



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

ENVIRONMENTAL IMPACT ASSESSMENT REPORT And ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

SUBMITTED FOR ENVIRONMENTAL AUTHORIZATIONS IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 AND THE NATIONAL ENVIRONMENTAL MANAGEMENT WASTE ACT, 2008 IN RESPECT OF LISTED ACTIVITIES THAT HAVE BEEN TRIGGERED BY APPLICATIONS IN TERMS OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (MPRDA) (AS AMENDED)

NAME OF APPLICANT: ANNESLEY SALT (PTY) LTD

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FILE REFERENCE NUMBER SAMRAD: (NC) 30/5/1/2/2/10141 MR

1. IMPORTANT NOTICE

In terms of the Mineral and Petroleum Resources Development Act (Act 28 of 2002 as amended), the Minister must grant a prospecting or mining right if among others the mining “will not result in unacceptable pollution, ecological degradation or damage to the environment”.

Unless an Environmental Authorisation can be granted following the evaluation of an Environmental Impact Assessment and an Environmental Management Programme report in terms of the National Environmental Management Act (Act 107 of 1998) (NEMA), it cannot be concluded that the said activities will not result in unacceptable pollution, ecological degradation or damage to the environment.

In terms of section 16(3)(b) of the EIA Regulations, 2014, any report submitted as part of an application must be prepared in a format that may be determined by the Competent Authority and in terms of section 17 (1)(c) the competent Authority must check whether the application has taken into account any minimum requirements applicable or instructions or guidance provided by the competent authority to the submission of applications.

It is therefore an instruction that the prescribed reports required in respect of applications for an environmental authorisation for listed activities triggered by an application for a right or a permit are submitted in the exact format of, and provide all the information required in terms of, this template. Furthermore please be advised that failure to submit the information required in the format provided in this template will be regarded as a failure to meet the requirements of the Regulation and will lead to the Environmental Authorisation being refused.

It is therefore an instruction that the Environmental Assessment Practitioner must process and interpret his/her research and analysis and use the findings thereof to compile the information required herein. (Unprocessed supporting information may be attached as appendices). The EAP must ensure that the information required is placed correctly in the relevant sections of the Report, in the order, and under the provided headings as set out below, and ensure that the report is not cluttered with un-interpreted information and that it unambiguously represents the interpretation of the applicant.

2. OBJECTIVE OF THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

The objective of the environmental impact assessment process is to, through a consultative process—

- (a) determine the policy and legislative context within which the activity is located and document how the proposed activity complies with and responds to the policy and legislative context;
- (b) describe the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location;
- (c) identify the location of the development footprint within the preferred site based on an impact and risk assessment process inclusive of cumulative impacts and a ranking process of all the identified development footprint alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects of the environment;
- (d) determine the—
 - (i) nature, significance, consequence, extent, duration and probability of the impacts occurring to inform identified preferred alternatives; and
 - (ii) degree to which these impacts—
 - (aa) can be reserved;
 - (bb) may cause irreplaceable loss of resources; and
 - (cc) can be avoided, managed or mitigated.
- (e) identify the most ideal location for the activity within the preferred site based on the lowest level of environmental sensitivity identified during the assessment;
- (f) identify, assess, and rank the impacts the activity will impose on the preferred location through the life of the activity;
- (g) identify suitable measures to manage, avoid or mitigate identified impacts; and
- (h) identify residual risks that need to be managed and monitored.

PART A

SCOPE OF ASSESSMENT AND ENVIRONMENTAL IMPACT ASSESSMENT REPORT

3. Contact Person and Correspondence Address

a) Details of

i) Details of the EAP

Name of the Practitioner:	ROELIEN OOSTHUIZEN
Tel No.:	084 208 9088
Fax No.:	086 510 7120
E-mail address:	roosthuizen950@gmail.com
Physical Address:	4 Millin Street, Hadisonpark, 8301
Postal Address:	P O Box 110823, Hadisonpark, 8306

ii) Appointed by:

Annesley Salt (Pty) Ltd
Contact Person: Mrs. Pearl van Wyk
Mobile: 082 706 3079 (Pearl)
Email: mining@blaauwsgroup.co.za
Postal Address: Private Bag X6009
Upington
8800

iii) Expertise of the EAP

(1) The qualifications of the EAP

Masters in Environmental Management (UFS)
B-Comm in Human and Industrial- Psychology (NWU)
(with evidence attached as **Appendix 1**)

(2) Summary of the EAP's past experience

(In carrying out the Environmental Impact Assessment Procedure)

Relevant past experiences in carrying out the Environmental Impact Assessment Procedures include Environmental Impact Assessments, Environmental Management Plans/Programmes/ Reports, Performance assessments, Rehabilitation progress assessments, Environmental Liability assessments, Environmental compliance monitoring, Scoping Reports, etc. (See attached CV / Appendix 1).

b) Description of the property

Farm Name:	Remainder of the Farm Annesley 338, Gordonia Farm No.: 338 Portions: 0 Farm Name: Annesley Magisterial District: Gordonia Province: Northern Cape Title Deed No's: T 2128/2008
Application area (Ha)	100,3481 (One Hundred comma Three four eight one) hectares
Magisterial district:	Gordonia
Distance and direction from nearest town	The proposed salt mine is situated on a portion of the farm known as the Remainder of the Farm Annesley no. 338. The mining right area is located within the Gordonia District Municipality of the Northern Cape Province and lies 130 km north-west of the town Upington on a gravel road that turns from the R360, and approximately 35 km southwest of Noenieput, in the Northern Cape Province.
21 digit Surveyor General Code for each farm portion	C0280000000003380000

c) **Locality map**
(show nearest town, scale not smaller than 1:250000)

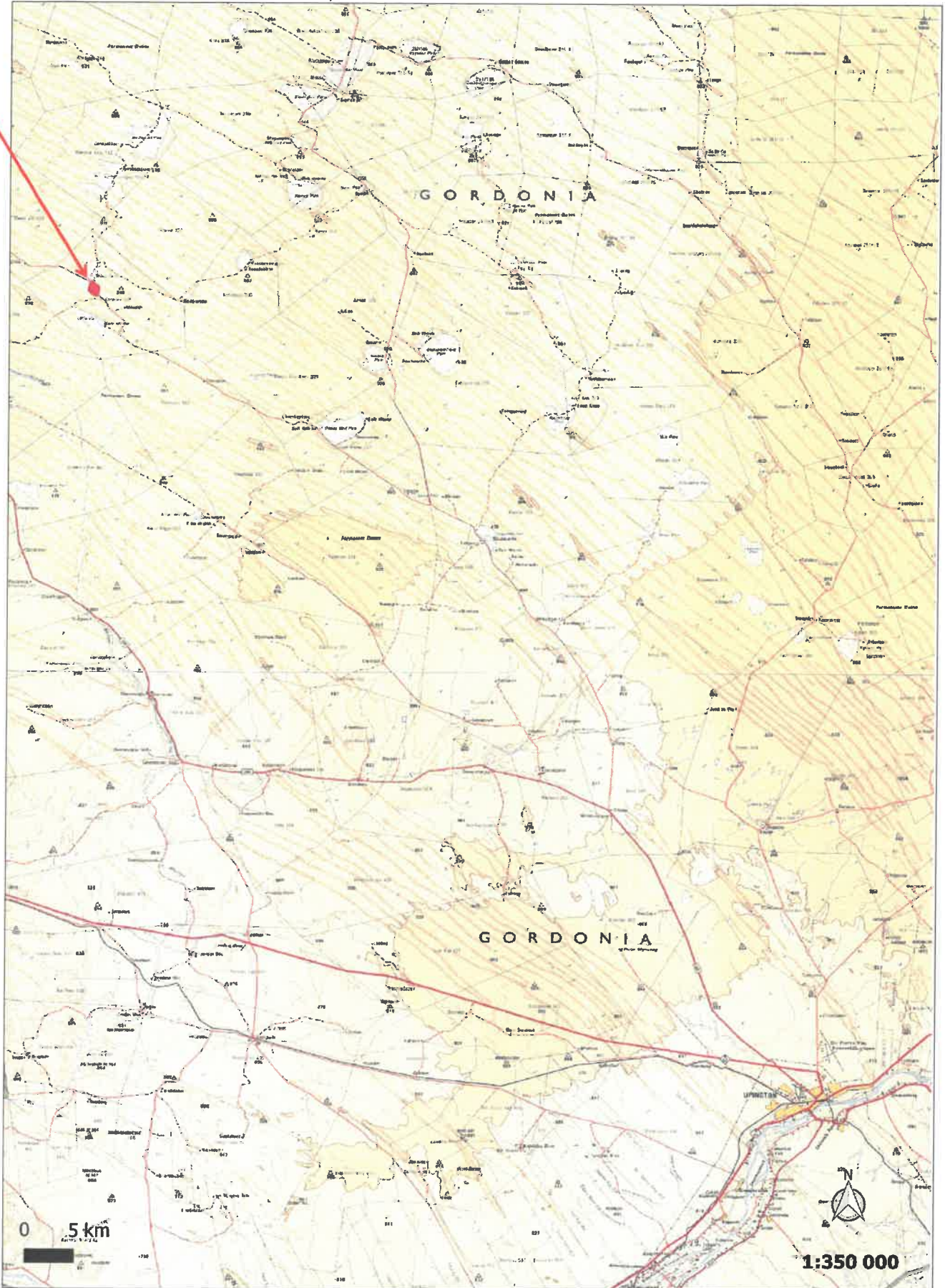


Figure 1: Locality Map taken out of the Ecological Study by Boscia Ecological Consulting

d) Description of the scope of the proposed overall activity

(provide a plan drawn to a scale acceptable to the competent authority but not less than 1 : 10 000 that shows the location, and area (hectares) of all the aforesaid main and listed activities, and infrastructure to be placed on site)

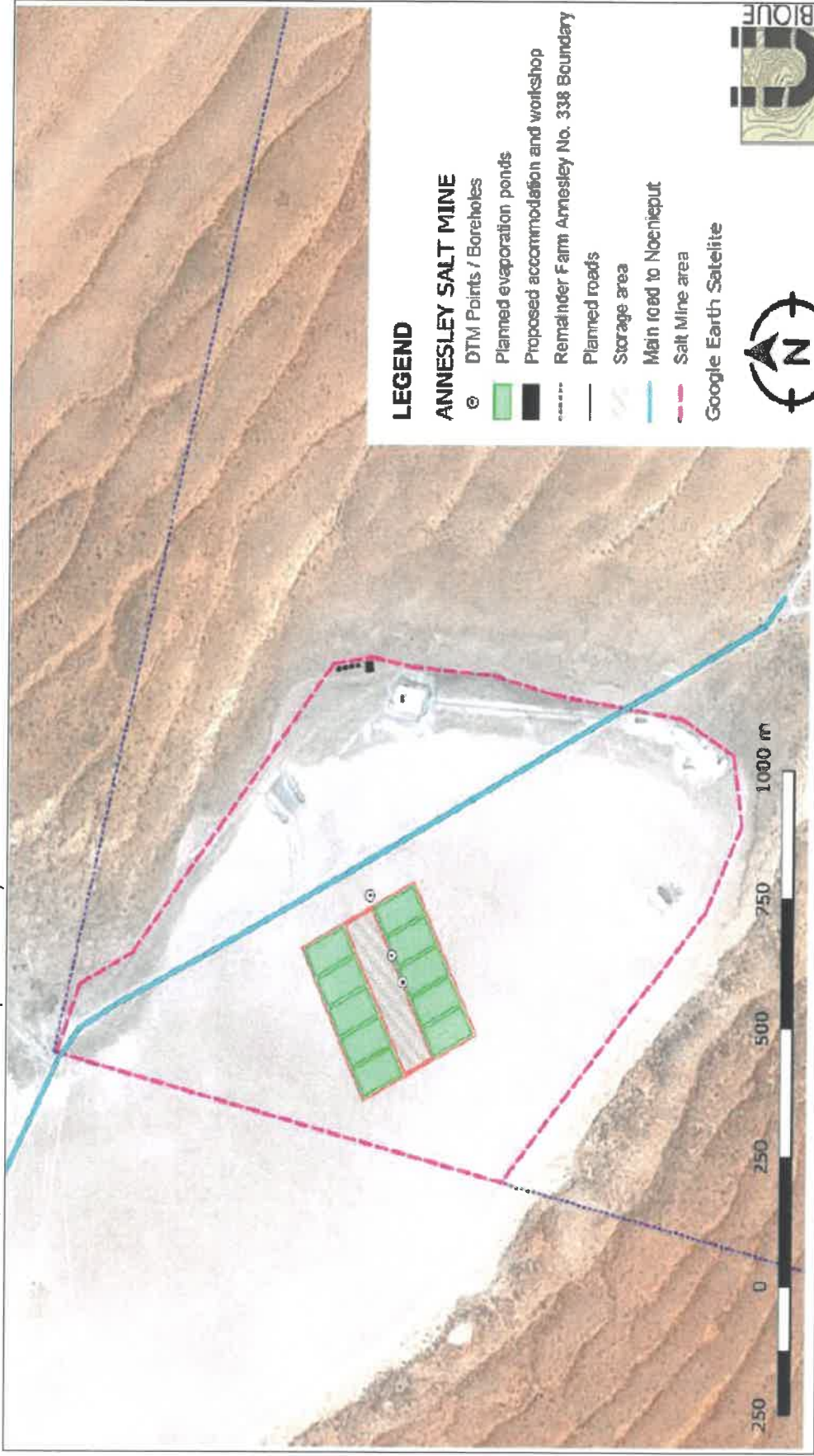


Figure 2: A plan indicating the overall location and extent of listed activities and main infrastructure on the proposed mining site(map taken out of the HIA by UBIQUE)

i) Listed and specified activities

Table 1: Listed and Specified Activities

NAME OF ACTIVITY	Aerial extent of the Activity Ha or m ²	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)
<p>(E.g. for prospecting – drill site, site camp, ablation facility, accommodation, equipment storage, sample storage, site office, access route, etc. ... etc. ... etc.)</p> <p>E.g. for mining – excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablation, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines conveyors, etc. ... etc. ... etc.)</p> <p>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;</p>	Water Pipelines distribution	X	GNR 983	
<p>Activity 12 of NEMA Listing notice 1</p> <p>"The development of—</p> <p>(i) canals exceeding 100 square metres in size;</p> <p>(ii) channels exceeding 100 square metres in size;</p> <p>(iii) bridges exceeding 100 square metres in size;</p> <p>(iv) dams, where the dam, including infrastructure and water surface area, exceeds 100 square metres in size;</p> <p>(v) weirs, where the weir, including infrastructure and water surface area, exceeds 100 square metres in size;</p> <p>(vi) bulk storm water outlet structures exceeding 100 square metres in size;</p> <p>(x) buildings exceeding 100 square metres in size;</p> <p>or</p> <p>(xii) infrastructure or structures with a physical</p>	60 X 100m for each evaporation dam 10 evaporation ponds is planned for this operation 60 000m ²	X	GNR 983	

<p>footprint of 100 square metres or more; where such development occurs—</p> <p>(a) within a watercourse;</p> <p>(b) in front of a development setback; or</p> <p>(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse"</p> <p>Regulation GN R704, published on 4 June 1999 in terms of the National Water Act (Use of water for mining and related activities)</p> <p>GNR984: Activity 17</p> <p>Consideration of GN704 – Water Act</p>	<p>100, 3481 ha</p>	<p>X</p>	<p>GNR 984</p>	
<p>(Activity 17 of Listing Notice 2)</p> <p>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).</p>		<p>X</p>	<p>GNR 984</p>	
<p>Activity 21 of NEMA Listing Notice 2</p> <p>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, refining, calcining or gasification of the mineral resource in which case activity 6 in this Notice applies.</p>	<p>6 ha will be used for the evaporation ponds for the salt mining</p>	<p>X</p>	<p>GNR 984</p>	

<p>Activity 24(ii) of NEMA Listing Notice 1</p> <p>The development of haul roads 15m wide with no reserve</p>	<p>±5 000m² on the Area.</p>	<p>X</p>	<p>GNR983</p>	
<p>Activity 56(ii) of NEMA Listing Notice 1</p> <p>The continuous lengthening (and rehabilitation) of haul roads 15m wide with no reserve.</p>	<p>±5 000m² on the Area.</p>	<p>X</p>	<p>GNR983</p>	
<p>Activity 15 of NEMA Listing Notice 2</p> <p>"The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for-</p> <p>(i) The undertaking of a linear activity; or</p> <p>(ii) Maintenance purposes undertaken in accordance with a maintenance management plan."</p>	<p>A total of 6 hectares will be physically disturbed where the evaporation ponds will be made as well as areas for stockpiling and workshops as well as other infrastructure</p>	<p>X</p>	<p>GNR984</p>	
<p>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."</p>	<p>250m²</p>	<p>X</p>	<p>GNR985</p>	
<p>Activity 15 of Category A under the National Environmental Management: Waste Act 59 of 2008</p> <p>The continuous establishment and reclamation of temporary stockpiles resulting from activities which require a mining right.</p>	<p>4 550m²</p>		<p>GNR 633</p>	<p>X</p>
<p>OTHER ACTIVITIES (Associated infrastructure not considered to be listed activities)</p>				

Temporary Workshop Facilities and washbay	±450m ²			
Storage Facilities	±3000m ²			
Concrete Bund walls and diesel Depots	±250m ²			
Four Family housing units pre-fabricated houses and Ablution Facilities	±240m ²			
Topsoil Stockpiles	±2 000m ²			
Overburden Stockpiles	±2 000m ²			
Generator Site within a concrete floor and bundwall	25m ²			
				NOT LISTED

ii) Description of the activities to be undertaken

(Describe methodology or technology to be employed, including the type of commodity to be mined and for a linear activity, a description of the route of the activity)

Mining Method

The salt resources are confined to the underground brines which are of secondary origin, having leached from salt-bearing sediments i.e. Dwyka Formation sediments. These particular sediments are mainly the shales and tillites of Dwyka Formation. The potential source of salt is unlimited, and the leaching of these sediments will continue as long as water finds its way through the sediments.

The proposed abstraction will be fractionally divided between the three boreholes depending on the yield, i.e. abstraction of c.14 m³/h from boreholes HN1 and HN2, and 4.5 m³/h from borehole HN3.

Salt pans, more often, do occur on surface; therefore mining must be designed to penetrate the surface to reach the source of the salt underground.

Construction and implementation phases**Phase 1. (Implementation)**

There are no existing structures or buildings on the mining application area. The property will be leased by Annesley Salt (Pty) Ltd from the owner, which lease agreement has already been successfully negotiated, subject to the approval and granting of a mining right by the Department of Mineral Resources to Annesley Salt (Pty) Ltd.

Phase 1 will consist of the erection of the first two family housing units which will be pre-fabricated houses, a dedicated workshop and washbay area, diesel tank within a concrete floor and bundwall area and a dedicated generator site within a concrete floor and bundwall area on the mining site. Electricity supply for all housing units will be from renewable energy sources, in this case solar energy. This phase will commence as soon as a mining right have been granted to Annesley Salt (Pty) Ltd.

At the same time the construction of 10 salt evaporation dams will commence together with the installation of the three borehole pumps and pipe network which will distribute the brine from the boreholes to the salt evaporation dams.

Once the boreholes are drilled, the identified area would then be opened up by digging evaporation dams 10 X (100m x 60m x 0.6m dams). The dams will be opened up to the clay level (300 mm deep below natural ground level) and dams built to 600mm from the floor formed by the hardened sulphates (floor 150mm thick) up to 450 mm above natural ground level to compensate for the 1 in 50 year flood level. Brine from the boreholes is pumped into the dams, allowing water to evaporate. The brine water is harrowed periodically depending on the speed of evaporation. Thus helping the forming of salt crystals and keeping salt from forming a base that cannot be cultivated. The salt crystals are collected as coarse salt and stock piled.

Phase 2. (Expansion)

After the first year that the mining right is granted Annesley Salt (Pty) Ltd plans to erect the last two pre-fabricated family housing units.

Rehabilitation

The brine dams and acres will be ripped and potentially filled with material used and stored as the bench material. The roads on the mining area will be ripped and levelled to encourage germination of seedlings. Any remaining stockpiles will be removed and the hardened platforms removed. This will be sold in the end as Klipsalt. All infrastructures on site will be removed unless otherwise instructed by the Regional Manager (DMR).

Associated Infrastructure

There are no existing structures or buildings on the mining application area. The property will be leased by Annesley Salt (Pty) Ltd from the owner, which lease agreement has already been successfully negotiated, subject to the approval and granting of a mining right by the Department of Mineral Resources to Annesley Salt (Pty) Ltd.

Water***Surface Water***

The nearest water body to the proposed project is the salt pan in which the project will be located. Other salt pans (nearest is about 3 km from the project) are also located in the area. No rivers or streams were observed on satellite images (Google earth).

Floodline determination is beyond the scope of the current project, and is not necessary for determining impacts as the project is clearly within a pan that may be inundated occasionally. Nonetheless, it can be stated that the floodline is likely to lie very close to the salt pan or possibly be contained within it given the evaporative, non-draining conditions. No true riparian habitat exists, as water in the salt pan is extremely intermittent and saline. For example, during a 1 in 2 year, 24 hour storm event, only 35.5 mm of rain are likely in the pan itself and little runoff is expected from the catchment. (Taken out of the Hydrogeological and Hydrological Impact Assessment for Annesley Salt Mine by SRK Consulting, June 2018).

No stream morphology is described as no streams or rivers were observed. The salt pan on the other hand is seen as a water body and a seasonal/partial wetland.

A few short, localised drainage channels (possibly natural erosion lines) were observed on the slopes around the salt pan (what would be the banks in a typical pan). These small channels indicate that water probably periodically flows into the salt pan from the immediate surrounds. The pan is likely to become inundated in times of intense rainfall events during the summer months. Thereafter, water will slowly evaporate leaving any salts behind. Other hydrological losses are not expected to be significant because the pan is the lowest point in the landscape and thus water cannot flow downstream and seepage through the bed of the pan will be very low (the most likely reason why the pan exists in this location at all, and also the reason that salts naturally concentrate in the pan with time). The morphology of the salt pan is shown in Photo 3-1 – a depression with a bed that is flat and hardened with crystallised salts on the surface. It is underlain by clay and weathered tillite with very low permeability. (Taken out of the Hydrogeological and Hydrological Impact Assessment for Annesley Salt Mine by SRK Consulting, June 2018).

Ground Water

Information on existing boreholes for a 10 km radius around the site was downloaded from the DWS National Groundwater Archives (NGA). The information for these

boreholes is summarised, and their positions are shown in the geohydrology report attached. All seven NGA boreholes are listed as abandoned.

Annesley Salt is planning to use three existing boreholes in their mining area on the salt pan to abstract 105 300 m³/a of brine from the Dwyka Aquifer for the proposed new salt mine. The details for these three boreholes are summarised in Table 2 and their positions shown in the attached report. (Taken out of the Hydrogeological and Hydrological Impact Assessment for Annesley Salt Mine by SRK Consulting, June 2018).

Table 2: Summary of available information for the Annesley Salt boreholes

Borehole ID	Latitude	Longitude	Depth (m)	Casing	Collar Height (magl)	Rest Water Level (mbgl)	Notes
Bloupan-HN1	S27.595694°	E20.491222°	26.8	uPVC		1.90	Existing borehole
Bloupan-HN2	S27.595461°	E20.491748°	35.5	uPVC		1.88	Existing borehole
Bloupan-HN3	S27.595417°	E20.494722°	46.6	uPVC		2.13	Existing borehole

The water table below the mine site is shallow, ranging from 1.88 to 2.13 mbgl. Seasonal water level variation (particularly during high rainfall periods) at the site is unknown (Taken out of the Hydrogeological and Hydrological Impact Assessment for Annesley Salt Mine by SRK Consulting, June 2018).

Waste Management

Proper sanitation facilities will be provided for employees. No person will pollute the workings with faeces or urine, misuse the facilities provided or inappropriately foul the surrounding environment with faeces or urine. Acceptable hygienic and aesthetic practices will be adhered to. Non-biodegradable refuse such as glass bottles, plastic bags, etc. will be sorted and stored in separate lockable containers at a central point. It will be disposed of at a recognised disposal facility twice a month. Biodegradable refuse will either be handled as indicated, or be buried in a pit excavated for that purpose and covered with layers of soil when almost full. A final 0,5m thick layer of topsoil will be incorporated where practicable. Provision will be made for the future subsidence of the covering. Refuse will not be dumped in the vicinity of the mining area. Waste material with regard to vehicle repairs will be kept in 200 litres steel containers in the maintenance/farmstead area. This material will be disposed of at a recognised disposal facility once a month.

Access Roads

The property is accessed via the R360 Upington, Noenieput tar road and a gravel road, as well as farm tracks on the mine property. Activities associated with the Annesley mine that is expected to make use of these roads include:-

- The transportation of mining personnel to and from the site;
- Delivery of supplies and materials;
- The transportation of the salt for the market.

These transport operations will make use of passenger vehicles, light delivery vehicles and very limited heavy vehicles.

Haul Roads

Access to the site will mostly be via existing roads, with the district gravel road to Noenieput running along the site. A small 5 m wide access road (not paved) links the operations to this road.

Mining Schedule

The salt resources are confined to the underground brines which are of secondary origin, having leached from salt-bearing sediments i.e. Dwyka Formation sediments. These particular sediments are mainly shales and tillites of Dwyka Formation. The potential source of salt is unlimited, and the leaching of these sediments will continue as long as water finds its way through the sediments. The mining will continue on the same evaporation pans throughout the life of mine. As long as the mine does not stop to pump sustainably and cause the groundwater to dilute the growing of salt on the pan will continue.

Mining Procedures

There is no infrastructure on Annesley, in the District of Gordonia except for the natural pan with a road that runs through the natural pan.

There are no existing structures or buildings on the mining application area.

The property will be leased by Annesley Salt (Pty) Ltd from the owner, which lease agreement has already been successfully negotiated, subject to the approval and granting of a mining right by the Department of Mineral Resources to Annesley Salt (Pty) Ltd.

Phase 1 will consist of the erection of the first two family housing units which will be pre-fabricated houses, a dedicated workshop and washbay area, diesel tank within a concrete floor and bundwall area and a dedicated generator site within a concrete floor and bundwall area on the mining site. Electricity supply for all housing units will be from renewable energy sources, in this case solar energy. This phase will commence as soon as a mining right have been granted to Annesley Salt (Pty) Ltd. At the same time the construction of 10 salt evaporation dams will commence together with the installation of the three borehole pumps and pipe network which will distribute the brine from the boreholes to the salt evaporation dams.

Phase 2. (Expansion)

After the first year that the mining right is granted Annesley Salt (Pty) Ltd plans to erect the last two pre- fabricated family housing units.

Evaporation dams 10 X (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.

The operational phase will consist of the mining of salt by means of crystallization of salt brine in large, shallow crystallization pans and the subsequent harvesting thereof through scrapping it into heaps for stockpiling outside the salt pan and then loading on trucks.

In the mining of salt, if the resource is managed sustainable, which means that the pumping of brine will only be done according to the resource of brine water available there will be no decline period. The annual rain fall in this area replenishes the underground water brine and therefore the resource is sustainable and indefinite.

e) Policy and Legislative Context

Table 3: *Applicable legislation and guidelines used to compile the report*

Applicable Legislation and Guidelines used to compile the report (a description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process.)	Reference where applied	HOW DOES THIS DEVELOPMENT COMPLY WITH AND RESPOND TO THE POLICY AND LEGISLATIVE CONTEXT (E.g In terms of the National Water Act:-Water Use License has/has not been applied for).
Conservation of Agricultural Resources Act (Act 43 of 1983) and Regulations (CARA)	<ul style="list-style-type: none"> - Section 5: Implementation of control measures for alien and invasive plant species; - Section 6: Control measures. - Regulation GN R1048, published on 25 May 1984, in terms of CARA 	<ul style="list-style-type: none"> - Control measures are to be implemented upon the approval of the EMPR.
Constitution of South Africa (Act 108 of 1996)	<ul style="list-style-type: none"> - Section 24: Environmental right - Section 25: Rights in Property - Section 27: Water and sanitation right 	<ul style="list-style-type: none"> - To be implemented upon the approval of the EMPR.
Environment Conservation Act (Act 73 of 1989) and Regulations (ECA)	<ul style="list-style-type: none"> - Sections 21, 22, 25, 26 and 28: EIA Regulations, including listed activities that still relate to the existing section of ECA. - Section 28A: Exemptions. 	<ul style="list-style-type: none"> - To be implemented upon the approval of the EMPR.
Fencing Act (Act 31 of 1963)	<ul style="list-style-type: none"> - Section 17: States that any person erecting a boundary fence may clean any bush along the line of the fence up to 1.5m on each side thereof and remove any tree standing in the immediate line of the fence. However, this provision must be read in conjunction with the environmental legal provisions relevant to protection of flora. 	<ul style="list-style-type: none"> - Control measures are to be implemented upon the approval of the EMPR.
Hazardous Substances Act (Act 15 of 1973) and Regulations read together with NEMA and NEMWA	<ul style="list-style-type: none"> - Definition, classification, use, operation, modification, disposal or dumping of hazardous substances. 	<ul style="list-style-type: none"> - Noted and Considered measures are to be implemented upon the approval of the EMPR.
Intergovernmental Relations Act (Act	<ul style="list-style-type: none"> - This Act establishes a framework for the National, 	

13 of 2005)	Provincial and Local Governments to promote and facilitate intergovernmental relations.	
Mine, Health and Safety Act (Act 29 of 1996) and Regulations	- Entire Act.	- Control measures are to be implemented upon the approval of the EMPR.
Mineral and Petroleum Resources Development Act (Act 28 of 2002) and Regulations as amended	- Entire Act. - Regulations GN R527	- A Mining Right has been applied for ((NC) 30/5/12/2/10141 MR). - Rights and obligations to be adhered to.
National Environmental Management Act (Act 107 of 1998) and Regulations as amended	- Section 2: Strategic environmental management principles, goals and objectives. - Section 24: Foundation for Environmental Management frameworks. - Section 24N: - Section 24O: - Section 28: The developer has a general duty to care for the environment and to institute such measures to demonstrate such care. - Regulations GN R547, more specifically Chapters 5 and 7, where applicable (the remainder was repealed) published on 18 June 2010 in terms of NEMA (Environmental Management Framework Regulations) - Regulations GN R982 to R985, published on 4 December 2014 in terms of NEMA (Listed Activities) - Regulations GN R993, published on 8 December 2014 in terms of NEMA (Appeal) - Regulations GN R994, published on 8 December 2014 in terms of NEMA (exemption) - Regulations GN R205, published on 12 March 2015 in terms of NEMA (National appeal Amendment Regulations) - Regulations GN R1147, published on 20 November	- Control measures are to be implemented upon the approval of the EMPR.

<p>National Environmental Management: Air Quality Act (Act 39 of 2004)</p>	<p>2015 in terms of NEMA (Financial Provision)</p> <ul style="list-style-type: none"> - Section 32: Control of dust - Section 34: Control of noise - Section 35: Control of offensive odours - Regulation GN R551, published on 12 June 2015 (amended Categories 1 to 5 of GN 983) in terms of NEM:AQA (Atmospheric emission which have a significant detrimental effect on the environment) - Regulation GN R283, published on 2 April 2015 in terms of NEM:AQA (National Atmospheric Emissions Reporting Regulations) (Group C-Mines) 	<ul style="list-style-type: none"> - Control measures are to be implemented upon the approval of the EMPR. - This is also legislated by Mine Health and Safety from DMR and is to be adhered to.
<p>National Environmental Management: Biodiversity Act (Act 10 of 2004)</p>	<ul style="list-style-type: none"> - Section 52 of The National Environmental Management Act: Biodiversity Act (NEMBA) (Act 10 of 2004) states that the MEC/Minister is to list ecosystems that are threatened and in need of protection. - Section 53 states that the Minister may identify any process or activity in such a listed ecosystem as a threatening process. - A list of threatened and protected species has been published in terms of Section 56(1) GG 29657 GNR 151 and GNR 152, Threatened or Protected Species Regulations. <p>Commencement of Threatened or Protected Species Regulations 2007 : 1 June 2007 GNR 150/GG 29657/23-02-2007</p> <p>Publication of lists of critically endangered, vulnerable and protected species GNR 151/GG 29657/23-02-2007 *</p>	<ul style="list-style-type: none"> - A permit application regarding protected plant species need to be lodged with DENC if any protected species is encountered.

<p>The National Environmental Management Act: Protected Areas Act (NEMPAA) (Act 57 of 2003) provides for the protection of ecologically viable areas that are representative of South Africa's natural biodiversity and its landscapes and seascapes.</p> <p>National Environmental Management Act (Act 59 of 2008)</p>	<p>Threatened or Protected Species Regulations GNR 152/GG 296547/23-02-2007 *</p> <ul style="list-style-type: none"> - Sections 65 – 69: These sections deal with restricted activities involving alien species; restricted activities involving certain alien species totally prohibited; and duty of care relating to alien species. - Sections 71 and 73: These sections deal with restricted activities involving listed invasive species and duty of care relating to listed invasive species. - Regulation GN R151, published on 23 February 2007 (List fo Critically Endangered, Vulnerable and Protected Species, 2007) in terms of NEM: BA - Regulation GN R152, published on 23 February 2007 (TOPS) in terms of NEM:BA - Regulations GN R507 to 509 of 2013 and GN 599 of 2014 in terms of NEM:BA (Alien Species) - Chapter 2 lists all protected areas. 	
	<ul style="list-style-type: none"> - Chapter 4: Waste management activities Regulations GN R634 published on 23 August 2013 in terms of NEM:WA (Waste Classification and Management Regulations) - Regulations GN R921 published on 29 November 2013 in terms of NEM:WA (Categories A to C – Listed activities) - National Norms and Standards for the 	<p>If any protected vegetation is identified the necessary permit application will be done.</p> <ul style="list-style-type: none"> - To be implemented upon the approval of the EMPR.

	<p>Remediation of contaminated Land and Soil Quality published on 2 May 2014 in terms of NEM:WA (Contaminated land regulations)</p> <ul style="list-style-type: none"> - Regulations GN R634 published on 23 August 2013 in terms of NEM: WA (Waste Classification and Management Regulations) - Regulations GN R632 published on 24 July 2015 in terms of NEM: WA (Planning and Management of Mineral Residue Deposits and Mineral Residue Stockpiles) - Regulations GN R633 published on 24 July 2015 in terms of NEM: WA (Amendments to the waste management activities list published under GN921) 	
National Forest Act (Act 84 of 1998) and Regulations	<ul style="list-style-type: none"> - Section 15: No person may cut, disturb, damage, destroy or remove any protected tree; or collect, remove, transport, export, purchase, sell, donate or in any other manner acquire or dispose of any protected tree, except under a licence granted by the Minister. 	<ul style="list-style-type: none"> - A permit application regarding protected tree species need to be lodged with DAFF if necessary.
National Heritage Resources Act (Act 25 of 1999) and Regulations	<ul style="list-style-type: none"> - Section 34: No person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority. - Section 35: No person may, without a permit issued by the responsible heritage resources authority destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or paleontological site. - Section 36: No person may, without a permit issued by SAHRA or a provincial heritage resources authority destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground 	<ul style="list-style-type: none"> - Control measures are to be implemented upon the approval of the EMPR.

	<ul style="list-style-type: none"> - older than 60 years which is situated outside a forma cemetery administered by a local authority. - Section 38: This section provides for HIA which are not already covered under the ECA. Where they are covered under the ECA the provincial heritage resources authorities must be notified of a proposed project and must be consulted during HIA process. - Regulation GN R548 published on 2 June 2000 in terms of NHRA 	
<p>National Water Act (Act 36 of 1998) and regulations as amended, <i>inter alia</i> Government Notice No. 704 of 1999</p>	<ul style="list-style-type: none"> - Section 4: Use of water and licensing. - Section 19: Prevention and remedying the effects of pollution. - Section 20: Control of emergency incidents. - Section 21: Water uses - In terms of Section 21 a licence is required for: <ul style="list-style-type: none"> (a) taking water from a water resource; (b) storing water; (c) impeding or diverting the flow of water in a watercourse; (f) Waste discharge related water use; (g) disposing of waste in a manner which may detrimentally impact on a water resource; (i) altering the bed, banks, course or characteristics of a watercourse; (j) removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people; and; - Regulation GN R704, published on 4 June 1999 in terms of the National Water Act (Use of water for mining and related activities) - Regulation GN R1352, published on 12 November 1999 in terms of the National Water Act (Water 	<ul style="list-style-type: none"> - A water use application is in the process of preparation and will be lodged with Department of Water and Sanitation (DWS). - Control measures are to be implemented upon the approval of the EMPR.

	<p>use to be registered)</p> <ul style="list-style-type: none"> - Regulation GN R139, published on 24 February 2012 in terms of the National Water Act (Safety of Dams) - Regulation GN R398, published on 26 March 2004 in terms of the National Water Act (Section 21 (j)) - Regulation GN R399, published on 26 March 2004 in terms of the National Water Act (Section 21 (a) and (b)) - Regulation GN R1198, published on 18 December 2009 in terms of the National Water Act (Section 21 (c) and (i) – rehabilitation of wetlands) - Regulations GN R1199, published on 18 December 2009 in terms of the National Water Act (Section 21 (c) and (i)) - Regulations GN R665, published on 6 September 2013 in terms of the National Water Act (Amended GN 398 and 399 – Section 21 (e), (f), (h), (g), (j)) 	
Nature Conservation Ordinance (Ord 19 of 1974)	<ul style="list-style-type: none"> - Chapters 2, 3, 4 and 6: Nature reserves, miscellaneous conservation measures, protection of wild animals other than fish, protection of Flora. 	<ul style="list-style-type: none"> - Control measures are to be implemented upon the approval of the EMPR.
Northern Cape Nature Conservation Act (Act 9 of 2009)	<ul style="list-style-type: none"> - Addresses protected species in the Northern Cape and the permit application process related thereto. 	<ul style="list-style-type: none"> - A permit application regarding provincially protected plant species as well as for large-scale harvesting of indigenous flora need to be lodged with DENC if necessary. - Control measures are to be implemented upon the approval of the EMPR.
Occupational Health and Safety Act (Act 85 of 1993) and Regulations	<ul style="list-style-type: none"> - Section 8: General duties of employers to their employees. - Section 9: General duties of employers and self-employed persons to persons other than their 	<ul style="list-style-type: none"> - Control measures are to be implemented upon the approval of the EMPR.

Road Traffic Act (Act 93 of 1997) and Regulations	employees. - Entire Act.	- Control measures are to be implemented upon the approval of the EMPR.
Water Services Amendment Act (Act 30 of 2007)	- It serves to provide the right to basic water and sanitation to the citizens of South Africa (giving effect to section 27 of the Constitution).	- Control measures are to be implemented upon the approval of the EMPR. - To take note.
National Land Transport Act, (Act 5 of 1998)		
Northern Cape Planning and Development Act (Act 7 of 1998)	- To control planning and development	- To be implemented upon the approval of the EMPR.
Spatial Planning and Land Use Management (Act 16 of 2013 (SPLUMA) and regulations	- To provide a framework for spatial planning and land use management in the Republic; - To specify the relationship between the spatial planning and the land use management, amongst others - Regulations GN R239 published on 23 March 2015 in terms of SPLUMA	- To be implemented upon the approval of the EMPR.
Subdivision of Agricultural Land Act, 70 of 1970 and regulations	- Regulations GN R373 published on 9 March 1979 in terms of Subdivision of Agricultural Land	- To take note.
Basic Conditions of Employment Act (Act 3 of 1997) as amended	- To regulate employment aspects	- To be implemented upon the approval of the EMPR
Community Development (Act 3 of 1966)	- To promote community development	- To be implemented upon the approval of the EMPR
Development Facilitation (Act 67 of 1995) and regulations	- To provide for planning and development	- To take note.
Development Facilitation (GN24, PG329, 24/07/1998)	- Regulations re Northern Cape LDO's	- To take note.
Development Facilitation (GNR1, GG20775, 07/01/2000)	- Regulations re application rules S26, S46, S59	- To take note.
Development Facilitation (GN732, GG14765, 30/04/2004)	- Determines amount, see S7(b)(ii)	- To take note.

Land Survey Act (Act 8 of 1997)) and regulations, more specifically GN R1130	<ul style="list-style-type: none"> - To control land surveying, beacons etc. and the like; - Agriculture, land survey S10 	- To take note.
National Veld and Forest Fire Act (Act 101 of 1998)) and regulations, more specifically GN R1775	<ul style="list-style-type: none"> - To regulate law on veld and forest fires (Draft regulations s21) 	- To be implemented upon approval of the EMPR
Municipal Ordinance, 20/1974	<ul style="list-style-type: none"> - To control pollution, sewers etc. 	- To be implemented upon approval of the EMPR
Municipal Ordinance, PN955, 29/08/1975	<ul style="list-style-type: none"> - Nature conservation Regulations 	- To be implemented upon approval of the EMPR
Cape Land Use Planning Ordinance, 15/85	<ul style="list-style-type: none"> - To control land use planning 	- To take note.
Cape Land Use Planning Ordinance, PN1050, 05/12/1988	<ul style="list-style-type: none"> - Land use planning Regulations 	- To take note.

PART B

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

1) Draft environmental management programme

- a) **Details of the EAP** (Confirm that the requirement for the provision of the details and expertise of the EAP are already included in PART A, section 1(a) herein as required)

I hereby confirm that the requirement for the provision of the details and expertise of the EAP is already included in Part A, section 1(a) as required.

Confirmed	X
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- b) **Description of the Aspects of the Activity** (Confirm that the requirement to describe the aspects of the activity that are covered by the draft environmental management programme is already included in PART A, section (1)(h) herein as required)

I hereby confirm that the requirements to describe the aspects of the activity that are covered by the draft environmental management programme are already including in PART A, section 1(h).

Confirmed	X
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- c) **Composite Map**

(Provide a map (**Attached as an Appendix**) at an appropriate scale which superimposes the proposed activity, its associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that any areas that should be avoided, including buffers)

The final site map below indicates the mining right application area in which all mining will take place. Existing roads are also depicted. The associated infrastructure relating to the mining site will be placed in the area marked as the “mine infrastructure footprint”.

The only buffers that must be implemented is the 100 m away from any fixed infrastructure like the gravel road in terms of the Mine Health and Safety Act, 1996 (Act No. 29 of 1996) Regulations relating to surveying, mapping and mine plans.

These regulations states that a mine must take reasonable measures to ensure that:

No mining operations are carried out within a horizontal distance of 100 (one hundred) metres from reserve land, buildings, roads, railways, dams, waste dumps, or any other structure whatsoever including such structures beyond the mining boundaries, or any surface, which it may be necessary to protect in order to prevent any significant risk,

unless a lesser distance has been determined safe by risk assessment and all restrictions and conditions determined in terms of the risk assessment are complied with.

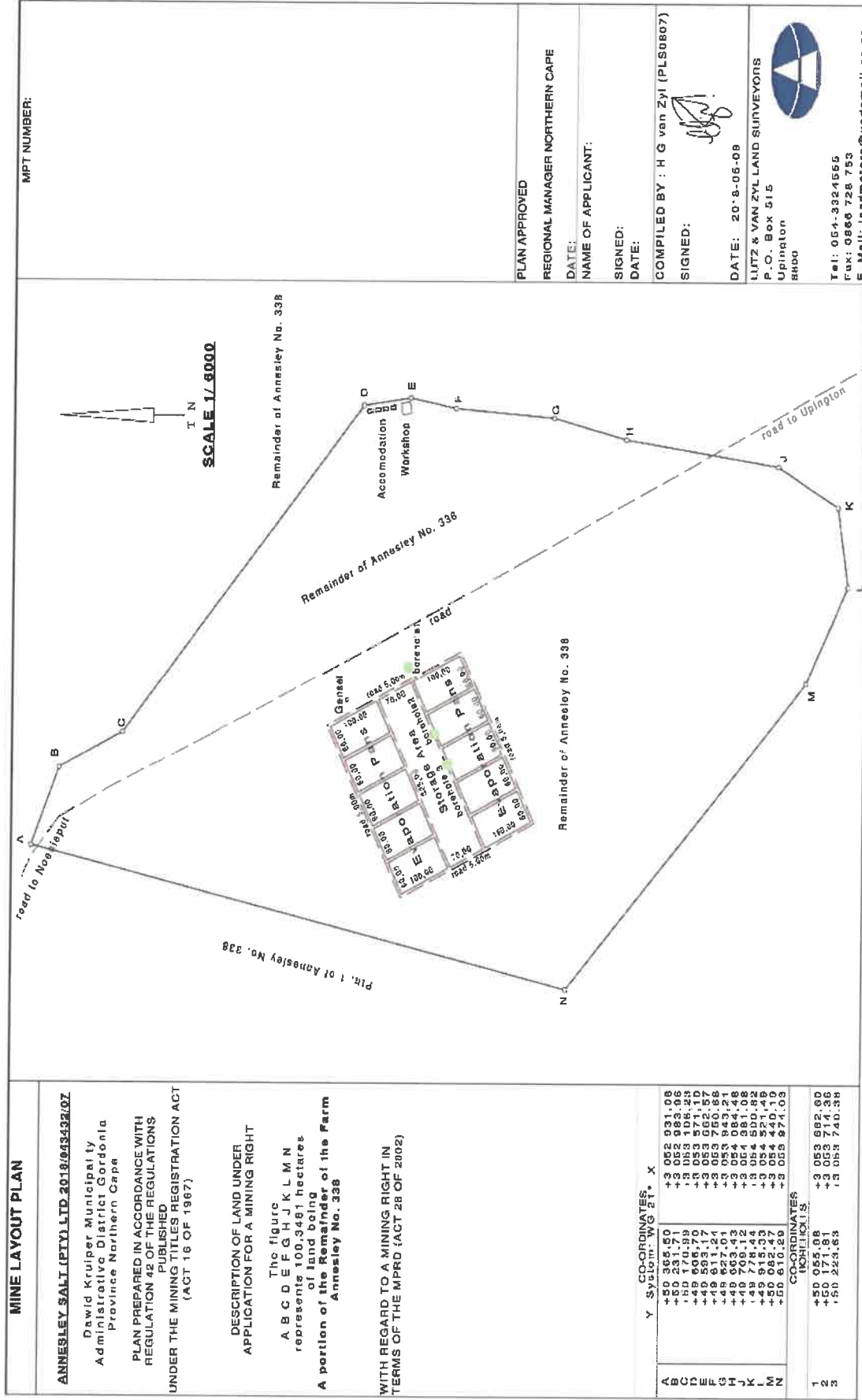


Figure 16. Layout at the proposed Bloupan by HG van Zyl (Lutz & Van Zyl Land Surveyors)

d) Description of impact management objectives including management statements

i) Determination of closure objectives (ensure that the closure objectives are informed by the type of environment described in 2.4 herein)

The main closure objectives of the planned mining operation are:

- To restore the site to its current land capability in a sustainable manner.
- To prevent the sterilization of any salt reserves.
- To manage and limit any impact to the surface and groundwater aquifers in such a way that an acceptable water quality and yield can still be obtained when a closure certificate is issued.
- To establish a stable and self-sustainable vegetation cover.
- To limit and rehabilitate any erosion features and prevent any permanent impact to the soil capability.
- To limit and manage the visual impact of the mining activities.
- To safeguard the safety and health of humans and animals on the site.
- To close the mining operation efficiently, cost effectively and in accordance with Government Policy.

The key aim decommissioning and closure is to ensure that all the significant impacts are ameliorated. All rehabilitated areas should be left in a stable, self-sustainable state. Proof of this should be submitted at closure. Specific objectives include:

Rehabilitation of infrastructure areas

The objectives for the removal of infrastructure and the subsequent rehabilitation of the areas they occupied include:

- To ensure that infrastructure identified for removal is successfully demolished and removed.
- To ensure that infrastructure identified to remain after mine closure is maintained until the issue of a closure certificate.
- The removal, decommissioning and disposal of all mining infrastructure, will comply with all conditions contained in the MPRDA. To this end, decommissioning and rehabilitation of all infrastructure areas will follow the following principles:
- The plant and associated disused infrastructure will be dismantled or demolished. Any building foundations will be removed and land exposed to the demolition and dismantling of infrastructure and all other disturbed land will be rehabilitated.
- Rubble will be disposed of at a suitable site. The site will be selected in consultation with DENC.

- Any surface water management infrastructure will be maintained to ensure they are stable and functional.
- Just before closure, when disturbed land has been rehabilitated and erosion is controlled by vegetation cover, all disused surface water management facilities will be decommissioned.

Evaporation Ponds

The objectives pertaining to the effective management and rehabilitation of the evaporation ponds include:

- To ensure that the evaporation ponds are stable and that there is an acceptably low risk of failure of these ponds during the decommissioning phase and following mine closure;

Management principles pertaining to evaporation ponds include:

- The evaporation ponds will continuously be inspected by a suitable qualified person to ensure their stability. If they are unstable, the appropriate remedial measures will be implemented.
- Inspection and monitoring should continue until a suitable qualified person has confirmed the long-term stability of the evaporation ponds.
- Any infrastructure or facilities that serve the evaporation ponds will be maintained to ensure that they are both stable and functional.

Maintenance

The necessary agreements and arrangement will be made by Annesley to ensure that all natural physical, chemical and biological processes for which a closure condition were specified are monitored until they reach a steady state or for three (3) years after closure or as long as deemed necessary at the time.

- Such processes include erosion of the evaporation ponds, rehabilitated surfaces, surface water drainage, air quality, surface water quality, ground water quality, vegetative re-growth, weed encroachment.
- The closure plan will be reviewed yearly.
- Rehabilitation of the land will be maintained until a closure certificate is granted or until the land use is regarded as sustainable.
- All rehabilitated areas will be monitored and maintained until such time as required to enable the mine to apply for closure of these different areas.

Performance assessments

As per the MPRDA and associated Regulations, as well as NEMA and associated Regulations, this Environmental Management Programme will be continually assessed in terms of its appropriateness and adequacy. In order to achieve this, Annesley will undertake the following:

- Implement the necessary monitoring programmes, as discussed as part of this EMPR;
- Conduct performance assessments of this EMPR; and
- Compile and submit the afore-mentioned performance assessment reports to the DMR. The frequency of the performance assessments will be annually. An independent and competent person will undertake all performance assessments.

Decommissioning and closure objectives

The key aim decommissioning and closure is to ensure that all the significant impacts are ameliorated. All rehabilitated areas will be left in a stable, self-sustainable state. Proof of this will be submitted at closure. Specific objectives include:

- To identify potential post-closure land uses in consultation with the surrounding land owners and land users. This should be done during the operational phase of the mine;
- Rehabilitate disturbed land to a state suitable for its post-closure uses;
- Rehabilitate disturbed land and mine residue deposits to a state that facilitates compliance with applicable environmental quality objectives;
- Limit the impact on staff whose positions become redundant at the time of mine closure, as addressed in the SLP;
- Keep relevant authorities informed of the progress of the decommissioning phase;
- Submit monitoring data to the relevant authorities;
- Maintain required pollution control facilities and rehabilitated land until closure.

Negative economic impacts

The objective is to alleviate the negative socio-economic impacts that will result from mine closure. Management principles to achieve this include:

- Annesley will undertake a carefully planned step-wise decommissioning process.
- Closure planning will form an integral part of mine planning.
- Strategies for sustainable development have been and will continue to be developed by the project in collaboration with district and local authorities, local businesses and other interested parties. Early warning of impending closure will be given to IAPs.
- In conjunction with long-term closure planning, the mine will actively participate in regional and local planning to enhance the economic benefits of the project through development of alternative forms of income generation.
- Annesley will initiate and participate in regional planning exercises that will mitigate the impacts of closure of the mine, the local and regional

economies and associated abandonment of community infrastructures surrounding the mine.

- The mine will fulfil the requirements for closure.

ii) The process for managing any environmental damage, pollution, pumping and treatment of extraneous water or ecological degradation as a result of undertaking a listed activity

These are contained in the EMPR.

iii) Potential risk of Acid Mine Drainage (Indicate whether or not the mining can result in acid mine drainage)

No potential risk for Acid Mine Drainage exist.

iv) Steps taken to investigate, assess, and evaluate the impact of acid mine drainage

No potential risk for Acid Mine Drainage exists.

v) Engineering or mine design solutions to be implemented to avoid or remedy acid mine drainage

No potential risk for Acid Mine Drainage exists.

vi) Measures that will be put in place to remedy any residual or cumulative impact that may result from acid mine drainage

No potential risk for Acid Mine Drainage exist.

vii) Volumes and rate of water use required for the mining, trenching or bulk sampling operation

The water balance for the proposed Annesley Salt project was calculated as follows (Table 5-1) taken out of the Hydrogeological and Hydrological Impact assessment report by SRK Consulting.

SOURCE		Water In (m ³)		Use	Water Out (m ³)	
		Day	Annum		m ³ /day	m ³ /annum
Abstraction (xdays/annum)	HN1	258	45 360	Evaporation	283	77 120
Abstraction HN2 (xdays/annum)		258	45 360			

Abstraction (xdays/annum)	HN3	258	14 580			
Mean annual direct rainfall on the ponds (128 mm/a)		25	7680			
Total in		283	112980	Total out	283	112980

The extent of the mine ponds is 100 m x 60 m each, which for the 10 ponds equates to 60 000 m², or 6 ha.

Potential evaporation rate for the area is 2 000 mm/a, therefore, the maximum evaporation potential for the 60 000 m² of ponds is 120 000 m³/a, which is much higher than the proposed mine's evaporation requirements.

viii) Has a water use licence been applied for?

Yes, the WULA application is in the process of being submitted.

ix) Impact to be mitigated in their respective phases

Measure to rehabilitate the environment affected by the undertaking of any listed activity

Table 18: Impact to be mitigated in their respective phases

ACTIVITY Whether listed or not listed. (E.g. Excavations, blasting, 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.)	PHASE of operation in which activity will take place. State; Planning and design, Pre-Construction, Construction, Operational, Rehabilitation, Closure, Post closure.	SIZE AND SCALE OF disturbance (volumes, tonnages and hectares or m ²)	MITIGATION MEASURES (describe how each of the recommendations herein will remedy the cause of pollution or degradation and migration of pollutants)	COMPLIANCE WITH STANDARDS (A description of how each of the recommendations herein will comply with any prescribed environmental management standards or practices that have been identified by Competent Authorities)	TIME PERIOD FOR IMPLEMENTATION Describe the time period when the measures in the environmental management programme must be implemented. Measures must be implemented when Required. With regard to Rehabilitation specifically this must take place at the earliest opportunity. With regard to Rehabilitation, therefore state either... Upon cessation of the individual activity or. Upon the cessation of mining, bulk sampling or alluvial diamond prospecting as the case may be.
Evaporation ponds	Construction Commissioning Operational Decommissioning Closure	6 ha	Access control Maintenance of evaporation ponds Dust control and monitoring Noise control and monitoring Drip trays Storm water run-off control Immediately clean hydrocarbon spills Rip disturbed areas to		Rehabilitation of evaporation ponds upon closure of mining right.

Ablution facilities	Construction Commissioning Operational Decommissioning Closure	25m ² or 0.0025ha	allow re-growth of vegetation cover Maintenance of container Plants Removal of container plants upon closure	Rehabilitation of facility upon closure of the Mining Right.
Clean & Dirty water systems: Berms	Construction Commissioning Operational Decommissioning Closure	This area also includes the re-fuel and lubrication station, wash bay and office area.	Maintenance of berms and trenches Oil traps used in relevant areas. Drip trays used. Immediately clean hydrocarbon spill.	Upon cessation of the individual activity (Continuous rehabilitation)
Fuel facility (Diesel tanks)	Construction Commissioning Operational Decommissioning Closure	250m ² Concrete, bricks, and steel	Maintenance of diesel tanks and bund walls. Oil traps Drip tray at re-fuelling point Immediately clean hydrocarbon spill.	Removal of diesel tanks upon closure of Mining Right.
Mining Area	Commissioning Operational Decommissioning Closure	Provision is made for a maximum footprint of 6 ha for the evaporation ponds to grow salt.	Proper planning of evaporation ponds Access control Dust control and monitoring Noise control and monitoring Stormwater run-off control Immediately clean hydrocarbon spill Drip trays	Upon cessation of the individual activity

Salvage yard (Storage and laydown area)	Construction Commissioning Operational Decommissioning Closure	1000m ² or 0.1 ha No construction material, area to be levelled with a grader and fenced with a gate and access control	Dump control and monitoring Erosion control Access control Maintenance of fence Storm water run-off control Immediately clean hydrocarbon spill	Removal of fence around salvage yard and ripping of salvage yard area upon closure of the mining right.
Waste disposal site (domestic and industrial waste):	Construction Commissioning Operational Decommissioning Closure	15m x 30m = 450m ²	Storage of Waste within receptacles Storage of hazardous waste on concrete floor with bund wall Removal of waste on regular intervals	Removal of waste receptacles, breaking and removal of rubble from the concrete floors and bund walls upon closure of mining right.
Roads (both access and haulage road on the mine site):	Construction Commissioning Operational Decommissioning Closure	Additional mine haul road = 5 000m ²	Maintenance of roads Dust control and monitoring Noise control and monitoring Speed limits Storm water run-off control Erosion control Immediately clean hydrocarbon spills Rip disturbed areas to allow re-growth of vegetation cover	Upon cessation of the individual activity (continuous rehabilitation) Ripping of roads upon closure of the mining right.
Workshop and	Construction	450m ²	Concrete floor with	Removal of wash bay

Wash bay	Commissioning Operational Decommissioning Closure	Concrete and Steel	oil/water separator Storm water run-off control Immediately clean hydrocarbon spills	equipment, breaking and removal of rubble from the concrete floors and bund walls upon closure of mining right
Water distribution Pipeline	Construction Commissioning Operational Decommissioning Closure	HDPE Pipes	Maintain water pipeline and structures	Removal of pipeline upon closure of the mining right.
Water tanks:	Construction Commissioning Operational Decommissioning Closure	3m X 3m = 9m ²	Maintain water tanks and structures	Removal of water tank and steel structure upon closure of the mining right.

e) Impact Management Outcomes

(A description of impact management outcomes, identifying the standard of impact management required for the aspects contemplated in paragraph(f))

Table 19: Impact management outcomes

ACTIVITY Whether listed or not listed.	POTENTIAL IMPACT (e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater, contamination, air pollution)....	ASPECTS AFFECTED	PHASE In which impact is anticipated (e.g. construction, commissioning, operational, Decommissioning, closure, post closure)	MITIGATION TYPE (modify, remedy, control or stop) through (e.g. noise control measures, storm water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity)	STANDARD TO BE ACHIEVED (Impact avoided, noise levels, dust levels, rehabilitation standards, end use objectives) etc.
Evaporation ponds	Dust Noise Removal and disturbance of vegetation cover and natural habitat of fauna Soil contamination Surface disturbance	Air Quality Fauna Flora Noise Soil Surface water Safety	Construction Commissioning Decommissioning Closure	Access control Maintenance of evaporation ponds Dust control and monitoring Noise and vibration control and monitoring Drip trays Storm water run-off control Immediately clean hydrocarbon spills Rip disturbed areas to allow re-growth of vegetation cover Noise control Well maintained equipment Selecting equipment with lower sound power levels; Develop a mechanism to record and respond to complaints.	Safety ensured. Dust levels minimized Minimize potential for hydrocarbon spills to infiltrate into groundwater Noise levels minimized Rehabilitation standards and closure objectives to be met. Erosion potential minimized.

<p>Ablution facilities</p>	<p>Soil contamination Possible Groundwater contamination</p>	<p>Soil Groundwater</p>	<p>Construction Commissioning Operational Decommissioning Closure</p>	<p>Effluents and waste should be recycling and re-use as far as possible. Maintenance of sewage facilities on a regular basis.</p>	<p>Minimize the potential for a chemical spill on soil, which could infiltrate to groundwater.</p>
<p>Clean & Dirty water systems:</p>	<p>Surface disturbance Groundwater Contamination Soil contamination Surface water contamination</p>	<p>Soil Groundwater Surface Water</p>	<p>Construction Commissioning Operational Decommissioning Closure</p>	<p>The re-vegetation of disturbed areas is important to prevent erosion and improve the rate of infiltration. Erosion channels that may develop before vegetation has established should be rehabilitated by filling, levelling and re-vegetation where topsoil is washed away. Monitoring and maintenance of oil traps in relevant areas. Drip trays used. Immediately clean hydrocarbon spill. Linear infrastructure such as roads and pipelines will be inspected at least monthly to check that the</p>	<p>Safety ensured. Minimize potential for hydrocarbon spills to infiltrate into groundwater. Rehabilitation standards and closure objectives to be met.</p>

<p>Fuel facility tanks)</p>	<p>Storage (Diesel tanks)</p>	<p>Groundwater contamination Removal and disturbance of vegetation cover and natural habitat of fauna Soil contamination Surface disturbance</p>	<p>Soil Groundwater Surface water</p>	<p>Construction Commissioning Operational Decommissioning Closure</p>	<p>associated water management infrastructure is effective in controlling erosion. Effluents and waste should be recycling and re-use as far as possible.</p>	<p>Minimize potential for hydrocarbon spills to infiltrate into groundwater. Rehabilitation standards and closure objectives to be met.</p>
				<p>Maintenance of Diesel tanks and bund walls. Oil traps Drip tray at re-fuelling point. Refuelling must take place in well demarcated areas and over suitable drip trays to prevent soil pollution. Spill kits to clean up accidental spills from earthmoving machinery must be well-marked and available on site. Workers must undergo induction to ensure that they are prepared for rapid clean-up procedures. All facilities where dangerous materials are stored must be contained in a bund wall. Vehicles and machinery should be regularly</p>		

Mining Area	<p>Dust</p> <p>Noise</p> <p>Removal and disturbance of vegetation cover and natural habitat of fauna</p> <p>Soil contamination</p> <p>Surface disturbance</p> <p>Surface water contamination</p>	<p>Air quality</p> <p>Fauna</p> <p>Flora</p> <p>Groundwater</p> <p>Noise and vibration</p> <p>Soil</p> <p>Surface Water</p> <p>Topography</p> <p>Safety</p>	<p>Commissioning</p> <p>Operational</p> <p>Decommissioning</p> <p>Closure</p>	<p>serviced and maintained.</p>	<p>Safety ensured.</p> <p>Dust levels minimized</p> <p>Minimize potential for hydrocarbon spills to infiltrate into groundwater</p> <p>Noise levels minimized</p> <p>Rehabilitation standards and closure objectives to be met.</p> <p>Erosion potential minimized.</p>
				<p>Access control</p> <p>Dust control and monitoring</p> <p>Noise and vibration control and monitoring</p> <p>Continuous rehabilitation</p> <p>Storm water run-off control</p> <p>Immediately clean hydrocarbon spill</p> <p>Drip trays</p> <p>Dump stability control and monitoring</p> <p>Erosion control</p> <p>Noise control</p> <p>Well maintained equipment</p> <p>Selecting equipment with lower sound power levels;</p> <p>Develop a mechanism to record and respond to complaints.</p> <p>Effluents and waste should be recycling and re-use as far as possible.</p> <p>Mining activities must be planned, where possible in order to encourage (faunal dispersal) and should minimise</p>	

				<p>dissection or fragmentation of any important faunal habitat type. The extent of the mining area should be demarcated on site layout plans (preferably on disturbed areas or those identified with low conservation importance). No construction personnel or vehicles may leave the demarcated area except those authorized to do so. Those areas surrounding the mine site that are not part of the demarcated development area should be considered as a no go zone for employees, machinery or even visitors. Appointment of a full-time ECO must render guidance to the staff and contractors with respect to suitable areas for all related disturbance, and must ensure that all contractors and workers undergo Environmental Induction prior to commencing work on</p>	
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				<p>site. All those working on site must undergo environmental induction with regards to fauna and in particular awareness about not harming or collecting species such as snakes, tortoises and owls which are often persecuted out of superstition. All those working on site must be educated about the conservation importance of the fauna and flora occurring on site. The environmental induction should occur in the appropriate languages for the workers who may require translation. Reptiles and amphibians that are exposed during the clearing operations should be captured for later release or translocation by a qualified expert. Employ measures that ensure adherence to the speed limit. Careful consideration is</p>	
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				<p>required when planning the placement for stockpiling topsoil and the creation of access routes in order to avoid the destruction of habitats and minimise the overall mining footprint. The Footprint areas of the mining activities must be scanned for Red Listed and protected plant species prior to mining; Snares & traps removed and destroyed; and Maintenance of firebreaks.</p> <p>It will be necessary to divert storm water around dump areas by construction of a temporary gravel cut-off berm that will prevent surface run-off into the evaporation dams.</p> <p>The re-vegetation of disturbed areas is important to prevent erosion and improve the rate of infiltration. Erosion channels that may develop before vegetation</p>	
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<p>Salvage yard and (Storage laydown area)</p>	<p>Groundwater contamination Removal and disturbance of vegetation cover and natural habitat of fauna Soil contamination Surface disturbance Surface water contamination</p>	<p>Fauna Flora Groundwater Soil Surface Water</p>	<p>Construction Commissioning Operational Decommissioning Closure</p>	<p>has established should be rehabilitated by filling, levelling and re-vegetation where topsoil is washed away.</p>	<p>Minimize potential for hydrocarbon spills to infiltrate into groundwater Rehabilitation standards and closure objectives to be met. Erosion potential minimized.</p>
<p>Salt Product Stockpile area</p>	<p>Dust Noise Removal and disturbance of vegetation cover and natural habitat of fauna Surface disturbance</p>	<p>Air Quality Fauna Flora Noise Soil Surface Water</p>	<p>Commissioning Operational Decommissioning Closure</p>	<p>Dust Control and monitoring Noise control and monitoring Drip trays Storm water run-off control Immediately clean hydrocarbon spills Rip disturbed areas to allow re-growth of vegetation cover</p>	<p>Dust levels minimized Minimize potential for hydrocarbon spills to infiltrate into groundwater Noise levels minimized Rehabilitation standards and closure objectives to be met. Erosion potential minimized.</p>

Waste disposal site (domestic and industrial waste);	Groundwater contamination Contamination of soil Surface water contamination	Groundwater Soil Surface water	Construction Commissioning Operational Decommissioning Closure	Noise control Well maintained equipment Selecting equipment with lower sound power levels; Taking advantage during the design stage of natural topography as a noise buffer; Develop a mechanism to record and respond to complaints. Storage of Waste within receptacles Storage of hazardous waste on concrete floor with bund wall Removal of waste on regular intervals	Minimize potential for hydrocarbon spills to infiltrate into groundwater Noise levels minimized Rehabilitation standards and closure objectives to be met.
Roads access and haulage road on the mine site);	Dust Noise Removal and disturbance of vegetation cover and natural habitat of fauna Soil contamination Surface	Air quality Fauna Flora Noise and vibration Soil Surface water	Construction Commissioning Operational Decommissioning Closure	Maintenance of roads Dust control and monitoring Noise control and monitoring Speed limits Storm water run-off control Erosion control Immediately clean hydrocarbon spills Rip disturbed areas to allow re-growth of	Dust levels minimized Minimize potential for hydrocarbon spills to infiltrate into groundwater Noise levels minimized Rehabilitation standards and closure objectives met. Erosion potential minimized.

	disturbance			<p>vegetation cover</p> <p>Noise control</p> <p>Well maintained equipment</p> <p>Taking advantage during the design stage of natural topography as a noise buffer;</p> <p>Develop a mechanism to record and respond to complaints.</p> <p>Linear infrastructure such as roads and pipelines will be inspected at least monthly to check that the associated water management infrastructure is effective in controlling erosion.</p>	
Workshop and Wash bay	Removal and disturbance of vegetation cover and natural habitat of fauna	Groundwater Soil Surface water	Construction Commissioning Operational Decommissioning Closure	<p>Concrete floor with oil/water separator</p> <p>Storm water run-off control</p> <p>Immediately clean hydrocarbon spills</p>	<p>Minimize potential for hydrocarbon spills to infiltrate into groundwater</p> <p>Noise levels minimized</p> <p>Rehabilitation standards and closure objectives to be met.</p> <p>Erosion potential minimized.</p> <p>Rehabilitation standards and closure objectives to be met.</p>
Water distribution Pipeline	Surface disturbance	Fauna Flora Surface Water	Construction Commissioning Operational	<p>Monitor pipeline for water leaks</p> <p>Maintenance of pipeline</p>	<p>Rehabilitation standards and closure objectives to be met.</p>

			Decommissioning Closure	Linear infrastructure such as roads and pipelines will be inspected at least monthly to check that the associated water management infrastructure is effective in controlling erosion.	Erosion potential minimized.
Water tanks:	Surface disturbance	Fauna Flora Surface Water	Construction Commissioning Operational Decommissioning Closure	Maintain water tanks and structures	Safety ensured. Rehabilitation standards and closure objectives to be met.

f) Impact Management Actions

(A description of impact management actions, identifying the manner in which the impact management objectives and outcomes contemplated in paragraph (c)

Table 20: Impact management actions

ACTIVITY Whether listed or not listed.	POTENTIAL IMPACT (e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater, contamination, air pollution)...	MITIGATION TYPE (modify, remedy, control or stop) through (e.g. noise control measures, storm water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity	TIME PERIOD FOR IMPLEMENTATION Describe the time period when the measures in the environmental management programme must be implemented. Measures must be implemented when required. With regard to Rehabilitation specifically this must take place at the earliest opportunity. With regard to Rehabilitation, therefore state either:- Upon cessation of the individual activity or Upon the cessation of mining, bulk sampling or alluvial diamond prospecting as the case may be.	COMPLIANCE WITH STANDARDS (A description of how each of the recommendations in 2.11.6 read with 2.12 and 2.15.2 herein will comply with any prescribed environmental management standards or practices that have been identified by Competent Authorities)
Evaporation ponds	Dust Noise Removal and disturbance of vegetation cover and natural habitat of fauna Soil contamination Surface disturbance	Access control Dust control and monitoring Noise and vibration control and monitoring Drip trays Storm water run-off control Immediately clean hydrocarbon spills Rip disturbed areas to allow re- growth of vegetation cover Noise control Well maintained equipment Selecting equipment with lower sound power levels; Taking advantage during the design stage of natural topography as a noise buffer; Develop a mechanism to record	Rehabilitation of evaporation ponds upon closure of mining right.	The following must be placed at the site and is applicable to all activities: <ul style="list-style-type: none"> • Relevant Legislation; • Acts; • Regulations • COP's • SOP's Management and staff must be trained to understand the contents of these documents and to adhere thereto. <ul style="list-style-type: none"> • Environmental Awareness training must be provided to employees. • The operation must have a rehabilitation and closure

		<p>and respond to complaints. Effluents and waste should be recycling and re-use as far as possible.</p>		<p>plan. <ul style="list-style-type: none"> Management and staff must be trained to understand the contents of these documents, and to adhere thereto. Annual performance Assessment Reports and quantum Calculations must be done to ensure that the operation adheres to the contents of the EIA and EMPr documents.</p>
<p>Ablution Facilities</p>	<p>Soil contamination Groundwater contamination</p>	<p>Maintenance of sewage facilities on a regular basis.</p>	<p>Removal of facility upon closure of the Mining Right.</p>	<p>The following must be placed at the site and is applicable to all activities:</p> <ul style="list-style-type: none"> Relevant Legislation; Acts; Regulations COP's SOP's <p>Management and staff must be trained to understand the contents of these documents and to adhere thereto.</p> <ul style="list-style-type: none"> Environmental Awareness training must be provided to employees. The operation must have a rehabilitation and closure plan. Management and staff must be trained to understand the contents of these documents,

Clean water Berms & Dirty systems:	Surface disturbance Groundwater Contamination Soil contamination Surface water contamination	It will be necessary to divert storm water around evaporation ponds areas by construction of a temporary gravel cut-off berm that will prevent surface run-off into the mining area. Maintenance of trenches Monitoring and maintenance of oil traps in relevant areas. Drip trays used. Immediately clean hydrocarbon spill. Linear infrastructure such as roads and pipelines will be inspected at least monthly to check that the associated water management infrastructure is effective in controlling erosion. Effluents and waste should be recycling and re-use as far as possible.	Upon cessation of the individual activity Levelling of storm water berms upon closure of Mining Right	and to adhere thereto. Annual performance Assessment Reports and quantum Calculations must be done to ensure that the operation adheres to the contents of the EIA and EMPR documents. The following must be placed at the site and is applicable to all activities: <ul style="list-style-type: none"> • Relevant Legislation; • Acts; • Regulations • COP's • SOP's Management and staff must be trained to understand the contents of these documents and to adhere thereto. <ul style="list-style-type: none"> • Environmental Awareness training must be provided to employees. • The operation must have a rehabilitation and closure plan. • Management and staff must be trained to understand the contents of these documents, and to adhere thereto. Annual performance Assessment Reports and quantum Calculations must be done to
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<p>Fuel facility (Diesel tanks)</p>	<p>Groundwater contamination Removal and disturbance of vegetation cover and natural habitat of fauna Soil contamination Surface disturbance</p>	<p>Maintenance of Diesel tanks and bund walls. Oil traps Drip tray at re-fuelling point. Refuelling must take place in well demarcated areas and over suitable drip trays to prevent soil pollution. Spill kits to clean up accidental spills from earthmoving machinery must be well-marked and available on site. Workers must undergo induction to ensure that they are prepared for rapid clean-up procedures. All facilities where dangerous materials are stored must be contained in a bund wall. Vehicles and machinery should be regularly serviced and maintained.</p>	<p>Removal of diesel tanks upon closure of Mining Right.</p>	<p>ensure that the operation adheres to the contents of the EIA and EMPr documents. The following must be placed at the site and is applicable to all activities:</p> <ul style="list-style-type: none"> • Relevant Legislation; • Acts; • Regulations • COP's • SOP's <p>Management and staff must be trained to understand the contents of these documents and to adhere thereto.</p> <ul style="list-style-type: none"> • Environmental Awareness training must be provided to employees. • The operation must have a rehabilitation and closure plan. • Management and staff must be trained to understand the contents of these documents, and to adhere thereto. <p>Annual performance Assessment Reports and quantum Calculations must be done to ensure that the operation adheres to the contents of the EIA and EMPr documents.</p>
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<p>Mining Area.</p>	<p>Dust Noise Removal and disturbance of vegetation cover and natural habitat of fauna Soil contamination Surface disturbance Surface water contamination</p>	<p>Access control Dust control and monitoring Noise and vibration control and monitoring Continuous rehabilitation Storm water run-off control Immediately clean hydrocarbon spill Drip trays Erosion control Noise control Well maintained equipment Selecting equipment with lower sound power levels; Re-locate noise sources to areas which are less noise sensitive, to take advantage of distance and natural shielding; Taking advantage during the design stage of natural topography as a noise buffer; Develop a mechanism to record and respond to complaints. Effluents and waste should be recycling and re-use as far as possible. Mining activities must be planned, where possible in order to encourage (faunal dispersal) and should minimise dissection or fragmentation of any important faunal habitat type.</p>	<p>Upon cessation of the individual activity (continuous rehabilitation)</p>	<p>The following must be placed at the site and is applicable to all activities:</p> <ul style="list-style-type: none"> • Relevant Legislation; • Acts; • Regulations • COP's • SOP's <p>Management and staff must be trained to understand the contents of these documents and to adhere thereto.</p> <ul style="list-style-type: none"> • Environmental Awareness training must be provided to employees. • The operation must have a rehabilitation and closure plan. • Management and staff must be trained to understand the contents of these documents, and to adhere thereto. <p>Annual performance Assessment Reports and quantum Calculations must be done to ensure that the operation adheres to the contents of the EIA and EMP documents.</p>
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		<p>The extent of the mining area should be demarcated on site layout plans (preferably on disturbed areas or those identified with low conservation importance). Appointment of a full-time ECO must render guidance to the staff and contractors with respect to suitable areas for all related disturbance, and must ensure that all contractors and workers undergo Environmental Induction prior to commencing with work on site. All those working on site must undergo environmental induction with regards to fauna and in particular awareness about not harming or collecting species such as snakes, tortoises and owls which are often persecuted out of superstition. All those working on site must be educated about the conservation importance of the fauna and flora occurring on site. The environmental induction should occur in the appropriate languages for the workers who may require translation. Reptiles and amphibians that are exposed during the clearing</p>		
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<p>Salvage yard and (Storage laydown area)</p>	<p>Surface Water contamination Groundwater contamination Removal and disturbance of vegetation cover and natural habitat</p>	<p>operations should be captured for later release or translocation by a qualified expert. Employ measures that ensure adherence to the speed limit. Careful consideration is required when planning the placement for stockpiling topsoil and the creation of access routes in order to avoid the destruction of habitats and minimise the overall mining footprint. The Footprint areas of the mining activities must be scanned for Red Listed and protected plant species prior to mining; Snarcs & traps removed and destroyed; and Maintenance of firebreaks. Prevention of exotic vegetation encroachment;</p>	<p>Removal of fence around salvage yard and ripping of salvage yard area upon closure of the mining right.</p>	<p>The following must be placed at the site and is applicable to all activities:</p> <ul style="list-style-type: none"> • Relevant Legislation; • Acts; • Regulations • COP's • SOP's <p>Management and staff must be trained to understand the</p>
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	<p>of fauna</p> <p>Soil contamination</p> <p>Surface disturbance</p> <p>Surface water contamination</p>		<p>contents of these documents and to adhere thereto.</p> <ul style="list-style-type: none"> • Environmental Awareness training must be provided to employees. • The operation must have a rehabilitation and closure plan. • Management and staff must be trained to understand the contents of these documents, and to adhere thereto. <p>Annual performance Assessment Reports and quantum Calculations must be done to ensure that the operation adheres to the contents of the EIA and EMPr documents.</p>
<p>Product Stockpile area</p>	<p>Surface Water contamination</p> <p>Removal and disturbance of vegetation cover and natural habitat of fauna</p> <p>Soil contamination</p> <p>Surface disturbance</p> <p>Surface water</p>	<p>Dust Control and monitoring</p> <p>Noise control and monitoring</p> <p>Drip trays</p> <p>Storm water run-off control</p> <p>Immediately clean hydrocarbon spills</p> <p>Rip disturbed areas to allow re-growth of vegetation cover</p> <p>Noise control</p> <p>Well maintained equipment</p> <p>Selecting equipment with lower sound power levels;</p> <p>Re-locate noise sources to areas which are less noise sensitive, to</p>	<p>Dust levels minimized</p> <p>Minimize potential for hydrocarbon spills to infiltrate into groundwater</p> <p>Noise levels minimized</p> <p>Rehabilitation standards and closure objectives to be met.</p> <p>Erosion potential minimized.</p>

	contamination		<p>take advantage of distance and natural shielding; Taking advantage during the design stage of natural topography as a noise buffer; Develop a mechanism to record and respond to complaints.</p>	
<p>Waste disposal site (domestic and industrial waste):</p>	<p>Groundwater contamination Surface Water contamination Contamination of soil Surface water contamination</p>	<p>Storage of Waste within receptacles Storm water control Ground water monitoring Storage of hazardous waste on concrete floor with bund wall Removal of waste on regular intervals</p>	<p>Removal of waste receptacles, breaking and removal of rubble from the concrete floors and bund walls upon closure of mining right.</p>	<p>The following must be placed at the site and is applicable to all activities:</p> <ul style="list-style-type: none"> • Relevant Legislation; • Acts; • Regulations • COP's • SOP's <p>Management and staff must be trained to understand the contents of these documents and to adhere thereto.</p> <ul style="list-style-type: none"> • Environmental Awareness training must be provided to employees. • The operation must have a rehabilitation and closure plan. • Management and staff must be trained to understand the contents of these documents, and to adhere thereto. <p>Annual performance Assessment Reports and quantum Calculations must be done to</p>

Roads (both access and haulage road on the mine site):	Dust Surface Water contamination Groundwater contamination Noise Removal and disturbance of vegetation cover and natural habitat of fauna Soil contamination Surface disturbance	Maintenance of roads Dust control and monitoring Noise control and monitoring Speed limits Storm water run-off control Erosion control Immediately clean hydrocarbon spills Rip disturbed areas to allow regrowth of vegetation cover Noise control Well maintained equipment Selecting equipment with lower sound power levels; Taking advantage during the design stage of natural topography as a noise buffer; Develop a mechanism to record and respond to complaints. Linear infrastructure such as roads and pipelines will be inspected at least monthly to check that the associated water management infrastructure is effective in controlling erosion.	Upon cessation of the individual activity (continuous rehabilitation) Ripping of roads upon closure of the mining permit.	ensure that the operation adheres to the contents of the EIA and EMP documents.
			<p>The following must be placed at the site and is applicable to all activities:</p> <ul style="list-style-type: none"> • Relevant Legislation; • Acts; • Regulations • COP's • SOP's <p>Management and staff must be trained to understand the contents of these documents and to adhere thereto.</p> <ul style="list-style-type: none"> • Environmental Awareness training must be provided to employees. • The operation must have a rehabilitation and closure plan. • Management and staff must be trained to understand the contents of these documents, and to adhere thereto. <p>Annual performance Assessment Reports and quantum Calculations must be done to ensure that the operation adheres to the contents of the EIA and</p>	

Workshop and Wash bay	<p>Surface Water contamination</p> <p>Removal and disturbance of vegetation cover and natural habitat of fauna</p> <p>Soil contamination</p>	<p>Concrete floor with oil/water separator</p> <p>Storm water run-off control</p> <p>Immediately clean hydrocarbon spills</p>	<p>Removal of wash bay equipment, breaking and removal of rubble from the concrete floors and bund walls upon closure of mining right</p>	<p>EMPr documents.</p> <p>The following must be placed at the site and is applicable to all activities:</p> <ul style="list-style-type: none"> • Relevant Legislation; • Acts; • Regulations • COP's • SOP's <p>Management and staff must be trained to understand the contents of these documents and to adhere thereto.</p> <ul style="list-style-type: none"> • Environmental Awareness training must be provided to employees. • The operation must have a rehabilitation and closure plan. • Management and staff must be trained to understand the contents of these documents, and to adhere thereto. <p>Annual performance Assessment Reports and quantum Calculations must be done to ensure that the operation adheres to the contents of the EIA and EMPr documents.</p> <p>The following must be placed at</p>
Water distribution	Surface disturbance	Monitor pipeline for water leaks	Removal of pipeline upon	

<p>Pipeline</p>		<p>Maintenance of pipeline Linear infrastructure such as roads and pipelines will be inspected at least monthly to check that the associated water management infrastructure is effective in controlling erosion.</p>	<p>closure of the mining right.</p>	<p>the site and is applicable to all activities:</p> <ul style="list-style-type: none"> • Relevant Legislation; • Acts; • Regulations • COP's • SOP's <p>Management and staff must be trained to understand the contents of these documents and to adhere thereto.</p> <ul style="list-style-type: none"> • Environmental Awareness training must be provided to employees. • The operation must have a rehabilitation and closure plan. • Management and staff must be trained to understand the contents of these documents, and to adhere thereto. <p>Annual performance Assessment Reports and quantum Calculations must be done to ensure that the operation adheres to the contents of the EIA and EMPPr documents.</p>
<p>Water tanks:</p>	<p>Surface disturbance</p>	<p>Maintain water tanks and structures</p>	<p>Removal of water tank and steel structure upon closure of the mining right.</p>	<p>The following must be placed at the site and is applicable to all activities:</p>

				<ul style="list-style-type: none"> • Relevant Legislation; • Acts; • Regulations • COP's • SOP's <p>Management and staff must be trained to understand the contents of these documents and to adhere thereto.</p> <ul style="list-style-type: none"> • Environmental Awareness training must be provided to employees. • The operation must have a rehabilitation and closure plan. • Management and staff must be trained to understand the contents of these documents, and to adhere thereto. <p>Annual performance Assessment Reports and quantum Calculations must be done to ensure that the operation adheres to the contents of the EIA and EMPr documents.</p>
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i) Financial Provision**(1) Determination of the amount of Financial Provision**

- (a) Describe the closure objectives and the extent to which they have been aligned to the baseline environment described under Regulation 22(2)(d) as described in 2.4 herein.**

Closure:

The main closure objective of this mine is to rehabilitate the mined areas in such a way to ensure that the rehabilitated topographical landscape would blend in with the surrounding landscape, would not pose a safety hazard for human and animal, but at the same time allow a certain alternative land use. Establish a self-sustaining and stable vegetation cover in order to mitigate the visual impact, to control erosion and to create some habitat for animals. The rehabilitated environment also needs to be aesthetically acceptable according to the principle of BPEO.

Annesley will ensure that the mine site is:

- Neither a danger to public health and safety nor to animal health and safety.
- Not a source of any pollution.
- Stable (ecological and geophysical).
- Rehabilitated to the state that is suitable for the predetermined and agreed land use.
- Compatible with the surrounding biophysical environment.
- A sustainable environment.
- Aesthetically acceptable.
- Not an economic, social or environmental liability to the local community or the state now or in the future.

Annesley will ensure that the physical and chemical stability of the rehabilitated mining site will be such that risk to the environment is not increased by naturally occurring forces to the extent that such increased risk cannot be contended with by the installed measures.

Annesley will subscribe to the optimal exploitation and utilization of South Africa's mineral resources (salt).

Annesley will ensure that the mining site is closed efficiently and cost effectively.

Annesley will ensure that the operation is not abandoned but closed in accordance with the relevant requirements.

Annesley will ensure that the interest of all interested and affected parties will be considered.

Annesley will ensure that the all-relevant legislation regarding mine closure will be adhered to, and all relevant application procedures followed.

The management of environmental impacts:

With regard to the extension, the mitigation of all environmental impacts on all applicable aspects uses BPEO (Best practical environmental option) principles.

- Optimal utilization and maintenance of existing mine facilities in a well-planned manner.
- To take care that no new land surface, habitats of vegetation and animals are destroyed, disturbed or alienated unnecessarily.
- To contain and prevent any pollution (physical and chemical) from the mining operation within structures, facilities provided therefore.
- To ensure an effective surface run-off control system in order to deal with the separation of clean and dirty water environment.
- The sustainable and responsible utilization (re-use) of all water resources and the prevention of pollution thereof.
- The sustainable rehabilitation of the mining site (evaporation ponds, topsoil- & overburden stockpiles, rest of terrain) in order to address all environmental impacts as far as practical.

Historical and Cultural aspects:

The mining right area has been disturbed by previous mining activities.

A number of sites of cultural (archaeological and historical) heritage significance were found in the area. Some of the historical sites are related to past mining activities on the application area.

The sites are of low to high significance.

Finally, it should be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts are always a distinct possibility. Care should therefore be taken during any

development activities that if any of these are accidentally discovered, a qualified archaeologist be called in to investigate.

- (b) Confirm specifically that the environmental objectives in relation to closure have been consulted with landowner and interested and affected parties.**

The surface owner is the Annesley Trust and a surface use agreement had been concluded with them. The agreement is attached as **Appendix 7** to this report. The Scoping report and the EIA EMP was made available to all registered interested and affected parties for comments and concerns. The summary of the comment forms is in Table 3 of the document.

- (c) Provide a rehabilitation plan that describes and shows the scale and aerial extent of the main mining activities, including the anticipated mining area at the time of closure.**

The rehabilitation of land disturbed by the operation during the life of the mining Right will be accompanied by ongoing monitoring of the environment, until a stable state is reached. The main objectives are to have an uncontaminated, rehabilitated and safe environment, and to restore the area and habitats to a condition acceptable for obtaining a closure certificate.

Final rehabilitation of the site is expected to be within 3 years after the operations had ceased. Final rehabilitation will be executed systematically and will consist of the elements and procedures as listed below. More realistic closure elements will be fully determined by a Professional Mine Surveyor once the operation is active.

Dismantling of processing plant and related structures:

- There are no processing plants or other structures associated with the mining activities. Evaporation ponds will be covered under Rehabilitation of processing waste deposits and **evaporation ponds** with no pollution potential.

Demolition of steel buildings and structures:

- All steel buildings and structures are expected to amount to 0.3ha. These include mobile stores, workshops, offices, ablutions, water tanks, etc. Those in disuse and which cannot be sold, donated, or used for future purposes should be dismantled and removed or demolished.

- Any associated foundations associated with dismantled steel buildings and structures should also be demolished to 1 m below ground level;
- The topography should then be restored to its natural contours, and any compacted area should be ripped to a depth no deeper than 300 mm;
- The prepared surfaces should then be covered with 300 mm of topsoil or suitable growth medium, which includes a viable seed bank; in order to encourage restoration of natural vegetation.

Demolition of reinforced concrete buildings and structures

- All brick buildings and concrete structures are expected to amount to ± 0.345 ha. These include French drains, wash bays, refuelling depots and concrete floors. Those in disuse and which cannot be donated or used for future purposes should be demolished.
- The foundations of these buildings should also be demolished and to a depth of 1 m below ground level;
- The topography should then be restored to its natural contours, and any compacted area should be ripped to a depth no deeper than 300 mm;
- The prepared surfaces should then be covered with 300 mm of topsoil or suitable growth medium, which includes a viable seed bank; in order to encourage restoration of natural vegetation.

Rehabilitation of access roads

- Mine roads in total, is expected to cover an area of 5000 m². After general site rehabilitation has been completed, all redundant roads should be ripped or ploughed.
- The prepared surfaces should then be covered with 300 mm of topsoil or suitable growth medium, which includes a viable seed bank; in order to encourage restoration of natural vegetation.

Demolition and rehabilitation of electrified railway lines

- There are no electrified railway lines associated with the mining activities.

Demolition and rehabilitation of non-electrified railway lines

- There are no non-electrified railway lines associated with the mining activities.

Demolition of housing and/or administration facilities

- Four Family housing units pre-fabricated houses and Ablution Facilities 240m²

Opencast rehabilitation including final voids and ramps

- Opencasts and ramps associated with the Mining activities are expected to cover 6 ha (6ha over the LOM).
- In-filling of the pits should take place concurrently and by obtaining material from the closest adjacent excess material heaps;
- The topography should then be shaped to the natural contours;
- The prepared surfaces should finally be covered with 300 mm of topsoil or suitable growth medium, which includes a viable seed bank; in order to encourage restoration of natural vegetation.

Sealing of shafts, adits and inclines

- There are no shafts associated with the Mining activities.

Rehabilitation of overburden and spoils

- The total final overburden and spoils are estimated to amount to 0.455 ha and includes waste dumps as well as earth walls. Pre-planning should be conducted in order to decide the fate of these features. For example, if the material from these features will be used for in-filling, or if the features will remain after closure.
- The slopes of those features selected to remain after closure, should be downgraded to such an extent that they are not visually intrusive to the skyline after closure, and/or at least have an average outer slope of 1:3 (18°); or as predetermined by a specialist, depending on the type of material;
- The prepared surfaces should then be covered with 300 mm of topsoil or suitable growth medium, which includes a viable seed bank; in order to encourage restoration of natural vegetation, to ensure stability, improve the visual impact, and minimise erosion.

Rehabilitation of processing waste deposits and evaporation ponds with pollution potential

- No processing waste deposits and evaporation ponds with pollution potential are associated with the Mining activities.

Rehabilitation of processing waste deposits and evaporation ponds with no pollution potential

- The evaporation ponds have been calculated under opencast rehabilitation as they will be constructed. There will be processing waste deposits on the Mining area and evaporation ponds is estimated to cover an area of ± 6 ha. Pre-planning should be conducted in order to decide the fate of this feature. For example, if the material from these features will be used for in-filling, or if the features will remain after closure.

- The prepared surfaces should then be covered with 300 mm of topsoil or suitable growth medium, which includes a viable seed bank; in order to encourage restoration of natural vegetation, to ensure stability, improve the visual impact, and minimise erosion.

Rehabilitation of subsided areas

The EAP is not currently aware of any areas of subsidence on site. However, any potential for such occurrences should be actively investigated and should be included in the rehabilitation plan, if and when such areas are identified.

General surface rehabilitation

Final surface rehabilitation of areas disturbed by mining and related activities should be aligned to the selected final land use. General surface rehabilitation encompasses the reinstatement of natural topography, the top soiling and the re-vegetation of all those areas where infrastructure have been dismantled and removed or demolished. It also includes any industrial waste or scrap material that need to be removed from site. The total area that will need general surface rehabilitation at the time mine closure is estimated to be ± 5 ha.

River diversions

No river diversions are planned.

Fencing

It is not known at this stage if any fencing is planned.

Water management

No treatment of water will be necessary for the Mining activities.

Maintenance and aftercare

Maintenance and aftercare should be planned for two to three years after mine production have ceased and should include the following:

- Annual fertilising of rehabilitated areas.
- Monitoring of surface and subsurface water quality,
- Control of alien plants, and
- General maintenance, including rehabilitation of cracks and subsidence.
- Erosion control and monitoring of the slopes of the slimes dams;

Specialist study

A screening level risk assessment should be completed by a specialist environmental practitioner during mine closure in order to ensure that all of the rehabilitation objectives have been met and that all of the potential risks have been eliminated and/or are controlled. This

assessment should specifically emphasis on those risks relating to river disturbances, groundwater quality and slope stabilities, but should not neglect progress made in natural vegetation restoration or success in alien invasive eradications. The current average specialist fees are estimated at R 50 000.

(d) Explain why it can be confirmed that the rehabilitation plan is compatible with the closure objectives.

The rehabilitation plan was primarily designed with the closure objectives in mind and therefore it relates to all the various objectives as set out above in Section 1) g) 1) a) of this EMPR. In general, the main objectives are to have an uncontaminated, rehabilitated and safe environment, and to restore the mining area to a condition acceptable for obtaining a closure certificate. Each and every element in the rehabilitation plan was designed in order to meet these closure objectives.

The ultimate rehabilitation of the mining site that involves the sloping, levelling, replacement of topsoil and the seeding of an grass seed mix in areas that does not recover acceptably as agreed to by the land owner will ensure that the site could be regarded as safe for humans and animals and will also ensure that the site is stable from a erosion point of view and also ensuring that the site could be used for grazing again.

The removal of waste material of any description from the mining area and the disposal thereof at a recognised landfill facility.

- ❖ The removal of infrastructure, equipment, plant and other items from the site.
- ❖ The ripping of compacted areas to a level of 300mm and the levelling of such areas in order to re-establish a growth medium for plants (such areas will furthermore be seeded with a vegetation seed mix adapted to reflect the local indigenous flora that was present prior to the mining operation, if the re-establishment of vegetation is unacceptably slow.
- ❖ The backfilling and or sloping of the ponds with subsoil and the covering thereof with previously stored topsoil (where-after this area will also be seeded with a vegetation seed mix adapted to reflect the local indigenous flora that was present prior to the proposed operation, and seedlings protected for a period of one year) if the re-establishment of vegetation is unacceptably slow.

- (e) Calculate and state the quantum of the financial provision required to manage and rehabilitate the environment in accordance with the applicable guideline.

The bank guarantee to be submitted to the DMR for mine closure and rehabilitation is to the value of R601 952.

Please see calculations below.

Description	Unit	A	B	C	D	E=A*B*C*D
		Quantity	Master Rate	Multiplication factor	Weighting factor 1	Amount (Rands)
Dismantling of processing plant and related structures (including overland conveyors and powerlines)	m3		14.45	1	1	0
Demolition of steel buildings and structures	m2	0.3	201.35	1	1	60.405
Demolition of reinforced concrete buildings and structures	m2	0.345	296.75	1	1	102.37875
Rehabilitation of access roads	m2	5000	30.44	1	1	152200
Demolition and rehabilitation of electrified railway lines	m		349.71	1	1	0
Demolition and rehabilitation of non-electrified railway lines	m		190.75	1	1	0
Demolition of housing and/or administration facilities	m2		402.7	1	1	0
Opencast rehabilitation including final voids and ramps	ha	6	204951.85	0.04	1	49188.444
Sealing of shafts adits and inclines	m3		108.09	1	1	0
Rehabilitation of overburden and spoils	ha	0.455	140732.19	1	1	64033.14645
Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential)	ha		175279.45	1	1	0
Rehabilitation of processing waste deposits and evaporation ponds (polluting potential)	ha		509094.45	1	1	0
Rehabilitation of subsided areas	ha		117842.01	1	1	0
General surface rehabilitation	ha	6	27870.9	1	1	167225.4
River diversions	ha		111483.63	1	1	0
Fencing	m		127.17	1	1	0
Water management	ha		42389.21	1	1	0
2 to 3 years of maintenance and aftercare	ha		12535.93	1	1	0
Specialist study	Sum				1	0
Specialist study	Sum				1	0
Sub Total 1						432809.7742
Preliminary and General		51937.1729	weighting factor 2		1	51937.1729
Contingencies			43280.97742			43280.97742
Subtotal 2						528027.92
VAT (14%)						73923.91
Grand Total						601952

- (f) Confirm that the financial provision will be provided as determined.

Bank guarantee.

Mechanisms for monitoring compliance with and performance assessment against the environmental management programme and reporting thereon, including

- g) Monitoring of Impact Management Actions
- h) Monitoring and Reporting Frequency
- i) Responsible persons
- j) Time Period for Implementing Impact Management Actions
- k) Mechanisms for Monitoring Compliance

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES (FOR THE EXECUTION OF THE MONITORING PROGRAMMES)	MONITORING AND REPORTING FREQUENCY and TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
Topography	To minimise the reduction of land capability.	To ensure that rehabilitation post-mining slopes are stable, free draining, and no slopes have an angle in excess of 20°.	Site Manager/ Environmentalists	Monitoring will be done on an <i>annual</i> basis to ensure that the levels and the slopes are in order.
Soil	To prevent soil pollution; To limit soil compaction; To curb soil erosion; and To reinstate a growth medium able to sustain plant life.	Soil depth and chemical composition will be tested and possible erosion damage will be assisted and rectified.	Site Manager/ Environmentalists	Monitoring will be done on an <i>annual</i> basis or after a heavy rain event.
Air Quality	To control the incidence of unacceptable levels of dust pollution on site.	To ensure that the mine minimizes dust omissions, so that dust does not become a nuisance for affected parties and a health hazard.	Site Manager/Foreman appointed SHE Consultant	Visual inspections will be done and managed by dust suppression by a water tanker. Quarterly tests will also be conducted by a Safety Health and Environmental Consultant and submitted to Mine Health and Safety for monitoring purposes. The implementation of continuous dustfall monitoring as part of the project's air quality management plan. Monitoring should be undertaken throughout the life of the mine to provide air quality trends and indicate compliance with NAAQSS. <input type="checkbox"/> The delineation of an air quality buffer zone is not deemed necessary, considering the "low" to "medium" significance rating assigned to pollutants impacts.
Fauna	To minimise vegetation destruction in mining areas, and therefore a habitat for wildlife; and To eliminate poaching and the extermination of animal species within the boundaries of the study area as well as the surrounding areas.	To ensure that the species diversity and abundance is not significantly reduces.	Site Manager/ Environmentalists	Monitoring will be done at rehabilitated area on an <i>annually</i> basis to investigate species diversity and abundance.

Flora	To minimise the destruction of vegetation units; and To control invasion of exotic and invasive plant species.	To ensure that the rehabilitated areas become self-maintaining.	Site Manager/ Environmentalists	Monitoring will be done at the rehabilitated areas on a <i>twice a year basis</i> (mid-summer and mid-winter), where species diversity and vegetation cover will be investigated.
SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES (FOR THE EXECUTION OF THE MONITORING PROGRAMMES)	MONITORING AND REPORTING FREQUENCY AND TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
Noise	To ensure that the legislated noise levels will be adhered to at all times. To control the incidence of unacceptable noise levels on site.	The management objective will be to reduce any level of noise, shock and lighting that may have an effect on persons or animals, both inside the area and that which may migrate outside the area.	The manager	Quarterly reports on fall-out dust and noise monitoring will be conducted as required by legislation. if any complaints are received from the public or state department regarding noise levels the levels will be monitored at prescribed monitoring points.
Surface Water	To conserve water; and To eliminate the contamination of run-off.	There are no perennial Rivers in the vicinity of the mining operation.	Site Manager/Water Supply	Monitoring takes place by collecting surface water samples every quarter if available.
Ground Water	To conserve water; and To eliminate the contamination of Ground Water.	Groundwater will be used and tested.	Site Manager/Water Supply	Monitoring takes place by collecting ground water samples every quarter if available.

l) Indicate the frequency of the submission of the performance assessment report

Auditing of compliance with environmental authorisation, the environmental management programme and the closure plan should be conducted annually by an independent EAP and an Environmental Audit Report should be compiled in such a way that it meets the requirements in terms of Regulation 34 of the National Environmental Management Act 107 of 1998): Environmental Impact Assessment Regulation, 2014.

The rehabilitation plan should also be reviewed annually in order to fulfil the requirements of Section 41(3) of the MPRDA and should be conducted by an independent EAP. Subsequently, an Annual Rehabilitation Plan should be developed to meet the various requirements set out in the National Environmental Management Act (No 107 of 1998) (NEMA) Regulations pertaining to the financial provision for prospecting, exploration, mining or production operations (as amended in 2015).

These reports should be submitted annually to the Northern Cape DMR offices in Kimberley.

m) Environmental Awareness Plan

The objective of the environmental awareness plan is to ensure that:

- ✓ Training needs are identified and all personnel whose work may create a significant impact upon the environment have received appropriate training.
- ✓ All employees are aware of the impact of their activities.
- ✓ Procedures are established and maintained to make appropriate employees aware of:
 - The significant environmental impacts (actual or potential) of their work activities and environmental benefits of improved personal performance.
 - Their roles and responsibilities in achieving conformance with environmental policies, procedures, and any implementation measures.
 - The potential consequences of departure from specified operation procedures.
- ✓ Personnel performing task, which can cause significant environmental impacts, are competent in terms of appropriate education, training and / or experience.

Environmental awareness will be part of the existing training and development plan. Key personnel with environmental responsibilities will be identified and the following principles will apply:

- ✓ Procedures will be developed to facilitate training of employees, on-site service providers and contractors;

- ✓ Environmental awareness will focus on means to enhance the ability of personnel and ensure compliance with the environmental requirements;
- ✓ Top management will build awareness and motivate and reward employees for achieving environmental objectives;
- ✓ Environmental policies will be availed to contractors;
- ✓ Environmental inductions will be conducted for employees, contractors and visitors;
- ✓ There will be an ongoing system of identifying training needs

General environmental awareness training as part of the induction at Annesley Salt should focus on the following:

- ✓ General environmental awareness.
- ✓ The mine policies and vision concerning environmental management.
- ✓ Legal requirements.
- ✓ Mine activities and their potential impacts.
- ✓ Different management measures to manage identified impacts.
- ✓ Mine personnel's role in implementing environmental management objectives and targets.

(1) Manner in which the applicant intends to inform his or her employees of any environmental risk which may result from their work.

It is the responsibility of management to ensure that all employees, contractors and visitors are trained to understand the impacts of their tasks on the environment and to reduce them wherever possible. Environmental awareness should be part of the existing training and development plan. Key personnel with environmental responsibilities should be identified and the following principles should be applied:

- Procedures should be developed to facilitate training of employees, on-site service providers and contractors;
- Environmental awareness should focus on means to enhance the ability of personnel and ensure compliance with the environmental requirements;
- Top management should build awareness and motivate and reward employees for achieving environmental objectives;
- There should be an ongoing system of identifying training needs.
- An environmental, health and safety induction programme should be provided to all employees, contractors and visitors prior to commencing work or entering the site, and they should sign acknowledgement of the induction. An attendance register and agenda/programme should be filed for each induction.
- A daily "toolbox talk" should be held prior to commencing work, which will include discussions on health, safety and environmental considerations. The toolbox talks should be led by the site manager or the appointed supervisor/s.
- Refresher training should also be given to permanent employees and long-term contractors on an annual basis, to ensure that all are competent to perform their

duties, thereby eliminating negative impacts on their safety, health and environment.

General environmental awareness training as part of the induction at Southern Ambition should focus on the following:

- General environmental awareness, which incorporates environmental, ecological and heritage elements;
- The mine policies and vision concerning environmental management;
- Legal requirements;
- Mine activities and their potential impacts;
- Different management measures to manage identified impacts;
- Mine personnel's role in implementing environmental management objectives and targets.

Environmental awareness topics to be covered in training should include:

- Natural resource management and conservation;
- Biodiversity awareness and conservation principles;
- Heritage resource awareness and preservation principles;
- Hazardous substance use and storage;
- Waste management; and
- Incident and emergency actions and reporting;

(2) Manner in which risks will be dealt with in order to avoid pollution or the degradation of the environment.

Environmental incident reporting will be a vital part of communication in order to deal with risks and ultimately avoid pollution or the degradation of the environment. Such communication should take place through the management, administrative and worker sectors of the operation, as well as contractors and visitors. Employees should be required to report any and all environmentally related problems, incidents and pollution, so that the appropriate mitigation actions can be implemented timeously. In the event of an environmental incident, the reporting procedure as indicated in the table below should be followed.

ENVIRONMENTAL INCIDENT REPORTING STRUCTURE	ACTIONS REQUIRED
Person causing or observing the incident	The first person causing or observing the incident shall report the incident to an immediate supervisor where the environmental incident is observed.
Line management in the relevant area of responsibility where the incident occurred	<p>Line management in the relevant area of responsibility where the incident occurred shall:</p> <ul style="list-style-type: none"> • Investigate the incident and record the following information: <ul style="list-style-type: none"> - How the incident happened; - The reasons the incident happened; - How rehabilitation or clean up needs to take place; - The nature of the impact that occurred; - The type of work, process or equipment involved; - Recommendations to avoid future such incidents and/or occurrences; • Inform the environmental manager/ECO and the Operations Manager on a daily basis of all incidents that were reported on site; • Consult with the relevant department/person for recommendations on actions to be taken or implemented where appropriate (e.g. clean-ups). • Assist the Environmental Manager and/or Operations Manager with applicable data in order to accurately capture the incident into the reporting database; • Ensure that remediation measures are implemented as soon as possible.

<p>Site managers</p>	<p>The site managers shall:</p> <ul style="list-style-type: none"> • Forward a copy of the incident form to other line managers; • Forward a copy of the incident form to the Environmental manager/ECO; • Inform the relevant department/person on a weekly basis of the incident by e-mail or by submitting a copy of the incident report. Once a High Risk Incident (any incident which results from a significant aspect and has the potential to cause a significant impact on the environment) occurred it must be reported immediately to the Environmental Manager and the Operations Manager by telephone or email to ensure immediate response/action. • Forward a copy of the completed Incident Reporting Form (and where applicable a copy of the incident investigation) to the relevant department/person.
<p>Environmental manager/ECO</p>	<p>The appointed environmental manager or ECO shall:</p> <ul style="list-style-type: none"> • Complete an incident assessment form to assess what level of incident occurred; • Make recommendations for clean-up and/or appropriate alternate actions; • Enter actions necessary to remediate environmental impacts into the database in conjunction with the responsible line manager; • Enter the incident onto the database in order to monitor the root causes of incidents; • Include the reported incidents in an appropriate monthly/quarterly report; • Highlight all incidents for discussion at HSEC meetings.

n) Specific information required by the Competent Authority

(Among others, confirm that the financial provision will be reviewed annually)

Section 41 of the MPRDA and regulations 53 and 54 promulgated in terms of the MPRDA deal with financial provision for mine rehabilitation and closure. This was amended by NO. R. 1147 dated 20 NOVEMBER 2015 NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) REGULATIONS PERTAINING TO THE FINANCIAL PROVISION FOR PROSPECTING, EXPLORATION, MINING OR PRODUCTION OPERATIONS.

The holder of a right as described in the relevant sections of the MPRDA and NEMA and its regulations must provide the Department of Mineral Resources (DMR) with sufficient financial provision. Officials in the DMR Regional Offices are required to assess, review and approve the quantum of financial provision submitted (that is, the monetary value of the financial provision that has been computed by the holder of a prospecting right, mining right or mining permit during the annual review) as being sufficient to cover the environmental liability at that time and for closure of the mine at that time.

The holder of a prospecting right, mining right or mining permit is required to annually assess the total quantum of environmental liability for the mining operation and ensure that financial provision are sufficient to cover the current liability (in the event of premature closure) as well as the end-of-mine liability.

It is hereby confirmed that the financial provision will be reviewed annually.

2) UNDERTAKING

The EAP herewith confirms

- a) the correctness of the information provided in the reports;
- b) the inclusion of comments and inputs from stakeholders and I&APs;
- c) the inclusion of inputs and recommendations from the specialist reports where relevant; and
- d) the acceptability of the project in relation to the finding of the assessment and level of mitigation proposed.



Signature of the Environmental Assessment Practitioner:

Wadala Mining and Consulting (Pty) Ltd

Name of Company:

Date: 15 February 2019

- END -