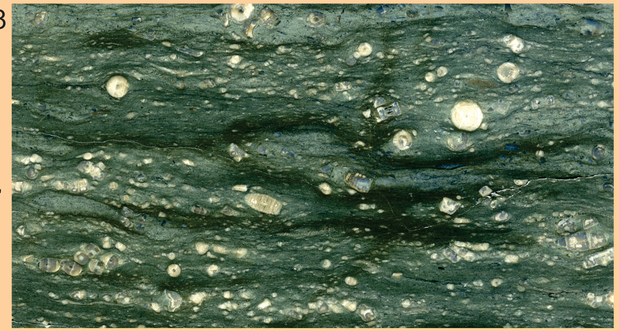
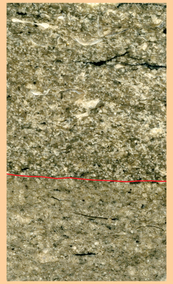
Section G5, Detail 2: Petrographic illustration of the lateral facies change in channel-fill **B2**.

This facies change in the central 60 meters of channel-fill **B2**, from crinoid grainstone on the east to siliciclastic mudstone with dispersed crinoid grains on the west, takes place in a westward sloping zone approximately 2 meters-thick. The lithologic transition involves a) the westward reduction in grainsize of the crinoid grainstone (Samples **1** and **2**), b) a heterolithic (interbedded) unit of crinoid grain-/packstone and siliciclastic mudstone with dispersed crinoid grains (Sample **8**), and c) siliciclastic mudstone with dispersed crinoid grains and siliceous sponge spicules (Samples **3**, **2**, and **9**). The actual contacts between these three facies units are uncertain because of a) inaccessability, and b) poor exposure, however, in one locality abrupt, planar contacts can be observed between these three facies, **Section G5, Detail 1**. It is likely that interfingering characterizes the true geometry of these contacts, although on a horizontal scale of meters and a vertical scale of decimeters.

Sample 8

Heterolithic (interbedded) crinoidal grain-/packstone and siliciclastic mudstone with dispersed crinoid grains. The gray, glassey material surrounding crinoid grains is chert; much of the very light gray, very fine-grained, matrix-like material consists of siliceous sponge spicules.





28 meters

2 meters

30 meters

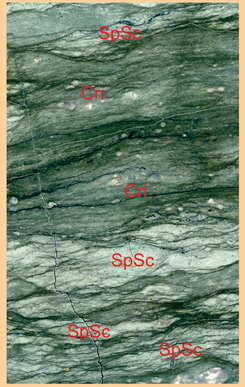
Sample 1

Crinoid grainstone. The red line marks a bedding surface between finer-grained (lower) and coarser-grained (upper) units.

Sample 7

Crinoid grainstone which is finer-grained than Sample **1**.

E



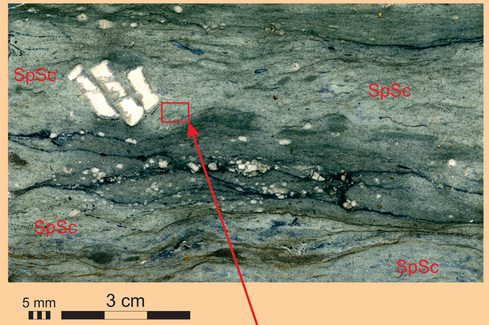
Sample 3

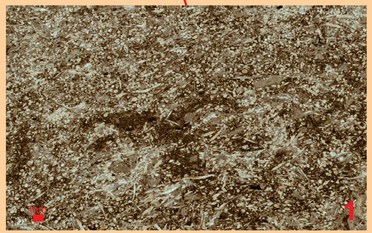
Siliciclastic mudstone with dispersed crinoid grains (Cri) facies. Sponge spicules (SpSc) are prominent in this sample; they may actually form cm-scale ripples in the lower part of this sample.

5 meters

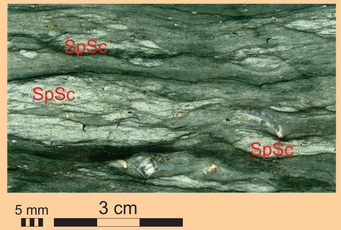
Sample 2

Siliciclastic mudstone with dispersed crinoid grains facies. The light gray material (SpSc) consists of siliceous sponge spicules, see Insert **1**. The large, multi-columnal crinoid grain is probably a dropstone.





9 meters



Sample 9

Siliciclastic mudstone with dispersed crinoid grains facies. The light gray material (SpSc) consists of siliceous sponge spicules.

W