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**Public Works and Government Services Canada**  
**Room 100-167 Lombard Avenue**  
**Winnipeg**  
**Manitoba**  
**R3B 0T6**  
**Bid Fax: (204) 983-0338**

## **SOLICITATION AMENDMENT MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

### **Comments - Commentaires**

**Vendor/Firm Name and Address**  
**Raison sociale et adresse du**  
**fournisseur/de l'entrepreneur**

**Issuing Office - Bureau de distribution**  
Public Works and Government Services Canada  
Northern Contaminated Site Program  
ATB Place North Tower  
10025 Jasper Avenue  
Edmonton  
Alberta  
T5J 1S6

<b>Title - Sujet</b> Frobisher Gas Wells Remediation/Aba	
<b>Solicitation No. - N° de l'invitation</b> EW699-151177/A	<b>Amendment No. - N° modif.</b> 003
<b>Client Reference No. - N° de référence du client</b> PWGSC EW699-151177	<b>Date</b> 2014-12-05
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$GMP-010-6280	
<b>File No. - N° de dossier</b> GMP-4-37136 (010)	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2014-12-15</b>	<b>Time Zone</b> <b>Fuseau horaire</b> Central Daylight Saving Time CDT
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Tammy Kozak	<b>Buyer Id - Id de l'acheteur</b> gmp010
<b>Telephone No. - N° de téléphone</b> (204) 807-0189 ( )	<b>FAX No. - N° de FAX</b> (204) 983-7796
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b>	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

<b>Delivery Required - Livraison exigée</b>	<b>Delivery Offered - Livraison proposée</b>
<b>Vendor/Firm Name and Address</b> <b>Raison sociale et adresse du fournisseur/de l'entrepreneur</b>	
<b>Telephone No. - N° de téléphone</b> <b>Facsimile No. - N° de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/Firm</b> <b>(type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/</b> <b>de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

Solicitation No. - N° de l'invitation

EW699-151177/A

Client Ref. No. - N° de réf. du client

PWGSC EW699-151177

Amd. No. - N° de la modif.

003

File No. - N° du dossier

GMP-4-37136

Buyer ID - Id de l'acheteur

gmp010

CCC No./N° CCC - FMS No/ N° VME

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Voir le document ci-joint

## Northern Contaminated Sites Program - Bear Safety Training Requirements

### **INTRODUCTION**

INAC's Northern Contaminated Sites Program is executed by INAC and PWGSC. The Crown is the owner of the various sites and INAC the Project Leader throughout the life of the site projects. PWGSC supports INAC during the assessment, remediation planning and post-remediation monitoring stages and then takes on the role of Project Manager for remediation (i.e., detailed engineering, procurement and construction).

INAC has developed an EHS Management System which applies to Crown employees and Crown representatives (e.g., consultants). During the construction phase, contractors are hired to operate the sites and carry out the remediation. Prior to taking over a site, these contractors are provided by the Crown with information on known H&S risks at the site and are required to prepare a site specific H&S plan that is acceptable to the authorities having jurisdiction. The Crown also receives and has an opportunity to comment on the contractor's draft H&S Plan. During construction, the contractors follow their H&S plans and the Crown and its representatives the more stringent of the two. The Crown carries out inspections and audits to determine the extent to which requirements in the H&S plans are being followed.

Wildlife encounters are one of the most significant risks of working at remote northern sites. For this reason, INAC has developed this guide on bear safety training requirements and bear monitor qualifications which will form part of INAC's EHS MS. In addition, this guide will be used as a reference in specifying the Crown's performance expectations in tender documents, in reviewing draft contractor H&S plans, and in performing site inspections and audits.

Bear Safety Training for the Northern Contaminated Sites Program consists of two components:

- 1) **Bear Safety Training Standards** for all employees, designated individuals or contractors who participate in field activities.
- 2) **Bear Monitor Standards** for all employees, designated individuals and contractors who serve as bear monitors.

Each component applies to all phases of the Contaminated Sites Program including: Assessment, Remediation and Monitoring.

Each component must be supplemented by employee orientation to appropriate mitigation and contingency policies & procedures used to reduce the risk of bear encounters. Such policies and procedures include but are not limited to:

- Reporting of Bear Sign, Sighting and Encounters
- Bear Sighting or Encounter Procedures
- Food Waste Management Practices
- Sign Out / Sign In Procedures

## Northern Contaminated Sites Program - Bear Safety Training Requirements

### **BEAR SAFETY TRAINING STANDARDS**

#### **Purpose:**

To ensure that all personnel employed or contracted by the Northern Contaminated Sites Program are adequately trained so that they may conduct their activities in a manner that is safe to both humans and bears.

Training requirements for employees are based on risk related to potential exposure to bears given the type of work being done. For some employees risk levels are minimal. Others are at far greater risk. Training content is based on risk levels.

As well the responsibility an individual has for the safety of others determines training requirements. As the levels of responsibility and exposure to bear hazards increase, so do the training requirements. Field crew leaders or supervisors responsible for the safety of their crews must have a good understanding of the hazards bears pose as well as the practices to prevent encounters. The level of responsibility and exposure to bear hazards is greatest for those tasked with the job of deterring bears from camp or work areas.

#### **Exposure Risk Assessment**

The first step to develop bear safety training requirements is to assess potential exposure to bear hazards for employees in the field during each phase of the Northern Contaminated Sites Program. Position classifications or job descriptions are considered to group those employed for the remediation phase of projects according to work environment.

Work locale, level of activity and employee numbers help to define the potential risk of encountering a bear. For example people working indoors have a low probability of encountering a bear, while a person checking water monitoring stations away from the main site is more likely to encounter a bear and need to take proper action. The bear risk pyramid that follows portrays potential exposure to bear hazards and assigns risk levels for six groupings of workers. Risk levels are considered low, moderate or high.

Crew or party leaders and site supervisors must investigate the bear situation in the area where work is planned. They must find out what type of bears are in the area and how these bears typically use the area, noting seasonal distribution and important habitat.

A history of bear—human conflicts in the area may indicate higher than average bear hazards. If so, there is a need to move some or all of the groupings further up the risk pyramid and alter training requirements or training content.

Since each worker's actions contribute to the safety of themselves and others, training requirements reflect this. Team or project leaders, site supervisors, health & safety officers and bear response team members are responsible for the safety of many others as well as themselves and therefore must receive Advanced Bear Safety training.

#### **Groupings and Risk Levels:**

Assessment of potential exposure to bear hazards according to work environment results in six groupings of employees. Each grouping is assigned a risk level that determines training requirements.

## Bear Risk Pyramid



### Inside Workers (Level 1):

House keeping, office staff and personnel working within secure structures are least likely to encounter bears during their duties.

### Equipment Operators (Level 2):

The noise and movements of equipment can deter bears. Equipment also offers a safe refuge in the event that a bear is encountered. Operators must be cautious while servicing equipment and when approaching or leaving equipment, but the level of risk for this group is generally low.

### Kitchen and Food Handling Staff (Level 3):

Improper handling, storage and disposal of food and food waste are leading causes of conflict between humans and bears. In camps where workers collect food from freezers or storage units located outside or in buildings detached from the kitchen, risks of exposure increase. For these reasons kitchen and food handling staff are assigned a higher risk level than other inside workers, level 3.

## Northern Contaminated Sites Program - Bear Safety Training Requirements

Small tent camps, separate from the main work areas, such as used during the assessment phase, may have kitchen staff who are the only ones in camp during the day. In these situations supervisors must recognize the increased level of risk and ensure that the training provided to this group is elevated, i.e., from level 3 to 5.

### **Outside Work in High Activity Areas (Level 4):**

Working outside increases workers exposure to potential bear hazards. Higher levels of activity and numbers of people in the area may act as a deterrent, thus reducing the probability of exposure to a bear hazard. However over the life of a project circumstances may change, so supervisors must monitor human and bear activity levels and modify training requirements accordingly. For example, during periods of low human activity or increased bear activity training for this group may need to be elevated from level 4 to 5.

### **Outside Work or Recreation away from Main Activity Areas (Level 5):**

People who work on the periphery of the job site or at satellite locations, such as tailings ponds, have a higher likelihood of encountering a bear than those working in high activity areas. The further a work site is from main activity areas, the greater the chance of encountering a bear.

Many of the Northern Contaminated Sites Program projects are located at former mines and DEW line locations. Road systems may connect the main site to other satellite facilities such as tailings ponds, explosive magazines or water intakes. Project personnel often use these roads for after hour recreational activities such as jogging, biking and sometimes to access fishing sites. Such recreational activities occur typically in the evening and early morning hours, the times when bears are most active. Regardless of what their regular duties may be, people who participate in such activities must be trained on how to prevent bear encounters and how to respond safely if they do meet a bear.

### **Remote Field Work (6):**

Each phase of a Northern Contaminated Sites Program project involves field work in locations remote from the main activity areas of a project and/or communities. Workers such as environmental assessment and monitoring staff, surveyors, and communication technicians are included in this grouping.

Remote field work often requires travel by foot through bear habitat though this work may be supported by helicopters, boats or vehicles. The potential exposure to bear hazards is high; therefore this group is assigned risk level 6.

### **Visitors:**

If visitors to a project site do not have the required level of bear safety training for their work environment, they must be accompanied by site personnel who have such a level.

## **Bear Safety Training Requirements**

Based on assigned risk levels, employees receive increasingly comprehensive training. The assigned risk level determines minimal content and frequency of training. In cases where certain individuals have increased responsibility in terms of bear safety, risk level assigned, and hence training requirements, are increased. Table 1 outlines training requirements according to risk levels.

## Northern Contaminated Sites Program - Bear Safety Training Requirements

Table 1.

Assigned Risk Level	Training Program	Frequency
1,2,3,4,5,6	Site Orientation	All new arrivals and when interval between site visits is greater than 3 months (Remediation) Prior to going into remote site. (Assessment & monitoring)
3,4	Bear Awareness	All new arrivals and as changing conditions dictate
5,6	Bear Safety	Every 2 years
5,6	Firearm Safety Training	Every 2 years: Safe handling and live fire exercise including field & camp safety refresher. Annually: Review Department firearms policies, procedures and reports
Team or party leaders, supervisors and bear response team members	Advanced Bear Safety	Every 2 years.

### **SITE ORIENTATION:**

All phases of Northern Contaminated Sites Program projects require training. Through Site Orientation every employee is informed of the following:

- types of bears in the area
- recent bear activity
- general policies and procedures in place to mitigate potential conflict with bears
- actions to be taken if a bear is sighted including reporting procedures

### **Delivery:**

Prior to departing for site each crew leader provides the team with a brief site orientation. During the remediation phases the orientations may be given by the site supervisor or health and safety personnel.

### **BEAR AWARENESS:**

This training supplements the Site Orientation. Groups in the moderate range of risk, including kitchen staff and workers in high activity areas, should have Bear Awareness at a minimum. If bear activity in the area results or could result in increased levels of risk, training is upgraded to Bear Safety.

### **Delivery:**

Supervisors or designated health & safety personnel inform workers of bear safety policies and procedures specific to their work environment and job duties. Table 2 outlines which procedures employees should be familiar with.

## Northern Contaminated Sites Program - Bear Safety Training Requirements

Table 2. Bear Awareness

BEAR AWARENESS	Personnel			
	Kitchen Staff	Garbage Management	Incinerator Operators	Outside workers in High Activity
<b>Operational Procedures</b> (Examples only)				
Safe storage and handling of food				
Handling and disposal of food wastes				
Reporting bear sightings				
Responding to a bear on site				
Incinerator Operation and Maintenance				
Storage and Disposal of Incinerator Ash				

### BEAR SAFETY:

All field workers and those who work or pursue recreational activities away from the main activity areas require this training as a minimum. Tables 3 & 4 outline topics addressed in Bear Safety training.

All full time employees, team leaders and supervisors working in the Remote Field Worker grouping (level 6) are required to supplement Bear Safety training with additional training that addresses field safety related to helicopter support, firearm safety and bear monitoring.

### Delivery:

Training will be delivered at two levels.

### Class I:

View the video, "Staying Safe in Bear Country" or "Polar Bears: A Guide to Safety" and pass a multiple choice test under the supervision of the safety officer or site supervisor.

This training method applies to those who work or pursue recreational activities away from the main site (Level 5) or students, casual employees and short term contractors working in the Remote Field Work risk level 6. When working in remote field locations, workers with Class I training must be under the direct supervision of field personnel with Class II certification.

### Class II:

Comprehensive bear safety training including field safety related to helicopter support, firearm safety and bear monitoring delivered by qualified bear and firearm safety instructors.

Full time employees, team leaders and supervisors in the Remote Field Work group, risk level 6, are required to have Class II. Employees with Class II will be trained and authorized to carry a firearm. Ideally all remote field workers should be trained to Class II.



## Northern Contaminated Sites Program - Bear Safety Training Requirements

Table 3.

<b>BEAR SAFETY TRAINING: BLACK AND GRIZZLY BEAR</b>		<b>Class I</b>
<b>Topic</b>	<b>Details</b>	
Bear Identification	<ul style="list-style-type: none"> <li>• Differences between Black and Grizzly</li> </ul>	
Bear Ecology	<ul style="list-style-type: none"> <li>• Senses - powerful sense of smell</li> <li>• Physical Traits &amp; Abilities – strength, running, climbing and swimming</li> <li>• Annual Life Cycle</li> <li>• Hyperphagia</li> </ul>	
Bear Behaviour	<ul style="list-style-type: none"> <li>• Curiosity</li> <li>• Personal Space</li> </ul>	
Bear—Bear Interactions	<ul style="list-style-type: none"> <li>• Body Language and vocalizations</li> <li>• Avoidance and tolerance</li> <li>• Stress Displays</li> </ul>	
Bear—Human Interactions	<ul style="list-style-type: none"> <li>• Avoidance</li> <li>• Identifying and Understanding:                             <ul style="list-style-type: none"> <li>❑ Defensive Behaviour</li> <li>❑ Defensive Approaches</li> <li>❑ Defensive Attacks</li> <li>❑ Non-Defensive Behaviour</li> <li>❑ Non Defensive Approaches</li> <li>❑ Predatory Attacks</li> </ul> </li> </ul>	
How to react in a bear encounter	<ul style="list-style-type: none"> <li>• Reacting to a Defensive Bear</li> <li>• Reacting to a Non-Defensive Bear</li> <li>• Reacting to an Attack – Defensive vs Predatory Bear</li> </ul>	
Prevention	<ul style="list-style-type: none"> <li>• Staying Alert</li> <li>• Alerting Bears of Your Presence</li> <li>• Attractant Management</li> </ul>	
Personal Detection Systems	<ul style="list-style-type: none"> <li>• Trip wires</li> <li>• Motion Sensors</li> </ul>	
Personal Deterrents	<ul style="list-style-type: none"> <li>• Pepper Spray</li> <li>• Pen Launchers</li> <li>• Pistol Launchers</li> <li>• Whistles and Horns</li> </ul>	
<b>Supplemental Field Worker Information</b>		<b>Class II</b>
Firearm Safety Training	<ul style="list-style-type: none"> <li>• as described in Table 5</li> </ul>	
Employee Responsibilities	<ul style="list-style-type: none"> <li>• Check out / Check In Practices</li> <li>• Radio communications</li> </ul>	
Helicopter Support	<ul style="list-style-type: none"> <li>• Drop off and pick up procedures</li> <li>• Detection and Deterring bears</li> </ul>	

## Northern Contaminated Sites Program - Bear Safety Training Requirements

Table 4.

<b>BEAR SAFETY TRAINING: POLAR BEAR</b>		<b>Class I</b>
<b>Topic</b>	<b>Details</b>	
Bear Identification		
Bear Ecology	<ul style="list-style-type: none"> <li>• Carnivore</li> <li>• Senses - powerful sense of smell</li> <li>• Physical Traits &amp; Abilities – strength, swimming, climbing and running</li> <li>• Importance of Ice</li> <li>• Annual Life Cycle</li> <li>• Seasonal Distribution</li> </ul>	
Bear Behaviour	<ul style="list-style-type: none"> <li>• Curiosity</li> <li>• Body Language</li> <li>• Denning</li> </ul>	
Bear—Human Interactions	<ul style="list-style-type: none"> <li>• Avoidance</li> <li>• Identifying and Understanding:                             <ul style="list-style-type: none"> <li><input type="checkbox"/> Curious Behaviour</li> <li><input type="checkbox"/> Predatory Behaviour</li> <li><input type="checkbox"/> Defensive / Threatened Behaviour</li> <li><input type="checkbox"/> Attacks</li> </ul> </li> </ul>	
How to react in a bear encounter	<ul style="list-style-type: none"> <li>• Reacting to a Curious Bear</li> <li>• Reacting to a Predatory Bear</li> <li>• Reacting to a Defensive / Threatened Bear</li> <li>• Reacting to an Attack</li> </ul>	
Prevention	<ul style="list-style-type: none"> <li>• Staying Alert</li> <li>• Alerting Bears of Your Presence</li> <li>• Attractant Management</li> <li>• Travelling and Camping Practices</li> </ul>	
Detection Systems	<ul style="list-style-type: none"> <li>• Trip wires</li> </ul>	
Deterrents	<ul style="list-style-type: none"> <li>• Pepper Spray</li> <li>• Pen Launchers</li> <li>• Pistol Launchers</li> <li>• Whistles and Horns</li> </ul>	
<b>Supplemental Field Worker Information</b>		<b>Class II</b>
Firearm Safety Training	<ul style="list-style-type: none"> <li>• as described in Table 5</li> </ul>	
Employee Responsibilities	<ul style="list-style-type: none"> <li>• Check out / Check In Practices</li> <li>• Radio communications</li> </ul>	
Helicopter Support	<ul style="list-style-type: none"> <li>• Drop off and pick up procedures</li> <li>• Detection and Deterring bears</li> </ul>	

## Northern Contaminated Sites Program - Bear Safety Training Requirements

Table 5.

<b>FIREARM SAFETY TRAINING:</b>	
<b>Topic</b>	<b>Details</b>
Canadian Firearms Safety Course (CFSC)	<ul style="list-style-type: none"> <li>• Successful completion of Canadian Firearm Safety Course</li> </ul>
Field Safety	<ul style="list-style-type: none"> <li>• Safe transportation firearms in vehicles, boats, aircraft (fixed and rotary wing) and ATV's</li> <li>• Safe carry positions in the field</li> <li>• Negotiating obstacles (fallen trees, steep slopes, ice etc.)</li> <li>• Safe loading of firearms</li> <li>• Positioning of person with firearms in relation to field party members</li> </ul>
Camp Safety	<ul style="list-style-type: none"> <li>• Safe storage of firearms and ammunition</li> <li>• Safety concerns regarding the handling and discharge of firearms in a camp setting</li> <li>• Bear response pre-planning (signals, crowd control, safe shooting lanes)</li> </ul>
Familiarity with Department Firearms Policies, Procedures and Reports	<ul style="list-style-type: none"> <li>• INAC Firearm Procedures</li> <li>• Department owned firearm issue authority employees</li> <li>• Authority to transfer firearms</li> <li>• Department owned firearms issue authority for designated individuals</li> <li>• Department owned register for issue of firearm to an individual</li> <li>• Authority for use of personal firearms by employees / designated individuals</li> <li>• Ammunition usage report</li> <li>• Investigation and Prevention Report</li> </ul>
<b>Safe Handling and Live Fire Exercise</b>	
Student to demonstrate ability to safely handle firearms in the field	<ul style="list-style-type: none"> <li>• Safe carry positions - various scenarios</li> <li>• Negotiating obstacles</li> <li>• Safe transportation of firearms – getting in and out of boat or vehicle</li> </ul>
Live Fire Exercise	<ul style="list-style-type: none"> <li>• Proper sighting of firearm</li> <li>• Adjustment of sights</li> <li>• Safe loading and unloading of firearm</li> <li>• Firing of non-lethal rounds (12 gauge deterrents)</li> <li>• Firing of lethal rounds</li> </ul>
Evaluation of Safety Attitude	<ul style="list-style-type: none"> <li>• Continued carelessness with firearms or any horseplay will result in course failure.</li> </ul>

## Northern Contaminated Sites Program - Bear Safety Training Requirements

### ADVANCED BEAR SAFETY:

Team or party leaders, site supervisors, health & safety officers and bear response team members are required to take Advanced Bear Safety training.

Table 6.

ADVANCED BEAR SAFETY TRAINING:	
Topic	Details
Bear Safety Training	<ul style="list-style-type: none"><li>• Completion of Bear Safety Training</li></ul>
Firearm Safety Training	<ul style="list-style-type: none"><li>• Completion of Firearm Safety Training</li></ul>
Attractant Management	<ul style="list-style-type: none"><li>• Food and food waste handling, storage and disposal</li><li>• Safe storage of chemicals and fuels</li><li>• Incinerator operating procedures</li></ul>
Detection Systems	<ul style="list-style-type: none"><li>• Detection system benefits and limitations</li></ul>
Bear Deterrents	<ul style="list-style-type: none"><li>• 12 gauge deterrent benefits and limitations</li><li>• Electric bear fencing</li></ul>
Bear Response Planning	<ul style="list-style-type: none"><li>• Layout and Design</li><li>• Potential problem areas and ambush sites</li><li>• Wildlife Shelter opportunities</li><li>• Escape routes for bears</li><li>• Warning systems and crowd control</li><li>• Reporting bear sightings, encounters and actions taken</li></ul>

### Delivery:

Advanced Bear Safety training is delivered by experienced bear safety instructors well versed in bear response planning.

Table 7 summarizes training requirements based on risk levels and identifies those groups of employees who should receive each training category and the delivery method.

## Northern Contaminated Sites Program - Bear Safety Training Requirements

Table 7.

MINIMUM LEVELS OF BEAR SAFETY TRAINING						
Bear Safety Training Requirement	Risk Level - Hazard Grouping					
	Level 1 Indoor Workers	Level 2 Equipment Operators	Level 3 Food Handling and Kitchen Staff	Level 4 Outside Work in High Activity Areas	Level 5 Outside Work or Recreation Activity away from Main Activity Areas	Level 6 Remote Filled Workers
Orientation	Supervisor or Safety Staff	Supervisor or Safety Staff	Supervisor or Safety Staff	Supervisor or Safety Staff	Supervisor or Safety Staff	Supervisor or Safety Staff
Bear Awareness		Supervisor or Safety Staff	Supervisor or Safety Staff	Supervisor or Safety Staff		
Bear Safety					Supervisor or safety officer led viewing of video "Staying Safe in Bear Country" or "polar Bears: A Guide to Safety" and passing multiple choice test	Qualified Bear Safety Instructor
Firearm Safety						Qualified Firearms Safety Instructor
Advanced Bear Safety						Qualified contractor
						Special Site Supervisors, Safety Officers and Bear Response Team

## Northern Contaminated Sites Program - Bear Safety Training Requirements

### **BEAR MONITORS STANDARDS**

When working in bear country people must be aware of their surroundings and alert to potential bear hazards to ensure personal safety and that of co-workers.

On occasion it may be prudent to use a dedicated bear monitor, for instance when workers are completely engaged and it's impractical to routinely scan their work areas for the presence of bears. When the hazard potential is high enough to require continuous monitoring of the area, a designated bear monitor would be appropriate.

The Bear Monitor is responsible for employee safety with respect to bears by taking competent action to detect and monitor bears in the area and provide timely warnings to staff of bears in the area.

Depending on the level of potential bear hazards in the vicinity, the role of bear monitor may be assigned to a member of the field team or to a designated bear monitor who solely takes on these responsibilities. In each case Risk Level 6 – Class II bear safety training is required.

Risk Level 6 – Class II qualifications include Bear Safety Training supplemented with Firearm Safety Training, Employee Responsibilities, Helicopter Support and Bear Monitoring delivered by qualified bear and firearm safety instructors. For those hired to provide bear monitoring services in project camps additional training in the monitoring and maintenance of detection and deterrent systems in place may be required.

In addition, a Possession and Acquisition Licence (PAL) is a mandatory requirement for bear monitors. A bear monitor must demonstrate safe firearm handling and shooting skills through completion of the safe handling and live fire exercise as outlined in the Safe Handling and Live Fire Exercise section of the Firearm Safety Training table 5.

Careless handling of firearms represents a greater hazard to human health than bears. It is imperative that safety rules be adhered to when firearms are stored, transported or used.

Bear monitors use a 12 gauge shotgun. It is recommended that the firearm be provided by the Northern Contaminated Sites Program. In exceptional cases bear monitors may be authorized to use their own 12 gauge shotguns. When the monitor is not being backed up by another shooter the deterrent rounds will be loaded directly into the shotguns chamber as needed and the magazine will contain only killing rounds.

Policies and procedures that formalize the above and set protocols for bear monitors should be in place prior to field season. For example, supervisors might set bear surveillance practices using Table 8 as a guide.

Site location, kinds of work being done, environmental conditions, prevalence of bears, and common sense will help supervisors determine the anticipated bear hazard levels and the level of bear monitoring required.

## Northern Contaminated Sites Program - Bear Safety Training Requirements

Table 8.

<b>BEAR MONITOR LEVELS BY BEAR HAZARD LEVEL</b>		
<b>Anticipated Bear Hazard Level</b>	<b>Monitor/Guard</b>	
Low	Party	Watch out for each other All members of the work group have a responsibility to watch for bears.
Moderate to High with good visibility.	Assigned Party Member Or Designated Bear Monitor	Bear Monitor to do a 360 degree scan of the area every 10 or 15 minutes. The frequency of the area survey is a matter of judgment to be resolved between the team leader and the Bear Monitor.  However, when the bear watch is not to be continuous, use of a timer with alarm is recommended. Without an alarm, it is too easy to get caught up in one's work and forget to perform the periodic area survey.
Moderate to High with poor visibility. (Low light, poor weather or rough terrain)	Assigned Party Member Or Designated Bear Monitor	Continuous bear watch would be required during periods of poor visibility and in rugged terrain.  Because it is difficult for one person to maintain vigilance for long periods of time, the bear monitoring duties may be rotated among firearms-authorized group members on a predetermined basis (one to two hour periods per person). At any given time, everyone should always know who the Bear Monitor is.
Significant	Designated Bear Monitor supported by helicopter	When personnel are working at an outdoor location under a significant bear threat, there will be at least one person per group who is designated the "Bear Monitor". This person is responsible for ensuring that the group will not be subjected to a surprise encounter with or attacks from a bear.

### **Monitoring work sites:**

Employees working away from the main site may occasionally find themselves working in an area of high bear hazard. Normally work should be halted and workers removed until the bear hazard is no longer present. However if work can not be shut down, a qualified bear monitor

## Northern Contaminated Sites Program - Bear Safety Training Requirements

would be assigned to alert workers when bears are present and move people out of harms way. Only in extreme cases would bear monitors displace the bears in order for work to continue.

### **Monitoring Camps:**

Problem encounters with bears are more likely in a camp situation than a chance encounter in the field or at work sites. When bears are active in the area, monitors may be called upon to provide bear detection services and to alert personnel of the presence of a bear on site. If necessary the bear monitor will attempt to deter the bear. Bear monitors may also advise on preventative measures within a camp, including altering camp locations or configurations as appropriate.

The Bear Monitor Job Description on the following pages outlines duties and qualifications required for such a position. Community organizations, such as HTO's & HTA's , in the vicinity of the Northern Contaminated Sites Program work locales maybe able to identify suitable candidates to INAC.



# Bear Monitor Job Description

### PURPOSE

The bear monitor's job is to reduce the risk of bear-human encounters so that human safety is increased and bears are not unnecessarily displaced or killed as a result of Northern Contaminant Sites Program activities.

### RESPONSIBILITIES

The Bear Monitor is responsible for employee safety with respect to bears by taking competent action to detect and monitor bears in the area and provide timely warnings to staff of bears in the area.

### DUTIES:

Bear monitor duties include:

- accompanying field crews working in remote locations
- monitoring work sites so that personnel can work safely
- monitoring and deterring bears near camp facilities

### Primary Actions:

#### Reconnaissance:

- Survey field work sites from a distance to ensure that it is safe for workers to enter.
- Identify high risk situations and warn workers.
- Identify safe escape routes and safe retreat sites for personnel in the event a bear appears.

#### Bear Watch:

- Scan / Look out for bears.
- Monitor movements of workers keeping them routinely in view.
- Alert crews to the presence of bears in the area and/or approaching the work site.
- Help people move to a safe place according to a prearranged escape plan should a bear approach a work site.
- Track bears while they remain near work sites or facilities.
- Determine when it is safe for workers to return to the site.

#### Deter Bears:

- Attempt to deter any bear approaching or threatening workers unable to reach safety.
- Protect crews as they escape to safe sites.
- Deter any bear approaching camp or areas of high human activity.

#### Defence of Life and Property:

- Kill a bear if no other method can prevent human injury or destruction of property.

## Northern Contaminated Sites Program - Bear Safety Training Requirements

### **Other Actions:**

- Report and record signs of bear activity, sightings and encounters in a Bear Log.
- Report all bear encounters to supervisor according to set protocol.
- Identify and report observed potential problem areas in and around camp and work sites to supervisor.
- Maintain firearms and deterrent launchers.
- Monitor and maintain all bear detection and deterrent systems in place on site.
- In the event that a bear is killed:
  - collect required samples (lower jaw and proof of sex),
  - preserve the hide and meat and
  - prepare these materials for shipping to the nearest wildlife office.

### **WORK ENVIRONMENT:**

Bear monitors must be highly alert for long periods of time in a constantly changing field environment. Changes in the level of bear hazards, light conditions, weather and terrain require different levels of attention and bear monitors must act diligently in all conditions.

### **KNOWLEDGE AND SKILLS REQUIRED:**

A bear monitor must have:

- Possession and Acquisition Licence
- St John's Ambulance standard first aid certificate.
- Bear Safety Training including Supplemental Field Worker Information (Table 3 or 4).
- Experience with 12 gauge shotgun and ammunition, including deterrent rounds.
- Good shooting skills and safe handling of firearms in field situations.
- Familiarity with communications systems available i.e. radios and satellite phones.

All candidates must demonstrate safe firearm handling and shooting skills through completion of the safe handling and live fire exercise as outlined in the Safe Handling and Live Fire Exercise section of the Firearm Safety Training table 5.

In addition, regional expertise and knowledge of the field area and local bear species and habitat are desirable.

The Northern Contaminated Sites Program will train suitable candidates who possess the necessary skills but have not yet had formal training in bear safety, firearm safety or communications systems.

**Cet amendement à demande de soumissions # 003 # EW699-151177 / A est porté à:**

- Déposez la visite du site et les Soumissionnaires ordre du jour de la Conférence
- Répondre aux demandes des soumissionnaires soulevées lors de la Conférence Les soumissionnaires et pendant la période d'invitation.
- Modifier sollicitation # EW699-151177 / A.

**1. Voir ci-joint la visite du site et les Soumissionnaires agenda Conférence.**

**2. Reportez-vous à Conditions supplémentaires, page 12, et:**

**INSERT:** SC03 Dommages-intérêts

**1. L'entrepreneur reconnaît que:**

1,1 conformément à l'annexe G - évaluation critéria, n ° 14 plan sous-traitant autochtone, les critères de soumission inclus dans la demande de soumissions et ce contrat inclus une demande d'engagements pour mener à bien le travail d'une manière qui répond aux objectifs des critères suivants:

1.2.1 L'évaluation technique des propositions comprendra l'attribution de points pour le plan de sous-traitance aux entreprises autochtones du soumissionnaire. On encourage les entrepreneurs à utiliser le plus possible les ressources du Nord pour réaliser les travaux prévus au contrat. Cela devrait se faire conformément à la Politique de gestion des sites contaminés d'AADNC, dont l'un des principes directeurs est le suivant : « Dans la mesure du possible, AADNC fera profiter sur le plan économique les Premières Nations, les Inuits et les peuples nordiques lors de la gestion et de l'élimination des sites contaminés. »

2. L'entrepreneur reconnaît et confirme qu'il a pris les engagements suivants dans sa soumission pour ce contrat (collectivement, le «Plan sous-traitant autochtone») tel que prévu au paragraphe 1 ci-dessus (à compléter au moment de l'attribution du contrat):

ENGAGEMENT points attribués VALEUR VALEUR  
2.1

**3. L'entrepreneur reconnaît que le «Plan sous-traitant autochtone»:**

3.1 sont engagements aux termes de ce contrat; et

3.2 que le «Plan sous-traitant autochtone" représente un pourcentage de la valeur totale du contrat initial égal au nombre de points attribués à l'engagement / la représentation au moment de l'évaluation et indiqué au paragraphe 2 ci-dessus dans la colonne «points attribués».

4. Sans préjudice des autres droits légaux ou équitables Sa Majesté peut avoir, si à tout moment pendant le contrat, l'entrepreneur ne respecte pas tout ou partie du «Plan sous-traitant autochtone", Sa Majesté a le droit à la compensation, de toute fonds de contrat en raison de l'entrepreneur, la ou les sommes applicable identifiés pour chaque «Plan sous-traitant autochtone» à l'alinéa 2.1.

**5. L'entrepreneur reconnaît en outre que:**

5,1 la somme au paragraphe 2.1 est un véritable pré-estimation des dommages arrivés à travers la négociation avec Sa Majesté. Ces négociations considérées comme les coûts financiers, administratifs et autres, y compris les coûts indirects, d'une telle violation; et

Solicitation No. - N° de l'invitation  
EW699-151177/A  
Client Ref. No. - N° de réf. du client  
PWGSC EW699-151177

Amd. No. - N° de la modif.  
003  
File No. - N° du dossier  
GMP-4-37136

Buyer ID - Id de l'acheteur  
gmp010  
CCC No./N° CCC - FMS No/ N° VME

5.2 L'entrepreneur reconnaît qu'il a eu des conseils juridiques dans toute la mesure jugée nécessaire par lui-même. En outre, l'entrepreneur reconnaît qu'il n'a pas agi sous la contrainte.

3. Reportez-vous à l'annexe G, les critères d'évaluation, et:

DELETE: dans son intégralité

INSERT:

13	<p>Change et portée gestion Engagement manifeste à faire connaître et d'obtenir l'approbation pour le travail supplémentaire requis (10)</p> <p>Fourniture d'un greffier du site. Démontrer comment la position sera de contrôler les coûts, les heures de piste individuels, gérer et suivre les heures d'équipement, les décaissements, les coûts de sous-traitance et des factures (10)</p> <p>Démontrer votre plan pour assurer tous les travaux requis est fait connaître à la DR, approuvé et facturé en temps opportun (20)</p>	/40
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## ORDRE DU JOUR

Sollicitation EW699-151177 / A  
Programme Frobisher puits de gaz Abandon  
Frobisher, NT  
Visite du site et de la Conférence des soumissionnaires  
2 décembre 2014

### participants:

AADNC - Emma Pike, Sam Kennedy, Tim Morton  
Stantec - Carlos Philipovsky, Ray McDonald  
TPSGC - Matthew McElwaine, Tammy Kozak  
Rowes Construction - Earle Dumas  
Feu Creek Resources Ltd. - David Ewen, Ed Roncin  
KFN - chef Roy Fabian, Ken Norm

Remarque: réunion est enregistrée pour aider à préparer les procès-verbaux qui seront affichés sur Buy & Sell comme une modification de l'invitation, mais la bande d'enregistrement ne fera pas partie des minutes officielles.

### 1.0 Remarques ouverture

1.1 Bienvenue et merci pour assister - se assurer que tous les participants connecter.  
1,2 Logistique - toilettes, sortie de secours

### 2.0 Introductions

2,1 introductions en tables rondes - Nom et nom de l'entreprise

### 3.0 Aperçu du projet

- 3,1 Emma Pike - AADNC donnera un contexte et l'historique du projet. Voir ci-joint AADNC Présentation.  
3,2 Matthew McElwaine donnera une vue d'ensemble du projet  
3,3 Ray MacDonald - Représentant ministériel - Exigences techniques de projet.

#### 4.0 Demande de proposition Aperçu

##### 4.1 Aperçu de base de la demande de proposition document.

La fois la partie technique et proposition de prix doivent être soumises au plus avant la date de clôture des soumissions.

Se il vous plaît noter: l'offre Adresse de réception et la date de clôture est sur la première page du document d'appel d'offres. Discutez mission d'erreur d'adresse sur le document d'origine.

Renforcer qu'il est important de lire plus attentivement les documents pour se assurer que toutes les exigences de la DP sont remplies.

Rappel: toutes les questions relatives à la demande doivent être soumises par écrit et adressées à moi. Email est très bien. Mon adresse e-mail peut être trouvé dans l'amendement n ° 1

Par Si04 demandes doivent être reçues au plus tard cinq jours calendaires avant la date de clôture des soumissions (10 décembre). Demandes de renseignements reçues après cette date ne peuvent pas être répondues.

Rappel: qu'une garantie de soumission tel que défini dans l'IG09 doit être soumis avec votre proposition au moment de la clôture des soumissions.

Toute question relative à la demande de soumissions.

5.0 Visite du site Fly-Over questions ne seront pas répondues lors de la tournée. Les soumissionnaires sont de sauver toutes les questions pour quand nous reprendrons après la tournée.

#### 6.0 Table ronde

Les soumissionnaires sont invités à faire parvenir des questions ou des améliorations supplémentaires à moi dans l'écriture. Les questions doivent être reçues au plus tard cinq jours avant la clôture des soumissions - Décembre 10. Questions et réponses seront prises en compte dans la modification résultant.

#### Référence CG1.14 (2008-05-12) Conventions et modifications

Le contrat représente la totalité et la seule entente entre les parties relativement à l'objet du contrat et remplace toute négociation, les communications et d'autres accords, écrite ou orale, concernant, sauf se ils sont intégrés par renvoi dans le contrat. Il n'y a pas les engagements, représentations, déclarations et conditions obligatoires pour les parties autres que celles contenues dans le contrat.

---

#### Questions et réponses

Q1. Quelle est la limite de poids pour le pont?

A1. Reportez-vous à l'annexe 8.

Q2. Où nous situons la «Méthode de l'annexe de paiement?»

A2. Reportez-vous à l'amendement # 002 - Q1.

Q3. Où pouvons-nous trouver le AADNC sites contaminés Politique de gestion (CSNP)?

A3. Le CSMP a été brièvement mentionné dans la présentation AADNC et peut être trouvé dans le détail:  
<http://www.aadnc-aandc.gc.ca/eng/1100100034643/1100100034644>

Q4. Référence Section 01 31 19, 1,9 réunions communautaires, préciser les exigences en matière de publicité.

A4. En termes de publicité d'une réunion de la communauté de Hay River, l'entrepreneur doit placer une annonce dans le Hay River Hub et NewsNorth (à la fois en vertu du Nord Nouvelles Services Ltd (NNSL), ainsi que la radio locale FM -Moose (ils diffusent de Yellowknife et Hay River). l'équipe du projet a aussi une liste de distribution électronique des parties prenantes qui sera partagé avec le soumissionnaire retenu.

Q5. Le temps est un problème, quand vous attendez-vous à passer un marché?

A5. La DP ferme 15th Décembre. Les évaluations techniques individuelles seront réalisées par l'équipe d'évaluation et une évaluation technique de consensus seront terminés. Ce est estimée à prendre entre une et deux semaines. L'évaluation financière sera ensuite complétée par TPSGC pour les offres répondant à la note de passage. L'évaluation financière et le reste de la procédure d'attribution du contrat auront entre une et deux semaines. Un prix est prévu à la fin de Décembre, mais les délais ci-dessus peut varier en fonction du nombre de soumissions reçues, etc.

Q6. Quelle forme de titre obligataire pouvons-nous soumettre?

A6. Reportez-vous à l'IG08 - Instructions générales R2710T - Services de construction - Exigences de sécurité de candidature. <https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/R/R2710T/14>.

Q7. Comment allez-vous assurer que les entrepreneurs suivent grâce à leur plan sous-traitant autochtone identifié dans leur offre?

A7. Canada référer à GI07 Liste des sous-traitants et les fournisseurs:

Nonobstant toute liste de sous-traitants que le soumissionnaire peut être tenu de déposer dans le cadre de l'offre, le soumissionnaire doit, dans les 48 heures suivant la réception d'un avis de le faire, présenter toutes les informations demandées dans l'avis y compris les noms des sous-traitants et fournisseurs pour la ou les parties des travaux énumérées. Ne pas le faire entraînera la disqualification de son offre.

En outre, le Canada insérer une clause de dommages-intérêts liquidés dans le contrat de DP et résultant.

Q8. Où pouvons-nous obtenir des informations supplémentaires pour répondre à l'exigence Si16 Santé et sécurité - Programme de sécurité des Territoires du Nord-Ouest / Nunavut et WSCC?

A8. Reportez-vous à <http://www.wcb.nt.ca/Pages/default.aspx>

Q9. Le soumissionnaire est responsable de la sécurité du site? Est-il nécessaire pour le contrôle d'accès par l'intermédiaire du site de ski doo ou le trafic de ski?

A9. Oui, tous les éléments d'accès au site sont la responsabilité du soumissionnaire.

Q10. Dans la section 33 99 99.01, sous la section 2.11 il ya un besoin d'un système BOP classe III. Compte tenu du coût supplémentaire important et compte tenu des niveaux les plus actuelles H2S mesurées pouvez-vous confirmer l'exigence d'une classe III BOP?

A10. Une catégorie II ou un système de classe III BOP est acceptable.

Q11. Quelles sont les exigences de sécurité pour l'accès et la sortie site?

A11. Il ya un besoin pour un accès secondaire / sortie, mais seulement pour les gens. Si l'itinéraire est traîné et une machine à neige peut sortir, alors que ce serait suffisant. Il ne est pas nécessaire pour l'accès secondaire / sortie pour l'équipement du point de vue de la sécurité. Ainsi # 7 a un faible débit et de la zone franche a été calculée à seulement 10m, donc si il y avait un coup sur, il ne durerait pas longtemps.

Q12. Dans la section 33 99 99.01, sous-section 2.8, il est une exigence pour une centrifugeuse. Compte tenu du coût supplémentaire important et compte tenu de la quantité de forage (petit champ de forage) de confirmer la nécessité d'une centrifugeuse?

A12. Une centrifugeuse est PAS nécessaire

Q12. Seront souches être un problème pour accéder aux sites?

Q13. Confirmation des conditions du site est la responsabilité du soumissionnaire / entrepreneur.

Q14. Où pouvons-nous prendre de l'eau pour la construction de routes d'hiver et combien pouvons-nous prendre / utilisation? Y at-il plus permissions requises?

A14. Utilisation de l'eau supérieure à 100 m3 / jour pour les opérations de pétrole et de gaz nécessite une licence de l'eau et est de la responsabilité de l'entrepreneur.

Q15. Un changement récent de la politique d'élimination des déchets indique que l'Alberta ne prendra pas des

déchets de forage de l'extérieur de la province. Où pouvons-nous prendre liquide, hydrocarbures récupérables et déchets non recouvrable de forage d'hydrocarbures?

A15 La couronne a récemment confirmé que KBL environnement et Newalta sont à la fois en mesure de disposer des déchets dangereux en Alberta TN-O. Newalta est en mesure d'accepter à la fois DOW (déchets dangereux des champs pétrolifères) et non-Dow déchets générés dans l'industrie du pétrole et du gaz des TN-O.

Q16 Est-ce que 3 boîtiers une exigence ou peut-il être facultatif?

A16 rang 3 boîtiers ne est PAS nécessaire. Matériau d'enveloppe adéquate est à la discrétion de l'entrepreneur et l'approbation du Représentant ministériel.

Q17. Que signifie pour CARD?

A17. Direction des polluants et d'assainissement - la Direction au sein d'Affaires autochtones et Développement du Nord Canada qui finance et dirige ce projet

Q18. Est un moniteur de la faune qualifiée requise sur chaque site de travail séparé? Combien de personnes sont nécessaires, et est-il 24/7?

A18 Le nombre et les exigences de surveillants de la faune dépendraient du risque et le niveau de l'activité de site.

Risques de la faune en hiver sont généralement considérés comme faible en raison de l'activité de la faune réduite pendant les mois d'hiver. Ces risques sont aussi généralement réduits que le niveau d'activité sur un site augmente à mesure que l'activité de bruit et de site un effet dissuasif. La construction d'accès et la location compensation peuvent exiger surveillance de la faune minime, mais que les activités d'abandon augmentent la surveillance exigences sont habituellement diminuer ou ne pas être nécessaire sauf se il ya des signes de la faune de problème ou une forte activité de la faune dans la région. Comme le temps se réchauffe activité de la faune peut augmenter. Activités d'été exigent un surveillant de la faune, un par équipe de travail isolé. Peu importe la saison, la sensibilisation de la faune est primordiale et des observations importantes doit être immédiatement signalé aux supérieurs et les autorités compétentes. (Article 1.28.2.4 des spécifications parle à cette exigence, mais la personne désignée a été conçu pour les opérations d'été seulement). On peut se référer au document ci-joint AADNC Ours formation sur la sécurité jointe à titre indicatif.

Q19. Y a-t-il un travail nécessaire pour les clôtures à mailles de chaîne existants?

A19 Non

Q20. Que faire si il ya des possibilités supplémentaires qui ne est pas couvert par la somme forfaitaire ou taux de PAW?

A20. Si la portée supplémentaire en dehors et en plus de l'œuvre déterminée ne est nécessaire, un processus de changement de commande sera suivie.

Q21. Combien de mètres de l'eau ° 7 ainsi?

A21. Confirmation des conditions du site est la responsabilité du soumissionnaire / entrepreneur.

Q22. L'entrepreneur responsable des dispositions pour accueillir le représentant du Ministère comme un bureau mobile?

A22 exigences sont indiquées dans les spécifications.

Q23. Y a-t-il une chaîne intérieure dans le puits n ° 7?

A23 Oui

Q24 Dans la section 33 99 99.01, sous-section 2.13, il ya une exigence pour un Autodriller. Compte tenu du coût supplémentaire important et le montant du forage peut vous se il vous plaît confirmer l'exigence d'un Autodriller?

A24 Un Autodriller est requis

Q25. Pouvons-nous offrir pas si nous ne avons pas participer à la visite du site et survol?

A25. Oui. La visite du site était facultative.

Solicitation No. - N° de l'invitation  
EW699-151177/A  
Client Ref. No. - N° de réf. du client  
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**Les autres termes et conditions restent les mêmes.**





Aboriginal Affairs and  
Northern Development Canada

Affaires autochtones et  
Développement du Nord Canada

# Frobisher Sour Gas Wells – Hay River, NT



November 2014 Bidders Conference  
Hay River, NT





# Contaminated Sites Program

- Manages abandoned federal contaminated sites which have health and safety and/or environmental concerns.
  - mostly private sector mining, oil and gas activities and government military activity (DEW line sites).

## Objectives:

- To reduce risks to human health, safety, and the environment
- To rationally prioritize and remediate contaminated sites
- To promote the social and economic benefits to aboriginal people, Inuit and other Northerners
- To develop innovative strategies
- To meet the spirit and intent of land claim agreements
- Implement a consistent, cost-effective and accountable program



# Devolution- What are we left with?

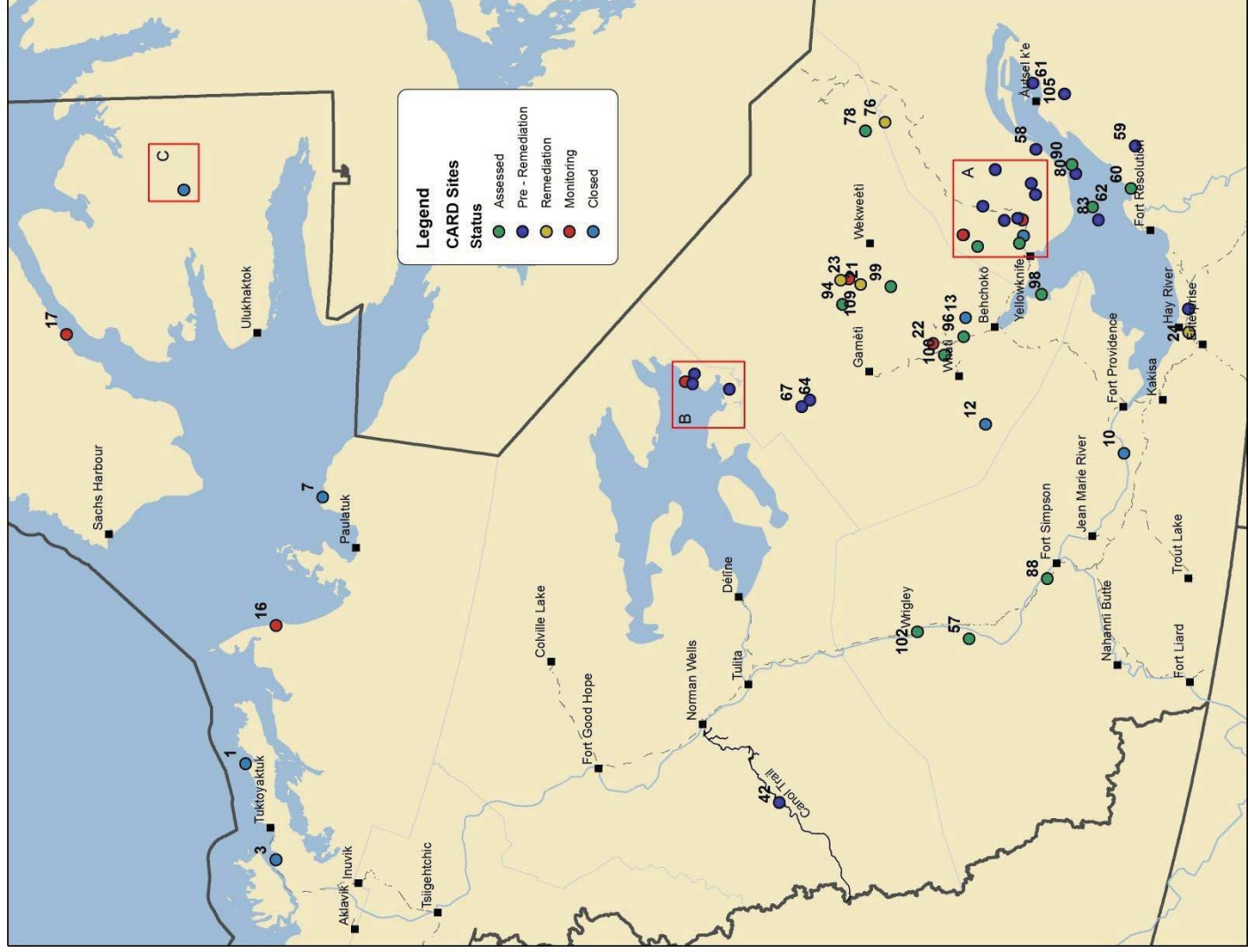
## Waste Sites - Ch. 6

Schedule 7 – Inventory of Sites:

**17** fully **remediated** sites transferred to GNWT  
(Part B – released sites)

**5 excepted** sites – require negotiation (Part C )

**~99** sites **excluded** listed in Part D – sites  
requiring remediation (linked to Schedule 4  
exclusions – Part 5 & 6 – sites requiring  
remediation) – 67% of sites part of existing  
projects







# FCSAP 10 Step Process Approach for Addressing Contaminated Sites

Step 1	Identify Suspect Sites	Identifies potentially contaminated sites based on activities (past or current) on or near the site (Site Reconnaissance).
Step 2	Historical Review	Assembles and reviews all historical information pertaining to the site. (Completion of a Phase I ESA)
Step 3	Initial Testing Program	Provides a preliminary characterization of contamination and site conditions. (Completion of a Phase II ESA and Screening Level Risk Assessment)
Step 4	Classify Contaminated Site Using the CCME National Classification System	Prioritizes the site for future investigations and/or remediation/risk-management actions. (Completion of NCS 1992, FCSAP score 2003 or NCSCS 2008)
Step 5	Detailed Testing Program	Focuses on specific areas of concern identified in Step 3 and provides further in-depth investigations and analysis. (Completion of a Phase III ESA delineation of Contaminants and Detailed Site Specific Risk Assessment)
Step 6	Reclassify the Site Using CCME National Classification System	Updates the ranking based on the results of the detailed investigations.
Step 7	Develop Remediation/Risk Management Strategy	Develops a site-specific plan to address contamination issues. (Development of a Remedial Action Plan)
Step 8	Implement Remediation/Risk Management Strategy	Implements the site-specific plan that addresses contamination issues.
Step 9	Confirmatory Sampling and Final Reporting	Verifies and documents the success of the remediation/risk-management strategy.
Step 10	Long-Term Monitoring	If required, ensures remediation and long-term risk-management goals are achieved.

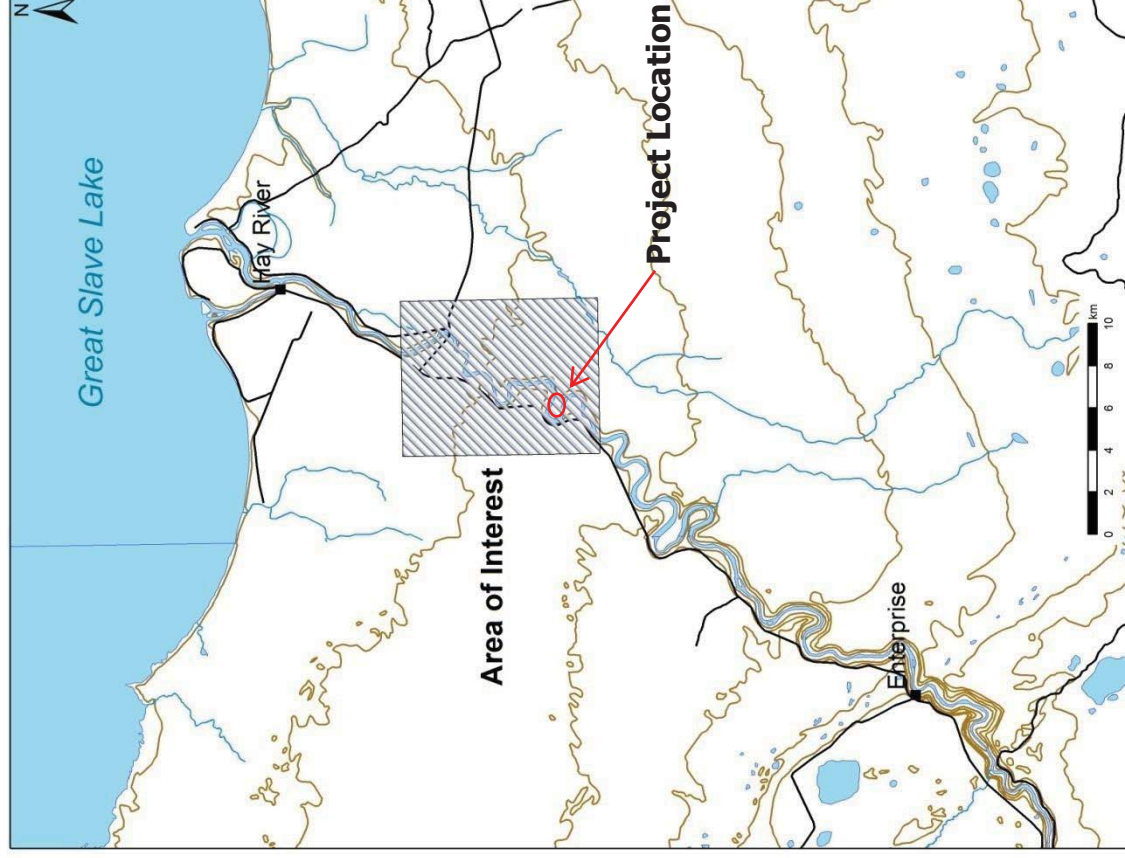
Note: The steps illustrate the complete process involved with contaminated sites. There will be instances where some of the steps may not be required.





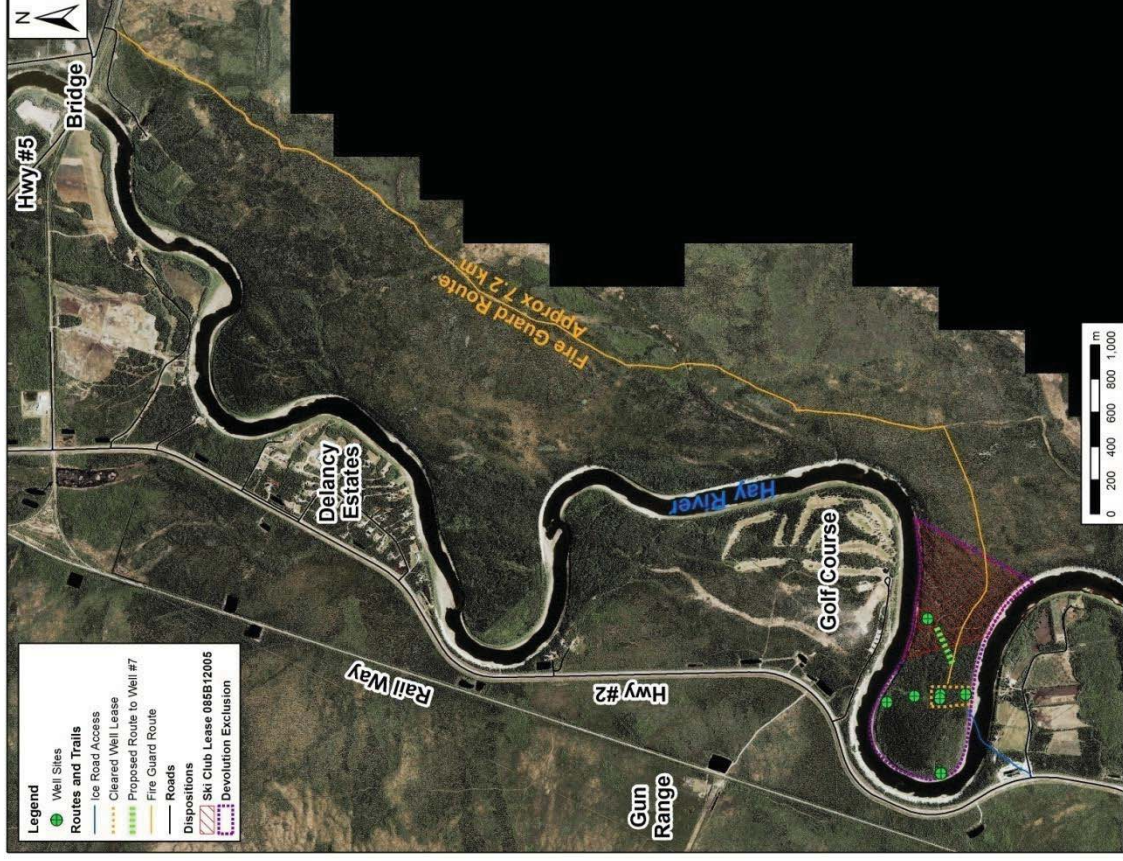
# Frobisher - Site Location

- Wells are ~10 km south of Hay River, on eastern shore of the Hay River
- Site is close to local residences, in the midst of the Hay River Ski Club Trails (Well #7) and across the river from the Hay River Golf Course
- Site is within the traditional land use area of a number of aboriginal groups (KFN most interested)





# Location continued...







**Legend**

- Well Sites
- Roads and Trails
- Ice Road Access
- Cleared Well Lease
- Proposed Route to Well #7
- Fire Guard Route
- Ski Club Trails
- Roads
- Dispositions
- Ski Club Lease 085B12005
- Devolution Exclusion

The map displays several labeled areas:

- LOT # 1061**: Located at the top left.
- HAY RIVER NO. 1 (L43)**: A road segment near the top center.
- HAY RIVER #7**, **#6**, **#5**, **#4**, **#3**, **#2**, **#1**: A series of points or small areas along a central horizontal corridor.
- Lot # 1099**, **Lot # 1011**, **Lot # 1012**, **Lot # 1013**, **Lot # 1054**, **Lot # 1057**, **Lot # 1056**, **Lot # 1055**, **Lot # 1053**, **Lot # 1052**, **Lot # 1051**, **Lot # 1050**, **Lot # 1049**, **Lot # 1048**, **Lot # 1047**, **Lot # 1046**, **Lot # 1045**, **Lot # 1044**, **Lot # 1043**, **Lot # 1042**, **Lot # 1041**, **Lot # 1040**, **Lot # 1039**, **Lot # 1038**, **Lot # 1037**, **Lot # 1036**, **Lot # 1035**, **Lot # 1034**, **Lot # 1033**, **Lot # 1032**, **Lot # 1031**, **Lot # 1030**, **Lot # 1029**, **Lot # 1028**, **Lot # 1027**, **Lot # 1026**, **Lot # 1025**, **Lot # 1024**, **Lot # 1023**, **Lot # 1022**, **Lot # 1021**, **Lot # 1020**, **Lot # 1019**, **Lot # 1018**, **Lot # 1017**, **Lot # 1016**, **Lot # 1015**, **Lot # 1014**, **Lot # 1013**, **Lot # 1012**, **Lot # 1011**, **Lot # 1010**, **Lot # 1009**, **Lot # 1008**, **Lot # 1007**, **Lot # 1006**, **Lot # 1005**, **Lot # 1004**, **Lot # 1003**, **Lot # 1002**, **Lot # 1001**, **Lot # 1000**, **Lot # 999**, **Lot # 998**, **Lot # 997**, **Lot # 996**, **Lot # 995**, **Lot # 994**, **Lot # 993**, **Lot # 992**, **Lot # 991**, **Lot # 990**, **Lot # 989**, **Lot # 988**, **Lot # 987**, **Lot # 986**, **Lot # 985**, **Lot # 984**, **Lot # 983**, **Lot # 982**, **Lot # 981**, **Lot # 980**, **Lot # 979**, **Lot # 978**, **Lot # 977**, **Lot # 976**, **Lot # 975**, **Lot # 974**, **Lot # 973**, **Lot # 972**, **Lot # 971**, **Lot # 970**, **Lot # 969**, **Lot # 968**, **Lot # 967**, **Lot # 966**, **Lot # 965**, **Lot # 964**, **Lot # 963**, **Lot # 962**, **Lot # 961**, **Lot # 960**, **Lot # 959**, **Lot # 958**, **Lot # 957**, **Lot # 956**, **Lot # 955**, **Lot # 954**, **Lot # 953**, **Lot # 952**, **Lot # 951**, **Lot # 950**, **Lot # 949**, **Lot # 948**, **Lot # 947**, **Lot # 946**, **Lot # 945**, **Lot # 944**, **Lot # 943**, **Lot # 942**, **Lot # 941**, **Lot # 940**, **Lot # 939**, **Lot # 938**, **Lot # 937**, **Lot # 936**, **Lot # 935**, **Lot # 934**, **Lot # 933**, **Lot # 932**, **Lot # 931**, **Lot # 930**, **Lot # 929**, **Lot # 928**, **Lot # 927**, **Lot # 926**, **Lot # 925**, **Lot # 924**, **Lot # 923**, **Lot # 922**, **Lot # 921**, **Lot # 920**, **Lot # 919**, **Lot # 918**, **Lot # 917**, **Lot # 916**, **Lot # 915**, **Lot # 914**, **Lot # 913**, **Lot # 912**, **Lot # 911**, **Lot # 910**, **Lot # 909**, **Lot # 908**, **Lot # 907**, **Lot # 906**, **Lot # 905**, **Lot # 904**, **Lot # 903**, **Lot # 902**, **Lot # 901**, **Lot # 900**, **Lot # 899**, **Lot # 898**, **Lot # 897**, **Lot # 896**, **Lot # 895**, **Lot # 894**, **Lot # 893**, **Lot # 892**, **Lot # 891**, **Lot # 890**, **Lot # 889**, **Lot # 888**, **Lot # 887**, **Lot # 886**, **Lot # 885**, **Lot # 884**, **Lot # 883**, **Lot # 882**, **Lot # 881**, **Lot # 880**, **Lot # 879**, **Lot # 878**, **Lot # 877**, **Lot # 876**, **Lot # 875**, **Lot # 874**, **Lot # 873**, **Lot # 872**, **Lot # 871**, **Lot # 870**, **Lot # 869**, **Lot # 868**, **Lot # 867**, **Lot # 866**, **Lot # 865**, **Lot # 864**, **Lot # 863**, **Lot # 862**, **Lot # 861**, **Lot # 860**, **Lot # 859**, **Lot # 858**, **Lot # 857**, **Lot # 856**, **Lot # 855**, **Lot # 854**, **Lot # 853**, **Lot # 852**, **Lot # 851**, **Lot # 850**, **Lot # 849**, **Lot # 848**, **Lot # 847**, **Lot # 846**, **Lot # 845**, **Lot # 844**, **Lot # 843**, **Lot # 842**, **Lot # 841**, **Lot # 840**, **Lot # 839**, **Lot # 838**, **Lot # 837**, **Lot # 836**, **Lot # 835**, **Lot # 834**, **Lot # 833**, **Lot # 832**, **Lot # 831**, **Lot # 830**, **Lot # 829**, **Lot # 828**, **Lot # 827**, **Lot # 826**, **Lot # 825**, **Lot # 824**, **Lot # 823**, **Lot # 822**, **Lot # 821**, **Lot # 820**, **Lot # 819**, **Lot # 818**, **Lot # 817**, **Lot # 816**, **Lot # 815**, **Lot # 814**, **Lot # 813**, **Lot # 812**, **Lot # 811**, **Lot # 810**, **Lot # 809**, **Lot # 808**, **Lot # 807**, **Lot # 806**, **Lot # 805**, **Lot # 804**, **Lot # 803**, **Lot # 802**, **Lot # 801**, **Lot # 800**, **Lot # 799**, **Lot # 798**, **Lot # 797**, **Lot # 796**, **Lot # 795**, **Lot # 794**, **Lot # 793**, **Lot # 792**, **Lot # 791**, **Lot # 790**, **Lot # 789**, **Lot # 788**, **Lot # 787**, **Lot # 786**, **Lot # 785**, **Lot # 784**, **Lot # 783**, **Lot # 782**, **Lot # 781**, **Lot # 780**, **Lot # 779**, **Lot # 778**, **Lot # 777**, **Lot # 776**, **Lot # 775**, **Lot # 774**, **Lot # 773**, **Lot # 772**, **Lot # 771**, **Lot # 770**, **Lot # 769**, **Lot # 768**, **Lot # 767**, **Lot # 766**, **Lot # 765**, **Lot # 764**, **Lot # 763**, **Lot # 762**, **Lot # 761**, **Lot # 760**, **Lot # 759**, **Lot # 758**, **Lot # 757**, **Lot # 756**, **Lot # 755**, **Lot # 754**, **Lot # 753**, **Lot # 752**, **Lot # 751**







# Frobisher Wells – History

- 1922 & continued 1946/47 – 7 delineation wells were drilled
- 1947 – Drilling ceased and the wells abandoned due to the harmful effects of H<sub>2</sub>S gas on the drilling crew (estimated H<sub>2</sub>S ~ 20 to 200 ppm).
- 1970's - Well #6 was re-entered and abandoned (no documentation)
- 2004/5 – NEB/AANDC inspection confirmed 3 gas wells in the Hay River area were found to be leaking trace amounts of H<sub>2</sub>S gas or have the potential to leak H<sub>2</sub>S gas.





# Responsibility...

- A search to find the rightful successors to the former Frobisher Exploration Company was unsuccessful.
- Wells are located on Crown Lands in the Northwest Territories where Aboriginal Affairs and Northern Development Canada (AANDC) is the land manager and oil & gas rights manager.
- The National Energy Board (NEB) issued a letter stating that AANDC was responsible for the appropriate abandonment of the “orphan” wells.





# Work completed to date

- 2011 – Abandonment Program - Wells #4, #5 and #5b were re-entered resulting in the abandonment of Well #4. Wells #5, and #5b continued to flow low volumes of sweet gas.
- 2013 - Well #4 was cut and capped.
- 2013 & 2014 investigations found:
  - Well #7 contained 8% H<sub>2</sub>S with a corroded well casing. An H<sub>2</sub>S sensor was installed and an attempt at flaring resulted in a pressure bled off to zero
  - Wells #6 and #8 were found to have no pressure; gas migration tests were negative.
  - Well #1 was located and found to be properly abandoned.







# Frobisher Wells – Monitoring

- Installed real time H<sub>2</sub>S monitor to ensure public safety and address public concerns – none detected since installation





# Regulatory Considerations

- Wells #5, #5b and #7 do not meet the current suspension requirements as per the Alberta EUB Directive 13.
- There are currently no NWT suspension regulations in place to address these wells. As such the wells will be abandoned according to the Alberta policies.

There are two land use jurisdictions:

1. Access to the wells is through GNWT land, and therefore enforced by local GNWT inspectors
2. The wells and ski club lease are on federal AANDC lands, and therefore enforced by AANDC inspector





# Regulatory Status - MVLWB

Mackenzie Valley Land and Water Board Land Use Permit is in place – MV2014X0020. Considerations:

- Must meet all LUP conditions (note March 31<sup>st</sup> breakup defined)
- Spill Contingency Plan outstanding - AANDC is currently developing a general plan for submission and approval, then can update contact list once awarded. Expect approval end of January.
- updated List of Equipment and Fuel Supply/Storage needs to be submitted (no formal approval required)
- Note: MVLWB approvals required prior to access construction, NEB approvals required prior to actual spudding





# Regulatory Status - NEB

Operations Authorization – approved contingent upon additional submissions:

1. Safety Plan - in accordance with Section 8 of COGDPR. (Note: requires approval from the Chief Conservation Officer (CCO)).
2. Environmental Protection Plan (EPP) as per Section 9 of the COGDPR (Note: requires approval from the CCO), including Contingency Plan as per subsection 6(j) of the COGDPR (Note: no approval required)
3. Declaration of Owner of the equipment – fit for purpose, personnel are qualified and competent
4. Service Rig Certificates - as per section 5.12 of COGOA, including: 1) the Canadian Association of Oilwell Drilling Contractors (CAODC) rig certificate(s), and (2) third party inspection certificates for any pressure vessels.

ACWs – have all been submitted and reviewed based on specs; no IRs, but approval is tied to OA approval







# Frobisher Wells – Local Opportunities

*CARD's goal is to incorporate and promote aboriginal involvement throughout the duration of the project where appropriate*

- 2010 – CARD funded a Safety Training Program – Nearly 34 members of the KFN received 50+ individual hrs of Safety training (H2S Alive, WHMIS, First Aid, Chainsaw Operation, Ground Disturbance); 2010/2011 Remediation Job Shadow.
- 2014 – CARD funded H2S Alive training for approximately 20 KFN members, and supported an Inspection Job Shadow
- CARD encourages the recruitment and use of sub-contactors/suppliers from within the area of the contract but appreciate that due to the highly specialized nature of the work and higher level of health and safety risks associated with gas wells, employment opportunities for local labourers are limited



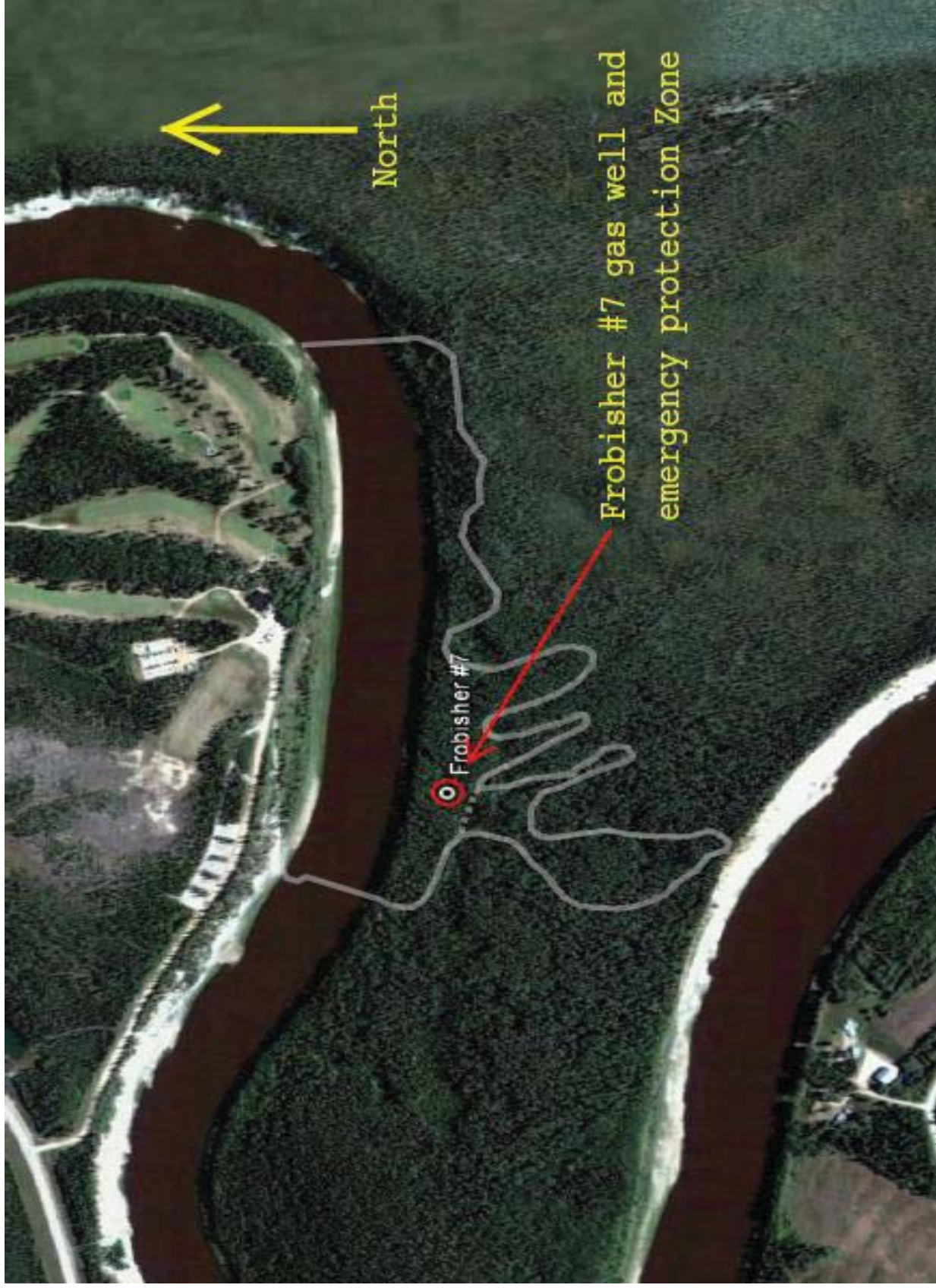




# What's the tentative schedule?

- Contract Award – Dec/Jan 2014
- Community Meeting to Introduce Contractor – January/February 2014
- Regulatory approvals – January 2015
- Access Route Construction and Mobilization – February 2015
- Construction/Well Abandonment Program – February/March 2015
- Follow-Up Gas Testing to Confirm Success & Well Cut & Cap – Summer 2015
- Project Update Community Meeting – Summer 2015









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# Frobisher #1







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# Frobisher #4





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# Frobisher #5





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# Frobisher #5B







Aboriginal  
Northern



The picture shows cut off casing at two depths from well #5B. The casing on the left is original 114.3 mm outer casing and 88.9 mm inner casing which were below-ground. The casing on the right is from the same well but above ground and exposed to weathering. Note the reduction in thickness is totally on the outside of the casing. There is no reduction to the internal diameter. Also this well had developed a pin hole and was starting to leak H<sub>2</sub>S when it was excavated in 2011.



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# Frobisher #6







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# Frobisher #7





# Frobisher #8

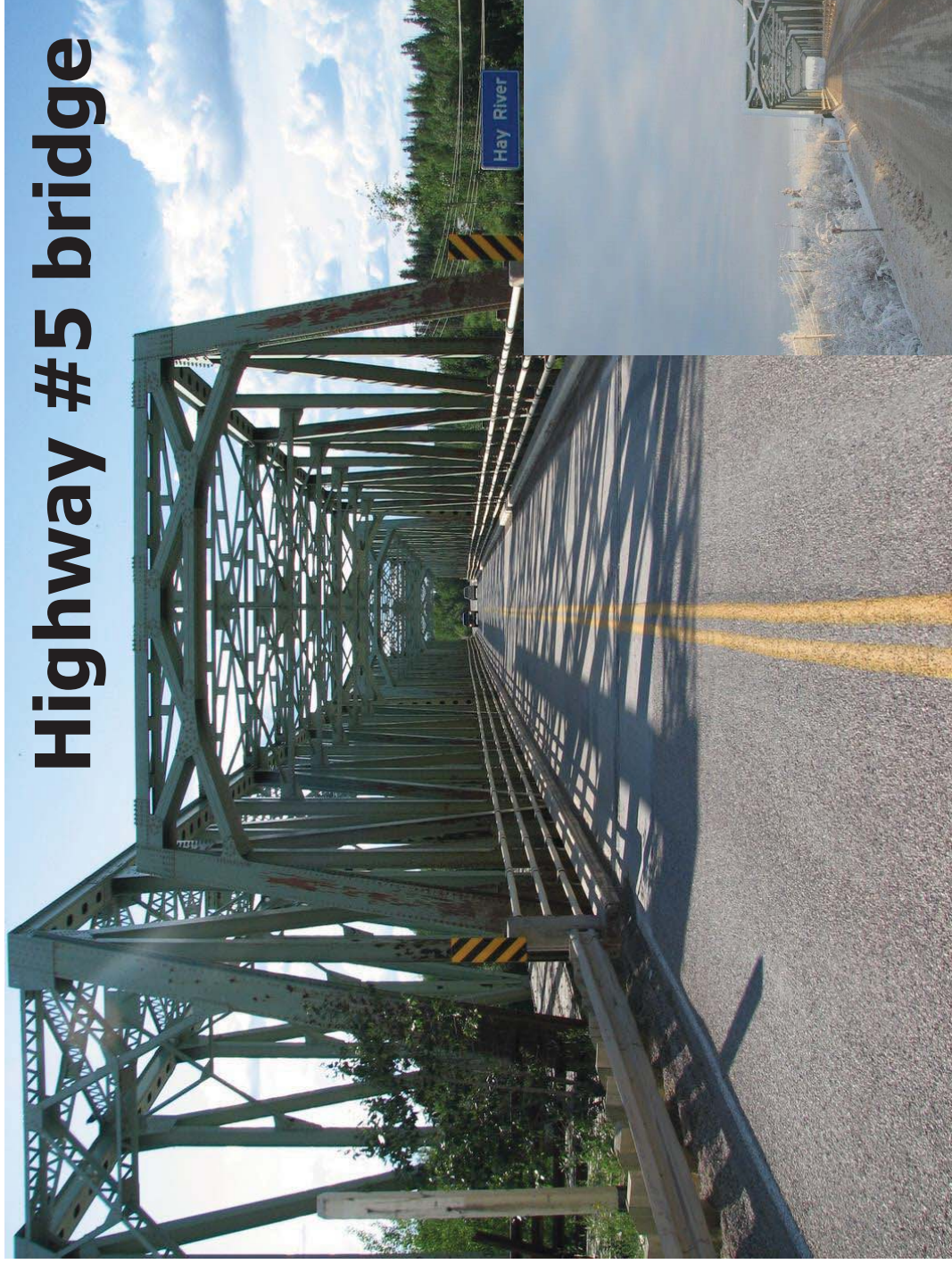






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# Highway #5 bridge

