



DEPARTMENT OF ENVIRONMENT AND NATURE CONSERVATION

ISEBE LEZENDALO NEZOLONDOLOZO

LEFAPHA LA TIKOLOGO LE TSHOMARELO YA TLHAGO

DEPARTEMENT VAN OMGEWING EN NATUURBEWARING

Metlife Towers  
T-Floor  
Private Bag X6102  
KIMBERLEY  
8300

Moago wa Metlife  
T-Floor  
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KIMBERLEY  
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Fax: 053 807-7328

A Mekgwe

Enquiries :  
Dipatlisiso :  
Imibuzo : NNO 25/1  
Navrae : 12/9/P34

Reference :  
Tshupelo :  
Isalathiso :  
Verwysings :

**Mr G. B. Du Toit**  
Kareeberg Municipality  
P.O.Box 10  
Carnarvon  
8925

Fax: (053) 382 3142

Dear Sir

**PERMIT IN TERMS OF SECTION OF 20 OF THE ENVIRONMENT CONSERVATION ACT, 1989  
(ACT NO.73 OF 1989)**

Please find hereto attached a permit/permit amendment issued in terms of S.20 of the ECA (ACT 73 OF 1989) (as amended)

Please be advised that future permit amendment applications should be addressed to:

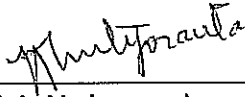
**Head Of Department: Environment & Nature Conservation**  
Department of Environment & Nature Conservation  
Private Bag X6102  
**KIMBERLEY**  
8300

This is also to advise you that applications for authorization of permit amendment, exemptions, waste delisting, emergency and or once of authorizations will be processed only if the Department of Environment and Nature Conservation is in receipt of the latest external audit report, Annexure IV of the permit or any other documents specified in the permit/authorisation that needs to be submitted to DENC/DWAF annually or at frequencies stipulated in the permit.



Furthermore, please note that due to the permitting process being handled by two Department, the **minimum** time for processing any application regardless of details is four and half months. You are therefore advised to apply well in advance.

Yours faithfully



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Mr J.J. Mutyorauta  
DIRECTOR: ENVIRONMENTAL MANAGEMENT

DATE OF DECISIONS: 31<sup>st</sup> January 2011

Cc: Mr. F. Khan  
Fax: ( 012) 4601 336



# environment & tourism

Department:  
Environmental Affairs and Tourism  
REPUBLIC OF SOUTH AFRICA

Private Bag X447, Pretoria, 0001 • Fedsure Building, 315 Pretorius Street, Pretoria, 0002. Tel: (+27 12) 310 3911 Fax: (+27 12) 322 2682

Ref. 12/9/11

Enquiries: Kelello Ntoampe

Tel: (012) 310-3920 Fax: (012) 320-3753 Email: [knntoampe@deat.gov.za](mailto:knntoampe@deat.gov.za)

[www.deat.gov.za](http://www.deat.gov.za)

206 17/10/11

PERMIT NUMBER: 12/9/11/P34

CLASS: G:C:B

WASTE DISPOSAL SITE: VOSBURG WASTE DISPOSAL SITE

LOCATION: ERF 1 OF THE MUNICIPAL COMMUNAL PROPERTY, DISTRICT  
OF VICTORIA-WEST

PERMIT HOLDER: KARENBERG MUNICIPALITY

ADDRESS: P.O. BOX 10, CARNARVON, 8925

## PERMIT IN TERMS OF SECTION 20 OF THE ENVIRONMENT CONSERVATION ACT, 1989 (ACT NO. 73 OF 1989) AS AMENDED

I, Nozipho Ngcaba, in my capacity as Director-General of the National Department of Environmental Affairs and Tourism (hereinafter referred to as "the Department"), in terms of section 20(1) of the Environment Conservation Act, 1989 (Act No. 73 of 1989) (as amended), hereby authorise the abovementioned Permit Holder to operate the abovementioned waste disposal site, subject to the conditions specified herein.

Muhasho wa zwa Vhupo na Vhuendelamashango • LiTiko le Tesimondzawo netekuVakasha • Isebe lemiCimbi yokusiNgqongileyo noKhenketho  
Ndzawulo ya Tinkako & Mbango • Department: Omgewingsake en Toerisme • Lefapha la Tikoloho le Bohanhlaudi • Lefapha la Bojanala  
Kgoro ya Tikologo le Boeti • UmNyango wezeBhuduluko nokuVakalja • Umnyango Wezemvelo Nokuvakaha

**G:C:B Permit: Vosburg Waste Disposal Site****PERMIT CONDITIONS**

In this Permit, Director means the Director: Authorisations and Waste Disposal Management of the National Department of Environmental Affairs and Tourism who may be contacted at the address below:

Director: Authorisations and Waste Disposal Management  
Department of Environmental Affairs and Tourism  
Private Bag X447  
Pretoria  
0001

In this Permit, "Regional Director" means the Regional Director: Northern Cape of the Department of Water Affairs and Forestry who may be contacted at the address below:

Regional Director: Northern Cape  
Department of Water Affairs and Forestry  
Private Bag X6101  
KIMBERLEY  
8300

**1. SITE DETAILS****1.1 LOCATION**

1.1.1 This permit authorises the operation of a waste disposal site situated on Erf 1 of the Kareeberg Municipal Communal Property, District of Victoria-West, Northern Cape Province. (hereinafter referred to as "the Site") according to Authorisation Application Report compiled by Kwezi V3 Engineers, dated December 2006 (hereinafter referred to as "the Report"), submitted by the Permit Holder.

1.1.2 The location of the site must be according to the co-ordinates indicated on the permit application form, submitted by the permit holder which is defined as follows:

Number of corner	Latitude	Longitude
A	3384316.04	10833.06
B	3384303.05	10665.91
C	3384400.54	10485.43
D	3384473.05	10530.24
E	3384500.11	10457.67
F	3384591.46	10486.76
G	3384479.51	10939.19



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### 1.2 DOCUMENTS CONSIDERED

- 1.2.1 Authorisation Application Report for Vosburg Landfill site compiled by Kwezi V3 Engineers, dated December 2006
- 1.2.2 Application form, dated 07 December 2006, submitted by the Permit Holder.

"Hereafter referred as the reports"

- 1.2.3 A Record of Decision (RoD) from the Department of Water Affairs and Forestry, dated 29 April 2008.
- 1.2.4 Environmental Authorisation issued by the Northern Cape Department of Tourism, Environment and Conservation, dated 01 June 2008.

### 1.3 SITE SECURITY AND ACCESS CONTROL

- 1.3.1 The permit holder must prevent unauthorised access to the site, as far as practicable. The site must be fenced with a 1.8 fence, with gates of the same height at all entrances, to reasonably prevent unauthorised entry and curtail the spreading of wind-blown waste.
- 1.3.2 The permit holder must ensure that all entrance gates are manned during the hours of operation and locked outside the hours of operation.
- 1.3.3 The permit holder must prevent the acceptance of waste not authorised at the site as per condition 3.1 below.
- 1.3.4 Acceptance of waste may only take place between 06h00 and 18h00, Monday to Friday, and 08h00 and 14h00, Weekends and Public Holidays.
- 1.3.5 Weatherproof, durable and legible notices in at least three official languages applicable in the area, shall be displayed at each entrance to the site. These notices shall prohibit unauthorised entry and state the hours of operation, the name, address and telephone number of the permit holder and the person responsible for the operation of the site

## 2 MANAGEMENT

### 2.1 GENERAL MANAGEMENT

#### 2.1.1 The activities must be managed and operated:

- (a) in accordance with a documented management system, which identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents and non-conformances and those drawn to the attention of the permit holder as a result of complaints; and

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(b) by sufficient persons who are competent in respect of the responsibilities to be undertaken by them in connection with the operation of the activities.

2.1.2 Records demonstrating compliance with condition 2.1.1 must be maintained.

2.1.3 Any persons having duties that are or may be affected by the matters set out in this permit must have convenient access to a copy that must be kept at or near the place where those duties are carried out.

## 2.2 EMERGENCY PREPAREDNESS PLAN

2.2.1 The Permit Holder must maintain and implement an emergency preparedness plan and review it after each emergency and or major accident. The plan must among others include:

- a) Vehicle/Machinery Fire
- b) Landfill Site Fire
- c) Slope Failure
- d) Natural disaster such as floods

## 3. PERMISSIBLE WASTE

3.1 Any portion of the Site which has been constructed or developed according to condition 4 of this Permit, may be used for the disposal of waste which is classified as general waste according to the latest edition of the "Minimum Requirements" series of documents as published by the Department of Water Affairs and Forestry (DWAFF) or by the Department of Environmental Affairs and Tourism in future, (hereinafter referred to as the "Minimum Requirements series"), as suitable for disposal at a General landfill site.

3.2 Waste listed under Annexure 1 must not be allowed on site.

## 4. CONSTRUCTION

### 4.1 GENERAL CONSTRUCTION REQUIREMENTS

4.1.1 The site or any portion thereof may only be used for the disposal of permissible waste if the site or any such portion has been constructed or developed according to the condition listed under condition 4 of this Permit.

4.1.2 Construction within the site shall be carried out under the supervision of a registered professional engineer and according to the approved Site layout plan number 193090PW0-D01-0, dated December 2006 (Annexure V hereafter).

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- 4.1.3 Works shall be constructed and maintained on a continuous basis by the Permit Holder to divert and drain from the Site all runoff water arising on land adjacent to the Site, which could be expected as a result of the estimated maximum precipitation during a period of 24 hours with an average frequency of once in fifty years (50) (hereinafter referred to as the "estimated maximum precipitation"). Such works shall, under the said rainfall event, maintain a freeboard of half a meter.
- 4.1.5 Works shall be constructed and maintained on a continuous basis by the Permit Holder to divert and drain from the working face of the Site, all runoff water arising from the Site, which could be expected as a result of the estimated maximum precipitation and to prevent such runoff water from coming into contact with leachate from the Site. Such works shall, under the said rainfall event, maintain a freeboard of half a metre.
- 4.1.6 The Permit Holder shall take all reasonable steps, such as suitable zoning and/or written agreements with adjacent landowners, to establish and maintain an unbuilt area or "buffer zone" of 400 metres between the Site and the nearest residential area and/or light industrial areas during the operative life of the Site. Heavy industries or industries which may cause nuisance conditions may be permitted within the buffer zone in terms of the applicable legislation.
- 4.1.7 The maximum height of the Site above ground level shall not exceed 3 metres.
- 4.1.8 The Permit Holder must construct berms to prevent storm water from coming into contact with waste.
- 4.1.9 Upgrading and or modification of the facility in terms of waste storage, treatment and handling should be communicated to the Director.
- 4.1.10 The permit holder shall make provision for sanitation facilities on site in line with the Occupational Health and Safety Act, 1993 (Act 85 of 1993).
- 5. GENERAL IMPACT MANAGEMENT AND OPERATION**
- 5.1 Waste disposal and operation shall be done according to the relevant minimum requirements (where applicable), the conditions of this Permit and any other written instruction by the Director in consultation with the Regional Director.
- 5.2 Waste disposed of on the site shall be compacted and covered on a weekly basis with a minimum of 150 millimetres of soil or other material approved by the Director in consultation with the Regional Director.
- 5.3 Waste types and classes referred to in Annexure 1 that are not permitted under condition 3 above must be redirected to a waste disposal site permitted for these waste types and classes.
- 5.4 No heavy machinery must be in operation on the site between 17H00 in the evening and 06H00 the next morning during weekdays, and between 14H00 and 08H00 the next morning during weekends
- 5.5 The permit holder shall take reasonable steps to ensure that the site is operated in such a manner that nuisance conditions or health hazards, or the potential creation of nuisance conditions or health



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hazards, are prevented.

- 5.6 The permit holder shall take all reasonable steps to ensure the health and safety of workers and employees on site, in terms of the Occupational Health and Safety Act, 1993 ( Act No. 85 of 1993).
- 5.7 Waste disposed off on the site may be reclaimed provided the reclamation activity does not add any negative impact on the environment, safety precautions are adhered to and there is no interference with control and proper operation of the site.
- 5.8 Waste deposited on the site may not be allowed to burn and suitable measures shall be implemented to prevent fires on the site or extinguish fires which may occur.
- 5.9 Suitable fencing and indigenous vegetation must be established around the site to effectively screen the site from nearby roads and residential areas.
- 5.10 The permit holder shall take all reasonable steps to ensure that
- a) Records in terms of volume and the source of all wastes received as per Annexure II are kept.
  - b) Fugitive emissions of substances (excluding odour and noise) shall not cause pollution. The permit holder shall not be taken to have breached this condition if appropriate measures have been taken to prevent or where that is not practicable, to minimise those emissions.
  - c) Litter and mud arising from the activities shall not cause pollution. Litter and mud arising from the activities must be cleared from affected areas outside the site as soon as practicable and wind blown waste and litter must be picked up and removed from fences and vegetation on a daily basis.
  - d) All liquid wastes, whose emissions to water or land could cause pollution, shall be provided with secondary containment and or diverted to sewer only after receiving approval from the relevant municipality .
  - f) Emissions from the activities shall be free from odour at levels likely to cause annoyance outside the site, as perceived by an authorised officer of the Department, residents and or interested and affected parties.
  - g) Emissions from the activities shall be free from noise at levels likely to cause annoyance, harm or disturb the peace of people around the site.
  - h) Scavenging animals, scavenging birds and other pests shall not cause pollution. The permit holder shall not be taken to have breached this condition if appropriate measures have been taken to prevent or where that is not practicable, to minimise such pollution.

## 6. MONITORING

### 6.1 MONITORING METHODS AND PARAMETERS



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**8. AUDITING****8.1 INTERNAL AUDITS**

8.1.1 Internal audits must be conducted annually by the permit holder and on each audit occasion an official report must be compiled by the relevant auditor to report the findings of the audits, which must be made available to the external auditor specified in condition 8.2.1.

**8.2 EXTERNAL AUDITS**

8.2.1 The permit holder must appoint an independent external auditor to audit the site biennially and this auditor must compile an audit report documenting the findings of his/her audit, which must be submitted by the permit holder according to condition 9.9

8.2.2 The audit report must

- a) specifically state whether conditions of this permit are adhered to.
- b) include an interpretation of all available data and test results regarding the operation of the site and all its impacts on the environment.
- c) Specify target dates for the implementation of the recommendations by the permit holder to achieve compliance.
- d) contain recommendations regarding non-compliance or potential non-compliance and must specify target dates for the implementation of the recommendations by the permit holder and whether corrective action taken for the previous audit non conformities was adequate.
- e) show monitoring results graphically and conduct trend analysis

**8.3 DEPARTMENTAL AUDITS AND INSPECTIONS**

8.3.1 The Department reserves the right to audit or inspect the Site without prior notification at any time and frequency as may be determined by the Director.

8.3.2 The permit holder must make any records or documentation available to the Director upon request, as well as any other information he/she may require.

8.3.3 The findings of these audits or inspections must be made available to the permit holder within 30 days of the end of the audit or inspection. Information from the audits must be treated in accordance with the Promotion of Access to Information Act, 2000 (Act 2 of 2000).

**9. REPORTING**

9.1 The permit holder must, within 24 hours notify the Director and the Regional Director of the occurrence or detection of any incident on the Site, or incidental to the operation of the Site, which has the potential to cause, or has caused pollution of the environment, health risks, nuisance conditions or water pollution.



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- 9.2 The Permit Holder must, within 14 days, or a shorter period of time, if specified by the Director and/or the Regional Director, from the occurrence or detection of any incident referred to in condition 9.1, submit an action plan, which must include a detailed time schedule, and resource allocation signed off by top management, to the satisfaction of the Director and/or the Regional Director of measures taken to -
- a) correct the impact resulting from the incident;
  - b) prevent the incident from causing any further impact; and
  - c) prevent a recurrence of a similar incident.
- 9.3 In the event that measures have not been implemented within 21 days of the incident to address impacts caused by the incident referred to in condition 9.1, or measures which have been implemented are inadequate, the Director and/or the Regional Director may implement the necessary measures at the cost and risk of the Permit Holder.
- 9.4 The Permit Holder must keep an incident report and complaints register, which must be made available to external auditor, Departmental and DWAF officers for the purpose of the audit.
- 9.5 The Department must be notified without delay in the case of any significant adverse environmental and health effects and the breach of any condition in this permit.
- 9.6 Prior written notification shall be given to the Director prior to the permanent cessation of any operational activities and the permit holder must comply with condition 10.1 below.
- 9.7 The Department must be notified within 7 days of any changes to the management of the site including the name of the incoming person together with evidence that such person has the required technical competence.
- 9.8 The Department must be notified within 14 days of the following changes:
- a) Permit Holder's trading name, registered name or registered office address;
  - b) steps taken with a view to the Permit Holder going into bankruptcy, entering into composition or arrangement with creditors, or in the case of them being in a partnership, dissolving the partnership.
- 9.9 Each external audit report referred to in condition 8.2 must be submitted to the Director within 30 days from the date on which the external auditor finalised the audit.

## 10. REHABILITATION AND CLOSURE OF THE SITE

### 10.1 REHABILITATION PLAN

- 10.1.1 The Permit Holder must rehabilitate the Site or any portion thereof, in accordance with a closure report and rehabilitation plan, which must be submitted to the Director and the Regional Director for approval at least one year prior to the intended closure of the Site, or shorter in

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cases of unplanned cessation of activities.

**10.2 CLOSURE OF THE SITE**

10.2.1 Immediately following the cessation of operations the surface of the Site must be covered and the Site must be maintained in such a way that:

- a) the formation of pools due to rain is prevented;
- b) free surface runoff of rain-water is ensured;
- c) contamination of stormwater is prevented;
- d) no objects or material which may hamper the rehabilitation of the site are present and;
- e) little or no erosion occurs, until the approved rehabilitation plan referred to in condition 10.1 is completely implemented.

10.2.2 The Permit Holder shall remain responsible for the Site, or any of its impacts on the environment, after operations on the site have ceased.

**11. LEASING AND ALIENATION OF THE SITE**

11.1 Should the permit holder want to alienate or lease the Site, he/she shall notify the Director in writing of such an intention at least 120 days prior to the said transaction.

11.2 Should the permit holder want to transfer holder-ship of this, he/she shall notify and obtain approval from the Director for such a transfer, at least 120 days prior to the said transfer.

11.3 Any subsequent Permit Holder shall be bound by the conditions of this Permit.

**12. GENERAL**

12.1 This permit shall not be transferable unless such transfer is subject to condition 11.2.

12.2 This permit shall not be construed as exempting the permit Holder from compliance with the provisions of the National and Provincial Legislation and any relevant Ordinance, Regulation, By-laws and relevant National Standards and norms.

12.3 Transgression of any condition of this Permit could result in the validity of the Permit being terminated by the Department.


12.4 The Permit Holder must provide the Director with any information which he/she may require to enable him/her to fulfil the objective of the Environment Conservation Act, 1989 (Act 73 of 1989) as amended or any current legislation for waste management purposes.



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12.5 This Permit is valid for a period of three years and shall be reviewed immediately when there is sufficient ground water quality results. Based on the results of the review, compliance to permit conditions or recommendations from audit reports and or changing legislation, the Permit could be amended or withdrawn or validity thereof extended.

  
Ms Nosipho Ngcaba  
DIRECTOR-GENERAL  
DATE: 3/9/2008



**G:C:B-Permit: Vosburg Waste Disposal Site****ANNEXURE I****WASTE WHICH MAY NOT BE ACCEPTED ON THE SITE: CONDITION 3.1**

1. Waste where specific control has been established in terms of the Nuclear Energy Act, 1993 (Act 131 of 1993).
2. Waste types controlled in terms of the Minerals and Petroleum Resources Development Act, 2002 (Act 28 of 2002) and the Electricity Act, 1987 (Act 41 of 1987), unless written permission has been obtained from the Regional Director.
3. Waste which is defined, according to the Minimum Requirements, as an extreme hazard or Hazard Group 1 (HG1); high hazard or Hazard Group 2 (HG2); moderate hazard or Hazard Group 3 (HG3) and low hazard or Hazard Group 4 (HG4), unless an application for delisting has been successfully submitted to the Manager: Waste Discharge and Disposal through the Regional Director and written approval was obtained from the Manager: Waste Discharge and Disposal for the disposal of this waste on the Site.
4. Flammable wastes, with a closed cup flash point less than 61°C.
5. Corrosive substances, as defined and described in the Minimum Requirements as Class 8 (1998 edition: page 6-8, Diagram III).
6. Oxidising substances and organic peroxides, as defined and described in the Minimum Requirements as Class 5 (1998 edition: page 6-8, Diagram III).
7. Any waste with a substance which is a Group A and/or Group B carcinogen/mutagen. Group A carcinogens/mutagens have been proven in humans, both clinical and epidemiological. Group B carcinogens/mutagens have been proven without doubt in laboratory animals.
8. Any waste with a substance at a concentration greater than 1% where the substance is a Group C and/or Group D carcinogen/mutagen. Group C carcinogens/mutagens have shown limited evidence in animals. Group D carcinogen/mutagen - the available data is inadequate and doubtful.
9. Any infectious waste which is generated during the diagnosis, treatment or immunisation of humans or animals; in the research pertaining to this; in the manufacturing or testing of biological agents including blood, blood products and contaminated blood products, cultures, pathological wastes; sharps, human and animal anatomical wastes and isolation wastes that contain infectious substances.
10. All materials which fall in Class 1 (explosives), Class 2 (compressed gases) and Class 7 (radioactive materials), as defined and described in the Minimum Requirements.
11. Any waste with a pH less than 6 or greater than 12.
12. Any waste which is difficult to analyse and classify.
13. Any complexes of heavy metal cations, paint and paint sludges, or laboratory chemicals.



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14. Organic or inorganic element or compound which may have a definite acute or chronic negative effect on human health and/or the environment, due to its toxic, physical, chemical or persistent characteristics and which corresponds with the UNEP definition of hazardous waste;
15. Medical waste; and
16. Scheduled pharmaceutical products registered in terms of the Medicines and Related Substances Control Act, 1965 (Act 101 of 1965) or associated containers, are disposed of on the Site.



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**ANNEXURE II**

**INFORMATION WHICH SHALL BE SUBMITTED ON AN ANNUAL BASIS: CONDITION 5.10 (a)**

*\* = Indicate with an X. Please print legibly.*

NAME OF SITE: _____	DATE OF REPORT: _____ (yy/mm/dd)
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**1. Registered owner(s) of property on which disposal site is situated:**

Name	Telephone	
Postal Address	Fax	
	Postal Code	

**2. Operator in control of disposal site:**

Name	Telephone	
Identity number	After hours	
Educational Qualifications (*)		

**3. Latest estimated lifetime of the disposal site: \_\_\_\_\_ yr.**

**4. Indicate the type of waste and approximate quantities of waste disposed of during the year:**

Type of waste	Quantity (m <sup>3</sup> annum <sup>-1</sup> )	Compacted (C)	Uncompacted (U)
Non-hazardous waste			
Household			
Garden refuse			
Building rubble			
Industrial (not hazardous) - (specify Source)			
Industrial (not hazardous) - (specify Source)			
<b>TOTAL</b>			

**5. Indicate the applicable waste types and quantities salvaged during the year (\*)**

Salvaging undertaken?		Yes
Type	(Collector's Name & final destination of Waste)	Quantity (m <sup>3</sup> )
Paper/wood fibre		
Plastics		
Glass		
Rubber		
Textile		
Other (specify)		
Other (specify)		
<b>TOTAL</b>		



### G:C:B Permit: Vosburg Waste Disposal Site

Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk Management	Residual risk
What is at risk?  What do I wish to protect?	What is the agent or process with potential to cause harm?	What are the harmful consequences if things go wrong?	How might the receptor come into contact with the source?	How likely is this contact?	How severe will the consequences be if this occurs	What is the overall magnitude of the risk? (Low-Medium-High)	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment)
Local human population	Airbone dusts /particulars	Nuisance -dust on cars, clothing etc.	Deposition from air						
Local human population	Noise from machine	Nuisance loss of amenity, loss of sleep	Air transport						
Local human population	Fugitive releases, waste, litter and mud on roads	Nuisance loss of amenity.	Vehicles entering and leaving the Site. Waste escaping the Site						
Local human population	Odour	Nuisance loss of amenity.	Air transport						
Local human population	Scavenging birds and animals	Nuisance loss of amenity.	Air transport and over land						
	Pests (e.g flies)	Nuisance loss of amenity.	Air transport and over land						
Local human population	Flooding of Site	If waste is washed off site it may cause contamination	Flood waters						
Groundwater and surface waters	Fire on site leading to run-off from polluted fire fighting waters.	Contaminating of groundwater and aquatic ecosystems	Direct and indirect run-off						
Local human population and/or livestock gaining unauthorised access to the activities	All non-site hazards- particularly relating to waste handling & storage activity	People/ livestock coming into contact with hazards	Direct physical contact						
		Arson and/or vandalism causing the release of polluting materials	Arson-air. Liquids polluting watercourses and/or groundwater						
Ground water	Contaminated run-off from waste	Contaminating of ground water	Soil to ground water to borehole.						
Local human population	Smoke from burning of waste in case of fire.	Nuisance, loss of amenity, loss of sleep. Respiratory irritation/illness	Air transport						





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Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk Management	Residual risk
What is at risk?  What do I wish to protect?	What is the agent or process with potential to cause harm?	What are the harmful consequences if things go wrong?	How might the receptor come into contact with the source?	How likely is this contact?	How severe will the consequences be if this occurs	What is the overall magnitude of the risk? (Low-Medium - High)	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? This residual risk will be controlled by Compliance Assessment)

EXPAND TABLE AS PER YOUR RISKS

I, the undersigned, declare that the information stated above and the risk assessment below is to my knowledge a true reflection of the status at the Vosburg waste disposal site.

Signature:

A. T. Mergwe

Name:

A. T. MERGWE

Capacity:

CEO

Place:

Kimberley

Date 01.02.2011

*[Handwritten signature]*



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**ANNEXURE IV**

**WATER QUALITY VARIABLES REQUIRED FOR DETECTION MONITORING: CONDITIONS 6.4**

- (a) Bi-annually for:
  - Alkalinity (P.Alk)
  - Chemical oxygen demand (COD)
  - pH
  - Total dissolved solids (TDS)
  - Chlorides (Cl)
  - Nitrate (NO<sub>3</sub>-N)
  - Potassium (K)
  
- (b) Annually for:
  - Electrical conductivity (EC)
  - Calcium (Ca)
  - Magnesium (Mg)
  - Sodium (Na)
  - Sulphate (SO<sub>4</sub>)
  - Fluoride (F)



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ANNEXURE III

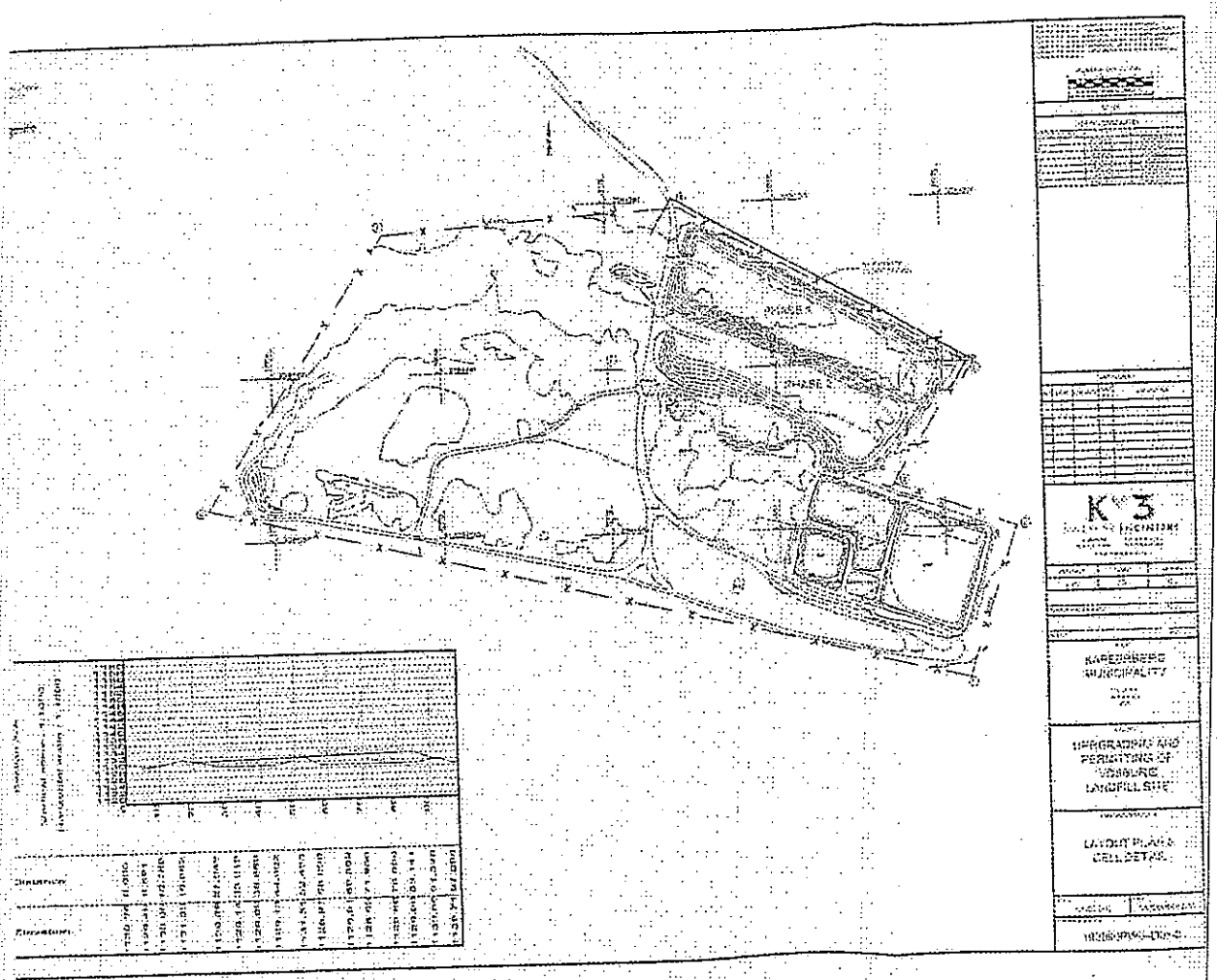
WATER QUALITY VARIABLES REQUIRED FOR BACKGROUND MONITORING :CONDITIONS 6.3

Alkalinity (P.AIk)	Free & saline ammonia as N (NH <sub>4</sub> -N)
Calcium (Ca)	Boron (B)
Chromium (hexavalent) (Cr <sup>6+</sup> )	Magnesium (Mg)
Chromium (Total) (Cr)	Cadmium (Cd)
Chemical oxygen demand (COD)	Chloride (Cl)
Cyanide (CN)	Fluoride (F)
Mercury (Hg)	pH
Lead (Pb)	Sodium (Na)
Nitrate (as N) (NO <sub>3</sub> -N)	Electrical conductivity (EC)
Phenolic compounds (Phen)	Sulphate (SO <sub>4</sub> )
Potassium (K)	
Total dissolved solids (TDS)	





### G:C:B Permit: Vosburg Waste Disposal Site



<p><b>K3</b> KARREBERG MUNICIPALITY MUNICIPAL ENGINEER</p>	
<p><b>KARREBERG MUNICIPALITY</b></p>	
<p><b>IMPROVING AND PERMITTING OF VOSBURG LANDFILL SITE</b></p>	
<p><b>LAYOUT PLANS CELL DETAILS</b></p>	
Scale:	1:1000
<p>DATE: 2010-08-02</p>	

*[Handwritten signature]*