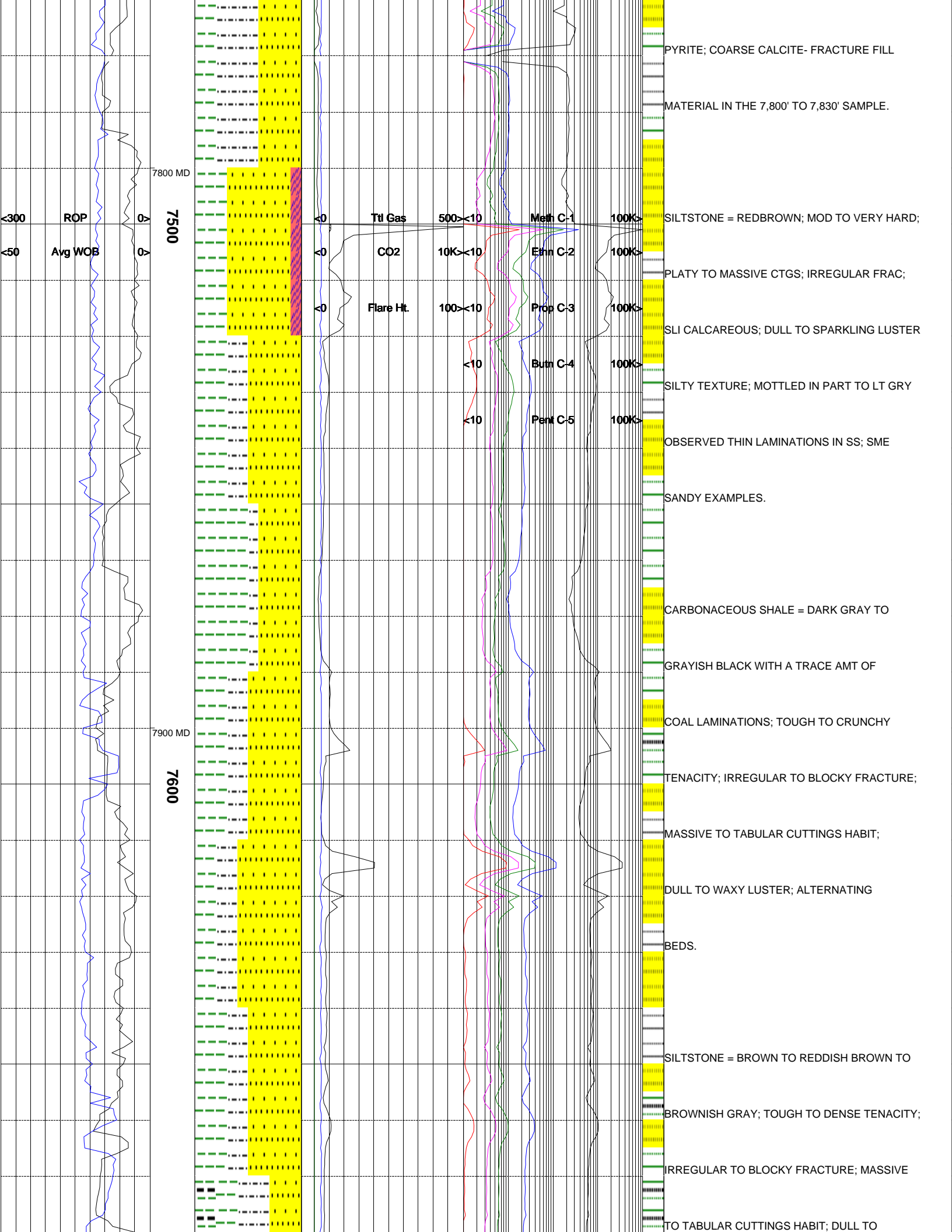


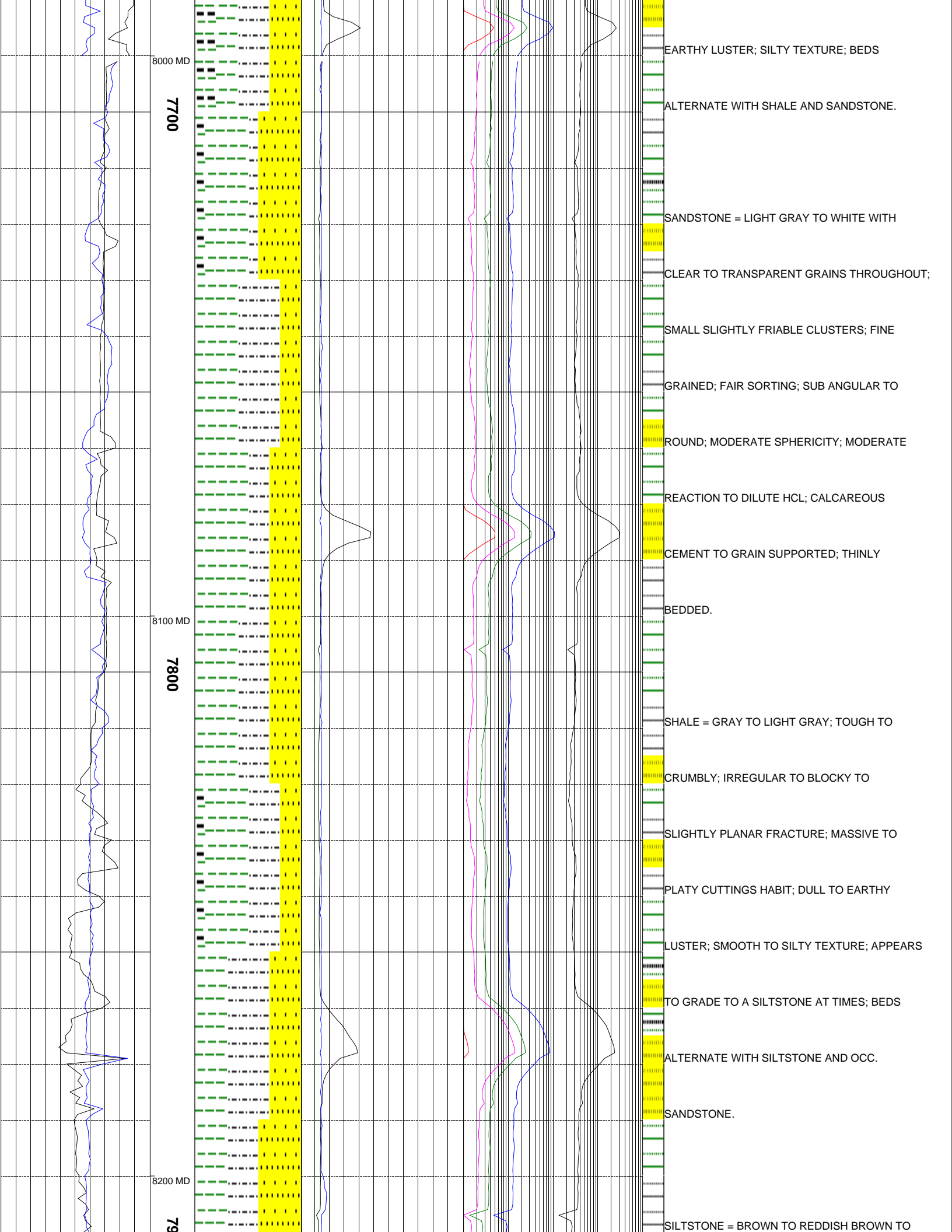


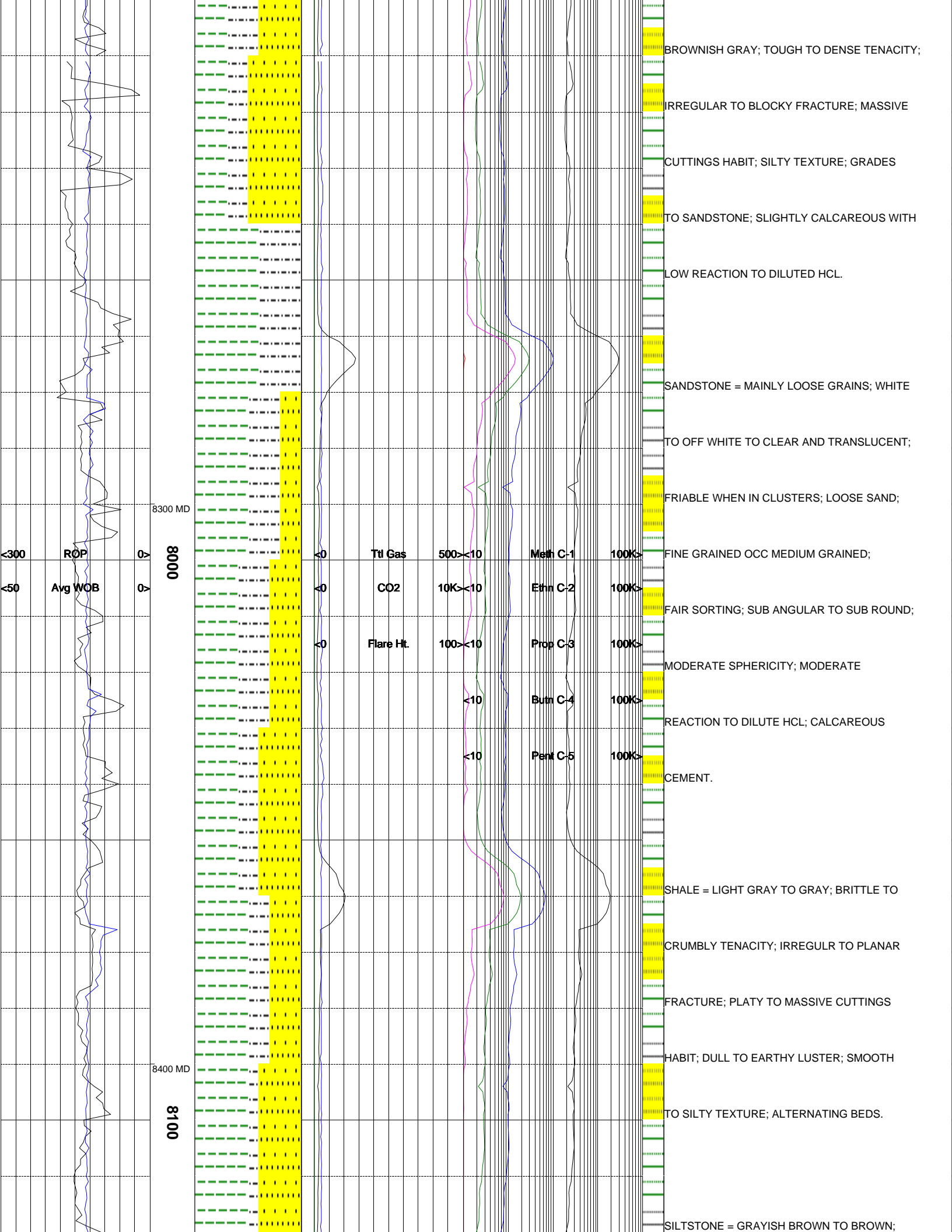


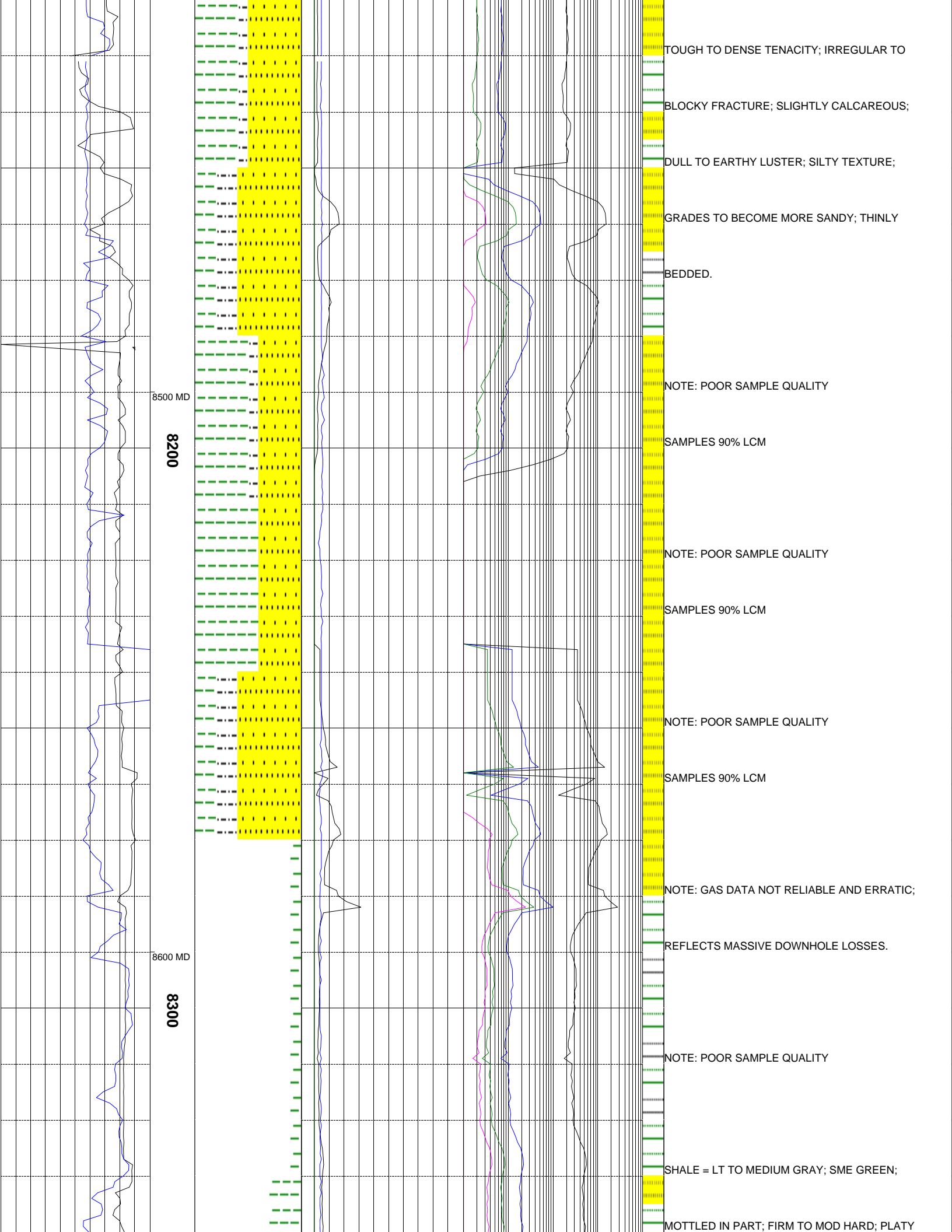


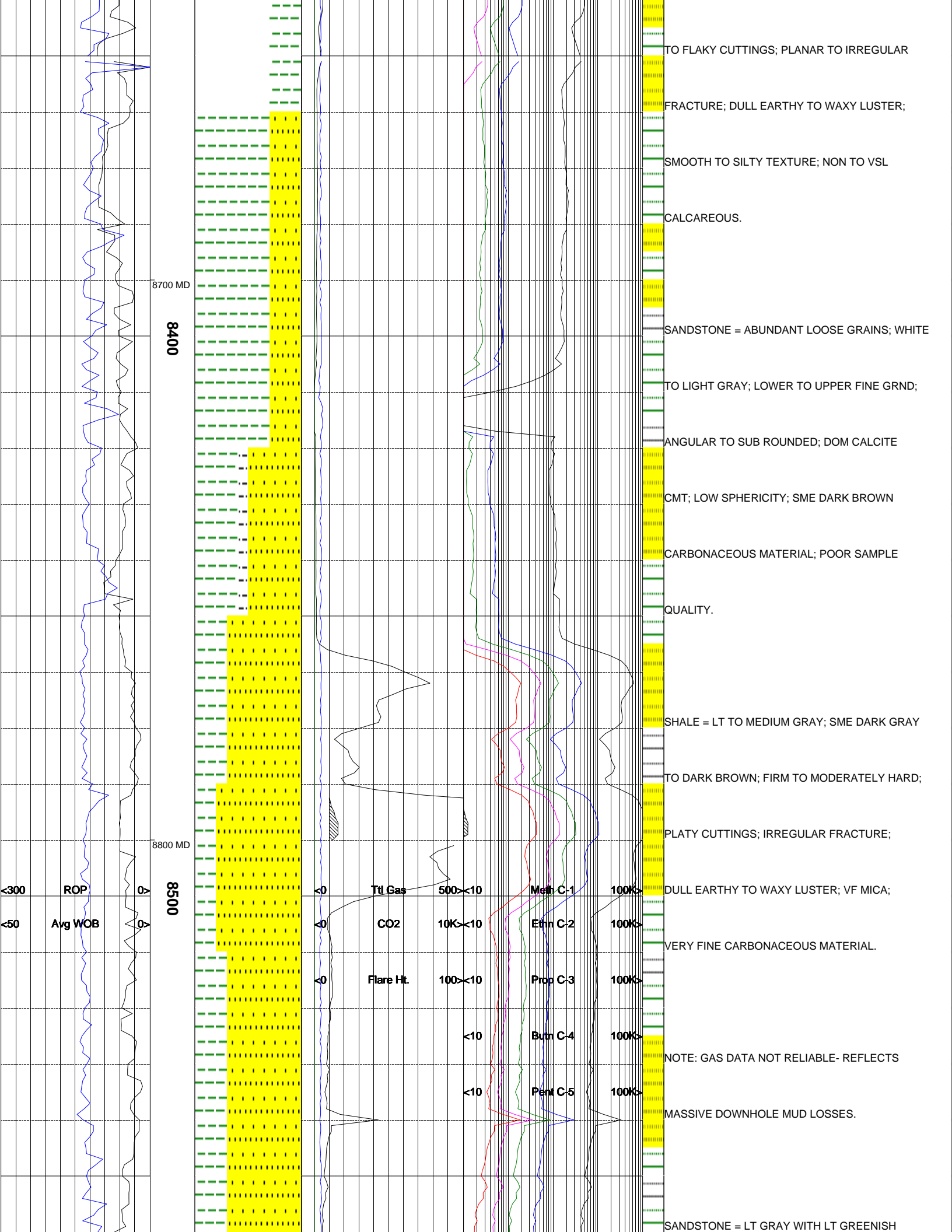


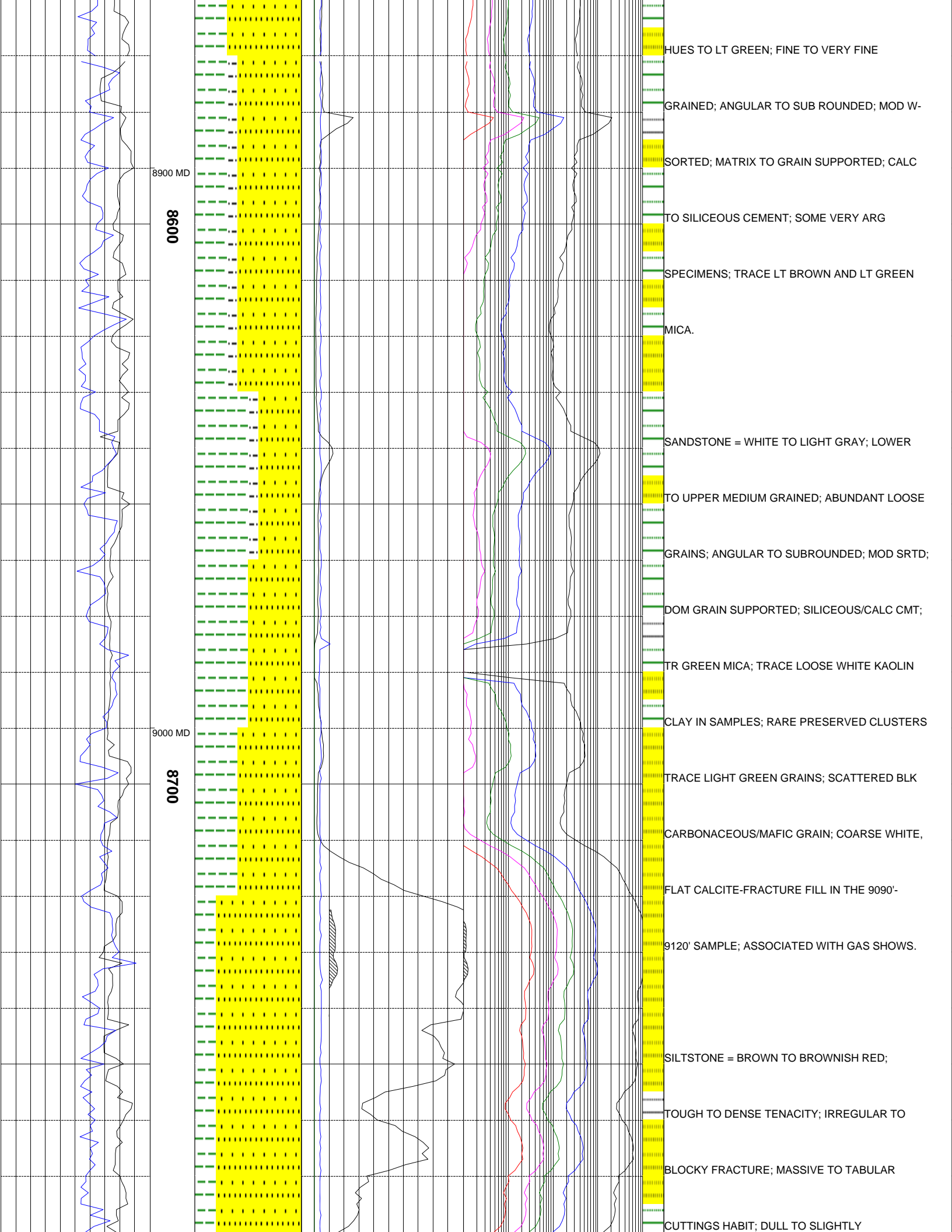


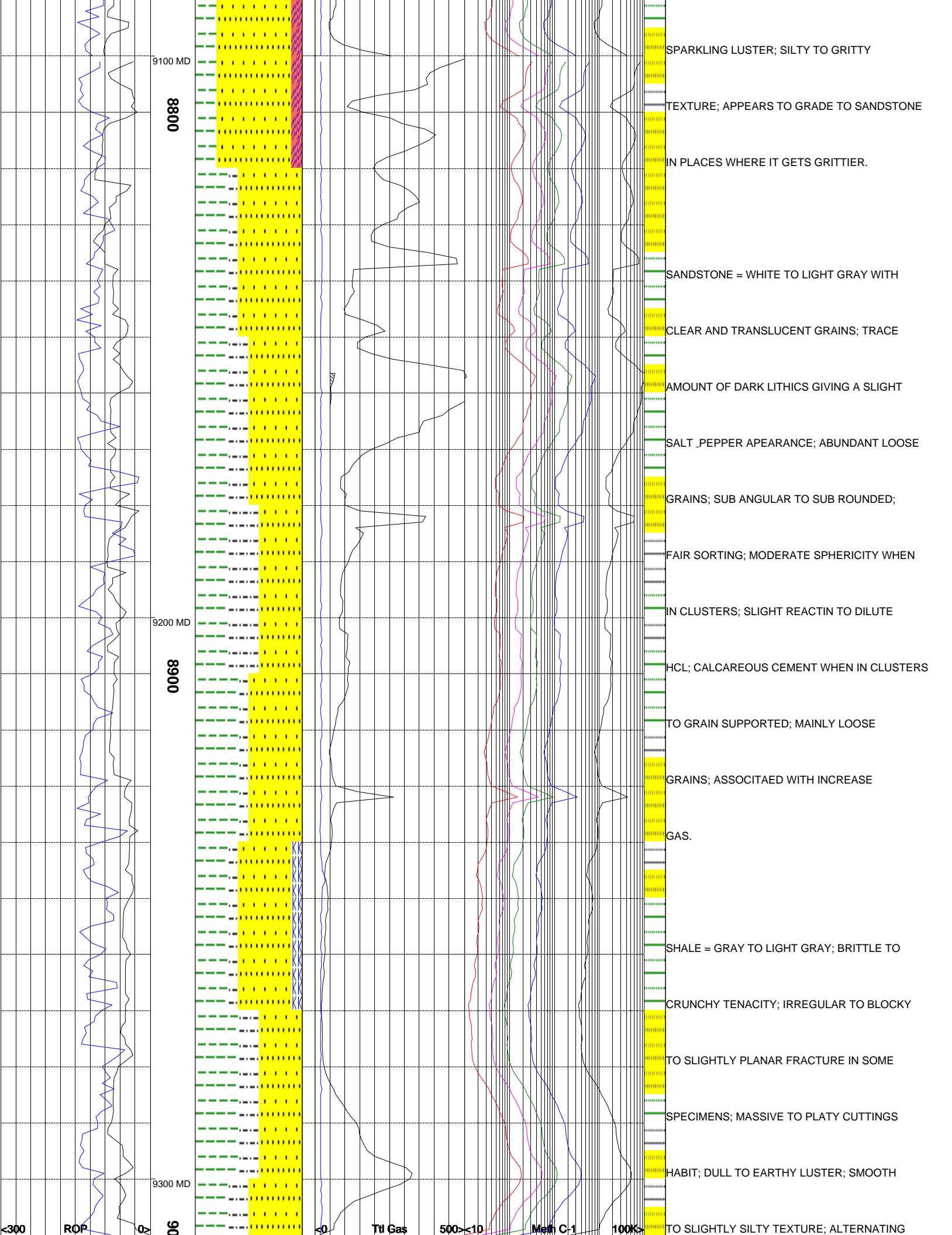


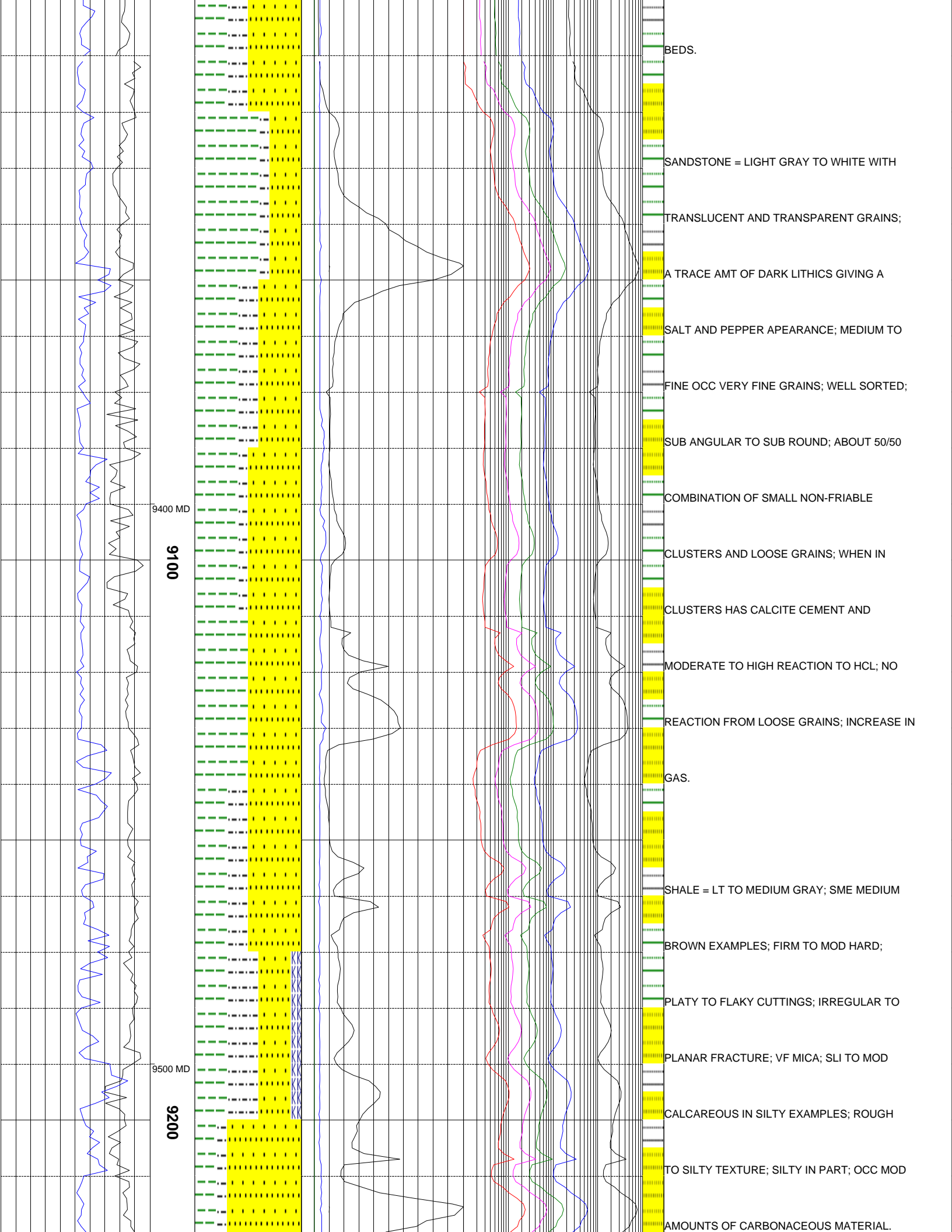












9400 MD
9100

9500 MD
9200

BEDS.

SANDSTONE = LIGHT GRAY TO WHITE WITH

TRANSLUCENT AND TRANSPARENT GRAINS;

A TRACE AMT OF DARK LITHICS GIVING A

SALT AND PEPPER APEARANCE; MEDIUM TO

FINE OCC VERY FINE GRAINS; WELL SORTED;

SUB ANGULAR TO SUB ROUND; ABOUT 50/50

COMBINATION OF SMALL NON-FRIABLE

CLUSTERS AND LOOSE GRAINS; WHEN IN

CLUSTERS HAS CALCITE CEMENT AND

MODERATE TO HIGH REACTION TO HCL; NO

REACTION FROM LOOSE GRAINS; INCREASE IN

GAS.

SHALE = LT TO MEDIUM GRAY; SME MEDIUM

BROWN EXAMPLES; FIRM TO MOD HARD;

PLATY TO FLAKY CUTTINGS; IRREGULAR TO

PLANAR FRACTURE; VF MICA; SLI TO MOD

CALCAREOUS IN SILTY EXAMPLES; ROUGH

TO SILTY TEXTURE; SILTY IN PART; OCC MOD

AMOUNTS OF CARBONACEOUS MATERIAL.

