

CAPE LIME (PTY) LTD

ENVIRONMENTAL ASSESSMENT PROCESS FOR THE CONSTRUCTION OF LIME KILNS, ACCES ROAD AND UPGRADE OF ENVIRONMENTAL MANAGEMENT PROGRAMME ON PORTIONS 0 AND 1 OF THE FARM VADERLANDSCHE RIETKUIL 308, REMAINDER OF FARM NUWEDRIF 450, REMAINDER OF FARM 510, AND PORTION 40 OF FARM 301, SITUATED IN THE MAGISTERIAL DISTRICT OF VREDENDAL, WESTERN CAPE REGION

BACKGROUND INFORMATION DOCUMENT (BID)

DMR REFERENCE NUMBER: WC 30/5/1/2/2/294MR

March 2020



THE PURPOSE OF THIS DOCUMENT

This Background Information Document (BID) aims to provide Interested and Affected Parties (I&AP), with information regarding the upgrade of an existing Environmental Management Programme with respect to mining activities of Portions 0 and 1 of the Farm Vaderlandsche Rietkuil 308, Remainder of Farm Nuwedrif 450, Remainder of Farm 510, and Portion 40 of Farm 301, situated in the magisterial district of Vredendal, Western Cape Region.

Any individual, company, authority or other entity that might be directly or indirectly affected by the activity is invited to register as an Interested or Affected Party (I&AP). This includes, but is not limited to landowners, tenants, municipal and provincial authorities, interest groups, Non-Government Organisations and conservation groups.

The BID provides I&APs with the project information, opportunity to comment by raising any issues of concern or interest regarding the proposed project, information on how the Scoping and Environmental Impact Assessment (EIA) process will be undertaken, and creates a platform for all key interested and affected parties to be involved in the project. The sharing of information forms the basis of the Public Participation Process and offers you the opportunity to become actively involved in the project from the outset.

STUDY AREA

The proposed lime kilns constructions and EMPr upgrade will take place on Portions 0 and 1 of the Farm Vaderlandsche Rietkuil 308, Remainder of Farm Nuwedrif 450, Remainder of Farm 510, and Portion 40 of Farm 301, situated in the magisterial district of Vredendal, Western Cape Region. The proposed site is situated next to the R362, approximately 8 km south-east of the Vredendal town centre (by road), in the Western Cape Province. The size of the site is 4002.5 ha.

PROJECT BACKGROUND AND DESCRIPTION

Cape Lime (Pty) Ltd, a subsidiary of Afrimat (Pty) Ltd proposes to upgrade its current Environmental Management Programme report in order to be compliant with the NEMA EIA Regulations 2014 as amended. Cape Lime's existing Environmental Management Programme was approved (28 October 2002) in terms of the Minerals Act, 1991 (Act 50 of 1991) and updated in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No 28 of 2002) approved on 17 May 2013.

As from the 8th December 2014 the Department of Mineral Resources became a competent authority in all activities related to mining identified in terms of National Environmental Management, 1998 (Act 107 of 1998) and NEMA also set a minimum standard to which all the reports relating to mining activities must conform to.

Cape Lime mines and processes limestone and dolomite, on Portions 0 and 1 of the Farm Vaderlandsche Rietkuil 308, Remainder of Farm Nuwedrif 450, Remainder of Farm 510, and Portion 40 of Farm 301, situated approximately 8 km south-east of the Vredendal. The current activities entail, apart from mining, also the crushing and screening of all mined material as well as calcination of limestone in an existing Fluid Bed Lime Kiln.

The Vredendal limestone and dolomitic ore are of an exceptionally high quality and are the only currently operating source suitable as raw materials for the production of high quality glass and refractory materials in South Africa. The high quality limestone is also suitable for the production of lime for water treatment and the manufacture of Precipitated Calcium Carbonate (PCC). The lime would otherwise have to be imported. The markets currently served are:

- Water treatment (potable and effluent)
- Glass Industry (Flat glass and container glass)
- Aggregates
- Chemical Industries
- Mineral Fillers Industries

- Metallurgical industry

Cape Lime is also a holder of the mining rights for the mining of limestone from within a 321 ha area on the Remainder of Farm 511 (Farm Welverdiend) in Vanrhynsdorp. Awarded in June 2012, in terms of Section 22 of the Mineral and Petroleum Resources Development Act 2002 (Act No. 28 of 2002), No processing takes place at Farm Welverdiend, all product material is transported to the existing Vredendal plant (\pm 15km west of the site) for processing.

The proposed project will also include the following new developments;

- The construction of 2 new Kilns in addition to the existing Kiln which has been in operation since 2004 and;
- The lengthening of an existing road located between the two Cape Lime mining rights Farm 511/4 Welverdiend and Farm Vaderlandshce Rietkuil 308/1, see figure 2. The road will be used to transport material from Farm Welverdiend to the Vredendal primary crushing plant.

The addition of new Kilns will enable the mine to increase its overall production capacity of high quality white lime products. Cape Lime is confronted on a regular basis with enquiries with regards to the supply of high quality white lime products to potential new projects in South Africa, for which Cape Lime does not have the current production capacity.

The mine currently transports about 3000 tons of material a month from Farm 511/4 Welverdiend, Vanrhynsdorp to the Vredendal Plant via the N7 and R27 roads. The new haul road is more feasible than the current road due to reduced hauling distance and will prevent the need for trucks and machinery to travel along the N7 and R27 to the Vredendal plant.

Mining /Excavation

The Open Pit Mining process entails removal of overburden to expose the ore before drilling and blasting takes place according to a structured mine plan. Excavation of blasted material is done by an Excavator and 18 ton

trucks haul the material to the primary crushing plant.

Primary crushing

Run-of-mine material from a specific quarry (dolomite and/or limestone) is tipped into the feed bin from where the ore is fed to a jaw crusher. Thereafter the material goes through a series of screening and further crushing stages. The top size of the material may vary with respect to the product/products being produced. Crushed material is stockpiled at the primary crusher stockpile area.

Mineral Fillers

Crushed white dolomite from the primary crushing plant is fed to the Mineral Fillers plant where the size of the white dolomite is progressively reduced using crushers, ball mills, screens and air classifier. The resultant range of micro-fine products (5 microns, 15 microns, 75 microns and 300 microns) are stored in silos from where it can be packed in small bags or bulk bags for sale.

Dolomite Processing Plant

Crushed dolomite from the primary crushing plant is fed to the Dolomite Processing Plant where it is crushed and screened to -2 mm particle size. The material is then stored in silos before being loaded into bulk road trucks.

Limestone secondary crusher:

Crushed limestone from the primary crushing plant is fed to the secondary crusher and subsequently screened and air classified to yield three products. The coarser fraction (+1-6mm) is stockpiled and used as feed material for the Kiln. The middle fraction (-1mm) is stored in bins from where it is subsequently blended (after analysis) to obtain a consistent product composition before being loaded into road trucks when sold. The fine fraction (-200micron) is removed from the middle fraction before it's fed to the storage bins by passing the material through an air classifier. The fine fraction (-200micron) are routed to silos for storage before dispatched in road tankers when sold.

Fluid Bed Kiln

Limestone (CaCO_3) is calcined in a Kiln at $\pm 920^\circ\text{C}$ to obtain quicklime (CaO) using coal as fuel. All exhaust gas streams pass through bag filter units to be cleaned before being released into the atmosphere. The plant is fully automated to monitor all the process parameters. Quicklime is stored in silos before being bagged, sold in bulk or conveyed to the Oxide Processing Plant or Hydrator plant for further processing. The material obtained at the bag filter units are sold as a low grade quicklime or passed through the hydrating plant to produce a low grade hydrated lime product.

Hydration Plant:

Quicklime is mixed with water in a process reactor to yield dry hydrated lime ($\text{Ca}(\text{OH})_2$), which is air classified to remove oversize material. The oversize material separated by the air classifying system passes through a milling section to reduce its particle size. The final product is then bagged or dispatched in bulk road tankers.

Service departments:

Laboratory:

All basic analysis for product composition and grading are done in a fully equipped laboratory on site to ensure compliance to Cape Lime's ISO 9002 quality system. Analysis from external laboratories are obtained annually or on special request to verify our test results.

Workshops:

All maintenance is done with the aid of three fully equipped workshops for electrical, mechanical and automotive disciplines.

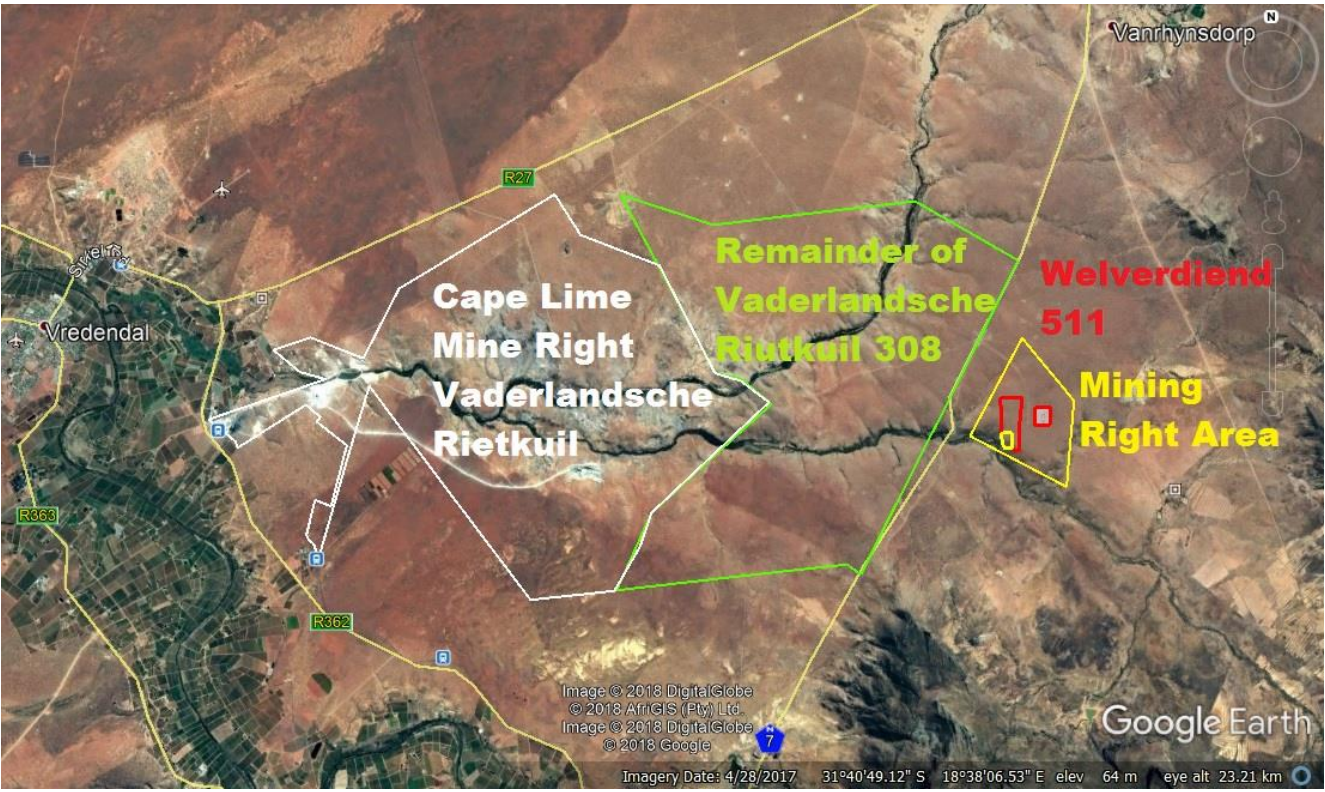


Figure1: Google Earth Map showing the two Cape Lime mining rights: Farm Vaderlandsche Rietkuil and Welverdiend Farm

LEGAL FRAMEWORK

In terms of Sections 24(2) and 24D of the National Environmental Management Act (Act No. 107 of 1998), as amended, and as read on Listing Notice 2 (Government Notices R. 984 in Government Gazette 38282 of 4 Dec 2014) a Scoping and EIA is required for the project as per the following listed activities:

• **GN R 983, Listing Notice 1, Activity 22 Listing Notice 2 as amended:** The decommissioning of any activity requiring -

(i) a closure certificate in terms of section 43 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002);

• **GN R 983, Listing Notice 1, Activity 56 Listing Notice 2 as amended:** The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre —

(ii) where no reserve exists, where the existing road is wider than 8 metres;

• **GN R 984, Listing Notice 2, Activity 6 Listing Notice 2 as amended:** The development of facilities or infrastructure for any process or activity which requires a permit or license in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent

• **GNR 985, Listing Notice 3, Activity 28 as amended:** The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.

(d) In Western Cape

(i) Within any critical or endangered ecosystem listed in terms of Section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;

The proposed development includes the construction of 2 Fluid Bed Lime Kilns.

As such, in terms of the National Environmental Management Air Quality Act (Act No. 39 of 2004) (NEM: AQA) an Air Emissions License (AEL) is required.

The mine abstracts water from its calcite quarry. Water is only abstracted when the level rises above a certain point which makes mining unsafe. The water is then discharged downgradient into a valley which feeds into the Wiedou River system and eventually the Olifants River. Therefore, in terms of the National Water Act No. 36 of 1998, a Water Use license is required as per the following water use:

Section 21 (j) – removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people

An application with the Department of Water and Sanitation Western Cape on the electronic Water Use Licence Application and Authorisation System (e-WULAAS) and the application is currently being processed.

SCOPE OF PROJECT

The Environmental Impact Assessment application process will include:

- Submission of Environmental Impact Assessment (EIA) application forms to Western Cape Department of Mineral Resources (DMR).
- Consultation with Interested and Affected Parties (I&APs).
- A number of potential environmental impacts associated with the project have been identified. As part of the environmental authorisation, these potential impacts will be assessed through the following specialist studies:
 - Heritage and archaeological Assessment;
 - Ecological Assessment (flora and fauna);
 - Air Quality Assessment and;
 - Geohydrological Assessment

- Submission of Final scoping report to DMR following consultation with I&APs.
- Compilation and submission of an EIA report and Environmental Management Programme (EMPr to DMR following consultation with I&APs.
- Decision making by DMR – the competent authority use the documents to decide if the project should go ahead or not
- Notification of I&APs of the competent authority's decision and appeal process

YOUR ROLE AS AN INTERESTED & AFFECTED PARTY

As a stakeholder are invited to register as an Interested and Affected Party (I&APs) and to participate in the scoping process by commenting on the proposed mining permit application.

You can participate in the following manner:

- Contact the public participation office if you would like to further information on the project;
- Review all project documentation provided to you;
- Attend focus group meetings and key stakeholder workshops should there be any;
- Raise issues that you are concerned about, make suggestions for enhanced project benefits, and provide the project team with information on issues relevant to the proposed routes;

COMMENTS AND QUERIES

Contact Details: Public Participation Office
Please direct all comments, queries or issues to:

Ntsanko Ndlovu

Tel: 016 366 0321

Cell: 082 728 8975

Fax: 086 607 1354

E-mail: ntsanko.ndlovu@afrimat.co.za

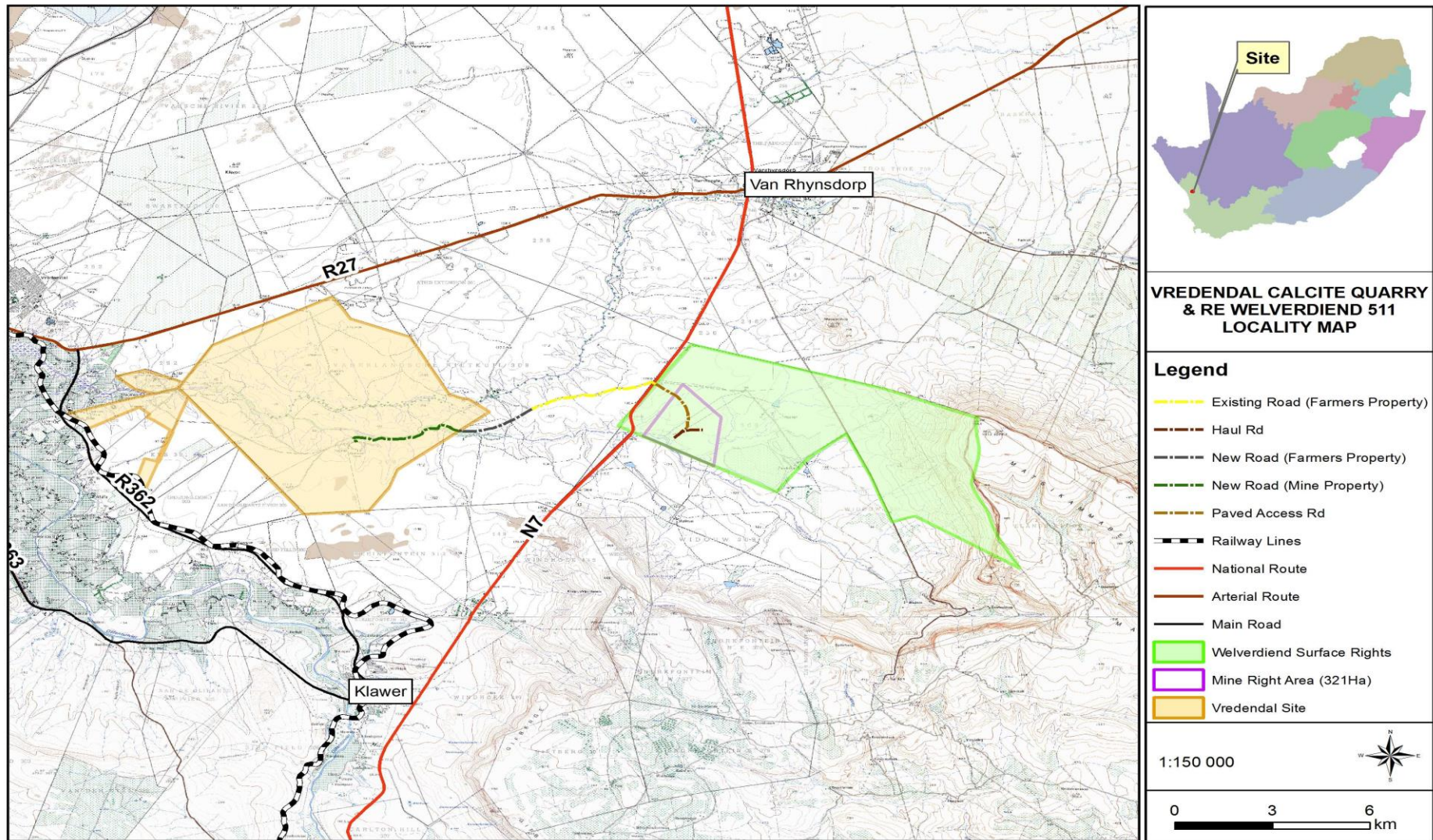


Figure 2: PROJECT LOCALITY MAP

ENVIRONMENTAL AUTHORISATION FOR THE CONSTRUCTION OF LIME KILNS, HAUL ROAD AND AN UPGRADE OF AN ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT WITH RESPECT TO MINING ACTIVITIES ON FARM VADELANDSHCE RIETKUIL NEAR VREDENDAL, WESTERN CAPE PROVINCE

REGISTRATION AND SHEET, MARCH 2020

Please complete and return to the address below by Thursday 16 April 2020.

Ntsanko Ndlovu
Afrimat (Pty) Ltd
Tel: 016 366 0321
Cell: 082 728 8975
Fax: 086 607 1354
E-mail: ntsanko.ndlovu@afriam.co.za

NAME		SURNAME	
ORGANISATION		EMAIL	
TITLE/POSITION			
POSTAL ADDRESS			POSTAL CODE
TEL NO		FAX NO	

COMMENTS (please use separate sheets if necessary)

1. The following environmental, social and economic issues must be addressed by the EMP

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2. My comments on the public participation and/or technical processes as outlined in the BID are as follows:

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3. I suggest that the following stakeholder/s or role player be included in the consultation process:

Please list their names and contact details below:

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4. Any other comments:

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