

MBC WELL LOGGING LLC

Scale 1:240 (5"=100') Imperial

Well Name: ROCKING CHAIR RANCH #2 BLACKSTONE EXPLORATION LLC
 Location: NAVAJO COUNTY ARIZONA USA
 Licence Number: Region: WILDCAT
 Spud Date: 12-19-2015 Drilling Completed: 1-12-16
 Surface Coordinates: 1980'fnl, 1980'fel SEC13-T14N-R19E
 ROGER MARTIN, CHIEF GEO & CO-MAN
 Bottom Hole BLACKSTONE RIG #1 DUKE COULTER/CHARLIE COULTER
 Coordinates: API-02-017-20110-0 PERMIT#01201
 Ground Elevation (ft): 5845' K.B. Elevation (ft): 5853'
 Logged Interval (ft): 1370 To: 2689 Total Depth (ft): E-LOG 2682
 Formation:
 Type of Drilling Fluid: TWISTER MUD CO EUREKA, KS CHARLIE COULTER (620)750-0882
 Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com






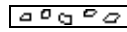


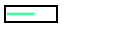

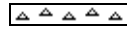
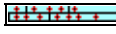


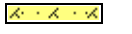






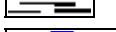

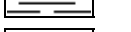













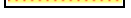


OPERATOR

Company: BLACKSTONE EXPLORATION CO LLC
 Address: PH# 928-524-7786
 PO BOX 940
 HOLBROOK, ARIZONA 86025

MUDLOGGER

Name: AUSTIN GARNER OFF (620)873-2953, CELL (620) 655-2016
 Company: MBC WELL LOGGING LLC
 Address: 21156 RD 22
 MEADE, KANSAS 67864

ROCK TYPES

	Anhy		Ls & ooids		Sltst		Ss		Sndy-ls-1
	Brec		Oolitic ls -1		Salt		Grn sh strk		Calc shale
	Cht		Stgensndy-		Sndy sh--reg		Lmy sh-2		Granitewash
	Coal		New ls-1		Sndy sh		Grn mott gy		Ls shly-b
	Congl		Carby shale		Sltst-1		Shale-1		Poor sortd ss
	New dolomite		Lmy carby		Sltly-shale		Red sh-1		Snd-ls-sh
	Dolo new		Carb sh		Lmy ss-1		Stgensndy-arkos		
	Newdolo ls		Gyp		Arkosic snd		Sndy ool ls		

ACCESSORIES

LITHOLOGY

- Anhy
- Brec
- Cht
- Coal
- Congl
- New dolomite
- Dolo new
- Newdolo ls 2
- Ls & ooids
- Oolitic ls -1
- Stgensndy-arkos
- New ls-1
- Carby shale
- Lmy carby sh-3
- Carb sh
- Gyp
- Sltst
- Salt
- Sndy sh--red
- Sndy sh
- Sltst-1
- Sltly-shale
- Lmy ss-1
- Arkosic snd
- Ss
- Grn sh strk

- Lmy sh-2
- Grn mott gy sh
- Shale-1
- Red sh-1
- Stgensndy-arkos
- Sndy ool ls
- Sndy-ls-1
- Calc shale
- Granitewash
- Ls shly-b
- Poor sortd ss
- Snd-ls-sh

FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil

- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom

MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chtlt
- New dolostringer
- Dol
- Fldspr-1
- Ferrpel
- Ferr
- Glau
- Gyp

- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Qtz
- New symbol
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Styolitic
- Slickenside

STRINGER

- Anhy
- Red sh stringer
- Arg
- Bent
- Coal
- Dol
- Gyp
- Oolls-1

- Ls
- Mrst
- Sltstrg
- Ssstrg
- Grn sh strk

TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

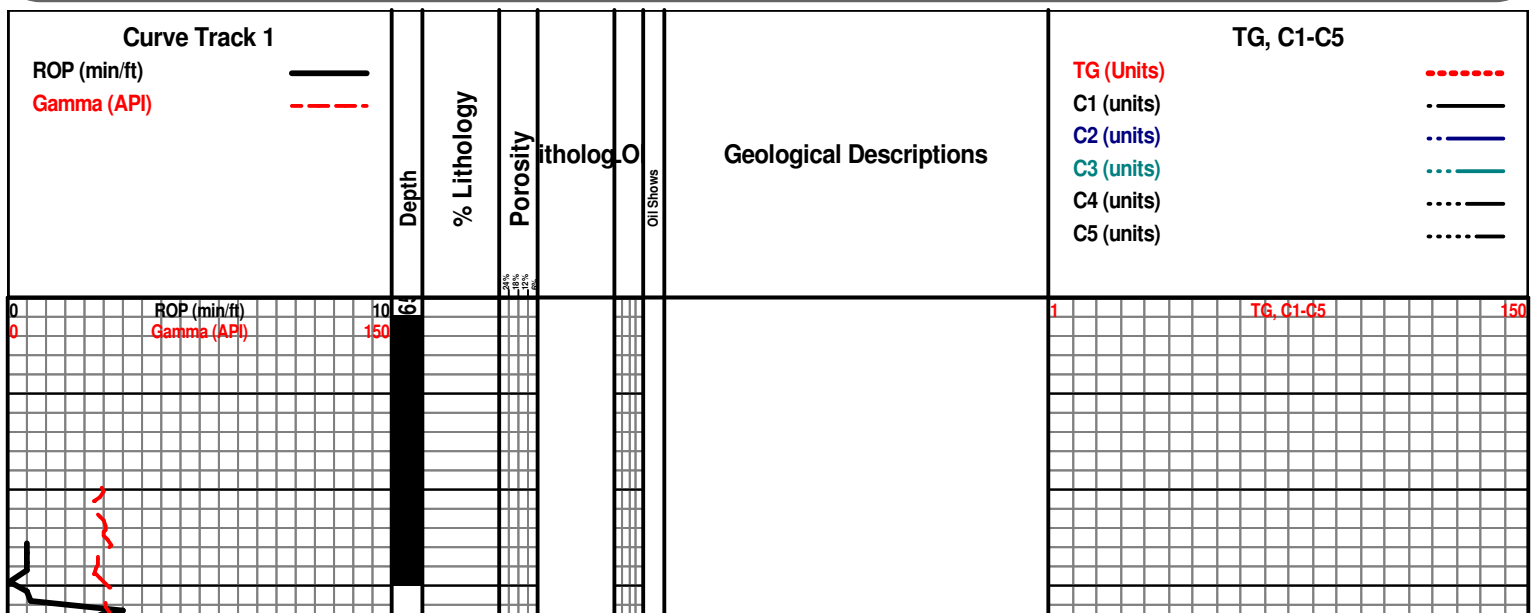
OIL SHOW

- Even
- Spotted
- Ques
- Dead

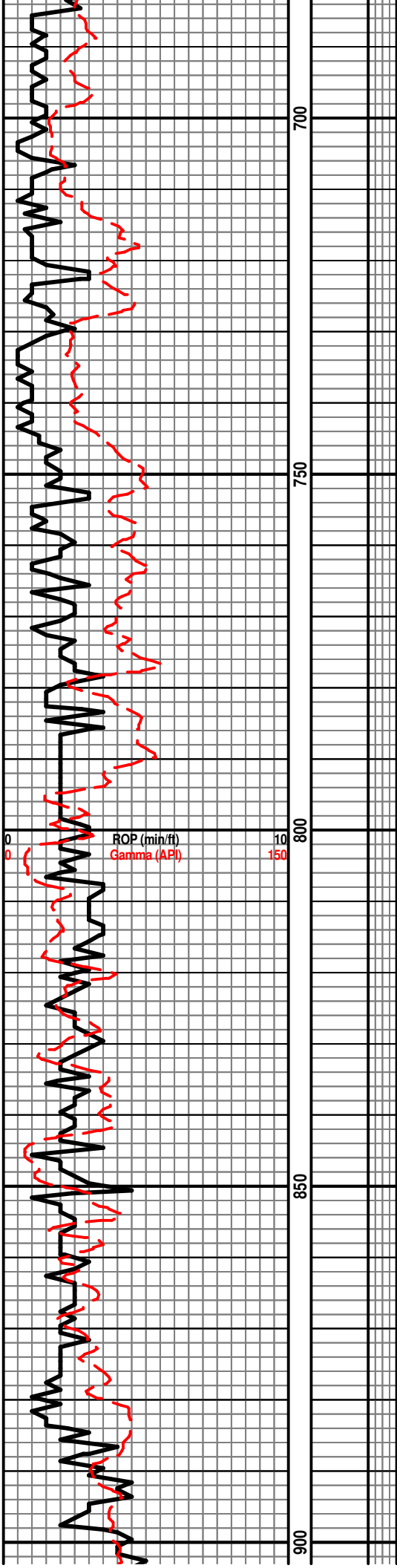
Comments

1. TWISTER MUD EUREKA, KS CHARLIE COULTER
2. CASEHOLE SOLUTION WLS, HAYES KS, BASIC CEMENTING LIBERAL KS,
3. RUN PRODUCTION CASING
4. BLACKSTONE RIG #1, SHUT DOWN DEC 24-2015 FOR CHRISTMAS, RESTART RIG JAN 06-2016 @1374'
5. 1-9-16 WALL STUCK 2218', SPOT DIESEL TO GET LOOSE

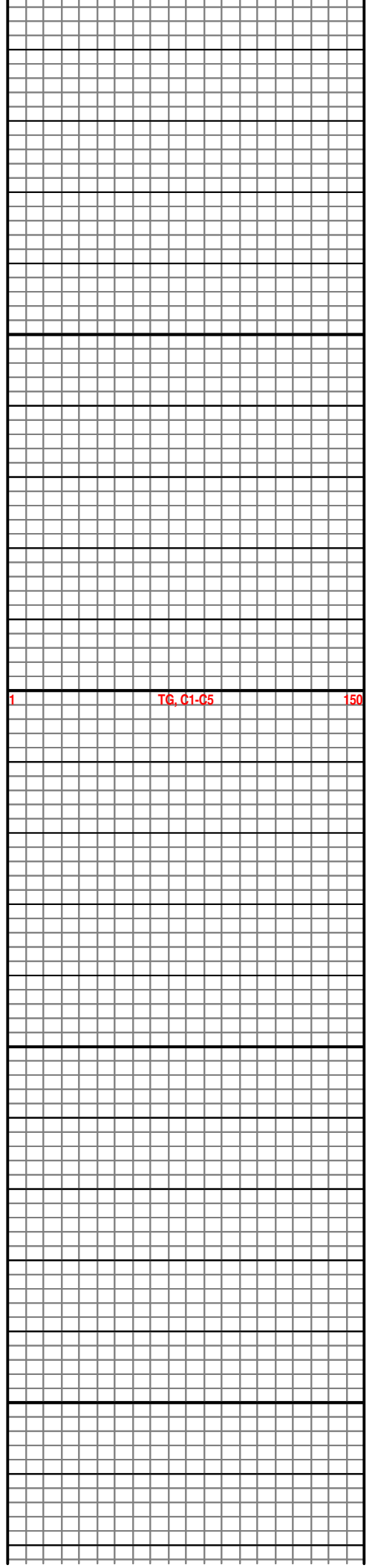
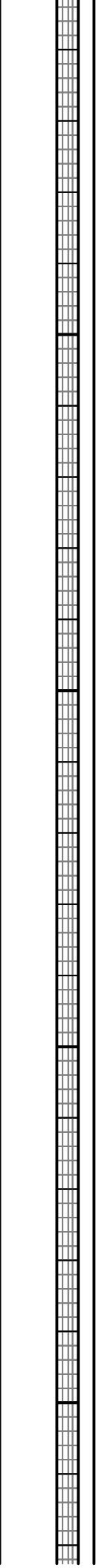
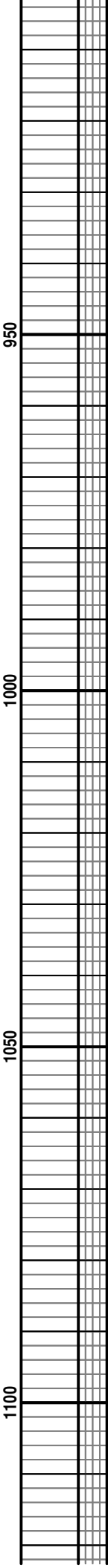
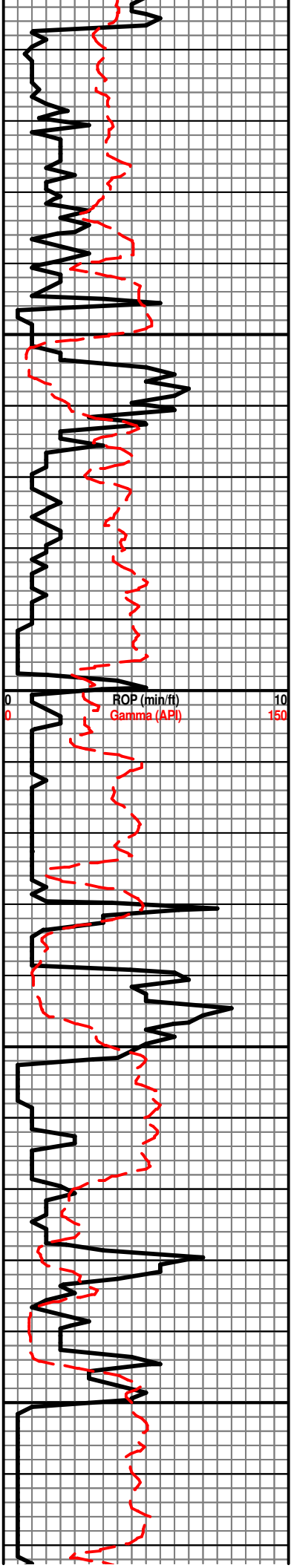
1-9-16 wall stuck 2218' SPOT GAL DIESEL TO GET LOOSE



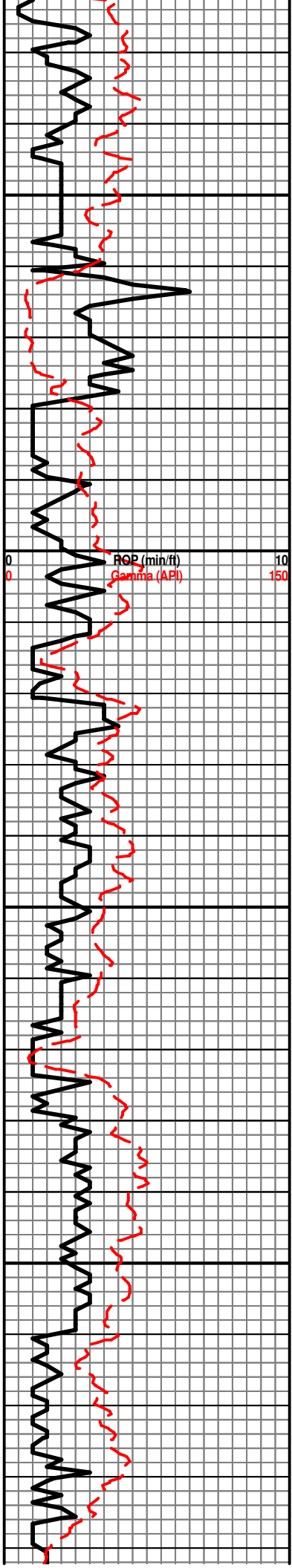
WATER STRING
40'
8/58" SFC 640
BHA 6 DC==268'



1 TG, C1-C5 150



1 TG, C1-C5 150



1150

1200

1250

1300

10

150

1

TG, C1-C5

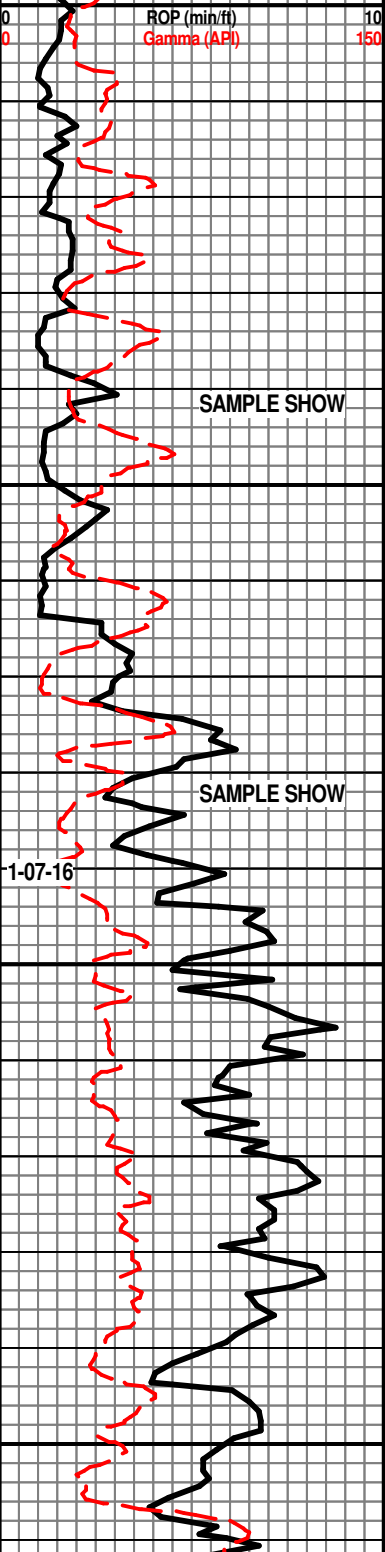
150

WATER STRING 40'
8/58" SFC 640
BHA 6 DC==268'

BLACKSTONE RIG 1

ROP SCALE
<00-10mpf>

1350
1400
1450
1500
1550



SAMPLE SHOW

SAMPLE SHOW

TR DOLO; LT BRN, VF GRNY TO TR
LTG BRN DOLO/LS, VF VUGGY,
GRITTY, SME LTG BRN CLAY, NO
ODOR, BLK TO TR W/FAINT DK GOLD
TINGE, NO CUT NO CRUSH CUT

TR VF GR WH SLST/SS, PRED LT
GYISH WH VF GRN SHLY DOLO

SH; RED ORNG BLKY TO SFT, VF
SLTY, VF DOLO RHOMBS, INTBD &
COMNGLD ANHY SME ANHYDRITIC SH

SH RED/ORNG, BLKY-SFT, SLTY SME
ANHYDRITIC, FREE WH SFT ANHY,
NO ODOR, NFSOC

RED BRN SHLY ANHY SME FREE SALT
MOLD ABDT RED SH

ANHY COMGLD DOLO, GY BRN, BRTL
TO HD, FRAC, TR PYR, PALE PURPL
TO BLK FLOR, SCATT V/LT BRN
SPLOTCH STNG, V/SLI RING CUT

ANHY TN OPAQ TO DK GY HD DNS,
COMNGLD SFT PASTY ANHY, INTB D
RED SLTY SH NO SHOW

DOLO; V/LT TN BRN SME SLI GY, VF
BRN TO BLK VF STRKSD, COMNGBLD
ANHY, SCATT PP VUGS, TR DK BRN
STNG, 80-90% BRN INARTICULATGE
MATL, NO ODOR, NO FREE OIL, V/DK
YEL FLOR, NO CUT

DOLO; DK BRN SME BLK, VF DIVID,
TR LMY, TR BLK LENS, TITE, NO
ODOR, NO FREE OIL, BLK TO V/FAINT
GOLD FLOR, NO CUT

77/8" CORNET
GT 19X6 BIT
JETS 20/20/20
IN 640"

I-BALL UNIT
5950

RG C1-C5

BIC LIGHTER PIT
TEST

REZERO IBALL

C

C

C

C

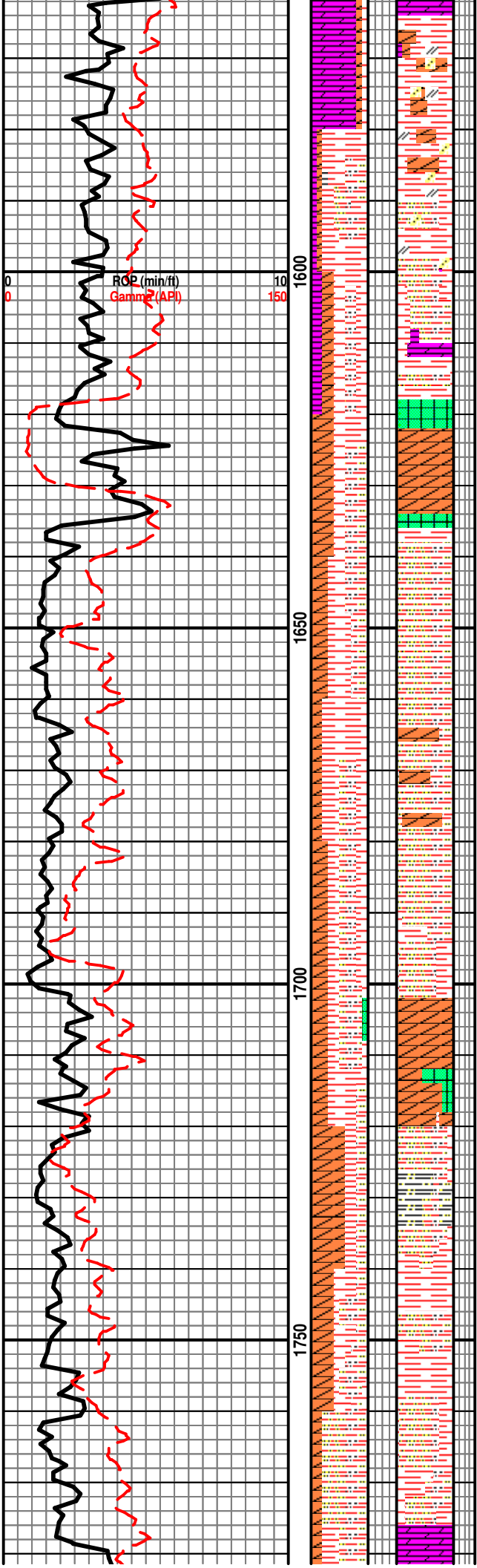
C

C

C

C

PUMP D-300
6"X14" LINER
BBL STRK .1233
BBLMIN 7.53
GPM 315
61 SPM
PP 200
@1804 201SPM TO BIT



SH; BRICK RED, FRM BLKY, LRGH SLTY, COMNGLD ANHY & ANHYDRITIC

SLTST; BRICK RED SME WH SFT MICRO QTZ, CALX NFSOC

ANHY; SLI CRM TO OPAQ, HD DNS FRAC, SME VF ANG XTL, TR SALAT MOLD

SLTST/SS; BRICK RED SFT, MICRO QTZ, SH MATRIX GRDS TO BRICK RED ORNG RGH TXT SLTY SH

ANHY GY W/ORNG TINT TO OPAQ,

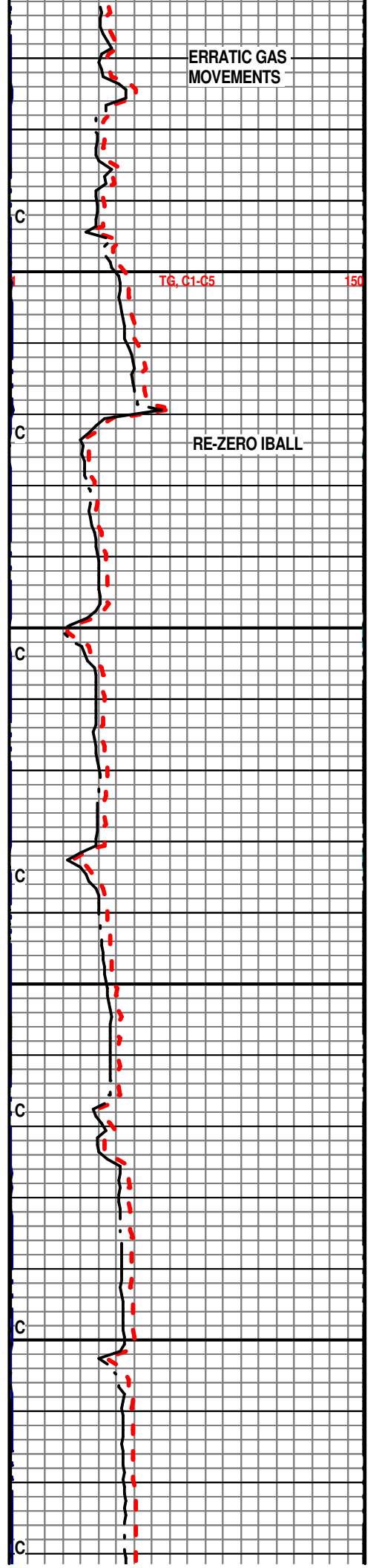
SLTST, BRICK REDS TG OFF WH, MICRO QTZ, RED SH MATRIX

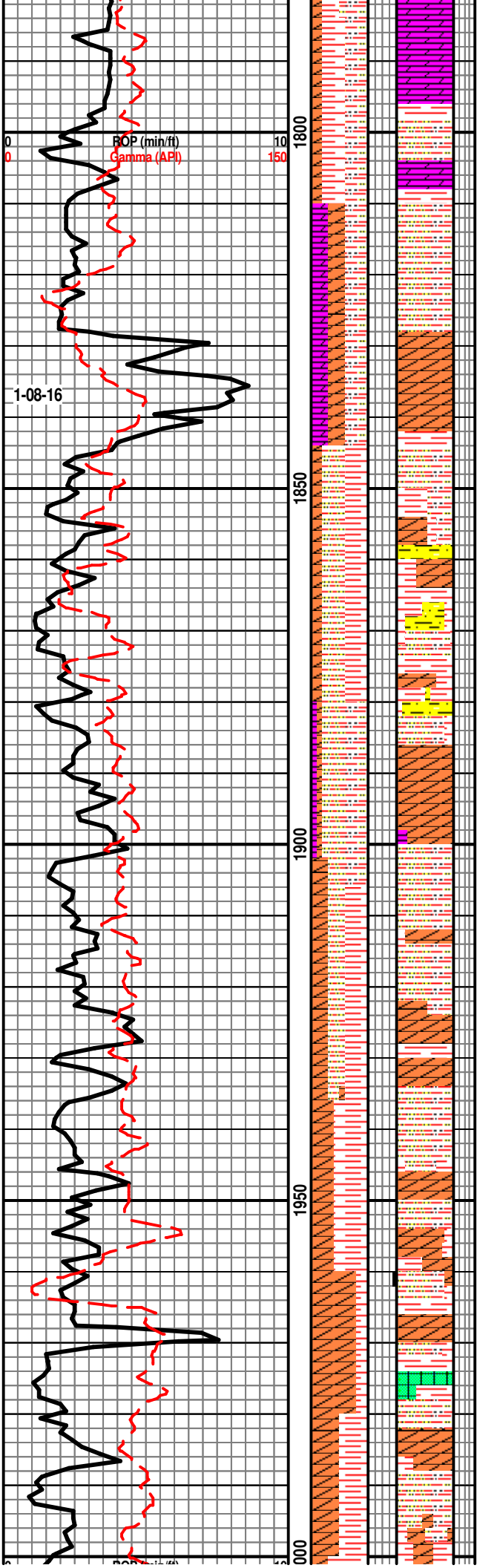
ANHY; GY WH PRED HD, SME SFT WH TR HALITE

RED ORNG TO LT GY RGH SLTY SH

SLTST; LT GY TO BRICK RED ORNG, BLKY SFT GRDS TO SLTY SH

SLTST; OFF WHG SPLOTCHY RED STNG, MICRO QTZ, NFSOC





DOLO; LT TN TO GYISH, VF, BRN
SCLAY MATRIX NFSOC

RED ORNG SME V/LT TN SLTGY RGH
SLTST, GRFDS TGO RED ORNG SFT
SLTY, SH W/ANHY INTRUS

ANHY GY WH HD DNS XLN

SH; RED ORNG VF SLTY SNDY, SME
ANHYDRITIC

TR ORNG MOTT WH SFT SS NFSOC

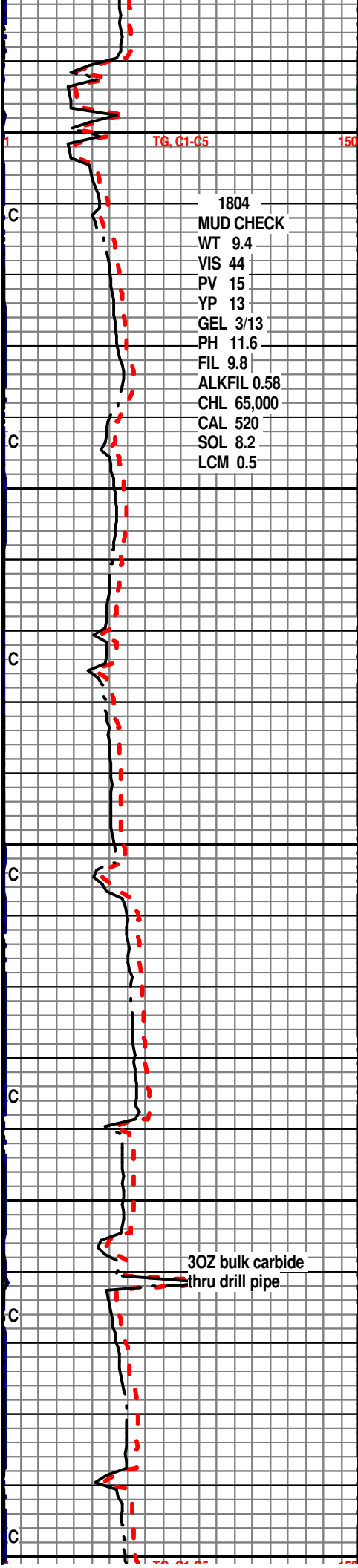
ANHY; OPAQ, SLI ORNG TINT HD
DNS

SLTST; ORNG WH SFT VF GR, ANHY
INCLUS, MICA, NFSOC

ANHY; OPAQ, SLI GY HD DNS XLN,
HALITE W/ABDT RED SLTY RGH TXT
SH & ANHYDRITIC SH

ANHY; OPAQ, WH HD DNS TO SFT
POWDERY,

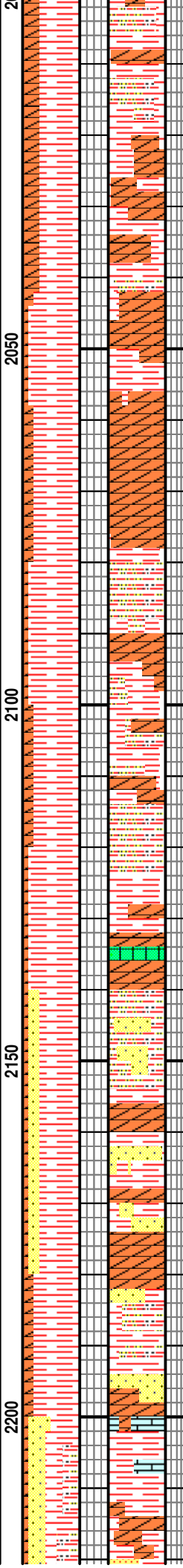
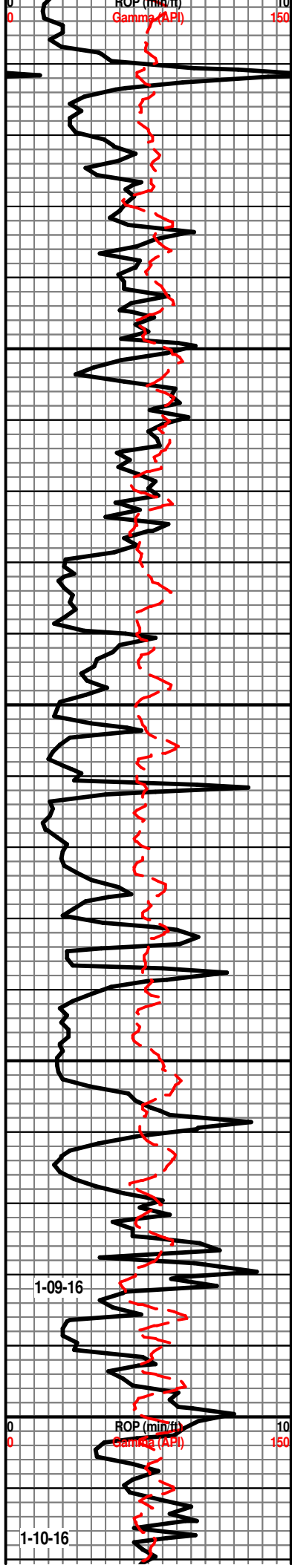
SH; BRICK RED BLKY, SLTY SNDY IP



TG, C1-C5 150

1804
MUD CHECK
WT 9.4
VIS 44
PV 15
YP 13
GEL 3/13
PH 11.6
FIL 9.8
ALKFIL 0.58
CHL 65,000
CAL 520
SOL 8.2
LCM 0.5

30Z bulk carbide
thru drill pipe



ANHY; GY TN OPAQ HD DNS

SH; B RICK RED SMO BLKY TO RGH SLTY SNDY TXT, ANHRTITIC IP

SH BRICK RED BLKY RGH TXT SLY, SALT MOLD, LAM TO RED SH

SLTST; BRICK RED VF GR HD, TO FRM, MICA, SME ORNG ANHY, NO SHOW

ANHY; SLI SREDISH ORNG OPAQ, HD PRED RED SH SLTYS SNDY

SS/SLTST; RED ORNG TR OFF WH, SFT TO FRM, SLTY/SHLY, NO SH ABDT RED ORNG SM, O TO RGH SLTY SNDY SH

SS/SLTST RED ORNG, BRTL, BLKY, MICA, NO SHOW

ANHY GY WH HD DNS SME W/LAM RED SH

SS; RED ORNG SME OFF WH CLSTRS, VF GR, MICRO BLK MIN, MICA, NO ODOR, NFSOC

SS/SLTST; MED BRICK RED, VF GR, BLKY, MED TT, MICRO MIN & MICA, NFSOC NO ODOR

ANHY; GY WHS HD DNS XLN, SLAT MOLDS

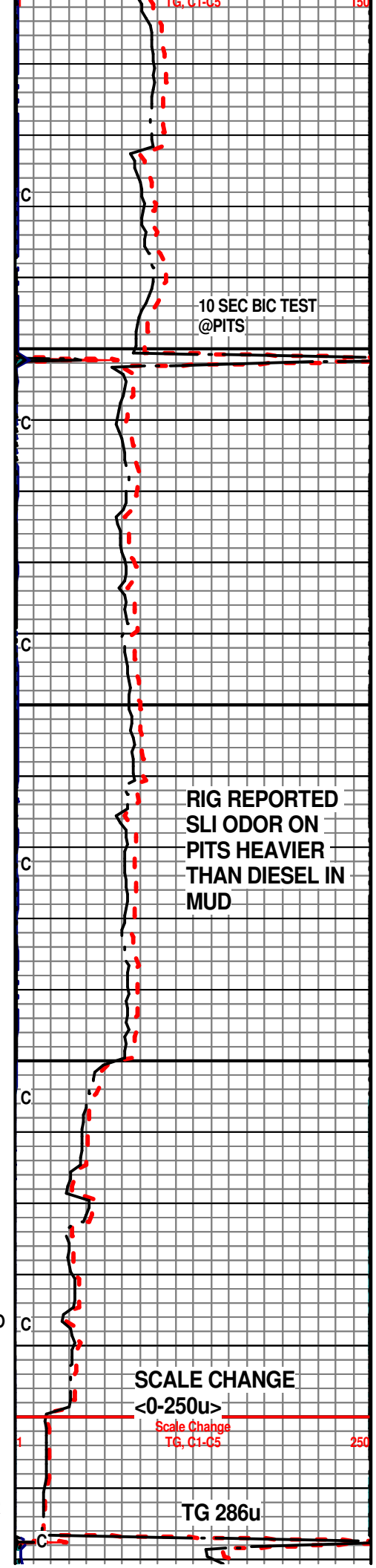
SS/SLTST; LT GRN MOTT RED, SME WH, PRED RED VF GR, FRI, V/SHLY NO ODOR, NFSOC

SH BRICK REDS RGH SLTY SNDY IP

ANHY ORNG TO OPAQ COOMGLD W/RED SH

LS; OFF WH SME SFT CHLKY (1PCE)

WALL STUCK 2218, CONN., SPOT DIESEL, TOH, NB #2 GTM 27X6 SER 19391, 2/18's 1/20 JETS, OB #1 GT 19XG 20/20/20 SER 15847, IN 640ft

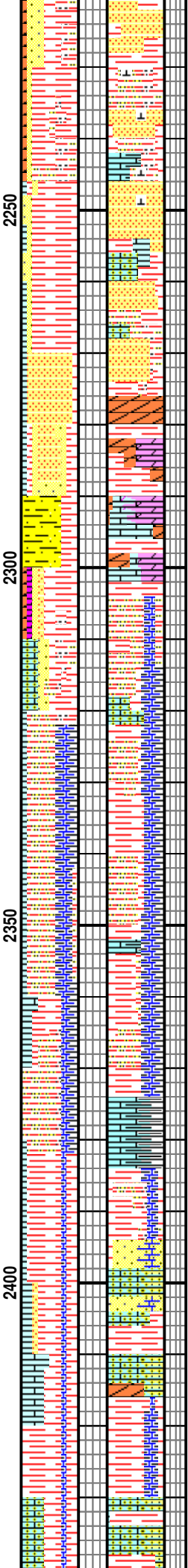
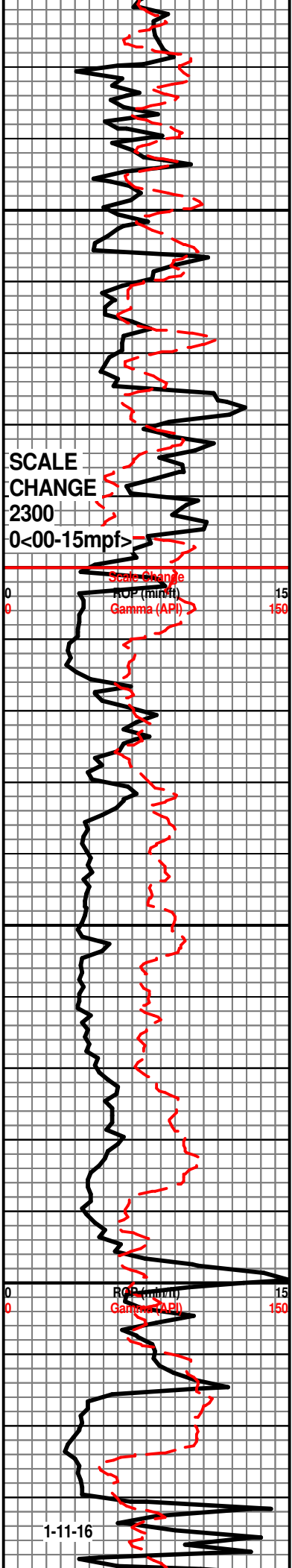


RIG REPORTED SLI ODOR ON PITS HEAVIER THAN DIESEL IN MUD

SCALE CHANGE <0-250u>

Scale Change TG, C1-C5

TG 286u



DRILLED +

TR LT ORNG ANG GR VF GR SS NO SHOW

BRICK RED SH W/VF LS PCES IMBD BLKY SLTY

TR ORNG WH SFT LS

SLTST/SS MED ORNG FRI RED SHLY NO SHOW

LS; OFF WH SLI GRN-OPAQ SPARRY, DOLOMITIC MICRO AREN NO SHOW

SLTST/SS RED ORNG HD TT MICRO QTZ, MICA, SMEV/SHLY, V/SLI CALC, TR LMY W/COATED GRNS NO SHOW

DOLO; MOTT ORNG/-ORNG/WH, HD SNDY, RED SH INTRUS NO SHOW

SS; ORNG RED WH VF GR, DOLOM CMT, NO SHOW ABDT RED BRN SFT LMY SH

OCC PALE ORNGWH WEATHD APPR CHLKY LS

RED BRICK RED BRN BLKY LMY SH

LS; RED TO ORNG V/SHLY W/ABDT FLMY RED SH AAB

BRICK RED BLKY LMY HD SH, SLTY SNDY IP

LS; TR TN/ORNG HD XLN SHLY, INCRS RED-BRN LMY SLTY SH

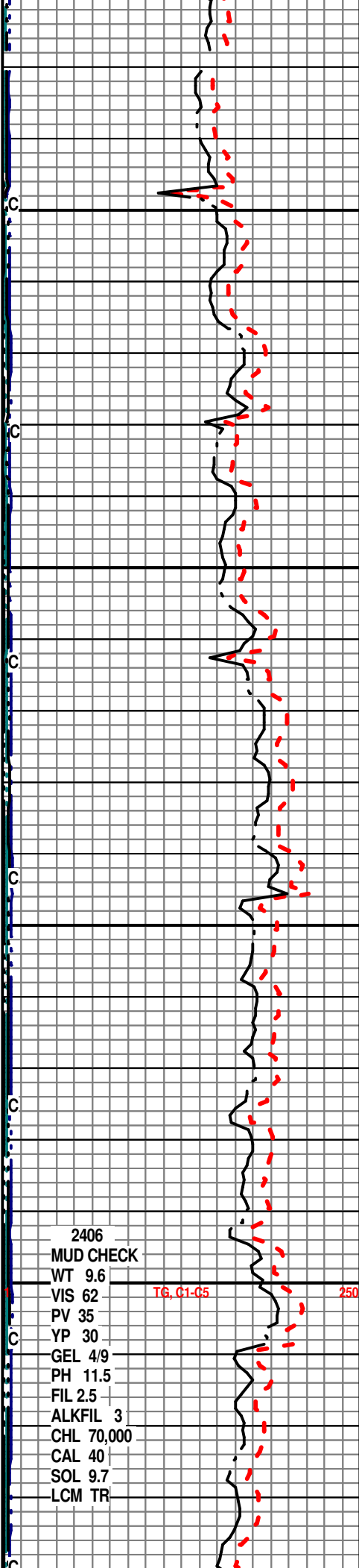
LS RED ORNG GY HD SHLY XLN, TR SS OFF WH W/ORNG TINT, VF GR FRI, LMY NFSOC

BRITE RED SFT LMY PERM SH

LS; RED ORNG HD DNS SHLY W/VTHIN COATED VF QTZ NO SHOW

BRICK RED BRN LMY SH SME SLTY SNDY TR F- PHO, TR ANHY

LS; LT GYISH, PURPL SLI ORNG SME

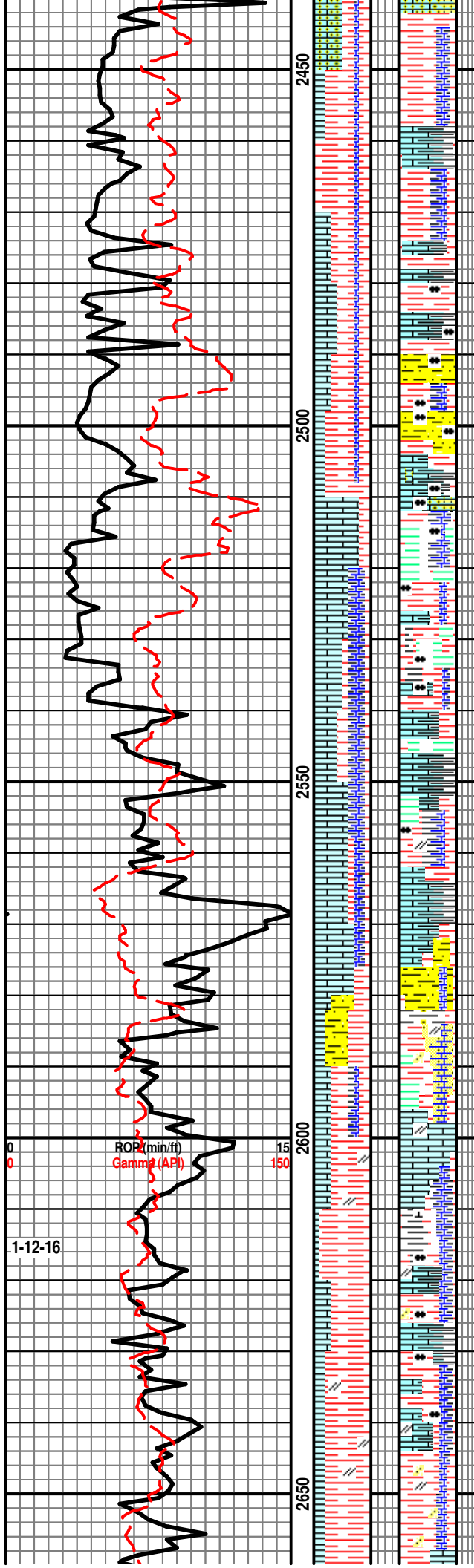


2406

MUD CHECK

WT	9.6
VIS	62
PV	35
YP	30
GEL	4/9
PH	11.5
FIL	2.5
ALKFIL	3
CHL	70,000
CAL	40
SOL	9.7
LCM	TR

T6, C1-C5



MOTT RED HD VF AREN RED SHLY
TRD SH TUBE FILL SME LT ORNG SFT
CHLKY, NO ODOR, NFSOC

SH BRICK RED PLATY TO BLLKY LMY

LS; SPKLD WH ORNG, SFT CHLKY
TO FHD DNS ARGIL, WH/ORNG SFT
SALT MOLD RGH TXT NFSOC NO
ODOR

LS; GY/TN, INCRS DK BRN ARGIL
MICRO PHOS NOD HD DNS XLN W/WH
CHLK EDGES, NO SHOW

SLTST/SS, DK RED BRN HD LMY
MICRO QTZ, ABDT POOR SORT PHOS
NOD W/INTBD PURPL TO PRED BRICK
RED HD LMY SME SNDY, MICA SH

LS; LT TO DK RED BRN ARGIL, ABDT
PHOS NOD NOSHOW

SH; V/LT GRNGY, REDISH BRN, ABDT
PHOS NOD LMY

SH; PURPL TO BRICK REDS SME LT
GRN, ABDT PHOS NODS

LS; WH/ORNG DNS SME ORNG/CRM
CHLK, SH INTRUS NO SHOW

LS; PALE GY GRN SME BRN/RED HD
DNS DULL ARGIL NO SHOW

SH; BRICK RED GY LMY ABDT PHOS
NOD

LS; LT GY TN ARGIL HD DFNS MICRO
PURPL & TN VF PELL, TR PYR, MICRO
QTZ IP, FRAC, SLI CHLK EDGES IP,
FAINT PALE GOLD MIN FLOR NSOC NO
ODOR

SH; DK RED BRN, BLKY LMY SME LT
GRN SFT FISS

LS; TN TRE SPARRY GY, SME CRM
W/SH INTRUS, CHLKY W/MICRO QTZ &
ANHY XTLS, NO ODOR, NO SHOW

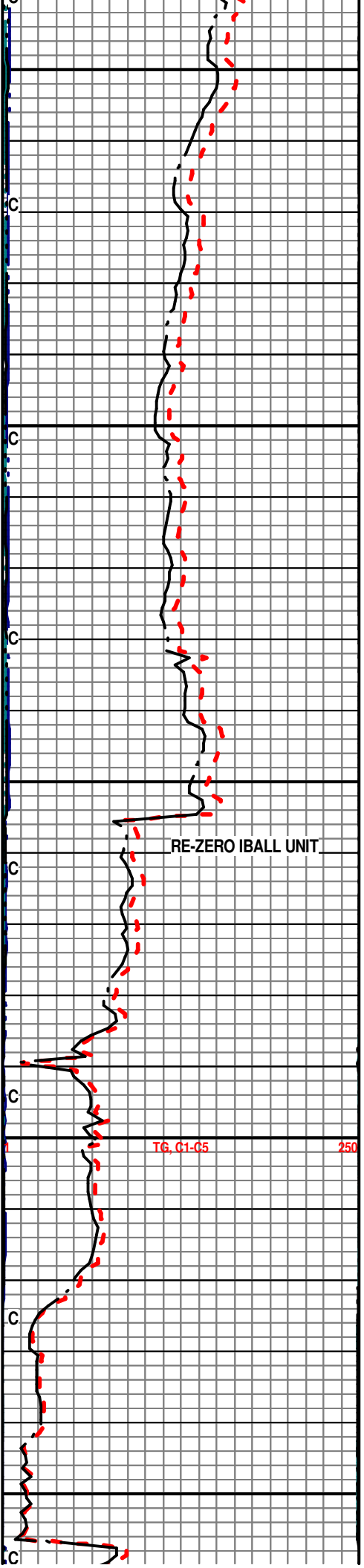
TR LT GY CONTORTED SH W/MICRO
PHOS NOD, TR LT GRN PRED FRUST
RED BRN LMY STRKD GRN IP, MICA

LS; TN MOTT RED HD ARGIL
W/SCATT SLTY LMY SH, FREE PHOS
NOD NO SHOW

SH; DK RED BRN LMY W/SME RED
STND-CRM BRTL VF DETRT LS INTBD

RED HD LMY SME MOTT GRN SLI
MICRO SNDY SH

LS; TN GY HD DNS ARGIL XLN MICRO



250

E-LOG 2682'
RTD 2689
CFS 20/40/60/80

2700

AREN IP, COMNGBLD LT RED SLTSY
SH W/ANHY NOD NO SHOW

DK GY TR BLK CARBY LMY SH

LS; LT GY TN SME PURPL,, HD DNS
XLN GY ARGIL, FRAC, MICRO BLK
SPKSM INTBD DK GY CARBY SH, NO
ODOR, SCATT FAINT GOLD FLOR,
NSOC NO GAS BUBLS NO SHOW

THANKS FOR USING
MBC WELL LOGGING
AUSTIN & MARLA GARNER

C