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MUDLOG MD

COMPANY	ExxonMobil Production
WELL	PCU 197-34A3
FIELD	PICEANCE CREEK UNIT
REGION	ROCKY MOUNTAINS
COORDINATES	LAT: 39.918037 LONG: -108.276941
ELEVATION	G.L.: 6490.8' RKB: 30.2'
COUNTY, STATE	RIO BLANCO, CO
API INDEX	051031154200
SPUD DATE	02/27/2010
CONTRACTOR	HELMERICH AND PAYNE
CO. REP.	J. THOMAS
RIG/TYPE	HP 325 / FLEX 4S
LOGGING UNIT	MLU 48
GEOLOGISTS	M. GROSS D. NEW
ADD. PERSONS	
CO. GEOLOGIST	MELISSA SAURBORN

LOG INTERVAL

DEPTHS: 3858' **TO** 12800'
DATES: 06/15/2010 **TO** 07/31/2010
SCALE: 1" = 100'

CASING DATA

10.75" **AT** 3853'
7.00" **AT** 8731'
AT
AT

MUD TYPES

SPUD MUD **TO** 3858'
LSND **TO** 12800'
TO
TO

HOLE SIZE

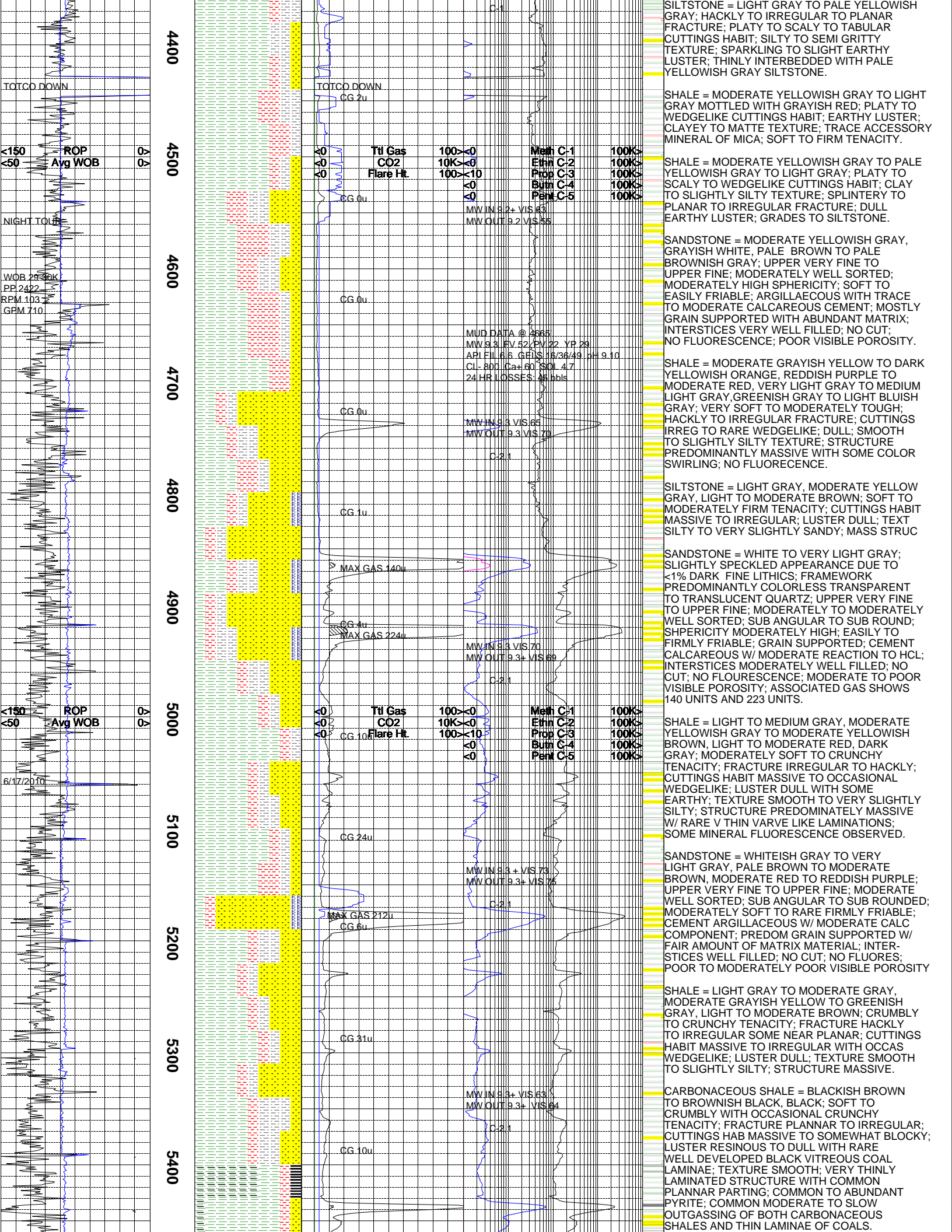
14.75" **TO** 3858'
9.875" **TO** 8750'
6.125" **TO** 12800'
TO

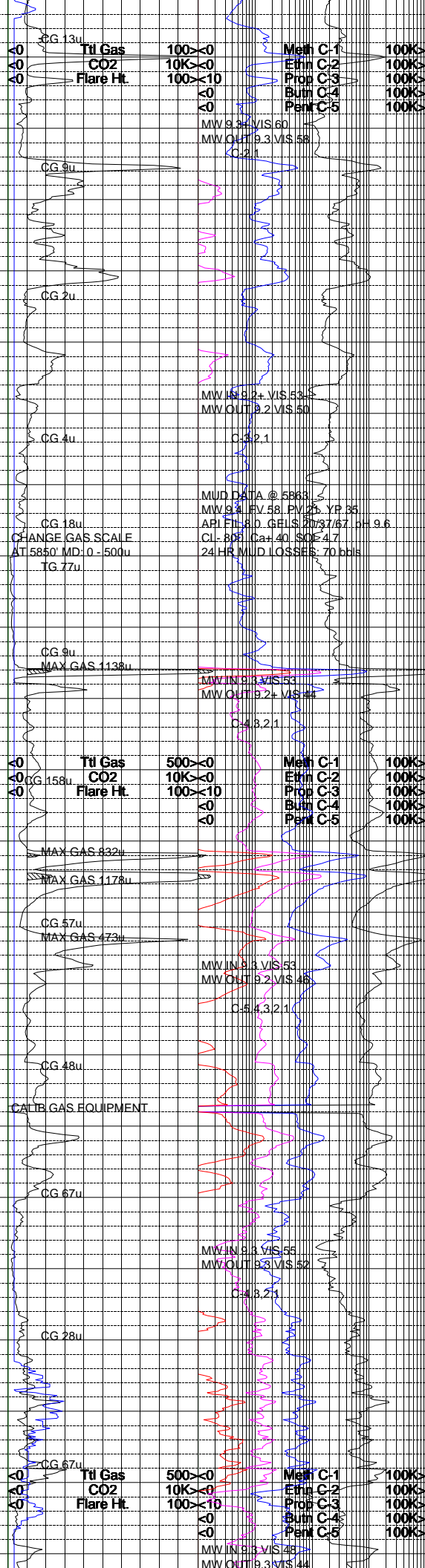
ABBREVIATIONS

<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	

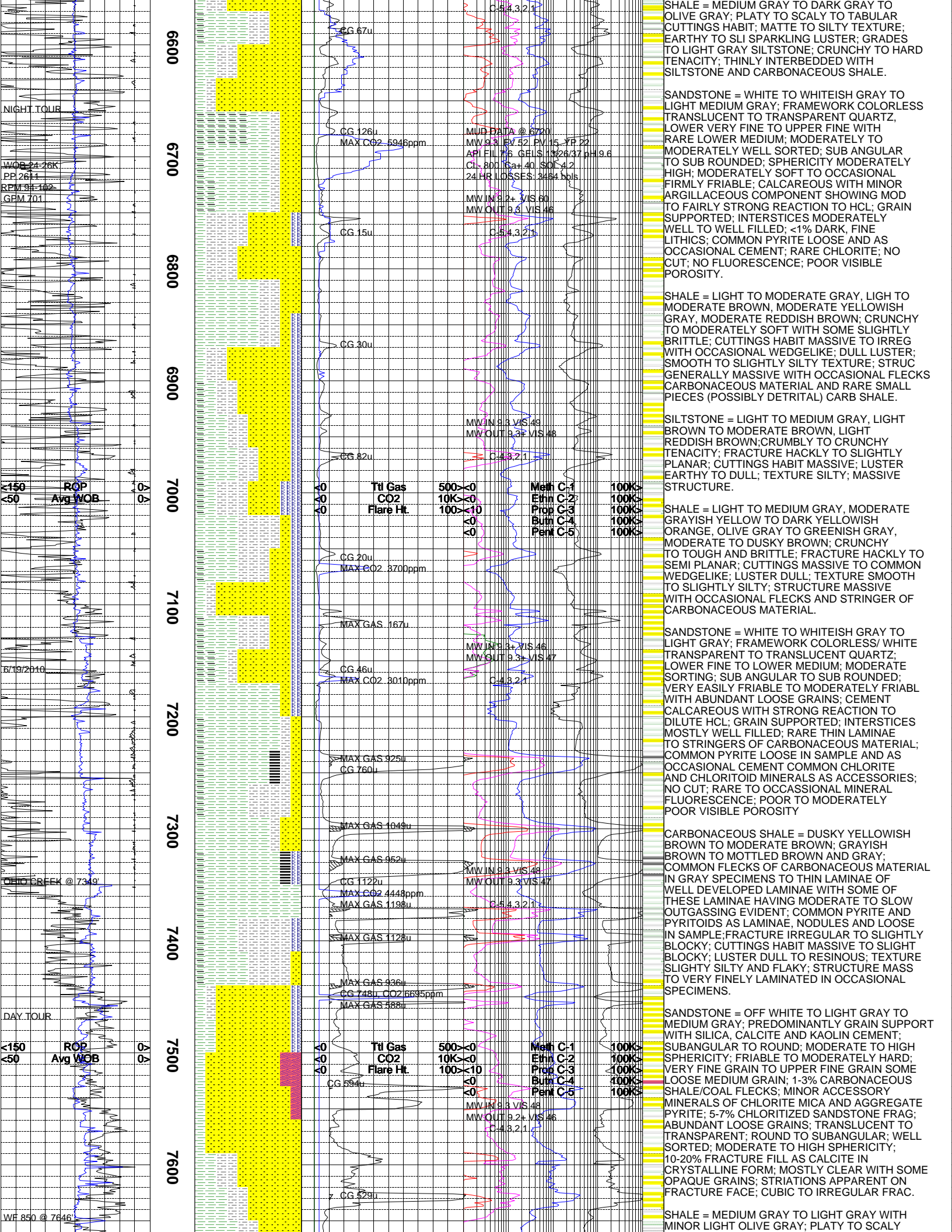
ALTERED ZONE	CHERT - GLASSY	FELSIC SILIC DIKE	MARL - CALC	SANDSTONE
ANDESITE	CHERT - PORCEL	FOSSIL	METAMORPHICS	SANDSTONE-TUFFACEOUS
ANHYDRITE	CHERT - TIGER STRIPE	GABBRO	MUDSTONE	SERICITIZATION
BASALT	CHERT - UNDIFF	GLASSY TUFF	OBSIDIAN	SERPENTINE
BENTONITE	CLAY	GRANITE	PALEOSOL	SHALE
BIOTITIZATION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

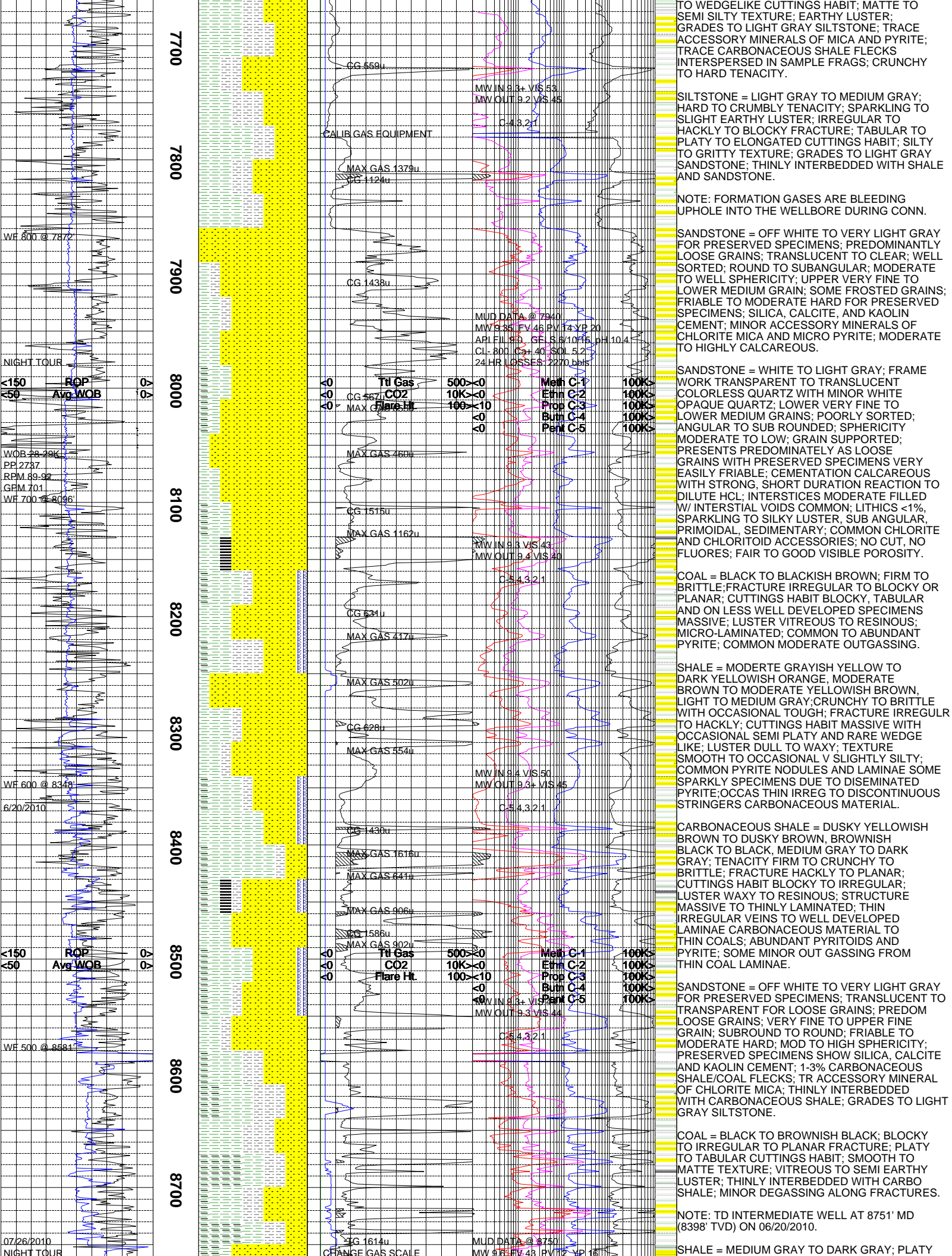
			Depth		Lithology		MGS		Interp. Lith		Remarks	
			ROP		ft/hr		Ttl Gas units		Meth C-1 ppm		Survey Data, Mud Reports, Other Info.	
			Avg WOB				CO2 ppm		Ethn C-2			
					klbs		Flare Ht. ft		Prop C-3			
									Butn C-4			
									Pent C-5			

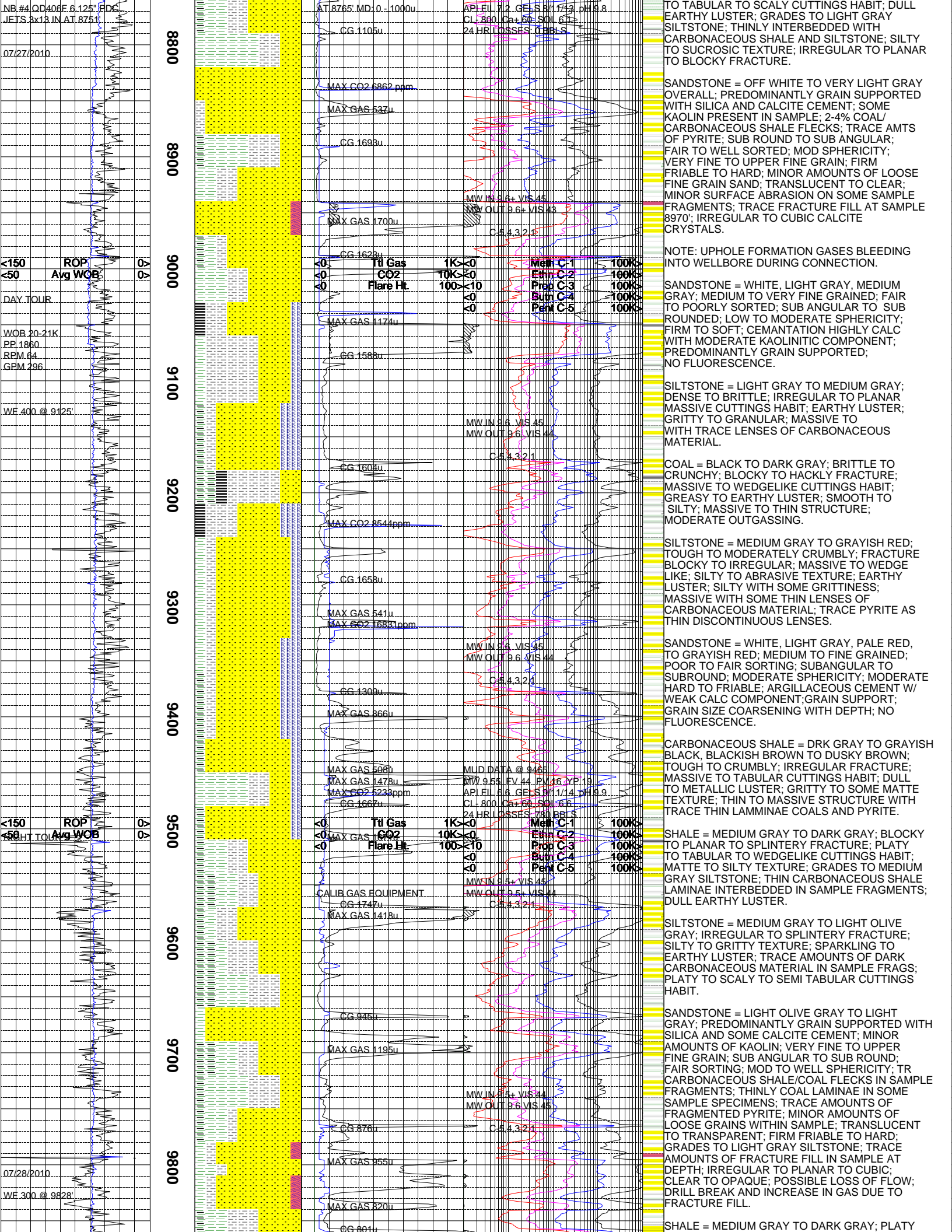


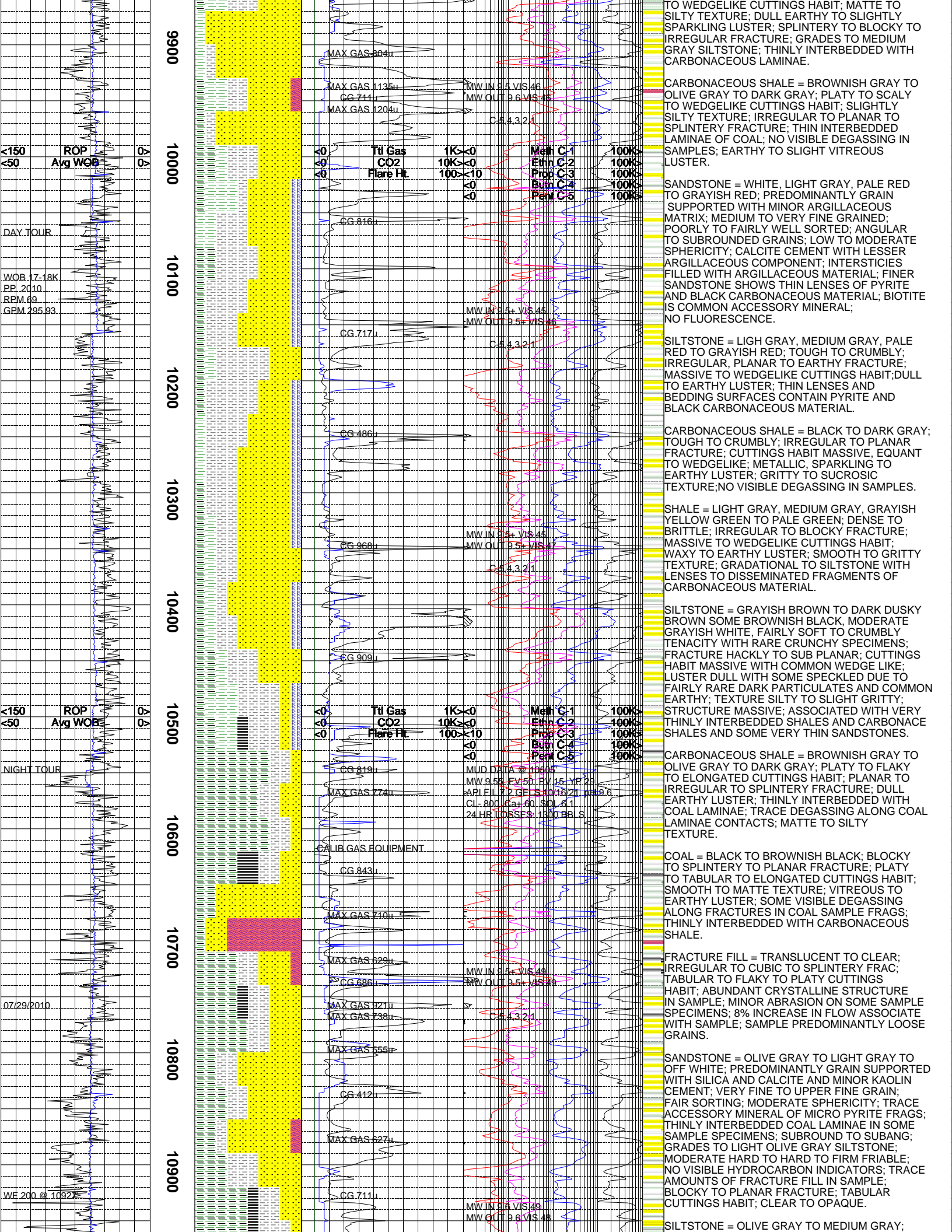


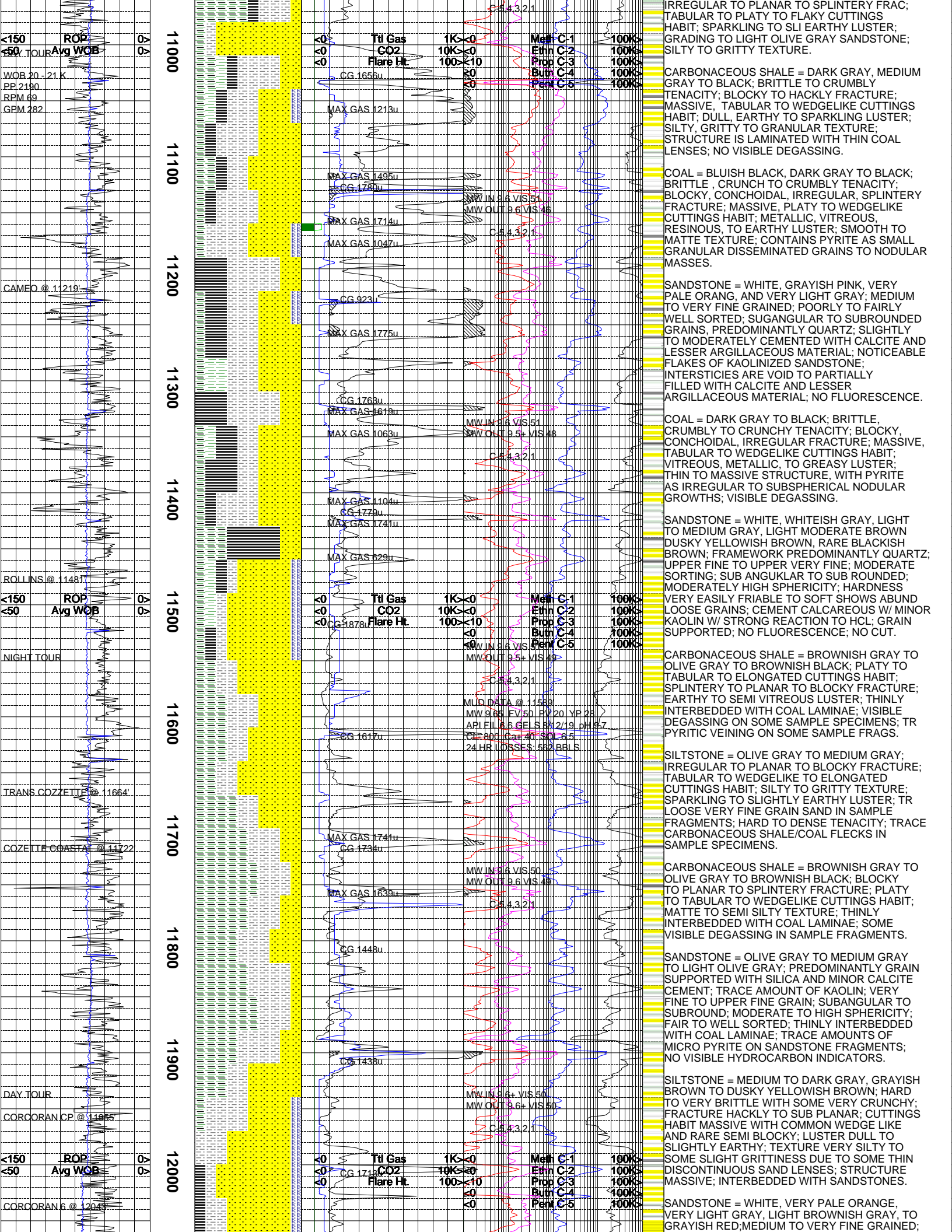
CARBONACEOUS SHALE = BROWNISH GRAY TO OLIVE GRAY TO DARK GRAY; PLANAR TO SPLINTERY TO HACKLY FRACTURE; TRACE COAL LAMINAE INTERBEDDED IN SAMPLE FRAGMENTS; ELONGATED TO PLATY TO WEDGE-LIKE CUTTINGS HABIT; MATTE TO SMOOTH TEXTURE; EARTHY TO VITREOUS LUSTER; TRACE THIN PYRITIC VEINING ON SOME SAMPLE SPECIMENS.

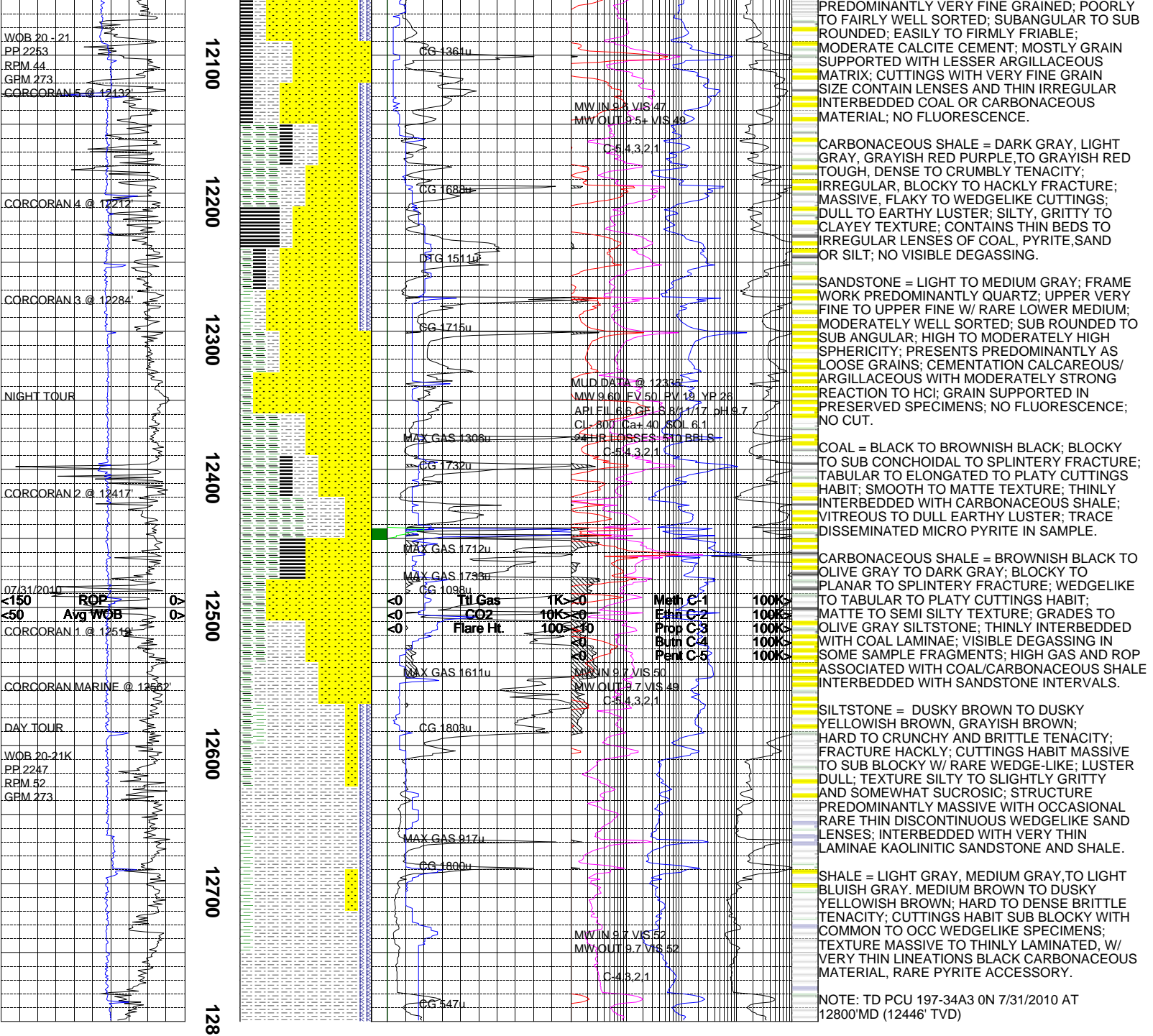












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