

EXECUTIVE SUMMARY

1. INTRODUCTION

On 14 June 2018 De Beers Consolidated Mines (Pty) Ltd (De Beers) lodged an application for a Prospecting Right with the Department of Mineral Resources and Energy (DMRE) to undertake offshore diamond prospecting activities in Sea Concession 6C (see Figure 1-1). The application was lodged in terms of Section 22 of the Mineral and Petroleum Resources Development Act, 2002 (No. 28 of 2002) (MPRDA), as amended.

In response to the application, DMRE requested that a Basic Assessment Report (BAR) be submitted for the geophysical and sampling activities to be undertaken as part of the proposed prospecting operations. It was also indicated that the planned bulk sampling activities would constitute a listed activity in terms of Listing Notice 2 published in Government Notice (GN) No. 984 of 8 December 2014 (as amended by GN No. 375 of 7 April 2017). Thus, as a Listing Notice 2 activity the proposed bulk sampling activities would require an application for Environmental Authorisation (EA) by means of a Scoping and Environmental Impact Assessment (EIA) process. It is pointed out that a BAR (and associated specialist studies) was completed for the proposed geophysical and sampling activities in Sea Concession 6C and that an EA was granted for these operations on 4 February 2019.

De Beers has appointed SLR Consulting (South Africa) (Pty) Ltd (SLR) as the independent Environmental Assessment Practitioner (EAP) to undertake the Scoping and EIA process for the proposed bulk sampling activities in Sea Concession 6C in accordance with the requirements of the MPRDA, National Environmental Management Act, 1998 (No. 107 of 1998) (NEMA) and Regulations thereto.

2. OPPORTUNITY TO COMMENT

The draft Environmental Impact Report (EIR), including Environmental Management Programme (EMPr), was made available for a 30-day public review and comment period from 7 September to 8 October 2020 in order to provide interested and affected parties (I&APs) and authorities the opportunity to comment on the proposed project and the draft EIR.

Following requests for additional opportunities for public consultation received from I&APs during the above-mentioned comment period, this updated draft EIR has been made available for an additional review and comment period from **20 April to 24 May 2021** in order to provide interested and affected parties (I&APs) with an opportunity to comment on any aspect of the proposed project and the findings of the EIA project to date. It should be noted that all significant changes to the draft report are underlined and in a different font (Times New Roman) to the rest of the text.

Copies of the full report have been made available on the SLR website (at <https://slrconsulting.com/public-documents/de-beers-consolidated-mines>). The report can also be downloaded without any data charges using internet-capable mobile phones from the corresponding datafree website (<https://slrpublicdocs.datafree.co/public-documents/de-beers-consolidated-mines>).

Any comments should be forwarded to SLR at the address, telephone / fax numbers or e-mail addresses shown below. For comments to be included in the in the updated EIR, comments should reach SLR by no later than **24 May 2021**. Comments can be provided to SLR using the following means:

- sending written comments by email to Candice Sadan at csadan@slrconsulting.com;
- calling 0800 172 984, follow the prompts and leave a voice message; or
- sending a written message or voice message by WhatsApp to 063 900 5536.

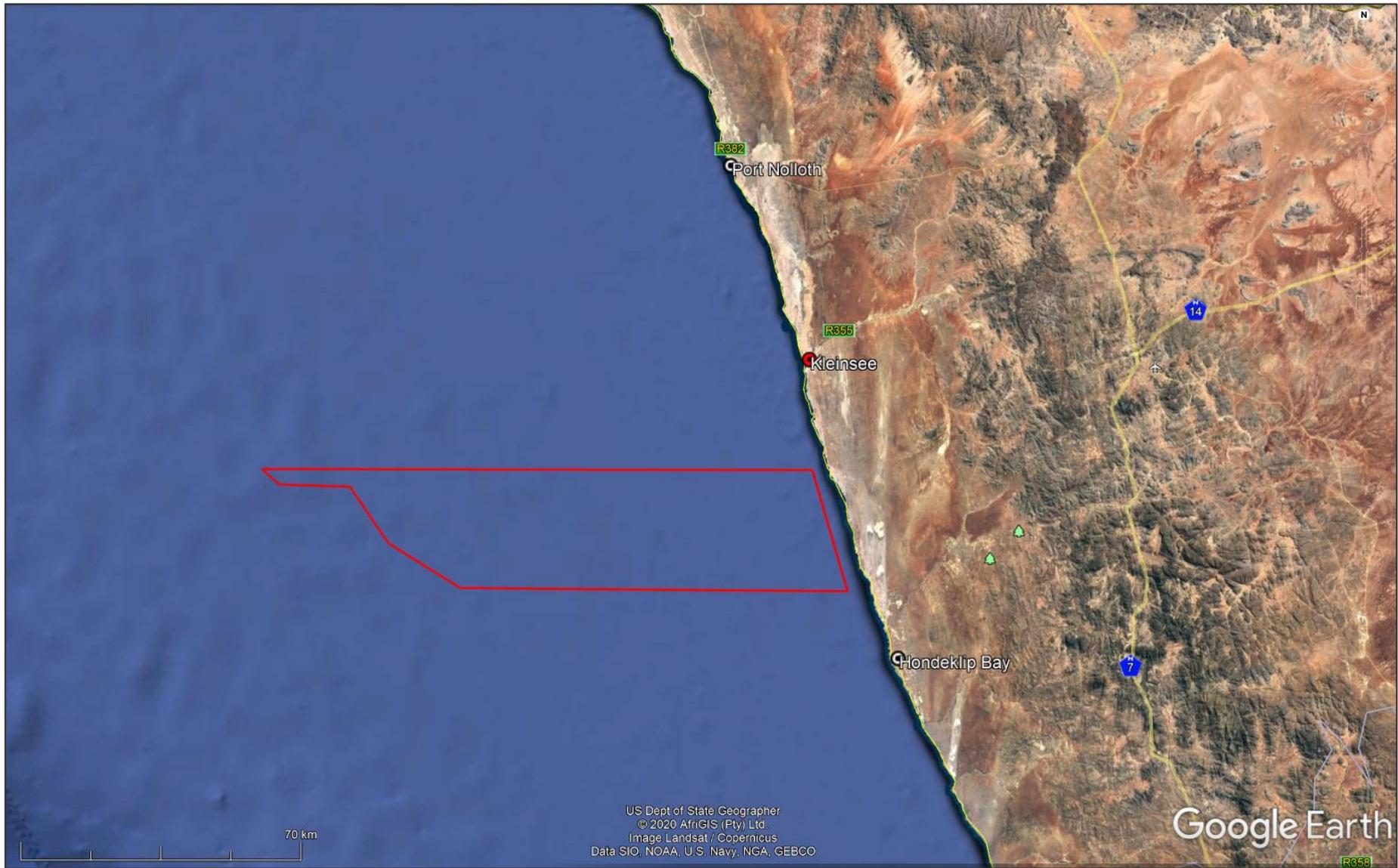


FIGURE 1-1: LOCATION OF THE 6C PROSPECTING RIGHT AREA, OFF THE WEST COAST OF SOUTH AFRICA.

3. SCOPING AND EIA PROCESS

3.1. SCOPING PHASE

3.1.1. Application for Environmental Authorisation

An “Application Form for Environmental Authorisation” form was submitted to DMRE at the same time as making this draft version of the Scoping Report available for review and comment. The application was accepted by DMRE on 21 August 2019.

3.1.2. Compilation and review of the Scoping Report

The Scoping Report was prepared in compliance with Appendix 2 of the EIA Regulations 2014 (as amended). The final Scoping Report was submitted to DMRE for acceptance on 25 September 2019. DMRE accepted the report on 4 December 2019 and indicated that the EIR should be submitted before 26 May 2020. However, following the implementation of the nation-wide lockdown on 26 March 2020, the Minister of Forestry, Fisheries and the Environment issued Directions (“*Measures to Address, Prevent and Combat the Spread of Covid-19*” published in GN No. R 439 of 31 March 2020) which extended the above-mentioned time frame “*by the number of days of the duration of the lockdown period of the national state of disaster declared for the COVID-19 pandemic ... with effect from 27 March 2020 until the termination of the lockdown period*”.

Subsequently, on 5 June 2020 updated Directions were published (GN No. 650 of 5 June 2020) which repealed the above-mentioned Directions of 31 March 2020. In terms of these new Directions, the timeframes set out in the EIA Regulations 2014 (as amended) were resumed and “*remain extended ... by the number of days calculated from 27 March 2020 until further notice*”. In light of the above, the final EIR must be submitted to DMRE by 14 October 2020.

3.2. EIA PHASE

3.2.1. Specialist Studies

Three specialist studies were undertaken as part of the previous Basic Assessment application and also addressed the key issues and detailed assessment of the planned bulk sampling activities. These studies were: (1) an Underwater Heritage Impact Assessment, (2) a Marine Faunal Assessment, and (3) a Fisheries Impact Assessment. The studies also recommended appropriate mitigation or optimisation measures to minimise potential impacts or enhance potential benefits, respectively.

3.2.2. Integration and Assessment

Information from the specialists, desktop analysis, and the generic EMP prepared for marine diamond mining off the West Coast, are integrated into this EIR, which will include an Environmental Management Programme (EMPr). The EIR has been released for a 30-day comment period. After closure of the comment period, all comments received on the draft report will be incorporated and responded to in a Comments and Responses Report. The draft report will then be updated to a final report, to which the Comments and Responses Report will be appended, and will be submitted to DMRE for consideration and decision-making.

The decision taken by DMRE will be advertised and distributed to all I&APs on the project database as part of the statutory appeal period.

4. PROJECT DESCRIPTION

4.1 GENERAL INFORMATION

The proposed bulk sampling activities would be undertaken within Sea Concession 6C, off the West Coast of South Africa. The mineral targeted by the proposed operations would be diamonds. Sea Concession 6C is situated approximately 400 km north of Cape Town; with the inshore boundary located 5 km seaward of the coast between Hondeklip Bay in the south and Kleinsee in the north. The offshore boundary is located between approximately 70 to 100 km offshore (refer to Figure 1-1). Sea Concession 6C has a total extent of 345 746 hectares (ha).

4.2 NEED AND DESIRABILITY

In the recently published DMR Strategic Plan 2014-2019, the foreword by the Minister of Mineral Resources notes that the Department “*will continue to promote mineral value addition to strengthen the interface between extractive industries and national socio-economic developmental objectives*”.

This project aims to identify economically viable diamond deposits on the continental shelf off the coast of the Northern Cape with the intention of deriving value from the identified offshore mineral resources and contributing to the existing diamond mining sector in the Northern Cape.

4.3 PROJECT OVERVIEW

The proposed exploration sampling programme would entail sampling (for which EA has already been granted) and bulk sampling activities. The sampling / bulk sampling activities may be divided into stages subject to reviews and follow-up sampling. A decision on the planned sampling / bulk sampling technology appropriate to each target area would be made based on the available data at the time.

The proposed bulk sampling activities would be undertaken using a vessel of opportunity which may include the De Beers Marine (Pty) Ltd (the appointed operator for Beers Consolidated Mines (Pty) Ltd) owned vessel, the *mv Coral Sea* or one of the marine diamond vessels operated by Debmarine Namibia (Pty) Ltd or a similar vessel. In this regard, there are two possible basic configurations of vessel available for bulk sampling: (i) the vertical method, utilising a tool mounted on a drill string; and (ii) the horizontal method, using a seabed crawler. The planned bulk sampling operations would have a total footprint of approximately 480 000 m² and would be undertaken in up to 60 days over the 5-year licence period. A summary of the proposed operation is provided in the table below.

TABLE 1: SUMMARY OF PROPOSED BULK SAMPLING OPERATIONS

Activity	Detail	
Number of pits/trenches planned	Up to 60	
Dimensions of pits/trenches	Length	Up to 400 m
	Breadth	Typically 20 m
	Depth	Typically up to 1.5 m
Total Volume Overburden (Waste)	Maximum 480 000 m ³	
Total Volume Ore	Maximum 240 000 m ³	
Density Overburden	1.5 t/m ³	
Density Ore	1.9 t/m ³	

4.4 NO-GO ALTERNATIVE

The No-Go alternative is the non-occurrence of the proposed bulk sampling project. The negative implications of not going ahead with the proposed project are as follows:

- Loss of opportunity to establish whether further viable offshore diamond resources exist;
- Prevention of any socio-economic benefits associated with the continuation of prospecting activities; and
- Lost economic opportunities.

The positive implications of the no-go option are that there would be no effects on the biophysical environment in the area proposed for the bulk sampling activities.

5. AFFECTED ENVIRONMENT

5.1 PHYSICAL ENVIRONMENT

Sea Concession 6C lies within the southern zone of the Benguela Current region and is characterised by the cool Benguela upwelling system. The dominant southerly and south-easterly winds in summer drive the massive offshore movement of surface water, resulting in strong upwelling of nutrient-rich bottom waters. Nutrient-rich upwelled water enhances primary production, and the West Coast region consequently supports substantial pelagic fisheries. Two geological features of note within the vicinity of Sea Concession 6C include Childs Bank, situated approximately 80 km south and Tripp Seamount, approximately 150 km west.

5.2 BIOLOGICAL OCEANOGRAPHY

Sea Concession 6C falls into one of the nine bioregions, namely the cold temperate Namaqua Bioregion. Communities within marine habitats are largely ubiquitous throughout the southern African West Coast region, being particular only to substrate type or depth zone. These biological communities consist of many hundreds of species, often displaying considerable temporal and spatial variability (even at small scales).

The fish species likely to be encountered comprise primarily the large pelagic species (e.g. tunas, billfish and pelagic sharks), which migrate throughout the southern oceans, between surface and deep waters (>300 m).

Most seabirds in the region reach highest densities offshore of the shelf break (200 to 500 m depth) and are likely to be encountered. Marine mammals likely to be encountered include sperm whales, migrating humpback whales and various baleen and toothed whales known to frequent offshore waters.

5.3 HUMAN UTILISATION

The only commercial fisheries sectors that could be affected by the proposed prospecting operations are the demersal long-line, traditional line-fish and tuna pole fisheries. Sea Concession 6C falls outside of all other sectors. However, overlap of the prospecting area and these fisheries is limited. Small-scale fishers fish to meet food and basic livelihood needs with distances fished from the shore constrained by boat size and maritime safety requirements. Two small-scale fishing co-operatives have been registered and operate out of Port Nolloth and Hondeklip Bay.

The majority of shipping traffic is located on the outer edge of the continental shelf with traffic inshore of the continental shelf along the South-West Coast largely comprising fishing vessels, especially between Kleinsee and Oranjemund. The majority of the shipping traffic would be limited to the western portions of the concession area. Exploration for oil and gas is currently undertaken in a number of licence blocks off the West Coast. There is no current development or production from the South African West Coast offshore. A number of proposed prospecting areas for glauconite and phosphorite / phosphate are located off the South-West Coast, all of which are located south of Sea Concession 6C. A number of marine diamond mining right and prospecting concession areas are also located in proximity to Sea Concession 6C.

5. ENVIRONMENTAL IMPACT ASSESSMENT

Table 1 provides a summary of the significance ratings assigned to each potential impact of the proposed prospecting activities.

Table 1: Summary of the significance of the potential impacts associated with the proposed prospecting activities and No-Go Alternative.

Potential impact		Significance				
		Without mitigation	With mitigation			
Impact on marine fauna:						
Noise associated with sampling operations		VL	VL			
Crushing of benthic fauna and sediment removal		L	L			
Generation of sediment plumes		VL	VL			
Smothering of benthos by redepositing tailings		VL – M	VL – L			
Impact on other users of the sea:						
Fishing industry	Exclusion of the demersal long-line, traditional line-fish, tuna pole and fisheries research	L	L			
	Sediment plume impact on fish stock recruitment	Insig	INSIG			
Fishery Research		VL	VL			
Marine mining and prospecting		Insig	INSIG			
Petroleum exploration		VL-L	VL			
Marine transport routes		Insig	INSIG			
Impact on cultural heritage material:						
Impact on historical shipwrecks		M	INSIG			
Socio-Economic Impacts:						
Job creation and business opportunities		VL	VL			
No-Go Alternative:						
Lost opportunity to establish whether or not a viable offshore diamond resources exists off the West Coast and the lost economic opportunities.		L	-			
Cumulative Impact:						
Benthic <u>and</u> socio-economic environment		L	L			
VH=Very High	H=High	M=Medium	L=Low	VL=Very low	Insig = insignificant	N/A= Not applicable

6. CONCLUSIONS

The majority of the impacts associated with the vessel operations would be of short-term duration and limited to the immediate sampling areas. As a result, the majority of the impacts associated with the sampling vessels are considered to be of **INSIGNIFICANT** to **LOW** significance after mitigation.

Potential impacts on marine fauna as a result of the proposed bulk sediment sampling activities would be of medium- to short-term duration and limited to the immediate sampling areas. As a result, the impacts on marine fauna associated with the sampling activities are considered to be of **VERY LOW** to **LOW** significance after mitigation.

The likelihood of disturbing a shipwreck is expected to be very low considering the vast size of the South African offshore area. In the event that any cultural heritage material is disturbed during bulk sampling operations, the impact would be at the national level, and of high intensity. Without mitigation this is of **Medium** significance. However, with the implementation of mitigation, cultural heritage sites can largely be avoided and if sampling is terminated in the unlikely event of encountering a shipwreck, the impact is regarded as **INSIGNIFICANT**.

The implications of not going ahead with the proposed prospecting operations relate to the lost opportunity to establish whether or not a viable offshore diamond resource exists off the West Coast and the lost economic opportunities. This potential impact of the No-Go Alternative is considered to be of **LOW** significance. The positive implications on the no-go option are that there would be no effects on the biophysical environment in the area proposed for the prospecting activities.

7. RECOMMENDATIONS

7.1 Compliance with Environmental Management Programme and MARPOL 73/78 standards

- All phases of the proposed project must comply with the Environmental Management Programme presented in Chapter 7; and
- The prospecting and support vessels must ensure compliance with MARPOL 73/78 standards.

7.2 Notification and communication with key stakeholders

- Prior to the commencement of the proposed activities, De Beers should consult with the managers of the DEFF fishery research survey programmes to discuss their respective programmes and the possibility of altering the prospecting programme in order to minimise or avoid disruptions to both parties, where required.
- Notify Cairn, PetroSA, Sungu Sungu, Sunbird, Africa Energy Corp and Simbo and their contractors, as well as any other neighbouring petroleum exploration rights holders, as well as any companies undertaking marine prospecting or mining activities in the study area, prior to the commencement of activities.
- Liaise with all petroleum exploration operators and any overlapping mineral prospecting rights holders to ensure that there is no overlapping of activities in the same area over the same time period.
- Prior to the commencement of the proposed survey and/or sampling activities the following key stakeholders should be consulted and informed of the proposed activities (including navigational co-ordinates of the sampling areas, timing and duration of proposed activities) and the likely implications thereof:
 - > Fishing industry / associations (these include South African Tuna Association, South African Tuna Longline Association, Fresh Tuna Exporters Association, South African Commercial Linefish Association, Hake Longline Association, National SMME Fishing Forum, representatives of small-scale local fishing co-operatives); and
 - > Other: DEFF, South African Maritime Safety Authority (SAMSA), South African Navy (SAN) Hydrographic office, overlapping and neighbouring exploration right holders and applicants, and Transnet National Ports Authority (ports of Cape Town and Saldanha Bay).
- The required safety zones around the sampling vessels should be communicated via the issuing of Daily Navigational Warnings for the duration of the sampling operations through the South African Naval Hydrographic Office.
- The SAN Hydrographic office should be notified when the programme is complete so that the Navigational Warning can be cancelled.

7.3 Discharges

- All process areas should be bunded to ensure drainage water flows into the closed drainage system.
- Undertake training and awareness of crew in spill management to minimise contamination.
- Low-toxicity biodegradable detergents and reusable absorbent cloths should be used in cleaning of all deck spillage.
- All hydraulic systems should be adequately maintained.
- Minimise the discharge of galley waste material should obvious attraction of marine fauna be observed.

7.4 Vessel seaworthiness and safety

- Vessels used during prospecting must be certified for seaworthiness through an appropriate internationally recognised marine certification programme (e.g. Lloyds Register, Det Norske Veritas).
- Collision prevention equipment should include radar, multi-frequency radio, foghorns, etc. Safety equipment and training of personnel to ensure the safety and survival of the crew in the event of an accident is a further legal requirement.
- A Notice to Mariners should provide the co-ordinates of the sampling areas.

7.5 Bulk Sampling Activities

- Exploration sampling targets gravel bodies in unconsolidated sediments and does not target high-profile rocky-outcrops.
- Prior to bulk sampling in areas adjacent to high-profile rocky-outcrop an assessment must be undertaken to identify if these outcrops host sensitive communities which must not be targeted. If this assessment cannot be conducted timeously then the high-profile rocky-outcrop will be mapped and avoided.
- An appropriate buffer zone must be established around identified sensitive communities on the high-profile rocky-outcrop based on independent ecological assessment. If this assessment cannot be conducted timeously then a 150 m buffer must be applied around high-profile rocky-outcrop without a sediment veneer.

7.6 Cultural Heritage Material

- Areas where shipwreck sites are identified during the geophysical surveys must be excluded prior to undertaking sampling activities.
- The onboard De Beers representative must undergo a short induction on archaeological site and artefact recognition, as well as the procedure to follow should archaeological material be encountered during sampling.
- The contractor must be notified that archaeological sites could be exposed during sampling activities, as well as the procedure to follow should archaeological material be encountered during sampling.
- If shipwreck material is encountered during the course of sampling in the concession area, the following mitigation measure should be applied:
 - > Cease work in the directly affected area to avoid damage to the wreck until SAHRA has been notified and the contractor/De Beers has complied with any additional mitigation as specified by SAHRA; and
 - > Where possible, take photographs of artefacts found, noting the date, time, location and types. Under no circumstances may any artefacts be removed, destroyed or interfered on the site, unless under permit from SAHRA.

8. ENVIRONMENTAL MANAGEMENT PROGRAMME

The EMP has been compiled for the proposed prospecting activities, which consolidates management activities required to address the issues and mitigation measures identified in this EIR.