Revised Spill Contingency Plan

Cambridge Bay
Apron and Fire Training Area Land Treatment Units

Prepared by
Transport Canada

July 2018

RDIMS # 14156438

Table of Contents

Cambridge Bay Land Treatment Unit
Spill Contingency Plan

Introduction

This spill contingency plan has been developed based on the Nunavut Water Board License requirements, Section H, for the Land Treatment Units (LTUs) at the Cambridge Bay Airport, Nunavut. The spill response plan has been developed based on the following documents and guidelines and will accompany the Health and Safety Plan as a working document on site at all times:

1. Environmental Protection Act, Spill Contingency Planning and Reporting Regulations R-068-93, Government of Northwest Territories, 1990.
2. Contingency Planning and Spill Reporting in Nunavut, A Guide to the New Regulations
3. NT-NU Spill Report Form

There is no storage of any petroleum products or hazardous materials at this site. The Spill Contingency Plan focuses on heavy equipment working at the site and/or equipment used during tilling/fertilizing and maintaining the site. Heavy equipment may include a backhoe and dump trucks. Heavy equipment operators are required to have their equipment properly maintained without any leaks. No refuelling of equipment is allowed on site. Operators are required to have 1 (one) 50 gallon spill kit with them at all times while on site. Operators will also have the spill plan containing contacts and procedures for emergencies such as hospitals, fire department, police and territorial governmental department; environmental spills **24-hour reporting phone number (867) 920-8130**. All spills are required to be reported regardless of volume to the Spill Inspector at (867) 975-4295.

1) Project Details

a. Company Details

Transport Canada applied for a water licence to the Nunavut Water Board to operate the LTU at the Cambridge Bay Airport, Nunavut. Contact information is as follows:

Jackie Barker, Environmental Officer
344 Edmonton Street,
Winnipeg, Manitoba R3B 2L4
(204) 983-4042
jackie.barker@tc.gc.ca

24-Hour Spill Reporting:	(867) 920-8130
Ambulance:	(867) 979-4422
Fire Department:	(867) 979-4422
Hospital Emergency Room:	(867) 979-4422
Qikiqtani General Hospital:	(867) 975-8600
Police Department (RCMP):	(867) 979-1111

b. Effective Date of Plan

Effective date for this spill contingency plan is May 17, 2018.

c. Last Revisions to Plan

Last revision to the spill contingency plan was March 6, 2012

d. Distribution of Plan

The plan was submitted to NWB for distribution, review and comments.

e. Purpose and Scope of Plan

Transport Canada constructed two LTUs to remediate soil from the decommissioned Fire Training Area (FTA) and Apron excavation. The purpose of this plan is to outline response actions for potential spills of appropriate sizes. The plan identifies key responsibilities in the event of a spill, as well as equipment and additional options available to respond to a spill. As previously outlined, no fuel storage tanks and hazardous materials are stored on site. No refuelling equipment is allowed on site. The scope of the plan, therefore, addresses the equipment on site potentially releasing fuel. This includes a backhoe

and dump truck. The potential of a piece of equipment tipping over would be the source of a fuel spill.

f. Environmental Policy

As a Federal Department, Transport Canada must adhere to all federal legislation and territorial requirements.

g. Site Description

Prior to July 1, 1995 Cambridge Bay Airport was owned by the Government of Canada and operated by the Quebec Region of the Department of Transport. From July 1, 1995 until April 1, 1999 the airport was owned by the Government of Northwest Territories (GNWT) and operated by the Arctic Airports Division of the Department of Transportation. Since April 1, 1999 the airport has been owned by the Government of Nunavut and operated by the Nunavut Airports Division of the Nunavut Department of Community Government, Housing and Transportation. As a condition of the Arctic A Airport transfer agreement (July 1995) between Transport Canada and GNWT (and subsequent transfer to the Government of Nunavut), Transport Canada must remediate the environmental issues identified prior to the airport transfer.

In 2013, hydrocarbon impacted soil was excavated from the Apron area at the Cambridge Bay Airport and placed in an engineered Land Treatment Unit (LTU) on-site. In 2014, hydrocarbon impacted soil was excavated from the former Fire Training Area (FTA) at the Cambridge Bay Airport and placed in an additional engineered Land Treatment Unit (LTU) on-site. Additionally in 2014, during construction of the FTA LTU, a buried drum cache near the former FTA area was discovered. Soils from this drum cache were excavated and placed into the Apron LTU. The Apron LTU contains approximately 4,000 m^3 of soil and the FTA LTU contains approximately 4,500 m^3 of soil.

The LTUs are located at the Cambridge Bay Airport, southwest of the northwest end of the runway. The LTUs are located in a developed area at the Cambridge Bay Airport. Therefore, they do not impact communities, traditional use areas (hunting and trapping camps), sensitive areas, parks, game preserves, and resource harvesting areas, fish spawning areas, waterfowl habitat, animal migration routes, beaches, archaeological and historic sites, public or private water supplies. The area surrounding the airport is flat lying close to the roadside, with topography then beginning to drop off quite steeply (+/- 10 m drop) towards the shoreline and West Arm of Cambridge Bay. Please see Annex I for location/contour maps.

Since there is potential for PFAS contamination to be present at Firefighter Training Areas, such as at Cambridge Bay Airport, where aqueous film forming foams (AFFF) for firefighting training were used, Transport Canada sampled the soils and sump water of each LTU for the presence PFAS substances. The analytical results confirmed the presence of PFAS in both LTUs. Currently, there are no viable remediation technologies to treat PFAS impacted soils. Therefore, the LTUs will need to be maintained and managed until a suitable treatment technology is available to remediate the impacted soils. Active treatment of hydrocarbons has been suspended. On-going water management is required to ensure that surface water continues to be contained within the LTU, the integrity of the berms are maintained, and conditions of the NWB license are met. Water management will include yearly tilling of soils in the LTUs to increase water capacity and pumping of water from sumps over tilled soil (as needed). Transport Canada is currently forecasting to maintain and manage the LTUs until 2028 or until a suitable PFAS remediation technology can be implemented.

h. List of Hazardous Material on Site

No hazardous materials are stored on site.

i. Existing Preventative Measures (Secondary Containment /Fuel Handling)

No hazardous materials are on site and no fuel storage tanks on site. In addition, no refuelling is allowed on site. Therefore, no secondary containment and fuel handling preventative measures are required.

j. Additional Copies – How to Obtain

Copies of the plan are kept on-site with the contractor/consultant and the Transport Canada Project Officer.

Transport Canada contact:

Jackie Barker, Environmental Officer
Transport Canada
Prairie and Northern Region
3-344 Edmonton Street
Winnipeg, Manitoba R3P 2G5
(204) 983-4042
Jackie.barker@tc.gc.ca

k. Process for Response to Media

Media representatives can contact Transport Canada's media relations team during regular working hours:

By telephone: 1-613-993-0055

By e-mail: media@tc.gc.ca

2) Action Plan

Potential Spill Size/Impacts/Procedures/Reporting/Restoration

Potential spill sizes would likely not exceed 50 gallons of diesel fuel. This is based on the size of fuel tanks in a dump truck or a rubber tire backhoe. The potential of a piece of equipment tipping over would be the source of fuel spill. Should this occur in one of the LTUs, the spill would be contained. If the spill occurs outside the LTU, the area would be small due to the limited amount of fuel stored in the equipment.

In the event of a spill, the following procedures should be considered:

a. First consider and then remove or minimize any hazards to human life, health, safety or the environment.
b. Take necessary steps to initially contain or prevent the spread of the spill.
c. Try to identify and stop the source of the spill or leak.
d. Collect liquids through the use of equipment such as absorbent pads.

e. Immediately, collect and transport any contaminated soil resulting from the spill to the LTU for treatment.
f. Send for help if required.
g. Complete the NT-NU Spill Report Form **(See Annex I)**.
h. Complete the collection and disposal of contaminated materials as per direction from the regulatory agencies and applicable regulations.

Spill reporting consists of completing the attached NT-NU Spill Report form and submitting it to the Government of Nunavut. Spill reporting will be the responsibility of the contractor working on site.

Transport Canada installed monitoring wells to identify if there is any contamination leaking from the facility. The wells are tested once per year at a minimum. If fuel is identified in a well, the following steps will be implemented:

i) Sample the well and identify the contamination from a certified lab
ii) Identify the location where the potential contamination is originating
iii) The likely location will be from the LTU, therefore, limit the search to the area nearest to the monitoring well
iv) Sample soil outside the facility to identify the direction of the source of contamination
v) Inspect the liner for any rips and tears
vi) Remove the contaminated soil from the LTU up gradient from the well. The soil can be placed further back in the LTU or if required place in the adjacent LTU. Inspect the liner for any rips and tears. Continue until the source can be identified. In the event of a tear in the liner, a proper weld/patch will be completed according to the manufacture specifications.
vii) If contaminated soil is identified outside the facility, remove and place into the LTU and backfill the excavation with clean fill material.
viii) Continue to sample monitoring wells 2-3 times per year to ensure the source of contamination has been eliminated

If the sump area remains full of water after soil tilling and water recirculation over tilled soils, sump water may have to be removed as follows:

i) Collect water samples and send to a certified lab to ensure it meets the discharge requirements as per the NWB water license.
ii) If water meets discharge requirements, it may be pumped to the ground outside of the LTU.
ii) If the water does not meet the required discharge levels, the water will be pumped into 205L drums and drums will be stored within the LTU until they can be shipped south for disposal at a certified facility.

3) Resource Inventory

A 50-gallon spill kit will be on site at a designated location adjacent to the work area when the contractor is on-site with heavy equipment. The 50 – gallon universal sorbent spill kit is an appropriate size due to the volumes of fuel in the equipment. The contents of the spill kit should include:

a. 10 socks
b. 100 pads
c. 8 pillows
d. 1 caution tape
e. 2 pairs nitrile gloves
f. 2 pairs safety goggles
g. 2 protective coveralls
h. 10 disposable bags
i. 1 instruction book

In addition, earth moving equipment located at the site may be required to clean the small spill such as:

1) Small backhoe
2) Dump truck

4) Training Program

All individuals entering the site are required to participate in an orientation session. The session includes responding to a spill and the steps involved including proper use of the spill kit, contact information and how to fill out the proper spill report documents. During the session, all locations of the spill plan and spill kits are provided and a copy of the spill plan will remain with the contractor and operators. All contractors are required to have basic first aid training as well as WHIMS training prior to working on site.

ANNEX I

NT-NU Spill Report
Contour Location Map
Site Drawings

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND
OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE
Tel: (867) 920-8130 • Fax: (867) 873-6924 • Email: spills@gov.nt.ca

REPORT LINE USE ONLY

A	Report Date:	Report Time:	☐ Original Spill Report OR ☐ Update # _____ to the Original Spill Report	**Report Number:**
B	Occurrence Date:	Occurrence Time:		
C	Land Use Permit Number (if applicable):		Water Licence Number (if applicable):	
D	Geographic Place Name or Distance and Direction from the Named Location:		Region: ☐ NT ☐ Nunavut ☐ Adjacent Jurisdiction or Ocean	
E	Latitude: _____ Degrees _____ Minutes _____ Seconds		Longitude: _____ Degrees _____ Minutes _____ Seconds	
F	Responsible Party or Vessel Name:		Responsible Party Address or Office Location:	
G	Any Contractor Involved:		Contractor Address or Office Location:	
H	Product Spilled: ☐ Potential Spill	Quantity in Litres, Kilograms or Cubic Metres:	U.N. Number:	
I	Spill Source:	Spill Cause:	Area of Contamination in Square Metres:	
J	Factors Affecting Spill or Recovery:	Describe Any Assistance Required:	Hazards to Persons, Property or Environment:	
K	Additional Information, Comments, Actions Proposed or Taken to Contain, Recover or Dispose of Spilled Product and Contaminated Materials:			

L	Reported to Spill Line by:	Position:	Employer:	Location Calling From:	Telephone:
M	Any Alternate Contact:	Position:	Employer:	Alternate Contact Location:	Alternate Telephone:

REPORT LINE USE ONLY

N	Received at Spill Line by:	Position:	Employer:	Location Called:	Report Line Number:

Lead Agency: ☐ EC ☐ CCG/TCMSS ☐ GNWT ☐ GN ☐ ILA ☐ AANDC ☐ NEB ☐ Other: _____

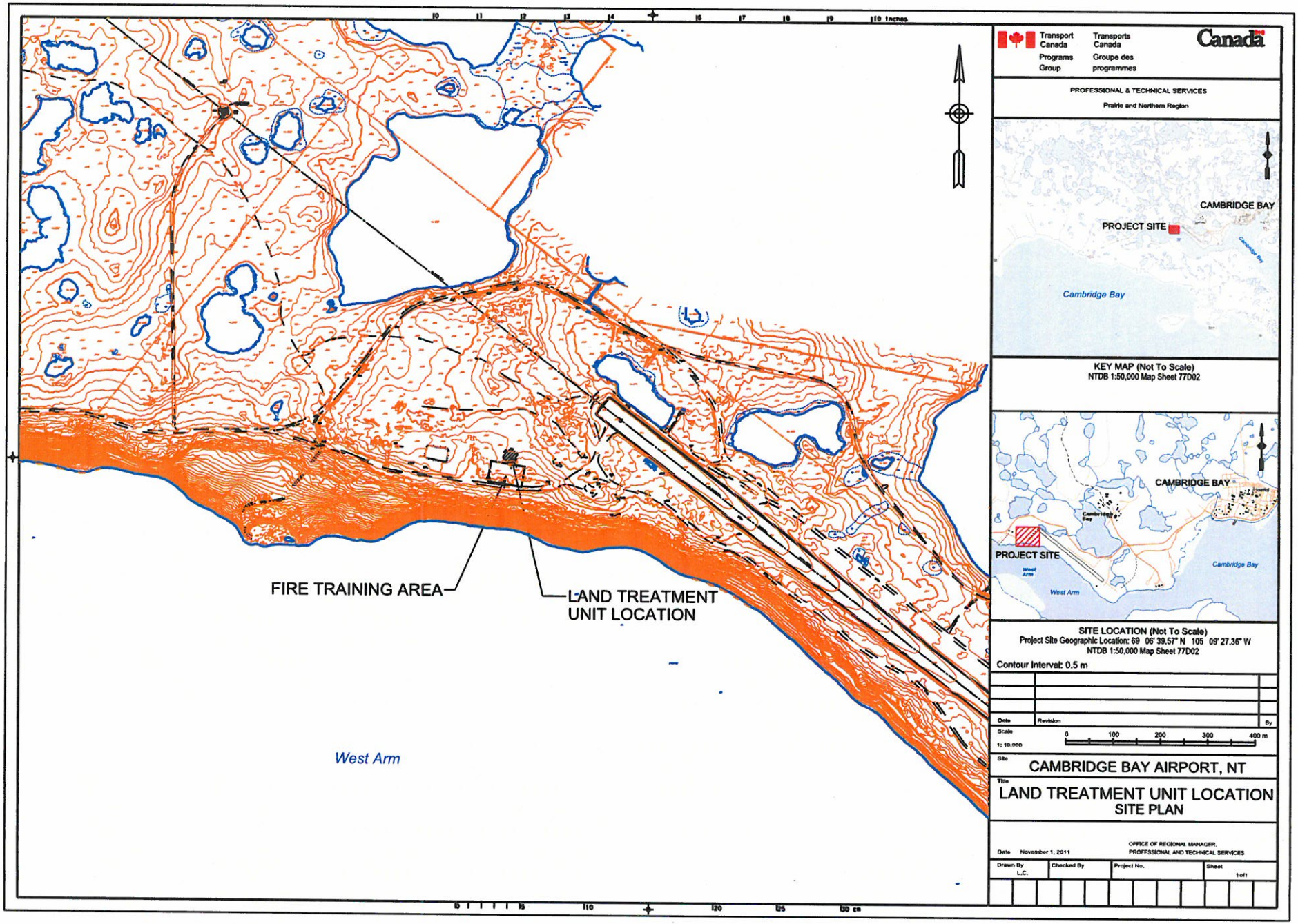
Significance: ☐ Minor ☐ Major ☐ Unknown

File Status: ☐ Open ☐ Closed

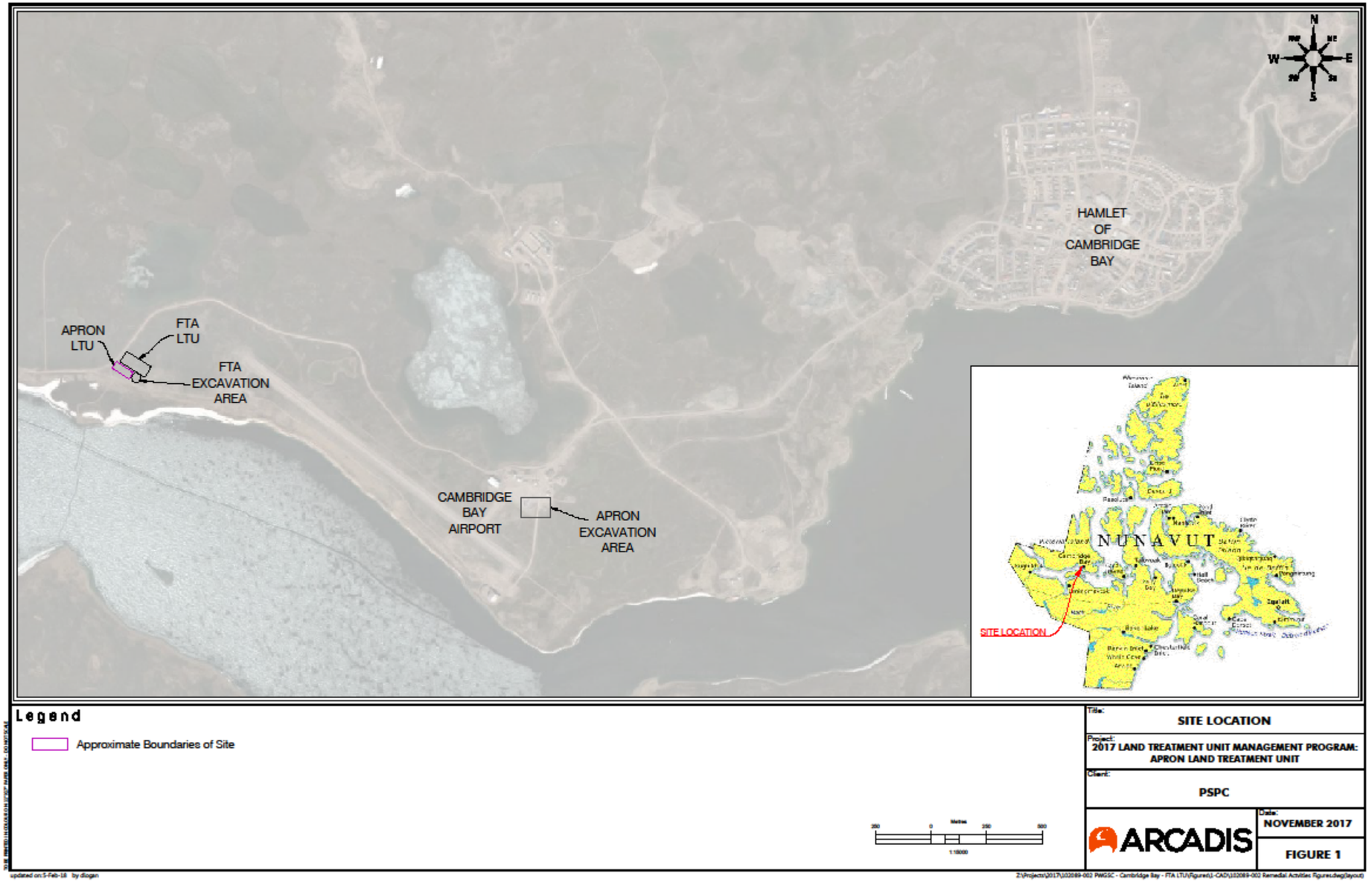
Agency:	Contact Name:	Contact Time:	Remarks:
Lead Agency:			
First Support Agency:			
Second Support Agency:			
Third Support Agency:			

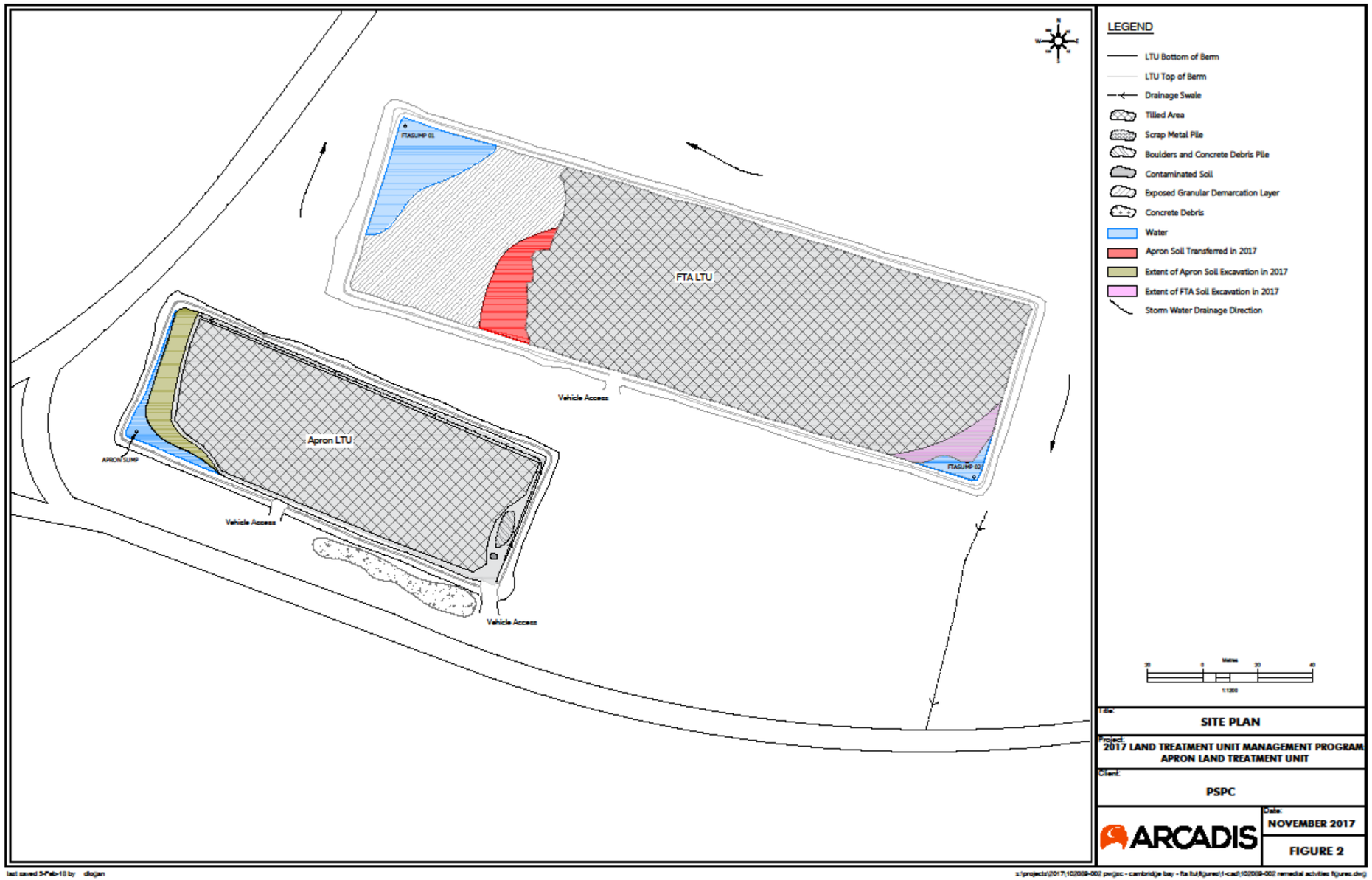
http://www.enr.gov.nt.ca/sites/enr/files/resources/128-spill_report_form_e_revised-fillable.pdf

Contour Location Map


FIRE TRAINING AREA
LAND TREATMENT UNIT LOCATION
West Arm
Transport Canada
Transports Canada
Programs Group
Groupe des programmes
Canada
PROFESSIONAL & TECHNICAL SERVICES
Prairie and Northern Region
CAMBRIDGE BAY
PROJECT SITE
Cambridge Bay
KEY MAP (Not To Scale)
NTDB 1:50,000 Map Sheet 77D02
CAMBRIDGE BAY
PROJECT SITE
Cambridge Bay
West Arm
SITE LOCATION (Not To Scale)
Project Site Geographic Location: 69 06' 39.57" N 105 09' 27.36" W
NTDB 1:50,000 Map Sheet 77D02
Contour Interval: 0.5 m
Date
Revision
By
Scale
1: 10,000
0 100 200 300 400 m
Site
CAMBRIDGE BAY AIRPORT, NT
Title
LAND TREATMENT UNIT LOCATION
SITE PLAN
Date November 1, 2011
OFFICE OF REGIONAL MANAGER,
PROFESSIONAL AND TECHNICAL SERVICES
Drawn By L.C.
Checked By
Project No.
Sheet 1 of 1

SITE DRAWINGS


N
NW
NE
W
E
SW
SE
S
HAMLET
OF
CAMBRIDGE
BAY
APRON
LTU
FTA
LTU
FTA
EXCAVATION
AREA
CAMBRIDGE
BAY
AIRPORT
APRON
EXCAVATION
AREA
NUNAVUT
SITE LOCATION
Legend
Approximate Boundaries of Site
Metres
1:15000
Title:
SITE LOCATION
Project:
2017 LAND TREATMENT UNIT MANAGEMENT PROGRAM:
APRON LAND TREATMENT UNIT
Client:
PSPC
ARCADIS
Date:
NOVEMBER 2017
FIGURE 1


FTASUMP 01
FTA LTU
Vehicle Access
Apron LTU
APRON SUMP
Vehicle Access
Vehicle Access
FTASUMP 02
LEGEND
LTU Bottom of Berm
LTU Top of Berm
Drainage Swale
Tilled Area
Scrap Metal Pile
Boulders and Concrete Debris Pile
Contaminated Soil
Exposed Granular Demarcation Layer
Concrete Debris
Water
Apron Soil Transferred in 2017
Extent of Apron Soil Excavation in 2017
Extent of FTA Soil Excavation in 2017
Storm Water Drainage Direction
Metres
1:1200
Title:
SITE PLAN
Project:
2017 LAND TREATMENT UNIT MANAGEMENT PROGRAM
APRON LAND TREATMENT UNIT
Client:
PSPC
ARCADIS
Date:
NOVEMBER 2017
FIGURE 2