

WASTE MANAGEMENT PLAN

DEWAR LAKES CAMP
QIKIQTANI REGION, NUNAVUT, CANADA



Prepared by:



Effective Date: July 1, 2022

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1 Introduction

This Waste Management Plan (WMP) applies to activities carried out at the Commander Resources Ltd. (Commander or the Company) Dewar Lakes Camp (the Camp), Nunavut, Canada.

The WMP will come into effect July 1, 2022, pending approval. Copies and updates to this plan may be obtained via the Company or APEX Geoscience Ltd. (APEX).

1.1 Contact Details

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1.2 Purpose and Scope

The primary objective of the Dewar Lakes Camp 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. The 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 Dewar Lakes Camp management system. Other management plans in place at the Dewar Lakes Camp include:

- Abandonment and Restoration Plan (ARP)
- Emergency Response Plan (ERP)
- Environmental Management Plan (EMP)
- Fuel Management Plan (FMP)
- Spill Prevention and Response Plan (SPRP)

1.4 Camp Description and History

The Dewar Lakes Camp has been used as a base location to conduct mineral exploration work on Baffin Island since 2003. Camp activities were most recently conducted under the authorization of Crown Indigenous Relations and Northern Affairs Canada (CIRNAC)

Land Use Permit N2017J0014 (Expires July 4, 2022) and Nunavut Water Board (NWB) Water Licence 2BE-NAD1722 (Expires July 17, 2022) both issued to Commander Resources Ltd. (Commander). Commander is requesting to renew Land Use Permit N2017J0014 for an additional 2 years and Water Licence 2BE-NAD1722 for an additional 5 years to support work activities at the existing Dewar Lakes Camp.

The Camp is located on Crown Land beside Dewar Lakes, adjacent to the North Warning System Fox-3 airstrip in the Qikiqtani Region of Nunavut. The approximate location of the Camp is 68°37'59" N and 71°6'38" W (or 414199E/7614919N UTM Nad83 Zone 19) and is located within the 1:50,000 National Topographic System (NTS) map sheet 27B12.

The Camp consists of accommodations for up to 40 persons with a dry, large cook tent, generator shack, tool shed, incinerator, core shack, latrine with pacto toilets and a metal silo structure used for storage. At the end of the 2018 program, the Dewar Lakes Camp fuel cache contained 6 drums of jet fuel and 5 propane cylinders. 50 empty drums remain on site for removal during the next field program.

The Camp was used by Commander as an operating base to support exploration activities from 2003 to 2011. The Camp was unoccupied from 2012 to 2016, other than in 2013 when Biogenie personnel, on behalf of Commander, were onsite to clean up and secure the Camp after an episode of vandalism damaged structures. The Camp was utilized by ValOre Metals Corp. (ValOre, formerly Kivalliq Energy Corp.) in 2017 and 2018 to support mineral exploration activities at their Baffin Gold Project.

Exploration activities supported by the Dewar lakes camp are authorized under separate permits and licenses held by Commander or an assignee (currently ValOre). It is anticipated that the Dewar Lakes Camp will support ongoing exploration activities for the next several years.

A figure illustrating the Dewar Lakes Camp location is located in Appendix 1.

1.5 Applicable Legislation and Guidelines

Acts, regulations, and guidelines that relate to waste management in Nunavut include, but are not limited to, the following:

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
- Guidelines for Spill Contingency Planning
- Northern Land Use Guidelines
- International Air Transport Association (IATA) Regulations

- Territorial Lands Act

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 Dewar Lakes Camp 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 or stored at the Dewar Lakes Camp.

Table 2.1: Types of Wastes

Waste Type	Examples	Estimated Quantity Generated	Treatment/Disposal Method
Sewage	Human waste	10 – 40 people	Pacto toilets and incineration with an incinerator specifically designed for that waste type.
Camp greywater	Water from kitchen and sinks, showers)	~ 2 (m ³ /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	~ 0.005 (m ³ /day)	Stored in sealed containers, removed and taken to approved disposal site
Contaminated soil/snow	Hydrocarbons	Variable/negligible	Stored in sealed containers, removed and taken to approved disposal site

Table 2.2: Hazardous Wastes and Pollutants

Waste Type	Examples
Petrochemicals	Diesel, jet fuel, gasoline, various oils
Solvents	Varsol, cleaning products
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 Dewar Lakes Camp 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 Dewar Lakes Camp are limited due to the site's remote location, and are restricted largely by the technology and equipment available. However, any available opportunity for waste recovery and reuse will be taken.

3 Waste Classification and Disposal Plan

3.1 Hazardous Wastes

All opportunities will be taken to reuse or recycle hazardous waste materials. All hazardous wastes will be placed in sealed containers and stored within "Arctic Insta-Berms", or similar, for secondary containment until they can be reused or 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. Waste oil will be backhauled to a registered hazardous waste receiver.

3.1.2 Hydraulic Fluid

Waste hydraulic fluid 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 will be cleaned up immediately in accordance with the Dewar Lakes Camp "Spill Prevention and Response Plan." All contaminated soil 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 or pending the appropriate authorizations, contaminated soils may be remediated by soil farming.

3.1.6 Contaminated Snow and Ice

Any contaminated snow or ice will be cleaned up immediately in accordance with the Dewar Lakes Camp "Spill Prevention and Response Plan." All contaminated 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.

3.1.7 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.

3.1.8 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.

3.1.9 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 and common spaces 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.

3.1.10 Aerosol Cans

Use of aerosol cans at the Dewar Lakes Camp 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. The cans will be stored in the hazardous waste storage area until backhauled for disposal.

3.1.11 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 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 Dewar Lakes Camp will use a batch feed dual-chamber controlled air incinerator to dispose of combustible solid wastes. All combustible wastes will be burned in accordance with applicable federal and territorial regulations and the Nunavut Department of Environment Guideline for the Burning and Incineration of Solid Waste.

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. 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 Dewar Lakes Camp 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 Dewar Lakes Camp. Excess waste lumber will be stored in appropriate areas and incinerated regularly.

3.4 Sewage

The Dewar Lakes Camp will utilize Pacto toilets and the waste will be incinerated with an incinerator specifically designed for that waste type. Ash generated from sewage incineration will be stored in sealed metal 205 L drums and removed from site via regularly scheduled backhaul.

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 Dewar Lakes Camp 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

5 Training

The Dewar Lakes Camp has a Level 3 First Aid Attendant on site during operations. The Camp Manager is required to oversee the handling of hazardous wastes and must have valid First Aid and WHMIS. On site management are responsible for the transportation of hazardous wastes and have Transportation of Dangerous Goods (TDG) certification. 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 Dewar Lakes Camp “Emergency Response Plan” and “Spill Prevention and Response Plan”, respectively.

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

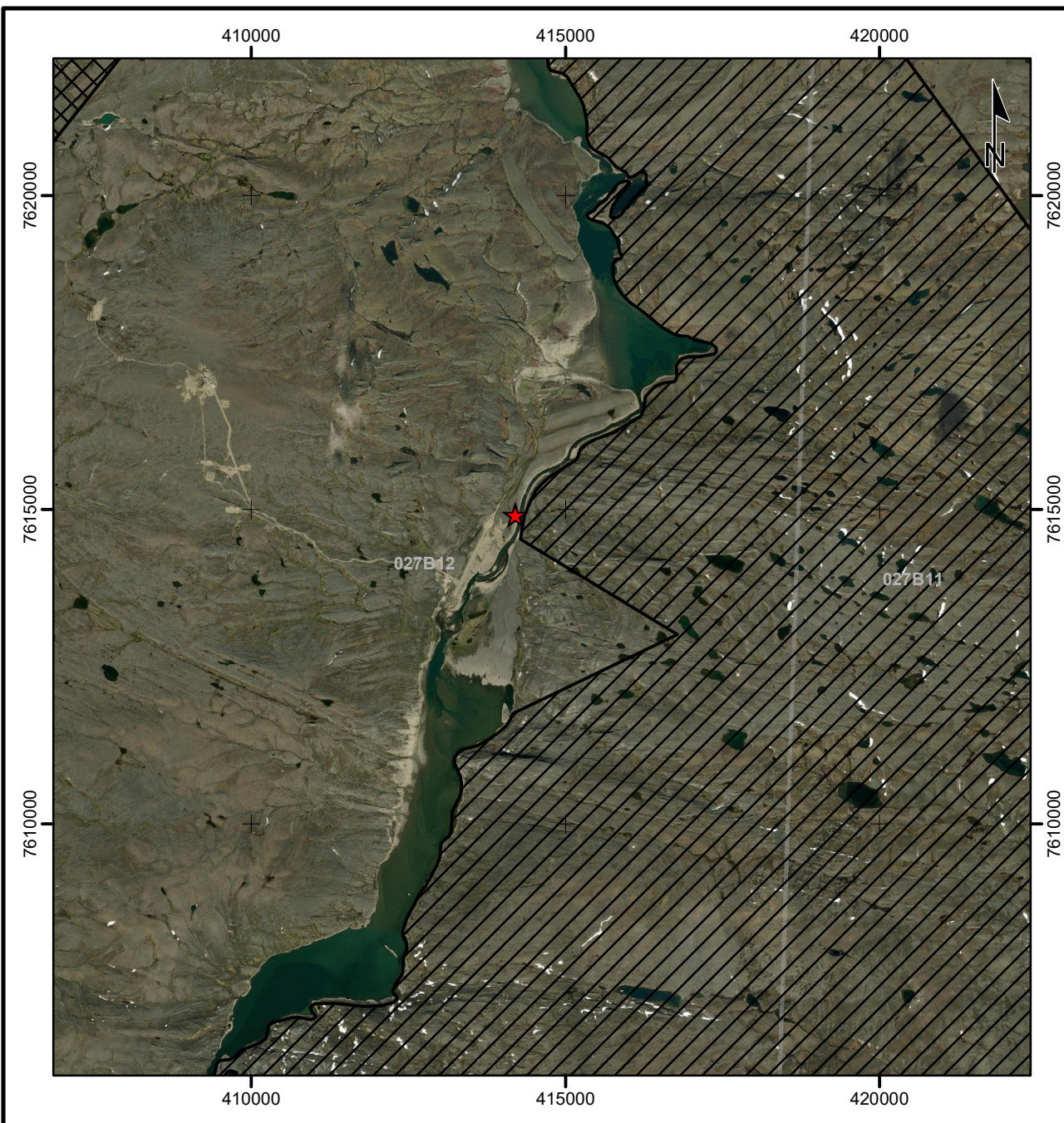
6 Inspection and Monitoring

Inspections of the hazardous waste storage area and other waste storage facilities will be conducted daily. Daily 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. These inspections will be completed in conjunction with those outlined in the Dewar Lakes Camp “Fuel Management Plan.” An example of a daily/ weekly Inert and Hazardous Waste Containment Inspection form is attached in Appendix 2. Any leaks or spills will be treated as outlined in the “Spill Prevention and Response Plan.”

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

Appendix 1

Figures



Legend

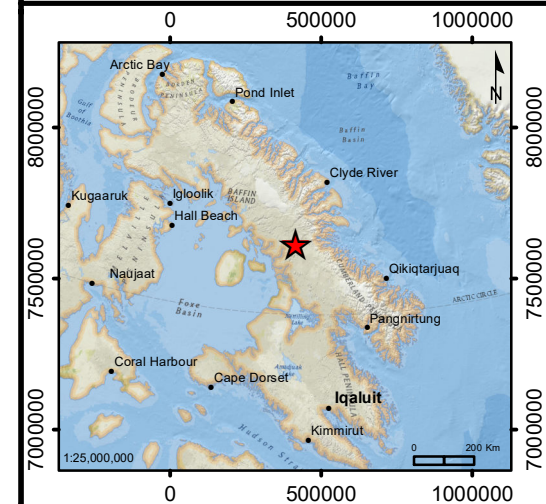
★ Dewar Lakes Camp Location

Inuit Owned Land

▨ Surface Parcel

▩ Subsurface Parcel

□ 1:50,000 NTS Mapsheet Index



COMMANDER RESOURCES LTD.

Baffin Island, Nunavut, Canada

Dewar Lakes Camp Location

0 1 2 Km

1:100,000

Nad 83 Zone 19
APEX Geoscience Ltd.

Edmonton, AB

June 2022

Appendix 2

Example Daily and/or Weekly Hazardous Waste Containment Inspection Record

Inert and Hazardous Waste Container Storage Inspection Checklist

Each Day/week, place a "Yes" next to all inspection items that meet the Dewar lakes Camp WMP rules. Place a "No" next to all inspection items that do not meet the rules.

Please provide specific comments on all "No-marked" items. When inspection is completed, inspector must initial at the bottom of the table.

Report all No-marked items to appropriate supervisor immediately.

Inert Wastes

Name and Location of Waste Storage Area:

Inspection Item	Mon	Tue	Wed	Thur	Fri	Sat	Sun	Inspector	Comments on Inspected Item
Wastes Segregated by Type (ie. food, recyclable, combustible, etc)									
Number of Containers in Unit									
Containers Marked/Labeled Properly									
Containers Dated Properly									
Containers Observed with Closed Tops or Bungs									
Containers Observed to be free of leaks/staining									
Containers Observed to be free of Dents or Corrosion									
Area Clean and Safe									
Emergency equipment available									
Emergency equipment in good condition									

General Comments:

Hazardous Wastes

Name and Location of Waste Storage Area:

Inspection Item	Mon	Tue	Wed	Thur	Fri	Sat	Sun	Inspector	Comments on Inspected Item
Number of Containers in Unit									
Containers Marked/Labeled Properly									
Containers Dated Properly									
Containers Observed with Closed Tops or Bungs									
Containers Observed to be free of leaks/staining									
Containers Observed to be free of Dents or Corrosion									
Containers in Secondary Containment System									
Secondary Containment System free of Water or Other Liquids									
Secondary Containment System free of Leaks/Holes/Tears									
Area Clean and Safe									
Emergency equipment available									
Equipment in good condition									

General Comments:
