

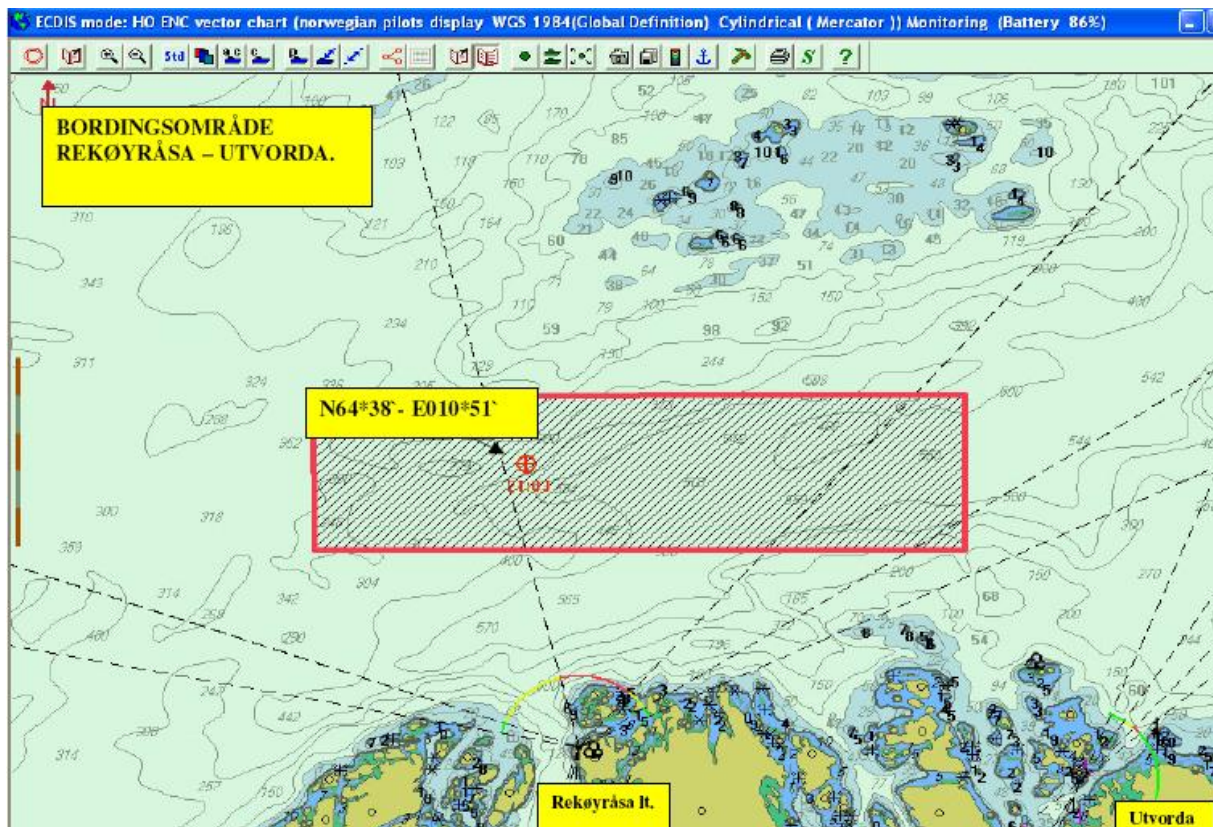
NAMSEN Tug assessment

1. Pilot boarding area

Normal pilot boarding position, weather permitting, will be at the fjord entrance
UTVORDA – REKØYRÅSA at position $64^{\circ} 38' - 010^{\circ} 51'$

The pilot boarding area is exposed to swell from W and SW and on pilots advise an alternative rough weather boarding positions may be at:

- Trondheim pilot boarding area at KRÅKVÅGFJORDEN at $63^{\circ} 39' - 009^{\circ} 15'$
- Helicopter boarding at Kristiansund/ Molde area ONA or
- Helicopter boarding at Mongstad/ Fedje area.



2. Towage requirement

2.1 Tugs

One escort class tug + one or two Tractor/Voith schnieder tugs with bollard pull capacity of at least 35 Tons BP. Available from Trondheim/Sandnessjøen port area, which is located 12 hrs steaming transit away from NAMSEN terminal. Alternative escorte tug may be available from Nyhamna terminal on request.

Tugs lines will be used for towing.

The necessary number and class of tugs to be orderd as early as possible, - minimum 48 hrs prior to use

2.2 Escort towing

All vessel above 35 000 tdw should have one escort class tug connected, before passing “KNAPPHOLMEN” lighthouse. The escort should be carried out through the fjords to jetty area both inbound and outbound, in ballast and loaded condition.

Pilot shall obtain information from the master regarding SWL of bollard to be used, and pass this information to escorte tug without delay before connecing escort tug to the vessel.

2.3 Tug requirement for berthing and unberthing operations

Vessel <u>without</u> bowthruster in berthing and unberthing operations, both in loaded and ballast conditions:				
	< 5000 tdw	5-10_000 tdw	10 --35 000 tdw	35 000 tdw - <
Number of tugs	No tug req	1 tug req	2 tugs*	1 esc + 2 tugs*

Vessel fitted <u>with</u> bow thrusters in berthing and unberthing operations, both in loaded and ballast conditions:				
	- 20 000 s. tdw	20 - 35 000 tdw	35 – 75 000 tdw	75– <tdw
Number of tugs	No tug required	1 tug **	1 esc + 1 tugs	1 esc + 2 tugs*

* : Departure in ballast and weather permitting the number of tugs may be reduced by one (1).

** : Provided effective thruster, weather permitting and pilot advice no tug will be required.

2.4 Total bollard capacity

Total tug bollard pull for conventional tankers above 35 000 tdw with three (3) tugs should be minimum 115 T all together. Vessel fitted with bow and stern thrusters and high effective rudder, - alternative double rudder and propellers may on pilot’s judgment have a reduced tug bollard capacity.

2.5 Stand-By tug during cargo operations

Vessel using tug for berthing should have one (1) of these stand-by during cargo operations The tug should be fitted with fire fighting capacity and close available berthed at STATLAND jetty or anchored close to the vessel.

3. Restrictions

3.1 Wind restrictions

No berthing operations will be carried out in wind conditions above 16 m/s, depending on wind direction and vessel size this may on pilot and terminal managers judgement be evaluated on case-by-case basis. Present wind force is available on request from terminal anemometer.

3.2 Visibility restriction

Area is generally not affected by fog but limited visibility may occur during heavy snowfall or sea mist in cold winter days.

For vessels up to 20 000 tdw, 0.5 NM visibility will apply for berthing/departure operations.

For vessels over 20 000 tdw. 1.0 NM visibility will apply for berthing/departure operations

4. Navigation information

4.1 Waiting area for Pilot

There is no anchorage or waiting area adjacent to the “Namsen Terminal”.

Short duration waiting: Vessels are recommended to adjust speed and ETA to pilot station in due time, in order to avoid drifting.

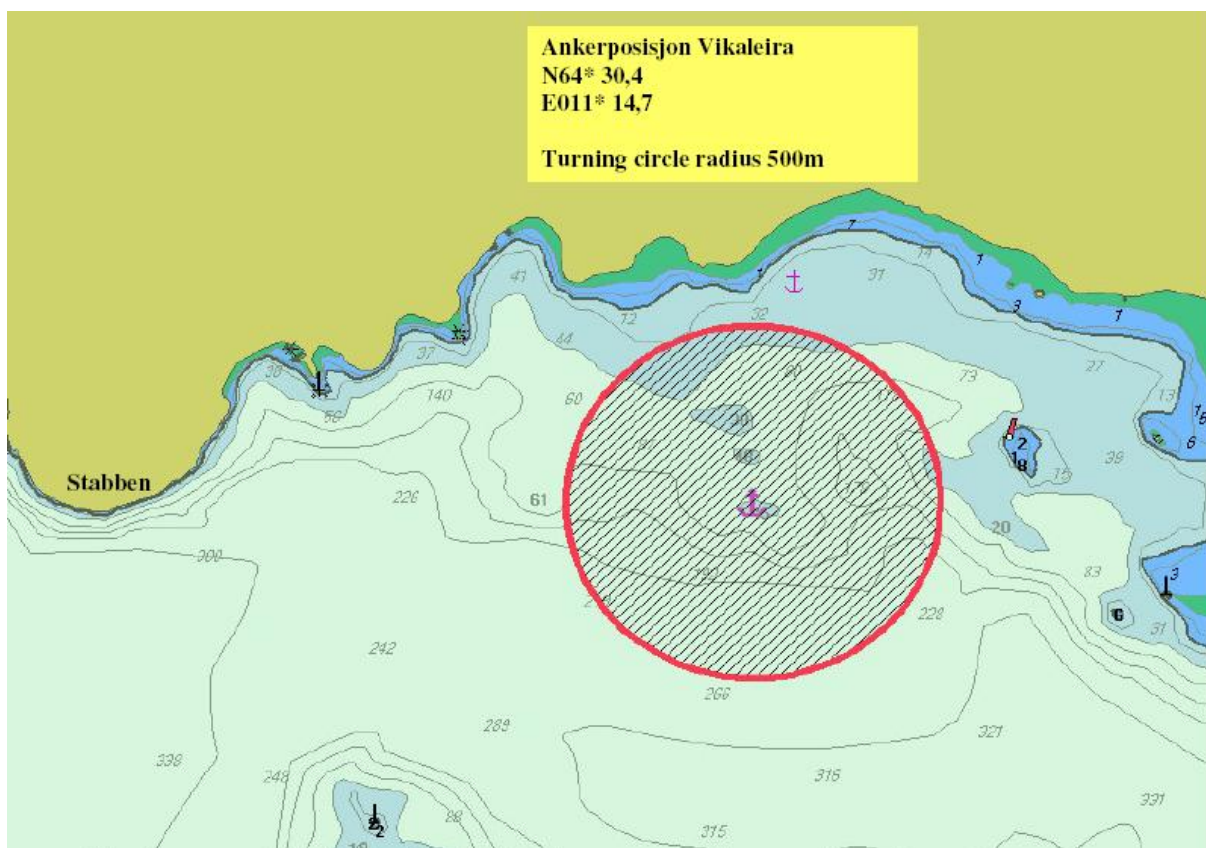
For longer waiting the alternative is: Freifjorden anchorage: Pos: N 63 00,1 E 007 49,2

Pilot to Freifjorden anchorage is compulsory from Grip Pilot station: N 63 15,00 E 007 36,5

For vessels in loaded condition, to and from Freifjorden anchorage, escorte tug will apply for vessels above 35.000 t/dwt.

4.2 Emergency anchoring

Fairway and entrance area are up to 500m deep and the only realistic available anchoring area is VIKALEIRA located 2.5 NM east of NAMSEN terminal on position N 64° 30.4' and E011° 14.7'.



4.3 Current

Tidal current runs parallel with jetty area in both directions and with additional water flow from rivers in the fjords, current may in extreme conditions reach up to 3.5 – 4 knots alongside jetty. It should be informed that at the NW end of the jetty area the current might push the vessel towards land.