



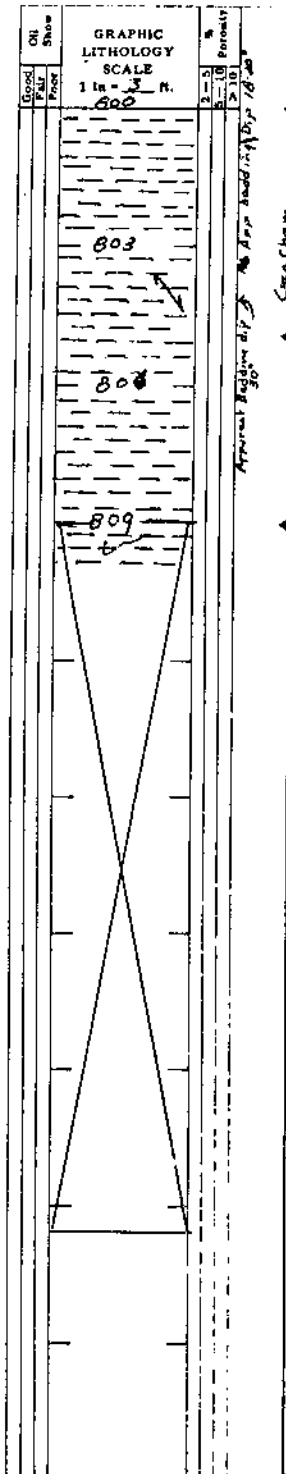
HUSKY OIL NPR OPERATIONS, INC.
U.S. GEOLOGICAL SURVEY/ONPRA

CONVENTIONAL CORE DESCRIPTION FORM

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Well: U.S.G.S/Husky - Barrow #15 Core No: 1
Date: 8/24/80 T.D. 825
Interval Cored: 800-825 Formation: Torok
Recovery: 9' 36% Core Diameter: 4" Inches

GENERALIZED CORE DESCRIPTION: Shale gy-brn sft. rr ss & silty incl
Apparent Bedding dip 18-30°



DETAILED CORE DESCRIPTION

Prepared By R. Brockway

Sh, brn-gy, v. sft, pt silty to silty mic-mica, org
v. silty silt. silt. incl. br. v. s. gy. ss incl & ptg
Gummy when wet

App. bedding Dip @ 801-802 = 18-20°
App. bedding Dip @ 803-804 = 30°

50° fracture of slickensides @ 803-809, cuts across
app bedding planes in same direction

sk. com in thin area, may be due to bit action same
app to be from natural cause



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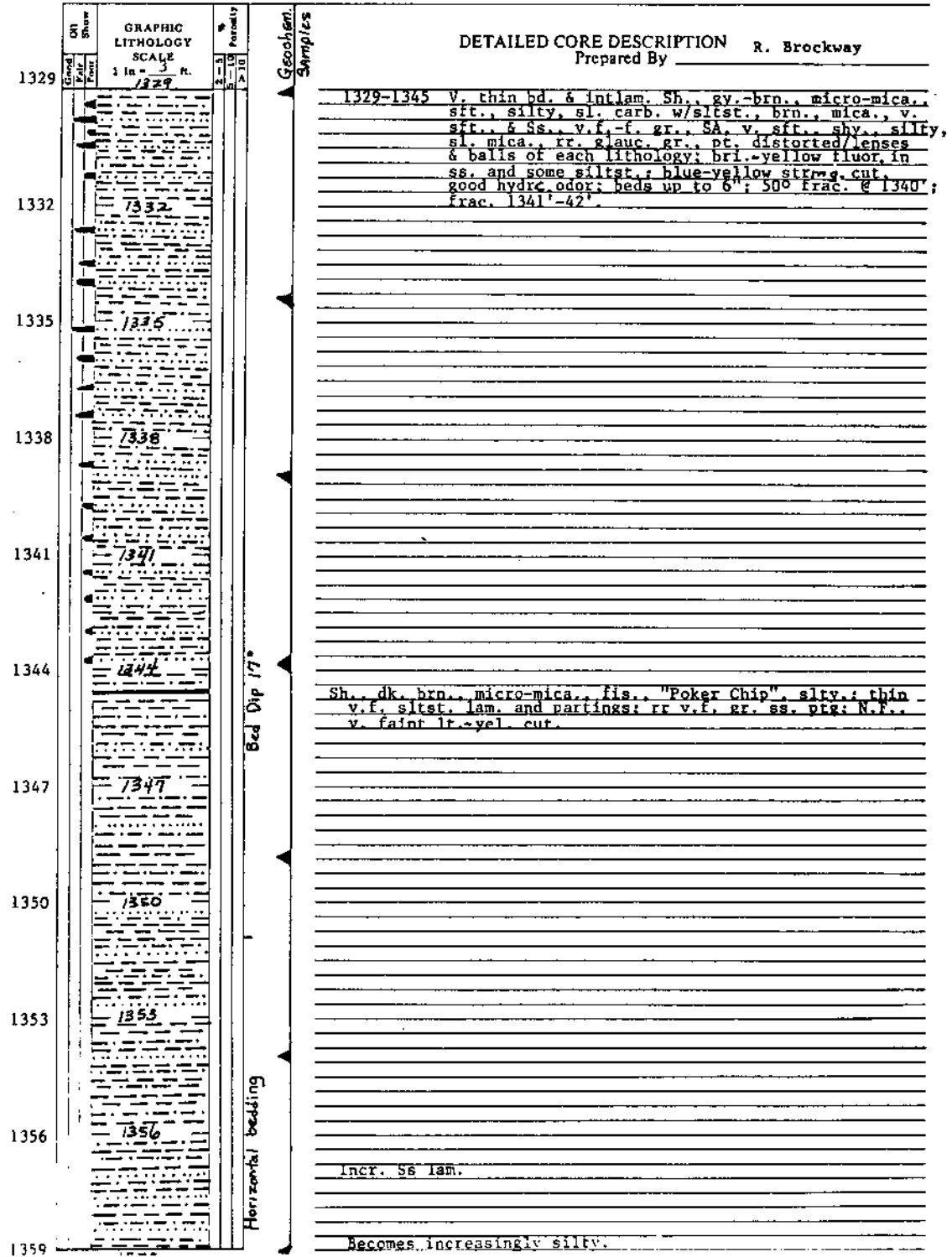
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CONVENTIONAL CORE DESCRIPTION FORM

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Well: SOUTH BARROW #15 Core No: 2
Date: 8/25/80 T.D. 1389'
Interval Cored: 1329'-1389' Formation: Torok
Recovery: 59' Core Diameter: 4 Inches

GENERALIZED CORE DESCRIPTION: Intlam. and thn. bedded siltst., ss. & sh., dk. brn. to lt. brn.





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Well: SOUTH BARROW #15 Core No: 2
 Date: _____ T.D. _____
 Interval Cored: _____ Formation: _____
 Recovery: _____ Core Diameter: _____ Inches

GENERALIZED CORE DESCRIPTION: _____

Depth (ft)	Oil Shows	GRAPHIC LITHOLOGY SCALE		#	Porosity (%)	Remarks
		Block	Pair			
1359		1359				
1362		1362				
1365		1365				
1368		1368				
1371		1371				
1374		1374				
1377		1377				
1380		1380				
1383		1383				
1386		1386				

DETAILED CORE DESCRIPTION	
Prepared By _____	
1360-1361'	Finely lam. sh., siltst. & ss., dk. to lt. brn., sl. carb. & bri.-yel. fluor. in ss., blue-yel. string. cut, good odor.
1361'-1363'	Ss., dk. to lt. brn., f.-v.f. gr., SA, m. art., v. shy., silty, carb.; sh. & siltst. lam.; sl. por. att.; int. lt.-yel. fluor., inst. lt.-yel. cut, good odor.
1363'-1365'	Thin intbd. sh., dk. brn., micro-mica., & siltst., dk. brn., mica, pr. adv., carb.; sl. odor.
1365'-1370'	Sh., dk. brn., fis., "Poker Chip", occ. sl. silty, v.f. micro-mica.; v. thn. ss. & siltst. ptg.
1370'-1374'	Siltst., dk. brn., v. shy., micro-mica., occ. sl. adv.; rr. ss. ptg.
1374'-1387.5'	Sh., dk. brn., sl. micro-mica., fis.; siltst. lam. & ptg. w/ sl. fluor. & cut.



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Well: South Barrow #15 Core No: 3
Date: 9/5/80 T.D. 1881'
Interval Cored: 1838'-1881' Formation: "Pebble Shale"
Recovery: 42.8' (99.5%) Core Diameter: 4 Inches

GENERALIZED CORE DESCRIPTION: Siltst. & Sh. with occasional thin Ss. Bedding
horizontal to 2°.

Depth (ft)	Graphic Lithology Scale (1 in = 3 ft)	Core Description	Detailed Core Description	
			Prepared By	Notes
1838			R. Brockway	
1838'-1843.5'		Siltst., dk brn, shy, sdy; occ incl fine to coarse rd qtz gr ss; pyr repl pl rmn, rr glauc, mica; occ sb pig; occ R-SR cht & qtz gr and occ dk cht pbl; NEC, sl odor.		
1841				
1843.5'-1844'		Ss, dk brn, SA, m srt, v. slty & shy, mica, rr glauc, carb, ff; fair hydc odor, NF, v. slow dull yel cut; grades to siltst.		
1844				
1844'-1845.8'		Siltst, dk brn, v. sdy, shy, mica; scat m-v.c. rd qtz gr; occ gn-blk glauc pel; v. sl odor.		
1845.8'-1848'		Ss, dk brn, v. f. gr, SA, m srt, v. slty, shy, mica; scat blk carb gr; occ SR v.c. m qtz & dk cht gr; rr glauc; rr dk-brn sh incl; grades to siltst; rr glauc pel.		
1847				
1848'-1850.8'		Siltst, dk brn a/a; occ ss and sh incl; rr fish tooth; rr blk cht pbl; scat rd qtz & cht grains.		
1850				
1850.8'-1851.7'		Ss, brn, a, stn, f. gr, SA, m srt, v. carb at top, blk carb gr, arg gr; 10% por; lt. yel fluor, inst blue yel cut, fair hydc odor.		
1851.7'-1863'		Siltst, dk brn, v. sdy, mica, shy, carb, occ pyr incl, sdy incl, scat R-SR m-v.c. qtz & cht gr; occ dk cht pbl; v. sl spotty dull gold fluor & v. slow yel cut, good odor in top 2', wet hydc stn on bed plane @ 1852.7', bldg gas.		
1853				
1856				
1859				
1862				
1863'-1864'		Sh, dk brn, fig, mica, slty, sl carb; pyr pl rmn; rr Crin (?); occ rd qtz gr & dk cht pbl.		
1864'-1866'		Siltst, dk brn, shy, sdy, v. large f. xl pyr incl, mica; scat R-SR qtz and cht gr, occ cht pbl.		
1865				
1866'-1868.2'		Ss, dk brn, v. f. gr, SA, m srt, v. slty, shy, carb, sl mica, occ pyr incl; & cht & qtz granules and gr; rr, NF, v. slow dull yel crush cut.		

Bedding planes 0-2°

Samples (GeoChem)



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Well: South Barrow #15 Core No: 3 (cont.)

Date: _____ T.D. _____

Interval Cored: 1838'-1881' Formation: _____

Recovery: _____ Core Diameter: _____ Inches

GENERALIZED CORE DESCRIPTION: _____

Depth (ft)	Graphic Lithology Scale (1 in = 3 ft)	Detailed Core Description
1868	1868.2'	Sltsst, dk brn, sdy, shy, mica, v.c.-c, qtz & chrt gr.
1871	1869'-1871'	Ss, dk brn, v.f.-f, gr, p, srt; sl cgl with dk chrt & qtz phi; v. slty, shy, sltsst lam, mica, kt; NS.
1871	1871'-1872'	Sltsst, dk brn, a/a.
1874	1872'-1880.8'	Sh, gy-brn, pt slty, fis, sl, pyr, mica; fish frags common.
1877	1877'	pyr repl pl frag
1880	1880.8'-1881'	No Recovery.



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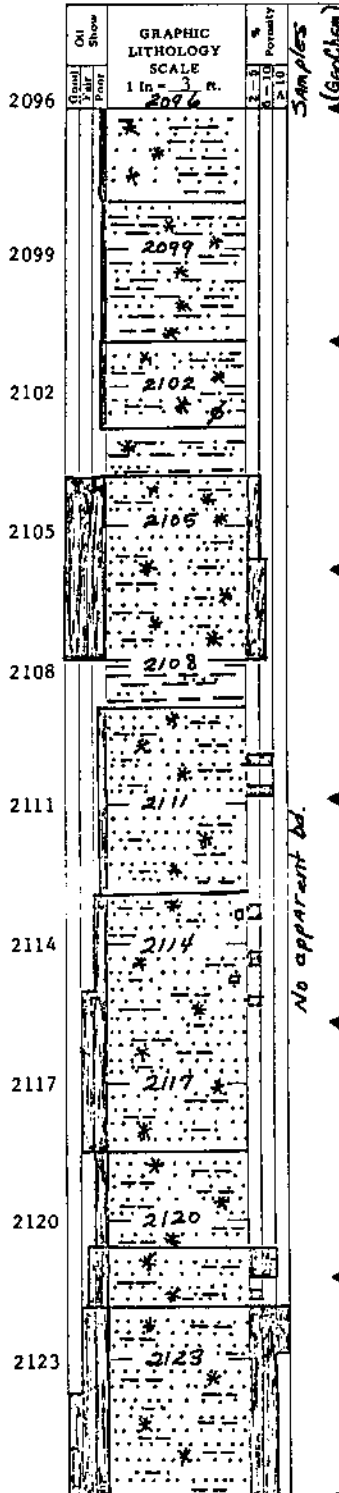
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CONVENTIONAL CORE DESCRIPTION FORM

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Well: South Barrow #15 Core No: 4
Date: 9/7/80 T.D. 2136'
Interval Cored: 2096'-2136' Formation: Upper Barrow sand
Recovery: 36.2' (80.5%) Core Diameter: 4 Inches

GENERALIZED CORE DESCRIPTION: Sandstone/ occ siltstone and rr sh strg. No apparent bed dip in upper core, slight indication x bd up to 15°; bedding plane @2130.7 = 15°. Frac of 70° @ 2130'.



DETAILED CORE DESCRIPTION

Prepared By R. Brockway

2096'-2098.3' Ss, brn, f.-v.f. gr, SA, m srt, abund glauc gr & pel, mica, rr; spotty lt. yel fluor, v. fat crush cut, fair hyc odor.

2098.3'-2101' Siltst, med to lt brn, v. sdy, shy, abund glauc gr & pel; occ pyr repl pl frag; NE, v. fnt cut.

2101'-03' Ss, lt to dk brn, v.f. - f. gr, SA-SR, slty, shy, str, rr; lt col str has lt yel fluor, & v. lt yel strng cut, rr.

2103'-2104' large pyr and carb wood frag
Siltst, brn, sdy, shy, pyr pl rmd, glauc; spotty hldg oil and gas.

2104'-2107.9' Ss, lt. to med brn, f. gr with v.f. gr str, SA-SR, med srt, shy, slty, qtzs, glauc; sh ptg; por 0-1%; lt brn stn, bri yel fluor, inst lt yel cut, good odor.

2107.9'-2109' Sh, med brn, v. sdy, slty, mica, sdy lam; tr bldg oil and gas.

2109'-2112.8' Ss, lt to m brn, f.-v.f. gr, qtzs, SA-SR, glauc, sl, mica, shy, sh ptg, slty, pred tt; zones up to 10% por; spot bri yel fluor, v. slow to inst lt yel cut, lt brn stn, sl. odor.

2112.8'-2118.5' Ss, lt and med brn, v.f.-f. gr, SA-SR, shy str, sl, slty, cly, rr mica, qtzs, glauc, pred tt; str w/ 0-5% por; scat pyr xl; bnd pale to bri yel fluor, mod fast to inst pale yel to blue-vel cut, rr lt brn cut without blk light 2116'-18.5', fair odor.

2118.5'-2120.5' Ss, m. brn, f.-v.f. gr, SA, m srt, cly to v. shy, qtzs, glauc; spot dull yel fluor, sl med yel cut, sl odor, spotty hldg oil and gas.

2120.5'-2122' Ss, m. brn, v.f.-f. gr., SA, qtzs, glau, sh ptg; bcm v. shy @ 2121'; por up to 10%; dull yel fluor, inst fnt yel cut; spot hldg oil and gas.

2122'-2131.3' Ss, m. brn, v.f.-f. gr., SA-SR, m. srt, cly, sl, slty, qtzs, glauc, pt, shy, occ carb gr, rr mica; por 8-15%; dull to med yel fluor, mod fast med yellow to inst blue-vel cut, fnt lt brn cut without black light; good odor.



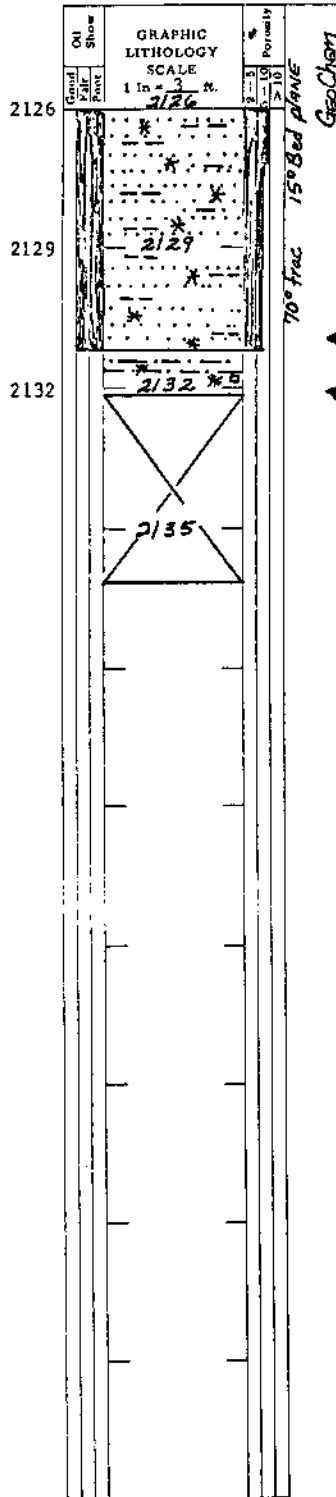
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Well: South Barrow #15 Core No: 4 (cont.)
Date: 9/7/80 T.D. _____
Interval Cored: 2096'-2136' Formation: _____
Recovery: _____ Core Diameter: _____ Inches

GENERALIZED CORE DESCRIPTION: _____



DETAILED CORE DESCRIPTION
Prepared By R. Brockway

Description preceding page
70° frac @ 2130'
bd plane 15°
2131.3-2132.2 Siltst, hrn-gy, mica, shy, sl. carb, rr pyr repl
pl rmn, sl. sdy str.
2132.2-2136' N.R.



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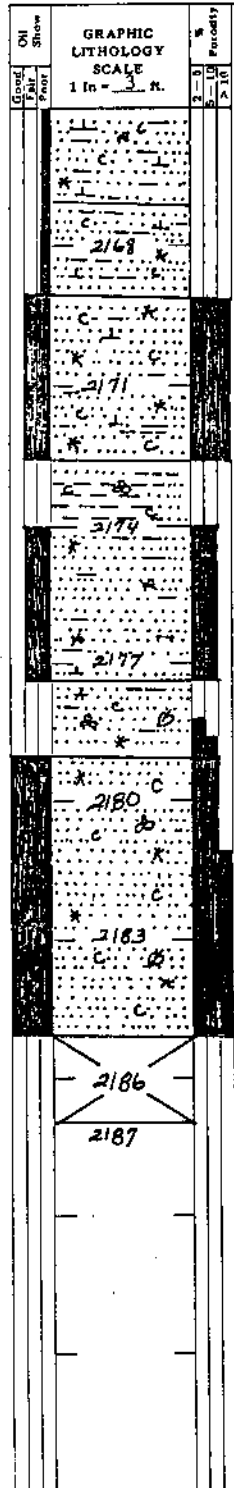
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CONVENTIONAL CORE DESCRIPTION FORM

Well: South Barrow #15 Core No: 5
Date: 9/10/80 T.D. 2187'
Interval Cored: 2165'-2187' Formation: _____
Recovery: 19.9' (90%) Core Diameter: 4 Inches

GENERALIZED CORE DESCRIPTION: Sandstone, very fine to fine gr., pt. shv, frac.
pt. oil stn.

5



DETAILED CORE DESCRIPTION

Prepared By Ron Brockway

2165'-2167' Ss, lt gy to gy-brn, shv, sl to mod calc, v.f. gr, SA, qtzs, carb flakes & gr, rr glauc, rt; v. fnt spot dull yel fluor, v. fnt lt yel cut. Core breaks horiz.

2167'-2169' Ss, brn-gy, SA, m. srt, v. shv, mod sft, sl, carb, v. sl, calc, rr mica, rr glauc; NF, v. sl m. yel cut; x-bd or frac @ 15'; bsm f. gr @ 2168'; hl shatt. 2168'-2169'

2169'-2172.5' Ss, lt, brn, f. gr, SA, M. srt, qtzs, carb flk & gr, glauc, sl, calc, arg; 20% por; good odor. lt brn sn, fnt lt yel fluor, inst lt blue-yel cut. Core breaks horiz.

thn sh ptg, decr por, 10%

Sh, dk brn, mica, carb, sft, slty, v. sdy, sl, carb; rr fos frag.

2174'-77.5' Ss, lt gy-brn, to v. lt brn, v.f.-fine gr., SA, med to well sort, qtzs, shv & clv, rr glauc; fnt pale yel fluor, inst pale yel cut, 5-8% por, 850 frac @ 2174'-2175' sl open, no coating or stain on surface. Core shatt. @ 2176.4'. Core breaks horiz.

2177.5'-2179' Ss, gy-brn, f. gr, qtzs, SA, m. srt, shv, clv, occ sh ptg, glauc, carb; tt to 10% por; lrg. pyr. & coaly pl rmn; occ fos frag. Core broken on 45° angle, closed frac of 60°

2179'-2184.9' Ss, brn, gy-brn, f. gr, SA, well srt, glauc, qtzs, sl, carb, fri; o. stn, dull yel to pale lt yel fluor. inst pale yel cut, por varies 10-20%, lower 5' saturated with oil, frac & shattered, spotty dk-brn hvy live oil on some frac, core bldg dk-brn oil. Occ fos frag.

lrg wood frag