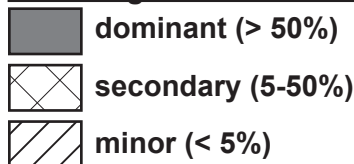


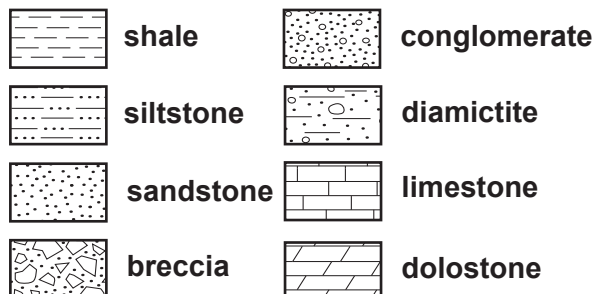
Logging Reference Sheet - Carbonate Rock

Shading Log Key

Relative grain size abundance

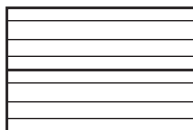


Rock Type



Bedding & Sedimentary Structure Examples

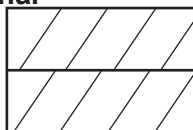
parallel stratification



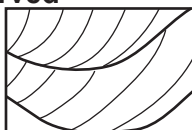
climbing ripples



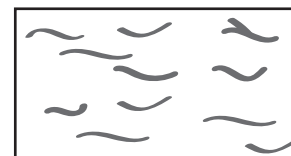
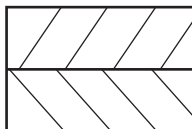
cross-stratification, planar



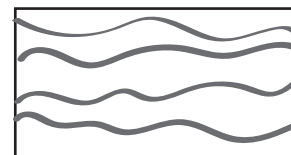
cross-stratification, curved



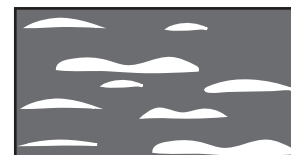
cross-stratification, bidirectional



lenticular bedding



wavy bedding



flaser bedding

Dunham Carbonate Classification

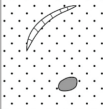
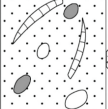





Allochthonous carbonates: components not bound together during deposition						Depositional texture not recognizable
Contains mud (clay and fine silt-size carbonate)			Lacks mud and is grain-supported	>10% grains >2 mm		
Mud-supported		Grain-supported		Matrix-supported	Supported by >2 mm component	
Less than 10% grains	More than 10% grains					Crystalline limestone
Mudstone	Wackestone	Packstone	Grainstone	Floatstone	Rudstone	
						

Figure modified from Gary Nichols (2023), *Sedimentology and Stratigraphy*, Third Edition. Classification originally from Dunham (1962) with modifications by Lokier and Al Junaibi (2016).

Stylolite Types



Simple wave type



Sutured type



Rectangular type



Sharp-peak type



Seismogram

modified from Fig. 1, Park and Schot, 1968, Stylolites: Their nature and origin, *Journal of Sedimentary Petrology*

Roundness

	Well rounded	Rounded	Sub-rounded	Sub-angular	Angular	Very angular
Low sphericity						
High sphericity						

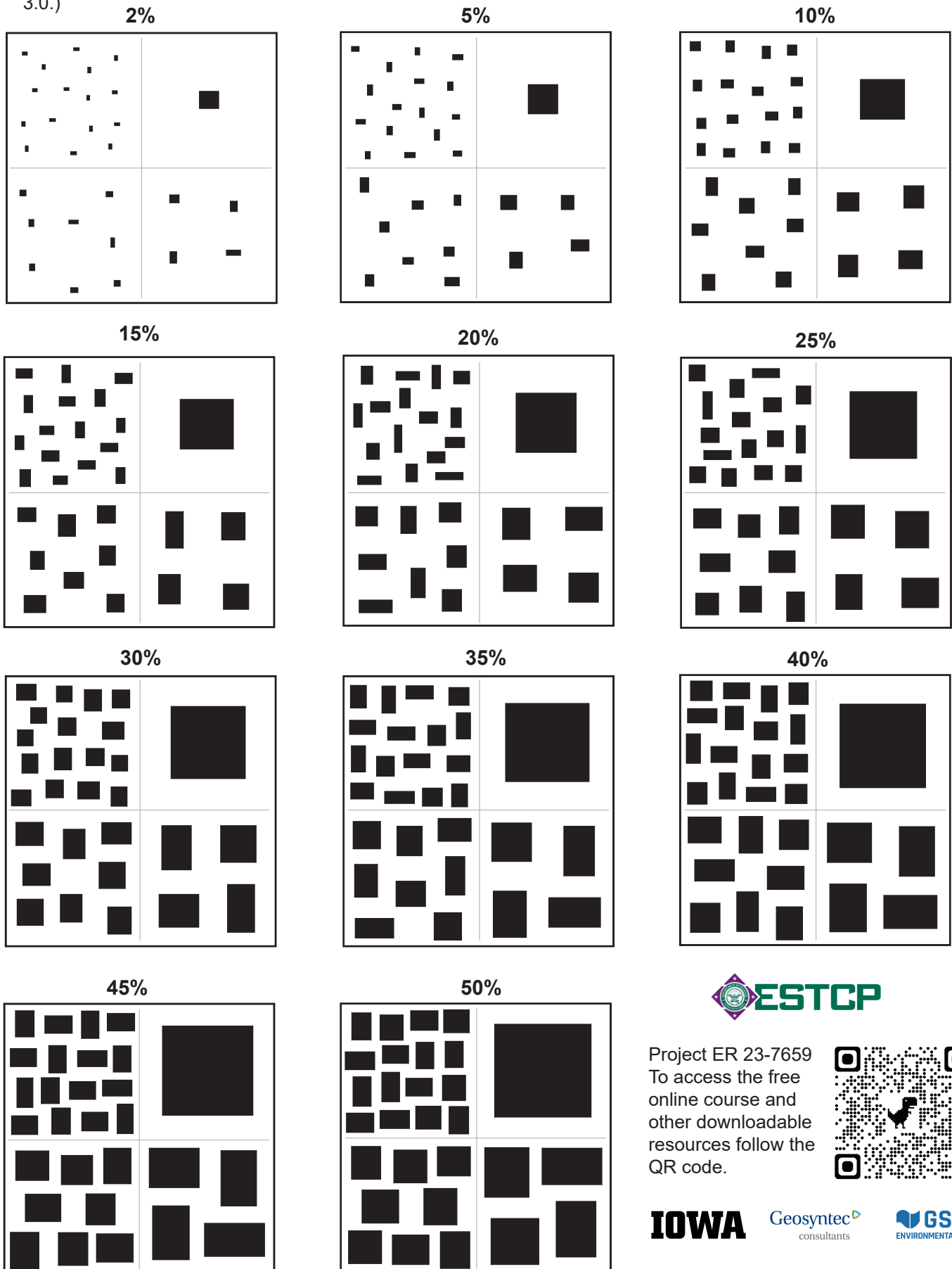
Figure modified from *Sedimentology and Stratigraphy*, Third Edition. Gary Nichols. © 2023 John Wiley & Sons Ltd. Classification originally from Pettijohn et al. (1987).

Cementation Index

- 0 Unconsolidated
- 1 Easily disaggregated, poorly cemented, much visible porosity
- 2 Cannot easily disaggregate, moderately cemented, visible porosity
- 3 No loose grains, well cemented, some visible porosity
- 4 Very well cemented, no visible porosity

Percent of Area Covered

Within each large box a quadrant contains the same total area covered but contains different object sizes and numbers. (from Schoeneberger et al. 2012, Field book for describing and sampling soils, version 3.0.)



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