

Scale 1:240 Imperial

Well Name: Behnke #11  
 Surface Location: NE/NE/NW/SE  
 Bottom Location:  
 API: 15-159-22780  
 License Number: 3682  
 Spud Date: 5/22/2014 Time: 4:30 PM  
 Region: Rice County sec 1 19S 10W  
 Drilling Completed: 5/28/2014 Time: 2:00 AM  
 Surface Coordinates: 2381' FSL & 1579' FEL  
 Bottom Hole Coordinates:  
 Ground Elevation: 1722.00ft  
 K.B. Elevation: 1727.00ft  
 Logged Interval: 300.00ft To: 3263.00ft  
 Total Depth: 3263.00ft  
 Formation: Arbuckle  
 Drilling Fluid Type: Chemical mud

**OPERATOR**

Company: Mark Allen Connell  
 Address: 606 W. Albro Street  
 Clafin, KS 67525  
 Contact Geologist:  
 Contact Phone Nbr:  
 Well Name: Behnke #11  
 Location: NE/NE/NW/SE  
 Pool:  
 State: Kansas  
 API: 15-159-22780  
 Field: Chase-Silica  
 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 #:  
 Rig Type: Standard double  
 Spud Date: 5/22/2014 Time: 4:30 PM  
 TD Date: 5/28/2014 Time: 2:00 AM  
 Rig Release: 5/28/2014 Time: 2:30 PM

**CASING SUMMARY**

	Surface	Intermediate	Main		
Bit Size	12.25 in		7.88 in		
Hole Size	12.25 in		7.88 in		
	Size	Set At	Type	# of Joints	Drilled Out At
Surf Casing	8.625 in	289 ft			5/23/2014 2:00 PM
Int Casing					
Prod Casing	5.5 in	3244 ft	14#	77	6/20/2014 10:00 AM

**CASING SEQUENCE**

Type	Hole Size	Casing Size	At
	0.00 in	0.00	0.00 ft

**NOTES**

**DST #1**

**Arbuckle**  
 3194'-3248'

**DST #2**

**Arbuckle**  
 3244'-3263'

3154-3248  
**30-45-60-45**  
**SIP 906#-824#**  
**FP 32# - 118#**

**Rec: 744' GIP**  
**5' Cln Oil**  
**62' GMCO (73% OIL)**  
**62' SW&MCGO (45% OIL)**  
**124' HGCMO (20% OIL)**



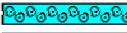








**BHT= 111 deg F**

3244-3269  
**15-30-15-30**  
**SIP 910#-869#**  
**FP 143#-388#**

**Rec: 1550' GIP**  
**930' Cln Oil**  
**124' VSMCO (99% OIL)**  
**62' VSM&WCHGCO (25% OIL)**  
**62' SWCMGO (60% OIL)**

**BHT= 115 deg F**

**ROCK TYPES**

 Anhyprim	 Lmst fw<7	 Shgy	 Ool grnst
 Coal	 Lmst fw>7	 Shbck	 Chtcongl
 Dolprim	 Mrlstcalc	 Shcol	 Lscongl
 Dolsec	 Ss	 Slst	

**ACCESSORIES**

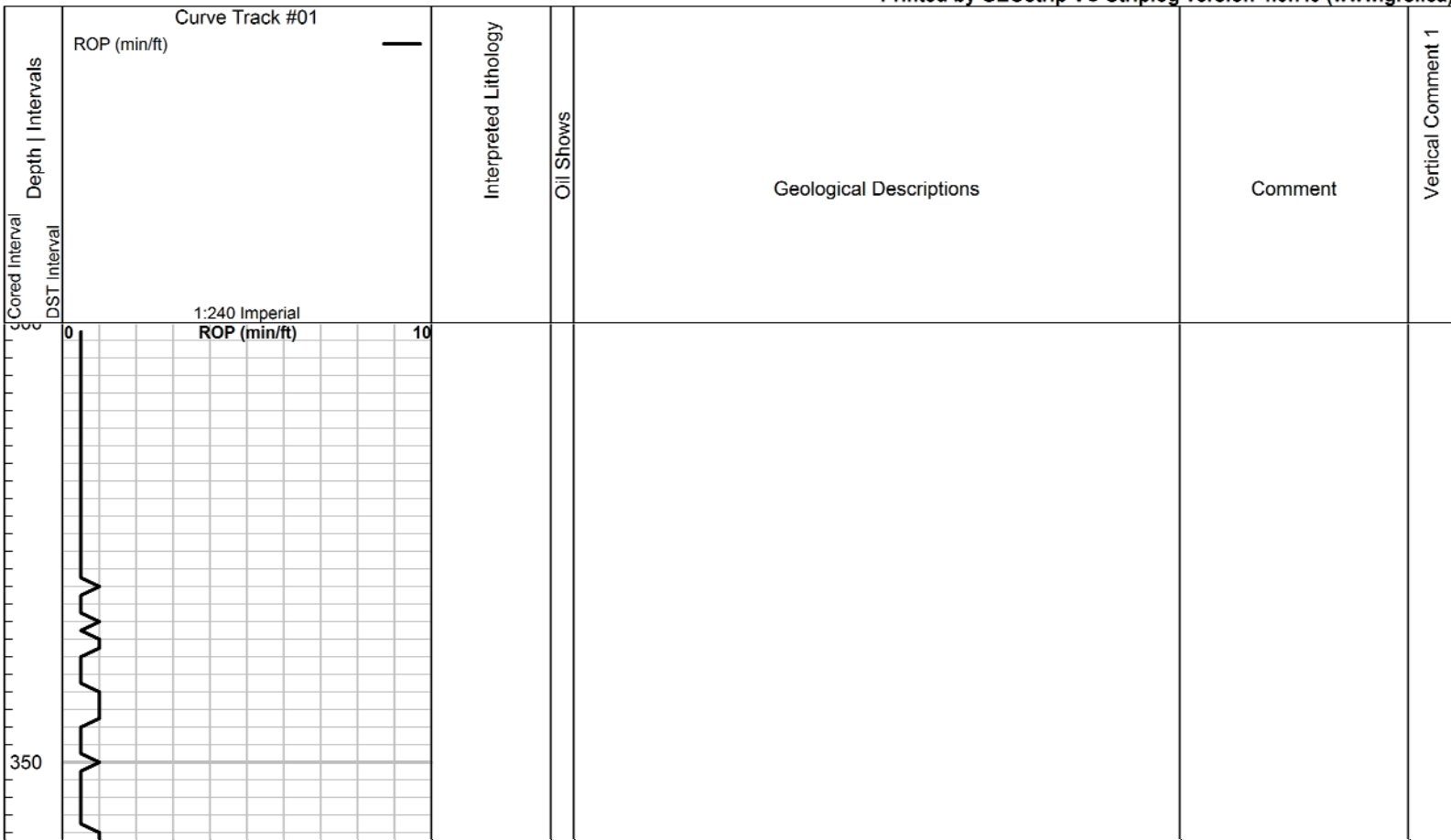
<b>MINERAL</b>	<b>FOSSIL</b>	<b>STRINGER</b>
△ Chert White	∩ Bioclastic or Fragment	● Sandstone
	○ Crinoids	▬ Marlstone Cal
	F Fossils < 20%	
	○ Oolites	

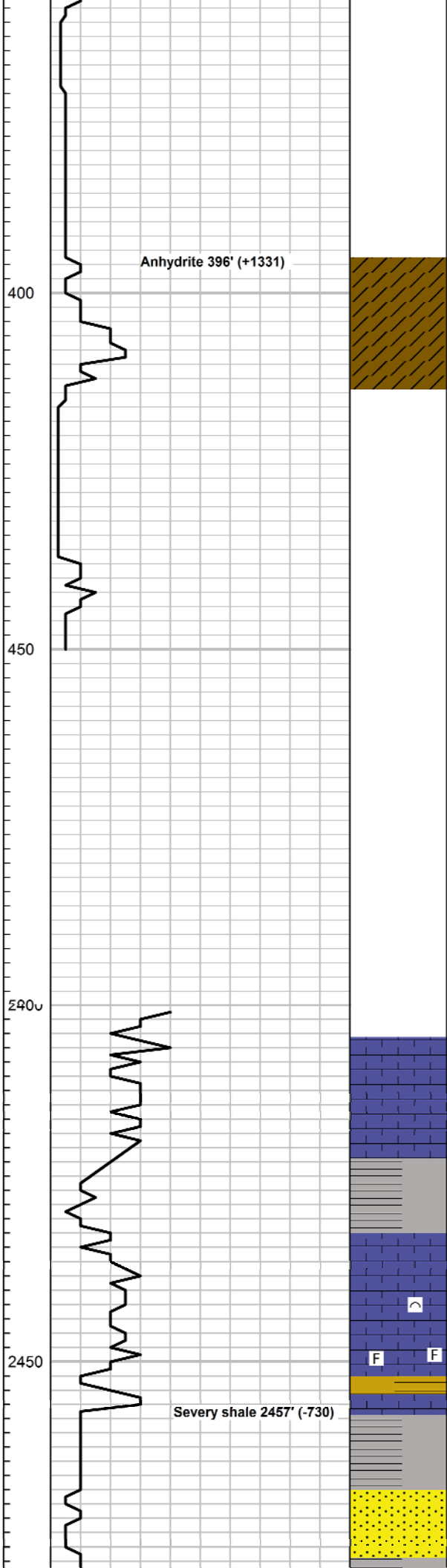
**OTHER SYMBOLS**

**OIL SHOWS**

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

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





Anhydrite 396' (+1331)

400

450

2400

2450

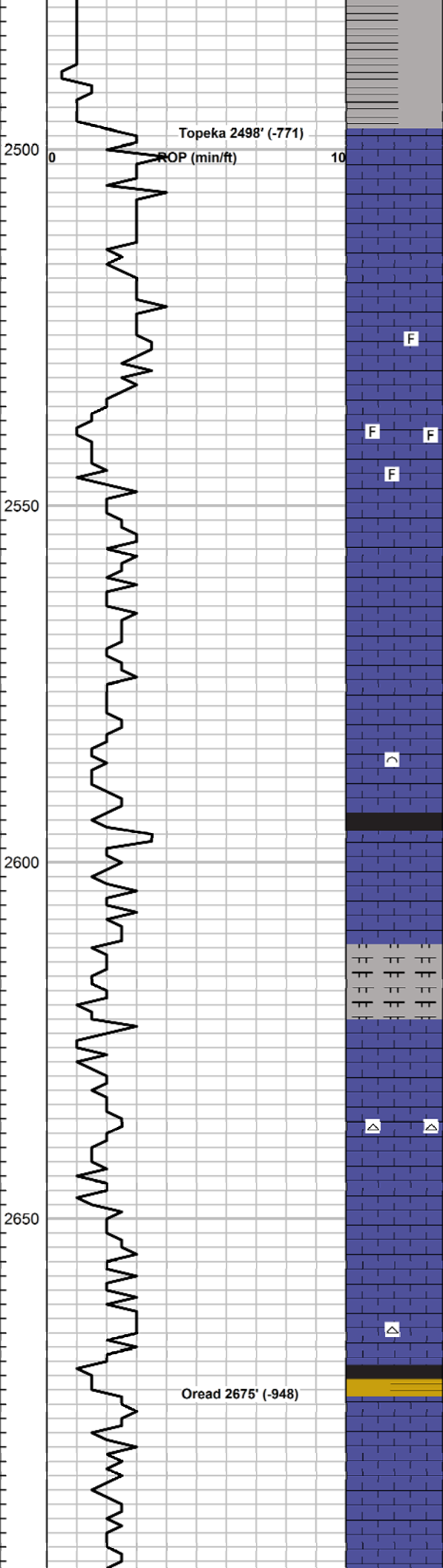
Severy shale 2457' (-730)

2400'-20': Shale, gry, silty, platy. Some lms crm-yellow, micro xtln, med-hrd res, no vis por. Trc SS cist, lt gry-off wht, sli shaley, vfn rmded, qtz grains, sft-semi fri. pr vis intr gran por. NS.

2420'-40': Shale, gry, platy, some sli sndy & silty. Much lms lt gry, vfn xtln, hrd res, no vis por.

2440'-60': Lms, gry, brwn, crm, micro-vfn xtln, med-hrd res, trc foss, no vis por.

2460'-80': Lms, gry-drk gry, vfn xtln, med-hrd res, sli shaley, abndtly foss, pr-no vis por. Trc colored shale.



**2480'-2500'**: SS, lt gry, vry shaley, vfn grained, micaceous, poss trc gas bubbles on brk, med res, pr intr-gran por. Much lms, tan, micro-vfn xtln, no vis por. Some gry platy shale.

**2500'-20'**: Lms, gry-gry/brwn, micro-vfn xtln, hrd res, no vis por. Much gry-drk gry platy shale. Trc SS w/trc gas as abv.

F

**2520'-40'**: Lms, crm-gry, vfn xtln, few allocems, sli foss, some sli shaley, med-hrd res, pr-no vis por.

F

F

F

**2540'-60'**: Lms, gry, vfn xtln, med-hrd res, abndtly foss, shaley to chlky matrix, no vis por.

**2560'-80'**: Lms, crm-brwn & lt gry, vfn xtln, med-hrd res, some ratty looking w/sli chlky matrix, pr-no vis por.

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**2580'-2600'**: Lms, crm, vfn xtln, med res, trc foss, pr-no vis por. Some gry lmy shale/shaley lms.

**2600'-20'**: Lms crm-lt gry, as abv. Some sli ratty looking lms. All pr-no vis por.

**2620'-40'**: Lms, crm-lt gry, vfn xtln, med-hrd res, no vis por. Some w/sli shaley matrix.

△

△

**2640'-50'**: Lms, crm-gry, fn xtln, med res. Pr-no vis por. Much chrt gry-off wht, shrp & frsh. Trc xtln pyrite.

Switch to 10 foot samples.

**2650'-60'**: Lms, lt gry-crm, vry sli chlky, med res, no vis por. Some shale, gry, maroon etc.

**2660'-70'**: Lms, crm-gry, some sli ratty looking, med-hrd res, vfn-fn xtln, pr-no vis por. Some red/brwn & gry platy, shale. Trc pyrite.

△

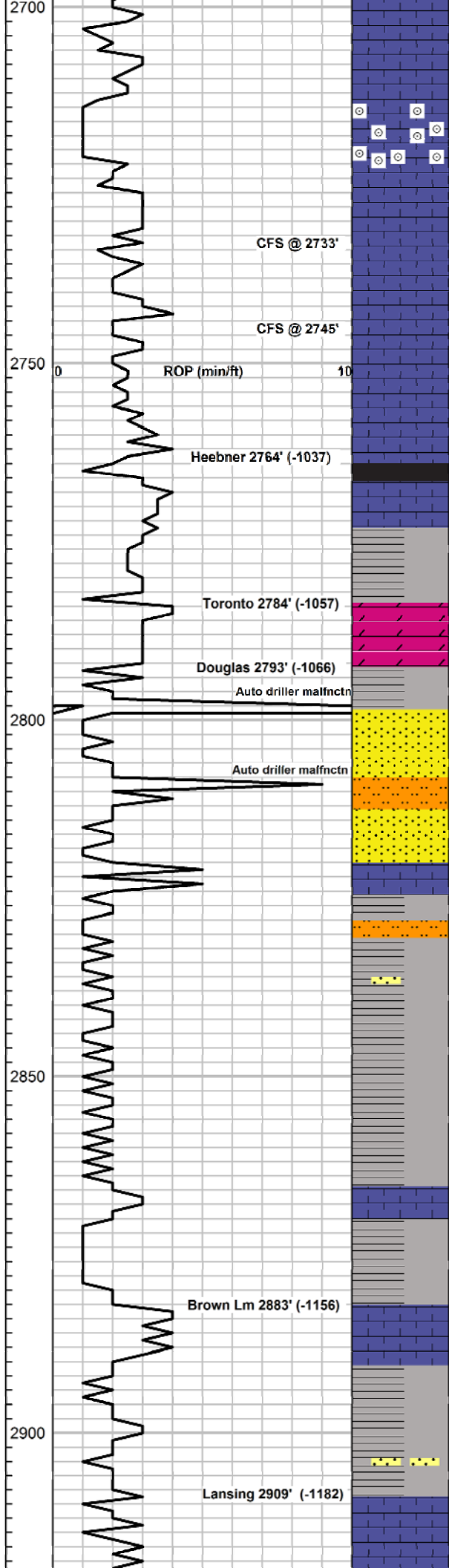
**2670'-80'**: Lms, off-wht to lt gry, fn xtln, med res, no vis por. Trc gry shale. Trc off-wht, shrp chrt.

Oread 2675' (-948)

**2680'-90'**: Shale, gry, fissile & red/brwn blk, trc grn & prpl, trc blk carb shale. Vry much lms, tan, sli chlky, sft-med res, no vis por. A few pcs gry & off-wht shrp chrt.

**2690'-2700'**: Shale, gry, red/brwn, maroon, gry/grn, trc blk carb, etc. Much crm-tan fn xtln lms, no vis por.





**2700'-10'**: Much shale, as abv. A few pcs lms, lt gry, micro xtln, hrd res, no vis por. Trc shrp wht chrt. Trc SS clst, lt gry, blk, med res, sli shaley matrix, pr vis por. NS.

**2710'-20'**: Mix of shale & lms as abv.

**2720'-30'**: Lms, crm-lt gry. A few pcs crsly xtln calcitic lms, brtl-med res. Scat vry lt lv stn. Fr shw rainbow oil on brk. SSFO, drk brwn oil on brk. Vry sli odor in sample. Shw seems associated mstly w/crs xtln pcs. 95% pcs tite & NS.

**2733'-40'**: A few pcs crm-tan vfn xtln lms w/sprs & scat lv drk brwn stn in prnprt vugs. A few lrg drpits drk brwn FO floating in tray. 1 pc tan, vfn xtln, lms w/SSFO, lt brwn drpits on brk from prnprt por. Sli shws of drk brwn FO, mstly in intr xtln & occasional oomldc vugular por. Sli odr. Mst pcs pr-no vis por & little-no stn.

**2740'-45'**: Much shale, gry, red, etc. Many pcs lms off-wht, lt gry, some crm, mstly vfn xtln, pr vis por. Occ pc w/scat lv stn at edges, 1 pc w/gd lv stn & sat on edge & trc FO. Mstly scat prnprt por. Vry sli odr. Weaker shw & less porosity than abv. Mst pcs tite & NS.

**2745'-50'**: Lms crm-lt gry, micro-vfn xtln, hrd res, trc foss. A few pcs w/scat lv edge stn in intr xtln por & SSFO, lt brwn drpits oil. Sli odr. Pr vis por. Much shale, gry, red, brwn, maroon.

**2750'-60'**: Shale, gry, red/brwn, grn, also pyrite & some pyritic shale. Much lms, crm-gry, micro-vfn xtln, tite, dnse, pr-no vis por.

**2760'-70'**: Lms, crm-gry, micro-vfn xtln, hrd res, blk, mst vry pr-no vis por. Trc lv, lt edge stn in a few pcs. NSFO. Some shale as abv, trc blk carb shale.

**2770'-80'**: Lms, gry, some brwn, vfn xtln, hrd res, non allochemical, no vis por. Some blk carb shale.

**2780'-90'**: Lms, gry, sli shaley, as abv, no vis por. Much shale, gry & lt grn, some blk carb. Trc crm-tan dolomite. Vfn xtln, NS.

**2790'-2800'**: Dolomite, tan, vfn xtln, hrd res, sli silicified, pr-no vis por, NS. Shale gry, maroon, & brtl blk carb.

**2800'-10'**: Dolomite, tan as abv & lms, crm, vfn xtln, med-hrd res, no vis por. Much shale as abv.

**2810'-20'**: Dolo, as abv. Also some micro xtln, crm lms, med-hrd res, no vis por. Shale, gry, grn, red & blk carb.

**2820'-30'**: SS, lt gry-lt gry/grn, vfn grained, shaley, med-hrd res, pr-no vis por. Sli micaceous, overall quite dirty. Also some gry sndy shale, sft, platy.

**2830'-40'**: Shaley SS, as abv. Also some gry, silty shale, platy.

**2840'-50'**: Shale, gry, sli silty, platy. Some lms, tan, vfn-fn xtln, hrd tite, pr-no vis por.

**2850'-60'**: Shale, gry, silty, platy, as abv. Some SS, shaley, as abv. Much tan, tite, lms, as abv.

**2860'-70'**: Shale, gry, as abv, some SS, shaley, as abv.

**2870'-80'**: Shale gry, platy, vry sli silty. Some lms, drk brwn, fn xtln, hrd res, sli foss, no vis por.

**2880'-90'**: Shale, gry, platy & some brwn lms, as abv.

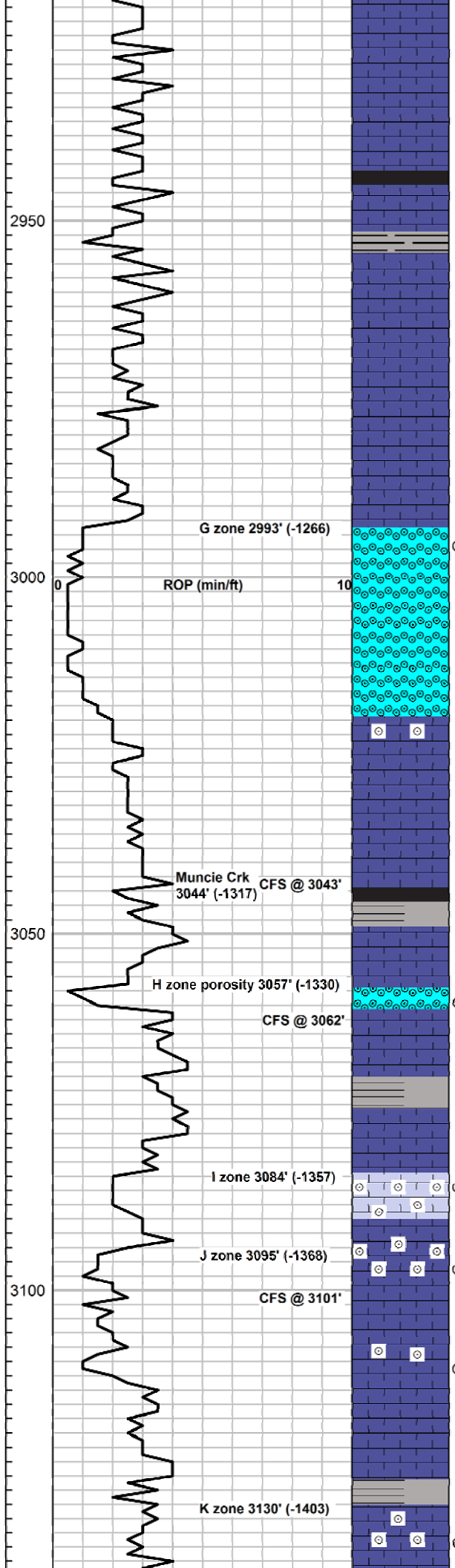
**2890'-2900'**: Shale as abv. Some shaley lms, drk gry, micro-vfn xtln, med-hrd res, no vis por.

**2900'-10'**: SS, shaley, vfn grained, hrd res, sli micaceous, dirty, pr-no vis por. Also lms as abv

**2910'-20'**: Lms, crm-gry-brwn, vfn xtln, hrd res, no vis por. Much gry shale

**CFS 2733' 15 min**: Trc pcs lms w/small rd oomldc vugs, 1 pc vry livly sat, gd shw rainbow oil on brk, SSFO, brwn FO on brk, hvly drk, lv sat in abndt oomldc vugs. Mst pcs only partly oomldc, mst only scat lv stn & sply lv stn in prnprt vugs. Vry sli odr only. Mst pcs crm, vfn xtln, lms, tite, no vis por, w/NS.

**CFS @ 2745' 15 min**: Lms, crm-lt gry, micro-vfn xtln, tite, dnse, mst NS. 1 pc w/gd lv stn & SSFO in intr xtln vugs, mst likely slough from uphole show. Some shale, gry & red/brwn.



gry shale.

**2920'-30':** Lms, gry-brwn-crm, fn xtln, med-hrd res, trc ooids, pr-no vis por. Some lt grn, sli pyritic shale.

**2930'-40':** Lms, crm, vfn-fn xtln, med res, pr-no vis por, ool. Trc chrt, ool, w/pyrite attached, frsh.

**2940'-50':** Lms, tan-lt gry, micro-vfn xtln, med-hrd res, no vis por. Some sli chlky.

**2950'-60':** Lms, gry/brwn, vfn-fn xtln, med-hrd res, abndtly ool & fossiliferous, no vis por. A few pcs lmy shale/shaley lms.

**2960'-70':** Lms, mix, crm-tan-gry-brwn, micro-fn xtln, mst med-hrd res, pr-no vis por. Increase in gry, drk gry & maroon shales. Trc blk carb shale & pyrite. A few pcs chrt, gry-off wht, shrp & frsh.

**2970'-80':** Lms, gry-brwn, micro-vfn xtln, med-hrd res, often sli shaley to shaley & ratty looking. Many pcs sli-abndtly foss. Some pcs abndtly ool. A couple pcs, sli pyritic. All pr-no vis por.

**2980'-90':** Lms, drk brwn ratty looking abndtly foss, as abv. Also, much lms, crm, sli chlky-chlky, med res, pr-no vis por fossiliferous lms. Trc gry micro xtln, abdtl ool lms as abv. Mix of lms as abv, all pr-no vis por.

**2990'-3000':** Lms, gry-drk brwn, vfn xtln, med-hrd res, sli shaley, some sli ool, pr-no vis por. Some lmy, gry, shale.

**3000'-10':** Lms, lt gry, micro xtln, abndtly ool, no vis por. Mstly crm-gry lms, micro-vfn xtln, non-ool, sli chlky, med res, pr-no vis por, trc foss. Some gry platy shale.

**3010'-20':** Lms, oomldc vugular, fr oomldc vugular por, med-lrg rnd vugs, some shallow, vry lt even lv stn, pr sat, trc FO on brk, sli-fr shw gas bubbles on brk. Mst vugs appear poorly intr-connected. Fr vugular por. Wk dull yell sply fluor in about 10% pcs. Sli odr. Zone probably water bearing.

**3020'-30':** Lms, abndtly oomldc vugular. Brtl-med res, gd vugular por. Vry lt even stn about 50% pcs, occ drk lv ool stn in vugs, pr sat mst pcs, fr shw rainbow oil on brk. Trc-PSFO, sli-fr shw gas on brk, fr odr, Wk dull yell sply fluor about 15% pcs. Some barren porosity. Probably water bearing.

**3030'-40':** Lms, mstly lt gry, vfn xtln, med-hrd res, non oomldc, no vis por. Several pcs, oomldc vugular lms, w/better sat than abv. These pcs have SSFO & gas, from abndt lrg rnd vugs. Fr-gd vugular por. Sli odr, fr scat yell/grn fluor. Shw maybe sli better than abv, but in far fewer pcs.

**3043'-50':** Lms, mstly gry, micro-vfn xtln, tite, no vis por. A few pcs oomldc lms w/gd vugular por & fr sat, fr shw bleeding gas bubbles on brk. SSFO. 1 pc w/vry much dead blk asphaltic stn in vugs. Sli odr, probably from uphole. Also gry shale.

**3050'-60':** Lms, mstly gry-crm, micro-vfn xtln, med-hrd res, no vis por. Increase in gry shale & some brtl blk carb shale.

**3062'-70':** Lms, off wht to gry, micro-vfn xtln, med-hrd res, few to no allochems, no vis por. A few pcs off wht barren oomldc lms as abv. A few pcs lt brwn ool lms w/sprs scat oomldc vugs. Lt stn & sat, lt shw rainbow oil some. 1 pc quite tite, vry few vugs w/lt shw bubbling gas & FO on sqz, from intr ool por. Vry sli odr.

**3070'-80':** Lms, lt gry, micro-vfn xtln, med-hrd res, sli ool, no vis por.

**3080'-90':** Lms, crm-gry, micro-vfn xtln, med-hrd res, some vry sli chlky, mst all no vis por. A few pcs, lms lt gry/brwn, sli-med res, oomldc vugular, sli chlky matrix w/lt stn & sat. FSFO, bubbling gas & lt brwn oil on brk. Pr-fr vugular por, matrix porosity looks poor. Sli odr.

**3090'-3100':** Lms, gry, micro xtln, abndtly ool, mst pcs non-vuggy, no vis por. Much sft wht chlky. A few pcs, ool lms w/fr even lv stn in intr ool por. Trc gas on brk. Vry pr por.

**3101'-3110':** Lms, lt gry, fn xtln, med-hrd res, no vis por. Trc tite, abndtly ool lms as abv. Trc blk carb shale.

**3110'-20':** Lms, lt gry, vfn xtln, sli oomldc vugular, brtl-med res, fr intr xtln & vugular por. Well sat, fr scat drk brwn lv stn in npnt por & vugs. Fr shw rainbow oil, fr-gd lv stn, trc gas & SSFO. Sli-fr odr on brk. Pcs w/shw are vfn xtln, frly crmbly/semi-sucrosic. Few pcs w/shw. Mst pcs non vugular & tite. Could this be show in lower J zone?

**3120'-30':** Lms, gry, fn xtln, hrd res, no vis por. Increase in gry fissile shale.

**3130'-40':** Lms, off wht, micro xtln, some abndtly ool. Fr scat sply stn in intr ool & npnt por. GSFO on brk. Lt brwn to blk gassy free oil. Sli odr. Med res, Pr intr ool porosity. Mst pcs lt gry-gry, sli ool, hrd tite, pr-no vis por & NS.

**3040'-43':** Lms, gry, micro xtln, hrd tite, no vis por. Few to no allochems. A few pcs oomldc vugular lms, w/fr sat & wk lt stn, trc FO only, sli shw gas, probably from uphole. Appear to have drilled past porosity.  
**CFS @ 3043' 15 min:** Lms, gry-drk gry, micro xtln, hrd, tite, no vis por, few-no allochems.

**CFS @ 3043' 30 min:** Lms, gry & tite as abv.

**CFS @ 3062' 15 min:** Lms, mstly crm-gry, tite as abv. Several pcs wht-tan ool/oomldc vugular lms, only about 1/2 of ooids are dissolved out. 50/50 vugs ooids, mst pcs. Small-med rnd vugs. Mst pcs barren por w/NS. A few pcs w/vry lt stn & sat, lt rainbow oil, probably from uphole. NSFO. 1 pc abndtly foss pr-fr foss cast por, NS.

**CFS @ 3062' 30 min:** Lms, lt gry, some off-wht, mstly micro xtln, tite, no vis por. Some oomldc vugular lms, off-wht to lt gry, w/pr-fr porosity. Barren. Trc blk carb shale as abv.

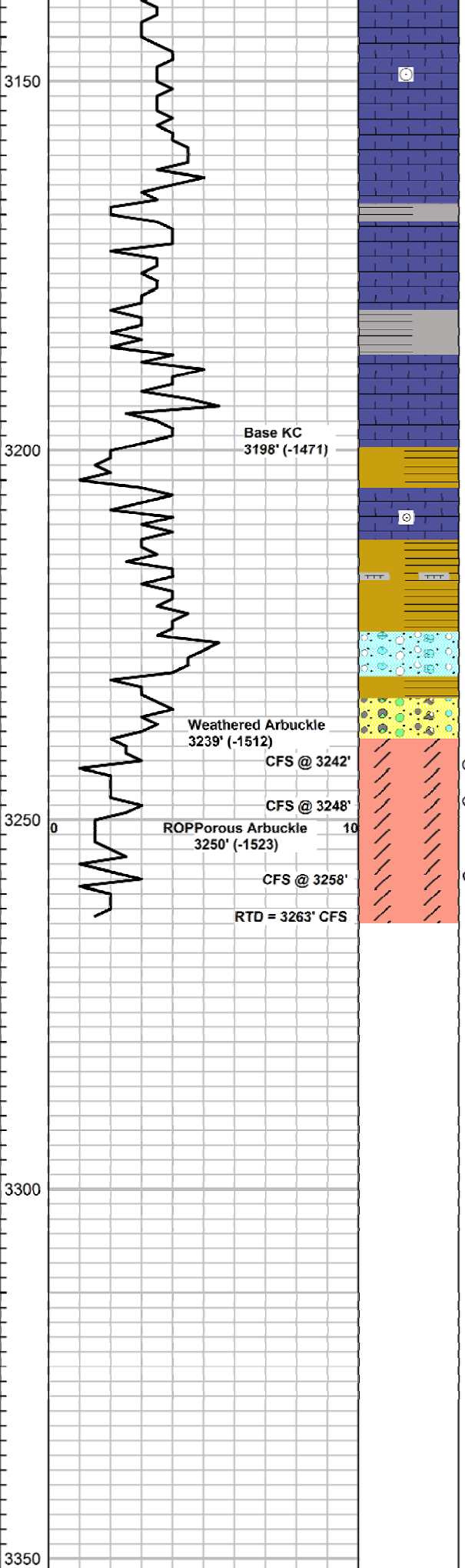
**CFS @ 3101' 15 min:** Lms, gry, micro-vfn xtln, mst non-ool, no vis por. Several pcs ool lms w/pr-no vis por as abv, NS

**CFS @ 3101' 30 min:** Lms, crm-lt gry, micro-vfn xtln, med-hrd res, sli ool, pr-no vis por. Much chlky lms as abv. A few rare pcs oomldc vugular lms, mstly barren & pr por. 1 pc w/FSFO & gas on brk, pr overall por. Mst w/vry pr-no shw. Very top of J zone may have held show, rest tight and/or barren.

**CFS @ 3242' 15 min:** Dolomite, tan, fn xtln, sli siliceous, hrd res, pr vis por. Sli gry lstr some pcs. Trc lt brwn FO on brk a few pcs, VSSG, gd brt even yell-wht fluor. A few pcs sli glauc off wht/grnsh dolo, med-crs rhombs, semi-sucrosic. Sli odr. Much var-colored cong shale, prpl, maroon, gm, trc yell, mst sli slydy.

**CFS @ 3242' 30 min:** Dolo, tan-





**3140'-50'**: Lms, crm-lt gry, micro-vfn xtl, med-hrd res, mstly non ool, pr-no vis por & NS. Trc pcs, sli oomldc vugular w/scat uneven stn as abv. NSFO.

**3150'-60'**: Lms, crm-gry, micro-vfn xtl, hrd res, no vis por. 1 loose crinoid, trc chrt, gry, shrp, frsh.

**3160'-70'**: Lms, crm-gry, vfn-fn xtl, hrd res, few-no allochems, no vis por. A few pcs ool to oomldc vugular lms, med-hrd res, pr-fr overall por. A couple pcs w/fr-gd lv sat, sli-fr odr on brk, w/pr-fr even grsy lstr & fr rainbow shw oil. Sli gassy, SSFO. New zone? Trc red/brwn shale.

**3170'-80'**: Lms, lt gry, micro-vfn xtl, med-hrd res, few-no allochems, no vis por. Some shale, gry, sli silty. Trc shaley lms.

**3180'-90'**: Lms, crm-gry, micro-vfn xtl, hrd res, pr-no vis por. 1 pc w/trc lv surface stn, vry pr por. 2 drpits FO floating loose in tray. Some gry-drk gry fissile shale.

**3190'-3200'**: Lms, crm-brwn, vfn-fn xtl, med-hrd res, some sli chlkly, all pr-no vis por. Increase in gry & maroon shales.

**3200'-10'**: Lms, crm-gry, micro-fn xtl, hrd res, no vis por, some sli shaley w/hint of color. Trc shrp, wht-gry chrt, trc colored chrt. A few pcs silty shale, grn, prpl, red/brwn, trc blk carb shale. 1 crs, md, loose qtz grain.

**3210'-20'**: Lms, crm, some gry, vfn-fn xtl, occ sli ool, med res, pr-no vis por. Increase in shales grn, gry, red, prpl. Several pcs shaly lms w/yell to glucac grn tint.

**3220'-30'**: Lms, mstly crm-gry, micro-vfn xtl, no vis por. Much prpl, spkld, shaley lms (conglomeritic lms), some siliceous, trc gry shrp chrt & a few pcs shale, prpl, gry, & 1 pc mottled yellow shale.

**3230'-40'**: Lms, crm-off wht, lt gry, as abv. Some more chlkly than abv. All no vis por. Much shale, prpl, gry, red/brwn (some mottled), lt gry/grn. Trc red/orng semi-translnt chrt, shrp & frsh. 1 pc chrt gry, sli foss, shrp & frsh. 1 or 2 pcs sli dolomitic lms? 1 pc w/VSSG on brk & trc vry lt lv stn.

**3242'-48'**: Dolo, off wht-tan, fn-med xtl, med-hrd res, a few pcs w/fr lv stn in intr xtl por, med rhombs, med res, SSFO on brk from intr xtl por in these pcs. Fr shw gas bubbles this sample. Fr odr, vry gd brt yell even fluor in approx. 50% sample. Mst pcs still vry tite & brk along fracture planes only.

**CFS @ 3263' 15 min**: Dolo, off wht-tan-brwn, vfn-fn xtl, mst hrd res, sli siliceous, a few med res pcs as abv. A few pcs oomldc vugular dolo, bubbling gsy brwn oil as abv. Fr vugular por. Fr-gd odr. Fr uneven, yell/grn fluor about 50% of sample. Pcs w/gd vugular por have gd even sat & stn, SSFO & SG on brk. Sample appears to have better intr xtl vugular porosity, and slightly better oil show than some of the abv samples. A couple laminated (banded) pcs dolo, vfn xtl w/fr sat & stn alternating in bands w/white clay matrix & NS in same pc, also seen abv. A few pcs chrt, lt-vry drk gry, abndtly ool, shrp & frsh. Dry sample reveals that 5% pcs exhibit vry gd vugular por (intr xtl, or oomldc), mst of these pcs have vry gd, full sat & brwn oil stn. Mst pcs, pr-fr intr xtl vugular por & vry lt uneven stn & sat in mst pcs.

**CFS @ 3263' 30 min**: Dolo, off wht, crm, tan. Vfn-med xtl, med res/semi-crmly med xtl dol to hrd res fn xtl dolo. Mst pcs exhibit fr-gd even, lv oil sat & stn, fr-gd grsy lstr. Mst sat pcs SSFO on brk, sli shw gas bubbles. Fr-gd odr. Fr-gd uneven brt yell/grn fluor in about 70% pcs. Overall this sample and the 15 min., seem to have better intr xtl por than mst of the Arbuckle previously encountered uphole. Dry sample indicates st pcs only partially stnd & sat. Approx 20% pcs exhibit no stn or sat. Some of these have abndt clay matrix. Also mst pcs exhibit pr-fr intr xtl vugular por.

**CFS @ 3263' 45 min**: Dolo, tan, fn-med xtl, sli siliceous, mst hrd-vry hrd res. Trc-SSFO on brk. Mst pcs vry lt grsy lstr. Less well sat & stnd than abv, mst pcs. Fr-gd odr. Fr scat uneven brt yell/grn fluor about 50% pcs. Best shws stn & FO are in med xtl pcs w/loosely crmnd rhombs. 1 pc, off wht vfn xtl dolo w/fr drpits gsy FO bubbling out of pnnt por on brk. Dry samples indicate that dolomite matrix is more chlkly/clay filled in this sample. Pcs w/fr-gd intrxtln por & fr-gd sat only represent approx. 20-30% of dolomite pcs.

off wht, fn-med xtl, med-hrd res, several pcs off wht med rhombic pcs are crmly sucrosic w/NSO. A few pcs lt brwn-tan dolo w/fr grsy/rainbow lstr, fr shw gas bubbles on brk, VSSO, gd yell-wht brt even fluor. Fr odr. Pr-fr intr xtl por mst pcs. Over-all weak shw oil.

**CFS @ 3242' 45 min**: Dolo, off wht-tan, med xtl, about half pcs hrd-vry hrd res, w/sli grsy/oily lstr, sli lv brwn stn in intr xtl por, SSFO on brk, fr odr, & vry gd even brt yell-wht fluor. Approx. 1/2 pcs brt-med res, fr shw gas bubbles on brk, only trc-NSO. Mst pcs pr-fr intr xtl por, pr-no vugular por. Oil show maybe improving slightly.

**CFS @ 3248' 15 min**: Dolo, tan, fn-med xtl, med res to semi-sucrosic, better intr xtl vugular porosity than abv. GSFO, fr-gd even oily lstr mst pcs, mst pcs have gd even brt yell/grn fluor (from oil, not mineral presence). Gd odr. Fr shw gas bubbles on brk. Sample appears to have improved vugular porosity, and oil show from abv.

**CFS @ 3248' 30 min**: Dolo, tan, vfn-fn xtl, med-mst hrd res. Pr-fr intr xtl por. Sli-fr even grsy lstr mst pcs, sli shw gsy FO upon brk. Gd brt even, yell/grn fluor 90% pcs. Fr-gd odr. Fr shw gas. 1 pc steadily popping gas and some gsy oil upon brk! Less porosity and shw of oil than in 15 min sample.

**CFS @ 3248' 45 min**: Dolo, off wht-tan-lt brwn, vfn-med xtl, med-vry hrd res, about 1/2 of pcs fr intr xtl por, other half tite, pr-no vis por. Less vugular por than abv, vfn xtls appear to be filling spaces btwn lrg rhombs. Sli grsy lstr some pcs, SSFO, gsy FO on brk from med res pcs w/med sized rhombs. Fr shw gas bubbles on brk, Fr-gd odr, fr-gd scat brt yell/grn fluor about 85% pcs.

**CFS @ 3258' 15 min**: Dolo, off wht-tan, vfn-fn xtl, mst hrd res, pr vis por, fr lt uneven stn mst pcs. Some pcs off wht med xtl dolo w/no vis stn. Trc brwn oomldc dolo, vry hrd res, gd vugular por, pr-no intr xtl por, gd stn & sat, no free oil noted. SSFO in a few brt-med res semi-sucrosic pcs. Fr odr in sample. Trc gas. A few pcs only partly stnd/sat to banded stn & sat, probably due to clay mineral matrix. Overall pr porosity: Wk oil shw

**CFS @ 3258' 30 min**: Dolo, tan-brwn, vfn-fn xtl, mst hrd-vry hrd res, sli siliceous, dnse w/fr intr xtl por. Ool & Oomldc vugular dolo, brwn, vry hrd res, micro-vfn xtl matrix, pr-fr med-crs md oomldc vugular por. Mst pcs vry prly intr connected vugs. Fr-gd even sat & lt stn, SSFO from vugs, sli shw gsy FO from vugs & intr xtl pnnt por. 1 pc oomldc dolo stmmg drpits of lt brwn FO & gas out of oomldc vugs, GSFO that pc. Fr odr, Fr even, brt yell/grn fluor 50% sample. Some lt grn sli gluc-highly gluconitic dolo, no vis por, NS. A few pcs chrt, off wht-gry, semi-translnt, abndtly ool, shrp & frsh.

**CFS @ 3258' 45 min**: Dolo, off wht-tan-brwn, vfn-med xtl, med-vry hrd res, mst pcs pr intr xtl por, pr-fr oomldc vugular por. Fr odr, Fr grsy lstr & sat mst pcs. Approx 50% brt uneven yell/grn fluor. Some ool/oomldc dolo as abv. Mst pcs w/few oomldc vugs, mstly undissolved ooids. A few pcs w/gd oomldc vugular por & gd sat/stn. 1 pc off wht dolo, fn xtl w/fr shw stmmg gsy FO from a re-crystallized fracture upon sqz. 1 pc off wht med rhombic xtl, med res w/gd shw FO from intr xtl vugs upon brk. More irregular sized rhombs than in abv samples, may help promote intr xtl vugs.



















