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MUDLOG MD

COMPANY	ExxonMobil Production
WELL	PCU 197-34B8 ST1
FIELD	PICEANCE CREEK
REGION	ROCKY MOUNTAINS
COORDINATES	39.915659000 108.261198000
ELEVATION	6649.1'
COUNTY, STATE	RIO BLANCO, CO
API INDEX	05-103-11082-01
SPUD DATE	12/13/2008
CONTRACTOR	H_P
CO. REP.	M. MARTINEZ/W. GARNER
RIG/TYPE	# 320/FLEX 4S+
LOGGING UNIT	MLU # 032
GEOLOGISTS	J. KEEVAN, C. RECORD C. PIERCE
ADD. PERSONS	M. PIPER, B.HICKS T. WALKER
CO. GEOLOGIST	CHRIS ALBA

LOG INTERVAL

DEPTHS: 4,000' **TO** 8,889'
DATES: 9/30/2009 **TO** 3/4/2010
SCALE: 5" = 100'

CASING DATA

16" **AT** 132'
10.75" **AT** 3,976'
7" **AT** 8,675'

AT

HOLE SIZE

14.75" **TO** 4,000'
9.875" **TO** 8,675'
6.125" **TO** 8,889'
TO

MUD TYPES

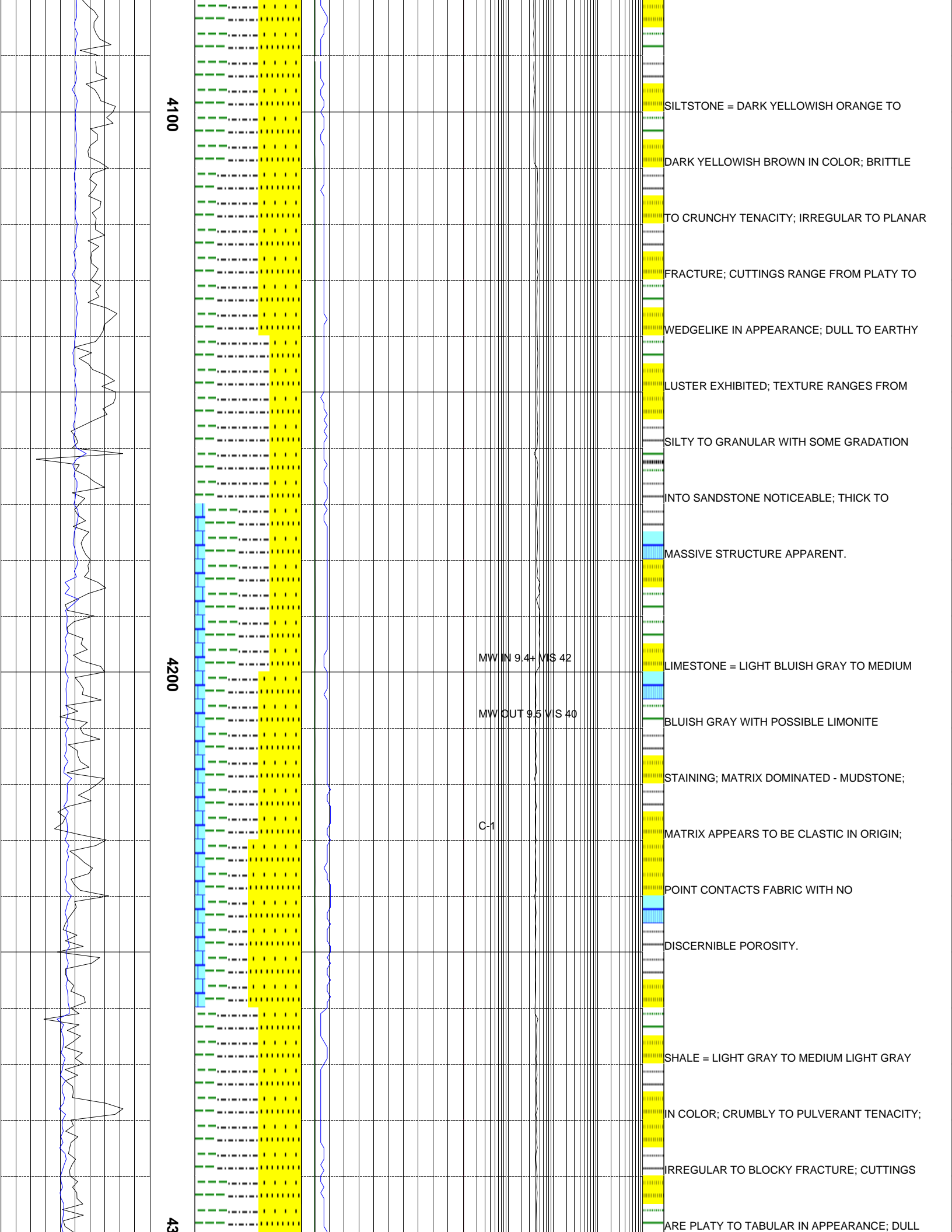
LSND **TO** 8,889'
TO
TO
TO

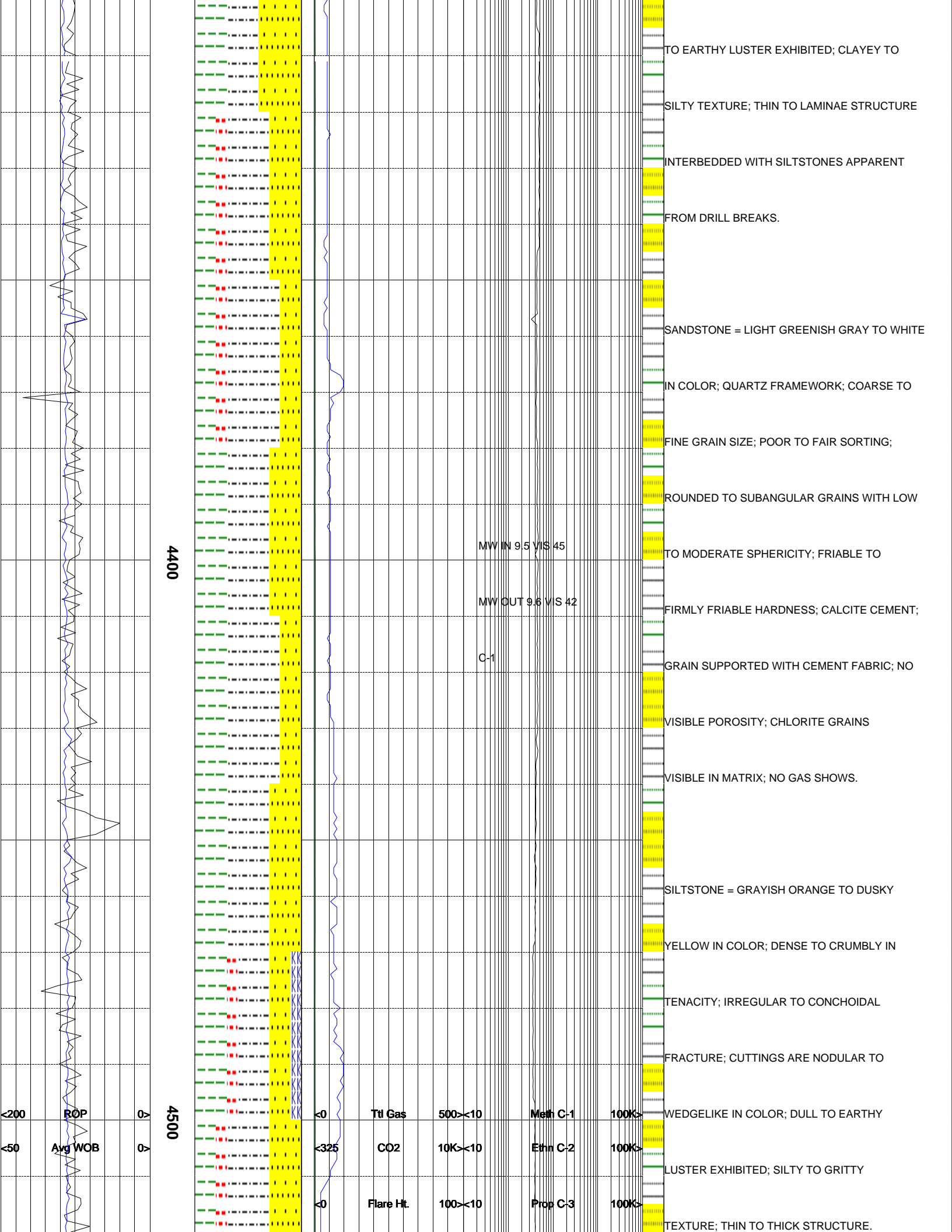
ABBREVIATIONS

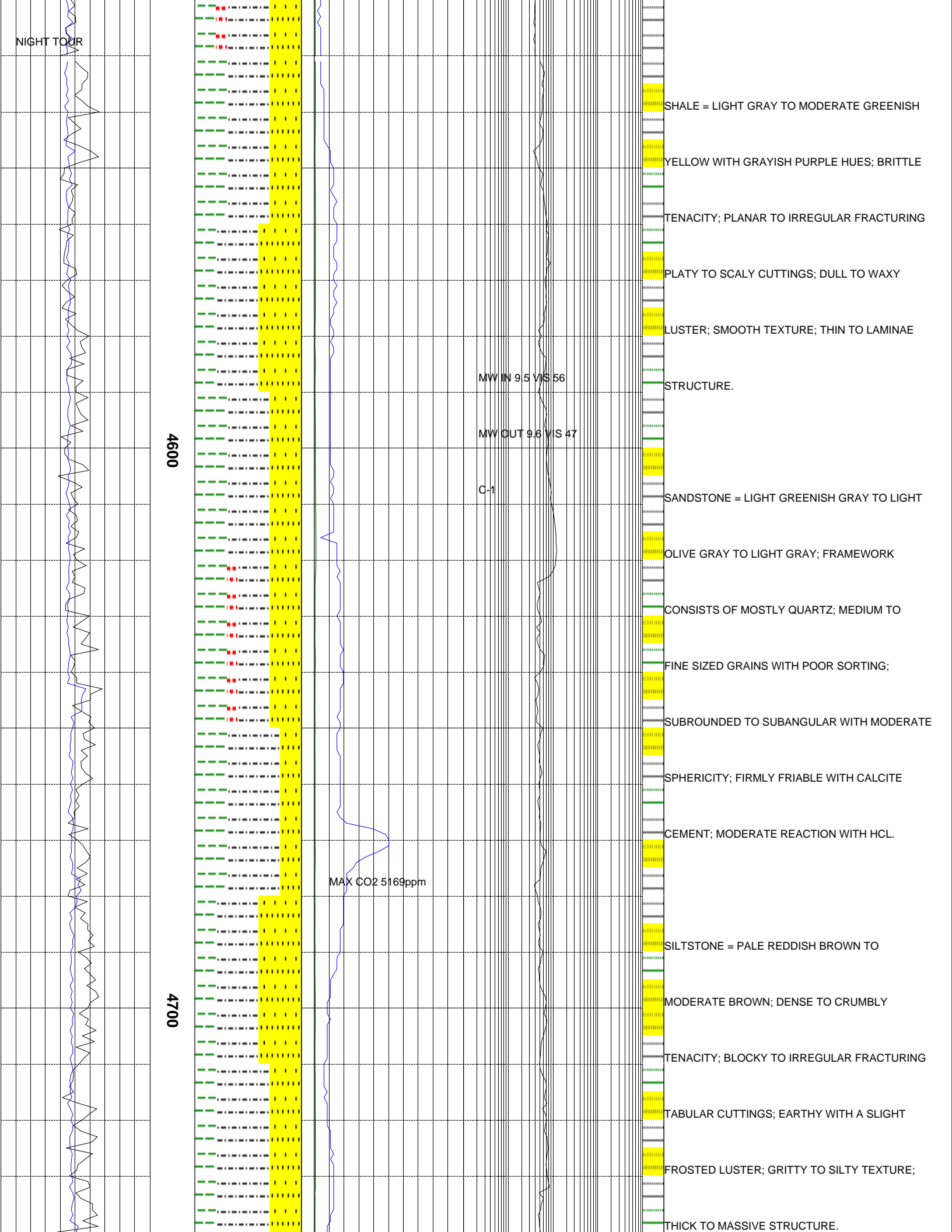
<i>NB</i> NEWBIT	<i>PV</i> PLASTIC VISCOSITY	<i>LC</i> LOST CIRCULATION
<i>RRB</i> RERUN BIT	<i>YP</i> YIELD POINT	<i>CO</i> CIRCULATE OUT
<i>CB</i> CORE BIT	<i>FL</i> FLUID LOSS	<i>NR</i> NO RETURNS
<i>WOB</i> WEIGHT ON BIT	<i>CL</i> PPM CLORIDE ION	<i>TG</i> TRIP GAS
<i>RPM</i> ROTARY REV/MIN	<i>Rm</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	

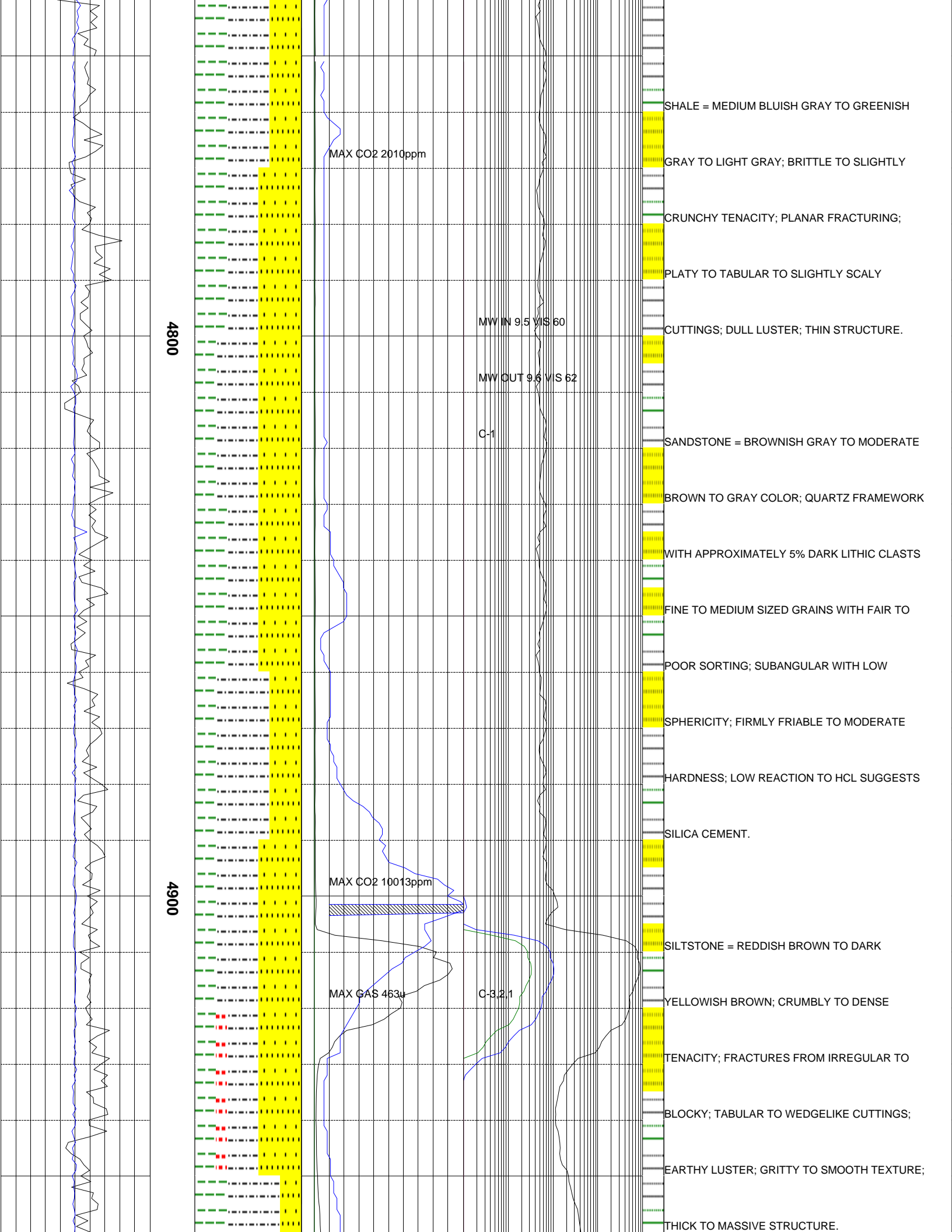
ALTERED ZONE	CHERT - GLASSY	FELSIC SILIC DIKE	MARL - CALC	SANDSTONE
ANDESITE	CHERT - PORCEL	FOSSIL	METAMORPHICS	SANDSTONE-TUFFACEOUS
ANHYDRITE	CHERT - TIGER STRIPE	GABBRO	MUDSTONE	SERICITIZATION
BASALT	CHERT - UNDIFF	GLASSY TUFF	OBSIDIAN	SERPENTINE
BENTONITE	CLAY	GRANITE	PALEOSOL	SHALE
BIOTITIZATION	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	

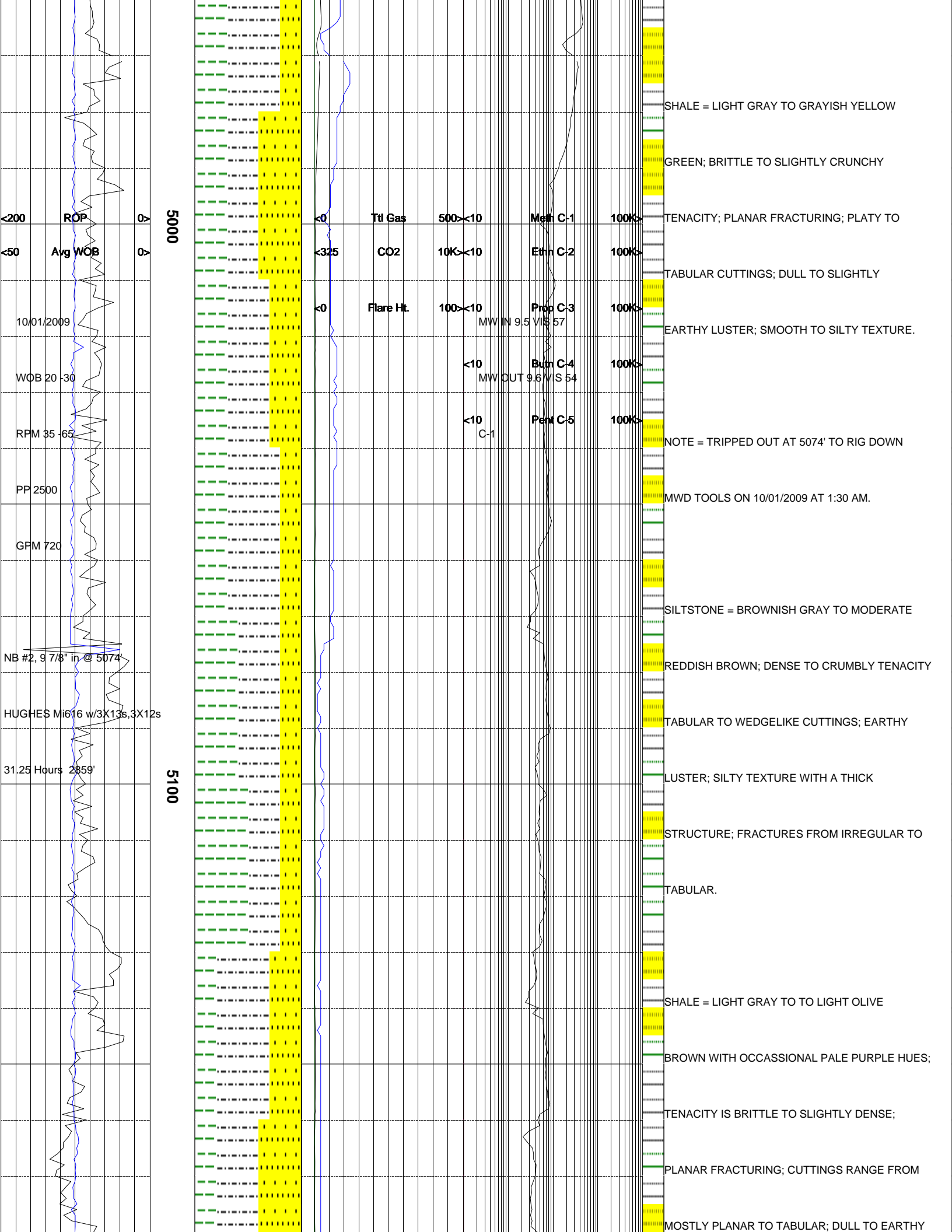
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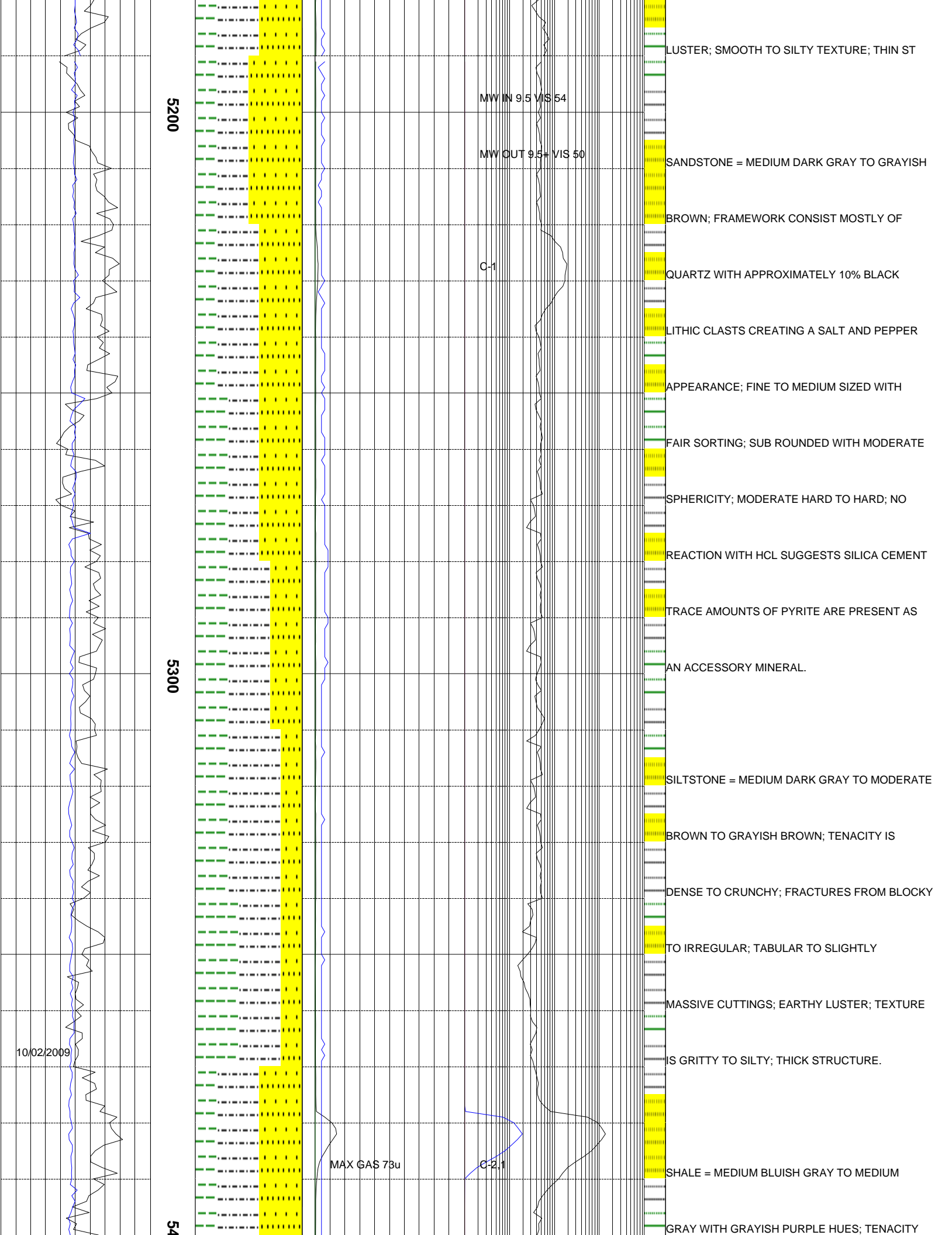


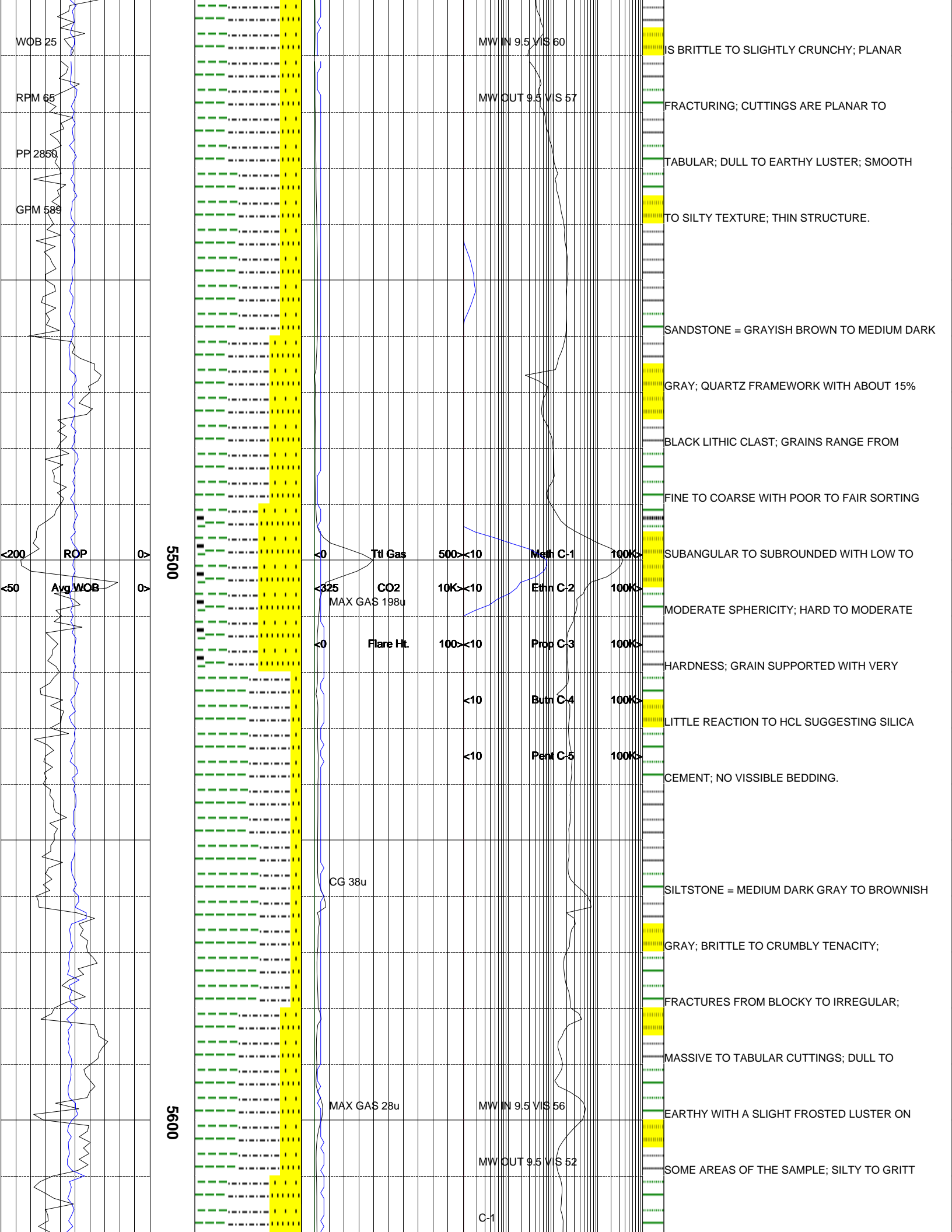


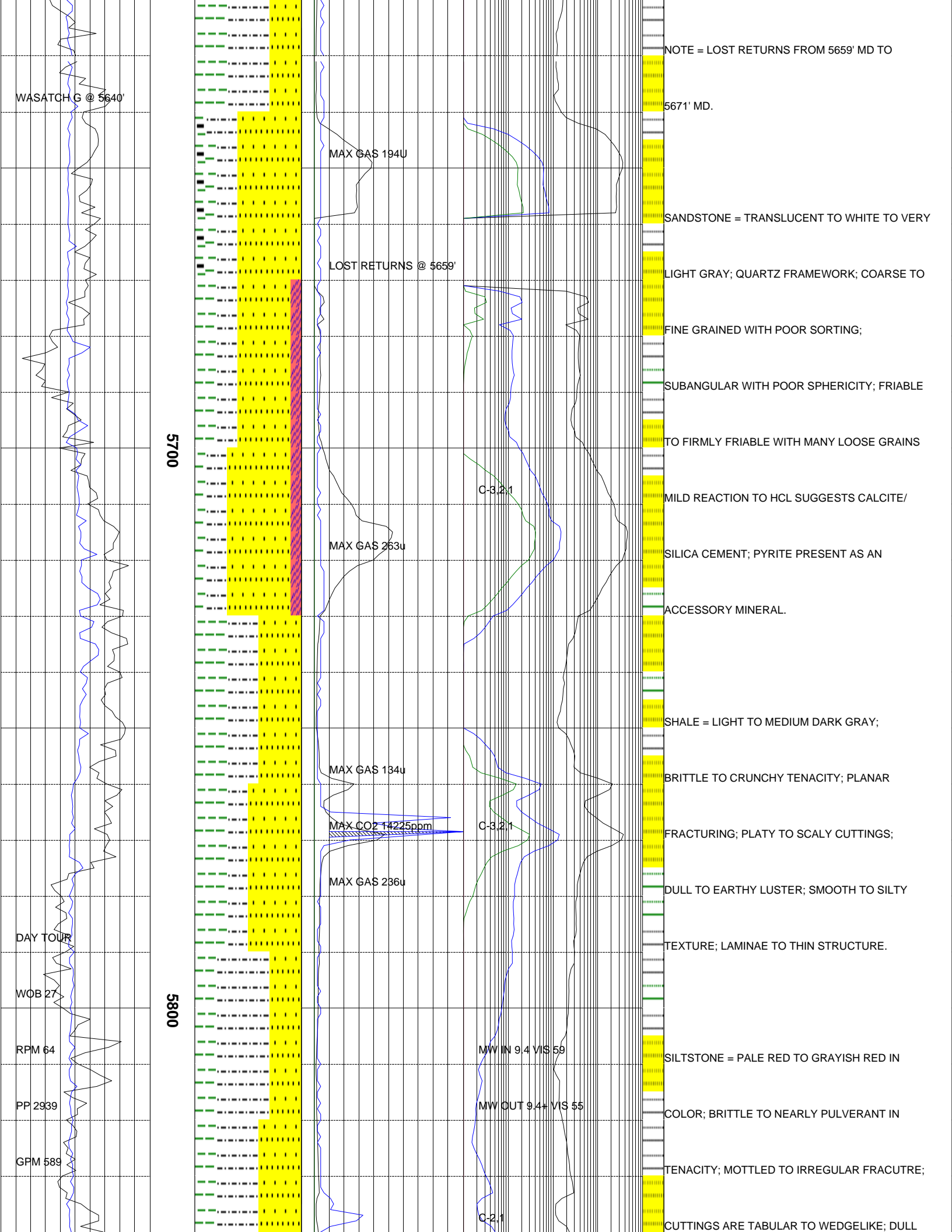












WASATCH G @ 5640'

MAX GAS 194U

LOST RETURNS @ 5659'

MAX GAS 263u

MAX GAS 134u

MAX CO2 14225ppm

MAX GAS 236u

DAY TOUR

WQB 27

RPM 64

PP 2939

GPM 589

MW IN 9.4 VIS 59

MW OUT 9.4+ VIS 55

C-2.1

C-3.2.1

C-3.2.1

NOTE = LOST RETURNS FROM 5659' MD TO

5671' MD.

SANDSTONE = TRANSLUCENT TO WHITE TO VERY

LIGHT GRAY; QUARTZ FRAMEWORK; COARSE TO

FINE GRAINED WITH POOR SORTING;

SUBANGULAR WITH POOR SPHERICITY; FRIABLE

TO FIRMLY FRIABLE WITH MANY LOOSE GRAINS

MILD REACTION TO HCL SUGGESTS CALCITE/

SILICA CEMENT; PYRITE PRESENT AS AN

ACCESSORY MINERAL.

SHALE = LIGHT TO MEDIUM DARK GRAY;

BRITTLE TO CRUNCHY TENACITY; PLANAR

FRACTURING; PLATY TO SCALY CUTTINGS;

DULL TO EARTHY LUSTER; SMOOTH TO SILTY

TEXTURE; LAMINAE TO THIN STRUCTURE.

SILTSTONE = PALE RED TO GRAYISH RED IN

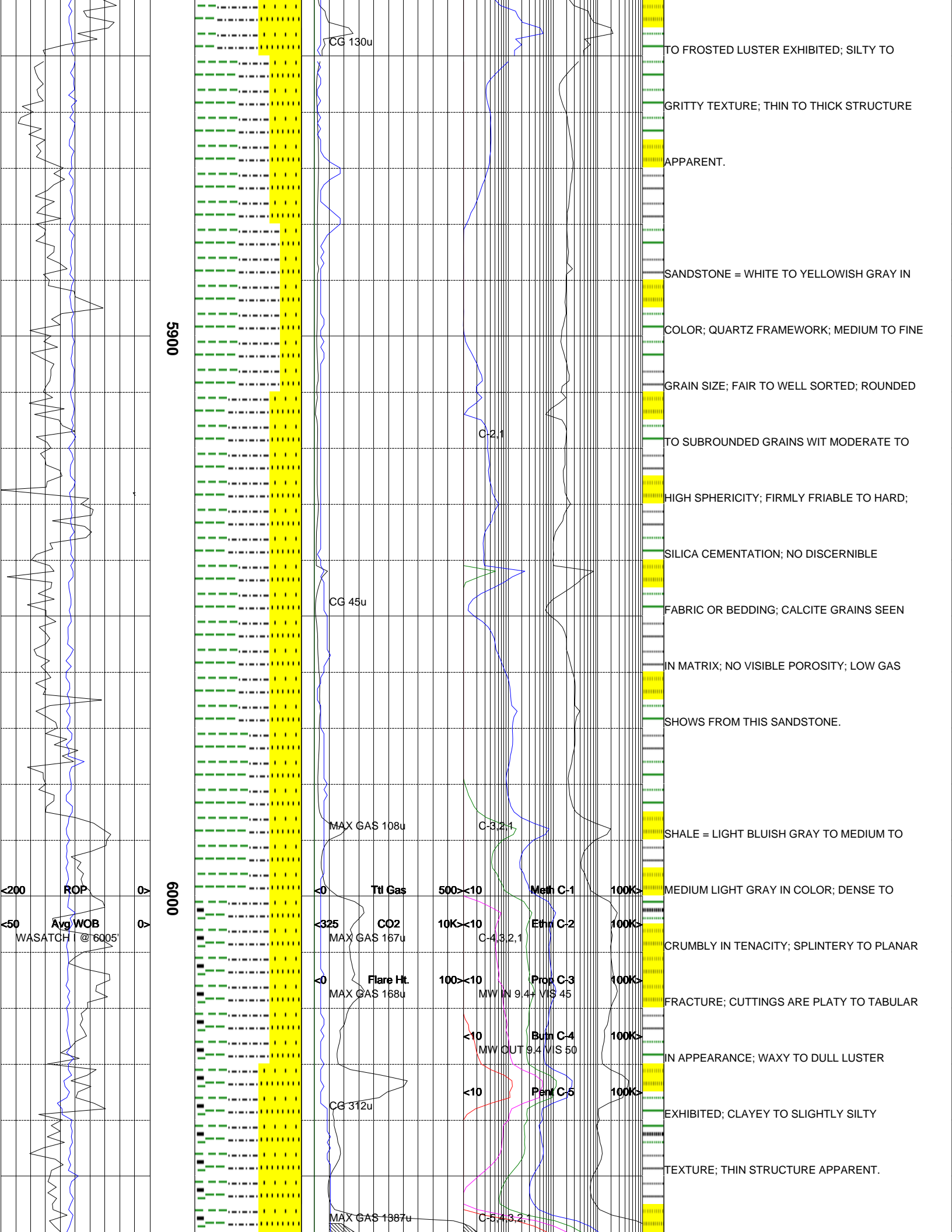
COLOR; BRITTLE TO NEARLY PULVERANT IN

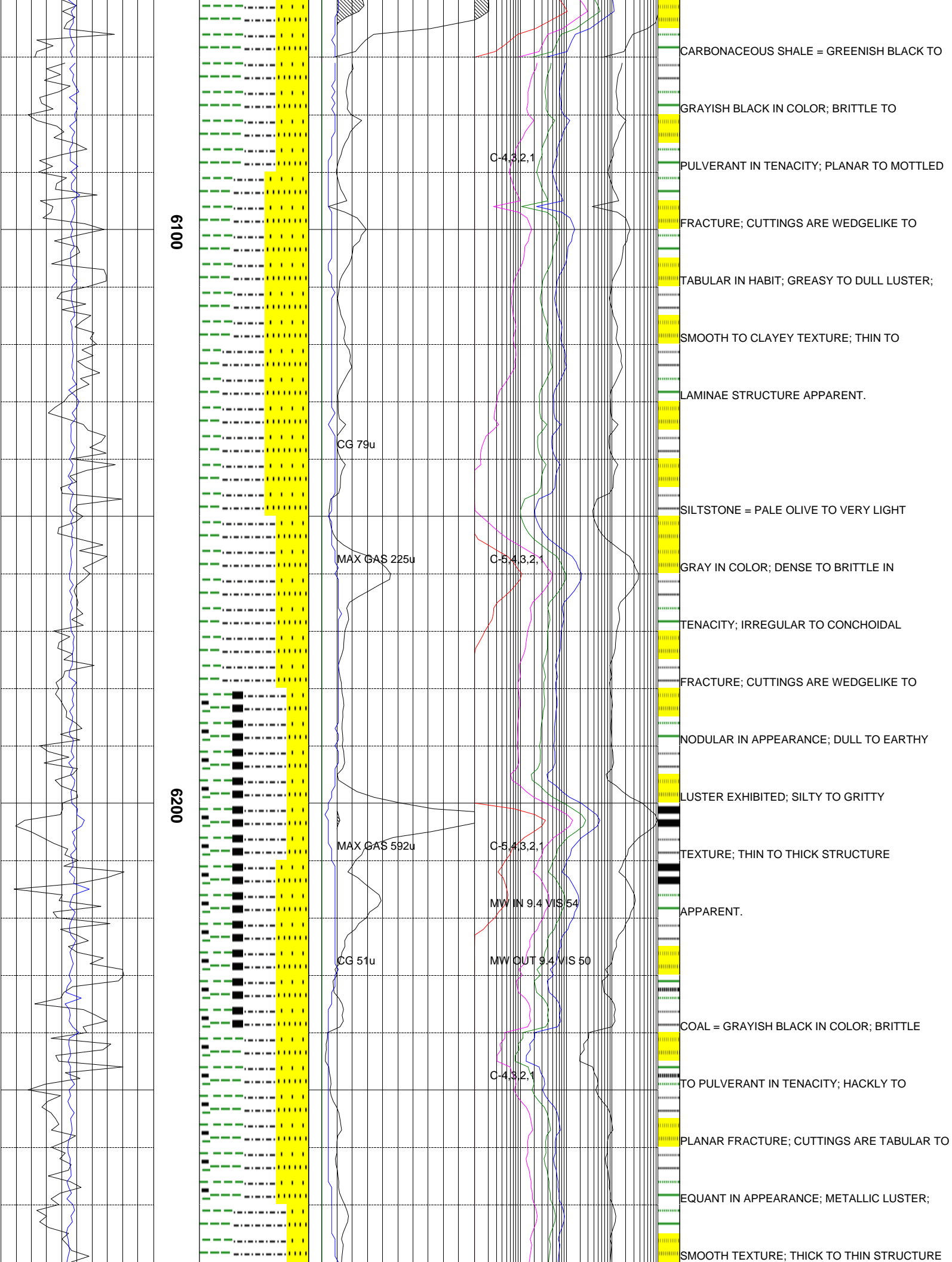
TENACITY; MOTTLED TO IRREGULAR FRACUTRE;

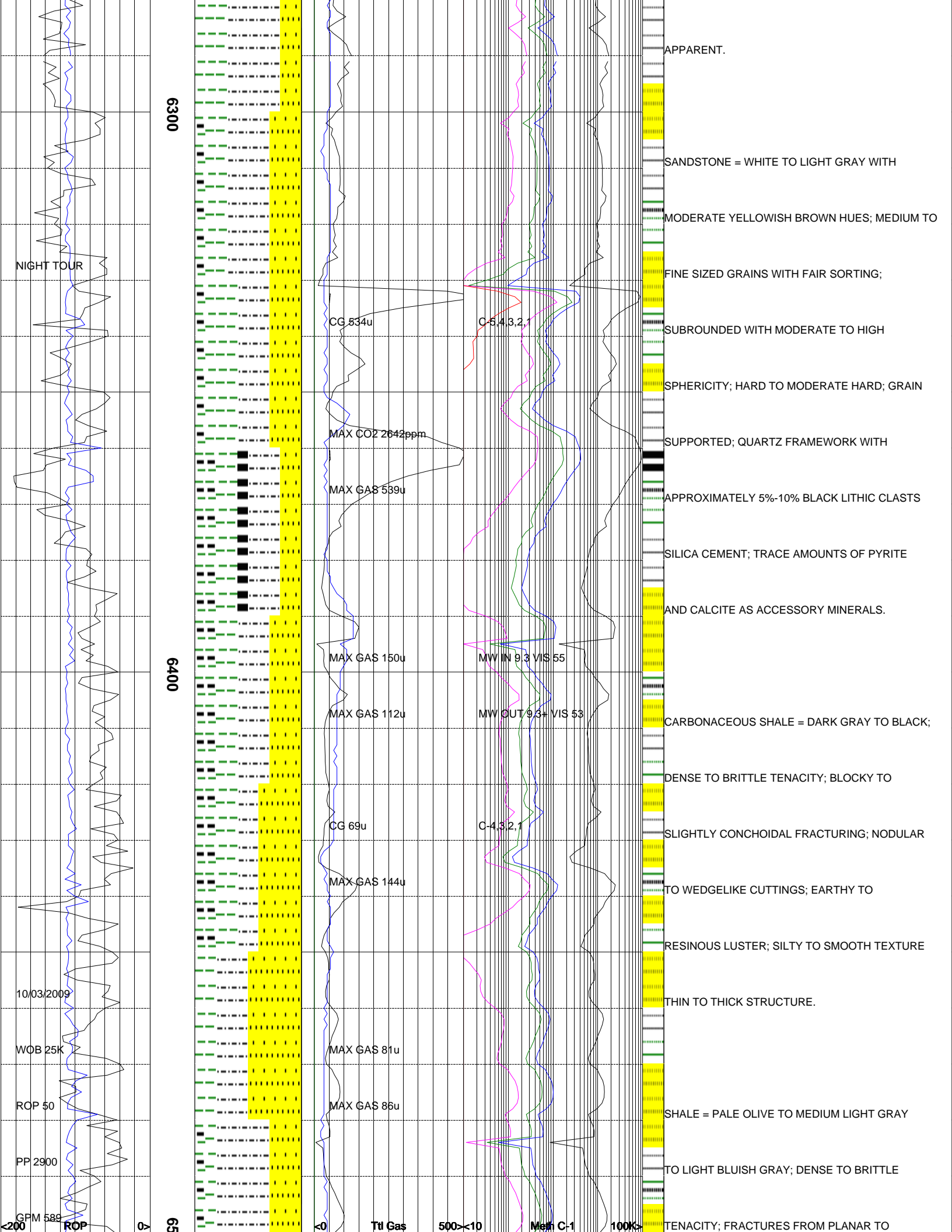
CUTTINGS ARE TABULAR TO WEDGELIKE; DULL

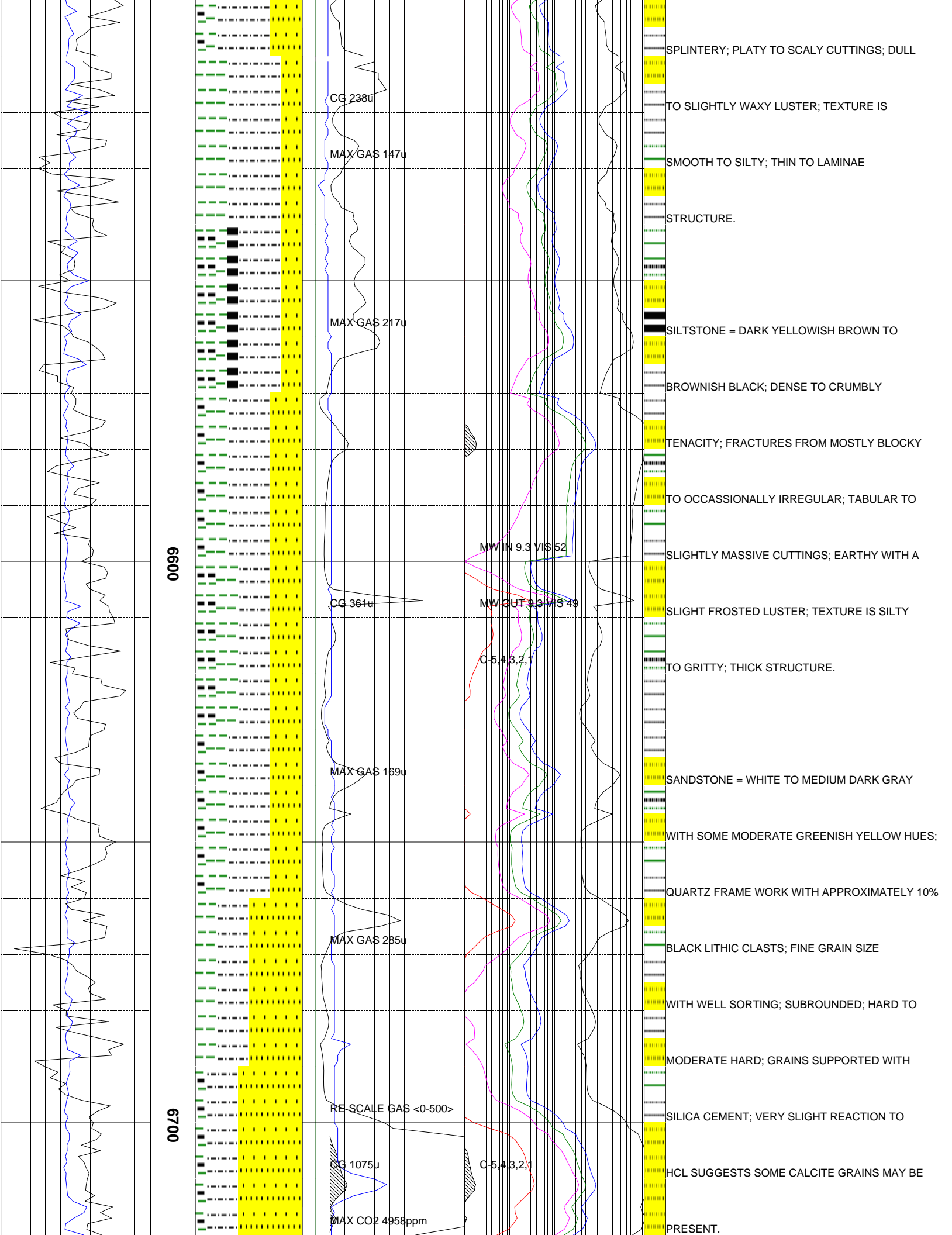
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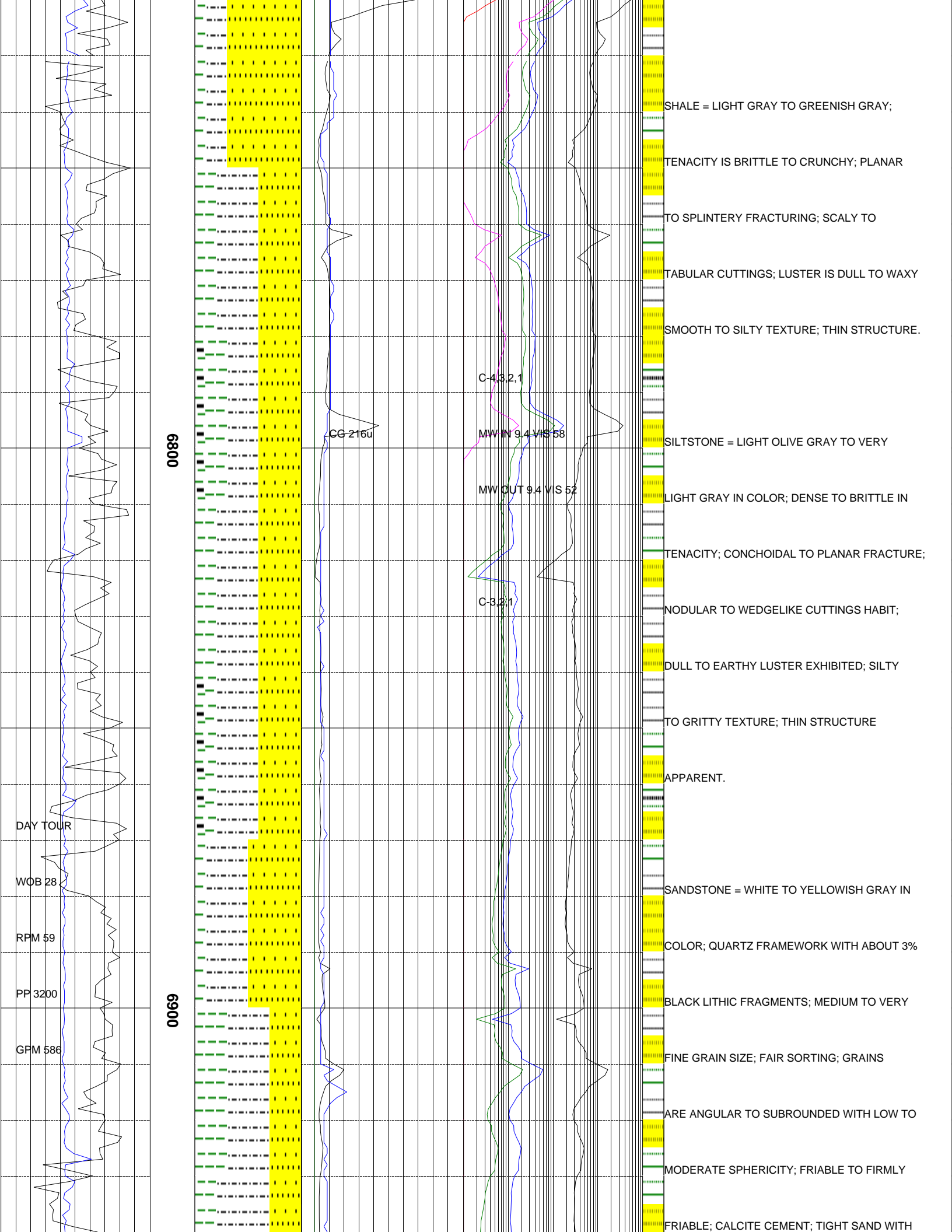
5800

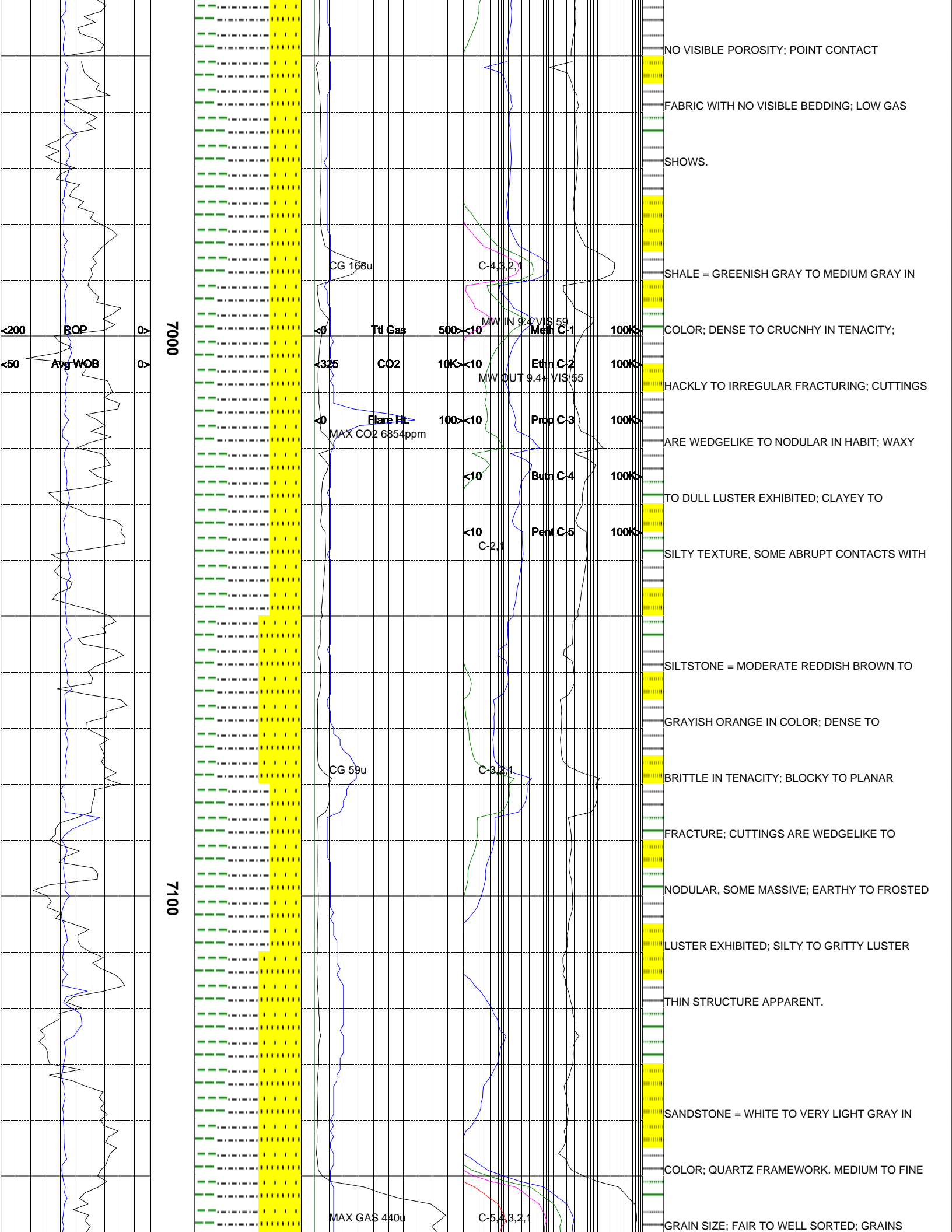


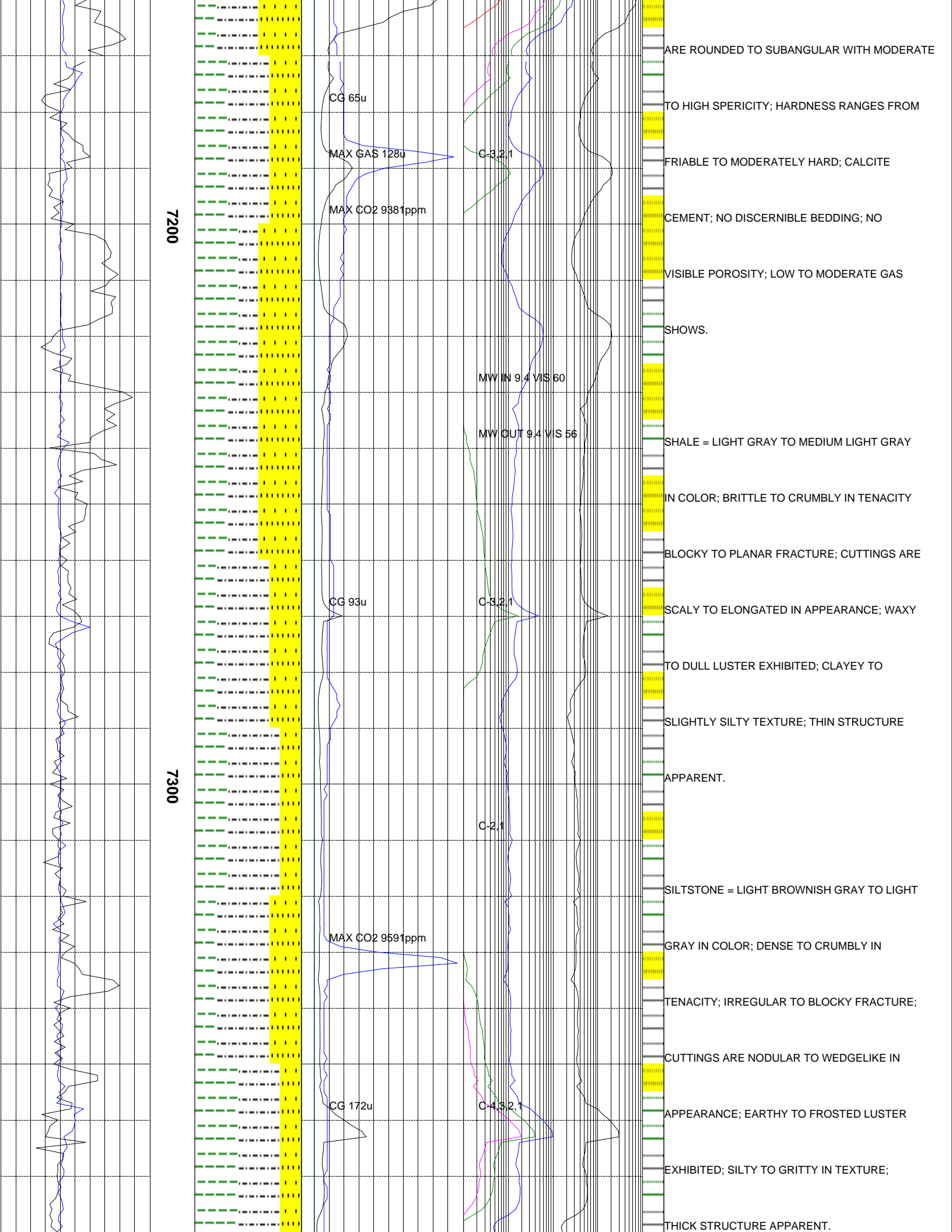












7200

7300

CG 65u

MAX GAS 128u

MAX CO2 9381ppm

C-3.2.1

MW IN 9.4 V/S 60

MW OUT 9.4 V/S 56

CG 93u

C-3.2.1

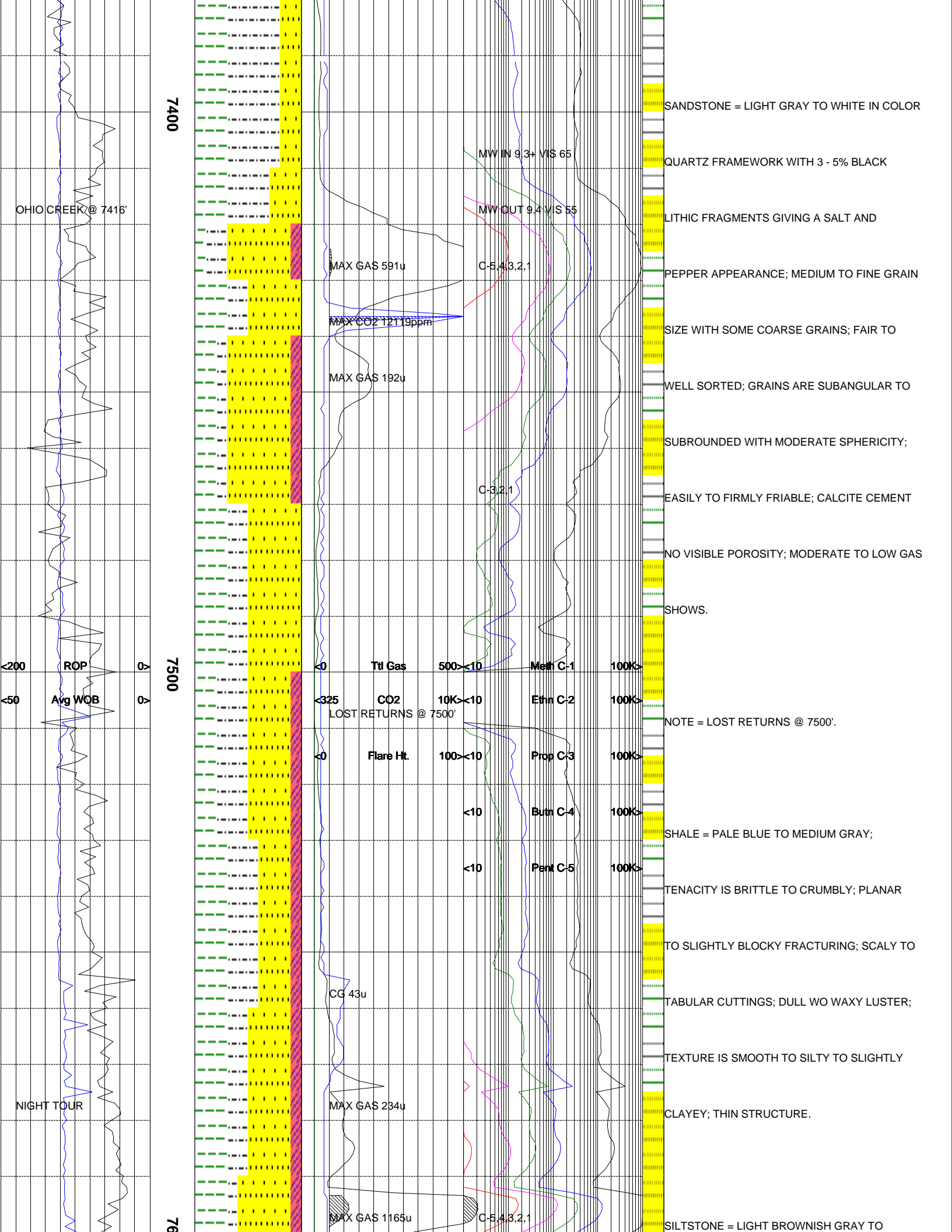
C-2.1

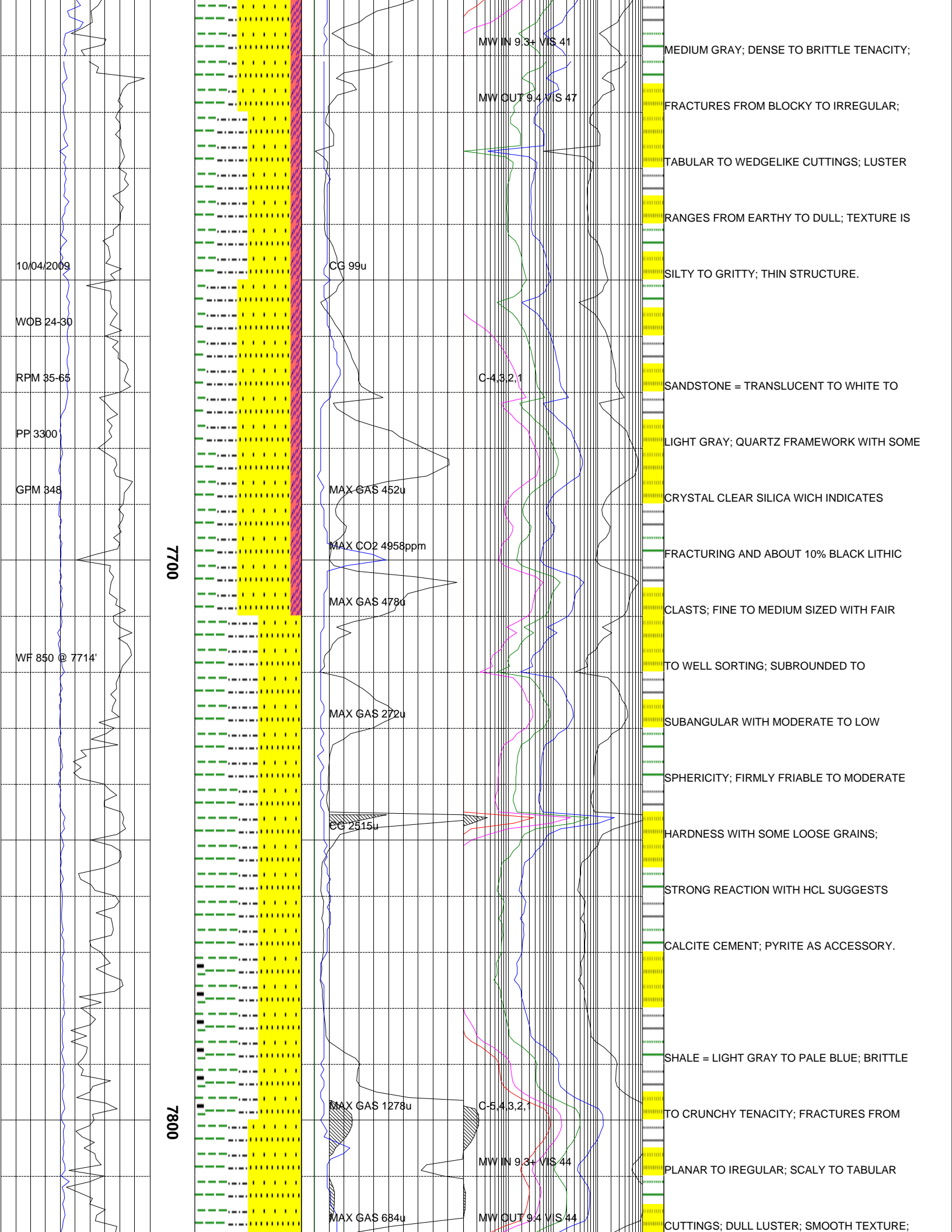
MAX CO2 9591ppm

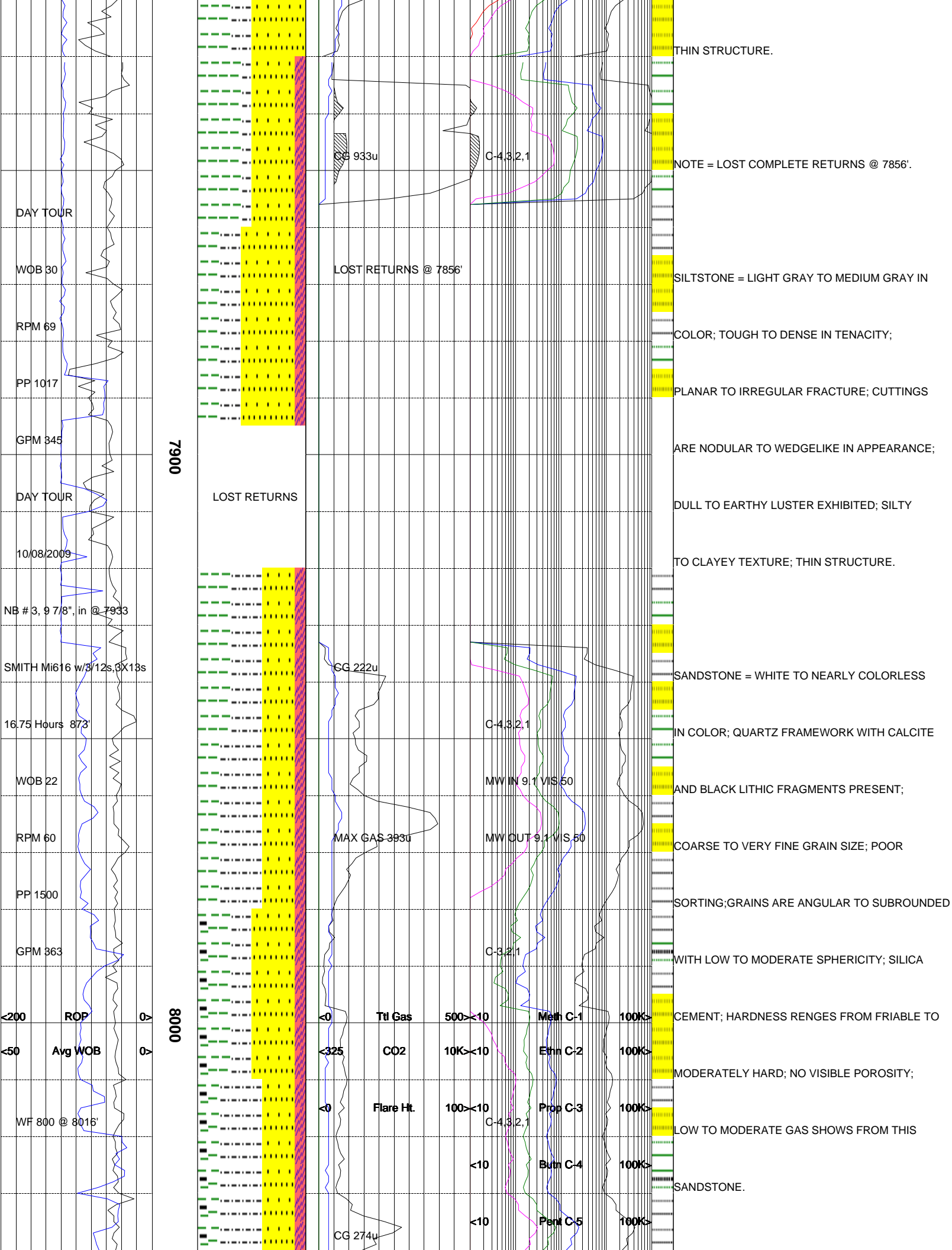
CG 172u

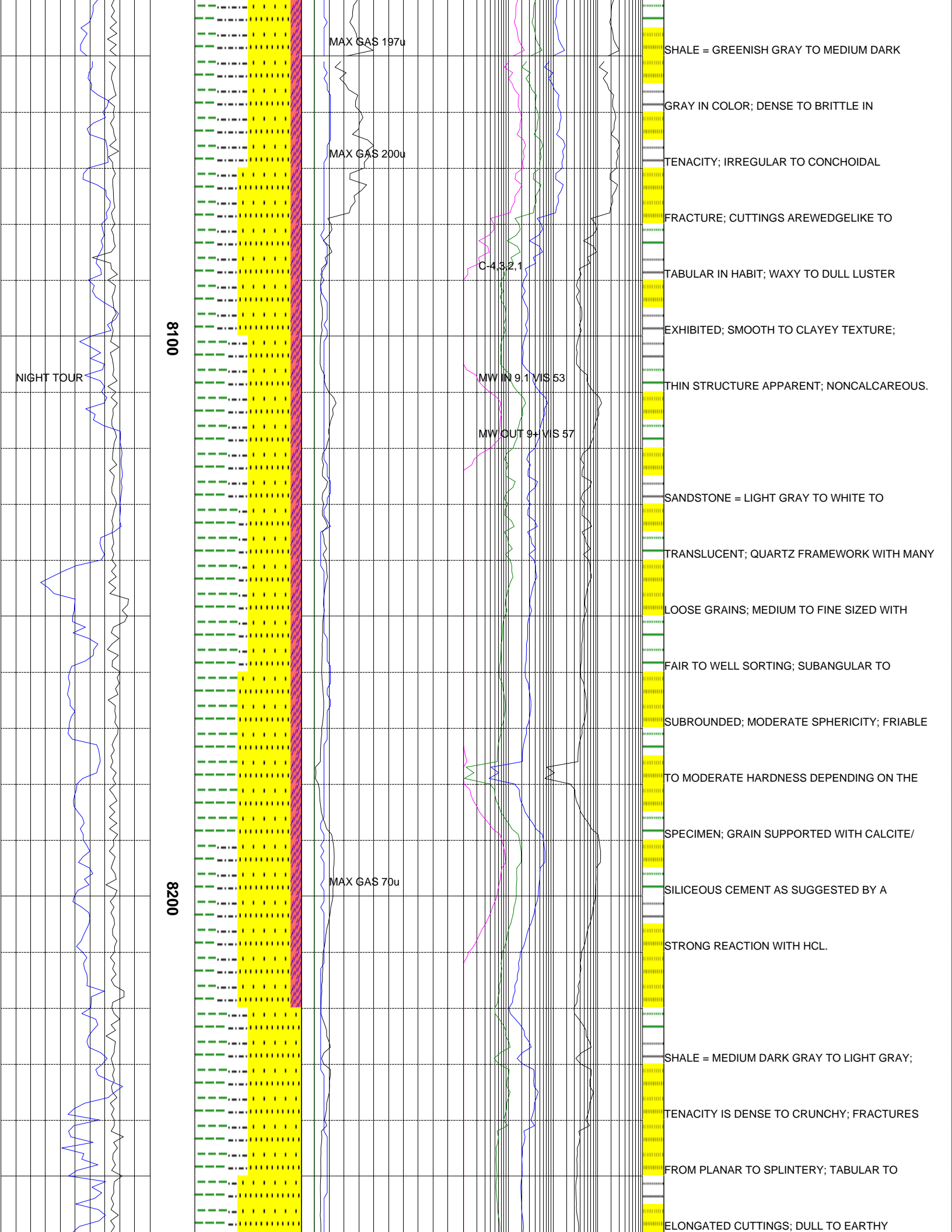
C-4.3.2.1

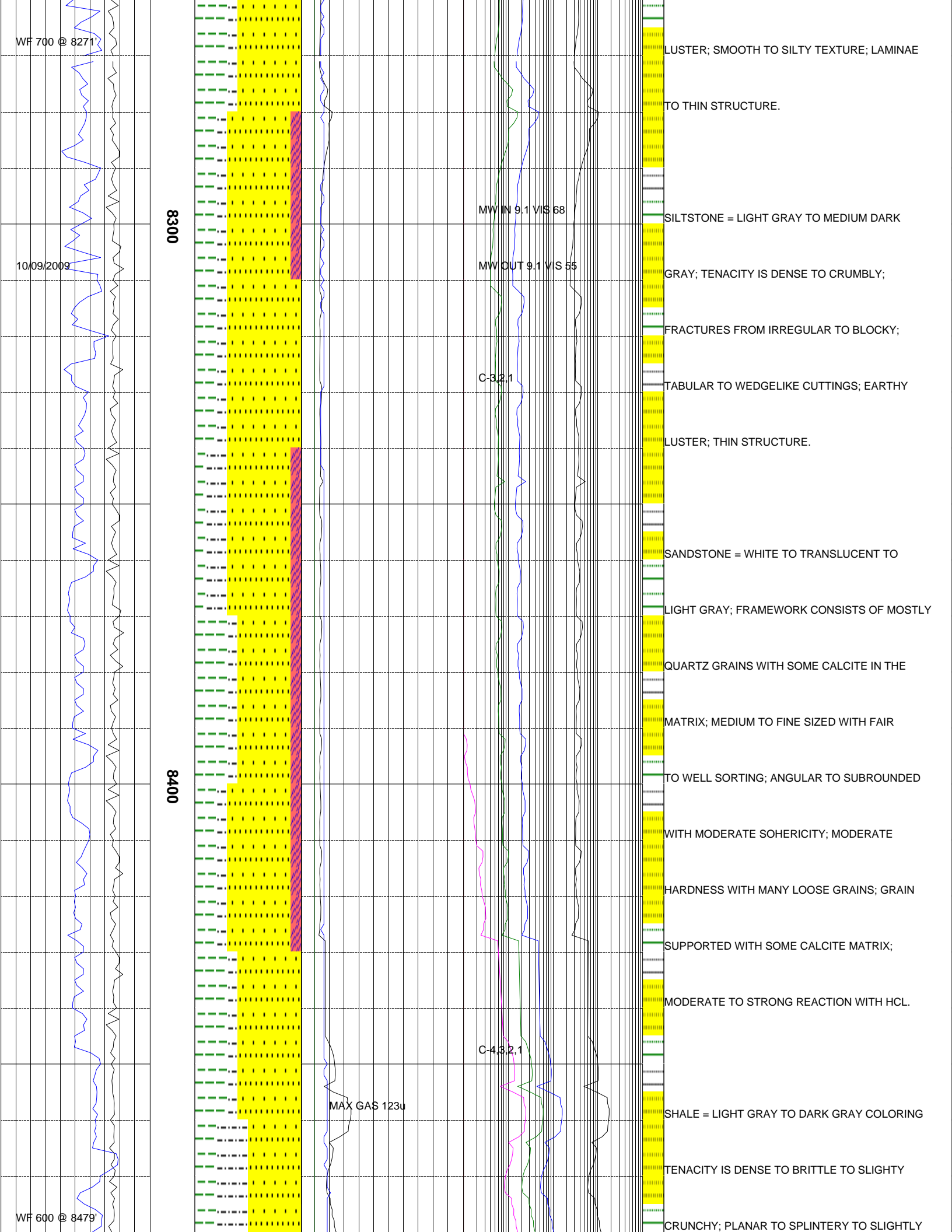
ARE ROUNDED TO SUBANGULAR WITH MODERATE
TO HIGH SPERICITY; HARDNESS RANGES FROM
FRIABLE TO MODERATELY HARD; CALCITE
CEMENT; NO DISCERNIBLE BEDDING; NO
VISIBLE POROSITY; LOW TO MODERATE GAS
SHOWS.
SHALE = LIGHT GRAY TO MEDIUM LIGHT GRAY
IN COLOR; BRITTLE TO CRUMBLY IN TENACITY
BLOCKY TO PLANAR FRACTURE; CUTTINGS ARE
SCALY TO ELONGATED IN APPEARANCE; WAXY
TO DULL LUSTER EXHIBITED; CLAYEY TO
SLIGHTLY SILTY TEXTURE; THIN STRUCTURE
APPARENT.
SILTSTONE = LIGHT BROWNISH GRAY TO LIGHT
GRAY IN COLOR; DENSE TO CRUMBLY IN
TENACITY; IRREGULAR TO BLOCKY FRACTURE;
CUTTINGS ARE NODULAR TO WEDGELIKE IN
APPEARANCE; EARTHY TO FROSTED LUSTER
EXHIBITED; SILTY TO GRITTY IN TEXTURE;
THICK STRUCTURE APPARENT.

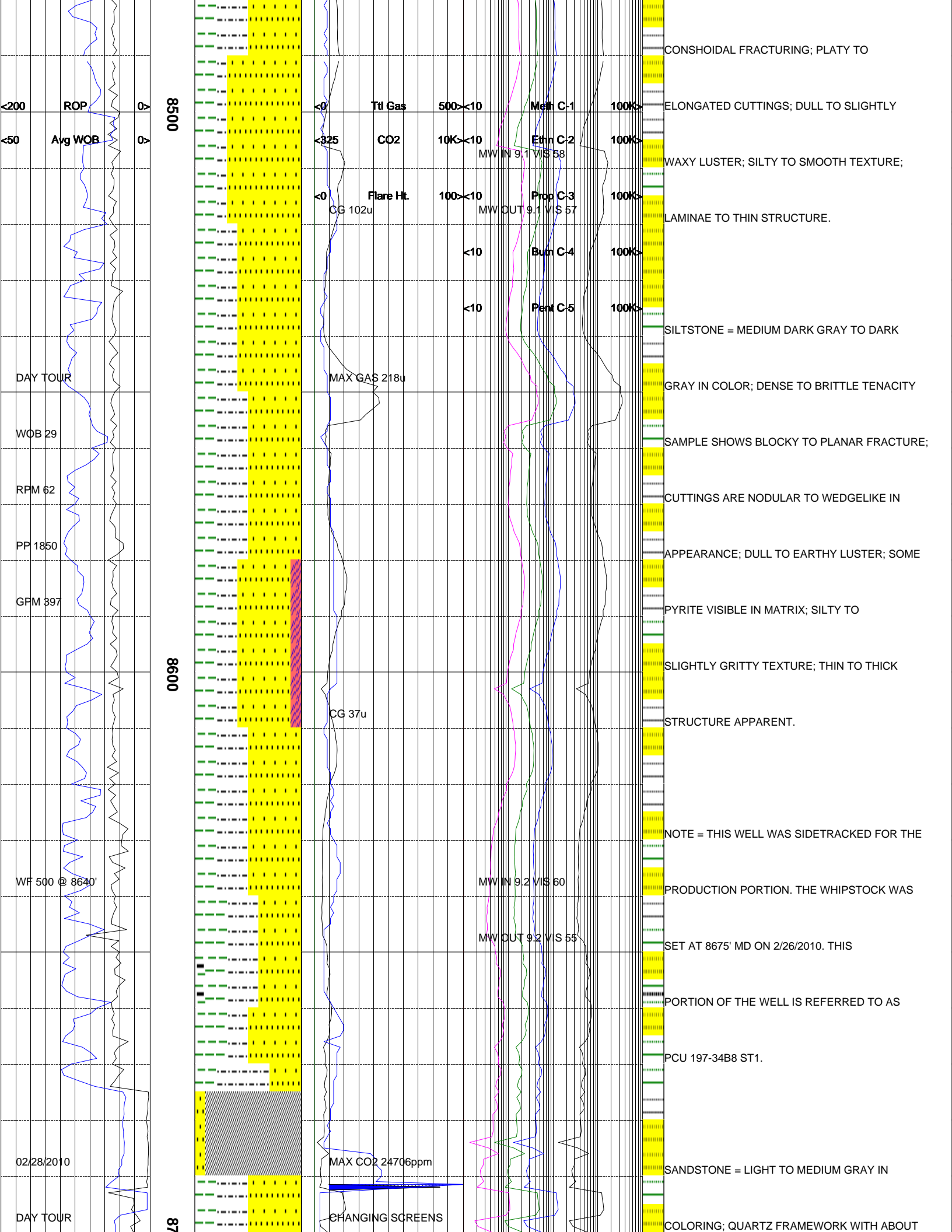


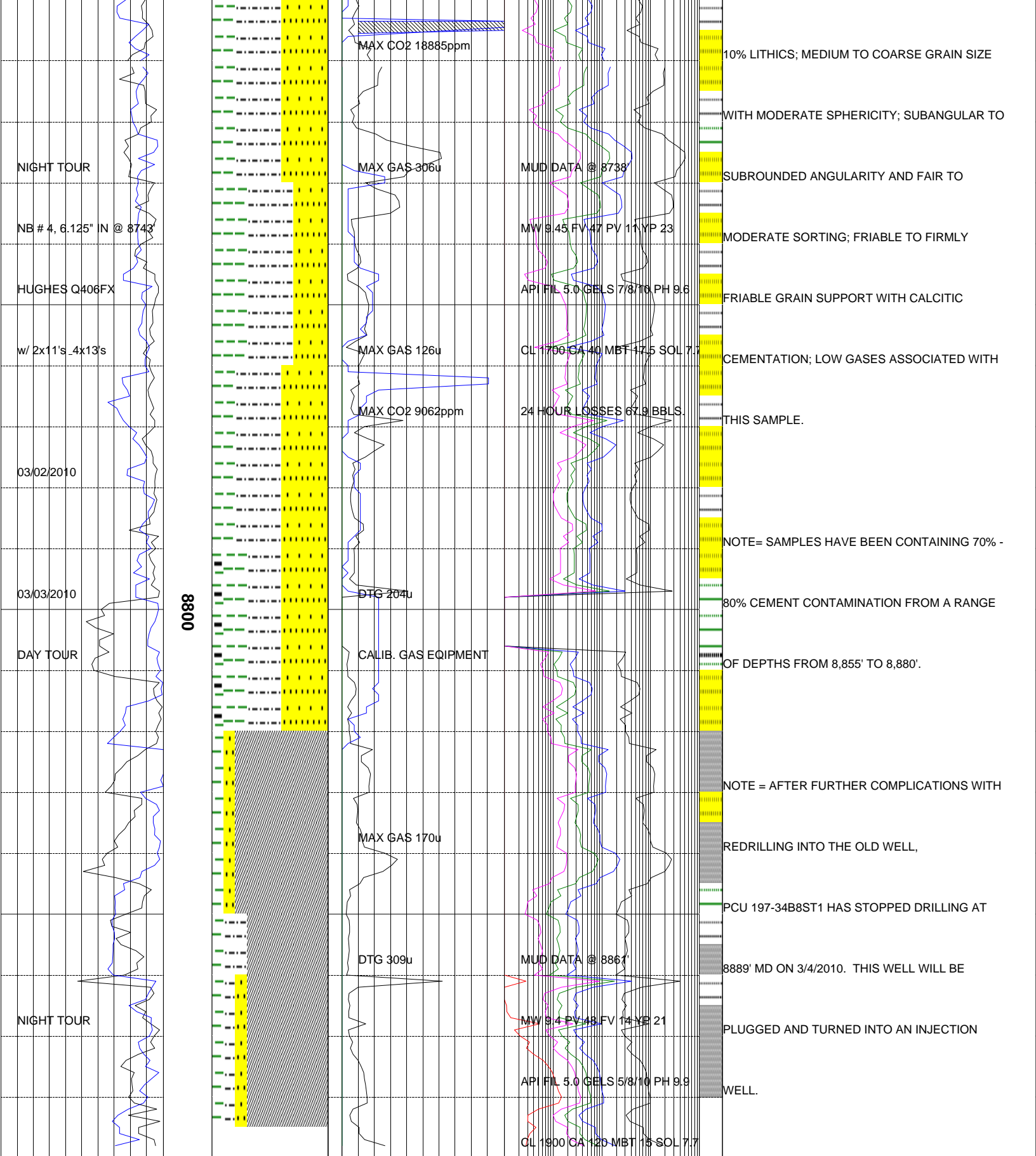












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