



Submitted to: Votorantim Metals Namibia (Pty) Ltd. Attention: Mr Marcos da Silva 9B South Port Office Park, Hosea Kutako Avenue P O Box 97957, Maerua Mall

# **REPORT:**

# EXPLORATION ACTIVITIES ON EPL 6927-COMPLIANCE REPORT

PROJECT NUMBER: ECC-88-407-REP-02-D

REPORT VERSION: REV 01

DATE: 7 JULY 2022



Votorantim Metals Namibia (Pty) Ltd.

#### **TITLE AND APPROVAL PAGE**

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Client Company Name: Votorantim Metals Namibia (Pty) Ltd.

Client Name: Mr Marcos da Silva

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## **TERMS AND ABBREVIATIONS**

ABBREVIATIONS	DESCRIPTION
AMT	Audio MagnetoTelluric
DEA	Directorate of Environmental Affairs
ECC	Environmental Compliance Consultancy
EIA	environmental impact assessment
EMP	environmental management plan
IP	Induced polarization
EPL	Exclusive Prospecting Licence
MEFT	Ministry of Environment, Forestry and Tourism
MME	Ministry of Mines and Energy
RAB	Rotary Air Blast



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## 1 INTRODUCTION

## 1.1 COMPANY BACKGROUND

Environmental Compliance Consultancy (ECC) has been retained by Votorantim Metals Namibia (Pty) referred to hereinafter as the Proponent. The Proponent currently holds a valid environmental clearance certificate for exploration activities on EPL 6927, for which a renewal is being applied. As part of this application, an environmental compliance audit has been undertaken to determine the status of compliance with the environmental management plan.

The project is located in the Otjozondjupa Region. The licence area is located approximately 25-30 km from Otavi and 12.4 km from Kombat see Figure 1.

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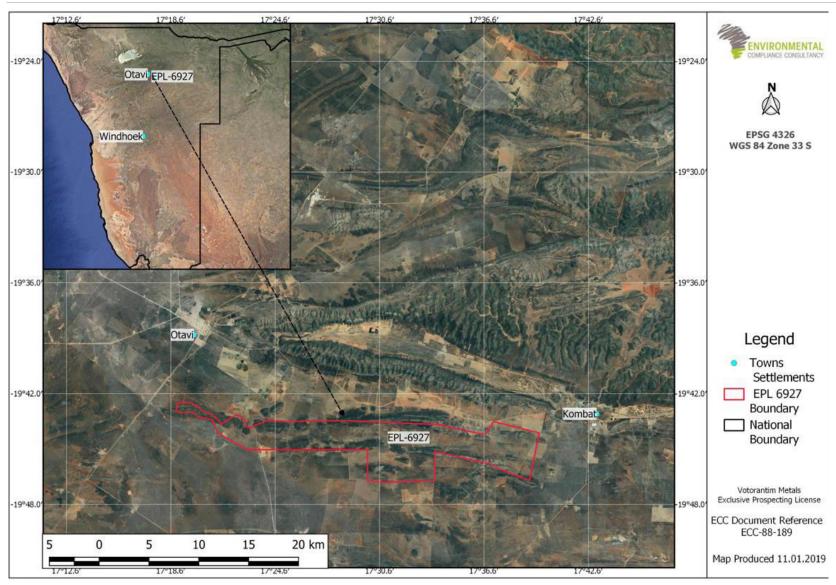


Figure 1 - Project location



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## 1.2 THE PROPONENT OF THE PROPOSED PROJECT

Votorantim Metals Namibia (Pty) Ltd is the Proponent for the proposed project. The Proponent has a head office in Namibia's capital, Windhoek, 9B South Port, Hosea Kutako Avenue and the Proponents' details are provided in Table 1.

Table 1 - Proponents details

Company Representative:	Contact Details:
Mr E Freyer	Votorantim Metals Namibia (Pty) Ltd:
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## 1.3 Environmental assessment practitioner

Environmental Compliance Consultancy (ECC) (Reg. No. CC 2013/11401) has prepared this renewal report on behalf of the Proponent. This report has been authored by employees of ECC, who have no material interest in the outcome of this report, nor do any of the ECC team have any interest that could be reasonably regarded as being capable of affecting their independence in the preparation of this report. ECC is independent from the proponent and has no vested or financial interest in the project, except for fair remuneration for professional fees rendered based upon agreed commercial rates. Payment of these fees is in no way contingent on the results of this report or the assessment, or a record of decision issued by Government. No member or employee of ECC is, or is intending to be, a director, officer, or any other direct employee of Votorantim Metals Namibia (Pty) Ltd. No member or employee of ECC has, or has had, any shareholding Votorantim Metals Namibia (Pty) Ltd.

All compliance and regulatory requirements regarding this report should be forwarded by email or posted to the following address:

Environmental Compliance Consultancy PO Box 91193, Klein Windhoek, Namibia

Tel: +264 81 669 7608

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#### 1.4 PURPOSE OF REPORT

The purpose of this report is to document the findings of an environmental compliance audit, which accompanies the renewal application for the environmental clearance certificate for EPL 6927.

The approved EMP for the existing environmental clearance certificate is audited to monitor the proceeds of the project and ensure that all measures stipulated in the document are met and effectively adhered to, as required by the Department of Environmental Affairs (DEA). In an event where the project activities are altered, the EMP is required to be revised and amended accordingly.

As per the Environmental Management Act, No. 7 of 2007 and its EIA Regulations of 2012, exploration activities on EPL 6927 cannot be undertaken without a valid environmental clearance certificate. The exploration activities at EPL 6927 proposes to assess the viability of base and rare and precious minerals, namely copper that can be found in the EPL 6927 area. The proposed methods of exploration have minimal impacts, as they are done on a small scale and rehabilitation of the natural vegetation will be done as per the approved EMP.



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# 2 BACKGROUND TO EPL 6927

The Proponent carries out low-impact exploration activities on EPL 6927 for base and rare metals, industrial minerals and precious metals in the Otjozondjupa Region. The Proponent wishes to continue with exploration activities on Exclusive Prospecting Licence (EPL) 6927.

## 2.1 Renewal activities

The proposed project is for the exploration of base, rare and precious metals and industrial minerals. As part of the proposed exploration project, the following activities are envisaged, which shall be further defined as the exploration program is refined:

- Arial or remote sensing
- Electromagnetic surveys
- Drilling
- Mineral sampling

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## 3 ENVIRONMENTAL COMPLIANCE AUDIT

#### 3.1 SITE INSPECTION

### 3.1.1. Bi-annual monitoring

An environmental report is submitted to the Ministry of Environment, Forestry and Tourism biannually reporting on periods from January to June and July to December. These reports report on compliance with regards to the activities taking place on-site, roads or tracks made or used, accommodation structures and infrastructure erected, any rehabilitation done, and any incidents of conflict reported.

#### 3.1.2 Activities for the monitoring period

From July to December 2019 some 13 lines (15.6 km) were cleared for AMT and IP surveys on farm Neuwerk. The 1 m wide lines were cut for access on foot to lay out geophysical survey cables. Some 1136 small pits were dug for electrodes and closed after the survey.

From January to June 2020 the Proponent surveyed 33 lines (38.2 km) on the farms Neuwerk, Hartebeestpoort, Askevold and Ondjondjo using the AMT and IP survey methods. The 1 m wide lines were cut for access on foot to lay out geophysical survey cables. Some 2445 small pits were dug for electrodes and closed after the survey. Four diamond drill holes were drilled with a total meterage of 1163.19m. Another shallow (max. 20m deep) 88 RAB (rotary air blast) holes amounting to a total meterage of 696m were drilled.

From July to December 2020 the Proponent surveyed 25 lines (38.4 km) on the farms Neuwerk, Hartebeestpoort, Askevold and Ondjondjo, using the AMT and IP survey methods. The 1 m wide lines were cut for access on foot to lay out geophysical survey cables. Some 2379 small pits were dug for electrodes and closed after the survey. Some 908 soil sampling holes were dug, each measuring 20 cm by 20 cm and 20 cm deep, which were also closed after sampling. Eleven diamond drill holes were drilled with a total meterage of 4449.43 m and a max. depth of 566.81m between 2 July 2020 and 16 December 2020.

From January to June 2021 the Proponent cleared and surveyed 33 lines (34.8 km) on the farms Askevold, Naueis and Altona using the AMT survey method. Access lines were 1 m wide and were cut for access and for laying out survey cables. Some 4723 small pits were dug for electrodes and closed after the AMT and IP surveys. AMT and IP surveys along 29 lines were completed. Another 0.48 ha of bush-encroached land was cleared for drill access tracks and sites. On 18 June 2021 the Proponent began with diamond drilling of one hole with an end-of-hole depth of 140.66 m.



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From June to December 2021 the Proponent cleared 1.48 ha of bush encroached areas for drill access tracks and drill-sites. While 3.1km (0.78 ha) areas) were cleared for drill access tracks, 0.7 ha were cleared for 14 drill-sites, allowing grass to re-grow naturally during the 2021-2022 rainy season.

The main access road to Farm Neuwerk was gravelled as it had been severely washed out due to heavy rains. On this farm 0.7 Ha was cleared to make space for fourteen drill sites and tracks. These areas and tracks are now also available for productive use by the landowner.

Fourteen sumps with an area of 1.125 m<sup>3</sup> were dug for recycling water during drilling and were closed after drilling was completed.



Figure 2 - A drill rig



Figure 3 - A plastic linear - preparing sump





Figure 4 - Drill rig and sumps



Figure 5 - Drill crew campsite

# 3.2 Annual compliance audit

Furthermore, the approved EMP covers all adverse environmental impacts, including any additional potential impacts that may result from the exploration activities at EPL 6927. The



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EMP provides the technical details for each mitigation, monitoring and institutional measure, including the impact(s) to which it relates and the conditions when required, together with designs, equipment descriptions and operating procedures as granted.

## 3.3 COMPLIANCE AUDIT FINDINGS

This section outlines the findings of the environmental audit completed for the project. It addresses obligations in terms of the key Acts that govern the activities on site, the commitments made in the EMP, and present the findings and recommended corrective actions where applicable (Table 2).

#### The EMP:

- Identifies all mineral exploration activities that could cause environmental damage (risks and potential impacts) and provides a summary of actions required;
- Identifies institutions responsible for ensuring compliance with the EMP and provides their contact information;
- Provides standard procedures to avoid, minimise and mitigate the identified negative environmental impacts and to enhance the positive impact of the proposed activities on the environment;
- Provides for site and exploration rules and actions required;
- Forms a written record of procedures, responsibilities, requirements and rules for contractor/s, their staff and any other person who must comply with the EMP;
- Ensure zero pollution incidents; minimal vegetation clearing and earthworks, protect local flora, fauna, and water resources; and use water and other natural resources effectively and efficiently.
- Provides a monitoring and auditing programme to track and record compliance and identify and respond to any potential or actual negative environmental impacts, and
- Provides a monitoring programme to record any mitigation measures that are implemented.
- Ensure that an annual environmental audit is carried out by either MME or MEFT.
- Once exploration has ceased, any impacts shall be rehabilitated.

### 3.4 ISSUES OF NON-COMPLIANCE

From July to December 2021 there were various complaints from landowners of litter and other types of pollution by contractors, movement of vehicles and equipment on access roads and tracks, various activities and actions by contactors and the proponent's staff and breach of contracts and agreements.

The proponent took various measures to resolves these issues such as verbal agreements after discussions, instructions to company staff to avoid conflicts and the proponent rectified its mistakes and undertook measures to avoid future wrongdoing.



# **Table 2 - Exploration EMP Audit**

Activity	Potential Impacts	Management/Mitigation Measures	Compliance	Comments
Use of vehicles and equipment	- Hygiene and Safety	<ul> <li>Amenities (e.g., portable toilets) shall be provided and set up in a suitable location (if required).</li> </ul>	- Compliant	- The proponent will continue to ensure mitigation measures are in place as per the EMP.
	– Emissions	All vehicles and machinery/ equipment to be shut down or throttled back between periods of use	- Compliant	<ul> <li>The proponent will continue to ensure mitigation measures are in place as per the EMP.</li> </ul>
	<ul> <li>The potential loss of oil and fuel causing ground contamination</li> <li>Water</li> </ul>	<ul> <li>Refueling shall be undertaken in a designated area</li> <li>All stationary vehicles and machinery must have drip trays to collect leakages of lubricants and oil</li> <li>In the event of pollution, polluted soils</li> </ul>	<ul><li>Compliant</li><li>Compliant</li></ul>	<ul> <li>The proponent will continue to ensure mitigation measures are in place as per the EMP.</li> <li>The proponent will continue</li> </ul>
	contamination	<ul> <li>must be collected and disposed of at an approved site</li> <li>Water during drilling should be retained in a lined pond to prevent pollution, and</li> </ul>		to ensure mitigation measures are in place as per the EMP.



	A 'good housekeeping' policy shall be		
	adopted across the construction and		
	maintenance working area		
Datasasatias		Compliant	The proposant will continue
<ul> <li>Dust generation</li> </ul>	<ul> <li>Use existing access roads and tracks</li> </ul>	- Compliant	- The proponent will continue
	where possible		to ensure mitigation
	<ul> <li>- Apply dust suppression methods such as</li> </ul>		measures are in place as per
	water spraying during drilling		the EMP.
	– operations		
	<ul> <li>- Restricted speeds (&lt;30km/h), and</li> </ul>		
	Specific activities that may generate dust		
	and impact on residents shall be		
	<ul> <li>avoided during high wind events</li> </ul>		
- Noise generation	- Noise shall be minimised as much as	- Compliant	- The proponent will continue
	possible during the exploration works		to ensure mitigation
	<ul> <li>No hammering of drill rods with steel</li> </ul>		measures are in place as per
	hammers in proximity to nearby farm		the EMP.
	- houses		
	<ul> <li>Drill equipment shall be suitably</li> </ul>		
	positioned to ensure that noisy		
	equipment is away from human receptors		
	<ul> <li>Noise suppression measures shall be</li> </ul>		
	applied if drilling occurs in locations that		
	may affect residents and during evening		
	periods		
	P		



General exploration activities	- Loss of access or access affected to the farm and farm areas, and - Farm operations	<ul> <li>Residents shall be provided at least two weeks' notice of drilling operations within 1km of their property, and</li> <li>Continual engagement with residents shall be undertaken with the proponent.</li> <li>Access to farms and all farm areas shall always be made available, and</li> <li>Cattle water holes and feeding areas to remain unaffected.</li> </ul>	- Compliant	- The proponent will continue to ensure mitigation measures are in place as per the EMP.
Vegetation clearance	- Alien species	<ul> <li>All project equipment arriving on site from an area outside of the project or coming from an area of known weed infestations (not present on the project site) should have an internal weed and seed inspection completed prior to equipment being used</li> <li>Ensure the potential introduction and spread of alien plants is prevented, and</li> <li>Ensure the correct removal of alien invasive vegetation and</li> <li>Prevent the establishment and spread of alien invasive plants.</li> </ul>	- Compliant	- The proponent will continue to ensure mitigation measures are in place as per the EMP.
	- Dust generation	<ul><li>Apply speed restrictions, and</li><li>Avoid off road driving.</li></ul>	- Compliant	- The proponent will continue to ensure mitigation



				measures are in place as per the EMP.
	<ul><li>Reduced soil</li><li>quality</li></ul>	<ul> <li>Use existing tracks where possible</li> <li>Refueling to occur in designated areas with drip trays, and</li> <li>Avoid natural drainage lines for</li> </ul>	– Compliant	<ul> <li>The proponent will continue to ensure mitigation measures are in place as per the EMP.</li> </ul>
	– Injure or kill animals	<ul> <li>exploration activities.</li> <li>No driving off designated access routes (into the bush) / off-road driving</li> <li>No snares or catching of animals, no keeping or housing of pets for food, and</li> <li>No animals or birds may be collected, caught, consumed or removed from site by the Contractor or personnel on site.</li> </ul>	- Compliant	- The proponent will continue to ensure mitigation measures are in place as per the EMP.
	- Removal of vegetation – loss of flora and fauna, protected/important species	<ul> <li>Use existing tracks where possible</li> <li>Route new tracks around established and protected trees, and clumps of vegetation</li> <li>Identify rare, endangered, threatened and protected species.</li> <li>Demarcate and avoid cutting down, and clearly highlight to construction workers so that they are avoided, and</li> <li>Avoid natural drainage lines.</li> </ul>	- Compliant	- The proponent will continue to ensure mitigation measures are in place as per the EMP.
Site and ground	- Heritage remains	Discovery of unearthed archaeological remains to be uncovered, the following	- Compliant	<ul> <li>The proponent will continue to ensure mitigation</li> </ul>



preparation –	measures (chance find procedure) shall be	measures are in place as per
creation of	applied:	the EMP.
• •	·	
	the archaeologist inspection and advice  - Environment Compliance Consultancy's Archaeologist will evaluate the significance of the remains and identify appropriate action, for example, record and remove; relocate or leave in situ (depending on the nature and value of the remains)  - Inform the police if the remains are human, and	



		<ul> <li>Obtain appropriate clearance or approval from the competent authority, if required, and recover and remove the remains to the National Museum or National Forensic Laboratory as directed.</li> </ul>		
Fuel handling and storage	<ul> <li>Loss of containment leading to ground or groundwater contamination</li> </ul>	<ul> <li>Safe Delivery and handling:</li> <li>Training employees and Toolbox Talks</li> <li>Good housekeeping across site</li> <li>Fuel is handled with care</li> <li>Spill kits to be available for use during refueling, fuel delivery or use.</li> <li>Absorption material should be available. Where saw dust is used it should be cleaned up immediately and not left for long periods</li> <li>Any spill is to be reported to the Exploration Manager once containment has been achieved.</li> <li>Plant and equipment to be well maintained and serviced regularly, and</li> <li>In the field, use of hydrocarbons under 200 litres can be used for mobile refueling or servicing.</li> </ul>	- Compliant	<ul> <li>The proponent will continue to ensure mitigation measures are in place as per the EMP.</li> </ul>



		<ul> <li>Fuel spills of greater than 200lts are to be reported to the MME in terms of the Petroleum Products and Energy Act, 1990</li> <li>Storage:</li> </ul>		
		<ul> <li>All tanks to be stored on a non-porous floor and bunded area</li> <li>Bund to be capable of storing at least 110% of the volume of the tank</li> <li>All containers to be suitable for use and not damaged</li> <li>Tanks are locked at all times, and</li> <li>Spill kits available at in suitable locations.</li> </ul>		
		Refueling:  - Drip trays to be used during refueling of		
		vehicles and on a permeable flat surface where possible, and		
		<ul> <li>Funnels should be available and used to avoid spillage during decanting</li> </ul>		
Generation of	- Nuisances (odours	- Training and Toolbox Talks	- Compliant	- The proponent will continue
waste	and visual)	Good housekeeping across site  All working areas shall apply good		to ensure mitigation
	<ul><li>Land use, and</li><li>Litter (nuisance and</li></ul>	<ul> <li>All working areas shall apply good housekeeping</li> </ul>		measures are in place as per the EMP.
	ecological risk).	Implement the waste management		CITC LIVII .
	22010812011121171	hierarchy across site: Avoid, reuse, recycle, then disposal through burning or landfill		



		- Waste shall be collected and shall be		
		removed on a regular basis to avoid pests		
		and bad odours, and It is unlikely that		
		hazardous material and wastes will be		
		produced, however in the event that they		
		do, they shall be managed in a safe and		
		responsible manner so as to prevent		
		contamination of soils, pollution of water		
		and/or harm to people or animals as a		
		result of the use of these materials.		
		– Hazardous and non-hazardous waste shall		
		be stored separately at all times.		
Resource use	- Inefficient use of	Use water effectively and efficiently	- Compliant	- The proponent will continue
	water			to ensure mitigation
				measures are in place as per
				the EMP.
			- "	
Job creation	– Employment	Maximise local employment and local	– Compliant	The proponent will continue
	creation and skills	business opportunities		to ensure mitigation
	development	– Enhance the use of local labour and local		measures are in place as per
	opportunities	skills as far as reasonably possible		the EMP.
	during the	<ul> <li>Ensure that goods and services are</li> </ul>		
	exploration phase.	sourced from the local and regional		
		economy as far as reasonably possible.		

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## **4 REHABILITATION**

The proponent ensured that all impacts caused by them during exploration activities were rehabilitated should no further use of the land be required. When selecting sites for access roads and drill sites, priority was given to areas with little vegetation cover, while sparing medium to large trees in order to minimize the amount of vegetation cleared. Where possible access roads were cleared manually to prevent the loss of fertile topsoil and generation of irregularities in terrain by machinery.

Any products that were added to water and disposed on land were biodegradable and non-contaminating. All return tanks were closed, and top grease material was collected and deposited at the Otavi waste disposal site.

The recovery of vegetation will occur naturally and gradually, through seeds that are in the soil and should begin to regrow during the rainy season. Access tracks will be maintained for future exploration activities.

Holes that were dug for electrodes and soil samples were closed after the AMT, IP and soil surveys.

#### 1. Drill site: NANAND000016 from 16 June 2021 to 10 August 2021



Figure 6 - Drill rig at Drill-hole site: NANAND000016









Figure 7 - Drill site before drilling and after rehabilitation at Drill-hole site: NANAND000016

## 2. Drill site: NANAND000017 from 17 August 2021 to 28 August 2021



Figure 8 - Drill rig, sumps and water tank at Drill-hole site: NANAND000017

BEFORE AFTER





Figure 9 - Drill site before drilling and after rehabilitation after drilling at Drill-hole site: NANAND000017



## 3. Drill site: NANAND000018 from 8 August 2021 to 10 September 2021





Figure 10 - Drill rig and sumps at Drill-hole site: NANAND000018

BEFORE AFTER





Figure 11 - Drill site before drilling and after rehabilitation after drilling at Drill-hole site: NANAND000018

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## 4. Drill site: NANAND000019 from 29 August 2021 to 19 September 2021



Figure 12 - Drill rig, sumps and water tanks at Drill-hole site: NANAND000019

BEFORE AFTER





Figure 13 - Drill site before drilling and after rehabilitation after drilling at Drill-hole site: NANAND000019

## 5. Drill site: NANAND000020 from 11 September 2021 to 21 September 2021





Figure 14 - Drill rigs and sumps at Drill-hole site: NANAND000020



## BEFORE AFTER





Figure 15 - Drill site before drilling and after rehabilitation after drilling at Drill-hole site: NANAND000020

## 6. Drill site: NANAND000021 from 23 September to 2 October 2021





Figure 16 - Drill rig and sumps at site: NANAND000021

#### BEFORE AFTER





Figure 17 - Drill site before drilling and after rehabilitation after drilling and capped hole at Drill-hole site: NANAND000021



## 7. Drill site: NANAND000022 from 24 August 2021 to 14 September 2021



Figure 18 - Drill rig at site: NANAND000022







Figure 19 - Drill site before drilling and after rehabilitation after drilling at Drill-hole site: NANAND000022



## 8. Drill site NANAND000023 from 15 September 2021 to 27 September 2021





Figure 20 - Drill rig and sumps at site: NANAND000023 BEFORE





Figure 21 - Drill site before drilling and after rehabilitation after drilling at Drill-hole site: NANAND000023

#### 9. Drill site NANAND000024 from 28 October 2021 to 30 October 2021



Figure 22 - Drill rig and sumps at site: NANAND000024









Figure 23 - Drill site before drilling and after rehabilitation after drilling at Drill-hole site: NANAND000024

## 10. Drill site NANAND000025 from 24 October 2021 to 27 October 2021





Figure 24 - Drill rig and diesel trailer from site: NANAND000025





Figure 25 - Drill site before drilling and after rehabilitation after drilling at Drill-hole site: NANAND000025



#### 11. Drill site NANAND000026 from 1 November 2021 to 14 November 2021





Figure 26 - Drill rig and sumps at site: NANAND000026





Figure 27 - Drill site before drilling and after rehabilitation after drilling at Drill-hole site: NANAND000026

#### 12. Drill site NANAND000027 from 1 November 2021 to 11 November 2021





Figure 28 - Drill rig and sumps







Figure 29 - Drill site before drilling and after rehabilitation after drilling at Drill-hole site: NANAND000027

## 13. Access Road Rehabilitation



Figure 30 - Access roads before rehabilitation





Figure 31 - Current rehabilitation of access roads

# **5 CONCLUSION AND RECOMMENDATIONS**

All proposed activities shall be carried out in compliance with the relevant requirements and conditions of the granted licence in accordance with the approved EMP. It is recommended that the Proponent continue to adhere to all environmental legislation and company standards to ensure that best practical environmental protection continues as the project activities progress.



## **APPENDIX A: ENVIRONMENTAL MANAGEMENT PLAN**



#### **APPENDIX B - ENVIRONMENTAL CLEARANCE CERTIFICATE**





## **APPENDIX C - BI-ANNUAL REPORTS**















ECC-88-189-REP-06-D

## **ENVIRONMENTAL MANAGEMENT PLAN**

Exploration Activities on EPL 6927
For Base and Rare Metals, Industrial Minerals and
Precious Metals
Otjozondjupa Region

PREPARED FOR



**MARCH 2019** 



#### TITLE AND APPROVAL PAGE

**Project Name:** Exploration Activities on EPL 6927 For Base and Rare Metals, Industrial Minerals and

Precious Metals, Otjozondjupa

**Project Number:** ECC-88-189-REP-06-D

Client Name: Votorantim Metals Namibia (Pty) Ltd

Ministry Reference: NA

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#### **DEFINITIONS AND ABBREVIATIONS**

ECC	Environmental Compliance Consultancy
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
EPL	Exclusive Prospecting Licence



#### 1. INTRODUCTION

#### 1.1. BACKGROUND TO THE PROPOSED PROJECT

Environmental Compliance Consultancy (ECC) has been engaged by the proponent (Votorantim Metals Namibia (Pty) Ltd) to undertake an Environmental Impact Assessment (EIA) and an Environmental Management Plan (EMP) in terms of the Environmental Management Act, 2007 and its Regulations. An environmental clearance application will be submitted to the relevant competent authorities: the Ministry of Mines and Energy (MME) and the Ministry of Environment and Tourism (MET).

Nexa Resources is an investment company of the Votorantim portfolio; the company is listed on the New York Stock Exchange in the United States and the Toronto Stock Exchange in Canada. Votorantim undertakes mineral exploration in Namibia and proposes to undertake low impact exploration activities on EPL 6927 for base and rare metals, industrial minerals and precious metals in the Otjozondjupa Region.

The project is located in the Otjozondjupa region. The licence area is located approximately 25-30 km from Otavi and 12.4 km from Kombat see Figure 1.

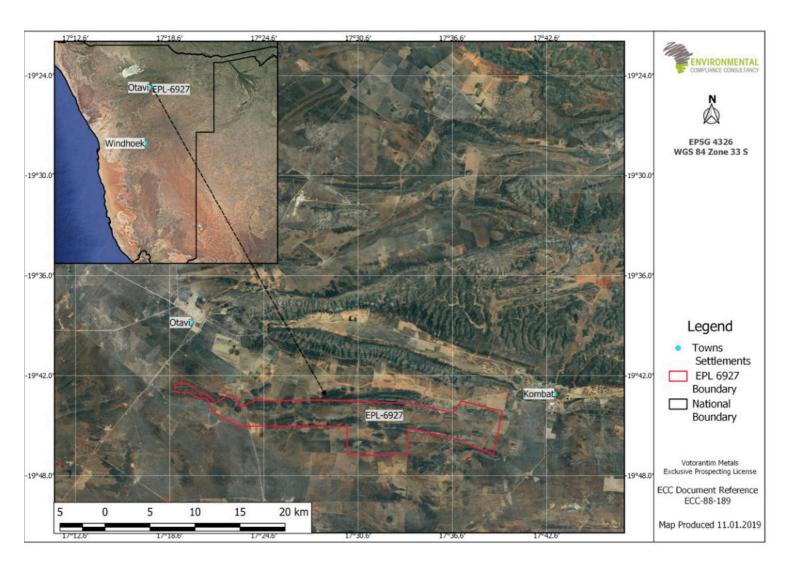


Figure 1 - Locality Map



#### 1.1 Environmental Regulatory Requirements

The proposed project is considered as a Listed Activity as set out in terms of the Environmental Management Act, 2007 (Act No. 7 of 2007) and the Environmental Impact Assessment Regulation, 2007 (No. 30 of 2011) gazetted under the Environmental Management Act, (EMA), 2007 (Act No. 7 of 2007) (referred to herein as the EIA Regulations).

As a listed activity an application for an environmental clearance certificate is required. An environmental scoping report and environmental management plan (EMP) is required as part of the environmental clearance certificate application, as well as to support the decision-making process. This report presents the EMP and has been undertaken in accordance with the requirements of the Environmental Management Act, 2007 and associated Regulations.

#### 1.2 Purpose and Scope of this Report

This EMP provides a logical framework, mitigation measures and management strategies for the exploration activities associated with the proposed project, in this way ensuring that the potential environmental and social impacts are mitigated and minimised as far as practically possible and that statutory and other legal obligations are adhered to and fulfilled. Outlined in the EMP are the protocols, procedures and roles and responsibilities to ensure the management arrangements are effectively and appropriately implemented.

This EMP forms an appendix to the environmental scoping report and has been based on the findings of the assessment; therefore, the environmental scoping report should be referred to for further information on the proposed project, assessment methodology, applicable legislation, and assessment findings.

This EMP is a live document and shall be reviewed at predetermined intervals, and/or updated when the scope of works alters, or when further data / information can be added. All personnel working on the project will be legally required to comply with the standards set out in this EMP.

The scope of this EMP includes all activities carried out during the exploration stage in search of base and rare metals, industrial minerals on EPL 6927.

#### 1.3 Management of this EMP

The proponent Votorantim Metals Namibia (Pty) Ltd will hold the environmental clearance certificate for the proposed project and shall be responsible for the implementation and management of this EMP. Prior to the exploration activities commencing, this EMP shall be reviewed, amended as required and approved ready for implementation. The implementation and management of this EMP and thus the monitoring of compliance shall be undertaken through daily duties and activities and monthly inspections.

This EMP shall be circulated to all contractors and shall be made available on the Environmental Compliance Consultancy's (ECC) website.

#### 1.4 LIMITATIONS, UNCERTAINTIES AND ASSUMPTIONS OF THIS EMP

This EMP does not include measures for compliance with statutory occupational health and safety requirements. This will be provided in the safety management plan to be developed by the proponent.

Where there is any conflict between the provisions of this EMP and any contractor's obligations under their respective contracts, including statutory requirements (such as licences, project approval conditions, permits, standards, guidelines and relevant laws), the contract and statutory requirements are to take precedence.

The information contained in this EMP has been based on the project description as provided in the environmental scoping report. Where the design or exploration methods alter, this EMP may require updating and potential further assessment undertaken.



#### 1.5 ENVIRONMENTAL CONSULTANCY

Environmental Compliance Consultancy, a Namibian consultancy registration number 2013/11401, has prepared this document on behalf of the proponent. ECC operates exclusively in the environmental, social, health and safety fields for clients across Southern Africa in the public and private sector. The CVs of the authors of this report is contained in Appendix A. ECC is independent of the proponent and has no vested or financial interested in the proposed project expect for fair remuneration of professional services rendered.

All compliance and regulatory requirements regarding this document should be forwarded by email or post to the following address:

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#### 1.6 STRUCTURE OF THIS EMP

Table 1 - ENVIRONMENTAL SCOPING REPORT SECTIONS

SECTION	TITLE	CONTENT
1	Introduction	This section introduces the EMP and provides background information on
		the proposed project, proponent and purpose of the report
2	Project Management	Sets the roles of the team responsible for implementing this EMP
3	Communication and	Methods for communication the EMP, records and complaints
	Training	
4	Compliance and	Sets out how compliance is monitored, reporting and actions to prevent
	Enforcement	reoccurrence
5	Environmental and Social	Register of commitments for the project
	Management	
6	Implementation of the	How to implement the EMP
	EMP	



#### 2 PROJECT MANAGEMENT PERSONNEL

#### 2.1 VOTORANTIM METALS NAMIBIA (PTY) LTD

The proponent shall provide a project team to oversee and undertake the preparation and exploration activities, which shall be composed of the proponent's personnel and contractors. A nominated role shall be identified to ensure the management and implementation of this EMP is throughout the duration of the project, which shall be supported by the proponent.

#### 2.2 Organisational Structure, Roles and Responsibilities

The proponent shall be responsible for:

- Ensuring all members of the project team, including contractors, comply with the procedures set out in this
- Ensuring that all personnel are provided with sufficient training, supervision, and instruction to fulfil this requirement, and
- Ensuring that any persons allocated specific environmental responsibilities are notified of their appointment and confirm that their responsibilities are clearly understood.

Contractors shall be responsible for ensuring and demonstrating that all personnel employed by them are compliant with this EMP, and meet the responsibilities listed above. The key personnel and environmental responsibilities of each role through the project life are presented in TABLE 2.

**TABLE 2 – ROLES AND RESPONSIBILITIES** 

ROLE	RESPONSIBILITIES & DUTIES
Proponent	<ul> <li>Responsible for the management and implementation of the EMP</li> <li>Ensure environmental policies are communicated to all personnel throughout the proposed project and that employees understand the guidelines of the EMP</li> <li>Responsible for providing the resources required to complete the project tasks</li> </ul>
Exploration Manager	<ul> <li>Overseeing exploration activities</li> <li>Monitoring daily operations and ensure adherence by personnel to the EMP</li> <li>Maintain the community issues and concerns register and keep records of complaints</li> <li>Maintain an up to date register of employees who have completed a site induction</li> <li>Ensuring that all contract workers, sub-contractors and visitors to the site are aware of the requirements of this EMP, relevant to their roles and adhere to this EMP at all times</li> <li>Reporting any non-compliance or accidents</li> <li>Receiving, recording and responding to complaints</li> <li>Ensure adequate resources are available for the implementation of the EMP</li> <li>Ensure safe and environmentally sound operations, and</li> <li>Responsible for the management, maintenance, and revisions of this EMP.</li> </ul>
Employees and Contractors	<ul> <li>Adhere to measures set out in the EMP</li> <li>Ensure they have undertaken a site induction, and</li> <li>Report any operations or conditions, which deviate, from the EMP as well as any non-compliant issues or accidents to the exploration manager.</li> </ul>



#### 2.3 Contractors

Any contractors hired during the exploration activities or for any accessory works for the project shall be compliant with this EMP, and shall be responsible for the following:

- Undertaking activities in accordance with this EMP as well as relevant policies, procedures, management plans, statutory requirements, and contract requirements
- Implementing appropriate environmental management measures
- Reporting of environmental issues, including actual or potential environmental incidents and hazards, to the Exploration Manager and/or exploration manager, and
- Ensuring appropriate corrective or remedial action is taken to address all environmental hazards and incidents reported by employees and subcontractors.

#### 2.4 EMPLOYMENT

The proponent and all contractors shall comply with the requirements of the Republic of Namibia Regulations for Labour, Health and Safety, and any amendments to these regulations. The following shall be complied with:

- In liaison with local government, community, stakeholders and relevant authorities the proponent shall ensure that local people have access to information about job opportunities and are considered first for construction / maintenance contract employment positions
- The number of job opportunities shall be made known together with the associated skills and qualifications
- The maximum length of time the job is likely to last for shall be clearly indicated
- Foreign workers with no proof of permanent legal residence shall not be hired, and
- Every effort shall be made to recruit from the pool of unemployed workers living in the local area.



#### 3 COMMUNICATION AND TRAINING

#### 3.1 COMMUNICATIONS

During exploration, the exploration manager shall communicate any environmental issues to the project team through the following means (as and when required):

- Site induction
- Audits and site inspections
- Toolbox talks, including instruction on incident response procedures, and
- Key project-specific environmental issues briefings.

This EMP shall be distributed to the exploration team including any contractors and personnel working on the exploration site to ensure that the environmental requirements are adequately communicated. Key activities and environmentally sensitive operations shall be briefed to workers and contractors.

During the exploration activities, communications between the management team shall include discussing any complaints received and actions to resolve them, any inspections, audits or non-conformance with this EMP, and any objectives or target achievements.

#### 3.2 Complaints Handling and Recording

Any complaints received verbally by any personnel on the project site shall be recorded by the receiver, including the name and contact details of the complainant, date and time of the complaint, and the nature of the complaint. The information shall be given to the exploration manager who is overall responsible for the management of complaints and will provide a written response to the complainant. The exploration manager shall inform the site manager of issues, concerns or complaints. It is the duty of the exploration manager to maintain a complaint register that details the name of the complainant, date and time of the complaint, action taken to resolve the issues and date of complaint handover.

The workforce shall be informed about the complaints register, its location and the person responsible, in order to refer local residents or the general public who wish to lodge a complaint. The complainant shall be informed in writing of the results of the investigation and action to be taken to rectify or address the matter(s). Where no action is taken, the reasons why are to be recorded in the register.

The complaints register shall be kept for the duration of the project and will be available for government or public review upon request.

#### 3.3 Training and Awareness

All personnel working on the project shall be competent to perform tasks that have the potential to cause an environmental impact. Competence is defined in terms of appropriate education, training, and experience.

#### 3.3.1 SITE INDUCTION

All personnel involved in the project shall be inducted to the site with a specific environment and social awareness training component. The environment and social awareness training shall ensure that personnel is familiar with the principles of this EMP, the environment and social aspects and impacts associated with their activities, the procedures in place to control these impacts and the consequences of departure from these procedures.

The exploration manager shall ensure a register of completed training is maintained.

The site induction should include, but not limited to the following:

A general site-specific induction that outlines:



- What is meant by "environment" and "social"
- Why the environment needs to be protected and conserved
- O How exploration activities can impact on the environment
- What can be done to mitigate against such impacts
- The inductee's role and responsibilities with respect to implementing the EMP
- The sites environmental rules
- Details of how to deal with, and who to contact if environmental problems should they occur
- Basic vegetation clearing principals and species ID sheets
- Noise control measures for drilling in proximity to residents
- The potential consequences of non-compliance with this EMP and relevant statutory requirements, and
- The role of responsible people for the project.



#### 4 REPORTING, COMPLIANCE AND ENFORCEMENT

#### 4.1 COMPLIANCE MONITORING

#### DAILY

A copy of this EMP shall be on site throughout the project and shall be available upon request. It is the responsibility of the Exploration Manager to ensure this EMP is complied with through their daily roles. Daily inspections will be undertaken by the Exploration Manager (or nominated site supervisor). Any environmental problems or risks identified shall be notified to the exploration manager and actioned as soon as is reasonably practicable.

#### MONTHLY

Monthly inspections shall be undertaken by the Exploration Manager to check that the standards and procedures set out in this EMP are being complied with and pollution control measures are in place and working correctly. Any non-conformance shall be recorded, including the following a brief description of non-conformance, the reason for the non-conformance, the responsible party, the result (consequence), and the corrective action taken and any necessary follow up measures required.

#### 4.2 Non-compliance

#### 4.2.1 Non-compliance event

Where it has been identified that works are not compliant with this EMP, the exploration manager shall employ corrective actions so that the works return to being compliant as soon as possible. In instances where the requirements of the EMP are not upheld, a non-conformance and corrective action notice shall be produced. The notice shall be generated during the inspections and the Exploration Manager shall be responsible for ensuring a corrective action plan is established and implemented to address the identified shortcoming.

A non-compliance event / situation, for example, is considered if:

- There is evidence of a contravention of this EMP and associated indicators or objectives
- The Exploration Manager and/or contractor have failed to comply with corrective or other instructions issued by the exploration manager or qualified authority, or
- The Exploration Manager and/or contractor fail to respond to complaints from the public.
- Works shall be stopped in the event of a non-compliance until corrective action(s) has been completed

#### 4.2.2 DISCIPLINARY ACTION

This EMP is a legally binding document and non-compliance with it shall result in disciplinary action being taken against the perpetrator/s. Such action may take the form of (but is not limited to):

- Fines / penalties
- Legal action
- Monetary penalties imposed by the proponent on the contractor
- Withdrawal of licence/s, and
- Suspension of work.

The disciplinary action shall be determined according to the nature and extent of the transgression / non-compliance, and penalties are to be weighed against the severity of the incident.



#### 4.3 ENVIRONMENTAL PERMITS

Whilst the Water Resources Management Act, 2013 is not enforced, it is best practice to adhere to the stipulations while ensuring compliance to the Water Act of 1956 is also maintained. A licence to abstract and use water may be required if boreholes are to be created. If required, the proponent will apply for relevant permits and shall operate in accordance with any conditions in the licence.

Some vegetation shall be cleared on the EPL site to allow exploration activities to commence. It is unlikely that an area greater than 15ha shall be cleared, therefore a permit under the Forest Act, 2001 is not required.



#### 5 ENVIRONMENTAL AND SOCIAL MANAGEMENT

#### 5.1 Environmental Performance measurement

This chapter provides a register of environmental risks and issues, which identifies mitigation and monitoring measures, as well as roles responsible. This register will be subject to regular review by the Exploration Manager and updated when necessary.

The Exploration Manager and or Site Manager (if applicable) will use this register to undertake monthly inspections (see next section) to ensure the project is compliant with this EMP.

#### 5.1 OBJECTIVES AND TARGETS

Environmental objectives for the project are as follows:

- Zero pollution incidents
- Minimal vegetation clearing and earthworks
- Protect local flora and fauna, and
- Use natural resources effectively and efficiently.

#### 5.2 REGISTER OF ENVIRONMENTAL RISKS AND ISSUES

An environmental review of the proposed project has been completed to identify all the commitments and agreements made within the environmental scoping report. From this, a schedule of environmental commitments and risks has been produced (Table 2), which details deliverables including measures identified for the prevention of pollution or damage to the environment during exploration.



#### TABLE 3 – ENVIRONMENTAL RISKS AND ISSUES, AND MITIGATION AND MONITORING MEASURES

ACTIVITY	POTENTIAL IMPACTS	MANAGEMENT/MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
Use of vehicles and	<ul> <li>Hygiene and Safety</li> </ul>	<ul> <li>Amenities (e.g. portable toilets) shall be provided and set up in a suitable location (if required).</li> </ul>	– Daily observations	<ul><li>Exploration</li><li>Manager</li></ul>
equipment	– Emissions	<ul> <li>All vehicles and machinery/ equipment to be shut down or throttled back between periods of use.</li> </ul>	– Daily observations	<ul><li>Exploration</li><li>Manager</li></ul>
	<ul> <li>The potential loss of oil and fuel causing ground contamination</li> </ul>	<ul> <li>Refueling shall be undertaken in a designated area</li> <li>All stationary vehicles and machinery must have drip trays to collect leakages of lubricants and oil</li> <li>In the event of pollution, polluted soils must be collected and disposed of at</li> </ul>	– Daily observations	– Exploration Manager
	- Water contamination	<ul> <li>an approved site</li> <li>Water during drilling should be retained in a lined pond to prevent pollution, and</li> <li>A 'good housekeeping' policy shall be adopted across the construction and maintenance working area</li> </ul>	– Daily observations	– Exploration Manager
	- Dust generation	<ul> <li>Use existing access roads and tracks where possible</li> <li>Apply dust suppression methods such as water spraying during drilling operations</li> <li>Restricted speeds (&lt;30km/h), and</li> <li>Specific activities that may generate dust and impact on residents shall be avoided during high wind events.</li> </ul>	– Daily observations	<ul><li>Exploration Manager</li></ul>
	<ul> <li>Noise generation</li> </ul>	<ul> <li>Noise shall be minimised as much as possible during the exploration works</li> <li>No hammering of drill rods with steel hammers in proximity to nearby farm houses</li> <li>Drill equipment shall be suitably positioned to ensure that noisy equipment is away from human receptors</li> <li>Noise suppression measures shall be applied if drilling occurs in locations that may affect residents and during evening periods</li> <li>Residents shall be provided at least two weeks' notice of drilling operations within 1km of their property, and</li> <li>Continual engagement with residents shall be undertaken with the proponent.</li> </ul>	– Daily observations	– Exploration Manager
General	<ul> <li>Loss of access or</li> </ul>	Access to farms and all farm areas shall always be made available, and	– Daily observations	- Exploration
exploration activities	access affected to the farm and farm	<ul> <li>Cattle water holes and feeding areas to remain unaffected.</li> </ul>		Manager



ACTIVITY	POTENTIAL IMPACTS	MANAGEMENT/MITIGATION MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	areas, and - Farm operations			
Vegetation clearance	- Alien species	<ul> <li>All project equipment arriving on site from an area outside of the project or coming from an area of known weed infestations (no present on the project site) should have an internal weed and seed inspection completed prior to equipment being used</li> <li>Ensure the potential introduction and spread of alien plants is prevented, and</li> <li>Ensure the correct removal of alien invasive vegetation and prevent the establishment and spread of alien invasive plants.</li> </ul>	<ul> <li>If required, monitor the removal of the alien invasive vegetation, and</li> <li>Check the tyre of vehicles after use on site.</li> </ul>	<ul><li>Employees</li><li>Exploration</li><li>Manager</li></ul>
	<ul> <li>Dust generation</li> </ul>	<ul><li>Apply speed restrictions, and</li><li>Avoid off road driving.</li></ul>	– Daily observations	<ul><li>Exploration</li><li>Manager</li></ul>
	- Reduced soil quality	<ul> <li>Use existing tracks where possible</li> <li>Refueling to occur in designated areas with drip trays, and</li> <li>Avoid natural drainage lines for exploration activities.</li> </ul>	– Daily observations	– Exploration Manager
	<ul> <li>Injure or kill animals</li> </ul>	<ul> <li>No driving off designated access routes (into the bush) / off-road driving</li> <li>No snares or catching of animals, no keeping or housing of pets for food, and</li> <li>No animals or birds may be collected, caught, consumed or removed from site by the Contractor or personnel on site.</li> </ul>	– Daily observations	– Exploration Manager
	<ul> <li>Removal of vegetation – loss of flora and fauna, protected/importa nt species</li> </ul>	<ul> <li>Use existing tracks where possible</li> <li>Route new tracks around established and protected trees, and clumps of vegetation</li> <li>Identify rare, endangered, threatened and protected species. Demarcate and avoid cutting down, and clearly highlight to construction workers so that they are avoided, and</li> <li>Avoid natural drainage lines.</li> </ul>	- Daily visual inspection during construction of new access tracks/widening	<ul><li>Employees</li><li>Exploration</li><li>Manager.</li></ul>



ACTIVITY		OTENTIAL MPACTS	MANAGEMENT/MITIGATION MEASURES	- MONITORING REQUIREMENTS	- RESPONSIBILITY
Site and ground preparation – creation of access tracks and areas for setting up drill rigs	- H	eritage remains	<ul> <li>Discovery of unearthed archaeological remains to be uncovered, the following measures (chance find procedure) shall be applied:</li> <li>Works to cease, area to be demarcated with appropriate tape by the site supervisor, and the Exploration Manager to be informed</li> <li>Exploration Manager to visit the site and determine whether work can proceed without damage to findings, mark exclusions boundary and inform the Environmental Consultant with the GPS position if possible</li> <li>If works cannot proceed without damage to findings, Exploration Manager to inform the Environmental Consultant for the archaeologist inspection and advice</li> <li>Environment Compliance Consultancy's Archaeologist will evaluate the significance of the remains and identify appropriate action, for example, record and remove; relocate or leave in situ (depending on the nature and value of the remains)</li> <li>Inform the police if the remains are human, and</li> <li>Obtain appropriate clearance or approval from the competent authority, if required, and recover and remove the remains to the National Museum or National Forensic Laboratory as directed.</li> </ul>	– Daily observations	- Exploration Manager
Fuel handling and storage	co le	oss of ontainment eading to ground r groundwater ontamination	<ul> <li>Safe Delivery and handling:         <ul> <li>Training employees and Toolbox Talks</li> <li>Good housekeeping across site</li> <li>Fuel is handled with care</li> <li>Spill kits to be available for use during refueling, fuel delivery or use.</li> <li>Absorption material should be available. Where saw dust is used it should be cleaned up immediately and not left for long periods</li> <li>Any spill is to be reported to the Exploration Manager once containment has been achieved.</li> <li>Plant and equipment to be well maintained and serviced regularly, and</li> <li>In the field, use of hydrocarbons under 200 liters can be used for mobile refueling or servicing.</li> <li>Fuel spills of greater than 200lts are to be reported to the MME in terms of the Petroleum Products and Energy Act, 1990</li> <li>Storage:</li></ul></li></ul>	<ul> <li>Daily observations when fuels are delivered and handled</li> <li>Supervision during refueling, and</li> <li>Weekly observations monitor containment and storage.</li> </ul>	– Exploration manager

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Generation of waste	<ul> <li>Nuisances (odors and visual)</li> <li>Land use, and</li> <li>Litter (nuisance and ecological risk).</li> </ul>	<ul> <li>Bund to be capable of storing at least 110% of the volume of the tank</li> <li>All containers to be suitable for use and not damaged</li> <li>Tanks are locked at all times, and</li> <li>Spill kits available at in suitable locations.</li> <li>Refueling</li> <li>Drip trays to be used during refueling of vehicles and on a permeable flat surface where possible, and</li> <li>Funnels should be available and used to avoid spillage during decanting.</li> <li>Training and Toolbox Talks</li> <li>Good housekeeping across site</li> <li>All working areas shall apply good house-keeping</li> <li>Implement the waste management hierarchy across site: Avoid, reuse, recycle, then disposal through burning or landfill</li> <li>Waste shall be collected and shall be removed on a regular basis to avoid pests and bad odours, and</li> <li>It is unlikely that hazardous material and wastes will be produced, however in the event that they do, they shall be managed in a safe and responsible manner so as to prevent contamination of soils, pollution of water and/or harm to people or animals as a result of the use of these materials.</li> <li>Hazardous and non-hazardous waste shall be stored separately at all times.</li> </ul>	– Daily observations, and – Weekly checks	– Exploration Manager – Employees
Resource use	<ul> <li>Inefficient use of water</li> </ul>	Use water effectively and efficiently	– Daily observations	<ul><li>Exploration</li><li>Manager</li><li>Employees</li></ul>
Job creation	<ul> <li>Employment creation and skills development opportunities during the exploration phase.</li> </ul>	<ul> <li>Maximise local employment and local business opportunities</li> <li>Enhance the use of local labour and local skills as far as reasonably possible</li> <li>Ensure that goods and services are sourced from the local and regional economy as far as reasonably possible.</li> </ul>	– Daily observations, and – Weekly checks.	<ul><li>Exploration</li><li>Manager</li><li>Employees</li></ul>



#### **6 IMPLEMENTATION OF THE EMP**

Exploration work will be carried out in compliance with the relevant requirements of the Minerals (Prospecting and Mining) Act, 1992. No significant impacts are anticipated for the activities that have been identified and management and mitigation measures are in place for potential risks.

#### This EMP:

- A. Has been prepared pursuant to a contract with the proponent
- B. Has been prepared on the basis of information provided to ECC up to January 2019
- C. Is for the sole use of the proponent, for the sole purpose of an EMP
- D. Must not be used (1) by any person other than the proponent or (2) for a purpose other than an EMP, and
- E. Must not be copied without the prior written permission of ECC.

ECC has prepared the EMP on the basis of information provided by the proponent, specialist reports and the environmental scoping report.



#### REPUBLIC OF NAMIBIA

#### **MINISTRY OF ENVIRONMENT AND TOURISM**

OFFICE OF THE ENVIRONMENTAL COMMISSIONER

#### **ENVIRONMENTAL CLEARANCE CERTIFICATE**

ISSUED

In accordance with Section 37(2) of the Environmental

Management Act (Act No. 7 of 2007)

TO

Votorantim Metals Namibia (Pty) Ltd P O Box 97957, Windhoek

TO UNDERTAKE THE FOLLOWING LISTED ACTIVITY

EXPLORATION ACTIVITIES ON EPL6927 FOR BASE AND RARE METALS, INDUSTRIAL MINERALS, AND PRECIOUS METALS, OTJOZONDJUPA REGION, NAMIBIA.

P/Bag 13306 Windhoek, Namibia 2019 -36- 2 5

A Grand Office of the

DEPUTY ENVIRONMENTAL COMMISSIONER

Issued on the date:

2019-06-25

Expires on this date:

2022-06-25

(See conditions printed over leaf)



# **ENVIRONMENTAL REPORT (ER)**(Prospecting Companies)

#### INSTRUCTIONS:

1. An Environmental Report shall be submitted to the Ministry of Environment and Tourism (MET) biannually. Jan to Jun and Jun to December: Please indicate:

#### 01 January to 30 June 2021

- 2. This form shall be the minimum reporting format. Prospecting Companies are expected to attach a map of their prospecting area to this report. Prospecting Companies are welcome to attach any other information they like, such as copies of new agreements, letters of explanation, aerial photographs, or anything else of interest.

  MINISTRY OF ENVISORS
  FORESTRY AND TOURIS.
- 3. The map shall be used to indicate the following:

\* areas where prospecting has taken place,

roads or tracks made and/or used.

houses and other infrastructure erected,

\* excavations or other scars which have been rehabilitated, Wife

\* conflict areas, etc....

- It is recommended (but not compulsory) that Prospecting Companies attach
  photographs to their report, which visually illustrate the activities described in their
  report.
- Failure to submit an Environmental Report shall constitute a breach of the Environmental Contract, which could result in steps taken against the Prospecting Company.
- All information contained in the Environmental Report shall be treated as confidential.
- 7. The Prospecting Company shall ensure that all the information recorded in the Environmental Report is, to their best knowledge, accurate and correct.

#### Completed Environmental Reports should be sent to:

The Permanent Secretary Ministry of Environment and Tourism Private Bag 13306 Windhoek

For Attention: Saima S. Angula

DIRECTORATE OF ENVIRONMENTAL AFFAIR

1.2 OCT 2021

Tel: 061 284 2701

RECEIVED 2

# A. COMPANY DETAILS AND REPORTING PERIOD:

Name of Company: Votorantim Metals Namibia (Pty) Ltd
Address of Company: 9B South Port Office Park, Hosea Kutako Avenue, P O Box 97957, Maerua Park, Windhoek, Namibia
Tel: 061-221016 Fax number: 061-231083 E-mail: efreyer@iway.na
Name of person compiling report: E E Freyer
Reference number(s) of prospecting area / block / license: EPL 6927
Geographical location of area / block / license: Grootfontein District, Otjozondjupa Region
This report is for the period of: (tick the relevant box and fill in the year)
Other (please specify)
B. POLLUTION AND WASTE
Has all domestic refuse (eg. Household waste, bottles, tins, paper, plastic, etc) been removed from the prospecting area?  yes   no
If "yes" above, specify the site where such refuse has been deposited: n/a
How often is refuse removed to the site mentioned above ? : every week
every two weeks concerning every three weeks concerning every three weeks concerning every two weeks concerning every three every three weeks concerning every three ever
If refuse has not been removed, where has it been dumped? Otavi municipal waste disposal site
As far as litter is concerned, would you describe your prospecting area as:  Very clean  Reasonably clean  Filthy
If your prospecting area is littered with refuse, please indicate how you intend cleaning it up:
Refuse and litter found in the areas that we work in is collected and removed to municipal waste-dump
Are toilets provided for all staff employed by the prospecting company: yes on o
If "yes" above, are they: Flush toilets  Chemical Toilets Pit Latrines  Other
If chemical toilets are used, how are old chemicals disposed of:  Deposited in evaporation ponds  Buried on site  Deposited in a municipal refuse dump  Other (specify)

#### C. **VEHICLES AND EARTHMOVING EQUIPMENT**

Indicate the types and number of vehicles and earth the reporting period (tick box in front of the categor next boxes to indicate numbers)	moving equipment used on site during y of vehicles used and then fill in the
<ul> <li>□ Pick-up trucks ("bakkies"), either 2x4 or 4x4</li> <li>□ Lorries / trucks between 5 - 10 ton capacity</li> <li>□ Lorries / trucks larger than 10 ton capacity</li> <li>□ Bulldozer of any size</li> <li>□ Road Grader of any size</li> <li>□ Front-end loader of any size</li> <li>□ Drilling machine of any type</li> <li>□ Other (specify) tractor.</li> </ul>	How many in use 3  How many in use 2  How many in use
D. ROADS AND TRACKS (In addition to to roads/tracks made on an accompanying map in blue rehabilitated (ie. restored to their natural state) can	e ink. Roads which have been
Have new roads or tracks been made during the reporti	ng period? yes 🛛 no 🗌
If "yes" above, how long are these (in kilometres)?	1.2 km
If "yes" above are these still in use ?	yes 🛛 no 🗌
If "no" above have any of these roads or tracks been rel	nabilitated? yes  no
If "yes" above, how have you done such rehabilitation?:  Other (specify): will still be used, then left to rehabilit	
If road / track rehabilitation has taken place, how many keep rehabilitated? n/a	cilometres of roads or tracks have been
E. TRENCHES OR PITS: If new trenches of during the reporting period, please indicate these be means of illustrating them on the same map describe should be numbered and drawn as a CIRCLE in blue rehabilitated during the reporting period should be	y ticking the appropriate boxes AND by bed above. New pits or trenches made, e ink, while pits or trenches which were
Have new trenches or pits been excavated in your area du	nring the reporting period ? yes 🗌 no 🖂
If "yes" above, what are their approximate sizes or dimen	nsions ? (in metres)
	or length x width x depth s or length x width x depth
Were any holes/trenches rehabilitated during this period	of reporting? yes 🛛 (Show on map) no 🔲

# F. INFRASTRUCTURAL DEVELOPMENT

Infrastructural Developments means any offices, houses, sheds, cement slabs, or other buildings or foundations for buildings. It also includes storage tanks (for water, fuel or other substances), temporary housing such as mobile homes & caravans, prefab units and tented camps. Please report on new construction or additions to buildings you reported on, in your previous Environmental Report.

Was any NEW infrastructure established during	this period? yes no
If "yes" above, is this infrastructure: Perma	anent Temporary A combination
Prefab stru  Cement  If "other", please specify: Tented camps (geophys	Otolago tanna
Otavi or accommodated in a guesthouse in Otavi	is restactiff in
G. BOREHOLES, SAMPLE HOLE This category includes holes drilled for wate setting explosives, for testing mineral quality	r. for taking mineral or other samples for
Were any holes drilled during this period?  If "yes", for which purpose were they drilled? V S: E	yes  on
Other: RAB (specify) Total meterages: DD: 140.6 List of borehole numbers and depths: See list of l	66m Quantity DD: 1 hole
H. WATER	
Vour actimated monthly make	
Your estimated <u>monthly</u> water consumption durin	eg this period was: 143.5 cubm
Your estimated <u>monthly</u> water consumption durin  Water was obtained from: River Boreh	eg this period was: 143.5 cubm

# I. PROTECTION OF FAUNA AND FLORA

Please answer the following questions by ticking the appropriate boxes :
Question:
I ES IND LIISHIP
Were any mammals, birds, reptiles or fish killed or wounded (purposefully or accidentally) in the prospecting site or area?
Were any plants (excluding grasses) picked, damaged or removed?
That there any wood concerning in the area?
I DELATIONS WITH MITCHES
J. RELATIONS WITH NEIGHBOURS, OFFICIALS AND/OR THE
GENERAL PUBLIC
Were there any conflicts with paickhouse land
Were there any conflicts with neighbours, land-owners, Government Officials or the public during this period?
this period?
If "yes" above, what was the nature of these conflicts? (tick boxes to provide answers)
(tick doxes to provide answers)
People entered the prospecting area without permission or prior arrangement
Complaints about reduced access to water or other resources
Complaints about danger posed to livestock or wildlife
Allegations about stock-theft or poaching
Complaints about vehicle or equipment movement on access roads / tracks
Complaints about litter or other types of pollution (eg. noise, dust, etc.)
Complaints about the activities / actions of company staff
Complaints about vehicle or equipment movement on access roads / tracks Complaints about litter or other types of pollution (eg. noise, dust, etc.) Complaints about the activities / actions of company staff Allegations that the Company was not adhering to contracts / agreements
Allegations that the Company was not adhering to contracts / agreements
amaged property or installations
Allegations that gates were left open or unlocked  Other (specify):
other (specify):
If conflicts arose, indicate how these were resolved? (tick boxes)
these were resolved? (fick boxes)
Verbal agreement after discussions.
Written agreement by special contract.
Instructions to company staff to avoid conflicts
Instructions to company staff to avoid conflicts.
Court action or other third restriction to avoid future wrong-doing
Court action or other third party arbitration
Other (specify)
Any other comments or information :
J value comments of information :
See next page for more spage for worlditional
See next page for more space for "additional comments"

#### Additional comments continued .....

1.	Some 34.8 km (33 lines) were surveyed on the farms Askevold, Naueis and Altona, using the AMT
••••	survey method. Access lines (1m wide) were cut for access on foot (and for laying out survey cables).
2.	of the proof of the state of th
	AMT & IP surveys along 29 lines.
3.	Diamond drilling started on 18/06/2021 and 1 holes (end-of-month depth 140.66m) was drilled.
4.	Drill access roads and sites cleared cover 0.48 ha.
5.	Drill-hole list (with position and end-of-month depth) is attached.
_	

I declare that the information provided in this Environmental Report is, to the best of my knowledge, accurate and correct.

Votorantim Metals Namibia (Pty) Ltd

16050011

Votorantim Metals Namibia (Pty) Ltd Southport, Office 9B, Hosea Kutako Drive PO Box 97957, Maerua Park Windhoek, Namibia Telephone Nr: +264 61 221016 Facsimile Nr: +264 61 231083

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NO OF HOLES	HOLE NO.	LATITUDE	LONGITUDE	TYPE ( DD, RAB, RC)	DEPTH
1	NANAND000016	7812399	763806	Diamond drilling (core)	140.66m

4	111_1_		
1	Hole	Total meterage	140.66

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- The map shall be used to indicate the following:
- areas where prospecting has taken place,

roads or tracks made and/or used.

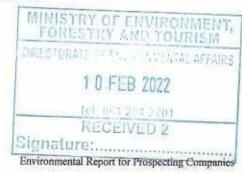
- houses and other infrastructure erected.
- excavations or other scars which have been rehabilitated,
- conflict areas, etc ....
- 4. It is recommended (but not compulsory) that Prospecting Companies attach photographs to their report, which visually illustrate the activities described in their report.
- 5. Failure to submit an Environmental Report shall constitute a breach of the Environmental Contract, which could result in steps taken against the Prospecting Company.
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1

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For Attention: Saima S. Angula



# A. COMPANY DETAILS AND REPORTING PERIOD:

Name of Company: Votorantim Metals Namibia (Pty) Ltd
Address of Company: 9B South Port Office Park, Hosea Kutako Avenue, P O Box 97957, Maerua Park, Windhoek, Namibia
Tel: 061-221016 Fax number: 061-231083 E-mail: efreyer@iway.na
Name of person compiling report: E E Freyer
Reference number(s) of prospecting area / block / license: EPL 6927
Geographical location of area / block / license: Grootfontein District, Otjozondjupa Region
This report is for the period of : (tick the relevant box and fill in the year)    January - June         July - December 2021  Other (please specify)
B. POLLUTION AND WASTE  Has all domestic refuse (eg. Household waste, bottles, tins, paper, plastic, etc) been removed from the prospecting area?  yes  no
If "yes" above, specify the site where such refuse has been deposited: Otavi municipal waste-dump
How often is refuse removed to the site mentioned above? : every week  every two weeks  every three weeks  once a month  at irregular intervals
f refuse has not been removed, where has it been dumped? Otavi municipal waste disposal site
As far as litter is concerned, would you describe your prospecting area as: Very clean Reasonably clean Filthy
If your prospecting area is littered with refuse, please indicate how you intend cleaning it up:  Refuse and litter found in the areas that we work in is collected and removed to municipal waste-dump
Are toilets provided for all staff employed by the prospecting company : yes 🛭 no 🗌
If "yes" above, are they: Flush toilets
If chemical toilets are used, how are old chemicals disposed of :  Deposited in evaporation ponds   Buried on site   Deposited in a municipal refuse dump   Other (specify)

#### C. **VEHICLES AND EARTHMOVING EQUIPMENT**

Indicate the types and number of vehicles and ea the reporting period (tick box in front of the categories next boxes to indicate numbers)	rthmoving equipment used on site during gory of vehicles used and then fill in the
Pick-up trucks ("bakkies"), either 2x4 or 4x4	**************************************
Lorries / trucks between 5 - 10 ton capacity	How many in use up to 4
Lorries / trucks larger than 10 ton capacity	How many in use up to 2
Bulldozer of any size	How many in use
Road Grader of any size	How many in use
Front-end loader of any size	How many in use
Drilling machine of any type	How many in use 2 (DD)
Other (specify) tractor	How many in use I
D. ROADS AND TRACKS (In addition to roads/tracks made on an accompanying map in b rehabilitated (ie. restored to their natural state) ca	lue ink. Roads which have been
Have new roads or tracks been made during the report	rting period ? yes 🛛 no 🗌
If "yes" above, how long are these (in kilometres)?	3.1 km
	X
If "yes" above are these still in use ?	yes 🗵 no 🗌
If "no" above have any of these roads or tracks been r	rehabilitated? yes 🔲 no 🛛
If "yes" above, how have you done such rehabilitation?  Other (specify): will still be used, then left to rehabilitation?	: ripping  raking  sweeping
If road / track rehabilitation has taken place, how many rehabilitated ? n/a	kilometres of roads or tracks have been
E. TRENCHES OR PITS: If new trenches during the reporting period, please indicate these means of illustrating them on the same map described by the numbered and drawn as a CIRCLE in birehabilitated during the reporting period should be	by ticking the appropriate boxes AND by ribed above. New pits or trenches made, we ink, while pits or trenches which were
Have new trenches or pits been excavated in your area	during the reporting period? yes 🗌 no 🛛
If "yes" above, what are their approximate sizes or dim-	ensions ? (in metres)
	es or
Were any holes/trenches rehabilitated during this period	d of reporting ? yes 🗵 (Show on map) no 🔲

## F. INFRASTRUCTURAL DEVELOPMENT

Infrastructural Developments means any offices, houses, sheds, cement slabs, or other buildings or foundations for buildings. It also includes storage tanks (for water, fuel or other substances), temporary housing such as mobile homes & caravans, prefab units and tented camps. Please report on new construction or additions to buildings you reported on, in your previous Environmental Report.

Was any NEW infrastructure established durin If "yes" above, is this infrastructure: Peri	ng this period? yes no no manent Temporary A combination
Prefab st	=
	nt slabs   Foundations   Other    sysical contractors' staff); otherwise staff is resident in
G. BOREHOLES, SAMPLE HOL This category includes holes drilled for wa setting explosives, for testing mineral qual	ter, for taking mineral or other samples, for
Were any holes drilled during this period ? If "yes", for which purpose were they drilled ?	yes ⊠ no ☐ Water ☐ depth ☐ ☐ Quantity ☐ ☐ Sampling ☑ depth up to 596.73 m Quantity 14 DD Explosives ☐ depth ☐ ☐ Quantity ☐ ☐
Other: n/a Total meterages: 5507.61m Quantic List of borehole numbers and depths: See attach hole locality maps	
H. WATER	
Your estimated <u>monthly</u> water consumption dur  Water was obtained from: River Bor	ring this period was: 3,030 cubm  ehole⊠ Dam □ Water Affairs □ Other ⊠
Please estimate the percentage of water used for Human consumption 4 %	
Toilets	Were there any accidents which caused a loss of water? yes □ no √
Dust control	If "yes", please give details
Recreation	

# I. PROTECTION OF FAUNA AND FLORA

ease answer the following questions by ticking the appropriate boxes:
restion:  Yes No Unsure  are any mammals, birds, reptiles or fish killed or wounded  arposefully or accidentally) in the prospecting site or area?  For any plants (excluding grasses) picked, damaged or removed?
RELATIONS WITH NEIGHBOURS, OFFICIALS AND/OR THE ENERAL PUBLIC
ere there any conflicts with neighbours, land-owners, Government Officials or the public during speriod?
"yes" above, what was the nature of these conflicts? (tick boxes to provide answers)
ople entered the prospecting area without permission or prior arrangement mplaints about reduced access to water or other resources mplaints about danger posed to livestock or wildlife egations about stock-theft or poaching mplaints about vehicle or equipment movement on access roads / tracks mplaints about litter or other types of pollution (eg. noise, dust, etc.) mplaints about the activities / actions of company staff egations that the Company was not adhering to contracts / agreements egations that the Company damaged property or installations egations that gates were left open or unlocked her (specify):
conflicts arose, indicate how these were resolved ? (tick boxes)
rbal agreement after discussions.  itten agreement by special contract.  tructions to company staff to avoid conflicts.  impany rectified its mistakes and undertook to avoid future wrong-doing  iurt action or other third party arbitration.  ier (specify).
y other comments or information :
next page for more space for "additional comments"

#### Additional comments continued .....

The main exploration activity from July to December 2021 was core drilling.
Drill access tracks and drill-sites (in total 1.48ha) were cleared.
Some 0.78 ha access tracks in bush-encroached areas were cleared for drilling access (3.1 km).
The access tracks were made by hand, which left the soil undisturbed. This will allow grass to re-grow
naturally in the 2021/22 rainy season. Started gravelling main access track to farm Neuwerk.
2. Fourteen drill-sites were cleared, amounting to a total area of 0.7 ha. These tracks and drill-sites
are now also available for productive use to the landowner.
3. Fourteen sumps (1.5m x 1.5m x 0.5m) were dug for water recycling purposes during drilling and
closed after the drilling was completed.
Attachments to this report:
A drill-hole list is appended that gives the exact location coordinates, drill-hole orientation and
drill-hole depths of 4 core (diamond) drill-holes drilled (5507.61m).
Drill-site Rehabilitation Report for the second half of 2021.
***************************************

I declare that the information provided in this Environmental Report is, to the best of my knowledge, accurate and correct.

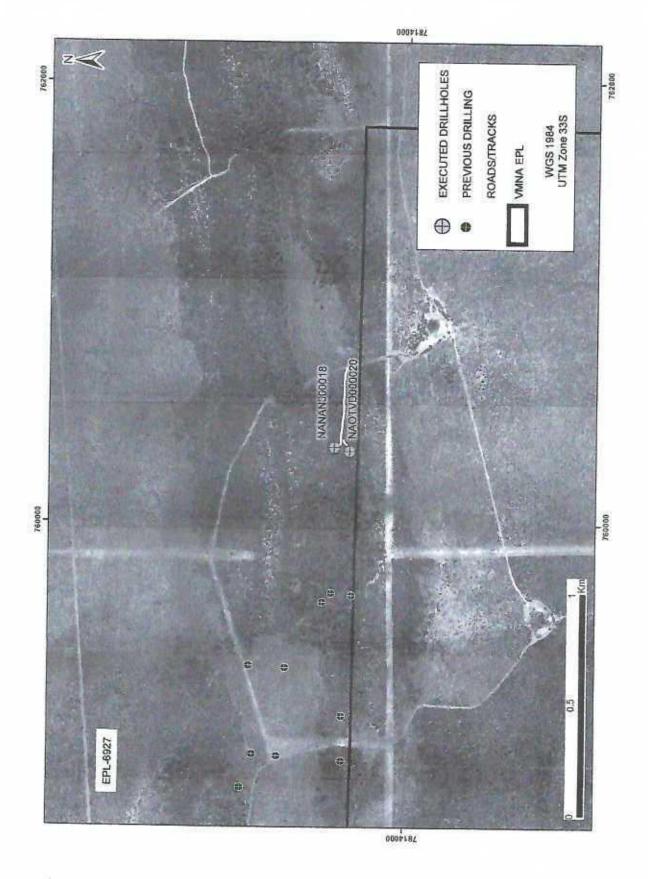
Votorantim Metals Namibia (Pty) Ltd

Votorantim Metals Namibia (Pty) Ltd.
Southport, Office 9B, Hosea Kutako Drive
PO Box 97957, Maerua Park
Windhoek, Namibia
Telephone Nr: +264 61 221016
Facsimile Nr: +264 61 231083

EPL 6927 - 2021-H2

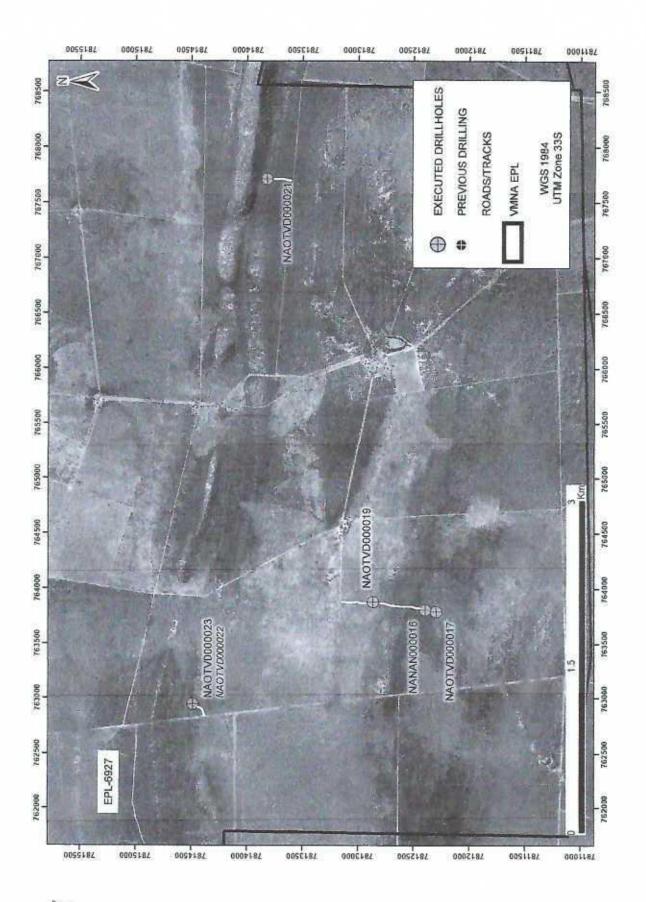
NO OF HOLES	HOLE NO.	LATITUDE	LONGITUDE	TYPE ( DD, RAB, RC)	DEPTH
1	NANAND000017	7812299 N	763712 E	Diamond drilling (core)	461.68m (E,O,H)
2	NANAND000018	7814327 N	760345 E	Diamond drilling (core)	308.67m (E.O.H)
3	NANAND000019	7812866 N	763879 E	Diamond drilling (core)	426.49m (E.O.H)
4	NANAND000020	7814257 N	760328 E	Diamond drilling (core)	314.67m (E.O.H)
5	NANAND000021	7813824 N	767716 E	Diamond drilling (core)	596.73m (E.O.H)
6	NANAND000022X	7814480 N	762948 E	Diamond drilling (core)	83.37m (E.O.H)
7	NANAND000023	7814485 N	762947 E	Diamond drilling (core)	422.67m (E.O.H)
8	NANAND000024	7813592 N	770973 E	Diamond drilling (core)	452.65m (E.O.H)
9	NANAND000025	7814593 N	757353 E	Diamond drilling (core)	416.77m (E.O.H)
10	NANAND000026	7814454 N	757344 E	Diamond drilling (core)	425.49m (E.O.H)
11	NANAND000027	7814722 N	756367 E	Diamond drilling (core)	341.67m (E.O.H)
12	NANAND000028	7814612 N	757358 E	Diamond drilling (core)	311.67m (E.O.H)
13	NANAND000029	7814350 N	755341 E	Diamond drilling (core)	468.00m (E.O.H)
14	NANAND000030	7814512 N	755262 E	Diamond drilling (core)	251.67m (E.O.H)
15	NANAND000031	7814512 N	755262 E	Diamond drilling (core)	167.47m current
16	NANAND000032	7814719 N	756830 E	Diamond drilling (core)	302.47m (E.O.H.

16 Holes	Total meterage	5752.14	

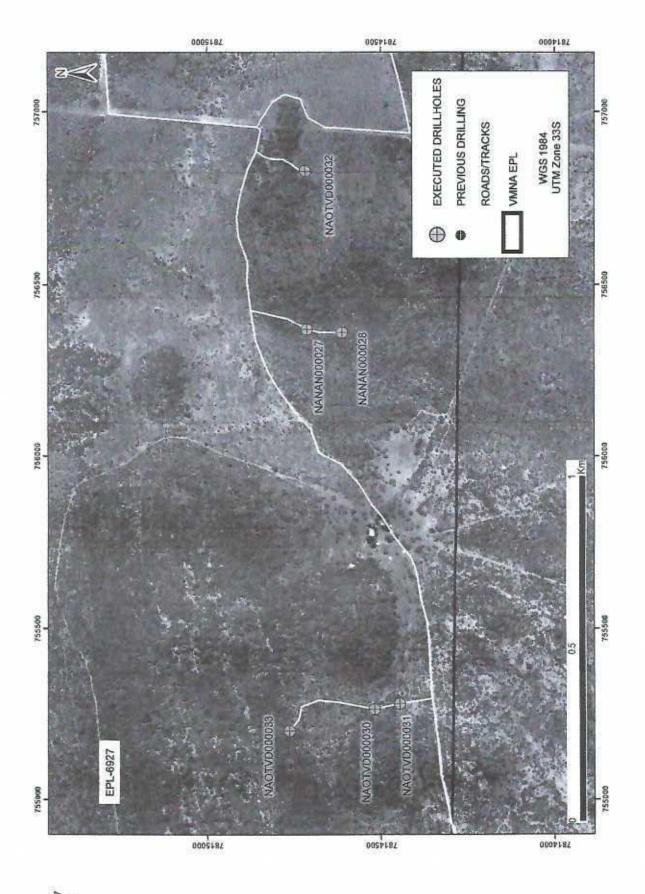


EPL 6927 (DBL East)

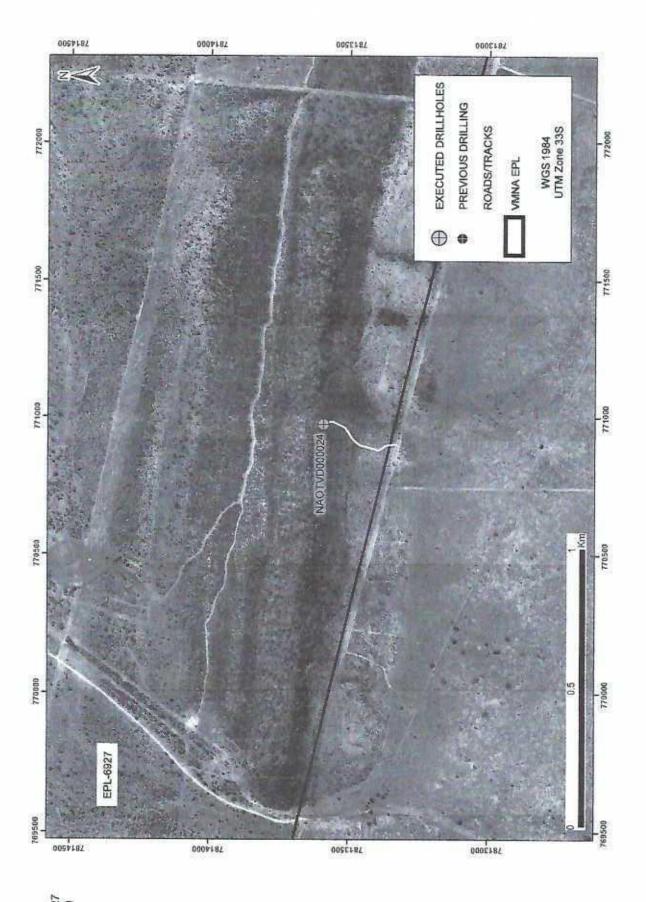
EPL 6927 (DBL West)



(HBPS)



EPL 6927 (HOHT)



EPL 6927 (ASKS)

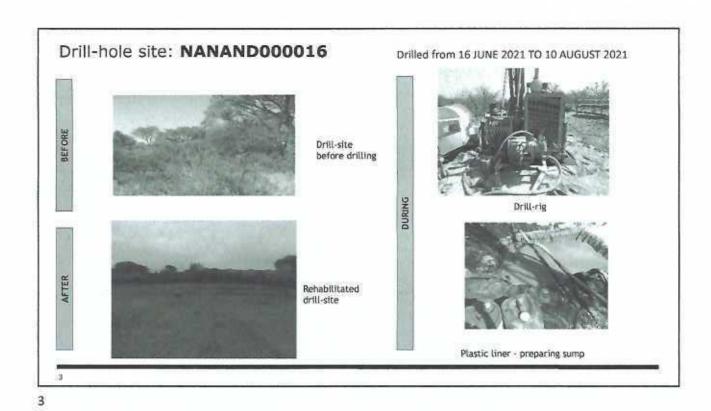




#### Environmental Report - Drilling Rehabilitation

- This report aims to show the access preparation and drill sites used for drilling in three phases: Before (untouched environment), during the execution (drilling works) and post activities (romewal of equipment, collection of fluids and greases as well as cleaning and rehabilitation of the site).
- For opening of accesses and sites, priority was given to places with less vegetation (bush), sparing the medium to large trees. Access tracks were opened manually where possible, in order to avoid use of machinery that could remove the fertile soil cover and generate irregularities in the natural terrain.
- The sites followed the standard requirements of the company, with demarcation of boundaries by barricading tape, bunding (plastic protection) under the rig to avoid contamination of the soil by oils and greases, toilet placed near the rig for use by the survey team, shady tent to lunch and rest.
- Products added to water to increase viscosity are biodegradable and non-contaminating. All return tanks (sumps) were closed, top grease material was collected and deposited at the Otavi waste disposal site.
- The recovery of vegetation will occur gradually and naturally, through grass seeds that are in the soil and should start from the arrival of the rainy season (December to February). Access tracks will be maintained for future exploration activities. It should be noted that all farmers are aware of the recovery methods used and are not opposed to these in any way.
- The owners were previously notified of the drilling activities, and according to the company's surface access agreement, they were compensated for the drill access tracks, the of water for drilling, and the use of fire wood, water and permission to camp by the drilling team.
- · Chemical toilets were used at the drilling and camping sites

- 1



Drill-hole site: NANAN000017

Drill-site

Drill-site

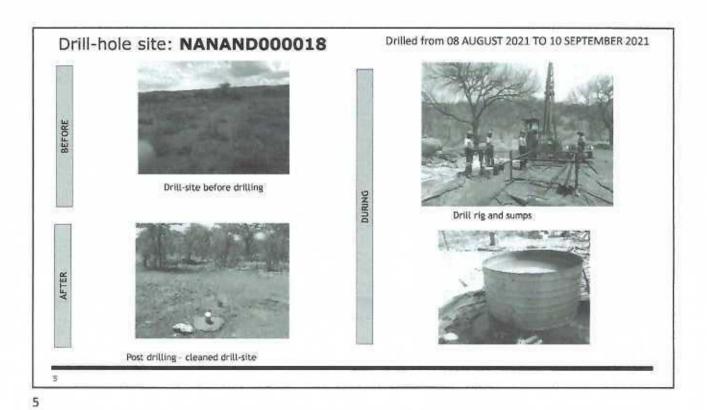
Cleaned drill-site

Drill-site

Cleaned drill-site

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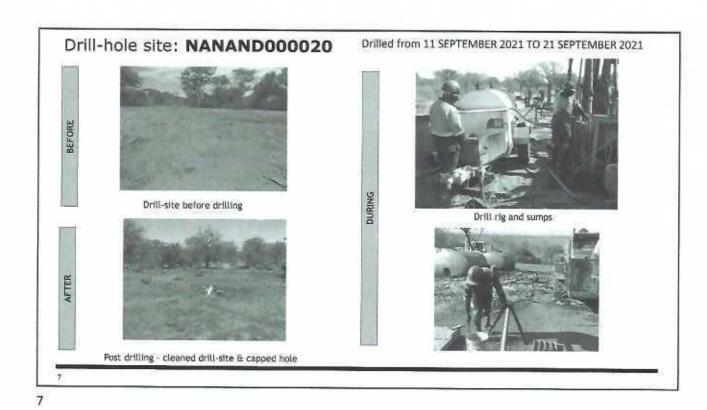


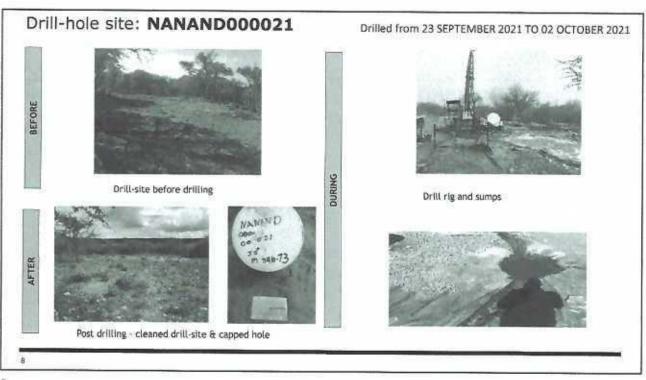
Drill-hole site: NANANDOOOO19

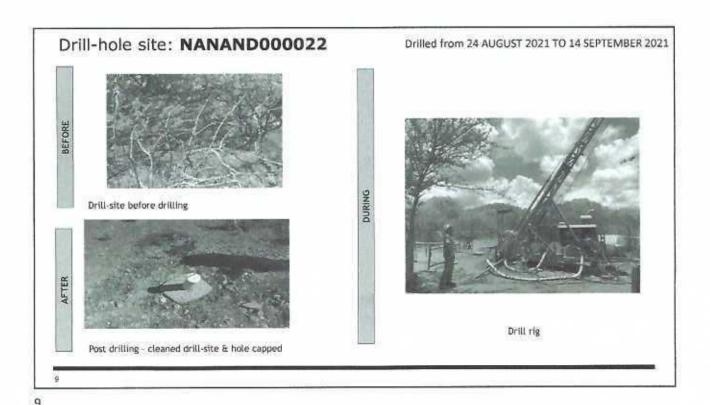
Drill-site before drilling

Drill rig, sumps & water tanks

Post drilling - cleaned drill-site & capped hole





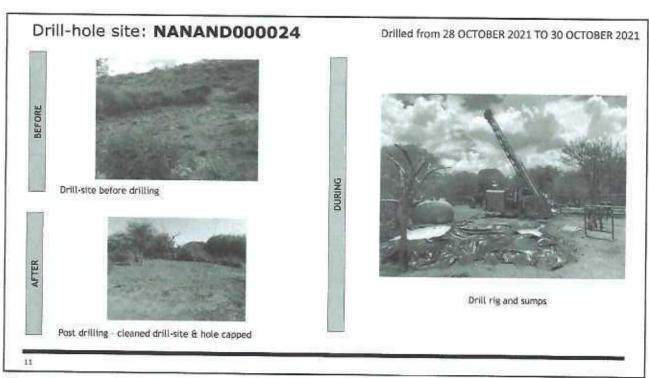


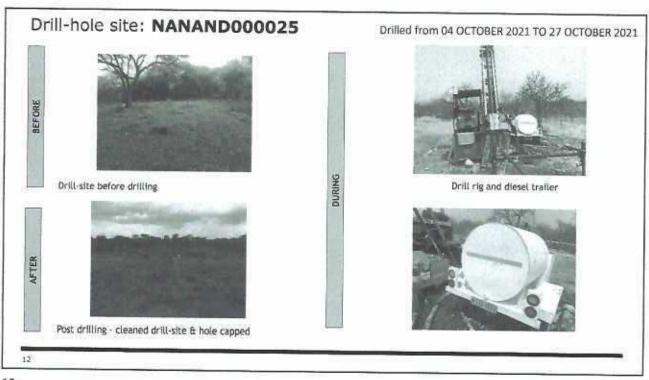
Drill-hole site: NANANDO00023

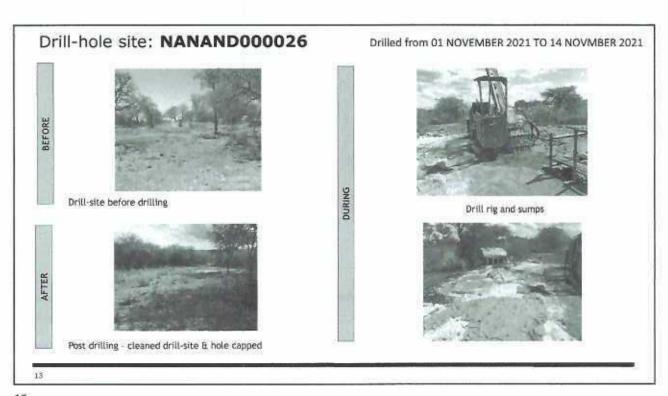
Drilled from 15 SEPTEMBER 2021 TO 27 SEPTEMBER 2021

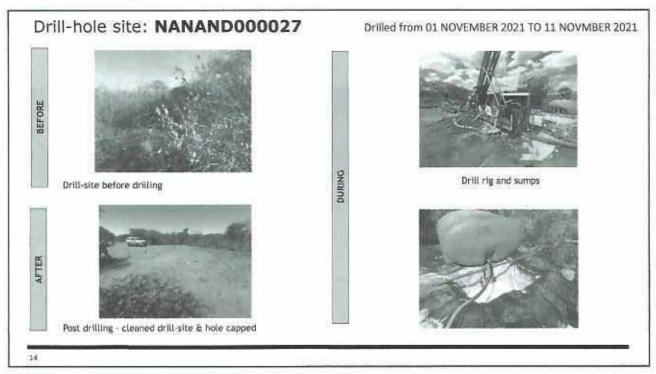
Drill rig and sumps

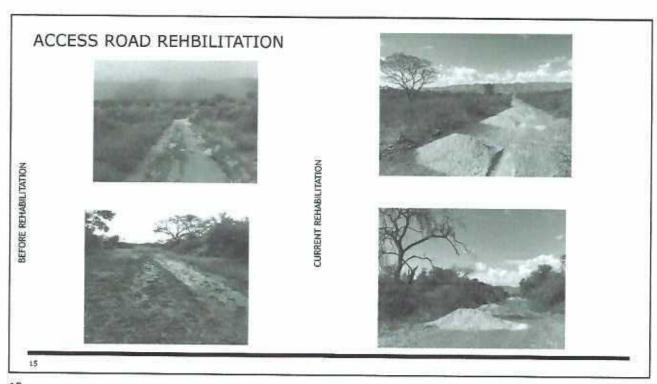
Post drilling - cleaned drill-site & hole capped

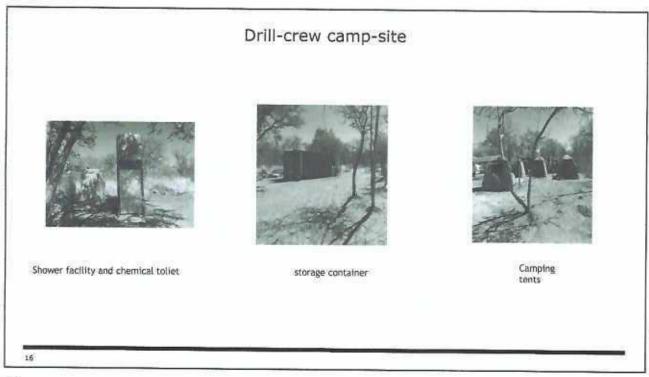












DIRECTORATE OF ENVIRONMENTAL AFF

19 APR 2021

# **ENVIRONMENTAL REPORT (ER)** (Prospecting Companies)

#### INSTRUCTIONS:

1. An Environmental Report shall be submitted to the Ministry of Environment and Tourism (MET) biannually. Jan to Jun and Jun to December: Please indicate:

#### 01 July to 31 December 2020

- 2. This form shall be the minimum reporting format. Prospecting Companies are expected to attach a map of their prospecting area to this report. Prospecting Companies are welcome to attach any other information they like, such as copies of new agreements, letters of explanation, aerial photographs, or anything else of interest. MINISTRY OF ENVIRONME FORESTRY AND TOURISE
- The map shall be used to indicate the following:
- areas where prospecting has taken place,

roads or tracks made and/or used,

houses and other infrastructure erected,

excavations or other scars which have been rehabilitated ignature:

conflict areas, etc....

- 4. It is recommended (but not compulsory) that Prospecting Companies attach photographs to their report, which visually illustrate the activities described in their report.
- 5. Failure to submit an Environmental Report shall constitute a breach of the Environmental Contract, which could result in steps taken against the Prospecting Company.
- 6. All information contained in the Environmental Report shall be treated as confidential
- 7. The Prospecting Company shall ensure that all the information recorded in the Environmental Report is, to their best knowledge, accurate and correct.

1

## Completed Environmental Reports should be sent to:

The Permanent Secretary Ministry of Environment and Tourism Private Bag 13306 Windhoek

For Attention: Saima S. Angula

## **COMPANY DETAILS AND REPORTING PERIOD:**

Name of Company: Votorantim Metals Namibia (Pty) Ltd
Address of Company: 9B South Port Office Park, Hosea Kutako Avenue, P O Box 97957, Maerua Park, Windhoek, Namibia
Tel: 061-221016 Fax number: 061-231083 E-mail: efreyer@iway.na
Name of person compiling report: E E Freyer
Reference number(s) of prospecting area / block / license: EPL 6927
Geographical location of area / block / license: Grootfontein District, Otjozondjupa Region
This report is for the period of: (tick the relevant box and fill in the year)  ☐ January - June ☐ ☐  ☐ July - December 2020  Other (please specify)
B. POLLUTION AND WASTE
Has all domestic refuse (eg. Household waste, bottles, tins, paper, plastic, etc) been removed from the prospecting area?  yes   no
If "yes" above, specify the site where such refuse has been deposited: n/a
How often is refuse removed to the site mentioned above? : every week  every two weeks  every three weeks  once a month  at irregular intervals
If refuse has not been removed, where has it been dumped? Otavi municipal waste disposal site
As far as litter is concerned, would you describe your prospecting area as:  Very clean  Reasonably clean  Filthy
If your prospecting area is littered with refuse, please indicate how you intend cleaning it up:  Refuse and litter found in the areas that we work in is collected and removed to municipal waste-dump
Are toilets provided for all staff employed by the prospecting company : yes  no
If "yes" above, are they: Flush toilets  Chemical Toilets  Pit Latrines  Other
If chemical toilets are used, how are old chemicals disposed of:  Deposited in evaporation ponds  Buried on site  Deposited in a municipal refuse dump  Other (specify)

## C. VEHICLES AND EARTHMOVING EQUIPMENT

The state of the s	
Indicate the types and number of vehicles and ea the reporting period (tick box in front of the categories next boxes to indicate numbers)	rthmoving equipment used on site during gory of vehicles used and then fill in the
Pick-up trucks ("bakkies"), either 2x4 or 4x4	Hom was to the
Lorries / trucks between 5 - 10 ton capacity	How many in use 6
Lorries / trucks larger than 10 ton capacity	How many in use 2
Bulldozer of any size	How many in use 1
Road Grader of any size	How many in use
Front and leader of any size	How many in use
Front-end loader of any size	How many in use
Drilling machine of any type	How many in use 1
Other (specify)	How many in use
D. ROADS AND TRACKS (In addition to roads/tracks made on an accompanying map in b rehabilitated (ie. restored to their natural state) ca	lue ink Roade which have been
Have new roads or tracks been made during the repor	rting period ? yes 🛛 no 🗌
If "yes" above, how long are these (in kilometres)?	171
Jes 2007c, now long are these (in knometres) ?	1.5 km
If "yes" above are these still in use ?	
it yes above are these sun in use?	yes 🛛 no 🗌
If "no" above have any of the	
If "no" above have any of these roads or tracks been r	ehabilitated? yes 🗌 no 🖂
If "yes" above, how have you done such rehabilitation?  Other (specify): will still be used, then left to rehability.	litate naturally
If road / track rehabilitation has taken place, how many rehabilitated? n/a	kilometres of roads or tracks have been
E. TRENCHES OR PITS: If new trenches during the reporting period, please indicate these means of illustrating them on the same map described be numbered and drawn as a CIRCLE in bit rehabilitated during the reporting period should be	by ticking the appropriate boxes AND by ribed above. New pits or trenches made, ue ink, while pits or trenches which were a scratched out in RED ink.
Have new trenches or pits been excavated in your area of	luring the reporting period? ves no
If "yes" above, what are their approximate sizes or dime	ensions ? (in metres)
1. AMT / IP: 2379 holes with dimensions: 0.2m length x 0. 2. Soil sampling: 908 holes with dimensions: 0.15m length 3. Trench / pit No.3: Size / dimensions: Cubic metre 4. Trench / pit No.4: Size / dimensions: Cubic metre	x 0.15m width x 0.2m depth
Were any holes/trenches rehabilitated during this period	of reporting? yes 🛛 (Show on map) no 🔲

#### F. INFRASTRUCTURAL DEVELOPMENT

Infrastructural Developments means any offices, houses, sheds, cement slabs, or other buildings or foundations for buildings. It also includes storage tanks (for water, fuel or other substances), temporary housing such as mobile homes & caravans, prefab units and tented camps. Please report on new construction or additions to buildings you reported on, in your previous Environmental Report.

Wes and MEWILL A	
Was any NEW infrastructure established durin If "yes" above, is this infrastructure: Peri	ng this period? yes no no
if yes above, is this intrastructure: Peri	manent  Temporary  A combination
Prefab st	
	nt slabs
resident in Otavi or accommodated in a guesthous	re in Otavi
	o m o turi
G. BOREHOLES, SAMPLE HOL	ES OR OTHER DRILLING
This category includes holes drilled for we	ter, for taking mineral or other samples, for
setting explosives, for testing mineral qual	liter, for taking mineral or other samples, for
estang expresives, for testing numeral qual	nty, or any otner purpose.
Were any holes drilled during this period?	yes ⊠ no □
If "yes", for which purpose were they drilled?	Water depth Quantity Quantity
	Sampling depth up to 566.81 m Quantity 11
	Explosives depth   Quantity
	Explosives depth Quantity Quantity
Other: n/a (specify) Total meterages: DD: 4449	
Other: n/a (specify) Total meterages: DD: 4449. List of borehole numbers and depths: See list of	.43m Quantify: Diamond (core): 11 drill holes
Other: n/a (specify) Total meterages: DD: 4449. List of borehole numbers and depths: See list of	.43m Quantify: Diamond (core): 11 drill holes
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List of borenole numbers and depths: See list of	.43m Quantify: Diamond (core): 11 drill holes
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H. WATER	.43m Quantity: Diamond (core): 11 drill-holes f Diamond (core) drill-holes attached
H. WATER	.43m Quantity: Diamond (core): 11 drill-holes f Diamond (core) drill-holes attached
H. WATER	.43m Quantity: Diamond (core): 11 drill-holes f Diamond (core) drill-holes attached
H. WATER  Your estimated monthly water consumption dur	.43m Quantity: Diamond (core): 11 drill-holes f Diamond (core) drill-holes attached  ring this period was: 376 cubm
H. WATER  Your estimated monthly water consumption dur  Water was obtained from: River Bore	.43m Quantity: Diamond (core): 11 drill-holes  f Diamond (core) drill-holes attached  ring this period was: 376 cubm  chole Dam Water Affairs Other
H. WATER  Your estimated monthly water consumption dur  Water was obtained from: River Bore  Please estimate the percentage of water used for	.43m Quantity: Diamond (core): 11 drill-holes  f Diamond (core) drill-holes attached  ring this period was: 376 cubm  chole Dam Water Affairs Other
H. WATER  Your estimated monthly water consumption dur  Water was obtained from: River Bore  Please estimate the percentage of water used for Human consumption 8 %	.43m Quantity: Diamond (core): 11 drill-holes  f Diamond (core) drill-holes attached  ring this period was: 376 cubm  ehole Dam Water Affairs Other or the following activities during this period:
H. WATER  Your estimated monthly water consumption dur  Water was obtained from: River Bore Please estimate the percentage of water used for Human consumption 8 %  Toilets 1 %	.43m Quantity: Diamond (core): 11 drill-holes  f Diamond (core) drill-holes attached  ring this period was: 376 cubm  ehole Dam Water Affairs Other or the following activities during this period:
H. WATER  Vour estimated monthly water consumption dur  Vater was obtained from: River Bore  Please estimate the percentage of water used for Human consumption 8 %  Toilets 1 %  Prospecting activities	.43m Quantity: Diamond (core): 11 drill-holes  f Diamond (core) drill-holes attached  ring this period was: 376 cubm  chole Dam Water Affairs Other or the following activities during this period:  Were there any accidents which caused
H. WATER  Your estimated monthly water consumption dur  Nater was obtained from: River Bore Please estimate the percentage of water used for Human consumption 8 %  Toilets 1 %  Prospecting activities D %  Washing vehicles & equipment 1 %	.43m Quantity: Diamond (core): 11 drill-holes  f Diamond (core) drill-holes attached  ring this period was: 376 cubm  ehole Dam Water Affairs Other or the following activities during this period:
H. WATER  Your estimated monthly water consumption dur  Nater was obtained from: River Bore  Please estimate the percentage of water used for Human consumption 8 %  Toilets 1 %  Prospecting activities Dust control 9 %	a.43m Quantity: Diamond (core): 11 drill-holes  f Diamond (core) drill-holes attached  ring this period was: 376 cubm  chole □ Dam □ Water Affairs □ Other □  or the following activities during this period:  Were there any accidents which caused a loss of water? yes □ no √
H. WATER  Your estimated monthly water consumption dur  Water was obtained from: River Bore  Please estimate the percentage of water used for the second properties 1 %  Prospecting activities Brospecting activities Washing vehicles & equipment 1 %  Dust control Brospecting of water used for the second properties because of water used for the second properties because of water used for the second properties activities Brospecting activities Brospecting activities Brospecting used by the second properties and depths: See list of the second properties and depths are second proper	a.43m Quantity: Diamond (core): 11 drill-holes  f Diamond (core) drill-holes attached  ring this period was: 376 cubm  ehole □ Dam □ Water Affairs □ Other □  or the following activities during this period:  Were there any accidents which caused a loss of water? yes □ no √  If "yes", please give details
H. WATER  Your estimated monthly water consumption dur  Water was obtained from: River Bore  Please estimate the percentage of water used for the second sumption 8 %  Toilets 1 %  Prospecting activities 1 %  Washing vehicles & equipment 1 %  Dust control 1 %  Building activities 1 %	a.43m Quantity: Diamond (core): 11 drill-holes  f Diamond (core) drill-holes attached  ring this period was: 376 cubm  chole □ Dam □ Water Affairs □ Other □  or the following activities during this period:  Were there any accidents which caused a loss of water? yes □ no √
H. WATER  Your estimated monthly water consumption dur  Water was obtained from: River Bore  Please estimate the percentage of water used for the second sec	a.43m Quantity: Diamond (core): 11 drill-holes  f Diamond (core) drill-holes attached  ring this period was: 376 cubm  ehole □ Dam □ Water Affairs □ Other □  or the following activities during this period:  Were there any accidents which caused a loss of water? yes □ no √  If "yes", please give details
H. WATER  Your estimated monthly water consumption dur  Water was obtained from: River Bore  Please estimate the percentage of water used for the second sec	a.43m Quantity: Diamond (core): 11 drill-holes  f Diamond (core) drill-holes attached  ring this period was: 376 cubm  ehole □ Dam □ Water Affairs □ Other □  or the following activities during this period:  Were there any accidents which caused a loss of water? yes □ no √  If "yes", please give details

#### I. PROTECTION OF FAUNA AND FLORA

Please answer the following questions by ticking the appropriate boxes :
Question: Were any mammals, birds, reptiles or fish killed or wounded (purposefully or accidentally) in the prospecting site or area?  Were any plants (excluding grasses) picked, damaged or removed?  Was there any wood collecting in the area?
J. RELATIONS WITH NEIGHBOURS, OFFICIALS AND/OR THE GENERAL PUBLIC
Were there any conflicts with neighbours, land-owners, Government Officials or the public during this period?  Yes No 🖂
If "yes" above, what was the nature of these conflicts? (tick boxes to provide answers)
People entered the prospecting area without permission or prior arrangement  Complaints about reduced access to water or other resources  Complaints about danger posed to livestock or wildlife  Allegations about stock-theft or poaching  Complaints about vehicle or equipment movement on access roads / tracks  Complaints about litter or other types of pollution (eg. noise, dust, etc.)  Complaints about the activities / actions of company staff  Allegations that the Company was not adhering to contracts / agreements  Allegations that gates were left open or unlocked  Other (specify):
If conflicts overs in direct by the
Verbal agreement after discussions.  Written agreement by special contract.  Instructions to company staff to avoid conflicts.  Company rectified its mistakes and undertook to avoid future wrong-doing.  Court action or other third party arbitration.  Other (specify).
Any other comments or information :
See next page for more space for "additional comments"

#### Additional comments continued .....

1. Some 38.4 km (25 lines) were surveyed on the farms Neuwerk, Hartebeestpoort, Askevold and	
Ondjondjo, using the AMT and IP survey methods. Lines (1m wide) were cut for access on foot	
(to lay out geophysical survey cables).	••••
2. Some 2379 small holes (0.2 x 0.2 x 0.2m) were dug for electrodes and were closed after the	•••
AMT & IP surveys along 25 lines (38.4km).	
3. Some 908 soil sampling holes (0.2 x 0.2 x 0.2m) were dug and closed after sampling (0.5kg).	
4. Diamond drilling of 11 holes ((total meterage 4449.43m, max depth 566.81m) were drilled between	
02/07/2020 and 16/12/2020.	
Drill-hole lists (with positions and depths) and drilling plans are attached	
Attachments to this report:	•••
1. A drill-hole list is appended that gives the exact location coordinates, drill-hole orientation and	•••
drill-hole depths of the 11 core (diamond) holes.	
2. A map that shows the locations of all drill-holes on farm Neuwerk.	•••
3. Drill-site Rehabilitation Report for 2020.	

I declare that the information provided in this Environmental Report is, to the best of my knowledge, accurate and correct.

Votorantim Metals Namibia (Pty) Ltd Southport, Office 9B, Hosea Kutako Drive PO Box 97957, Maerua Park Windhoek, Namibia Telephone Nr: +264 61 221016 Facsimile Nr: +264 61 231083

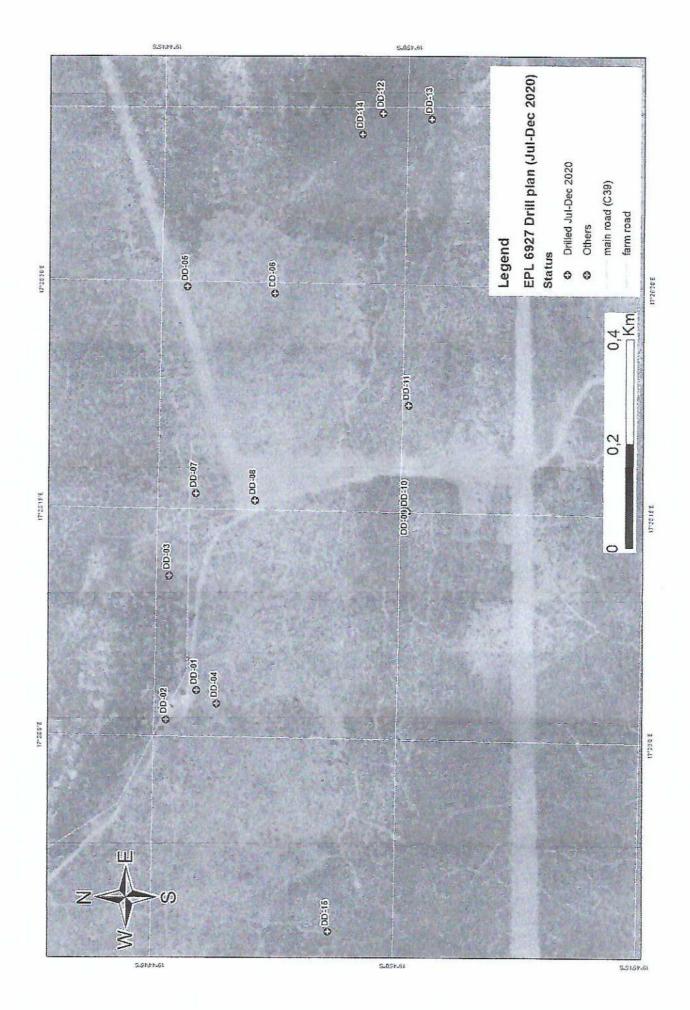
Votorantim Metals Namibia (Pty) Ltd

Date Date

LIST OF DIAMOND HOLES - EPL 6927 - JUL - DEC 2020

HOLE NO.	LATITUDE (WGS84 Zone K)	LONGITUDE (WGS84 Zone K)	AZIM.	INCL.	ТУРЕ	DEPTH (E.O.H.)
NANAND000005	7814700	759354	360°	-65°	Diamond (core)	200.80m
NANAND000006	7814537	759344	360°	-65°	Diamond (core)	300.00m
NANAND000007	7814683	758954	360°	-65°	Diamond (core)	230.80m
NANAND000008	7814572	758945	360°	-70°	Diamond (core)	332.77m
NANAND000009	7814284	758923	360°	-65°	Diamond (core)	560.70m
NANAND000010	7814282	758924	360°	-85°	Diamond (core)	500.77m
NANAND000011	7814282	759127	360°	-70°	Diamond (core)	566.81m
NANAND000012	7814333	759685	360°	-70°	Diamond (core)	422.72m
NANAND000013	7814240	759675	360°	-70°	Diamond (core)	560.72m
NANAND000014	7814372	759646	360°	-58°	Diamond (core)	353.62m
NANAND000015	7814436	758121	360°	-70°	Diamond (core)	419.72m

4449.43

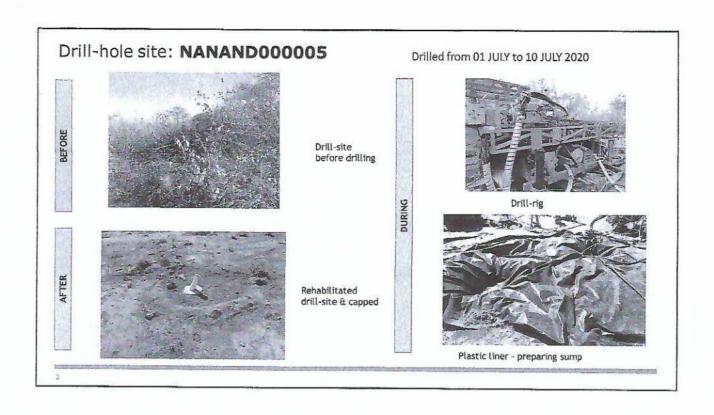


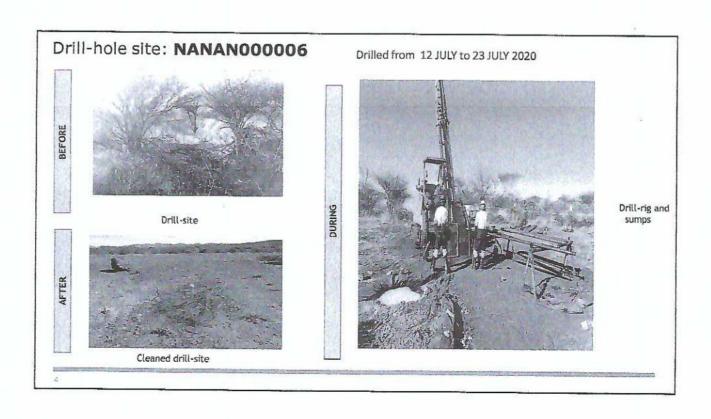


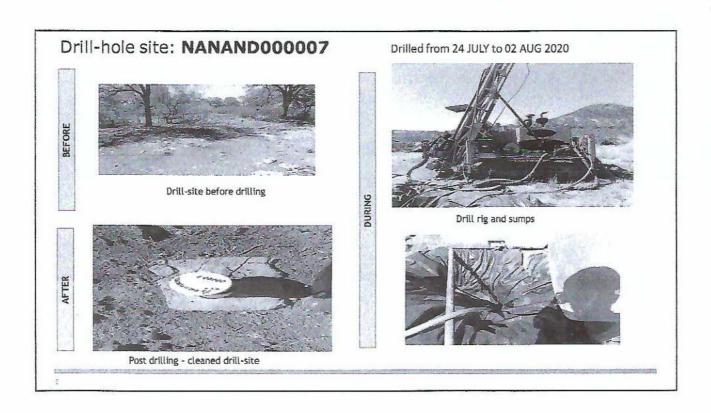


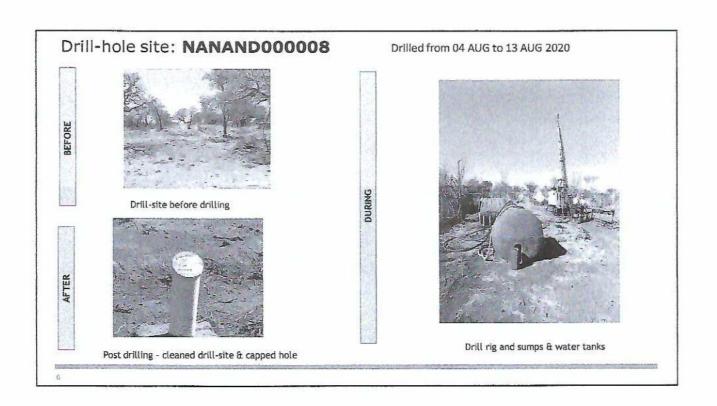
#### Environmental Report - Drilling Rehabilitation

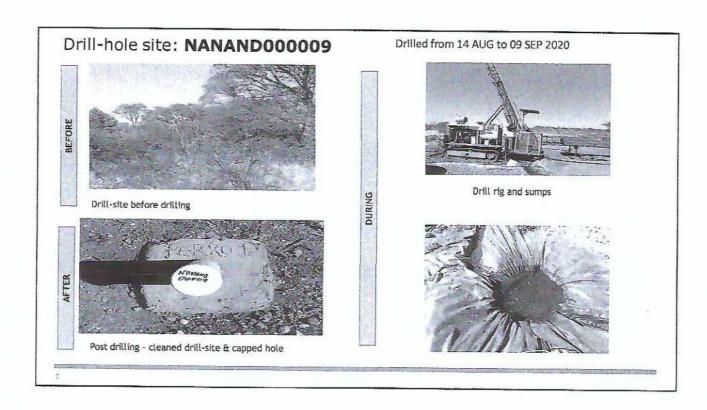
- This report aims to show the access preparation and drill sites used for drilling in three phases: Before (untouched environment), during the execution (drilling works) and post-activities (removal of equipment, collection of fluids and greases as well as cleaning and rehabilitation of the site).
- For opening of accesses and sites, priority was given to places with less vegetation (bush), sparing the medium to large trees. Access tracks were opened manually where possible, in order to avoid use of machinery that could remove the fertile soil cover and generate irregularities in the natural terrain.
- The sites followed the standard requirements of the company, with demarcation of boundaries by barricading tape, bunding (plastic protection) under the rig to avoid contamination of the soil by oils and greases, toilet placed near the rig for use by the survey team, shady tent to lunch and rest.
- Products added to water to increase viscosity are biodegradable and non-contaminating. All return tanks (sumps) were closed, top grease material was collected and deposited at the Otavi waste disposal site.
- The recovery of vegetation will occur gradually and naturally, through grass seeds that are in the soil and should start from the arrival of the rainy season (December to February). Access tracks will be maintained for future exploration activities. It should be noted that all farmers are aware of the recovery methods used and are not opposed to these in any way.
- The owners were previously notified of the drilling activities, and according to the company's surface access agreement, they were compensated for the drill access tracks, the of water for drilling, and the use of fire wood, water and permission to camp by the drilling team.
- · Chemical toilets were used at the drilling and camping sites
- · Accidents: Zero

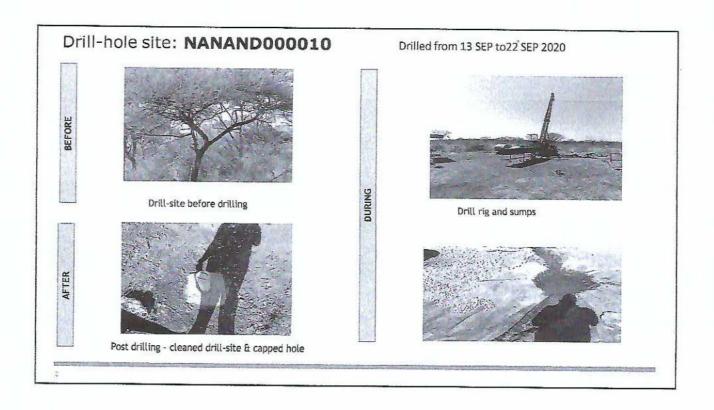


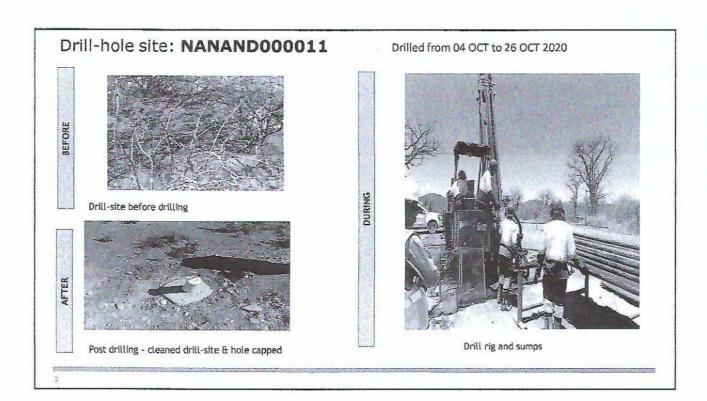


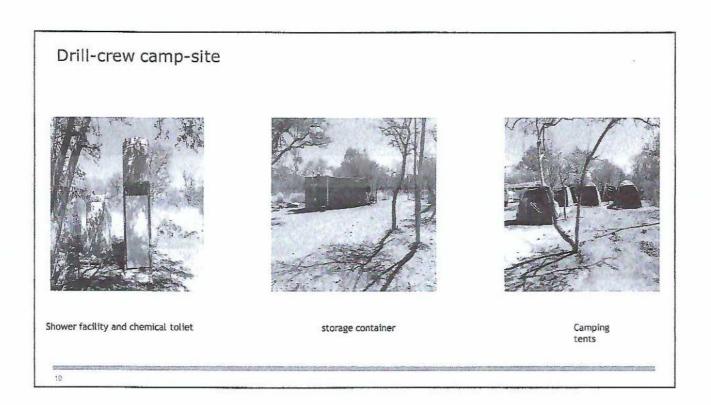












# Votorantim Metais

EPL 6927 - DRILLING REHABILITATION REPORT JULY-DEC 2021



## Environmental Report - Drilling Rehabilitation

- This report aims to show the access preparation and drill sites used for drilling in three phases: Before (untouched environment), during the execution (drilling works) and post-activities (removal of equipment, collection of fluids and greases as well as cleaning and rehabilitation of the site).
- For opening of accesses and sites, priority was given to places with less vegetation (bush), sparing the medium to large trees. Access tracks were opened manually where possible, in order to avoid use of machinery that could remove the fertile soil cover and generate irregularities in the natural terrain.
- The sites followed the standard requirements of the company, with demarcation of boundaries by barricading tape, bunding (plastic protection) under the rig to avoid contamination of the soil by oils and greases, toilet placed near the rig for use by the survey team, shady tent to lunch and rest.
- Products added to water to increase viscosity are biodegradable and non-contaminating. All return tanks (sumps) were closed, top grease material was collected and deposited at the Otavi waste disposal site.
- The recovery of vegetation will occur gradually and naturally, through grass seeds that are in the soil and should start from the arrival of the rainy season (December to February). Access tracks will be maintained for future exploration activities. It should be noted that all farmers are aware of the recovery methods used and are not opposed to these in any way.
- The owners were previously notified of the drilling activities, and according to the company's surface access agreement, they were compensated for the drill access tracks, the of water for drilling, and the use of fire wood, water and permission to camp by the drilling team.
- Chemical toilets were used at the drilling and camping sites

# Drill-hole site: NANAND000016

## Drilled from 16 JUNE 2021 TO 10 AUGUST 2021



Drill-site before drilling



Rehabilitated drill-site



Drill-rig



Plastic liner - preparing sump



Drill-site



Cleaned drill-site



Drill-rig,samps and water tank



Drill-site before drilling



Post drilling - cleaned drill-site



Drill rig and sumps





Drill-site before drilling



Post drilling - cleaned drill-site & capped hole



Drill rig, sumps & water tanks





Drill-site before drilling



Post drilling - cleaned drill-site & capped hole



Drill rig and sumps





Drill-site before drilling





Post drilling - cleaned drill-site & capped hole



Drill rig and sumps





Drill-site before drilling



Post drilling - cleaned drill-site & hole capped



Drill rig



Drill-site before drilling



Post drilling - cleaned drill-site & hole capped



Drill rig and sumps





Drill-site before drilling



Post drilling - cleaned drill-site & hole capped



Drill rig and sumps



Drill-site before drilling



Post drilling - cleaned drill-site & hole capped



Drill rig and diesel trailer





Drill-site before drilling



Post drilling - cleaned drill-site & hole capped



Drill rig and sumps





Drill-site before drilling



Post drilling - cleaned drill-site & hole capped



Drill rig and sumps



# ACCESS ROAD REHBILITATION





CURRENT REHABILITATION





# Drill-crew camp-site



Shower facility and chemical toliet



storage container



Camping tents