

## INDEX TO VOLUME 156

This index covers both the *Initial Reports* and *Scientific Results* portions of Volume 156 of the *Proceedings of the Ocean Drilling Program*. References to page numbers in the *Initial Reports* are preceded by “A” with a colon (A:) and to those in the *Scientific Results* (this book) by “B” with a colon (B:).

The index was prepared by Earth Systems, under subcontract to the Ocean Drilling Program. The index contains two hierarchies of entries: (1) a main entry, defined as a keyword or concept followed by a reference to the page on which that word or concept appears, and (2) a subentry, defined as an elaboration on the main entry followed by a page reference.

The index covers volume text, figures, and tables but not core-description forms (“barrel sheets”), core photographs, smear-slide descriptions, or CD-only tables. Also excluded from the index are bibliographic references, names of individuals, and routine front and back matter.

The Subject Index follows a standard format. Geographic, geologic, and other terms are referenced only if they are subjects of discussion. A site chapter in the *Initial Reports* is considered the principal reference for that site and is indicated on the first line of the site’s listing in the index. Such a reference to Site 947, for example, is given as “Site 947, A:71–86.”

The Taxonomic Index is an index relating to significant findings and/or substantive discussions, not of species names *per se*. This index covers three varieties of information: (1) individual genera and species that have been erected or emended formally, (2) biostratigraphic zones, and (3) fossils depicted in illustrations. A taxonomic entry consisting of both genus and species is listed alphabetically by genus and also by species. Biostratigraphic zones are listed alphabetically by genus; zones with letter prefixes are listed under “zones.”

For further information, including available electronic formats, contact the Chief Production Editor, Ocean Drilling Program, 1000 Discovery Drive, College Station, Texas 77845-9547, U.S.A., e-mail: [pub\\_production@ODP.TAMU.EDU](mailto:pub_production@ODP.TAMU.EDU).

## VOLUME 156 SUBJECT INDEX

- accretion, geochemical profiles, B:317
- accretionary prisms  
 acoustic anisotropy, B:115–123  
 carbonate veins, B:79–96  
 fluid pressure, A:4; B:232–234  
 geochemistry, B:171–182  
 hydrogeology, B:303–310  
 magnetic anisotropy, B:97–105  
 pore pressure, B:125–135  
 scaly fabric, B:59–77  
 seismic profiles, B:255–275  
 structural domains, A:114–116, 211, 213  
 structural geology, B:279–292  
 tectonics, A:13–27  
 temperature, B:239–245, 247–252
- acoustic anisotropy  
 directional properties, B:115–123  
 vs. depth, B:119
- advection, geochemical profiles, B:317
- alkali group, pore fluid, B:165, 167
- alkaline earth group, pore fluid, B:165, 167–168
- alkalinity  
 interstitial waters, A:149  
 vs. depth, A:148, 240
- alkanes  
 chromatograms, A:145  
*See also n-alkanes*
- alteration  
 smectite, B:317  
*See also authigenesis; diagenesis*
- aluminum, vs. depth, B:179, 181
- aluminum oxide  
 vs. depth, B:24  
 vs. kaolinite, B:30  
*See also calcium oxide/aluminum oxide ratio; iron, total/aluminum oxide ratio; magnesium oxide/aluminum oxide ratio; potassium oxide/aluminum oxide ratio; silica/aluminum oxide ratio*
- ammonium  
 interstitial waters, A:149  
 sediments, A:232  
 vs. depth, A:148, 240
- amphibian, volcanic ash, B:346–348
- amplitude, normalized, vs. depth, B:299, 301
- Atlantic Ocean W, geology, A:3–11
- authigenesis  
 accretionary prisms, A:4  
*See also alteration; diagenesis*
- authigenesis minerals  
 geochemistry, B:171–182  
 X-ray diffraction data, A:29–37
- Barbados Ridge accretionary prism N  
 carbonate veins, B:79–96  
 compressional wave velocity, B:115–123  
 drilling, A:3–11, 13–27  
 magnetic anisotropy, B:97–105  
 sediments, A:29–37  
 ultrasonic velocity, B:125–135
- Barbados Ridge N  
 biostratigraphy, B:49–56  
 clay mineralogy, B:3–30  
 fluid pressure, B:229–238  
 geochemistry, B:171–182, 311–319, 353–356  
 geology, A:3–11, 13–27  
 grain size, B:337–341  
 hydrogeology, B:303–310  
 natural gamma-ray spectra, B:183–195
- packer experiments, B:199–218
- permeability, B:109–114
- porosity, B:137–149
- scaly fabric, B:59–77
- seismic data, B:255–262
- seismic reflection, B:293–302
- seismic velocity, B:263–275
- structural geology, B:279–292
- tomography, B:151–159
- trace metals, B:163–170
- well-logging, B:321–334
- barite, solubility, B:165–167
- barium  
 enrichment, B:173  
 pore fluid, B:165, 167–168  
 vs. depth, B:167–168, 179, 181
- bathymetry, accretionary prisms, A:13–16
- bedding  
 orientation, A:116, 129  
 structural domains, A:117  
 vs. depth, A:116
- bedding dip  
 compressional wave velocity, B:120–122  
 structural domains, A:213  
 vs. depth, A:214; B:122
- bedding orientation, sediments, A:215
- beidellite, diagenesis, B:27
- ben tonite, clay minerals, B:17
- biostratigraphy  
 Miocene, B:33–48  
 Site 948, A:129–131  
 Site 949, A:215, 217–220, 228–229, 233
- bioturbation  
 décollement zones, B:284  
 lithologic units, A:98–99  
 photograph, A:101, 104
- bitumen, sediments, A:144, 227
- Bouma sequences, deposition, A:203
- brecciation, photograph, A:117
- bromide  
 pore fluids, B:354  
 vs. depth, B:355
- bromide/chloride ratio, vs. depth, B:314
- calcite  
 sediments, A:101–103, 206–213, 216–217, 220  
 veins, A:225  
 vs. carbonate content, A:207  
 vs. depth, A:36, 108, 208–209  
 X-ray diffraction data, A:32–33
- calcium  
 interlayer cation composition, B:140–141  
 interstitial waters, A:147–149  
 sediments, A:231–232  
 vs. depth, A:148, 239; B:165, 168, 179, 181  
*See also magnesium/calcium ratio*
- calcium carbonate  
 carbonate veins, B:85–87  
 values, B:95
- calcium/chloride ratio, interlayer cation composition, B:140
- calcium oxide, vs. silica, B:350
- calcium oxide/aluminum oxide ratio, vs. depth, B:25
- caliper logs, vs. depth, A:163
- carbon  
 geochemistry, A:140–143  
 sediments, A:230–231
- carbon, organic  
 sediments, A:138, 225  
 vs. depth, A:139, 141, 237, 240  
 vs. nitrogen, A:139  
 vs. total organic carbon, A:237
- carbon, total, organic, vs. organic carbon, A:237
- carbon isotopes, carbonate veins, B:85–87, 92, 356
- carbonate compensation depth, deposition, A:100–101, 203
- carbonate content  
 cores, A:203  
 sediments, A:206–213, 216–217  
 vs. calcite, A:207  
 vs. depth, A:100, 148, 207  
 X-ray diffraction data, A:102–103, 105–114
- carbonates, geochemical profiles, B:317
- Caribbean Plate, geology, A:3–11
- cation exchange capacity  
 density, B:139  
 electrical conductivity, B:137–149  
 vs. depth, B:143  
 vs. water content, B:139–142, 145
- cementation, reflectivity, B:134
- chalk, lithologic units, A:99
- chloride  
 clay, B:146  
 interlayer cation composition, B:140  
 interstitial waters, A:145, 147; B:314–315  
 sediments, A:231  
 vs. depth, A:147, 239; B:167, 169, 313–314  
 vs. strontium, B:315  
*See also bromide/chloride ratio; calcium/chloride ratio; iodide/chloride ratio; magnesium/chloride ratio; potassium/chloride ratio; sodium/chloride ratio*
- chlorite  
 mineralogy–porosity inversion, B:224–225  
 X-ray diffraction data, B:222  
*See also kaolinite/chlorite ratio*
- chromium  
 depletion, B:173  
 vs. depth, B:179, 181
- Chron 3r, magnetostratigraphy, A:220
- Chron 6, magnetostratigraphy, A:134
- Chron 7n1, magnetostratigraphy, A:134
- clay  
 chloride, B:146  
 lithologic units, A:98, 202  
 sediments, A:206–213, 216–217  
 vs. depth, A:102–103, 105–114; B:341  
 well-logging, B:321–334
- clay, sheared  
 permeability, B:132–134  
 scaly fabric, B:59–77
- clay content, fluid pressure, B:236–237
- clay minerals  
 core–log integration, B:222–223  
 décollement zones, B:3–30  
 geochemical profiles, B:317  
 sediments, A:204–213, 216–217, 220  
 vs. depth, A:36, 208–209  
 X-ray diffraction data, A:32–33, 102–103, 105–114; B:9, 11–13
- claystone  
 clay minerals, B:18–19, 22  
 lithologic units, A:98–99, 202–203  
 photograph, A:101, 104

- scaly fabric, B:59–77
- cleavage, scanning, B:155–156
- cobalt
- diagenesis, B:168
- vs. depth, B:167, 170
- color, sediments, A:105
- compaction
- carbonate veins, B:88–90
- logging units, A:75–76
- sediments, B:67, 69, 71
- compressional wave anisotropy, vs. depth, A:245
- compressional wave velocity
- directional properties, B:115–123
- sea-surface reflections, B:267
- sediments, A:151, 155–156, 238, 243
- vs. depth, A:152, 245; B:119
- compressional wave velocity anisotropy, vs. depth, B:119
- conglomerate, tuff-pebble, photograph, A:101
- consolidation
- fluid pressure, B:236–237
- sediments, B:109–114
- tests, B:304–309
- consolidation, one-dimensional, effective stress, B:111
- consolidation, secondary, sediments, B:230
- copper
- enrichment, B:173
- vs. depth, B:179, 181
- copper minerals, scanning electron micrographs, B:182
- core-log comparison, logging-while-drilling, B:328–330
- CORK experiment, temperature, B:247–252
- crust, oceanic, seismic reflection, A:16
- Curie temperature, magnetic anisotropy, B:99
- décollement zones
- biostratigraphy, B:33–48
- carbonate veins, B:79–96
- clay mineralogy, B:3–30
- cores, A:108, 111, 114
- diagenesis, B:25–27
- evolution, B:287–288
- fluid regime, B:311–319
- geochemical profiles, B:317
- geochemistry, B:171–182
- location and arrangement, B:285–286
- magnetic susceptibility, B:103–104
- packer experiments, B:199–218
- photograph, A:128, 226
- pore pressure, B:125–135, 309
- reflections, B:128
- scaly fabric, B:59–77
- seismic profiles, B:255–262
- seismic reflection, A:4, 10, 19–21, 76; B:293–302
- sketch, A:127
- structural domains, A:116–117, 126, 213–215, 256
- structural geology, B:279–292
- See also* proto-décollement
- decoupling, décollement zones, B:288–289
- deformation
- carbonate veins, B:80–84, 88–90
- décollement zones, B:281, 284, 288–289
- magnetic susceptibility, B:103–104
- photograph, A:226; B:62–66, 68–71, 73
- scaly fabric, B:63–66
- seismic reflection, A:18–21
- structures, A:208–209, 211
- deformation, drilling-induced, artifacts, B:69, 71
- deformation bands, scaly fabric, B:66–67, 73
- dehydration, smectite, B:317
- demagnetization, vectors, A:134, 234
- demagnetization, thermal, claystone, A:136–137
- density
- cation exchange capacity, B:139
- core-log comparison, B:328
- décollement zones, B:300–301
- logging units, A:75–76
- pore pressure, B:125–135
- sediments, A:150–151, 153–155, 237–238; B:330
- vs. depth, B:259, 299–301
- density, bulk, vs. depth, A:244; B:154–158, 205, 231, 286
- density, grain
- cation exchange capacity, B:139
- vs. depth, A:151, 244; B:142
- density correction logs, vs. depth, A:86
- density logs
- logging-while-drilling, B:326–327
- vs. depth, A:74, 86, 151, 162, 165; B:259
- detrital minerals, X-ray diffraction data, A:29–37
- detrital provenance, clay minerals, B:15–17, 20–21
- diagenesis
- organic matter, B:168
- reflectivity, B:134
- sediments, B:25–27
- See also* alteration; authigenesis
- dilation
- diagenesis, B:25–27
- permeability, B:132–134
- sediments, B:67, 69, 71
- dolomite, carbonate veins, B:84–85, 92, 356
- downhole logging, Barbados Ridge N, A:160–164
- drilling, accretionary prisms, A:5, 11
- duplexing, seismic reflection, A:22
- elastic moduli, velocity, A:160
- elastic rebound, sediments, B:230
- electrical conductivity
- cation exchange capacity, B:137–149
- porosity, B:137–149
- electron microscopy, scaly fabric, B:61–69
- electron microscopy, scanning, clay mineralogy, B:8–9
- environment, deposition, A:100–101, 203
- ethane
- sediments, A:225
- See also* methane/ethane ratio
- fabric
- carbonate veins, B:96
- magnetic anisotropy, B:97–105
- scanning, B:155–156
- structural domains, A:114–127
- fabric, magnetic, magnetic susceptibility, B:103–104
- fabric, scaly
- décollement zones, B:281, 284
- kinematic model, B:71–73
- photograph, A:127–129, 218, 221
- proportion in décollement zone, B:285
- sheared clays, B:59–77
- fault planes
- reflections, B:125–127
- seismic reflection, A:3–5, 22, 76
- fault splay, décollement zones, B:300–301
- fault zones
- bulk permeability, B:215–217
- diagenesis, B:25–27
- sediments, B:67, 69, 71
- structural domains, A:117, 173, 211, 213–215
- faults, healed, scanning, B:155–156
- faults, normal, photograph, A:221
- feldspar
- carbonate veins, B:84–85
- veins, A:225
- volcanic ash, B:344–345, 347–348
- X-ray diffraction data, A:116
- flattening, sediments, B:67, 69, 71–72
- flow tests, pressure, B:205–214
- flow velocity, vs. hydraulic conductivity, B:112–113
- fluid composition, carbonate veins, B:90–91
- fluid flow
- décollement zones, B:288–289
- diagenesis, B:25–27
- geochemical profiles, B:317, 353–356
- pore fluid, B:168–169, 353–356
- scaly fabric, B:73
- tests, B:249–251
- thermal resistance, B:243
- fluid pressure
- décollement zones, A:4, 76–77
- geochemical profiles, B:317
- packer experiments, B:203
- sediments, B:229–238, 309
- vertical seismic profiles, B:271–272
- vs. depth, B:130, 232, 235–237
- fluid regime
- carbonate veins, B:88–90
- décollement zones, B:311–319
- fluid/rock interactions
- geochemical profiles, B:317, 354–355
- geochemistry, B:163–170
- fluid samplers, geochemical gradient, A:235, 237
- fluids, geochemistry, B:311–319, 353–356
- folding
- photograph, A:128
- seismic profiles, lithostratigraphy, A:9, 22
- foliation
- photograph, A:127–128
- scaly fabric, B:63–66, 72–75
- foliation, scaly
- photograph, A:117
- structural domains, A:127–128
- foliation, spaced
- carbonate veins, B:80–81
- scaly fabric, B:66–67
- foraminifers, lithologic units, A:98–99, 202
- foraminifers, planktonic, biostratigraphy, A:130–131, 218
- formation factor
- sediments, A:156, 240, 244
- vs. depth, A:159, 246
- vs. porosity, B:148
- fracture networks, scaly fabric, B:66, 287
- fractures
- carbonate veins, B:81–82
- scaly fabric, B:63–66, 287
- structural domains, A:117
- gamma ray–density logs, A:185–188
- gamma ray–density–porosity logs, A:180–183
- gamma-ray logs, vs. depth, A:74, 79–86, 115, 162, 165; B:286
- gamma ray–resistivity–rate of penetration logs, A:176–179
- gamma ray–tension–velocity logs, A:189–192
- gamma rays, natural
- sediment cores, B:183–195, 225
- sediments, A:158, 244
- vs. depth, A:250
- geochemical logs, vs. depth, A:86
- geochemistry
- clay mineralogy, B:3–30
- décollement zones, A:10
- fluids, B:311–319, 353–356

- sediments, B:171–179
- geochemistry, inorganic  
Site 948, A:144–150  
Site 949, A:227, 229–235, 237
- geochemistry, organic  
Site 948, A:137–144  
Site 949, A:221, 225–227
- geothermal gradient  
clay mineralogy, B:7  
sediments, A:166–167, 245–246  
tests, B:249
- grain size  
clay minerals, B:16, 20  
sediments, B:337–341
- ground water, accretionary prisms, A:4
- heat flow  
accretionary prisms, B:240–241  
Site 948, A:164–167  
Site 949, A:244–246
- helium, pore water, B:318
- helium isotopes, interstitial waters, B:316–317
- hemipelagic environment, deposition, A:203
- hexane, chromatograms, A:145, 238
- hydraulic conductivity  
sediments, B:111–112  
vs. depth, B:114  
vs. flow velocity, B:112–113  
vs. void ratio, B:114
- hydrocarbons  
headspace gases, A:139, 227  
sediments, A:137–138, 225
- hydrofractures  
fluid pressure, B:236–237  
non-décollement site, B:298–299  
permeability, B:132–134
- hydrogen index, vs. oxygen index, A:143, 238
- hydrogeology, B:303–310
- hydrology, pressure, B:205–207
- illite  
abundance, B:14  
mineralogy–porosity inversion, B:224–225  
sediments, A:206–213, 216–217, 220  
veins, A:225  
vs. depth, A:102–103, 105–114; B:15–16, 20–22  
X-ray diffraction data, A:35, 116; B:222
- illite/smectite mixed layers  
sediments, B:10, 22  
vs. depth, B:22
- illitization, in situ, sediments, B:25–27
- imbricate thrusting, seismic reflection, A:21–22
- impedance, acoustic, vs. depth, A:152, 245
- impedance, vs. effective pressure, B:134
- inclusions, carbonate veins, B:84
- index properties  
sediments, A:241–242  
X-ray scan, B:153
- interstitial waters  
geochemistry, A:147, 234; B:163–170  
sediments, A:144–150  
X-ray diffraction data, A:102–103, 206
- iodide  
pore fluids, B:354  
vs. depth, B:355
- iodide/chloride ratio, vs. depth, B:314
- iron, total  
vs. depth, B:24  
vs. kaolinite, B:30
- iron, total/aluminum oxide ratio  
vs. depth, B:25  
vs. kaolinite, B:30
- iron, vs. depth, B:179, 181
- iron oxide, vs. silica, B:350
- kaolinite  
abundance, B:14  
mineralogy–porosity inversion, B:224–225  
sediments, A:206–213, 216–217, 220  
vs. depth, A:102–103, 105–114; B:15–16, 20–21  
vs. major oxides, B:30  
X-ray diffraction data, A:35; B:222
- kaolinite/chlorite ratio  
veins, A:225  
vs. depth, A:102–103, 105–114
- kerogen, sediments, A:139, 143–144, 226–227
- kutnohorite. *See* magnesium-kutnohorite
- laminations  
décollement zones, B:281, 284  
deposition, A:100–101  
photograph, A:104
- lateral ramps, seismic reflection, A:22–23
- Lesser Antilles  
clay minerals, B:17, 20–21  
drilling, A:3–11  
magmatic history, B:347–349
- lithium  
interstitial waters, A:149–150  
pore fluid, B:165, 167  
sediments, A:232–234  
vs. depth, A:149, 240; B:165, 168, 179, 181
- lithofacies, clay mineralogy, B:6
- lithologic units  
Site 948, A:98–100  
Site 949, A:202–203  
Unit I, A:98, 202  
Unit II, A:98–99, 202–203  
Unit III, A:99, 203
- lithology, structural geology, B:281
- lithostratigraphy  
Barbados Ridge accretionary prism, A:5–6  
correlation with well-logging, A:163–164  
Site 948, A:98–108  
Site 949, A:202–205  
logging units, A:74–75  
logging-while-drilling, well-logging, B:321–334
- macroscopic features  
décollement zones, B:281, 284–285  
scaly fabric, B:62–63
- magmatic history, Lesser Antilles, B:347–349
- magnesium  
interlayer cation composition, B:140–141  
interstitial waters, A:147–149  
sediments, A:231–232  
vs. depth, A:148, 239; B:165, 168, 179, 181
- magnesium/calcium ratio, vs. depth, A:148, 239
- magnesium carbonate  
carbonate veins, B:85–87  
values, B:95
- magnesium/chloride ratio, interlayer cation composition, B:140
- magnesium-kutnohorite  
carbonate veins, B:84–85, 92, 356  
X-ray diffraction data, A:116
- magnesium oxide  
vs. depth, B:24  
vs. kaolinite, B:30  
vs. silica, B:350
- magnesium oxide/aluminum oxide ratio, vs. depth, B:25
- magnetic anisotropy  
décollement zones, B:281  
sediments, B:97–105  
structural domains, A:127, 215
- vs. depth, B:100–103
- magnetic declination, vs. depth, A:135, 235
- magnetic inclination, vs. depth, A:135, 235
- magnetic intensity, vs. depth, A:135, 235
- magnetic susceptibility  
décollement zones, B:281, 284  
Flinn diagrams, A:129, 227  
magnetic anisotropy, B:97–105  
principal ellipsoids, A:129  
projections, A:226  
sediments, A:136–137, 220–221  
structural domains, A:127  
vs. depth, A:138, 237; B:100–103
- magnetite, sediments, A:134–136
- magnetostratigraphy, sediments, A:131–134, 220, 236
- major elements, carbonate veins, B:85–87, 93–94
- major oxides  
clays, B:23  
vs. depth, B:24–25  
vs. kaolinite, B:30
- manganese  
diagenesis, B:168  
enrichment, B:173  
interstitial waters, A:150  
sediments, A:235  
vs. depth, A:149, 240; B:165, 169, 179, 181
- manganese carbonate  
carbonate veins, B:85–87  
values, B:95
- manganese minerals, scanning electron micrographs, B:180
- manganese oxide, geochemistry, B:173
- manganese/silica ratio, vs. depth, A:149, 240
- manganese stain, photograph, A:127
- Martinique, clay minerals, B:17
- maturation, phytane, A:147
- metals  
diagenesis, B:168  
geochemistry, B:163–170
- methane  
interstitial waters, B:314–315  
sediments, A:137–138, 225  
vs. depth, A:138, 147, 237; B:314
- methane/ethane ratio, vs. depth, A:237
- micrite, carbonate veins, B:84–85
- microscopy, scaly fabric, B:61–69
- microsparite, carbonate veins, B:84–85
- microstructures, scaly fabric, B:67, 286–287
- mineral composition, sediments, A:204–213, 216–217, 220
- mineral composition inversion, logging-while-drilling, B:328–329
- Miocene  
biostratigraphy, B:49–56  
lithologic units, A:98–99, 202–203  
radiolarian biostratigraphy, B:33–48
- mixed-layer minerals, sediments, B:10, 22
- molybdenum  
diagenesis, B:168  
vs. depth, B:167, 170
- montmorillonite  
X-ray diffraction data, A:34  
*See also* sodium-montmorillonite
- mudstone, clay minerals, B:18–19, 22
- n*-alkanes  
geochemistry, A:239  
sediments, A:144, 146, 227
- nannofossils, calcareous, biostratigraphy, A:129–130, 217–218; B:49–56
- nannofossils, lithologic units, A:98–99, 202–203
- neocrystallization, magnetic susceptibility, B:103–104

- neon, pore water, B:318
- nitrogen  
 geochemistry, A:140–143  
 sediments, A:139, 225, 230–231  
 vs. organic carbon, A:139
- normalization factors, X-ray diffraction data, A:29–30, 36–37
- North American Shale Composites, geochemistry, B:173
- ocean-bottom shots, seismic profiles, B:265–267
- Oligocene  
 biostratigraphy, B:49–56  
 lithologic units, A:203
- organic matter, diagenesis, B:168, 354–355
- organic matter maturity, vs. depth, A:143
- orientation, compressional wave velocity, B:121
- overconsolidation, sediments, B:111–112
- overpressure  
 diagenesis, B:25–27  
 fluid pressure, B:236–237  
 permeability, B:132–134  
 pore fluid, B:168–169  
 tests, B:250–251
- oxidation, phytane, A:147
- oxides. *See* major oxides
- oxygen index, vs. hydrogen index, A:143, 238
- oxygen isotopes  
 carbonate veins, B:85–87, 92, 356  
 interstitial waters, B:315–316  
 pore fluids, B:354  
 vs. depth, B:355
- packer experiments  
 décollement zones, B:199–218  
 Site 948, A:169–171  
 Site 949, A:253–256
- paleobathymetry, deposition, A:100–101
- paleomagnetism  
 Site 948, A:131–137  
 Site 949, A:220–221
- penetration rate logs, vs. depth, A:79–82
- penetration rates, logging-while-drilling, B:323
- permeability  
 accretionary prisms, A:4  
 décollement zones, B:132–134  
 sediments, B:109–114  
 tests, B:304–309  
 vs. depth, B:114  
 vs. effective stress, B:306–308  
 vs. porosity, B:308–309  
 vs. void ratio, B:308
- permeability, bulk  
 vs. effective stress, B:215–216, 309  
 vs. modified pore pressure, B:216
- permeability, in situ, packer experiments, B:199–218
- phillipsite  
 veins, A:225  
 X-ray diffraction data, A:116
- phillipsite veins, photograph, A:219
- phosphorus, vs. depth, B:179, 181
- photoelectric-effect logs, vs. depth, A:115
- physical properties, seismic reflection, B:293–302
- physical properties (core)  
 Site 948, A:150–160  
 Site 949, A:237–238, 240–244
- phytane  
 maturation, A:147  
 sediments, A:144
- plagioclase  
 mineralogy–porosity inversion, B:224–225  
 sediments, A:101–103, 206–213, 216–217, 220
- vs. depth, A:36, 108, 208–209  
 X-ray diffraction data, A:32–33, 102–103, 105–114
- plate tectonics, accretionary prisms, A:3–11, 13–27
- Pleistocene  
 biostratigraphy, B:49–56  
 lithologic units, A:98, 202
- Pliocene  
 biostratigraphy, B:49–56  
 lithologic units, A:202–203
- pore collapse, scaly fabric, B:63–66
- pore fluid  
 overpressure, B:271  
 trace metals, B:163–170
- pore pressure  
 carbonate veins, B:88–90  
 density, B:125–135  
 electrical conductivity, B:143–145  
 permeability, B:132–134  
 sediments, B:112
- pore pressure, modified, vs. bulk permeability, B:216
- porosity  
 electrical conductivity, B:137–149  
 logging units, A:75–76  
 mineralogy–porosity inversion, B:224  
 scaly fabric, B:73  
 sediments, A:150–151, 153–155, 237–238  
 velocity, B:131–132  
 vertical seismic profiles, B:271–272  
 vs. depth, A:151, 158, 244; B:114, 154–158  
 vs. effective pressure, B:132  
 vs. formation factor, B:148  
 vs. permeability, B:308–309  
 vs. resistivity, B:147  
 vs. surface conductivity, B:149  
*See also* void ratio
- porosity inversion, logging-while-drilling, B:324–329
- porosity logs  
 logging-while-drilling, B:326–327  
 vs. depth, A:163
- porosity (neutron) logs, vs. depth, A:86
- potassium  
 diagenesis, B:25–27  
 estimation errors, B:194  
 interlayer cation composition, B:140–141  
 interstitial waters, A:149–150  
 natural gamma-ray spectra, B:187, 225  
 reference concentrations, B:193  
 sediments, A:232–234  
 vs. depth, A:149, 240; B:166, 168, 179, 181, 188
- potassium/chloride ratio, interlayer cation composition, B:140
- potassium logs, vs. depth, A:86
- potassium oxide  
 vs. depth, B:24, 188  
 vs. kaolinite, B:30  
 vs. silica, B:350
- potassium oxide/aluminum oxide ratio, vs. depth, B:25
- potassium/rubidium ratio, vs. depth, B:166, 168
- precipitation, carbonate veins, B:87–88
- preferred orientation  
 magnetic susceptibility, B:102  
 scaly fabric, B:63–66
- pressure  
 CORK experiment, B:247–252  
 Site 948, B:239–245  
 vs. depth, B:206, 245  
 vs. time, A:173, 257; B:204, 244, 250–251
- pressure, effective  
 vs. impedance, B:134  
 vs. porosity, B:132  
 vs. velocity, B:131
- pristane  
 maturation, A:147  
 sediments, A:144
- production index, vs. temperature, A:144
- proto-décollement  
 sediments, B:112  
 seismic reflection, A:19, 24  
*See also* décollement zones
- provenance, clay minerals, B:15–17, 20–21
- pyrolysis, Rock-Eval, sediments, A:232
- pyroxene, volcanic ash, B:345–346, 348
- quartz  
 carbonate veins, B:84–85  
 mineralogy–porosity inversion, B:224–225  
 sediments, A:101–103, 206–213, 216–217, 220  
 veins, A:225  
 vs. depth, A:36, 108, 208–209  
 X-ray diffraction data, A:32–33, 102–103, 105–114
- radiolarians  
 biostratigraphy, A:131, 218–220  
 lithologic units, A:98–99, 202–203  
 Miocene biostratigraphy, B:33–48  
 preservation, A:132
- rare earths  
 geochemistry, B:173  
 manganese minerals, B:180
- reflectance  
 percentage, A:114  
 sediments, A:105  
 vs. depth, A:111
- reflection, décollement zones, B:300–301
- reflection coefficient, vs. depth, B:259
- reflectivity, diagenesis, B:134
- remanent magnetization, anhysteritic, grains, A:138
- remanent magnetization, isothermal, sediments, A:131–134
- remanent magnetization, magnetic anisotropy, B:99
- remanent magnetization, multicomponent, isothermal, sediments, A:134–136
- remanent magnetization, natural, sediments, A:131–134, 220
- remanent magnetization, partial, anhysteritic, sediments, A:136
- resistivity  
 sediments, A:156, 240, 244  
 vs. depth, A:159, 247–249; B:138, 286, 299, 301  
 vs. porosity, B:147  
 X-ray scan, B:152–153
- resistivity logs, vs. depth, A:74, 79–82, 162, 165
- rhodochrosite  
 carbonate veins, B:84–85, 92  
 geochemistry, B:173, 356  
 photograph, A:117  
 veins, A:225  
 X-ray diffraction data, A:116
- rock magnetism, sediments, A:134–136
- rubidium  
 pore fluid, B:165, 167  
 vs. depth, B:166, 168  
*See also* potassium/rubidium ratio
- S–C bands  
 décollement zones, B:288–289  
 photograph, B:291–292

- scaly fabric, B:63–66, 72–74
- salinity
- core–log comparison, B:333–334
  - interstitial waters, A:145, 147
  - sediments, A:231
  - vs. depth, A:147, 239
- sand, vs. depth, B:341
- scintillation detector, shipboard, natural gamma-ray spectra, B:183–195
- sedimentation, deposition, A:100–101, 203
- sedimentology
- Site 948, A:98–108
  - Site 949, A:202–205
- sediments
- computed tomography, B:151–159
  - core–log integration, B:223
  - décollement zone, A:111
  - deformation, B:67, 69, 71
  - fluid pressure, B:229–238
  - geochemistry, B:171–182, 353–356
  - grain size, B:337–341
  - magnetic anisotropy, B:97–105
  - magnetic properties, B:98–103
  - mineral composition, A:29–37
  - scan image analysis, B:151–159
  - seismic reflection, A:16–20
  - X-ray mineralogy, A:101–103
- sediments, altered, X-ray diffraction data, A:116
- seismic anisotropy, overpressure, B:271
- seismic profiles
- accretionary prisms, B:255–262
  - Barbados Ridge N, B:117
  - folding, lithostratigraphy, A:7, 9
  - Site 947, A:73
  - Site 948, A:91, 93
  - Site 949, A:196, 254–255
- seismic profiles, vertical
- Site 948, A:167–169; B:260–261
  - Site 949, A:246, 249–252
  - velocity, B:263–275
  - well-logging, B:259–261
- seismic reflection
- accretionary prisms, A:16–22, 24, 26–27
  - décollement zones, B:293–302
  - structural geology, B:280–281
- seismic reflection, three-dimensional, fault planes, A:3–5, 18–22
- seismic velocity, B:263–275
- seismograms, traveltimes, A:170
- seismograms, synthetic
- décollement, A:164; B:260, 272, 274
  - vs. depth, A:76, 166
- shear strain, displacement, B:75
- shear strength
- sediments, A:156–158, 244
  - vs. depth, A:161
- shear strength, vane
- logs, A:161
  - vs. depth, A:249
- shear wave velocity
- sea-surface reflections, B:270–271
  - sediments, A:156, 158–159, 238, 244–245
  - vs. depth, A:152, 245
- shear zone thickness, vs. depth, A:126; B:285
- shear zones
- comparison with radiolarian zonation, B:34, 36
  - décollement zones, B:288–289
  - deformation, B:72–73
  - structural domains, A:114–127
  - vs. depth, A:214
- shore-based log processing, A:175, 184
- silica
- interstitial waters, A:150
- sediments, A:235
- vs. calcium oxide, B:350
  - vs. depth, A:149, 240; B:24
  - vs. iron oxide, B:350
  - vs. kaolinite, B:30
  - vs. magnesium oxide, B:350
  - vs. potassium oxide, B:350
  - vs. sodium oxide, B:350
  - See also* manganese/silica ratio
- silica/aluminum oxide ratio
- vs. depth, B:25
  - vs. kaolinite, B:30
- silt, sandy, photograph, A:104
- silt, vs. depth, B:341
- Site 541
- fluid pressure, B:232–234
  - tectonics and hydrology, B:235
- Site 672
- geochemical anomalies, B:236
  - magnetic anisotropy, B:99–101
  - tectonics and hydrology, B:235
- Site 676
- fluid pressure, B:232–234
  - tectonics and hydrology, B:235
- Site 947, A:71–86
- background and scientific objectives, A:71–72
  - downhole logging, A:73–76
  - non-décollement site, B:298–299
  - operations, A:72–73
  - site description, A:71–86
  - well-logging, A:73–76
- Site 948, A:87–192
- acoustic anisotropy, B:118–119
  - background and scientific objectives, A:89–90
  - biostratigraphy, A:129–131
  - calcareous nannofossil biostratigraphy, B:50, 53
  - clay mineralogy, B:9–10
  - core physical properties, A:150–160
  - coring, A:92
  - downhole logging, A:160–164
  - fluid pressure, B:232–234
  - geochemical anomalies, B:236
  - geochemistry, B:165–167, 171, 173
  - heat flow, A:164–167
  - inorganic geochemistry, A:144–150
  - lithostratigraphy, A:98–108
  - low fluid content site, B:299–300
  - magnetic anisotropy, B:101–103
  - operations, A:90–98
  - organic geochemistry, A:137–144
  - packer experiments, A:169–171
  - paleomagnetism, A:131–137
  - permeability, B:207–209
  - porosity, B:142–145
  - radiolarians, B:33–36
  - sedimentology, A:98–108
  - shore-based log processing, A:175, 184
  - site description, A:87–192
  - structural geology, A:108–129
  - tectonics and hydrology, B:236
  - temperature, B:239–245
  - vertical seismic profiles, A:167–169
  - well-logging while drilling, B:219–227
- Site 949, A:193–257
- acoustic anisotropy, B:119–120
  - background and scientific objectives, A:194
  - biostratigraphy, A:215, 217–220
  - calcareous nannofossil biostratigraphy, B:53–54
  - clay mineralogy, B:10
  - core physical properties, A:237–238, 240–244
  - coring, A:197
  - geochemistry, B:167–169, 173
- heat flow, A:244–246
- incipient décollement site, B:300
- inorganic geochemistry, A:227, 229–235, 237
- lithostratigraphy, A:202–205
- magnetic anisotropy, B:103
- operations, A:194–202
- organic geochemistry, A:221, 225–227
- packer experiments, A:253–256
- paleomagnetism, A:220–221
- permeability, B:209–211
- pressure and temperature, B:247–252
- radiolarians, B:36
- sedimentology, A:202–205
- site description, A:193–257
- structural geology, A:205–215
- vertical seismic profiles, A:246, 249–252
- volcanic ash, B:343–351
- smectite
- abundance, B:14
  - chemical composition, B:21, 25
  - dehydration, B:317
  - interlayer cation composition, B:140–141
  - mineralogy–porosity inversion, B:224–225
  - sediments, A:206–213, 216–217, 220
  - veins, A:225
  - vs. depth, A:102–103, 105–114; B:15–16, 20–21, 299
  - X-ray diffraction data, A:35; B:222
  - See also* illite/smectite mixed layers
- sodium
- interlayer cation composition, B:140–141
  - interstitial waters, A:149–150
  - sediments, A:232–234
  - vs. depth, A:149, 240; B:179, 181
- sodium/chloride ratio
- interlayer cation composition, B:140
  - vs. depth, A:149, 240; B:313
- sodium oxide, vs. silica, B:350
- sodium-montmorillonite, X-ray diffraction data, A:34
- solid solution, carbonate veins, B:85–87
- sonic velocity logs
- vs. depth, A:163
  - See also* velocity
- spectroscopy, energy dispersive, clay mineralogy, B:8–9
- standard materials, X-ray diffraction data, A:30–33
- strain, compactional, carbonate veins, B:88–90
- strain, magnetic susceptibility, B:103–104
- stress
- carbonate veins, B:88–90
  - magnetic susceptibility, B:103–104
  - vs. depth, B:233
- stress, effective
- vs. bulk permeability, B:215–216, 309
  - vs. permeability, B:306–308
  - vs. void ratio, B:111, 231
- strontium
- carbonate veins, B:92, 356
  - interstitial waters, B:315–316
  - pore fluids, B:354
  - vs. chlorine, B:315
  - vs. depth, B:179, 181, 354–356
  - vs. strontium isotopes, B:95, 316
- strontium isotopes
- carbonate veins, B:85–87, 92, 356
  - interstitial waters, B:315–316
  - pore fluids, B:354
  - sediments, B:317
  - vs.  $1/\text{strontium}$  concentration, B:95, 316
  - vs. depth, B:355
- structural contours, décollement zones, A:10
- structural domains

acoustic anisotropy, B:115–123  
 cores, A:114–127  
 structural features, vs. depth, A:115, 214, 222–225  
 structural geology  
   Barbados Ridge N, B:279–292  
   Site 948, A:108–129  
   Site 949, A:205–215  
 structural measurements, summary, A:118–126  
 subduction zones, diagenesis, B:27  
 sulfate  
   interstitial waters, A:149  
   sediments, A:232  
   vs. depth, A:148, 240  
 sulfur  
   geochemistry, A:140–143  
   sediments, A:139, 225, 230–231  
 tectonics, reflections, B:127–128  
 temperature  
   CORK experiment, B:247–252  
   sediments, A:164, 166–167  
   Site 948, B:239–245  
   vs. depth, A:169, 252; B:242, 250  
   vs. production index, A:144  
   vs. thermal resistance, B:245  
   vs. time, A:167–168, 251; B:242, 250  
 tension logs, vs. depth, A:163  
 tephra, deposition, A:100–101  
 textures  
   carbonate veins, B:87–88  
   sediments, B:337–341  
 thermal conductivity  
   accretionary prisms, B:240–241  
   core–log comparison, B:328, 332  
   logs, A:160  
   sediments, A:156, 238, 240  
   vs. depth, A:158, 246; B:242  
 thermal resistance, vs. temperature, B:245  
 thorium  
   estimation errors, B:194  
   natural gamma-ray spectra, B:187, 225  
   reference concentrations, B:193  
   uncertainties in laboratory analyses, B:190  
   vs. depth, B:188  
 thorium logs, vs. depth, A:86  
 thrust faults, geochemical gradient, A:235  
 thrust front, seismic reflection, A:16–18, 21–22

Tiburon Rise, geology, A:3–11  
 titanium, vs. depth, B:179, 181  
 titanium oxide, vs. depth, B:24  
 titanium oxide/aluminum oxide ratio  
   vs. depth, B:25  
   vs. kaolinite, B:30  
 tomography, computed, sediments, B:151–159  
 tortuosity, vs. depth, A:159  
 trace metals, pore fluid, B:163–170  
 traveltime, vs. depth, A:171–172, 253; B:256–258  
 turbidite, photograph, A:104  
 turbidity currents, deposition, A:100–101  
 underthrust section, structural domains,  
   A:126–127  
 underthrusting  
   décollement zones, B:286  
   seismic reflection, A:18  
   structural domains, A:215  
 uranium  
   estimation errors, B:194  
   natural gamma-ray spectra, B:187  
   reference concentrations, B:193  
   uncertainties in laboratory analyses, B:190  
   vs. depth, B:188  
 uranium logs, vs. depth, A:86  
 vanadium, vs. depth, B:179, 181  
 vein minerals, X-ray diffraction data, A:116  
 veins  
   décollement zones, B:288–289  
   fluid pressure, B:236–237  
   geochemical profiles, B:317  
   photograph, A:117, 219  
   X-ray mineralogy, A:225  
 veins, carbonate  
   décollement zones, B:79–96  
   geochemistry, B:85–87, 356  
   mineralogy, B:84–85  
   photograph, B:82–91  
   type 1, B:80–81  
   type 2, B:81–82  
   type 3, B:82  
   type 4, B:82–84  
 velocity  
   Barbados Ridge N, B:263–275  
   vs. depth, B:299

vs. effective pressure, B:131  
 See also sonic velocity logs  
 velocity, ultrasonic, pore pressure, B:125–135  
 void ratio  
   fluid pressure, B:236–237  
   vs. effective stress, B:111, 231  
   vs. hydraulic conductivity, B:114  
   vs. permeability, B:308  
   See also porosity  
 volcanic ash  
   alteration, B:317  
   deposition, A:100–101  
   lithologic units, A:202–203  
   phase chemistry, B:343–351  
 volcanic glass, volcanic ash, B:347–351  
 water content  
   vs. cation exchange capacity, B:139–142, 145  
   vs. depth, A:151, 244; B:142  
 well-logging  
   Barbados Ridge N, bp:CD-ROM  
   clays, B:321–334  
   electrical conductivity, B:143–145  
   mineralogical inversion, B:219–227  
   reflection, B:259  
   Site 947, A:73–76  
   Site 948, A:160–164  
 X-ray diffraction data  
   clay mineralogy, B:9, 11–13, 18–19, 22  
   interstitial waters, A:102–103  
   mineralogical inversion, B:222–226  
   physical properties residues, A:106–107,  
     109–114  
   sediments, A:29–37, 206–212, 216–217, 220  
   vein minerals and altered sediments, A:116  
   whole-round samples, A:105  
 X-ray mineralogy, vs. depth, A:162  
 X-ray scan, sediments, B:151–159  
 zinc  
   diagenesis, B:168  
   vs. depth, B:167, 170, 179, 181  
 zonation  
   calcareous nannofossils, B:49–56  
   radiolarians, B:33–48

## VOLUME 156 TAXONOMIC INDEX

*abisectus*, *Cyclicargolithus*, Site 949, A:218; B:54  
*acostaensis*, *Globorotalia*, Site 949, A:218  
*aculeata*, *Stylodictya*, Barbados Ridge N, B:43  
*acutus*, *Ceratolithus*, Site 949, A:217; B:53  
*Amaurolithus delicatus*, Site 949, A:217; B:53–54  
*Amaurolithus primus*, Site 949, A:217; B:54  
*Amaurolithus primus* Subzone, Site 949, B:54  
*Amaurolithus* sp., Site 949, A:217  
*anthophora*, *Tholospyrus*  
   Barbados Ridge N, B:43, 46  
   Site 949, A:219  
*Artophormis gracilis*, Barbados Ridge N, B:36  
*astericus*, *Heliodiscus*, Barbados Ridge N, B:41,  
 48  
*ateuchus*, *Dorcadospyris*  
   Barbados Ridge N, B:34, 41, 46  
   Site 948, A:131  
   Site 949, A:218–219

*Bathropyramis* sp. indet., Barbados Ridge N,  
 B:40, 48  
*bellus*, *Discoaster*, Site 948, A:130  
*berggrenii*, *Discoaster*, Site 948, A:129; B:53  
*binocotnum*, *Tympanidium*, Barbados Ridge N,  
 B:43, 46  
*bollii*, *Discoaster*  
   Site 948, A:130  
   Site 949, A:217  
*bollii*, *Globigerinoides*, Site 948, A:131  
*braarudii*, *Discoaster*, Site 949, B:53–54  
*bramlettei*, *Carpocanopsis*, Barbados Ridge N,  
 B:40  
*bursa*, *Dendrospyrus*, Barbados Ridge N, B:41, 46  
*Calcidiscus leptoporus*  
   Site 948, B:50  
   Site 949, B:53–54

*Calocycletta costata*  
   Barbados Ridge N, B:40, 45  
   Site 949, A:218–220  
*Calocycletta costata* Zone  
   Barbados Ridge N, B:34–36, 38  
   Site 948, A:131  
   Site 949, A:218–220  
*Calocycletta robusta*, Site 949, A:218  
*Calocycletta serrata*  
   Barbados Ridge N, B:34, 40, 45  
   Site 949, A:218–219  
*Calocycletta serrata* Zone, Site 948, A:131  
*Calocycletta virginis*  
   Barbados Ridge N, B:40, 45  
   Site 948, A:131  
   Site 949, A:218–219  
*caribbeanica*, *Gephyrocapsa*  
   Site 948, B:50

- Site 949, B:53  
*carolae*, *Oroscaena*, Barbados Ridge N, B:42  
*Carpocanopsis bramlettei*, Barbados Ridge N, B:40  
*Carpocanopsis cingulata*  
 Barbados Ridge N, B:40  
 Site 948, A:131  
 Site 949, A:218  
*challengeri*, *Helicosphaera*, Site 949, B:53  
*Centrobotrys petrushevskayae*, Barbados Ridge N, B:40  
*Ceratolithus acutus*, Site 949, A:217; B:53  
*Ceratolithus acutus* Subzone, Site 949, B:53  
*Ceratolithus cristatus*  
 Site 948, B:50  
 Site 949, B:53  
*challengeri*, *Discoaster*, Site 949, B:53–54  
*Chondrites*, lithologic units, A:203  
*cingulata*, *Carpocanopsis*  
 Barbados Ridge N, B:40  
 Site 948, A:131  
 Site 949, A:218  
*ciperoensis*, *Sphenolithus*  
 Site 948, A:130; B:53  
 Site 949, A:218; B:54  
*ciperoensis angulisuturalis*, *Globigerina*, Site 948, A:131  
*ciperoensis angustiumbilocata*, *Globigerina*, Site 948, A:131  
*ciperoensis ciperoensis*, *Globigerina*, Site 948, A:131  
*Coccolithus pelagicus*, Site 949, B:54  
*convallis*, *Minylitha*, Site 948, A:129  
*cornuta*, *Cyrtocapsella*  
 Barbados Ridge N, B:34, 40, 47  
 Site 948, A:131  
 Site 949, A:218–219  
*Cornutella profunda*, Barbados Ridge N, B:40  
*corona*, *Siphostichoartus*, Barbados Ridge N, B:42  
*costata*, *Calocyclus*  
 Barbados Ridge N, B:40, 45  
 Site 949, A:218–220  
*cristatus*, *Ceratolithus*  
 Site 948, B:50  
 Site 949, B:53  
*Cyclampterium leptetrum*  
 Barbados Ridge N, B:40, 47  
 Site 948, A:131  
 Site 949, A:218  
*Cyclampterium pegetrum*, Site 949, A:218  
*Cyclicargolithus abisectus*, Site 949, A:218; B:54  
*Cyclicargolithus floridanus*, Site 949, B:54  
*Cyrtocapsella cornuta*  
 Barbados Ridge N, B:34, 40, 47  
 Site 948, A:131  
 Site 949, A:218–219  
*Cyrtocapsella tetrapera*  
 Barbados Ridge N, B:34, 40, 47  
 Site 948, A:131  
*Cyrtocapsella tetrapera* Zone  
 Barbados Ridge N, B:34–36, 38–39  
 Site 949, A:218–219  
*damaecornis*, *Dendrospyris*, Barbados Ridge N, B:41  
*decoraperta*, *Globigerina*, Site 948, A:131  
*delicatus*, *Amaurolithus*, Site 949, A:217; B:53–54  
*delmontensis*, *Stichocorys*  
 Barbados Ridge N, B:42  
 Site 948, A:131  
*Dendrospyris bursa*, Barbados Ridge N, B:41, 46  
*Dendrospyris damaecornis*, Barbados Ridge N, B:41  
*dentata*, *Dorcadospyris*  
 Barbados Ridge N, B:34, 41, 46  
 Site 948, A:131  
 Site 949, A:219  
*diaphanes*, *Eucyrtidium*  
 Barbados Ridge N, B:41, 47  
 Site 949, A:218  
*Dictyococcites bisectus* Subzone, Site 949, B:54  
*Dictyocoryne profunda*, Site 948, A:131  
*Dictyocoryne truncatum*, Site 948, A:131  
*Didymocyrtis prismatica*  
 Barbados Ridge N, B:34, 41, 48  
 Site 948, A:131  
 Site 949, A:218–219  
*Didymocyrtis tetrathalamus*, Site 948, A:131  
*Didymocyrtis tubaria*  
 Barbados Ridge N, B:41  
 Site 949, A:218  
*Didymocyrtis violina*  
 Barbados Ridge N, B:41, 48  
 Site 949, A:218  
*Discoaster bellus*, Site 948, A:130  
*Discoaster berggrenii*, Site 948, A:129; B:53  
*Discoaster berggrenii* Subzone, Site 949, B:54  
*Discoaster bollii*  
 Site 948, A:130  
 Site 949, A:217  
*Discoaster braarudii*, Site 949, B:53–54  
*Discoaster challengerii*, Site 949, B:53–54  
*Discoaster hamatus*, Site 949, A:217; B:53–54  
*Discoaster hamatus* Zone, Site 949, B:53–54  
*Discoaster neohamatus*, Site 949, A:217; B:54  
*Discoaster neohamatus* Zone, Site 948, B:53  
*Discoaster pentaradiatus*, Site 949, B:53  
*Discoaster quinqueramus*, Site 949, A:217; B:54  
*Discoaster surculus*, Site 949, A:217; B:54  
*Discoaster variabilis*, Site 949, B:54  
*disjuncta*, *Sphaerodineolopsis*, Site 949, A:218  
*Dorcadospyris atechus*  
 Barbados Ridge N, B:34, 41, 46  
 Site 948, A:131  
 Site 949, A:218–219  
*Dorcadospyris dentata*  
 Barbados Ridge N, B:34, 41, 46  
 Site 948, A:131  
 Site 949, A:219  
*Dorcadospyris forcipata*  
 Barbados Ridge N, B:41, 46  
 Site 948, A:131  
 Site 949, A:218–219  
*Dorcadospyris praeforcipata*, Barbados Ridge N, B:41  
*elongata*, *Lychnocanoma*  
 Barbados Ridge N, B:34, 42, 48  
 Site 949, A:218  
*Euchitonia furcata*, Site 948, A:131  
*Eucyrtidium diaphanes*  
 Barbados Ridge N, B:41, 47  
 Site 949, A:218  
 Fat rad Zone, Barbados Ridge N, B:34, 36  
*floridanus*, *Cyclicargolithus*, Site 949, B:54  
*forcipata*, *Dorcadospyris*  
 Barbados Ridge N, B:41, 46  
 Site 948, A:131  
 Site 949, A:218–219  
*furcata*, *Euchitonia*, Site 948, A:131  
*geniculosa*, *Lyriospyris*, Barbados Ridge N, B:41  
*Gephyrocapsa caribbeanica*  
 Site 948, B:50  
 Site 949, B:53  
*Gephyrocapsa oceanica*  
 Site 948, B:50  
 Site 949, B:53  
*Gephyrocapsa oceanica* Zone, Site 948, A:129  
*Globigerina ciperoensis angulisuturalis*, Site 948, A:131  
*Globigerina ciperoensis angustiumbilocata*, Site 948, A:131  
*Globigerina ciperoensis ciperoensis*, Site 948, A:131  
*Globigerina ciperoensis* Zone, Site 948, A:131  
*Globigerina decoraperta*, Site 948, A:131  
*Globigerina nepenthes*, Site 948, A:131  
*Globigerina ouachitaensis ouachitaensis*, Site 948, A:131  
*Globigerina praebulloides occlusa*, Site 948, A:131  
*Globigerina praebulloides praebulloides*, Site 948, A:131  
*Globigerina ruber*, Site 949, A:218  
*Globigerinoides bollii*, Site 948, A:131  
*Globorotalia acostaensis*, Site 949, A:218  
*Globorotalia acostaensis* Zone  
 Site 948, A:131  
 Site 949, A:218  
*Globorotalia menardii*, Site 949, A:218  
*Globorotalia nepenthes*, Site 949, A:218  
*Globorotalia opima opima*, Site 948, A:131  
*Globorotalia opima* Zone, Site 948, A:131  
*Globorotalia tosaensis*, Site 949, A:218  
*Globorotalia truncatulinoides*, Site 949, A:218  
*Globorotalia truncatulinoides* Zone  
 Site 948, A:130  
 Site 949, A:218  
*gracilis*, *Artophormis*, Barbados Ridge N, B:36  
*hamatus*, *Discoaster*, Site 949, A:217; B:53–54  
*Helicosphaera carteri*, Site 949, B:53  
*Helicosphaera carteri* Subzone, Site 949, B:53  
*Helicosphaera sellii*  
 Site 948, B:53  
 Site 949, B:53  
*Helicosphaera sellii* Zone  
 Site 948, B:53  
 Site 949, A:217  
*Heliolites astericus*, Barbados Ridge N, B:41, 48  
*humerosa*, *Neogloboquadrina*, Site 949, A:218  
*kantiana*, *Tholospyris*, Barbados Ridge N, B:43, 46  
*lacunosa*, *Pseudoemiliania*  
 Site 948, A:129; B:50, 53  
 Site 949, B:53  
*leptetrum*, *Cyclampterium*  
 Barbados Ridge N, B:40, 47  
 Site 948, A:131  
 Site 949, A:218  
*leptoporus*, *Calcidiscus*  
 Site 948, B:50  
 Site 949, B:53–54  
*Liriospyris parkerae*  
 Barbados Ridge N, B:34, 42  
 Site 948, A:131  
*Liriospyris stauropora*  
 Barbados Ridge N, B:34, 42, 46  
 Site 948, A:131  
 Site 949, A:218–219  
*Lithochytris vespertilio*  
 Barbados Ridge N, B:34, 42  
 Site 948, A:131  
*Lophospyris pentagona*, Site 948, A:131  
*Lychnocanoma elongata*  
 Barbados Ridge N, B:34, 42, 48  
 Site 949, A:218



*Lychnocanoma elongata* Zone

Barbados Ridge N, B:34–36, 38–39  
Site 948, A:131

*Lychnocanoma* sp., Barbados Ridge N, B:42

*Lyriospyris geniculosa*, Barbados Ridge N, B:41

*Lyriospyris mutuaria*, Barbados Ridge N, B:42

*mammillaris*, *Tholospyris*  
Barbados Ridge N, B:43, 46  
Site 949, A:218–220

*menardii*, *Globorotalia*, Site 949, A:218

*Mnylitha convallis*, Site 948, A:129

*mutuaria*, *Lyriospyris*, Barbados Ridge N, B:42

*Neogloboquadrina humerosa*, Site 949, A:218

*Neogloboquadrina humerosa* Zone, Site 949, A:218

*neohamatus*, *Discoaster*, Site 949, A:217; B:54

*nepenthes*, *Globigerina*, Site 948, A:131

*nepenthes*, *Globorotalia*, Site 949, A:218

*oceanica*, *Gephyrocapsa*  
Site 948, B:50  
Site 949, B:53

*opima opima*, *Globorotalia*, Site 948, A:131

*Orodapis spongiosa*, Barbados Ridge N, B:42

*Oropagis* spp., Site 949, A:220

*Orosцена carolae*, Barbados Ridge N, B:42

*Orosphaera* spp., Barbados Ridge N, B:34

*Orospherids* gen. indet., Barbados Ridge N, B:42

*ouachitaensis ouachitaensis*, *Globigerina*, Site 948, A:131

*parkeriae*, *Liriospyris*  
Barbados Ridge N, B:34, 42  
Site 948, A:131

*pegetrum*, *Cyclampterium*, Site 949, A:218

*pelagicus*, *Coccolithus*, Site 949, B:54

*pentagona*, *Lophospyris*, Site 948, A:131

*pentaradiatus*, *Discoaster*, Site 949, B:53

*petrushevskayae*, *Centrobryis*, Barbados Ridge N, B:40

*praebulloides oclusa*, *Globigerina*, Site 948, A:131

*praebulloides praebulloides*, *Globigerina*, Site 948, A:131

*praecorona*, *Siphostichoartus*, Barbados Ridge N, B:42

*praeforcipata*, *Dorcadospyrus*, Barbados Ridge N, B:41

*primus*, *Amaurolithus*, Site 949, A:217; B:54

*prismatica*, *Didymocyrtis*  
Barbados Ridge N, B:34, 41, 48  
Site 948, A:131  
Site 949, A:218–219

*productus*, *Zygocircus*, Barbados Ridge N, B:43

*profunda*, *Cornutella*, Barbados Ridge N, B:40

*profunda*, *Dictyocoryne*, Site 948, A:131

*Pseudoemiliania lacunosa*  
Site 948, A:129; B:50, 53  
Site 949, B:53

*Pseudoemiliania lacunosa* Zone, Site 948, A:129; B:50, 53

*pseudoubilica*, *Reticulofenestra*, Site 949, B:54

*quinqueramus*, *Discoaster*, Site 949, A:217; B:54

*Reticulofenestra pseudoubilica*, Site 949, B:54

*robusta*, *Calocyclus*, Site 949, A:218

*ruber*, *Globigerina*, Site 949, A:218

*rugosus*, *Triquetrorhabdulus*, Site 949, A:217; B:54

*sellii*, *Helicosphaera*  
Site 948, B:53  
Site 949, B:53

*seminulina*, *Sphaerodinellopsis*, Site 949, A:218

*serrata*, *Calocyclus*  
Barbados Ridge N, B:34, 40, 45  
Site 949, A:218–219

*simulina*, *Sphaerodinellopsis*, Site 948, A:131

*Siphostichoartus corona*, Barbados Ridge N, B:42

*Siphostichoartus praecorona*, Barbados Ridge N, B:42

*Sphaerodinellopsis disjuncta*, Site 949, A:218

*Sphaerodinellopsis seminulina*, Site 949, A:218

*Sphaerodinellopsis simulina*, Site 948, A:131

*Sphenolithus ciproensis*  
Site 948, A:130; B:53  
Site 949, A:218; B:54

*Spongaster tetras*, Site 948, A:131

*spongiosa*, *Orodapis*, Barbados Ridge N, B:42

*stauropora*, *Liriospyris*  
Barbados Ridge N, B:34, 42, 46  
Site 948, A:131  
Site 949, A:218–219

*Stichocorys delmontensis*  
Barbados Ridge N, B:42  
Site 948, A:131

*Stichocorys delmontensis* Zone  
Barbados Ridge N, B:36  
Site 948, A:131

*Stichocorys wolffii*  
Barbados Ridge N, B:34, 42–43, 47  
Site 948, A:131  
Site 949, A:218–219

*Stichocorys wolffii* Zone  
Barbados Ridge N, B:34–36, 38–39  
Site 948, A:131  
Site 949, A:219

*Stylatractus universus*, Barbados Ridge N, B:43

*Stylodictya aculeata*, Barbados Ridge N, B:43

*Stylodictya validispina*, Site 948, A:131

*surculus*, *Discoaster*, Site 949, A:217; B:54

*tetrapera*, *Cyrtocapsella*  
Barbados Ridge N, B:34, 40, 47  
Site 948, A:131

*tetras*, *Spongaster*, Site 948, A:131

*tetrathalamus*, *Didymocyrtis*, Site 948, A:131

*Theocyrtis tuberosa*, Site 949, A:218

*Tholospyris anthophora*  
Barbados Ridge N, B:43, 46  
Site 949, A:219

*Tholospyris kantiana*, Barbados Ridge N, B:43, 46

*Tholospyris mammillaris*

Barbados Ridge N, B:43, 46  
Site 949, A:218–220

*Tholospyris* spp., Site 948, A:131

*tosaensis*, *Globorotalia*, Site 949, A:218

*Triquetrorhabdulus rugosus*, Site 949, A:217; B:54

*Triquetrorhabdulus rugosus* Subzone, Site 949, B:53

*truncatulnoides*, *Globorotalia*, Site 949, A:218

*truncatum*, *Dictyocoryne*, Site 948, A:131

*tubaria*, *Didymocyrtis*  
Barbados Ridge N, B:41  
Site 949, A:218

*tuberosa*, *Theocyrtis*, Site 949, A:218

*Tympanidium binoctonum*, Barbados Ridge N, B:43, 46

*universus*, *Stylatractus*, Barbados Ridge N, B:43

*validispina*, *Stylodictya*, Site 948, A:131

*variabilis*, *Discoaster*, Site 949, B:54

*vespertilio*, *Lithochyrtis*  
Barbados Ridge N, B:34, 42  
Site 948, A:131

*violina*, *Didymocyrtis*  
Barbados Ridge N, B:41, 48  
Site 949, A:218

*virginis*, *Calocyclus*  
Barbados Ridge N, B:40, 45  
Site 948, A:131  
Site 949, A:218–219

*wolffii*, *Stichocorys*  
Barbados Ridge N, B:34, 42–43, 47  
Site 948, A:131  
Site 949, A:218–219

zones (with letter prefixes)  
CN7, Site 949, A:217; B:54  
CN7a, Site 949, A:217; B:53  
CN8a, Site 948, A:129; B:53  
CN9a, A:129, 217; B:53–54  
CN9b, Site 949, A:217; B:54  
CN10a, Site 949, A:217; B:53  
CN10b, Site 949, B:53  
CP19, Site 949, A:218  
N16, A:131, 218  
N17, Site 949, A:218  
N22–N23, A:130, 218  
P21, Site 948, A:131  
P22, Site 948, A:131  
R9, A:131, 218  
R10, Site 948, A:131  
R11, Site 948, A:131  
R12, A:131, 218–219  
R13, A:131, 218–219  
R14, Site 948, A:131

*Zoophycos*  
lithologic units, A:203  
structural domains, A:114, 118–119

*Zygocircus productus*, Barbados Ridge N, B:43