Sample: *6(255)*

Grain 1:
Grain colour/transparency:
- Pink-cream/Opaque

Grain shape/texture:
- Angular
- Plate/disc
- Angular fractures, polished

Modal abundance and grain size (estimated):
- 90%, 0.2 - 1.0 mm

Mineral/rock identification:
- Bioclasts (fossil fragments)

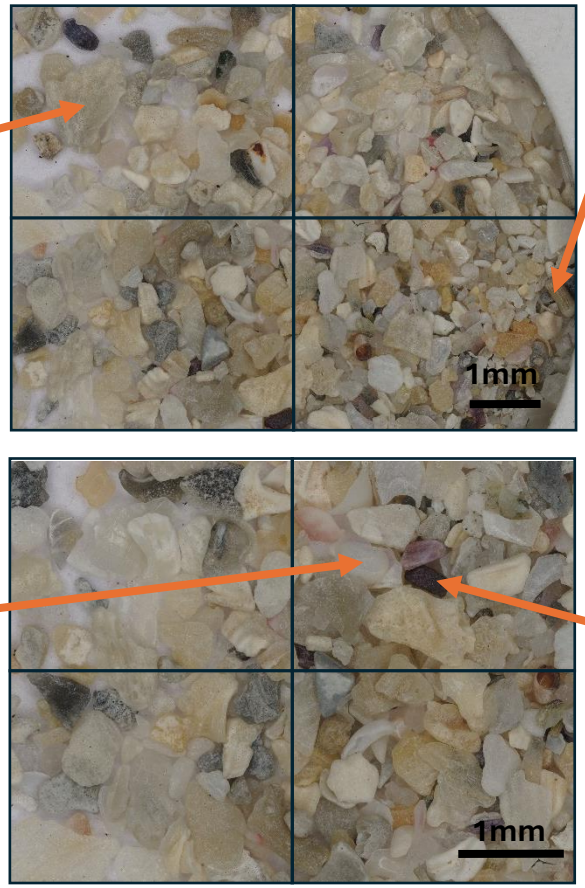
Other features:
- Grains are carbonate – primarily calcite
- Fragments of skeletal remains of bivalves
- Some skeletal remain of gastropods and bryozoa.

Grain 2:
Grain colour/transparency:
- Colourless/Transparent

Grain shape/texture:
- Sub-angular
- Sub-spherical
- Angular fractures, polished

Modal abundance and grain size (estimated):
- <5%, 0.5 mm

Mineral/rock identification:
- Quartz (mineral)



Images courtesy of Jordan Poole
The University of Liverpool

Grain 3:
Grain colour/transparency:
- Grey/Opaque

Grain shape/texture:
- Elongate
- Long axis parallel groves
- Mostly pitted surface. Some polished edges. Sharp fractures.

Modal abundance and grain size (estimated):
- ~<1.0%, 0.8mm

Mineral/rock identification:
- Spines from sea urchin (fossil fragments)

Other features:
- Grains are carbonate – primarily calcite
- Some spines have a rounded end where they would have attached to the animal body

Grain 4:
Grain colour/transparency:
- Brown/opaque

Grain shape/texture:
- Sub-angular
- Spherical
- Angular fractures

Modal abundance and grain size (estimated):
- <1%, 0.5mm

Mineral/rock identification:
- Lithic (rock)

Summary:
Sediment maturity:
- Texturally moderately mature: the grains are generally angular and spherical with some polished edges. Mineralogically moderately mature: several grain types – primarily carbonate grains.

Provenance:
- Proximal to the source: carbonate grains formed close to source.

Transport history:
- Broken shelly material likely marine transport along beach. Varied grain size 0.2 – 1.0mm: transport via variable flow velocity.

Source:
Dog's Bay, Co. Galway
Cold water carbonate beach sand. Largely contains a mixture shell fragments (also siliclastics e.g. mica, quartz and feldspar).

Formal grain sample name:
Poorly sorted, mineralogically and texturally moderately immature sand.