



# LIMPOPO

PROVINCIAL GOVERNMENT  
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF  
ECONOMIC DEVELOPMENT, ENVIRONMENT & TOURISM

Enq: R. V. Mthombeni Tel: (015) 290 7067 Fax: (015) 295 5015 E-mail: [MthombeniRV@ledet.gov.za](mailto:MthombeniRV@ledet.gov.za) Ref no: 12/1/9/2-V3

Coal of Africa Limited  
P. O. Box 69517  
BRYANSTON  
2021

For attention: Mr Baldwin Khosa

Tel no: (011) 575 6646

Fax no: 086 562 1335

**ENVIRONMENTAL AUTHORISATION FOR THE PROPOSED OPENCAST MAKHADO COLLIERY PROJECT TO BE ESTABLISHED ON THE FARMS WINDHOEK 649 MS, TANGA 648 MS, FRIPP 645 MS, LUKIN 643 MS AND SALAITA 188 MT LOCATED WITHIN THE JURISDICTION OF MAKHADO LOCAL MUNICIPALITY OF VHEMBE DISTRICT: LIMPOPO PROVINCE**

With reference to the abovementioned application, please be advised that the Department has decided to grant authorisation. The environmental authorisation and reasons for the decision are attached herewith.

In terms of regulation 10(2) of the Environmental Impact Assessment Regulations of 2010, you are instructed to notify all registered interested and affected parties, in writing and within 12 (twelve) calendar days of the date of the Department's decision in respect of your application as well as the provisions regarding the making of appeals that are provided for in the Regulations.

Should you wish to appeal any aspect of the decision, you must, *inter alia*, lodge a notice of intention to appeal with the MEC for Economic Development, Environment and Tourism, within 20 days of receiving this letter, by means of one of the following methods:

By facsimile : (015) 293 8317

By post : Private Bag X 9484, POLOKWANE, 0700

By hand : 3<sup>rd</sup> floor, Evrldiki Towers, 20 Hans van Rensburg Street, POLOKWANE, 0699

Should you decide to appeal, you must serve a copy of your notice on intention to appeal on all registered interested and affected parties as well as a notice indicating where, and for what period, the appeal submission will be available for inspection.

Yours faithfully

**SENIOR MANAGER  
ENVIRONMENTAL IMPACT MANAGEMENT**

DATE: 30/08/2013

Cc: Jacana Environmental cc

For attention: Ms Marietjie Eksteen

Fax no: (015) 291 5035

**HEAD OFFICE**



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REPUBLIC OF SOUTH AFRICA

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## ENVIRONMENTAL AUTHORISATION

**Authorisation register number:** 12/1/9/2-V3

**Last amended:** First issue

**Holder of authorisation:** Coal of Africa Limited

**Location of activity:** The proposed activity is situated approximately 30km north of Makhado Town (Louis Trichardt) and approximately 50km south of Musina. The proposed main mining activities will be undertaken on the farms Windhoek 649 MS, Tanga 648 MS, Fripp 645 MS, Lukin 643 MS and Salaita 188 MT within Makhado Local Municipality of Vhembe District, Limpopo Province

### HEAD OFFICE

20 Hans Van Rensburg Street / 19 Biccard Street, Polokwane, 0700, Private Bag X 9484, Polokwane, 0700  
(Switchboard) Tel: +2715 293 8300 Website: [www.ledet.gov.za](http://www.ledet.gov.za)



# LIMPOPO

PROVINCIAL GOVERNMENT  
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF  
ECONOMIC DEVELOPMENT, ENVIRONMENT & TOURISM

## DECISION

### ACRONYMS

- |                |  |
|----------------|--|
| 1. NEMA        | The National Environmental Management Act, 1998 (Act 107 of 1998), as amended. |
| 2. Regulations | EIA Regulations of 18 June 2010 in terms of Chapter 5 of NEMA.                 |
| 3. EIA         | Environmental Impact Assessment.   |
| 4. Department  | Department of Economic Development, Environment and Tourism.                   |
| 5. EA          | Environmental Authorisation.   |
| 6. EMPr        | Environmental Management Programme.  |

The Department is satisfied, on the basis of information available to it and subject to compliance with the conditions of this EA, that the applicant should be authorised to undertake the activity specified below.

Details regarding the basis on which the Department reached this decision are set out in Annexure 1.

### ACTIVITIES AUTHORISED

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) and the Environmental Impact Assessment Regulations, 2010 the Department hereby authorises **Coal of Africa Limited** with the following contact details –

Mr Baldwin Khosa  
P. O. Box 69517  
**BRYANSTON**  
2021

Tel no: (011) 575 6646

Fax no: 086 562 1335

to undertake the following activities (hereafter referred to as "the activities"):

Activity number and Listing Notice	Activity description
Activity no 9 of Government Notice R. 544 of 18 June 2010	"The construction of facilities or infrastructure exceeding 1000m in length for the bulk transportation of water, sewage or storm water – (i) with an internal diameter of 0,36m or more, or (ii) with a peak throughput of 120 litres per second or more"

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(Switchboard) Tel: +2715 293 8300/8303/8367 Website: www.ledet.gov.za

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Activity no 10 of Government Notice R. 544 of 18 June 2010	"The construction of facilities or infrastructure for the transmission and distribution of electricity- (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts; or (ii) inside urban areas or industrial complexes with a capacity of 275 kilovolts or more"
Activity no 11 of Government Notice R. 544 of 18 June 2010	"The construction canals, channels, bridges, dams, weirs, bulk storm water outlet structures, marinas, jetties exceeding 50 square metres in size, slipways exceeding 50 square metres in size, buildings exceeding 50 square metres in size or infrastructure or structures covering 50 square metres or more, where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line"
Activity no 18 of Government Notice R. 544 of 18 June 2010	Activity 18 - "The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock or more than 5 cubic metres from: (i) a watercourse; - but excluding where such infilling, depositing, dredging, excavation, removal or moving; a. is for maintenance purposes undertaken in accordance with a management plan agreed to by the relevant environmental authority; or b. occurs behind the development setback line."
Activity no 22 (i), (ii) and (iii) of Government Notice R. 544 of 18 June 2010	"The construction of a road, outside urban areas (i) With a reserve wider than 13,5 metres or (ii) where no reserve exists where the road is wider than 8 metres or; (iii) for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Notice 545 of 2010"
<b>Activity number and Listing Notice</b>	<b>Activity description</b>
Activity no 3 of Government Notice R. 545 of 18 June 2010	"The construction of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of more than 500 cubic metres"
Activity no 5 of Government Notice R. 545 of 18 June 2010	"The construction of facilities or infrastructure for any process or activity which requires a permit or license in terms of national or provincial legislation"

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	governing the generation or release of emissions, pollution or effluent and which is not identified in Notice No. 544 of 2010 or included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case that Act will apply"
Activity no 11 of Government Notice R. 545 of 18 June 2010	"The construction of railway lines, stations or shunting yards, excluding- (i) Railway lines, shunting yards and railway stations in industrial complexes or zones (ii) Underground railway lines in a mining area; and (iii) Additional railway lines within the reserve of an existing railway line"
Activity no 15 of Government Notice R. 545 of 18 June 2010	"Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use, where the total area to be transformed is 20 hectares or more, except where such physical alteration takes place for (i) linear development activity; or (ii) agriculture or afforestation where activity 16 in this Schedule will apply".
Activity no 19 of Government Notice R. 545 of 18 June 2010	"The construction of a dam, where the highest part of the dam wall, as measured from the outside toe of the wall to the highest part of the wall, is 5 metres or higher or where the high-water mark of the dam covers an area of 10 hectares or more"
<b>Activity number and Listing Notice</b>	<b>Activity description</b>
Activity no 1 (viii) of Government Notice R. 546 of 18 June 2010	The construction of billboards exceeding 18 square metres in size outside urban or mining areas or outside industrial complexes -  (viii) Areas within 10 kilometre from national parks or world heritage sites or 5 kilometre from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve"
Activity no 2 (iii) (ff) of Government Notice R. 546 of 18 June 2010	"The construction of a reservoirs for bulk water supply with a capacity of more than 250 cubic metres"
Activity no 3 (a) (ii) (gg) of Government Notice R. 546 of 18 June 2010	"The construction of masts or towers of any material or type used for telecommunication broadcasting or radio transmission purposes where the mast- (a) is to be placed on a site not previously used for this purpose

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	(b) will exceed 15 metres in height, but excluding attachments to existing buildings and masts on rooftops
Activity no 4 (ii) (gg) of Government Notice R. 546 of 18 June 2010	"The construction of a road wider than 4 metres with a reserve less than 13,5 metres- (ii) outside urban areas, in (gg) areas within 10 kilometre from national parks or world heritage sites or 5 kilometre from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve"
Activity no 10 (ii) (gg) of Government Notice R. 546 of 18 June 2010	"The construction of facilities of infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30 but not exceeding 80 cubic metres"
Activity no 13 (ii) (ff) of Government Notice R. 546 of 18 June 2010	"The clearance of an area of 1 hectare or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation  (ii) outside urban areas (gg) areas within 10 kilometre from national parks or world heritage sites or 5 kilometre from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve"
Activity no 16 (i)-(iv) (h) of Government Notice R. 546 of 18 June 2010	"The construction of –  (i) jetties exceeding 10 square metres in size; (ii) slipways exceeding 10 square metres in size; (iii) buildings with a footprint exceeding 10 square metres in size; or (iv) infrastructure covering 10 square metres or more"  where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line"  In areas within 10 kilometre from national parks or world heritage sites or 5 kilometre from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve"

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as described in the final Environmental Impact Assessment Report (EIAR) received by the Department on 25 September 2012 at:

Farm names where mining will take place	Latitude	Longitude
Windhoek 649 MS	22° 49' 30"	29° 54' 00"
Tanga 648 MS	22° 49' 00"	29° 55' 30"
Fripp 645 MS	22° 49' 00"	29° 57' 30"
Lukin 643 MS	22° 47' 45"	29° 59' 45"
Salaita 188 MT	22° 46' 45"	30° 01' 30"

The activity entails the establishment of an opencast coal mine approximately 30km north of Makhado Town (Louis Trichardt) and approximately 50km south of Musina, on the farms Windhoek 649 MS, Tanga 648 MS, Fripp 645 MS, Lukin 643 MS and Salaita 188 MT in the jurisdiction of Makhado Local Municipality of Vhembe District in the Limpopo Province, hereafter referred to as "the property".

**Associated with the activity are the following:**

- Opencast mining of coal;
- ROM coal storage area;
- Topsoil stockpiles;
- Overburden stockpiles (for start-up period until a wedge has been opened up in the pits so that the overburden can be used as fill);
- Intermediate crusher / screening plant (at each of the three opencast pits);
- Associated conveyors from intermediate crusher / screening plants to the processing plant;
- ROM processing plant (primary, secondary and tertiary crusher);
- Associated conveyors from the processing plant to the product storage areas;
- Product stockpile areas and overland conveyor to RLT on the farm Boas;
- Carbonaceous (discard) stockpile area;
- Haul roads and service roads, including a bridge over the Mutamba River;
- Earthmoving vehicle workshops;
- Clean and dirty water treatment management infrastructure;
- Water storage structures and settling ponds;
- Water reticulation systems;
- Change houses and offices;
- Wastewater (sewage) treatment plant (A Waste Management Licence (WML) must be obtained from the National Department of Environmental Affairs - DEA as indicated in condition number 7 under specific conditions);
- Main entrance gate security and freight area;
- Bulk electricity supply infrastructure;
- Bulk fuel storage facilities;
- Explosives magazine;
- Recruitment and training centre;
- Product transport infrastructure (railway line); and
- Security structures and fences.

The granting of this EA is subject to the conditions set out below and Annexure 2.

The proposed development of the above open cast mining operations will cover an area of approximately 7 634.32 hectares in extent, and the coal mining reserve are estimated at 169 MT.

The granting of this EA is subject to the conditions set out below.

### **Specific conditions**

1. The Environmental Management Programme (EMPr) compiled by Jacana Environmental cc and submitted as part of the application for an EA is hereby approved by the Department and must be adhered to throughout the lifecycle of the activity.
2. Graves identified in the West Pit area must be left intact and where possible be marked more clearly in order to be clearly recognised as graves for them to be left undisturbed and not to be tampered with.
3. A Water Use Licence (WUL) must be obtained for the access bridge in terms of the National Water Act, 1998 (Act No.36 of 1998) from the Department of Water Affairs (DWA) and as per the DWA's comments dated 03 December 2012.
4. An Integrated Water Use License (IWUL) for the proposed groundwater abstraction and operation of sewage treatment plant must be obtained from the Department of Water Affairs (DWA) prior commencement of activities on site.
5. A Water Management Plan must be developed with specific reference to monitoring the Mutamba River, the aquatic habitants, surface ground water levels as well as the water quality. This should also include aquatic bio-monitoring as may be required by water use authorisation.
6. All the recommendations and the mitigation measures in the Wetland delineation and Aquatic Assessment Report compiled by Digby Wells Environmental must be implemented.
7. A Waste Management Licence (WML) for the construction of wastewater treatment facility must be obtained from the National Department of Environmental Affairs (DEA) prior commencement of activities on site.
8. All other heritage resources found on site, i.e. the Iron Age remains, and the middle Stone Age site must not be affected (altered, removed or demolished) by any activities before a permit which authorises such an impact has been issued by SAHRA.
9. No development structures are allowed within the 1:100 year flood-lines of Mutamba River.
10. Priority must be given to all current farm workers when appointing mine workers.
11. No boreholes must be drilled on cultivated lands.
12. The stockpiles must not be compacted in any way and must be vegetated with an indigenous grass seed to maintain fertility.



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13. Waste asphalt material produced during operational phase must be recycled and/or made available to the local communities for upgrading of private roads.
14. Outdoor low and yellow intensity globes must point inward towards the facility except for nocturnal aviation lights.
15. Protected plant species such as Boabab trees identified on the subject mining site must not be removed unless the necessary permission is granted by the Department of Agriculture, Fisheries and Forestry (DAFF) in terms of the National Forests Act, 1998, (Act no. 84 of 1998).
16. **Environmental commitment by Coal of Africa Limited**
  - 16.1 Coal of Africa Limited must contribute to the development of Strategic Environmental tools, programmes and projects within the Local Authorities adjacent to the Mine. This contribution could be in different forms e.g., financial, technical and provision of information as agreed upon with the Department.



**SENIOR GENERAL MANAGER  
ENVIRONMENT AND TOURISM**

**DATE:** 30. 8. 13

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## ANNEXURE 1: REASONS FOR THE DECISION

### 1. BACKGROUND

The application from the applicant (**Coal of Africa Limited**) is listed under Government Notices R. 544, 545 and 546 of 18 June 2010. The following activities are being applied for:

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Activity no 9 of Government Notice R. 544 of 18 June 2010	"The construction of facilities or infrastructure exceeding 1000m in length for the bulk transportation of water, sewage or storm water -- (i) with an internal diameter of 0,36m or more, or (ii) with a peak throughput of 120 litres per second or more"
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Activity no 22 (i), (ii) and (iii) of Government Notice R. 544 of 18 June 2010	"The construction of a road, outside urban areas (iv) With a reserve wider than 13,5 metres or (v) where no reserve exists where the road

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	(vi) is wider than 8 metres or; for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Notice 545 of 2010"
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Activity no 19 of Government Notice R. 545 of 18 June 2010	"The construction of a dam, where the highest part of the dam wall, as measured from the outside toe of the wall to the highest part of the wall, is 5 metres or higher or where the high-water mark of the dam covers an area of 10 hectares or more"

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Activity number and Listing Notice	Activity description
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Activity no 3 (a) (ii) (gg) of Government Notice R. 546 of 18 June 2010	"The construction of masts or towers of any material or type used for telecommunication broadcasting or radio transmission purposes where the mast- (c) is to be placed on a site not previously used for this purpose (d) will exceed 15 metres in height, but excluding attachments to existing buildings and masts on rooftops
Activity no 4 (ii) (gg) of Government Notice R. 546 of 18 June 2010	"The construction of a road wider than 4 metres with a reserve less than 13,5 metres- (ii) outside urban areas, in (gg) areas within 10 kilometre from national parks or world heritage sites or 5 kilometre from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve"
Activity no 10 (ii) (gg) of Government Notice R. 546 of 18 June 2010	"The construction of facilities of infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30 but not exceeding 80 cubic metres"
Activity no 13 (ii) (ff) of Government Notice R. 546 of 18 June 2010	"The clearance of an area of 1 hectare or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation  (ii) outside urban areas (gg) areas within 10 kilometre from national parks or world heritage sites or 5 kilometre from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve"
Activity no 16 (i)-(iv) (h) of Government Notice R. 546 of 18 June 2010	"The construction of -  (i) jetties exceeding 10 square metres in size; (v) slipways exceeding 10 square metres in size;

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	<p>(vi) buildings with a footprint exceeding 10 square metres in size; or</p> <p>(vii) infrastructure covering 10 square metres or more"</p> <p>where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line"</p> <p>in areas within 10 kilometre from national parks or world heritage sites or 5 kilometre from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve</p>
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The activity entails the establishment of an opencast coal mine approximately 30km north of Makhado Town (Louis Trichardt) and approximately 50km south of Musina, on the farms Windhoek 649 MS, Tanga 648 MS, Fripp 645 MS, Lukin 643 MS and Salaita 188 MT in the jurisdiction of Makhado Local Municipality of Vhembe District in the Limpopo Province.

## 2. INFORMATION CONSIDERED IN MAKING THE DECISION

In reaching its decision, the Department took, *inter alia*, the following into consideration -

- a) The information contained in the application form and the final EIAR received by the Department on 11 April 2011 and 25 September 2012 respectively;
- b) Additional information received by the Department on 24 January 2013 and 14 February 2013 respectively on the issued comments on the final EIAR;
- c) Comments received from the Department of Agriculture, Forestry and Fisheries (DAFF) dated 06 December 2012;
- d) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the National Environmental Management Act, 1998 (Act No. 107 of 1998);
- e) Environmental Management Programme (EMPr) attached to the final EIAR;
- f) The following specialists studies were undertaken and attached under Volume 2 of the final EIAR:
  - Surface Water Assessment compiled by WSM Leshika Consulting (Pty) Ltd dated March 2012;
  - Wetland & Riparian Zone PES and EIS Assessment compiled by Wetland Consulting Services (Pty) Ltd;
  - Groundwater Impact Assessment Report compiled by WSM Leshika Consulting (Pty) Ltd dated April 2012;

- Review of Groundwater Impact Assessment by the University of the Free State dated March 2012;
  - Noise Impact Assessment compiled by Jongens Keet Associates dated February 2012;
  - Air Quality Impact Assessment compiled by SSI Engineers and Environmental Consultants dated 17 February 2012;
  - Visual Impact Assessment compiled by Metro GIS dated 28 February 2012;
  - Heritage Impact Assessment (Phase 1) compiled by R&R Heritage Resource Consultants dated April 2012;
  - Social Impact Assessment compiled by Naledi Development Restructured (Pty) Ltd dated May 2012;
  - Socio and Macro-Economic Impact Analysis compiled by Conningarth Economists dated 23 August 2012;
  - Health Risk Assessment compiled by Occupational Care South Africa (Pty) Ltd dated 04 May 2012;
  - Blasting Impact Assessment compiled by A J Rorke;
  - Makhado Feasibility Study compiled by Coal of Africa dated July 2011;
  - Reclamation Plan for Makhado Colliery compiled by Arboro Propagation dated July 2011;
  - Safety, Health & Environment Management System Guideline compiled by Coal of Africa dated 29 July 2011;
  - Environmental Awareness Plan compiled by Coal of Africa;
  - Water and Waste Management Engineering Design Report compiled by Semane dated 24 September 2011; and
  - Updated Feasibility Study and Preliminary Engineering Design for Bulk Water Services (surface water) compiled by Coal of Africa dated May 2012.
- g) Report on the results of consultation with communities and interested and affected parties dated September 2012 and attached under Volume 4 of the final EIAR.

### **3. KEY FACTORS CONSIDERED IN MAKING THE DECISION**

All information presented to the Department was taken into account in the Department's consideration of the application. A summary of the issues which, in the Department's view, were of the most significance is set out below.

- a) The nature of the proposed site and proposed activity;
- b) Report on the results of consultation with communities and interested and affected parties dated September 2012 and attached under Volume 4 of the final EIAR; and
- c) The possible impacts, the mitigation measures and the recommendations with regard to the proposed mining activities.

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#### 4. Findings

After consideration of the information and factors listed above, the Department made the following findings -

- a) The Public Participation Process (PPP) was undertaken and the applicant has satisfied the minimum requirements as prescribed in the EIA regulations, 2010 for public involvement and the details are as follows:

- The project was advertised in the following Newspaper editions:
  - Sunday Times Newspaper;
  - The Citizen Newspaper edition on 11 March 2011;
  - The Beeld Newspaper edition on 11 March 2011;
  - Zoutpansberger Newspaper edition on 30 March 2012; and
  - Limpopo Mirror edition on 30 March 2012.
- Site Notices were placed at the following areas:

Vhembe District Municipality office	Chief Sithagathaga (Mulembwane) Kgoro
Makhado Local Municipality office	Chief Nekuvule Kgoro
Musina Local Municipality office	Mudimell Post Office
Tanga farm access gate	Chief Musekwa Kgoro (Mamvuka)
Castarro farm access gate	Musekwa – Ngudu Village
Windhoek – Musekwa Bricks	Musekwa paradise village
King Mphephu Traditional Authority office	Musekwa - Manyil village
Chief Mudimell Kgoro	Chief Makushu Kgoro
Makushu public place (shop)	Tshipise Post Office
Mosholombe Kgoro	Sasol Garage on N1 towards Musina
Chief Pfumembe Kgoro	Patels Garage, south of project

- As part of the Public Participation Process (PPP), working groups and open days were set up and meetings were held as per table attached on page 15 of Volume 4 of the final EIAR.
- b) According to the findings of the site inspection undertaken by Mr R. V. Mthombeni, Mr V. M. Mongwe and Advocate P. Monyepao:
- There is an access road to the proposed site of development, a low level Bridge over Mutamba River (which has been constructed without an Environmental Authorisation – An application to rectify this situation has already been submitted to the Department for review);
  - Vegetation has already been cleared to accommodate the bulk sampling as approved by the Department of Mineral Resources (DMR); and
  - Part of the farm to be used for mining activities is also being used as a game farm.

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- c) The Surface water specialist report recommends that monitoring and reporting on the state of the surface water resources must be carried out on a monthly basis to detect early and mitigate appropriately the impacts from the mining activities as they arise.
- d) The Wetland & Riparian Zone PES and EIS Assessment indicates that all the drainage lines that flow across the farm Fripp and their associated vegetation are in a poor condition, with obvious signs of erosion and vegetation removal. The geomorphology of the Kandanama River on the farm Windhoek has been modified through sand mining, diversion and land use changes in the catchment.
- e) The Groundwater Impact Assessment recommends that an acid rock drainage management plan including the design of special handling methods for the waste rocks should be developed. A monthly sampling frequency with analysis of major and trace elements as well as screening for hydrocarbons (using indicator parameters) is recommended for the first year of operations, before a data review can reduce the sampling frequency.
- f) The Noise Impact Assessment recommends the following:
- Low noise generation plant and equipment be used;
  - Portable acoustic shields should be used in the case where noisy equipment is not stationary;
  - Overburden and waste rock from the open cast pits should be used to build a noise attenuation barrier (earth berm); and
  - No work on stockpiles should be undertaken at night.
- g) The Air quality assessment recommends that due to the close proximity of the proposed mining activities to residential settlements, ambient air quality monitoring must be undertaken to establish baseline condition, prior to the on-site operations. In addition, fallout monitoring should be included to assess the level of nuisance dust associated with both mining and process related operations.
- h) The Visual Impact Assessment recommends the following:
- The footprint and height of tall structures such as stockpiles and other infrastructure that are in excess of 25 metres in height must be reduced;
  - Rigid straight lines and design contoured stockpiles and dumps that represents the natural lines of the existing topography must be avoided;
  - Unnecessary removal of vegetation must be avoided;
  - Metal surfaces must be painted in non-reflective, natural colours, blending with the surrounding landscape;
  - Pits and dumps by contouring and vegetate these concurrent with on-going mining activities must be rehabilitated;
  - Pits with dump material must be rehabilitated, thereby reducing the size of the dump;
  - Trees must be introduced to the landscape at strategic locations to break full exposure of the mine; and
  - Specifically designed lighting equipment that minimises the upward spread of light near to and above the horizontal must be used.



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- i) The Heritage Impact Assessment recommends the following:
- Graves identified on a portion of the mining area must be protected;
  - Open grass covered patch resembling an Iron Age site (but containing no surface cultural material) must be monitored;
  - A heritage sub-committee must be established, comprising of stakeholders such as the heritage authority, community representatives, representatives from Traditional Authorities, ASAPA and other interested and affected parties; and
  - A Stone Age Specialist must be appointed as soon as possible to commence with further assessment of the Stone Age material.
- j) The Social Impact Assessment indicates that there are a number of social impacts rated medium to high prior to the allocation of mitigation measures, and such impacts include safety and risk exposure, change in property value, vulnerable groups, etc. However, as part of the monitoring of social impact of the proposed mining activities, these impacts must be considered in all stages of the mining operations, to enable the project to be suitable for this socio-economic environment.
- k) The Health Risk Assessment recommends the following:
- Employees must be provided with tinted safety glasses;
  - Employees that are required to work outdoors must be provided with appropriate protective clothing;
  - In order to minimise underground water contamination, only water-proof explosives should be used;
  - Effective bund walls must be erected around diesel, chemical and explosives storage areas;
  - Impervious gloves must be worn where employees are presented with a potential skin contact risk to hazardous biological agents; and
  - Employees must receive a formal training in risks posed by hazardous biological agents.
- l) The Blasting Impact Assessment recommends that blast reports should be kept for every blast, and such a report should include the date when blasting took place, blast design including design charge per hole / deck and blast timing, charging records and photograph and analysis of results.
- m) The feasibility Study revealed that rail transportation is the preferred option for the movement of bulk cargos.
- n) The Safety, Health & Environment Management System Guideline advocates Coal of Africa's commitment to zero harm to people and the environment, which is based on three fundamental pillars of compliance, caring and competence.

In view of the above, the Department is satisfied that, subject to compliance with the conditions contained in the EA, the proposed activity will not conflict with the general objectives of integrated environmental management laid down in Chapter 5 of the National Environmental Management Act, 1998 and that any potentially detrimental environmental impacts resulting from the proposed activity can be mitigated to acceptable levels. The authorisation is accordingly granted.

## ANNEXURE 2: GENERAL CONDITIONS

### 1. SCOPE OF AUTHORISATION

- 1.1 Should the authorised development trigger activities that are listed in Section 21 of National Environmental Management: Air Quality Act (No.39 of 2004) (NEMAQA), an Atmospheric Emission License (AEL) must be obtained prior the commencement of activities.
- 1.2 The holder of the EA shall be responsible for ensuring compliance with the conditions contained in this EA. This includes any person acting on the holder's behalf, including but not limited to, an agent, servant, contractor, sub-contractor, employee, consultant or person rendering a service to the holder of the EA.
- 1.3 Any changes to, or deviations from, the project description set out in this EA must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the EA to apply for further authorisation in terms of the Regulations.
- 1.4 This activity must commence within a period of three years from the date when the EA was issued. If commencement of the activity does not occur within that period, the EA lapses and a new application for EA must be made in order for the activity to be undertaken. Any request for extension of the validity period of the EA must be lodged with the Department at least 60 days before the expiry date of the EA.
- 1.5 This EA does not negate the holder of the EA's responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.
- 1.6 Relevant legislation that must be complied with by the holder of this EA includes, inter alia:
  - All provisions of the National Heritage Resource Act (Act 25 of 1999);
  - All provisions of the Occupational Health and Safety Act, 1993 (Act 85 of 1993);
  - All provisions of the National Water Act, 1998 (Act 36 of 1998);
  - All provisions of the National Environmental Management: Waste Act, 2008 (Act 59 of 2008);
  - All provisions of the Limpopo Environmental Management Act, 2003 (Act No. 7 of 2003);
  - All provisions of the Atmospheric Pollution Prevention Act, 1965 (Act 45 of 1965);
  - All provisions of the Agricultural Products Standard Act, 1990 (Act 119 of 1990); and
  - Minerals and Petroleum Resources Development Act, 2002 (Act 28 of 2002).

## 2 APPEAL OF AUTHORISATION

- 2.1. The holder of the EA must notify all registered interested and affected party, in writing and within 12 (twelve) calendar days, of receiving notice of the Department's decision to authorise the activity.
- 2.2. The notification referred must –
  - 2.2.1 Specify the date on which the EA was issued;
  - 2.2.2 advise all the interested and affected party that a copy of the EA will be furnished on request;
  - 2.2.3 give the reasons for the decision; and
  - 2.2.4 Inform all the interested and affected parties of the appeal procedure provided for in Chapter 7 of the Regulations.

## 3 MANAGEMENT OF THE ACTIVITY

- 3.1 The contents of the EMPr and its objectives must be made known to all contractors, subcontractors, agents and other people working on the site, and any updates or amendments to the EMPr must be submitted to the Department for approval.
- 3.2 Construction workers must be trained on all the mitigation measures outlined in the final EIAR to ensure minimal impacts on the receiving environment.
- 3.3 The recommendations and mitigation measures recorded in the EIAR received by the Department on 25 September 2012 must be adhered to and incorporated as part of the EMPr where applicable.
- 3.4 The implementation of water management measures must be aligned with the Department of Water Affairs (DWA) Best Practice Guidelines series. The monitoring and reporting on the state of the water resources must be carried out on monthly basis to detect early and mitigate appropriately the impacts from the mining activities as they arise.
- 3.5 The applicant shall note that in terms of Section 19 (1) of the National Water Act, 1998 (Act 36 of 1998), " *an owner of land, a person in control of land or a person who occupies or uses the land on which – (a) any activity or process is or was performed or undertaken, or (b) any other situation exists, which causes, has caused or is likely to cause pollution of a water resource must take all reasonable measures to prevent any such pollution from occurring, continuing or recurring.*" Therefore any pollution incidents(s) associated with the proposed development must be reported to the Regional Office of the Department of Water Affairs within 24 hours.
- 3.6 Accidental spillages of hazardous substances must be reported to Department of Water Affairs (DWA) within 24 hours and the polluted areas must be remediated or cleaned as stated in section 20 of the National Water Act (NWA), 1998 (Act No 36 of 1998).

- 3.7 Section 28 of the NEMA places a duty of care on **Coal of Africa Limited** to ensure that reasonable measures are taken to prevent pollution or degradation of the environment from occurring, continuing or recurring. Should any environmental damage result from this development or the operation thereof, **Coal of Africa Limited** must within 14 days of the damage being caused, rectify the situation at his/her own expense.

#### 4 **MONITORING**

- 4.1 The applicant must appoint a suitably experienced Environmental Control Officer (ECO) for the construction phase of the development that will have the responsibility to ensure that the mitigation / rehabilitation measures and recommendations referred to in this EA are implemented and to ensure compliance with the provisions of the EMPr.
- 4.2 The ECO shall keep record of all activities on site, problems identified, transgressions noted and a task schedule of tasks undertaken by the ECO.
- 4.3 The holder of the EA must notify the Department, in writing and within 48 (forty eight) hours, if any condition of this EA cannot be or is not adhered to. Any notification in terms of this condition must be accompanied by reasons for the non-compliance. Non-compliance with a condition of this EA may result in criminal prosecution or other actions provided for in the National Environmental Management Act, 1998 and the regulations.
- 4.4 Records relating to monitoring and auditing must be kept on site and made available for inspection to any relevant and competent authority in respect of this development.
- 4.5 The Department reserves the right to monitor and audit the development throughout its full life cycle to ensure that it adheres to all the conditions and mitigation measures included in the final EIAR. Records of monitoring and auditing must be available for inspection to any relevant authority inspecting the development.

#### 5 **RECORDING AND REPORTING TO THE DEPARTMENT**

- 5.1 The holder of the EA must submit a Compliance Monitoring Report (CMR) to the Department within thirty (30) days after the completion of the rehabilitation. This report must indicate how the applicant has complied with each condition in the EA and the recommendations included in the EIAR.

#### 6 **NOTIFICATION TO AUTHORITIES**

- 6.1 Fourteen (14) days written notice must be given to the Department that the activity will commence. Commencement for the purposes of this condition includes site preparation. A notice must include a date on which it is anticipated that the activity will commence, and must include the name and contact details of the appointed Environmental Control Officer (ECO).

## **7 COMMENCEMENT OF THE ACTIVITY**

- 7.1 This activity must commence within a period of three (3) years from the date when the EA was issued. If commencement of the activity does not occur within that period, the EA lapses and a new application for EA must be made in order for the activity to be undertaken. Any request for extension of the validity period of the EA must be lodged with the Department at least 60 days before the expiry date of the EA.
- 7.2 Unless the necessary permission is granted by the Department of Agriculture, Fisheries and Forestry (DAFF) in terms of the National Forests Act, 1998, (Act no. 84 of 1998), protected plant species such as *Sclerocarya birrea* must not be removed.
- 7.3 Trees that are protected in terms of the Limpopo Environmental Management Act, 2003 (Act No 7 of 2003) and in terms of the National Forest Act, 1998 (Act No 84 of 1998) may not be removed or damaged without a permit in that regard.
- 7.4 All animals such as birds protected under the Limpopo Environmental Management Act, 2003 (Act no. 7 of 2003) are not allowed to be killed or trapped on site unless a permit is obtained from this Department.
- 7.5 Dust and nuisance to existing residents must be minimised through dampening of un-surfaced roads, and construction vehicles must avoid travelling unnecessarily through private land.
- 7.6 An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate avoidance, reduction, recycling, re-use and disposal where appropriate. Uncontaminated builders' rubble generated during the construction can be re-used as back filling material on site. Ensure that no refuse or builders rubble generated on the premises is placed, dumped or deposited on adjacent properties or public places and open spaces during or after construction.
- 7.7 The applicant, contractors and sub-contractors working on the site must ensure that oil, fuel and chemicals are confined to specific and secured areas throughout the construction period. These materials must be stored in a bunded area with adequate containment (at least 1.5 times the volume of fuel) for potential spills and leaks.
- 7.8 Construction vehicles must be serviced and maintained in a manner whereby excessive smoke and noise production is reduced to acceptable levels, and to prevent oil leaks. Contaminated soil must be remediated or removed to an authorised landfill site.
- 7.9 Residents on the property and surrounding area must be informed if any unusually noisy activities are planned. Noise impacts must be reduced over distance at a rate of 1db (decibel) per 13 metres.
- 7.10 Removal of vegetation must be restricted to the mining area, especially where mining infrastructure will be located. This vegetation must be used to reduce visual scarring of the landscape and potentially reduce visual impact of the mined area.

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- 7.11 Chemical sanitation facilities or systems such as "toilets" that do not rely on seepage of liquids must be provided with a ratio of one for every 15 workers. These must be placed such that they prevent spills or leaks to the environment and must be maintained according to operating instructions and the contents thereof must be disposed of at an authorised sewage works.
- 7.12 To ensure that noise does not constitute a disturbance during construction, the construction process may only take place between the hours of 8h00 and 17h00 on weekdays and Saturdays, and no construction activities are allowed on Sundays and public holidays.

## 8. OPERATION OF THE ACTIVITY

- 8.1 Appropriate training and protective clothing and/or equipment must be provided and worn and/or used at all time within all operational areas of the project. Should the clothing and or equipment need to be disposed, there should be disposed at a registered landfill.
- 8.2 The hydraulic fluids or hazardous chemicals require must be stored in a concrete lined surface with bund walls and shall be designed in such a manner that any spillage can be contained and reclaimed without any impact on the surrounding environment.
- 8.3 The contractor must remove all topsoil from the designated sites, and stockpile it in berms (piles) no greater than 1.5m in height.
- 8.4 Ensure that no refuse generated on the premises is placed, dumped or deposited on adjacent properties or public places and open spaces during or after construction.
- 8.5 The hydraulic fluids must be placed such that they prevent spills or leaks to the environment and must be maintained according to operating instructions and the contents thereof must be disposed of at an authorised area.
- 8.6 Accidental spillages of hazardous substances must be reported to Department of Water Affairs (DWA) within 24 hours and the polluted areas must be remediated or cleaned as stated in section 20 of the National Water Act (NWA), 1998 (Act No 36 of 1998).
- 8.7 Regular training as per Occupational Health and Safety Act, 1993 (Act 85 of 1993) should be conducted to ensure that all staff is aware of the safety measures as well as the potential environmental hazards associated with their daily activities.

## 9. SITE CLOSURE AND DECOMMISSIONING

- 9.1 Should the activity ever cease or become redundant, the applicant shall undertake the required actions as prescribed by legislation at the time and comply with all relevant legal requirements administered by any relevant and competent authority at that time.

10. GENERAL

- 10.1 A copy of this EA must be kept at the property / on-site office where the activity (ies) will be undertaken. The EA must be produced to any authorised official of the Department who requests to see it and must be made available for inspection by any employee or agent of the holder of the EA who works or undertakes work at the property.
- 10.2 Where any of the applicant's contact details change, including the name of the responsible person, the physical or postal address and/or telephonic details, the applicant must notify the Department as soon as the new details become known to the applicant.
- 10.3 National government, provincial government, local authorities or committees appointed in terms of the conditions of this EA or any other public authority shall not be held responsible for any damages or losses suffered by the applicant or his successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the applicant with the conditions of EA as set out in this document or any other subsequent document emanating from these conditions of authorisation.