



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

APPLICATION FORM FOR ENVIRONMENTAL AUTHORISATIONS 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).

TSHIPI É NTLE MANGANESE MINING (PTY) LTD

ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE

IMPORTANT NOTICE

Kindly note that:

1. As from 8 December 2014, this document serves as the application form, and incorporates the requisite documents that are to be submitted together with the application for the necessary environmental authorisations in terms of the said Acts.
2. This application form is applicable while the Mineral and Petroleum Resources Development Amendment Act of 2008 is in effect, as the form may require amendment should the Act be further amended.
3. Applicants are required to apply for the necessary water use licence and any other authorisations nor licences to the relevant competent authorities as required by the relevant legislation. Upon acceptance of an application for a right or permit in terms of the MPRDA, applicants will be required to provide evidence to the Regional Manager that a water use licence has been applied for.
4. The Regional Manager will respond to the application and provide the reference and correspondence details of the Competent Authority, and in the event that the application for a right or permit is accepted, together with the date by which the relevant environmental reports must be submitted. Notwithstanding anything that may appear to be stated to the contrary in the acceptance letter, the timeframes are in fact aligned and the prescribed timeframes for the submission of documents as regulated by the NEMA regulations must be strictly adhered to.
5. The application must be typed within the spaces provided in the form. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. Spaces are provided in tabular format and will extend automatically when each space is filled with typing.
6. The failure to submit complete information as required in this application form may result in the refusal of the application for an environmental authorisation and consequently of the right or permit applied for.
7. This application must be submitted through the SAMRAD online application system of the Department of Mineral Resources under "Other documents to upload".
8. Unless protected by law, all information filled in on this application form will become public information on receipt by the competent authority. Any interested and affected party should and shall be provided with the information contained in this application on request, during any stage of the application process.
9. Please note that an application fee is payable in terms of the National Environmental Management Act and the National Waste Management Act, which fees must be paid upon lodgement of the application. Should the said application fees not be paid as prescribed the application for a right or permit in terms of the Mineral and Petroleum Resources Development Act cannot be considered to have been made in the prescribed manner and the said application for a right or permit will have to be rejected. In this regard the type of applications must be identified in the table below.

PLEASE STATE TYPE OF AUTHORISATIONS BEING APPLIED FOR.

APPLICATION TYPE	APPLICABLE FEE	Mark with an X where applicable
NEMA S&EIR application on its own	R10 000.00	<input type="checkbox"/>
NEMA BAR application on its own	R 2 000.00	<input checked="" type="checkbox"/>
NEMWA S&EIR application on its own	R10 000.00	<input type="checkbox"/>
NEMWA BAR application on its own	R 2 000.00	<input type="checkbox"/>
NEMA S&EIR application combined with NEMWA S&EIR application	R 15 000.00	<input type="checkbox"/>
NEMA BAR application combined with NEMWA BAR application	R 3 000.00	<input type="checkbox"/>
NEMA S&EIR application combined with NEMWA BAR application	R 11 000.00	<input type="checkbox"/>

1. CONSULTATION BASIC ASSESSMENT AND / OR SCOPING REPORT

2. DETAILS OF THE APPLICANT

Project applicant:	Tshipi é Ntle Manganese Mining (Pty) Ltd		
Registration no (if any):	2008/003117/07		
Trading name (if any):	Tshipi é Ntle Manganese Mining (Pty) Ltd		
Responsible Person, (e.g. Director, CEO, etc.):	General Manager		
Contact person:	Nkosana Maseko		
Physical address:	Farm Mamatwan 331, portion 16, 17 and 18 Kuruman Magisterial District Northern Cape		
Postal address:	PO Box 2098 Kathu		
Postal code:	8446	Cell:	082 386 8211
Telephone:	053 7394700	Fax:	086 5778636
E-mail:	nkosanam@tshipi.co.za		

3. ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP) INFORMATION

EAP:	Natasha Smyth and Alex Pheiffer		
Professional affiliation/registration:	Member: International Association for Impact Assessment (Natasha Smyth and Alex Pheiffer) Registered as a Professional Scientist with the South African Council for Natural Scientific Professions (Alex Pheiffer) EAPASA Registration: only compulsory at the end of 2019.		
Contact person (if different from EAP):	Natasha Smyth		
Company:	SLR Consulting (Africa) (Pty) Ltd		
Physical address:	SLR House (Block 7) Fourways Manor Office Park Cnr Roos and Macbeth Street Fourways, Johannesburg, 2060		
Postal address:	PO Box 1596, Cramerview		
Postal code:	2060	Cell:	083 2268570
Telephone:	011 4670945	Fax:	011 4670978
E-mail:	nsmyth@slrconsulting.com		

If an EAP has not been appointed please ensure that an independent EAP is appointed as stipulated by the NEMA Regulations, prior to the commencement of the process.

The declaration of independence and the Curriculum Vitae (indicating the experience with environmental impact assessment and relevant application processes) of the EAP must also be attached as **Appendix 1**. A copy of the Curriculum Vitae, proof of professional affiliation and the EAP declaration is attached in Appendix 1.

4. PROJECT DESCRIPTION

Farm Name:	<ul style="list-style-type: none"> • Mamatwan 331 portion 16 (previously a portion of portion 1); • Mamatwan 331 portion 17 (previously a portion of portion 2); • Mamatwan331 portion 18 (previously a portion of portion 3); • Mamawan 331 portion 8 • Moab 700 (remaining extent)
Application area (Ha)	The proposed project will cover an area of approximately 655 ha.
Magisterial district:	Located within the Kuruman Magisterial District and in the John Taolo Gaetsewe District Municipality
Distance and direction from nearest town	The Tshipi Borwa Mine is located approximately 18km to the South East of the town of Hotazel.
21 digit Surveyor General Code for each farm portion	<ul style="list-style-type: none"> • CO000000000033100016 - Mamatwan 331 portion 16 • CO000000000033100017 - Mamatwan 331 portion 17 • CO000000000033100018 - Mamatwan 331 portion 18 • CO000000000033100008 - Mamatwan 331 • CO000000000070000000 – Moab 700 (remaining extent)
Locality map	Regional map and locality map are provided in Appendix 2.
Description of the overall activity. (Indicate Mining Right, Mining Permit, Prospecting right, Bulk Sampling, Production Right, Exploration Right, Reconnaissance permit, Technical co-operation permit, Additional listed activity)	<p>Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) currently operates the Tshipi Borwa open pit manganese mine located on the farms Mamatwan 331 (mining right and surface use areas) and Moab 700 (surface use area), approximately 18 km south of Hotazel in the Joe Morolong Local Municipality and the John Taolo Gaetsewe District Municipality in the Northern Cape Province. Tshipi currently holds the following authorisations:</p> <ul style="list-style-type: none"> • A mining right (NC/30/5/1/2/2/0206MR) issued by the Department of Mineral Resources (DMR); • An Environmental Management Programme report (EMPr) approved by the DMR; • Environmental authorisations (NC/30/5/1/2/2/206/000083 EM) and (NC/30/5/1/2/2/206/00130 MR) issued by the DMR; • A Water Use Licence (IWUL) (10/D41K/AGJ/1735) issued by the Department of Water and Sanitation. <p>The approved EMPr commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent operation optimisation investigations indicate that when considering environmental, socio-economic, technical, commercial and legal factors, and, completely backfilling the open pit is sub-optimal. An alternative closure and rehabilitation strategy offers:</p> <ul style="list-style-type: none"> • The opportunities for enhanced biodiversity habitats with a different backfill approach particularly in terms of topographic variety and access to surface water; • The opportunities for enhanced land use increase with access to surface water; and • An alternative closure option will allow for earlier rehabilitation of waste rock dumps. <p>In addition to the above, completely backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country.</p> <p>Tshipi is therefore proposing to making application to change the current closure commitment to achieve a more sustainable and optimised outcome. In this regard, the proposed project focusses on:</p> <ul style="list-style-type: none"> • Concurrent backfill only i.e. in-pit dumping during mining operations only; • Sloping and rehabilitation of waste rock dumps remaining on surface; • Access to readily available future water supply; and

	<ul style="list-style-type: none">• Access to readily available future water supply; and• Optimisation of the surface landforms and partially backfilled pit from a biodiversity, rehabilitation, land use and pollution prevention perspective.
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5. ACTIVITIES TO BE AUTHORISED

(Please provide copies of Environmental Authorisations obtained for the same property as **Appendix 3**). The existing Tshipi EA, MR and IWUL are included in Appendix 3.

(For an application for authorisation please indicate more than one listed activity that, together, make up one development proposal. All the listed activities pertaining to this application must be included. Please note that any authorisation that may result from this application will only cover activities specifically applied for). Attach a proposed site plan, drawn to a scale acceptable to the competent Authority, showing the location of all the activities to be applied for in **Appendix 4**). The surface layout is included in Appendix 4 as Figure 3.

NAME OF ACTIVITY (E.g. For prospecting - drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access route etc...etc...etc E.g. for mining ,- excavations, 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.)	Aerial extent of the Activity Ha or m²	LISTED ACTIVITY (Mark with an X where applicable or affected).	APPLICABLE LISTING NOTICE	WASTE MANAGEMENT AUTHORISATION (Indicate whether an authorisation is required in terms of the Waste Management Act). (Mark with an X)
Concurrent backfilling i.e in-pit dumping	<ul style="list-style-type: none"> Approximately 229 ha 	Not applicable.	Not applicable.	Not applicable.
Sloping and rehabilitation of waste rock dumps remaining on surface	<ul style="list-style-type: none"> Northern Waste Rock Dump (89 ha) Mamatwan portion 8 Waste Rock Dump (128 ha) Western and Eastern Waste Rock Dump (144 ha) 	Not applicable.	Not applicable.	Not applicable.
Access to readily available future water supply (pit lake)	<ul style="list-style-type: none"> Approximately 65 ha 	Not applicable.	Not applicable.	Not applicable.
Establishment of an access road to the pit lake	<ul style="list-style-type: none"> Road is estimated to be 30 m wide. The extent will be confirmed in the BAR, however this road forms part of the overall project area. 	X	GNR 983. Listing Notice 1: Activity 24: The development of a road with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 meters (but excluding a road which is one kilometre or shorter) <i>Establishment of a 30m wide road that is longer than one kilometre</i>	Not applicable.
Optimisation of the surface landforms and partially backfilled pit from a biodiversity, rehabilitation, land use and pollution prevention perspective	<ul style="list-style-type: none"> Approximately 1446 ha 	Not applicable.	Not applicable.	Not applicable.

6. PUBLIC PARTICIPATION

Provide details of the public participation process proposed for the application as required by Regulation.

Details of the Public Participation process to be followed.

6.1.1. IDENTIFICATION OF INTERESTED AND AFFECTED PARTIES TO BE CONSULTED

IDENTIFICATION CRITERIA	Mark with an X where applicable	
	YES	NO
Will the landowner be specifically consulted?	X	
Will the lawful occupier on the property other than the Landowner be consulted?	X	
Will a tribal authority or host community that may be affected be consulted?	X	
Will recipients of land claims in respect of the area be consulted?	X	
Will the landowners or lawful occupiers of neighbouring properties been identified?	X	
Will the local municipality be consulted?	X	
Will the Authority responsible for power lines within 100 metres of the area be consulted?		X
Will Authorities responsible for public roads or railway lines within 100 metres of the area applied for be consulted?		X
Will authorities responsible for any other infrastructure within 100 metres of the area applied for be consulted? (Specify)		X
Will the Provincial Department responsible for the environment be consulted?	X	
Will all of the parties identified above be provided with a description of the proposed mining /prospecting operation as referred above?	X	
Will all the parties identified above be requested in writing to provide information as to how their interests (whether it be socio-economic, cultural, heritage or environmental) will be affected by the proposed mining project?	X	
Other, Specify	Not applicable	

6.1.2. DETAILS OF THE ENGAGEMENT PROCESS TO BE FOLLOWED

Steps to be taken to notify interested and affected parties	PROVIDE DESCRIPTION HERE																		
(Describe the process to be undertaken to consult interested and affected parties including public meetings and one on one consultations. NB the affected parties must be specifically consulted regardless of whether or not they attended public meetings. Photographs of notice boards, and copies of advertisements and notices notifying potentially interested and affected parties of the proposed application must be attached as Appendix 5)	<p>The proposed public consultation process is in accordance with the requirements of Chapter 6 of the NEMA EIA Regulations, 2014 and is outlined in Table 1 below. The aim of the public consultation process is to co-ordinate a process through which interested and affected parties (I&APs) are informed of the Basic Assessment Process and are provided with an opportunity to provide input into the assessment and proposed mitigation measures.</p> <p>Table 1: Proposed Public Participation Process</p> <table border="1"> <thead> <tr> <th>Task</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td colspan="2">Pre-application and application phase</td> </tr> <tr> <td>DMR pre-application meeting</td> <td>A pre-application meeting was held at the DMR on 02 May 2019. A copy of the meeting minutes is included in Appendix 5.</td> </tr> <tr> <td>DMR application</td> <td>Submission of the NEMA application form to the DMR via the SAMRAD system.</td> </tr> <tr> <td colspan="2">Notification of commenting authorities and I&APs</td> </tr> <tr> <td>Land claims commissioner consultation</td> <td>The Department of Rural Development and Land Reform had indicated no land claims have been lodged on the farms Moab 700 and Mamatwan 331. The proof of correspondence is attached in Appendix 5.</td> </tr> <tr> <td>Update of I&AP database</td> <td> <ul style="list-style-type: none"> Verification of the relevant surrounding landowners, land occupiers, relevant ward councillor, municipalities, organs of state, regulatory authorities and other I&APs; Verifying contact details for I&APs on the existing database; and Verifying appropriate communication structures. </td> </tr> <tr> <td>Background Information Document (BID)</td> <td>A BID was compiled as part of the Basic Assessment process. The purpose of the BID was to inform I&APs and commenting authorities about the proposed project and the means of providing input into the Basic Assessment Process. A registration and response form was attached to the BID, which provided I&APs and commenting authorities with an opportunity to submit their names, contact details and comments on the project. This BID was translated into Afrikaans.</td> </tr> <tr> <td>Site notices</td> <td>Proof of distribution of the BID is included in Appendix 5. SLR placed laminated A2 site notices (in English and Afrikaans) at key conspicuous positions in and around the Tshipi Borwa Mine, as well as in the</td> </tr> </tbody> </table>	Task	Description	Pre-application and application phase		DMR pre-application meeting	A pre-application meeting was held at the DMR on 02 May 2019. A copy of the meeting minutes is included in Appendix 5.	DMR application	Submission of the NEMA application form to the DMR via the SAMRAD system.	Notification of commenting authorities and I&APs		Land claims commissioner consultation	The Department of Rural Development and Land Reform had indicated no land claims have been lodged on the farms Moab 700 and Mamatwan 331. The proof of correspondence is attached in Appendix 5.	Update of I&AP database	<ul style="list-style-type: none"> Verification of the relevant surrounding landowners, land occupiers, relevant ward councillor, municipalities, organs of state, regulatory authorities and other I&APs; Verifying contact details for I&APs on the existing database; and Verifying appropriate communication structures. 	Background Information Document (BID)	A BID was compiled as part of the Basic Assessment process. The purpose of the BID was to inform I&APs and commenting authorities about the proposed project and the means of providing input into the Basic Assessment Process. A registration and response form was attached to the BID, which provided I&APs and commenting authorities with an opportunity to submit their names, contact details and comments on the project. This BID was translated into Afrikaans.	Site notices	Proof of distribution of the BID is included in Appendix 5. SLR placed laminated A2 site notices (in English and Afrikaans) at key conspicuous positions in and around the Tshipi Borwa Mine, as well as in the
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		nearby towns on 14 June 2019. Photographic proof is included in Appendix 5.
	Newspaper advertisements	Block advertisements were placed in two local newspapers on 13 and 14 June 2019. These included the Kalahari Bulletin and the Kathu Gazette; copies of the adverts are included in Appendix 5.
	Public and focussed meetings	
	General Public and commenting authorities meeting	<p>A general public and commenting authorities meeting was held on 26 June 2019. The purpose of the meeting was to:</p> <ul style="list-style-type: none"> • Provide an overview of the proposed project; • Provide an overview of the environmental assessment process that will be undertaken for the proposed project; • Provide an overview and obtain input on the existing status of the environment; • Outline and obtain input on impacts identified for the proposed project; • Record any comments and issues raised; and • Agree on the way forward and the logistics for report distribution. <p>A copy of the public and commenting authorities meeting minutes is included in Appendix 5.</p>
	Focussed commenting authorities meeting with the Department of Water and Sanitation (DWS) and the Department of Agriculture, Forestry and Fisheries (DAFF)	<p>Focussed commenting authorities meeting were held with the DWS (21 June 2019) and DAFF/DENC (27 June 2019). The purpose of the meeting was to:</p> <ul style="list-style-type: none"> • Provide an overview of the proposed project; • Provide an overview of the environmental assessment process that will be undertaken for the proposed project; • Provide an overview and obtain input on the existing status of the environment; • Outline and obtain input on impacts identified for the proposed project; • Record any comments and issues raised; and • Agree on the way forward and the logistics for report distribution. <p>Copies of the focussed DWS and DAFF/DENC meetings minutes are included in Appendix 5.</p>
	Review of the Basic Assessment Report	
	Public review and commenting authority Review of Basic Assessment Report	<p>The Basic Assessment Report will be made available for public and commenting authority review and comment for 30 days. Summaries of the Basic Assessment Report will be made available to all I&APs registered on the I&AP database via email, fax and post. In addition, I&APs will be notified when the Basic Assessment Report will be available for review via SMS. In addition to this, electronic copies will be made available on the SLR website.</p> <p>The Basic Assessment Report will be updated to include all comments received during the public review and commenting period. Comments will be recorded and responded to in a Comments and Response Report. This updated report will be submitted to the DMR for decision making purposes.</p>
	Following review of the Basic Assessment Report	The Basic Assessment Report will be updated to include all comments received during the review and commenting period. This updated report will be made available to the DMR for decision making purposes.
Information to be provided to Interested and Affected Parties.	<p>Compulsory</p> <ul style="list-style-type: none"> • The site plan • List of activities to be authorised • Scale and extent of activities to be authorised • Typical impacts of activities to be authorised (e.g. surface disturbance, dust, noise, drainage, fly rock etc.) • The duration of the activity. • Sufficient detail of the intended operation to enable them to assess what impact the activities will have on them or on the use of their land) <p>Other, specify: Not applicable</p>	
Information to be required from Interested and Affected Parties.	<p>Compulsory</p> <ul style="list-style-type: none"> • To provide information on how they consider that the proposed activities will impact on them or their socio-economic conditions • To provide written responses stating their suggestions to mitigate the anticipated impacts of each activity • To provide information on current land uses and their location within the area under consideration • To provide information on the location of environmental features on site to make proposals as to how and to what standard the impacts on site can be remedied. requested to make written proposals 	

	<ul style="list-style-type: none"> To mitigate the potential impacts on their socio economic conditions to make proposals as to how the potential impacts on their infrastructure can be managed, avoided or remedied).
	Other, Specify: Not applicable

7. Description of the assessment process to be undertaken

ITEM	DESCRIPTION																									
Environmental attributes. Describe how the Environmental attributes associated with the development footprint will be determined.	<p>Environmental attributes associated with the proposed project will be determined through a site visit, consideration of the project description, site layout and specialist studies.</p> <p>The potential environmental attributes have been outlined in the BID that has been distributed to I&APs and commenting authorities. In addition to this, potential identified environmental attributes will be discussed at the planned meetings. Input on the environmental attributes will continue to be obtained from I&APs and commenting authorities during the environmental assessment process.</p>																									
Identification of impacts and risks. (Describe the process that will be used to identify impacts and risks.	<p>Potential environmental/cultural impacts associated with the proposed project will be determined through a site visit, consideration of the project description, the site layout and specialist studies.</p> <p>Potential environmental/cultural impacts identified to date have been outlined in the BID that was distributed to I&APs and commenting authorities. In addition to this, potential identified environmental/cultural impacts will be discussed at the planned meetings. Input on the environmental/cultural impacts will continue to be obtained from I&APs and commenting authorities during the environmental assessment process.</p>																									
Consideration of alternatives. Describe how alternatives, and in particular the alternatives to the proposed site layout and possible alternative methods or technology to be applied will be determined.	<p>The alternatives considered for the closure and rehabilitation optimisation project include:</p> <ul style="list-style-type: none"> Complete backfill; Partial backfilling; Concurrent backfill i.e in-pit dumping; and No backfilling. <p>The alternatives have been considered with input from specialists (where relevant). Specialist findings have indicated that concurrent backfill i.e in-pit dumping is the optimal option from an environmental, socio-economic, technical and commercial perspective. The detailed alternatives assessment will be provided in the BAR.</p>																									
Process to assess and rank impacts. Describe the process to be undertaken to identify, assess and rank the impacts and risks each individual activity.	<p>The proposed method for the assessment of environmental issues is set out in the table below. This assessment methodology enables the assessment of environmental issues including: cumulative impacts, the severity of impacts (including the nature of impacts and the degree to which impacts may cause irreplaceable loss of resources), the extent of the impacts, the duration and reversibility of impacts, the probability of the impact occurring, and the degree to which the impacts can be mitigated.</p> <p>Each potential impact will be assessed using the following criteria: <i>Note: Part A provides the definition for determining impact consequence (combining intensity, extent and duration). Impact consequence and significance are determined from Part B and C. The interpretation of the impact significance is given in Part D.</i></p> <table border="1"> <thead> <tr> <th colspan="3">PART A: DEFINITION AND CRITERIA*</th> </tr> <tr> <th colspan="2">Definition of SIGNIFICANCE</th> <th>Significance = consequence x probability</th> </tr> <tr> <th colspan="2">Definition of CONSEQUENCE</th> <th>Consequence is a function of severity, spatial extent and duration</th> </tr> </thead> <tbody> <tr> <td rowspan="6">Criteria for ranking of the SEVERITY of environmental impacts</td> <td>H</td> <td>Substantial deterioration (death, illness or injury). Recommended level will often be violated. Vigorous community action.</td> </tr> <tr> <td>M</td> <td>Moderate/ measurable deterioration (discomfort). Recommended level will occasionally be violated. Widespread complaints.</td> </tr> <tr> <td>L</td> <td>Minor deterioration (nuisance or minor deterioration). Change not measurable/ will remain in the current range. Recommended level will never be violated. Sporadic complaints.</td> </tr> <tr> <td>L+</td> <td>Minor improvement. Change not measurable/ will remain in the current range. Recommended level will never be violated. Sporadic complaints.</td> </tr> <tr> <td>M+</td> <td>Moderate improvement. Will be within or better than the recommended level. No observed reaction.</td> </tr> <tr> <td>H+</td> <td>Substantial improvement. Will be within or better than the recommended level. Favourable publicity.</td> </tr> <tr> <td>Criteria for ranking the</td> <td>L</td> <td>Quickly reversible. Less than the project life. Short term</td> </tr> </tbody> </table>	PART A: DEFINITION AND CRITERIA*			Definition of SIGNIFICANCE		Significance = consequence x probability	Definition of CONSEQUENCE		Consequence is a function of severity, spatial extent and duration	Criteria for ranking of the SEVERITY of environmental impacts	H	Substantial deterioration (death, illness or injury). Recommended level will often be violated. Vigorous community action.	M	Moderate/ measurable deterioration (discomfort). Recommended level will occasionally be violated. Widespread complaints.	L	Minor deterioration (nuisance or minor deterioration). Change not measurable/ will remain in the current range. Recommended level will never be violated. Sporadic complaints.	L+	Minor improvement. Change not measurable/ will remain in the current range. Recommended level will never be violated. Sporadic complaints.	M+	Moderate improvement. Will be within or better than the recommended level. No observed reaction.	H+	Substantial improvement. Will be within or better than the recommended level. Favourable publicity.	Criteria for ranking the	L	Quickly reversible. Less than the project life. Short term
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	DURATION of impacts		M	Reversible over time. Life of the project. Medium term		
			H	Permanent. Beyond closure. Long term.		
	Criteria for ranking the SPATIAL SCALE of impacts		L	Localised - Within the site boundary.		
			M	Fairly widespread – Beyond the site boundary. Local		
			H	Widespread – Far beyond site boundary. Regional/ national		
	PART B: DETERMINING CONSEQUENCE					
	SEVERITY = L					
	DURATION	Long term	H	Medium	Medium	Medium
		Medium term	M	Low	Low	Medium
		Short term	L	Low	Low	Medium
	SEVERITY = M					
	DURATION	Long term	H	Medium	High	High
		Medium term	M	Medium	Medium	High
		Short term	L	Low	Medium	Medium
	SEVERITY = H					
	DURATION	Long term	H	High	High	High
		Medium term	M	Medium	Medium	High
		Short term	L	Medium	Medium	High
				L	M	H
				Localised Within site boundary Site	Fairly widespread Beyond site boundary Local	Widespread Far beyond site boundary Regional/ national
	SPATIAL SCALE					
PART C: DETERMINING SIGNIFICANCE						
PROBABILITY (of exposure to impacts)	Definite/ Continuous	H	Medium	Medium	High	
	Possible/ frequent	M	Medium	Medium	High	
	Unlikely/ seldom	L	Low	Low	Medium	
			L	M	H	
CONSEQUENCE						
PART D: INTERPRETATION OF SIGNIFICANCE						
Significance		Decision guideline				
High		It would influence the decision regardless of any possible mitigation.				
Medium		It should have an influence on the decision unless it is mitigated.				
Low		It will not have an influence on the decision.				
Contribution of specialist reports Describe how specialist reports, if required, will be taken into consideration and inform the impact identification, assessment and remediation process.	<p>The following list of specialist studies will be/have been undertaken for the proposed project:</p> <ul style="list-style-type: none"> • Soils and Land Capability Study - Terra Africa • Biodiversity Study (Terrestrial and aquatic) – Scientific Aquatic Services CC • Surface Water Study (Pit lake) - SLR • Groundwater Study - SLR • Air Quality Study – Airshed Planning Professionals (Pty) Ltd • Noise Study – Airshed Planning Professionals (Pty) Ltd • Visual Study – Graham A Young; • Economic Study - Mercury • Financial Provision - SLR <p>The results of the specialist reports will be used to understand the impacts of the activities. The relevant information from the specialist studies will be summarised in the Basic Assessment Report and will be used to develop the environmental management programme.</p> <p>It is important to note heritage and palaeontological studies have been undertaken for Tshipi as part of the original EMPr and have updated with previous amendments. It follows that reference to these studies will be made as part of the proposed project.</p>					
Determination of impact management	The project team (including the relevant specialists) will determine the impact management objectives with consideration to relevant Standards and guidelines.					

ITEM	DESCRIPTION
objectives and outcomes. Describe how impact management objectives will be determined for each activity to address the potential impact at source, and how the impact management outcomes will be aligned with standards.	

8. OTHER AUTHORISATIONS REQUIRED

LEGISLATION	Mark with an X where applicable			
	AUTHORISATION REQUIRED		APPLICATION SUBMITTED	
	YES	NO	YES	NO
SEMA's		X		
National Environmental Management: Air Quality Act		X		
National Environmental Management: Biodiversity Act		X		
National Environmental Management: Integrated Coastal Management Act		X		
National Environmental Management: Protected Areas Act		X		
National Environmental Management: Waste Act		X		
National legislation				
Mineral Petroleum Development Resources Act	X		X	
National Water Act		X		
National Heritage Resources Act		X		
Others: Please specify Mine Health and Safety Act, Explosives Act, National Roads Act, National Railway Safety Regulator Act.		X		

Please provide proof of submission of applications in **Appendix 5**. [Not applicable](#)

In the event that an authorization in terms of the National Environmental Waste Management Act is required for any of the activities applied for please state so clearly in order for such an authorisation to be considered as part of this application. [Not applicable](#).

9. DRAFT EMPr

For consultation purposes, provide a high level approach to the management of the potential environmental impacts of each of the activities applied for.

A high level approach to the management of potential environmental/cultural impacts is provided in the table below. It is important to note that management measures provided in the table below will be refined during the Basic Assessment Process.

ACTIVITIES (E.g. For prospecting - drill site, site camp, ablation facility, accommodation, equipment storage, sample storage, site office, access route etc...etc...etc 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.)	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)	TYPICAL MITIGATION MEASURES (Eg, storm water control, dust control, noise control, access control, rehabilitation etc....., etc.....)*	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)
Concurrent backfilling i.e. in-pit dumping	Closure	Approximately 229 ha	<ul style="list-style-type: none"> • Ensure in pit dumping is undertaken in accordance to final closure plans to ensure that future resources are not sterilised • Mitigation measures that allow for the safe use of the site by third parties and animals • Implement mitigation measure that focus on optimal use of soil resources to enhance alternative land uses (eg. agriculture and aquaponics) • Creation of a suitable habitat through design that focusses on creating ecological shallows, gravel beds, floating wetlands; • Creation of suitable terrestrial biodiversity habitats through design that focusses on re-vegetation of terrestrial areas and shaping of terrestrial areas to allow for safe access of fauna; • Implement measures to improve and manage water quality of the pit lake (eg. reeds beds and treatment) • Groundwater monitoring during the closure phase; • Implementation of procurement programme and skills development programme • Closure planning to incorporate measures to achieve sustainable end use 	Not applicable
Sloping and rehabilitation of waste rock dumps remaining on surface	Closure	<ul style="list-style-type: none"> • Northern Waste Rock Dump (89 ha) • Mamatwan portion 8 Waste Rock Dump (128 ha) • Western and Eastern Waste Rock Dump (144 ha) 		
Access to readily available future water supply (pit lake)	Closure	Approximately 65 ha		
Establishment of an access road to the pit lake	Closure	Road is estimated to be 30 m wide. The extent will be confirmed in the BAR, however this road forms part of the overall project area.		
Optimisation of the surface landforms and partially backfilled pit from a biodiversity, rehabilitation, land use and pollution prevention perspective	Closure	Approximately 1446 ha		

10. CLOSURE PLAN

In the space provided under each heading below, please provide a high level description of the plan for closure and the information that will be provided in the draft EMPr accompanying draft basic assessment report or environmental impact reports going forward.	
Baseline environment Describe how the baseline environment will be determined with the input of interested and affected parties and due cognizance of the current land uses and or existing biophysical environment	The baseline environment will be characterised by site observations and relevant specialist studies. I&APs had an opportunity to provide input on the baseline environment through the review and comment on the BID. I&APs will have a further opportunity to provide input on the baseline environment through the review of the Basic Assessment Report.
Closure objectives Describe the closure objectives and the extent to which they will be aligned to the baseline environment	The proposed project focusses on alternative closure and rehabilitation options and aims to optimise closure objectives and to incorporate new activities that are currently not catered for in the approved EMPr. The preliminary closure objectives also include the following: <ul style="list-style-type: none"> • To create a functioning ecosystem that supports a sustainable end land use; • To ensure a suitable pit lake quality; • Environmental damage is minimised to the extent that it is acceptable to all parties involved; • Mine closure is achieved efficiently, cost effectively and in compliance with the law; and • The social impacts resulting from mine closure are managed in such a way that negative socio-economic impacts are minimised. <p>It is important to note that as part of the BAR process the closure objectives will be refined with input from both I&APs and commenting authorities.</p>
Rehabilitation Plan Describe the scale and aerial extent of the prospecting or mining listed activities to be authorised, including the anticipated prospecting or mining area at the time of closure, and confirm that a site rehabilitation plan drawn to a suitable scale will be provided in the draft EMPr to be submitted together with the draft EIR or Basic Assessment Report as the case may be.	The rehabilitation plan for the proposed project will form part of the overall rehabilitation plan for MMT and will be included in the Basic Assessment Report.
Rehabilitation Cost Describe how the rehabilitation cost will be determined and provide a preliminary estimate thereof	At this stage of the project a preliminary rehabilitation cost will not be able to be provided. As part of the Basic Assessment process the financial provision for the project will be determined in accordance with the Regulations pertaining to the Financial Provision for Prospecting, Exploration, Mining or Production operations. <p>The detailed specialist report compiled to determine the rehabilitation cost will be included as part of the BAR.</p>
Decommissioning Considering that rehabilitation must take place upon cessation of an activity, describe when each of activities applied for will be rehabilitated in terms of either the cessation of the individual activity or the cessation of the overall prospecting or mining activity.	This project is limited to the closure phase only. All mining activities will cease at the end of operation as part of the current approved mine EMP.



Signature of the applicant / Signature on behalf of the applicant:

Tshipi é Ntle Manganese Mining (Pty) Ltd

Name of company (if applicable):

19/06/2019

Date:

APPENDIX 1

CURRICULA VITAE, PROFESSIONAL AFFILIATION AND EAP DECLARATION

DECLARATION

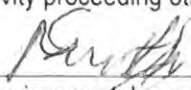
I, Natasha Smyth, declare that –

General declaration:

- I act as the independent environmental practitioner in this application
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting environmental impact assessments, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I will take into account, to the extent possible, the matters listed in regulation 8 of the Regulations when preparing the application and any report relating to the application;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- I will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report;
- I will keep a register of all interested and affected parties that participated in a public participation process; and
- I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not
- all the particulars furnished by me in this form are true and correct;
- will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations; and
- I realise that a false declaration is an offence in terms of regulation 71 of the Regulations and is punishable in terms of section 24F of the Act.

Disclosure of Vested Interest (delete whichever is not applicable)

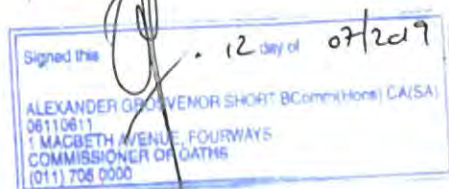
- I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Regulations;


Signature of the environmental assessment practitioner:

SLR Consulting (Africa) (Pty) Ltd

Name of company:

Date:



CURRICULUM VITAE



BRANDON STOBART

REGIONAL MANAGER

Environmental & Social Assessment, Africa

QUALIFICATIONS

MBA	2006	Masters in Business Administration
EARA	2001	Environmental auditor qualification
LLB	1997	Law
BA	1994	Economics and Environmental Science

EXPERTISE

- Environmental & Social Assessment
- Environmental & Social Management and Compliance
- Environmental & Social Due Diligence
- Project and Stakeholder Management

Brandon has 20 years of experience working on both green and brown field capital investment and operational projects in a range of sectors including: industry, infrastructure, power, oil & gas and mining. A key component of Brandon's experience is working with project teams to formulate and implement environmental and social strategies that maximise resource efficiency and achieve both social licence to operate and regulatory compliance. Brandon has project managed large multi-disciplinary teams across multiple geographies, with varying legislative frameworks and currencies. In the African context, Brandon has also worked extensively with the International Finance Corporation and Equator Principle Performance Standards.

PROJECT SAMPLE

	Industry Sector
ABInBev – green field glass bottle manufacturing plant (2017 -2018)	ABInBev is developing a glass bottle manufacturing furnace and associated plant to gain additional supply chain control. SLR supported the client team with up front site selection, analysis of pre investment fatal flaws, environmental & social impact assessment, environmental permitting, preparation for IFC funding review. The project is in Gauteng, RSA. Brandon's role was a combination of project management and technical review.

<p>Coca Cola & ABInBev – green field corn syrup manufacturing plant (2017-2018)</p>	<p>Coca Cola and ABInBev are jointly developing a corn processing and syrup manufacturing plant to gain additional supply chain control. SLR supported the client team with up front site selection, analysis of pre investment fatal flaws, environmental & social impact assessment, environmental permitting, preparation for IFC funding review. The project is in Gauteng, RSA. Brandon’s role was a combination of project management and technical review.</p>
<p>Siyanda Ferrochrome – green field ferrochrome smelter complex (2015-2017)</p>	<p>Siyanda is developing a ferrochrome smelter complex to primarily process chrome resources from neighbouring platinum mine UG2 tailings waste. SLR supported the client team with up front site selection, environmental & social impact assessment, environmental permitting, preparation for IFC funding review. The project is in Limpopo, RSA. Brandon’s role was a combination of project management and technical review.</p>
<p>Scaw Metals – brown field co-generation power project at the Germiston metal processing plant (2013)</p>	<p>Scaw promoted this project to capture and reuse energy emissions in the interests of energy and resource efficiency. SLR provided services for environmental & social impact assessment and environmental permitting. The project is in Gauteng, RSA. Brandon’s role was technical review.</p>
<p>Lafarge – brown field alternative fuels processing project at the Lichtenburg cement manufacturing plant (2011)</p>	<p>Lafarge invested in this process in the interests of evaluating the feasibility of using alternative fuels (including used rubber tyres) in its cement kilns. SLR provided services for environmental & social impact assessment and environmental permitting. The project is in North West, RSA. Brandon’s role was technical review and public meeting/conflict facilitation.</p>
<p>Glencore (Xstrata) – Green fields project Lion Smelter (2005)</p>	<p>SLR provided services for the preparation of an integrated waste and water management plan in support of an integrated waste and water licence. The project is in Limpopo, RSA. Brandon’s role was technical review.</p>
<p>Glencore (Xstrata) – brown fields pelletizing plant at the Wonderkop smelter complex (2003)</p>	<p>Glencore implemented this project to enable the more efficient smelting and processing of chrome fines. SLR provided services for environmental & social impact assessment and environmental permitting. The project is in North West, RSA. Brandon’s role was technical review.</p>
<p>Glencore (Xstrata - Merafe) – green fields SA Chrome Boshhoek ferrochrome smelter complex (2001)</p>	<p>The project was developed on the western limb of the Bushveld complex to enable increased capacity to process chrome ore and produce ferrochrome. SLR provided services for environmental & social impact assessment and environmental permitting. The project is in North West, RSA. Brandon’s role was project manager and stakeholder manager.</p>
<p>Glencore (Xstrata) – brown fields furnace 5 and 6 expansion at the Wonderkop smelter complex (2000)</p>	<p>The project was developed on the western limb of the Bushveld complex to enable increased capacity to process chrome ore and produce ferrochrome. SLR provided services for environmental & social impact assessment and environmental permitting. The project is in North West, RSA. Brandon’s role was project manager and stakeholder manager.</p>

	Infrastructure sector
Sedibeng Water Authority & Chamber of Mines – Independent Peer Review of the Vaal Gamagarra Water Supply Scheme (2017-2018)	In the context of potentially excessive future water charges, a consortium of twelve manganese and iron ore mines approached the Chamber of Mines and Sedibeng water to appoint SLR for an independent Peer Review of the 400km scheme design and related cost model. SLR reviewed all aspects of the scheme including demand, supply, pipelines, pump stations and cost model inputs. The project is in the Northern Cape, RSA. Brandon's role was a combination of project manager and report review.
Sedibeng Water Authority & Chamber of Mines – detailed water demand survey for the Vaal Gamagarra Water Supply Scheme (2017- 2018)	On the back of the aforementioned independent peer review, SLR was commissioned to conduct a detailed water demand survey that could be used as the basis for a redesign of the 400km water supply scheme. The project is in the Northern Cape, RSA. Brandon's role was a combination of project manager and report review.
EnviroServ – Chloorkop Waste Recovery Site (2014)	The Chloorkop facility is used for storage, beneficiation, recycling and recovery of various materials and waste streams from the smelting and metallurgical industries. SLR was appointed to conduct an environmental and social assessment in support of environmental permits. The project is in Gauteng, RSA. Brandon's role was technical review.
ENS & Metal Recyclers Association – Development of Industry Standard for Waste Recycling and associated Exemption from Permitting (2013)	SLR was appointed to review the waste management and recycling operations of a sample of members from the RSA Metal Recyclers Association and to develop both a set of industry standards for environmental management and an associated motivation for exemption from environmental permitting. The project is in Gauteng, RSA. Brandon's role was technical review.
NamWater – Husab water supply pipelines (2011)	Temporary 0.3m and permanent 0.6m diameter water supply pipelines were proposed by NamWater to provide water for the construction and operational phases of the Husab Uranium Mine respectively. SLR was appointed to provide an environmental and social impact assessment in support of environmental permits. The project is in Erongo, Namibia. Brandon's role was project manager.
Swakop Uranium – Husab access roads (2011)	Temporary and permanent regional access roads were required for the construction and operational phases of the Husab Uranium Mine. SLR was appointed to provide an environmental and social impact assessment in support of environmental permits. The project is in Erongo, Namibia. Brandon's role was project manager.
Hernic Ferrochrome – railway line (2007)	Hernic Ferrochrome required connection from its smelter site to the regional railway line in Brits. SLR was appointed to provide an environmental and social impact assessment in support of environmental permits. The project is in North West, RSA. Brandon's role was project manager.

<p>Botswana Water Utility Corporation – ISO14001 environmental management system (2002)</p>	<p>SLR was appointed to conduct an ISO14001 environmental management system compliance audit for the national utility water supply infrastructure and activities. SLR was also appointed to provide a follow on implementation plan. The project is in Botswana. Brandon’s role was project manager.</p>
<p>Power Sector</p>	
<p>Eskom – Siyanda power transmission line (2017)</p>	<p>Siyanda is developing a ferrochrome smelter complex. SLR was appointed to conduct the environmental & social impact assessment, and related environmental permitting for the 275kV Eskom power supply line. The project is in Limpopo, RSA. Brandon’s role was a combination of project management and technical review.</p>
<p>Episolar - Siginik solar power project (2015)</p>	<p>SLR was appointed to conduct a pre-funding environmental and social due diligence as part of a funding scheme by Standard Bank for the 50 megawatt green fields solar power project. The project is in Bole, Ghana. Brandon’s role was technical review.</p>
<p>Solar Reserve – Kalkaar thermal solar power plant (2014)</p>	<p>SLR was appointed to conduct the environmental & social impact assessment, and related environmental permitting for the 200 megawatt thermal solar power project. The project is in Northern Cape, RSA. Brandon’s role was technical review.</p>
<p>Natura Energy – Arandis combined heavy fuel oil and solar power project (2012)</p>	<p>SLR was appointed to conduct the environmental & social impact assessment, and related environmental permitting for the 120 megawatt combined heavy fuel oil and solar power project. The project is in Arandis (Erongo), Namibia. Brandon’s role was technical review.</p>
<p>NamPower – Husab power transmission lines (2011)</p>	<p>Temporary 66kV and permanent 220kV power supply lines were proposed by NamPower to provide power for the construction and operational phases of the Husab Uranium Mine respectively. SLR was appointed to provide an environmental and social impact assessment in support of environmental permits. The project is in Erongo, Namibia. Brandon’s role was project manager.</p>
<p>Eskom – UMK power transmission line (2008)</p>	<p>SLR was appointed to conduct the environmental & social impact assessment, and related environmental permitting for the 132kV Eskom power supply line that is the primary power source for the UMK manganese mine. The project is in Northern Cape, RSA. Brandon’s role was a combination of project management and technical review.</p>
<p>Eskom – Hendrina Power Station ISO14001 compliance audit (2003)</p>	<p>SLR was appointed to conduct an ISO14001 environmental system compliance audit. The project is in Mpumalanga, RSA. Brandon’s role was project manager.</p>
<p>Oil and Gas Sector</p>	
<p>Shell – offshore deep water exploration (2017)</p>	<p>SLR was appointed to conduct the environmental & social impact assessment, and related environmental permitting, for the deep water offshore exploration project. The project is in Namibia. Brandon’s role was proposal and project director.</p>

<p>Tosaco Energy – onshore exploration right screening (2017)</p>	<p>SLR was appointed to conduct the environmental & social screening to assist with environmental and social optimisation for onshore oil and gas exploration right applications. The project is in RSA. Brandon’s role was proposal and project director.</p>
<p>Afro Energy & Kinetico - onshore oil and gas exploration rights (2017)</p>	<p>SLR was appointed to conduct the environmental & social impact assessment, and related environmental permitting for multiple onshore oil and gas exploration right applications. The project is in RSA. Brandon’s role was stakeholder management advisor.</p>
<p>Rhino Oil & Gas – onshore oil and gas exploration rights (2016)</p>	<p>SLR was appointed to conduct the environmental & social impact assessment, and related environmental permitting for multiple onshore oil and gas exploration right applications. The project is in RSA. Brandon’s role was project director and stakeholder management advisor.</p>
<p>Mining Sector - Chrome</p>	
<p>Imalivest – transactional due diligence for chrome mine assets (2017)</p>	<p>SLR was appointed to undertake an environmental, social, waste, water and closure transactional due diligence of Herculite’s chrome mine and ferrochrome smelter assets on behalf of Imalivest. The project is in RSA. Brandon’s role was project manager.</p>
<p>Herculite Ferrochrome – Bokfontein chrome mine and smelter complex development (2013-2015)</p>	<p>This is a green field open pit, underground mine, ore processing and smelter project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. As a follow on service SLR provided an amendment assessment and plan to remove the smelter aspect. The project is in North West, RSA. Brandon’s role was technical review.</p>
<p>Tharisa Minerals – Chrome and Platinum Group Metals Mine development (2008)</p>	<p>This is a green field open pit and underground mine project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in North West, RSA. Brandon’s role was project manager.</p>
<p>International Finance Corporation (IFC) & Mitsubishi – annual review of Herculite Ferrochrome mine and smelter operations (2005, 2006, 2007)</p>	<p>As part of IFC funding conditions, SLR was appointed to undertake an Equator Principles/ IFC performance Standards environmental, social, waste, water and closure compliance review of all Herculite chrome mine and ferrochrome smelter assets. The project is in RSA. Brandon’s role was project manager.</p>
<p>BHP Billiton - sale of all RSA based Samancor Chrome Mine assets (2004)</p>	<p>SLR was appointed to undertake an environmental, social, waste, water and closure transactional due diligence of Eastern and Western limb chrome mine and ferrochrome smelter assets on behalf of one of the bidders. The project is in RSA. Brandon’s role was project manager.</p>

<p>International Ferro Metals (previously Transvaal Ferrochrome) – mine and smelter development (2003)</p>	<p>This is a green field underground mine and smelter project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in North West, RSA. Brandon’s role was project manager.</p>
<p>Mining Sector - Coal</p>	
<p>Anglo American Coal – Alexander Coal Mine development (2017-2018)</p>	<p>This is a green field underground mine project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Mpumalanga, RSA. Brandon’s role was technical review.</p>
<p>Thollie Logistics – Commissiekraal Coal Mine (2015-2018)</p>	<p>This is a green field underground mine project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Mpumalanga, RSA. Brandon’s role was technical review.</p>
<p>HGP Consulting – transactional due diligence for New Clydesdale Coal Mine (2013)</p>	<p>SLR was appointed to undertake an environmental, social, waste, water and closure transactional due diligence of two coal mining assets on behalf of HGP. The project is in Mpumalanga, RSA. Brandon’s role was project manager.</p>
<p>Leeuw Mining and Exploration – underground mine near Utrecht (2011)</p>	<p>This is a combined green and brown field underground mine project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Mpumalanga, RSA. Brandon’s role was technical review.</p>
<p>Keaton Energy – Vangatfontein Coal Mine (2008-2011)</p>	<p>This is a green field open pit mine and coal beneficiation project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. As a follow on to this pre permitting phase, SLR also provided two years of management and compliance support during mine development and operation. The project is in Mpumalanga, RSA. Brandon’s role was project manager.</p>
<p>Snowden Mining Industry Consultants – transactional due diligence work for Zululand Anthrocite Colliery and Brockwell Coal Colliery (2004)</p>	<p>SLR was appointed to undertake an environmental, social, waste, water and closure transactional due diligence of two coal mining assets on behalf of Snowden. The project is in KZN, RSA. Brandon’s role was project manager.</p>

<p>Consolidated Mining Investments - Kitwe tailings retreatment project (2016 to 2018)</p>	<p>Mining Sector – Copper & Cobalt</p> <p>This is a brown field tailings reprocessing project that will enable recovery of copper and cobalt from existing tailings dams and the rehabilitation of multiple sites within the urban Kitwe area. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Kitwe, northern Zambia. Brandon’s role was technical review and project director.</p>
<p>Metorex & Standard Bank– Ruashi Mine compliance audits (annually from 2010 – 2017)</p>	<p>As part of bank funding conditions, SLR was appointed to undertake annual Equator Principles/ IFC performance Standards environmental, social, waste, water and closure compliance reviews of Ruashi Mine. The project is in southern DRC. Brandon’s role was project manager.</p>
<p>First Quantum & Standard Bank – Kansanshi Mine compliance audit (2014)</p>	<p>As part of bank funding conditions, SLR was appointed to undertake an Equator Principles/ IFC performance Standards environmental, social, waste, water and closure compliance review of Kansanshi Mine. The project is in northern Zambia. Brandon’s role was project manager.</p>
<p>Mining Sector - Diamonds</p>	
<p>BHP Billiton & Petra Diamonds – Alto Cuilo Diamond exploration project (2007)</p>	<p>SLR provided services for the environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Angola. Brandon’s role was technical review.</p>
<p>De Beers – Oaks Diamond Mine ISO14001 compliance and risk review (2004)</p>	<p>SLR was appointed to conduct an ISO14001 environmental and legal compliance and risk review. The project is in RSA. Brandon’s role was project manager.</p>
<p>Debswana – ISO14001 compliance audits for Orapa Mine (2002)</p>	<p>SLR was appointed to conduct an ISO14001 environmental system compliance audit. The project is in Botswana. Brandon’s role was project manager.</p>
<p>Mining Sector - Gold</p>	
<p>Taung Gold – Evander 6 Shaft development (2015 - 2018)</p>	<p>This is a green and brown field underground mine and beneficiation project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Mpumalanga, RSA. Brandon’s role was technical review.</p>
<p>Xstract Resources / Auroch – Manica Gold Mine development (2015 -2018)</p>	<p>This is a green and brown field mine and beneficiation project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Manica, Mocambique. Brandon’s role was technical review.</p>

<p>Taung Gold – Jeanette Gold Mine development (2016)</p>	<p>This is a green and brown field underground mine and beneficiation project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Mpumalanga, RSA. Brandon’s role was technical review.</p>
<p>LGL Equigold – Hire mine development (2010)</p>	<p>This is a green field open pit mine and beneficiation project. SLR provided services for the environmental impact assessment, management plan, and environmental permitting. The project is in Hire, Ivory Coast. Brandon’s role was a combination of project management and technical review.</p>
<p>Barrick Gold – South Deep Gold Mine tailings expansion (2007)</p>	<p>This is a brown field tailings expansion project. SLR provided services for the site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Gauteng, RSA. Brandon’s role was technical review.</p>
<p>Anglo Gold Ashanti – ERGO rubber waste management project (2002)</p>	<p>This is a brown field waste (rubber linings of tailings delivery pipelines) management and incineration project. SLR provided services for environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Gauteng, RSA. Brandon’s role was project manager.</p>
<p>Mining Sector - Manganese</p>	
<p>Tshipi e Ntle / Ntsimbintle - Tshipi Borwa mine development, expansion and closure planning (2009 – 2018)</p>	<p>SLR has worked on the initial green fields mine development project and multiple subsequent expansion projects including a strategic project to redefine the long term closure plan. In all of these projects SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The mine is in Northern Cape, RSA. Brandon’s role was a combination of project manager and technical review.</p>
<p>Imalivest – Mokala Mine development (2016 -2018)</p>	<p>This is a green field open pit project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Northern Cape, RSA. Brandon’s role was technical review.</p>
<p>Asia Minerals / Kudumane Manganese – Kudumane mine development (2014)</p>	<p>This is a green field open pit project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Northern Cape, RSA. Brandon’s role was technical review.</p>
<p>BHP Billiton, Samancor Manganese – environmental and social strategy development for Hotazel area (2008)</p>	<p>SLR was appointed to assist BHP Billiton with an environmental and social strategy for its future expansion plans in the greater Hotazel area. The project is in Northern Cape, RSA. Brandon’s role was project manager.</p>

<p>United Manganese of the Kalahari – UMK mine development (2007)</p>	<p>This is a green field open pit project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Northern Cape, RSA. Brandon’s role was project manager.</p>
<p>Mining Sector - Platinum</p>	
<p>Impala Platinum - Rustenburg Platinum mine and Marula Platinum multiple expansion projects (2003 to 2018)</p>	<p>SLR has worked on multiple expansion projects for Impala including: three open pit mine expansion projects, development of four new vertical shafts, expansion of the smelter complex, development of a new tailings dam, and development of new waste rock dump capacity. In all of these expansion projects SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The mines are in North West and Limpopo, RSA. Brandon’s role was project manager for most projects until 2011 and thereafter he has been in a technical review role.</p>
<p>Sedibelo / Platmin / PPM / Boynton -development of four adjacent mines (2007 – 2018)</p>	<p>The four (PPM, Sedibelo, Magazynskraal, and Kruidfontein) adjacent green field mines comprise a combination of open pit and underground mining with processing plants and associated facilities. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The mines are in North West, RSA. Brandon’s role was project manager for the 2007 mine development and technical review for the subsequent mine developments.</p>
<p>Glencore / Eland Platinum – development of Eland Platinum Mine (2006)</p>	<p>This is a green field open pit and underground mine project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in North West, RSA. Brandon’s role was technical review.</p>
<p>Anglo Platinum /RSG Global – transactional due diligence for Lebowa Platinum Mine (2006)</p>	<p>SLR was appointed to undertake an environmental, social, waste, water and closure transactional due diligence of the platinum mine. The project is in Limpopo, RSA. Brandon’s role was project manager.</p>
<p>Barplats Mines Limited – Crocodile River mine multiple expansion projects (2003 -2005)</p>	<p>SLR has worked on multiple expansion and exploration right projects for Barplats covering the following sections: Krokodildrift, Zandfontein and Maroelabult. In all of these projects SLR provided services for the environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The mine is in North West, RSA. Brandon’s role was a combination of project manager and technical review.</p>
<p>Lonmin Platinum – Eastern Platinum Mine ISO14001 system implementation (2003)</p>	<p>SLR was appointed to implement an ISO14001 environmental system for the underground, opencast, mineral processing and associated activities. The project is in North West, RSA. Brandon’s role was project manager.</p>

	Mining Sector – Soda Ash
Anglo American Botswana Ash – ISO14001 system implementation (2002)	SLR was appointed to implement an ISO14001 environmental system for its brine extraction and soda ash production operations in Sua Pan. The project is in Botswana. Brandon’s role was project manager.
	Mining Sector - Uranium
A Cap Resources – Letlhakane Uranium Mine development(2014)	This is a green field open pit uranium mining project. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, and environmental permitting. The project is in Botswana. Brandon’s role was technical review.
Swakop Uranium – Husab Uranium Mine bank funding (2014)	As a follow on services to the environmental and social assessment and permitting (see below), SLR was appointed to manage the Equator Principles / IFC Performance Standards preparation for pre financing bank due diligence. The project is in Namibia. Brandon’s role was project manager.
Extract Resources/Swakop Uranium - Husab Uranium Mine development (2010 – 2013)	This is a green field open pit uranium mining project located within the Namib Naukluft National Park. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, environmental permitting. The project is in Namibia. Brandon’s role was project manager and public participation facilitator.
Paladin Energy – Langer Heinrich Uranium Mine stage three expansion (2009)	This project involved open pit mining, heap leach pad, processing plant, tailings and support infrastructure expansion. SLR provided services for the feasibility study, site selection, environmental & social (E&S) impact assessment, E&S management plan, environmental permitting. The project is in Namibia. Brandon’s role was project manager and public participation facilitator.
Mantra Resources – Prefeasibility study for Mkuju River Mine (2008)	As part of a pre-feasibility technical study SLR was appointed to provide input into site selection and assess the environmental and social risk associated with developing this green fields open pit mine on the perimeter of the Selous Game Reserve. The project is in Tanzania. Brandon’s role was project manager
MEMBERSHIPS	
EAPAN	Environmental Assessment Professionals of Namibia (2012 to present)
EAPSA	Environmental Assessment Practitioners of South Africa (2005 to present)
Attorney	Admitted as an attorney of the High Court of South Africa (2000 to present)
PUBLICATIONS	
	Evaluation of sustainable development strategies in the mining sector. A research report submitted to the faculty of Commerce, Law and Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Business Administration. 2006



The Interim Certification Board
For
Environmental Assessment Practitioners
of
South Africa

Brandon Stobart

was certified as an

**ENVIRONMENTAL ASSESSMENT
PRACTITIONER**

on this 22nd day of August 2005

A handwritten signature in blue ink, appearing to read 'A. P. Raman', written over a dotted line.

Chairperson

A handwritten signature in blue ink, appearing to read 'J. Stobart', written over a dotted line.

Secretary

Registration No: 0071/05

CURRICULUM VITAE



NATASHA SMYTH

ENVIRONMENTAL ASSESSMENT PRACTITIONER

EMPA, South Africa

QUALIFICATIONS

BSc Hons 2008

Geography and Environmental Management

BSc 2007

Environmental and Biological Sciences

EXPERTISE

- Management and facilitation of permitting and licensing processes
- Management of stakeholder engagement processes
- Overall Project Management

Natasha is an environmental practitioner with SLR's South Africa office and is responsible for various environmental assessment projects. Natasha has ten years of experience within the Minerals sector, both as a project manager and assistant to various projects in South Africa and Africa.

Natasha has managed and assisted in a wide range of Environmental Impact Assessment projects for major and small scale minerals developments throughout South Africa as well as in Namibia for many of the major operators within the minerals industry.

Since 2009 Natasha has been involved in over 40 projects of which she has project managed 8 major and numerous small scale Environmental Impact Assessments for minerals extraction operations

PROJECTS

Key aspects of Natasha's recent project experience are summarised below.

Minimum Air Quality Emissions Standard Postponement Application for Anglo American Platinum's Polokwane (Limpopo Province), Waterval (North West Province) and Mortimer Smelter (Limpopo Province) operations (2018 to 2019)

Project Manager. Management of Stakeholder Engagement Process as part of an Air Quality Minimum Emissions Standards Postponement Application Process for the Waterval, Polokwane and Mortimer Smelter Complexes.

Minimum Air Quality Emissions Standard Postponement Application for the Zondereinde Northam Platinum Mine in the Limpopo Province in the Limpopo Province (2018 to 2019)

Project Manager. Management of Stakeholder Engagement Process as part of an Air Quality Minimum Emissions Standards Postponement Application Process for the Zondereinde Smelter Complex.

Integrated Water Use Licence Application for the Lehating manganese mine in the Northern Cape Province (2018 - 2019)	Project Manager. Compilation of the Integrated Water and Waste Management Plan, Water Use Licence Application forms and the management of specialists in support of the Lehating Integrated Water Use Licence Application.
Integrated Water Use Licence Application for the new Khwara manganese mine in the Northern Cape Province (2018 - 2019)	Project Manager. Compilation of the Integrated Water and Waste Management Plan, Water Use Licence Application forms, the management of specialists and authority liaison in support of the Khwara Integrated Water Use Licence Application.
Monthly environmental support for the Tshipi Borwa Mine (2018 – 2019)	Project Manager. Off-site environmental support work.
Financial Provision for Infrastructure Changes at the Zondereinde Northam Platinum Mine in the Limpopo Province (2018)	Project Manager. Compilation of the financial provision report for infrastructure changes at the Zondereinde Smelter Complex as part of a basic assessment process for changes to infrastructure at the smelter.
EMP commitments consolidation of the Tshipi and Mamatwan Mine for the mining of the barrier pillar in the Northern Cape Province (2018)	Project Manager. Compilation of a barrier pillar mining commitments report to outline the collective environmental management programme, integrated water use licence and environmental authorisation commitments for both Tshipi and South32 specifically for the mining of the barrier pillar.
ESIA for the retreatment of copper tailings dams in the town of Kitwe in Zambia (2017 - 2018)	Project Manager. Compilation of scoping report and terms of reference. Compilation of the environmental and social impact assessment report to meet IFC requirements. Management of multi-disciplinary specialist studies. Co-ordination of specialist teams within Zambia and South Africa. Management of stakeholder engagement process.
Environmental compliance audit for the Sishen Dingelton resettlement site in the Northern Cape Province (2017)	Project Manager. Assess compliance with the conditions outlined in the environmental authorisation and the approved environmental management programme.
Environmental compliance audit for the Sishen Dingelton decommissioning site in the Northern Cape Province (2017)	Project Manager. Assess compliance with the conditions outlined in the environmental authorisation and the approved environmental management programme.
Atmospheric Emissions Compliance Audit for the Zondereinde Northam Platinum Mine in the Limpopo Province (2017)	Project Manager. Assess compliance with the conditions of the atmospheric emissions licence for the Zondereinde Mine and report compilation.
Environmental compliance audit for the Northam Platinum Mine in the Limpopo Province (2017)	Project Manager. Undertake an environmental compliance audit of the Zondereinde Mine in terms of applicable legislation and report compilation.
Independent Peer Review of the Vaal Gamagara Water Supply Scheme in the Northern Cape Province (2017)	Project co-ordinate. Management of specialists and review of environmental permitting aspects and assistance with report compilation.

<p>Due diligence for a smelter complex and associated mine located in the North West Province (2016- 2017)</p>	<p>Project Manager. Team co-ordination and compilation of due diligence report</p>
<p>EIA and EMP for the development of the new Khwara underground mine in the Northern Cape Province (2016-2017)</p>	<p>Project Manager. Compilation of scoping and environmental impact assessment and environmental management programme reports. Management of specialists and stakeholder engagement process and compilation of the financial provision report.</p>
<p>Environmental assessment process to cater for changes to the approved infrastructure layout at the Tshipi Borwa Mine in the Northern Cape Province (2012-2017)</p>	<p>Project Manager. Compilation of scoping and environmental impact assessment and environmental management programme reports. The management of the stakeholder engagement process and specialists.</p>
<p>Preliminary close out audit for the Sishen Mine Dingleton Resettlement site near Kathu in the Northern Cape Province (2016)</p>	<p>Project Manager. Assess compliance with the conditions outlined in the environmental authorisation and the approved environmental management programme.</p>
<p>Update of the basic assessment report for the establishment of a diesel generator as part of dewatering infrastructure at the Evander No. 6 Shaft complex in the Mpumalanga Province (2016)</p>	<p>Project Manager. Update the basic assessment report to comply with the DMR report template</p>
<p>Environmental assessment process and air emissions license process for the establishment of the new Jeanette Mine in the Free State Province (2015-2016)</p>	<p>Project Manager. Compilation of scoping and environmental impact assessment and environmental management programme reports. Compilation of the technical supporting information required for a waste management license application and an air emissions license application. The management of the stakeholder engagement process and specialists.</p>
<p>Water Use License Compliance Audit for the UMK Mine in the Northern Cape Province (2015 - 2016)</p>	<p>Project Manager. Assess compliance with the commitments included in the water use licenses issued and make recommendations for rectifying non-compliances and partial compliances identified during the audit.</p>
<p>Basic Assessment for undertaking prospecting related activities for Impala Platinum Mine in the North West Province (2015 -2016)</p>	<p>Project Manager. Compilation of basic assessment report, management of specialists, management of stakeholder engagement process.</p>
<p>Environmental compliance audit for the UMK Mine in the Northern Cape Province (2015 -2016)</p>	<p>Project Manager. Assess compliance with the conditions outlined in the environmental authorisation and the approved environmental management programme.</p>

<p>Environmental assessment process, waste management license process and water use license process for the establishment of a new Mokala Manganese Mine in the Northern Cape Province (2014-2016)</p>	<p>Project Manager. Compilation of scoping and environmental impact assessment and environmental management programme reports. Compilation of the technical supporting information required for a water use license application process and submission of the waste management license application. The management of the stakeholder engagement process and specialists.</p>
<p>Environmental assessment process for the proposed construction of dewatering infrastructure and the development of a decant water pipeline in support of the proposed Evander Shaft 6 Gold in the Mpumalanga Province (2014)</p>	<p>Project Manager. Compilation of a basic assessment report, the management of the stakeholder engagement process and the management of specialists.</p>
<p>Environmental legal gap analysis for Rappa Resources in the Gauteng Province (2014)</p>	<p>Project Manager. Compilation of an environmental legal gap analysis report to identify any inadequacies in existing approvals and to identify outstanding approvals in terms of the National Environmental Management Act 107 of 1998, the National Environmental Management: Waste Act 59 of 2008, the National Environmental Management: Air Quality Act 39 of 2004, and the National Water Act 36 of 1998 (NWA).</p>
<p>Environmental support work to meet the requirements of the approved environmental management programme and updating the water use license application for the UMK Mine in the Northern Cape Province (2009-2014)</p>	<p>Project Manager. Environmental support with regards to assistance to the UMK Mine in implementing its environmental management programme commitments. This also includes quarterly stakeholder engagement processes, EMP performance assessments and quarterly audits. Updating the water use license and supporting documentation including a new integrated water and waste management plan and specialist management</p>
<p>Environmental Management Programme amendment for the Nooitgedacht Sand Quarry Mine in the Gauteng Province (2013)</p>	<p>Project Manager. Compilation environmental impact assessment and environmental management programme amendment report.</p>
<p>Proposed Kinsenda project amendment: underground mine and surface infrastructure for Meterox, Kinsenda Copper mine in the DRC (2013)</p>	<p>Project assistant. Assistance with the compilation of the environmental impact assessment and environmental management programme report.</p>
<p>The environmental assessment process to amend the existing environmental impact assessment report and environmental management programme report to cater for infrastructure changes as the Leeuwkop Platinum Mine in the North West Province (2012-2013)</p>	<p>Project Manager. Compilation of scoping and environmental impact assessment and environmental management programme amendment reports. Submission of the waste management license application. The management of the stakeholder engagement process and specialists.</p>

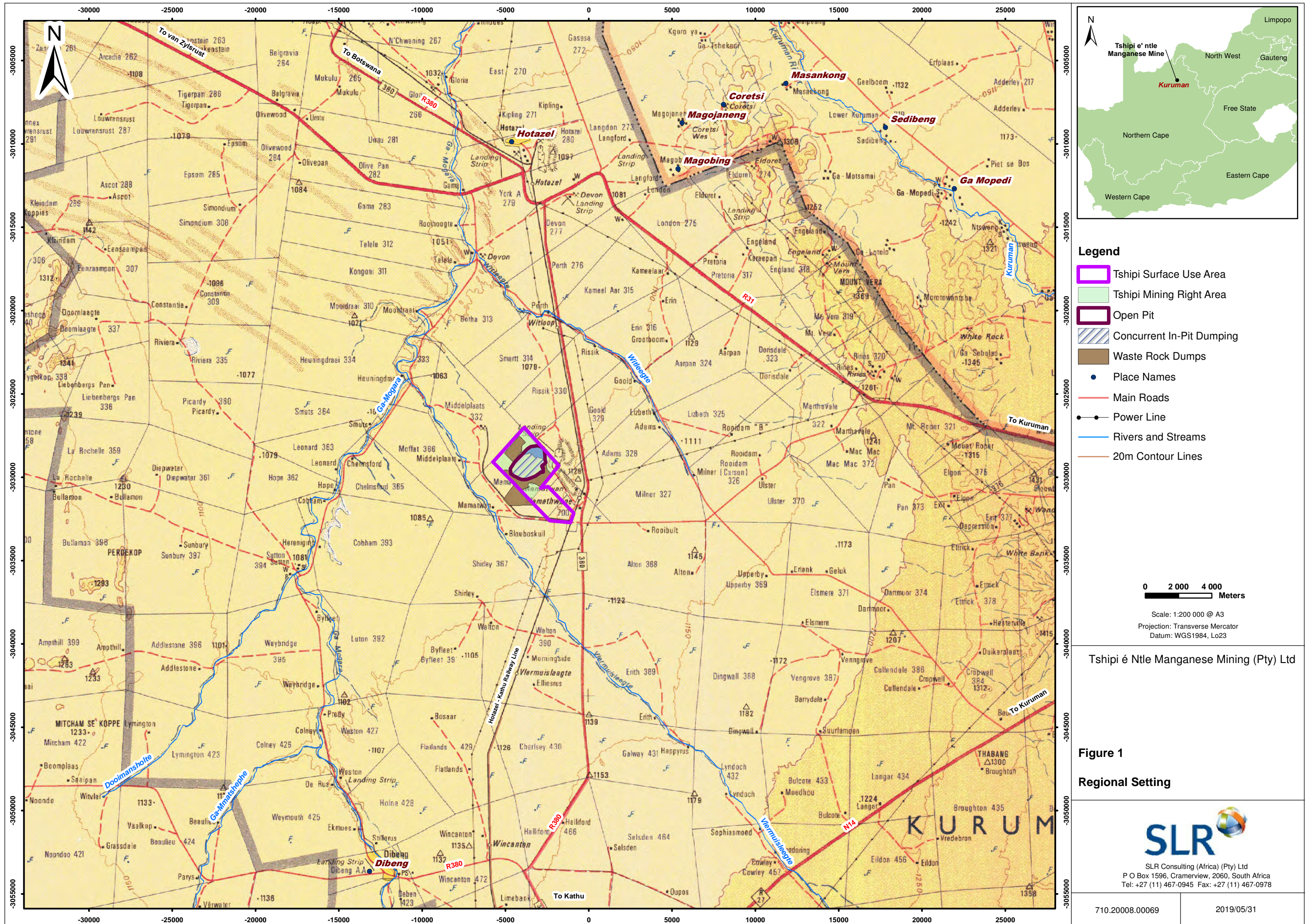
<p>Environmental and social impact overview of the proposed development of a new training centre at the Impala Platinum Rustenburg Operation in the North West Province (2013)</p>	<p>Project Manager. Compilation of a report to provide an overview of the potential environment and social impacts associated with the development of the proposed training centre.</p>
<p>Environmental Management Programme performance assessment of the Impala Rustenburg Operation in the North West Province (2012)</p>	<p>Project assistant. Assistance with the on-site auditing and report writing required for the environmental management programme performance assessment</p>
<p>Prospecting environmental management plan renewal and amendment Afplats in the North West Province (2012)</p>	<p>Project Manager. Compilation of the reports required for the renewal of a prospecting right, the amendment of an approved prospecting environmental management plan including the update of the financial provision and the management of the stakeholder engagement process.</p>
<p>Prospecting environmental management plan renewal and amendment (Impala Platinum Limited on behalf of Inkosi Platinum in the North West Province (2012)</p>	<p>Project Manager. Compilation of the reports required for the renewal of a prospecting right, the amendment of an approved prospecting environmental management plan including the update of the financial provision and the management of the stakeholder engagement process.</p>
<p>Prospecting environmental management plan amendment Ntsimbintle Mining (Pty) Ltd in the Northern Cape Province (2012)</p>	<p>Project Manager. Compilation of the prospecting environmental management plan amendment report and specialist management.</p>
<p>The consolidation of Impala's fourteen existing approved environmental management programme reports into one consolidated report in the North West Province (2012)</p>	<p>Project Manager. Compilation of a consolidated environmental impact assessment and environmental management programme report include the management of the stakeholder engagement process</p>
<p>Environmental evaluation of Pit8C at Impala Platinum in the North West Province (2012)</p>	<p>Project Manager. Compilation of a report to evaluate if the approved EIA and EMP amendment report adequately caters for the proposed Pit8C conventional opencast mining area, in terms of the baseline environment, the impact assessment and the mitigation/management measures.</p>

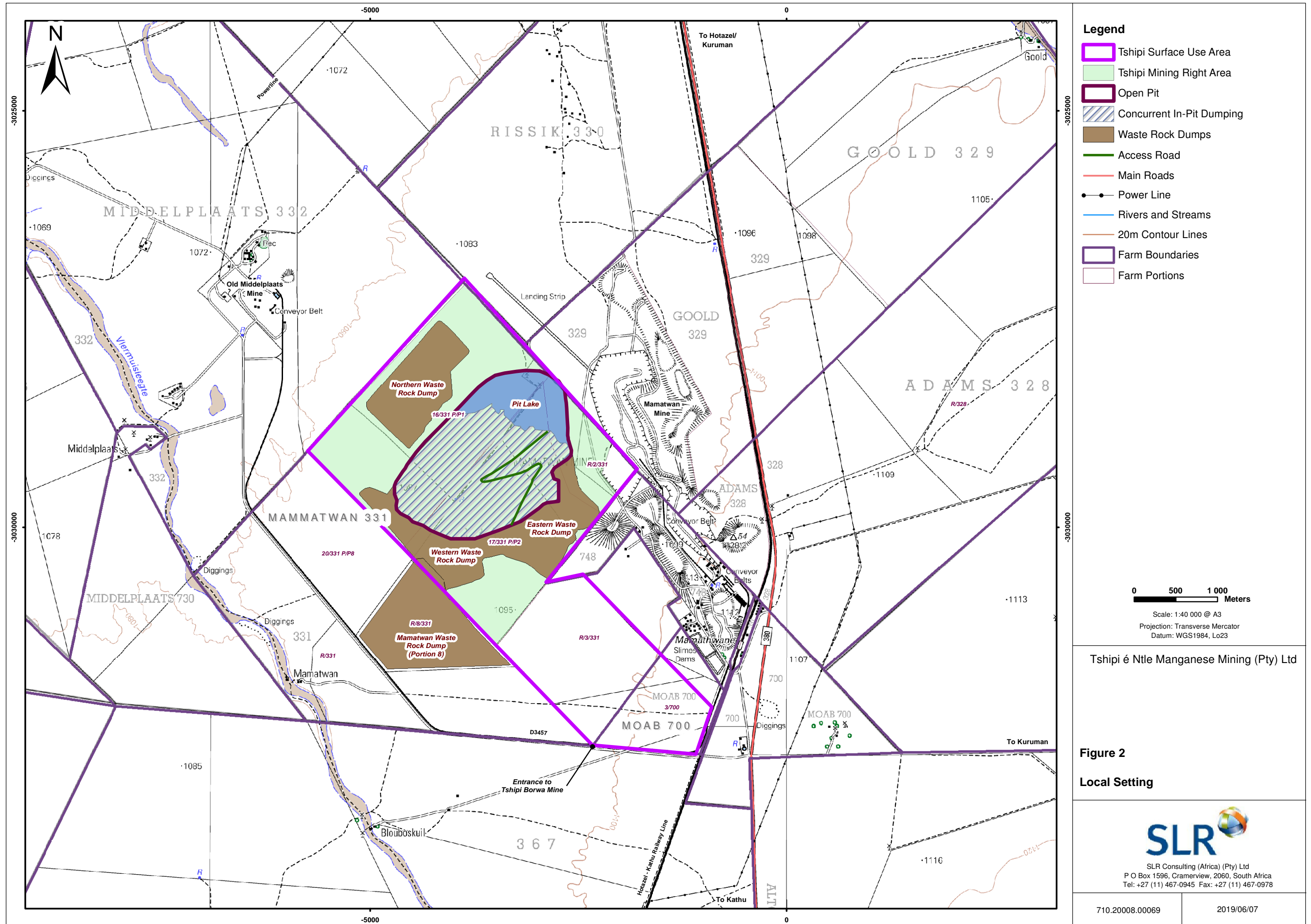
<p>Environmental assessment process for the environmental impact assessment and environmental management programme amendment for a proposed new tailings dam, re-processing of an old tailings dam, rehabilitation of the old tailings and waste disposal site, and open pit expansion for Impala Platinum Limited (Rustenburg Operation) in the North West Province (2011-2012)</p>	<p>Project Manager. Compilation of scoping and environmental impact assessment and environmental management programme reports. Compilation of the technical supporting information required for a water use license application process. The management of the stakeholder engagement process and specialists</p>
<p>EIA and EMP for the establishment of the Swakop Uranium Mine in Namibia (2011)</p>	<p>Project assistant. Project assistant with stakeholder engagement and managing specialists.</p>
<p>EIA and EMP for the establishment of the new Husab Uranium Mine in Namibia (2011)</p>	<p>Project assistant. Project assistant with stakeholder engagement and managing specialists.</p>
<p>EIA and EMP for the linear infrastructure associated with the Swakop Uranium Mine in Namibia (2010-2011)</p>	<p>Project assistant. Project assistant with stakeholder engagement and managing specialists.</p>
<p>Environmental assessment process for the establishment of the new Turquoise iron ore mine in the Limpopo Province (2010-2011)</p>	<p>Project assistant. Assistance with the stakeholder engagement process.</p>
<p>Environmental assessment process (2010)</p>	<p>Project assistant. Assistance with the compilation of the environmental impact assessment and environmental management programme report.</p>
<p>Environmental assessment process for the establishment of the new Kalkfontein Platinum Mine in the Limpopo Province (2010)</p>	<p>Project assistant. Assistance with the stakeholder engagement process.</p>
<p>Prospecting EMP for platinum group metals for Braggite Resources in the Mpumalanga Province (2010)</p>	<p>Project manager. Compilation of a prospecting EMP and stakeholder management process.</p>
<p>Compilation of the EIA and EMP reports for the Lonshi Copper Mine located in the DRC (2009-02010)</p>	<p>Project Assistant. Assistance with the compilation of the EIA and EMP reports for the Lonshi Copper Mine</p>
<p>Licensing of various water uses at the South Deep Mine in the North West Province (2009)</p>	<p>Project assistant. Assistant with water use licensing application.</p>

<p>Stakeholder engagement process for the Everest Platinum Mine as part of an EMP amendment to the extension of mining activities and changes to surface infrastructure in the Mpumalanga Province (2009)</p>	<p>Project assistant. Assistance with the stakeholder engagement process.</p>
<p>Stakeholder engagement process for the EIA and EMP amendment process for the new Northern Cape Manganese Company Mine (2009)</p>	<p>Project assistant. Assistance with the stakeholder engagement process.</p>

APPENDIX 2

- Regional map (Figure 1)
- Locality map (Figure 2)





APPENDIX 3

ENVIRONMENTAL AUTHORISATIONS

Tshipi currently holds environmental authorisations (NC/30/5/1/2/2/206/000083 EM) and (NC/30/5/1/2/2/206/00130 MR) in terms of NEMA, a mining right (NC/30/5/1/2/2/0206MR) in terms of the MPRDA and an Integrated Water Use Licence (10/D41K/AGJ/1735) in terms of the NWA. These authorisations are attached.



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

Private Bag X 6093, Kimberley, 8300, 65 Phakamile Mabija Street, Perm Building, Kimberley, 8301

Tel: 053 807 1700 /1748 Fax: 053 832 5671 Email: Takalani.Khorombi@dmr.gov.za

ENVIRONMENTAL AUTHORISATION

Reference Number	NC/30/5/1/2/2/0206MR / 00083MR
Last Amended	First Issued
Holder of Authorisation	Tshipi é Ntle Manganese Mining (Pty) Ltd
Location	Farm Mamatwan 331, portion 16, 17, 18 and farm Moab 700.

DECISION

ACRONYMS

NEMA:	The National Environmental Management Act, 1998 (Act 107 of 1998), as amended
DEPARTMENT:	Department of Mineral Resources.
EA:	Environmental Authorisation.
IEA	Integrated Environmental Authorisation.
EMPr:	Environmental Management Programme
BAR:	Basic Assessment Report
S&EIR:	Scoping and Environmental Impact Report
I&AP:	Interested and Affected Parties
ECO:	Environmental Control Officer
SAHRA:	South African Heritage Resources Agency
EIA REGULATIONS:	EIA Regulations, 2014
MPRDA:	Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002), as amended
NEMA:WA:	National Environmental Management: Waste Act, 2008 (Act 59 of 2008), as amended
EIA:	Environmental Impact Assessment.

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and the Environmental Impact Assessment Regulations, 2014, ("EIA Regulations") the department herewith **grants** environmental authorisation to the **Tshipi é Ntle Manganese Mining (Pty) Ltd** to undertake the list of activities specified in Section B below and as described in the Environmental Impact Assessment and Environmental Management Amendment Report dated March 2017.

Tshipi é Ntle Manganese Mining (Pty) Ltd
PO Box 2098
KATHU
8446

Telephone : 053 7394700
Fax : 086 5778636

FOR ATTENTION: Pretorius Bezuidenhout

Dear Sir/Madam

DECISION ON ENVIRONMENTAL AUTHORISATION

The granting of this environmental authorisation is subject to compliance with the conditions set out in Section E below.

A. DETAILS OF THE APPLICANT FOR THIS ENVIRONMENTAL AUTHORISATION

Tshipi é Ntle Manganese Mining (Pty) Ltd
PO Box 2098
KATHU
8446

Telephone : 053 7394700
Fax : 086 5778636

The abovementioned **Tshipi é Ntle Manganese Mining (Pty) Ltd** is the holder of this EA and is hereinafter referred to as "the holder".



B. TO UNDERTAKE THE FOLLOWING ACTIVITIES LISTED IN THE NEMA EIA REGULATION.

Activity Number: 17 Government Notice No. R.984 of 4 December 2014 –

Activity Description:

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).

- An increase in the number, position, volume and layout of waste rock dumps
- Change to the design, capacity and position of the sewage treatment plant
- Change to the stormwater management system, position including additional storage
- Change to the potable water storage facilities capacity and position
- Change to the position of the office, plant and workshop
- Change to the number, position, volume and layout (footprint) of the ore stockpiles
- Change to the design of the railway line and an increase in length
- The establishment of an additional temporary run-off-mine (ROM) stockpile area
- The establishment of a tyre bays and an establishment of additional weighbridges
- The establishment of an additional topsoil stockpile area (No. 2) and expansion of the approved topsoil stockpile area
- Change in the position secondary crushing and screening plant
- The change in the position of the approved 78Ml stormwater dam
- Establishment of a clean and dirty water separation system
- Mining of the barrier pillar between the Tshipi Borwa Mine and the adjacent South 32 Mamatwan Mine.
- Widening of existing gravel haul road
- Establishment of diesel tank with capacity of 996 000 litres
- Transportation of fuel via underground pipeline

The abovementioned list is hereinafter referred to as "the listed activities".

The abovementioned list is hereinafter referred to as “the listed activities”.

C. PROPERTY DESCRIPTION AND LOCATION

The listed activity will take place on ***Farm Mamatwan no.331 Portion 16, 17 and 18, and Moab 700 (remaining extent)*** in magisterial district of Kuruman, Northern Cape Province).

Co-ordinates of the boundary of the properties are those that are described in the final site layout map attached hereto

Hereinafter referred to as “the site”.

22°57’38.863E

27°21’19.108S

22°56’30.871E

27°22’27.044S

22°58’52.923E

27°22’32.847S

22°58’34.888E

27°24’20.851S

D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

Responsible person: Natasha Smyth

Physical address

SLR Consulting (Africa) (Pty) Ltd

SLR House (Block 7) Fourways Manor Office Park

Cnr Roos and Macbeth Street Fourways

JOHANNESBURG

2060

Postal address:

PO Box 1596

CRAMERVIEW

2060

Telephone : 011 4670945

Fax : 011 4670978

E. CONDITIONS OF AUTHORISATION

1. This environmental authorisation is conditional upon the implementation of the approved EMPr.
2. This environmental authorisation will only be effective in the event that a corresponding mining right is issued in terms of the MPRDA and none of the listed activities in this authorisation may commence without such mining right being issued.
3. This environmental authorisation does not absolve the holder of its obligation to comply with the requirements of the National Water Act and any other applicable legislation.
4. Subject to the commencement and duration requirements of the MPRDA, the EA for the listed mining activity is valid for the period for which the aforesaid right/permit is granted provided that this activity must commence within 10 years.
5. The commissioning and decommissioning of individual activities within the overall listed mining activities must take place within the time periods as set out in the EMPr.
6. The listed activities, including site preparation, must not commence within 30 (twenty) calendar days of the date of the notification of the decision being sent to the registered Interested and Affected Parties ("I&APs"). In the event that an

appeal is lodged with the appeal administrator, the effect of this environmental authorisation is suspended until such time as the appeal is decided.

7. The applicant must in writing, within 14 (fourteen) calendar days of the date of this decision and in accordance with Regulation 4(2) of the EIA Regulations.

7.1 Notify all registered I&APs of –

- 7.1.1 the outcome of the application;
- 7.1.2 the reasons for the decision as included in Annexure 1;
- 7.1.3 the date of the decision; and
- 7.1.4 the date of issue of the decision;

- 6.2 draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeals Regulation, 2014 detailed in Section F below; and

- 6.3 draw the attention of all registered I&APs to the manner in which they may access the decision.

6.4 Provide the registered Interested and Affected Parties with:

- 3.5.1 name of the holder (entity) of this Environmental Authorisation;
- 3.5.2 name of the responsible person for this Environmental Authorisation;
- 3.5.3 postal address of the holder;
- 3.5.4 telephonic and fax details of the holder; and
- 3.5.5 e-mail address if any.

5. The holder is responsible for ensuring compliance with the conditions by any person acting on his/her behalf, including an agent, sub-contractor, employee or any person rendering a service to the holder.

6. The holder of the EA must implement an Emergency Preparedness Plan and review it biennially when conducting audit and after each emergency and major incident. The holder must notify the competent authority in writing, within 24 hours thereof of the occurrence.
7. This EA only authorises activities specified in the EMPr and a new EA must be applied for in respect of any new activity not specified as part of the EMPr
8. A copy of the environmental authorisation and the EMPr must be kept at the site where the listed activity will be undertaken. Access to the site must be granted to any authorised official representing a competent authority. The environmental authorisation and EMPr must be available on site to the aforesaid authorised official on request at all times.
9. Whenever any of the applicant's contact details, physical or postal address and/ or telephonic details change, the applicant must notify the competent authority in writing to that effect.
10. Non-compliance with a condition of this environmental authorisation or EMPr may result in the issuing of a directive in terms of section 28 and or a compliance notice in terms of section 31L of NEMA.
11. Should any heritage remains be exposed during excavations or any actions on the site, these must immediately be reported to the Provincial Heritage Resources Authority (in accordance with the applicable legislation). Heritage remains uncovered or disturbed during earthworks must not be further disturbed until the necessary approval has been obtained from the Provincial Heritage Resources Authority. Heritage remains include: archaeological remains (including fossil bones and fossil shells); coins; indigenous and/or colonial ceramics; any articles of value or antiquity; marine shell heaps; stone artifacts and bone remains; structures and other built features; rock art and rock engravings; shipwrecks; and graves or unmarked human burials.



12. A qualified archaeologist must be contracted where necessary (at the expense of the applicant and in consultation with the relevant authority) to remove any human remains in accordance with the requirements of the relevant authority.
13. The holder must appoint a suitably experienced environmental control officer ("ECO"), or site agent where appropriate, for the all phases/ of implementation before commencement of any land clearing to ensure compliance with the EMPr and the conditions contained herein.
14. The holder of the environmental authorisation must:
 - 14.1 annually assess the environmental liabilities of the operation by using the master rates in line with the applicable Consumer Price Index (CPI) at the time and address the shortfall on the financial provision submitted in terms of section 24P of NEMA.
15. The holder of the authorisation must appoint an independent auditor to audit the site biennially. This auditor must compile an audit report documenting the findings of the audit.

The audit report must:

- 15.1 specifically state whether conditions of this environmental authorisation and EMPr are adhered to;
- 15.2 identify and assess any new impacts and risks as a result of undertaking the activity/ies, if applicable;
- 15.3 identify shortcomings in the EMPr, if applicable;
- 15.4 identify the need, if any, for any changes to the management, avoidance and mitigation measures provided for in the EMPr ;
- 15.5 if applicable, specify that the corrective action/s taken for the previous audit's non-conformities, was adequate; and
- 15.6 be submitted by the holder to the competent authority within 30 calendar days from the date on which the auditor finalised the audit.



Should any shortcomings in terms of Regulation 34(4) be identified, the holder must submit recommendation to amend the EMPr in order to rectify any shortcomings identified with the aforementioned audit report.

- 16 An integrated waste management approach, which is based on waste minimisation and incorporates reduction, recycling, re-use and disposal, where appropriate, must be employed. Any solid waste must be disposed of at a landfill licensed in terms of the applicable legislation.
- 17 No surface or ground water may be polluted due to any actions on the site. The applicable requirements with respect to relevant legislation pertaining to water must be met.
- 18 The applicable requirements with respect to relevant legislation pertaining to cutting, damaging, disturbing or destroying protected trees or trees from a natural forest must be adhered to.
- 19 The applicable requirements with respect to relevant legislation pertaining to occupational health and safety must be adhered to.
- 20 This approval doesn't purport to absolve from their common law obligations towards the owner(s) of the surface of land affected.
- 21 Mining activities must conform to all legislation and such other conditions as may be imposed by the Regional Manager or any other official of this office, duly authorized thereto.
- 22 The Department is responsible for all surface disturbances on the mining area, which includes all historical surface disturbances.
- 23 The operation must comply with GN 704 (Regulations on use of water for mining and related activities aimed at the protection of water resources).



- 24 No waste will be allowed to be deposited in a natural drainage lines, erosion gullies and or dongas, unless agreed thereto in writing with the Regional Manager.
- 25 The operation must implement and control measures that will prevent the pollution of any water resource by oil, grease, fuel or chemicals.
- 26 All topsoil must be stripped and stockpile for the future rehabilitation.
- 27 During the operation must ensure that it comply with all declared weeds must be controlled continuously in terms of Reg.15 and 16 of Act 43 of 1983.
- 28 At all the times keep any natural water free from any matter or obstruction which may affect the efficiency thereof
- 29 The environment affected by this operation shall be rehabilitated by the holder of the right holder.
- 30 Regular monitoring of all the environmental management measures shall be done to ensure that the conditions are being adhered to.

F. APPEALS

Appeals must comply with the provisions contained in the National Appeal Regulations 2014.

1. An appellant must –

- 1.1. submit an appeal in accordance with Regulation 4 to the appeal administrator, within 30 (twenty) calendar days from the date the applicant notified registered I&APs of this decision;



- 1.2. If the appellant is the applicant, provide any registered I&AP, any Organ of State and the decision-maker with a copy of the appeal lodged with the appeal administrator;
- 1.3. If the appellant is a person other than the applicant, provide any registered I&AP, any Organ of State and the decision-maker with a copy of the appeal lodged with the appeal administrator;

1.2 The applicant (if not the appellant) the decision-maker, I&APs and Organ of State must submit their responding statement, if any, to the appeal authority and the appellant within 20 days from the date of receipt of the appeal submission.

1.3 The appeal form/s must be submitted by means of one of the following methods:

By post: Attention: Appeals and Review Directorate
 The Minister
 Department of Environmental Affairs
 Private Bag X 447
 PRETORIA
 0001

Tel: (012) 399 9356

By hand: Environmental House, Corner Steve Biko and Soutspanberg,
 Arcardia, Pretoria, 0083

By e-mail: Appealsdirector@environment.gov.za

An electronic copy (word document format) of the appeal and its supporting documents must also be submitted. Mr Ziyaad Hassam

1.4 A prescribed appeal form, as well as assistance regarding the appeal processes is obtainable from the office of the appeal authority/ at URL <http://www.deat.gov.za>




G. DISCLAIMER

The Department of Mineral Resources in terms of the conditions of this environmental authorisation shall not be responsible for any damages or losses suffered by the holder, developer or his/her successor in any instance where construction or operation subsequent to construction is temporarily or permanently stopped for reasons of non-compliance with the conditions as set out herein or any other subsequent document or legal action emanating from this decision.

Your interest in the future of our environment is appreciated.

Yours faithfully



MR. PIETER SWART
REGIONAL MANAGER: MINERAL REGULATION (NORTHERN CAPE)

DATE OF DECISION:

3/11/2015

ANNEXURE 1: REASONS FOR THE DECISION

In reaching its decision, the competent authority, *inter alia*, considered the following:

- a) The information contained in the, application form as received by the competent authority on the 31 August 2017, the Environmental Impact Assessment and Environmental Management Amendment Report (“EIA and EMAR”)
- b) The objectives and requirements of relevant legislation, policies and guidelines, including Section 2 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (“NEMA”);
- c) The comments received from Interested and Affected Parties (“I&APs”) and the
- d) The sense of balance of the negative and positive impacts and proposed mitigation measures; and
- e) No site visits were conducted. The competent authority had sufficient information before it to make an informed decision without conducting a site visit.

All information presented to the competent authority was taken into account in the consideration of the application for environmental authorisation. A summary of the issues which, according to the competent authority, were the most significant reasons for the decision is set out below.

1. Public Participation

The PPP conducted as part of the EIA process included:

- identification of and engagement with I&APs;
- A notices were also placed on the different places and on the notice board at the close vicinity of the project site.
- giving written notice to the owners and occupiers of land adjacent to the site and any alternative site where the listed activity is to be undertaken, the municipality ,

and the various Organs of State having jurisdiction in respect of any aspect of the listed activities.

All the concerns raised by I&APs were responded to and adequately addressed during the PPP. Specific management and mitigation measures have been considered in this environmental authorisation and in the EMPr/closure plan to adequately address the concerns raised.

The Department concurs with the Environmental Assessment Practitioner's responses to the issues raised during the PPP and has included appropriate conditions in this environmental authorisation.

2. Impacts, assessment and mitigation measures

2.1. Activity Need and Desirability

Taking the above into considered the mine will result in continued positive socio-economic impacts. The mine already contributes to the national South African economy at macro level by exporting its product that leverages foreign income into the country. The direct economic benefits derived from wages and services, taxes and profits. Indirect economic benefits derives from the procurement of goods and services and the buying power of employees.

2.2. Topsoil management

- Topsoil shall be removed from all areas where physical disturbance other surface will occur
- The topsoil removed, shall be stored in a bund wall on the high ground side of the mining area outside the 1:50 flood level within the boundaries of the mining area.
- Topsoil shall be kept separate from overburden and shall not be used for building or maintenance of access roads.

- The topsoil stored in the bund wall shall be adequately protected from being blown away or being eroded.

2.3. Waste management

- Chemical toilet facilities or other approved toilet facilities such as a septic drain shall preferably be used and sited on the camp site in such a way that they do not cause water or other pollution.
- All effluent water from the camp washing facility shall be disposed of in properly constructed French drain, situated as far as possible, but not less than 200 metres, from any stream, river, pan, dam or borehole.
- Only domestic type wash water shall be allowed to enter this drain and any effluents containing oil, grease or other industrial substances must be collected in a suitable receptacle and removed from the site, either for resale or for appropriate disposal at a recognised facility.

2.4. Biodiversity

- All remaining natural corridors identified as significant biodiversity features must be mapped identified as “no-go area”.
- No flora may be removed, damaged or disturbed except to the extent necessary for the carrying out the work.

2.5. Oil spillage

- Spills shall be cleaned up immediately and/or the removing the spillage together with the polluted to the satisfaction manner.
- Non-biodegradable refuse such as glass bottles, plastic bags, metal scrap, etc., shall be stored in a container at a collecting point and collected on a regular basis and disposed of at a recognised disposal facility. Specific precautions shall be taken to prevent refuse from being dumped on or in the vicinity of the camp site.



- Biodegradable refuse generated from the office/camp site, processing areas vehicle yard, storage area or any other area shall either be handled as indicated above or be buried in a pit excavated for that purpose and covered with layers of soil, incorporating a final 0,5 metre thick layer of topsoil (where practicable).

2.6 Rehabilitation of excavated areas.

- Rocks and coarse material removed from the excavation must be dumped into the excavation simultaneously with the tailings.
- Waste will not be permitted to be deposited in the excavations.
- Once excavations have been refilled with overburden, rocks and coarse natural materials and profiled with acceptable contours and erosion control measures, the topsoil previously stored, shall be returned to its original depth over the area.
- If a reasonable assessment indicates that the re-establishment of vegetation is unacceptably slow, the Regional Manager may require that the soil be analyzed and any deleterious effects on the soil arising from the mining/ mining operation, be corrected and the area be seeded with a vegetation seed mix to his or her specification.

3. NEMA Principles

The NEMA Principles (set out in Section 2 of NEMA, which apply to the actions of all Organs of State, serve as guidelines by reference to which any Organ of State must exercise any function when taking any decision, and which must guide the interpretation, administration and implementation of any other law concerned with the protection or management of the environment), *inter alia*, provides for:

- the effects of decisions on all aspects of the environment to be taken into account;
- the consideration, assessment and evaluation of the social, economic and environmental impacts of activities (disadvantages and benefits), and for decisions to be appropriate in the light of such consideration and assessment;

- the co-ordination and harmonisation of policies, legislation and actions relating to the environment;
 - the resolving of actual or potential conflicts of interest between Organs of State through conflict resolution procedures; and
 - the selection of the best practicable environmental option.
-

4. Conclusion

In view of the above, the NEMA principles, compliance with the conditions stipulated in this environmental authorisation, and compliance with the EMP/closure plan, the competent authority is satisfied that the proposed listed activity/ies will not conflict with the general objectives of Integrated Environmental Management stipulated in Chapter 5 of NEMA and that any potentially detrimental environmental impacts resulting from the listed activities can be mitigated to acceptable levels.

-END-





mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

Private Bag X 6093 Kimberley, 8300; Tel: 0538071700; Fax: 0538328593, 41 Schmidtsdrift Building, Telkom Building, Kimberley 8300, E-mail: Patricia.Makhuvele@dmr.gov.za Ref No: NC 30/5/1/2/2/206/00130 MR

Enquiries: Patricia Makhuvele

The Directors

Tshipi e Ntle Manganese Mining (Pty) Ltd

P.O. Box 2098

Kathu

8446

For attention: N. Paneng

E-mail: nthabeleng@tshipi.co.za

mmedallie@slrconsulting.com

Tell: 018 011 1925

Dear Sir/ Madam

ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AS AMMENDED (“NEMA”) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2017 FOR ACTIVITIES RELATED TO MINING AND ASSOCIATED INFRASTRUCTURE IN RESPECT OF MANGANESE ORE FOR THE EXTENTION OF THE EAST WASTE ROCK DUMP AND WEST WASTE ROCK DUMP ON PORTION 8 OF THE FARM MAMATWAN 331, PORTION 16 (PORTION OF PORTION 1) PORTION 17 (PORTION OF PORTION 2, PORTION 18 (PORTION OF PORTION 3) OF THE FARM MAMATWAN 331 AND THE REMAINDER OF THE FARM MOAB 700, SITUATED IN THE MAGISTERIAL DISTRICT OF KURUMAN NORTHERN CAPE REGION.

With reference to the abovementioned application, please be advised that the Department has decided to **grant** an environmental authorisation in terms of regulation 20(1) (a)/24(1) (b) of the Environmental Impact Assessment Regulations, 2014 as amended (“EIA Regulations”). The environmental authorisation and reasons for the decision are attached herewith.

In terms of regulation 4(2) of the EIA Regulations, you are instructed to notify all registered interested and affected parties, in writing within 14 (fourteen) calendar days, of the date of the Department's decision in respect of your application and the provisions regarding the making of appeals must be provided for in terms of the National Appeal Regulations, 2014.

Should you wish to appeal any aspect of the decision, you must submit the appeal to the Minister of Environmental Affairs, within 20 days from the date of notification, and such appeal must be lodged as prescribed by Chapter 2 of the National Appeal Regulation, 2014 by means of one of the following methods:

By post: Attention: Appeals Directorate and Legal review
The Minister of Department of Environmental Affairs
Private Bag X 447
PRETORIA
0001

By facsimile: (012) 359 3609; or

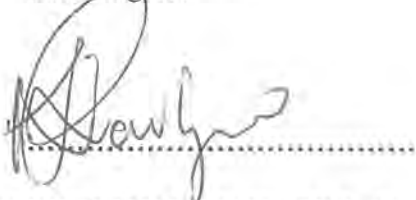
By hand: Environmental House, Corner Steve Biko and Soutspanberg, Arcadia,
Pretoria, 0083

An electronic copy (word document format) of the appeal and its supporting documents must also be submitted to Mr Ziyaad Hassam.

A prescribed appeal form, as well as assistance regarding the appeal processes is obtainable from the office of the appeal authority/ at: Tel. (012) 399 9000, E-mail: appealsdirector@environment.gov.za

Should you decide to appeal, you must comply with the National Appeal Regulations, 2014 in relation to notification of all registered interested and affected.

Kind Regards



Acting REGIONAL MANAGER: MINERAL REGULATION
NORTHERN CAPE REGION

DATE 03/07/2011



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

Private Bag X 6093 Kimberley, 8300; Tel: 0538071700; Fax: 0538328593, 41 Schmidtsdrift Road, Telkom Building, Kimberley 8300

ENVIRONMENTAL AUTHORISATION

Reference number:	NC 30/5/1/2/2/206/00130 MR
Holder of authorisation:	Tshipi e Ntle Manganese Mining (Pty) Ltd
Last amended:	2017
Commodity:	Manganese ore
Location of activity:	On portion 8 of the farm Mamatwan 331, portion 16 (portion of portion 1) portion 17 (portion of portion 2, portion 18 (portion of portion 3) of the farm Mamatwan 331 and the remainder of the farm Moab 700, situated in the Magisterial District of Hopetown, Northern Cape Region.

ACRONYMS

NEMA:	National Environmental Management Act, 1998 (Act 107 of 1998), as amended
DEPARTMENT:	Department of Mineral Resources.
EA:	Environmental Authorisation.
EMPr:	Environmental Management Programme.
BAR:	Basic Assessment Report.
I&AP:	Interested and Affected Parties.
ECO:	Environmental Control Officer.
SAHRA:	South African Heritage Resources Agency.
EIA REGULATIONS:	Environmental Impact Assessment Regulations, 2017.
MPRDA:	Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002), as amended
NEM:WA:	National Environmental Management: Waste Act, 2008 (Act 59 of 2008), as amended.
EIA:	Environmental Impact Assessment.

The Department is satisfied, on the basis of information available to it and subject to compliance with the conditions of this environmental authorisation, that the applicant should be authorised to undertake **NEMA EIA** listed activity (ies) specified below. Details regarding the basis on which the Department reached this granting decision are set out in **Annexure “1”** of this Environmental Authorisation.

ACTIVITY APPLIED FOR

By virtue of the powers conferred on it by NEMA, the Department hereby Grant an application for EA by **Tshipi e Ntle Manganese Mining (Pty) Ltd** with the following contact details –

A.DETAILS OF THE APPLICANT FOR THIS ENVIRONMENTAL AUTHORISATION

Tshipi e Ntle Manganese Mining (Pty) Ltd

P.O. Box 2098

Kathu

8446

E-mail:nthabeleng@tshipi.co.za/mmedallie@slrconsulting.com

to undertake the following activities listed in the NEMA EIA Regulation-

B. LIST OF ACTIVITIES AUTHORISED IN TERMS OF NEMA;

1. Listing Notice 1: GNR 327 Activity 24- *“The development of a road-*

(i) for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Government Notice 545 of 2010;or

(ii) with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres.

2. Listing Notice 1: GNR 327 Activity 24 – *“The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for-*

(i) the undertaking of a linear activity; or

(ii) maintenance purposes undertaken in accordance with maintenance management plan

- 3. Listing Notice 1: GNR 327 Activity 28** – *“Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game equestrian purposes or afforestation on or after 01 April 1998 and where such development;*
- (i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares;*
 - (ii) Will occur outside an urban area, where the total land to be developed is bigger than 1 hectares.*
- 4. Listing Notice 1: GNR 327 Activity 30** - *“Any process or activity identified in terms of section 53(1) of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004).*
- 5. Listing Notice 1: GNR 327 Activity 34** - *“The expansion of existing facilities or infrastructure for any purpose or activity where such expansion will result in the need for a permit or licence or an amended permit or licence in terms of the National or Provisional legislation governing the release of emissions, effluent or pollution.*
- 6. Listing Notice 1 GNR 327 Activity 56-** *“The widening of a road by more than 6 meters, or the lengthening of a road by more than 1kilometre;*
- (i) where the existing reserve is wider than 13.5 metres; or*
 - (ii) where no reserve exists, where the existing road is wider than 8 metres; excluding where the widening or lengthening occur inside urban areas.*
- 7. Listing Notice 2 GNR 325 Activity 6-** *“The development of facilities or infrastructure for any process or activity which requires a permit or licence or an amended permit or licence in terms of national or provisional governing the generation or release of emissions, pollution or effluent.*
- 8. Listing Notice 2 GNR Activity-** *“The clearance of an area of 20 hectares or more of indigenous vegetation excluding where such clearance of indigenous vegetation is required for-*
- (i) the undertaking of a linear activity*
 - (ii) maintenance purpose undertaken in accordance with a maintenance management plan.*

9. Listed Activities GNR 921 OF NEM: WA

- a) **Category B Activity 7** –“The disposal of any quantity of hazardous waste to land
- b) **Category B Activity 10**-“The construction of a facility for waste management activity listed in category B of this schedule (not in isolation to associated waste management activity).
- c) **Category B Activity 11**- “ The establishment or reclamation of a residue stockpile or residue deposit resulting from activities which require a mining right in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act no.28 of 2002).

The applicant is herein authorised to undertake the following alternative related to the listed activity/ies:

Description of the activities to be undertaken:

- Construction of an overland conveyer network from the existing secondary crushing and screening plant to the existing management product stockpile
- Construction of the 11 kv overhead powerline.

C. PROPERTY DESCRIPTION AND LOCATION

The listed activities will be undertaken at on portion 8 of the farm Mamatwan 331, portion 16 (portion of portion 1) portion 17 (portion of portion 2, portion 18 (portion of portion 3) of the farm Mamatwan 331 and the remainder of the farm Moab 700, situated in the Magisterial District of Hopetown Northern Cape Region. The total footprint of the proposed additional infrastructure covers an extent area of 200ha and it is located inside and outside the mining right area.

The SG digit codes are: TO0000000000033100016

: TO0000000000033100017

: TO0000000000033100018

: TO0000000000033100008

: TO0000000000070000000

Co-ordinates of the boundary of the property/ies are those that are described in the final site layout map attached hereto hereinafter referred to as “the site”.

Western Waste Rock Dump site coordinates (WGS84)

	Longitude	Latitude
A	27°.23'51.38"S	22°.58'2.89"E
B	27°.23'53.05"S	22°.57'4.68"E
C	27°.23'38.75"S	22°.56'51.37"E
D	27°.23'8.18"S	22°.57'16.53"E

Eastern Waste Rock Dump site coordinates (WGS84)

	Longitude	Latitude
A	27°.23'17.56"S	22°.58'15.85"E
B	27°.22'15.19"S	22°.58'39.44"E
C	27°.22'51.08"S	22°.58'38.35"E
D	27°.23'17.05"S	22°.58'15.15"E

D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

SLR Consulting (Pty) Ltd
SLR House Block 7
Fourways Manor office park
Cnr Roos and Macbeth Street
Johannesburg
2060

Attention: M.Medallie
E-mail: mmedallie@slrconsulting.com
Fax: 011 467 0978
Tell: 011 467 0945

E. CONDITIONS OF AUTHORISATION

1. SCOPE OF AUTHORISATION

- 1.1. The holder of the EA shall be responsible for ensuring compliance with the conditions contained in the EA. This includes any person acting on the holder's behalf, including but not limited to an agent, servant, contractor, subcontractor, employee, consultant or any person rendering a service to the holder of EA.
- 1.2. Any changes to, or deviation from the project description set out in this EA must be approved in writing by this Department before such changes or deviation may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviation and it may be necessary for the holder of the EA to apply for further authorisation in terms of the EIA Regulations.
- 1.3. The activities, which are authorised, may only be carried out at the property (ies) indicated in the EA and or on the approved EMPr.
- 1.4. Where any of the holders of the EA contact details change including the name of the responsible person, physical/postal address or telephonic details, the holder of the EA must notify the Department as soon as the new details become known to the holder of the EA.
- 1.5. The EA does not absolve the responsibility of the holder to comply with any other statutory requirements that may be applicable to the undertaking of such activity (ies).
- 1.6. The holder of the EA must ensure that all areas where the authorised activities occur have controlled access to ensure safety of people and animals.
- 1.7. The holder of the EA must implement an Emergency Preparedness Plan and review it bi-annually when conducting audit and after each emergency and major incident. The holder must notify the competent authority in writing, within 24 hours thereof of the occurrence.
18. The holder of an authorisation as the case may be, must apply for an closure certificate upon the lapsing, abandonment or cancellation of the right in question, cessation of the mining, the relinquishment of the portion of the mining of the land to which a right . An application for a closure certificate must be made to the Regional Manager in whose region the land in question is situated within 180 days of the occurrence of the lapsing, abandonment, cancellation, cessation, and relinquishment.

2 APPEAL OF AUTHORISATION

- 2.1 The holder of EA must in writing, within 14 (fourteen) calendar days of the date of this decision and in accordance with EIA Regulation 4(2)-
- 2.2 Notify all registered I&APs of –
 - 2.2.1 The outcome of the application;
 - 2.2.2. The date of the decision;
 - 2.2.3. The date of issue of the decision and,
 - 2.2.4 The reasons for the decision as included in Annexure 1 and this Annexure 2 (Departmental Standard Conditions).
- 2.3 Draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeals Regulations,
- 2.4 Draw the attention of all registered I&APs to the manner in which they may access the decision.

3 COMMENCEMENT OF THE ACTIVITY (IES)

- 3.1 In order to ensure safety, all employees must be given the necessary personnel protective equipment (PPE).
- 3.2 This EA must be provided to the site operator and the requirements thereof must be made fully known to him or her.
- 3.3 Hauling routes for construction vehicles and machinery must be clearly marked and appropriate signaling must be posted to that effect. Furthermore, movement of construction vehicles and machinery must be restricted to areas outside of the drainage line or wet areas.
- 3.4 Appropriate notification sign(s) must be erected at the construction site, warning the public (residents, visitors etc.) about the hazard around the construction site and presence of heavy vehicles and machinery.
- 3.5 Construction must include design measures that allow surface and subsurface movement of water along the drainage lines so as not to impede natural surface and subsurface water flow, and drainage measures must promote the dissipation of storm water runoff.

- 3.6 Vegetation clearance must be limited areas where the individual activities will occur, and mitigation measures must be implemented to reduce the risk of erosion and alien species invasion.
- 3.7 The holder of EA must note that in terms of the National Forest Act, 1998 (Act No .84 of 1998) protected plant species, also listed in Northern Cape Nature Conservation (NCNCA) Act no. 9 of 2009 must not be cut, disturbed, damaged, destroyed and their products must not be possessed, collected, removed, transported, exported, donated, purchased or sold unless permission is granted by the Department of Agriculture, Forestry and Fisheries.
- 3.8 Construction areas (e.g. material lay down areas), topsoil and subsoil must be protected from contamination or pollution. Stockpiling must not take place in drainage lines or areas where it will impede surface water runoff.
- 3.9 If any soil contamination is noted at any phase of the proposed activity (ies), the contaminated soil must be removed to a licensed waste disposal facility and the site must be rehabilitated to the satisfaction of the Department and Department of Water and Sanitation. The opportunity for the onsite remediation and re-use of contaminated soil must be investigated prior to the disposal and this Department must be informed in this regard.
- 3.10 An integrated waste management approach must be implemented that is based on waste minimization and must incorporate avoidance, reduction, recycling, treat, reuse and disposal where appropriate. Uncontaminated rubble generated on the premises can be re-used as back filling material on site. Ensure that no refuse or rubble generated on the premises is placed, dumped or deposited on the adjacent properties or public places and open space.
- 3.11 In terms of sections 28 and 30 of NEMA, and sections 19 and 20 of the National Water Act, 1998 (Act No. 36 of 1998), any costs incurred to remedy environmental damage must be borne by the person responsible for the damage. It is therefore imperative that the holder of the EA reads through and understand the legislative requirements pertaining to the operation. It is the applicant's responsibility to take reasonable measures which include informing and educating contractors and employees about environmental risks of their work and training them to operate in an environmentally acceptable manner.
- 3.12 Construction vehicle must be serviced and maintained in the manner whereby no excessive smokes is released, noise production is reduced to acceptable levels, and

to prevent oil leaks. Contaminated soil must be remediated on site or removed to an authorised landfill site.

- 3.14 Residents (if any) on the property (ies) and surrounding areas must be informed if any unusually noisy activities are planned.
- 3.15 Dust suppression measures must be implemented on all exposed surface to minimize and control airborne dust.
- 3.16 Mixing of cement, concrete, paints, solvent, sealants and adhesive must be done in specified areas on concrete aprons or on protected plastic linings to contain spillage or overflow onto soil to avoid contamination of underground water and environmental damage.
- 3.17 Should any heritage remains be exposed during operation or any actions on the site, these must immediately be reported to the South African Heritage Resource Agency (SAHRA) and or Northern Cape Heritage Resource Agency (NCHRA) (in accordance with the applicable legislation). Heritage remains uncovered or disturbed during earthworks must not be further disturbed until the necessary approval has been obtained from the South African Heritage Resource Agency (SAHRA) and or Northern Cape Heritage Resource Agency (NCHRA).

Heritage remains include: archaeological remains (including fossil bones and fossil shells); coins; middens, indigenous and/or colonial ceramics; any articles of value or antiquity; marine shell heaps; stone artifacts and bone remains; structures and other built features; rock art and rock engravings; shipwrecks; and graves or unmarked human burials. A qualified archaeologist must be contracted where necessary (at the expense of the applicant and in consultation with the relevant authority) to remove any human remains in accordance with the requirements of the relevant authority.

- 3.18 Care must be taken to ensure that the material and excavated soil required for backfilling are free of contamination from hydrocarbons.
- 3.19 Hydraulic fluids or chemicals required during construction must be stored in a concrete lined surface with bund walls and shall be designed in such a manner that any spillage can be contained and reclaimed without any impact on the surrounding environment. Should any spills occur it should be cleaned immediately by removing spillage together with the polluted solids and dispose it in the authorised disposal site permitted of such waste. The regional office of the Department of Water and Sanitation must be notified within 24 hours of an incident that may pollute surface and underground water resources.

- 3.20 Chemical sanitation facilities or system such as toilets that do not rely on the seepage of liquids must be provided with a ratio of 1 for every 15 workers. These must be placed such that they prevent spills or leaks to the environment and must be maintained according to the operating instructions and the content thereof must be disposed of at an authorised waste water treatment works.
- 3.21 The holder of EA must ensure that any water uses listed in terms of section 21 of National Water Act, 1998 (Act 36 of 1998) must get authorization from Department of Water and Sanitation prior to the commencement of such activity (ies). The holder of the EA shall note that in terms of Section 19 (1) of the national Water Act, 1998 (Act No. 36 of 1998). "An owner of land , a person who occupies or uses the land on which – (a) any activity or process is or was performed or undertaken; or (b) any other situation exists, which caused or is likely to cause pollution of a water source must take all reasonable measures to prevent any such pollution from occurring, continuing or recurring."

Therefore any pollution incident (s) associated with the proposed project shall be reported to the relevant Regional Office of the DMR and Department of Water and Sanitation within 24 hours.

- 3.22 This EA does not purport to absolve the holder of EA from its common law obligations towards the owner of the surface of land affected.
- 3.23 The holder of EA must ensure that rehabilitation of the disturbed areas caused by operation(s) at all times comply with the approved EMPr.
- 3.24 This EA may be amended or withdrawn at any stage for non-compliance and provides no relief from the provisions of any other relevant statutory or contractual obligations.
- 3.25 The holder of EA must note that in terms section 43A of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008), residue deposit and residue deposit must be deposited and managed in a prescribed manner on any site demarcated for that purpose in the approved EMPr. No person may temporary or permanently deposits residue stockpile or residue deposit on any area or site other than on site indicated on the approved EMPr.
- 3.26 The holder of EA must note that in terms section 20 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008), no person may commence, undertake or conduct a waste management activity, except in accordance, with the requirements of norms and standards determined in terms of section 19(3) for that

activity or a waste management license is issued in respect of that activity if license is required.

- 3.27 An appeal under section 43(7) of the National Environmental Management Act (NEMA), Act 107 of 1998 (as amended) suspend an EA or exemption or any provisions of conditions attached hereto, or any directive unless the Minister directs otherwise.
- 3.28 Should you be notified by the Minister of a suspension of the authorisation pending appeal procedure, you may not commence/continue with the activity (ies) until such time that the Minister allows you to commence with such activity (ies) in writing.
- 3.29 The Department reserves the right to audit and/or inspect the activity (ies) without prior notification at any reasonable time and at such frequency as may be determined by the Regional Manager, Environmental Management Inspector or Environmental Management Resource Inspector within his or her mandate in terms of section 31D, may – question any person; issue a written notice inspect any document (books or record or any written or electronic information); copy or make extracts from any document (book or record or written or electrical information); take photographs or make audio-visual recordings; dig or bore into the soil or take samples and carry out any other prescribed duty not inconsistent with this Act and any other duty that may be prescribed in terms of a specific environmental management Act. Environmental Management Inspector or Environmental Management Resource Inspector without a warrant may enter and search any vehicle, vessel or aircraft or search any pack-animal or any other mechanism of transport, on reasonable suspicion.
- 3.30 The waste storage site must have a firm, impermeable, chemical resistant floors and a roof to prevent direct sunlight and rain water from getting in contact with the waste.
- 3.31 The storage of hydrocarbons must have bund walls with adequate capacity to contain the maximum volume that is stored in the area. Uncontaminated storm water must be prevented from coming into contact with the waste and must be diverted away from the storage site.
- 3.32 You shall not store any fuel either above or underground, with a combined capacity of 80 cubic metres or more without an authorisation in each of the above mentioned sites. All fuels and lubricants that are allowed to be stored in the sites must be stored inside a bounded area.
- 3.33 Subject to the commencement and duration requirements of the MPRDA and NEMA for the listed mining activity is valid for the period for which the aforesaid right is issued provided that this activity must commence within 10 years. If the commencement of

the proposed activity does not occur within the specified period, the EA lapses and a new application for EA in terms of the NEMA and the EIA Regulations should be made for the activity to be undertaken.

- 3.34 The commissioning and decommissioning of individual activity within the overall listed mining activity must take place within the phases and timeframes as set out in EMP or EMPr.
- 3.35 The listed activity (ies), including site preparation, must not commence within 20 (twenty) calendar days of the date of the notification of the decision being sent to the registered I&APs. In the event that an appeal is lodged with the appeal administrator, the effect of this environmental authorisation is suspended until such time as the appeal is finalized.
- 3.36 Should there be any conflicting conditions between this EA and other approval granted by other authorities, it is upon the holder of EA to bring it to the attention of the Department for resolution.
- 3.37 If the EA holder is not the surface owner must before commencement of the mining activities consult with the land owners for reasonable compensation of damages such as loss of grazing, stock theft, fire hazard that may be associated with the listed activity/ies.
- 3.38 Notwithstanding the provision of any other law, no person is civilly or criminally liable or may be dismissed, disciplined, prejudiced or harassed on account of having refused to perform any work if the person is good faith and reasonable believed at the time of the refusal that the performance of the work would result in an imminent and serious threat to the environment.
- 3.39 The Waste Rock Dump extension of the Eastern and Western side are authorized as a temporary residue deposit and will be used for backfilling of the open pit while mining.

4 MANAGEMENT OF ACTIVITY (IES)

- 4.1. A copy of the EA and EMPr must be kept at the property or on site office where the activity (lies) will be undertaken. The EA and EMPr must be produced to any authorised officials of the Department who request to see it and must be made available for inspection by any employee or agent of the holder of the EA who works or undertakes work at the property (ies). Access to the site must be granted to any authorised official representing a competent authority. The environmental authorisation and EMP must be available on site to the aforesaid authorised official on request at all times.

- 4.2. The content of the EMPr and its objectives must be made known to all contractors, subcontractors, agent and any other people working on the site, and any updates or amendments to the EMPr must be submitted to the Department for approval.
- 4.4. Regular monitoring and maintenance of storm water drainage facilities must be conducted at all times, if damaged as directed by the Department or any other relevant authority.
- 4.5. A buffer zone of 100 meters between the activity (ies) and the residential areas, cemeteries or burial grounds must be clearly demarcated and maintained.
- 4.6. The holder of the EA must prevent nuisance conditions or health hazards, or the potential creation of nuisance conditions or health hazards.
- 4.7. The holder of the EA must ensure that all non-recyclable waste are disposed of at waste management facilities licensed to handle such wastes and all recyclable waste are collected by licensed waste management facilities for recycling, reuse or treatment.
- 4.8. The holder of the EA must ensure that all liquid wastes, whose emissions to water or land could cause pollution are diverted to sewer, after testing water quality and receiving written approval from the relevant local authority.
- 4.9. Mining/Prospecting vehicles must be serviced and maintained in a manner whereby excessive smoke and noise production is reduced to acceptable levels, and to prevent oil leaks. Drip trays must be placed under each stationary equipment or vehicles to avoid soil contamination which may lead to water pollution.
- 4.10. Non-compliance with any condition of this EA or EMPr may result in the issuing of a directive in terms of section 28 and or a compliance notice in terms of section 31L of NEMA.
- 4.11. Should it be discovered or come to the attention of the Department that the EA has been obtained through fraud, non-disclosure of information or misrepresentation of a material fact, the Department will suspend your EA in terms of the provisions of regulation 38(1) of the EIA Regulations.
- 4.12. Only listed activities that are expressly specified in the section B that forms part of this EA may be conducted. Additional or new activities not specified herein must be applied for by the holder of the EA and authorised by the Department before such

activities may be commenced with. This condition is also applicable in the case of the amendment, addition, substitution, correction, and removal or updating of any detail in the aforesaid EMPr.

- 4.13 Any changes to or deviations from the activity description set out above must be approved in writing by the competent authority before such changes or deviations may be effected. In assessing whether to grant such approval or not, the competent authority may request information as it deems necessary to evaluate the significance and impacts of such changes or deviation and it may be necessary for the EA holder to apply for further authorisation in terms of the regulations.
- 4.14 Rehabilitation of the disturbed surface caused by the operation at all times must comply with the conditions set in the approved EMPr. The historical liability in the mining area form part of mining permit.
- 4.15 The holder of the EA must ensure that the names and contact details of the ECO is made available to the Regional Manager within 30 days of commencement. The holder of EA must also ensure that an ECO is always available on site to ensure that activity (ies) at all times comply with the issued EA and approved EMPr.
- 4.16 Adhere to the recommendations from Groundwater Assessment report and Ecological fauna and flora habitat specialist report.
- 4.17 The ECO must:
 - 4.17.1. Keep and maintain a detailed incidents register (including any spillages of fuels, chemicals or any other material);
 - 4.17.2. Keep a complaint register on site indicating the complaint and how the issues were addressed, what measures were taken and what the preventative measures were implemented to avoid re-occurrence of complaints;
 - 4.17.3 Keep records relating to monitoring and auditing on site and avail them for inspection to any relevant authorised officials;
 - 4.17.4. Keep copies of all environmental reports submitted to the Department;
 - 4.17.5. Keep the records of all permits, licences and authorisations required by the operation; and
 - 4.17.6. Compile a monthly monitoring report and make it available to the Department if requested.

- 4.18 The duties and responsibilities of the ECO should not be seen as exempting the holder of the EA from the legal obligations in terms of the NEMA and NEMWA
- 4.19 The footprint of the activity (ies) must be limited on the areas authorised for the actual construction works and operational activities and all areas outside of the footprint must be regarded as a "no go" areas.
- 4.20 Erosion and soil loss must be prevented by minimizing the construction site exposed to surface water run-off. Where necessary erosion stabilizing action such as gabions or re-vegetation must be implemented to prevent further habitat deterioration.
- 4.20 The holder of the EA must ensure that all personnel who work with hazardous waste are trained to deal with these potential hazardous situations so as to minimise the risk involved. Records of training and verification of competence must be kept by the holder EA.
- 4.21 In order to prevent nuisance conditions, the holder of the EA must ensure that all storage skips and bins are not overfilled.
- 4.22 The holder of the environmental authorisation must annually assess the environmental liabilities of the operation by using the master rates in line with the applicable Consumer Price Index (CPI) at the time and address the shortfall on the financial provision submitted in terms of section 24P of NEMA.
- 4.23 The holder is responsible for ensuring compliance with the conditions EA by any person acting on his/her behalf, including an agent, servant, contractor, sub-contractor, employee, consultant or any person rendering a service to the holder of the EA.
- 4.24 A person convicted of an offence of failure to comply with compliance notice is liable to a fine not exceeding five million rand or to imprisonment for a period not exceeding 10 years or to be both such fine and such imprisonment.
- 4.25 The applicable requirements with respect to relevant legislation pertaining to occupational health and safety must be adhered to.

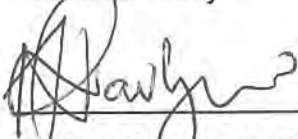
- 4.26 Should the holder of the Authorisation ever cease, he/she must take required actions as prescribed by legislation at the time and comply with all the relevant legal requirements administered by any relevant and competent authority at that time.
- 4.27 If any soil contamination is noted during mining period of the proposed activities, the contaminated soil must be removed to a suitable waste disposal facility and the site must be rehabilitated to the satisfaction of the competent authority and Department of Water and Sanitation. The opportunity for the on-site remediation and re-use of contaminated soil must be investigated prior to disposal and this competent authority must be informed in this regard.
- 4.28 Notwithstanding the Companies Act, 2009 (Act No.71 of 2008) or the Close Corporations Act, 1984 (Act No.69 of 1984), the directors of a company or members of a close corporation are jointly and severally liable for any negative impact on the environment whether advertently or inadvertently caused by the company or close corporation which they represent including damage, degradation or pollution.

G. DISCLAIMER

The Department of Mineral Resources in terms of the conditions of this environmental authorisation shall not be responsible for any damages or losses suffered by the holder, developer or his/her successor in any instance where construction or operation subsequent to construction is temporarily or permanently stopped for reasons of non-compliance with the conditions as set out herein or any other subsequent document or legal action emanating from this decision.

Your interest in the future of our environment is appreciated.

Yours faithfully



Acting Regional Manager

Regional Manager: Mineral Regulation (Northern Cape Region)

DATE OF DECISION: 03/07/2019

FOR OFFICIAL USE ONLY:

EIA REFERENCE NUMBER:

NC 30/5/1/1/2 (206/00130 MR) MEM

ANNEXURE 1:

REASONS FOR THE DECISION

In reaching its decision, the competent authority, inter alia, considered the followings:

- a) The information contained in the Environmental Authorisation application form received by the competent authority on the 15th of November 2018, the Scoping Report received by the competent authority on the 21st of January 2019, the Environmental Impact Assessment Report (EIAR) and Environmental Management Programme ("EMPr")/closure plan received by the competent authority on 30th of April 2019;
- b) Relevant information contained in the Departmental information base, including, the Department's circular on the One Environmental Management System dated 8 December 2014;
- c) The objectives and requirements of relevant legislation, policies and guidelines, including Section 2 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA");
- d) The comments received from Interested and Affected Parties ("I&APs") and the responses provided thereon, meetings, as included in the EIR submitted on the 30th of April 2019;
- e) Biodiversity study; fauna and flora habitat specialist report conducted on the month of May 2018 and also incorporated in the EIR & EMPr report;
- f) Ground water study; Storm water Management plan and water balance dated June 2018;
- g) Soils and land study dated 12 June 2018
- h) Air quality study conducted on the month of May 2018
- i) This application was submitted in terms of the 2014 as amended NEMA Environmental Impact Assessment Regulations ("EIA Regulations");

- j) The sense of balance of the negative and positive impacts and proposed mitigation measures;
- k) Heritage Impact Assessment (HIA) conducted on the 25th of May 2018 to determine if there are any archaeological and/ or Paleontological sites that may be impacted upon by the proposed prospecting activities (Act 25 of 1999) was incorporated in the EIR report;
- l) Preliminary closure plan conducted in August 2018, closure liability and the financial provision quantum submitted on the 20th of June 2019;
- m) Letter of agreement and rehabilitation strategy between Tshipi and Mamatwan Waste Rock Dump;
- n) A copy of the title deeds for portion 8 of the farm Mamatwan 331 for Tshipi e ntle Manganese Mining.
- o) The Company has the financial provision to the amount of **R122, 927, 489.77** provided for the rehabilitation of the current and future impacts, which is in line with mining activities for the rehabilitation and/ or management of negative environmental impact and the additional listed activities is covered and it deemed sufficient to cover the rehabilitation cost.

All information presented to the competent authority was taken into account in the consideration of the application for an additional environmental authorisation. A summary of the issues which, according to the competent authority, were the most significant reasons for the decision is set out below.

1. Exemption

No Exemption from NEMA and its Regulation was granted to the applicant by the competent authority. No Public Participation Process ("PPP") in accordance with Regulation 4(3) in terms of the National Exemption Regulations and Regulation 41 in terms of the EIA Regulation 2014 was conducted by the Department of Mineral Resources; the applicant and the Environmental Assessment Practitioner did the PPP and the Department was satisfied with the documentation that was submitted as a proof of the whole process.

2. Public Participation

No deviations requested and accepted by the Department from certain requirements of Regulation 41 of Government Notice No. R326.

The PPP conducted as part of the EIAR process included:

- Notification to landowner and adjacent landowners;
- registered letters and e-mail correspondent;
- Newspaper adverted notice;
- fixing a notice board at the site and any alternative site where the listed activity/ies;

All the concerns raised by I&APs were responded to and adequately addressed during the PPP. Specific management and mitigation measures have been considered in this environmental authorisation and in the EMP/closure plan to adequately address the concerns raised.

The Department concurs with the Environmental Assessment Practitioner's responses to the issues raised during the PPP and has included appropriate conditions in this environmental authorisation.

3. Alternatives

The proposed mining operation and current proposed site shows to have an overall high, medium to low negative impact on the environment. Any alterations to the site layout or prospecting and prospecting related activities may result in a lesser significant impact on the environment, but not significant enough to consider the alternative.

There were no other alternatives in regard to the preferred site, since the mine does not have enough space for conducting mining activities or infrastructure.

4. Impacts, assessment and mitigation measures

All the negative impacts identified and assessed shall be mitigated in accordance with the Environmental Management programme mitigation measures.

5. NEMA Principles

The NEMA Principles (set out in Section 2 of NEMA, which apply to the actions of all Organs of State, serve as guidelines by reference to which any Organ of State must exercise any function when taking any decision, and which must guide the interpretation, administration and implementation of any other law concerned with the protection or management of the environment), inter alia, provides for:

- the effects of decisions on all aspects of the environment to be taken into account;
- the consideration, assessment and evaluation of the social, economic and environmental impacts of activities (disadvantages and benefits), and for decisions to be appropriate in the light of such consideration and assessment;
- the co-ordination and harmonisation of policies, legislation and actions relating to the environment;
- the resolving of actual or potential conflicts of interest between Organs of State through conflict resolution procedures; and
- the selection of the best practicable environmental option.

6. Conclusion

In view of the above, the NEMA principles, compliance with the conditions stipulated in this environmental authorisation, and compliance with the EMP/closure plan, the competent authority is satisfied that the proposed listed activity/ies will not conflict with the general objectives of Integrated Environmental Management stipulated in Chapter 5 of NEMA and that any potentially detrimental environmental impacts resulting from the listed activity/ies can be mitigated to acceptable levels.

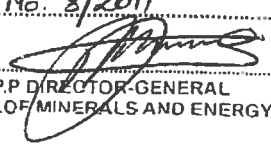
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Registered in the MINERAL & PETROLEUM TITLES
REGISTRATION OFFICE: PRETORIA

In the Register of Deed of Cession

on this 17th day of March 2011

Under MPT No. 8/2011


P.P. DIRECTOR-GENERAL
DEPT. OF MINERALS AND ENERGY

Protocol No. 46 /2011

NOTARIAL CESSION OF MINING RIGHT

BE IT HEREBY MADE KNOWN :

That on this the **15th** day of **March** in the year Two Thousand and Eleven (2011) before me, **ELLIOTT LLOYD WOOD**, Notary Public, duly admitted and sworn, residing and practising at Johannesburg in the Province of Gauteng, Republic of South Africa, and in the presence of the undersigned witnesses personally came and appeared **SHIRLEY FODOR** a senior associate of Werksmans Attorneys, of Johannesburg and as such in her capacity as the duly authorised Attorney and Agent of :



exhibited to me the Notary, and reside in my Protocol with the minute hereof.

AND THE APPEARER DECLARED THAT :

WHEREAS :

- A. The Cedent is the holder of the undermentioned mining right, converted in terms of Item 7(3) of Schedule II of the Mineral and Petroleum Resources Development Act 28 of 2002, namely:

to mine for manganese ore on portion of portion 1 and portion of portion 2 of the Farm Mamatwan 331 in the Magisterial District of Kuruman measuring 767.3155 hectares in extent as will more fully appear from the Mining Right

(hereinafter referred to as "*the Mining Right*").


- B. The Cedent has, in terms of a joint venture agreement dated 2 June 2009, as amended, disposed of the Mining Right to the Cessionary.
- C. In terms of the said joint venture agreement the Cedent wishes to cede and assign its rights and obligations under the Mining Right to the Cessionary for a consideration of R102 637 190.08.



D. The Minister of Minerals and Energy has consented in terms of section 11 of the Mineral and Petroleum Resources Development Act 28 of 2002 to the cession herein contained.

NOW THEREFORE THESE PRESENTS WITNESS :

1. The Cedent hereby, with effect from 26 July 2010, cedes and assigns all of its rights and obligations under the Mining Right to the Cessionary.
2. The Cessionary hereby accepts the cession and assignment referred to in clause 1 above.
3. It is recorded that the causa for this cession is the joint venture agreement referred to above.
4. The costs of and incidental to this cession shall be borne and paid by the Cessionary.

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NTSIMBINTLE MINING (PROPRIETARY) LIMITED
(No. 2004/003269/07)

(hereinafter together with its successors in title and assigns referred to as "*the Cedent*")

she, the said Appearer, being duly authorised hereto under and by virtue of a Special Power of Attorney signed at Johannesburg on the 6th day of **December 2010**, and granted to her by **Justin Pitt** in his capacity as Director of the Cedent, he being duly authorised thereto under and by virtue of a Resolution of Directors of the Cedent passed at Johannesburg on the **30** day of **September 2010**;

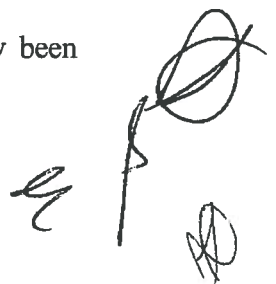
AND

TSHIPI ENTLE MANGANESE (PROPRIETARY) LIMITED
(No. 2008/003117/07)

(hereinafter together with its successors in title and assigns referred to as "*the Cessionary*")

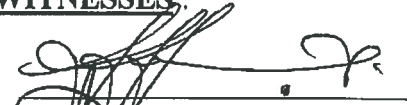
she, the said Appearer, being duly authorised hereto under and by virtue of a Special Power of Attorney signed at Johannesburg on the 6th day of **December 2010**, granted to her by **Finn Behnken** in his capacity as Director of the Cessionary, he being duly authorised thereto under and by virtue of a Resolution of Directors of the Cessionary passed at Johannesburg on the **30** day of **September 2010**;


which Powers of Attorney and certified copies of which Resolutions have today been


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THUS DONE AND EXECUTED at JOHANNESBURG on the day and in the month and year hereinbefore written in the presence of the undersigned witnesses.

AS WITNESSES:

1. 

2. 

(1)  _____ q.q.

(2)  _____ q.q.

QUOD ATTESTOR





NOTARY PUBLIC

CASUAL

CAREFUL

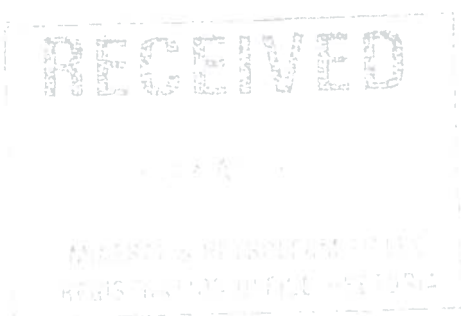
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**DEPARTMENT: MINERALS AND ENERGY
REPUBLIC OF SOUTH AFRICA**

MINING RIGHT

Granted in terms of section 23(1) of the Mineral and Petroleum Resources Development Act, 2002
(Act No. 28 of 2002)



Minerals and Energy for Development and Prosperity

[Handwritten signatures and initials]

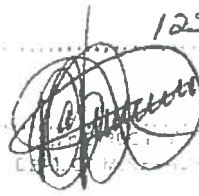
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Registered in the REPUBLIC OF SOUTH AFRICA
In the Register of Mining Right

On this 11th November 2010

Under 122/2010



Under MPI No. 8/2011
On 08/11/2010 NTSIMBINILE MINTING
(PROPRIETARY) LIMITED
in favour of
TSHIPHE NILE MANGANESE
(PROPRIETARY) LIMITED
registered on the 17th day of March 2011.
DEPARTMENT OF MINERALS AND ENERGY

Protocol No. 1265/2010
File Ref No (NC) 206 MR
Application No

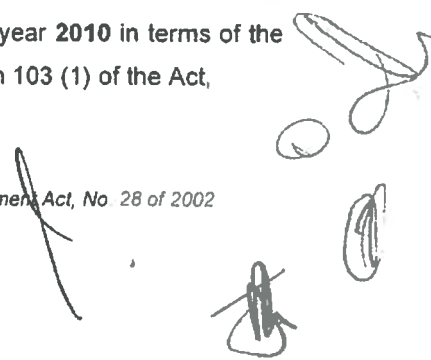
LET IT HEREBY BE MADE KNOWN:

THAT on this 07th day of April in the year 2010, before me, Izak Cornelius Potgieter a Notary Public, duly sworn and admitted, residing and practising at Kimberley, in the Northern Cape Province of South Africa, and in the presence of the subscribing competent witnesses, personally came and appeared:

Pieter Frederik Swart, Regional Manager, Northern Cape Region of the Department of Minerals and Energy, and as such in his / her capacity as the duly authorised representative of:

THE MINISTER OF MINERALS AND ENERGY

The said Regional Manager, being duly authorised thereto under and by virtue of a Power of Attorney granted by the DIRECTOR-GENERAL OR DEPUTY DIRECTOR-GENERAL: MINERAL REGULATION of the Department of Minerals and Energy on the 15th day of February in the year 2010 in terms of the powers delegated by the Minister on the 12th day of May 2004 in terms of section 103 (1) of the Act,



AND

Mokgosi Jacob Nkoana in his capacity as the duly authorised representative of Ntsimbintle Mining Proprietary Limited, Registration number:

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(Hereinafter together with his/her/its successors in title and assigns referred to as "the Holder", he/she, the said representative, being duly authorised thereto under and by virtue of a power of attorney/round robin resolution of directors/members of the Holder, signed or passed at various places on various days during March in the year 2010 which power of attorney or a certified copy of a resolution has this day been exhibited to me, the notary, and remain filed of record in my protocol with the minutes hereof.)

AND THE MINISTER AND HOLDER DECLARED THAT:

WHEREAS The State is the custodian of the Nation's mineral and petroleum resources in terms of section 3 of the Act.

AND WHEREAS The Holder has applied for a mining right in terms of section 22 of the Act,

AND WHEREAS The **DIRECTOR-GENERAL OR DEPUTY DIRECTOR-GENERAL: MINERAL REGULATION** of the Department of Minerals and Energy has by virtue of powers delegated to him, granted to the Holder, a mining right in terms of section 23(1) of the Act.

NOW THEREFORE THE MINISTER GRANTS A MINING RIGHT SUBJECT TO THE FOLLOWING TERMS AND CONDITIONS:

Definitions

In this mining right, the following words and expressions shall have the meanings assigned to them:

'**Act**' means the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) and includes the Regulations, guidelines, circulars, directives and orders made in terms of that Act;

'**Effective date**' means 07th day of April in the year 2010 (being the date on which the environmental management programme is approved in terms of section 39(4) of the Act);

'**Environmental Management Programme**' is as defined in the Act and includes any other Environmental Management Programme approved in terms of the previous mining legislation;

'**Financial year**' means a complete financial year of the Holder which, at the time of the granting of this mining right, commences on 01st day of March in the year 2010; and ends on 28th day of February in the year 2011;

'**Holder**' is as defined in the Act, and specifically in relation to this right, it means **Ntsimbintle Mining Proprietary Limited**, Registration No/Identification No 200400326907;

'**Mineral**' is as defined in the Act, and specifically in relation to this right means **manganese ore**;

'**Mining Area**' is as defined in the Act and includes any additional area of environmental liability as may be reflected on the Environmental Management Programme relating to this right;

'**Mining right**' is as defined in the Act and includes all the Annexures to it, agreements and inclusions by reference;

'**Mining Work Programme**' is as defined in the Act and as reflected in the attached **Annexure A** to this mining right;

'**Minister**' means the Minister of Minerals and Energy and includes the successors in title, the assignee or any person duly authorised to act in the Minister's place and stead;

'**Regional Manager**' is as defined in the Act and specifically in relation to this right means the Regional Manager for the **Northern Cape** Region of the Department of Minerals and Energy; and

'**Social and Labour Plan**', is as contemplated in regulation 46 of the Regulations to the Act and is as reflected in the attached **Annexure B** to this mining right.

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1. Description of the Mining Area

The Mining Area shall comprise the following:

Certain: **Portion of Portion 1 and portion of Portion 2 of the farm Mamatwan no 331**

Situated: **in Magisterial/Administrative District of Kuruman**

Measuring: **767.3155 hectares in extent.**

(In the case of various farms being involved, a list can be attached and referred to as **Annexure N/A**);

Which Mining Area is described in detail on the attached Diagram/plan marked **Annexure C**.

2. Granting of Mining Right

Without detracting from the provisions of sections 5 and 25 of the Act, the Minister grants to the Holder the sole and exclusive right to mine, and recover the mineral/s in, on and under the mining area for the Holder's own benefit and account, and to deal with, remove and sell or otherwise dispose of the mineral/s, subject to the terms and conditions of this mining right, the provisions of the Act and any other relevant law in force for the duration of this right.

3. Commencement, Duration and Renewal

3.1. This mining right shall commence on **07 April 2010** and, unless cancelled or suspended in terms of this clause 13 of this right and or section 47 of the Act, will continue to be in force for a period of **30 years ending on 06 April 2040**.

3.2. The Holder must commence with the mining operations within a year from the date on which the mining right becomes effective in terms of section 23 (5) of the Act, or any later date as may, upon a written request by the Holder, be authorised in writing by the Minister in terms of the Act, failing which this right may be cancelled or suspended.

3.3. Any application for renewal must be submitted to the Regional Manger not later than 60 working days prior to the date of expiry of this right.

4. Amendments, Variation and Abandonment

4.1. The terms of this right (including by extension of the area covered by it or by the addition of minerals or a share or shares or seams, mineralized bodies, or strata, which are not at the time the subject thereof) may not be amended or varied without the written consent of the Minister.

4.2. The Holder shall be entitled to abandon or relinquish the right or the area covered by the right entirely or in part. Upon abandonment or relinquishment of the mining area or any portion thereof, the Holder must:

- 4.2.1. Furnish the Regional Manager with all prospecting and /or mining results and/or information, as well as the general evaluation of the geological, geophysical and borehole data in respect of such abandoned area in so far as it applies to the mineral or any other mineral/s obtained in respect of this right and,
- 4.2.2. Apply for a closure certificate in terms of section 43 (3) of the Act.
- 4.3 With effect from the date the Holder has abandoned or relinquished a portion or portions of the mining area, and subject to section 43 of the Act, the Minister is entitled to grant any right, permit, or permission referred to in the Act in, on, or under the portion/s, so abandoned or relinquished, to any person/s.

5. Payment of Royalties

- 5.1. The Holder shall as contemplated in section 25 (2) (g) pay to the State throughout the duration of this mining right, royalties payable in terms of any Act or Amendment to an Act of Parliament implemented.

6. Payment of Interest

If mining fees, any fees, any levy, royalties or consideration referred to in clause 5 are not paid punctually, the Holder shall be in mora and shall pay interest thereon at the rate prescribed in terms of section 80 of the Public Finance Management Act, 1999(Act 1 of 1999) reckoned from the date on which payment is due and payable, to the date of actual payment.

7. Restrictions and Obligations Imposed on the Holder

- 7.1 The Holder is entitled to the rights referred to in section 5(2), (3) and section 25 of the Act, and such other rights as may be contained in this mining right or such other right as may be granted to, acquired by or conferred upon the Holder by any other applicable law.
- 7.2 Mining operations in the mining area must be conducted in accordance with the Mining Work Programme and any amendment to such Mining Work Programme and an approved Environmental Management Plan.
- 7.3 The Holder shall not trespass or enter into any homestead, house or its curtilage nor interfere with or prejudice the interests of the occupiers and/or owners of the surface of the Mining Area except to the extent to which such interference or prejudice is necessary for the purposes of enabling the Holder to properly exercise the Holder's rights under this mining right.

8. Conditions on disposal of Minerals and/ or Products Derived from Mining

It is a condition of the granting of this mining right that the Holder shall dispose of all minerals and/ or products derived from the exploitation of the mineral at competitive market prices which shall mean in all cases, non-discriminatory prices or non-export parity prices. If the minerals are sold to any entity, which is an affiliate or non-affiliated agent or subsidiary of the Holder, or is directly or indirectly controlled by the Holder, such purchaser must unconditionally undertake in writing to dispose of the minerals and any products produced from the minerals, at competitive market prices.

9. Mortgage, Cession, Transfer, Alienation

9.1 This mining right, a shareholding, an equity, an interest or participation in the right or joint venture, or a controlling interest in a company, close corporation or joint venture, may not be encumbered, ceded, transferred, mortgaged, let, sublet, assigned, alienated or otherwise disposed of without the written consent of the Minister, except in the case of a change of controlling interest in listed companies.

9.2 Any transfer, encumbrance, cession, letting, sub-letting, assignment, alienation or disposal of this right or any interest therein or any share or any interest in the Holder, without the consent of the Minister referred to in section 11(1) is of no force, no effect and is invalid.

10. Protection of Boreholes, Shafts, Edits and Openings.

All boreholes, shafts, edits, excavations, and openings sunk or made, by the Holder during the currency of this mining right shall be sealed, closed, fenced, made safe by the Holder in accordance with the approved Environmental Management Programme, the Mine Health and Safety Act, 1996 or any other applicable laws and Regulations.

11. Holder's liability for payment of Compensation for Loss or Damage

11.1. Subject to section 43 of the Act, the Holder shall, during the tenure of this right while carrying out the mining operations under this right, take all such necessary and reasonable steps to adequately safeguard and protect the environment, the mining area and any person/s using or entitled to use the surface of the mining area from any possible damage or injury associated with any activities on the mining area.

- 11.2. Should the holder fail to take reasonable steps referred to above, and to the extent that there is legal liability, the holder shall compensate such person or persons for any damage or losses, including but not limited to damage to the surface, to any crops or improvements, which such person or persons may suffer as a result of, arising from or in connection with the exercise of his/her rights under this mining right or of any act or omission in connection therewith.

12. Inspection of Mining Area

The Minister and/or any person duly authorised thereto in writing by the Minister shall be entitled to inspect the mining area, the Holder's mining operations and the execution of the approved Environmental Management Programme on the Mining Area as provided for in the Act, and any instruction conveyed in writing by the Minister to the Holder requiring the proper performance by the Holder of the Holder's obligations under this mining right shall be put into effect by the Holder in terms of the Act.

13. Cancellation or Suspension

- 13.1 Subject to section 47 of the Act, this mining right may be cancelled or suspended if the Holder:

- 13.1.1 Submits inaccurate, incorrect and or misleading information in connection with any matter required to be submitted under the Act;
- 13.1.2 Fails to honour or carry out any agreement, arrangement, or undertaking, including the undertaking made by the Holder in terms of the Broad Based Socio Economic Empowerment Charter and Social and Labour plan, on which the Minister relied for the granting of this right;
- 13.1.3 Breaches any material term and condition of this mining right;
- 13.1.4 Conducts mining operations in contravention of the provisions of the Act;
- 13.1.5 Contravenes the requirement of the approved Environmental Management Programme; or
- 13.1.6 Contravenes any provisions of this Act in any other manner.

- 13.2 Before the Minister cancels or suspends this right, the Minister shall:

- 13.2.1 Give written notice to the Holder indicating the intention to suspend or cancel this right;
- 13.2.2 Give reason/s why the Minister is considering the suspension or cancellation of this right;
- 13.2.3 Give the Holder 30 days to show reasons why the right should not be suspended or cancelled;
- 13.2.4 Notify, the mortgagee [if any], of the intention to suspend or cancel this right; and
- 13.2.5 Direct the Holder, where it is possible to remedy any contravention, breach or failure, to comply or to take such specified measures to remedy any contravention, breach or failure to comply.
- 13.3 If the Holder does not take the measures as specified by the Minister to remedy a contravention, breach or failure, the Minister may cancel or suspend this right after considering representations made by the Holder in terms of clause 13.2.3.

14. Records and Returns

- 14.1. The Holder shall maintain all such books, plans and records in regard to mining on the Mining Area as may be required by the Act and shall furnish to the office of the Regional Manager such reports and documents as may be relevant under this right.
- 14.2. The Holder shall furnish to the Regional Manager all such monthly returns contemplated in section 28 (2) A of the Act not later than the 15th day of the month following the month in respect of which it was reported.
- 14.3. The Holder shall furthermore at the end of each year following commencement of this mining right, inform the Regional Manager in writing of any new developments and of the future mining activities planned in connection with the exploitation/mining of the minerals on the Mining Area.

15. Minister's liability for Compensation

The Minister shall not at any time be liable or responsible for the payment of compensation of whatever nature to the Holder, the Holder's successors-in-title or assignee, or any person whomsoever as a result of the granting of this right.

16. Compliance with the Laws of the Republic

The granting of this Right, does not exempt the Holder and its successors in title and/or assigns from complying with the relevant provisions of the Mine Health and Safety Act, (Act No.29 of 1996) and any other law in force in the Republic of South Africa.

17. Provisions relating to section 2(d) and (f) of the Act

In the furthering of the objects of this Act, the Holder is bound by the provisions of an agreement or arrangement dated 26 & 27 September 2006 also 02, 03 & 04 October 2006 entered into between the Holder/ empowering partner and **Safika Resources Pty Ltd, Women Investments Portfolio Holdings Ltd, Sunshine Street Investments 131 Pty Ltd, Bo-Mme Ba Meepo Investments Pty Ltd, The Trustees of the Kgalagadi Rural Poverty Node Charitable Trust, Natural Resources Empowerment Fund, NC Women in Mining Pty Ltd, Future Indefinite Investments 225 Pty Ltd and Nkojane Economic Prospecting and Investment Pty Ltd** (the empowerment partner) which agreement or arrangement was taken into consideration for purposes of compliance with the requirements of the Act and or Broad Based Economic Empowerment Charter developed in terms of the Act and such agreement shall form part of this right.

18. Social and Labour Plan

- 18.1 The holder must annually, not later than three months before the end of its financial year, submit detailed implementation plan to give effect to Regulation 46(e)(i),(ii)and (iii) in line with the Social and Labour Plan.
- 18.2 The holder must annually, not later than three months after finalisation of its audited annual report, submit a detailed report on the implementation of the previous year's social and labour plan.

19. Severability

Notwithstanding anything to the contrary, any provision of this mining right which is contrary to any provision of the Act or which is otherwise ultra vires, null and void, voidable, or unenforceable, shall be severable from the rest of this right, such rest thus being and remaining of full force, effect and enforceable.

20. Domicilia citandi et executandi

20.1. The parties hereto choose the following addresses as their *domicilia citandi et executandi* and for all purposes arising from this mining right, in particular for the purposes of serving of any notice in terms of this mining right, and any notice properly addressed to the under mentioned postal addresses of the parties shall be deemed to have been received by the addressee within 14 days if given in writing and posted by prepaid registered post addressed to the addressee at the relevant postal address:

20.1.1. In the case of the **Minister**:

Physical Address	Postal Address
Liberty Corner Building, 29-31 Currey Street, Kimberley Code 8301 Tel 053 807 1700 Fax 053 832 5631	Private Bag X6093 Kimberley 8300

20.1.2. In the case of the **Holder**:

Physical Address	Postal Address
89 Central Street Houghton Code 2198	PO Box 652286 Benmore 2010

Tel 011 483 0840	
Fax 011 483 0655	

- 20.2. Notwithstanding anything to the contrary herein contained, a written notice or communication actually received by a party at any place other than the chosen *domicilia citandi et executandi* shall constitute adequate notice or communication to the party notwithstanding that it was not sent to or delivered at such party's chosen *domicilium citandi et executandi*.
- 20.3 Either party shall be entitled from time to time to change the *domicilia citandi et executandi* or postal address furnished above after giving at least 14 days prior written notice of such change to the other party, failing which the above mentioned addresses will remain in force.
- 20.4. Any written notice or communication contemplated in this clause which is forwarded by one party to the other by registered post will be presumed to have been received by the addressee on the fourteenth day following the date of posting from an address within the Republic of South Africa to the addressee at the postal address of the addressee for the time being as determined in accordance with the provisions of this clause.

21. Costs

The Holder shall pay all costs and charges incurred in connection with the execution and registration of this prospecting right.

Thus done and signed at Kimberley on the 07th day of April in the year 2010 in the presence of the undersigned witnesses:

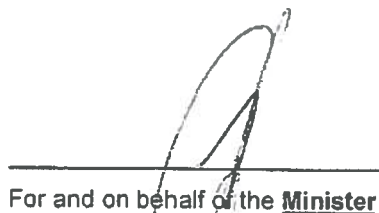
AS WITNESS:



AS WITNESS:






For and on behalf of the Minister

IZAK CORNELIUS POTGIETER and on behalf of the Holder
NOTARY PUBLIC / NOTARIS PUBLIEK
NORTHERN CAPE PROVINCE / NOORD-KAAP PROVINSIE
R.S.A.



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

Private Bag X313, Pretoria, 0001, Sedibeng Building, 185 Francis Beard Street, Pretoria,
Tel: (012) 336-7500 Fax: (012) 323-4472 / (012) 326-2715

**LICENCE IN TERMS OF CHAPTER 4 OF THE
NATIONAL WATER ACT, 1998 (ACT NO. 36 OF 1998) (THE ACT)**

I, **Margaret-Ann Diedricks**, in my capacity as Director-General in the Department of Water and Sanitation and acting under authority of the powers delegated to me by the Minister of Water and Sanitation, hereby authorise the following water uses in respect of this licence:

SIGNED:

DATE: 19th APRIL 2015

**LICENCE NO: 10/D41K/AGJ/1735
FILE NO: 27/2/2/D1141/C/1**

1. Licensee: Tshipi e Ntle Manganese Mining (Pty) Ltd

Postal Address: P.O Box 652286
Johannesburg
2010

2. Water Uses

- 2.1 Section 21(a) of the Act: Taking of water from a water resource, subject to the conditions set out in Appendices I and II.
- 2.2 Section 21(b) of the Act: Storage of water, subject to the conditions set out in Appendices I and III.
- 2.4 Section 21(g) of the Act: Disposing of waste in a manner which may detrimentally impact on a water resource, subject to the conditions as set out in Appendices I and IV.
- 2.6 Section 21(j) of the Act: Removing, discharging or disposing of water found underground, subject to the conditions set out in Appendices I and V.

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3. Properties on which water uses will be exercised

Table 1: Water uses and properties

Water Uses	Properties	Registered Owner
Section 21 (a)	Mamathwan 331 RD Portion 16 and 17	Tshipi e Ntle Manganese Mining (Pty) Ltd
Section 21 (b)	Mamathwan 331 RD Portion 17	Tshipi e Ntle Manganese Mining (Pty) Ltd
Section 21 (g)	Mamathwan 331 RD Portion 16 and 17	Tshipi e Ntle Manganese Mining (Pty) Ltd
Section 21 (j)	Mamathwan 331 RD Portion 17	Tshipi e Ntle Manganese Mining (Pty) Ltd

4. Registered Owner of the Properties

4.1 Tshipi e Ntle Manganese Mining (Pty) Ltd

5. Licence and Review Period

5.1 This licence is valid for a period of twenty six (26) years from the date of issuance and may be reviewed every five (5) years.

6. Definitions

"Any terms, words and expressions as defined in the National Water Act (Act 36 of 1998) shall bear the same meaning when used in this licence, unless specifically stated otherwise."

"The Provincial Head" means the Provincial Head: Northern Cape, Department of Water and Sanitation, Private Bag X6101, Kimberley, 8300.

"The Act" means the National Water Act, (Act 36 of 1998).

"Report" refers to the reports entitled:

- Geo-hydrological Report prepared by Water Geoscience Consulting, dated 27 February 2009;
- Water Quality Management Report and Waste Management Plan prepared by SLP Global Environmental Solutions, dated 12 June 2013;
- Civil Design for the Storm Water Dam prepared by CICON Consulting Engineering, dated 21 October 2011;
- Environmental Management Plan prepared by Metago Environmental Engineers (Pty) Ltd, dated 20 May 2009;
- Environmental Impact Assessment prepared by Metago Environmental Engineering (Pty) Ltd, dated 23 May 2009;
- Integrated Water and Waste Management Plan (IWWMP) prepared by SLP Global Environmental Solutions, dated 12 June 2013; as well as all other related documentation and communication (e-mails, letters, verbal, etc) related thereto.



7. Description of the Project

Tshipi e Ntle Manganese Mining (Pty) Ltd is authorised to undertake Section 21(a), (b), (g) and (j) water uses in terms of Section 40 of the National Water Act, 1998 (Act 36 of 1998) associated with the mining of manganese ore on Portion 2 of the Farm Mamatwan 331 and Portion 3 (a Portion of Portion 1) of the Farm Diabiaghomo 226). The mine and associated activities are located in the Lower Vaal Water Management Area within Quaternary Catchment D41K.



APPENDIX I

General conditions of the licence

1. This licence is subject to all applicable provisions of the National Water Act, 1998 (Act 36 of 1998).
2. The responsibility for complying with the provisions of the licence is vested in the Licensee and not any other person or body.
3. The Licensee must immediately inform the Provincial Head of any change of name, address, premises and/or legal status.
4. If the property(ies) in respect of which this licence is issued is subdivided or consolidated, the Licensee must provide full details of all changes in respect of the properties to the Provincial Head of the Department within sixty (60) days of the said change taking place.
5. If a water user association is established in the area to manage the resource, membership of the Licensee to this association is compulsory.
6. The Licensee shall be responsible for any water use charges or levies imposed by a Responsible Authority.
7. While effect must be given to the Reserve as determined in terms of the Act, where a desktop determination of the Reserve has been used in issuance of a licence, when a comprehensive determination of the Reserve has finally been made; it shall be given effect to.
8. The licence shall not be construed as exempting the Licensee from compliance with the provisions any other applicable Act, Ordinance, Regulation or By-law.
9. The licence and amendment of this licence are also subject to all the applicable procedural requirements and other applicable provisions of the Act, as amended from time to time.
10. The Licensee shall conduct an annual internal audit on compliance with the conditions of licence. A report on the audit shall be submitted to the Provincial Head within one (1) month of finalisation of the audit
11. The Licensee shall appoint an independent external auditor to conduct an annual audit on compliance with the conditions of this licence. The first audit must be conducted within three (3) months after the date this licence is issued and a report on the audit shall be submitted to the Provincial Head within one (1) month of finalization of the report.
12. Flow metering, recording and integrating devices shall be maintained in a sound state of repair and calibrated by a competent person at intervals of not more than two (2) years. Calibration certificates shall be available for inspection by the Provincial Head or his/her representative upon request.

13. Any incident that causes or may cause water pollution must be reported to the Provincial Head or his/her designated representative within twenty four (24) hours.
14. The Licensee must provide written proof from an independent laboratory that the stockpile material and waste rock dump material emanating from this project are Type 4 waste according to Regulation 36784 Articles 634 & 635.

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APPENDIX II

Section 21 (a) of the Act: Taking water from a water resource

1. The Licensee is authorised to take a maximum quantity of water in cubic metres per annum (m^3/a) from two (2) boreholes and a mining pit as indicated in Table 2.

Table 2: Section 21 (a) water use activity

Purpose	Volume (m^3/a)	Property Description	Co-ordinates
Taking water from an open (dewatering) pit for mining purposes	57 720 m^3/a	Mamathwan 331 RD Portion 17	27°22'47.4"S 22°57'55.0"E
Taking water from the borehole (TSH01) for mine processing	12 612 m^3/a	Mamathwan 331 RD Portion 16	27°22'52.2"S 22°56'58.8"E
Taking water from the borehole (TSHI02) for potable and emergency water use	12 612 m^3/a	Mamathwan 331 RD Portion 16	27°22'36.7"S 22°57'20.3"E

2. The quantity of water authorised to be taken in terms of this licence may not be exceeded without prior authorisation by the Department.
3. This licence does not imply any guarantee that the said quantities and qualities of water will be available at present or at any time in the future.
4. The above mentioned volume may be reduced when the licence is reviewed.
5. The Licensee shall continually investigate new and emerging technologies and put into practice water efficient devices or apply technique for the efficient use of water containing waste, in an endeavour to conserve water at all times.
6. The Licensee shall be responsible for any water use charges or levies, which may be imposed from time to time by the Department or responsible authority in terms of Department's Raw Water Pricing Strategy.
7. The Department accepts no liability for any damage, loss or inconvenience, of whatever nature, suffered as a result of:
 - 7.1 shortage of water
 - 7.2 inundations or flood
 - 7.3 siltation of the resource; and
 - 7.4 required reserve releases.
8. The Licensee shall establish and implement a continual process of raising awareness amongst itself, its workers and stakeholders with respect to Water Conservation and Water Demand Management initiatives.



APPENDIX III

Section 21 (b) of the Act: Storing of water

1. Storing of Water

- 1.1 The Licensee is authorised to store a maximum quantity of treated water in cubic metres per annum (m^3/a) in a reservoir as indicated in Table 3.

Table 3: Section 21 (b) water use activity

Purpose	Capacity/ Volume (m^3 , tonnes and/or $m^3/annum$)	Property Description	Co-ordinates
Storing potable water from Sedibeng Water Board in a water tank for domestic use	2000 m^3	Mamathwan 331 RD Portion 17	27°23'37.0"S 22°58'01.3"E
Storing water in a temporary dam for construction activities	9000 m^3	Mamathwan 331 RD Portion 17	27°23'31.6"S 22°58'03.1"E

- 1.2 The Licensee must obtain any proprietary rights or servitudes at their own cost.
- 1.3 The Licensee is not exempted from compliance with any applicable Dam Safety Regulations.

2. Monitoring Requirements

- 2.1 The Licensee is not indemnified from any detrimental effect that the dam(s) may have on other properties. The Department does not accept any responsibility or liability for any damages or losses that may be suffered by any other party as a result of the construction and utilisation of the dams.
- 2.2. Suitable measuring structures must be constructed up-stream and down-stream of the dam to measure the flow entering and leaving the dam and this information must be available on request.
- 2.3 The Licensee shall establish a monitoring programme and the date and time of monitoring in respect of each sample taken. Sample shall be recorded together with the results of the analysis as well as other significant information (low flow, flooding, pollution incident, etc.).
- 2.4 The quantity of water stored shall be recorded as at the last day of each month.

3. Dam Safety Requirements

- 3.1 The construction, operation, and maintenance of all dam facilities classified as a dam with a safety risk, must be carried out under the supervision of a Professional Civil Engineer, registered under the Engineering Profession of South Africa Act, 1990 (Act 114 of 1990).

3.2 The Licensee shall supply any information, drawings, specifications, design assumptions, calculations, documents and test results when requested by the Provincial Head.

3.3 The Licensee is not exempted from compliance with any applicable Dam Safety Regulations published under Government notice R.139 of July 2012, read with Chapter 12 of the Act.

4. Construction of Dam(s)

4.1 The as-built plans and specifications of the dam(s) must be submitted to the Provincial Head for his/her records.

4.2 The Government reserves the right to construct storage works at any time in any stream and to store all surplus water reaching the dam(s) and to control the allocation of such water.

4.3 Construction of the dam(s) may not commence unless the required authorisation to build has been issued by the Dam Safety Office of the Department.



APPENDIX IV

Section 21 (g) of the Act: Disposing of waste in a manner which may detrimentally impact on a water resource

1. CONSTRUCTION, OPERATION AND MAINTENANCE

- 1.1 The Licensee shall carry out and complete all the activities, including the construction and operation of the facilities indicated in Table 4, according to the Report and according to the final plans submitted with the integrated water use licence application.

Table 4: Details of waste water management facilities

Purpose	Capacity/ Volume (m ³ , tonnes and/or m ³ /annum)	Property Description	Co-ordinates
Storing water from the tailings facility in a return water dam	15 768m ³	Mamathwan 331 RD Portion 16	27°22'25.1"S 22°56'35.7"E
Storing water into Dirty water dam	613 200 m ³ /a /10 678.4m ³	Mamathwan 331 RD Portion 16	27°23'30.9"S 22°57'48.1"E
Workshop collection dam	1446 m ³ /a	Mamathwan 331 RD Portion 16	27°23'20.1"S 22°57'38.2"E
Tailling/Slimes dam	85 838 m ³ /a/227 760 tons	Mamathwan 331 RD Portion 16	27°22'28.7"S 22°56'42.7"E

- 1.2 The construction of the dams listed in Table 4 must be carried out under the supervision of a professional Civil Engineer, registered under the Engineering Profession of South Africa Act, 1990 (Act 114 of 1990).
- 1.3 Within 30 days after the completion of the water use activities listed in Table 4 in accordance with the relevant provisions of this licence, the Licensee shall in writing; under reference 27/2/2/D1041/7/9, inform the Provincial Head thereof. This shall be accompanied by a signature of approval from the registered civil design professional confirming that the construction was done according to the design plans referred to in the Report.
- 1.4 The Licensee must ensure that the disposal of the waste water and the operation and maintenance of the system are done according to the provisions in the Report.
- 1.5 The Licensee shall as well submit a set of as-built drawings to the Provincial Head after the completion of the waste facilities listed in Table 4.
- 1.6 The waste facilities listed in Table 4 shall be operated and maintained to have a minimum freeboard of 0.8 metres above full supply level and all other water systems related thereto shall be operated in such a manner that it is at all times capable of handling the 1:50 year flood-event on top of its mean operating level.



1.7 The Licensee shall use acknowledged methods for sampling and the date, time and sampler must be indicated for each sample.

2. STORAGE OF WASTE OR WATER CONTAINING WASTE

2.1 The Licensee is authorised to dispose of a maximum quantity in cubic metres (m³) of waste or water containing waste per annum into the waste management facilities on the property described in Table 5:

Table 5: Disposal of Waste/Water containing Waste

Purpose	Capacity/ Volume (m ³ , tonnes and/or m ³ /annum)	Property Description	Co-ordinates
Storing dirty water from tailings facility in return water dam	15 768m ³	Mamathwan 331 RD Portion 16	27°22'25.1"S 22°56'35.7"E
Storing dirty water in dirty water dam	613 200 m ³ /a /10 678.4m ³	Mamathwan 331 RD Portion 16	27°23'30.9"S 22°57'48.1"E
Workshop collection dam	1446 m ³ /a	Mamathwan 331 RD Portion 16	27°23'20.1"S 22°57'38.2"E
ROM primary product stockpile	24 260 tons	Mamathwan 331 RD Portion 17	27°23'07.5"S 22°58'06.8"E
Low grade product stockpile	100 000 tons	Mamathwan 331 RD Portion 16	27°23'14.1"S 22°57'44.9"E
Lumpy product stockpile	2 040 000 tons	Mamathwan 331 RD Portion 16	27°23'32.1"S 22°58'09.1"E
Fines product stockpile	480 000 tons	Mamathwan 331 RD Portion 17	27°23' 31.7"S 22°58' 10.8"E
Eastern waste rock dump	62 160 tons	Mamathwan 331 RD Portion 17	27°23'48.9"S 22°58'24.8"E
Western waste rock dump	34 663 tons	Mamathwan 331 RD Portion 16 and 17	27°22'52.0"S 22°57'16.8"E
Taillings/slimes dam	85 838 m ³ /a/227 760 tons	Mamathwan 331 RD Portion 16	27°22'28.7"S 22°56'42.7"E
Dust suppression	105 996 m ³ /a	Mamathwan 331 RD Portion 16, 17 and 18	Various areas on mining properties

2.2 The quantity of water containing waste authorised to be disposed of in terms of this licence may not be exceeded without authorisation from the Provincial Head.

3. MONITORING

3.1 The Licensee shall monitor on monthly basis the water resources at groundwater monitoring points to determine the impact of the facility and other mining activities on the water quality by taking samples at the monitoring points as indicated in Table 6:

Table 6: Ground water monitoring points



Borehole ID	Latitude (S)	Longitude (E)	Depth	Purpose
(TSH01)	27°22'47.4"S	22°57'55.0"E	30m	Down gradient, shallow groundwater level/quality
(TSH02)	27°22'36.7"S	22°57'20.3"E	30m	Down gradient, shallow groundwater level/quality

- 3.2 The date, time and monitoring point in respect of each sample taken shall be recorded together with the results of the analysis.
- 3.3 Monitoring points must not be changed prior to notification to and written approval by the Provincial Head.
- 3.4 An Aquatic Scientist approved by the Provincial Head must establish a monitoring programme for the following indices: Invertebrate Habitat Assessment System (IHAS) and the latest SASS (South African Scoring System). Sampling must be done once during the summer season and once during the winter season, annually, to reflect the status of the river upstream and downstream of the wastewater contaminated facilities as indicated in Table 6
- 3.5 Analysis shall be carried out in accordance with methods prescribed by and obtainable from the South African Bureau of Standards (SABS), in terms of the Standards Act, 1982 (Act 30 of 1982).
- 3.6 The methods of analysis shall not be changed without prior notification to and written approval by the Department.
- 3.7 Proper ground and surface water monitoring network should be established to monitor the quality and quantity of groundwater as per the Report recommendation and ensuring that water used by other water users are safeguarded in accordance to Chapter 14 of the National Water Act, 1998.

4 WATER RESOURCE PROTECTION

- 4.1 The impact of the activities of the wastewater containment facilities on groundwater shall not exceed the interim resource water quality objective (RWQO) for the management unit as detailed in the Water Quality Reserve for the area as set out in Table 7:

Table 7: Resource quality objectives

Parameters	Groundwater quality reserve
Sodium (mg/l)	100 – 200
Total Dissolved Solids	450 – 1000
Magnesium (mg/l)	30 -70
Calcium (mg/l)	80 – 150
Chloride (mg/l)	100 – 200
Sulphate (mg/l)	200 – 400
Faecal coliforms	0 – 1
Nitrate (mg/l)	6 – 10
Fluoride (mg/l)	1 – 1.5
Ph	5 – 6& 9 – 9.5
Electrical Conductivity	70 – 150

5 REPORTING

- 5.1 The Licensee shall update the water balance annually and calculate the loads of waste emanating from the activities. The Licensee shall determine the contribution of their activities to the mass balance for the water resource and must furthermore co-operate with other water users in the catchment to determine the mass balance for the water resource reserve compliance point.
- 5.2 The Licensee shall submit the results of analysis for the monitoring requirements to the Provincial Head on a quarterly basis under the reference number 27/2/2/B312/6/4.
- 5.3 The Licensee shall submit the nature and the quality of waste disposed of into the following wastewater facilities:
- 5.3.1 Pollution control dams
 - 5.3.2 Return water dam
 - 5.3.3 Workshop collection dam
 - 5.3.4 Talling/slimes dam
 - 5.3.5 Office French drains for sewage disposal

6. STORMWATER MANAGEMENT

- 6.1 Stormwater leaving the Licensee's premises shall in no way be contaminated by any substance, whether such substance is a solid, liquid, vapour or gas or a combination thereof which is produced, used, stored, dumped or spilled on the premises.
- 6.2 Increase runoff due to vegetation clearance and/or soil compaction must be managed, and steps must be taken to ensure that stormwater does not lead to bank instability and excessive levels of silt entering the stream.
- 6.3 Stormwater shall be diverted from the mine complex site and roads and shall be managed in such a manner as to disperse runoff and concentrating the stormwater flow.
- 6.4 Where necessary works must be constructed to attenuate the velocity of any stormwater discharge and to protect the banks of the affected watercourses.
- 6.5 Stormwater control works must be constructed, operated and maintained in a sustainable manner throughout the impacted area.
- 6.7 Increased runoff due to vegetation clearance and/or soil compaction must be managed, and steps must be taken to ensure that stormwater does not lead to bank instability and excessive levels of silt entering the streams.
- 6.8 All stormwater that would naturally run across the pollution areas shall be diverted via channels and trapezoidal drains designed to contain the 1:50 year flood.

6.9 Polluted stormwater captured in the stormwater control dams shall be pumped back to the processing plant for reuse and recycling.

7. PLANT AREAS AND CONVEYANCES

7.1 Pollution caused by spills from the conveyances must be prevented through proper maintenance and effective protective measures especially near all stream crossings.

7.2 All reagent storage tanks and reaction units must be supplied with a bunded area built to the capacity of the facility and provided with sumps and pumps to return the spilled material back into the system. The system shall be maintained in a state of good repair and standby pumps must be provided.

7.3 Any hazardous substances must be handled according to the relevant legislation relating to the transport, storage and use of the substance.

7.4 Any access roads or temporary crossings must be:

7.4.1 non-erosive, structurally stable and shall not induce any flooding or safety hazard and;

7.4.2 repaired immediately to prevent further damage.

8. ACCESS CONTROL

8.1 Strict access procedures must be followed in order to gain access to the property. Access to the waste water containment facilities must be limited to authorised employees of the Licensee and their contractors only.

8.2 Notices prohibiting unauthorised persons from entering the controlled access areas as well as internationally acceptable signs indicating the risks involved in case of an unauthorised entry must be displayed along the boundary fence of these areas.

9. CONTINGENCIES

9.1 Accurate and up-to-date records shall be kept of all system malfunctions resulting in non-compliance with the requirements of this licence. The records shall be available for inspection by the Provincial Head upon request. Such malfunctions shall be tabulated under the following headings with a full explanation of all the contributory circumstances:

9.1.1 operating errors;

9.1.2 mechanical failures (including design, installation or maintenance);

9.1.3 environmental factors (e.g. flood);

9.1.4 loss of supply services (e.g. power failure); and

9.1.5 other causes.

9.2 The Licensee must, within 24 hours, notify the Provincial Head of the occurrence or potential occurrence of any incident which has the potential to cause, or has caused water pollution, pollution of the environment, health risks or which is a contravention of the licence conditions.

- 9.3 The Licensee must, within 14 days, or a shorter period of time, as specified by the Provincial Head, from the occurrence or detection of any incident referred above, submit an action plan, which must include a detailed time schedule, to the satisfaction of the Provincial Head of measures taken to:
- 9.3.1 correct the impacts resulting from the incident;
 - 9.3.2 prevent the incident from causing any further impacts; and
 - 9.3.3 prevent a recurrence of a similar incident.

10. AUDITING

- 10.1 The Licensee shall conduct an annual internal audit on compliance with the conditions of this licence. A report on the audit shall be submitted to the Provincial Head within one (1) month of finalisation of the report, and shall be made available to an external auditor should the need arise.
- 10.2 The Licensee shall appoint an independent external auditor to conduct an annual audit on compliance with the conditions of this licence. The first audit must be conducted within six (6) months of the date this licence was issued and a report on the audit shall be submitted to the Provincial Head within one month of finalisation of the report.

11. INTEGRATED WATER AND WASTE MANAGEMENT

- 11.1 The Licensee must update an Integrated Water and Waste Management Plan (IWWMP), which must together with the updated Rehabilitation Strategy and Implementation Programme (RSIP), be submitted to the Provincial Head for approval within one (1) year from the date of issuance of this licence.
- 11.2 The IWWMP and RSIP shall thereafter be updated and submitted to the Provincial Head for approval, annually.
- 11.3 The Licensee must, at least one hundred and eighty (180) days prior to the intended closure of any facility, or any portion thereof, notify the Provincial Head of such intention and submit any final amendments to the IWWMP and RSIP as well as a final Closure Plan, for approval.
- 11.4 The Licensee shall make full financial provision for all investigations, designs, construction, operation and maintenance for a water treatment plant should it become a requirement as a long-term water management strategy.

12. GENERAL CONDITIONS

- 12.1 Water samples must be taken from all the monitoring boreholes by using approved sampling techniques and adhering to recognized sampling procedures. Samples should be analyzed for both organic as well as inorganic pollutants, as mining activity often lead to hydrocarbon spills in the form of diesel and oil. At least the water quality parameters on Table 7 should be analyzed.

- 12.2 Water samples should be recorded on a data sheet. It is proposed that the data should be entered into an appropriate computer database and reported to the Department.
- 12.3 The final backfilled opencast topography should be engineered such that runoff is directed away from the opencast areas.
- 12.4 The Licensee must ensure in advance that alternative water supply for external water users is provided to these users should groundwater resources be impacted
- 12.5 Pollution control dam must be designed in such a manner that any spillage can be contained and reclaimed without any impact on the surrounding environment. A plan must be in place to stop overflowing in dams during the rainy season.
- 12.6 Geochemical assessments should be done on the discard material during the mining operation.
- 12.7 The Licensee shall at all times together with the conditions of this licence adhere to the Regulations on use of water for mining and related activities aimed at the protection of water resources (Government Notice 704 of 4 June 1999).



APPENDIX V

Section 21 (j) of the Act: 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

1. This licence authorises the removal, discharging or disposing of a maximum volume of water found underground for the efficient continuation of an activity as set out in Table 8:

Table 8: Section 21 (j) water use activities

Purpose	Volume (m ³ , m ³ /annum)	Property Description	Co-ordinates
Open pit dewatering	57 720 m ³ /a	Mamathwan 331 RD Portion 17	27°22'47.7"S 22°51'55.0"E

2. The quantity of the water authorised to be removed and disposed of into the pollution control dam in terms of this license may not be exceeded without prior authorisation by the Department.
3. The Licensee shall provide any water user whose water supply is impacted by the water use with potable water.
4. The quantity of water removed from underground must be metered and recorded on a daily basis.
5. Groundwater levels shall be monitored every six (6) months (once in the beginning of the dry season and once in the beginning of the wet season).
6. Self-registering flow meters must be installed in the delivery lines at easily accessible positions near the dewatering points.
7. The flow metering devices shall be maintained in a sound state of repair and calibrated by a competent person at intervals of not more than once in two (2) years. Calibration certificates shall be available for inspection by the Provincial Head or his/her representative upon request.
8. Calibration certificates in respect of the pumps must be submitted to the Provincial Head after installation thereof and thereafter at intervals of two years.
9. The date and time of monitoring in respect of each sample taken shall be recorded together with the results of the analysis.
10. Analysis shall be carried out in accordance with methods prescribed by and obtainable from the South African Bureau of Standards, in terms of the Standards Act, 1982 (Act 30 of 1982).
11. The methods of analysis shall not be changed without prior notification to the Licensee and

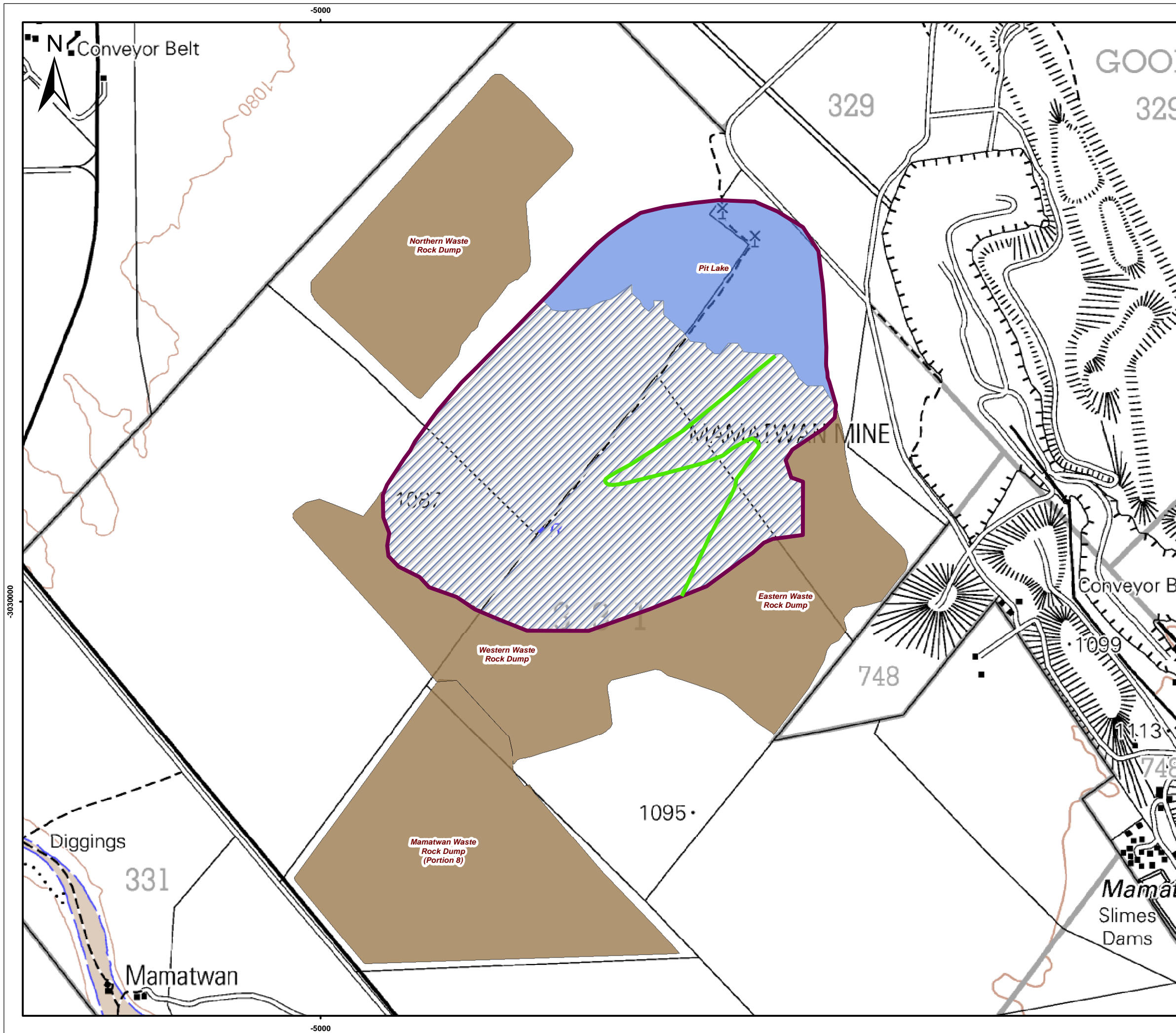
written approval by the Provincial or his/her delegated nominee.

12. The Provincial Head must be informed of any incident that may lead to groundwater being disposed of contrary to the provisions of this license, by submitting a report containing the following information:
 - 12.1 nature of the incident (e.g. operating malfunctions, mechanical failures, environmental factors, loss of supply services, etc);
 - 12.2 actions taken to rectify the situation and to prevent pollution or any other damage to the environment; and
 - 12.3 measures must be taken to prevent re-occurrence of any similar incident.
13. The Licensee shall follow acceptable construction, maintenance and operational practices to ensure the consistent, effective and safe performance of the groundwater removal system.
14. Reasonable measures must be taken to provide for mechanical, electrical or operational failures and malfunctions of the underground water removal system.

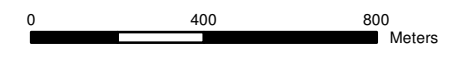
[END OF LICENCE]



APPENDIX 4
INFRASTRUCTURE LAYOUT (FIGURE 3)



- Legend**
- Open Pit
 - Concurrent In-Pit Dumping
 - Pit lake
 - Waste Rock Dumps
 - Access Road



Scale: 1:17 500 @ A3
 Projection: Transverse Mercator
 Datum: WGS1984, Lo23

Tshipi é Ntle Manganese Mining (Pty) Ltd

Figure 3
Site Layout



SLR Consulting (Africa) (Pty) Ltd
 P O Box 1596, Cramerview, 2060, South Africa
 Tel: +27 (11) 467-0945 Fax: +27 (11) 467-0978

APPENDIX 5 PUBLIC CONSULTATION

- Minutes of DMR pre-application meeting held on 02 May 2019
- Land claims commissioner correspondence
- Site notice in English and Afrikaans and photographic proof of placement
- Adverts placed in the Kathu Gazette and the Kalahari Bulletin
- Background Information Documents (English and Afrikaans) including proof of distribution
- Minutes of the public and general commenting authorities meeting held on 26 June 2019
- Minutes of the focussed DWS, DAFF/DENC meetings held on 21 June 2019 and 27 June 2019, respectively

**Minutes of DMR
pre-application
meeting held on
02 May 2019.**

TSHIPI É NTLÉ MANGANESE MINING (PTY) LTD

**ALTERNATIVE CLOSURE AND REHABILITATION PROJECT
DEPARTMENT OF MINERAL RESOURCES (DMR) PRE-APPLICATION MEETING MINUTES**

Date	02 May 2019
Venue:	Department of Mineral Resources offices in Kimberley
SLR company:	SLR Consulting (Africa) (Pty) Ltd (SLR)
Project number:	720.19136.00001
Purpose:	<p>The purpose of the meeting was to:</p> <ul style="list-style-type: none"> • Provide an overview of the proposed project • Outline the motivation and project alternatives considered • Provide an overview of the environmental process • Provide an overview of specialist studies to be undertaken • Provide an overview and obtain input into the planned public participation process.
Attendance:	An attendance register is presented in Appendix 1.

1. OPEN AND INTRODUCTION

Natasha Smyth from SLR Consulting (Africa) (Pty) Ltd (SLR) opened the meeting and welcomed all attendees. Thereafter, Natasha Smyth introduced herself as an independent Environmental Assessment Practitioner, appointed by Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) to undertake the environmental assessment process for the proposed project.

Refer to Appendix 1 for the full list of attendees from Tshipi and the Department of Mineral Resources (DMR) present at the meeting.

2. PRESENTATION

Natasha Smyth gave a presentation in order to provide an overview of the proposed project. In this regard, it was highlighted that Tshipi currently operates the open cast Tshipi Borwa Mine in accordance with an approved Environmental Management Programme Report (EMPr). The approved EMPr commits Tshipi to restore the surface to a pre-mining state of wilderness and grazing and requires that the open pit is completely backfilled once mining is complete. Recent operation optimisation investigations indicate that when considering technical, commercial, legal and socio-economic and environmental factors, backfilling the open pit is sub-optimal for the following reasons:

- Backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country.
- The opportunities for enhanced biodiversity habitats and land use increase with a different backfill approach particularly in terms of topographic variety and access to surface water.

Further information pertaining to the environmental assessment process is provided in the presentation included in Appendix 2.

3. QUESTION SESSION

Comments raised during the meeting have been recorded and are included in Table 1 below. Where a response was provided the response has been included in the table.

Table 1: Record of comments raised

Issues raised	By whom	Response provided
Can the open pit be backfilled after the underground mining is completed? This approach can be considered as an alternative to changing the backfill commitment.	Ntsundeni Ravhugoni (DMR)	This has been noted and will be commented on as part of the environmental assessment process. Partial backfill could be achieved with collaboration of both mines (Brad Rippon).
As part of the alternative investigation, please also comment on the level of Tshipi's responsibility for the four closure options. Our department is of the opinion that with complete backfill, Tshipi's overall responsibility will be less than a closure option where biodiversity habitats are created that need to be maintained and monitored. As an overall comment, we will wait for the final Environmental Impact Assessment (EIA) and EMPr for the details around the specialist findings of the alternative investigation.	Ntsundeni Ravhugoni (DMR)	Thank you for this input. This will be included as part of the options analysis and will be detailed in the EIA and EMP report (Natasha Smyth – SLR).
Do you have any comments relating to the proposed public participation process outline for the project?	Natasha Smyth (SLR)	We have no comments on the planned public participation process (Ntsundeni Ravhugoni – DMR).
A preliminary review has indicated that no listed activities in terms of the National Environmental Management Act (No 107 of 1998) (NEMA) have been identified for the proposed project. It follows that a substantive amendment process in terms of NEMA will be followed. Is your department familiar with a substantive amendment process?	Natasha Smyth (SLR)	Yes we are. This is in accordance to Chapter 5, Part 2 of the NEMA (Ntsundeni Ravhugoni – DMR).

4. CLOSE

Attendees were thanked for their input and for making the time to attend the meeting. The meeting was closed by NS.

APPENDIX 1: ATTENDANCE REGISTER

Name and Surname	Organisation	Contact numbers	E-mail
Nthabeleng Paneng	Tshipi	082 633 5693	Nthabeleng@tshipi.co.za
Brad Rip		083 406 9775	bradrip@mwebbiz.co.za
Machella Ramabosa	DMR	053 807 1760	Machella.ramabosa@dmr.co.za
Ntsundeni Ravhugoni		082 828 3904	Ntsundeni.ravhugoni@dmr.gov.za
Natasha Smyth	SLR	011 467 0645	nsmyth@slrconsulting.com

APPENDIX 2: PRESENTATION

TSHIPI É NTLÉ MANGANESE MINING (PTY) LTD

ALTERNATIVE CLOSURE AND REHABILITATION PROJECT

DMR PRE-APPLICATION MEETING

MAY 2019

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AGENDA

- Welcome and opening
- Overview of the proposed project – including current operations, motivation, description, alternatives
- Environmental process overview
- Overview of specialist studies to be undertaken (where relevant)
- Proposed public participation process
- Close

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CURRENT OPERATIONS

- Tshipi é Ntle Manganese Mining (Tshipi) operates the open pit manganese Tshipi Borwa Mine located on the farms Matawan 331 and Moab 700.
- Tshipi currently holds
 - A Mining Right
 - An Environmental Management Programme Report (EMPr)
 - An Environmental Authorisation for an EIA/EMP Amendment (EMP1) submitted in November 2017 and approved in January 2018.
 - A Water Use Licence (WUL) issued in April 2015.
- The approved EMPr commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is completely backfilled.

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MOTIVATION FOR PROPOSED PROJECT

- Recent operation optimisation investigations indicate that when considering technical, commercial, legal, socio-economic and environmental factors - backfilling the open pit is sub-optimal for the following reasons:
 - Backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country.
 - The opportunities for enhanced biodiversity habitats and land use increase with a different backfill approach particularly in terms of topographic variety and access to surface water.

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OVERVIEW OF PROPOSED PROJECT

- Tshipi is therefore proposing a new project (Alternative closure and rehabilitation optimisation project) in order to optimise closure objectives and to incorporate new activities that are currently not catered for in the approved EMPr.
- The closure and rehabilitation optimisation project focusses on:
 - Concurrent in-pit dumping within the open pit.
 - Sloping and rehabilitation of waste rock dumps remaining on surface.
 - Optimisation of the surface landforms and partially backfilled pit from a biodiversity, rehabilitation, land use and pollution prevention perspective.

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LAYOUT

Backfill @ 24 degrees	Units
Total Final void (to OGL) pit	209,388,933

Final void

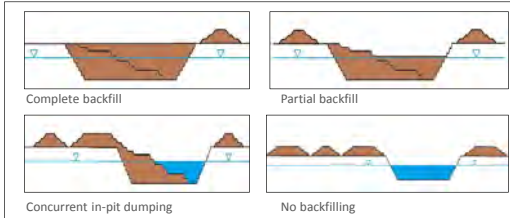
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ALTERNATIVES

Project alternatives:

- Alternatives considered included: full backfill, partial backfilling, concurrent in-pit dumping and no backfilling.



- Concurrent in-pit dumping was considered the most practical option from a technical, commercial and environmental perspective.

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MOTIVATION AND ALTERNATIVES

Alternative considered	Commercial	Technical	Socio-economic	Environmental				Rehabilitation
				Soils	Biodiversity	Pit lake	Groundwater	
Complete backfill	4	2	4	4	2	2	2	4
Partial backfill	3	2	3	3	3	2	2	3
Concurrent in-pit dumping	1	1	2	2	1	1	2	1
No-backfilling	2	4	1	1	4	4	4	2

- Complete backfill - 24
- Partial backfill - 21
- Concurrent in-pit dumping - 11
- No backfilling - 22

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8

SUGGESTED ENVIRONMENTAL PROCESS

Permissions required for the proposed project:

Authorisation required	Applicable legislation	Key process elements	Competent authority
Environmental Authorisation (EA)	National Environmental Management Act No. 107 of 1998 and the Environmental Impact Assessment (EIA) Regulations, 2014 as amended – Substantive amendment	<ul style="list-style-type: none"> • NEMA EA Application • Stakeholder engagement • EMPR and supporting specialist studies 	DMR
Amend EMPR	Mineral and Petroleum Resources Development Act (No. 28 of 2002)	Section 102 application	DMR

* Preliminary review indicates that no listed activities will be triggered and that a substantive amendment process is required.

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9

ENVIRONMENTAL PROCESS

Commenting authorities

- Department of Environment and Nature Conservation
- Department of Agriculture, Forestry and Fisheries
- Department of Rural Development and Land Reform
- Provincial South Africa Heritage Resource Agency
- Department of Water and Sanitation

Local authorities

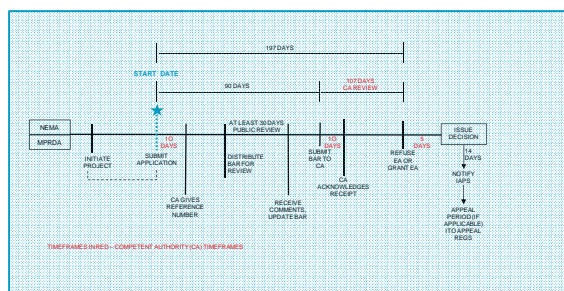
- John Taolo Gaetsewe District Municipality
- Joe Morolong Local Municipality and applicable ward councillor

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10

ENVIRONMENTAL PROCESS



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11

PROPOSED SPECIALIST STUDIES

Aspect	Specialist input (where applicable)
Geology	Qualitatively assessed - SLR
Topography	Qualitatively assessed - SLR
Soils & land capability	Soils, land use and land capability study – Terra Africa
Biodiversity	Terrestrial and aquatic biodiversity study – SAS and STS
Surface water	Hydrology study - SLR
Groundwater and pit lake	Groundwater study and pit lake study - SLR
Air	Air quality study - Airshed
Noise	Noise study - Airshed
Visual	Visual study – Graham Young
Heritage/cultural resources	Reference to existing studies
Socio-economic	Socio-economic study - Mercury
Closure	Preliminary closure plan - SLR

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12

PUBLIC PARTICIPATION

I&AP and authority notification and consultation

- Hold pre-application meetings (DMR)
- The public participation will cater for both the NEMA 2014 EIA regulations
- The public consultation proposed includes the following:
 - Placement of an advert in two local papers (Kathu Gazette and Kalahari Bulletin).
 - Distribute BID informing I&APs and regulatory authorities about the proposed project and related processes.
 - Placement of site notices in two languages (English and Afrikaans).
 - Hold a commenting authority and public meeting.
 - Review of the EMPr and/or summary.

PUBLIC PARTICIPATION

Review of the EMPr:

- Hard copies left at designated venues for review for 30 days. Suggested venues include:
 - John Taolo Gaetsewe District Municipality.
 - Joe Morolong Local Municipality.
 - Hotazel and Black Rock community public libraries.
 - Kuruman and Kathu town libraries.
- Distribution of a summary (English and Afrikaans) via fax, email or post.
- SMS notifications.
- Electronic copies will be made available on the SLR website.

DISCUSSION

**Land claims
commissioner
correspondence.**



OFFICE OF THE REGIONAL LAND CLAIMS COMMISSIONER: NORTHERN CAPE

Hyesco Arcade, 4-8 Old Main Road, Kimberley, 8300 | PO Box 2458, Kimberley, 8300
Tel: (053) 807 5700 | Fax: (053) 831 6501

Enquiries: **Pabalelo Mokale**

SLR CONSULTING

1 Macbeth Avenue
Johannesburg
Gauteng
2191

Dear Mr / Ms **C Phase**

LAND CLAIMS ENQUIRY

- 1. Portion 8 of the farm Mamatwan 331, portion 16 of the farm Mamatwan 331; portion 17 of the farm Mamatwan 331 portion 18 of the farm Mamatwan 331 and the remaining extent of the farm Moab 700 in the Northern Cape Province.**

We refer to your letter received: **07 June 2018**

We confirm that as at the date of this letter no land claims appear on our database in respect of the Properties. This includes the database for claims lodged by 31 December 1998; and those lodged between 1 July 2014 and 27 July 2016 in terms of the Restitution of Land Rights Amendment Act, 2014.

Whilst the Commission takes reasonable care to ensure the accuracy of the information it provides, there are various factors that are beyond the Commission's control, particularly relating to claims that have lodged but not yet been gazetted such as:

1. Some Claimants referred to properties they claim dispossession of rights in land against using historical property descriptions which may not match the current property description; and
2. Some Claimants provided the geographic descriptions of the land they claim without mentioning the particular actual property description they claim dispossession of rights in land against.

The Commission therefore does not accept any liability whatsoever if through the process of further investigation of claims it is found that there is in fact a land claim in respect of the above property.

If you are aware of any change in the description of the above property after 19 June 1913 kindly supply us with such description so as to enable us to do a further search.

Yours faithfully

A handwritten signature in black ink, appearing to read 'M. Du Toit', with a large, stylized initial 'M' on the left.

Ms. M. Du Toit

Chief Director: Land Restitution Support-Northern Cape

Date: 07.06.2018



**Site notice in
English and
Afrikaans and
photographic
proof of
placement.**

**TSHIPI É NTLÉ MANGANESE MINING (PTY) LTD
ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE**

Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) currently operates the Tshipi Borwa open pit manganese mine located on the farms Mamatwan 331 (mining right and surface use areas) and Moab 700 (surface use area), approximately 18 km south of Hotazel in the Joe Morolong Local Municipality and the John Taolo Gaetsewe District Municipality in the Northern Cape Province. Tshipi currently holds the following material authorisations:

- A mining right (NC/30/5/1/2/2/0206MR) issued by the Department of Mineral Resources (DMR);
- An Environmental Management Programme report (EMPr) approved by the DMR, as amended;
- An environmental authorisation (NC/30/5/1/2/2/206/000083 EM) issued by the DMR; and
- A Water Use Licence (IWUL) (10/D41K/AGJ/1735) issued by the Department of Water and Sanitation.

The approved EMPr commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent operation optimisation investigations indicate that when considering environmental, socio-economic, technical, commercial and legal factors, completely backfilling the open pit is sub-optimal for the following reasons:

- The opportunities for enhanced biodiversity habitats with a different backfill approach particularly in terms of topographic variety and access to surface water;
- The opportunities for enhanced land use increase with access to surface water;
- An alternative closure option will allow for earlier rehabilitation of waste rock dumps; and
- Completely backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country;

Tshipi is therefore proposing to make application to change the current closure commitment to achieve a more sustainable and optimised outcome. In this regard, the proposed project focusses on:

- Concurrent backfill only i.e. in-pit dumping during mining operations only;
- Sloping and rehabilitation of waste rock dumps remaining on surface;
- Access to readily available future water supply; and
- Optimisation of the surface landforms and partially backfilled pit from a biodiversity, rehabilitation, land use and pollution prevention perspective.

Notice is hereby given of the applications to be made for authorisation of the proposed project in terms of the environmental legislation listed below:

Applicable legislation	Details	Key Process Elements	Competent Authority
National Environmental Management Act (No. 107 of 1998) (NEMA) EIA Regulations, 2014 as amended.	GNR 983. Listing Notice 1: • Activity 24: The development of a road with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 meters (but excluding a road which is one kilometre or shorter) (establishment of a 30m wide road that is longer than one kilometre)	• Environmental Authorisation Application • Basic Assessment Report (BAR), including Environmental Management Programme and supporting specialist studies • Stakeholder engagement and public participation	Northern Cape Department of Mineral Resources

SLR Consulting (Africa) (Pty) Ltd (SLR), an independent firm of environmental consultants, has been appointed by Tshipi to manage the BAR process. A public meeting has been arranged as part of the public participation process as follows:

Date	Venue	Time
26 June 2019	Sishen Golf and Country Club (Gemsbok Conference room- Main Club) (Hans Coetzee street, Kathu)	10h00

All stakeholders are invited to register as Interested and Affected Parties (I&AP) and submit any initial comments to SLR by 12 July 2019. All registered I&APs will continue to be given the opportunity to participate and comment for the full duration of the BAR process. Registered I&APs will be notified when the BAR will be available for public review. To register or to check that you are registered and/or to submit any comment on the proposed project and process contact SLR at the contact details below:

Natasha Smyth
Email: nsmyth@slrconsulting.com
Tel: 011 467 0945
Fax: 011 467 0978
Post: PO Box 1596, Cramerview, 2060
(Note: If using post, please also contact us telephonically to notify us of your submission).

**TSHIPI É NTLÉ MANGANESE MINING (EDMS.) BPK.
ALTERNATIEWE SLUITINGS- EN REHABILITASIEPROJEK BY DIE TSHIPI BORWA-MYN**

Tshipi é Ntle Manganese Mining (Edms.) Bpk. (Tshipi) bedryf tans die Tshipi Borwa-oopgroef mangaanmyn wat geleë is op die plaas Mamatwan 331 (mynreg- en oppervlakgebruikgebied) en Moab 700 (oppervlakgebruikgebied) sowat 18 km suid van Hotazel in die Joe Morolong Plaaslike Munisipaliteit en die John Taolo Gaetsewe Distriksmunisipaliteit in die Noord-Kaapprovinsie. Tshipi beskik tans oor die volgende magtigings:

- 'n Mynreg (NC/30/5/1/2/2/0206MR) wat deur die Departement van Minerale Hulpbronne (DMH) uitgereik is;
- 'n Omgewingsbestuursprogramverslag (OBPr) wat deur die DMH goedgekeur is, soos gewysig;
- 'n Omgewingsmagtiging (NC/30/5/1/2/2/206/000083 EM) wat deur die DMH uitgereik is; en
- 'n Watergebruiklisensie (IWUL) (10/D41K/AGJ/1735) wat deur die Departement van Water en Sanitasie uitgereik is.

Die goedgekeurde OBPr verbind Tshipi daartoe om die oppervlak na die voorontginningstoestand van wildernis en weiding te herstel en vereis dat die oopgroef teruggevuul word. Weens die volgende redes dui onlangse bedryfsoptimaliseringsondersoeke daarop dat die volledige terugvuul van die oopgroef sub-optimaal is wanneer omgewings-, sosio-ekonomiese, tegniese, kommersiële en wetlike faktore in ag geneem word:

- Die geleentheid vir verbeterde biodiversiteitshabitats met 'n ander terugvullingsbenadering, veral ten opsigte van topografiese verskeidenheid en toegang tot oppervlakwater.
- Die geleentheid vir verbeterde grondgebruik verbeter met toegang tot oppervlakwater.
- 'n Alternatiewe sluitingsopsie sal vroeëre rehabilitasie van afvalkliphope moontlik maak.
- Volledige terugvuul van die oopgroef sal 'n ondergrondse hulpbron, wat noord van die huidige goedgekeurde oopgroef geleë is, waarskynlik steriliseer. Die gepaardgaande verlies aan werk, verkryging, belastinge en buitelandse valutaverdienste is wesenlik en sal 'n materiële netto verlies vir die streek en die land wees.

Derhalwe doen Tshipi aan die hand om aansoek te doen om die huidige sluitingsverbinde te verander om 'n meer volhoubare en geoptimaliseerde uitkoms te verwesenlik. Ten opsigte hiervan, konsentreer die beoogde projek op:

- Slegs gelyklopende terugvuul, d.i. in-groefstorting slegs tydens mynboubedrywighede;
- Glooiing en rehabilitasie van afvalkliphope wat op die oppervlak agterbly;
- Toegang tot gereedelik beskikbare toekomstige watervoorsiening; en
- Die optimalisering van die oppervlakgrondvorms en gedeeltelik teruggevuulde groef vanuit 'n perspektief van biodiversiteit, rehabilitasie-, grondgebruik en besoedelingsvoorkoming.

Kennis geskied hiermee van die aansoeke wat gedoen gaan word vir die magtiging van die beoogde projek ingevolge die omgewingswetgewing wat hieronder gelys is:

Toepaslike wetgewing	Besonderhede	Belangrike Elemente van Proses	Bevoegde Owerheid
Nasionale Wet op Omgewingsbestuur (Wet 107 van 1998) (NEMA), OIE-regulasies, 2014, soos gewysig	Staatskennisgewing R983. Lyskennisgewing 1: • Aktiwiteit 24: Die ontwikkeling van 'n pad met 'n reserwe breër as 13,5 meter, of waar daar geen reserwe is nie, waar die pad breër is as 8 meter (maar uitgesluit 'n pad wat een kilometer of korter is) (bou van 'n 30 m breë pad wat langer as een kilometer is)	• Aansoek om Omgewingsmagtiging • Basiese Evalueeringsverslag (BEV), wat die OBPr en stawende spesialisstudies insluit • Skakeling met belanghebbers	Noord-Kaapse Departement van Minerale Hulpbronne

SLR Consulting (Africa) (Edms.) Bpk. (SLR), 'n onafhanklike firma van omgewingskonsultante, is deur Tshipi aangestel om die BEV-proses te bestuur. Die volgende openbare vergadering is as deel van die openbare deelnameproses gereël:

Datum	Plek	Tyd
26 Junie 2019	Sishen Golf- en Buiteklub (Gemsbok Conference room- Main Club) (Hans Coetzeestraat, Kathu)	10h00

Alle belanghebbers word genooi om as Belangstellende en Geaffekteerde Partye (B&GP's) te registreer en enige aanvanklike kommentaar by SLR in te dien teen 12 Julie 2019. Alle geregistreerde B&GP's sal steeds vir die volle tydsduur van die BEV-proses die geleentheid hê om deel te neem en kommentaar te lewer. Geregistreerde B&GP's sal in kennis gestel word van wanneer die BEV beskikbaar sal wees vir openbare insae. Tree in verbinding met SLR by die kontakbesonderhede hieronder om te registreer of om te kyk of u geregistreer is en/of om enige kommentaar oor die beoogde projek en proses in te dien:

Natasha Smyth
E-pos: nsmyth@slrconsulting.com
Tel: 011 467 0945
Faks: 011 467 0978
Posadres: Posbus 1596, Cramerview, 2060
(Let wel: As u die posdiens gebruik, moet u ons asseblief ook telefonies kontak om ons in kennis te stel van u indiening.)



Photo 1: Blackrock Library



Photo 2: Gamagara Local Municipality

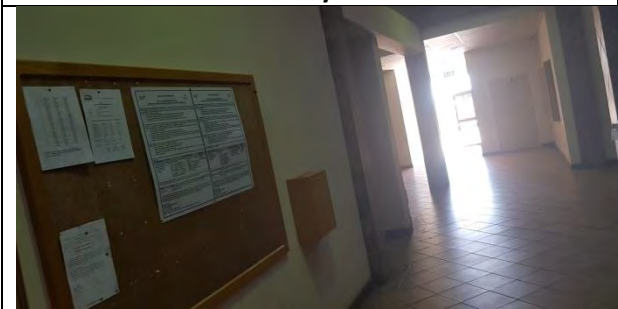


Photo 3: Joe Morolong Local Municipality

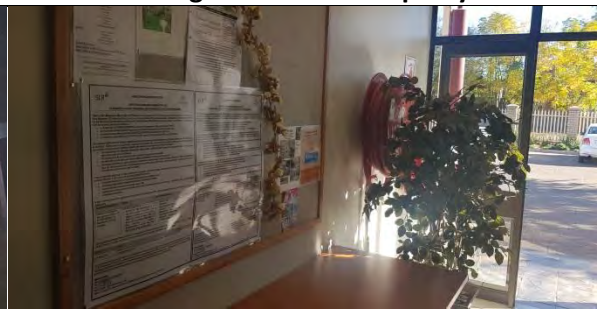


Photo 4: Hotazel Public Library



Photo 5: Kameeldoring Shopping Complex

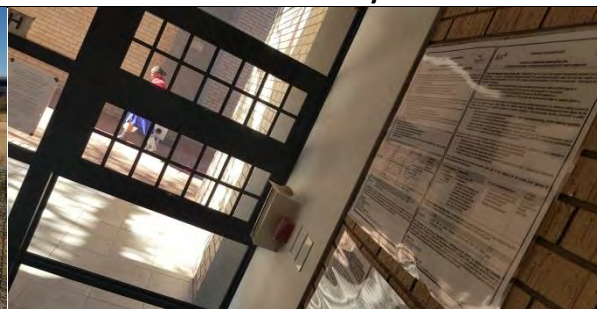


Photo 6: Kathu Public Library



Photo 7: Kuruman Public Library



Photo 8: Sishen Golf Club

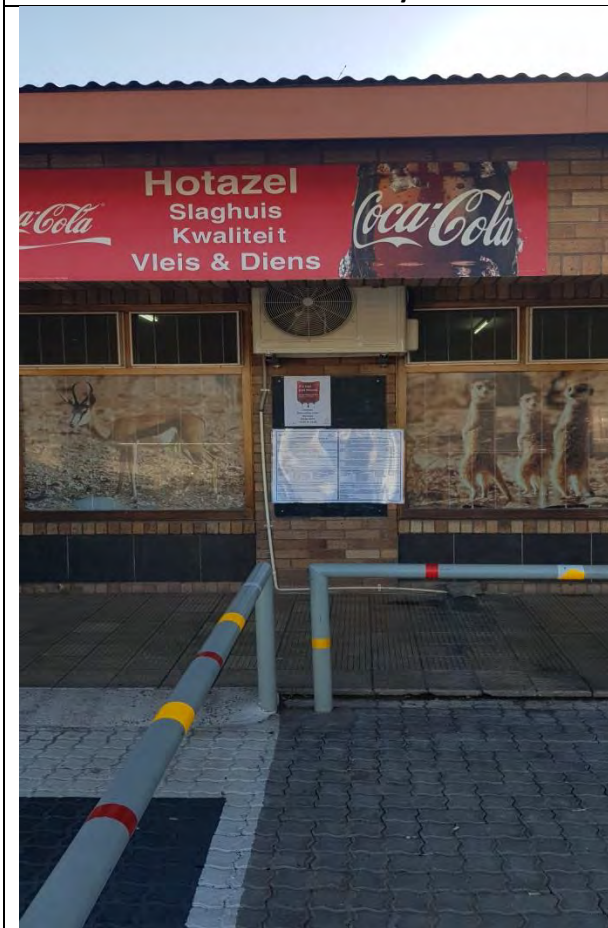


Photo 9: Hotazel Butchery



Photo 10: Mine Entrance



Photo 11: John Taolo Gaetsewe District Municipality

**Adverts placed in
the Kathu Gazette
and Kalahari
Bulletin .**

KURUMAN MPACT and Mrs SA promoting recycling

On Monday 03 June 2019, M-pact Recycling, the leading paper and PET recycler in South Africa, partnered with the Tammy Taylor Mrs South Africa pageant - a women empowerment programme, for the fifth consecutive year.

Through the partnership with M-pact Recycling, the top 100 Mrs South Africa semi finalists are required to work alongside M-pact Recycling at schools, with the aim of promoting recycling awareness, supporting fundraising initiatives and increasing recycling volumes.

Each semi finalist has a target to generate 2 tonnes of recycling at the schools that they visit.

The M-pact Recycling schools programme allows schools to raise funds, as they are paid for their recyclables, whilst teaching environmental awareness, responsibility and sustainability.

The partnership is valuable as it spotlights the importance of recycling. By recycling, the environment benefits in a number of ways: It diverts recyclable paper; paper-based packaging and plastic away from landfills; reduces greenhouse gas emissions and prevents the incineration of recyclable paper.

M-pact Recycling embraces the social entrepreneurship empowerment model by partnering with local entrepreneurs to help collect recycled paper for them.

M-pact Recycling has a national reach - aside from 16 of its own operations in major centres around SA.



Semi-finalist in the Tammy Taylor Mrs South Africa pageant, Susan Botsime, engaging with learners.

They also have over 45 buy-back centres where traders deliver waste paper and plastic for payment.

They also buy from a number of independent dealers throughout the country.

Did you know that long-life milk and juice cartons are now recyclable? Recycling of used, empty cartons is easy and only requires to remove or lift the cap, turn out the corners, flatten and replace the cap. The flattened carton is now ready to be recycled.

M-pact Recycling collects over 630 000 tonnes per annum of recovered paper and PET (Polyethylene Terephthalate). The recovered paper is supplied to the M-pact Group's paper mills and the PET bottles are supplied to its recycled PET plant - M-pact Polymers. All of this fibre is

used in the manufacture of recycled-based carton board, containerboard and recycled PET bottles for sale to South Africa's packaging industry.

M-pact Recycling has a strong recycling heritage spanning over 50 years. They are in the business of sustainability through their active job creation, economic value and environmental stewardship.

The recycling industry contributes to the employment of over 100 000 people in South Africa, many of whom are entrepreneurs and small business owners that rely on sustained volumes of recycled material to earn a living. Recycle Paper ZA M-pact Recycling is part of a successful business model with their ultimate objective being to supply the right quality and the right quantity of paper and PET bottles through to their mills around the country.



GAMAGARA LOCAL MUNICIPALITY

INVITATION TO TENDER
TENDER NO.: 2019/08

APPOINTMENT OF THE CONTRACTOR FOR A THREE (3) YEAR MAINTENANCE CONTRACT TO PROVIDE CIVIL ENGINEERING SERVICES FOR WATER AND SANITATION INFRASTRUCTURE

It is estimated that prospective tenderers should have a CIDB contractor grading of Civil 2CEPE/3CE or Higher. Only tenderers who conform to the criteria stated in the Tender Data and Tender conditions are eligible to submit tenders.

Tender documents will be available from e-tender website, municipal website – www.gamagara.co.za and CIDB website. Tender documents queries can be directed to Mrs Josephine Nampa at 053 723 6000. No tender documents will be made available during the compulsory clarification meeting.

A compulsory clarification meeting with representatives from the Employer will take place at the municipal offices of Gamagara Municipality in Kathu on Thursday, 04 July 2019 starting at 10:00am. Only Tenderers who attend the clarification meetings shall be eligible to submit tenders

This tender will close on **Friday, 26 July 2019 at 14:00.**

Completed tender documents, sealed in an envelope and clearly marked with "APPOINTMENT OF THE CONTRACTOR(S) FOR A THREE (3) YEAR MAINTENANCE TO PROVIDE CIVIL ENGINEERING SERVICES FOR WATER AND SANITATION INFRASTRUCTURE" must be placed in the tender box in the foyer of Gamagara Local Municipality, corner Hendrik van Eck & Frikkie Meyer Road, Kathu, and no Tenders will be accepted after the closing time.

Gamagara Local Municipality does not bind itself to accept the lowest or any tender and reserves the right to accept the whole or part of a tender. All tenders will remain valid for a period of 90 days after the time and date of opening. This tender will be evaluated according to the 80/20 point system and the PPPFA.

Technical enquiries relating to this tender should be addressed to Mr Bantu Mqingwana at Tel: +27 53 723 6000 E-mail: mqingwanab@gamagara.co.za

Mr Protea Kgomodikae Leserwane
Municipal Manager



PUBLIC PARTICIPATION PROCESS

TSHIPI É NTLÉ MANGANESE MINING (PTY) LTD
ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE



Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) currently operates the Tshipi Borwa open pit manganese mine located on the farms Mamatwan 331 (mining right and surface use areas) and Moab 700 (surface use area), approximately 18 km south of Hotazel in the Joe Morolong Local Municipality and the John Taolo Gaetsewe District Municipality in the Northern Cape Province. Tshipi currently holds the following authorisations:

- A mining right (NC/30/5/1/2/2/0206MR) issued by the Department of Mineral Resources (DMR);
- An Environmental Management Programme report (EMPr) approved by the DMR;
- An environmental authorisation (NC/30/5/1/2/2/206/000083 EM) issued by the DMR; and
- A Water Use Licence (IWUL) (10/D41K/AGJ/1735) issued by the Department of Water and Sanitation.

The approved EMPr commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent operation optimisation investigations indicate that when considering environmental, socio-economic, technical, commercial and legal factors, and, completely backfilling the open pit is sub-optimal for the following reasons:

- The opportunities for enhanced biodiversity habitats with a different backfill approach particularly in terms of topographic variety and access to surface water;
- The opportunities for enhanced land use increase with access to surface water;
- An alternative closure option will allow for earlier rehabilitation of waste rock dumps; and
- Completely backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country;

Tshipi is therefore proposing to making application to change the current closure commitment to achieve a more sustainable and optimised outcome. In this regard, the proposed project focusses on:

- Concurrent backfill only i.e. in-pit dumping during mining operations only;
- Sloping and rehabilitation of waste rock dumps remaining on surface; Access to readily available future water supply; and
- Optimisation of the surface landforms and partially backfilled pit from a biodiversity, rehabilitation, land use and pollution prevention perspective.

Notice is hereby given of the applications to be made for authorisation of the proposed project in terms of the environmental legislation listed below:

Applicable legislation	Details	Key Process Elements	Competent Authority
National Environmental Management Act (No. 107 of 1998) (NEMA) EIA Regulations, 2014 as amended.	GNR 983. Listing Notice 1: Activity 24: The development of a road with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 meters (but excluding a road which is one kilometre or shorter) (establishment of a 30m wide road that is longer than one kilometre)	<ul style="list-style-type: none"> • Environmental Authorisation Application • Basic Assessment Report (BAR), including Environmental Management Programme and supporting specialist studies • Stakeholder engagement 	Department of Mineral Resources

SLR Consulting (Africa) (Pty) Ltd (SLR), an independent firm of environmental consultants, has been appointed by Tshipi to manage the BAR process. A public meeting has been arranged as part of the public participation process as follows:

Date	Venue	Time
26 June 2019	Kalahari Country Club (Gemsbok Conference room- Main Club) (Hans Coetzee road, Kathu)	10:00

All stakeholders are invited to register as Interested and Affected Parties (I&AP) and submit any initial comments to SLR by 12 July 2019. All registered I&APs will continue to be given the opportunity to participate and comment for the full duration of the BAR process. Registered I&APs will be notified when the BAR will be available for public review. To register or to check that you are registered and/or to submit any comment on the proposed project and process contact SLR at the contact details below:

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Geklassifiseerd

GA-SEGONYANA LOCAL MUNICIPALITY

MUNICIPAL NOTICE

Resolution Levying Property Rates for the Financial Year 1 July 2019 to 30 June 2020

Notice is hereby given in terms of section 14(1) and (2) of the Local Government: Municipal Property Rates Act, 2004 that, at its meeting of 30 May 2019, Council resolved by way of Council Resolution Number 01 to levy the rates on property reflected in the schedule below with effect from 1 July 2019:

Category of property	Amount
Households	0.007060
Business	0.011947
Industrial	0.012152
Guesthouses	0.009450
Agricultural	0.000354
State-owned Property	0.021852

Full details of Council resolution and rebates, reductions and exclusions specific to each category of owners of properties or owners of a specific category of properties, as determined through criteria in the Municipality's rates policy, are available for inspection at the Municipality's offices or its website (www.ga-segonyana.gov.za) and all public libraries.

Mr MM Tsatsimpe - Municipal Manager
Private Bag X1522, Kuruman 8460; tel. (053) 712-9300

Human Communications 147115

K E N - N - O - S - N - G

Barloworld Motor Retail

Be a successful member of a highly competitive sales team, determining your own income, by using your expert knowledge to accurately identify the customer needs while exceeding your targets and ensuring exceptional customer service.

Barloworld Toyota Postmasburg PARTS COUNTER SALES

The core purpose of this position is to ensure a profitable parts department by selling parts and ensuring the availability of correct parts. To be successful in the role, you would have a passion for customer satisfaction and retention, be cognitive of the GP target and have a drive for maximizing profit whilst achieving above average customer satisfaction ratings.

Prime Responsibilities:
Reporting to the Dealer Principal, you will: • Ensure knowledge of the manufacturer and Barloworld Motor's parts marketing plans, the range of products and services offered by the parts department and Parts pricing policies and plans • Assist in the implementation of the marketing plans, use the database (MIS) correctly and implement a relationship-selling plan • Make telephone, written or face-to-face contact with the targeted customers at the appropriate time • Deal with customers in a courteous, tactful and professional manner • Pursue each parts sales opportunity promptly and efficiently, using the correct approach • Establish the customer's needs for parts over the telephone • Ensure the parts sales area is clean and tidy, in accordance with Barloworld Motor Retail and franchise standards • Ensure all relevant information is collected to ensure the correct part is identified and quoted for • Accurately enter the customer's order in the computer system • Order non-stocked, or out of stock parts from the correct supplier.

Knowledge:
Technical orientation and product knowledge • Computer literacy • Sales principles • Written and spoken English and Afrikaans.

Skills:
Persuasive communication • Attention to detail • Professional telephone etiquette • Fluent and confident communication • Willingness to learn and keep up to date with developments

Personal Attributes:
Professional appearance, impact with customers • Willingness to work flexible hours/over time • Team player • Willingness to comply with given standards, guidelines, procedures and instructions • Helpful and supportive behaviour in interpersonal interactions.

Minimum Requirements: Matric Certificate • Unendorsed driver's license • Previous experience in a similar role.
Certified copies of ID, driver's license and matric certificate must accompany your application
Selection will be done in terms of Barloworld's Employment Equity policy

CLOSING DATE FOR ALL APPLICATIONS: 21/06/2019
To Apply: Send your CV to Jacques De Jager - Jacques.deJager@bwmr.co.za

SLR **Tshipi é Ntse Manganese Mining**

PUBLIC PARTICIPATION PROCESS

TSHIPI É NTSLE MANGANESE MINING (PTY) LTD

ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE

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- A Water Use Licence (IWUL) (10/D41KAGU/1735) issued by the Department of Water and Sanitation.

The approved EMPR commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent operation optimisation investigations indicate that when considering environmental, socio-economic, technical, commercial and legal factors, and, completely backfilling the open pit is sub-optimal for the following reasons:

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Date	Venue	Time
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GA-SEGONYANA LOCAL MUNICIPALITY

NOTICE

Integrated Development Plan (IDP) for 2019/20 with 3-year Budget/Medium-term Revenue & Expenditure Framework (MTREF) for 2019/20, 2020/21 and 2021/22

Notice is hereby given in accordance with regulation 3(4)(b) of the Regulations regarding Local Government: Section 21 of the Local Government: Municipal Systems Act (No 32 of 2000), section 22 of the Local Government: Municipal Finance Act, 2003 (No 56 of 2003) and that the IDP and 3-year budget for 2019/20, 2020/21 and 2021/22 were approved by Council on 30 May 2019.

Ga-segonyana Local Municipality 2019/20 Capital Budget 2019-2020 Municipal Infrastructure Grant Implementation Plan

Item	2019/20	2020/21	2021/2022
	Amount	Amount	Amount
Upgrade of gravel internal road to paved road in Seven Miles	R6 831 530.96		
Upgrade of gravel internal road to paved road	R231 237.45		
Upgrade of gravel internal road to paved road in Bankhara Bodulong	R785 000.00		
Construction of Ward 8 Batharos Community Hall		R12 000 000.00	
Rural sanitation plan	R8 918 072.38		
Construction of Sedibeng Community Hall	R1 897 855.15		
Construction of Kuruman Fire Station and emergency disaster management facilities		R16 094 493.10	R16 000 000.00
MIG 1428- Upgrade of 2 061m gravel internal road to paved road in Gamopedi	R10 674 112.66		
Upgrade of sports facilities in Wrenchville		R10 042 332.47	R4 213 003.30
Development of sports facilities in Mothibstad	R7 545 000.00		
PMU	R3 000 000.00	R3 500 000.00	R3 500 000.00
Upgrade of gravel internal road to paved road in Mothibstad Unit 2	R13 419 191.40	R4 780 452.07	
Road in Magojaneng (RDP to Block D)			R14 262 360.00
Road in Batharos (Nanana Section)			R13 519 100.34
Kaqung (Westenderby and Hardvard paved road)		R9 800 722.36	R8 917 536.36
Total Value of Projects	R53 302 000.00	R56 218 000.00	R60 412 000.00
Improved MIG Allocation	R53 302 000.00	R56 218 000.00	R60 412 000.00

2019-20 Water Service Infrastructure Grant Implementation Plan

Project Name	Budget Year:	Budget Year:	Budget Year:
	2019/20	2020/21	2021/22
Item	Amount	Amount	Amount
Magojaneng Block D water supply VS Dikgweg	R19 874 817.18	R898 418.64	
Kaqung bulk water supply Phase 3	R17 763 602.58	R833 939.95	
Batharos water source development and drought relief - W	R1 281 537.10		
Extension of Pietbos water supply	R12 213 718.75	R479 406.25	
Refurbishment of Kuruman STW and sewage pump station	R976 003.93		
Refurbishment of Mothibstad Oxidation Ponds	R550 200.85		
Mapoteng source development	R11 639 572.31	R549 249.82	
WSOS		R16 127 864.30	R630 050.01
Murung/Batharos bulk water supply Phase 3: Wards 8, 9, 10, 14	R13 422 067.53	R13 303 751.64	R1 189 455.46
Feasibility study for provision of water in Promise Land, Thuli Madonsela, Obama Phase 1		R6 710 776.45	
Bulk Water Supply in Promise Land, Thuli Madonsela, Obama			R20 452 602.00
Upgrade of internal water supply to Kuruman and Wrenchville	R17 078 479.77	R771 592.95	
Magojaneng Tselopele Water			R10 540 326.00
New Mokalamoseena water			R9 044 566.53
Total Value of Projects	R95 000 000.00	R39 675 000.00	R41 857 000.00
DORA Allocation	R95 000 000.00	R39 675 000.00	R41 857 000.00

Summary: Income and Expenditure Operational Budget per Income Source

Description	2019/20 Medium-term Revenue & Expenditure Framework		
	Budget Year 2019/20	Budget Year +1 2020/21	Budget Year +2 2021/22
R thousand			
Revenue by Source	000	000	000
Property rates	47 525	50 091	52 796
Service charges: electricity revenue	103 665	109 263	115 163
Service charges: water revenue	25 877	27 274	28 747
Service charges: sanitation revenue	11 938	12 583	13 262
Service charges: refuse revenue	10 000	10 540	11 109
Rental of facilities and equipment	1 764	1 859	1 960
Interest earned: external investments	3 200	3 373	3 555
Interest earned: outstanding debtors	7 000	7 378	7 776
Fines, penalties and forfeits	4 202	4 429	4 668
Licences and permits	1 927	2 031	2 141
Transfers and subsidies	177 219	183 236	200 530
Other revenue	29 078	30 648	32 303
Total Revenue (excluding capital transfers and contributions)	423 395	442 706	474 011
Expenditure by Type			
Employee-related costs	144 826	15 811	160 009
Remuneration of councillors	9 042	9 530	10 045
Debt impairment	1 025	1 080	1 139
Depreciation and asset impairment	40 953	43 164	45 495
Finance charges	5 987	6 310	6 651
Bulk purchases	111 300	117 311	123 645
Other materials	15 652	16 291	17 171
Contracted services	48 519	38 104	39 650
Transfers and subsidies	60	63	67
Other expenditure	40 671	42 746	45 054
Total Expenditure	418 034	426 411	448 926
Surplus/(Deficit)	5 361	16 295	25 085
Transfers and subsidies: capital (monetary allocations) (National/Provincial and District)	175 944	94 953	101 469
Transfers and subsidies: capital (in-kind - all)			
Surplus/(Deficit) for the year	181 305	111 248	126 554

Government Grants

The following grants are reflected in the budget as gazetted in the Division of Revenue Act.

Description	2019/20 Medium-term Revenue & Expenditure Framework		
	Budget Year 2019/20	Budget Year +1 2020/21	Budget Year +2 2021/22
R thousand			
Receipts:			
Operating Transfers and Grants			
National Government:	175 598	181 439	198 733
Local Government Equitable Share	159 726	174 827	191 857
Finance Management	2 680	3 112	3 376
EPWP Incentive	1 274	-	-
Municipal Infrastructure Grant	11 918	3 500	3 500
Provincial Government:	1 621	1 797	1 797
Sport and Recreation	1 621	1 797	1 797
Total Operating Transfers and Grants	177 219	183 236	200 530
Capital Transfers and Grants			
National Government:	175 944	94 953	101 469
Municipal Infrastructure Grant (MIG)	41 384	52 718	56 912
Water Services Infrastructure Grant	95 000	39 675	41 857
Integrated National Electrification Programme	39 560	2 560	2 700
Total Capital Transfers and Grants	175 944	94 953	101 469
Total Receipts of Transfers and Grants	353 163	278 189	301 999

Projects Funded by Mining Houses & Sector Departments Department of Agriculture

Priorities For	Project/Programme Name	Budgeted Amount	Ward	Village
Commercialisation of farms	• Custom feeding • Construction of steel kraals • Construction of storage shed • Purchasing of feeds	R3 000 000.00	11	Kagung (Yale Farm)
Water infrastructure	• Water infrastructure • Equipping two boreholes with windmill and construction of stock water system at Mathobolo and Gamogotsi for livestock water	R400 000.00		Batharos
Water infrastructure	Equipping a borehole with windmill for livestock water			Thamoyanche
Water infrastructure	Repairing two broken windmills	R80 000.00		Ga-segonyana municipality
Food security	Vegetable starter packs will be distributed to Balelapa beneficiaries	R200 000.00		Ga-segonyana Municipality

Kumba Mine: Anglo American SLP Project

Project Name	2019	2020	2021
Road Maintenance			
Bulk Water Supply Upgrade	R6 000 000.00	R8 000 000.00	R8 000 000.00
Health Practitioner Development Project	R538 867.00	R590 554.00	R590 554.00
Community Bursaries for NCR TVET College (B.Ed and Professional Cookery)	R1 765 000.00	R1 765 000.00	R1 765 000.00
Total	R8 303 867.00	R10 355 554.00	R10 355 554.00

Resolution Levying Property Rates for the Financial Year 1 July 2019 to 30 June 2020
Notice is hereby given in terms of section 14(1) and (2) of the Local Government: Municipal Property Rates Act, 2004 that, at its meeting of 30 May 2019, Council resolved by way of Council Resolution Number 01 to levy the rates on property reflected in the schedule below with effect from 1 July 2019.

Category of Property	Amount
Households	0.007060
Business	0.011947
Industrial	0.012152
Guesthouses	0.009450
Agricultural	0.000354
State-owned Property	0.021852

Full details of the Council resolution and rebates, reductions and exclusions specific to each category of owners of properties or owners of a specific category of properties are available for inspection at the Municipality's offices, website (www.ga-segonyana.gov.za) and all public libraries.

Mr M Tsatsimpe - Municipal Manager - www.gasegonyana.gov.za

Human Communications 147119

**Background
Information
Documents
(English and
Afrikaans)
including
proof of
distribution.**

TSHIPI É NTLÉ MANGANESE MINING (EDMS.) BPK AGTERGRONDINLIGTINGSDOKUMENT

ALTERNATIEWE SLUITINGS- EN REHABILITASIE-OPTIMALISERINGSPROJEK BY DIE TSHIPI BORWA-MYN JUNIE 2019

INLEIDING

Tshipi é Ntle Manganese Mining (Edms.) Bpk. (Tshipi) bedryf die Tshipi Borwa-myn op die plaas Mamatwan 331 en Moab 700, wat sowat 18 km suid van Hotazel in die John Taolo Gaetsewe Distriksmunisipaliteit in die Noord-Kaapprovinsie geleë is (sien Figuur 1). Tshipi beskik tans oor die volgende magtigings:

- 'n Mynreg (NC/30/5/1/2/2/0206MR) wat deur die Departement van Minerale Hulpbronne (DMH) uitgereik is;
- 'n Omgewingsbestuursprogramverslag (OBPr), as gewysig, wat deur die DMH goedgekeur is;
- 'n Omgewingsmagtiging (NC/30/5/1/2/2/206/000083 EM) wat deur die DMH uitgereik is; en
- 'n Watergebruiklisensie (IWUL) (10/D41K/AGJ/1735) wat deur die Departement van Water en Sanitasie uitgereik is.

Die goedgekeurde OBPr verbind Tshipi daartoe om die oppervlak na die voor-ontginningstoestand van wildernis en weiding te herstel en vereis dat die oopgroef teruggevol word. Onlangse ondersoeke met betrekking tot bedryfsoptimalisering dui daarop dat die volledige terugvulling van die oopgroef sub-optimaal is wanneer omgewings-, sosio-ekonomiese, tegniese, kommersiële en wetlike faktore in ag geneem word. Derhalwe doen Tshipi aan die hand om die huidige sluitingsverbintenis te verander om 'n meer volhoubare en geoptimaliseerde uitkoms te verwesenlik.

OMGEWINGSMAGTIGING

Voor die aanvang van die beoogde projek, word die volgende vereis:

- 'n Omgewingsmagtiging deur die DMH ingevolge die Nasionale Wet op Omgewingsbestuur (Wet 107 van 1998). Die Regulasies op Omgewingsimpakevaluering wat gevolg word, is Staatskennisgewing R982 van 4 Desember 2014, soos gewysig. Die beoogde projek sal onder andere aanleiding gee tot 'n gelyste aktiwiteit ingevolge Lyskennisgewing 1 van Staatskennisgewing R983, gevolglik sal 'n Basiese Evalueringproses gevolg word.

DOEL VAN HIERDIE DOKUMENT

Hierdie dokument is opgestel deur SLR Consulting (Africa) (Edms.) Bpk. (SLR) om u toe te lig oor:

- Die beoogde projek;
- Die grondlynomgewing van die huidige projekgebied;
- Die omgewingsevalueringproses wat gevolg word (Basiese Evalueringproses);
- Moontlike omgewings-/kultuur-/sosio-ekonomiese impakte;
- hoe u kan deel neem en insette in die omgewingsevalueringproses kan lower.

SLR, 'n onafhanklike firma van omgewingskonsultante, is deur Tshipi aangestel om die omgewingsevalueringproses te bestuur.

U ROL

U is as 'n belangstellende en/of geaffekteerde party (B&GP) geïdentifiseer wat dalk ingelig wil word oor die beoogde projek en insae in die Basiese Evalueringproses wil hê.

U het 'n geleentheid om insae tot hierdie dokument te hê en om u aanvanklike kommentaar aan SLR te voorsien vir insluiting in die Basiese Evalueringproses. U sal ook die geleentheid kry om insette te lewer deur insae tot en kommentaar op die Basiese Evalueringverslag.

Alle kommentaar sal aangeteken en ingesluit word in die verslae wat by die DMH ingedien gaan word vir besluitneming.

HOE OM TE REAGEER

Reaksie op hierdie dokument kan by wyse van die aangehegte kommentaarvorm en/of deur kommunikasie met die persoon wat hieronder genoem word, ingedien word.

WIE OM TE KONTAK

Natasha Smyth

Tel: 011 467 0945, Faks: 011 467 0978 of E-pos

nsmyth@slrconsulting.com

OPENBARE VERGADERING

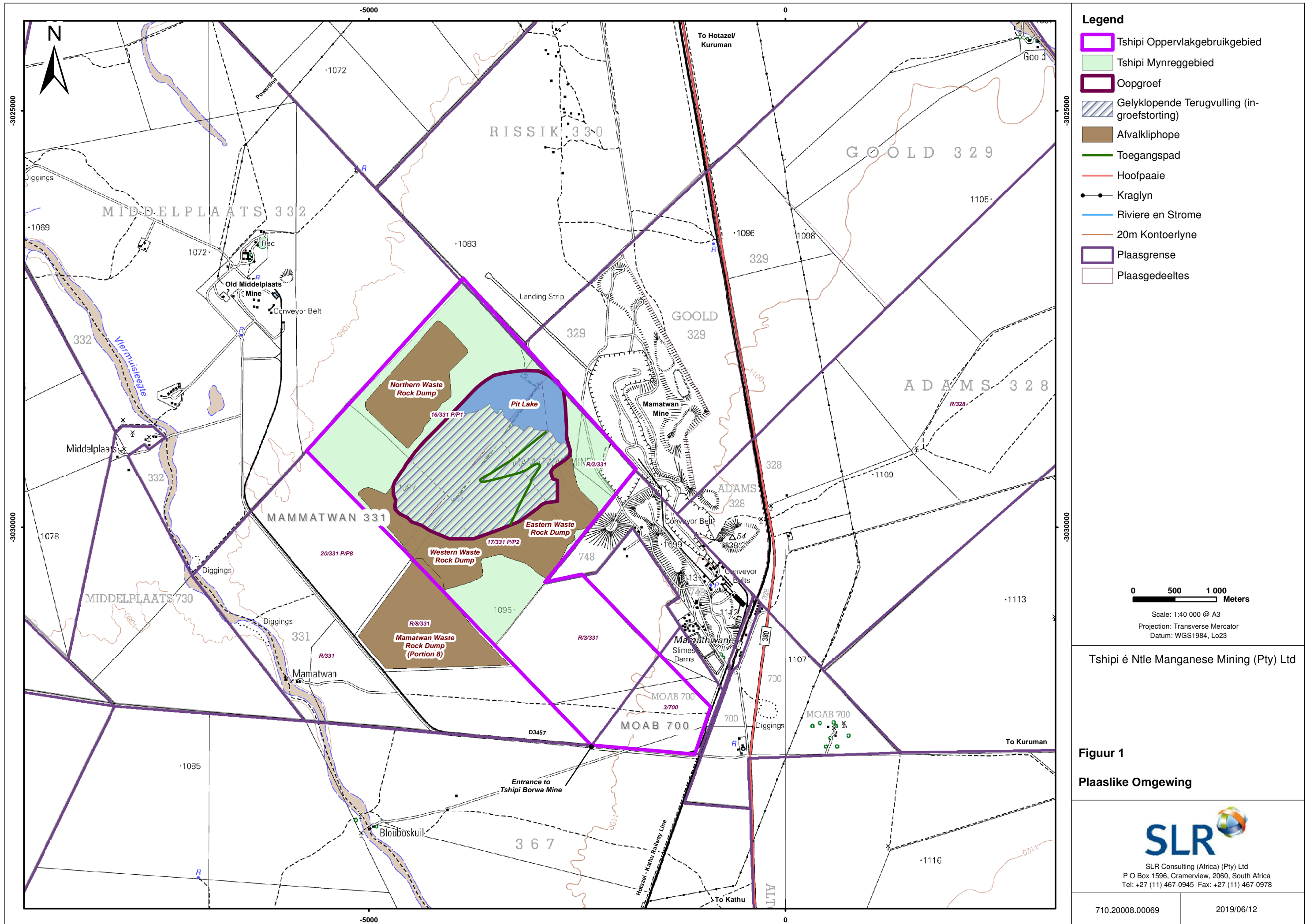
'n Openbare vergadering is as deel van die openbare deelnameproses gereël:

Plek: Sishen Golf- en Buiteklub (Gemsbok Conference room- Main Club)

(Hans Coetzeestraat, Kathu)

Tyd: 10h00

Datum: 26 Junie 2019



OORSIG EN PROJEK MOTIVERING

Tshipi bedryf tans die Tshipi Borwa-mangaanmyn wat geleë is op die plaas Mamatwan 331 (mynreg- en oppervlakgebruikgebied) en Moab 700 (oppervlakgebruikgebied) (Figuur 1). Belangrike myninfrastruktuur sluit in 'n oopgroef, vervoerweë, afsetgebied vir onbehandelde erts, 'n primêre vergruiser, 'n sekondêre vergruisings- en siftingsaanleg, verskeie stapelwerwe vir vergruisde en produkerts, 'n uitlaaifasiliteit vir 'n trein, 'n privaat sylyn, kantore, werksinkels en bygeboue, 'n toegangsbeheer-fasiliteit, verskeie toegangspaaie, dieselkragopwekkerhuis, elektriese netwerk, skoon- en vuilwaterbergingsdamme, waternetwerkpylyne en dreine, bogrondstapels en afvalkliphope. Die myn het 'n verwagte leeftyd van sowat 25 jaar en is al vir sewe jaar in bedryf.

Die goedgekeurde OBPr verbind Tshipi daartoe om die oppervlak na die voor-ontginningstoestand van wildernis en weiding te herstel en vereis dat die oopgroef teruggevuul word. Weens die volgende redes dui onlangse bedryfsoptimaliseringsondersoeke daarop dat die volledige terugvulling van die oopgroef sub-optimaal is wanneer omgewings-, sosio-ekonomiese, tegniese, kommersiële en wetlike faktore in ag geneem word:

- Die geleentheid vir verbeterde biodiversiteits-habitats met 'n ander terugvullingsbenadering, veral ten opsigte van topografiese verskeidenheid en toegang tot oppervlakwater.
- Die geleentheid vir verbeterde grondgebruik verbeter met toegang tot oppervlakwater.
- 'n Alternatiewe sluitingsopsie sal vroeëre rehabilitasie van afvalkliphope moontlik maak.
- Volledige terugvulling van die oopgroef sal 'n ondergrondse hulpbron, wat noord van die huidige goedgekeurde oopgroef geleë is, waarskynlik steriliseer. Die gepaardgaande verlies aan werk, verkryging, belastings en buitelandse valuta-verdienste is wesenlik en sal 'n materiële netto verlies vir die streek en die land wees.

Derhalwe doen Tshipi aan die hand om die huidige sluitingsverbintenis (volledige terugvulling van die oopgroef) te verander na gelyklopende in-groefstorting. Ten opsigte hiervan, konsentreer die beoogde projek op:

- Slegs gelyklopende terugvulling, d.i. in-groefstorting slegs tydens mynboubedrywighede;
- Glooiing en rehabilitasie van afvalkliphope wat op die oppervlak agterbly;
- Toegang tot geredelik beskikbare toekomstige watervoorsiening; en
- Die optimalisering van die oppervlakgrondvorms en gedeeltelik teruggevuulde groef vanuit 'n perspektief van biodiversiteit, rehabilitasie-, grondgebruik en besoedelingsvoorkoming.

KONSEPTUELE ALTERNATIEWE WAT OORWEEG WORD

Die alternatiewe wat vir die sluitings- en rehabilitasie-optimaliseringsprojek oorweeg word, sluit in:

- Volledige terugvulling: Terugvulling van die uiteindelijke groefgat ná ontginning tot op die oorspronklike grondvlak, voor rehabilitasie van die oppervlak volgens die huidige goedgekeurde OBPr
- Gedeeltelike terugvulling: Terugvulling van die uiteindelijke groefgat ná ontginning tot op 'n vlak net bo die terugslagwatertafelvlak, sowat 50 m onder die oorspronklike grondvlak, voor rehabilitasie van die oppervlak.
- Gelyklopende terugvulling (in-groefstorting): Terugvulling van die groefgat wat net gelyklopend met ontginning geskied, ook in-groefstorting genoem, wat 'n uiteindelijke groefgat tot gevolg het wat 'veilig gemaak' (geprofileer) sal word, voor rehabilitasie van die oppervlak.
- Geen terugvulling: Geen terugvulling van die groef nie, hetsy gelyklopend met ontginning of ná ontginning, d.i. alle afvalklip gaan na oppervlakhope. Die groef se sywande en koptante sal net 'veilig gemaak' word.

Die alternatiewe is oorweeg met insette van spesialiste (waar tersaaklik): Spesialisbevindinge het getoon dat gelyklopende terugvulling, d.i. in-groefstorting, die optimale opsie is vanuit 'n omgewings-, sosio-ekonomiese, tegniese en kommersiële perspektief. Die gedetailleerde evaluering van alternatiewe sal in die BEV voorsien word.

GRONDLYNOORSIG

Hieronder volg 'n basiese beskrywing van die omgewing se huidige status.

Geologie:

Die Tshipi Borwa-myn is geleë in die Kalahari Mangaanveld en is bedek deur gruis, klei, kalkreet en eoliese sand van die Kalaharigroep.

Klimaat:

Die Tshipi Borwa-myn is geleë in die Noordelike Steppe Klimaatzone. Dit is 'n semi-ariëde streek, gekenmerk deur seisoenale reënval, warm temperature in die somer en kouer temperature in die winter. Reënval wissel tussen 1,3 mm en 72,3 mm per maand en heersende winde in die gebied is vanuit die noorde en noordooste.

Topografie:

Die Tshipi Borwa-myn is geleë in 'n betreklik plat gebied met geleidelike hellings. Die natuurlike omgewing en interne topografie is beïnvloed deur bestaande mynboubedrywighede.

Grondsoorte en grondvermoë:

Grond by die Tshipi Borwa-myn bestaan uit struktuurlose, diep (>1 200 mm), sanderige, rooi en geel grondsoorte van die Huttonvorm. Sonder besproeiing, het grondsoorte by die myn 'n lae verbouingspotensiaal weens hoë infiltrasietempo's wat verband hou met sanderige grond. Weens die fyn, sanderige aard van die grondvorme en die lae klei-inhoud en beperkte organiese stowwe, is die grondsoorte hoogs erodeerbaar, veral waar plantegroei verwyder is. Grondhulpbronne en verwante grondvermoë is beïnvloed deur bestaande mynboubedrywighede.

Dierelewe:

Weens die teenwoordigheid van mynbou, prosperteerwerke en boerderybedrywighede, is daar baie min bewyse van wilde dierbevolkings wat met die beoogde projekgebied geassosieer word. Voëlspesies op die rooidatals wat waarskynlik in die beoogde projekgebied voorkom, sluit in die Breëkoparend, Sekretarisvoël en die Afrika Witruugaasvoël. Dierspesies op die rooidatals wat waarskynlik voorkom, sluit in die ratel en die Suid-Afrikaanse krimparkie.

Plantlewe:

Die Tshipi Borwa-myn val in die Kathu Bosveld en die Griekwaland-wessentrum van Endemisme. Die beskermde *Vachellia erioloba* (Kameeldoring) en *Vachellia haematoxylon* (Grys Kameeldoring) word by die myn aangetref. Die plantbevolking by die myn is reeds deur bestaande mynboubedrywighede versteur.

Oppervlakwater:

Die Tshipi Borwa-myn is geleë in die opvangsgebied van die Ga-Moragarivier, 'n sytak van die Kurumanrivier en vloei by die Oranjerivier in. Afloop vanaf Tshipi dreineer weswaarts in die rigting van die Vlermuisleegterivier wat net tydens hoë reënvalgebeurtenisse vloei. Daar is geen derdeparty-afhanklikheid op oppervlakwater nie. Daar is geen vleilande in die gebied nie. Bestaande mynboubedrywighede het die natuurlike dreineringspatrone op die terrein en die verwante bydraes van afloop na die opvangsgebied beïnvloed.

Grondwater:

Die Tshipi Borwa-myn word onderlê deur 'n vlak, onbegrensde Kalahari-akwifer en die dieper, gefraktueerde Hotazelakwifer. Die myn se gemiddelde grondwatervlak wissel tussen 41 m en 74 m onder grondvlak. Die meeste van die derdepartyboorgate om die myn word vir veesuipings gebruik.

Luggehalte: Die omringende luggehalte is beïnvloed deur myne, die verbranding van huishoudelike brandstof, voertuie se uitlaatgasse en landboubedrywighede.

Geraas:

Die gebied en omstreke word oor die algemeen as plattelands omskryf. Geraasvlakke naby die Tshipi Borwa-myn word hoofsaaklik deur omliggende boerderybedrywighede, plaaslike verkeer en mynboubedrywighede veroorsaak.

Visueel:

Die gebied suidwes, noord en wes van die Tshipi Borwa-myn kan beskryf word as 'n plat, oop gebied met dreineringslyne en oop uitsigte van bosveld wat visueel dominant is en oor 'n hoë sigwaarde beskik. Gebiede noord en oos van die Tshipi Borwa-myn word geag as gebiede met 'n lae sigwaarde weens die teenwoordigheid van naburige myne (Mamatwan-myn en United Manganese of Kalahari (Edms.) Bpk.), infrastruktuur (pad, spoor en kraglyne) en die Adams Sonkragspark. Die versteurde gebiede in die myn se gebied van oppervlakgebruik het 'n lae sigwaarde.

Erfenis-/Kultuurhulpbronne:

Geen erfenis-/kultuur-terreine is by die Tshipi Borwa-myn geïdentifiseer nie. Die terrein se paleontologiese sensitiviteit is laag, hoewel daar 'n moontlikheid van aanwesige Stromatoliete in die projekgebied is.

Sosio-ekonomies:

Die dorp Hotazel is sowat 18 km noord van die Tshipi Borwa-myn geleë. Die opvoedingsvlakke in die gebied is betreklik laag met 'n hoë werkloosheidsvlak en 'n afhanklikheid van bestaansboerdery, die openbare sektor, seisoenswerkers en emplojering in die mynbousektor. Watervoorsiening en sanitasie bly 'n uitdaging, veral in die landelike gebiede. Daar was 'n toename in die aantal huishoudings in die gebied wat elektrisiteit as kragbron ontvang het. Mynbou en staatsdienste is die primêre ekonomiese sektore.

Grondgebruik:

Grondgebruik om die Tshipi Borwa-myn sluit in 'n kombinasie van weiding vir lewendehawe, wildsboerdery, mynbou, 'n sonkragsplaas en ylgesaaide wonings. Grondgebruik by die myn is beïnvloed deur bestaande mynboubedrywighede.

POTENSIËLE OMGEWINGS- EN SOSIO-EKONOMIESE IMPAKTE EN VERWANTE SPESIALISINSETTE

Potensiële impakte wat geïdentifiseer is en as deel van die omgewingsimpakevalueringsproses ondersoek sal word, verskyn in die tabel hieronder. Waar spesialisinsette vereis word, is dit ook aangedui in die tabel hieronder.

Aspek	Potensiële omgewings- en sosio-ekonomiese impakte	Spesialisinset (waar nodig)
Biofisies		
Grond en grondvermoë	<ul style="list-style-type: none"> Met toegang tot gereedlik beskikbare watervoorsiening in die toekoms, het die beoogde projek die potensiaal om die optimale gebruik van grondhulpbronne te bevorder om alternatiewe grondgebruike (bv. landbou) te versterk. 	Terra Africa
Biodiversiteit – Akwaties	<ul style="list-style-type: none"> Die beoogde projek het die potensiaal om akwatiese habitats te skep en te verbeter deur die beskikbaarheid van 'n funksionele groefmeer, wat op sy beurt die kompleksiteit van biodiversiteit, diversiteit, gemeenskapsensitiewe en algehele gemeenskapstabiliteit kan vergroot. 	Scientific Aquatic Services CC
Biodiversiteit – Terrestries	<ul style="list-style-type: none"> Die beoogde projek het die potensiaal om fauna- en floraspesiebevolkings te vermeerder deur die herskepping van 'n terrestriese habitat deur toegang tot 'n funksionele groefmeer, wat andersins beperk sou wees as gevolg van 'n gebrek aan stabiele varswaterhabitats. 	Scientific Terrestrial Services CC
Oppervlakwater	<ul style="list-style-type: none"> Die beoogde projek het die potensiaal om toegang te bied tot 'n gereedlik beskikbare toekomstige watervoorsiening (groefmeer) wat vir 'n alternatiewe grondgebruik gebruik kan word. 	SLR Consulting (Africa) (Edms.) Bpk.
Grondwater	<ul style="list-style-type: none"> Die beoogde projek het die potensiaal om die omvang van 'n besoedelingspluim wat ekstern kan migreer, te minimaliseer. 	
Lug	<ul style="list-style-type: none"> Sonder rehabilitasie, kan die beoogde projek stof genereer wat die wind vanaf 'n groter blootgestelde gebied kan waai. 	Airshed Planning Professionals (Edms.) Bpk.
Geraas	<ul style="list-style-type: none"> Geen opmerklieke geraasimpakte is te wagte as gevolg van sluiting nie, maar geraas kan deur toekomstige na-sluitings grondgebruikbedrywighede gegeneer word. 	
Visueel	<ul style="list-style-type: none"> Sonder rehabilitasie, kan die beoogde projek algemene negatiewe visuele uitsigte tot gevolg hê weens afvalkliphope wat ná sluiting op die oppervlak sal bly. Met rehabilitasie sal visuele impakte verbeter word. 	Graham A Young
Sosio-ekonomies		
Ekonomies	<ul style="list-style-type: none"> Die beoogde projek kan 'n positiewe netto ekonomiese impak op die nasionale, plaaslike en streekse ekonomie hê deur doeltreffende ontginning van toekomstige ondergrondse hulpbronne noord van die huidige oopgroef, moontlik te maak. 	Mercury
Maatskaplike voordele	<ul style="list-style-type: none"> Alternatiewe grondgebruik kan alternatiewe werk- en ekonomiese ontwikkeling verbeter, wat die lewens van individue wat in die plaaslike gebied woon, op sy beurt kan verbeter. 	Kwalitatiewe evaluering
Gevoel van plek	<ul style="list-style-type: none"> Deur 'n alternatiewe grondgebruik met sluiting te vestig, sal die beoogde projek die aard van die terrein verander en kan dit deur omliggende grondgebruikers as hetsy positief of negatief ervaar word. 'n Alternatiewe sluitingsopsie sal vroeëre rehabilitasie van afvalkliphope moontlik maak, wat die status van rehabilitasie met sluiting sal beïnvloed om impakte gevolglik te minimaliseer. 	Kwalitatiewe evaluering
Veiligheid van derdepartye	<ul style="list-style-type: none"> Sonder rehabilitasie, sal die beoogde projek 'n deels oop oopgroef tot gevolg hê, wat skadelik kan wees vir derdepartye en diere. Versagting kan die grond veilig maak. 	Kwalitatiewe evaluering
Grondgebruik	<ul style="list-style-type: none"> Die vestiging van 'n funksionele groefmeer kan alternatiewe grondgebruike verbeter wat verband hou met toegang tot oppervlakwater en meer biodiversiteit. 	Kwalitatiewe evaluering

STAPPE IN DIE OMGEWINGSMAGTIGINGSPROSES

Die omgewingsevalueringproses:

- Bied inligting oor die projek en die omgewing waarin dit onderneem word;
- Identifiseer die potensiële negatiewe en positiewe omgewings- en sosio-ekonomiese impakte van die beoogde projek in oorleg met B&GP's; en
- Doen verslag oor bestuursmaatreëls wat vereis word om impakte tot op 'n aanvaarbare vlak te versag en inkorporeer vereistes vir ná-sluitingsmonitering (waar nodig).

Die proses se waarskynlike stappe en tydsraamwerke word hieronder uiteengesit.



OPENBARE DEELNAMEPROSES

Die doel van die openbare deelnameproses is om B&GP's en owerhede wat kommentaar lewer in kennis te stel van die beoogde projek en om hulle 'n geleentheid te bied om kwessies of knelpunte met betrekking tot die beoogde projek te opper. Die openbare deelnameproses sal onderneem word ingevolge die vereistes van Hoofstuk 6 van Regulasie 982 van 4 Desember 2014 (OIE-regulasies), soos gewysig. Partye wat betrokke is by die omgewingsmagtigingsproses, word hieronder uiteengesit.

PARTYE BETROKKE BY DIE OMGEWINGSMAGTIGINGSPROSESSE

B&GP's

- * Omliggende grondeienaars, grondgebruikers en gemeenskappe
- * Omliggende myne en nywerhede
- * Nie-regeringsorganisasies en verenigings
- * Semi-staatsinstellings

BEVOEGDE OWERHEID

- * Departement van Minerale Hulpbronne end Energie

OWERHEDE WAT KOMMENTAAR LEWER

- * Noord-Kaapse Departement van Omgewingsake en Natuurbewaring (DENC)
- * Departement van Omgewingsake, Bosbou en Visserye
- * Noord-Kaapse Departement van Landelike Ontwikkeling en Grondhervorming (DRDLR) – met insluiting van die Kommissaris van Grondeise
- * Departement van Menslike Nedersetting, Water en Sanitasie

PLAASLIKE OWERHEDE

- * John Taolo Gaetsewe Distriksmunisipaliteit
- * Joe Morolong Plaaslike Munisipaliteit (met insluiting van wyksraadslid)

Stel ons asseblief in kennis as daar nog partye is wat betrokke moet wees.

**TSHIPI É NTLÉ MANGANESE MINING (EDMS.) BPK.
AGTERGRONDINLIGTINGSDOKUMENT
ALTERNATIEWE SLUITINGS- EN REHABILITASIEPROJEK BY DIE TSHIPI BORWA-MYN**

JUNIE 2019

REGISTRASIE- EN ANTWOORDVORM VIR BELANGSTELLEDE EN GEAFFEKTEERDE PARTYE

DATUM		TYD	
BESONDERHEDE VAN DIE BELANGSTELLEDE EN GEAFFEKTEERDE PARTY			
NAAM			
POSADRES			
STRAATADRES		POSKODE	
		POSKODE	
TELEFOONNOMMER BY DIE WERK/BEDAGS		FAKSNOMMER BY DIE WERK/BEDAGS	
SELFOONNOMMER		E-POSADRES	

MAAK ASSEBLIEF U BELANG BY DIE BEOOGDE PROJEK BEKEND

SKRYF U KOMMENTAAR EN VRAE ASSEBLIEF HIER NEER

Stuur ingevulde vorms asseblief terug aan:
Natasha Smyth
SLR Consulting (Africa) (Edms.) Bpk.
E-pos: nsmyth@slrconsulting.com
Tel: 011 467 0945
Faks: 011 467 0978

TSHIPI É NTLÉ MANGANESE MINING (PTY) LTD BACKGROUND INFORMATION DOCUMENT

ALTERNATIVE CLOSURE AND REHABILITATION OPTIMISATION PROJECT AT THE TSHIPI BORWA MINE JUNE 2019

INTRODUCTION

Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) operates the Tshipi Borwa Mine located on the farms Mamatwan 331 and Moab 700, located approximately 18 km to the south of Hotazel in the John Taolo Gaetsewe District Municipality in the Northern Cape Province (refer to Figure 1). Tshipi currently holds the following material authorisations:

- A mining right (NC/30/5/1/2/2/0206MR) issued by the Department of Mineral Resources (DMR);
- An Environmental Management Programme report (EMPr) approved by the DMR, as amended;
- An environmental authorisation (NC/30/5/1/2/2/206/000083 EM) issued by the DMR; and
- A Water Use Licence (IWUL) (10/D41K/AGJ/1735) issued by the Department of Water and Sanitation.

The approved EMPr commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent operation optimisation investigations indicate completely backfilling the open pit is sub-optimal when considering environmental, socio-economic, technical, commercial and legal factors. Tshipi is therefore proposing to change the current closure commitment to achieve a more sustainable and optimised outcome.

ENVIRONMENTAL AUTHORISATION

Prior to the commencement of the proposed project, the following is required:

- An environmental authorisation from the DMR in terms of the National Environmental Management Act No. 107 of 1998. The Environmental Impact Assessment Regulations being followed are Government Notice Regulation (GNR) 982 of 4 December 2014, as amended. A listed activity in terms of Listing Notice 1 GNR 983 will be triggered as part of the proposed project and as such a Basic Assessment Process will be followed.

PURPOSE OF THIS DOCUMENT

This document has been prepared by SLR Consulting (Africa) (Pty) Ltd (SLR) to inform you about:

- The proposed project
- The baseline environment of the current project area
- The environmental assessment process being followed (Basic Assessment Process)
- Possible environmental/cultural/socio-economic impacts
- How you can participate in and have input into the environmental assessment process.

SLR, an independent firm of environmental consultants, has been appointed by Tshipi to manage the environmental assessment process.

YOUR ROLE

You have been identified as an interested and/or affected party (I&AP) who may want to be informed about the proposed project and have input into the Basic Assessment process.

You have an opportunity to review this document and provide your initial comments to SLR for incorporation in the Basic Assessment process. You will also be given the opportunity to provide input through review and comment on the Basic Assessment Report.

All comments will be recorded and included in the reports submitted to the DMR for decision-making.

HOW TO RESPOND

Responses to this document can be submitted by means of the attached comments sheet and/or through communication with the person listed below.

WHO TO CONTACT

Natasha Smyth
(011) 467 0945 (Tel) or (011) 467 0978 (Fax) or
nsmyth@slrconsulting.com

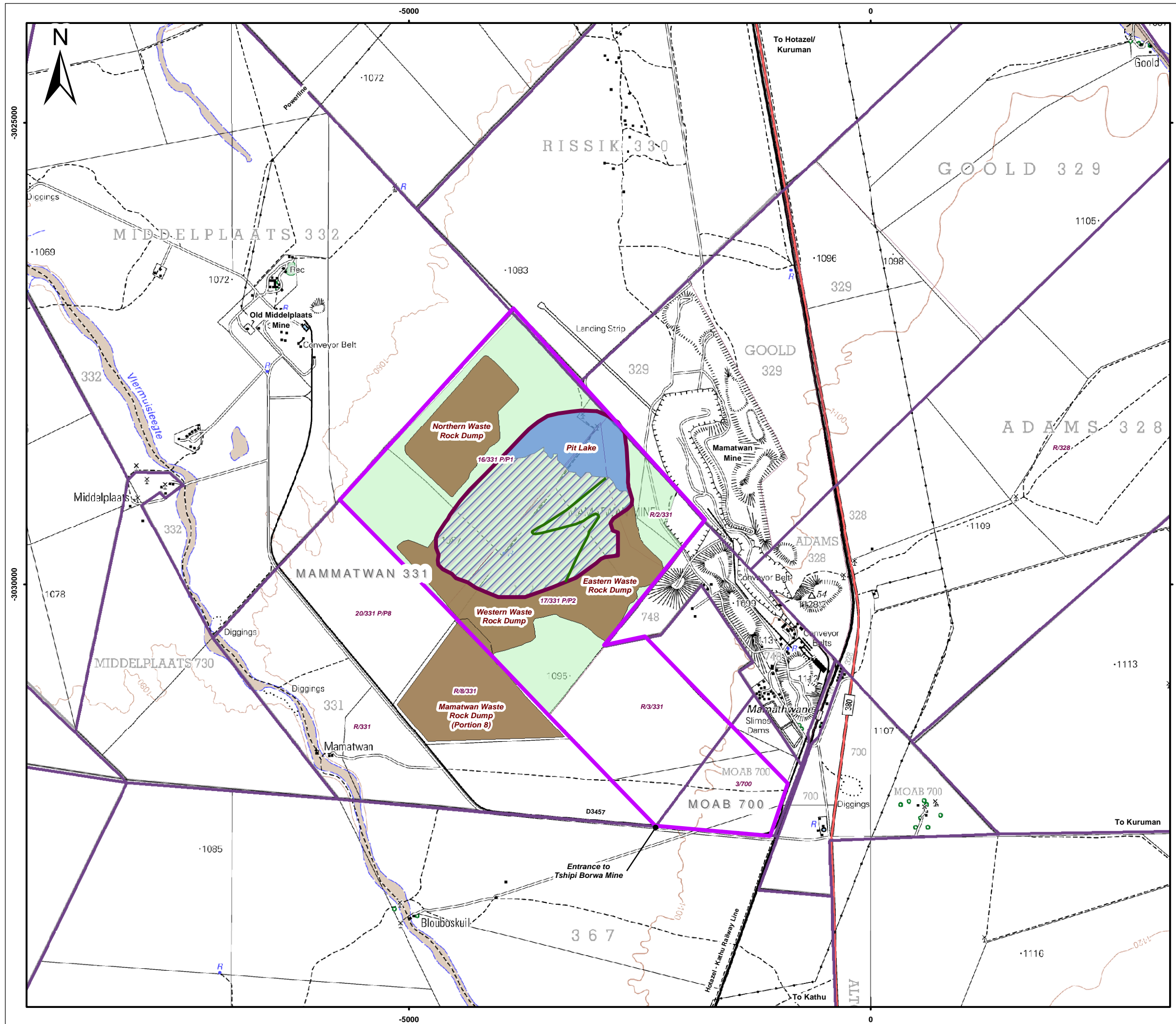
PUBLIC MEETING

A public meeting has been arranged as part of the public participation process:

Venue: Sishen Golf and Country Club (Gemsbok Conference room- Main Club) (Hans Coetzee street, Kathu)

Time: 10h00

Date: 26 June 2019



- Legend**
- Tshipi Surface Use Area
 - Tshipi Mining Right Area
 - Open Pit
 - Concurrent In-Pit Dumping
 - Waste Rock Dumps
 - Access Road
 - Main Roads
 - Power Line
 - Rivers and Streams
 - 20m Contour Lines
 - Farm Boundaries
 - Farm Portions

0 500 1 000 Meters
 Scale: 1:40 000 @ A3
 Projection: Transverse Mercator
 Datum: WGS1984, Lo23

Tshipi é Ntle Manganese Mining (Pty) Ltd

Figure 1
Local Setting

SLR
 SLR Consulting (Africa) (Pty) Ltd
 P O Box 1596, Cramerville, 2060, South Africa
 Tel: +27 (11) 467-0945 Fax: +27 (11) 467-0978

OVERVIEW AND PROJECT MOTIVATION

Tshipi currently operates the Tshipi Borwa (manganese) Mine located on the farms Mamatwan 331 (mining right and surface use areas) and Moab 700 (surface use area) (Figure1). Key mine infrastructure includes an open pit, haul roads, run-of mine ore tip, a primary crusher, a secondary crushing and screening plant, various stockpiles for crushed and product ore, a train load-out facility, a private siding, offices, workshops, warehouses and ancillary buildings, an access control facility, various access roads, diesel generator house, electrical reticulation, clean and dirty water storage dams, water reticulation pipelines and drains, topsoil stockpiles and waste rock dumps. The mine has an anticipated life of mine of approximately 25 years and has been operational for seven years.

The approved EMPr commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent operation optimisation investigations indicate that when considering environmental, socio-economic, technical, commercial and legal factors, completely backfilling the open pit is sub-optimal for the following reasons:

- The opportunities for enhanced biodiversity habitats with a different backfill approach particularly in terms of topographic variety and access to surface water;
- The opportunities for enhanced land use increase with access to surface water;
- An alternative closure option will allow for earlier rehabilitation of waste rock dumps; and
- Completely backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country.

Tshipi is therefore proposing to change the current closure commitment (complete backfill of the open pit) to concurrent in-pit dumping. In this regard, the proposed project focusses on:

- Concurrent backfill only i.e. in-pit dumping during mining operations only;
- Sloping and rehabilitation of waste rock dumps remaining on surface;
- Access to readily available future water supply; and
- Optimisation of the surface landforms and partially backfilled pit from a biodiversity, rehabilitation, land use and pollution prevention perspective.

CONCEPTUAL ALTERNATIVES CONSIDERED

The alternatives considered for the closure and rehabilitation optimisation project include:

- **Complete backfill:** Backfill of the final pit void post mining to original ground level, before rehabilitation of the surface as per the current approved EMPr
- **Partial backfill:** Backfill of the final pit void post mining to a level just above the rebound water-table level, approximately 50m below original ground level, before rehabilitation of the surface.
- **Concurrent backfill (In-pit dumping):** Backfill of the pit void concurrent with mining only, also called in-pit dumping, which results in a final pit void which will be 'made safe' (profiled) before rehabilitation of the surface.
- **No backfill:** No backfill of the pit either concurrent with mining or post mining i.e. all waste rock to surface dumps. The pit side-walls and end-walls will only be 'made safe'.

The alternatives have been considered with input from specialists (where relevant). Specialist findings have indicated that concurrent backfill i.e. in-pit dumping is the optimal option from an environmental, socio-economic, technical and commercial perspective. The detailed alternatives assessment will be provided in the BAR.

BASELINE OVERVIEW

Below is a basic description of the existing status of the environment:

Geology:

The Tshipi Borwa Mine falls in the Kalahari Manganese Field and is covered by gravels, clays, calcretes and aeolian sands of the Kalahari Group.

Climate:

The Tshipi Borwa Mine falls within the Northern Steppe Climatic Zone. It is a semi-arid region characterised by seasonal rainfall, hot temperatures in summer, and colder temperatures in winter. Rainfall ranges from 1.3 mm to 72.3 mm per month and winds from the north, north-east are dominant in the area.

Topography:

The Tshipi Borwa Mine is located in a relatively flat area with gentle slopes. The natural surrounding and on-site topography has been influenced by existing mining activities.

Soils and land capability:

Soils at the Tshipi Borwa Mine comprise structureless, deep (>1 200 mm), sandy, red and yellow soils of the Hutton form. In the absence of irrigation, Soils at the mine have a low cultivation potential due to the high infiltration rates associated with sandy soils. Due to the fine sandy nature of the soil forms and the low clay content and limited organic matter, the soils are highly erodible, particularly where vegetation is removed. Soil resources and related land capability have been influenced by existing mining activities.

Animal life:

Limited evidence of wild faunal populations is associated with the proposed project area due to the presence of mining, prospecting and farming activities. Red data bird species that are likely to occur within the proposed project area include the Martial Eagle, Secretary bird and the African Whitebacked Vulture. Red data mammal species likely to occur include the honey badger and the South African Hedgehog.

Plant life:

The Tshipi Borwa Mine falls within the Kathu Bushveld and the Griqualand West Centre of Endemism. The protected *Vachellia erioloba* (Camel Thorn) and *Vachellia haematoxylon* (Grey Camel Thorn) occur at the Mine. The plant population at the mine has already been disturbed by existing mining activities.

Surface water:

The Tshipi Borwa Mine falls within the catchment of the Ga-Mogara River, a tributary of the Kuruman River and flows into the Orange River. Runoff from Tshipi drains west towards the Vlermuisleegte River that only flows during high rainfall events. There is no third-party reliance on surface water. No wetlands are located in the area. Existing mining activities have influenced the natural drainage patterns on site and the related contributions of runoff to the catchment.

Groundwater:

The Tshipi Borwa Mine is underlain by a shallow unconfined Kalahari Aquifer and the deeper fractured Hotazel Aquifer. The average ground water level at the mine ranges from 41 to 74 metres below ground level. The majority of third-party boreholes surrounding the mine are used for livestock watering purposes.

Air quality:

Ambient air quality has been influenced by mines, household fuel combustion, vehicle tailpipe emissions and agricultural activities.

Noise:

The greater area is generally defined by rural features. Noise levels near the Tshipi Borwa Mine are mainly as a result of surrounding farming activities, localised traffic and mining operations.

Visual:

The area southwest, north and west of the Tshipi Borwa Mine can be described as a flat open area with drainage lines and open views of bushveld which are visually dominant and has a high visual value. Areas to the north and east of the Tshipi Borwa Mine are considered to have a low visual value due to the presence of neighbouring mines (Mamatwan Mine and United Manganese of Kalahari (Pty) Ltd), infrastructure (road, rail and powerlines) and the Adams solar park. The disturbed areas within the mine's surface use area have a low visual value.

Heritage/cultural resources:

No heritage/cultural sites have been identified at the Tshipi Borwa Mine. The palaeontological sensitivity of the site is low, although there is a possibility of Stromatolites being present in the project area.

Socio-economic:

The town of Hotazel is located approximately 18m north of the Tshipi Borwa Mine. The educational levels in the area are relatively low with a high level of unemployment and a dependency on subsistence agriculture, the public sector, seasonal workers and employment in the mining sector. Water provision and sanitation remains a challenge, mostly in the rural areas. There has been an increase in the number of households that were provided with electricity as a source of energy in the area. Mining and government services are the main economic sectors.

Land use:

Land uses surrounding the Tshipi Borwa Mine include a combination of livestock grazing, game farming, mining, a solar farm and sparsely situated residences. Land use at the Mine has been influenced by existing mining activities.

POTENTIAL ENVIRONMENTAL AND SOCIO-ECONOMIC IMPACTS AND RELATED SPECIALIST INPUT

Potential impacts that have been identified and will be investigated as part of the environmental impact assessment process are tabulated below. Where specialist input is required this has been indicated in the table below.

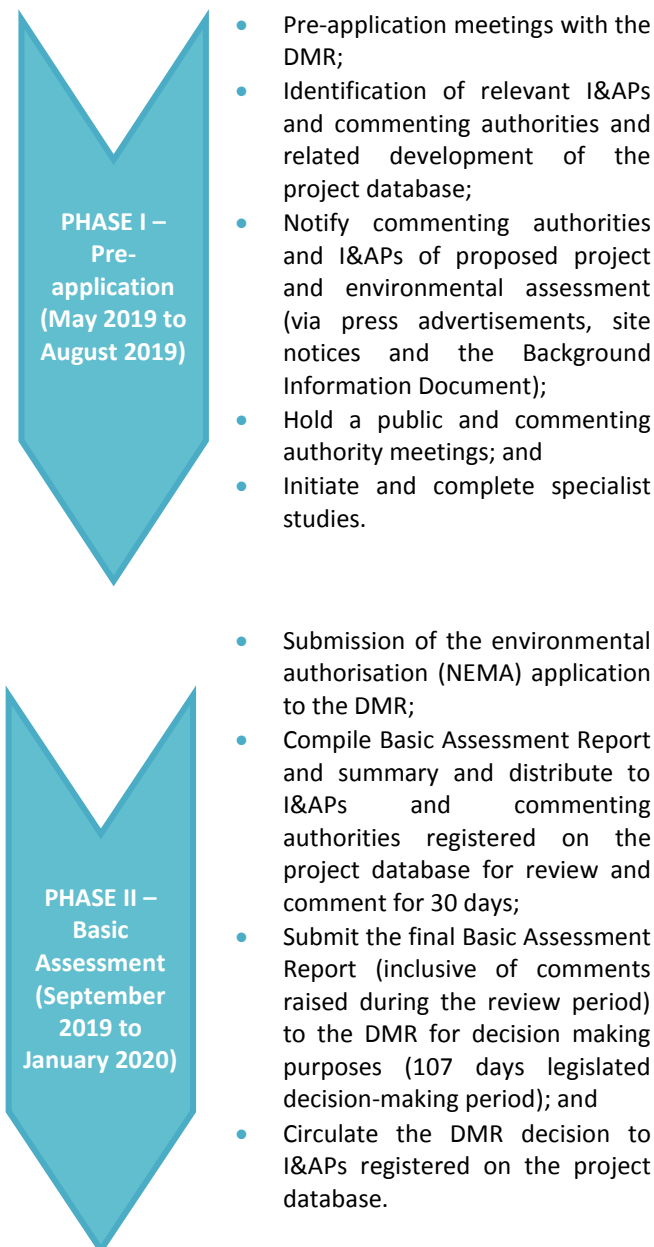
Aspect	Potential environmental and socio-economic impacts	Specialist input (where required)
Biophysical		
Soils and land capability	<ul style="list-style-type: none"> With access to future readily available water supply, the proposed project has the potential to promote the optimal use of soil resources to enhance alternative land uses (eg. agriculture). 	Terra Africa
Biodiversity - Aquatic	<ul style="list-style-type: none"> The proposed project has the potential to create and enhance aquatic habitats through the availability of a functional pit lake, which in turn may increase biodiversity complexity, diversity, community sensitivity and overall community stability. 	Scientific Aquatic Services CC
Biodiversity – Terrestrial	<ul style="list-style-type: none"> The proposed project has the potential to increase faunal and floral species populations by re-creating a terrestrial habitat through access to a functional pit lake, that otherwise would have been limited as a result of the lack of stable freshwater habitats. 	Scientific Terrestrial Services CC
Surface water	<ul style="list-style-type: none"> The proposed project has the potential to provide access to a readily available future water supply (pit lake) which may be used for an alternative land use. 	SLR Consulting (Africa) (Pty) Ltd
Groundwater	<ul style="list-style-type: none"> The proposed project has the potential to minimise the extent of a contamination plume that could migrate off-site. 	
Air	<ul style="list-style-type: none"> In the absence of rehabilitation, the proposed project has the potential to generate wind-blown dust from a larger exposed area. 	Airshed Planning Professionals (Pty) Ltd
Noise	<ul style="list-style-type: none"> No noticeable noise impacts are anticipated as a result of closure but noise could be generated by future post closure land use activities. 	
Visual	<ul style="list-style-type: none"> In the absence of rehabilitation, the proposed project has the potential to general negative visual views through waste rock dumps that will remain on surface post closure. With rehabilitation visual impacts will be improved with rehabilitation. 	Graham A Young
Socio-economic		
Economics	<ul style="list-style-type: none"> The proposed project has the potential to have a positive net economic impact on the national, local and regional economy by allowing for the efficient exploitation of future underground resources located to the north of the current open pit. 	Mercury
Social benefits	<ul style="list-style-type: none"> Alternative land use has the potential to enhance alternative employment and economic development that has the potential to improve livelihoods of individuals living in the local area. 	Qualitative assessment
Sense of place	<ul style="list-style-type: none"> By establishing an alternative land use at closure, the proposed project would change the nature of the site and could be perceived by surrounding land users as either positive or negative. An alternative closure option will allow for earlier rehabilitation of waste rock dumps which would influence the status of rehabilitation at closure thereby minimising impacts. 	Qualitative assessment
Safety of third parties	<ul style="list-style-type: none"> In the absence of rehabilitation, the proposed project would present a partially open pit that could be harmful to third parties and animals. Mitigation can make the land safe. 	Qualitative assessment
Land use	<ul style="list-style-type: none"> The establishment of a functional pit lake has the potential to enhance alternative land uses associated with access to surface water and increased biodiversity. 	Qualitative assessment

STEPS IN THE ENVIRONMENTAL AUTHORISATION PROCESS

The environmental assessment process provides:

- Information on the project and environment in which it is being undertaken;
- Identifies, in consultation with I&APs, the potential negative as well as positive environmental and socio-economic impacts of the proposed project; and
- Reports on management measures required to mitigate impacts to an acceptable level and incorporates requirements for post closure monitoring (where required).

The likely process steps and timeframes are provided below.



PUBLIC PARTICIPATION PROCESS

The purpose of the public participation process is to notify I&APs and commenting authorities of the proposed project and to provide them with opportunity to raise issues or concerns regarding the proposed project. The public participation process will be undertaken in accordance with the requirements of Chapter 6 of Regulations 982 of 4 December 2014 (EIA Regulations), as amended. Parties involved in the environmental authorisation process are outlined below.

PARTIES INVOLVED IN THE ENVIRONMENTAL AUTHORISATION PROCESSES

I&APs

- * Surrounding landowners, land users and communities
- * Surrounding mines and industries
- * Non-governmental organisations and associations
- * Parastatals

COMPETENT AUTHORITY

- * Department of Mineral Resources and Energy

COMMENTING AUTHORITIES

- * Northern Cape Department of Environment and Nature Conservation (DENC)
- * Department of Environment, Forestry and Fisheries
- * Northern Cape Department of Rural Development and Land Reform (DRDLR) – inclusive of the Land Claims Commissioner
- * Department of Human Settlement, Water and Sanitation

LOCAL AUTHORITIES

- * John Taolo Gaetsewe District Municipality
- * Joe Morolong Local Municipality (including the ward councillor)

Please let us know if there are any additional parties that should be involved.

**TSHIPI É N TLE MANGANESE MINING (PTY) LTD
BACKGROUND INFORMATION DOCUMENT
ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE**

JUNE 2019

REGISTRATION AND RESPONSE FORM FOR INTERESTED AND AFFECTED PARTIES

DATE		TIME	
PARTICULARS OF THE INTERESTED AND AFFECTED PARTY			
NAME			
POSTAL ADDRESS			
STREET ADDRESS		POSTAL CODE	
		POSTAL CODE	
WORK/ DAY TELEPHONE NUMBER		WORK/ DAY FAX NUMBER	
CELL PHONE NUMBER		E-MAIL ADDRESS	

PLEASE IDENTIFY YOUR INTEREST IN THE PROPOSED PROJECT

PLEASE WRITE YOUR COMMENTS AND QUESTIONS HERE

Please return completed forms to:
 Natasha Smyth
 SLR Consulting (Africa) (Pty) Ltd
 Email: nsmyth@slrconsulting.com
 Tel: 011 467 0945
 Fax: 011 467 0978

Natasha Smyth

From: Natasha Smyth
Sent: 15 June 2019 07:19 AM
Subject: Tshipi - Proposed alternative closure and rehabilitation optimisation project
Attachments: Tshipi EMP3 BID-final.pdf; Tshipi EMP3 BID-final -Afr.pdf

Bcc: tsteyn@lantic.net; mase.rantsieng@south32.net; james@tshipi.co.za; nthabeleng@tshipi.co.za; Hendrik.Louw@south32.net; Abram.Bodiba@south32.net; derick.korff@south32.net; Alex.mooya@south32.net; ndarap@eskom.co.za; Gerrie.vanschalkwyk@eskom.co.za; Benito.williams@eskom.co.za; khanyen@eskom.co.za; ludekefj@eskom.co.za; vgenseal@eskom.co.za; dbruiner@eskom.co.za; Sam.fiff@transnet.net; cabangile.zulu@transnet.net; andriesmvd@gmail.com; anfour@absamail.co.za; krugersoret@yahoo.com; mmvanwyk10@gmail.com; camel@vodamail.co.za; Cupido.Love@UMK.co.za; Tshivhangwaho.Mudau@umk.co.za; daniel@solafuture.co.za; siphawe@kalagadi.co.za; Tshepo@kalagadi.co.za; henneyrc@telkom.co.za; info@sebiloresources.co.za; didi@sebiloresources.co.za; voorsitter@agrikur.co.za; info@tshiping.co.za; wessanc@yahoo.com; juriekr@gmail.com; louis@soetvlakte.co.za; hendrik.arangies@kmr.co.za; conri.moolman@asia-minerals.com; bonolol@brmo.co.za; Rethabile.Mboya@arm.co.za; AshleyG.Mcleod@arm.co.za; info@afribits.co.za; Wezi.banda@ergafrica.com; Gert.theart@vodamail.co.za; ebenanthonissen@hotmail.com; ebena@absamail.co.za; Carel.reyneke@absamail.co.za; tshifhiwar@brmo.co.za; josephmatshidiso@yahoo.com

**TSHIPI é NTLÉ MANGANESE MINING (PTY) LTD
ALTERNATIVE CLOSURE AND REHABILITATION OPTIMISATION PROJECT AT THE TSHIPI BORWA
MINE**

Dear Interested and Affected Party (I&AP)

Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) operates the Tshipi Borwa Mine located on the farms Mamatwan 331 and Moab 700, located approximately 18 km to the south of Hotazel in the John Taolo Gaetsewe District Municipality in the Northern Cape Province.

The approved Environmental Management Programme report (EMPr) commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent operation optimisation investigations indicate completely backfilling the open pit is sub-optimal when considering environmental, socio-economic, technical, commercial and legal factors. Tshipi is therefore proposing to change the current closure commitment to achieve a more sustainable and optimised outcome.

Prior to the commencement of the proposed project, an environmental authorisation from the Department of Mineral Resources (DMR) in terms of the National Environmental Management Act (NEMA) No. 107 of 1998 is required. SLR Consulting (Africa) (Pty) Ltd (SLR), an independent firm of environmental consultants, has been appointed by Tshipi to manage the environmental assessment process.

Your Department has been identified as a commenting regulatory authority who may want to be informed about the proposed project and have input into the Basic Assessment process. The attached Background Information Document (BID) (English and Afrikaans) has been prepared to provide your Department with background information on the proposed project and provide you with an opportunity to provide comments. In addition, a public meeting has been arranged as part of the public participation process. Details regarding the public meeting are provided below:

Venue: Sishen Golf and Country Club(Gemsbok Conference room- Main Club): Hans Coetzee street, Kathu

Time: 10h00

Date: 26 June 2019

For further information relating to the proposed project, please refer to the attached BID.

For any queries please do not hesitate to contact me.

Kind Regards

Natasha



Natasha Smyth

Environmental Assessment Practitioner

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o +27 11 467 0945

d 2029

e nsmyth@slrconsulting.com

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Fourways, Johannesburg, Gauteng, 2191



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Natasha Smyth

From: Natasha Smyth
Sent: 15 June 2019 07:17 AM
Subject: Tshipi - Proposed alternative closure and rehabilitation optimisation project
Attachments: Tshipi EMP3 BID-final.pdf

Bcc: Tmthombeni@ncpg.gov.za; gletimela@ncpg.gov.za; mokonopin@gmail.com; nmokonopi@ncpg.gov.za; Ntsundeni.Ravhugoni@dmr.gov.za; juliakatong2@gmail.com; Jmmasela66@gmail.com; mm@joemorolong.gov.za; mmorwagae@joemorolong.gov.za; leutlwetsed@joemorolong.gov.za; sseleka@webmail.co.za; sseleka@joemorolong.gov.za; mmsec@taologaetsewe.gov.za; matlhareTH@taologaetsewe.gov.za; fortunec@agri.ncpg.gov.za; cfortune@agri.ncape.gov.za; ryan.oliver@drdlr.gov.za

**TSHIPI é NTLÉ MANGANESE MINING (PTY) LTD
ALTERNATIVE CLOSURE AND REHABILITATION OPTIMISATION PROJECT AT THE TSHIPI BORWA
MINE**

Dear Regulatory/Commenting Authority

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Time: 10h00

Date: 26 June 2019

For further information relating to the proposed project, please refer to the attached BID.

For any queries please do not hesitate to contact me.

Kind Regards

Natasha



Natasha Smyth

Environmental Assessment Practitioner

+27 83 226 8570

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Natasha Smyth

From: Natasha Smyth
Sent: 15 June 2019 07:15 AM
To: JacolineMa@daff.gov.za
Subject: Tshipi - Proposed alternative closure and rehabilitation project
Attachments: Tshipi EMP3 BID-final.pdf

**TSHIPI é NTLE MANGANESE MINING (PTY) LTD
ALTERNATIVE CLOSURE AND REHABILITATION OPTIMISATION PROJECT AT THE TSHIPI BORWA
MINE**

DEPARTMENT OF ENVIRONMENT, FORESTRY AND FISHERIES

Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) operates the Tshipi Borwa Mine located on the farms Mamatwan 331 and Moab 700, located approximately 18 km to the south of Hotazel in the John Taolo Gaetsewe District Municipality in the Northern Cape Province.

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Venue: Sishen Golf and Country Club(Gemsbok Conference room- Main Club): Hans Coetzee street, Kathu

Time: 10h00

Date: 26 June 2019

For further information relating to the proposed project, please refer to the attached BID.

For any queries please do not hesitate to contact me.

Kind Regards

Natasha



Natasha Smyth

Environmental Assessment Practitioner

+27 83 226 8570

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2029

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SLR Consulting (Africa) (Pty) Ltd
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Fourways Manor Office Park
1 MacBeth Avenue
Fourways, Johannesburg, Gauteng, 2191



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Natasha Smyth

From: Natasha Smyth
Sent: 15 June 2019 07:16 AM
To: nhiggitt@sahra.org.za
Subject: Tshipi - Proposed alternative closure and rehabilitation project
Attachments: Tshipi EMP3 BID-final.pdf

**TSHIPI é NTLÉ MANGANESE MINING (PTY) LTD
ALTERNATIVE CLOSURE AND REHABILITATION OPTIMISATION PROJECT AT THE TSHIPI BORWA
MINE**

SOUTH AFRICAN HERITAGE RESOURCE AGENCY

Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) operates the Tshipi Borwa Mine located on the farms Mamatwan 331 and Moab 700, located approximately 18 km to the south of Hotazel in the John Taolo Gaetsewe District Municipality in the Northern Cape Province.

The approved Environmental Management Programme report (EMPr) commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent operation optimisation investigations indicate completely backfilling the open pit is sub-optimal when considering environmental, socio-economic, technical, commercial and legal factors. Tshipi is therefore proposing to change the current closure commitment to achieve a more sustainable and optimised outcome.

Prior to the commencement of the proposed project, an environmental authorisation from the Department of Mineral Resources (DMR) in terms of the National Environmental Management Act (NEMA) No. 107 of 1998 is required. SLR Consulting (Africa) (Pty) Ltd (SLR), an independent firm of environmental consultants, has been appointed by Tshipi to manage the environmental assessment process.

Your Department has been identified as a commenting authority who may want to be informed about the proposed project and have input into the Basic Assessment process. The attached Background Information Document (BID) has been prepared to provide your Department with background information on the proposed project and provide you with an opportunity to provide comments. In addition, a public meeting has been arranged as part of the public participation process.

Venue: Sishen Golf and Country Club(Gemsbok Conference room- Main Club): Hans Coetzee street, Kathu

Time: 10h00

Date: 26 June 2019

For further information relating to the proposed project, please refer to the attached BID.

PLEASE NOTE THAT WE HAVE OPENED UP A CASE FILE AND WILL UPLOAD THE BID ONTO SAHRIS. THIS EMAIL HAS BEEN SENT FOR RECORD KEEPING PURPOSES.

For any queries please do not hesitate to contact me.

Kind Regards

Natasha



Natasha Smyth

Environmental Assessment Practitioner

+27 83 226 8570

+27 11 467 0945

2029

nsmyth@slrconsulting.com

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Natasha Smyth

From: Natasha Smyth
Sent: 15 June 2019 07:15 AM
To: msimangop@dws.gov.za
Subject: Tshipi - Proposed alternative closure and rehabilitation project
Attachments: Tshipi EMP3 BID-final.pdf

**TSHIPI é NTLE MANGANESE MINING (PTY) LTD
ALTERNATIVE CLOSURE AND REHABILITATION OPTIMISATION PROJECT AT THE TSHIPI BORWA
MINE**

DEPARTMENT OF HUMAN SETTLEMENT, WATER AND SANITATION

Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) operates the Tshipi Borwa Mine located on the farms Mamatwan 331 and Moab 700, located approximately 18 km to the south of Hotazel in the John Taolo Gaetsewe District Municipality in the Northern Cape Province.

The approved Environmental Management Programme report (EMPr) commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent operation optimisation investigations indicate completely backfilling the open pit is sub-optimal when considering environmental, socio-economic, technical, commercial and legal factors. Tshipi is therefore proposing to change the current closure commitment to achieve a more sustainable and optimised outcome.

Prior to the commencement of the proposed project, an environmental authorisation from the Department of Mineral Resources (DMR) in terms of the National Environmental Management Act (NEMA) No. 107 of 1998 is required. SLR Consulting (Africa) (Pty) Ltd (SLR), an independent firm of environmental consultants, has been appointed by Tshipi to manage the environmental assessment process.

Your Department has been identified as a commenting authority who may want to be informed about the proposed project and have input into the Basic Assessment process. The attached Background Information Document (BID) has been prepared to provide your Department with background information on the proposed project and provide you with an opportunity to provide comments. **In addition, a public meeting has been arranged as part of the public participation process. Details regarding the public meeting are provided below; however we will be in contact with you during the course of next week to discuss the possibility of setting up a focussed meeting with your department in Kimberley.**

Venue: Sishen Golf and Country Club(Gemsbok Conference room- Main Club): Hans Coetzee street, Kathu

Time: 10h00

Date: 26 June 2019

For further information relating to the proposed project, please refer to the attached BID.

For any queries please do not hesitate to contact me.

Kind Regards

Natasha



Natasha Smyth

Environmental Assessment Practitioner

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**Minutes of the
public and
general
commenting
authorities
meeting.**

TSHIPI É NTLÉ MANGANESE MINING (PTY) LTD

**ALTERNATIVE CLOSURE AND REHABILITATION PROJECT
PUBLIC MEETING**

Date	26 June 2019
Venue:	Kalahari Country Club
SLR company:	SLR Consulting (Africa) (Pty) Ltd (SLR)
Project number:	710.20008.00069
Purpose:	<p>The purpose of the meeting was to:</p> <ul style="list-style-type: none"> • To provide an overview of the proposed project; • To provide an overview of the environmental assessment process that will be undertaken for the proposed project; • To provide an overview and obtain input on the existing status of the environment; • To outline and obtain input on impacts identified for the proposed project; • To record any comments and issues raised; and • To agree on the way forward and the logistics for report distribution.
Attendance:	An attendance register is presented in Appendix 1.

1. OPEN AND INTRODUCTION

Natasha Smyth from SLR Consulting (Africa) (Pty) Ltd (SLR) opened the meeting and welcomed all attendees. Thereafter, Natasha Smyth introduced herself as an independent Environmental Assessment Practitioner, appointed by Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) to undertake the environmental assessment process for the proposed project.

Refer to Appendix 1 for the full list of attendees present at the meeting.

2. PRESENTATION

Natasha Smyth gave a presentation providing an overview of the proposed project. In this regard, it was highlighted that Tshipi currently operates the open cast Tshipi Borwa Mine in accordance with an approved Environmental Management Programme Report (EMPr). The approved EMPr commits Tshipi to restore the surface to a pre-mining state of wilderness and grazing and requires that the open pit is completely backfilled once mining is complete. Recent specialist investigations indicate that when considering technical, commercial, legal and socio-economic and environmental factors, backfilling the open pit is sub-optimal.

An alternative closure and rehabilitation strategy offers:

- The opportunities for enhanced biodiversity habitats with a different backfill approach particularly in terms of topographic variety and access to surface water;
- The opportunities for enhanced land use increase with access to surface water; and
- An alternative closure option will allow for earlier rehabilitation of waste rock dumps.

In addition to the above, completely backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country.

Tshipi is therefore proposing to change the current closure commitment (complete backfill of the open pit) to concurrent in-pit dumping.

Further information pertaining to the environmental assessment process is provided in the presentation included in Appendix 2.

3. QUESTION SESSION

Comments raised during the meeting have been recorded and are included in Table 1 below. Where a response was provided the response has been included in the table.

Table 1: Record of comments raised and responses provided

Issues raised	By whom	Response provided
Is Tshipi using its own water or is it sourcing water from The Vaal Gamagara?	Moses Moalani (Care for Nature, NGO)	Tshipi is sourcing water from the Vaal Gamagara. (Natasha Smyth- SLR).
Do you access water from boreholes?		Tshipi has recently submitted a water use licence application to the Department of Water and Sanitation for use the two boreholes on site. Once the license is authorised, the boreholes will be used. (Natasha Smyth – SLR).
Do you intend on rehabilitating the open pit?		The current EMPr caters for complete backfilling, but specialist investigations indicate this option to be sub-optimal when considering technical, commercial, legal, socio-economic and environmental factors. Tshipi is therefore proposing to change the current closure commitment from a complete backfilling of the open pit to concurrent backfilling (in-pit dumping) (Natasha Smyth – SLR).

Issues raised	By whom	Response provided
Is the license for closure only for this portion (open pit)?	Moses Moalani (Care for Nature, NGO)	What's important to understand is that there are no plans to rehabilitate now. The approved EMP commits us to only do so at the end of the life of mine, in about 20 years' time (Brad Rip- Tshipi)
Will there be another public meeting?		Another meeting has not been arranged; however Interested and Affected Parties (I&APs) still have an opportunity to submit comments once they have received the Basic Assessment Report (BAR) for review and comment. Any comments raised will be included in the final BAR that will be submitted to the DMR for decision making purposes (Natasha Smyth – SLR).
Were department officials invited to this public meeting?		Yes, departmental officials were invited. It is however important to note that it is not always possible for departments to attend public meetings based on resource constraints and distance constraints. For this purpose, key focussed meeting were arranged with the Department of Water and Sanitation, the Department of Agriculture, Forestry and Fisheries and the Department of Environment and Conservation (Natasha Smyth – SLR).
Were landowners made aware of the meeting too?		Yes. Landowners, commenting authorities, other mining companies, ward councillors and other interested and affected parties were notified (Natasha Smyth – SLR).
How do you monitor air quality?		There is an existing Air Quality Programme (Nthabeleng Paneng-Tshipi).

4. WAY FORWARD

The way forward is outlined as follows:

- A focussed meeting will be held with the Department of Environment, Forestry and Fisheries on 27 June 2019

- The Basic Assessment Report in support of the proposed project will be made available for public review for a period of 30 days. It is anticipated that this will commence in early August 2019; and
- The Basic Assessment Report will be updated to include any comments received during the review of the report. This updated report will be made submitted to the Department of Mineral Resources for decision making purposes.

5. CLOSE

Attendees were thanked for their input and for making the time to attend the meeting. The meeting was closed by Natasha Smyth.

APPENDIX 1: ATTENDANCE REGISTER

Name and Surname	Organisation	Contact numbers	E-mail
Brad Rip	Tshipi	082 89 40216	bradrip@mwebbiz.co.za
Nthabeleng Paneng		087 745 1381	nthabeleng@tshipi.co.za
Natasha Smyth	SLR	011 467 0645	nsmyth@slrconsulting.com
Gugu Dhlamini			gdhlamini@slrconsulting.com
Jurie Reyneke	RUSHTAIL	072 525 1761	Michael@rushtail.net
Moses Moalani	Care For Nature	072 745 7161	moseslebogang@gmail.com

Project: TSHIPI EMP 3 CLOSURE PROJECT

SLR Company: AFRICA

Date: 26/06/19

Venue: KALAHARI COUNTRY CLUB

Meeting: PUBLIC MEETING



Name and Surname	Community/Organization	Postal address	Contact numbers	E-mail
JURIE REUVEME	RUGHTAIL	27 MOPANI AVENUE KATHY	072 525 7161	michael@rusheail.net
Nthabeleng Paneng	Tshipi Borwa	Farms Mamatwan 331 + Moab 700 P.O.Box 2098, Kathy 0446	0878451381	Nthabeleng@tshipi.co.za
MOSES MORLANI	(UNBORN GENERAL) CARE FOR NATURE	P.O. Box 146 SANTISGANS KURUMBI 8477	072 7457161	mosesiebogeting@gmail.com
Gugli Dhlamini	SLR		011 467 0945	gdhlamini@slrconsulting.com

Note: SLR will use your contact information to communicate future project information and by providing your details on this attendance register it does not mean that you are giving consent for the project.

APPENDIX 2: PRESENTATION

**TSHIPI é NtLE MANGANESE MINING (PTY) LTD
ALTERNATIVE CLOSURE AND REHABILITATION
OPTIMISATION PROJECT - TSHIPI BORWA MINE**

PUBLIC AND COMMENTING AUTHORITIES
MEETING
June 2019

global environmental and advisory solutions

Tshipi é Ntle Manganese Mining
SLR

1

AGENDA



- Welcome and introductions
- Meeting protocol
- Overview of current operations
- Overview and motivation for the proposed project
- Alternatives considered
- Environmental process overview
- Specialist studies
- Overview of the existing status of the environment
- Potential impacts (environmental and socio-economic)
- Summary of the public participation process
- General discussion
- Close

Tshipi é Ntle Manganese Mining
SLR

2

MEETING PROTOCOL

- Please switch cell phones off or onto a silent setting.
- There will be a dedicated question and answer session.
- Before asking a question, please raise your hand and state your name clearly so that we may correctly record it in the minutes.





Tshipi é Ntle Manganese Mining
SLR

3

OVERVIEW OF THE CURRENT OPERATIONS

- Tshipi currently holds the following material authorisations:
 - An approved Mining Right;
 - An EMPr approved by the DMR, as amended;
 - An EA (issued by the DMR); and
 - An IWUL issued by the DWS.
- The approved EMPr commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled.
- Tshipi is proposing to change the current closure commitment to achieve a more sustainable and optimised outcome.
- There is still a life of mine of 20 years.

Tshipi é Ntle Manganese Mining
SLR

4

OVERVIEW AND MOTIVATION FOR PROPOSED PROJECT

- Specialist (Environmental) Studies - which commenced in Q4 2018, indicate that when considering environmental, socio-economic, technical, commercial and legal factors, completely backfilling the open pit is sub-optimal.
- An alternative closure and rehabilitation strategy offers:
 - The opportunities for enhanced biodiversity habitats with a different backfill approach particularly in terms of topographic variety and access to surface water
 - The opportunities for enhanced land use increase with access to surface water
 - An alternative closure option will allow for earlier rehabilitation of waste rock dumps
- Completely backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country.

Tshipi é Ntle Manganese Mining
SLR

5

OVERVIEW AND MOTIVATION OF PROPOSED PROJECT

- Tshipi is therefore proposing to change the current closure commitment (complete backfill of the open pit) to concurrent in-pit dumping. In this regard, the proposed project focusses on:
 - Concurrent backfill only i.e. in-pit dumping during mining operations only;
 - Sloping and rehabilitation of waste rock dumps remaining on surface;
 - Access to readily available future water supply; and
 - Optimisation of the surface landforms and partially backfilled pit from a biodiversity, rehabilitation, land use and pollution prevention perspective.

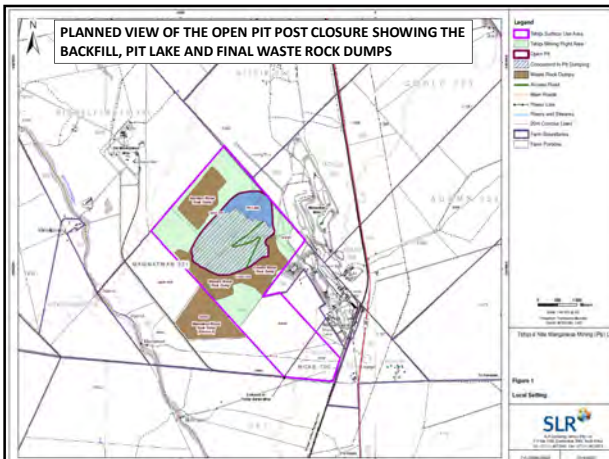
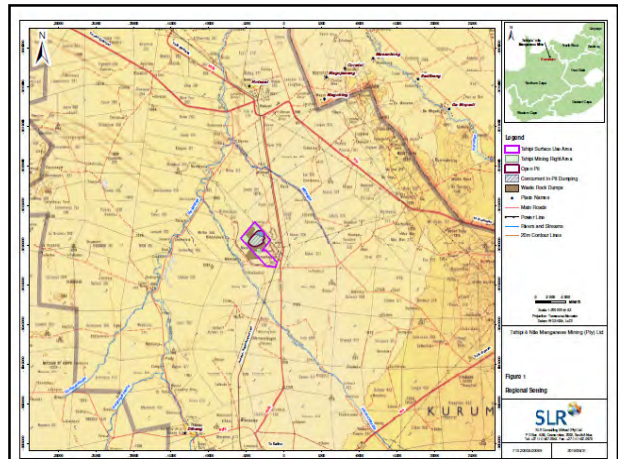
Tshipi é Ntle Manganese Mining
SLR

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OVERVIEW AND MOTIVATION OF PROPOSED PROJECT

2nd Draft FP Regulations:

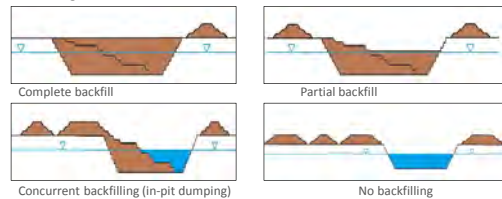
- Focus on facilitating environmentally sustainable mining
- Highlights that financial provisioning is to ensure operations can be brought to the approved sustainable end state at closure
- Companies have the scope to define a credible sustainable end state in the final rehabilitation, decommissioning and mine closure plan.
- The sustainable end state must reflect local conditions, regulatory complexities, stakeholder expectations, environmental opportunities and technical solutions.
- The mind shift from classic mine closure (returning the land to its pre-mining state) to thinking focussing on a transitional economy.



ALTERNATIVES CONSIDERED

Project alternatives:

- Alternatives considered included: full backfill, partial backfilling, concurrent in-pit dumping and no backfilling.



- Concurrent in-pit dumping was considered the most practical option from a technical, commercial and environmental perspective.



Option	Pro's	Con's
Complete backfilling	<ul style="list-style-type: none"> - Already approved in terms of MPRDA - Limited residual post closure impacts - Grazing re-established for an additional 11 large stock units 	<ul style="list-style-type: none"> - No access to a pit lake - No possibility to enhance alternative land uses - Sterilised future underground resources - Does not allow for early rehabilitation of the waste rock dumps - Will take approximately 10 years to fill the pit
Partial backfilling	<ul style="list-style-type: none"> - Promote the use of alternative land uses - Access to surface aggregate - Allows for early rehabilitation of the waste rock dumps 	<ul style="list-style-type: none"> - No access to a pit lake - Increased residual post closure impacts - Sterilised future underground resources - Loss of additional grazing - Will take almost 10 years to partially fill the pit
Concurrent backfilling (in-pit dumping)	<ul style="list-style-type: none"> - Promote the use of alternative land uses - Easy access to underground resources - Access to even more surface aggregate - Access to pit lake - Better long term socio-economic spinoffs - Allows for early rehabilitation of the waste rock dumps 	<ul style="list-style-type: none"> - Increased residual post closure impacts - Loss of additional grazing
No backfill	<ul style="list-style-type: none"> - Easy access to underground resources - Access to largest surface aggregate - Better long term socio-economic spinoffs - Allows for early rehabilitation of the waste rock dumps 	<ul style="list-style-type: none"> - Limited use of pit lake (too steep to access) - Limited possibility to enhance alternative land uses - Additional disturbed areas (WRD's) - Increased residual post closure impacts - Loss of additional grazing

ALTERNATIVES CONSIDERED



The "Big hole" in Kimberly, an example of what must be avoided in terms of pit lake development.



ENVIRONMENTAL PROCESS

Permissions required for the proposed project:

Authorisation required	Applicable legislation	Key process elements	Competent authority
Environmental Authorisation (EA)	National Environmental Management Act No. 107 of 1998 and the Environmental Impact Assessment (EIA) Regulations, 2014 as amended – BAR process	<ul style="list-style-type: none"> NEMA EA Application Stakeholder engagement EMPR and supporting specialist studies 	DMR



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ENVIRONMENTAL PROCESS

What?

- Environment definition (water, biodiversity, etc).
- Assessment of the potential impacts of the proposed project on the environment.
- Implementing appropriate management measures and development of monitoring programmes.

Why?

- Legal requirement and it is the right thing to do

How?

- Basic Assessment Process:
 - Identification and participation of I&APs (landowners, adjacent landowners, land users, commenting and regulatory authorities).
 - Assessment of impacts with input from specialists (where applicable).
 - Identification of possible post closure mitigation measures.
 - Outline mitigation measures including post closure monitoring plan.



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ENVIRONMENTAL PROCESS

Commenting authorities

- Department of Environment and Nature Conservation
- Department of Agriculture, Forestry and Fisheries
- Department of Rural Development and Land Reform
- Provincial South Africa Heritage Resource Agency
- Department of Water and Sanitation

Local authorities

- John Taolo Gaetsewe District Municipality
- Joe Morolong Local Municipality and applicable ward councillor



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SPECIALIST STUDIES

Aspect	Specialist input (where applicable)
Geology	Qualitatively assessed - SLR
Topography	Qualitatively assessed - SLR
Soils & land capability	Soils, land use and land capability study – Terra Africa
Biodiversity	Terrestrial and aquatic biodiversity study – SAS and STS
Surface water	Hydrology study - SLR
Groundwater and pit lake	Groundwater study and pit lake study - SLR
Air	Air quality study - Airshed
Noise	Noise study - Airshed
Visual	Visual study – Graham Young
Heritage/cultural resources	Reference to existing studies
Socio-economic	Socio-economic study - Mercury
Closure	Preliminary closure plan - SLR



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STATUS OF THE EXISTING ENVIRONMENT

- Tshipi falls in the Kalahari Manganese Field
- Area is characterised by hot summer temperatures, colder winter temperatures, low rainfall and high evaporation rates
- Natural topography at the mine has been influenced by existing mining activities
- Soils have low agricultural potential (due to low rainfall) but has potential for supporting grazing
- Limited evidence of wild faunal species due to the presence of mining and farming activities
- Tshipi is located Kathu Bushveld and the Griqualand West Centre of Endemism. Protected trees species include the Camel Thorn and Grey Camel Thorn
- No surface water features on site
- The average ground water level ranges from 41 to 74 mbgl. Third-party boreholes are used for livestock watering



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STATUS OF THE EXISTING ENVIRONMENT

- Ambient air quality has been influenced by mines, household fuel combustion, vehicle tailpipe emissions and agricultural activities.
- Noise levels near Tshipi are mainly as a result of surrounding farming activities, localised traffic and mining operations.
- No heritage/cultural sites have been identified and there is a low possibility of palaeontological
- Unemployment and education levels in the area are higher than the provincial and municipal average. Water and sanitation provision is very good.
- Land uses surrounding Tshipi include livestock grazing, game farming, mining, a solar farm and sparsely situated residences.



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POTENTIAL IMPACTS

Aspect	Potential environmental and socio-economic impact
Soils and land capability	<ul style="list-style-type: none"> With access to future readily available water supply, the proposed project has the potential to promote the optimal use of soil resources to enhance alternative land uses (eg. agriculture).
Biodiversity - Aquatic	<ul style="list-style-type: none"> The proposed project has the potential to create and enhance aquatic habitats through the availability of a functional pit lake, which in turn may increase biodiversity complexity, diversity, community sensitivity and overall community stability.
Biodiversity – Terrestrial	<ul style="list-style-type: none"> The proposed project has the potential to increase faunal and floral species populations by re-creating a terrestrial habitat through access to a functional pit lake, that otherwise would have been limited as a result of the lack of stable freshwater habitats.
Surface water	<ul style="list-style-type: none"> The proposed project has the potential to provide access to a readily available future water supply (pit lake) which may be used for an alternative land use.
Groundwater	<ul style="list-style-type: none"> The proposed project has the potential to minimise the extent of a contamination plume that could migrate off-site.

POTENTIAL IMPACTS

Aspect	Potential environmental and socio-economic impact
Air	<ul style="list-style-type: none"> In the absence of rehabilitation, the proposed project has the potential to generate wind-blown dust from a larger exposed area.
Noise	<ul style="list-style-type: none"> No noticeable noise impacts are anticipated as a result of closure but noise could be generated by future post closure land use activities.
Visual	<ul style="list-style-type: none"> In the absence of rehabilitation, the proposed project has the potential to general negative visual views through waste rock dumps that will remain on surface post closure. With rehabilitation visual impacts will be improved with rehabilitation.
Economics	<ul style="list-style-type: none"> The proposed project has the potential to have a positive net economic impact on the national, local and regional economy by allowing for the efficient exploitation of future underground resources located to the north of the current open pit.
Social benefits	<ul style="list-style-type: none"> Alternative land use has the potential to enhance alternative employment and economic development that has the potential to improve livelihoods of individuals living in the local area.

POTENTIAL IMPACTS

Aspect	Potential environmental and socio-economic impact
Sense of place	<ul style="list-style-type: none"> By establishing an alternative land use at closure, the proposed project would change the nature of the site and could be perceived by surrounding land users as either positive or negative. An alternative closure option will allow for earlier rehabilitation of waste rock dumps which would influence the status of rehabilitation at closure thereby minimising impacts.
Safety of third parties	<ul style="list-style-type: none"> In the absence of rehabilitation, the proposed project would present a partially open pit that could be harmful to third parties and animals. Mitigation can make the land safe.
Land use	<ul style="list-style-type: none"> The establishment of a functional pit lake has the potential to enhance alternative land uses associated with access to surface water and increased biodiversity.

PUBLIC PARTICIPATION PROCESS

I&AP and authority notification and consultation

- Hold pre-application meetings (DMR) – May 2019
- Hold focussed meetings (DWS and DAFF) – June 2019
- The public participation will be in accordance with the NEMA 2014 EIA regulations
- The public consultation includes the following:
 - Placement of an advert in two local papers (Kathu Gazette and Kalahari Bulletin) – June 2019
 - Distribute BID informing I&APs and commenting authorities about the proposed project, public meeting and related processes – June 2019
 - Placement of site notices in two languages (English and Afrikaans) – June 2019
 - Review of the BAR and summary – August 2019



PUBLIC PARTICIPATION PROCESS

Review of the BAR:

- Hard copies of the BAR will be made available for review for 30 days at the following venues:
 - John Taolo Gaetsewe District Municipality
 - Joe Morolong Local Municipality
 - Hotazel, Black Rock, Kuruman and Kathu public libraries
- Distribution of a summary (English and Afrikaans) of the BAR via fax, email or post.
- SMS notifications.
- Electronic copies will be made available on the SLR website.

QUESTIONS, COMMENTS AND QUERIES

PUBLIC PARTICIPATION AND ENVIRONMENTAL CONSULTANT DETAILS

SLR Consulting (Africa) Pty Ltd
Natasha Smyth
Tel: 011 467 0945 Fax: 011 467 0978
nsmyth@slrconsulting.com



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CLOSE

Thank you for your time and participation



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**Minutes of the
focussed DWS
and DAFF/DENC
meetings.**

TSHIPI É NTLÉ MANGANESE MINING (PTY) LTD

**ALTERNATIVE CLOSURE AND REHABILITATION PROJECT
DEPARTMENT OF WATER AND SANITATION FOCUSED MEETING**

Date	21 June 2019
Venue:	Department of Water and Sanitation offices in Kimberley
SLR company:	SLR Consulting (Africa) (Pty) Ltd (SLR)
Project number:	710.20008.00069
Purpose:	<p>The purpose of the meeting was to:</p> <ul style="list-style-type: none"> • Provide an overview of current operations • Outline the motivation and project alternatives considered • Provide an overview of the environmental process • Provide an overview of specialist studies to be undertaken • Provide an overview of the existing status of the environment • Provide an overview of potential impacts • Provide an overview of the public participation process
Attendance:	An attendance register is presented in Appendix 1.

1. OPEN AND INTRODUCTION

Natasha Smyth from SLR Consulting (Africa) (Pty) Ltd (SLR) opened the meeting and welcomed all attendees. Thereafter, Natasha Smyth introduced herself as an independent Environmental Assessment Practitioner, appointed by Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) to undertake the environmental assessment process for the proposed project.

Refer to Appendix 1 for the full list of attendees from Tshipi and the Department Water and Sanitation present at the meeting.

2. PRESENTATION

Natasha Smyth gave a presentation providing an overview of the proposed project. In this regard, it was highlighted that Tshipi currently operates the open cast Tshipi Borwa Mine in accordance with an approved Environmental Management Programme Report (EMPr). The approved EMPr commits Tshipi to restore the surface to a pre-mining state of wilderness and grazing and requires that the open pit is completely backfilled once mining is complete. Recent specialist investigations indicate that when considering technical, commercial, legal and socio-economic and environmental factors, backfilling the open pit is sub-optimal.

An alternative closure and rehabilitation strategy offers:

- The opportunities for enhanced biodiversity habitats with a different backfill approach particularly in terms of topographic variety and access to surface water;
- The opportunities for enhanced land use increase with access to surface water; and
- An alternative closure option will allow for earlier rehabilitation of waste rock dumps.

In addition to the above, completely backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country.

Tshipi is therefore proposing to change the current closure commitment (complete backfill of the open pit) to concurrent in-pit dumping.

Further information pertaining to the environmental assessment process is provided in the presentation included in Appendix 2.

3. QUESTION SESSION

Comments raised during the meeting have been recorded and are included in Table 1 below. Where a response was provided the response has been included in the table.

Table 1: Record of comments raised and responses provided during the meeting

Issues raised	By whom	Response provided
An application has recently been submitted to our department for amendments to the existing Integrated Water Use Licence Application for Tshipi. Will the application associated with this proposed project form part of the amendment that is currently with the department for processing, or will a separate application be made?	Fhatuwani Magonono	The proposed project is not going to trigger a need for a water use license. Your department has been contacted as a key commenting authority and we would like your input on the proposed project. We also understand that due to resource constraints it is not always practical to for departmental officials to attend meetings in Kathu (Natasha Smyth- SLR).
Is the backfilling authorised by the Department of Mineral Resources?		Tshipi currently has permission to completely backfill the open pit. To have an alternative backfill strategy, Tshipi will need approval from the DMR (Natasha Smyth – SLR).
The Department of Water and Sanitation will need to authorise the use of waste rock to backfill	Fhatuwani Magonono	A section 21(g) water use for the use of waste rock to completely backfill the open pit, forms part of the integrated

Issues raised	By whom	Response provided
the open pit in terms of Section 21(g) of the National Water Act (No. 36 of 1998).		Water Use Licence Application amendment that has been submitted to your department for processing. It follows that there is no need to re-apply for this water use as part of the proposed project (Natasha Smyth – SLR).
Why create a pit lake? Why don't you completely rehabilitate the whole pit?		Completely backfilling the open pit does not allow for the access to water and as such does not promote the use of alternative land uses (Natasha Smyth – SLR).
What will be the use of that water?		Access to the water within the pit lake allows for the creation of an aquatic habitat that would otherwise not be possible. The water is also available for livestock watering (Natasha Smyth – SLR).
The pit lake water will be contaminated because of the WRDs? It will end up infiltrating to the groundwater.		Specialist modelling has been undertaken in order to understand the water quality of the end pit lake. Modelling indicates that the water quality within the pit lake will be suitable for livestock watering up to 100 years. Thereafter passive treatment will be required. In this regard, the specialist is currently investigating the possibility of installing floating wetlands to improve the water quality long term. In addition to this, the pit will act as a sink thereby minimising the extent of the groundwater pollution plume (Natasha Smyth – SLR).
Please ensure that post closure monitoring is undertaken?		This will form part of the post closure monitoring programme. (Natasha Smyth – SLR).
Will the pit spill?		Modelled results indicate that it is unlikely that the pit will spill (Brad Rip-Tshipi).
Did you conduct a waste classification study?	Fhatuwani Magonono	A waste classification has been done for the mine. A waste assessment will not

Issues raised	By whom	Response provided
		be re-done as part of the proposed project, however reference to this study will be included in the Basic Assessment Report (Natasha Smyth – SLR).
The most critical part in terms of this application will be the geohydrological report, which must cover the modelling of the plume and the monitoring boreholes (post closure monitoring) both near and downstream.		This has been noted (Brad Rip- Tshipi).

4. WAY FORWARD

The way forward is outlined as follows:

- A public and commenting authorities meeting will be held on 26 June 2019;
- A focussed meeting will be held with the Department of Environment, Forestry and Fisheries on 27 June 2019
- The Basic Assessment Report in support of the proposed project will be made available for public review for a period of 30 days. It is anticipated that this will commence in early August 2019; and
- The Basic Assessment Report will be updated to include any comments received during the review of the report. This updated report will be made submitted to the Department of Mineral Resources for decision making purposes.

5. CLOSE

Attendees were thanked for their input and for making the time to attend the meeting. The meeting was closed by Natasha Smyth.

APPENDIX 1: ATTENDANCE REGISTER

Name and Surname	Organisation	Contact numbers	E-mail
Brad Rip	Tshipi	082 894 0216	bradrip@mwebbiz.co.za
Fathuwani Magonono	DWS	053 836 7656	magononof@dws.gov.za
Vhonani Ramagondo		053 836 7648	ramagondov@dws.gov.za
Natasha Smyth	SLR	011 467 0645	nsmyth@slrconsulting.com
Gugu Dhlamini			gdhlamini@slrconsulting.com

Project: TSHIPI EMP3 CLOSURE PROJECT

SLR Company: AFRICA

Date: 20/06/19

Venue: DHS KIMBERLEY

Meeting: FOCUSED MEETING



Name and Surname	Community/Organization	Postal address	Contact numbers	E-mail
Vhonaani Ramugondo	DWS		053 836 7644	ramugondov@dws.gov.za
Fligatwani Mngweni	DWS		053 836 7656	mngweniF@dws.gov.za
Bess Rip	TSHIPI		082 89 40216	bdrrip@webbiz.co.za
James Mank	TSHIPI		APOLOGISE	
Cigqi Dhlamini	SLR		011 467 0945	gdhlamini@slrconsulting.com
Natasha Smyth	SLR		0832268570	nsmyth@slrconsulting.com

Note: SLR will use your contact information to communicate future project information and by providing your details on this attendance register it does not mean that you are giving consent for the project.

APPENDIX 2: PRESENTATION

**TSHIPI é NtLE MANGANESE MINING (PTY) LTD
ALTERNATIVE CLOSURE AND REHABILITATION
OPTIMISATION PROJECT - TSHIPI BORWA MINE**

PUBLIC AND COMMENTING AUTHORITIES
MEETING
June 2019

global environmental and advisory solutions

Tshipi é Ntle Manganese Mining
SLR

1

AGENDA



- Welcome and introductions
- Meeting protocol
- Overview of current operations
- Overview and motivation for the proposed project
- Alternatives considered
- Environmental process overview
- Specialist studies
- Overview of the existing status of the environment
- Potential impacts (environmental and socio-economic)
- Summary of the public participation process
- General discussion
- Close

Tshipi é Ntle Manganese Mining
SLR

2

MEETING PROTOCOL

- Please switch cell phones off or onto a silent setting.
- There will be a dedicated question and answer session.
- Before asking a question, please raise your hand and state your name clearly so that we may correctly record it in the minutes.





Tshipi é Ntle Manganese Mining
SLR

3

OVERVIEW OF THE CURRENT OPERATIONS

- Tshipi currently holds the following material authorisations:
 - An approved Mining Right;
 - An EMPr approved by the DMR, as amended;
 - An EA (issued by the DMR); and
 - An IWUL issued by the DWS.
- The approved EMPr commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled.
- Tshipi is proposing to change the current closure commitment to achieve a more sustainable and optimised outcome.
- There is still a life of mine of 20 years.

Tshipi é Ntle Manganese Mining
SLR

4

OVERVIEW AND MOTIVATION FOR PROPOSED PROJECT

- Specialist (Environmental) Studies - which commenced in Q4 2018, indicate that when considering environmental, socio-economic, technical, commercial and legal factors, completely backfilling the open pit is sub-optimal.
- An alternative closure and rehabilitation strategy offers:
 - The opportunities for enhanced biodiversity habitats with a different backfill approach particularly in terms of topographic variety and access to surface water
 - The opportunities for enhanced land use increase with access to surface water
 - An alternative closure option will allow for earlier rehabilitation of waste rock dumps
- Completely backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country.

Tshipi é Ntle Manganese Mining
SLR

5

OVERVIEW AND MOTIVATION OF PROPOSED PROJECT

- Tshipi is therefore proposing to change the current closure commitment (complete backfill of the open pit) to concurrent in-pit dumping. In this regard, the proposed project focusses on:
 - Concurrent backfill only i.e. in-pit dumping during mining operations only;
 - Sloping and rehabilitation of waste rock dumps remaining on surface;
 - Access to readily available future water supply; and
 - Optimisation of the surface landforms and partially backfilled pit from a biodiversity, rehabilitation, land use and pollution prevention perspective.

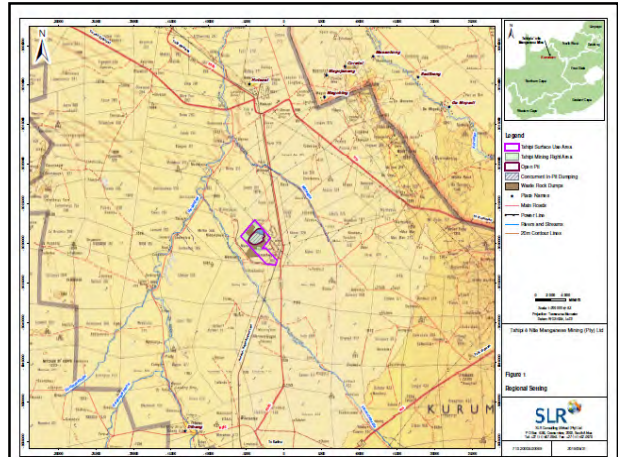
Tshipi é Ntle Manganese Mining
SLR

6

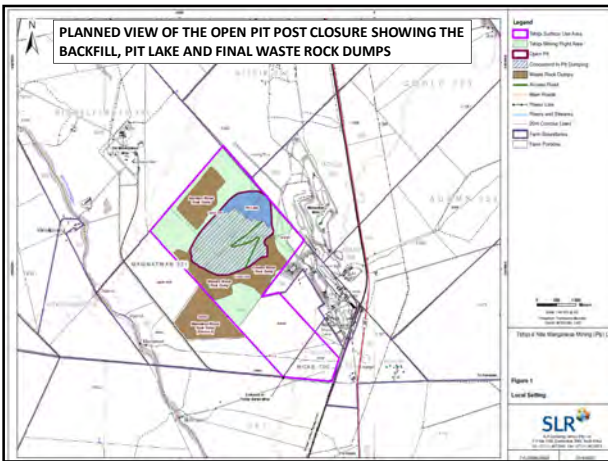
OVERVIEW AND MOTIVATION OF PROPOSED PROJECT

2nd Draft FP Regulations:

- Focus on facilitating environmentally sustainable mining
- Highlights that financial provisioning is to ensure operations can be brought to the approved sustainable end state at closure
- Companies have the scope to define a credible sustainable end state in the final rehabilitation, decommissioning and mine closure plan.
- The sustainable end state must reflect local conditions, regulatory complexities, stakeholder expectations, environmental opportunities and technical solutions.
- The mind shift from classic mine closure (returning the land to its pre-mining state) to thinking focussing on a transitional economy.



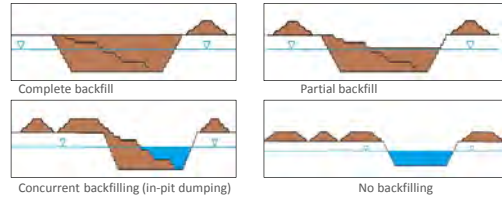
PLANNED VIEW OF THE OPEN PIT POST CLOSURE SHOWING THE BACKFILL, PIT LAKE AND FINAL WASTE ROCK DUMPS



ALTERNATIVES CONSIDERED

Project alternatives:

- Alternatives considered included: full backfill, partial backfilling, concurrent in-pit dumping and no backfilling.



- Concurrent in-pit dumping was considered the most practical option from a technical, commercial and environmental perspective.



ALTERNATIVES CONSIDERED

Option	Pro's	Con's
Complete backfilling	<ul style="list-style-type: none"> - Already approved in terms of MPRDA - Limited residual post closure impacts - Grazing re-established for an additional 11 large stock units 	<ul style="list-style-type: none"> - No access to a pit lake - No possibility to enhance alternative land uses - Sterilised future underground resources - Does not allow for early rehabilitation of the waste rock dumps - Will take approximately 10 years to fill the pit
Partial backfilling	<ul style="list-style-type: none"> - Promote the use of alternative land uses - Access to surface aggregate - Allows for early rehabilitation of the waste rock dumps 	<ul style="list-style-type: none"> - No access to a pit lake - Increased residual post closure impacts - Sterilised future underground resources - Loss of additional grazing - Will take almost 10 years to partially fill the pit
Concurrent backfilling (in-pit dumping)	<ul style="list-style-type: none"> - Promote the use of alternative land uses - Easy access to underground resources - Access to even more surface aggregate - Access to pit lake - Better long term socio-economic spinoffs - Allows for early rehabilitation of the waste rock dumps 	<ul style="list-style-type: none"> - Increased residual post closure impacts - Loss of additional grazing
No backfill	<ul style="list-style-type: none"> - Easy access to underground resources - Access to largest surface aggregate - Better long term socio-economic spinoffs - Allows for early rehabilitation of the waste rock dumps 	<ul style="list-style-type: none"> - Limited use of pit lake (too steep to access) - Limited possibility to enhance alternative land uses - Additional disturbed areas (WRD's) - Increased residual post closure impacts - Loss of additional grazing

ALTERNATIVES CONSIDERED



The "Big hole" in Kimberly, an example of what must be avoided in terms of pit lake development.



ENVIRONMENTAL PROCESS

Permissions required for the proposed project:

Authorisation required	Applicable legislation	Key process elements	Competent authority
Environmental Authorisation (EA)	National Environmental Management Act No. 107 of 1998 and the Environmental Impact Assessment (EIA) Regulations, 2014 as amended – BAR process	<ul style="list-style-type: none"> NEMA EA Application Stakeholder engagement EMPR and supporting specialist studies 	DMR



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ENVIRONMENTAL PROCESS

What?

- Environment definition (water, biodiversity, etc).
- Assessment of the potential impacts of the proposed project on the environment.
- Implementing appropriate management measures and development of monitoring programmes.

Why?

- Legal requirement and it is the right thing to do

How?

- Basic Assessment Process:
 - Identification and participation of I&APs (landowners, adjacent landowners, land users, commenting and regulatory authorities).
 - Assessment of impacts with input from specialists (where applicable).
 - Identification of possible post closure mitigation measures.
 - Outline mitigation measures including post closure monitoring plan.



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ENVIRONMENTAL PROCESS

Commenting authorities

- Department of Environment and Nature Conservation
- Department of Agriculture, Forestry and Fisheries
- Department of Rural Development and Land Reform
- Provincial South Africa Heritage Resource Agency
- Department of Water and Sanitation

Local authorities

- John Taolo Gaetsewe District Municipality
- Joe Morolong Local Municipality and applicable ward councillor



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SPECIALIST STUDIES

Aspect	Specialist input (where applicable)
Geology	Qualitatively assessed - SLR
Topography	Qualitatively assessed - SLR
Soils & land capability	Soils, land use and land capability study – Terra Africa
Biodiversity	Terrestrial and aquatic biodiversity study – SAS and STS
Surface water	Hydrology study - SLR
Groundwater and pit lake	Groundwater study and pit lake study - SLR
Air	Air quality study - Airshed
Noise	Noise study - Airshed
Visual	Visual study – Graham Young
Heritage/cultural resources	Reference to existing studies
Socio-economic	Socio-economic study - Mercury
Closure	Preliminary closure plan - SLR



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STATUS OF THE EXISTING ENVIRONMENT

- Tshipi falls in the Kalahari Manganese Field
- Area is characterised by hot summer temperatures, colder winter temperatures, low rainfall and high evaporation rates
- Natural topography at the mine has been influenced by existing mining activities
- Soils have low agricultural potential (due to low rainfall) but has potential for supporting grazing
- Limited evidence of wild faunal species due to the presence of mining and farming activities
- Tshipi is located Kathu Bushveld and the Griqualand West Centre of Endemism. Protected trees species include the Camel Thorn and Grey Camel Thorn
- No surface water features on site
- The average ground water level ranges from 41 to 74 mbgl. Third-party boreholes are used for livestock watering



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STATUS OF THE EXISTING ENVIRONMENT

- Ambient air quality has been influenced by mines, household fuel combustion, vehicle tailpipe emissions and agricultural activities.
- Noise levels near Tshipi are mainly as a result of surrounding farming activities, localised traffic and mining operations.
- No heritage/cultural sites have been identified and there is a low possibility of palaeontological
- Unemployment and education levels in the area are higher than the provincial and municipal average. Water and sanitation provision is very good.
- Land uses surrounding Tshipi include livestock grazing, game farming, mining, a solar farm and sparsely situated residences.



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POTENTIAL IMPACTS

Aspect	Potential environmental and socio-economic impact
Soils and land capability	<ul style="list-style-type: none"> With access to future readily available water supply, the proposed project has the potential to promote the optimal use of soil resources to enhance alternative land uses (eg. agriculture).
Biodiversity - Aquatic	<ul style="list-style-type: none"> The proposed project has the potential to create and enhance aquatic habitats through the availability of a functional pit lake, which in turn may increase biodiversity complexity, diversity, community sensitivity and overall community stability.
Biodiversity – Terrestrial	<ul style="list-style-type: none"> The proposed project has the potential to increase faunal and floral species populations by re-creating a terrestrial habitat through access to a functional pit lake, that otherwise would have been limited as a result of the lack of stable freshwater habitats.
Surface water	<ul style="list-style-type: none"> The proposed project has the potential to provide access to a readily available future water supply (pit lake) which may be used for an alternative land use.
Groundwater	<ul style="list-style-type: none"> The proposed project has the potential to minimise the extent of a contamination plume that could migrate off-site.

POTENTIAL IMPACTS

Aspect	Potential environmental and socio-economic impact
Air	<ul style="list-style-type: none"> In the absence of rehabilitation, the proposed project has the potential to generate wind-blown dust from a larger exposed area.
Noise	<ul style="list-style-type: none"> No noticeable noise impacts are anticipated as a result of closure but noise could be generated by future post closure land use activities.
Visual	<ul style="list-style-type: none"> In the absence of rehabilitation, the proposed project has the potential to general negative visual views through waste rock dumps that will remain on surface post closure. With rehabilitation visual impacts will be improved with rehabilitation.
Economics	<ul style="list-style-type: none"> The proposed project has the potential to have a positive net economic impact on the national, local and regional economy by allowing for the efficient exploitation of future underground resources located to the north of the current open pit.
Social benefits	<ul style="list-style-type: none"> Alternative land use has the potential to enhance alternative employment and economic development that has the potential to improve livelihoods of individuals living in the local area.

POTENTIAL IMPACTS

Aspect	Potential environmental and socio-economic impact
Sense of place	<ul style="list-style-type: none"> By establishing an alternative land use at closure, the proposed project would change the nature of the site and could be perceived by surrounding land users as either positive or negative. An alternative closure option will allow for earlier rehabilitation of waste rock dumps which would influence the status of rehabilitation at closure thereby minimising impacts.
Safety of third parties	<ul style="list-style-type: none"> In the absence of rehabilitation, the proposed project would present a partially open pit that could be harmful to third parties and animals. Mitigation can make the land safe.
Land use	<ul style="list-style-type: none"> The establishment of a functional pit lake has the potential to enhance alternative land uses associated with access to surface water and increased biodiversity.

PUBLIC PARTICIPATION PROCESS

I&AP and authority notification and consultation

- Hold pre-application meetings (DMR) – May 2019
- Hold focussed meetings (DWS and DAFF) – June 2019
- The public participation will be in accordance with the NEMA 2014 EIA regulations
- The public consultation includes the following:
 - Placement of an advert in two local papers (Kathu Gazette and Kalahari Bulletin) – June 2019
 - Distribute BID informing I&APs and commenting authorities about the proposed project, public meeting and related processes – June 2019
 - Placement of site notices in two languages (English and Afrikaans) – June 2019
 - Review of the BAR and summary – August 2019



PUBLIC PARTICIPATION PROCESS

Review of the BAR:

- Hard copies of the BAR will be made available for review for 30 days at the following venues:
 - John Taolo Gaetsewe District Municipality
 - Joe Morolong Local Municipality
 - Hotazel, Black Rock, Kuruman and Kathu public libraries
- Distribution of a summary (English and Afrikaans) of the BAR via fax, email or post.
- SMS notifications.
- Electronic copies will be made available on the SLR website.

QUESTIONS, COMMENTS AND QUERIES

PUBLIC PARTICIPATION AND ENVIRONMENTAL CONSULTANT DETAILS

SLR Consulting (Africa) Pty Ltd
Natasha Smyth
Tel: 011 467 0945 Fax: 011 467 0978
nsmyth@slrconsulting.com



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CLOSE

Thank you for your time and participation



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TSHIPI É NTLÉ MANGANESE MINING (PTY) LTD

**ALTERNATIVE CLOSURE AND REHABILITATION PROJECT
DEPARTMENT OF AGRICULTURE, FORESTRY AND FISHERIES (DAFF) AND DEPARTMENT OF
ENVIRONMENT AND NATURE CONSERVATION (DENC) FOCUSED MEETING**

Date	27 June 2019
Venue:	Department of Agriculture, Forestry and Fisheries offices in Upington
SLR company:	SLR Consulting (Africa) (Pty) Ltd (SLR)
Project number:	710.20008.00069
Purpose:	The purpose of the meeting was to: <ul style="list-style-type: none"> • Provide an overview of current operations; • Outline the motivation and project alternatives considered; • Provide an overview of the environmental process; • Provide an overview of specialist studies to be undertaken; • Provide an overview of the existing status of the environment; • Provide an overview of potential impacts; and • Provide an overview of the public participation process.
Attendance:	An attendance register is presented in Appendix 1.

1. OPEN AND INTRODUCTION

Natasha Smyth from SLR Consulting (Africa) (Pty) Ltd (SLR) opened the meeting and welcomed all attendees. Thereafter, Natasha Smyth introduced herself as an independent Environmental Assessment Practitioner, appointed by Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) to undertake the environmental assessment process for the proposed project.

Refer to Appendix 1 for the full list of attendees from Tshipi, the Department of Agriculture, Forestry and Fisheries and the Department of Environment and Nature Conservation present at the meeting.

2. PRESENTATION

Natasha Smyth gave a presentation providing an overview of the proposed project. In this regard, it was highlighted that Tshipi currently operates the open cast Tshipi Borwa Mine in accordance with an approved Environmental Management Programme Report (EMPr). The approved EMPr commits Tshipi to restore the surface to a pre-mining state of wilderness and grazing and requires that the open pit is completely backfilled once mining is complete. Recent specialist investigations indicate that when considering technical, commercial, legal and socio-economic and environmental factors, backfilling the open pit is sub-optimal.

An alternative closure and rehabilitation strategy offers:

- The opportunities for enhanced biodiversity habitats with a different backfill approach particularly in terms of topographic variety and access to surface water;
- The opportunities for enhanced land use increase with access to surface water; and

- An alternative closure option will allow for earlier rehabilitation of waste rock dumps.

In addition to the above, completely backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country.

Tshipi is therefore proposing to change the current closure commitment (complete backfill of the open pit) to concurrent in-pit dumping.

Further information pertaining to the environmental assessment process is provided in the presentation included in Appendix 2.

3. QUESTION SESSION

Comments raised during the meeting have been recorded and are included in Table 1 below. Where a response was provided the response has been included in the table.

Table 1: Record of comments raised and responses provided during the meeting

Issues raised	By whom	Response provided
With the changes in the departmental structures, is there anyone else we should be engaging with?	Natasha Smyth- SLR	The Department is still operating as it used to, until otherwise instructed. I will remain your contact person (Jacoline Mans- DAFF)
Will the water from the pit-lake be clean, will it not be contaminated?	Jacoline Mans- DAFF	The water quality will be fine up until 100 years post mine closure, thereafter some parameters will start to exceed and will eventually deteriorate. That would be without any form of intervention. The pit-lake specialists have suggested the use of floating wetlands, which will mitigate the water quality issue. So based on what they've modelled and predicted, we don't think the water quality is going to be an issue because it will be managed through passive and active treatment measures (Natasha Smyth- SLR).
In terms of protected trees and plants, how will the footprint differ from what's currently authorised?	Jacoline Mans- DAFF	The footprint itself won't differ because the waste rock dumps are already catered for in the existing EMPs. There's no intention on impacting on protected trees as a part of this post closure project. The proposed project would aim to enhance the biodiversity of the area by bringing in and reintroducing protected tree species as far as possible. There's no plan for the removal of protected tree species (Natasha Smyth- SLR). The current commitment is for Tshipi, after 20 years, to remove the dumps and place the waste rock back into the pit, which would be a 10 year plus exercise. Tshipi would then need to

Issues raised	By whom	Response provided
		rehabilitate the original surfaces as well as the pit footprint. All that changes now is that those dumps will become permanent and Tshipi will just rehabilitate the profile of the dumps e.g. the slopes. And also, instead of having a flat top surface in the pit, there'll be a partial backfill so that will also be rehabilitated (Brad Rippon- Tshipi).
But will your dumps not increase in terms of surface area? Will they not have an impact on currently undisturbed areas?		It is possible that sloping the dumps may need some species to be removed, but they will be reintroduced in the rehabilitated areas. Where buildings are going to be left for infrastructure or areas that would be identified for future land uses (for example aquaponics and hydroponics), areas already disturbed by mining infrastructure would be used. The aim is not to disturb new areas (Natasha Smyth- SLR).
So your current waste rock dumps are not rehabilitated?		No. As long as Tshipi is obliged to put the waste rock back into the pit, there's no way the dumps would be rehabilitated now. The other advantage of the project is that Tshipi can start rehabilitating the permanent sides of the dumps and do the dump rehabilitation simultaneously while mining, instead of at end of mining (Brad Rippon- Tshipi).
In terms of alternative land use on the permanent dumps, is it not possible to invite solar plant companies to place their solar panels on the permanent dumps instead of disturbing the natural veld next to the mine?	Jacoline Mans - DAFF	That's a good suggestion. Tshipi will consider it except so long as it is designated a mine there are statutory complications (Brad Rip- Tshipi).
In terms of your existing Environmental Authorisation, was there not something about offsets that Tshipi had to do? So what are your thoughts in terms of the offsets?		The current EMP says that Tshipi should currently start investigating an offset, because eventually with the footprint that has already been approved, there might be a point where Tshipi triggers an offset. Tshipi has undertaken the investigation using Natalie Birch (Nthabeleng Paneng- Tshipi)
Is a biodiversity offset not already a condition in the Environmental Authorisation?		The condition is phrased that an investigation must be conducted to assess whether a biodiversity offset is triggered (Nthabeleng Paneng- Tshipi).
But there's a sign that reads "Tshipi biodiversity offset area", I'm not sure whether it's still there?		I am aware of the sign that you are referring to. This sign should not have been erected and plans are being made to remove the sign. No offset area has been identified yet (Nthabeleng Paneng- Tshipi)
Is it possible for you to send DAFF and DENC the offset investigation report?	Samantha De la Fontaine- DENC	Yes, I will send it through (Nthabeleng Paneng- Tshipi).
Please send DAFF and DENC an electronic copy (CD) of the Basic Assessment Report?	Jacoline Mans- DAFF	Noted. (Natasha Smyth- SLR)

4. WAY FORWARD

The way forward was outlined as follows:

- The Basic Assessment Report in support of the proposed project will be made available for public review for a period of 30 days. It is anticipated that this will commence in early August 2019; and
- The Basic Assessment Report will be updated to include any comments received during the review of the report. This updated report will be made submitted to the Department of Mineral Resources for decision making purposes.

5. GENERAL

Brad Rip explained that DAFF & DENC could expect up to three tree removal permit applications from Tshipi in the near future:

- One in terms of a DENC Environmental Approval (granted to Eskom, transferred to Tshipi for duration of construction) for the removal of trees along the route of a to be constructed 132kV overhead line and a 132/11kV substation, located on privately owned property and Tshipi owned property respectively, over which Eskom has concluded servitude option agreements;
- Two in terms of a DMR approved Tshipi EA/EMP amendment for the extension of the West waste rock dump and construction of an 11kV overhead line on the southern part of portion 8 of the farm Mamatwan 331 over which Tshipi has a surface right (SR) i.e. is the owner; and
- BR indicated that it would be appreciated if these applications could be treated with some urgency, if at all possible.

6. CLOSE

Attendees were thanked for their input and for making the time to attend the meeting. The meeting was closed by Natasha Smyth.

APPENDIX 1: ATTENDANCE REGISTER

Name and Surname	Organisation	Contact numbers	E-mail
Brad Rip	Tshipi	082 89 40216	bradrip@mwebbiz.co.za
Nthabeleng Paneng		087 845 1381	nthabeleng@tshipi.co.za
Natasha Smyth	SLR	011 467 0645	nsmyth@slrconsulting.com
Gugu Dhlamini			gdhlamini@slrconsulting.com
Samantha De la Fontaine	DENC	054 338 4800	sdelafontaine@gmail.com
Jacoline Mans	DAFF	082 808 2737	JacolineMa@daff.gov.za

Project: TSHIPPI ALTERNATIVE CLOSURE

SLR Company: AFRICA

Date: 27 JUNE 2019

Venue: DAFF OFFICES IN UPINGTON

Meeting: DAFF AND DENC FOCUSED MEETING



Name and Surname	Community/Organization	Postal address	Contact numbers	E-mail
<i>BRA LIP</i>	<i>TSHIPPI</i>		<i>082-89-40216</i>	<i>bradrip@ mwebbys.co.za</i>
Samantha De la Fontaine	DENC	Evelina de Bun Building C/O River + Nelson Mandela, Upington	054 339 4800	sdefontaine@gmail.com
Jacoline Mans	DAFF	PO Box 2782 Upington 8800	082 808 2737	JacolineMa@daff.gov.za
Gugu Dhlamini	SLR	PO Box 1596 Crameriew 2060	011 467 0945	gdhlamini@slrconsulting.com
Natasha Smyth	SLR	PO Box 1596 Crameriew 2060	083 226 8570	nsmyth@slrconsulting.com
Nthabeleng Paneng	Tshipi Borwa	Farms Mamabon & Maab 700 P.O. Box 2098, Lathun, 8416	087 845 1381	nthabeleng@tshipi: co.za.

Note: SLR will use your contact information to communicate future project information and by providing your details on this attendance register it does not mean that you are giving consent for the project.

APPENDIX 2: PRESENTATION

**TSHIPI é NtLE MANGANESE MINING (PTY) LTD
ALTERNATIVE CLOSURE AND REHABILITATION
OPTIMISATION PROJECT - TSHIPI BORWA MINE**

PUBLIC AND COMMENTING AUTHORITIES
MEETING
June 2019

global environmental and advisory solutions

Tshipi é Ntle Manganese Mining
SLR

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AGENDA



- Welcome and introductions
- Meeting protocol
- Overview of current operations
- Overview and motivation for the proposed project
- Alternatives considered
- Environmental process overview
- Specialist studies
- Overview of the existing status of the environment
- Potential impacts (environmental and socio-economic)
- Summary of the public participation process
- General discussion
- Close

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MEETING PROTOCOL

- Please switch cell phones off or onto a silent setting.
- There will be a dedicated question and answer session.
- Before asking a question, please raise your hand and state your name clearly so that we may correctly record it in the minutes.





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OVERVIEW OF THE CURRENT OPERATIONS

- Tshipi currently holds the following material authorisations:
 - An approved Mining Right;
 - An EMPr approved by the DMR, as amended;
 - An EA (issued by the DMR); and
 - An IWUL issued by the DWS.
- The approved EMPr commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled.
- Tshipi is proposing to change the current closure commitment to achieve a more sustainable and optimised outcome.
- There is still a life of mine of 20 years.




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OVERVIEW AND MOTIVATION FOR PROPOSED PROJECT

- Specialist (Environmental) Studies - which commenced in Q4 2018, indicate that when considering environmental, socio-economic, technical, commercial and legal factors, completely backfilling the open pit is sub-optimal.
- An alternative closure and rehabilitation strategy offers:
 - The opportunities for enhanced biodiversity habitats with a different backfill approach particularly in terms of topographic variety and access to surface water
 - The opportunities for enhanced land use increase with access to surface water
 - An alternative closure option will allow for earlier rehabilitation of waste rock dumps
- Completely backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country.

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OVERVIEW AND MOTIVATION FOR PROPOSED PROJECT

- Tshipi is therefore proposing to change the current closure commitment (complete backfill of the open pit) to concurrent in-pit dumping. In this regard, the proposed project focusses on:
 - Concurrent backfill only i.e. in-pit dumping during mining operations only;
 - Sloping and rehabilitation of waste rock dumps remaining on surface;
 - Access to readily available future water supply; and
 - Optimisation of the surface landforms and partially backfilled pit from a biodiversity, rehabilitation, land use and pollution prevention perspective.

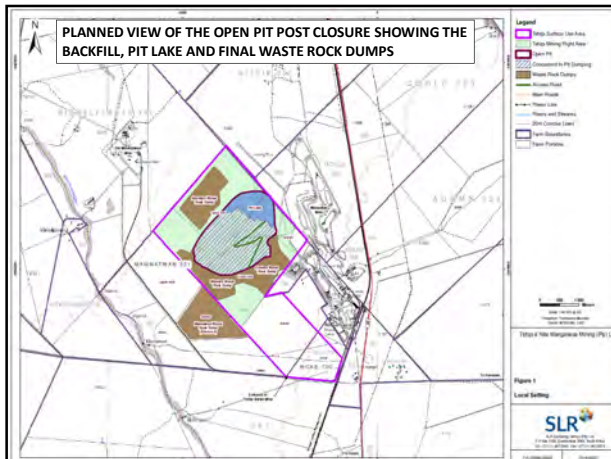
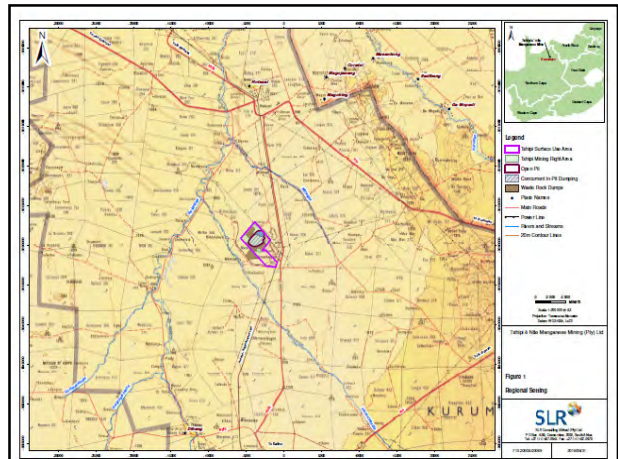
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OVERVIEW AND MOTIVATION OF PROPOSED PROJECT

2nd Draft FP Regulations:

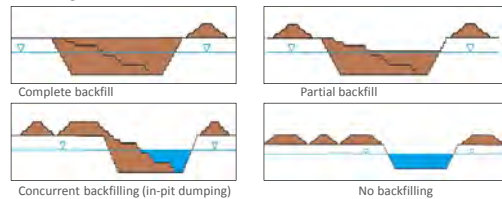
- Focus on facilitating environmentally sustainable mining
- Highlights that financial provisioning is to ensure operations can be brought to the approved sustainable end state at closure
- Companies have the scope to define a credible sustainable end state in the final rehabilitation, decommissioning and mine closure plan.
- The sustainable end state must reflect local conditions, regulatory complexities, stakeholder expectations, environmental opportunities and technical solutions.
- The mind shift from classic mine closure (returning the land to its pre-mining state) to thinking focussing on a transitional economy.



ALTERNATIVES CONSIDERED

Project alternatives:

- Alternatives considered included: full backfill, partial backfilling, concurrent in-pit dumping and no backfilling.



- Concurrent in-pit dumping was considered the most practical option from a technical, commercial and environmental perspective.



ALTERNATIVES CONSIDERED

Option	Pro's	Con's
Complete backfilling	<ul style="list-style-type: none"> - Already approved in terms of MPRDA - Limited residual post closure impacts - Grazing re-established for an additional 11 large stock units 	<ul style="list-style-type: none"> - No access to a pit lake - No possibility to enhance alternative land uses - Sterilised future underground resources - Does not allow for early rehabilitation of the waste rock dumps - Will take approximately 10 years to fill the pit
Partial backfilling	<ul style="list-style-type: none"> - Promote the use of alternative land uses - Access to surface aggregate - Allows for early rehabilitation of the waste rock dumps 	<ul style="list-style-type: none"> - No access to a pit lake - Increased residual post closure impacts - Sterilised future underground resources - Loss of additional grazing - Will take almost 10 years to partially fill the pit
Concurrent backfilling (in-pit dumping)	<ul style="list-style-type: none"> - Promote the use of alternative land uses - Easy access to underground resources - Access to even more surface aggregate - Access to pit lake - Better long term socio-economic spinoffs - Allows for early rehabilitation of the waste rock dumps 	<ul style="list-style-type: none"> - Increased residual post closure impacts - Loss of additional grazing
No backfill	<ul style="list-style-type: none"> - Easy access to underground resources - Access to largest surface aggregate - Better long term socio-economic spinoffs - Allows for early rehabilitation of the waste rock dumps 	<ul style="list-style-type: none"> - Limited use of pit lake (too steep to access) - Limited possibility to enhance alternative land uses - Additional disturbed areas (WRD's) - Increased residual post closure impacts - Loss of additional grazing

ALTERNATIVES CONSIDERED



The "Big hole" in Kimberly, an example of what must be avoided in terms of pit lake development.



ENVIRONMENTAL PROCESS

Permissions required for the proposed project:

Authorisation required	Applicable legislation	Key process elements	Competent authority
Environmental Authorisation (EA)	National Environmental Management Act No. 107 of 1998 and the Environmental Impact Assessment (EIA) Regulations, 2014 as amended – BAR process	<ul style="list-style-type: none"> NEMA EA Application Stakeholder engagement EMPR and supporting specialist studies 	DMR



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ENVIRONMENTAL PROCESS

What?

- Environment definition (water, biodiversity, etc).
- Assessment of the potential impacts of the proposed project on the environment.
- Implementing appropriate management measures and development of monitoring programmes.

Why?

- Legal requirement and it is the right thing to do

How?

- Basic Assessment Process:
 - Identification and participation of I&APs (landowners, adjacent landowners, land users, commenting and regulatory authorities).
 - Assessment of impacts with input from specialists (where applicable).
 - Identification of possible post closure mitigation measures.
 - Outline mitigation measures including post closure monitoring plan.



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ENVIRONMENTAL PROCESS

Commenting authorities

- Department of Environment and Nature Conservation
- Department of Agriculture, Forestry and Fisheries
- Department of Rural Development and Land Reform
- Provincial South Africa Heritage Resource Agency
- Department of Water and Sanitation

Local authorities

- John Taolo Gaetsewe District Municipality
- Joe Morolong Local Municipality and applicable ward councillor



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SPECIALIST STUDIES

Aspect	Specialist input (where applicable)
Geology	Qualitatively assessed - SLR
Topography	Qualitatively assessed - SLR
Soils & land capability	Soils, land use and land capability study – Terra Africa
Biodiversity	Terrestrial and aquatic biodiversity study – SAS and STS
Surface water	Hydrology study - SLR
Groundwater and pit lake	Groundwater study and pit lake study - SLR
Air	Air quality study - Airshed
Noise	Noise study - Airshed
Visual	Visual study – Graham Young
Heritage/cultural resources	Reference to existing studies
Socio-economic	Socio-economic study - Mercury
Closure	Preliminary closure plan - SLR



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STATUS OF THE EXISTING ENVIRONMENT

- Tshipi falls in the Kalahari Manganese Field
- Area is characterised by hot summer temperatures, colder winter temperatures, low rainfall and high evaporation rates
- Natural topography at the mine has been influenced by existing mining activities
- Soils have low agricultural potential (due to low rainfall) but has potential for supporting grazing
- Limited evidence of wild faunal species due to the presence of mining and farming activities
- Tshipi is located Kathu Bushveld and the Griqualand West Centre of Endemism. Protected trees species include the Camel Thorn and Grey Camel Thorn
- No surface water features on site
- The average ground water level ranges from 41 to 74 mbgl. Third-party boreholes are used for livestock watering



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STATUS OF THE EXISTING ENVIRONMENT

- Ambient air quality has been influenced by mines, household fuel combustion, vehicle tailpipe emissions and agricultural activities.
- Noise levels near Tshipi are mainly as a result of surrounding farming activities, localised traffic and mining operations.
- No heritage/cultural sites have been identified and there is a low possibility of palaeontological
- Unemployment and education levels in the area are higher than the provincial and municipal average. Water and sanitation provision is very good.
- Land uses surrounding Tshipi include livestock grazing, game farming, mining, a solar farm and sparsely situated residences.



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POTENTIAL IMPACTS

Aspect	Potential environmental and socio-economic impact
Soils and land capability	<ul style="list-style-type: none"> With access to future readily available water supply, the proposed project has the potential to promote the optimal use of soil resources to enhance alternative land uses (eg. agriculture).
Biodiversity - Aquatic	<ul style="list-style-type: none"> The proposed project has the potential to create and enhance aquatic habitats through the availability of a functional pit lake, which in turn may increase biodiversity complexity, diversity, community sensitivity and overall community stability.
Biodiversity – Terrestrial	<ul style="list-style-type: none"> The proposed project has the potential to increase faunal and floral species populations by re-creating a terrestrial habitat through access to a functional pit lake, that otherwise would have been limited as a result of the lack of stable freshwater habitats.
Surface water	<ul style="list-style-type: none"> The proposed project has the potential to provide access to a readily available future water supply (pit lake) which may be used for an alternative land use.
Groundwater	<ul style="list-style-type: none"> The proposed project has the potential to minimise the extent of a contamination plume that could migrate off-site.

POTENTIAL IMPACTS

Aspect	Potential environmental and socio-economic impact
Air	<ul style="list-style-type: none"> In the absence of rehabilitation, the proposed project has the potential to generate wind-blown dust from a larger exposed area.
Noise	<ul style="list-style-type: none"> No noticeable noise impacts are anticipated as a result of closure but noise could be generated by future post closure land use activities.
Visual	<ul style="list-style-type: none"> In the absence of rehabilitation, the proposed project has the potential to general negative visual views through waste rock dumps that will remain on surface post closure. With rehabilitation visual impacts will be improved with rehabilitation.
Economics	<ul style="list-style-type: none"> The proposed project has the potential to have a positive net economic impact on the national, local and regional economy by allowing for the efficient exploitation of future underground resources located to the north of the current open pit.
Social benefits	<ul style="list-style-type: none"> Alternative land use has the potential to enhance alternative employment and economic development that has the potential to improve livelihoods of individuals living in the local area.

POTENTIAL IMPACTS

Aspect	Potential environmental and socio-economic impact
Sense of place	<ul style="list-style-type: none"> By establishing an alternative land use at closure, the proposed project would change the nature of the site and could be perceived by surrounding land users as either positive or negative. An alternative closure option will allow for earlier rehabilitation of waste rock dumps which would influence the status of rehabilitation at closure thereby minimising impacts.
Safety of third parties	<ul style="list-style-type: none"> In the absence of rehabilitation, the proposed project would present a partially open pit that could be harmful to third parties and animals. Mitigation can make the land safe.
Land use	<ul style="list-style-type: none"> The establishment of a functional pit lake has the potential to enhance alternative land uses associated with access to surface water and increased biodiversity.

PUBLIC PARTICIPATION PROCESS

I&AP and authority notification and consultation

- Hold pre-application meetings (DMR) – May 2019
- Hold focussed meetings (DWS and DAFF) – June 2019
- The public participation will be in accordance with the NEMA 2014 EIA regulations
- The public consultation includes the following:
 - Placement of an advert in two local papers (Kathu Gazette and Kalahari Bulletin) – June 2019
 - Distribute BID informing I&APs and commenting authorities about the proposed project, public meeting and related processes – June 2019
 - Placement of site notices in two languages (English and Afrikaans) – June 2019
 - Review of the BAR and summary – August 2019



PUBLIC PARTICIPATION PROCESS

Review of the BAR:

- Hard copies of the BAR will be made available for review for 30 days at the following venues:
 - John Taolo Gaetsewe District Municipality
 - Joe Morolong Local Municipality
 - Hotazel, Black Rock, Kuruman and Kathu public libraries
- Distribution of a summary (English and Afrikaans) of the BAR via fax, email or post.
- SMS notifications.
- Electronic copies will be made available on the SLR website.

QUESTIONS, COMMENTS AND QUERIES

PUBLIC PARTICIPATION AND ENVIRONMENTAL CONSULTANT DETAILS

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CLOSE

Thank you for your time and participation



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