Spill Contingency Plan

1 – Site and Systems Description

Company – Arctic Kingdom Wilderness Holdings Inc. / Blachford Lake Lodge

Contact Information – PO Box 1568 Yellowknife, NT, X1A 2P2.

Tell - +1 888.737.6818 ext. 128

Contact – Amy Isaikina, Manager, amy.isaikina@arctickingdom.com

Site Location – Latitude – 62* 09' 55" N, Longitude – 112* 40' 59" W, Map Sheet Number – 85 I-2

Arctic Kingdom Wilderness Holdings Inc. (c/o Blachford Lake Lodge) has prepared this spill contingency plan for operating our commercial fishing lodge, on our land lease agreement in the Mackenzie Valley. This plan demonstrates that BLL has appropriate regulations, plans, guidelines, equipment, and training in place to safely prevent and handle any spills that may occur onsite.

Arctic Kingdom Wilderness Holdings Inc. (c/o Blachford Lake Lodge) is a main lodge with supporting 22 camp buildings, which includes four main sites for storing fuels and hazardous materials, and four fuel pumping sites. As we are the only community / establishment in the area we are responsible for the care and maintenance of the land issued under our lease, with designated staff onsite being allocated responsibility for and emergencies or spills that may happen.

The following are the requested two maps:

1) The lease sketch showing boundary lines, and the location of the facility.



2) Our site map outlining the locations for fuel storage, hazardous materials storage, and fuel pumping.



2 – Spill Contingency Plan

2.1 – SCP Introduction

The effective date of this spill contingency plan for Arctic Kingdom Wilderness Holdings Inc. (c/o Blachford Lake Lodge) is June 25th, 2024.

From this date forward the SCP will be reviewed annually, factoring in any stills that have occurred during the year, and amended as needed. This plan has a review date of November first of each forthcoming year. This plan applies to all operations within our legal land lease and complies with the guidelines and regulations that we are under.

2.2 – SCP Revision

In June 2024 Arctic Kingdom Wilderness Holdings Inc. (c/o Blachford Lake Lodge) SCP, made grammatical revisions to our Spill Contingency Plan and Waste Management Plan. No changes were made to the Engagement Plan. For future reference these annual reviews and revisions will be recorded in a chart, submitted to the boar and to the public for comment and review, approved, and saved in records both onsite and at our office in Yellowknife.

Version and Revision History

Version #	Date	Sections/Pages revised	Summary of Changes/Comments
Version 1	07-July-2024	Entire Document	AK's First Version based on old Taiga versions.

2.3 – SCP Purpose

The purpose of this plan is to outline response actions for potential spills of any size, including a worstcase scenario, for Arctic Kingdom Wilderness Holdings Inc. (c/o Blachford Lake Lodge). The plan identifies key response personnel and their roles and responsibilities in the event of a spill, as well as the equipment and other resources available to respond to a spill. It details spill response procedures that will minimize potential health and safety hazards, environmental damage, and clean-up efforts. The plan has been prepared to ensure quick access to all the information required in responding to a spill.

It is the policy of Blachford Lake Lodge:

- To comply with existing regulations
- To provide such protection of the environment as it is technically feasible and economically practical
- To cooperate with other groups on the protection of the environment
- To keep employees, government officials, and the public informed

2.4 – Contact Information and Responsibilities

An immediately reportable spill is defined as a release of a substance that is likely to be an imminent environmental or human health hazard or meets or exceeds the volumes shown in the attached table. These spills must be reported to the NWT 24-hour Spill Report Line at (867) 920-8130.

Additional Relevant Contact Include:

NWT 24-Hour Spill Line: 867-920-8130

NWT RCMP 24-Hour Line: 867-669-1111

NWT/ENR Fire Line: 877-698-3473

NWT Medevac/: Med-Response (867) 765-4051 or (867) 765-4052

Lodge Management & Distance Supervisor: Lodge Management Directed to Amy Isaikina; 1-780-665-3494

Site Systems and Grounds Support: Nolan Booth: 204-471-9636

Yellowknife Office: Katherine Johnson; -+1 888.737.6818 ext. 127

In the event of a Spill, or any emergency, the onsite Arctic Kingdom Wilderness Holdings Inc. (c/o Blachford Lake Lodge) Manager would be responsible for all action taken, designation, plan deployment,

supervision, summary, follow up and revision. It would be at the direction and the communication of the onsite manager to direct the staff through the SCP, to contact the needed off site assistance, and any other additional support from YK.

2.5 – Off Site Resources

Off-site resources for assistance in the event of a spill are listed below. Assistance from outside the community may not be able to reach the site until at least the next business day.

NWT 24-Hour spill line	(867) 920-8130
GNWT Environmental Protection Division	(867) 873-7654
AANDC Northwest Territories Region	(867) 669-2440
Environment Canada (Emergency) Yellowknife	(867) 669-4725
GNWT Environmental Health Officer	. (867) 669-8979
• RCMP (Yellowknife)	. (867) 669-1111
Stanton Territorial Health Authority	. (867) 669-4111
Dehcho Health & Social Services Authority	(867) 695-3815
Medivac (Yellowknife)	(867) 669-4115
Great Slave Helicopters (Yellowknife)	(867) 873-2081
Trinity Helicopters (Yellowknife)	(867) 669-7031
• Air Tindi (Yellowknife)	. (867) 669-8218

2.6 – Emergency Phone and Radio Locations

Blachford Lake Lodge Phone Locations: Right wall in the main lodge office and windowsill in the pantry.

*Blachford's Emergency Contact and Phone Numbers charts are located on the walls beside each phone.

Blachford Lake Lodge Emergency Sat Phone Location: On the shelf behind the door in the main office.

Blachford Lake Lodge Onsite Radios and Bases Location: On the windowsill in the pantry.

Please Note that the lodge manager and one other designated individual onsite will always have a radio on them and are receiving.

Please Note that the lodge manager may be away from the lodge phones in an emergency, but there will be a designated person to man the phones in their absence.

2.7 – Distribution and Storage of Spill Contingency Plan

Arctic Kingdom Wilderness Holdings Inc. (c/o Blachford Lake Lodge) keeps copies of its SCP in several locations on and off site including our main lodge office, each onsite pumping and storage location, recorded on our backed up hard drive, and at our Yellowknife office.

During the process of Blachford Lake Lodge's application for a LUP and water license, their specific SCP will be available to the public registry, available for open viewing. The following contacts can also be reached to obtain a copy:

1) Arctic Kingdom Wilderness Holdings Inc. (c/o Blachford Lake Lodge) YK and Lodge Offices: Po Box 1568, Yellowknife, NT, X1A

2P2, 613-206-5531, amy.isaikina@arctickingdom.com, www.blachfordlakelodge.com

- 2) Mackenzie Valley Land and Water Board: 7th Floor, 4922-48th St. | PO Box 2130 | Yellowknife, NT | Canada | X1A 2P6, ph. 867.766.7469 | fax 867.873.6610, <u>www.mvlwb.com</u>
- 3) The North Slave Regional Office for the Department of Lands with the Government of the Northwest Territories.

#16 Yellowknife Airport, Yellowknife, NT X1A 3T2, Tel: 867.767.9188 Email: <u>Clint_Ambrose@gov.nt.ca</u>, Web: www.lands.gov.nt.ca

2.8 – Community Environmental Policy

Arctic Kingdom Wilderness Holdings Inc. (c/o Blachford Lake Lodge) is committed to operating in an environmentally sensitive manner and complying with requirements of the Mackenzie Valley Lands and Water Board.

In correspondence with our lands lease, under the section 'Environmental' it is stated, and we comply that:

- The lessee shall always keep the land in a condition satisfactory to the minister.
- The lessee shall not unduly interfere with the natural drainage pattern of the land, except with the permission of the minister.
- The lessee shall not do anything which will cause erosion of the banks of any body of water or adjacent to the land and shall provide necessary controls to prevent such erosion.

Please also refer to all the sections under the lands lease definitions for our required outlook and care of the land, community, and environment associated with our operation.

On a separate entity, Arctic Kingdom Wilderness Holdings Inc. (c/o Blachford Lake Lodge) strives to exist as environmentally and sustainably as possible. Cited from our website (<u>www.blachfordlakelodge.com</u>) where we note our initiatives and goals pertaining to the community and environment.

2.9 -- SCP -- Potential Spill Materials Inventory

Item	Volume		Max # Onsite	Location		
CLEANING SUPPLIES						
Alcohol Hand Sanitizer Tub	20L	4	15	Gizzerville		
Bleach	3 x 3.6L / Case	14	15	Gizzerville		
Citranet Laundry Detergent	40lbs	3.5	15	Gizzerville		

Dishwasher Pail - Blue	5 Gallon Pail	0	15	Gizzerville
Dishwasher Pail - Red	5 Gallon Pail	0	15	Gizzerville
Dishwasher Sanitizer	5 Gallon Pail	0	15	Gizzerville
Disinfectant	9.5 L Jug	1.5	15	Gizzerville
Envirocare Liquid Bacteria	9.4L	1	15	Gizzerville
Enzyme for urinal - Tyzyme 25X	4 L jug	6.5	15	Gizzerville
Floor Cleaner	9.5 L Jug	1	15	Gizzerville
Green Works Spray	355ml	0	15	Gizzerville
Chafing Fuel (for warming ovens)	48 unit/box	1.2	15	Gizzerville

FUELS

Camawick Hardwood Pellets at Lodge	40 lb bag	35	400	Pellet Tent
Diesel	Barrel of 205 L	41	45	Kodiak / Gen Deck
Jet B Heli	Barrel of 205 L	4	5	Heli Pad
Gas	Barrel of 205 L	10	10	Gastown
Glycol	Barrel of 205 L	0	20	Boiler Deck
Propane	Bottle of 108L	34	40	Gen Geck
Propane	Bottle of 43 L	2	10	Gen Geck
Propane	Bottle of 21 L	1	10	Gen Geck
Propane	Bottle of 16oz	1	10	Gen Geck
Stihl 2 cycle premixed fuel	4L	4	10	Snowmobile Barn

CHAINSAW SUPPLIES

Stihl Chain Oil Medium	3.79L	0.5	15	Gizzerville
Stihl two strokes engine oil	1L	13	15	Gizzerville
Stihl two strokes engine oil	0.5L	13	15	Gizzerville
Summer Chain oil	4L	1	15	Gizzerville
Winter Chain oil	4L	2	15	Gizzerville

SNOWMOBILES SUPPLIES

2 Stroke Engine Oil	3.785L	5.5	15	Snowmobile Barn
2 Cycle Engine Oil	1L	3.5	15	Snowmobile Barn

4 stroke engine oil "mystic"	946ml	3	15	Snowmobile Barn
4 stroke engine oil All Climates	3.785L	4		Snowmobile
			15	Barn
4 Stroke Engine Oil Xtreme Cold	3.785L	2.5	15	Snowmobile Barn
		-		Snowmobile
Amsoil Synthetic 2-Stroke Oil	80Z	6	15	Barn
BRP XPS 4-Stroke Summer Oil	3.78	1		Snowmobile
		_	15	Barn
Chain Case Oil XPS	355ml	5	1 5	Snowmobile
			15	Snowmohile
Coolant XPS	946 ml	4	15	Barn
Dot 4 Broko Eluid	472ml	1		Snowmobile
	473111	1	15	Barn
Fuel stabilizer K100	237ml	12		Snowmobile
			15	Barn
Gas Line Antifreeze	150ml	1	45	Snowmobile
			15	Barn
Gear Oil SAE 75W-90	946ml	6	15	Barn
Gum out Small Engine Carb and			13	Snowmobile
Choke Cleaner	170g	0	15	Barn
Moto master Low Temp Grease	400g	0		Snowmobile
	4008	0	15	Barn
Quaker State Multipurpose Lithium	400g	2	45	Snowmobile
Grease			15	Barn
Sta-bill 360 Marine Fuel Stabilizer	236ml	3	15	Barn
	0.46.mal	1.4	_	Snowmobile
Synthetic Gear Oll SAE 75W-140	946mi	14	15	Barn
Turtle Car Wax	478ml	9		Snowmobile
			15	Barn
WD-40	3.7L	1	15	Snowmobile Barn
BO	ATS SUPPI	LIES		
4 Strokes marine engine oil	1L	0	10	Boat Room
4 Strokes marine engine oil	3.781	0	10	Boat Room
80W-90 Gear Lube	946ml	2	10	Boat Room
Fogging Spray	350g	9	10	Boat Room
Marine Sealant	30z	0	10	Boat Room
Quicksilver 25W-40 4-Stroke Oil	41	1	10	Boat Room

QUAD SUPPLIES							
WD40 Bike Degreaser	283g	1	5	Gizzerville			
Power Steering Fluid	3.78L	1	5	Gizzerville			
Gear Oil SAE 80W-90	1L	4	5	Gizzerville			
Engine Oil SAE 10W-30	5L	3.5	5	Gizzerville			
CONSTRUCTION							
Carpenters Glue	3.8L	1	6	Gizzerville			
DOW Insulating Foam Sealant	851g	2	6	Gizzerville			
Grease Gun and Grease		2	6	Gizzerville			
Jig-A-Loo Invisible All around lubricant	311g	1	6	Gizzerville			
Kleen Flo Brake Fluid	350ml	3	6	Gizzerville			
Mercury Gear Lube	1L	1	6	Gizzerville			
MotoMaster Locklube & Deicer	170g	2	6	Gizzerville			
Motomaster Marine Gear Oil	946ml	2	6	Gizzerville			
Mystic 2 Cycle Outboard Engine Oil	946ml	1	6	Gizzerville			
Petro-Can Precision Multi Application Grease	400g	1	6	Gizzerville			
plumbing antifreeze	3.78L	2	6	Gizzerville			
Polyethylene Vapour Barrier	roll	0	6	Gizzerville			
Poulan Weed Eater 2 Stroke Engine Oil	95ml	2	6	Gizzerville			
Slime Tire Sealant	946ml	5	6	Gizzerville			
Sub-Floor Decking Adhesive	1	1	6	Gizzerville			
Trailer Wheel Grease	170g	2	6	Gizzerville			
Turtle Wax Plus, polish and teflon	400g	1	6	Gizzerville			
Turtle Wax Polishing Compound	300g	2	6	Gizzerville			
Windshield Washer Fluid	3.78L	2	6	Gizzerville			
Yamalube	1L	2	6	Gizzerville			
GEN SUPPLIES							
Diesel antifreeze/coolant	3,78L	3	6	Gen Shed			
Synthetic blend diesel engine oil	5L	5	6	Gen Shed			

Synthetic blend diesel engine oil	18,9L	0	6	Gen Shed		
		6				
Acoustical Sealant	Large Tube	0	8	Gizzerville		
Acoustical Sealant	Small Tube	7	8	Gizzerville		
Acrylic	Small Tube	0	8	Gizzerville		
Acrylic Interior Grey Caulking	300g	8	8	Gizzerville		
Black Gold Ultimate Roof Repair	4kg	0	8	Gizzerville		
Construction Glue	Large Tube	0	8	Gizzerville		
Construction Glue	Small Tube	5	8	Gizzerville		
Construction Sealant	Small Tube	0	8	Gizzerville		
DAP Dynaflex 230 window/door trim sealant	300ml	7	8	Gizzerville		
Epoxy Shield, black	300ml	6	8	Gizzerville		
Fire Barrier Sealant	Small Tube	3	8	Gizzerville		
Home Grout Sealer	473ml	2	8	Gizzerville		
LePage 2 in 1 seal and bond kitchen/bath	295ml	1	8	Gizzerville		
LlePage window, door, siding sealant	295ml	2	8	Gizzerville		
Marine Sealant	Small Tube	0	8	Gizzerville		
No More Draft	Small Tube	2	8	Gizzerville		
Roof Patch	Large Tube	0	8	Gizzerville		
Roof Patch	Small Tube	4	8	Gizzerville		
Silicone	Small Tube	8	8	Gizzerville		
Stove and Gasket Cement	Small Tube	2	8	Gizzerville		
Touch and Foam Home Seal	20oz	2	8	Gizzerville		
PAINT AND STAIN						
Benjamin Moore Harborcoat exterior stain	3.41	0	8	Gizzerville		
Benjamin Moore Int/Ext Latex	3.791	0	8	Gizzerville		
Enamel - Sun Yellow	3,4L	0	8	Gizzerville		
Exterior Latex Stain - Green	17L	0	8	Gizzerville		
Green ext./int enamel high gloss (porch and floor)	3.79L	0	8	Gizzerville		

High Gloss - Brown	3 <i>,</i> 4L	0	8	Gizzerville
Interior Eggshell White	3,4L	0	8	Gizzerville
Low Lustre Deep Base	3,4L	0	8	Gizzerville
Miniwax Spar Urethane	946ml	0	8	Gizzerville
Reochem Solvent	18.91	0	8	Gizzerville
Roof Tar	18.9L	0	2	Gizzerville
Rustoleum Frost Glass Spray Paint	312g	0	10	Gizzerville
Satin Latex - Terra Red	3,4L	0	8	Gizzerville
Semi - Gloss Interior	3,4L	0	8	Gizzerville
Silicone and Spray Waterproofing	398g	0	8	Gizzerville
Thompson Waterseal	3.781	0	8	Gizzerville
Tile red paint for Floor and Patio	3,46L	0	8	Gizzerville
Tremclad Rust Spray Paint	340g	0	8	Gizzerville
Waterbone Ext Stain - Green	3,4L	0	8	Gizzerville
White Gloss	3.68L	0	8	Gizzerville

HOT TUB SUPPLIES

Adjust down	1kg	1	10	Gizzerville
Adjust up	750gm	2	10	Gizzerville
Arctic Pure "Boost"	680g	5	10	Gizzerville
Arctic Pure Saltwater Balance	1kg	2	10	Gizzerville
Boost	1kg	3	10	Gizzerville
Perfect Balance	680g	2	10	Gizzerville
Refresh (oxidizes contaminants / Non chlorine)	3Kg	3	10	Gizzerville
Spa tabs	2kg	2	10	Gizzerville
Winter Proof Water System Antifreeze	9.461	5	10	Gizzerville

2.10 – SCP Response Flowchart

The following steps are the response organization for our SCP:

- 1) Spill or release identified by individual
- 2) Personal safety and safety to others assessed
- 3) If possible, identify the content of the spill
- 4) Notification of the lodge/site manager
- 5) Managers reassess spill, safety and delegates staff to act accordingly
- 6) 6) Stop the flow of the spill if possible.
- 7) If classified a minor spill then engage stop, report and cleanup
- 8) If classified a major spill, contact the NWT Spill Line
- 9) If classified a major spill involve other needed external sources, ENR etc.
- 10) Consult and notify systems support and lodge owner
- 11) Proceed to contain and clean up the spill as to regulation
- 12) Document, record and review entire spill and process during and upon completion 13) Reassess the Spill Contingency Plan to make an amendment if necessary.

2.11 – SCP Action Plan

Response Strategy In the event of a spill:

- Be alert and consider safety first. If possible, identify the product spilled and the source of the spill.
- Assess the fire and safety hazard to human life; warn people in and around the spill area to vacate the area if necessary
- Shut off the source of the spill, if safe to do so.
- Shut off all machinery or equipment, for example: lights, motors, furnaces, truck engines that may cause sparks, etc. to start a fire, no smoking.
- Tend to the injured, if any.
- Secure the area by not letting any vehicles or persons enter the area.
- Use good judgment to safely stop the spill product from spreading, if possible, by creating a barrier to keep the area of spill from getting larger
- Notify the manager that a spill has occurred. The manager will deploy the plan of:

Step 1: Activate the Spill Recovery Plan.

- Step 2: Consult with on-site staff and determine appropriate level of response.
- Step 3: Notify all relevant government departments using the 24-hour Spill Line.
- Step 4: Deploy appropriate staff resources, including Rubber Tire Loader, Municipal Works staff, Spill

Containment Kit Step 5: Commence spill containment and collection activities.

Step 6: See that the contaminated materials are disposed within the solid waste disposal area.

Step 7: Complete spill report.

General Community Operations

Daily the community conducts operations that have the potential to be a small spill situation. Reporting for these spills will be in accordance with the Environmental Protection Act and the volumes outlined in the list of Immediately Reportable Spill Quantities appended to this document.

TDG					
Class	Substance for NWT 24 Hour Spill Line	Immediately Reportable Quantities			
1	Explosives				
2.3	Compressed gas (toxic)				
2.4	Compressed gas (corrosive)	Anversount			
6.2	Infectious substances	Any amount			
7	Radioactive	7			
None	Unknown substance				
2.1	Compressed gas (flammable)	Any amount of gas from containers with a			
2.2	Compressed gas (non-corrosive, non-flammable)	capacity greater than 100 L			
3.1					
3.2	Flammable liquids	> 100 L			
3.3					
4.1	Flammable solids				
4.2	Spontaneously combustible solids	> 25 kg			
4.3	Water reactant				
5.1	Oxidizing substance				
9.1	Miscellaneous products or substances excluding PCB mixtures	> 50 L or 50 kg			
5.2	Organic peroxides				
9.2	Environmentally hazardous	> 1 L Or 1 Kg			
6.1	Poisonous substances				
8	Corrosive substances	> 5 L or 5 kg			
9.3	Dangerous wastes				
9.1	PCB mixtures of 5 or more ppm	> 0.5 L or 0.5 kg			
None	Other contaminants (e.g., crude oil, produced water, waste or spent chemicals, used or waste oil, vehicle fluids, wastewater, etc.)	> 100 L or 100 kg			

Immediately Reportable Spill Quantities

None	Sour natural gas (i.e., contains H2S), sweet natural gas	Uncontrolled release or sustained flow of 10 min or more			
Class	Substance for NWT 24 Hour Spill Line	Immediately Reportable Quantities			
1	Explosives				
2.3	Compressed gas (toxic)				
2.4	Compressed gas (corrosive)				
6.2	Infectious substances	Any amount			
7	Radioactive				
None	Unknown substance				
2.1	Compressed gas (flammable)	Any amount of gas from containers with a			
2.2	Compressed gas (non-corrosive, non-flammable)	capacity greater than 100 L			
3.1					
3.2	Flammable liquids	> 100 L			
3.3					
4.1	Flammable solids				
4.2	Spontaneously combustible solids	> 25 kg			
4.3	Water reactant				
5.1	Oxidizing substance				
	Miscellaneous products or substances excluding	> 50 L or 50 kg			
9.1	PCB mixtures				
5.2	Organic peroxides	> 1 L or 1 kg			
9.2	Environmentally hazardous	- 5			
6.1	Poisonous substances				
8	Corrosive substances	> 5 L or 5 kg			
9.3	Dangerous wastes				
9.1	PCB mixtures of 5 or more ppm	> 0.5 L or 0.5 kg			
	Other contaminants (e.g., crude oil, produced				
None	water, waste or spent chemicals, used or waste	> 100 L or 100 kg			
None	Sour natural gas (i.e., contains H2S) sweet	Uncontrolled release or sustained flow of			
	natural gas	10 min or more			
None	5				

Note: In addition, all releases of harmful substances, regardless of quantity, are to be reported to the NWT spill line if the release is near or into a water body, is near or into a designated sensitive environment or sensitive wildlife habitat, poses imminent threat to human health or safety, poses imminent threat to a listed species at risk or its critical habitat, or is uncontrollable.

(Source: AANDC, Guidelines for Spill Contingency Planning. April 2007)

Potential spill sizes and sources for each hazardous material on site

In Table 2, a list of potential discharge events, with associated discharge volumes and directions is presented for the primary hazardous materials stored on site. The most likely discharge volume is indicated and the spill clean up procedures will focus on spills of this quantity. A worst case scenario is also presented. Specific discharge rates are not indicated for each fuel type as these would vary from a few minutes to several hours, based on the source of leak or puncture.

List of hazardous materials, potential discharge events, potential discharge volumes (worst case scenario in brackets) and direction of potential discharge

Material (sources)	Potential Discharge Event	Discharge Volume (worst case)	Direction of Potential Discharge
Diesel Fuel (drill rig, oil stoves)	 Over pumping of fuel from drum into drill rig. Leaking from drill rig. Minor leaking fuel drum in/outside fuel storage area. Large puncture, fast leaking drum in/outside fuel storage area. From drum connection to stoves in communal buildings. All drums punctured and leaking at once (very unlikely). 	Likely under 200 L/1 drum (max 11,000 L/ 55 drums)	Toward stream from drill site or fuel storage area near drill site. In camp on flat ground, from fuel storage area or communal buildings with potential underground seepage to Blachford Lake and/or stream.

Jet B Fuel (twin otter, helicopter)	 Over Filling of aircraft. Leak from drum or hose while filling aircraft. Minor leaking fuel drum in/outside fuel storage area. Large puncture, fast leaking drum in/outside fuel storage area. 	Likely under 200 L/1 drum (max 4,000 L/ 20 drums)	In camp on flat ground, from fuel storage area or helicopter pad with potential underground seepage to Blachford Lake and/or stream. In Blachford Lake while refuelling twin otter.
	 All drums punctured and leaking at once (very unlikely). 		
Gasoline (ATVs, snow machines)	 Overfilling of ATVs or snow machines (small spill) Leak from drum or hose while filing ATVs or snow machines. Minor leaking fuel drum in/outside fuel storage area. Large puncture, fast leaking drum in/outside fuel storage area. All drums punctured and leaking at once (very unlikely) 	Likely under 200 L/1 drum (max 2,000 L/ 10 drums)	In camp on flat ground, from fuel storage area with potential underground seepage to Blachford Lake and/or stream. Toward stream from fuel storage area near drill site.

Propane (kitchen stove and fridge)	 Leak whether to kitch fridge. Minor hether cylinder outside area. La punctur leaking in/outside storage All punctur leaking (very ur 	nile connected en stove or eaking r in or fuel storage arge re, fast drum ide fuel area. drums red and at once nlikely).	Likely under 45 kg/ 1 cylinder (max 900 kg/ 20 cylinders)	In camp on flat ground, from fuel storage area or communal buildings with potential underground seepage to Blachford Lake and/or stream.
Glycol (In floor and lodge heating)	 Over puglycol fistorage Leaking storage storage storage area. La punctur leaking in/outsi area. All drunand lea (very unanticity) 	Imping of rom drum into tanks. from drill tanks. Minor drum ide storage re, fast drum ide storage ns punctured king at once nlikely).	Likely under 200 L/1 drum (max 11,000 L/ 55 drums)	In Pellet Boiler room on the sealed concrete floor. In camp on flat ground, from storage area or communal buildings with potential underground seepage to Blachford Lake and/or stream.

Waste oil stored in empty 200 L drums, could potentially leak. The quantity of waste oil drums would be quite limited as they would be shipped out by plane as they are filled up. The risk of a spill from a waste oil drum impacting the environment is very low as waste oil is stored in a beamed site designated for certain wastes.

Potential environmental impacts of spill (include worst case scenario)

Overall, for all hazardous materials discussed below, impacts are lower during winter as snow is a natural sorbent and ice forms a barrier limiting or eliminating soil or water contamination, thus spills can be more readily recovered when identified and reported.

Gasoline

Environmental impacts: Gasoline may be harmful to wildlife and aquatic life. It is not readily biodegradable and has the potential for bioaccumulation in the environment. Gasoline is quick to volatize. Runoff into water bodies must be avoided.

Worst case scenario: All fuel drums were punctured or open simultaneously and contents seeped into surrounding soil and water bodies. This could cause illness or death to aquatic life and indirectly affect wildlife feeding from the land and water.

Diesel Fuel

Environmental impacts: Diesel may be harmful to wildlife and aquatic life. It is not readily biodegradable and has the potential for bioaccumulation in the environment. Diesel burns slowly and thus risk to the environment is reduced during recovery as burn can be more readily contained compared with volatile fuels. Runoff into water bodies must be avoided.

Worst case scenario: All fuel drums were punctured or open simultaneously and contents seeped into surrounding soil and water bodies. This could cause illness or death to aquatic life and indirectly affect wildlife feeding from the land and water.

Jet B Fuel

Environmental impacts: Jet B fuel may be harmful to wildlife and aquatic life. It is not readily biodegradable and has the potential for bioaccumulation in the environment. Jet B fuel volatizes relatively quickly. Runoff into water bodies must be avoided.

Worst case scenario: All fuel drums were punctured or open simultaneously and contents seeped into surrounding soil and water bodies. This could cause illness or death to aquatic life and indirectly affect wildlife feeding from the land and water.

Propane

Environmental impacts: Propane may be harmful to wildlife and the surrounding environment. It has the potential to accumulate in the environment. Propane is extremely volatile and is the most flammable material stored on site, thus immediate impacts to the surrounding environment are a concern.

Worst case scenario: All cylinders were punctured or failed simultaneously, and contents leaked into the surrounding environment and ignited leading to an explosion. This could cause serious environmental impacts in the immediate surroundings. Safety during emergency response to a propane spill is of the utmost concern.

Glycol, Waste Oil and Miscellaneous Oils/Grease

Environmental impacts: Waste oils may be harmful to wildlife and aquatic life. It is not readily biodegradable and has the potential for bioaccumulation in the environment. Runoff into water bodies must be avoided.

Worst case scenario: All storage drums were punctured or open simultaneously and contents seeped into surrounding soil and water bodies. This could cause illness or death to aquatic life and indirectly affect wildlife feeding from the land and water.

Defensive Spill Position General Community operations include:

- Retain sufficient supplies (sorbent) in potential spill locations to contain potential spill volumes.
- Using Storage tanks that meet the fire code and Fire Marshal's recommendations (Dyked tanks or double-walled).
- Training personnel in safe, sensible operational procedures.
- Material Safety Data Sheets (MSDS) for all chemicals in use. All the fuels, greases, oils, chemicals and hazardous materials listed in the inventory chart above have MSDS sheets located on site and at easy access around the source.

Spill Reporting Procedures

Spills should be reported immediately to the onsite manager, who will determine if the spill is to be reported to the NWT 24-Hour Spill Line at 867- 920-8130, based on the volumes in the Immediately Reportable Spill Quantities table cited above. Copies of the Spill Report form is available in each spill kit and below. The form will be filled out by the onsite manager (or designate) and faxed or emailed to the NWT Spill Line.

Contact information is as follows:

NWT 24-Hour Spill Line Phone: (867) 920-8130

Fax: (867) 873-6924

Email: spills@gov.nt.ca



NT-NU SPILL REPORT

ИТИКО 24-ИООН SPILL КЕРОИТ LINE TEL. 1867/ 500-8320 Тол. 1867/ 773-00734 EMAIL spirotidos III - a

OIL, BAROLINE, CHEMICALE AND OTHER HAZARBOUR MATERIALS

REPORT LINE USE ONLY

A	REPORT DATE, MONTH - DAY - YEAR		R	REPORT TIME		-		1	REPORT NUMBER
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E	LATITUDE DEGREES	LATITUDE DEGREES MINUTES SECONDS			LONGITUDE	MINUT	ES S	ECONDS	
F	RESPONSIBLE PARTY OR VESSEL NAME		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION						
G	ANY CONTRACTOR INVOLVED			CONTRACTOR ADDRESS OR OFFICE LOCATION					
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LEAD	AGENCY								
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Procedures for the Protection of Human Health and Safety

Following a spill, the health and safety of workers as well as the public is a priority. Actions taken will depend on the type of spill.

- In the event of a chemical spill: Restrict public access to the spill area. Workers involved in the cleanup of the spill should wear personal protective equipment (PPE).
- In the event of a flammable or combustible material spill: Disconnect electrical equipment, evacuate adjacent buildings and restrict public access to the spill area. Only spark-arresting equipment should be used during clean-up of the spill. PPE should also be worn by workers involved in the clean-up.
- In the event of a sewage spill: Restrict public access (including pets and animals) to the spill area.

Procedures for Containing and Controlling Spills

General procedures noted below will be used to contain and control all spills. Specific procedures for spills on land, water, snow and ice follow.

- First anticipate what will be affected by the spill.
- Assess direction and speed of spill, and any factors that could affect these (water, wind and slope).
- Determine best location for containing spill, avoiding any water bodies.

Containment of Spills on Land: Dykes and trenches can be constructed to contain spills on land. Soil surrounding the spill area can be dug out, and piled up, to create a barrier for the spill. A plastic tarp can be placed at the base of the dyke, so that the pooled material can be removed with sorbent materials. Conversely, trenches can be excavated to permafrost, which will provide a natural containment of the spill. Once the material is contained, it can be pumped out, or removed by using sorbent materials. If the spill is moving very slowly, such structures Page 22 of 26 may not be necessary and the material can be removed before migrating away from the spill location.

Containment of Spills on Water: Spills on water are considered the most serious types of spills, as there is often no containment of the spilled material and water quality, and aquatic life are negatively impacted. Booms, weirs, sediment curtains and fencing can be installed to contain the spill. Booms are designed to float and are made of absorbent material to soak up the spilled fuel. They are deployed from the shore or a boat, to create a circle around the spill or to contain a spill from migrating further into the receiving water bodies. Weirs are installed across creeks/drainages, to prevent further migration. Plywood or other materials found onsite can be used. Barriers made of fence or netting can be used as well, with sorbent material placed at the base of the barrier. Once contained, the fuel can be removed by absorbent materials, pumped out or allowed to volatilize.

Containment of Spills on Snow: Snow acts as a natural sorbent for spilled fuel. Impacted snow is easily visible and can be shoveled into empty drums or barrels for proper disposal. If the spill is migrating down a hill, a snow dyke can be constructed to contain the spill. A plastic tarp can be placed at the base of the dyke, where spilled fuel is expected to pool. The collected fuel and impacted snow can be removed with absorbent materials, pumped out, or shoveled into barrels for disposal.

Containment of Spills on Ice: Ice is considered impermeable to fuel, so these spills are generally easy to clean up. Small spills can be cleaned up by placing absorbent materials on top of the ice. Impacted snow and slush can then be removed by shovels and placed in barrels for disposal. For larger spills, dykes of snow and trenches can be constructed to contain the spill. Pooled fuel can then be removed by absorbent materials or pumped out. Impacted snow and slush can be shoveled into barrels for disposal.

Worst Case Scenarios: Worst case scenarios include a dyke or trench overflowing and a large spill on water that cannot be contained with materials available in the community. In the first case, a trench or collection pit could be constructed downstream to collect the fuel. In the second case, an emergency response team would need to be called, with appropriate equipment to deal with the spill.

Procedures for Transferring, Storing and Managing Spill Related Wastes

Spills are generally cleaned up starting at the outer limit of the spill and working towards the point of the spill. Sorbent materials and hand tools such as cans and shovels are used for smaller spills. Larger spills can be contained with the use of a pump and/or heavy equipment. Spill wastes include used absorbent materials and containers of impacted water and snow. Sorbent materials should be placed in plastic bags for proper disposal. The containers of impacted water and snow should be sealed and stored until disposal at an approved facility can be arranged. For most of the containment procedures, spilled petroleum products and materials used for containment will be placed into empty waste oil containers and sealed for proper disposal at an approved disposal facility. Following a spill, all used materials need to be properly washed and/or replaced.

Procedures for Restoring Affected Areas

Once a spill has been contained, community personnel will consult with the Inspector assigned to the file to determine the level of clean-up required. The Inspector may request that a site specific study be conducted, to ensure appropriate clean-up levels are met. After clean-up has been completed, the community should follow up with the NWT 24-hour Spill Line to ensure that the spill report file has been closed. Closure of the spill file provides evidence that the spill was cleaned up to the regulator's satisfaction. This will help prevent the spill from being considered an environmental liability for the community in the event of a change of ownership, refinancing, or closure of the site. A copy of the spill report marked "Closed" can be provided on request for the community's files. The Spill Line also keeps copies of these reports on file.

2.12 – SCP – Resource Inventory

Arctic Kingdom Wilderness Holdings Inc. (c/o Blachford Lake Lodge) has shovels, hand tools, snow and ice tools, water tools, and storage containers, etc. located onsite if needed to contain and clean up in the event of a spill.

All the designated fuel storage and pumping locations have regulated spill control kits onsite.

Contents of Spill Kits:

4 Tyvek splash suits	50 oil only mats (16″ x 20″)	1 field notebook and pencil
4 pairs of chemical		
master gloves	5 sorbent socks	1 rake
10 large bags with ties	10 sorbent pads	1 pickaxe
for temporary use		
	2 large tarps	3 aluminium scoop
2 oil only booms (5" x		shovels
10')	1 roll duct tape	
		1 instruction binder
	1 utility knife	

Earth moving and other equipment

1 small loader

- 2 all-terrain vehicles
- 3 snow machines

1 zodiac boat

1 chain saw

3 fuel transfer hoses with pumps tool kit including a hacksaw, hammers, screwdrivers etc.

2.13 – SCP Training

Arctic Kingdom Wilderness Holdings Inc. (c/o Blachford Lake Lodge) managers and staff are all put through an intensive training at arrival onsite. All individuals working at the operation (and usually those who are just visiting too!) are required to participate in an orientation session. During the orientation, all locations of the Spill Contingency Plan and spill kits are indicated. During the orientation, an overview of the Spill Contingency Plan is provided. All managers are required to have their basic first aid training, as well as WHMIS training, before working on the site. There are no training records kept as all individuals must go through the process and training.

