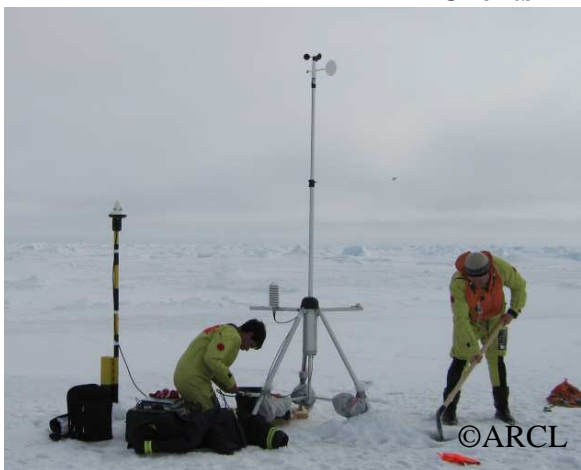


# Ice Survey in Support of Sakhalin V Development 2005 – 2007

Clients BP and Rosneft



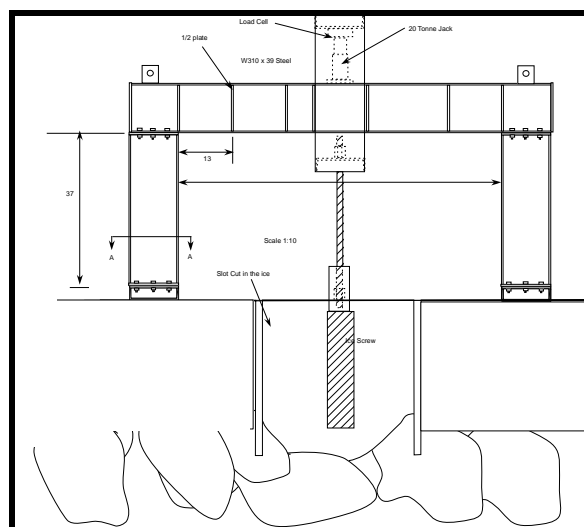
**Ice Drift and Weather Station**



**Ridge Profiling**



**Deployment of Ice Profiling Sonar**



**Flexural Testing System**

ARCL participated in the planning, equipment procurement and logistics for the 2005-2006 and 2006-2007 field programs off North East Sakhalin Island for the development of Sakhalin V.

Responsible for the design and implementation of a remote system to measure ice drift, air and ice temperature, wind speed and direction, stress in the ice floe and surface strain. The system was designed to perform measurements and transmit via satellite measurements every 30minutes.

Design and production of ice testing equipment include a 200 tonne punch test frame, a 20tonne flexural test system, a system for extracting large portions of the consolidated layer, and ice cutting systems to make a 100mm wide by 2m deep cut into the consolidated layer.

ARCL also developed the HSE plan to cover all aspects of the field work. ARCL participated in the 2006- field program to deploy upward looking sonars, ice drift packages and field work to characterize the ice conditions.