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Houston, TX
(281) 784-5500
Bakersfield, CA
(661) 328-1595
New Iberia, LA
(337) 364-2322
Anchorage, AK
(907) 561-2465

MUDLOG MD

COMPANY	ExxonMobil Production
WELL	PCU296-6A8
FIELD	PICEANCE
REGION	ROCKIES
COORDINATES	39.900102 108.212136
ELEVATION	7363.9
COUNTY, STATE	RIO BLANCO, CO
API INDEX	05-103-11479-00
SPUD DATE	04/05/2010
CONTRACTOR	HE
CO. REP.	KEVIN GARDNER
RIG/TYPE	239 / FLEX 3
LOGGING UNIT	33
GEOLOGISTS	NICK BAUER JASON REISENBICHLER
ADD. PERSONS	LAYNE GOOD JASON REYNOLDS
CO. GEOLOGIST	MELISSA SAURBORN

LOG INTERVAL

DEPTHS: 148' **TO** 9717'
DATES: 04/05/2010 **TO** 04/19/2010
SCALE: 5"=100'

CASING DATA

16" **AT** 147'
10.75" **AT** 4438'
AT
AT

MUD TYPES

SPUD MUD **TO** 4454'
LSND **TO** 9717'
TO
TO

HOLE SIZE

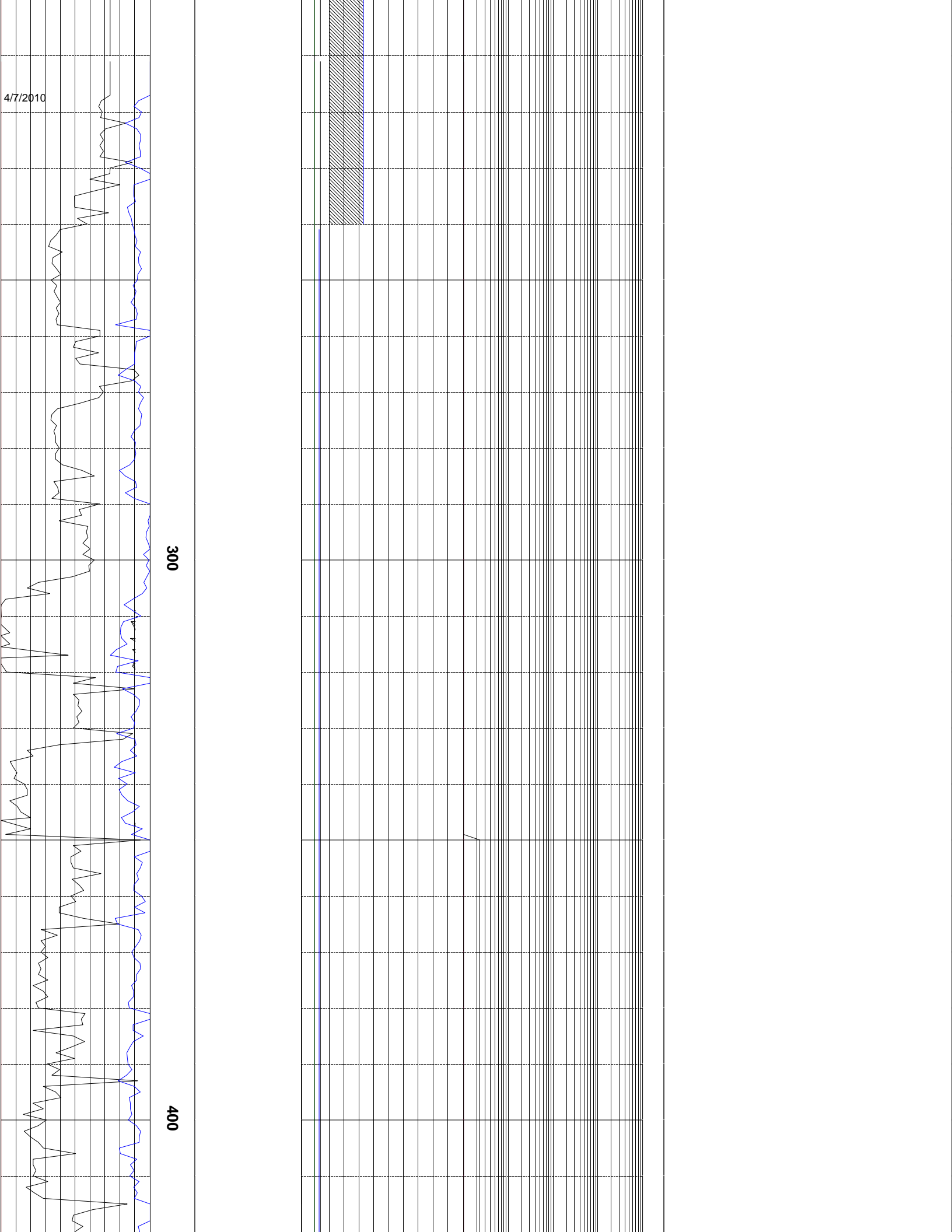
14.75" **TO** 4454'
9.875" **TO** 9717'
TO
TO

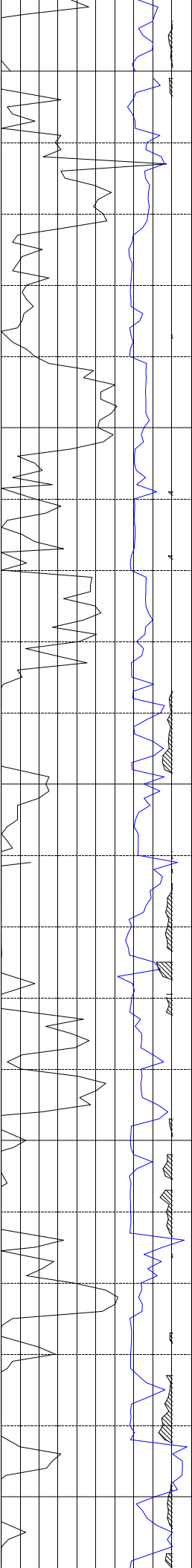
ABBREVIATIONS

<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	

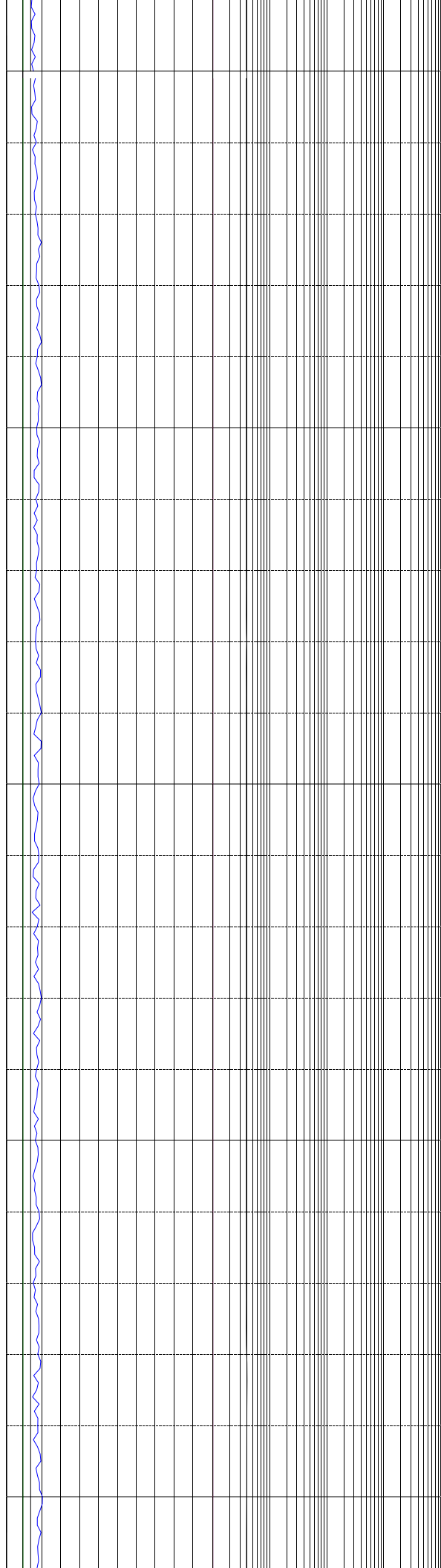
ExxonMobil Production			PCU296-6A8			5/15/2010					
<div><200</div> <div>ROP</div> <div>ft/hr</div> <div>0></div> <div><50</div> <div>Avg WOB</div> <div>klbs</div> <div>0></div> <div><0</div> <div>Gamma</div> <div>API Units</div> <div>100></div>			Depth	Lithology	MGS	<div><0</div> <div>Ttl Gas</div> <div>units</div> <div>1K></div> <div><0</div> <div>CO2</div> <div>ppm</div> <div>10K></div> <div><0</div> <div>Flare Ht.</div> <div>ft</div> <div>100></div>	<div><10</div> <div>Meth C-1</div> <div>ppm</div> <div>100K></div> <div><10</div> <div>Ethn C-2</div> <div>100K></div> <div><10</div> <div>Prop C-3</div> <div>100K></div> <div><10</div> <div>Butn C-4</div> <div>100K></div> <div><10</div> <div>Pent C-5</div> <div>100K></div>	Interp. Lith	Remarks Survey Data, Mud Reports, Other Info.		
<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><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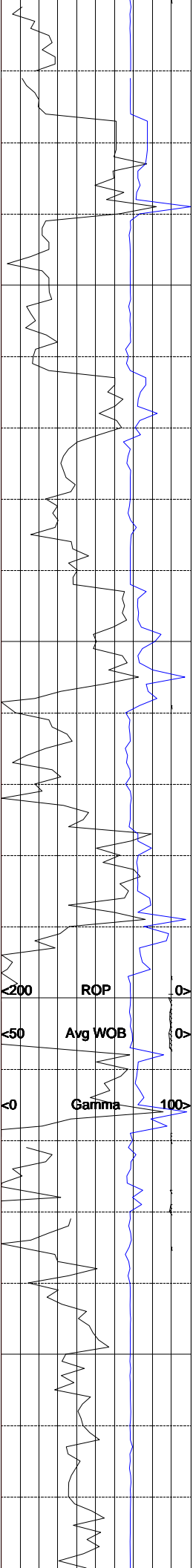




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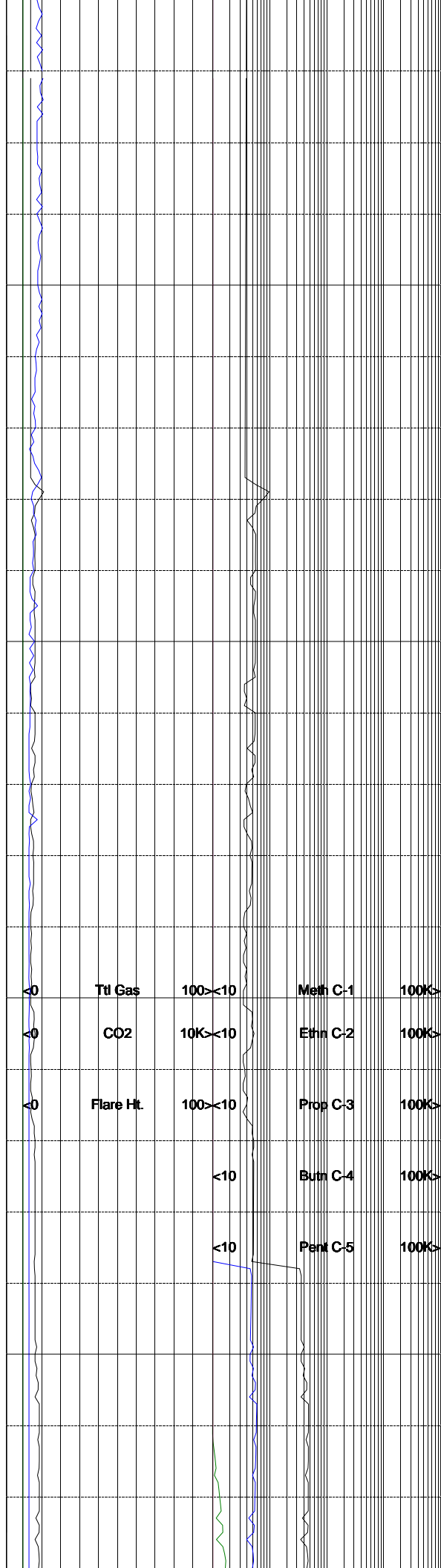
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900

1000



Ttl Gas

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Meth C-1

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CO2

10K>10

Ethn C-2

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Prop C-3

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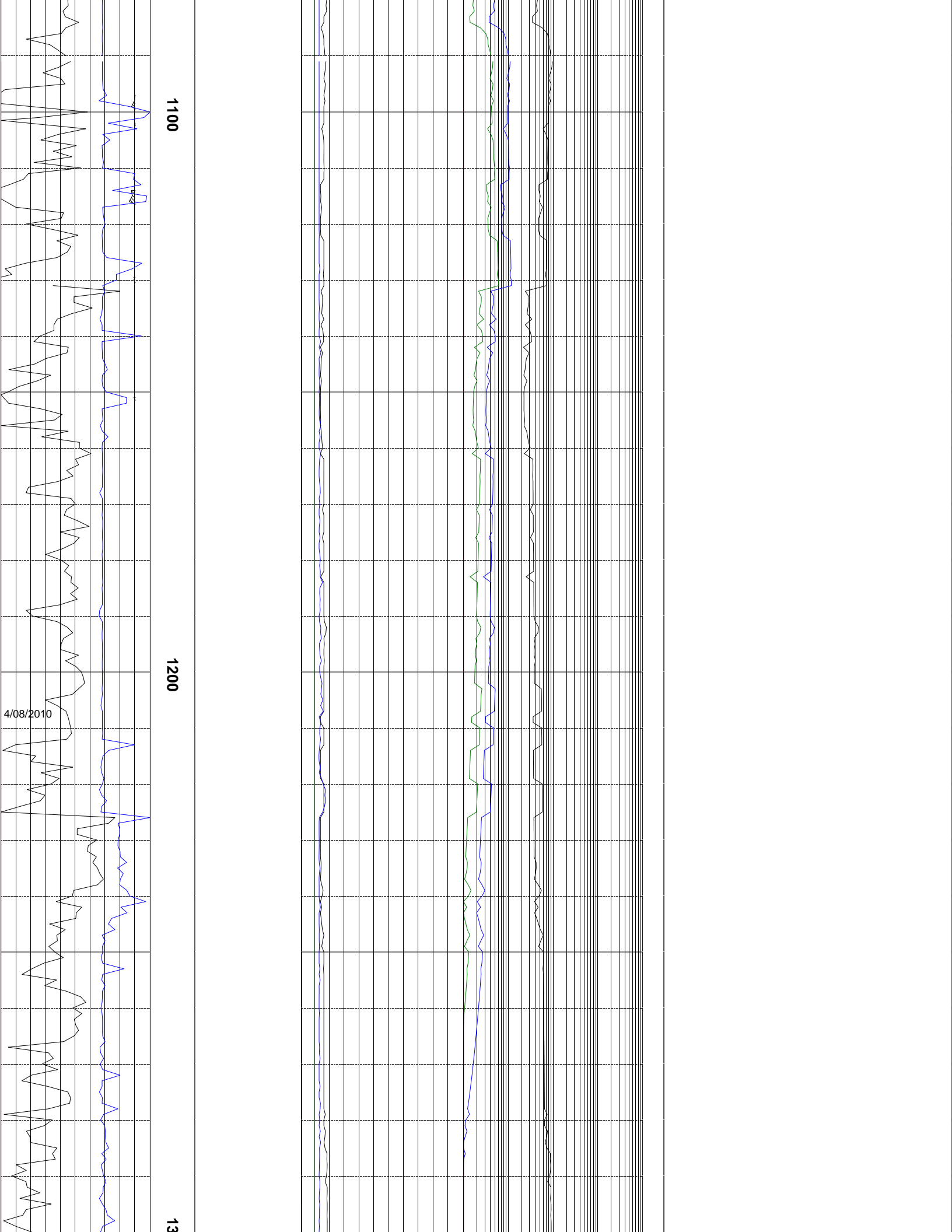
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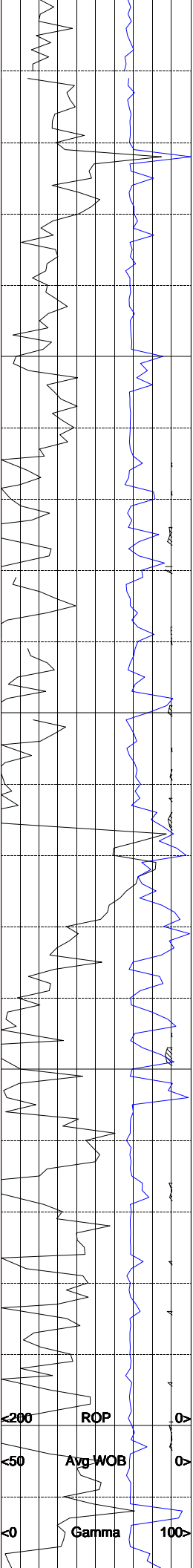
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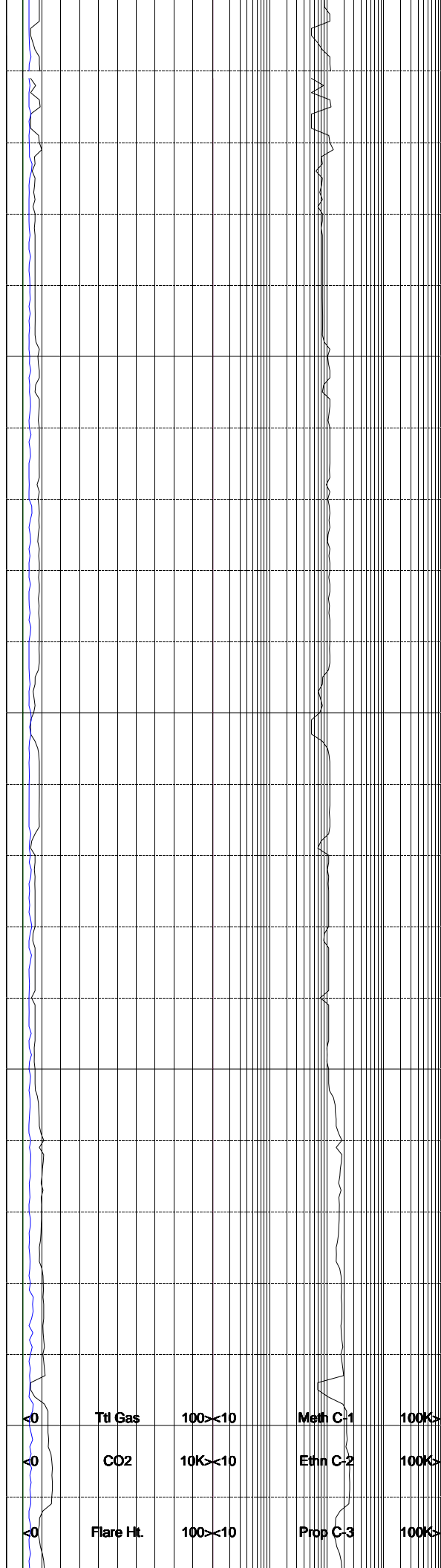
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CO2

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Ethn C-2

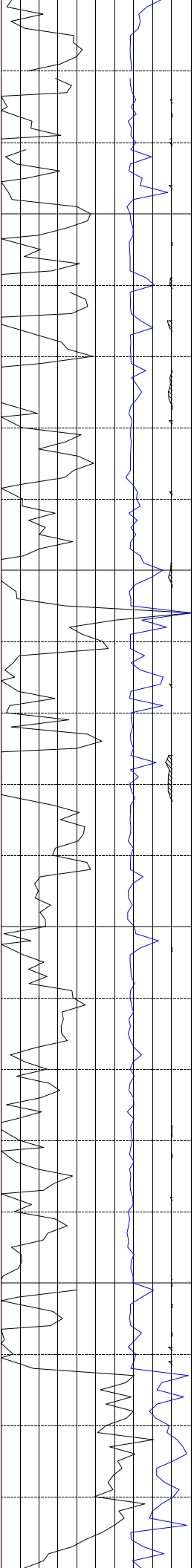
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Flare Ht.

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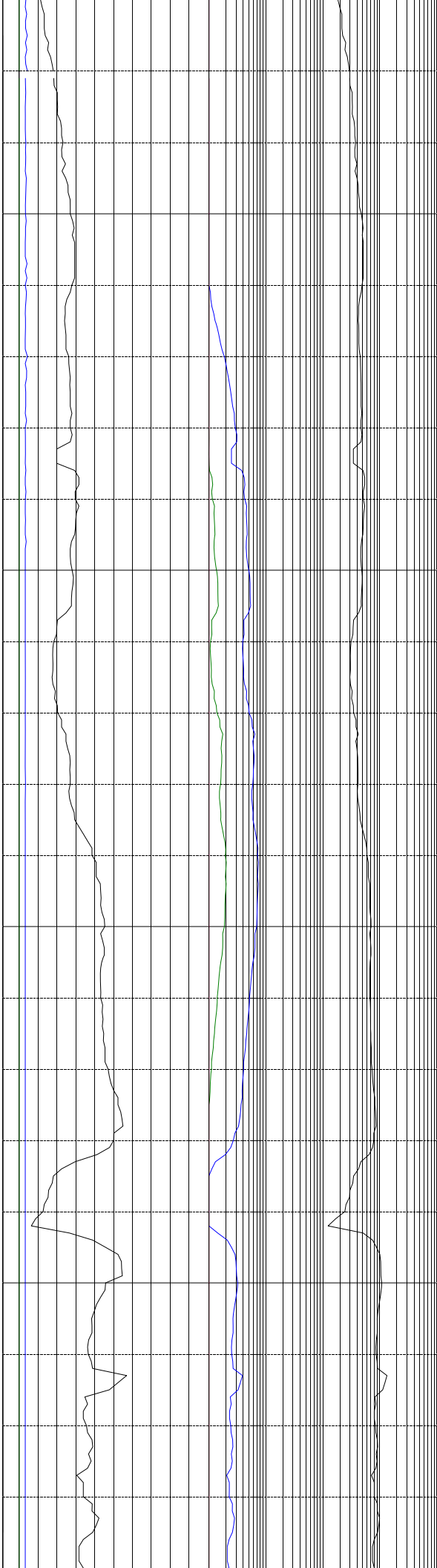
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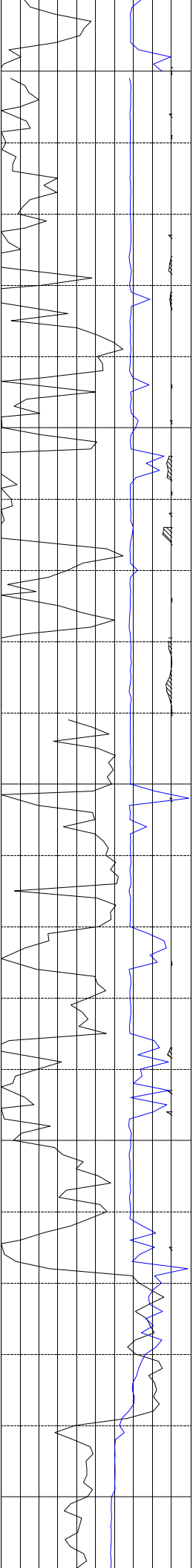
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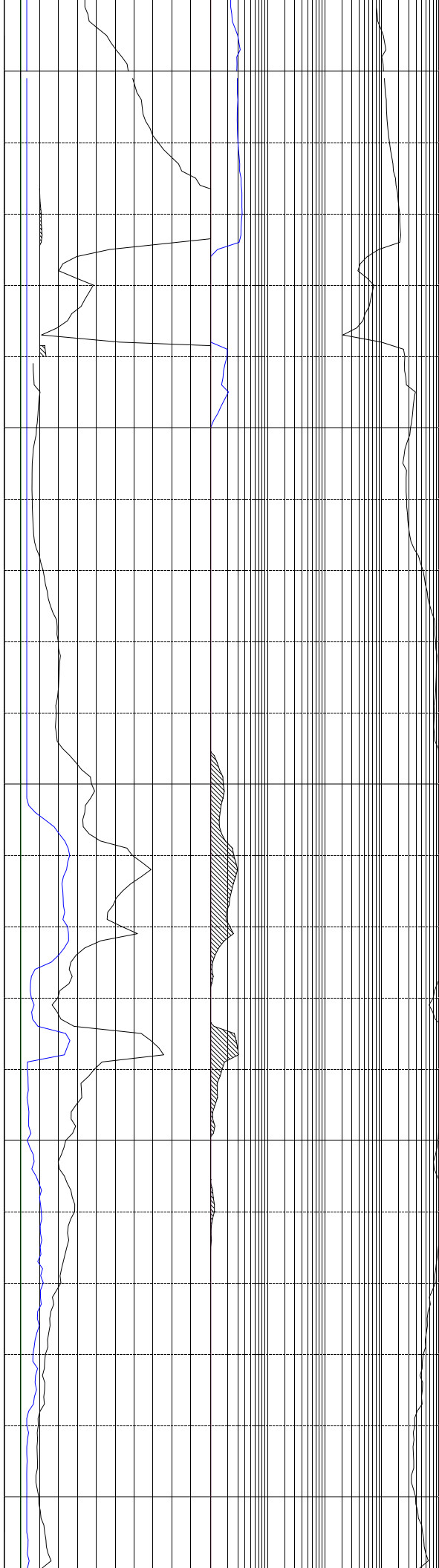
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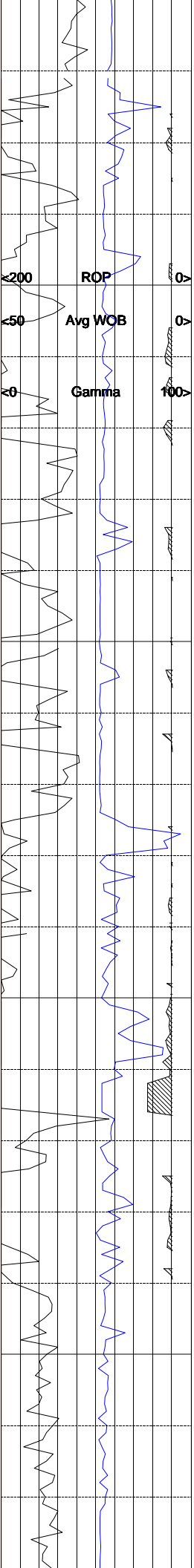




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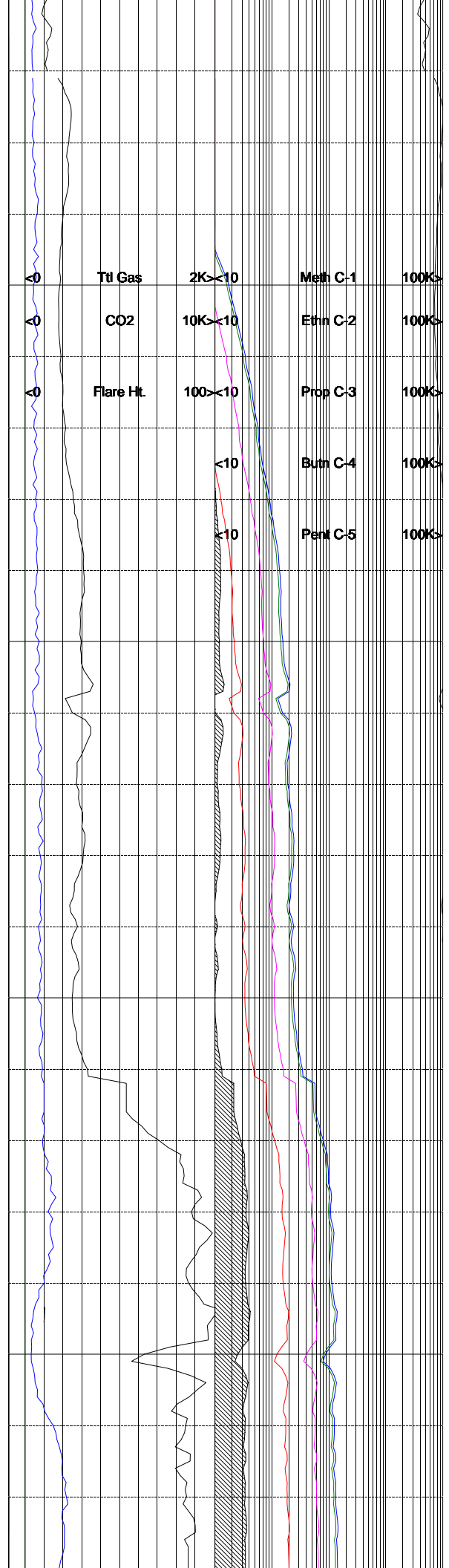
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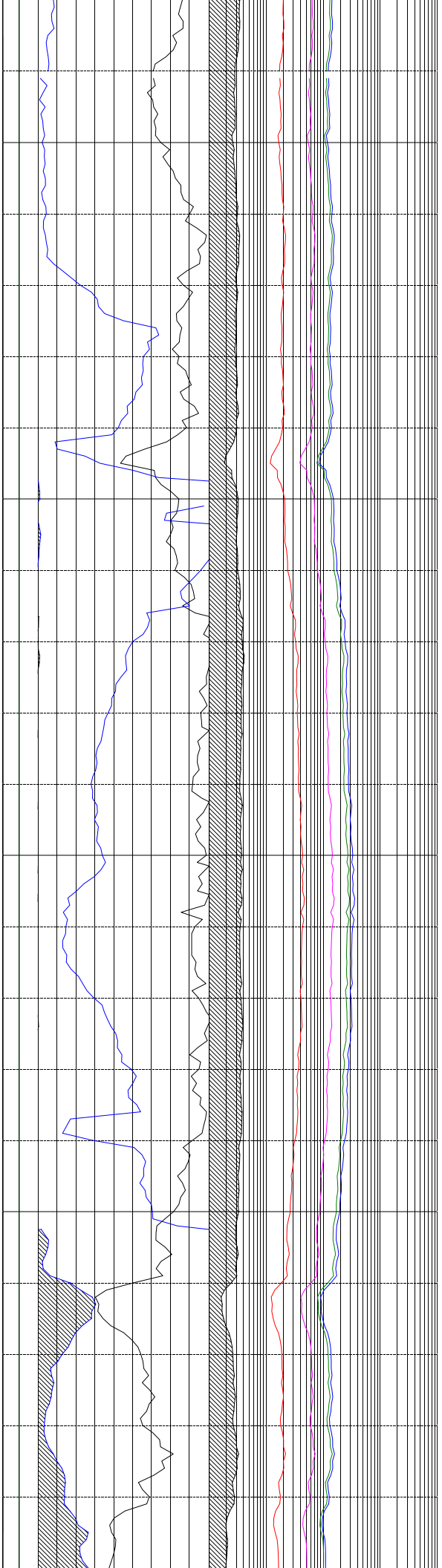




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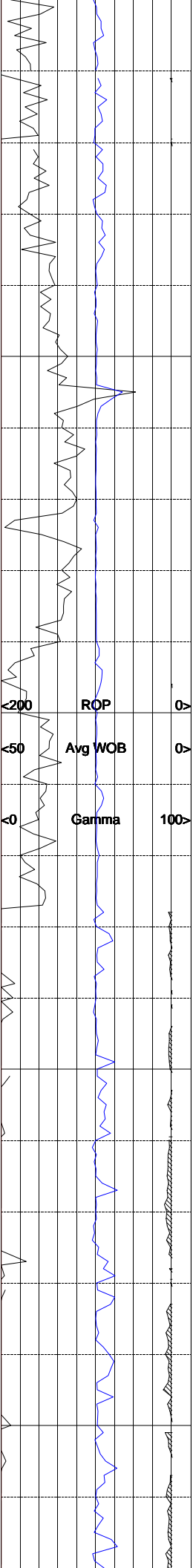




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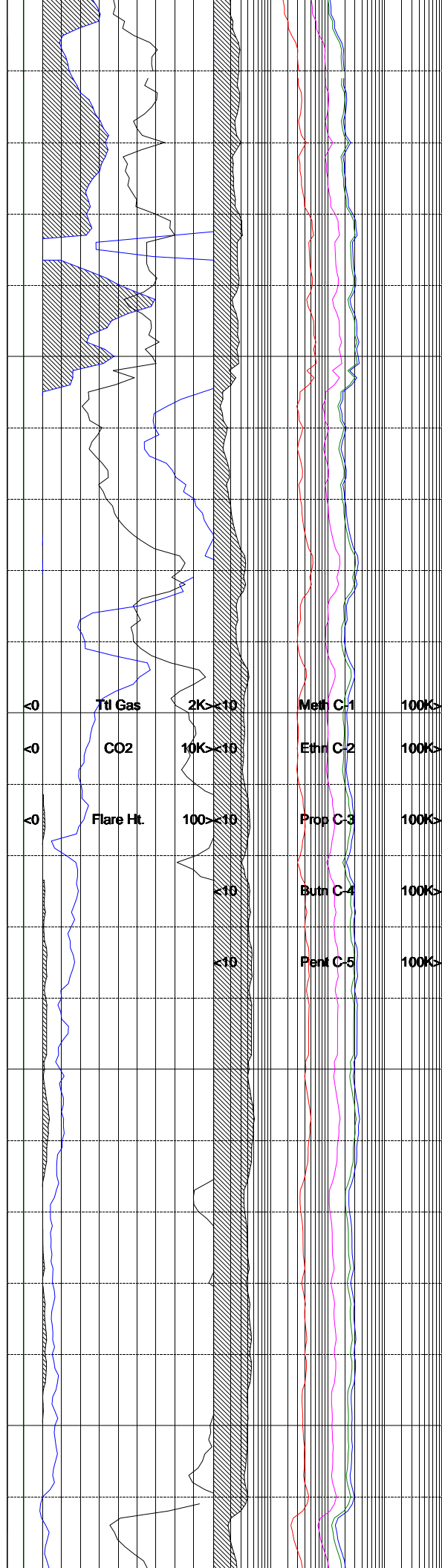
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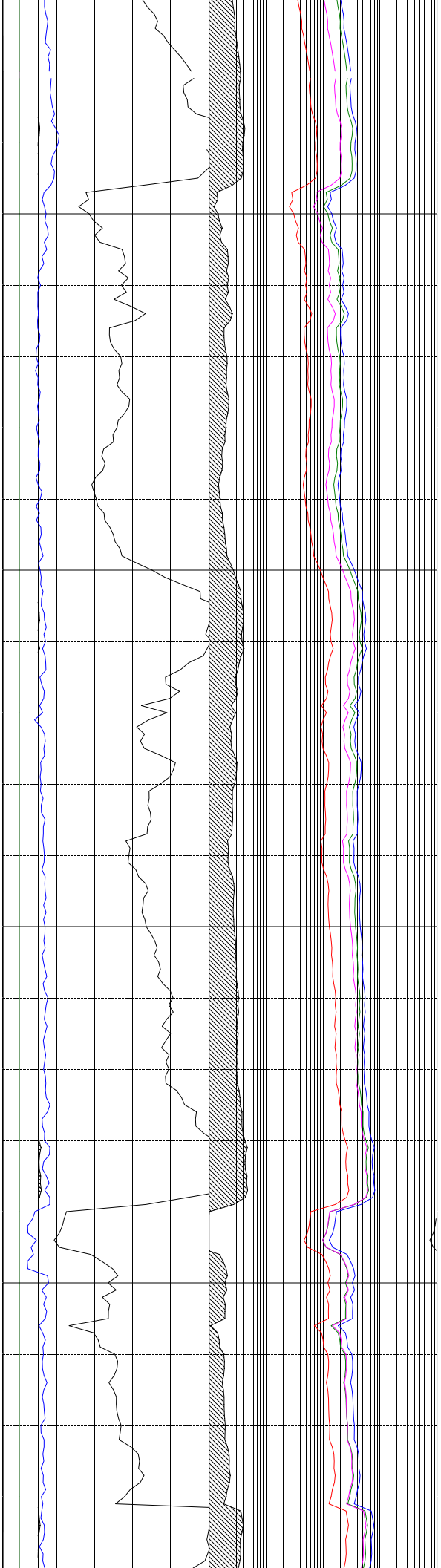
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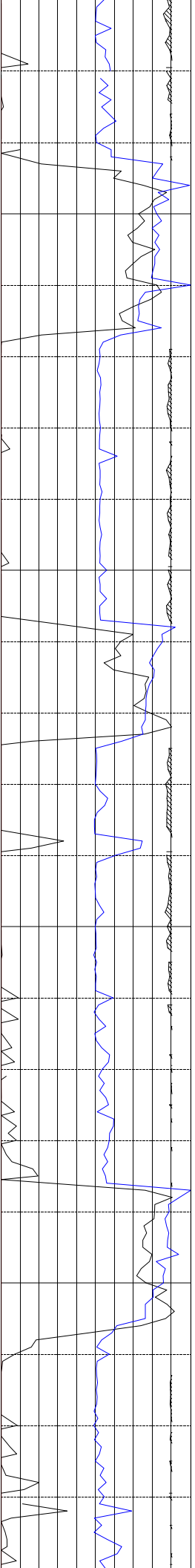
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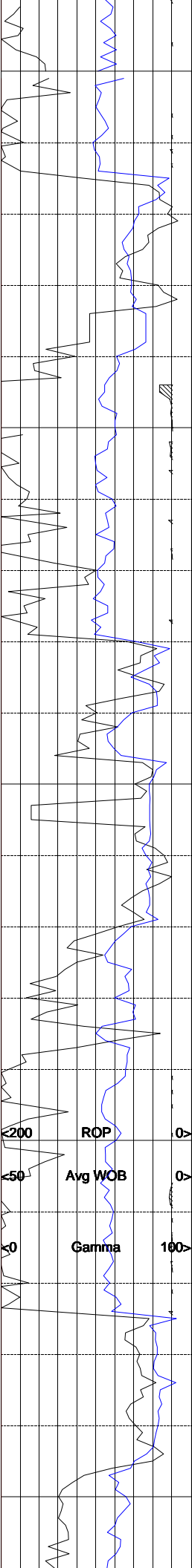




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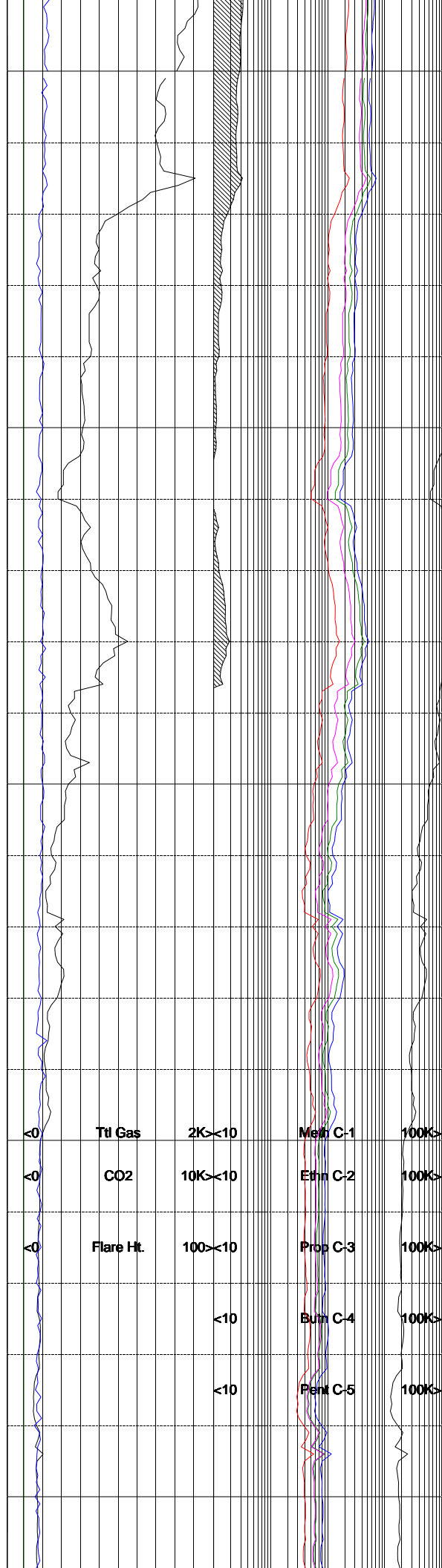
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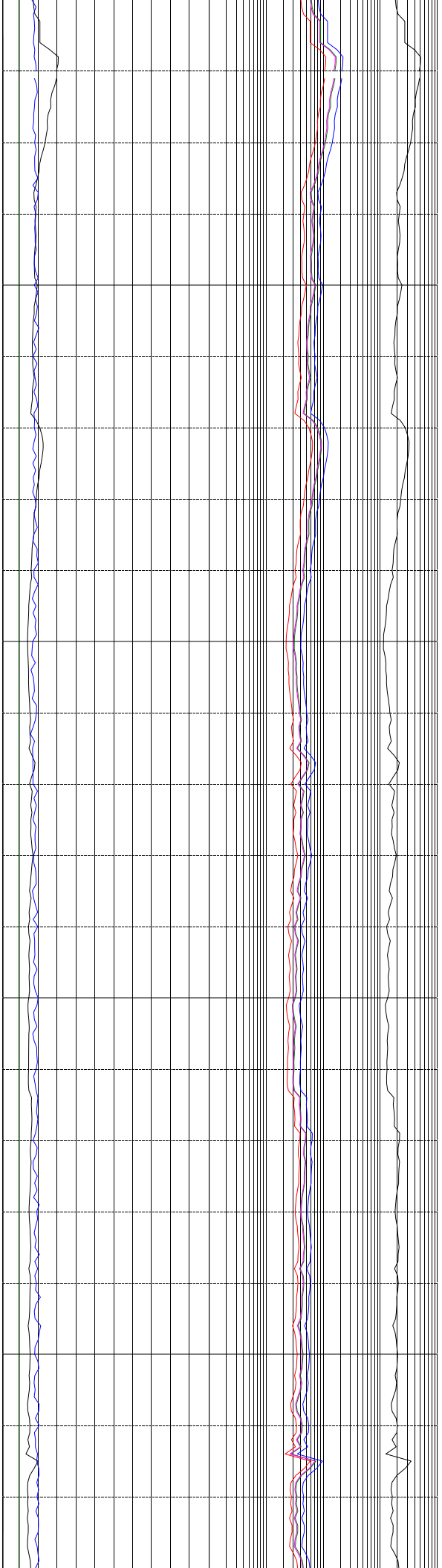


2900

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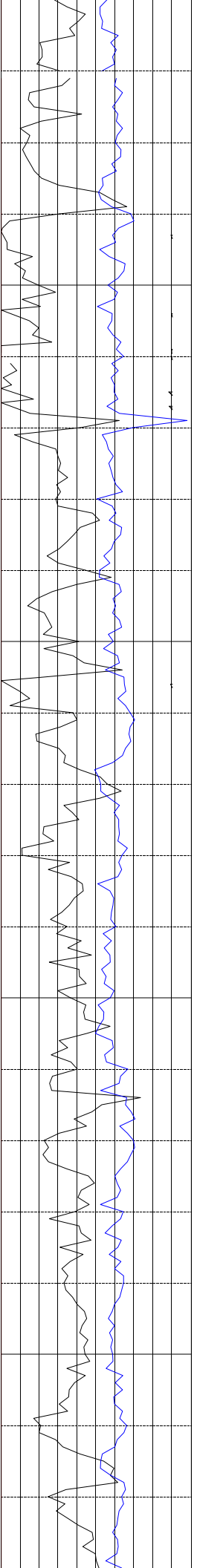


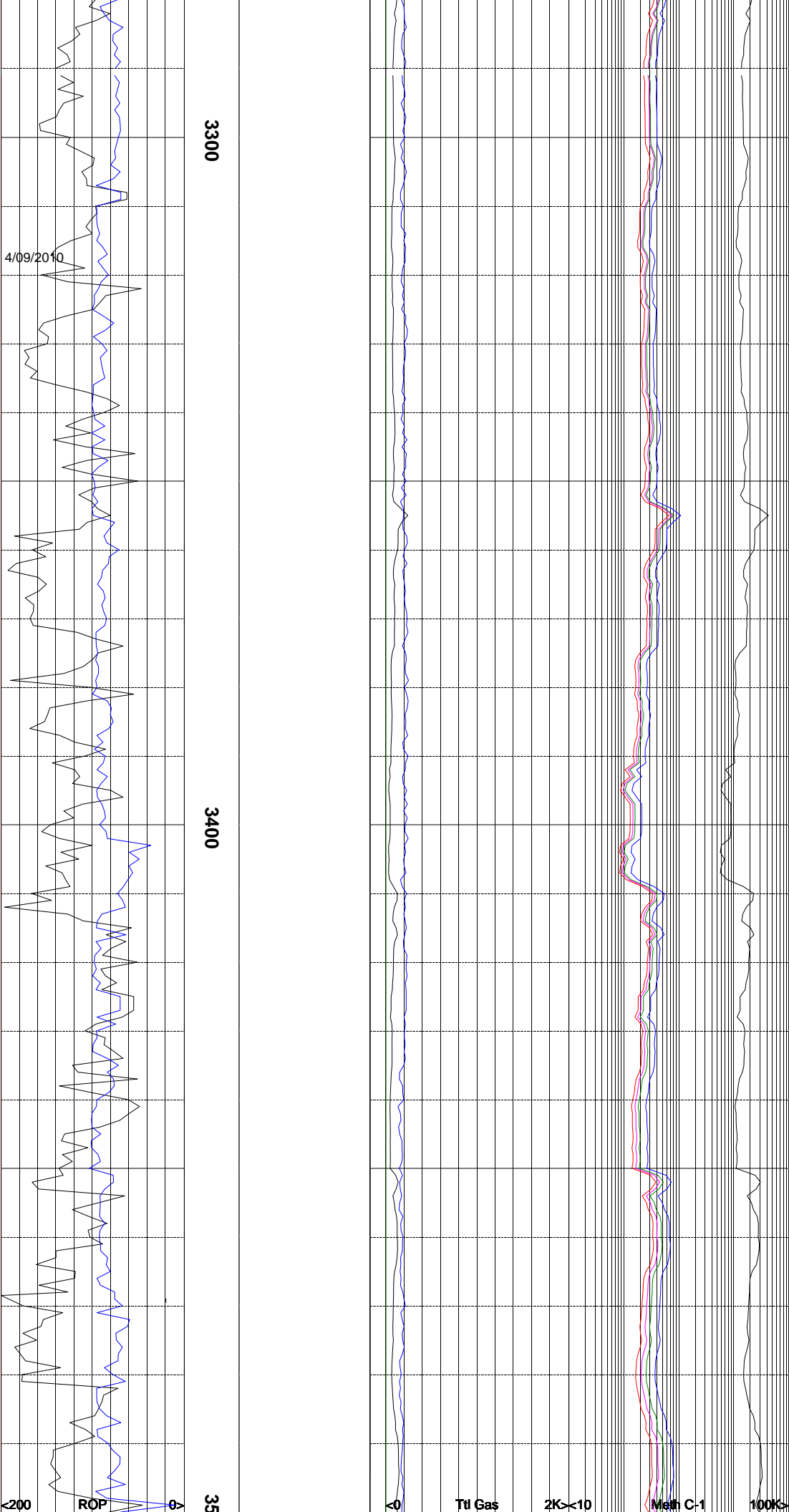
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		<10	Pent C-5	100K>

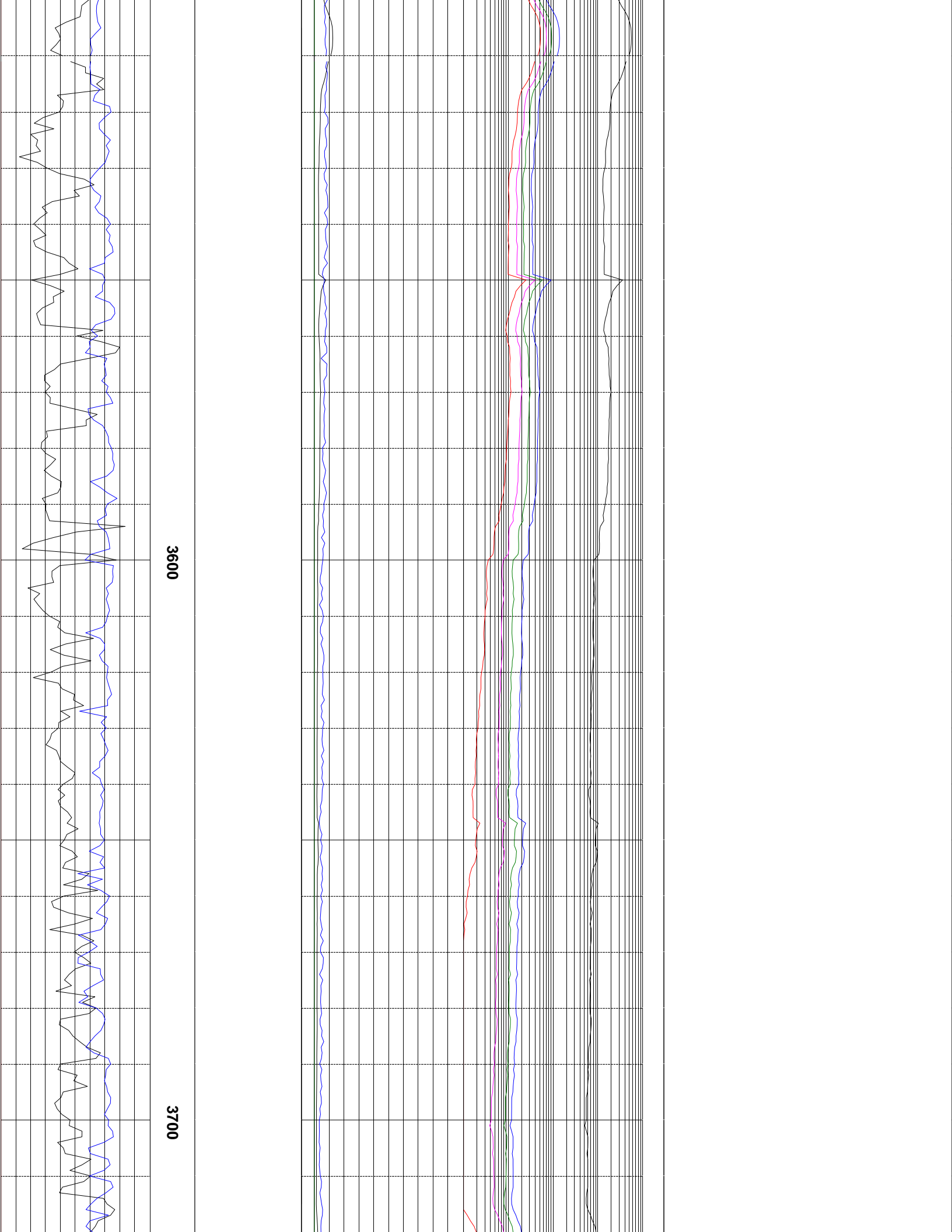


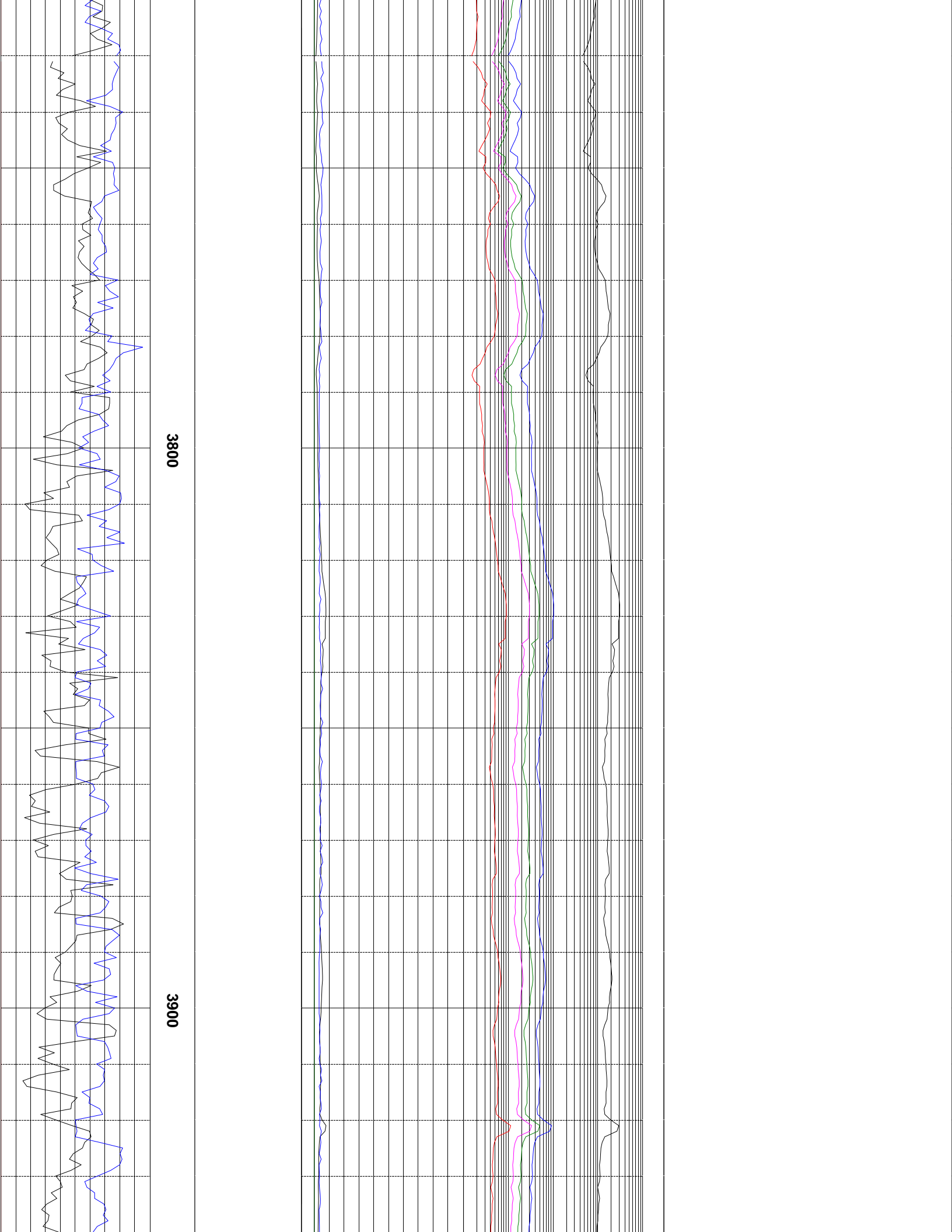
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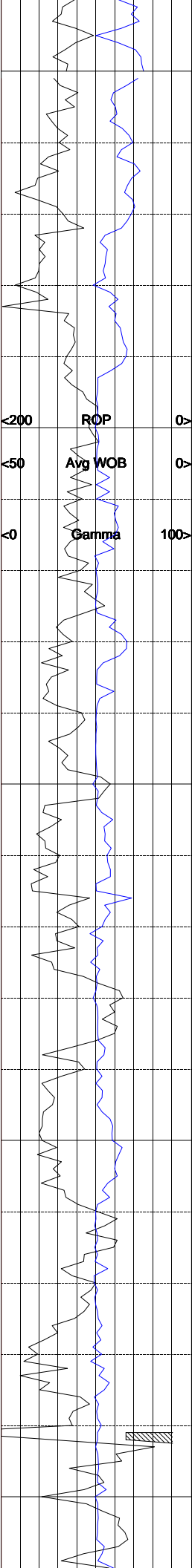
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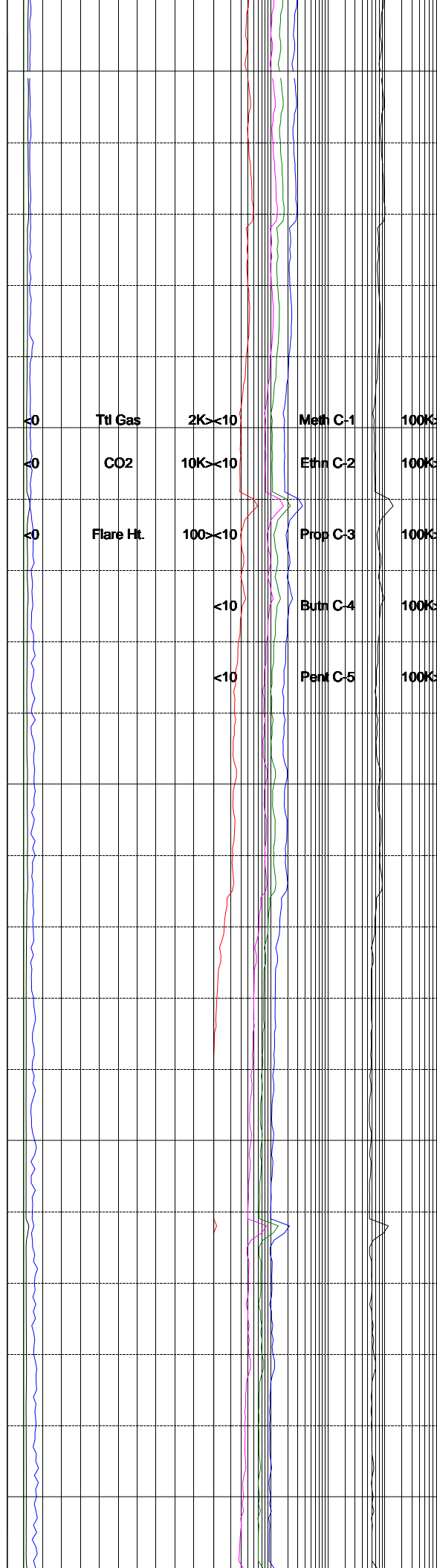






4000

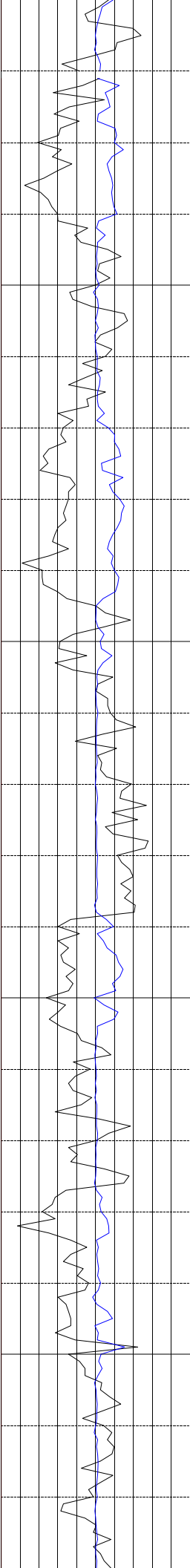
4100



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 WITH
RESPECT TO PERCENTAGE IN SAMPLE. DEPTH
IS REFERENCED TO RKB.

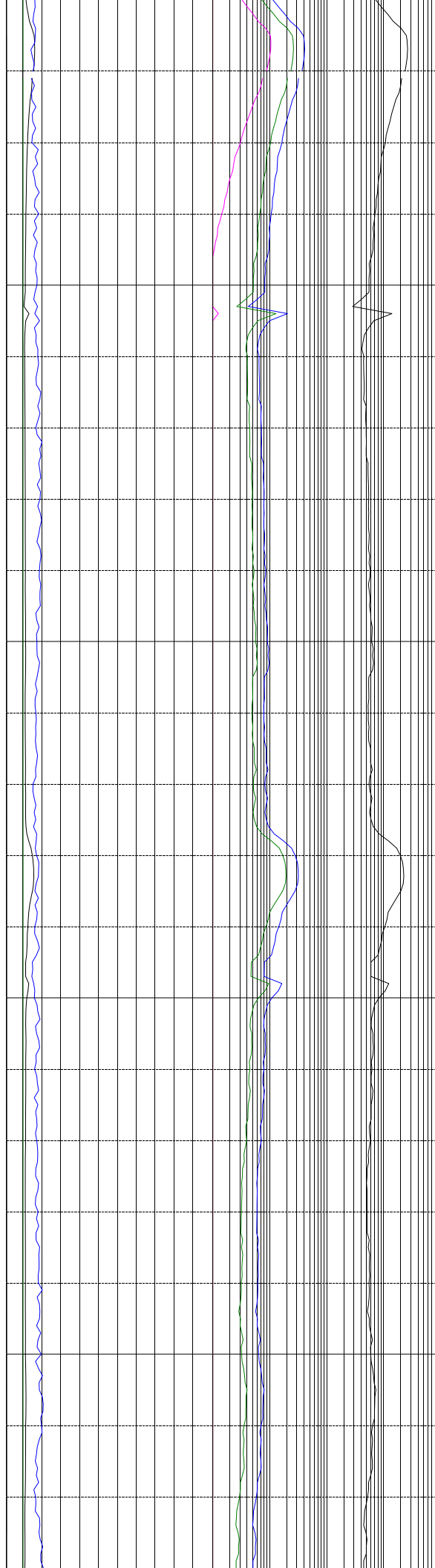
CONNECTION GASES AS WELL AS TRIP GASES
AND DOWNTIME GASES ARE NOTED ON THE LOG

LARGE CONNECTION GASES WHICH APPEAR ON
THE MUDLOG USUALLY REFLECT UPHOLE GAS
INTERVALS BLEEDING INTO THE BORE HOLE
DURING CONNECTIONS.



4200

4300



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

WHEN THE MUD IS RUN THROUGH THE MGS (MUD

GAS SEPERATOR) THE INTERVAL IS MARKED ON

THE LOG IN THE SLIDE COLUMN AND NOTED ON

THE LOG.

ALL SANDSTONE INTERVALS ARE EXAMINED FOR

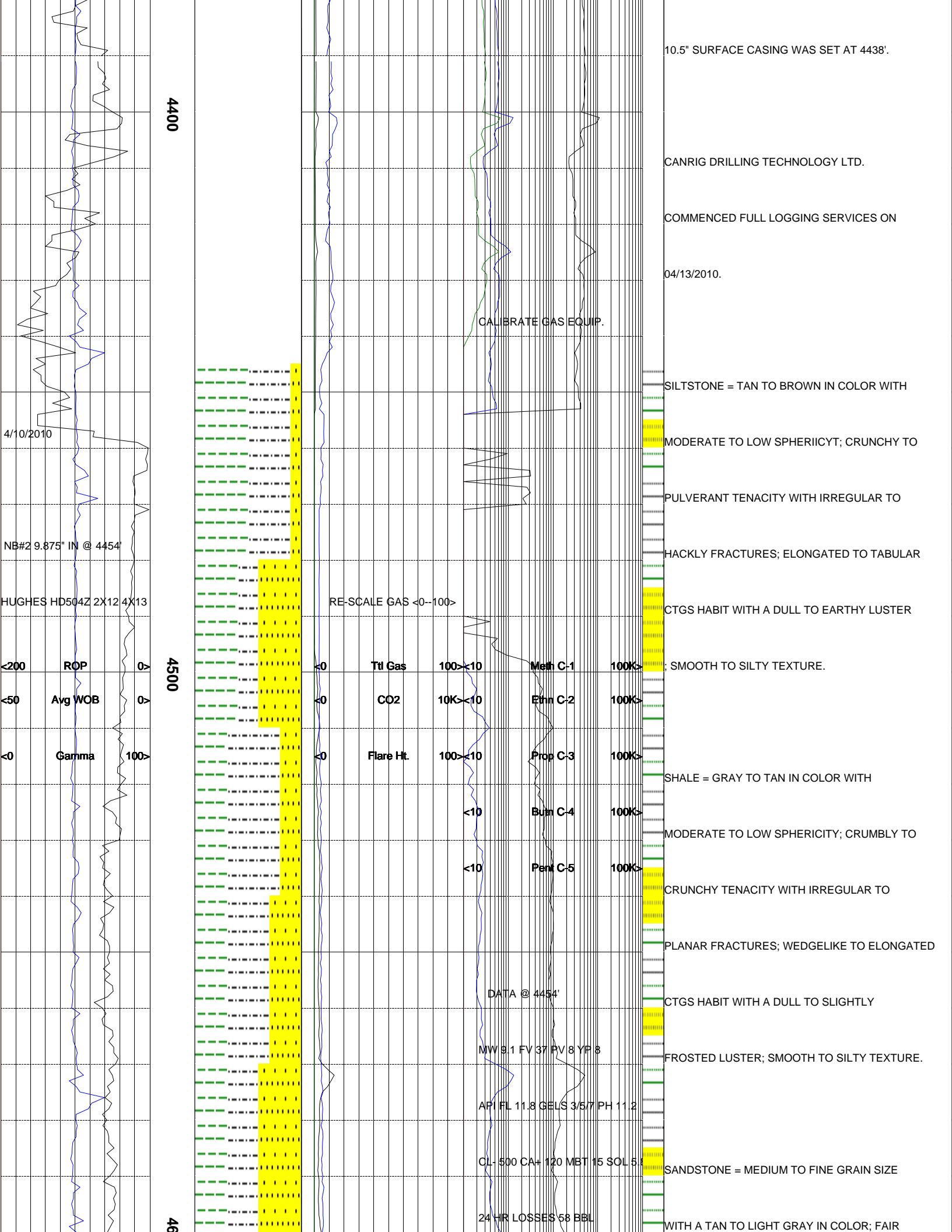
SAMPLE FLUORESCENCE IN THE UV SCOPE FOR

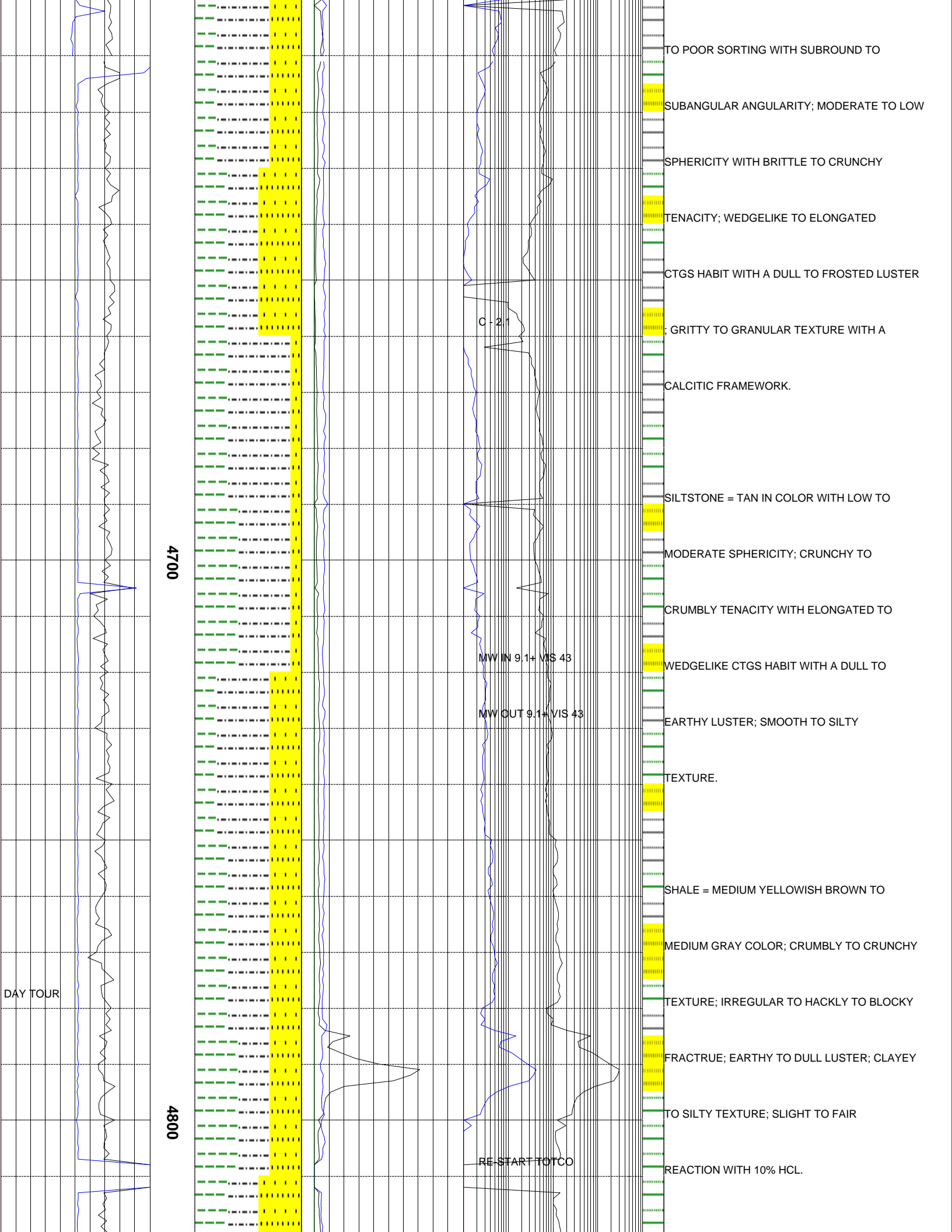
HYDROCARBON FLUORESCENCE AND MINOR

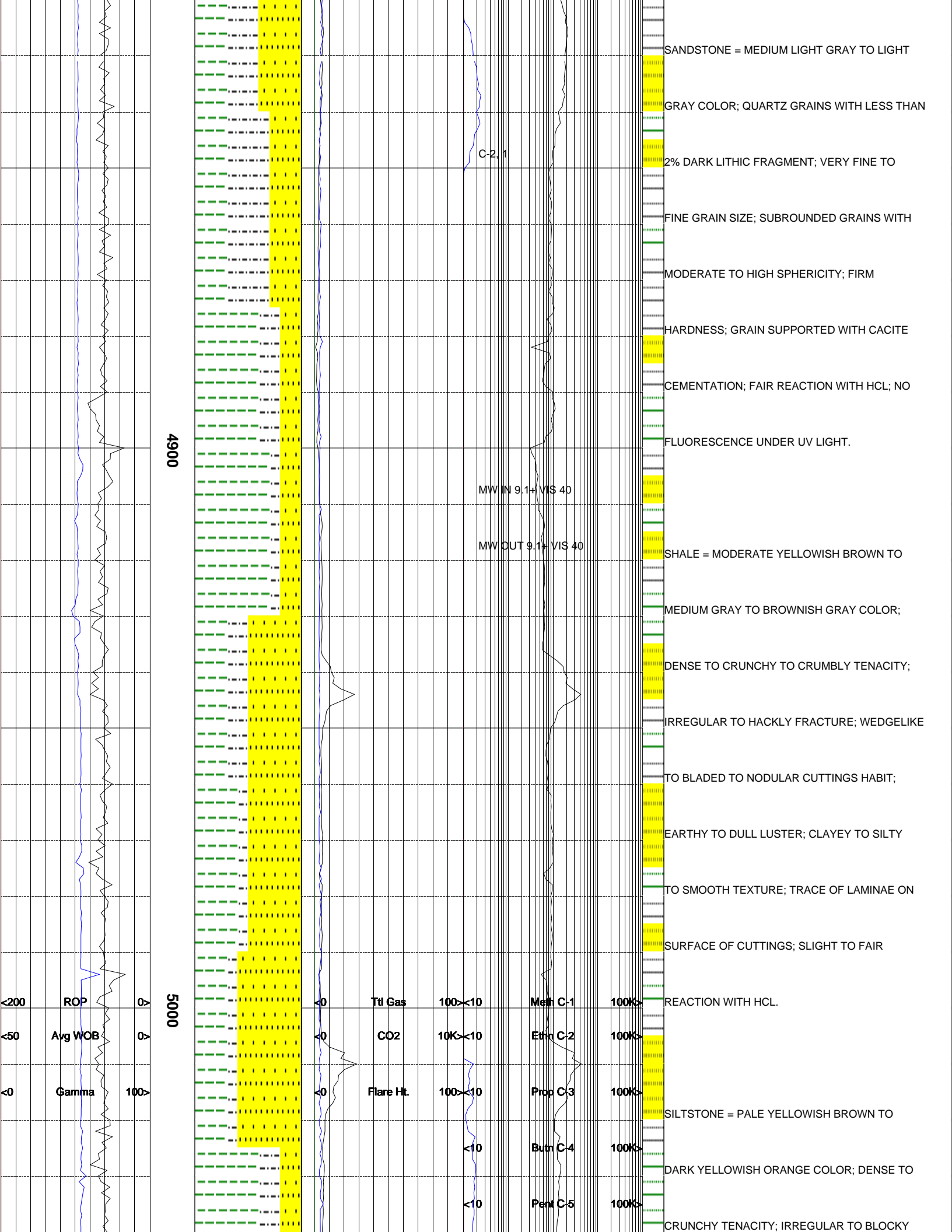
FLUORESCENCE FROM POSSIBLE FRACTURE

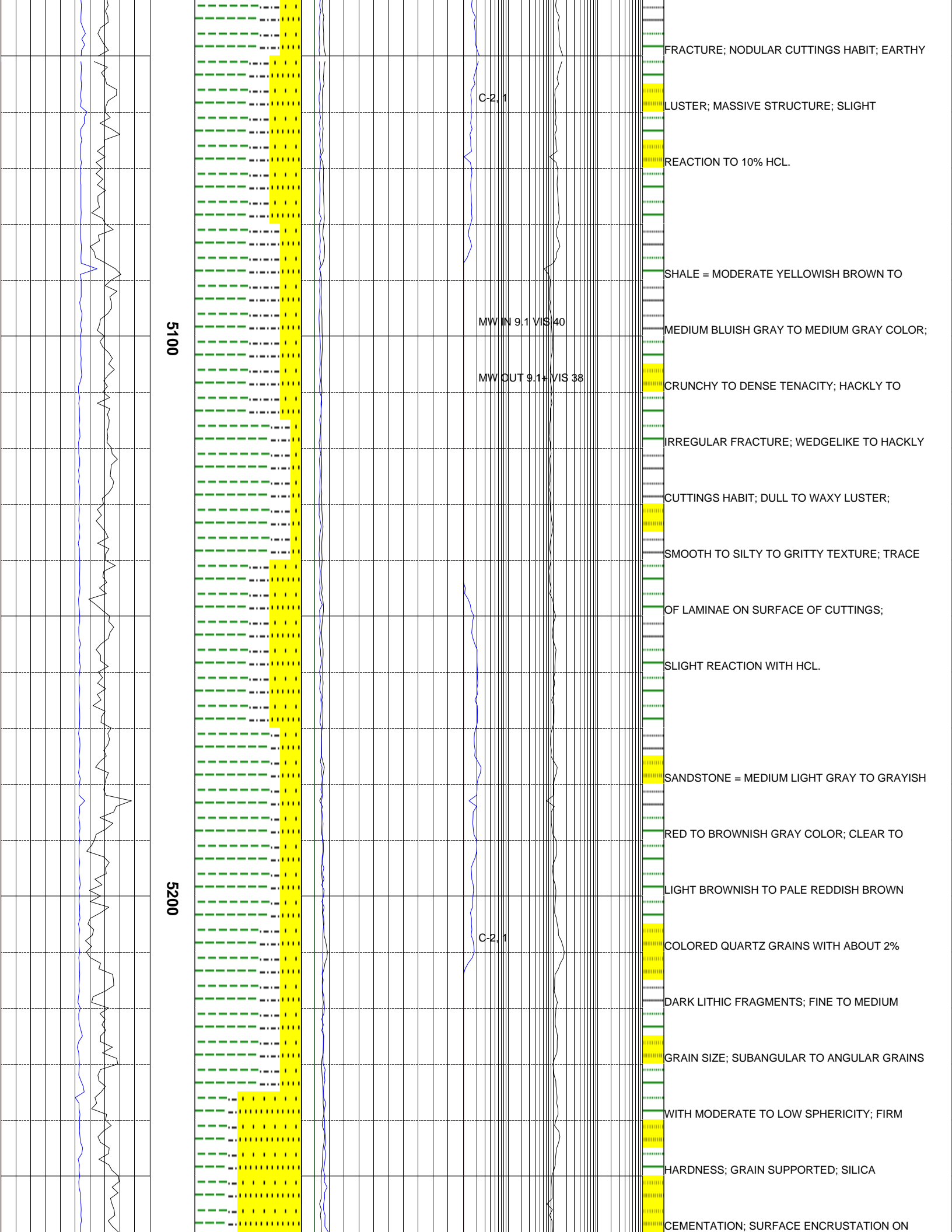
FILL. ALL FLUORESCENCE IS NOTED ON THE

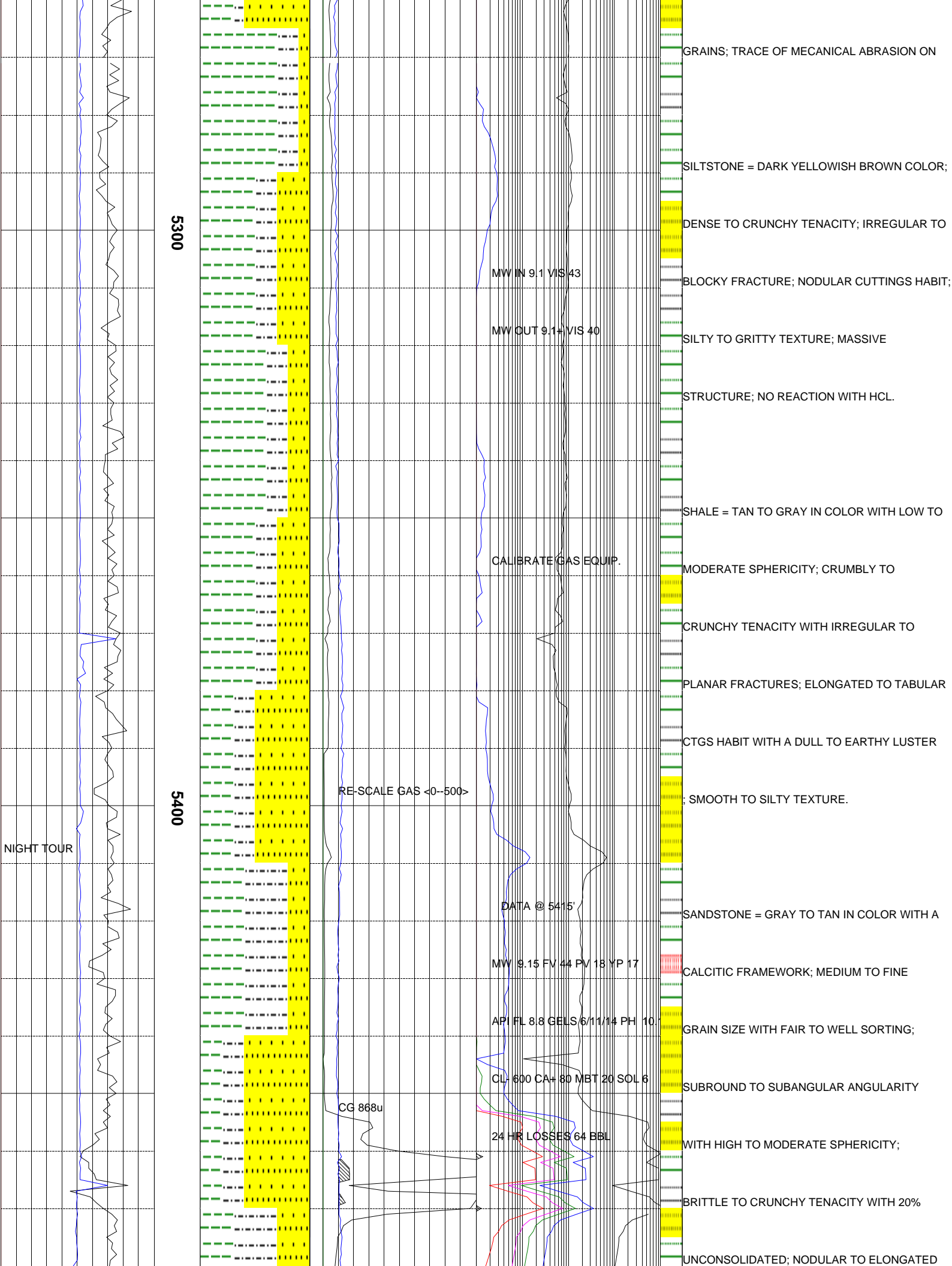
MUDLOG.

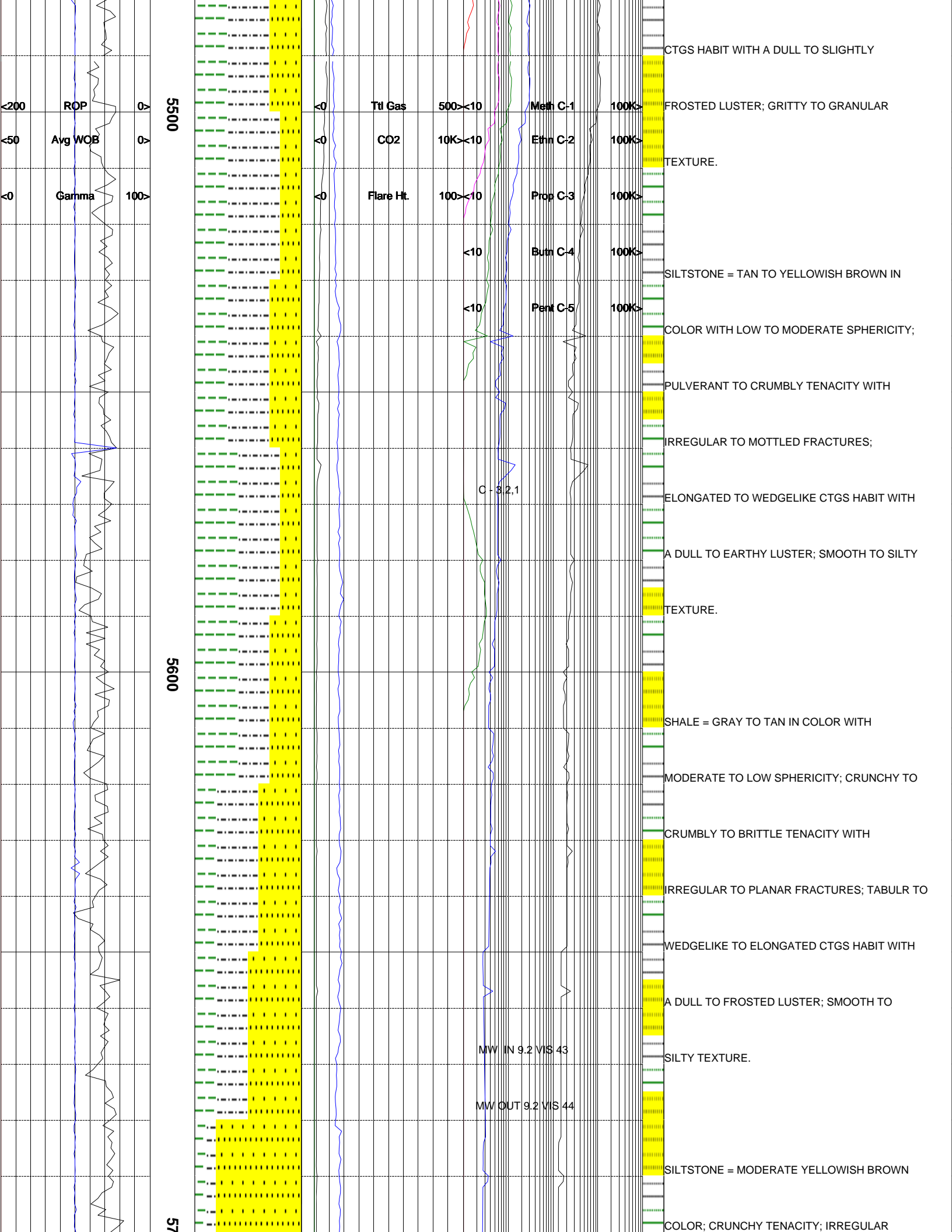


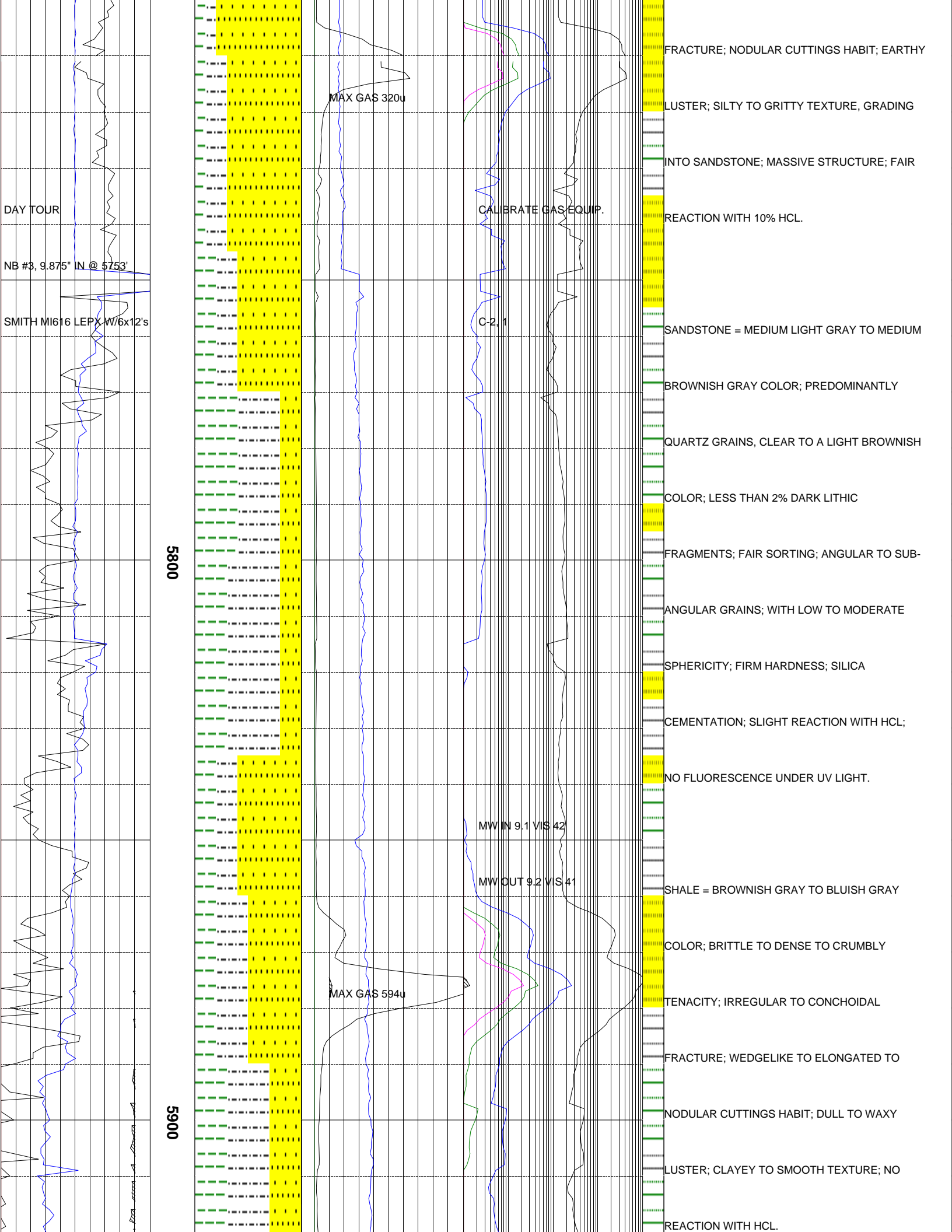


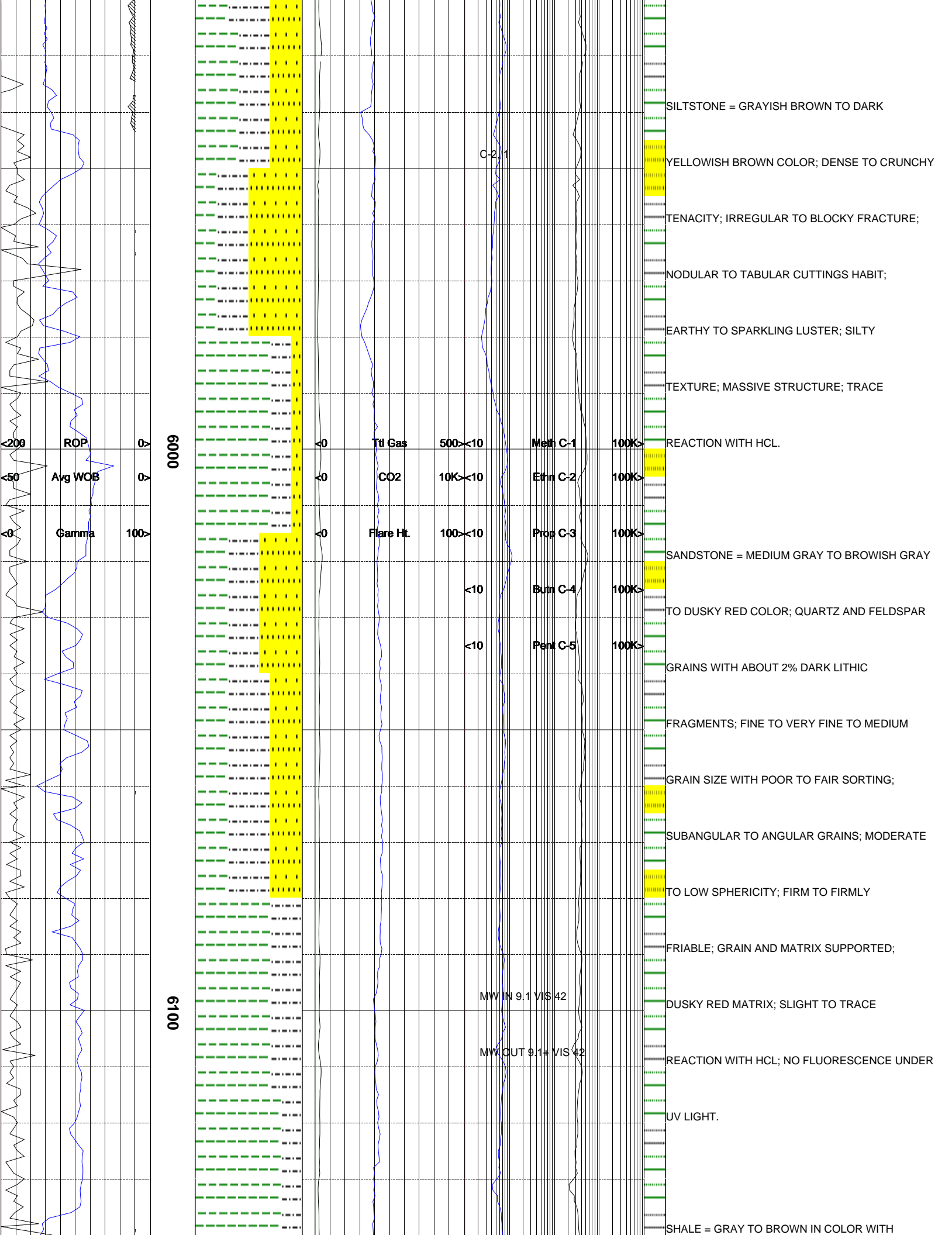


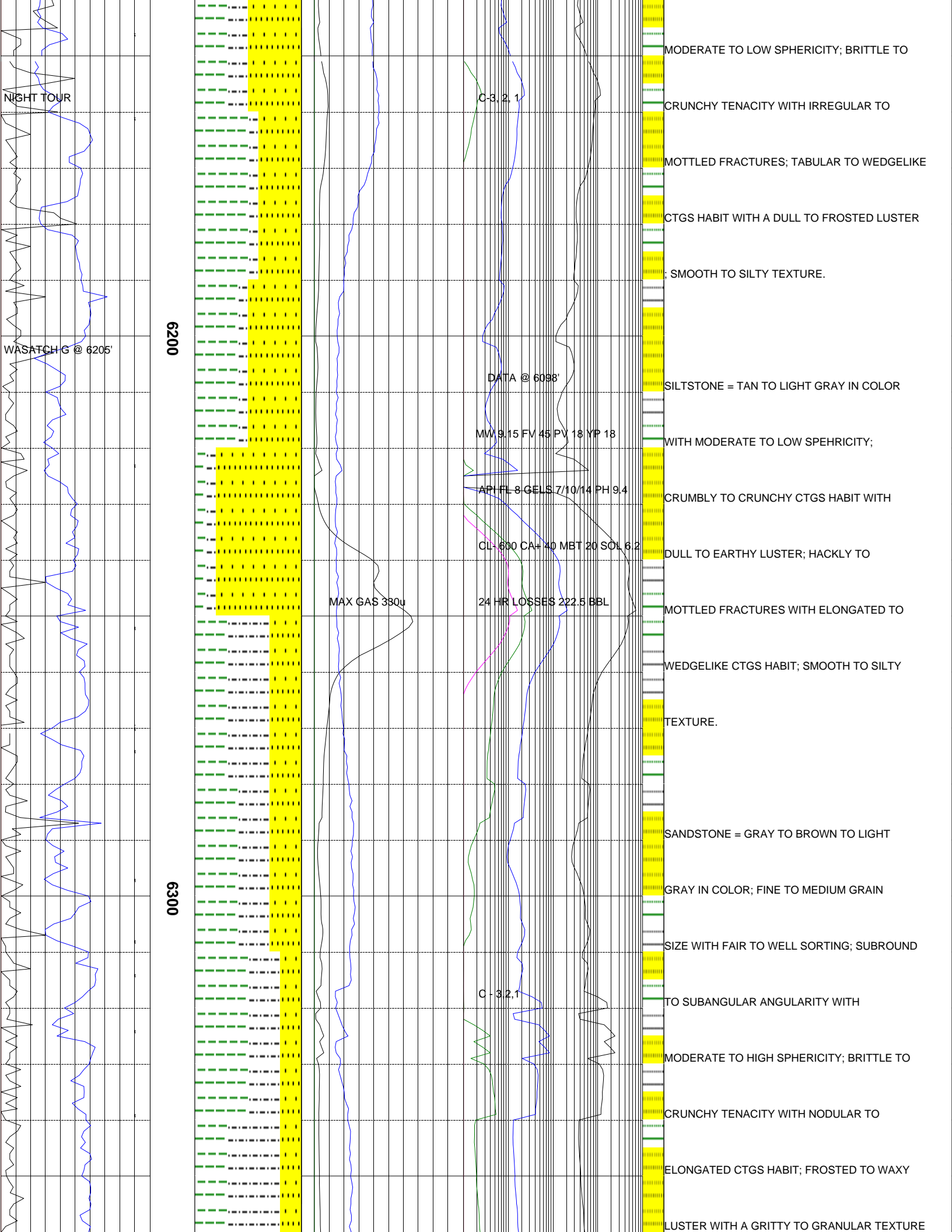


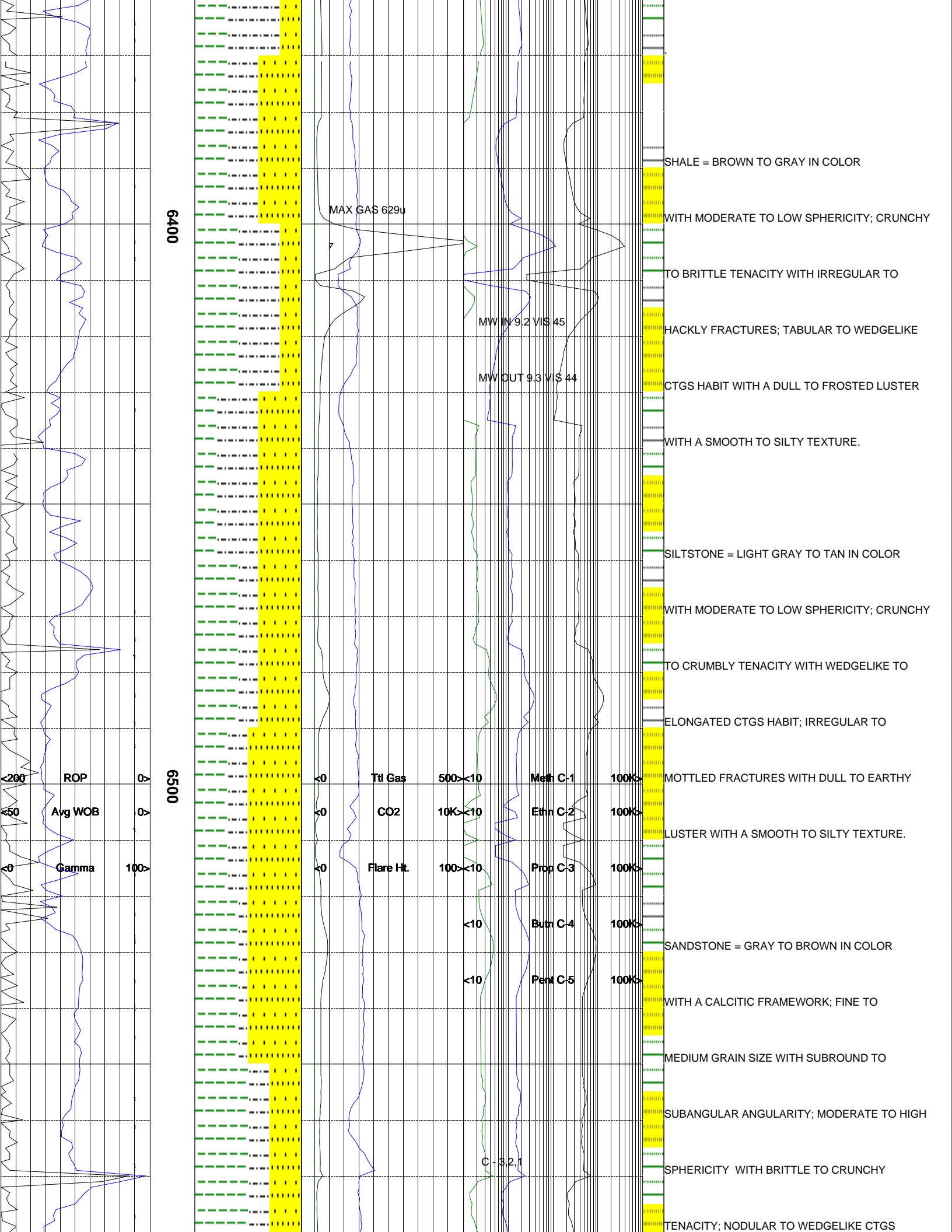


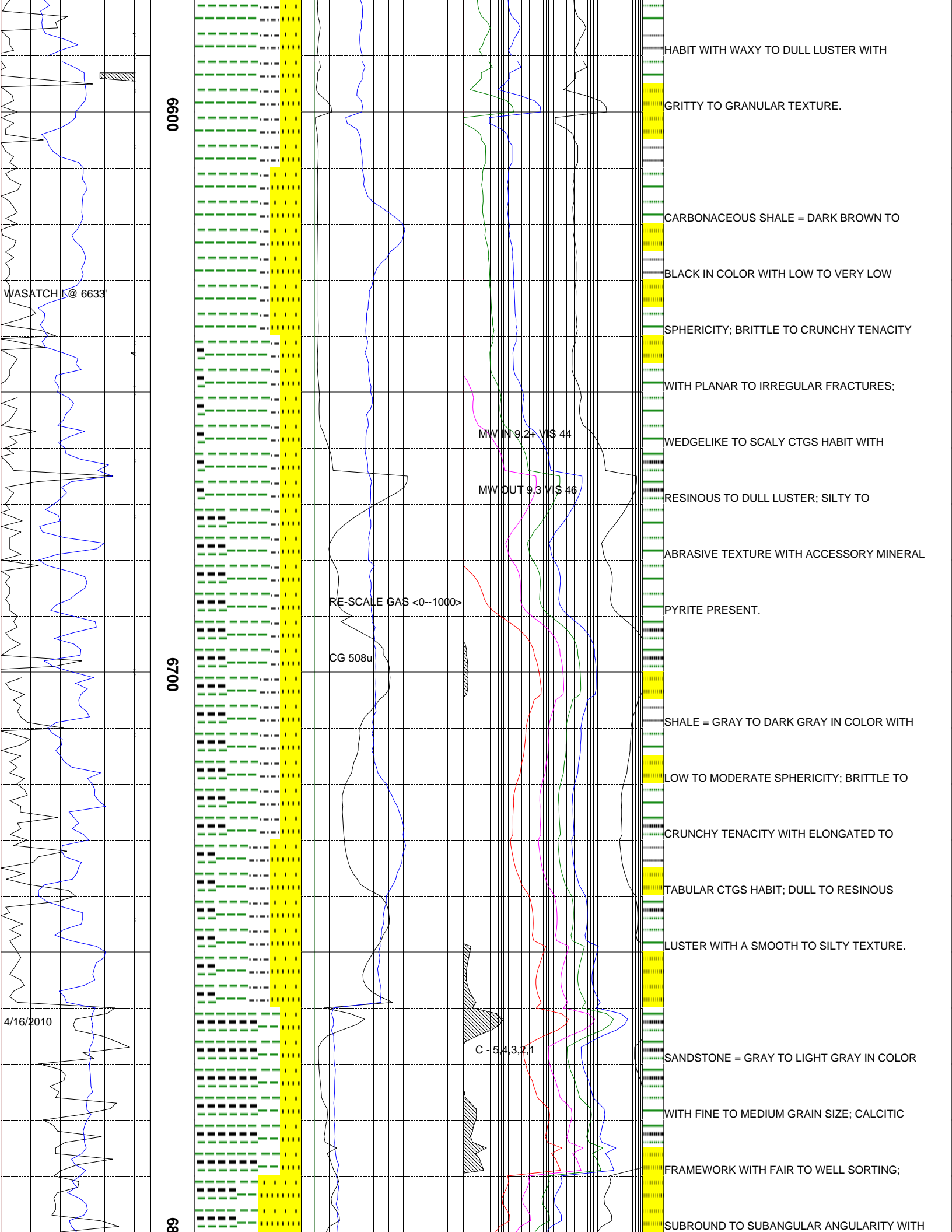


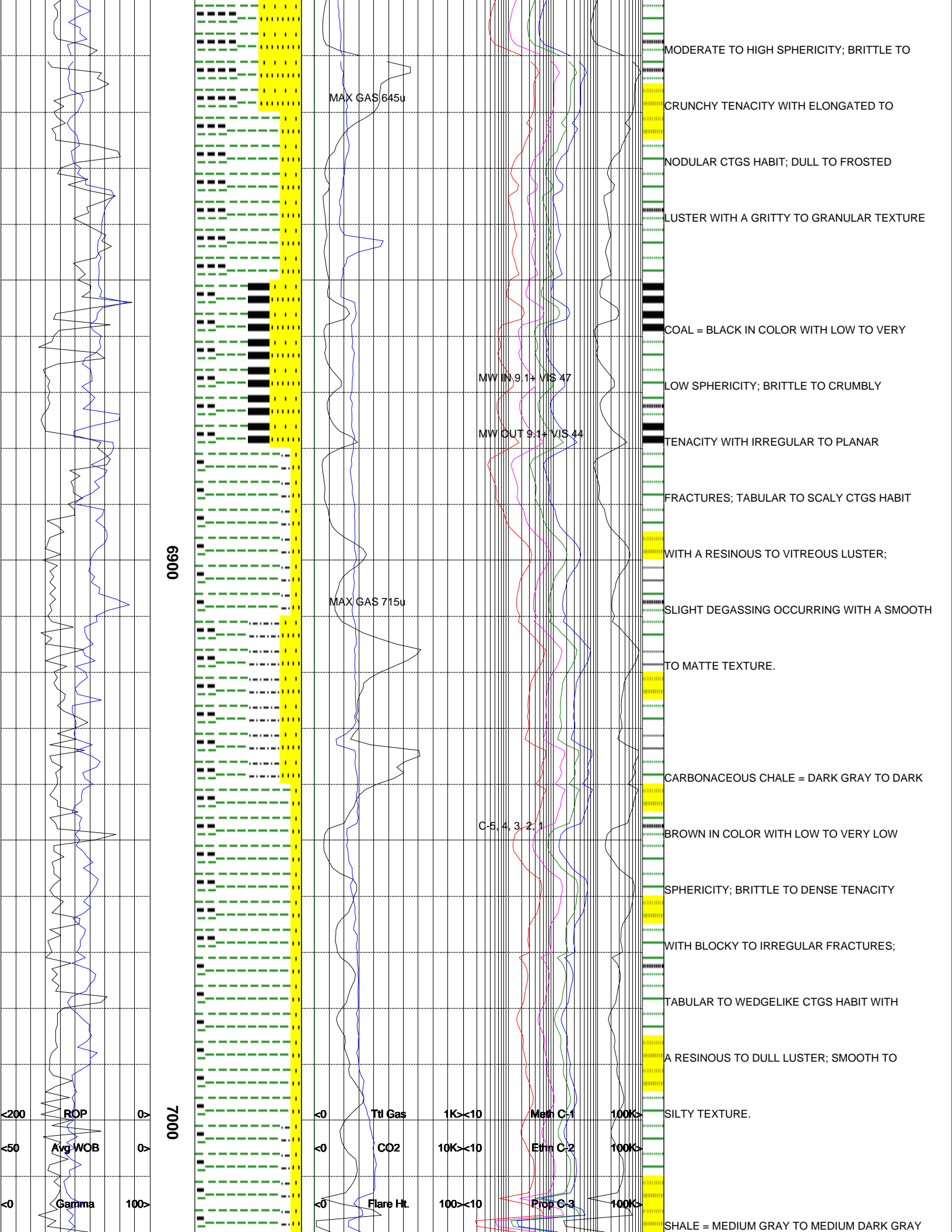


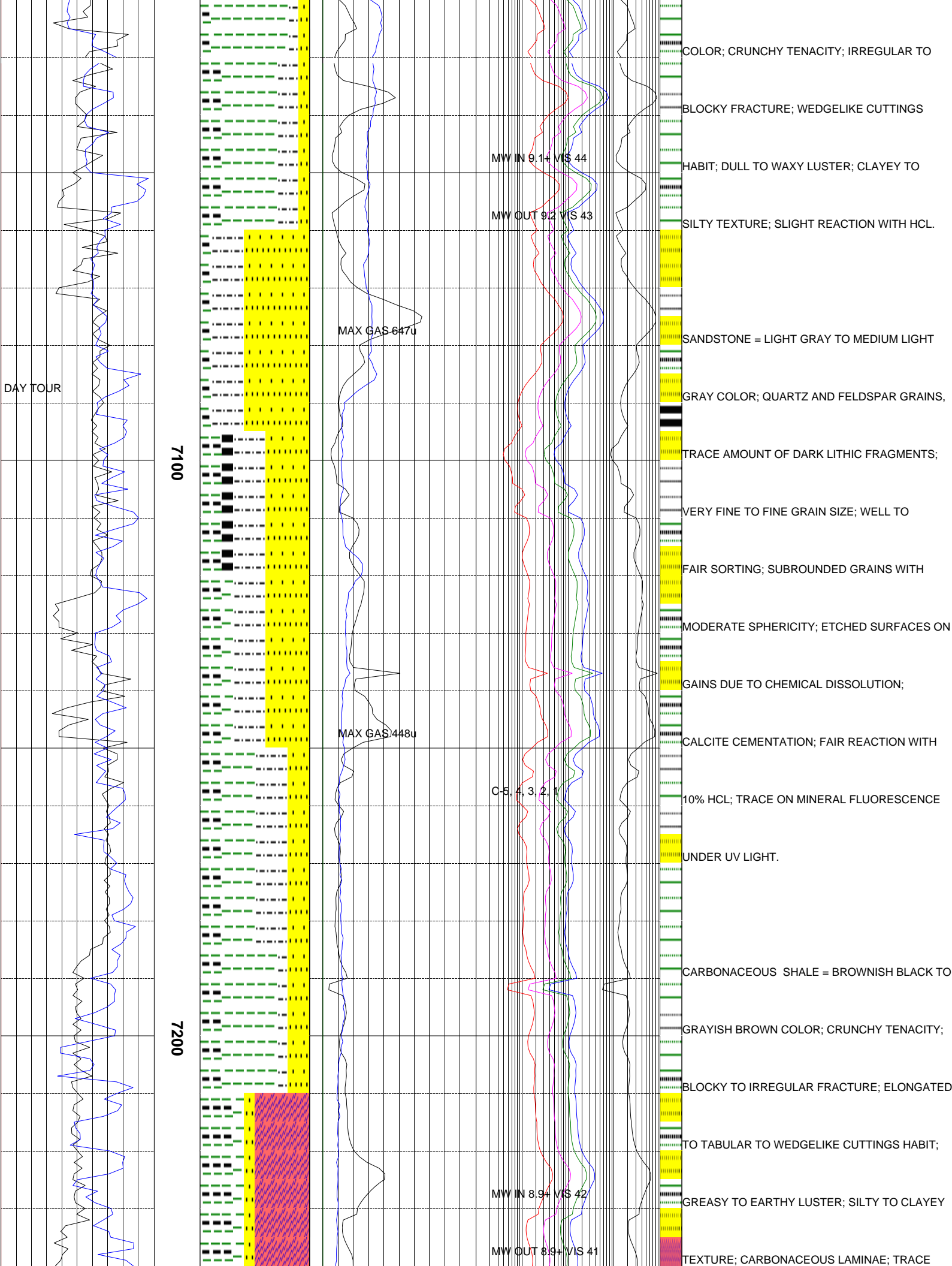


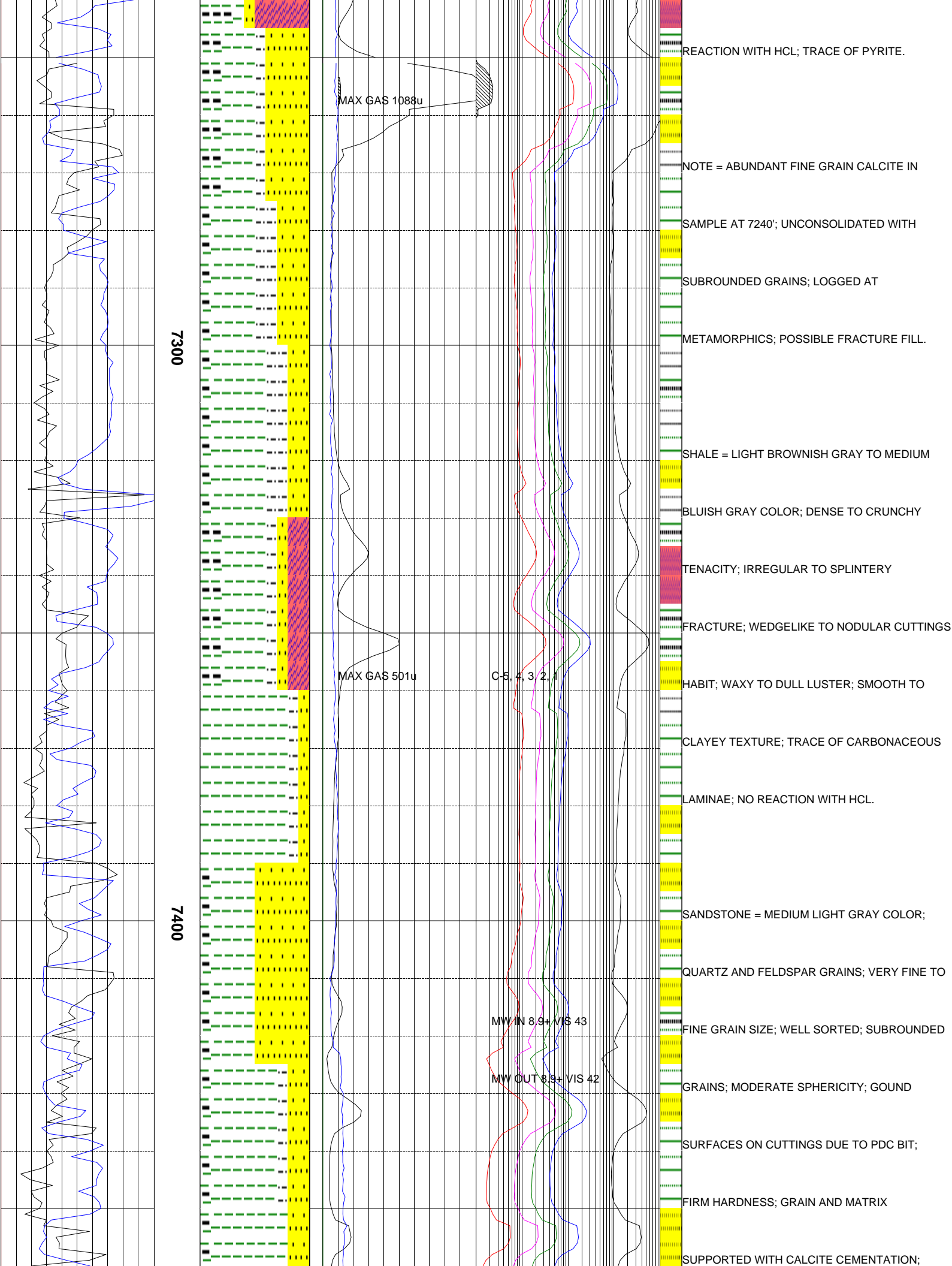


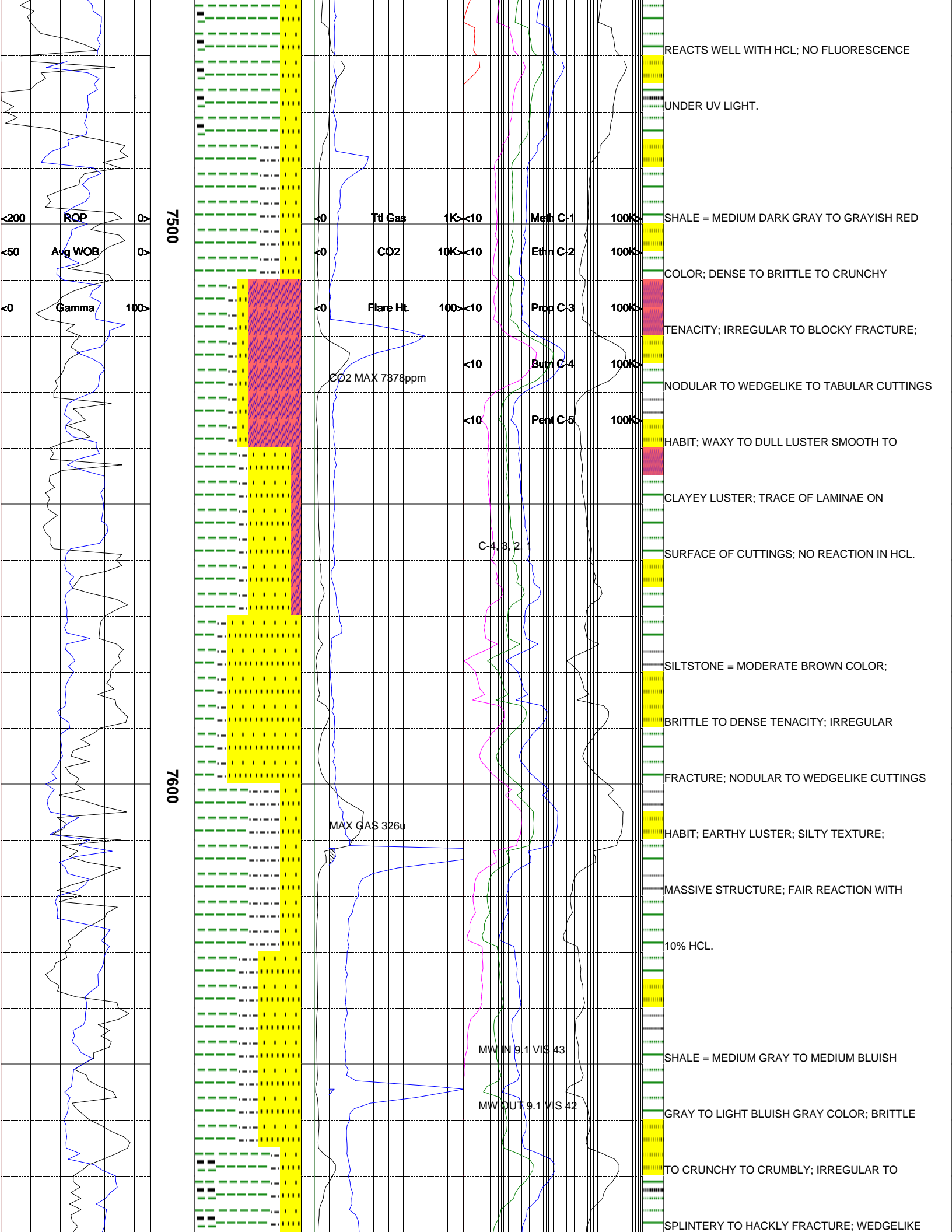


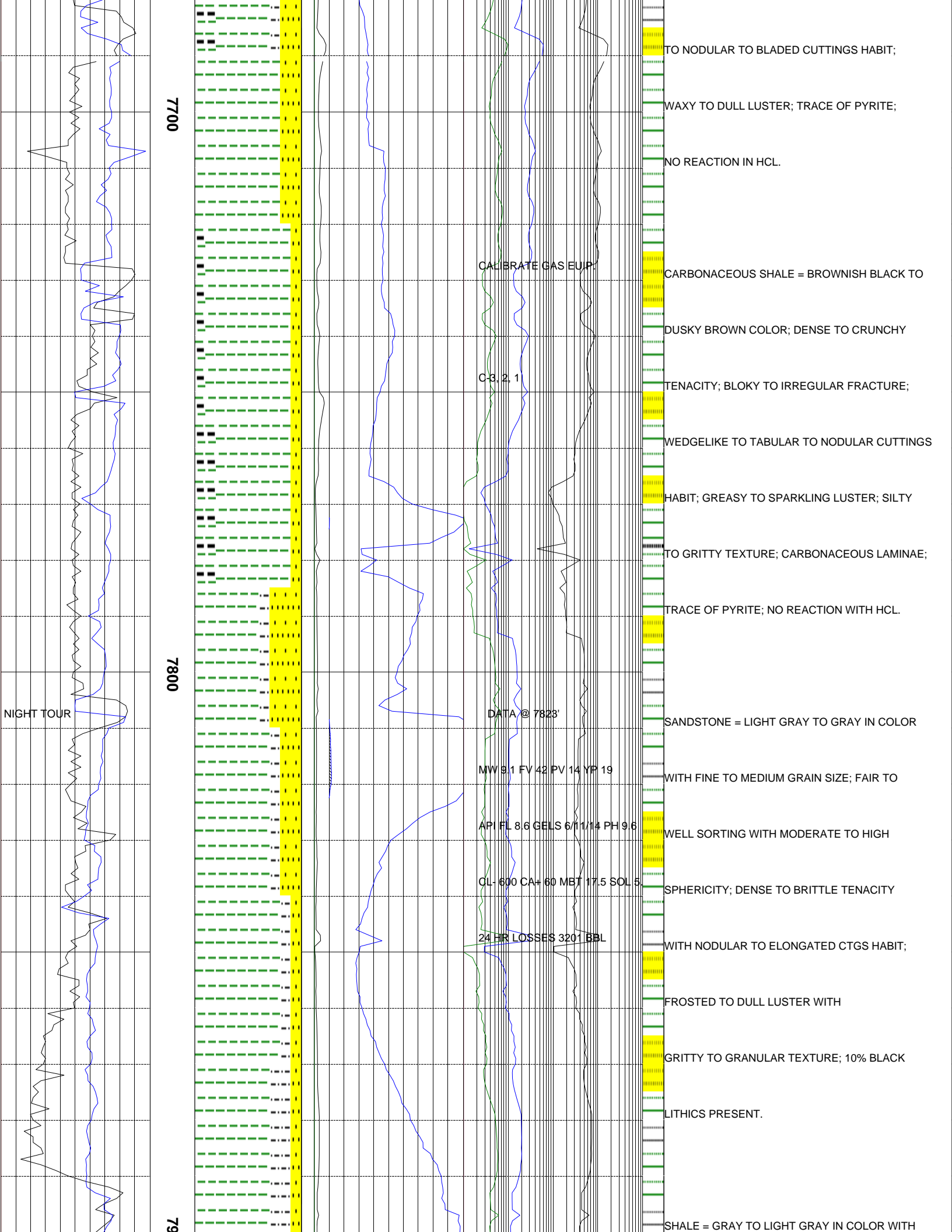












7700

7800

79

CALIBRATE GAS EQUIP

C-3, 2, 1

DATA @ 7823'

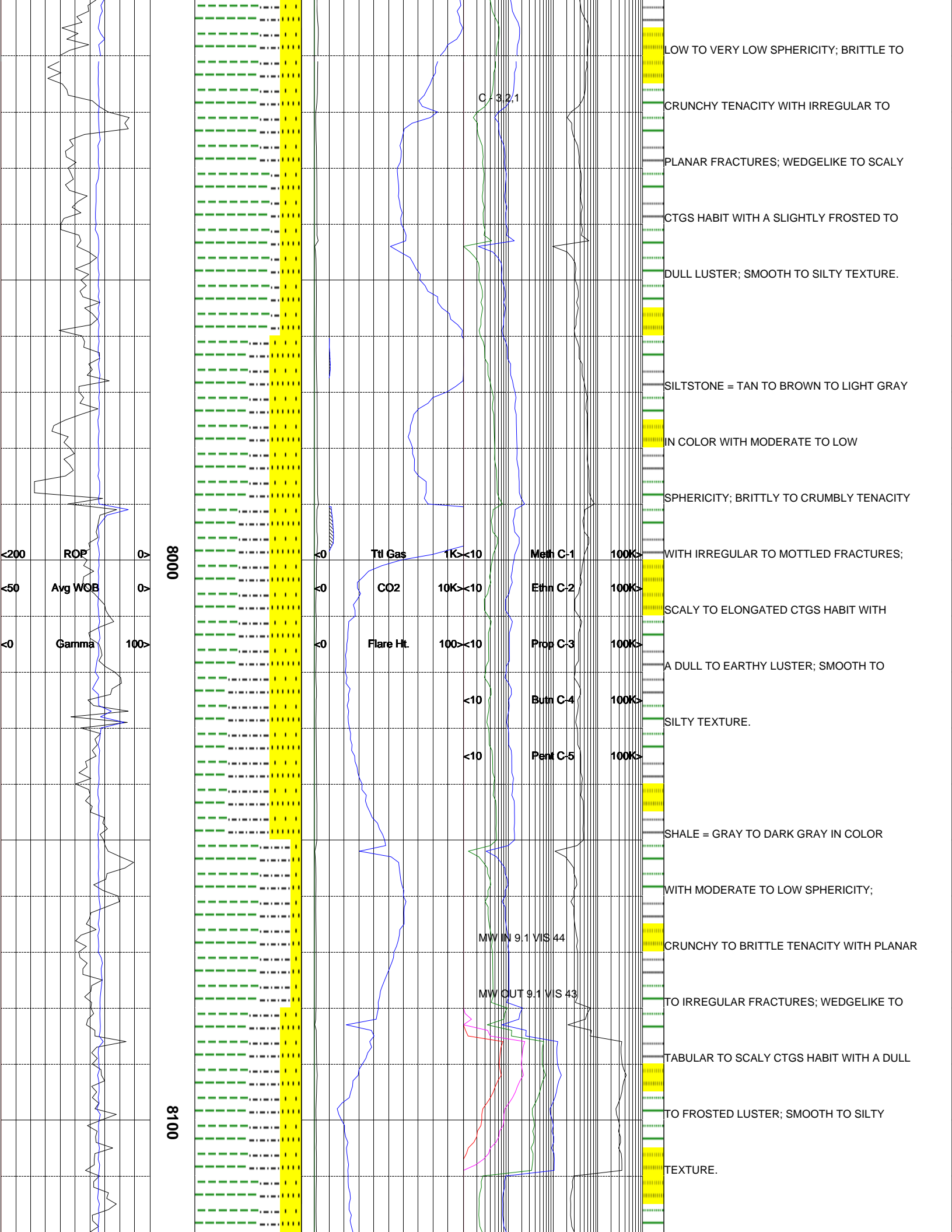
MW 9.1 FV 42 PV 14 YP 19

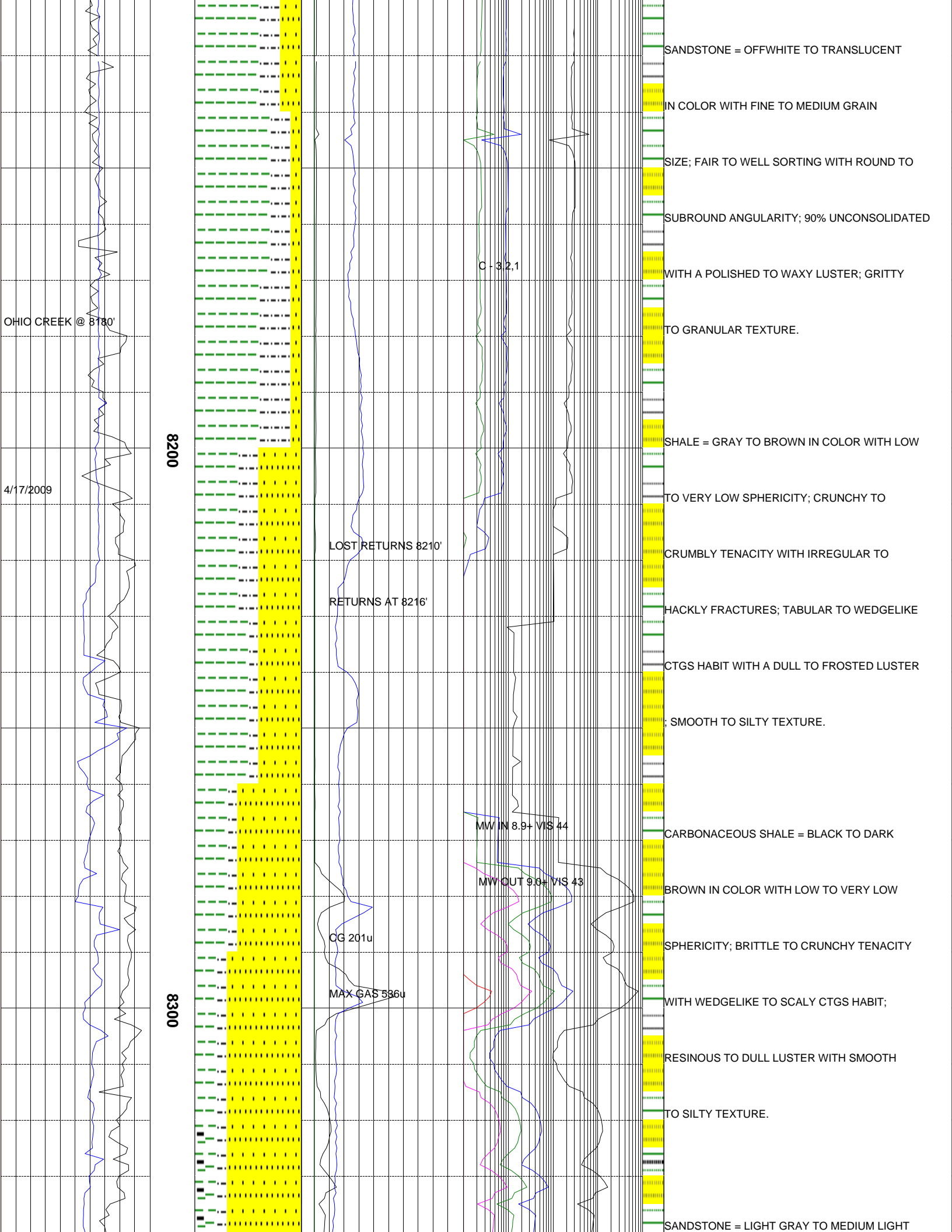
API FL 8.6 GELS 6/11/14 PH 9.6

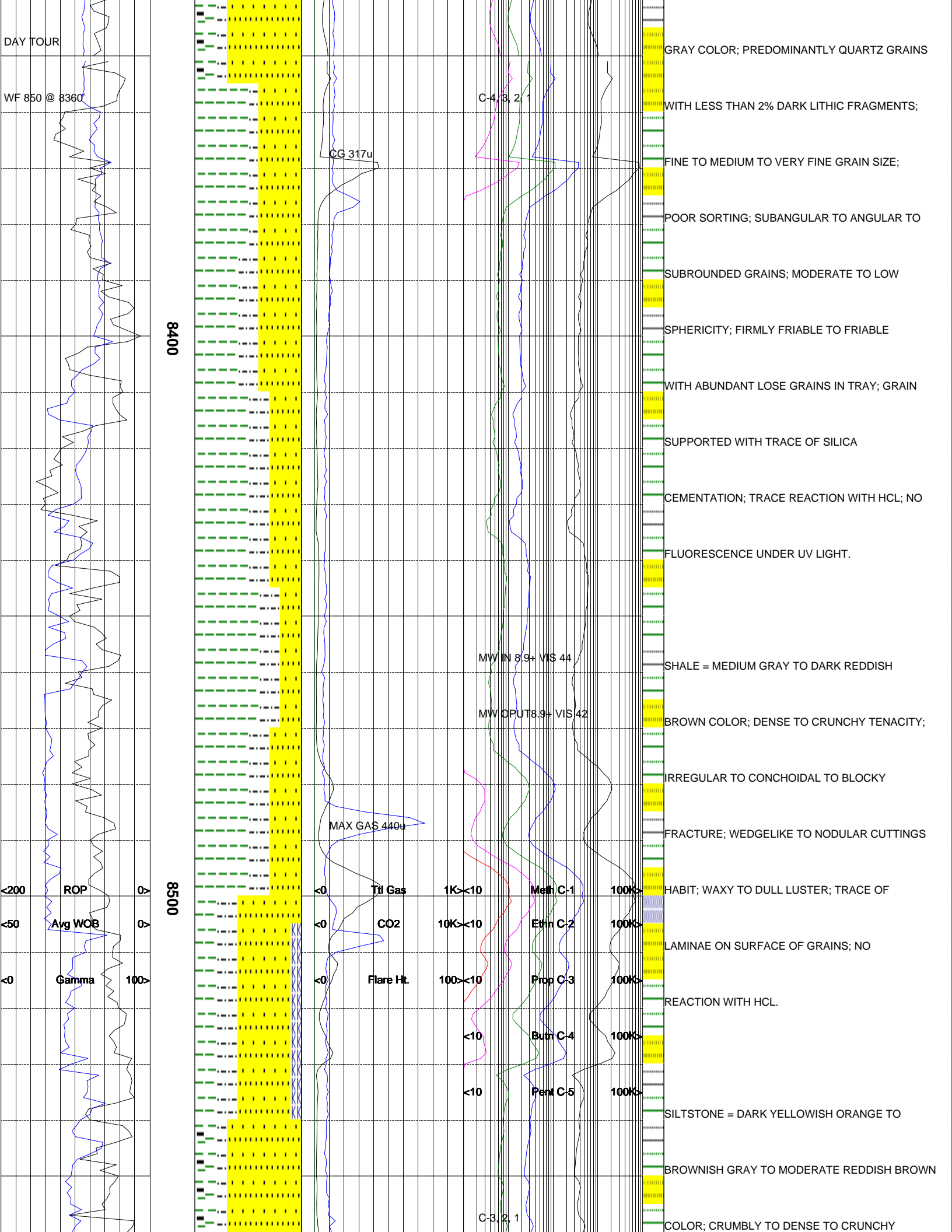
CL- 600 CA+ 60 MBT 17.5 SOL 5

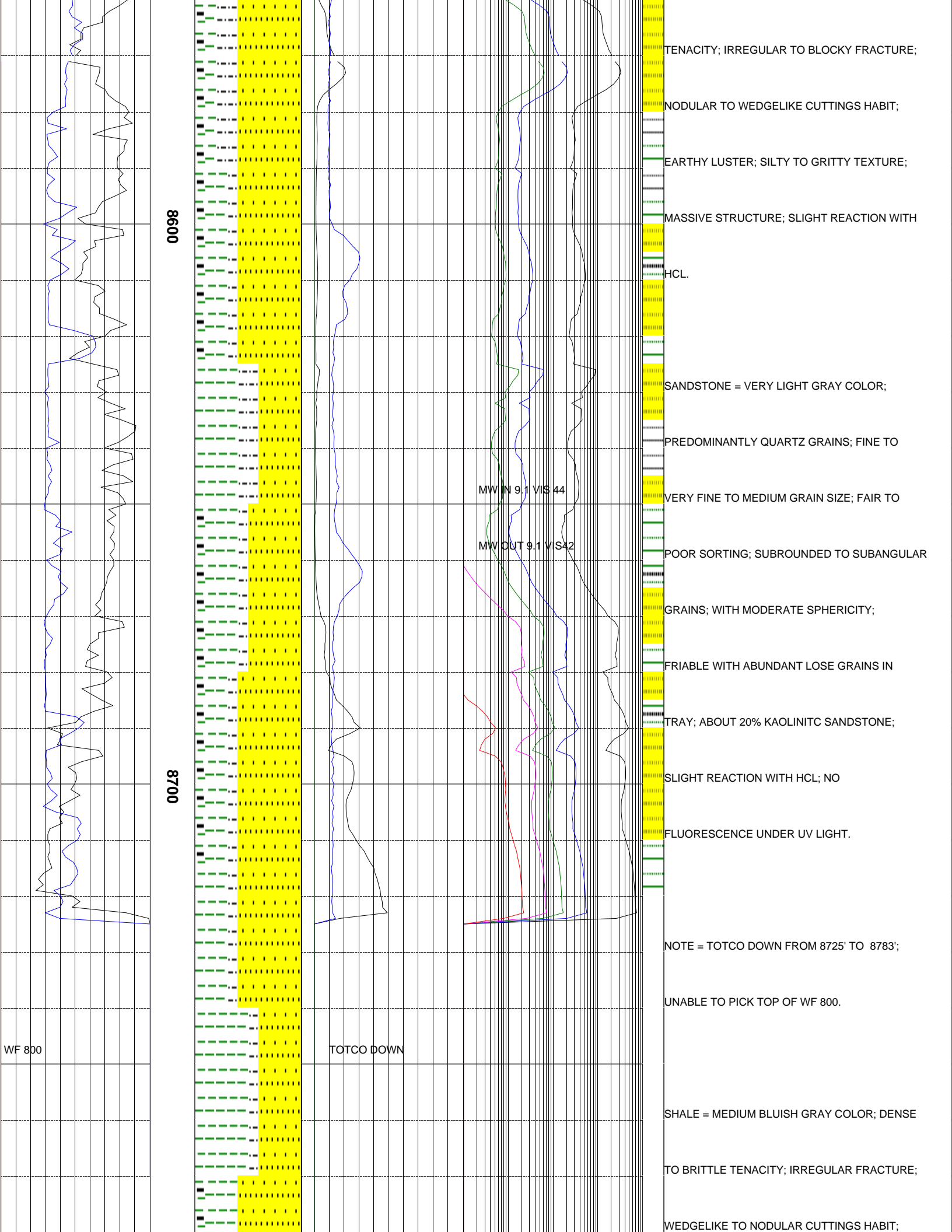
24 HR LOSSES 3201 BBL

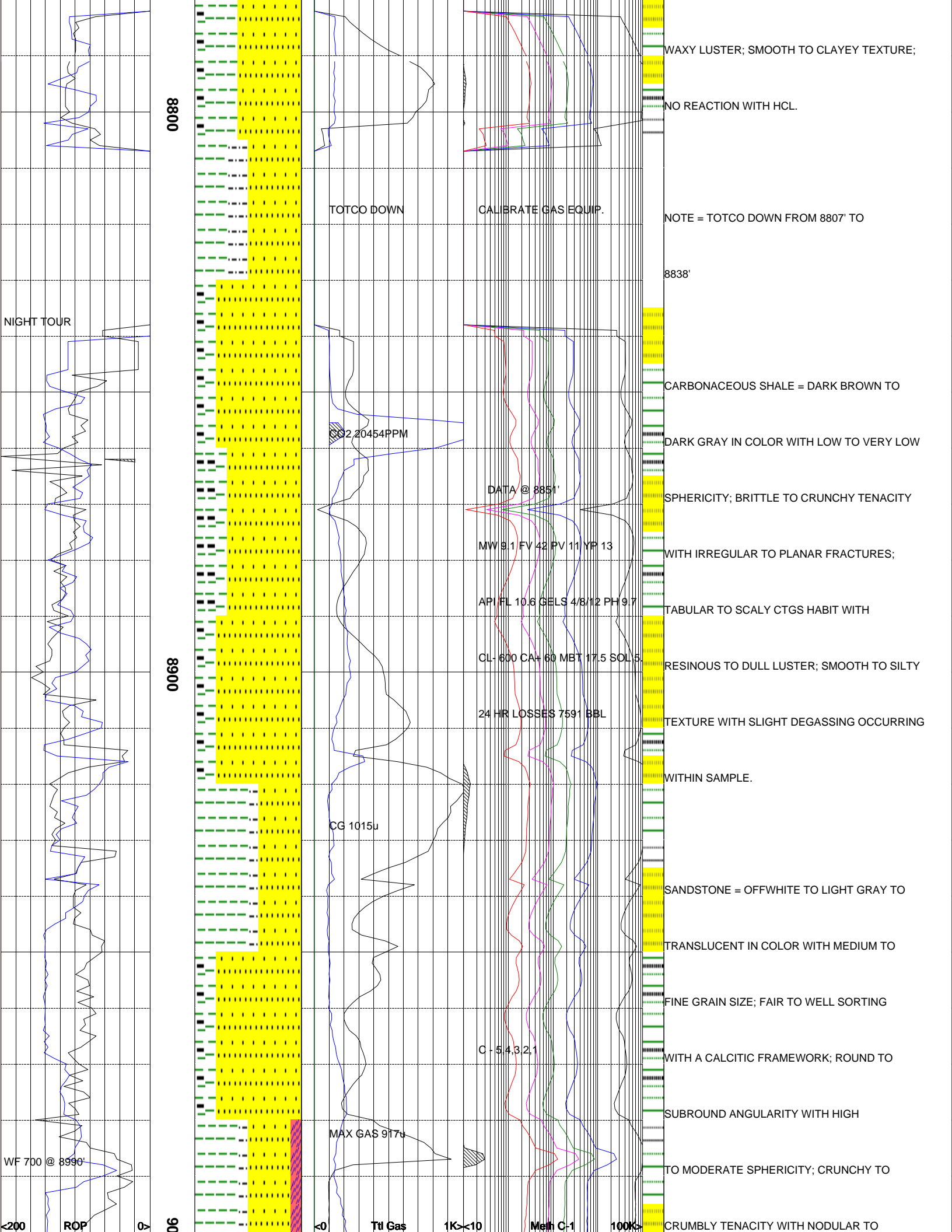
NIGHT TOUR

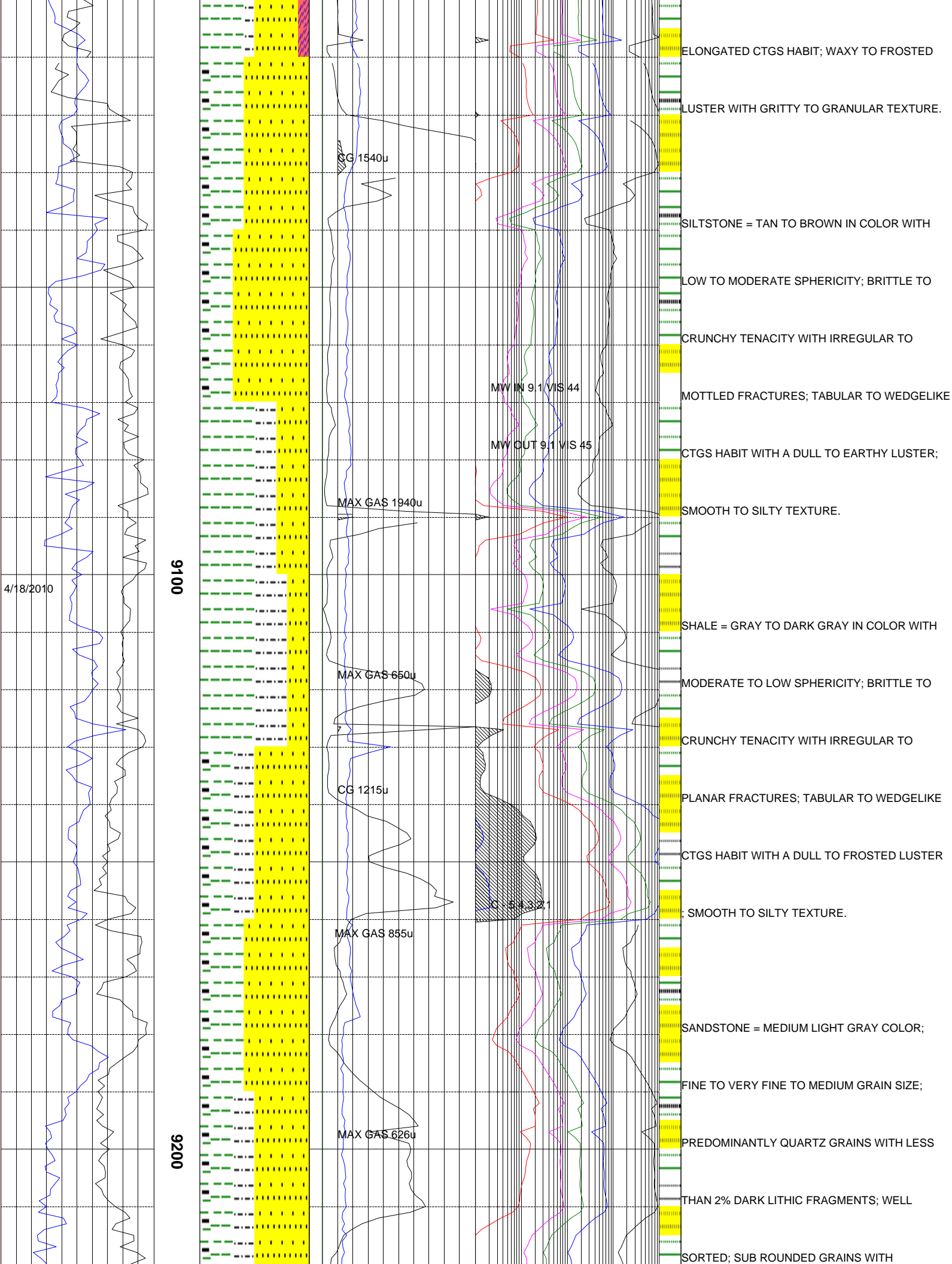


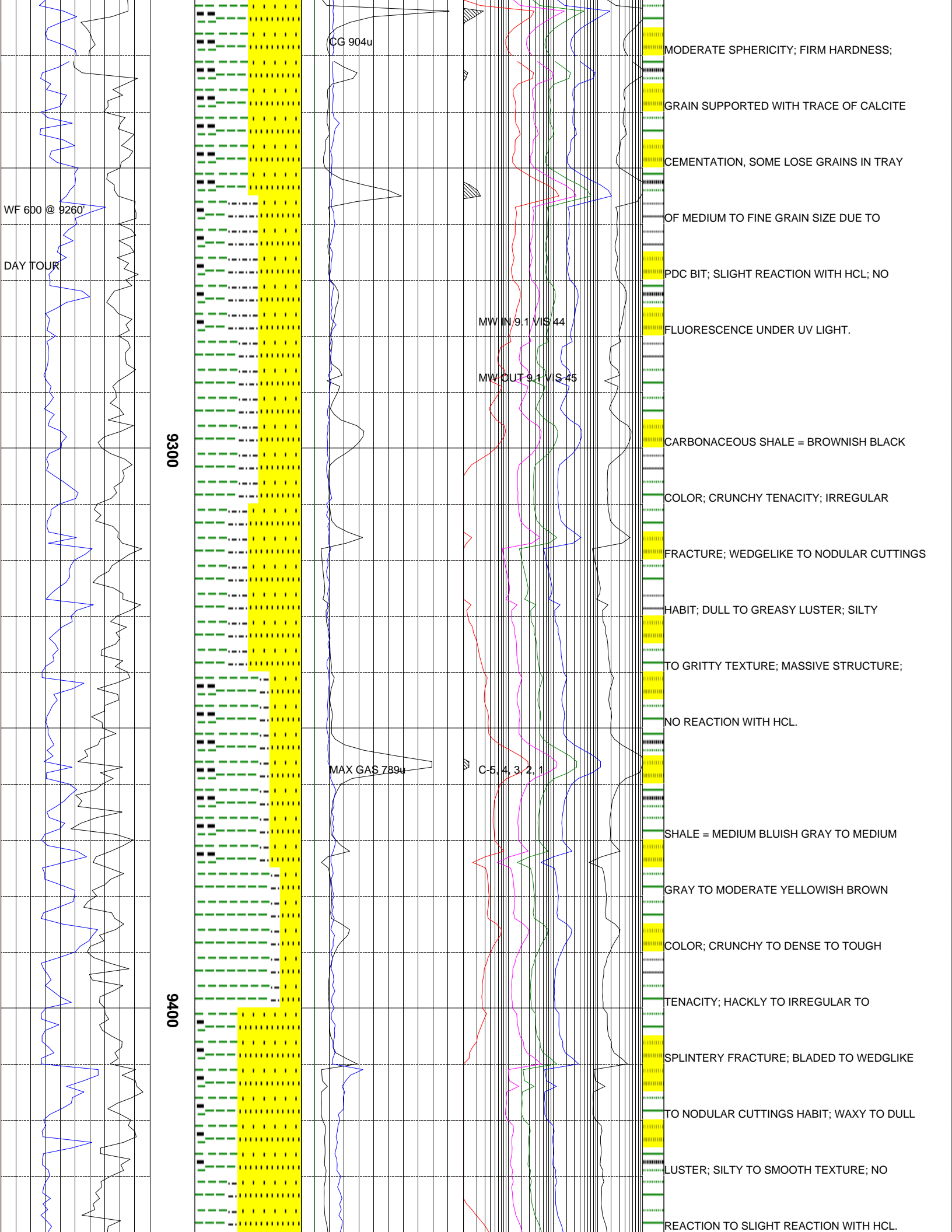


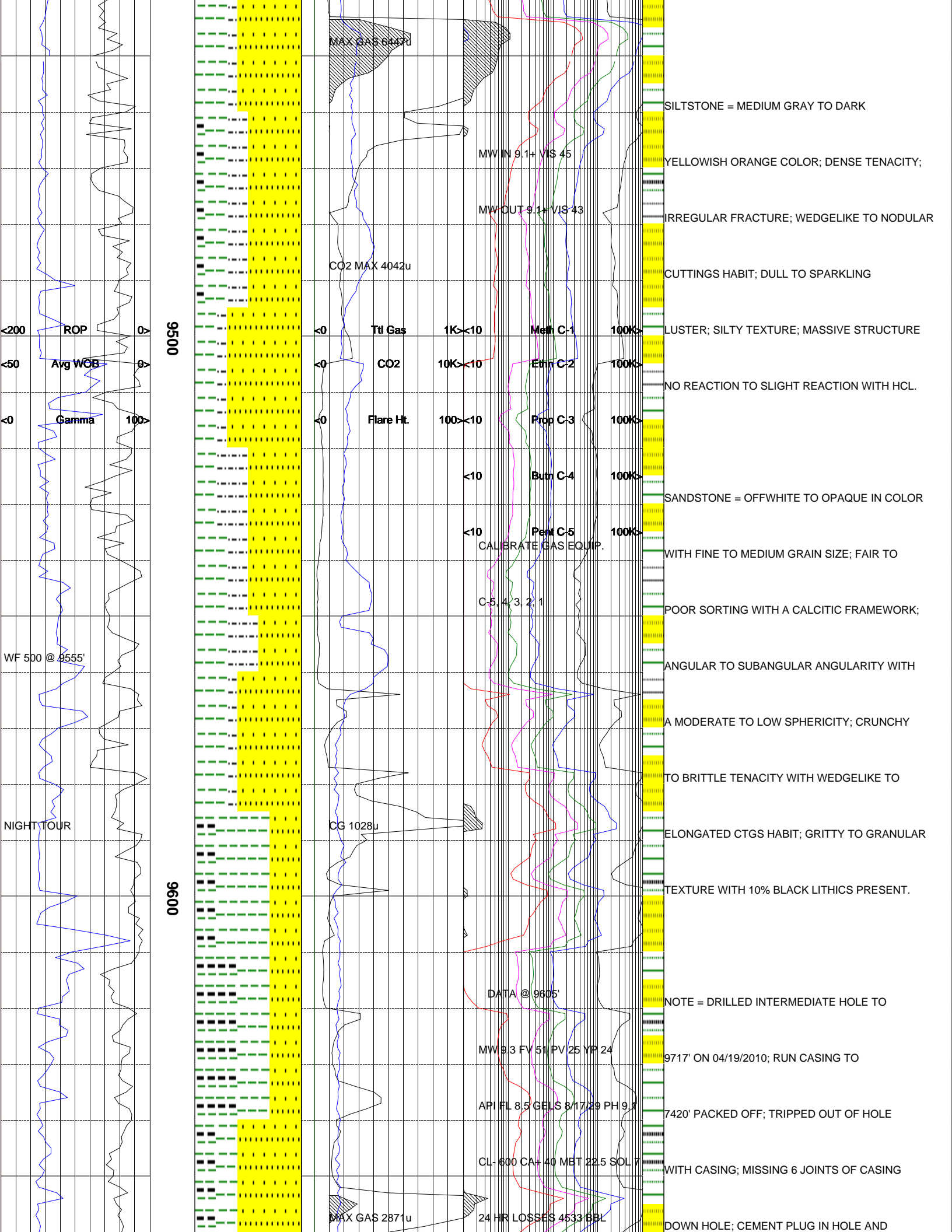


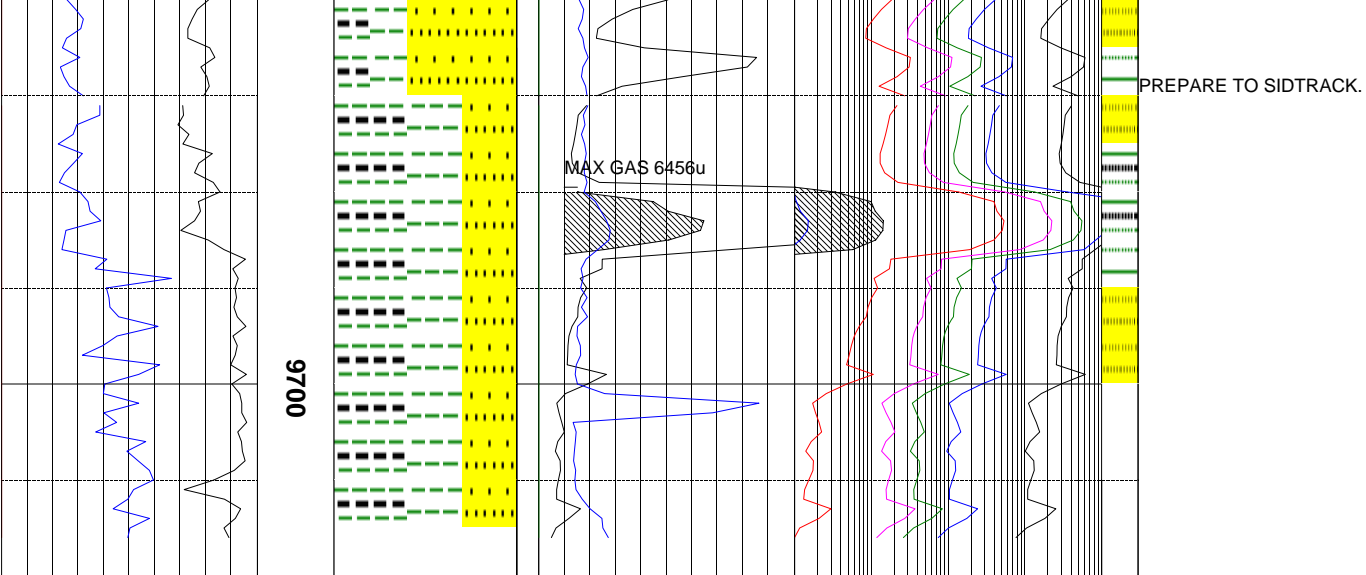












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