

# Project Profile: Rankin Inlet Remediation



## LOCATION

Rankin Inlet, NU

## CLIENT

SCM (Claimspro)

## STAKEHOLDERS

Homeowner  
Department of Environment  
Territorial Fuel Provider

## SCHEDULE

Start Date: June 2020  
End Date: October 2020

## PROJECT RELEVANCE

Phase III  
Remedial Options  
Assessment  
Remedial Oversight

**COST  
(CONTRACT VALUE)**  
\$220,000

**PROJECT TEAM**  
Shawn Samborsky  
Kevin Ducharme

## PROJECT DESCRIPTION

CORE Environmental Consulting (CORE) was retained to provide environmental consulting services and project management for the remediation of environmental impacts on site following a heating oil spill in Rankin Inlet, Nunavut on May 19, 2020. According to the information provided, during an oil delivery, the supplier noticed an oil leak coming from a pipe entering the house. An estimated 300 - 400 litres (L) of heating oil leaked on the soil beneath the pipe and seeped beneath the house.

An excavator was used to create a test pit adjacent to the home and samples were obtained and submitted for analysis. Based on the results, it was determined that excavation beneath the structure of the house was necessary and arrangements were made to elevate the structure. The remedial excavation, sampling of extents, backfilling and placement of the house on footings was completed.

## SCOPE

The site was a single-family, detached residential property on wood block cribbing. The spill occurred outside, over the soil on the north side of the house. The work was completed in July and September in non-frozen conditions. Visual observation made it clear that the source of the spill originated at the tank. The Government of Nunavut Department of Environment's Environmental Guidelines for Contaminated Site Remediation were the applicable criteria (Government of Nunavut, 2009) for bulk petroleum hydrocarbon (PHC) fractions. The Canadian Environmental Quality Guidelines: Soil Quality Guidelines for the Protection of Environmental and Human Health (CCME, 2004) were the applicable criteria for benzene, toluene, ethylbenzene and xylene (BTEX).

The test pit program was completed in order to identify the potential extents of the excavation. Samples from around the perimeter of the visually stained area and beneath the footprint of the house were retrieved and analyzed in order to properly estimate the overall volume and cost of the excavation. This initial phase of the work concluded in July and excavation was to continue after the house was emptied and elevated.

CORE assisted with logistics and with obtaining the required permits for elevating the house. The contractor began raising the structure when CORE arrived at the site for the subsequent phase of work in September 2020. The excavation and backfill was completed prior to leaving the site. CORE provided the client with daily reports summarizing the lift and activities at the site.

## SPECIFIC SERVICES

The members of the team were responsible for all aspects of the investigations. This included:

- Development of field instructions for investigation during emergency events
- Health and safety planning
- Remedial options assessment
- Soil investigation using test pits
- Soil excavation
- Cost tracking and management
- Tabulation and management of data in accordance with a QA/QC program
- Summarizing impacts
- Provision of drawings and surveys
- Stakeholder meeting participation and impact summary

## PROJECT OUTCOME AND TECHNIQUES

The deliverables of this project were a description of all steps of the assessment, summary of all site activities and a formal report outlining the approach, methodology, conclusions and recommendations. Various quality control and quality audit steps are taken on all CORE projects. These steps involve QC of analytical data, review and QC of modelling undertaken by trained individuals, and review of the report by a senior level Staff person.

Costs for project activities were tracked and reported daily with project controls including:

- Budgets submitted for approval along with deliverables and timelines
- Timesheets submitted with invoice and detailed breakdowns of fees and disbursements
- Management of subcontractor costs and comparison of subcontractors for large cost items (drilling/excavating)

The project was undertaken in Rankin Inlet, NU. The major constraints centered around logistics and availability of sampling supplies and field screening equipment. CORE ensured that redundant equipment was available so the work could be completed. The availability of local labor to complete the work was also limited. CORE was responsible for observing all remedial activities, tracking schedule, scope and cost for our client. The project was successfully completed and the file closed.