ANNESLEY SALT (PTY) LTD

BACKGROUND INFORMATION DOCUMENT FOR A

PUBLIC PARTICIPATION PROCESS

SUBMITTED FOR AN APPLICATION FOR A MINING RIGHT IN TERMS OF SECTION 39 AND REGULATIONS 50 AND 51 OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002, (ACT NO. 28 OF 2002 as amended - MPRDA); the National Environmental Management Act, 1998 (Act 107 of 1998 as amended – NEMA) with the Environmental Impact Assessment Regulations 2014 (EIA Regulations – Chapter 6); the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) and the National Water Act, 1998 (Act 36 of 1998) as amended with the Water Use Licence and Appeals Regulations, 2017 (WULA & AR, 2017) where applicable.

(NC) 30/5/1/1/3/2/1/10141 MR

REMAINDER OF THE FARM ANNESLEY 338 IN THE DISTRICT OF GORDONIA,

NORTHERN CAPE PROVINCE

Compiled by Ms. R.H. Oosthuizen for Annesley Salt (Pty) Ltd

Wadala Mining and Consulting (Pty) Ltd

BACKGROUND INFORMATION DOCUMENT

1. INTRODUCTION

We must inform you that Annesley Salt (Pty) Ltd ("The applicant") has been directed in terms of section 22 of the Act, to implement the processes prescribed by the National Environmental Management Act, as amended and submit a Scoping Report within 44 days from the date of application of the Environmental Authorization and submit the relevant Environmental Impact and Environmental Management Programme reports as required in terms of the National Environmental Act, (as amended) within 106 days from the date of acceptance of the scoping report, as prescribed.

The Scoping Report and Environmental Impact and Environmental Management Programme reports must be submitted to the Regional Manager, Department of Mineral Resources ("DMR") situated at 65 Phakamile Majiba Street, Kimberley, 8301 with contact number 053-8071700.

2. PURPOSE OF THE BACKGROUND INFORMATION DOCUMENT

The purpose of this document is:

- The Public participation Process is undertaken to ensure compliance with regard to the requirements in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002 as amended – MPRDA); the National Environmental Management Act, 1998 (Act 107 of 1998 as amended – NEMA) with the Environmental Impact Assessment Regulations 2014 (EIA Regulations – Chapter 6); the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) and the National Water Act, 1998 (Act 36 of 1998) as amended with the Water Use Licence and Appeals Regulations, 2017 (WULA & AR, 2017) where applicable.

- Interested and affected parties are required to register on the database within 30 days in terms of the MPRDA, NEMA and EIA Regulations, 2014 and 60 days in terms of the Water Use Licence and Appeals Regulations, 2017 (WULA & AR, 2017).

- To notify potential stakeholders of the mining right application and submission of the related Environmental documents to the Department of Mineral Resources Reference (NC) 30/5/1/1/3/2/1/10141 MR

- Provide background information regarding the proposed mining right application and relevant Environmental Management Programme for Annesley Salt (Pty) Ltd.

- Invite potential stakeholders to register themselves as interested and affected parties and to raise issues of importance, share their input, comments and or concerns to inform the updated and revised Environmental Management Programme.
- To provide information on the environmental work that had been done to meet requirements of Environmental Legislation.
- To inform the Affected and Interested Parties of the requirements in terms of all Governing Legislation.

Annesley Salt (Pty) Ltd seeks to gather comments, suggestions, issues and concerns from all stakeholders.

3. A BRIEF OVERVIEW

Annesley Salt (Pty) Ltd ("The applicant") has applied for a Mining Right on Annesley no. 338, Gordonia, Northern Cape Province to mine for salt.

Annesley Salt (Pty) Ltd ("The applicant") will also lodge an application for a Water Use Licence for the mining activities on Annesley no. 338, Gordonia.

The proposed salt mine is situated on a portion of the farm known as the Remainder of the Farm Annesley no. 338, which is located approximately 120 km north of Upington, and approximately 35 km southwest of Noenieput, in the Northern Cape Province.

3.1 Proposed activity description

Evaporation dams (100m x 60m x 0.6m dams) will be constructed. The dams will be opened up to the clay level and dams formed to 60cm from the floor, formed by the hardened sulphates. Brine from the boreholes will be pumped into the dams allowing water to evaporate. Thus helping the formation of salt crystals and keeping the salt from forming a base that cannot be cultivated. The salt crystals are collected as coarse salt and stockpiled.

Mining activities will primarily make use of existing roads created by previous activities, but additional roads will most likely be created.

3.2 Rehabilitation

Salt mining is one of the most efficient mining processes there is, no mine waste is created and all salt that is grown is reaped and sold, there is no mine residues and the floors of the evaporation ponds gets broken up and sold as "Klip" salt after mining ceases.

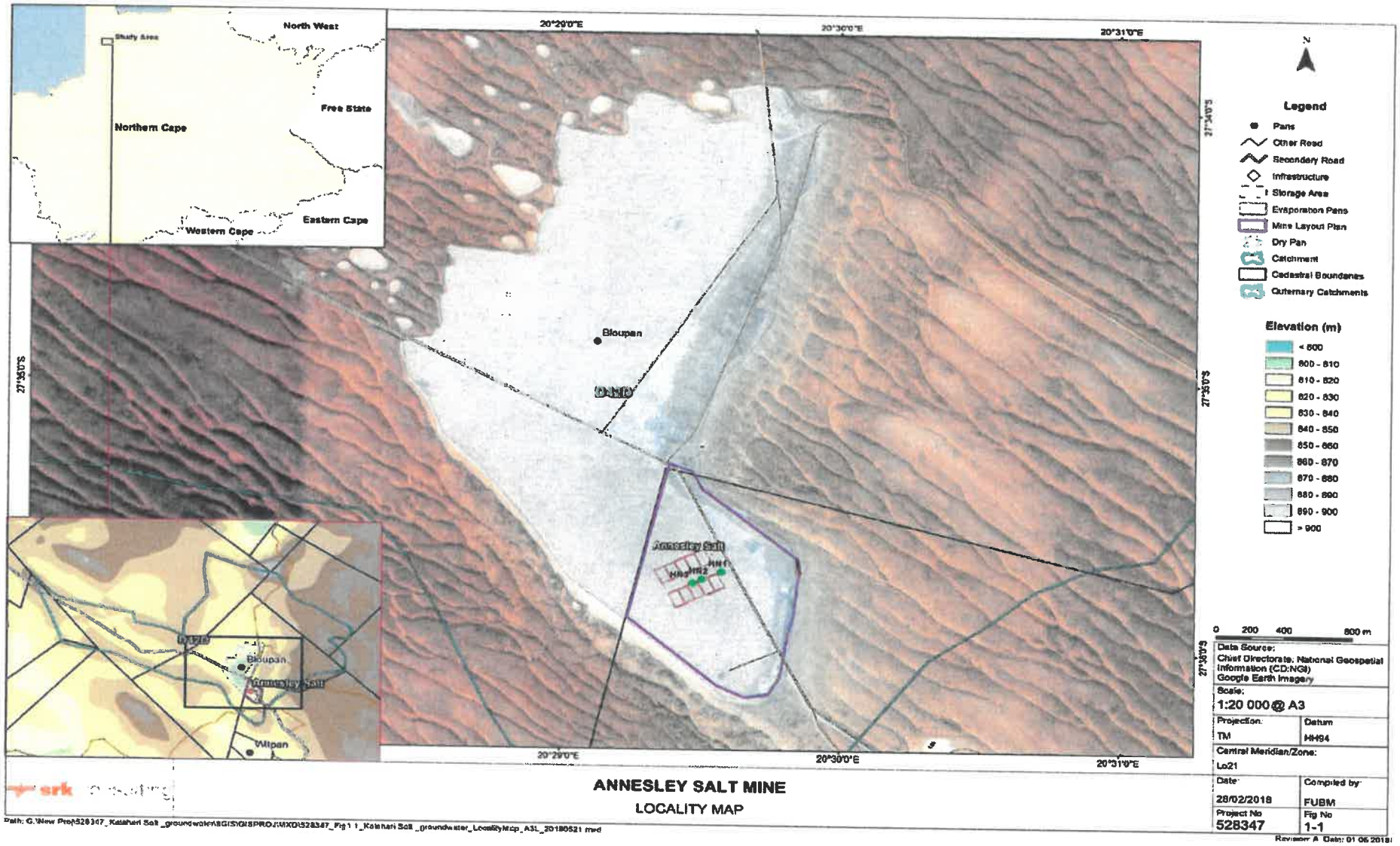

Figure 1: The locality of the proposed mining right area indicated in purple.

3.3 Foreseen Environmental Impacts

3.3.1 Air quality deterioration

Source of the impact

Sources of atmospheric emission associated with the mining operation are likely to include fugitive dust from materials handling operations, wind erosion of stockpiles, and vehicle entrainment of dust roads.

Description of the impact

During the construction and operation of the mine dust can be generated through the use of access roads and haul roads. Air pollution through vehicle entrainment is expected to be negligible due to the small scale of the project and dust suppression measures that will be implemented by the mine. Air pollution from exhaust fumes.

3.3.2 Soil pollution

Source of the impact

Spillage of hazardous material; runoff.

Description of the impact

During the construction and operation of the mine, there is a possibility that equipment might leak oil, thus causing surface spillages. The hydrocarbon soil contamination will render the soil unusable unless they are decontaminated. The storage of fuels on site might have an impact on soil if the tanks that are available on site are not properly monitored and maintained to avoid leakages. Then there is the potential that contaminated soil can be carried through runoff to contaminate water resources and soil stockpiled for rehabilitation. Soil pollution is therefore possible, but through mitigation it can be minimised. The impact will have minimal severity and slight effect on extent.

3.3.3 Loss of soil fertility

Source of the impact

During the removal of topsoil; stockpiling.

Description of the impact

Improper stockpiling and soil compaction can result in soil sterilisation. Leaching can also occur, resulting in the loss of nutrients.

3.3.4 Soil erosion

Source of the impact

Construction of infrastructure; topsoil removal; potential runoff.

Description of the impact

The construction of infrastructure and various facilities in the mining area can result in loss of soil due to erosion. Vegetation will be stripped in preparation for placement of infrastructure and evaporation ponds, and therefore the areas will be bare and susceptible to erosion.
The topsoil that is stripped and piled on surrounding areas can be eroded by wind and rain. The soil will be carried away during runoff. The cleared areas will be rehabilitated, but full restoration of soils might only occur over a number of years, subsequent to the re-establishment of vegetation. Therefore the impact will have a moderate severity, throughout the duration of the mine.

3.3.5 Broad-scale ecological processes

Source of the impact

The construction of roads, evaporation ponds, as well as other necessary infrastructure; and the clearing of vegetation for mining.

Description of the impact

Transformation of intact habitat on a cumulative basis would contribute to the fragmentation of the landscape and would potentially disrupt the connectivity of the landscape for fauna and flora and impair their ability to respond to environmental fluctuations. The impact will have minimal severity and slight effect on extent.

3.3.6 Changes to surface topography

Source of the impact

Development of infrastructure; and evaporations ponds.

Description of the impact

The infrastructure and evaporation ponds will alter the topography by adding features to the landscape. Topsoil removal, evaporation ponds will unearth the natural topography. The impact will be definite.

3.3.7 Visual impacts

Source of the impact

The construction of Mine infrastructure, evaporation ponds and possible dust.

Description of the impact

Visual impact of the mine infrastructure, evaporation ponds and visibility of dust.

3.3.8 Traffic

Source of the impact

The amount of vehicles will increase with the mine in the area.

Description of the impact

Potential negative impacts on traffic safety and deterioration of the existing road networks.

3.3.9 Heritage resources

Source of the impact

The mining operations can mine through or destroy sites of cultural and heritage importance

Description of the impact

The deterioration or destruction of sites of cultural and heritage importance

3.3.10 Socio-economic

Source of the impact

The mine can create various job opportunities for local people. The mine can also destroy the land capability and use while mining.

Description of the impact

Loss of land potential; influx of workers to the area increases health risks and loitering (resulting in lack of security and safety); negative impact of employment loss during mine closure.

3.3.11 Interested and affected parties

Source of the impact

The setting up of a mine for salt.

Description of the impact

Loss of trust and a good standing relationship between the IAPs and the mining company.

3.3.12 Land capability

Source of the impact
Salt mining.

Description of the impact

Loss of land capability through topsoil removal, disturbances and loss of soil fertility.

3.3.13 Land use

Source of the impact

Salt mining.

Description of the impact

Loss of land use due to poor placement of surface infrastructure and ineffective rehabilitation.

3.3.14 Ground water

Source of the impact

Potential chemical spills.
Yellow fleet servicing and tyre replacement workshop – Potential diesel and lubricant spills.
Operating of the Wash bay as well as silt trap and oil separator – Potential contaminated water and chemical spills.
Yellow fleet parking area – Potential diesel and lubricant spills.
Septic tank and soak-away systems – Potential infiltration of contaminants through substrata.

Description of the impact

Possible Pollution of underground water sources. Construction of measures to prevent seepage into the groundwater by biological and engineering means. Implementation of the necessary management programs to ensure the integrity of ground water resources.

3.3.15 Surface water

Source of the impact

Potential chemical spills.
Yellow fleet servicing and tyre replacement workshop – Potential diesel and lubricant spills.
Operating of the Wash bay as well as silt trap and oil separator – Potential contaminated water and chemical spills.
Yellow fleet parking area – Potential diesel and lubricant spills.

Description of the impact

During the construction and operation of the mine, there is a possibility that equipment might leak oil, thus causing surface spillages. The storage of fuels on site might have an impact on surface water if the tanks that are available on site are not properly monitored and maintained to avoid leakages. Then there is the potential that contaminated soil can be carried through runoff to contaminate water resources and soil stockpiled for rehabilitation. Surface water pollution is therefore possible, but through mitigation it can be minimised. The impact will have minimal severity and slight effect on extent.

3.3.16 Disturbance, displacement and killing of fauna

Source of the impact

Vegetation clearing; increase in noise and vibration; human and vehicular movement on site resulting from mining activities.

Description of the impact

The transformation of natural habitats to mining and associated infrastructure will result in the loss of habitat affected individual species, and ecological processes. In turn this will result in the displacement of faunal species dependent upon such habitat. Increased noise and vibration due to mining activities will disturb and possibly displace birds and other wildlife. Fast moving vehicles take a heavy toll in the form of road kills of small mammals, birds, reptiles, amphibians and a large number of invertebrates.

3.3.17 Fauna Loss, damage and fragmentation of natural habitats

Source of the impact

Clearance of vegetation; mining activities.

Description of the impact

The construction of the mine and associated infrastructure will result in the loss of connectivity and fragmentation of natural habitat. Fragmentation of habitat will lead to the loss of migration corridors, in turn resulting in degeneration of the affected population's genetic make-up. This results in a subsequent loss of genetic variability between meta-populations occurring within the study site. Pockets of fragmented natural habitats hinder the growth and development of populations.

3.3.18 Encouragement of bush encroachment

Source of the impact

Clearing of vegetation; disturbances through mining activities.

Description of the impact

While general clearing of the area and mining activities destroy natural vegetation, bush encroaching plants can increase due to their opportunistic nature in disturbed areas. If encroaching plants establish in disturbed areas, it may the lower potential for future land use and decrease biodiversity. With proper mitigation, the impacts can be substantially reduced.

3.3.19 Proliferation of alien vegetation

Source of the impact

Clearing of vegetation; mining activities.

Description of the impact

While general clearing of the area and mining activities destroy natural vegetation, invasive plants can increase due to their opportunistic nature in disturbed areas. If invasive plants establish in disturbed areas, it may cause an impact beyond the boundaries of the mining site. These alien invasive species are thus a threat to surrounding natural vegetation and can result in the decrease of biodiversity and ecological value of the area. Therefore, if alien invasive species are not controlled and managed, their propagation into new areas could have a high impact on the surrounding natural vegetation in the long term. With proper mitigation, the impacts can be substantially reduced.

3.3.20 Loss of flora with conservation concern

Source of the impact

Removal of listed or protected plant species; during the construction of roads, plant site, as well as other necessary infrastructure; the placement of stockpiles; and the clearing of vegetation for mining.

Description of the impact

It is possible that protected species will be destroyed during the mining operation. Furthermore, it is possible that provincially protected species and other species of conservation concern will be destroyed.

3.3.21 Loss of, and disturbance to indigenous vegetation

Source of the impact

The construction of roads, evaporation ponds, as well as other necessary infrastructure; and the clearing of vegetation for mining, materials storage and topsoil stockpiles; vehicular movement.

Description of the impact

Construction and mining activities on site will reduce the natural habitat for ecological systems to continue their operation. It is not expected that the areas of high ecological function will rehabilitate following disturbance events. Vehicle traffic generates lots of dust which can reduce the growth success and seed dispersal of many small plant species.

3.3.22 Noise and vibration:

Source of the impact

Noise generated by the vehicles and mining equipment.

Description of the impact

Opencast salt mining which increase occasional noise levels; the disruption of current ambient noise levels; and the disruption of sensitive receptors by means of increased noise and vibration. This is particularly relevant to IAPs that reside in close proximity to the mining site.

3.3.23 Land use:

Source of the impact

Opencast Salt mining

Description of the impact

Loss of economic function of disturbed area during mining activities and potential loss of land capability post mining (limited to the mine pit area and processing plant).

3.4 Listed Activities applied for in terms of the National Environmental Management Act, 1998 Act 107 of 1998 (NEMA)

Table 1: Listed and Specified Activities

NAME OF ACTIVITY (E.g. for prospecting – drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access route, etc. ... etc. ... etc. E.g. for mining – excavations, blasing, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc. ... etc. ... etc.)	Aerial extent of the Activity Ha or m²	LISTED ACTIVITY (Mark with an X where applicable or affected).	APPLICABLE LISTING NOTICE *(GNR 544, GNR 545 or GNR 546)*	WASTE MANAGEMENT AUTHORISATION (Indicate whether an authorisation is required in terms of the Waste Management Act). (Mark with an X)
Activity 9: "The development of infrastructure exceeding 1000 metres in length for the bulk transportation of water or storm water- (vii) with an internal diameter of 0.36 metres or more; or (viii) with a peak throughput of 120 litres per second or more;	Water distribution Pipelines	X	GNR 983	
Activity 12 of NEMA Listing notice 1 "The development of— (i) canals exceeding 100 square metres in size; (ii) channels exceeding 100 square metres in size; (iii) bridges exceeding 100 square metres in size; (iv) **dams, where the dam, including infrastructure and water surface area, exceeds 100 square metres in size;** (v) weirs, where the weir, including infrastructure and water surface area, exceeds 100 square metres in size; (vi) bulk storm water outlet structures exceeding 100 square metres in size; (x) buildings exceeding 100 square metres in size;	60 X 100m for each evaporation dam 10 evaporations ponds is planned for this operation 60 000m²	X	GNR 983	

or (xii) infrastructure or structures with a physical footprint of 100 square metres or more; where such development occurs— (a) within a watercourse; (b) in front of a development setback; or (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse" Regulation GN R704, published on 4 June 1999 in terms of the National Water Act (Use of water for mining and related activities) GNR984: Activity 17 Consideration of GN704 – Water Act				
(Activity 17 of Listing Notice 2) Any activity including the operation of that activity which requires a mining right as contemplated in section 22 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including associated infrastructure, structures and earthworks, directly related to the extraction of a mineral resource, including activities for which an exemption has been issued in terms of section 106 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).	**100, 3481 ha** .	X	GNR 984	
Activity 21 of NEMA Listing Notice 2 Any activity including the operation of that activity associated with the primary **processing of a mineral resource** including winning, reduction, extraction, classifying, **concentrating**, crushing, screening and washing but excluding the smelting, beneficiation,	6 ha will be used for the evaporation ponds for the salt mining	X	GNR 984	

refining, calcining or gasification of the mineral resource in which case activity 6 in this Notice applies.				
Activity 24(ii) of NEMA Listing Notice 1 The development of haul roads 15m wide with no reserve	±5 000m² on the Area.	X	GNR983	
Activity 56(ii) of NEMA Listing Notice 1 The continuous lengthening (and rehabilitation) of haul roads 15m wide with no reserve.	±5 000m² on the Area.	X	GNR983	
Activity 15 of NEMA Listing Notice 2 "The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for- (i) The undertaking of a linear activity; or (ii) Maintenance purposes undertaken in accordance with a maintenance management plan."	A total of 6 hectares will be physically disturbed were the evaporation ponds will be made as well as areas for stockpiling and workshops as well as other infrastucture	X	GNR984	
Activity 10 of NEMA Listing Notice 3: "The development of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage good, where such storage occurs in containers with a combined capacity of 30 but not exceeding 80 cubic meters."	250m²	X	GNR985	
Activity 15 of Category A under the National Environmental Management: Waste Act 59 of 2008 The continuous establishment and reclamation of temporary stockpiles resulting from activities which require a mining right.	2 000m²		GNR 633	X

OTHER ACTIVITIES (Associated infrastructure not considered to be listed activities)				
Temporary Workshop Facilities	±300m²		NOT LISTED	
Storage Facilities	±3000m²			
Concrete Bund walls and diesel Depots	±250m²			
Four Family housing units pre-fabricated houses and Ablution Facilities	±100m²			
Topsoil Stockpiles	±2 000m²			
Overburden Stockpiles	±2 000m²			
Generator Site within a concrete floor and bundwall	25m²			

3.5 Decommissioning phase/ Closure Period:

The decommissioning phase will only commence once all the mining is completed. During decommissioning all erected structures, e.g. ablution facilities, fences on demarcated areas, equipment and access roads on permission of the surface owners will be rehabilitated to their previous state. Although rehabilitation will be not be done concurrently with the mining as the evaporation ponds will not be landscaped until the mine is due for closure.

4 CONCLUSION

It is clear that the destruction of the natural habitat in the mining area is inevitable and that there would be both positive and negative impacts related to the mining activities. The significance of these impacts will however be determined by the success of the mitigation measures that will be implemented by mine management in line with the Approved Environmental Management Programme.

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