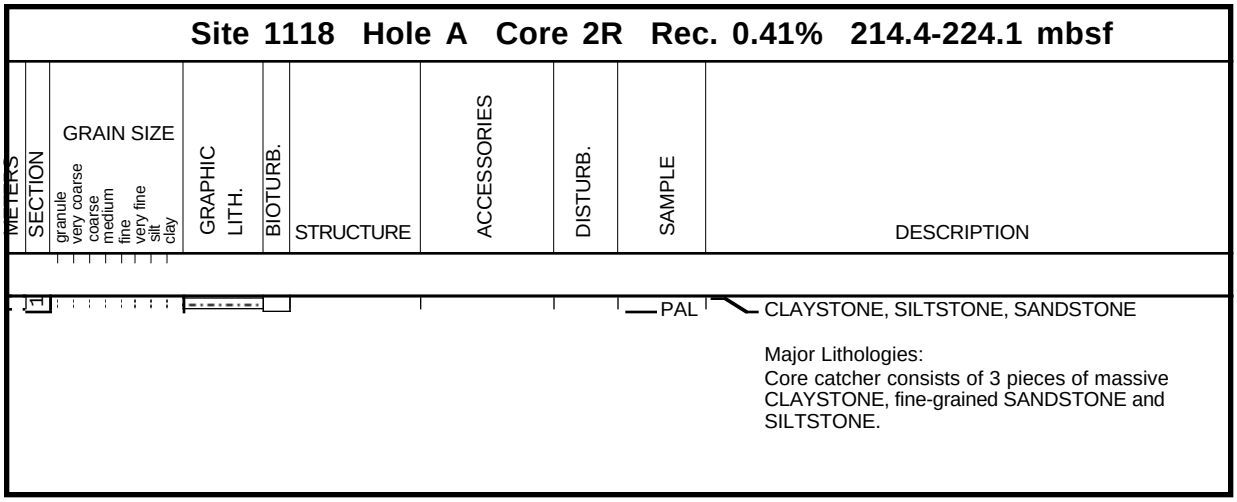
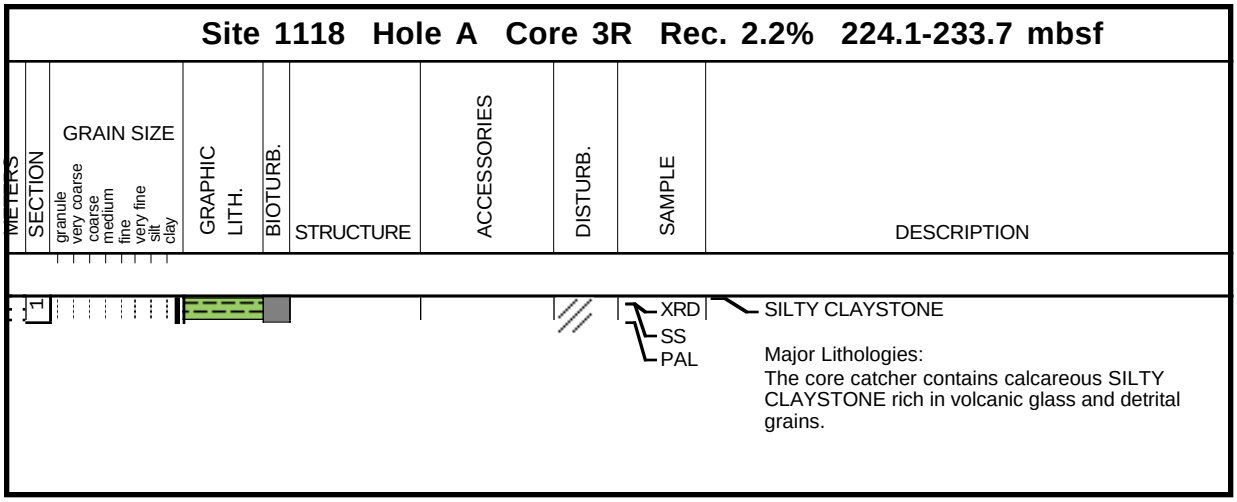
Site 1118 Hole A Core 1R Rec. 0.21% 205.0-214.4 mbsf

METERS	SECTION	GRAIN SIZE (granule / very coarse / coarse / medium / fine / very fine / silt / clay)	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
								PAL	

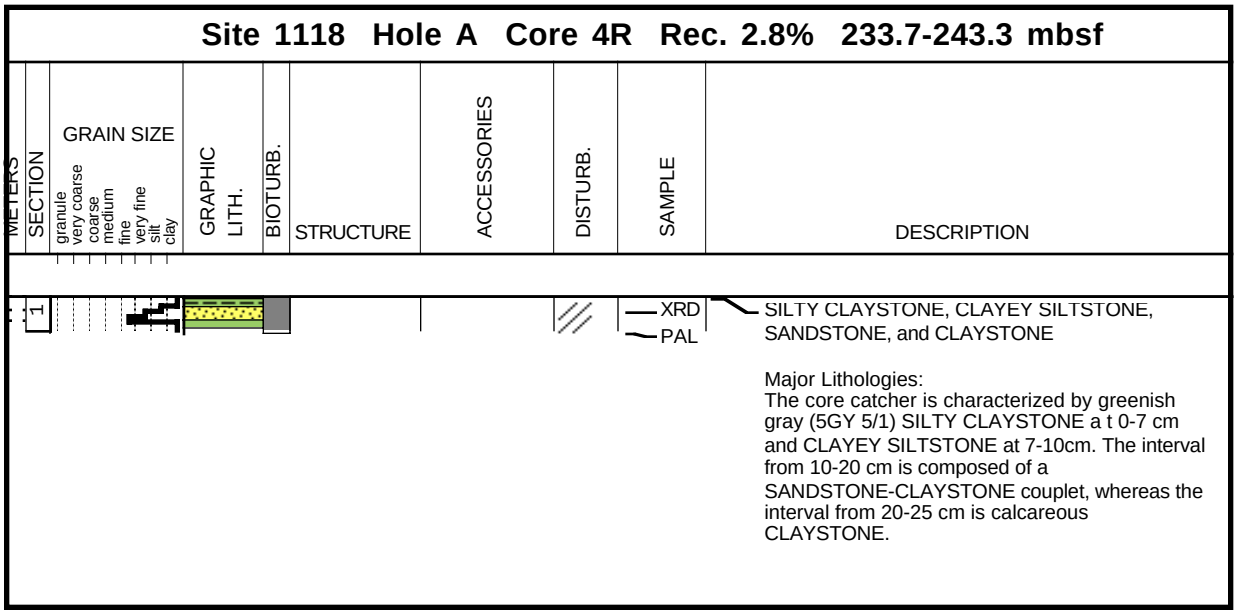
Core Photo


Site 1118 Hole A Core 2R Rec. 0.41% 214.4-224.1 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
1
PAL
CLAYSTONE, SILTSTONE, SANDSTONE
Major Lithologies:
Core catcher consists of 3 pieces of massive CLAYSTONE, fine-grained SANDSTONE and SILTSTONE.

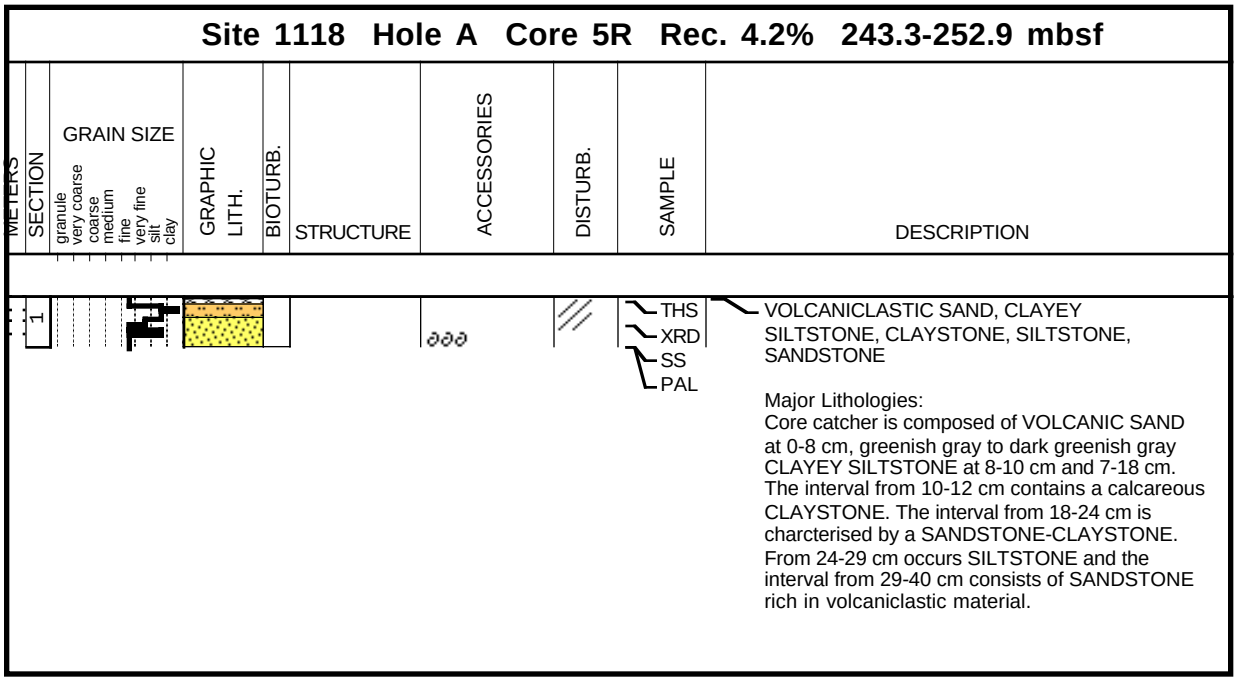
Core Photo


Site 1118 Hole A Core 3R Rec. 2.2% 224.1-233.7 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
1
XRD
SS
PAL
SILTY CLAYSTONE
Major Lithologies:
The core catcher contains calcareous SILTY CLAYSTONE rich in volcanic glass and detrital grains.

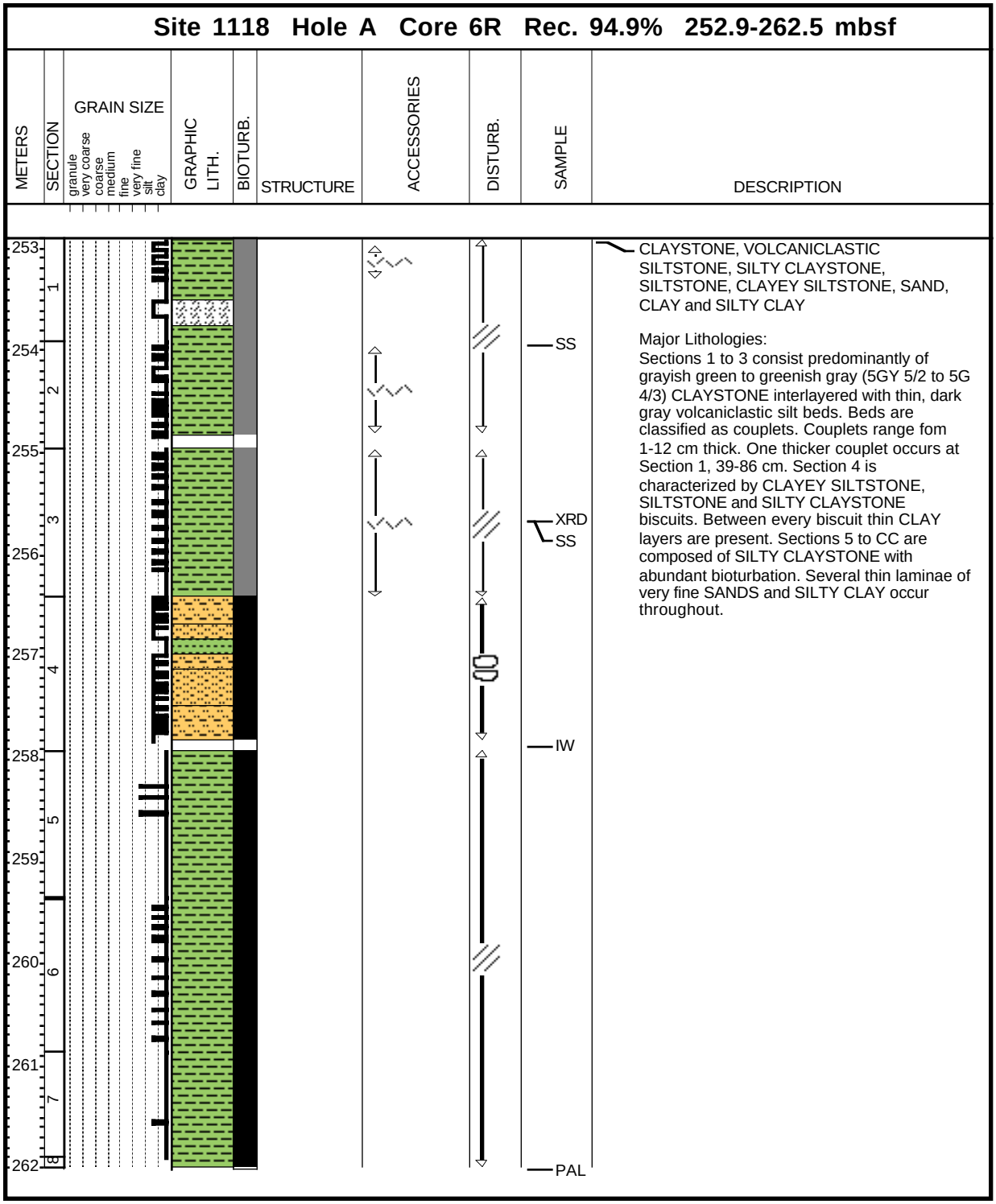
Core Photo


Site 1118 Hole A Core 4R Rec. 2.8% 233.7-243.3 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
1
XRD
PAL
SILTY CLAYSTONE, CLAYEY SILTSTONE, SANDSTONE, and CLAYSTONE
Major Lithologies:
The core catcher is characterized by greenish gray (5GY 5/1) SILTY CLAYSTONE a t 0-7 cm and CLAYEY SILTSTONE at 7-10cm. The interval from 10-20 cm is composed of a SANDSTONE-CLAYSTONE couplet, whereas the interval from 20-25 cm is calcareous CLAYSTONE.

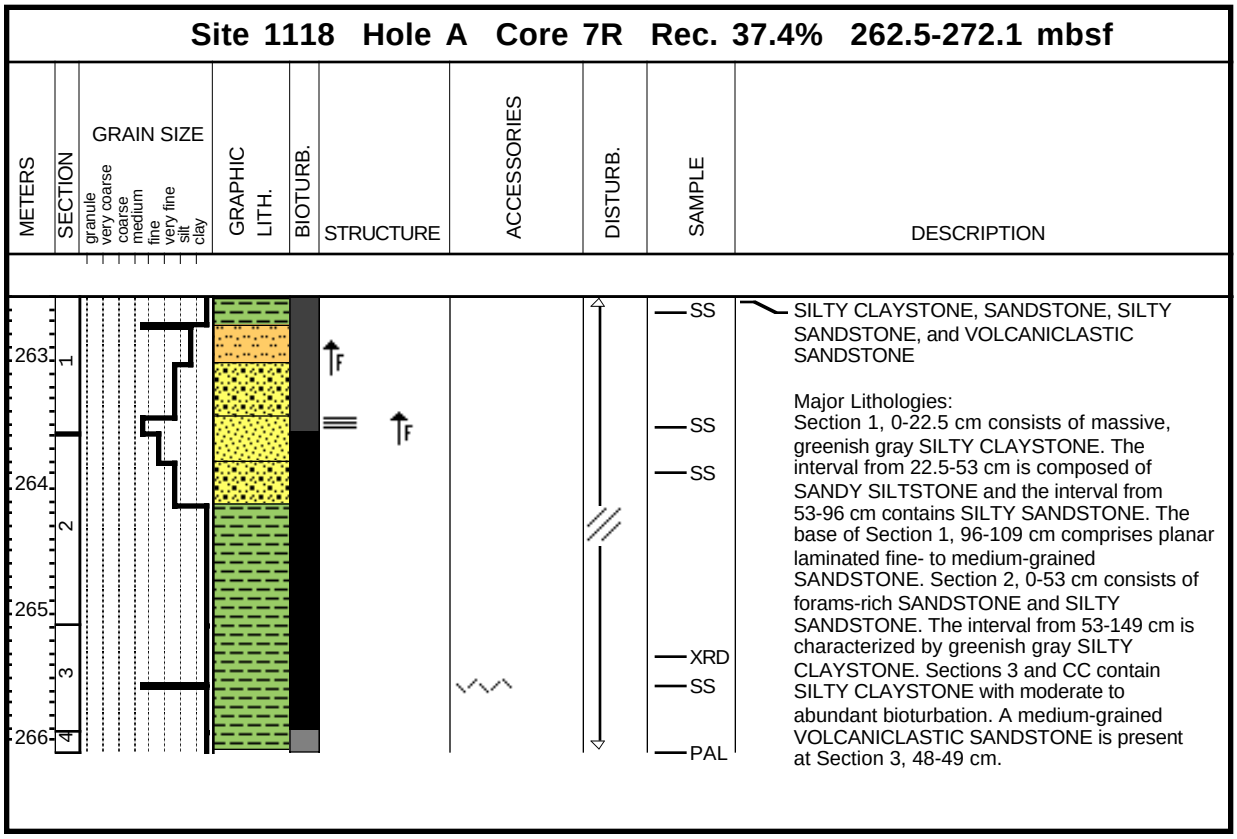
Core Photo


Site 1118 Hole A Core 5R Rec. 4.2% 243.3-252.9 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
1
THS
XRD
SS
PAL
VOLCANICLASTIC SAND, CLAYEY SILTSTONE, CLAYSTONE, SILTSTONE, SANDSTONE
Major Lithologies:
Core catcher is composed of VOLCANIC SAND at 0-8 cm, greenish gray to dark greenish gray CLAYEY SILTSTONE at 8-10 cm and 7-18 cm. The interval from 10-12 cm contains a calcareous CLAYSTONE. The interval from 18-24 cm is charcterised by a SANDSTONE-CLAYSTONE. From 24-29 cm occurs SILTSTONE and the interval from 29-40 cm consists of SANDSTONE rich in volcaniclastic material.

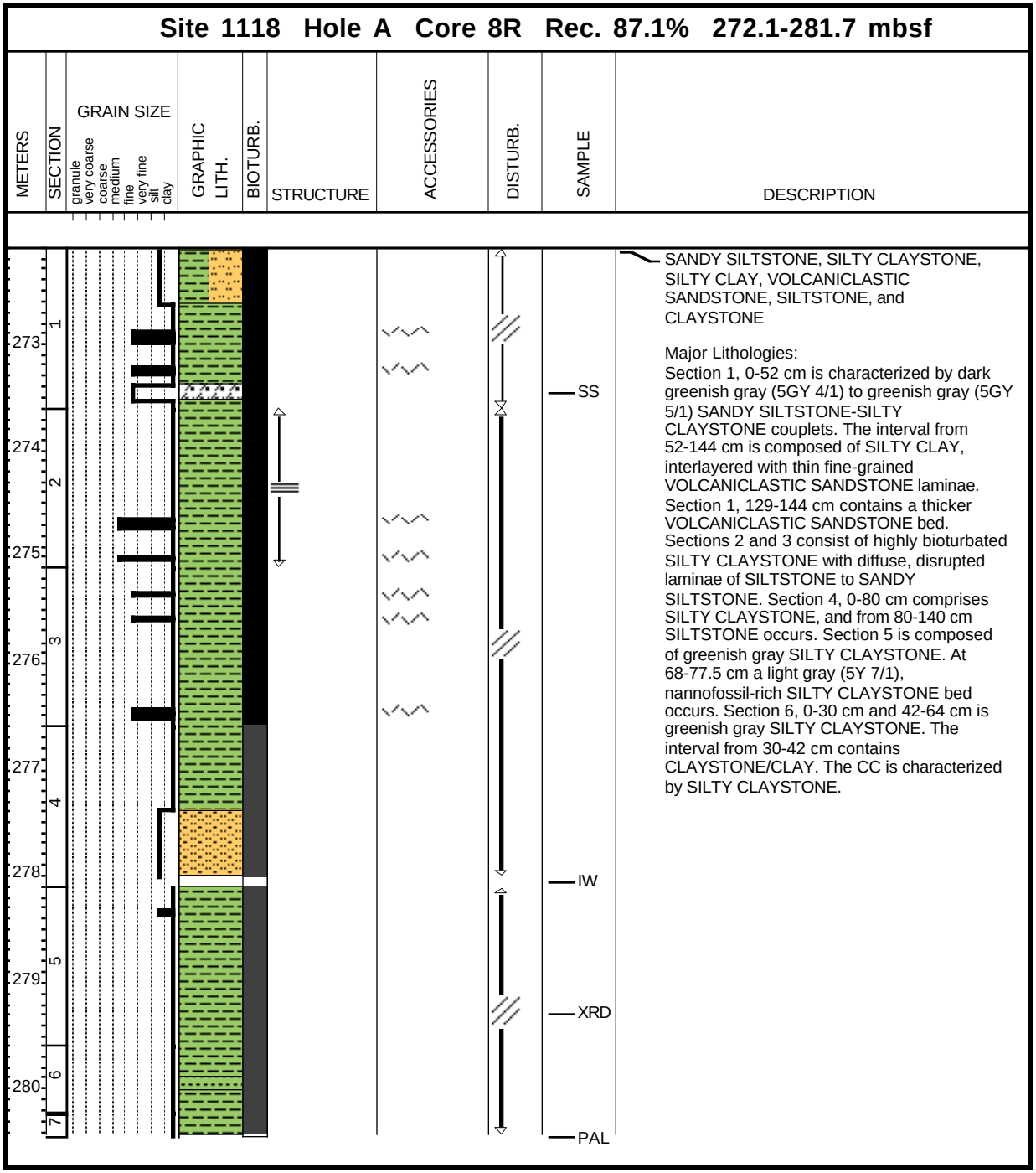
Core Photo


Site 1118 Hole A Core 6R Rec. 94.9% 252.9-262.5 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
253
254
255
256
257
258
259
260
261
262
1
2
3
4
5
6
7
CC
SS
XRD
SS
IW
PAL
CLAYSTONE, VOLCANICLASTIC SILTSTONE, SILTY CLAYSTONE, SILTSTONE, CLAYEY SILTSTONE, SAND, CLAY and SILTY CLAY
Major Lithologies:
Sections 1 to 3 consist predominantly of grayish green to greenish gray (5GY 5/2 to 5G 4/3) CLAYSTONE interlayered with thin, dark gray volcaniclastic silt beds. Beds are classified as couplets. Couplets range fom 1-12 cm thick. One thicker couplet occurs at Section 1, 39-86 cm. Section 4 is characterized by CLAYEY SILTSTONE, SILTSTONE and SILTY CLAYSTONE biscuits. Between every biscuit thin CLAY layers are present. Sections 5 to CC are composed of SILTY CLAYSTONE with abundant bioturbation. Several thin laminae of very fine SANDS and SILTY CLAY occur throughout.

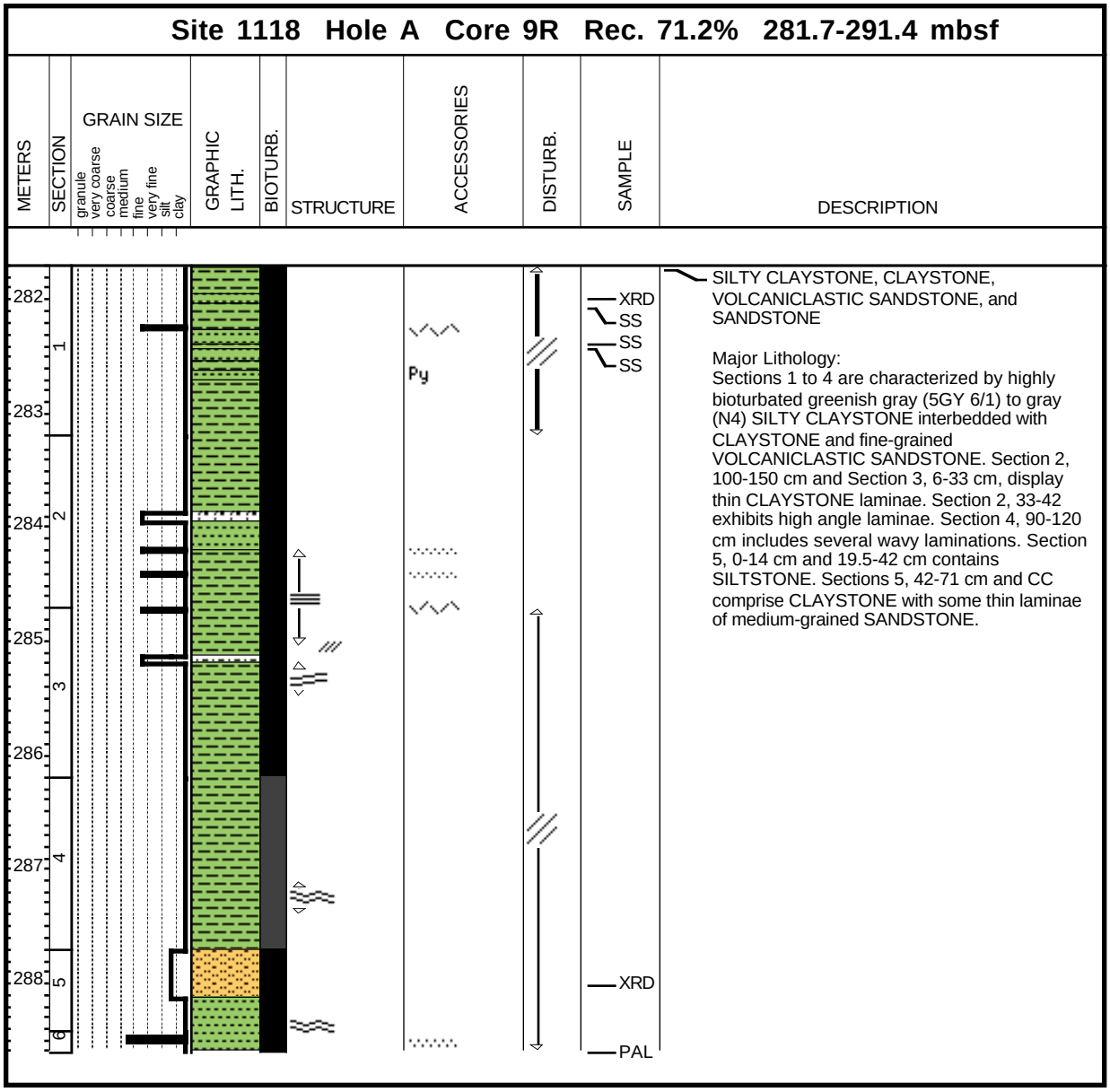
Core Photo


Site 1118 Hole A Core 7R Rec. 37.4% 262.5-272.1 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
263
264
265
266
1
2
3
4
F
F
SS
SS
SS
XRD
SS
PAL
SILTY CLAYSTONE, SANDSTONE, SILTY SANDSTONE, and VOLCANICLASTIC SANDSTONE
Major Lithologies:
Section 1, 0-22.5 cm consists of massive, greenish gray SILTY CLAYSTONE. The interval from 22.5-53 cm is composed of SANDY SILTSTONE and the interval from 53-96 cm contains SILTY SANDSTONE. The base of Section 1, 96-109 cm comprises planar laminated fine- to medium-grained SANDSTONE. Section 2, 0-53 cm consists of forams-rich SANDSTONE and SILTY SANDSTONE. The interval from 53-149 cm is characterized by greenish gray SILTY CLAYSTONE. Sections 3 and CC contain SILTY CLAYSTONE with moderate to abundant bioturbation. A medium-grained VOLCANICLASTIC SANDSTONE is present at Section 3, 48-49 cm.

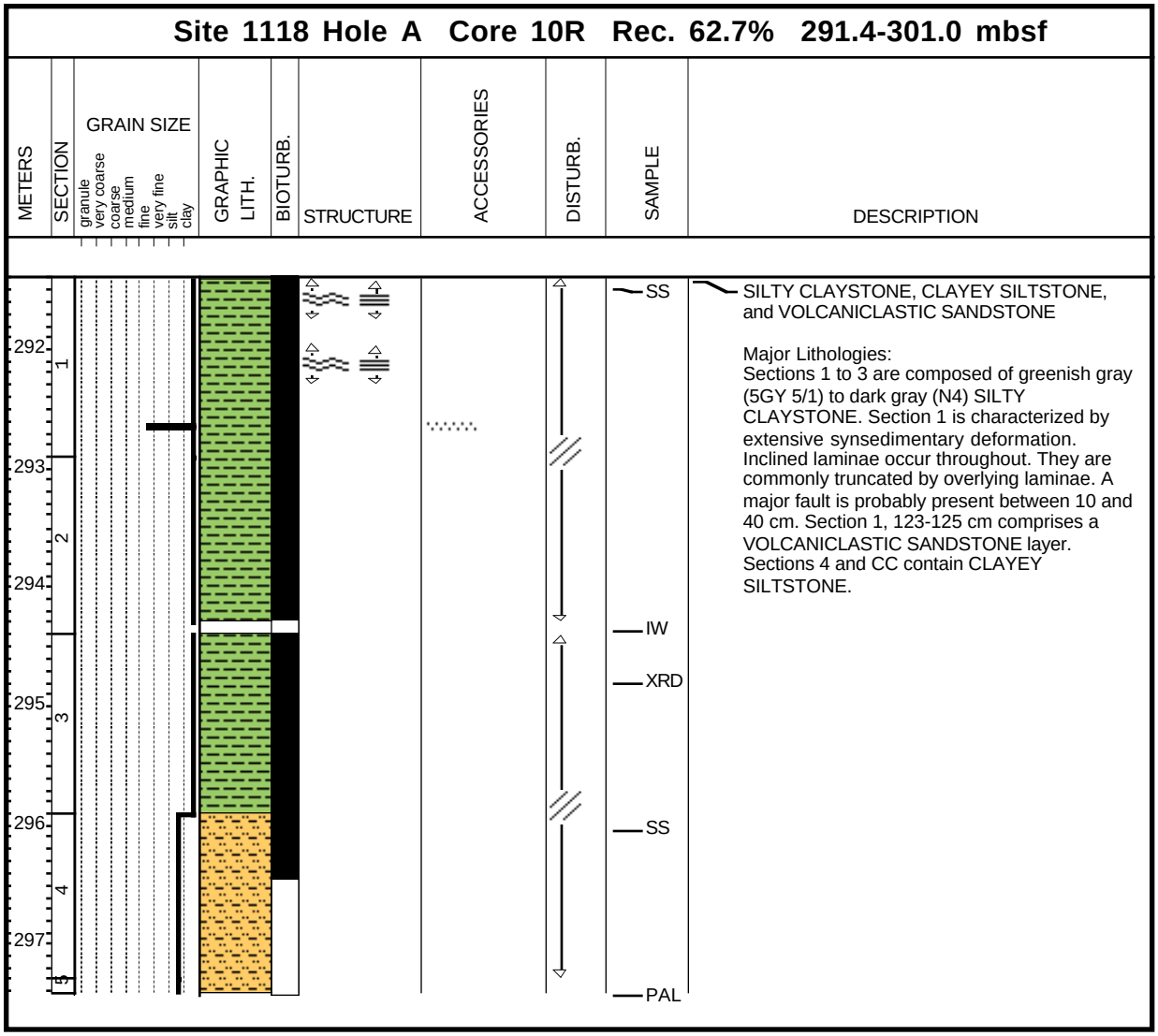
Core Photo


Site 1118 Hole A Core 8R Rec. 87.1% 272.1-281.7 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
273
274
275
276
277
278
279
280
1
2
3
4
5
6
7
SS
IW
XRD
PAL
SANDY SILTSTONE, SILTY CLAYSTONE, SILTY CLAY, VOLCANICLASTIC SANDSTONE, SILTSTONE, and CLAYSTONE
Major Lithologies:
Section 1, 0-52 cm is characterized by dark greenish gray (5GY 4/1) to greenish gray (5GY 5/1) SANDY SILTSTONE-SILTY CLAYSTONE couplets. The interval from 52-144 cm is composed of SILTY CLAY, interlayered with thin fine-grained VOLCANICLASTIC SANDSTONE laminae. Section 1, 129-144 cm contains a thicker VOLCANICLASTIC SANDSTONE bed. Sections 2 and 3 consist of highly bioturbated SILTY CLAYSTONE with diffuse, disrupted laminae of SILTSTONE to SANDY SILTSTONE. Section 4, 0-80 cm comprises SILTY CLAYSTONE, and from 80-140 cm SILTSTONE occurs. Section 5 is composed of greenish gray SILTY CLAYSTONE. At 68-77.5 cm a light gray (5Y 7/1), nannofossil-rich SILTY CLAYSTONE bed occurs. Section 6, 0-30 cm and 42-64 cm is greenish gray SILTY CLAYSTONE. The interval from 30-42 cm contains CLAYSTONE/CLAY. The CC is characterized by SILTY CLAYSTONE.

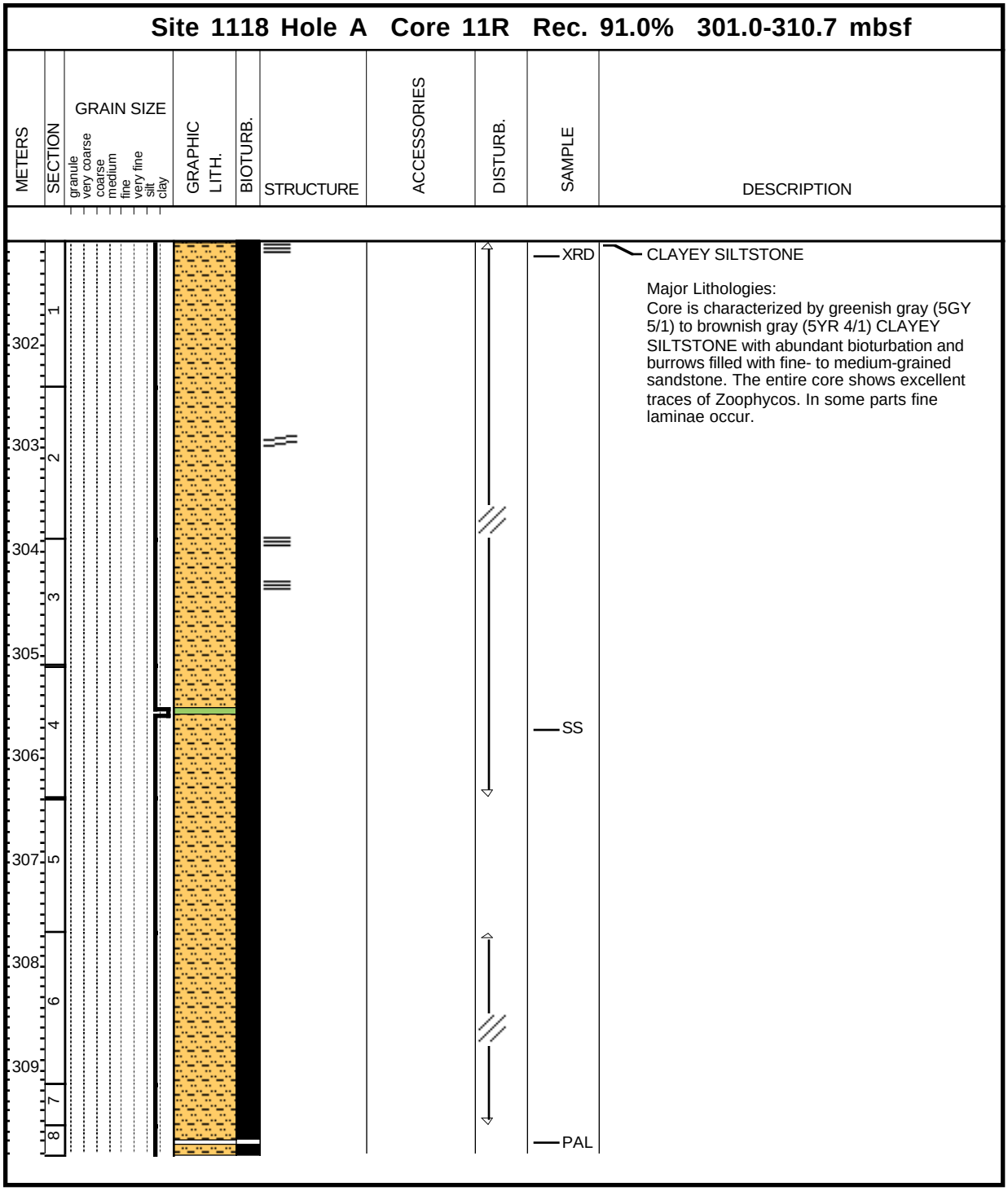
Core Photo


Site 1118 Hole A Core 9R Rec. 71.2% 281.7-291.4 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
282
283
284
285
286
287
288
1
2
3
4
5
6
Py
XRD
SS
SS
SS
XRD
PAL
SILTY CLAYSTONE, CLAYSTONE, VOLCANICLASTIC SANDSTONE, and SANDSTONE
Major Lithology:
Sections 1 to 4 are characterized by highly bioturbated greenish gray (5GY 6/1) to gray (N4) SILTY CLAYSTONE interbedded with CLAYSTONE and fine-grained VOLCANICLASTIC SANDSTONE. Section 2, 100-150 cm and Section 3, 6-33 cm, display thin CLAYSTONE laminae. Section 2, 33-42 exhibits high angle laminae. Section 4, 90-120 cm includes several wavy laminations. Section 5, 0-14 cm and 19.5-42 cm contains SILTSTONE. Sections 5, 42-71 cm and CC comprise CLAYSTONE with some thin laminae of medium-grained SANDSTONE.

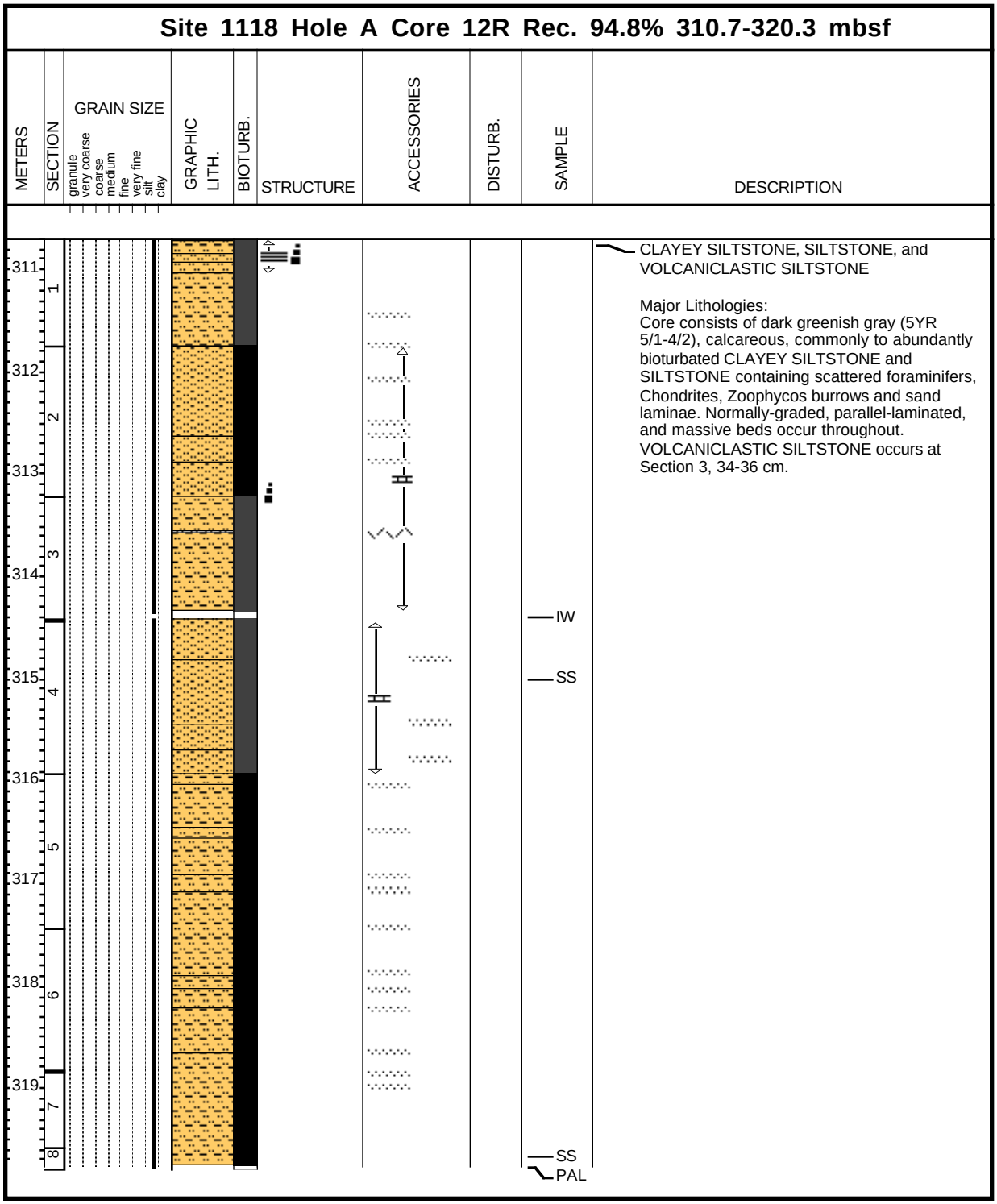
Core Photo


Site 1118 Hole A Core 10R Rec. 62.7% 291.4-301.0 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
292
293
294
295
296
297
1
2
3
4
5
SS
IW
XRD
SS
PAL
SILTY CLAYSTONE, CLAYEY SILTSTONE, and VOLCANICLASTIC SANDSTONE
Major Lithologies:
Sections 1 to 3 are composed of greenish gray (5GY 5/1) to dark gray (N4) SILTY CLAYSTONE. Section 1 is characterized by extensive synsedimentary deformation. Inclined laminae occur throughout. They are commonly truncated by overlying laminae. A major fault is probably present between 10 and 40 cm. Section 1, 123-125 cm comprises a VOLCANICLASTIC SANDSTONE layer. Sections 4 and CC contain CLAYEY SILTSTONE.

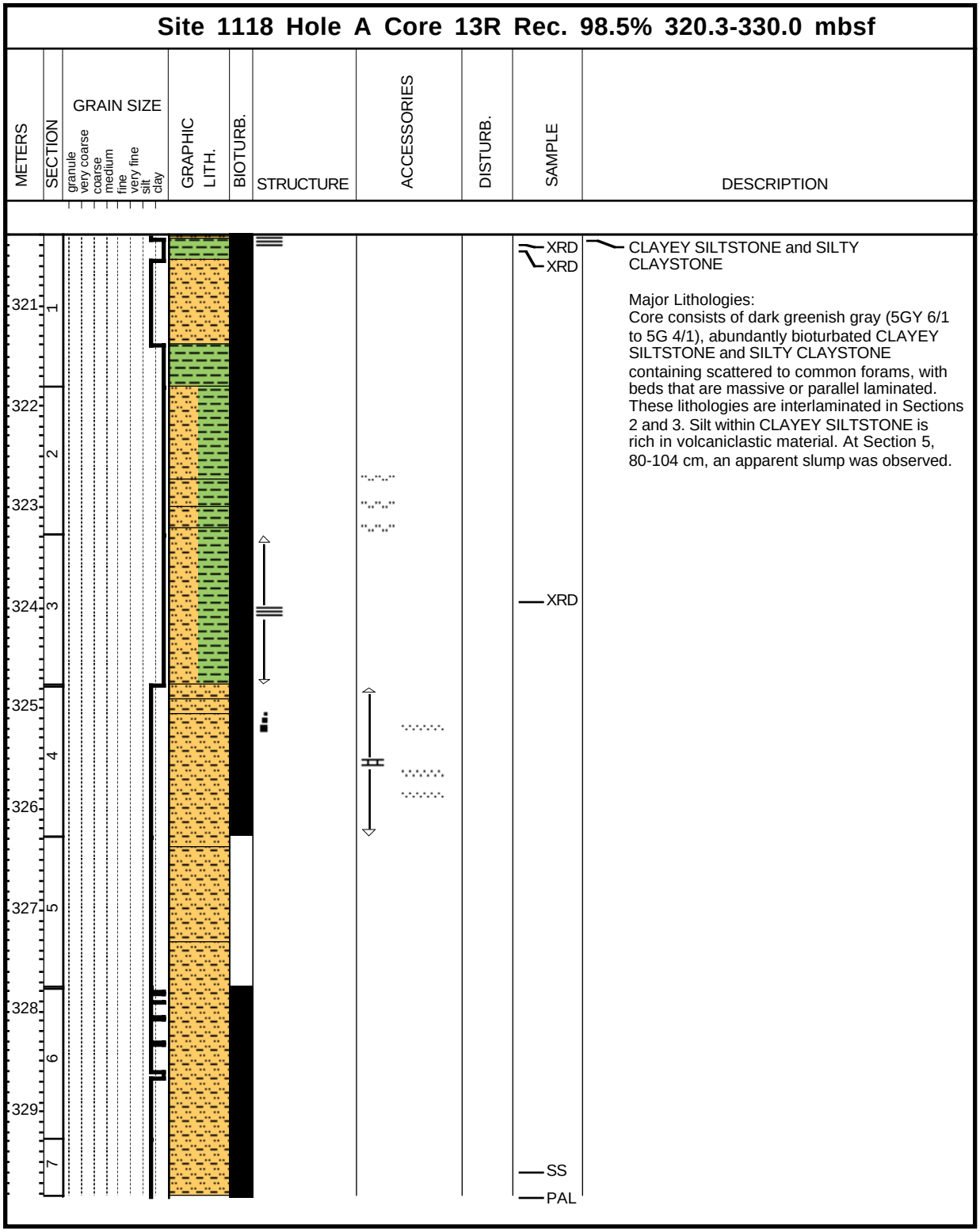
Core Photo


Site 1118 Hole A Core 11R Rec. 91.0% 301.0-310.7 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
302
303
304
305
306
307
308
309
1
2
3
4
5
6
7
8
XRD
SS
PAL
CLAYEY SILTSTONE
Major Lithologies:
Core is characterized by greenish gray (5GY 5/1) to brownish gray (5YR 4/1) CLAYEY SILTSTONE with abundant bioturbation and burrows filled with fine- to medium-grained sandstone. The entire core shows excellent traces of Zoophycos. In some parts fine laminae occur.

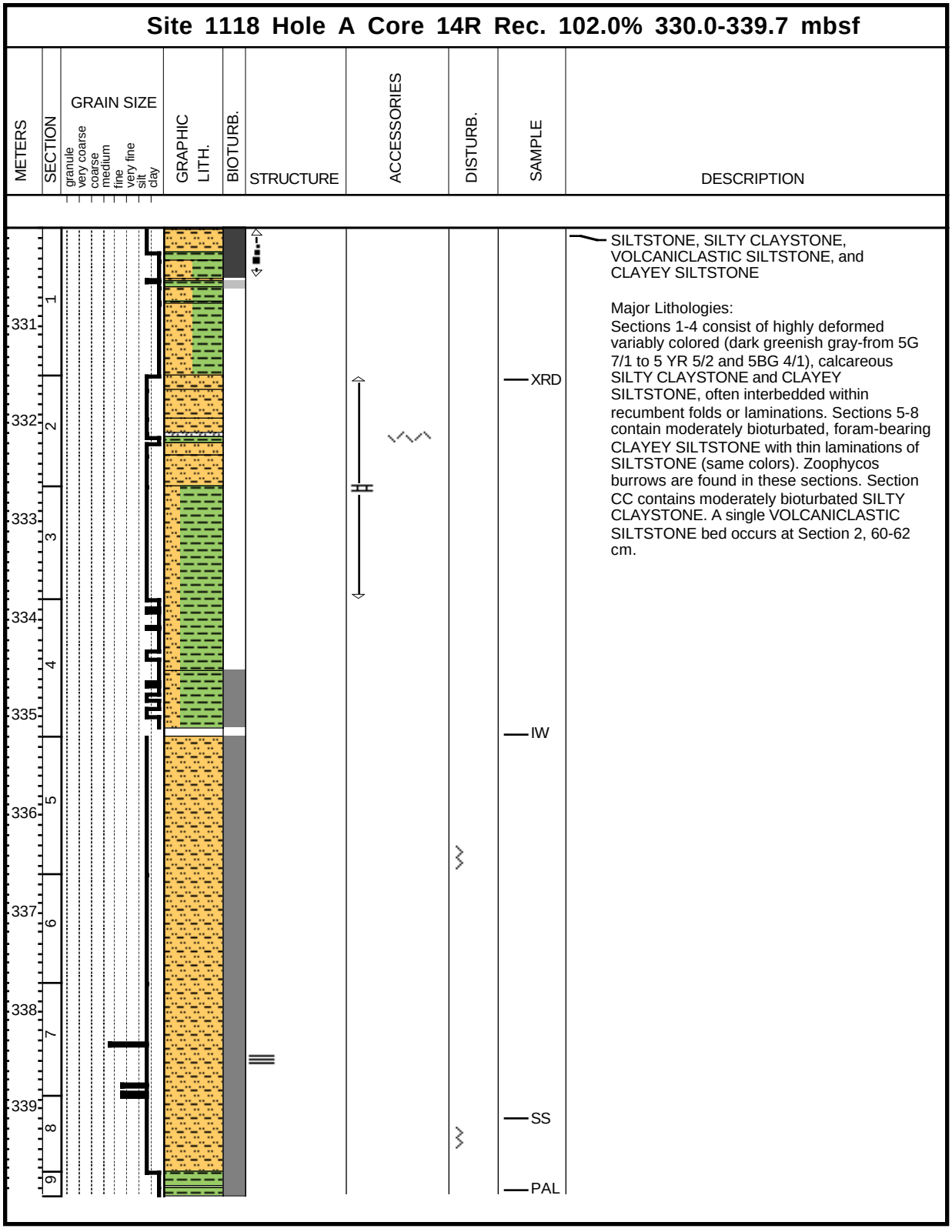
Core Photo


Site 1118 Hole A Core 12R Rec. 94.8% 310.7-320.3 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
311
312
313
314
315
316
317
318
319
1
2
3
4
5
6
7
8
IW
SS
SS
PAL
CLAYEY SILTSTONE, SILTSTONE, and VOLCANICLASTIC SILTSTONE
Major Lithologies:
Core consists of dark greenish gray (5YR 5/1-4/2), calcareous, commonly to abundantly bioturbated CLAYEY SILTSTONE and SILTSTONE containing scattered foraminifers, Chondrites, Zoophycos burrows and sand laminae. Normally-graded, parallel-laminated, and massive beds occur throughout.
VOLCANICLASTIC SILTSTONE occurs at Section 3, 34-36 cm.

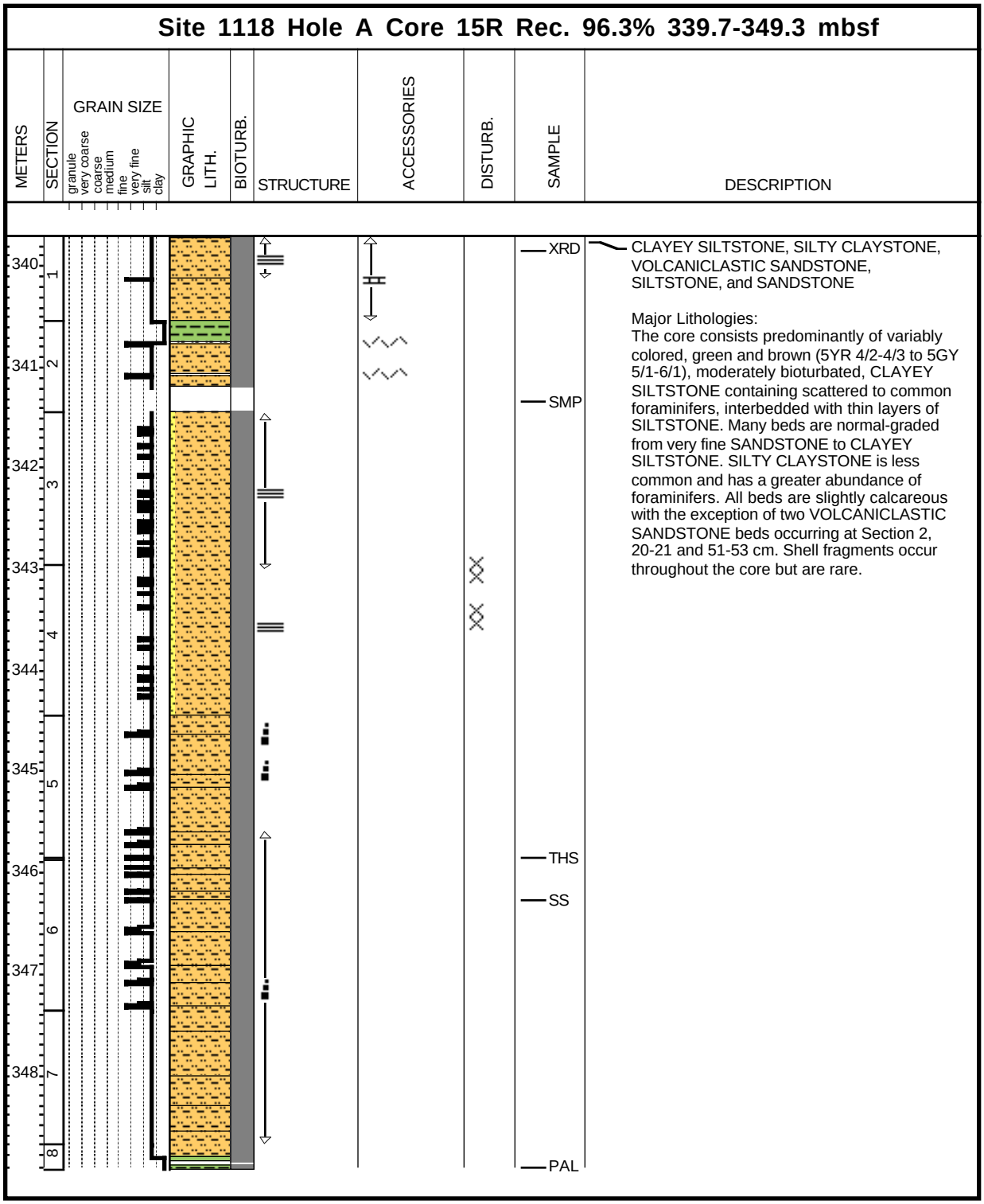
Core Photo


Site 1118 Hole A Core 13R Rec. 98.5% 320.3-330.0 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
321
322
323
324
325
326
327
328
329
1
2
3
4
5
6
7
XRD
XRD
XRD
SS
PAL
CLAYEY SILTSTONE and SILTY CLAYSTONE
Major Lithologies:
Core consists of dark greenish gray (5GY 6/1 to 5G 4/1), abundantly bioturbated CLAYEY SILTSTONE and SILTY CLAYSTONE containing scattered to common forams, with beds that are massive or parallel laminated. These lithologies are interlaminated in Sections 2 and 3. Silt within CLAYEY SILTSTONE is rich in volcaniclastic material. At Section 5, 80-104 cm, an apparent slump was observed.

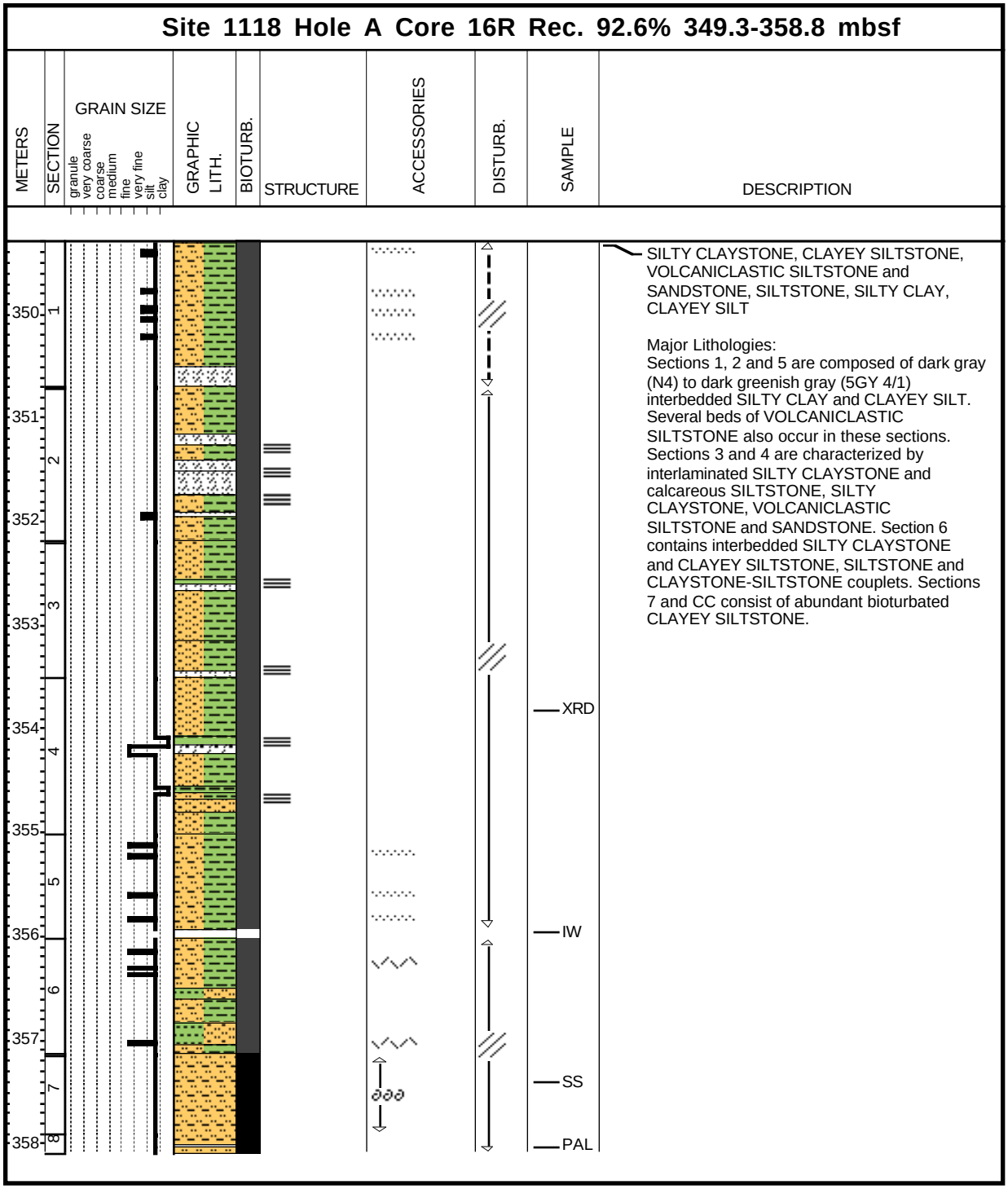
Core Photo


Site 1118 Hole A Core 14R Rec. 102.0% 330.0-339.7 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
331
332
333
334
335
336
337
338
339
1
2
3
4
5
6
7
8
9
XRD
IW
SS
PAL
SILTSTONE, SILTY CLAYSTONE, VOLCANICLASTIC SILTSTONE, and CLAYEY SILTSTONE
Major Lithologies:
Sections 1-4 consist of highly deformed variably colored (dark greenish gray-from 5G 7/1 to 5 YR 5/2 and 5BG 4/1), calcareous SILTY CLAYSTONE and CLAYEY SILTSTONE, often interbedded within recumbent folds or laminations. Sections 5-8 contain moderately bioturbated, foram-bearing CLAYEY SILTSTONE with thin laminations of SILTSTONE (same colors). Zoophycos burrows are found in these sections. Section CC contains moderately bioturbated SILTY CLAYSTONE. A single VOLCANICLASTIC SILTSTONE bed occurs at Section 2, 60-62 cm.

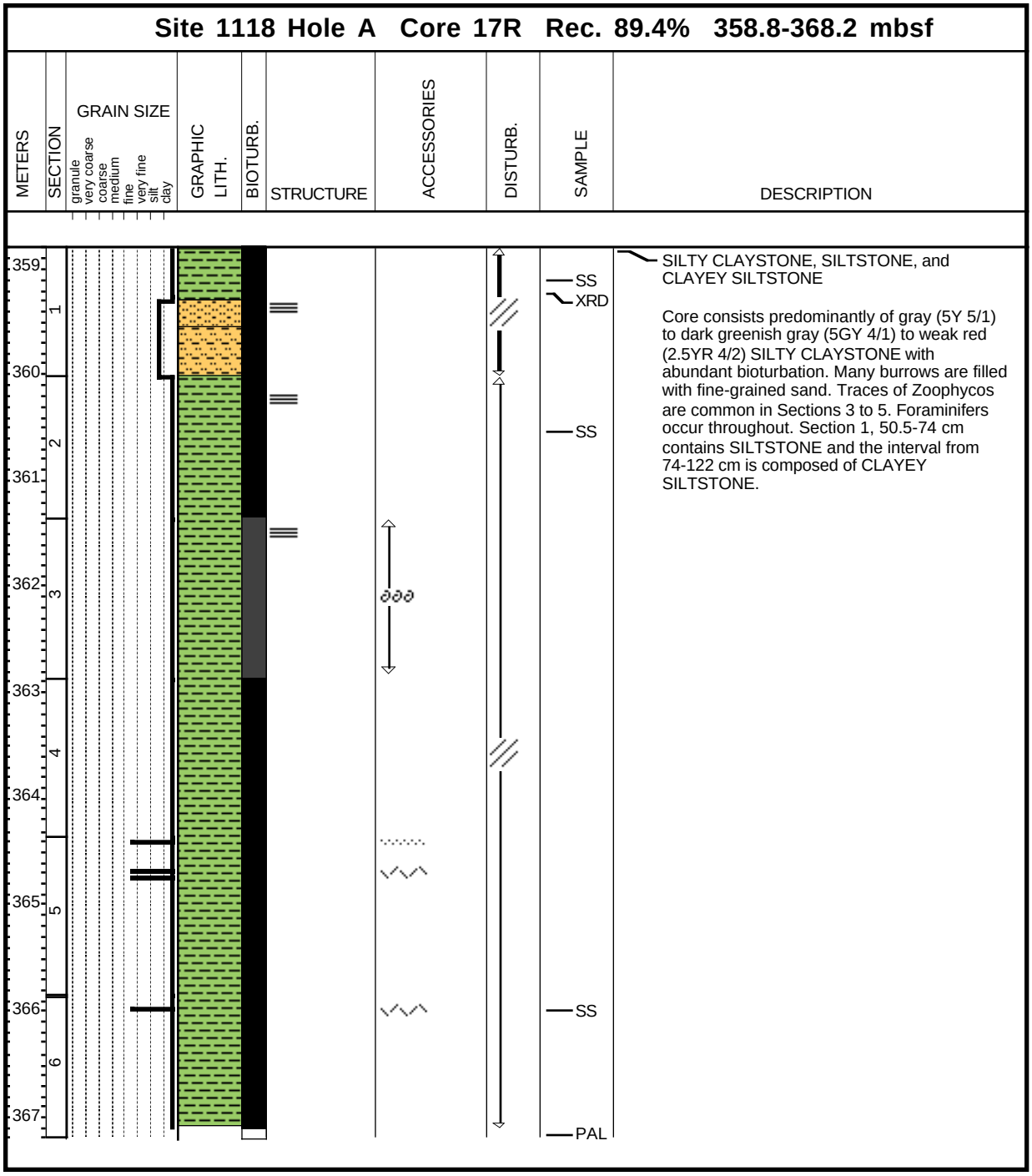
Core Photo


Site 1118 Hole A Core 15R Rec. 96.3% 339.7-349.3 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
340
341
342
343
344
345
346
347
348
1
2
3
4
5
6
7
8
XRD
SMP
THS
SS
PAL
CLAYEY SILTSTONE, SILTY CLAYSTONE, VOLCANICLASTIC SANDSTONE, SILTSTONE, and SANDSTONE
Major Lithologies:
The core consists predominantly of variably colored, green and brown (5YR 4/2-4/3 to 5GY 5/1-6/1), moderately bioturbated, CLAYEY SILTSTONE containing scattered to common foraminifers, interbedded with thin layers of SILTSTONE. Many beds are normal-graded from very fine SANDSTONE to CLAYEY SILTSTONE. SILTY CLAYSTONE is less common and has a greater abundance of foraminifers. All beds are slightly calcareous with the exception of two VOLCANICLASTIC SANDSTONE beds occurring at Section 2, 20-21 and 51-53 cm. Shell fragments occur throughout the core but are rare.

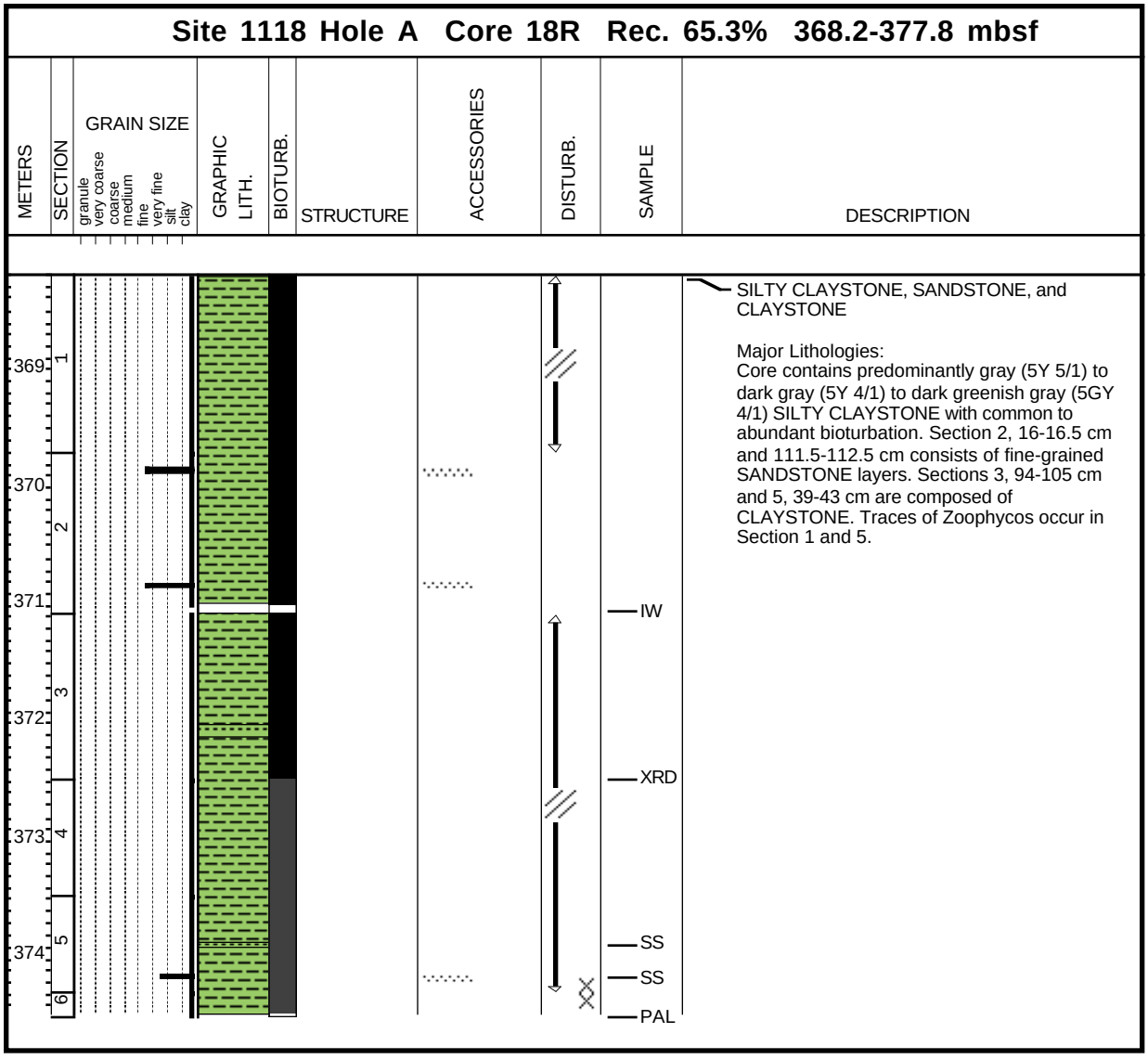
Core Photo


Site 1118 Hole A Core 16R Rec. 92.6% 349.3-358.8 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
350
351
352
353
354
355
356
357
358
1
2
3
4
5
6
7
CC
XRD
IW
SS
PAL
SILTY CLAYSTONE, CLAYEY SILTSTONE, VOLCANICLASTIC SILTSTONE and SANDSTONE, SILTSTONE, SILTY CLAY, CLAYEY SILT
Major Lithologies:
Sections 1, 2 and 5 are composed of dark gray (N4) to dark greenish gray (5GY 4/1) interbedded SILTY CLAY and CLAYEY SILT. Several beds of VOLCANICLASTIC SILTSTONE also occur in these sections. Sections 3 and 4 are characterized by interlaminated SILTY CLAYSTONE and calcareous SILTSTONE, SILTY CLAYSTONE, VOLCANICLASTIC SILTSTONE and SANDSTONE. Section 6 contains interbedded SILTY CLAYSTONE and CLAYEY SILTSTONE, SILTSTONE and CLAYSTONE-SILTSTONE couplets. Sections 7 and CC consist of abundant bioturbated CLAYEY SILTSTONE.

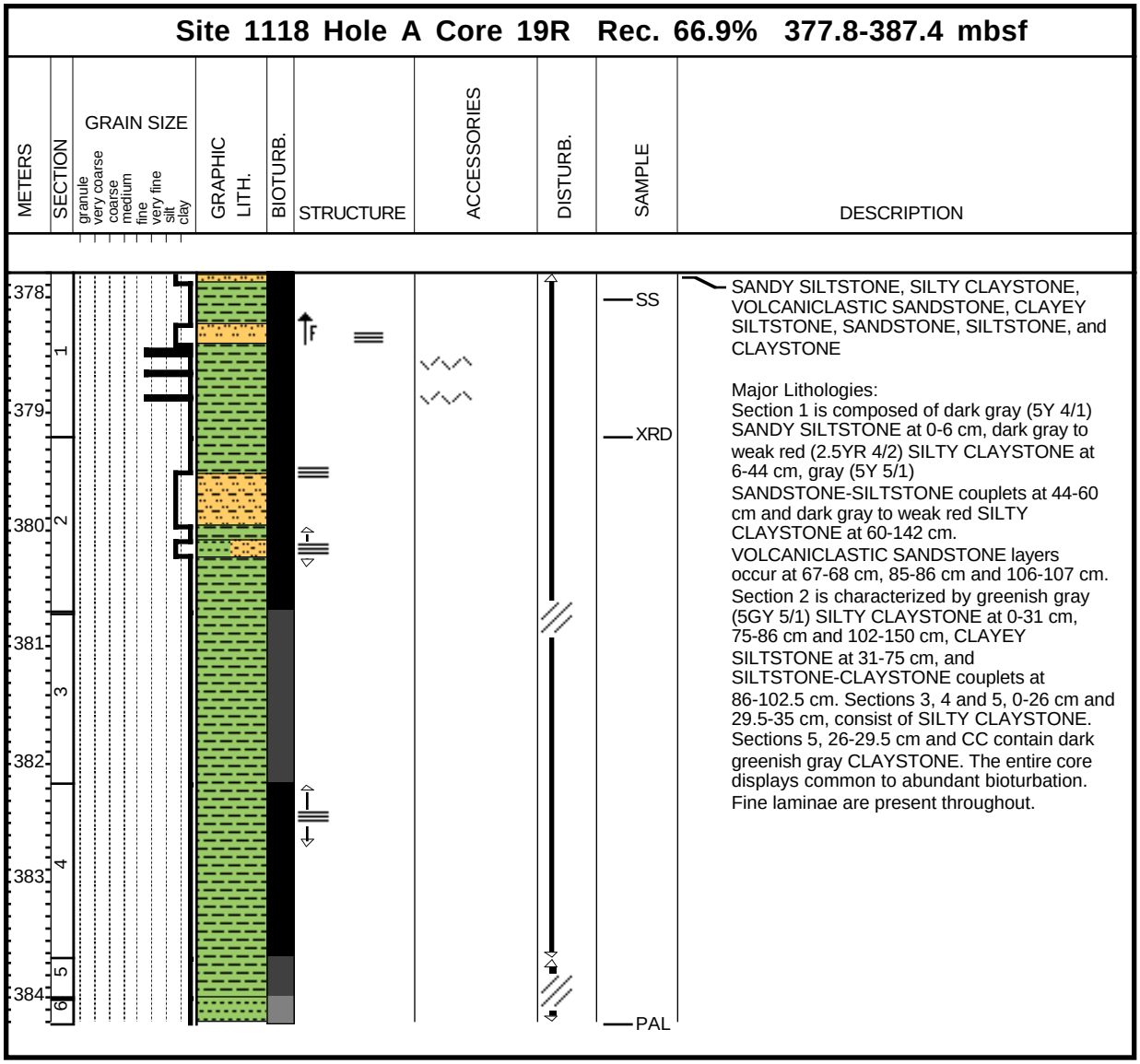
Core Photo


Site 1118 Hole A Core 17R Rec. 89.4% 358.8-368.2 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
359
360
361
362
363
364
365
366
367
1
2
3
4
5
6
SS
XRD
SS
SS
PAL
SILTY CLAYSTONE, SILTSTONE, and CLAYEY SILTSTONE
Core consists predominantly of gray (5Y 5/1) to dark greenish gray (5GY 4/1) to weak red (2.5YR 4/2) SILTY CLAYSTONE with abundant bioturbation. Many burrows are filled with fine-grained sand. Traces of Zoophycos are common in Sections 3 to 5. Foraminifers occur throughout. Section 1, 50.5-74 cm contains SILTSTONE and the interval from 74-122 cm is composed of CLAYEY SILTSTONE.

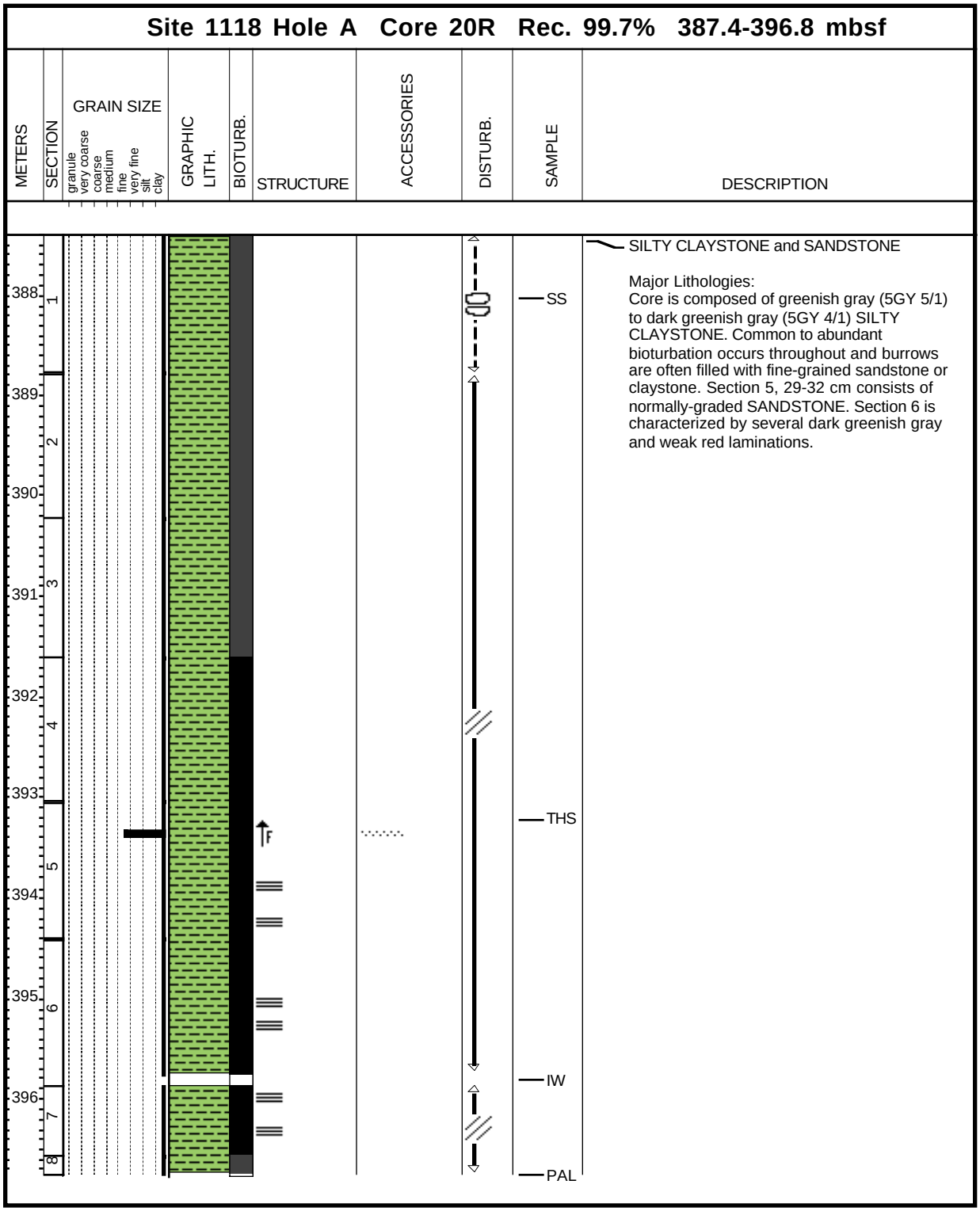
Core Photo


Site 1118 Hole A Core 18R Rec. 65.3% 368.2-377.8 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
369
370
371
372
373
374
1
2
3
4
5
6
IW
XRD
SS
SS
PAL
SILTY CLAYSTONE, SANDSTONE, and CLAYSTONE
Major Lithologies:
Core contains predominantly gray (5Y 5/1) to dark gray (5Y 4/1) to dark greenish gray (5GY 4/1) SILTY CLAYSTONE with common to abundant bioturbation. Section 2, 16-16.5 cm and 111.5-112.5 cm consists of fine-grained SANDSTONE layers. Sections 3, 94-105 cm and 5, 39-43 cm are composed of CLAYSTONE. Traces of Zoophycos occur in Section 1 and 5.

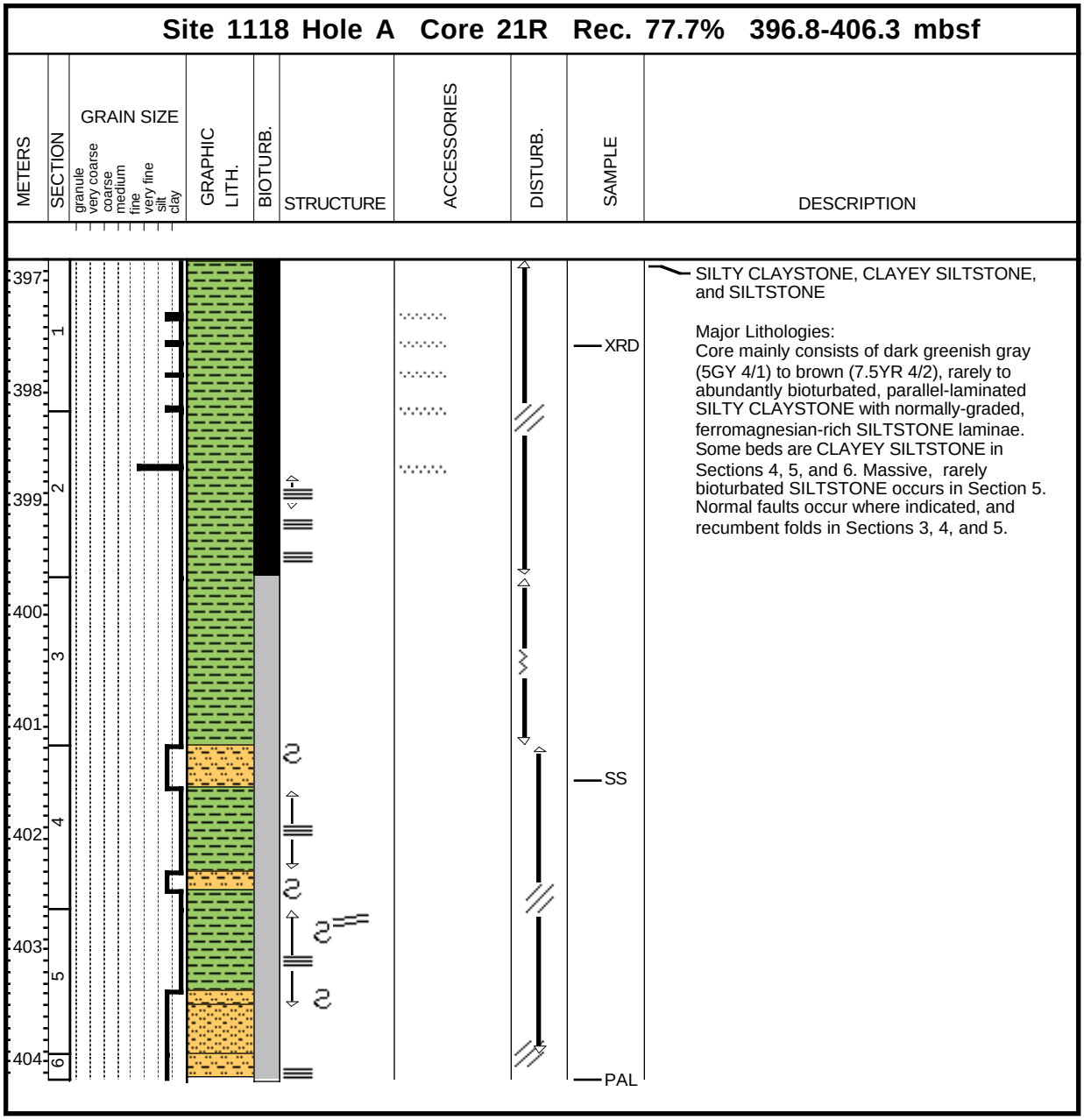
Core Photo


Site 1118 Hole A Core 19R Rec. 66.9% 377.8-387.4 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
378
379
380
381
382
383
384
1
2
3
4
5
6
F
SS
XRD
PAL
SANDY SILTSTONE, SILTY CLAYSTONE, VOLCANICLASTIC SANDSTONE, CLAYEY SILTSTONE, SANDSTONE, SILTSTONE, and CLAYSTONE
Major Lithologies:
Section 1 is composed of dark gray (5Y 4/1) SANDY SILTSTONE at 0-6 cm, dark gray to weak red (2.5YR 4/2) SILTY CLAYSTONE at 6-44 cm, gray (5Y 5/1) SANDSTONE-SILTSTONE couplets at 44-60 cm and dark gray to weak red SILTY CLAYSTONE at 60-142 cm. VOLCANICLASTIC SANDSTONE layers occur at 67-68 cm, 85-86 cm and 106-107 cm. Section 2 is characterized by greenish gray (5GY 5/1) SILTY CLAYSTONE at 0-31 cm, 75-86 cm and 102-150 cm, CLAYEY SILTSTONE at 31-75 cm, and SILTSTONE-CLAYSTONE couplets at 86-102.5 cm. Sections 3, 4 and 5, 0-26 cm and 29.5-35 cm, consist of SILTY CLAYSTONE. Sections 5, 26-29.5 cm and CC contain dark greenish gray CLAYSTONE. The entire core displays common to abundant bioturbation. Fine laminae are present throughout.

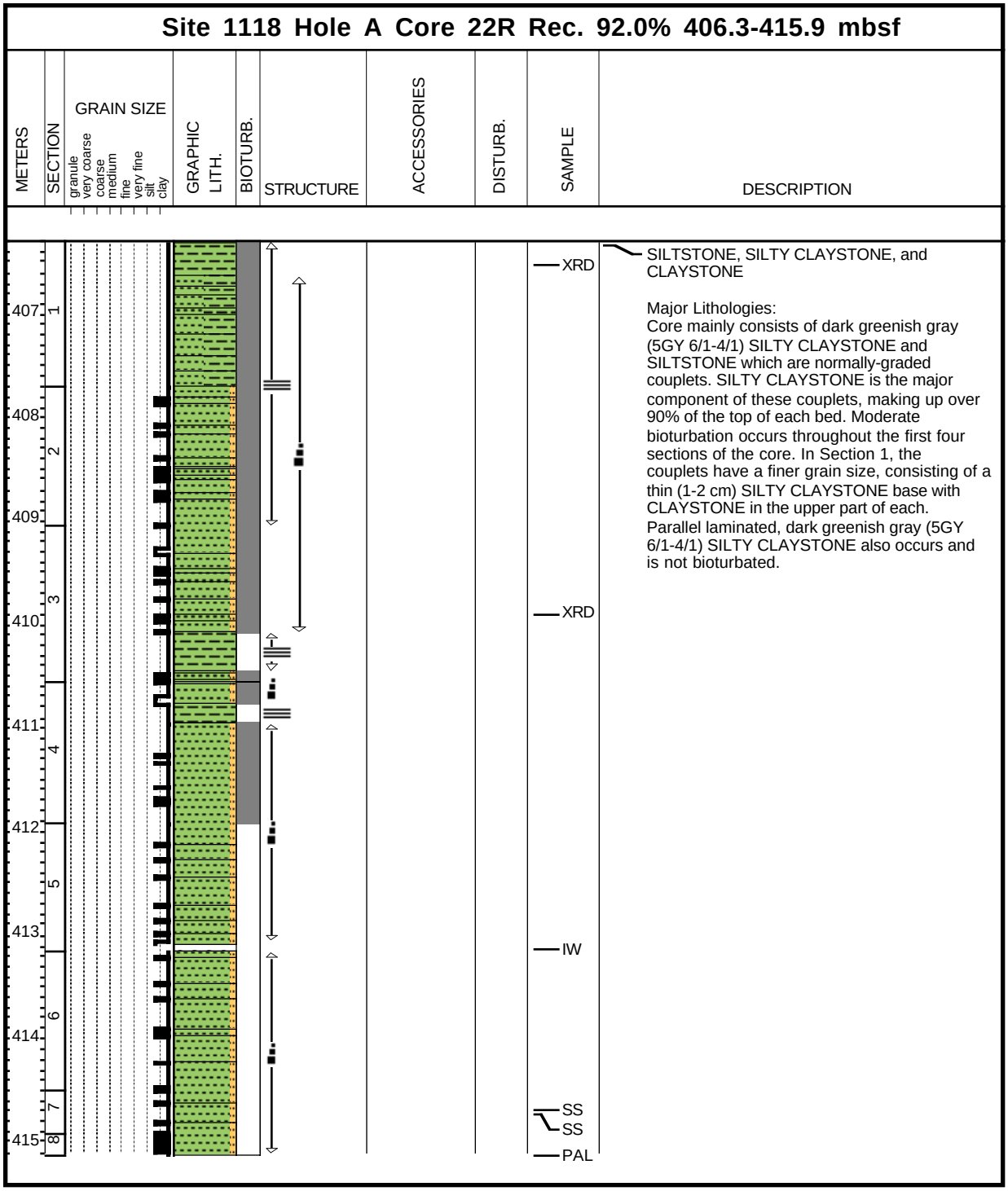
Core Photo


Site 1118 Hole A Core 20R Rec. 99.7% 387.4-396.8 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
388
389
390
391
392
393
394
395
396
1
2
3
4
5
6
7
8
F
SS
THS
IW
PAL
SILTY CLAYSTONE and SANDSTONE
Major Lithologies:
Core is composed of greenish gray (5GY 5/1) to dark greenish gray (5GY 4/1) SILTY CLAYSTONE. Common to abundant bioturbation occurs throughout and burrows are often filled with fine-grained sandstone or claystone. Section 5, 29-32 cm consists of normally-graded SANDSTONE. Section 6 is characterized by several dark greenish gray and weak red laminations.

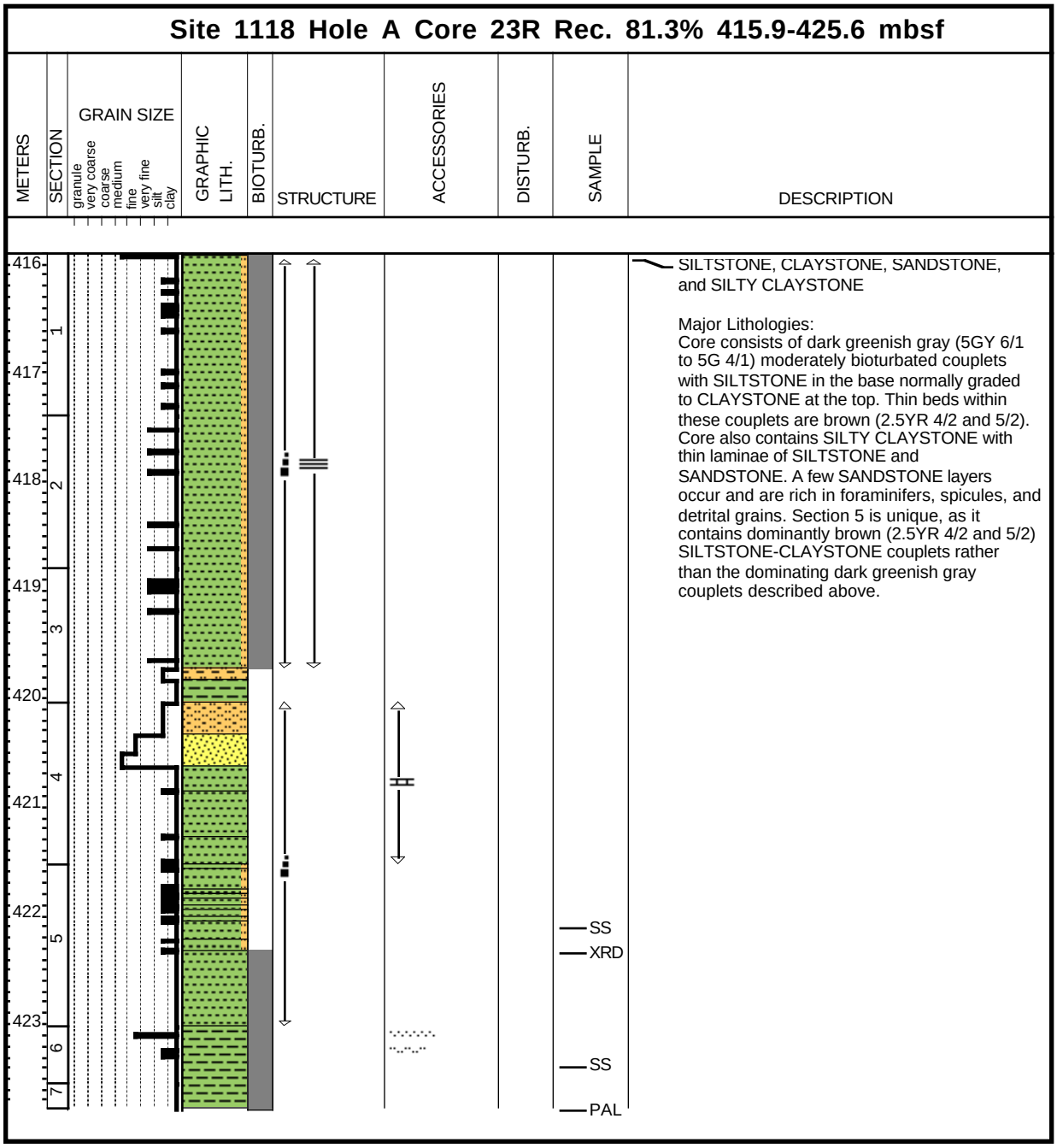
Core Photo


Site 1118 Hole A Core 21R Rec. 77.7% 396.8-406.3 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
397
398
399
400
401
402
403
404
1
2
3
4
5
6
XRD
SS
PAL
SILTY CLAYSTONE, CLAYEY SILTSTONE, and SILTSTONE
Major Lithologies:
Core mainly consists of dark greenish gray (5GY 4/1) to brown (7.5YR 4/2), rarely to abundantly bioturbated, parallel-laminated SILTY CLAYSTONE with normally-graded, ferromagnesian-rich SILTSTONE laminae. Some beds are CLAYEY SILTSTONE in Sections 4, 5, and 6. Massive, rarely bioturbated SILTSTONE occurs in Section 5. Normal faults occur where indicated, and recumbent folds in Sections 3, 4, and 5.

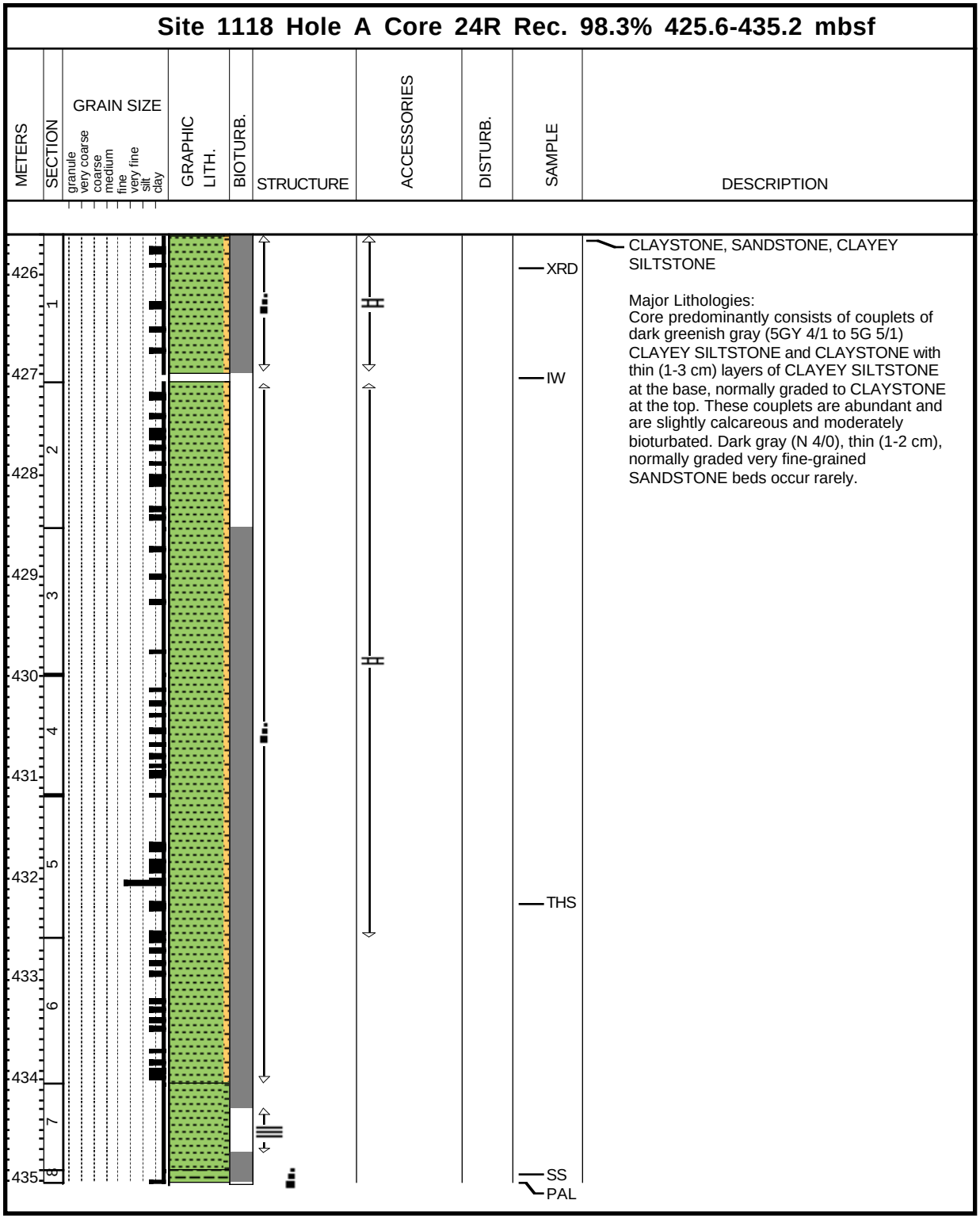
Core Photo


Site 1118 Hole A Core 22R Rec. 92.0% 406.3-415.9 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
407
408
409
410
411
412
413
414
415
1
2
3
4
5
6
7
8
XRD
XRD
IW
SS
SS
PAL
SILTSTONE, SILTY CLAYSTONE, and CLAYSTONE
Major Lithologies:
Core mainly consists of dark greenish gray (5GY 6/1-4/1) SILTY CLAYSTONE and SILTSTONE which are normally-graded couplets. SILTY CLAYSTONE is the major component of these couplets, making up over 90% of the top of each bed. Moderate bioturbation occurs throughout the first four sections of the core. In Section 1, the couplets have a finer grain size, consisting of a thin (1-2 cm) SILTY CLAYSTONE base with CLAYSTONE in the upper part of each. Parallel laminated, dark greenish gray (5GY 6/1-4/1) SILTY CLAYSTONE also occurs and is not bioturbated.

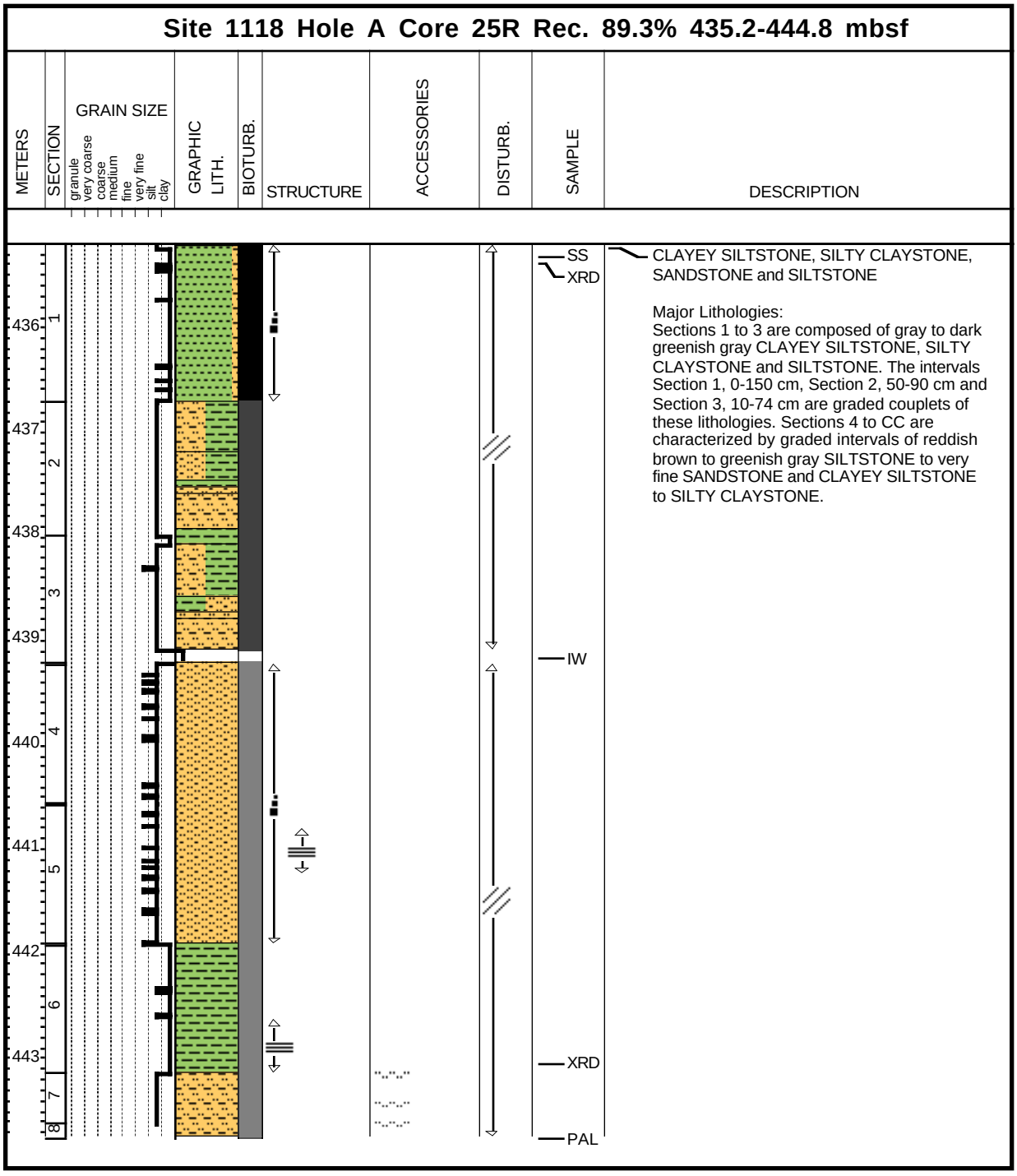
Core Photo


Site 1118 Hole A Core 23R Rec. 81.3% 415.9-425.6 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
416
417
418
419
420
421
422
423
1
2
3
4
5
6
7
SS
XRD
SS
PAL
SILTSTONE, CLAYSTONE, SANDSTONE, and SILTY CLAYSTONE
Major Lithologies:
Core consists of dark greenish gray (5GY 6/1 to 5G 4/1) moderately bioturbated couplets with SILTSTONE in the base normally graded to CLAYSTONE at the top. Thin beds within these couplets are brown (2.5YR 4/2 and 5/2). Core also contains SILTY CLAYSTONE with thin laminae of SILTSTONE and SANDSTONE. A few SANDSTONE layers occur and are rich in foraminifers, spicules, and detrital grains. Section 5 is unique, as it contains dominantly brown (2.5YR 4/2 and 5/2) SILTSTONE-CLAYSTONE couplets rather than the dominating dark greenish gray couplets described above.

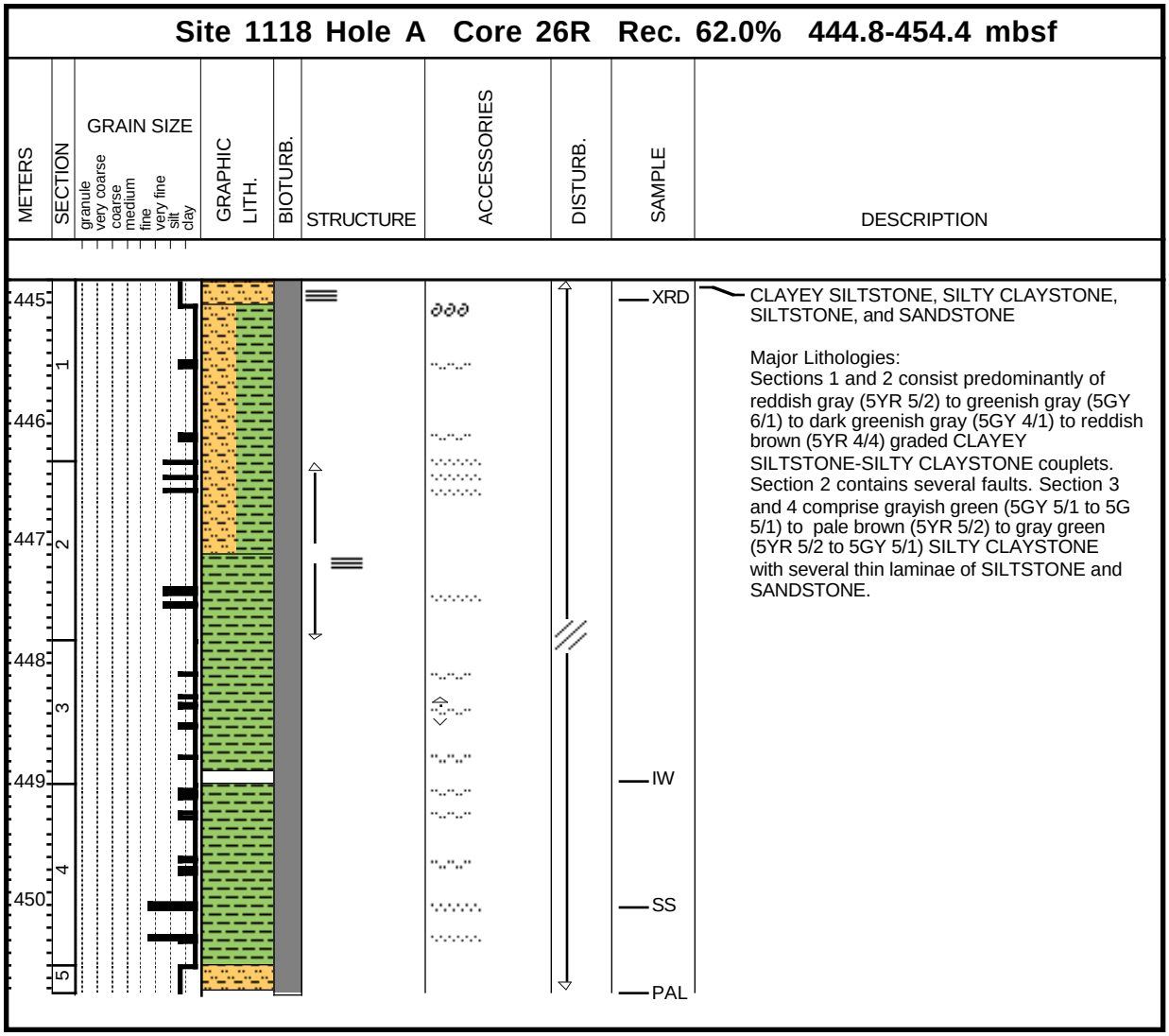
Core Photo


Site 1118 Hole A Core 24R Rec. 98.3% 425.6-435.2 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
426
427
428
429
430
431
432
433
434
435
1
2
3
4
5
6
7
8
XRD
IW
THS
SS
PAL
CLAYSTONE, SANDSTONE, CLAYEY SILTSTONE
Major Lithologies:
Core predominantly consists of couplets of dark greenish gray (5GY 4/1 to 5G 5/1) CLAYEY SILTSTONE and CLAYSTONE with thin (1-3 cm) layers of CLAYEY SILTSTONE at the base, normally graded to CLAYSTONE at the top. These couplets are abundant and are slightly calcareous and moderately bioturbated. Dark gray (N 4/0), thin (1-2 cm), normally graded very fine-grained SANDSTONE beds occur rarely.

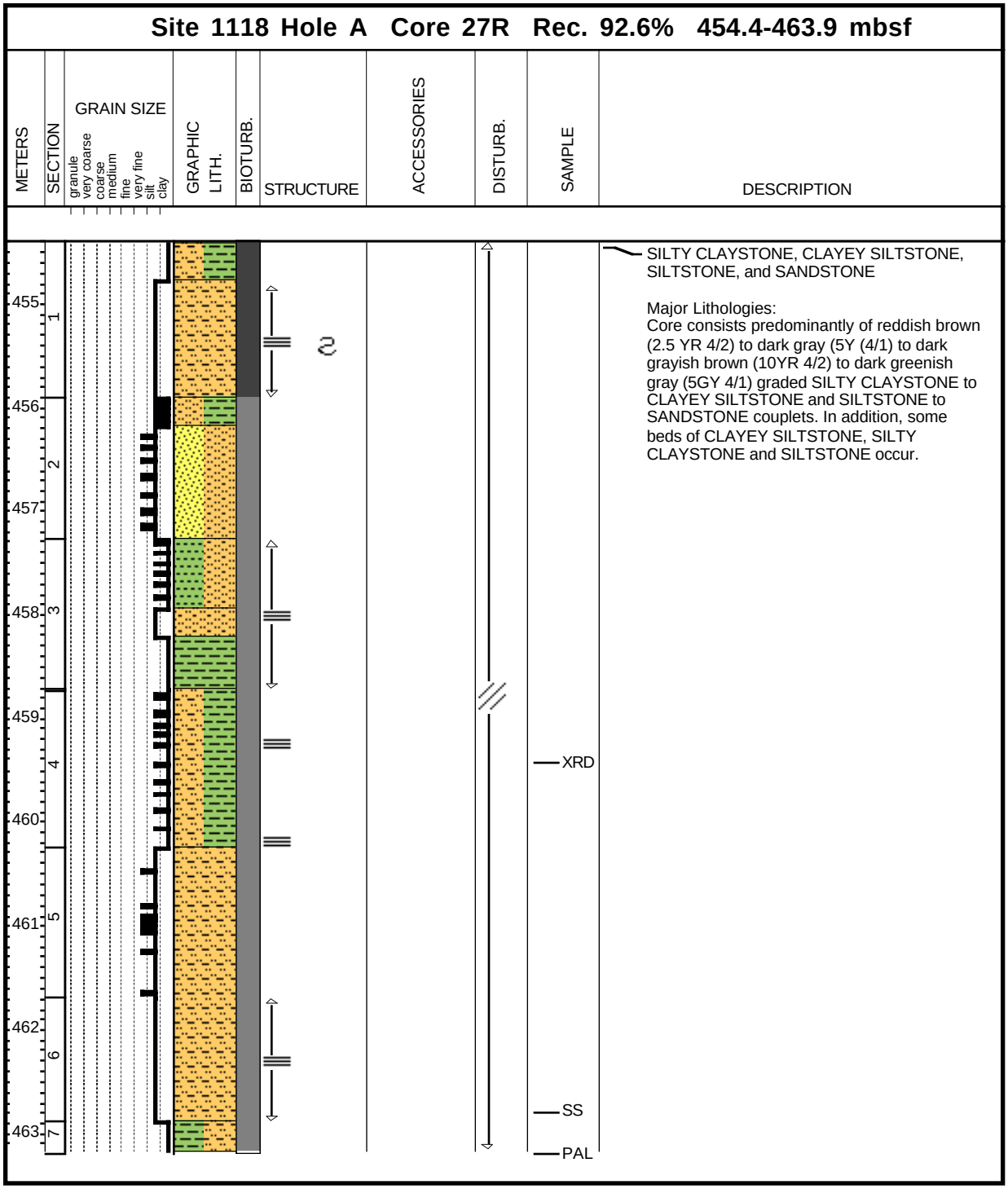
Core Photo


Site 1118 Hole A Core 25R Rec. 89.3% 435.2-444.8 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
436
437
438
439
440
441
442
443
1
2
3
4
5
6
7
8
SS
XRD
IW
XRD
PAL
CLAYEY SILTSTONE, SILTY CLAYSTONE, SANDSTONE and SILTSTONE
Major Lithologies:
Sections 1 to 3 are composed of gray to dark greenish gray CLAYEY SILTSTONE, SILTY CLAYSTONE and SILTSTONE. The intervals Section 1, 0-150 cm, Section 2, 50-90 cm and Section 3, 10-74 cm are graded couplets of these lithologies. Sections 4 to CC are characterized by graded intervals of reddish brown to greenish gray SILTSTONE to very fine SANDSTONE and CLAYEY SILTSTONE to SILTY CLAYSTONE.

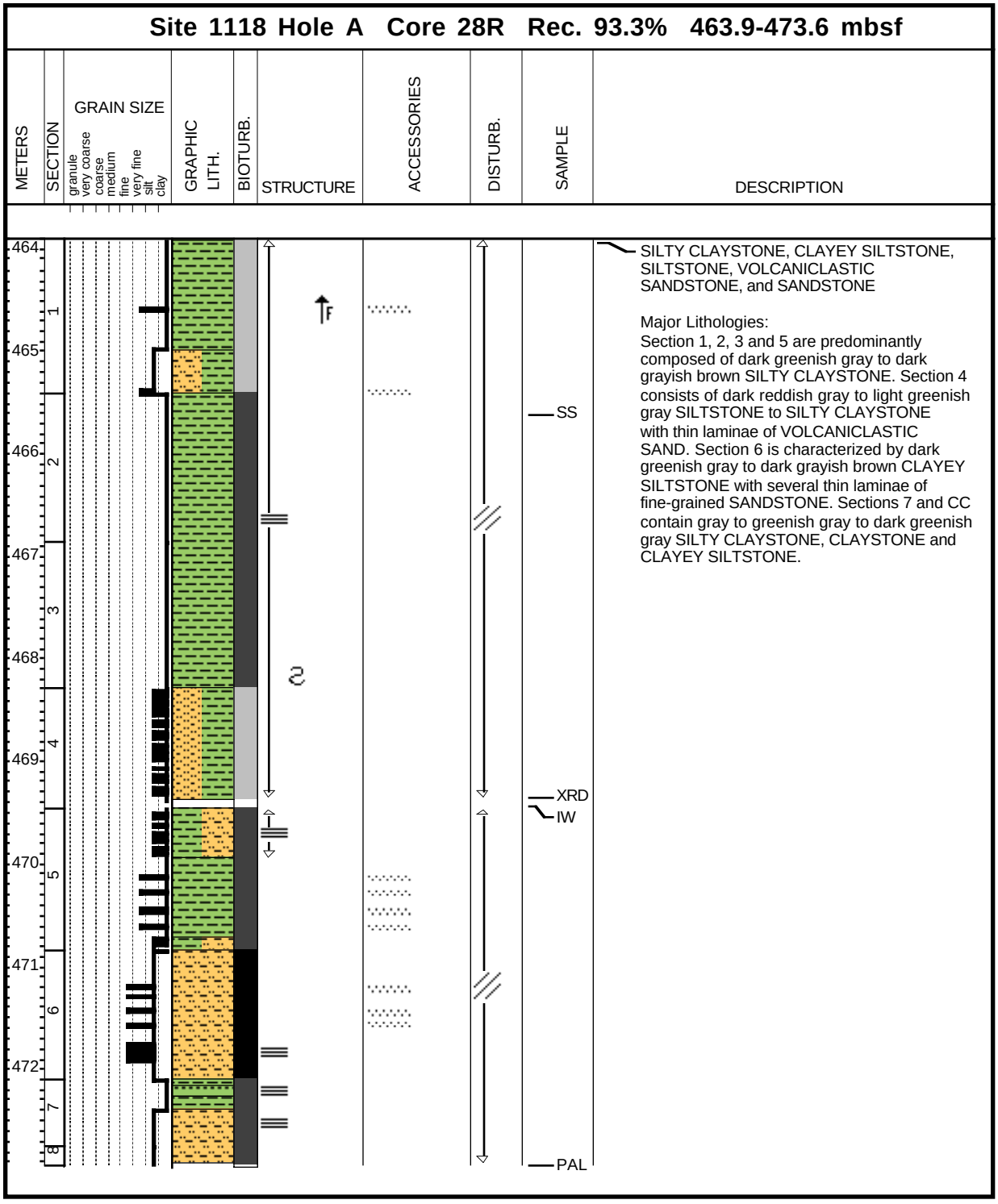
Core Photo


Site 1118 Hole A Core 26R Rec. 62.0% 444.8-454.4 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
445
446
447
448
449
450
1
2
3
4
5
XRD
IW
SS
PAL
CLAYEY SILTSTONE, SILTY CLAYSTONE, SILTSTONE, and SANDSTONE
Major Lithologies:
Sections 1 and 2 consist predominantly of reddish gray (5YR 5/2) to greenish gray (5GY 6/1) to dark greenish gray (5GY 4/1) to reddish brown (5YR 4/4) graded CLAYEY SILTSTONE-SILTY CLAYSTONE couplets. Section 2 contains several faults. Section 3 and 4 comprise grayish green (5GY 5/1 to 5G 5/1) to pale brown (5YR 5/2) to gray green (5YR 5/2 to 5GY 5/1) SILTY CLAYSTONE with several thin laminae of SILTSTONE and SANDSTONE.

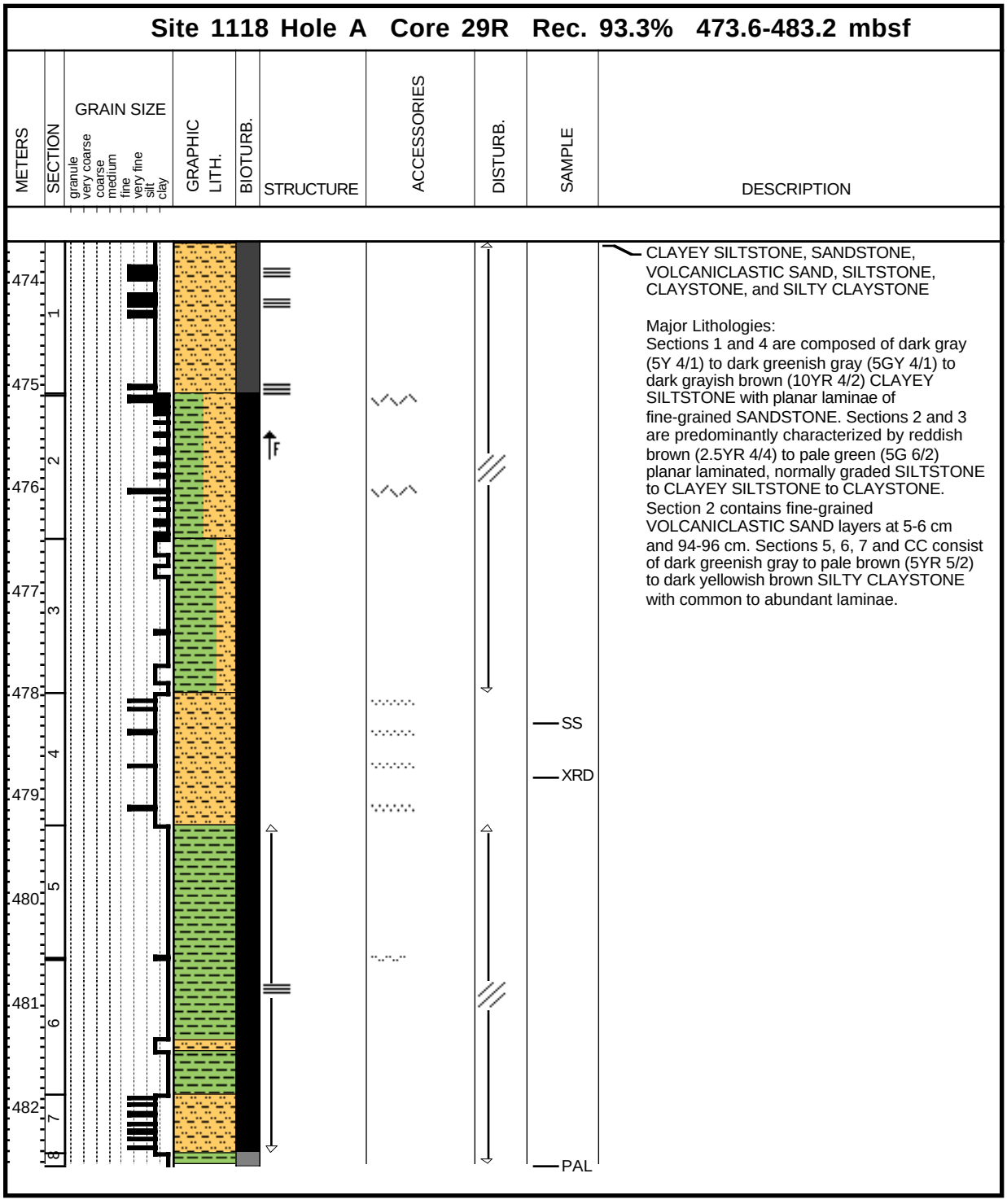
Core Photo


Site 1118 Hole A Core 27R Rec. 92.6% 454.4-463.9 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
455
456
457
458
459
460
461
462
463
1
2
3
4
5
6
7
XRD
SS
PAL
SILTY CLAYSTONE, CLAYEY SILTSTONE, SILTSTONE, and SANDSTONE
Major Lithologies:
Core consists predominantly of reddish brown (2.5 YR 4/2) to dark gray (5Y (4/1) to dark grayish brown (10YR 4/2) to dark greenish gray (5GY 4/1) graded SILTY CLAYSTONE to CLAYEY SILTSTONE and SILTSTONE to SANDSTONE couplets. In addition, some beds of CLAYEY SILTSTONE, SILTY CLAYSTONE and SILTSTONE occur.

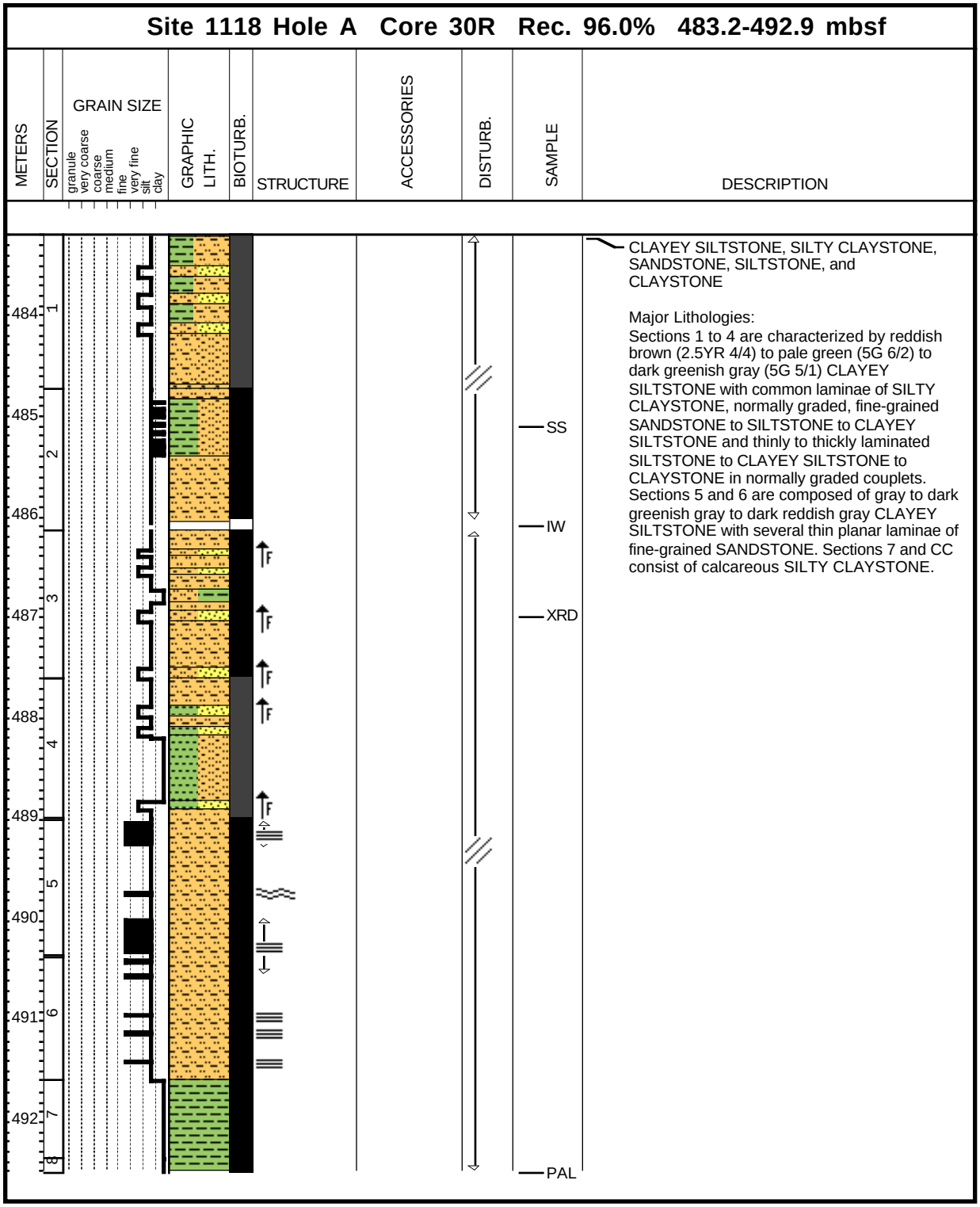
Core Photo


Site 1118 Hole A Core 28R Rec. 93.3% 463.9-473.6 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
464
465
466
467
468
469
470
471
472
1
2
3
4
5
6
7
CC
F
SS
XRD
IW
PAL
SILTY CLAYSTONE, CLAYEY SILTSTONE, SILTSTONE, VOLCANICLASTIC SANDSTONE, and SANDSTONE
Major Lithologies:
Section 1, 2, 3 and 5 are predominantly composed of dark greenish gray to dark grayish brown SILTY CLAYSTONE. Section 4 consists of dark reddish gray to light greenish gray SILTSTONE to SILTY CLAYSTONE with thin laminae of VOLCANICLASTIC SAND. Section 6 is characterized by dark greenish gray to dark grayish brown CLAYEY SILTSTONE with several thin laminae of fine-grained SANDSTONE. Sections 7 and CC contain gray to greenish gray to dark greenish gray SILTY CLAYSTONE, CLAYSTONE and CLAYEY SILTSTONE.

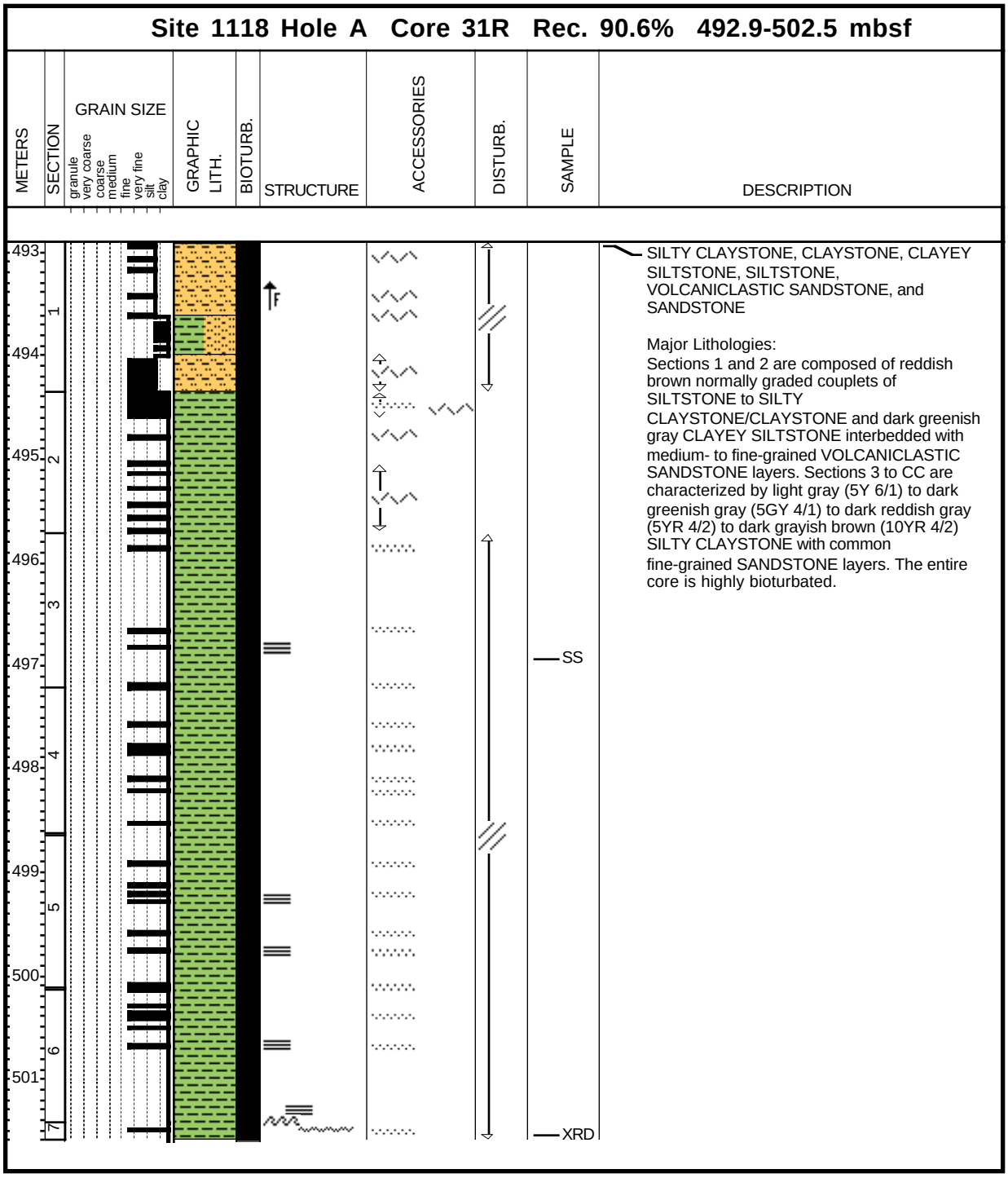
Core Photo


Site 1118 Hole A Core 29R Rec. 93.3% 473.6-483.2 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
474
475
476
477
478
479
480
481
482
1
2
3
4
5
6
7
CC
F
SS
XRD
PAL
CLAYEY SILTSTONE, SANDSTONE, VOLCANICLASTIC SAND, SILTSTONE, CLAYSTONE, and SILTY CLAYSTONE
Major Lithologies:
Sections 1 and 4 are composed of dark gray (5Y 4/1) to dark greenish gray (5GY 4/1) to dark grayish brown (10YR 4/2) CLAYEY SILTSTONE with planar laminae of fine-grained SANDSTONE. Sections 2 and 3 are predominantly characterized by reddish brown (2.5YR 4/4) to pale green (5G 6/2) planar laminated, normally graded SILTSTONE to CLAYEY SILTSTONE to CLAYSTONE. Section 2 contains fine-grained VOLCANICLASTIC SAND layers at 5-6 cm and 94-96 cm. Sections 5, 6, 7 and CC consist of dark greenish gray to pale brown (5YR 5/2) to dark yellowish brown SILTY CLAYSTONE with common to abundant laminae.

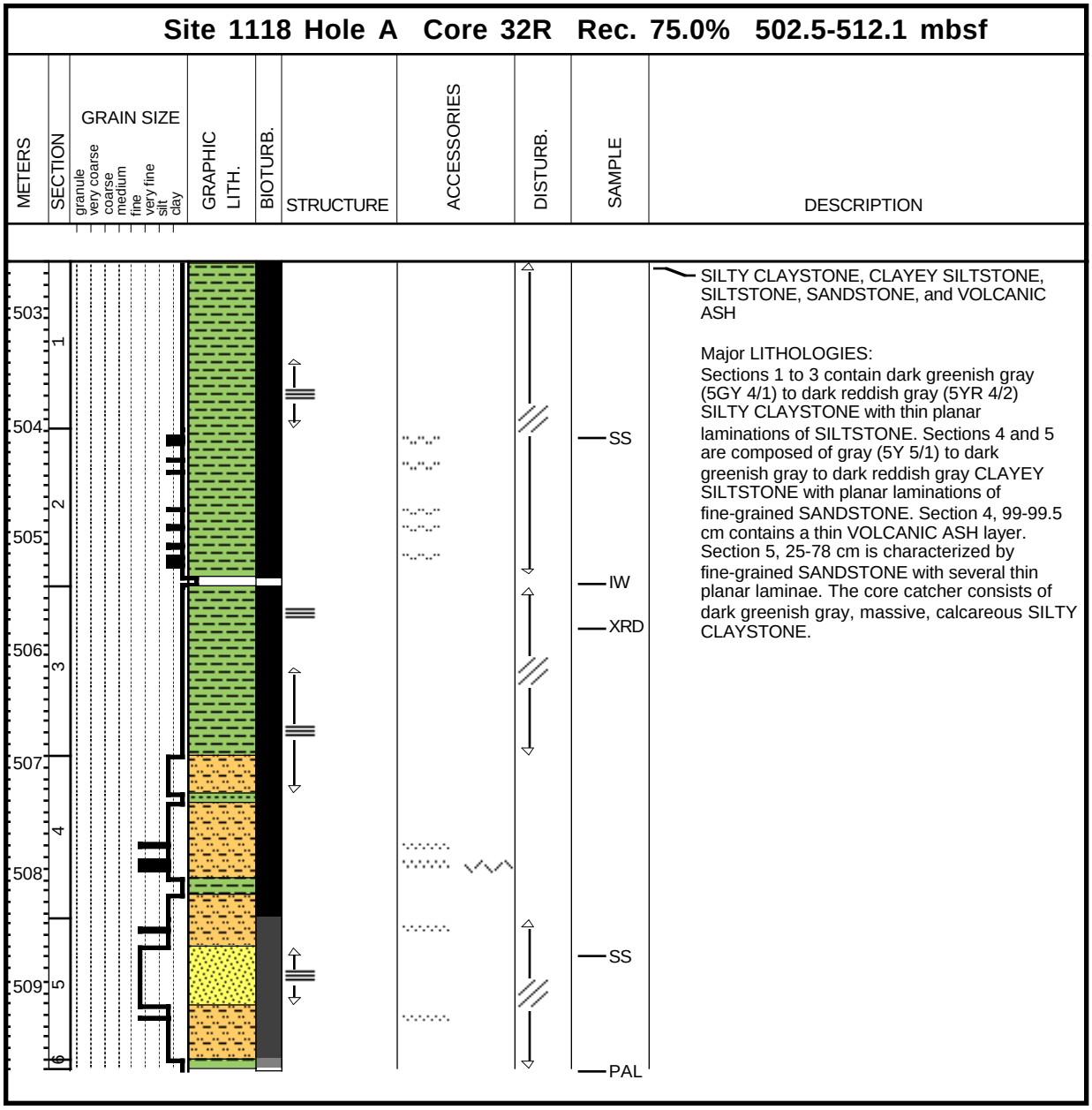
Core Photo


Site 1118 Hole A Core 30R Rec. 96.0% 483.2-492.9 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
484
485
486
487
488
489
490
491
492
1
2
3
4
5
6
7
8
SS
IW
XRD
PAL
CLAYEY SILTSTONE, SILTY CLAYSTONE, SANDSTONE, SILTSTONE, and CLAYSTONE
Major Lithologies:
Sections 1 to 4 are characterized by reddish brown (2.5YR 4/4) to pale green (5G 6/2) to dark greenish gray (5G 5/1) CLAYEY SILTSTONE with common laminae of SILTY CLAYSTONE, normally graded, fine-grained SANDSTONE to SILTSTONE to CLAYEY SILTSTONE and thinly to thickly laminated SILTSTONE to CLAYEY SILTSTONE to CLAYSTONE in normally graded couplets. Sections 5 and 6 are composed of gray to dark greenish gray to dark reddish gray CLAYEY SILTSTONE with several thin planar laminae of fine-grained SANDSTONE. Sections 7 and CC consist of calcareous SILTY CLAYSTONE.

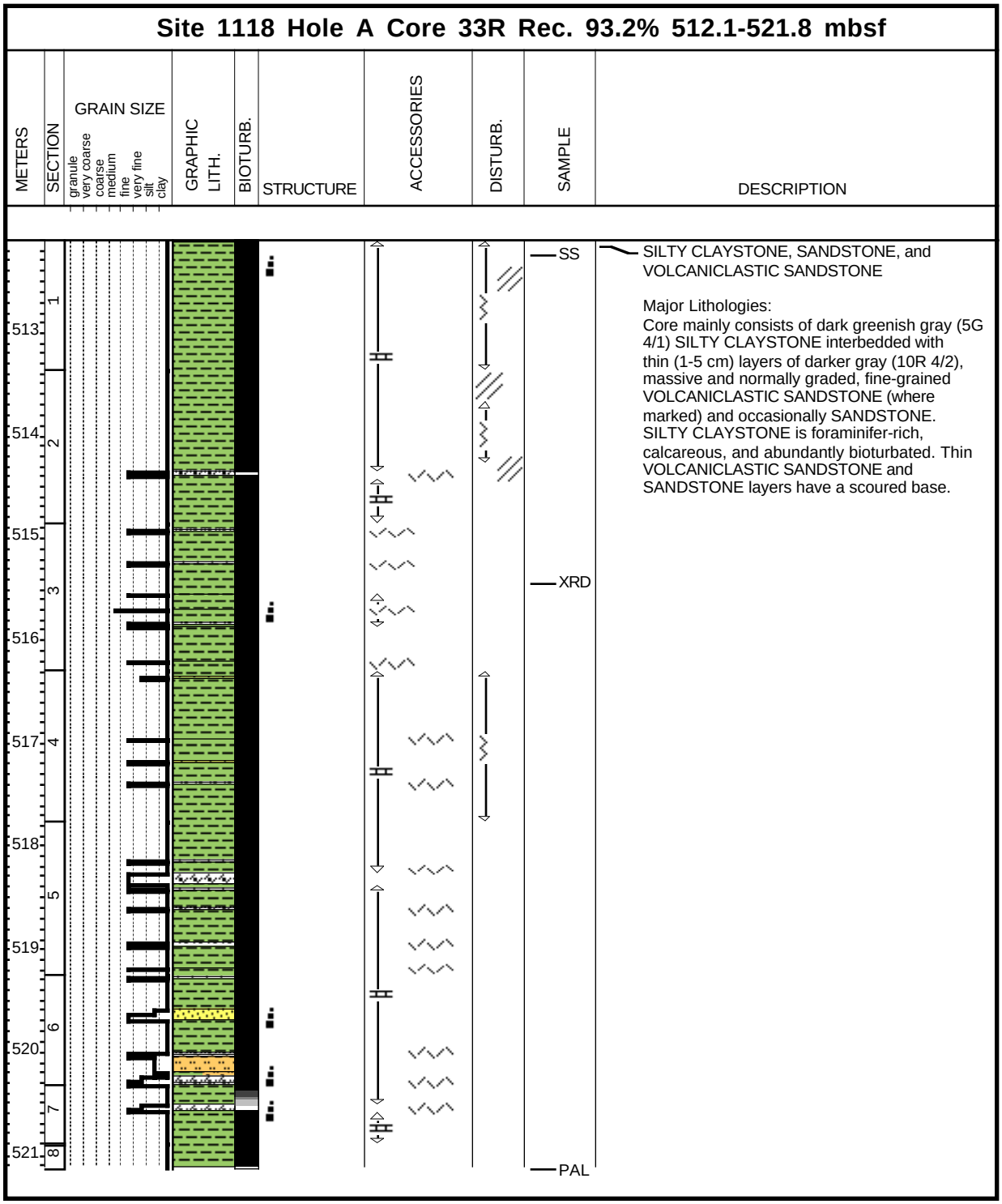
Core Photo


Site 1118 Hole A Core 31R Rec. 90.6% 492.9-502.5 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
493
494
495
496
497
498
499
500
501
1
2
3
4
5
6
7
SS
XRD
SILTY CLAYSTONE, CLAYSTONE, CLAYEY SILTSTONE, SILTSTONE, VOLCANICLASTIC SANDSTONE, and SANDSTONE
Major Lithologies:
Sections 1 and 2 are composed of reddish brown normally graded couplets of SILTSTONE to SILTY CLAYSTONE/CLAYSTONE and dark greenish gray CLAYEY SILTSTONE interbedded with medium- to fine-grained VOLCANICLASTIC SANDSTONE layers. Sections 3 to CC are characterized by light gray (5Y 6/1) to dark greenish gray (5GY 4/1) to dark reddish gray (5YR 4/2) to dark grayish brown (10YR 4/2) SILTY CLAYSTONE with common fine-grained SANDSTONE layers. The entire core is highly bioturbated.

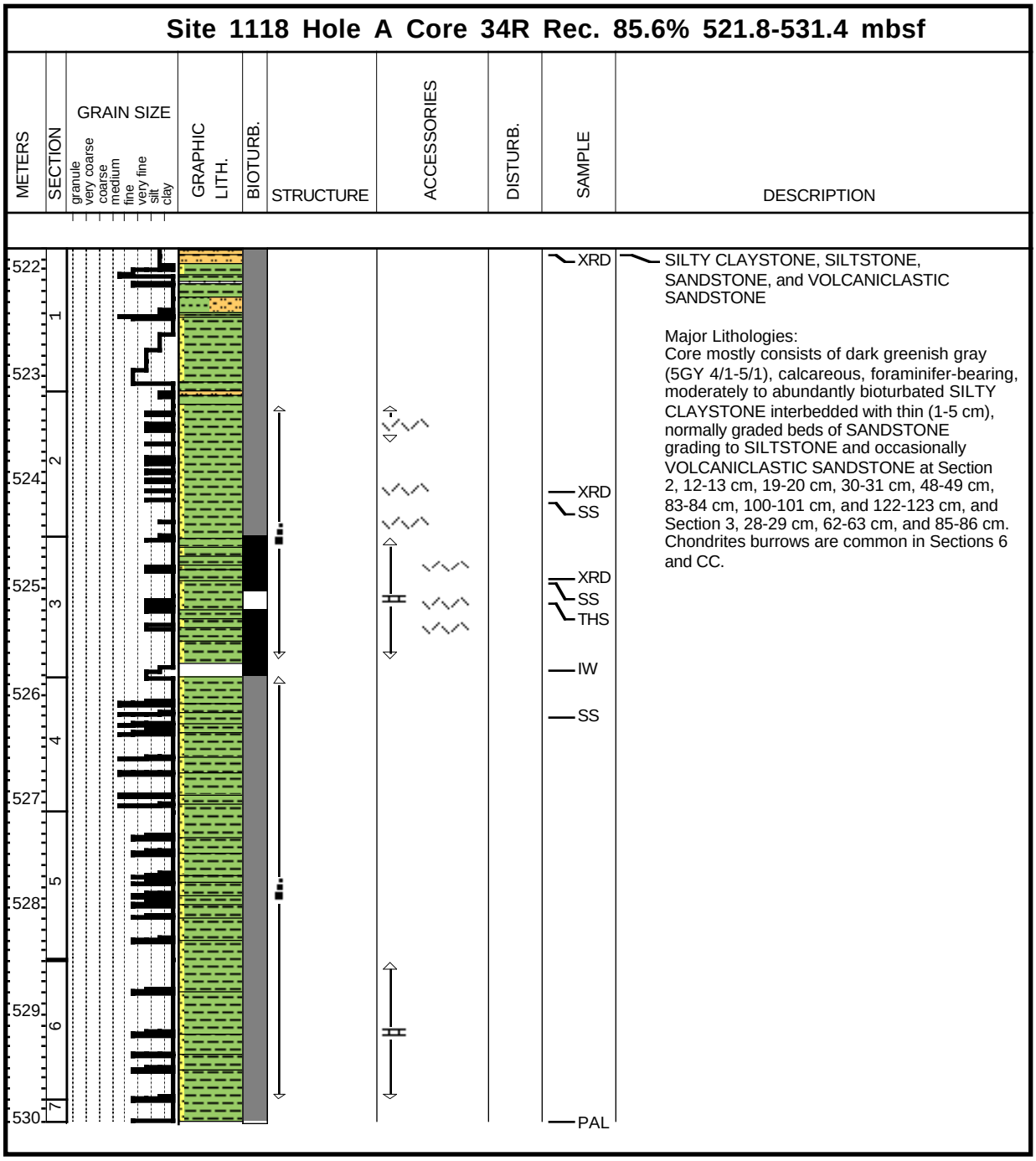
Core Photo


Site 1118 Hole A Core 32R Rec. 75.0% 502.5-512.1 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
503
504
505
506
507
508
509
1
2
3
4
5
6
SS
IW
XRD
SS
PAL
SILTY CLAYSTONE, CLAYEY SILTSTONE, SILTSTONE, SANDSTONE, and VOLCANIC ASH
Major LITHOLOGIES:
Sections 1 to 3 contain dark greenish gray (5GY 4/1) to dark reddish gray (5YR 4/2) SILTY CLAYSTONE with thin planar laminations of SILTSTONE. Sections 4 and 5 are composed of gray (5Y 5/1) to dark greenish gray to dark reddish gray CLAYEY SILTSTONE with planar laminations of fine-grained SANDSTONE. Section 4, 99-99.5 cm contains a thin VOLCANIC ASH layer. Section 5, 25-78 cm is characterized by fine-grained SANDSTONE with several thin planar laminae. The core catcher consists of dark greenish gray, massive, calcareous SILTY CLAYSTONE.

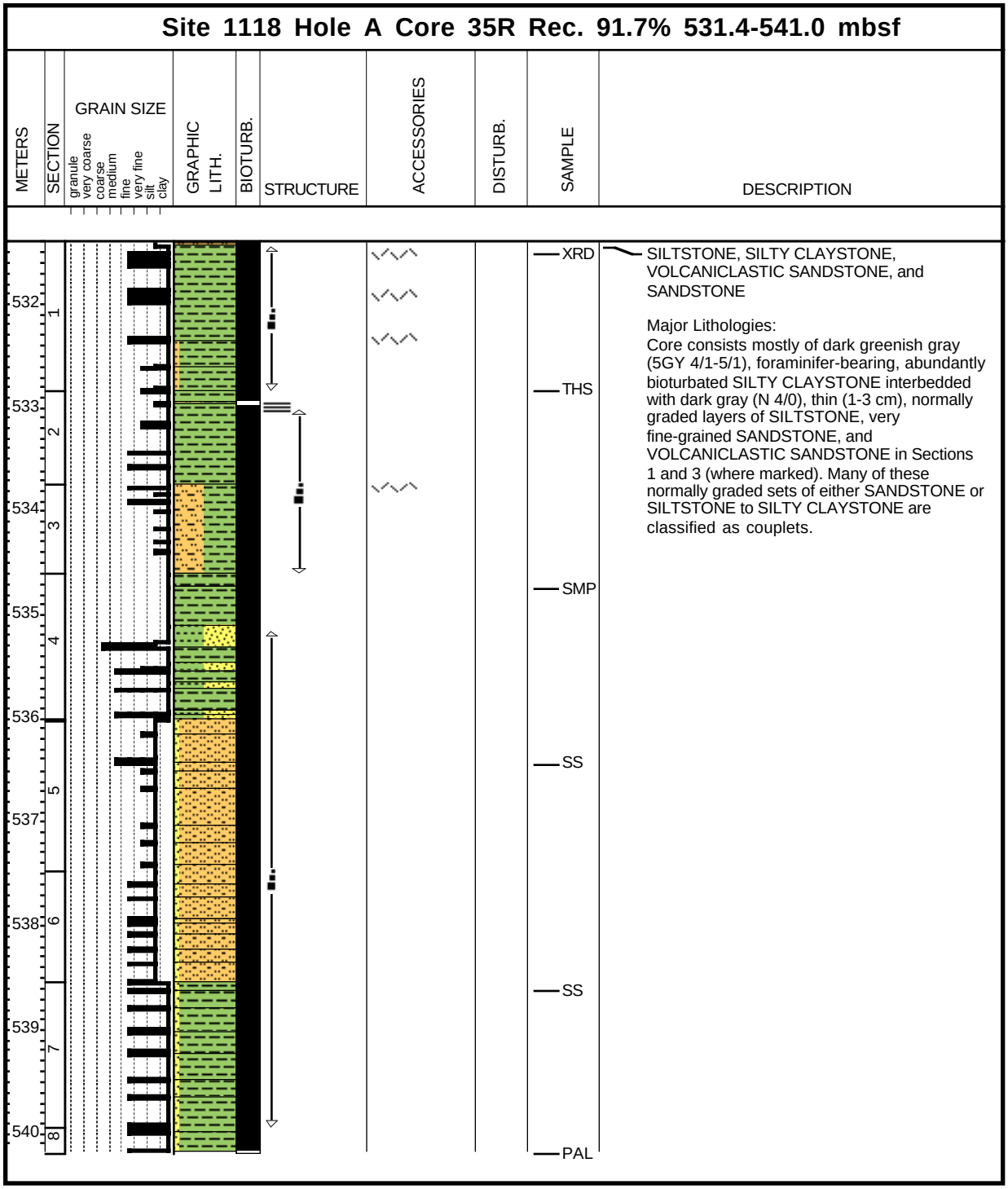
Core Photo


Site 1118 Hole A Core 33R Rec. 93.2% 512.1-521.8 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
513
514
515
516
517
518
519
520
521
1
2
3
4
5
6
7
8
SS
XRD
PAL
SILTY CLAYSTONE, SANDSTONE, and VOLCANICLASTIC SANDSTONE
Major Lithologies:
Core mainly consists of dark greenish gray (5G 4/1) SILTY CLAYSTONE interbedded with thin (1-5 cm) layers of darker gray (10R 4/2), massive and normally graded, fine-grained VOLCANICLASTIC SANDSTONE (where marked) and occasionally SANDSTONE. SILTY CLAYSTONE is foraminifer-rich, calcareous, and abundantly bioturbated. Thin VOLCANICLASTIC SANDSTONE and SANDSTONE layers have a scoured base.

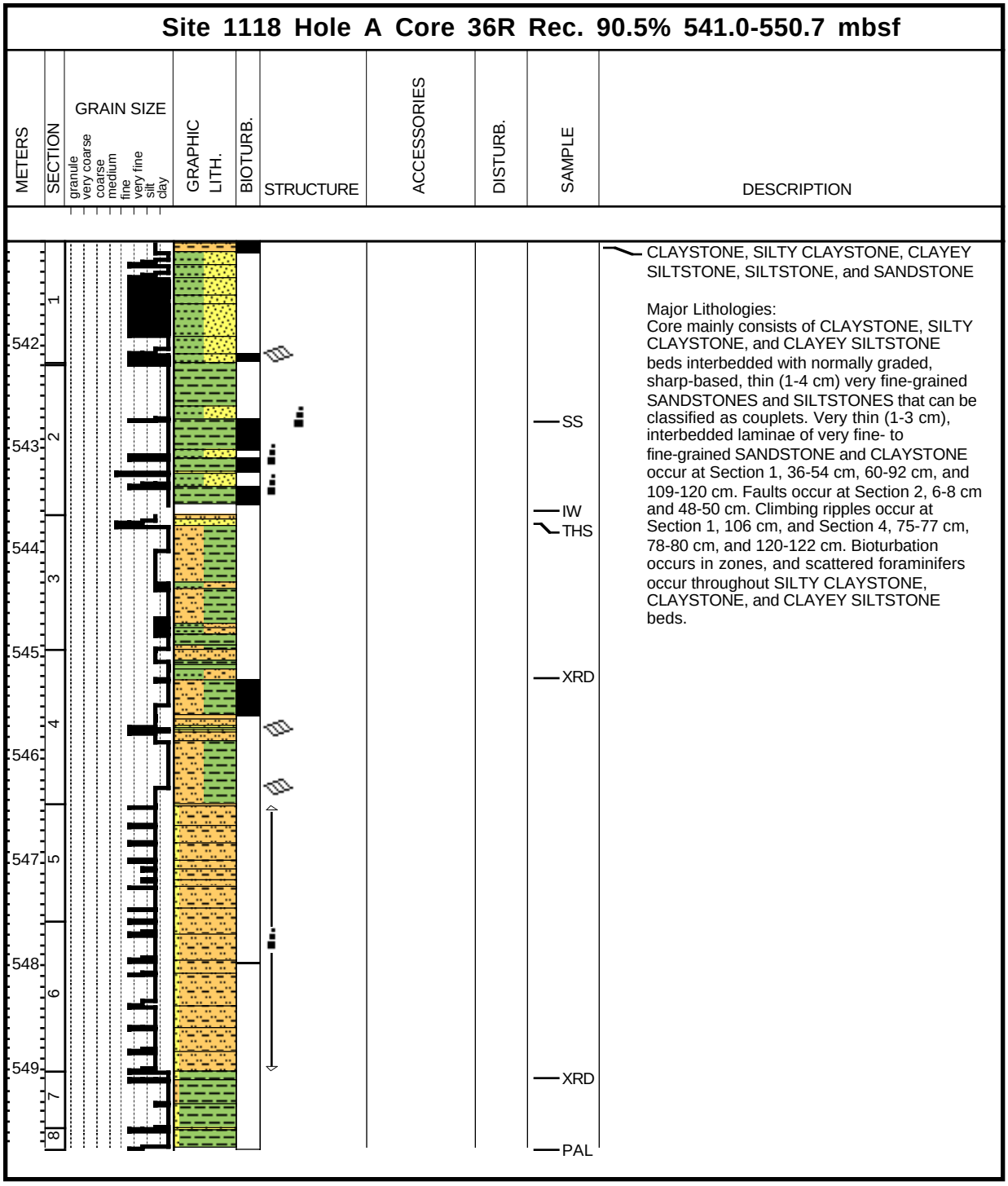
Core Photo


Site 1118 Hole A Core 34R Rec. 85.6% 521.8-531.4 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
522
523
524
525
526
527
528
529
530
1
2
3
4
5
6
7
XRD
XRD
SS
XRD
SS
THS
IW
SS
PAL
SILTY CLAYSTONE, SILTSTONE, SANDSTONE, and VOLCANICLASTIC SANDSTONE
Major Lithologies:
Core mostly consists of dark greenish gray (5GY 4/1-5/1), calcareous, foraminifer-bearing, moderately to abundantly bioturbated SILTY CLAYSTONE interbedded with thin (1-5 cm), normally graded beds of SANDSTONE grading to SILTSTONE and occasionally VOLCANICLASTIC SANDSTONE at Section 2, 12-13 cm, 19-20 cm, 30-31 cm, 48-49 cm, 83-84 cm, 100-101 cm, and 122-123 cm, and Section 3, 28-29 cm, 62-63 cm, and 85-86 cm. Chondrites burrows are common in Sections 6 and CC.

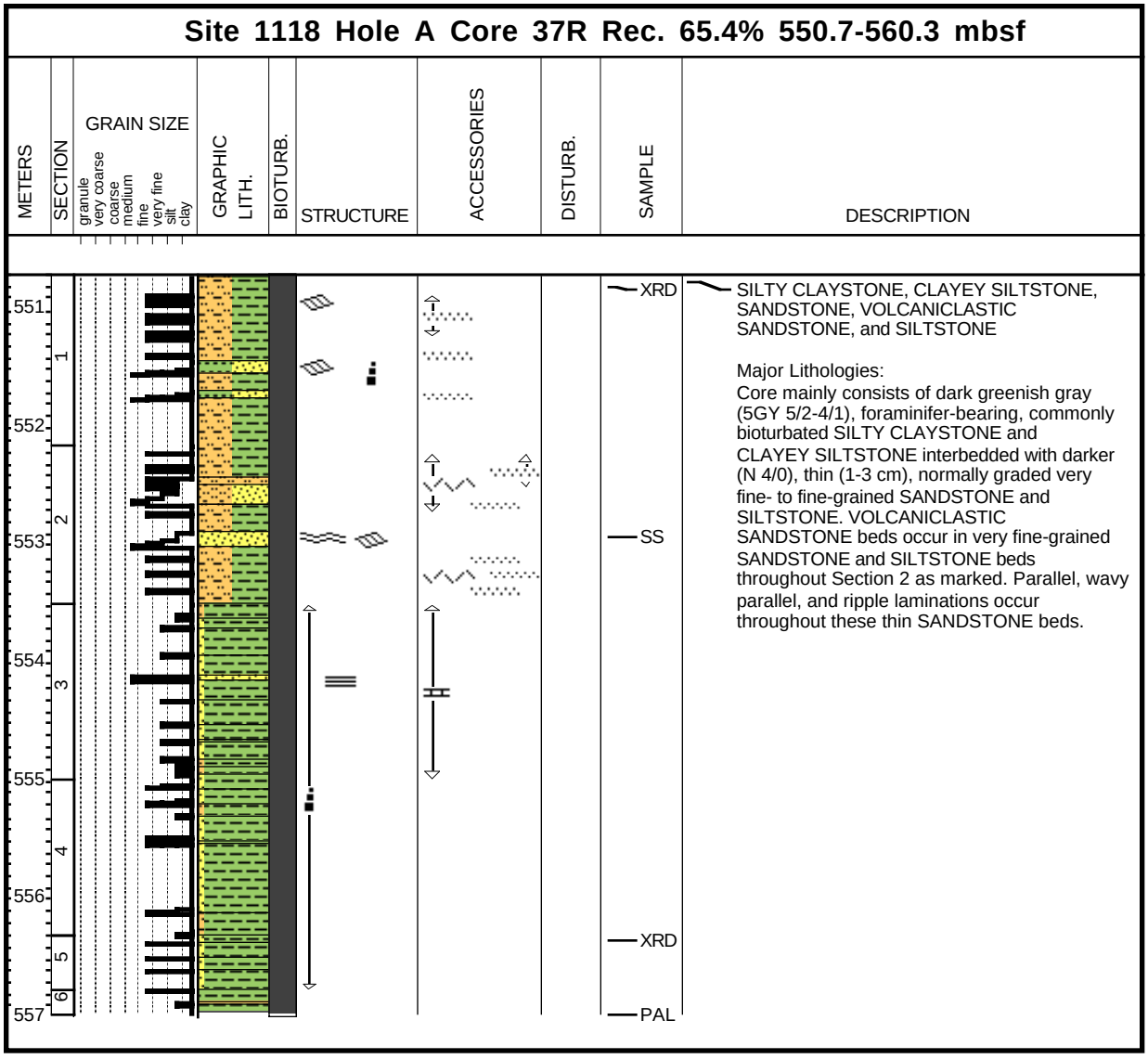
Core Photo


Site 1118 Hole A Core 35R Rec. 91.7% 531.4-541.0 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
532
533
534
535
536
537
538
539
540
1
2
3
4
5
6
7
8
XRD
THS
SMP
SS
SS
PAL
SILTSTONE, SILTY CLAYSTONE, VOLCANICLASTIC SANDSTONE, and SANDSTONE
Major Lithologies:
Core consists mostly of dark greenish gray (5GY 4/1-5/1), foraminifer-bearing, abundantly bioturbated SILTY CLAYSTONE interbedded with dark gray (N 4/0), thin (1-3 cm), normally graded layers of SILTSTONE, very fine-grained SANDSTONE, and VOLCANICLASTIC SANDSTONE in Sections 1 and 3 (where marked). Many of these normally graded sets of either SANDSTONE or SILTSTONE to SILTY CLAYSTONE are classified as couplets.

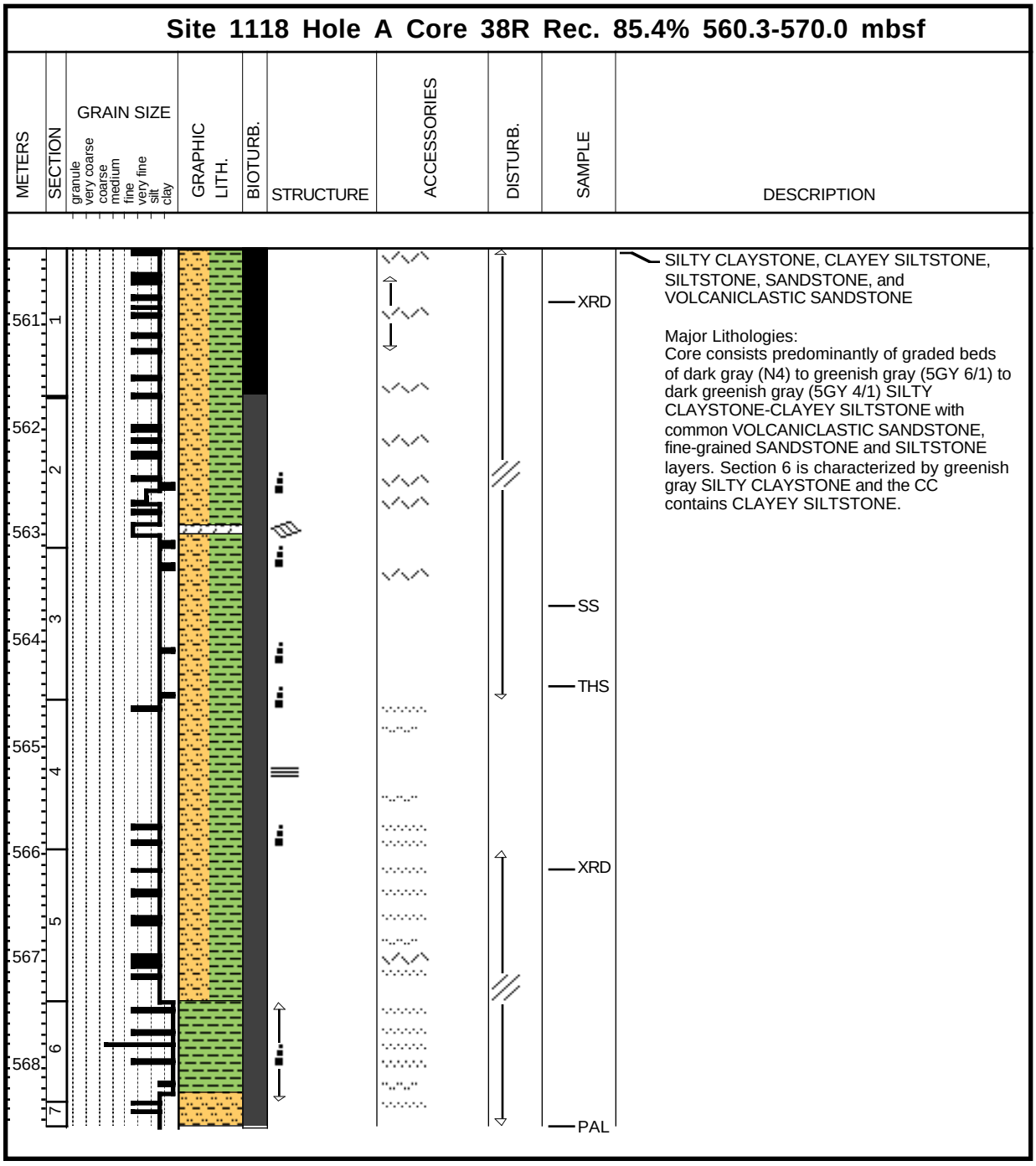
Core Photo


Site 1118 Hole A Core 36R Rec. 90.5% 541.0-550.7 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
542
543
544
545
546
547
548
549
1
2
3
4
5
6
7
8
SS
IW
THS
XRD
XRD
PAL
CLAYSTONE, SILTY CLAYSTONE, CLAYEY SILTSTONE, SILTSTONE, and SANDSTONE
Major Lithologies:
Core mainly consists of CLAYSTONE, SILTY CLAYSTONE, and CLAYEY SILTSTONE beds interbedded with normally graded, sharp-based, thin (1-4 cm) very fine-grained SANDSTONES and SILTSTONES that can be classified as couplets. Very thin (1-3 cm), interbedded laminae of very fine- to fine-grained SANDSTONE and CLAYSTONE occur at Section 1, 36-54 cm, 60-92 cm, and 109-120 cm. Faults occur at Section 2, 6-8 cm and 48-50 cm. Climbing ripples occur at Section 1, 106 cm, and Section 4, 75-77 cm, 78-80 cm, and 120-122 cm. Bioturbation occurs in zones, and scattered foraminifers occur throughout SILTY CLAYSTONE, CLAYSTONE, and CLAYEY SILTSTONE beds.

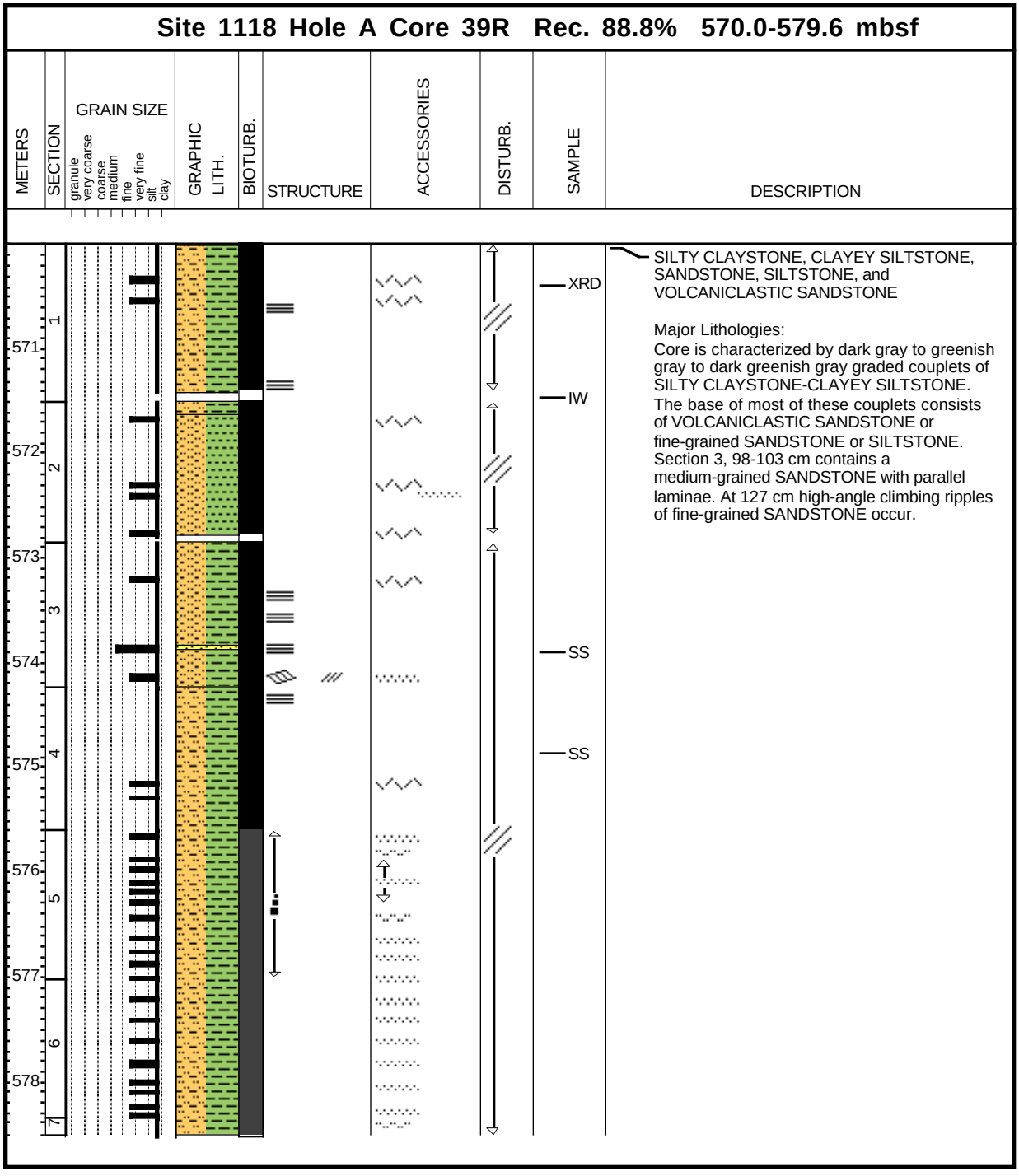
Core Photo


Site 1118 Hole A Core 37R Rec. 65.4% 550.7-560.3 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
551
552
553
554
555
556
557
1
2
3
4
5
6
XRD
SS
XRD
PAL
SILTY CLAYSTONE, CLAYEY SILTSTONE, SANDSTONE, VOLCANICLASTIC SANDSTONE, and SILTSTONE
Major Lithologies:
Core mainly consists of dark greenish gray (5GY 5/2-4/1), foraminifer-bearing, commonly bioturbated SILTY CLAYSTONE and CLAYEY SILTSTONE interbedded with darker (N 4/0), thin (1-3 cm), normally graded very fine- to fine-grained SANDSTONE and SILTSTONE. VOLCANICLASTIC SANDSTONE beds occur in very fine-grained SANDSTONE and SILTSTONE beds throughout Section 2 as marked. Parallel, wavy parallel, and ripple laminations occur throughout these thin SANDSTONE beds.

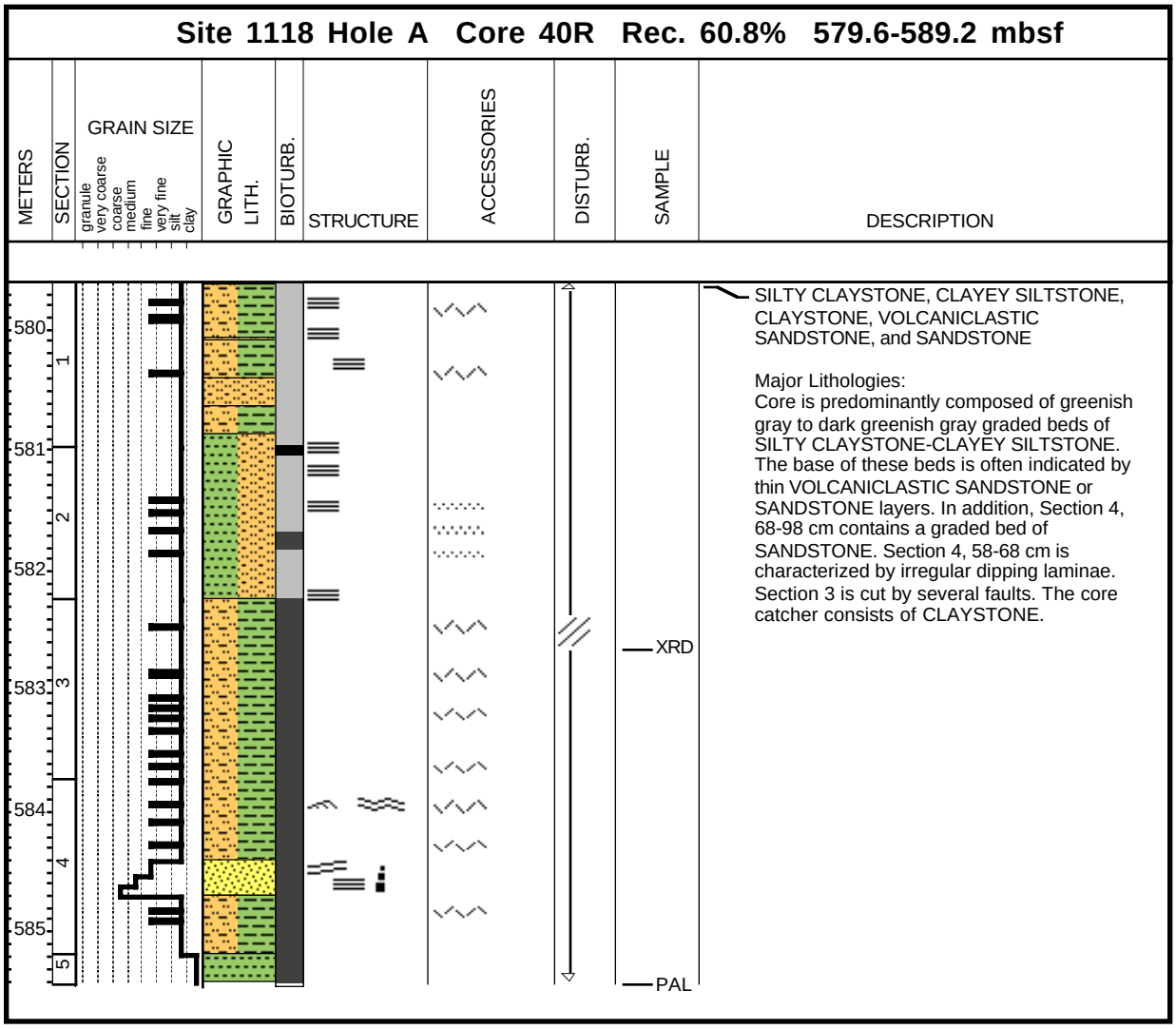
Core Photo


Site 1118 Hole A Core 38R Rec. 85.4% 560.3-570.0 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
561
562
563
564
565
566
567
568
1
2
3
4
5
6
7
XRD
SS
THS
XRD
PAL
SILTY CLAYSTONE, CLAYEY SILTSTONE, SILTSTONE, SANDSTONE, and VOLCANICLASTIC SANDSTONE
Major Lithologies:
Core consists predominantly of graded beds of dark gray (N4) to greenish gray (5GY 6/1) to dark greenish gray (5GY 4/1) SILTY CLAYSTONE-CLAYEY SILTSTONE with common VOLCANICLASTIC SANDSTONE, fine-grained SANDSTONE and SILTSTONE layers. Section 6 is characterized by greenish gray SILTY CLAYSTONE and the CC contains CLAYEY SILTSTONE.

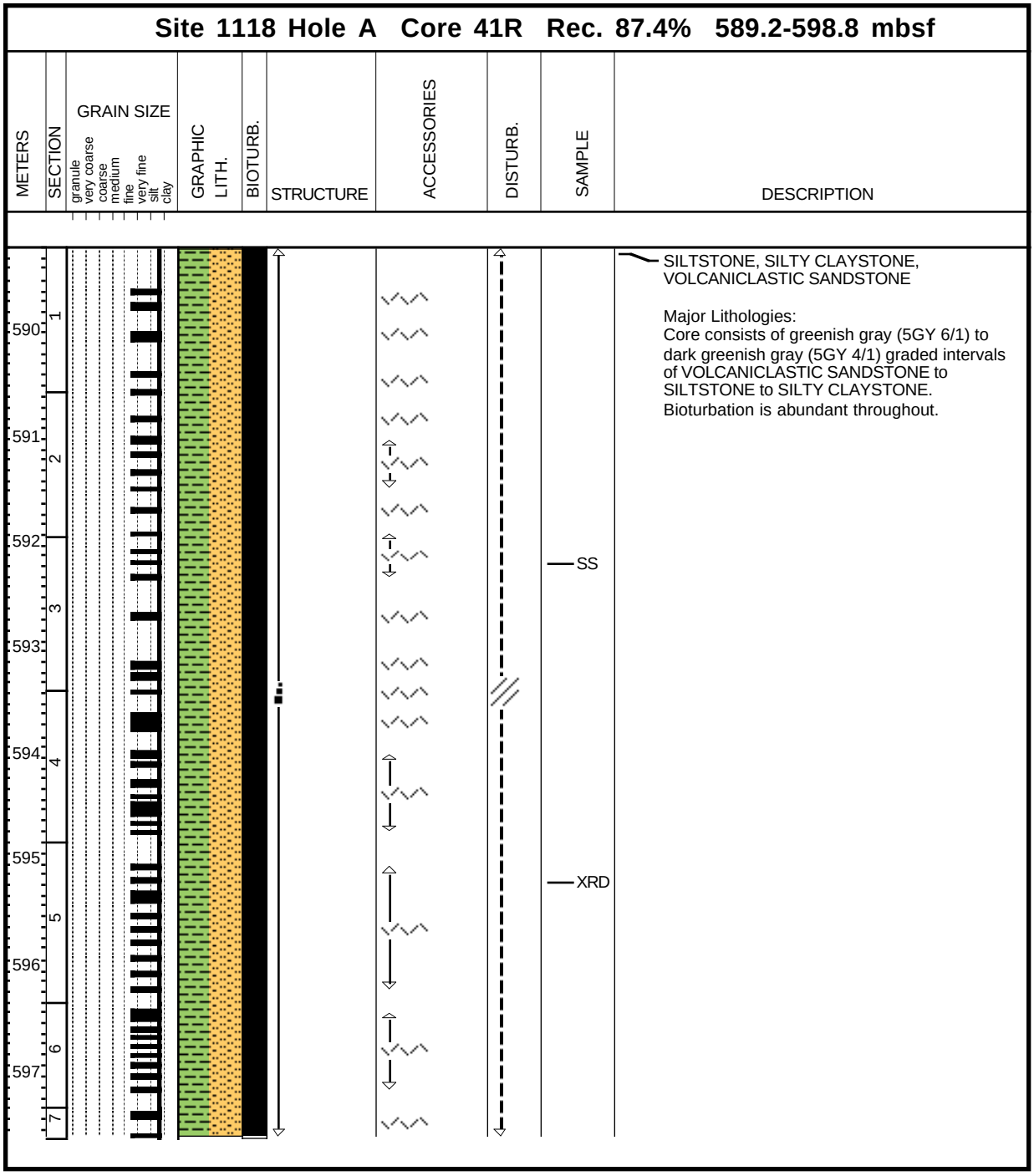
Core Photo


Site 1118 Hole A Core 39R Rec. 88.8% 570.0-579.6 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
571
572
573
574
575
576
577
578
1
2
3
4
5
6
7
XRD
IW
SS
SS
SILTY CLAYSTONE, CLAYEY SILTSTONE, SANDSTONE, SILTSTONE, and VOLCANICLASTIC SANDSTONE
Major Lithologies:
Core is characterized by dark gray to greenish gray to dark greenish gray graded couplets of SILTY CLAYSTONE-CLAYEY SILTSTONE. The base of most of these couplets consists of VOLCANICLASTIC SANDSTONE or fine-grained SANDSTONE or SILTSTONE. Section 3, 98-103 cm contains a medium-grained SANDSTONE with parallel laminae. At 127 cm high-angle climbing ripples of fine-grained SANDSTONE occur.

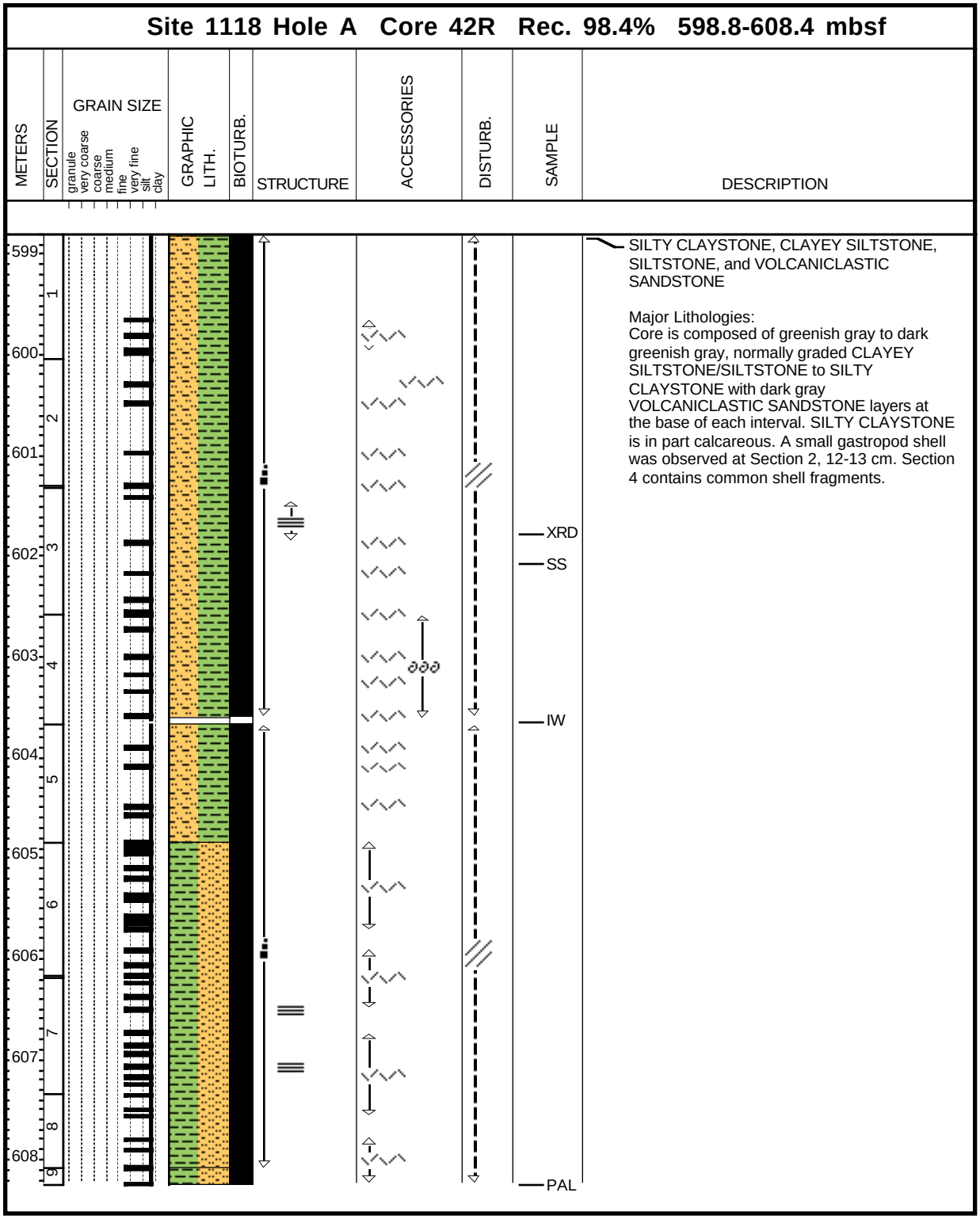
Core Photo


Site 1118 Hole A Core 40R Rec. 60.8% 579.6-589.2 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
580
581
582
583
584
585
1
2
3
4
5
XRD
PAL
SILTY CLAYSTONE, CLAYEY SILTSTONE, CLAYSTONE, VOLCANICLASTIC SANDSTONE, and SANDSTONE
Major Lithologies:
Core is predominantly composed of greenish gray to dark greenish gray graded beds of SILTY CLAYSTONE-CLAYEY SILTSTONE. The base of these beds is often indicated by thin VOLCANICLASTIC SANDSTONE or SANDSTONE layers. In addition, Section 4, 68-98 cm contains a graded bed of SANDSTONE. Section 4, 58-68 cm is characterized by irregular dipping laminae. Section 3 is cut by several faults. The core catcher consists of CLAYSTONE.

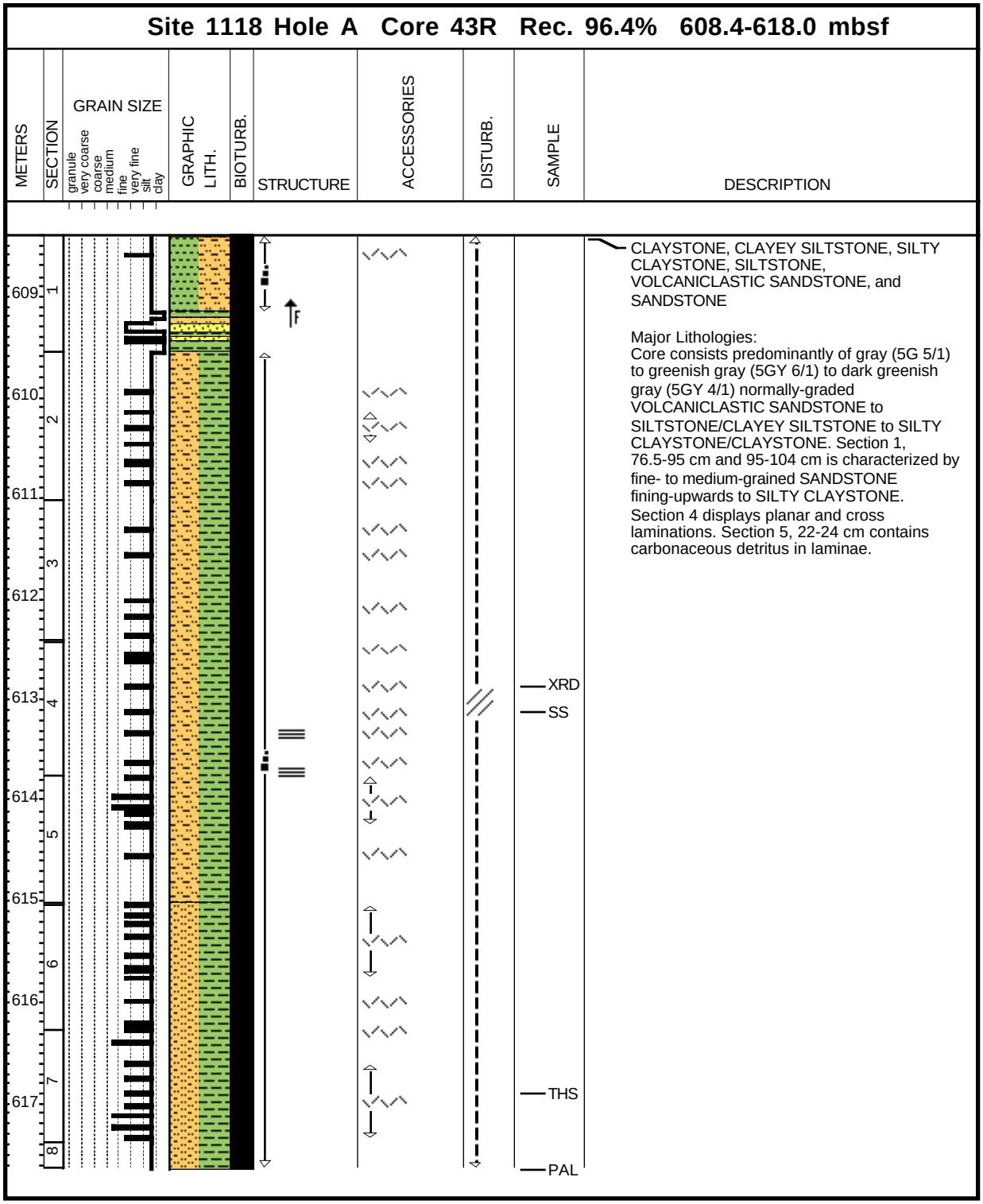
Core Photo


Site 1118 Hole A Core 41R Rec. 87.4% 589.2-598.8 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
590
591
592
593
594
595
596
597
1
2
3
4
5
6
7
SS
XRD
SILTSTONE, SILTY CLAYSTONE, VOLCANICLASTIC SANDSTONE
Major Lithologies:
Core consists of greenish gray (5GY 6/1) to dark greenish gray (5GY 4/1) graded intervals of VOLCANICLASTIC SANDSTONE to SILTSTONE to SILTY CLAYSTONE.
Bioturbation is abundant throughout.

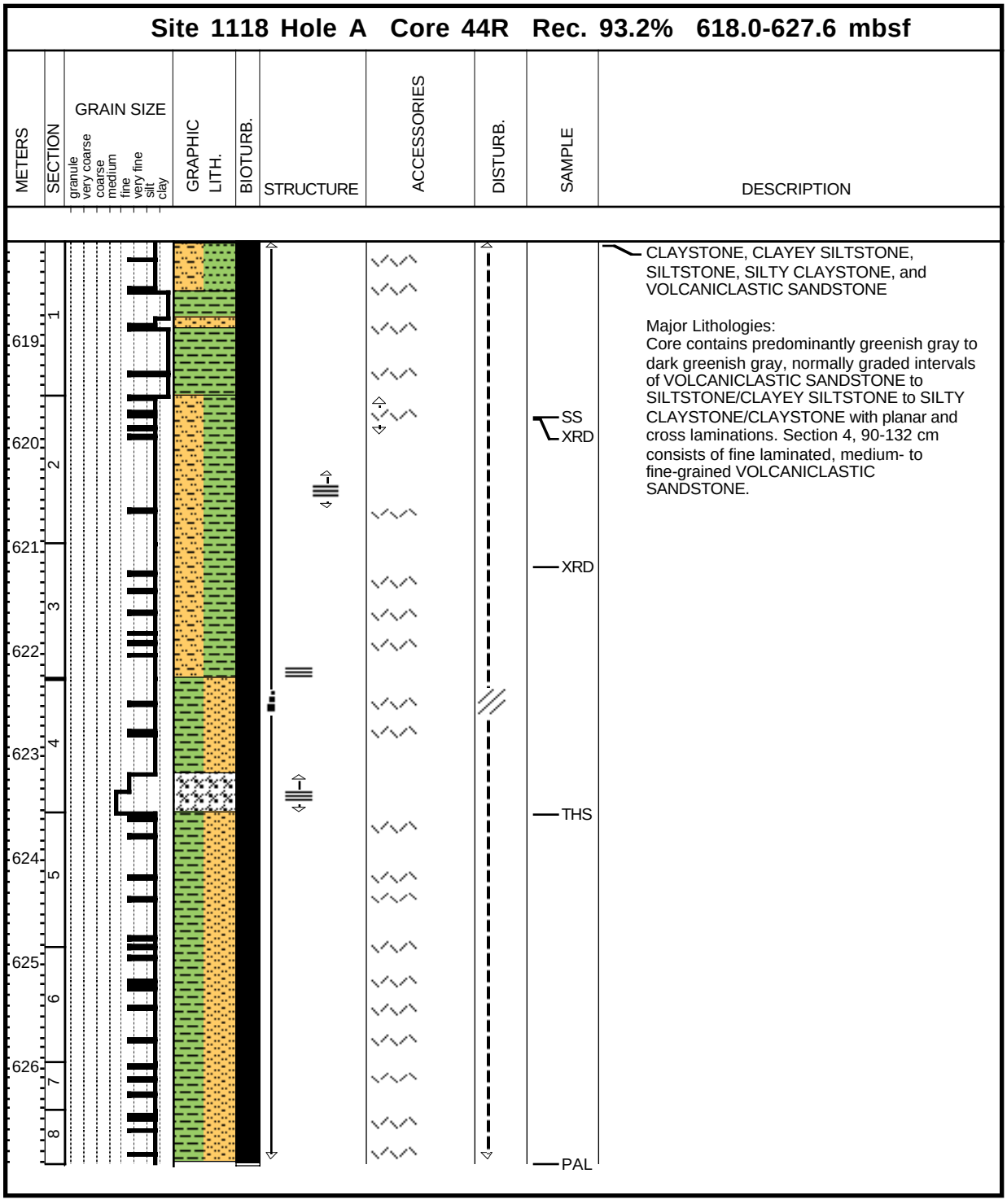
Core Photo


Site 1118 Hole A Core 42R Rec. 98.4% 598.8-608.4 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
599
600
601
602
603
604
605
606
607
608
1
2
3
4
5
6
7
8
9
XRD
SS
IW
PAL
SILTY CLAYSTONE, CLAYEY SILTSTONE, SILTSTONE, and VOLCANICLASTIC SANDSTONE
Major Lithologies:
Core is composed of greenish gray to dark greenish gray, normally graded CLAYEY SILTSTONE/SILTSTONE to SILTY CLAYSTONE with dark gray VOLCANICLASTIC SANDSTONE layers at the base of each interval. SILTY CLAYSTONE is in part calcareous. A small gastropod shell was observed at Section 2, 12-13 cm. Section 4 contains common shell fragments.

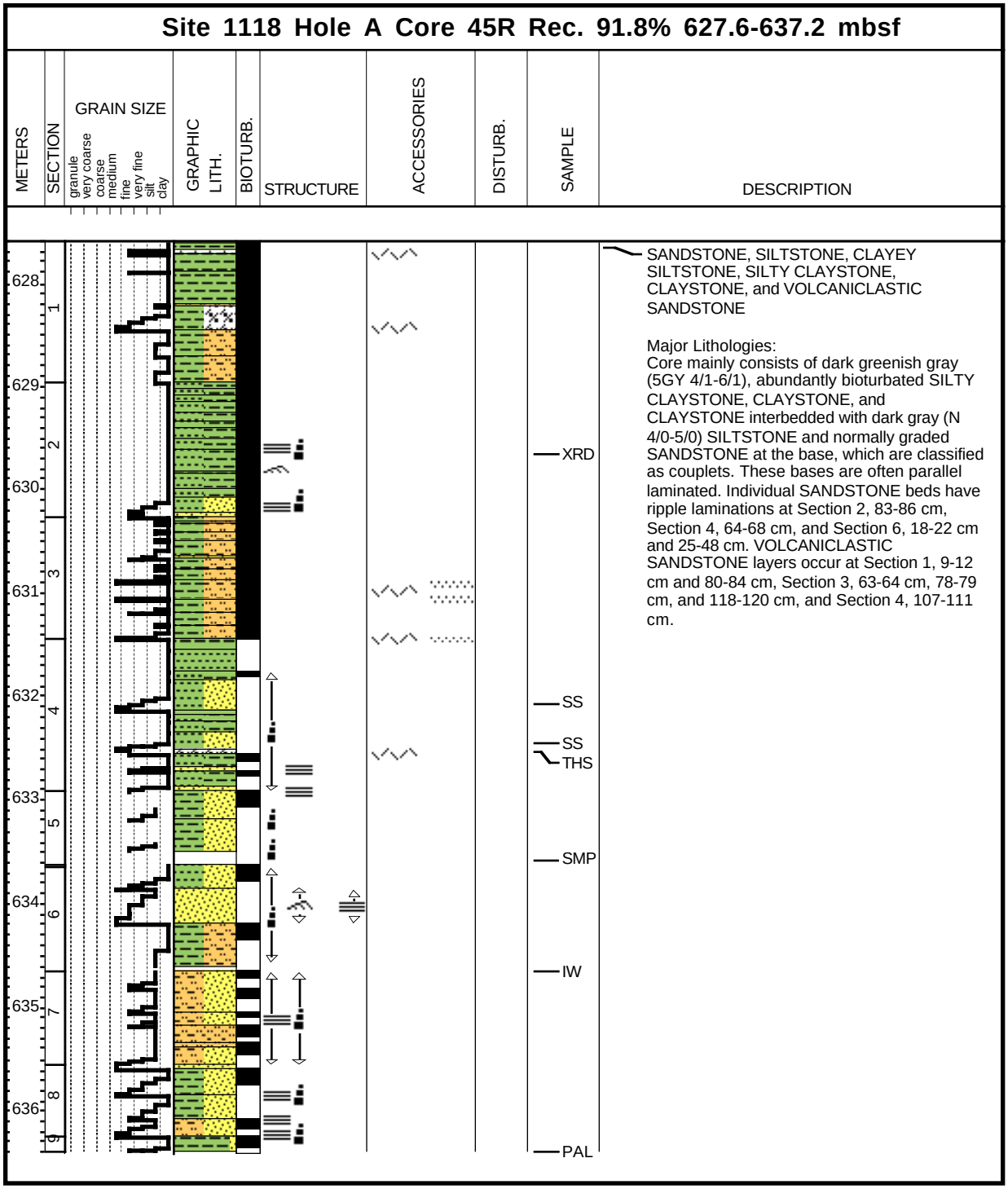
Core Photo


Site 1118 Hole A Core 43R Rec. 96.4% 608.4-618.0 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
609
610
611
612
613
614
615
616
617
1
2
3
4
5
6
7
8
F
XRD
SS
THS
PAL
CLAYSTONE, CLAYEY SILTSTONE, SILTY CLAYSTONE, SILTSTONE, VOLCANICLASTIC SANDSTONE, and SANDSTONE
Major Lithologies:
Core consists predominantly of gray (5G 5/1) to greenish gray (5GY 6/1) to dark greenish gray (5GY 4/1) normally-graded VOLCANICLASTIC SANDSTONE to SILTSTONE/CLAYEY SILTSTONE to SILTY CLAYSTONE/CLAYSTONE. Section 1, 76.5-95 cm and 95-104 cm is characterized by fine- to medium-grained SANDSTONE fining-upwards to SILTY CLAYSTONE. Section 4 displays planar and cross laminations. Section 5, 22-24 cm contains carbonaceous detritus in laminae.

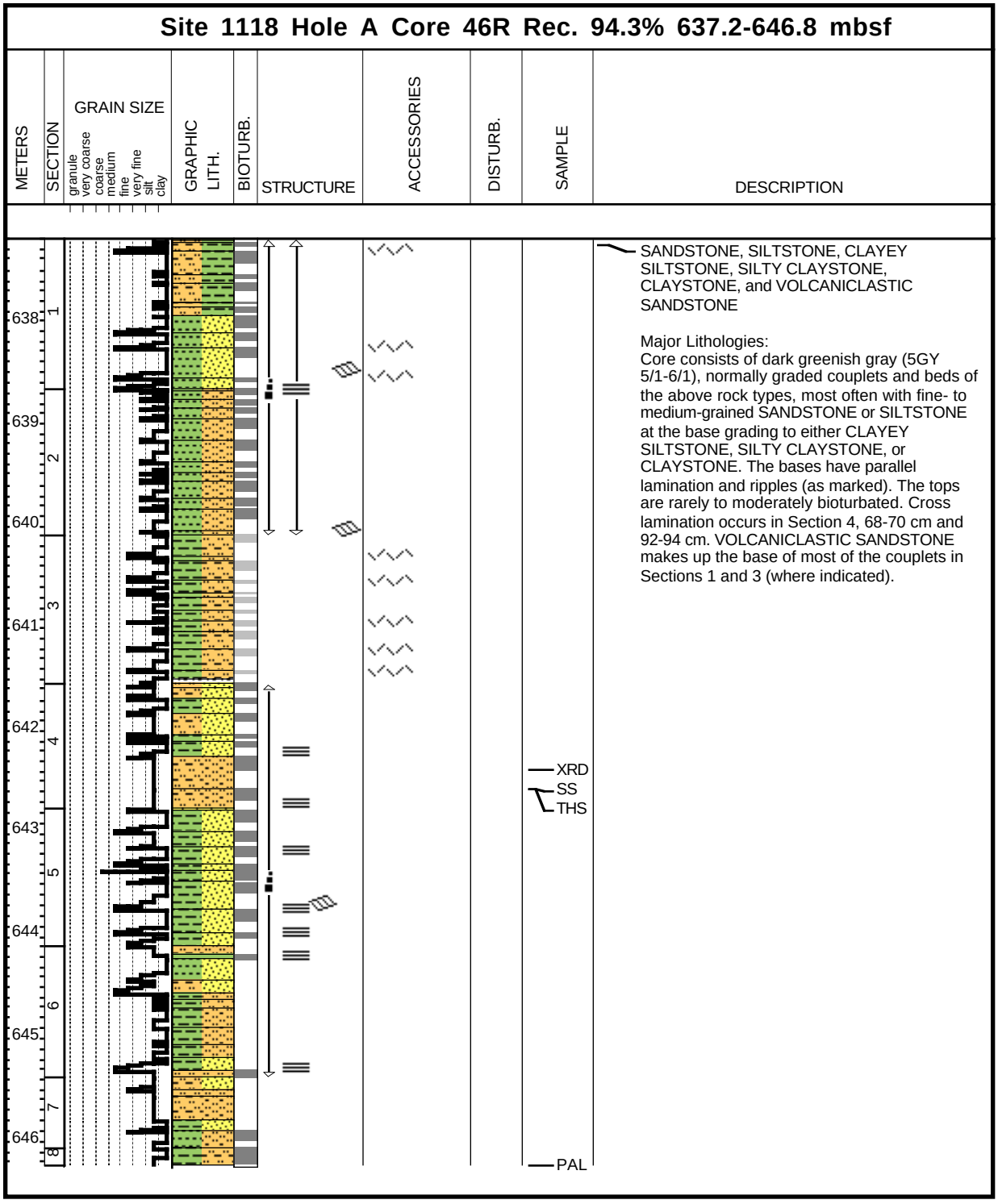
Core Photo


Site 1118 Hole A Core 44R Rec. 93.2% 618.0-627.6 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
619
620
621
622
623
624
625
626
1
2
3
4
5
6
7
8
SS
XRD
XRD
THS
PAL
CLAYSTONE, CLAYEY SILTSTONE, SILTSTONE, SILTY CLAYSTONE, and VOLCANICLASTIC SANDSTONE
Major Lithologies:
Core contains predominantly greenish gray to dark greenish gray, normally graded intervals of VOLCANICLASTIC SANDSTONE to SILTSTONE/CLAYEY SILTSTONE to SILTY CLAYSTONE/CLAYSTONE with planar and cross laminations. Section 4, 90-132 cm consists of fine laminated, medium- to fine-grained VOLCANICLASTIC SANDSTONE.

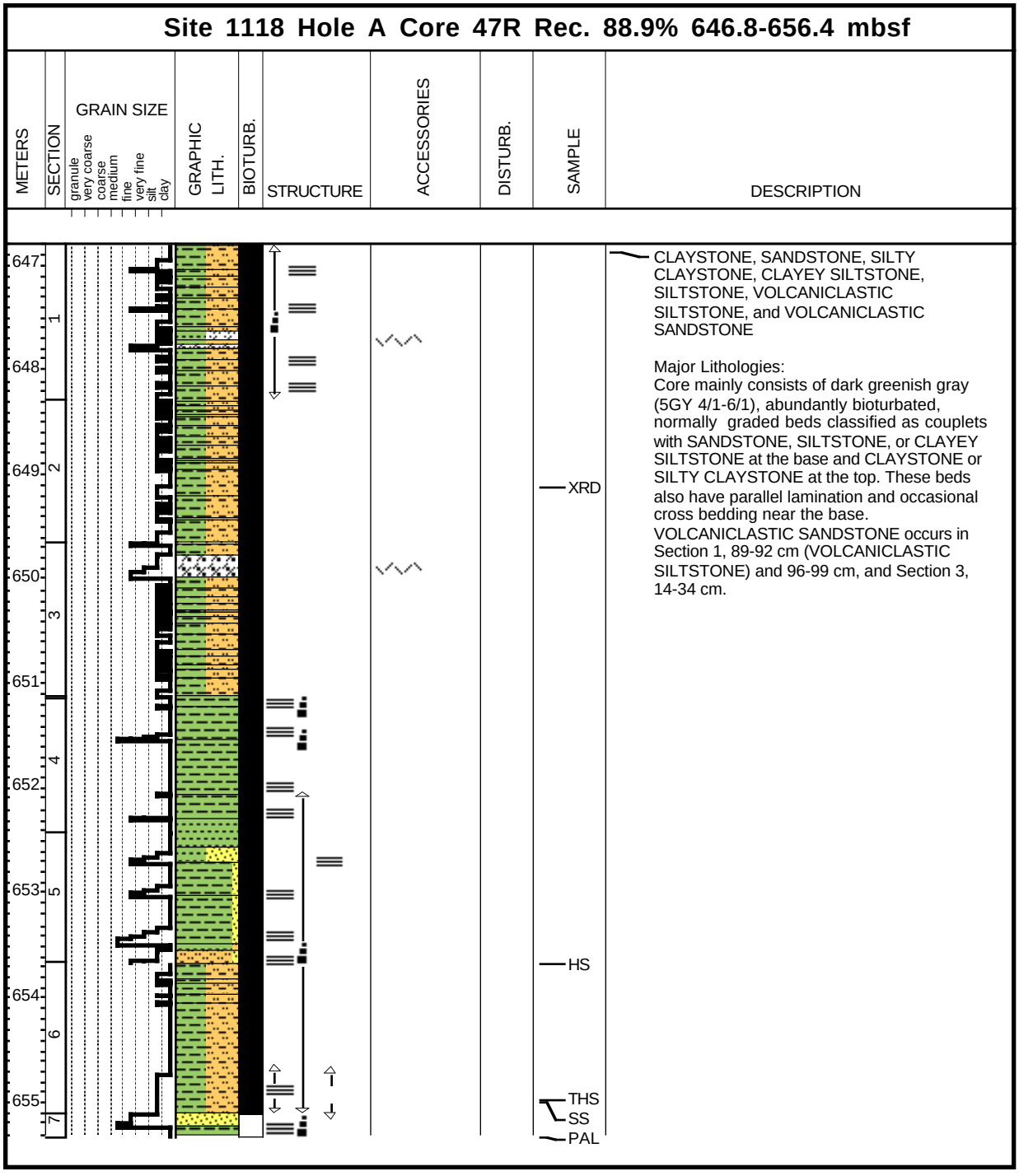
Core Photo


Site 1118 Hole A Core 45R Rec. 91.8% 627.6-637.2 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
628
629
630
631
632
633
634
635
636
1
2
3
4
5
6
7
8
9
XRD
SS
SS
THS
SMP
IW
PAL
SANDSTONE, SILTSTONE, CLAYEY SILTSTONE, SILTY CLAYSTONE, CLAYSTONE, and VOLCANICLASTIC SANDSTONE
Major Lithologies:
Core mainly consists of dark greenish gray (5GY 4/1-6/1), abundantly bioturbated SILTY CLAYSTONE, CLAYSTONE, and CLAYSTONE interbedded with dark gray (N 4/0-5/0) SILTSTONE and normally graded SANDSTONE at the base, which are classified as couplets. These bases are often parallel laminated. Individual SANDSTONE beds have ripple laminations at Section 2, 83-86 cm, Section 4, 64-68 cm, and Section 6, 18-22 cm and 25-48 cm. VOLCANICLASTIC SANDSTONE layers occur at Section 1, 9-12 cm and 80-84 cm, Section 3, 63-64 cm, 78-79 cm, and 118-120 cm, and Section 4, 107-111 cm.

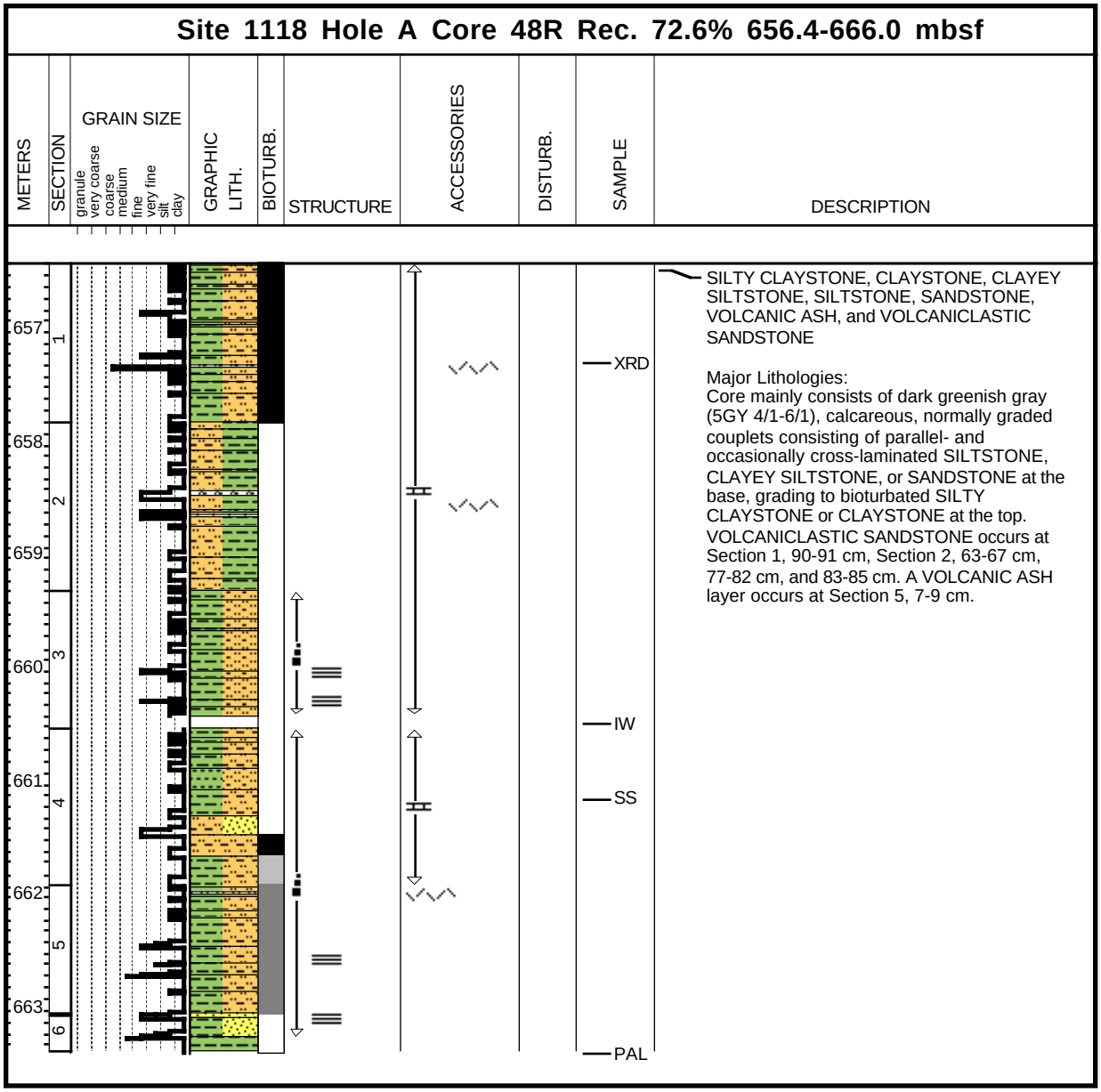
Core Photo


Site 1118 Hole A Core 46R Rec. 94.3% 637.2-646.8 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
638
639
640
641
642
643
644
645
646
1
2
3
4
5
6
7
CC
XRD
SS
THS
PAL
SANDSTONE, SILTSTONE, CLAYEY SILTSTONE, SILTY CLAYSTONE, CLAYSTONE, and VOLCANICLASTIC SANDSTONE
Major Lithologies:
Core consists of dark greenish gray (5GY 5/1-6/1), normally graded couplets and beds of the above rock types, most often with fine- to medium-grained SANDSTONE or SILTSTONE at the base grading to either CLAYEY SILTSTONE, SILTY CLAYSTONE, or CLAYSTONE. The bases have parallel lamination and ripples (as marked). The tops are rarely to moderately bioturbated. Cross lamination occurs in Section 4, 68-70 cm and 92-94 cm. VOLCANICLASTIC SANDSTONE makes up the base of most of the couplets in Sections 1 and 3 (where indicated).

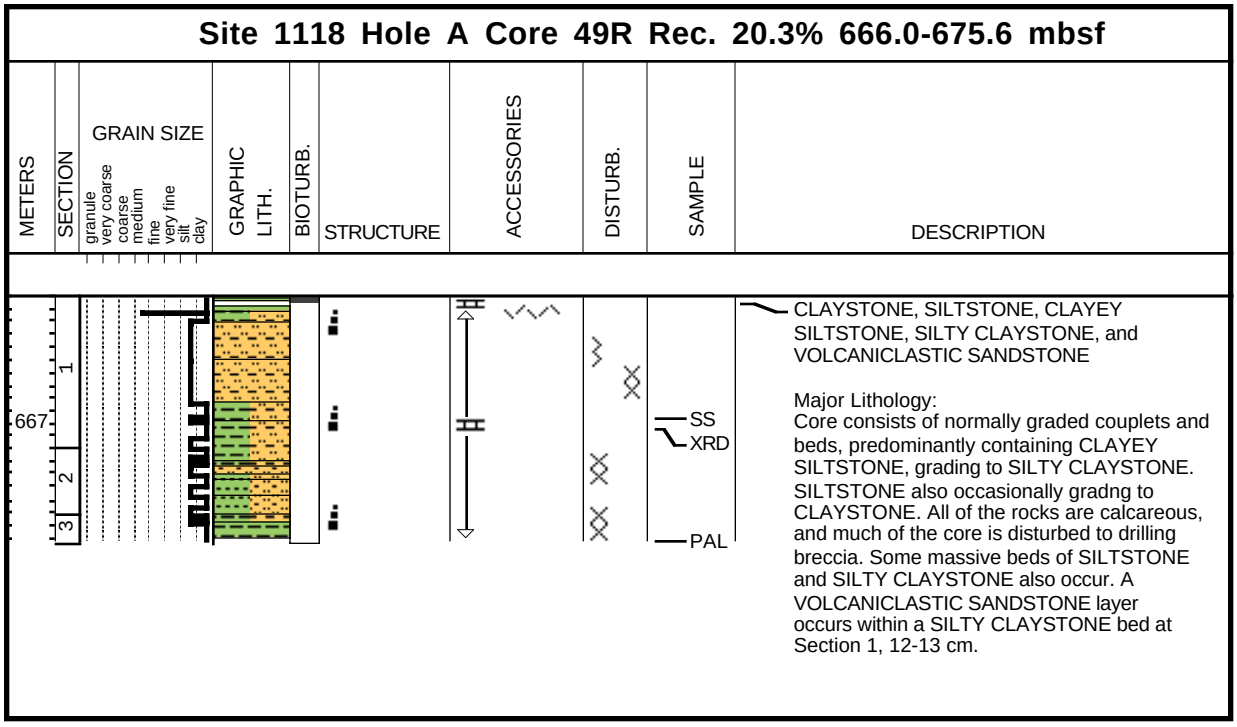
Core Photo


Site 1118 Hole A Core 47R Rec. 88.9% 646.8-656.4 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
647
648
649
650
651
652
653
654
655
1
2
3
4
5
6
7
XRD
HS
THS
SS
PAL
CLAYSTONE, SANDSTONE, SILTY CLAYSTONE, CLAYEY SILTSTONE, SILTSTONE, VOLCANICLASTIC SILTSTONE, and VOLCANICLASTIC SANDSTONE
Major Lithologies:
Core mainly consists of dark greenish gray (5GY 4/1-6/1), abundantly bioturbated, normally graded beds classified as couplets with SANDSTONE, SILTSTONE, or CLAYEY SILTSTONE at the base and CLAYSTONE or SILTY CLAYSTONE at the top. These beds also have parallel lamination and occasional cross bedding near the base.
VOLCANICLASTIC SANDSTONE occurs in Section 1, 89-92 cm (VOLCANICLASTIC SILTSTONE) and 96-99 cm, and Section 3, 14-34 cm.

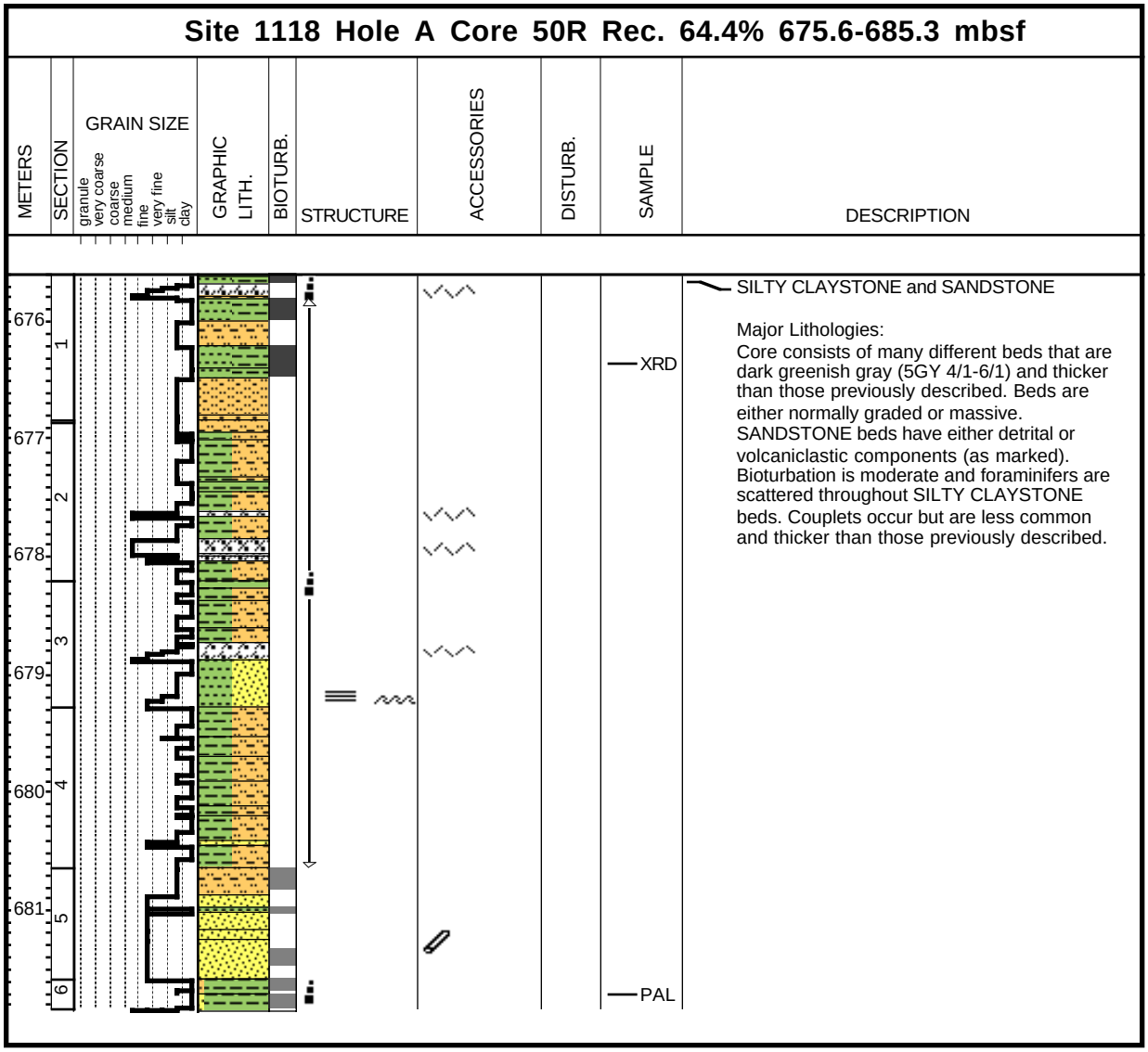
Core Photo


Site 1118 Hole A Core 48R Rec. 72.6% 656.4-666.0 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
657
658
659
660
661
662
663
1
2
3
4
5
6
XRD
IW
SS
PAL
SILTY CLAYSTONE, CLAYSTONE, CLAYEY SILTSTONE, SILTSTONE, SANDSTONE, VOLCANIC ASH, and VOLCANICLASTIC SANDSTONE
Major Lithologies:
Core mainly consists of dark greenish gray (5GY 4/1-6/1), calcareous, normally graded couplets consisting of parallel- and occasionally cross-laminated SILTSTONE, CLAYEY SILTSTONE, or SANDSTONE at the base, grading to bioturbated SILTY CLAYSTONE or CLAYSTONE at the top. VOLCANICLASTIC SANDSTONE occurs at Section 1, 90-91 cm, Section 2, 63-67 cm, 77-82 cm, and 83-85 cm. A VOLCANIC ASH layer occurs at Section 5, 7-9 cm.

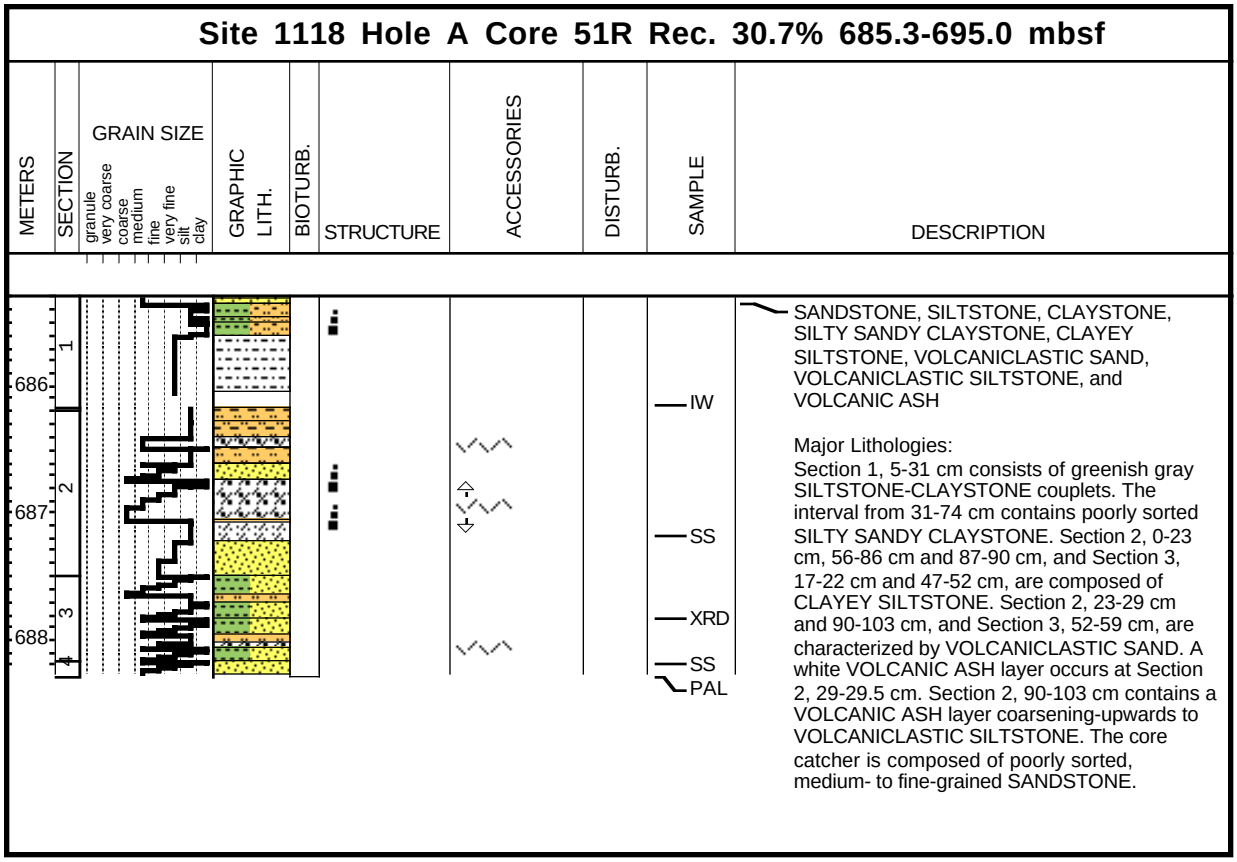
Core Photo


Site 1118 Hole A Core 49R Rec. 20.3% 666.0-675.6 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
667
1
2
3
SS
XRD
PAL
CLAYSTONE, SILTSTONE, CLAYEY SILTSTONE, SILTY CLAYSTONE, and VOLCANICLASTIC SANDSTONE
Major Lithology:
Core consists of normally graded couplets and beds, predominantly containing CLAYEY SILTSTONE, grading to SILTY CLAYSTONE. SILTSTONE also occasionally gradng to CLAYSTONE. All of the rocks are calcareous, and much of the core is disturbed to drilling breccia. Some massive beds of SILTSTONE and SILTY CLAYSTONE also occur. A VOLCANICLASTIC SANDSTONE layer occurs within a SILTY CLAYSTONE bed at Section 1, 12-13 cm.

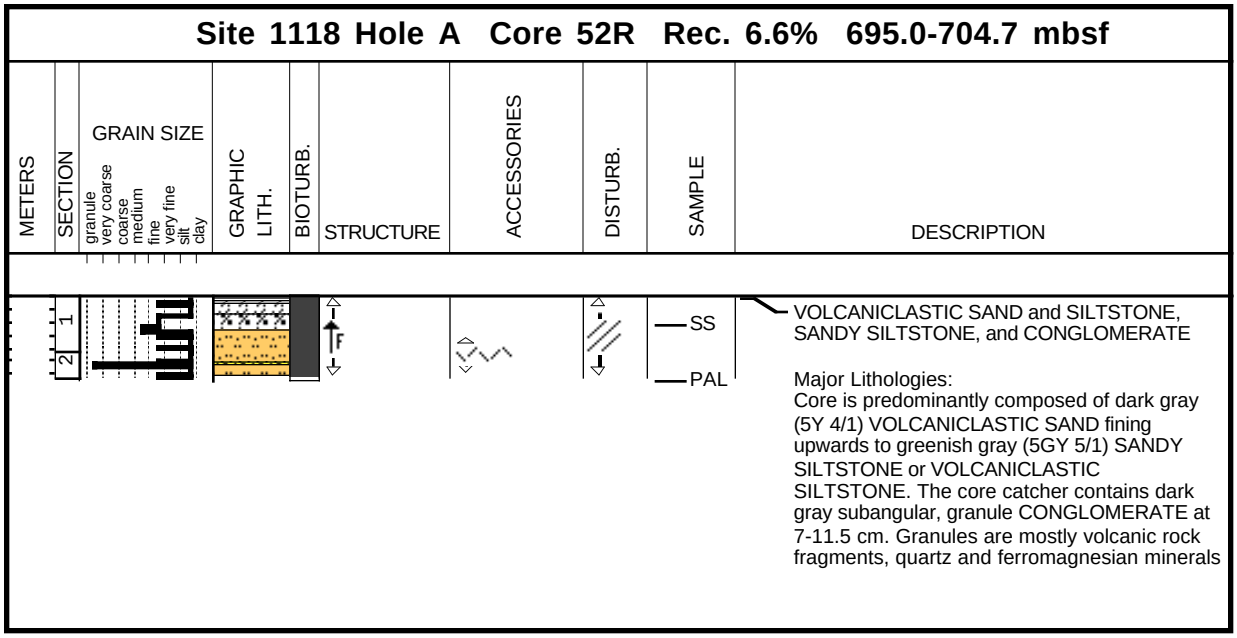
Core Photo


Site 1118 Hole A Core 50R Rec. 64.4% 675.6-685.3 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
676
677
678
679
680
681
1
2
3
4
5
6
XRD
PAL
SILTY CLAYSTONE and SANDSTONE
Major Lithologies:
Core consists of many different beds that are dark greenish gray (5GY 4/1-6/1) and thicker than those previously described. Beds are either normally graded or massive. SANDSTONE beds have either detrital or volcaniclastic components (as marked). Bioturbation is moderate and foraminifers are scattered throughout SILTY CLAYSTONE beds. Couplets occur but are less common and thicker than those previously described.

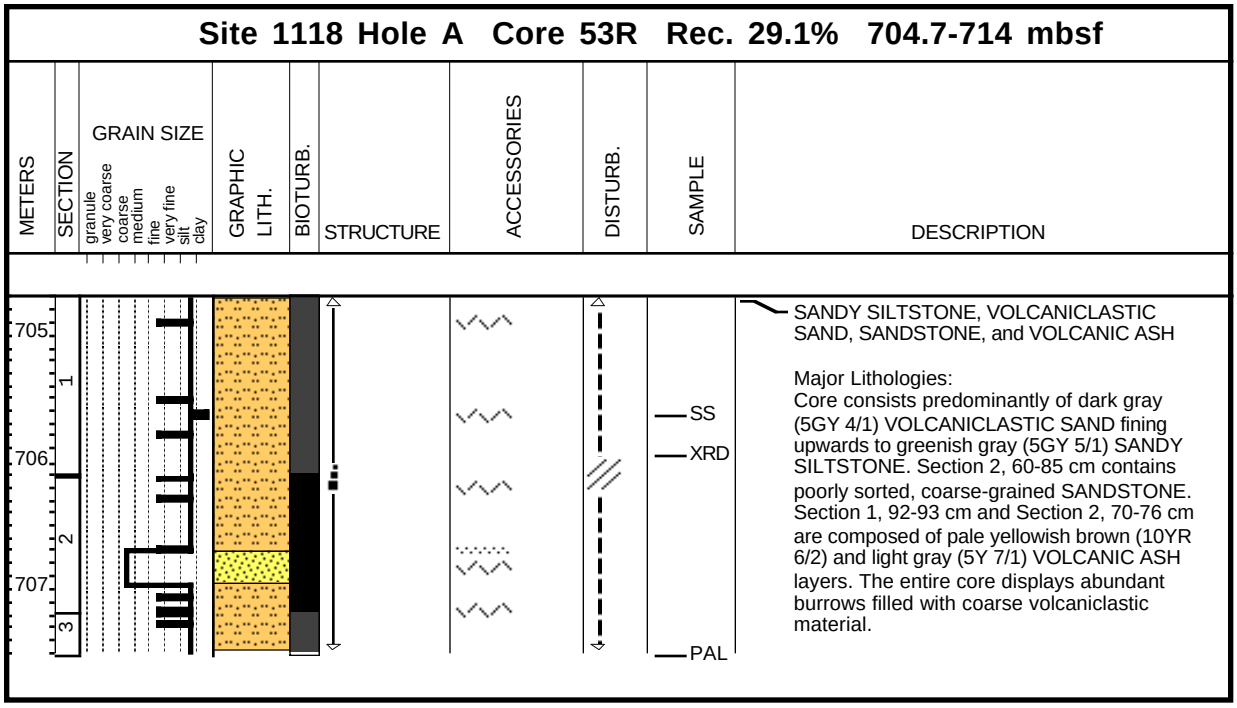
Core Photo


Site 1118 Hole A Core 51R Rec. 30.7% 685.3-695.0 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
686
687
688
1
2
3
4
IW
SS
XRD
SS
PAL
SANDSTONE, SILTSTONE, CLAYSTONE, SILTY SANDY CLAYSTONE, CLAYEY SILTSTONE, VOLCANICLASTIC SAND, VOLCANICLASTIC SILTSTONE, and VOLCANIC ASH
Major Lithologies:
Section 1, 5-31 cm consists of greenish gray SILTSTONE-CLAYSTONE couplets. The interval from 31-74 cm contains poorly sorted SILTY SANDY CLAYSTONE. Section 2, 0-23 cm, 56-86 cm and 87-90 cm, and Section 3, 17-22 cm and 47-52 cm, are composed of CLAYEY SILTSTONE. Section 2, 23-29 cm and 90-103 cm, and Section 3, 52-59 cm, are characterized by VOLCANICLASTIC SAND. A white VOLCANIC ASH layer occurs at Section 2, 29-29.5 cm. Section 2, 90-103 cm contains a VOLCANIC ASH layer coarsening-upwards to VOLCANICLASTIC SILTSTONE. The core catcher is composed of poorly sorted, medium- to fine-grained SANDSTONE.

Core Photo

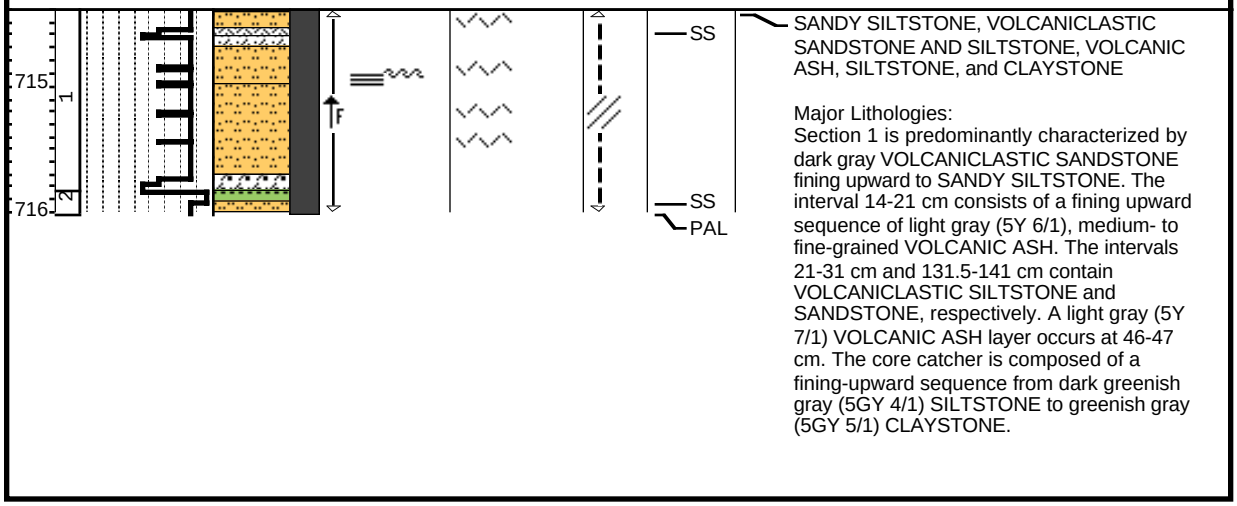

Site 1118 Hole A Core 52R Rec. 6.6% 695.0-704.7 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
1
2
F
SS
PAL
VOLCANICLASTIC SAND and SILTSTONE, SANDY SILTSTONE, and CONGLOMERATE
Major Lithologies:
Core is predominantly composed of dark gray (5Y 4/1) VOLCANICLASTIC SAND fining upwards to greenish gray (5GY 5/1) SANDY SILTSTONE or VOLCANICLASTIC SILTSTONE. The core catcher contains dark gray subangular, granule CONGLOMERATE at 7-11.5 cm. Granules are mostly volcanic rock fragments, quartz and ferromagnesian minerals

Core Photo


Site 1118 Hole A Core 53R Rec. 29.1% 704.7-714 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
705
706
707
1
2
3
SS
XRD
PAL
SANDY SILTSTONE, VOLCANICLASTIC SAND, SANDSTONE, and VOLCANIC ASH
Major Lithologies:
Core consists predominantly of dark gray (5GY 4/1) VOLCANICLASTIC SAND fining upwards to greenish gray (5GY 5/1) SANDY SILTSTONE. Section 2, 60-85 cm contains poorly sorted, coarse-grained SANDSTONE. Section 1, 92-93 cm and Section 2, 70-76 cm are composed of pale yellowish brown (10YR 6/2) and light gray (5Y 7/1) VOLCANIC ASH layers. The entire core displays abundant burrows filled with coarse volcaniclastic material.

Core Photo

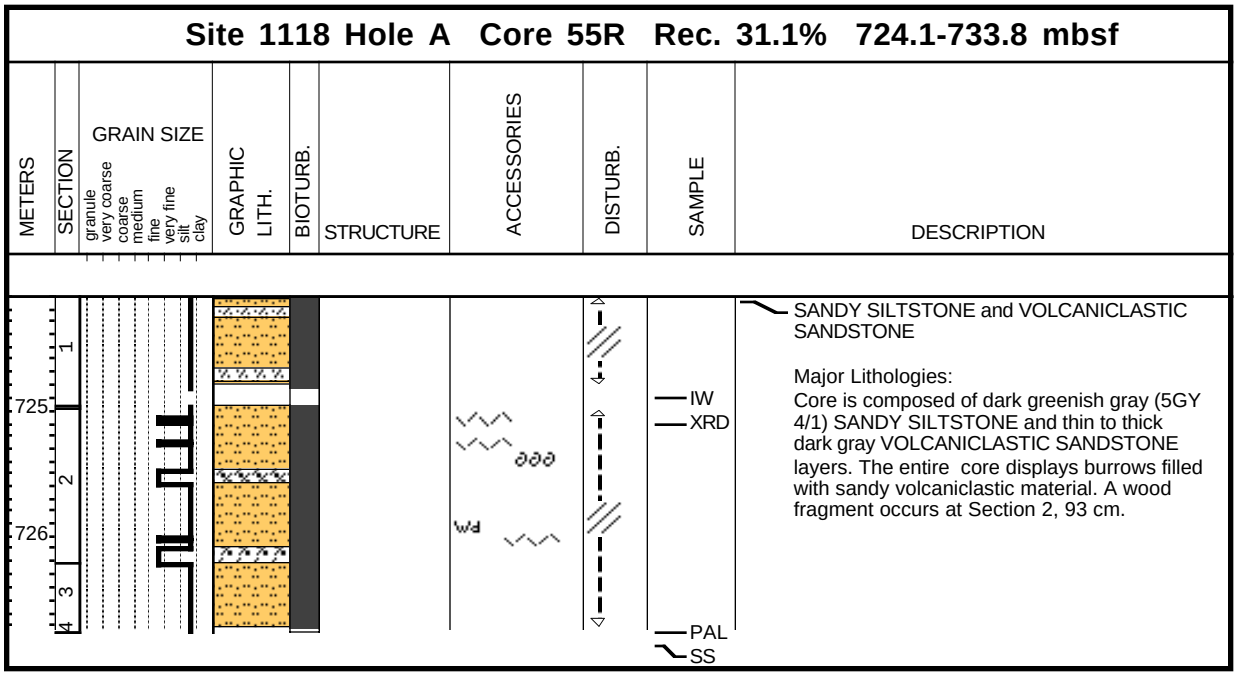
Site 1118 Hole A Core 54R Rec. 16.7% 714.4-724.1 mbsf



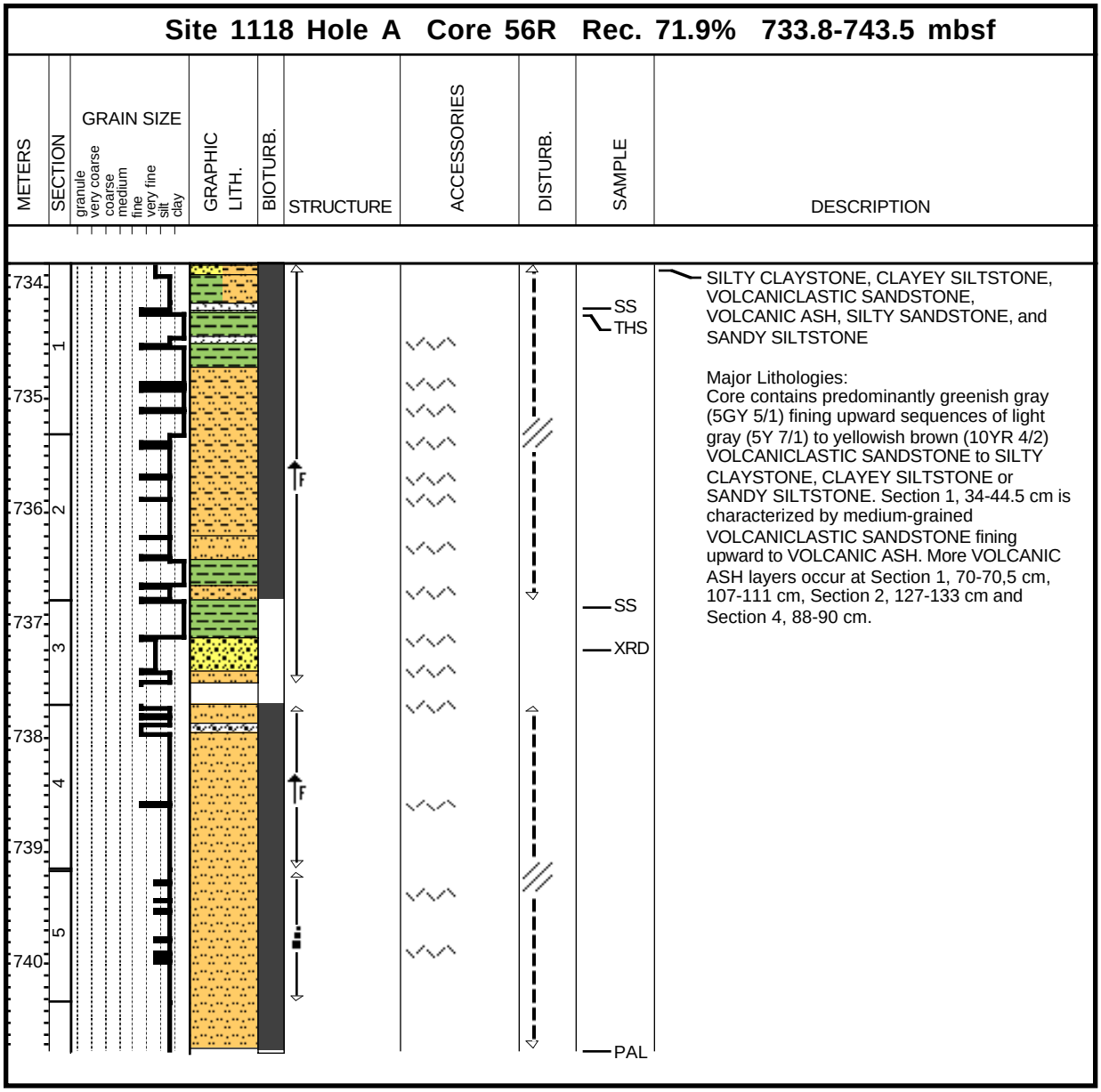
SANDY SILTSTONE, VOLCANICLASTIC SANDSTONE AND SILTSTONE, VOLCANIC ASH, SILTSTONE, and CLAYSTONE

Major Lithologies:
Section 1 is predominantly characterized by dark gray VOLCANICLASTIC SANDSTONE fining upward to SANDY SILTSTONE. The interval 14-21 cm consists of a fining upward sequence of light gray (5Y 6/1), medium- to fine-grained VOLCANIC ASH. The intervals 21-31 cm and 131.5-141 cm contain VOLCANICLASTIC SILTSTONE and SANDSTONE, respectively. A light gray (5Y 7/1) VOLCANIC ASH layer occurs at 46-47 cm. The core catcher is composed of a fining-upward sequence from dark greenish gray (5GY 4/1) SILTSTONE to greenish gray (5GY 5/1) CLAYSTONE.

Core Photo

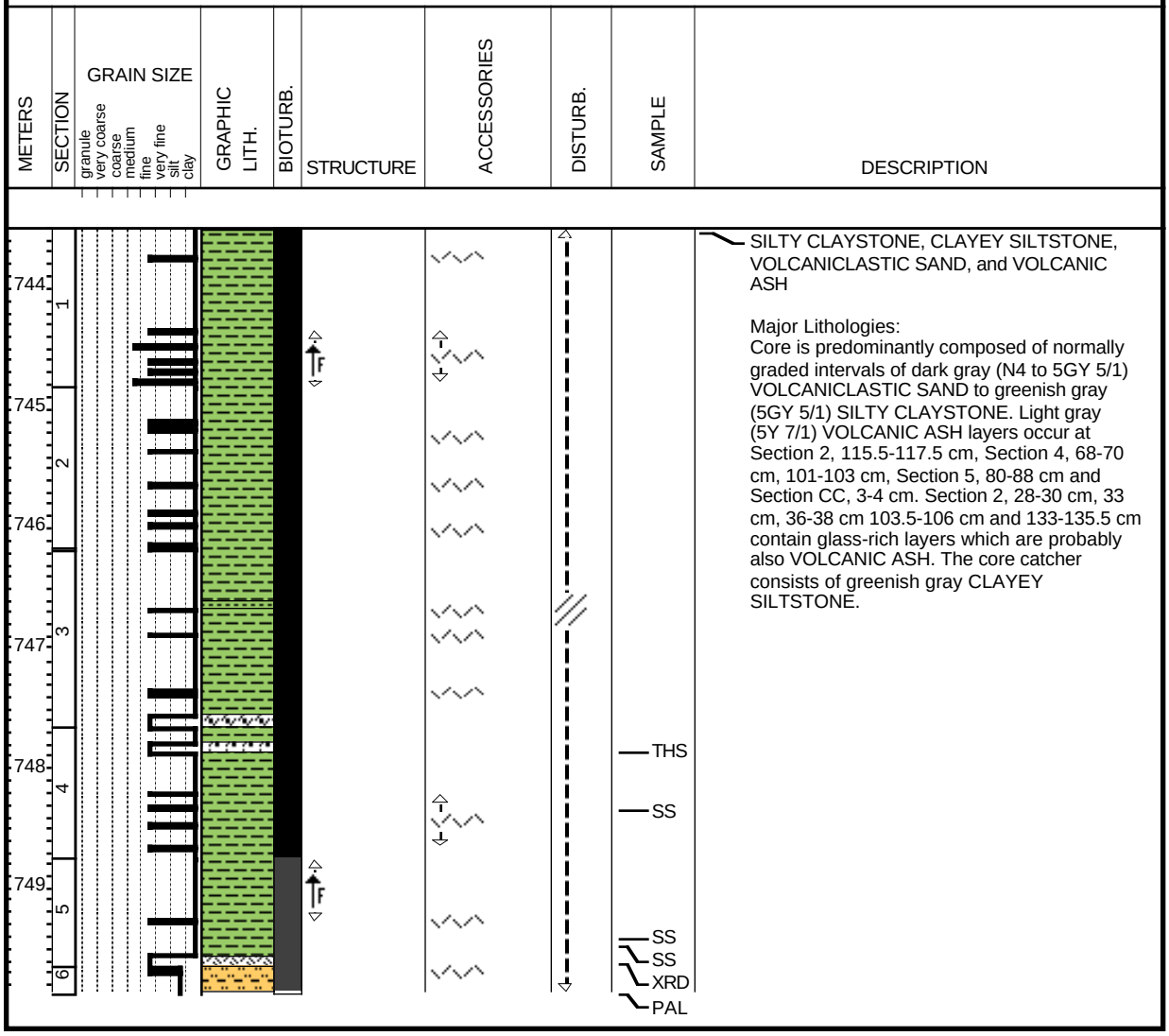

Site 1118 Hole A Core 55R Rec. 31.1% 724.1-733.8 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
725
726
1
2
3
4
Wd
IW
XRD
PAL
SS
SANDY SILTSTONE and VOLCANICLASTIC SANDSTONE
Major Lithologies:
Core is composed of dark greenish gray (5GY 4/1) SANDY SILTSTONE and thin to thick dark gray VOLCANICLASTIC SANDSTONE layers. The entire core displays burrows filled with sandy volcaniclastic material. A wood fragment occurs at Section 2, 93 cm.

Core Photo

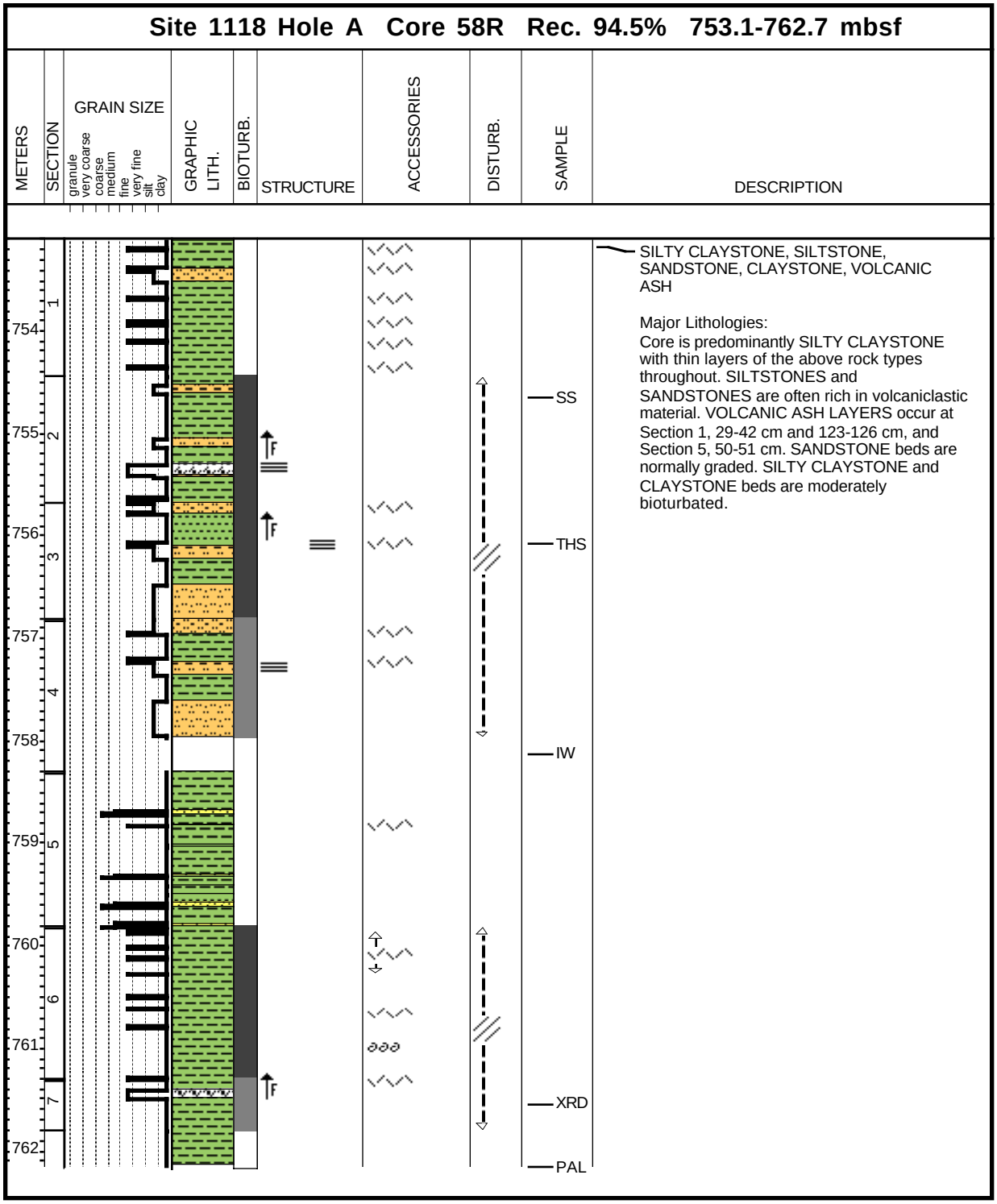

Site 1118 Hole A Core 56R Rec. 71.9% 733.8-743.5 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
734
735
736
737
738
739
740
1
2
3
4
5
F
F
SS
THS
SS
XRD
PAL
SILTY CLAYSTONE, CLAYEY SILTSTONE, VOLCANICLASTIC SANDSTONE, VOLCANIC ASH, SILTY SANDSTONE, and SANDY SILTSTONE
Major Lithologies:
Core contains predominantly greenish gray (5GY 5/1) fining upward sequences of light gray (5Y 7/1) to yellowish brown (10YR 4/2) VOLCANICLASTIC SANDSTONE to SILTY CLAYSTONE, CLAYEY SILTSTONE or SANDY SILTSTONE. Section 1, 34-44.5 cm is characterized by medium-grained VOLCANICLASTIC SANDSTONE fining upward to VOLCANIC ASH. More VOLCANIC ASH layers occur at Section 1, 70-70,5 cm, 107-111 cm, Section 2, 127-133 cm and Section 4, 88-90 cm.

Core Photo

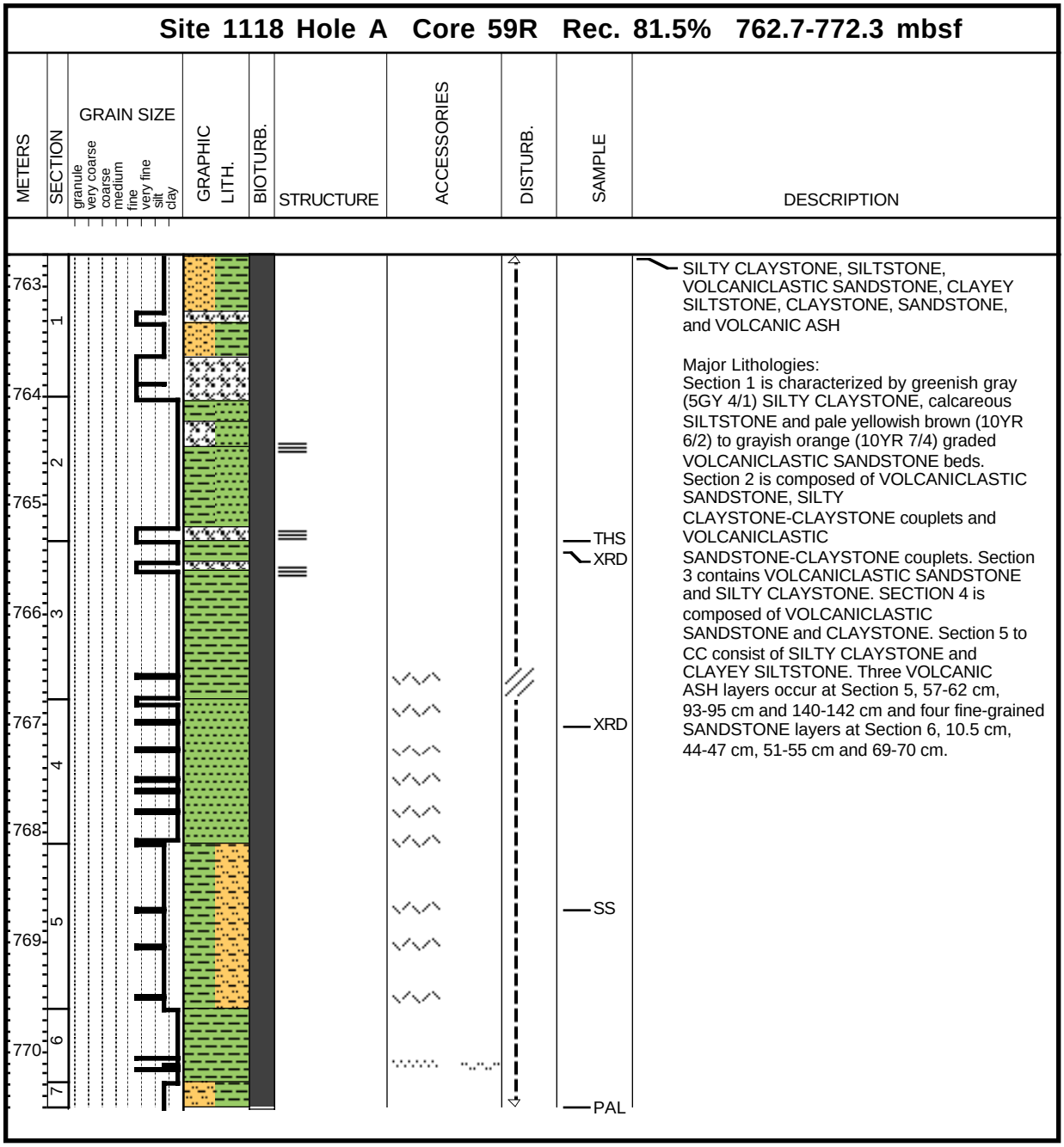
Site 1118 Hole A Core 57R Rec. 66.5% 743.5-753.1 mbsf



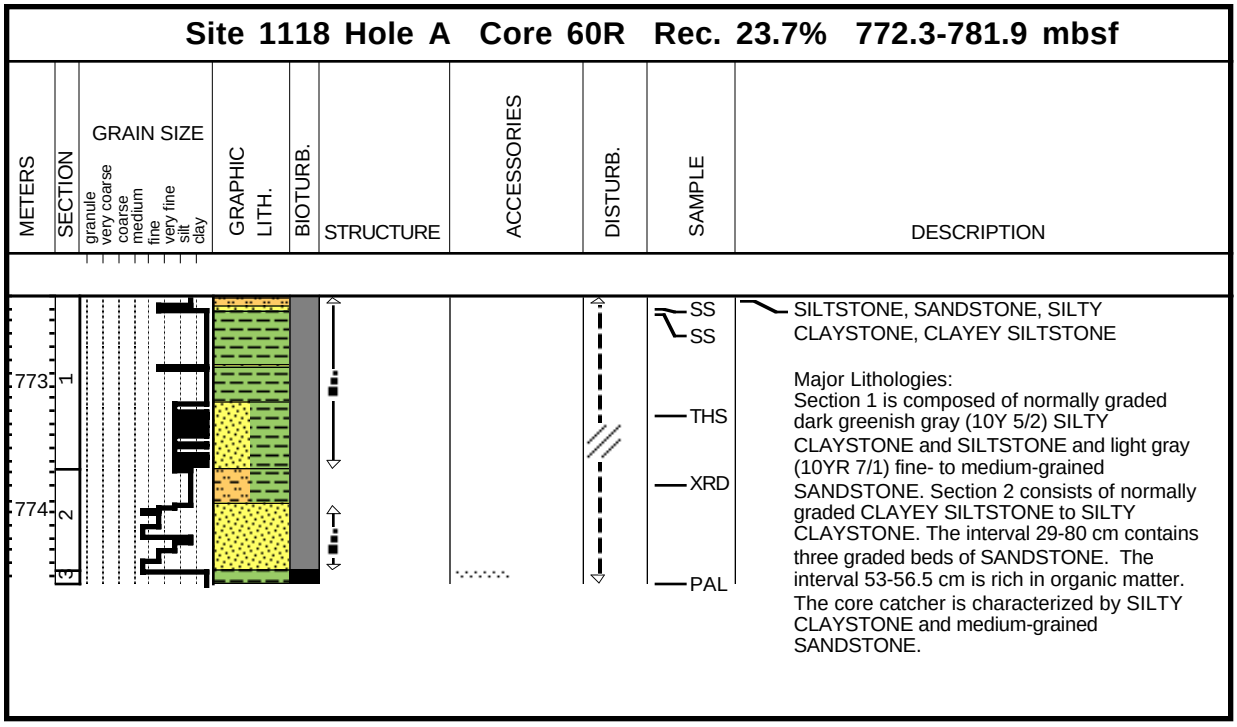
Core Photo


Site 1118 Hole A Core 58R Rec. 94.5% 753.1-762.7 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
754
755
756
757
758
759
760
761
762
1
2
3
4
5
6
7
F
F
F
SS
THS
IW
XRD
PAL
SILTY CLAYSTONE, SILTSTONE, SANDSTONE, CLAYSTONE, VOLCANIC ASH
Major Lithologies:
Core is predominantly SILTY CLAYSTONE with thin layers of the above rock types throughout. SILTSTONES and SANDSTONES are often rich in volcaniclastic material. VOLCANIC ASH LAYERS occur at Section 1, 29-42 cm and 123-126 cm, and Section 5, 50-51 cm. SANDSTONE beds are normally graded. SILTY CLAYSTONE and CLAYSTONE beds are moderately bioturbated.

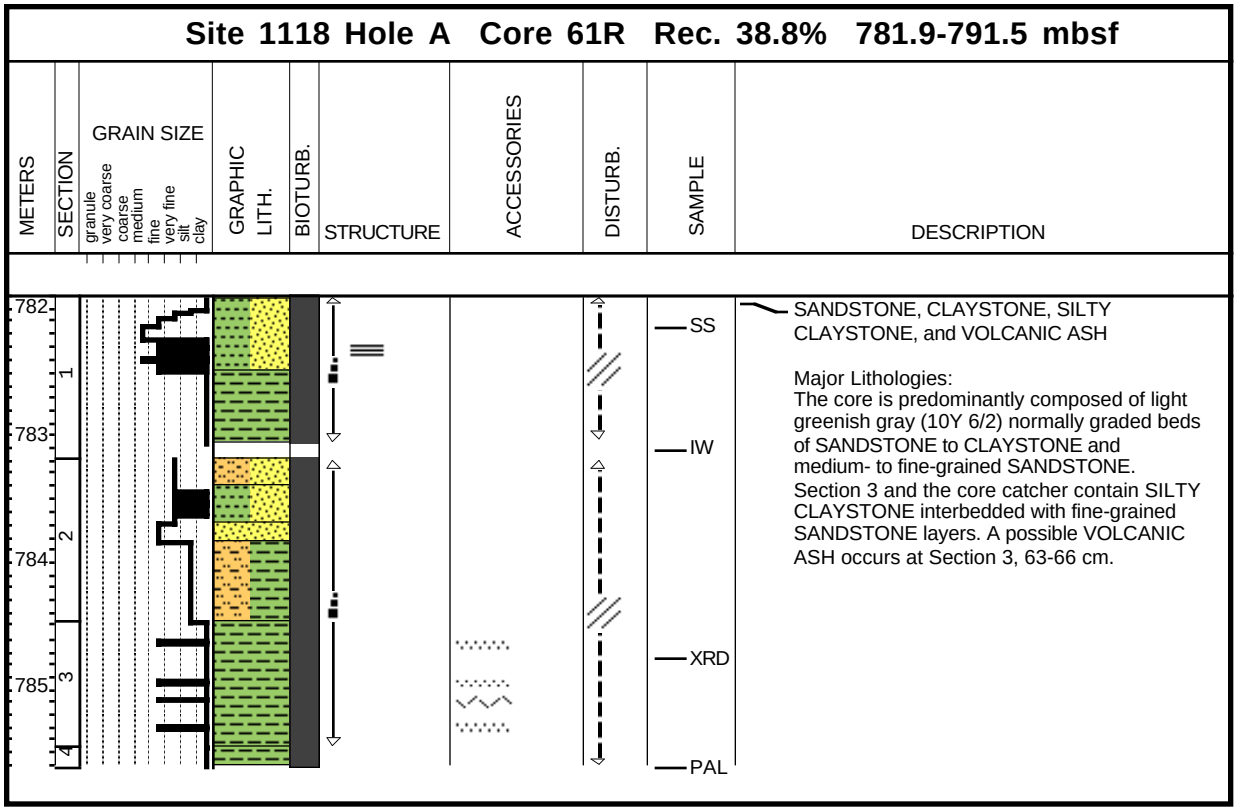
Core Photo


Site 1118 Hole A Core 59R Rec. 81.5% 762.7-772.3 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
763
764
765
766
767
768
769
770
1
2
3
4
5
6
7
THS
XRD
XRD
SS
PAL
SILTY CLAYSTONE, SILTSTONE, VOLCANICLASTIC SANDSTONE, CLAYEY SILTSTONE, CLAYSTONE, SANDSTONE, and VOLCANIC ASH
Major Lithologies:
Section 1 is characterized by greenish gray (5GY 4/1) SILTY CLAYSTONE, calcareous SILTSTONE and pale yellowish brown (10YR 6/2) to grayish orange (10YR 7/4) graded VOLCANICLASTIC SANDSTONE beds. Section 2 is composed of VOLCANICLASTIC SANDSTONE, SILTY CLAYSTONE-CLAYSTONE couplets and VOLCANICLASTIC SANDSTONE-CLAYSTONE couplets. Section 3 contains VOLCANICLASTIC SANDSTONE and SILTY CLAYSTONE. SECTION 4 is composed of VOLCANICLASTIC SANDSTONE and CLAYSTONE. Section 5 to CC consist of SILTY CLAYSTONE and CLAYEY SILTSTONE. Three VOLCANIC ASH layers occur at Section 5, 57-62 cm, 93-95 cm and 140-142 cm and four fine-grained SANDSTONE layers at Section 6, 10.5 cm, 44-47 cm, 51-55 cm and 69-70 cm.

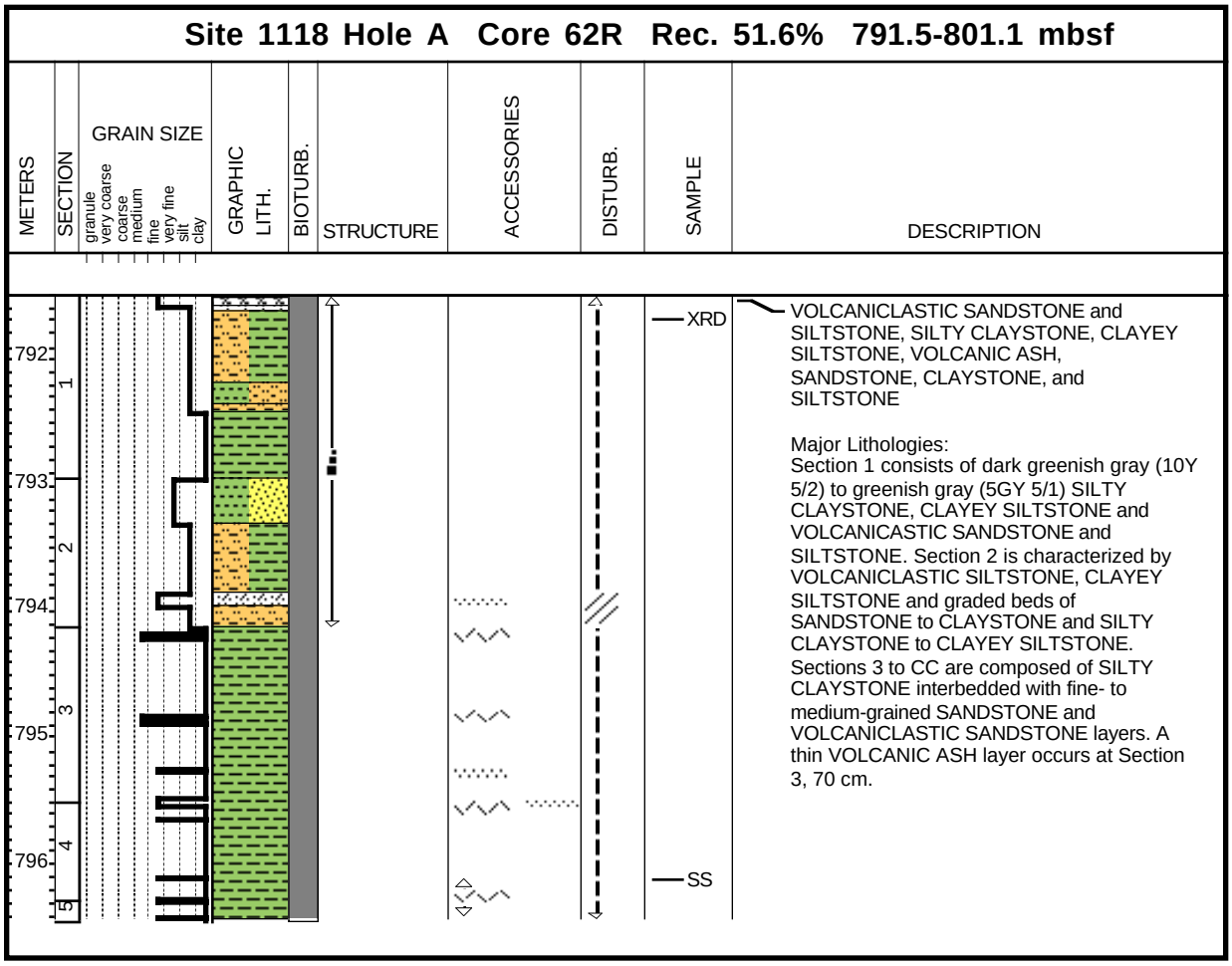
Core Photo


Site 1118 Hole A Core 60R Rec. 23.7% 772.3-781.9 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
773
774
1
2
3
SS
SS
THS
XRD
PAL
SILTSTONE, SANDSTONE, SILTY CLAYSTONE, CLAYEY SILTSTONE
Major Lithologies:
Section 1 is composed of normally graded dark greenish gray (10Y 5/2) SILTY CLAYSTONE and SILTSTONE and light gray (10YR 7/1) fine- to medium-grained SANDSTONE. Section 2 consists of normally graded CLAYEY SILTSTONE to SILTY CLAYSTONE. The interval 29-80 cm contains three graded beds of SANDSTONE. The interval 53-56.5 cm is rich in organic matter. The core catcher is characterized by SILTY CLAYSTONE and medium-grained SANDSTONE.

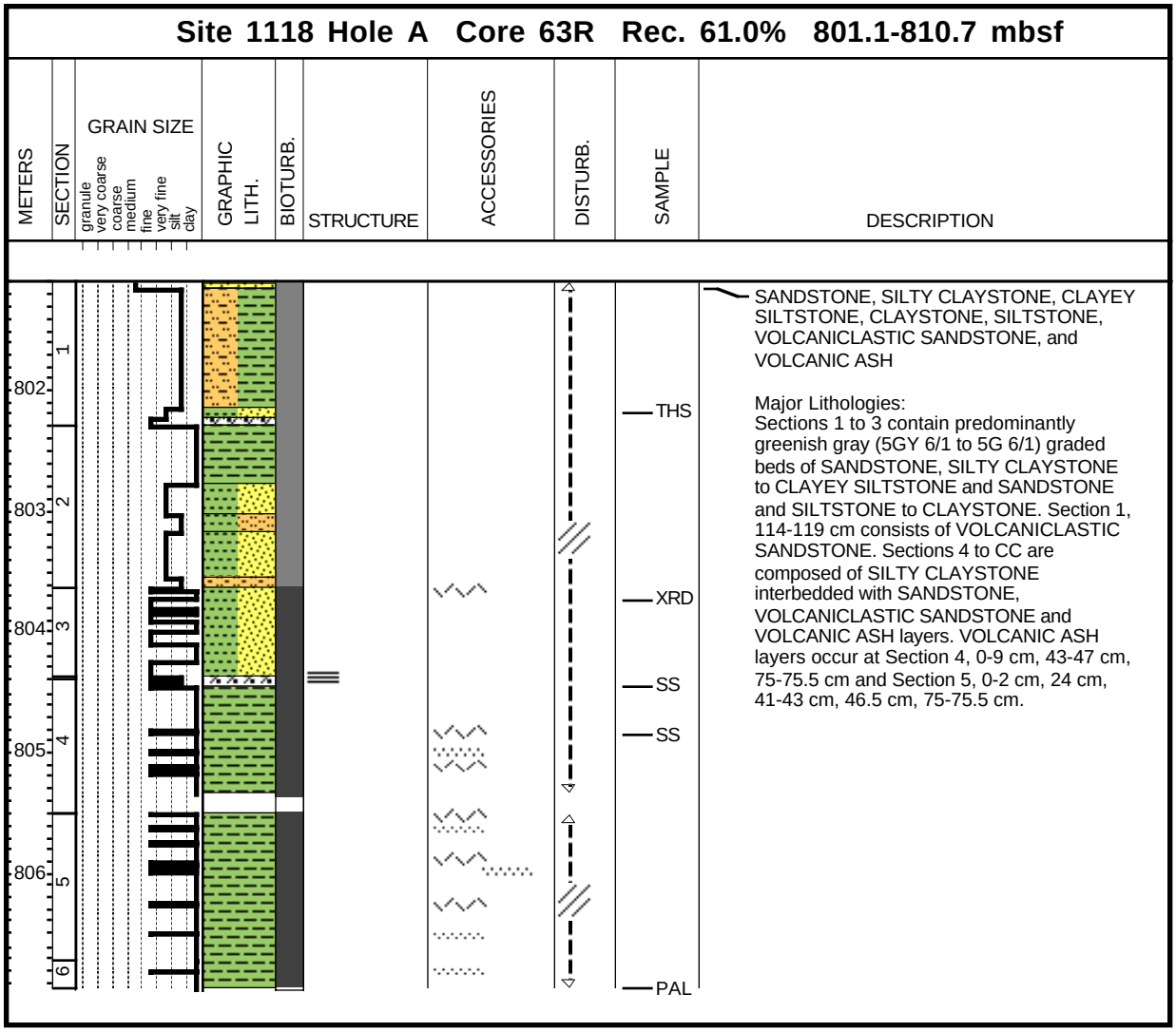
Core Photo


Site 1118 Hole A Core 61R Rec. 38.8% 781.9-791.5 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
782
783
784
785
1
2
3
4
SS
IW
XRD
PAL
SANDSTONE, CLAYSTONE, SILTY CLAYSTONE, and VOLCANIC ASH
Major Lithologies:
The core is predominantly composed of light greenish gray (10Y 6/2) normally graded beds of SANDSTONE to CLAYSTONE and medium- to fine-grained SANDSTONE.
Section 3 and the core catcher contain SILTY CLAYSTONE interbedded with fine-grained SANDSTONE layers. A possible VOLCANIC ASH occurs at Section 3, 63-66 cm.

Core Photo

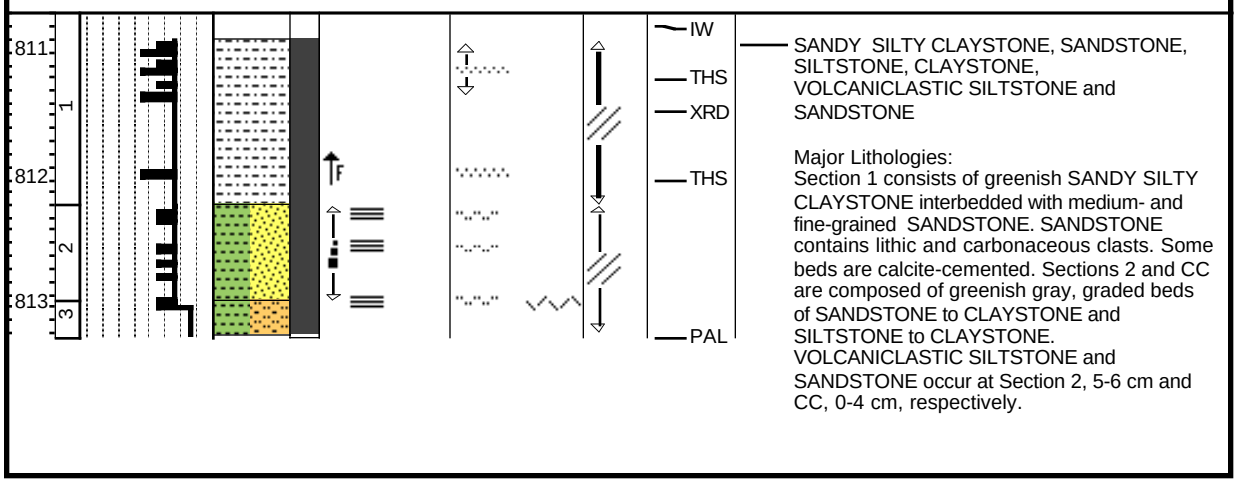

Site 1118 Hole A Core 62R Rec. 51.6% 791.5-801.1 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
792
793
794
795
796
1
2
3
4
5
XRD
SS
VOLCANICLASTIC SANDSTONE and SILTSTONE, SILTY CLAYSTONE, CLAYEY SILTSTONE, VOLCANIC ASH, SANDSTONE, CLAYSTONE, and SILTSTONE
Major Lithologies:
Section 1 consists of dark greenish gray (10Y 5/2) to greenish gray (5GY 5/1) SILTY CLAYSTONE, CLAYEY SILTSTONE and VOLCANICASTIC SANDSTONE and SILTSTONE. Section 2 is characterized by VOLCANICLASTIC SILTSTONE, CLAYEY SILTSTONE and graded beds of SANDSTONE to CLAYSTONE and SILTY CLAYSTONE to CLAYEY SILTSTONE. Sections 3 to CC are composed of SILTY CLAYSTONE interbedded with fine- to medium-grained SANDSTONE and VOLCANICLASTIC SANDSTONE layers. A thin VOLCANIC ASH layer occurs at Section 3, 70 cm.

Core Photo

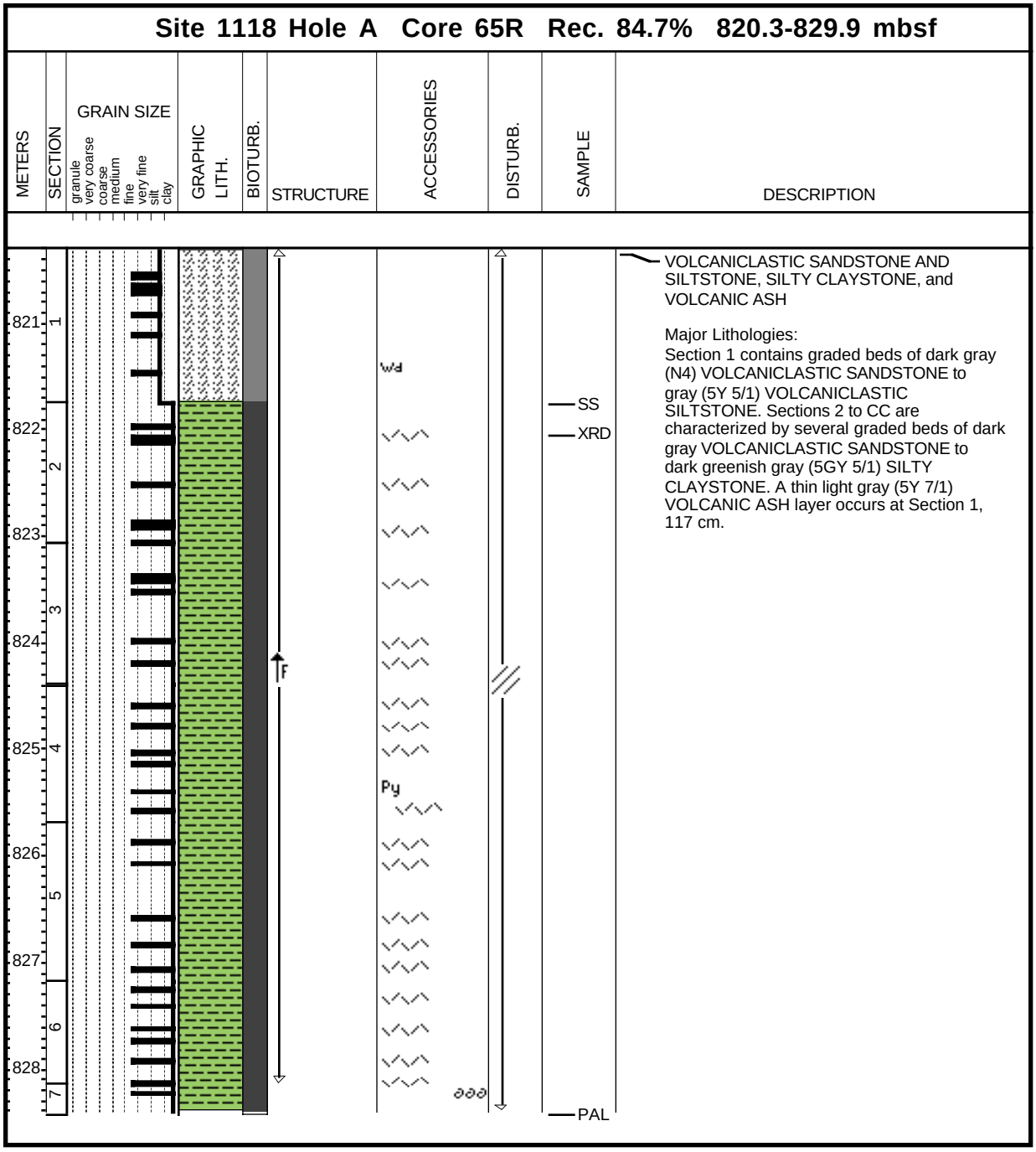

Site 1118 Hole A Core 63R Rec. 61.0% 801.1-810.7 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
802
803
804
805
806
1
2
3
4
5
6
THS
XRD
SS
SS
PAL
SANDSTONE, SILTY CLAYSTONE, CLAYEY SILTSTONE, CLAYSTONE, SILTSTONE, VOLCANICLASTIC SANDSTONE, and VOLCANIC ASH
Major Lithologies:
Sections 1 to 3 contain predominantly greenish gray (5GY 6/1 to 5G 6/1) graded beds of SANDSTONE, SILTY CLAYSTONE to CLAYEY SILTSTONE and SANDSTONE and SILTSTONE to CLAYSTONE. Section 1, 114-119 cm consists of VOLCANICLASTIC SANDSTONE. Sections 4 to CC are composed of SILTY CLAYSTONE interbedded with SANDSTONE, VOLCANICLASTIC SANDSTONE and VOLCANIC ASH layers. VOLCANIC ASH layers occur at Section 4, 0-9 cm, 43-47 cm, 75-75.5 cm and Section 5, 0-2 cm, 24 cm, 41-43 cm, 46.5 cm, 75-75.5 cm.

Core Photo

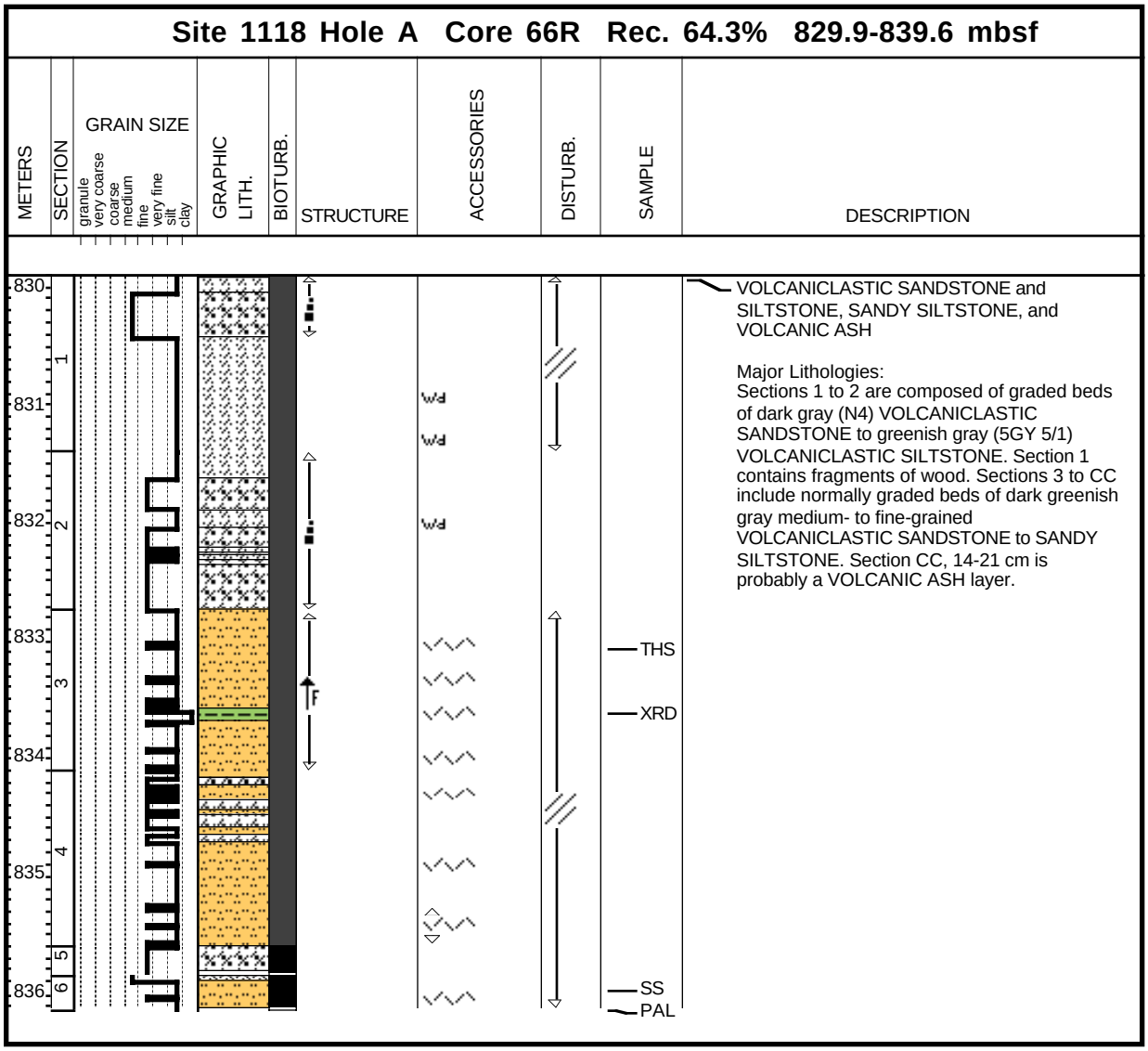
Site 1118 Hole A Core 64R Rec. 26.5% 810.7-820.3 mbsf



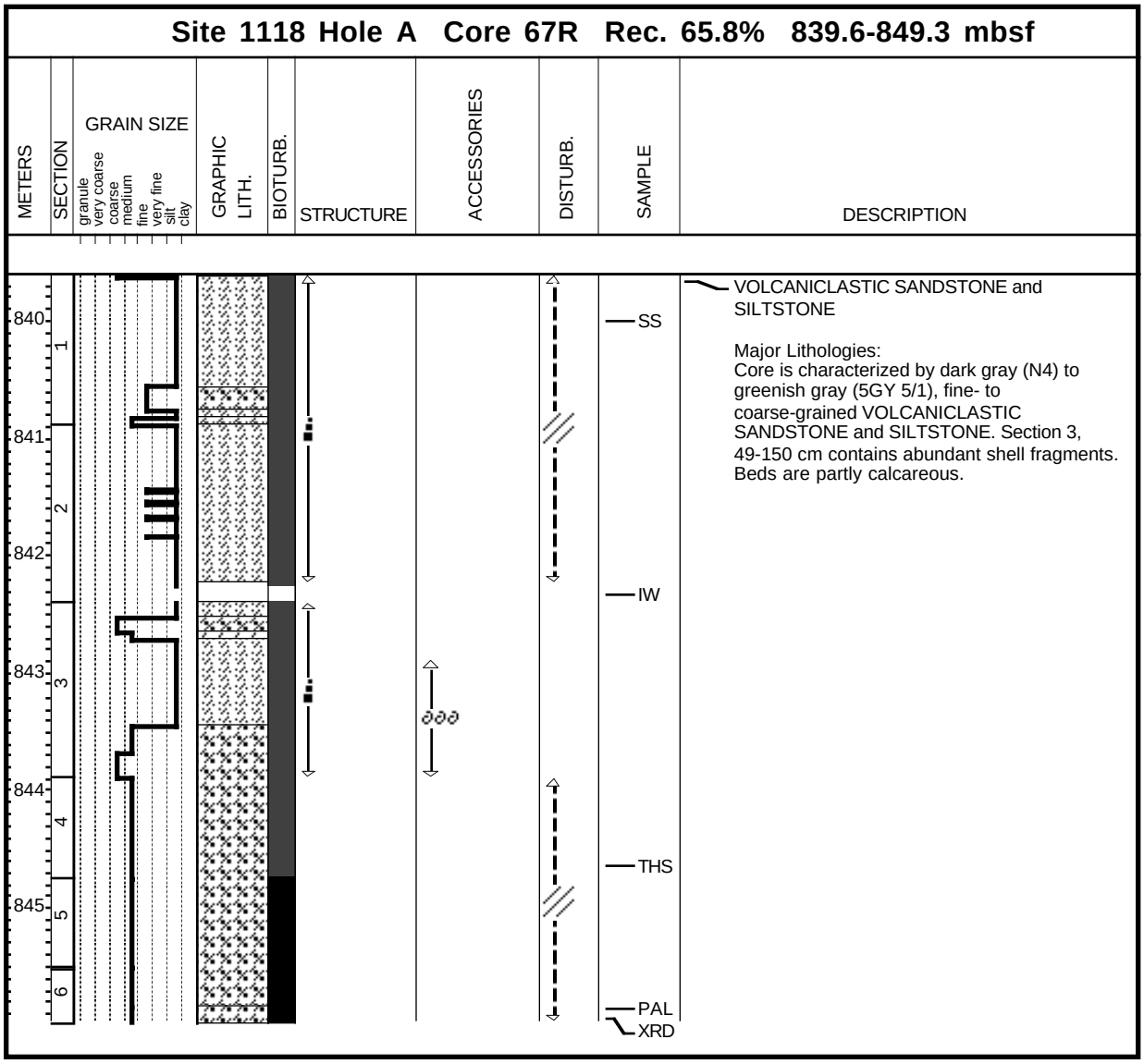
Core Photo


Site 1118 Hole A Core 65R Rec. 84.7% 820.3-829.9 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
821
822
823
824
825
826
827
828
1
2
3
4
5
6
7
Wd
Py
F
SS
XRD
PAL
VOLCANICLASTIC SANDSTONE AND SILTSTONE, SILTY CLAYSTONE, and VOLCANIC ASH
Major Lithologies:
Section 1 contains graded beds of dark gray (N4) VOLCANICLASTIC SANDSTONE to gray (5Y 5/1) VOLCANICLASTIC SILTSTONE. Sections 2 to CC are characterized by several graded beds of dark gray VOLCANICLASTIC SANDSTONE to dark greenish gray (5GY 5/1) SILTY CLAYSTONE. A thin light gray (5Y 7/1) VOLCANIC ASH layer occurs at Section 1, 117 cm.

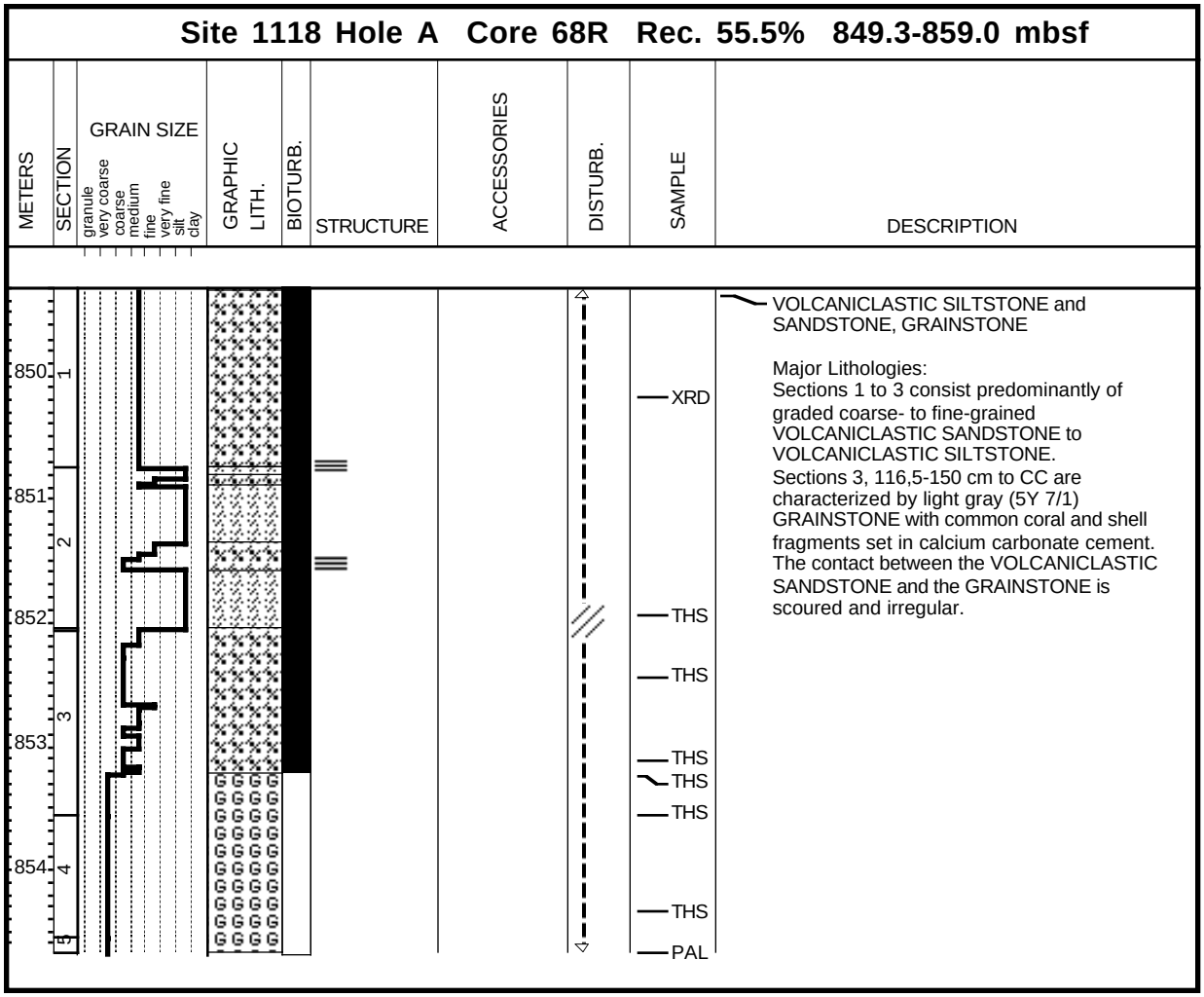
Core Photo


Site 1118 Hole A Core 66R Rec. 64.3% 829.9-839.6 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
830
831
832
833
834
835
836
1
2
3
4
5
6
wd
wd
wd
F
THS
XRD
SS
PAL
VOLCANICLASTIC SANDSTONE and SILTSTONE, SANDY SILTSTONE, and VOLCANIC ASH
Major Lithologies:
Sections 1 to 2 are composed of graded beds of dark gray (N4) VOLCANICLASTIC SANDSTONE to greenish gray (5GY 5/1) VOLCANICLASTIC SILTSTONE. Section 1 contains fragments of wood. Sections 3 to CC include normally graded beds of dark greenish gray medium- to fine-grained VOLCANICLASTIC SANDSTONE to SANDY SILTSTONE. Section CC, 14-21 cm is probably a VOLCANIC ASH layer.

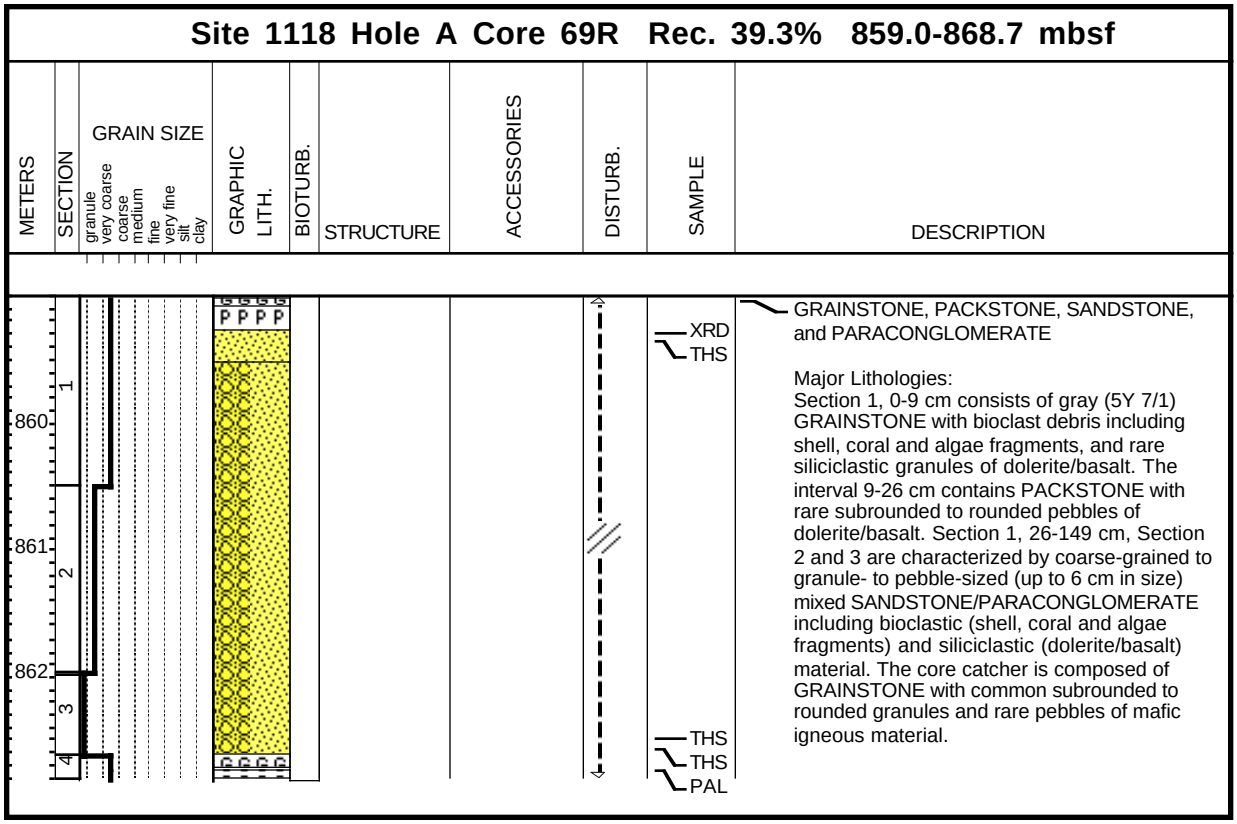
Core Photo


Site 1118 Hole A Core 67R Rec. 65.8% 839.6-849.3 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
840
841
842
843
844
845
1
2
3
4
5
6
SS
IW
THS
PAL
XRD
VOLCANICLASTIC SANDSTONE and SILTSTONE
Major Lithologies:
Core is characterized by dark gray (N4) to greenish gray (5GY 5/1), fine- to coarse-grained VOLCANICLASTIC SANDSTONE and SILTSTONE. Section 3, 49-150 cm contains abundant shell fragments. Beds are partly calcareous.

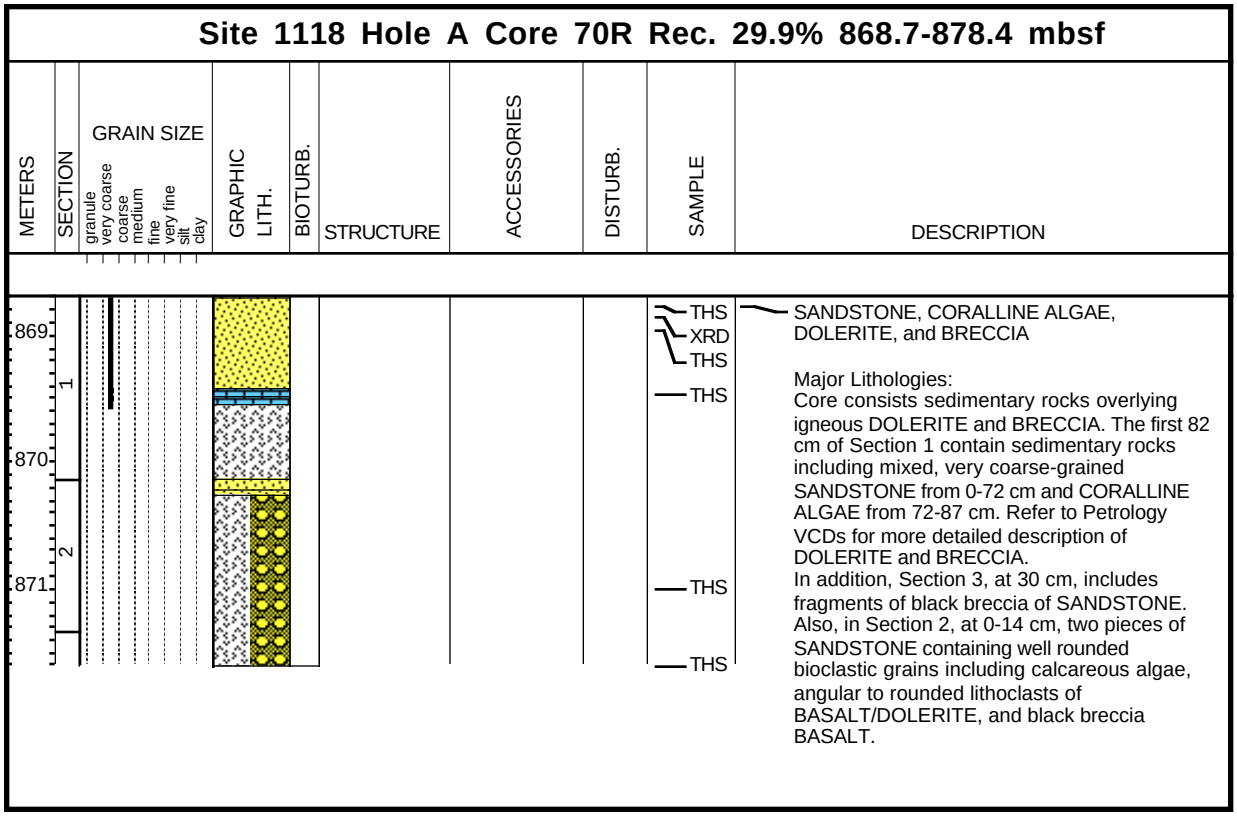
Core Photo


Site 1118 Hole A Core 68R Rec. 55.5% 849.3-859.0 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
850
851
852
853
854
1
2
3
4
5
XRD
THS
THS
THS
THS
THS
THS
PAL
VOLCANICLASTIC SILTSTONE and SANDSTONE, GRAINSTONE
Major Lithologies:
Sections 1 to 3 consist predominantly of graded coarse- to fine-grained VOLCANICLASTIC SANDSTONE to VOLCANICLASTIC SILTSTONE.
Sections 3, 116,5-150 cm to CC are characterized by light gray (5Y 7/1) GRAINSTONE with common coral and shell fragments set in calcium carbonate cement.
The contact between the VOLCANICLASTIC SANDSTONE and the GRAINSTONE is scoured and irregular.

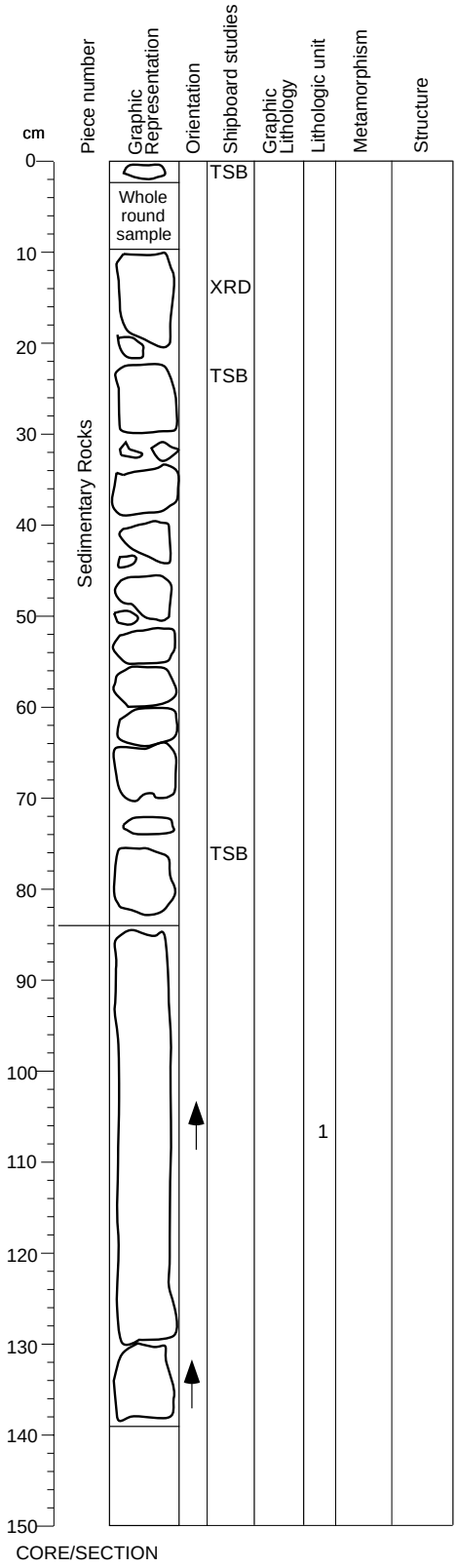
Core Photo


Site 1118 Hole A Core 69R Rec. 39.3% 859.0-868.7 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
860
861
862
1
2
3
4
XRD
THS
THS
THS
PAL
GRAINSTONE, PACKSTONE, SANDSTONE, and PARACONGLOMERATE
Major Lithologies:
Section 1, 0-9 cm consists of gray (5Y 7/1) GRAINSTONE with bioclast debris including shell, coral and algae fragments, and rare siliciclastic granules of dolerite/basalt. The interval 9-26 cm contains PACKSTONE with rare subrounded to rounded pebbles of dolerite/basalt. Section 1, 26-149 cm, Section 2 and 3 are characterized by coarse-grained to granule- to pebble-sized (up to 6 cm in size) mixed SANDSTONE/PARACONGLOMERATE including bioclastic (shell, coral and algae fragments) and siliciclastic (dolerite/basalt) material. The core catcher is composed of GRAINSTONE with common subrounded to rounded granules and rare pebbles of mafic igneous material.

Core Photo


Site 1118 Hole A Core 70R Rec. 29.9% 868.7-878.4 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
869
870
871
1
2
THS
XRD
THS
THS
THS
THS
SANDSTONE, CORALLINE ALGAE, DOLERITE, and BRECCIA
Major Lithologies:
Core consists sedimentary rocks overlying igneous DOLERITE and BRECCIA. The first 82 cm of Section 1 contain sedimentary rocks including mixed, very coarse-grained SANDSTONE from 0-72 cm and CORALLINE ALGAE from 72-87 cm. Refer to Petrology VCDs for more detailed description of DOLERITE and BRECCIA.
In addition, Section 3, at 30 cm, includes fragments of black breccia of SANDSTONE. Also, in Section 2, at 0-14 cm, two pieces of SANDSTONE containing well rounded bioclastic grains including calcareous algae, angular to rounded lithoclasts of BASALT/DOLERITE, and black breccia BASALT.

Core Photo



180-1118A-70R-1 (868.70-870.14 mbsf)

UNIT: 1 **Brecciated dolerite**

Interval Location:	Core	Section	Piece	Depth (mbsf)
Upper contact:	70R	1	-	869.57
Lower contact:	70R	1	-	870.11

Thickness (m): 0.54
Contact Type: None

GENERAL: The top 87 cm of the section is composed of coarse to very coarse-grained sandstones and clasts of coralline algae (refer to "Lithostratigraphy" section, this chapter). The bottom from 87-141 cm is a fine- to medium grained dolerite.

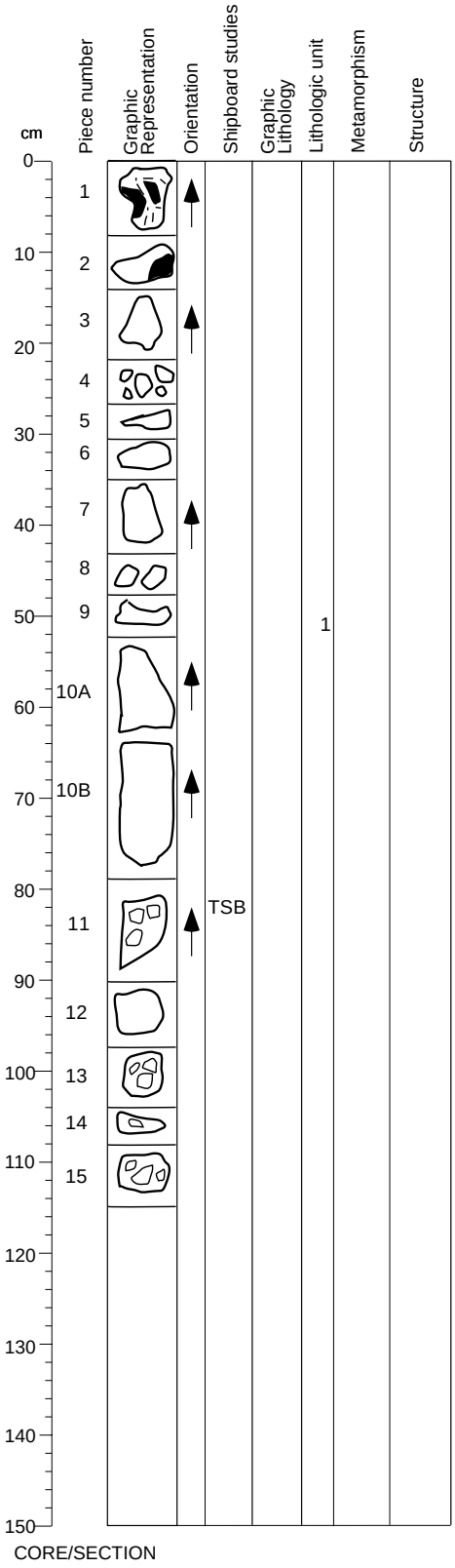
GRAIN SIZE: Fine- to medium-grained

TEXTURE: Ophitic

ALTERATION: Negligible to slight iron oxidation

COMMENTS: This is the first appearance of dolerite rocks within the brecciated dolerite unit in Hole 1118A. In general, dolerite within the unit is composed of plagioclase (sausseritized in parts), clinopyroxene (partly chloritized), magnetite (often dendritic), iron-oxide, and pyrite. Texture is predominantly ophitic with less common granular textures.

Core Photo



180-1118A-70R-2 (870.14-871.34 mbsf)

UNIT: 1 **Brecciated dolerite**
Pieces: 1-15

Interval Location:	Core	Section	Piece	Depth (mbsf)
Upper contact:	70R	2	1	870.11
Lower contact:	70R	2	15	871.25

Thickness (m): 1.15
Contact Type: None

GENERAL: These are clasts and rock pieces ascribed to one unit, brecciated dolerite. Brecciation within the unit ranges from negligible to pervasive. Breccia contains sub-angular dolerite clasts within a clay-sized, dark brown to black matrix, believed to be altered dolerite.

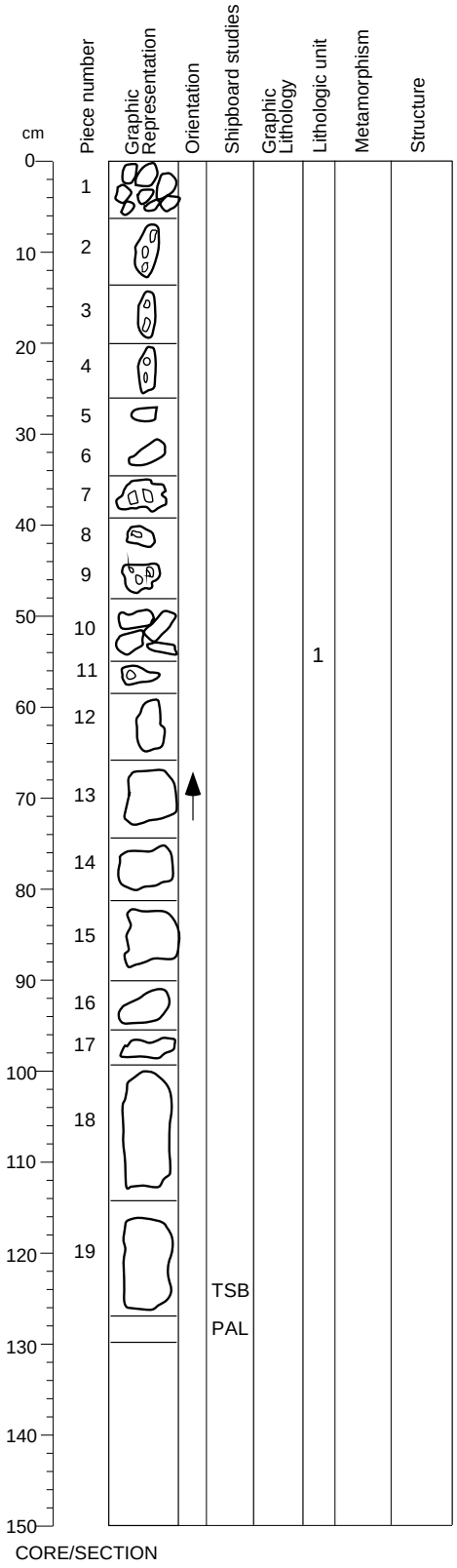
GRAIN SIZE: Fine- to medium-grained (most dolerite)

TEXTURE: Ophitic (dolerite), cataclastic (breccia)

ALTERATION: Variable iron oxidation and chloritization

COMMENTS: Pieces 1 and 2 are breccia with white, calcitic matrix and dark basalt clasts (2X2 cm, rounded to sub angular). Pieces 3 and 6 are coarse-grained altered dolerite clasts with pyrite and chlorite alteration products. Pieces 4, 5, and 7-9 are darker dolerite clasts that are moderately to pervasively altered. Pieces 10 and 12 are fresh to slightly-altered, fine- to medium-grained dolerite clasts with pyrite grains. Pieces 11 and 13-15 are breccia with angular (up to 2X2 cm), variably weathered clasts of basalt and dolerite within the dark colored matrix described above.

Core Photo



180-1118A-70R-3 (871.34-878.40 mbsf)

UNIT: 1 **Brecciated dolerite**
Pieces: 1-19

Interval Location:	Core	Section	Piece	Depth (mbsf)
Upper contact:	70R	CC	1	871.25
Lower contact:	70R	CC	19	872.52

Thickness (m): 1.27
Contact Type: None

GENERAL: These are clasts and rock pieces ascribed to one unit, brecciated dolerite. Brecciation within the unit ranges from negligible to pervasive. Breccia contains sub-angular dolerite clasts within a clay-sized, dark brown to black matrix, believed to be altered dolerite.

GRAIN SIZE: Fine- to medium-grained (most dolerite)

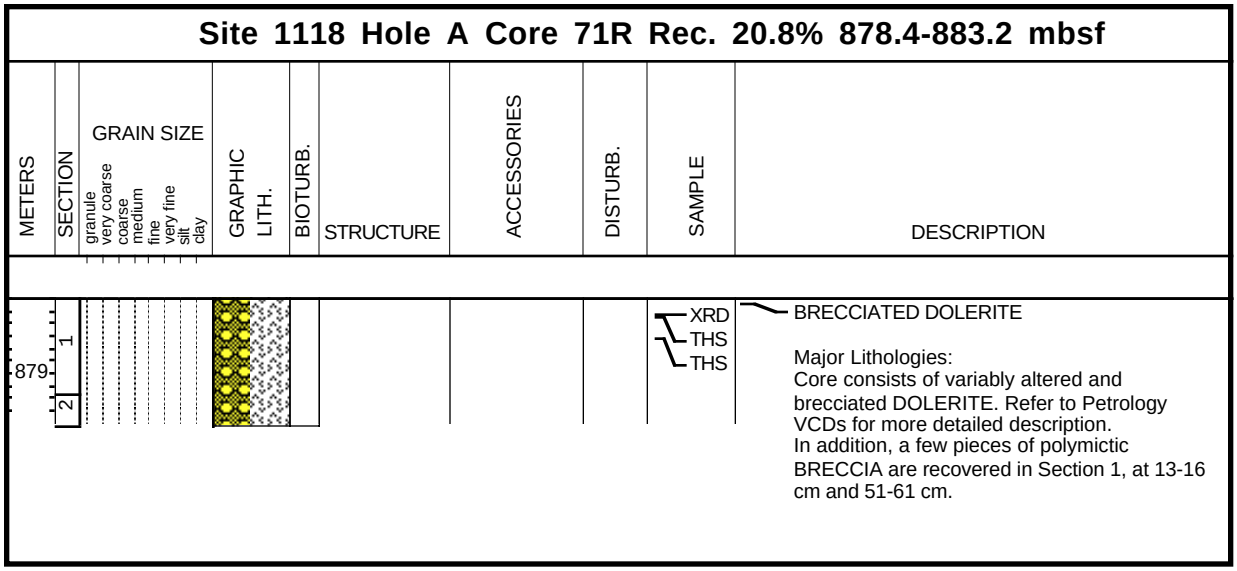
TEXTURE: Ophitic (dolerite), cataclastic (breccia)

STRUCTURE: Brecciation, slickensides

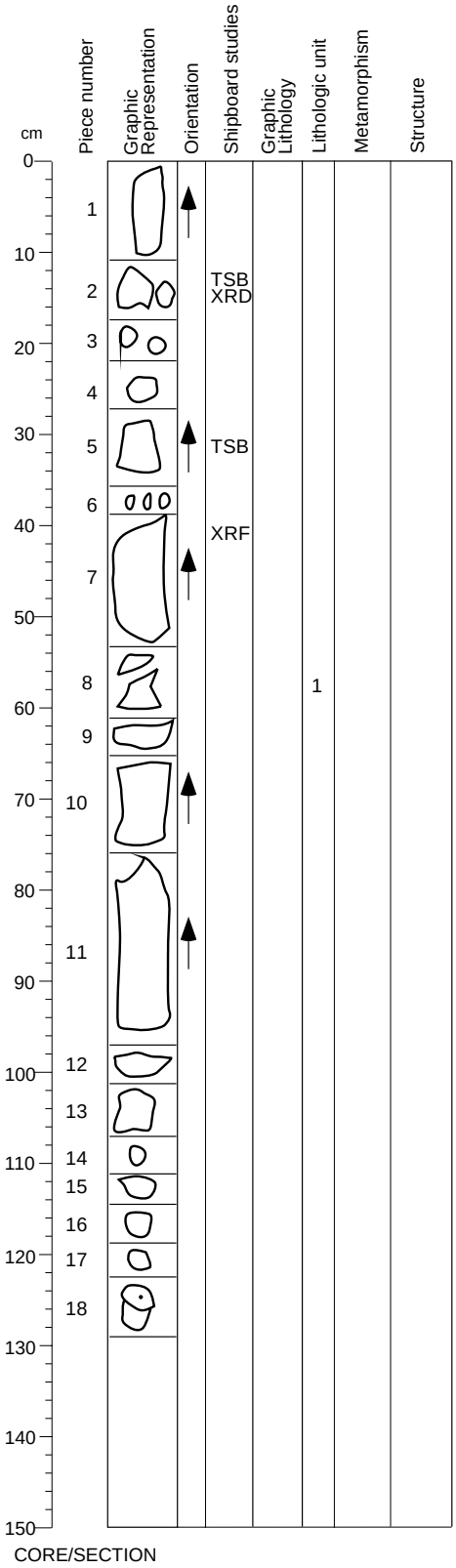
ALTERATION: Variable iron oxidation and chloritization

COMMENTS: Pieces 9 and 10 are dark pebbles that appear to be very weathered remains of basalt or dolerite. Some surfaces are slickensided. One clast within Tray 10 is a less-weathered dolerite. Pieces 2-4, 7-9, and 11 are breccia similar to those described in Section 2. Some isolated pieces of matrix material have slickensided surfaces, suggesting faulting. Pieces 12-19 are fine- to medium-grained, fresh to slightly altered dolerite clasts similar to those described above. Pieces 18 and 19 are a bit darker, more altered and are medium-grained.

Core Photo


Site 1118 Hole A Core 71R Rec. 20.8% 878.4-883.2 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
879
1
2
XRD
THS
THS
BRECCIATED DOLERITE
Major Lithologies:
Core consists of variably altered and brecciated DOLERITE. Refer to Petrology VCDs for more detailed description.
In addition, a few pieces of polymictic BRECCIA are recovered in Section 1, at 13-16 cm and 51-61 cm.

Core Photo



180-1118A-71R-1 (878.4-883.20 mbsf)

UNIT: 1 **Brecciated dolerite**
Pieces: 1-18

Interval Location:	Core	Section	Piece	Depth (mbsf)
Upper contact:	71R	1	1	878.40
Lower contact:	71R	1	18	879.69

Thickness (m): 1.29
Contact Type: None

GENERAL: These are clasts and rock pieces ascribed to one unit, brecciated dolerite. Brecciation within the unit ranges from negligible to pervasive. Breccia contains sub-angular dolerite clasts within a clay-sized brown matrix, believed to be altered dolerite.

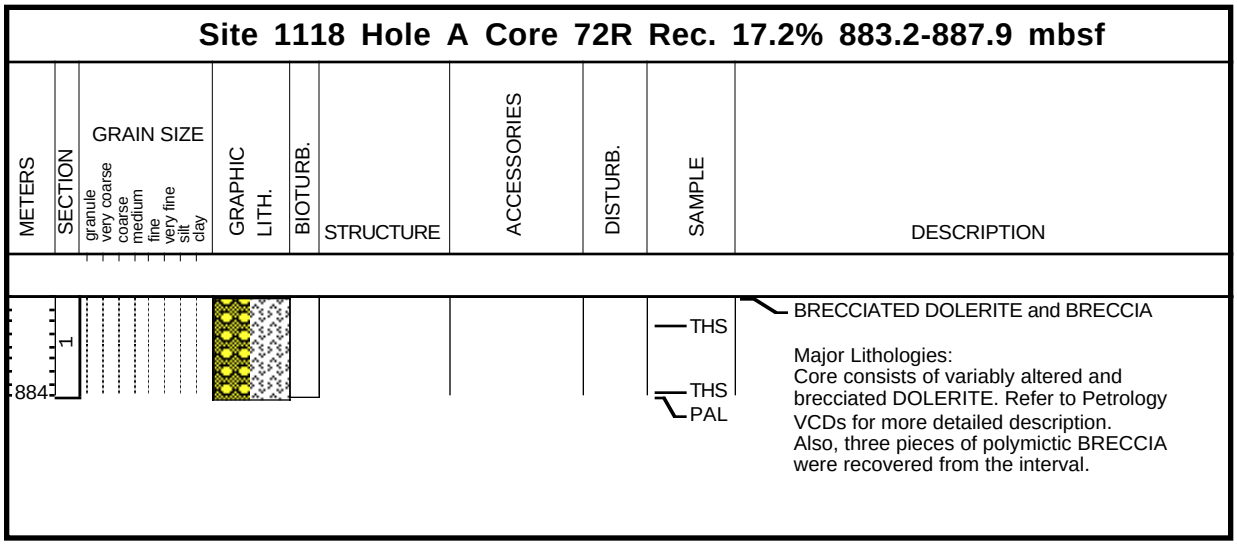
GRAIN SIZE: Fine- to medium-grained

TEXTURE: Ophitic (dolerite), cataclastic (breccia)

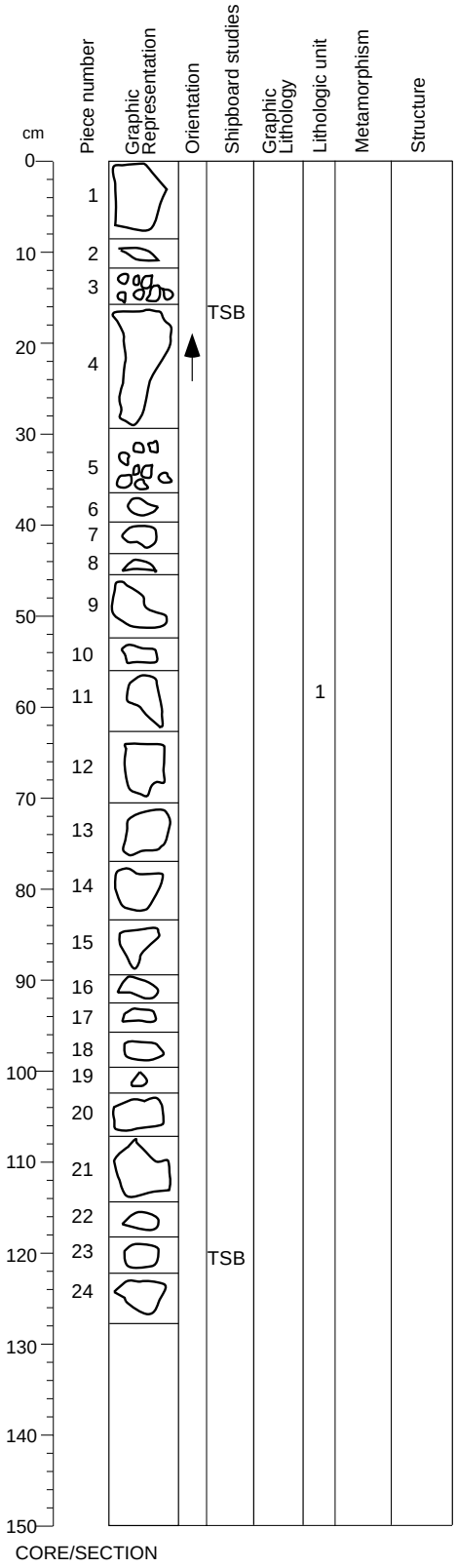
ALTERATION: Negligible to slight iron oxidation to pervasive

COMMENTS: Pieces 1, 7, 9-15, and 17-18 are fresh dolerite. Piece 16 is slightly altered to Fe-oxides. Pieces 2-6 and 8 are very altered and brecciated, containing the above-described brown matrix with sub-angular dolerite clasts. Piece 18 has a finer grain-size than other dolerite clasts.

Core Photo


Site 1118 Hole A Core 72R Rec. 17.2% 883.2-887.9 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
884
1
THS
THS
PAL
BRECCIATED DOLERITE and BRECCIA
Major Lithologies:
Core consists of variably altered and brecciated DOLERITE. Refer to Petrology VCDs for more detailed description.
Also, three pieces of polymictic BRECCIA were recovered from the interval.

Core Photo



180-1118A-72R-1 (883.2-887.9 mbsf)

UNIT: 1 **Brecciated dolerite**
Pieces: 1-24

Interval Location:	Core	Section	Piece	Depth (mbsf)
Upper contact:	72R	1	1	883.20
Lower contact:	72R	1	24	884.48

Thickness (m): 1.28
Contact Type: None

GENERAL: These are clasts and rock pieces ascribed to one unit, brecciated dolerite. Brecciation within the unit ranges from negligible to pervasive. Breccia contains sub-angular dolerite clasts within a clay-sized brown matrix, believed to be altered dolerite.

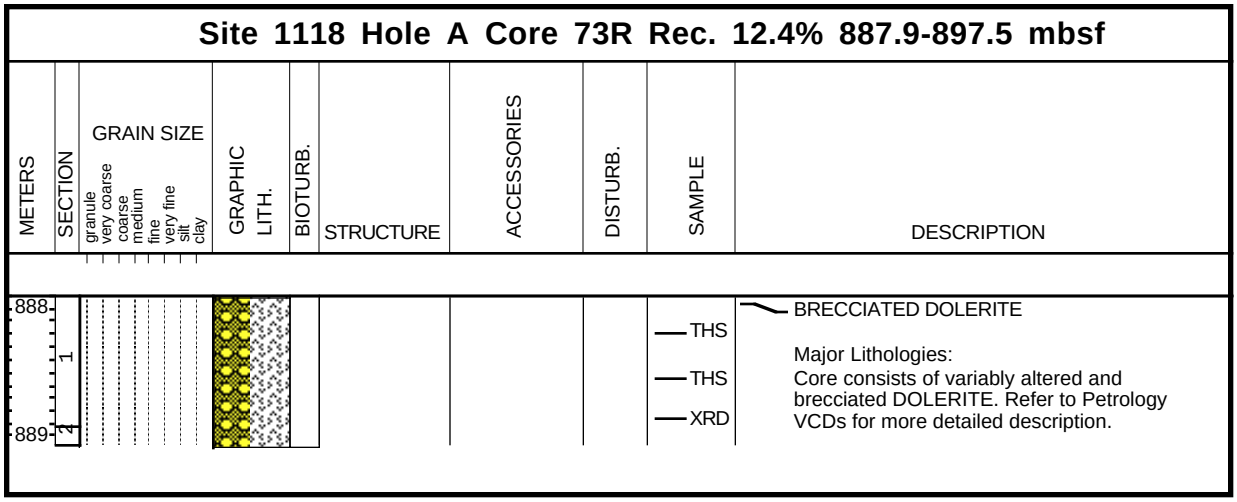
GRAIN SIZE: Fine- to medium-grained

TEXTURE: Ophitic (dolerite), cataclastic (breccia)

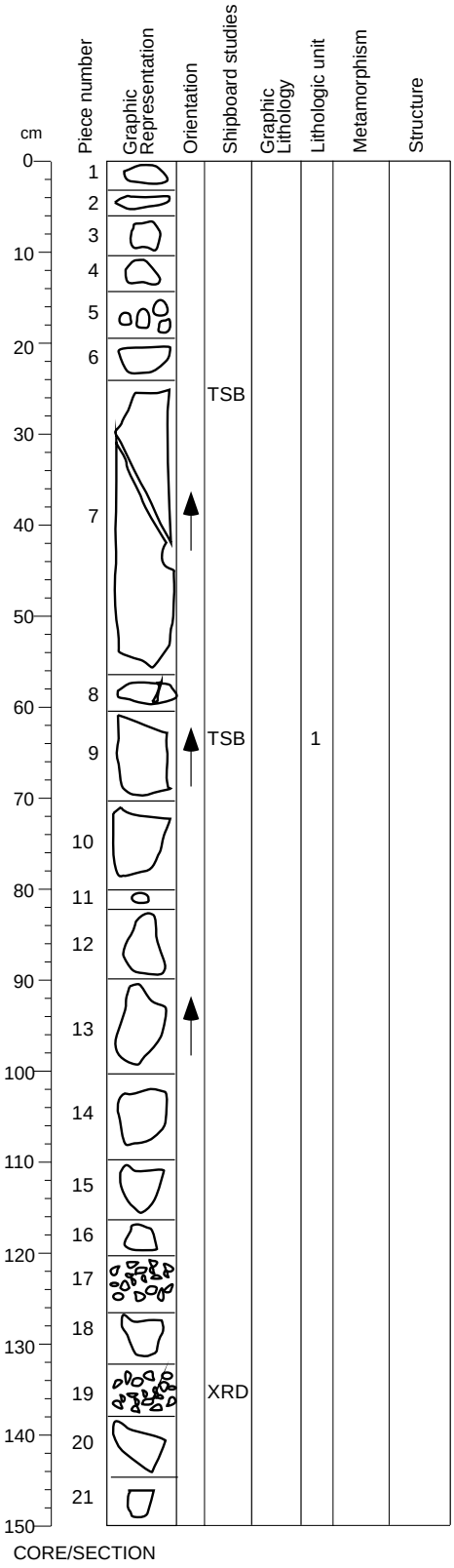
ALTERATION: Negligible to slight iron oxidation to pervasive

COMMENTS: Pieces 1, 4, 6-13, and 15-24 are dolerite clasts. Piece 4 is slickensided on one side, Pieces 12 and 13 are slightly weathered. Pieces 2 and 3 are chips of brecciated dolerite (mostly brown material as described above). Pieces 5 and 14 are breccia (as described above), with slickensides occurring on Piece 14.

Core Photo


Site 1118 Hole A Core 73R Rec. 12.4% 887.9-897.5 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
888
889
1
4
THS
THS
XRD
BRECCIATED DOLERITE
Major Lithologies:
Core consists of variably altered and brecciated DOLERITE. Refer to Petrology VCDs for more detailed description.

Core Photo



180-1118A-73R-1 (887.9-889.4 mbsf)

UNIT: 1 **Brecciated dolerite**
Pieces: 1-21

Interval Location:	Core	Section	Piece	Depth (mbsf)
Upper contact:	73R	1	1	887.90
Lower contact:	73R	1	21	889.40

Thickness (m): 1.50
Contact Type: None

GENERAL: These are clasts and rock pieces ascribed to one unit, brecciated dolerite. All pieces in this core are dolerite with variable degrees of subaerial weathering.

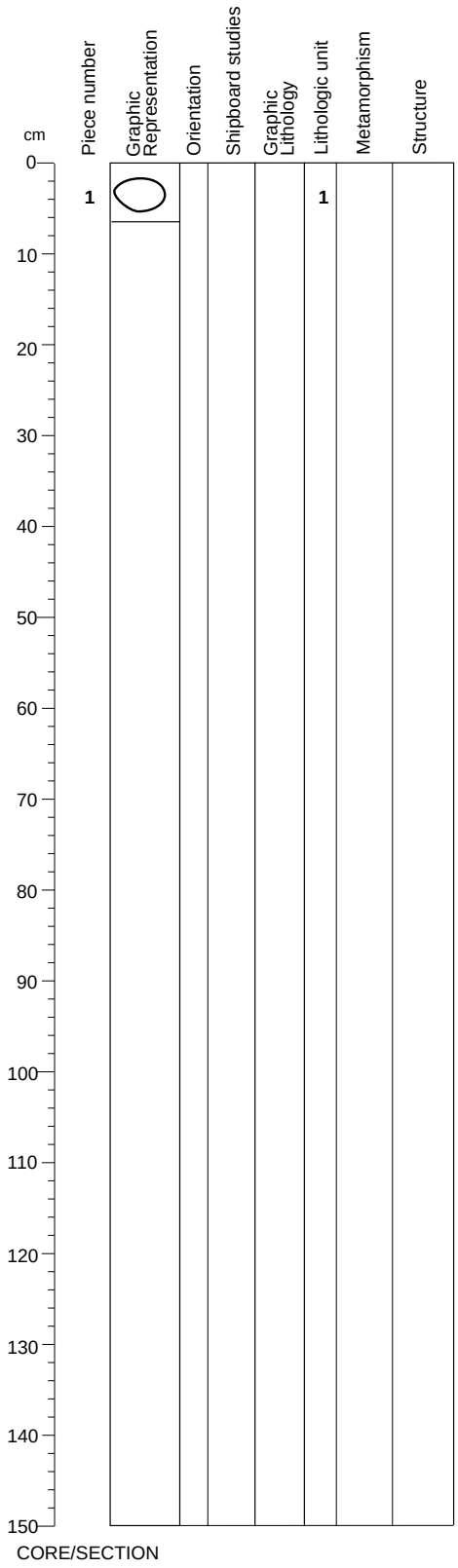
GRAIN SIZE: Fine- to medium-grained

TEXTURE: Ophitic

ALTERATION: Negligible to slight iron oxidation

COMMENTS: Piece 3 has a finer grain-size than the rest. Pieces 16-21 are subaerially-weathered to ranging extent. Piece 20 has clear onion-skin oxidation.

Core Photo



180-1118A-73R-2 (887.9-897.5 mbsf)

UNIT: 1 **Brecciated dolerite**
Pieces: 1

Interval Location:	Core	Section	Piece	Depth (mbsf)
Upper contact:	73R	2	1	889.40
Lower contact:	73R	2	1	889.46

Thickness (m): 0.06
Contact Type: None

GENERAL: This a single dolerite clast belonging to the brecciated dolerite unit.

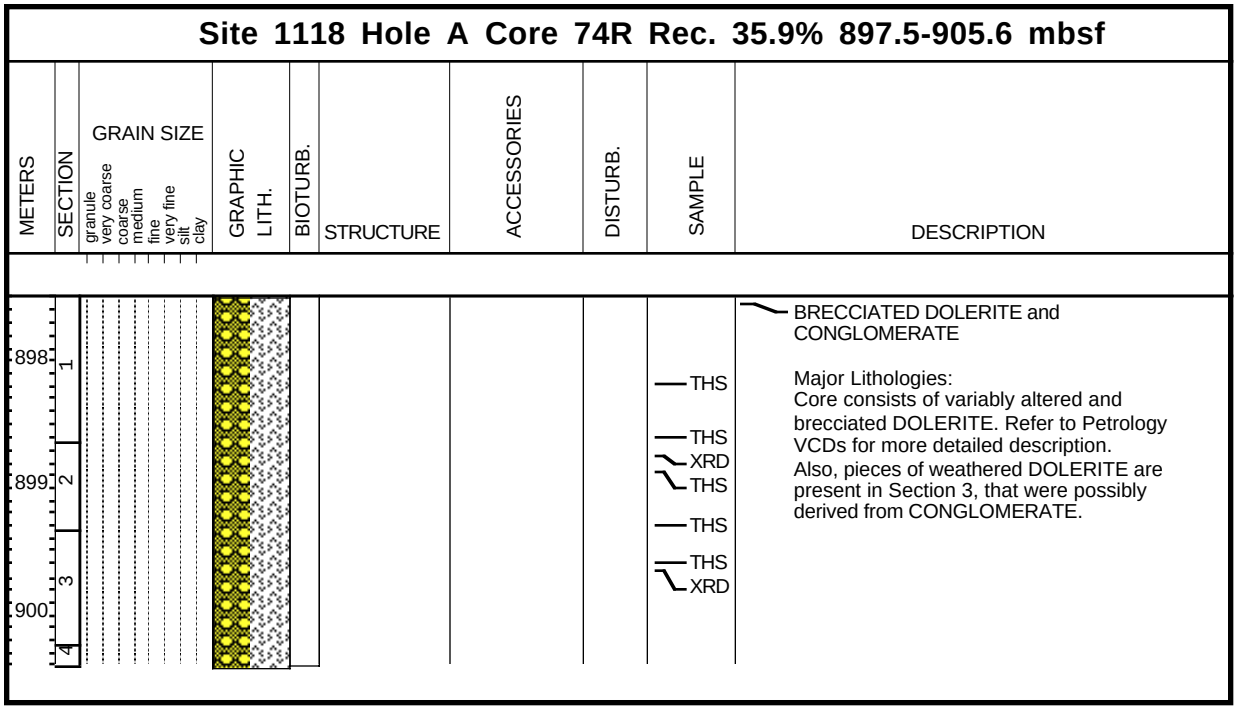
GRAIN SIZE: Medium-grained

TEXTURE: Ophitic

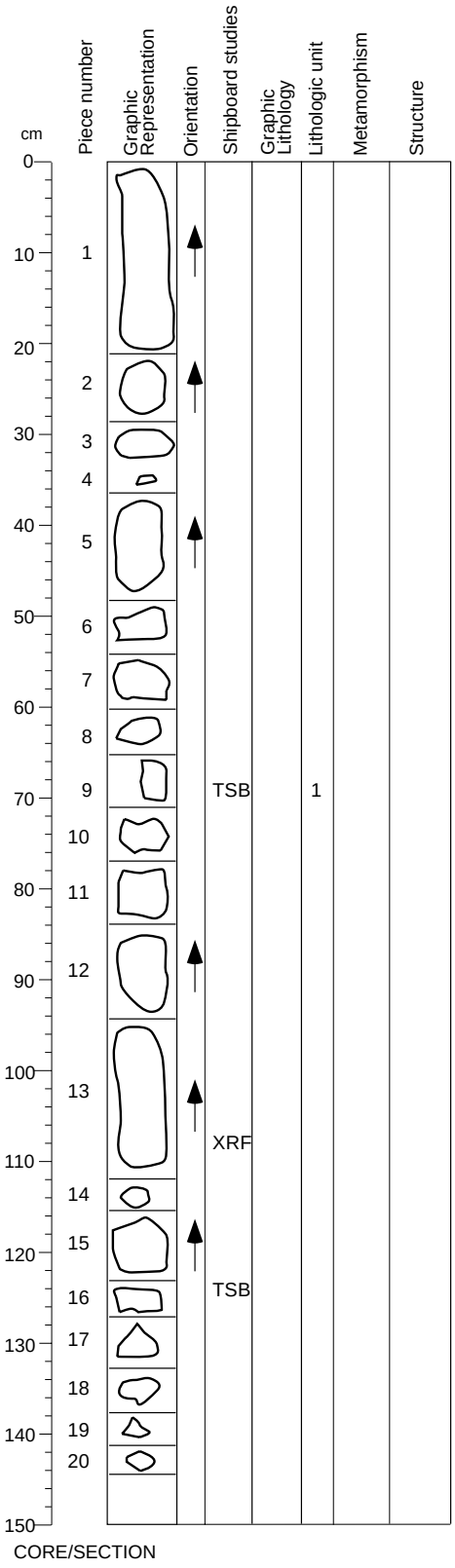
ALTERATION: Slight onion-skin weathering

COMMENTS: This piece is similar to previously-described dolerite clasts. Red and green weathering products co exist as onion-skin weathering products.

Core Photo


Site 1118 Hole A Core 74R Rec. 35.9% 897.5-905.6 mbsf
METERS
SECTION
GRAIN SIZE
granule
very coarse
coarse
medium
fine
very fine
silt
clay
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
898
899
900
1
2
3
4
THS
THS
XRD
THS
THS
THS
XRD
BRECCIATED DOLERITE and CONGLOMERATE
Major Lithologies:
Core consists of variably altered and brecciated DOLERITE. Refer to Petrology VCDs for more detailed description.
Also, pieces of weathered DOLERITE are present in Section 3, that were possibly derived from CONGLOMERATE.

Core Photo



180-1118A-74R-1 (897.5-898.94 mbsf)

UNIT: 1 **Brecciated dolerite**
Pieces: 1-20

Interval Location:	Core	Section	Piece	Depth (mbsf)
Upper contact:	74R	1	1	897.50
Lower contact:	74R	1	20	898.94

Thickness (m): 1.44
Contact Type: None

GENERAL: All pieces are dolerite. Some pieces are not brecciated, while others are sub-angular clasts separated from the original unit by brecciation. Brown matrix material (as previously described) was not recovered in this section.

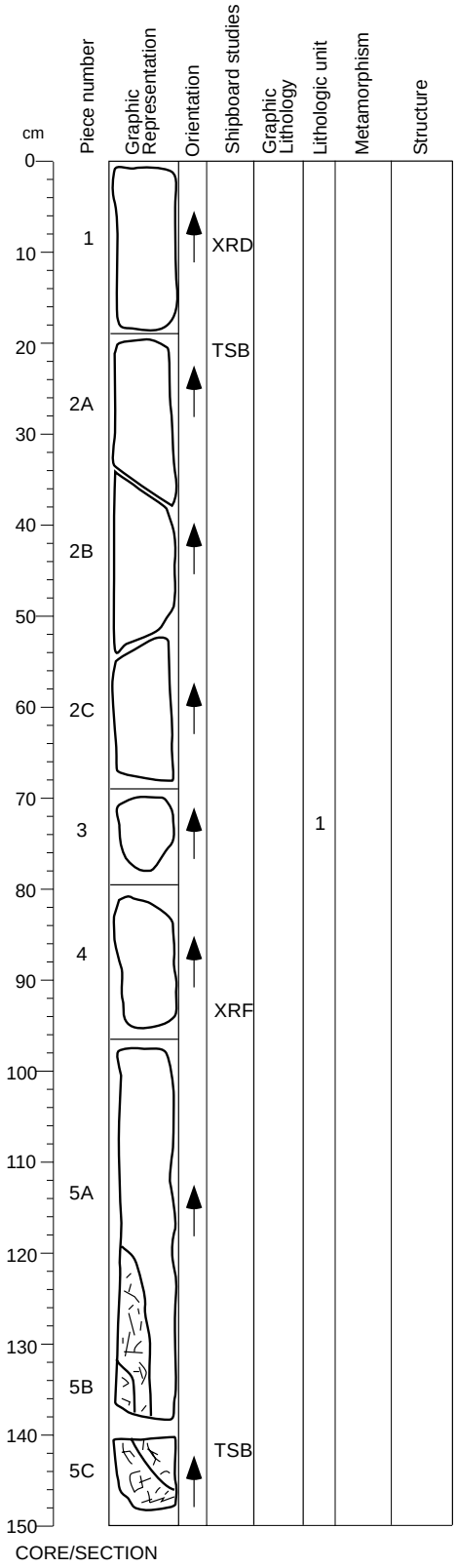
GRAIN SIZE: Fine- to medium-grained

TEXTURE: Ophitic

ALTERATION: Negligible to slight to moderate iron oxidation

COMMENTS: Pieces 2-4, 6-10, and 14 through 20 are sub-angular clasts that have been separated by brecciation. Slight to moderate onion-skin weathering can be seen on Pieces 2-4 and 6-9. Piece 16 is very fine-grained. Pieces 1, 5, 11-13 are fresh and unbrecciated.

Core Photo



180-1118A-74R-2 (898.94-900.44 mbsf)

UNIT: 1 **Brecciated dolerite**
Pieces: 1-5

Interval Location:	Core	Section	Piece	Depth (mbsf)
Upper contact:	74R	2	1	898.94
Lower contact:	74R	2	5	900.53

Thickness (m): 1.49
Contact Type: None

GENERAL: All pieces are fresh to very slightly altered (Fe-oxidation), unbrecciated dolerite that lie within the brecciated dolerite unit.

GRAIN SIZE: Medium- to coarse-grained

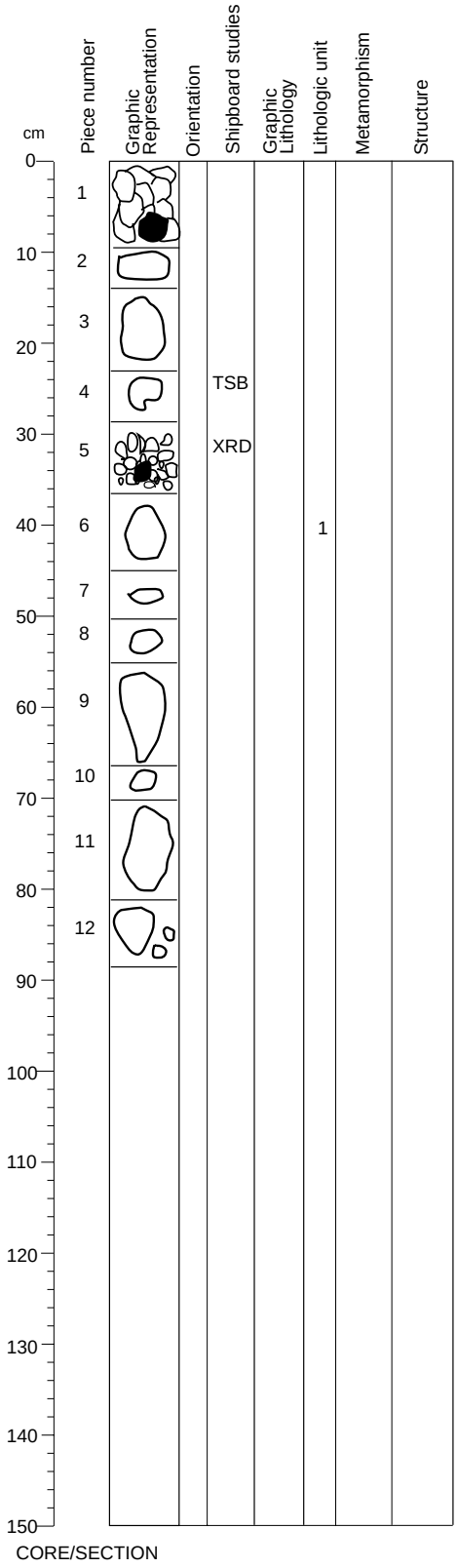
TEXTURE: Ophitic

STRUCTURE: One fault occurs with slickensided black and white material, separating pieces 2A and 2B.

ALTERATION: Negligible to slight iron oxidation

COMMENTS: Pieces 1 and 2 are medium-grained. Grain size increases gradationally to coarse-grained towards the bottom of the section. A pegmatitic zone occurs in Pieces 5A, 5B, and 5C where illustrated. This has a similar mineralogy to the rest of the dolerite, but is coarser grained. A fracture runs through this pegmatitic zone. Pyrite grains occur throughout.

Core Photo



180-1118A-74R-3 (900.44-905.60 mbsf)

UNIT: 1 **Brecciated dolerite**
Pieces: 1-12

Interval Location:	Core	Section	Piece	Depth (mbsf)
Upper contact:	74R	3	1	900.53
Lower contact:	74R	3	12	901.41

Thickness (m): 0.88
Contact Type: None

GENERAL: Both slightly altered dolerite clasts, separated by brecciation, and very altered, earthy brown and green material, likely derived from the dolerite, occur in this section.

GRAIN SIZE: Medium- to coarse-grained

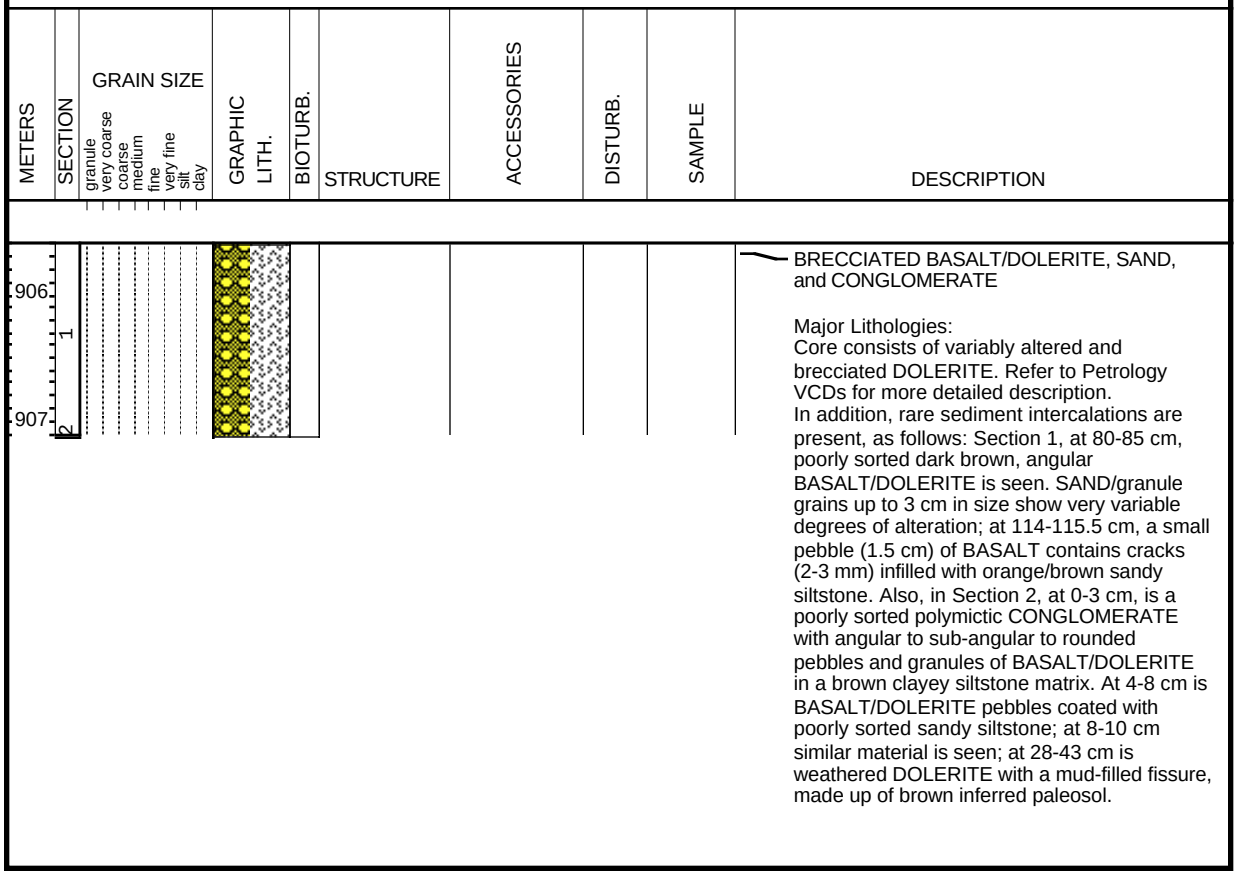
TEXTURE: Ophitic (dolerite), breccia

ALTERATION: Onion-skin weathering on dolerite clasts and pervasive alteration in breccia clasts.

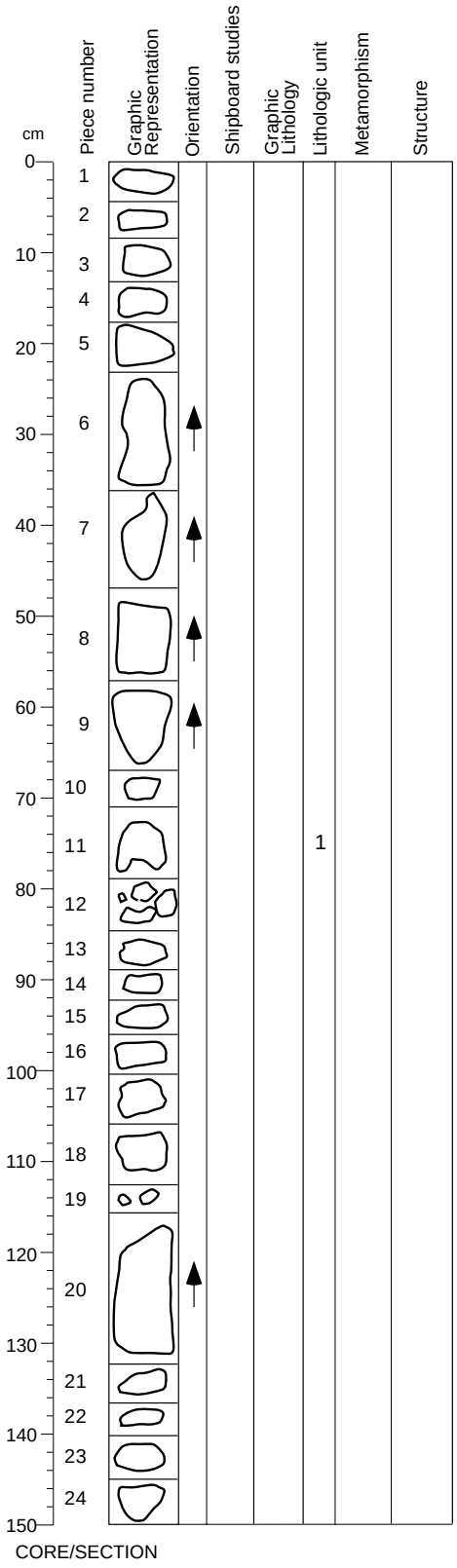
COMMENTS: Pieces 1, 4, 5, and 6 consist of the previously described brown and green material which is most likely a product of brecciation. Pieces 2, 3, and 7-12 are dolerite clasts similar to those previously described.

Core Photo

Site 1118 Hole A Core 75R Rec. 23.5% 905.6-917.0 mbsf



Core Photo



180-1118A-75R-1 (905.60-907.10 mbsf)

UNIT: 1 **Brecciated dolerite**
Pieces: 1-12

Interval Location:	Core	Section	Piece	Depth (mbsf)
Upper contact:	75R	1	1	905.60
Lower contact:	75R	1	24	907.10

Thickness (m): 1.50
Contact Type: None

GENERAL: These are dolerite and breccia clasts similar to those described above.

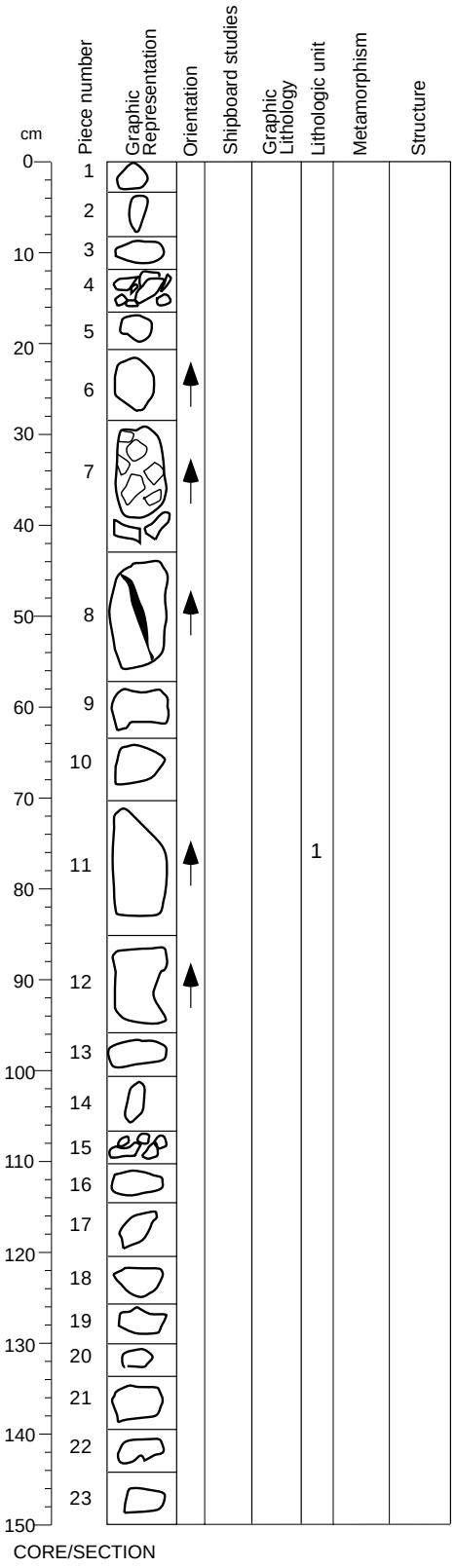
GRAIN SIZE: Medium-grained

TEXTURE: Ophitic (dolerite), breccia

ALTERATION: Negligible to slight

COMMENTS: Pieces 12, 19, 22, and 24 are breccia containing angular dolerite clasts within the previously described clay-sized, brown matrix. Pieces 1-11, 13-18, 20-21, and 23 are sub-angular dolerite clasts similar to those previously-described.

Core Photo



180-1118A-75R-2 (907.10-908.60 mbsf)

UNIT: 1 **Brecciated dolerite**
Pieces: 1-23

Interval Location:	Core	Section	Piece	Depth (mbsf)
Upper contact:	75R	2	1	907.10
Lower contact:	75R	2	23	908.60

Thickness (m): 1.50
Contact Type: None

GENERAL: These are dolerite and breccia clasts similar to those described above.

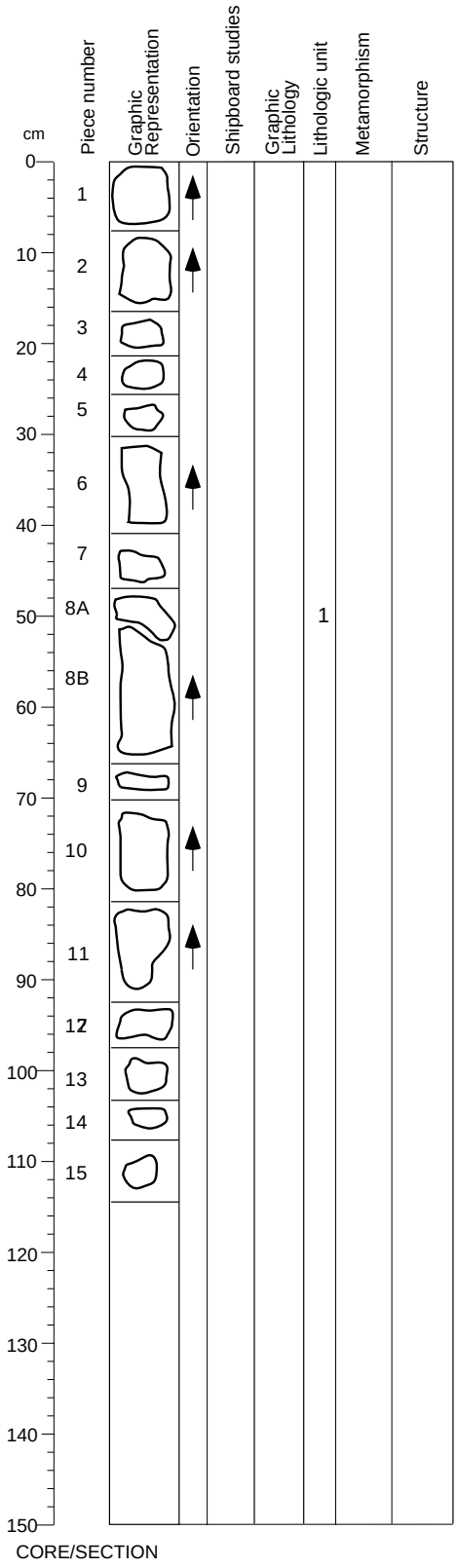
GRAIN SIZE: Fine- to medium-grained

TEXTURE: Ophitic (dolerite), breccia

ALTERATION: Negligible to slight

COMMENTS: Pieces 1, 4, 7, 8, 9, and 15 are breccia rocks similar to those previously-described. Piece 7 has a large, brecciated dolerite clast in which brown matrix is clearly filling in between separated angular pieces. Piece 8 also has a large, brecciated dolerite clast with angular clasts separated by brown matrix material and calcite. Pieces 2, 3, 5, 6, 10-14, and 16-23 are sub-angular dolerite clasts similar to those previously-described. Pieces 5, 6, 8, and 22 have calcite veins, while Pieces 11, 12, and 13 have white veins that are not calcite.

Core Photo



180-1118A-75R-3 (908.60-917.0 mbsf)

UNIT: 1 **Brecciated dolerite**
Pieces: 1-23

Interval Location:	Core	Section	Piece	Depth (mbsf)
Upper contact:	75R	3	1	908.60
Lower contact:	75R	3	15	909.75

Thickness (m): 1.15
Contact Type: None

GENERAL: These are dolerite rocks similar to those described above.

GRAIN SIZE: Fine- to medium-grained

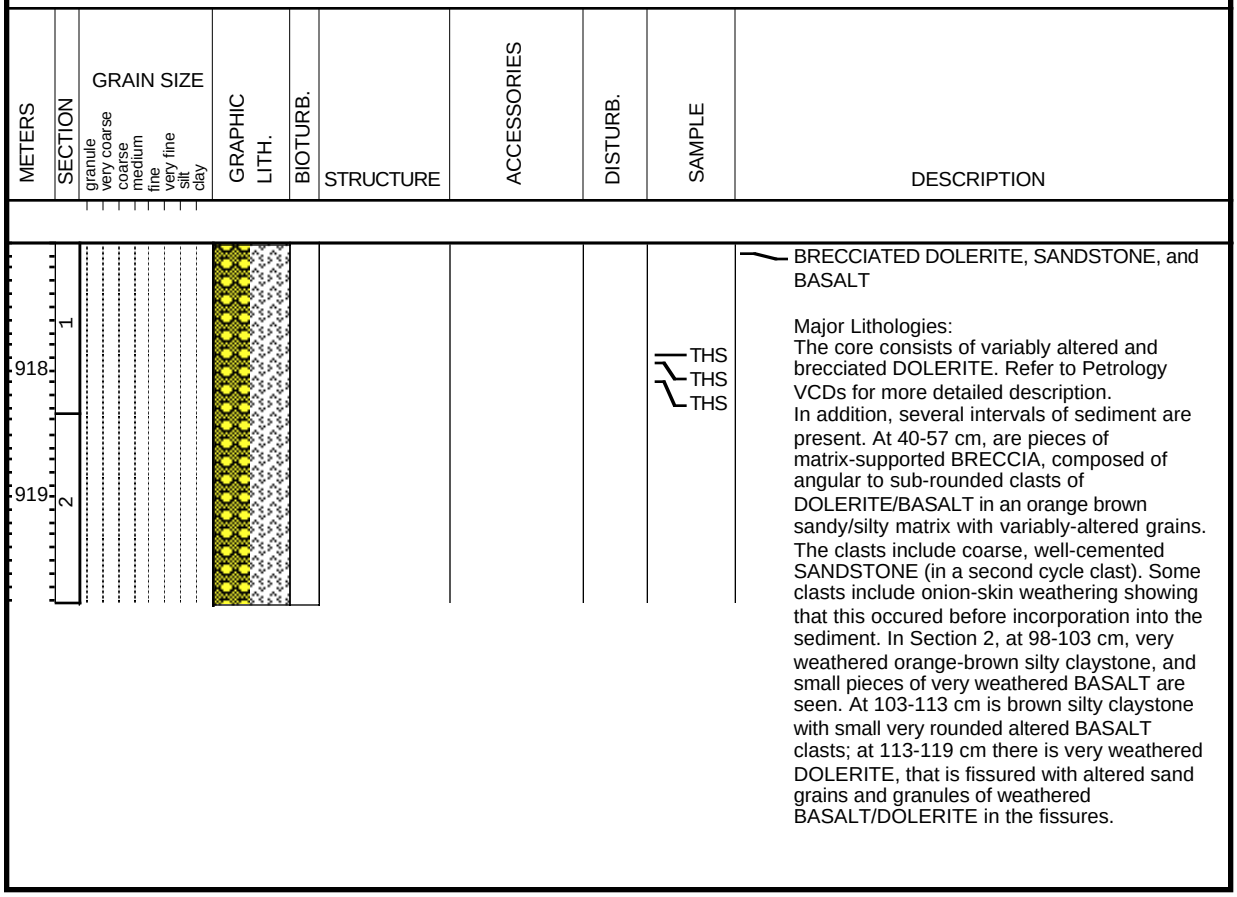
TEXTURE: Ophitic

ALTERATION: Negligible

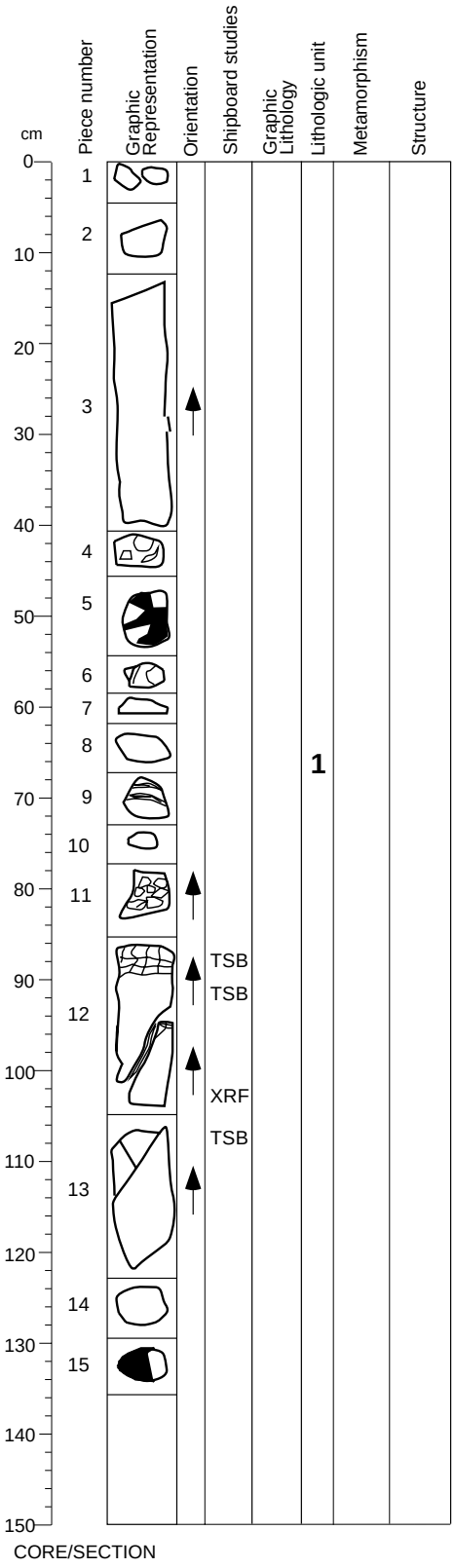
COMMENTS: These are unbrecciated dolerite rocks similar to those previously-described. Pyrite grains occur throughout.

Core Photo

Site 1118 Hole A Core 76R Rec. 24.2% 917.0-926.6 mbsf



Core Photo



180-1118A-76R-1 (917.0-918.34 mbsf)

UNIT: 1 **Brecciated dolerite**
Pieces: 1-15

Interval Location:	Core	Section	Piece	Depth (mbsf)
Upper contact:	76R	1	1	917.00
Lower contact:	76R	1	15	918.30

Thickness (m): 1.36
Contact Type: None

GENERAL: These are dolerite and breccia rocks similar to those described above.

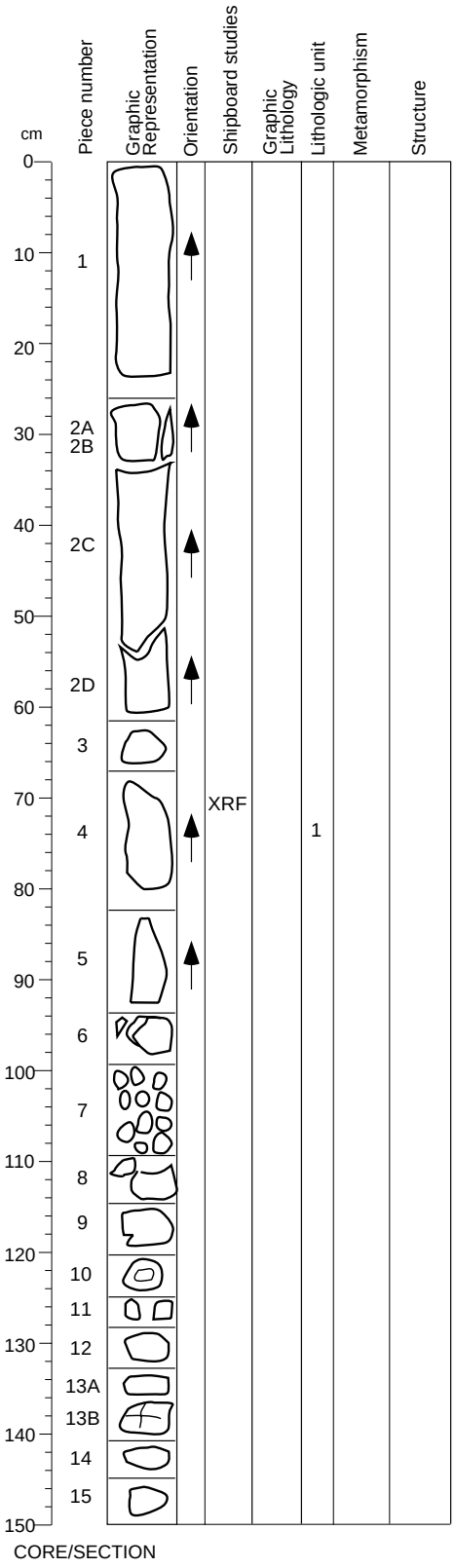
GRAIN SIZE: Medium-grained

TEXTURE: Ophitic (dolerite), brecciated

ALTERATION: Variable

COMMENTS: These are variably altered and variably-weathered dolerite and breccia clasts similar to those previously-described. Tray 1, contains two uncut clasts, one is moderately altered, the other is pervasively altered to brown material. Piece 7 is also uncut and moderately altered. Pieces 2, 3, 8, and 14 are fresh to slightly-altered dolerite clasts. Pieces 4-6 are breccia similar to those previously-described.Piece 9 has onion-skin veins of calcite. Pieces 11 and 12 consist of very coarse-grained pegmatite material, containing calcite and/or zeolite and green minerals (probably chlorite). Pieces 12 and 13 have crosscutting veins filled with calcite. Piece 15 contains a fresh dolerite clast within a greenish, altered matrix which is only slightly finer in grain size.

Core Photo



180-1118A-76R-2 (918.34-926.00 mbsf)

UNIT: 1 **Brecciated dolerite**
Pieces: 1-15

Interval Location:	Core	Section	Piece	Depth (mbsf)
Upper contact:	76R	2	1	918.30
Lower contact:	76R	2	15	919.80

Thickness (m): 1.50
Contact Type: None

GENERAL: These are dolerite and breccia rocks similar to those described above.

GRAIN SIZE: Fine- to medium-grained

TEXTURE: Ophitic (dolerite), brecciated

ALTERATION: Variable

COMMENTS: These are variably altered and variably-weathered dolerite and breccia clasts similar to those previously-described. Pieces 1-6 are fresh to slightly altered, fine- to medium-grained dolerite clasts similar to those described previously. Tray 7 consists of brown material, a product of heavy alteration and brecciation of dolerite. Pieces 8 and 9 are breccia rocks similar to those previously described. Pieces 10-15 are moderately altered, medium grained dolerite clasts. Piece 10 has onion skin weathering, while Piece 13B has a network of Fe-oxidation that appears to be the initial stages of the creation of the previously-described breccia rocks.

Core, section interval (cm)	Depth (mbsf)	Described by	Lithology (dominant/minor)	Size			Siliciclastic and volcaniclastic composition																								Biogenic composition								Sediment or rock name	Comments
				Sand	Silt	Clay	Quartz	Feldspar	Plagioclase	Muscovite	Biotite	Glauconite	Amphibole	Pyroxene	Rock fragments (sedimentary)	Rock fragments (metamorphic)	Rock fragments (basaltic)	Volcanic glass	Volcanic glass (brown)	Volcanic glass (colorless)	Accessory minerals	Carbonate	Calcite	Dolomite	Opaque (oxide)	Opaque (sulfide)	Fe-oxides	Clinoptilolite	Phillipsite	Other	Clay	Nannofossils	Foraminifers	Diatoms	Radiolarians	Sponge spicules	Shell debris	Organic material	Fish debris	Bioclasts	Unidentified/other		
180-1118A-																																								
3R-CC, 5	224.15	TS	D	r	c	a	r	c			r						r	r			r									c	c	r								Silty claystone
4R-1, 18	233.88	TS	M	c	c	c	r	c			r						r	r			r	r			r					c	c	r								Sandy siltstone
5R-1, 38	243.68	TS	D	c	c	c	r	c			r						r	r			r	r								c	c	r								Volcaniclastic fine-grained sandstone
6R-2, 3	253.93	TS	D		r	a	r	c		r	r						r				r	r			r					a	a									Claystone
6R-3, 70	255.66	TS	D	r	c	a	r	c									r	r			r	r			r					c	c	r								Silty claystone
7R-1, 11	262.61	TS	D	r	c	a	r	c										r				c			r					c	a	c			r					Calcareous silty claystone
7R-1, 101	263.51	TS	M	c	c	c	r	r			r							r			r	c								c	r	c								Calcareous fine-grained sandstone
7R-2, 30	263.88	TS	M	a	c	c	r	c										r			r	c								c	c	a			r					Foraminifer-rich fine-grained sandstone
7R-3, 48	265.56	TS	M	c	c	r	r	c			r						a	r			r	r								r	r	r			r					Volcaniclastic fine-grained sandstone
8R-1, 135	273.45	TS	M	c	a	c	r	c			r						r	r				r			r					c	c	c			c					Siltstone
9R-1, 36	282.06	TS	M	c	c	r	r	c			r						c					r			r					r	r	r								Fine-grained sandstone
9R-1, 67	282.37	TS	D	r	c	a	c	c			r							r			r	r			r					c	r	r								Silty claystone
9R-1, 70	282.40	TS	D	r	c	a		c			r						r	r			r	r			r						a	r			r					Calcareous silty claystone
10R-1, 7	291.47	TS	D	r	c	a	r		c		r							r				r			r					a	c	r			r					Silty claystone
10R-4, 13	296.03	TS	D	r	c	a	r	c			r						r	r			r	r			r					c	a	r								Volcaniclastic silty claystone
11R-4, 60	305.70	TS	D	r	c	a	r	c									r				r	r			r					c	c	r			r					Calcareous silty claystone
12R-4, 56	314.99	AR	D	r	c	a	c	c									r					r			c					r	r	r								Volcaniclastic sandstone
12R-CC, 7	319.66	AR	D	r	a	c	c		c	r												r			r					a	c	r								Clayey siltstone
13R-7, 30	329.57	AR	D	r	a	c	c		r	r											r	r			r					a	a	c								Clayey siltstone
14R-8, 24	339.09	AR	D	a	c	r	c		c		r						r				r	r			r						c	r			r					Volcaniclastic sandstone
15R-6, 40.5	346.265	AR	M	r	c	a	r		r		r						r				r	r			r																Volcanic ash
16R-7, 27	357.41	TS	D	r	c	a	r	c			r							r				r			r					c	c	r								Silty claystone
17R-1, 30	359.10	TS	D	r	c	c	r	c			r											c			r					c	c	r			r					Silty claystone
17R-2, 52	360.54	TS	D	r	c	a	r	c			r							r			r	r			r						c	r			r					Silty claystone
17R-6, 13	365.99	TS	M	a	c	r	r	c			r						a				r				r					r										Fine-grained volcaniclastic sandstone
18R-5, 39	373.87	TS	D	r	c	a	r	c			r						a				r				r					r	r	r								Claystone
18R-5, 67	374.15	TS	M	a	r	r	r	r									r				r	r								r	r	c			r					Foraminifer-rich fine-grained carbonaceous sandstone
19R-1, 22	378.02	TS	D	r	c	a	r	c			r							r				r			r					c	r	r			r					Volcaniclastic silty claystone
20R-1, 62	388.02	TS	D	r	c	a	r	c			r										r	r								c	a	r			r					Calcareous silty claystone
21R-4, 30	401.46	AR	D		a	c	c	c			r						r				r	r			r					a	a									Clayey siltstone
22R-7, 17.5	414.675	AR	M		a	c	c	c			r										r				r					c	r	r					r			Siltstone
22R-7, 22	414.72	AR	D		a	c	c	r			r										r				r					a	a	c		a						Siltstone
23R-5, 58	422.11	AR	D		a	c	r	r			r							r			r				r					a	a	r								Siltstone
23R-6, 35	423.38	AR	D		a	c	c		c		r						r				r				r					r	r									Siltstone
24R-CC, 4	434.93	AR	D		a	c	r	r			r										r	r			r					a	a	r								Clayey siltstone
25R-1, 10	435.30	AR	D		c	a	r	r			r							r				r				r				a	a	r								Silty clay
26R-4, 101	450.00	AR	M				r	r									r	a												r										Volcanic ash
27R-6, 110	462.78	AR	D	c	a	r	c	r		r							r	r				r			r						c									Siltstone

Core, section interval (cm)	Depth (mbsf)	Described by	Lithology (dominant/minor)	Size: Sand	Size: Silt	Size: Clay	Siliciclastic and volcaniclastic composition: Quartz	Feldspar	Plagioclase	Muscovite	Biotite	Glauconite	Amphibole	Pyroxene	Rock fragments (sedimentary)	Rock fragments (metamorphic)	Rock fragments (basaltic)	Volcanic glass	Volcanic glass (brown)	Volcanic glass (colorless)	Accessory minerals	Carbonate	Calcite	Dolomite	Opaque (oxide)	Opaque (sulfide)	Fe-oxides	Clinoptilolite	Phillipsite	Other	Clay	Biogenic composition: Nannofossils	Foraminifers	Diatoms	Radiolarians	Sponge spicules	Shell debris	Organic material	Fish debris	Bioclasts	Unidentified/other	Sediment or rock name	Comments
28R-2, 20	465.60	AR	D	r	c	a	r	r		r								r			r		r		r					a	a	r										Silty claystone
29R-4, 30	478.27	AR	D	r	a	c	c	c		r							r		r		r		r		r					a	a	c										Clayey siltstone
30R-2, 38	485.09	AR	D	r	a	c	c		c	r	r							r	c						r				r	c	c	r										Siltstone
31R-3, 120	496.92	AR	D		c	a	r	r			r						r	r			r		r		r					a	a	r										Silty claystone
32R-2, 7	504.05	AR	M	a	r	r	c		c		r						r	c			r		r									r										Volcaniclastic sandstone
32R-5, 33	508.68	AR	D		a	c	r	r			r						r	c			r		r							c	c											Siltstone
33R-1, 12	512.22	AR	D	a	c		r	r		r								r			r		r		r					c	a	r										Siltstone
34R-2, 105	524.19	AR	D		c	a	r		r	r							r	r					r		r						a	r										Silty claystone
34R-3, 43	524.94	AR	M		a	c	c	c			r						c	a			r		r								r	r										Fine-grained sandstone
34R-4, 28	526.10	AR	M	a	c		r		c		r						c	c			r		r		r					r	c	r										Siltstone
35R-5, 42	536.43	AR	M	a	c		c		c		r							c			c										c	c										Silty sandstone
35R-7, 8	538.62	AR	D		c	a	r		r		r						r	r			r		a		r					a	a	r										Silty claystone
36R-2, 55	542.74	AR	D		c	a	r		r		r						c	r			r		r		r					a	a	c										Silty claystone
37R-2, 76	552.90	AR	M	a	c		r		r		c						c	c			c													r									Volcaniclastic sandstone
38R-3, 53	563.65	AR	M	a	c		c		c		r						c	a			c		r								r	r										Volcaniclastic sandstone
39R-3, 103	573.78	AR	M	a	c		c		c		r						r	a			c		r		r					r	r	r										Volcaniclastic silty sandstone
39R-4, 62	574.75	AR	M		a	c	c		c		r						r				c		r		r					c	c	r										Volcaniclastic clayey siltstone
41R-3, 25	592.17	AR	D		c	a	r	r			r						r	r			r		a		r					a	a	r										Calcareous silty claystone
42R-3, 75	602.06	AR	D		c	a	r	r										r					a							a	a	c										Silty claystone
43R-4, 70	613.11	AR	D		c	a	r		r		r							r					c		r					a	a	r										Clayey siltstone
44R-2, 20	619.70	AR	D		c	a	r	r			r							r					r		r					a	a	r										Silty claystone
45R-4, 60	632.04	AR	D	a	c	c	c		c		r						r	c			c		r		r					c	c	r										Volcaniclastic sandstone
45R-4, 100	632.44	AR	D	r	c	a	r	r			r							r					c		r					a	a											Silty claystone
46R-4, 100	642.54	AR	M	a	c		c		c		r						c	r					r		r						r	c										Sandstone
47R-6, 133	654.99	AR	D	a	c	r	c		c		r						r	c			c				r							r										Volcaniclastic sandstone
48R-4, 60	661.11	AR	D		c	a	r		r									r					r							a	a	c										Silty claystone
49R-1, 95	666.95	AR	M		a	c	r	r										c					r		r					a	c	r										Clayey siltstone
51R-2, 98	687.17	TS	M		c	a	r	c										a		r			r							c	r											Volcanic ash
51R-CC, 1	688.17	TS	M	r	a	c	r	r										a		r			a		r					c												Volcanic ash
52R-1, 20	695.20	TS	D		c	a	r	r			r							c					r							c	c											Glass-rich silty claystone
53R-1, 93	705.63	TS	M	r	a	a	r	r										a		r			r								r											Volcanic ash
54R-1, 18	714.58	TS	M	a	c	r	c	c										a		r										r												Volcanic ash
54R-CC, 10	715.92	TS	D	r	c	a	r	r										c					c		r					c	a	r		r								Calcareous silty claystone
55R-CC, 10	726.86	TS	D		c	a	r	c										r			r		r		r					c	a	r		r								Silty claystone
56R-1, 37	734.17	TS	M			a	r	r										a					r		r					r	r											Volcanic ash
56R-3, 6	736.83	TS	D	r	c	a	r	r										r			r		r		r					c	a	r		r								Calcareous silty claystone
57R-4, 69	748.33	TS	M	a	c	c	c	c										a			r		c							r	r											Volcanic ash
57R-5, 70	749.46	AR	D	r	c	a	r	r			r						r				r				r					a	a	c										Silty claystone
57R-5, 86	749.62	TS	M	a	c	c	r	r										a			r		r		r						r	r										Volcanic ash
58R-2, 20	754.64	TS	D	r	c	a	r	r									c				r		c							c	c	r		r								Silty claystone
59R-5, 60	768.72	AR	M	a	c	r	c		c		r						c				c		r																			Volcaniclastic sandstone
60R-1, 9.5	772.395	AR	M	a	c	r	c		r		r						r	c			c		r							c												Volcaniclastic fine-grained sandstone
60R-1, 13	772.43	AR	D	r	c	a	r		r	r								r					r		r					a	a	r										Silty claystone
61R-1, 24	782.14	AR	M	c	a	c	r		r		r						r	c			c		r							c	c	r										Clayey siltstone

Core, section interval (cm)	Depth (mbsf)	Described by	Lithology (dominant/minor)	Size: Sand	Size: Silt	Size: Clay	Siliciclastic and volcaniclastic composition: Quartz	Feldspar	Plagioclase	Muscovite	Biotite	Glauconite	Amphibole	Pyroxene	Rock fragments (sedimentary)	Rock fragments (metamorphic)	Rock fragments (basaltic)	Volcanic glass	Volcanic glass (brown)	Volcanic glass (colorless)	Accessory minerals	Carbonate	Calcite	Dolomite	Opaque (oxide)	Opaque (sulfide)	Fe-oxides	Clinoptilolite	Phillipsite	Other	Clay	Biogenic composition: Nannofossils	Foraminifers	Diatoms	Radiolarians	Sponge spicules	Shell debris	Organic material	Fish debris	Bioclasts	Unidentified/other	Sediment or rock name	Comments
62R-4, 60	796.10	AR	D	r	c	a	r		c		r						r	c					r		r					c	a	c		c							Sandy silty claystone
63R-4, 6	804.43	TS	M	a	c	r	c	c			r						c			r					r					r	r										Glass-rich medium-grained sandstone
63R-4, 46	804.83	TS	D	r	c	a	r	r										r		r		r		r	r					c	a	r		r							Silty claystone
66R-CC, 12	834.96	TS	D	c	a	c	r				r							r		r		r								c	c	r		r							Sandy siltstone
67R-1, 40	840.00	TS	D	r	c	a	r	r										r		r		r		r						c	c	r									Silty claystone

Note: a = abundant (51%–100%); c = common (11%–50%); r = rare (1%–10%).

Thin-section number	Core, section interval (cm)	Depth (mbsf)	Described by	Lithology (dominant/minor)	Granule	Size: Sand	Size: Silt	Size: Clay	Minerals (%)	Quartz	Feldspar	Multiple twins	Single/untwinned	Mica	Biotite	Carbonate	Chlorite	Accessory minerals	Clinopyroxene	Amphibole	Opaques	Rock fragments (%)	Plutonic	Volcanic	Rhyolitic/dacitic	Vitric	Andesitic/basaltic	Dolerite	Sedimentary	Micritic limestone	Metamorphic	Polycrystalline quartz	Matrix/cement (%)	Bioclasts (%)	Foraminifers	Benthic	Planktonic	Shell debris	Algae	Echinoderms	Bryozoa/corals	Carbonaceous detritus	Sedimentary rock name	Comments
	180-1118A-																																											
239	15R-5, 141-142	345.85	TS/AR	M		C	C	C	15	R	A	c	c	R	a			R	r	c	R	15		A		r	a						69	1	A	r	a						Fine-grained sandstone	Poorly sorted, angular detrital minerals, subrounded plagioclase phyric basalts (glassy groundmass) fragments, silty clay matrix, flow-banded basalt fragments, pyrite-filled burrows
240	20R-5, 15-18	393.20	TS/AR	M		C	C	A	25	R	A	c	c	R	a		R	R	r	a	C	3		A			a						71	1	A		a						Sandy siltstone	Poorly sorted, angular detrital minerals, subrounded plagioclase phyric basalts, silty calcareous matrix, burrowing, common pyrite, palagonite
241	24R-5, 105-107	432.23	TS/AR	M		C	C	C	45	R	A	a	c	C	a	R	R	R	r	a	C	35		A	c	c	c				R	a	19	1	A		a	R					Fine-grained sandstone	Common basalt grains, poorly sorted, fresh angular glass shards, zoned plagioclase, palagonite, a laminae of calcareous silty claystone present, rare burrows
242	34R-3, 61-63	525.12	TS/AR	M		C	C	R	40	R	A	c	c	C	a		R	R	r	a	R	40		A	c	c	c				R	a	18	2	A		a						Fine-grained sandstone	Poorly sorted, fresh angular glass shards, zoned plagioclase, palagonite, common subrounded plagioclase phyric basalts (glassy groundmass), devitrified glass and fresh glass, laminae defined by foraminifer-rich layers
243	35R-1, 140-143	532.80	TS/AR	M		A	C	R	35	R	A	a	c	R	a		R	R	r	a	R	40		A	r	c	a						24	1	A		a						Fine-grained sandstone	Poorly sorted, fresh angular glass shards, zoned plagioclase, palagonite, common subrounded fresh and altered red plagioclase phyric basalts (glassy groundmass), devitrified glass and fresh glass
244	36R-3, 8-10	543.72	TS/AR	M		A	C	R	35	R	A	a	c	R	a	R	R	R	r	a	R	40		A	r	c	c						24	1	A		a						Fine-grained sandstone	Crystalline matrix, poorly sorted, fresh angular glass shards, zoned plagioclase, palagonite, common altered and fresh subrounded plagioclase phyric basalts (glassy groundmass), devitrified glass and fresh glass, pyrite-filled foraminifers
245	38R-3, 128-130	564.40	TS/AR	M		C	C	C	20	R	A	c	c	R	a		R	R		a	R	30		A	r	a							50										Crystal vitric ash	Well-sorted fresh angular crystals and glass shards in a glassy matrix, palagonite, burrowing, bubble-wall glass, traces of devitrification indicated by chlorite, rare basalts
246	43R-7, 63-64	616.90	TS/AR	M		C	C	C	34	R	C	c	c	R	a		R	R	r	a	C	15		A		a	r		R	a			50	1	A		a	R					Coarse-grained sandstone	Angular mineral grains, devitrified glass shards, rare red altered plagioclase phyric basalt, silty clay matrix, micritic limestone clasts
247	44R-4, 129-130	623.45	TS/AR	M		C	C	C	40		A	c	c	C	a		R	C	r	a	C	20		A		a	r						35	5	A		a	R					Thinly laminated fine-grained sandstone	Poorly sorted, fresh angular glass shards, zoned plagioclase, palagonite, difference in concentrations of foraminifer seem to define thin laminations, plagioclase phryic basalt fragments in matrix

Thin-section number	Core, section interval (cm)	Depth (mbsf)	Described by	Lithology (dominant/minor)	Granule	Size: Sand	Size: Silt	Size: Clay	**Minerals (%)**	Quartz	Feldspar	Multiple twins	Single/untwinned	Mica	Biotite	Carbonate	Chlorite	Accessory minerals	Clinopyroxene	Amphibole	Opaques	**Rock fragments (%)**	Plutonic	Volcanic	Rhyolitic/dacitic	Vitric	Andesitic/basaltic	Dolerite	Sedimentary	Micritic limestone	Metamorphic	Polycrystalline quartz	**Matrix/cement (%)**	Bioclasts (%)	Foraminifers	Benthic	Planktonic	Shell debris	Algae	Echinoderms	Bryozoa/corals	Carbonaceous detritus	Sedimentary rock name	Comments
250	45R-4, 105-107	632.49	TS/AR	M		C	C	C	30	R	A	c	c	C	a		R	R		a	C	25		A	r	a	r						44	1	A		a						Fine-grained sandstone	Well-sorted, fresh angular glass shards zoned plagioclase, palagonite, burrows
251	46R-4, 99-101	642.54	TS/AR	M		R	C	C	25	C	A	c	c	R	a	C		C	r	a	R	10		A		a	r		R	a			55	10	A	r	a						Laminated silty claystone	Thin laminations defined by varying sand and silt concentrations, rare fresh sand-sized angular grains of plagioclase, hornblende, and biotite, micritic matrix, micritic limestone clasts
252	47R-6, 128-130	654.94	TS/AR	M		C	C	C	35	R	C	c	c	C	a		R	R		a	C	35		A	r	a	r						29	1	A		a						Laminated fine-grained sandstone	Poorly sorted, fresh plagioclase, fresh angular glass shards, zoned plagioclase, palagonite, rare micritic calcite, laminations defined by the variations in the calcite, foraminifer have sparry calcite overgrowths, flow-banded basalts
254	56R-1, 44-47	734.24	TS/AR	M		C	C	C	20	R	C	a	c	C	a		R	R		a	C	30		A	r	a	r						50										Fine-grained sandstone	Well-sorted fresh angular crystals and glass shards in a glassy matrix, very thin laminae defined by concentrations of crystals, rare palagonite, vesicular glass co-magmatic with hornblende and biotite
255	57R-4, 20-21	747.84	TS/AR	M		C	C	C	40	R	A	a	c	C	a		R	R		a	R	25		A	r	a	r						34	1	A		a		R				Medium-grained sandstone	Poorly sorted, fresh plagioclase, hornblende and biotite plagioclase phyric glassy basalt (pumice) and glass shards, zoned plagioclase, palagonite, calcite spar around foraminifers
256	58R-3, 38-40	756.05	TS/AR	M		C	C	C	40	R	C	c	c	C	a		R	R		a	R	15		A	r	a							45										Fine-grained sandstone	Well-sorted fresh angular crystals and glass shards in a glassy matrix, very thin laminae defined by concentrations of crystals, burrows containing rare foraminifer tests, abundant glass
257	59R-2, 133-135	765.32	TS/AR	M		C	C	C	40		C	c	c	C	a		R	R		a	R	15		A	r	a							45										Crystal vitric ash	Well-sorted fresh angular crystals and glass shards in a glassy matrix
258	60R-1, 93-95	773.24	TS/AR	M		C	C	C	15		C	c	c	C	a			R		a	R	15		A	r	a							50	20	A		a						Fine-grained sandstone	Well-sorted fresh angular crystals and glass shards in a glassy matrix, common planktonic foraminifers
263	63R-1, 115-117	802.15	TS/AR	M		C	C	C	20		A	c	c	C	a			R		a	R	30		A		a							49	1	A		a						Fine-grained sandstone	Well-sorted fresh angular crystals and glass shards in a glassy matrix, very thin laminae defined by concentrations of crystals, burrows containing rare foraminifer tests
264	64R-1, 49-51	811.19	TS/AR	M		R	C	C	20		A	c	c	R	a			R		a	R	15		A		c	c						65										Laminated fine-grained sandstone and siltstone	Angular feldspar, rare hornblende and biotite phyric basalt (glassy groundmass), zoned plagioclase, sparry, and micrite cement, silty clay matrix, palagonite, clear bubble-wall glass shards, graded laminae

Thin-section number	Core, section interval (cm)	Depth (mbsf)	Described by	Lithology (dominant/minor)	Granule	Size: Sand	Size: Silt	Size: Clay	**Minerals (%)**	Quartz	Feldspar	Multiple twins	Single/untwinned	Mica	Biotite	Carbonate	Chlorite	Accessory minerals	Clinopyroxene	Amphibole	Opaques	**Rock fragments (%)**	Plutonic	Volcanic	Rhyolitic/dacitic	Vitric	Andesitic/basaltic	Dolerite	Sedimentary	Micritic limestone	Metamorphic	Polycrystalline quartz	**Matrix/cement (%)**	Bioclasts (%)	Foraminifers	Benthic	Planktonic	Shell debris	Algae	Echinoderms	Bryozoa/corals	Carbonaceous detritus	Sedimentary rock name	Comments
265	64R-1, 127-128	811.97	TS/AR	M		C	C	C	25		A	a	r	R	a			R		a	R	20		A		c	a						50	5	A	r	a	R			R		Coarse-grained sandstone	Poorly sorted, subangular plagioclase, hornblende and biotite phyric basalt (glassy groundmass), fresh angular detrital minerals, zoned plagioclase, silty clay matrix, palagonite, fresh clear glass shards, pyrite-filled foraminifers, micritic clasts
266	66R-3, 31-34	833.05	TS/AR	D		C	C	C	35		A	a	r	R	a			R		a	R	3		A	r		a						47	15	A		a						Silty coarse-grained sandstone	Poorly sorted, hornblende and biotite phyric basalt (glassy groundmass), fresh angular detrital minerals, abundant subrounded zoned plagioclase, micritic silty clay matrix, laminae of fine-grained sandstone of the same composition, palagonite, microcline (?)
267	67R-4, 73-74	844.62	TS/AR	D		C	C	C	35		A	a	r	C	a			R		a	R	20		A	r		a						30	15	A		a						Medium-grained sandstone	Poorly sorted, subrounded plagioclase, hornblende and biotite phyric basalt (glassy groundmass), fresh subangular to angular detrital minerals, zoned plagioclase, silty clay micritic matrix, microcline (?)
275	68R-2, 117-120	851-92	TS/ AR	D		C	C	C	35		A	a	r	C	a			R		a	R	25		A	a		r						25	15	A	r	a	R	R	R	R		Coarse-grained sandstone	Poorly sorted, subrounded plagioclase, hornblende and biotite phyric acidic volcanics, fresh subangular to angular detrital mineral, zoned plagioclase, silty clay matrix, palagonite, glassy basalt, mixed sandstone, plagioclase phyric basalts
276	68R-3, 36-39	852.42	TS/AR	D		A	C	C	50	C	A	a	c	R	a			R		a	R	10	R	A	r	r	a	r					39	1	A	c	c						Coarse-grained sandstone	Moderately sorted, subangular to angular fresh detrital minerals, well-rounded fragments of plagioclase, hornblende, and biotite phyric basalts (glassy groundmass) and acidic volcanics, single grain of ophitic dolerite, sparry calcite cement, zoned feldspars.
277	68R-3, 102-105	853.08	TS/AR	D		A	C	C	40	R	A	c	c	R	a		R	C		a	R	30		A	c	c	c						29	1	A		a						Medium-grained sandstone	Moderately sorted, fresh subangular detrital minerals, zoned plagioclase, rounded to subrounded volcanic grains, common plagioclase, hornblende and biotite phyric acidic volcanic grains, glassy basalts, fresh clear glass, palagonite, chloritized basalts

Thin-section number	Core, section interval (cm)	Depth (mbsf)	Described by	Lithology (dominant/minor)	Granule	Size: Sand	Silt	Clay	Minerals: **Minerals (%)**	Quartz	Feldspar	Multiple twins	Single/untwinned	Mica	Biotite	Carbonate	Chlorite	Accessory minerals	Clinopyroxene	Amphibole	Opaques	Rock fragments: **Rock fragments (%)**	Plutonic	Volcanic	Rhyolitic/dacitic	Vitric	Andesitic/basaltic	Dolerite	Sedimentary	Micritic limestone	Metamorphic	Polycrystalline quartz	**Matrix/cement (%)**	Bioclasts: Bioclasts (%)	Foraminifers	Benthic	Planktonic	Shell debris	Algae	Echinoderms	Bryozoa/corals	Carbonaceous detritus	Sedimentary rock name	Comments
278	68R-3, 115-118	853.21	TS/ AR	D		C	C	C	25		A	a	r	R	a	A		C		a		15		A	a		c						30	30	A	a	c	R		R	R		Bioclastic coarse-grained sandstone	Sharp contact between (1) a mixed coarse-grained sandstone and (2) wackestone. Both have calcareous mud matrix, subrounded to well-rounded hornblende, biotite and feldspar phyric acidic volcanic grains, subangualar to angular detrital minerals
279	68R-3, 147-149	853.53	TS/AR	M		A	C	C	1	R	A	c	c			A																	40	59	A	a	c	R	R	R	R		Foraminifer packstone	Foraminifer packstone, micritic matrix, large broken fragments of algae suggests a quiet marine lagoonal setting
280	68R-4, 76-79	854.32	TS/AR	M		A	C	C	1		A	c	c			A																	40	59	A	a	c		R		R		Foraminifer packstone	Foraminifer packstone, micritic matrix, large broken fragments of algae suggests a quiet marine lagoonal setting
281	69R-1, 35-37	859.35	TS/AR	D	R	A	C		2		A	c	c			A		R	c	c	R	40		A			a						15	43	C	a		R	C	R	C		Mixed granule conglomerate	Well-rounded plagioclase phyric basalt, single large pebble of plagioclase (laths) and clinopyroxene phyric basalt, sparry and micritic cement, rare chloritized basalt fragments, spar overgrowths on echinoids, high-energy marine setting
282	69R-3, 49-52	862.46	TS/AR	D	C	C	C	R	5		A	c	c			A		R	a			35		A			a						20	40	C	a	r	R	C		R		Mixed granule conglomerate	Well-rounded, plagioclase phyric basalt, plagioclase laths and clinopyroxene phyric basalt, sparry (secondary) and micritic calcite cement, rare chloritized basalt fragments, bryozoa encrusted with algae, primary wackestone
283	69R-3, 58-61	862.55	TS/AR	M		A	C	C	1		A	c	c			A		R	r	a	C	5		A	r		a						34	60	A	a	r	C	C		R		Packstone	Moderately sorted, well-rounded plagioclase phyric basalt, micritic cement, rounded algae grains, spar formed after solution of micrite, suggesting low-energy environment
249	70R-1, 0-1	868.70	TS/AR	M	R	C	C	C	2		A	c	c			A	R	R		a	R	5		A	r		a						30	63	C	a	c	R	C	R	R		Grainstone	Well-rounded plagioclase phyric, variolitic and aphyric basalt fragments, rare feldspar phyric acidic volcanic grains, angular detrital minerals, sparry cement, basalt fragments are rarely chloritized
284	70R-1, 25-27	868.95	TS/AR	M		C	C	C	2		A	c	c			A		R	a		R	2		A			a						38	58	C	a	r	R	C		C		Packstone	Poorly sorted angular fragments, in situ (?) encrusting algae, well-rounded plagioclase phyric basalt fragments, angular detrital minerals, micritic cement, disrupted algae mat
285	70R-1, 75-77	869.45	TS/AR	M		R	C	R	10 0							A					R																						Sparite	Composed entirely of secondary sparry calcite
286	70R-2, 81-84	870.92	TS/AR	M	R	R	C	R	15		A	c	a				R	C	c	r	R	5		A			a						80										Granule paraconglomerate	Poorly sorted, rounded plagioclase and clinopyroxene phyric basalt and dolerite fragments, large altered feldspar grains, chloritic silty clay matrix, common magnetite grains (?)

Thin-section number	Core, section interval (cm)	Depth (mbsf)	Described by	Lithology (dominant/minor)	Granule	Size			Minerals												Rock fragments											Bioclasts									Sedimentary rock name	Comments
						Sand	Silt	Clay	**Minerals (%)**	Quartz	Feldspar	Multiple twins	Single/untwinned	Mica	Biotite	Carbonate	Chlorite	Accessory minerals	Clinopyroxene	Amphibole	Opaques	**Rock fragments (%)**	Plutonic	Volcanic	Rhyolitic/dacitic	Vitric	Andesitic/basaltic	Dolerite	Sedimentary	Micritic limestone	Metamorphic	Polycrystalline quartz	**Matrix/cement (%)**	Bioclasts (%)	Foraminifers	Benthic	Planktonic	Shell debris	Algae	Echinoderms	Bryozoa/corals	Carbonaceous detritus		
259	71R-1, 13-15#1	878.53	TS/AR	M	R	R	C	C	10	R	A	c	c			R	C	R	a		R	15		A			a	c					75										Granule paraconglomerate	Poorly sorted, subrounded plagioclase and clinopyroxene phryic basalt and dolerite fragments, chloritic silty clay matrix, derived from mafic volcanic grains, magnetite (?) grains, chromite grains (?); alteration ranges from unaltered to highly altered
260	71R-1, 29-31#3	878.69	TS/AR	M	C	C	C	C	20		A	r	a				C				C	30		A			a	c					50										Granule paraconglomerate	Poorly sorted, rounded plagioclase and clinopyroxene phryic basalt and dolerite fragments, large altered feldspar grains, chloritic silty clay matrix, common magnetite (?), chromite grains (?)
271	74R-3, 24-26 #4	900.68	TS/AR	M	R	R	C	C	5	R	A	c	c				R				C	10		A			a						85										Matrix of a granule paraconglomerate	Rare rounded, granule- to sand-sized grains of highly altered mafic volcanic grains, subangular feldspar and quartz grains, chloritic silty clay, quartz veins, rare magnetite (?)

Note: A = abundant (51%–100%); C = common (11%–50%); R = rare (1%–10%); lower case letters indicate subcategories of the major constituents.

180-1118A-72R-1 (Piece 23, 120-122 cm)
Thin section: # 261
ROCK NAME: Dolerite
GRAIN SIZE: Fine- to medium-grained
TEXTURE: Granular

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPO-SITION	MORPHOLOGY	COMMENTS
Plagioclase	60	65			Subhedral to anhedral	Cloudy.
Clinopyroxene	25	30		Augite	Anhedral	
Magnetite	5	5			Skeletal	

SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING	COMMENTS
Chlorite	10	Interstitial/clinopyroxene.	
Sausserite	5	Plagioclase.	

COMMENTS: This is a moderately altered dolerite.

180-1118A-73R-1 (Piece 7A, 25-27 cm)
Thin section: # 262
ROCK NAME: Dolerite
GRAIN SIZE: Medium- to coarse-grained
TEXTURE: Granular

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPO-SITION	MORPHOLOGY	COMMENTS
Plagioclase	65	65	0.5-1		Anhedral to subhedral	Cloudy.
Clinopyroxene	15	30	<0.5	Augite	Anhedral to subhedral	
Magnetite	5	5	0.5-1		Skeletal	

SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING	COMMENTS
Chlorite	30	Interstitial/clinopyroxene.	
Sausserite	65	Plagioclase.	

COMMENTS: This is a moderately altered dolerite, slightly coarser-grained than Thin Section # 261.

180-1118A-74R-1 (Piece 16,124-126 cm)
Thin section: # 268
ROCK NAME: Basalt
GRAIN SIZE: Fine-grained
TEXTURE: Microporphyritic

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPO-SITION	MORPHOLOGY	COMMENTS
Olivine	0	5			Microphenocrysts	Pseudomorphed.
Plagioclase	70	70	0.2-1		Laths	
Clinopyroxene	20	20	0.2-1	Augite		
Opaque	5	5				
Groundmass	5	5				

SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING	COMMENTS
“Iddingsite”	5	Olivine	

COMMENTS: This a basalt with a chilled texture. It is much finer-grained than other rocks within the dolerite.

180-1118A-74R-2 (Piece 2, 21-23 cm)
Thin section: # 269
ROCK NAME: Dolerite
GRAIN SIZE: Fine-grained
TEXTURE: Granular

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPO-SITION	MORPHOLOGY	COMMENTS
Olivine	-	5				Pseudomorphed.
Plagioclase	40	45	0.5-1		Subhedral	
Clinopyroxene	35	35	0.5-1	Augite	Anhedral	
Fe-oxide	5	5			Granular	

SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING	COMMENTS
"Iddingsite"	5	Olivine	
Chlorite	5	Clinopyroxene	Platy.
Sericite	5	Plagioclase	Platy.

COMMENTS: This is a granular dolerite that is only slightly-altered.

180-1118A-74R-2 (Piece 5C, 140-142 cm)
Thin section: # 270
ROCK NAME: Gabbro
GRAIN SIZE: Coarse-grained
TEXTURE: Granular

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPO-SITION	MORPHOLOGY	COMMENTS
Plagioclase	50	55	Up to 4		Euhedral	Cloudy.
Clinopyroxene	25	40	Up to 4	Augite	Subhedral to euhedral	
Magnetite	5	5	Up to 3		Dendritic	
Sulfide	5	Up to 2				

SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING	COMMENTS
Chlorite	15	Clinopyroxene	
Sausserite	5	Plagioclase	

COMMENTS: This is a moderately-altered gabbro from a pegmatite zone.

180-1118A-76R-1 (Piece 12, 85-89 cm)
Thin section: # 272
ROCK NAME: Gabbro
GRAIN SIZE: Coarse-grained
TEXTURE: Ophitic

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPO-SITION	MORPHOLOGY	COMMENTS
Plagioclase	30	60	Up to 4		Euhedral	Cloudy.
Clinopyroxene	25	40	Up to 4	Augite	Euhedral	Largely fresh.
Magnetite	5	5			Dendritic	
Fe-oxide	2	2				

SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING	COMMENTS
Chlorite	5	Largely interstitial material.	
Sausserite	30	Plagioclase	
Zeolite	2	Vein	

COMMENTS: This is an ophitic, moderately-altered gabbro from a pegmatite zone.

180-1118A-76R-1 (Piece 12, 90-93 cm)
Thin section: # 273
ROCK NAME: Dolerite
GRAIN SIZE: Medium-grained
TEXTURE: Ophitic

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPO-SITION	MORPHOLOGY	COMMENTS
Plagioclase	40	50	0.5-1		Subhedral to euhedral	Cloudy.
Clinopyroxene	35	45	< 0.5	Augite	Subhedral to euhedral	
Magnetite	5	5				

SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING	COMMENTS
Chlorite	5	Clinopyroxene	
Zeolite	2	Vein	
Fe-oxide	5	Vein	Related to vein, on outside.
Sausserite	3	Plagioclase	
Serpentine	5	Vein	

COMMENTS: This is a medium-grained dolerite with veins indicating two stages of fracturing. A calcite vein occurred first, but was deformed , fractured, and subsequently replaced with zeolite.

180-1118A-76R-1 (Piece 13, 106-108 cm)
Thin section: # 274
ROCK NAME: Dolerite
GRAIN SIZE: Fine- to medium-grained
TEXTURE: Ophitic

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPO-SITION	MORPHOLOGY	COMMENTS
Plagioclase	30	55	0.5		Subhedral	Cloudy.
Clinopyroxene	20	40	< 0.5	Augite	Anhedral	
Opaque	5	5	< 0.5		Blocky	

SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING	COMMENTS
Chlorite	20	Clinopyroxene/ interstitial material	
Sausserite	25	Plagioclase	
Zeolite	< 1	Vein	
Fe-oxide	< 1	Vein	Related to vein, on outside.
Calcite	< 1	Border of sample (vein?)	
Serpentine	5	Vein	

COMMENTS: This is a fine- to medium-grained dolerite with a few veins containing calcite and zeolite. Iron oxides occur just outside of these veins.