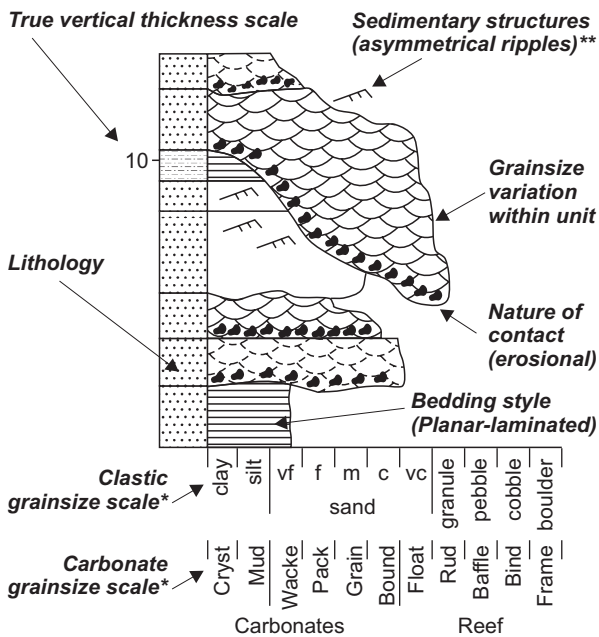


KEELE UNIVERSITY

SCHOOL OF EARTH SCIENCES & GEOGRAPHY

STANDARD LOGGING SYMBOLS

1. Usage



*Grainsize scales may be customised to suit the logged section.
 **Sedimentary structures may be placed inside or outside of the unit but should be positioned vertically with respect to the point of observation.

3. Bedding

3.1 Unit contacts

- Sharp
- ~ Erosional
- - - Gradational
- - - ? Discontinuous
- Sequence boundary
- - - Parasequence boundary

Erosional contacts may be diagrammatic or may be shown to down-cut into underlying strata by the amount demonstrated in the outcrop (see the example in 1. Usage).

3.2 Styles

- Planar bedded
- Planar cross-bedded
- Trough-cross-bedded
- Hummocky cross-bedded
- Convolute bedded
- Low-angle XB

All the above bedding styles may be shown with the lines closer together to indicate lamination, or with dashed lines to indicate indistinct bedding or lamination.

- Ripple-cross-lamination (style unknown)
- Asymmetrical (current) ripple-cross-lamination
- symmetrical (wave) ripple-cross-lamination
- Graded beds: normal / reverse
- Wavy bedding
- Flaser bedding
- Lenticular bedding
- Massive

4. Sedimentary structures

- Deflation lag
- Cavities
- Chevron mark
- Flame structures
- Flute marks
- Grove cast
- Imbrication (of clasts)
- Load casts
- Tool marks (p=prod, b=bounce)
- Mud drapes (on forsets)
- Nodules
- Obstacle scours
- Pebbles (pebbly lag)
- Primary current lineation
- Pseudomorphs
- Ripples: asymmetrical
- Ripples: symmetrical
- Rip-up clasts
- Scour channels
- Shrinkage cracks
- Stylolites

2. Lithology

2.1 Siliciclastic sediments

- Sandstone
- Siltstone
- Mudstone / claystone
- Mixed sandstone & silt siltstone
- Calcareous sandstone
- Calcareous siltstone (marl)
- Clast supported conglomerate
- Matrix supported conglomerate

2.2 Carbonate sediments

- Limestone
- Arenaceous limestone
- Argillaceous limestone
- Dolostone
- Dolomitic limestone
- Chalk

2.3 Precipitates

- Halite
- Gypsum / Anhydrite
- Chert / flint

2.4 Carbonaceous rocks

- Coal
- Lignite (brown coal)
- Peat

2.5 Igneous rocks

- Volcanic rock (lava)
- Intrusive igneous

2.6 Volcaniclastics

- Volcaniclastic sediment

2.7 Accessory symbols

Accessory symbols are used to add detail to the lithology. In addition to those listed below, standard chemical formulae may be used for commonly occurring minerals, especially economic ores (eg PbS for galena).

- Carbonaceous fragments
- Fe Iron minerals
- K Clay minerals
- Calcite
- Feldspar
- Mica
- Pyrite
- Glauconite
- Volcaniclastic fragments
- Travertine / Tufa
- Ooids
- Peloids
- Pisoids
- Intraclasts

5. Fossils & trace fossils

- Algae
- Bioturbation
- Bivalves
- Brachiopods
- Bryozoa
- Burrows: Large / small
- Cephalopods
- Corals: Colonial
- Corals: Solitary
- Crawing/grazing trace
- Crinoids
- Echinoids
- Footprints
- Foraminifera
- Fragmented material
- Gastropods
- Geopetal shells
- Phytoclasts (plant material)
- Roots (Rhizoliths)
- Stromatolites
- Undifferentiated fossils
- Vertebrates