Spill Contingency Plan

Supervisor :
Pierre Francus (professor-researcher)

Field team :
David Fortin (Post Doctorant)
Vicky Tremblay (Ph.D. Student)
François Lapointe (M. Sc. Student)

Field season 2010

May-June 2010

Prepared in April 2010
Effective in May 2010

Description of the project

This project, conducted by Pierre Francus and his team from the INRS-ETE, Quebec City, seeks to reconstruct the Canadian High Arctic climate of the past. The field work, carried out between May 27th and June 12th by a team composed of Vicky Tremblay and François Lapointe (PhD. and M.Sc. students respectively) will be led by David Fortin (Post-doc.).

The goal of this field season is to retrieve 1 m long sediment cores from the small, shallow (10 m) and organic-rich lake at the head of Strathcona Fjord. It is important to act as soon as possible as the fluvial erosion near the lake might cause its disappeance. Two miles to the east there is a large, deep detritic lake where we would like to obtain bathymetric measures and collect as well short sediment cores to ascertain the presence of sedimentary lamination.

Sediment cores from the bottom of the lake will be retrieved directly through the lake ice with portable gravity and percussion corers made of nylon. Core tubes are polycarbonate (2 3/4'' diam.). Holes will be drilled in the ice with an ice auger provided by PCSP. A temporary camp will be erected for the duration of the work. Another goal of this field trip is to install a meteorological station at South Sawtooth Lake. A small automated station (2-meter high tripod) will be left on site for the coming years and will be subsequently serviced every summer. During the trip, two means of transportation will be used: airplane to reach the field locations and snowmobile on the ground.

Sediment cores retrieved from the lakes will be brought back intact to our laboratory and analyzed in order to provide multidisciplinary paleoenvironmental reconstructions. These data will be used for two PhD projects and will be published in scientific journals. They will eventually be stored on world data centers. We will also provide NRI with an annual report. No hasardous material is brought in the field and we will bring everything back to Resolute Bay (except the weather station).

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During the field trip, we will have a camp near the Strathcona Fjord. Three persons will be on the site (David Fortin (party chief), Vicky Tremblay and François Lapointe). The following types of fuel will be used on site : gasoline (stored in 5 gal. Jerrycan) and propane (stored in 20 lbs propane tank).

Response Organization:
The first person on the site will (1) assess the spill situation, (2) immediately contact the field Party Chief and provide all information about the spill. Upon receiving this information, the Party Chief will recommend a course of action according to the following procedure:

(a) Evaluates the scale of the spill.
(b) Activates the initial response plan.
(c) Assembles a spill response team and directs them in implementing the spill response plan including containment, recovery, remediation, and disposal operations.
(d) Calls the NWT 24 Hour Spill Line at (867) 920-8130 as soon as possible to report the spill and provide initial incident details. A NWT Spill Report Form will be faxed to (867) 873-6924.
(e) Gathers relevant information and submits a detailed spill report to the applicable regulatory agencies no later than thirty (30) days after the initial reporting of the spill.

Initial response plan:
The first person at the site will ensure safety of himself and those near the site. Next he will notify the Party Chief about the spill.

Gasoline:
If possible and safety permits, stop the flow and eliminate ignition sources. Gasoline forms vapors that can ignite and explode. No smoking is permitted when responding to a gasoline spill. Use particulate sorbent material to soak up the spill. All contaminated water, snow/ice, soils, clean up supplies, and absorbent materials will be stored in closed, labeled containers. The containers will be stored in ventilated areas away from incompatible materials. Electrically ground all containers and transporting equipment.

Propane:
If possible and safety permits, eliminate all ignition sources. No smoking is permitted when responding to a propane release. Do not attempt to contain or remove release. No disposal is required, as it cannot be contained once it has been released.

Reporting Procedure:
1. Fill out **"SPILL REPORT"** form as completely as possible before making the report.
2. Report IMMEDIATELY to Yellowknife using the 24 hour Spill Report Line. 24 HOUR SPILL REPORT LINE **(867) 920-8130**
3. Where FAX is available, follow up by sending a copy of the spill Report to **FAX # (867) 873-6924**
4. RCMP communications may be used if other means are not available.
5. DIAND's Water Resources Inspector ((867)-975-4298) will also be notified.

Spill Kits:
We will have spill kits available in the field camp. Each kit will be inspected by the Party Chief on a regular basis to ensure it contains the following:

1 package of 10 disposable 5 mil polyethylene bags.
10 lb. Bag of particulate
1 bail of 17' x 19' x absorbent sheets (100 sheets/bail)
2 PVC oil resistant gloves
2 respirators
2 pairs of splash protective goggles.

Contacts:
DIAND Water Resources: (867) 975-4555
Environment Canada: (867) 975-4636
INAC Environment and Contaminants: (867)-975-4549
INAC's Manager of Field Operation: (867)-975-4295
Qikiqtani Inuit Association: (867) 979-5391
Natural Resources Canada: (613) 995-0947
Fisheries and Ocean Canada: (613) 993-0999
Nunavut Department of Environment: (867) 975-7749