

DARRAH OIL

Scale 1:240 Imperial

Well Name: Gaunt 'A' Unit #1-29
Surface Location: NE/SE/NE/SW sec 29 T20S R13W
Bottom Location:
API: 15-009-19227
License Number: 5088
Spud Date: 10/29/2014 Time: 2:50 PM
Region: Barton County
Drilling Completed: 11/5/2014 Time: 12:00 AM
Surface Coordinates: 1918' FSL & 2385' FWL
Bottom Hole Coordinates:
Ground Elevation: 1890.00ft
K.B. Elevation: 1895.00ft
Logged Interval: 2700.00ft To: 3658.00ft
Total Depth: 3665.00ft
Formation: Arbuckle
Drilling Fluid Type: Chem mud

OPERATOR

Company: Darrah Oil Company, LLC
Address: 225 N. Market, Suite #300
Wichita, KS 67202
Contact Geologist: Seth Evenson
Contact Phone Nbr: (316) 219-3390
Well Name: Gaunt 'A' Unit #1-29
Location: NE/SE/NE/SW sec 29 T20S R13W API: 15-009-19227
Pool: Hiss
State: Kansas Country: United States

ELEVATIONS

K.B. Elevation: 1895.00ft Ground Elevation: 1890.00ft
K.B. to Ground: 5.00ft

SURFACE CO-ORDINATES

Well Type: Vertical
Longitude: -98.784798 Latitude: 38.280653
N/S Co-ord: 1918' FSL
E/W Co-ord: 2385' FWL

LOGGED BY

Company: Darrah Oil
Address: 225 N. Market, Suite #300
Wichita, KS 67202
Phone Nbr: (316) 219-3390
Logged By: Geologist Name: Seth L. Evenson

CONTRACTOR

Contractor: Mallard J.V.
Rig #: 1
Rig Type: Standard double
Spud Date: 10/29/2014 Time: 2:50 PM

OPEN HOLE LOGS

Logging Company: Pioneer Energy Services
 Logging Engineer: Y. Ruiz
 Truck #: 15
 Logging Date: 11/5/2014
 # Logs Run: 4
 Time Spent: 5
 # Logs Run Successful: 4

LOGS RUN

Tool	Logged Interval	Logged Interval	Hours	Remarks	Run #
Dual Comp Porc	500.00ft	3637.00ft	2.00		1
DI	200.00ft	3657.00ft	2.00		1
Micro	2000.00ft	3657.00ft	3.00		2
BHC Sonic	200.00ft	3646.00ft	3.00		2

LOGGING OPERATION SUMMARY

Date	From	To	Description Of Operation
11/5/2014	200.00ft	3658.00ft	Four wireline logs ran successfully

NOTES

DST #1

Arbuckle
 3544' - 3553'
 30-30-30-60

IHP=1765#
 IFP=100#-597#
 ISIP=1220#
 FFP=147#-159#
 FSIP=1106#
 FHP=1817#

BHT=105 deg F

Rec:

20' VSG&WCM (2% Water)
 240' Mud

DST #2

Arbuckle
 3548' - 3558'
 30-30-30-30

IHP=1878#
 IFP=17#-19#
 ISIP=219#
 FFP=25#-28#
 FSIP=601#
 FHP=1802#

BHT=100 deg F

Rec:

15' SG&OCM (5% Oil)

DST #3

KC H - K
 3356' - 3448'
 30-30-45-45

IHP=1801
 IFP=19#-24#
 ISIP=37#
 FFP=24#-25#
 FSIP=35#
 FHP=1676#

BHT=101 deg F

Rec:

10' VSWCM (2% Water)

DST #4

Arbuckle
 3548' - 3658'
 30-30-45-75

IHP=1858#
 IFP=432#-444#
 ISIP=1250#
 FFP=458#-451#
 FSIP=1252#
 FHP=1833#

BHT=110 deg F

Rec:

720' Mud*

DST #5

Arbuckle
 3552' - 3658'
 30-30-45-75

IHP=1934#
 IFP=89#-183#
 ISIP=1186#
 FFP=189#-244#
 FSIP=1172#
 FHP=1826#

BHT=109 deg F

Rec:

400' Mud (no water)

*Packers leaked during flow












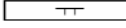




periods. Regarded as mis-run

Corrected drill time & DST intervals up 7 feet. Drillers TD was 3665'.

Sample intervals and circulations are original & uncorrected.



All measurements taken from KB

ROCK TYPES




 Anhyprim	 Lmst fw<7	 Ss	 Sltst
 Coal	 Lmst fw>7	 Shgy	 Ool grnst
 Dolsec	 Mrlstcalc	 Shbck	 Quartz
 Igneacidic	 Meta	 Shcol	 Chtcongl

ACCESSORIES



MINERAL

-  Varicolored chert
-  Chert White

FOSSIL








-  Fossils < 20%
-  Gastropods
-  Oolites

STRINGER

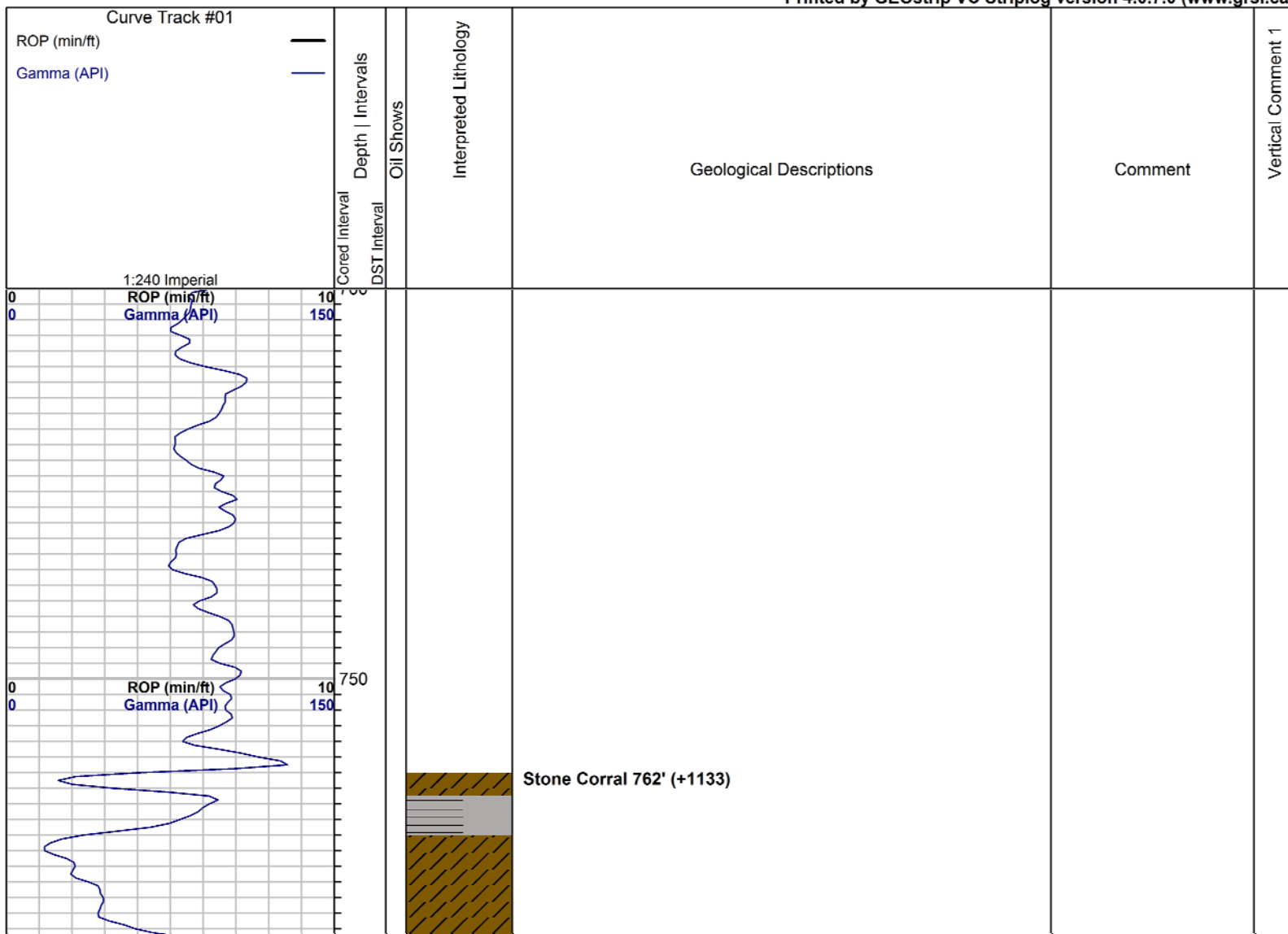
-  Limestone
-  Shale

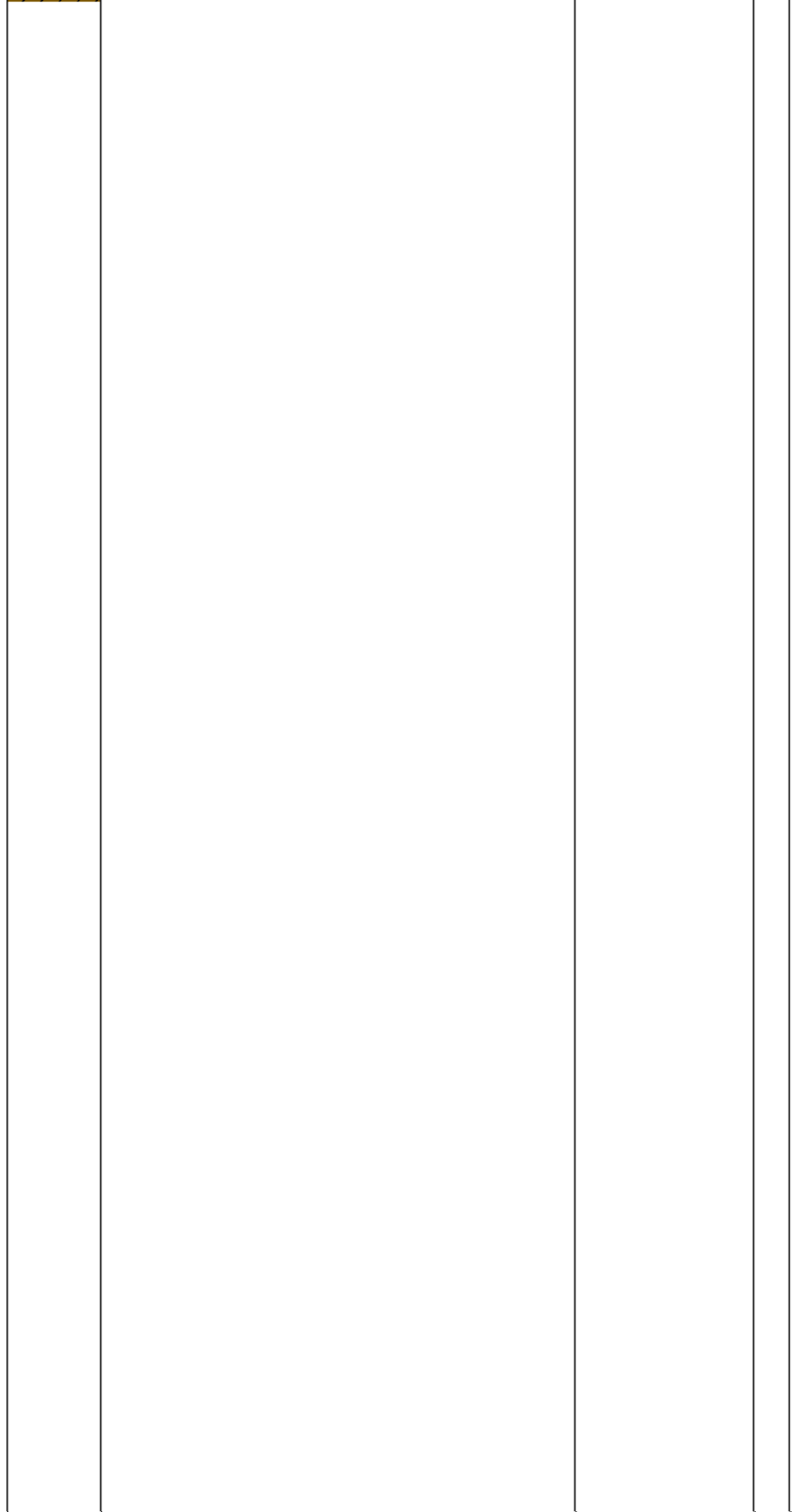
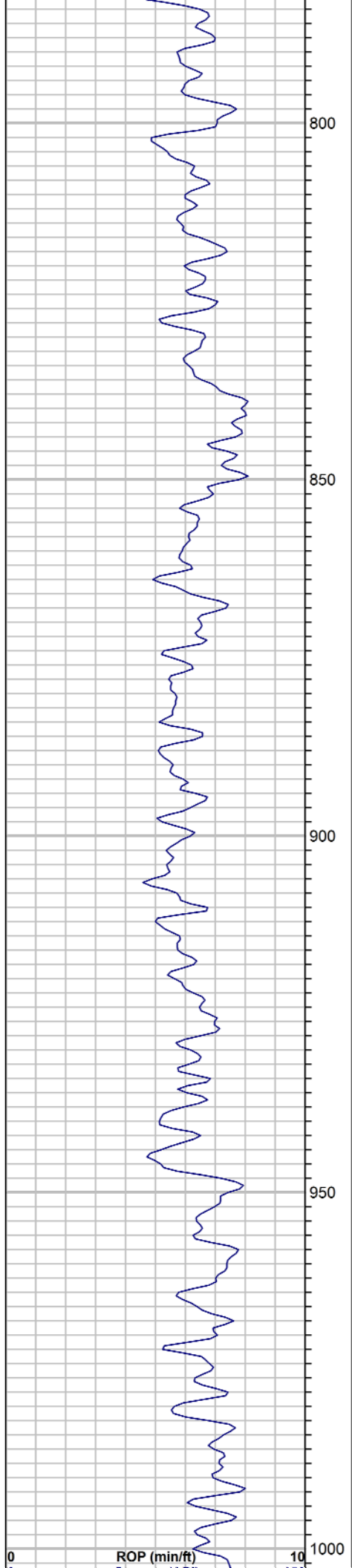
OTHER SYMBOLS

OIL SHOWS

-  Even Stn
-  Spotted Stn 50 - 75 %
-  Spotted Stn 25 - 50 %
-  Spotted Stn 1 - 25 %
-  Questionable Stn
-  Dead Oil Stn
-  Fluorescence

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)





Gamma (API)

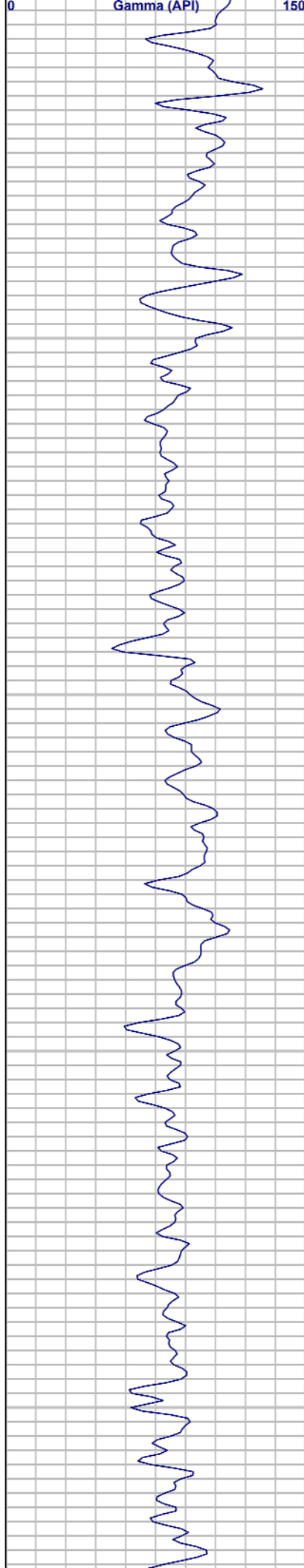
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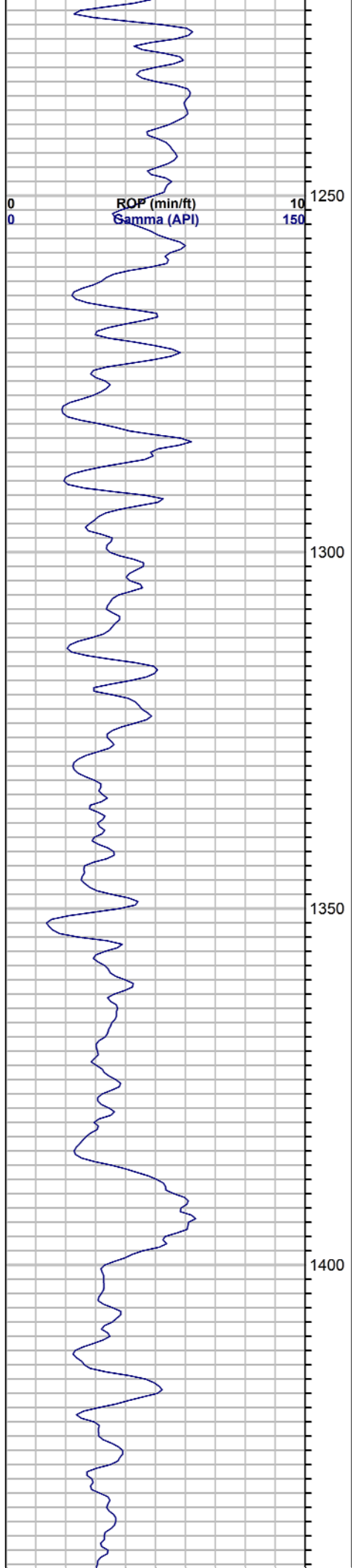
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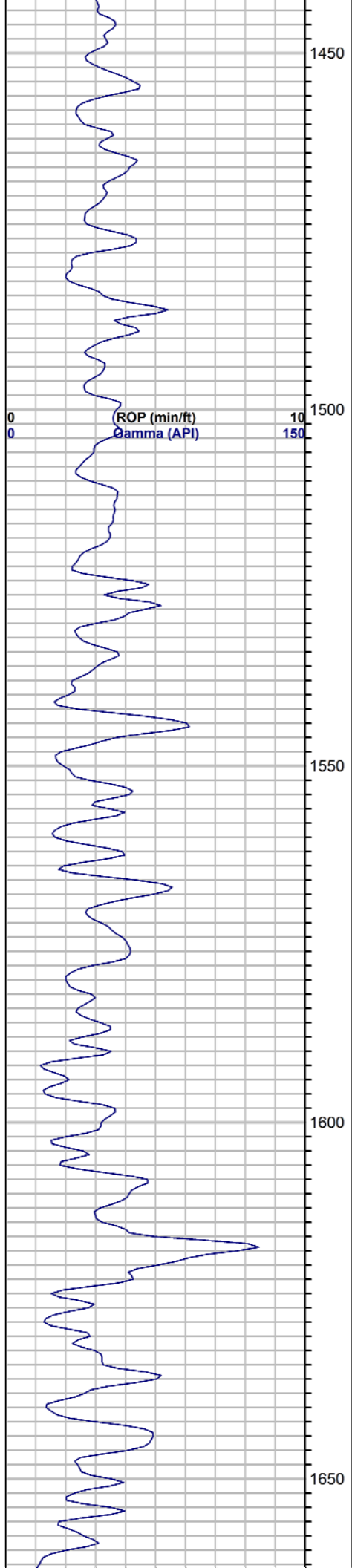
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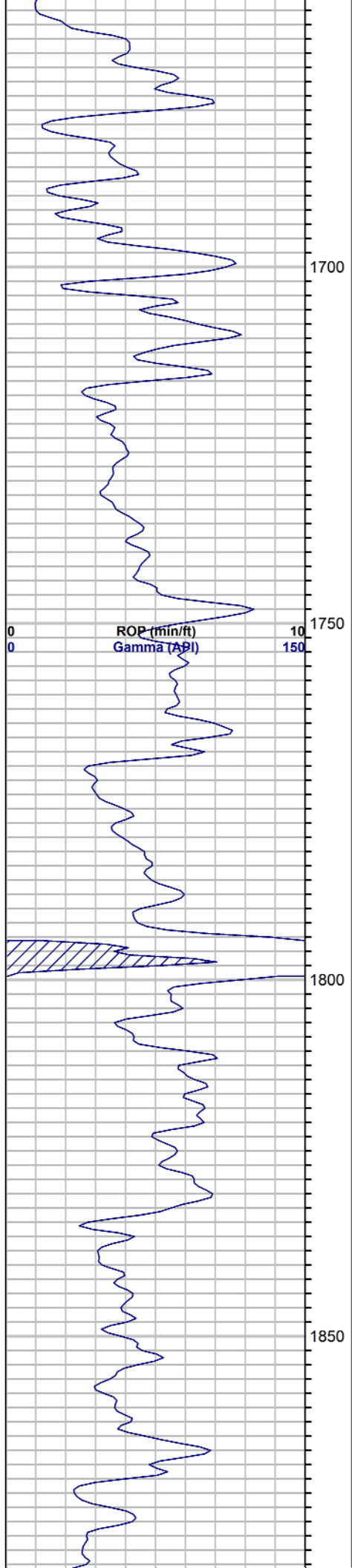
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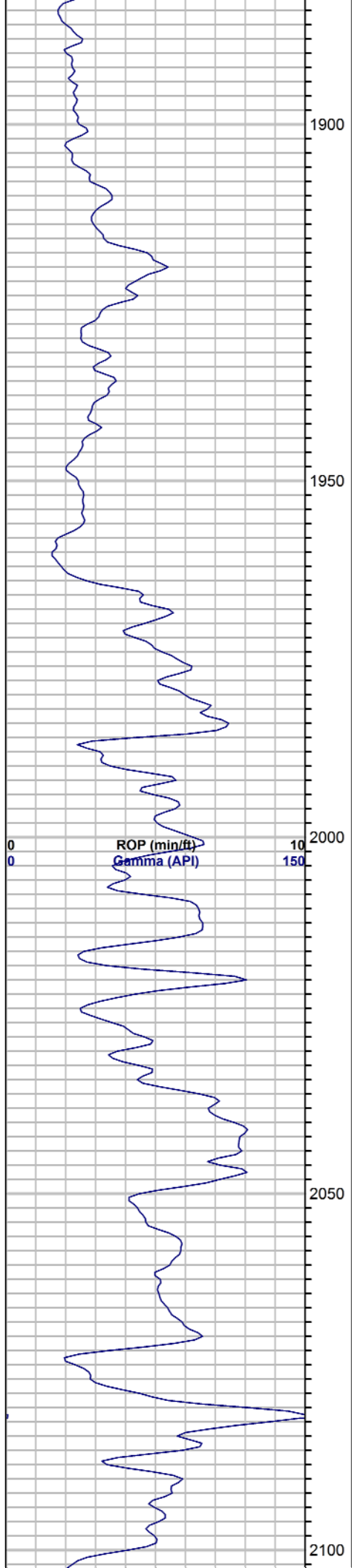
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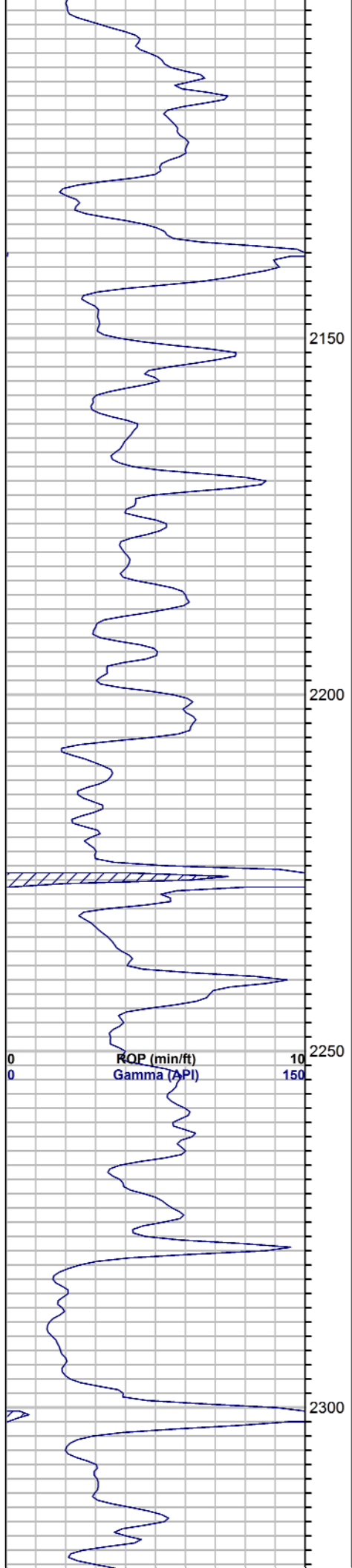


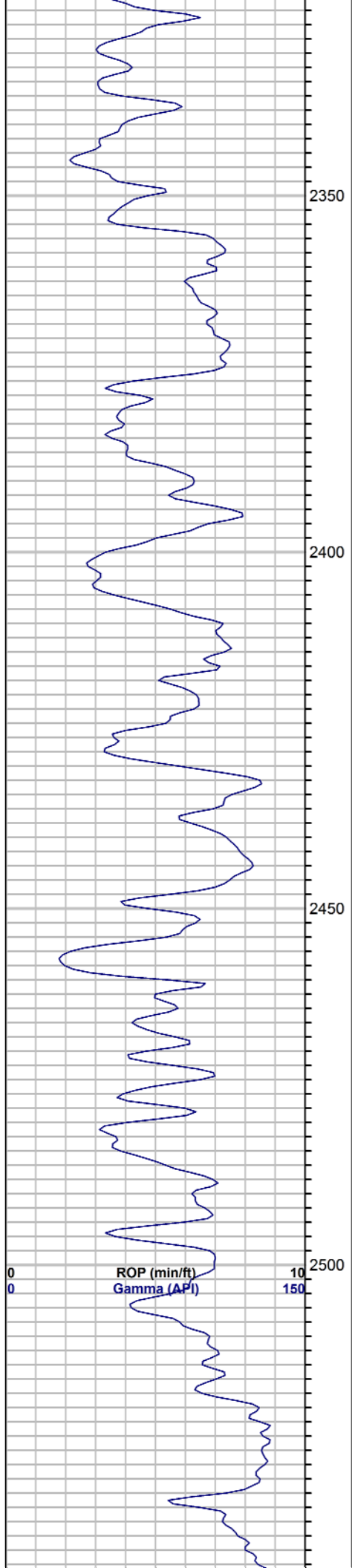


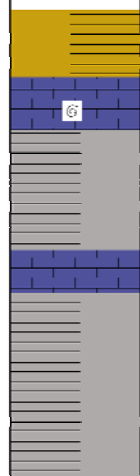
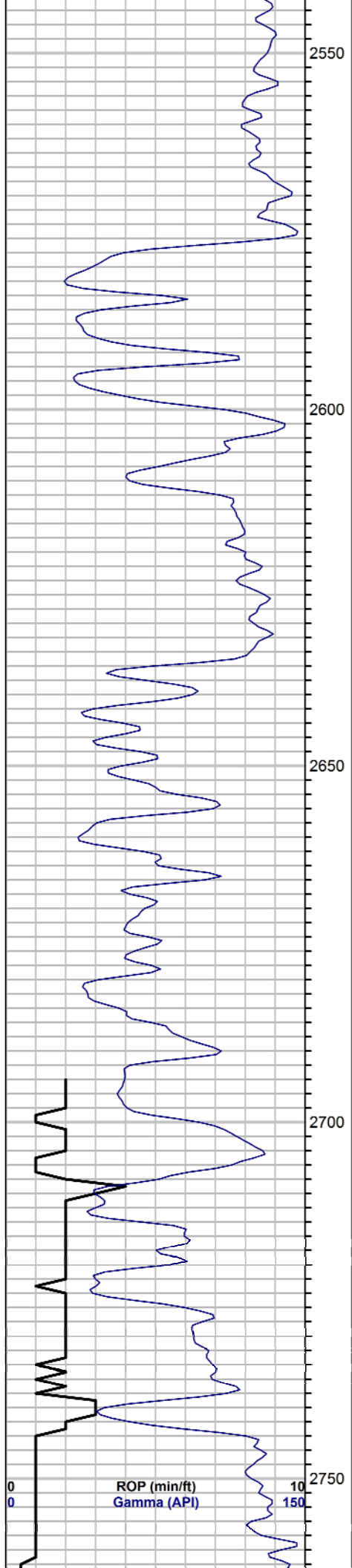












2700'-20': Shale, gry, red/bwn-maroon, sli silty. Much lms, lt gry sli shaley to off-wht & tan micro xtln, hrd res, vpr-no vis poro.

2700'-20': About drplts chr oil floating in tray. Probably associated with pipe dope; also in sample.

2720'-40': Shale, drk gry & maroon. Much lmy shale & shaley lms, hrd, no vis poro. Several pcs lms gry, micro-vfn xtln, foss (gastropods), hrd res, pr-no vis poro. A couple pcs SS, lt gry, fn qtz grains, hrd res to friable, pr-fr intr granular poro.

2740'-60': Sndy lms, lt gry-tan, hrd res, micro xtln, no vis poro. Some shale, gry, sft.

Howard 2774' (-879)

2800

2760'-80': Lms, tan-brwn, a few gry, med-hrd res, micro-vfn xtln, no visable porosity. Some gry platy shale. A few pcs sndy lms as abv. Trc of loose crs, ang, qtz grains.

2780'-2800': Lms, crm-tan-gry, micro-vfn xtln, med-hrd res, pr-no vis poro. Gry pcs are fossiliferous. Some gry platy shale.

2800'-20': Shaley lms, gry, micro xtln, med-hrd res, no vis poro. Also much gry sli lmy shale, firm.

2820'-40': Shaley lms & gry lmy shale as abv. Much gry platy shale also.

2850

Topeka 2853' (-958)

2840'-60': Lms, lt gry, fn xtln, med res, pr-no vis poro, vry sli foss. Much gry shale & some gry shaly lms/lmy shale as above.

2860'-80': Lms, lt gry-gry, micro-vfn xtln, med-hrd res, no vis poro. Trc blk carb shale.

F

F

2880'-2900': Lms, gry, micro-vfn xtln, med-hrd res, sli foss, no visible poro.

2900

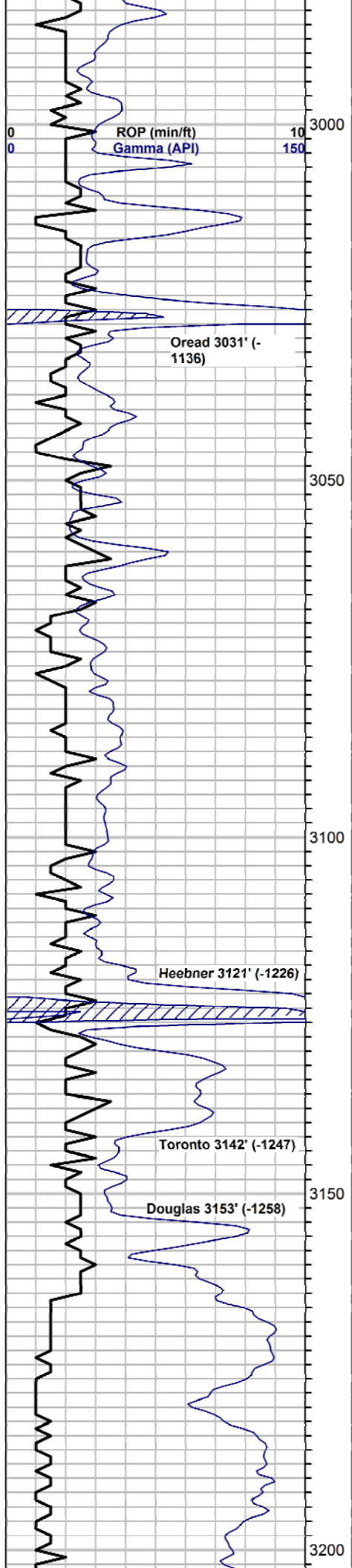
2900'-20': Lms, gry-tan, vfn xtln, med-hrd res, pr-no vis poro. Some w/trc foss. Mst sli chly/shaley matrix.

2920'-40': Lms, gry-tan, vfn xtln, med-hrd res, some sli shaley, all vpr-no vis porosity.

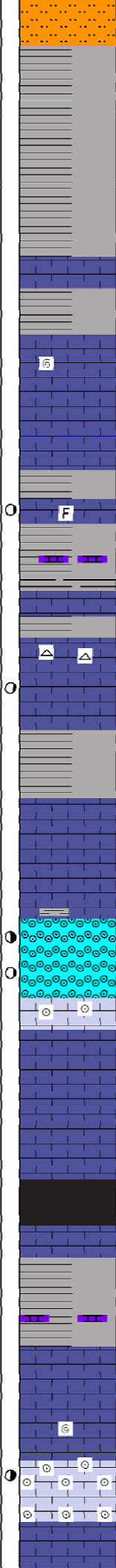
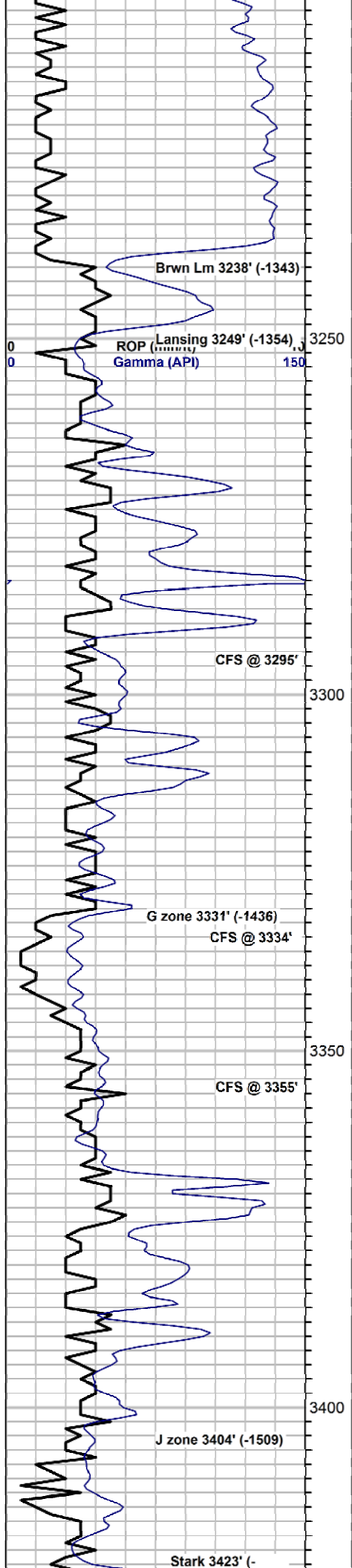
2950

2940'-60': Lms, gry, vfn xtln, foss, abndt gast fossils, med-hrd res, pr-no vis poro. Some tan lms as above.

2960'-80': Lms, gry-some tan, vfn xtln, sli shaley/ratty, some foss, med res, pr-no visible porosity.



- 2980'-3000': Lms, gry-tan, fossiliferous, ratty, vfn xtn, med-hrd res, pr-no visible porosity. Sli increase in gry & trc maroon shale.
- 3000'-10': Lms, gry, some tan, vfn xtn, med-hrd res, sli foss, some sli shaley, all pr-no visible porosity.
- 3010'-20': Lms, lt gry, vfn xtn, med res, sli shaley to chlky, pr-no vis poro. A few pcs of chert, lt gry, shrp & frsh.
- 3020'-30': Lms, gry-tan, micro-vfn xtn, med-hrd res, pr-no visible porosity. A couple pcs chrt, drk gry, foss, shrp & frsh Trc grn & gry platy shale.
- 3030'-40': Lms, gry, vfn xtn, dense, tite, med-hrd res, sli shaley, no visible poro. A few pcs w/abndt elongated ooids/fossils. Increase in gry platy shale & trc blk, sli carbonaceous shale.
- 3040'-50': Lms, lt gry, micro-vfn xtn, med-hrd res, no visible poro, few-no vis allochems. A few pcs blk carb shale, sft. Also some gry shale as abv.
- 3050'-60': Lms, gry, vfn xtn, tite, dnse, sli chlky/ratty looking, pr-no vis poro, few vis allochems. A few pcs blk carb, blkly shale, brtl. Trc shrp & frsh gry chrt.
- 3060'-70': Lms, lt gry to crm/tan, vfn xtn, med res, sli chlky/shaley, tite, pr-no vis poro. Vry sprs, scat allchms/incisns.
- 3070'-80': Lms, gry, vfn xtn, med-hrd res, tite, many sli shaley, no vis poro, trc foss pcs. Trc of gry & blk shale.
- 3080'-90': Lms, gry-crm, micro-vfn xtn, med-hrd res. Crm pcs are sli chlky, all are tite w/pr-no vis poro. Sli foss, trc ool pcs.
- 3090'-3100': Lms, lt gry-crm, vfn xtn, med res, sli chlky/shaley, pr-no vis poro as abv. A few pcs drk gry sli silty sft platy shale.
- 3100'-10': Lms, crm-tan-gry, micro-vfn xtn, hrd res, tite, pr vis poro, few vis allchms. A couple pcs blk carb lms, vry hrd res.
- 3110'-20': Lms, gry, micro-vfn xtn, med-hrd res, tite, vpr-no vis poro. Only a few w/allchms, those sli foss. Several pcs shale, drk gry-blk, sli carbonaceous, a few pcs red/brwn shale.
- 3120'-30': Mstly lms, gry, vfn xtn, med-hrd res, pr-no vis poro. Increase in shales, gry-drk gry, fissile, blk carb, & maroon. 1 pc lt gry/grn shale.
- 3130'-40': Lms, tan- lt gry, vfn xtn, med res, pr-no vis poro, trc allochems. Some gry shale, platy.
- 3140'-50': Lms, tan-gry, micro-vfn xtn, med-hrd res, pr-no vis poro. Some shale, drk gry blkly, several pcs blk carb brtl shale, 1 pc red/brwn earthy. A few pcs xtn pyrite.
- 3150'-60': Lms, tan as abv. Much gry, red/brwn & blk shale as abv. Increase in lt gry, shrp chert, some pyritic.
- 3160'-70': Lms, mstly crm sli chlky-brwn hrd, micro-vfn xtn. Also some sli shaley lt blu/gry lms, vfn xtn looks dolomitic. All pr-no vis porosity
- 3170'-80': Lms, crm-tan, micro-vfn xtn, med-hrd res, pr-no vis porosity. Some crm to off-wht pcs are vry sli chlky.
- 3180'-90': Lms, tan-crm, vfn xtn, hrd res, pr-no vis poro. Trc fossiliferous. Much shale, gry, drk gry, maroon, a couple pcs blk carb, & trc lt grn/gry shale.
- 3190'-3200': Shale, gry-drk gry, drk grn, drk maroon/prpl, gry/grn. A few pcs blk carb, fissile. Some gry lms, micro-vfn xtn, hrd res. Mostly tan lms as abv. All pr-no visible porosity.



3200'-10': Shale gry-lt gry, platy & silty. Also a few pcs drk prpl/maroon, earthy shale. Mstly lms, yellowish tan, pr-no vis poro.

3210'-20': Shale, drk gry-gry, platy to blkly, some mshy. Less silty than abv. Red/brwn earthy shale, and a few pcs blk, sli carb, platy shale. Still much yellowish/tan tite lms as above.

3220'-30': Shale, gry, platy, silty, some mushy, as above.

3230'-40': Shale, gry, platy, as above, & some red/brwn to maroon shale.

3240'-50': Shale, gry, platy, as abv, & fissile. A couple pcs drk maroon shale.

3250'-60': Shale gry, as above. Trc of drk brwn, sft shale. Increase in lms, drk gry-brwn, vfn-fn xtn, med-hrd res, pr-no visible porosity.

3260'-70': Lms, crm to gry/brwn, micro-vfn xtn, med-hrd res. Crm pcs sli chlky, some sli foss (gastprds). All pr-no vis poro. Mstly gry shale.

3270'-80': Lms, off-wht to crm, some sli chlky, trc foss, no vis por 1 pc w/fr scat uneven lt lv brwn stn, SSG & thin lt oil film on brk, pr intr xtn poro, some re-mineralized fractures, sli odr.

3280'-90': Lms, gry, micro xtn, hrd res, abndtly foss, pr- no vis poro, mst pcs. Much crm to off-wht lms as abv. A couple pcs off-wht, micro xtn lms as abv, w/scat gd blk, sli asphaltic stn in some scat vugs, non-oomidic, vpr overall poro.

3290'-3300': Lms, crm to lt gry, micro-in xtn, med-hrd res, pr-no vis poro. Some pcs lt gry lms w/scat grn glauc inclns. 1 pc tite crm lms, w/scat dead blk flaky stn on edge. Another pc w/gd dead blk stn in intr foss poro. Both fst strming cut. Pr poro overall.

3300'-10': Lms, sli oomldc vugular w/fr-gd lv drk brwn stn & sat in scat poorly connected oomldc vugs. Fr rainbow oily lstr & trc gas on brk. Sli odr. A few, loose qtz grains, ang/xtn, med-crs, clr.

3310'-20': Lms, gry, some tan, micro-vfn xtn, med-hrd res. Mst pr-no vis poro & NS. A few pcs w/vry sprs scat shallow inter xtn vugs w/gd lv blk stn & lt oily lstr, no vis intr xtn poro. A few tan pcs had streaks of lv stn.

3320'-30': Lms, gry-yellowish tan, micro-vfn xtn, hrd res. Mst pr vis poro. A couple pcs w/sprs, scat, shallow, intr xtn vugs, fr-gd lv blk stn in vugs, pr-no inter xtn matrix poro.

3330'-40': Lms, crm-tan, micro xtn, med-hrd res, mst no vis poro. A few pcs lms, lt gry, somewhat chlky w/fr scat lv blk stn in scat intr xtn pnprt poro & sprs shallow vugs. 1 pc brwn ool lms w/gd even sat & stn, fr oily lstr, all pr intr xtn poro. Trc chrt, tan, shrp & frsh.

3340'-50': Lms, crm-gry, micro-vfn xtn, med res, mst as abv, tite w/NS. Much shale, gry, gryish/grn & maroon, all soft.

3355'-60': Lms, tan-gry, micro-vfn xtn, mstly tite, few to no allchms, & pr-no vis poro. Several pcs lt gry-brwn ool, sli oomldc vugular lms, mst w/pr intr xtn & pr-fr scat vugular poro. Still w/sli-gd shw lv stn & sat in these pcs. SSFO on brk 1 pc. Few unsat pcs w/gd poro, mst unsat pcs exhibit pr poro.

3360'-70': Lms, tan-gry, micro-vfn xtn, med-hrd res, tite, dns, some sli chlky, pr-no visible poro. Mst few to no allochems.

3370'-80': Lms, tan-gry, vfn xtn, med, some hrd res, some sli chlky, a few pcs sli ool, mst non-allchmcl. Pr-no vis poro. Sli increase in shales, gry, drk gry, red/brwn, trc blk carb shale.

3380'-90': Lms, gry-drk gry, micro-vfn xtn, hrd res, rough txt. Mstly tan lms as abv. All vpr-no vis poro. Some shale as abv & a few pcs black carbonaceous brittle shale.

3390'-3400': Lms, gry-crm, micro-vfn xtn, med-hrd res, pr-no vis poro. Trc of fossiliferous pcs.

3400'-10': Lms, crm-tan, some lt gry, all micro xtn. Crm pcs are sli chlky, med res, res hrd res, all no vis poro. Trc off foss in crm pcs

3410'-20': Lms, lt gry-crm, micro xtn, med-hrd res. A few crm pcs w/abndt re-min ooids, smooth txt, no vis poro. Crm pcs sli chlky, trc gast foss. Trc pc w/vry sprs wk strks stn in vpr intr xtn poro.

3295' CFS 15 min: Lms, mstly crm-lt gry, micro xtn, med-hrd res, vpr-no vis poro. Some chrt, tan-omg/yell, shrp & frsh.

3295' CFS 30 min: Lms, crm-gry, micro-vfn xtn, med-hrd res, & pr-no vis por, as abv. A few pcs chrt as above.

3290'-3300' coat: 2 pcs tan, micro xtn lms w/vry lt lv brwn edge stn & fr brt yell fluor in sprs shallow intr xtn vugs, vry pr overall poro.

3334' CFS 15 min: Lms, crm-tan, vfn xtn, brt-med res, fr-gd lv stn in intr ool vugs & intr xtn poro. Fr-gd intr xtn poro some pcs. Fr odr. sli-fr oily lstr on brk. Trc minute drpls rainbow oil.

3334' 30 min: Lms, mstly, tan, brwn, gry, micro-vfn xtn, tite/dns, no vis poro. A few pcs sli ool lms w/vgd blk lv stn in intr xtn vugs, gd rainbow lstr & FSFO, blk oil on brk. Gd fst strming cut on brk.

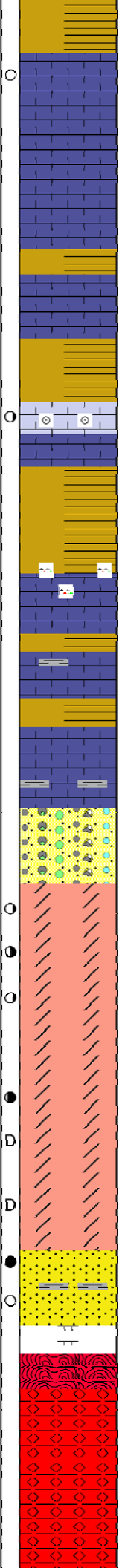
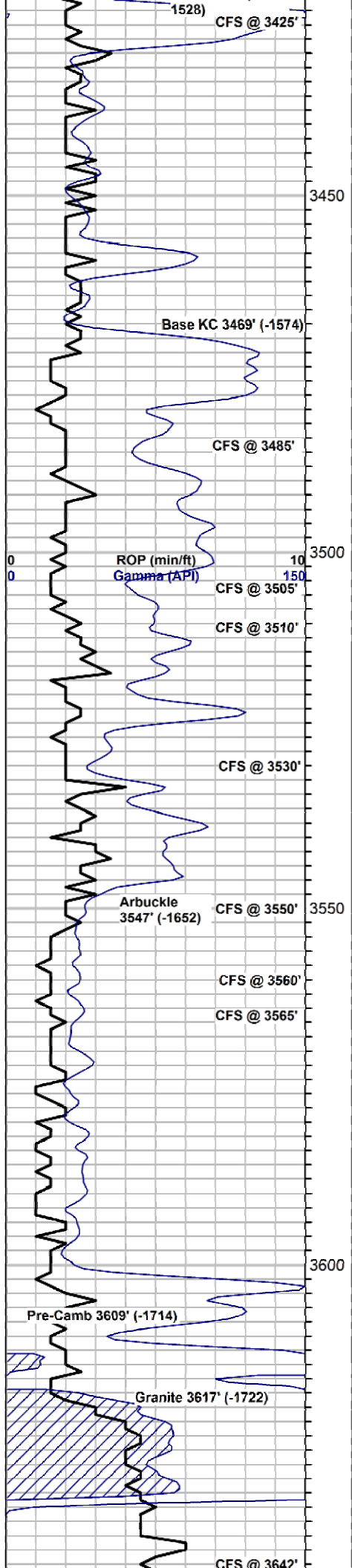
Short sample @ 3355': Mshy, off-wht, ratty, chlky lms. Several pcs tan abndtly ool lms, mstly tite, vry sprs shlw oomldc vugs w/lt brwn stn. Trc FO & fr oil lstr on brk in a coupl pcs

3355' CFS 15 min: Lms, gry, abndtly ool, hrd res, pr-no vis por. A few pcs w/vry sprs shlw oomldc vugs w/lt brwn stn in vugs. Transitioning to better porosity. A couple pcs lms, lt brwn, vfn xtn, abndtly oomldc vugular, brt & crmbly (sucrosic) gd sat-completely sat w/lt brwn lv stn & rainbw oil lstr, SSFO & trc gas on brk, exclnt intr xtn poro. Sli odr.

3355' CFS 30 min: Lms, mstly tan-lt gry, vfn xtn, med res, tite, non-allchmcl, no vis poro. A few pcs oomldc vugular w/fr-gd sat & stn, as abv. Many appear to have ltr stn & less sat in dry smpl, than abv.

Short sample @ 3425': Lms, gry-tan, a couple pcs w/strks lv drk brwn stn in scat intr xtn surfc poro. Fr dull yell/grn fluor, gd fst strm cut. 1 pc crm oomldc lms w/frly abndt vugs, wk lv stn & sat, Trc FO. Mst pcs, gry-tan, micro-vfn xtn, tite, NS.

CFS @ 3425' 15 min: Lms lt brwn, vfn xtn, med res, highly oomldc vugular, gd even lt brwn stn & gd sat, gd shw rainbw lstr. sli shw bleeding gas upon brk. Gd intr xtn & gd vugular poro. Fr odr. Several oomldc pcs w/pr intr xtn poro, and wk-no sat & stn.



3425'-30': Lms, some crm, all micro xtn, med-hrd res, vpr-no vis poro. Trc foss, mst non-allochemical, semi-smooth texture.

3430'-40': Lms, lt gry-tan, some crm, all micro xtn, med-hrd res, few-no vis allchms, tite, pr-no vis poro. A couple pcs drk brwn lms, abndtly ool, non-vugular, hrd, micro xtn, no vis poro. A few pcs fissile shale, gry & trc blk carb.

3440'-50': Shale, gry-drk gry, a few pcs maroon. Mstly tan-gry, tite lms, as abv. A couple pcs lms, gry-lt brwn, scat, sprsly oomldc vugular, w/gd even sat, & stn in prly connected oomldc vugs, vgd shw rainbw lstr on brk. A couple pcs w/some dead, blk, asphaltic stn in vugs. Lt shw rainbw lstr. Pcs exhibit pr intr xtn poro.

3450'-60': Lms, gry, some crm & tan, mstly micro-vfn xtn, med-hrd res, pr-no vis poro. Trc drk gm shaley, hrd, tite, lms. Much shale, gry, drk-gry, some drk-gm, & trc maroon.

3460'-70': Vari-colored shale, gry, gm, red, drk-prpl, blk, mst all blk. Much lms, crm, lt gry, tan, micro xtn, med-hrd res, few to no vis allchms, tite, vpr-no vis porosity. 1 pc ool lms, non-vuggy, tite.

3470'-80': Lms, gry-crm, micro xtn, med-hrd res, few to no vis allchms, tite, vpr-no vis poro. Much shale, mstly gry-drk gry & blk.

3480'-90': Lms, tan-crm, micro xtn, med-hrd res, mst few-no allchms, trc foss, a few ool, as abv. All tite, pr-no vis poro. Much shale, gry, crm, tan, & gry. Trc loose qtz sand grains in tray.

3490'-3500': Lms, crm, tan, gry, micro-fn xtn, med res, some tan w/rough & bumpy text, some tan & abndtly ool, w/smooth text. Mst all pr-no vis poro. A couple pcs off-wht sli chky w/strks dead blk stn & gd fst strming cut & gd bloom, vpr-no intr xtn poro. Much shale in smpl.

Short sample @ 3505' Chert, red, shrp, much brite red shale, trc reddish silicified lms, much tan-crm lms, as abv. **CFS @ 3505' 15 min:** Lms, tan, gry, some crm, tite, pr-no vis poro, much shale. **CFS @ 3505' 30 min:** Mstly, lms, tan-gry, tite. Much vari-colored shale, gry, red/brwn sli sndy, gm. Some chrt, red to red/orng, shrp. **3510':** Mstly lms, as above. A few pcs, vari-colored to banded/mottled shaley siliceaceous lms, prpl & yell, etc.

3565'-70': Dolo, tan-crm to gry sli shaley, fn xtn, hrd res, mst tite intr xtn poro, w/NS. A few pcs w/fr lt brwn lv sat & stn, sli oily lstr. Mst pcs dolo are fn-med xtn w/gd blk stn in intr xtn poro as abv. Mst exhibit fr intr xtn poro & fr-gd sat & stn, 1 pc w gd shw rainbw oil on brk & gd odr. Mst pcs dolo in this sample are hrd tite, w/pr poro. Vry much sndy/shale, & shale congl. Abndt loose, fn qtz snd grains w/lt tan-org tint. 1 pc tan sli sndy dolo w/pnk shaley, sndy dolo attached at d'stinct contact.

3570'-80': Dolo, tan-crm, fn xtn, med-hrd res, mst pr intr xtn poro, w/vry sprs scat lv blk stn within streaks of intr xtn poro. Much gry dolo w/gd blk stn & sat, brt-med res, w/fr vis intr xtn poro as abv, & SSFO on brk. Sample is mstly vari-colored shale, likely trip trash.

3580'-90': Dolo, tan-crm fn xtn, SSO, lt brwn on brk. Also fr shw scat blk asphaltic stn in scat intr xtn vugs, some w/fr-gd lv scat stn in vugs. Med res w/pr intr xtn & pr-fr vugular poro. Better poro & shw than abv non vugular pcs. Fr odr.

3590'-3600': Dolo, tan, med-trc crs somewhat rhmbc xtn, fr-gd scat deep intr xtn vugs. Mst w/scat blk asphaltic, flaky, stn, pr vis sat. A few pcs w/fr-gd lv stn & sat in vugs, fr intr xtn & vugular poro. Sli-fr shw lt brwn FO on brk in these pcs. Also a few pcs dolo, med rhmbc xtn, brt, w gd even blk stn & sat, GSFO, minute drpls drk brwn FO, (sli gassy?) on brk. These pcs look similar to abv, but have better show free oil & perhaps better intr xtn poro. Fr-gd odr in sample. Several pcs med xtn, rhmbc, w/gd blk lv stn, & tite sli glauc-clay/chiky matrix, likely from up-hole.

3600'-10': Dolo, lt gry, some tan, fn-med xtn, mst hrd res, tite, pr-no visible poro, & several w/NS. Mst pcs dolo, are hrd res w/some scat, sprs strks of lv stn in intr xtn poro, to med xtn, fr sat w/lt blk stn in intr xtn poro atchd to tite unsat pcs. Overall, smpl seems quite hrd & tite, weaking show compared to abv. Sli odr, slick of rainbw oil floating in sample cup.

3610'-20': Dolo, tan & gry, fn xtn, hrd res, fr-gd med-crs sized intr xtn vugs. Abndt blk, tarry to gritty asphaltic stain in vugs. Mst pcs seem to have little to no saturation with live oil. Fr odr, sli sour compared to abv smpls. 2 pcs tan dolo w/fr lv stn & oily lstr in fr-gd vugular poro. NSFO

3620'-30': Trc SS, clr-gry, med, sub-ang qtz grains, fr-well strng, brt, semi-fr, NS. Fr drk stn in intr gran poro, lt shw oily lstr. VGSFO on brk! Abndt thick drk brwn FO on brk, no vis fluor, but thck boiling cut. Trc assoc. quartzite, clr, vry hrd, tite, vpr-no vis intr gran poro. Fr shw blk dead stn, sli rainbw oil lstr. Fr foul sulfury odr.

3630'-40': Trc SS off-wht, med, sub-rnd qtz grains, well strd, semi-fr, NS. Many loose fn, md-sub md, snd grains, w/lt gl'dn tint in tray. A few pcs qtzite, clr, med-vhrd res, some w/sprs, scat dead blk stn, some w/lt gm to reddish shale atchd. A few pcs firm-hrd red shale. Trc of red, pnk & brwn igneous/metamorphic rock. Mstly dolo, many w/stn as above, fr odor.

Mst pcs, non-oomldc, title, pr-no vis poro.

CFS @ 3425' 30 min: Lms, gry-tan, a few pcs sli oomldc vugular, fr lv stn in vugs, fr oily lstr, Trc GFO. A couple pcs appear unsat. w/NS. Mst pcs, gry-tan, micro-vfn xtn, non-oomldc, few-no allchms, tite.

Short sample @ 3485': Lms, tan-crm, micro-vfn xtn, pr-no vis poro, mstly as abv. A few pcs lt gm glaucornitic, shaley lms, tite. Also shale, gry, red/brwn, & gm.

3485' CFS 15 min: Lms, tan, fn xtn, med res, some abndtly ool, pr vis intr xtn poro, fr lt lv brwn stn & wk-fr sat in some pcs. SSFO on brk. 1 pc well sat, w/blk hvly asphaltic to gd lv stn in prpnt intr xtn vugs, SSFO Pcs w/NS have pr overall poro. Mst pcs lms, crm, tan, & gry, vpr-no vis poro, NS.

3485' CFS 30 min: Lms, tan-crm, micro xtn, med-hrd res, some ool, mst semi-smooth text, some sli chiky, mst all pr-no vis poro. 1 pc brwn fn xtn, brt, fr-gd even stn, w/SSFO on brk. 1 pc w/strks dead blk stn.

3530' CFS 45 min: 1 pc blk lms, vry hrd res, vpr poro, fr grsy rainbw lstr, vry sli odr. strng effrvsnc, blk tarry film/residue left in acct.

3550' CFS 15 min: Congl, abndtly chrt, vry much vari-colored shales & cherts. Some pcs in sample look to have been dolomitic. A few pcs silicified dolo, red-magenta, ool, fn xtn, vugular. Trc ultra fn xtn, silicified shaley dolo? All vry little-no effrvsnc.

3550' CFS 30 min: Congl, shale, chrt, snd, as abv. A few pcs dolo, highly silicified, vry hrd res, vry tite, pr-no vis poro. NS. 1 pc crs xtn lms, w/fr lv stn & gd fluor, slough??

3560' CFS 20 min: Dolo, mst micro-vfn xtn, tite, pr-no vis por & NS, a few pcs brt/crmbly w/crs loosly cmntd rhombs, vgd intr xtn poro. Fr-gd lv stn & fr sat, fr oily lstr. 1 clst SS, fn ang qtz grains, hvly blk stn, fr whspy cut, pr intr gran poro.

3560' CFS 40 min: Dolo, gry, fn-med rhombc xtn, med-hrd res, trc brt pcs, mst fr-gd intr xtn poro. Gd even lv drk stn & sat, gd shw rainbw oil, SSG, trc FO, blk drpls on brk. A few pcs ool dolo w/scat shallow intr xtn vugs, fr-gd stn & sat, but pr intr xtn poro. Sli odr. Gd brt, yell/wht fluor in about 20% pcs.

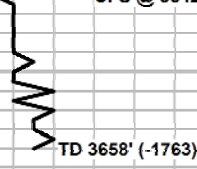
3560' CFS 60 min: Dolo, gry-tan, fn rhombc xtn, brt, fr scat blk lv stn in intr xtn prpnt poro, wk-fr sat, SSFO. 2 pcs w/FR-GSFO, lrg drpls brwn oil on brk. Trc gas. Fr 1st whspy cut in likely sat pcs. Sli odr. Less sat than abv, but still fr shw overall.

3590'-3600' cont: Seem to have encountered a streak of fr vuggy porous dolo, w/fr-gd shws. The shows in the vuggy streak, decrease to dead asphaltic & flky blk stn w/depth.

3620'-30' cont: Much dolo, tan, fn xtn, tite w/NS, as abv. Still many pcs dolo w/lt blk stn. Some lt gry pcs w/fr intr xtn vugs exhibit gd lv blk stn in vugs w/fr-gd shw drk brk-blk FO. Seems to be increase in dolo pcs w/thok drwt FO.

Short sample @ 3642': Granite, reddish, pnk reddish/prpl, magenta, drk reddish/brwn. Vry hrd res, siliceaceous, vfn xtn, no vis poro. Mst w/whitish rectangular fields/pr xts included. A few pcs SS, off-wht, hrd res, fn well strd sub-ang qtz grains, well cmntd, pr-vis poro, NS. Trc clr qtzite as above. Also some red shale as above.

3642' CFS 20 min: Granite,



TD 3658' (-1763)

3650

3700

3750

0	ROP (min/ft)	10
0	Gamma (API)	150



3640'-50': Granite, reddish, pinkish/prpl a few purple brwn, vry hrd res, no vis porosity, off-wht feldspatic xtl's included, some w/drk mineral inclusions, possibly hornblende?. A couple pcs grn glauconitic qtzitic SS, no poro. NS as abv. 1 pc clr qtzite w/gd abndt drk brwn, stky/tarry oil, stuck in surfc vugs.

3650'-60': Granite, reddish, pnk, prplsh/brwn as abv. 1 pc w/small pyrite xtl'n included?

3660'-65': Granite, reddish, vhrd, no vis poro, as abv. 1 pc off-wht, fn xtl'n, dolo, w/vry brt grn highly glauconite in streaks, though intr xtl'n, poro, NS. This piece from up-hole, but worth noting due to high degree of glauconite intrusion.

reddish, as abv. A few pcs SS. off-wht, med grained sub-md frsty qtz grains, firm-med res, fry well covrd in wht chiky? matrix, Pr-fr vis intr gran poro. NS. Trc clr quartzite, hrd, w/thick, blk, stky stn in scat surfc vugs.

3642' CFS 40 min: Gran, reddish/prpl-drk brwn. A few clstrs SS w/NS as abv. 1 pc hily glauc, shaley grn SS, no poro.

3565' CFS 15 min: Sample mstly trip trash. Seveal pcs dolo, gry, med rhombc xtl'n, mst hrd res, lt chiky infill in intr xtl'n matrix of mst pcs, fr-gd even drk sat & stn. Fr-gd shw rainbow oil lstr, sli odr

3565' CFS 30 min: Dolo, some gry med rhmbc as abv, w/fr-vgd even sat, fr-vgd shw rainbow lstr, SSGFO. These pcs have a very good show overall, my only concern being that some of the black stn & sat in intr xtl'n poro looks a little sticky. Dry sample show some rhmbc pcs have grn shale etc attached, possibly meaning that saturated streak may start at the top of the Arbuckle. Many pcs tan-crm dolo, vfn-fn xtl'n, hrd res, w/sli grsy lstr & vry sprs scat lt strks of lv stn. Pr vis poro in these pcs, also prly saturated. All but a couple pcs exhbt some weak stn, these pcs appear dns & tite, but have no saturation. Fr odr in smpl.

3565' CFS 45 min: Dolo, tan-crm, vfn xtl'n, hrd res, sli ool in some pcs. Drilled past saturated streak. 80% or more pcs still exhibit fr-gd sat & stn, at least in part, and sparse minute droplests of black gassy oil; but there are several pcs, of dense, tite looking dolomite, non-rhombic unlike above, which have no show. Sli odr in sample. 1 pc tan sndy dolo, fn xtl'n, vry lt stn in dry, gd cut on brk; maybe from top part of Arbuckle.

3565' CFS 60 min: Dolo, tan-lt gry, fn xtl'n, med res, often ool, mst have pr vis intr xtl'n poro. Mst pcs have strks & lv blk stn on edges, wk shw in these pcs, a few pcs exhbt no stn or sat. Some sndy dolo, fn-med rhmbc xtl'n, w/scat med-crs, md clr qtz grains included, mst of these pcs well sat. A couple pcs well sat rhmbc dolo w/grn glauconitic & chiky wht shale attached, impeds intr xtl'n poro in parts of these pcs. Mst dolomite in sample is med xtl'n, rhmbc w/fr-gd shows as abv.