



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1303267  
OIL & GAS CONSERVATION DIVISION

Form ACO-1  
August 2013

Form must be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well       Re-Entry       Workover
- Oil       WSW       SWD       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic       Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening       Re-perf.       Conv. to ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
-----------------------------------	-----------------	---

API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27       NAD83       WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

1303267

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No  List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
--	---

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

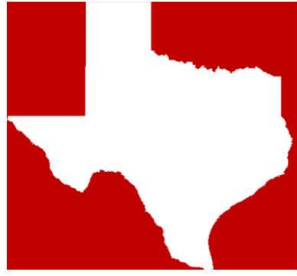
TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR: \_\_\_\_\_ Producing Method:  
 Flowing  Pumping  Gas Lift  Other *(Explain)* \_\_\_\_\_

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	<b>PRODUCTION INTERVAL:</b> _____ _____
--	---	---





# Texas Geologic Services

Scale: 5" / 100'  
Measured Depth Log

**Well Name** Wilhelm #1-21 5in

**State** Kansas

**County** Rush

**Country** USA

**Rig Number** Duke #1

**Spud Date** 9/24/2015

**Surface Coordinates** E/2 NW 1/4, SEC 21, T18S R16W

**Bottom Hole Coordinates** E/2 NW 1/4, SEC 21 T18S R16W

**Ground Elevation** 1968

**K.B. Elevation** 1978

**Logged Interval** 98

**Type of Drilling Fluid** WBM

## Operator

**Company** Blackstone Operating, Kansas

## Geologist

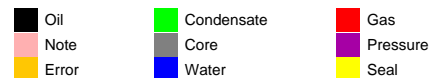
**Name** Thomas D Bowman

## Other

**Day Logger:** Dennis Weaver

**Night Logger:** Dillon Catlett

## Zone Color Coding



## Rock Types

# Rock Types

UNKNOWN	DOLOMITE	SHALE GRAY	TILL
ANHYDRITE	CHERT	SHALE COLORED	BENTONITE
GYPSUM	COAL	SILTSTONE	TUFF
SALT	MARLSTONE	SANDSTONE	IGNEOUS
SIDERITE or LIMONITE	CLAYSTONE	CONGLOMERATE	METAMORPHIC
LIMESTONE	SHALE	BRECCIA	CEMENT

# Accessories

## Fossils

- ALGAE
- AMPHIPORA
- BELEMNITE
- BIOCLASTIC
- BRACHIOPOD
- BRYOZOA
- CEPHALOPOD
- CORAL
- CRINOID
- ECHINOID
- FISH
- FORAMINIFERA

## F FOSSIL

- GASTROPOD
- OOLITE
- OSTRACOD
- PELECYPOD
- PELLET
- PISOLITE
- PLANT REMAINS
- PLANT SPORES
- SCAPHOPOD
- STROMATOPOROID

## Minerals

- ANHYDRITIC

## — ARGILLACEOUS

- ARGILLITE GRAIN
- BENTONITE
- BITUMENOUS SUBSTANCE
- BRECCIA FRAGMENTS
- CALCAREOUS
- CARBONACEOUS FLAKES
- CHTDK
- CHTLT
- COAL - THIN BEDS
- DOLOMITIC
- FELDSPAR
- FERRUGINOUS PELLETT
- FERRUGINOUS

## ∨ GLAUCONITE

- GYPSIFEROUS
- HEAVY MINERAL
- KAOLIN
- MARLSTONE
- MINERAL CRYSTALS
- NODULES
- PHOSPHATE PELLETS
- PYRITE
- SALT CAST
- SANDY
- SILICEOUS
- SILTY
- TUFFACEOUS

## Stringer

- ANHYDRITE STRINGER
- BENTONITE STRINGER
- COAL STRINGER
- DOLOMITE STRINGER
- GYPSUM STRINGER
- LIMESTONE STRINGER
- MARLSTONE (CALC) STRG
- MARLSTONE (DOL) STRG
- SANDSTONE STRINGER
- SHALE STRINGER
- SILTSTONE STRINGER

# Other Symbols

## Oil Show

- DEAD
- EVEN
- QUESTIONABLE
- SPOTTED STAINING

- ORGANIC
- PINPOINT
- VUGGY

## Engineering

- BIT
- CASING
- CONNECTION (LEFT)
- CONNECTION (RIGHT)
- CONNECTION GAS
- CORE - LOST
- CORE - RECOVERED
- DST INTERVAL
- FAULT

## Porosity

- EARTHY
- FENESTRAL
- FRACTURE
- INTERCRYSTALLINE
- INTEROOLITIC
- MOLDIC

## FORMATION TOP

- GAS SHOW
- MN DEPTH
- NORMAL FAULT
- OIL SHOW
- OVERTURNED STRATA
- REVERSE FAULT
- SIDEWALL CORE (LEFT)
- SIDEWALL CORE (RIGHT)
- SLIDE
- SURVEY
- TRIP GAS
- WIRELINE TESTED - LEFT
- WIRELINE TESTED - RT

## Rounding

- ANGULAR
- ROUNDED
- SUBANG
- SUBRND

## L LITHOGRAPHIC

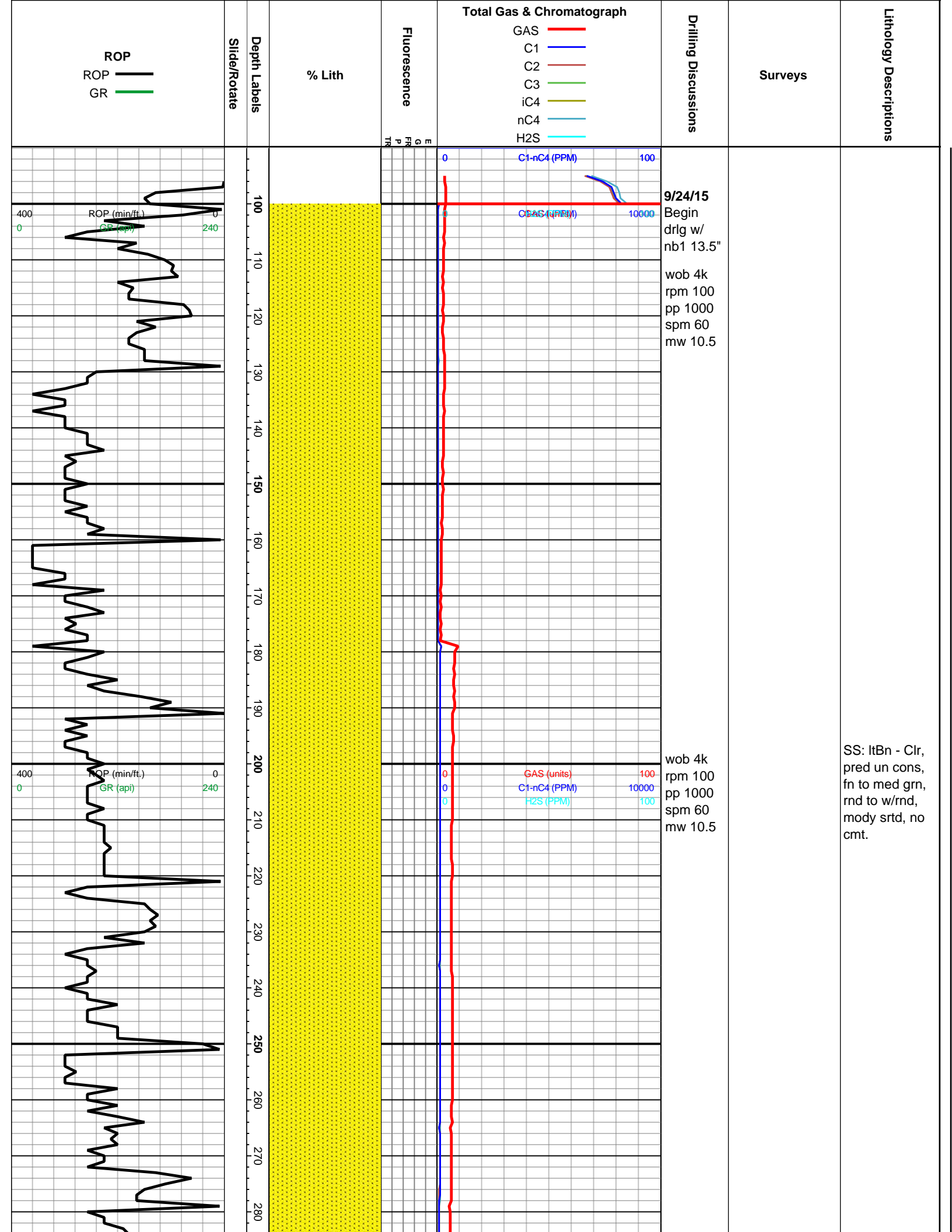
- MICROXLN
- MUDSTONE
- PACKSTONE
- WACKESTONE

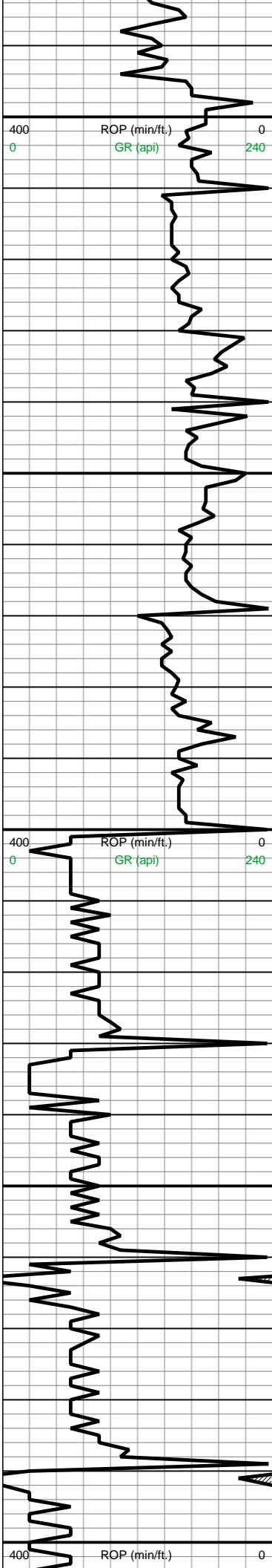
## Textures

- BOUNDSTONE
- CHALKY
- CRYPTOXLN
- EARTHY
- FINELYXLN
- GRAINSTONE

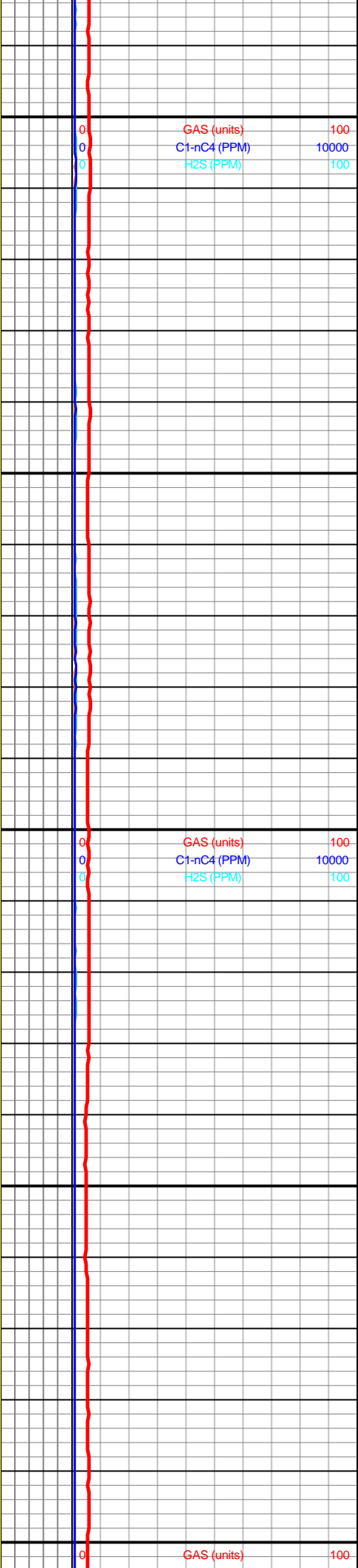
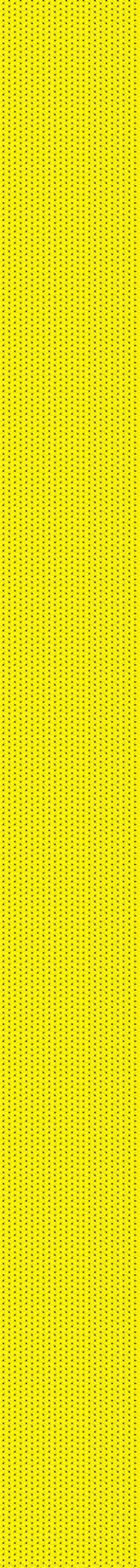
## Sorting

- MODERATE
- POOR
- WELL





290  
300  
310  
320  
330  
340  
350  
360  
370  
380  
390  
400  
410  
420  
430  
440  
450  
460  
470  
480  
490  
500



wob 4k  
rpm 100  
pp 1000  
spm 51  
mw 11.0  
vis 56

wob 4k  
rpm 100  
pp 1000  
spm 60  
mw 11.0  
vis 56

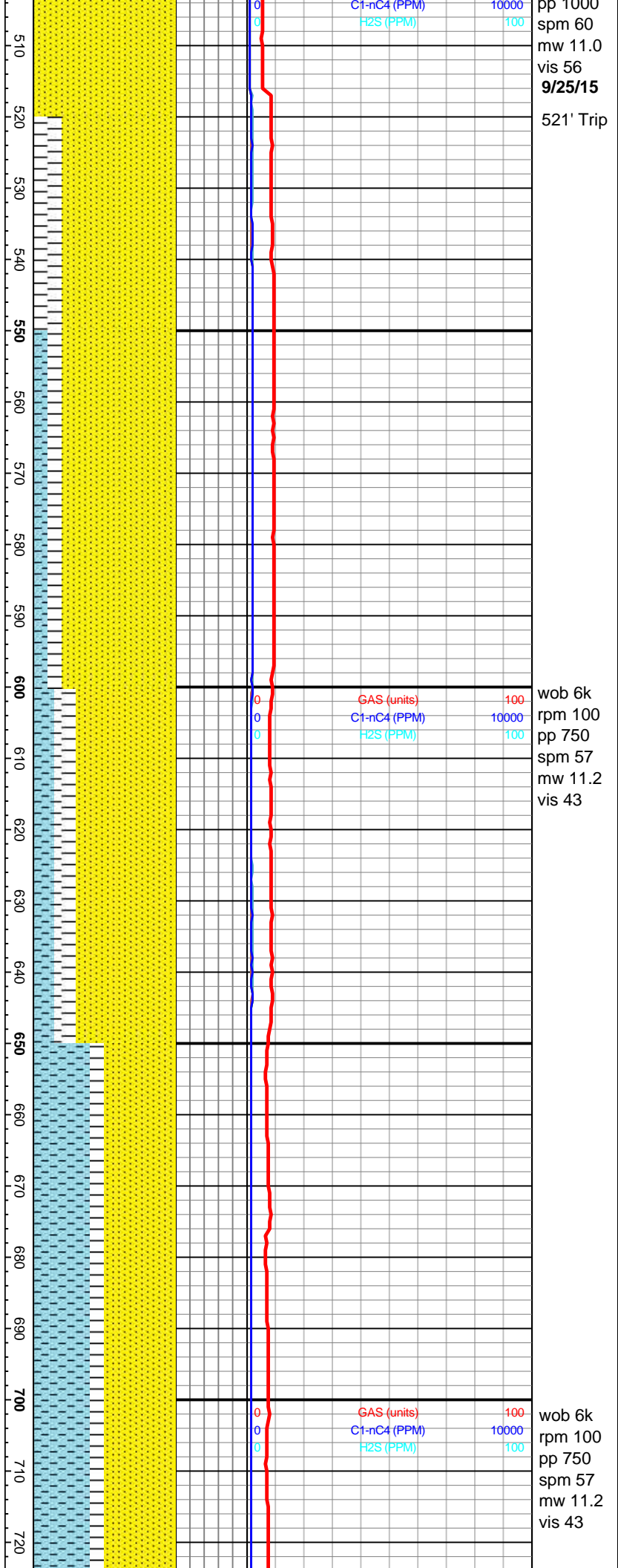
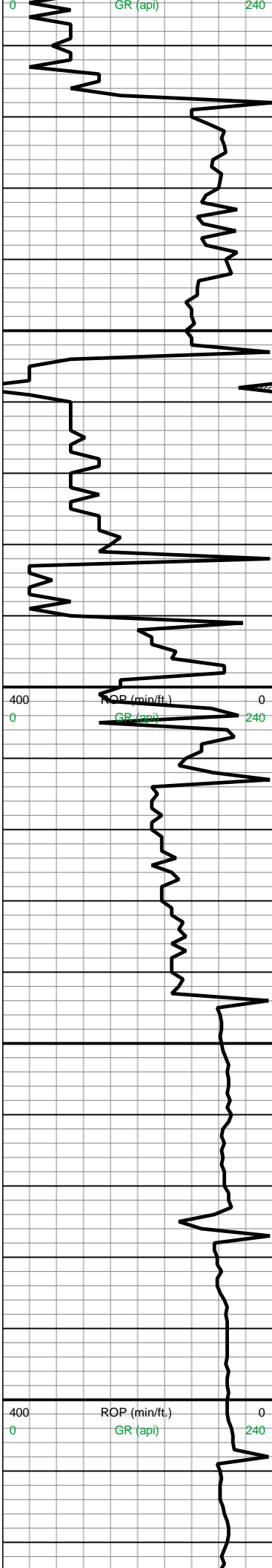
wob 4k  
rpm 100  
pp 1000  
spm 51  
mw 11.0  
vis 56

SS: ltBn - Clr,  
pred un cons,  
fn to med grn,  
rnd to w/rnd,  
mody srtd, no  
cmt.

SS: pred Clr -  
v/ltGy, pred un  
to lsey cons,  
v/fn to med  
grn, ang to  
rnd, p srtd.

SS: pred Clr -  
v/ltGy, pred un





to lsey cons, v/fn to med grn, ang to rnd, p srted.

SS: pred Clr - v/ltGy, pred un to lsey cons, v/fn to med grn, ang to rnd, p srted, sh.

SS: Milky - Clr, un cons, pred med grn, subang to rnd, w srted. red clay, sh

SS: Milky - Clr, un cons, pred med grn, subang to rnd, w srted, tr pyr, red clay, sh

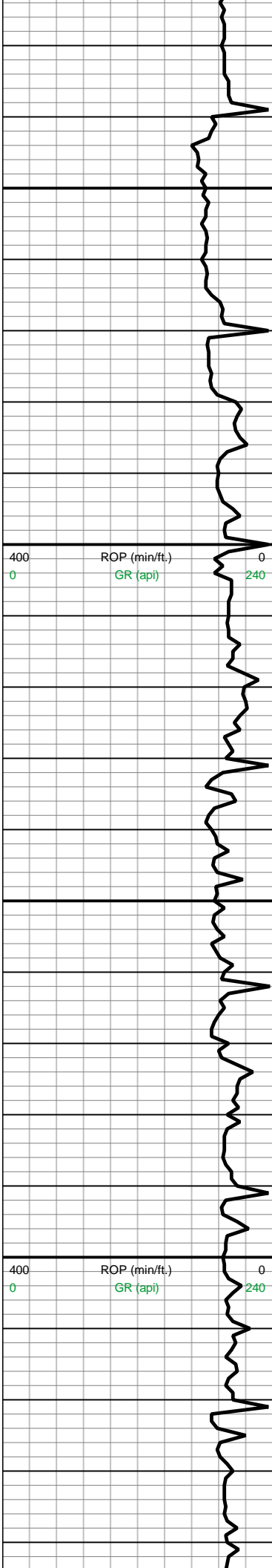
SS: Milky - Clr, un cons, pred med grn, subang to rnd, w srted, tr pyr, red clay, sh

pp 1000  
spm 60  
mw 11.0  
vis 56  
**9/25/15**  
521' Trip

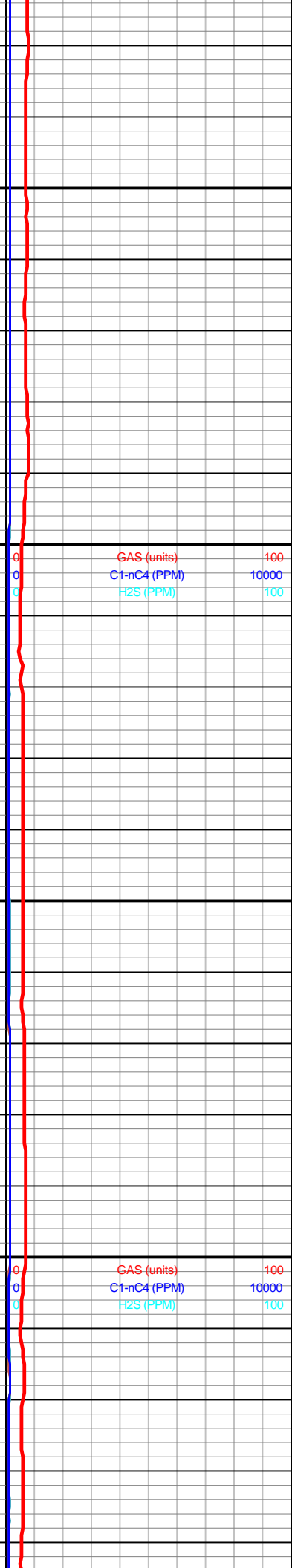
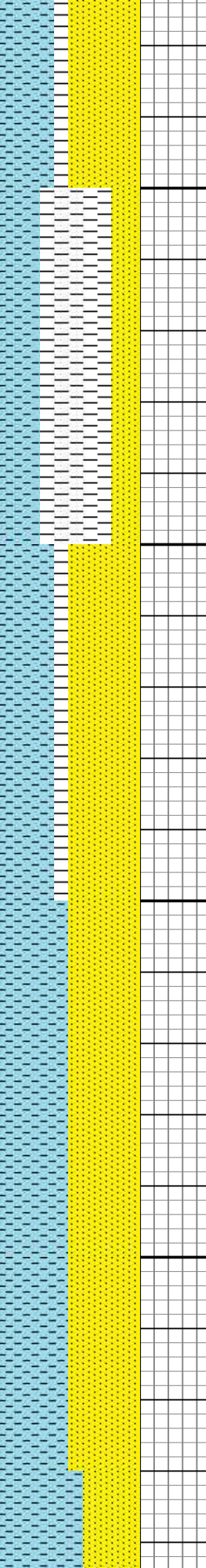
wob 6k  
rpm 100  
pp 750  
spm 57  
mw 11.2  
vis 43

wob 6k  
rpm 100  
pp 750  
spm 57  
mw 11.2  
vis 43





730  
740  
750  
760  
770  
780  
790  
800  
810  
820  
830  
840  
850  
860  
870  
880  
890  
900  
910  
920  
930  
940



wob 6k  
rpm 100  
pp 750  
spm 57  
mw 11.3  
vis 42

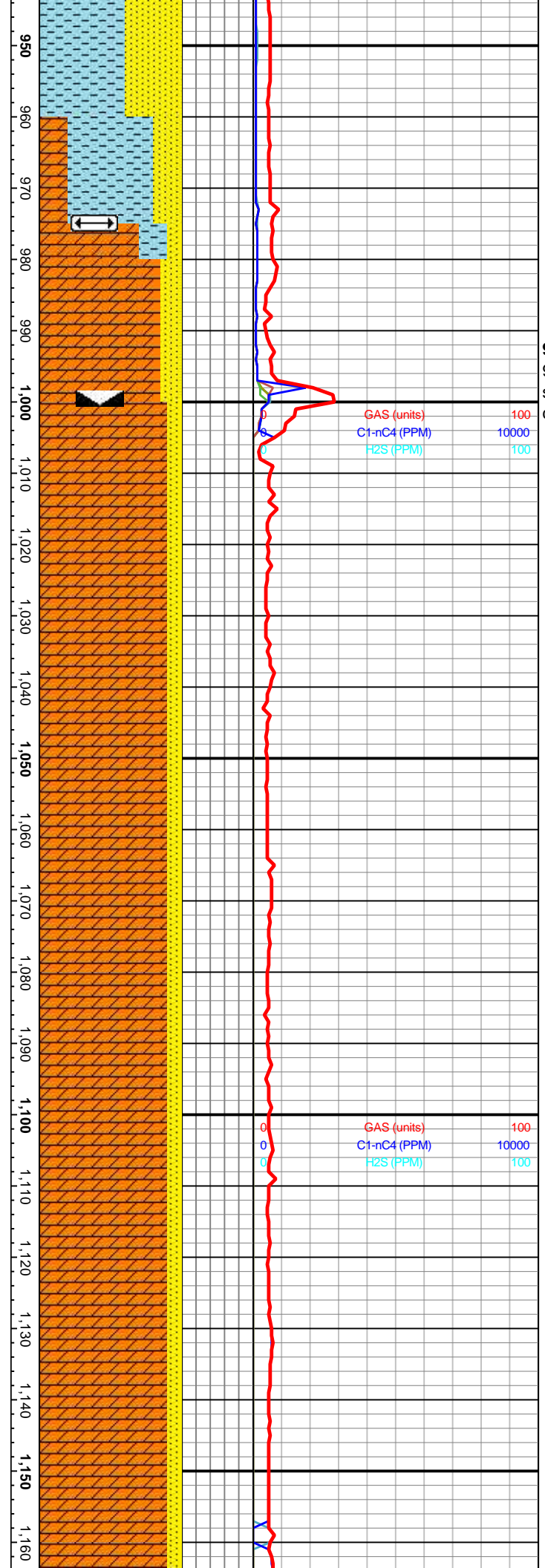
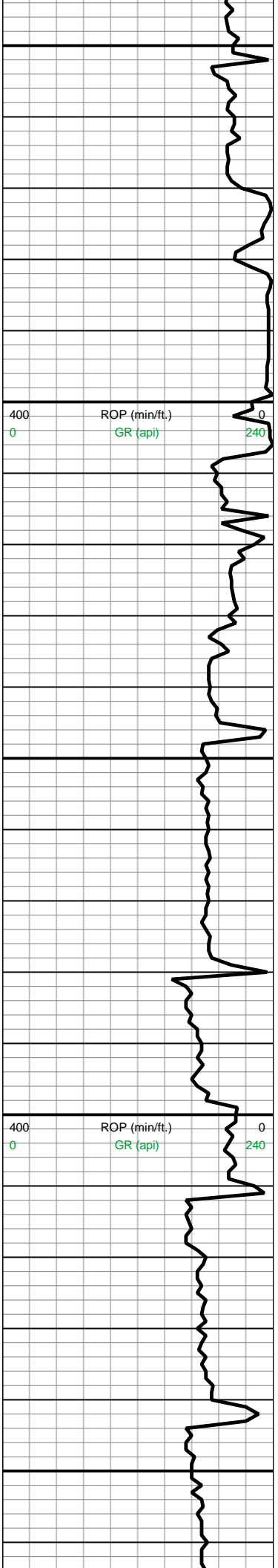
wob 6k  
rpm 100  
pp 750  
spm 57  
mw 11.3  
vis 42

SS: Milky - Clr,  
un cons, pred  
med grn,  
subang to rnd,  
w srted, tr pyr,  
red clay, sh

SH: ltGy -  
medltGy, rnd  
to subblky, grty  
txt, frm, red  
clay, ss

SS: Milky - Clr,  
un cons, pred  
med grn,  
subang to rnd,  
w srted, tr pyr,  
red clay, sh

SS: Milky - Clr,  
un cons, pred  
med grn,  
subang to rnd,  
w srted, tr pyr,  
red clay



9/26-27/15  
 975' Set  
 surface  
 csg, nb#2  
 9/28/15

GAS (units) 100  
 C1-nC4 (PPM) 10000  
 H2S (PPM) 100

wob 10k  
 rpm 100  
 pp 650  
 spm 69  
 mw 9.0  
 vis 33

SS: Milky - Clr,  
 un cons, pred  
 med grn,  
 subang to rnd,  
 w srted, red clay

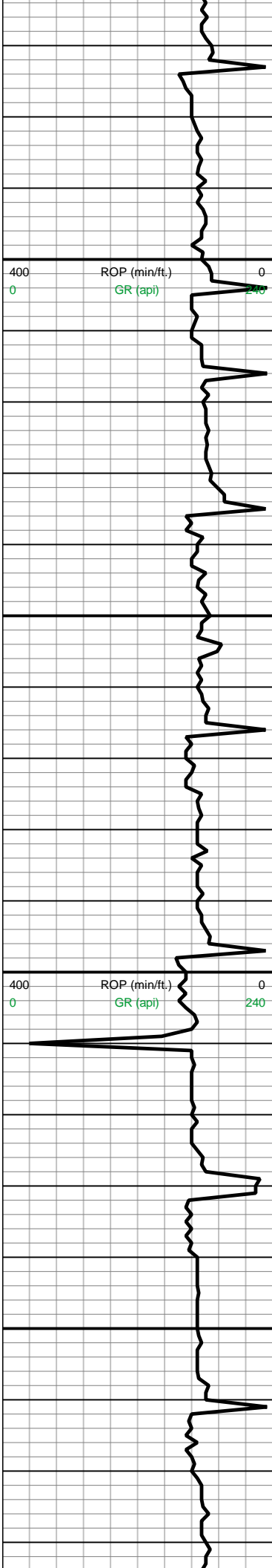
**Top of Stone  
 Corral**  
 975' MD  
 975' TVD

SS: modRdBn  
 - v/lTgy, mod  
 cons, v/fn to fn  
 grn, rnd, v/w  
 srted, tr anhy

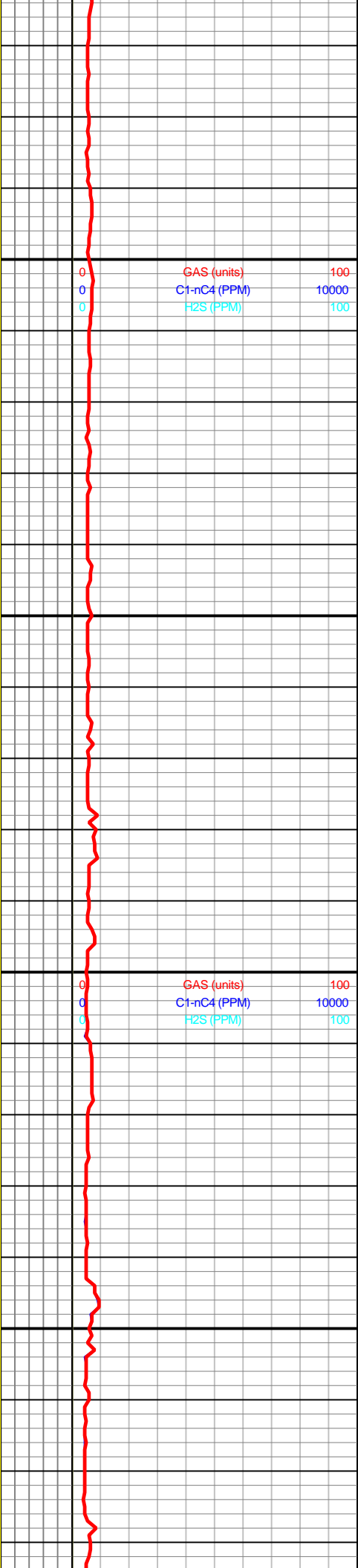
SS: modRdBn  
 - v/lTgy, mod  
 cons, v/fn to fn  
 grn, rnd, v/w  
 srted, tr anhy

SS: modRdBn  
 - medltGy,  
 mod cons, fn  
 to med grn,  
 ang to  
 subang, mody  
 srted.

SS: modRdBn  
 - medltGy,  
 mod cons, fn  
 to med grn,  
 ang to



1,170  
1,180  
1,190  
1,200  
1,210  
1,220  
1,230  
1,240  
1,250  
1,260  
1,270  
1,280  
1,290  
1,300  
1,310  
1,320  
1,330  
1,340  
1,350  
1,360  
1,370  
1,380



wob 11k  
rpm 100  
pp 650  
spm 69  
mw 9.0  
vis 33

wob 12k  
rpm 100  
pp 650  
spm 70  
mw 9.0  
vis 33

ang to subang, mody srted.

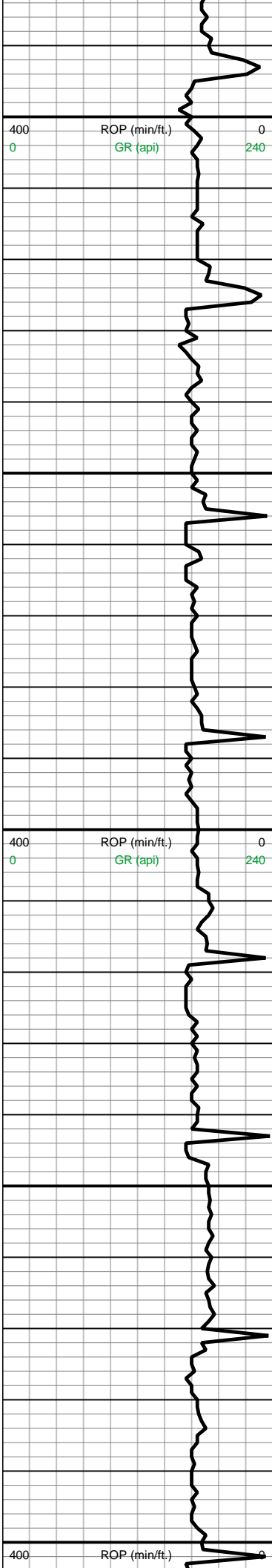
SS: modOrPk - ltGy, mod cons, v/fn to fn grn, rnd, v/w to w srted.

SS: modOrPk - ltGy, mod cons, v/fn to fn grn, rnd, v/w to w srted.

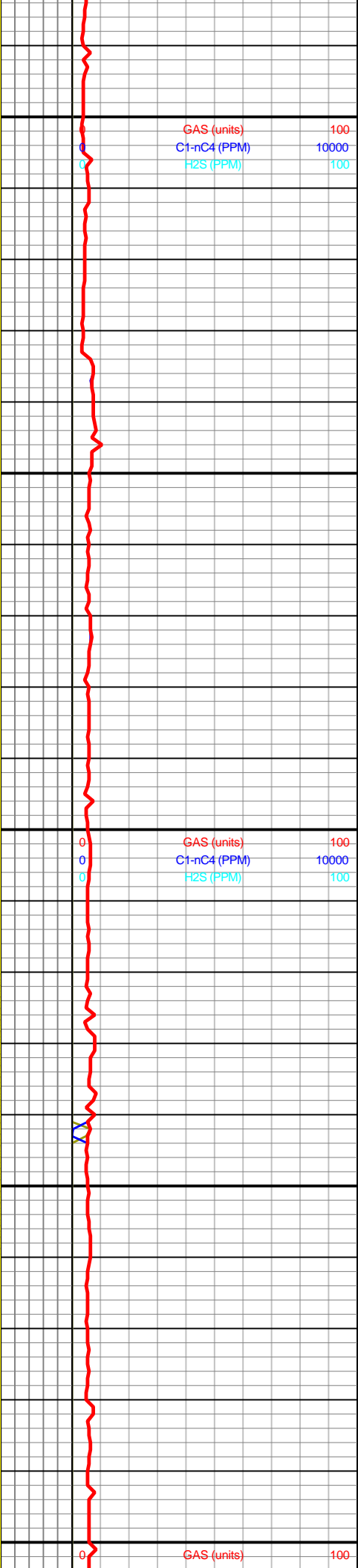
SS: medGy - ltGy - modOrPk, w cons, v/fn to med grn, subang, w srted.

SS: medGy - ltGy - modOrPk, w cons, v/fn to med grn, subang, w srted.





1,390  
1,400  
1,410  
1,420  
1,430  
1,440  
1,450  
1,460  
1,470  
1,480  
1,490  
1,500  
1,510  
1,520  
1,530  
1,540  
1,550  
1,560  
1,570  
1,580  
1,590  
1,600



wob 12k  
rpm 100  
pp 650  
spm 70  
mw 9.0  
vis 33

wob 10k  
rpm 120  
pp 750  
spm 65  
mw 9.0  
vis 33

wob 10k

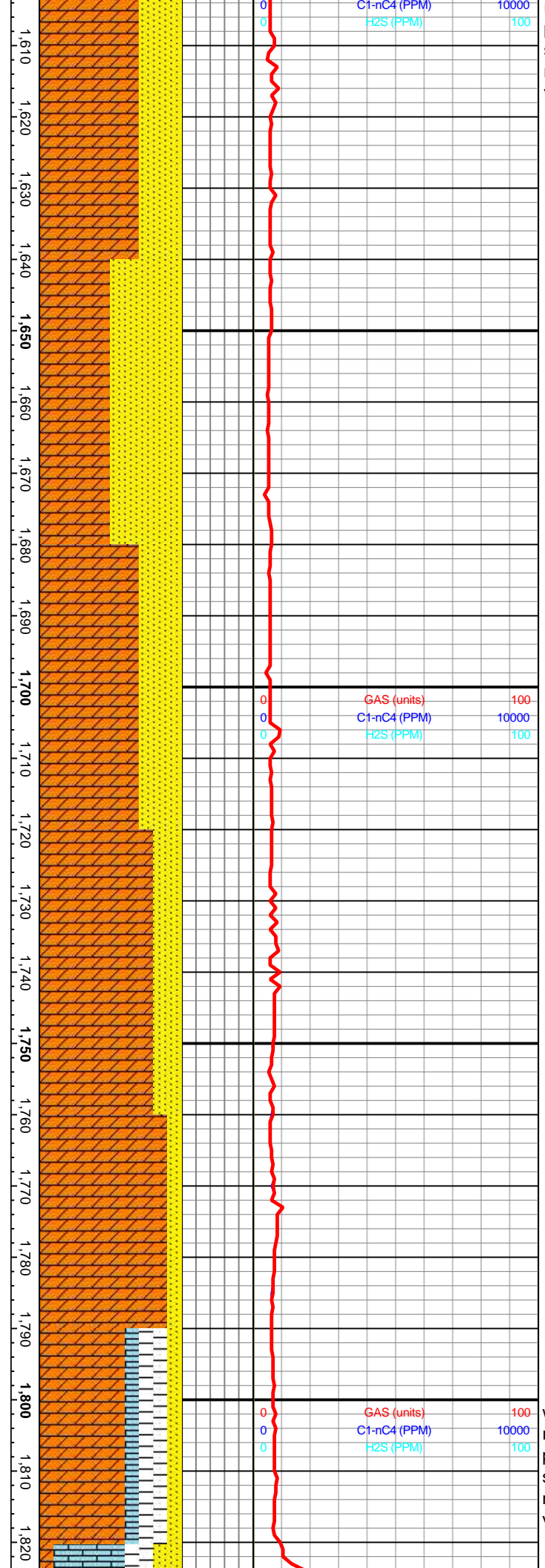
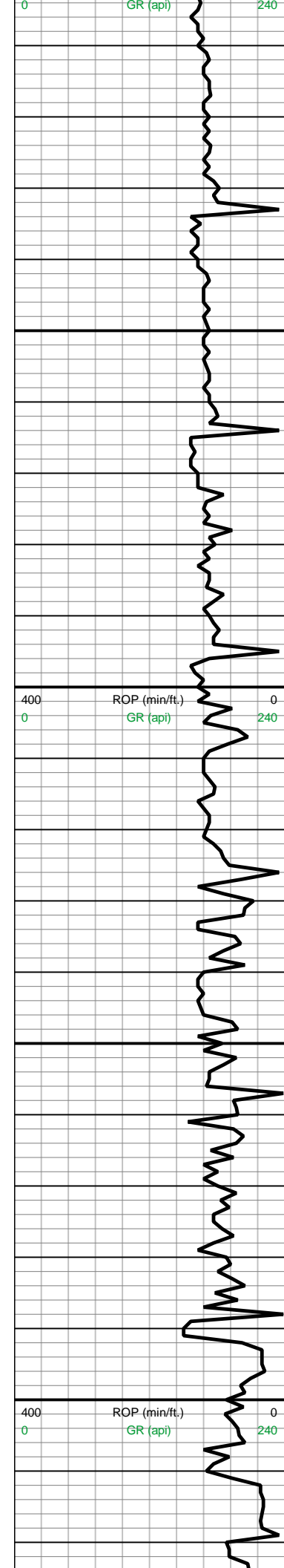
SS: meddrkGy  
- v/lTgy, mod  
cons, v/fn to fn  
grn, w/rnd,  
mody srted.  
abdt anhy

SS: meddrkGy  
- v/lTgy, mod  
cons, v/fn to fn  
grn, w/rnd,  
mody srted.  
abdt anhy

SS: meddrkGy  
- Red-occ ltGy,  
w cons, v/fn  
grn, subang, w  
srted, calc cmt,  
abdt anhy

SS: meddrkGy  
- occ Red-occ  
ltGy, w cons,  
v/fn grn,  
subang, w  
srted, calc cmt,  
abdt anhy

SS: meddrkGy  
- occ Red-occ



rpm 120  
pp 750  
spm 65  
mw 9.0  
vis 33

wob 10k  
rpm 120  
pp 750  
spm 65  
mw 9.0  
vis 33

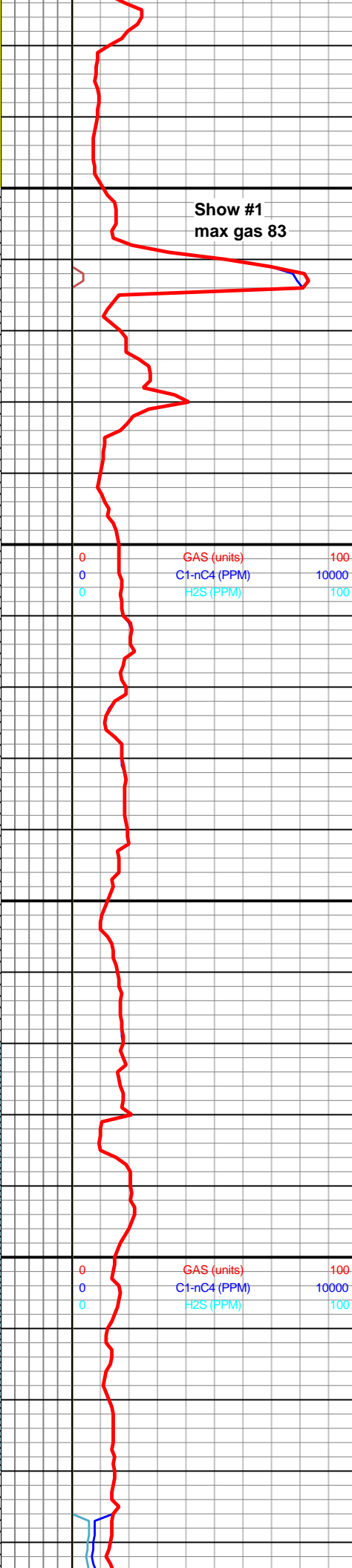
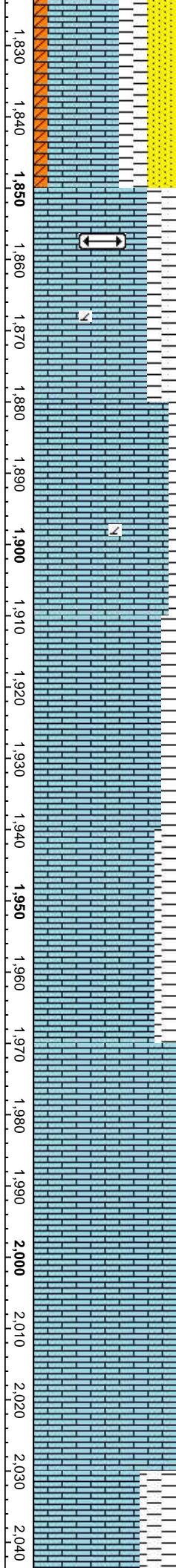
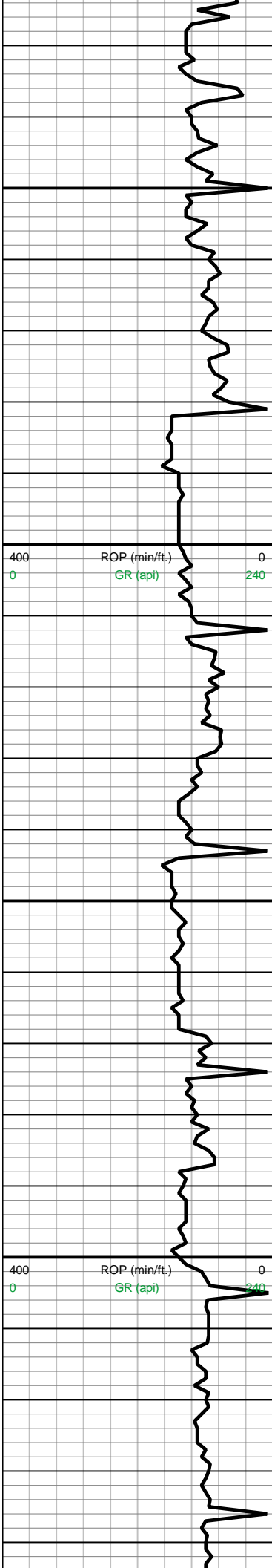
wob 10k  
rpm 120  
pp 750  
spm 70  
mw 9.2  
vis 33

ltGy, w cons,  
v/fn grn,  
subang, w  
srtd, calc cmt,  
abdt anhy

SS: meddrkGy  
-Red-occ ltGy,  
w cons, v/fn  
grn, subang, w  
srtd, calc cmt,  
abdt anhy

SS: meddrkGy  
- occ Red-occ  
ltGy, w cons,  
v/fn grn,  
subang, w  
srtd, calc cmt,  
abdt anhy

SS: meddrkGy  
-occ ltGy, w  
cons, v/fn grn,  
subang, w  
srtd, calc cmt,  
abdt anhy



Show #1  
max gas 83

wob 14k  
rpm 120  
pp 1000  
spm 69  
mw 9.4  
vis 34

wob 14k  
rpm 120  
pp 1000  
spm 69  
mw 9.4  
vis 34

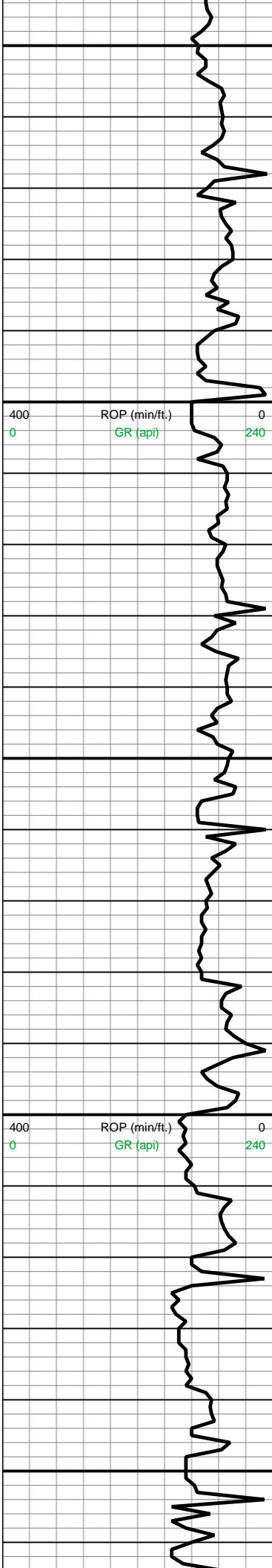
LS: v/lTgy,  
subblky, v/fxln  
to medxln, hd,  
imbd DOL,  
intgr por.  
**Top of Chase**  
**1857' MD**  
**1857' TVD**

LS: v/lTgy,  
subblky, v/fxln  
to medxln, hd,  
imbd DOL,  
vugy - intragr  
por.

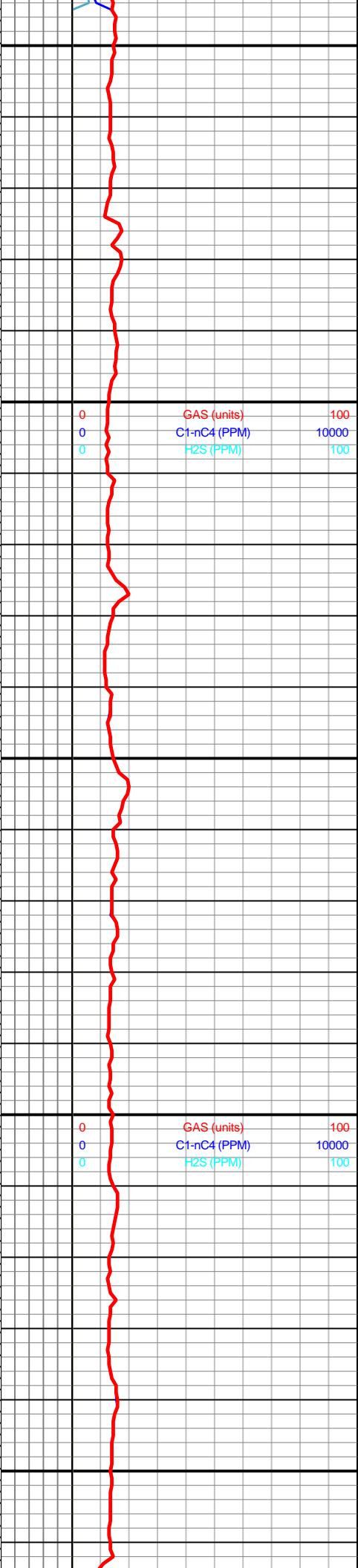
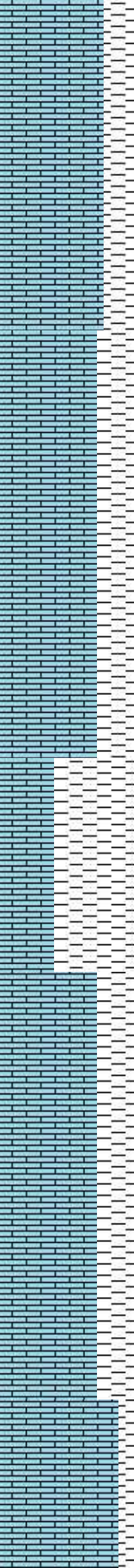
LS: v/lTgy - occ  
modRdOr,  
subblky, v/fxln  
to medxln, hd,  
imbd DOL,  
vugy - intragr  
por.

LS: Wh,  
subblky, v/fxln  
to fxln, frm to  
hd, imbd DOL,  
vugy - intragr  
por.





2.050  
2.060  
2.070  
2.080  
2.090  
2.100  
2.110  
2.120  
2.130  
2.140  
2.150  
2.160  
2.170  
2.180  
2.190  
2.200  
2.210  
2.220  
2.230  
2.240  
2.250  
2.260



400 ROP (min/ft.) 0  
0 GR (api) 240

400 ROP (min/ft.) 0  
0 GR (api) 240

wob 14k  
rpm 120  
pp 1000  
spm 68  
mw 9.6  
vis 33

wob 12k  
rpm 120  
pp 1000  
spm 68  
mw 9.8  
vis 31

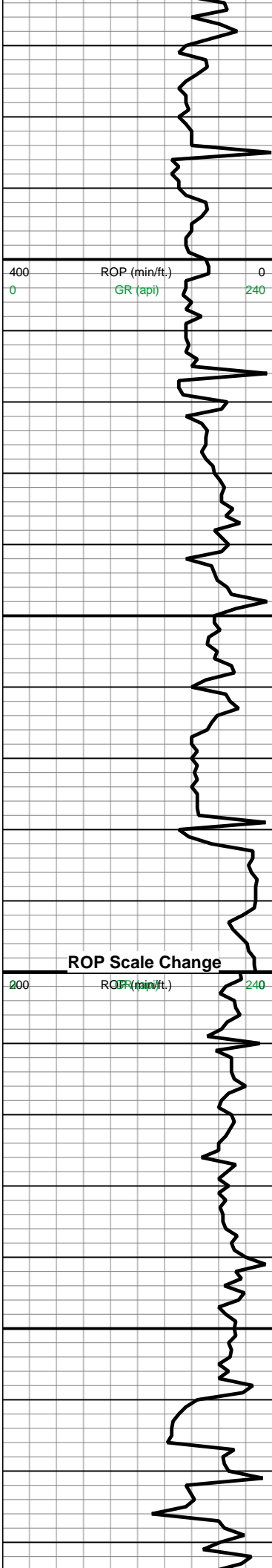
LS: Wh - medltGy, subblky, v/fxln to fxln, hd to frm, vugy - intragr por.

LS: Wh - medltGy, subblky, micxln to fxln, hd to frm, vugy - intragr por.

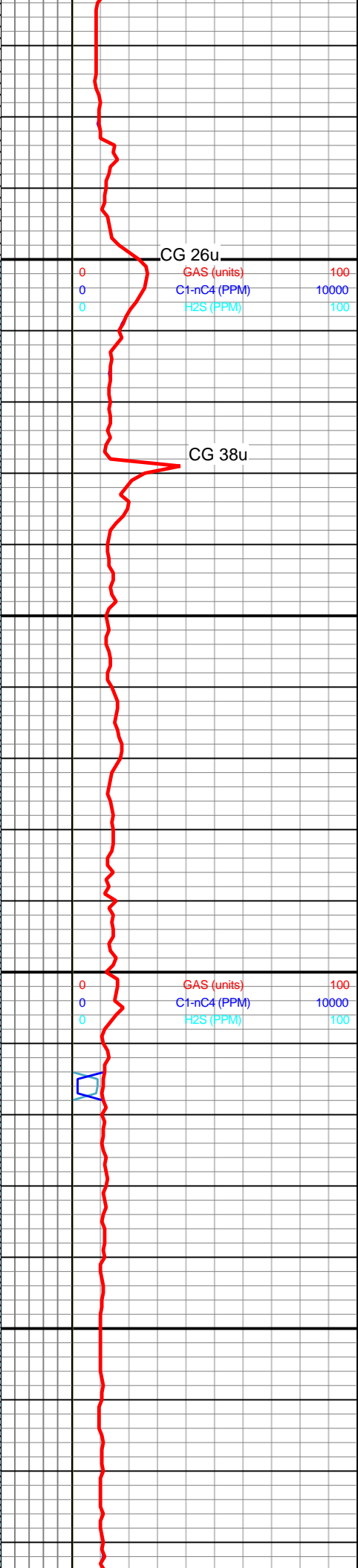
LS: Wh - medltGy, subblky, micxln to fxln, hd to frm, imbd QTZ, vugy - intragr por.

LS: Wh - medltGy - modRdOr, subblky, micxln to v/fxln, hd to frm, intragr por.

LS: Wh - medltGy, subblky, v/fxln to fxln, hd to frm, imbd



2.270  
2.280  
2.290  
2.300  
2.310  
2.320  
2.330  
2.340  
2.350  
2.360  
2.370  
2.380  
2.390  
2.400  
2.410  
2.420  
2.430  
2.440  
2.450  
2.460  
2.470  
2.480



wob 12k  
rpm 120  
pp 1000  
spm 68  
mw 9.8  
vis 31

wob 12k  
rpm 130  
pp 1000  
spm 68  
mw 9.8  
vis 31

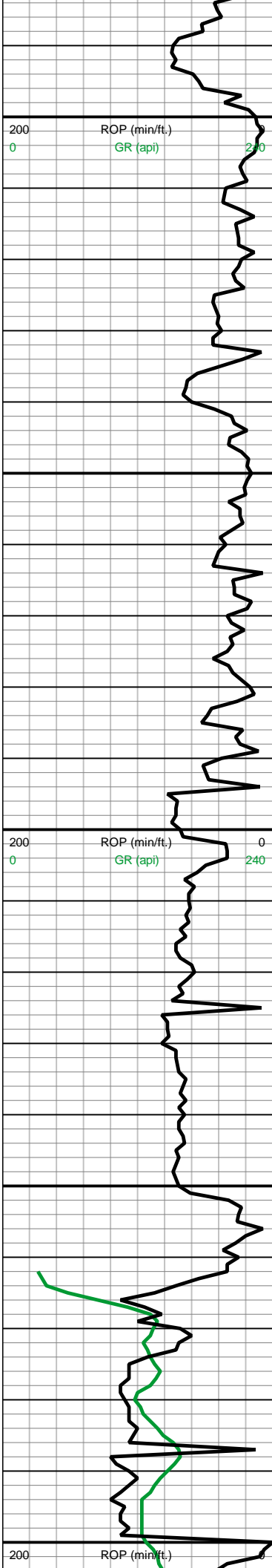
DOL, vugy -  
intragr por.

LS: Wh -  
medltGy,  
subblky, v/fxln  
to fxln, hd to  
frm, imbd DOL

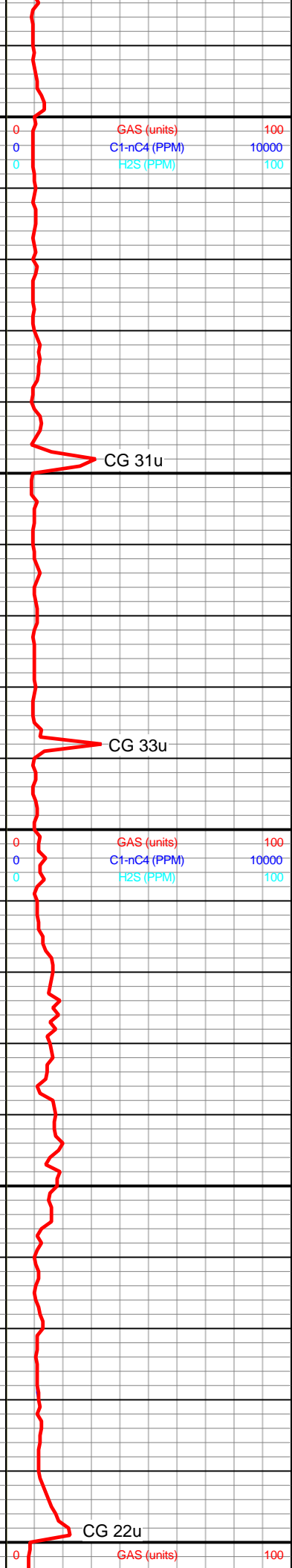
LS: Wh - v/lGy,  
subblky, v/fxln  
to fxln, hd to  
frm.

LS: Wh - v/lGy,  
subblky, v/fxln  
to fxln, hd to  
frm, intragr por.

LS: meddrkGy  
- v/lGy,  
subblky,  
v/crsxln to fxln,  
hd to frm.



2,490  
2,500  
2,510  
2,520  
2,530  
2,540  
2,550  
2,560  
2,570  
2,580  
2,590  
2,600  
2,610  
2,620  
2,630  
2,640  
2,650  
2,660  
2,670  
2,680  
2,690  
2,700



9/29/15  
wob 12k  
rpm 130  
pp 1000  
spm 68  
mw 9.9  
vis 27

wob 10k  
rpm 90  
pp 600  
spm 69  
mw 10.0  
vis 28

2700'  
Trip for

CG 31u

CG 33u

CG 22u

LS: meddrkGy - v/lTgy, subblky, v/crsxln to fxln, hd to frm.

LS: drkGy - medltGy - occ Wh, subblky, fxln to occ crsxn, hd to frm, imbd PYR xls.

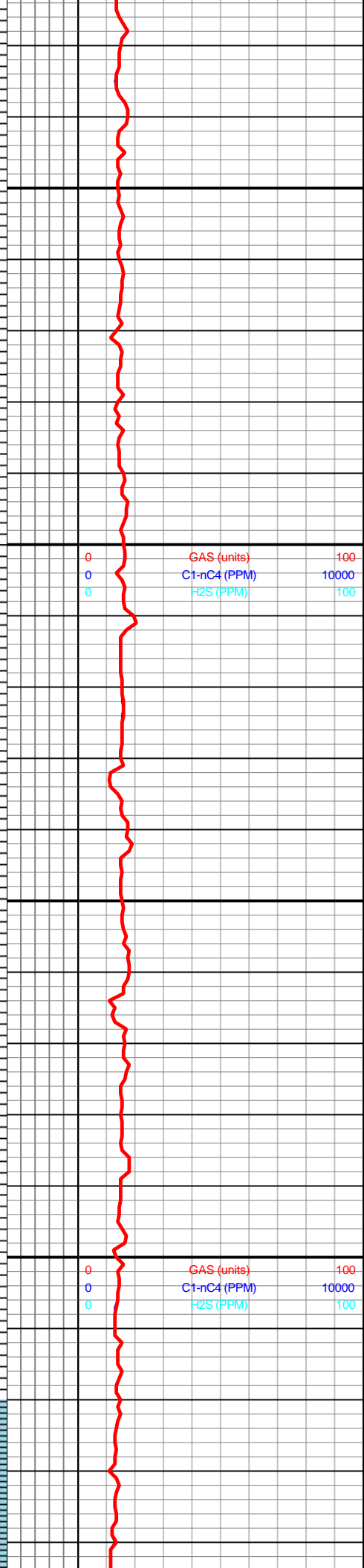
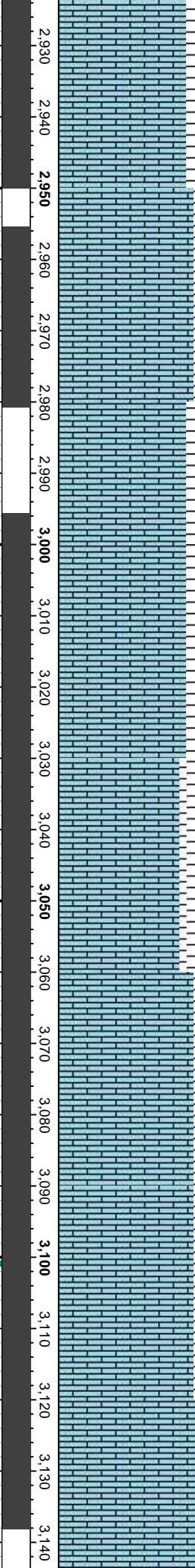
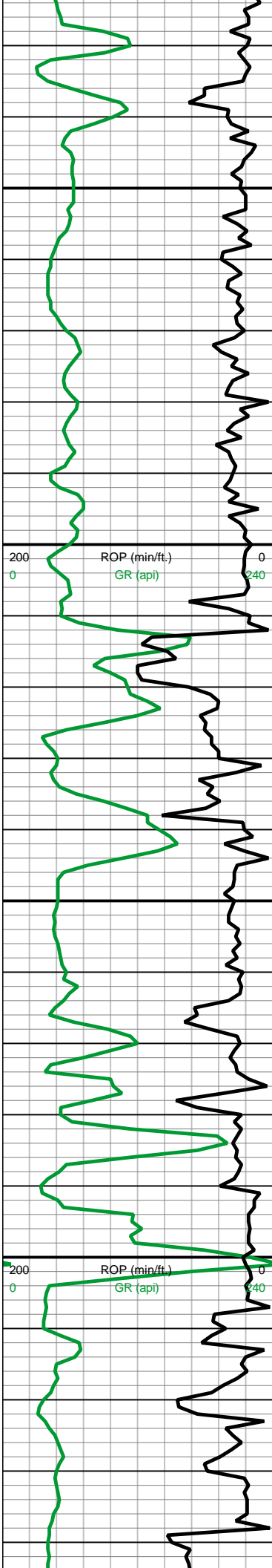
LS: drkGy - medltGy - occ Wh, subblky, fxln to occ crsxn, hd to frm

LS: drkGy - medltGy - occ Wh, subblky, fxln to occ crsxn, hd to frm

LS: Wh - medGv. blkv to







MD: 2,927'  
 TVD: 2,925.8'  
 Inclination: 14°  
 Azimuth: 357.5°  
 VS: 5.23'

MD: 2,958'  
 TVD: 2,955.6'  
 Inclination: 18.2°  
 Azimuth: 358.1°  
 VS: 13.8'

MD: 2,990'  
 TVD: 2,985.7'  
 Inclination: 21.8°  
 Azimuth: 358.1°  
 VS: 24.7'

MD: 3,021'  
 TVD: 3,014.1'  
 Inclination: 25.1°  
 Azimuth: 357.9°  
 VS: 37.1'

MD: 3,052'  
 TVD: 3,042.1'  
 Inclination: 26°  
 Azimuth: 357.6°  
 VS: 50.4'

MD: 3,083'  
 TVD: 3,069.85'  
 Inclination: 27°  
 Azimuth: 357.5°  
 VS: 64.27'

MD: 3,114'  
 TVD: 3,097.17'  
 Inclination: 29.4°  
 Azimuth: 357.4°  
 VS: 78.9'

LS: Wh - medGy, blkly to subblkly, fxln to v/fxln, hd to frm.

LS: Wh - medltGy, blkly to subblkly, fxln to v/fxln, hd to frm.

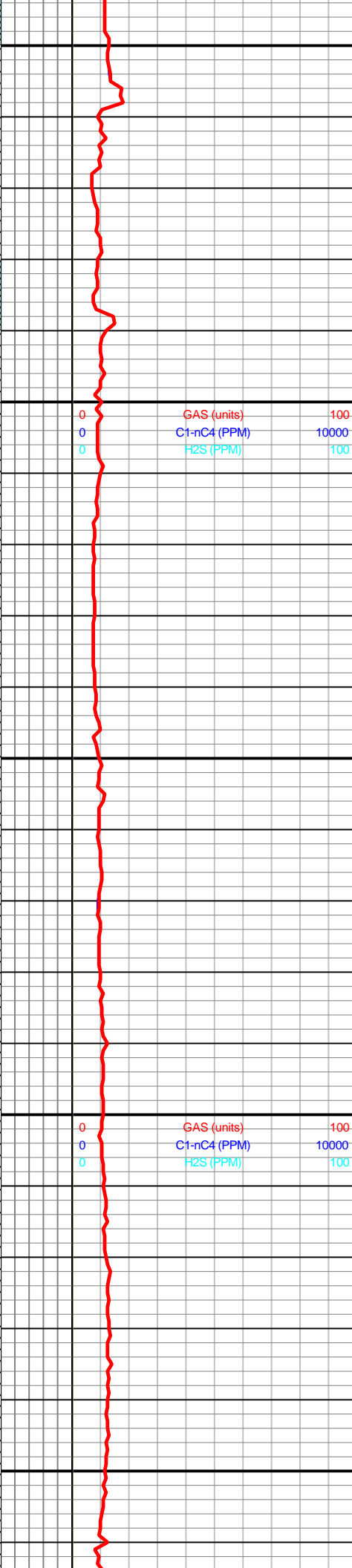
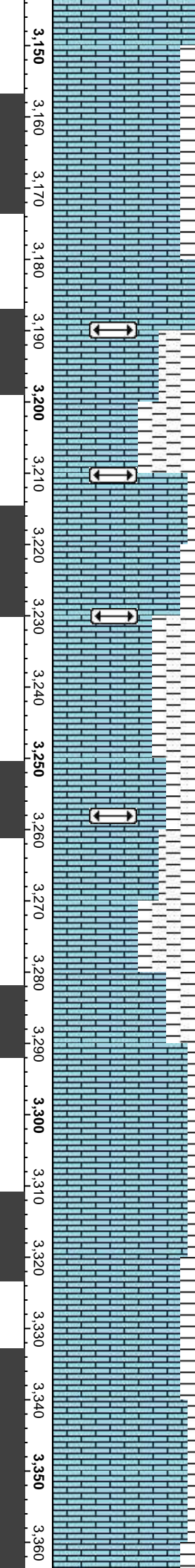
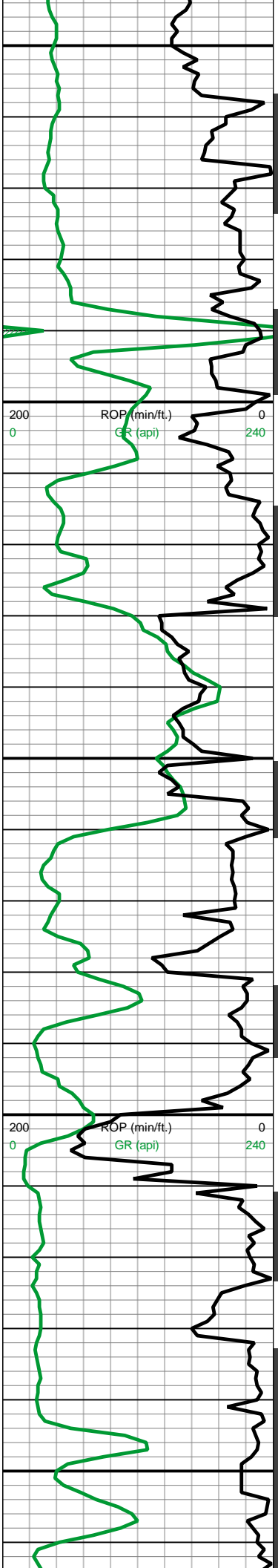
LS: Wh - ltGy, blkly to subblkly, fxln to v/fxln, hd to frm.

LS: Wh - medGy, subblkly, fxln to v/fxln, hd to frm.

wob 12k  
 rpm 75  
 pp 1450  
 spm 56  
 mw 9.0  
 vis 51

10/1/15

wob 10k  
 rpm 0  
 pp 1325  
 spm 56  
 mw 9.0  
 vis 49



wob 3k  
rpm 55  
pp 1300  
spm 55  
mw 9.2  
vis 50

wob 8k  
rpm 55  
pp 1400  
spm 52  
mw 9.1  
vis 50

MD: 3,145'  
TVD: 3,123.88'  
Inclination: 31.6°  
Azimuth: 357.5°  
VS: 94.62'

MD: 3,176'  
TVD: 3,150.01'  
Inclination: 33.5°  
Azimuth: 357.6°  
VS: 111.18'

MD: 3,207'  
TVD: 3,175.52'  
Inclination: 35.7°  
Azimuth: 358.2°  
VS: 128.77'

MD: 3,239'  
TVD: 3,201.26'  
Inclination: 37.2°  
Azimuth: 358.9°  
VS: 147.78'

MD: 3,270'  
TVD: 3,225.74'  
Inclination: 38.5°  
Azimuth: 359.3°  
VS: 166.8'

MD: 3,302'  
TVD: 3,260.6'  
Inclination: 39.5°  
Azimuth: 0.1°  
VS: 186.9'

MD: 3,333'  
TVD: 3,274.1'  
Inclination: 41.7°  
Azimuth: 0.5°  
VS: 207.1'

LS: Wh - medGy, subblky, fxln to v/fxln, hd to frm.

**Top Heebner Shale**  
3190' MD  
3162' TVD

**Top Toronto Limestone**  
3210' MD  
3179' TVD

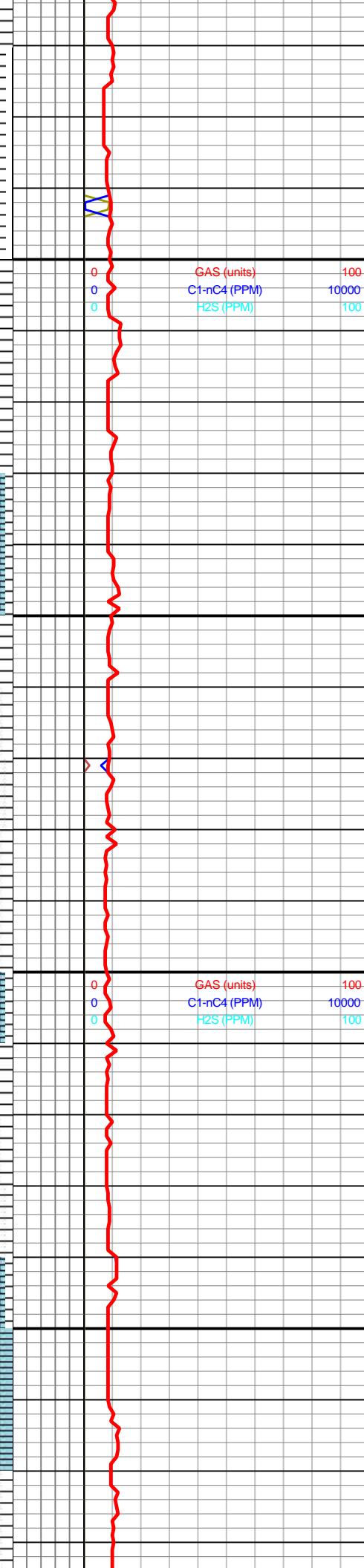
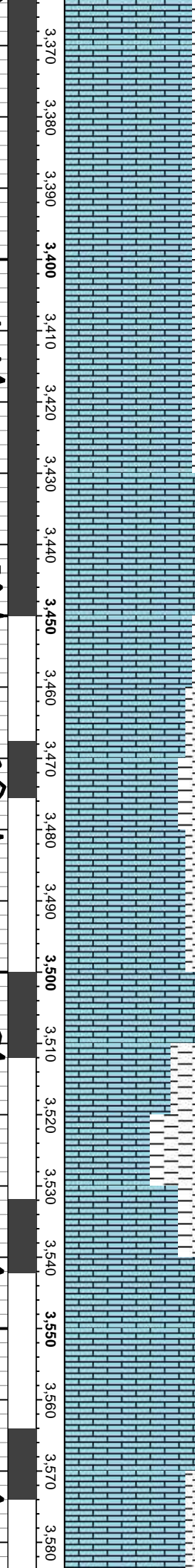
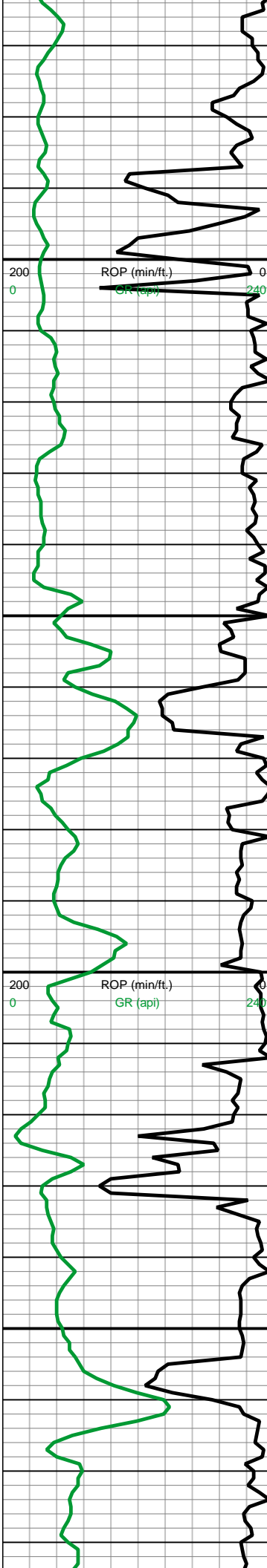
**Top Douglas Shale**  
3230' MD  
3193' TVD

**Top Lansing-Kansas City**  
3258' MD  
3217' TVD

LS: Wh - medGy, subblky, fxln to v/fxln, hd to frm.

LS: Wh - medGy, subblky, fxln to v/fxln, hd to frm.





**10/2/15**  
 wob 20k  
 rpm 0  
 pp 1310  
 spm 55  
 mw 9.1  
 vis 59

MD: 3,364'  
 TVD: 3,296.7'  
 Inclination: 44.7°  
 Azimuth: 1.4°  
 VS: 228.32'

MD: 3,396'  
 TVD: 3,318.91'  
 Inclination: 47.6°  
 Azimuth: 2.8°  
 VS: 251.38'

MD: 3,427'  
 TVD: 3,339.12'  
 Inclination: 51°  
 Azimuth: 3.9°  
 VS: 274.84'

MD: 3,457'  
 TVD: 3,357.47'  
 Inclination: 53.4°  
 Azimuth: 4.6°  
 VS: 298.47'

MD: 3,488'  
 TVD: 3,375.68'  
 Inclination: 54.8°  
 Azimuth: 4.6°  
 VS: 323.5'

MD: 3,519'  
 TVD: 3,393.4'  
 Inclination: 55.5°  
 Azimuth: 4.3°  
 VS: 348.87'

MD: 3,551'  
 TVD: 3,411.13'  
 Inclination: 57.2°  
 Azimuth: 4.1°  
 VS: 375.43'

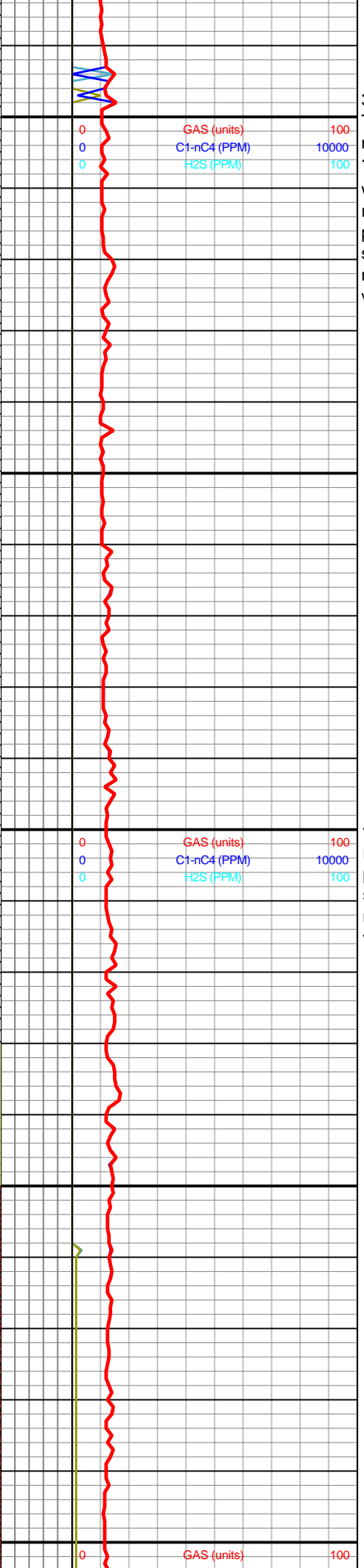
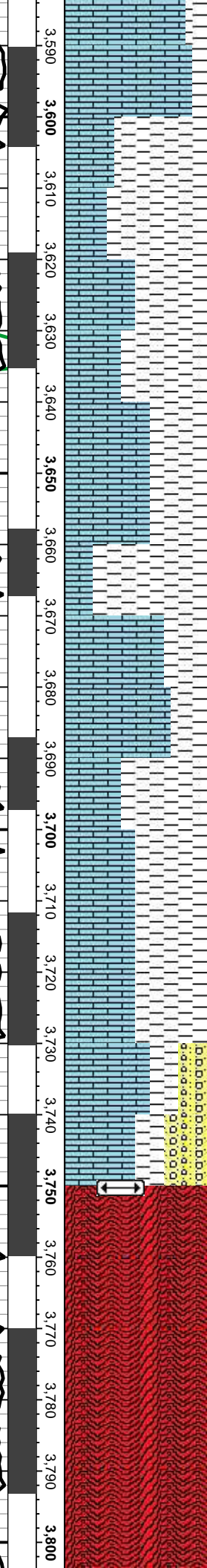
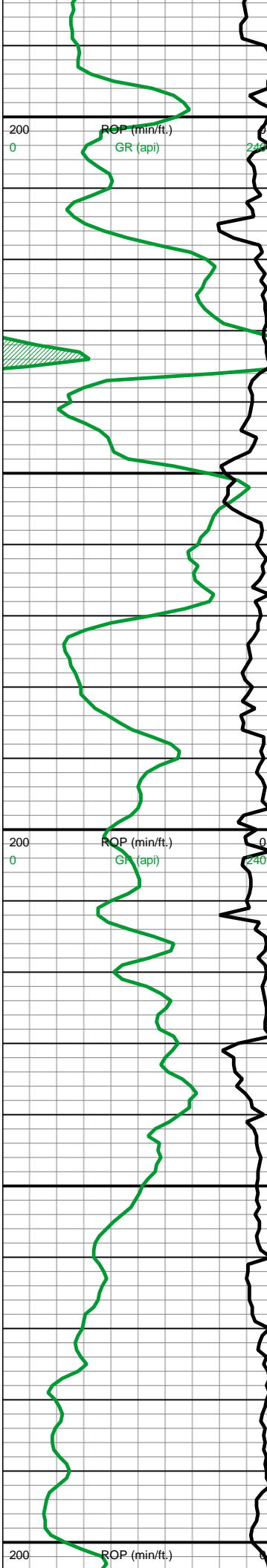
MD: 3,581'  
 TVD: 3,427.05'

LS: meddrkGy - medltGy, subblky, fxln to crsxn, hd to frm, vugy por.

LS: meddrkGy - medltGy, subblky, fxln to crsxn, hd to frm, vugy por.

LS: Wh - medltGy, subblky, micxn to fxln, frm to hd, pp por.

LS: Wh - paYlshOr - v/lGy, subblky, micxn to fxln, frm to hd, occ pp - occ vugy por.



3599'  
 Trip for nb#3  
**10/3/15**  
 wob 17k  
 rpm 0  
 pp 1500  
 spm 52  
 mw 9.4  
 vis 52

3700'  
 wob 5.4k  
 rpm 65  
 pp 1434  
 spm 53  
 mw 9.6  
 vis 51

**10/4/15**  
 wob 5.4k  
 rpm 65  
 pp 1415  
 spm 54  
 mw 9.4  
 vis 47

TVD: 3,427.03'  
 Inclination: 58.7°  
 Azimuth: 3.9°  
 VS: 400.8'

MD: 3,612'  
 TVD: 3,442.76'  
 Inclination: 60.4°  
 Azimuth: 3.9°  
 VS: 427.46'

MD: 3,640'  
 TVD: 3,457.6'  
 Inclination: 62.2°  
 Azimuth: 3.6°  
 VS: 454.6'

MD: 3,675'  
 TVD: 3,472.25'  
 Inclination: 63.5°  
 Azimuth: 3.2°  
 VS: 483'

MD: 3,706'  
 TVD: 3,485.6'  
 Inclination: 65.2°  
 Azimuth: 2.4°  
 VS: 510.9'

MD: 3,737'  
 TVD: 3,497.98'  
 Inclination: 68°  
 Azimuth: 2.2°  
 VS: 539.35'

LS: Wh - paYlshOr - v/litGy, subblky, micxln to fxln, frm to hd, occ pp - occ vugy por.

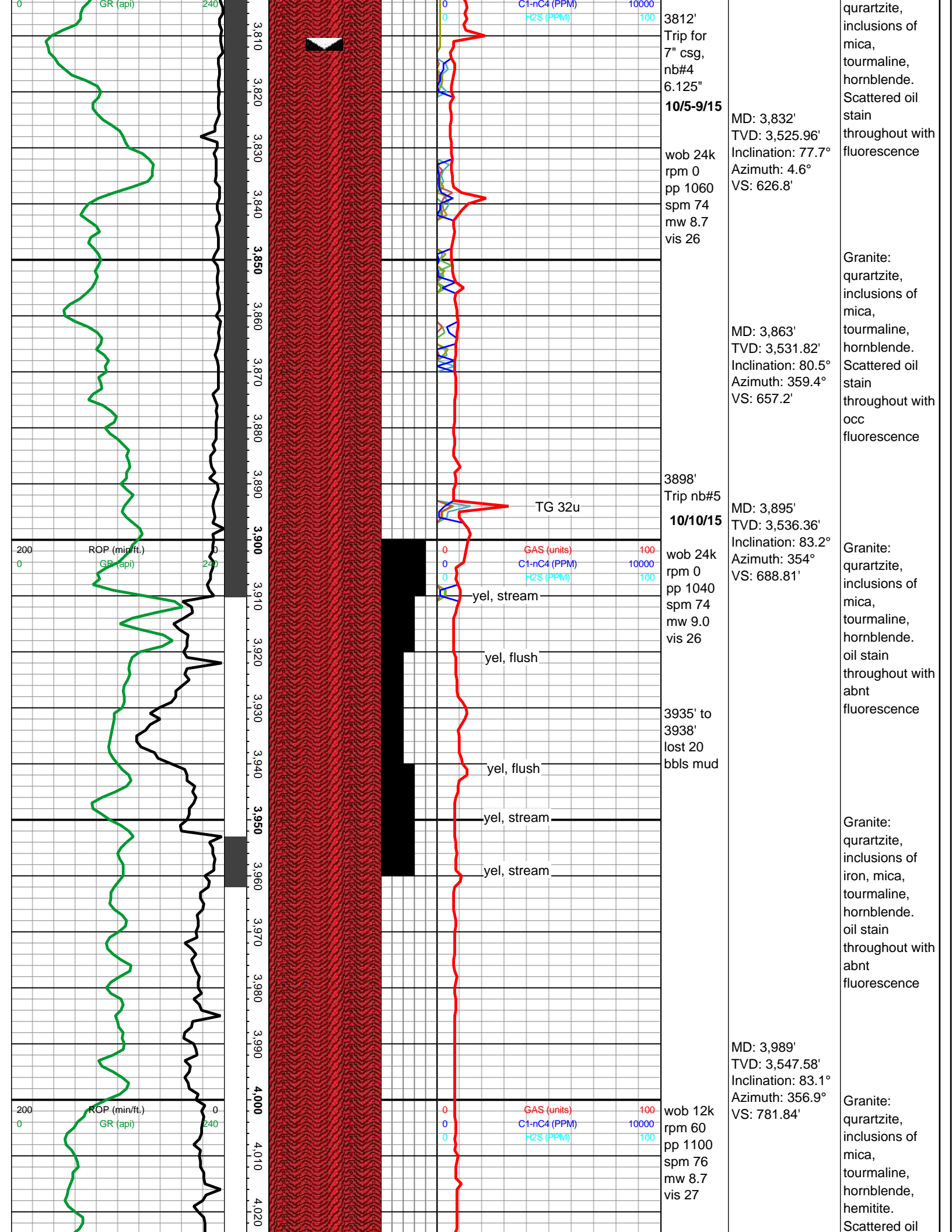
LS: Wh, subblky, micxln to fxln, fri to frm, vugy por.

SH: medGy - v/paGn - v/modRdBn, subblky, grty to smth txt, frm to hd.

**Top Granite 3758' MD**

Granite: quartzite, inclusions of mica, tourmaline, hornblende. Scattered oil stain throughout with fluorescence

Granite:



GR (api) 240

C1-nC4 (PPM) 10000  
H2S (PPM) 100

3812'  
Trip for  
7" csg,  
nb#4  
6.125"  
**10/5-9/15**

MD: 3,832'  
TVD: 3,525.96'  
Inclination: 77.7°  
Azimuth: 4.6°  
VS: 626.8'

quartzite,  
inclusions of  
mica,  
tourmaline,  
hornblende.  
Scattered oil  
stain  
throughout with  
fluorescence

wob 24k  
rpm 0  
pp 1060  
spm 74  
mw 8.7  
vis 26

Granite:  
quartzite,  
inclusions of  
mica,  
tourmaline,  
hornblende.  
Scattered oil  
stain  
throughout with  
occ  
fluorescence

MD: 3,863'  
TVD: 3,531.82'  
Inclination: 80.5°  
Azimuth: 359.4°  
VS: 657.2'

3898'  
Trip nb#5  
**10/10/15**

MD: 3,895'  
TVD: 3,536.36'  
Inclination: 83.2°  
Azimuth: 354°  
VS: 688.81'

Granite:  
quartzite,  
inclusions of  
mica,  
tourmaline,  
hornblende.  
oil stain  
throughout with  
abnt  
fluorescence

wob 24k  
rpm 0  
pp 1040  
spm 74  
mw 9.0  
vis 26

GAS (units) 100  
C1-nC4 (PPM) 10000  
H2S (PPM) 100

yel, stream

yel, flush

3935' to  
3938'  
lost 20  
bbls mud

yel, flush

yel, stream

yel, stream

Granite:  
quartzite,  
inclusions of  
iron, mica,  
tourmaline,  
hornblende.  
oil stain  
throughout with  
abnt  
fluorescence

MD: 3,989'  
TVD: 3,547.58'  
Inclination: 83.1°  
Azimuth: 356.9°  
VS: 781.84'

wob 12k  
rpm 60  
pp 1100  
spm 76  
mw 8.7  
vis 27

GAS (units) 100  
C1-nC4 (PPM) 10000  
H2S (PPM) 100

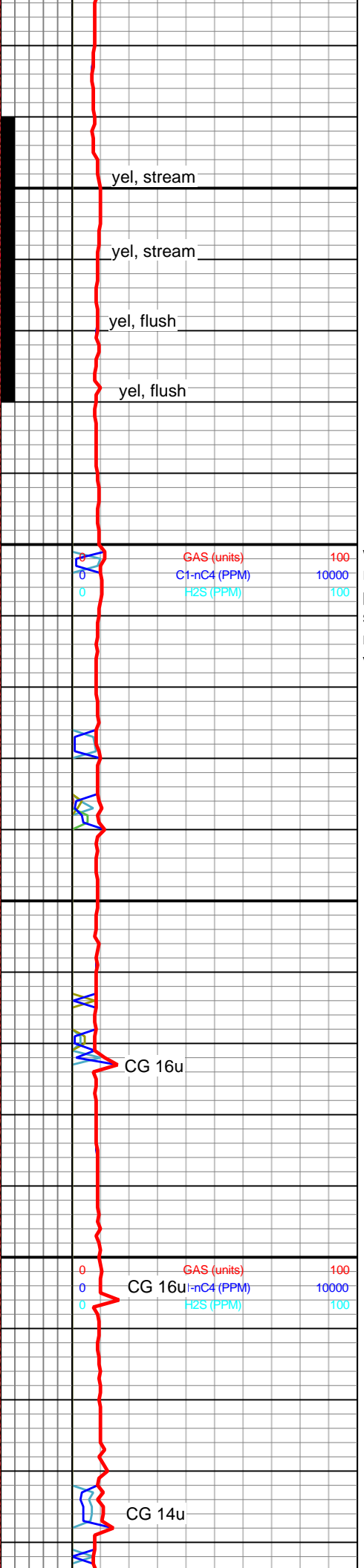
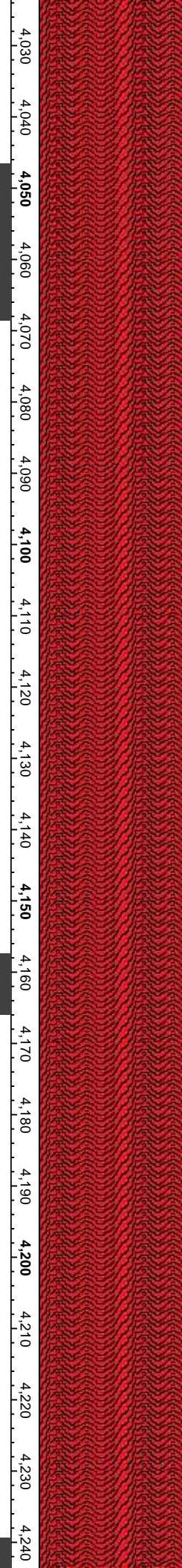
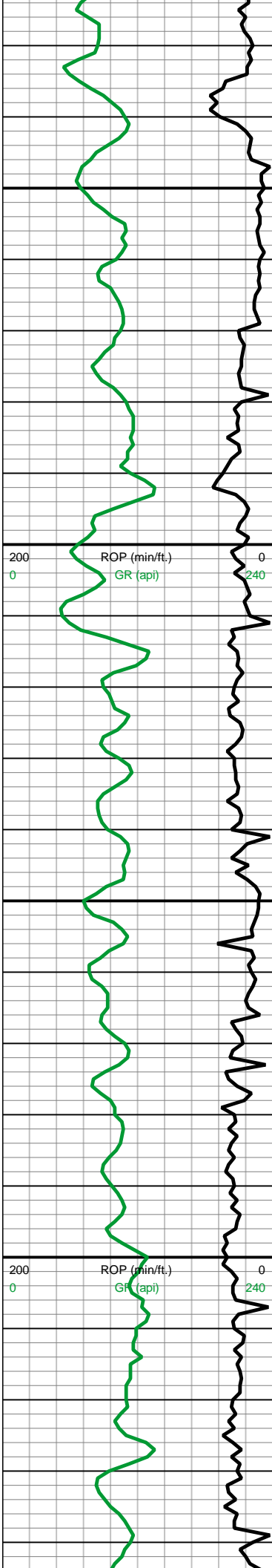
Granite:  
quartzite,  
inclusions of  
mica,  
tourmaline,  
hornblende,  
hemitite.  
Scattered oil

ROP (min/ft.) 200  
GR (api) 240

ROP (min/ft.) 200  
GR (api) 240

3,810  
3,820  
3,830  
3,840  
3,850  
3,860  
3,870  
3,880  
3,890  
3,900  
3,910  
3,920  
3,930  
3,940  
3,950  
3,960  
3,970  
3,980  
3,990  
4,000  
4,010  
4,020





MD: 4,084'  
TVD: 3,560.4'  
Inclination: 81.4°  
Azimuth: 359.6°  
VS: 875.9'

wob 3k  
rpm 55  
pp 1100  
spm 76  
mw 8.6  
vis 28

MD: 4,179'  
TVD: 3,574.8'  
Inclination: 81.1°  
Azimuth: 0.8°  
VS: 969.8'

wob 25k  
rpm 60  
pp 1120  
spm 74  
mw 8.2  
vis 27  
**10/11/15**

stain throughout with occ fluorescence

Granite: quartzite, inclusions of biotites, tourmaline, hornblende, hemitite. Scattered oil stain throughout with fluorescence

Granite: quartzite, inclusions of mica, tourmaline, hornblende, hemitite. Scattered oil stain throughout with occ fluorescence

Granite: quartzite, inclusions of iron, mica, tourmaline, hornblende, beryl.

yel, stream

yel, stream

yel, flush

yel, flush

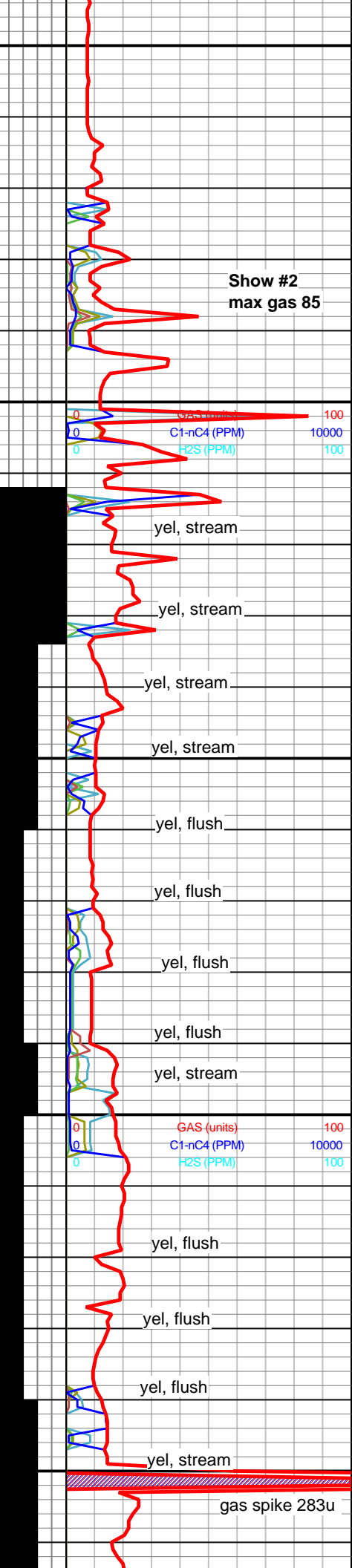
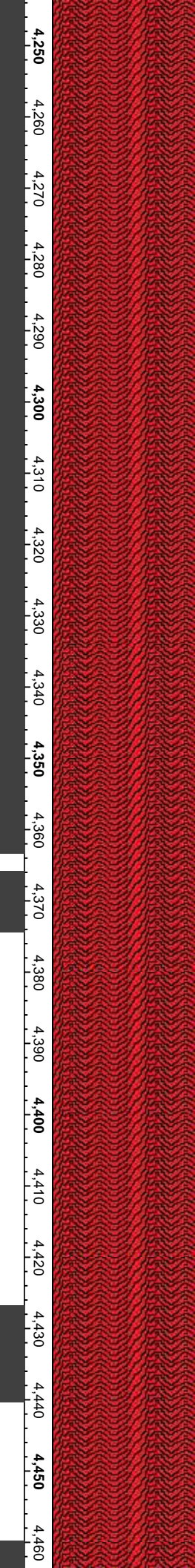
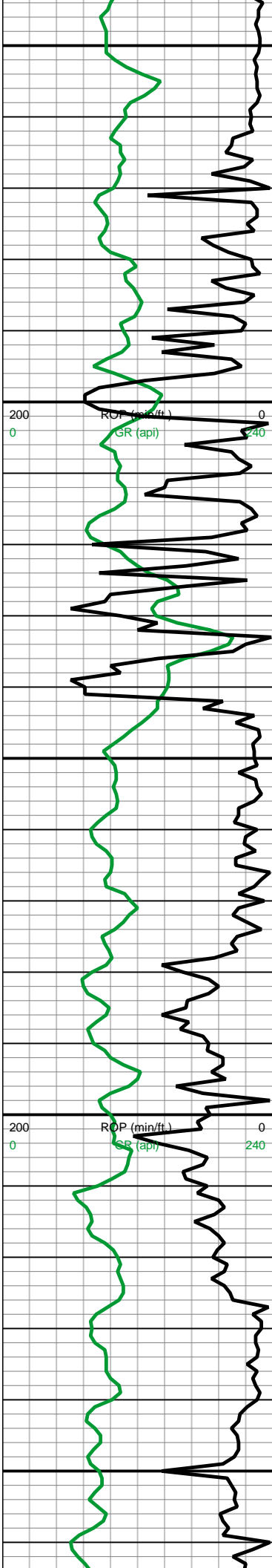
0  
0  
0

CG 16u

0  
0  
0

CG 16u

CG 14u



Show #2  
max gas 85

wob 39k  
rpm 0  
pp 1125  
spm 79  
mw 8.6  
vis 27

wob 12k  
rpm 65  
pp 1200  
spm 82  
mw 8.7  
vis 28

MD: 4,274'  
TVD: 3,589.6'  
Inclination: 81°  
Azimuth: 1.2°  
VS: 1,063.6'

MD: 4,306'  
TVD: 3,594.82'  
Inclination: 80.3°  
Azimuth: 359.9°  
VS: 1,095.21'

MD: 4,338'  
TVD: 3,600.54'  
Inclination: 79.1°  
Azimuth: 357.1°  
VS: 1,126.68'

MD: 4,369'  
TVD: 3,606.83'  
Inclination: 77.5°  
Azimuth: 356°  
VS: 1,156.98'

MD: 4,401'  
TVD: 3,613.57'  
Inclination: 78.2°  
Azimuth: 357°  
VS: 1,188.2'

MD: 4,433'  
TVD: 3,619.89'  
Inclination: 79°  
Azimuth: 357.6°  
VS: 1,219.53'

Granite:  
quartzite,  
inclusions of  
iron, mica,  
tourmaline,  
hornblende,  
beryl.  
Scattered oil  
stain  
throughout with  
occ  
fluorescence

Granite:  
quartzite.  
Scattered oil  
stain  
throughout with  
occ  
fluorescence

Granite:  
quartzite.  
Scattered oil  
stain  
throughout with  
abt  
fluorescence

Granite:  
quartzite.  
Scattered oil  
stain  
throughout with  
fluorescence

Granite:  
quartzite.  
Scattered oil  
stain  
throughout with

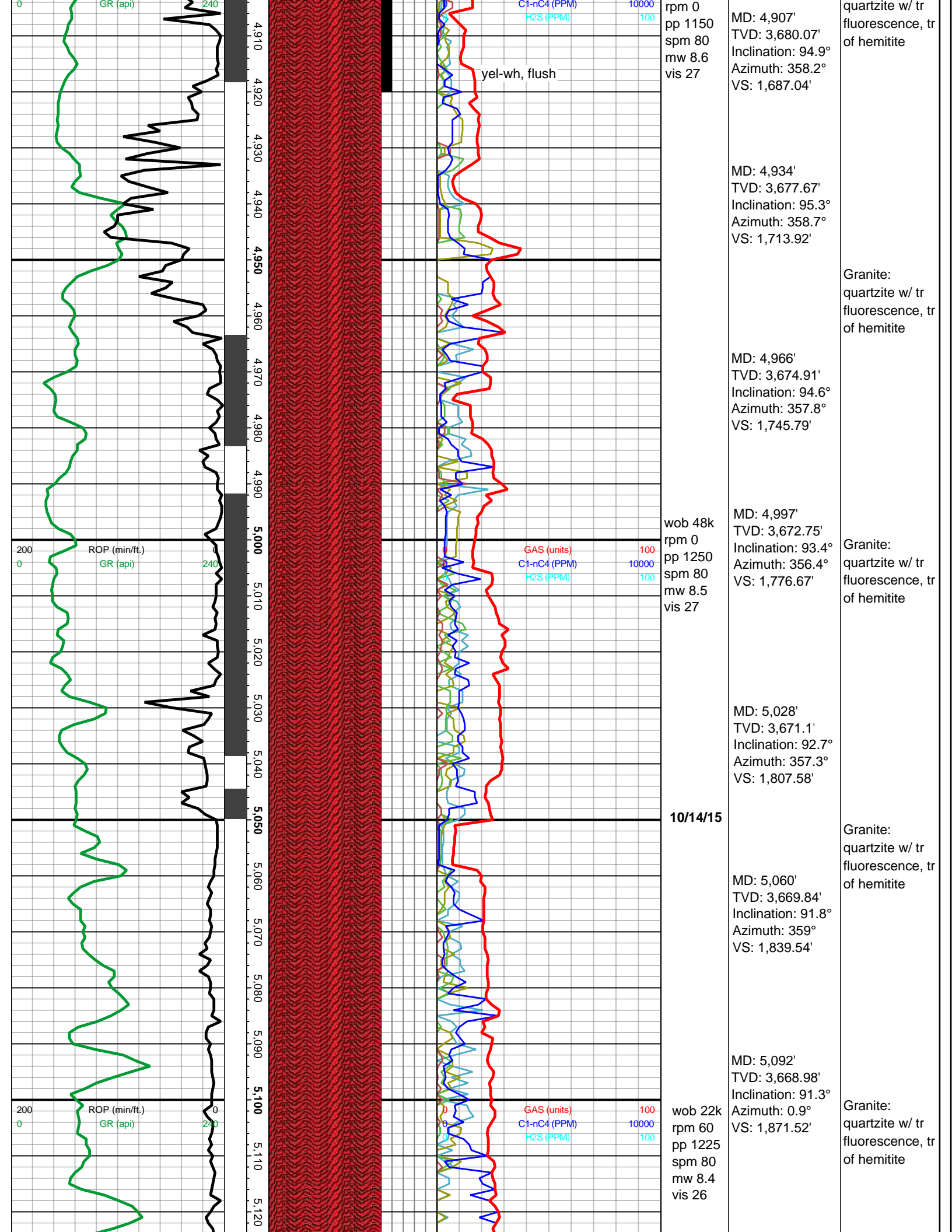
gas spike 283u



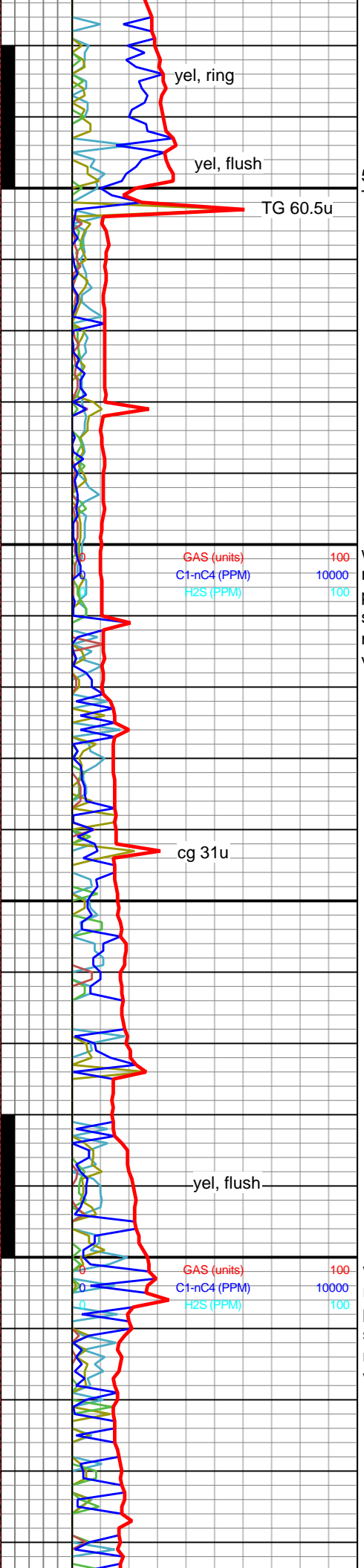
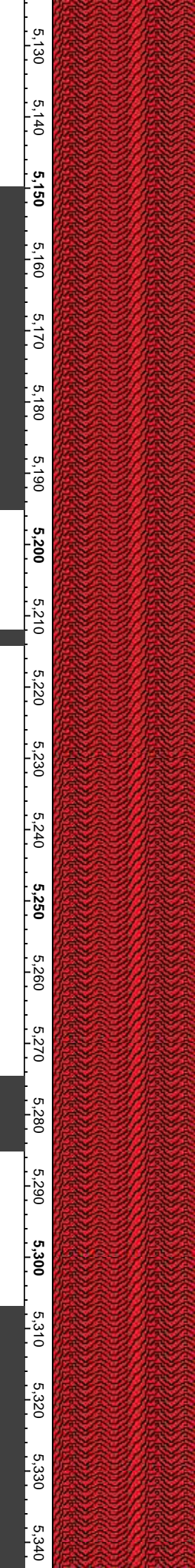
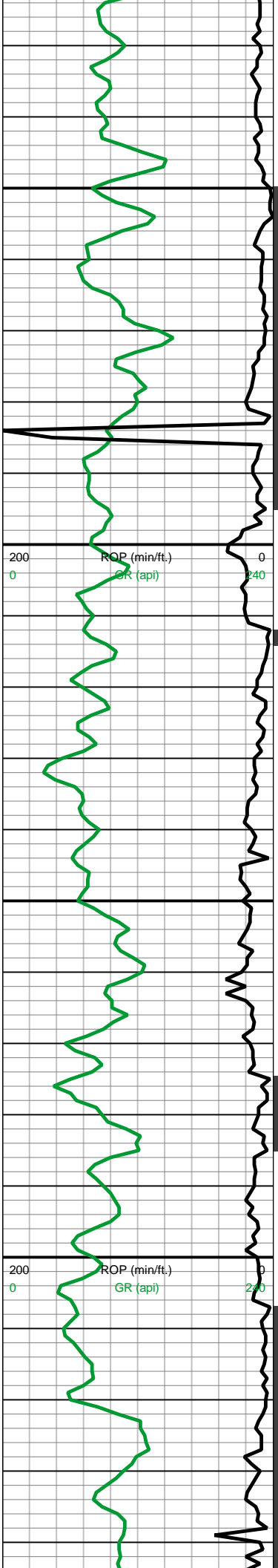












5154'  
Trip nb#7  
10/15/15

MD: 5,123'  
TVD: 3,668.3'  
Inclination: 91.1°  
Azimuth: 3.3°  
VS: 1,902.5'

MD: 5,155'  
TVD: 3,667.49'  
Inclination: 91.9°  
Azimuth: 4.4°  
VS: 1,934.4'

MD: 5,186'  
TVD: 3,666.17'  
Inclination: 93°  
Azimuth: 3.6°  
VS: 1,965.3'

MD: 5,218'  
TVD: 3,664.41'  
Inclination: 93.3°  
Azimuth: 2.9°  
VS: 1,997.2'

MD: 5,249'  
TVD: 3,662.62'  
Inclination: 93.3°  
Azimuth: 3.6°  
VS: 2,028.1'

MD: 5,281'  
TVD: 3,660.84'  
Inclination: 93.1°  
Azimuth: 4.6°  
VS: 2,059.97'

MD: 5,313'  
TVD: 3,658.9'  
Inclination: 93.7°  
Azimuth: 4.5°  
VS: 2,091.8'

MD: 5,344'

yel, ring

yel, flush

TG 60.5u

wob 54k  
rpm 0  
pp 1230  
spm 80  
mw 8.5  
vis 26

cg 31u

yel, flush

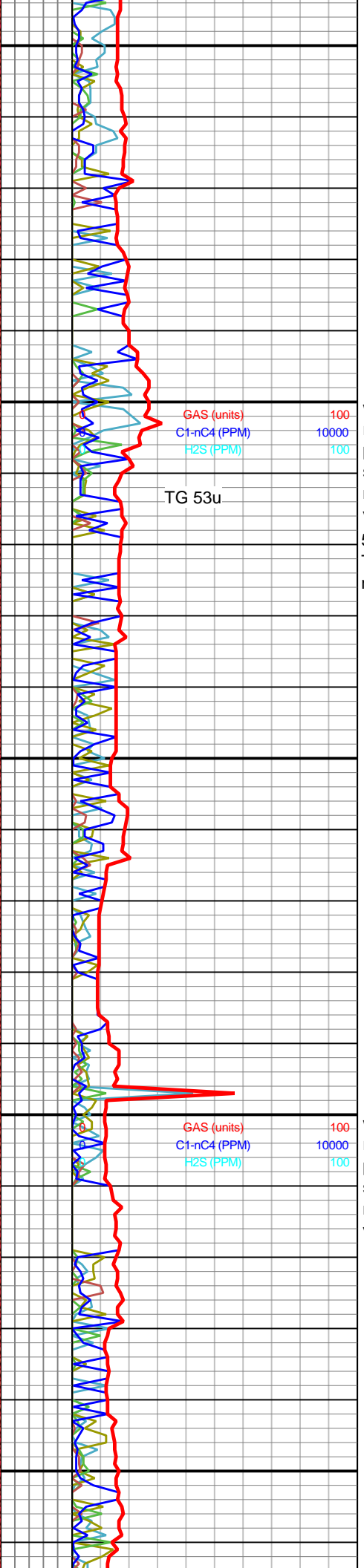
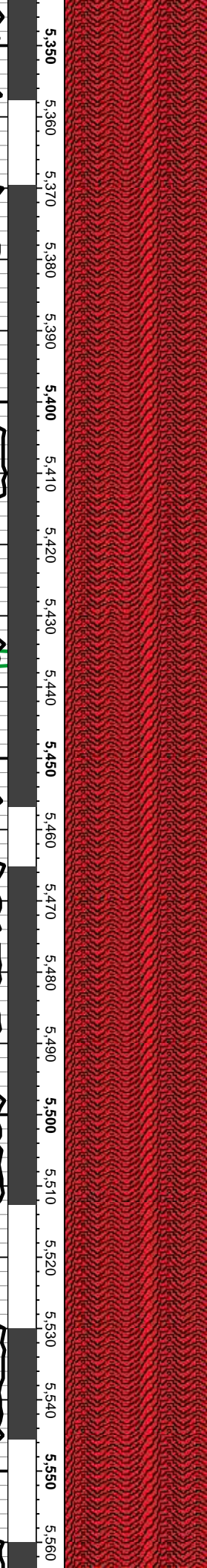
wob 14k  
rpm 60  
pp 1200  
spm 80  
mw 8.4  
vis 28

Granite:  
quartzite w/ tr  
fluorescence, tr  
of hemitite

Granite:  
quartzite w/ tr  
fluorescence, tr  
of hemitite

Granite:  
quartzite w/ tr  
hornblende

Granite:  
quartzite w/ tr  
oilstains, tr  
fluorescence



10/16/15  
wob 13k  
rpm 0  
pp 1140  
spm 80  
mw 8.4  
vis 28  
5413'  
Trip for nb#8

MD: 5,344'  
TVD: 3,656.7'  
Inclination: 94.7°  
Azimuth: 4.3°  
VS: 2,122.6'

MD: 5,376'  
TVD: 3,653.8'  
Inclination: 95.6°  
Azimuth: 4.8°  
VS: 2,154.41'

MD: 5,408'  
TVD: 3,650.8'  
Inclination: 95.1°  
Azimuth: 5.4°  
VS: 2,186.1'

MD: 5,439'  
TVD: 3,648.22'  
Inclination: 94.5°  
Azimuth: 2.1°  
VS: 2,216.9'

MD: 5,471'  
TVD: 3,645.62'  
Inclination: 94.8°  
Azimuth: 0°  
VS: 2,248.8'

10/17/15

MD: 5,502'  
TVD: 3,643.06'  
Inclination: 94.7°  
Azimuth: 359.2°  
VS: 2,279.74'

MD: 5,525'  
TVD: 3,641.21'  
Inclination: 94.5°  
Azimuth: 359°  
VS: 2,302.67'

MD: 5,557'  
TVD: 3,638.95'  
Inclination: 93.6°

Granite:  
quartzite and  
chlorite w/ tr  
oilstains, tr  
fluorescence

Granite:  
quartzite and  
chlorite w/ tr  
oilstains, tr  
fluorescence

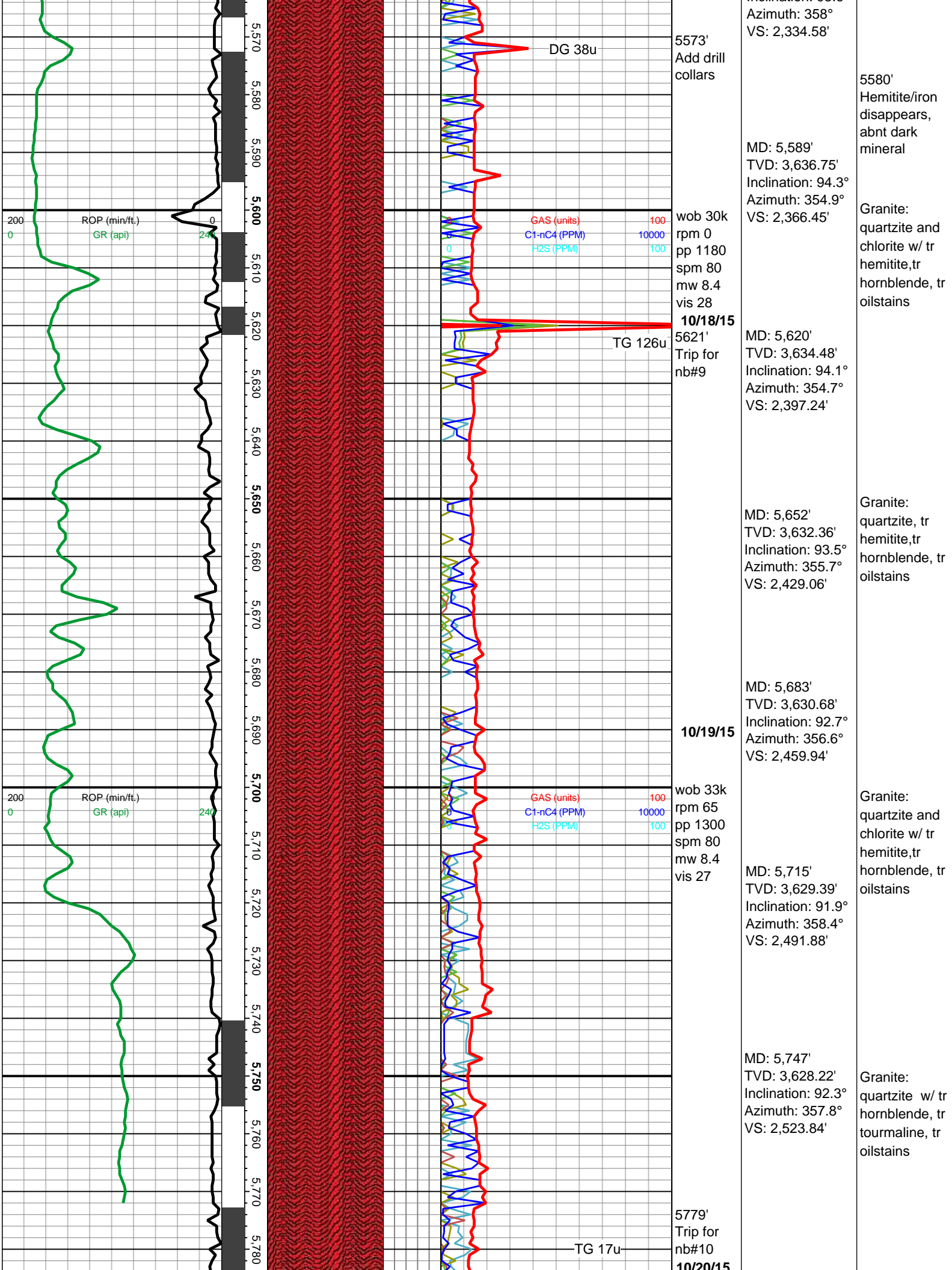
Granite:  
quartzite and  
chlorite w/ tr  
hemitite, tr  
hornblende, tr  
oilstains

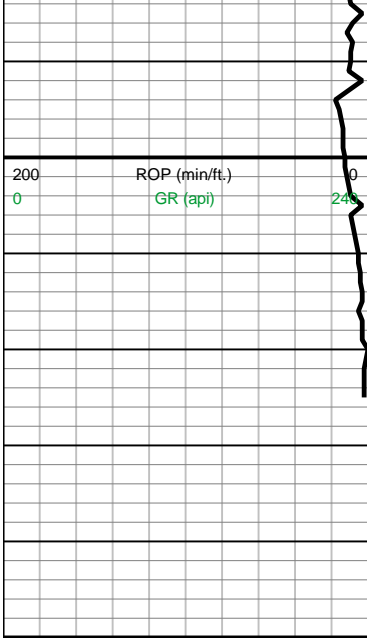
Granite:  
quartzite and  
w/ tr hemitite, tr  
hornblende, tr  
oilstains

Granite:  
quartzite wi  
hemitite/iron, tr  
hornblende, tr  
oilstains

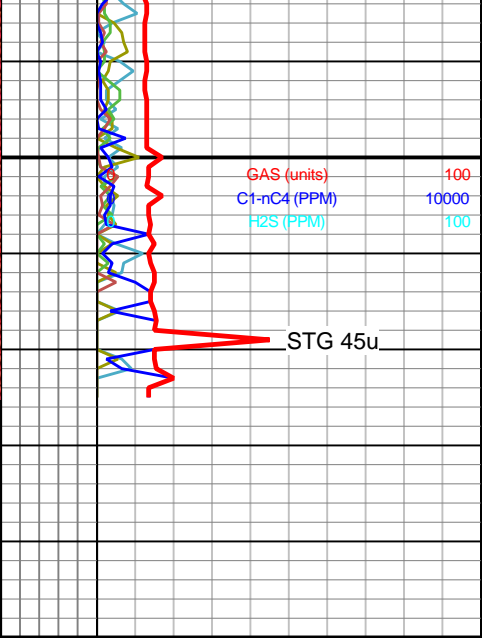
TG 53u







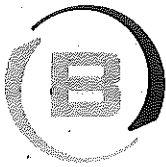
5,790  
5,800  
5,810  
5,820  
5,830  
5,840  
5,8



10/21/15  
wob 14k  
rpm 60  
pp 1500  
spm 82  
mw 8.5  
vis 28  
10/21/15  
TD @ 5825'  
Thank You TGS

MD: 5,825'  
TVD: 3,624.14'  
Inclination: 93.7°  
Azimuth: 356°  
VS: 2,601.74'

Granite:  
quartzite w/ tr  
hornblende, tr  
hemite, tr  
oilstains



**BASIC**<sup>SM</sup>  
ENERGY SERVICES  
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61  
P.O. Box 8613  
Pratt, Kansas 67124  
Phone 620-672-1201

0040879291  
FIELD SERVICE TICKET

1718 11894 A

DATE \_\_\_\_\_ TICKET NO. \_\_\_\_\_

DATE OF JOB <b>9-26-15</b> DISTRICT _____		NEW WELL <input checked="" type="checkbox"/> OLD WELL <input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/> CUSTOMER ORDER NO.: _____							
CUSTOMER <b>Black Stone Oil &amp; Gas (Kansas) LLC</b>		LEASE <b>Wilhelm</b> 1-21 WELL NO. _____							
ADDRESS _____		COUNTY <b>Rush</b> STATE <b>KS</b>							
CITY _____ STATE _____		SERVICE CREW <b>Kevin, Scott, Devin</b>							
AUTHORIZED BY <b>Rod Guice / Kelly Brown</b>		JOB TYPE: <b>10 3/4 Surface Pipe cnuw</b>							
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	TIME
<b>86779</b>	<b>1 1/4</b>						<b>9-25</b>	<b>PM</b>	<b>2:30</b>
<b>19860</b>	<b>1/2</b>					ARRIVED AT JOB	<b>9/25/15</b>	<b>AM</b>	<b>7:30</b>
<b>21010</b>	<b>1/2</b>					START OPERATION	<b>9-26</b>	<b>AM</b>	<b>0645</b>
						FINISH OPERATION	<b>9-26</b>	<b>PM</b>	<b>0800</b>
						RELEASED	<b>9-26</b>	<b>AM</b>	<b>0900</b>
						MILES FROM STATION TO WELL _____			

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: *Keith Ken*  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP101	A-Con Blend Common	SK	225		4050.00
CP100 C	Common Cement	SK	200		3200.00
CC102	Celloflake	lb	107		395.90
CC109	Calcium Chloride	lb	1012		1062.60
CC130	C-51	lb	22		550.00
CF107	Top Rubber Cement Plug 10 3/4	Ca	1		350.00
CF205	10 3/4 Guide Shoe (Red)	Ea	1		750.00
CF1455	Flapper Type Insert Float Valve 10 3/4	Ea	1		460.00
CF1774	Centralizer 10 3/4 x 13 1/2	Ea	5		850.00
<del>CF3000</del>					
E100	Unit Mileage Charge Pickups	M1	75		337.50
E101	Heavy Equipment Mileage	M1	225		1687.50
E115	Prop & Bulk Delivery Charge Ton Mile	TM	1500		3750.00
CE202	Depth Charge 1001-2000'	4hrs	1		1500.00
CE240	Blending & Mixing Service Charge	SK	425		595.00
CE504	Plug Container Utilization Charge	Job	1		250.00
5003	Service Supervisor First 8hrs on loc	Ea	1		175.00
<del>CE3000</del>	THREACK	EA	2		68.00

SUB TOTAL **20,031.50**

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON \$
MATERIALS	%TAX ON \$

BY *Keith Ken*  
TOTAL  
DISCOUNT  
PRICED - **19,015.75**

SERVICE REPRESENTATIVE *[Signature]* THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY *Keith Ken*  
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO. \_\_\_\_\_

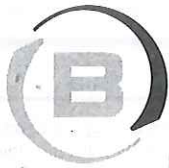
Customer <i>Black Stone Oil+Gas</i>	Lease No. <i>(Kansas) LLC</i>	Date <i>9-26-15</i>
Lease <i>Wilhelm</i>	Well # <i>1-21</i>	
Field Order # <i>11894</i>	Station <i>Pratt KS</i>	Casing <i>10 3/4</i>
Type Job <i>10 3/4 Surface Pipe CNA</i>	Depth <i>1003'</i>	County <i>Rush</i>
	Formation <i>TD-100B'</i>	State <i>KS</i>
		Legal Description <i>21-18-16</i>

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size <i>10 3/4</i>	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP
Depth <i>1003</i>	Depth	From	To	Pre Pad	Max		5 Min.
Volume <i>40</i>	Volume	From	To	Pad	Min		10 Min.
Max Press	Max Press	From	To	Frac	Avg		15 Min.
Well Connection <i>10 3/4</i>	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth <i>918</i>	Packer Depth	From	To	Flush	Gas Volume		Total Load

Customer Representative <i>Rod Guice</i>	Station Manager <i>Kevin Cordley</i>	Treater <i>Kevin Cordley</i>
Service Units <i>83553</i>	<i>78982</i>	<i>19903</i>
<i>86779</i>	<i>19860</i>	<i>19989</i>
<i>21010</i>		
Driver Names <i>Kevin</i>	<i>Darin</i>	<i>Scott</i>
	<i>Paul</i>	

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<i>7:30</i>					<i>On location safety meeting 9/25/15</i>
					<i>RUN 1003' 10 3/4 40.5# CSC - 24 JTs</i>
					<i>RUN GUIDE SHOE APU INSERT</i>
					<i>IN 2<sup>nd</sup> COLLAR. 85' SHOE IT.</i>
					<i>CENTRALIZER - 1-2-3-5-14(408')</i>
					<i>TAG BOTTOM - DROP BALL - CIRCULATE</i>
					<i>Pump 10 bbl H2O spacer</i>
<i>0645</i>	<i>250</i>		<i>94</i>	<i>6</i>	<i>Pump 225 SK A-COM CEMENT - 12.2'</i>
	<i>200</i>		<i>42</i>	<i>6</i>	<i>Pump 200 SK COMMON CEMENT 15.6'</i>
					<i>STOP Pump - DROP PLUG</i>
	<i>0</i>		<i>0</i>	<i>7</i>	<i>START DISP. w/H2O</i>
	<i>250</i>		<i>65</i>	<i>7</i>	<i>START CIRC. CEMENT TO PIT</i>
<i>0735</i>	<i>300</i>		<i>70</i>	<i>2</i>	<i>70 bbl OUT - STOP - CHECK CELLAR</i>
<i>0745</i>	<i>325</i>		<i>80</i>	<i>2</i>	<i>80 bbl OUT - STOP - CHECK CELLAR</i>
<i>0800</i>	<i>800</i>		<i>89 1/2</i>	<i>2</i>	<i>PLUG DOWN - HOLD - START IN</i>
					<i>CIRC. 25 bbl CEMENT TO PIT</i>
					<i>CELLAR STAND FULL OF CEMENT</i>
<i>0900</i>					<i>JOB COMPLETE - KEVIN</i>





**BASIC**<sup>SM</sup>  
ENERGY SERVICES  
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61  
P.O. Box 8613  
Pratt, Kansas 67124  
Phone 620-672-1201

0040881372  
FIELD SERVICE TICKET

1718 12775 A

DATE \_\_\_\_\_ TICKET NO. \_\_\_\_\_

DATE OF JOB <u>10-05-15</u> DISTRICT <u>Pratt, KS</u>		NEW WELL <input checked="" type="checkbox"/> OLD WELL <input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/> CUSTOMER ORDER NO.:							
CUSTOMER <u>BLACKSTONE OIL GAS</u>		LEASE <u>WILHELM 1-21</u> WELL NO.							
ADDRESS		COUNTY <u>RUSH</u> STATE <u>KS</u>							
CITY STATE		SERVICE CREW <u>Sullivan, Crusty, Simpson, Franklin, Brennan</u>							
AUTHORIZED BY		JOB TYPE: <u>CNW 7" Long Stay</u>							
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	TIME
							<u>10-5-15</u>	PM	<u>8:15</u>
						ARRIVED AT JOB		AM	<u>12:30</u>
<u>86779</u>	<u>1.15</u>					START OPERATION		AM	<u>5:00</u>
<u>19860</u>	<u>20</u>					FINISH OPERATION		AM	<u>6:10</u>
<u>19862</u>	<u>10</u>					RELEASED		AM	<u>6:45</u>
<u>21010</u>	<u>15</u>					MILES FROM STATION TO WELL		PM	<u>76</u>

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: \_\_\_\_\_  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP 101	A-COD cmt	SK	310		5,580.00
CP 105	NA-2 cmt	SK	300		5,100.00
CP 101	A-CONDUCT	SK	150		2,700.00
CC 102	CEL/FACE	LB	190		703.00
CC 105	C-41 P	LB	57		228.00
CC 109	Colours chloride	LB	866		909.30
CC 111	SALT	LB	1449		724.50
CC 116	MAR diam 10CR	LB	846		2,284.20
CC 129	FLA-322	LB	141		1,057.50
CC 130	C-51	LB	44		1,100.00
CC 201	Gilsonte	LB	1500		1,005.00
CF 104	TOP Ribber Plug 7"	SA	1		110.00
CF 1282	Float shoe	SA	1		760.00
CF 1293	Float collar	SA	1		850.00
CF 1799	Control Van	SA	5		475.00
CC 151	MUD-Flush	ML	500		750.00

SUB TOTAL

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON \$
MATERIALS	%TAX ON \$
TOTAL	

SERVICE REPRESENTATIVE <u>Robert [Signature]</u>	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY <u>[Signature]</u> <u>10/5/10</u> (WELL OWNER OPERATOR CONTRACTOR OR AGENT)
--	---

FIELD SERVICE ORDER NO.







Customer <i>BLACKSTONE oil, gas</i>	Lease No.	Date <i>10-08-15</i>
Lease <i>WILHELM</i>	Well # <i>1-21</i>	
Field Order # <i>12775</i>	Station	Casing <i>7"</i>
Type Job <i>CNW 7" longstay</i>	Formation	Depth <i>2808'</i>
		County <i>Push</i>
		State <i>KS</i>
		Legal Description <i>21-18-16</i>

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP	
<i>7"</i>				Pre Pad			5 Min.	
Depth <i>2808'</i>	Depth	From	To	Pad	Max		10 Min.	
Volume <i>746.9</i>	Volume	From	To	Frac	Min		15 Min.	
Max Press <i>2500</i>	Max Press	From	To		Avg			
Well Connection <i>P.C.</i>	Annulus Vol.	From	To		HHP Used			Annulus Pressure
Plug Depth <i>3124</i>	Packer Depth	From	To	Flush	Gas Volume			Total Load

Customer Representative	Station Manager <i>DAVE Scott</i>	Treater <i>Robert J. [Signature]</i>
Service Units <i>37900</i>	<i>86779</i>	<i>19959</i>
Driver Names <i>Sullivan</i>	<i>Franklin</i>	<i>BARBER</i>
	<i>21010</i>	<i>SIMPLE</i>
	<i>19960</i>	<i>19862</i>
	<i>19903</i>	<i>19860</i>
		<i>ERNST</i>

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<i>12:30</i>					<i>on loc</i>
					<i>Run 7" casing</i>
<i>3:45</i>					<i>Casing on Bottom</i>
<i>3:55</i>					<i>Make Rig circ</i>
<i>5:00</i>	<i>400</i>		<i>5</i>	<i>6</i>	<i>St spacer</i>
			<i>12</i>		<i>St mud flush</i>
			<i>5</i>		<i>SPACER</i>
	<i>400</i>		<i>158</i>	<i>7</i>	<i>mix cmt 460 sk A-con @ 13ppg</i>
			<i>76</i>		<i>mix Tail cmt 300 sk AA-2 @ 15ppg</i>
					<i>cmt mixed shut down. wash line, pump</i>
					<i>Release Plug</i>
				<i>2.5</i>	<i>St Dip</i>
	<i>550</i>				<i>Lift 15'</i>
	<i>1450</i>			<i>3 1/2</i>	<i>Slow Rate</i>
<i>6:10</i>	<i>2,000</i>		<i>146</i>		<i>Plug down</i>
					<i>Release Psi Check Float Held</i>
			<i>20</i>		<i>Circ 20 BBL cmt Pit</i>
					<i>SOB Complete</i>
					<i>Thank you</i>



Conservation Division  
266 N. Main St., Ste. 220  
Wichita, KS 67202-1513



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Jay Scott Emler, Chairman  
Shari Feist Albrecht, Commissioner  
Pat Apple, Commissioner

Sam Brownback, Governor

April 12, 2016

Niko Anagnostopoulos  
Blackstone Oil & Gas (Kansas), LLC  
1301 MCKINNEY ST.  
SUITE 2875  
HOUSTON, TX 77010-3031

Re: ACO-1  
API 15-165-22117-01-00  
Wilhelm 1-21  
NW/4 Sec.21-18S-16W  
Rush County, Kansas

Dear Niko Anagnostopoulos:

K.A.R. 82-3-107 provides for all completion information to be filed within 120 days of the spud date. Subsection(e)(2) of that regulation states "All rights to confidentiality shall be lost if the filings are not timely."

The above referenced well was spudded on 9/25/2015 and the ACO-1 was received on April 11, 2016 (not within the 120 days timely requirement).

Therefore, your request for confidential treatment of data contained within the ACO-1 filing cannot be granted at this time.

If you should have any questions, please do not hesitate to contact me at (316)337-6200.

Sincerely,

Production Department



# Survey Report

**Service Company:** Premier Directional Drilling

**Location:** Lat: 38° 28' 29.815 N // Long: 99° 5' 55.568 W

**Well:** Wilhelm 1-21

**Rig:** Duke 1

**API or UWI:** 15-165-22117-01-00

**Job Number:** H15378

**State:** Kansas

**Operating Company:** Premier Directional Drilling

**County:** Rush

**Magnetic Declination:** 0.00

**Country:** USA

**Proposed Azimuth:** 0.00

**Comment**

**North Reference:** GRID

**Latitude:** 0

**Longitude:** 0

## Tie-In Data

MD	Inclination	Azimuth	TVD	NS	EW
137.12	0.99	220.83	137.11	-0.90	-0.78

## Survey Data

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
226.77	1.13	225.36	226.74	-2.11	-1.92	222.27	2.85	-2.11	0.18
316.39	0.91	231.09	316.35	-3.18	-3.10	224.30	4.44	-3.18	0.27
407.01	0.85	216.04	406.96	-4.17	-4.05	224.18	5.82	-4.17	0.26
496.80	0.54	215.29	496.74	-5.05	-4.69	222.86	6.89	-5.05	0.35
589.00	0.57	206.34	588.94	-5.82	-5.14	221.47	7.77	-5.82	0.10
681.25	0.12	333.15	681.19	-6.15	-5.39	221.26	8.17	-6.15	0.70
773.50	0.27	95.94	773.44	-6.08	-5.22	220.63	8.01	-6.08	0.38
865.75	0.36	93.32	865.69	-6.12	-4.71	217.60	7.73	-6.12	0.10
958.00	0.53	99.69	957.93	-6.21	-4.00	212.81	7.39	-6.21	0.19
1150.00	0.10	72.07	1149.93	-6.31	-2.97	205.20	6.97	-6.31	0.23
1334.00	0.30	42.67	1333.93	-5.90	-2.49	202.86	6.41	-5.90	0.12
1518.00	0.20	303.17	1517.93	-5.37	-2.43	204.35	5.90	-5.37	0.21
1702.00	0.30	246.27	1701.93	-5.39	-3.14	210.23	6.24	-5.39	0.14
1886.00	0.60	214.57	1885.92	-6.38	-4.13	212.91	7.60	-6.38	0.21
2070.00	0.40	227.17	2069.91	-7.61	-5.15	214.07	9.19	-7.61	0.12
2254.00	0.40	244.87	2253.91	-8.32	-6.20	216.70	10.37	-8.32	0.07

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
2432.00	0.40	279.87	2431.90	-8.48	-7.37	221.02	11.23	-8.48	0.14
2617.00	0.10	299.67	2616.90	-8.29	-8.15	224.53	11.62	-8.29	0.17
2711.00	0.20	344.77	2710.90	-8.09	-8.26	225.63	11.56	-8.09	0.16
2742.00	0.10	340.47	2741.90	-8.01	-8.29	225.98	11.53	-8.01	0.32
2772.00	0.40	356.37	2771.90	-7.88	-8.30	226.50	11.45	-7.88	1.02
2803.00	0.40	351.17	2802.90	-7.66	-8.33	227.37	11.32	-7.66	0.12
2834.00	2.20	356.87	2833.89	-6.96	-8.38	230.26	10.89	-6.96	5.81
2865.00	5.50	358.87	2864.82	-4.88	-8.44	239.94	9.75	-4.88	10.65
2896.00	9.80	0.17	2895.53	-0.76	-8.46	264.88	8.49	-0.76	13.88
2927.00	14.00	2.47	2925.86	5.63	-8.29	304.18	10.02	5.63	13.63
2958.00	18.20	3.07	2955.64	14.21	-7.87	331.03	16.25	14.21	13.56
2990.00	21.80	3.07	2985.70	25.14	-7.28	343.85	26.17	25.14	11.25
3021.00	25.10	2.87	3014.14	37.46	-6.64	349.94	38.04	37.46	10.65
3052.00	26.00	2.57	3042.11	50.81	-6.01	353.25	51.17	50.81	2.93
3083.00	27.00	2.47	3069.85	64.63	-5.40	355.22	64.86	64.63	3.23
3114.00	29.40	2.37	3097.17	79.27	-4.79	356.55	79.41	79.27	7.74
3145.00	31.60	2.47	3123.88	94.99	-4.12	357.52	95.08	94.99	7.10
3176.00	33.50	2.57	3150.01	111.65	-3.39	358.26	111.70	111.65	6.13
3207.00	35.70	3.17	3175.52	129.23	-2.50	358.89	129.25	129.23	7.18
3239.00	37.20	3.87	3201.26	148.20	-1.33	359.48	148.21	148.20	4.86
3270.00	38.50	4.27	3225.74	167.18	0.02	0.01	167.18	167.18	4.27
3302.00	39.50	5.07	3250.61	187.25	1.66	0.51	187.25	187.25	3.50
3333.00	41.70	5.47	3274.15	207.33	3.51	0.97	207.36	207.33	7.15
3364.00	44.70	6.37	3296.74	228.44	5.71	1.43	228.51	228.44	9.88
3396.00	47.60	7.77	3318.91	251.34	8.55	1.95	251.48	251.34	9.60
3427.00	51.00	8.87	3339.12	274.59	11.96	2.49	274.85	274.59	11.29
3457.00	53.40	9.57	3357.51	297.98	15.76	3.03	298.40	297.98	8.21
3488.00	54.80	9.57	3375.68	322.74	19.93	3.53	323.36	322.74	4.52
3519.00	55.50	9.27	3393.40	347.84	24.10	3.96	348.67	347.84	2.39
3551.00	57.20	9.07	3411.13	374.14	28.34	4.33	375.21	374.14	5.34
3581.00	58.70	8.87	3427.05	399.25	32.31	4.63	400.56	399.25	5.03
3612.00	60.40	8.87	3442.76	425.66	36.43	4.89	427.21	425.66	5.48
3643.00	62.20	8.57	3457.64	452.53	40.55	5.12	454.35	452.53	5.87
3675.00	63.50	8.17	3472.25	480.70	44.69	5.31	482.78	480.70	4.21
3706.00	65.20	7.37	3485.66	508.39	48.47	5.45	510.70	508.39	5.96
3737.00	68.00	7.17	3497.98	536.61	52.07	5.54	539.13	536.61	9.05
3832.00	77.70	4.60	3525.96	626.80	61.31	5.59	629.79	626.80	10.53



MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
3863.00	80.50	359.40	3531.82	657.20	62.37	5.42	660.16	657.20	18.78
3895.00	83.20	354.00	3536.36	688.81	60.54	5.02	691.47	688.81	18.71
3989.00	83.10	356.90	3547.58	781.84	53.13	3.89	783.64	781.84	3.06
4084.00	81.40	359.60	3560.39	875.91	50.26	3.28	877.35	875.91	3.34
4179.00	81.10	0.80	3574.84	969.80	50.58	2.99	971.12	969.80	1.29
4274.00	81.00	1.20	3589.62	1063.63	52.22	2.81	1064.91	1063.63	0.43
4306.00	80.30	359.90	3594.82	1095.21	52.52	2.75	1096.46	1095.21	4.57
4338.00	79.10	357.10	3600.54	1126.68	51.70	2.63	1127.86	1126.68	9.39
4369.00	77.50	356.00	3606.83	1156.98	49.88	2.47	1158.05	1156.98	6.22
4401.00	78.20	357.00	3613.57	1188.20	47.97	2.31	1189.17	1188.20	3.76
4433.00	79.00	357.60	3619.89	1219.53	46.49	2.18	1220.42	1219.53	3.10
4464.00	79.30	356.70	3625.73	1249.94	44.98	2.06	1250.75	1249.94	3.01
4496.00	79.60	357.20	3631.58	1281.35	43.30	1.94	1282.09	1281.35	1.80
4528.00	80.40	358.30	3637.14	1312.84	42.06	1.84	1313.52	1312.84	4.21
4559.00	80.40	358.70	3642.31	1343.40	41.26	1.76	1344.03	1343.40	1.27
4591.00	78.80	357.80	3648.09	1374.86	40.30	1.68	1375.45	1374.86	5.71
4623.00	76.00	355.50	3655.07	1406.03	38.48	1.57	1406.55	1406.03	11.21
4654.00	76.00	355.60	3662.57	1436.02	36.15	1.44	1436.47	1436.02	0.31
4686.00	77.30	356.30	3669.96	1467.07	33.95	1.33	1467.47	1467.07	4.59
4718.00	82.20	357.00	3675.65	1498.50	32.11	1.23	1498.84	1498.50	15.46
4749.00	86.30	358.70	3678.75	1529.31	30.96	1.16	1529.63	1529.31	14.31
4781.00	88.40	358.90	3680.23	1561.27	30.29	1.11	1561.56	1561.27	6.59
4813.00	87.80	357.30	3681.30	1593.23	29.23	1.05	1593.50	1593.23	5.34
4844.00	88.90	356.70	3682.19	1624.18	27.61	0.97	1624.41	1624.18	4.04
4875.00	91.90	357.00	3681.97	1655.13	25.90	0.90	1655.33	1655.13	9.73
4907.00	94.90	358.20	3680.07	1687.04	24.57	0.83	1687.22	1687.04	10.09
4934.00	95.30	358.70	3677.67	1713.92	23.84	0.80	1714.09	1713.92	2.37
4966.00	94.60	357.80	3674.91	1745.79	22.86	0.75	1745.94	1745.79	3.55
4997.00	93.40	356.40	3672.75	1776.67	21.30	0.69	1776.80	1776.67	5.94
5028.00	92.70	357.30	3671.10	1807.58	19.60	0.62	1807.69	1807.58	3.67
5060.00	91.80	359.00	3669.84	1839.54	18.57	0.58	1839.63	1839.54	6.01
5092.00	91.30	0.90	3668.98	1871.52	18.54	0.57	1871.62	1871.52	6.14
5123.00	91.10	3.30	3668.33	1902.49	19.67	0.59	1902.60	1902.49	7.77
5155.00	91.90	4.40	3667.49	1934.41	21.82	0.65	1934.53	1934.41	4.25
5186.00	93.00	3.60	3666.17	1965.30	23.98	0.70	1965.45	1965.30	4.39
5218.00	93.30	2.90	3664.41	1997.20	25.79	0.74	1997.37	1997.20	2.38
5249.00	93.30	3.60	3662.62	2028.10	27.55	0.78	2028.29	2028.10	2.25

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
5281.00	93.10	4.60	3660.84	2059.97	29.83	0.83	2060.19	2059.97	3.18
5313.00	93.70	4.50	3658.94	2091.81	32.37	0.89	2092.06	2091.81	1.90
5344.00	94.70	4.30	3656.67	2122.64	34.74	0.94	2122.92	2122.64	3.29
5376.00	95.60	4.80	3653.80	2154.41	37.27	0.99	2154.73	2154.41	3.21
5408.00	95.10	5.40	3650.81	2186.14	40.10	1.05	2186.51	2186.14	2.43
5439.00	94.50	2.10	3648.22	2216.96	42.12	1.09	2217.36	2216.96	10.78
5471.00	94.80	0.00	3645.62	2248.85	42.70	1.09	2249.26	2248.85	6.61
5502.00	94.70	359.20	3643.06	2279.74	42.49	1.07	2280.14	2279.74	2.59
5525.00	94.50	359.00	3641.21	2302.67	42.13	1.05	2303.05	2302.67	1.23
5557.00	93.60	358.80	3638.95	2334.58	41.51	1.02	2334.95	2334.58	2.88
5589.00	94.30	354.90	3636.75	2366.45	39.76	0.96	2366.78	2366.45	12.35
5620.00	94.10	354.70	3634.48	2397.24	36.96	0.88	2397.53	2397.24	0.91
5652.00	93.50	355.70	3632.36	2429.06	34.29	0.81	2429.30	2429.06	3.64
5683.00	92.70	356.60	3630.68	2459.94	32.21	0.75	2460.15	2459.94	3.88
5715.00	91.90	358.40	3629.39	2491.88	30.81	0.71	2492.07	2491.88	6.15
5747.00	92.30	357.80	3628.22	2523.84	29.75	0.68	2524.02	2523.84	2.25
5825.00	93.70	356.00	3624.14	2601.62	25.54	0.56	2601.74	2601.62	2.92

# ADVANTAGE ELEVATIONS

OIL FIELD SURVEYORS

BOX 8604 - PRATT, KS 67124  
(620) 672-6491

1110152  
INVOICE NO.

BLACKSTONE OIL & GAS  
OPERATOR

1-21  
NO.

WILHELM  
FARM

RUSH CO, KS  
COUNTY

21 18s 16w  
S T R

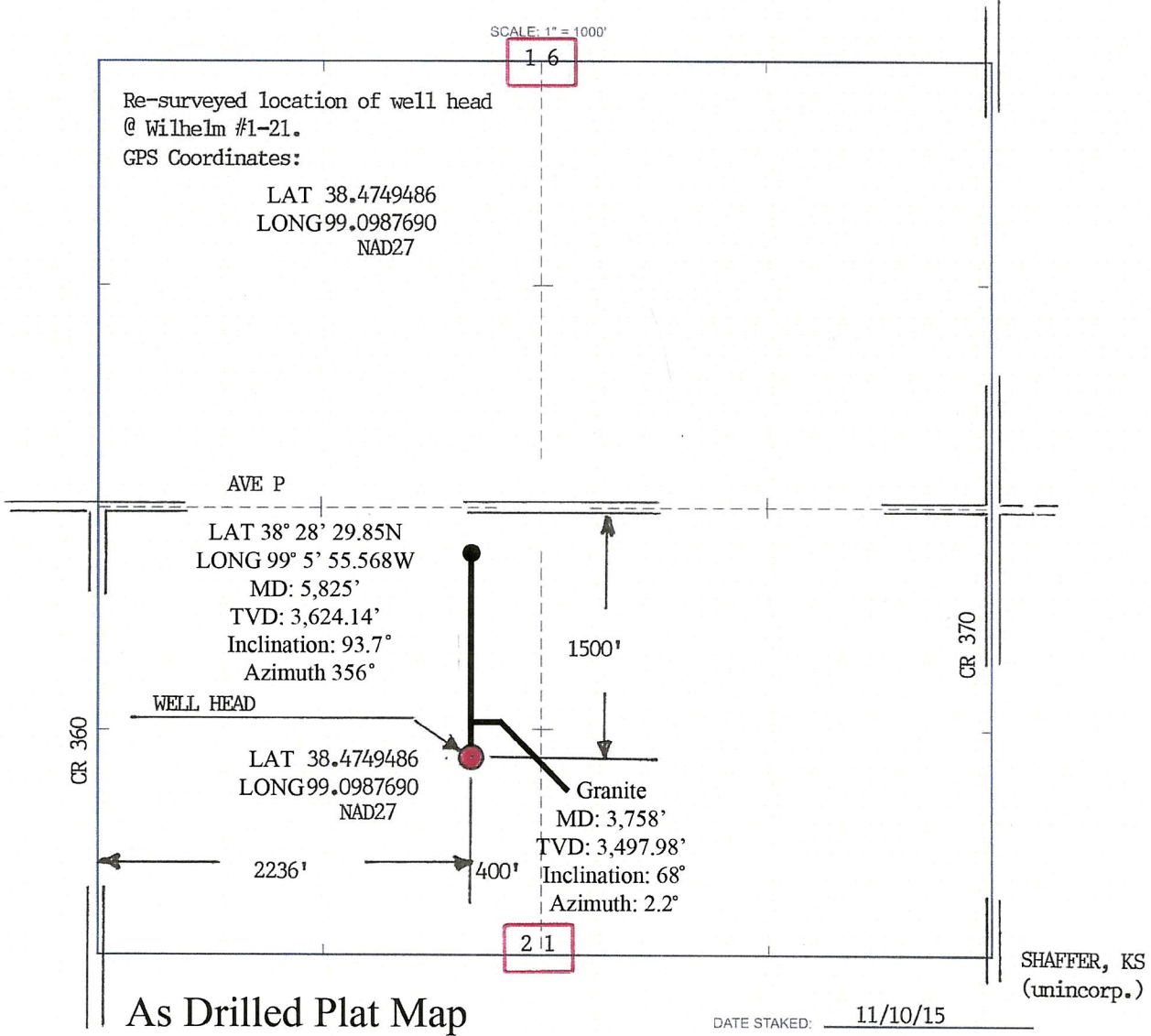
1500' ENL & 400' FEL of NW/4 (2236' FWL) of Sec 21  
LOCATION

ELEVATION: 1934' GR



BLACKSTONE OIL & GAS  
1301 McKinney St.  
Houston, TX 77010

AUTHORIZED BY: Scott Nowak



# ADVANTAGE ELEVATIONS

OIL FIELD SURVEYORS

BOX 8604 - PRATT, KS 67124  
(620) 672-6491

1110152

INVOICE NO.

BLACKSTONE OIL & GAS

OPERATOR

1-21

NO.

WILHELM

FARM

RUSH CO., KS  
COUNTY

21  
S

18s  
T

16w  
R

1500' FNL & 400' FFL of NW/4 (2236' FWL) of Sec 21  
LOCATION

ELEVATION: 1934' GR



BLACKSTONE OIL & GAS  
1301 McKinney St.  
Houston, TX 77010

AUTHORIZED BY: Scott Nowak

