



Detail

## Environmental Impact Study Al Jubail, Saudi Arabia

At the industrial port of Al Jubail, Saudi Arabia, new harbour facilities are currently being planned. These facilities will be constructed at an area to be reclaimed. The first part of the required backfill material, with a volume of about 2,600,000 m<sup>3</sup>, is dredged from the nearby planned new inner harbour basin.

The dredged material contains about 5% of fines smaller than 75 µm. Most of these fines will settle during the backfill process. However, the overflow discharge could still contain some fines. With the overflowing water, these fines are disposed into the harbour basin resulting in an increased turbidity there. The disposal of fines into the port area and/or the sea in general is subject to environmental regulations.

In order to investigate the environmental impact of the discharge of fine material, the following items have been addressed:

- hydraulic conditions:      local topography  
   tidal and wind driven currents  
   waves  
   density effects
- dredging process
- plume dispersal

### Client

Sabic Terminal Services Co.  
(SabTank)

### Location

Port of Al Jubail, Saudi Arabia

### Date

2000 (study)

### Services

Determination of hydraulic conditions, analysis of velocity measurements, assessment of sediment plumes from dredging

### Svašek Hydraulics

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