

Figure 3.3 Layout 1 flushing – Day 2

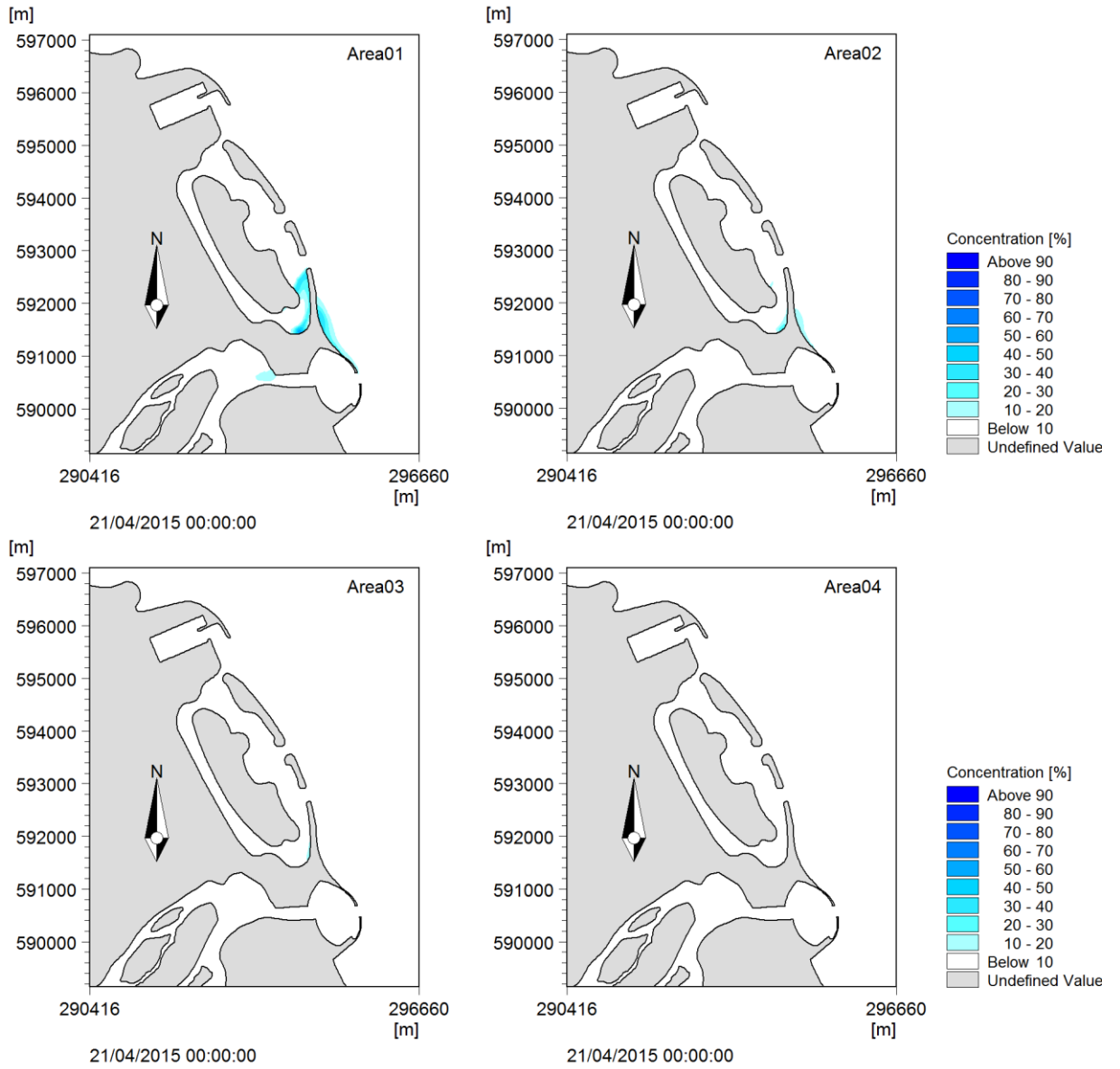


Figure 3.4 Layout 1 flushing – Day 3

### 3.2 Layout 2

A conservative tracer was placed in three locations for Layout 2 as shown in Figure 3.5, with the concentrations after 1, 2 and 3 days being shown in Figure 3.6 to Figure 3.8.. These are intended to assess:

- 1 The flushing of the inner channel between the reclamation areas.
- 2 The flushing of the basin for the Cruise Terminal and ship repair area.
- 3 Flushing of the larger area behind the offshore islands.

These results indicate that flushing is adequate in the channels between the reclamation areas for this layout and that no water quality issues would be expected in these areas. However the water quality in the vicinity of the ship repair facility is expected to be poor.

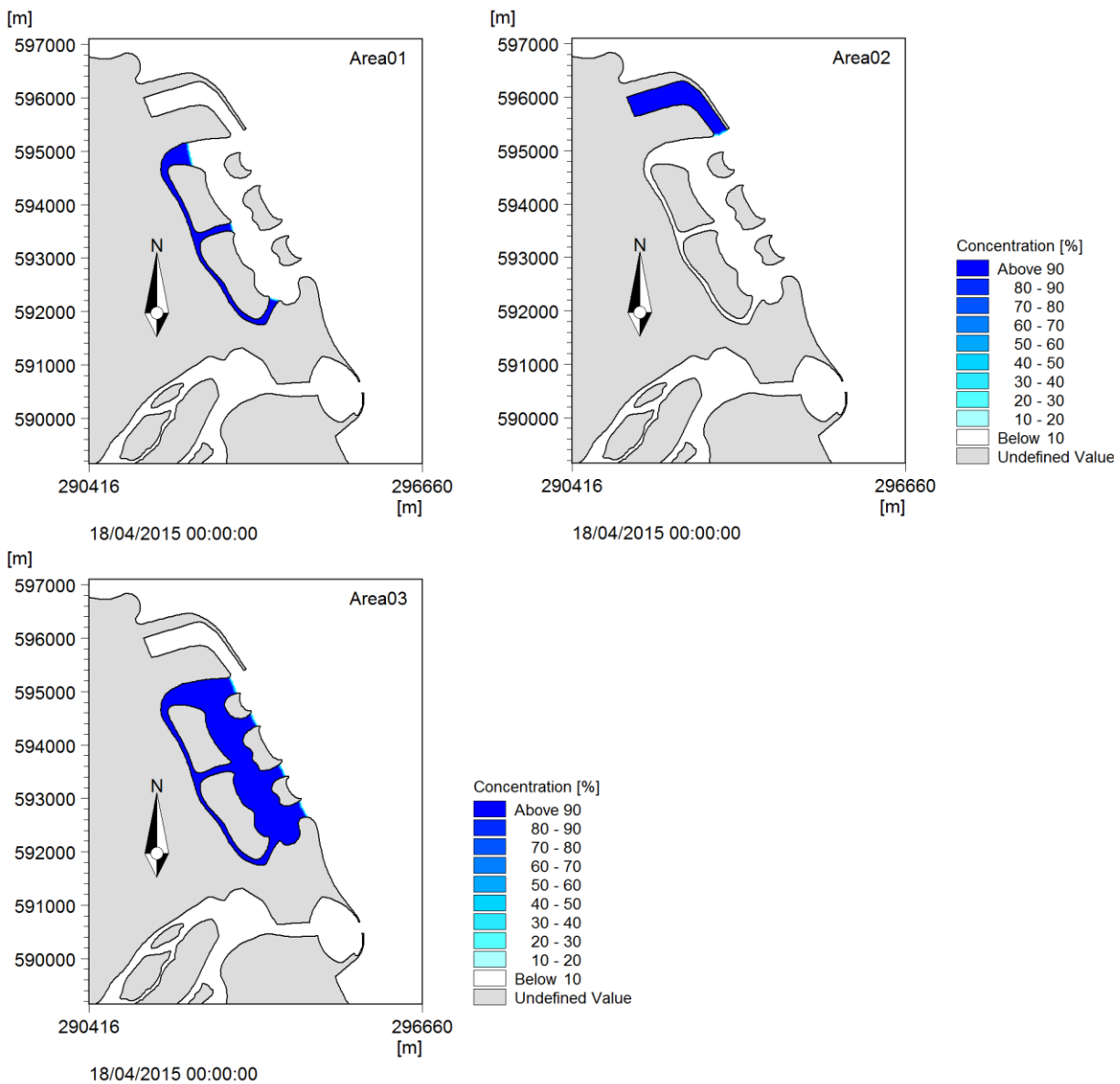


Figure 3.5 Layout 2 flushing – Day 0

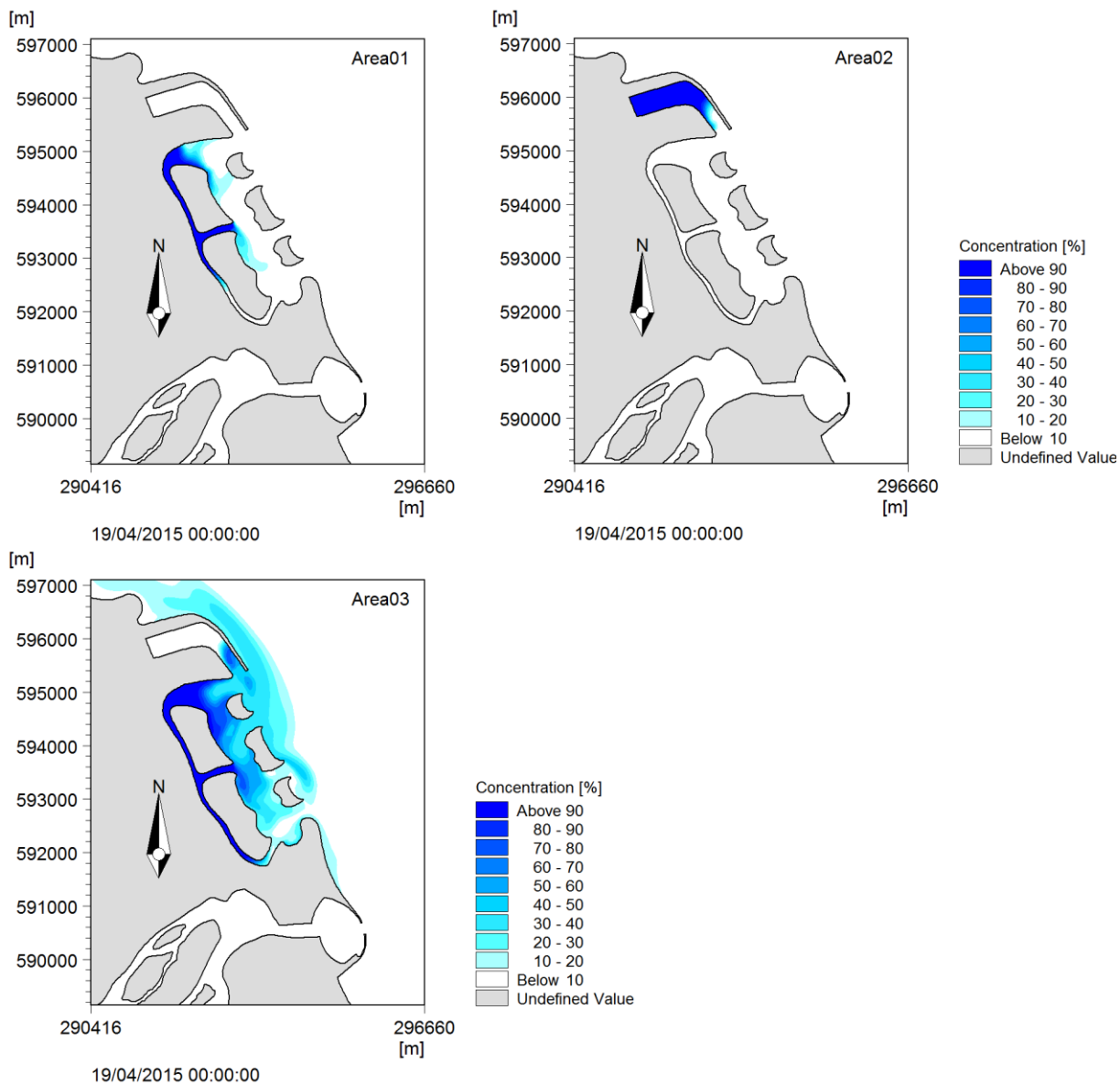


Figure 3.6 Layout 2 flushing – Day 1

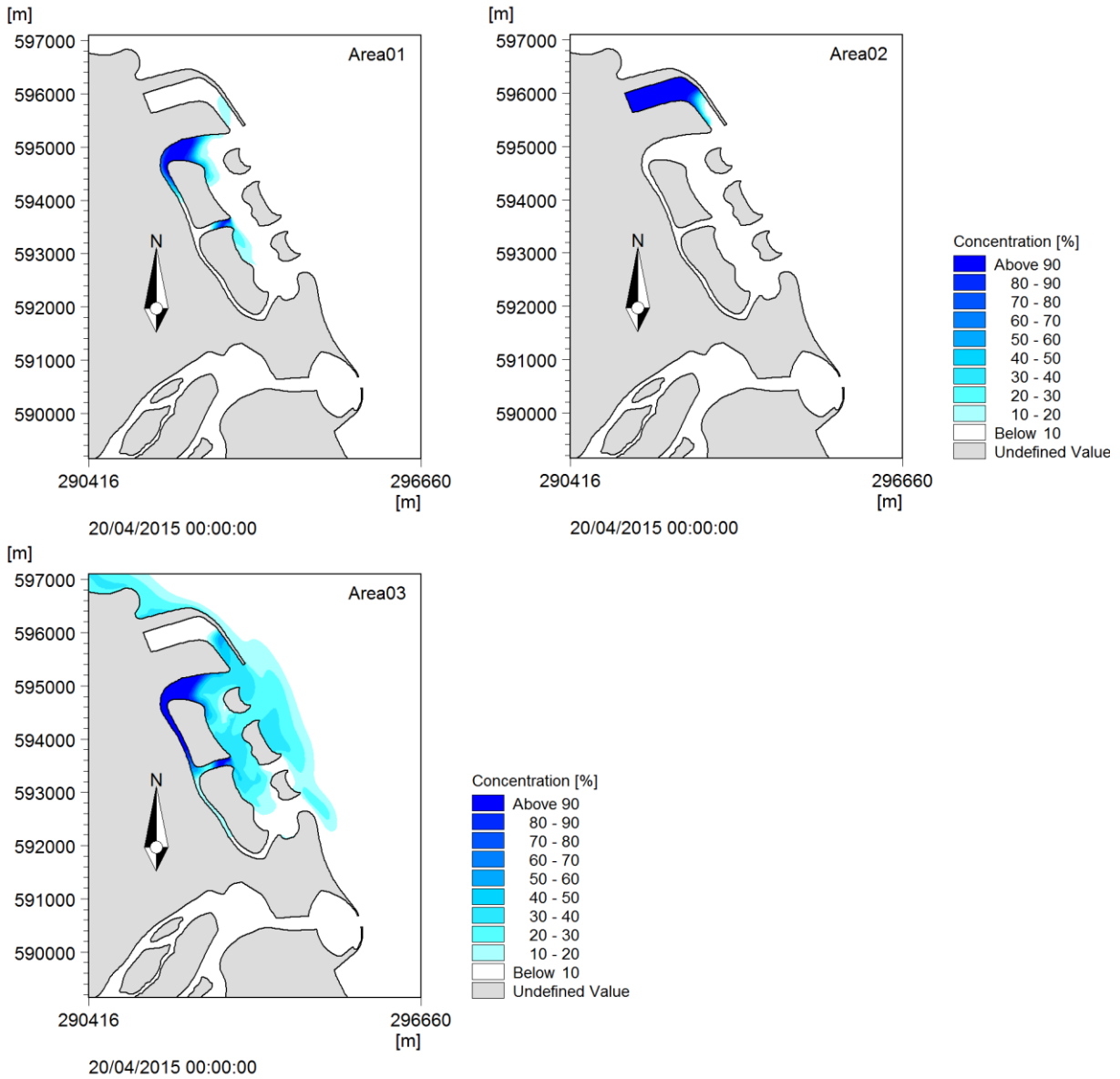


Figure 3.7 Layout 2 flushing – Day 2

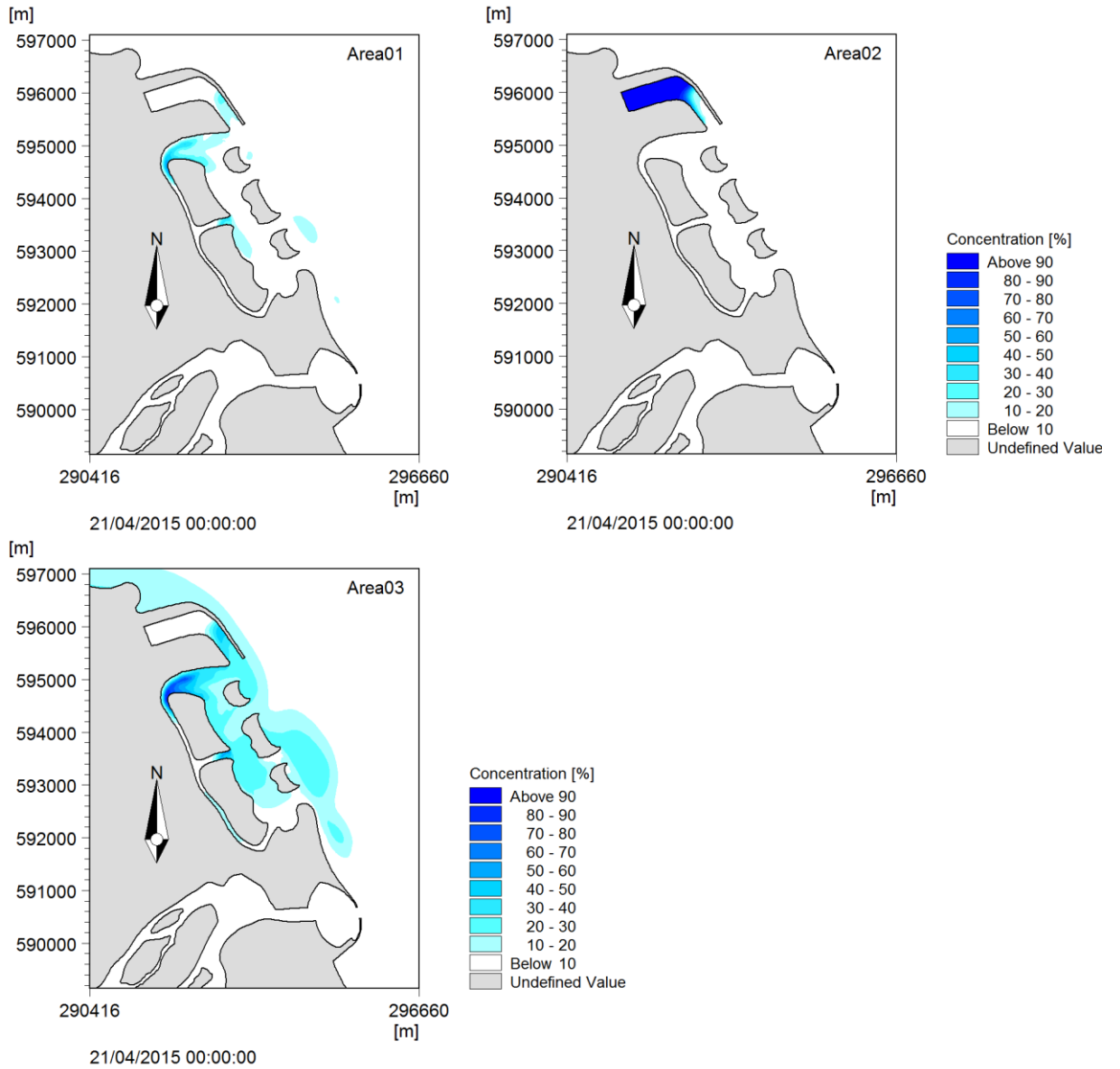


Figure 3.8 Layout 2 flushing – Day 3

### 3.3 Layout 3

A conservative tracer was placed in three locations for Layout 3 as shown in Figure 3.9, with the concentrations after 1, 2 and 3 days being shown in Figure 3.10 to Figure 3.12. These are intended to assess:

- 1 The flushing of the inner channel between the reclamation areas.
- 2 The flushing of the basin for the Cruise Terminal and ship repair area.
- 3 Flushing of the larger area behind the offshore islands.

These results indicate that flushing is adequate in the channels between the reclamation areas for this layout and that no water quality issues would be expected in these areas. However the water quality in the vicinity of the ship repair facility is expected to be poor.

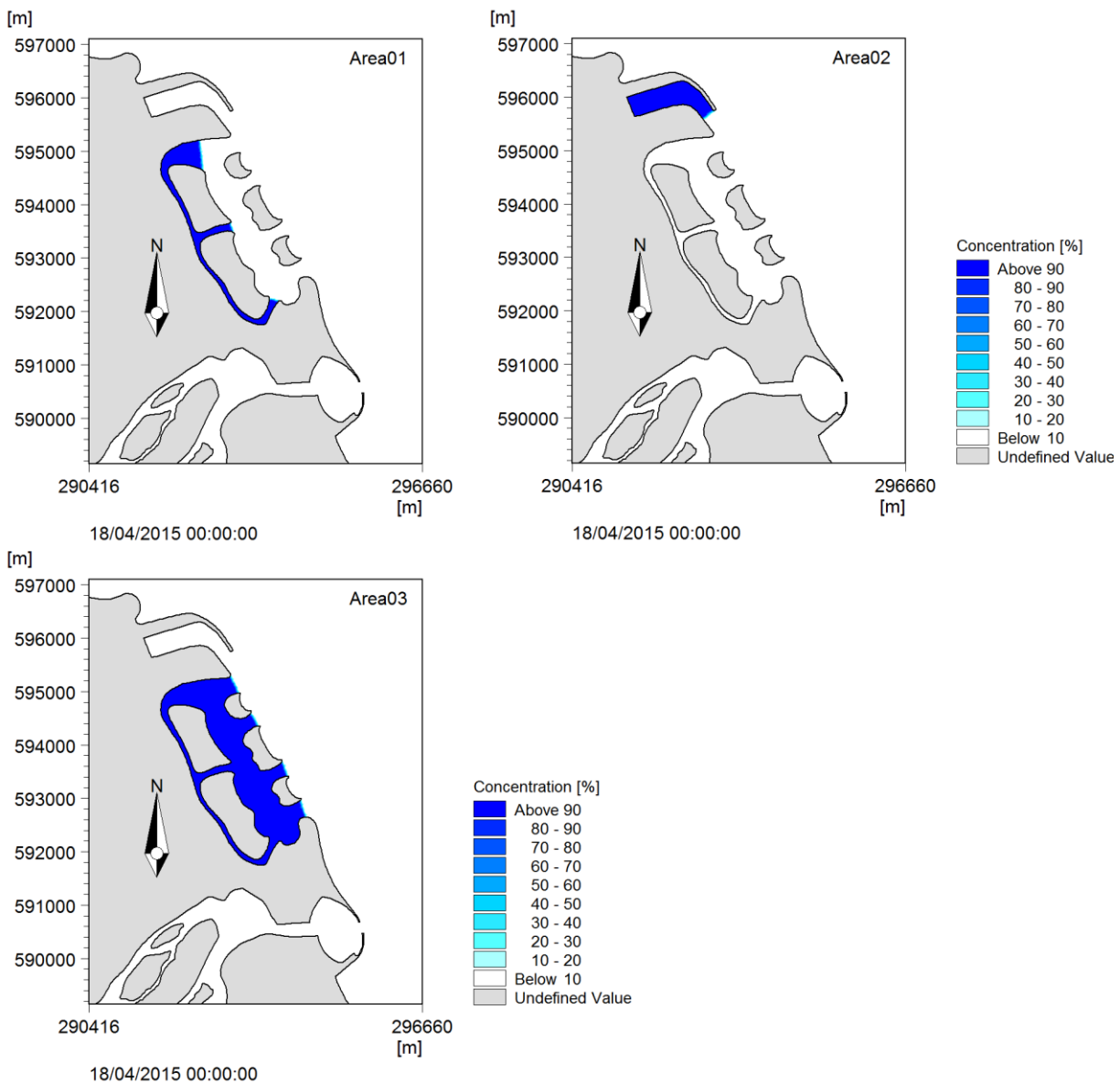


Figure 3.9 Layout 3 flushing – Day 0

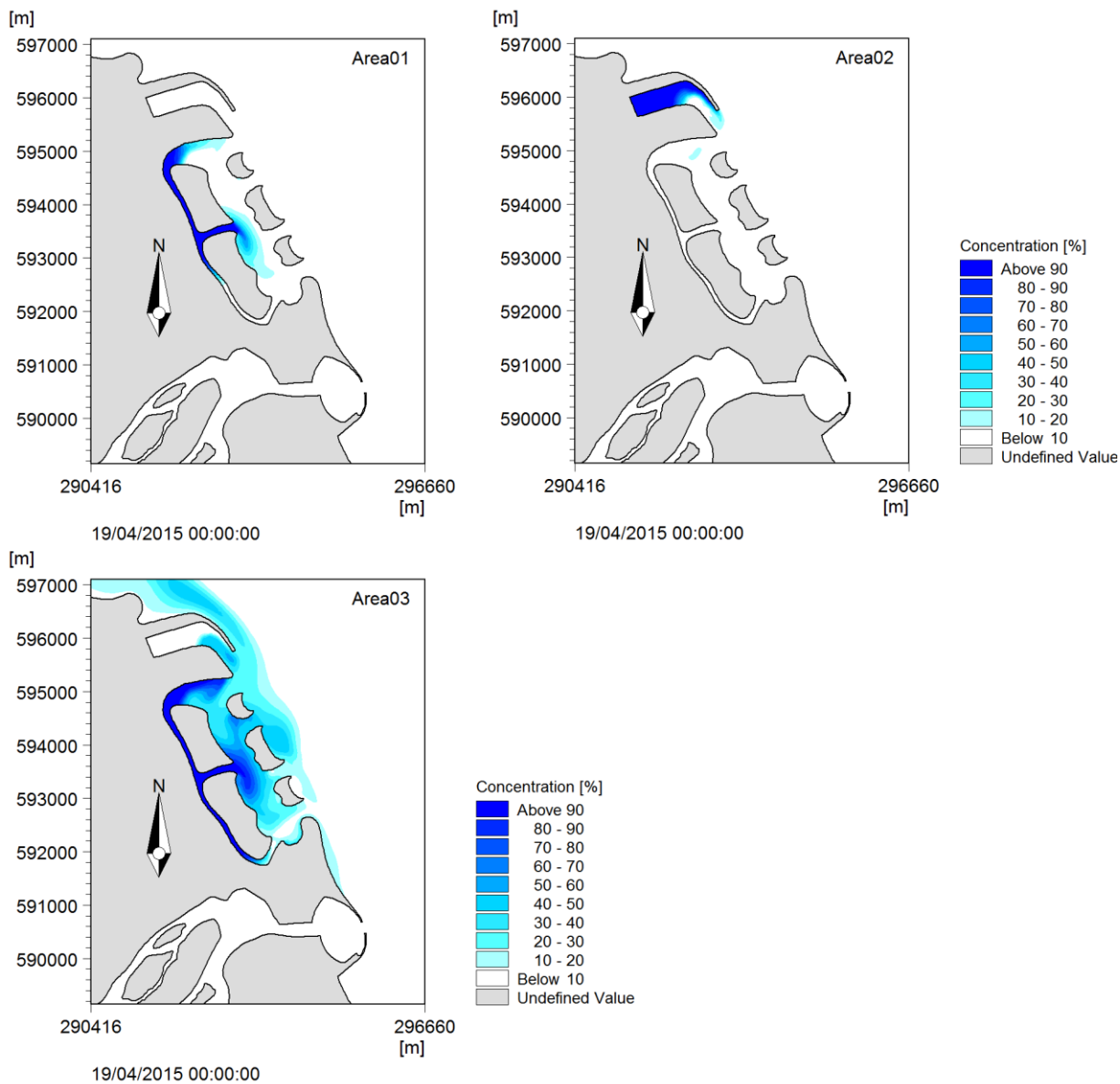


Figure 3.10 Layout 3 flushing – Day 1



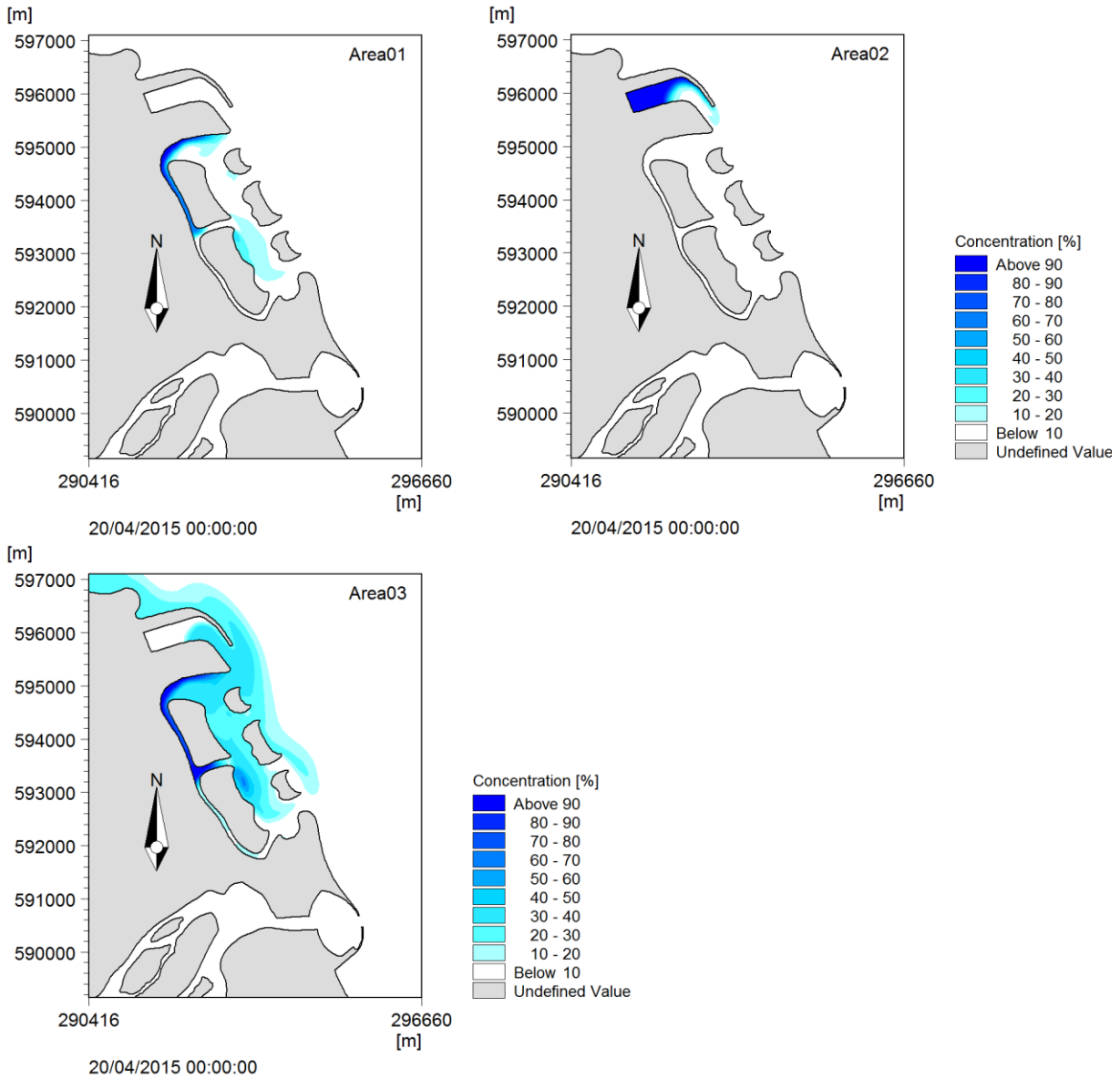


Figure 3.11 Layout 3 flushing – Day 2

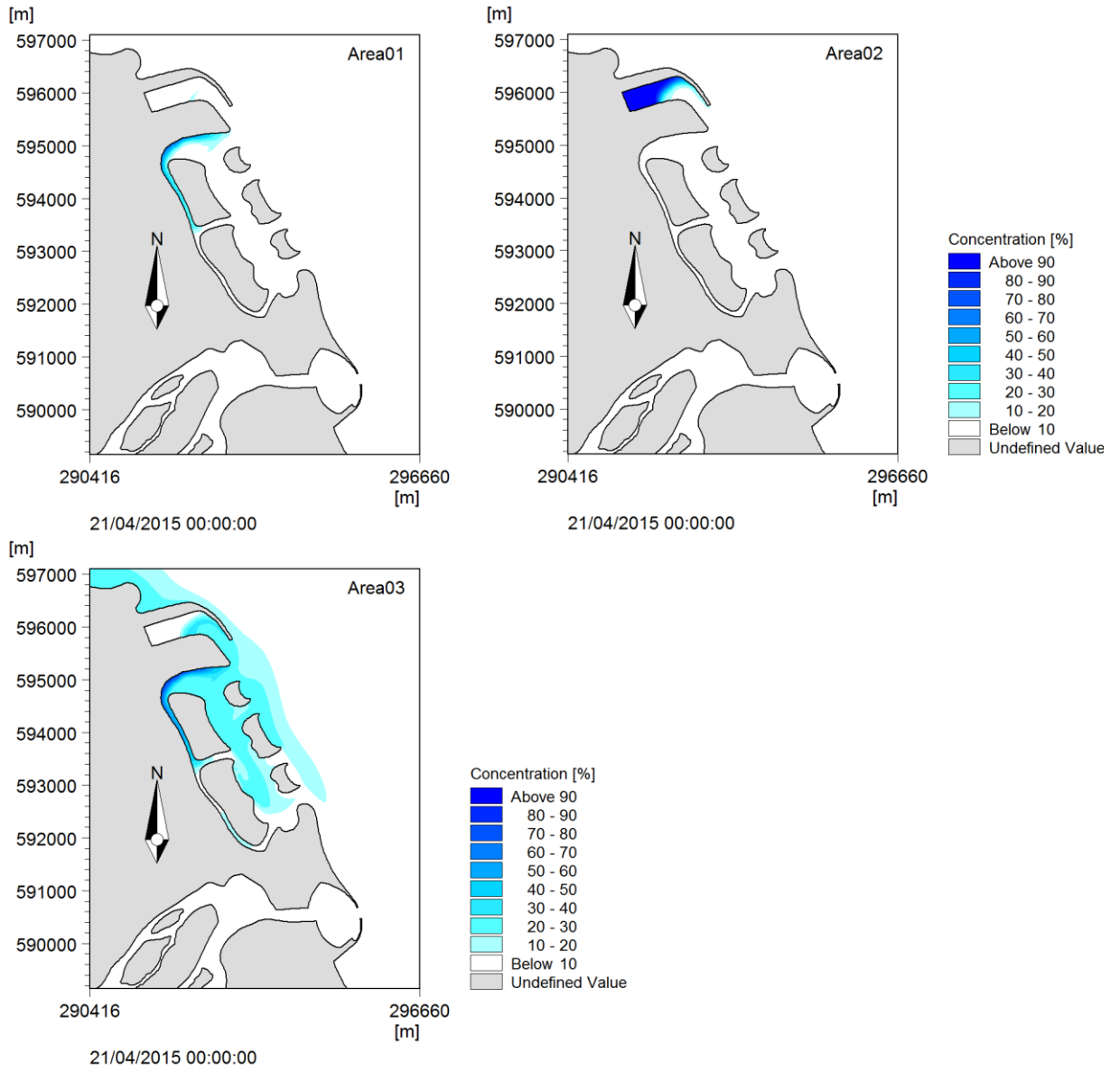


Figure 3.12 Layout 3 flushing – Day 3

### 3.4 Layout 4

A conservative tracer was placed in three locations for Layout 4 as shown in Figure 3.13, with the concentrations after 1, 2 and 3 days being shown in Figure 3.14 to Figure 3.16. These are intended to assess:

- 1 The flushing of the inner channel between the reclamation areas.
- 2 The flushing of the basin for the Cruise Terminal and ship repair area.
- 3 Flushing of the larger area behind the offshore islands.

In this layout the dimensions of the inner channel have been reduced and this has led to a reduction in the flushing capacity of the inner channel leading to possible water quality issues in this areas. The water quality in the vicinity of the ship repair facility is unchanged from Layout 3.

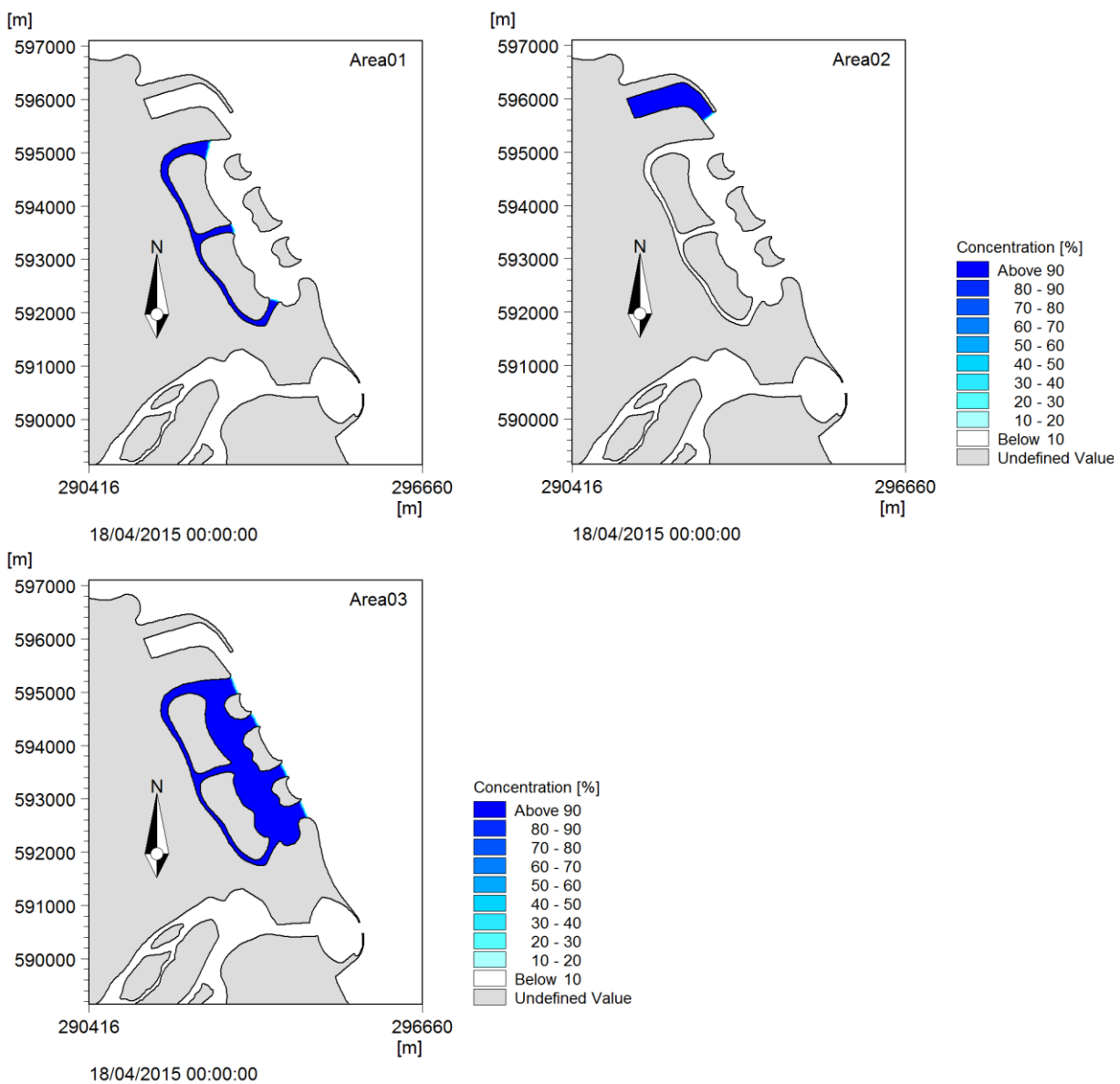


Figure 3.13 Layout 4 flushing – Day 0

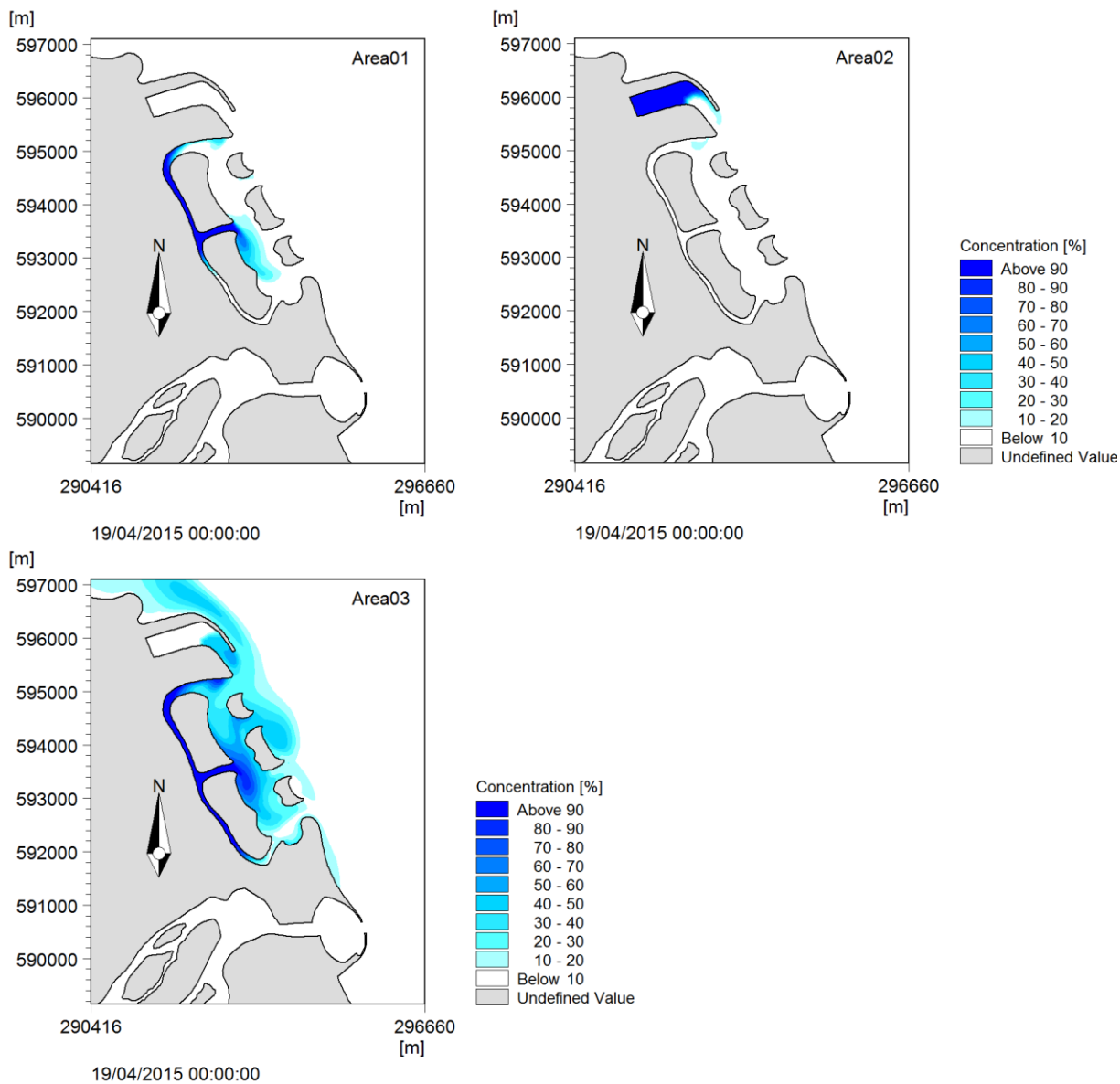


Figure 3.14 Layout 4 flushing – Day 1

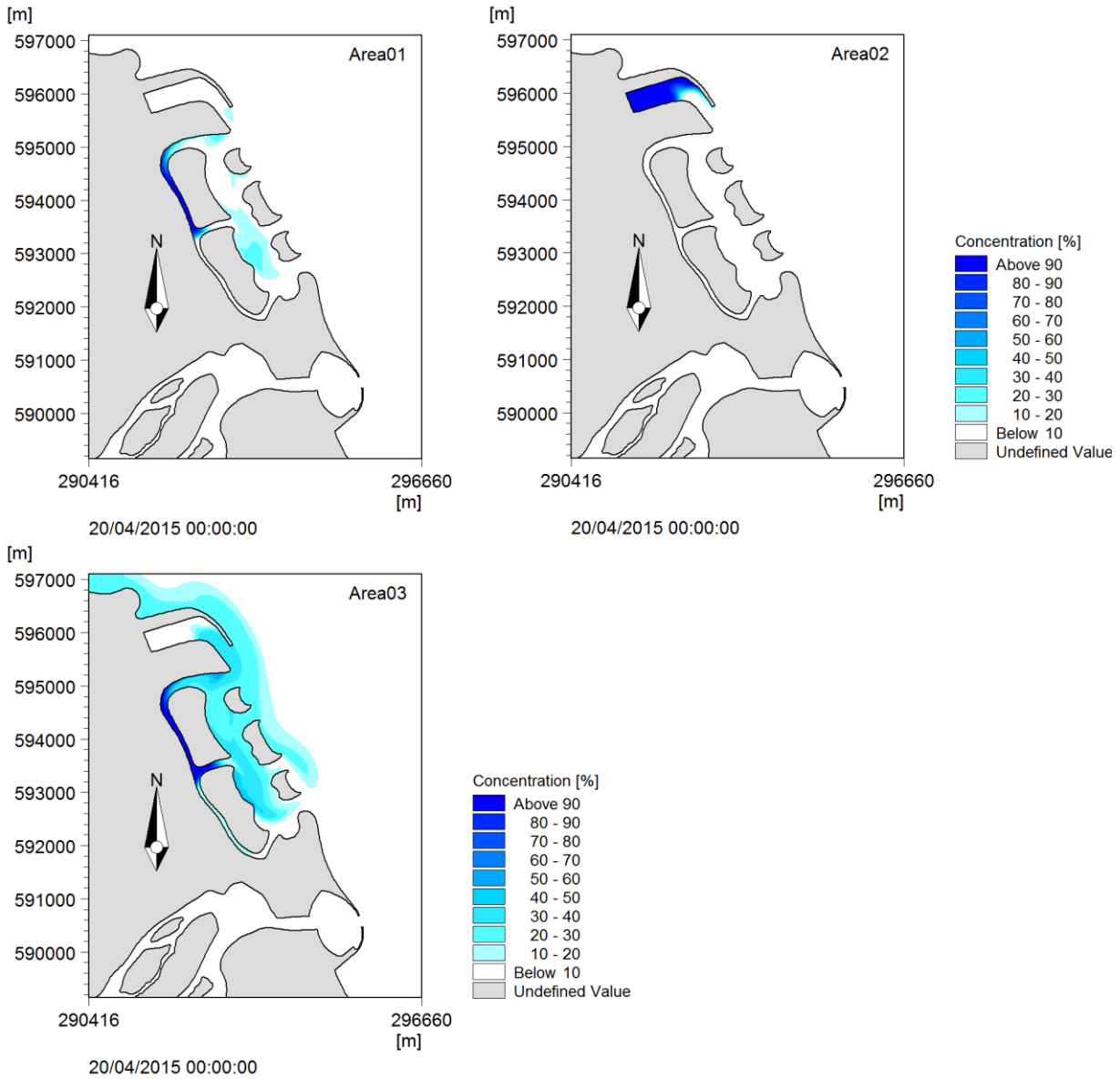


Figure 3.15 Layout 4 flushing – Day 2

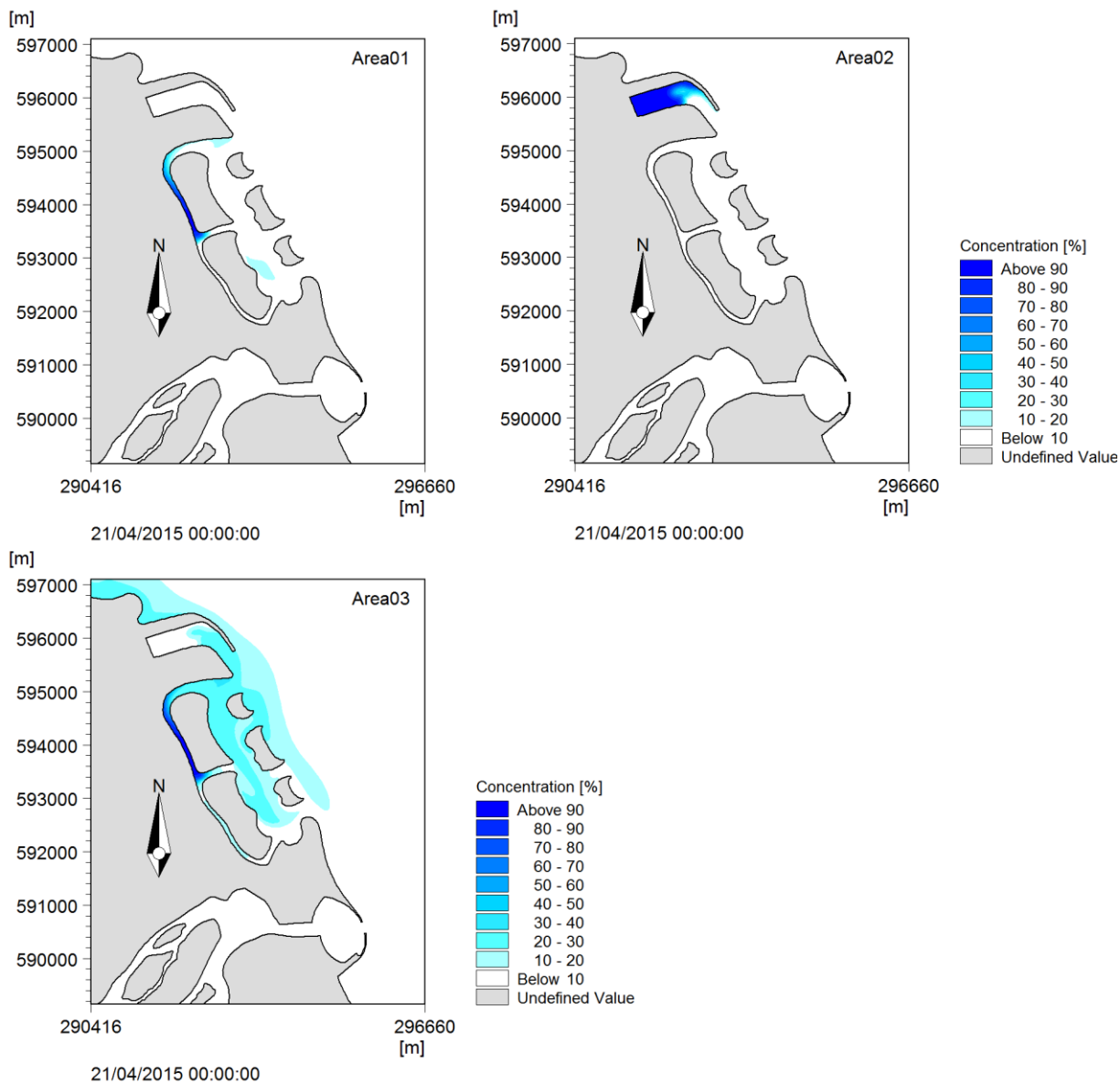


Figure 3.16 Layout 4 flushing – Day 3

### 3.5 Layout 5

A conservative tracer was placed in three locations for Layout 5 as shown in Figure 3.17, with the concentrations after 1, 2 and 3 days being shown in Figure 3.18 to Figure 3.20. These are intended to assess:

- 1 The flushing of the inner channel between the reclamation areas.
- 2 The flushing of the basin for the Cruise Terminal and ship repair area.
- 3 The flushing of the inner area of the basin for the ship repair facility.

In this layout the inner channel layout is modified and a small channel added to allow flow into the inner area of the basin for the ship repair facility. The flushing is adequate in the channels between the reclamation areas for this layout and that no water quality issues would be expected in this area. The water quality in the vicinity of the ship repair facility and Cruise Terminal is significantly improved by the addition of the small channel into the inner basin.

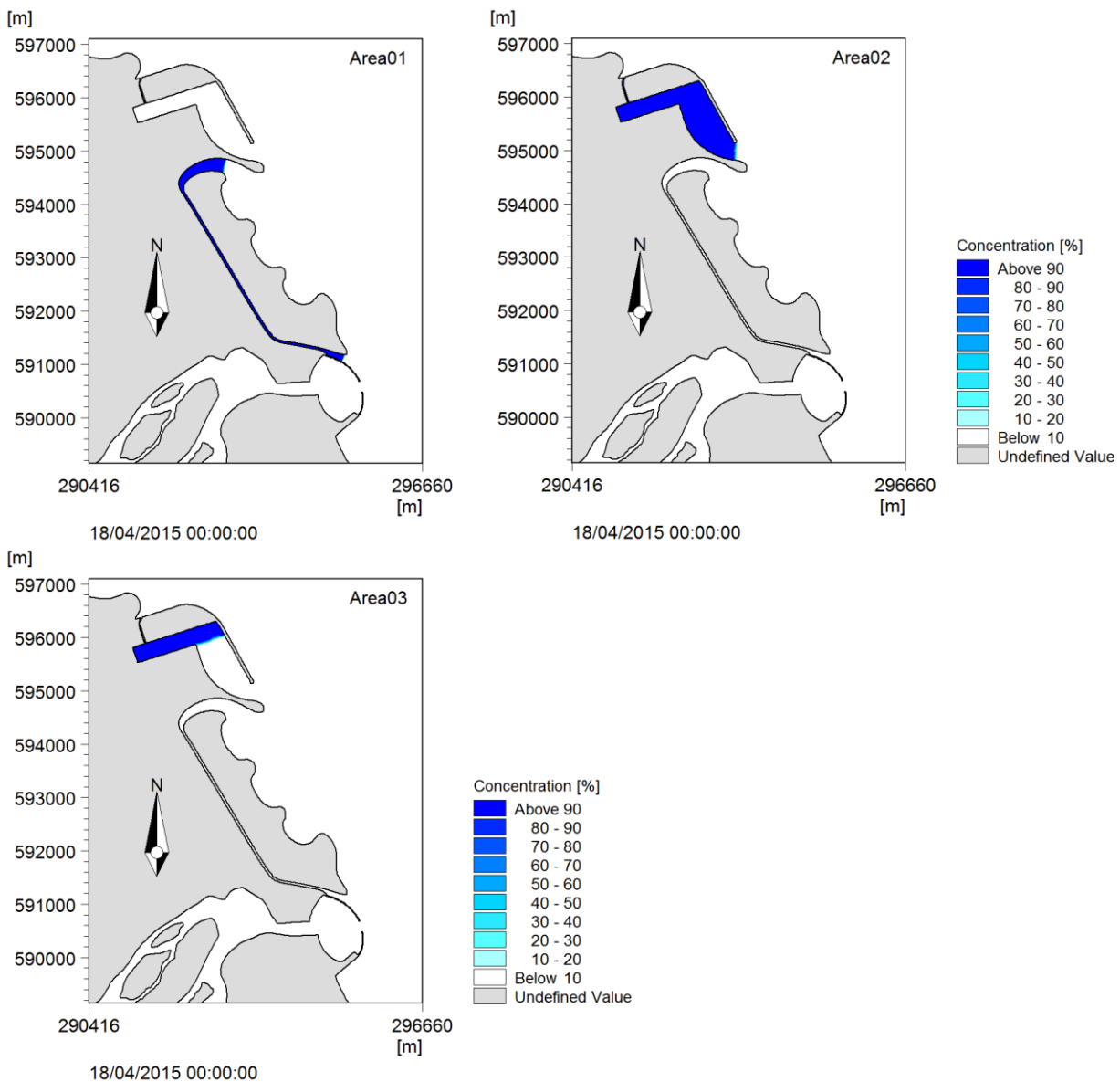


Figure 3.17 Layout 5 flushing – Day 0

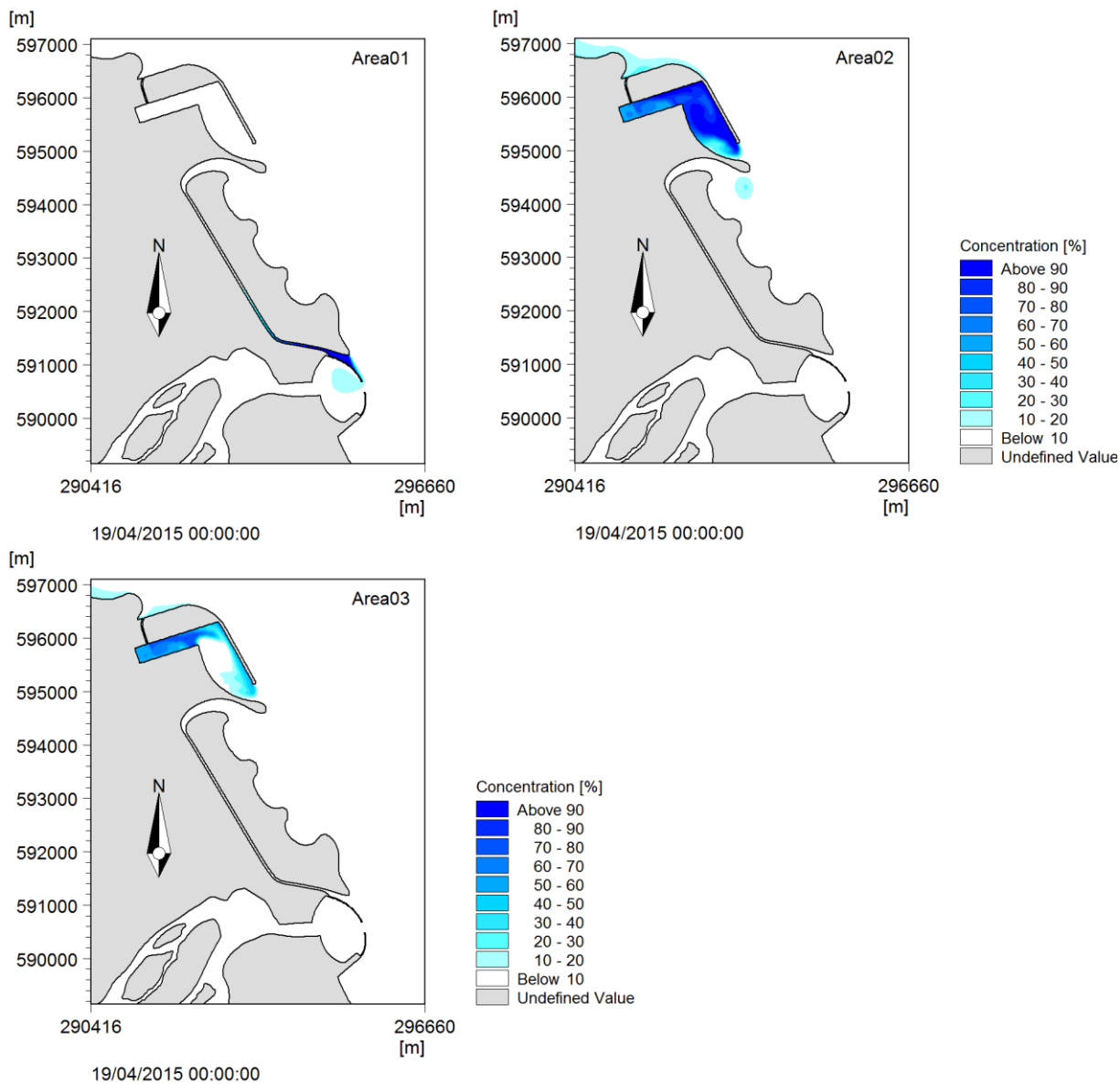


Figure 3.18 Layout 5 flushing – Day 1