



environment & tourism

Department
Environmental Affairs and Tourism
REPUBLIC OF SOUTH AFRICA

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Ref. 12/9/11/P49

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PERMIT NUMBER: 12/9/11/P49

CLASS: G:C:B

WASTE DISPOSAL SITE: BEESHOEK DOMESTIC WASTE SITE

LOCATION: THE FARM BEESTHOEK NUMBER 448, DISTRICT OF
POSTMASBURG

PERMIT HOLDER: ASSMANG LIMITED

ADDRESS: P.O. MANCORP MINES, BEESHOEK, NORTHERN CAPE, 8423

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

I, Nosipho 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 establish and operate the abovementioned waste disposal site, subject to the conditions specified herein.



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 X 6101
KIMBERLEY
8300

1 SITE DETAILS

1.1 LOCATION

1.1.1 This permit authorises the operation of a waste disposal site situated on farm Beeshoek number 448, District of Postmasburg, Northern Cape. (hereinafter referred to as "the Site") according to the Application Report compiled by African Water, Environmental and Mining Solutions, dated May 2004 (hereinafter referred to as " the Report"), submitted by the Permit Holder.

1.1.2 The location of the site shall 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	28° 16' 34.0"	22° 59' 39.9"
B	28° 16' 34.7"	22° 59' 41.8"
C	28° 16' 36.8"	22° 59' 42.5"
D	28° 16' 38.7"	22° 59' 43.9"
E	28° 16' 41.3"	22° 59' 43.9"
F	28° 16' 40.9"	22° 59' 40.9"
G	28° 16' 38.4"	22° 59' 40.3"
H	28° 16' 35.9"	22° 59' 38.9"



1.2 DOCUMENTS CONSIDERED

- (a) The Application report prepared by African water, Environment and Mining Solutions dated May 2004 "hereinafter referred to as "the Report";
- (b) An Environmental Impact Assessment (EIA) Record of Decision (RoD), issued by Northern Cape Department of Tourism, Environment and Conservation dated 10 March 2006; and
- (c) The RoD issued by the Department of Water Affairs and Forestry dated 13 March 2007.

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 and or an environmental management plan as per the EIA RoD, 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
 - (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.



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- 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 & Malfunction
 - b) Landfill site fire
 - c) Spillage on route
 - d) Slope Failure
 - e) Natural disasters 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 garden waste and uncontaminated rubble only

- 3.2 Any other inert waste may be disposed after approval by the Director.

- 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 and further development within the site shall be carried out under the supervision of a registered professional engineer and according to the "Minimum Requirements series".

- 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.

- 4.1.4 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.



- 4.1.5 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 200 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.
- 4.1.6 The maximum height of the site above ground level shall not exceed 3 metres.
- 4.1.7 The permit holder must construct berms at the highest point of the disposal site to prevent storm water from coming into contact with waste.
- 4.1.8 Upgrading and or modification of the facility in terms of waste storage, treatment and handling should be communicated to the Director.
- 4.1.9 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 IMPACT MANAGEMENT

- 5.1.1 Waste disposal and operation shall be done according to the relevant minimum requirements (where applicable), conditions of this Permit and any other written instruction by the Director in consultation with the Regional Director.
- 5.1.2 Waste types other than uncontaminated rubble and garden waste must be redirected to a waste disposal site permitted for these waste types and classes.
- 5.1.3 No heavy machinery must be in operation on the site between 17H00 in the evening and 06H00 the next morning.
- 5.1.4 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 hazards, are prevented.
- 5.1.5 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).
- 5.1.6 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.

5.2 OPERATION

- 5.2.1 Permit Holder must ensure that 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.



5.2.7 Permit Holder must ensure that emissions from the activities shall be free from noise at levels likely to cause annoyance or cause harm to interested and affected parties.

6. MONITORING

6.1 MONITORING METHODS AND PARAMETERS

6.1.1 The permit holder must carry out all tests required in terms of this permit in accordance with methods prescribed by and obtainable from the South African Bureau of Standards (SABS), referred to in the Standards Act, 1982 (Act 30 of 1982).

6.2 WATER MONITORING

6.2.1 The permit holder must establish and maintain one borehole upstream and downstream of the site for the shallow aquifers within 6 months from the date of this permit.

6.2.2 Monitoring boreholes must be equipped with lockable caps. The Department and the DWAF reserves the right to take water samples at any time and to analyse these samples or have them analysed.

6.3 BACKGROUND MONITORING

6.3.1 Samples from the upstream borehole where the ground water in the borehole is at an expected higher hydraulic pressure level of the groundwater under the site must be considered as background monitoring. Background groundwater monitoring must be conducted on a six monthly basis during each monitoring occasion for water quality variables listed in Annexure I.

6.4 DETECTION MONITORING

6.4.1 Monitoring must be conducted six monthly at the downstream borehole for the water quality variables listed in Annexure II.

7 INVESTIGATIONS

7.1 If, in the opinion of the Director, environmental pollution, nuisances or health risks may be or is occurring on the site, the permit holder must initiate an investigation into the cause of the problem or suspected problem. Such investigation must include monitoring of the relevant environmental pollution; nuisance; health risk variables and water quality variables, at those monitoring points and such frequency as may be specified by the Director

7.2 Should the investigation carried out as per conditions 7.1 above reveal any unacceptable levels of pollution, the permit holder must submit mitigation measures to the satisfaction of the Director.



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.



- 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 auditors for the purpose of audit.
- 9.5 The Department must be notified without delay in the case of the following:
- a) any malfunction, breakdown or failure of equipment or techniques, accident or fugitive emission which has caused, is causing or may cause significant pollution;
 - b) the breach of limit specified in this permit; and
 - c) any significant adverse environmental and health effects.
- 9.6 Prior written notification shall be given to the Department of the following events and in the specified timescales.
- a) as soon as practicable prior to the permanent cessation of any operational activities
 - b) full or partial cessation of the operational activities for a period likely to exceed 3 months
 - c) full or partial resumption of the operation of all or part of the activities after a cessation notified under (b) above
 - d) prior to commencement of operations, the professional engineer appointed by the permit holder in line with condition 4.1.2 must make a signed declaration that condition 4.2.1 and 4.2.2 above have been adhered to.
- 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) Particulars of the Permit Holder's ultimate holding company (including details of an ultimate holding where a Permit Holder has become a subsidiary);
 - c) steps taken with a view to the Permit Holder, or any one of them, 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 CLOSURE OF THE SITE

10.1.1 Immediately following the cessation of rubble and garden deposition on the site, the surface of the site must be covered and 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.

10.1.2 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 RECORDING

12.1 The permit holder must keep records and update all the information referred to in Annexure III and submit this information to the Director and the Regional Director on an annual basis.

12.2 All records required or resulting from activities required by this permit must:

- (a) be legible;
- (b) be made as soon as reasonably practicable and should form part of the external audit report;
- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible and are easily retrievable and
- (d) be retained in accordance with a documented procedures which is approved by the Department.

12.3 The permit holder must record all borehole data and chemical analyses in the format attached as Annexure IV.



13. GENERAL

- 13.1 This permit shall not be transferable unless such transfer is subject to condition 11.2.
- 13.2 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.
- 13.3 Transgression of any condition of this permit could result in the validity of the permit being terminated by the Department.
- 13.4 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.
- 13.5 This permit is valid for a period of twenty (20) years and shall be reviewed every five years from the date of issue or at any time before or after that date. 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: 2/10/2008



ANNEXURE I

WATER QUALITY VARIABLES REQUIRED FOR BACKGROUND MONITORING
: CONDITIONS 6.3 Cont.

Free & saline ammonia as N (NH₄-N)
Boron (B)
Magnesium (Mg)
Cadmium (Cd)
Chloride (Cl)
Fluoride (F)
pH
Sodium (Na)
Electrical conductivity (EC)
Sulphate (SO₄)



ANNEXURE I

WATER QUALITY VARIABLES REQUIRED FOR BACKGROUND MONITORING
: CONDITIONS 6.3

Alkalinity (P.Aik)
Calcium (Ca)
Chromium (hexavalent) (Cr⁶⁺)
Chromium (Total) (Cr)
Chemical oxygen demand (COD)
Cyanide (CN)
Mercury (Hg)
Lead (Pb)
Nitrate (as N) (NO₃-N)
Phenolic compounds (Phen)
Potassium (K)
Total dissolved solids (TDS)



ANNEXURE II

WATER QUALITY VARIABLES REQUIRED FOR BACKGROUND MONITORING AND DETECTION
MONITORING: CONDITIONS 6.4.1

(a) Bi-annually for:

Alkalinity (P.AIk)
Chemical oxygen demand (COD)
pH
Total dissolved solids (TDS)
Chlorides (Cl)
Nitrate (NO₃-N)
Potassium (K)



ANNEXURE II

WATER QUALITY VARIABLES REQUIRED FOR BACKGROUND MONITORING AND DETECTION
MONITORING: CONDITIONS 6.4.1 Cont.

(b) Annually for:

Electrical conductivity (EC)

Calcium (Ca)

Magnesium (Mg)

Sodium (Na)

Sulphate (SO₄)

Fluoride (F)



ANNEXURE III

INFORMATION THAT MUST BE SUBMITTED ON AN ANNUAL BASIS: CONDITION 12.1

NAME OF SITE: _____ DATE OF REPORT: _____ (yy/mm/dd)
--

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 ³ annum ⁻¹)
Garden refuse	
Building rubble	
TOTAL	



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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)
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						



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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 judge 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 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						
EXPAND TABLE AS PER YOUR RISKS									

I, the undersigned, declare that the information stated above is to my knowledge a true reflection of the status at the _____ waste disposal site.



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Signature: _____

Name: _____

Capacity: _____

Place: _____ Date _____



ANNEXURE IV

**FORM TO BE USED FOR CHEMICAL INFORMATION:
CONDITIONS 12.3**

Name of site				
Borehole/observation- point name/number				
Sampling date (y-m-d):		Method:	Bail	
Sampling Time			Pump	
Time after start of pump:	h min	Depth of sample		m
Date of analysis (y-m-d)		Laboratory		

General chemistry

Constituent	Unit	Value	Constituent	Unit	Value
pH	(-log[H ⁺])			(mg/l)	
EC	(mS/m)			(mg/l)	
TDS	(mg/l)			(mg/l)	
Ca	(mg/l)			(mg/l)	
Mg	(mg/l)			(mg/l)	
Na	(mg/l)			(mg/l)	
K	(mg/l)			(mg/l)	
Alkalinity	(mg CaCO ₃ /l)			(mg/l)	
Cl	(mg/l)			(mg/l)	
SO ₄	(mg/l)			(mg/l)	
NO ₃ -N	(mg/l)			(mg/l)	
F	(mg/l)				
COD	(mg/l)				
NH ₄ -N	(mg/l)				
Phenol	(mg/l)				
PO ₄	(mg/l)				
TOX	(µg/l)				
TOC	(mg/l)				
Ba	(mg/l)				