

PRINCIPLE

Pumping of floating oil
using vacuum trucks

This technique consists in pumping accumulations of oil at the water's edge or stranded on the beach, or collected in trenches previously dug on the foreshore.



CONDITIONS OF USE

- ✓ **Pollution:** pumpable oil (oil with low to moderate viscosity); on large spills
- ✓ **Pollutant:** not efficient on very viscous oils
- ✓ **Substrate:** sand, good load bearing capacity, sufficient thickness of sediment to dig trenches
- ✓ **Site:** accessible to earthmoving and agricultural equipment and vacuum truck.

EQUIPMENT

● Basic equipment:

- ✓ Skimmer, skimmer head
- ✓ Pump, vacuum truck
- ✓ Storage facilities

● Extra equipment:

- ✓ Backhoe (trenches/berms)
- ✓ Light containment boom/shore-sealing boom
- ✓ Small boat (where necessary)
- ✓ Plastic liners, geotextiles (protection)
- ✓ Manual scraper (as used in pig sties).

- **PPE:** At least protective clothing: overalls, boots, gloves, goggles and mask... depending on the nature of the pollutant, exposure and responder activity.



Scenario 1:

- ✓ Contain free floating oil using a boom, where necessary a shore-sealing boom
- ✓ Pump the oil accumulations using vacuum trucks or pumps, equipped with a floating skimmer, a floating suction head or a vacuum head

Scenario 2:

- ✓ At low tide, dig a trench in the upper part of the beach, along the high water mark

- ✓ The removed sand forms a protection berm on the landward side
- ✓ The berm and trench may be covered with a plastic liner in order to prevent the erosion of the berm and to limit the mixing of sand/oil in the trench
- ✓ Pump out the oil. On the shore, pumping using vacuum trucks is the most appropriate method
- ✓ Clean out the trenches and remove the plastic liners before leaving the worksite.



IMPACT

- ✓ **Physical/biological:** light to moderate, depending on circulation of machinery on the beach and on the possible transfer of oil
- ✓ Potentially severe impact if storage pits are dug on the upper foreshore or back beach
- ✓ **Digging trenches:** risk of temporary formation of quicksand after filling by the following tides. Toxic effects in the long term if the oil persists in the trenches after filling; otherwise temporary disturbance; recolonisation in the long run.



PERFORMANCE

Minimum workforce required: 2 to 3 people per recovery/storage unit.

Waste: oil, emulsified to a varying extent, pollutant containing free water, with sediment and diverse debris in varying quantities depending on the system used and the location.

Recovery of oil using a flat suction head connected to a vacuum truck

