

MARIPE J

IN THE HIGH COURT OF THE REPUBLIC OF BOTSWANA  
HELD AT MAUN

MAUN

Case No:

MAFIMN-000075-20

In the dispute between

GCWIHABA RESOURCES (PTY) LTD

Applicant

And

MINISTER OF MINERALS AND ENERGY

First Respondent

ATTORNEY GENERAL

Second Respondent

FILING NOTICE

FILED HEREWITH:

1. Notice of Motion;
2. Founding Affidavit of MOAGI NTUKUNUNU and Annexures;
3. Confirmatory Affidavit of QUINTAN MADUWANE;
4. Draft Order;
5. Power of Attorney; and
6. Resolution.

DATED AT MAUN ON THIS 31<sup>st</sup> DAY OF OCTOBER 2022.

COLLINS CHILISA CONSULTANTS

Applicant's  
Attorneys Gaborone  
Chambers Plot  
4858, Lecha Close  
Off Marakanelo Way

MAUN HIGH COURT  
PRIVATE BAG 30, MAUN  
CIVIL REGISTRY

★ 31 OCT 2022 ★

DOCUMENTS RECEIVED

TIME: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_

P O Box 45136  
**GABORONE**

**TO: THE REGISTRAR**  
High Court  
**MAUN**

**AND TO: MINISTER OF MINERALS AND ENERGY**  
First Respondent  
Fairgrounds Office  
Park **GABORONE**

**AND TO: ATTORNEY GENERAL**  
Second  
Respondent  
Government  
Enclave  
**GABORONE**

**N THE HIGH COURT OF THE REPUBLIC OF BOTSWANA  
HELD AT MAUN**

Case No:

In the dispute between

**GCWIHABA RESOURCES (PTY) LTD**

**Applicant**

And

**MINISTER OF MINERALS AND ENERGY**

**First Respondent**

**ATTORNEY GENERAL**

**Second Respondent**



**NOTICE OF  
MOTION**

*(Filed In terms of Order 61 of the Rules of the High Court)*

**BE PLEASED TO TAKE NOTICE THAT** on a date and time to be set by the Honourable Court the Applicant intends to apply to this Court for an order in the following terms:

1. Calling upon the Respondents to show cause why the decision of the First Respondent dated 29 June 2022 rejecting the renewal of the Applicant's prospecting license (020/2018), should not be declared to be illegal, unreasonable, irrational and arbitrary;
2. Calling upon the Respondents to show cause why the decision of the First Respondent dated 29 June 2022 rejecting the renewal of the Applicant's prospecting license (020/2018), should not be reviewed and set aside;
3. Calling upon the Respondents to show cause why the First Respondent should not be



directed renew the Applicant's license subject only, to environmental safeguards and/or conditions as deemed necessary for the protection of the heritage area; and

4. Calling upon the Respondents to show cause why the First Respondent should not be directed to, following renewal, align the effective dates of contiguous licenses PL 021-026/2018 with that of the renewed license.

Alternatively

5. Calling upon the Respondents to show cause why the First Respondent should not pay damages to the Applicant in the sum of US\$65 million or any other amount as assessed by the Registrar of the High Court;
6. Granting the Applicant costs of suit; and
7. Granting the Applicant further and/or alternative relief.

**TAKE NOTICE THAT** the affidavit of **MOAGI NTUKUNUNU** and annexures thereto, shall be used in support of this application.

**TAKE NOTICE FURTHER THAT** the First Respondent is called upon within 14 days of receipt of this notice, to file with the Registrar of this Court, the written record of proceedings, including the reasons for the decision. Further the First Respondent shall notify the parties that a copy of the said record and proceedings is available and has been duly filed with the Registrar.

**TAKE NOTICE FURTHER THAT** that the Applicant may within 7 days after the Registrar has served the record, by delivering a notice and accompanying affidavit, amend, vary or add to the terms of the notice of motion.

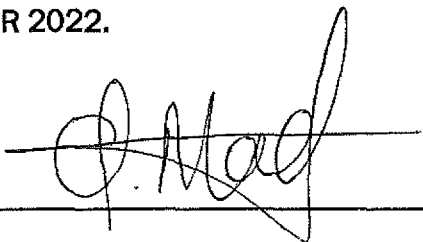
**TAKE NOTICE FURTHER THAT** the Respondents are required to:

1. Notify the Applicant, and the Registrar of its intention to oppose by filing a notice within

five (5) days upon the receipt of this notice.

2. Within 7 days of receipt of this notice, and any subsequent supplementary notice to amend, file with the Registrar and serve the Applicant with an answering affidavit, and
3. State in the notice of intention to oppose an address within Botswana, at which they shall accept notice and service of all documents in these proceedings. If no such notice of intention to oppose is given, the application shall be made on a date and time to be fixed by the Registrar.

DATED AT MAUN ON THIS 31<sup>ST</sup> DAY OF OCTOBER 2022.



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**COLLINS CHILISA CONSULTANTS**  
Applicant's Attorneys  
Gaborone Chambers  
Plot 4858, Lecha Close  
Off Marakanelo Way  
P O Box 45136  
**GABORONE**

TO: **THE REGISTRAR**  
High Court  
**MAUN**

AND TO: **MINISTER OF MINERALS AND ENERGY**  
First Respondent  
Fairgrounds Office Park  
**GABORONE**

AND TO: **ATTORNEY GENERAL**  
Second Respondent  
Government Enclave  
**GABORONE**

IN THE HIGH COURT OF THE REPUBLIC OF BOTSWANA  
HELD AT MAUN

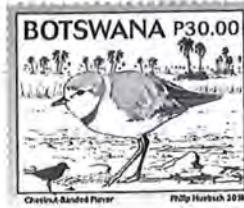
In the dispute between

**GCWIHABA RESOURCES (PTY) LTD**

And

**MINISTER OF MINERALS AND ENERGY**

**ATTORNEY GENERAL**



Case No:

**Applicant**

**First Respondent**

**Second Respondent**



**FOUNDING AFFIDAVIT** ★

31 OCT 2022 ★

**DOCUMENTS RECEIVED**

TIME: ..... SIGNATURE: .....

I, the undersigned,

**MOAGI NTUKUNUNU**

do hereby make oath and say that:-

- 1 I am an adult male of full legal capacity, employed as an Office Administrator of the Applicant, **GCWIHABA RESOURCES (PTY) LTD**, duly authorised to depose to this affidavit on behalf of the Applicant by virtue of the Board Resolution filed of record.
- 2 The facts contained in this affidavit therefore fall within my personal knowledge due to my position in the Applicant and are, to the best of my knowledge and belief, both true and correct.
- 3 Where I make legal submissions, I do so on the advice of the Applicant's legal representatives. I verily believe that such advice is well-founded. Where I rely on information conveyed to me by others, I identify the source of that information and attach the relevant confirmatory affidavits.

**PARTIES TO THE APPLICATION**

- 4 The Applicant is Gcwihaba Resources (Pty) Ltd, a company with limited liability, duly registered and incorporated in terms of the company laws of the Republic of

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Botswana, whose address for the purposes of the present proceedings is that of its attorneys of record Collins Chilisa Consultants.

- 5 The First Respondent is the Minister of Minerals and Energy who is duly appointed in terms of section 42 of the Constitution of Botswana, with capacity to sue and be sued, and whose address is Plot 50676, Block C, Fairgrounds Office Park, Gaborone.
- 6 The Second Respondent is the Attorney General of the Republic of Botswana, cited in his representative capacity on behalf of the Minister of Minerals and Energy in terms of Section 4 of the State Proceedings (Civil Action by or against Government or Public Officers) Act [CAP 10:01].
- 7 The Respondents have been served with a statutory notice giving them notice of the Applicant's intention to institute the current proceedings. Such notice is attached herein as "CCC 1".

#### **FACTUAL BACKGROUND OF THE APPLICATION**

- 8 This application concerns the review of the decision of the First Respondent rejecting the renewal of the Applicant's prospective license No 020/2018. I set out the history of the matter in detail below:
  - 8.1 In 2008, the First Respondent, through the then Minister of Minerals, Energy and Water Resources, Dr. Ponatshego Kedikilwe "Kedikilwe", granted the Applicant prospecting license number 386/2008 in terms of section 14 of the Mines and Minerals Act [66:01] "the Act".
    - 8.1.1 The license was for the right to prospect metals on land to which the Republic of Botswana holds mineral rights.
    - 8.1.2 The license area covered 570 square kilometres in the Ngamiland District.
    - 8.1.3 The duration of the license was three (3) years commencing on 10 October 2008 and ending on 30 September 2011.
  - 8.2 The license is attached herein as "CCC 2".

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- 8.3 In addition to the above referred license, the Applicant was granted six other contiguous licenses (387 – 392/2008) during the same period, in the same area and under the same conditions. These licenses are attached herein as “CCC 3 a-e” respectively.
- 8.4 Prior to the granting of the said licenses, the Applicant had to demonstrate to the First Respondent, amongst others, that it has, or has secured access to, adequate financial resources, technical competence and experience to carry on effective prospecting operations. Needless to say, the Applicant expended a fortune to secure the licenses and accordingly implement its project plans.
- 8.5 When the licenses lapsed in 2011, the Applicant duly applied for their renewal in terms of Section 17 of the Act, which renewal was granted by Kedikilwe. In 2014, 2016 and 2018, the licenses were renewed and reissued without fail until 2021.
- 8.6 Before relaying the events which transpired in 2021, it is worthy to note that in July 2014, the Okavango Delta was declared a World Heritage Property “WHP” by the United Nations Educational, Scientific and Cultural Organisation “UNESCO”. By virtue of this status, the Okavango Delta “nominated property” was subject to protection from activities which would compromise the property. This area is also referred to as the core zone.
- 8.7 The Applicant’s licensed area did not fall into the core zone however, the Government of Botswana established a buffer zone around the core zone which buffer zone went on to encroach on a portion of the area that had been licensed to the Applicant including the area licensed under PL 386/2008. By definition, per the World Heritage Operational Guidelines 2021 “Operational Guidelines”, a buffer zone is:
- “an area surrounding the nominated property (core zone) which has complementary legal and/or customary restrictions placed on its use and development in order to give an added layer of protection to the property.”*
- 8.8 The Operational Guidelines go on further to, at Section 107, acknowledge that a buffer zone does not form part of the core zone. This is a fact that is,

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in the Applicant's mind, common cause to the parties herein as demonstrated by the fact that the First Respondent continued to grant renewals of the Applicant's licenses from 2014 as granted by the then Minister Eric Molale in 2016 and 2018, following the establishment of the buffer zone. The Operational Guidelines is a bulky documents with a total of 188 pages. For the sake of not inundating the with a bulky application, we beg leave not to attach the Operational Guidelines herein, but to avail same upon the court's direction, should the court so wish.

8.9 I must pause at this juncture to highlight pivotal events that occurred in 2018. As already stated, the Applicant was first issued the prospecting license in issue in 2008 with prospecting license no: 386/3008. In terms of the Act, the Applicant was guaranteed this licence, (inclusive of a period of renewals) for a period of 7 years. This time period expired in 2019, as computed from 2008 and the last renewal expiring on 30 June 2019.

8.10 Before the expiry date of 30 June 2019, the First Respondent had been causing delays in granting the Applicant renewals of some of its other licenses held east of the Okavango River panhandle sometime in 2017. The Applicant's parent company (Tsodilo Resources) wrote on 25 October 2017 in protest to note that the delays in the renewals of the Applicant's licenses had caused great uncertainty to the Applicant as well as a disjointed exploration project. A copy of this letter is attached hereto and marked "**CCC 4**"

8.11 The above referred letter gave way to negotiations between the Applicant and the Government of Botswana ( inclusive of the First Respondent and the Department of Mines) for the amicable remediation of the Applicant's complaints. The agreement ultimately reached was to the effect that the Applicant would give up its other prospecting licenses (PL's 393, 394 and 395/2008 east of the Okavango River and PL 093, 094, 095, 096 and 097/2012 north of the Okavango River which are not subject to this litigation) in return for new initial prospecting licenses for its licenses held west of the panhandle which contained its iron resource as reported in 2014. The First Respondent, in furtherance of this agreement issued the Applicant with prospecting licenses PL 20, 21, 22, 23, 24, 25 and 26/2018.

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These licenses were granted as contiguous licenses as per Section 19 of the Mines and Minerals Act, meaning that these licenses were to run and be renewed simultaneously copies of licenses PL 21 – 26/2018 are attached herein and marked “**CCC 10 \*f**” respectively.

8.12 I note the above to bring to light that the First Respondent in issuing the new prospecting licenses PL 20-26/2018 attempted to arbitrarily reduce the extent of the Applicant's prospecting area (by excluding the areas that fell within the buffer zone) without the Applicant's consent and contrary to the agreement between the parties to the effect that the Applicant will be issued these new license afresh but in line with the conditions and coordinates of the old license. A letter of 23 January 2018 by the Applicant protesting the First Respondent's arbitrary attempts is annexed hereto and marked “**CCC 5**”.

8.13 The First Respondent responded to **CCC 5** by letter dated 16 February 2018 through the Department of Mines to the effect that the Applicant's new licenses will be re-aligned to the old license. This letter is attached hereto and marked “**CCC 6**”. The First Respondent however did not thereafter re-align the new license to the old licenses and this prompted a follow up by the Applicant dated 12 July 2018 and attached hereto as “**CCC 7**”.

8.14 In reply by later dated 02 August 2018 and attached hereto and marked “**CCC 8**”, the First Respondent through the Department of Mines tried to argue that the agreement by the parties was that the Applicant would relinquish all its licenses in the buffer zone. This allegation was refused by the Applicant in a letter dated 13 August 2018, attached hereto as “**CCC 9**” whose contents are reincorporated herein by reference. The issue was presented to the Minister at that time and the Minister upheld the Applicant's right to the licenses including those portions in the buffer zone. The licenses were then granted effective October 1, 2018.

8.15 Although the above issue was subsequently resolved, it goes to show that the First Respondent has been trying, by any means necessary to disentitle the Applicant of prospecting in the buffer zone even if it meant employing illegal tactics.

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8.16 The above notwithstanding, the agreement between the parties saw the Applicant being issued with prospecting license no: 020/2018, in issue, with an initial 3-year grant effective 1 October 2018 to expire on 30 September 2021. I must further highlight that the granting of prospecting license no: 020/2018 granted the Applicant a guaranteed period of the initial grant of 3-years plus two 2-year renewals for a total of 7 years in a similar fashion to prospecting licence no: 386/2008.

8.17 On 30 June 2021, three months before expiry of prospecting license no: 020/2018 (previously number PL 386/2008), the Applicant applied for the renewal thereof. This license is attached hereto and marked as "**CCC 10**".

8.18 The Applicant became aware in October after the filing of the 30 June 2021 renewal application of the following:

8.18.1 In 2015, the Government of Botswana issued out a Report to the World Heritage Committee "WTC" indicating that prospecting and mining licenses in the buffer zone would not be renewed. The Government of Botswana further reported that they were engaging in negotiations with the Applicant for purposes of terminating the existing licenses in the buffer zone. This Report is attached herein as "**CCC 11**".

8.18.2 In 2017, the Government of Botswana issued out another Report to the WTC indicating that the Applicant had "in principle" agreed to relinquish all its licenses in the buffer zone and that there were prospecting licenses in the buffer zone. The said Report is attached herein as "**CCC 12**".

8.18.3 In 2020, the Government of Botswana had issued out a further Report to the WTC confirming that negotiations with the Applicant had been concluded and that there were no existing prospecting licenses in the buffer zone. This Report is attached herein as "**CCC 13**".

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8.18.4 In 2022, the Government of Botswana confirmed to the WTC that the Applicant had relinquished all of its licenses in the buffer area. The Report is attached herein as “**CCC 14**”.

8.19 All of the Reports referred to above, as generated by the Government of Botswana were a lie. Not only were there no negotiations between the parties, but the First Respondent continued to grant the Applicant prospecting licenses for areas in the buffer zone, save for the renewal of 30 June 2021.

8.20 The First Respondent only responded to the Applicant’s application of 30 June 2021 through a letter dated 26 April 2022, attached herein as “**CCC 15**”. This letter came as a surprise to the Applicant and it is important to identify key issues in this letter and they are as follows:

8.20.1 “The coordinates submitted in the application for renewal of Prospecting License No 020/2018 are encroaching into the buffer zone.” The surprise herein to the Applicant is that, it is the First Respondent who established the buffer zone within the Applicant’s licensed area. The buffer zone found the Applicant’s license which gave the Applicant rights and titles, as such, it is the buffer zone which encroached on the Applicant’s licensed area. In any event, the coordinates submitted on 30 June 2021, were the same for those resulting in the renewals granted in 2014, 2016 and 2018, which renewals were granted in the face of the buffer zone encroaching on to the Applicant’s licensed area albeit with a slight change in the area, as agreed by the Applicant and the Department of Mines in order to reduce the extent of the buffer zone encroachment;

8.20.2 The First Respondent’s 26 April letter further stated, “Prospecting and mining activities are prohibited within the buffer zone of the Delta, or if permitted, (emphasis is the Applicant’s), they are to be subjected to stringent Environmental Impact Assessment “EIA” measures” this surprised the applicant by reason of the fact that it is common cause that prospecting and mining activities are permitted in the buffer Zone.

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8.20.3 The First Respondent was not in a position to renew the Prospecting License for as long as the submitted coordinates fall within the buffer zone of the WHP.

8.21 Taken aback by this response, the Applicant responded by letter dated 27 April 2022 which is attached herein as "**CCC 16**". This letter served to note that:

8.21.1 the buffer zone is not part of the core zone;

8.21.2 the Applicant's licence has existed since 2008, before the buffer zone. It is the buffer zone that encroached on the Applicant's licensed area;

8.21.3 the Applicant agrees that if mining is to be carried out in a buffer zone, an EIA must be conducted and made part of the mining license application and further, that an Environmental Management Plan "EMP" must be filed before exploration activities are commenced. The Applicant went on to note that the law however requires an EIA in the event of a mining application and an EMP is utilized with a prospecting license; and

8.21.4 the Government of Botswana's submissions to UNESCO since 2013 have been to the effect that both mining and prospecting licenses can in fact exist within the buffer zone.

8.22 On 7 June 2022 the First Respondent wrote to the Applicant advising the Applicant to submit a revised application for renewal of the Prospecting License in question, with boundary coordinates falling entirely outside the buffer zone. The letter is attached herein as "**CCC 17**".

8.23 On 28 June 2022, the Applicant re-submitted its application for renewal of the license. The application is attached herein as "**CCC 18**".

8.24 On 29 June 2022, the Applicant received a checklist from the First Respondent indicating that the coordinates in the application still fell within the buffer zone. The checklist is attached herein as "**CCC 19**".

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8.25 On 30 June 2022, the Applicant re-submitted an application for renewal of the license further reducing to a bare minimum the area for which the buffer zone encroached on the license area. The First Respondent has not bothered to respond to the said re-submission.

8.26 An inordinate period of time has passed since the Applicant submitted its last application for renewal of its license and the unresponsiveness of the First Respondent, even after the service of a statutory notice, can be deemed to be a refusal to renew the Applicant's license.

9 The First Respondent's non-renewal came as a shock to the Applicant in view of the fact that in 2014, the Applicant had produced and shared with the First Respondent, an inferred resource report which established that the Applicant had discovered a tonnage of 441 Mt of inferred iron resource within the prospecting area with a current in-situ value approximated to be worth \$27 Billion USD, of which 164 Mt worth \$6.8 Billion USD is located within the buffer zone.

10 In reaction to the Applicant's discovery, the First Respondent made some statements 13 June 2014, through the Permanent Secretary, pursuant to which an article attached here in as Annexure "CCC20" was published. In the said article, the First Respondent advises the public of the discovery by the Applicant and further goes on to note that the Government of Botswana is willing to co-finance the Applicant's project and spoke further about its importance to the development of the Botswana economy. The article refers to Tsodilo Resources which is the Applicant's mother company. It must be highlighted that this is the same year that the Government of Botswana was working on having the Okavango delta being named as a WHP but prior to such designation, however, the Government of Botswana was aware at the time of its public statement, that the Applicant's licensed area would fall into the buffer zone.

11 On the basis of the above referred discovery, the Applicant some time in 2018 engaged with relevant stakeholders who were willing to develop the project with the Applicant. One such stakeholder was the Minerals Development Company Botswana "MDCB", an investment company that holds and manages mining & minerals assets for the Government of Botswana.

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- 12 The Applicant and MDCB later came to an agreement with respect to the terms of an equity investment by MDCB in the Applicant with aim of providing financial resources to enable the Applicant to prepare a Preliminary Economic Assessment (PEA). Based on information and belief MDCB's Board of Directors approved the said investment in December 2020, subject to Ministerial approval.
- 13 The First Respondent's decision to withhold the issuance of the first 2-year renewal license for PLO20 therefore deprives the Applicant, the Applicant's investors and the general Botswana population the benefit to be derived from the Applicant's continued activities within the prospecting area and therefore must be reviewed.

#### **GROUNDS FOR REVIEW**

- 14 The Applicant seeks a review of the First Respondent's refusal to renew its prospecting license no 020/2018 on the following grounds:
  - 14.1 The First Respondent's refusal was in violation of principles of natural justice in that:
    - 14.1.1 the Applicant was deprived of a hearing prior to the decision not to renew its license; and
    - 14.1.2 the First Respondent was bias in favour of non-renewal of the Applicant's license.
  - 14.2 The First Respondent failed to exercise his duty lawfully, which resulted in a misuse of power;
  - 14.3 the First Respondent's decision was unreasonable as no decision maker in his shoes would have come to the same conclusion as he did; and
  - 14.4 The First Respondent acted illegally in that he acted contrary to the Act, in particular, Section 17 which bestows the Applicant with a right of renewal for 2 terms not exceeding 2 years each. The Applicant's renewal of 30 June 2021 was its first 2-year renewal application.

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## VIOLATION OF PRINCIPLES OF NATURAL JUSTICE

### Fair hearing

- 15 I am advised that before a decision affecting the rights or interests of a person can be taken, such person ought to be afforded a hearing, this was unfortunately not the case in this matter.
- 16 As noted at paragraph 8.10, the Reports sent to the WTC by the Government of Botswana were, as early as 2015, to the effect that prospecting and mining licenses, such as that of the Applicant, falling within the buffer zone would not be renewed.
- 17 It is important to highlight that the Applicant in these proceedings does not challenge the Reports sent over to the WTC, however, the said Reports have a bearing on the First Respondent's attitude towards the Applicant's applications for renewal and the outcome thereof is clearly informed by the said Reports.
- 18 It becomes clear that a decision on whether to renew or not renew the Applicant's license was since taken in 2015 and the Applicant was not afforded the opportunity to make any representations. In view of the fact that the First Respondent renewed the Applicant's licenses in 2016 and 2018, it becomes clear from the Government of Botswana's Reports of 2020 and 2022 that the First Respondent now seeks to enforce the Government of Botswana's decision of 2015 as communicated to UNESCO by the Department of National Museum & Monuments and the Ministry of Environment, Natural Resources Conversation & Tourism.
- 19 When the Applicant made an application for renewal on or about June 30 2021, the outcome thereof was already a foregone conclusion as the Government of Botswana through the Department of National Museum & Monuments and the Ministry of Environment, Natural Resources Conversation & Tourism had long since decided that licences such as that of the Applicant will not be renewed, a decision which the First Respondent now seeks to be bound by.

### Bias

- 20 With respect to bias, I am advised that decision makers are required to be impartial.

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- 21 The Reports to the WTC referred to above demonstrate that the First Respondent was captured by the undertakings of the Government of Botswana per their aforesaid Reports and as such could not have been impartial in his assessment of the Applicant's application for renewal.
- 22 The decision to not renew the Applicant's licences had since been made in 2015 by the Government of Botswana through the Department of National Museum & Monuments and the Ministry of Environment, Natural Resources Conversation & Tourism and as a result, the First Respondent's bias was leaning and will always lean against the renewal of the Applicant's license .
- 23 By this reason, the decision by the First Respondent not to renew the Applicant's license was tainted by bad faith.

#### DUTY

- 24 As already stated, the First Respondent in Annexure **CCC 15** acknowledges that prospecting activities can be permitted in the buffer zone, subject to stringent environmental protocols and practices being adhered to. The Applicant has stated numerous times that it agrees to the foregoing and in fact supports it.
- 25 It follows from the above that the duty which the First Respondent is obliged to carry out is that which is spelt out by the Act. The Act dictates that the First Respondent must renew the Applicant's license, however it seems though as if the First Respondent is constrained to do so by virtue of the Government of Botswana's undertakings per their Reports. The First Respondent now wants to turn away from the Act, which is the law, and place reliance on the non-binding precedent set by the Government through its Report of 2015 to the effect that prospecting license within the buffer zone will not be renewed.
- 26 I am advised by the Applicant's attorneys that where a decision maker blindly follows a policy or precedent laid down in advance results in a failure by that decision maker to carry out their duty lawfully, resulting in an illegality.
- 27 The set precedent herein is seen from the Reports by the Government of Botswana to the WTC to the effect that licenses within the buffer zone will not be renewed.

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The First Respondent blindly followed this precedent and the result was his failure to apply his mind to the requirements of the Act.

### **REASONABLENESS**

- 28 It is imperative to note that since the issuance of the Applicant's license in 2008, the Government of Botswana has both been supporting and encouraging the Applicant to continue with its work, including to utilize its financial resources.
- 29 The discovery that has been made by the Applicant is one which will see both the Government and the people of Botswana benefiting. This potential financial benefit, in the face of financial constraints on Governments around the world due to the Covid-19 pandemic, is one which any Government would want to explore for the benefit and improvement of the lives of its people.
- 30 The First Respondent's decision not to renew the Applicant's license, notwithstanding the benefits stemming therefrom, is one that would not be taken by a sober minded decision maker and as such, the decision of the First Respondent is both irrational and unreasonable.

### **ILLEGALITY**

- 31 In terms of section 17(3) of the Act, the Applicant, in addition to the initial 3-year period of prospecting license no 020/2018, is entitled to 2 renewals of periods not exceeding two years each, subject to the Applicant not being in default, and the Applicant's proposed programme of prospecting operations being adequate.
- 32 The Applicant was not in default and its proposed programme of prospecting operations was more than adequate. The First Respondent's letter of 26 April 2022 makes it clear that his decision to not renew the Applicant's license is not based on the Applicant's failure to fulfil the above identified conditions, but rather that the Applicant's prospecting area fell within the buffer zone.
- 33 The Applicant's application of 30 June 2021 was the Applicant's first renewal application for prospecting license no 020/2018 and by reason of its fulfilment of the above highlighted conditions, the Applicant was entitled to the renewal of

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prospecting license no 020/2018 as of right without the need for the First Respondent to exercise any discretion.

- 34 From the above it becomes clear that the Applicant's refusal has no basis in law, rather, the said refusal offends the Applicant's clear right of renewal.
- 35 The First Respondent's refusal was unlawful and resulted in an illegality.

#### **DAMAGES**

- 36 The Applicant has incurred substantial costs in furtherance of the licenses issued by the First Respondent, costs which were to be recovered in the course of the Applicant's activities stemming from the said licenses.
- 37 The effect of the non-renewal of the Applicant's license in turn means that the Applicant will not be able to recover the above described costs, together with any revenue which was to be generating from the Applicant's activities. The extent of these damages therefore ought to be assessed.

#### **CONCLUSION**

- 38 On the basis of the foregoing, I therefore pray for an order in terms of the draft order filed of record.



MOAGI NTUKUNUNU

THIS SWORN TO AND SIGNED BEFORE ME AT MAUN ON THIS 31 DAY OF OCTOBER 2022, AT 1008 HOURS, THE DEPONENT HAVING ACKNOWLEDGED THAT HE KNOWS AND UNDERSTANDS THE CONTENTS OF THIS AFFIDAVIT AND HAS NO OBJECTION TO TAKING THE PRESCRIBED OATH WHICH HE CONSIDERS BINDING ON HIS CONSCIENCE

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Maun Airport Police  
Sergeant Margaret B

COMMISSIONER OF OATHS  
31 OCT 2022  
[Signature]

"CCCC1"



# NGAKAAGAE & COMPANY

Tel: 318 6420 Fax: 318 6426 Cell 75527255  
P. O. Box 26726, Gaborone  
Plot 2701, Extension 9, Gaborone  
Email: ngakaagaeandco@hotmail.com

Attorneys | Conveyancers | Notaries

Our ref: Nc /1402/22

Your ref:

26<sup>th</sup> August 2022

The Attorney General of the Republic Of Botswana

Gaborone

The Minister of Minerals, Green Technology & Energy Security

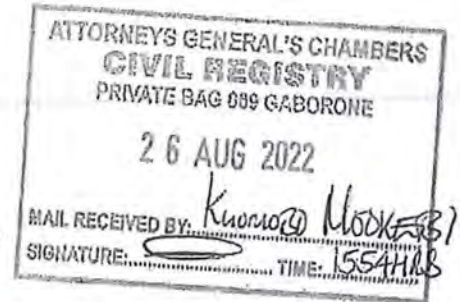
Gaborone

Dear Sirs

**STATUTORY NOTICE IN TERMS OF STATE PROCEEDINGS ACT CAP (10:01),  
LAWS OF BOTSWANA**

## BACKGROUND

1. Our client is, Gcwihaba (Pty) Ltd, a company duly incorporated in terms of the, Laws of Botswana.
2. This, Statutory Notice, concerns, Prospecting Licence PL 020/2018, issue to client by the Department of Mines (DOM), renewal of which has been a subject of contentions between the parties.



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3. To the foregoing extent, reference is made to the trail of correspondence between client and the Department of Mines (DOM), on this matter. The office of the Attorney General would have unfettered access to such. It is unnecessary, therefore, to copy, or annex same herein. Same, is incorporated by reference.
4. Client has, hitherto, been a holder of PL020/2018. On the 28<sup>th</sup> June, 2022, client filed a licence renewal application, with the DOM, in respect of the above licence.
5. The renewal was not acceded to on the basis that the area applied for encroached into the restricted, UNESCO Okavango World Heritage Property.
6. A further reason was given to the effect that the renewal shape was greater, in extent, than the licence.
7. Very little turns on the second reason. Same is dealt with in client's correspondence to yourselves dated 20<sup>th</sup> June, 2022. Suffice to state that contrary to the assertion, the "renewal shape", is well within the licence. Sme were corrected after following engagement with the, DOM. To that extent, we refer to the same correspondence of the 20<sup>th</sup> June, 2022. For the avoidance of doubt, client seeks no more than what the licence provides, for.
8. As regards the first reason, suffice to state that the same lacks bona fides. The area provided for does not overlap with the, Okavango Heritage Area. There are no conventional, or, statutory prohibitions to the objects of the licence warranting the position of the, DOM. Existing provision only regards safeguards to guard against direct, or indirect harm, to the area in issue.
9. In the circumstances, the rejection is unreasonable, irrational, and, arbitrary. Same is unlawful, in bad faith, and stands to be reviewed, corrected, and/or, set aside.

10. Efforts by client to engage with the DOM, over this matter to ensure an amicable resolution have been unsuccessful. Client is left with no option but to issue statutory notice to seek a review of the decision of the, DOM, of the 29<sup>th</sup> June, 2022, and generally, the refusal to renew the licence.
11. Client is amenable to, and hopes for an amicable resolution of the matter. The dispute between the parties is considerably narrow, and calls for a cordial and pragmatic approach that is cognizant of the interest and concerns of both parties.
12. On our client's part such includes the need to all licences held by them with PL020/2018 with respect to the effective dates. This is necessary in order to avoid splitting the project apart which would be prejudicial to client's interests. Client's proposal is that same be issued, 1<sup>st</sup> October, 2022, as to the effective dates (or such subsequent date as may be mutually agreed). We kindly remind that in June, 2021, when client for renewal, they had, 7, licenses. Two were dropped including specific areas in the remaining 5. That was order to drop 50% of the combined license areas. The DOM accepted this but when issuing, 4, of the license effective Jan 1, 2022 they effectively split the project apart with respect to the time frame. It is important to be put the same back together.

#### RELIEF SOUGHT

13. For purposes of the review application, client shall seek;
- a. An order that the rejection is unreasonable, irrational and arbitrary. Same is unlawful, in bad faith, and stands to be reviewed, corrected, and/or set aside.
  - b. An order that the, DOM, issue client with a renewal subject only, to environment impact safeguards/conditions to which government is subject.

c. All client's licences, as aforesaid, be corrected and the effective dates be reckoned from the date of the order (in lieu of a mutually agreeable date).

14. Client's physical address is The Office Building #59, Plot 21532, Fairgrounds Office Park, and Gaborone. However, its address of service for purposes of this Statutory Notice is the address of its attorneys herein.

15. We hope you find the above in order.

Thank you.

Yours faithfully



**NGAKAAGAE. K**

**Per Ngakaagae & Co**

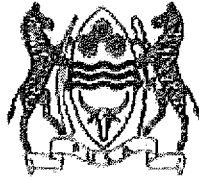
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Attorney: Kgosietsile Ngakaagae, Gape Michael

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"CCC2"



Republic of Botswana

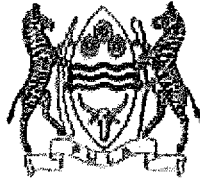
**PROSPECTING LICENCE**

in favour of

**GCWIHABA RESOURCES (PTY) LTD**

**PROSPECTING LICENCE NO. 386/2008**

Bm  
MN



REPUBLIC OF BOTSWANA

Form II

Prospecting License No. PL386/2008

Issued in terms of section 16 of the Mines and Minerals Act.

WHEREAS Gcwihaba Resources (Pty) Ltd a company incorporated under the laws of Republic of Botswana (hereinafter referred to as "the holder") has made application for the right to prospect for Metals on land to which the Republic of Botswana holds mineral rights.

AND WHEREAS provision is made under section 14 of the Act for the conferring of such rights by means of a prospecting license:

NOW THEREFORE the Minister hereby grants to the holder the exclusive right to prospect for Metals in the license area for a period of 3 years commencing on 01 October 2008 and ending on 30 September 2011.

1. The License area shall be the area shown on the map annexed hereto in extent of Five hundred and seventy square kilometers (570 km<sup>2</sup>), located in Ngamiland district(s) and more fully described in Annexure I hereto; and as reduced from time to time in accordance with the provisions of the Act.

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2. In accordance with section 70 of the Act, the holder shall, simultaneously with issuance of this license, and thereafter on each anniversary thereof, pay to the Government at the Office of the Director of Geological Survey, an annual charge equal to (BWP5.00) multiplied by the number of square kilometers in the License area subject to a minimum annual charge of One thousand Pula (BWP1000.00).
3. The holder shall incur the minimum annual expenditures and shall expeditiously carryout the programme of prospecting operations set out in Annexure II.

GIVEN under my hand at GABORONE this 10<sup>th</sup> day of Nov, in the year 2008.



Minister

Ministry of Minerals, Energy and  
Water Resources

Bm  
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**ANNEXURE I**

The license area is of Five hundred and seventy square kilometers (570 km<sup>2</sup>) defined by boundary lines, which shall be straight unless otherwise stated, joining successive points at the following coordinates:

| <u>Point</u> | <u>Longitude (East)</u> | <u>Latitude (South)</u> |
|--------------|-------------------------|-------------------------|
| A            | 21.666572               | -18.291970              |
| B            | 21.779179               | -18.272027              |
| C            | 21.994639               | -18.497389              |
| D            | 21.666594               | -18.498831              |

Total Area 570 km<sup>2</sup>

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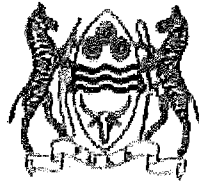


**ANNEXURE II**

| Programme of prospecting operations   | Proposed minimum expenditure  |
|---|---|
| <p><b>Year 1</b></p> <ul style="list-style-type: none"> <li><b>i. Detailed review of available data.</b></li> <li><b>ii. Analysing the existing aero-mag, Landsat, VTEM and Radarsat data.</b></li> <li><b>iii. Follow-up grid geophysics of targets.</b></li> <li><b>iv. Soil sampling for key elements over selected targets</b></li> <li><b>v. Grid soil sampling to be submitted for 32 element analysis.</b></li> <li><b>vi. Ground scintilometer readings.</b></li> <li><b>vii. Prioritization of drill targets.</b></li> </ul> | <p align="center"><b>Seven Hundred<br/>Thousand Pula<br/>(BWP 700,000.00)</b></p> |
| <p><b>Year 2</b></p> <ul style="list-style-type: none"> <li><b>i. Drill testing of priority targets</b></li> <li><b>ii. Petrographic analysis of drill core.</b></li> <li><b>iii. Heavy mineral separation (TBE)</b></li> <li><b>iv. Element indicator mineral chemistry analysis if appropriate.</b></li> <li><b>v. Multi- element Analysis by ICP (Inductively-coupled plasma).</b></li> </ul>  | <p align="center"><b>Seven Hundred<br/>Thousand Pula<br/>(BWP700,000.00)</b></p>  |
| <p><b>Year 3</b></p> <ul style="list-style-type: none"> <li><b>i. Drill testing of priority targets</b></li> <li><b>ii. Petrographic analysis of drill core.</b></li> <li><b>iii. Heavy mineral separation (TBE)</b></li> <li><b>iv. Element indicator mineral chemistry analysis if appropriate.</b></li> <li><b>vi. Multi- element Analysis by ICP (inductively-coupled plasma)</b></li> <li><b>vi. Drill testing of priority targets.</b></li> </ul>   | <p align="center"><b>Seven Hundred<br/>Thousand Pula<br/>(BWP700,000.00)</b></p>  |

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"CCC3a"



Republic of Botswana

**PROSPECTING LICENCE**

in favour of

**GCWIHABA RESOURCES (PTY) LTD**

**PROSPECTING LICENCE NO. 387/2008**

BM  
MN



REPUBLIC OF BOTSWANA

Form II

Prospecting License No. PL387/2008

Issued in terms of section 16 of the Mines and Minerals Act.

WHEREAS Gcwihaba Resources (Pty) Ltd a company incorporated under the laws of Republic of Botswana (hereinafter referred to as "the holder") has made application for the right to prospect for Metals on land to which the Republic of Botswana holds mineral rights.

AND WHEREAS provision is made under section 14 of the Act for the conferring of such rights by means of a prospecting license:

NOW THEREFORE the Minister hereby grants to the holder the exclusive right to prospect for Metals in the license area for a period of 3 years commencing on 01 October 2008 and ending on 30 September 2011.

1. The License area shall be the area shown on the map annexed hereto in extent of Nine hundred and sixty four point nine square kilometers (964.9 km<sup>2</sup>), located in Ngamiland district(s) and more fully described in Annexure I hereto; and as reduced from time to time in accordance with the provisions of the Act.

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2. In accordance with section 70 of the Act, the holder shall, simultaneously with issuance of this license, and thereafter on each anniversary thereof, pay to the Government at the Office of the Director of Geological Survey, an annual charge equal to (BWP5.00) multiplied by the number of square kilometers in the License area subject to a minimum annual charge of One thousand Pula (BWP1000.00).
  
3. The holder shall incur the minimum annual expenditures and shall expeditiously carryout the programme of prospecting operations set out in Annexure II.

GIVEN under my hand at GABORONE this 10<sup>th</sup> day of Nov in the year 2008.



Minister

Ministry of Minerals, Energy and  
Water Resources

BM  
MN

### ANNEXURE I

The license area is of **Nine hundred and sixty four point nine square kilometers (964.9 km<sup>2</sup>)** defined by boundary lines, which shall be straight unless otherwise stated, joining successive points at the following coordinates:

| <u>Point</u> | <u>Longitude (East)</u> | <u>Latitude (South)</u> |
|--------------|-------------------------|-------------------------|
| A            | 21.666594               | -18.498831              |
| B            | 21.994639               | -18.497389              |
| C            | 21.999981               | -18.747667              |
| D            | 21.667561               | -18.749119              |

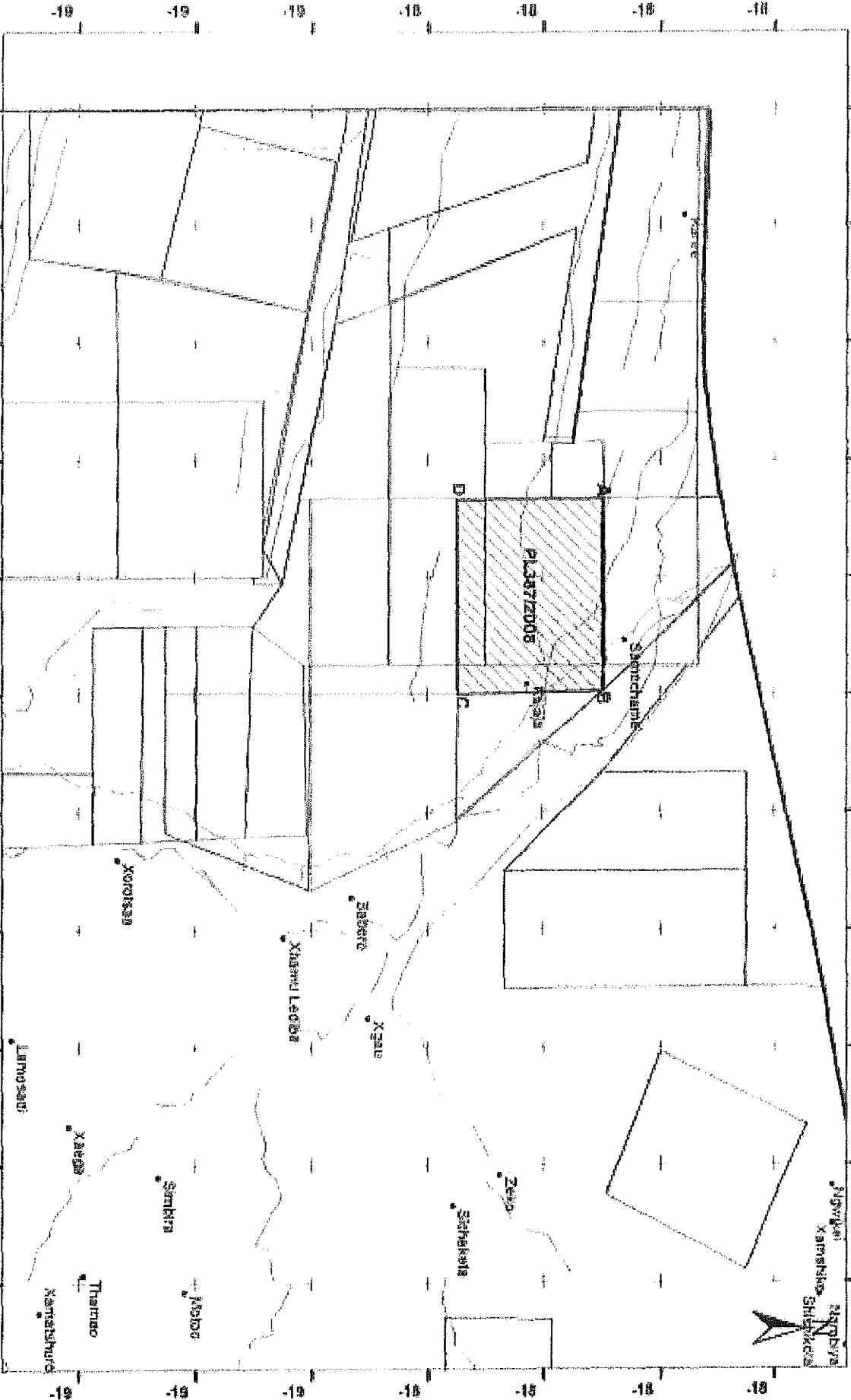
Total Area 964.9 km<sup>2</sup>

Gowihaba Resources (Pty) Ltd  
Prospecting Licence No. 387/2008

500M

Area of Licence

Legend:  
Wetlands  
Rivers  
Lenses  
Roads  
Other Features



NORWAY  
XAMSHURO  
SIBENKEL

**ANNEXURE II**

| Programme of prospecting operations   | Proposed minimum expenditure  |
|---|---|
| <p><b>Year 1</b></p> <p><b>i. Detailed review of available data.</b></p> <p><b>ii. Analysing the existing aero-mag, Landsat, VTEM and Radarsat data.</b></p> <p><b>iii. Follow-up grid geophysics of targets.</b></p> <p><b>iv. Soil sampling for key elements over selected targets</b></p> <p><b>v. Grid soil sampling to be submitted for 32 element analysis.</b></p> <p><b>vi. Ground scintillometer readings.</b></p> <p><b>vii. Prioritization of drill targets.</b></p> | <p><b>Seven Hundred Thousand Pula</b><br/><b>(BWP 700,000.00)</b></p> |
| <p><b>Year 2</b></p> <p><b>i. Drill testing of priority targets</b></p> <p><b>ii. Petrographic analysis of drill core.</b></p> <p><b>iii. Heavy mineral separation (TBE)</b></p> <p><b>iv. Element indicator mineral chemistry analysis if appropriate.</b></p> <p><b>v. Multi- element Analysis by ICP (Inductively-coupled plasma).</b></p>   | <p><b>Seven Hundred Thousand Pula</b><br/><b>(BWP700,000.00)</b></p>  |
| <p><b>Year 3</b></p> <p><b>i. Drill testing of priority targets</b></p> <p><b>ii. Petrographic analysis of drill core.</b></p> <p><b>iii. Heavy mineral separation (TBE)</b></p> <p><b>iv. Element indicator mineral chemistry analysis if appropriate.</b></p> <p><b>vi. Multi- element Analysis by ICP (inductively-coupled plasma)</b></p> <p><b>vi. Drill testing of priority targets.</b></p>  | <p><b>Seven Hundred Thousand Pula</b><br/><b>(BWP700,000.00)</b></p>  |

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Republic of Botswana

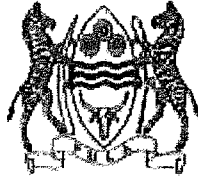
**PROSPECTING LICENCE**

in favour of

**GCWIHABA RESOURCES (PTY) LTD**

**PROSPECTING LICENCE NO. 388/2008**

BM  
MN



REPUBLIC OF BOTSWANA

Form II

Prospecting License No. PL388/2008

Issued in terms of section 16 of the Mines and Minerals Act.

WHEREAS Gcwihaba Resources (Pty) Ltd a company incorporated under the laws of Republic of Botswana (hereinafter referred to as "the holder") has made application for the right to prospect for Metals on land to which the Republic of Botswana holds mineral rights.

AND WHEREAS provision is made under section 14 of the Act for the conferring of such rights by means of a prospecting license:

NOW THEREFORE the Minister hereby grants to the holder the exclusive right to prospect for Metals in the license area for a period of 3 years commencing on 01 October 2008 and ending on 30 September 2011.

1. The License area shall be the area shown on the map annexed hereto in extent of Three hundred and seventeen point one square kilometers (317.1 km<sup>2</sup>), located in Ngamiland district(s) and more fully described in Annexure I hereto; and as reduced from time to time in accordance with the provisions of the Act.

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2. In accordance with section 70 of the Act, the holder shall, simultaneously with issuance of this license, and thereafter on each anniversary thereof, pay to the Government at the Office of the Director of Geological Survey, an annual charge equal to (BWP5.00) multiplied by the number of square kilometers in the License area subject to a minimum annual charge of One thousand Pula (BWP1000.00).
3. The holder shall incur the minimum annual expenditures and shall expeditiously carryout the programme of prospecting operations set out in Annexure II.

GIVEN under my hand at GABORONE this 10th day of Nov. in the year 2008,



Minister

Ministry of Minerals, Energy and  
Water Resources

*[Faint stamp or text]*

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**ANNEXURE I**

The license area is of Three hundred and seventeen point one square kilometers (317.1 km<sup>2</sup>) defined by boundary lines, which shall be straight unless otherwise stated, joining successive points at the following coordinates:

| <u>Point</u> | <u>Longitude (East)</u> | <u>Latitude (South)</u> |
|--------------|-------------------------|-------------------------|
| A            | 21.994639               | -18.497389              |
| B            | 22.217250               | -18.750731              |
| C            | 21.999981               | -18.747667              |

Total Area 317.1 km<sup>2</sup>

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**Geothaba Resources (Pty) Ltd**  
Prospecting Licence No. 38812008

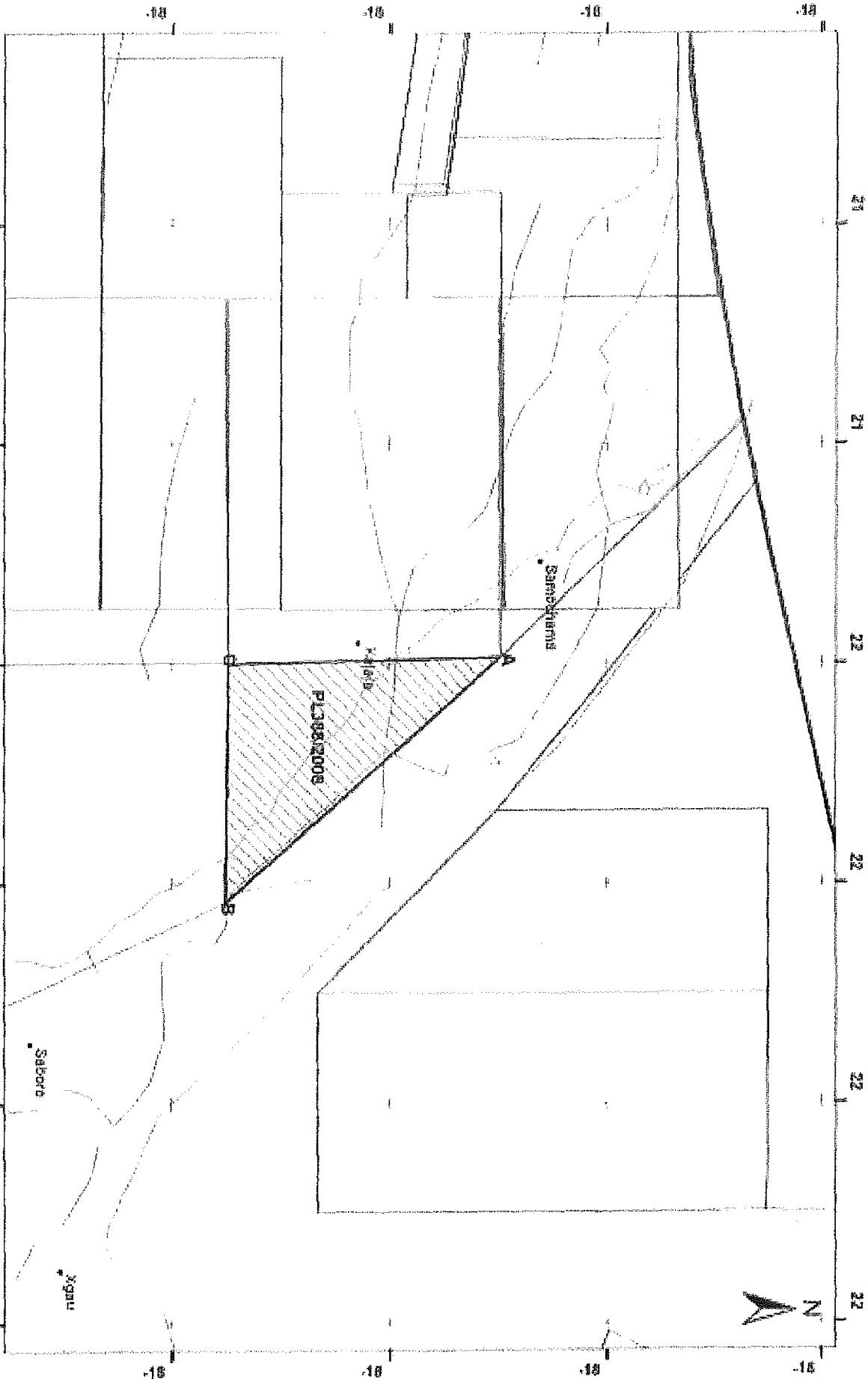


Area of Licence

villages

border

Other reserves

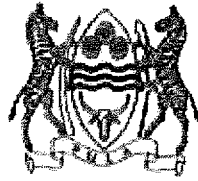


**ANNEXURE II**

| Programme of prospecting operations  | Proposed minimum expenditure  |
|--|---|
| <p><b>Year 1</b></p> <p><b>i. Detailed review of available data.</b></p> <p><b>ii. Analysing the existing aero-mag, Landsat, VTEM and Radarsat data.</b></p> <p><b>iii. Follow-up grid geophysics of targets.</b></p> <p><b>iv. Soil sampling for key elements over selected targets</b></p> <p><b>v. Grid soil sampling to be submitted for 32 element analysis.</b></p> <p><b>vi. Ground scintilometer readings.</b></p> <p><b>vii. Prioritization of drill targets.</b></p> | <p><b>Seven Hundred Thousand Pula</b><br/><b>(BWP 700,000.00)</b></p> |
| <p><b>Year 2</b></p> <p><b>i. Drill testing of priority targets</b></p> <p><b>ii. Petrographic analysis of drill core.</b></p> <p><b>iii. Heavy mineral separation (TBE)</b></p> <p><b>iv. Element indicator mineral chemistry analysis if appropriate.</b></p> <p><b>v. Multi- element Analysis by ICP (Inductively-coupled plasma).</b></p>  | <p><b>Seven Hundred Thousand Pula</b><br/><b>(BWP700,000.00)</b></p>  |
| <p><b>Year 3</b></p> <p><b>i. Drill testing of priority targets</b></p> <p><b>ii. Petrographic analysis of drill core.</b></p> <p><b>iii. Heavy mineral separation (TBE)</b></p> <p><b>iv. Element Indicator mineral chemistry analysis if appropriate.</b></p> <p><b>vi. Multi- element Analysis by ICP (Inductively-coupled plasma)</b></p> <p><b>vi. Drill testing of priority targets.</b></p>   | <p><b>Seven Hundred Thousand Pula</b><br/><b>(BWP700,000.00)</b></p>  |

Bm  
MN

"CCCL 3"



Republic of Botswana

**PROSPECTING LICENCE**

*in favour of*

**GCWIHABA RESOURCES (PTY) LTD**

**PROSPECTING LICENCE NO. 389/2008**

Bm  
MN



REPUBLIC OF BOTSWANA

Form II

Prospecting License No. PL389/2008

Issued in terms of section 16 of the Mines and Minerals Act.

WHEREAS Gcwihaba Resources (Pty) Ltd a company incorporated under the laws of Republic of Botswana (hereinafter referred to as "the holder") has made application for the right to prospect for Metals on land to which the Republic of Botswana holds mineral rights.

AND WHEREAS provision is made under section 14 of the Act for the conferring of such rights by means of a prospecting license:

NOW THEREFORE the Minister hereby grants to the holder the exclusive right to prospect for Metals in the license area for a period of 3 years commencing on 01 October 2008 and ending on 30 September 2011.

1. The License area shall be the area shown on the map annexed hereto in extent of Nine hundred and seventy eight point six square kilometers (978.6 km<sup>2</sup>), located in Ngamiland district(s) and more fully described in Annexure I hereto; and as reduced from time to time in accordance with the provisions of the Act.

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2. In accordance with section 70 of the Act, the holder shall, simultaneously with issuance of this license, and thereafter on each anniversary thereof, pay to the Government at the Office of the Director of Geological Survey, an annual charge equal to (BWP5.00) multiplied by the number of square kilometers in the License area subject to a minimum annual charge of One thousand Pula (BWP1000.00).
3. The holder shall incur the minimum annual expenditures and shall expeditiously carryout the programme of prospecting operations set out in Annexure II.

GIVEN under my hand at GABORONE this 1<sup>st</sup> day of Nov. in the year 2008.



Minister

Ministry of Minerals, Energy and  
Water Resources

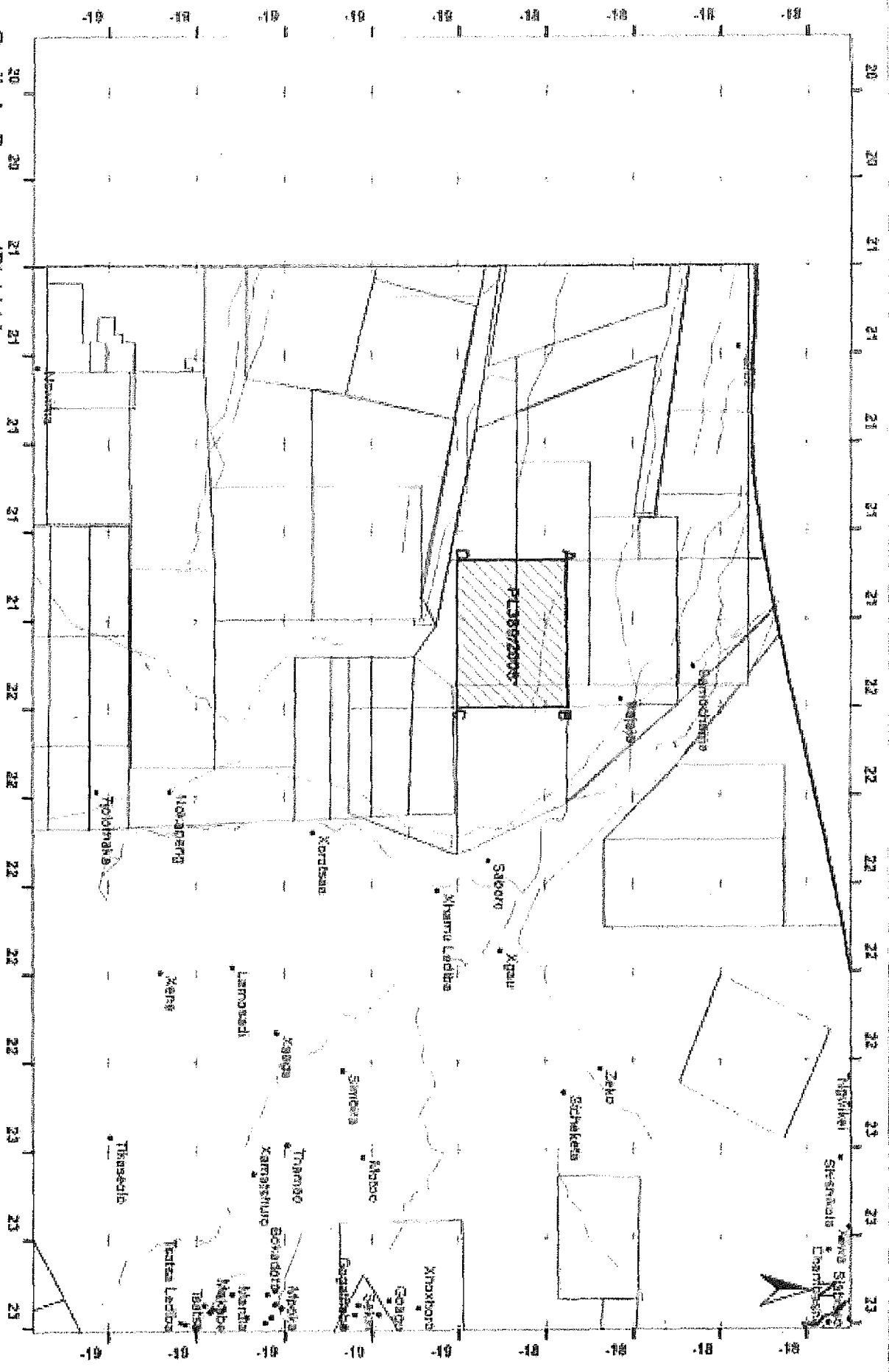
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Gcwitaba Resources (Pty) Ltd  
Prospecting Licence No. 385/2008

Area of Licence

◆ towns  
 ◆ villages  
 — rivers  
 — roads  
 □ Other Licences



**ANNEXURE I**

The license area is of Nine hundred and seventy eight point six square kilometers (978.6 km<sup>2</sup>) defined by boundary lines, which shall be straight unless otherwise stated, joining successive points at the following coordinates:

| <u>Point</u> | <u>Longitude (East)</u> | <u>Latitude (South)</u> |
|--------------|-------------------------|-------------------------|
| A            | 21.666311               | -18.751069              |
| B            | 21.999981               | -18.747667              |
| C            | 21.999731               | -19.001061              |
| D            | 21.666311               | -19.001061              |

Total Area 978.6 km<sup>2</sup>

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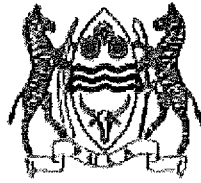
**ANNEXURE II**

| Programme of prospecting operations  | Proposed minimum expenditure   |
|--|--|
| <p><b>Year 1</b></p> <ul style="list-style-type: none"> <li><b>i. Detailed review of available data.</b></li> <li><b>ii. Analysing the existing aero-mag, Landsat, VTEM and Radarsat data.</b></li> <li><b>iii. Follow-up grid geophysics of targets.</b></li> <li><b>iv. Soil sampling for key elements over selected targets</b></li> <li><b>v. Grid soil sampling to be submitted for 32 element analysis.</b></li> <li><b>vi. Ground scintillometer readings.</b></li> <li><b>vii. Prioritization of drill targets.</b></li> </ul> | <p align="center"><b>Seven      Hundred<br/>Thousand Pula<br/>(BWP 700,000.00)</b></p> |
| <p><b>Year 2</b></p> <ul style="list-style-type: none"> <li><b>i. Drill testing of priority targets</b></li> <li><b>ii. Petrographic analysis of drill core.</b></li> <li><b>iii. Heavy mineral separation (TBE)</b></li> <li><b>iv. Element indicator mineral chemistry analysis if appropriate.</b></li> <li><b>v. Multi- element Analysis by ICP (inductively-coupled plasma).</b></li> </ul>   | <p align="center"><b>Seven      Hundred<br/>Thousand Pula<br/>(BWP700,000.00)</b></p>  |
| <p><b>Year 3</b></p> <ul style="list-style-type: none"> <li><b>i. Drill testing of priority targets</b></li> <li><b>ii. Petrographic analysis of drill core.</b></li> <li><b>iii. Heavy mineral separation (TBE)</b></li> <li><b>iv. Element Indicator mineral chemistry analysis if appropriate.</b></li> <li><b>vi. Multi- element Analysis by ICP (inductively-coupled plasma)</b></li> <li><b>vi. Drill testing of priority targets.</b></li> </ul>  | <p align="center"><b>Seven      Hundred<br/>Thousand Pula<br/>(BWP700,000.00)</b></p>  |

Bm  
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Republic of Botswana

**PROSPECTING LICENCE**

in favour of

**GCWIHABA RESOURCES (PTY) LTD**

**PROSPECTING LICENCE NO. 390/2008**

Bm  
MN



REPUBLIC OF BOTSWANA

Form II

Prospecting License No. PL390/2008

Issued in terms of section 16 of the Mines and Minerals Act.

WHEREAS Gcwihaba Resources (Pty) Ltd a company incorporated under the laws of Republic of Botswana (hereinafter referred to as "the holder") has made application for the right to prospect for Metals on land to which the Republic of Botswana holds mineral rights.

AND WHEREAS provision is made under section 14 of the Act for the conferring of such rights by means of a prospecting license:

NOW THEREFORE the Minister hereby grants to the holder the exclusive right to prospect for Metals in the license area for a period of 3 years commencing on 01 October 2008 and ending on 30 September 2011.

1. The License area shall be the area shown on the map annexed hereto in extent of Eight hundred and seven point three square kilometers (807.3 km<sup>2</sup>), located in Ngamiland district(s) and more fully described in Annexure I hereto; and as reduced from time to time in accordance with the provisions of the Act.

Bm  
MN

2. In accordance with section 70 of the Act, the holder shall, simultaneously with issuance of this license, and thereafter on each anniversary thereof, pay to the Government at the Office of the Director of Geological Survey, an annual charge equal to (BWP5.00) multiplied by the number of square kilometers in the License area subject to a minimum annual charge of One thousand Pula (BWP1000.00).
3. The holder shall incur the minimum annual expenditures and shall expeditiously carryout the programme of prospecting operations set out in Annexure II.

GIVEN under my hand at GABORONE this 10<sup>th</sup> day of Nov. in the year 2008



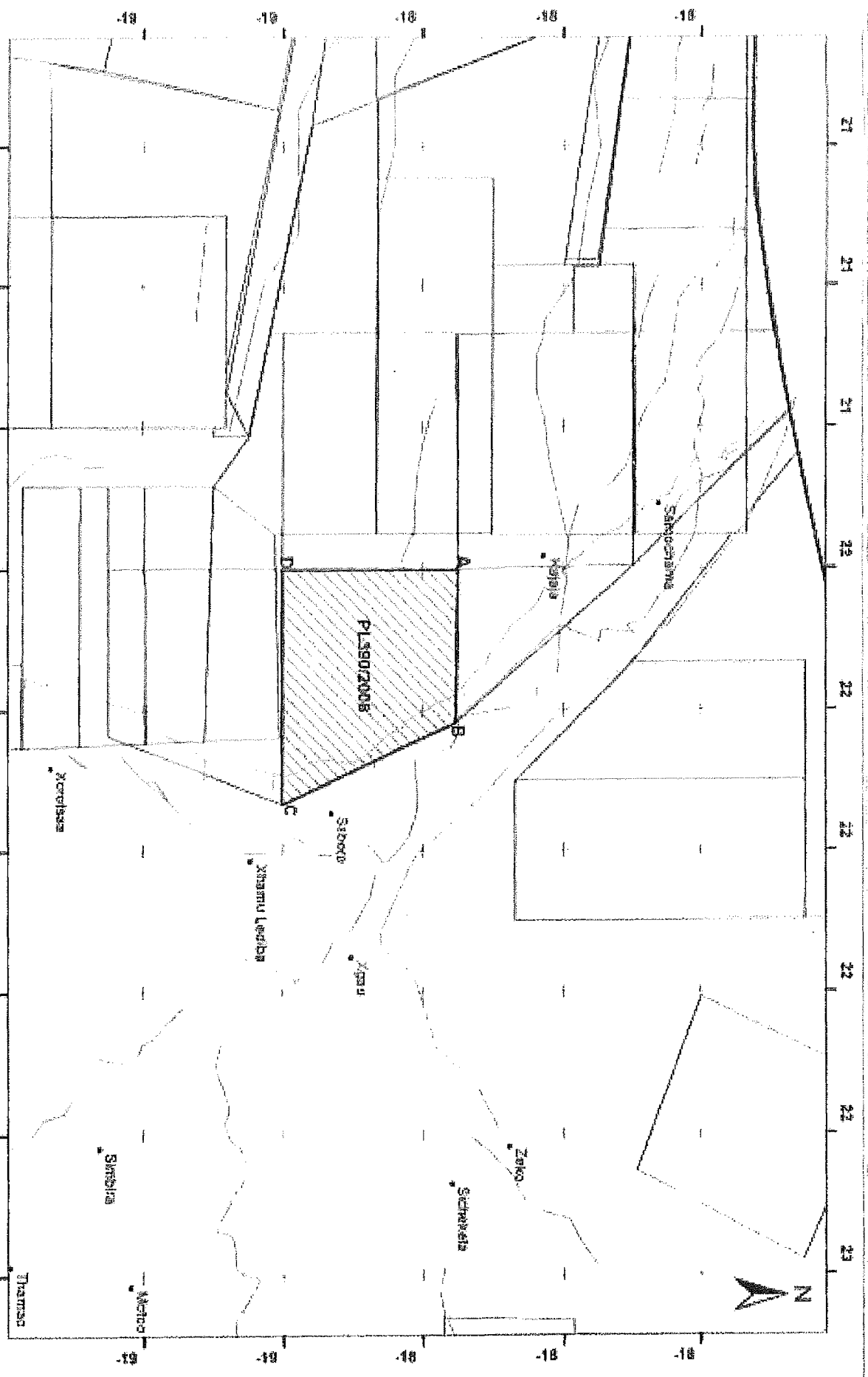
Minister

Ministry of Minerals, Energy and  
Water Resources

BM  
MM

**Gcwihaba Resources (Pty) Ltd**  
Prospecting Licence No. 390/2008

-  Area of Licence
-  Rivers
-  Villages
-  Roads
-  Border
-  Other Licences



**ANNEXURE I**

The license area is of **Eight hundred and seven point three square kilometers (807.3 km<sup>2</sup>)** defined by boundary lines, which shall be straight unless otherwise stated, joining successive points at the following coordinates:

| <u>Point</u> | <u>Longitude (East)</u> | <u>Latitude (South)</u> |
|--------------|-------------------------|-------------------------|
| A            | 21.999981               | -18.747667              |
| B            | 22.217250               | -18.750731              |
| C            | 22.333031               | -19.001061              |
| D            | 21.999731               | -19.001061              |

Total Area **807.3 km<sup>2</sup>**

Bm  
MN

**ANNEXURE II**

| Programme of prospecting operations  | Proposed minimum expenditure  |
|--|---|
| <p><b>Year 1</b></p> <p><b>i. Detailed review of available data.</b></p> <p><b>ii. Analysing the existing aero-mag, Landsat, VTEM and Radarsat data.</b></p> <p><b>iii. Follow-up grid geophysics of targets.</b></p> <p><b>iv. Soil sampling for key elements over selected targets</b></p> <p><b>v. Grid soil sampling to be submitted for 32 element analysis.</b></p> <p><b>vi. Ground scintilometer readings.</b></p> <p><b>vii. Prioritization of drill targets.</b></p> | <p><b>Seven Hundred Thousand Pula</b><br/><b>(BWP 700,000.00)</b></p> |
| <p><b>Year 2</b></p> <p><b>i. Drill testing of priority targets</b></p> <p><b>ii. Petrographic analysis of drill core.</b></p> <p><b>iii. Heavy mineral separation (TBE)</b></p> <p><b>iv. Element indicator mineral chemistry analysis if appropriate.</b></p> <p><b>v. Multi- element Analysis by ICP (inductively-coupled plasma).</b></p>  | <p><b>Seven Hundred Thousand Pula</b><br/><b>(BWP700,000.00)</b></p>  |
| <p><b>Year 3</b></p> <p><b>i. Drill testing of priority targets</b></p> <p><b>ii. Petrographic analysis of drill core.</b></p> <p><b>iii. Heavy mineral separation (TBE)</b></p> <p><b>iv. Element indicator mineral chemistry analysis if appropriate.</b></p> <p><b>vi. Multi- element Analysis by ICP (inductively-coupled plasma)</b></p> <p><b>vi. Drill testing of priority targets.</b></p>   | <p><b>Seven Hundred Thousand Pula</b><br/><b>(BWP700,000.00)</b></p>  |

Bm  
MN

"CCC 3e"



Republic of Botswana

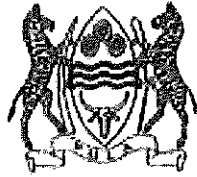
**PROSPECTING LICENCE**

in favour of

**GCWIHABA RESOURCES (PTY) LTD**

**PROSPECTING LICENCE NO. 391/2008**

Bm  
MN



REPUBLIC OF BOTSWANA

Form II

Prospecting License No.PL391/2008

Issued in terms of section 16 of the Mines and Minerals Act.

WHEREAS Gcwihaba Resources (Pty) Ltd a company incorporated under the laws of Republic of Botswana (hereinafter referred to as "the holder") has made application for the right to prospect for Metals on land to which the Republic of Botswana holds mineral rights.

AND WHEREAS provision is made under section 14 of the Act for the conferring of such rights by means of a prospecting license:

NOW THEREFORE the Minister hereby grants to the holder the exclusive right to prospect for Metals in the license area for a period of 3 years commencing on 01 October 2008 and ending on 30 September 2011.

1. The License area shall be the area shown on the map annexed hereto in extent of Four hundred and fifty four point five square kilometers (454.5 km<sup>2</sup>), located in Ngamiland district(s) and more fully described in Annexure I hereto; and as reduced from time to time in accordance with the provisions of the Act.



2. In accordance with section 70 of the Act, the holder shall, simultaneously with issuance of this license, and thereafter on each anniversary thereof, pay to the Government at the Office of the Director of Geological Survey, an annual charge equal to (BWP5.00) multiplied by the number of square kilometers in the License area subject to a minimum annual charge of One thousand Pula (BWP1000.00).
3. The holder shall incur the minimum annual expenditures and shall expeditiously carryout the programme of prospecting operations set out in Annexure II.

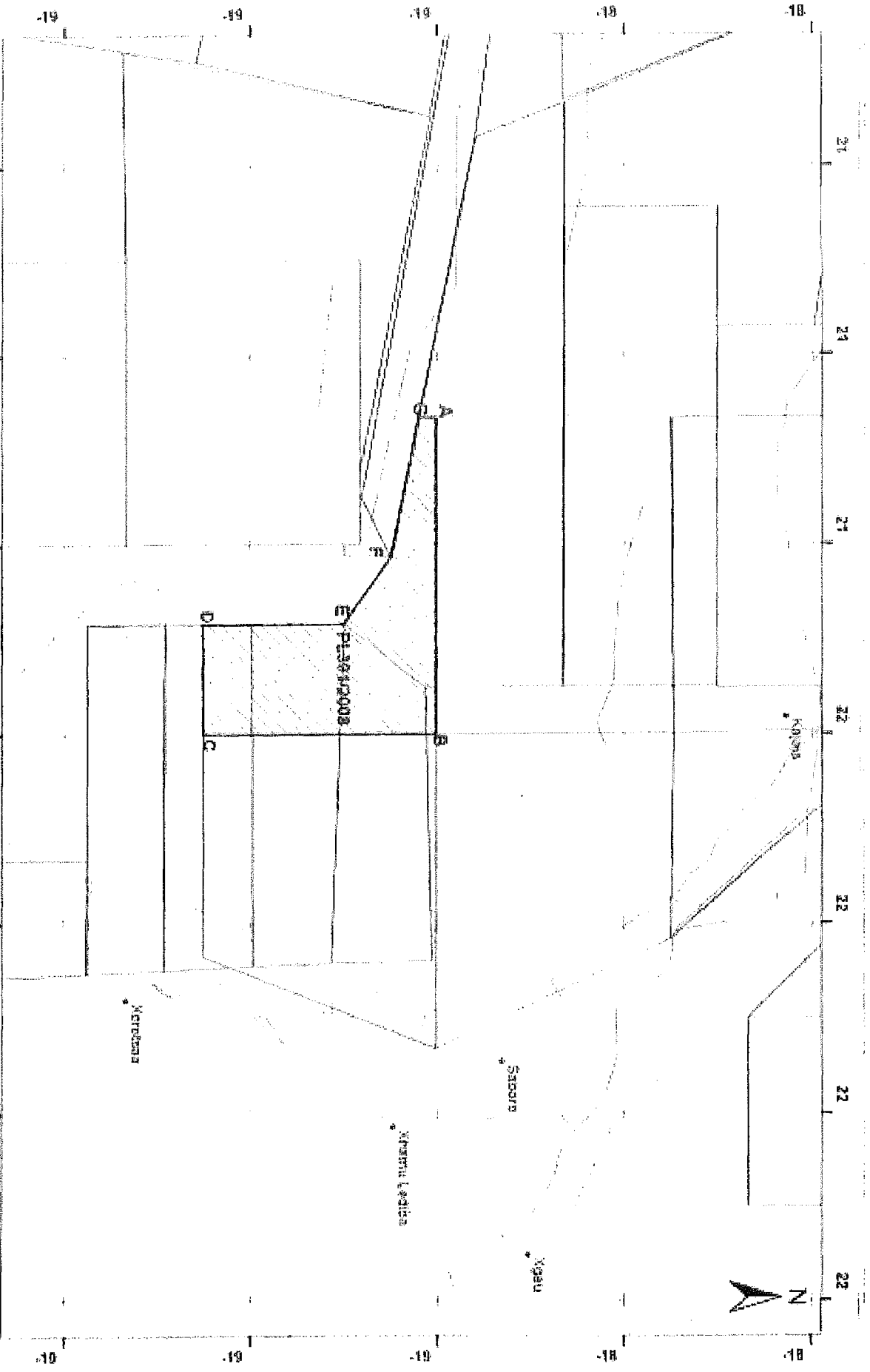
GIVEN under my hand at GABORONE this 10<sup>th</sup> day of Nov in the year 2008



Minister

Ministry of Minerals, Energy and  
Water Resources

Bm  
MN



Gswithaba Resources (Pty) Ltd  
 Prospecting Licence No. 397/2005

Area of Licence

- Rivers
- Roads
- Other Licences



BM  
 MM

ANNEXURE I

The license area is of Four hundred and fifty four point five square kilometers (454.5 km<sup>2</sup>) defined by boundary lines, which shall be straight unless otherwise stated, joining successive points at the following coordinates:

| <u>Point</u> | <u>Longitude (East)</u> | <u>Latitude (South)</u> |
|--------------|-------------------------|-------------------------|
| A            | 21.666311               | -19.001061              |
| B            | 21.999731               | -19.001061              |
| C            | 21.999731               | -19.251039              |
| D            | 21.883777               | -19.251016              |
| E            | 21.883590               | -19.100000              |
| F            | 21.812500               | -19.048890              |
| G            | 21.666311               | -19.019239              |

Total Area 454.5 km<sup>2</sup>

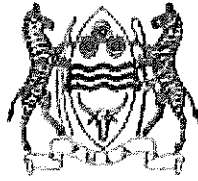
Bm  
MN

**ANNEXURE II**

| Programme of prospecting operations   | Proposed minimum expenditure   |
|---|--|
| <p><b>Year 1</b></p> <ul style="list-style-type: none"> <li>i. Detailed review of available data.</li> <li>ii. Analysing the existing aero-mag, Landsat, VTEM and Radarsat data.</li> <li>iii. Follow-up grid geophysics of targets.</li> <li>iv. Soil sampling for key elements over selected targets</li> <li>v. Grid soil sampling to be submitted for 32 element analysis.</li> <li>vi. Ground scintillometer readings.</li> <li>vii. Prioritization of drill targets.</li> </ul> | <p align="center">Seven Hundred<br/>Thousand Pula<br/>(BWP 700,000.00)</p> |
| <p><b>Year 2</b></p> <ul style="list-style-type: none"> <li>i. Drill testing of priority targets</li> <li>ii. Petrographic analysis of drill core.</li> <li>iii. Heavy mineral separation (TBE)</li> <li>iv. Element indicator mineral chemistry analysis if appropriate.</li> <li>v. Multi- element Analysis by ICP (inductively-coupled plasma).</li> </ul>   | <p align="center">Seven Hundred<br/>Thousand Pula<br/>(BWP700,000.00)</p>  |
| <p><b>Year 3</b></p> <ul style="list-style-type: none"> <li>i. Drill testing of priority targets</li> <li>ii. Petrographic analysis of drill core.</li> <li>iii. Heavy mineral separation (TBE)</li> <li>iv. Element indicator mineral chemistry analysis if appropriate.</li> <li>vi. Multi- element Analysis by ICP (inductively-coupled plasma)</li> <li>vi. Drill testing of priority targets.</li> </ul>   | <p align="center">Seven Hundred<br/>Thousand Pula<br/>(BWP700,000.00)</p>  |

Bm  
MN

"CCC 3+"



Republic of Botswana

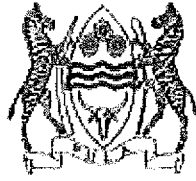
**PROSPECTING LICENCE**

in favour of

**GCWIHABA RESOURCES (PTY) LTD**

**PROSPECTING LICENCE NO. 392/2008**

Bm  
MN



REPUBLIC OF BOTSWANA

Form II

Prospecting License No.PL392/2008

Issued in terms of section 16 of the Mines and Minerals Act.

WHEREAS **Gewihaba Resources (Pty) Ltd** a company incorporated under the laws of **Republic of Botswana** (hereinafter referred to as "the holder") has made application for the right to prospect for **Metals** on land to which the Republic of Botswana holds mineral rights.

AND WHEREAS provision is made under section 14 of the Act for the conferring of such rights by means of a prospecting license:

NOW THEREFORE the Minister hereby grants to the holder the exclusive right to prospect for **Metals** in the license area for a period of **3** years commencing on **01 October 2008** and ending on **30 September 2011**.

1. The License area shall be the area shown on the map annexed hereto in extent of **Eight hundred and twenty eight point one square kilometers (828.1 km<sup>2</sup>)**, located in **Ngamiland** district(s) and more fully described in Annexure I hereto; and as reduced from time to time in accordance with the provisions of the Act.

Bm  
MN

2. In accordance with section 70 of the Act, the holder shall, simultaneously with issuance of this license, and thereafter on each anniversary thereof, pay to the Government at the Office of the Director of Geological Survey, an annual charge equal to (BWP5.00) multiplied by the number of square kilometers in the License area subject to a minimum annual charge of One thousand Pula (BWP1000.00).
3. The holder shall incur the minimum annual expenditures and shall expeditiously carryout the programme of prospecting operations set out in Annexure II.

GIVEN under my hand at GABORONE this 12<sup>th</sup> day of Nov in the year 2008



Minister

Ministry of Minerals, Energy and  
Water Resources

Bm  
MN

ANNEXURE I

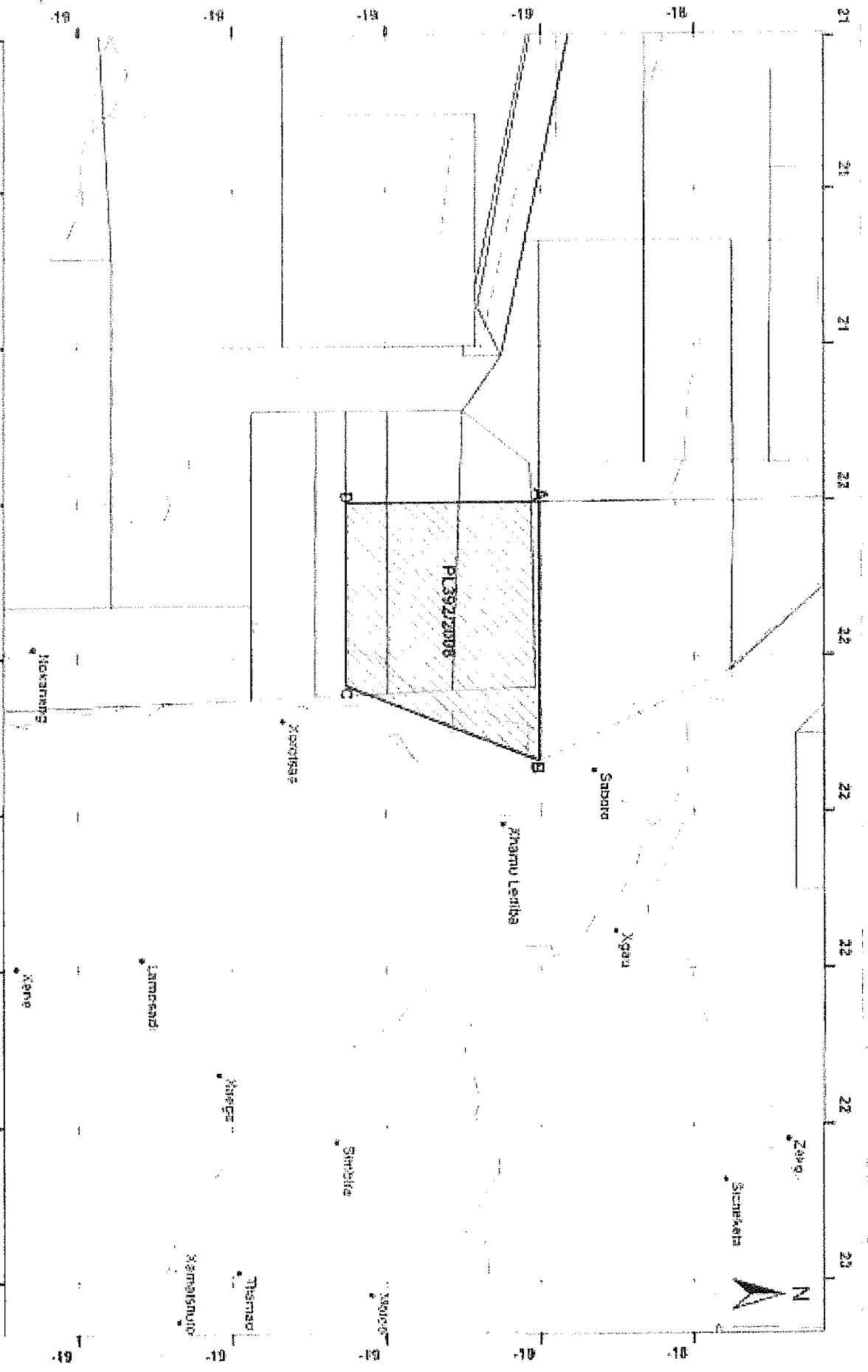
The license area is of Eight hundred and twenty eight point one square kilometers (828.1 km<sup>2</sup>) defined by boundary lines, which shall be straight unless otherwise stated, joining successive points at the following coordinates:

| <u>Point</u> | <u>Longitude (East)</u> | <u>Latitude (South)</u> |
|--------------|-------------------------|-------------------------|
| A            | 21.999731               | -19.001061              |
| B            | 22.333031               | -19.001061              |
| C            | 22.235519               | -19.251039              |
| D            | 21.999731               | -19.251039              |

Total Area 828.1 km<sup>2</sup>

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MN





**Geothaba Resources (Pty) Ltd**

Prospecting Licence No. 392/2008

Area of Licence

- Rivers
- Roads
- Other Licences
- N/A 392
- Rivers



*Handwritten signature/initials*

**ANNEXURE II**

| Programme of prospecting operations  | Proposed minimum expenditure   |
|--|--|
| <p><b>Year 1</b></p> <ul style="list-style-type: none"> <li>i. Detailed review of available data.</li> <li>ii. Analysing the existing aero-mag, Landsat, VTEM and Radarsat data.</li> <li>iii. Follow-up grid geophysics of targets.</li> <li>iv. Soil sampling for key elements over selected targets</li> <li>v. Grid soil sampling to be submitted for 32 element analysis.</li> <li>vi. Ground scintilometer readings.</li> <li>vii. Prioritization of drill targets.</li> </ul> | <p align="center">Seven Hundred<br/>Thousand Pula<br/>(BWP 700,000.00)</p> |
| <p><b>Year 2</b></p> <ul style="list-style-type: none"> <li>i. Drill testing of priority targets</li> <li>ii. Petrographic analysis of drill core.</li> <li>iii. Heavy mineral separation (TBE)</li> <li>iv. Element indicator mineral chemistry analysis if appropriate.</li> <li>v. Multi- element Analysis by ICP (inductively-coupled plasma).</li> </ul>  | <p align="center">Seven Hundred<br/>Thousand Pula<br/>(BWP700,000.00)</p>  |
| <p><b>Year 3</b></p> <ul style="list-style-type: none"> <li>i. Drill testing of priority targets</li> <li>ii. Petrographic analysis of drill core.</li> <li>iii. Heavy mineral separation (TBE)</li> <li>iv. Element indicator mineral chemistry analysis if appropriate.</li> <li>vi. Multi- element Analysis by ICP (inductively-coupled plasma)</li> <li>vi. Drill testing of priority targets.</li> </ul>  | <p align="center">Seven Hundred<br/>Thousand Pula<br/>(BWP700,000.00)</p>  |

BM  
MN

"CCCC4"

Exhibit 1

TSODILO RESOURCES LIMITED

CANADA TRUST TOWER - BCE PLACE, 161 BAY STREET, BOX 508, TORONTO, ONTARIO M5J 2S1  
TEL. + 1 416 572-2033 / FAX + 1 416 987-4369 / EMAIL: info@tsodiloresources.com WEBSITE: http://www.tsodiloresources.com

October 25, 2017

Mr. Lesego Ungwang  
Acting Assistant Director  
Department of Mines  
The Ministry of Mineral Resources, Green Technology, and Energy Security

RE: Gcwihaba Resources (Pty) Ltd – Licenses

Dear Sir,

Once again thank you and Mr. Mathule, for taking time to meet with Dr Mike de Wit, Milton Keeletsang and myself on September 20, 2017. We appreciated the opportunity to meet with you and have a frank and open discussion with respect to Gcwihaba's metal licenses in Ngamiland.

Let me say from the onset that we understand the Ministry's and the Department of Mines' efforts in adhering to the spirit of the caveats that the UNESCO designation of the Okavango Delta as a World Heritage site have brought about. As the largest license or land holder in the area, we were never consulted by any party to the accord prior to the delta's designation which we have always thought peculiar but we have nonetheless conducted our activities in all our licenses according to the World Bank's good practice standards at all times with respect to environmental and social matters and will continue to do so.

Our prospecting licenses as they are today are set forth in attachment A & B. No license rests in either in the Ramsar or World Heritage core areas and only those to the east of the panhandle rest in the buffer zones (Attachment C). Some of our licenses in the buffer zone were renewed 2 years after the World Heritage designation while others which may or may not be contiguous to other licenses have not been acted upon in years or in an extreme case were granted to another company while still under license to us. The latter example is clearly an anomaly and not representative but it remains an issue. However, no matter the reason, the delay in renewal has caused actual damages in the exploration program due to the uncertainty caused by the delay. In the past five years, I would estimate that 250M BWP has been spent on the metals licenses and the uncertainties have now resulted in a disjointed exploration program and effort where there should be one cohesive effort and it has also hindered discussions with development partners who question the lack of license renewal.

It should also be pointed out that in previous discussions with the Honourable Mr. Onkokame Kitso Mokaila, Permanent Secretary Paya and others that no impediment to prospecting licenses in the buffer zone existed and that MMEWR and DEA were both so operating.

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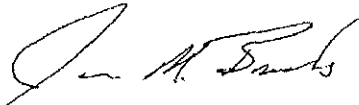
I have heard reports that our overtures to resolve these issues over the past years have been viewed by the DOM as contentious but let me assure you that this is not the case at all but rather it has been a good faith effort in trying to reach an understanding and a resolution of the matters with DOM.

In the spirit of equity and compromise without relinquishing any of our rights, we would like to propose for discussion purposes the following:

- ◇ We would agree to drop all claims be they actual or in equity to those licenses (11) highlighted in blue on both Attachment A & B effective December 31, 2017;
- ◇ in exchange for an initial grant of those licenses (10) highlighted in yellow in Attachment A & B to be effective January 1, 2018.

Although, we would have to take a large impairment charge on our financials for the relinquishment of the licenses we deem this an acceptable outcome if it allows us to further those licences west of the panhandle without any dark clouds which arise over any license controversy. In the mineral resource and other areas, Botswana works because of the rule of law and the ability of its governmental staff to address issues, it is in this context that we are putting forth this proposal.

Best regards,



James M. Bruchs  
Chairman & CEO  
Attachment A, B & C

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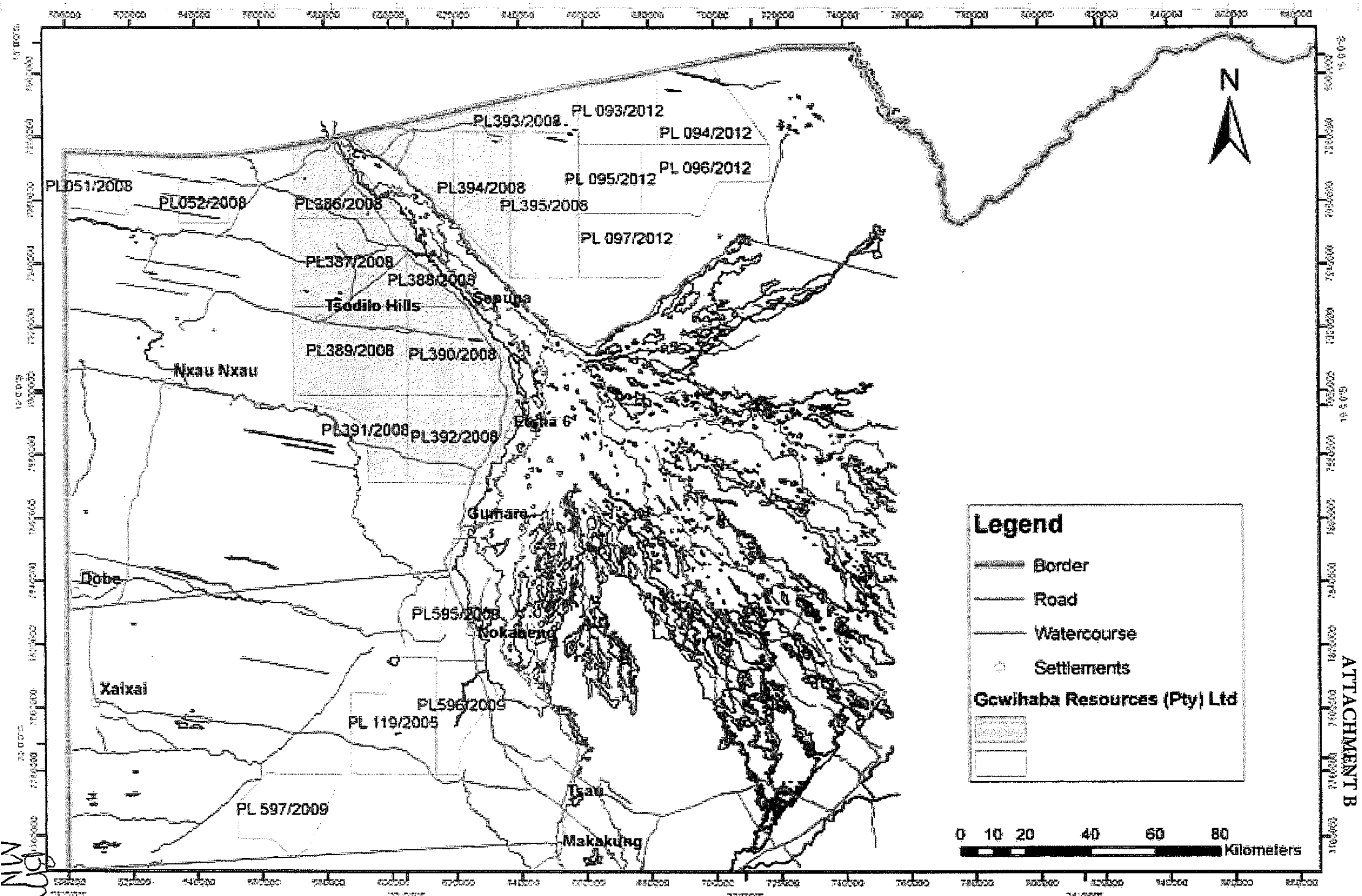
## DESCRIPTION OF PROPERTIES

**Gewihaba Resources (Pty) Limited [Botswana]**

(Prospecting Licenses - Metals: base, precious, platinum group, and rare earth)

|    | PL number          | PROPOSAL                                 |
|----|--------------------|--|
| 1  | PL 119/2005        | RELINQUISH LICENSE AND ALL CLAIMS        |
| 2  | PL 051/2008        | RELINQUISH LICENSE AND ALL CLAIMS        |
| 3  | PL 052/2008        | RELINQUISH LICENSE AND ALL CLAIMS        |
| 4  | <b>PL 386/2008</b> | <b>RENEW INITIAL TERM AS OF 1/1/2018</b> |
| 5  | <b>PL 387/2008</b> | <b>RENEW INITIAL TERM AS OF 1/1/2018</b> |
| 6  | <b>PL 388/2008</b> | <b>RENEW INITIAL TERM AS OF 1/1/2018</b> |
| 7  | <b>PL 389/2008</b> | <b>RENEW INITIAL TERM AS OF 1/1/2018</b> |
| 8  | <b>PL 390/2008</b> | <b>RENEW INITIAL TERM AS OF 1/1/2018</b> |
| 9  | <b>PL 391/2008</b> | <b>RENEW INITIAL TERM AS OF 1/1/2018</b> |
| 10 | <b>PL 392/2008</b> | <b>RENEW INITIAL TERM AS OF 1/1/2018</b> |
| 11 | <b>PL 393/2008</b> | <b>RENEW INITIAL TERM AS OF 1/1/2018</b> |
| 12 | <b>PL 394/2008</b> | <b>RENEW INITIAL TERM AS OF 1/1/2018</b> |
| 13 | <b>PL 395/2008</b> | <b>RENEW INITIAL TERM AS OF 1/1/2018</b> |
| 14 | PL 595/2009        | RELINQUISH LICENSE AND ALL CLAIMS        |
| 15 | PL 596/2009        | RELINQUISH LICENSE AND ALL CLAIMS        |
| 16 | PL 597/2009        | RELINQUISH LICENSE AND ALL CLAIMS        |
| 17 | PL 093/2012        | RELINQUISH LICENSE AND ALL CLAIMS        |
| 18 | PL 094/2012        | RELINQUISH LICENSE AND ALL CLAIMS        |
| 19 | PL 095/2012        | RELINQUISH LICENSE AND ALL CLAIMS        |
| 20 | PL 096/2012        | RELINQUISH LICENSE AND ALL CLAIMS        |
| 21 | PL 097/2012        | RELINQUISH LICENSE AND ALL CLAIMS        |

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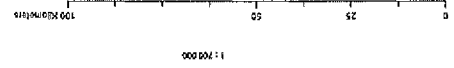
ATTACHMENT B

Gcwihaba Metal (Base & Precious, PGMs and REE) Licenses as of September 26, 2017.

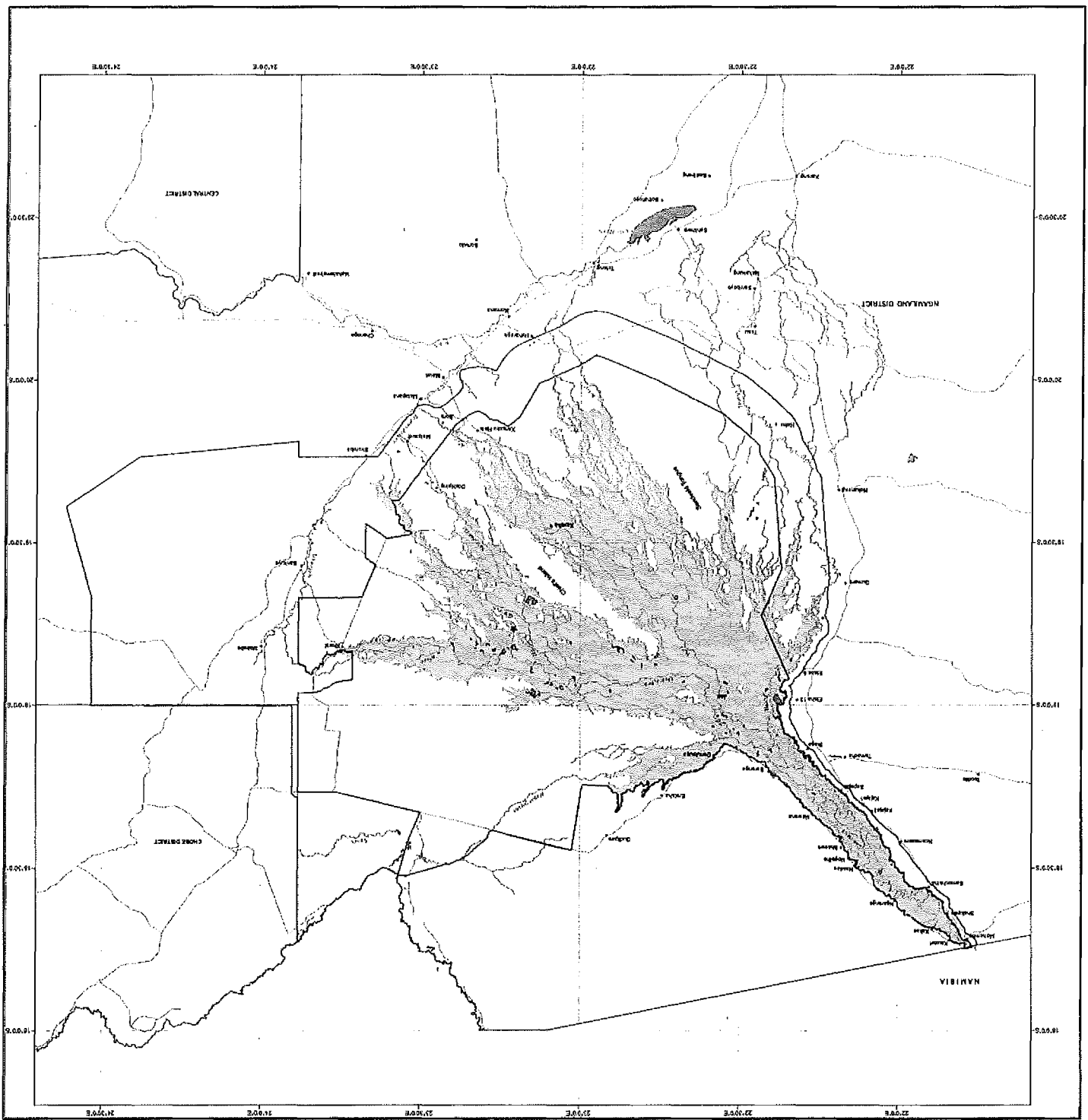
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- Overlapping
- Case/Lagoon
- Gravelly Road
- Tarred Road

- Center of Property
- Setbacks
- Core Zone Boundary
- Buffer Zone
- District Boundary



Area of Core Zone: 20 242.5 sqm  
Area of Buffer Zone: 22 554.3 sqm  
Coordinates of Center of Property: 23.691  
19.203



Legend

Okavango Delta: Boundaries



Co 88384 / VAT No C00452001111

|  |   |  |
|--|---|--|
| Registered Address<br>Unit G3, Victoria House<br>1901 132, Independence Avenue<br>Gaborone, Botswana | Physical Address<br>The Office Building #59<br>1901 61547 Patroon's Office Park<br>Gaborone, Botswana | Mailing Address<br>PO Box 3726<br>Gaborone, Botswana |
|--|---|--|

TEL / FAX (267) 392-7144

"CCCB5"

January 23, 2018  
Director of the Ministry of Mines

Attention: Mr. Lesego Ungwang  
Acting Assistant Director  
Department of Mines

The Ministry of Mineral Resources, Green Technology, and Energy Security

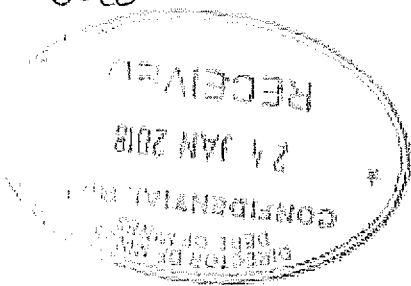
Dear Mr Ungwang,

Our Company received the new licenses PL 20-26/2018 earlier this week. I would however like to point out the following:

- The agreement with you was that the Company would relinquish all licenses east of the Okavango river and north of the Delta (PL 393, 394, 395/2008 and PL 093, 094, 095, 096, 097/2012), on which considerable expenses were incurred by the Company during its exploration program, in exchange for new licenses replacing the existing ones on the west of the Okavango River (PL 386, 387, 388, 389, 390, 391 & 392/2008).
- The Company prepared and submitted the applications for new licenses, replacing PL 386-392/2008 in its entirety, as agreed.
- The following new licenses were received: PL 20, 21, 22, 23, 24, 25, and 26/2018. However, it is apparent that the eastern boundaries of PL 20, 21, 22, 24 & 26/2018 are not aligned with that of PL 386, 387, 388, 390 & 392 respectively and were modified by your office without notice or consultation.
- This might be an error on your behalf or done intentionally, but either way the Company requires that this modification of the licenses be rectified.
- If these boundaries were fixed *in good faith* with purpose not to encroach with the old licenses, the Company wish to point out that the iron ore resource that the Company has outlined will be defined in value by a large number taking the fact that Mgantland might never benefit from this resource.
- If the Ministry is not prepared to change the boundary to that as was agreed, the Company will withdraw its relinquishment and revert back to the old licenses, on both sides of the river for which it still has 2 years left and continue with its drilling program.

Yours sincerely,

James M. Branch  
Mining Director



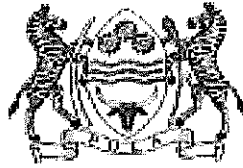
BM  
MM



"CCC6"

Exhibit 4

Telephone: (267) 263 7000  
Fax No: (267) 293 2344  
Telegraphic Address:  
Mines Gaborone



REPUBLIC OF BOTSWANA

Department of Mines  
Private Bag 0049  
Gaborone  
Botswana

*All correspondence to be addressed to the Director*

Ref: CP 215 XIII (8)

Date: 16 February 2018

The Managing Director  
Gowihaba Resources (Pty) Ltd  
PO Box 3726  
Gaborone

Attention: James M. Bruchs

Dear Sir,

**RE: NEW PROSPECTING LICENCES 020-026/2018 ISSUED TO GCWIHABA  
RESOURCES (PTY) LTD**

1. Your letter dated 23 January 2018 and the meeting of 14 February 2018 with Gowihaba Resources (Pty) Ltd representatives refer.
2. Please be informed that the Department of Mines is amenable to re-aligning the eastern boundaries of the prospecting licences to coincide with the original eastern boundaries of prospecting licences 386-392/2008.
3. We recognise that the current eastern boundaries have a negative effect on your Fe ore resource and Cu deposits. To that end, the Department will issue amended prospecting licences with re-aligned boundaries.
4. The Department regrets any inconvenience that may have been caused by this oversight. Please do not hesitate to contact our office for any clarifications.

Yours faithfully,

  
Lesego Ungwang  
For/Director



Visit our Website at: <http://www.mines.gov.bw/>

Bm  
MN

# GCWIHABA RESOURCES (PTY) LIMITED

Co 88/354 / VAT No C00452001111

Mailing Address  
PO Box 3726  
Gaborone, Botswana

Physical Address  
The Office Building #59  
Plot 61547 Fairgrounds Office Park  
Gaborone, Botswana

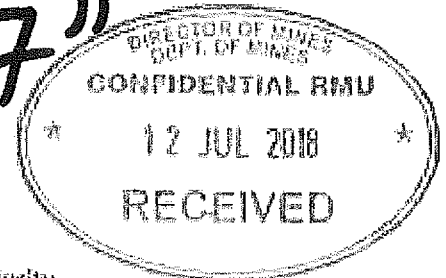
Registered Address  
Unit G3, Victoria House  
Plot 132, Independence Avenue  
Gaborone, Botswana

TEL / FAX (267) 392-7144

July 12, 2018

Director of the Ministry of Mines

Attention: Mr. Lesego Ungwang  
Acting Assistant Director  
Department of Mines  
The Ministry of Mineral Resources, Green Technology, and Energy Security



Dear Mr Ungwang,

I would like to inquire as to the status of the licenses which I brought to your attention on or about January 23, 2018 (see attachment A) regarding the inaccuracies of the license co-ordinates and our concern that the Department of Mines *sua sponte* decide to breach our agreement concerning these and other licenses. These are the same licenses together with the licenses east of the panhandle that we have been discussing with DOM for close to 3 years and it is not important at this time to reiterate everything as I am sure this matter has just been over-looked.

I acknowledge your response of February 14, 2018 to my letter (see Attachment B) in which you acknowledge the error and assured me that the errors would be corrected.

However, to this date, some 5 months later nothing has happened and we are waiting to commence work on the licenses. The errors can visually be seen on Attachment C. The *sua sponte* action by the DOM and not in conformity with our agreement has not only an impact on our exploration efforts and the resource defined billion USD iron ore project but it has further legal and regulatory implications. I have assured our shareholders; our stakeholders; our lawyers; our regulators; and, our auditors that the long saga of these licenses was over and they accepted your letter as acknowledgement of the same. I'm at a loss as to what to report now as I believe we have all acted in good faith and that there is just some clerical error that needs correcting. We and our joint venture partner have spent 25M USD on the project and the issues surrounding these licenses are something that need to get resolved as we agreed to do as we are not able to capitulate further.

If I may, I would again like to propose a solution that is 100% consistent with the agreement we reached. I have attached the original licenses (Attachment D) and have the GIS license staff plot them exactly as they are and put an effective date on as July 1, 2018 for an initial term and we can all put this matter behind us.

Yours sincerely,

James M. Branch  
Managing Director  
Cc: Mike de Wit / Blackie Muroke / Milton Keelatsung  
Attachments: A, B, C & D

Bm  
MN

"CCCC8"

Telephone: (267) 365 7000  
 Fax No: (267) 395 2143  
 Telegraphic Address  
 Mincat Gaborone



REPUBLIC OF BOTSWANA

Department of Mines  
 Private Bag 004  
 Gaborone  
 Botswana

*All correspondence to be addressed to the Director*

**Ref: CP 215 XIII (12)**

**Date: 02 August 2018**

The Managing Director  
 Gcwihaba Resources (Pty) Ltd  
 PO Box 3726  
 Gaborone

**Attention: James M. Bruchs**

Dear Sir,

**RE: NEW PROSPECTING LICENCES 020-026/2018 ISSUED TO GCWIHABA RESOURCES (PTY) LTD**

1. Your letter dated 12 July 2018 and our letter CP 215 XIII (8) dated 16 February 2018 on the subject matter refer.
2. In 2014, the Okavango Delta was declared a World Heritage Site by UNESCO and the Government of Botswana took a deliberate decision to prohibit any prospecting or mining activities within the core and buffer zones of the Delta. At the time Gcwihaba Resources (Pty) Ltd ("Gcwihaba") had a number of prospecting licences within the buffer zone of the Delta (see Map 1).
3. Gcwihaba agreed in principle to relinquish all the licences in the buffer zone and others that were outside the buffer zone. In the spirit of fairness and compromise, Gcwihaba proposed that the other prospecting licences that were located to the south-west of the pan-handle (see Map 2), where there is an auspicious deposit of magnetite, be renewed in their entirety with a new lease of life with effect from 1<sup>st</sup> January 2018.

Visit our Website at: <http://www.mines.gov.bw/>

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4. The licences were renewed as shown in the table below (see Map 3):

| Original PLs |                         | New PLs   |                         | Comments                                  |
|--------------|-------------------------|-----------|-------------------------|---|
| PL Number    | Size (km <sup>2</sup> ) | PL Number | Size (km <sup>2</sup> ) |   |
| 386/2008     | 570.0                   | 020/2018  | 458                     | Cut off from the Buffer Zone              |
| 387/2008     | 964.9                   | 021/2018  | 925                     | Cut off from the Buffer Zone              |
| 388/2008     | 317.1                   | 022/2018  | 152                     | Cut off from the Buffer Zone              |
| 389/2008     | 978.6                   | 023/2018  | 978                     | Unaffected by the Buffer Zone             |
| 390/2008     | 978.6                   | 024/2018  | 708                     | Cut off from the Buffer Zone and A35 road |
| 391/2008     | 454.5                   | 025/2018  | 455                     | Unaffected by the Buffer Zone.            |
| 392/2008     | 828.1                   | 026/2018  | 732                     | Cut off from the Buffer Zone and A35 road |

5. On the basis of the above, the only prospecting licences that were to be corrected are 024/2018 and 026/2018 that have been cut off from the Sehitwa – Shakawe road (A35). This correction was to involve moving the eastern boundaries of prospecting licences 024/2018 and 026/2018 from A35 road to the edge of the Buffer Zone (see Map 4).
6. Please note that our letter of 16 February 2018 was with regards to the above mentioned two (2) prospecting licences only. It is obvious from your contention that this was erroneously construed to be in reference to all the prospecting licences.
7. We reiterate that the eastern boundaries of prospecting licences 020-026/2018 cannot be extended into the buffer zone of the Okavango Delta. If Gwihaba accedes to the correction as alluded to in bullet 5 above, the Department will amend prospecting licences 024/2018 and 026/2018 as proposed.
8. Please do not hesitate to contact our office if there is any clarification sought.

Yours faithfully,

  
 Sellinah A. Magojwa  
 Director of Mines

“CCC 9”

## GCWIHABA RESOURCES (PTY) LIMITED

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Co 88/384 / VAT No C00452001111

**Mailing Address**  
PO Box 3726  
Gaborone, Botswana

**Physical Address**  
The Office Building #59  
Plot 61547 Fairgrounds Office Park  
Gaborone, Botswana

**Registered Address**  
Unit G3, Victoria House  
Plot 132, Independence Avenue  
Gaborone, Botswana

TEL / FAX (267) 392-7144

August 13, 2018

Director of the Ministry of Mines

**Attention:** Sellinah A. Mogojwa, Director  
Department of Mines (DOM)

The Ministry of Mineral Resources, Green Technology, and Energy Security (MRGE)

### **RE: Gcwihaba Resources (Pty) Ltd Prospecting Licenses**

Dear Madame Director,

Thank you for your correspondence of August 2, 2018. I have read it over several times, shared it with my colleagues and with counsel and from our standpoint it is neither supported by the documented facts or represents an accurate portrayal of the agreement reached with DOM with respect to our prospecting licenses in Ngamiland. Your letter asks us to accept the credulity of a narrative that is neither accurate or factually supported.

I will address the points you set forth individually and incorporate my letters of October 25, 2017, January 24, 2018 and July 12, 2018 and DOM's letters of February 16, 2018 and August 2, 2018. Your statements as they are set forth in your letter are italicized and Gcwihaba Resources (Pty) Limited's (Gcwihaba) response follows each point.

#### ***DOM***

*2. In 2014, the Okavango Delta was declared a World Heritage Site by UNESCO and the Government of Botswana took a deliberate decision to prohibit any prospecting or mining activities within the core and buffer zones of the Delta. At the time Gcwihaba Resources (Pty) Ltd ("Gcwihaba") had a number of prospecting licenses within the buffer zone of the Delta (see Map 1),*

#### **Gcwihaba response:**

Facts:

- 1) At no time did DOM or MRGE inform Gcwihaba of any such prohibition to prospecting or mining in the areas where we held licenses. If in 2014 a decision to prohibit any prospecting or mining activities was indeed consummated there must be a record of such a public decision and we hereby request a copy of any such

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documentation. We would also request any such record evidencing this prohibition being delivered to us.

- 2) As a stakeholder, we were never consulted or advised with respect to the UNESCO process although I have recently been told by our lawyers that there are references in the UNSECO filings by the government of Botswana that all stakeholders were consulted with. This statement by the government is not accurate with respect to Gcwihaba as no such consultations with Gcwihaba were ever held.
- 3) Starting in 2013 and prior to the OKV designation as a World Heritage site, Minister Onkokame Kitso Mokaila and Permanent Secretary Boikobo Paya informed us on numerous occasions in 2013, 2014, 2015 and 2016 that **“the Botswana government would not allow the placement of any arbitrary boundaries against the development of its natural resources for the benefit of its people”**. In fact, Ministry staff several times commented about the problems that would occur if an Orapa was found in the core zone! More to the point, we were informed by Minister Mokaila that he in fact held high level talks at the end of 2015 with his counterpart, Minister TS Khama at the Ministry of Environment, Natural Resources and Conservation and Minister Mokaila stood firm in his resolve that the buffer zone was not off limits to prospecting or development
- 4) The facts set forth in point 3 are further supported by the fact that on July 1, 2016, **two (2) years after the World Heritage designation**, the Minister renewed PLs 386, 387, 388, 390 and 392 all of which had parts of them in the buffer zone and PLs 393, 394 and 395 which were entirely in the buffer zone were also renewed. These licenses were all processed by DOM while you were the Director at DOM.
- 5) In 2014, 2015, 2016, 2017, the DOM issued confirmation letters confirming that the licenses in question were in good order. Nowhere in the confirmation letters are there qualifying remarks that impair the licenses which DOM would have to have been stated if in fact what you say is correct.
- 6) I read your letter as an admission that the Ministry intentionally granted licenses knowing full well that they would never allow resource development in a portion or all the area and yet they did not inform the license holder who was spending money on these projects or offer any reparations for this condemnation or impairment. You are effectively saying that there was a constructive taking of the license without notice or compensation.
- 7) Accordingly, only one of the following can be true:
  - a) there was a ban on PLs being awarded in the buffer zone after 2014 in which case we are owed some +25M USD representing the expenditure on these licenses plus the value of the iron deposit because you contend we should not have been awarded these licenses in the first place; or
  - b) Minister Mokaila and PS Paya were correct in their statements and the renewal licenses in 2016 were indeed correct.
  - c) a & b cannot both be correct.

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## **DOM**

3. Gcwihaba agreed in principle to relinquish all of the licenses in the buffer zone and others that were outside the buffer zone. In the spirit of fairness and compromise, Gcwihaba proposed the other prospecting licenses that were located to the south-west of the pan-handle (see Map 2), where there is an auspicious deposit of magnetite, be renewed in their entirety with a new lease of life with effect from 1<sup>st</sup> January 2018.

### **Gcwihaba response:**

The supposition of your statement is not supported by the facts so it is hard for me to comment on such inaccuracies.

### **Facts**

- 1) After several years of countless meetings with DOM and resulting no actions on several PL's that were languishing in their renewals only to discover that one if not more of these metals licenses were given to a Chinese company, Triprop Holdings, while it was still licensed to Gcwihaba, I then took a conciliatory approach with DOM to get everything resolved as no one including our investors, the public market and ourselves could understand why licenses were not being renewed despite being told repeatedly by DOM over years that "don't worry next week they will be done".
- 2) Gcwihaba proposed a solution and that is set forth in my letter of October 25, 2017 and January 24, 2018. The only difference between the October 2017 discussion letter given to DOM and the January 24, 2018 letter is that we capitulated and gave up our rights to PL's 393, 394 and 395 during discussions with DOM in November and December of 2017. We gave up our rights and claims to 14 licenses in their entirety and kept 7 as they currently were. At no time did we ever say that we would give up any areas in PL's 386 - 392 (7 licenses) nor were we ever asked to as part of our agreement with DOM. My offer was accepted by DOM in early December 2017 and we proceeded to relinquish all licenses effective December 29, 2018 in consideration for PL's 386 - 392 being issued to us with an effective date of January 1, 2018.
- 3) The agreement between Gcwihaba and DOM is set forth in the attached letters and there is no need to repeat what has already been said except to say that Dr de Wit, Milton Keeletsang, Lesego Ungwang (DOM Employee), Mr. Mathule (DOM Employee), and myself will testify under oath to the circumstances and facts surrounding the 21 PL's held by Gcwihaba and the agreement with DOM concerning those licenses and that testimony is not consistent with the facts as you have set forth. As you were not present at the meetings I can only surmise that you have been provided with misinformation as I am confident that the individuals named above and myself will testify truthfully and that testimony is not consistent with what you have set forth.

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**DOM**

4. The licenses were renewed as shown in the table below (see Map 3):  
(table and map excluded - JMB)

**Gcwihaba response:**

**Facts**

- 1) The licenses were not renewed as agree to by the parties as set forth in my letter of January 24, 2018 and DOM's reply letter of February 16, 2018. Point 2 of DOM's February 16, 2018 letter states as follows:  
**“Please be informed that the Department of Mines is amenable to re-aligning the eastern boundaries of the prospecting licences to coincide with the original eastern boundaries of prospecting licences 386-392/2008.” (emphasis added)**
- 2) DOM's letter of February 16, 2018 is in response to my correspondence of January 24, 2018 in which I asked DOM to align the 7 licenses to our original licenses as per our agreement. DOM's letter in response apologized for the error and said they would move the 7 licenses to their original co-ordinates. Further to my letter, a meeting was held on February 14, 2018 between Dr Michiel CJ de Wit, Milton Keeletsang and Lesego Ungwang (DOM Employee) and Mr. Mathule (DOM Employee) with respect to the license boundaries.
- 3) To date some 6 months after DOM's letter of February 16, 2018 the boundaries have not been re-aligned.

**DOM**

4. The licences were renewed as shown in the table below (see Map 3):

| Original PLs |                         | New PLs   |                         | Comments                                     |
|--------------|-------------------------|-----------|-------------------------|--|
| PL Number    | Size (km <sup>2</sup> ) | PL Number | Size (km <sup>2</sup> ) |  |
| 386/2008     | 570.0                   | 020/2018  | 458                     | Cut off from the Buffer Zone                 |
| 387/2008     | 964.9                   | 021/2018  | 925                     | Cut off from the Buffer Zone                 |
| 388/2008     | 317.1                   | 022/2018  | 152                     | Cut off from the Buffer Zone                 |
| 389/2008     | 978.6                   | 023/2018  | 978                     | Unaffected by the Buffer Zone                |
| 390/2008     | 978.6                   | 024/2018  | 706                     | Cut off from the Buffer Zone and A35         |
| 391/2008     | 454.5                   | 025/2018  | 455                     | Unaffected by the Buffer Zone.               |
| 392/2008     | 828.1                   | 026/2018  | 732                     | Cut off from the Buffer Zone and A35         |
|              | 5091.8                  |           | 4406                    | 685.8 km <sup>2</sup> reduction by DOM (JMB) |

5. On the basis of the above, the only prospecting licenses that were to be corrected are 024/2018 and 026/2018 that have been cut off from the Sehitwa – Shakawe road (A35). This correction was to involve moving the eastern boundaries of prospecting license 024/2018 and 026/2018 from A35 road to the edge of the Buffer Zone (see Map 4).
6. Please note that our letter of 16 February 2018 was with regards to the above

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mentioned two (2) prospecting licences only. It is obvious from your contention that this was erroneously construed to be in reference to all the prospecting licences.

**Gcwihaba response:**

With respect to Point 4, 5 & 6, I again have a difficult time to formulate a coherent response because the facts are not correct.

- 1) DOM's letter of February 16, 2017 refers to 7 licenses, PL386-392 and any assertions that it is referring to 2 licenses are ludicrous and not consistent with either the documented facts nor testimony that will be forthcoming from Gcwihaba employees or DOM employees.
- 2) In Point 5 you state that PL24 & 26 (are) being changed to accommodate our auspicious deposit of magnetite and you accommodate this by changing PLs 24 & 26.
- 3) None of this makes any sense because the magnetite iron deposit is located in old PL386 397 or new PL20 & 21. There was never any discussion about magnetite being in PL24 or PL26 as there is only possible cobalt, copper and gold deposits in these licenses.
- 4) Compounding this problem is that nothing in your points 4, 5 or 6 deal with the issue that DOM said it would fix the eastern boundaries as set forth in DOM's letter of February 16, 2018 which states exactly as follows:

*2. Please be informed that the Department of Mines is amenable to re-aligning the eastern boundaries of the prospecting licences to coincide with the original eastern boundaries of prospecting licences 386-392/2008.*

*3. We recognise that the current eastern boundaries have a negative effect on your Fe ore resource and Cu deposits. To that end, the Department will issue amended prospecting licences with re-aligned boundaries.*

- 5) Simply put, the facts as you state them have no support, they are just unsupported statements of convenience.
- 6) The *sua sponte* changing of the license area has effectively reduced our license area by 659 square kilometres a material amount.

**DOM**

7. *We reiterate that the eastern boundaries of prospecting licenses 020-026/2018 cannot be extended into the buffer zone of the Okavango Delta. If Gcwihaba accedes to the correction as alluded to in bullet 5 above, the Department will amend the prospection licenses 024/2016 and 026/2018 as proposed.*

**Gcwihaba response:**

Your proposal is not acceptable nor is it consistent with the agreement made with DOM. At the end of the 2017 Financial Year and the First Quarter 2018, I notified the market place, our stakeholders, our shareholders and the regulators that we had after negotiations with DOM relinquished twenty-one license (21) in consideration of our 7 core licenses being renewed in their entirety. This disclosure was with the approval of our auditors Ernst & Young LLP and their approval of the disclosure language was based entirely on DOM's letter of February 16,

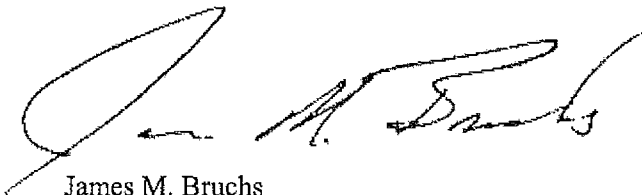
2018 in response to my letter of January 24, 2018, in which DOM confirmed that the licenses would be reconfigured to the correct co-ordinates.

Our Second Quarter Financials are due to be released no later than the 24<sup>th</sup> of August and we need to have this matter resolved prior to that date as I am required to give the specifics of the dispute with DOM over these licenses if the matter is in fact not resolved as previously disclosed.

If we do not resolve this matter then I suggest that the best way forward is to submit this matter to binding arbitration with respect to the issue of damages as I do not believe there is any question as to the facts surrounding this matter as you on behalf of the Botswana government are confiscating at least part of a resource that has a current in situ value of some \$14 billion USD with respect to the Block 1 resource and \$159 to \$223 billion USD if extrapolated to the entire exploration target. We would be agreeable to submit this matter to the International Chamber of Commerce (ICC) to determine damages as First Quantum Minerals did with the Democratic Republic of Congo (DRC) and others when the DRC impaired / confiscated their licenses. First Quantum Minerals were subsequently awarded \$1.25B USD.

We are not asking for anything more than what was agreed to and that which we already had. DOM's breach of the agreement entered into was not only deceitful to Gcwihaba but the effective confiscation of our licenses is not consistent to representations made to UNESCO and I don't believe UNESCO would have approved the designation when they did if they knew that the representations about consultations with stakeholders were not accurate.

Yours sincerely,



James M. Bruchs  
Managing Director

Cc: Permanent Secretary, Cornelius K. Dekop  
Mike de Wit / Blackie Marole / Milton Keeletsang

Attachments: 1) October 25, 2017 letter from James M. Bruchs to Lesego Ungwang  
2) January 24, 2018 letter from James M. Bruchs to Lesego Ungwang  
3) February 16, 2018 letter from Lesego Ungwang to James M. Bruchs  
4) July 12, 2018 letter from James M. Bruchs to Lesego Ungwang  
5) August 2, 2018 letters from Director Sellinah A. Mogojwa to James M. Bruchs



"CCC 10"



REPUBLIC OF BOTSWANA

PROSPECTING LICENCE

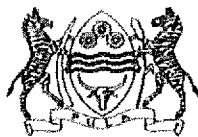
in favour of

GCWIHABA RESOURCES (PTY) LTD



PROSPECTING LICENCE NO. 020/2018

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REPUBLIC OF BOTSWANA

Form II/Amendment

Prospecting Licence No.020/2018

Issued in terms of section 16 of the Mines and Minerals Act.

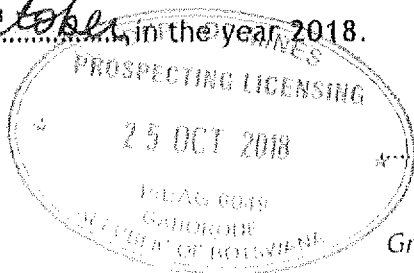
WHEREAS Gcwihaba Resources (Pty) Ltd a company incorporated under the laws of the Republic of Botswana (hereinafter referred to as "the holder") has made application for the right to prospect for metals on land to which the Republic of Botswana holds mineral rights.

AND WHEREAS provision is made under section 14 of the Act for the conferring of such rights by means of a prospecting licence:

NOW THEREFORE the Minister hereby grants to the holder the exclusive right to prospect for metals in the Licence area for a period of 3 years commencing on 01 October 2018 and ending on 30 September 2021.

1. The Licence area shall be the area shown on the map annexed hereto in extent of five hundred and seventy square kilometres (570 km<sup>2</sup>), located in the Ngamiland District and more fully described in Annexure I hereto; and as reduced from time to time in accordance with the provisions of the Act.
2. In accordance with section 70 of the Act, the holder shall, simultaneously with issuance of this licence, and thereafter on each anniversary thereof, pay to the Government at the Office of the Director of Mines, an annual charge equal to Five Pula (P5.00) multiplied by the number of square kilometers in the Licence area subject to a minimum annual charge of One Thousand Pula (P1000.00).
3. The holder shall incur the minimum annual expenditures and shall expeditiously carryout the programme of prospecting operations set out in Annexure II.

GIVEN under my hand at GABORONE this .....22<sup>nd</sup>..... day of October in the year 2018.



*[Signature]*  
Minister  
Ministry of Mineral Resources,  
Green Technology and Energy Security

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**ANNEXURE I**

The Licence area is five hundred and seventy square kilometres (570 km<sup>2</sup>) in the Ngamiland District defined by boundary lines, which shall be straight unless otherwise stated, joining successive points at the following coordinates in Geographic Coordinate System, Datum WGS 1984:

| <u>Point</u> | <u>Longitude (E)</u> | <u>Latitude (S)</u> |
|--------------|----------------------|---------------------|
| A            | 21.666560            | -18.291970          |
| B            | 21.779180            | -18.272020          |
| C            | 21.994640            | -18.497390          |
| D            | 21.666600            | -18.498830          |

Total Area = 570 km<sup>2</sup>

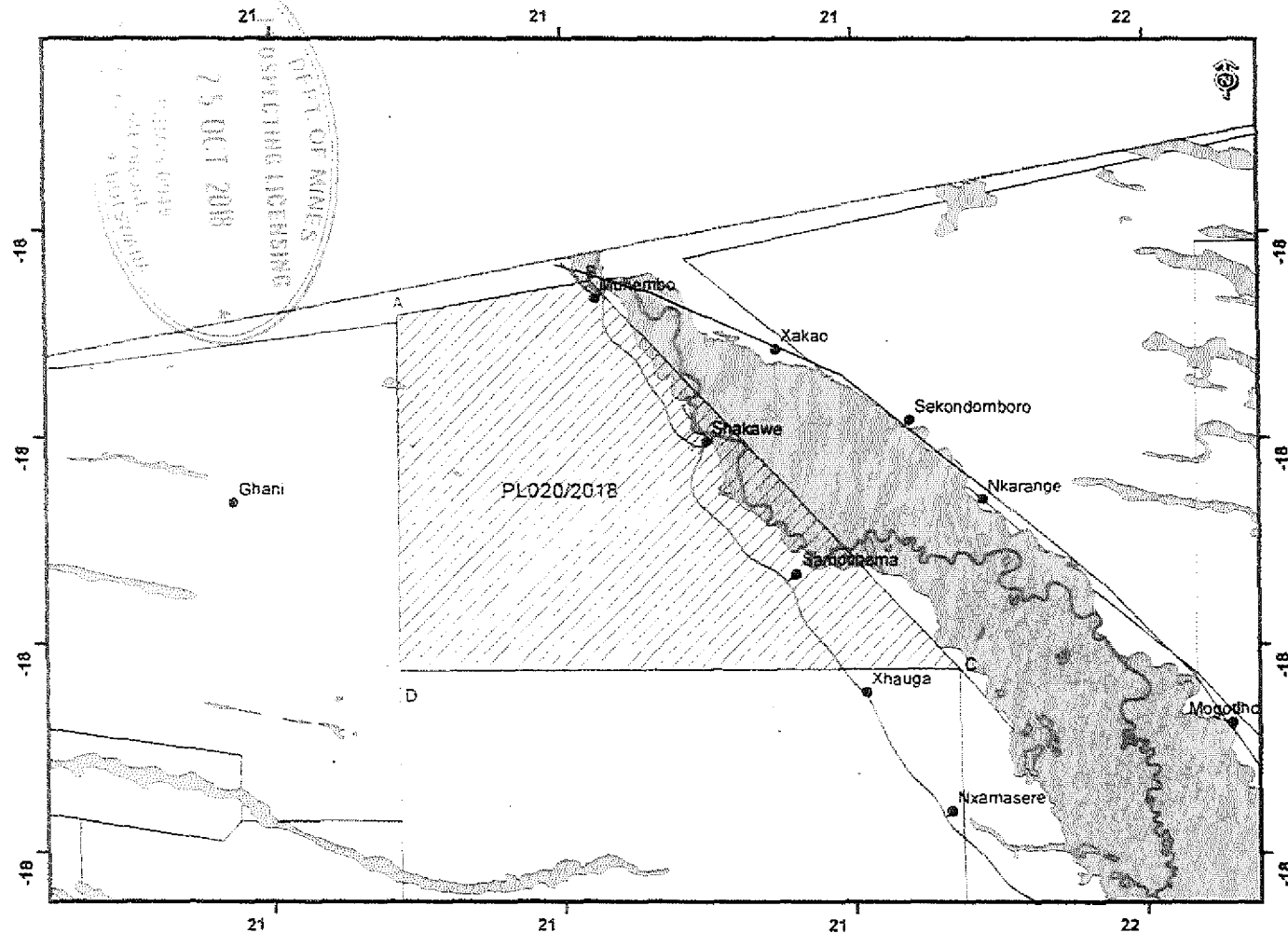


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Annexure 1

GCWIHABA RESOURCES (PTY) LTD

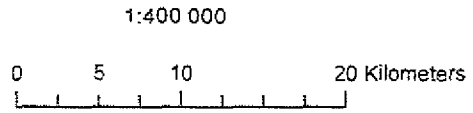
Prospecting License No. 020/2018



Coordinate System: GCS WGS 1984  
Datum: WGS 1984  
Units: Degree

| Point | Long      | Lat        |
|-------|-----------|------------|
| A     | 21.666560 | -18.291970 |
| B     | 21.779180 | -18.272020 |
| C     | 21.994640 | -18.497390 |
| D     | 21.666600 | -18.498830 |

- Legend
- Settlement
  - Road
  - ▨ Waterbody
  - Other PLs
  - ▨ Area of License



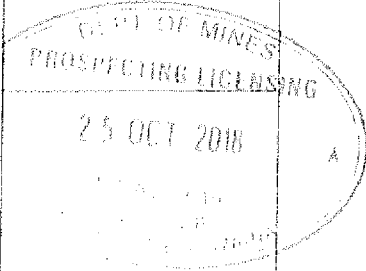
Drawn on the 09/10/2015  
By Shano Sekeki  
Checked By P. Matlotse  
Department of Mines  
11/10/2018

DEPT. OF MINES  
 RECEIVED  
 25 OCT 2018  
 REGISTRAR OF MINES  
 GABORONE

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RM

**ANNEXURE II**

| Programme of prospecting operations   | Proposed minimum expenditure   |
|---|--|
| <p><b><u>Year 1</u></b></p> <ol style="list-style-type: none"> <li>i. Conduct detailed review and analysis of geological and geophysical historical data, and continued upgrading of ground magnetic surveys, and building of geophysical and geological models.</li> <li>ii. Petrographic analyses of existing drill cores.</li> <li>iii. Further assaying of existing drill cores.</li> <li>iv. Conduct detailed ground magnetic survey.</li> <li>v. Extension and completion of the tie-lines of the airborne gravity survey and conduct drilling.</li> <li>vi. ICP multi-element geochemical analysis of 220 drill holes targeting metal anomalism.</li> <li>vii. Analysis of sulphide-rich mineral intersections from recently-drilled boreholes.</li> <li>viii. Water sampling for hydro geochemical analysis.</li> <li>ix. Complete a Preliminary Economic Assessment (PEA).</li> <li>x. Investigation of the transport of metals from bedrock into detectable anomalies and completion of geological model.</li> <li>xi. Geological interpretation in 2D (MapInfo) and 3D (Leapfrog) software.</li> </ol>                                       | <p align="center">Seventy Thousand<br/>Pula<br/><br/>(BWP 70,000.00)</p> |
| <p><b><u>Year 2</u></b></p> <ol style="list-style-type: none"> <li>i. Further Mineral Resource estimation and definition to expand the resource model beyond the initial resource report.</li> <li>ii. Analyses of recently flown (2013/2014) airborne magnetic, electromagnetic, radiometric, and gravity surveys, as well as continued upgrading of ground magnetic surveys, and building of geophysical and geological models.</li> <li>iii. Drilling of 32 drill holes totaling 6,300 meters targeting high grade magnetite material.</li> <li>iv. Assaying of drill core samples using at least XRF analysis.</li> <li>v. Geological modelling of the deposit using GOCAD.</li> <li>vi. A NI 43-101 MRE report and resource statement.</li> <li>vii. Conduct detailed metallurgical test work including DTR analysis and magnetic susceptibility measurements.</li> <li>viii. Carryout a Pre-feasibility studies.</li> <li>ix. Conduct diamond core drilling of priority targets.</li> <li>x. Conduct petrographic analyses of drill cores.</li> <li>xi. Assaying of drill cores using a variety of techniques (AAS, ICP, and XRF, ME).</li> </ol> | <p align="center">Eighty Thousand<br/>Pula<br/><br/>(BWP 80,000.00)</p>  |



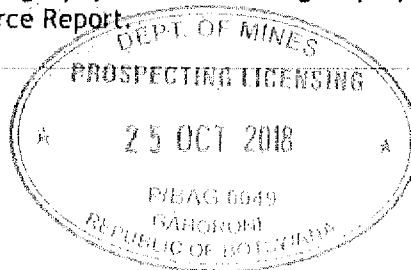
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Year 3

- i. Define extended resources.
- ii. Drilling of 31 drill holes totaling 6,200 meters targeting high grade magnetite material.
- iii. Assaying of drill cores using XRF analysis.
- iv. Geological modelling of the deposit.
- v. A third NI 43-101 MRE report and resource statement.
- vi. Conduct detailed metallurgical test work including DTR analysis and magnetic susceptibility measurements.
- vii. Outline diamond core drilling of targets that have been identified as having the potential for an inferred resource.
- viii. Conduct petrographic analyses of drill cores.
- ix. Assaying of drill cores using a variety of techniques (AAS, ICP, and XRF, ME).
- x. Conduct further detailed geophysical and drilling to prepare for an NI 43-101 Mineral Resource Report.

Ninety Thousand  
Pula

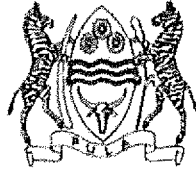
(BWP 90,000.00)



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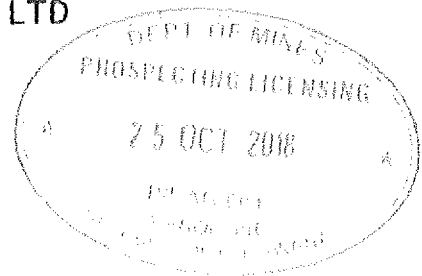


REPUBLIC OF BOTSWANA

PROSPECTING LICENCE

in favour of

GCWIHABA RESOURCES (PTY) LTD



PROSPECTING LICENCE NO. 021/2018

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REPUBLIC OF BOTSWANA

Form II/Amendment

Prospecting Licence No.021/2018

Issued in terms of section 16 of the Mines and Minerals Act.

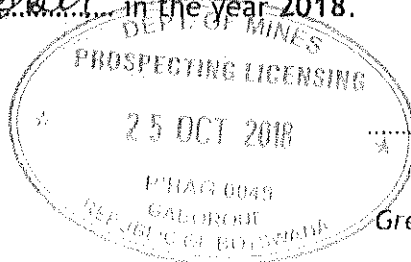
WHEREAS Gcwihaba Resources (Pty) Ltd a company incorporated under the laws of the Republic of Botswana (hereinafter referred to as "the holder") has made application for the right to prospect for metals on land to which the Republic of Botswana holds mineral rights.

AND WHEREAS provision is made under section 14 of the Act for the conferring of such rights by means of a prospecting licence:

NOW THEREFORE the Minister hereby grants to the holder the exclusive right to prospect for metals in the Licence area for a period of 3 years commencing on 01 October 2018 and ending on 30 September 2021.

1. The Licence area shall be the area shown on the map annexed hereto in extent of nine hundred and sixty four point nine square kilometres (964.9 km<sup>2</sup>), located in the Ngamiland District and more fully described in Annexure I hereto; and as reduced from time to time in accordance with the provisions of the Act.
2. In accordance with section 70 of the Act, the holder shall, simultaneously with issuance of this licence, and thereafter on each anniversary thereof, pay to the Government at the Office of the Director of Mines, an annual charge equal to Five Pula (P5.00) multiplied by the number of square kilometers in the Licence area subject to a minimum annual charge of One Thousand Pula (P1000.00).
3. The holder shall incur the minimum annual expenditures and shall expeditiously carryout the programme of prospecting operations set out in Annexure II.

GIVEN under my hand at GABORONE this .....22<sup>nd</sup> day of October in the year 2018.



*[Signature]*  
Minister  
Ministry of Mineral Resources,  
Green Technology and Energy Security

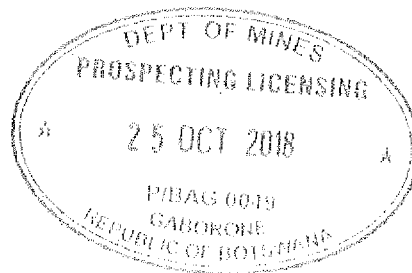
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MN

ANNEXURE I

The Licence area is nine hundred and sixty four point nine square kilometres (964.9 km<sup>2</sup>) in the Ngamiland District defined by boundary lines, which shall be straight unless otherwise stated, joining successive points at the following coordinates in Geographic Coordinate System, Datum WGS 1984:

| <u>Point</u> | <u>Longitude (E)</u> | <u>Latitude (S)</u> |
|--------------|----------------------|---------------------|
| A            | 21.666600            | -18.498830          |
| B            | 21.994640            | -18.497390          |
| C            | 21.999980            | -18.747670          |
| D            | 21.667560            | -18.749120          |

Total Area = 964.9 km<sup>2</sup>



Bm  
MN

Annexure 1

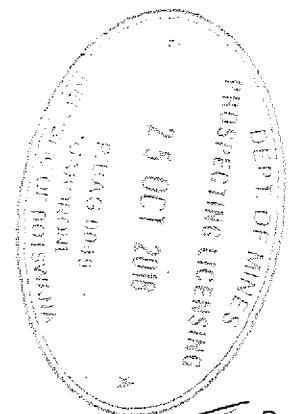
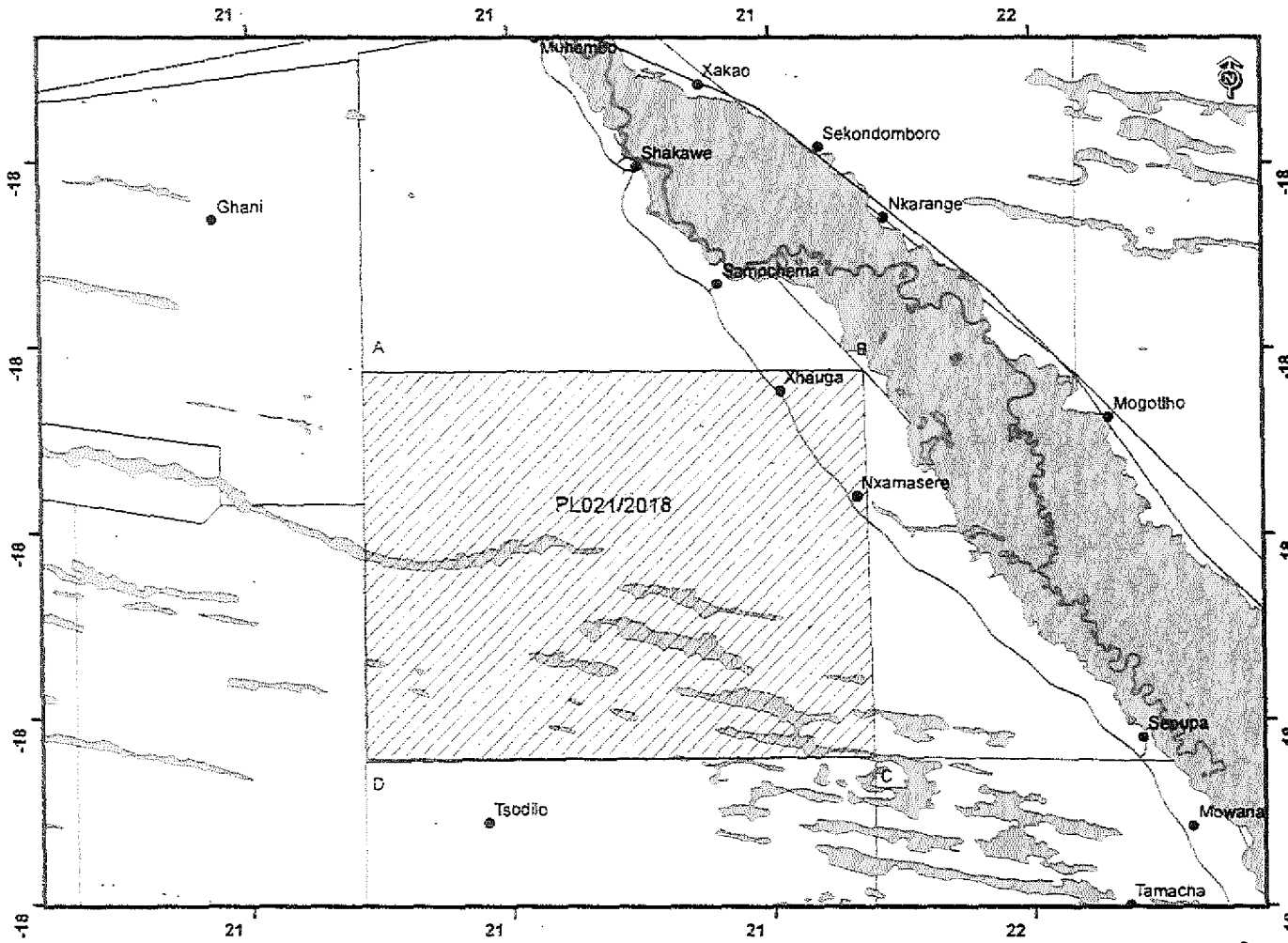
GCWIHABA RESOURCES (PTY) LTD

Prospecting License No. 021/2018

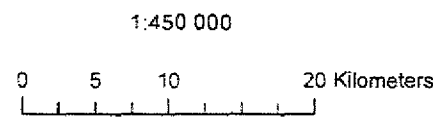


Coordinate System: GCS WGS 1984  
Datum: WGS 1984  
Units: Degree

| Point | Long      | Lat        |
|-------|-----------|------------|
| A     | 21.666600 | -18.498830 |
| B     | 21.994640 | -18.497390 |
| C     | 21.999980 | -18.747670 |
| D     | 21.667560 | -18.749120 |



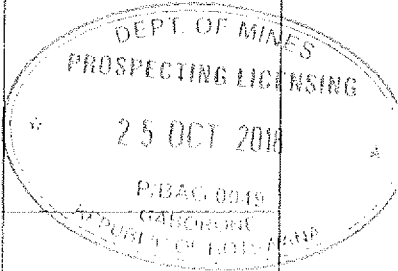
- Legend
- Settlement
  - Road
  - ▨ Waterbody
  - Other PLs
  - ▨ Area of License



Drawn on the 09/10/2018  
By Shango Sebekedi  
Checked By P. Matlotse  
Department of Mines  
11/10/2018

Bm  
MM

**ANNEXURE II**

| Programme of prospecting operations   | Proposed minimum expenditure   |
|---|--|
| <p><b><u>Year 1</u></b></p> <ul style="list-style-type: none"> <li>i. Conduct detailed review and analysis of geological and geophysical historical data, and continued upgrading of ground magnetic surveys, and building of geophysical and geological models.</li> <li>ii. Petrographic analyses of existing drill cores.</li> <li>iii. Further assaying of existing drill cores.</li> <li>iv. Conduct detailed ground magnetic survey.</li> <li>v. Extension and completion of the tie-lines of the airborne gravity survey and conduct drilling.</li> <li>vi. ICP multi-element geochemical analysis of 220 drill holes targeting metal anomalism.</li> <li>vii. Analysis of sulphide-rich mineral intersections from recently-drilled boreholes.</li> <li>viii. Water sampling for hydro geochemical analysis.</li> <li>ix. Complete a Preliminary Economic Assessment (PEA).</li> <li>x. Investigation of the transport of metals from bedrock into detectable anomalies and completion of geological model.</li> <li>xi. Geological interpretation in 2D (MapInfo) and 3D (Leapfrog) software.</li> </ul>                                       | <p align="center">Seventy Thousand Pula<br/>(BWP 70,000.00)</p>  |
| <p><b><u>Year 2</u></b></p> <ul style="list-style-type: none"> <li>i. Further Mineral Resource estimation and definition to expand the resource model beyond the initial resource report.</li> <li>ii. Analyses of recently flown (2013/2014) airborne magnetic, electromagnetic, radiometric, and gravity surveys, as well as continued upgrading of ground magnetic surveys, and building of geophysical and geological models.</li> <li>iii. Drilling of 32 drill holes totaling 6,300 meters targeting high grade magnetite material.</li> <li>iv. Assaying of drill core samples using at least XRF analysis.</li> <li>v. Geological modelling of the deposit using GOCAD.</li> <li>vi. A NI 43-101 MRE report and resource statement.</li> <li>vii. Conduct detailed metallurgical test work including DTR analysis and magnetic susceptibility measurements.</li> <li>viii. Carryout a Pre-feasibility studies.</li> <li>ix. Conduct diamond core drilling of priority targets.</li> <li>x. Conduct petrographic analyses of drill cores.</li> <li>xi. Assaying of drill cores using a variety of techniques (AAS, ICP, and XRF, ME).</li> </ul> | <p align="center">Eighty Thousand Pula<br/>(BWP 80,000.00)</p>   |

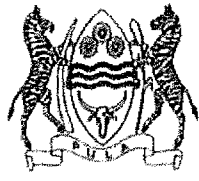
Bm  
MN

|  |   |
|--|---|
| <p><u>Year 3</u></p> <ul style="list-style-type: none"> <li>i. Define extended resources.</li> <li>ii. Drilling of 31 drill holes totaling 6,200 meters targeting high grade magnetite material.</li> <li>iii. Assaying of drill cores using XRF analysis.</li> <li>iv. Geological modelling of the deposit.</li> <li>v. A third NI 43-101 MRE report and resource statement.</li> <li>vi. Conduct detailed metallurgical test work including DTR analysis and magnetic susceptibility measurements.</li> <li>vii. Outline diamond core drilling of targets that have been identified as having the potential for an inferred resource.</li> <li>viii. Conduct petrographic analyses of drill cores.</li> <li>ix. Assaying of drill cores using a variety of techniques (AAS, ICP, and XRF, ME).</li> <li>x. Conduct further detailed geophysical and drilling to prepare for an NI 43-101 Mineral Resource Report.</li> </ul> | <p>Ninety Thousand Pula<br/>(BWP 90,000.00)</p> |
|--|---|



Bm  
MN

"CCC 10611"



REPUBLIC OF BOTSWANA

PROSPECTING LICENCE

in favour of



GCWIHABA RESOURCES (PTY) LTD

PROSPECTING LICENCE NO. 022/2018

Bm  
MN



REPUBLIC OF BOTSWANA

Form II/Amendment

Prospecting Licence No.022/2018

Issued in terms of section 16 of the Mines and Minerals Act.

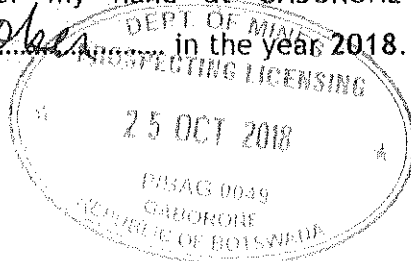
WHEREAS Gcwihaba Resources (Pty) Ltd a company incorporated under the laws of the Republic of Botswana (hereinafter referred to as "the holder") has made application for the right to prospect for metals on land to which the Republic of Botswana holds mineral rights.

AND WHEREAS provision is made under section 14 of the Act for the conferring of such rights by means of a prospecting licence:

NOW THEREFORE the Minister hereby grants to the holder the exclusive right to prospect for metals in the Licence area for a period of 3 years commencing on 01 October 2018 and ending on 30 September 2021.

1. The Licence area shall be the area shown on the map annexed hereto in extent of three hundred and seventeen point one square kilometres (317.1 km<sup>2</sup>), located in the Ngamiland District and more fully described in Annexure I hereto; and as reduced from time to time in accordance with the provisions of the Act.
2. In accordance with section 70 of the Act, the holder shall, simultaneously with issuance of this licence, and thereafter on each anniversary thereof, pay to the Government at the Office of the Director of Mines, an annual charge equal to Five Pula (P5.00) multiplied by the number of square kilometers in the Licence area subject to a minimum annual charge of One Thousand Pula (P1000.00).
3. The holder shall incur the minimum annual expenditures and shall expeditiously carryout the programme of prospecting operations set out in Annexure II.

GIVEN under my hand at GABORONE this 22nd day of October in the year 2018.



Signature of the Minister, Ministry of Mineral Resources, Green Technology and Energy Security

Bm MN



ANNEXURE I

The Licence area is three hundred and seventeen point one square kilometres (317.1 km<sup>2</sup>) in the Ngamiland District defined by boundary lines, which shall be straight unless otherwise stated, joining successive points at the following coordinates in Geographic Coordinate System, Datum WGS 1984:

| <u>Point</u> | <u>Longitude (E)</u> | <u>Latitude (S)</u> |
|--------------|----------------------|---------------------|
| A            | 21.994640            | -18.497390          |
| B            | 22.217250            | -18.750730          |
| C            | 21.999980            | -18.747670          |

Total Area = 317.1 km<sup>2</sup>



Bm  
MN

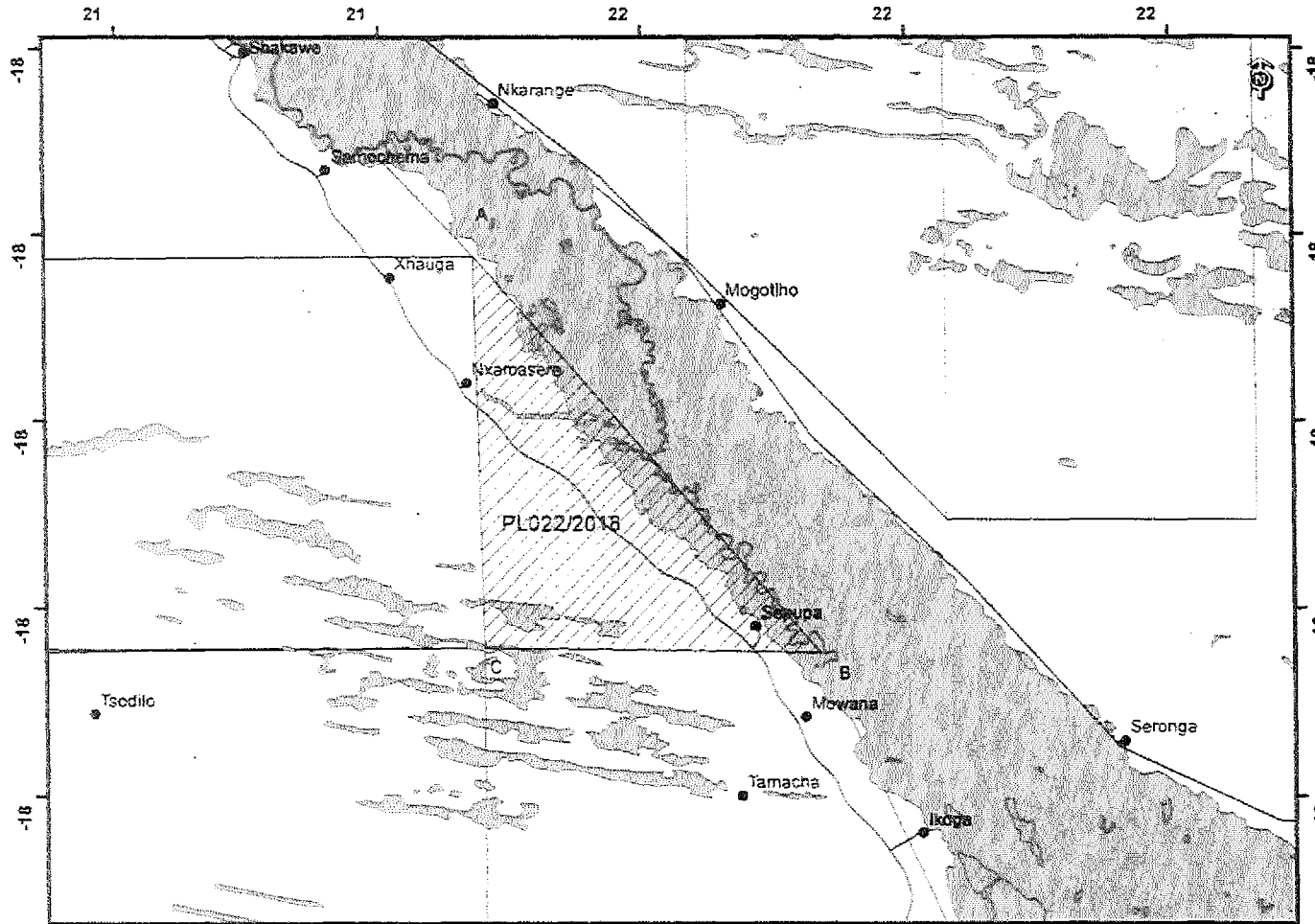
Annexure 1

GCWTHABA RESOURCES (PTY) LTD

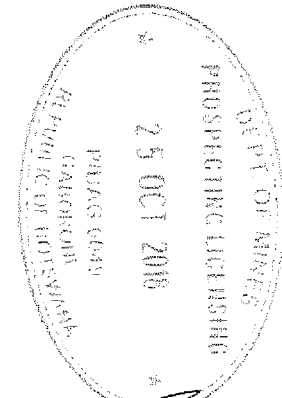
Prospecting License No. 022/2018



Coordinate System GCS WGS 1984  
Datum WGS 1984  
Units Degree

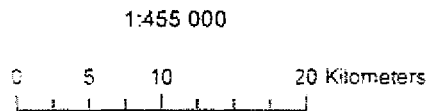


| Point | Long      | Lat        |
|-------|-----------|------------|
| A     | 21.994640 | -18.497390 |
| B     | 22.217250 | -18.750730 |
| C     | 21.999980 | -18.747670 |



Legend

- Settlement
- Road
- Waterbody
- ▨ Other PLs
- ▧ Area of License



Drawn on the 09/10/2018

By Sbrano Sepekei

Checked By P. Matlotse

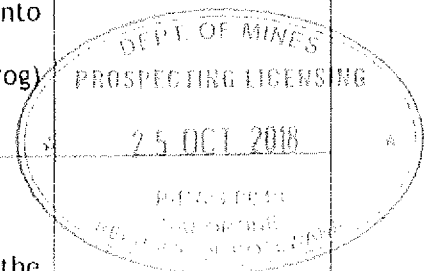
Department of Mines

11/10/2018

Bm  
MM

**ANNEXURE II**

| Programme of prospecting operations  | Proposed minimum expenditure                                    |
|--|---|
| <p><b>Year 1</b></p> <ul style="list-style-type: none"> <li>i. Conduct detailed review and analysis of geological and geophysical historical data, and continued upgrading of ground magnetic surveys, and building of geophysical and geological models.</li> <li>ii. Petrographic analyses of existing drill cores.</li> <li>iii. Further assaying of existing drill cores.</li> <li>iv. Conduct detailed ground magnetic survey.</li> <li>v. Extension and completion of the tie-lines of the airborne gravity survey and conduct drilling.</li> <li>vi. ICP multi-element geochemical analysis of 220 drill holes targeting metal anomalism.</li> <li>vii. Analysis of sulphide-rich mineral intersections from recently-drilled boreholes.</li> <li>viii. Water sampling for hydro geochemical analysis.</li> <li>ix. Complete a Preliminary Economic Assessment (PEA).</li> <li>x. Investigation of the transport of metals from bedrock into detectable anomalies and completion of geological model.</li> <li>xi. Geological interpretation in 2D (MapInfo) and 3D (Leapfrog) software.</li> </ul>                                       | <p align="center">Seventy Thousand Pula<br/>(BWP 70,000.00)</p> |
| <p><b>Year 2</b></p> <ul style="list-style-type: none"> <li>i. Further Mineral Resource estimation and definition to expand the resource model beyond the initial resource report.</li> <li>ii. Analyses of recently flown (2013/2014) airborne magnetic, electromagnetic, radiometric, and gravity surveys, as well as continued upgrading of ground magnetic surveys, and building of geophysical and geological models.</li> <li>iii. Drilling of 32 drill holes totaling 6,300 meters targeting high grade magnetite material.</li> <li>iv. Assaying of drill core samples using at least XRF analysis.</li> <li>v. Geological modelling of the deposit using GOCAD.</li> <li>vi. A NI 43-101 MRE report and resource statement.</li> <li>vii. Conduct detailed metallurgical test work including DTR analysis and magnetic susceptibility measurements.</li> <li>viii. Carryout a Pre-feasibility studies.</li> <li>ix. Conduct diamond core drilling of priority targets.</li> <li>x. Conduct petrographic analyses of drill cores.</li> <li>xi. Assaying of drill cores using a variety of techniques (AAS, ICP, and XRF, ME).</li> </ul> | <p align="center">Eighty Thousand Pula<br/>(BWP 80,000.00)</p>  |



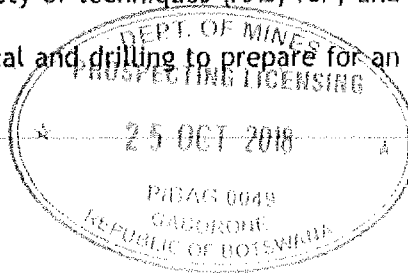
BM  
MN

Year 3

- i. Define extended resources.
- ii. Drilling of 31 drill holes totaling 6,200 meters targeting high grade magnetite material.
- iii. Assaying of drill cores using XRF analysis.
- iv. Geological modelling of the deposit.
- v. A third NI 43-101 MRE report and resource statement.
- vi. Conduct detailed metallurgical test work including DTR analysis and magnetic susceptibility measurements.
- vii. Outline diamond core drilling of targets that have been identified as having the potential for an inferred resource.
- viii. Conduct petrographic analyses of drill cores.
- ix. Assaying of drill cores using a variety of techniques (AAS, ICP, and XRF, ME).
- x. Conduct further detailed geophysical and drilling to prepare for an NI 43-101 Mineral Resource Report.

Ninety Thousand  
Pula

(BWP 90,000.00)



Bm  
NN

"CCC 10c"



REPUBLIC OF BOTSWANA

PROSPECTING LICENCE

in favour of

GCWIHABA RESOURCES (PTY) LTD



PROSPECTING LICENCE NO. 023/2018

Bm  
MN



REPUBLIC OF BOTSWANA

Form II/Amendment

Prospecting Licence No. 023/2018

Issued in terms of section 16 of the Mines and Minerals Act.

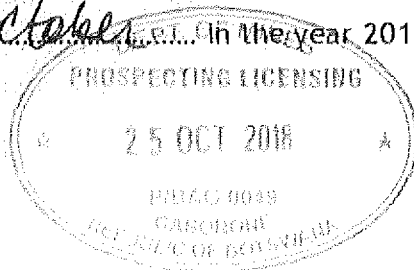
WHEREAS Gcwihaba Resources (Pty) Ltd a company incorporated under the laws of the Republic of Botswana (hereinafter referred to as "the holder") has made application for the right to prospect for metals on land to which the Republic of Botswana holds mineral rights.

AND WHEREAS provision is made under section 14 of the Act for the conferring of such rights by means of a prospecting licence:

NOW THEREFORE the Minister hereby grants to the holder the exclusive right to prospect for metals in the Licence area for a period of 3 years commencing on 01 October 2018 and ending on 30 September 2021.

1. The Licence area shall be the area shown on the map annexed hereto in extent of nine hundred and seventy eight point six square kilometres (978.6 km<sup>2</sup>), located in the Ngamiland District and more fully described in Annexure I hereto; and as reduced from time to time in accordance with the provisions of the Act.
2. In accordance with section 70 of the Act, the holder shall, simultaneously with issuance of this licence, and thereafter on each anniversary thereof, pay to the Government at the Office of the Director of Mines, an annual charge equal to Five Pula (P5.00) multiplied by the number of square kilometers in the Licence area subject to a minimum annual charge of One Thousand Pula (P1000.00).
3. The holder shall incur the minimum annual expenditures and shall expeditiously carryout the programme of prospecting operations set out in Annexure II.

GIVEN under my hand at GABORONE this .....<sup>22nd</sup> day of October..... in the year 2018.



*[Signature]*  
Minister  
Ministry of Mineral Resources,  
Green Technology and Energy Security

Bm  
MN

**ANNEXURE I**

The Licence area is nine hundred and seventy eight point six square kilometres (978.6 km<sup>2</sup>) in the Ngamiland District defined by boundary lines, which shall be straight unless otherwise stated, joining successive points at the following coordinates in Geographic Coordinate System, Datum WGS 1984:

| <u>Point</u> | <u>Longitude (E)</u> | <u>Latitude (S)</u> |
|--------------|----------------------|---------------------|
| A            | 21.666310            | -18.751070          |
| B            | 21.999980            | -18.747670          |
| C            | 21.999730            | -19.001060          |
| D            | 21.666310            | -19.001060          |

Total Area = 978.6 km<sup>2</sup>



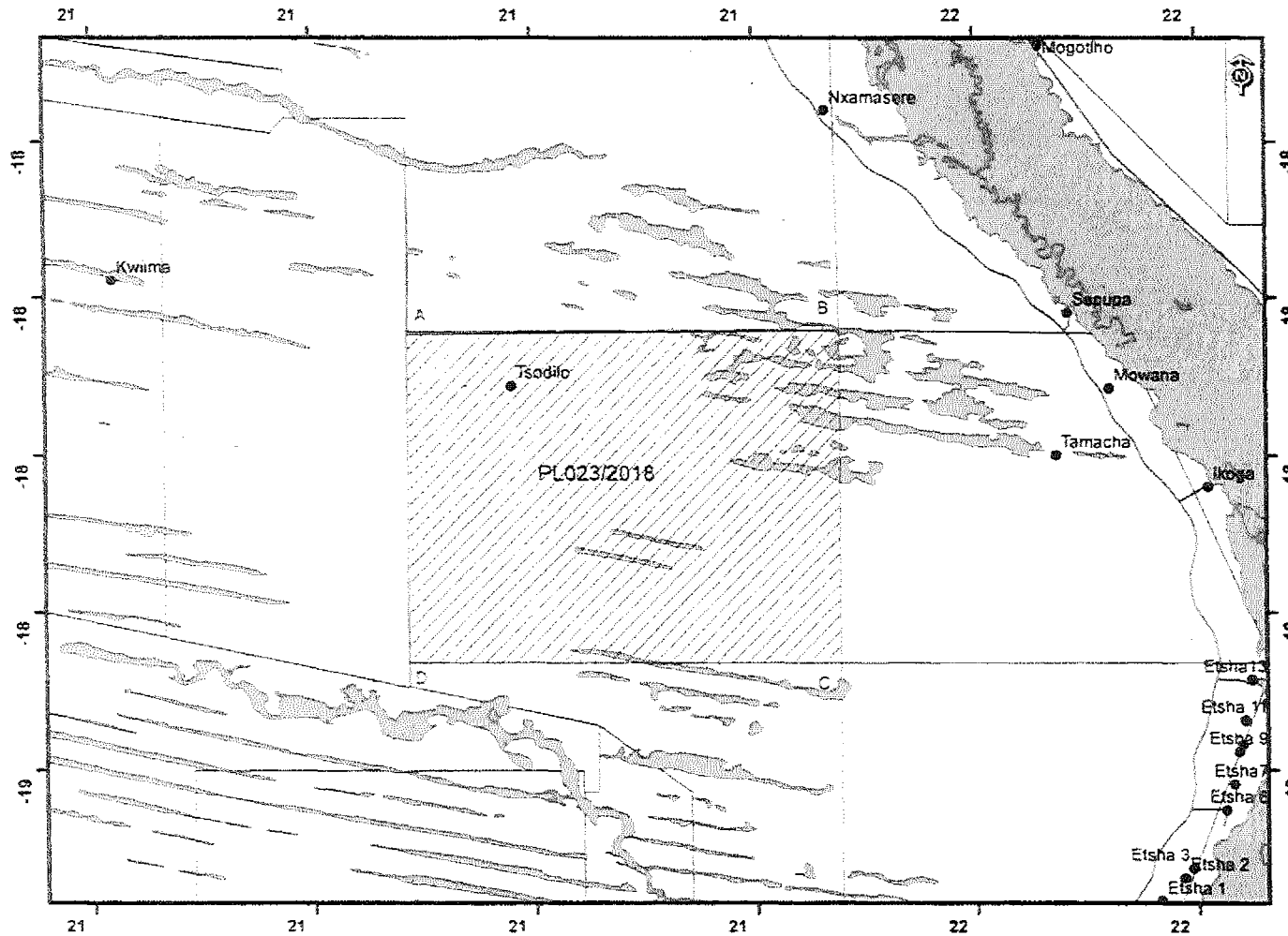
Bm  
MN

Annexure 1

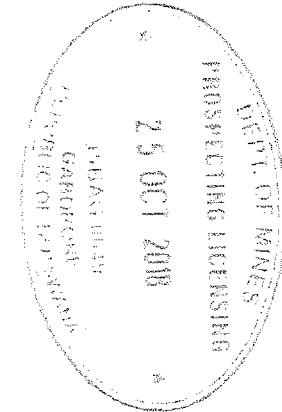
GCWIHABA RESOURCES (PTY) LTD  
Prospecting License No. 023/2018



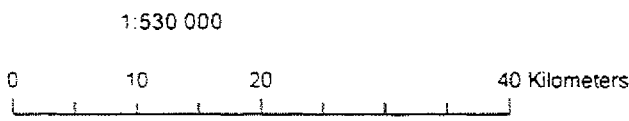
Coordinate System: GCS WGS 1984  
Datum: WGS 1984  
Units: Degree



| Point | Long      | Lat        |
|-------|-----------|------------|
| A     | 21.666310 | -18.751070 |
| B     | 21.999980 | -18.747670 |
| C     | 21.999730 | -19.001060 |
| D     | 21.666310 | -19.001060 |



- Legend
- Settlement
  - Road
  - Waterbody
  - Other PLs
  - ▨ Area of License



Drawn on the 09/10/2018  
By Sisoango Sebekedi  
Checked By P. Matlotse  
Department of Mines  
11/10/2018

BN  
MN



**ANNEXURE II**

| Programme of prospecting operations  | Proposed minimum expenditure  |
|--|---|
| <p><b>Year 1</b></p> <ul style="list-style-type: none"> <li>i. Conduct detailed review and analysis of geological and geophysical historical data, and continued upgrading of ground magnetic surveys, and building of geophysical and geological models.</li> <li>ii. Petrographic analyses of existing drill cores.</li> <li>iii. Further assaying of existing drill cores.</li> <li>iv. Conduct detailed ground magnetic survey.</li> <li>v. Extension and completion of the tie-lines of the airborne gravity survey and conduct drilling.</li> <li>vi. ICP multi-element geochemical analysis of 220 drill holes targeting metal anomalism.</li> <li>vii. Analysis of sulphide-rich mineral intersections from recently-drilled boreholes.</li> <li>viii. Water sampling for hydro geochemical analysis.</li> <li>ix. Complete a Preliminary Economic Assessment (PEA).</li> <li>x. Investigation of the transport of metals from bedrock into detectable anomalies and completion of geological model.</li> <li>xi. Geological interpretation in 2D (MapInfo) and 3D (Leapfrog) software.</li> </ul>                                       | <p align="center"><b>Seventy Thousand Pula</b></p> <p align="center"><b>(BWP 70,000.00)</b></p> |
| <p><b>Year 2</b></p> <ul style="list-style-type: none"> <li>i. Further Mineral Resource estimation and definition to expand the resource model beyond the initial resource report.</li> <li>ii. Analyses of recently flown (2013/2014) airborne magnetic, electromagnetic, radiometric, and gravity surveys, as well as continued upgrading of ground magnetic surveys, and building of geophysical and geological models.</li> <li>iii. Drilling of 32 drill holes totaling 6,300 meters targeting high grade magnetite material.</li> <li>iv. Assaying of drill core samples using at least XRF analysis.</li> <li>v. Geological modelling of the deposit using GOCAD.</li> <li>vi. A NI 43-101 MRE report and resource statement.</li> <li>vii. Conduct detailed metallurgical test work including DTR analysis and magnetic susceptibility measurements.</li> <li>viii. Carryout a Pre-feasibility studies.</li> <li>ix. Conduct diamond core drilling of priority targets.</li> <li>x. Conduct petrographic analyses of drill cores.</li> <li>xi. Assaying of drill cores using a variety of techniques (AAS, ICP, and XRF, ME).</li> </ul> | <p align="center"><b>Eighty Thousand Pula</b></p> <p align="center"><b>(BWP 80,000.00)</b></p>  |



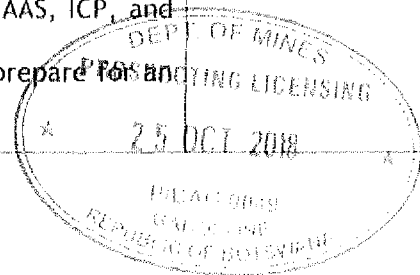
Bm  
MN

Year 3

- i. Define extended resources.
- ii. Drilling of 31 drill holes totaling 6,200 meters targeting high grade magnetite material.
- iii. Assaying of drill cores using XRF analysis.
- iv. Geological modelling of the deposit.
- v. A third NI 43-101 MRE report and resource statement.
- vi. Conduct detailed metallurgical test work including DTR analysis and magnetic susceptibility measurements.
- vii. Outline diamond core drilling of targets that have been identified as having the potential for an inferred resource.
- viii. Conduct petrographic analyses of drill cores.
- ix. Assaying of drill cores using a variety of techniques (AAS, ICP, and XRF, ME).
- x. Conduct further detailed geophysical and drilling to prepare for an NI 43-101 Mineral Resource Report.

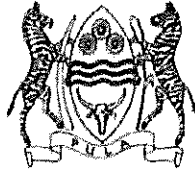
Ninety Thousand  
Pula

(BWP 90,000.00)



Bm  
MN

"CCC 10d"



REPUBLIC OF BOTSWANA

PROSPECTING LICENCE

in favour of

GCWIHABA RESOURCES (PTY) LTD



PROSPECTING LICENCE NO. 024/2018

Bm  
MN



REPUBLIC OF BOTSWANA

Form II/Amendment

Prospecting Licence No.024/2018

Issued in terms of section 16 of the Mines and Minerals Act.

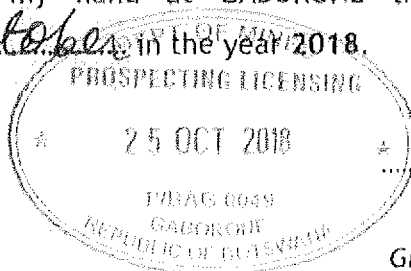
WHEREAS Gcwihaba Resources (Pty) Ltd a company incorporated under the laws of the Republic of Botswana (hereinafter referred to as "the holder") has made application for the right to prospect for metals on land to which the Republic of Botswana holds mineral rights.

AND WHEREAS provision is made under section 14 of the Act for the conferring of such rights by means of a prospecting licence:

NOW THEREFORE the Minister hereby grants to the holder the exclusive right to prospect for metals in the Licence area for a period of 3 years commencing on 01 October 2018 and ending on 30 September 2021.

1. The Licence area shall be the area shown on the map annexed hereto in extent of eight hundred and seven point three square kilometres (807.3 km<sup>2</sup>), located in the Ngamiland District and more fully described in Annexure I hereto; and as reduced from time to time in accordance with the provisions of the Act.
2. In accordance with section 70 of the Act, the holder shall, simultaneously with issuance of this licence, and thereafter on each anniversary thereof, pay to the Government at the Office of the Director of Mines, an annual charge equal to Five Pula (P5.00) multiplied by the number of square kilometers in the Licence area subject to a minimum annual charge of One Thousand Pula (P1000.00).
3. The holder shall incur the minimum annual expenditures and shall expeditiously carryout the programme of prospecting operations set out in Annexure II.

GIVEN under my hand at GABORONE this ..... 22<sup>nd</sup> day of October in the year 2018.



.....  
Minister  
Ministry of Mineral Resources,  
Green Technology and Energy Security

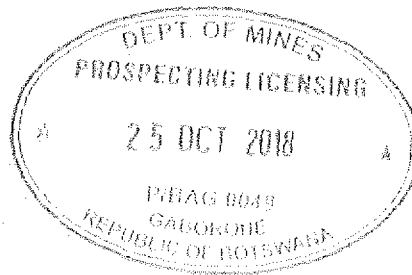
Bm  
Mw

ANNEXURE I

The Licence area is eight hundred and seven point three square kilometres (807.3 km<sup>2</sup>) in the Ngamiland District defined by boundary lines, which shall be straight unless otherwise stated, joining successive points at the following coordinates in Geographic Coordinate System, Datum WGS 1984:

| <u>Point</u> | <u>Longitude (E)</u> | <u>Latitude (S)</u> |
|--------------|----------------------|---------------------|
| A            | 21.999980            | -18.747670          |
| B            | 22.217250            | -18.750730          |
| C            | 22.333030            | -19.001060          |
| D            | 21.999730            | -19.001060          |

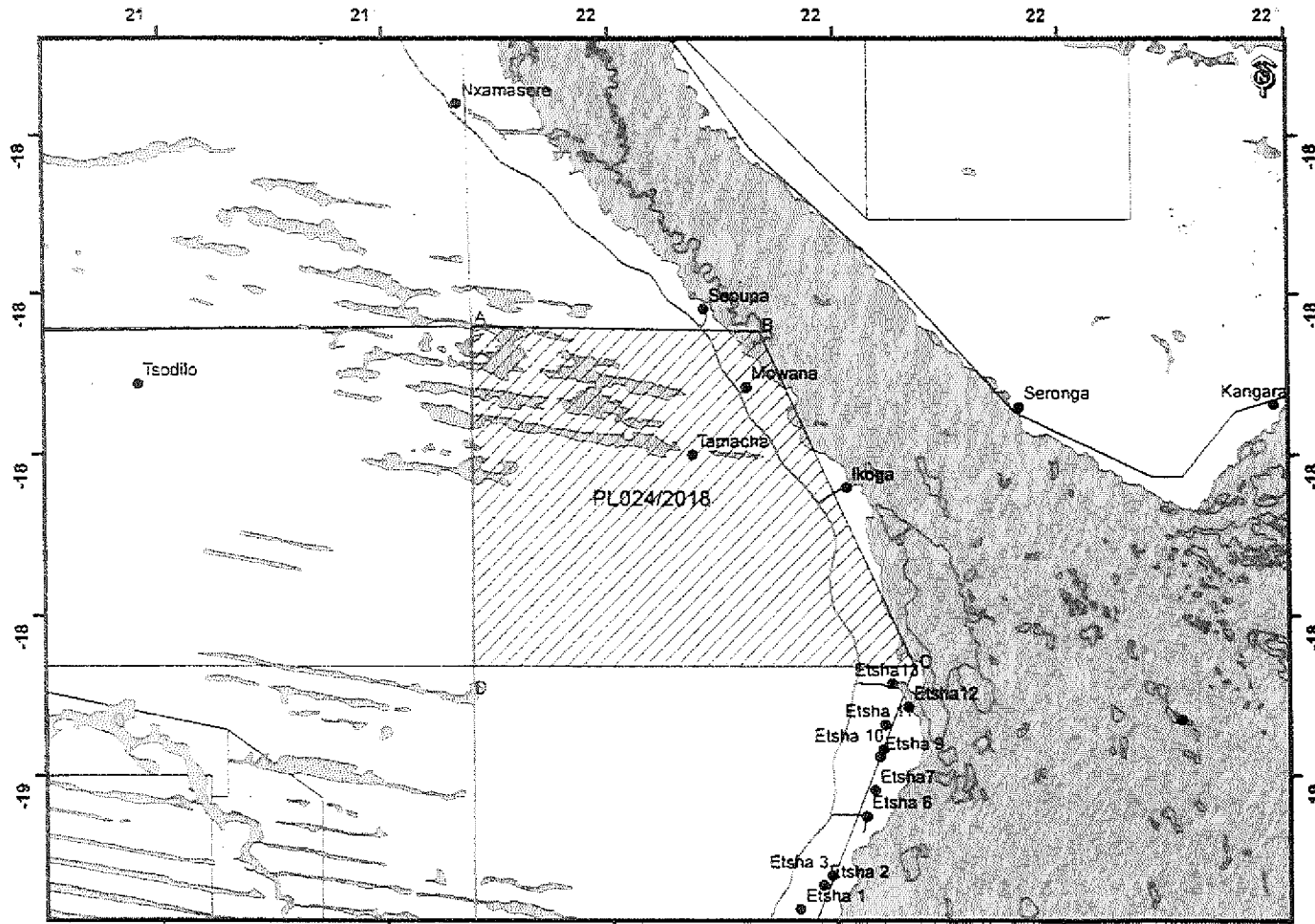
Total Area = 807.3 km<sup>2</sup>



Bm  
MW



Coordinate System: GCS WGS 1984  
Datum: WGS 1984  
Units: Degree

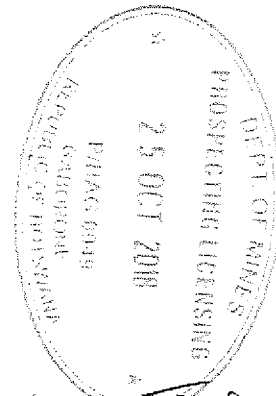


| Point | Long      | Lat        |
|-------|-----------|------------|
| A     | 21.999980 | -18.747670 |
| B     | 22.217250 | -18.750730 |
| C     | 22.333030 | -19.001060 |
| D     | 21.999730 | -19.001060 |

Legend

- Settlement
- Road
- Waterbody
- Other PLs
- Area of License

1:530 000



Drawn on the 09/10/2018

By Sbanqo Sebekedi

Checked By P. Matlotse

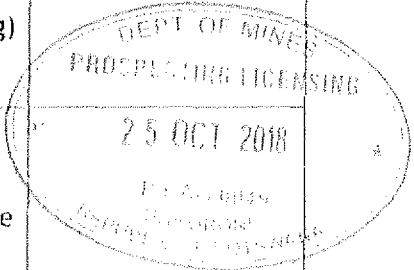
Department of Mines

11/10/2018

BN  
MN

**ANNEXURE II**

| Programme of prospecting operations   | Proposed minimum expenditure  |
|---|---|
| <p><b><u>Year 1</u></b></p> <ul style="list-style-type: none"> <li>i. Conduct detailed review and analysis of geological and geophysical historical data, and continued upgrading of ground magnetic surveys, and building of geophysical and geological models.</li> <li>ii. Petrographic analyses of existing drill cores.</li> <li>iii. Further assaying of existing drill cores.</li> <li>iv. Conduct detailed ground magnetic survey.</li> <li>v. Extension and completion of the tie-lines of the airborne gravity survey and conduct drilling.</li> <li>vi. ICP multi-element geochemical analysis of 220 drill holes targeting metal anomalism.</li> <li>vii. Analysis of sulphide-rich mineral intersections from recently-drilled boreholes.</li> <li>viii. Water sampling for hydro geochemical analysis.</li> <li>ix. Complete a Preliminary Economic Assessment (PEA).</li> <li>x. Investigation of the transport of metals from bedrock into detectable anomalies and completion of geological model.</li> <li>xi. Geological interpretation in 2D (MapInfo) and 3D (Leapfrog) software.</li> </ul>                                       | <p align="center"><b>Seventy Thousand Pula</b></p> <p align="center"><b>(BWP 70,000.00)</b></p> |
| <p><b><u>Year 2</u></b></p> <ul style="list-style-type: none"> <li>i. Further Mineral Resource estimation and definition to expand the resource model beyond the initial resource report.</li> <li>ii. Analyses of recently flown (2013/2014) airborne magnetic, electromagnetic, radiometric, and gravity surveys, as well as continued upgrading of ground magnetic surveys, and building of geophysical and geological models.</li> <li>iii. Drilling of 32 drill holes totaling 6,300 meters targeting high grade magnetite material.</li> <li>iv. Assaying of drill core samples using at least XRF analysis.</li> <li>v. Geological modelling of the deposit using GOCAD.</li> <li>vi. A NI 43-101 MRE report and resource statement.</li> <li>vii. Conduct detailed metallurgical test work including DTR analysis and magnetic susceptibility measurements.</li> <li>viii. Carryout a Pre-feasibility studies.</li> <li>ix. Conduct diamond core drilling of priority targets.</li> <li>x. Conduct petrographic analyses of drill cores.</li> <li>xi. Assaying of drill cores using a variety of techniques (AAS, ICP, and XRF, ME).</li> </ul> | <p align="center"><b>Eighty Thousand Pula</b></p> <p align="center"><b>(BWP 80,000.00)</b></p>  |



*BM  
MN*

|  |   |
|--|---|
| <p><b>Year 3</b></p> <ol style="list-style-type: none"> <li>i. Define extended resources.</li> <li>ii. Drilling of 31 drill holes totaling 6,200 meters targeting high grade magnetite material.</li> <li>iii. Assaying of drill cores using XRF analysis.</li> <li>iv. Geological modelling of the deposit.</li> <li>v. A third NI 43-101 MRE report and resource statement.</li> <li>vi. Conduct detailed metallurgical test work including DTR analysis and magnetic susceptibility measurements.</li> <li>vii. Outline diamond core drilling of targets that have been identified as having the potential for an inferred resource.</li> <li>viii. Conduct petrographic analyses of drill cores.</li> <li>ix. Assaying of drill cores using a variety of techniques (AAS, ICP, and XRF, ME).</li> <li>x. Conduct further detailed geophysical and drilling to prepare for an NI 43-101 Mineral Resource Report.</li> </ol> | <p>Ninety Thousand Pula<br/>(BWP 90,000.00)</p> |
|--|---|



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MN



"CCC 10e"



REPUBLIC OF BOTSWANA

PROSPECTING LICENCE

in favour of

GCWIHABA RESOURCES (PTY) LTD



PROSPECTING LICENCE NO. 025/2018

Bm  
MN



REPUBLIC OF BOTSWANA

Form II/Amendment

Prospecting Licence No.025/2018

Issued in terms of section 16 of the Mines and Minerals Act.

WHEREAS Gcwihaba Resources (Pty) Ltd a company incorporated under the laws of the Republic of Botswana (hereinafter referred to as "the holder") has made application for the right to prospect for metals on land to which the Republic of Botswana holds mineral rights.

AND WHEREAS provision is made under section 14 of the Act for the conferring of such rights by means of a prospecting licence:

NOW THEREFORE the Minister hereby grants to the holder the exclusive right to prospect for metals in the Licence area for a period of 3 years commencing on 01 October 2018 and ending on 30 September 2021.

1. The Licence area shall be the area shown on the map annexed hereto in extent of four hundred and fifty four point five square kilometres (454.5 km<sup>2</sup>), located in the Ngamiland District and more fully described in Annexure I hereto; and as reduced from time to time in accordance with the provisions of the Act.
2. In accordance with section 70 of the Act, the holder shall, simultaneously with issuance of this licence, and thereafter on each anniversary thereof, pay to the Government at the Office of the Director of Mines, an annual charge equal to Five Pula (P5.00) multiplied by the number of square kilometers in the Licence area subject to a minimum annual charge of One Thousand Pula (P1000.00).
3. The holder shall incur the minimum annual expenditures and shall expeditiously carryout the programme of prospecting operations set out in Annexure II.

GIVEN under my hand at GABORONE this .....22<sup>nd</sup>..... day of .....October..... in the year 2018.



*[Signature]*  
Minister

Ministry of Mineral Resources,  
Green Technology and Energy Security

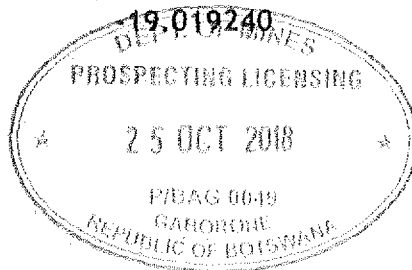
Bm  
MN

ANNEXURE I

The Licence area is four hundred and fifty four point five square kilometres (454.5 km<sup>2</sup>) in the Ngamiland District defined by boundary lines, which shall be straight unless otherwise stated, joining successive points at the following coordinates in Geographic Coordinate System, Datum WGS 1984:

| <u>Point</u> | <u>Longitude (E)</u> | <u>Latitude (S)</u> |
|--------------|----------------------|---------------------|
| A            | 21.666310            | -19.001060          |
| B            | 21.999730            | -19.001060          |
| C            | 21.999730            | -19.251040          |
| D            | 21.883780            | -19.251020          |
| E            | 21.883590            | -19.100000          |
| F            | 21.812500            | -19.048890          |
| G            | 21.666310            | -19.019240          |

Total Area = 454.5 km<sup>2</sup>



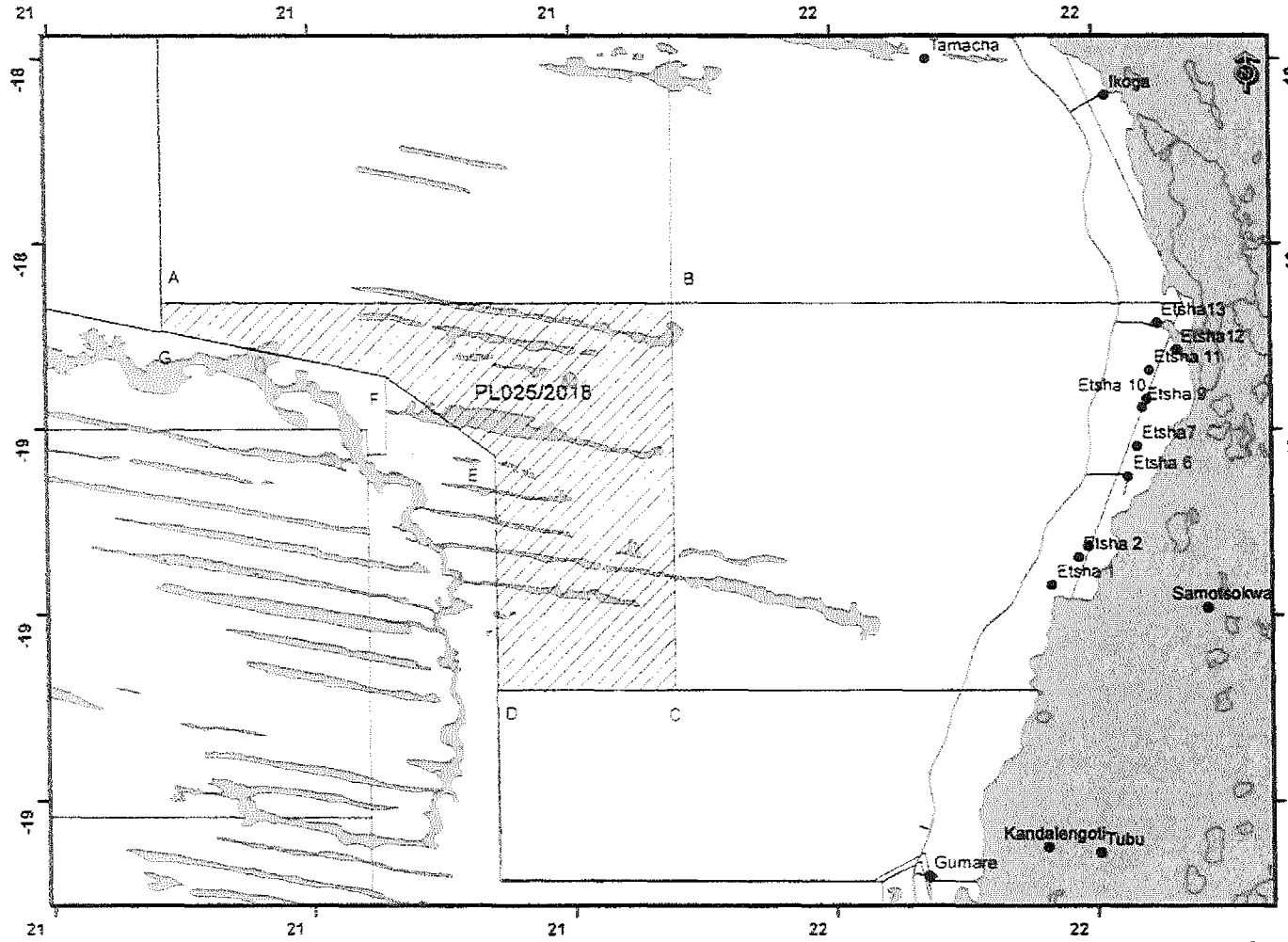
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Annexure 1

GCWIHABA RESOURCES (PTY) LTD  
Prospecting License No. 025/2018



Coordinate System: GCS WGS 1984  
Datum: WGS 1984  
Units: Degree

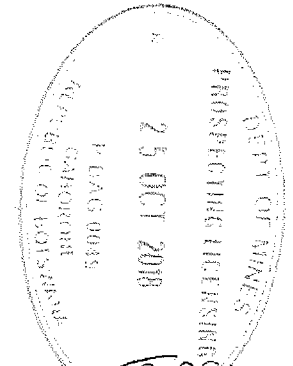
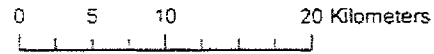


| Point | Long      | Lat        |
|-------|-----------|------------|
| A     | 21.666310 | -19.001060 |
| B     | 21.999730 | -19.001060 |
| C     | 21.999730 | -19.251040 |
| D     | 21.883780 | -19.251020 |
| E     | 21.883590 | -19.100000 |
| F     | 21.812500 | -19.048890 |
| G     | 21.666310 | -19.019240 |

Legend

- Settlement
- Road
- Waterbody
- Other PLs
- ▨ Area of License

1:450 000



Drawn on the 09/10/2018

By Spang Sebedi

Checked By P. Matlole

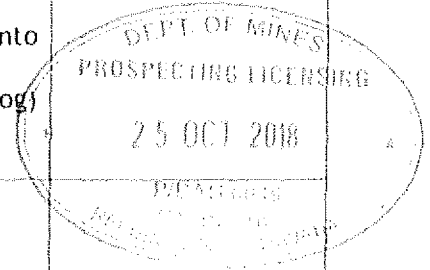
Department of Mines

11/10/2018

Handwritten initials/signature in the bottom left corner.

**ANNEXURE II**

| Programme of prospecting operations   | Proposed minimum expenditure                                    |
|---|---|
| <p><b><u>Year 1</u></b></p> <ul style="list-style-type: none"> <li>i. Conduct detailed review and analysis of geological and geophysical historical data, and continued upgrading of ground magnetic surveys, and building of geophysical and geological models.</li> <li>ii. Petrographic analyses of existing drill cores.</li> <li>iii. Further assaying of existing drill cores.</li> <li>iv. Conduct detailed ground magnetic survey.</li> <li>v. Extension and completion of the tie-lines of the airborne gravity survey and conduct drilling.</li> <li>vi. ICP multi-element geochemical analysis of 220 drill holes targeting metal anomalism.</li> <li>vii. Analysis of sulphide-rich mineral intersections from recently-drilled boreholes.</li> <li>viii. Water sampling for hydro geochemical analysis.</li> <li>ix. Complete a Preliminary Economic Assessment (PEA).</li> <li>x. Investigation of the transport of metals from bedrock into detectable anomalies and completion of geological model.</li> <li>xi. Geological interpretation in 2D (MapInfo) and 3D (Leapfrog) software.</li> </ul>                                       | <p align="center">Seventy Thousand Pula<br/>(BWP 70,000.00)</p> |
| <p><b><u>Year 2</u></b></p> <ul style="list-style-type: none"> <li>i. Further Mineral Resource estimation and definition to expand the resource model beyond the initial resource report.</li> <li>ii. Analyses of recently flown (2013/2014) airborne magnetic, electromagnetic, radiometric, and gravity surveys, as well as continued upgrading of ground magnetic surveys, and building of geophysical and geological models.</li> <li>iii. Drilling of 32 drill holes totaling 6,300 meters targeting high grade magnetite material.</li> <li>iv. Assaying of drill core samples using at least XRF analysis.</li> <li>v. Geological modelling of the deposit using GOCAD.</li> <li>vi. A NI 43-101 MRE report and resource statement.</li> <li>vii. Conduct detailed metallurgical test work including DTR analysis and magnetic susceptibility measurements.</li> <li>viii. Carryout a Pre-feasibility studies.</li> <li>ix. Conduct diamond core drilling of priority targets.</li> <li>x. Conduct petrographic analyses of drill cores.</li> <li>xi. Assaying of drill cores using a variety of techniques (AAS, ICP, and XRF, ME).</li> </ul> | <p align="center">Eighty Thousand Pula<br/>(BWP 80,000.00)</p>  |



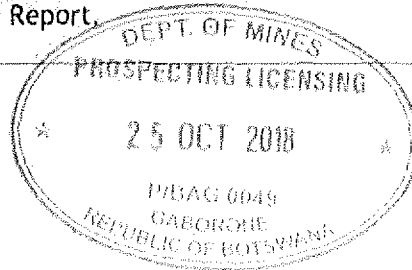
Bm  
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Year 3

- i. Define extended resources.
- ii. Drilling of 31 drill holes totaling 6,200 meters targeting high grade magnetite material.
- iii. Assaying of drill cores using XRF analysis.
- iv. Geological modelling of the deposit.
- v. A third NI 43-101 MRE report and resource statement.
- vi. Conduct detailed metallurgical test work including DTR analysis and magnetic susceptibility measurements.
- vii. Outline diamond core drilling of targets that have been identified as having the potential for an inferred resource.
- viii. Conduct petrographic analyses of drill cores.
- ix. Assaying of drill cores using a variety of techniques (AAS, ICP, and XRF, ME).
- x. Conduct further detailed geophysical and drilling to prepare for an NI 43-101 Mineral Resource Report.

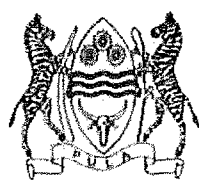
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Pula

(BWP 90,000.00)



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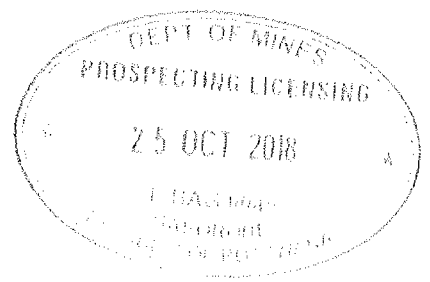


REPUBLIC OF BOTSWANA

PROSPECTING LICENCE

in favour of

GCWIHABA RESOURCES (PTY) LTD



PROSPECTING LICENCE NO. 026/2018

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MN



REPUBLIC OF BOTSWANA

Form II/Amendment

Prospecting Licence No.026/2018

Issued in terms of section 16 of the Mines and Minerals Act.

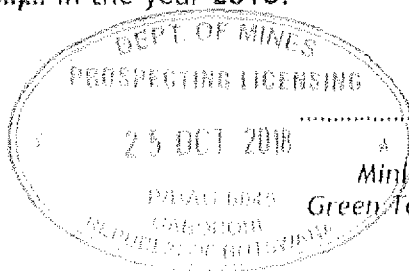
WHEREAS Gcwihaba Resources (Pty) Ltd a company incorporated under the laws of the Republic of Botswana (hereinafter referred to as "the holder") has made application for the right to prospect for metals on land to which the Republic of Botswana holds mineral rights.

AND WHEREAS provision is made under section 14 of the Act for the conferring of such rights by means of a prospecting licence:

NOW THEREFORE the Minister hereby grants to the holder the exclusive right to prospect for metals in the Licence area for a period of 3 years commencing on 01 October 2018 and ending on 30 September 2021.

1. The Licence area shall be the area shown on the map annexed hereto in extent of eight hundred and twenty eight point one square kilometres (828.1 km<sup>2</sup>), located in the Ngamiland District and more fully described in Annexure I hereto; and as reduced from time to time in accordance with the provisions of the Act.
2. In accordance with section 70 of the Act, the holder shall, simultaneously with issuance of this licence, and thereafter on each anniversary thereof, pay to the Government at the Office of the Director of Mines, an annual charge equal to Five Pula (P5.00) multiplied by the number of square kilometers in the Licence area subject to a minimum annual charge of One Thousand Pula (P1000.00).
3. The holder shall incur the minimum annual expenditures and shall expeditiously carryout the programme of prospecting operations set out in Annexure II.

GIVEN under my hand at GABORONE this .....<sup>22<sup>nd</sup></sup> day of October in the year 2018.



*[Signature]*  
Minister  
Ministry of Mineral Resources,  
Green Technology and Energy Security

*Bm  
MN*



ANNEXURE I

The Licence area is eight hundred and twenty eight point one square kilometres (828.1 km<sup>2</sup>) in the Ngamiland District defined by boundary lines, which shall be straight unless otherwise stated, joining successive points at the following coordinates in Geographic Coordinate System, Datum WGS 1984:

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|--------------|----------------------|---------------------|
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| B            | 22.333030            | -19.001060          |
| C            | 22.235520            | -19.251040          |
| D            | 21.999730            | -19.251040          |

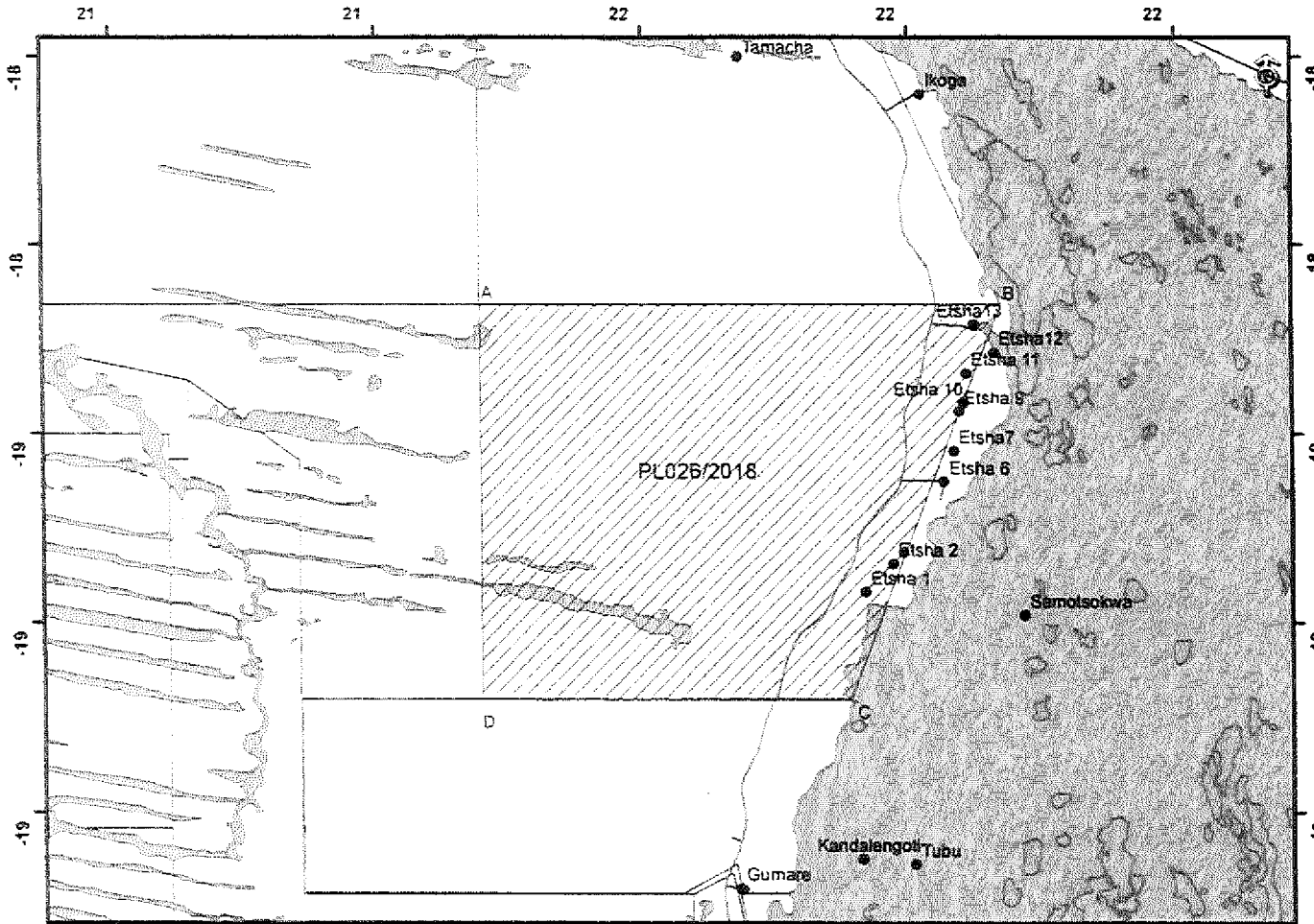
Total area = 828.1 km<sup>2</sup>



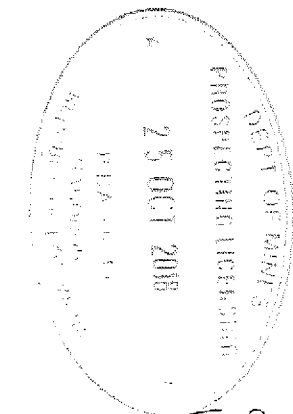
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Coordinate System: GCS WGS 1984  
Datum: WGS 1984  
Units: Degree



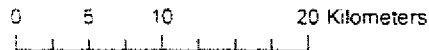
| Point | Long      | Lat        |
|-------|-----------|------------|
| A     | 21.999730 | -19.001060 |
| B     | 22.333030 | -19.001060 |
| C     | 22.235520 | -19.251040 |
| D     | 21.999730 | -19.251040 |



Legend

- Settlement
- Other PLs
- Road
- Area of License
- Waterbody

1:450 000



Drawn on the 02/10/2018

By Svanqa Sepekegi

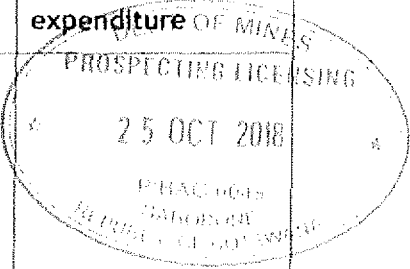
Checked By P. Matlotse

Department of Mines

11/10/2018

*Handwritten initials: BM, MM*

**ANNEXURE II**

| Programme of prospecting operations  | Proposed minimum expenditure  |
|--|---|
| <p><b>Year 1</b></p> <ol style="list-style-type: none"> <li>i. Conduct detailed review and analysis of geological and geophysical historical data, and continued upgrading of ground magnetic surveys, and building of geophysical and geological models.</li> <li>ii. Petrographic analyses of existing drill cores.</li> <li>iii. Further assaying of existing drill cores.</li> <li>iv. Conduct detailed ground magnetic survey.</li> <li>v. Extension and completion of the tie-lines of the airborne gravity survey and conduct drilling.</li> <li>vi. ICP multi-element geochemical analysis of 220 drill holes targeting metal anomalism.</li> <li>vii. Analysis of sulphide-rich mineral intersections from recently-drilled boreholes.</li> <li>viii. Water sampling for hydro geochemical analysis.</li> <li>ix. Complete a Preliminary Economic Assessment (PEA).</li> <li>x. Investigation of the transport of metals from bedrock into detectable anomalies and completion of geological model.</li> <li>xi. Geological interpretation in 2D (Mapinfo) and 3D (Leapfrog) software.</li> </ol>                                       |  <p align="center">Seventy Thousand Pula<br/>(BWP 70,000.00)</p> |
| <p><b>Year 2</b></p> <ol style="list-style-type: none"> <li>i. Further Mineral Resource estimation and definition to expand the resource model beyond the initial resource report.</li> <li>ii. Analyses of recently flown (2013/2014) airborne magnetic, electromagnetic, radiometric, and gravity surveys, as well as continued upgrading of ground magnetic surveys, and building of geophysical and geological models.</li> <li>iii. Drilling of 32 drill holes totaling 6,300 meters targeting high grade magnetite material.</li> <li>iv. Assaying of drill core samples using at least XRF analysis.</li> <li>v. Geological modelling of the deposit using GOCAD.</li> <li>vi. A NI 43-101 MRE report and resource statement.</li> <li>vii. Conduct detailed metallurgical test work including DTR analysis and magnetic susceptibility measurements.</li> <li>viii. Carryout a Pre-feasibility studies.</li> <li>ix. Conduct diamond core drilling of priority targets.</li> <li>x. Conduct petrographic analyses of drill cores.</li> <li>xi. Assaying of drill cores using a variety of techniques (AAS, ICP, and XRF, ME).</li> </ol> | <p align="center">Eighty Thousand Pula<br/>(BWP 80,000.00)</p>  |

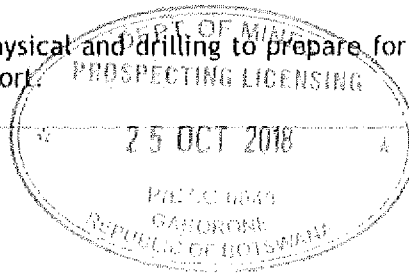


Year 3

- i. Define extended resources.
- ii. Drilling of 31 drill holes totaling 6,200 meters targeting high grade magnetite material.
- iii. Assaying of drill cores using XRF analysis.
- iv. Geological modelling of the deposit.
- v. A third NI 43-101 MRE report and resource statement.
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- ix. Assaying of drill cores using a variety of techniques (AAS, ICP, and XRF, ME).
- x. Conduct further detailed geophysical and drilling to prepare for an NI 43-101 Mineral Resource Report.

Ninety Thousand  
Pula

(BWP 90,000.00)



Bm  
MN

CCC 11

Telephone: 3914955  
Telegrams: MEWT  
Telex:  
Telefax: 3951092



Ministry of Environment,  
Wildlife and Tourism  
Private Bag BO 199  
GABORONE

REFERENCE: EWT 1/6/6 III ( )

Date: 25<sup>th</sup> November 2015

The Director - Dr. Mechtild Rossler  
World Heritage Centre  
7, Place de Fontenoy  
7352, Paris  
**FRANCE**

Dir WHC  
100 d 20/11/15  
N: 2015 - 1634 -> AFR

Dear Dr. Rossler,

As requested by the World Heritage Committee at its 38<sup>th</sup> Session in Doha in Decision 38 COM 8B.5, the State Party of the Republic of Botswana submit the enclosed State of Conservation Report for the Okavango Delta to be examined by the World Heritage Committee during its 40<sup>th</sup> Session in 2016.

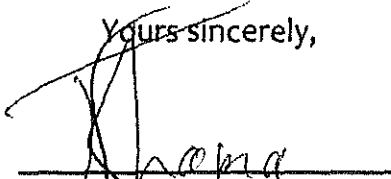
We believe that this report will give the World Heritage Committee an accurate picture of the progress made in addressing the issues and recommendations made following inscription of the site during the 38<sup>th</sup> session of the committee.

Since inscription, the State Party has made the following progress; (i) continued to implement the Okavango Delta Management Plan in order to maintain the outstanding universal value of the Delta, (ii) developed protocols for Wildlife monitoring in the Okavango Delta, (iii) relinquished all the prospecting licenses in the core area, (iv) progress made in consulting the indigenous peoples on cultural heritage related issues, (v) progress made in expanded implementation of livelihoods programmes in the Delta, (vi) progress made in addressing the governance, stakeholder and coordination issues for the effective management of the property and (viii) the continued control and monitoring of alien invasive species within the property.

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The State Party of the Republic of Botswana is committed to the effective protection and management of the Okavango Delta and is looking forward to continue working with the World Heritage Centre and World Heritage Committee in achieving this.

Yours sincerely,



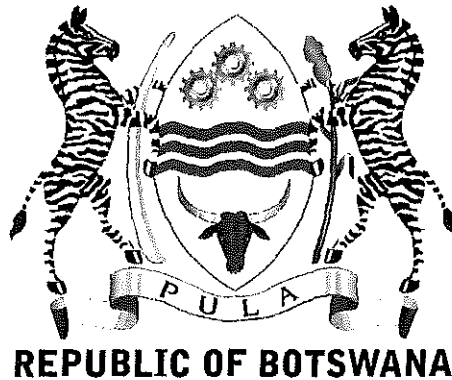
Handwritten signature of Hon. Tshekedi Khama, consisting of a stylized 'T' and 'K' followed by 'hama'.

Hon. Tshekedi Khama

**MINISTER OF ENVIRONMENT, WILDLIFE & TOURISM**

Bm  
MN

**STATE OF CONSERVATION REPORT  
OKAVANGO DELTA NATURAL WORLD HERITAGE SITE, BOTSWANA  
(N1432)**



**BY THE GOVERNMENT OF THE REPUBLIC OF BOTSWANA  
DEPARTMENT OF NATIONAL MUSEUM & MONUMENTS  
MINISTRY OF ENVIRONMENT, WILDLIFE & TOURISM**

Report Developed by State Party of Botswana with the support of USAID, Southern African  
Regional Environmental Program (SAREP)

NOVEMBER 2015

1|State of Conservation (SOC) Report  
Okavango Delta World Heritage Site, Botswana (N1432)

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## Executive Summary

Okavango Delta, located in north-west of Botswana was inscribed on the World Heritage list in June 2014 under natural criteria; (vii), (ix) & (x). The Okavango Delta Management Plan guides the management of the site. Since 2014, a series of meetings were held with different stakeholders among them; Department of Environmental Affairs (DEA), Department of National Museum & Monuments (DNMM), Tswana Land board and Okavango Research Institute (ORI), Okavango Delta Wetlands Management Committee and Southern African Regional Environmental Programme (SAREP) to assess the progress made in implementing the ODMP as per the 2012 Implementation plan and ODRS SEA Report of 2013, as well as prepare for submitting the first report on the State of Conservation (SOC) of the property. This included assessing progress in implementing the recommendations of the World Heritage Committee at the time of inscription (*Decision WHC 38 COM 8B.5*).

Since inscription, the State Party has made the following progress:

1. Continued to implement the Okavango Delta Management Plan in order to maintain the Outstanding Universal Value of the property.
2. Developed protocols for wildlife monitoring in the Okavango Delta through the support of SAREP, including a web-based portal for analyzing the data.
3. Relinquished all the prospecting licenses in the core area and has not renewed most licenses in the buffer zone except 9, of which 2 of these are folios (at application stage).
4. Continued and expanded implementation of livelihoods programmes in the Delta.
5. Progress has been made in consulting the indigenous peoples on cultural heritage related issues.
6. Addressing the governance, stakeholder and coordination issues for the effective management of the property.
7. Continued with control and monitoring of alien invasive species within the property.

Challenges include:

1. Little progress has been made in establishing population baseline for key species and this is now earmarked for 2016/17.
2. Limited resources (financial and human resources) for implementing conservation programmes as outlined in the ODMP.
3. Challenge of dealing with outstanding prospecting licenses in buffer zone, which can be renewed up to 7 years, in terms of the existing laws.
4. New developments in the implementation of CBNRM, which take away the privileges local communities used to have under the old arrangement.
5. Coordination for the implementation of the management plan is still a challenge due to lack of capacity and resources.

The State Party would like to thank USAID, Southern African Regional Environmental Programme (SAREP) for supporting preparation of this State of Conservation (SOC) report, of which without their support it would have been difficult to have stakeholders meetings.

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## 1.0 IDENTIFICATION OF THE PROPERTY

1. NAME OF PROPERTY: Okavango Delta N1432
2. YEAR OF INSCRIPTION: June 2014
3. INSCRIPTION CRITERIA: (vii), (ix) and (x)

## 2.0 PREVIOUS COMMITTEE DECISIONS

*Decision WHC 38 COM 8B.5*

## 3.0 INTERNATIONAL ASSISTANCE

N/A

## 4.0 UNESCO EXTRA BUDGET

N/A

## 5.0 PREVIOUS MONITORING MECHANISM

N/A

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## **7.0 FACTORS AFFECTING PROPERTY IDENTIFIED IN PREVIOUS REPORTS**

**(WHC 38 COM 8B.5)**

1. Need to establish population baselines for key species and to track long term trends;
2. Need to rationalize veterinary cordon fencing,
3. Existence of extractive industry activity in the property and the need to permanently extinguish all the few remaining mineral prospecting concessions, as well as not issue any new concessions within the property,
4. Monitoring and managing mining in areas outside of the property so as to avoid any adverse impacts to the property,
5. Traditional resource use for livelihoods, user access rights, cultural rights and access to opportunities for local communities in keeping with the property's Outstanding Universal Value,
6. Address a range of other protection and management issues including
  - a. Governance and coordination framework for the site
  - b. Stakeholder empowerment
  - c. Management planning
  - d. Management capacity
  - e. Control of alien invasive species.

## **8.0 CURRENT CONSERVATION ISSUES**

### **7.1 Coordinated and systematic wildlife monitoring programme**

**Continue efforts to develop, in partnership with Universities, NGOs and wildlife experts, a coordinated and systematic wildlife monitoring programme to establish population baselines for key species and to track long term trends.**

The State Party, through the Department of Wildlife & National Parks (DWNP) continues to work with researchers from the Okavango Research Institute (ORI), independent researchers and University of Botswana to conduct research on wildlife in the Okavango Delta. In March 2015, DWNP in partnership with ORI, held a symposium on Wetlands and Wildlife in Botswana which was attended by researchers, scientists, independent research organizations, NGOs, Community Based Organizations and government departments to share their research findings. The research results will contribute to the effective protection and management of

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the property. DWNP is also in the process of finalizing the research strategy to guide conduct of research on wildlife in Botswana including the Okavango Delta.

Despite maintaining these partnerships, the State Party has not yet managed to establish the population baselines for key species and tracking long term trends. Current monitoring is therefore informed by the population census conducted in 2012. Towards addressing this issue, the State Party is in the process of signing a Memorandum of Understanding with Okavango Research Institute that will ensure collaboration in the research in the Okavango Delta which will help establishment of a population baseline for key species and establishing long term trends and a wildlife monitoring programme. The signing of the MoU will inform the year in which the databases will be integrated.

Also, and in partnership with the Southern African Regional Environmental Programme (SAREP), DWNP has managed to establish a wildlife monitoring programme. The monitoring programme is aimed at collecting data to address the issue of the decline of wildlife populations in Northern Botswana as shown by the population census conducted in 2011 and 2012 by DWNP and Dr Mike Chase respectively. The programme has established Standardized Monitoring Protocols for the basic monitoring of flora and fauna within the Ngamiland concessions. The monitoring data is collected by guides under the responsibility of concessionaires, for the long term trend assessment of flora and fauna and observation of wildlife population demographics in Ngamiland. These guidelines have been designed to merge seamlessly with the existing and operational Management Oriented System (MOMS) which is implemented by DWNP and is used by communities in their concessions and protected areas in Botswana. The Monitoring Tool provides sufficient data to guide management decisions, build capacity of field staff, stimulate discussion amongst local resource users and encourages local participation. In addition to the standardized protocol and MOMS, a more scientifically rigid approach to the monitoring of flora and fauna in the concessions in the form of a bi-annual series of transects in March and October, is specifically undertaken in each concession and aimed at observing population demographic patterns of both herbivores and carnivores.

As part of this monitoring tool, SAREP has also designed an Interactive Web-based Database and Basic Analyzing tool for Concessions. The web-based tool allows concessionaires to upload the data they collect in a standardized manner, which is then generated into graphic visuals such maps and graphs. The objective for the website is to provide on-going feedback, that captures the data, visualizes it and collates the data from all the concessions to give a picture, or status report on the state of flora and fauna within the WMAs of northern Botswana as an on-going process. In the past, data was collected by different concessionaires, but was never analyzed and used as a decision making platform on the monitoring process.

As part of implementing this tool, SAREP will conduct 17 field based training activities, one in each concession in the delta, plus 2 in Maun for Safari companies staff and 1 for DWNP staff. A total of about 200 guides will be trained, plus 10 office staff from Safari Companies and 10 staff members from DWNP. During the final year of SAREP activities, they will train DWNP staff to become website administrators while working with all stakeholders to ensure that the website for data collection is running smoothly and effectively. In each company there is a focal person who is responsible for ensuring that the monitoring data is collected and entered. DWNP will liaise with that person to ensure that this occurs. It is expected that DWNP will include in their annual budget the maintenance of the website. However, DWNP has funding and skilled staff challenges. This is critical to the seamless transfer of the programme from SAREP to DWNP.

## 7.2 Rationalize veterinary cordon fencing

**Continue efforts to rationalize veterinary cordon fencing, removing it when its effectiveness for disease control has become questionable or where more holistic approaches to animal sanitation and disease control are possible,**

The Ngamiland area, where the Okavango Delta is located, has for a long time been affected by livestock diseases some of which are spread by wildlife such as Buffaloes. In addressing the problem, government erected veterinary cordon fences to control diseases. However, conservationists and researchers have argued that the cordon fences affect wildlife movements and have also questioned the effectiveness of the fences in disease control. However, through a National Policy, Government has, through the Department of Veterinary Services continued to monitor the effectiveness of the fences. DWNP continues to provide advice on this matter.

The Botswana Government Policy on Veterinary fences is that a periodic Environmental Impact Assessment (EIA) should be conducted every five years on all the fences and where possible, some of the fences should be removed if their usefulness has been outlived. For example, an Environmental Impact Assessment (EIA) study by Scott Wilson (2000) on CBPP Fences recommended the removal of the Setata and Nxai Pan Buffalo Fences. The removal of the Setata Fence was done and completed in 2003, and the Nxai Pan Buffalo Fence was removed in 2004. The removal of these fences was of significant to wildlife conservation. The Kalahari Conservation Society (2005) Report indicated that "the removal of the 210 kilometer Setata Fence and the 66 kilometer portion of the Nxai Pan Buffalo Fence resulted in an immediate end to negative impacts on wildlife populations in the affected areas". Though veterinary fences block wildlife migratory routes and kill wildlife in some instances, some of the veterinary fences such as the Southern Buffalo Fence and indeed the Northern Buffalo fence have played a significant role in protecting the core parts of the delta from encroachment of the livestock industry.

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The State Party will commission an EIA that will assess the effectiveness of the fences and its impacts on wildlife species in the Okavango delta for the financial year 2016/2017. Currently, DVS is experiencing challenges in terms of lack of funding to maintain the fences, deal with vandalism of the fences by some local communities and Elephants. The State Party is committed to sourcing funding for maintenance of the fences and educating the public on the importance of the fences in disease control.

### 7.3 Extractive industry activity

**Ensure no extractive industry activity is permitted in the property, and permanently extinguish all the few remaining mineral prospecting concessions, which are scheduled to expire in 2014, without awarding any timeframe extensions and not issue any new concessions within the property.**

At the time of inscription, it was realized that there were prospecting licenses issued in both the core area and the buffer zone. The State Party, in its submission of supplementary information committed that it will not allow mining in the core area and that it will expunge all prospecting licenses in the core and buffer once they expire and will not issue any new licenses in the core and buffer zone.

Since 2014, the State Party has not issued any new licenses and neither is there any mining in the core area. The State Party will continue to monitor any illegal prospecting that might take place in the core area. The State Party has made considerable progress in relinquishing and not renewing the licenses in the buffer zone once they expire. Out of 41 prospecting licenses, only 9 licenses are remaining. DOM is in the process of resolving the 9 outstanding prospecting licenses in the buffer zone. It is important to note that there are challenges in this process given that the duration of the prospecting licenses is 7 years and negotiable with the respective companies who may have invested heavily in the process over the years. However, the State Party has not been issuing new licenses in the buffer zone at all. Below is a table that summarizes this progress;

#### Status of Prospecting licenses at the time of inscription

| NO | PROSPECTING LICENSES | EXPIRY DATE                | STATUS AT TIME OF INSCRIPTION | MINERAL    | LOCATION | COMPANY          | CURRENT STATUS |
|----|----------------------|----------------------------|-------------------------------|------------|----------|------------------|----------------|
| 1. | PL703/2009           | 30 <sup>th</sup> Sept 2012 | Expired                       | Coal & CBM | Buffer   | Greatways        | Expired        |
| 2. | PL154/2012           | 30 <sup>th</sup> Sept 2016 | Active                        | Petroleum  | Buffer   | Baobab Resources | Active         |
| 3. | PL 641/2009          | 30 <sup>th</sup> Sept      | Expired                       | Precious   | Buffer   | Gewihaba         | Expired, Not   |

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|     |             |                             |         |                        |               |                    |                      |
|-----|-------------|-----------------------------|---------|------------------------|---------------|--------------------|----------------------|
|     |             | 2012                        |         | Stones                 |               | Resources          | renewed              |
| 4.  | PL 642/2009 | 30 <sup>th</sup> Sept 2012  | Expired | Precious Stones        | Buffer        | Gcwihaba Resources | Expired, Not renewed |
| 5.  | PL046/2011  | 31 <sup>st</sup> Dec 2013   | Expired | Radioactive            | Buffer        | Gcwihaba Resources | Expired, Not renewed |
| 6.  | PL 047/2011 | 31 <sup>st</sup> Dec 2013   | Expired | Radioactive            | Buffer        | Gcwihaba Resources | Expired, Not renewed |
| 7.  | PL 050/2010 | 30 <sup>th</sup> June 2013  | Expired | Radioactive            | Buffer        | Gcwihaba Resources | Expired, Not renewed |
| 8.  | PL 046/2009 | 31 <sup>st</sup> Dec 2011   | Expired | Radioactive            | Buffer        | Namenco Energy     | Expired, Not renewed |
| 9.  | PL 047/2009 | 31 <sup>st</sup> Dec 2011   | Expired | Radioactive            | Buffer        | Namenco Energy     | Expired, Not renewed |
| 10. | PL 048/2009 | 31 <sup>st</sup> Dec 2011   | Expired | Radioactive            | Buffer        | Namenco Energy     | Expired, Not renewed |
| 11. | PL 100/2012 | 31 <sup>st</sup> March 2015 | Active  | Metals                 | Buffer        | Zhing gan          | Expired, Not renewed |
| 12. | PL 099/2012 | 31 <sup>st</sup> March 2015 | Active  | Metals                 | Buffer        | Zhing gan          | Expired, Not renewed |
| 13. | PL 109/2012 | 31 <sup>st</sup> March 2015 | Active  | Metals                 | Buffer        | Midgel             | Expired, Not renewed |
| 14. | PL 571/2009 | 30 <sup>th</sup> Sept 2014  | Active  | Base & Precious Metals | Buffer        | New Hana           | Expired, Not renewed |
| 15. | PL 570/2009 | 30 <sup>th</sup> Sept 2014  | Active  | Base & Precious Metals | Buffer & Core | New Hana           | Expired, Not renewed |
| 16. | PL 569/2009 | 30 <sup>th</sup> Sept 2014  | Active  | Base & Precious Metals | Buffer & Core | New Hana           | Expired, Not renewed |
| 17. | PL 568/2009 | 30 <sup>th</sup> Sept 2014  | Active  | Base & Precious Metals | Buffer & Core | New Hana           | Expired, Not renewed |
| 18. | PL567/2009  | 30 <sup>th</sup> Sept 2014  | Active  | Base & Precious Metals | Buffer        | New Hana           | Expired, Not renewed |
| 19. | PL 566/2009 | 30 <sup>th</sup> Sept 2014  | Active  | Base & Precious Metals | Buffer        | New Hana           | Expired, Not renewed |
| 20. | PL185/2013  | 30 <sup>th</sup> Sept 2016  | Active  | Base & Precious Metals | Buffer        | Hana Ghanzi        | Active               |
| 21. | PL 098/2012 | 11 <sup>th</sup> March      | Active  | Base & Precious        | Core          | Zhong Gan          | Expired, Not renewed |

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Okavango Delta World Heritage Site, Botswana (N1432)

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|     |             |                             |         |                        |               |                    |                             |
|-----|-------------|-----------------------------|---------|------------------------|---------------|--------------------|-----------------------------|
|     |             | 2015                        |         | Metals                 |               |                    |                             |
| 22. | PL 264/2012 | 30 <sup>th</sup> Sept 2015  | Active  | Base & Precious Metals | Buffer        | Zhong Gan          | Expired, Not renewed        |
| 23. | PL040/2012  | 31 <sup>st</sup> Dec 2014   | Active  | Base & Precious Metals | Buffer        | Triprop            | Expired, Not renewed        |
| 24. | PL059/2010  | 31 <sup>st</sup> March 2013 | Expired | Base & Precious Metals | Buffer        | Manica             | Expired, Not renewed        |
| 25. | PL 062/2011 | 31 <sup>st</sup> Dec 2013   | Expired | Base & Precious Metals | Buffer        | Pinette            | Expired, Not renewed        |
| 26. | PL 392/2008 | 31 <sup>st</sup> Dec 2013   | Expired | Base & Precious Metals | Buffer        | Pinette            | Expired, Not renewed        |
| 27. | PL 392/2008 | 31 <sup>st</sup> Dec 2013   | Expired | Base & Precious Metals | Buffer        | Gcwihaba Resources | Expired, Not renewed        |
| 28  | PL 390/2008 | 31 <sup>st</sup> Dec 2013   | Expired | Base & Precious Metals | Core & Buffer | Gcwihaba Resources | Expired, Not renewed        |
| 29. | PL 388/2008 | 31 <sup>st</sup> Dec 2013   | Expired | Base & Precious Metals | Core & Buffer | Gcwihaba Resources | Expired, Not renewed        |
| 30  | PL 387/2008 | 31 <sup>st</sup> Dec 2013   | Expired | Base & Precious Metals | Buffer        | Gcwihaba Resources | Expired, Not renewed        |
| 31  | PL 386/2008 | 31 <sup>st</sup> Dec 2013   | Expired | Base & Precious Metals | Core & Buffer | Gcwihaba Resources | Expired, Not renewed        |
| 32  | PL 393/2008 | 31 <sup>st</sup> Dec 2013   | Expired | Base & Precious Metals | Core & Buffer | Gcwihaba Resources | Expired, Under negotiations |
| 33  | PL 394/2008 | 31 <sup>st</sup> Dec 2013   | Expired | Base & Precious Metals | Buffer        | Gcwihaba Resources | Expired, Not renewed        |
| 34  | PL 395/2008 | 31 <sup>st</sup> Dec 2013   | Expired | Base & Precious Metals | Buffer        | Gcwihaba Resources | Expired, Under negotiations |
| 35  | PL 095/2012 | 30 <sup>th</sup> June 2012  | Expired | Base & Precious Metals | Buffer        | Gcwihaba Resources | Expired, Under negotiations |
| 36  | PL 097/2012 | 31 <sup>st</sup> March 2015 | Active  | Base & Precious Metals | Buffer        | Gcwihaba Resources | Expired, Under negotiations |
| 37  | PL 096/2012 | 31 <sup>st</sup> March      | Active  | Base & Precious        | Buffer        | Gcwihaba Resources | Expired, Under              |

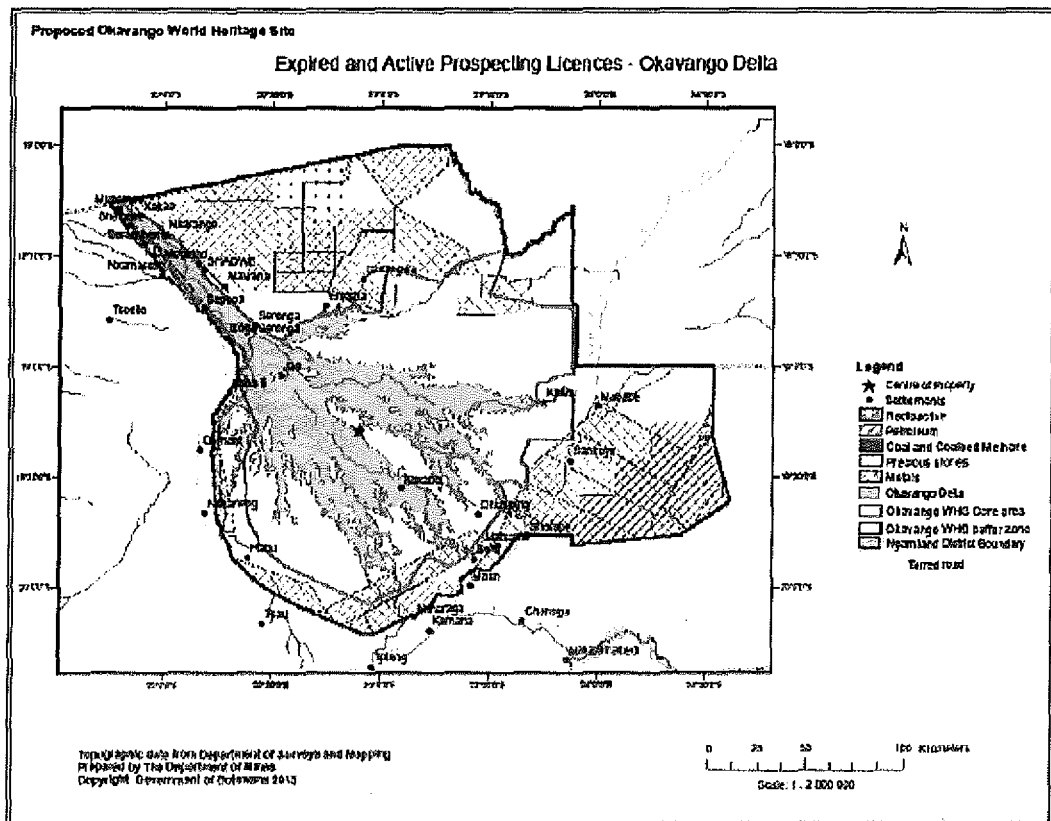
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Okavango Delta World Heritage Site, Botswana (N1432)

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|    |             |                             |         |                        |               |                    |                            |
|----|-------------|-----------------------------|---------|------------------------|---------------|--------------------|----------------------------|
|    |             | 2015                        |         | Metals                 |               |                    | negotiations               |
| 38 | PL 115/2010 | 31 <sup>st</sup> March 2013 | Expired | Base & Precious Metals | Core & Buffer | Gcwihaba Resources | Expired, Not renewed       |
| 39 | PL 590/2009 | 30 <sup>th</sup> June 2012  | Expired | Base & Precious Metals | Core & Buffer | Gcwihaba Resources | Expired, Not renewed       |
| 40 | PL 592/2009 | 30 <sup>th</sup> June 2012  | Expired | Base & Precious Metals | Core & Buffer | Gcwihaba Resources | Expired, Not renewed       |
| 41 | PL 588/2009 | 31 <sup>st</sup> Dec 2012   | Expired | Base & Precious Metals | Buffer        | Gcwihaba Resources | Expired Under negotiations |

Table1: Status of Prospecting Licences in the buffer zone as of November 2015;  
Source; Department of Mines



Map1: Status of Prospecting Licences as of November 2015;  
Source; Department of Mines

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### Current status of prospecting licenses; outstanding 9 Prospecting Licenses

The table below shows the current prospecting licenses in the buffer zone of the property. Six of the licenses have expired and are from one company, Gcwihaba resources. One of the prospecting licenses is expiring in September 2016, while Folio 16c and 16d are applications which the department will make a decision not to approve. As indicated earlier, prospecting licenses can be extended up to 7 years. Therefore their review is a complex task that has to consider companies who have heavily invested in the prospecting process. As such, the State Party is still engaging the companies with a view of not renewing these licenses.

Progress in this regard will be submitted as supplementary evidence either before or as part of SOC.

| NO | PROSPECTING LICENSES | EXPIRY DATE                     | MINERAL                | LOCATION | COMPANY            |
|----|----------------------|---------------------------------|------------------------|----------|--------------------|
| 1. | PL 154/2012          | 30 <sup>th</sup> September 2016 | Petroleum              | Buffer   | Baobab Resources   |
| 2. | PL 097/2012          | 31 <sup>st</sup> December 2013  | Base & Precious Metals | Buffer   | Gcwihaba Resources |
| 3. | PL 586/2008          | 31 <sup>st</sup> December 2012  | Base & Precious Metals | Buffer   | Gcwihaba Resources |
| 4. | PL 096/2012          | 31 <sup>st</sup> March 2015     | Base & Precious Metals | Buffer   | Gcwihaba Resources |
| 5. | PL 095/2012          | 30 <sup>th</sup> June 2012      | Base & Precious Metals | Buffer   | Gcwihaba Resources |
| 6. | PL 393/2008          | 31 <sup>st</sup> December 2013  | Base & Precious Metals | Buffer   | Gcwihaba Resources |
| 7. | PL 395/2008          | 31 <sup>st</sup> December 2013  | Base & Precious Metals | Buffer   | Gcwihaba Resources |
| 8. | Folio 16c            |                                 |                        |          |                    |
| 9. | Folio 16d            |                                 |                        |          |                    |

Table2: Status of outstanding Prospecting Licenses in the buffer zone as of November 2015;  
Source; Department of Mines

#### 7.4 Monitor and manage mining in areas outside of the property

**Carefully monitor and manage mining in areas outside of the property so as to avoid any adverse impacts to the property,**

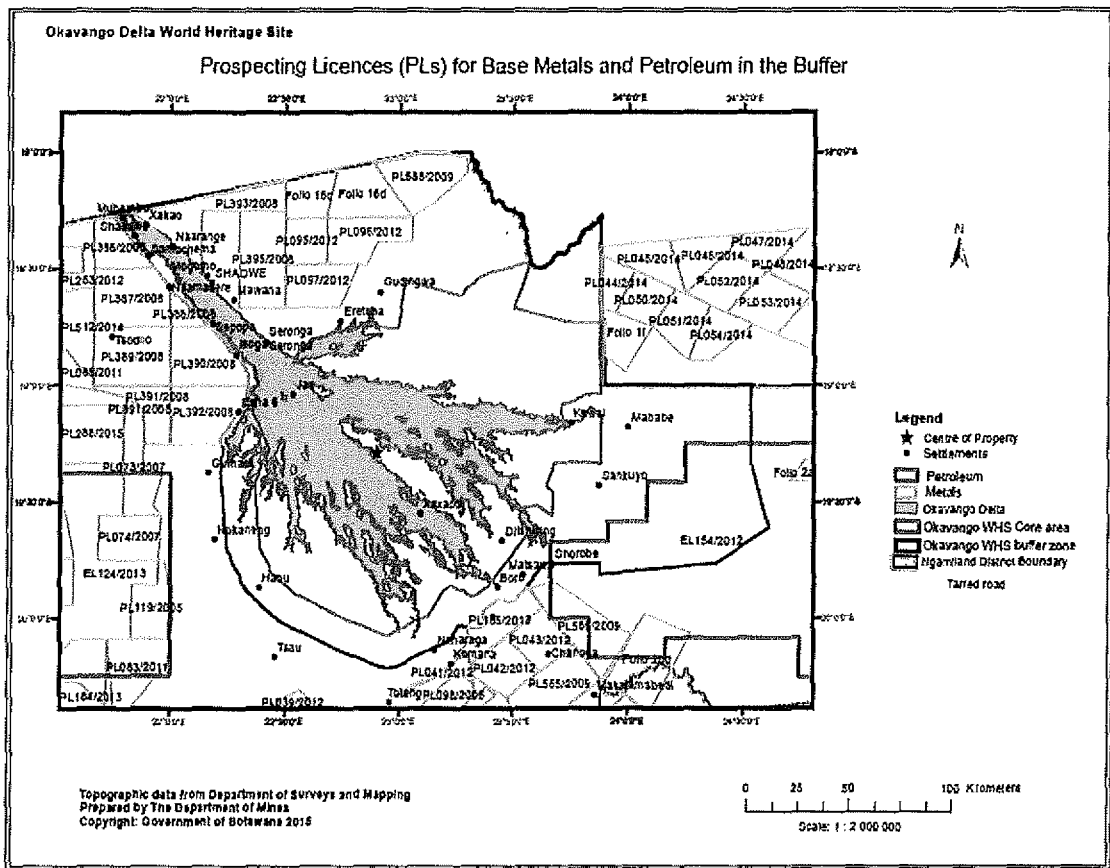
At the time of inscription it was noted that there were prospecting licenses in areas outside the property and that these may develop into mines in the near future. The State Party committed that it will continue monitoring mining outside the property through development of EIAs and monitoring by the relevant departments, Department of Environmental Affairs (DEA) and Department of Mines (DOM) and Department of Waste Management & Pollution Control (DWMPC).

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The current status of extractive industries in the Delta shows that there are prospecting licenses and mining operations outside the buffer zone for metals and petroleum, including the 9 remaining licenses in the buffer zone which the department is still engaging with the companies with a view not to renew. It is also important to note the prospecting licenses for metal in the buffer zone, (the Panhandle area in the east) are too close to the core area, while those in the west of the Panhandle (outside the buffer zone) are also considered very close to the buffer zone and the core area which is only 2 kilometers from the buffer. The State Party notes the threat this might have on the integrity of the site in the long term. As part of mitigation, the State Party, through the Department of Mines, and in consultation with the Ministry of Energy & Water Resources are currently discussing this issue. The basis of this discussion is the recommendations of the SEA Report of the Okavango Delta Ramsar site (ODRS) which recommended "a 15km no mining buffer zone from the core area". It is important to note that at the time of inscription, the prospecting licenses outside the buffer zone were not included in the submission but the State Party is trying to be proactive in managing mining areas outside the property to avoid adverse impacts to the property.

Progress in this regard will be submitted as supplementary evidence either before or as part of next SOC report in order to give all the involved parties, including the extractive industry itself an opportunity to agree on a reasonable distance from both the core area and buffer zone.

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Map 2: Status of Prospecting Licenses for metals outside the core area and buffer zone as of November 2015;  
 Source; Department of Mines

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## 7.5 Traditional resource use for livelihoods, user access and cultural rights

**Expand and strengthen programmes which accommodate traditional resource use for livelihoods, user access rights, cultural rights and access to opportunities to participate in the tourism sector, in keeping with the property's Outstanding Universal Value, and**

### 7.5.1 Traditional resource use for livelihoods and user access rights

The State Party remains committed to improving livelihoods of local communities in the Delta and ensuring that they have access to the use of their natural resources given their long connection with the Delta. At the time of inscription, a number of programmes already existed and these continue to be implemented by different stakeholders to ensure that local communities benefit from the Okavango delta. The State Party, through various Government Departments and Non-Governmental Organizations (NGO) have come up with diverse programmes that will ensure that local communities have access to livelihoods opportunities but in tandem with maintaining the outstanding universal value (OUV) of the property. These include the Community Based Natural Resources Programme (CBNRM), Poverty Eradication Programme, Youth Empowerment Schemes & Youth Development Fund, Funding programmes such as Citizen Entrepreneurship Development Agency (CEDA), Technical Capacity Building programmes for small enterprises through Local Enterprise Authority (LEA) and the revision of the Tourism Policy of 1992 to provide opportunities for citizens to participate in the tourism sector. It is important to note that the Poverty Eradication Programme supports small enterprises in different sectors such as agriculture, tourism, catering, ICT to name a few.

Funding and technical expertise for these programmes is provided through government departments and, parastatals and Non-governmental organizations. It is also important to note that these are ongoing initiatives and the State Party is committed to reviewing them and expanding and strengthening them to ensure that they are sustainable and continue to benefit local communities but at the same time they do not adversely affect the OUV. Attached is a table which details nature and impact of on-going livelihood projects local communities and citizens in the Okavango Delta.

Implementing livelihoods programmes faces multiple challenges such as lack of resources, transport and human resources, and lack of commitment by local communities and citizens in sustaining the projects. These also include misuse of funds by those funded especially the youth and the collapse of Community Based Organizations (CBOs). Also one major concern raised by local communities is the new developments in the implementation of the CBNRM programme.

At the time of inscription, local communities were directly managing and using natural resources through their CBOs through Head Leases for Controlled Hunting Areas (CHAs) or concessions granted to them in the Okavango Delta, which would empower them to utilize and manage natural resources. As such, they were engaged in non-consumptive tourism and some of them had entered into partnership with Private Tourism Operators or have been running the business venture themselves. The new development of 2014, in which local communities will no longer sign Head leases with the Land Authority, Tawana Land Board, has changed this arrangement. As of now, the Department of Lands, representing Government will sign such concessions directly with the Tour Operators. This, according to local communities, has resulted in them being disempowered as they no longer have direct control and management of the natural resources. The process of introducing new leases has delayed and has led to most CBOs not operating for almost a year while local communities believe that they have lost a lot of benefits they used to get through CBNRM.

The new development of 2014, in which local communities will no longer sign Head leases with the Land Authority, Tawana Land Board, has changed this arrangement. As of now, the Department of Lands, representing Government will sign such concessions directly with the Tour Operators in consultation with the MEWT. A leading motivation behind the change in structure of the leases was that some fortunate CBOs operated in areas of rich natural resource whilst other CBOs in the country do not have the same asset.

Accordingly the change in lease structure facilitates the Tourism Development Fund which supports a fairer distribution of wealth amongst a greater number of CBOs. This can be evidenced through the work done by the Botswana Tourism Organisation (BTO) in assisting CBOs to establish non-consumptive tourism related businesses in areas where previously the CBOs had very little opportunity. This process is on-going and will continue to be supported by the Tourism Development Fund and wealthier CBOs. The State Party, through the Ministry of Environment, Wildlife & Tourism continues to engage with local communities and the traditional leaders to create awareness on non-consumptive tourism which is particularly starting to show results through the seven pilots projects facilitated by the BTO across the country. BTO also negotiates better royalties and management fees on behalf of the communities to ensure better benefits and above all more employment opportunities.

#### 7.5.2 Cultural heritage in the Okavango Delta

While the Okavango Delta was inscribed on the World Heritage list as a natural site, and had the support of all the stakeholders, including indigenous and local communities, the State Party acknowledges the request from indigenous people and local communities to consider cultural heritage aspects of the property. Also, during the evaluation mission by IUCN, indigenous and local communities raised this issue. The indigenous people further submitted a request to the

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State Party through the World Heritage Centre, requesting that the State Party addresses this issue by either nominating the site as a mixed site (including cultural components) or incorporating the cultural heritage in the management plan of the property. At this stage, the State Party was requested to respond to the issue and supplementary information was lodged with the World Heritage Committee. The State Party continues to have discussions with indigenous peoples on how to address the issue. Indigenous peoples also had a workshop in Maun in March 2015 to discuss the implications of the World Heritage status on their cultural heritage, traditional and access user rights to their traditional landscapes.

In mitigation, the State Party continues to engage indigenous peoples and local communities, their traditional leaders and other stakeholders such as the University of Botswana (ORI), government departments, and non-governmental organizations to implement a holistic research programme that can inform the mutual decision that can inform whether the cultural components would meet the requirements of World Heritage, and more importantly generating information for assisting in the management of the property. The State Party, in agreement with all stakeholders resolved that a holistic research in the diversity of the cultural heritage of the indigenous peoples and local communities of the Okavango delta should be conducted to inform the way forward in 2016/17. Preliminary or desktop processes will be conducted in collaboration with local communities. It is important to note that the indigenous peoples are already prepared to engage in the project. The research output will inform as to what heritage needs protection, what access rights should be respected, and how its promotion can benefit the indigenous people and local communities. The State Party will further engage indigenous communities to ensure that there is common ground and ownership of the project by all stakeholders. The main challenge is that this is a new project that will require a lot of resources such as funding and human resources. The State Party is committed to sourcing funding together with stakeholders and is also committing its existing resources to make the project a reality in a phased approach.

Attached is a detailed action plan for implementing this research project.

## **7.6 Address a range of other protection and management issues**

**Continue efforts to address a range of other protection and management issues including governance, stakeholder empowerment, management planning, management capacity and control of alien invasive species;**

### **7.6.1 Governance and Coordination**

While progress has been made in maintaining the state of conservation of the property, the State Party acknowledges that the governance and coordination framework of the site is an area

requiring urgent attention in implementing the ODMP, and any subsequent conservation plans. As part of this process, the State Party, through the support of SAREP undertook a study tour to Namibia to learn about their governance structure with the aim of improving the effectiveness of the Okavango Delta Wetlands Management Committee (OWMC).

In order to take this issue to a point of resolution by the relevant stakeholders, the OWMC Secretariat is working with the Kalahari Conservation Society (KCS) to review the governance and coordination framework of the site including considering the recommendations of the study tour to Namibia. Thereafter, a recommendation will be made on the most effective and sustainable governance and coordination framework for approval by all concerned parties. A record of this meeting of the 3<sup>rd</sup> December 2015 including the decision thereof, subject to approval by relevant stakeholders will be submitted as supplementary evidence before the 1<sup>st</sup> of February 2016) or as part of the next SOC report.

Attached is an action plan by KCS and MEWT on addressing this issue.

#### 7.6.2 Stakeholder Empowerment

The State Party continues to empower the different stakeholders in the conservation of the site, but coordination remains a challenge but will be addressed through the governance and coordination process outlined above.

#### 7.6.3 Management Planning

At the time of inscription, the State Party submitted the Okavango Delta Management Plan (ODMP) of 2008. The ODMP was developed as part of the Ramsar requirements following inscription of the Okavango Delta as a Ramsar site in 1997. It is a framework management plan that guides the use and management of the Okavango delta and as such specific plans for different sectors have been developed. The implementation of the plan is coordinated by the Department of Environmental Affairs (DEA) through the Okavango Wetlands Management Committee (OWMC). The ODMP was reviewed in 2011 and a report produced in 2012 to evaluate its effectiveness in terms of implementation and what has been achieved which now forms the basis of the implementation of conservation plans at the site. The evaluation of the ODMP revealed that a lot has not been done in terms of implementation and that the institutional structures are not effective in monitoring implementation of the plan, a matter to be resolved through the Governance and Coordination framework.

The State Party remains committed to implementing the ODMP developed in 2008 and reviewed in 2012 but also recognizes the existence of other action plans being implemented by other

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stakeholders in a concerted effort to improve the conservation of the site. Given that the ODMP will expire in 2017, stakeholders have agreed that the review of the ODMP, including the integration of the parallel action plans by other stakeholders will start in 2017 to produce an integrated ODMP for the property. The Integrated plan will also include the management of the cultural heritage components as requested by the indigenous people and local communities.

#### 7.6.4 Control of Invasive Species

At the time of inscription, alien invasive species were identified as one of the threats to the property especially *salvinia molesta*. The State Party indicated preventive and biological measures put in place to control alien invasive species in the Okavango delta. The State Party remains committed to addressing the issue as an on-going process. The Aquatic Vegetation Control Unit (AVCU) is specifically mandated to deal with the issue in the Department of Water Affairs in Maun. The Department of Water Affairs have increased staff capacity with an additional four new members for the Hydrology and Aquatic sections in an effort to improve implementation of the measures and to do monitoring.

Attached is the report from the Department of Water Affairs (DWA) showing the biological controls and monitoring being implemented, and their impact in controlling alien and invasive species. The report does not only cover control of Alien invasive species, but also hydrological monitoring, waste water management and pollution control, water quality monitoring and water levels monitoring in the World Heritage property. It also covers emerging threats such as hydrocarbons and waste water contamination which were not observed at the time of inscription and the interventions being put in place by the State Party.

#### 7.6.4 Staffing and Resources

The State Party is committed to committing resources for the protection and management of the Okavango Delta as its obligation to the World Heritage Convention. Since April 2014, the Ministry of Environment, Wildlife & Tourism has purchased a fleet of vehicles for all its departments in the Ngamiland area so as to strengthen management and monitoring of the site. The State Party will further rationalize its staff to ensure some of them are deployed into the district, especially those in the DWNP at Moremi Game Reserve and regional office, DEA, DNMM & DWMPC, DOT and BTO which are key to the management of the site. The Ministry will further engage other departments which are crucial such as DOM to avail more resources for monitoring of mining and prospecting outside the property under the new governance and coordination framework being developed in consultation with all stakeholders.

### 7.6.5 Funding for the Conservation Plans

While funding remains constrained for most Departments of Government involved in the management of the property, the State Party remains committed to securing funding for the implementation of the ODMP and issues raised by the World Heritage Committee. The Ministry of Environment, Wildlife & Tourism (MEWT), through its National Environmental Fund (NEF) will support implementation of some of the activities. It will also seek funding through other available government funding programmes such as those from Ministry of Youth, Sports & Culture, Ministry of Local Government, Poverty Eradication Programme and the Ministry of Agriculture. The State Party will also seek assistance from its partners locally and internationally. Finally, government departments will continue to implement other activities through their normal budgets as part of their annual plans and these will be prioritized starting 2016/2017 financial year.

## 8.0 ILLUSTRATIVE MATERIALS

Below is the list of attachments accompanying this SOC report;

1. SAREP Concession Monitoring Protocol 2014
2. Guides Event Book
3. Office Register
4. SAREP Invasive & Alien Invasive species report
5. Table showing programs and projects on citizen empowerment
6. Revised Tourism Policy 2013
7. Department of Water Affairs report
8. Kalahari Conservation Society (KCS) – An trans-disciplinary Action Plan to secure the Okavango Delta
9. Action Plan for implementing Research on the Cultural components of the property

## 9.0 CURRENT CONSERVATION ISSUES

This SOC report notes the following emerging and potential threats to the OUV of the site;

### 9.1 Feasibility study for water augmentation by Namibia

Namibia has informed other Member States involved in the management of the Delta, as a shared resource, about the ongoing feasibility study for water augmentation to the central Namibia.

Central Namibia is experiencing one of the worst period of water shortage. This feasibility study is examining options for water augmentation either through inter-basin transfer from the Okavango, or via ground water exploration (Namibia has recently discovered a huge ground water aquifer in the northern part of country/Cuvelai basin) or through desalination of sea water. Sea water desalination in Namibia is already taking place but, mostly to supply water to the uranium mining processes. The option of inter-basin transfer also indicates that, if done, it needs only 1 to 2% of the annual flow from the Okavango that would be pumped only during the peak flows. The pumped water would subsequently be stored on the ground by ground water recharge mechanisms. The feasibility study is still underway and once concluded, proper notification processes, will be done depending on the option selected to all Member States.

The State Party will inform and update World Heritage Committee, on the results of the feasibility study and implications on the Okavango Delta as a shared resource for Angola, Botswana and Namibia.

## 9.2 Irrigation project in Angola

There is viral information circulating around the media on the so called “CHINA 500,000ha for irrigation land”, supposedly being implemented by Angola. This has neither been confirmed by Angola nor brought to the attention of Member States concerned. The only concept document in the possession of OKACOM, is the recently approved “*Plano de Gestão Integrada dos Recursos Hídricos da bacia do Cubango*”. This is the only official document that has been formally communicated to all parties. Records of the meeting and the digital version of concept document are available at OKACOM.

Once the information on the alleged Irrigation project is verified or confirmed by the State Party concerned as part of managing the shared resource, this will be shared with the World Heritage Committee.

## 9.3 Tourism Development Node

Angola has informed other Member States about the proposed development node, “*Polo do Desenvolvimento Turístico do Cuando-Cubango*” (Tourism Development Node). It is being implemented along the Cuito River all the way up to its confluence with the Kavango in Dirico. The ambition of this initiative is to take advantage of the intensive international tourism influx from Etosha to Victoria Falls up to the Okavango Delta. Through this project, Angola intends to build an upper class tourism facility in the section of Cuito to capture international visitors as part of a national strategy for tourism. This tourism node initiative is being directly driven by the Presidency of Angola. This initiative fulfills the OKACOM desire to promote some sort of a

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trans boundary tourism venture from the source of the delta all the way to Botswana. This plan is at an advanced stage and an EIA will be conducted to identify and mitigate potential threats as would be informed by the completed architectural design of the tourism facilities. Angola has shared these designs, including the master planning document, with all concerned Member States; Botswana and Namibia.

Once the EIA is completed by the State Party concerned as part of managing the shared resource, this will be shared with the World Heritage Committee.

## 10. CONCLUSION

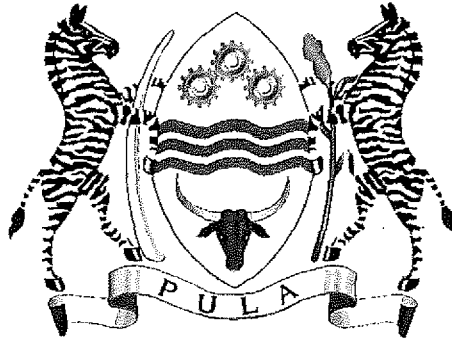
The State Party would like the World Heritage Committee and Advisory Bodies to note the progress made in the implementation of the Decision WHC 38 COM 8B.5 and the ODMP in the overall. Since inscription, the State Party has made the following progress; (i) continued to implement the Okavango Delta Management Plan in order to maintain the Outstanding Universal Value of the property, (ii) developed protocols for wildlife monitoring in the Okavango Delta through the support of SAREP, including a web-based portal for analyzing the data, (iii) relinquished all the prospecting licenses in the core area and has not renewed most licenses in the buffer zone except 9, of which 2 of these are folios (at application stage), (iv) continued and expanded implementation of livelihoods programmes in the Delta, (v) progress made in consulting the indigenous peoples on cultural heritage related issues, (vi) progress made in addressing the governance, stakeholder and coordination issues for the effective management of the property, and (vii) the continued control and monitoring of alien invasive species within the property.

The State Party would also like the World Heritage Committee and Advisory Bodies to note the following challenges; (i) little progress made in establishing population baseline for key species due to lack of resources but this is now earmarked for 2016/17, (ii) limited resources (financial and human resources) for implementing conservation programmes as outlined in the ODMP, (iii) challenge of dealing with outstanding prospecting licenses in buffer zone, which can be renewed up to 7 years, in terms of the existing laws, (iv) new developments in the implementation of CBNRM, which seems to take away the privileges local communities used to have under the old arrangement, and (v), the ineffective coordination for the implementation of the management plan which is still a challenge due to lack of capacity and resources.

The State Party looks forward to continue working with all national and international partners in maintaining the outstanding universal value of ODWHS.

"CCC 12"

**STATE OF CONSERVATION REPORT  
OKAVANGO DELTA NATURAL WORLD HERITAGE SITE, BOTSWANA  
(N1462)**



**REPUBLIC OF BOTSWANA**

**BY THE GOVERNMENT OF THE REPUBLIC OF BOTSWANA  
DEPARTMENT OF NATIONAL MUSEUM & MONUMENTS  
MINISTRY OF ENVIRONMENT, NATURAL RESOURCES CONSERVATION &  
TOURISM**

Report Developed by State Party of Botswana

NOVEMBER 2017

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## **Executive Summary**

This report serves to address the issues and recommendations raised by the WHC Decision 40 COM 7B.78 and specifically paragraph 9 that requested Botswana to submit an updated report on the state of conservation of the property. Okavango Delta, located in north-west of Botswana was inscribed on the World Heritage list in June 2014 under natural criteria; (vii), (ix) & (x). The Okavango Delta Management Plan guides the management of the site.

Since the last state of conservation report submitted in November 2015, consultations have been held with key stakeholders among them; Department of Environmental Affairs (DEA), Department of National Museum & Monuments (DNMM), Okavango Research Institute (ORI) to address issues and recommendations raised by the WHC Decision 40 COM 7B.7.8.

As stated in the last state of conservation report, the State Party has continued to implement the Okavango Delta Management Plan in order to maintain the Outstanding Universal Value of the property. The State Party acknowledges the analysis and conclusion of the World Heritage Centre and Advisory Bodies (IUCN), which states that although the ODMP of 2008 provide a management framework for the area, it pre-dates the property's inscription on the World Heritage list. It further acknowledges that many of its prescriptions have not been implemented, and the institutional arrangements for its implementation have proved to be ineffective, hence the need to review the plan. The State Party has therefore started the process to review the plan and has made progress though it's still at an early stage of tendering. Funding towards the review of the plan has been provided through UNESCO International Assistance to the amount of USA Dollars 27, 080 (270,000 Pula). The State Party has availed funds amounting to USA Dollars 54,000 (540,000 Pula) towards the review. The State Party continues to seek more funding towards the review.

It is anticipated that some of the issues and recommendations raised by the WHC Decision 40 COM 7B.78 among them; integration of wildlife monitoring protocols in the systematic wildlife monitoring programme, management effectiveness, governance as well as access, cultural rights, and benefits will be addressed in detail in the revised management plan.

Through the OKACOM structures, the three riparian states of Angola, Botswana and Namibia are working closely to ensure that any proposed major developments within the Okavango watershed which may adversely impact the OUV of the property are subject to EIAs in conformity with IUCNs World Heritage Advice Note on Environmental Assessment. One of the important milestone in addressing this issue is the commissioning of a consultancy to develop guidelines for 'Assistance to implement the SADC Protocol on shared watercourses by the Permanent Okavango River Basin Water Commission's Member States' Focus: Notification and Prior Consultation of Planned Measures According to Article 4(1) of the SADC Revised Protocol.

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The SADC Revised Protocol on shared watercourses (2000) legally guides the management of shared water resources in the region of Southern Africa, including the OKACOM member states of Angola, Botswana and Namibia. Article 4(1) of the SADC Revised Protocol on shared watercourses, addresses mandatory notification of planned measures undertaken in any riparian state in cases where such measures hold potential to cause 'significant adverse effects'. A coordinated mechanism of this nature to be applied at the basin-wide Cubango-Okavango scale will go a long way in ensuring the effective monitoring of major developments that have potential to impact on the OUV of the property. OKACOM is also in the process of developing a state of conservation report/study for the wider Cubango-Okavango river basin. This is very crucial in that understanding of the state of conservation of the wider Cubango-Okavango River basin gives more insight into the state of conservation of the property. Since these are ongoing developments, the State Party will update the World Heritage Centre and Advisory Bodies (IUCN) on progress made and continue to seek advice and guidance where necessary.

Regarding prospecting licenses in the core and buffer zone of the property, the State Party has made progress in addressing the issue. Currently there are no prospecting licenses in the core zone. Negotiations with companies holding prospecting licenses within the buffer zone have been concluded and the company Gcwihaba Resources (Pty) Ltd had agreed in principle to relinquish all the prospecting licenses in the buffer zone and others that are outside the buffer zone. Currently there are no prospecting licenses in the buffer zone. The State Party will continue to monitor prospecting and mining activities outside the buffer zone to ensure that they do not impact on the OUV of the property.

Despite all these efforts, the State Party still faces challenges of limited resources (Financial & human resources) for implementing conservation programmes as outlined in the ODMP and the Wildlife Conservation Research Strategic Plan and the National Biodiversity Strategy and Action Plan. Planned activities such as conducting annual aerial surveys have not been implemented due to limited funding.

## **Introduction**

This report serves to address the issues and recommendations raised by the WHC Decision 40 COM 7B.78 and specifically paragraph 9 that requested Botswana to submit an updated report on the state of conservation of the property. Okavango Delta, located in north-west of Botswana was inscribed on the World Heritage list in June 2014 under natural criteria; (vii), (ix) & (x). The Okavango Delta Management Plan guides the management of the site.

## **WHC Decision 40 COM 7B.78**

***Para 3: Conclude negotiations with remaining licenses to terminate all prospecting activities within the property's buffer zone. Continue monitoring and managing prospecting licenses and mining operations outside the buffer zone so as to avoid any adverse impacts on the property***

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As stated in the state of conservation report of November 2015, there were ten (10) prospecting licenses for various mineral commodities within the buffer zone. The licenses were held by Baobab Resources (Pty) Ltd, Hana Ghanzi Copper (Pty) Ltd and Gcwihaba Resources (Pty) Ltd as per the table below. Currently there are no prospecting licenses in the core zone.

| PL No.     | Expiry Date | Status  | Commodity | Location | Company  | Remarks            |
|------------|-------------|---------|-----------|----------|----------|--------------------|
| EL154/2012 | 30 Sep 2016 | Expired | Petroleum | Buffer   | Baobab   | Expired            |
| 185/2013   | 30 Sep 2016 | Expired | Metals    | Buffer   | Hana     | Relinquished       |
| 393/2008   | 30 Jun 2018 | Active  | Metals    | Buffer   | Gcwihaba | To be relinquished |
| 394/2008   | 30 Jun 2018 | Active  | Metals    | Buffer   | Gcwihaba | To be relinquished |
| 395/2008   | 30 Jun 2018 | Active  | Metals    | Buffer   | Gcwihaba | To be relinquished |
| 093/2012   | 31 Mar 2015 | Expired | Metals    | Buffer   | Gcwihaba | To be relinquished |
| 094/2012   | 31 Mar 2015 | Expired | Metals    | Buffer   | Gcwihaba | To be relinquished |
| 095/2012   | 31 Mar 2015 | Expired | Metals    | Buffer   | Gcwihaba | To be relinquished |
| 096/2012   | 31 Mar 2015 | Expired | Metals    | Buffer   | Gcwihaba | To be relinquished |
| 097/2012   | 31 Mar 2015 | Expired | Metals    | Buffer   | Gcwihaba | To be relinquished |

Most of the prospecting licenses held by Gcwihaba Resources (Pty) Ltd ("Gcwihaba") have expired, but the company had lodged applications for renewal. The renewal applications were however delayed due to uncertainty over existence of prospecting licenses over the World Heritage property.

We have had discussions with Gcwihaba with regards to the licenses that sit within the buffer zone, and Gcwihaba has agreed in principle to relinquish all the licenses in the buffer zone and others that are outside the buffer zone. In the spirit of fairness and compromise, Gcwihaba has proposed that the other prospecting licenses that are located to the south-west of the pan-handle, where there is an auspicious deposit of magnetite, be renewed in their entirety with a new lease of life with effect from 1<sup>st</sup> January 2018. The Department of Mines is amenable to the proposal by Gcwihaba, and all the licenses in the buffer zone will be removed (see attached map).

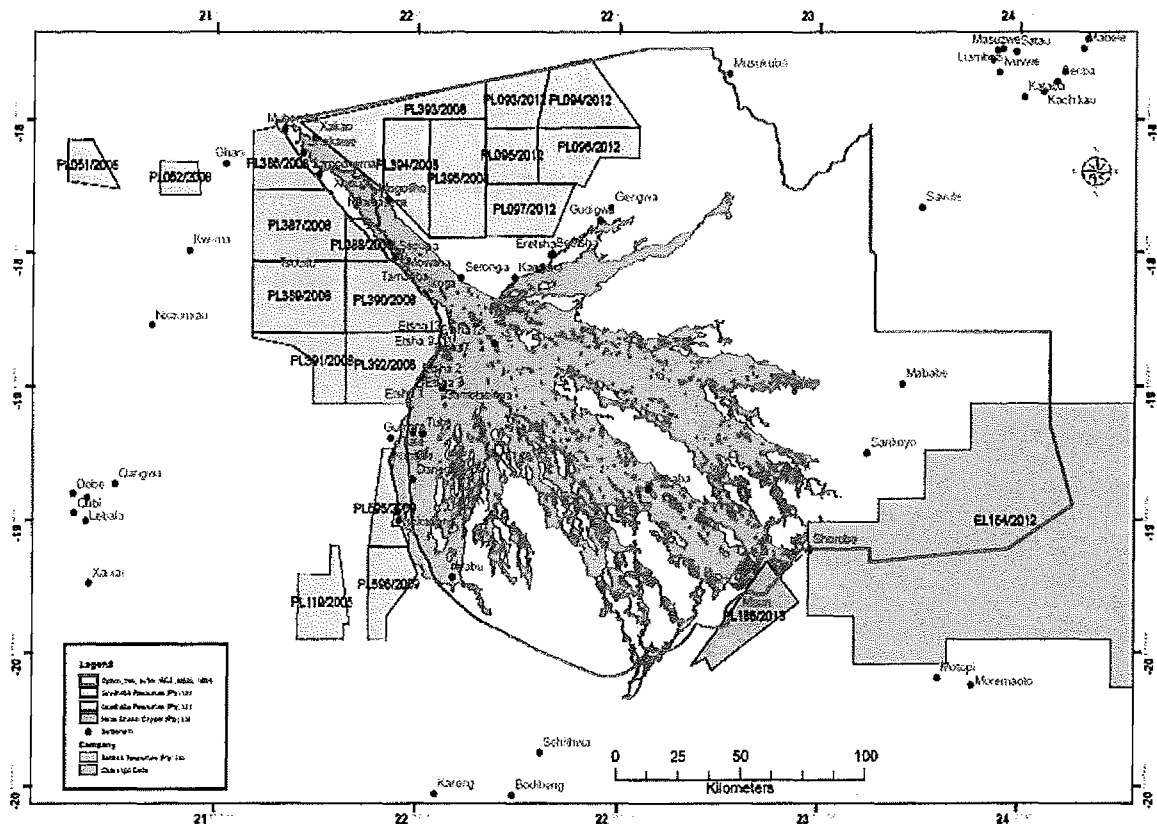
Map summary:

- Gcwihaba licences in Pink – all to be relinquished.
- Gcwihaba licences in Green – all to be renewed effective January 2018.

This effectively means that in January 2018, there will be no prospecting licenses in the buffer zone.

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**Para 5: Integrate wildlife monitoring protocols in the systematic wildlife monitoring programme, which will include replicable aerial surveys across the entire property to establish population baselines for key species and to track long-term trends**

The Department of Wildlife and National Parks has approved and begun to implement the Wildlife Conservation Research Strategic Plan (2014-2020). The focus of the Strategy is to provide science based information on wildlife conservation and management options and to develop wildlife research capacity in DWNP and associated research partners. Collaboration between DWNP and organizations which are active in the Okavango Delta such as the Okavango Research Institute and independent researchers continues to intensify. A number of research projects focusing on elephants, large carnivores and large antelopes are ongoing.

The Department is mandated to undertake annual countrywide aerial census. The last country wide aerial survey was conducted in 2012, followed by the Northern Botswana survey in 2013. It is noteworthy to highlight that Elephant Without Borders conducted a survey in Northern Botswana in 2014, under the Great Elephant Census project. Private concessionaires and independent researchers have also carried out aerial surveys in NG25 and NG11 to complement the Department's aerial surveys.

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Private concessionaires in the core area of the property have been undertaking bi-annual ground herbivore counts to augment aerial surveys. The data collected is yet to be integrated into the Web-based wildlife monitoring system to depict trends in wildlife populations and other environmental factors. It is anticipated that the database will be fully functional by the beginning of 2018.

Funding for research and monitoring continues to be an impediment to DWNP to fully undertake its mandate of monitoring other taxa. Technical and financial support is required to assist to implement the Wildlife Conservation Research Strategic Plan and the National Biodiversity Strategy and Action Plan.

**Para 6: Management effectiveness, governance, as well as access, cultural rights and benefits.**

***a) Continue efforts to rationalize veterinary cordon fencing, including through the EIA.***

In the last state of conservation report of November 2015, it was reported that the State Party will commission an EIA that will assess the effects of the fences and its impacts on wildlife species in the Okavango Delta for the financial year 2016/2017. This has not been achieved due to limited financial resources. The State Party will continue to make efforts to secure funding to address the issue.

***b) Expand and strengthen programmes which accommodate traditional resource use for livelihoods, user access rights, cultural rights and access to opportunities to participate in the tourism sector in keeping with the property's Outstanding Universal Value (OUV).***

As stated in the previous state of conservation report for November 2015, the State Party continue to expand and strengthen programmes which accommodate traditional resource use for livelihoods, user access rights and access to opportunities to participate in the tourism sector through the Community Based Natural Resource Programme. Despite the ongoing efforts, a more detailed review of the CBNRM programme will be conducted during the review of the management plan to strengthen the programme and even come up with new initiatives that will improve access to opportunities for local communities to participate in the tourism sector. The Community Based Natural Resources Management (CBNRM) Programme was initiated in the early 1990s with communities within the Okavango Delta area being some of the first to be involved with the programme. In 2014 the government introduced two major policy changes within the CBNRM implementation being the suspension of hunting and the Land Bank Initiative. The suspension of hunting was introduced due to a concern for the dwindling wildlife populations. The measure was put in place to ensure the long term sustainability of wildlife species which the backbone of the tourism industry. Communities through the support from the Ministry of Environment Natural resources and Conservation to engage in non-consumptive

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tourism. Some of the community Trust were affected due to a loss in revenue that used to come from the hunting.

The government through the Botswana Tourism Organization has facilitated and assisted community Trusts within the Okavango delta to identify and find investors for their concession areas. This was done as a way of facilitating communities to transition from hunting to non-consumptive tourism. The process of finalizing the leases for the new investors took longer than expected as tourism land management was transferred from the Ministry responsible for Lands issues to the Ministry of Environment Natural Resources Conservation and Tourism and there was a necessity for institutional rearrangement. The communities have now started realizing the benefits and getting proceeds from land rentals of their concession areas. Some of the proceeds from have been used by the communities for improvement of their lives. The revenue accrued from the land rentals is used to implement social up-liftment programs in rural areas. Some of the benefits that have been realized through the CBNRM program for these areas include;

- Employment opportunities
- Investment in better housing and sanitation for the communities
- Water reticulation
- Funding for social services
  - Destitute support programs
  - Old age & and disability support programs
  - Support for vulnerable children
  - Scholarships for local community members

The CBNRM programme faces challenges mainly of poor governance by the Community Trusts. However this is being addressed through capacity building and also assisting the Trust to hire their own managers and accountants who will be responsible for the running of the organizations.

The issue of cultural rights, recognizing the cultural heritage of local communities within the World Heritage property will be addressed through the review of the management plan. A major activity within the plan will be to conduct research on the cultural heritage of the Okavango Delta and incorporate this into the management of the property. The research is also aimed at establishing the significance of the cultural heritage to determine whether it is of Outstanding Universal Value.

***c) Continue efforts to address a range of other protection and management issues including governance, stakeholder empowerment, management planning, and management capacity.***

Protection and management issues affecting the property will be addressed in the revised Okavango Delta Management Plan of 2008. The process to review the plan is at tendering stage

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where the State Party is running a selective bidding for the review of the plan. Funds have been secured for the project and more funds are being solicited by the State Party for the project.

### **Control of alien invasive species – *Salvinia molesta* Mitchell**

The mitigation measure for salvinia control has been in place in the form of the host-specific biocontrol agent (salvinia weevil), *Cyrtobagous salviniae* Calder and Sands. With established policy, the Aquatic Vegetation Control Unit (AVCU) of the Department of Water Affairs (DWA) thrives to assess the salvinia control biologically as well as applying physical control where ever is required and warranted. Due to accessibility problems, the number of salvinia monitoring sites has been revised in 2017 and brought down to 57 from 66 sites. The salvinia weevil has been well established in almost 56 sites except in Thamalakane River. The aim of the biocontrol program is not to eradicate the weed, but to reduce abundance to the level where it no longer cause a problem. Small residual mats of salvinia will continue to harbor the weevils.

No thick and significant infestations of kariba weed (salvinia) were observed in 2016 and 2017 in the Okavango Delta except in outflow Thamalakane River. Salvinia increased its infestations by 2016 in Thamalakane River due to flooding and high rainfall, which demanded the release of salvinia weevil. The salvinia weevil took nine months to establish in the infestations all along the river for 6 km distance. Presently the mat damages have been found significantly and sinking of the mat is obviously seen in most of the areas. It is expected that the control might be achieved by January 2018 in the river. A large lagoon connected to Khwai River at Mababe village was also brought under control biologically in 11 month period in 2016/17 (Figure 1). No complaints of difficulty in navigating streams and rivers due to salvinia blockages were reported. Tourists are secured through our sustainable efforts in implementing biocontrol mechanism for the weed.

The Aquatic Weed (Control) Act implemented on 24<sup>th</sup> October 1986 is a sustained program to regulate the Boat Inspection, Boat movement and Importation, aquatic apparatus, and fishing gear, to prevent the importation and spread of aquatic weeds. More than seven cases of boat importation without proper papers were advised not to enter the Botswana border from neighboring countries. The disinfection of BDF Boats with herbicide has been transferred and entrusted to the Botswana Defense Force in Maun since September 2017. The Tourist Operators have managed to control salvinia infestations in Moremi Game Reserve in 2016 through our technology transfer programs. Most of the new recent infestations are man-made through fishing activities. Therefore, DWA's big challenge is to control fishing in vulnerable areas of salvinia infestations, even though DWA continuously conduct public awareness meetings with the communities.

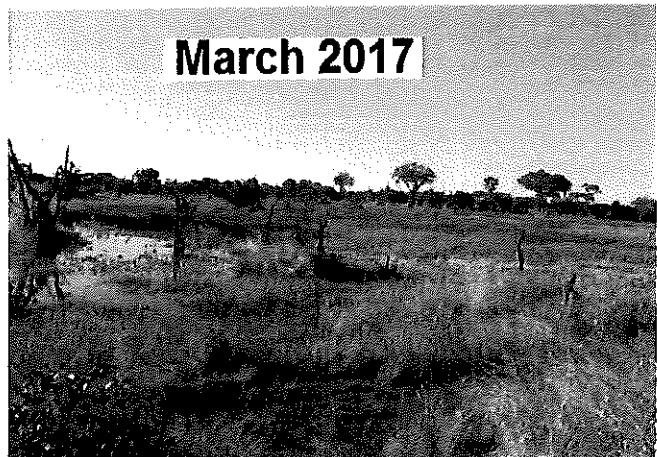
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Maun DWA systematic water quality program started in 2015 has been progressively going on well. The chemistry results show that the contaminations from the lodges were not noticed and water quality was found to be in compliance with BOS 32:2015 standard. However, a simple case of likely pollution was detected in Maunachira River at the boat harbor of Xakanaxa, which

**October 2016**



**March 2017**



was attended and controlled on time.

Figure 1: Biological control achieved by March 2017 in Mababe Lagoon

**Para 7: *Submit the revised management plan for review by the World Heritage Centre and IUCN prior to its approval***

The process for the review of the management plan is ongoing. Funding has been secured from UNESCO International Assistance fund and the State Party National Environment Fund (NEF). The State Party is in the process of soliciting more funds for the project

**Para 8: *Potential impacts of water resource management in Angola and Namibia. State Parties of Botswana, Angola and Namibia to liaise closely to ensure that any proposed major developments within the Okavango watershed which may adversely impact the OUV of the property are subject to EIAs in conformity with IUCN's World Heritage Advice Note on***

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***Environmental Assessment; these EIAs should be submitted to the World Heritage Centre and IUCN for review prior to taking any decisions that would be difficult to reverse***

Through the Permanent Okavango River Basin Water Commission Agreement of 1994, and as mandated by the SADC Protocol on Shared Watercourses, the riparian states of Angola, Botswana and Namibia work closely to ensure that they notify each other of any proposed major developments within the Okavango watershed which may adversely impact the OUV of the property and are subject to EIAs. However, this is a challenge as the 1994 Agreement of the Permanent Okavango River Basin Water Commission (OKACOM) does not directly address the process of Notification and Prior Consultation (NPC) of riparian states regarding planned measures that could cause transboundary impacts. Instead the member states of OKACOM have been addressing notification of planned measures impacting the Okavango-Cubango River Basin through their national legal frameworks, whilst having regard to the relevant provisions of the SADC Protocol. Hence it has not been easy to get information regarding planned developments in each of the three riparian states as there is no coordinated mechanism in place that is applied at the basin-wide Okavango-Cubango scale. OKACOM has therefore commissioned a consultancy to develop guidelines for 'Assistance to implement the SADC Protocol on Shared Watercourses by the Permanent Okavango River Basin Water Commission's Member States' Focus: Notification and Prior Consultation of Planned Measures According to Article 4 of the SADC Revised Protocol. This development will ensure that any proposed major developments within the Okavango watershed which may adversely impact on the OUV of the property are known at an early stage, subjected to EIAs and closely monitored. The situation has not changed with regard to information provided in the state of conservation report of November 2015 on upstream developments. The World Heritage Committee will be informed if there are any new developments regarding the issue.

In conformity with Paragraph 172 of the Operational Guidelines, the State Party would like to inform the World Heritage Centre that the State Party is currently constructing a bridge at Mohembo across the Panhandle area (Okavango River) which is part of the World Heritage property. The project was approved in 2008 and an EIA for the project was prepared in 2009 before the inscription of the site on the World Heritage list hence the omission by the state party to inform the committee of the project. The project is at an early stage having been launched in March 2017.

#### **Mohembo Bridge Construction**

A cable-stayed bridge in Okavango Delta which commenced in November 2016, will cost P1, 045, 510, 751, 77 and will be constructed by Italian Joint venture of Cimolai and Itenira companies the client being the Department of Roads. The project, is expected to run for 36 months and is expected to be completed in July 2019. The civil works comprise the construction of a 1.2km long road bridge, with the left and right banks, main channel, and pedestrian walkways and lighting over the bridge and along 3km of approach road will also be available.

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The Mohebo Bridge will be the first suspended bridge in Botswana and one of the longest - at 1162m - in the Southern African region. The main towers, which are creatively symbolized as elephant tusks, extend some 85m above the bridge deck.

The construction of the bridge addresses the challenges imposed by the existing pontoon service, which is currently unreliable due to unfavorable weather conditions and restricted working hours. It will further boost the economy of the country by making services available to all by reducing crossing time, and also making it feasible for expansion of future road network, integrate tourist attraction sites and other tourism activities.

An Environmental Impact Assessment (EIA) has been carried out and the EIA report prepared in 2009 by Engineering, Hydrological Environmental management Consultants (EHES). Please see attached the EIA Report. The Environmental Management Plan is also incorporated in the EIA report.

The project is being closely monitored as per the requirements of the EIA. In an effort to ensuring commitment to the protection of the Okavango Delta Ramsar and World Heritage site, the client has engaged EHES Environmental consultants as part of the Engineering and Supervisory team to oversee the implementation of the EIA recommendation; to undertake independent environmental studies and monitoring of the project compliance.

In addition to the above, the contractor has employed an environmental officer/ consultant as required by the Contract to ensure and advise the contractor on environmental obligations and liabilities during the construction and operation.

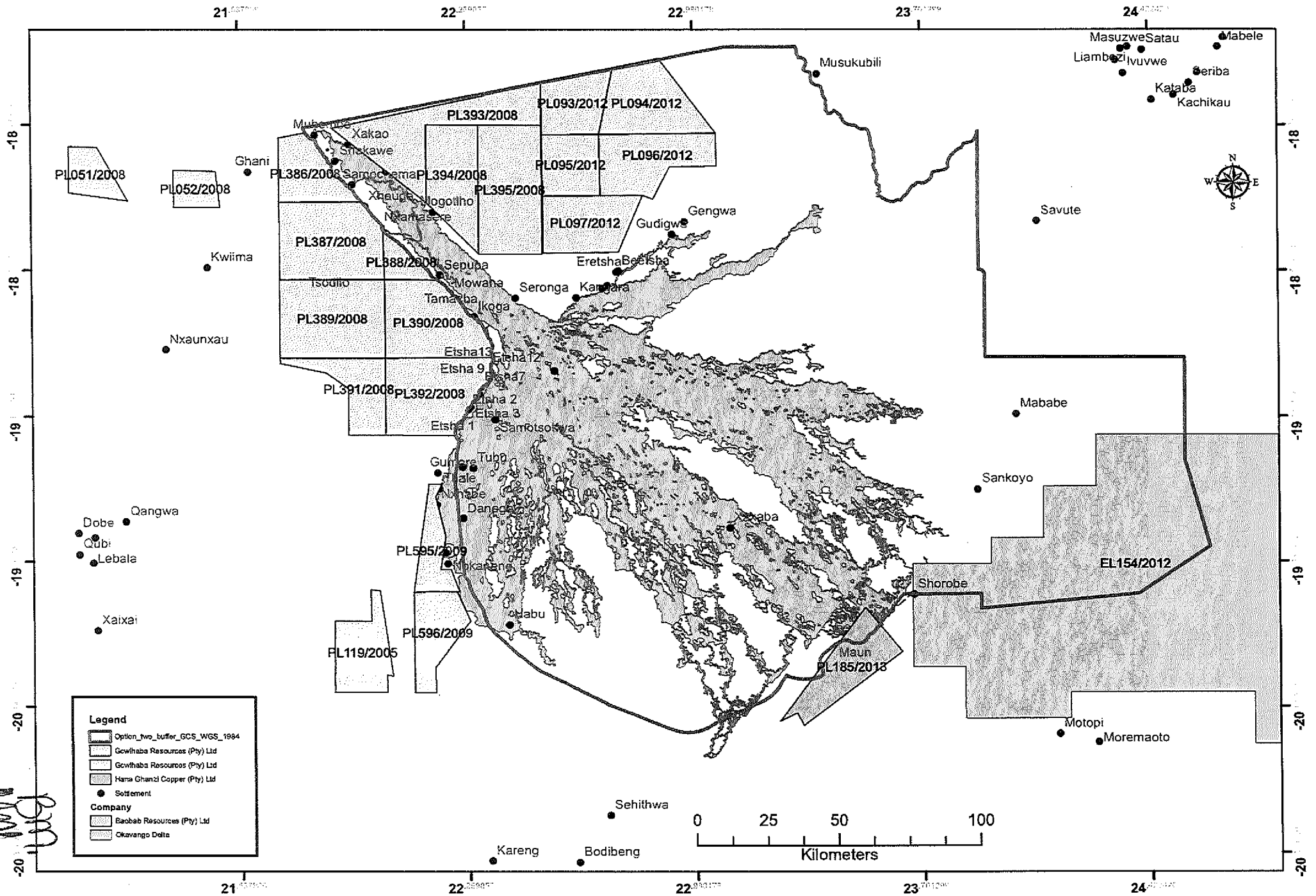
Baseline monitoring of environmental parameters such as Surface water quality, Ecology, Noise quality have so far been done prior commencement of construction activities to provide baseline data for monitoring purposes. This is critical to monitor for any trends (changes attributed to the projects) likely during the construction phase. The State Party will continue to provide updates on the project to the World Heritage Centre and Advisory Bodies (IUCN).

Signed on behalf of the State Party



Mr. Jimmy Opelo  
Permanent Secretary  
Ministry of Environment, Natural Resources Conservation & Tourism







Commissioned By



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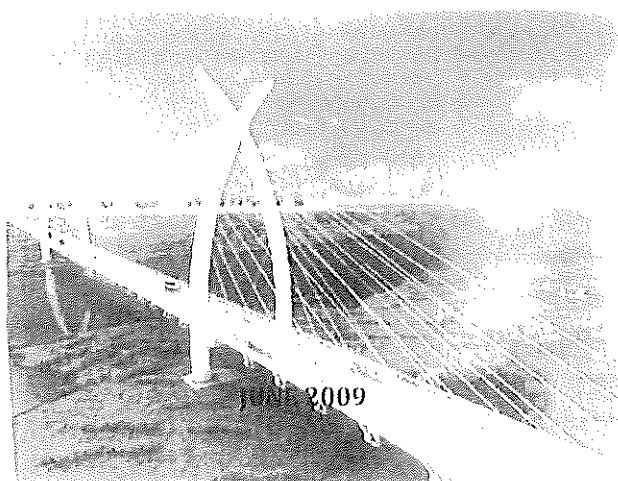
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## FINAL EIA REPORT

### ENVIRONMENTAL IMPACT ASSESSMENT AND CONSTRUCTION SUPERVISION FOR THE OKAVANGO RIVER BRIDGE IN MOHEMBO VILLAGE

TB NO.9/5/152/2001-2002



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## EXECUTIVE SUMMARY

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### Introduction

The Department of Roads (DoR) intends to undertake consultancy services for field investigation, engineering planning /preliminary design, detailed design, preparation of tender documents and construction supervision for Mohembo Bridge across Okavango River. The need for a permanent crossing structure over the Okavango River has been high on the agenda for the Government of Botswana for some time. Currently, a motorized pontoon is the means by which crossing is provided during daytime, from 06:30 to 18:30hrs. Beyond this time period and on occasions when the pontoon is not operational due to mechanical fault, crossing becomes perilous due to wild animals that inhabit the river and any other dangers associated with the river crossing, goods and services cannot be delivered to communities situated to the eastern side of the river in Seronga, Kauxwi etc.

This document presents the Environmental and Social Impact Assessment study for the proposed construction of Mohembo Bridge. The proposed bridge construction is meant to solve the problems mentioned above. Department of Roads engaged CPP Botswana (Pty) Ltd to undertake the engineering consultancy assignment with the view of making recommendation. EHES (Pty) Ltd was engaged as a sub consultant to undertake the EIA study for the proposed bridge project.

### Approach to the EIA Study

The EIA exercise was undertaken under the purview of the EIA, Act 2005 thus the following procedures were followed:

**Preliminary EIA report**, In compliance with Section 3 of the EIA, Act, a Preliminary Environmental Impact Assessment (PEIA) was prepared in connection with the proposed project in February 2006. A desk study and several reconnaissance site visits were undertaken and a report issued to Department of Environmental Affairs (DEA) for approval. DEA instructed that a full EIA study should be undertaking for this project.

**Scoping stage**, DEA therefore recommended that the next stage of the EIA process, which is the Scoping and Public Participation and the development of the Terms of Reference should proceed. Kgotla meetings were arranged for and held in March 2006 and October 2008

at the following villages, Shakawe, Mohembo East, Mohembo West and Seronga village. This involved consultations with relevant stakeholders, government authorities and the general public. The scoping and terms of reference were approved thereby authorizing undertaking of the Impact Assessment stage.

**Detailed EIA Study**, key issues identified at the scoping stage were assessed and present in this report which is final stage. This includes the following potential impacts:-

- ❖ Potential impacts on the river,
- ❖ Potential impacts on the river flow downstream,
- ❖ Potential impacts on ecological aspects,
- ❖ Potential impacts on archaeological sites,
- ❖ Potential impacts on the communities close to the project site,
- ❖ Construction, operations and decommissioning related issues.

The EIA exercise anticipates amongst others the following impacts:

|                    | Negative Impacts   | Positive Impacts   |
|--------------------|--|--|
| <b>Biophysical</b> | <ul style="list-style-type: none"> <li>• River contamination, oils, fumes, tar.</li> <li>• Air pollution due to increased ADT</li> <li>• Borrowing of earth material</li> <li>• Vegetation clearance</li> <li>• Increased sedimentation due to erosion of exposed earth and construction material</li> <li>• Soil erosion</li> <li>• Destabilization of soil</li> <li>• Noise Pollution and vibrations</li> <li>• Destruction of habitat</li> <li>• Impact on cultural and archaeological resources</li> </ul> | <ul style="list-style-type: none"> <li>• Improved river crossing</li> <li>• Prevention of water pollution by the pontoon</li> <li>• Convenient crossing</li> </ul> |

|                       | Negative Impacts  | Positive Impacts   |
|-----------------------|---|--|
| <b>Socio-Economic</b> | <ul style="list-style-type: none"> <li>• Road accidents</li> <li>• Potential spread of HIV/AIDS and other diseases</li> <li>• Work and related accidents</li> <li>• Waste generation</li> <li>• Development of temporary campsites</li> <li>• The 2 pontoons will become redundant</li> <li>• Loss of employment for the pontoon operators</li> <li>• Relocation of properties</li> <li>• Over exploitation of resource materials due to the opening of the area for fish, reeds</li> </ul> | <ul style="list-style-type: none"> <li>• Creation of employment</li> <li>• Reduced traveling and waiting time</li> <li>• Transfer of skills to local employees</li> <li>• Termination of government re-current expenditure on the operation of the pontoon.</li> <li>• Bridge will link well with the proposed road to Seronga.</li> <li>• Potential increase in tourism development opportunities.</li> <li>• Boost to the local economy</li> <li>• Benefits from permanent bridge to other settlements across the river</li> <li>• Reuse of construction materials</li> <li>• Enhanced/improved aesthetics of the surrounding</li> <li>• Increase in property value</li> <li>• HIV/AIDS education</li> </ul> |

### Recommendation

The above anticipated impacts will mostly be experienced during the construction period, and are mostly temporary. With proper mitigation, the significance of these impacts will be much lower, hence not pose a threat to the continuance of the proposed project. Given the above, it is recommended that:

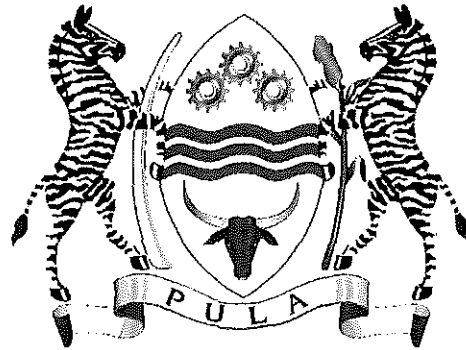
- The proposed bridge project be built at the earliest possible time to alleviate the problems cause by pontoon mainly delays and water pollution.
- Where the project encroaches into peoples' property, compensation issues have to be addressed fairly and compensation

made in a timely manner.

- There should be good coordination between contractors and the communities. This is to ensure that the project is carried out in an amicable atmosphere.
- The EMP should be brought to the attention of all those institutions suggested for monitoring to enable them to plan and play their expected role, especially that the area is a Ramsar site which promote wise use.
- An environmental and archaeologist consultant should be contracted to carry out the environmental supervision of the proposed project in order to ensure that the mitigation measures laid out in this report are undertaken and meet the international standard.
- The contractor should provide protective clothing such as helmets, hand gloves, earplugs, boots, and overalls to the all the workers. This should be enshrined in the contract document.

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**STATE OF CONSERVATION REPORT  
OKAVANGO DELTA NATURAL WORLD HERITAGE SITE, BOTSWANA  
(N1462)**



**REPUBLIC OF BOTSWANA**

**BY THE GOVERNMENT OF THE REPUBLIC OF BOTSWANA  
DEPARTMENT OF NATIONAL MUSEUM & MONUMENTS  
MINISTRY OF ENVIRONMENT, NATURAL RESOURCES CONSERVATION &  
TOURISM**

Report Developed by State Party of Botswana

MARCH 2020

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## **Introduction**

This report serves to address the issues and recommendations raised by the WHC Decision 42 COM 7B.89 and specifically paragraph 9 that requested Botswana to submit an updated report on the state of conservation of the property. Okavango Delta, located in north-west of Botswana was inscribed on the World Heritage list in June 2014 under natural criteria; (vii), (ix) & (x). The Okavango Delta Management Plan guides the management of the site.

Since the last state of conservation report submitted in November 2017, consultations have been held with key stakeholders among them; Department of Environmental Affairs (DEA), Department of National Museum & Monuments (DNMM), Okavango Research Institute (ORI) to address issues and recommendations raised by the WHC Decision 42 COM 7B.89.

As stated in the last state of conservation report, the State Party has continued to implement the Okavango Delta Management Plan in order to maintain the Outstanding Universal Value of the property. The State Party acknowledges the analysis and conclusion of the World Heritage Centre and Advisory Bodies (IUCN), which states that although the ODMP of 2008 provide a management framework for the area, it pre-dates the property's inscription on the World Heritage list. It further acknowledges that many of its prescriptions have not been implemented, and the institutional arrangements for its implementation have proved to be ineffective, hence the need to review the plan. The State Party has therefore started the process to review the plan and has made progress though there have been delays in awarding of the tender. The process is ongoing and currently it is at scoping phase. Funding towards the review of the plan has been provided through UNESCO International Assistance to the amount of USA Dollars 27, 080 (270,000 Pula). The State Party has availed funds amounting to USA Dollars 54,000 (540,000 Pula) towards the review. The State Party has secured more funding towards the review.

It is anticipated that some of the issues and recommendations raised by the WHC Decision 42 COM 7B.89 among them; integration of wildlife monitoring protocols in the systematic wildlife monitoring programme, management effectiveness, governance as well as access, cultural rights, and benefits will be addressed in detail in the revised management plan.

Through the OKACOM structures, the three riparian states of Angola, Botswana and Namibia are working closely to ensure that any proposed major developments within the Okavango watershed which may adversely impact the OUV of the property are subject to EIAs in conformity with IUCNs World Heritage Advice Note on Environmental Assessment. One of the important milestone in addressing this issue is the completion of the development of guidelines for 'Assistance to implement the SADC Protocol on shared watercourses by the Permanent Okavango River Basin Water Commission's Member States' Focus: Notification and Prior Consultation of Planned Measures According to Article 4(1) of the SADC Revised Protocol. Progress has also been made in addressing the World Heritage Committee request of preparing the Strategic Environmental Assessment (SEA) for the Cubango-Okavango River Basin.

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The SADC Revised Protocol on shared watercourses (2000) legally guides the management of shared water resources in the region of Southern Africa, including the OKACOM member states of Angola, Botswana and Namibia. Article 4(1) of the SADC Revised Protocol on shared watercourses, addresses mandatory notification of planned measures undertaken in any riparian state in cases where such measures hold potential to cause 'significant adverse effects'. A coordinated mechanism of this nature to be applied at the basin-wide Cubango-Okavango scale will go a long way in ensuring the effective monitoring of major developments that have potential to impact on the OUV of the property. OKACOM is also in the process of developing a state of conservation report/study for the wider Cubango-Okavango river basin. This is very crucial in that understanding of the state of conservation of the wider Cubango-Okavango River basin gives more insight into the state of conservation of the property. Since these are ongoing developments, the State Party will update the World Heritage Centre and Advisory Bodies (IUCN) on progress made and continues to seek advice and guidance where necessary.

Regarding prospecting licenses in the core and buffer zone of the property, the State Party has made progress in addressing the issue. Currently there are no prospecting licenses in the core zone. Negotiations with companies holding prospecting licenses within the buffer zone have been concluded and the company Gcwihaba Resources (Pty) Ltd had agreed in principle to relinquish all the prospecting licenses in the buffer zone and others that are outside the buffer zone. Currently there are no prospecting licenses in the buffer zone. The State Party will continue to monitor prospecting and mining activities outside the buffer zone to ensure that they do not impact on the OUV of the property.

Despite all these efforts, the State Party still faces challenges of limited resources (Financial & human resources) for implementing conservation programmes as outlined in the ODMF and the Wildlife Conservation Research Strategic Plan and the National Biodiversity Strategy and Action Plan. However, the State Party is happy to inform the committee that it managed to conduct annual aerial surveys in 2019.

## **Introduction**

This report serves to address the issues and recommendations raised by the WHC Decision 40 com 7B.89 and specifically paragraph 9 that requested Botswana to submit an updated report on the state of conservation of the property. The Okavango Delta, located in north-west of Botswana was inscribed on the World Heritage list in June 2014 under natural criteria; (vii), (ix) & (x). The Okavango Delta Management Plan guides the management of the site.

## **WHC Decision 40 COM 7B.89**

***Para 3: Welcomes the cancellation of all petroleum and metals prospecting licenses in the buffer zone and the State Party's commitment to continue monitoring the activities, but noting the location of the alternative licensing zones close to the buffer zone and the property, requests the State Party to ensure that an Environmental Impact Assessment (EIA), including an assessment of potential impacts on the outstanding Universal Value***

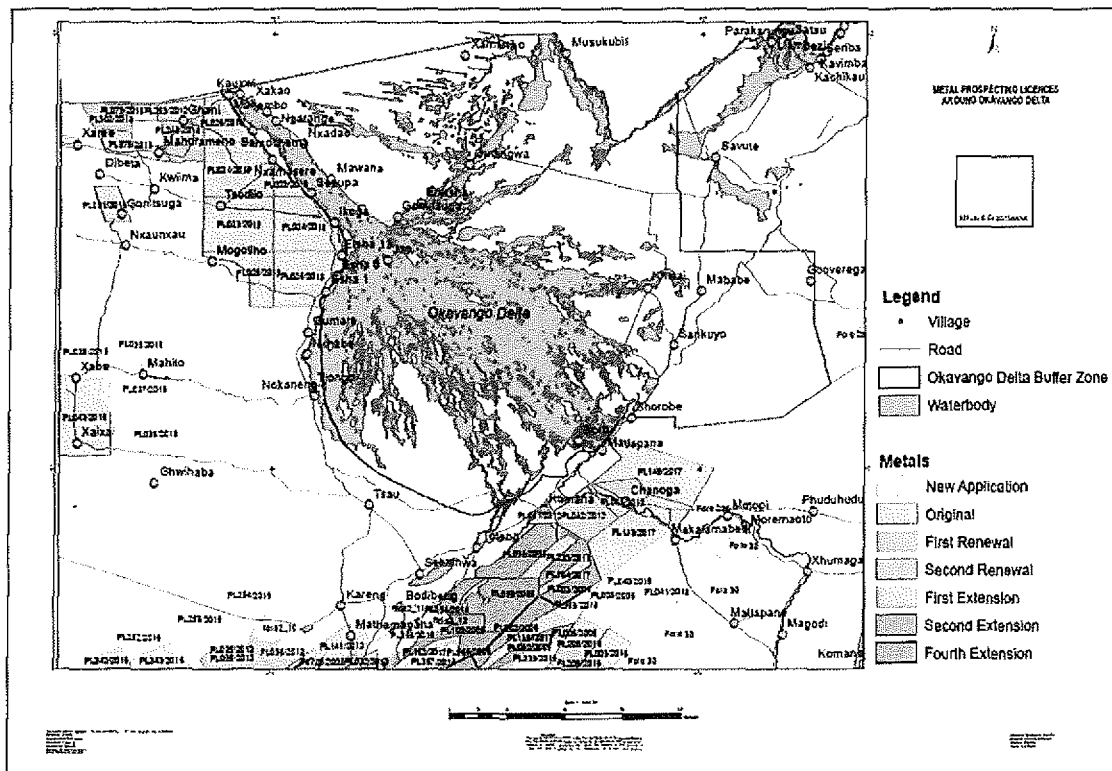
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*(OUV) of the property, is undertaken before any exploration activity is initiated, and submit it to the World Heritage Centre for review by IUCN.*

As indicated in the State of Conservation report of November 2017, that effective January 2018, there will be no prospecting licenses in the buffer zone, the State Party has managed to cancel all the prospecting licenses in the buffer zone and are closely monitoring exploration activities of the alternative licensing zones close to the buffer zone.

Below is a map which shows the current status of prospecting licenses outside the buffer zone of the property,



**Para 4:** *Appreciates the collaboration between the State Parties of Botswana, Angola and Namibia through the Permanent Okavango River Basin Water Commission (OKACOM) to ensure any proposed major development within the Okavango watershed is subject to an EIA, and that there is a coordinated mechanism to notify each State Party of activities that can have transnational impacts;*

**Para 5:** *Taking into account the potential impact on the property's OUV of any development leading to water abstraction within the watershed and the complexity and the extent of the basin, urges the State Parties of Botswana, Angola and Namibia to assess impacts of any development at the strategic level and at the landscape scale through a comprehensive Strategic Environmental Assessment (SEA), in line with IUCN's World Heritage Advice Note on Environmental Assessment.*

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The Permanent Okavango River Basin water Commission (OKACOM) member states, Angola, Botswana and Namibia have noted the importance of undertaking the Strategic Environmental Assessment (SEA) for the Cubango-Okavango River Basin (CORB). This is observed not only will it address the requirements of the World Heritage Convention but address the responsibility that OKACOM has in delivering its mandate related to the sustainable utilization of the resources of the CORB. Therefore, OKACOM has initiated a process to develop the CORB- SEA. The State Party of Botswana presented the proposal to the Okavango Basin Steering Committee (OBSC) which is a technical arm of OKACOM, in December 2019. As of December 2019, the Commission approved that this process be undertaken urgently. The OKACOM Secretariat has initiated the process with soliciting funds for the exercise. Since this is an ongoing process, the State Party will update the World Heritage Committee and Advisory Bodies (IUCN) on progress made and will continue to seek advice and guidance where necessary.

**Para 6: Notes with appreciation the initiation of the review of the Okavango Delta Management Plan in order to reflect the property's World Heritage status, to improve the effectiveness of the institutional arrangements and to address outstanding conservation and management issues, and reiterates its request to the State Party to continue its efforts to:**

- 1. *Expand and strengthen programmes, which accommodate traditional resource use for livelihoods, user access rights, cultural rights and access to opportunities to participate in the tourism sector, in keeping with the property's OUV,***
- 2. *Address a range of other protection and management issues including governance, stakeholder empowerment, management planning, management capacity and control of alien invasive species.***

Despite the tourism industry in Botswana being the 'second largest foreign exchange earner, after diamond mining contributing about 10.4% of the GDP, generating about 25 000 jobs directly in 2016 and 27 000 in 2017, in hotels, travel agents etc. and the tourism activities mainly concentrated in the northern part of Botswana and within the Okavango Delta World Heritage Property, such activities have tended to exclude full participation of local citizens. Although tourism has contributed to employment generation, the challenge is that the jobs for citizens have been of general nature, poor quality and low payments. The other major gap is also observed in the minimal participation of locals in the tourism value chain, an area which has been used by many successful economies to create alternative opportunities for economic growth.

The Government of Botswana has therefore launched two initiatives aimed at empowerment of locals to having meaningful participation in the tourism sector. The two initiatives are part of the Government's National Transformation Strategy and the National Vision 2036, which espouses Prosperity for All Botswana. The two initiatives also represent the sector interventions on the Economic Diversification Drive (EDD) strategy.

**Citizen Empowerment on the Tourism Sector Initiative:** The initiative was created with a view to facilitate increase of citizen participation in the tourism sector through availing tourism land primarily to new entrants in the tourism industry especially, in prime areas of Botswana and throughout the rest of the country. The initiative aims at facilitating the inclusion of citizens through:

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- ❖ Reservation of sites for allocation to citizens in the form of citizen companies, consortia, joint ventures and community trusts;
- ❖ Allowing use of Land allocated to citizens through tourism to be used as collateral by allottees to secure shareholding and or partnerships;
- ❖ Providing incentives to persuade existing concession operators to issue part of shareholding to citizens.
- ❖ Sub-divide larger concessions with a view to establishing new ones for allocation to citizens; and
- ❖ Facilitating preferential allocation through a set ratio to new entrants to the tourism sector and existing participants, respectively.

**Cluster Development Initiative:** The cluster initiative on the other hand is aimed at enhancing participation of citizens throughout the tourism value chain. The Okavango World Heritage Property has been used as proto-type development through a structure termed Makgobokgobo Cluster. The cluster specific projects include:

- a. development of suppliers;
- b. product development;
- c. specialized marketing;
- d. skills development and
- e. Logistics and transport.

The overall aim is to create and support businesses' and also create employment for locals in the Okavango Delta World Heritage Property.

Since these two initiatives are still at planning stages, the State Party will update the World Heritage Centre and Advisory Bodies on progress made.

At regional level, OKACOM, through the UNDP and European Union support, is undertaking regional projects that address issues related to livelihoods improvement, conservation and monitoring of the resources of the CORB. These are guided by the OKACOM Strategic Action Programme that has four thematic areas of;

- a. Livelihoods and Socio-Economic Development;
- b. Water resources management;
- c. Land Management; and
- d. Environment and biodiversity.

Currently, OKACOM is developing a CORB Basin wide Environmental Monitoring Framework (CORB-EMF). This is to be informed by a series of joint basin-wide surveys that will establish a baseline. To date four (4) basin wide joint surveys have been conducted and the results are being used to develop the CORB-EMF. The joint surveys cover, hydro-meteorological Monitoring, water quality monitoring and environmental and biodiversity monitoring. In addition to this, member states are procuring relevant equipment and tools that will be uniform across the three states to facilitate similar monitoring using similar equipment and adopting similar approaches. A Data Sharing Protocol is at final stages of development to facilitate information sharing.

A series of livelihood enhancement demonstration projects are underway in all the OKACOM Member States. These includes community projects on Community based Fisheries management in Namibia and Angola; Community based tourism in Namibia;

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Conservation Agriculture in Angola and Namibia; and Enhancing and linking local horticultural produce to higher markets in the Okavango in Botswana.

In implementing the land management component of the SAP, OKACOM has since identified two main delineated areas for focused land rehabilitation mainly in the upper part of the basin in Angola. The goals of OKACOM's Land Management activities are to address the drivers of land use degradation in the CORB, mitigating these drivers and threats with the implementation of viable, effective and sustainable interventions that are implemented through collaboration with national stakeholders and local communities. Prioritized activities should also lead to improved and potentially diversified livelihoods for the communities within the prioritized hotspots. This action is expected to take effect in 2020.

The process of reviewing the Okavango Delta Management Plan is in progress. The consultant, Okavango Research Institute is currently doing the scoping exercise (situational analysis). Consultations are ongoing with different stakeholders. Consultations took longer than anticipated due to the vastness of the area, complexity and multiple stakeholders. Despite the fact that the project delayed at the beginning, a lot of progress has been made and it is anticipated that the final report will be ready by end of August 2020. Progress reports will be provided to the World Heritage Centre and IUCN at the end of each phase. The scoping reports, Draft Management Plan and Draft Final Plan will be shared will be shared with World Heritage Centre and IUCN at the end of each stage for review and technical guidance.

It is anticipated that the revised management plan will address the issues and recommendations raised on Para 4, section 1 and 2. However, the State Party at national and regional level through OKACOM has been working on some interventions to address among other things the expansion and strengthening of programmes, which accommodate traditional resource use for livelihoods and access to opportunities to participate in the tourism sector, in keeping with the property's OUV.

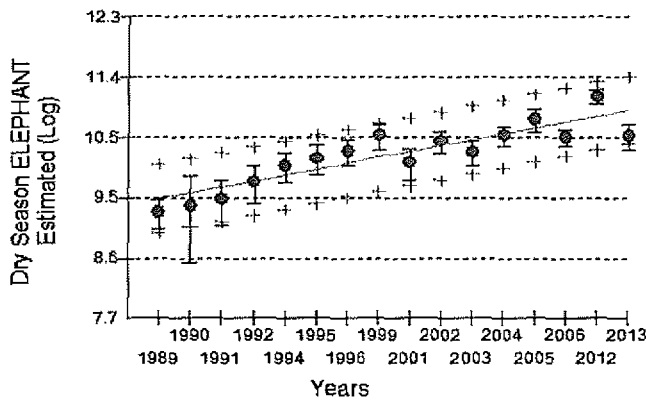
The recently completed Community Based Natural Resource (CBNRM) Strategy once implemented will also contribute in strengthening of programmes (CBNRM) which accommodate traditional resource use for livelihoods and access to opportunities to participate in the tourism sector by Community Based Organizations (CBOs).

***Para 7: Notes with concern that an EIA for the veterinary cordon fences and aerial wildlife surveys could not be undertaken due to financial constraints, and also requests the State Party to provide further financial support to the conservation of the property***

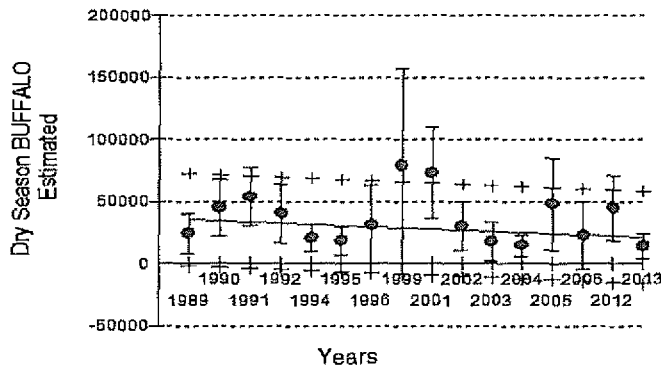
The State Party managed to conduct aerial wildlife surveys in 2019. However, below is an update on species population and trends as per the 2012 aerial wildlife surveys. The update for the 2019 species population and trends will be provided once it is concluded.

**Update of Aerial Wildlife Surveys on species population and trends:**

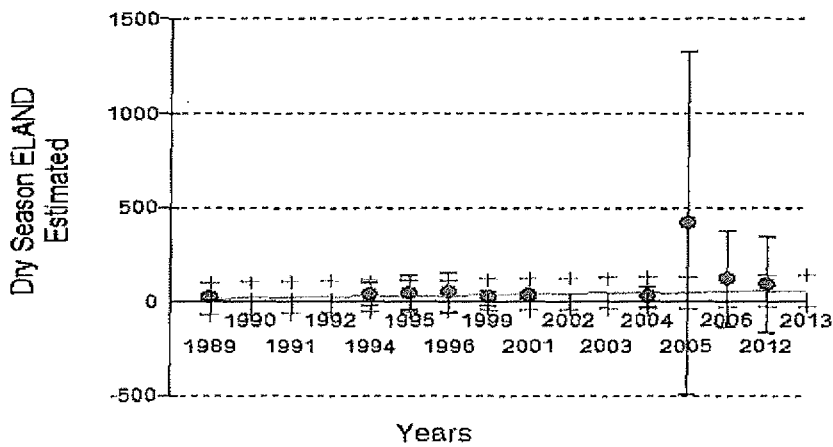
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There was a gradual significant increase in the estimated number of elephants over the years. The elephant population has remained healthy with an exponential growth.

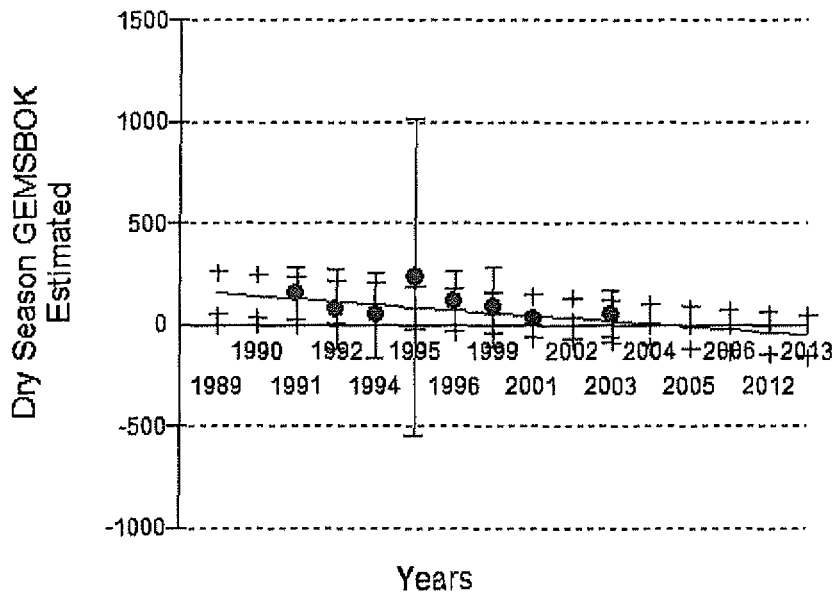


The change in population was not statistically significant. It shows that the population estimates were going down through the years as seen from the graph above.

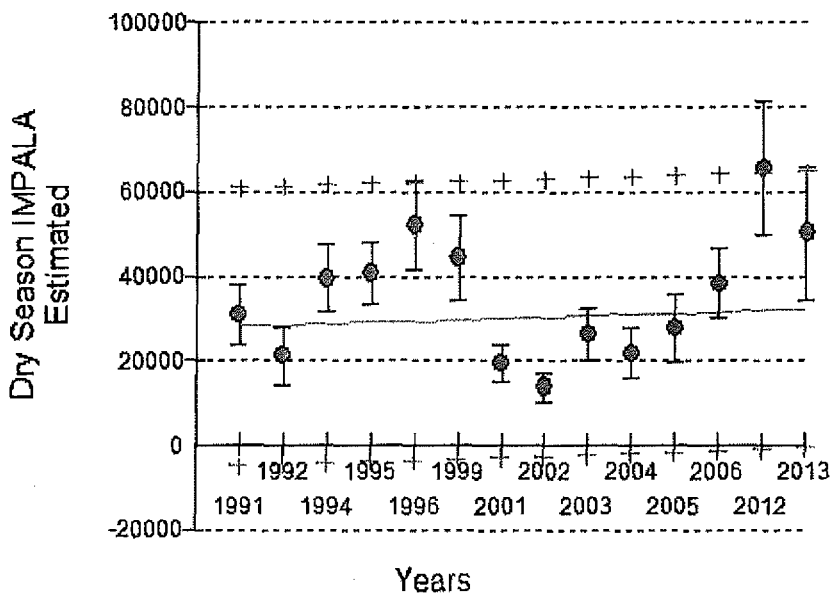


The eland population has remained low and/or constant throughout the years and there is no significant growth.

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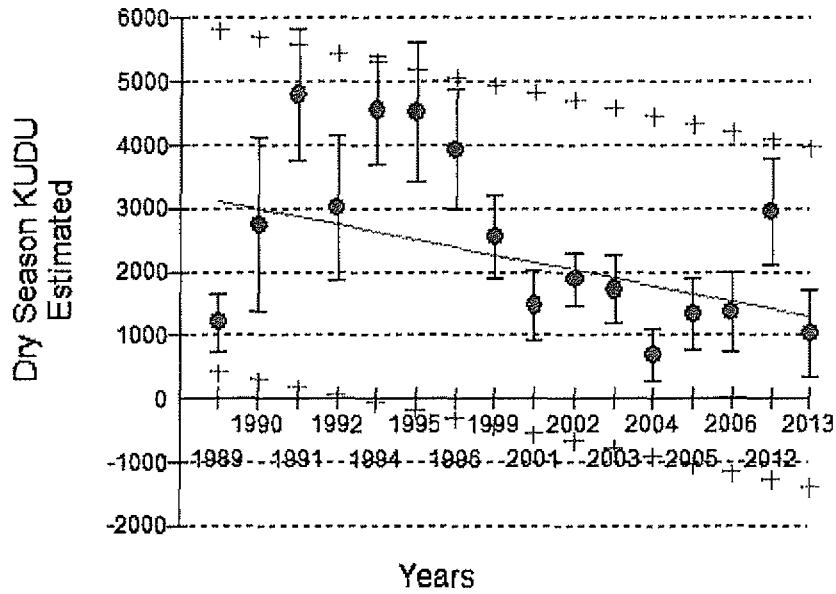


There was a slight decline in the population of gemsbok though not statistically significant.

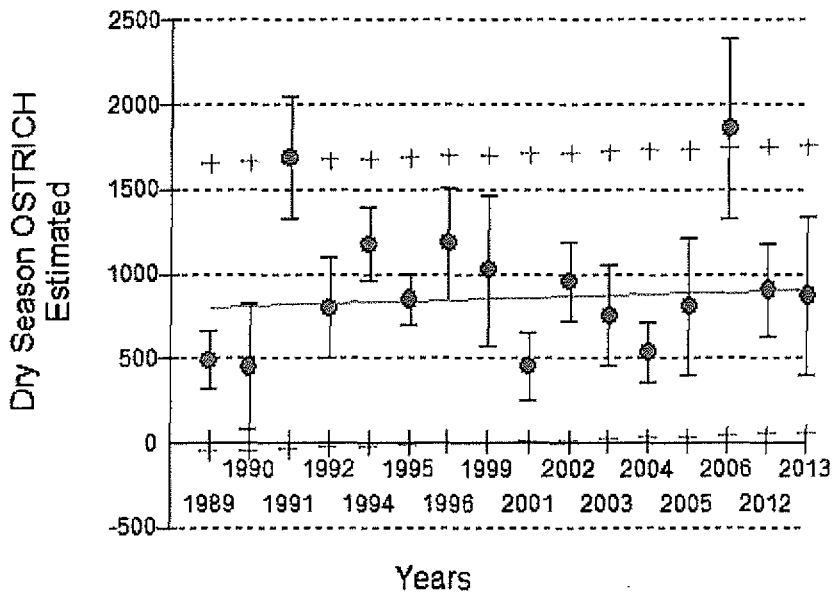


The population of impala has remained steady and/or constant with no statistical growth.

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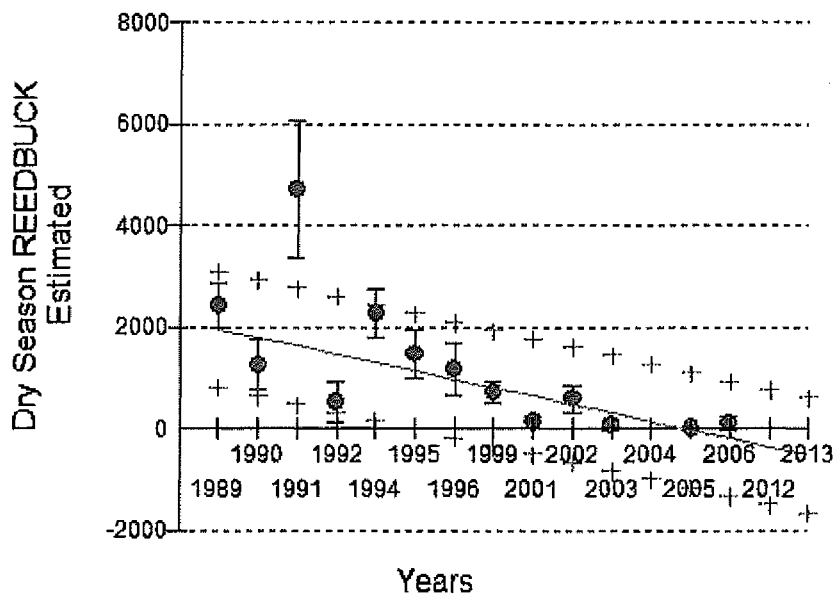


The kudu population has remained low with a slightly steep decline but not statistically significant to the overall population size.



The ostrich population has remained constant throughout the years as shown by the trend line.

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There was an observable downward trend in the population, hence a cause of concern for the species.

### Control of Alien Invasive Species

The control of alien invasive species is the responsibility of the Department of Water and Sanitation whose core mandate is to plan, assess, develop and manage the country's water resources in a sustainable way and achieve equitable distribution to all sectors of the economy. Therefore, it has responsibility to manage the Okavango Delta's water resources and this is currently achieved through hydro-monitoring, water quality monitoring, pollution control and control of alien invasive species salvinia, *Salvinia molesta* Mitchell through its length and breadth. This section of the report will therefore not only focus on interventions on the control of alien invasive species only, but will also speak to the hydro-monitoring, water quality monitoring and pollution control.

These activities supports the Monitoring section in the "Okavango Delta World Heritage Nomination Dossier" which clearly states that effective monitoring for the system requires a spatially distributed network to incorporate basic hydrological and water quality variables at important locations along each of the major distributary systems, the inflow (Mohembo) and all of the outflows with a representative climatic data and rainfall.

### Hydrological Monitoring

There are a total of 129 hydrological stations in the Okavango Delta of which 87 stations are accessible and constantly monitored while the rest are either not accessible due to vegetation

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blockages or abandoned as the stations are not strategically placed. The core zone of the World Heritage Site area has 67 stations across and 47 are operational. All these stations are in perennial riverine areas and being monitored for water flow discharges and water levels. The Mohembo inflow station is out of the core zone area and its daily inflows determines the wet and dry conditions of the delta (Figure 1). The scale of flooding in the delta influences water resource use for tourism and communities especially in the out flow rivers.

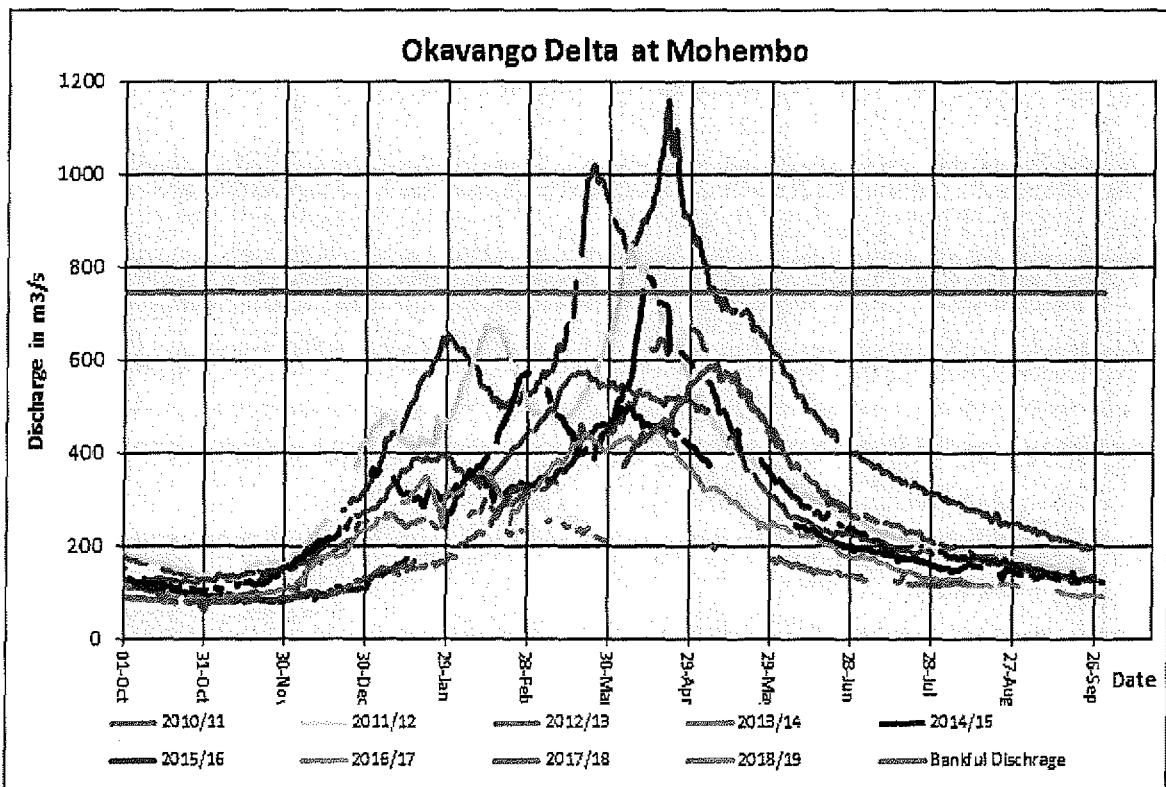


Figure 1- annual Discharge at Mohembo Hydro Station

### Current Status

The Okavango Delta derives its water from the Angolan highlands at Huambo. The 2018/19 rainy season was one of the driest periods since 1981 in the central and western parts of the SADC region. The season has been characterized by below-normal rainfall due to delayed and erratic onset of rains.

As a result of below-normal rainfall during the 2018/19 hydrological year, the entire core zone area of the Okavango Delta experienced very low inflows and water levels resulting in the drying of the outflow rivers including the Thamalakane, Boro and Kunyere river systems. Even though the flows and water levels at Mohembo hydrological station started rising

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gradually starting from the months of November/December 2019 due to the current rainy season, the system has generally experienced a decrease in water volumes over the past few years since 2010/2011 hydrological year to date, see Figure 1 above. As at mid-January 2020 the water levels at Mohembo are slightly below the 1 meter depth, at (0.860m) as compared to the same period of the previous year (0.665m).

Currently most of the Outflow Rivers which lies along the lower parts of the Okavango Delta remain dry except some patches of stagnant water which are visible along some sections of the rivers as a result of current rainfall.

#### **Factors that led to the low flows/water levels**

- Insufficient rainfall contribution in the Okavango Basin especially in Angola and Namibia during the past rainy season 2018/2019, hence less runoff.
- High temperatures in the region resulting in water loss through evaporation.
- Water loss through percolation resulting in reduced flows as the river beds were dry.
- The existence of many dried lagoons/pools and flood plains that had to be filled first resulting in the delaying of flows.

#### **Alien Invasive *Salvinia molesta***

The mitigation measure for salvinia control has been in place in the form of the host-specific biological weevil, *Cyrtobagous salviniae* Calder and Sands. With established norms and policy, the Aquatic Vegetation Control Unit (AVCU) has been continuously assessing the salvinia control biologically as well as applying the physical control wherever is warranted. The array of activities involved monthly field new infestation surveys and biological control weevil establishment by sampling and assessment. There are 53 salvinia monitoring sites in the Okavango Delta. Salvinia control has been thoroughly established in all infested sites where the biological control is yet to be established to ecologically acceptable levels.

The aim of the biological control program is not to eradicate the weed, but to reduce abundance to the level where it no longer causes a problem. Small residual mats of salvinia will continue to harbor the weevils so that if regrowth of salvinia occurs as a result of favorable conditions with sufficient nutrients, control agents can build up rapidly to restore control.

The following are salvinia bio control sites where distribution and successful control of *Salvinia molesta* with its weevil *Cyrtobagous salviniae* in the Okavango Delta was established since 2016;

1. Abaqao River =1 site

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2. Maunachira River = 8 sites
3. Khwai River = 15 sites
4. Bodumatau = 2 sites
5. Xini = 1 site
6. Mogogelo Rivers = 2 sites
7. Gomoti River = 2 sites
8. Santantadibe River = 10 sites
9. Matsibe River = 1 site
10. Boro River = 3 sites
11. Thamalakane River = 7 sites
12. Xudum River = 1 site

Total monitoring sites = 53 sites

### **Current Status**

In May 2017 new salvinia infestation of significant nature was observed along Xudum River at Nxaraga area. Monitoring of the new infestation revealed that the biocontrol weevil has slowly established by the weevil-infested mat floating from the upstream and control has been achieved.

This clearly indicates that the weevil has been widely established well in most of the sites/areas of Moremi Game Reserve. All the other sites monitored in the core zone have abundant number of adult weevils as determined by scientific methods. Therefore, it indicates that biological control progress in the Salvinia infestations has been under constant progress and maintained in most of the core and buffer zones of the Okavango Delta.

### **Salvinia Control - Stakeholders**

The ecotourism businesses and riparian communities have benefitted and secured enormously from the control of salvinia weed in the Okavango Delta. Complaints of difficulty in navigating the streams due to thick blockage of salvinia mats, for tourism recreation and other activities have been reported. But DWS's sustainable monitoring of salvinia has improved considerably and several pools and lagoons are accessible to wildlife for water use. Training program of Tourist Guides in the Moremi Safaris and Camp Moremi (Desert & Delta), Sandibe (&Beyond) and Khwai River Lodge (Belmond) in the core zone was reviewed in 2018 to revitalise the delivery partnership in biological control of salvinia. The revised program includes assembling of new weevils breeding portable pools at specific sites

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in the Delta and will be rolled out during 2020/2021 financial year. This program other than the control of Salvinia benefit some lodges as they now use it as part of sightseeing, environmental education and tourism marketing.

Okavango Kopano Mokoro Community Trust (OKMCT) has been involved in the physical control of salvinia and intermitted river vegetation blockages along Santantadibe River. This has allowed ease of navigation for their ecotourism activities which entails transporting tourists on canoes.

### **Water Conservation**

The water conservation program continues to intensify the practice of water conservation and demand management in the delta. This is intended to significantly reduce the volumes of water abstractions and increase the utilization of alternative water resources including effluent and grey water recycling in the core zone area of the Delta. This is realized through education and awareness which forms part of the pollution inspections.

### **Pollution Control**

The surveillance of wastewater generating to abate pollution of the Delta currently targets fifteen (15) wastewater generating facilities across the breath of Okavango Delta. These facilities are checked for compliance to Botswana Standard (BOS 93:2012) for the discharge of wastewater in to the environment and general wastewater best management practices. Currently ten (10) facilities were inspected during the 2019/2020 inspection programme and none is in compliance. In the previous year (2018/2019) only five (5) of the total fourteen (14) facilities inspected were in compliance.

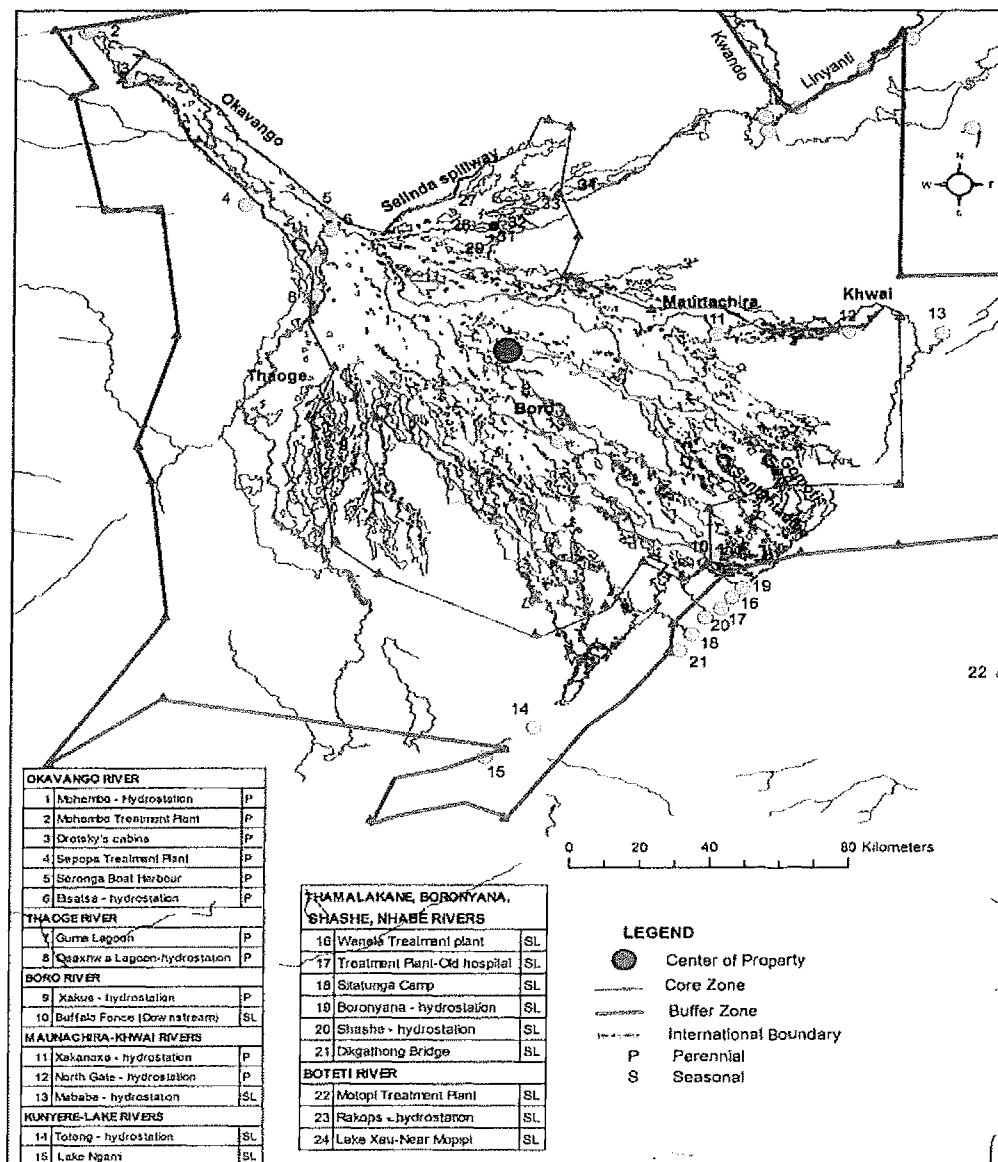
Majority of the facilities did not meet the above mentioned criteria either due to the quality of the effluent, poor infrastructure and mainly the use of soak away. The use of soak away does not provide for sampling of the effluent due to the nature of the technology. However, the use of soak away in the Okavango Delta violates the "Guidelines for waste management for development in a Wildlife Management Area in Botswana that may produce solid or liquid waste". These facilities are continuously engaged through the surveillance exercise, environmental audits and education/awareness activities to encourage a shift to safer methods of effluent disposal.

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## Water Quality Monitoring

The overall aim of the monitoring programme is to ensure the long-term water resources management and protection of the Okavango delta and to determine the baseline condition of the delta.

DWS started a revised systematic water quality programme for the surface water component of the Okavango Delta between 2011 and 2012. Presently there are twenty four (24) sampling sites in the Okavango Delta (Annex 1) of which nine (9) are in the Core Zone. Sampling is done quarterly and the samples are analyzed for Electrical Conductivity, Dissolved Oxygen, total phosphate, Ca, Mg, Na, K, Fe, Mn, Cl, SO<sub>4</sub>, NO<sub>3</sub>, CO<sub>3</sub>, HCO<sub>3</sub> to identify trends in the water quality over time and infer its influence on the ecosystem. Unlike other parameters, hydrocarbons are done on special cases only. The Okavango Delta is still in its pristine state in terms of its water quality.



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**Figure 2: Systematic water quality monitoring sites in the Okavango Delta.**

***Para 8: Further noting that the construction of a cable-stayed bridge across the panhandle area of the property and hardening of the associated approach road has begun at Mohebo based on a 2009 EIA, considers that the measures identified in the EIA are insufficient as they do not take into account the property's World Heritage status, and further requests the State Party to revise the EIA, in line with the IUCN Advice Note, prior to continuing the work, in order to include an assessment of the potential impacts of the construction and use of the bridge and road on the property's OUV, and submit it to the World Heritage Centre for review by IUCN.***

The Government of Botswana (GoB) is implementing recommendations of an Environmental Impact Statement (EIS) which was developed for the project. Within the EIS there is an Environmental Management Plan (EMP), a plan developed to guide impact mitigation and monitoring. The EIS was considered adequate by the Department of Environmental Affairs (DEA) and was duly authorised in line with the Environmental Impact Assessment Act (2005).

While we appreciate the concerns by the Committee and their call for the review of the EIS for the Bridge, we have not been able to do so. Instead an environmental audit of the project was carried out in October 2018. This was meant to ascertain if the issues identified and the mitigation measures proposed in the report are relevant and if the EIS is adequate to guide the construction of the bridge. The audit afforded other technical department including the Department of Water Affairs and Sanitation, Water Utilities Corporation, Department of Forestry and Range Resources, Department of National Museum and Monument, Department of Wildlife and National Parks, Department of Waste Management and Pollution Control, Department of Mines and other regulators to participate in the compliance monitoring activities. The audit afforded the Department of National Museum & Monuments as the custodian of the convention, to include aspects which speaks to the impact on the OUV and integrity of the property as part of the audit protocol that was to be used for conducting the audit. The audit was carried out and a preliminary findings were shared with the consultant to address while awaiting a full report, which at the time of writing this report was not available.

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## Appendices

# Appendix 2 – Okavango River Crossing Audit Protocol

|                           |  |
|---------------------------|--|
| <b>Audit Date</b>         | 14-16 August 2018  |
| <b>Audit Team Leader</b>  | Mr. Dikeme Kgaodi, DEA   |
| <b>Audit team members</b> | DEA, DWMPC, Department of National Museum, Department of Occupational Health and Safety, DWA, DWNP, Labor, DHMTC- Gumare, Environmental Health |

| AUDIT ITEM   | RECORDS TO BE CHECKED/EXAMINED EVIDENCE   | COMPLIANCE WITH EMP |    | PERFORMANCE RATING<br>(IN TERMS OF IMPLEMENTATION OF MITIGATIONS & EFFECTIVENESS) | FINDINGS/OBSERVATION |
|--|---|---------------------|----|---|----------------------|
|  |   | Yes                 | No | 0-5   |                      |
| <p><b>EMP Implementation</b></p> <ul style="list-style-type: none"> <li>• Verify if the EMP is readily available onsite.</li> <li>• Examine the EMP Authorization.</li> <li>• Who is responsible for implementation of the EMP?</li> <li>• Verify that there is budget for EMP implementation.</li> <li>• Verify availability of the Company's Environmental Policy.</li> </ul> <p>Does the policy recognizes the following environmental aspects:</p> <ul style="list-style-type: none"> <li>○ Air emission</li> <li>○ Waste management</li> <li>○ Soil pollution</li> <li>○ Natural resource usage</li> <li>○ Hazardous and toxic material</li> <li>○ Impact on wellbeing (e.g. noise, smell, dust)</li> <li>○ Other environmental specific issues on site such</li> </ul> | <p>Examine the following records:</p> <ul style="list-style-type: none"> <li>• EIS/EMP</li> <li>• EMP Authorization letter</li> <li>• Environmental Officer Designation from HR</li> <li>• EMP Implementation Budget from the Project budget</li> </ul> |                     |    |   |                      |

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| <ul style="list-style-type: none"> <li>○ as housekeeping and safety.</li> <li>○ Commitment to prevent pollution</li> </ul> <ul style="list-style-type: none"> <li>• Verify if employees have been inducted on environmental awareness.</li> </ul>  | <ul style="list-style-type: none"> <li>• Records of awareness workshop (attendance register)</li> </ul> |                     |    |  |                      |
|--|---|---------------------|----|--|----------------------|
| AUDIT ITEM   | RECORDS TO BE CHECKED/EXAMINED EVIDENCE   | COMPLIANCE WITH EMP |    | PERFORMANCE RATING<br>(INTERMS OF IMPLEMENTATION OF MITIGATIONS & EFFECTIVENESS) | FINDINGS/OBSERVATION |
|  |   | Yes                 | No | 0-5  |                      |
| <p><b><u>Contractor's Camp</u></b></p> <p><b>Staff Houses</b></p> <ul style="list-style-type: none"> <li>○ General upkeep</li> <li>○ Signage</li> <li>○ Containment of solid and liquid waste</li> <li>○ EMP</li> <li>○ Fire management equipment</li> </ul> <p><b>Fuel Point Facility</b></p> <ul style="list-style-type: none"> <li>○ Permit from Department of Energy Affairs</li> <li>○ Water/oil Separator</li> <li>○ EMP</li> <li>○ Fire management equipment</li> </ul> <p><b><u>Workshop &amp; Maintenance areas</u></b></p> <ul style="list-style-type: none"> <li>• Inspect the general workshop areas and verify</li> </ul> | <ul style="list-style-type: none"> <li>• DEA clearance</li> </ul>                                       |                     |    |  |                      |

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| <p>the following:</p> <ul style="list-style-type: none"> <li>○ Signage at the workshop areas</li> <li>○ General upkeep of the workshop</li> <li>○ Containment of solid waste</li> <li>○ Containment and management of used oil</li> <li>○ Containment and management of metal off-cuts</li> <li>○ Presence of oil-water separators</li> <li>○ <b>Fire management equipment</b></li> <li>○ Expiry dates</li> <li>○ Last date of maintenance</li> </ul> | <ul style="list-style-type: none"> <li>•</li> </ul>  |  |  |  |  |
| <ul style="list-style-type: none"> <li>• <b>Waste Management Plan</b> <ul style="list-style-type: none"> <li>▪ Verify if there are arrangement for waste collection</li> <li>▪ Training and awareness on handling and management of hazardous waste</li> </ul> </li> <li>▪ Solid Waste Management</li> <li>▪ Sewage management facility</li> </ul>  | <ul style="list-style-type: none"> <li>• Records of awareness workshop (attendance register)</li> <li>• Minutes and attendance register</li> <li>• Records of Waste collector</li> <li>• Records of Waste collector</li> <li>• Evidence of recycling activities</li> </ul> |  |  |  |  |

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| <ul style="list-style-type: none"> <li>▪ Disposal method</li> </ul>  |   |  |  |  |  |
| <ul style="list-style-type: none"> <li>▪ <b>Batching Plant</b></li> <li>▪ General upkeep</li> <li>▪ Signage</li> <li>▪ Containment of solid and liquid waste</li> <li>▪ EMP</li> </ul> | <ul style="list-style-type: none"> <li>• EIA clearance</li> </ul> |  |  |  |  |

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|---|--|--|--|--|--|
| <ul style="list-style-type: none"> <li>▪ <b>Environmental Management System</b></li> <li>▪ Establish if SHE monitoring Committees have been set up</li> <li>▪ Constitution of the committee</li> <li>▪ Check if there are clear roles and responsibilities for the committee</li> </ul>   | <ul style="list-style-type: none"> <li>• Minutes and records</li> <li>• Training and awareness plan</li> </ul>   |  |  |  |  |
| <p><b>Ecology</b></p> <p><b>Fauna</b></p> <ul style="list-style-type: none"> <li>▪ Request for baseline report</li> <li>▪ Establish if workers have been sensitized about wildlife and general conduct</li> <li>▪ Verify if the working area is secured?</li> <li>▪ Check the following: <ul style="list-style-type: none"> <li>▪ Areas where animals can access the site.</li> <li>▪ List of all fauna species and their IUCN status</li> </ul> </li> <li>▪ Wildlife sightings <ul style="list-style-type: none"> <li>○ Human wildlife conflicts incidents</li> </ul> </li> </ul> <p><b>Flora</b></p> <ul style="list-style-type: none"> <li>▪ Request for baseline report for flora in on site (both terrestrial and aquatics) <ul style="list-style-type: none"> <li>○ Threatened and endangered species</li> <li>○ Observe the area for any Invasive species</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• Baseline report</li> <li>• Workshop/a wareness reports and attendance register</li> <li>• Incidents Register (e.g. Wildlife mortality due to vehicle collisions)</li> <li>• Records of wildlife sightings</li> <li>• signage</li> <li>• inventory of</li> </ul> |  |  |  |  |

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|--|--|--|--|--|--|
|  | threatened<br>and<br>endangered<br>flora species   |  |  |  |  |
|  | <ul style="list-style-type: none"><li>• report on<br/>species<br/>identification</li></ul> |  |  |  |  |

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| AUDIT ITEM   | RECORDS TO BE CHECKED/<br>EVIDENCE  | COMPLIANCE WITH EMP |    | PERFORMANCE   | FINDINGS/OBSERVATION |
|--|---|---------------------|----|---|----------------------|
|  |   | Yes                 | No | RATING<br>(IN TERMS OF<br>IMPLEMENTATION OF<br>MITIGATIONS &<br>EFFECTIVENESS)<br>0-5 |                      |
| <ul style="list-style-type: none"> <li>▪ <b>Fire</b><br/>Fire management strategy<br/>Dedicated staff for fire management</li> </ul>   | <ul style="list-style-type: none"> <li>▪ Firefighting equipment</li> <li>▪ Fire assembly point</li> <li>▪ Records of fire drill/induction/awareness</li> <li>▪ Certificate of trained staff</li> </ul>    |                     |    |   |                      |
| <p><b>Archaeological Impact Assessment</b></p> <ul style="list-style-type: none"> <li>▪ Availability of an Archaeological Impact Assessment and Clearance</li> <li>▪ Awareness raising activities on identification of archaeological finds and the process</li> <li>▪ Availability of an archaeological Consultant</li> <li>▪ Was there any chance finds discovered during some project activities?</li> <li>▪ What was the process followed during this encounter? What were the mitigation measures put in place to handle the</li> </ul> | <p>AIA report<br/>AIA Clearance</p> <p>Attendance register for awareness meetings</p> <p>Report on the awareness activity</p> <p>HR records on engagement of a consultant</p> <p>Notification to DNMM</p> |                     |    |   |                      |

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|--|---|--|--|--|--|
| <p>water.</p> <ul style="list-style-type: none"> <li>• Check for compliance to BOS 93:2012</li> </ul> <p><b>HYDROLOGY</b></p> <ul style="list-style-type: none"> <li>▪ Establish site for monitoring the following; <ul style="list-style-type: none"> <li><b>cross sectional area,</b></li> <li><b>discharge</b></li> <li><b>water levels</b></li> </ul> </li> <li>Frequency of monitoring</li> <li>Methods used for monitoring</li> <li>• Verify monitoring data</li> </ul> <p><b>GROUNDWATER MONITORING</b></p> <ul style="list-style-type: none"> <li>• Establish the monitoring borehole sites</li> </ul> <p><b>AQUATIC LIFE</b></p> <ul style="list-style-type: none"> <li>▪ Request for:</li> <li>▪ Baseline reports for aquatic life</li> <li>▪ List of species residing in the system</li> <li>▪ Incidents reports on aquatic life</li> <li>▪ Frequency of monitoring</li> <li>▪ Awareness raising for staff working in the river</li> <li>▪ Mitigations measures for impact on aquatic life</li> </ul> | <ul style="list-style-type: none"> <li>• Cross sectional diagram</li> <li>• Monitoring reports</li> </ul><br><ul style="list-style-type: none"> <li>• Monitoring reports</li> <li>• Map</li> </ul><br><ul style="list-style-type: none"> <li>• Baseline report</li> <li>• Incident report</li> <li>• Workshop proceedings</li> <li>• Attendance register</li> </ul> |  |  |  |  |
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|---|--|--|--|--|--|
| <ul style="list-style-type: none"> <li>▪ <b>Soils</b></li> <li>▪ Where is top soil stored?</li> <li>▪ How is the soil stockpile maintained?</li> <li>▪ Check the height of the stockpile.</li> <li>▪ Inspect the stockpiled top soil and check for signs of erosion (Gullies).</li> <li>▪ Verify if top soil has been stored separately from quarry waste material?</li> <li>▪ Verify if impacted areas are being rehabilitated?</li> <li>▪ Observe discoloration of earth material particularly around fueling points, generators, transformers, etc.</li> </ul> | <ul style="list-style-type: none"> <li>• Rehabilitation plan</li> </ul>  |  |  |  |  |
| <ul style="list-style-type: none"> <li>▪ <b>Air quality</b></li> <li>▪ Request for air quality baseline report</li> <li>▪ Check air quality monitoring sites.</li> <li>▪ Verify availability of dust suppression plan (showing frequency and methods)</li> <li>▪ Establish if there are any public complaints</li> </ul>  | <ul style="list-style-type: none"> <li>• Baseline report</li> <li>• Monthly Air quality monitoring reports</li> <li>• Complaints register</li> </ul> |  |  |  |  |

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| AUDIT ITEM | RECORDS TO BE CHECKED/<br>EVIDENCE | COMPLIANCE WITH EMP  |  | PERFORMANCE RATING<br>(IN TERMS OF IMPLEMENTATION OF MITIGATIONS & EFFECTIVENESS) | FINDINGS/OBSERVATION |
|------------|------------------------------------|--|--|---|----------------------|
|            |                                    | Yes  | No   | 0-5   |                      |
|            |                                    | <p><b>Noise</b></p> <ul style="list-style-type: none"> <li>• Request for noise baseline report</li> <li>• Verify availability of ambient noise monitoring sites.</li> <li>• Who undertakes noise monitoring?</li> <li>• Check conformance of noise monitoring to available standards.</li> <li>• Establish if there are no complaints related to the aspect</li> </ul> | <ul style="list-style-type: none"> <li>• Noise Baseline report</li> <li>• Monthly reports for Noise quality</li> </ul> |   |                      |

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| AUDIT ITEM  | RECORDS TO BE CHECKED/<br>EVIDENCE   | COMPLIANCE WITH EMP |    | PERFORMANCE RATING<br>(IN TERMS OF IMPLEMENTATION OF MITIGATIONS & EFFECTIVENESS) | FINDINGS/OBSERVATION |
|---|--|---------------------|----|---|----------------------|
|   |  | Yes                 | No | 0-5   |                      |
| <p><b>Waste Management</b></p> <ul style="list-style-type: none"> <li>▪ Specify where the different waste streams from the project are disposed.</li> <li>▪ Has there been any waste awareness campaign conducted for workers?</li> <li>▪ Is there evidence of waste separation at source?</li> <li>▪ Verify if there are waste recycling/reuse initiatives?</li> <li>▪ Ascertain measures put in place to reduce waste amount produced by the project.</li> <li>▪ Are there measures to store general waste onsite?</li> <li>▪ Is there evidence of general waste around the site?</li> <li>▪ Is scrap metal stored in a properly constructed storage area?</li> <li>▪ Is the storage area licensed as per the requirements of the DWMPC?</li> <li>▪ Is used oil stored appropriately onsite?</li> <li>▪ What is the final disposal for used oil?</li> <li>▪ Observe the facilities for waste oil storage onsite.</li> </ul> | <p>Waste disposal certificates</p> <p>Waste Records</p> <p>Minutes and attendance register</p> |                     |    |   |                      |

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| AUDIT ITEM | RECORDS TO BE CHECKED/<br>EVIDENCE | COMPLIANCE WITH EMP  |  | RATING<br>(IN TERMS OF IMPLEMENTATION OF MITIGATIONS & EFFECTIVENESS) | FINDINGS/OBSERVATION |
|------------|------------------------------------|--|--|---|----------------------|
|            |                                    | Yes  | No   | 0-5   |                      |
|            |                                    | <p><b>Socio- economic issues</b></p> <ul style="list-style-type: none"> <li>▪ Verify if there is a communication strategy available.</li> <li>▪ Is the strategy detailed enough to involve a wide range of stakeholders?</li> <li>▪ How many workers employed at the project are locals?</li> <li>▪ Have locals been trained for required skills?</li> <li>▪ How many locals have been trained?</li> <li>▪ What is the procedure for hiring staff for different project operations?</li> <li>▪ Are there deliberate measures for skills development of the employees?</li> <li>▪ Are there any locals contracted to provide specific service for project?</li> </ul> | <ul style="list-style-type: none"> <li>• Communication strategy</li> <li>• Training records</li> <li>• Employment records</li> </ul> |   |                      |

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| AUDIT ITEM   | RECORDS TO BE CHECKED/ EVIDENCE   | COMPLIANCE WITH EMP |    | PERFORMANCE RATING<br>(INTERMS OF IMPLEMENTATION OF MITIGATIONS& EFFECTIVENESS) | FINDINGS/OBSERVATION |
|--|---|---------------------|----|---|----------------------|
|  |   | Yes                 | No | 0-5   |                      |
| <p><b>Social Issues</b></p> <ul style="list-style-type: none"> <li>▪ Has there been any grazing land uptake by the project?</li> <li>▪ Which components need to be fenced</li> <li>▪ Have there been registered complaints by the nearby communities regarding grazing land uptake?</li> <li>▪ Are there any private properties that were resettled?</li> <li>▪ Describe how the individual household cattle posts/ploughing fields were resettled.</li> <li>▪ Has the company upgraded any infrastructure?</li> <li>▪ How are access roads to the sites maintained?</li> <li>▪ Does the Company have a workplace Policy?</li> <li>▪ Is the Policy being implemented?</li> </ul> | <p>Work place policy</p> <p>Complaints register</p> <p>Resettlement programme</p> |                     |    |   |                      |
| <ul style="list-style-type: none"> <li>▪ <b>Traffic Safety</b></li> <li>▪ Are there observable road signage's along the access road to the borrow pits?</li> <li>▪ Are there stipulated times for transportation of gravel material?</li> <li>▪ Are these times being adhered to?</li> </ul>   |   |                     |    |   |                      |

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| AUDIT ITEM   | RECORDS TO BE CHECKED/ EVIDENCE | COMPLIANCE WITH EMP |    | PERFORMANCE RATING<br>(IN TERMS OF IMPLEMENTATION OF MITIGATIONS & EFFECTIVENESS) | FINDINGS/OBSERVATION |
|--|---------------------------------|---------------------|----|---|----------------------|
|  |                                 | Yes                 | No | 0-5   |                      |
| <ul style="list-style-type: none"> <li>▪ <b>Environmental Health &amp; Safety</b></li> <li>▪ <b>Risk of fire occurrences</b></li> <li>▪ Check if areas with high risk of fire occurrence have been identified and profiled.</li> <li>▪ Check availability of fire extinguishers.</li> <li>▪ Check validity and adequacy of fire extinguishers.</li> <li>▪ Check staff training on fire safety.</li> <li>▪ Check for fire breakers especially for areas with highly flammable liquids.</li> <li>▪ Check if fire extinguishers are appropriate for the type of fire to be extinguished.</li> </ul> |                                 |                     |    |   |                      |
| <ul style="list-style-type: none"> <li>▪ <b>Risk of injuries</b></li> <li>▪ Check for incident report</li> <li>▪ Check availability of first aid kit</li> <li>▪ Check availability of trained personnel</li> <li>▪ Check if there is a Health and Safety Management System and emergency plan in place</li> </ul>  |                                 |                     |    |   |                      |
| <ul style="list-style-type: none"> <li>▪ <b>Personal Protective Clothing</b></li> <li>▪ Check provision of PPE to all staff and frequency</li> <li>▪ Check if there are measures in place to ensure effective usage of PPE</li> <li>▪ Check if the PPE is appropriate for every operation</li> </ul>   |                                 |                     |    |   |                      |

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| AUDIT ITEM   | RECORDS TO BE CHECKED/<br>EVIDENCE | COMPLIANCE WITH EMP |    | PERFORMANCE RATING<br>(IN TERMS OF IMPLEMENTATION OF MITIGATIONS & EFFECTIVENESS) | FINDINGS/OBSERVATION |
|--|------------------------------------|---------------------|----|---|----------------------|
|  |                                    | Yes                 | No | 0-5   |                      |
| <b>Sanitary Conveniences</b> <ul style="list-style-type: none"> <li>▪ Check if the sanitary facilities provided are adequate (toilets, Showers and wash hand basins)</li> <li>▪ Check the status of repair</li> <li>▪ Check for proximity of the sanitary conveniences in all operation areas</li> </ul> |                                    |                     |    |   |                      |

### **Audit team members**

1. Mr Dikeme Kgaodi, DEA, Team leader
2. Mr. Jobe Manga, DEA
3. Paulus Matthys, DEA
4. Mr. Yamase Kabelo, DWMPC
5. Mr. Lesego Seakanyeng, DEA
6. Ms. Ivy Mogotsi, DEA

*Handwritten initials/signature*

## **Appendix 2 – Preliminary Findings Letter**

### **ENVIRONMENTAL AUDIT FOR THE OKAVANGO BRIDGE PROJECT**

The above subject matter refers.

Following an environmental audit for the above mentioned event conducted by the Department of Environmental Affairs (DEA) from 14<sup>th</sup> to 16<sup>st</sup> August 2018 find below a list of preliminary findings (non-conformities) and recommendations by an audit team:

1. The EMPs and Authorizations are readily available onsite. However, there are no EMPs and authorizations for the Contractor's camp and Shakawe Burrow pit. This is a contravention of the Section 9 of EA Act for which the developer will be fined.
2. The environmental team responsible for implementation of the EMP is inadequate as evidenced by lack of specialists like Aquatic Biologist, Air quality, Hydrologist and Archaeologist e.t.c.
3. There is no Environmental Policy Statement.
4. No documentation of implementation of some EMP components.
5. Malfunction of the Waste Water Treatment Plant as evidenced by surrounding vegetation and overflowing plant.
6. Improper handling of chemicals as evidenced by chemicals stored on unbunded surfaces.
7. Lack of signage for designated areas.
8. The auditee has engaged unlicensed waste collection carriers for used cooking oil, scrap metal and clinical waste as evidenced by failure to produce licences.
9. There is no monitoring for flora and fauna. Most records presented under this aspect are questionable. E.g. quarterly reports for Jan- Mar 2018 signed by a newly appointed officer; Letter from DWNP dated 7<sup>th</sup> Aug 2018; Unsigned letter from DFRR.

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10. Lack of staff induction and awareness raising conducted for archaeological chance finds and lack of chance finds reports.
11. Project activities are not aligned to International obligations, e.g. SADC Protocol, OKACOM (Strategic Action Plan), The Ramsar Strategic Plan 2016-2024 (ODMP).
12. Siting of some sampling points do not cater for possible pollution from project activities.
13. Results not presented in way that they are easy to interpret. Analysis of results done but lack interpretation.
14. Some key parameters not monitored, e.g. hydrocarbons, microbiology.
15. Inconsistency in sampling as evidenced by gaps in records, e.g. Nov- Dec 2017 and Jan 2018
16. Some vital environmental aspects/conditions not recorded in sampling as evidenced by absence of such in the Field sheet.
17. Most results in the water quality are above baseline but there is no deliberate action to investigate.
18. No baseline on cross section of the river. Water discharge also not measured (flow).
19. No Water levels gauges as evidenced by use of makeshift gauge.
20. No monitoring plan for sediment deposits.
21. Monitoring data is questionable as evidenced by recording of data in the presence of auditors.
22. Evidence of soil erosion from storm water trenches and there is no deliberate action to avert it.
23. Storm water drains into the flood plain without deliberate measures to trap sediments or test the water quality.
24. Monitoring station for BTEX impeded by soil stockpile.
25. Dust suppression plan unavailable.

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26. Dust suppression done for some areas but lacks in key areas where there is heavy plant.
27. Lack of noise monitoring at source for noisy machinery. Monitoring reports unavailable save for May 2017.
28. Complaints registers kept but there are no complaints registered.

The audit team recommends that the following be undertaken;

- a) Developer is instructed to submit a corrective plan for the malfunctioning WWTP within 7 days from today.
- b) Developer should consider engaging the services of the following personnel for implementation of the EMPs (archaeologist, aquatic biologist, air quality specialist e.t.c)
- c) Develop records management procedures to aid management of environmental management records.
- d) Data must be analysed and interpreted.
- e) There must be consistency in monitoring parameters
- f) Developer must align project activities to multi-lateral agreements.
- g) Commence aquatic life (flora and fauna) monitoring forthwith.
- h) Engage licensed waste collectors for scrap metal, used oil and clinical waste and ascertain final disposal destination.
- i) Undertake cross sectional survey and monitor the parameters.

Note the Department is working on the draft audit report which will be distributed in due course.

Thank you.

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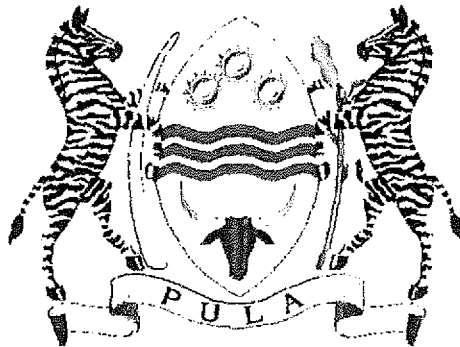
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**STATE OF CONSERVATION REPORT**

**OKAVANGO DELTA WORLD HERITAGE SITE**

**BOTSWANA**

**(N1432)**



**REPUBLIC OF BOTSWANA**

**SUBMITTED**

**BY THE**

**GOVERNMENT OF THE REPUBLIC OF BOTSWANA**

February 2022

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## 1. EXECUTIVE SUMMARY

This report on the state of conservation of the Okavango Delta World Heritage Property is in response to the decisions adopted during the Extended 44<sup>th</sup> Session of the World Heritage Committee, **44 COM 7B.80** held in Fuzhou, China on 16 – 31 July 2021. The State Party was further required to submit an update on reports pertaining to Recon Africa oil and gas exploration within the Cubango-Okavango River Basin for examination at the next meeting of the 45th Session by the World Heritage Committee.

The State Party through the Permanent Okavango River Basin Water Commission (OKACOM), has undertaken to ensure that detailed Environmental Impact Assessments are conducted prior to any major developments. Furthermore, the State Party is cognisant that any development in the Cubango-Okavango River Basin (CORB) leading to unsustainable water abstraction or pollution could impact on the Outstanding Universal Value (OUV) of the Okavango Delta World Heritage Property.

The revised Okavango Delta Management Plan was submitted in July 2021. This presents an important opportunity to ensure that the protection of the OUV of the Property. The ODMP also provides for management strategies in order to maintain the ecological integrity of the Property, including wildlife management, control of invasive alien species, monitoring of mining activities and climate change as well as integration of traditional resources use for livelihoods, user access and cultural rights as requested by the Committee.

The State Party is fully supportive of the effective transboundary cooperation between Angola, Botswana and Namibia on the management of the shared waters of the Cubango-Okavango River Basin. In June 2019, the State Party of Botswana with the support of the UNESCO World Heritage Centre hosted a technical meeting to advance this discussion. The tripartite meeting led to the adoption of an Action Plan to take forward the transboundary initiative and recommended the establishment of a Steering Committee to facilitate its implementation.

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The Okavango Delta Transboundary Committee includes representatives from the three State Parties of Angola, Botswana and Namibia, and observers from UNESCO World Heritage Centre, African World Heritage Fund (AWHF), Kavango Zambezi Transfrontier Conservation Area (KAZA TFCA), Permanent Okavango River basin Water Commission (OKACOM) as well as International Union for Conservation of Nature (IUCN).

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## 2. INTRODUCTION

The Okavango Delta, located in the north-west of Botswana was inscribed as the 1000<sup>th</sup> World Heritage Site in Doha, Qatar in June 2014 under the natural criteria; (vii), (ix) & (x). The Okavango Delta World Heritage Property, guided by the Okavango Delta Management Plan (ODMP) is one of the very few vast, natural, scenic inland deltas in the world.

Since the last state of conservation report submitted in November 2020, consultations have been held with key stakeholders among them; Department of Environmental Affairs (DEA), Department of National Museum & Monuments (DNMM), Department of Mines (DoM), Department of Wildlife and National Parks, Permanent Okavango River Basin Water Commission (OKACOM), Kavango-Zambezi Trans-frontier Conservation Area (KAZA), Okavango Research Institute (ORI), the North-West District to address issues and recommendations raised by the WHC Decision 42 COM 7B.89.

The State Party acknowledged the conclusion of the World Heritage Centre and Advisory Bodies (IUCN), which stated that although the ODMP of 2008 provided a management framework for the area, it pre-dated the property's inscription in the World Heritage List. The Okavango Research Institute (ORI) was consequently engaged to review the Okavango Delta Management Plan (ODMP) in 2019. Funding towards the review of the plan had been provided through UNESCO International Assistance to the amount of USD 27, 080 (270,000 Botswana Pula). The State Party also availed funds amounting to USD 54,000 (Botswana Pula 540,000) towards the review. The revised management plan has since been completed (2021-2027).

The State Party acknowledges that many of the ODMP prescriptions have not been implemented, and the institutional arrangements for its implementation have proved to be ineffective, hence the revised plan. The issues and recommendations raised by the WHC Decision 42 COM 7B.89 among them; integration of wildlife monitoring protocols in the systematic wildlife monitoring programme, management effectiveness, control of

invasive alien species, mining activities, climate change, access, governance as well as cultural rights and benefits have been addressed in detail by the revised Okavango Delta Management Plan of 2021-2027.

Through the OKACOM structures, the three riparian states of Angola, Botswana and Namibia are working closely to ensure that any proposed major developments within the Okavango watershed which may adversely impact the OUV of the property are subject to detailed Environmental Impact Assessments in conformity with IUCNs World Heritage Advice. One of the important milestone in addressing this issue is the completion of the development of guidelines for 'Assistance to implement the SADC Protocol on shared watercourses by the Permanent Okavango River Basin Water Commission's Member States' Focus: Notification and Prior Consultation of Planned Measures According to Article 4(1) of the SADC Revised Protocol.

Significant progress has also been made in addressing the World Heritage Committee recommendation to conduct a Strategic Environmental Assessment (SEA) for the Cubango-Okavango River Basin. The State Party has put in place measures geared towards the control and management of invasive alien species to ensure that they do not compromise the integrity and Outstanding Universal Values of the Okavango Delta World Heritage Property. The State Party further acknowledges the impact that the newly developed Okavango River Bridge may have on the integrity and potential impact on the OUV of the Okavango Delta World Heritage Property.

In addressing the issues raised by the World Heritage Committee on the prospecting within the buffer zones of the Okavango Delta World Heritage Property, the State Party continues to monitor mining activities to ensure that they do not impact on the OUV of the Property. Currently there are no prospecting licenses in the core zone and negotiations with companies holding prospecting licenses within the buffer zone have been concluded. In this regard, it has been agreed that the company, Gcwihaba Resources (Pty) Ltd will relinquish all the prospecting licenses within the buffer zone.

### **3. RESPONSE TO THE WORLD HERITAGE COMMITTEE DECISION 44 COM 7B.80**

This report serves to address the issues and recommendations raised by the **WHC Decision 44 COM 7B.80** that requested Botswana to submit an updated report on the State of Conservation Report of the Okavango Delta World Heritage Property. The response to the various comments, observations and concerns are thus addressed under this section of the report:

#### **The World Heritage Committee,**

##### **3.1 Having examined Document WHC/21/44.COM/7B;**

Document WHC/21/44.COM/7B is hereby acknowledged by the State Party of Botswana.

##### **3.2 Recalling Decisions 38 COM 8B.5 and 42 COM 7B.89, adopted at its 38th (Doha, 2014) and 42nd (Manama, 2018) sessions respectively;**

The State Party of Botswana is fully aware of previous World Heritage Committee Decisions concerning the management and ideal conservation of the Okavango Delta World Heritage Property in its pristine nature, as well as to ensure the continued Outstanding Universal Values of the Property.

##### **3.3 Warmly welcomes the increased cooperation between the States Parties of Botswana, Angola and Namibia through the Permanent Okavango River Basin Water Commission (OKACOM), in particular the initiation of the process to conduct a comprehensive Strategic Environmental Assessment (SEA) in order to assess impacts of developments in the Cubango-Okavango River Basin (CORB) at the strategic level and at the landscape scale, as was requested by the Committee, and the development of a basin-wide Environmental Monitoring Framework;**

The three State Parties of Angola, Botswana and Namibia have noted the importance of undertaking the Strategic Environmental Assessment (SEA) for the Cubango-Okavango River Basin (CORB) as

noted by the World Heritage Committee **Decision 44 COM 7B.80**. This as it is observed will not only address the requirements of the World Heritage Convention but address the responsibility that OKACOM has in delivering its mandate related to the sustainable utilization of the resources of the CORB. Therefore, OKACOM has initiated a process to develop the CORB- Strategic Environmental Assessment (SEA).

Noting the fact that, the CORB is undoubtedly receiving developments, and these come in different forms and carry varying externalities with a potential to affect the sustainability of the basin, OKACOM commissioned a Strategic Environmental Assessment (SEA) for the Okavango-Cubango River Basin (CORB). The SEA will therefore, guide the placement of infrastructural developments given the sensitivity of the receiving environment.

**3.4 Encourages the State Parties of Angola, Botswana and Namibia on their initiative to review the feasibility of a Transboundary or nation-wide extension of the property to include key areas of the CORB, which would contribute to a better protection of the Outstanding Universal Value (OUV) and in particular the integrity of the property;**

The draft CORB-SEA and related reports (Water demand forecasting methodology and 10-year water demand forecasting for the CORB; Socio-economic Monitoring Framework for the Cubango-Okavango River Basin (CORB; and Transboundary EIA Guidelines) is on its final stages of review by the Technical Reference Group (TRG). It is anticipated that the TRG will meet on the 7 March 2022 to deliberate on the revised SEA documents. Once the reports have been cleared and approved by the TRG, a consensus and awareness building regional workshop will be organized for stakeholders to dialogue and appreciate its content and subsequent implementation. As such, it is anticipated that the final CORB-SEA will be complete by the end of May 2022.



- 3.5 Reiterates the importance of an adequate protection of the CORB to ensure the long-term survival of the property and considers that any development in the watershed, which would lead to significant water abstraction or pollution, has a high potential to impact the OUV of the property;**

The Permanent Okavango River Basin Water Commission Agreement (OKACOM) of 1994 has been ratified by the three riparian member states of Angola, Botswana and Namibia. The Commission was established to guide three Member States on matters relating to the conservation, development and utilization of water resources of common interest to the Member States. Specifically, the Commission determines the long-term safe yield of the water available from all potential water resources in the Basin; the reasonable demand for water from consumers in the Basin; and develop criteria for the conservation, equitable allocation and sustainable utilization of water resources in the Okavango River Basin.

The Okavango River and the Okavango Delta, are part of the larger Cubango-Okavango River Basin and hence promotion of regional dialogue, understanding of member states of the need to conserve water, and coordinated interventions for sustainability of the Delta are very important. The OKACOM subscribes to the principles of Integrated Water Resources Management (IWRM) in the Okavango River Basin (ORB). OKACOM is currently facilitating the development of an Integrated Water Resources Management Plan for the Cubango-Okavango River Basin. The plan will go a long way ensuring IWRM principles are enhanced within the ORB.

- 3.6 Expresses concern about the granting of oil exploration licenses in environmentally sensitive areas within the Okavango river basin in northwestern Botswana and northeastern Namibia that could result in potential negative impact on the property in case of spills or pollution;**

The Government of Botswana, hereby acknowledges, the concerns raised by the World Heritage Committee over the granting of oil exploration licence issued to Reconnaissance Energy Botswana (Pty) Ltd within the Okavango River basin and the likely potential negative impact on the Okavango Delta World Heritage Property in case of spills and pollution.

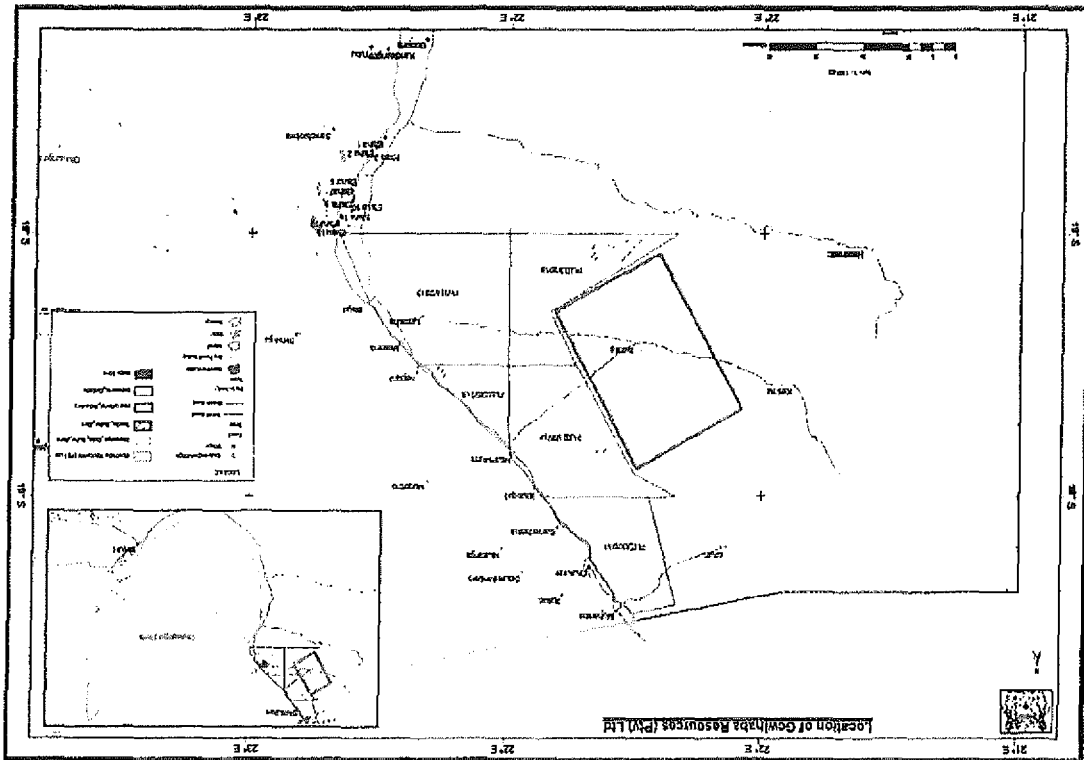
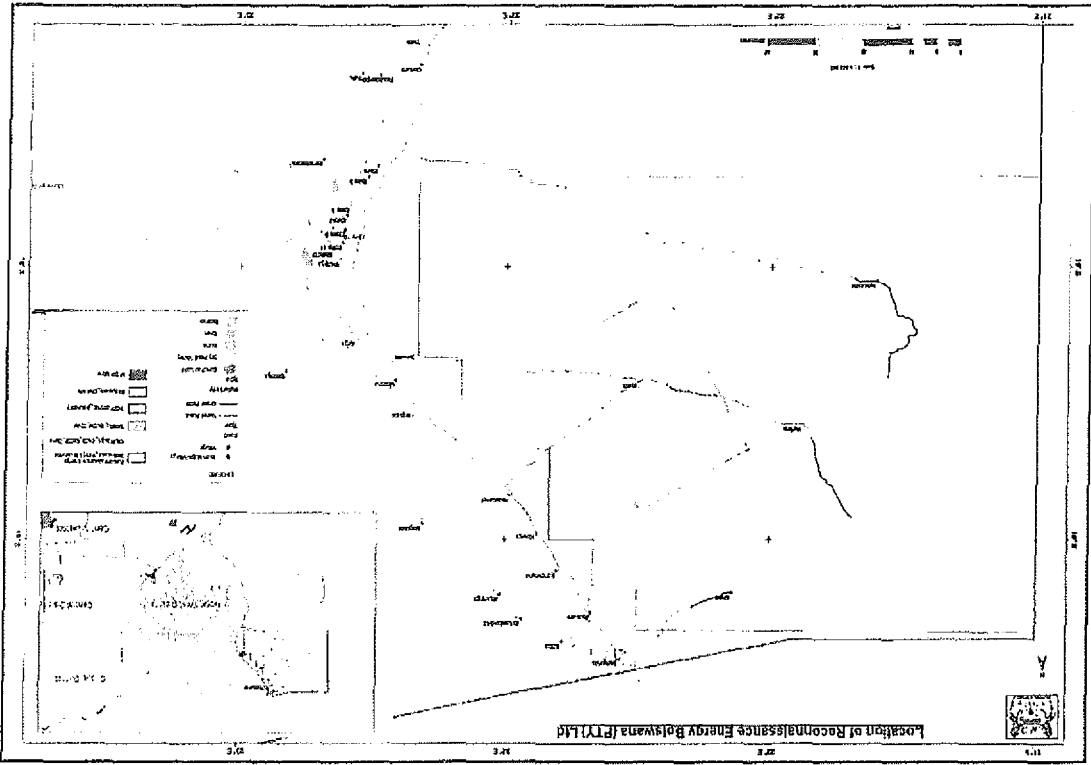
The State Party, would like to express that the current exploration licence is outside of the buffer and core zones of the Okavango Delta World Heritage Property and that of the Tsodilo Hills World Heritage Site which are within the prescribed Okavango River Basin. Notwithstanding, the ORB is regarded an environmentally sensitive area. Therefore, rigorous and critical Environmental Impact Assessment is a prerequisite to any intrusive development in the area. Furthermore, the State Party commits to ensuring and monitoring of any future prospecting and mining activities within the ORB and will continue the engagement of Angola and Namibia on the management of the shared waters of the Cubango-Okavango River Basin.

*Table 1: maps showing the locations of the Reconnaissance Energy Botswana (Pty) Ltd and the Gcwihaba (Pty) Ltd exploration permits around the Okavango Delta World Heritage Property (Department of Mines).*

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Table 1



**3.7 Urges the States Parties of Botswana and Namibia to ensure that potential further steps to develop the oil project, which include the use of new exploration techniques, are subject to rigorous and critical prior review, including Environmental Impact Assessment (EIA) that corresponds to international standards, including an assessment of social impacts and a review of potential impacts on the World Heritage property, in line with the IUCN World Heritage Advice Note on Environmental Assessment, and requests that all such assessments are submitted to the World Heritage Centre, for review by IUCN;**

The State Party of Botswana acknowledges the World Heritage Committee's concerns to ensure that potential steps needs to be undertaken prior to the development of the oil project, including the use of new exploration techniques are subjected to a rigorous and critical prior review, that includes the conduct of a rigorous EIA, that complies to the best international standards. Such an EIA will also include a rigorous Social Impact Assessment of communities living within the confines of the Okavango Delta World Heritage Property. The State Party hereby commit to avail such studies for review by IUCN before approval.

The State Party will continue working with key stakeholders among them; Department of Environmental Affairs (DEA), Department of National Museum & Monuments (DNMM), Okavango Research Institute (ORI) to address issues and recommendations raised according to best international practices. This will be done in line with best resources governance principles of accountability, responsibility and transparency including consultation with the interested and affected communities in the area in question.

**3.8 Appreciates the efforts to revise the Okavango Delta Management Plan (ODMP) and its submission to the World Heritage Centre, and also requests the State Party to finalise the plan following IUCN's review;**

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The Okavango Delta Management Plan (ODMP) was initially developed following the Okavango Delta being declared a Ramsar Site in 2008. Key developments that took place post 2008 include the listing of the Okavango Delta as a World Heritage Site (WHS) in July 2014. The inscription necessitated the revision of ODMP to align with the requirements of the World Heritage Convention.

The World Heritage Site listing, together with other post 2008 emerging issues and new threats (such as mining, upstream and downstream developments and increasing land-use and human-wildlife conflicts) that may impact the socio-ecological integrity of the ODRS, now a Multi-Internationally Designated Area (MIDA), motivated for the review of the 2008 ODMP. Furthermore, the ODMP mid-term review (MTR), completed in 2014, also highlighted and recommended key issues that were overlooked in the 2008 management plan development and implementation. Some of these issues include climate change, gender, and emerging stakeholder voices such as the youth in the management process of the ODRS.

The revised Okavango Delta Management Plan (ODMP) will guide management and use of the Okavango Delta MIDA landscape for the next seven years, effective 2021. The State Party is happy to announce that the ODMP has since been completed. The review exercise conducted by the Okavango Research Institute (ORI) of the University of Botswana followed a four-staged process being, i) inception, ii) scoping, iii) draft revised plan and iv) the final plan.

**3.9 Also appreciates the on-going efforts to control invasive alien species that threaten the ecological integrity of the property, and further requests the State Party to include control strategies and a comprehensive monitoring plan in the revised ODMP;**

The State Party acknowledges the observation by the World Heritage Committee for the continued ecological control measures set in place

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for the alien invasive species within the Okavango Delta World Heritage Property. The State Party reaffirms its position to have control measures of the alien invasive species in the newly revised Okavango Delta Management Plan of 2021-2027.

The most common alien invasive species in the ODRS is the free-floating water fern *Salvinia molesta* (Mochimbama). It occurs mainly in the eastern parts of the Delta and is kept under control by the introduced weevil *Cyrtobagous salviniae*. The control is effective but lags plant growth in the cool winters when mats can form. *Salvinia* control has been in place in the form of the host-specific biological weevil, *Cyrtobagous salviniae* Calder and Sands. *Cyrtobagous salviniae* feed on *Salvinia molesta* leaves senescence leading to sediment litter formation, leaching/release of tissue nutrients and changes in physical-chemical properties of water during the course of *Salvinia* bio control are observed.

An array of activities to control *Salvinia* are undertaken including monthly new infestation surveys and biological control weevil establishment through sampling and assessment. There are 56 *Salvinia* monitoring sites in the lower Okavango Delta. *Salvinia* control has been thoroughly established in all infested sites to ecologically acceptable levels. The aim of the biological control program is not to eradicate the weed, but to reduce abundance to the level where it no longer causes a problem. Small residual mats of *Salvinia* will continue to harbor the weevils so that if regrowth of *Salvinia* occurs as a result of favorable conditions with sufficient nutrients, control agents can build up rapidly to restore control. The weed may cover most of the channel sides and vegetation make it difficult when applying biological agent.

**Current Status:**

New *Salvinia* infestation along the Boro channel was observed in June 2020 that originated from Nxaraga lagoon, the technical aspects of

weed control has been ongoing until to date, the thick mats coverage has been reduced significantly as the result of the introduced biological control, monitoring of the new infestations revealed that the biocontrol weevil has established all the way to Boro Buffalo Fence and control has been achieved.

Salvinia infestation in the Abaqao/Mborogha River system has increased between Camp Okavango and Txaba. Unfortunately, monitoring is hindered by aquatic blockage and vegetation encroachment. Control strategies are implemented to augment the weevils in these river systems. There has been significant decline in mat coverage in Maunachira River System, which indicates Salvinia control effectiveness.

All the other sites monitored in the core zone have abundant number of weevils as determined by scientific methods. Therefore, it indicates that biological control progress in the Salvinia infestations has been under constant progress and maintained in most of the core and buffer zones of the Okavango Delta World Heritage Site.

### **Salvinia Control**

For stakeholders' engagement on aquatic weeds control, joint Salvinia monitoring programme has been proposed for in-house breeding of Salvinia weevils at some of safari operators and trusts after finalizing and signing of Memorandum of Understanding (MoU). Training of Safari Camps staff and Trusts on Salvinia biological control on breeding forms part of MoU. The involvement of stakeholders besides control of Salvinia will benefit some lodges as they use it as part of sightseeing, environmental education.

The ecotourism businesses and riparian communities have benefitted and secured enormously from the control of Salvinia weed in the Okavango Delta. Complaints of difficulty in navigating the streams due to thick blockage of Salvinia mats, for tourism recreation and other activities continue to be received. Notwithstanding the above stated

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situation, sustainable monitoring of Salvinia has improved considerably and several pools and lagoons are accessible to wildlife for water use.

- 3.10 Also recalling that veterinary cordon fences create a major impediment to wildlife migrations, expresses its concern that an EIA has not yet been undertaken in this regard, and reiterates its request to the State Party to continue efforts to rationalize veterinary cordon fencing, removing them when possible;**

The State Party acknowledges the concerns raised by the World Heritage Committee in regard for the need to rationalize the issue of cordon fences around the Okavango Delta World Heritage Property as they turn to inhibit the free movement of wild animals across zones. The State Party further acknowledges the concerns of the World Heritage Committee that to date an EIA has not yet been undertaken to inform the rationalization exercise.

The State Party is happy to inform the World Heritage Committee that an EIA was conducted for Veterinary Fences in Ngamiland in 2000. The EIA recommended the rationalization of some fences in the District, that included the taking down of some fences, others to be maintained while others were to be built. The Department of Veterinary Services has as such taken down 35 km of the fence from the Okavango Delta core area. Furthermore, another EIA for the Protection Zone between Hainaveld and Communal Grazing Area is ongoing and it is at Draft Final Stage.

It is very important to note that the issue of cordon fences is by no small measure a simple matter. It is true that cordon fences on the one hand tend to inhibit the free movement of wild animals as they tend to cut some of the natural animal corridors. On the other hand, cordon fences are used in Botswana to separate wild animals from both human settlements and domestic animals. Cordon fences around the Okavango Delta are used as an example to separate buffalos from domestic animals. Buffalos are known to be carriers of the much dreaded foot and mouth disease that can ravage the entire cattle stock.

It is also wildly publicised that the issue of human-wildlife conflict is very prevalent in the Greater Okavango Region. Elephants are known

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to kill people in relatively unacceptable levels in the District, while predators such lions, hyenas and cheetahs constantly kill domestic animals as they come in close contact with human settlements. The community around the area constantly puts government under pressure to establish new fences, or at least maintain the existing ones. It is upon this background that Government is under tremendous to do a balancing act to accommodate the varying interests.

The State Party is pleased to announce that the Department of Agriculture has since taken a decision to rationalize some cordon fences in the District. As an example, the Northern Buffalo fence will be removed all the way to Xhoroma area, with the option to cattle vaccinate three times per year to control the Foot and Mouth disease. In addition, fence from Xhoroma to Kilo 70 along the Botswana-Namibia will be removed to aide free movement of animals in the area. However, from Kilo 70 to Mohembo East the fence will be maintained to prevent stray animals into the Namibian side as there is a high cattle concentration in the area. Further, the Samochima fence all the way to the Namibian border will be taken down to ease free movement of animals. The Border fence between the current corner Samuchima-Namibia to corner Ikoga/Namibian Border will be maintained to separate domestic animals from wild animals.

The above scenario demonstrate State Party's commitment to rationalize the issue of cordon fences where possible, and to maintain these where it is impractical not to do so.

**3.11 Also reiterates its requests to the State Party to:**

- a) **Complement the EIA for the Mohembo bridge project with a specific assessment of the potential impacts of the construction and use of the bridge and the road on the property's OUV, and submit it to the World Heritage Centre for review by IUCN,**

The state party acknowledges the concerns of the World Heritage in regard to the development of the Okavango River Bridge, commonly referred to as the Mohembo Bridge, and its potential impact on the

## Outstanding Universal Values of the Okavango Delta World Heritage Property.

However, the State Party hereby reports that the Okavango River Bridge construction project is at a final stage of completion. The State Party further indicates that the initial Environmental Impact Assessment for the project was conducted in 2009. This was well before the Okavango Delta was inscribed as a World Heritage Property, therefore outdated, lacking sufficient and adequate relevant assessment of potential impacts of the project on the Outstanding Universal Value of the property.

Botswana understands the importance of the property not only for the ecological maintenance but also to the sustenance of local communities' livelihoods. The State Party is happy to report that the proponent of the project, Ministry of Transport and Communication, through the Department of Roads has developed and implemented complementary assessment of impacts to the initial EIA through the following instruments;

- Monitoring of Environmental Compliance and Implementation of Mitigation Measures during the Construction of the Okavango River Crossing Bridge in Mohembo Village.
- Specialist Baseline studies report intended to be used to monitor the impact of the bridge to the bio-physical environment including;
- Air Quality Sampling Requirement, Methodology and Baseline Study.
- Baseline Noise Monitoring Report.
- Surface Water Baseline Report.
- Ground Water Baseline Report

Furthermore, the state party informs the World Heritage Committee of the Environmental Audit undertaken by the Department of Environmental Affairs in collaboration with relevant institutions in August 2021. This was a follow up on the 2019 Audit Report that was

appended to the 2020 Okavango Delta State of Conservation Report that was submitted to the World Heritage Committee.

- b) Submit the results of the 2019 aerial wildlife surveys to the World Heritage Centre and set up a regular monitoring programme of wildlife populations using the 2019 data as a baseline,**

The State Party acknowledges the comment by the World Heritage Committee in relation to the submission of the latest Aerial Wildlife survey to be used as a baseline data. The State Party wishes to make correction that the Aerial Wildlife Survey that was referred to in 2020 Okavango Delta State of Conservation Report was that of 2018 and not 2019.

Background to this process is that the Department of Wildlife and National Parks (DWNP) has been conducting aerial surveys since the early 1980s. In 2010, 2014 and 2018, a Botswana-based Non-Governmental Organization, Elephants Without Borders (EWB), conducted aerial surveys, most recently in conjunction with the DWNP. The most recent population estimates are thus from the 2018 survey, which covered northern Botswana, not just the Okavango Delta. Estimates for large, gregarious animals are likely to be more accurate than those for smaller-bodied and solitary species.

The population survey was done during dry season, July to October 2018 on elephant and other wildlife species in the northern Botswana. A total area of 103662 km<sup>2</sup> was covered that consist of the following: Moremi Game Reserve, Chobe National Parks, their surrounding Wildlife Management Areas (WMAs), Makgadikgadi and Nxai Pan Parks, Pastoral areas in Ngamiland and Chobe and Central District. It is important to note that the 2018 aerial survey was the expansion of the 2010 and 2014 of Michael Chase aerial survey, where the new strata was added south of the Okavango Delta near Maun and west of Makgadikgadi National Park including the southeast Ngwasha/Sepako near Zimbabwe border.

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The survey was done to estimate population for elephant and other wildlife species. Secondly the survey in addition to numbers, mapped the spatial distribution of the said species including the baobabs trees, large birds and livestock going to the extends of showing trends in wildlife population. During this census the area was divided in 69 strata that included the WMAs and protected areas. The table below shows the summary of the population estimation for elephant and other wildlife species.

| <b>Species</b>          | <b>Estimate</b> | <b>Std error</b> | <b>Density</b> |
|-------------------------|-----------------|------------------|----------------|
| Elephant                | 126114          | 5054             | 1.22           |
| Breeding herd           | 105469          | 4837             | 1-02           |
| Bull                    | 20645           | 1097             | 0.2            |
| <b>Other Herbivores</b> |                 |                  |                |
| Buffalo                 | 28 534          | 0                | 0.28           |
| Duiker                  | 303             | 66               | 0.003          |
| Eland                   | 2098            | 544              | 0.02           |
| Gemsbok                 | 3302            | 720              | 0.03           |
| Giraffe                 | 8343            | 587              | 0.08           |
| Hippo                   | 13232           | 1015             | 0.13           |
| Impala                  | 77694           | 3884             | 0.07           |
| Kudu                    | 7473            | 521              | 0.85           |
| Lechwee                 | 88584           | 4845             | 0.03           |
| Reedbuck                | 2620            | 227              | 0.01           |
| Roan                    | 833             | 138              | 0.03           |
| Sable                   | 2872            | 799              | 0.03           |
| Sitatunga               | 875             | 85               | 0.01           |
| Springbok               | 120             | 52               | 0.001          |
| Steenbok                | 1561            | 217              | 0.02           |
| Tsessebe                | 3650            | 384              | 0.04           |
| Warthog                 | 5723            | 403              | 0.06           |
| Waterbuck               | 993             | 182              | 0.01           |

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|                     |          |      |       |
|---------------------|----------|------|-------|
| Wildebeest          | 99317017 | 3788 | 0.16  |
| Zebra               | 60170    | 9247 | 0.58  |
| <b>Predators</b>    |          |      |       |
| Hyena               | 91       | 36   | 0.001 |
| <b>Birds</b>        |          |      |       |
| Bateleur            | 1079     | 117  | 0.01  |
| Fish eagle          | 2242     | 131  | 0.02  |
| Ground hornbill     | 438      | 86   | 0.004 |
| Ostrich             | 3429     | 427  | 0.03  |
| Pelicans            | 6423     | 2731 | 0.06  |
| Saddle billed stork | 552      | 62   | 0.01  |
| Vulture             | 6474     | 954  | 0.06  |
| Wattled crane       | 1373     | 211  | 0.06  |
| <b>Livestock</b>    |          |      |       |
| Cow                 | 128936   | 8292 | 1.24  |
| Goat                | 51035    | 6132 | 0.49  |

The elephant population was found to be increasing as compared to 2014 survey with elephant movement observed occurring across the strata. The elephant carcasses were observed during survey. There was clear indication of fresh carcasses indicating freshly suspected poached elephants. Going further to confirm carcasses on the ground, 79 carcasses were confirmed where 80% were suspected poached. The following places were listed as hotspots NG 11/12/13, NG 15/18/19, area around Maun and NG42.

Other species counted like Lechwee has recorded highest number ever in Northern Botswana. The hippopotamus population was found increasing significantly including Reedbuck, Sitatunga, Fish eagles and Wattle cranes comparing to 2014 survey. Notable Sable and Saddle billed stork were found decreasing as from 2014. On trees 569 baobab trees were counted during the survey and were classified in different categories e.g. age and effect of damages.

- c) **Take measures to ensure that all wastewater generating facilities in the property comply with national wastewater pollution standards and avoid any effluent disposal methods that could impact the OUV of the property, ensuring regular monitoring of water quality.**

The State Party of Botswana take note the observation by the World Heritage Committee that it is imperative to put measures in place to ensure that all wastewater generating facilities within the Okavango Delta World Heritage Site comply with national wastewater pollution standards.

Improper disposal and management of solid and liquid waste were identified as one of the concerning practices by the 2008 Okavango Delta Management Plan. Several interventions to address this problem were recommended being:

- Engaging the private sector licensed by Department of Waste Management and Pollution Control (DWMPC) to collect and dispose of both liquid and solid waste.
- Ensuring that tour operators comply with provisions of waste management as contained in their lease agreement;
- To construct a landfill in Gumare:

The lease agreements of tour operators did not make it mandatory on them to comply with the Waste Management Act and North West District Council (NWDC) waste management guidelines. However, this failure to adopt the recommendation should not be a cause for concern as the provisions of the Waste Management Act are legally binding. Department of Waste Management and Pollution Control is legally empowered to act against any operator, individual or entity violating the law. Further, NWDC acting under the Trade Act has the authority to inspect, ensuring compliance with environmental and public health laws. The revocation of a trade license, issuing of a fine, or both are some of the measures available.

### **Water Conservation**

Water conservation and demand management initiatives continue to be implemented within the core zone of the delta. These include the use of water efficient fixtures and reclamation of wastewater by tourism establishments. Reclaimed water is used for landscape irrigation and indirect recharge of aquifers.

### **Pollution Control**

Surveillance of tourism establishments generating wastewater within the Okavango Delta is undertaken throughout to safeguard water resources from threats of pollution. A total of seven (7) facilities within the core zone were inspected and the effluent quality for all but one were not in compliance to Botswana standard for environmental discharge (BOS 93:2012- Wastewater-Physical, Microbiological and Chemical Requirements- Specification) and best wastewater management practices. Nonetheless, continual efforts are being made through surveillance exercise, environmental audits and education/awareness to encourage a shift to safer methods of effluent disposal.

### **Water Quality Monitoring**

A total of 24 monitoring sites (figure 1) in the Okavango Delta with 9 sites located in the core are monitored on quarterly basis following the Okavango Delta Systematic Monitoring program by the Department of Water Affairs. The systematic water quality monitoring tracks changes in freshwater quality by providing reliable scientific data and enable apt decision making on the water resources consummate with ecological conditions, water resources protection and restoration. The water quality of the core zone as such remains in a pristine state with all the water bodies depicting good ambient water quality. However, this is despite threats from anthropological activities within the Okavango delta and especially those emanating from the tourism sector.

#### 4. OTHER CURRENT CONSERVATION ISSUES AFFECTING THE OKAVANGO DELTA WORLD HERITAGE SITE:

Notwithstanding the above discussed conservation issues as raised by the World Heritage Committee, the State Party do recognize other conservation issues that affects the Okavango Delta World Heritage property. It is the State Party's considered opinion that if not well managed or mitigated, some of these issues have the potential to affect the Property's Outstanding Universal Values, as well as to affect its integrity and authenticity. Some of these factors are discussed below to elucidate the above observation:

- a. **Climate Change:** Studies have revealed some changes in the physical environment and ecosystem effects of the delta including variation and reduction in hydrological flow; changes in sediment dynamics; water quality, abundance, and distribution of biota; channel distribution. The changes are driven by a combination of factors including climate change, population dynamics, land use change and poverty. The 2008 ODMP noted that "The combined water resources developments with climate change have the most severe impact on the Delta". The report further noted that scenario testing involving water extraction plans and climate change predictions revealed that these factors, particularly climate change, will reduce the value of the ODRS. Some of these changes may affect animal distribution. For example, large mammals such as the lechwe are sensitive to the degree of flooding in the delta. Similarly, these observed changes in the delta are a threat to riparian communities' livelihoods, rendering them more susceptible to the effects of climate change.

Changes in the physical environment observed by participants in the Kgotla consultation meetings during the recent Review exercise of the Okavango Delta Management Plan of 2021, include decline in the availability of veld products, over population or declined population of some animal species, land degradation, dry tributaries, and vegetation destruction. The communities raised concern that wild fruits such as

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Mokapana (African horned cucumber or *Cucumis metuliferus*), Moretlwa (wild berry, *Grewia flava*) Motsentsela (bird plum, *Berchemia discolor*) are no longer available due to competition from elephants and baboons who feed on them. Some grass species such as Bojang jwa Dipitse (Adrenaline grass, *Vetiveria nigritana*) are also reported to be extinct in some areas such as Kauxwi. Residents also observed that while elephant's population has bloated over time, wildcat populations have declined, and those of lions, hippos, crocodiles, and buffalos have increased. For instance, the residents of Ditshipi settlement on the edge of the Okavango Delta claimed that hippos and crocodiles that were relocated to their area following the drying up of the Thamalakane river in Maun have now become a menace as witnessed in the destruction of mekoro (dugout canoes) by hippos.

Residents in the consulted villages during the Review of the Okavango Delta Management Plan, also raised concern that overpopulation of elephants affects the ecosystem balance such that some small game have disappeared due to vegetation destruction; some protected species such as the baobab plant species have been destroyed; and other economic sectors such as hand-crafts have been affected due to the destruction of reeds by the elephants. Loss of natural appeal in protected areas is also exacerbated by developments comprising accommodation facilities, use of generators for power supply and lighting.

Most of the tributaries of the Okavango River were also reported to have run dry. Examples include the Sankuyo river which is said to have dried up due to the blockage of the Mogogelo tributary, whose flow was last recorded in 1978/9). The community, however, ruled out climate change as the main cause and believe that the river flow was interfered with when authorities were attempting to arrest the spread of *Salvinia molesta* at Mogogelo. Another tributary which is said to have dried up is one known as 'mogobe wa Makoba' along Savuti-Gobatshaa. According to the residents, the drying up of the river and its tributaries has led to birds'

migration. High prevalence of invasive species was also raised as a concern.

**b. Covid-19 and Tourism Vulnerabilities:** Another factor that has the potential to negatively affect conservation and ultimately the Outstanding Universal Value of the Okavango Delta World Heritage Property is the recent outbreak of the Covid 19. The outbreak of the Novel Coronavirus (SARS-CoV-2) commonly known as 'COVID-19' has negatively impacted on most sectors of the economy with the tourism and hospitality industry being one of the hardest hits. The imposition of travel restrictions to curb the spread of the virus has resulted in low tourism demand and a downward spiral of international arrivals. Due to restrictions imposed, the tourism sector has suffered great losses as borders remained closed for a good part of the year 2020. Consequently, the local tourism sector has been trying different strategic interventions as a way of adapting to the rapid changes. One of the notable adaptation attempts is the promotion of domestic tourism through reduced pricing of up to 70% for citizens. By late-October 2020, Botswana was one of the 93 destinations (43% of all global destinations) that still had their borders completely closed to international tourists (UNWTO, 2020a).

Travel restrictions due to COVID-19 resulted in the collapse of the sector with some hotels in the country operating at 10% capacity. COVID-19 has resulted in the loss of jobs due to the collapse of some businesses. As a result of the loss of business, many tourism facilities have laid-off workers. In the context of Botswana, some tour operators and related establishments had put their workers on paid and unpaid leave and others' wages have been reduced. A preliminary study by the HATAB showed that the sector experienced huge financial losses, with some hotels operating at less than 10% of their capacity by mid-March 2020. By April 2020, of the 26 000 workers employed in the tourism sector, only 300 were at work mainly working in facilities offering quarantine services for COVID-19 and related patients. Only those facilities contracted by the

government to provide accommodation for essential services personnel and mandatory quarantine were able to remain afloat, make reasonable earnings and retain some of their employees.

The surge in advertisements offering "affordable rates" aimed at attracting citizens and residents to patronise the normally out of bounds luxury tented camps in the Okavango Delta has shown the importance of expanding the domestic tourism base. It is critical to observe that price reductions come at a cost because that will require a change in policy from high value-low volume to low cost-high volume which may have negative impacts on conservation of the Okavango Delta World Heritage Site if left unchecked. Therefore, the changes adopted by various operators to remain operational during COVID-19 and beyond should be done within the parameters of sustainable tourism development in a manner that does not jeopardise the integrity of the natural environment and temper with the pristine aspect of the Okavango. Studies are hopefully still to be done to establish the impact of this change on conservation strategy.

Low tourism activities during the height of the Covid 19 Pandemic is also suspected to have significantly facilitated increased poaching activities, which in turn could affect the Outstanding Universal Value of the Okavango Delta. Reduced numbers of people within the Okavango Delta core area, either as tourists or employees of the various tourism establishments could have enabled poachers to have a field day. Furthermore, less revenue from tourism activities may lead to communities having less interest to conserve the Okavango Delta ferociously as they did before because of less economic benefits.

COVID-19 has also highlighted the need to diversify Community Based Organizations revenue away from both consumptive and non-consumptive tourism. This is critical to ensure that they are insulated from the volatility of the sector. The hunting ban has previously shown that the dependence of communities on tourism and related activities is

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not sustainable. COVID-19 is merely highlighting a reality that the communities have been living with for the past 5 years.

**c. Poaching:** Poaching continues to be one of the major threats to the integrity and OUV of the Okavango Delta World Heritage Site. The most targeted animal species are the elephants. Botswana is home to approximately a third of the global population of African elephants, which are under huge poaching pressure throughout most of their range. The population in Botswana is therefore vital to the survival of the species, but there is a growing opinion that the pressure exerted by such a large population of elephants could be having detrimental effects, particularly on large tree species. Elephants de-bark and knock over adult trees, while browsing on younger individuals, thereby reducing recruitment rates and preventing replacement of adults. This could have severe consequences for other species that rely on large trees, and for the functioning of the Okavango Delta overall, which requires large trees to filter nutrients and concentrate salinity into islands, thereby maintaining low salinity in the waters of the Okavango. Ideally, the large elephant population in Botswana could be spread out over the Kavango-Zambezi landscape through restored connectivity between protected areas in neighbouring countries, but these movement routes are currently disrupted by human activities, including developments and poaching pressure.

Another animal species that is under eminent threat is the rhino. Rhino population numbers are never presented, since they are sensitive data. Two organisations have been working with Department of Wildlife and National Parks (DWNP) and Botswana Defence Force (BDF) to monitor and protect rhinos. Rhinos without Borders, supported by Great Plains and Beyond safari operators, imported approximately 70 white rhinos into Botswana when poaching was lower in the Okavango Delta than elsewhere in the rhino range.

Rhino Conservation Botswana has been assisting the government with collaring and monitoring rhinos, including having multiple monitoring patrols on the ground that work with BDF and DWNP. In the last five years, rhino poaching has escalated, with most of the black rhino population being poached for their horns and the remainder evacuated out of the Okavango Delta to private reserves with higher security. White rhinos are also being poached at a high rate, such that rhinos will be locally extinct in the Okavango Delta MIDA landscape within a few years if poaching continues at its current rate.

In recent years, Botswana has taken a decision to dehorn all rhinos to reduce their appeal, but this has not had the desired effect, since the small amount of horn left by the dehorning procedure is still worth a large amount of money. The 2019 drought opened access to poachers since there was less water in the delta to hinder them, and the Covid-19 pandemic greatly reduced tourism activities in 2020, so fewer people were moving around in the concessions and poachers have been less deterred and detected. BDF, DWNP, RWB and RCB have maintained their presence, including using aerial and ground patrols to monitor rhinos and respond to any carcasses located.

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## 5. DEVELOPMENT PROJECTS PLANNED WITHIN THE OKAVANGO DELTA WORLD HERITAGE SITES AND ITS ENVIRONS

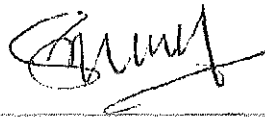
The State Party is happy to announce that there are no major ongoing projects at the core area, nor the buffer zone of the Okavango Delta World Heritage Property. This is partly owing to the fact the core area of the delta is relatively inaccessible and not suitable for any major infrastructure developments. For the most part of the year, the core area is flooded with swampy water and marsh. The various tourism facilities dotted around the delta are mostly accessed using small air crafts, tour safari vehicles and carved dug out wooden boats known as *mekoro* in local languages. It has been Government position that no permanent infrastructure developments are allowed within the core area of the Okavango Delta World Heritage Property.

The dotted tourism facilities found at the core and buffer zones of the Okavango Delta World Heritage Property are encouraged to construct their tourism facilities using semi-permanent structures such as the use of wooden materials, the use of canvas tent materials, and the use of natural building materials such as wooden logs and grass thatch.

The above being the case, one notable major project taking place around the Okavango Delta World Heritage Property, but outside the buffer zone is the Maun Water and Sanitation Networks Project. The project is implemented by the Ministry of Land Management, Water and Sanitation Services through the Programme Management Office (PMO). The project entails the upgrading of Maun Water and Sanitation Networks to meet the village's water and sanitation requirements. The project comprises of water supply source development, transmission, treatment, storage and distribution, as well as upgrading of the rudimentary and dilapidated sewerage infrastructure in Maun to meet the village demand up to the year 2030.

It is important to note that the project is currently underway. The project was preceded by a detailed EIA, and EIA consultants are on the ground to ensure the smooth implementation of the project.

Report prepared and submitted by



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Stephen Mogotsi

Director – Department of National Museum and Monuments

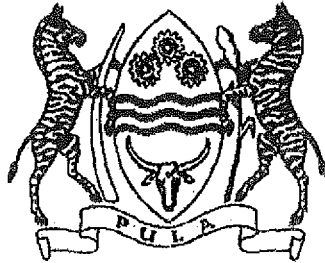
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**Annexure 1: Audit Report for Construction of Bridge Over  
Okavango River at Moheambo**

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Republic of Botswana



# Construction of Bridge Over Okavango River at Mohembo

Report on Audit of 18 – 19 August 2021

As per Section 19 of the Environmental Assessment Act (No 10 of 2010) (CAP 65:07)

Department of Environmental Affairs

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## Acronyms

- AIDS – Acquired Immunodeficiency Syndrome
- BEAPA – Botswana Environmental Assessment Practitioners Association
- BEAPB – Botswana Environmental Assessment Practitioners Board
- BOBS – Botswana Bureau of Standard
- BOS – Botswana Standard
- DEA – Department of Environmental Affairs
- DWNPC – Department of Waste Management and Pollution Control
- EAPB – Botswana Environmental Assessment Practitioners Board
- EIA – Environmental Impact Assessment
- EMP – Environmental Management Plan
- HIV – Human Immune Virus
- I&APs – Interested and Affected Parties
- SHE – Safety, Health and Environment
- WTP – Wastewater Treatment Plant

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## Executive Summary

### Background

The Mohebo Bridge is developed to link the area East of the Okavango River in Botswana's North West District. The project commenced on 2018 and is set to complete in late 2021. As of August 2021, the project was 96% complete. Key components of the projects are the Bridge and approach roads, Contractor's Camp, and four Burrow Pits.

Given the complexity (magnitude) of the project, as well as the area's environmental sensitivity, it is key that all development be guided by environmental sustainability principles. Key to this is the Environmental Assessment Act, which mainstreams various socioeconomic and biophysical aspects.

### Audit Approach

To assess the compliance level and identify opportunities for improvement, an audit activity was undertaken by a multisectoral team on the 18<sup>th</sup> and 19<sup>th</sup> of August 2021. The audit involved documentation review, site inspections, as well as interviews with relevant parties. All components deemed to be essential were assessed, the period 2018 to present.

### Findings

The key findings were that the environmental performance of the project was largely compliant, with records being maintained for various aspects. The staffing was present, though proven to be inadequate. Although there was no evidence of ecological degradation and the management thereof appeared satisfactory, the absence of monitoring thereof was a concern. Similarly of concern was the absence of an archaeologist.

An absence of an authorisation and license for the Waste Treatment Plant were similarly raised as findings as they constituted noncompliance by the project.

### Conclusion

The project is generally compliant to the provision of environmental related instruments save for comprehensive monitoring of environmental aspects.

### Recommendations

- Within 21 days, demonstrate plan towards establishing changes that may have been brought by the project by monitoring changes in the economic status, crime rate, health before close of the project.
- Demonstrate a plan towards progressive realisation of systematic collection of ecological data within 21 days.
- Initiate application process for Environmental Authorisation and Licensing of Wastewater Treatment Plan within 21 days.
- Demonstrate conscious effort towards deliberate consideration of archaeological finds monitoring of Burrow Pits within 21 days.
- Within 21 days, demonstrate plan towards progressive realisation of Land Reclamation for Shakawe, Samochima and Shakawe Burrow pits -taking into consideration neighbouring land uses.
- Develop a comprehensive, budgeted decommissioning and rehabilitation program with timelines, with specific revegetation plan of relevant components sites such as burrow pits.

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## 1 Project Background

Following a desire to connect the area on the East of the Okavango River in the North West District of Botswana, a permanent, all-weather, safe and 24-hr crossing structure was proposed. Such a structure would enable the steady supply of goods and services to communities on the Eastern side of the river, and ultimately be an economy enabler in the Eastern Panhandle.

The components of the ensuing structure would be a cable-stayed bridge, including an approach road, the contractors' camp, asphalt plant, waste treatment plant, and cement batching plant. The bridge is envisaged to measure 1.161km with a complementary approach road of 3.0km.

The location of the site is 18°16'22.1"S 21°47'43.9"E, 200m downstream of the Mohembo East Ferry landing site. Additional components are the burrow pits at 18°27'19.7"S 21°53'59.9"E, 18°21'53.5"S 21°49'44.9"E, 18°20'01.9"S 21°40'03.3"E, and 18°19'15.4"S 21°54'30.6"E. Villages within the impact area of the project are Samochima, Shakawe, Mohembo West, Shaikarawe, Mohembo East, Kauxhwi, and Xakao.

The Project is being implemented by the Ministry of Works and Transport, under the Department of Roads (TB NO. 9/5/152/2001-2002). The contract amount is P 1,045,510,751.77, while the contractor is ITINERA/Cimolai JVP. The engineer is CPP Botswana (Pty) Ltd. The project commenced on 8 November 2016. It was initially set to end on 7 July 2019, while the revised completion date is late 2021. In mid-August 2021, the project was reportedly 96% complete.

## 2 Audit methodology

With an understanding of the environmental impact that a project of this complexity and magnitude would have, an audit was undertaken on 18 – 19 August 2021 with the aim of establishing the project's environmental compliance level. This was additionally motivated by the setting of the project location, which has key ecological sensitivity, as well as a sensitive socioeconomic aspect. A previous audit had been conducted from 14 to 16 August 2018 although only the preliminary findings were communicated (dated 23 August 2018).

### 2.1 Scope

The temporal extent was primarily on the period since 2018, although several issues extended further back due to the absence of a previous final audit report.

The spatial extent covered all the core components, and included the sensitive receptors, primarily being the neighbouring homesteads, main river channel and associated floodplains. The project components covered during the audit were;

1. Bridge and approach roads
2. Contractor's Camp
3. Asphalt Plant
4. Cement Batching Plant
5. Waste Treatment Plant
6. Burrow Pits
  - a. Samochima
  - b. Shakawe
  - c. Shaikarawe
  - d. Xakao

A pre-audit was done on the 3<sup>rd</sup> and 4<sup>th</sup> of August 2021. Full-audit was done on the 18<sup>th</sup> and 19<sup>th</sup> of August 2021.

### 2.2 Proceedings

The pre-audit meeting was preceded by a rapid test for the Corona-virus Disease of 2019 (COVID-19) on all team members. All members tested negative.

A pre-audit meeting was held at the contractor's seminar room and attended by the client, as well as engineer's environmentalists, the contractor's environmentalist as well as the audit team. Details of the audit team are in an earlier section of the current report. A safety briefing was done at the contractor's Safety Health and Environment (SHE) officer.

The audit commenced with a review of documentation as availed by the environmentalists following earlier communication from the audit team. Interviews with the auditee team were conducted to seek clarification where deemed necessary.

The second stage was that of Site Inspections and Observations for verification of records and independent assessment thereof. Interviews with neighbouring homesteads was done in addition to seek independent perceptions on some of the identified issues.

To streamline the audit, the following key components were identified for audit

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1. EMP Implementation
2. Ecological aspect monitoring
3. Archaeological findings management
4. Social Impact monitoring
5. Occupational Health monitoring
6. Burrow Pit management
7. Access Roads management
8. Contractor's Camp management
9. Workshop and Maintenance areas
10. Liquid Waste Management
11. Solid Waste Management
12. Water Monitoring
13. Solid Monitoring
14. General air-quality Monitoring
15. Dust Monitoring
16. Noise Management

*Definitions:* In reporting the results from an audit, the following terms are key; compliance, noncompliance, and observation. A compliance reflects that the requirement in a documented condition has been met. A noncompliance refers to a failure to meet any of the specific requirements of the condition. Observation reflects a failure to meet nonspecific requirements of a condition.

The closure meeting was attended by the same attendants as the pre-audit meeting. In spite of a desire to involve decisionmakers at this stage, this did not come to be. The purpose of this meeting was to provide preliminary findings. Though a desired component, an assessment on the improvement since feedback from the previous audit.

Although systematic, an audit is a sampling exercise and purports by no means to apply to areas that were not actively audited. The conclusions drawn, therefore, pertain strictly to the sampled aspects. Furthermore, the results are only valid at the time of the audit.

Key noncompliances raised during the 2018 audit were;

1. No EMP and authorisation for (1) Contractor's Camp and (2) Shakawe Burrow Pit,
2. Absence of aquatic life specialist and archaeologist,
3. No environmental Policy Statement,
4. No documentation on implementation of some EMP components,
5. Malfunctioning of Waste Treatment Plant,
6. Surface of chemical storage facility was not bunded,
7. Lack of signage for designated areas and labelling of items,
8. Engagement of unlicensed waste collection carriers for used cooking oil, scrap metal and clinical waste,
9. Inadequate monitoring of ecological aspects,
10. Lack of staff induction or awareness raising on archaeological matters,
11. Improper placement of pollution sampling points,
12. Lack of monitoring of hydrocarbons and microbiology during water monitoring,
13. Inconsistency in the timing of sampling for water-quality,
14. Lack of mitigation despite evidence of noncompliant water quality,
15. Invalid measurement of water levels,
16. Absence of sediment-deposit monitoring,
17. Lack of mitigation for soil erosion from storm water trenches,
18. Lack of mitigation for sedimentation from storm water trenches,
19. Lack of mitigation for contamination from storm water trenches,
20. BTEX monitoring station impeded by soil stockpile, and
21. Unavailability of dust suppression plan.

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### 3 Key legislation

#### 3.1 Laws of Environmental Relevance

Table 1. List of laws of relevance, indicating salient provisions

| Act  | Sector                       | Key Sections  |
|--|------------------------------|---|
| Environmental Assessment Act (No 6 of 2005) (Cap. 65:07) | Environmental Management     | Section 14  |
| Environmental Assessment Act (No 10 of 2010) (CAP 65:07) | Environmental Management     | Section 6(3) -Authorisation<br>Section 12(1)(a) -<br>Authorisation<br>Section 19 -Audit         |
| Monuments and Relics Act (CAP 59:03)                     | Historical Artefacts         | Section 12 –Notification of discoveries<br>Section 9 –Pre-development Archaeological Assessment |
| Air Pollution (Prevention) Act (CAP 65:03)               | Air Quality                  | Air quality management  |
| Waste Management Act (1998) (CAP 65:06)                  | Waste Resources Management   | Part 5, Section 13 –Waste Carrier License<br>Part 6, Section 16 –Waste Facility License         |
| Fish Protection Act (No 42 of 1975) (CAP 38:04)          |                              |   |
| Water Act (CAP 34:01)                                    | Water Resources Management   | Sections 27 and 35 abstraction  |
| Aquatic Weeds (Control) Act (1971) (CAP 34:04)           | Water Resources Management   | Regulation 5 - Boat registration  |
| Wildlife Conservation and National Parks Act (CAP 38:01) | Management of Faunal Species | Fauna management  |
| Tribal Land Act (CAP 32:02) ()                           |                              | Surface Rights Way leave  |
| Forest Act (CAP 38:03) (1968)                            | Management of Floral Species | Management of protected flora species   |
| Herbage Preservation Act (CAP 38:02) (1977)              | Management of Floral Species | Veldt-fire management   |
| Public Health Act (CAP 63:01) (1971)                     | Human Health                 | General health  |
| Road Traffic Act (CAP 46:05)                             | Road                         |   |

|  |            |   |
|--|------------|---|
| Mineral Rights in Tribal Territories (CAP 66:02) | Extraction |   |
| Mines and Minerals (CAP 66:01)                   | Extraction | Prospecting License<br>Section 52 –Minerals Permit<br>Closure Certificate |
| Labour and Employment Act                        | Labour     | Employment  |

### 3.2 Conventions that apply to the area/project

The two Conventions apply to the area; 1. Ramsar Convention on Wetlands of International Importance (1971), and 2. Convention Concerning the Protection of World Cultural and Natural Heritage – World Heritage Convention. Both these Conventions are given effect to by the Okavango Delta Management Plan (2021). Other Conventions are the Convention on Biological Diversity and the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage.

### 3.3 Compulsory Standards

BOS 498:2012 Ambient air quality–Limits for common pollutants

BOS 93:2012 2<sup>nd</sup> ed. Wastewater – Physical, microbiological and chemical requirements-Specification

BOS 575:2013 ed. 1 Maximum permissible limits for environmental noise

### 3.4 Agreements that apply to the area/project

The Permanent Okavango River Basin Water Commission (OKACOM)

### 3.5 Plans that apply to the area/project

National Development Plan 11 (2017-2023)

North West District Plan 8 (2017-2023)

Okavango Delta Ramsar Site (ODRS) Strategic Environmental Management Plan (2012)

Okavango Delta Management Plan (2008).

Ngamiland District Integrated Land Use Plan (2009)

Okavango River Panhandle Management Plan

## 4 Findings

### 4.1 EMP Implementation

This aspect deals with the Environmental Management Plan (EMP) implementation and compliances to the provision of Environmental Assessment Act and associated regulations, licenses, permits and regulations. It is important to note that the Environmental Impact Statement for the bridge is dated and some activities being implemented by the auditee are additional to the initial EMP.

This aspect assessed whether all the components that required authorisations as per section 9 of the EA Act. Additionally, the authorisations were assessed to determine whether the authorisations were still within their validity period. The components that had been identified to require environmental authorisations were;

1. Bridge
2. Contractor's camp
3. Samochima Burrow Pit
4. Shaikarawe Burrow Pit
5. Shakawe Burrow Pit
6. Xakao Burrow Pit
7. Waste Treatment Plant
8. Cement Batching Plant

Licenses were required for

1. Burrow Pit operations
2. Burrow Pit Way leave
3. Pontoon registration
4. Waterway rights
5. Waste carrier licenses
6. Mining permits
7. Water abstraction

Components such as burrow pits, contractor's camp, batching plant, waste water treatment plant etc. were expected to be assessed ahead of the implementation. The auditee availed Environmental Authorization and mining permits for; Xakao Burrow Pit, Samochima Burrow Pit, Shakawe Burrow Pit and Shadikekete Burrow Pit. Furthermore, there is an Authorization for the Construction of the bridge and the Asphalt Plant. There was, however, no evidence of an environmental authorization for the contractor's camp and batching plant.

As for the acquisition of licences, all burrow pits are licensed by the Department of Mines while the Wastewater Treatment Plant is operated without a licence.

Out of 9 main components, only six (6) has Authorizations/EIA clearance or licenses. Letters for Burrow Pits and the Bridge availed. Components which were deemed to be operating without environmental authorisations were thus determined to be; Wastewater Treatment Plant (WTP) and Contractor's Camp, which had neither Environmental Management Plans nor authorisations.

Notably, this issue of licensing the WTP has been raised during the previous audit, and continued to prevail regardless.

| Summary Finding                    | Rating              |
|------------------------------------|---------------------|
| Few components remain unauthorised | Partially compliant |

#### 4.1.1 Budget for EMP

There is no evidence of a specific budget intended to implement the EMP. However, a budget for the implementation of individual components of the EMP including Environmental Protection, Health and

Safety, HIV/AIDS Awareness and Prevention have been provided for at the beginning of the project. Yearly breakdown of the required funds, assessment adequacy including expenditure was not availed.

| Summary Finding  | Rating              |
|--|---------------------|
| Budget available for various component, but yearly breakdown not available | Partially compliant |

#### 4.1.2 Contractor awareness of EMP content

There is no evidence that employees are made aware of the contents of the EMP, save for the Code of Conduct of 2015. Note that this Code of Conduct excludes EMPs done post 2015.

| Summary Finding                                | Rating        |
|--|---------------|
| Employee sensitization of EMP content not done | non-compliant |

#### 4.1.3 Contractor awareness of authorization conditions

There is no evidence of inclusion of the EMP implementation between the auditee and the subcontract. The only evidence produced is the Code of Conduct that dates 2015, thereby not adequate as it leaves out EMPs authorized post 2015. There is no evidence of documents that verifies that the Contractor and subcontracts service agreements bears implementation of the EMP as part of such contracts.

| Summary Finding  | Rating              |
|--|---------------------|
| Sub-contractor sensitization of post-2015 EMP content not done | Partially compliant |

#### 4.1.4 Responsibility for implementation of all EMPs

The project has two (2) Environmental Officers, one for the consulting company, otherwise known as the Engineer, responsible for the supervision of the project while the other is with the construction company, responsible for the implementation of Environmental issues and EMPs.

There auditee failed to produce specific Job description for the implementing Environmental Officer save for those that are stated within Code of Conduct, but the Environmental Control Officer presented the contract with clear Job descriptions.

| Summary Finding   | Rating              |
|---|---------------------|
| Specific Job-description for the implementing Environmental Officer not available | Partially compliant |

#### 4.1.5 Availability of Community Relations Officer

There is no specific community liaison officer, rather Human Resources Officer and environmental officers are said to be sharing responsibility of the community liaison officer.

| Summary Finding   | Rating              |
|---|---------------------|
| Role of dedicated Community Relation Officer delegated to other representatives | Partially compliant |

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#### 4.1.6 Code of Conduct

There was Code of Conduct between the developer and the Contractor. However, there was no evidence of an evaluation of implementation.

| Summary Finding  | Rating              |
|--|---------------------|
| Though Code of Conduct available, evaluation of implementation thereof not done. | Partially compliant |

#### 4.1.7 Timely and regular submission of monitoring reports

There was a satisfactory compliance with the approval conditions pertaining to the submission of monitoring reports. Independent checks with the competent authority reflected a regular submission of monthly reports from the contractor and quarterly reports from the engineer.

| Summary Finding  | Rating |
|--|--------|
| Monthly reports submitted regularly as per approval conditions |        |

#### 4.2 Contractor's Camp

The components audited in the Contractor's camp were the Fuel Bay, Washing Bay, and Storage Facility. The camp was generally well-kept, with a few littering instances along walk ways and the chemical storage. Furthermore, dust suppression within the camp was observed. There was presence of well-serviced fire extinguishers though the expiry date was not visible on others, as the date was said to be affected by exposure to direct sunlight.

There are two (2) fuel storage bays, each with a capacity of 14000 m<sup>3</sup>. Each bay holds 28 000 m<sup>3</sup> of fuel. There was no sign of seepage around the wall, except for the used oil. Discoloration of top soil was observed at the used oil storage facility. Oil/water separators were identified at the Wash Bay, Fuel Bay and the Workshop Area.

##### 4.2.1 Workshop and Maintenance Areas

Discoloration of soil due to oil spillage was observed at the used oil storage facility around the workshop. Generally, the upkeep was found to be clean, save for walk ways and the storeroom where litter and unwanted material were spotted. There is adequate provision for containment and storage of solid waste awaiting collection. Management of used oil is generally acceptable, however there are few areas that need improvement particularly collection time and prevention of spillages.

The area was well secured and maintained adequately. Oil separators provided and in operational state. Fire management plan was in place. Adequate Fire extinguishers were strategically placed within the camp have been provided, maintained and well displayed. Fire drills are conducted on routine basis.

There are records for servicing of fire extinguishers and the stickers for expiring dates are displayed. Signage was provided and adequate for in around the workshop and maintenance area, these include Labels, no smoking signs, warning alerting signs. However, there were instances where fire extinguishers were found without visible identification signs.

There was not much spillage around the workshops except where used oil was being stored. Emergency response plan was place as evidenced by document number HSE-013 even though there were no evaluation reports.

| Summary Finding | Rating |
|-----------------|--------|
|-----------------|--------|

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Satisfactory upkeep of Workshop and Maintenance Areas

### 4.3 Socioeconomic Aspects

There was no evidence of monitoring of the project impact to the health systems, improvement of livelihoods and economic activities even though there are activities directly contributing to the three aspects.

#### 4.3.1 Employment

Employment statistics records presented categorised citizens and non-citizens. It also provided a breakdown by age, gender, and skill category as verified by Job Creation Monitoring tool. According to the records, out of 491 employees 458 (93.3%) are citizens while 33 are non-citizens; 431 (87.8%) are males and only 60 account for females.

It was reported that unskilled employees are recruited locally through village structures, particularly Kgotla, however there was no evidence of how many employees recruited actually reside from the project catchment areas.

| Summary Finding   | Rating              |
|---|---------------------|
| Recordkeeping and evaluation of employment creating actively done, slight improvement required. | Partially compliant |

### 4.4 Corporate Social Responsibility

The auditee failed to account for the amount of money used for corporate social responsibilities, these records were being kept with the Headquarters offsite. However, there were a number of recorded activities that the project contributed to the local communities including;

1. Donation of 200 chairs to Samochima Primary School,
2. Donation of Stationery to Mohembo Primary School, 3. Development of young professionals on scaffold assembly.

| Summary Finding                             | Rating    |
|---|-----------|
| Evidence of Corporate Social Responsibility | Not rated |

#### 4.4.1 Health impact

There was no monitoring of impact of the project to the local health system, increase or decrease in communicable diseases such as HIV/AIDS in relation to the baseline.

| Summary Finding                             | Rating        |
|---|---------------|
| Health impact not being actively monitored. | Non-compliant |

#### 4.4.2 Employer/Employee dispute resolution

There was no evidence of employer/employee dispute resolution procedure. There is record of disputes as authenticated by Complaints log from 2017-2021 amounting to 55 complaints.

| Summary Finding | Rating |
|-----------------|--------|
|                 |        |

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|   |               |
|---|---------------|
| No evidence of employer/employee dispute resolution procedure | Non-compliant |
|---|---------------|

#### 4.4.3 Displacement of people and Compensation

The list is within the land expropriation Report and the number of displaced people stands at 18 people and were compensated with money amounting to P1,492,655.50

| Summary Finding  | Rating    |
|--|-----------|
| Recordkeeping actively done on Displacement and Compensation of people | Compliant |

#### 4.4.4 Public complaints

The complaints register was presented to the audit team; however, it was not discernible how most of complaints were resolved.

| Summary Finding  | Rating              |
|--|---------------------|
| Public complaints register maintained, but complaint resolution not clear therefrom. | Partially compliant |

#### 4.5 Occupational Health

The project employs SHE officers and Job Descriptions were clearly documented. It was observed that all employees have been provided the Personal Protective Equipment (PPE). There is a PPE issuer register that indicates 2 piece overall.

Signage has been adequately provided around the site informing, alerting and warning about the danger in the area. Incidents/accident records were availed as evidenced by incident captive tool/register Document number HSE-6765-090 recorded from 17/08/2017 to 30/07/2019.

Fire Management Strategy in place and evidence presented to the audit team. There also exists a Fire Management Strategy.

As mentioned under section 4.4.1 of this report, records on HIV/AIDS prevalence are not clear; the Auditee presented HIV/AIDS report that do not bear clear dates and systematic reporting. The report contained statistics for 2016/2017, while recent years were missing.

Risks were identified and documented as evidenced by Document number HSE-6765-018.

Health facilities were available on site, and these included an on-site clinic and ambulance.

There was evidence of undertaking of occupational and safety awareness-raising as authenticated by toolbox meetings minutes/report and attendance register.

Emergency response plans and procedures is well documented and verified through

1. Document number HSE-013 INCIDENT/ACCIDENT.
2. Reporting and investigation procedure document number HSE-PRO-6765-093.
3. Working near or overwater procedure Document number HSE-PRO-6765-002.
4. Fall rescue plan Document number HSE-6765-130.
5. Fall protection plan Document number HSE-6765-103.

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6. Working in confined space procedure Document number HSE-PRO-6765-013.

7. Lifting Operation procedure Document HSE-PRO-6765-011.

| Summary Finding  | Rating |
|--|--------|
| Recordkeeping on various Occupational Health and Safety actively and systematically done |        |

#### 4.6 Burrow Pits

##### 4.6.1 Access control (personnel)

During the site inspection, no personnel were available on site. It was communicated that the presence of security personnel was guided by extracting/hauling activities as the main responsibility was recordkeeping. Given the risk of unauthorised access which would lead to other noncompliances, this was an undesirable state of affairs. The challenge that was raised about providing round the clock security was the safety from wildlife.

| Finding                             | Rating        |
|-------------------------------------|---------------|
| no personnel were available on site | non-compliant |

##### 4.6.2 Access route

Access routes were clearly demarcated.

| Finding                                | Rating |
|--|--------|
| Access routes were clearly demarcated. |        |

##### 4.6.3 Fence integrity

The Shakawe and Samochima burrow pits were fenced using a 1.5m grid fence. This was considered a commendable standard as it was largely animal proof. Given that these burrow pits were in the centres of livestock/wildlife area, the provided fences were deemed to be reasonably useful. The integrity of the fence needs attention/maintenance. Access, livestock which would lead to conflict with neighbouring land users. No fence was observed around the Shadikekete Burrow Pit.

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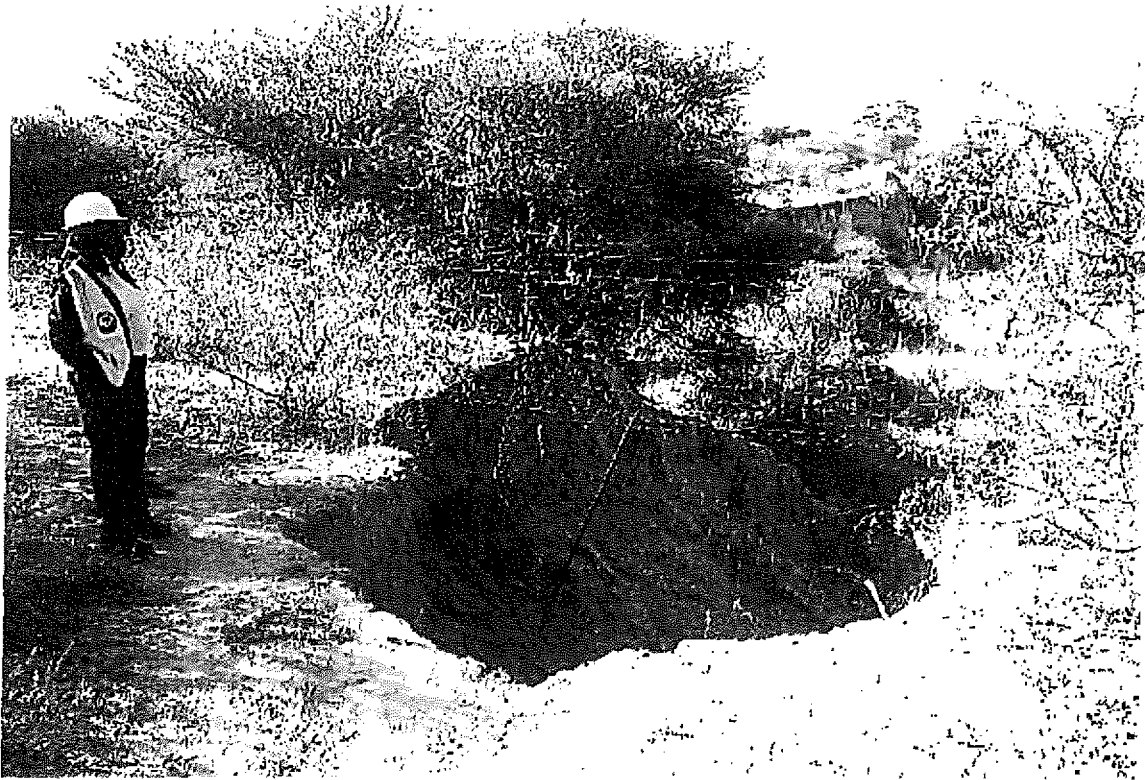


Figure 1. Gully encroaching into fence at Samochima Burrow Pit

| Summary Finding  | Rating              |
|--|---------------------|
| Where available, fencing was of commendable standard, although maintenance required. | Partially compliant |

#### 4.6.4 Signage

Signage was reportedly confined to times when there were activities as signs were reportedly frequently stolen. During the audit, signage was available along the tarred road closest to Shakawe Burrow Pit (see Figs 5).

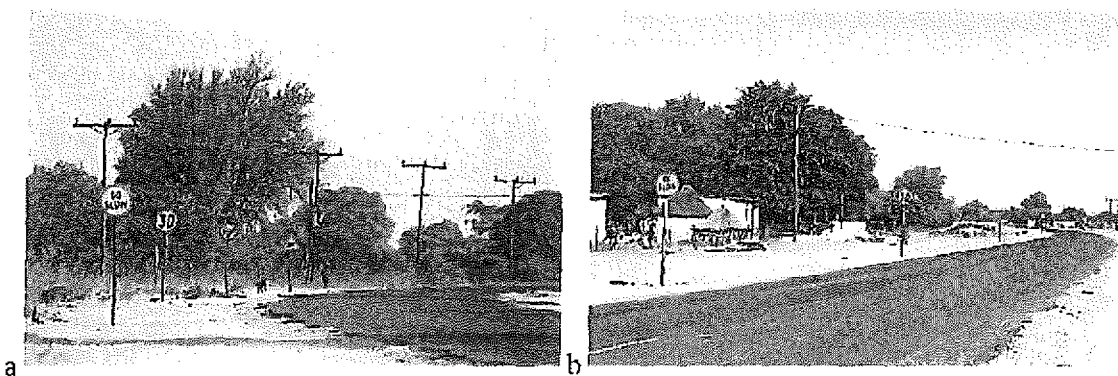


Figure 2 Signage near Shakawe Burrow Pit

#### 4.6.5 Slopes

The rehabilitation programme varied largely amongst the burrow pits;

- At Samochima, the banks were steep and unrehabilitated. Given the excavated depths, the servitudes were likely inadequate for rehabilitation.

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- At Shakawe, there was evidence of backfilling which would presumably address the rehabilitation issue.
- At Shaikarawe, the rehabilitation was reportedly complete and the auditee was awaiting a closure certificate from the Mining Department. Although this might be deemed adequate by mining standards, it was concluded to be inadequate as will be detailed later in this report.
- At Xakao, the South Western banks had been thoroughly rehabilitated, while the North Eastern areas remained steep, unrehabilitated and close to project boundaries. Notably, the excavation resulting in steep slopes went right up to the graveyard fence -risking undesirable occurrences in the event of a bank collapse.

| Finding  | Rating              |
|--|---------------------|
| Evidence of rehabilitation effort available, but requires conscious attempts to make rehabilitation adequate | Partially compliant |

#### 4.6.6 Containment of solid waste

General upkeep in terms of solid-waste containment was above average.

| Finding   | Rating              |
|---|---------------------|
| General upkeep satisfactory save for isolated incidents | Partially compliant |

#### 4.6.7 Containment of liquid waste

Mobile toilets were on available on site. There was no evidence of improper management.

| Finding                                   | Rating    |
|---|-----------|
| Mobile toilets were on available on site. | Compliant |

#### 4.6.8 Decommissioning plan

In spite of decommissioning underway for some of the burrow pits, there was no specific decommissioning plan availed for any. Of key concern is the Shakawe Burrow Pit, which is less than 25m from the nearest household. Given the movement of haulage trucks and backfilling exercise, there is need to specifically and deliberately plan of the environmental impact of the decommissioning exercise.

| Finding  | Rating        |
|--|---------------|
| no specific decommissioning plan availed for any burrow pits | Non-compliant |

#### 4.6.9 Pre-decommissioning structural assessment

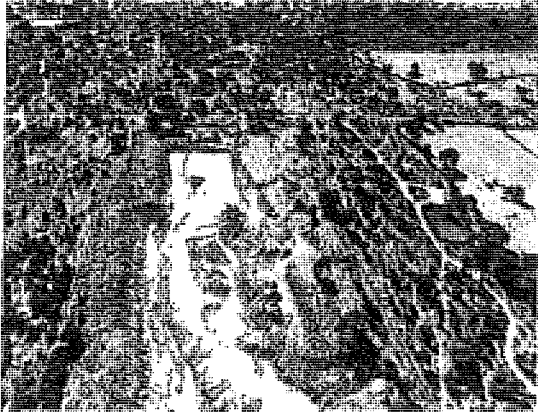
An assessment of structures neighbouring the burrow pit and along the access road was availed. However, this seemed to be dated as it was from 2017. There was thus need to establish a specific decommissioning plan.

| Finding   | Rating              |
|---|---------------------|
| Comprehensive structural assessment available, albeit dated | Partially compliant |

#### 4.6.10 Neighbouring homesteads complaints register

Complaint report available. However, some reports were seemingly not registered.

| Finding  | Rating              |
|--|---------------------|
| Complaint report available. However, some reports were seemingly not registered. | Partially compliant |



a

Figure 3 Aerial view of Burrow Pits at Samochima



Figure 4 Aerial view of Xakao Burrow Pit showing adjacent floodplain and ploughing fields

### 4.7 Waste management

#### 4.7.1 Liquid waste

Sewage from the contractor's camp was treated using an onsite WTP. Details of the design were not known to the environmentalists. The facility is not licensed in spite of requirements of the Waste Management Act and recommendations of the previous environmental audit.

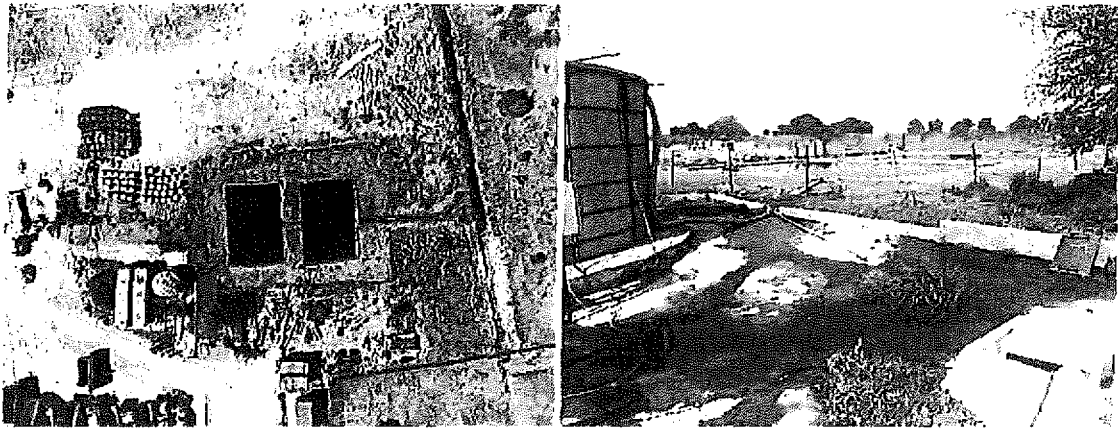


Figure 5 Aerial view of the Wastewater Treatment Plant



Figure 6 Wastewater Treatment Plant

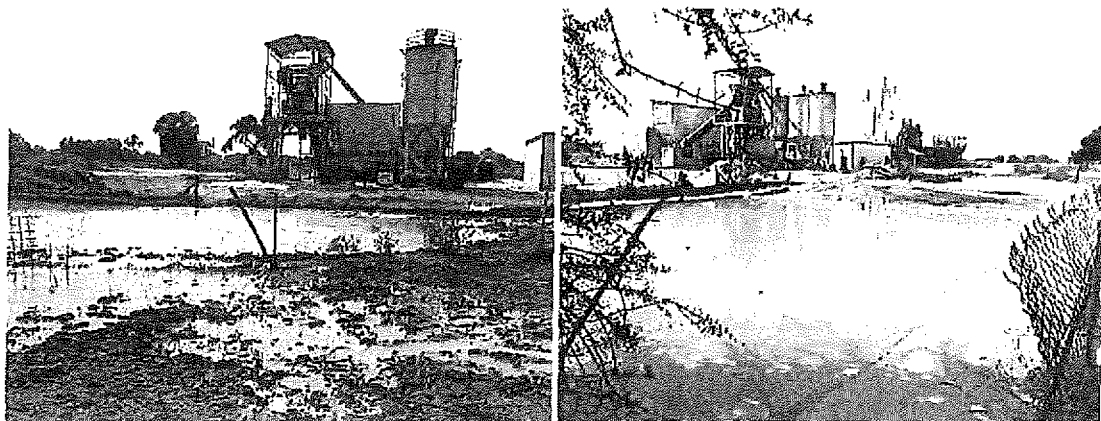


Figure 7. Liquid waste management at Cement-batching Plant

| Finding                      | Rating              |
|------------------------------|---------------------|
| The facility is not licensed | Partially compliant |

#### 4.7.2 Signage

No signage at chemical storage facility, no demarcation, no access control. Poor signage (

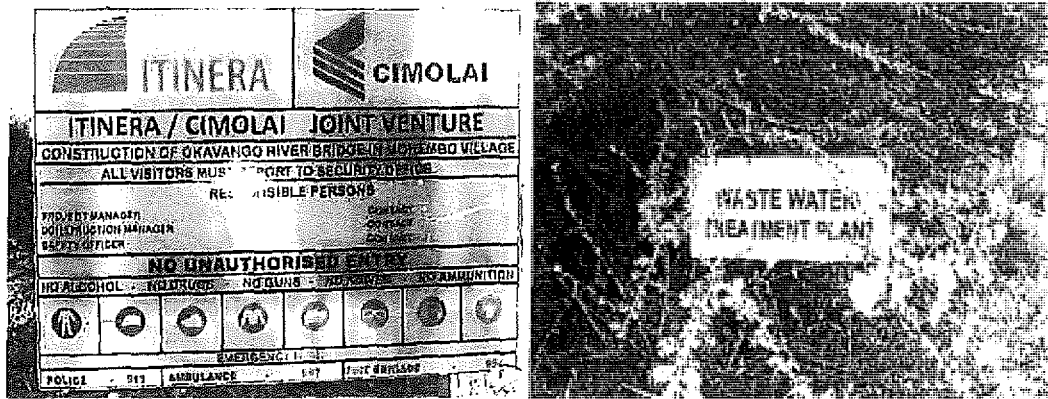


Figure 8. Signage at WTP

| Finding                   | Rating              |
|---------------------------|---------------------|
| No signage at some points | Partially compliant |

#### 4.7.3 Monitoring of effluent quality

Effluent quality monitoring is commendable

| Finding                               | Rating    |
|---------------------------------------|-----------|
| Monitoring of effluent is commendable | Compliant |

#### 4.7.4 Comparison effluent quality BOS 93:2012

Effluent quality monitoring is commendable

| Finding                                    | Rating    |
|--|-----------|
| Effluent quality monitoring is commendable | Compliant |

#### 4.7.5 Sampling points Sampling points

| Finding         | Rating    |
|-----------------|-----------|
| Sampling points | Compliant |

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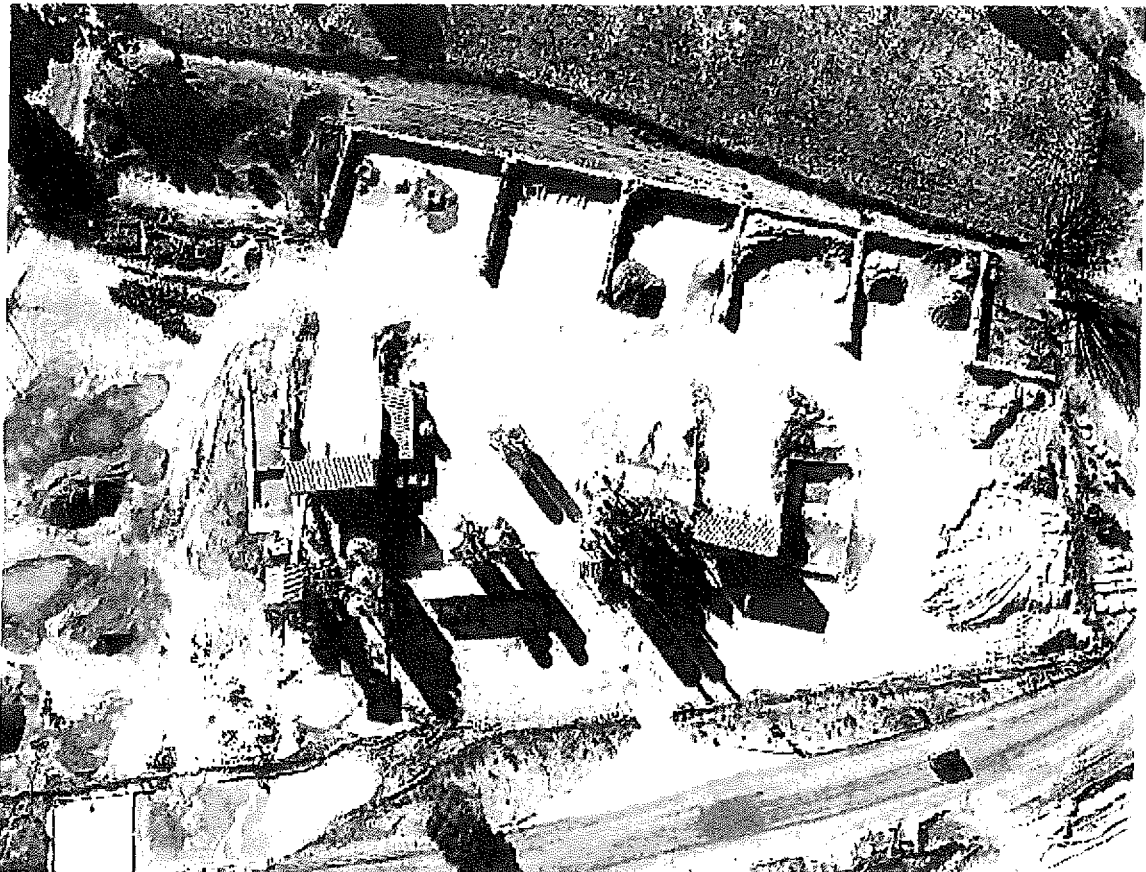


Figure 9 Aerial view of Cement Batching Plant

#### 4.7.6 Sludge management

Sludge management needs attention – Monitoring and implementation of sludge management plan.

| Finding                           | Rating        |
|-----------------------------------|---------------|
| Sludge management needs attention | non-compliant |

#### 4.7.7 Destination of treated effluent/ sludge

Effluent discharges into flood plains and eventually into the river therefore noncompliance (Effluent shall not be discharged into the water sources).

| Finding   | Rating        |
|---|---------------|
| Effluent shall not be discharged into the water sources | non-compliant |

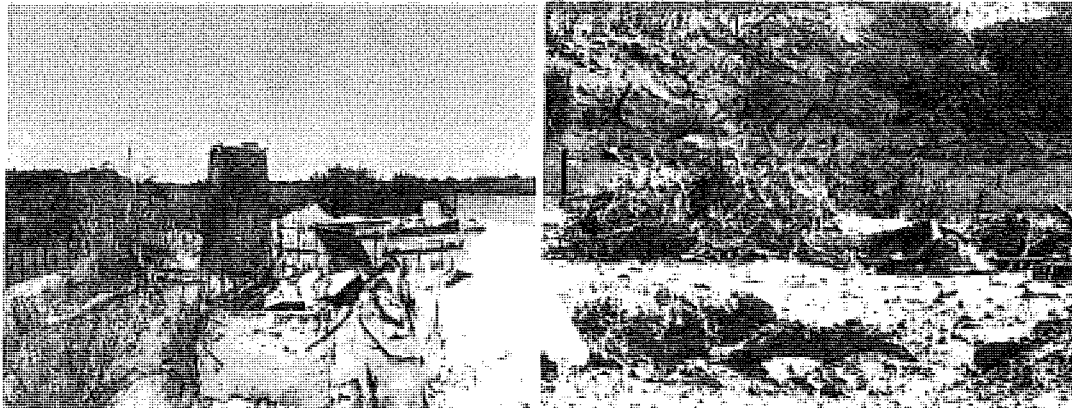
Figure 10 Samochima Burrow Pit, a gully encroaching into the fence due to soil erosion Recommendation – re use of effluent.

| Finding                              | Rating    |
|--------------------------------------|-----------|
| Recommendation – re use of effluent. | Not rated |

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4.7.8 Solid

Waste management is commendable and complying to EMP.



| Finding   | Rating    |
|---|-----------|
| Waste management is commendable and complying to EMP. | Compliant |

4.7.9 Demarcation of Waste Disposal

Sites identified

| Finding          | Rating    |
|------------------|-----------|
| Sites identified | Compliant |

4.7.10 Waste streams identified

Management of different waste streams is satisfactory.

| Finding  | Rating    |
|--|-----------|
| Management of different waste streams is satisfactory. | Compliant |

4.7.11 Used oil management

Used oil management is satisfactory.

| Finding                              | Rating    |
|--------------------------------------|-----------|
| Used oil management is satisfactory. | Compliant |

4.7.12 Waste recycling/reuse initiatives

Scrap metal reuse

| Finding           | Rating              |
|-------------------|---------------------|
| Scrap metal reuse | Partially compliant |

4.7.13 Waste transportation

Licensed carriers used. Recordkeeping at destination.

| Finding   | Rating    |
|---|-----------|
| Licensed carriers used. Recordkeeping at destination. | Compliant |

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#### 4.7.14 Chemical storage

Scrap metal reuse

| Finding            | Rating    |
|--------------------|-----------|
| Scrap metal reused | Not rated |

#### 4.7.15 Sanitary storage

Compliant

| Finding                    | Rating |
|----------------------------|--------|
| Sanitary storage compliant |        |

#### 4.7.16 Adequacy of Sanitary facilities

Compliant

| Finding                                       | Rating |
|---|--------|
| Compliance to adequacy of sanitary facilities |        |

### 4.8 Noise

#### 4.8.1 Existence of noise monitoring programme

Regular sampling of noise levels as reflected in monitoring reports

| Finding                          | Rating    |
|----------------------------------|-----------|
| Regular sampling of noise levels | compliant |

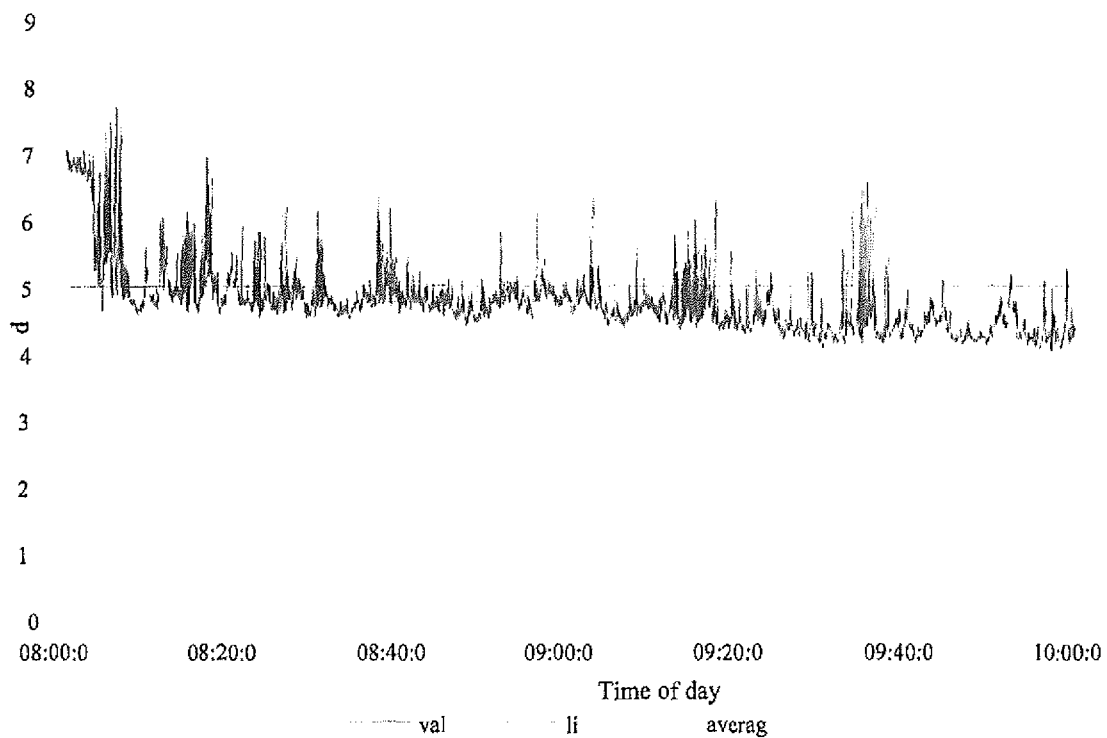
#### 4.8.2 Compliance to standard

Satisfactory compliance to BOBS standards (below 50 dBA). Recommendation for use of monitoring protocols as prescribed in BOS 575:2013 standards.

Independent noise sampling was done on the morning of the 19<sup>th</sup> August 2021. Monitoring was done from 18°17'14.4"S 21°47'17.4"E, which is a residential area lying 200m from the contractor's camp at a bearing of 280°. Monitoring was done for a period of 2 hours, being 0800-1000hrs. Measurement was done on a MT975 noise meter, erected at a height of 1.5m. Deployment was inside a reed shelter with the only opening being a door, which was left wide open. The weather for the morning was calm, with a low breeze in the south westerly direction. No precipitation was noted.

The observation was that the readings for the morning ranged from 38 to 53 dB, with an average of 48 dBA. Although this was below the legal threshold, the proximity was only within 2dB of the threshold - suggesting that exceedances were likely as can be observed in Fig 11.

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Figur 1 Noise monitoring results

| Finding | Rating    |
|---------|-----------|
|         | compliant |

#### 4.8.3 Noise mitigation measures

From the interviews, this amounted to adherence unnecessary operation of machinery.

to operating times, servicing of equipment,

| Finding                               | Rating    |
|---------------------------------------|-----------|
| Evidence of noise mitigation measures | compliant |

#### 4.8.4 Evaluation Noise mitigation measures

There were perceptions of noise pollution – this was observed through community interviews.

| Finding                                   | Rating              |
|---|---------------------|
| Evaluation Noise mitigation measures done | Partially compliant |

#### 4.9 Air quality

##### 4.9.1 Dust

##### 4.9.1.1 Dust monitoring

Most of burrow pits do not have dust monitoring devices except Xakao burrow pit.

| Finding | Rating |
|---------|--------|
|         |        |

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|   |  |
|---|--|
| Most of burrow pits do not have dust monitoring devices except Xakao burrow pit |  |
|---|--|

Samochima

No evidence of monitoring

| Finding                    | Rating        |
|----------------------------|---------------|
| No monitoring at Samochima | non-compliant |

Xakao

No evidence of monitoring in neighbouring homesteads

| Finding | Rating        |
|---------|---------------|
| Xakao   | non-compliant |

Shakawe

Evidence of monitoring in neighbouring homesteads

| Finding | Rating    |
|---------|-----------|
| Shakawe | compliant |

Cement batching plant

| Finding                                  | Rating    |
|--|-----------|
| Dust monitoring at Cement batching plant | compliant |

Bridge and contractor's camp

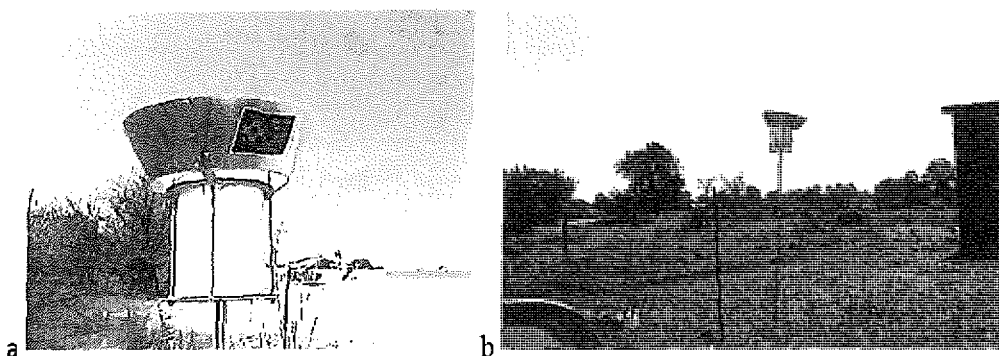


Figure 12. some of the dust buckets observed

| Finding   | Rating    |
|---|-----------|
| Dust monitoring at Bridge and contractor's camp | compliant |

4.9.1.2 Dust suppression plan Plan available.

| Finding                         | Rating              |
|---------------------------------|---------------------|
| Dust suppression plan available | Partially compliant |

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MM

4.9.1.3 *Performance of Dust suppression measures*

Dust remedial measures are implemented satisfactorily e.g. dust suppression with water

| Finding   | Rating    |
|---|-----------|
| Dust remedial measures implemented satisfactorily | Compliant |

4.9.1.4 *Perception of dust*

Community complained of dust

4.9.2 Ambient air

4.9.2.1 *Emission monitoring programme*

There was an active programme for monitoring the quality of ambient air, as proven by the monitoring records as well as the monitoring stations at the cement batching plant.

Parameters included BTEX, PM<sub>10</sub>



Figure 13 Air quality monitoring station at the cement batching plant

| Finding   | Rating    |
|---|-----------|
| Evidence of air quality monitoring station at cement batching plant | Compliant |

4.9.2.2 *Validity of monitoring protocol*

Best practise suggests that monitoring should be done from sensitive receptors. However, given that the devices were kept at areas of controlled access, it is a reasonable choice.

| Finding   | Rating    |
|---|-----------|
| Monitoring protocol valid under the circumstances | Compliant |

4.9.2.3 *Compliance to standard*

| Finding | Rating |
|---------|--------|
|---------|--------|

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|                                     |                     |
|-------------------------------------|---------------------|
| Occasional exceedance of thresholds | Partially compliant |
|-------------------------------------|---------------------|

There is no monitoring of indoor air quality. In spite of commendable monitoring of ambient air quality in the bounds of the cement batching plant, a similar effort was non evident in respect of occupational health.

|  |                     |
|--|---------------------|
| Finding                                | Rating              |
| indoor air quality not being monitored | Partially compliant |

#### 4.9.2.4 Perceptions on air pollution

|  |                     |
|--|---------------------|
| Finding  | Rating              |
| No evidence of effort to manage perceptions and concerns | Partially compliant |

#### 4.9.2.5 Availability of mitigation measures

|                               |           |
|-------------------------------|-----------|
| Finding                       | Rating    |
| mitigation measures available | Compliant |

or's camp. Raingauge available at Samochima

#### 4.10 Weather monitoring

Weather monitoring station available on contract Burrow Pit (see fig)



Figure 14. Rain gauge at Samochima Burrow Pit

|   |           |
|---|-----------|
| Finding                                 | Rating    |
| Rainfall being monitored at burrow pits | Compliant |

#### 4.11 Archaeological findings records monitoring

There is no Archaeologist employed to monitor project activities however there is evidence of employment of one hired twice for specific activity. There is need to have a resident archaeologist on site. Although the project environmentalists indicated that an archaeologist-on-call during the excavation activities who could be contacted in the event of findings, this would suffice if it was not for the fact that there were no records of induction/training to operators regarding archaeological artefacts, hence making it difficult for them to establish what findings would be worthy of contacting the archaeologist.

The management of graveyards reflects the deliberate effort to manage heritage aspects. However, this was presumably driven by community consultations as opposed to relations with relevant specialists.

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| Finding                                      | Rating    |
|--|-----------|
| deliberate effort to manage heritage aspects | compliant |

There was no record form for archaeological findings availed. Standard operating procedures were not availed in the event of chance findings.

| Finding  | Rating        |
|--|---------------|
| no record form for archaeological findings availed | non-compliant |

Similar reports were not availed for monitoring the impact on intangible heritage. •  
Effort made for graveyard consideration

| Finding   | Rating              |
|---|---------------------|
| reports were not availed for monitoring the impact on intangible heritage | Partially compliant |

#### 4.12 Ecological management

An important observation was that ecological management and monitoring was completely missing from the content of the approved EMP. This was in spite of the ecological sensitivity of the area. The audit therefore relied on best practise.

Notwithstanding the above observation, it was noted that ecological monitoring was deprioritized. The inclusion of ecological monitoring in reports was inconsistent, with more recent reports reflecting a more consistent inclusion. The engineer's monthly monitoring reports have no ecological monitoring, while the contractor's quarterly reports do. Furthermore, where the baseline was offered, it was not site-specific, but appeared to rely on zoogeographic data from literature with related more the Delta region.

EIA was not site specific regarding ecological indicators: species composition (inventory), conservation status, likely invasives, location of protected trees, sighting frequency, land cover, -making it impossible to attribute impact to the project.

Where monitoring had been done, it was unclear what protocol had been use used to generate the records. To illustrate, maps were availed clearly demarcating the locations of biophysical monitoring points, however, the same was not available for ecological monitoring.

The was no evidence of ecological monitoring in regard to the WTP. Among the burrow pits, only records from the Samochima burrow pit were reflected in the report.

As noted earlier, a budget for environmental protection has been allocated amounting to P1,700,00 as of 2016. However, since this was not costed in the plan, it is difficult to ascertain the adequacy thereof.

special consideration has been given to access to natural resources by humans or animals

Important Faunal species that are known to occur in the area are;

Important Floral species that are known to occur in the area include; *Adansonia digitata* (Baobab), *Baikiaea plurijuga* (Mukusi),

#### 4.12.1 Vegetation clearing

Confined to project area

| Finding                                      | Rating |
|--|--------|
| Vegetation clearing confined to project area |        |

Access to natural resources by community

| Finding                                       | Rating |
|---|--------|
| No unnecessary obstruction of resource access |        |

#### 4.13 Ecological monitoring

##### 4.13.1 General

During the previous audit, a concern was raised on the lack of monitoring reports regarding ecological components. It was noted, however,

No provision for ecological monitoring in monitoring plans of EIAs. Hence, reliance on environmentalists' competence

| Finding  | Rating    |
|--|-----------|
| No provision for ecological monitoring in monitoring plans of EIAs | Not rated |

Ecological monitoring is not prioritized in monitoring reports. Recent monitoring reports attempted to address this aspect

| Finding                                   | Rating              |
|---|---------------------|
| Deprioritization of ecological monitoring | Partially compliant |



Figure 15. Outlet stream from Wastewater Treatment Plant

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Given the extensive documentation and recordkeeping that had to be carried out regarding specific aspects of environmental monitoring, it was established that there was a staffing constraint. The contractor's environmentalist would not be able to undertake the extensive work that was required.

| Finding                | Rating              |
|------------------------|---------------------|
| Staff shortage evident | Partially compliant |

A general observation on the area including various off-site component showed no evidence of loss of ecological integrity. There was a general presence of faunal species on the main river channel and in the floodplains.

Avian species noted during the audit included slaty egret, lesser egret, Egyptian goose, African white-backed vulture (CE), swift,

| Finding                          | Rating |
|----------------------------------|--------|
| Evidence of ecological integrity |        |

#### 4.13.2 Bridge, approach roads

- Accessibility of wildlife well managed; no unnecessary movement route obstruction, e.g. Fence built, although not maintained.
- There was good management of waste –hence avoidance of scavenger attraction

#### 4.13.3 Burrow Pits

- Samochima, Shakawe, Shadikekete, Xakao
- Good standard fence was used
- Bank collapse evident, leading to a gully encroaching into fence -thus compromising integrity (see Fig. 1)
- Poor fence maintenance might be a legacy issue -this might, however, lead to land use conflict, as well as waste dumping
- Protected-species management evident, but has flaws as some trees has exposed roots, or were on sand islands.
- Shadikekete rehabilitation attempted, but standards seemingly aimed to comply with Mines standards, without considering HWC implications for area.
- Ongoing extraction undermines rehabilitation effort, hence requires regular monitoring and corrective action.

#### 4.13.4 Waste Treatment Plant

- Documentation of impact pertaining to ecology not evident
- Monitoring focused within fence confines
- Sampling issue/protocol unclear
- Low flow might mean low impact, however, given the projected lifespan of the facility, it is key to pay deliberate consideration.
- Biological treatment option might be explored, e.g. use of reed-bed for filtration. Alternatively, charcoal to augment filtration.

#### 4.13.5 Invasive species

There was no evidence of a deliberate invasive species monitoring programme for faunal species.

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**Fauna**

- No deliberate monitoring thereof
- No evidence of identification of species of concern

**Flora**

- No deliberate monitoring thereof

| Finding                                   | Rating        |
|---|---------------|
| deliberate monitoring of invasive species | non-compliant |

- No evidence of identification of species of concern

| Finding  | Rating        |
|--|---------------|
| No evidence of identification of invasive species of concern | non-compliant |

**4.13.6 Awareness**

It was discerned from the interviews that ecological monitoring at burrow pits was reliant on operators. This assumed that the operators could accurately identify all possible species in the area. In relation to this, there were no records of training/induction/awareness available to ensure the validity of this assumption. This thus undermines the validity of the ecological monitoring at these points. Ecological-monitoring representatives.

| Finding  | Rating        |
|--|---------------|
| no records of training/induction/awareness in respect to ecology | non-compliant |

At the Xakao burrow pit, there appeared to be a deliberate effort to avoid the destruction of protected floral species. Several trees were left standing. The concern, however, was that the management was not well guided as the trees were left on sand island, with some having their roots partially exposed.

| Finding  | Rating              |
|--|---------------------|
| deliberate effort to avoid the destruction of protected floral species at some burrow pits | Partially compliant |

- Soil erosion monitoring and management

| Finding  | Rating              |
|--|---------------------|
| Soil erosion management being doesn't, but no evidence of monitoring | Partially compliant |

**Clearing of vegetation**

Aerial photography, and ground assessments indicated that clearing of vegetation was confined to the work areas. However, as baseline landcover maps had not been developed, it was difficult to ascertain this observation. In spite of the missing documentation, there appeared to be no areas of unnecessary land clearing.

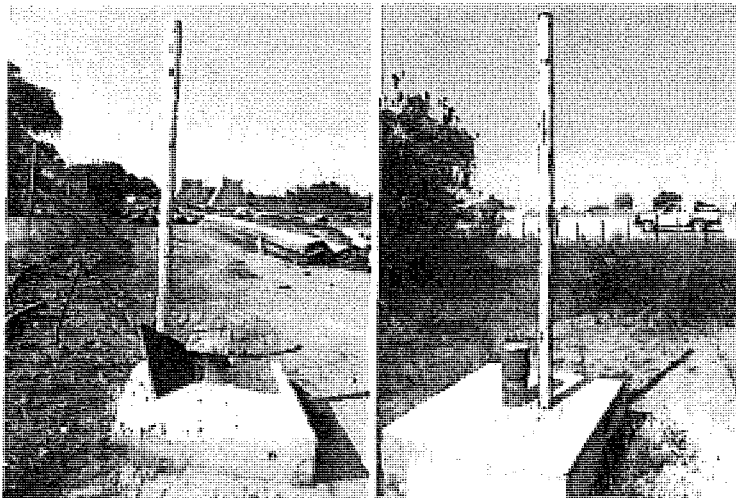
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#### 4.14 Water quality monitoring

- Map availed

| Finding   | Rating    |
|---|-----------|
| Locations of water sampling points clearly indicated on map | Compliant |

#### Hydrogeology and hydrology both done



| Finding                              | Rating    |
|--------------------------------------|-----------|
| both Hydrogeology and hydrology done | Compliant |

#### Comparison to BOS 93, instead of BOS 32

| Finding                                 | Rating              |
|---|---------------------|
| Comparison to BOS 93, instead of BOS 32 | Partially compliant |

#### Reports availed

| Finding                       | Rating    |
|-------------------------------|-----------|
| Water quality reports availed | Compliant |

#### Water Quality results availed

| Finding                       | Rating    |
|-------------------------------|-----------|
| Water Quality results availed | Compliant |

#### Performance does not meet standard –treated water released without meeting standard

| Finding   | Rating              |
|---|---------------------|
| treated water released without meeting standard | Partially compliant |

Pontoon spill management plan available

| Finding                                 | Rating    |
|---|-----------|
| Pontoon spill management plan available | Compliant |

Consistent exceedance of threshold (Calcium Carbonate, Ammonia, Phosphate)

| Finding  | Rating       |
|--|--------------|
| Consistent exceedance of threshold (Calcium Carbonate, Ammonia, Phosphate) | noncompliant |

Sampling at confluence with river/stream whenever possible

| Finding  | Rating    |
|--|-----------|
| Sampling at confluence with river/stream whenever possible | Not rated |

Trend monitoring

| Finding                   | Rating    |
|---------------------------|-----------|
| Trend monitoring not done | Not rated |

Monitoring protocol for reproducibility

| Finding                           | Rating              |
|-----------------------------------|---------------------|
| Monitoring protocol not available | Partially compliant |

Include monitoring points/transects in map

| Finding   | Rating    |
|---|-----------|
| monitoring points/transects not included on map | Not rated |

Summary of incident register (currently it is itemised)

| Finding   | Rating    |
|---|-----------|
| Summary of incident register (currently itemised) | Not rated |

## 5 Conclusion

The project generally complied with most of legal instruments in terms of acquisition of permits, authorizations, licences and approvals.

There was however, no systematic documentation and monitoring of project impact to the livelihoods, health system, intangible heritage, economic activities of the local community is neglected and not.

- The project failed to systematically monitor the possibility of archaeological discoveries by not having the resident archaeologist or an archaeologist on call.
- Occupational Health activities are well executed and documented.
- The contractor's camp level of upkeep is impressive

### 5.1 Summary per component

Table 2. Summary of compliance rate per component 1-5, with 0 being non-compliance and 5 being highest level of compliance.

| Component                  | Compliance level | Comments   |
|----------------------------|------------------|--|
| Bridge and Approach Roads  | 4                | Generally compliant  |
| Contractor's camp          | 4                | Generally compliant  |
| Wastewater Treatment Plant | 2                | No authorisation, not license  |
| Asphalt Plant              | 4                | Avail waste management plan  |
| Cement Batching Plant      | 4                | Liquid waste management requires attention   |
| Samochima Burrow Pit       | 4                | Attend to fence maintenance  |
| Shadikekete Burrow Pit     | 3                | Consider additional backfilling  |
| Shakawe Burrow Pit         | 4                | Update pre-decommissioning structural assessment                                     |
| Xakao Burrow Pit           | 3                | Improve protected species management.<br>Avail evidence of archaeologist engagement. |
| Water Abstraction          | 4                | Generally compliant  |
| Waste Collection           | 5                | Commendable  |

### 5.2 Summary per authorisation

Table 3. Summary of compliance rate per authorisation, permits, licenses.

| Component                  | Compliances noted | Noncompliances noted |
|----------------------------|-------------------|----------------------|
| Bridge and Approach Roads  | 1                 | 0                    |
| Contractor's camp          | 1                 | 0                    |
| Wastewater Treatment Plant | 3                 | 2                    |
| Asphalt Plant              | 1                 | 0                    |
| Cement Batching Plant      | 2                 | 1                    |
| Samochima Burrow Pit       | 3                 | 1                    |

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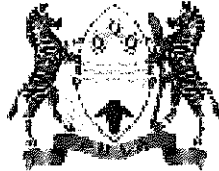
## 6 Recommendations

Table 4. Recommendations

| Aspect                                | Recommendation  |
|---------------------------------------|---|
| Socio-economic monitoring             | Establish the changes that may have been brought by the project by monitoring changes in the economic status, crime rate, health before close of the project.                 |
| Ecological monitoring                 | Demonstrate a plan towards progressive realisation of systematic data collection within 21 days.  |
| Burrow pits/Archaeological monitoring | Demonstrate conscious effort towards deliberate consideration of archaeological finds monitoring within 21 days.  |
| Wastewater Treatment Plant            | Apply for Environmental Authorisation and Licensing process within 21 days.   |
| Burrow pits                           | Land Reclamation should be done for Shakawe, Samochima and Shakawe Burrow pits taking into consideration neighbouring land uses.  |
| Decommissioning                       | Develop a comprehensive, budgeted decommissioning and rehabilitation program with timelines, with specific revegetation plan of relevant components sites such as burrow pits |

"CCC 15"

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**MINISTRY OF MINERALS AND ENERGY**

**Ref: CMMGE 7/3/56 III (11)**

26<sup>th</sup> April, 2022

The Managing Director  
Gcwihaba Resources Pty Ltd  
P O Box 3726  
Gaborone  
Botswana

Dear James M. Bruchs,

**RE: APPLICATION FOR RENEWAL OF PROSPECTING LICENCE NO. 020/2018  
BY GCWIHABA RESOURCES PTY LTD**

1. Reference is made to your application submitted on 2 July 2021 as well as your letter of 15<sup>th</sup> March, 2022.
2. Kindly note that the coordinates submitted in the application for renewal of Prospecting Licence No. 020/2018 are encroaching into the buffer zone, of the Okavango Delta, which is listed as a World Heritage Site. Prospecting activities are prohibited within the buffer zone of the Delta, or if permitted, they are to be subjected to stringent Environmental Impact Assessment measures, in accordance with the provisions of the Environmental Assessment Act of 2010 and Environmental Regulations of 2012 from the Department of Environmental Affairs (DEA).
3. In light of the above, I am not in a position to renew the Prospecting Licence for as long as the submitted coordinates fall within the buffer zone of a World Heritage Site.

Yours faithfully,

Lefoko M. Moagi

**MINISTER OF MINERALS AND ENERGY**

Cc: Director of Mines



"The Ministry that makes a real difference to Botswana"



@mmgebotswana  
@minerals\_energy

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# GCWIHABA RESOURCES (PTY) LIMITED

Co 2003/292

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“CCCL 16”

27<sup>th</sup> April 2022

To: Honourable Lefoko M. Moagi  
The Minister of Mineral Resources, Green Technology and Energy Security  
Ministry of Mineral Resources, Green Technology and Energy Security (MMGE)  
Private Bag 0018 – Gaborone, Botswana

Mr. Ofentse Ditsele Director of the Ministry of Mines  
Department of Mines  
Ministry of Mineral Resources, Green Technology and Energy Security  
Private Bag 0018 – Gaborone, Botswana

**Re: Application For Renewal of Prospecting License No. 020/2018.**

Dear Honourable Minister Moagi,

Thank you for your letter of April 26, 2022.

Gcwihaba Resources (Pty) Ltd. (Gcwihaba) fully understands your commitment to ensure that activities which take place within the *buffer zone*, an area controlled by the Republic of Botswana (State Party) and **not part** of the Okavango World Heritage Property (OKWHP), are conducted in such a way that they do not have an adverse impact on the OKWHP.

PL020/2018 has existed in one form or another since 2008 and always in the area currently known as the *buffer zone*. Chronologically, the *buffer zone* encroached on our license area as our license existed six (6) years prior to the *buffer zone* being established by the State Party in 2014. In fact, a compliant NI 43-101 441Mt resource report was prepared and filed with MMGE prior to the *buffer zone* and the OKWHP being established. For clarification, only the area known as the *core zone* is part of the OKWHP and it is defined in and known by as the Property in the UNESCO documentation. See, <https://whc.unesco.org/en/list/1432/documents>.

We agree with your sentiments that if mining were to take place within the *buffer zone* that an Environmental Impact Assessment (EIA) must first be conducted and made part of any mining application and further an Environmental Management Plan (EMP) must be filed before exploration activities are to be conducted. The foregoing is consistent with the Mines and Minerals Act, the Environmental Assessment Act of 2010 and the Environmental Regulations of 2012 and are applicable not only to us but to all resource activities in the country. **However, under existing law, before either an EIA or a EMP can be conducted and approved, a company must first have the prospecting license.**

Your sentiments are indeed consistent with the State Party's position on these issues as codified in the following documents:

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**Nomination dossier to UNESCO for inscription into the World Heritage List (submission by Republic of Botswana, 2013)**

[Page 30]

*"The Ministry of Energy, Mineral and Water Resources has issued several mineral prospecting licenses to exploration companies for concession areas within the buffer zone of the site. No licenses have been issued within the core zones of the property. **Should an application to mine within the buffer zone arise, an Environmental Impact Study (EIA) will be required as part of Botswana's EIA Act, which would address concerns relating to the World Heritage property.** Also, the matter would be referred to the World Heritage Centre (WHC) for their advice." (emphasis added)*

and from the same report,

[Page 405]

*The government of Botswana through the Ministry of Minerals, Energy and Water Resources has taken a position that it will not issue any new mineral concessions within the Core area of the delta. The Ministry will further engage with the holders of the few existing licenses within the Core area of the delta with a view to eventually expunge those portions of the licenses which overlap the core. **Regarding the buffer area, stringent environmental protocols and practices will be adhered to, to protect the integrity of the Delta.** (emphasis added)*

In addition,

**WORLD HERITAGE NOMINATION – IUCN TECHNICAL EVALUATION  
KAVANGO DELTA (BOTSWANA) – ID No. 1432 [April 2014]**

(page 12)

*"Mining activities including prospecting will not be permitted within the [core zone] property. **Furthermore, potential impacts from mining including concessions in the buffer zone and outside the buffer zone need to be carefully monitored and managed to avoid direct and indirect impacts to the property, including water pollution.**" (emphasis added)*

It is clear from the State Party's submissions to UNESCO since 2013, **that both mining and prospecting licenses can exist within the buffer zone.** Accordingly, we are agreeable, as we have always been, to conduct our activities consistent with the prevailing law and we assure you that our goal is to advance our project in an environmentally friendly manner.

Accordingly, as we are in full compliance with all laws, we respectfully request that PL020/2018 is renewed as we have proposed as it is now almost 11 months since we filed for its renewal. If there is further delay in awarding the license, we request that the State Party reimburse us for its' taking what is legally ours, the exploration costs (+25M USD) and the present value of the in-situ value (\$6-7Billion USD) of that portion of the resource in the buffer zone.

Thank you again for your attention to this matter and please be assured that we are committed to developing our project in full compliance of all relevant existing laws. In addition, Gcwihaba adopted Occupational Health and Safety Assessment Series (OHSAS 18000) and the International Financial Corporation (IFC) Performance Standards and Environmental, Health and Safety Guidelines when IFC, a member of the World Bank became a shareholder of Gcwihaba's parent company, Tsodilo Resources Ltd. in 2010.

Respectfully submitted,

James M. Bruchs  
Managing Director

BM  
MN



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**MINISTRY OF MINERALS AND ENERGY**

Ref: CMME 7/3/56 I (2)

7<sup>th</sup> June, 2022

The Managing Director  
Gcwihaba Resources Pty Ltd  
P O Box 3726  
Gaborone

"CCC 17"

Dear Mr. James M. Bruchs,

**RE: PROPOSAL FOR RESOLUTION OF APPLICATION FOR RENEWAL OF  
PROSPECTING LICENCE NO. 020/2018 – ENCROACHMENT INTO OKAVANGO  
DELTA WORLD HERITAGE SITE BUFFER ZONE**

1. Reference is made to your letter dated 19<sup>th</sup> May 2022, in which you are making a proposal for resolution of the application for renewal of Prospecting Licence No. 020/2018 which encroaches into the buffer zone of Okavango Delta World Heritage Site.
2. I note the resolution by Gcwihaba Resources (Pty) Ltd ("Gcwihaba") to drop off a portion of the area applied for, which falls within the buffer zone of the Okavango Delta World Heritage Site, subject to some conditions.
3. I wish to reiterate my willingness to consider a renewal application as long as the area applied for falls outside the Okavango Delta buffer zone. However, I am not amenable to the conditions attached to your resolution, save for the one that requires that Gcwihaba be given a right of first refusal in the event Government decides to allow exploration or mining within the buffer or core zone anytime in future. I wish to clarify that Government has no intention of allowing those activities in the Okavango Delta, anytime in future.
4. I am not inclined to agree with conditions 1 and 2 in Gcwihaba's letter as the conditions are unreasonable and not supported by law. It will be unreasonable to tie the decision of investment into Gcwihaba's project by Minerals Development Company Botswana ("MDCB") to the renewal of the prospecting licence. This is so because any investment decision is taken after a bankable feasibility study has been



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**MINISTRY OF MINERALS AND ENERGY**

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completed and a competent person's report detailing the mineral resource statement issued to the Ministry. This has not happened with the area in question.

5. Furthermore, the request to renew Prospecting Licence No. 020/2018 held by Gcwihaba for a period three (3) years is not supported by any law therefore rejected. It may be worth pointing out that the Ministry is not responsible for any delays in the carrying out of the programme of prospecting for any licence held by Gcwihaba Resources as claimed in your letter. Rather, Gcwihaba Resources has been responsible for delays in the renewal of its Prospecting Licences due to the insistence of licences being granted over a World Heritage Site.
6. In light of the above, I will be willing to consider the renewal application for Prospecting Licence No. 020/2018 provided:
  - Gcwihaba drops off conditions 1 and 2 in their letter dated 19<sup>th</sup> May 2022.
  - Gcwihaba submit within 21 days from the date of this letter, a revised application for renewal of the Prospecting Licence in question, with boundary coordinates falling entirely outside the Okavango Delta core and buffer zone.
7. Thank you.

Yours Sincerely,

.....  
Lefoko M. Moagi

**MINISTER OF MINERALS AND ENERGY**

Cc: Director of Mines



"The Ministry that makes a real difference to Botswana"



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**GCWIHABA (PTY) LIMITED**

Attachment B

Co 2003/292

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June 28, 2022

To: Mr. Ofentse Ditsele  
Director of Mines  
Department of Mines  
Private Bag 0049  
Gaborone, Botswana

**Re: Revision of License Coordinates: License Renewal Application for  
PL020/2018 – Metals Prospecting Licenses**

Dear Sir,

Pursuant to Honourable Minister Lefoko M. Moagi correspondence of June 7, 2022 and received by the Company on June 15, 2022, Gcwihaba Resources (Pty) Ltd. (herein Gcwihaba or the Company), is hereby resubmitting modified license boundary co-ordinates relating to license ground being renewed for the for the first-2 year renewal of Metals Prospecting Licenses PL020/2018.

The revised co-ordinates are set forth in **Attachment A** and the information set forth in the October 14, 2021 Revision of License Coordinates: License Renewal Application for PL020/2018, PL021/2018, PL022/2018, PL023/2018, and PL024/2018 - Metals Prospecting Licenses is hereby incorporated (**Attachment B**). The Company has re-submitted and updated renewal license boundaries and co-ordinates for PL020/2018 on maps with respect to **Appendix VI** mentioned in the original Form 1 and original application package submitted on June 30, 2021.

The updated re-submitted co-ordinates are in Geographical WGS84 datum and shape files and tabulated coordinates (excel) are included separately on a CD included with this re-submission. Please note that these revised co-ordinates update those relevant section and figures in the original relinquishment report submitted titled "*Final Relinquishment Report, A review of Exploration Results from Gcwihaba Resources (June 2021)*", in so far as only affecting Figures 1, 3, 12, 13, and 14, where **Tables 2** in that report is replaced with **Table 1** below.

Directors: James M. Bruchs<sup>1</sup> (Managing) – Jonathan R. Kelafant<sup>1</sup> – Blackie Marole<sup>2,3</sup> – Dr. Gary A. Bojes<sup>1</sup>  
<sup>1</sup>American, <sup>2</sup>Motswana, <sup>3</sup>Resident

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The Company was initially granted 7 contiguous Metals Prospecting Licenses effective the 1<sup>st</sup> October 2018 for 3 years. The 7 contiguous licenses were:

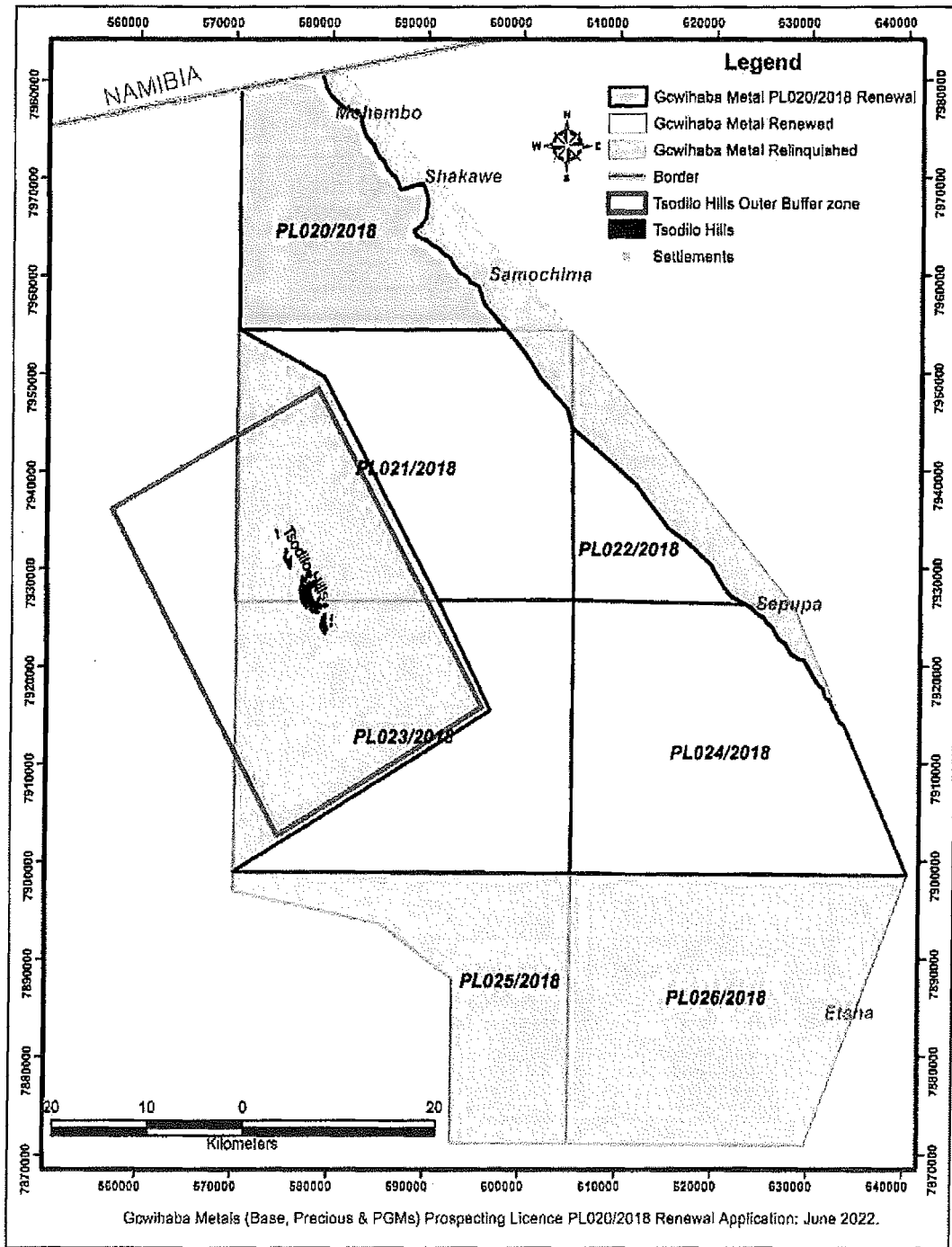
- PL020/2018 (570.0 km<sup>2</sup>);
- PL021/2018 (964.9 km<sup>2</sup>);
- PL022/2018 (317.1 km<sup>2</sup>);
- PL023/2018 (978.6 km<sup>2</sup>);
- PL024/2018 (807.3 km<sup>2</sup>);
- PL025/2018 (454.5 km<sup>2</sup>); and
- PL026/2018 (828.1 km<sup>2</sup>).

In October 2021, The Company relinquished 50% (2,462.1 km<sup>2</sup>) including heritage areas as discussed (see **Figure 1**). The relinquishment includes two licenses, PL026/2018, and PL025/2018 which were relinquished in their entirety (100%). Accordingly, the Company by renewing 463.3 km<sup>2</sup> of PL020/2018 is effectively renewing 50.2% (2,469.10 km<sup>2</sup>) of the original area of the seven (7) contiguous licenses in compliance with Section 19 of the Mines and Minerals Act as follows in **Table 1** and **Figure 1**:

**Table 1.** Area of the seven (7) contiguous metals licenses and renewed in this resubmission.

| License No   | Grant Date      | Original Area km <sup>2</sup> | 1 <sup>st</sup> Renewal Date | Grant Date (1st Renewal) | Renewal Area km <sup>2</sup> | Percentage    |
|--------------|-----------------|-------------------------------|------------------------------|--------------------------|------------------------------|---------------|
| PL020/2018   | October 1, 2018 | 570.0                         | October 1, 2021              | This Application         | 463.3                        | 81.28%        |
| PL021/2018   | October 1, 2018 | 964.9                         | October 1, 2021              | January 01, 2022         | 572.5                        | 59.33%        |
| PL022/2018   | October 1, 2018 | 317.1                         | October 1, 2021              | January 01, 2022         | 160.4                        | 50.58%        |
| PL023/2018   | October 1, 2018 | 978.6                         | October 1, 2021              | January 01, 2022         | 491.2                        | 50.19%        |
| PL024/2018   | October 1, 2018 | 807.3                         | October 1, 2021              | January 01, 2022         | 781.7                        | 96.83%        |
| PL025/2018   | October 1, 2018 | 454.5                         | Did not renew                | Did not renew            | Did not renew                | 0.00%         |
| PL026/2018   | October 1, 2018 | 828.1                         | Did not renew                | Did not renew            | Did not renew                | 0.00%         |
| <b>TOTAL</b> |                 | <b>4,920.50</b>               |                              |                          | <b>2,469.10</b>              | <b>50.18%</b> |

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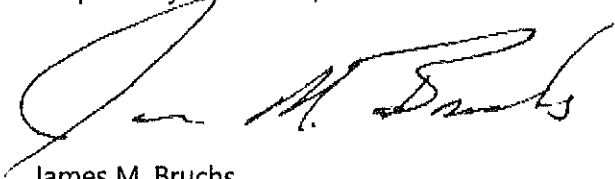
**Figure 1.** Map showing the original 7 contiguous metals licenses, the areas relinquished, and the areas renewed in this application and that submitted in October 2021. Also shown is the Tsodilo Hills area as part of the relinquished area.

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Please see **Attachment A** and the initial renewal license application filed on June 30, 2021, for any additional information.

Please do not hesitate to contact me if you have any questions or need additional information.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "James M. Bruchs". The signature is fluid and cursive, with a large initial "J" and "B".

James M. Bruchs  
Managing Director

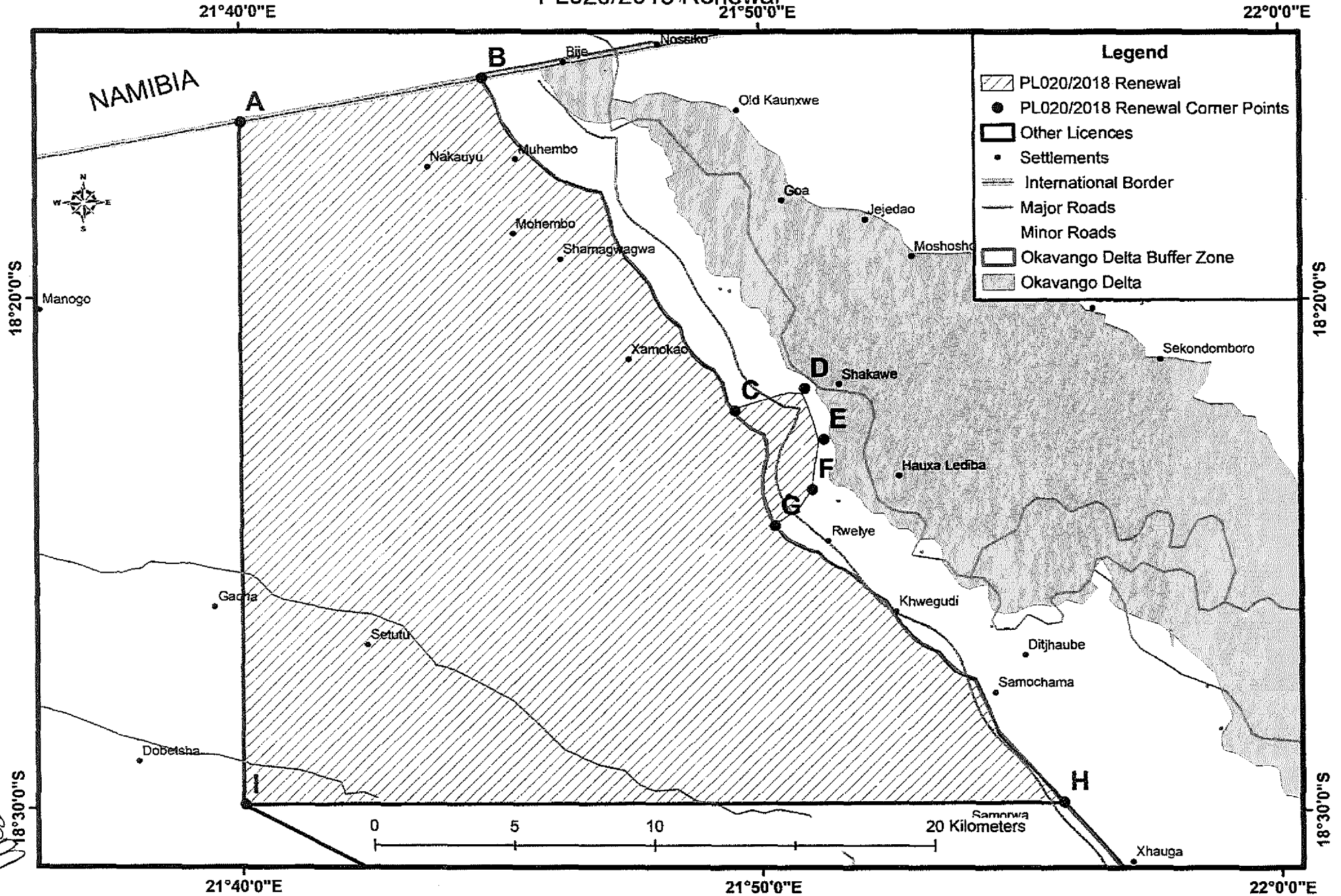
Handwritten initials in black ink, consisting of "BM" stacked above "MN".

| PL020/2018 Renewal                                  |            |              |            |
|---|------------|--------------|------------|
| Point   | Long       | Lat          | Area (Km2) |
| A   | 21.6668604 | -18.27575189 | 463.3      |
| B   | 21.7445511 | -18.26107901 |            |
| Point "B" runs along the reserved area to point "C" |            |              |            |
| C   | 21.8252343 | -18.36973496 |            |
| D   | 21.8474983 | -18.36231363 |            |
| E   | 21.8535876 | -18.3790592  |            |
| F   | 21.8499721 | -18.39542419 |            |
| G   | 21.8377935 | -18.4074125  |            |
| Point "G" runs along the reserved area to point "H" |            |              |            |
| H   | 21.9300845 | -18.49761026 |            |
| I   | 21.6674834 | -18.498752   |            |

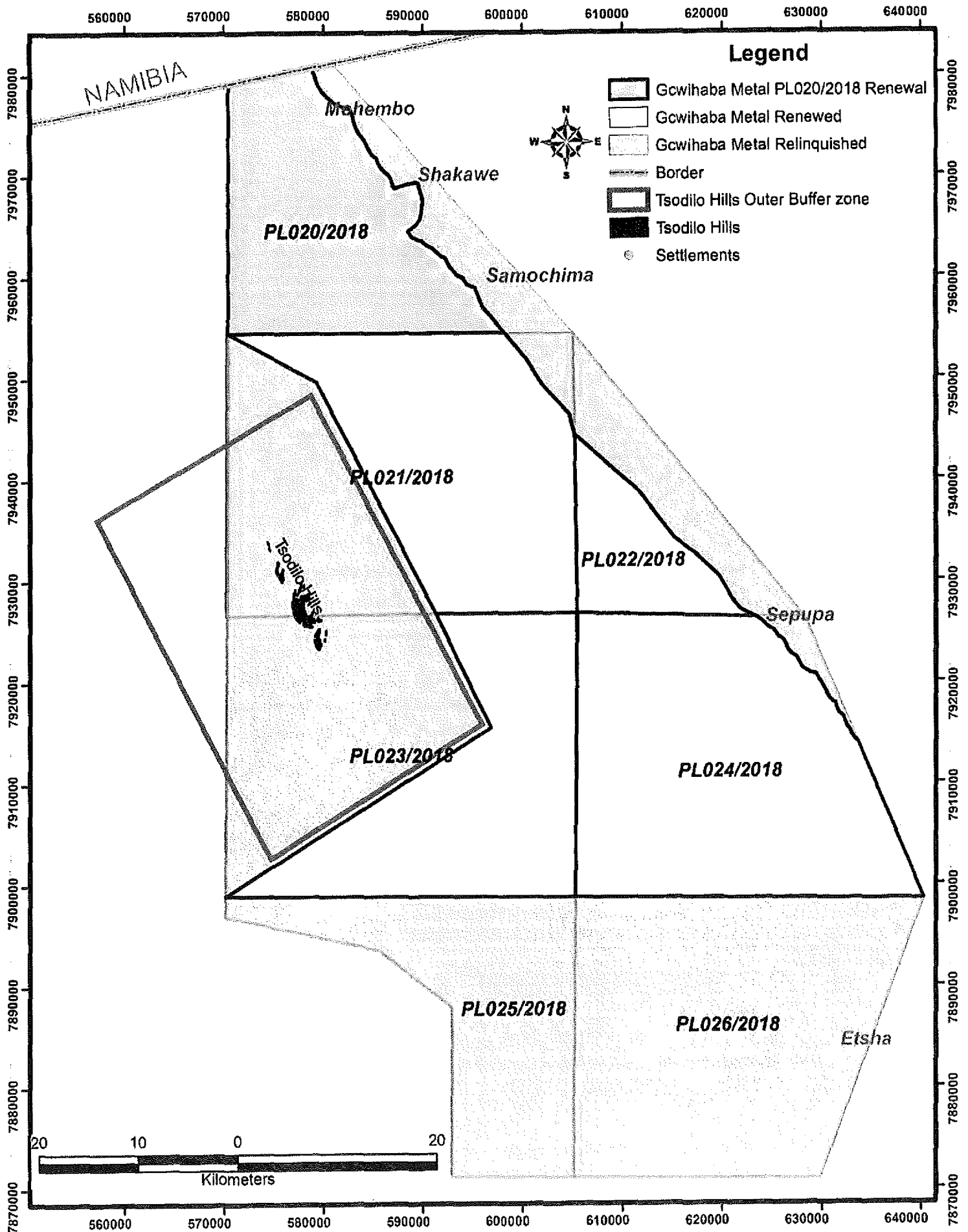
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# GCWIHABA RESOURCES (PTY) LTD

PL020/2018 Renewal







Gcwihaba Metals (Base, Precious & PGMs) Prospecting Licence PL020/2018 Renewal Application: June 2022

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"CCC 19"

PROSPECTING LICENCE APPLICATION CHECKLIST (Front Desk Assessment)

Type of Application: REVISION OF COORDINATES

Applicant's Name: SCWITABA PTY LTD

Commodity applied for (for Industrial Minerals Specify): METALS

| Nos | ITEMS CHECKED  | STATUS |    |
|-----|--|--------|----|
|     |  | YES    | NO |
| 1   | PROSPECTING LICENCE APPLICATION FORM I SIGNED & SUBMITTED (WITH ANNEXURES)   |        |    |
|     | (a) All required information in Form I should be filed & the declaration part should be signed.  |        |    |
|     | ADDRESS IN BOTSWANA  |        |    |
| 2   | (a) Postal Address   |        |    |
|     | (b) Telephone Number / Fax Number/ Email Address   |        |    |
|     | (d) Copy of Certification of Incorporation (Company Certificate)   |        |    |
|     | FINANCIAL STATUS   |        |    |
| 3   | (a) Audited Financial Report/ Statements with a letter of resolution from board committing the funds reserved for exploration project applied for. A share certificate is to be included if the company has one Director.  |        |    |
|     | (b) Latest Three months bank statement with a letter of resolution from board committing the funds reserved for exploration project applied for. A share certificate is to be included if the company has one Director.  |        |    |
|     | TECHNICAL COMPETENCE   |        |    |
| 4   | (a) Latest updated detailed curriculum vitae of professionals with experience in commodities applied for.  |        |    |
|     | (b) Signed consent letter from the CV owner declaring they will work for the company applying for the PL.  |        |    |
|     | DESCRIPTION OF AREA APPLIED FOR  |        |    |
| 5   | (a) Attached sketch plan of the area applied for in Geographic Coordinate System (GCS), WGS84 Datum, Decimal Degrees.  | ✓      |    |
|     | (b) Attached hard copy coordinates   | ✓      |    |
|     | (c) Attached soft copy coordinates in excel format.  | ✓      |    |
|     | DETAILED PROPOSED PROGRAMME OF PROSPECTING OPERATIONS  |        |    |
|     | (a) It must provide an understanding of the nature and extent of the proposed exploration activities.  |        |    |
|     | (b) The activities should be adequate to explore mineral potential and able to generate data that may lead to discoveries and an increase in the level of knowledge of the area applied for.   |        |    |
| 6   | (c) Types of activities to be undertaken must be clearly identifiable at each level of the programme:<br>(i) Desktop studies, geological reviews, technical assessment of available data; Details of the number and types of data processing that are going to be undertaken and clearly indicate the added value for each phase. survey details, (Geochem, geophysics, etc.); Sampling methods, spacing of grids, lines, depths to samples & number; Drilling types and details of depth & number to be drilled, stratigraphy; Maps and illustrations or plans of the stratigraphy, etc. must be clearly outlined.<br>(d) A summary of the minimum expenditure for each year has to be clearly stated in line with the proposed exploration activities. |        |    |
|     | ENVIRONMENTAL MANAGEMENT PLAN  |        |    |
| 7   | (a) Companies to submit in-house Environmental Health and Safety (EHS) Policy  |        |    |

COMMENTS: Area applied for overlaps with the restricted, oil-bearing, Mineral Area. Also renewal steps is bigger than the license PL cannot be enlarged. Hence application cannot be placed as is. Hence the application cannot be accepted.

(i) Coordinates, Area and Sketch Plan Checked by: (for GIS Personnel)

..... (Name) ..... (Designation) ..... (Date)

..... (Signature)

(ii) Application Checked and passed by: (for Geologist Personnel)

T.E. MOFHEGANE ..... 9200 ..... 28/06/2022  
..... (Name) ..... (Designation) ..... (Date)

..... (Signature)

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“CCC 20”

<https://www.mmegi.bw/business/govt-crafts-base-metals-and-iron-ore-strategy/news>

June 13, 2014

The Permanent Secretary (PS) in the Ministry of Minerals, Energy and Water Resources (MMEWR) Boikobo Paya told the Botswana Resource Sector Conference on Tuesday that government is formulating a base metals and iron ore beneficiation strategy.

“Government has identified potential iron ore of seven billion tonnes and 646.6 million tonnes of copper and nickel,” he said, adding that some feasibility study on iron ore has been done to see the value of smelting and refinery, to generate more income from selling finished products.

He said the Ministry is willing to co-finance this project.

Paya assured that some strategic goals have been put in place to optimise the benefits. He said government coordination through this process is crucial and the private sector has been considered with shareholder consultation. Paya called for private sector involvement, to partner with the government to develop the area where the iron ore is found thus creating employment.

“Iron ore is located in the most remote areas of this country in the Ngamiland where water and power is a major concern. There is no infrastructure especially roads, and accommodation” he said.

Tsodilo Resources, which is located at Shakawe, is one of the identified local companies mining iron ore. They are expected to announce how much resources they have by end of their second quarter.

The current copper and nickel producer in the country includes BCL, African Copper, Discovery Metals and Tati Nickel. Prospective copper producers in the country include Gantsi based Khoemacau, which plans to apply for a mining licence before the end of the year. The proposed strategy is one of numerous government efforts to try and generate income from other minerals to diversify from diamonds, as its revenue is expected to dip significantly around the year 2022 when Jwaneng ‘jewel in the crown’ is due to convert from open pit to underground pit.

In February 2012 government launched the Coal Road Map, whose development unit was established in April the same year.

The PS revealed that the resource assessment study on the Coal Roadmap is ongoing and the signing of an agreement with Namibia for the Trans Kalahari Road (TKR) development has been done even though their operational office is behind schedule as it was expected to be set by end of June and has been postponed to July.

“There are also discussions on existing rail capacity building to handle 10-15mtpa to Matola/Maputo in Mozambique and another one on existing rail capacity building to handle 10Mtpa to Richards Bay in Durban,” he said.

Paya added that the ministry planned expanding the capacity on mines, rail and ports, as well as develop infrastructure.

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IN THE HIGH COURT OF THE REPUBLIC OF BOTSWANA  
HELD AT MAUN

Case No:

In the dispute between

GCWIHABA RESOURCES (PTY) LTD

Applicant

And

MINISTER OF MINERALS AND ENERGY

First Respondent

ATTORNEY GENERAL

Second Respondent

---

CONFIRMATORY AFFIDAVIT

---

I, the undersigned,

QUINTAN MADUWANE



Do hereby take oath and state as follows:

1. I am an adult male of full legal capacity residing in Gaborone. I am an admitted attorney of the Courts of Botswana and I practice out of the firm of Messrs Collins Chilisa Consultants.
2. I depose to this affidavit on behalf of Messrs Collins Chilisa Consultants, the Applicants' attorneys of record and I am duly authorised to do so by virtue of my position as Associate. The facts contained in this affidavit fall within my own personal knowledge and belief by virtue of my control of documents relating to the issues herein



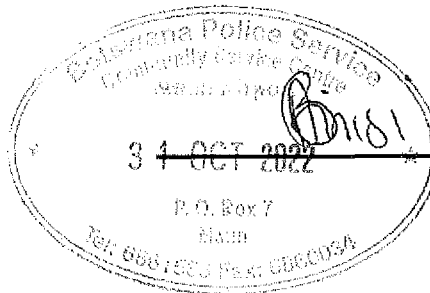
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and my involvement in the matter. Save where the contrary appears from the context, the contents herein are to the best of my knowledge and belief, both true and correct.

4. I have read the Founding Affidavit of **MOAGI NTUKUNUNU** and I confirm the contents therein in as far as they relate to the firm of Messrs Collins Chilisa Consultants and the advice it has rendered to the Applicant as both true and correct.

  
\_\_\_\_\_  
**QUINTAN MADUWANE**

THIS SWORN TO AND SIGNED BEFORE ME AT MAUN ON THIS 31 DAY OF OCTOBER 2022, AT 1006 HOURS, THE DEPONENT HAVING ACKNOWLEDGED THAT HE KNOWS AND UNDERSTANDS THE CONTENTS OF THIS AFFIDAVIT AND HAS NO OBJECTION TO TAKING THE PRESCRIBED OATH WHICH HE CONSIDERS BINDING ON HIS CONSCIENCE.



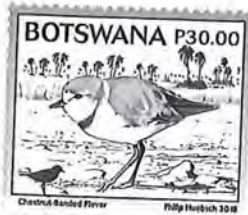
\_\_\_\_\_  
**COMMISSIONER OF OATHS**

Maun Airport Police Station  
Sgt Molegethi B

IN THE HIGH COURT OF THE REPUBLIC OF  
BOTSWANA HELD AT MAUN

Case No:

In the dispute between



GCWIHABA RESOURCES (PTY) LTD

Applicant

and

MINISTER OF MINERALS AND ENERGY

First Respondent

ATTORNEY GENERAL

Second Respondent

---

DRAFT ORDER

---

BEFORE THE HONOURABLE JUSTICE \_\_\_\_\_ on this \_\_\_\_\_ day of  
\_\_\_\_\_ 2022.

Upon hearing counsel for the parties and having read the papers filed of record, it is hereby ordered as follows:

1. The decision of the First Respondent dated 29 June 2022 rejecting the renewal of the Applicant's prospecting license (020/2018) is declared to be illegal, unreasonable, irrational and arbitrary;
2. The decision of the First Respondent dated 29 June 2022 rejecting the renewal of the Applicant's prospecting license (020/2018) is hereby set aside;



3. The First Respondent shall renew the Applicant's license subject only, to environmental safeguards and/or conditions as deemed necessary for the protection of the heritage area.
4. Following renewal as above, the First Respondent shall align the effective dates of contiguous licenses PL 021-026/2018 with that of the renewed license.

Alternatively

5. The First Respondent shall pay damages to the Applicant in the sum of US\$65 million or any other amount as assessed by the Registrar of the High Court;
6. Granting the Applicant costs of suit.

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**ORDER OF COURT**

POWER OF ATTORNEY

I, the undersigned

GARY A. BOJES

(In my capacity as the **Chief Financial Officer** of **GCWIHABA RESOURCES (PTY) LTD** and authorised by a Resolution dated 27 October 2022 attached hereto)

do hereby nominate, constitute and appoint;

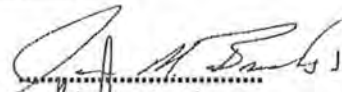
**MBOKI MBAKISO CHILISA and/or OUTULE KEATIMILWE and/or HAZEL SAUNGWEME  
and/or CHARLES BATSALELWANG and/or QUINTAN MADUWANE**

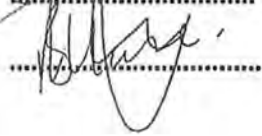
with power of substitution to be the Applicant's lawful Attorneys and Agents in its name, place and stead, to appear before the High Court or wherever else may be necessary and then and there to institute legal proceedings on behalf of Gcwihaba Resources (Pty) Ltd.

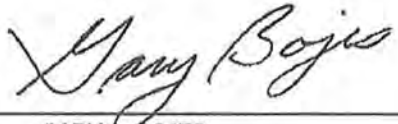
And to appear by counsel, to pay all fees for counsel and any witnesses to make any payments whatsoever which may be necessary and desirable for the proper conduct of the case, to proceed to final determination thereof, including all or any interlocutory application(s) and appeals, and generally for effecting the purposes aforesaid, to do or cause to be done, whatsoever shall be requisite as fully and effectually, to all intents and purposes as I might or could do if personally present and acting therein; hereby ratifying, allowing and confirming and promising and agreeing to ratify, allow and confirm all and whatsoever the said Attorneys and Agents shall lawfully do or cause to be done in or about the premises by virtue of these presents.

Given under my hand at Gaborone on this 27<sup>th</sup> day of **October 2022** in the presence of the undermentioned witnesses.

AS WITNESSES

1.  James M. Bruchs

2.  Blackie Marole

  
GARY A. BOJES

