### TABLE DR1. EXPERIMENTAL CONDITIONS

<table>
<thead>
<tr>
<th>Run</th>
<th>Interstitial water temperature (°C)</th>
<th>Ambient water temperature (°C)</th>
<th>Interstitial water density (kg/m³)</th>
<th>Ambient water density (kg/m³)</th>
<th>Sediment concentration (%)</th>
<th>Bulk flow density (kg/m³)</th>
<th>Ramp geometry</th>
<th>Buoyancy Flux (cm³/s³)*</th>
<th>Maximum Lobe Half-Width (cm)</th>
<th>Maximum Current Half-Width (cm)</th>
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</thead>
<tbody>
<tr>
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<td>997.5</td>
<td>3.0</td>
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<td>5° to Flat</td>
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Note: All experiments were conducted with plastic sediment with a density of 1150 kg/m³ and median grain size of 206 μm. Inlet discharge was 278.1 cm³/s.

*Buoyancy Flux is calculated using \( B = \left( \frac{\rho_t - \rho_a}{\rho_a} \right) g Q \), where \( \rho_t = \) bulk flow density, \( \rho_a = \) ambient water density, \( g = \) gravitational acceleration, and \( Q = \) inlet discharge.
Run L - Ground Hugging
Run H - Ground Hugging
Run D - Ground Hugging
5°-to-flat ramp
5° ramp
8° ramp
3% Concentration
1.5% Concentration
1.6% Concentration
Run A - Lofting
Run E - Lofting
Run I - Lofting
Run C - Lofting
Run G - Lofting
Run K - Lofting
Run D - Ground Hugging
Run H - Ground Hugging
Run L - Ground Hugging
Scaled Deposit Thickness
(pixel volume/bulk sediment volume)
Fig. DR2
Figure DR3

A) 5°-to-Flat Ramp

B) 8° Ramp

- Run A, 3%, Lofting
- Run B, 2%, Lofting
- Run C, 1.5%, Lofting
- Run D, 1.6%, Ground-Hugging
- Run D, Predicted by Choi and Garcia (2001) eq. 9
- --- Scaled width of platform
Fig. DR4

Scaled Half-Width ($b_{1/2}/l_p$) vs. Scaled Time ($t/t_p$)

- Run G - 5° ramp
- Run J - 8° ramp
Fig. DR5