

DARRAH OIL

Scale 1:240 Imperial

Well Name: #1-22 Bronleewe
Surface Location: NE/SE/SW/NE Sec 22 T18S R9W
Bottom Location:
API: 15-159-22794
License Number: 5088
Spud Date: 8/6/2014 Time: 5:30 PM
Region: Rice County, KS
Drilling Completed: 8/11/2014 Time: 4:00 AM
Surface Coordinates: 2145' FNL & 1510' FEL
Bottom Hole Coordinates:
Ground Elevation: 1720.00ft
K.B. Elevation: 1725.00ft
Logged Interval: 350.00ft To: 3271.00ft
Total Depth: 3271.00ft
Formation: Arbuckle
Drilling Fluid Type: Chemical mud

ELEVATIONS

K.B. Elevation: 1725.00ft Ground Elevation: 1720.00ft
K.B. to Ground: 5.00ft

SURFACE CO-ORDINATES

Well Type: Vertical
Longitude: -98.2989649 Latitude: 38.4725082
N/S Co-ord: 2145' FNL
E/W Co-ord: 1510' FEL

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: #1-22 Bronleewe
Location: NE/SE/SW/NE Sec 22 T18S R9W API: 15-159-22794
Pool: Field:
State: Kansas Country: United States

LOGGED BY

Company: Darrah Oil Co.
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: 8/6/2014 Time: 5:30 PM

CASING SUMMARY

	Surface	Intermediate	Main		
Bit Size			7.88 in		
Hole Size			7.88 in		
	Size	Set At	Type	# of Joints	Drilled Out At
Surf Casing	8.625 in	303 ft	23#	7	8/7/2014 8:00 AM
Int Casing					
Prod Casing	5.5 in	3264 ft	J-55 14#	78	8/12/2014 12:00 AM

CASING SEQUENCE

Type	Hole Size	Casing Size	At
Surface	9.75 in	8.63	303.00 ft
Production	7.88 in	5.50	3264.00 ft

NOTES

DST #1

Simpson
3212'- 3250'

15-30-30-30

IHP-1638#
IFP-31#-36#
ISIP-159#
FFP-43#-40#
FSIP-65.5#
FHP-1579#

Rec:
2' mud

Temp-114 deg F

DST #2





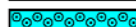



Arbuckle
3264' - 3271'

15-30-30-30

IHP-1707#
IFP-405#-647#
ISIP-1095#
FFP-825.5#-968#
FSIP-1131#
FHP-1634.5#

Rec:
503' GIP
1820' CGO
378' Water
189' SMW (10% mud)

ROCK TYPES

 Anhyprim	 Lmst fw<7	 Ss	 Slst
 Coal	 Lmst fw>7	 Shgy	 Ool grnst
 Dolsec	 Mrlstcalc	 Shcol	

ACCESSORIES




MINERAL

▲ Chert, dark
∩ Glauconite
△ Chert White

FOSSIL

○ Oolites

STRINGER

 Limestone
 Sandstone
 Shale

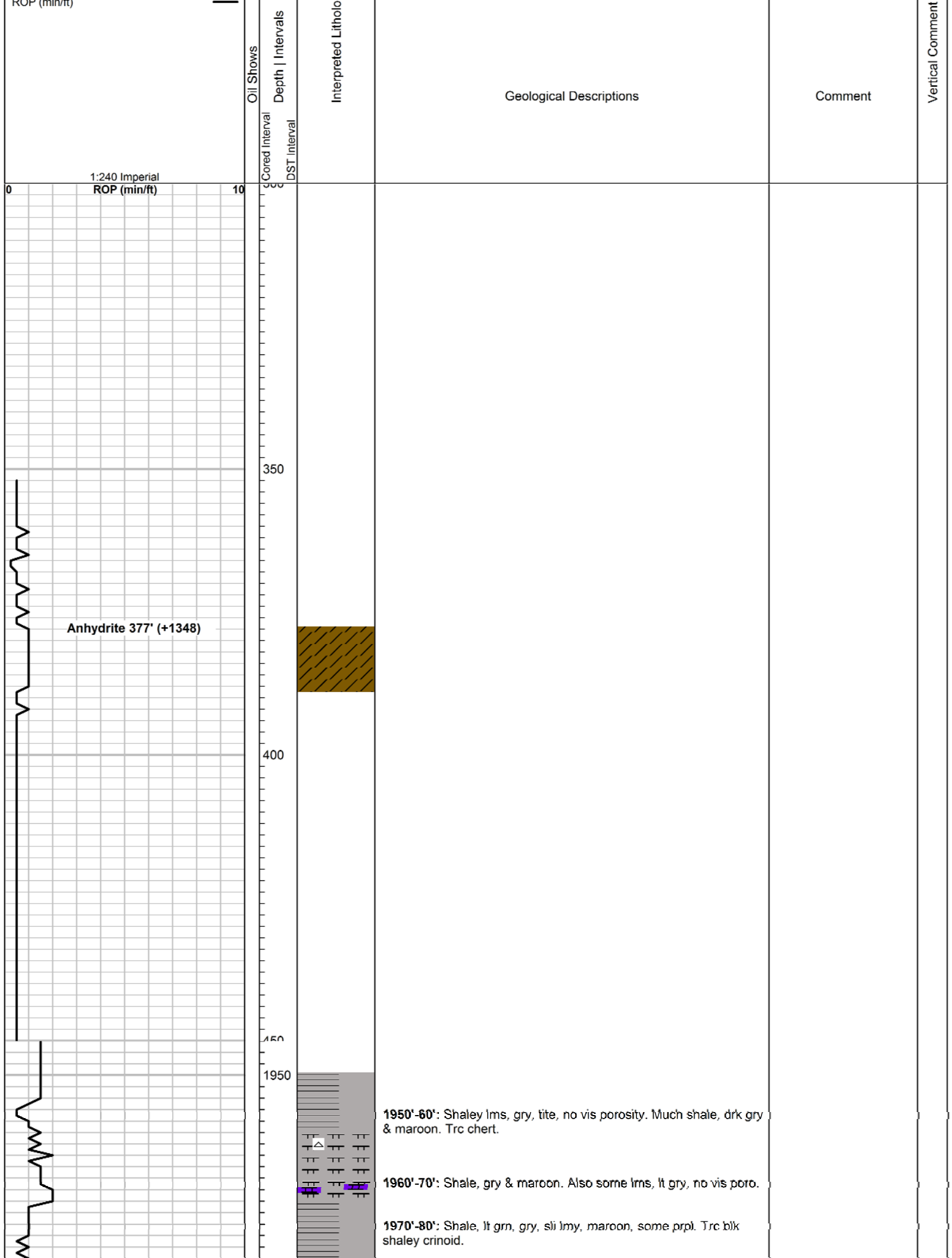
TEXTURE

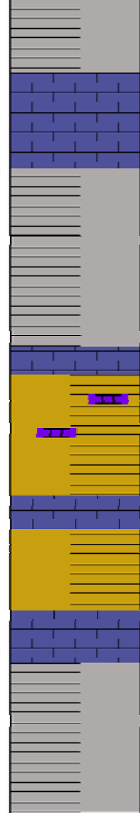
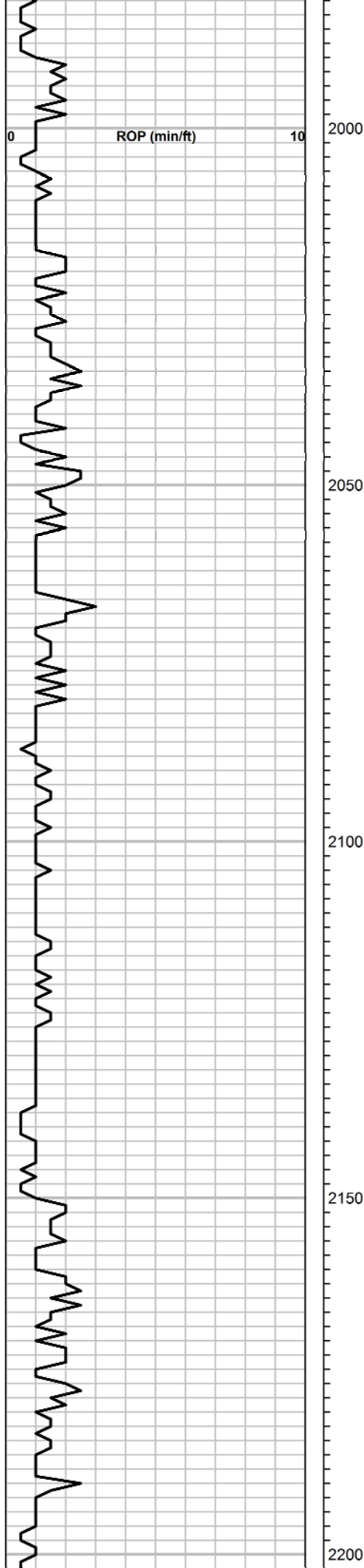
C Chalky

OTHER SYMBOLS

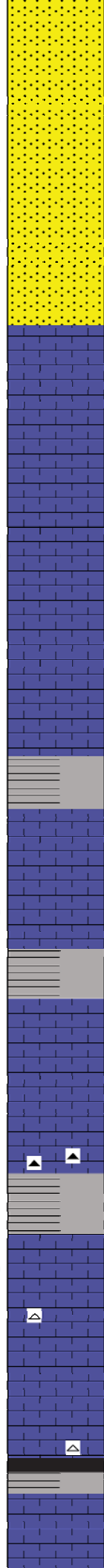
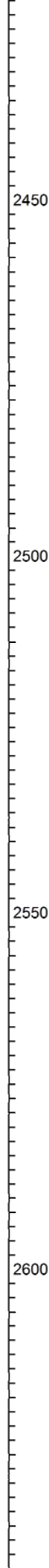
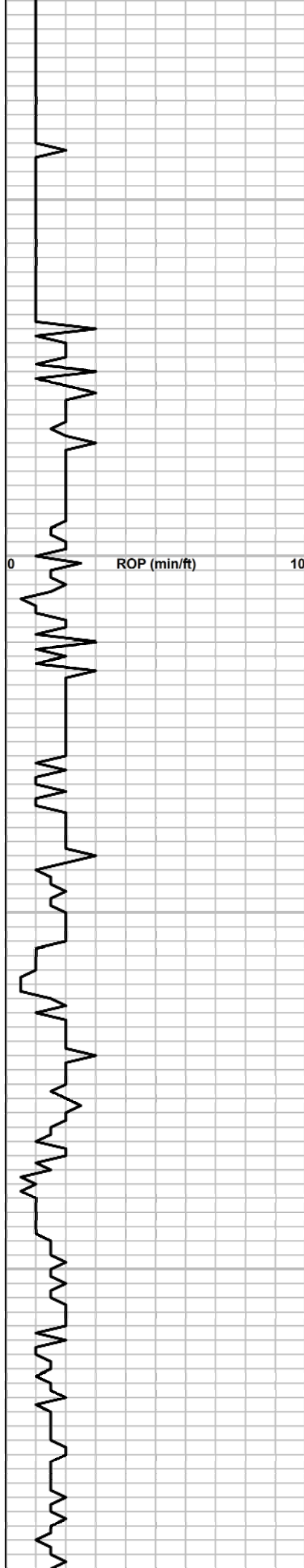
OIL SHOWS

● Even Stn
● Spotted Stn 50 - 75 %
● Spotted Stn 25 - 50 %
○ Spotted Stn 1 - 25 %
○ Questionable Stn
D Dead Oil Stn
■ Fluorescence





- 1990'-2000':** Shale, gry-drk gry & maroon, platy.
- 2000'-10':** Lms, gry, sli shaley, vfn-fn xtln, med res, no vis poro. Much shale in sample.
- 2010'-20':** Shale, gry, maroon, grn, purple. Some shale sli lmy, also lms as above.
- 2020'-30':** Shale, gry, red/brwn to maroon, a few pcs greenish/yellow shale. Some lms, tan med xtln to off-wht, sli chlky, all pr-no visiable porosity.
- 2030'-40':** Shales, gry & maroon. Sli increase in limestone, mst tan-gry, vfn xtln, sli shaley. Some, lms, off-wht (dirty), chlky & fossiliferous limestone, all no visiable porosity.
- 2040'-50':** Shale, gry, purple, platy. Some, lms, dirty off-wht, chlky, few to no allochems, no visiable porosity.
- 2050'-60':** Shale, gry, prpl-maroon, some lt gry, sli lmy shale. A few pcs, chlky, off-wht lms, as above.



2420'-40': Lms, gry-drk gry, vfn xtln, hrd res, some gast fossils included, no vis por. Mstly shale & lms as abv.

2440'-60': Lms, gry, drk gry, tan, vfn xtln, hrd res, no vis por. Vry much shale, gry, & hrd, drk gry-blk, shaley lms to lmy shale.

2460'-80': SS, gry, vfn grained, hrd res, shaley/clay matrix, pr-no vis por. 1 pc w/fr intr gran por, NS. Also gry sndy shale, sft-med res, matrix all clay, no por. Sample mstly, gry shale & lms as abv.

2480'-2500': Lms, gry, micro-vfn xtln, sli shaley, med-hrd res, no visible porosity. Much shale, gry, platy.

2500'-20': Lms, gry, sli shaley, as above, also many pcs, lms, off-wht, chiky, some sli shaley & chiky, sft-med res, few-no allochems, all vpr-no visible porosity.

2520'-40': Lms, gry, a few pcs tan, vfn-fn xtln, hrd res, some w/coarser calcite xtlns, no vis porosity. Some shale, gry & platy.

2540'-60': Lms, tan & gry, vfn-fn xtln, med-hrd res, some pcs sli chiky. Trc of gry chrty lms. All pr-no visible porosity. Some gry platy shale.

2560'-80': Lms, tan, a few pcs gry, fn-med xtln, hrd res, dnse, tite, some w/vry sli chiky to dirty shaley matrix, vpr-no visible porosity. Few-no vis allochems, some gry shale as above.

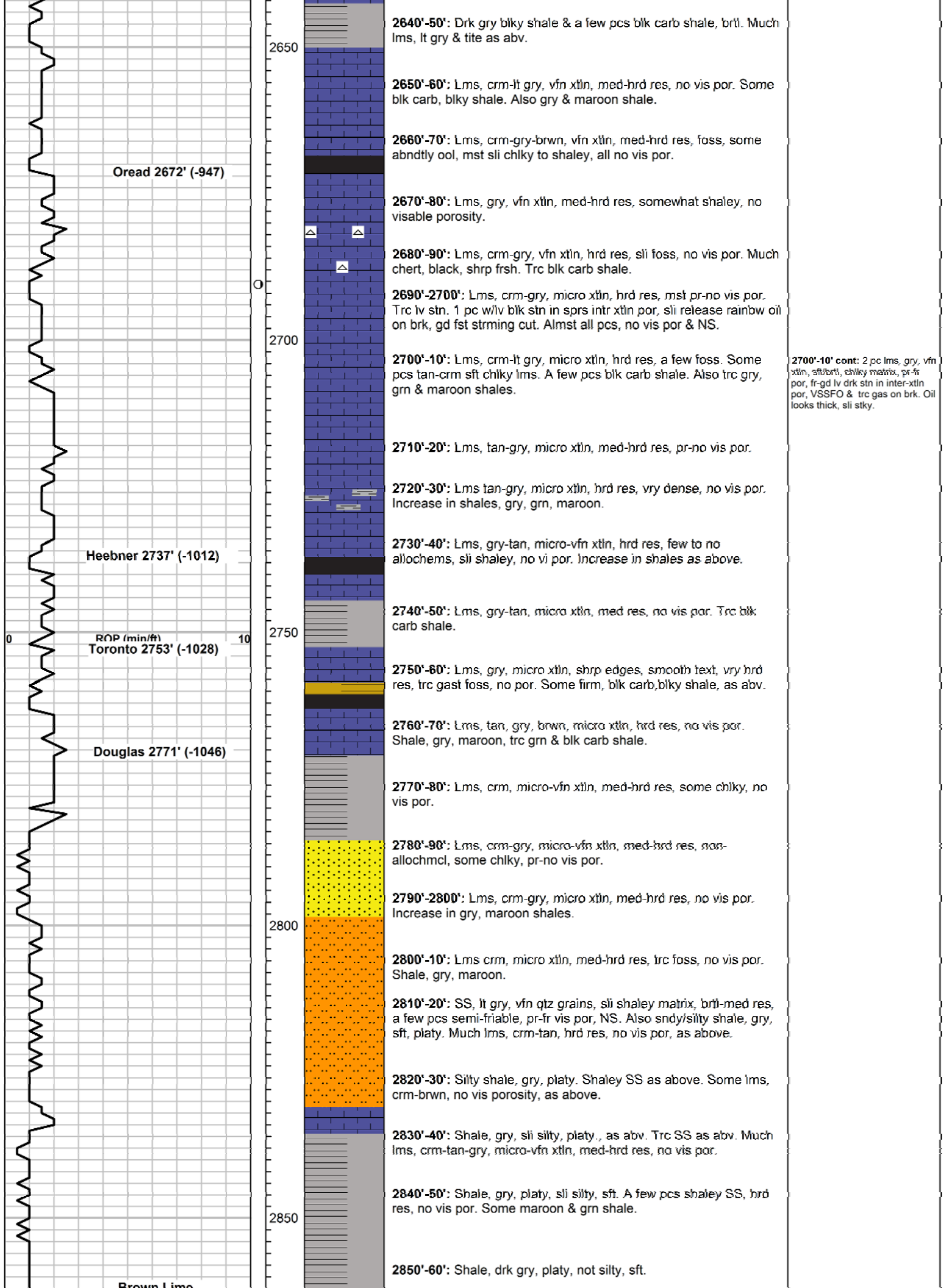
2580'-2600': Lms, gry-tan to lt brwn, fn-med xtln, some pcs sli chiky as abv, all tite, w/pr-no vis porosity. A few pcs, abndtly fossiliferous lms, w/sli shaley matrix. A few pcs chrty lms, several pcs, gry chert, shrp & frsh. Trc highly pyritic shale.

2600'-10': Lms, off-wht to lt gry, vfn-fn xtln, tite, dnse, pr-no vis porosity. Some gry shale.

2610'-20': Lms, tan-crm, a few pcs gry, fn xtln, dnse & tite, mst w/sli chiky matrix, no visible porosity. Vry sli fossiliferous in a few pcs. Trc lt gry to off-wht sli micro fossiliferous chert.

2620'-30': Lms, lt tan to off-wht, micro-vfn xtln, sli chiky, no vis porosity. Sli increase in gry shales, trc ool shrp chert.

2630'-40': Lms, gry-vlt gry, vfn xtln, pr-no vis poro. Some gry & maroon shales.



Oread 2672' (-947)

Heebner 2737' (-1012)

ROP (min/ft)
Toronto 2753' (-1028)

Douglas 2771' (-1046)

Brown Lime

2640'-50': Drk gry blkly shale & a few pcs blk carb shale, brtl. Much lms, lt gry & tite as abv.

2650'-60': Lms, crm-lt gry, vfn xtln, med-hrd res, no vis por. Some blk carb, blkly shale. Also gry & maroon shale.

2660'-70': Lms, crm-gry-brwn, vfn xtln, med-hrd res, foss, some abndtly ool, mst sli chiky to shaley, all no vis por.

2670'-80': Lms, gry, vfn xtln, med-hrd res, somewhat shaley, no visable porosity.

2680'-90': Lms, crm-gry, vfn xtln, hrd res, sli foss, no vis por. Much chert, black, shrp frsh. Trc blk carb shale.

2690'-2700': Lms, crm-gry, micro xtln, hrd res, mst pr-no vis por. Trc lv stn. 1 pc w/iv blk stn in sprs intr xtln por, sli release rainbw oil on brk, gd fst strming cut. Almst all pcs, no vis por & NS.

2700'-10': Lms, crm-lt gry, micro xtln, hrd res, a few foss. Some pcs tan-crm sft chiky lms. A few pcs blk carb shale. Also trc gry, grn & maroon shales.

2700'-10' cont: 2 pc lms, gry, vfn xtln, sft/brtl, chiky matrix, pr-fr por, fr-gd lv drk stn in inter-xtln por, VSSFO & trc gas on brk. Oil looks thick, sli stky.

2710'-20': Lms, tan-gry, micro xtln, med-hrd res, pr-no vis por.

2720'-30': Lms tan-gry, micro xtln, hrd res, vry dense, no vis por. Increase in shales, gry, grn, maroon.

2730'-40': Lms, gry-tan, micro-vfn xtln, hrd res, few to no allochems, sli shaley, no vi por. Increase in shales as above.

2740'-50': Lms, gry-tan, micro xtln, med res, no vis por. Trc blk carb shale.

2750'-60': Lms, gry, micro xtln, shrp edges, smooth text, vry hrd res, trc gast foss, no por. Some firm, blk carb, blkly shale, as abv.

2760'-70': Lms, tan, gry, brwn, micro xtln, hrd res, no vis por. Shale, gry, maroon, trc grn & blk carb shale.

2770'-80': Lms, crm, micro-vfn xtln, med-hrd res, some chiky, no vis por.

2780'-90': Lms, crm-gry, micro-vfn xtln, med-hrd res, non-allochmcl, some chiky, pr-no vis por.

2790'-2800': Lms, crm-gry, micro xtln, med-hrd res, no vis por. Increase in gry, maroon shales.

2800'-10': Lms crm, micro xtln, med-hrd res, trc foss, no vis por. Shale, gry, maroon.

2810'-20': SS, lt gry, vfn qtz grains, sli shaley matrix, brtl-med res, a few pcs semi-friable, pr-fr vis por, NS. Also sndy/silty shale, gry, sft, platy. Much lms, crm-tan, hrd res, no vis por, as above.

2820'-30': Silty shale, gry, platy. Shaley SS as above. Some lms, crm-brwn, no vis porosity, as above.

2830'-40': Shale, gry, sli silty, platy., as abv. Trc SS as abv. Much lms, crm-tan-gry, micro-vfn xtln, med-hrd res, no vis por.

2840'-50': Shale, gry, platy, sli silty, sft. A few pcs shaley SS, hrd res, no vis por. Some maroon & grn shale.

2850'-60': Shale, drk gry, platy, not silty, sft.

Brown Line
2864' (-1139)

Lansing 2890' (-1165)

G zone 2972' (-1247)

CFS @ 2977'

ROP (min/ft)

Muncie Creek
3022' (-1297)

H zone 3036' (-1311)

J zone 3076' (-1351)

2900

2950

3000

3050

2860'-70': Shale, drk gry, platy, as above.

2870'-80': Shale, gry-drk gry, platy, sft, as abv. A few pcs SS, gry, shaley, vfn grained, hrd, tite with no visable porosity.

2880'-90': Shale, gry, as abv. A few pcs lms, brwn, micro xtln, hrd res, no vis por.

2890'-2900': Lms, gry-brwn, micro-vfn xtln, sli foss, some pcs ool, all hrd, tite w/no vis por. Much shale, gry & maroon, trc grn.

2900'-10': Lms, gry-crm, micro xtln, med-hrd res, some chiky, sft-med res. Mst pcs not chiky, smooth text, hrd res. Mst pcs few to no vis allochems, tite, dnse, no vis por.

2910'-20': Lms, crm-gry-brwn, micro-vfn xtln, med-hrd res. No vis por. Trc chrt, lt gry, shrp, frsh.

2920'-30': Lms, crm-gry, micro xtln, hrd res, tite, no vis por. Increase in shales.

2930'-40': Lms, drk gry, vfn xtln, med res, abndtly foss, ratty looking, sli shaley, rough text. Some crm, w/blk ooids/and trc foss, sli ratty looking, all no vis por.

2940'-50': Mix of lms, gry, brwn, crm, micro-vfn xtln, med-hrd res, all pr-no vis por. Some shale, gry, platy-fissile.

2950'-60': Lms, gry, micro xtln, brtl-med res, vry abndtly ool, mstly pr-no vis por. Trc lv brwn stn in rare intr-ool vugs in 1 pc.

2960'-70': Lms, tan-gry, micro xtln, brtl-med res. Gry ool lms as abv. Much lms, tan, ool, sli chiky, no vis por. Some non ool tan lms w/smooth text. Some shale gry, grn, trc blk carb.

2977'-90': Lms, tan-lt brwn, vfn xtln, oomldc vugular, pr-fr intr-xtln & fr-gd vugular por. Fr shw rainbow oil on brk. Sli odr. Mst vuggy pcs, lt stn to no shw. 1 pc lt gry, sli oomldc vugular, shaley, vry pr matrix por w/Gd shw brwn gassy FO on brk. Mst pcs, lms, tan, crm, gry, micro xtln, sli chiky, non allochemcl, no vis por.

2990'-3000': Lms, tan-brwn, vfn xtln, abndtly ool, many pcs, oomldc vugular, fr-gd vugular por, brtl. Some pcs w/sprs, shallow vugs & tite xtln to chiky matrix, vry por pr. All have no show.

3000'-10': Lms, crm-lt gry, micro xtln, chiky to sli chiky, sft to hrd res, a few pcs sli oolitic, no vis por. Many pcs tan oomldc vuggy lms w/fr-gd por as abv.

3010'-20': Lms, gry, micro xtln, med-hrd res, smooth text, non-allochemical, tite, no por. A few pcs chert, gry, shrp, frsh.

3020'-30': Lms, gry, as above. Some shale, drk gry-blk, firm/hrd, sli carbonaceous. Trc chert, gry as above, to off-wht, shrp & frsh.

3030'-40': Lms, mstly gry, micro xtln, hrd res, smooth text. Some lms, tan, micro xtln, med-hrd res, sli chiky, all non-allochemical & no vis por. Several pcs blk carb shale.

3040'-50': Lms, mstly tan-gry, no vis por as abv. A few pcs sli ool to oomldc vugular. 1 pc oomldc vugular lms w/fr-gd lv stn & sat in vugs, fr rainbw lstr, SSG & fr-gd oily lstr on brk. Some shale, gry, grn & trc blk carb.

3050'-60': Lms, gry, micro xtln, med-hrd res. Also lms, crm, micro-vfn xtln, med res, all pr-no vis por.

3060'-70': Lms, off-wht to gry, crm, micro-vfn xtln, brtl-med res, no vis por, mst few-no allochems, a few pcs w/abndt ooids.

3070'-80': Lms crm-gry, micro xtln, med-hrd res, some abndtly ool, mst pr-no vis por. Some shale gry, maroon, prpl, grn.

3080'-90': Lms, off-wht to lt gry vfn xtln, ool, med-hrd res, sprs oomldc vugs, gd lv stn & sat in intr ool & sprs oomldc vugular por. Fr por, questionable perm. Some pcs chiky. Fr shw rainbw oil on brk. CFS @ bleeding gas and oil

2977' CFS 15 min: Mstly lms, tan micro xtln, med-hrd res, smooth text, non allochemical & no vis por. Several pcs lms, tan, ool tite, to sli oomldc vugular w/fr vugular por, med res, pr-fr por. Trc dying cut, vry frt odr.

2977' CFS 30 min: Tighter ool pcs w/vry few vugs, have fr lt brwn stn, scat partwl sat, lt to fr shw rainbow/grsy lstr on brk, trc gas on brk. Scat fr /yell/wht fluor in pcs w/stn & sat. wk-fr strring cut. 1 pc w/gd lv stn in intr-xtln por & trc vugs. Fr grsy lstr & trc gas on brk, hrd res. Pcs w/shw have pr poro.

2977' CFS 45 min: Lms, oomldc vugular, vfn xtln, med res, fr-abndt md, med vugs. Scat lt lv stn in intr-xtln por of some titer, less vuggy pcs, SSO. Fr yell fluor in vugs. A couple pcs w/lt brwn FO & bleeding gas on brk. Much dull org/yell mineral fluor, in pcs without stn.

3040'-50': Is oomldc vuggy lms w/shw slough or H zone shw?

3090' CFS 15 min: Lms, off-wht to gry, vfn xtln, brtl-med res, ool, seems to have better intr ool por,

Marker Joint 19' (2930'-49')

perm. Some pcs sli chiky. Gd shw mallow oily str. W/ST O, bleeding gas and oil upon sqz or brk from prpnt intr ool pores. Fr odr. Wk, scat, dull yell fluor, fr-vry gd strming cut. Trc of gas & FO in a significant number of pcs.

CFS @ 3090'

3100

3090'-3100': Lms, crm-gry, micro-vfn xtlm, med-hrd res, pr-no vis por. A few ool pcs, w/pr por, also trc abndtly foss pcs brtli, pr por

K zone 3110' (-1385)

CFS @ 3123'

3150

3110'-20': Lms, off-wht, crm some gry, micro-vfn xtlm, mst non-allochemical, some sli ool, w/vry sprs vugs. Mstly tite, pr-no vis poro. 1 pc w/fr lt tan, uneven stn. Many pcs gry blkly shale.

3123' CFS 30 min: Lms, lt gry to lt tan, vfn-fn xtlm, sli rough text. Trc sli ool, pr-no vis porosity. Also shale, gry, a few pcs maroon.

3130'-40': Much shale, drk gry, drk olive drab, red/brwn. Mstly lms, lt gry, fn xtlm, no vis porosity. 1 pc abndtly oomldc vuggy lms. 1 pc w/fr edge stn as above.

3140'-50': Lms, crm to lt gry, micro-vfn xtlm, mstly pr-no vis poro. Also much shale, mstly drk gry & maroon, trc drk grn & purple.

3150'-60': Lms, off-wht, crm to lt gry, sli chiky, vfn xtlm, no vis poro. Many pcs gry flaky shale.

BKC 3166' (-1441)

3160'-70': Shale, drk gry, flaky, also some red/brwn & grn blkly. Much lms, lt gry as above, vpr- no visible porosity.

3170'-80': Lms, crm-gry, vfn-fn xtlm, some sli chiky, all pr-no vis porosity. Much shale, mstly drk gry, trace of maroon & grn shale.

3180'-90': Shale, drk gry platy, much red/brwn, trc grn & yell/tan, blkly. Some lms, gry-tan, fn xtlm, rough text, tite, no visible poro.

3200' CFS 15 min: Conglomeritic Lms, sli shaley, tan, vfn xtlm, w/sptd yellowing. A some pcs sli prpl tint, trc sndy. All vpr-no vis poro. Much shale, gry to maroon.

3200'-10': Shale, gry, drk maroon, grn, prpl, etc. Much lms, crm, sndy, many sli shaley. Vfn-fn xtlm, some sli chiky, pr-no vis poro.

3210'-20': Lms, gry, often w/lt prpl to lt yellow tint, vry sli shaley. Vfn-fn xtlm, no visible porosity. Vry much shale, drk gry, maroon, to drk purple. 1 pyritized pelecypod.

Simpson 3227' (-1502)

3220'-30': Shale, gry, prpl, maroon & green. Much lms, crm to lt gry, sli chiky, some yellow to purple shaley lms as above. All no visible porosity.

3230'-40': 1 pc SS, lt gry/grn, fn ang, qtz grains. Abndt mica, and much glauc grains, pr vis por.

Simpson sand 3246' (-1521)

3240'-50': Shale, mstly, maroon, gry, prpl, trc yell/grn & blk. Much lms, crm, micro xtlm, sndy, to shaley lms, prpl/maroon, yell/grn colored, etc. Micro xtlm, many ool, all no vis por. 1 pc gry SS, micaceous & glauc, tite, pr-no vis por.

CFS @ 3250'

3250

3250'-60': Vari-colored conglomerite shale. Could be hole slough/trip trash. CTCH @ 3250' for 1 hr after DST #1. A few pcs sndy shale, gry to vry lt grn/sli glauc. Trc tite SS w/NS from abv.

CFS @ 3260'

Arbuckle 3264' (-1539)

3260'-70': Lms, tan-gry, micro-fn xtlm, no vis por. Mstly vari-colored shales as abv. Several pcs SS,

RTD 3271' (-1546)

3271' sample: Vari-colored shales, gry, prpl, grn, turq. Some pyritic shales. A few pcs lt gry, chiky dolomite?. Maybe cap rock, has no vis poro. Trc tan xtlm dolomite.

3271' CFS 15 min: Dolomite, tan, vfn-med xtlm. Several pcs, med rhombic xtlm, tan dol, brtli, crmbly/sucrosic, gd-vry gd intr-xtlm por. Gd even lv brwn stn & vry gd even sat. Vry gd shw rainbow oil on brk, SSG, gd lv brwn stn in intr-xtlm por on brk, gd odr. Many pcs dol, vfn-fn xtlm, med-hrd res, sli siliceous, pr vis intr xtlm por, trc-NSFO on brk. Gd brt yell/wht even fluor mst pcs. Some may be mineral fluor, as some vry tite fn xtlm pcs exhibit fluor, but no cut on brk. Other rhombic pcs w/less por have trc FO & pr cut on brk. Many tite, unsat pcs. Also several pcs SS, clr-wht, fn grained qtz, fr lt brwn stn & sat, gd even, brt yell/grn fluor, fr shw popping gas on brk, trc minute drpits FO. Gd intr-grn por in sat pcs. Many pcs SS appear unsat, but are hrd and maybe tite. A few

than abv. VGSSFO, upon brk. 1 vry tite pc steadily bleeding vry minute drpits oil for a few minutes. Fr yell fluor. Gd fst strming cut. Sli odr. Mstly lms crm-gry, micro xtlm, non allochmcl, no vis por. Losing show. Trc grn, gry, maroon shale.

3090' CFS 30 min: Lms, off-wht, micro xtlm, brtli/sft, chiky matrix, VGSSFO, gassy FO on brk from intr ool por. Porosity seems to have improved from abv. Dull yell-brt even fluor, gd strming cut, vry gd cut on brk. Sample mstly lms, crm-gry, micro xtlm, med-hrd res, no vis por, increase in shale, gry, grn, maroon.

3123' CFS 45 min: Lms, lt gry, lt tan to off-wht, sli chiky, vfn xtlm, mst pr-no vis poro. A few pcs ool, sli oomldc vugular lms, chiky matrix w/lt scat stn, pr matrix poro. Some gry shale, as above.

3200' CFS 30 min: Lms, sli sndy, crm, vfn-fn xtlm, pr-no vis poro. Some shale, gry, grn, & drk purple.

3250' CFS 15 min: SS, clr-wht, fn sub ang qtz grains, well srted, vry clin matrix, brtli, semi-fri, fr rainbw & SSFO on brk, fr scat lv stn in approx 50% pcs, about 1/2 pcs appear unsaturated. Scat blk dead stn in intr xtlm por, trc gas, fnt odr, fr-gd brt wht fluor. 95% sample is vari-colored shale, lms & chert.

3250' CFS 30 min: SS, clr-wht, fn grained sub-ang to ang qtz, med res, semi-fri, lt scat stn, trc-SSFO, lt rainbw oil istr. Trc gas on brk. Gd lv brwn stn & sat in aprox 1/3 pcs, many pcs w/lt/sli grn glauc/chiky matrix & NS. Several pcs w/blk dead stn in intr-grn por as abv, some of these exhibit no live show and were likely "swept" of free oil. Gd brt yell/wht even fluor in pcs w/gd lv stn & sat. Fr fst strming cut. Fnt odr. Mst pcs SS w/shw, exhibit gd-vry gd porosity.

3250' CFS 45 min: SS clr-wht, fn-vfn qtz. Less sat pcs than abv. Some pcs partially sat/unsat. A few pcs grading into sli glauc, shaley SS w/no vis matrix por. Partial sat pcs maybe due to perm changes. 1 pc lt grn glauc sndy shale. Pcs w/partial sat exhibit SSFO, gd lv stn, fr grn/wht fluor in part. Sli odr. SS is getting more shaley & losing shw.

3260' CFS 15 min: Turquoise shale, brt vivid color, sli waxy. 1 pc w/vfn grained off-wht SS attached. Trc pyrite. Mst sample vari-colored shale as abv.

3260' CFS 30 min: Turq shale, as abv. 1 pc w/many fn qtz grains imbedded. Trc olivelyellgrn

3300

pcs off-wht chert, abndtly ool. Overall good show.

shale.

3271' CFS 30 min: Dolomite, fn-med xtn, mst vry hrd res, sli silicified, some lt grn, sli glauc. Mst pr-no vis por, vry little-no stn & sat. Pcs w/better intr-xtn por & more crs xtls, exhibit more stn & SSFO w/trc gas bubbles on brk. Much less por than in 15 min sample. Still fair overall show in med res pcs w/fr intr-xtn por. Fr-gd odr, Mst pcs grn/wht mineral fluor, Fr scat, uneven yell/grn hydrocarbon fluor in 40-50% pcs. As abv. unsat pcs, w/mineral fluor exhibit no cut.

3271' CFS 45 min: Dolomite, off-wht, med xtn, rhombic, med-vry hrd res, mst pr-no intr-xtn por due to glauc/clay matrix, and or 2ndry mineralization. A few pcs exhibit banding, where stn, sat, and oil show is contained within a porous and permeable layer; which is bounded by an unsat layer which has little-no perm due to clay mineral matrix and/or 2ndry mineral growth, such a pyrite. Overall weak show, hopefully due to lack of porosity & permeability, as many of the non-mineralized pcs are vfn grained, and extremely hard. Fr odr, many tite pcs w/NS.

3350



