

Namibia Minerals and Investment Holdings (Pty) Ltd

Bi- annual Environmental Compliance Monitoring Report for (EPL) No. 5887, Epupa / Opuwo Districts Kunene Region,



Period: January 2021 to June 2021

ENVIRONMENTAL CONSULTANTS



Centre for Geosciences Research cc

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PROPONENT, LISTED ACTIVITIES AND RELATED INFORMATION SUMMARY

NAME OF THE PROPONENT	Namibia Minerals and Investment Holdings (NMIH) (Pty) Ltd
COMPETENT AUTHORITY	Ministry of Mines and Energy (MME)
ADDRESS OF THE PROPONENT AND CONTACT PERSON	1 Pasteurhof, Erf 4236 Pasteur Street Windhoek West P.O. Box 8118, Bachbrecht WINDHOEK, NAMIBIA Contact Person: Mr J. Malakia Amakutuwa NMIH Pty Ltd. - DIRECTOR Mobile: +264812584660 Email: jamalakia23@gmail.com
<u>PROPOSED PROJECT</u>	Proposed Minerals Exploration / Prospecting in the Exclusive Prospecting License (EPL) No. 5887, Epupa / Opuwo Districts Kunene Region, Northwest Namibia
<u>PROJECT LOCATION</u>	Epupa / Opuwo Districts Kunene Region, Northwest Namibia Latitude: -18.144013, Longitude: 11.917689 Latitude: 18°08'38.5"S Longitude: 11°55'03.7"E



ENVIRONMENTAL PRACTITIONER (EAP)

Mulife Siyambango

MSc-IRM, BSc

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EXECUTIVE SUMMARY

Namibia Minerals and Investment Holdings (Pty) Ltd holds mineral rights under the Exclusive Prospecting Licence (EPL) No. 5887. The 84, 521.64 Ha EPL area was granted on the 03/02/2016 and will expire on the 18/07/2021. The EPL 5887 falls within the Skeleton Coast National Park in the Epupa / Opuwo Districts of the Kunene Region, west central Namibia. The EPL is granted for base and rare metals, industrial minerals, non-nuclear fuels minerals, nuclear fuels minerals, precious metals and precious stones. The proponent intends to continue with ongoing exploration programme aimed at searching or prospecting for possible economic minerals resources within the EPL 5887 area. Like any other mining activities, the exploration program has been slowed due to the COVID -19 pandemic.

This externally prepared Health Safety and Environmental (HSE) compliance monitoring report for the ongoing minerals exploration activities provides detailed results of the environmental monitoring compliance undertaken for period July 2018-November 2019. The period under review covers all the activities previously and currently being undertaken in the EPL 5887. This report has been prepared as part of the requirements and conditions of the Environmental Clearance Certificate (ECC) that was issued by the Environmental Commissioner dated the 13th July 2018.

The environmental monitoring activities were undertaken in accordance with the provisions of the Environmental Clearance Certificate (ECC) that was issued by the Ministry of Environment and Tourism in line with the Environmental Management Plan (EMP) for the EPL 5887. The proponent incorporated the EMP in the Environmental Management System (EMS) of the company, national and international environmental best practices and standards for minerals exploration. The monitoring results outlined in this report provide a detailed plan of actions that were implemented by the proponent for minimising and maximising the identified negative and positive impacts respectively.

The implementation of the external environmental monitoring plan has been undertaken by CEGEOR cc on behalf of Namibia Minerals and Investment Holdings (Pty) Ltd (the Proponent) and in line with the provisions of the Environmental Management Plan (EMP) and the conditions of the Environmental Clearance Certificate (ECC) that was issued by the Office of the Environmental Commissioner in the Ministry of Environment and Tourism (MET). The EMP requirements were implemented by the Proponent as well as all the contractors and subcontractors who undertook the various activities of the ongoing mineral exploration activities.

Based on the overall Health, Safety and Environment (HSE) performance monitoring undertaken for this project, no diversions from the environmental commitments as outlined the Environmental Management Plan (EMP) and the Environmental Clearance Certificate (ECC) provisions have been observed or recorded to date. It's clear that the ongoing minerals exploration and all the associated activities have been undertaken with the highest Health, Safety and Environment (HSE) commitment as outlined in the EMP.

1. BACKGROUND

1.1 Introduction

Namibia Minerals and Investment Holdings (Pty) Ltd holds mineral rights under the Exclusive Prospecting Licence (EPL) No. 5887. The 84, 521.64 Ha EPL area was granted on the 03/02/2016 and will expire on the 18/07/2021. The EPL 5887 falls within the Skeleton Coast National Park in the Epupa / Opuwo Districts of the Kunene Region, west central Namibia. The EPL is granted for base and rare metals, industrial minerals, non-nuclear fuels minerals, nuclear fuels minerals, precious metals and precious stones. The proponent intends to continue with ongoing exploration programme aimed at searching or prospecting for possible economic minerals resources within the EPL 5887 area.

This environmental performance monitoring report prepared for the EPL 5887 covers the period July 2018-November 2019. The preparation of this monitoring report is based on the requirements of the Environmental Impact Assessment (EIA) Regulations No. 30 of 2012 gazetted under the Environmental Management Act, (EMA), 2007, (Act No. 7 of 2007 and the Environmental Clearance Certificate (ECC) that was issued by the Ministry of Environment and Tourism in line with the Environmental Management Plan (EMP) for the EPL 5887 (Fig. 1.1).

The monitoring results outlined in this report provide a detailed plan of actions that were implemented by the proponent for minimising and maximising the identified negative and positive impacts respectively.

1.2 Purpose of this Monitoring Report

The purpose of this report is to review, summarise and analyse the Environmental Management Plan (EMP) performances with respect to the ongoing exploration activities undertaken for the period July 2018-November 2019. This environmental performances monitoring report consists of the following sections:

- ❖ Background to the Environmental Monitoring Plan;
- ❖ Environmental Monitoring Plan;
- ❖ Results of the Environmental Monitoring;
- ❖ Conclusions and Recommendations.

The performance monitoring undertaken involved reviewing, observations and recording of activities taking place in the EPL 5887 exploration programme. The monitoring process involved routine gathering of information on all aspects of the ongoing minerals exploration activities and check on how project activities are progressing against the provisions of the EMP through review, systematic and purposeful observations.

1.3 Environmental Regulatory Requirements

The ongoing minerals exploration activities falls under the activities that are listed in the Environmental Impact Assessment (EIA) Regulations 2012 and cannot not be undertaken without an Environmental Clearance Certificate (ECC). An Environmental Scoping and Environmental Management Plan (EMP) report was prepared by Risk-Based Solution CEGEOR cc in 2017 in order to support the application for ECC. An ECC valid for a period of three years was issued by the Environmental Commissioner on the 13th July 2018 (Fig. 1.1). During the ongoing minerals exploration programme, environmental performance monitoring activities were undertaken in accordance with the provisions of the Environmental Clearance Certificate (ECC) in line with the Environmental Management Plan (EMP) report. The monitoring results outlined in this report provide a detailed plan of actions that were implemented by the proponent for minimising and maximising the identified negative and positive impacts respectively.



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11 July 2018

OFFICE OF THE ENVIRONMENTAL COMMISSIONER

The Manager
Namibia Minerals and Investment Holdings (Pty) Ltd
P O Box 1839
Windhoek
Namibia

Dear Sir/Madam

SUBJECT: ENVIRONMENTAL CLEARANCE CERTIFICATE FOR THE PROPOSED MINERAL EXPLORATION ACTIVITIES IN THE EXCLUSIVE PROSPECTING LICENSE (EPL) NO. 5887 SKELETON COAST NATIONAL PARK, KUNENE REGION

The Environmental Scoping Report and Environmental Management Plan submitted are sufficient as these made an adequate provision of the environmental management for the proposed activities. From this perspective, regular environmental monitoring and evaluations on environmental performance should be conducted. Targets for improvements should be established and monitored throughout this process.

This Ministry reserves the right to attach further legislative and regulatory conditions during the operational phase of the project. From this perspective, I issue this clearance with the following conditions attached on Annex 1, applicable to activities in the protected area.

On the basis of the above, this letter serves as an environmental clearance certificate for the project to commence. However, this clearance letter does not in any way hold the Ministry of Environment and Tourism accountable for misleading information, nor any adverse effects that may arise from this project's activities. Instead, full accountability rests with Namibia Minerals and Investment Holdings (Pty) Ltd and their consultants.

This environmental clearance is valid for a period of (three) 3 years, from the date of issue unless withdrawn by this office.

Yours sincerely,



Teofilus Nghitila
ENVIRONMENTAL COMMISSIONER



“Stop the poaching of our rhinos”

All official correspondence must be addressed to the Permanent Secretary

Figure 1.1: Copy of the ECC that was granted on the 13th July 2019.

1.4 Location, Infrastructure and Services

1.4.1 Location

The EPL No. 5887 area is situated in the Epupa / Opuwo Districts, Kunene Region in the northwest part of Namibia (Fig. 1.2 and 1.3). The entire current of the EPL area falls within the Skeleton Coast National Park (Fig. 1.3). The park stretches from the Kunene River in the north for approximately 500 km to the Ugab River in the south, and protects about one-third of Namibia's coastline. The EPL covers a total area of (84, 521.64 Ha (Fig. 1.9 and Table 1.2

1.4.2 Background information of EPL 5887

The EPL5887 area is underlain by both early Karoo-age "roll- front" uranium deposits as well alluvial diamonds typically below the 200m.a.m.s.l. contour line (Figs.and 1.6).

The economic potential of EPL5887 is closely linked with the mineral prospectivity of the immediate area, the main focus potential uranium mineralization which is proven to exist in sufficient quantities to be economically significant (Fig. 1.5). The secondary focus would be on alluvial diamonds which has are known as placer deposits along Namibia's coast line. Hence, the EPL5887 makes it sufficiently prospective for diamonds (Fig. 1.6).

The currently known uranium deposits on EPL5887 and surrounding area in the Engo Valley is found in the basal units of the Dwyka Group. The Dwyka Group is the group of sedimentary geological formations laid down in the Karoo Basin of Southern Africa in the Late Carboniferous and possibly extending into the early Permian. The Dwyka is the oldest and lowermost unit of the Karoo Supergroup that is recognized throughout sub-Saharan Africa. It is also widely distributed throughout northern Namibia. In north-west Namibia, however, the Dwyka Group is found commonly as extensive remnants in the core of pre-Dwyka glacier valleys, of which the Engo Valley is one. These glacier valleys have never been the focus of any exploration activity, apart from the Engo Valley.

A previously unknown glacier valley (the "Proto-Kunene") was discovered in 2012 in the extreme NW corner of Namibia during a diamond exploration program. This glacier trends southwards out of Angola and is cut by the current Kunene River. The Dwyka sediments filling this glacial valley does not consist of the typical Dwyka tillite, but rather successions of shales, sandstones, gravels and boulder beds containing extremely large dropstones. This is exactly similar to the Dwyka group outcrops in the Engo Valley and along the coast down to Möwe Bay.

1.4.3 Infrastructure and Services

The EPL area is situated in an area with no major roads (Figs. 1.2 and 1.3). The EPL area is accessible via the defunct Cape Fria Radio Station. As the exploration activities will be restricted, it will impact minimally on the current infrastructure. However, with ever-increasing mining activities in the vicinity a higher demand will be placed on infrastructure such as the provision of water, electricity and roads.



Figure 1.2: Regional location of the EPL 5887 old (Red Line) and new area (Green Line).

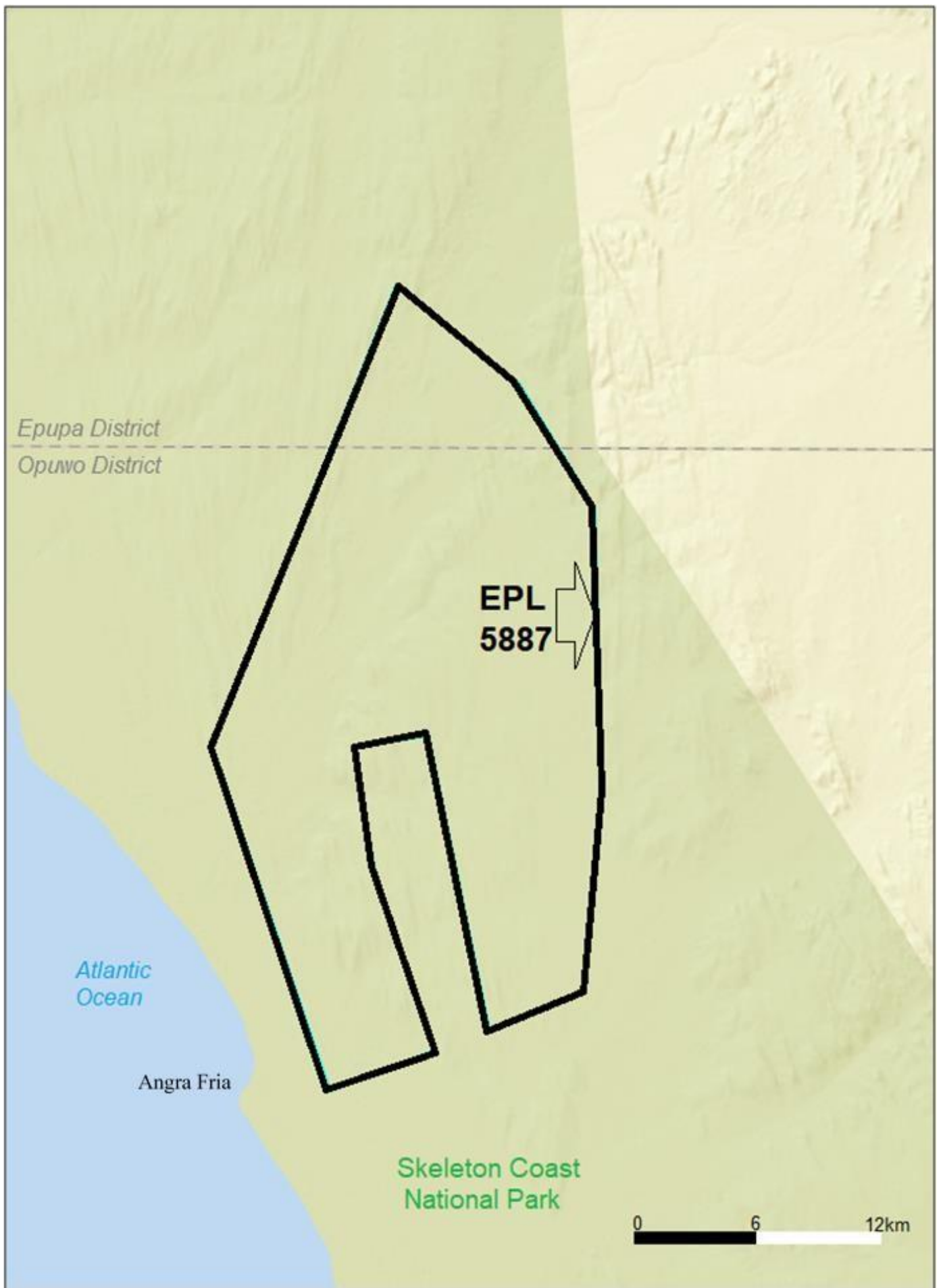


Figure 1.3: Regional location of the current EPL 5887 outline

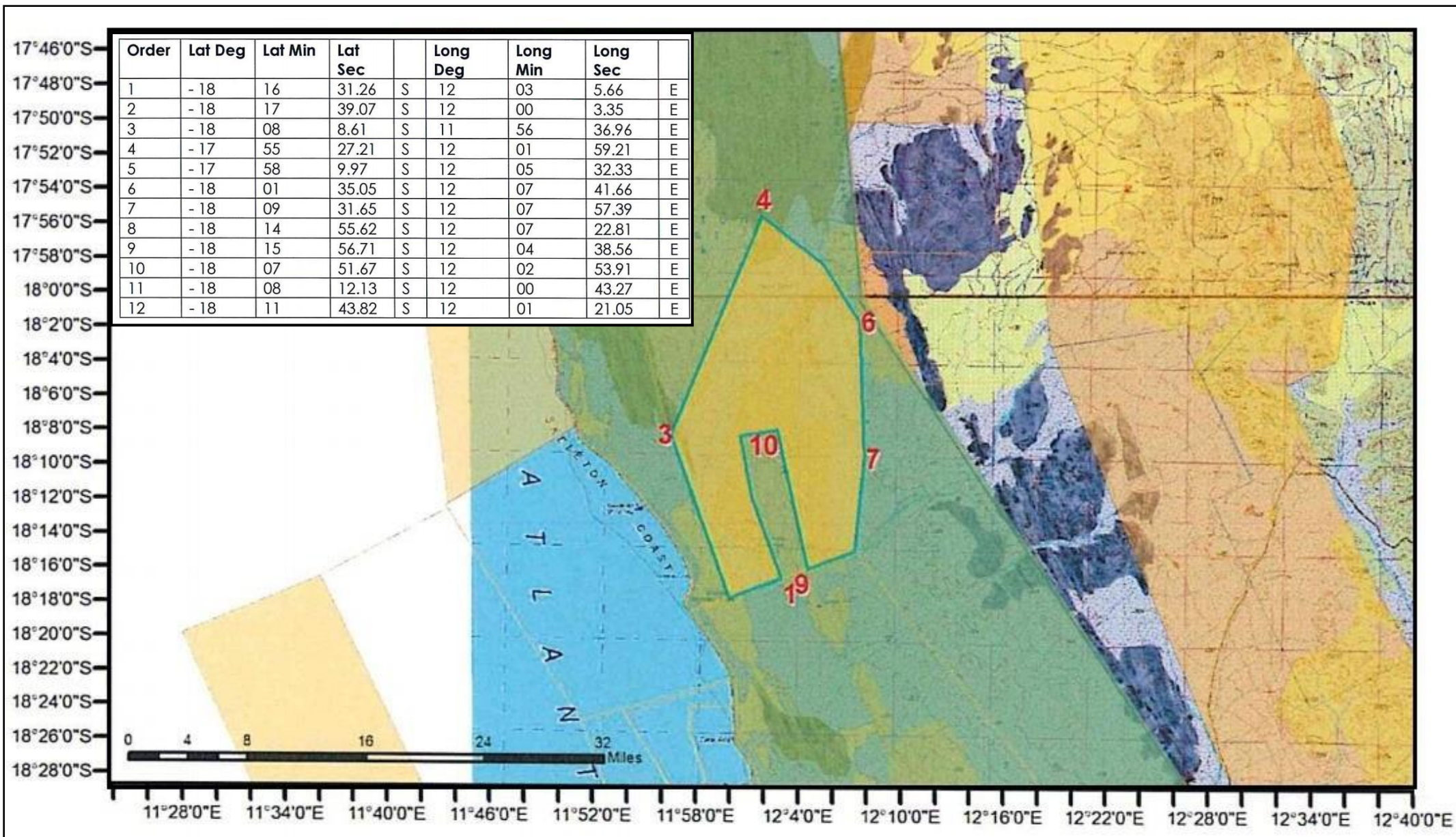


Figure 1.4: Detailed the location of the current EPL 5887 outline with corner coordinates.

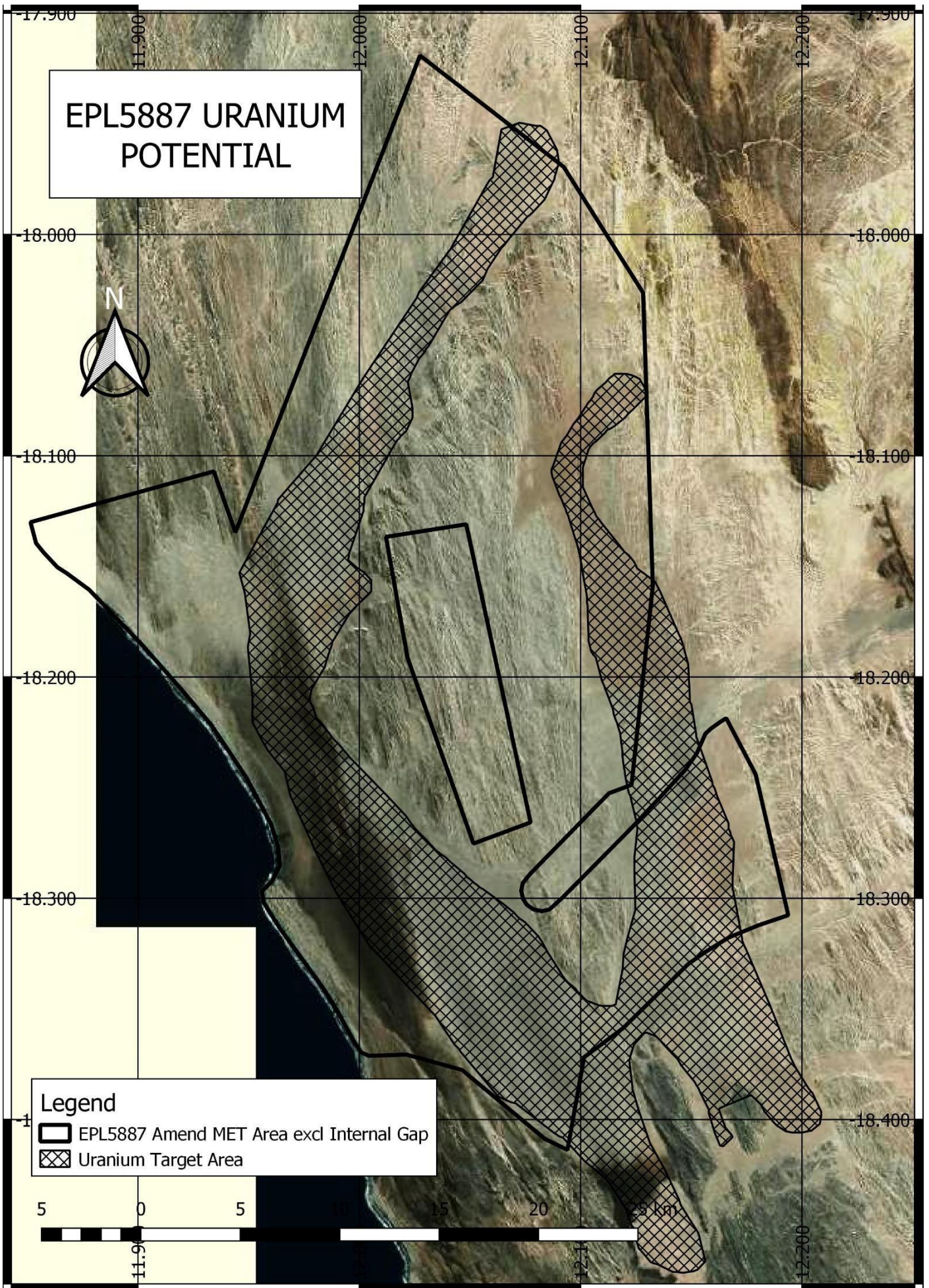


Figure 1.5: Key uranium potential area/s / target/s within the amended EPL 5887 boundary.

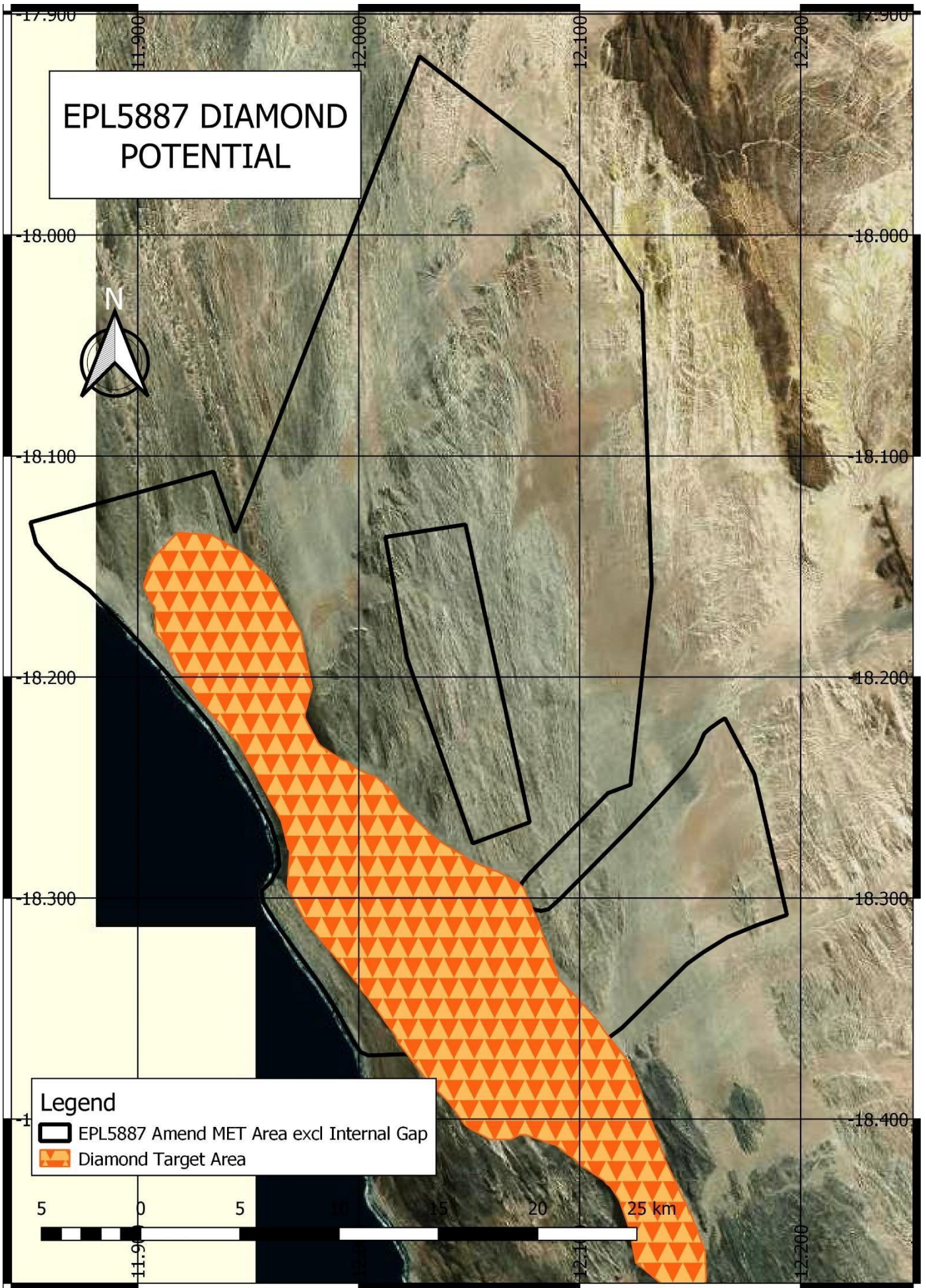


Figure 1.6: Key diamond potential area/s / target/s within the amended EPL 5887 boundary.



Figure 1.7: Regional location of the reduced EPL 5887 area.

Table 1.1: Coordinates of the of EPL 5887 area as shown in Fig. 1.8.

Official Area: 34524.8893 Ha			Official Area: 34524.8893 Ha		
Coordinate system: GCS Bessel 1841			Coordinate system: GCS Bessel 1841		
	Latitude	Longitude		Latitude	Longitude
Part 1			Part 1		
1	18° 06' 25.57" S	011° 56' 03.12" E	45	18° 16' 07.84" S	012° 07' 20.69" E
2	18° 07' 48.24" S	011° 51' 05.02" E	46	18° 18' 00.06" S	012° 05' 29.58" E
3	18° 08' 22.48" S	011° 51' 14.16" E	47	18° 18' 18.48" S	012° 05' 09.17" E
4	18° 08' 37.60" S	011° 51' 26.49" E	48	18° 18' 21.18" S	012° 04' 56.62" E
5	18° 09' 01.60" S	011° 51' 48.89" E	49	18° 18' 18.43" S	012° 04' 43.50" E
6	18° 09' 11.37" S	011° 52' 04.13" E	50	18° 18' 10.87" S	012° 04' 32.40" E
7	18° 09' 38.21" S	011° 52' 40.55" E	51	18° 18' 00.93" S	012° 04' 26.19" E
8	18° 11' 06.93" S	011° 54' 05.75" E	52	18° 17' 47.83" S	012° 04' 23.29" E
9	18° 12' 18.54" S	011° 55' 09.05" E	53	18° 17' 35.58" S	012° 04' 25.84" E
10	18° 13' 17.35" S	011° 55' 58.46" E	54	18° 17' 21.59" S	012° 04' 36.94" E
11	18° 13' 59.09" S	011° 56' 26.69" E	55	18° 17' 08.47" S	012° 04' 49.63" E
12	18° 14' 44.60" S	011° 56' 56.52" E	56	18° 16' 08.83" S	012° 05' 47.86" E
13	18° 15' 59.04" S	011° 57' 36.22" E	57	18° 15' 37.67" S	012° 06' 18.23" E
14	18° 16' 36.42" S	011° 57' 47.77" E	58	18° 15' 09.03" S	012° 06' 46.40" E
15	18° 17' 06.82" S	011° 57' 50.90" E	59	18° 16' 32.29" S	012° 02' 59.21" E
16	18° 17' 33.48" S	011° 57' 37.30" E	60	18° 17' 38.96" S	012° 00' 02.63" E
17	18° 17' 48.16" S	011° 57' 21.90" E			
18	18° 18' 06.97" S	011° 57' 24.20" E			
19	18° 18' 49.84" S	011° 57' 51.17" E			
20	18° 20' 25.32" S	011° 59' 00.41" E			
21	18° 21' 04.06" S	011° 59' 24.56" E			
22	18° 21' 54.76" S	011° 59' 52.02" E			
23	18° 22' 10.98" S	012° 00' 02.85" E			
24	18° 22' 16.63" S	012° 00' 15.55" E			
25	18° 22' 14.58" S	012° 01' 16.38" E			
26	18° 22' 39.57" S	012° 02' 47.02" E			
27	18° 24' 31.53" S	012° 05' 01.50" E			
28	18° 24' 49.75" S	012° 05' 38.57" E			
29	18° 22' 18.83" S	012° 06' 05.66" E			
30	18° 21' 31.58" S	012° 07' 09.06" E			
31	18° 19' 47.25" S	012° 08' 55.08" E			
32	18° 19' 28.64" S	012° 09' 21.25" E			
33	18° 19' 03.81" S	012° 10' 01.28" E			
34	18° 18' 43.99" S	012° 10' 49.81" E			
35	18° 18' 27.70" S	012° 11' 37.71" E			
36	18° 14' 38.43" S	012° 10' 44.66" E			
37	18° 13' 07.17" S	012° 09' 56.79" E			
38	18° 13' 12.70" S	012° 09' 47.99" E			
39	18° 13' 23.51" S	012° 09' 32.74" E			
40	18° 13' 32.15" S	012° 09' 23.10" E			
41	18° 14' 04.52" S	012° 09' 08.87" E			
42	18° 14' 30.63" S	012° 08' 50.51" E			
43	18° 15' 18.15" S	012° 08' 07.23" E			
44	18° 15' 41.47" S	012° 07' 45.31" E			

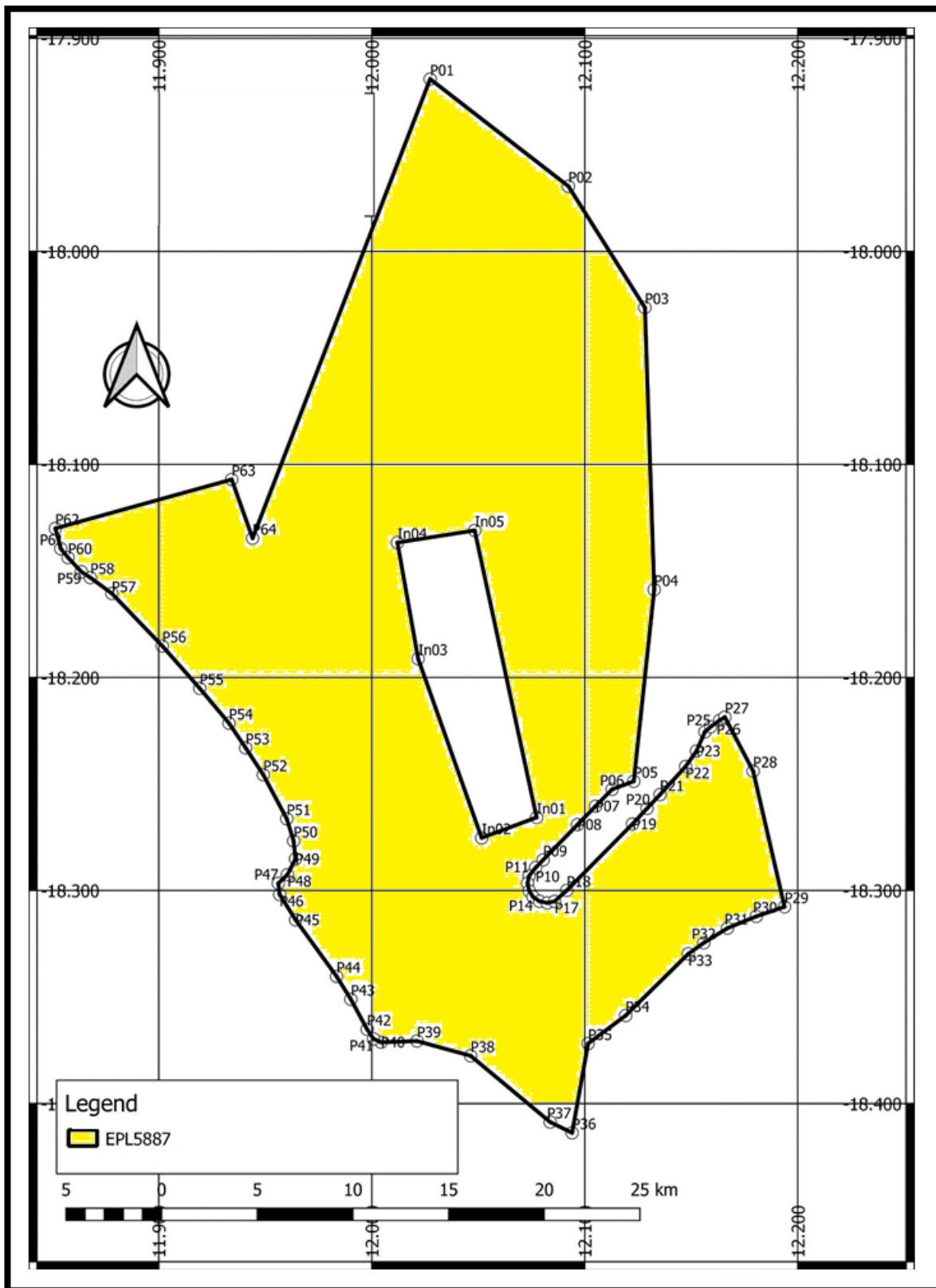


Figure 1.9: Detailed outline of the EPL 5887 with coordinates shown in Table 1.2.

2. ENVIRONMENTAL MONITORING PLAN

2.1 Objectives of the Performance Monitoring Plan

The main objectives of the Environmental Performance Monitoring Plan are the following:

- ❖ Verify of the correct application of the monitoring measures as presented in the Environmental Management Plan (EMP);
- ❖ Establish a monitoring program for the most relevant environmental parameters, identifying the monitoring activities and frequencies;
- ❖ Identify the impacts foreseen by the project and any unforeseen deviations, allowing for the implementation of corrective measures as needed;
- ❖ Provide assurance to stakeholders requirements with respect to environmental and social performances;
- ❖ Check the overall effectiveness of the EMP procedures in protecting the receiving environment;
- ❖ Comply with HSE regulations, standards and licence conditions, and;
- ❖ Compare actual impacts with those predicted in the EIA and thereby aim to improve the EIA process for possible future development in Namibia.

Overall, the above objectives have been achieved during the Environmental Performance Monitoring programme undertaken by CEGEOR cc for the ongoing minerals exploration activities in the EPL 5887 for period January -June 2021.

2.2 Roles and Responsibilities

2.2.1 Employer's Representative (ER) / Project Manager

During the ongoing exploration programme, the proponent had appointed an **Employer's Representative (ER)** with the following responsibilities with respect to the EMP implementation:

- ❖ Act as the site project manager and implementing agent;
- ❖ Ensure that the proponent's responsibilities are executed in compliance with the relevant legislation;
- ❖ Ensure that all the necessary environmental authorizations and permits have been obtained;
- ❖ Assist the exploration contractor/s in finding environmentally responsible solutions to challenges that may arise;
- ❖ Should the ER be of the opinion that a serious threat to, or impact on the environment may be caused by the exploration activities, he/she may stop work; the proponent must be informed of the reasons for the stoppage as soon as possible;
- ❖ The ER has the authority to issue fines for transgressions of basic conduct rules and/or contravention of the EMP;
- ❖ Should the Contractor or his/her employees fail to show adequate consideration for the environmental aspects related to the EMP, the ER can have person(s) and/or equipment removed from the site or work suspended until the matter is remedied;

- ❖ Maintain open and direct lines of communication between the landowners and proponent, as well as any other identified Interested and Affected Parties (I&APs) with regards to environmental matters, and;
- ❖ Attend regular site meetings and inspections as may be required for the proposed exploration programme.

2.2.2 Project Health, Safety and Environment (Project HSE) Manager

In line with the provisions of the EMP, the proponent appointed a **Project Health, Safety and Environment (Project HSE) Manager** with the following responsibilities with respect to the EMP implementation:

- ❖ Assist the ER in ensuring that the necessary environmental authorizations and permits have been obtained;
- ❖ Assist the ER and Contractor in finding environmentally responsible solutions to challenges that may arise;
- ❖ Conduct environmental monitoring as per EMP requirements;
- ❖ Carry out regular site inspections (on average once per week) with regards to compliance with the EMP; report any non-compliance(s) to the ER as soon as possible;
- ❖ Organize for an independent internal audit on the implementation of and compliance to the EMP to be carried out half way through each field-based exploration activity; audit reports to be submitted to the ER;
- ❖ Continuously review the EMP and recommend additions and/or changes to the EMP;
- ❖ Monitor the Contractor's environmental awareness training for all new personnel;
- ❖ Keep records of all activities related to environmental control and monitoring; the latter to include a photographic record of the exploration activities, rehabilitation process, and a register of all major incidents, and;
- ❖ Attend regular site meetings.

2.2.3 Contractor and Subcontractor

In line with the provisions of the EMP, the responsibilities of the **Contractors and Subcontractors** appointed by the proponent to undertake certain field-based activities of the ongoing minerals exploration programme includes the following:

- ❖ Comply with the relevant legislation and the EMP provision);
- ❖ Preparation and submission to the proponent / ER of the following Management Plans:
 - Environmental Awareness Training and Inductions;
 - Emergency Preparedness and Response;
 - Waste Management; and;
 - Health and Safety.
- ❖ Ensure adequate environmental awareness training for senior site personnel;

- ❖ Environmental awareness presentations (inductions) to be given to all site personnel prior to work commencement; the Project HSE manager is to provide the course content and the following topics, at least but not limited to, should be covered:
 - The importance of complying with the EMP provisions;
 - Roles and Responsibilities, including emergency preparedness;
 - Basic Rules of Conduct (Do's and Don'ts);
 - EMP: aspects, impacts and mitigation;
 - Fines for Failure to Adhere to the EMP, and;
 - Health and Safety Requirements.
- ❖ Record keeping of all environmental awareness training and induction activities, and;
- ❖ Attend regular site meetings and environmental inspections.

2.2.4 Risk-Based Solutions (External)

The responsibilities of CEGEOR cc included the following:

- ❖ Provided external independent environmental performance monitoring / auditing support services to the ongoing exploration activities;
- ❖ Undertook independent monitoring activities;
- ❖ Provided external HSE compliance monitoring and reporting support services, and;
- ❖ Prepared this environmental performance monitoring report for the period under review.

2.3 Reporting Process

In line with the provisions of the EMP daily, weekly, monthly and annual related activities were undertaken by the Employer's Representative (ER), Project HSE manager, Contractor, Subcontractor and CEGEOR cc as part of the Environmental Performance Monitoring Plan of the ongoing minerals exploration activities.

Daily, weekly, monthly and annual related activities Environmental Performance Monitoring activities have all contributed to the preparation of this Environmental Performance Monitoring Report for the period under review. This report is prepared by the external consultants CEGEOR cc.

3. RESULTS OF THE ENVIRONMENTAL MONITORING

3.1 Environmental Performance Monitoring Strategy

The monitoring programme was developed to allow maximum flexibility in both the timing and site conditions in order to allow adaptation to the conditions encountered and to allow decisions to be made in the field, based on all available data.

The review of the environmental performance monitoring activities implemented by the proponent for the period under review took into consideration a hierarchy of methods for mitigating significant adverse effects adopted during the exploration process in order of preference and as follows:

- (i) Enhancement, e.g. provision of new habitats;
- (ii) Avoidance, e.g. sensitive design to avoid effects on ecological receptors;
- (iii) Reduction, e.g. limitation of effects on receptors through design changes, and;
- (iv) Compensation, e.g. community benefits.

3.2 Scope of the Environmental Performance Monitoring Plan

The following is the summary of the scope of the Environmental Performance monitoring, observations and auditing activities that have been undertaken in line with the provisions of the EMP for the ongoing exploration programme activities and in particular for the field-based exploration activities (Table 3.1 - 3.18):

1. Measures implemented during the project planning and implementation;
2. Measures taken in the implementation of the EMP;
3. Measures taken as part of the ongoing stakeholders relations;
4. Measures taken to enhance positive socioeconomic impacts;
5. Measures taken to enhance environmental awareness briefing and training;
6. Measures taken during the erection of supporting exploration infrastructure;
7. Use of existing access roads, tracks and general vehicle movements;
8. Measures for preventing flora destruction;
9. Measures taken for preventing faunal destruction;
10. Measures implemented for the exploration camps and exploration sites;
11. Measures taken for protection water resources as well as general water usage;
12. Measures taken to minimise negative socioeconomic impacts;
13. Measures taken to minimise health and safety impacts;
14. Measures taken to minimise visual impacts;
15. Measures taken to minimise vibration, noise and air quality;

16. Measures taken for waste (solid and liquid) management;
17. Measures taken in implementing the rehabilitation plan, and;
18. Measures taken in collecting environmental data sets.

3.3 Environmental Performance Monitoring Results

The Environmental Management Plan (EMP) provided a detailed plan of action required in the implementation of the mitigation measures for minimising and maximising the identified negative and positive impacts respectively.

The EMP also provided the management actions with roles and responsibilities requirements for implementation of environmental management strategies by the proponent through the Contractors and Subcontractors who have been undertaking the exploration activities. The EMP gave commitments including financial and human resources provisions for effective management of the likely environmental liabilities during and after the implementation of the proposed / ongoing exploration programme.

Tables 3.1 – 3.18 shows the findings of this environmental performance monitoring report prepared for the EPL 5887 covering the period January 2021-June 2021. The results shown in Tables 3.1 -3.8 details the specific mitigations measures implemented by the proponent with respect to the ongoing exploration programme activities and in particular for the field-based exploration activities for the period under review.

Table 3.1: Project planning and implementation.

OBJECTIVES	INDICATOR	SCHEDULE	RESPONSIBILITY	PERFORMANCE MONITORING RESULTS
1. Establish a strong environmental awareness protocol from project implementation to final closure in order to ensure the least possible impact to the environment.	<ol style="list-style-type: none"> Resources (Human and Financial) are provided for the Environmental Awareness and Training, Regular Safety, Health and Environment meetings and for internal and external Environmental Monitoring Costs as well as for any rehabilitation costs that may arise. Appointment of a senior and experienced persons as Proponent's Representative (PR), Project Manager (PM) and Project HSE to assume responsibility for environmental issues. All individuals including sub-contractors who work on, or visit, the sites are aware of the contents of the Environmental Policy and the EMP. The EMP and Environmental Policy will be included in Tender Documents. Field visit will take place during which main access tracks will be discussed in cooperation with the land owner/s 	<ol style="list-style-type: none"> Regional reconnaissance field-based mapping and sampling activities; Initial local field-based mapping and sampling activities; Detailed local field-based activities such as local geological mapping, geochemical mapping and sampling, trenching and drilling of closely spaced boreholes and bulk sampling; Prefeasibility and feasibility studies. 	<ol style="list-style-type: none"> Proponent's Representative (PR) Project Manager (PM) Project HSE Contractor Subcontractors 	Implemented in accordance with the provisions of the EMP. Through effective communication and information dissemination as well as continuous briefings, awareness rising, meetings, and training of all stakeholders involved in the project with the overall preparation and implementation of the project activities were done effectively.

Table 3.2: Implementation of the EMP.

OBJECTIVES	INDICATOR	SCHEDULE	RESPONSIBILITY	PERFORMANCE MONITORING RESULTS
<ol style="list-style-type: none"> Define roles and responsibilities in terms of the EMP. To make all personnel, contractors and subcontractors aware of these roles and responsibilities to ensure compliance with the EMP provisions. Implement environmental management that is preventative and proactive. Establish the resources, skills, etc. required for effective environmental management. 	<ol style="list-style-type: none"> Senior staff and senior contractors are aware of, and practice the EMP requirements. These persons shall be expected to know and understand the objectives of the EMP and will, by example, encourage suitable environmentally friendly behaviour to be adopted during the exploration Recognition will be given to appropriate environmentally acceptable behaviour. Inappropriate behaviour will be corrected. An explanation to why the behaviour is unacceptable must be given, and, if necessary, the person will be disciplined. e.g. fees set out for non-compliance 	<ol style="list-style-type: none"> Regional reconnaissance field-based mapping and sampling activities; Initial local field-based mapping and sampling activities; Detailed local field-based activities such as local geological mapping, geochemical mapping and sampling, trenching and drilling of closely spaced boreholes and bulk sampling; Prefeasibility and feasibility studies. 	<ol style="list-style-type: none"> Proponent's Representative (PR) Project Manager (PM) Project HSE Contractor Subcontractors 	Implemented in accordance with the provisions of the EMP. No diversions from the EMP have been observed.

Table 3.3: Public and stakeholders relations.

OBJECTIVES	MITIGATION MEASURES	SCHEDULE	RESPONSIBILITY	PERFORMANCE MONITORING RESULTS
1. Maintain sound relationships with the Other land users/ land owner/s and other stakeholders / public	<ol style="list-style-type: none"> No littering or any other activity prohibited Permission to utilise water as well as all applicable permits are obtained. 	<ol style="list-style-type: none"> Regional reconnaissance field-based mapping and sampling activities; Initial local field-based mapping and sampling activities; Detailed local field-based activities such as local geological mapping, geochemical mapping and sampling, trenching and drilling of closely spaced boreholes and bulk sampling; Prefeasibility and feasibility studies. 	<ol style="list-style-type: none"> Proponent's Representative (PR) Project Manager (PM) Project HSE Contractor Subcontractors 	Implemented in accordance with the provisions of the EMP. No diversions from the EMP have been observed.

Table 3.4: Measures to enhance positive socioeconomic impacts.

OBJECTIVES	MITIGATION MEASURES	SCHEDULE	RESPONSIBILITY	PERFORMANCE MONITORING RESULTS
<p>Measures to enhance positive socioeconomic impacts in order to:</p> <ol style="list-style-type: none"> Avoid exacerbating the influx of unemployed people to the area. Develop a standardised recruitment method for sub-contractor and field workers. 	<ol style="list-style-type: none"> Stipulate a preference for local contractors in its tender policy. Preference to local contractors should still be based on competitive business principles and salaries and payment to local service providers should still be competitive; Develop a database of local businesses that qualify as potential service providers and invite them to the tender process; Scrutinise tender proposals to ensure that minimum wages were included in the costing; Stipulate that local residents should be employed for temporary unskilled/skilled and where possible in permanent unskilled/skilled positions as they would reinvest in the local economy; Must ensure that potential employees are from the area, they need submit proof of having lived in the area for a minimum of 5 years; Must ensure that contractors adhere to Namibian Affirmative Action, Labour and Social Security, Health and Safety laws. This could be accomplished with a contractual requirement stipulating that monthly proof should be submitted indicating payment of minimum wages to workers, against their ID numbers, payment of social security and submission of affirmative action data; Encouraged to cater for the needs of employees to increase the spending of wages locally. 	<ol style="list-style-type: none"> Regional reconnaissance field-based mapping and sampling activities; Initial local field-based mapping and sampling activities; Detailed local field-based activities such as local geological mapping, geochemical mapping and sampling, trenching and drilling of closely spaced boreholes and bulk sampling; Prefeasibility and feasibility studies. 	<ol style="list-style-type: none"> Proponent's Representative (PR) Project Manager (PM) Project HSE Contractor Subcontractors 	Implemented in accordance with the provisions of the EMP. No diversions from the EMP have been observed.

Table 3.5: Environmental awareness briefing and training.

OBJECTIVES	MITIGATION MEASURES	SCHEDULE	RESPONSIBILITY	PERFORMANCE MONITORING RESULTS
1. Implement environmental awareness briefing / training for individuals who visit, or work, on site.	<ol style="list-style-type: none"> Every senior/supervisory member of the team shall familiarise themselves with the contents of the EMP. They shall understand their roles and responsibilities with regard to personnel and project compliance with the EMP. Subject to agreement of the parties, the Environmental Coordinator will hold an Environmental Awareness Briefing meeting, which shall be attended by all contractors before the start of the mineral exploration activities. Briefings on the EMP and Environmental Policy shall discuss the potential dangers to the environment of the following activities: public relations, littering, off-road driving, waste management, poaching and plant theft etc. The need to preserve soil, conserve water and implement water saving measures shall be presented. Individuals can be questioned on the Environmental Philosophy and EMP and can recall contents. 	<ol style="list-style-type: none"> Regional reconnaissance field-based mapping and sampling activities; Initial local field-based mapping and sampling activities; Detailed local field-based activities such as local geological mapping, geochemical mapping and sampling, trenching and drilling of closely spaced boreholes and bulk sampling; Prefeasibility and feasibility studies. 	<ol style="list-style-type: none"> Proponent's Representative (PR) Project Manager (PM) Project HSE Contractor Subcontractors 	Implemented in accordance with the provisions of the EMP. No diversions from the EMP have been observed.

Table 3.6: Erection of supporting exploration infrastructure.

OBJECTIVES	MITIGATION MEASURES	SCHEDULE	RESPONSIBILITY	PERFORMANCE MONITORING RESULTS
<ol style="list-style-type: none"> Get Environmental Clearance before implementation Establishment of the supporting exploration infrastructure done on an area with the least disturbance to the environment and within the non-sensitive areas 	<ol style="list-style-type: none"> Documented Environmental Clearance from MET. All on site exploration infrastructure (e.g. water tanks, sewage tanks, waste disposal) are not situated on environmental sensitive area and have disturbed as less as possible. No littering. 	<ol style="list-style-type: none"> Regional reconnaissance field-based mapping and sampling activities; Initial local field-based mapping and sampling activities; Detailed local field-based activities such as local geological mapping, geochemical mapping and sampling, trenching and drilling of closely spaced boreholes and bulk sampling; Prefeasibility and feasibility studies. 	<ol style="list-style-type: none"> Proponent's Representative (PR) Project Manager (PM) Project HSE Contractor Subcontractors 	Implemented in accordance with the provisions of the EMP. No diversions from the EMP have been observed.

Table 3.7: Use of existing access roads, tracks and general vehicle movements.

OBJECTIVES	MITIGATION MEASURES	SCHEDULE	RESPONSIBILITY	PERFORMANCE MONITORING RESULTS
<p>1. Plan a road/track network that considers the environmental sensitivity of the area and a long-term tourism potential, and which is constructed in a technically and environmentally sound manner.</p> <p>2. Stick to the recommended track and sensitivity management zones.</p>	<ol style="list-style-type: none"> 1. Avoid unnecessary affecting areas viewed as important habitat – i.e. Ephemeral River and its network of tributaries of ephemeral rivers; rocky outcrops; clumps of protected tree species; 2. Make use of existing tracks/roads as much as possible throughout the area; 3. Do not drive randomly throughout the area (could cause mortalities to vertebrate fauna and unique flora; accidental fires; erosion related problems, etc.); 4. Avoid off-road driving at night as this increases mortalities of nocturnal species; 5. Implement and maintain off-road track discipline with maximum speed limits (e.g.30km/h) as this would result in fewer faunal mortalities and limit dust pollution; 6. Use of "3-point-turns" rather than "U-turns"; 7. Where tracks have to be made to potential exploration sites off the main routes, the routes should be selected causing minimal damage to the environment – e.g. use the same tracks; cross drainage lines at right angles; avoid placing tracks within drainage lines; avoid collateral damage (i.e. select routes that do not require the unnecessary removal of trees/shrubs, especially protected species); 8. Leave vehicles on tracks and walk to point of interest, when possible; 9. Rehabilitate all new tracks created. 	<ol style="list-style-type: none"> (i) Regional reconnaissance field-based mapping and sampling activities; (ii) Initial local field-based mapping and sampling activities; (iii) Detailed local field-based activities such as local geological mapping, geochemical mapping and sampling, trenching and drilling of closely spaced boreholes and bulk sampling; (iv) Prefeasibility and feasibility studies. 	<ol style="list-style-type: none"> (i) Proponent's Representative (PR) (ii) Project Manager (PM) (iii) Project HSE (iv) Contractor (v) Subcontractors 	<p>Implemented in accordance with the provisions of the EMP. No diversions from the EMP have been observed.</p>

Table 3.8: Mitigation measures for preventing flora and ecosystem destruction and promotion of conservation.

OBJECTIVES	MITIGATION MEASURES	SCHEDULE	RESPONSIBILITY	PERFORMANCE MONITORING RESULTS
<p>1. Prevent flora and ecosystem destruction and promote conservation</p>	<ol style="list-style-type: none"> 1. Limit the development and avoid rocky outcrops throughout the entire area; 2. Avoid development and associated infrastructure in sensitive areas – e.g. Ephemeral River, in/close to drainage lines, cliffs, boulder and rocky outcrops in the area, etc; 3. Avoid placing access routes (roads and tracks) through sensitive areas – e.g. over rocky outcrops/ridges and along drainage lines. This would minimise the effect on localised potentially sensitive habitats in the area; 4. Avoid driving randomly through the area (i.e. “track discipline”), but rather stick to permanently placed roads/tracks. This would minimise the effect on localised potentially sensitive habitats in the area; 5. Stick to speed limits of maximum 30km/h as this would result in less dust pollution which could affect certain flora – e.g. lichen species. Speed humps used to ensure the speed limit; 6. Remove unique and sensitive flora (e.g. all Aloe sp.) before commencing with the development activities and relocate to a less sensitive/disturbed site if possible; 7. Prevent and discourage the collecting of firewood as dead wood has an important ecological role – especially during the development phase(s). Such collecting of firewood, especially for economic reasons, often leads to abuses – e.g. chopping down of live and/or protected tree species such as Acacia erioloba which is a good quality wood; 8. Attempt to avoid the removal of bigger trees during the development phase(s) – especially with the development of access routes – as these serve as habitat for a myriad of fauna; 9. Prevent and discourage fires – especially during the development phase(s) – as this could easily cause runaway veld fires causing problems (e.g. loss of grazing and domestic stock mortalities, etc.) for the neighbouring farmers; 10. Rehabilitation of the disturbed areas – i.e. initial development access route “scars” and associated tracks as well as temporary accommodation sites. Preferably workers should be transported in/out to the exploration sites on a daily basis to avoid excess damage to the local environment (e.g. fires, wood collection, poaching, etc.). Such rehabilitation would not only confirm the company’s environmental integrity, but also show true local commitment to the environment; 11. Implement erosion control. The area(s) towards and adjacent the drainage line(s) are easily eroded and further development may exacerbate this problem. Avoid developing exploration supporting infrastructures within 20m of the main drainage line(s) to minimise erosion problems as well as preserving the riparian associated fauna; 12. Conduct a thorough investigation on the flora associated with the ongoing exploration site(s); 13. Prevent the introduction of potentially invasive alien plant species (e.g. Tecoma stans, Pennisetum setaceum, etc.) for ornamental purposes as part of the landscaping should mining activities eventually commence. Alien species often “escape” and become invasive causing further ecological damage; 14. A thorough investigation of water use and ground water extraction should take place before actual mining activities commence as this would affect the local flora, especially the ephemeral riparian vegetation, not only locally, but downstream as well. 	<ol style="list-style-type: none"> (i) Regional reconnaissance field-based mapping and sampling activities; (ii) Initial local field-based mapping and sampling activities; (iii) Detailed local field-based activities such as local geological mapping, geochemical mapping and sampling, trenching and drilling of closely spaced boreholes and bulk sampling; (iv) Prefeasibility and feasibility studies. 	<ol style="list-style-type: none"> (i) Proponent's Representative (PR) (ii) Project Manager (PM) (iii) Project HSE (iv) Contractor (v) Subcontractors 	<p>Implemented in accordance with the provisions of the EMP. No diversions from the EMP have been observed.</p>

Table 3.9: Mitigation measures for preventing faunal and ecosystem destruction and promotion of conservation.

OBJECTIVES	MITIGATION MEASURES	SCHEDULE	RESPONSIBILITY	PERFORMANCE MONITORING RESULTS
<p>1. Prevent faunal and ecosystem destruction and promote conservation</p>	<ol style="list-style-type: none"> 1. Limit the development and avoid rocky outcrops throughout the entire area; 2. Avoid development & associated infrastructure in sensitive areas – e.g. in/close to drainage lines, cliffs, boulder and rocky outcrops in the area, etc; 3. Avoid placing access routes (roads & tracks) through sensitive areas – e.g. over rocky outcrops/ridges and along drainage lines. This would minimise the effect on localised potentially sensitive habitats in the area; 4. Avoid driving randomly through the area (i.e. “track discipline”), but rather stick to permanently placed roads/tracks. This would minimise the effect on localised potentially sensitive habitats in the area; 5. Stick to speed limits of maximum 30km/h as this would result in fewer faunal road mortalities. Speed humps could also be used to ensure the speed limit; 6. Remove (e.g. capture) unique fauna and sensitive fauna before commencing with the development activities and relocate to a less sensitive/disturbed site if possible; 7. Prevent and discourage the setting of snares (poaching), illegal collecting of veld foods (e.g. tortoises, etc.), indiscriminate killing of perceived dangerous species (e.g. snakes, etc.) and collecting of wood as this would diminish and negatively affect the local fauna – especially during the development phase(s); 8. Attempt to avoid the removal of bigger trees during the development phase(s) – especially with the development of access routes – as these serve as habitat for a myriad of fauna; 9. Prevent and discourage fires – especially during the development phase(s) – as this could easily cause runaway veld fires affecting the local fauna, but also causing problems (e.g. loss of grazing & domestic stock mortalities, etc.) for the neighbouring farmers; 10. Rehabilitation of the disturbed areas – i.e. initial development access route “scars” and associated tracks as well as temporary accommodation sites. Preferably workers should be transported in/out to the exploration sites on a daily basis to avoid excess damage to the local environment (e.g. fires, wood collection, poaching, etc.). Such rehabilitation would not only confirm the company’s environmental integrity, but also show true local commitment to the environment; 11. Implement erosion control. The area(s) towards & adjacent the drainage line(s) are easily eroded and further development may exacerbate this problem. Avoid disturbances within 20m of the main drainage line(s) to minimise erosion problems as well as preserving the riparian associated fauna; 12. Conduct a thorough investigation on the fauna associated with the proposed / ongoing exploration site(s); 13. Prevent the number of domestic pets – e.g. cats & dogs – accompanying the workers during the field-based exploration activities as cats decimate the local fauna and interbreed & transmit diseases to the indigenous African Wildcat found in the area. Dogs often cause problems when bonding on hunting expeditions thus negatively affecting the local fauna. The indiscriminate and wanton killing of the local fauna by such pets should be avoided at all costs. 	<ol style="list-style-type: none"> (i) Regional reconnaissance field-based mapping and sampling activities; (ii) Initial local field-based mapping and sampling activities; (iii) Detailed local field-based activities such as local geological mapping, geochemical mapping and sampling, trenching and drilling of closely spaced boreholes and bulk sampling; (iv) Prefeasibility and feasibility studies. 	<ol style="list-style-type: none"> (i) Proponent’s Representative (PR) (ii) Project Manager (PM) (iii) Project HSE (iv) Contractor (v) Subcontractors 	<p>Implemented in accordance with the provisions of the EMP. No diversions from the EMP have been observed.</p>

Table 3.10: Mitigation measures to be implemented with respect to the exploration camps and exploration sites.

OBJECTIVES	MITIGATION MEASURES	SCHEDULE	RESPONSIBILITY	PERFORMANCE MONITORING RESULTS
<p>1. Promotion of conservation through preservation of flora, fauna and ecosystem around the exploration camps and exploration sites</p>	<ol style="list-style-type: none"> 1. Select camp sites and other temporary lay over sites with care – i.e. avoid important habitats; 2. Use portable toilets to avoid faecal pollution around camp and exploration sites; 3. Initiate a suitable and appropriate refuse removal policy as littering could result in certain animals becoming accustomed to humans and associated activity and result in typical problem animal scenarios – e.g. baboon, black-backed jackal, etc.; 4. Avoid and/or limit the use of lights during nocturnal exploration activities as this could influence and/or affect various nocturnal species – e.g. bats and owls, etc. Use focused lighting for least effect; 5. Prevent the killing of species viewed as dangerous e.g. snakes – when on site; 6. Prevent the setting of snares for ungulates (i.e. poaching) or collection of veld foods (e.g. tortoises) and unique plants (e.g. various Aloe and Lithop) or any form of illegal hunting activities; 7. Avoid introducing dogs and cats as pets to camp sites as these can cause significant mortalities to local fauna (cats) and even stock losses (dogs); 8. Remove and relocate slow moving vertebrate fauna (e.g. tortoises, chameleon, snakes, etc.) to suitable habitat elsewhere on property; 9. Avoid the removal and/or damaging of protected flora potentially occurring in the general area – e.g. various Aloe, Commiphora and Lithop species; 10. Avoid introducing ornamental plants, especially potential invasive alien species, as part of the landscaping of the camp site, etc., but rather use localised indigenous species, should landscaping be attempted, which would also require less maintenance (e.g. water); 11. Remove all invasive alien species on site, especially Prosopis sp., which is already becoming a major ecological problem along various water courses throughout Central Namibia. This would not only indicate environmental commitment, but actively contribute to a better landscape; 12. Inform contractors/workers regarding the above mentioned issues prior to exploration activities and monitor for compliance thereof throughout; 13. Rehabilitate all areas disturbed by the exploration activities – i.e. camp sites, exploration sites, etc.; 14. Implement a policy of replacing 2 tree species (preferably the same species) for every 1 protected tree species having to be removed (if necessary); 15. Although fires are not expected to be a major issue in the general area due to the overall lack of grass cover, some years it may be necessary to consider fire prevention. Ensure that adequate firefighting equipment (e.g. fire beaters; extinguishers, etc.) is available at camp sites and clear kitchen areas to avoid accidental fires; 16. Employ an independent environmental auditor to ensure compliance, especially of the rehabilitation of all the affected areas. 	<ol style="list-style-type: none"> (i) Regional reconnaissance field-based mapping and sampling activities; (ii) Initial local field-based mapping and sampling activities; (iii) Detailed local field-based activities such as local geological mapping and geochemical mapping and sampling, trenching and drilling of closely spaced boreholes and bulk sampling; (iv) Prefeasibility and feasibility studies. 	<ol style="list-style-type: none"> (i) Proponent's Representative (PR) (ii) Project Manager (PM) (iii) Project HSE (iv) Contractor (v) Subcontractors 	<p>Implemented in accordance with the provisions of the EMP. No diversions from the EMP have been observed.</p>

Table 3.11: Mitigation measures for surface and groundwater protection as well as general water usage.

OBJECTIVES	MITIGATION MEASURES	SCHEDULE	RESPONSIBILITY	PERFORMANCE MONITORING RESULTS
<p>1. Effective management / protection of surface and groundwater resources and general water resources usage</p>	<ol style="list-style-type: none"> 1. Always use as little water as possible. Reduce, reuse and re-cycle water where possible; 2. All leaking pipes / taps must be repaired immediately they are noticed; 3. Never leave taps running. Close taps after you have finished using them. 4. Never allow any hazardous substance to soak into the soil; 5. Immediately tell your Contractor or Environmental Control Officer / Site Manager when you spill, or notice any hazardous substance being spilled anywhere in the exploration area; 6. Report to your Contractor or Environmental Control Officer / Site Manager when you notice any container, which may hold a hazardous substance, overflow, leak or drip; 7. Immediately report to your Contractor or Environmental Control Officer / Site Manager when you notice overflowing problems or unhygienic conditions at the ablution facilities; 8. No washing of vehicles, equipment and machinery, containers and other surfaces; 9. Limit the operation to a specific site and avoid sensitive areas and in particular the Ephemeral River Channel. This would sacrifice the actual area for other adjacent Ephemeral River areas and thus minimise any likely negative effect on water resources; 10. Disposal of wastewater into any public stream is prohibited; 11. The Proponent must obtain permission of the land owners before utilising any water resources or any associated infrastructure; 12. If there is a need to drilling a water borehole to support the exploration programme the proponent (Proponent) must obtain permission from the land owner and Department of Water Affairs in the Ministry of Agriculture and Forestry. In an event of discovery of economic minerals resources, the sources of water supply for the mining related operations will be supplied by NamWater; 13. If there are any further (larger scale) exploration/drilling activities and/or mining activities to follow from the initial planned drill holes, groundwater monitoring must be implemented to include water level monitoring and also water sampling on a bi-annual basis. In order to have greater transparency on the water monitoring activities, the affected landowners / farmers must be given full access to the results of the water monitoring analyses. 	<ol style="list-style-type: none"> (i) Regional reconnaissance field-based mapping and sampling activities; (ii) Initial local field-based mapping and sampling activities; (iii) Detailed local field-based activities such as local geological mapping, geochemical mapping and sampling, trenching and drilling of closely spaced boreholes and bulk sampling; (iv) Prefeasibility and feasibility studies. 	<ol style="list-style-type: none"> (i) Proponent's Representative (PR) (ii) Project Manager (PM) (iii) Project HSE (iv) Contractor (v) Subcontractors 	<p>Implemented in accordance with the provisions of the EMP. No diversions from the EMP have been observed.</p>

Table 3.12: Mitigation measures to minimise negative socioeconomic impacts.

OBJECTIVES	MITIGATION MEASURES	SCHEDULE	RESPONSIBILITY	PERFORMANCE MONITORING RESULTS
<p>1. Effective management of socioeconomic benefits of the proposed / ongoing project activities</p>	<ol style="list-style-type: none"> 1. The employment of local residents and local companies should be a priority. To ensure that potential employees are from the area, they need submit proof of having lived in the area for a minimum of 5 years; 2. Providing information such as the number and types of jobs available, availability of accommodation facilities and rental costs and living expenses, could make potential job seekers wary of moving to the area; 3. Addressing unrealistic expectations about large numbers of jobs would be created; 4. Exploration camp if required should be established in close consultation with the land owners; 5. Exploration camp should consider provision of basic services; 6. When employees contracts are terminated or not renewed, contractors should transport the employees out of the area to their hometowns within two days of their contracts coming to an end; 7. Tender documents could stipulate that contractors have HIV/Aids workplace policies and programmes in place and proof of implementation should be submitted with invoicing; 8. Develop strategies in coordination with local health officers and NGO's to protect the local communities, especially young girls. 9. Contract companies could submit a code of conduct, stipulating disciplinary actions where employees are guilty of criminal activities in and around the vicinity of the EPL. Disciplinary actions should be in accordance with Namibian legislation; 10. Contract companies could implement a no-tolerance policy regarding the use of alcohol and workers should submit to a breathalyser test upon reporting for duty daily; 11. Request that the Roads Authority erect warning signs of heavy exploration vehicles on affected public roads; 12. Ensure that drivers adhere to speed limits and that speed limits are strictly enforced; 13. Ensure that vehicles are road worthy and drivers are qualified; 14. Train drivers in potential safety issues. 	<ol style="list-style-type: none"> (i) Regional reconnaissance field-based mapping and sampling activities; (ii) Initial local field-based mapping and sampling activities; (iii) Detailed local field-based activities such as local geological mapping, geochemical mapping and sampling, trenching and drilling of closely spaced boreholes and bulk sampling; (iv) Prefeasibility and feasibility studies. 	<ol style="list-style-type: none"> (i) Proponent's Representative (PR) (ii) Project Manager (PM) (iii) Project HSE (iv) Contractor (v) Subcontractors 	<p>Implemented in accordance with the provisions of the EMP. No diversions from the EMP have been observed.</p>

Table 3.13: Mitigation measures to minimise health and safety impacts.

OBJECTIVES	MITIGATION MEASURES	SCHEDULE	RESPONSIBILITY	PERFORMANCE MONITORING RESULTS
<p>1. Promotion of health and safe working environment in line with national Labour Laws</p>	<ol style="list-style-type: none"> 1. Physical hazards: Follow national and international regulatory and guidelines provisions, use of correct Personal Proactive Clothing at all times, training programme, as well as the implementation of a fall protection program in accordance with the Labour Act; 2. Some of the public access management measures that may be considered in an event of vandalism occurring are: <ul style="list-style-type: none"> • All exploration equipment must be in good working condition and services accordingly; • Control access to the exploration site through using gates on the access road(s) if required; • The entire site, must be fenced off; the type of fencing to be used would, however, be dependent on the impact on the visual resources and/or cost; and; • Notice or information boards relating to public safety hazards and emergency contact details to be put up at the gate(s) to the exploration area. 3. There is a comprehensive First Aid Kit on site and that suitable anti-histamine for bee stings / snake bites should be available. 4. Rubber gloves are used in case of an accident to reduce the risk of contracting HIV/AIDS; 5. All individuals have received instructions concerning the dangers of dehydration or hyperthermia. Encourage all to drink plenty of clean water not directly from the surface water bodies. 6. No person under the influence of alcohol or drugs is allowed to work on site. 7. The Exploration Manager ensures compliance with the requirements of the relevant Namibian Labour, Mining and Health and Safety Regulations. 8. Dangerous or protected / sensitive areas are clearly marked and access to these areas is controlled or restricted. 9. Due care must be taken when driving any vehicles on any roads particularly the gravel roads. ALL Drivers must drive with their headlights switched on when travelling on the gravel roads (day and night). 10. Persons driving a vehicle must be in possession of a valid driver's license 11. Awareness on HIV/AIDS among workers is raised 	<ol style="list-style-type: none"> (i) Regional reconnaissance field-based mapping and sampling activities; (ii) Initial local field-based mapping and sampling activities; (iii) Detailed local field-based activities such as local geological mapping, geochemical mapping and sampling, trenching and drilling of closely spaced boreholes and bulk sampling; (iv) Prefeasibility and feasibility studies. 	<ol style="list-style-type: none"> (i) Proponent's Representative (PR) (ii) Project Manager (PM) (iii) Project HSE (iv) Contractor (v) Subcontractors 	<p>Implemented in accordance with the provisions of the EMP. No diversions from the EMP have been observed.</p>

Table 3.14: Mitigation measures to minimise visual impacts.

OBJECTIVES	MITIGATION MEASURES	SCHEDULE	RESPONSIBILITY	PERFORMANCE MONITORING RESULTS
<p>1. Preserve the landscape character in the development of supporting infrastructure and choice of visual screening</p>	<ol style="list-style-type: none"> 1. Consider the landscape character and the visual impacts of the exploration area including camp site from all relevant viewing angles, particularly from public roads; 2. Use vegetation screening where applicable. Do not cut down vegetation unnecessary around the site and use it for site screening; 3. Avoid the use of very high fencing; 4. Minimise access roads and no off-road that could results in land scarring is allowed; 5. Minimise the presence of secondary structures: remove inoperative support structures; 6. Remove all infrastructure and reclaim, or rehabilitate the project site after exploration activities are completed. 	<ol style="list-style-type: none"> (i) Regional reconnaissance field-based mapping and sampling activities; (ii) Initial local field-based mapping and sampling activities; (iii) Detailed local field-based activities such as local geological mapping, geochemical mapping and sampling, trenching and drilling of closely spaced boreholes and bulk sampling; (iv) Prefeasibility and feasibility studies. 	<ol style="list-style-type: none"> (i) Proponent's Representative (PR) (ii) Project Manager (PM) (iii) Project HSE (iv) Contractor (v) Subcontractors 	<p>Implemented in accordance with the provisions of the EMP. No diversions from the EMP have been observed.</p>

Table 3.15: Mitigation measures to minimise vibration, noise and air quality.

OBJECTIVES	MITIGATION MEASURES	SCHEDULE	RESPONSIBILITY	PERFORMANCE MONITORING RESULTS
<p>1. Promote of effective management of vehicle movement, drilling and blasting operations and use of Personal Protective Equipment (PPE) in mitigating air quality and vibrations impacts in line with national laws</p>	<ol style="list-style-type: none"> 1. Limit vehicle movements and adhere to the speed of 60 km/h; 2. Vehicles and all equipment must be properly serviced to minimise noise pollution; 3. Use of Personal Protective Equipment (PPE) to minimise Occupational Health Safety impacts dues to noise pollution around the site; 4. National or international acoustic design standards must be followed. 5. Drilling and blasting operations can major sources of vibration, noise and dust and where required the following mitigation measure shall be implemented; <ul style="list-style-type: none"> • Drilling and blasting operations shall only be done by a qualified person who must at all times adhere to the required blasting protocol; • Prior warning shall be given to all persons, neighbor and visitors before the blasting takes place; • Careful planning and timing of the blast program to minimise the size of the charge; • Where practicable, use of explosive products with lower detonation velocities, but noting that this would require more explosives to achieve the same blast result; • Use of detonating caps with built-in time delays, as this effectively reduces each detonation into a series of small explosions; • Use of a procedure ("decking the charge") which subdivides the charge in one blast hole into a series of smaller explosions, with drill patterns restricted to a minimum separation from any other loaded hole; • Over-drilling the holes to ensure fracturing of the rock; • Staggering the detonation for each blast hole in order to spread the explosive's total overpressure over time; • Matching, to the extent possible, the energy needed in the "work effort" of the borehole to the rock mass to minimise excess energy vented into the receiving environment. 	<ol style="list-style-type: none"> (i) Regional reconnaissance field-based mapping and sampling activities; (ii) Initial local field-based mapping and sampling activities; (iii) Detailed local field-based activities such as local geological mapping, geochemical mapping and sampling, trenching and drilling of closely spaced boreholes and bulk sampling; (iv) Prefeasibility and feasibility studies. 	<ol style="list-style-type: none"> (i) Proponent's Representative (PR) (ii) Project Manager (PM) (iii) Project HSE (iv) Contractor (v) Subcontractors 	<p>Implemented in accordance with the provisions of the EMP. No diversions from the EMP have been observed.</p>

Table 3.16: Mitigation measures for waste (solid and liquid) management.

OBJECTIVES	MITIGATION MEASURES	SCHEDULE	RESPONSIBILITY	PERFORMANCE MONITORING RESULTS
<p>1. Promotion of effective waste (solid and liquid) management through the adoption of sound and hierarchical approach to waste management, which would include waste minimisation, re-use, recovery, recycling, treatment, and proper disposal.</p>	<ol style="list-style-type: none"> 1. Burial of waste on anywhere within the EPL area is not allowed and all generated solid waste must be disposed at the at an approved municipal waste disposal site; 2. Toilet and ablution facilities must be provided on site and should not be located close to Ephemeral Rivers or visible discountunities (fractures, joints or faults); 3. Provide site information on the difference between the two main types of waste, namely: <ul style="list-style-type: none"> • General Waste; and • Hazardous Waste. 4. Sealed containers, bins, drums or bags for the different types of wastes must be provided. Never dispose of hazardous waste in the bins or skips intended for general waste or rubbles; 5. All solid and liquid wastes generated from the proposed / ongoing project activities shall be reduced, reused, or recycled to the maximum extent practicable; 6. Trash may not be burned or buried, except at approved sites under controlled conditions in accordance with the municipal regulations; 7. Never overfill any waste container, drum, bin or bag. Inform your Contractor or the Environmental Control Officer / Site Manager if the containers, drums, bins or skips are nearly full; 8. Never litter or throwaway any waste on the site, in the field or along any road. No illegal dumping; 9. Littering is prohibited. 10. Latrines and French drains built >100m from watercourses or pans to avoid pollution of primary and secondary aquifers. 11. Chemical toilets or suitable waste water management system shall be provided on site and around the camp as may be required. 	<ol style="list-style-type: none"> (i) Regional reconnaissance field-based mapping and sampling activities; (ii) Initial local field-based mapping and sampling activities; (iii) Detailed local field-based activities such as local geological mapping, geochemical mapping and sampling, trenching and drilling of closely spaced boreholes and bulk sampling; (iv) Prefeasibility and feasibility studies. 	<ol style="list-style-type: none"> (i) Proponent's Representative (PR) (ii) Project Manager (PM) (iii) Project HSE (iv) Contractor (v) Subcontractors 	<p>Implemented in accordance with the provisions of the EMP. No diversions from the EMP have been observed.</p>

Table 3.17: Rehabilitation plan.

OBJECTIVES	MITIGATION MEASURES	SCHEDULE	RESPONSIBILITY	PERFORMANCE MONITORING RESULTS
<p>1. Contributions toward environmental preservation and sustainability through rehabilitation of disturbed areas such as exploration sites and remove all unwanted part of the fixtures and restore the sites to close an approximation of the pristine state as is technically, financially and reasonably possible.</p>	<p>1. The following rehabilitation actions are practiced:</p> <ul style="list-style-type: none"> • Small samples are preferably removed from site to avoid additional scars in the landscape; • Litter from the site has been taken to the appropriate disposal site. • Debris, scrap metal, etc is removed before moving to a new site or closure of the mine. • Water tanks are dismantled and removed if not need for after use. • Tracks on site and the access road are rehabilitated by smoothing the 'middle mannetjie'(middle ridge between the tracks) and raking the surface. <p>2. The following should be undertaken at all disturbed areas that require further rehabilitation:</p> <ul style="list-style-type: none"> • if applicable the stockpiled subsoil to be replaced (spread) and/or the site is neatly contoured to establish effective wind supported landscape patterns; • Replace the stored topsoil seed bank layer. • Five (5) years after rehabilitation the sites are not visible from 500 m away. 	<ul style="list-style-type: none"> (i) Regional reconnaissance field-based mapping and sampling activities; (ii) Initial local field-based mapping and sampling activities; (iii) Detailed local field-based activities such as local geological mapping, geochemical mapping and sampling, trenching and drilling of closely spaced boreholes and bulk sampling; (iv) Prefeasibility and feasibility studies. 	<ul style="list-style-type: none"> (i) Proponent's Representative (PR) (ii) Project Manager (PM) (iii) Project HSE (iv) Contractor (v) Subcontractors 	<p>Implemented in accordance with the provisions of the EMP. No diversions from the EMP have been observed.</p>

Table 3.18: Environmental data collection.

OBJECTIVES	MITIGATION MEASURES	SCHEDULE	RESPONSIBILITY	PERFORMANCE MONITORING RESULTS
<p>1. Collect data that will add value to environmental monitoring and reporting to the regulators</p> <p>2. Collect data that will add to the general scientific and geographic knowledge of the environment in which the exploration process takes place.</p> <p>3. Acknowledged that the required skills and knowledge to collect all the suggested data may not be available within the mine /exploration team, however, as much data as is practical should be collected.</p>	<p>1. Environmental Monitoring Report Compiled and submitted by the Environmental Coordinator to the regulators</p> <p>2. The following types of information should be gathered:</p> <ul style="list-style-type: none"> • Fauna. What tracks or signs of animal activity have been seen? (photographs and GPS recording) What animals, birds etc were identified? Alternatively provide a description and/ or photo if unidentified. • Unusual weather conditions, e.g. records of the prevailing wind direction and the direction from which storm events come. Was there fog or rain, frost overnight or intense heat? Preferably have a thermometer and rain gauge on site. • Vegetation. Record trees, shrubs, grass, etc. that are found in the vicinity along each of the profiles. Some plants do only occur after rainfall and might not have been seen for decades. • Any archaeological, cultural or historical sites that may be found. GPS coordinates, photograph and plot the position on a 1: 50 000 map. • other including surface water, spring, large scale geological features etc 	<p>(i) Regional reconnaissance field-based mapping and sampling activities;</p> <p>(ii) Initial local field-based mapping and sampling activities;</p> <p>(iii) Detailed local field-based activities such as local geological mapping, geochemical mapping and sampling, trenching and drilling of closely spaced boreholes and bulk sampling;</p> <p>(iv) Prefeasibility and feasibility studies.</p>	<p>(i) Proponent's Representative (PR)</p> <p>(ii) Project Manager (PM)</p> <p>(iii) Project HSE</p> <p>(iv) Contractor</p> <p>(v) Subcontractors</p>	<p>Implemented in accordance with the provisions of the EMP. No diversions from the EMP have been observed.</p>

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Overall Project Performance

The implementation of the ongoing minerals exploration activities in the EPL 5887 followed all the provisions and conditions of the EMP, Environmental Clearance Certificate (ECC) and all other applicable regulations and legislations with no deviations from the site policies, protocols, procedures and standards. In summary, the following observations are noted with respect to the implementation of the ongoing exploration activities:

- (i) The implementation of the activities was only undertaken after all the required authorisations such as the Environmental Clearance Certificate (ECC) and parks entry permit were granted;
- (ii) The onsite teams reduced any likely cumulative impacts through coordinating their activities with each other and adhered to the recommendations contained in the EMP as well as all other relevant operational standards, procedures, manuals and company Environmental Policy concerning conservation and preservation of natural environment;
- (iii) All the onsite teams were constantly informed and reminded of good environmental management and commitments at all times through daily briefings, awareness raising and corrective actions where an onsite mistakes or unacceptable conducts were identified;
- (iv) General good environmental management and performances as well as protection of the receiving environment formed part of the onsite daily briefings / meetings by the Health, Safety and Environment (HSE) Teams;
- (v) All communications and public relations issues with the stakeholders were directed through one communication channel. The Project Manager / HSE Manager / Employer Representative onsite played a significant role in this regard and contractor's personnel were courteous and considerate when dealing with other project participants and members of the general public;
- (vi) All activities have been undertaken to the highest safety standard. Personal Protective Equipment (PPE) and gears were used at all times. Safety and fire drills were regularly undertaken;
- (vii) No waste was buried or burned onsite and no litter was left after the completion of activities around the exploration sites.

4.2 Conclusions

Based on the overall Health, Safety and Environment (HSE) performance monitoring undertaken for this project, no diversions from the environmental commitments as outlined the Environmental Management Plan (EMP) and the Environmental Clearance Certificate (ECC) provisions have been observed or recorded for the ongoing minerals explorations for the EPL 5887.

It's clear that the ongoing minerals exploration operations and all the associated activities have been undertaken with the highest Health, Safety and Environment (HSE) commitment as outlined in the Health, Safety and Environment (HSE) standards.

4.3 Attachments – CV of consultant