

# International Navigating Conditions (01/11/03)

## Red Dog Mine, Kivalina

### ■ Navigating Limits

Unless and to the extent otherwise agreed by the Underwriters, the vessel shall not enter, navigate or remain in the areas specified below at any time or, where applicable, between the dates specified below (both days inclusive):

#### Area 2 – Northern Seas

(b) Chukchi Sea

Red Dog Mine, Kivalina



Map courtesy of Lloyd's Marine Intelligence Unit , [www.lloydsmiu.com](http://www.lloydsmiu.com)

Any conditions herein are non-binding and set out by way of guidance only.  
Underwriters are free to offer any conditions they deem appropriate.

## ■ Perceived Degree of Enhanced Risk



Red Dog Mine, Kivalina



n.b. Above enhanced risk indicators are based on expected seasonal conditions for this region.

## ■ Conditions Precedent to Liability and/or Express Warranties

The following conditions are available for Underwriters' use:-

- *Breach of Navigating Limit Requirements Clause JH132 (31/10/2003).*
- *The vessel shall not enter the Bering Sea prior to the 1<sup>st</sup> July and to leave on or before 10<sup>th</sup> October.*
- *Whilst at approved anchorage the vessel's main engines shall be on standby and capable of deployment at short notice.*
- *Minimum keel clearance whilst at anchorage and whilst leaving anchorage to be 10 feet at all times.*

Whilst vessel making Transhipments:-

- *Yokohama or equivalent fenders shall be used, and*
- *The vessel shall comply with all applicable recommended regulations and/or guidelines for transhipment at sea.*

## ■ Primary Hazards

Ice (November to June)

Fog

Grounding

Gales / stormy weather

Remoteness / lack of salvage and repair facilities

## ■ Additional Information

### *Ice Maps*

National Ice Centre

<http://www.natice.noaa.gov>

Chukchi Sea

[http://www.natice.noaa.gov/pub/west\\_arctic/Chukchi\\_Sea](http://www.natice.noaa.gov/pub/west_arctic/Chukchi_Sea)

### *Links*

Teck Cominco Ltd

<http://www.teckcominco.com/operations/reddog/>

Red Dog Mine Conditions

[http://www.rsn.com/conditions/usakredd/cam\\_welcome.html](http://www.rsn.com/conditions/usakredd/cam_welcome.html)

## ■ Narrative

Kivalina is located in the Chukchi Sea, north of the Arctic Circle (67.34°N) but below the limit of the permanent ice, there is not much going on at the town itself (population approx 400). Almost all of the vessels that go there are heading for the Red Dog Mine (15 miles south-east of Kivalina). The Red Dog Mine is located on one of the richest deposits of lead and zinc in North America. Red Dog Mine is in fact now the world's largest operating zinc mine. It has been operated by Teck Cominco Ltd since operations and production began in December 1989. A dedicated seaport complex has been constructed to facilitate the export of the ores that are mined, and until 1998 the seaport handled about 600,000 tonnes of concentrates from the mine annually. Following investment in 1998 annual production was increased to 1.2 million tons of concentrate. The ores are mined all year round and stored until ready for export during the summer ice-free period. Due to the inadequate water depth at the terminal concentrates are loaded, via offshore conveyors, into 8,000 ton barges. These are dedicated self-unloading barges converted to handle concentrates. They are towed out to the bulk carriers waiting at anchorage. Each ship-loader is equipped with a 54 inch belt capable of loading ocean going vessels at a rate of 2,000 tons per hour.

Hence the specific nature of the Kivalina warranties, there is no berth available. Incoming vessels wait at anchor between 3 and 4 miles from the shore, where there is in excess of 60 feet of water, while the barges come alongside to load the concentrates.

The claims experience since operations began has been good. Around 200 vessels have loaded at the port since shipping began in 1990 and we are not aware of any claims to date. In 2002 26 vessels called at the port, this number has been rising over the last few years as output is increased.

The self-unloading barges are laid up each year in Seattle and so must leave the area prior to the onset of winter conditions. This dictates the period (early July to mid October) during which chartered vessels can load concentrate from the mine. Hence it is not ice that is our concern during the summer navigating period, rather it is the remoteness of the location and the potential for a large salvage claim in the event that a vessel were to go aground or become disabled in that area. Some research with a major North American salvor suggested a minimum cost of USD 500,000 to recover a laden panamax bulk carrier from Kivalina to Seattle. Obviously, in the event of a casualty salvors will be looking to contract under LOF and gain an enhanced salvage award based on salvaged values.

The area can suffer from heavy storms and indeed in 2002 one of the mine's unloading barges went aground in heavy weather. Each year heavy weather will prevent loading for a number of days out of the season, this is an additional risk factor to consider.

Fednav charter much of the tonnage that goes to Kivalina and they have produced a booklet entitled Red Dog Mine, Alaska – Information for Owners. A copy is available on request.

Additional information, including prevailing conditions, for this region is available from members of the Joint Hull Committee – Navigating Limits Working Group
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