

# **HAZARDOUS MATERIALS MANAGEMENT PLAN**

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Project Name: Nolans Rare Earth Project





## **REVISION HISTORY**

July 2022	Rev 1	Michael Robinson, ESG Manager	Michael Robinson, ESG Manager	Stewart Watkins, GM Projects	
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Date	Description	Prepared	Reviewed	Approved	3rd Party Approval

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### **1 INTRODUCTION**

#### 1.1 Background

The Nolans Rare Earths Project (the Project) is located approximately 135 km north north-west of Alice Springs, in the Northern Territory. The Project targets the Nolans Bore mineral deposit for rare earth elements. Activities will focus on construction, mining, processing, rehabilitation and decommissioning of an open-cut, rare earth mine, and its associated infrastructure.

The Project involves several processes where the use of hazardous substances is required including mineral processing and non-mineral process activities. The use of chemicals (herein referred to as hazardous substances) has the potential to impact upon site personnel and/or the surrounding environment. Hazardous substances are chemicals or other materials that can cause acute or chronic harm to health and environmental impact; in general they are any substance, mixture or article that satisfies the criteria of one or more hazard classes in the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), as modified by Schedule 6 of the Work, Health and Safety (WHS) Regulations.

#### 1.2 Purpose

The purpose of the Hazardous Substances Management Plan (HSMP) is to provide a framework for hazardous substances across the Project site as well as providing information which is to be used in decision making and project management, detail planning and methods of work, and provide for a record of performance. The management includes storage, handling, inventory, spill management measures and disposal requirements.

This document and its subsequent revisions form an integral part of the Project's Mining Management Plan (MMP). It is a dynamic document, a receptacle for information which is to be reviewed and updated annually (or as determined by the MMP). This enables an accurate reflection of the current operational requirements and practices whilst allowing for responsiveness to conditions, input from stakeholders, and enabling flexibility in planning and prioritisation where required.



#### 1.3 Objectives

The primary objective of this management plan is to minimise potential impacts on human health and/or the environment by:

- Providing a management hierarchy for hazardous substances;
- Ensuring handling and storage of hazardous substances are in accordance with relevant standards;
- Detailing hazardous substances inventory requirements;
- Outlining fuel inventory and investigation requirements and
- Providing spill response procedures and subsequent investigation requirements.

Responsibilities for the implementation of this plan are outlined in Table 4—3 and Table 4—4.



### 2 OVERVIEW

### 2.1 Management Hierarchy

The management of hazardous substances is to be undertaken in general accordance with the hierarchy of controls in Table 2-1.

HIERARCHY	CONTROL	COMMENT	
Most Preferred	Elimination and Removal	Eliminating either the substance or the activity which gives rise to the risk is the most effective form of risk reduction.	
	Substitution	Substituting high risk products or activities with alternative lower risk products or activities will reduce overall risk exposure.	
	Isolation, Enclosure or Sealing	Hazards may be isolated by distance or barriers or a combination of both	
	Engineering Controls	Engineering controls involve making engineering changes to a process or piece of equipment used to store or handle hazardous substances	
	Administrative (Safe Work Practices)	Administration controls consist of properly designed and implemented work practices and procedures.	
Least Preferred	Personal Protective Equipment	PPE is considered the last line of defence against hazardous substances. Material Safety Data Sheets (MSDS) normally contain recommendations on the selection and use of PPE for the particular materials being used	



### 2.2 Materials Summary

#### 2.2.1 Construction Phase

Construction materials include hazardous and non-hazardous materials. They are transferred to site by road haulage. A summary of construction phase hazardous substances is provided in Table 2—2. Locations which will hold hazardous materials during operation phase at the process plant is provided on Figure 2—1.

Product	Use	Proposed Storage Location	Approximate Quantity
Cement	Construction requirements.	Mine site – location to be confirmed.	ТВС
Diesel	Fuel for machinery and vehicles.	Self-bunding storage tanks at	15 MLpa
Unleaded Petrol	Fuel for machinery and vehicles.	the Mine Site and Process Site.	ТВС
Lubricants	Process plant, machinery and vehicles.	Chemical Storage Shed at the Mine Site within internal	ТВС
Sodium hypochlorite	Water treatment plant disinfection.	bunding.	5 tpa
Anti-scalent	Water treatment plant descaling.		1 tpa
Miscellaneous cleaning products	Site maintenance.		ТВС

#### Table 2—2 Hazardous Substances – Construction

Note: Required quantities are subject to change through the detailed design phase



#### 2.2.2 Operations Phase

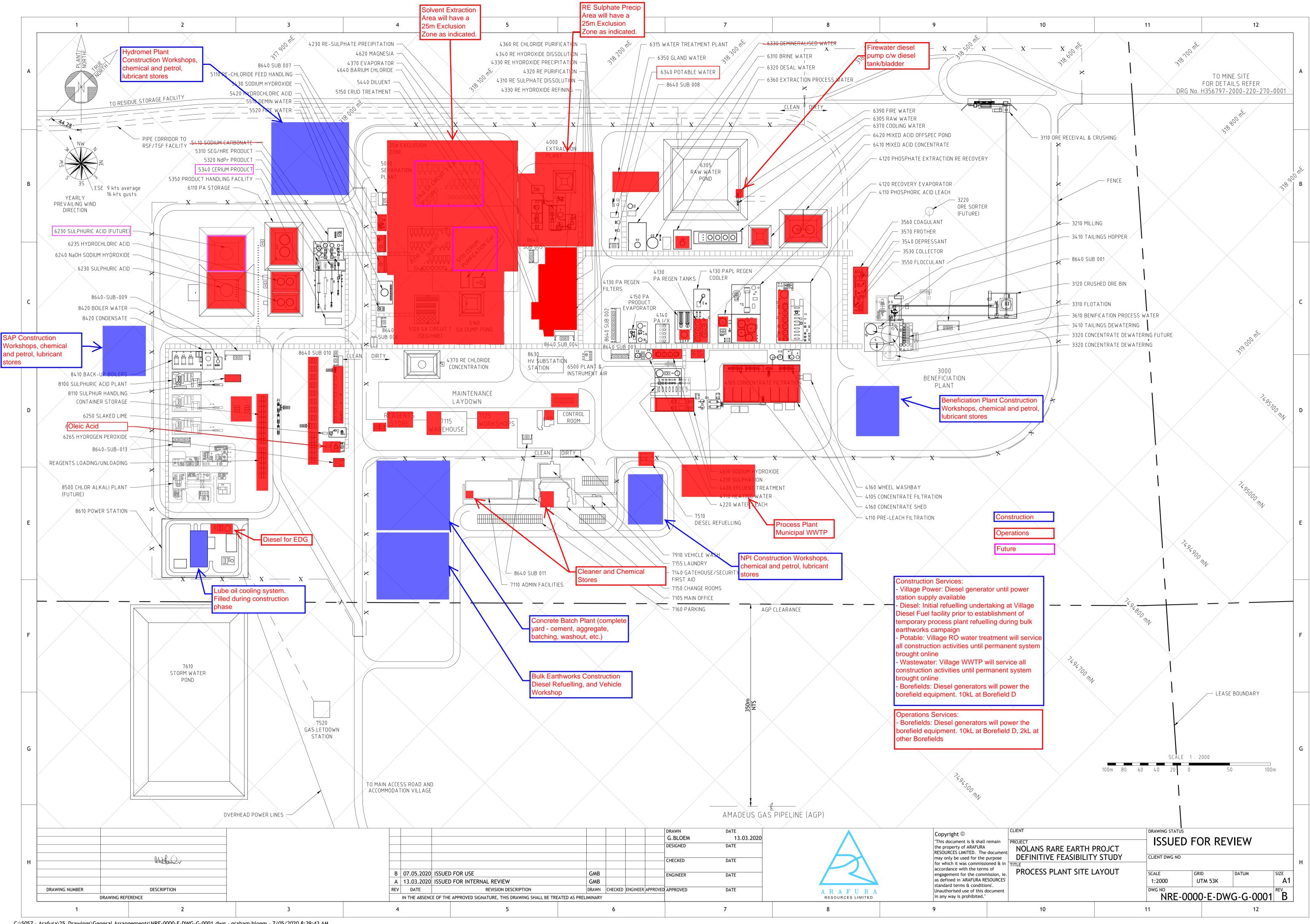
Hazardous substances during operations are to be stored at predefined locations across the Project to facilitate control and management. A summary of the operations phase hazardous substances is provided in Table 2—3. The locations where hazardous material will be stored are presented on Figure 2—1, Figure 2—2 and Figure 2—3.

Product	Use	Storage Location	Storage Volume
Ammonium Nitrate	Extraction operations	AN Shed, Explosive Storage	ТВС
Anti-scalent	Water treatment plant descaling.	ТВС	1 tpa
Barium chloride	Processing	ТВС	567 tpa
Cement	Maintenance construction requirements.	ТВС	ТВС
Coagulant	Processing	Processing Plant	19 Tonnes
Caustic Soda (50%)	Processing	Processing Plant	1,115 Tonnes
Depressant (Silicate)	Processing	Processing Plant	48 Tonne
Diesel	Fuel for machinery and vehicles and backup power generators.	Workshop	ТВС
Drill road grease	Drill and blast and exploration drilling	Workshop	ТВС
Engine Coolant	Machinery and vehicles.	Workshop	ТВС
Explosives components (ammonium nitrate, emulsion)	Extraction operations.	Explosives Magazine.	ТВС
Flocculant	Processing	Processing Plant	17 Tonne
Quicklime	Processing	Processing Plant	56,806 tpa
Hydrochloric acid (32%)	Processing	Processing Plant	989 Tonnes
Hydrogen Peroxide (70%)	Processing	Processing Plant	126 Tonnes
Lubricants (transmission fluid, engine oil, air	Process plant, machinery and vehicles.	Workshop	ТВС

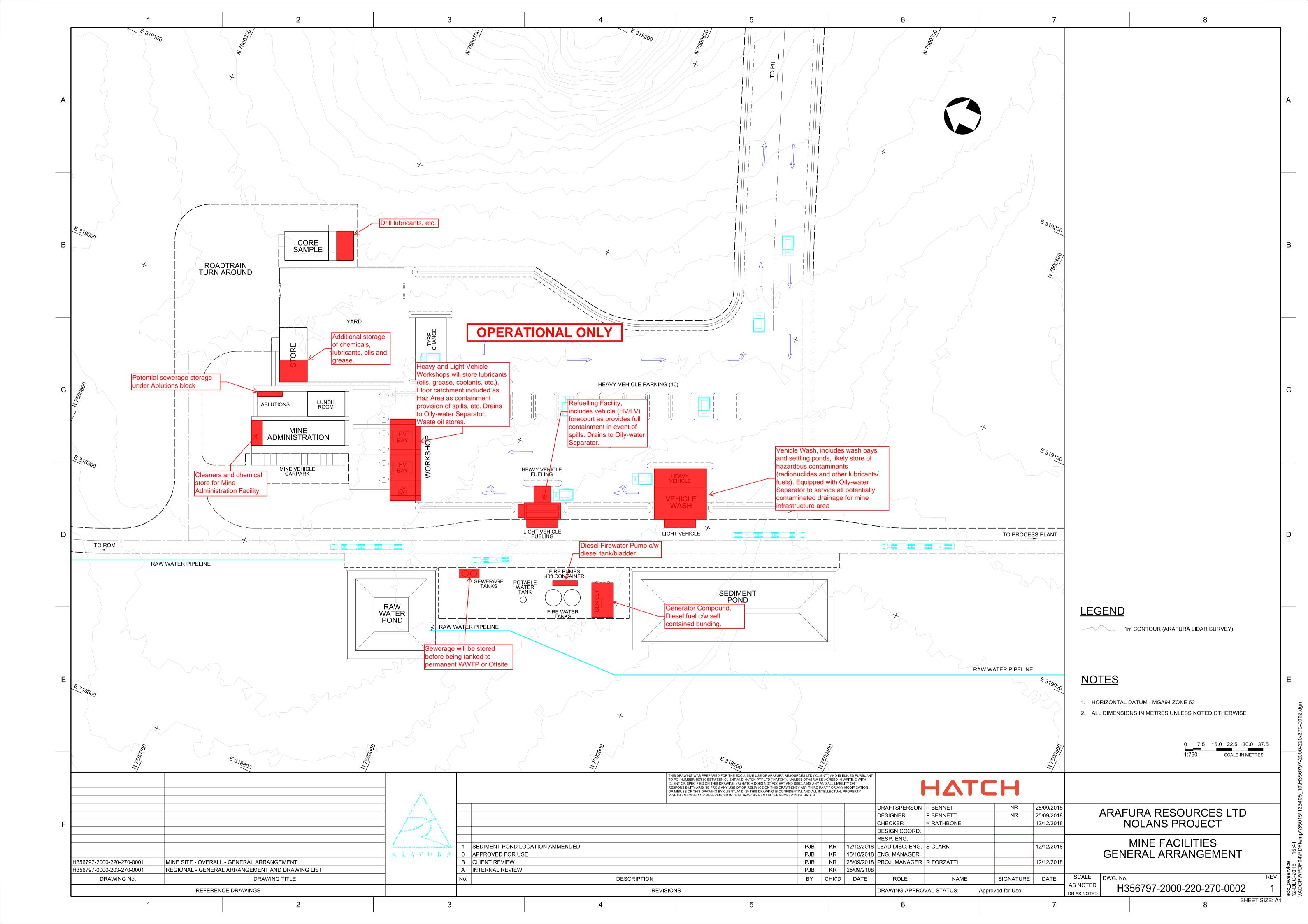
#### Table 2—3 Hazardous Substances - Operations

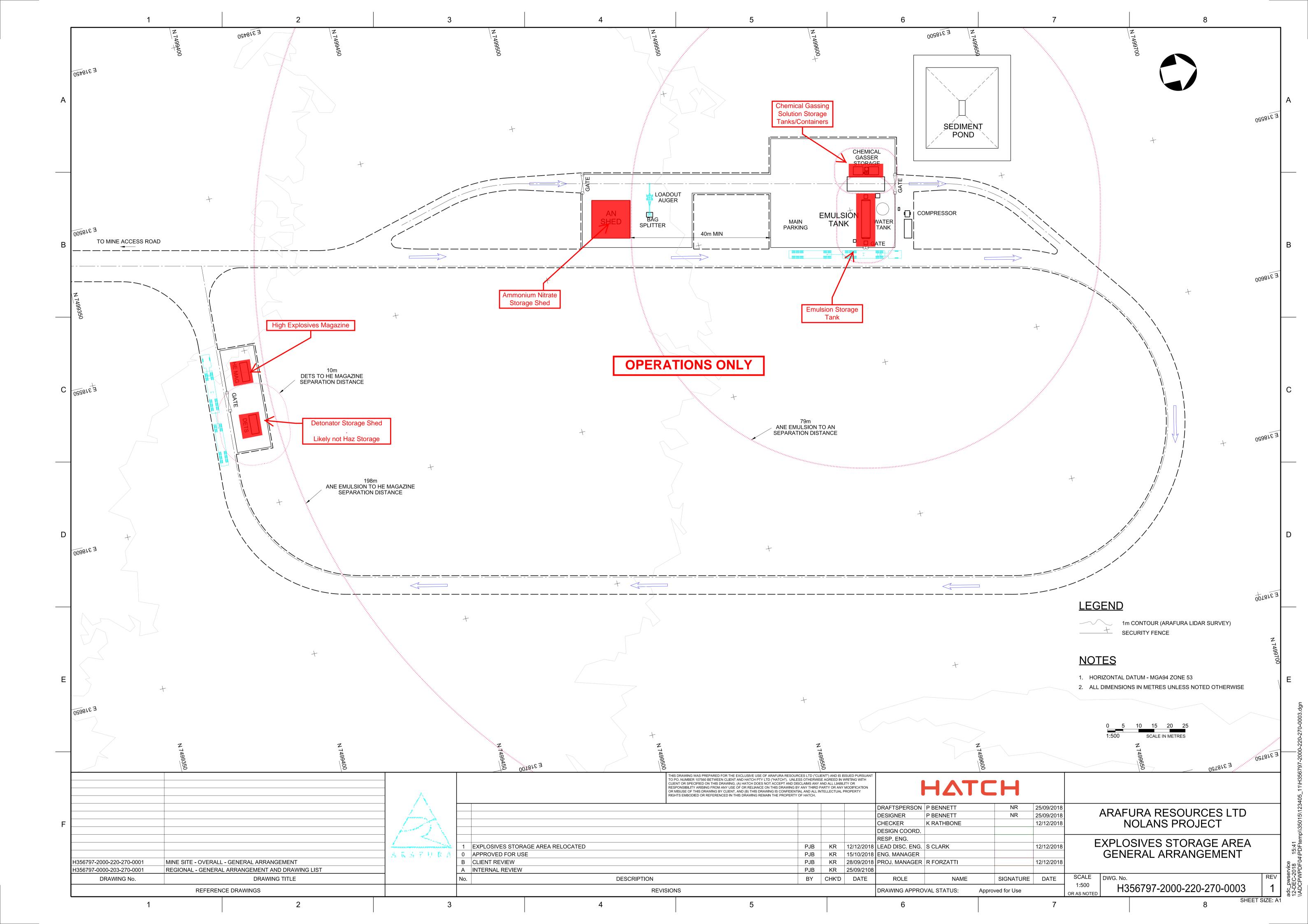


Product	Use	Storage Location	Storage Volume
compressor oil)			
Magnesia	Processing	Processing Plant	22 Tonne
Methanol	Processing	Processing Plant	36 Tonne
Miscellaneous cleaning products	Site maintenance.	ТВС	ТВС
Oleic acid	Processing	Processing Plant	18 Tonne
Oxalic acid	Processing	Processing Plant	355 Tonne
P507 Extractant	Processing	ТВС	15 tpa
Quicklime	Processing	ТВС	4,825 tpa
Sodium hypochlorite	Water treatment plant disinfection.	ТВС	5 tpa
Sodium silicate	Processing	ТВС	2,683 tpa
Sulphur	Processing	Processing Plant	2,141 Tonnes
Sulphuric acid	Processing	Processing Plant	4,725 Tonnes
Unleaded petrol	Fuel for machinery and vehicles.	Workshop	TBC
Unleaded petrol	Fuel for machinery and vehicles.	Workshop	ТВС
Waste oil and waste oil filters	Vehicle and equipment workshop	Workshop	TBC



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### 3 LABELLING, MONITORING AND INCIDENT NOTIFICATION

#### 3.1 Labelling

All hazardous substances are to be labelled in accordance with the <u>Code of Practice for Labelling of</u> <u>Workplace Hazardous Chemicals</u>. A hazardous chemical is correctly labelled if the chemical is packed in a container that includes the following:

- is written in English;
- product identified and chemical ingredients;
- name, Australian address and business telephone number (manufacturer or importer);
- hazard statement;
- specific hazard information, first aid and emergency procedures relevant to the chemical and
- expiry date of the chemical (if applicable).

### 3.2 Hazard Pictograms and ADG Code Class Labels

The Globally Harmonised System (GHS) specifies hazard pictograms in relation to the hazardous substances potential impact to physical, heath and/or the environment. Hazard pictograms are to be located on all hazardous substance containers. A summary of hazardous pictograms and associated dangerous goods class labels are provided in Table 3—1.



Hazard Pictograms Required	Hazard	Dangerous Goods Class Label	Hazard
	<ul> <li>Explosive</li> <li>Self-reactive</li> <li>Organic peroxide</li> </ul>	I.4     I.5       EXPLOSIVE     1       1     1	Explosive
	<ul> <li>Flammable Gas/aerosol</li> <li>Self-reactive</li> <li>Pyrophoric</li> <li>Self-heating</li> <li>Emits flammable gas in contact with water</li> <li>Organic peroxide</li> </ul>	PLAMAABLE 10010 3 PLAMAABLE CASE PLAMAABLE 2 2 2 52	<ul> <li>Flammability</li> <li>Pyrophoric</li> <li>Emits flammable gas</li> <li>Organic peroxide</li> </ul>
	<ul> <li>Oxidiser</li> </ul>	OXIDIZING AGENT 5.1 2	<ul><li>Oxidiser</li><li>Oxidising gas</li></ul>
$\diamond$	<ul> <li>Gasses under pressure</li> </ul>	NONTILIMMARIE NONTOUR Case 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	<ul> <li>Non-toxic non- flammable gas</li> <li>Flammable gas</li> <li>Oxidising gas</li> <li>Toxic gas</li> </ul>
	<ul> <li>Acute toxicity</li> </ul>	TOXIC 6 2	<ul><li>Acute toxicity</li><li>Acute toxic gas</li></ul>
	<ul> <li>Acute toxicity</li> <li>Skin irritant</li> <li>Eye irritant</li> <li>Skin sensitiser</li> </ul>	-	-

#### Table 3—1 Hazardous Pictograms and Dangerous Goods Code Class Labels (Safe Work Australia, 2018b)



Hazard Pictograms Required	Hazard	Dangerous Goods Class Label	Hazard
	<ul> <li>Carcinogen</li> <li>Respiratory sensitiser</li> <li>Reproductive toxicant</li> <li>Target organ toxicant</li> <li>Germ cell mutagen</li> </ul>	-	-
	<ul><li>Eye corrosion</li><li>Skin corrosion</li><li>Corrosive to metal</li></ul>	CORROSIVE 8	Corrosive to metals
*	Aquatic toxicity		• Environmental hazard
-	-	NISCELLAROUS BOMBERIUS 9	Miscellaneous     dangerous goods
-	-	INFECTIOUS SUBSTANCE 6	Infectious
-	-	RADICACTIVE 1	Radioactive



#### 3.3 Monitoring

#### 3.3.1 Hazardous Substances Inventory

#### **Data Collected**

A hazardous substances inventory is required to be developed and maintained during the construction phase and transferred through to the operations phase. An inventory template example is provided in Appendix A and is to be updated prior to project commencement. The inventory is to include the following information:

- site and location;
- name, position and date;
- commercial name;
- chemical composition;
- volume (L / kg / m3);
- state (solid, liquid or gas);
- safe fill volume (L / kg / m3);
- maximum capacity (L / kg / m3);
- container type and
- hazardous substance / dangerous goods classification.

#### Frequency

Hazardous substance inventories are required to be updated frequently and additionally when new substances are brought onto site that have not been previously listed.

#### 3.3.2 Material Safety Data Sheets Register

In addition to hazardous substance inventories, all product Material Safety Data Sheets (MSDSs) are required and are to be maintained at the Site Office. The MSDS register will form Appendix B of this management plan during construction and operation stages.

The MSDS register is to be updated as new hazardous substances are brought to site.

#### 3.3.3 Fuel Inventory (Loss Management)

A fuel inventory system will be implemented and maintained, and include the following:

- Product level measurements compared with dispenser meter readings, deliveries, removals and internal transfers and
- Reconciliation conducted for each individual tank to calculate input and outputs and potential losses.



#### Fuel Leakage or Loss Identified

Should a fuel leak, spill or other cause of discrepancy be detected the following is to be undertaken:

- take action as soon as practicable to prevent any further release of product into the environment;
- identify and mitigate any fire, explosion or vapour hazards;
- take all reasonable steps to prevent migration of product that has leaked or spilled;
- take all reasonable steps to recover or remove product that has leaked or spilled so that the site does not pose any threat to the environment, human health or safety and
- remove or, where practical, repair any leaking components of the Above Ground Storage Tank (AST).

#### 3.4 Statutory Notification Procedures

Spills and/or incidents in relation to hazardous substances at the site are required to be reported internally via our reporting system and if warranted to the appropriate regulatory body as detailed in Table 3—2. Management of the spill / incident is to be undertaken in accordance with the Project's Emergency Response Management Plan.

All spills are to be logged as per the site's Incident Reporting system.



#### Table 3—2 Regulatory Body Reporting Requirements

Entity	Trigger	Timeframe and Contact Details	Incident Reporting Details
Northern Territory Environmenta I Protection Authority (NTEPA)	<ul> <li>Incident which causes, or is threatening or may threaten to cause pollution resulting in material environmental harm or serious harm.</li> <li>Qualifying triggers requiring submittal of Section 14</li> <li>Incident Report to NTEPA are any of the following: <ul> <li>is not trivial or negligible in nature; or</li> <li>consists of an environmental nuisance of a high impact or on a wide scale; or</li> <li>results, or is likely to result in \$50,000 or more in taking action to prevent or minimise environmental harm or rehabilitate the environment; or</li> <li>results in actual or potential loss or damage to value of \$50,000 or more of the prescribed amount (whichever is greater).</li> </ul> </li> </ul>	< 24 hrs post incident ntepa@nt.gov.au pollution@nt.gov.au	<ul> <li>The Section 14 Incident Report Form requires the following details:</li> <li>Incident causing or threatening to cause pollution;</li> <li>location occurred and area impacted;</li> <li>date and time;</li> <li>how the pollution has occurred, is occurring or may occur;</li> <li>Attempts made to prevent, reduce, control, rectify, investigation and/or clean up the pollution or resultant environmental harm caused or threatening to be caused by the incident and</li> <li>operator details.</li> <li>The form is to be signed by HSEC Manager and/or General Manager for submission.</li> </ul>



Entity	Trigger	Timeframe and Contact Details	Incident Reporting Details
Department of Industry Tourism and Trade – Mines	Environmental incident or serious environmental incident	As soon as practicable. mineralinfo.itt@nt.gov.a u	<ul> <li>The Section 29 Notification of</li> <li>Environmental Incident Form requires the following details:</li> <li>site and operator details;</li> </ul>
Division (DITT)			<ul> <li>location occurred and area impacted (GPS coordinates);</li> <li>date and time;</li> <li>description of incident;</li> <li>emergency and remedial actions taken;</li> <li>nature of impact and severity;</li> <li>current situation;</li> <li>details of sampling undertaken; and</li> <li>notification status internally and externally.</li> <li>The Environment incident form is to be signed by the HSEC Manager and/or General Manager for submission.</li> </ul>
NT WorkSafe	Incident which results in either: death of a person; serious injury or illness; or dangerous incident.	Immediate verbal communication via 1800 019 115 Written notification < 48hrs post incident. ntworksafe@nt.gov.au	<ul> <li>The NT WorkSafe Incident Notification Form requires the following details: <ul> <li>person submitting details;</li> <li>incident details including date, time and human injury details;</li> <li>work activity being undertake at the time of incident;</li> <li>witness(es) details;</li> <li>details of injured / deceased persons;</li> <li>summary of injury or illness and</li> <li>future remedial actions.</li> </ul> </li> <li>The form is to be signed by the HSEC Manager and/or General Manager for submission.</li> </ul>

Note: In addition, any reports to government agencies listed in Table 3—2 should also be reported to the Central Land Council under the Native Title Agreement.



### 4 MANAGEMENT AND MITIGATION

Hazardous substance management is to be undertaken in accordance with Section 2 of this management plan. Management of hazardous substances at the Project is to be structured as follows:

- **Key Activities, Impacts and Residual Risks:** A summary of the key activities being undertaken during the management period. The potential environmental impacts and residual risk levels are identified for each environmental aspect.
- **Objective:** The guiding environmental management objective(s) and activities that apply to the element.
- **Mitigation Measures:** The procedures to be employed to ensure that the relevant objectives are met.
- **Responsibility:** Nominates the responsible position for implementing actions and monitoring.
- **Trigger, Action, Response Plan (TARP):** The actions to be implemented in the case of noncompliance. This includes strategies of remediation and the person(s) responsible for the actions.

#### 4.1 Key Activities and Potential Environmental Impacts and Residual Risks

The key activities and potential environmental impacts that have been identified for hazardous substances are listed in Table 4—1.



#### Table 4—1 Key Activities and Potential Environmental Impacts

ID No	Activity	Potential Environmental Impact
1	Uncontrolled release, spill or passive discharge of hydrocarbons or reagents (dry bulk or liquid bulk) at mine site or processing site, including through inappropriate storage and handling.	Contaminant to ground resulting in contamination of soils and groundwater resource.
2	Personnel impacted by fire or explosion. This includes equipment and substance fire and explosions. This may occur during construction or operations. Mining operations fires would typically involve mobile equipment fires. Processing plant fires would typically involve fixed plant fires. This also includes the gas fired power generation plant and Amadeus Basin to Darwin high	Personnel fatality or injury
	pressure gas pipeline.	
3	Personnel exposed to hazardous materials via all means e.g. ingestion, inhalation or skin contact.	Personnel fatality or injury
4	Unauthorised site access / security breach during construction and operation stages.	Personnel or third-party fatality or injury.
5	Operation of processing facility including (comminution and beneficiation circuits, processing and separation) resulting in dispersion of particulate, gaseous emissions, spillages, dust or radiation exposure.	Dispersion of particulate matter (TSP and $PM_{10}$ ) in the air resulting in reduced air quality beyond the Project boundary or at nearby sensitive receptors with impacts to human health. Contact with substances or radiation exposure.



### 4.2 Mitigation Objectives

The hazardous substances management objectives have been established and are detailed in Table 4-2.

#### Table 4—2 Mitigation Objectives

Objective	Target	KPI
Protection of the surrounding environmental harm occurring from substances.	No long-term impact and/or environmental harm occurring from the release of hazardous substances.	Number of incidents reported leading to potential long-term impact and/or environmental harm.
	Hazardous Substances to be stored appropriately and in accordance with legislative standards.	Number of hazardous substance noncompliance breaches of legislative standards.

#### 4.3 Mitigation Measures

Mitigation measures will minimise potential impacts associated with hazardous substances management within the Project area. The mitigation measures, timing and responsibilities are provided in Table 4—3.

#### Table 4—3 Mitigation Measures

ID	Mitigation Measure	Timing	Responsibility
Site Ind	uction (Risk Activity 1 -5)		
HS01	<ul> <li>Site induction includes the following components for hazardous substances:</li> <li>summary of hazardous substance at the Project and associated locations;</li> <li>summary of hazardous pictograms and dangerous goods code class labels and what they mean;</li> <li>requirements for handling and utilising fuel infrastructure;</li> <li>no hot works or naked flames allowed within 20 m of flammable substances and</li> <li>procedure for reporting and/or managing a spill.</li> </ul>	Site Induction	All personnel
Genera	(Risk Activity 1 – 5)		
HS02	Management of hazardous substances in accordance with Australian Standards	Construction Operation	Area Managers
HS03	Hazardous substances to be stored in chemical storage shed with internal bunding to collect spills and ventilation to prevent the build- up of fumes. These are used for drum storage of oil, petrol and similar materials.	Construction Operation	Area Managers



ID	Mitigation Measure	Timing	Responsibility		
HS04	Waste oil and oil filters are to be stored in appropriately labelled Intermediate Bulk Containers (IBC). IBCs are determined as small containers, drums (up to 205 litres) and storage up to 1000 litres. All IBCs to be labelled identifying the hazard it poses. The IBCs are to be removed from site by a suitably licenced contractor and delivered to a licenced depot.	Construction Operation	All personnel		
HS05	Storage of IBCs is not to exceed capacity of secondary containment volume.	Construction Operation	All personnel		
HS06	Fuel storage tanks are to meet environmental guidelines for the safe storage of bulk fuel.	Construction Operation	Area Managers		
HS07	Fire extinguishers fitted in site vehicles.	Construction Operation	Area Managers		
HS08	In general, hazardous substances are to be stored a minimum of 10 m from surface water and 50 m from groundwater wells.	All personnel			
HS09	Storage of flammable and combustible materials is to be in accordance with this Hazardous Substances Management Plan and AS 1940. Open flame or other ignition sources are prohibited within 20 m of bulk flammable storage areas, fuel dispensing vehicles or refuelling operations and activities in hazardous atmospheres.	Construction Operation	All personnel		
Spill Ma	anagement (Risk Activity 1 and 5)				
HS10	Spill kits are to be located and maintained at all hazardous substance storage locations in addition to area supervisors having mobile spill kits. Spill kits are to also be available to be relocated to specific areas in accordance with scopes of work.	Construction Operation	Area Managers		
HS11	Monthly inspections of hazardous substance storage locations to ensure facilities meet HSE requirements and spill kits are present/contain sufficient materials for potential spillages.	Monthly	Safety Officer Environmental Officer Area Supervisors		
HS12	In the event of a spill follow the spill management procedure within the Emergency Response Management Plan.	At all times	All personnel		
Inspect	ion and Monitoring (Risk Activity 1 – 5)				
HS13	Monthly hazardous substances inventory in accordance with Section 3.3.1. The inspection is to update the hazardous substances inventory (Appendix A). In addition, any new hazardous substances are to be included when they are brought to site.	Monthly As required	Safety Officer All personnel		



ID	Mitigation Measure	Timing	Responsibility
HS14	Material Safety Data Sheets (MSDSs) registers (Appendix B) are to be maintained at storage locations and the Site Office The registers are to be updated when new hazardous substances are brought to site.	As required	Area Supervisors Safety Officer
HS15	Spill kits are to be inspected on a monthly basis to ensure kits contain adequate equipment.	Monthly	Safety Officer Environmental Officer Area Supervisors
HS16	<ul> <li>Fuel inventory control system in accordance with Section 3.3.3 including:</li> <li>product level measurements compared with dispenser meter readings, deliveries, removals and internal transfers and</li> <li>reconciliation conducted monthly for each individual tank product is added to or removed.</li> </ul>	At all times	Supply Officer
HS17	<ul> <li>If any leaks, spills or other cause of loss is identified the following must be undertaken:</li> <li>take action as soon as practicable to prevent any further release of product or used oil into the environment;</li> <li>identify and mitigate any fire, explosion or vapour hazards;</li> <li>take all reasonable steps to prevent migration of product that has leaked or spilled;</li> <li>take all reasonable steps to recover or remove product that has leaked or spilled so that the site does not pose any threat to the environment or human health and safety and</li> <li>remove or, where practical to do so, repair any leaking components of the AST.</li> </ul>	As required	All personnel



### 4.4 Trigger, Action and Response Plan

The Trigger, Action and Response Plan (TARP) outlines remedial actions and responses to the situation. The levels of incidents and TARP are provided in Table 4—4.



#### Table 4—4 Trigger, Action and Response Plan

Trigger	Action	Response
Hazardous Substance Release: Near source confined and immediate reversible impact.	<ul> <li>Isolate and contain the spill utilising the spill kit if safe to do so.</li> <li>Evacuate from the area if potential danger.</li> <li>Notify the Emergency Response Team coordinator.</li> <li>Emergency Response Team</li> <li>Attend and assess the significance and flag the area.</li> <li>Re-commence operations where possible, excluding the area of the incident.</li> <li>Replenish spill kit consumables.</li> <li>Environmental Officer:</li> <li>Attend and assess the significance and potential requirement for further environmental assessment.</li> </ul>	<ul> <li>Emergency Response Team</li> <li>Undertake and/or manage investigation into spill incident which is to be provided to the HSEC team within 24 hours of the incident occurring.</li> <li>Spill to be logged in the Incident and Non-conformance Register;</li> <li>Produce a 'Safety Moment' to onsite personnel within 1 week of incident occurring.</li> <li>Review and implement recommendations</li> <li>Environmental Officer:</li> <li>Advise on response, containment and clean- up requirements.</li> <li>Area Managers:</li> <li>Assess consequence levels and determine appropriate level of reporting to authorities – DITT (Mines division), NTEPA and NT WorkSafe (using Table 3—2 as a guide).</li> </ul>



Trigger	Action	Response
Near source confined and medium-term recovery (up to 1 month).	<ul> <li>Isolate and contain the spill utilising the spill kit if safe to do so.</li> <li>Evacuate from the area if potential danger.</li> <li>Notify the Emergency Response Team coordinator.</li> </ul>	Same response as a near source confined and immediate reversible impact.
	Emergency Response Team	
	Complete the same actions required for a near source confined and immediate reversible impact spill.	
	Environmental Officer:	
	<ul> <li>Attend and assess the significance and potential requirement for further environmental assessment. If not immediate reversible impact, environmental office to take the following actions:</li> </ul>	
	<ul> <li>Commence investigation into soil, surface and/or groundwater impacts from the spill.</li> </ul>	
	<ul> <li>Excavate and appropriately dispose of contaminated soils/sediments with validation samples taken and disposal certification for contaminated sediments disposed by licenced offsite facility as required.</li> </ul>	
Unconfined and	<ul> <li>Isolate and contain the spill utilising the spill kit if safe to do so.</li> </ul>	Same response as a near source confined and immediate
long-term recovery	• Evacuate from the area if potential danger.	reversible impact.
and remediation (months to years).	<ul> <li>Notify the Emergency Response Team coordinator.</li> </ul>	
	Emergency Response Team	
	Complete the same actions required for a near source confined and	

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Trigger	Action	Response
	immediate reversible impact spill, with the addition of the following:	
	<ul> <li>Manage in-situ engineering works to capture and control the spill.</li> </ul>	
	Environmental Officer:	
	<ul> <li>Attend and assess the significance and flag the area.</li> </ul>	
	<ul> <li>Advise on response, containment, monitoring and clean-up requirements.</li> </ul>	
	<ul> <li>Commence investigation into soil, surface and/or groundwater impacts from the spill.</li> </ul>	
	<ul> <li>Excavate and appropriately dispose of contaminated sediments with validation samples taken and disposal certification for contaminated sediments disposed by licenced offsite facility as required.</li> </ul>	

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### 5 PERFORMANCE REVIEW

An annual review of performance of this management plan is to coincide with the review process of the Project's Mining Management Plan (MMP).

The review process assesses performance against objectives of this plan and the stated actions within the MMP. Any relevant outcomes, supporting information, reports and/or data, discussed within the relevant section of the MMP, and supporting information/reports, will be provided within the appendices.

Any outcomes of the performance review that will assist in continually improving this management plan, its objectives, methods or controls, are to be included or reflected in an updated version of this document.



## APPENDIX A HAZARDOUS SUBSTANCES INVENTORY (EXAMPLE)

Site	Location		Date		Name		Position Hazardous Substance / Dangerous Goods Classification	
Commercial Name	Chemical Compositio n	Volume (L / kg / m <sup>3</sup> )	State Safe Fill (solid, Volume LIQUID; (L / kg / GAS) m <sup>3</sup> )		Maximum Capacity Container (L / kg / Type m <sup>3</sup> )			



### APPENDIX B MATERIAL SAFETY DATA SHEET REGISTER

To be populated throughout the project.



## APPENDIX C FUEL INVENTORY (EXAMPLE)

Site Location			Date Name			ame	Position				
				*			ļ.,				
Day	Мо	nth	Dispensed (L)	Delive	ered (L)	Book Stock (L) Note: Previous Day Reading + Delivery Dispensed	Dip	Dip Reading (L)		ook Stock	Cumulative Loss / Gain
Previou	s Mor	th									
1											
2											
3											
4	l										
5											
6											
7											
	ļ										
TOTAL									LOSS/C	SAIN	