

NAME OF APPLICANT: WIDE INVESTMENTS 100 (PTY) LTD

REFERENCE NUMBER: (NC) 1440 PR

REVISED ENVIRONMENTAL MANAGEMENT PLAN

SUBMITTED
IN TERMS OF SECTION 39 AND OF
REGULATION 52 OF THE MINERAL AND
PETROLEUM RESOURCES DEVELOPMENT
ACT, 2002,
(ACT NO. 28 OF 2002) (the Act)

STANDARD DIRECTIVE

Applicants for prospecting rights or mining permits, are herewith, in terms of the provisions of Section 29 (a) and in terms of section 39 (5) of the Mineral and Petroleum Resources Development Act, directed to submit an Environmental Management Plan strictly in accordance with the subject headings herein, and to compile the content according to all the sub items to the said subject headings referred to in the guideline published on the Departments website, within 60 days of notification by the Regional Manager of the acceptance of such application. This document comprises the standard format provided by the Department in terms of Regulation 52 (2), and the standard environmental management plan which was in use prior to the year 2011, will no longer be accepted.

IDENTIFICATION OF THE APPLICATION IN RESPECT OF WHICH THE ENVIRONMENTAL MANAGEMENT PLAN IS SUBMITTED.

ITEM	COMPANY CONTACT DETAILS		
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ITEM	CONSULTANT CONTACT DETAILS (If applicable)			
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Cellular no				
E-mail address				
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1 REGULATION 52 (2): Description of the environment likely to be affected by the proposed prospecting or mining operation

1.1 The environment on site relative to the environment in the surrounding area.

Air Quality:

Prior to mining in the area, the quality of the air was expected to be good as only low intensity farming activities took place. Mining has introduced air pollution in the form of increased dust levels.

Existing sources:

The current source of air pollution in the area stems from the nearby mining operations (Sishen Mine, Khumani Mine, Helpebietjie Mine) and from vehicles traveling on the gravel roads of the area.

Areas of impact:

The most commonly occurring wind direction for Kathu region is SSE where the wind velocity is 3,0 m/s. Commonly the wind speed fluctuates between 1,6 m/s and 3,5 m/s although speeds in the range 3,6 m/s to 5,5 m/s are regularly recorded.

Fauna:

Common species:

The fauna listed below is found in the area and greater region.

Birds:

An extensive bird life can be found in the region and specifically on the hills and small valleys with dense vegetation growth.

Mammals:

The Kalahari is a hugely diverse natural South African wilderness area. There are 69 different mammal species that occur in the area. The main mammal is probably the black maned Kalahari Lion. Brown Hyenas, Gemsbok and the huge herds of Springbok, Hartebeest, Eland, Wildebeest, as well as the great rodent diversity.

Here, listed in alphabetical order, are the mammal species that are found in the Kalahari and more specifically in the area under application.

Kalahari Mammal species
Aardvark (Antbear) – Proteles Cristatus
Aardwolf – Orycteropus Afer
Acacia Rat – Thallomys Paedulcus
African Lion – Panthera Leo
African Wild Cat – Felis Silvestris Lybica

Baboon – Papio Hamadryas Ursinus
Bat-Eared Fox – Otocyon Megalotis
Black-Backed Jackal – Canis Mesomelas
Blesbok – Damaliscus Pygargus Phillipsi
Brant's Whistling Rat – Parotomys Bransii
Brown Hyaena (Strandwolf) - Parahyaena Brunnea
Bushveld Gerbil – Tatera Leucogaster
Cape Fox (Silver Fox) – <i>Vulpes Chama</i>
Cape Hare – <i>Lepus Capensis</i>
Cape Porcupine – Hystrix Africaeaustralis
Cape Serotine Bat – Neoromicia Capensis
Caracal – Caracal Caracal
Egyptian Slit-Faced Bat – Nycteris Thebaica
Egyptian Tree-Tailed Bat – Tadarida Aegyptiaca
Four-Striped Grass Mouse – Rhabdomys Pumilio
Gemsbok – Oryx Gazella
Greater Kudu - Tragelaphus Strepsiceros
Grey Climbing Mouse – Dendromus Melanotis
Grey Duiker (Common Duiker) – Sylvicapra Grimmia
Ground Pangolin – Manis Temminckii
Honey Badger – Mellivora Capensis
Leopard – Panthera Pardus
Meerkat – Suricata Suricatta
Namaqua Rock Rat – Aethomys Namaquensis
Pouched Mouse – Saccostomus Campestris
Red Hartebeest – Alcelaphus Buselaphus
Scrub Hare – Lepus Saxatilis
Slender Mongoose – Galerella Sanguinea
Small Spotted Cat (Black Footed Cat) – Felis Nigripes
Small Spotted Genet – Genetta Genetta
South African Ground Squirrel – Xerus Inaurus
South African Hedgehog – Atelerix Frontalis
Spotted Hyaena – <i>Crocuta Crocuta</i>
Springbok – Antidorcas Marsupialis
Springhare – Pedetes Capensis
Steenbok – Raphicerus Campestris
Striped Polecat (Zorilla) – Ictonyx Striatus
Yellow Mongoose – Cynictus Penicillata
1 one willing oose Cymolas i cinomala

Endangered species:

Endangered species, which can be found in the immediate surrounding area according to the Red Data Book (Smithers 1989 & Branch 1988):

Animal	State		
Felis lybica cafra (African Wild Cat)	- vulnerable		
Manis temminckii (Cape pangolin)	- vulnerable		
Orycteropus afer (Antbear)	- vulnerable		

Atelerix frontalis (Cape hedgehog)	-	rare
Naja nigricollis woodi (Black spitting cobra)	-	rare
Proteles cristatus cristatus (Aardwolf)	-	rare
Felis nigripes nigripes (Small spotted cat)	-	rare

<u>Vulnerable means</u>: Taxa of which all or most populations are decreasing because of overexploitation, extensive destruction or degradation of their habitat or other environmental disturbances.

Rare means: Taxa with small populations which are not presently endangered or vulnerable, but which are potentially at risk.

• Flora:

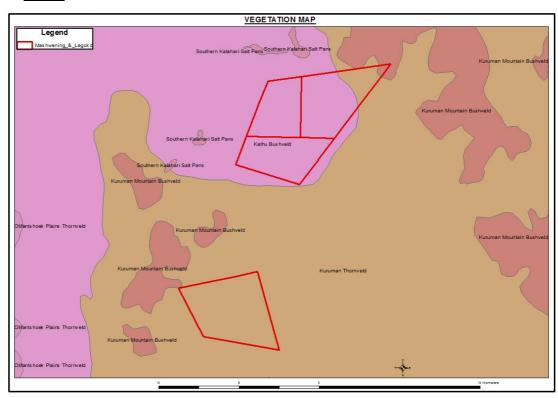


Figure 1 - Vegetation Map

There are three types of vegetation found on the properties:

- Kathu bushveld (SVk 12)
- Kuruman thornveld (SVk 9)
- Kuruman mountain bushveld (SVk 10)
- Kathu bushveld (SVk 12)

Tall tree: Acacia erioloba (d).

Small trees: Acacia mellifera subsp. detinens (d), Boscia albitrunca (d), Terminalia sercea.

<u>Tall shrubs:</u> *Diospyros lycioides* subsp. *lycioides* (d), *Dichrostachys cinerea*, *Grewia flava*, *Gymnosporia buxifolia*, *Rhigozum brevispinosum*.

<u>Low shrubs:</u> Aprosimum decumbens, Grewia retinervis, Nolletia arenosa, Sida cordifolia, Tragia dioica.

Graminoids: Aristida meridionalis (d), Brachiaria nigropedata (d), Centropodia glauca (d), Eragrostis lehmanniana (d), Schmidtia pappophoroides (d), Stipagrostis ciliata (d), Aristida congesta, Eragrostis biflora, E. chloromelas, E. heteromera, E. pallens, Melinis repens, Schmidtia kalahariensis, Stipagrostis uniplumis, Tragus berteronianus.

<u>Herbs:</u> Acrotome inflata, Erlangea misera, Gisekia africana, Heliotropium ciliatum, Hermbstaedtia fleckii, H. odorata, Limeum fenestratum, L. viscosum, Lotononis platycarpa, Senna italica subsp. arachoids, Tribulus terrestris.

Biogeographically Important Taxa (Kalahari endemics):

Small tree: Acacia luederitzii var. luderitzii.

<u>Graminoids:</u> Anthephora argentea, megaloprotachne albescens. Panicum kalaharense.

Herb: Neuradopsis bechuanensis.

Kuruman thornveld (SVk 9)

Tall tree: Acacia erioloba (d).

<u>Small trees:</u> Acacia mellifera subsp. detinens (d), Boscia albitrunca (d).

<u>Tall shrubs:</u> *Grewia flava* (d), *Lycium hirsutum* (d), *Tarchonanthus camphoratus* (d), *Gymnosporia busifolia*.

Low shrubs: Acacia hebeclada subsp. hebeclada (d), Monechma divaricatum (d), Gnidia polycephala, Helichrysum zeyheri, Hermannia comosa, Pentzia calcarea, Plinthus sericeus.

Geoxylic suffrutex: *Elephantorrhiza elephantina*.

<u>Graminoids:</u> Aristida meridionalis (d), A. stipitata subsp. stipitata (d), Eragrostis lehmanniana (d), E. echoninochloidea, Melinis repens.

<u>Herbs:</u> Dicoma schinzii, Gisekia africana, Harpagophytum procumbens subsp. procumbens, Indigofera daleoides, Limeum fenestratum, Nolletia ciliaris, Seddera capensis, Tripteris aghillana, Vahlia capensis subsp. vulgaris.

Biogeographically Important Taxa (Griqualand West endemic, Kalahari endemic, Southern most distribution in interior of Southern Africa):

<u>Small trees:</u> Acacia luederitzii var. luderitzii, Terminalia sericea.

<u>Tall shrub:</u> Acacia haematoxylon. <u>Low shrub:</u> Blepharis marginata. <u>Graminoid:</u> Digitaria polyphylla. Herb: Corchorus pinnatipartitus.

Endemic Taxon:

Herb: Gnaphalium englerianum.

Kuruman mountain bushveld (SVk 10)
 Small tree: Rhus lancea.

<u>Tall shrubs:</u> Diospyros austro-africana, Euclea crispa subsp. crispa, E. undulata, Olea europaea subsp. africana, Rhus pyroides var. pyroides, R. tridactyla, Tarchonanthus camporatus, Tephrosia longipes.

<u>Low shrubs:</u> Rhus ciliata (d), Amphiglossa triflora, Anthorspermum rigidum subsp. pumilum, Gomphocarpus fruticosus subsp. fruticosus, Helichrysum zeyheri, Lantana rugosa, Wahlenbergia nodosa.

Succulent shrubs: Ebracteola wilmaniae, Hertia palens.

Herbaceous climber: Rhynchosia totta.

Graminoids: Andropogon chinesis (d), A. schirensis (d), Anthephora pubescens (d), Aristida congesta (d), Digitaria erianta subsp. eriantha (d), Themeda triandra (d), Triraphis andropogonoides (d), Aristida diffusa, Brachiaria nigropedata, Bulbostylis burchellii, Cymbopogoncaesius, Diheteropogon amplectens, Elionurus muticus, Eragrostis chloromelas, E. nindensis, Eustachys paspaloides, Heteropogon contortus, Melinis repens, Schizachyrium sanguineum, Trichoneura grandiglumis.

Herbs: Dicoma anomala, D.schinzii, Geigeria ornativa, Helichrysum cerastioides, Heliotropium strigosum, Hibiscus marlothianus, Kohautia cynanchica, Kyphocarpa angustifolia. Geophytic herbs: Boophone disticha, Pellaea calomelanos.

Biogeographically Important Taxa (Griqualand West endemics):

Tall shrub: Lebeckia macrantha (d).

Low shrubs: Justicia puberula, Tarchonanthus obovatus.

Succulent shrub: Euphorbia wilmaniae.

Graminoid: Digitaria polyphylla.

Herb: Sutera griquensis.

Endemic Taxon:

Succulent shrub: Euphorbia planiceps.

Ground Water:

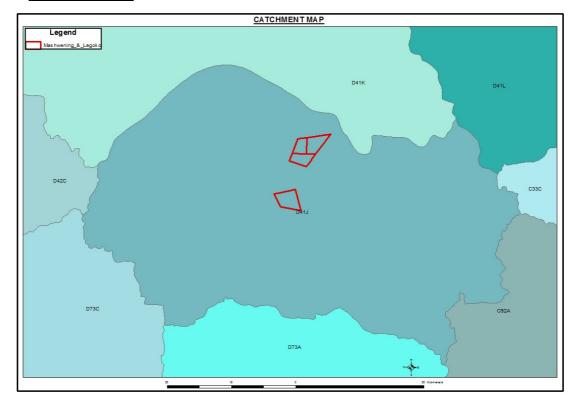


Figure 2 - Catchment Map

The property is located in the tertiary catchment area D41J. The catchment area forms part of the Lower Vaal Water Management Area. The application area falls in catchment area 10. The application area falls within Tshiping Water User Association's operational area.

The boreholes located in the area have overall good water quality due to the dolomitic nature of the aquifer. Most of the domestic water used in the area is supplied to the area via the Vaal-Gamagara Government Water Supply Scheme. The pipeline is supplemented with excess groundwater of acceptable quality from some Northern Cape mines along the pipeline route. The addition of suitable groundwater to the pipeline system assists in supplying users with water.

As mining at Sishen Iron Ore Mine has progressed vertically downwards, large quantities of groundwater have been encountered in the underlying deep dolomitic rocks. This groundwater is currently being pumped out for the purposes of de-watering at Sishen Mine. The total abstraction from the regional aquifers is 426L/s. Apart from use by the Sishen Mine, the bulk of the abstracted water is used to supply the towns of Kathu and Dingleton for their fresh water needs, while the rest is supplied to Sedibeng Water for further distribution using the Vaal Gamagara pipeline.

These large volumes of ground water abstracted from the aquifers above and below the ore body has created an extensive dewatered area around the mining activity. The Southern and North-Western Compartments are where the Sishen mining operations currently takes place and these compartments have been largely dewatered since the 1980's.

Noise:

Existing sources:

The main current source of noise in the area is from mining activities of nearby mines that include blasting and the rest is localized around the load, transporting and unloading of manganese and iron ore onto screens and feeder bins.

New source:

The main anticipated source of additional noise in the area will be from the drilling and bulk sampling activities that is planned for the renewal period.

Soil and geology:

Kathu bushveld (SVk 12)

Aeolian red sand and surface calcrete, deep (>1.2m) sandy soils of Hutton and Clovelly soil forms. Land types mainly Ah and Ae, with some Ag.

Kuruman thornveld (SVk 9)

Some Campbell Group dolomite and chert and mostly younger, superficial Kalahari Group sediments, with red wind-blown (0.3 - 1.2m deep) sand. Locally, rocky pavements are formed in places. Most important land types Ae, Ai, Ag and Ah, with Hutton soil form.

Kuruman mountain bushveld (SVk 10)

The Kuruman and Asbestos Hills consist of banded iron formation, with jaspilite, chert and riebeckite-asbestos of the Asbestos Hills Subgroup of the Griqualand West Supergroup (Vaalian). Most common land type lb, followed by Ae, Ic and Ag. Soils are shallow sandy soils, of the Hutton form.

Mr. S.J. van der Merwe of Orex Exploration conducted an extensive geological study of the Remaining Extent of the Farm Mashwening 557 during the initial prospecting period, which study included field mapping, outcrop mapping and target generation.

Mr. van der Merwe found the following:

Two manganese targets were identified within the north western area of the farm. A small tonnage was produced during the past, from shallow trenches within both areas. Mineralization is related to basinal structures. Target 1 represent an easterly mineralized extension of previous mining activities at Burk mine. Target 2 includes a small, circular outcrop area of Blinkklip breccia.

Bedding plane dips suggest a basinal structure, which was investigated by drilling for the in situ iron ore potential.

A detrital iron ore area was identified, bordering Burk mine toward the east. High grade iron ore pebbles and boulders, mixed with chert fragments, are exposed within a surface debri fan. The size and shape of some of the iron ore boulders suggests a possible in situ source.

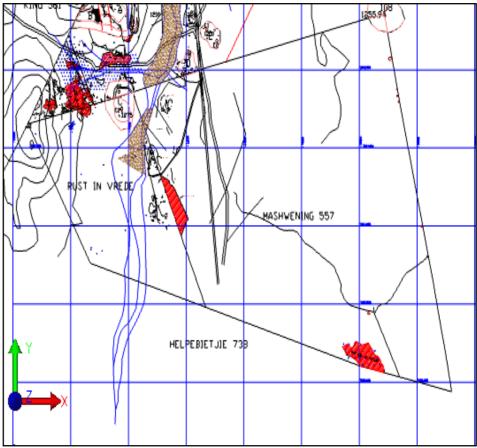


Figure 3 - Target areas on the Remaining Extent of the Farm Maswening 557

Attached hereto find reports compiled by Mr. S.J. van der Merwe of Orex Exploration as Annexure 'A'.

Attached hereto find also a Desktop Evaluation of the iron and manganese ore potential of the farms Mashwening 557 R/E, Legoko 460, Kuruman District, Northern Cape Province, compiled by N.J. Beukes, Department of Geology, University of Johannesburg as Annexure 'B'.

A detailed geological study will be done on the Remaining Extent, Portion 1 and Portion 2 of the Farm Legoko 460 during the renewal period.

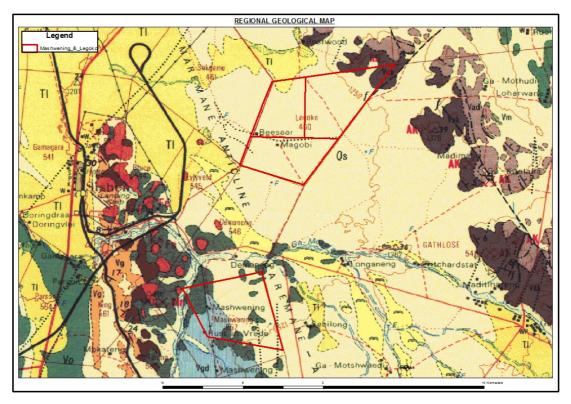


Figure 4 - Geological Map

Qs	Sand - Red and grey aeolian dune sand
Vgd	Coarse to fine-grained dolomite & limestone interbedded chert
Vo	Amygdaloidal andesite / basalt with interbeds of tuff & agglomerate;
	interbedded diamictite in places at base

Surface Water:

The dry non-perennial Gamagara River traverses the area from the west to the east, approximately 1km north of the Remaining Extent of the Farm Mashwening 557 and approximately 5km south of Legoko 460. The dry Gamagara River traverses the Remaining Extent of the Farm Mashwening on the most northwestern corner.

There are a few dry pans on the properties.

There is no other surface water in the area surrounding the properties.

Topography:

The properties consist of flat open veldt. A range of north-south striking hills, called the Mokaning ridge can be found directly west of the site. The plains surrounding the site are at an average height of ± 1200 meters above sea level rising to a maximum height of 1251 meters above sea level on the hill.

The prospecting area (Mashwening) will be visible mainly from the secondary gravel road (D3333) used by the surrounding farms. The prospecting area (Legoko) will be visible mainly from the secondary gravel road traversing from the N14 between Kathu and Postmasburg.

1.2 The specific environmental features on the site applied for which may require protection, remediation, management or avoidance.

The dry Gamagara River traverses the Remaining Extent of the Farm Mashwening on the most north-western corner.

There are a few dry pans on Legoko.

The natural dry Gamagara River and the dry pans need to be protected; hence no prospecting will be allowed within 100m thereof.

The following potential impacts will have to be managed / mitigated throughout the prospecting operation:

- Air quality
- Groundwater
- Noise
- Surface water run-off / Erosion
- Vegetation
- 1.3 Map showing the spatial locality of all environmental, cultural/heritage and current land use features identified on site.

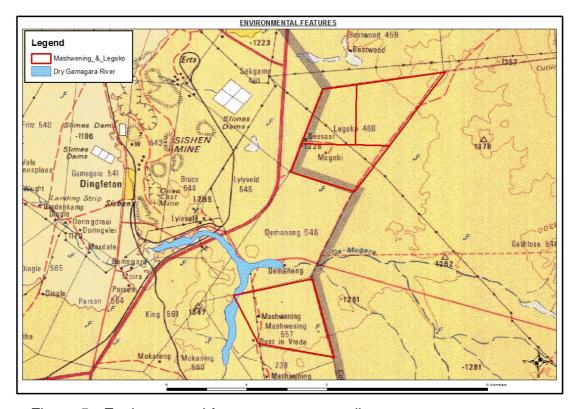


Figure 5 - Environmental features on surrounding area

Environmental

The dry non-perennial Gamagara River traverses the area from the west to the east, approximately 1km north of the Remaining Extent of the Farm Mashwening 557 and approximately 5km south of Legoko 460. The dry Gamagara River traverses the Remaining Extent of the Farm Mashwening on the most north-western corner.

There are a few dry pans on Legoko.

Please note that no prospecting will be allowed within 100m from these environmental features.

Cultural / heritage

There are no known cultural/heritage features inside the application area.

Current land uses

The remaining extent of the Farm Mashwening 557 is currently not occupied, but Mr. Janse van Rensburg (a surface owner of Legoko 460) rents the property from Sishen for livestock grazing.

The Farm Legoko 460 is occupied by the surface owners who utilize their properties for livestock farming purposes.

1.4 Confirmation that the description of the environment has been compiled with the participation of the community, the landowner and interested and affected parties,

Wide Investments 100 (Pty) Ltd has a surface use contract with the surface owner of the Remaining Extent of the Farm Mashwening 557, Sishen Iron Ore Company (Pty) Ltd (Find attached as Annexure 'C'). Wide Investments 100 (Pty) Ltd provided a draft EMP to Sishen Iron Ore to which an acknowledgement of receipt has been received. No further comments have been received to date.

A notification letter, with EMP attached, was sent to the legal representative of the Carel Reitz Familie Trust (surface owner of Portion 2 of the Farm Legoko 460), Oosthuizen Sweetnam & Reitz, to which letter no response has been received to date.

Wide Investments 100 (Pty) Ltd has notified the other two surface owners of Legoko 460 of their application for renewal of the prospecting right to which notification letters the draft EMP document was attached. Find attached hereto as Annexure 'D' proof of notification process.

Responses / Concerns received are as follows:

- Dihan Eiendoms Trust and Henque 3516 CC's response were the same:
 - Safety and health hazards of the animals on the farm.

- Damages to fences, water pipe lines, tanks, troughs and other infrastructure.
- o Gates left open
- Littering
- o Mining operational waste and oil spillage
- o Killing of animals by mining vehicles
- Illegal trapping of game
- Cattle caught in illegal traps
- Damaging of grazing
- Veld fires
- o Theft of cattle and farm equipment
- Trespassing and loitering of workers in camps
- Scarcity of water
- Dust
- Noise
- Safety and security

- 2 REGULATION 52 (2) (b): Assessment of the potential impacts of the proposed prospecting or mining operation on the environment, socioeconomic conditions and cultural heritage.
 - 2.1 Description of the proposed prospecting or mining operation.
 - 2.1.1 The main prospecting activities (e.g. access roads, topsoil storage sites and any other basic prospecting design features)

The planned prospecting operation will create the following:

- Dedicated overburden dump area (temporary);
- Dedicated topsoil storage area (temporary);
- Mobile plant & processing area;
- Mobile office-, workshop- & storage area;
- A minimum of haulage roads.

2.1.2 Plan of the main activities with dimensions

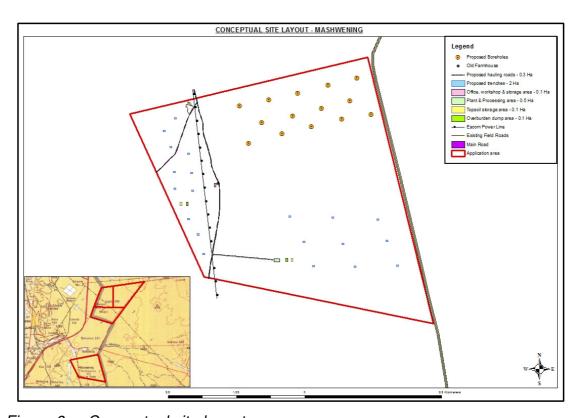


Figure 6a - Conceptual site layout map

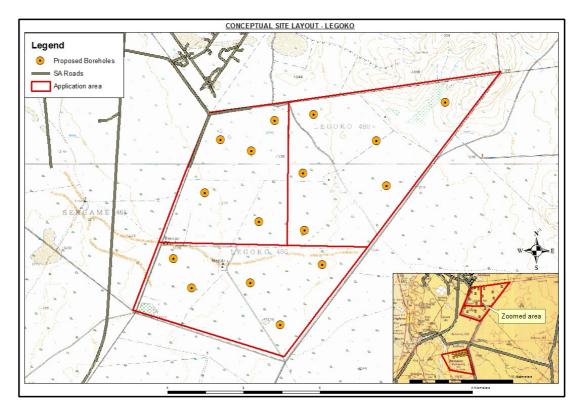


Figure 6b - Conceptual site layout map

2.1.3 Description of construction, operational, and decommissioning phases.

Construction phase:

The construction phase will commence after phase 2 of the prospecting operation has been completed.

The site will be established during phase 4 whereby the dedicated areas will be demarcated. These include the temporary overburden dump area, the temporary topsoil storage area, the mobile plant and processing area and the mobile office-, workshop- and storage area.

Care will be taken not to establish topsoil stockpiles more than 2m high on the high ground side to minimize erosion and surface run-off. The site establishment is expected to be complete within one month after the second phase has been completed.

Operational phase:

The operational phase will be conducted in three phases.

The first phase will consist of a site reconnaissance visit, geophysical survey research, target identification and mapping. A pre-feasibility report will then be compiled.

The second phase will consist of the drilling of thirty boreholes. The locality of the boreholes will be verified during the first phase after the pre-feasibility report has been compiled.

The third phase (phase 4 of the PWP) will consist of bulk sampling. Twenty trenches of 50m x 20m x 5m deep will be excavated and bulk samples taken and processed to determine the recovery grade. The bulk samples will be processed through a mobile screening & crushing plant. The processed ore will be sold to Soliter Myn Ondernemings CC, who holds a Mining Right (not yet executed) on the adjacent Farm Helpebietjie 738. The ore will be hauled to Helpebietjie immediately after the screening & crushing process, where it will be stockpiled.

Decommissioning phase:

The decommissioning phase will only commence once all physical prospecting activities have been completed and the site rehabilitated. During decommissioning all prospecting related infrastructure will be removed from the site and final backfilling and profiling rehabilitation of the disturbed areas will take place. Topsoil previously stockpiled (where topsoil is found during prospecting activities) will be spread evenly over the entire area with care taken to minimize erosion with berms if possible or necessary. Wide Investments 100 (Pty) Ltd will apply for a Mining Right should the findings of the prospecting Should the outcome of the activities prove feasible. prospecting activities not prove feasible, Wide Investments 100 (Pty) Ltd will apply for a closure certificate.

2.1.4 Listed activities (in terms of the NEMA EIA regulations)

According to Listing Notice 1: List of activities and competent authorities identified in terms of Sections 24(2) and 24D of the National Environmental Management Act, 1998 (Act no. 107 of 1998) of Government Gazette no 33306, No. R. 544 the following activities are applicable according to NEMA EIA regulations:

Activity	Any activity requiring a prospecting right or
19	renewal thereof in terms of Section 16 and 18
	respectively of the Mineral and Petroleum
	Resources Development Act, 2002 (Act no 28 of
	2002).

According to Listing Notice 2: List of activities and competent authorities identified in terms of Sections 24(2) and 24D of the National Environmental Management Act, 1998 (Act no. 107 of 1998) of Government Gazette no 33306, No. R. 545 the

following activities are applicable according to NEMA EIA regulations:

Activity	Physical alteration of undeveloped, vacant or				
15	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 activities; or				
	(ii) agriculture or afforrestation where activity 16 in				
	this Schedule will apply				

Identification of potential impacts (Refer to the guideline) 2.2

2.2.1 Potential impacts per activity and listed activities.

Prospecting /NEMA Activity	Potential impact on:	Type of impact	Description
	❖ Air quality	Negative	Nuisance dust will be created by the prospecting equipment hauling material between the open excavation areas and the plant area.
	❖ Fauna	Negative	 Where new haulage roads will be created the natural habitat of the animals will be disturbed and/or destroyed. Road kills
S S	❖ Flora	Negative	Where new haulage roads will be created the vegetation will be disturbed and/or destroyed.
Roads	 Ground Water 	Negative	 Potential hydrocarbon spills.
	❖ Noise	Negative	Noise from the prospecting equipment (reverse alarms etc) on the hauling roads will be created.
	❖ Soil	Negative	 Emergency breakdowns could cause hydrocarbon spills on the soil. Compaction of soil is expected from the roads that will be used by the planned prospecting operation.
	 Surface Water 	Not applicable	No surface water in the application area.

	. Topograph:	NIat	. No impost to the
	 Topography 	Not applicable	No impact to the topography is expected from the roads that will be used by the planned prospecting operation.
	❖ Visual	Negative	The haulage roads will be visible to some extent from the immediate surroundings.
Prospecting /NEMA Activity	Potential impact on:	Type of impact	Description
	 Air quality 	Negative	Nuisance dust will be created by the drill rig.
	❖ Fauna	Negative	Where new drill sites will be created the natural habitat of the animals will be disturbed and/or destroyed.
	❖ Flora	Negative	Where new drill sites will be created the vegetation will be disturbed and/or destroyed.
Drilling	 Ground Water 	Not applicable	No impact to groundwater is expected from drilling activities.
۵	Noise	Negative	Noise from the drill rig will be created.
	Soil	Negative	The drill rig could cause hydrocarbon spills on the soil.
	 Surface Water 	Not applicable	No surface water in the application area.
	 Topography 	Not applicable	No impact to the topography is expected from the drilling activities.
	Visual	Negative	The drill rig will be visible to some extent from the immediate surroundings.
Prospecting /NEMA Activity	Potential impact on:	Type of impact	Description
Temporary overburden dump area, topsoil storage and stockpile areas	❖ Air quality	Negative	Nuisance dust will be created by the prospecting equipment when the material is dumped / stockpiled in these areas.
	Fauna	Negative	The natural habitat of the animals will be disturbed and/or destroyed in these areas.
	❖ Flora	Negative	The vegetation will be disturbed and/or destroyed in these areas.
ary ov torage	 Ground Water 	Not applicable	No impact to groundwater is expected.
Tempor	❖ Noise	Negative	Noise impact from the prospecting equipment will be created.

	*	Soil	Negative	*	The disturbance of the soil
					structure.
	*	Surface Water	Not	*	No impact to surface
	*	Topography	applicable Negative	*	water is expected. Changing of natural
		Topograpity	Negative	•	slopes.
	*	Visual	Negative	*	These temporary storage areas will be visible to the immediate surroundings.
Prospecting	Po	tential impact on:	Type of		Description
/NEMA Activity		nontial impact on:	impact		Boomphon
	*	Air quality	Negative	*	Nuisance dust will be
					created by the mobile
					plant and processing and
		Fauna	Negative	*	prospecting equipment. Where the mobile plant
	•	i auria	ivegative	•	and processing area will
					be created the natural
					habitat of the animals will
					be disturbed and/or
					destroyed.
	*	Flora	Negative	*	Where the plant and
					processing area will be created the vegetation will
					be disturbed and/or
					destroyed.
ea	*	Ground Water	Negative	*	The utilization of
a ai					groundwater for the
) Sing			N		mobile plant.
ess	*	Noise	Negative	*	Noise from the plant and
oo					processing equipment will be created.
ত ত				*	Noise from prospecting
nt 8					equipment (reverse
obile plant & processing area					alarms etc)
e e	*	Soil	Negative	*	The disturbance of the soil
4ob					structure when the plant
Ž					and processing area is created.
	*	Surface Water	Not	*	No utilization of surface
	•	Carrage Water	applicable	•	water is anticipated.
	*	Topography	Not	*	No impact to the
			applicable		topography is expected
					from the plant and
		Vieugl	No motili i i		processing area.
	*	Visual	Negative	*	The plant and processing area will be visible to
					some extent from the
					immediate surroundings
					during the day.
				*	The lights from the
					prospecting area will be
					visible at night.

2.2.2 Potential cumulative impacts.

	Description					
Air Quality	 Nuisance dust created by prospecting activities. 					
	 Nuisance dust created by surrounding mining activities. 					
	 Nuisance dust created from the gravel roads surrounding the 					
	properties.					
Fauna	o Disturbance and/or destruction of habitat by prospecting					
	activities.					
	o Disturbance and/or destruction of habitat by surrounding					
	mining activities.					
Flora	o Disturbance and/or destruction of vegetation by prospecting					
	activities.					
	o Disturbance and/or destruction of vegetation by surrounding					
	mining activities.					
Ground Water	Minimal utilization of groundwater for domestic and livstock					
	watering purposes by the surface owners of Legoko.					
	Minimal utilization of groundwater by prospecting activities is					
	expected.					
	De-watering activities by Sishen Iron Ore Mine.					
	 Utilization of groundwater by surrounding mining operations. 					
Noise	Noise created by prospecting activities.					
	Noise created by surrounding mining operations.					
Soil	Removal and disturbance of soil structure by prospecting					
	activities.					
	Removal and disturbance of soil structure by surrounding					
	mining operations.					
Surface Water	o No impact is expected as there is no surface water in the					
	application area, or in the immediate vicinity thereof.					
Topography	Changing of natural slopes by prospecting activities.					
	Changing of natural slopes by surrounding mining operations.					
Visual	Changing of natural view by prospecting activities.					
	 Changing of natural view by surrounding mining operations. 					

2.2.3 Potential impact on heritage resources

Not applicable - There are no known areas with a heritage resource on the area under application.

2.2.4 Potential impacts on communities, individuals or competing land uses in close proximity.

(If no such impacts are identified this must be specifically stated together with a clear explanation why this is not the case.)

There are no communities or individuals in close proximity of the area under application who could be potentially impacted on.

The only competing land use in close proximity of the area under application is livestock farming. The only potential impact to these activities is the nuisance dust created by the prospecting activities.

2.2.5 Confirmation that the list of potential impacts has been compiled with the participation of the landowner and interested and affected parties,

Wide Investments 100 (Pty) Ltd has a surface use contract with the surface owner of the Remaining Extent of the Farm Mashwening 557, Sishen Iron Ore Company (Pty) Ltd (Find attached as Annexure 'C'). Wide Investments 100 (Pty) Ltd provided a draft EMP to Sishen Iron Ore to which an acknowledgement of receipt has been received. No further comments have been received to date.

A notification letter, with EMP attached, was sent to the legal representative of the Carel Reitz Familie Trust (surface owner of Portion 2 of the Farm Legoko 460), Oosthuizen Sweetnam & Reitz, to which letter no response has been received to date.

Wide Investments 100 (Pty) Ltd has notified the other two surface owners of Legoko 460 of their application for renewal of the prospecting right to which notification letters the draft EMP document was attached. Find attached hereto as Annexure 'D' proof of notification process.

Responses / Concerns received are as follows:

- Dihan Eiendoms Trust and Henque 3516 CC's response were the same:
 - Safety and health hazards of the animals on the farm.
 - Damages to fences, water pipe lines, tanks, troughs and other infrastructure.
 - o Gates left open
 - Littering
 - Mining operational waste and oil spillage
 - Killing of animals by mining vehicles
 - Illegal trapping of game
 - Cattle caught in illegal traps
 - Damaging of grazing
 - Veld fires
 - Theft of cattle and farm equipment
 - Trespassing and loitering of workers in camps
 - Scarcity of water
 - Dust
 - Noise
 - Safety and security

2.2.6 Confirmation of specialist report appended.

(Refer to guideline)

There are no specialist reports appended.

The following was observed on the application area during the site visit:

- The dry Gamagara River traverses the Remaining Extent of the Farm Mashwening on the most north-western corner as was observed during the site visit. No prospecting will be allowed in the natural drainage line.
- 3 REGULATION 52 (2) (c): Summary of the assessment of the significance of the potential impacts and the proposed mitigation measures to minimise adverse impacts.
 - 3.1 Assessment of the significance of the potential impacts
 - 3.1.1 Criteria of assigning significance to potential impacts

ASSESSMENT CRITERIA TERMINOLOGY

The assessment of the impacts has been conducted according to a synthesis of criteria required by the integrated environmental management procedure.

Nature of impact

This is an appraisal of the type of effect the activity would have on the affected environmental component. Its description should include what is being affected, and how.

Extent

The physical and spatial size of the impact. This is classified as follows:

Local

The impacted area extends only as far as the activity, e.g. a footprint.

Site

The impact could affect the whole, or a measurable portion of the property.

• Regional

The impact could affect the area including the neighbouring farms, transport routes and the adjoining towns.

Cumulative

The impact could have a cumulative effect with the surrounding land uses.

Duration

The lifetime of the impact which is measured in the context of the lifetime of the proposed phase (i.e. construction or operation).

Short term

The impact will either disappear with mitigation or will be mitigated through natural process in a short time period.

Medium term

The impact will last up to the end of the prospecting period, where after it will be entirely negated.

Long term

The impact will continue or last for the entire operational life of the operation, but will be mitigated by direct human action or by natural processes thereafter.

Permanent

The only class of impact, which will be non-transitory. Mitigation either by man or natural process will not occur in such a way or in such a time span that the impact can be considered transient.

Intensity

This describes how destructive, or benign, the impact is. Does it destroy the impacted environment, alter its functioning, or slightly alter it. These are rated as:

Low

This alters the affected environment in such a way that the natural processes or functions are not affected.

Medium

The affected environment is altered, but function and process continue, albeit in a modified way.

• High

Function or process of the affected environment is disturbed to the extent where it temporarily or permanently ceases.

This will be a relative evaluation within the context of all the activities and the other impacts within the framework of the project.

Probability

This describes the likelihood of the impacts actually occurring. The impact may occur for any length of time during the life cycle of the activity, and not at any given time. The classes are rated as follows:

Improbable

The possibility of the impact occurring is very low, due either to the circumstances, design or experience.

Probable

There is a possibility that the impact will occur to the extent that provisions must be made therefore.

Highly probable

It is most likely that the impacts will occur at some or other stage of the development.

Definite

The impact will take place regardless of any preventative plans, and mitigation measures or contingency plans will have to be implemented to contain the impact.

Determination of significance

Significance is determined through a synthesis of impact characteristics. Significance is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. The classes are rated as follows:

No significance

The impact is not likely to be substantial and does not require any mitigatory action.

Low

The impact is of little importance, but may require limited mitigation.

Medium

The impact is of importance and therefore considered to have a negative impact. Mitigation is required to reduce the negative impacts to acceptable levels.

• High

The impact is of great importance. Failure to mitigate, with the objective to reduce the impact to acceptable levels, could render the entire development option or entire project proposal unacceptable. Mitigation is therefore essential.

3.1.2 Potential impact of each main activity in each phase, and corresponding significance assessment

Prospecting activity	Impact on	Extent	Duration	Intensity	Probability	Significance
	Air quality	Site	Short	Medium	Definite	Low
	Fauna	Local	Long	High	Definite	Medium
Roads & Hauling	Flora	Local	Long	High	Definite	High
	Noise	Site	Short	Low	Definite	Low
	Visual	Site	Long	Low	Probable	No significance
	Air quality	Site	Short	Medium	Definite	Medium
	Fauna	Local	Medium	High	Definite	Medium
	Flora	Local	Medium	High	Definite	Medium
Drilling	Noise	Site	Short	Medium	Definite	High
	Soil	Site	Short	Low	Probable	Low
	Topography	Local	Long	Medium	Definite	Low
	Visual	Site	Long	Low	Definite	No significance
	Air quality	Site	Short	Medium	Definite	Low
Evenuations (Bulk	Fauna	Local	Long	High	Definite	High
Excavations (Bulk	Flora	Local	Long	High	Definite	High
sampling)	Noise	Site	Short	Medium	Definite	Medium
	Soil	Local	Long	High	Definite	High

	Topography	Local	Long	Medium	Definite	Low
	Visual	Site	Long	Low	Definite	No significance
	Air quality	Site	Short	Medium	Definite	Low
Temporary	Fauna	Local	Long	High	Definite	Medium
overburden dump	Flora	Local	Long	High	Definite	High
area, topsoil	Noise	Site	Short	Low	Definite	Medium
storage area and	Soil	Local	Long	High	Definite	High
stockpile area	Topography	Local	Long	Medium	Definite	Low
	Visual	Site	Long	Low	Definite	No significance
	Air quality	Site	Short	Medium	Definite	Low
	Fauna	Local	Long	High	Definite	High
Mobile plant 9	Flora	Local	Long	High	Definite	High
Mobile plant & processing area	Noise	Site	Short	Low	Definite	Medium
	Soil	Local	Long	Medium	Definite	High
	Ground Water	Site	Long	Low	Definite	Low
	Visual	Site	Long	Low	Definite	No significance

3.1.3 Assessment of potential cumulative impacts.

	Extent	Duration	Intensity	Probability	Significance
Air Quality	Site	Short	Medium	Definite	Low
Fauna	Local	Long	High	Definite	Low
Flora	Local	Long	High	Definite	Low
Ground	Local	Short	Low	Definite	Low
Water					
Noise	Site	Short	Medium	Definite	Low
Soil	Local	Long	Medium	Definite	Low
Surface	N/A	N/A	N/A	Definite	N/A
Water					
Topography	Site	Long	Medium	Definite	Low
Visual	Site	Long	Low	Definite	Low

3.2 Proposed mitigation measures to minimise adverse impacts.

3.2.1 List of actions, activities, or processes that have sufficiently significant impacts to require mitigation.

- Air quality
- Fauna
- Flora
- Noise
- Soil

3.2.2 Concomitant list of appropriate technical or management options

(Chosen to modify, remedy, control or stop any action, activity, or process which will cause significant impacts on the environment, socio-economic conditions and historical and cultural aspects as identified. Attach detail of each technical or management option as appendices)

• Air quality:

To limit the creation of nuisance dust the following management guidelines will be followed:

- Avoidance of unnecessary removal of vegetation;
- Routine spraying of unpaved site areas and roads with water;

Re-vegetation of rehabilitated areas not occupied by plant infrastructure to take place as soon as possible.

Fauna & Flora

- Indigenous vegetation to be used for landscaping to minimize watering requirements.
- Any area that is rehabilitated or decommissioned will be seeded, should the need arise, with a seed mixture reflecting the natural vegetation as is currently found. If this is not found to be feasible during rehabilitation a general seed mixture of the area will be used.
- Management will also take responsibility to control declared invader or exotic species on the site. The following control methods will be used:
 - "The plants will be uprooted, felled or cut off and can be destroyed completely."
 - "The plants will be treated with an herbicide that is registered for use in connection therewith and in accordance with the directions for the use of such an herbicide."
- The end objective of the re-vegetation program will be to achieve a stable self-sustaining habitat unit.
- Vegetation on flat surfaces will be established using the dry lands technique requiring no irrigation.
- Valid permits from Northern Cape Nature Conservation will be obtained before any protected plant species are removed.
- Fires will only be allowed in facilities or equipment specially constructed for this purpose. If required by applicable legislation, a firebreak will be cleared around the perimeter of the site.
- Any form of poaching by workers of the prospecting operation will result in the maximum form of punishment as allowed for by common law. Any form of snares or traps on the site will be removed.
- If any endangered species are encountered the Department of Nature Conservation will be contacted.

Noise

- As a minimum, ambient noise levels emanating from the prospecting activities will not exceed 82 dBA at the site boundary.
- Wide Investments 100 (Pty) Ltd will comply with the occupational noise regulations of the Occupational Health and safety Act, Act 85 of 1993.
- Wide Investments 100 (Pty) Ltd will comply with the measures for good practice with regard to

- management of noise related impacts during construction and operation.
- The management objective will be to reduce any level of noise, shock and lighting that may have an effect on persons or animals, both inside the plant and that which may migrate outside the plant area.
- When the equivalent noise exposure, as defined in the South African Bureau of Standards Code of Practice for the Measurement and Assessment of Occupational Noise for Hearing Conservation Purposes, SABS 083 as amended, in any place at or in any mine or works where persons may travel or work, exceeds 82 dB (A), the site manager will take the necessary steps to reduce the noise below this level.
- Hearing protection will be available for all employees where attenuation cannot be implemented.
- If any complaints are received from the public or state department regarding noise levels the levels will be monitored at prescribed monitoring points.

Mechanical equipment:

- All mechanical equipment will be in good working order and vehicles will adhere to the relevant noise requirements of the Road Traffic Act.
- All vehicles in operation will be equipped with a silencer on their exhaust system.
- Safety measures, which generate noise such as reverse gear alarms on large vehicles, will be appropriately calibrated/adjusted.

Screening/Migration control:

- Appropriate measures will specifically be installed and or employed at the plant to act as screen and to reflect/reduce the noise.
- Appropriate non-metallic washers/insulation will be used with any joining apparatus to join screens such as corrugated iron to other structures and to each other. Such screens will be maintained in a fixed position.

Soil

- In all places of development the first 300mm of loose or weathered material found will be classified as a growth medium.
- In all areas where the above growth medium will be impacted on, it will be removed and stockpiled on a dedicated area. The maximum height of stockpiles will be 2 meters.

- The growth medium/topsoil will be used during the rehabilitation of any impacted areas, after sloping in order to re-establish the same land capability.
- If any soil is contaminated during the life of the prospecting area, it will either be treated on site or be removed together with the contaminant and placed in acceptable containers to be removed with the industrial waste to a recognized facility or company.
- Erosion control in the form of re-vegetation and contouring of slopes will be implemented on disturbed areas in and around the site.
- Topsoil will be kept separate from overburden and will not be used for building or maintenance of access roads.
- The stored topsoil will be adequately protected from being blown away or being eroded.

3.2.3 Review the significance of the identified impacts

(After bringing the proposed mitigation measures into consideration).

Prospecting activity	Impact on	Extent	Duration	Intensity	Probability	Significance
•	Air quality	Site	Short	Medium	Definite	Low
Roads & Hauling	Fauna	Local	Long	High	Definite	Medium
l ags	Flora	Local	Long	High	Definite	Medium
٦ Ha	Noise	Site	Short	Low	Definite	Low
	Visual	Site	Long	Low	Probable	No significance
	Air quality	Site	Short	Medium	Definite	Low
Excavations (Bulk sampling)	Fauna	Local	Long	High	Definite	Medium
lior ild	Flora	Local	Long	High	Definite	Medium
vai	Noise	Site	Short	Low	Definite	Low
Excavations sulk sampling	Soil	Local	Long	High	Definite	Medium
l Ω ∑	Topography	Local	Long	Medium	Definite	Low
=	Visual	Site	Long	Low	Definite	No significance
	Air quality	Site	Short	Medium	Definite	Low
a a a ge	Fauna	Local	Long	High	Definite	Medium
rar de dre ora	Flora	Local	Long	High	Definite	Medium
po bur bur p a l st	Noise	Site	Short	Low	Definite	Low
Temporary overburden dump area topsoil storage area and stockpile area	Soil	Local	Long	High	Definite	Medium
	Topography	Local	Long	Medium	Definite	Low
- "	Visual	Site	Long	Low	Definite	No significance
. 0	Air quality	Site	Short	Medium	Definite	Low
t &	Fauna	Local	Long	High	Definite	Medium
lan g s	Flora	Local	Long	High	Definite	Medium
g e Sin	Noise	Site	Short	Low	Definite	Low
Mobile plant & processing area	Soil	Local	Long	Medium	Definite	Medium
o \ 0	Ground Water	Site	Long	Medium	Definite	Low
_ ā	Visual	Site	Long	Low	Definite	No significance
	Air quality	Site	Short	Medium	Definite	Medium
	Fauna	Local	Medium	High	Definite	Medium
<u>D</u>	Flora	Local	Medium	High	Definite	Medium
Drilling	Noise	Site	Short	Medium	Definite	High
Δ	Soil	Site	Short	Low	Probable	Low
	Topography	Local	Long	Medium	Definite	Low
	Visual	Site	Long	Low	Definite	No significance

4 REGULATION 52 (2) (d): Financial provision. The applicant is required to-

4.1 Plans for quantum calculation purposes.

(Show the location and aerial extent of the aforesaid main mining actions, activities, or processes, for each of the construction, operational and closure phases of the operation).

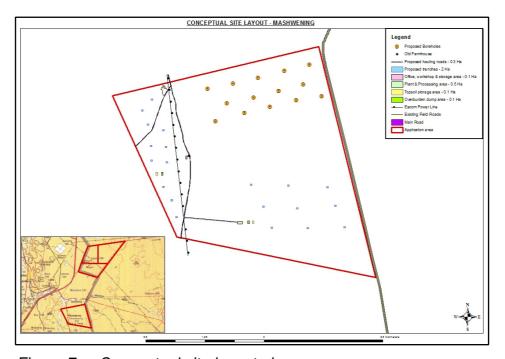


Figure 7a - Conceptual site layout plan

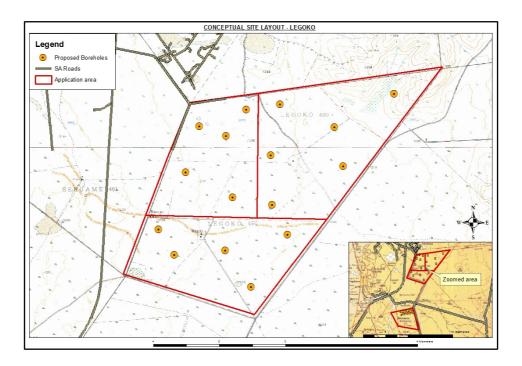


Figure 7b - Conceptual site layout plan

The following calculations were used for the financial quantum.

No.	Description (According to DMR guideline)	Calculation - Description	Calculation - area
1	Dismantling of processing plant and related structures (including overland conveyors and powerlines)	Not applicable - A mobile plant will be utilized	0
2(A)	Demolition of steel buildings and structures	There will be no steel buildings and/or structures at the planned prospecting operation that will have to be demolished upon closure.	0
2(B)	Demolition of reinforced concrete buildings and structures	There will be no reinforced concrete buildings and/or structures at the planned prospecting operation that will have to be demolished upon closure.	0
3	Rehabilitation of access roads	A total of 1 000m of haulage roads will be created by the prospecting operation, which roads will not exceed 3m in width. Existing farm roads will be used as far as practical.	1 000m <u>x 3m</u> <u>3 000m²</u>
4(A)	Demolition and rehabilitation of electrified railway lines	Not applicable	0
4(B)	Demolition and rehabilitation of non-electrified railway lines	Not applicable	0
5	Demolition of housing and/or administration facilities	Not applicable - mobile containers will be utilized for the office, workshop and storage areas	0
6	Opencast rehabilitation including final voids and rams	Twenty trenches (50m x 20m)	2 Ha
7	Sealing of shafts adits and inclines	No applicable	0
8(A)	Rehabilitation of overburden and spoils	- Overburden dump area	0.1 Ha
		- Topsoil storage area	<u>0.1 Ha</u>
		Total	<u>0.2 Ha</u>
8(B)	Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential)	Not applicable	0
8(C)	Rehabilitation of processing waste deposits and evaporation ponds (polluting potential)	Not applicable	0
9	Rehabilitation of subsided areas	Not applicable	0
10	General surface rehabilitation	Mobile plant area	0.5 Ha

		Mobile office, workshop & storage area	0.1 Ha
		Boreholes (30 boreholes x 10m x 10m)	<u>0.3 Ha</u>
			<u>0.9 Ha</u>
11	River diversions	Not applicable	0
12	Fencing	Not applicable	0
13	Water management	Not applicable	0
14	2 to 3 years of maintenance and aftercare	Continuous rehabilitation by the applicant will ensure that	0
		the land use is returned to its pre-prospecting status.	
15(A)	Specialist study	Not applicable	0
15(B)	Specialist study	Not applicable	0

4.2 Alignment of rehabilitation with the closure objectives

(Describe and ensure that the rehabilitation plan is compatible with the closure objectives determined in accordance with the baseline study as prescribed).

Closure objectives:

- The main closure objective of Wide Investments' planned prospecting operation is to restore the site to its current land capability in a sustainable matter.
- To prevent the sterilization of any ore reserves.
- To prevent the establishment of any permanent structures or features.
- To manage and limit any impact to the surface and groundwater aquifers in such a way that an acceptable water quality and yield can still be obtained, when a closure certificate is issued.
- The prospecting operation also has the objective to establish a stable and self sustainable vegetation cover.
- To limit and rehabilitate any erosion features and prevent any permanent impact to the soil capability.
- To limit and manage the visual impact of the prospecting activities.
- To safeguard the safety and health of humans and animals on the site.
- To close the prospecting operation efficiently, cost effectively and in accordance with Government Policy.

Rehabilitation Plan:

Infrastructure areas

On completion of the prospecting operation, the various surfaces, including the access roads, the office area, storage areas and the plant site, will finally be rehabilitated as follows: All tailings or other material on the surface will be removed to the original topsoil level. This material will then be backfilled into the open excavations. Any compacted area will then be ripped to a depth of 300mm, where possible, the topsoil or growth medium returned and landscaped.

All infrastructure, equipment, plant, and other items used during the operational period will be removed from the site.

On completion of operations, all buildings, structures or objects on the office site will be dealt with in accordance with regulation 44 of the Minerals and Petroleum Resources Development Act, 2002, which states:

Regulation 44:

- 1. When a prospecting right, mining right, retention permit or mining permit lapses, is cancelled or is abandoned or when any prospecting or mining operation comes to an end, the holder of such right or permit may not demolish or remove any building, structure or object-
 - (a) which may not be demolished or removed in terms of any other law:

- (b) which has been identified in writing by the Minister for purposes of this section; or
- (c) which is to be retained in terms of an agreement between the holder and the owner or occupier of the land, which agreement has been approved by the Minister in writing.
- 2. The provision of subsection (1) does not apply to bona fide mining equipment, which may be removed.

o Rehabilitation of the secured storage areas

On completion of the prospecting operation, the above areas will be cleared of any remaining contaminated soil which will be placed in acceptable containers and removed with the industrial waste to a recognized disposing facility or by a waste removal company.

All buildings, structures or objects in the secured storage areas shall be dealt with in accordance with regulation 44 of the Minerals and Petroleum Resources Development Act, 2002.

The surface will be ripped or ploughed to a depth of at least 300 mm, where possible, and the topsoil, previously stored adjacent the site, distributed evenly to its original depth over the whole area. The area will then be fertilized if necessary (based on a soil analysis).

The site will be seeded, should the need arise, with a vegetation seed mix adapted to reflect the local indigenous flora.

Any other disturbed areas will be rehabilitated as described under the relevant activities.

Residue deposits

Disposal facilities

Waste material of all description inclusive of receptacles, scrap, rubble and tyres will be removed entirely from the prospecting area and disposed of at a recognized landfill facility. It will not be permitted to be buried or burned on the site.

- Ongoing seepage, control of rain water.
 No monitoring of ground or surface water will take place, except if so requested by the DWA Kimberley.
- Long term stability and safety It will be the objective of prospecting management to ensure the long term stability of all rehabilitated areas including the backfilled excavations. This will be done by the monitoring of all areas until a closure certificate has been issued.
- Final rehabilitation in respect of erosion and dust control
 Self sustaining vegetation will result in the control of erosion and dust and no further rehabilitation is planned.

Rehabilitation of dangerous excavations

Due to the removal of surface ore material, excavations will be created that can be classified as dangerous. All available material will be used during backfilling to avoid the existence of dangerous open excavations.

Final rehabilitation of opencast haul ramps and roads and final voids After rehabilitation has been completed, all roads will be ripped or ploughed, providing the landowner does not want them to remain that way and with written approval from the Director Mineral Development of the Department of Mineral Resources.

o Submission of information

Reports on rehabilitation and monitoring will be submitted annually to the Department of Mineral Resources - Kimberley, as described in regulation 55.

Maintenance (Aftercare)

Maintenance after closure will mainly concern the regular inspection and monitoring and/or completion of the re-vegetation programme.

The aim of this Environmental Management Plan is for rehabilitation to be stable and self-sufficient, so that the least possible aftercare is required.

The aim with the closure of the prospecting operation will be to create an acceptable post-prospecting environment and land-use. Therefore all agreed commitments will be implemented by Prospecting Management.

After-effects following closure

Acid drainage

No potential for bad quality leach ate or acid drainage development exist.

Long term impact on ground water.
 No after effect on the groundwater yield or quality is expected.

Long-term stability of rehabilitated land

One of the main aims of any rehabilitated ground will be to obtain a self-sustaining and stable end result. As the open excavations will be backfilled these areas will have long term stability.

4.3 Quantum calculations.

(Provide a calculation of the quantum of the financial provision required to manage and rehabilitate the environment, in accordance with the guideline prescribed in terms of regulation54 (1) in respect of each of the phases referred to).

Applicant:	Wide Investments 100 (Pty) Ltd				Ref No: Date:	NC 1440 PR February 2013	
No.	Description	Unit	A Quantity	B Master Rate	C Multiplication factor	D Weighting factor 1	E=A*B*C*D Amount (Rands)
				nate	lactor	lactor i	(Rands)
1	Dismantling of processing plant and related structures (including overland conveyors and powerlines)	m3	0	10.77	1	1	0.00
2 (A)	Demolition of steel buildings and structures	m2	0	150.01	1	1	0.00
2(B)	Demolition of reinforced concrete buildings and structures	m2	0	221.07	1	1	0.00
3	Rehabilitation of access roads	m2	3000	26.84	1	1	80 533.66
4 (A)	Demolition and rehabilitation of electrified railway lines	m	0	260.55	1	1	0.00
4 (A)	Demolition and rehabilitation of non-electrified railway lines	m	0	142.12	1	1	0.00
5	Demolition of housing and/or administration facilities	m2	0	300.03	1	1	0.00
6	Opencast rehabilitation including final voids and ramps	ha	2	152 698.13	1	1	305 396.26
7	Sealing of shafts adits and inclines	m3	0	80.53	1	1	0.00
8 (A)	Rehabilitation of overburden and spoils	ha	0.2	101 693.48	1	1	20 338.70
8 (B)	Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential)	ha	0	130 590.85	1	1	0.00
8 (C)	Rehabilitation of processing waste deposits and evaporation ponds (polluting potential)	ha	0	379 297.74	1	1	0.00
9	Rehabilitation of subsided areas	ha	0	87 797.48	1	1	0.00
10	General surface rehabilitation	ha	0.9	83 060.20	1	1	74 754.18
11	River diversions	ha	0	83 060.20	1	1	0.00
12	Fencing	m	0	94.75	1	1	0.00
13	Water management	ha	0	31 581.83	1	1	0.00
14	2 to 3 years of maintenance and aftercare	ha	0	11 053.64	1	1	0.00
15 (A)	Specialist study	Sum	0			1	0.00
15 (B)	Specialist study	Sum	0			1	0.00
					Sub Tot	al 1	481 022.80
1	Preliminary and General		28 861.37		weighting f	weighting factor 1	
2	Contingencies	48 1		02.28		48 102.28	
					Subtota	al 2	557 986.45
P	lease note that an escalation at inflation cost per annum of th from 2004 to 2012.	e master rat	e was calcula	ted	VAT (14	1%)	78 118.10
					Grand T		636 104.56

4.4 Undertaking to provide financial provision

(Indicate that the required amount will be provided should the right be granted).

Attached hereto as Annexure 'E' find an undertaking to provide the required amount as calculated in the financial quantum as well as proof of financial ability.

5 REGULATION 52 (2) (e): Planned monitoring and performance assessment of the environmental management plan.

5.1 List of identified impacts requiring monitoring programmes.

- Noise will have to be monitored throughout the life of the operation to ensure that the levels are within the prescribed Legislation levels.
- Dust will have to be monitored throughout the life of the operation to ensure that the levels are within the prescribed Legislation levels.
- Vegetation will have to be monitored throughout the life of the operation to ensure that the land capability returns to its current state.

5.2 Functional requirements for monitoring programmes.

Noise

- The Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) – Section 7.
- The Mine Health and Safety Act, 1996 (Act No. 39 of 1996) as amended.
- o The Road Traffic Act, 1997 (Act No. 93 of 1997);
- The National Environmental Management: Air Quality Act, 2004
 (Act No. 39 of 2004) Section 34. and
- Regulations of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) – Regulation 66.

Air quality

- The National Environment Management: Air Quality Act, 2004 (Act No.39 of 2004) (All Sections of this Act, except Section 21,22,36 to 49, 51 (1)(e), 51(1)(f), 51(3), 60 and 61 have taken effect on 11 September 2005);
- The Atmospheric Pollution Prevention Act, 1965 (Act No. 45 of 1965) (This Act will be repealed by the national Environment management: Air Quality Act, 2004 (Act No. 39 of 2004);
- Regulations to the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) – Regulation 64.
- The Mining Health and Safety Act, 1996 (Act No. 29 of 1996) as amended; and
- The Occupational Diseases in Mines and Works Act, 1973 (Act No 78 of 1973).

Flora

 The Mine Health and Safety Act, 1996 (Act No. 39 of 1996) as amended;

5.3 Roles and responsibilities for the execution of monitoring programmes.

The Operations Manager will be responsible for the execution of the noise, dust and vegetation monitoring programmes.

5.4 Committed time frames for monitoring and reporting.

Quarterly reports on noise and dust monitoring will be conducted as required by Legislation. The results of these studies will be compiled into annual reports and forwarded to the Principle Inspector of Mine Health and Safety, Department of Mineral Resources, Kimberley.

6 REGULATION 52 (2) (f): Closure and environmental objectives.

6.1 Rehabilitation plan

(Show the areas and aerial extent of the main prospecting activities, including the anticipated prospected area at the time of closure).

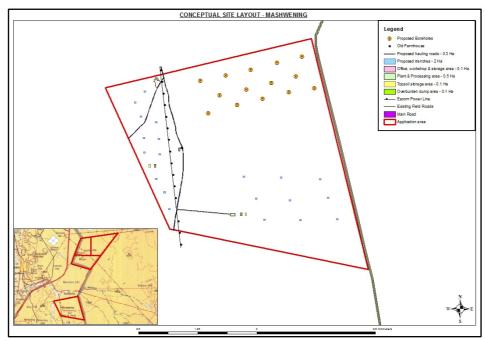


Figure 8a - Conceptual site layout map indicating the prospecting activities / infrastructure to be rehabilitated

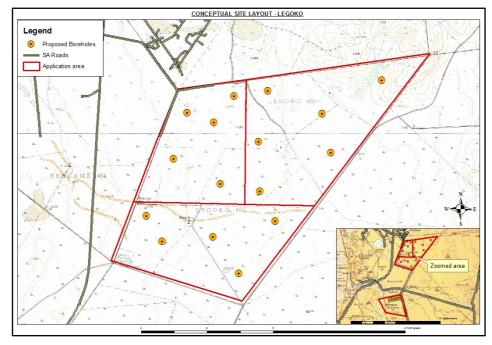


Figure 8b - Conceptual site layout map indicating the prospecting activities / infrastructure to be rehabilitated



Figure 9 - Post-closure land use

Wide Investments undertake to rehabilitate all areas impacted on by its prospecting activities to its pre-prospecting status.

6.2 Closure objectives and their extent of alignment to the preprospecting environment.

Closure objectives

- The main closure objective of Wide Investments' planned prospecting operation is to restore the site to its current land capability in a sustainable matter.
- To prevent the sterilization of any reserves.
- To prevent the establishment of any permanent structures or features.
- To manage and limit any impact to the surface and groundwater aquifers in such a way that an acceptable water quality and yield can still be obtained, when a closure certificate is issued.
- The prospecting operation also has the objective to establish a stable and self sustainable vegetation cover.
- To limit and rehabilitate any erosion features and prevent any permanent impact to the soil capability.
- o To limit and manage the visual impact of the prospecting operation.
- To safeguard the safety and health of humans and animals on the site.
- To close the prospecting operation efficiently, cost effectively and in accordance with Government Policy.

The closure objectives are aligned in such a manner as to ensure the current land capability is achieved upon closure.

6.3 Confirmation of consultation

(Confirm specifically that the environmental objectives in relation to closure have been consulted with landowner and interested and affected parties).

Wide Investments 100 (Pty) Ltd has a surface use contract with the surface owner of the Remaining Extent of the Farm Mashwening 557, Sishen Iron Ore Company (Pty) Ltd (Find attached as Annexure 'C'). Wide Investments 100 (Pty) Ltd provided a draft EMP to Sishen Iron Ore to which an acknowledgement of receipt has been received. No further comments have been received to date.

A notification letter, with EMP attached, was sent to the legal representative of the Carel Reitz Familie Trust (surface owner of Portion 2 of the Farm Legoko 460), Oosthuizen Sweetnam & Reitz, to which letter no response has been received to date.

Wide Investments 100 (Pty) Ltd has notified the other two surface owners of Legoko 460 of their application for renewal of the prospecting right to which notification letters the draft EMP document was attached. Find attached hereto as Annexure 'D' proof of notification process.

Responses / Concerns received are as follows:

- Dihan Eiendoms Trust and Henque 3516 CC's response were the same:
 - Safety and health hazards of the animals on the farm.
 - Damages to fences, water pipe lines, tanks, troughs and other infrastructure.
 - Gates left open
 - Littering
 - Mining operational waste and oil spillage
 - Killing of animals by mining vehicles
 - Illegal trapping of game
 - Cattle caught in illegal traps
 - Damaging of grazing
 - Veld fires
 - Theft of cattle and farm equipment
 - Trespassing and loitering of workers in camps
 - Scarcity of water
 - Dust
 - Noise
 - Safety and security

7 REGULATION 52 (2) (g): Record of the public participation and the results thereof.

7.1 Identification of interested and affected parties.

(Provide the information referred to in the guideline)

7.1.1. Name the community or communities identified, or explain why no such community was identified.

There are no communities residing on the properties under application.

7.1.2. Specifically state whether or not the Community is also the landowner.

There are no communities residing on the property under application.

The surface owners of the different portions of the application area are:

Description	Owner
Remaining Extent of the Farm Legoko 460	Dihan Eiendoms Trust
Portion 1 of the Farm Legoko 460	Henque 3516 CC
Portion 2 of the Farm Legoko 460	Carel Reitz Familie Trust
Remaining Extent of the Farm Mashwening 557	Sishen Iron Ore Company (Pty) Ltd

7.1.3. State whether or not the Department of Land Affairs has been identified as an interested and affected party.

The Department of Land Affairs has not been identified as an interested and affected party. The Department of Rural Development and Land Reform has been notified of the application for Renewal of the Prospecting Right of Wide Investments, to which a response letter has been received. This letter is attached under Annexure 'D'.

7.1.4. State specifically whether or not a land claim is involved.

There is no land claim over the property under application.

7.1.5. Name the Traditional Authority identified.

Not applicable - There is no Traditional Authority on the property under application.

7.1.6. List the landowners identified by the applicant. (Traditional and Title Deed owners).

The surface owners of the different portions of the application area are:

Description	Owner	
Remaining Extent of the Farm Legoko 460	Dihan Eiendoms Trust	
Portion 1 of the Farm Legoko 460	Henque 3516 CC	
Portion 2 of the Farm Legoko 460	Carel Reitz Familie Trust	
Remaining Extent of the Farm Mashwening 557	Sishen Iron Ore Company (Pty) Ltd	

7.1.7. List the lawful occupiers of the land concerned.

The surface owners of the three portions of Legoko 460 occupy their respective land.

The Remaining Extent of the Farm Mashwening 557 is not currently occupied.

7.1.8. Explain whether or not other persons' (including on adjacent and non-adjacent properties) socio-economic conditions will be directly affected by the proposed prospecting or mining operation and if not, explain why not.

Yes. Socio-economic upliftment will take place due to the creation of employment opportunities as well as economic support to the surrounding business community.

7.1.9. Name the Local Municipality identified by the applicant.

Gamagara Local Municipality

- 7.1.10. Name the relevant Government Departments, agencies and institutions responsible for the various aspects of the environment, land and infrastructure which may be affected by the proposed project.
 - (i) Gamagara Local Municipality
 - (ii) John Taolo Gaetsewe District Municipality
 - (iii) The Department of Rural Development and Land Reform
 - (iv) The Department of Water Affairs
 - (v) Eskom
 - (vi) The Department of Rural Development and Land Reform

7.1.11. Submit evidence that the landowner or lawful occupier of the land in question, and any other interested and affected parties including all those listed above, were notified.

Wide Investments 100 (Pty) Ltd has a surface use contract with the surface owner of the Remaining Extent of the Farm Mashwening 557, Sishen Iron Ore Company (Pty) Ltd (Find attached as Annexure 'C'). Wide Investments 100 (Pty) Ltd provided a draft EMP to Sishen Iron Ore to which an acknowledgement of receipt has been received. No further comments have been received to date.

A notification letter, with EMP attached, was sent to the legal representative of the Carel Reitz Familie Trust (surface owner of Portion 2 of the Farm Legoko 460), Oosthuizen Sweetnam & Reitz, to which letter no response has been received to date.

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 - Damaging of grazing
 - Veld fires
 - Theft of cattle and farm equipment
 - Trespassing and loitering of workers in camps
 - Scarcity of water
 - o Dust
 - Noise
 - Safety and security

7.2 The details of the engagement process.

7.2.1 Description of the information provided to the community, landowners, and interested and affected parties.

A draft EMP was provided to the four surface owners for comment which document includes the following:

- The planned prospecting operation;
- The existing status of the environment;
- The anticipated impacts of the planned prospecting operation;
- Current land uses; and
- Closure objectives

7.2.2 List of which parties indentified in 7.1 above that were in fact consulted, and which were not consulted.

All parties identified in 7.1 have been notified of Wide Investment's renewal of their prospecting right.

7.2.3 List of views raised by consulted parties regarding the existing cultural, socio-economic or biophysical environment.

Responses / Concerns received are as follows:

- Dihan Eiendoms Trust and Henque 3516 CC's response were the same:
 - Safety and health hazards of the animals on the farm.
 - Damages to fences, water pipe lines, tanks, troughs and other infrastructure.
 - o Gates left open
 - Littering
 - Mining operational waste and oil spillage
 - Killing of animals by mining vehicles
 - Illegal trapping of game
 - Cattle caught in illegal traps
 - Damaging of grazing
 - Veld fires
 - Theft of cattle and farm equipment
 - Trespassing and loitering of workers in camps
 - Scarcity of water
 - o Dust
 - Noise
 - Safety and security

7.2.4 List of views raised by consulted parties on how their existing cultural, socio-economic or biophysical environment potentially will be impacted on by the proposed prospecting or mining operation.

Responses / Concerns received are as follows:

- Dihan Eiendoms Trust and Henque 3516 CC's response were the same:
 - Safety and health hazards of the animals on the farm.
 - Damages to fences, water pipe lines, tanks, troughs and other infrastructure.
 - o Gates left open
 - Littering
 - Mining operational waste and oil spillage
 - Killing of animals by mining vehicles
 - Illegal trapping of game
 - o Cattle caught in illegal traps
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 - Veld fires
 - Theft of cattle and farm equipment
 - Trespassing and loitering of workers in camps
 - Scarcity of water
 - o Dust
 - Noise
 - Safety and security

7.2.5 Other concerns raised by the aforesaid parties.

None

7.2.6 Confirmation that minutes and records of the consultations are appended.

Find attached hereto as Annexure 'D' the consultation process conducted regarding the renewal of the prospecting right of Wide Investments.

7.2.7 Information regarding objections received.

No objections were received.

7.3 The manner in which the issues raised were addressed.

The issues raised are addressed in this EMP document and does Wide Investments hereby undertake to adhere to all sections of this document throughout the life of its prospecting operation.

8 SECTION 39 (3) (c) of the Act: Environmental awareness plan.

8.1 Employee communication process

(Describe how the applicant intends to inform his or her employees of any environmental risk which may result from their work).

- An environmental, health and safety induction programme will be provided to all employees prior to commencing work, and they will sign acknowledgement of the induction.
- A weekly "toolbox talk" will be held prior to commencing work, which will include discussions on health, safety and environmental considerations. The toolbox talks should be led by the site manager.

8.2 Description of solutions to risks

(Describe the manner in which the risk must be dealt with in order to avoid pollution or degradation of the environment).

- Establish the context
 - Strategic
 - Organisational
 - Risk management
- Identify risks
- Analyse risks
 - Consequences
 - o Likelihood
- Assess and prioritise risks
 - Acceptability
 - Priorities for treatment
- Treat risks
 - o Eliminate
 - Reduce
 - Transfer
 - Manage
- Monitor and review

8.3 Environmental awareness training.

(Describe the general environmental awareness training and training on dealing with emergency situations and remediation measures for such emergencies).

ENVIRONMENTAL AWARENES TRAINING PROGRAMME PROCEDURE

Natural resources are limited and not always renewable and it is the responsibility of management to ensure that all employees are trained to understand the impacts of their tasks on the environment and to reduce them wherever possible.

Environmental awareness training must be given to new employees on site and any contractors who may come onto site for a short period of time. Refresher training must be given to permanent employees on an annual basis.

The objective of this procedure is to ensure that all employees on the, including contractors, are competent to perform their duties, thereby eliminating negative impacts on their safety, health and the environment.

The Environmental topics to be covered in awareness training should include the following:

RESOURCE MANAGEMENT

- a. The importance of saving water
 - i. South Africa is a water scarce country and rivers are polluted
 - ii. Do not throw litter into river or water drains
 - iii. Do not dispose of oils in sewers
- b. Air pollution Climate change
 - i. The use of fossil fuels is increasing the amount of greenhouse gases that are discharged to the atmosphere. Share transport or use public transport
 - ii. Don't burn any rubbish, the smoke pollutes the air
 - iii. Plant trees, they clean the air, provide us with oxygen and remove the greenhouse gas carbon dioxide from the air.
- c. Soil conservation
 - i. Prevent overgrazing of farmlands, keep vegetation on the surface of the land to prevent soil erosion
 - ii. Plant trees

HAZARDOUS SUBSTANCE USE AND STORAGE

- a. Solvents, petrol, diesel, insecticides, chlorine, detergents, chemical fertilisers are harmful to the environment and to your health. Use them sparingly and do not let them get into the water systems. Containers must be disposed of to a licensed hazardous waste disposal facility
- b. Hazardous substances must be stored and used correctly
- c. Ensure that 16 point Material Substances Safety Data Sheets (MSDS) are available at point of store
- d. Compressed gas storage requirements
- e. Flammable substances store requirements

INCIDENT & EMERGENCY REPORTING

a. The company must have an emergency / incident reporting system whereby environmental incidents can be reported and actioned to mitigate and follow up on.

OIL / DIESEL/ PETROL SPILL CLEAN UP

a. All employees who work with machines and vehicles must be instructed how to prevent and clean up an oil or diesel spill appropriately. Spill kits must be available on site, drip trays must be used when servicing vehicles

CONSERVATION OF WATER

- a. Campaign to save water on site
- b. Clean water is expensive and potable water must be used carefully
- c. Prevent pollution of water by preventing spills and dispose of wastes properly

CONSERVATION OF VEGETATION

Plants, grasses and trees are very important to our existence on the earth, they provide food, fuel, shelter, raw materials and they clean the air. Indigenous plants are especially important for muti and the whole ecology of life. Human activities are destroying the natural forests of the earth. The natural forests are the "lungs" of the planet and unfortunately they are being cleared faster than they can be regenerated.

- a. EIA's are to be done before virgin bush can be cleared
- b. Vegetation cover reduces water and topsoil loss from the ground, do not clear vegetation unnecessarily
- c. Indigenous trees provide shade, attract wild birds
- d. Do not chop down indigenous trees without good reason
- e. Implement a tree planting programme
- f. Remove alien invasive trees in your area such as Prosopis, Syringa and Pepper trees, cactus plants.

WASTE MANAGEMENT

- a. Employees must be instructed on how to tell the difference between hazardous waste and general waste
- b. They must know how to separate hazardous and general waste and where to dispose of these wastes in the correct way
- c. Examples of hazardous waste which must be recycled or sent to Waste Tech for disposal:
 - iii. Oil, diesel, batteries, acids, paint, thinners, electronic waste
 - iv. Pesticides, jik, handy Andy
 - v. Old oil, old oil filters, old paint is hazardous and must not be disposed of to a general land fill. Oilkol of the Rose Foundation will collect old oil.
 - vi. Mercury in fluorescent light bulbs is hazardous, fluorescent lights must be handled with great care so as not to break the glass and release the mercury vapour into the air which you breathe.
- d. Examples of general wastes which can go to the municipal landfill:
 - vii. Wood, paper, plastic, glass, old PPE
- e. Recycle, Reuse, Reduce, Recover where ever possible

CONCLUSION

The management of Wide Investments 100 (Pty) Ltd will utilize the Environmental Awareness Plan to assure that all employees and contractors are aware of the environment and know how to manage it correctly.

- 9 SECTION 39 (4) (a) (iii) of the Act: Capacity to rehabilitate and manage negative impacts on the environment.
 - 9.1 The annual amount required to manage and rehabilitate the environment.

(Provide a detailed explanation as to how the amount was derived)

The total cost to manage and rehabilitate the environment was calculated to R636 104.56 in the financial quantum.

9.2 Confirmation that the stated amount correctly reflected in the Prospecting Work Programme as required.

The rehabilitation cost was included in the costing schedule contained in Table 9.1 Prospecting Work Programme as was submitted with Wide Investments 100 (Pty) Ltd's Prospecting Right renewal application.

10 REGULATION 52 (2) (h): Undertaking to execute the environmental management plan.

Herewith I, the person whose name and identity number is stated below, confirm that I am the person authorised to act as representative of the applicant in terms of the resolution submitted with the application, and confirm that the above report comprises EIA and EMP compiled in accordance with the guideline on the Departments official website and the directive in terms of sections 29 and 39 (5) in that regard, and the applicant undertakes to execute the Environmental management plan as proposed.

Full Names and Surname	Mzamani Mdaka		
Identity Number	6706265453080		

-END-