BRONZITE EXPLORATION CORP.

Waste Management Plan

Somerset Trough Project

Somerset Island

Published: *2023-12-06*

Revision: 0

Contents

REVISION HISTORY

The table below is a revision history table that outlines the revisions made by Bronzite Exploration Corporation to this document.

Version	Date	Section	Summary of Changes
0	December 18, 2023	All	Support document for project proposal submission to the NPC.

1.0 Introduction

Bronzite Exploration Corporation (Bronzite) is a mineral exploration company holding mineral claims in the Western Somerset Island Watershed of Somerset Island, Nunavut. Bronzite's exploration project, known as the "Somerset Trough Project", involves constructing a small camp on the claim block and conducting early exploration activities such as geophysical surveys and mapping in 2024.

This Waste Management Plan (the Plan) has been developed in support of Bronzite's project proposal to the Nunavut Planning Commission (NPC), land use permit application to Crown-Indigenous and Northern Affairs Canada (CIRNAC), and water use authorization from the Nunavut Water Board. The Plan has been developed to describe waste management practices for the proposed 2024 camp and exploration activities, and the Plan will be updated in the future to account for additional waste management considerations as the project progresses.

The 2024 field program will consist of airborne helicopter and fixed-wing surveys, prospecting, geological mapping, rock and channel sampling, and ground-based electromagnetic geophysical surveys. No drilling will take place during the 2024 field season. An exploration camp consisting primarily of Weatherhavens will be constructed on Crown Land within the Western Somerset Island Watershed and will include:

- 6 shared sleeper tents
- 1 kitchen/dining hall
- 2 camp dry tents
- 1 storage tent
- 1 first aid tent
- 1 washroom with 2 Pacto toilets and small handwashing sink
- 1 sample processing tent
- 1 incinerator building
- 1 generator building

See Figures 1-3 for the general location and layout of the exploration camp, as well as the full extent of the Project area where exploration activities may take place. There are currently no plans to conduct ground-based work on Inuit Owned Lands during the 2024 field season. No ground-based work will be conducted on Inuit Owned Lands without the proper authorizations from either the Qikiqtani Inuit Association (QIA) or the Kitikmeot Inuit Association (KIA).

Figure 1. Project Location

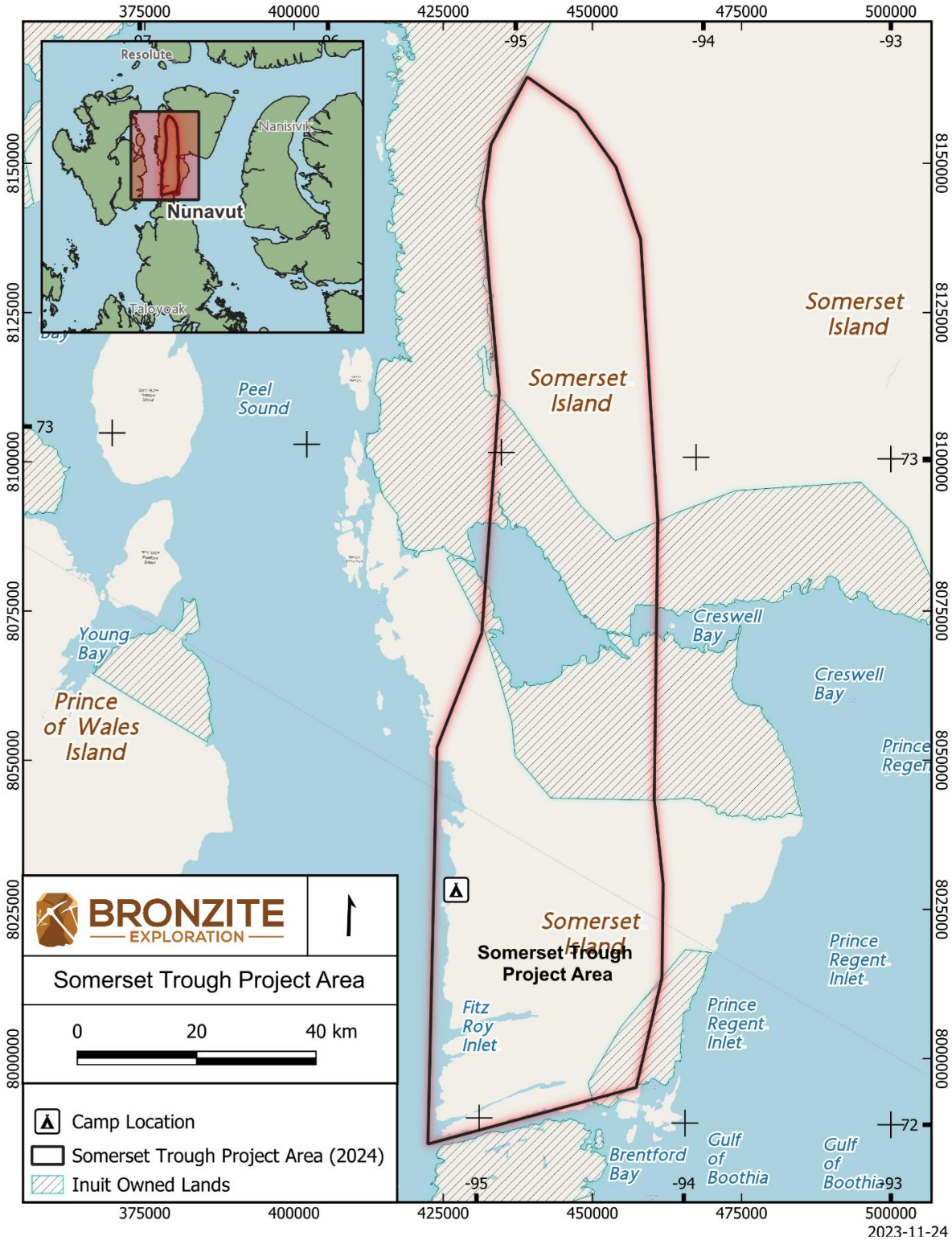


Figure 2. Camp Area

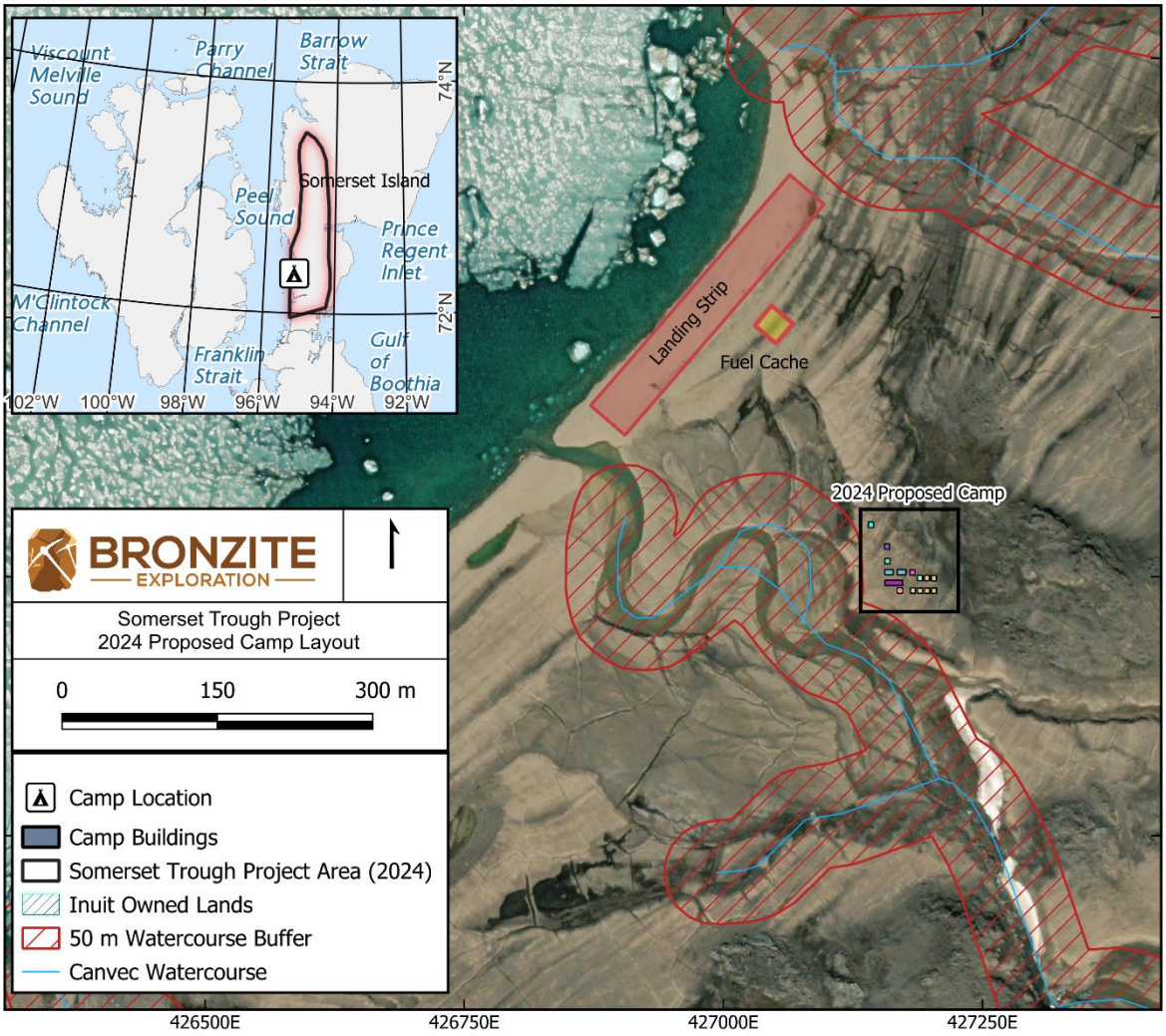
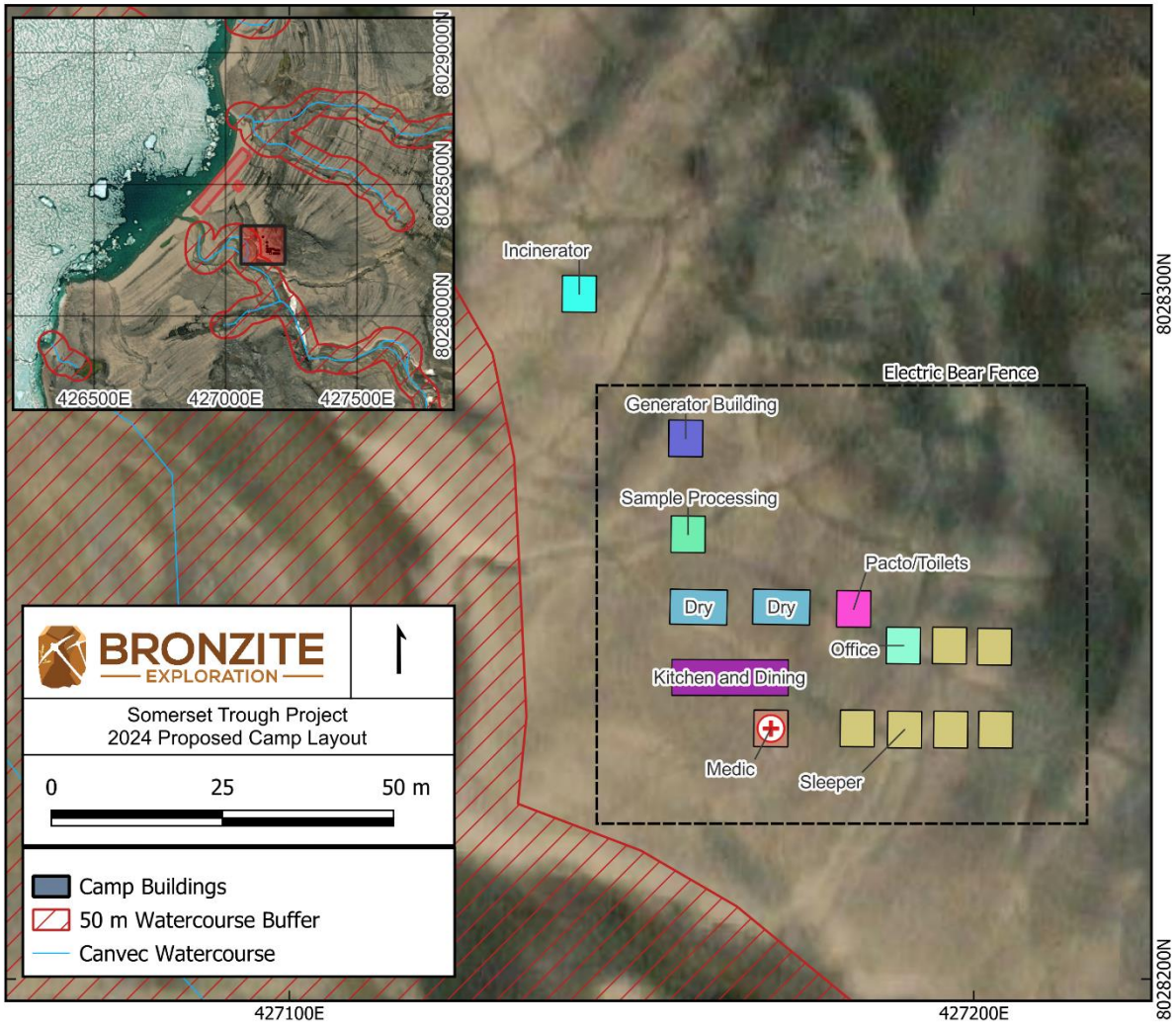


Figure 3. Camp Layout



2.0 Waste Types

Given the limited scope of activities proposed for the 2024 field season, a limited amount of waste types will be generated at the project site. See Table 1 below for a list of wastes the project will generate and potential environmental impacts of each.

Table 1. Project Waste Types

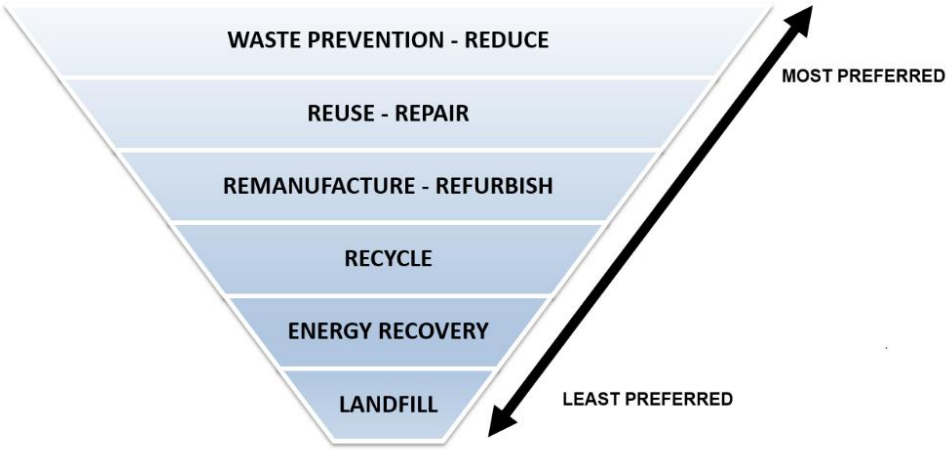
Waste Type	Source of Generation	Estimated Waste Generated	Potential Environmental Impacts
Domestic refuse	Camp kitchen	50 kg / day	Wildlife attractant
Inert construction debris	Camp construction and teardown	5 m^3	Litter on the tundra or nearby watercourses
Contaminated soils	Fuel leaks and spills	< 1 m^3	Contaminant release to the surrounding environment
Sewage	Camp personnel	10 kg / day	Release to nearby water courses Wildlife attractant
Recyclables	Camp kitchen Camp construction and teardown Empty containers	< 1 m^3 / day	Litter on the tundra or nearby watercourses
Bottom ash or incinerator residue	Incinerator	< 5 kg / day	Wildlife attractant Ash blowing onto the tundra or into nearby watercourses
Used oil, fuels, lubricants, greases, and solvents	Equipment maintenance	< 10 L / day	Potential to leak or spill onto the tundra
Chemical wastes – liquids or solids	Cleaning solutions	< 1 L / day	Potential to leak or spill onto the tundra

3.0 Management of Each Waste Type

All waste generated at the Somerset Trough Project will be managed in accordance with applicable territorial and federal laws, regulations, guidelines, and project authorizations such as the land use permit and Nunavut Water Board Authorization.

Bronzite will use the Waste Management Hierarchy to guide waste management practices at the Somerset Trough Project. Waste prevention and reduction is the preferred approach to waste management. Bronzite will make every reasonable attempt to reduce the amount of materials flown into site and to avoid generating waste in the first place. Bronzite will reuse construction materials and recycle items such as pop cans and plastics where possible.

Figure 2. Waste Management Hierarchy



Below is a list of waste streams generated at the Somerset Trough Project and how Bronzite proposes to manage the various waste types.

Recyclables

Recyclable items such as pop cans and clean plastics will be collected in a designated bin within the confines of camp kitchen. When possible, recyclable items will be flown off site for appropriate processing.

Construction Debris

Bronzite will plan appropriately and only fly in the construction materials necessary for camp construction and maintenance during the field season. All unused materials will be flown off site at the end of the land use operation. Where possible, Bronzite will reuse construction materials and avoid creating waste during construction.

Sewage and Greywater

Pacto toilets will be used to manage human waste generated at the Project. The toilets will be located more than 31 metres away from the Ordinary High-Water Mark of any water course. Waste collected from the Pacto toilets will be incinerated daily to eliminate the possible animal attractant.

Greywater generated in the camp kitchen will run through a grease trap before being deposited to a sump. The sump will be located more than 31 metres away from the Ordinary High-Water Mark of any water course. At the end of the 2024 field season, the sump will be buried.

Combustible waste and incinerator ash

Combustible waste including food, paper, cardboard, untreated wood, human waste from the Pacto toilets, and some food-impacted plastics will be incinerated with a diesel-fired, dual-chamber incinerator. See Appendix A for the specification sheet of the model Bronzite will use at the Somerset Trough Project. Waste will be incinerated daily in accordance with federal and territorial regulations and Nunavut Department of Environment Guideline for the Burning and Incineration of Solid Waste. Incinerator waste will be collected in designated waste bins inside of the camp kitchen tent and collected daily for incineration.

Bottom ash from the incinerator will be emptied in accordance with manufacturer recommendations and placed into sealed, labelled 205L metal drums or lined mega bags for eventual shipment and disposal off site at authorized and accredited disposal facilities.

Used Fuels and Chemicals

Contaminated or expired fuels will either remain in their original containers or be placed inside an empty fuel drum. The drums will be clearly labelled and segregated as hazardous waste. The drums will be shipped offsite for disposal with a registered hazardous waste receiver.

Waste chemicals will be packaged in clearly labelled, tightly sealed containers and stored for eventual backhaul.

Contaminated soil and water

As per Bronzite's Spill Contingency Plan, contaminated soil will be cleaned up immediately and placed within sealed 205 L metal drums. Similarly, any contaminated water, snow, or ice will be cleaned up immediately and placed with in sealed 205 metal drums for shipment off site.

4.0 Waste Management Infrastructure

Sump

Pursuant to the *Nunavut Waters Regulations*, Bronzite will not deposit waste to surface water or within thirty-one (31) metres of the Ordinary High-Water Mark of any water body. No waste with a visible hydrocarbon sheen, or suspicion of hydrocarbon contamination, will be deposited to the sump.

Waste management station

A waste staging area will be set up inside of the bear-fenced perimeter of the Somerset Trough camp location. Drums of waste will be clearly labelled and staged for shipment off site by air. Depending on the volume of waste, the drums will either by shipped off site as one load at the end of the 2024 field season or taken out in multiple backhauls over the course of the 2024 field season.

Incinerator

Bronzite will install and operate a dual-chamber incinerator to manage combustible waste at the Somerset Trough Project. The model chosen for the site (see Appendix A), was selected because it can manage the volume of waste that will be generated by the project and will achieve a high temperature burn to break down pollutants such as dioxins and furans. The unit features a secondary chamber with an additional burner to ensure that combustion gases are exposed to the appropriate temperatures for the appropriate holding times. The unit is equipped with a timer and a thermocouple to automatically control unit temperature during operation.

The incinerator will be installed in accordance with manufacturer recommendations and placed away from accommodations tents. The unit will be operated by trained personnel that are aware of safe operating procedures, the personal protective equipment required for operation, and the types of waste the unit is designed to incinerate to remain compliant with federal and territorial regulations.

In the event that the incinerator breaks down or is not operating properly, domestic waste will be placed in mega bags and flow off site to a certified waste receiver as frequently as

possible until the unit can be repaired. Pacto toilet waste will be placed in sealed 205 L metal drums and flown off site as hazardous waste.

5.0 Roles and Responsibilities

Bronzite Senior Management - Responsible for ensuring that the site supervisor is aware of the Waste Management Hierarchy, as well as proper waste management procedures on site. The Senior Management team will ensure that management plans are properly implemented and that the site supervisor is familiar with the conditions of site authorizations such as the land use permit.

Site Supervisor – Responsible for ensuring employees and contractors on site are aware of waste management procedures and safe operation of the incinerator. The site supervisor is responsible for implementing management plans such as the Waste Management Plan to minimize environmental impacts and wildlife interaction with the Project. The site supervisor will ensure that waste is properly packaged, labelled, and shipped off site during routine backhauls and at the end of the field season.

Staff and Contractors – All personnel working on site must be familiar with the Waste Management Plan and understand how to properly manage waste generated on site. Staff and contractors must adhere to the Waste Management Plan to help minimize wildlife attractants and environmental risks created by the Project.

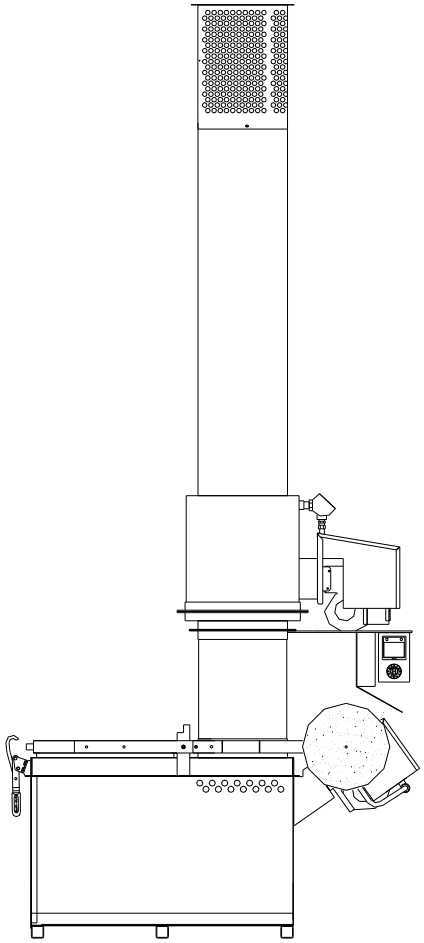
Appendix A: Incinerator Model

Model A400X
Incineration System

Unique Design Compliant with Air Quality Regulations

- Recirculating flue gases assure clean operation.
- Built by specialists in incinerator systems.
- Designed for safe, easy operation with simple to use controls.
- Includes many benefits of high-priced systems, yet within the budgets of small facilities.
- 400 pound rated load capacity.
- Easy to use… Set timers and walk away. Thermocouple controls temperature.
- Available with LP, Natural Gas, or Oil burners. Afterburner is standard.

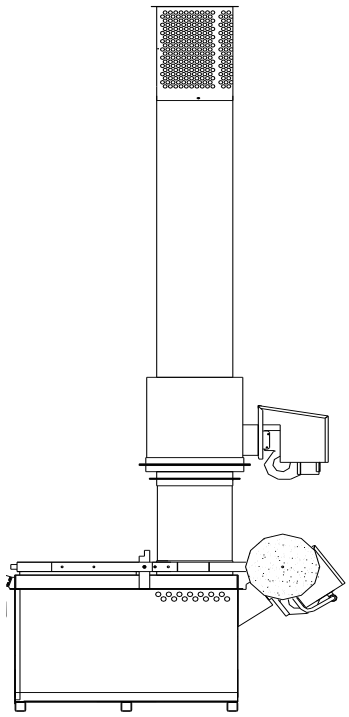
LOWEST OPERATING COST IN THE INDUSTRY!



One simple solution to solid/liquid waste disposal
Immediately eliminates potential to spread diseases

Firelake Mfg. LLC
919 Cottontail Trail, Mt. Crawford, VA 22841
866-252-3757 www.firelakeincinerators.com

Benefits and Features of the A400X Series



- Concave refractory bottom specifically designed to insure burnout and total destruction of solid and liquid wastes.
- Secondary chamber with burner.
- Insulated, refractory-lined chambers and stacks for durability, energy retention, and emissions control.
- High temperature refractory lined chamber walls.
- Factory assembled, aluminized steel jacket lined with high-temperature refractory.
- Factory cured chambers and stacks.
- Assembly on-site can be done with common farm equipment.
- Counter-balanced fill door.
- Manual set burn time and automatic shut off.
- Burn times are adjustable by operator to meet varying loads.
- Choice of fuels: LP, Natural Gas, or Fuel Oil.
- Stack Test Data available on many models.
- We provide permit and compliance assistance at no cost.

Specifications Summary

A400X Propane, Natural Gas, or Diesel Fired Incineration System complete with two burners, thermocouple and control, secondary burn chamber, stainless and / or refractory lined stack and chambers, and manual operating timer.

WASTE CHAMBER

Chamber capacity (Type 4 waste-pathological)	400 lbs		182 kg
Chamber volume (approximate)	12.6 cu. ft.		.36 cu. m.
Chamber size (inside)	Width	29”	74 cm
	Height	22”	56 cm
	Length	42”	106 cm
Door opening	22”W x 29”L		56 cm x 74 cm
Height to door	30.5”		77 cm
Overall dimensions 33” W x 13’ H x 51” L	0.8 meter x 4 meter x 1.3 meter		
Suggested min. slab size (l x w x thick)	8’ x 6’ x 4”		1.8 m x 2.4m x 10cm

STACK

Diameter 14” 35.5 cm

Material 14 gauge (2 mm) lined Aluminized Steel and/or unlined stainless steel

REFRACTORY THICKNESS

Primary	3.0”(2800F)	7.6 cm
Secondary	1.5”(2800F)	3.8 cm
Stack	1.5”(2800F)	3.8 cm

INSTALLATION

Must be installed in accordance with local codes and ordinances, subject to regulatory agencies. Outside installation is recommended with a simple metal roof or three-sided metal shelter, providing a minimum of four foot clearance from any combustible roof materials. Minimum of 18” clearance is required for penetration of combustible roof materials. Inside installations may have special insurance requirements.

GENERAL

Electrical service

Standard – 115 volt, 60 HZ, 20 amp

Also available – 220 volt, 50 HZ, 10 amp

BURNERS

LP or Natural or Diesel burner(s) with spark ignition and flame safety shut-off.

OPERATION

Manual timer and temperature control

TOTAL WEIGHT

2400 lbs. (approximate) 1000 kg

APP. FUEL CONSUMPTION	A400 LP	A400 NATURAL GAS	A400 Diesel
Upper burner	0.83 GPH	83 CFH	0.5 GPH
Lower burner	3.0 GPH	275 CFH	2.5 GPH

* Fuel consumption approximate. Actual fuel use depends on BTU content of waste.

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