

FSC File: 2005-2150

04, March, 2009

Phyllis Beaulieu  
Manager of Licensing  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, NU X0B 1J0

***Attn: Phyllis Beaulieu***

**Re: Water Licence 1BR-RAN0914 Spill Contingency Plan**

Dear Phyllis,

Please find enclosed the revised Spill Contingency Plan as required under water license 1BR-RAN0914, issued to the Government of Nunavut, Community and Government Services. This spill Contingency Plan is intended to be a stand alone document and meets all requirements for a Spill Contingency plan as set out in the Government of Nunavut, *Consolidation of Spill contingency Planning and Reporting Regulations R-068-93*.

If you have any questions regarding this plan please don't hesitate to contact us

Sincerely,

**FSC ARCHITECTS & ENGINEERS**



Ron Kent, P. Eng  
Environmental Engineering



## **Spill Contingency Plan for Rankin Inlet Landfarm**

*Version 1.0*

*Created March 2009*

*Effective till November 2014*

Project # 2005-2150

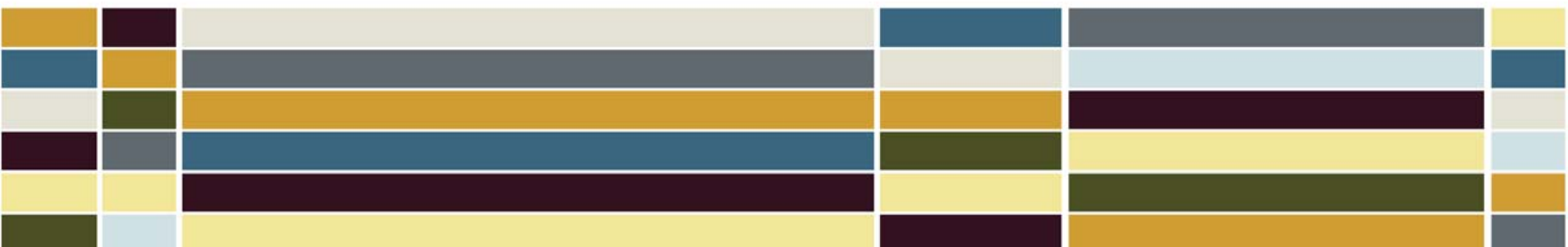
### **Prepared for:**

Wayne Thistle  
Government of Nunavut  
Community and Government Services,  
Box 490, Oomilik Building  
Rankin Inlet, NU,  
X0C 0G0

### **Prepared by:**

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4910 53 Street  
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LISTEN. DESIGN. MANAGE.





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## 1 Introduction

The community of Rankin Inlet is located within the Kivalliq Region, Nunavut, on the west coast of Hudson Bay. The community is located in a zone of continuous permafrost, which has an active layer of approximately one metre. The Rankin Inlet Fuel Facility is being upgraded. As part of the upgrade, approximately 5,000 cubic metres of hydrocarbon-contaminated soils must be removed from the site and remediated. Contaminated soils will be remediated in a lined engineered landfarm.

The landfarm will be located adjacent to the new Rankin Inlet Municipal Solid Waste Site. It will be accessed from the same road. The Government of Nunavut in consultation with the Hamlet of Rankin Inlet selected the site.

### 1.1 INFORMATION OF THE LICENSEE

Government of Nunavut  
Community and Government Services  
Box 490, Oomilik Building  
Rankin Inlet NU,  
X0C 0G0  
867-645-8100

### 1.2 INFORMATION OF 24 HOUR CONTACT

Department of Community & Government Services  
Petroleum Products Division  
Regional Director CGS Kivalliq Region  
(867)-645 8153  
(867)-920-8130

### 1.3 GENERAL DESCRIPTION OF PROPERTY

The site for the landfarm is located in the area of (Lat/Long) 62° 49' 49.66" N, 92° 10' 28.15" W, (UTM) Easting 542,055.88, Northing 6,966,969.53 (Map sheet number 55K16) near the Hamlet of Rankin Inlet's municipal solid waste site.

### 1.4 HAZARDOUS MATERIALS STORED ON SITE

The GN Landfarm Facility shall accept only Type B Soil. Soil contaminated with hydrocarbons in which the primary petroleum product present in the soil as determined by laboratory analysis consists of fuel oil and/or diesel fuel and /or gasoline.

There are no sewage facilities.

No fuel or lubricants are stored on site.

Heavy equipment working on site will arrive with sufficient fuel and lubricants. The only potential for a spill will result from a leaking hydraulic hose, or from an overturned truck or excavator.



## **1.5 SPILL PREVENTION MEASURES**

Fuel will only be transferred on site if absolutely necessary, and conducted within the bermed area.

This containment area had been designed with a liner to prevent spills and seepage. A berm will be constructed around the landfarm to ensure that no contaminants can seep out or no surface water will drain into the landfarm.

While transporting contaminated soil the trucks used will not be overfilled to prevent spillage. TDG forms will accompany every load.

Prior to the commencement of hauling all trucks will be clean to prevent cross contamination. When backing into the landfarm with a load care will be taken not to drive over already deposited containments to prevent contamination while leaving the landfarm.

## **1.6 IN THE CASE OF A SPILL**

### **1.6.1 Report**

1. Call 24 hour contact,  
  
Regional Director CGS Kivalliq Region  
  
(867)-645 8153  
  
(867)-645-3625
2. Call the 24 hours spill report line (867) 920-8130

### **1.6.2 Contain**

1. If a spill happens within the berm it will already be contained.
2. If there is a tear in the liner, the liner will be repaired. A qualified engineer would determine any effects to groundwater, and the extent of any contamination.

### **1.6.3 Clean Up**

1. If a spill happens within the berm it will be added to the remediation process.
2. Testing at the piezometers located around the site would determine the amount of clean up required.

### **1.6.4 Disposal**

1. Depending on the amount and location contaminants will be added to the remediation process



## **1.7 SITE MAP**

See appendix A

## **1.8 SPILL RESPONSE TRAINING**

All employees will be trained in the following:

1. Spill awareness & prevention
2. Methods of detection
3. Types of spills & seasonal conditions
4. Report procedures & Initial responses
5. Spill response kit
6. Clean-up & site remediation
7. Occupational health & safety, protective equipment & selection
8. Safe operation of Machinery & tools
9. Construction of a containment berm using soil or snow & plastic liner

## **1.9 SPILL KITS**

There is to be a spill kit located in the Response vehicle.

Kit should contain;

360 litre polyethylene over pack drum  
Oil sorbent booms  
Oil sorbent sheets  
Drain cover  
Caution tape  
Plugging compound  
Nitril gloves  
Safety goggles  
Tyvek coveralls  
Instruction Booklet  
Disposal Bags

## **1.10 THE MEANS BY WHICH THE SPILL PLAN IS ACTIVATED**

1. Spill observer assesses & determines extent of spill
2. Reports spill to Spill Response coordinator  
(Regional Director CGS Kivalliq Region (867)-645 8153)



3. Spill Response coordinator activates Environmental Emergency contingency plan
3. Activates Spill Response Team & appropriate equipment and tools required.
  - Spill response Team
  - Assistant Fire Marshal 867-645-3103
  - CGS Assistant Director 867-645-8111
  - CGS Facilities Manager 867-645-8153
  - CGS Petroleum Products Officer 867-645-8155
5. Notify GN, Local Agencies & 24-hour spill report line.
6. Complete Spill Report form & submit with in 30 days of spill

#### **1.11 SPILL REPORT FORM**

See appendix B

#### **1.12 EMERGENCY CONTACTS**

INAC - Water Resources Division (867) 669-2654

Government Nunavut Department of Environment (867) 975-7735

Environment Canada (780) 951-8600

KIA (867) 983-2458

#### **1.13 MSDS SHEETS**

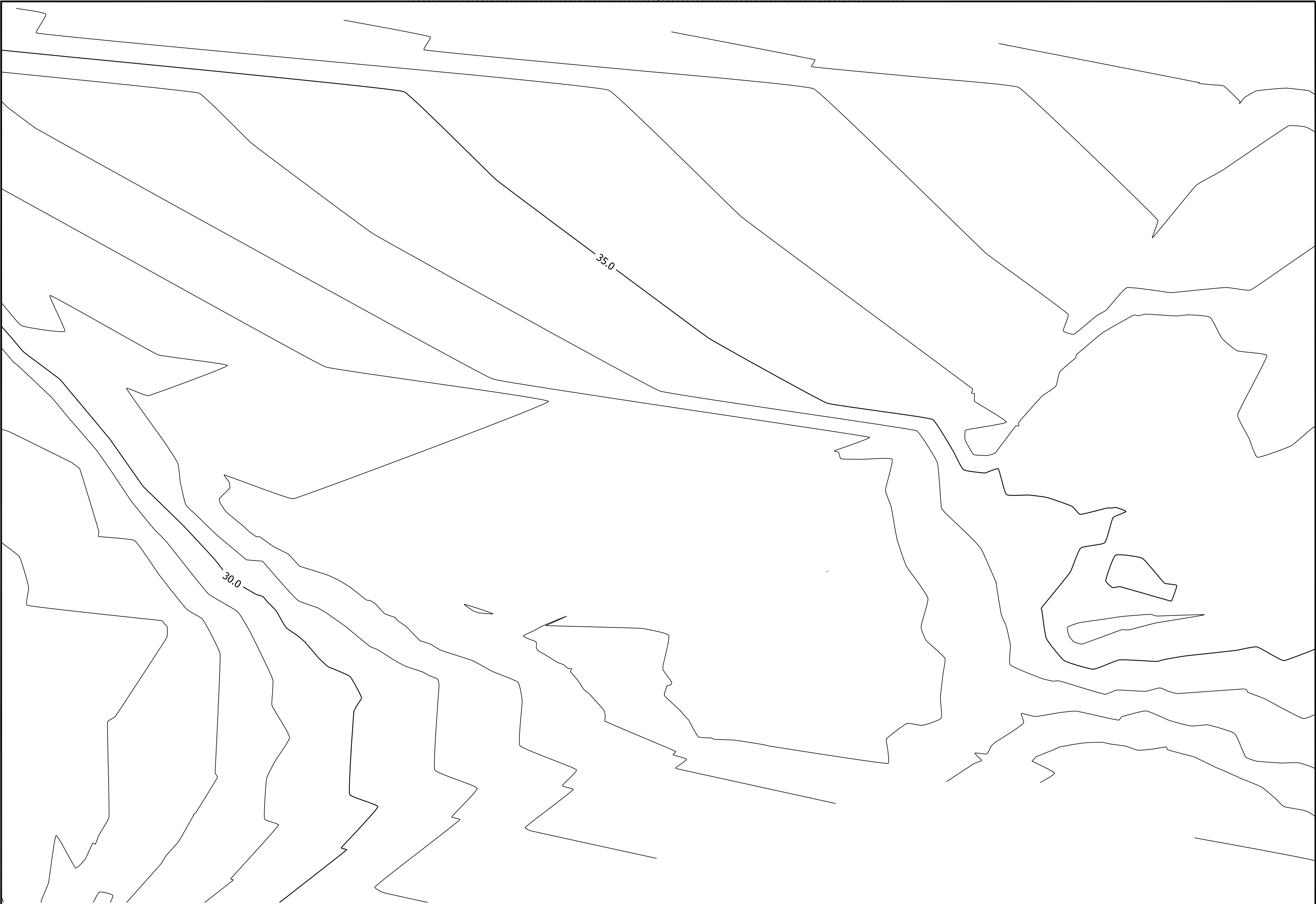
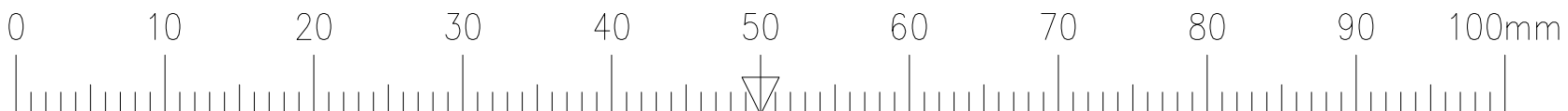
No MSDS sheets are stored on site due to the contaminated soil being Type B



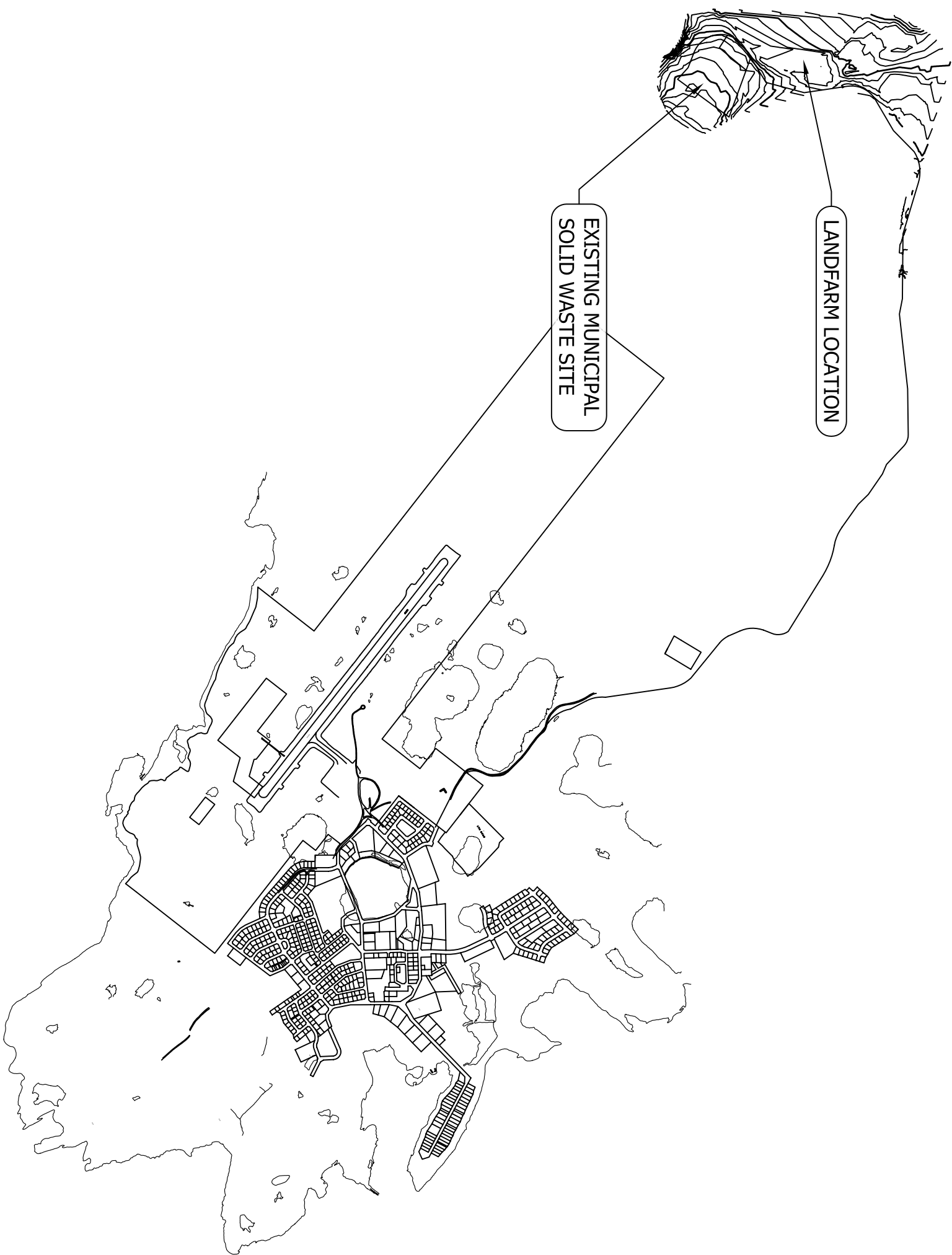
ABANDONMENT AND RESTORATION PLAN FOR RANKIN INLET LANDFARM  
MARCH 4, 2009

## Appendix A: Map





50 - A15-B - 1117



1 RANKIN INLET REGION  
C1 N.T.S.



2 AIR PHOTO OF RANKIN INLET REGION  
C1 N.T.S.



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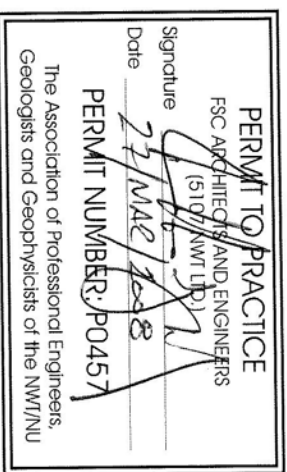
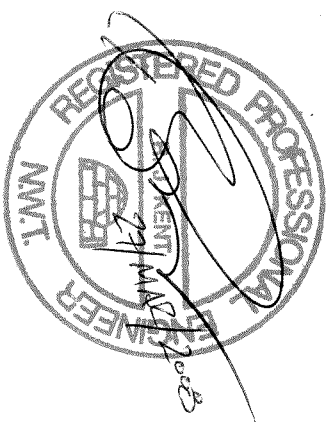
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GENERAL NOTES:

1. DO NOT SCALE FROM DRAWINGS.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE BEFORE PROCEEDING WITH THIS WORK.
3. REFER TO RULER IN BINDING MARGIN TO VERIFY IF SHEET HAS BEEN REDUCED OR ENLARGED.
4. ACTUAL DIMENSIONS TO BE ADJUSTED IN FIELD.

00	ISSUED FOR REVIEW	2008-03-25
NO.	REVISION DESCRIPTION	DATE ISSUED

PROFESSIONAL SEAL / PERMIT TO PRACTICE



**FSC**  
ARCHITECTS & ENGINEERS  
4910 - 53RD STREET, P.O. BOX 17777,  
YELLOWKNIFE, NT, X1A 2P4, CANADA  
TEL: (867) 920-2882 FAX: 920-4319

PROJECT TITLE

**FUEL STORAGE  
FACILITY UPGRADE  
AND EXPANSION**

LOCATION

RANKIN INLET, NU

DRAWING TITLE

**LAND FARM  
EXISTING SITE LAYOUT**

DRAWN BY

AJ

SCALE

1: 2500

CHECKED BY

RK

CLIENT PROJECT NO.

-

FSC PROJECT NO.

2005-2150

DRAWING NO.

C8





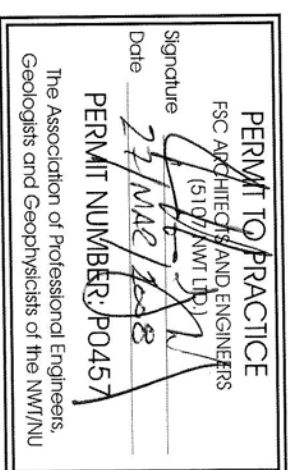
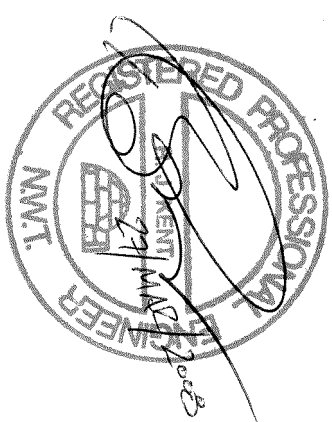
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NO.	REVISION DESCRIPTION	DATE ISSUED

PROFESSIONAL SEAL / PERMIT TO PRACTICE



**7FSC**  
**ARCHITECTS & ENGINEERS**  
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YELLOWKNIFE, NT, X1A 2P4, CANADA  
TEL: (867) 920-2882 FAX: 920-4319

PROJECT TITLE

# FUEL STORAGE FACILITY UPGRADE AND EXPANSION

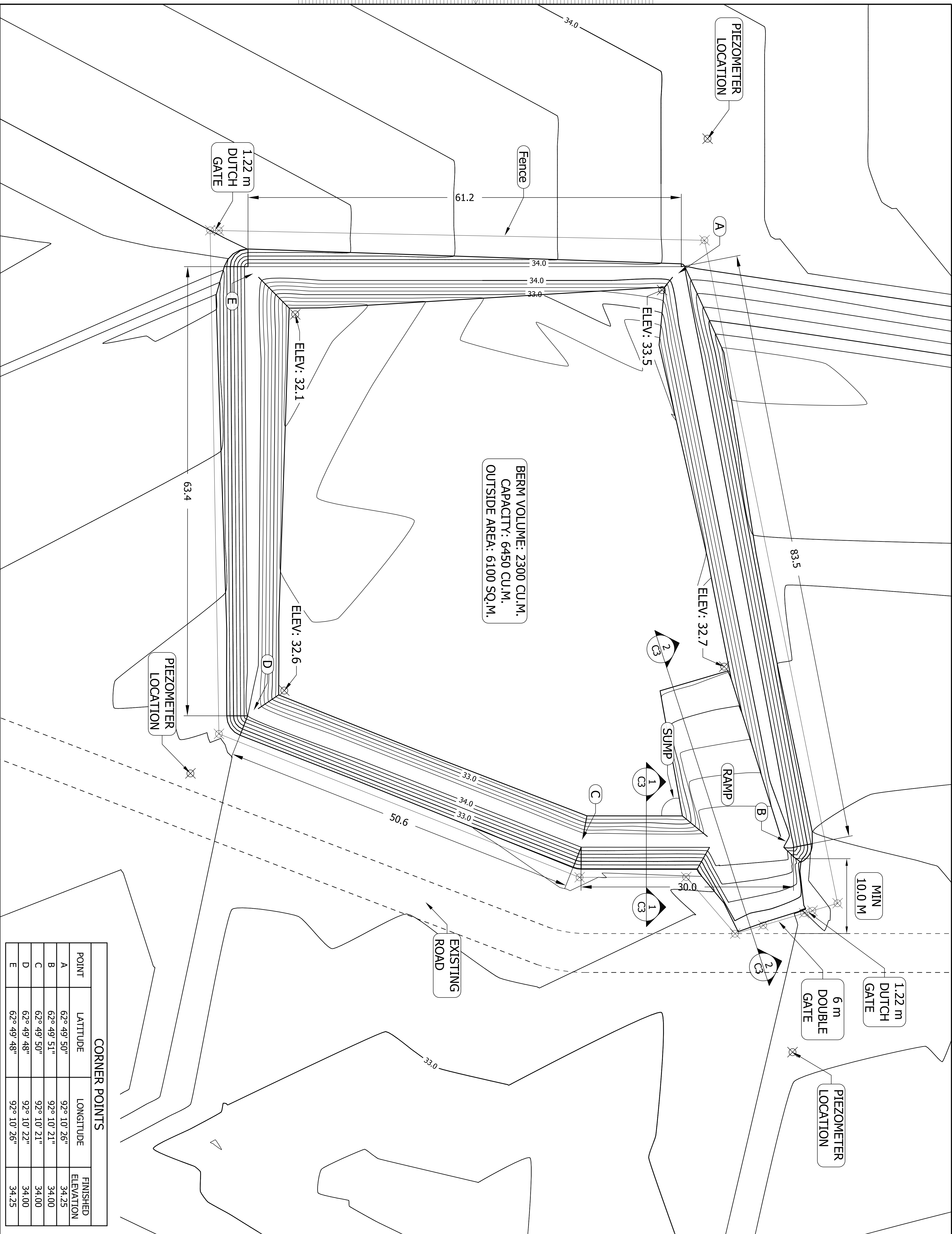
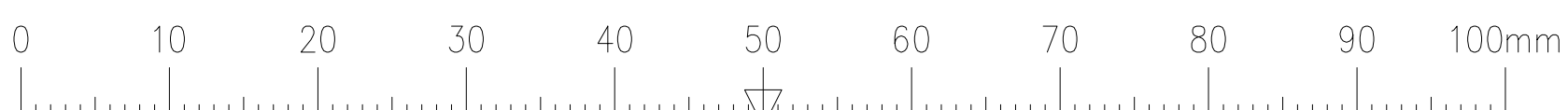
LOCATION

DRAWING TITLE

LAND FARM DESIGN

DRAWN BY	AJ/CP	SCALE	1: 500
CHECKED BY	RK	CLIENT PROJECT NO.	-
FSC PROJECT NO.		2005-2150	
DRAWING NO.			

C9







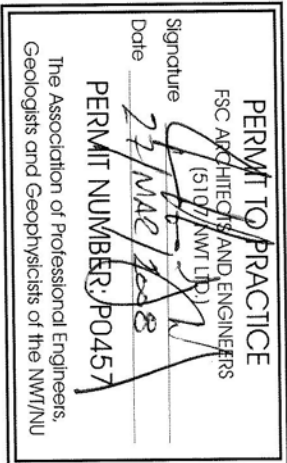
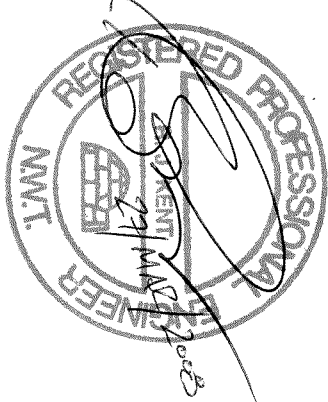
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00	ISSUED FOR REVIEW	2008-03-25
NO.	REVISION DESCRIPTION	DATE ISSUED

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YELLOWKNIFE, NT, X1A 2P4, CANADA  
TEL: (867) 920-2882 FAX: 920-4319

PROJECT TITLE

**FUEL STORAGE  
FACILITY UPGRADE  
AND EXPANSION**

LOCATION

RANKIN INLET, NU

DRAWING TITLE

**LAND FARM  
TYPICAL CROSS SECTION  
DETAILS**

DRAWN BY	SCALE
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AJ

NTS

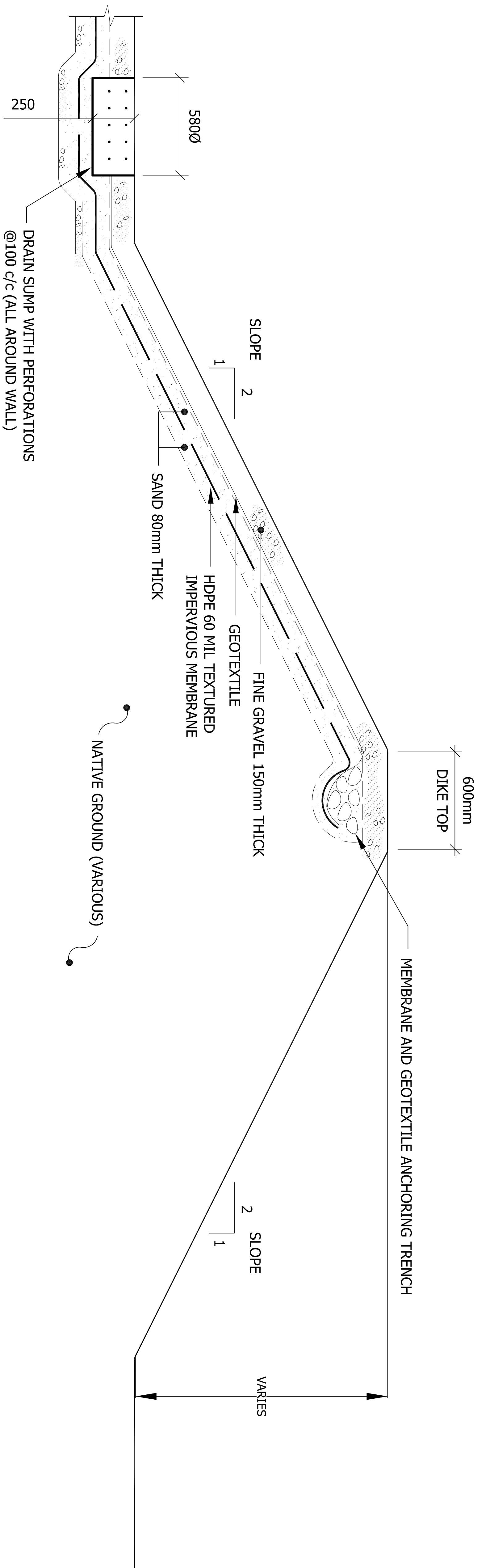
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RK

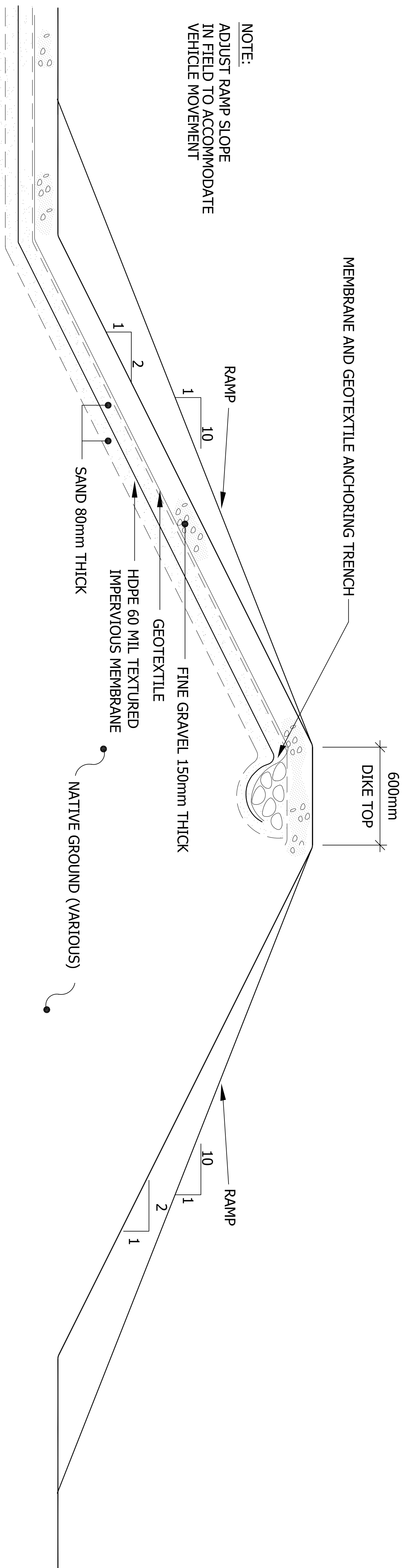
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FSC PROJECT NO.	2005-2150
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DRAWING NO.	C10
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1 BERM CROSS SECTION (TYPICAL)  
C3 N.T.S.



2 ENTRANCE RAMP  
C3 N.T.S.

0 10 20 30 40 50 60 70 80 90 100mm



ABANDONMENT AND RESTORATION PLAN FOR RANKIN INLET LANDFARM  
MARCH 4, 2009

## Appendix B: Spill Report Form



Canada

# 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: MONTH – DAY – YEAR		REPORT TIME		<input type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	<b>REPORT NUMBER</b> _____
	OCCURRENCE DATE: MONTH – DAY – YEAR		OCCURRENCE TIME			
C	LAND USE PERMIT NUMBER (IF APPLICABLE)			WATER LICENCE NUMBER (IF APPLICABLE)		
	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION				REGION <input type="checkbox"/> NWT <input type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN	
E	LATITUDE			LONGITUDE		
	DEGREES	MINUTES	SECONDS	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		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES		U.N. NUMBER	
	SECOND PRODUCT SPILLED (IF APPLICABLE)		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 EQUIPMENT	
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
		STATION OPERATOR		YELLOWKNIFE, NT	(867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS	
LEAD AGENCY					
FIRST SUPPORT AGENCY					
SECOND SUPPORT AGENCY					
THIRD SUPPORT AGENCY					