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REPORT

Government of Northwest Territories Department of Infrastructure

Inuvik Mike Zubko Airport Construction and Maintenance Spill Contingency Plan (Version 1.1)



MARCH 2024



Platinum
member

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REVISIONS PAGE

Inuvik Mike Zubko Airport
Construction and Maintenance
Spill Contingency Plan (Version 1.1)

Client:	Consultant:
Government of Northwest Territories Department of Infrastructure (GNWT-INF)	Associated Engineering (B.C.) Ltd. (Associated)

Revision/ Issue	Date	Description	Prepared by/ Reviewed by	Client Review
1.0	2023-05-26	Submission for water licence application to Gwich'in Land and Water Board (GLWB)	Associated	GNWT-INF
1.1	2024-03-29	2023 annual review. The following revisions were made added applicable water licence conditions; added contact information for Delta North Alliance Construction Inc.; added available spill response equipment and locations; and added detailed spill report to the GLWB and Inspector.	Associated	GNWT-INF

TABLE OF CONTENTS

SECTION	PAGE NO.
Table of Contents	i
List of Tables	iii
List of Figures	iv
List of Abbreviations	v
1 Introduction	6
1.1 Corporate Contact Information	6
1.2 Effective Date of Plan	6
1.3 Distribution List	6
1.4 Purpose and Scope	8
1.5 Health, Safety, and Environmental Policy	8
1.6 Project Description	8
1.7 Potentially Impacted Communities and Environments	8
1.8 Potential Spill Locations	8
1.9 Type, Amount, and Location of Main Hazardous Materials	11
2 Spill Response Contact Information	11
3 Spill Prevention	13
3.1 Spill Response Equipment (Spill Kits)	13
4 Training	16
5 Spill Response Action Plan	16
5.1 Procedure for Initial Actions	16
5.2 Procedure for Reporting a Spill	18
5.3 Procedures for Containing and Controlling a Spill	20
5.4 Containing a Spill on Snow-free Land	21
5.5 Containing a Spill on Snow	21
5.6 Containing a Spill on Water	22
5.7 Containing a Spill on Ice-covered Water	22
5.8 Worst-case Scenario	22
5.9 Procedure for Transferring, Storing, and Managing Spill-related Wastes	23
5.10 Procedure for Restoring Affected Areas, Providing Regulatory Inspectors with Status Updates, and Cleanup Completion	23
6 Media and Public Enquiries	23
Closure	
References	

Appendix A - NT-NU Spill Report Form

LIST OF TABLES

	PAGE NO.
Table 1-1 Hazardous Material Storage	11
Table 2-1 Contractor (Delta North Alliance Construction Inc.) Emergency Contacts	12
Table 2-2 Emergency Services Contact Information	12
Table 2-3 Northwest Territory Regulatory Agencies Contact Information	12
Table 3-1 Spill Response Equipment Available in Each Spill Kit	13
Table 3-2 Spill Kit Inventory and Location	14
Table 5-1 Reportable Spill Quantities in the Northwest Territories	19

LIST OF FIGURES

	PAGE NO.
Figure 1-1 Inuvik Airport Location	7
Figure 1-2 Project Area	10
Figure 3-1 Locations of Drainage Paths	15
Figure 5-1 Spill Response Flow Chart	17

LIST OF ABBREVIATIONS

Abbreviation	Definition
CEMP	construction environmental management plan
GLWB	Gwich'in Land and Water Board
GNWT	Government of Northwest Territories
INF	Department of Infrastructure
PPE	personal protective equipment
SCP	spill contingency plan
SDS	safety data sheet
TDG	Transportation of Dangerous Goods
WHMIS	Workplace Hazardous Materials Information System

1 INTRODUCTION

The Government of Northwest Territories (GNWT) – Department of Infrastructure (INF) retained Associated Engineering (B.C.) Ltd. (Associated) to prepare a spill contingency plan (SCP) for the infrastructure upgrades and runway extension at the Inuvik Mike Zubko Airport (Inuvik Airport) and for regular maintenance of the drainage ditches after construction is complete. The Inuvik Airport is located approximately 12 km east of Inuvik, NT (Figure 1-1). These upgrades require a Type B water licence application to be submitted to the Gwich'in Land and Water Board (GLWB) under the *Mackenzie Valley Resource Management Act* (SC 1998, c. 25) and the *Northwest Territories Waters Act* (SNWT 2014, c. 18) and regulations. The GLWB issued Type B Water Licence G23L8-002 (the licence) on September 23, 2023, and approved Version 1.0 of this SCP.

The construction contractor is responsible for implementing the SCP and must update it with company-specific spill contingency measures. The SCP shall be incorporated in their construction environmental management plan (CEMP) and submitted within 14 days of the scheduled start of construction for the approval of GNWT or representative before works commence. This SCP shall also apply to contractors or GNWT personnel performing routine maintenance of the drainage ditches after construction is complete.

This SCP was adapted from Indian and Northern Affairs Canada Guidelines for Spill Contingency Planning (INAC 2007), as recommended in the Guide to the Water Licensing Process (LWB 2021).

1.1 Corporate Contact Information

The GNWT-INF is the primary contact for this project.

Applicant's Name:	Jason MacNeil		
Position:	Regional Airport Manager, Inuvik Mike Zubko Airport		
Company Name:	Government of Northwest Territories – Department of Infrastructure		
Mailing Address:	Bag Service 1 P.O. Box 3024		
Community:	Inuvik	Telephone:	(867) 777-2467
Prov/Terr:	NT	Email:	Jason_MacNeil@gov.nt.ca
Postal Code:	X0E 0T0	Other:	

1.2 Effective Date of Plan

The SCP will be effective upon commencement of construction of the drainage and infrastructure upgrades.

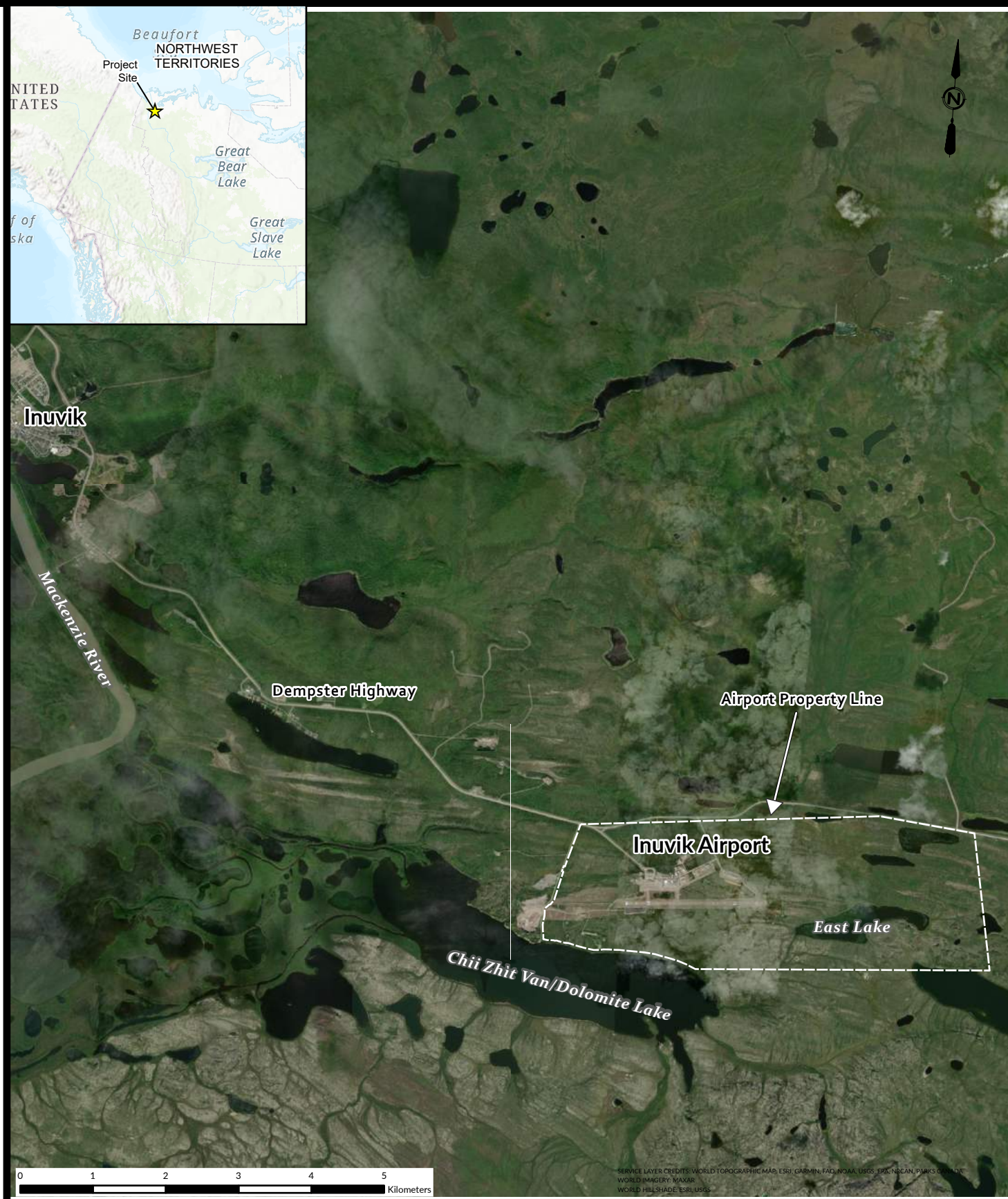
1.3 Distribution List

The SCP will be distributed to the following individuals:

- Manager, Environmental Affairs, Design and Technical Services, INF
- Inuvik Airport Project Manager
- Contractor Project Manager
- Contractor Site Supervisor/Foreman
- Gwich'in Land and Water Board Regulatory Specialist

The contractor may distribute the SCP as necessary.

C:\USERS\WASAWA\ONE\DRIVE - ASSOCIATED ENGINEERING GROUP LTD\DESKTOP\ASSOCIATED ENGINEERING PROJECTS\INUVIK DRILLING\INUVIK AIRPORT FIGURE 1.APRX



AE PROJECT NO. 2020-2886
SCALE 1:72,000
COORD. SYSTEM NAD 1983 UTM ZONE 9N
DATE 2023-04-19
REV 02
DRAWN BY AW
CHECKED BY CM

FIGURE 1-1 INUVIK AIRPORT LOCATION

GOVERNMENT OF NORTHWEST TERRITORIES
DEPARTMENT OF INFRASTRUCTURE

INUVIK AIRPORT
CIVIL INFRASTRUCTURE IMPROVEMENTS
INUVIK AIRPORT RUNWAY 06-24 EXTENSION

1.4 Purpose and Scope

The purpose of the SCP is to have a contingency plan in place to address potential spills that may occur during the infrastructure upgrades and runway extension at the Inuvik Airport and during maintenance of the drainage ditches after construction is complete. The SCP addresses the aspects of equipment working on land and adjacent to water, and if a spill was to occur during fuelling, fuel storage, or equipment breakdown.

1.5 Health, Safety, and Environmental Policy

The health, safety, and environmental policy is the responsibility of the contractor and will be defined in the contractor's CEMP.

1.6 Project Description

GNWT-INF is completing infrastructure upgrades and constructing a 914-metre runway extension at the Inuvik Airport. This project includes necessary upgrades to the drainage system that will change the paths and discharge locations of runoff from the Inuvik Airport and upland areas. Defined ditches will be constructed to the east, west, and south of the airport to transport runoff to Dolomite Lake or East Lake. The approximate project footprint and approximate project area boundaries are shown on Figure 1-2.¹ Construction will require vegetation clearing, grubbing, soil excavation, grading, and installation of erosion control measures in the ditches by heavy equipment. Maintenance of the drainage ditches after construction is complete may require removing snow, vegetation, debris, and sediment build-up from culverts and ditches, regrading ditches, and repairing ditches with rock, riprap, or hydroseeding with a native grass mix.

Material from the quarry located near the airport will be used for embankment fill and screened rock in construction. A water licence and land use permit for activities completed at the quarries is not required (A. Macdonald, personal communication, 2023); therefore, most details about the quarry and quarry management are not specifically included in this plan.

1.7 Potentially Impacted Communities and Environments

Chii Zhìt Van (also known as Airport Lake or Dolomite Lake) and East Lake are most at risk from spills, along with the surrounding community members who depend on Airport Lake for food, economic, traditional, and recreational purposes. Construction and maintenance work will be completed on the drainage ditches which are graded to flow to the lakes. Impacts from small spills from fuelling or equipment breakdowns are likely to remain localized to the environment in the vicinity of the spill. Depending on the location of a spill, a large spill could contaminate surface water that flows to Airport Lake or East Lake or contaminate permafrost and groundwater.

1.8 Potential Spill Locations

Spills could potentially occur at the following locations:

- Anywhere in the project footprint where equipment is actively constructing the ditches due to equipment malfunction;

¹ The **approximate project footprint** is the proposed area where direct, physical disturbance to the land will occur as a result of construction (e.g., vegetation clearing, excavating, and installing erosion and sediment control measures). The **approximate project area** is the approximate area that may be disturbed during construction either indirectly as a result of construction (e.g., noise, vibration), or by other means such as equipment access on existing roads and in the quarry and collecting surface water and sediment samples at the proposed sampling locations.

- Anywhere on the airport property where equipment is actively maintaining the ditches due to equipment malfunction; and
- During fuel or chemical refuelling, which is to occur at least 100 m from watercourses or ditches that drain to watercourses.



- LEGEND**
- Outfall
 - Approximate project footprint
 - Approximate project area

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SCALE	1:12,000
COORD. SYSTEM	NAD 1983 UTM ZONE 8N
DATE	2023-05-02
REV	00
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FIGURE 1-2: PROJECT AREA

GOVERNMENT OF NORTHWEST TERRITORIES
DEPARTMENT OF INFRASTRUCTURE

INUVIK AIRPORT - CIVIL INFRASTRUCTURE
IMPROVEMENTS AND RUNWAY EXTENSION

1.9 Type, Amount, and Location of Main Hazardous Materials

The primary hazardous materials used during construction and maintenance will be diesel, gasoline, and hydraulic fluid for powering excavators and other equipment. Any fuel or hazardous materials that are stored on site, which may consist of fuel tanks or refuelling trucks, will be situated in an area approved by Associated or GNWT personnel at the airport. The activity with the greatest likelihood of a spill is refuelling, which will occur at least 100 m from watercourses or drainage ditches that flow to watercourses, and in a manner that prevents potential spills from reaching watercourses.

Other potential sources of spills are hydraulic fluid and lubricants being spilled from equipment malfunction or routine maintenance during construction and activities associated with maintenance of the ditches. Table 1-1 lists the potentially hazardous materials, storage volumes, storage methods, and locations for construction. Potentially hazardous materials used for future maintenance of the ditches will be stored in an approved location at the airport. Safety data sheets (SDSs) for materials will be provided by the contractor and will be included as an appendix in their SCP included in their CEMP.

Table 1-1 Hazardous Material Storage

Hazardous Material	Volume ¹	Storage Method	Location
Diesel fuel	As required by contractor (to be determined)	Double walled fuel storage and dispensing stations with fuel containment berms or mobile fuel truck for onsite refuelling	Main Quarry: fuel dispense Airside: mobile truck refuelling, no onsite storage
Hydraulic fluid	As required by contractor (to be determined)	Onsite workshop	Main Quarry
Lubricant	As required by contractor (to be determined)	Onsite workshop	Main Quarry
ANFO explosives	As required by contractor (to be determined)	<ol style="list-style-type: none"> 1. Primary storage in magazine registered with Natural Resources Canada 2. Brought to site in volumes required for single blast only by cargo truck compliant with TDG regulations 	<ol style="list-style-type: none"> 1. KM 242.2 of Dempster Highway No. 8 2. Main and North Quarries

All hazardous materials will be stored in secondary containment in a location at least 100 m from drainage ditches or watercourses.

¹ Approximate volumes are provided by the contractor in their construction environmental management plan. ANFO – ammonium nitrate / fuel oil

2 SPILL RESPONSE CONTACT INFORMATION

If a spill is identified, the Contractor Project Manager will be notified immediately. The contractor is responsible for adhering to the SCP throughout the project. Communication between the contractor, sub-contractors, construction

engineers, and the Inuvik Airport will occur via cell phone or radio. Table 2-1 lists the contractor emergency contacts and Table 2-2 lists emergency services contact information. Table 2-3 contains the contact information for Northwest Territories regulatory agencies. Tables 2-1 will be updated by the contractor after project award before construction begins.

Table 2-1 Contractor (Delta North Alliance Construction Inc.) Emergency Contacts

Contact	Name and Role	Phone Number	Email
Contractor Project Manager	Kurt Kure	403-352-8514	kkure@nautchiuk.com
Contractor Project Manager	Denise Atter	403-993-6777	datter@nautchiuk.com
Contractor Site Superintendent	Jordan Hillman	403-896-8282	hillman.consulting@gmail.com

Table 2-2 Emergency Services Contact Information

Emergency Services	Contact Number
NWT 24-hour Spill Report Line	867-920-8130
Inuvik Regional Hospital	867-678-8000
Emergency (police, fire, medical)	9-1-1
Inuvik Fire Department	867-777-2222
Inuvik RCMP Detachment	867-777-1111
Advanced Medical Solutions (Ambulance)	867-777-4444
Environment and Natural Resources wildlife emergencies (Inuvik office)	867-678-0289
Environmental Health Office (Yellowknife), GNWT	867-767-9066

Table 2-3 Northwest Territory Regulatory Agencies Contact Information

Regulatory Agency	Contact
Inuvik Mike Zubko Airport, Regional Airport Manager (Jason McNeil)	867-777-2467
Workers' Safety and Compensation Commission 24-hour incident reporting line	1-800-661-0792
Department of Lands, GNWT, Beaufort-Delta Region:	867-678-8090
Department of Environment and Natural Resources, GNWT, Beaufort-Delta Region	867-678-8091 ext. 53661

Regulatory Agency	Contact
Department of Infrastructure, GNWT, Beaufort-Delta Region	867-777-7146
Environment Climate Change Canada (Yellowknife)	867-669-4725
Gwich'in Land and Water Board	867-777-4954
Fisheries and Oceans Canada, Inuvik	867-777-7500

3 SPILL PREVENTION

All vehicles and machines will carry the required emergency spill kits to prevent fuel or hydraulic fluid from entering waterbodies. All equipment refuelling, servicing, and washing shall be conducted in a way that prevents deleterious substances from entering the water, and a minimum of 100 m from waterbodies. Fuel and other hazardous materials will be stored in secondary containment, at least 100 m from waterbodies and in a location where potential spills cannot reach waterbodies. The locations of existing and future drainage paths to Airport Lake and East Lake are illustrated in Figure 3-1.

The contractor will be responsible for ensuring equipment is inspected daily and is in good condition and free from excessive hydraulic fluid leaks and grease. Equipment deemed to not be in good condition or containing excessive hydraulic fluid or grease must be immediately removed from service and fixed or rectified before it can be used again. Spill trays must be placed under equipment that is parked overnight or on standby.

3.1 Spill Response Equipment (Spill Kits)

The contractor will provide mobile spill kits and they will be kept on site and in mobile equipment during construction activities. Spill response equipment in the spill kits must at least include hydrophobic booms, absorbent pads, and a shovel for responding to spills on land and on water. Spill response equipment must be positioned near the area of work and near the waterbodies and drainage ditches. Table 3-1 lists DNAC's equipment available for spill response in each spill kit and Table 3-2 lists spill kit inventory and locations. The contractor will update Tables 3-1 and 3-2 after project award before construction activities begin and before performing maintenance work on the ditches after construction is completed.

Table 3-1 Spill Response Equipment Available in Each Spill Kit

Equipment
1 shovel
10 sorbent pads
1 sorbent boom
5-gallon pail
Stop leak putty for temporary repair of leaking fuel lines or tanks
Appropriate PPE (e.g., rubber gloves)

Equipment
(Rows are blank to allow for additions)

Listed spill response equipment is from the contractor’s CEMP (Version 6) (DNAC 2023). The contractor to update the list if equipment differs. PPE – personal protective equipment.

Table 3-2 Spill Kit Inventory and Location

Spill Kit Locations
In job site office trailer at main quarry
At the quarry fuelling station
In the mobile fuel/lube truck
In fuel supplier’s truck
Positioned nearby when working within 30 m of water or near drainages that flow to waterbodies
Other location (to be updated by contractor):

Spill kit locations are from the contractor’s CEMP (Version 6) (DNAC 2023). The contractor to update the location if they differ from those listed in the table.



LEGEND


- Water Flow Direction
- Waterbody
- Ditch Flow Direction
- Culvert Flow Direction
- Outfall
- Runway Extension

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Date: 2023-04-25T15:48:29.478

REVISIONS				
NO.	DATE	ENG	BY	SUBJECT

Notes
1. Precise alignment and location of ditches and culverts can be seen in the "ISSUED FOR TENDER WORK PACKAGE 3 & 4 - EMBANKMENT CONSTRUCTION AND AIRFIELD STORMWATER DRAINAGE" drawings.

Data Sources
1. Orthographic imagery courtesy of ESRI Satellite.
2. Existing, watercourse, waterbodies, and infrastructure shapefiles provided by the Government of Northwest Territories ATLAS.

 **Associated Engineering**


Government of Northwest Territories

Project No.	2020-2886-00	INUVIK AIRPORT - CIVIL INFRASTRUCTURE IMPROVEMENTS & INUVIK MIKE ZUBKO AIRPORT RUNWAY 06-24 EXTENSION		
Scale:	1:12500			
Drawn:	N. VAN DER MARK	LOCATION OF DRAINAGE PATHS		
Approved:	M. MACLATCHY			
Projection:	UTM ZONE 8N	DRAWING	REV NO.	SHEET
Date:	2023/04/25	FIGURE 3-1	A	

4 TRAINING

The contractor will be responsible for providing a qualified supervisor and for training employees in spill response. First aid facilities shall be present on site in accordance with the Northwest Territories *Safety Act* (RSNWT 1988, c. S-1) and regulations, and staff shall receive WHMIS training before working on the project. Any personnel involved in the handling or transportation of hazardous materials will receive TDG training and will maintain a valid TDG certificate. The contractor is responsible for providing a training session on spill prevention and response with the individuals that will be operating equipment and involved in fuel transfer. The training session should include the proper use of spill kits on both land and water and provide a hands-on training component on spill response procedures and equipment. The training will cover:

- Individual roles and responsibilities regarding spill prevention, detection, response, and cleanup;
- Locations of paper copies of the SCP, maps, spill kits, and the types of kits at each working location;
- Equipment available for spill response;
- Contents of spill kits;
- Initial spill response actions and spill reporting procedures;
- Spill response and cleanup actions; and
- Mock exercises: The contractor will conduct training sessions and mock exercises as part of worker orientation, which should cover spills on land and on water.

The contractor is responsible for keeping records of all attendees of the training session and exercises, as well as copies of their training certificates (e.g., first aid, WHMIS, spill response).

5 SPILL RESPONSE ACTION PLAN

When responding to any spill, personal protective equipment (PPE) should be used that includes at least the following:

- Tyvek coveralls;
- Plastic gloves;
- Safety goggles; and
- Leak-proof boots.

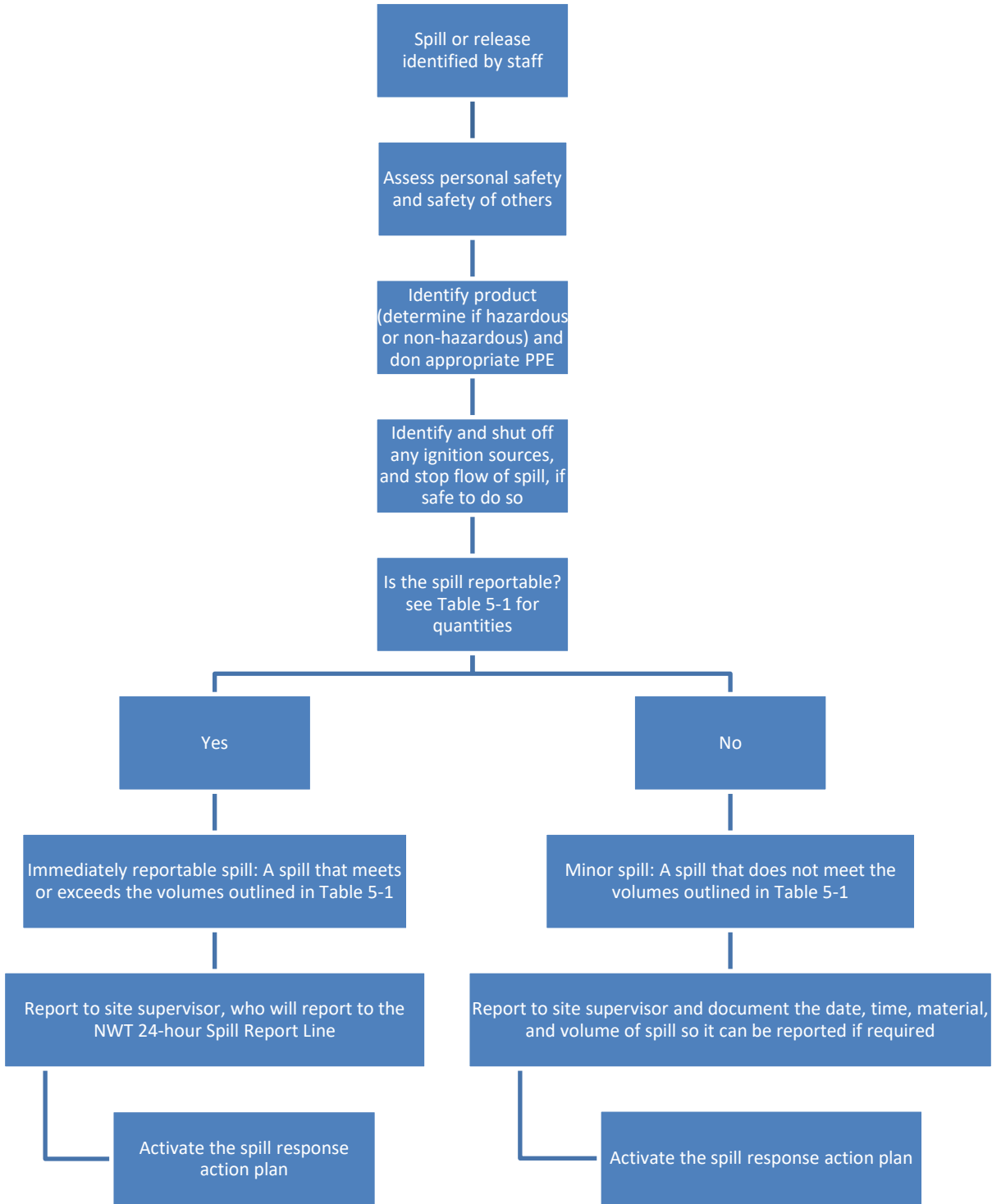
5.1 Procedure for Initial Actions

Take the following initial actions when responding to a spill:

- 1) Notify personnel in the immediate area of the spill. Advise personnel to stay clear of the spill and any associated leaks and have them monitor the spill so that the response team can best capture it and prevent its spread.
- 2) Identify any ignition sources and shut them off if it is safe to do so. An ignition source that is not safe to access could include one that requires an employee to cross a pool of the spilled liquid or one that is close enough to a leak that ignition could happen at any time.
- 3) Stop the spill at the source if it is safe to do so. This might include shutting off valves, righting containers, patching holes, or placing a spill tray.

If a spill occurs, follow the actions described in Figure 5-1.

Figure 5-1 Spill Response Flow Chart



5.2 Procedure for Reporting a Spill

Report all spills regardless of size immediately to the site supervisor, who will determine whether the spill needs to be reported to the NWT 24-hour Spill Report Line. Information that should be reported includes the approximate quantity, product, type, location, whether the spill is still in progress, product odour and colour, and the weather:

Immediately reportable spills

A spill is immediately reportable to the NWT 24-hour Spill Report Line if it meets or exceeds the volumes outlined in Table 5-1.

A spill that meets or exceeds these volumes must be reported to the NWT 24-hour Spill Report Line. The NT-NU spill report form (Appendix A) should be emailed or faxed to the NWT 24-hour Spill Report Line. If there is any doubt whether the quantity spilled exceeds the reportable levels outlined in Table 5-1, the spill should be reported.

NWT 24-Hour Spill Report Line

Phone: 867-920-8130

Fax: 867-873-6924

Email: spills@gov.nt.ca

Minor spills

Minor spills are defined when the spilled quantity is less than the volume shown below in Table 5-1. A minor spill does not need to be reported immediately to the NWT 24-hour Spill Report Line, but it must be documented in the Environmental Incident Report so that it can be tracked, documented, and submitted to the site supervisor.

Table 5-1 Reportable Spill Quantities in the Northwest Territories

Substance	Reportable Quantity
Explosives	Any amount
Compressed gas (toxic/corrosive)	
Infectious substances	
Sewage and Wastewater (unless otherwise authorized)	
Radioactive materials	
Unknown substance	
Compressed gas (flammable)	Any amount of gas from containers with a capacity greater than 100 L
Compressed gas (non-corrosive, non-flammable)	
Flammable liquid	≥100 L
Flammable solid	≥25 kg
Oxidizing substances	≥50 L or 50 kg
Organic peroxides	≥1 L or 1 kg
Environmentally hazardous substances intended for disposal	
Toxic substances	≥5 L or 5 kg
Corrosive substances	≥5 L or 5 kg
Miscellaneous products, substances or organisms	
PCB mixtures of 5 or more ppm	≥0.5 L or 0.5 kg
Other contaminants--for example, crude oil, drilling fluid, produced water, waste or spent chemicals, used or waste oil, vehicle fluids, wastewater	≥100 L or 100 kg
Sour natural gas (i.e., contains H ₂ S)	Uncontrolled release or sustained flow of 10 minutes or more
Sweet natural gas	
Flammable liquid	≥20 L
Vehicle fluid	When released on a frozen water body that is being used as a working surface
Reported releases or potential releases of any size that:	
<ul style="list-style-type: none"> are near or in an open water body; are near or in a designated sensitive environment or habitat; Pose an imminent threat to human health or safety; or Pose an imminent threat to a listed species at risk or its critical habitat. 	Any amount

Table from Government of Northwest Territories Environment and Climate Change Report a Spill website (GNWT-ECC n.d.). L - litres; kg - kilograms; PCB - polychlorinated biphenyls; ppm - parts per million

5.2.1 Environmental Incident Report

An Environmental Incident Report should be filled out and submitted to the site supervisor for both immediately reportable and minor spills. The incident report should include the following information:

- Name and telephone number of the person who identified the spill;
- Name and telephone number of the person who caused the spill, if known;
- Spill location and distance from nearest watercourse, cause, and a description of the surrounding area;
- Type (including safety data sheet [SDS] number) and quantity of the spilled material;
- Details of the spill response and cleanup activities, including the location of disposal site;
- Names of all people on the scene, including ministry representatives;
- Names of people and agencies notified after the spill;
- Sequence of events, including notifications and timing; and
- Comments on the handling of the incident.

The contractor is to include an Environmental Incident Report template with the above information in their CEMP for approval by Associated or GNWT airport personnel before the project starts. The contractor is to provide the incident report to Associated within 7 days of the spill.

5.2.2 Detailed Spill Report to the Board

Within 30 days of a spill initially reported to the NWT 24-hour Spill Report Line, a detailed report of the spill will be submitted to the Board and the GNWT-ECC Inspector. The report must include the following:

- Descriptions of causes;
- Response actions; and
- Changes to procedures to prevent similar occurrences in the future.

Written notification must be provided to the Board and Inspector if any changes occur.

5.3 Procedures for Containing and Controlling a Spill

Follow the procedures for initial actions in Section 5.1. The individual who discovers the spill should be trained in spill response, TDG, and WHMIS (Section 4). They should be familiar with the spill response equipment, and locations of PPE required in case of spill management and will be responsible for ensuring its use during spill response protocols. The contractor is responsible for ensuring that a trained individual is always present on site to respond in the event of a spill. If the individual who discovers the spill is not trained, they should contact the person who is to respond immediately.

Determine the source of the spilled material. Using knowledge based on the source of the leak, colour, and smell, identify the spilled material. Check the SDS for hazards associated with any suspected materials.

Once the source and hazards have been identified, and if safe to do so, stop the spill at the source and begin taking action to clean up the spilled material.

5.4 Containing a Spill on Snow-free Land

Spills on land will primarily be on soil. Soil is a naturally absorbent material, so it will likely soak up most spilled material. Spills could also occur on a hard material, such as a road; depending on the volume spilled, this could result in significant overland flow. Spills on land near water should be contained before they can reach the waterbody. The following are possible containment methods that can be used:

Absorbents: If the spill is small, use enough absorbent pads to soak up the liquid. Remove and properly dispose of pads when saturated and reapply.

Berms: Berms can be built using soil to surround a spill on land. Berms are constructed downslope and wider than the predicted flow path of the spill. Line the berm with plastic, if available.

Absorbent booms: Place absorbent booms downgradient of the spill. Monitor closely for seepage and remove and properly dispose of pads when saturated and reapply.

Trenches: Trenches can be dug out of soil to contain spills if the top layer of soil is not rock. Shovels, axes, or an excavator can be used, depending on the size of the spill. A trench should be dug down deep enough to contain more than the expected volume of spilled material. Line the trench with plastic, if available. Absorbents or a vacuum should be used to start collecting the spilled material as soon as possible to prevent the contaminants from spreading.

5.5 Containing a Spill on Snow

Spills on land may be on snow. Snow is absorbent, so it will likely soak up the spilled material. If the snow is compact, it could result in overland flow depending on the spilled volume. The following are possible containment steps that can be used:

Berms: Berms can be built using snow that is compacted to surround a spill. Berms are constructed downslope and wider than the predicted flow path of the spill. Line the berm with plastic, if available.

Trenches: Trenches can be dug out of the snow to contain the spilled material. Line the trench with plastic, if available. However, if the trench is not lined with plastic, be cautious that it does not result in additional contamination of the ground beneath the snow if it can be avoided. Shovels or an excavator can be used depending on the size of the spill. A trench should be dug down deep enough to contain more than the expected volume of the spilled material. Absorbents or a vacuum should be used to start collecting the spilled material as soon as possible to prevent the contaminants from spreading.

Absorbents: If the spill is small or if the snow is melting, use enough absorbent pads to soak up the liquid. Remove and properly dispose of pads when saturated and reapply.

Absorbent booms: Place absorbent booms downgradient of the spill. Monitor closely for seepage and remove and properly dispose of pads when saturated and reapply.

Excavate contaminated snow using shovels or heavy equipment and place the snow in barrels, drums, or other approved, lined containers for storage.

5.6 Containing a Spill on Water

A spill could reach a waterbody when working near water or from a drainage path that flows to a waterbody. Spills in water should be contained as quickly as possible. The following are possible containment methods that can be used:

Absorbents: A small spill, identified by an oily, rainbow-coloured sheen on the surface of the water, should be captured quickly using as many hydrophobic absorbent pads as it takes to remove the sheen.

Oil spill containment boom: For larger spills that cannot be absorbed immediately, use a hydrophobic containment boom. This floating, flexible boom can be used to surround the spill and prevent it from spreading while the spilled product is removed using a vacuum and pumped into drums or a storage tank, if available, or using absorbent pads. A containment boom can also be draped across a drainage ditch to absorb surface spills as they flow through.

All spills into a water source must be reported to the NWT 24-Hour Spill Report Line as soon as possible.

5.7 Containing a Spill on Ice-covered Water

A spill could reach ice-covered water when working near water in the winter or from a location that is sloped towards water. An attempt should be made to prevent spills from entering ice-covered water. The following are possible steps to be followed if a spill occurs on ice-covered water:

Berms: Berms can be built using snow to surround a spill on ice, similar to land. Place a plastic tarp over the berm if large quantities are spilled so that it pools at the base of the berm. Pump the spilled product into barrels or absorb with absorbent materials and dispose of properly.

Trenches: Trenches or slots can be cut into the ice, angled to the shore, downstream of the spill as required, to collect the spilled product. Absorbents or a vacuum should be used to start collecting the spill material as soon as possible to prevent the material from spreading.

If it is not safe to cut ice, break up and remove the ice downstream of the spill and apply booms or absorbent pads as described in Section 5.4.

5.8 Worst-case Scenario

An equipment breakdown or accident resulting in the release of the equipment's full holding capacity of diesel or hydraulic fluid while constructing the drainage ditches and outfalls or performing maintenance near Dolomite Lake or East Lake would present a possible worst-case scenario. In this case, follow the procedures outlined in Sections 5.4 or 5.5 to contain the spill "on snow-free land or snow" that can prevent the spill from reaching water. Be prepared to implement the procedures in Sections 5.6 or 5.7 "on water or ice-covered water" that can contain the spill on water or ice-covered water.

A punctured tank of fuel or other fluid at the fuel storage area or in the back of a truck could present another worst-case scenario. In this case, create a berm, trench or collection pit downstream of the spill to contain the full volume of the tanks and to stop any flow towards water.

5.9 Procedure for Transferring, Storing, and Managing Spill-related Wastes

Contain spill-related wastes such as sorbent pads, booms, soils and snow used to clean up or stop spill migration. Items are to be removed and placed in an approved storage location in a leak-proof bag or other container, labelled, and disposed of at an approved licensed facility.

5.10 Procedure for Restoring Affected Areas, Providing Regulatory Inspectors with Status Updates, and Cleanup Completion

After a reportable spill has been contained, the contractor shall contact the lead NWT 24-hour spill agency inspector assigned to the file to determine the next steps and the level of required cleanup. The inspector may require a site-specific study to confirm that the proposed cleanup levels are acceptable. Factors that may be considered are the replacement of soil and restoration of vegetation. The impacts from minor spills will be less harmful than that of an immediately reportable spill; however, depending on the size of spill, the spill reporting agency may require some extra steps or restoration effort after the spill has been contained, cleaned up, and reported.

6 MEDIA AND PUBLIC ENQUIRIES

All enquiries from media or otherwise are to be directed to GNWT – Public Affairs and Communications. Environmental incidents, such as spills, attract local interest and media attention. Site workers will not make any statements on behalf of the contractor or GNWT-INF to the media or the public.

Project workers will respond to any requests from local authorities or emergency workers, which will help to minimize the spill and its impacts. The project workers will refer all other requests for information to the GNWT – Public Affairs and Communications. This may include questions from reporters, environmental agencies, or local residents affected by a spill.

When questions are asked, project workers should keep the response polite and professional; for example, “I’m sorry, I am not the spokesperson for the project. Please write down your name, media affiliation, and contact information. I will have the project spokesperson contact you as soon as possible.”

In the event that questions are persistent or if concerned local community members become aggressive, project workers should remain calm and not engage; if necessary, apologize and make an excuse to exit the conversation. If the contractor is local, friends and family of the project workers may ask for information; project workers should be reminded that they must keep the details of the spill confidential.

CLOSURE

This report was prepared for the Government of Northwest Territories – Department of Infrastructure for the Inuvik Airport Infrastructure Upgrades project.

The services provided by Associated Engineering (B.C.) Ltd. in the preparation of this report were conducted in a manner consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions. No other warranty expressed or implied is made.

Respectfully submitted,

Associated Engineering (B.C.) Ltd.



Caitlin McKenzie, BIT
Environmental Scientist



Rebekka Lindskoog, R.P.Bio.
Manager, Northern Environment

REFERENCES

Delta North Alliance Construction Inc. (DNAC). 2023. Inuvik Airport WP3 and 4 – Embankment and Stormwater Drainage Construction Environmental Management Plan (CEMP), Version 6. December 3, 2023.

Government of Northwest Territories Environment and Climate Change (GNWT-ECC). n.d. Report a spill.
<https://www.ecc.gov.nt.ca/en/services/report-spill>.

Indian and Northern Affairs Canada (INAC). 2007. Guidelines for Spill Contingency Planning.
https://mvlwb.com/sites/default/files/guidelines_for_spill_contingency_planning_2007.pdf.

Land and Water Boards of the Mackenzie Valley (LWB). 2021. Guide to the Water Licensing Process.
https://glwb.com/sites/default/files/2021-08/LWB%20Guide%20to%20the%20Water%20Licensing%20Process%20-%20FINAL%20-%20Aug%2030_21.pdf.

Macdonald, A. Regulatory specialist, Gwich'in Land and Water Board (GLWB). April 17, 2023 (email) with Caitlin McKenzie and Jennifer Brown from Associated.

Mackenzie Valley Resource Management Act, SC 1998, c. 25.

Northwest Territories Waters Act, SNWT 2014, c. 18.

Safety Act, RSNWT 1988, c. S-1.

Waters Regulation, NWT Reg 019-2014.

APPENDIX A – NT-NU SPILL REPORT FORM

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND
OTHER HAZARDOUS MATERIALS



Canada



NT-NU 24-HOUR SPILL REPORT LINE

Tel: (867) 920-8130 • Email: spills@gov.nt.ca

REPORT LINE USE ONLY

A	Report Date: MM DD YY	Report Time:	<input type="checkbox"/> Original Spill Report OR <input type="checkbox"/> Update # _____ to the Original Spill Report		Report Number:
	Occurrence Date: MM DD YY	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: <input type="checkbox"/> NT <input type="checkbox"/> Nunavut <input type="checkbox"/> 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: <input type="checkbox"/> 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: <input type="checkbox"/> EC <input type="checkbox"/> CCG/TCMSS <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> AANDC <input type="checkbox"/> NEB <input type="checkbox"/> Other: _____			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:					