# **WASTE MANAGEMENT PLAN**

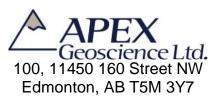
# MUSKOX NICKEL PROPERTY NUNAVUT, CANADA

# Prepared for:



1351C, Kelly Lake Road, Unit 9 Sudbury, Ontario P3E 5P5

# Prepared by:



Effective Date: January 1, 2023 Revised: June 22, 2023

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#### 1 Introduction

This Waste Management Plan ("WMP") applies to mineral exploration activities conducted by SPC Nickel Corp. ("SPC" or the "Company") on the Muskox Nickel Property ("the Property" or "the Project"), Nunavut, Canada.

This WMP will come into effect January 1, 2023 pending approval from all relevant regulatory bodies. Copies and updates to this plan may be obtained via the Company or APEX Geoscience Ltd. ("APEX"). This WMP will be replaced, upon approval, if there are any significant changes to the activities outlined in the existing permits, which warrant changes to this WMP. Minor changes will be submitted as an addendum to this WMP and submitted to the distribution list as required.

#### 1.1 Contact Details

Table 1. Company Contact Information

#### SPC Nickel Corp.

1351C, Kelly Lake Road, Unit 9 Sudbury, Ontario P3E 5P5 Tel: (705) 669-1777 www.spcnickel.com

#### **APEX Geoscience Ltd.**

100, 11450 160 Street NW Edmonton, AB T5M 3Y7 Tel: (780) 467-3532 www.apexgeoscience.com

#### 1.2 Purpose and Scope

The primary objective of the Muskox Nickel Property WMP is to provide employees and contractors with operational guidelines to minimize the generation of wastes and facilitate the collection, storage, transportation, and disposal of wastes while minimizing adverse effects on the environment. This WMP includes the following:

- A summary of regulatory requirements.
- Potential waste minimization, recycling, and reuse options.
- Methods for collection, storage, and disposal of hazardous and non-hazardous wastes.
- Ways to minimize environmental impacts.
- Training, inspection, and monitoring efforts.

#### 1.3 Other Plans

The WMP should be considered as a part of the Property wide management system. Other management plans in place at the Muskox Nickel Property include:

- Abandonment and Restoration Plan (ARP)
- Emergency Response Plan (ERP)
- Environmental Management Plan (EMP)
- Spill Contingency and Fuel Management Plan (SCFMP)

#### 1.4 Property and Camp Description

The Muskox Nickel Property (the "Property" or the "Project"), owned and operated by SPC Nickel Corp. ("SPC" or the "Company"), consists of 27 mineral claims covering 34,959 hectares and 2 prospecting permits covering 30,350 hectares. The Property is separated into a North Block, located on National Topographic System ("NTS") map sheets: 86O03 and 86J14 and centred at 574,500mE, 7,427,000mN, North American Datum 1983 ("NAD83" Universal Transverse Mercator ("UTM") Zone 11, and a South Block, located on NTS map sheets: 86J02, 86J06, 86J07, 86J10 and 86J11 (centred at 591,600mE, 7,373,000mN, NAD83 Zone 11). The North Block is located approximately 100 km south of the Hamlet of Kugluktuk and partially overlaps Inuit Owned Land ("IOL") surface parcels CO-52 and CO-60. The south block, located entirely on Crown land, is approximately 20 km south of the North Block and extends to the Nunavut - Northwest Territories border.

SPC proposes annual exploration programs which include general exploration activities such as geological mapping, prospecting, geochemical sampling (rock, soil and till), geophysical surveys (airborne and ground) and diamond drilling of approximately 5,000 m. Annual programs are anticipated to commence approximately April 1 and run until September 30.

The 2023 exploration program will include the establishment of a seasonal 20 person exploration camp with fuel cache to be constructed in one of 2 possible locations. The current potential locations are near Stanbridge Lake (66°52′51.088″N, 115°3′29.673″W) or near Marceau Lake (66°25′30.123″N, 114°59′1.726″W). Structures for the proposed camp will include 10 sleeper tents, 1 medical tent, 1 kitchen, 1 dry (with showers), 1 office tent, core shack, generator shack, incinerator and outhouses/pacto systems. The majority of the structures will be insulated Weatherhaven tents, or similar, with plywood floors.

General exploration activities on IOL surface parcels CO-52 and CO-60 are currently authorized by Kitikmeot Inuit Association ("KIA") Land Use Licence KTL122B004. SPC is currently applying for a Land Use Permit ("LUP") from Crown-Indigenous Relations and Northern Affairs Canada ("CIRNAC") and a Nunavut Water Board ("NWB") water licence to authorize the proposed seasonal camp and drilling. SPC is also applying to amend KIA Land Use Licence KTL122B004 to include diamond drilling on IOL.

The proposed work will be helicopter supported and require the occasional landing of the aircraft. In order to mitigate any potential impact on wildlife, the helicopter will always maintain a minimum altitude of 610 m (2,100 ft) above ground level except during landing, take-off or if there is a specific requirement for low level flying (e.g. airborne surveys). Wildlife will be avoided and the helicopter will not land in the presence of wildlife except in an emergency.

Absolutely no activities will be conducted that will interfere with caribou cows and calves, and no exploration activities will cause a diversion in the migration patterns of any caribou. SPC will communicate with the Kitikmeot Inuit Association ("KIA") and any other interested parties, regarding caribou sightings and appraised movements in the area.

Consultation with the Hamlet, Hunters and Trappers Organization and public of Kugluktuk is currently being planned to be completed prior to the next field program.

#### 1.5 Applicable Legislation and Guidelines

Acts, regulations, and legislation that relate to waste management in Nunavut are listed below:

#### 1.5.1 Federal

- Canadian Centre for Occupational Health and Safety Act
- Canadian Environmental Protection Act
- Fisheries Act
- Nunavut Waters and Nunavut Surface Rights Tribunal Act
- Transportation of Dangerous Goods Act
- National Fire Code of Canada
- Northern Land Use Guidelines
- Workplace Hazardous Materials Information System (WHMIS)
- CCME Environmental Codes of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products
- Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations
- Guidelines for Spill Contingency Planning (AANDC)

#### 1.5.2 Territorial

- Fire Prevention Act
- Environmental Protection Act
- Mine Health and Safety Act and Regulations
- Public Health Act
- Safety Act
- Nunavut Occupational Health and Safety Regulations
- Environmental Guideline for the General Management of Hazardous Waste

#### 2 Waste Management

#### 2.1 Definition of Wastes

Waste at the Muskox Nickel Property is considered to be any material or substance that can no longer be used for its intended purpose, and is destined for recycling, disposal, or storage. Hazardous wastes are broadly defined by the Nunavut Department of Environment's Environmental Guideline for the General Management of Hazardous Waste as being "any unwanted material or products that can cause illness or death to people, plants and animals". Hazardous wastes may include waste petroleum products, solvents, paints, waste chemicals, batteries, and any combination of hazardous and non-hazardous materials (i.e. mixed waste).

The responsibility for proper waste management rests with the waste generator and should be budgeted for accordingly, as a cost of doing business.

#### 2.2 Waste sources

Tables 1 and 2 provide a summary of the expected types of hazardous and non-hazardous (inert) wastes to be generated at the Muskox Nickel Property.

Table 2.1: Non - hazardous (Inert) Wastes

Waste Type	Examples	Estimated Quantity Generated	Treatment/Disposal Method
Sewage	Human waste	10 – 20 people	Privy Pits (outhouses treated with lime) and/or incinerated with incinerator specifically designed for that waste type. Ashes from incineration will be removed and taken to approved disposal site
Camp greywater	Water from kitchen and sinks, showers)	≤ 10 (m³/day)	Sumps located adjacent to camp; allowed to percolate into overburden; minimum distance of 31 m from nearby water sources
Combustible solid waste	Food wastes, paper, untreated wood	Variable	Incineration
Incinerator ash	Ash from the incinerator	Minimal	Stored in sealed containers, removed and taken to approved disposal site
Non-combustible solid waste, bulky items, scrap metal	Scrap metal (ie. empty drums, nails/screws), glass (ie. bottles, jars), rubber products (ie. tires, floor mats), plastics (ie. bottles, packaging, bags), non-hydrocarbon contaminated equipment (ie. motors, fans, heaters, pumps, screens)	Variable	Stored in sealed containers, removed and taken to approved recycling or disposal site
Hazardous waste or oil	Used oil	Minimal	Stored in sealed containers, removed and taken to approved disposal site
Contaminated soil/water	Hydrocarbons	Variable/ negligible	Stored in sealed containers, removed and taken to approved disposal site
Drilling Greywater	Drill cuttings & water	≤ 289 (m3/day)	Sump located adjacent to drillhole; allowed to percolate into overburden; minimum distance of 31 m from nearby water sources

Table 2.2: Hazardous Wastes and Pollutants

Waste Type	Examples
Petrochemicals	Diesel, jet fuel, gasoline, various oils
Solvents	Varsol, cleaning products

Waste Type	Examples
Contaminated soil	Contaminated soil/snow/water
Electronics	Computer parts, circuit boards, transformers
Fluorescent tubes	Regular and compact fluorescent tubes
Batteries	Dry cell batteries, button batteries, lead-acid based batteries

#### 2.3 Waste Management Activities

Waste management operations at the Muskox Nickel Property comprise a number of activities with the common goal of reducing the amount of waste generated on site and to ensure that any wastes created are reused, recycled, or disposed of in a responsible manner. Wastes will be separated at the source into a number of categories including: organics (food wastes), materials for incineration, inert recyclables, inert non-combustible materials, and various hazardous materials. Materials that cannot be incinerated will be stored in appropriate containers until they can be removed from site for treatment and/or disposal at an accredited facility.

#### 2.4 Waste Recovery and Reuse

Recovery and reuse options at the Muskox Nickel Property are limited due to the site's remote location and are restricted largely by the technology and equipment available on the Property. However, any available opportunity for waste recovery and reuse will be taken.

### 3 Waste Classification and Disposal Plan

#### 3.1 Hazardous Wastes

All hazardous wastes will be placed in sealed containers and stored within "Arctic Insta-Berms", or similar, for secondary containment until they can be backhauled for recycling or disposal. A hazardous waste storage area will be established adjacent to the main fuel cache.

#### 3.1.1 Used Oil

Waste lubricating oils, from vehicles, generators, pumps, or other equipment will be collected and stored in labeled 205 L steel drums and backhauled to a registered hazardous waste receiver.

#### 3.1.2 Hydraulic Fluid

Whenever possible, hydraulic fluids will be filtered and reprocessed for reuse. Hydraulic fluid that cannot be reprocessed will be sealed in labeled 205 L steel drums and stored in the hazardous waste storage area until the product can be backhauled to a registered hazardous waste receiver.

#### 3.1.3 Contaminated or Expired Fuels

Contaminated or expired fuels, such as Jet B aviation fuel, should remain clearly labeled and tightly sealed in their original containers within the fuel storage area. The fuels will be moved to the hazardous waste storage area for backhaul to a registered hazardous waste receiver.

#### 3.1.4 Solvents

Whenever possible, non-toxic alternatives will be used in place of petroleum based solvents. Excess or waste solvents will be packaged in clearly labeled, original, tightly sealed containers, or manufactured containers designed for solvent transport. Waste solvents will be stored in the hazardous waste storage area until backhauled to a registered hazardous waste receiver.

#### 3.1.5 Contaminated Soil, Snow, and Ice

Any contaminated soil, snow, or ice will be cleaned up immediately in accordance with the Muskox Nickel Property "Spill Contingency and Fuel Management Plan." All contaminated soil, snow, and ice will be sealed in 205 L steel drums and stored in the hazardous waste storage area to await backhaul to a registered hazardous waste receiver.

#### 3.1.6 Used Rags and Sorbents

Used rags and sorbents will be placed in clearly labeled, tightly sealed containers, such as 205 L steel drums, and stored in the hazardous waste storage area until disposal or backhaul is possible. Rags and sorbent pads will be incinerated on site. Granular sorbent will be stored in drums and backhauled to a registered hazardous waste receiver.

#### 3.1.7 Empty Hazardous Material Containers and Drums

Empty containers will be stored in a designated area and returned to the supplier. Drums may alternatively be drained, air dried, backhauled to a recycling facility. Any residual fuels drained will be consolidated into drums and backhauled to a registered hazardous waste receiver.

#### 3.1.8 Waste Batteries

Generation of waste batteries will be reduced by properly maintaining batteries to prolong life and by replacing non-rechargeable batteries with rechargeable alternatives whenever possible. Even with proper maintenance, all batteries will eventually deteriorate and reach the end of their useful life. Waste batteries must be properly handled to avoid spillage of corrosive materials and the release of metals into the environment.

Dry cell batteries are used in equipment such as hand-held radios and GPS units, flashlights, and cameras. Some of these types of devices utilize rechargeable battery packs, but others use general dry cell battery types such as AAA to D cells, 6 or 9 volt consumer batteries, and button batteries. Specific containers will be set up in the office, common spaces, and drill sites to collect dry cell batteries. The batteries will be placed in appropriate shipping containers and backhauled to an off-site recycling facility.

Waste lead acid batteries and rechargeable batteries will be temporarily stored in a 205 L plastic drum, within the hazardous waste storage area. These types of batteries can only be stored in this manner in quantities of 1000 kg or less and for periods of less than 180 days. All waste lead acid and rechargeable batteries will be backhauled from site as necessary to conform to regulations.

#### 3.1.9 Aerosol Cans

Use of aerosol cans at the Muskox Nickel Property will be limited. Whenever possible, alternatives, such as spray bottles, will be used in place of aerosol cans. Any waste aerosol cans will be collected in specific containers around camp and at drill sites. The cans will be stored in the hazardous waste storage area until backhauled for disposal.

#### 3.1.10 Fluorescent Bulbs and Tubes

Waste fluorescent bulbs and tubes will be packaged in their original (or equivalent) containers and stored in a watertight enclosure in the hazardous waste storage area until backhauled to a hazardous waste recycling or disposal company. Fluorescent bulbs and tubes are considered hazardous waste if broken, and should be handled accordingly.

#### 3.2 Inert Non-Combustible Solid Wastes

Labeled bins will be provided at various locations around camp and at drill sites for each type of waste listed below. Effort will be taken to reuse or repurpose any materials before disposal is considered.

#### 3.2.1 Tires and Other Rubber Materials

Waste tires, hoses, and other rubber materials that cannot be repaired or repurposed will be backhauled for recycling or disposal.

#### 3.2.2 Scrap Metal and Glass

Scrap metal and glass will be repurposed for alternative uses whenever possible. Any residual metal or glass that cannot be reused will be placed in 205 L steel drums and backhauled for recycling.

#### 3.2.3 Electronics

Electronics and electrical equipment will be collected and stored in sealed containers within the hazardous waste storage area and removed from site for recycling or disposal.

#### 3.2.4 Vehicles and Other Mechanical Equipment

Vehicles and other mechanical equipment, such as generators, that are no longer usable, will be removed from site for refurbishment or recycling/disposal. Vehicles and equipment awaiting backhaul will be stored in a specially designated, bermed area.

#### 3.3 Inert Combustible Solid Wastes

The Muskox Nickel Property will use a batch feed dual-chamber controlled air incinerator to dispose of combustible solid wastes. All combustible wastes will be incinerated in accordance with applicable federal and territorial regulations and the Nunavut

Department of Environment Guideline for the Burning and Incineration of Solid Waste. Incinerator ash will be properly stored in sealed containers, removed and taken to approved disposal site

#### 3.3.1 Food Waste and Packaging

Dedicated steel bins, lined with plastic garbage bags, will be provided for the collection of food waste and packaging at a number of locations throughout camp and at drill sites. The bins will be secured in place and use locking lids to avoid interference by wildlife. Food waste and packaging will be incinerated daily to minimize the attraction of wildlife. Waste oil and grease collected from the kitchen will be stored in sealed plastic pails, and remain in the kitchen until transferred to the incinerator for immediate disposal.

#### 3.3.2 Paper and Cardboard

Use of electronic methods for communication will be encouraged at the Muskox Nickel Property to minimize the amount of paper used. Effort will be taken to restrict the amount of corrugated cardboard coming to site, and waste cardboard will be reused as needed, possibly as packaging for backhauled materials. Specific containers, located throughout camp, will be used to collect paper and cardboard. Waste paper and cardboard will be incinerated.

#### 3.3.3 Waste Lumber

Whenever possible, lumber will be reused at the Muskox Nickel Property. Excess waste lumber will be stored in appropriate areas and either backhauled or burned when the camp is completely removed.

#### 3.4 Sewage

The Muskox Nickel Property camp will utilize privy pits (outhouses), which will be located at least 31 m away from a water body. To control sewage pathogens, outhouses will be periodically treated with lime. When full, the pits will be covered with at least 30 cm of compacted soil. When required (e.g. size of camp increases), Pacto systems will be used and the sewage will be incinerated with incinerator specifically designed for that waste type. Ashes from incineration will be removed and taken to approved disposal site.

#### 3.5 Drilling Fluids

Recirculation and filtration equipment will be used to minimize the amount of water used and additives released into the environment. Secondary containment for the additives will be placed around the hole. Any residual drill waste, including water, chips, muds and salts (CaCl2) will be disposed of in a properly constructed excavated sump or an appropriate natural depression located at a distance of at least 31 metres from the ordinary High Water Mark of any adjacent waterbody or watercourse and positioned down slope from the drill collar in such a manner where direct flow into a waterbody or watercourse is not possible and no additional impacts created. When finished, sumps will be covered with enough material for future ground settlement. See Appendix 2 of the Spill Contingency and Fuel Management Plan for the SDS/MSDS of possible drill additives used.

#### 4 Site Facilities

#### 4.1 Hazardous Waste Storage Area

The hazardous waste storage area will be located adjacent to the main fuel cache, away from any structures and a minimum of 31 metres from the normal high water mark of any water body. It will be used for storage of any hazardous wastes until they can be backhauled for recycling or disposal. All hazardous wastes will be sealed in appropriate, clearly labeled, watertight containers, such as 205 L steel or plastic drums.

All containers housing hazardous waste will be stored within "Arctic Insta-Berms", or similar, for secondary containment. These types of berms utilize chemical and fire resistant fabric (generally polyurethane coated nylon or vinyl coated polyester material) designed for extreme arctic temperatures and puncture resistance. "RainDrain" or similar hydrocarbon filtration systems will be used to safely remove any water collected inside the berms, and as a safeguard against any potential overflows of contaminated water.

All waste storage areas will be clearly marked and labeled with appropriate signage. Within the storage area, wastes will be segregated by type, and labeled to ensure safety for handlers and appropriate disposal.

#### 4.2 Incinerator

The Property will utilize a batch feed dual-chamber controlled air incinerator to dispose of combustible solid wastes. These types of incinerators typically produce the highest quality burn, with the least amount of ash and airborne particles.

All combustible wastes will be incinerated in accordance with applicable federal and territorial regulations and the Nunavut Department of Environment Guideline for the Burning and Incineration of Solid Waste.

If sewage is to be incinerated it will be with an incinerator specifically designed for that waste type. Ashes from incineration will be removed and taken to approved disposal site.

# 5 Training

All on site management and any personnel required to handle hazardous wastes must have valid First Aid, WHMIS, and Transportation of Dangerous Goods (TDG) training. Site and job-specific training will be provided to all personnel who are required to handle waste materials. All employees and contractors will receive training in emergency response and spill response, as outlined in the Muskox Nickel Property "Emergency Response Plan" and "Spill Contingency and Fuel Management Plan", respectively.

Personnel responsible for operating or maintaining the incinerator will receive hands on training to ensure the equipment is operated safely and efficiently.

# 6 Inspection and Monitoring

Inspections of the hazardous waste storage area and other waste storage facilities will be conducted daily. Regular inspections will include an assessment of the condition of waste receptacles and storage containers, checking for any damaged or leaking containers or

berms, and ensuring that waste is collected and stored in the correct containers and storage areas. More detailed weekly inspections will be conducted to ensure the hazardous waste inventory is up to date, secondary containment is in place and in good condition, and spill kits are fully stocked and available. Any leaks or spills will be treated as outlined in the "Spill Contingency and Fuel Management Plan."

The Project Field Supervisor is responsible for supervising the monitoring and inspection program, and keeping a detailed inventory of all hazardous wastes on site.

# Appendix 1 Figures

