



**Centre for Mining Innovation
Human Factors Research Group**

**Level of Exposure of Workers to Silica Dust in the Non-mining
Sectors in South Africa
Literature Review**

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EXECUTIVE SUMMARY

Background and problem statement

Silicosis is a type of pneumoconiosis (meaning dust in the lung) caused by the inhalation of free crystalline silica dust. Inhaled silica dust have a fibrogenic capacity that leads to the development of pneumoconiosis. The disease is known as “fibrotic pneumoconiosis” and the lung disease is known as “silicosis”. Silicosis is irreversible and incurable, but can be prevented through the control of worker exposure to dust containing free crystalline silica. It is a serious public health problem because of its ability to cause physical disability. The extent of the disease depends on the nature and concentration of the silica dust, the duration of exposure, and individual susceptibility.

Silicosis is a problem to workers in the non-mining industries in South Africa; it is worsened by an increased burden of TB and HIV/AIDS in the country. The problem is also exacerbated by the fact that its magnitude is not known in the non-mining industries in terms of the disease and exposure levels. Studies have shown that levels of dust containing respirable crystalline silica have exceeded the occupational exposure limits of 0.1 mg/m^3 , and cases of silicosis reported from non-mining industries have fluctuated in the past years, showing an inconsistency in terms of diagnosis and reporting cases of silicosis from non-mining industries. Lack of cooperation from industries and the departments that are directly involved in handling cases of silicosis adds to the problem.

In response to the seriousness of the problem of silicosis in the non-mining industries and the fact that information about the disease in these industries is lacking, a two-phased research project was set up on workers’ exposure to silica dust. Phase 1 of the research consisted of a literature review and had as its objectives to:

- Conduct a literature review on non-mining industries and activities in which silica exposure has been reported;
- Identify types and number of non-mining industries in South Africa where silica is handled and/or workers are exposed to silica dust;
- Provide statistics on the prevalence and incidence of silicosis in the non-mining industries per type of industry and occupation; on the annual number of deaths from silica-related diseases in terms of deaths per year, industry and occupation; and on the total number of workers eligible for compensation and number of individuals compensated per year, industry and occupation; and
- Describe programmes in place in industry as an effort to eliminate exposure to silica dust.

Findings

Type of industry where silica exposure has been reported

The literature review incorporated both international and local sources regarding non-mining industries where silica exposure had been reported. On the basis of the information obtained from this first objective (enabling output one), a database with all the names, addresses and contact numbers of companies in the identified non-mining industries in South Africa was created.

The main aim of the second objective (enabling output two) was to identify the non-mining industries in South Africa with the potential for exposing workers to silica dust. A total of seven non-mining industries were identified in this study and the number of companies were as follows: foundries, with 205 companies comprising both ferrous and non-ferrous foundries; ceramic and pottery companies at 41; refractories, with 39 companies; sandblasting, with 45 companies; agriculture, with 141 farmers mostly involved in crop and grains produce; construction companies at 268; and sandstone, with 33 companies. A total of 783 companies were identified and their details included in the database.

Estimated number of workers exposed

Unfortunately, South Africa suffers from a shortage of reliable statistics on occupational diseases, owing to under-diagnosis, under-reporting and inadequate processing of the data collected (Bachmann, 1990). For this reason, no estimated number of workers exposed to silica dust in the non-mining sectors is available. However, figures relating to the foundry, agriculture and construction sectors suggest that there could be roughly 1.2 million people exposed to silica dust. If all the non-mining industries that are to be researched are included, the number could double or triple that.

Statistics on silicosis in the non-mining industries per type of industry and occupation

The third, fourth, fifth and sixth objectives (enabling outputs 3, 4, 5 and 6) were aimed at evaluating the magnitude of silicosis in the non-mining industries in terms of the prevalence, incidence, annual number of deaths caused by silica-related diseases, and the total number of non-mining workers eligible for compensation in South Africa.

The statistics and information used for achieving enabling outputs 3, 4, 5 and 6 were obtained from the Compensation Fund annual reports, Statistics South Africa, National Centre for Occupational Health (NCOH), Medical Research Council and other sources listed in the reference section of the report.

Prevalence and incidence of silicosis per type of industry and occupation

Approximately 2 829 984 workers are employed in non-mining industries in South Africa. Of these, 28.4% are working in agriculture, construction, glass/bricks and tiles, and iron and steel industries. Foundries form part of the iron and steel industries, according to the Compensation Fund's classification of industries guideline. Iron and steel industries employ a total of 515 567 workers, of which approximately 13 859 (3%) are working in the foundry industry, excluding administration staff (Crawford, 2007).

The prevalence of the reported cases of silicosis among all occupational lung diseases associated with exposure to silica dust in 1996, 1997 and 1998 was 18%, 28% and 22%, respectively. From 2000 to 2003 there were 38% of cases of pneumoconiosis caused by silica reported to the Surveillance for Occupational and Work-related Respirable Diseases in South Africa (SORDSA).

A total of 279 cases of pneumoconiosis reported to SORDSA were from construction; foundries and metal refineries; ceramics, pottery and brick production; and other manufacturing and industries not specified.

Cases reported to the NCOH in the 1999 to 2000 period showed that operator/production workers had the highest number of exposed workers (39), followed by labourers (32), and artisans with nine, and "others" with only eight cases of exposed workers.

Incidences of silicosis from non-mining industries reported to the NCOH from 1991 to 1997 and from 1999 to 2000 were 121 and 90, respectively. Incidences of confirmed cases of silicosis from non-mining industries reported to the NCOH from 2000 to 2003 and 2004 to 2009 were 44 and 24 cases, respectively.

Most frequently recorded occupations where silicosis was listed as the underlying or contributory cause of death

The literature search found no information regarding the most frequently recorded occupations where silicosis was listed as a contributory cause of death in the South African non-mining sector. However, from 1999 to 2004 the National Institute for Occupational Health (NIOH) Occupational Medicine Clinic diagnosed cases of silicosis in the non-mining sector. The results revealed that, of the sectors represented in these cases, 55% were foundries, 13% pottery, 12% refractories, 6% engineering, 5% stone crushing, 4% construction, 2% chemical industries, and 0.5% glass industries.

Approximately 14.2% and 13.7% of deaths caused by respiratory diseases were recorded by the National Centre for Occupational Health (NCOH) in 2000 and 2006, respectively. These statistics

include deaths from non-occupational diseases and mining industries, as death statistics from silica-related diseases in non-mining industries specifically were not available.

Statistics regarding compensation

In 2008 it was reported that 1 019 036 claims were accepted (occupational diseases and accidents). Of these, 88% (901 384) were compensated. A total of 117 652 claims were not compensated owing to the nature of the injury. The statistics did not break down the cases by types of diseases and it is not known how many of these cases were silicosis related.

Measures and programmes in place to eliminate exposure to silica dust

About 13% of the companies reported having conducted dust measurements once or twice in the past ten years using an Approved Inspection Authority (AIA) service. Medical surveillances were conducted in 29% of all companies; however, most surveillance focused on a curative rather than preventive approach. Only 4% of the companies had conducted training that had included information on silica dust and its health effects.

A total of 46% of companies reported having carried out dust measurements, medical surveillance and training in their workplaces, although these were not consistent in terms of following a programme, monitoring the exposure improvements, and compliance with legislation.

Respiratory protective devices (RPDs) were used by 80% of the companies that responded to the questions. Most of the companies use FFP2 dust masks recommended for dusty environments. Half (50%) of the respondents reported that they make use of the wet method of dust suppression to control dust in their workplaces. Some 30% of the companies make use of mechanical ventilation.

The non-mining industries did not have any written or documented programmes aimed at eliminating worker exposure to silica dust in South Africa.

Conclusion

Comprehensive and recent information in the area of silicosis is lacking in South Africa. The data regarding worker exposure to respirable crystalline silica (RCS) levels in non-mining industries is inadequate and some of the published statistics are skewed by poor diagnosis and reporting bias. There is a huge need for dust measurements in all non-mining industries in South Africa to determine the worker exposure levels to both total and respirable silica dust. Despite the limitations, the figures reported here provide some insight into the magnitude of silicosis in the non-mining industries in South Africa.

Abbreviations and acronyms

ACGIH – American Conference of Governmental Industrial Hygienists

AIA – Approved Inspection Authority

AIDS – Acquired Immunodeficiency Syndrome

CDC – Centre for Disease Control and Prevention

COIDA – Compensation for Occupational Diseases and Injury Act, 1993 (Act No. 130 of 1993)

COAP – chronic obstructive airways diseases

COPD – chronic obstructive pulmonary disease

DOH – Department of Health

DOL – Department of Labour

HIRA – Hazard Identification and Risk Assessment

HIV – Human Immunodeficiency Virus

IARC – International Agency for Research on Cancer

ILO – International Labour Organization

ISIC – [International Standard Industrial Classification](#)

GPES – Global Programme for the Elimination of Silicosis

mg/m³ – milligrams per cubic metre

NCOH – National Centre for Occupational Health

NIOH – National Institute for Occupational Health

NIOSH – National Institute for Occupational Safety and Health

NPES – National Programme for the Elimination of Silicosis

NWG – National Working Group

OD – occupational diseases

ODMWA – Occupational Diseases in Mines and Works Act, 1973 (Act No. 78 of 1973)

OEL – occupational exposure limit

OEL-CL – occupational exposure limit – control limit

OEL-RL – occupational exposure limit – recommended limit

OHSA – Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)

OSHA – Occupational Safety and Health Administration

PEL – permissible exposure limit

PPE – personal protective equipment

PWG – Provincial Working Group

RCS – respirable crystalline silica

REL – recommended exposure limit

RPD – respiratory protective devices

SA – South Africa

SADC – Southern African Development Community

SA NBD – South African National Burden of Diseases Study

SHE – Safety, Health and Environment

SiO₂ – silicon dioxide

SORDSA – Surveillance for Occupational and Work-related Respirable Diseases in South Africa

Stats SA – Statistics South Africa

TB – pulmonary tuberculosis

TLV – threshold limit value

TWA – time-weighted average

US – United States

WAHSA – Work and Health in Southern Africa

WHO – World Health Organization

Definition of concepts

Silicosis	occupational disabling, non-reversible and sometimes fatal respirable disease caused by exposure to respirable crystalline silica (RCS), which leads to inflammation and eventually scarring of the lungs, fibrosis or scar tissues that reduce the ability of the lungs to function normally (DOL, 2004a; NIOSH, 2003; Greenberg <i>et al.</i> , 2007; Swanepoel <i>et al.</i> , 2008)
Tuberculosis (TB)	a bacterial infection that most commonly affects the lungs (Swanepoel <i>et al.</i> , 2008; NIOSH, 2008)
Pneumoconiosis	also known as “coal workers’ pneumoconiosis”, miner’s asthma or black lung disease is an occupational lung disease caused by inhalation of dust
Fibrosis	is the formation or development of excess fibrous or scar tissue due to injury (pulmonary fibrosis and cystic fibrosis)
Mining	is the process or business of extracting ore/minerals from the ground or by excavation or by washing the soil (Dictionary.com)
Pulmonary TB associated with silica dust	is an occupational disease caused by Mycobacterium Tuberculosis in employees who have been exposed to silica dust in the workplace, which is presumed to be a work-related disease (DOL, 2004c)

According to International Standard Industrial Classification (ISIC)

Mining and quarrying	are classified as mining (Division 10 – 14). They include activities of extracting hard coal, peat, lignite, crude petroleum, and natural gas, oil, uranium and metal ores, and the quarrying of stone, sand and clay
Non-mining Industry	no clear definition could be found on non-mining. It is seen as a broad sector that encompasses many industries, apart from industries that include mining and quarrying
Diatomaceous earth	a naturally occurring, soft, chalk-like sedimentary rock that is easily crumbled into a fine white to off-white powder. Its composition is 86% silica, 5% sodium, 3% magnesium and 2% iron
Inhalable dust	the particulate mass fraction of dust in the work environment that can be inhaled and deposited anywhere in the respiratory tract (NIOSH, 2002)
Respirable crystalline silica (RCS)	that portion of airborne crystalline silica that is capable of entering the gas-exchange regions of the lungs if inhaled (NIOSH, 2002)

1. Introduction and background

Silicosis is a type of pneumoconiosis (literally meaning dust in the lungs) caused by the inhalation of dust that contains free crystalline silica (Fedotov, 1997; Rees & Murray, 2007; Stanton *et al.*, 2006). The inhaled silica dust particles have a fibrogenic capacity that leads to the development of pneumoconiosis (Stanton *et al.*, 2006). The disease is known as “fibrotic pneumoconiosis” and the lung disease is known as “silicosis” (DOL, 2007a). Silicosis is irreversible and incurable; however, it is preventable (DOL, 2007a; WAHSA, 2007; NIOSH, 2002 and Swanepoel *et al.*, 2008) and therefore the global approach to the elimination of silicosis is focused on the control of exposure to silica-containing dusts (Fedotov, 1997).

Silicosis is one of the most important health problems in the world, mainly because of its potential to cause physical disability (Fedotov, 1997). A characteristic of the disease is that it progresses when exposure to crystalline silica stops, and can occur ten to 20 years after exposure has stopped (Rees & Murray, 2007). The extent of the disease also depends on a few factors: the nature and concentration of the dust, the duration of exposure, and the individual’s susceptibility to the disease (Fedotov, 1997; DOL, 2007a).

Three types of silicosis are found: acute, accelerated and chronic (Stanton *et al.*, 2006; DOL, 2007a; Ding *et al.*, 2002). Acute and accelerated silicosis usually occur where the worker is exposed to high concentrations of fine respirable crystalline silica particles (DOL, 2007a). Chronic silicosis is the most common form of silicosis and the fibrotic changes in the lungs are seen after ten to 30 years of exposure to dusts that contain 18-30% crystalline silica (DOL, 2007a; Stanton *et al.*, 2006; Ding *et al.*, 2002).

Pulmonary tuberculosis (TB), interstitial fibrosis, industrial bronchitis, small airway disease, emphysema, rheumatoid complications, vascular diseases, glomerulonephritis and immunologic reactions are diseases that are also associated with silica exposure (Rees & Murray, 2007; Ding *et al.*, 2002). Silica-associated TB (also known as “silico-tuberculosis”) is of particular concern in South Africa as the prevalence of silica-associated TB is exacerbated by the Human Immunodeficiency Virus (HIV) epidemic (Rees & Murray, 2007; Stanton *et al.*, 2006). This is due to the fibrotic effect that the crystalline silica has on the lung tissue, which leads to impaired cell-mediated immunity, in effect reducing the pulmonary macrophage’s capacity for bacterial defence, leaving the individual susceptible to developing pulmonary TB (Stanton *et al.*, 2006; Ding *et al.*, 2002; DOL, 2007b).

There are seven polymorphs of crystalline silica: quartz, cristobalite, trypidite, coesite, stishovite, moganite and melanphlogite (Rees & Murray, 2007; DOL, 2007a). Of these, quartz, cristobalite and trypidite are the most commonly found in the industry and naturally, and they also have the highest potential to induce fibrosis in the lungs when inhaled (DOL, 2007a; Greenberg *et al.*, 2007). Quartz is the most commonly found crystalline silica in workplaces (Stanton *et al.*, 1999). Alpha quartz is mainly released during mining, blasting and construction (DOL, 2007a). Crystalline silica is very common in the earth's crust and abundant in most rocks, sands and soils (Stanton *et al.*, 1999). It is also extremely resistant to weathering (Agnello, 2004). The International Agency for Research on Cancer (IARC) (1997) links the potential exposures to quartz for workers in many industries directly to the extensive natural occurrence of quartz in sand, stone and soil and also to the wide uses of materials that contain quartz. Quartz is the second most common mineral in the earth's crust, with feldspar being the most common (Agnello, 2004). Potentially hazardous exposures can consequently occur when the surface of the earth is disturbed in any manner (mining, farming or construction) or when sand, stones or rocks are drilled, moved, crushed or processed. Potential exposure can also occur through the disturbance of silica or through the use of products containing silica (IARC, 1997; Rees & Murray, 2007; Stanton *et al.*, 1999).

2. Background and problem statement

According to Motshelanoka (2006), a big concern regarding the silicosis problem is the current occupational exposure limit (OEL) for silica (0.1 mg/m^3), which has not been adequate for reducing silicosis incidence. The American Conference of Governmental Industrial Hygienists' (ACGIH's) threshold limit value (TLV) for respirable silica is 0.025 mg/m^3 at present (ACGIH, 2008a; ACGIH, 2008b). Reducing South Africa's OEL for crystalline silica from 0.1 mg/m^3 to 0.05 mg/m^3 or even to 0.025 mg/m^3 will also bring the limit in line with international trends. According to the Hazardous Chemical Substance Regulations promulgated in terms of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), the OEL-Control Limit (OEL-CL) for silica crystalline respirable dust is 0.4 mg/m^3 and the OEL-Recommended Limit (OEL-RL) for silica-fused respirable dust is 0.1 mg/m^3 .

Inadequate dust control and high disease rates in traditional "silica industries" in South Africa cause a serious silicosis problem in the country (Rees, 2006; Rees & Kielkowski, 1991; Rees *et al.*, 1992). The elimination of silicosis is an important public health issue because of the strong association between silicosis and TB in South Africa, combined with the HIV epidemic (Rees, 2006; Motshelanoka, 2006). Motshelanoka (2006) also states that silica exposure and silicosis have re-emerged as a very serious public health issue in South Africa, for which he gives the following reasons:

- Both the mining and non-mining industries have inadequate dust controls; and
- Silicosis is common in industrial workers and gold miners and the attendant TB risk is high.

The combination of significant levels of migrant labour and the high HIV/AIDS infection rate, and the interaction between inadequate silica dust control, high rates of silicosis, HIV/AIDS infection and TB (including multi-drug resistant forms) place additional stress on the country (Motshelanoka, 2006) and present major challenges to the occupational and general public health and safety services in South Africa (Stanton *et al.*, 2006).

Silicosis is a problem to workers in the non-mining industries in South Africa; it is worsened by an increased burden of TB and HIV/AIDS in the country. The problem is also exacerbated by the fact that its magnitude is not known in the non-mining industries in terms of the disease and exposure levels. In the studies reported elsewhere in this report it has been illustrated that the level of dust containing respirable crystalline silica (RSC) exceeded the occupational exposure limits of 0.1 mg/m³. Cases of silicosis reported from non-mining industries have fluctuated in the past years and this has shown an inconsistency in terms of diagnosis and reporting cases of silicosis from non-mining industries. Lack of cooperation from industries and the departments that are directly involved in handling cases of silicosis adds to the problem.

3. Objectives and scope of the project

This research project on workers' exposure to silica dust consists of a review of literature both locally and internationally regarding non-mining industries where silica exposure has been reported. The study is divided into two phases. The main purpose or objectives of Phase 1 were:

- The review of literature on non-mining industries and activities in which silica exposure has been reported;
- Identification of types and number of non-mining industries in South Africa where silica is handled and/or workers are exposed to silica dust;
- Provision of statistics on the prevalence of silicosis in the non-mining industries per type of industry and occupation;
- Provision of statistics on the incidences of silicosis in the non-mining industry per industry and occupation;
- Provision of statistics on the annual number of deaths from silica-related diseases in the non-mining industries in terms of deaths per year, industry and occupation;

- Provision of statistics on the total number of workers eligible for compensation and number of individuals compensated per year, industry and occupation; and
- Description of programmes that are put in place in industry as an effort to eliminate exposure to silica dust.

This literature study (Phase 1) forms the basis of the entire research project and it will be used to identify and select the number of companies to be sampled by using Occupational Sampling Strategy Manual (OESSM) and NIOSH 7500.

The second phase of this research project will focus on assessing personal exposure to silica dust in selected non-mining industries. This will entail collecting samples from different companies representing various categories of non-mining industries in South Africa. Non-mining industries with high silica dust exposure will be identified and recommendations will be made on how to prevent silica dust exposure. The major objectives of the second phase of this research project are to:

- Conduct dust sampling at selected sites in non-mining industries where there is a potential risk of exposure to silica dust;
- Develop an auditing tool for the DOL inspectors to be used for auditing industries for compliance with industries; and
- Collate results of the enabling outputs 9-10 into the final report, which will be presented and submitted to the Department of Labour (DOL).

4. Management of occupational diseases in the non-mining industries

Enforcement and monitoring of occupational health and safety in the non-mining industries in South Africa is carried out by the DOL, under the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) (OHSA). The DOL has approximately 746 inspectors across the country that conducts inspections on both labour relations and occupational health and safety issues. The capacity of inspectors to monitor and enforce legislation is at 83% for 2008/2009 (DOL, 2009). Of the 746 inspectors, some focus on labour relations issues and some on occupational health and safety issues; they measure in human resources and occupation health and safety and hygiene, respectively.

It appears that the majority of the labour inspectors focus on labour relations issues as in all non-mining industry companies visited there was one or both copies of Basic Condition of Employment Act and Employment Equity Act available. However, none of the industries had on display a

summarised copy of the Occupational Health and Safety Policy, Act or Hazard Identification and Risk Assessment (HIRA) report in the working place.

The area of focus of the labour inspectors is occupational health and safety and inspectors generally have less knowledge or expertise in occupational hygiene issues. Most of the labour inspectors are affiliated to or registered with the Health Professions Council of South Africa (HPCSA), which is health orientated rather than focused on safety and hygiene. There are a few labour inspectors who are registered with the Southern African Institute of Occupational Hygiene (SAIOH), which equips hygienists with safety and hygiene issues and is endorsed by the DOL for the Approved Inspection Authority (AIA) to be registered with SAIOH. SAIOH has three registration categories. These are occupational hygienist, occupational hygiene technologist and occupational hygiene assistant.

Compensation for occupational diseases and injuries from non-mining and mining industries in South Africa are administered by the DOL's Compensation Fund under Compensation for Occupational Injuries and Diseases Act, 1993 (Act No. 130 of 1993) (COIDA) and the Occupational Diseases in Mines and Works Act, 1973 (Act No. 78 of 1973) (ODMWA) for Occupational lung diseases from the mining industries. COIDA covers compensation for all occupational injuries from both mining and non-mining industries and occupational diseases from non-mining industries, as well as certain occupational diseases not covered by ODMWA such as noise induced hearing loss (NIHL). For example, a worker from a non-mining industry with both occupational accident or injury and silicosis will be compensated under COIDA; a mineworker injured in an underground accident or having NIHL will be compensated under COIDA. But a mineworker with silicosis emanating from his/her underground duties will be covered by ODMWA.

5. Silica industries in South Africa

In a report by Agnello (2004) it was revealed that silica is also produced in South Africa and that 20 producers of silica were present in 2003. Silica is mined by opencast methods and then extracted either as silica sand or as lumps from pegmatites, quartz, massifs, veins or quartzites. These lumps are principally applied to construction and filter media. Silica is synthetically produced as a by-product of the zirconia fusion process and zirconium basic sulphate process. In its processed form, silica generally has a purity of greater than 98% SiO₂. The major silica industries are metallurgical applications, glass, constructions, filter media, recreational or golf sands and ceramics. Silica has proved to be an excellent product in filter media, compost manufacture, filters and extenders, cement and concrete applications, soaps, general abrasives, glass and fibreglass, ceramics, adhesives and

sandblasting because of its inherent whiteness, abrasion resistance, heat resistance, angularity, strength and inertness. Some applications that require silica additives are presented in Table 1.

The metallurgical industry is indicated as the main consumer of silica (53.6%) and this industry comprises foundry sands and steel manufacture (29.7%), silicon and ferrosilicon production (12.2%), non-ferrous fluxing applications (8.7%) and refractories (2.9%). The second-largest silica industry is the glass industry (19.6%), closely followed by the construction industry at 19.4%. The two smallest users of silica are applications for filter media (3.6%) and recreational sands (2.5%), such as for stadium and school fields, bowling greens and race courses, although the contribution of these applications has grown markedly over the last ten years.

Milled and speciality silicas are consumed mainly by the construction industry (55.2%), then the ceramics industry (25.5%), followed by fillers and extenders (9.8%) and lastly glass (5.2%). Silicosis in the silica industry remains a contentious issue.

Table 1: Applications requiring silica additives

Abrasives	Detergents	Pharmaceuticals
Acid-proof Flooring	Edible Oil Refining	Plastics
Acid-resistant Cement	Effluent & Waste Treatment	Powders
Animal Feed	Electrodes	Polyolefins
Anti-caking Agent	Fillers & Extenders	Polyols
Biocide Delivery	Film Coatings	Printing Inks
Brewing	Fluidised Bed Media	Pulp & Paper Bleaching
Ceramics	Foundries	Refractories
Chemicals [Inorganic Oil]	Glass & Fibreglass	Rubber
Chemicals [Gas]	Insecticides	Sand Blasting
Coal Washeries	Mineral Processing	Textile Bleaching
Computer Chips	Moisture Protection	Thermal Insulators
Civil Engineering	Nuclear Waste Minimisation	TiO ₂ Extenders
Construction & Cements	Paints & Lacquers	Tunnelling
Desiccants	Pigments	Water Treatment
Dental Hygiene	Paper Fillers & Coatings	Welding

* Source: Agnello (2004; Table 5; Page 25)

6. Silicosis Elimination Programme

The elimination of silicosis has received global as well as national attention. A brief description follows of the programmes that have been established to eliminate silicosis as an occupational health problem.

6.1 Global Silicosis Elimination Programme

In April 1995, the Joint ILO/WHO Committee on Occupational Health proposed the joint “Global Programme for the Elimination of Silicosis”. The purpose of this programme is to offer a framework for a broad international collaboration to countries as well as to contribute to the elimination of silicosis as an occupational health problem worldwide. Incorporated into this programme is a feasible prevention strategy that is designed on the basis of a thorough knowledge of local conditions and the national situation of every country concerned, and uses proven safety measures as opportunities for innovations (Fedotov, 1997).

The programme has an immediate as well as a developmental objective, as outlined below.

Immediate Objective: To promote the development of a “National Programme on Elimination of Silicosis” in countries to reduce the incidence rates of silicosis significantly and globally by 2015;

Developmental Objective: To establish wide international cooperation on global elimination of silicosis in order to eliminate it as an occupational health problem by 2030 (Fedotov, 1997).

6.2 National Silicosis Elimination Programme

The programme outlines the government’s commitment to reduce the prevalence of silicosis significantly by 2015 and totally eliminate silicosis in all workplaces by 2030. The programme is in line with the International Labor Organization (ILO) and World Health Organization (WHO) Global Programme for the Elimination of Silicosis initiated in 1995.

To achieve the above immediate and developmental objectives, the government and other role-players will have to build capacity around the following four pillars of preventative actions:

- Develop regulatory and enforcement systems to focus essentially on the prevention of exposures and to integrate a management system approach;

- Concentrate on knowledge development, management and dissemination systems and tools that include awareness raising, training and education at all levels;
- Apply effective inspection and health surveillance systems and tools;
- Sustain and supplement preventative health and safety measures, including technical and administrative controls in the enterprise, through the application of principles of occupational health and safety management system (DOL, 2007c).

This programme has proved to be effective in that it has assisted European countries to successfully eliminate silicosis, which shows that with the necessary resources silicosis can be eliminated. South Africa has most of the resources to succeed: the question is whether we are committed to the objectives of the programme.

6.3 Regional Work and Health in Southern Africa (WAHSA) initiative

Another silicosis elimination activity in South Africa is the Southern African Development Community (SADC) regional collaboration initiative through Work and Health in Southern Africa (WAHSA), which aims to build sustainable capacity in Southern Africa and to undertake key interventions for improving occupational health. This is a 12-year programme that is supported by Sweden's National Institutes for Working Life and Public Health, and the programme has interventions regarding silica, silicosis and TB. Reduction of dust exposure in key industries and improved prevention of TB in silica-exposed workers are the major objectives of this programme (Rees, 2006).

7. Silica dust exposure and silicosis trends

Literature findings on global and national silica exposures and silicosis cases in different non-mining industries were compared and some of the highlights are reported below.

7.1 International/Global silica dust exposure trends

Although mining and mining-related operations (milling ores, quarrying, tunnelling and excavation) are seen as the biggest source of exposure to silica (Rees & Murray, 2007), there are numerous non-mining industries that are also classified as silica industries. Globally, these silica industries include:

- Building, highway, bridge etc. construction (Williams *et al.*, 2004)

- Abrasive (sand) blasting (Stanton *et al.*, 2006; Williams *et al.*, 2004)
- Masonry work (Stanton *et al.*, 1999; Williams *et al.*, 2004)
- Concrete finishing (Williams *et al.*, 2004; Driscoll *et al.*, 2004)
- Drywall finishing (Williams *et al.*, 2004)
- Rock drilling (Williams *et al.*, 2004)
- Mining (Williams *et al.*, 2004)
- Sand and gravel screening (Williams *et al.*, 2004)
- Rock crushing (Williams *et al.*, 2004)
- Ceramics, including pottery, sanitary ware and tiles (Rees & Murray, 2007; Stanton *et al.*, 2006)
- Foundries (Rees & Murray, 2007; Driscoll *et al.*, 2004)
- Stone working or –cutting (Rees & Murray, 2007)
- Quarrying (Driscoll *et al.*, 2004)
- Glassmaking (Driscoll *et al.*, 2004)
- Paint abrasive end chemical manufacturing (Stanton *et al.*, 2006; DOL, 2007b; Stanton *et al.*, 1999; Driscoll *et al.*, 2004)
- Jewellery manufacturing, especially in the agate industry (DOL, 2007b)
- Agriculture (DOL, 2007b; Swanepoel *et al.*, 2009; Rees & Murray, 2007)
- Ship yards (DOL, 2007b; Stanton *et al.*, 1999)
- Railways (DOL, 2007b)
- Steelworks (Stanton *et al.*, 1999)
- Repair and maintenance of ladles, kilns and furnaces (Stanton *et al.*, 1999)

A study conducted in Egypt indicated that the prevalence of respiratory diseases in construction workers is 11.5% and in the United States (US), from 1985 to 1990, 11% of the workplace deaths due to silicosis where silicosis was identified on the death certificates were in the construction industry (Roznowski, 2008; Alazab, 2004). Twelve per cent of foundry workers in the US with 30 years or more of work service had chest radiographs consistent with silicosis (Rosenman *et al.*, 1996). Silicosis was also reported to have caused 13.4% of the 118 deaths in the construction industry for the period 1990 – 1999 (NIOSH, 2003).

In Japan, 40.6% of a foundry worker sample exceeded the time weighted average (TWA) of the OSHA, and the highest TWA was recorded on the melting process, with 0.079 mg/m³ for the period 1976 to 1981 (Koo *et al.*, 2000). Bhagia (2008) stated that silica dust concentrations in India were higher than the ambient air quality standards for slate pencil manufacturing.

In Holland, respirable quartz exposure of more than ten times the Dutch limit value of 0.075 mg/m³ was common, but exposure of more than the above was also found (Lumens *et al.*, 2001). Silicosis is the most common occupational disease among dental technicians in France (Choël *et al.*, 1999).

The most recent available estimates in the US indicate that the total numbers of potentially silica-exposed workers in non-mining industries are more than twice the numbers in mining industries (de la Hoz *et al.*, 2004). Total population exposure to silica that occurred in construction revealed that workers are sometimes exposed to ten to 50 times the Occupational Safety and Health Administration permissible exposure limit (OSHA PEL) (Park *et al.*, 2002).

If silicosis is a problem in other developed and developing countries, it must also be a problem in South Africa and it needs serious attention.

7.2 National silica dust exposure trends

In South Africa, cases of silica exposure and silicosis have been reported in the following non-mining industries:

- Construction: Sandblasting, tunnelling, rock drilling, jack hammering, and power tool grinding of surfaces that contain silica (DOL, 2007b; Driscoll *et al.*, 2004; Esterhuizen *et al.*, 2001);
- Foundries: Grinding, moulding, shake-out, and core room (DOL, 2007b; Myers *et al.*, 1987; Ehrlich *et al.*, 1988; Rees & Weiner, 1994; Esterhuizen *et al.*, 2001);
- Ceramics: Brick, clay, sanitary ware, tiles and pottery (DOL, 2007b; Stanton *et al.*, 1999; Rees & Kielkowski, 1991; Rees *et al.*, 1992);
- Stone or granite cutting, sawing, chipping, grinding and polishing (DOL, 2007b);
- Jewellery manufacturing (DOL, 2007b);
- Glassworks (DOL, 2007b; Stanton *et al.*, 1999);
- Agricultural sector: Burning of fields and crops (DOL, 2007b);
- Railways: Setting and laying track (DOL, 2007b; Stanton *et al.*, 1999);
- Manufacturing of soaps and detergents; and
- Steelworks (Rees & Murray, 2007; Stanton *et al.*, 1999).

In South Africa new cases of silicosis are still diagnosed in foundry workers, ceramics workers, and engineering and construction workers (Stanton *et al.*, 1999).

7.2.1 Foundries

In 1994, Rees and Weiner (1994) roughly estimated that there were 21 652 foundry workers in South Africa (excluding office staff) who were potentially being exposed to silica dust.

As early as 1988, foundries were in the leading chart with regard to cases of silicosis. Of 217 reported cases of silicosis in the non-mining industries, the foundry industry accounted for 49% cases. The 108 foundry cases of silicosis were distributed as 51% fettling and grinding, 9% sandblasting, 9% moulding, 8% furnace maintenance, 4% sandblasting and 19% others (Ehrlich *et al.*, 1988). Other studies in 1994 showed that 10.3% of 107 workers in South African foundries had pneumoconiosis and that its prevalence increased with the years of service, at 38% for workers with more than 15 years of service (Meyers *et al.*, 1987; Rees, 1994). These studies point to the magnitude of the problem of silicosis in South African foundries. The question today is: what are the levels of personal exposure to crystalline silica in these industries and are there enough control measures in place?

7.2.2 Agriculture

Agriculture is one of the largest employers of both skilled and semi-skilled employees, with a total of about 614 962 permanent and seasonal employees in large-scale agriculture (Stats SA, 2006a). Swanepoel *et al.* (2009) state that South Africa has a large agricultural sector and that to date there has been scant research in South Africa on personal exposure to RCS. It is not known to what extent crystalline silica exposure is a risk in agriculture in South Africa. The results of the three central South African farms studied by Swanepoel *et al.* (2009) revealed that the overall mean time weighted average (TWA) RCS concentration was 0.05 mg/m³, with a maximum of 0.63 mg/m³. Thirteen per cent of the results exceeded the SA DOL-OEL of 0.1 mg/m³; 22% exceeded the National Institute for Occupational Safety and Health (NIOSH) recommended exposure limit (REL) of 0.05 mg/m³; and 46% exceeded the ACGIH TLV-TWA of 0.025 mg/m³.

Looking at the results of the study, it is clear that exposure to crystalline silica poses serious occupational and public health threats to the agricultural sector. The magnitude is not yet known in South Africa; for this reason, this sector deserves further research and investigation.

7.2.3 Construction

In 2007, the construction industry had about 543 686 workers in South Africa (Stats SA, 2008). The types of construction work or construction activities are demolition, building, modifying, renovating and repairs. One of the “healthy worker effects” produced in the construction industry is dust containing silica. Deacon et al. (2005) found that the majority of workers (94%) reported exposure to dust during their entire working history. To what extent is not yet known for construction workers.

7.2.4 Ceramic and pottery industry

A study conducted in a pottery industry found that quartz concentration exceeded the OEL of 0.1 mg/m³ respirable silica dust measured on 43 pottery workers, that the highest was 6.6 mg/m³ in bathroom fitting fettler, and that the proportion of quartz in respirable dust in the workplace air was higher than that reported in an England pottery (Rees *et al.*, 1992). In a similar study, Rees and Kielkowski (1991) found that dust levels in pottery, brickworks and ceramic workplace air are excessive and that occupational lung diseases are not uncommon in South African ceramic workers. Both studies concluded that the problem of high dust concentrations was exacerbated by poor dust control. Both studies seem to suggest that further investigation into the problem should be conducted and that certain pottery workers face a significant current risk of developing pneumoconiosis. A study carried out in a ceramic factory concluded that 1% of workers had possible silicosis and 3% had possible pulmonary TB (Naicker & Kgalamono, 2005).

7.2.5 Sandstone

The results of a study of three sandstone factories in South Africa revealed that the exposures to RCS of carving and bull nosing were five to 48 times higher than the DOL OEL-CL of 0.1 mg/m³. The study also revealed that the material used in the three factories contained a high amount of crystalline silica (Renton, 2007).

No relevant and recent articles or studies could be found for the other mentioned non-mining sectors in South Africa. Research is recommended to determine the extent of the silicosis problem in these sectors.

Researchers around the world have elucidated the fact that silicosis in the non-mining industries is a huge burden to both developing and developed countries and South Africa is not immune to the problem. The burden has been escalated by poor dust control practices and poor enforcement of silica dust exposure standards and regulations (Greenberg *et al.*, 2007; Esterhuizen *et al.*, 2001).

Cases of silicosis in the non-mining industries reported to the Compensation Commission under COIDA for 1996, 1997 and 1998 were 59, 93 and 95 cases respectively (Jeebhay & Jacobs, 1999). There was an increase of 36 cases in the period interval of three years, which suggests a serious public health concern in the South African non-mining industry.

From 1991 to 2004, the National Institute for Occupational Health (NIOH) Occupational Medicine Clinic diagnosed cases of silicosis in the non-mining industry and its results were that 55% of silicosis cases over this period were found in the foundries, 13% in pottery (1% higher than in 1997), 12% in the refractory industry (5% lower than in 1997), 6% in engineering, 5% in stone crushing (4% higher than in 1997), 4% in construction (1% higher than in 1997), 2% in chemical industries, and 0.5% in the glass industry (0.5% lower than in 1997) (Stanton *et al.*, 2006; Stanton *et al.*, 1999).

The DOL associates the different types of silicosis with certain occupations and length of exposure (DOL, 2007a):

- Acute silicosis: Sandblasting, surface drilling, tunnelling, silica flour milling, ceramic making and grinding;
- Accelerated silicosis: Silica flour mill operations, sandblasting and other mechanical and crushing operations; and
- Chronic silicosis: Exposure to crystalline silica over long periods, over ten years of exposure to dust that contains 18-30% crystalline silica.

8. Types and number of non-mining industries and companies where silica is handled

On the basis of enabling output 1, the following non-mining industries and companies that could expose workers to silica dust in South Africa were identified. The names and contact details of the identified companies are attached as Appendix A at the end of this report. This information was sourced from a variety of national and provincial departments of labour and agriculture, and different association databases of some of the companies.

8.1 Foundries

Approximately 205 foundries were identified, most of which were located in Gauteng, Western Cape and KwaZulu-Natal. Foundries (foundry sands and steel manufacturing; silicon and ferrous production; and non-ferrous application) consume 51% of silica in South Africa (Agnello, 2004). Out of 83% of cases of silicosis in the South African non-mining industries, foundries accounted for 51% (Myers *et al.*, 1987; Rees & Weiner, 1994).

A foundry is a factory where metal castings are produced. There are ferrous and non-ferrous processes involved in producing these castings. The ferrous process contains irons such as high chrome and grey irons. The non-ferrous process does not contain irons or shining steel such as aluminium, copper, bronze or brass. In foundries sand is used in the casting process and this sand can sometimes contain silica.

The processes that agitate dust in foundries are shakeout, mixing and other processes that fracture sand into respirable dust; thereafter, cleaning and finishing release dust into the air. Cleaning the air nozzles in machineries and workstations is a significant dust source. The finishing process can release various amounts of dust into the air, depending on whether the process involves grinding, blast cleaning or coating.

Occupations or jobs associated with high silica dust exposures in foundries are grinders, chippers, and cut-off saw operators, shakeout operators, continuous mixer operators, shot blast operators and muller operators (Boyd & Klempner, 2000; Bastian & Alleman, 1998).

8.2 Ceramic/Pottery companies

A total of 41 companies were identified in this review, mostly from Western Cape and Gauteng. Out of 83% of all cases of silicosis in the non-mining industries, 13% were from the ceramic industry. Ceramics are produced by applying heat to naturally occurring rocks and minerals to produce or form a rigid product. The processes involved are clay preparation, which involves finding the clay and preparing it; wedging, which is the process of mixing the clay with water and forming; drying; and leatherhard (a refining process in pottery before the pot completely dries up). During these processes workers are exposed to silica if the clay contains crystalline silica.

8.3 Refractory companies

Thirty-nine refractory companies were identified. Refractory materials or fire bricks are produced from a mixture of clay and crushed rocks that are baked in coal fire kilns (Chinh Chien *et al.*, 2002). Exposure to high quartz content happens during the manufacturing of refractory bricks and during the renovation of kilns with refractory insulation. In the US in factories manufacturing bricks, a quartz level of 0.45 mg/m³ has been measured (IARC, 1997).

Refractory ceramic fibres are mainly aluminium silicate fibres, but, when heated to about 1100 degrees Celsius, these fibres form cristobalite. Refractory brick or fire brick is a block of refractory ceramic material used in lining furnaces and kilns. It is built primarily to withstand high temperature and also has a low thermal conductivity to conserve energy. It retains its strength at high temperature. The most important materials used in the manufacturing of refractory are silicon (silica), aluminium (alumina) and magnesium (magnesia) and it is in the use of these materials that workers are exposed to silica dust.

8.4 Sandblasting/Abrasive blasting companies

Forty-five sandblasting companies were identified in this category. Sandblasting is the operation of cleaning or preparing a surface by propelling abrasive material against it. This is mainly carried out to smoothen and remove surface contaminants or to roughen the surface, and also to strip dirt, rust and paint from the surface of the object.

Siliceous sand is used as an abrasive in cleaning metal surfaces before finishing operation. Dust levels are very high in sandblasting. In a study conducted in the US, the mean quartz level outside the hood was 4.8 mg/m³ and inside the hood it was 4-80 times the OEL (IARC, 1997). Sandblasting also exposes other workers working at a distance of up to 700 m in open areas.

8.5 Agricultural companies

One-hundred-and-forty-one farming companies were identified in the agriculture category. These companies were mainly involved in exporting grains and crop produce, and were selected for the review because of their frequency of ploughing and the frequency of worker exposure to dust. Exposure to silica dust in agriculture occurs mostly during harvesting, ploughing, weighing and sorting potatoes, crop processing and potato transplant. Workers working in sandy or sandy loam soils are widely reported to have a higher exposure to silica dust than those working in clay soil.

8.6 Construction companies

Two-hundred-and-sixty-eight construction companies were identified, which included general building contractors, home builders, civil engineering contractors, industrial building companies, roofing contractors, and maintenance and repair, block paving, earth works and tunnel construction, and road construction companies.

Construction workers, particularly those that are involved in the cutting, grinding, or drilling of concrete, brick and stone, can be exposed to excessive amounts of RCS (Croteau *et al.*, 2004). Although cement does not contain quartz, the concrete dust may contain high levels of RCS. A study by Croteau *et al.* (2004) revealed that silica exposure during surface grinding was 22% higher than the eight-hour TWA OSHA PEL for RCS with local exhaust ventilation in place. Dry grinding and cutting holes in concrete floors or walls, especially in an enclosed area, can expose workers to 4.35 mg/m³. Riala (2002) states that workers in house renovation of concrete element could be exposed to quartz of up to 6 mg/m³ in a very dusty grinding process.

8.7 Sandstone companies

Twenty-three sandstone companies were identified; these included manufacturers and suppliers of sandstones. Sandstone is a sedimentary rock composed mainly of quartz. Sandstone is mined in quarries, using methods which split the sandstone rock and extract sandstone blocks of stone from the ground. These blocks are then handed to sandstone sawyers who cut the sandstone blocks into cubes, which are then taken to a sandstone banker manson for surface grinding and polishing, edge-cutting or trimming.

During the process of sawing, surface grinding, polishing, edge cutting or trimming/carving, high levels of dust are released. If the stone contains silica, workers are at risk of contracting silicosis.

There are also approximately 21 companies with cases of silicosis reported to the DOL blitz inspection reports.

A total of 783 companies were identified in this literature review. There could, however, be more companies in South Africa where workers are exposed to RCS.

9. Prevalence of silicosis per type of industry and occupation

“Prevalence” is defined as the total number of cases of the disease (silicosis) in the population at a given time, or the total number of cases (of silicosis) in the population, divided by the number of individuals in the population (non-mining industries). The prevalence of a disease is mostly used to estimate how common the condition is in a population over a certain period of time.

From 1996 to 1998 there were 1098 cases of occupational lung diseases associated with exposure to silica dust reported to the Compensation Fund. The prevalence of the reported cases of silicosis among all occupational lung diseases associated with exposure to silica dust in 1996, 1997 and 1998 was 18%, 28% and 22%, respectively (Jeebhay & Jacobs, 1999). This demonstrates that silicosis was the second-most-common cause of occupational lung diseases associated with exposure to silica dust in non-mining industries; with TB being the most common (see Table 2). Silicosis showed a steady increase in number of cases from 1996 to 1998. This could also be attributed to the improved reporting of cases, rather than to new cases (see Table 2).

Table 2: Prevalence of cases of silicosis reported to the Compensation Fund from 1996 to 1998

Occupational Disease	1996	1997	1998	Total	%
Tuberculosis	205	231	306	742	67%
Silicosis	59 (18%)	93 (28%)	95 (22%)	247	23%
Pneumoconiosis	52	-	4	56	5%
Fibrosis of the lungs	14	-	1	15	1%
COPD	0	9	29	38	4%
Total	330	333	435	1098	100%

In the period 2000-2003 there were 3729 cases of respiratory diseases reported to the Surveillance of Occupational and Work-related Respirable Diseases in South Africa (SORDSA). Of these, 662 (18%) were from the non-mining industries; pneumoconiosis constituted 18% of the 662 cases reported. Out of 120 cases of pneumoconiosis, 44 (38%) were caused by silica (Sawry, Rees & Kielkowski, 2006).

9.1 Prevalence by industry

There were 2010 cases of pneumoconiosis (asbestos/silicosis) reported to the Compensation Fund from 1999 to 2009. There was no clear indication of which industries these diseases were from. A total of 279 cases of pneumoconiosis reported to SORDSA were from construction; foundries and

metal refineries; ceramics, pottery and brick production; and other manufacturing and industries not specified (see Table 3).

Table 3: Cases of silicosis per non-mining industry in South Africa

No	Industries	NCOH (2004-09)		SORDSA (1999-2000)		NCOH (1991-97)		Ehrlich (1988)	
		No:	%	No:	%	No:	%	No:	%
1	Foundries	6	25	32	35	65	54	108	50
2	Iron and Steel	2	8	10	11	-	-	-	-
3	Construction	1	4	9	10	4	3		
4	Ceramic/Pottery	3	13	12	14	15	12	29	13
5	Sandblasting	-	-	5	6	-	-	2	1
6	Agriculture	3	13	-	-	-	-	-	-
7	Refractories	-	-	-	-	20	17	23	11
8	Sandstone/ Stone Crushing	-	-	-	-	2	2	20	9
9	Other	9	37	22	24	17	12	35	16
	Total	24	100	90	100	121	100	215	100

9.2 Prevalence by occupation

A silicosis reporting and recording system in South Africa has proved to be lacking; as a result, information relating to occupations associated with silicosis is scarce. However, occupations widely reported to be associated with high silica dust exposure are presented in Table 4.

Cases reported to the National Centre for Occupational Health (NCOH) from 1999 to 2000 showed that operator/production workers had the highest number of exposed workers (39), followed by labourers (32), artisans with nine, and other industries with only eight exposed workers (Esterhuizen, 2000).

Table 4: Industries and occupations associated with exposure to silica

Industries	Occupations
Foundries	Grinders, chippers, cut-off saw operators, shakeout, continuous mixing operators, shot blast operators, Muller operators, cleaners of sand, maintenance, fettling and furnace reliners (Boyd & Klempner, 2000; DOL, 2007c; Riala, 2002; Luong & Van Hai, 1999)
Ceramic and potteries	Mixing, mouldings, glaze/enamel spraying, glaze preparations, furnace operators, warehouse man, sculpting, firing and finishing jobs (IARC, 1997; DOL, 2007c)
Sandblasting	Sandblasting operators and cleaners
Construction	Heavy machine drivers (bulldozer), drilling operators, power cleaners, brick layers, concrete mixers, abrasive blasting of structures and building, building demolition workers, jack hammering, excavation and earth moving, and dry sweeping (DOL, 2007c). Plastering, paving and roofing with tiles made of silicosis materials
Agriculture	Tractor drivers during ploughing and harvesting, harvesters, crop-processing activities, potato sorting and weighing workers, and cultivating activities (Stopford & Stopford, 1995; IARC, 1997)
Refractories	Workers involved in manufacture of bricks and during the renovations of kilns with refractory insulation (Riala, 2002)

10. Incidences of silicosis per type of industry and occupation

“Incidence” is the measurement of the risk of developing some new condition (silicosis) within a given period of time. This could be easily explained as a measurement of the number of new individuals who contract a disease (silicosis) in a given period of time.

Incidences of silicosis from non-mining industries reported to the NCOH from 1991 to 1997 and 1999 to 2000 were 121 and 90, respectively. Incidences of confirmed cases of silicosis from non-mining industries reported to the NCOH from 2000 to 2003 and 2004 to 2009 were 44 and 24 cases, respectively (see Table 3) (Sawry, Rees & Kielkowski, 2006; Esterhuizen, 2000).

There were steady declines for both the reported and confirmed cases of silicosis in the non-mining industries up to 2009. However, the decline in the number of these cases might not necessarily mean

a decline in the actual number of silicosis cases, but could be the result of poor diagnosis and reporting of cases of silicosis in South Africa.

Table 5 indicates the frequency or the incidences of pneumoconiosis and other respiratory diseases associated with silica dust exposure from non-mining industries reported to the Compensation Fund per year, from 1999 to 2009. These cases were extrapolated from the Compensation Fund annual reports, where pneumoconiosis was reported as being the result of both asbestos and silicosis. Occupations and industries associated with the diseases were not reported in the annual reports and efforts to obtain the database from the Compensation Fund failed.

Table 5: Occupational diseases associated with exposure to silica dust reported to the Compensation Fund for the period 1999 – 2009

No	Occupational Disease	1998/1999	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009
1	Asbestos/Silicosis	246	276	193	182	-	-	-	-	-	-	-
2	Pneumoconiosis	-	-	-	-	302	189	109	261	172	102	87
3	TB/TB of the lungs	353	225	211	500	384	384	323	119	69	54	22
4	COAD/COPD	-	-	-	-	-	17	13	30	10	15	12
5	Lung cancer	-	-	-	-	-	4	1	8	9	5	3

Note: COAD – Chronic Obstructive Airway Diseases

11. Statistics on annual number of deaths from silica-related diseases per year, type of industry and occupation

Diseases of the respiratory systems were recorded as the second-most-common group of diseases that caused death in South Africa, at about 14.2%. This was out of 607 184 deaths reported to the Department of Home Affairs in 2006. A death notification form was used in each case reported to the department, mainly to determine the cause of death and categorise the death as natural or non-natural. In terms of the Inquests Act (Act No. 58 of 1959), deaths are subjected to medico-legal investigation. An autopsy is performed to establish the cause of death, and an inquest is compulsory. The results of the inquest are sent to the Department of Home Affairs in a notification form, and the department issues the final death certificate (Stats SA, 2006b). TB, influenza/pneumonia, and HIV were the top leading multiple causes of deaths in South Africa for the period 1997-2001(Stats SA, 2002).

In 2000, the South African National Burden of Diseases Study (SA NBD) estimated a total number of 521 082 deaths in South Africa. Of these, 71 470 (13.7%) were caused by silica-related diseases (i.e. TB, lower respiratory infection, COPD and trachea/bronchi/lung cancer). The distribution of the number of deaths caused by these diseases was TB (40%), lower respiratory infection (32%), COPD (18%) and, lastly, trachea/bronchi/lung cancer, at 10% (see Table 6) (Norman *et al.*, 2006).

Table 6: Estimates of deaths caused by silica-related diseases in South Africa, 2000

No	Cause of deaths	No. of deaths	%
1	Tuberculosis	28 907	40%
2	Lower respiratory infections	22 910	32%
3	Chronic obstructive pulmonary disease (COPD)	12 768	18%
4	Trachea/bronchi/lung cancer	6885	10%
	TOTAL	71 470	100%

Both the Statistics South Africa report and the SA NBD study estimated that respiratory diseases caused 14.2% and 13.7% of deaths for the periods 2000 and 2006, respectively. These statistics may include non-occupational diseases and also mining occupational diseases.

Again there was no data available to show the number of deaths caused by silica-related diseases in non-mining industries in South Africa. As shown above, a number of respiratory diseases had contributed to the number of deaths in South Africa in the past years. The reporting system is currently not capable of providing detailed information on the specific diseases that cause deaths. Most of the autopsy results classify deaths as natural or non-natural, and do not specify type of disease, industry, and occupation and whether the death was connected to any occupational exposure to occupational diseases.

12. Total number of workers eligible for silicosis compensation and those that are compensated per year, type of industry and occupation

Compensation for silicosis (occupational diseases) in non-mining industries in South Africa is regulated by the OHSA, section 25 and the COIDA, and is administered by the compensation commissioner of the DOL. The legislation was signed into South African law effective from 1 March

1994, to provide compulsory compensation for all employees under contract of employment for death or personal injury suffered in the course of their employment. It replaced the Workmen's Compensation Act, 1941 (Act No. 30 of 1941). The Act is designed to offer protection for all workers under a contract of employment, and provides for the payment of benefits to the worker or his dependants if he is injured or dies in the course of his duties. The injury or illness or death must arise from the occupational exposure to silica dust in terms of silicosis. Crystalline silica (alpha quartz) is also listed in schedule 3 of the COIDA.

It is internationally recognised that compensation for occupational diseases (ODs) is more complex than for accidents (Barth *et al.*, 1980; Goodman *et al.*, 1994). This problem is exacerbated by poor reporting of ODs in South Africa, especially in non-mining industries (Rees *et al.*, 2001). From 1999 to 2009 there were approximately 38 107 ODs reported/finalised at the Compensation Fund. Of these, about 2010 (5.3%) were cases of pneumoconiosis, which was reported to have been caused by asbestos and silicosis (see Table 5). In 1994, it was reported that there were approximately 90 (0.4%) ODs compensated for every year and that occupational lung diseases were responsible for 60% of these ODs (Goodman *et al.*, 1994).

From the annual reports obtained from the Compensation Fund it is clear that there is poor reporting of silicosis cases in South African non-mining industries, thus making it difficult to win the war against silicosis or to measure the progress of the National Programme for the Elimination of Silicosis (NPES) in South Africa. The success of the NPES depends on the good management of silicosis in South Africa, which includes an improved reporting strategy for both non-mining industries and the Compensation Fund, good record keeping of all ODs and improved follow up of all cases of silicosis, including the repudiated cases.

It could not be established which industries were mostly contributing to these reported cases, apart from the SORDSA cases where construction; agriculture; foundries and metal refineries; ceramics/pottery and brick production; and other manufacturing and industries not specified were identified (see Table 4). No specific occupations and industries were reported to have been associated with the cases of pneumoconiosis reported to the Compensation Fund.

Table 7: Total number of pneumoconiosis cases reported and finalised by the Compensation Fund from 1999 to 2009

Year	Total Occupational Diseases	Pneumoconiosis (Asbestos/Silicosis)	%
1999	5661	246	4.35

2000	4387	276	6.29
2001	3361	193	5.74
2002	3226	182	5.64
2003	4492	302	6.72
2004	5358	189	3.53
2005	-	-	-
2006	4564	261	5.72
2007	3720	172	4.62
2008	1443	102	7.07
2009	1895	87	4.58
Total	38 107	2010	Ave: 5.3%

There was no data to indicate the numbers of silicosis cases that were compensated and those that were outstanding because of the unavailability of statistics for silicosis and also poor diagnosis and reporting of cases of silicosis in South Africa in general. It is not even known how many of the reported cases of pneumoconiosis have been compensated. All that is known is that in 2008 out of a total of 1 019 036 accepted claims (for both ODs and accidents), 88% of claims (901 384) were compensated while about 117 652 claims were not compensated simply because the nature of injuries did not qualify the workers to be compensated (DOL, 2008).

13. Programmes that are aimed at eliminating silicosis in non-mining industries in South Africa

13.1 Data collection

A survey was conducted with the objective of obtaining information on programmes in place for the elimination of exposure to silica dust in non-mining industries.

The data was collected via telephonic conversations and personal visits to randomly selected non-mining companies on the DOL list of non-mining industries. A questionnaire with six questions relating to the different aspects of a silicosis prevention programme was administered by the researcher. A total of 68 companies were selected representing all provinces of South Africa (Table 8).

Table 8: Distribution of surveyed non-mining industries per province

Industries	GP	KZN	WC	LIMP	MP	FS	NW	EC	NC
Foundries	4	1	1	0	0	1	1	0	0
Ceramics/potteries	3	2	0	1	0	1	1	0	0
Refractories	3	3	0	0	1	0	0	0	0
Sandblasting	2	1	2	1	0	0	1	0	0
Sandstone	3	2	3	2	0	1	0	0	0
Agriculture	0	0	1	1	0	3	2	0	1
Construction	3	1	1	1	1	1	1	0	0
Others	4	3	0	0	0	2	0	0	0
Total	22	13	9	6	2	9	6	0	1

Note: GP=Gauteng Province, KZN= Kwa-Zulu Natal, WC=Western Cape, LIMP=Limpopo, MP=Mpumalanga Province, FS=Free State Province, NW=North West, EC=Eastern Cape and NC=Northern Cape

The industries represented in the sample were foundries, ceramics/potteries, sandblasting, sandstone, agriculture and construction. The foundries were found to be the most advanced in their use of silicosis prevention programmes. The average number of workers employed by eight selected foundries was 132 employees. No figures were found for the rest of the industries as they were not willing to share the information, and the industries referred the research team to the DOL for the information.

For each company selected from the industries, the questions were asked of someone in the company who had knowledge of occupational health and safety in the respective companies, usually the Safety Health and Environmental Officer, Health and Safety Unit managers and managers of the companies.

The questions asked during each interview sought information on whether the companies had a documented silicosis prevention programme in the workplace and the programme was requested if available, whether they conduct dust monitoring with the help of an AIA, whether medical surveillance and training of employees on silicosis in their workplace takes place, and which silica dust control methods are being used to control worker exposure.

13.2 Results and discussion

13.2.1 Programmes available to eliminate silicosis

The results of the survey show that non-mining industries in South Africa predominantly do not have a documented programme in place aimed at eliminating worker exposure to silica dust. Some of the companies representative respondents had knowledge of silicosis and the impact of silica dust on their co-workers' health; they had received the information through DOL inspectors during routine inspections. Indications are that the information is primarily disseminated by the NIOH regarding silicosis. Only one Foundry Company could recall what an NPES or Global Programme for the Elimination of Silicosis (GPES) was all about; this was because they had once attended a workshop at which they had been given pamphlets. Even though there was not a single company that had a signed and documented programme or policy on the elimination of silicosis, there were activities undertaken that contributed to the reduction of worker exposure to silica dust, and the elimination of silicosis and other silica-related diseases.

13.2.1.1 Risk assessment

Thirteen per cent of the company representatives interviewed for this study reported having conducted dust measurements once or twice in the past ten years using AIAs services. Only three of these companies could provide copies of the reports. The results are similar to the study conducted in Limpopo dust-generating workplaces where it was found that 18 hazard identification and risk assessments (HIRAs) were carried out, but only 14.9% were conducted by an approved inspection authority (Dambisya & Modipa, 2007). The majority of the industries approached mentioned the fact that engaging AIAs was too expensive for small businesses.

13.2.1.2 Medical surveillance

Medical surveillances were carried out in 29% of all companies; however, most surveillances focused on a curative rather than preventive approach. Most of the medical services available in these companies assess those who are injured during their working period and refer them to the nearest private doctor or public healthcare facility for further examination and medication. It was acknowledged that assessment of occupational diseases (silicosis) was very complicated and often required sophisticated technology, time and expertise. This meant that patients were often referred to the National Centre for Occupational Health (NCOH).

13.2.1.3 Training

Training on silica dust and its health effects was offered extensively in three (4%) companies; in other companies training and inductions were given but these often concentrated on occupational injuries and production issues rather than occupational diseases. Safety Health and Environment Officers (SHE) are responsible for the training; some of these officers acknowledge that they lack information on silicosis and that they would welcome any training on silicosis in the future. Dambisya and Modipa (2007) reported that 59.7% of workplaces they investigated had educated their employees on the dangers of dust, but that there were some employers who said they did not know about silica dust and its associated health effects (Table 1).

The outcomes of this short survey were similar to those of the survey conducted in the Limpopo dust generating companies, which reported that practices advocated for silicosis prevention were poorly observed in most of the workplaces and that measures such as education for employees on health hazards of dust and medical examinations were not taken in the majority of workplaces (Dambisya & Modipa, 2007).

A total of 46% of companies reported having taken dust measurements and undertaken medical surveillance and training in their workplaces, although these were not consistent in terms of following a programme, monitoring the exposure improvements and compliance with legislations. Fifty-four per cent of those industries directly refused to answer the questions, did not conduct any of the above programmes, did not answer calls, promised to come back to the researchers but did not, or said that their SHE officers were on leave. Lack of a comprehensive programme on worker exposure to silica dust and a commitment from the management on this type of programme is a problem in the non-mining industries, as this type of programme helps to evaluate and monitor the silicosis progress made over a period of time.

The results of the survey are summarised in Table 9.

Table 9: Programmes aimed at eliminating silicosis in the non-mining industries in South Africa

Industries	Documented programme on silicosis	Dust measurements	Medical surveillance	Training on silicosis	Total sample
Foundries	0	3	6	1	8

Ceramics	0	0	0	0	8
Refractories	0	0	4	0	6
Sandblasting	0				8
Sandstones	0	3	3	2	10
Agriculture	0	1	2	0	8
Construction	0	2	6	0	11
Others	0				9
Total	0 (0%)	9 (13%)	20 (29%)	3 (4%)	68

Note: 0= Not available and Blank=Not sure

13.3 Dust control methods used in non-mining industries

13.3.1 Personal protective equipment

Respiratory protective devices (RPDs) were used by 80% of the companies that responded to the questions. Most of the companies use FFP2 dust masks recommended for dusty environments. Some of the companies visited did not use this equipment at all. In Dambisya and Modipa's (2007) study, it was reported that employers accused employees of not being cooperative regarding the wearing of PPE and that employees said that PPE was only provided when DOL inspectors arrived to carry out their routine inspections.

13.3.2 Wetting technique

Half (50%) of the respondents reported that they made use of the wet method of dust suppression to control dust in their workplaces. After visiting some of the industries that recorded a high percentage in terms of using this method, such as foundries and ceramics, it were discovered that mixing water and sand was part of the production process that had to be followed (Table 10).

13.3.3 Mechanical ventilation

Approximately 30% of the industry respondents reported that they used mechanical ventilation that included fans and extraction fans or hoods to control excessive dust in the workplace. No evidence of monitoring of the effectiveness of interventions was found from the survey. The results of the methods of dust control employed in the industry are summarised in Table 10.

Table 10: Methods of dust control employed per method

Industries	Mechanical ventilation	Wet method	RPDs	Total sample
Foundries	6	8	5	8
Ceramics	0	6	4	6
Refractories	0	0	5	5
Sandblasting	0	0	4	4
Sandstones	4	0	4	5
Agriculture	2	0	4	8
Construction	N/A	8	10	11
Others	5	6	9	9
Total	17 (30%)	28 (50%)	49 (80%)	56

Note: 0 = Not available, and N/A = not applicable

14. Conclusion

Comprehensive and recent information in the area of silicosis is lacking in South Africa. Some of the published statistics regarding the disease are skewed by poor diagnosis and reporting bias.

The paucity of silicosis information from non-mining industries in South Africa made it difficult to compute a silicosis prevalence value and the incidence rate for the entire sector of non-mining industrial workers in South Africa. Where a number was provided there was a lack of information regarding the denominator.

There was also a lack of cooperation from the officials of the Department of Labour. The blitz inspection reports and the database from the Compensation Fund could have added value to this report had we received them.

The non-mining industries did not have any written or documented programme aimed at eliminating worker exposure to silica dust in South Africa. However, there were some activities that could assist in reducing exposure to silica dust rather than eliminating it. These activities should focus on preventing exposure to silica dust or any injuries and should also be able to evaluate and monitor the impact made by the programme. The availability of a programme that involves commitment from the management, employees and trade unionists is crucial for the elimination of silicosis in South African non-mining industries.

No informative contemporary data was found on silicosis in non-mining industries in South Africa. The data of worker exposure to respirable crystalline silica levels in non-mining industries is inadequate. This hinders the efforts of the NPES in South Africa. There is a huge need for dust measurements in all non-mining industries in South Africa to determine the worker exposure levels of both total and respirable silica dust.

Despite the limitations, the figures and information presented in this report provide some insight into the magnitude of silicosis in the non-mining industries in South Africa.

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16. Appendix A: Database of non-mining industries in South Africa with the potential of exposing workers to silica dust

16.1 Foundries

No.	Company Name	Contact Person	Contact No:	Postal Address	Residential address
1	ECLIPSE EAST PLANT		Tel: 011 747 5042 Fax: 011 421 4943	PO Box 5017 Benoni South 1502	15 Birmingham Road Benoni South Industrial Sites Gauteng
3	ECLIPSE WEST PLANT		Tel: 011 744 7518 Fax: 011 845 3604	PO Box 5039 Benoni South 1502	Cnr. Birmingham and Lincoln Road Benoni South Industrial Sites
4	SCAW FOUNDRY BOKSBURG		Tel: 011 914 8600 Fax: 011 914 1487	PO Box 223 Boksburg 1460	13 Barry Street Boksburg Gauteng South Africa
5	DIMBAZA FOUNDRY		Tel: 040 656 2050 Fax: +27 040 656 2263	PO Box 473 King Williams Town 5601	Cnr. Jongilanga and Siwani Streets Dimbaza Industrial Sites Dimbaza King Williams Town
6	SHEERLINE ALUMINIUM SYSTEMS		Tel: 021 7041802 Fax: 021 7032000		25 Harris Drive Sunset Industrial Park Ottery Cape Town

7	COTTAGE CASTINGS PAARDENEILAND		Tel: 021 5119242 Fax: 021 5112066		3 Bridgewater Street Paardeneiland Cape Town
8	ALLCAST FOUNDRY PAROW		Tel: 021 9327141 Fax: 021 9322901		14 Stellenberg Road Parow Industria Cape Town
9	PROTEA BRASS FOUNDRY CASTINGS SALT RIVER		Tel: 021 9327141 Fax: 021 9322901		116 Voortrekker Road Salt River Cape Town Western Cape
10	JOERG FOUNDRY (PTY) LTD	Fred Kruger	Tel: 014 538 1014 Fax: 014 538 1024	P.O. Box 1456 Rustenburg 0300	13 Vanadium Street Border Industrial Rustenburg
11	NORTHERN FOUNDRIES CC			P.O. Box 383 Louis Trichardt, 0920	6 Unikas St
12	ZESTCOR FOUNDRIES	MD: Enrico Pantènè	Tel: 057 352 7301/2 Fax: 057 352 2176	P.O. Box 663 Welkom 9460	4 Half Street Welkom
13	AINSWORTH ENGINEERING	Piet Viktor	Tel: 011 828 9900 Fax: 011 828 0031	P.O Box 1122 Southdale 2135	339 Main Reef Rod,knights Germiston, Gauteng
14	ALLCAST FOUNDRY	Andre Knoop	Tel:021 932 7141 Fax:021 932 2901	P.O. Box 1506 Parow 7499	14Stellenburg Road parow industria
15	AUTO INDUSTRIAL FOUNDRY	Tim Christopher	Tel: 011 824 3616 Fax: 011 824 3605	P.O Box 14025 Wadeville 1422	2 Gathrie Road Wade ville Gauteng
16	BAC FOUNDRIES CC	Jaco Van Niekerk	Tel: 018 7681114/2534 Fax:018 786 1988	P>O Box 973 Carltonville 2500	26 Kleim street New Industria Area Free State

17	CAST FOUNDRY	Herman Olivier	Tel: 051 435 3196 Fax: 051 435 4507	PO Box 28386 Danhof 3190	50 Tannery Road, Hamilton, Bloemfontein, Free State
18	CB FOUNDRIES CC	Charlie Buchholz	Tel: 016 362 1285 Fax: 016 362 1285	PO Box 264943 Three Rivers 1935	50 Gallaway street Meyerton
19	CME FOUNDRY	Stuart Norris	Tel: 021 531 6591 Fax: 021 531 2061	Po Box 4 Eppindust 7475	Grenville Avenue, Epping, W cape
20	CONCORDE FOUNDRY PTY LTD	Thys Strydom	Tel: 016 421 3100 Fax: 016 421 3100	PO Box 313 Vereeniging 1930	4 Kelvin street, Vereeniging, Gauteng
21	ELMACAST FOUNDRIES	Koos Cronje	Tel: 011 818 3511 Fax; 011 363 1213	PO Box 751 Springs 1560	Hasset Road Nuffield Springs, Brakpan, Gauteng
22	E'S FOUNDRY CC	Ernie Cronje	Tel: 012 711 0652 Fax: 012 711 0652	PO Box 179 Pyramid 0120	Polt 1 leekraal, Hamanskraal
23	ELCAST FOUNDRY	Tony Cartledge	Tel: 031 205 1461 Fax: 031 205 7097	P.O Box301 Durban 4000	10 Bremen Road Bay head, Durban, KZN
24	ETS FOUNDRY	Tony Payn	Tel: 021 531 9330 Fax:021 531 7096	P.O Box 449 Eppindust 7475	15 moody avenue, epping, W Cape
25	FA FOUNDRY	Scott Gordon	Tel: 011 613 3686 Fax: 011 623 1916	P O Box 833390 Southfield 2136	169 South Rand Rd, Tulisa Park, Gauteng
26	ACI PRODUCTION	Henry Peng	Tel: 012 703 6025	P.O Box9111500	Stand116 Seventh St, Garakuwa,

			Fax: 012703 7245	Rosslyn 0200	Industria Area North West
27	AG DIECASTING	John Ferguson	Tel: 011 824 3311 Fax: 011 824 3311	P.O Box 145751 Brackerngardens Alberton	17 makriel Street,Wade ville ext 2, Gauteng
28	AJAX MANUFACTURING CO	Charles Rowe	T el: 021 511 8267 Fax: 021 511 4490	P.O Box 165 Paarden Eiland 7420	75 Auckland Street,Paarden Eiland, W cape
29	ALBRAS FOUNDRY	Rolf Schulthess	Tel:011 493 6680 Fax: 011 493 2547	P.O Box 38958 Booysens 2016	42 Hay St,Ophirton,Gauteng
30	ALCUTECH CC	John Smith	Tel: 011 892 5824/5 Fax: 011 892 5804	P.O Box 8888 Cinda Park 1463	48 Tile Road Muswelldale, Boksburg,Gauteng
31	ALUCAST	Craig baarman	Tel: 041 402 8800 Fax: 041 402 8800	P.O Box 14368 Sidwel 6061	Spondo Road, Struandale, Port Elizabeth E Cape
32	ALUMACAST	Terry Brooks	Tel: 012 804 6664 Fax: 012 804 6961	P.O Box 1487 Silverton 0127	112 Fascia St, Silverton, Gauteng
33	ALUMADIE	Ian Watkins	Tel: 011 392 3524 Fax: 0113923595	P.O Box 1242 Isando 1600	96 Lopper Avenue, Spartan Ext 2, Kempton park, Gauteng
34	AMRON INDUSTRIES	Vanessa Jong	Tel: 033 342 5869 Fax: 033 342 4381	P.O Box 1602 Pietermaritzburg, KZN	273 Boom Street , PMB KZN
35	ANDRAG AGRICO	Theo Andrag	Tel: 021 950 4111 Fax: 021 919 8641	P.O Box 364 Bellville 7535	Labelle Road, stikland W Cape

36	ARCADIA ENGINEERING	Danie Van Schaklwyk	Tel: 043 722 6071 Fax: 0437226094	P.O Box 369 East London 5200	8 Bowles Road, Arcadia, East London, E Cape
37	ASSA ABLOY SA PTY LTD	John Middleton	Tel: 011 761 5000 Fax: 011 763 4500	P.O Box 146 Roodepoort 1725	176 Progress Road, Roodepoort Gauteng
38	ATLANTIS FOUNDRIES PTY LTD	John McEwan	Tel: 021 573 7200 Fax: 021 573 7296	P.O Box 1701 Dassenberg 7350	William Gourlay Street, Atlantis Industria, W Cape
39	ATS	Eddie Keizan	Tel: 012 797 1000 Fax: 012 797 1090	P.O Box 447 Hammanskraal 0400	111 3 rd Street Babelegi, Gauteng
40	AUTOCAST BRITS	Leon Van Der merwe	Tel: 012 250 2920 Fax: 012 250 3057	P.O Box 1031 Brits 0250	15 Piet Pretorius, Industria sites Brits North West
41	AUTOCAST PORT ELIZABETH	Alan Mcwilliam	Tel: 041 405 5500 Fax: 041 451 2037	P.O Box 1815 Port Elizabeth 6000	Corner of Stanford Road and Newbolt Street, Neave Industrial, Port Elizabeth
42	BABCOCK NTUNTHUKO POWER LINE	Kevin cain	Tel: 011 739 8200 Fax: 011 739 8201	P.O Box 274 Nigel 1490	Bickly Road, Pretoriusstad, Nigel, Gauteng
43	BELMEC DIECASTING	Johan Blomerus	Tel: 041 992 6004 Tax: 041 992 6334	P.O Box 2298 North End, PE 6056	6 Pasteur Rd, Jagtvlakte Industrial Area Utenhage, E Cape
44	BETA CASTINGS CC	Monty Plenderleith	Tel: 011 892 0452 Fax: 011 892 1543	P.O Box 15484 Impala park 1472	66 All Black Road, Anderbolt, Boksburg North, Gauteng
45	BOKSBURG	Dave Hepworth	Tel: 011 422 4430	P.O Box 2	13 Apex Road, Apex, Benoni,

	ALUMINIUM PTY LTD		Fax: 011 422 4421	Boksburg 1460	Gauteng
46	BORBET SA PTY LTD	Martin Coetzee	Tel: 041 404 1500 Fax: 041 463 1366	P.O Box 419 Port Elizabeth 6000	11 Kohler Road, Perseverance Port Elizabeth, E Cape
47	BOSCHPICK ENGINEERING PTY LTD	Fred Peens	Tel: 034 375 7281 Fax: 034 375 6006	Private Bag X6616 Newcastle	26 Schonland Street Newcastle KZN
48	BP WIGGIL ENGINEERING PTY LTD	Brian Wiggil	Tel: 011 892 3913/4 Fax: 011892 3915	P.O Box 13118 Witfield 1467	44 15 th Avenue, Boksburg North
49	BRISAN TURBO PTY LTD	Brian Stuart	Tel: 013 933 3159 Fax: 013 933 3157	P.O Box 2582 Bronkhorstspuit 1020	Factor yUnit 72/1 Enkandustrial, Bronkhorstspuit,1020 Gauteng
50	CASTCO PRECISION CASTINGS PTY LTD	Robin Portlock	Tel: 021 931 8276 Fax: 021 931 6324	P.O Box 19133 Tigerberg 7505	30 Asseggai Road, Parow Industrial W Cape
51	CASTING & MACHINING SERVICES	Alan Stevens	Tel: 011 828 5520 Fax: 011 828 5300	P.O Box 2068 Benoni 1500	Shaft lane Knights, Germiston, Gauteng
52	CENTRA CAST INDUSTRIES PTY LTD	Mr Ian Long	Tel: 031 207 3451 Fax: 031 209 7416	P.O Box 30121 Mayville 4058	14 Buro Crescent,Mayville, Durban, KZN
53	CERA CAST	Gerald Kloppers	Tel: 053 313 0667 Fax: 053 313 1819	P.O Box 551 Postmasburg 8420	2 Ferro Road, Postmasburg N cape
54	CFW INDUSTRIES PTY LTD	Eddie Raad	Tel: 021 931 8331 Fax: 021 931 3165	P.O Box12142 Parow valley	3 Pain Road Parow Industrial, W Cape

				7505	
55	COBRA WATER TECH PTY LTD	Johan De Witt	Tel: 011 951 5000 Fax: 011 951 8159	P.O Box 1096 Krugersdorp 1740	20 Wright Street, Factoria Krugersdorp, Gauteng
56	CONTINUOUS CAST PRODUCTS CC	Yousuf Mahomed	Tel: 011 825 4513 Fax: 011825 2409	P.O Box 40510 Cleveland 2022	4Moller Street, Industries East Ext. 4,Germiston,Gauteng
57	CR NON FERROUS CASTING	Andrew Angelbrecht	Tel: 011 818 3666 Fax: 011 730 1759	P.O Box 10487 Strubenvale 1570	6 Lear Road, Unit 9, Nuffield Industrial Park Springs Gauteng
58	CROWN CAST PTY LTD	Koos Prinsloo	Tel: 011 894 7171 Fax: 011 894 7111	P.O Box 6120 Dunswart 1508	Cnr Steventon & paul smit Streets, Boksburg, Gauteng
59	DAVID BROWN GEAR INDUSTRIES PTY LTD	Mike Field	Tel: 011 748 0000 Fax: 011421 2963	P.O BOX 540 Benoni 1500	12 Birmingham Road,Benoni Industrial sites, Gauteng
60	DENORCO	Attie Jonker	Tel: 012 719 8696 Fax: 012 719 8584	P.O Box 8136 Edenglen 1613	Factory 3B,sixth Street, Babalegi,Hammanskraal Indurtrial Area, Gauteng
61	DENVILLE FOUNDERS	Mauritz van Niekerk	Tel: 011 452 6955 Fax: 011 609 8088	P.O Box 792 Edenvale 1610	12 Mopedi street Sebenza, Gauteng
62	DIKUNO CASTINGS & METALS	Brian Talbot	Tel: 014 558 3312 Fax: 014 558 3442	PRIVATE BAG X82329 Rustenburg 0300	Conner Unnie & Mbeki Street Rustenburg, North West
63	DONLEE ENGINEERING	Andile Shongwe	Tel: 011 845 3150 Fax: 011 845 4139	P.O Box 5020 Brenthurst 1542	15 capreous Street Vulcania,Brakpan Gauteng

64	EXTRA TECH 2001 CC	Herald Muller	Tel: 011 474 8930 Fax: 011 474 8930	P.O Box 1439 Florida 1710	1171 Domkrag Street, Robertville Gauteng
65	FABCAST ALLOYS PTY LTD	Dave Robinson	Tel: 011 814 7163 Fax: 011 814 7071	P>O Box 11015 Selcourt 1567	45 Industria Drive, Vosterskroon Nigel Gauteng
66	FAME STYLE	Davey Chen	Tel: 012 719 8871 Fax: 012 719 8874	P.O Box14280 Sinoville 0129	Stand 29 Fifth Street, Babelegi Industrial area Hammanskraal, North West
67	FEDERAL MOGUL PINE TOWN-ENGINE BEARINGS	Warren Ingles	Tel: 031 717 3300 Fax: 031 717 3458	P.O Box 198 Pine town 3600	15 Alexander Road West Mead, pine Town KZN
68	FEDERAL MOGUL PINE TOWN-PISTONS	Wareen Ingles	Tel: 031 171 3300 Fax: 031 171 3458	P.O Box 198 Pine Town 3600	15 Alexander Road, WestMead, Pine Town KZN
69	FLAME QUIP CC	Hermanus Louw	Tel: 034 981 4216 Fax: 034 980 8895	P.O. Box26 Vryheid 3100	43 stretch Crescent,Vryheid,KZN
70	FORBES BROTHERS CC	Ivine Mabesur	Tel: 011 626 2444 Fax: 011 626 2038	P.O. Box 40048 Cleveland 2002	38 Bessemer Rd Heriotsdale
71	GARRE ZINC AND ALUMINIUM DIECASTING	Andre Rotes	Tel: 033 386 6062 Fax: 033 386 5828	P.O. Box 22498 Southgate, PMB, 3200	21 Nigel Cress PMB, KZN
72	GE PATTERNS & FOUNDRY CC	Garth Robins (GM)	Tel: 011 743 1328 Fax: 011 743 1329	P.O. Box 5180 Brenthurst 1542	156 Witpoortji Road Sally's Village Brakpan
73	GIRLOCK SA PTY LTD	Flavio Fragale	Tel: 011 974 6655	P.O. Box 59	82 Electron

	/ ISANDO FOUNDRY		Fax: 011 974 2224	Isando 1600	Isando
74	GRIFO FOUNDRY CC	Henry Van Jaarsveld	Tel: 011 873 4459 Fax: 011 873 6515	P.O. Box 7092 Albermarle 1410	6 Crompton Rd Germiston South
75	GROVES FOUNDRY PTY LTD	Gary Smith	Tel: 011 740 0103 Fax: 011 740 2866 groves@3w.co.za	P.O. Box 1515 Brakpan 1540	24 De Kock Street Vulcania Brakpan
76	GUESTRO CASTINGS	Jan Nigel	Tel: 011 845 1546 Fax: 011 421 1154	P.O. Box 5016 Benoni South 1502	Lincoln Road Benoni Industrial Sites
77	HH SMITH FOUNDERS AND ENGINEERS	Valin Smith	Tel: 011 613 6231 Fax: 011 613 8738 valin@flashfire.co.za	P.O. Box 83037 Southfields 2136	23 Brunel Rd Tulisa Park
78	HALCAST PTY LTD	Barry Richter	Tel: 039 312 2514/572/573 Fax: 039 3174 602	P.O. Box 166 Margate 4275	Old mail rd Margate KZN
79	HAYES LEMMERZ S.A	Tinus Minnie	Tel: 011 908 3060 Fax: 011 908 3074	P.O. Box 123780 Alrode, 1251	3 Botha St Alrode
80	HELIO MICROFINISH	Bob Evans	Tel: 031 700 4295 Fax: 031 701 4300 bevans@micrifish.co.za	P.O. Box 1074 Pinetown 3600	15 Goodwood Rd Werstmead, Pinetown
81	HERITAGE CASTINGSV CC	MD: Max Teichmann	Tel: 021 535 2607 Fax: 021 534 5500	13 Main Street Western Province Park Epping, 7460	13 Main Street Western Province Park Epping, 7460
82	HERON ENGINEERING AND FOUNDRY	MD: Toni Iglauer	Tel: 011 824 1878 Fax: 011 824 4771 toni@ heronengineering.co.za	P.O. Box 14299 Wadeville 1422	No 1 Barracuda Rd, Wadeville
83	HI-ALLOY CASTING	Anton Britz	Tel: 011 421 5874	P.O. Box 5472	50 Balfour Ave Industrial Sites

	PTY LTD	(operations)	Fax: 011 422 2468	Benoni South 1502	
84	HIGH DUTY CASTINGS	Fred Venter	Tel: 011 914 1346 Fax: 011 914 1086	P.O. Box 157 Boksburg 1460	519 Commissioner Street, Biksburg
85	HOLDEN CASTINGS	MD: Richard Taylor	Tel: 011 683 6300 Fax: 011 683 6300	P.O. Box 57024 Springfield 2137	40 Malborough rd Springfield
86	HUA WEI MANUFACTURING	Johan Oosthuizen	Tel: 016 422 6312 Fax: 016 422 9489	P.O. Box 264704 Three Rivers 1935	1 Telford Street Duncanville Vereeniging
87	HW SCHMIDT INDUSTRIALS	Wolfgang Schmidt	Tel: 031 701 1298 Fax: 031 701 0547	P.O. Box 191 Pinetown 3600	11/13 Suffert Street Pinetown KZN
88	INDEPENDENT FOUNDRIES PTY LTD	MD: Danie Joubert	Tel: 011 763 3751 Fax: 011 766 3429	P.O. Box 2266 Roodepoort 1725	135 Main Reef Rd Manufacta Roodepoort
89	INKUNZI FOUNDRY PTY LTD	Doug Bailey	Tel: 032 459 2994 Fax: 032 459 2719	P.O. Box 400 Mandani 4490	9 yellow St Isithebe KZN
90	INTEGRITY CASTINGS	MD: HJM Anderson	Tel: 0817 2120 Fax: 011 817 2116	P.O. Box 3298 Dalview, Brakpan, 1544	94 Uranium Rd, Vulcania Brakpan
91	I P T FOUNDRY	Boelie Van der Westhuizen	Tel: 031 717 2900 Fax: 031 702 6893	P.O. Box 4025 Germiston South 1411	21 Smit St, Industrial West Germiston
92	JAYBEE CASTING	Andre Le Roux	Tel: 011 822 1381 Fax: 011 822 1450	P.O. Box 75969 Gardenview 2047	40 Shaft Rd, Knights Germiston
93	JC IMPELLERS CC	Greg Smit	Tel: 011 827 1913	P.O. Box 9026	178 Immelman Rd

			Fax: 011 927 1914	Elsburg 1407	Wadeville
94	JC FOUNDRY	MD: JC Du Plessis	Tel: 082 314 4134 Fax: 086 501 9172	Postnet 183, P/Bag X 1003 Meyerton, 1960, Alrode, 11451	Pilkington Industrial Cnr Morris & Johan Le Roux Rds Meyerton
95	JHB FOUNDRY MANUFACTURING CC	Kobus van Dyk	Tel: 011 822 2504/5/6 Fax: 011 822 2507	P.O. Box 2032 Primerose 1416	Cnr Tang & Bolt Street Knights Germiston
96	JOHN THOMPSON BOILERS	Lionel Solomons	Tel: 021 959 8533 Fax: 021 959 8535	P.O. Box 129 Bellville 7535	Sacks Circle Bellville Western Cape
97	JOSEPH GRIEVESON PTY LTD	Wilf Lyndin	Tel: 031 507 3640 Fax: 031 500 2687	P.O. Box 60674 Phoenix 4080	332 Aberdare Drive Phoenix KZN
98	KIMBERLY ENGINEERING WORKS PTY LTD	John Bryson	Tel: 053 841 0474 Fax: 053 841 0473	P.O. Box 6062 Kimberly 8300	Transvaal Rd Kimberly
99	KNIGHTS SALES CC	Vj/GJ van der Walt	Tel: 011 827 2517 Fax: 011 827 2517	P.O. Box 14209 Wadeville 1422	490 Tedstone Rd, Lothloriene Industrial Park Unit 31, Wadeville
100	KOLBENCO AUTOMOTIVE PISTON MANUFACTURERS	Kobus Horn	Tel: 011 864 79330 Fax: 011 908 4859 Kobus.horn@kolbenco.co.za	P.O. Box 12388 Alrode 1451	6 liebenberg St Alrode
101	KPL ALUMINIUM DIE CASTING	Giuseppe Maringo	Tel: 011873 0264 Fax: 011 873 7246	P.O. Box 2624 Bedfortview, 2008	18 Premier Park Premier Rd Germiston South
102	KROON GIETERY & STAAL PTY LTD	Llona Le Roux	Tel: 056 215 2075 Fax: 056 215 2009	P.O. Box 1675 Kroonstad 9500	31 7 th Avenue Industria Kroonstad
103	KRYNIE BROTHERS	John Csaszar	Tel: 011 836 0615	P.O. Box 34214	10 Pine Ave

			Fax: 011 836 8439	Jeppestown 2043	Fordsburg
104	LENRECO	Alex Frame	Tel: 011 908/1/2/3 Fax: 011 908 7004	P.O. Box 11478 Randhart 1457	Cnr Swartkoppies & Potgieter Wadeville
105	LITHA COMPONENTS	Neville Potts	Tel: 043 685 2121 Fax: 043 685 2207	P.O. Box 63 Berlin 5660	Lowrence Doberman Cres Berlin
106	LUSAFRICA FOUNDERS	Pavel Coelho	Tel: 011 873 8910/1/2 Fax: 011 825 7047	P.O. Box 18177 Sunward Park 1470	6 Moller Rd Germiston
107	MCWADE PRODUCTIONS PTY LTD	James Rousseau	Tel: 011 316 2262 Fax: 011 316 4791	P.O. Box 142 Olifantsfontein 1665	34 Industry rd Olifantsfontein
108	MAGBERG MANUFACTURING	Ian Ball	Tel: 011 803 8247/014 5771330 Fax: 011803 8323/014 5771337	P.O. Box 1401 Kelvin 2054	Farm steenkoppies Rustenburg Rd Magaliesburg
109	MAGMA FOUNDRY & MACHINE (PTY) LTD	Nadine Danks	Tel: 018 789 1000 Fax: 018 789 1013	P.O. 779 Carletonville 2500	Doornfontein Goldmine Welverdiend Carletonville
110	MALEABLE CASTING PTY LTD	Johan Visser	Tel: 011 822 1502/5 Fax: 011822 1359	P.O. Box 8081 Elandsfontein 1406	7 Ronbex Rd, Actiovia Park Germiston
111	MATT CAST SUPPLIERS (PTY) LTD	Glen Tillet	Tel: 011 873 2279 Fax: 022 873 2567	P.O. Box 9388 Cinda Park 1463	3 Jack pienaar St, Germiston South
112	MAZAL DIE CASTING PTY LTD	Rohan Hirst	Tel: 021 931 5177 Fax: 021 932 6719	P.O. Box 6644 Parow East, 7501	Assegai rd Parow Industria
113	MENTAL	Michael Vincer	Tel; 012 305 3562	P.O. Box 1142	

	CONCENTRATORS (PTY) LTD		Fax: 012 305 3574	Milnerton 7435	
114	MELCAST FOUNDRIES CC	GM: Melanie Jones	Tel: 0082 451 2824 Fax; 086 601 7305	P.O. Box 11750 Rynfield 1514	73 Lionel rd, Rutfontein Bennoni
115	METX PROCESS METALLURGY (PTY) LTD	Cornel Potgieter	Tel: 011 397 1970 Fax; 011 397 7579	P.O. Box 30517 Jet Park 1469	64 Kelly Rd Jet Park 1469
116	METALLOY FIBRES (PTY) LTD	William Njodi	Tel: 011 803 8247/014 577 1330 Fax; 011 803 8323/014 577 1337	P.O. Box 1401 Kelvin Sandton	Farm Steenkoppies Rustenburg Rd Magaliesburg
117	METSO MINERALS SOUTH AFRICA (PTY) LTD	Phlippie Venter	Tel: 016 430 7200 Fax: 016 422 3440	P.O. Box 716 Vereeniging 1830	Beesemer St Vereeniging
118	METSO MINERALS SOUTH AFRICA (PTY) LTD	Cameron Mather	Tel: 032 459 6900 Fax: 032 459 2469 Cameron.mather@metso.com	P.O. Box 145 Mandini 4490	1 Brown Str Isithebe KZN
119	M.I.S ENGINEERING (PTY) LTD	Eric Bevenuti	Tel: 011 908 1696 Fax: 011 908 2542	P.O. Box 123832 Alrode 1451	Dienst Street Alrode
120	MG CASTING SUPPLIERS & PATTERNMAKERS	Danie Booyens	Tel: 016 362 0622 Fax: 016 362 1154	P.O. Box 1543 Vereeniging 1930	27 Station Rd Vereeniging Meyerton
121	MODACC ENTERPRISES	Roger Du Toit	Tel: 011 873 4850 Fax: 011 825 4849	P.O. Box 25 Germiston 1400	15 Orion street Germiston
122	MITTAL STEEL S.A. FERROUS FOUNDRY	Engelbrecht F.	Tel; 016 889 2957 Fax: 016 889 2302	P.O. Box 2 Vanderbijlpark 1900	Mittal Street Vanderbijlpark Works Delfos Boulevard

					Vanderbijlpark
123	MUSTANG FOUNDRY	Koos Vermeulen	Tel; 011 918 2030 Fax: 011 894 5313	P.O. Box 6613 Danswart 1508	Stand 70 Steventon Rd Boksburg North
124	NATA IRON & BRASS FOUNDRY CC	Benvenuti E.	Tel: 033 386 6573 Fax: 033 386 7001	P.O. Box 247 Laxmi 3207	Hayworth Rd Mkondeni
125	NDEBELE STOVES	Johan	Tel: 013 932 1376 Fax: 013 932 1376	P.O. Box 406 Bronkhorstspuit 1020	Roodepoort plot 17 Bronkhorstspuit
126	NIMAG (PTY) LTD	Ian Ball	Tel: 011 803 8247/014 577 1330 Fax; 011 803 8323/014 577 1337	P.O. Box 1401 Kelvin 2054	Farm steenkoppies Rustenburg Rd Magaliesburg
127	NORTH'S GARDEN FURNITURE	Classen M.	Tel: 021 591 1524 Fax: 021 592 4293	P.O. 44 Elsies River 7480	23 rd Street Elsies River W Cape
128	NORTHERN CAPE IRON & STEEL CC	Badenhorst N.	Tel: 053 313 2147 Fax: 053 313 1531	P.O. Box 115 Postmasburg 8420	3 Ferro Rd Industrial Area Postmasburg
129	NORTHERN NATAL BRONZE	Guy Balsdon	Tel: 034 212 4111 Fax: 034 218 1382	P.O. Box 19 Huttingspruit 3081	Popler Lane Hattingspruit KZN
130	NU-WORLD INDUSTRIES (PTY) LTD	Deon Oosthuizen	Tel: 0011 321 2111 Fax: 011 887 1285	P.O. Box 8964 Johannesburg 2000	35 3 rd Street Wynberg, JHB
131	OLDE WORLD FOUNDRY CC	Vincent Farrar	Tel: 031 736 1888 Fax: 031 736 1889	P.O. Box 1793 Amanzimtoti 4123	Lot 3,9 Hammaersdale KZN

132	OUTDOOR LIFESTYLE (PTY) LTD	Stephan Le Roux	Tel: 021 535 2740 Fax: 021 535 2735	P.O. Box 179 Eppindust 7475	39 Bofor Circle Epping W Cape
133	OZZ FOUNDRIES – EAST PLANT	Mike Holton	Tel: 011 747 5000 Fax: 011 421 4943	P.O. Box 5017 Benoni South, 1502	15 Birmingham Rd Benoni Industrial Site
134	OZZ FOUNDRIES – WEST PLANT	Ockert De Bruyn	Tel:011 845 3240 Fax: 011 845 3604	P.O. Box 5017 Benoni South 1502	Cnr Birmingham/Lincoln Rd, Benoni Industrial Site
135	OZZ FOUNDRIES – BOKSBURG PLANT	Pat Reiley	Tel: 011 914 1540 Fax: 011 914 1487	P.O. Box 223 Boksburg 1460	13 Barry Street Boksburg Industrial Site
136	OZZ FOUNDRIES – DIMBAZA PLANT	Frank Roddy	Tel: 040 656 2050 Fax: 040 656 2263	P.O. Box 473 King Williams Town 5600	Cnr Jongilana & Siwani Street Dimbaza Industrial Site E Cape
137	PAN PATTERNMAKERS (PTY) LTD	Santiago Pan	Tel: 011 762 1713 Fax: 011 762 2127	P.O. Box 7480 Westgate 1734	5 Nicol Street Chamdor Krugersdorp
138	PARYS FOUNDRIES	Gerry Cloete	Tel: 056 819 8478 Fax: 056 819 9970	P.O. Box 459 Parys 9585	1 carel Fisher Rd Parys Free State
139	PCS FOUNDRY (PTY) LTD	Hennie Griessel	Tel: 011 740 9020 Fax: 011 740 9814	P.O. Box Brenthurst 1542	Milne Road Vulcania Brakpan Gauteng
140	PEX FOUNDRY CC	Leon Mathee	Tel: 021 556 3234 Fax: 021 556 3235	P.O. Box 561 Milnerton 7435	Killarney Avenue Killarney Gardens W Cape
141	PFISTERER (OTY) LTD	Martin Wimble	Tel: 033 397 5400 Fax: 033 387 6460	P.O. Box 4004 Pietermaritzburg 3200	7 Willowton Rd Willowton, PMB KZN

142	PILMAN & SON (PTY) LTD	Ben Bierman	Tel: 011 823 3948 Fax: 011 823 1869	P.O. Box 6080 Homestead 1412	Cnr Jansen & innes Rd Jet Park Gauteng
143	PINETOWN ENGINEERING FOUNDRY COMPANY	Ajith Singh	Tel: 031 717 2900 Fax: 031 702 6893	P.O. Box 191 Germany 3620	Foundry Lane New germany KZN
144	PLASTERON INDUSTRIAL PLASTICS	MD: Bill Fossè	Tel: 033 390 3309 Fax: 033 390 3309	P.O. Box 100576 Scotsville,3209	6 A Coventry Place Willowton,KZN
145	POTCH ENGINE & GEARBOX	Salim Dambha	Tel: 018 297 6160 Fax: 018 297 3262	P.O. Box 370 Potchefstroom 2520	41 Ross Str Potchefstroom Industrial
146	PRECISION PATTERN EQUIPMENT	D/R Korver	Tel: 011 422 2853 Fax: 011 422 2853	P.O. Box 51 Benoni 1500	22 Bedford Rd Benoni Central Gauteng
147	PREFORMED LINE PRODUCTS SA 9PTY) LTD	Md: John Buyers	Tel: 033 387 1520 Fax: 033 387 7094	P.O. Box 4015 Pietermaritzburg 3200	180 Ohrtman Rd Willoton, PMB KZN
148	PRESSURE DIE CASTING (PTY) LTD	Lance Deysel	Tel: 033 387 5500 Fax: 033 397 5555	P.O. Box 4009 Pietermaritzburg 3200	No 4A Willowton Rd Pietermaritzburg KZN
149	PREVAIL ENGINEERING (PTY) LTD	Neels Els	Tel: 016 362 0242 Fax: 016 362 1132	P.O. Box 4 Rothdene 1964	48 Galloway Meyerton Gauteng
150	PRIMA INDUSTRIAL HOLDINGS (PTY) LTD	Vic Opperman	Tel: 011 421 8911 Fax: 011 845 3809	P.O. Box 282 Benoni 1500	Loncoln Rd Benoni Industrial Site Gauteng
151	PRISM PRODUCTS	Ronnie Fourie	Tel: 043 745 2212	P.O. Box 7648	4 Dick King rd

			Fax: 043 745 2518	East London 5200	Wilsonia East London, E Cape
152	PROCO FOUNDRY	Johan Slabbert	Tel: 016 428 1026 Fax: 016 428 1016	P.O. Box 3856 Vereeniging 1930	Mitco Bld, Shop no 30 Hotcop Rd, Dancanville Gauteng
153	PRO-DIE ENGINEERING (PTY) LTD	Alan Wood	Tel: 011 864 4515 Fax: 011 864 4513	P.O. Box 1576 Alberton 1450	10 Juyn Alrode Alberton Gauteng
154	PRONTO PATTERNS & CASTINGS	MD: Darren Muter	Tel: 011 744 1104 Fax: 011 740 6541	P.O. Box 1421 Brakpan 1540	54 A Boundry Rd Brakpan Gateng
155	PROOF ENGINEERING (PTY) LTD	Freddie van nie Kerk	Tel: 011 824 1146 Fax: 011 824 2644	P.O. Box 14168 Wadeville 1422	28 Naginton Rd Wadeville Gauteng
156	PROTEA FOUNDRIES	Jackie O Grady	Tel: 016 986 0713 Fax: 016 986 1067	P.O. Box 263136 Three Rivers 1935	55 Michelin Street Vanderbijlpark Gauteng
157	PROTEA FOUNDRY AND ENGINEERS	Dave Cooper	Tel: 021 510 5158 Fax: 021 510 5163	P.O. Box 331 Woodstock 7815	116 Voortrekker Rd Salt River, Cape Town W Cape
158	QUANTUS FOUNDRY CC	MD: Steven Thomas	Tel: 011 824 5587 Fax: 011 827 5665	P.O. Box 5392 Delmenville 1403	490 Tedstone Rd, Lothlorine Industrial Park Unit 30, Wadeville Gauteng
159	RELY INTRACAST	MD: Peter Goode	Tel: 011 914 1640 Fax: 011 914 3586	P.O. Box 222 Boksburg 1460	512 Commissioner Street Boksburg Gauteng
160	RICHARDS BAY	Louis Potgieter	Tel: 035 797 5030	P.O. Box 10185	11 Ohmzomne Cresent, Alton

	FOUNDRY		Fax: 035 797 3698	Meerensee 3901	Richards Bay, KZN
161	S & B PATTERNS & FOUNDERS	MD: Hannes Smith	Tel: 011 894 6761/2 Fax: 011 894 6766	P.O. Box 6231 Dunswart 1508	196 Steventon Rd Boksburg North Gauteng
162	SAFA 2005	Quinten van den Berg	Tel: 011 680 5550 Fax: 011 433 2792	P.O. Box 82838 Southdale 2135	27 Myrna Street Chrisville Gauteng
163	SAINT GOBAIN PIPELINES SOUTH AFRICA	Road S.	Tel: 012 380 4600 Fax: 012 386 7708	P.O. Box 631 Pretoria 0001	200 watt rd Pretoria West Gauteng
164	SCAW SOUTH AFRICA (PTY) LTD GERMISTON WORKS	Corrie Theron	Tel: 011 842 9000 Fax: 011 842 8710	P.O. Box 16721 Marshalltown 2107	Blackreef Rd Denwiddie, Germiston Gauteng
165	SCAW SOUTH AFRICA (PTY) LTD BENONI WORKS	Alan Wedderburn	Tel: 011 845 1400 Fax: 011 421 9863	P.O. Box 229 Benoni 1500	25 Main Reef road Benoni Gauteng
166	SCAW SOUTH AFRICA (PTY) LTD GERMISTON WORKS (BALL PLANT)	Bobby lowe	Tel: 011 842 9000 Fax: 011 842 8710	P.O. Box 16721 Marshalltown 2107	Blackreef Rd Denwiddie, Germiston Gauteng
167	SELA CASTINGS	MD:Roy Janssen	Tel: 011 738 9923 Fax: 011 738 9923	P.O. Box 2186 Brakpan 1540	32 Joule St Brakpan Gauteng
168	SHEFIELD NON FERROUS FOUNDRY	Tony Willis	Tel: 032 947 0172 Fax: 032 947 0171	P.O. Box 732 Ballito 4420	Unit 5 6 Nutri Park Compensation Station Ballito KZN

169	SOUTH AFRICA ROLL COMPANY (SARCO)	Dries Smit	Tel: 016 910 7000 Fax: 016 986 0660	P.O. Box 5369 Vanderbijlpark 1900	8 McColm Bld Vanderbijlpark Gauteng
170	SOUTHERN CROSS MANUFACTURING CO (PTY) LTD	Gert Ninaber	Tel: 051 434 3861 Fax: 051 434 3575	P.O. Box 627 Bloemfontein 9300	Cnr Mill & Nuffield Street Hamilton, BFN Free State
171	SPECIAL ALLOYS & PRODUCTS	Francois Kock	Tel: 012 305 3987 Fax: 012 305 3948	P.O. Box 32245 Glenstantia 0010	Pelindaba mini Z Haartebeespoort Dam Gauteng
172	STELOY CASTINGS (PTY) LTD	Dean Harmse	Tel: 013 933 3331 Fax: 013 933 3653	P.O. Box 1591 Bronkhorstspruit 1020	4 Cobalt Street Ekaindustria Bronkhorstspruit Gauteng
173	STIEMENS DIECASTING	MD: Frikkie Stielor	Tel: 011 740 1996 Fax: 011 740 1887	P.O. Box 1459 Brakpan 1540	97 kitzinger Ave Brakpan Gauteng
174	STOVE MICCA	MD: Johan Labuschagne	Tel: 011 818 2173 Fax: 011 818 5147	P.O. Box 10242 Stubenvale,1570	5 Asbestos Street Dagafontein, Springs, Gauteng
175	SUPERIOR CASTING SUPPLIERS & PATTERNMAKERS (PTY) LTD	James Thompson Jnr	Tel:016 422 3976 Fax: 016 421 2858	P.O. Box 1476 Vereeniging 1930	9 Bessmer Street Vereeniging Gauteng
176	TAKATA-PETRI SOUTH AFRICA	Peter Beileit	Tel: 021 573 8200 Fax: 021 577 3386	P.O. Box 1600 Dassenberg 7350	Charles Mathews Street Atlantis W Cape
177	TALBOT ENGINEERING	Jimmy Cresswell	Tel: 011 624 2690 Fax: 011 614 7536	P.O. Box 27144 Benrose 2011	23 Ruven Rd Benrose Gauteng
178	THE FOUNDRY	John Mannion	Tel: 011 824 1025	P.O. Box 14954	48 Nagington

	COMPLEX		Fax: 011 824 1029	Wadeville 1422	Wadeville Gauteng
179	THERMITREX 9PTY) LTD	Jacob Pasha	Tel: 011 914 2540 Fax: 011 914 2547	P.O. Box 6070 Dunswart 1508	David Street Boksburg East Gauteng
180	THOMAS FOUNDRY (PTY) LTD	Sidney Pond	Tel: 011 873 3200/9 Fax:011 825 6445	P.O. Box 566 Germiston 1400	Smit Street Industrial West Germiston Gauteng
181	THOR WEAR PARTS (PTY) LTD	Edward Ryan	Tel: 011 823 4443 Fax: 011 823 3555	P.O. Box 19965 Sunward Park 1400	24 Field Rd Lianton, Boksburg Gauteng
182	THOS BEGBIE &COMPANY (PTY) LTD	Harry Muller	Tel: 013 246 9011 Fax: 013 246 1527	P.O. Box 192 Middelburg 1050	Tswelopele Street No 6 Meddelburg Gauteng
183	TRANSWERK FOUNDRIES (PTY) LTD	Sello Mahlakoana	Tel: 051 408 2038 Cell: 083 704 9173 Fax: 051 408 3163	P.O. Box 847 Bloemfontein 9300	Stats Street, Estoire Bloemfontein Free State
184	TRANSWERK FOUNDRIES PTY) LTD	Melusi Mabaso	Tel: 012 842 5132 Cell: 083 561 0070, Fax: 012 842 5706	P.O.Box 528 Silverton, 0186	Cnr Lynette & Koedoespoort Rd Koedoespoort, Free State
185	TRI-CAST FORMING (PTY) LTD	MD: Paul Meiring	Tel: 011 873 9859 Fax: 011 873 8064	P.O. Box 18113 Rand Airport 1419	4 Van Lingen Street Industrial East Germiston Gauteng
186	TRIFON INDUSTRIES)PTY(LTD	Gordon Becket	Tel: 011 953 3904 Fax: 011 953 3906	P.O. Box 447 Krugersdorp 1740	21 Anvil Street Boltonia Krugersdorp Gauteng

187	TUBAL CANE	Johan Smith	Tel: 016 422 3224 Fax: 016 422 0202	P.O. Box 1052 Vereeniging 1930	9 Colenso Str, Powerville Vereeniging Gauteng
188	UKUTHELA FOUNDRY PROJECTS (PTY) LTD	MD: Cobus van Aswegen	Tel: 012 719 8860 / 083 691 9986 Fax: 012 719 8855	P.O. Box 32764 Totiusdal 0134	Stand 37 Sevende Laan Babelegi Gauteng
189	UMGENI IRON WORKS (PTY) LTD	MD: Gavin Rice	Tel: 031 579 1361 Fax: 031 579 3114	P.O. Box 20128 Durben North 4016	40 Sea Cow Lake Rd Durben, 4001 KZN
190	VHE FOUNDRY (PTY) LTD	Steve Roberts	Tel: 012 333 5264 Fax: 012 333 3490	P.O. Box 32105 Totiusdal 0134	31 Eland Street Koedoespoort Industrial Gauteng
191	VEREENIGING FOUNDRIES (PTY) LTD	MD: Andreas kappmeier	Tel: 016 454 9443 Fax: 016 454 9494	P.O. Box 1313 Vereeniging 1930	1 A king Str, Duncanville Ext 3 Vereeniging Gauteng
192	VESTCAST (PTY) LTD	Fannie Fouche	Tel: 011 397 4564/8326 Fax: 011 397 8326	P.O. Box 25005 East Rand 1462	3 Kelly Street Jet Park Gauteng
193	VIKING FOUNDRY (PTY) LTD	Naas Grobler	Tel: 011 873 5093 Fax: 011 873 5695	P.O. Box 4285 Germiston South 1463	11 Moller Street Germiston South Ext 4 Gauteng
194	WAHL INDUSTRIES	MD: Nevil Wahl	Tel: 011 474 0228 Fax:	P.O. Box 58176 Newville, 2114	3-13 Main reef Service Rd Longdale, Gauteng
195	WAM METALS	Gavin Homan	Tel: 011 897 8900 Fax: 011 897 6807	P.O. Box 6449 Dunswart 1508	18 Skew Rd Anderbolt Boksburg Gauteng
196	WEIR MINERALS AFRICA (PTY) LTD	Enno Kruger	Tel: 011 929 2600 Fax: 011 929 2960	P.O. Box 70 Isando	31 Isando Rd Isando

				1600	Gauteng
197	WHEELCRAFT	Willie Peterse	Tel: 012 719 8083 Fax: 012 719 8491	P.O. Box 16376 Pretoria North 0116	Stand 206, 8 th street Babelegi Gauteng
198	WITBANK FOUNDRY CC	Jaco Jubert	Tel: 013 656 1731 Fax: 013 656 5118	P.O. Box 490 Witbank 1035	6 Van Zyl Street, Meyerbank Witbank Mpumalanga
199	XMECO RESISTANCE WELDING EQUIPMENT	Yoanne Grandemange	Tel: 041 401 4800 Fax: 041 451 3014	P.O. Box 4016 Port Elizabeth 6014	Lindsay Rd, Neave township Port Elizabeth E Cape
200	ZEALOUS AUTOMOTIVE CASTINGS	Garry Coull	Tel: 011 813 1130 Fax: 011 817 1564	P.O. Box 357 Springs 1560	28 Bell Street New Era Springs Gauteng
201	ZEALOUS PRESSURE CASTING (PTY) LTD		Tel: 011 813 1130 Fax: 011 817 1564	P.O. Box 357 Springs 1560	28 Bell Street New Era Springs Gauteng
202	EAST COAST FOUNDRY		Tel: (031) 4645252		Queensmead Industrial Park 20 Downie Cres. KZN
203	CAPE SILICA SAND cc	Denis Nixon	Tel: 021 577 1900 Cell: 083 300 8054 Fax: 021 577 4023	P.O. Box 2660 Durbanville 7551	Neil Hare Rd Atlantis Western Cape
204	A.A. ALLOY FOUNDRY (PTY) Ltd		Tel: 011 845 1940 Fax: 011845 1959	P.O. Box 5090 Benoni South 1502	Birmingham Road Industrial Site Benoni Gauteng
205	GSG FOUNDRY (PTY) LTD		Tel: 011 873 5093 Cell: 082 445 2626	P.O. Box 4285 Germiston South	11 Moller Street Germiston South

			Fax: 011 873 5695	1411	Gauteng
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16.2 Ceramics/Potteries

No.	Company Name	Contact Person	Contact No:	Postal Address	Residential address
1	ELLIRAS BRICKS AND CERAMIC				Lephalala
2	SALEM CERAMICS		Tel: 056 4710078		6a Van Riebeeck Street Kroonstad
3	FAIARTE CERAMIC				22 Cobalt, Zanniaville
4	MARANATHA CERAMICS	Ricardo	Tel: 011 474-8117 Fax: 011 474-4897 Cell: 082-558-5930	P.O. Box 260712, Excom, 2023	90 Maraisburg Road, Industria, Johannesburg, RSA
5	ZIZAMELE CERAMIC	Toni Burton	Tel: 084 5566423 Fax: 021 7856930		Cnr Chasmay and Kommetjie Rd Noordhoek, 7975
6	CERAMIC INDUSTRIES LTD		Tel: 016 3903600 Fax: 016 9303650	PO Box 2247 Vereeniging 1930	Farm 2 Old Potchefstroom road Vereeniging
6	AFRICA CAFÉ CERAMICS (PLUMSTEAD)		Tel: 021 7976317 afceramics@iafrica.com		
7	MAGIC TOUCH TILERS		Cell: 082 635 9837 Tel: 011 720 6005 Fax: 011 720 6005		
8	ARDMORE CERAMIC	Jennifer Fair	Tel: 033 2344869	PO Box 273	Nottingham

	ART		cell: 083 281-1179 jennifer@ardmoreceramics.co.za	Nottingham Road 3280	KZN
9	CERAMIQUE STUDIO		Tel: 0114638971		
10	AFRICA NOVA		Tel: 021 425 5123		
11	SIPHOTUSE REFRACTORY SERVICES & CONSTRUC		Tell: 016:6573798 s.cele@srsconpro.co.za		
12	TRUCRAFT		Tel: 016:3711206		
13	FANEL GLASSWARE (PTY) LTD		Fax: 011:794-1680		
14	ANNS POTTERIES				3 plein Street Virginia
15	ORANGE POTTERIES		Tell: 056 343 3328		Rendezvous Street Viljoenskroon Kroonstad Free State
16	ARGILLA POTTERY		Tel: 012 5441300		4 Aloe Road Dawnbern Pretoria Gauteng
17	CONTINENTAL CHINA (WESTERN CAPE)		Tel: 021 907 4000 Fax: 021 907 4100 info@cochina.co.za	P.O. Box 8, Blackheath 7581	Western Cape, South Africa
18	CONTINENTAL CHINA (GAUTENG)		Tel: 011 397 6160 Fax: 011 397 6170		
19	CONTINENTAL CHINA		Tel: 031207 5166		

	(KWAZULU-NATAL)		Fax: 031 209 9255		
20	BOWLS OF BEAUTY	Daniela Bonnici	Tel: 021 439 0601 Fax: 021 434 1970		10 Regent Road, Sea Point Western Cape
21	EARTHMAID	Marylou Newdigate	Tel: 044 3841689 http://www.earthmaidtiles.com	PO Box 883 Knysna	
22	MERCHANT DIRECT	Mast Pickard	Tel: 0114358900 Cell: 0724020269 Fax: 0114358901		101 columbine ave, Johannesburg Gauteng
23	RAINBOW CERAMICS	Daniela Bonnici	Tel: 021 439 0601 Fax: 021 434 1970 http://www.ceramicsafrica.co.za		10 Regent Road, Sea Point, Cape Town Western Cape
24	GILLIAN BICKELL CERAMICS		Tel: 011 460 1063 Cell: 083 658 4072 Fax: 011 460 1080	PO Box 68624 Braynston , Johannesburg ,2021	75 Cedar Street, Chartwell , Johannesburg , 2021 Gauteng
25	LA LE LE POTTERY	Mrs La Leen Truter	Tel: 012 808 0525 Cell: 082 359 5073 Fax: 012 808 0648	PO Box 15897, Pretoria, Lynn East, 0039	Plot 76, Kameeldrift Oos, Pretoria Gauteng
26	SURETILE		Tel: 012 329 0488/9 Fax: 012 329 0543 www.ceramicwholesaler.co.za		303 Voortrekker & Flower Rd, Gezina Gauteng
27	MAGIC BUILDERS CENTRE		Tel: 015 307 4408 Cell: 086 679 1571 accounts@magicgroup.co.za	PO Box 463 Tzaneen	32 Skirving Street Tzaneen Limpopo
28	TILES 4 ALL	Gary or Leon	Tel: 011 493 7893 Cell: 074 102 6112		49 Coventry Street Ophirton

			Fax: 011 493 6297 tiles4all@mwebbiz.co.za		Booyens Gauteng
29	NEVILLE ROLFE GROUP		Tel: 031 705 4606		8 Koningkramer Rd New Germany KZN
30	CERAMIC TILERS		Tel: 0119311514		
31	TILES ETC		Tel: 0514511915		3 Faan Ferreira Ave Spitskop, Bloemfontein Free State
32	CTM GAUTENG		Tel: 0117683693		Gauteng
33	PRECIOUS TILES		Cell: 073 621 2078		
34	SUNSTONE		Cell: 0834227257		
35	AFRICAN CERAMICS POTTERY MUGS DINNERWARE PLATTERS HAND MAD		Tel: 021 439 0601		
36	THERMAL CERAMICS SOUTH AFRICA PTY LTD		Tel: 011 815 68 20/25 Fax: 011 362 4673 southafrica@thermalceramics.com		Corner of Edison & Marconi Streets New Era, Springs 1560,
37	CERAMIC AND ALLOY SPECIALISTS (PTY) LTD	Michael Retief	Tel: 011 894 3039 Cell: 083 289 9394 Fax: 011 894 4185 mike@ceramicalloy.com		1 Dormehl Str Anderbolt. Boksburg Gauteng
38	CERALCAST (PTY) LTD		Cell: 0822693690 ceralcastadm@mweb.co.za	P.O. Box 93 Mthuzini	Ceralcast Mthuzini

				3867	KZN
39	CEREFECO		Tel: 011 845 3253 Fax: 011 422 6650 info@cerefco.co.za	P.O. Box 1743 Benoni 1500	26 Balfour Avenue Benoni 1501 Gauteng
40	A B CERAMICS CC		Tel: 0119491707 Cell: 083 6498896 Fax: 086 647 3843		
41	GROUPLINE TECHNICAL CERAMIC PTY (LTD),		Tel: <u>011 3978933</u> Fax: 011 3978938	P.O. Box 9895 Edenglen Edenvale 1613	Corner Webb and Dartfield Rds JetPark Boksburg Gauteng

16.3 Refractories

No.	Company Name	Contact Person	Contact No:	Postal Address	Residential Address
1	Company Name	Contact Person	Telephone No.	Postal Address	
2	RHI REFRACTORIES AFRICA PTY LTD	Gavin Standing F	Tel: 011-444 7500	PO Box 263 Wendywood 2144	
3	GUNITE INSTALLATIONS CC	Maurice Grant	Tel: 021-705 9006	PO Box 167 Southfield 7880	
4	J R DICKINSON&SONS PTY LTD	Trevor Dickinson	Tel: 016-421 3720	PO Box 63 Vereeniging 1930	
5	KARRENA AFRICA	Wouter de Gidts	Tel: 011-923 5295	PO Box 690 Kempton Park 1620	
6	REFRACTORY SERVICES CC	Colin Coomer M	Tel: 011-868 2770	PO Box 145 286 Bracken Gardens 1452	
7	REFRALINE PTY LTD	Karl-Heinz R \diamond sch	Tel: 011-392 2545	PO Box 8393 Edenglen 1613	
8	RODCOL CONTRACTS PTY LTD	Ernst Loser	Tel: 035-797 4737	PO Box 1466 Richards Bay 3900	
9	CEREFECO PTY LTD	Roy Edwards	Tel: 011-845 3253	PO Box 69082 Bryanston 2021	

10	DANIELI CORUS SOUTH AFRICA	Dougal Whighton	Tel: 011-783 7145	PO Box 653047 Benmore 2010	
11	FORREST REFRACTORY SERVICES	Graham Walden	Tel: 031-467 2648	PO Box 12917 Jacobs 4026	
12	HART REFRACTORIES PTY LTD	Gavin Aab	Tel: 016-362 0217	PO Box 1041 Meyerton 1960	
13	HERNIC PREMIER REFRACTORIES	Bertus Mulder	Tel: 011-313 0161	P Bag X02 Olifantsfontein 1665	
14	HIGHVELD STEEL AND VANADIUM LTD	Paul Hugo	Tel: 013-690 9368	PO Box 111 Witbank 1035	
15	INTOCAST SA PTY LTD	Matthias Normann	Tel: 011-874 0745	PO Box 8163 Elandsfontein 1406	
16	ISCOR FLAT PRODUCTS	Johann Terblanche	Tel: 016-889 3561	PO Box 2 Vanderbijlpark 1900	
17	LTM TECHNOLOGIES PTY LTD	Francois Oosthuyzen	Tel: 016-450 4021	PO Box 651 Vereeniging 1930	
18	MULTOTEC WEAR LININGS PTY LTD	Jan de Jonge	Tel: 012-546 0461	PO Box 224 Kempton Park 1620	
19	PLIBRICO VALLEY REFRACTORIES	Berti Teesen	Tel: 016-421 4052	PO Box 2422 Vereeniging 1930	

20	RICHARDS BAY MINERALS	Michael Moore	Tel: 035-901 3111	PO Box 401 Richards Bay 3900	
21	SCAW METALS	Bernd Strohmeier	Tel: 011-902 1001	PO Box 31721 Marshalltown 2107	
22	VEREENIGING REFRACTORIES PTY LTD	Derek Mitchell	Tel: 016-450 6111	PO Box 117 Vereeniging 1930	
23	VERSUVIUS SOUTH AFRICA PTY LTD	Tim Courtney	Tel: 011-206 1864	P Bag X2 Olifantsfontein 1665	
24	WATERVAL SMELTER RPM	Francois Greyling	014-591 5072	PO Box 404 Kroondal 0350	
25	WRECKERS CASTERS MAINTAINERS	Ainslee Vosloo	Tel: 016-932 3567	PO Box 5515 Vanderbijlpark 1900	
26	W R SERVICES	Keith Williams	Tel: 035-797 4000	PO Box 733 Richards Bay 3900	
27	NATAL REFRACTORIES (PTY) Ltd	George Justus	Tel 031 4681474 Fax: 031 468 5458	P.O.Box 12314 Jacobs 4026	74 Hime Lane Durban
28	NATAL REFRACTORIES (PTY) Ltd	Peter Heim	Tel: 035 797 3366 Fax: 035 797 3957	P.O. Box 1570 Richards Bay 3900	12 Alumina Allee Richards Bay 3900

29	CERALCAST (PTY) Ltd	Mike Retief	Tel: 035 340 1338 Fax: 035 340 1338	O.P. Box 85 Mtuzini KwaZulu-Natal	Siyaya Drive, Mtuzini
30	CAPE REFRACTORY INDUSTRIES	Jean Lopez	Tel: 021 534 1136 Fax: 021 534 2936	P.O. Box 316 Eppindust 7475	19 Hewitt Ave Epping 2, 7460
31	DUROCAST		Tel: 016 454 0404 Fax: 016 545 0466	P.O. Box 1597 Meyerton, 1960	
32	OSTER ENGINEERING	Manfred Hohenwater	Tel: 011-828-5457/8 Cell: 082-455-7448 Fax: +27-11-828-5466 manfred@oster.co.za	P.O. Box 5347 Delmenville Gauteng 1403	16 Knights Road Knights Germiston
33	KERAMICALIA	Dave Onderstall	Tel: 011 412 3261 Fax: 011 692 1232 Cell: 082 808 4757 e-mail: keram@global.co.za	P.O. Box 69 Paardekraal 1752	Cnr Steyr & Alfa Street Aureus Industrial Site Randfontein Gauteng
34	TRIDENT REFRACTORY SPECIALISTS CC		031 7622600 083 7754713 031 7622603 trs@ionet.co.za	P.O. Box 1246 New Germany 3620	104 Brackenhill Rd Unit 7 Pinelands Ind Prk Waterfall Durban
35	R H I REFRACTORIES AFRICA (PTY) LTD		032 4591207 032 4593388		Yellow St Isithebe
36	B & B REFRACTORY SERVICES		011 3145161 011 3145187 bbrs@mweb.co.za		Gazelle ave Corporate Prk Midrand
37	R H I REFRACTORIES AFRICA (PTY) LTD		016 9862154		7 Krupp st Vanderbijlpark
38	CALDERYS SOUTH		016 4406400		6 Kariba st

	AFRICA (PTY) LTD		016 4406409		Powerville Vereeniging 1939
39	R H I REFRACTORIES AFRICA (PTY) LTD		011 4447500 011 4447184 rhiafrica@mweb.co.za		17 Commerce Cres Eastgate Ext 13 Eastgate Ext Sandton Sandton

16.4 Sandblasting

No.	Company Name	Contact Person	Contact No:	Postal Address	Residential address
1	SANDBLAST				51 Milner Rd, Welkom
2	BETHLEHEM SAND BLASTERS		Tel: 058 303 0056		C/O Lomond Street and Robertson Street
3	REITZ POWER COATING AND SAND BLASTERS		Tel: 058 863 3503		4 Sarel Cilliers Street Reitz
4	MEGA SAND BLASTING		Tel: 082494 3609		Lessing Avenue Bloemfontein
5	TRD SANDBLASTING				Sasolburg
6	OSPREY STAAL				Kakie Stagen, Parys
7	AS SAND BLASTING				17 President street Makhado

8	SANDBLAST IT		Tel: 031 4648800		32 Downie Crescent Queens mead KZN
9	TRANSWERK (SANDBLASTING)				Edwin Swales Drive KZN
10	BLAST IT SANDBLASTERS		Tel: 031 3122024		40 Walls Avenue, Stamford Hill KZN
11	BLASTING IMAGE		Tel: 031 5779630		12 Peter Road, Sea Cow Lake KZN
12	CUSTOM BLASTING		Tel: 031 3032123		575 Umngeni Road, KZN
13	ALLBLAST PRIME & PAINT		Tel: 031 5637706		706 North Coast Road, Greenwood Park KZN
14	ACTION BLAST	Lothar Rottcher	Tel: 035 797 4527		1 Ohm zone, Alton, Richards Bay, 3900 KZN
15	JAKULA BLASTING CC	Bianca	Cell: 083 3101311		Unit 3, 104 Alumina Allee, Alton, Richards Bay, 3900 KZN
16	PROBLAST	Visser/Russel Welsh	Tel: 035 7511006		4 Emalje Draai, Alton, Richards Bay, 3900 KZN
17	BLAST QUEST (MIDDELBURG)	Francois H. Putter	Tel: 013 246 2708 Cell: 0839622442 Fax: 086 504 1258 www.blastquest.co.za		5A Rand Street Middelburg 1050
18	BLAST QUEST (BRITS)		Cell: 083 962 2442 Cell: 084 580 3548 Fax: 086 504 1258		180 Gamka Avenue Brits 0250

19	CORROCOAT (SA) (PTY) LTD		021 9516911 021 9514894 082 3781629 www.corrocoat.co.za		10 glucose rd Saxon park Bellville cape town
20	RIDGE POWDER COATINGS		Tel: 012 6668743 Tel: 012 6668046		45 Rudolph Street Sunderlandridge Pretoria
21	BLASTECH CC		Tel: 021 9494426 Fax: 021 9494437 Cell: 082 7800972 adlek@mweb.co.za		Spoornet Tech Depot Bellville South Cape Town
22	TAO DESIGNER GLASS CC		Tel: 011 8262349 Fax: 011 8262349 Cell: 082 4413330 www.glasstrophies.co.za		30 Green St Whitfield Boksburg
23	CARLETON SAND BLASTING		Tel: 018 7861218 Fax: 018 7861210		Plot 85 Rooipoort Carletonville
24	RANDBURG SANDBLASTING		Tel: 011 7086446 Cell: 082 8704364		146 volt line kya sand Randburg
25	S S SANDBLASTING		Tel: 039 6950788 Cell: 083 2934788		2 Main rd Izotsha 4235
26	D & B SANDBLASTING		Tel: 043 7424889 Cell: 082 7327607		17 Tutton Trce Quigney East London 5201

27	W J SANDBLASTING		Tel: 021 8530407 Cell: 072 2095262		38 De Kock St Strand W Cape
29	VAWA ENGINEERING & SANDBLASTING		Tel: 013 6902430		9 Price St Witbank Ext 2 Witbank 1035
30	INDUSTRO BLASTING		Tel: 044 6952292		9 Industrial Rd Voorbaai Mossel Bay 6506
31	LANGA SANDBLASTING		Tel: 041 4530178 Cell: 072 2418720		7 Gracey St Sidwell Port Elizabeth 6001 E Cape
32	SOUTH COAST SANDBLASTING & ENGINEERING		Tel: 039 3120179 Cell: 082 8545912 Cell: 072 3639289 Fax: 0866 616931		Old Main Rd Margate 4275 KZN
33	MPUMALANGA SANDBLASTING (TRUST)		Tel: 013 2453392		5 Protea Rd Middelburg 1055 Mpumalanga
34	A S SANDBLASTING		Tel: 015 5160994 Tel: 015 5165840 Fax: 015 5162762		2540 Van Der Berg St Louis Trichardt Limpopo
35	MARITZBURG		Tel: 033 3469138		Richmond Rd

	SANDBLASTING		Fax: 033 3469138 Cell: 082 5611412 fernhill@netactive.co.za		Richmond Pietermaritzburg
36	B B BLASTING		Tel: 011 6931770 Cell: 082 5503586		Farm Witfontein Randfontein 1759
37	DJ SANDBLASTING (CENTURION)		Cell: 082 5566483 Cell: 082 4774588		6Baard Rd Centurion
38	SANDBLAST IT		Tel: 031 4648800 Tel: 031 4631865 Tel: 031 4648877		32 Downiecrs Queensmead Durban 4093
39	REBECCA STREET SANDBLASTING SERVICES		Tel: 012 3272358 Cell: 082 3578603		1c Rebecca St Pretoria west Pretoria 0183
40	MOGALE SANDBLASTING & INDUSTRIAL SPRAYPAINTING CC		Tel: 011 7623720 Fax: 011 7621035		4 Davies St Chamdor Mogale city
41	DASSEN INDUSTRIES		Tel: 022 4512990 Fax: 022 4512386 Cell: 082 5543228		15 Caledon St Darling 7345
42	FORCE 10 BLASTING CC		Tel: 011 4521306 Fax: 011 4525225		15 Ingwe rd Sebenza Edenvale 1609
43	TONE-BLAST		Tel: 011 4526713		42 Plantation Rd

	ENGINEERING		Fax: 011 6091916		Eastleigh Edenvale 1609
44	LIMCOAT CC		Tel: 015 2930957 Cell: 076 4543321 Fax: 015 2930959		31 Chroom st Ladine Polokwane 0699
45	PIERRE DEYSEL GLASS DESIGN		Tel: 011 4779351 Cell: 084 5991777		51A 3rd Avenue Westdene Johannesburg 2092
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16.5 Agriculture (grains and crop)

No.	Company Name	Contact Person	Contact No:	Postal Address	Residential address
1	E.P. NIEMANN BOERDERY TRUST (maize, sunflower, potatoes, and groundnuts)	Mr. Niemann Evert (Owner)	Tel: 053 927-2898 Cell: 082 560 2880	P.O. Box 1789 Vryburg 8600	Patryfontein Vryburg 8600 North West
2	MULAUDZI FARM (tomatoes, onions and cabbages)	Mr. Mulaudzi Joseph	Cell: 078 592 5320	P.O. Box 45 Sagole 0995	Tshipise Sagole Mutale Town Limpopo
3	MTHOMBENI FAMILY TRUST (maize and potatoes)	Mr. Mthombeni M.J.	Tel: 013 294-1164 Cell: 084 738 2413 Fax: 013 294 1164	P.O. Box 575 Hendrina 1095	Kromktans No. 208 Portion 60 Carolina 1185

					Mpumalanga
4	BOTHA & STEENBERG BOERDERY BEDRYF BK (maize)	Mr. Botha N.J.	Cell: 082 388 2175 Fax: 011 964-1267	P.O. Box 149 Bapsfontein, Kempton Park 1610	Elandsfontein 4KZ Gedeelte 67 Bapsfontein 1610 Gauteng
5	ZORGVLIET BELEGGINGS BK (maize and groundnuts)	Mr. Jacobs P.C.	Tel: 053 963-2300 Cell: 082 416 2676	P.O. Box 745 Schweizer-Reneke 2780	Zorgvliet Schweizer-Reneke 2780 North West
6	WONDERFONTEIN BOERDERY (maize, sunflower, groundnuts and wheat)	Mr. Kotze F.G.S.	Cell: 082 948 2792	P.O. Box 775 Vryburg 8600	Wonderfontein Vryburg 8600 North West
7	VROLIKHEID (MAIZE AND groundnuts)	Mr. Viljoen J.	Tel: 018 673-0659 Cell: 082 944 0350	P.O. Box 82 Delareyville 2770	Delareyville 2770 North West
8	VIVA SADAC PRODUCTS S.A. CC (white maize)	Mrs. De Faria Lopes M.M.	Tel: 011 435-3860 Cell: 076 388 9328 Fax: 011 436-0817 vivasadac@wbs.co.za	P.O. Box 74245 Turffontein 2140	30 South Road, The Hill Johannesburg 2190 Gauteng
9	VAN VREDEN BOERDERY (maize, sunflower, wheat, groundnuts, grain sorghum and sugar beans)	Mr. Van Vreden B.P.G.	Cell: 083 440 1341	P.O. Box 4005 Vryburg 8600	Wonderfontein Vryburg 8600 North West
10	WOLVES DEN	Mr. Risseeuw	Tel: 013 261-1516	P.O. Box 569	Plot E28

	FARMING (sweet potatoes)	J.N.	Cell: 082 567 1902 Fax: 086 511 5283 risseeuwjn@ctec.co.za	Marble Hall 0450	Marble Hall 0450 Mpumalanga
11	ZIMZENI BOERDERY (melons, sweetmelons and watermelons)	Mr. Otto P.P.	Cell: 084 531 2086 Fax: 086 647 3541 zimzeni@lantic.net	P.O. Box 1139 Musina 0900	Farm Bokveld Musina 0900 Limpopo
12	WIENAM (maize and groundnuts)	Mr. Kruger V.	Cell: 082 873 7061	P.O. Box 294 Mareetsane 2715	Wienam Mareetsane 2715 Northwest
13	WITBANK (maize and peanuts)	Mr. Dippenaar J.L.	Cell: 083 441 4853 Fax: 018 330-0001 / 0033 roba@lantic.net	P.O. Box 659 Vryburg 8600	Witbank Vryburg Piet Plessis 8600 North West
14	UITKYK BOERDERY (maize, sunflower, groundnuts and wheat)	Mr. Claase H.N.	083 557 0396	P.O. Box Bloemhof 2680	Uitkyk Bloemhof 2680 North West
15	UITSCHOT (groundnuts, maize and sunflower)	Mr. Klaasen J.P.	Tel: 018 673-0659 Cell: 082 944 0350 Fax: 018 330-0001 / 0033	P.O. Box 49 Gerdau 2729	Gerdau Lichtenburg 2729 North West
16	TASET 83 CC (groundnuts, maize and sunflower)	Mr. Cloete J.F.	Cell: 082 376 4441 Fax: 018 330-0033	P.O. Box 471 Stella 8650	Stella 8650 North West

17	STERKSKEMER BOERDERY (vegetables)	Mr. Van Heerden J.C.	Tel: 082 780 1964 Fax: 086 502 5425	P.O. Box 132 Marble Hall 0450	Gedeelte 782 Loskop Noord Marble Hall Gedeelte 782 Loskop Noord Marble Hall Mpumalanga
18	SH VAN STADEN EN SEUN BOERDERY (vegetables)	Mr. Van Staden J.L.	Tel: 012 254-1478 Cell: 082 560 0149 Fax: 012 254-1478 vstadenboer@tekomsa.net	P.O. Box 762 Brits 0250	Portion 413, Klipkop Brits 0250 North West
19	SETHLODI FARMING (maize and groundnuts)	Mr. Setlhodi I.T.	Cell: 078 462 8022	P.O. Box 140 Geysdorp 2771	Geysdorp 2771 North West
20	RUS EN VREDE (maize, groundnuts and sunflower)	Mr. Meyer C.P.	Cell: 082 388 0577	P.O. Box 94 Mareetsane 2715	Rus en Vrede Mareetsane 2715 North West
21	ALICEVALE FARMS (maize and groundnuts)	Mr. Bossert J.P.	Cell: 083 231 3649 Fax: 018 330-0033	P.O. Box 80 Mareetsane 2715	Alicevale Mareetsane 2715 North West
22	STANDHOPE (maize, vegetables and groundnuts)	Mr. Grobbelaa P.N.	Cell: 083 282 9377 Fax: 018 330-0033 / 0008 roba@lantic.net	P.O. Box 171 Stella 8650	Standhope Stella 8650 North West
23	TOGGEKRY (maize and groundnuts)	Mr. Coertze T.F.J.	Cell: 082 550 5797 Fax: 018 330-0033	P.O. Box 169 Stella	Toggekry Farms Stella

				8650	8650 North West
24	TERBLANCHE BOERDERY (vegetables)	Mr. Terblanche D.F.M	Tel: 013 261-1621 Cell: 082 419 6333 Fax: 013 261-2732 tercly@lantic.net	P.O. Box 940 Marble Hall 0450	Perseel J83 Marble Hall 0450 Mpumalanga
25	STASSEN BOERDERY (maize, sunflower, groundnuts and wheat)	Mr Stassen H.	Cell: 082 389 5236	P.O. Box 121 Biesiesvlei 2755	Biesiesvlei Sannieshof 2760 North West
26	SKIETPAN BOERDERY (maize, sunflower and groundnuts)	Mr. Van Wyk J.J.	Tel: 018 596-2032 Cell: 082 553 0222 Fax: 018 596-2032	P.O. Box 552 Wolmaransstad 2630	Skietpan Boerdery Wolmaransstad 2630 North West
27	STEYNSPAN BOERDERY (maize, sunflower and groundnuts)	Mr. Wilken F.J.	Tel: 018 571-1092 Cell: 073 038 9513	P.O. Box 13 Ottosdal 2610	Steynspan Ottosdal 2610 North West
28	SHERWOOD (maize and groundnuts)	Mr. Dreyer W.I.	Cell: 082 944 4550	P.O. Box 223 Mareetsane 2715	Sherwood Mareetsane 2715 North West
29	RHODES (maize and groundnuts)	Mr. Taljaard G.	Cell: 082 828 7367	P.O. Box 249 Vryburg 8600	Rhodes Vryburg 8600 North West
30	SETLAGOLE (maize and groundnuts)	Mr. Voorby S.	Cell: 083 433 1317	P.O. Box 45 Madibogo 2772	Setlagole Madibogo 2772

					North West
31	SANNIESLAAGTE BOERDER Y (maize and groundnuts)	Mr. Strydom M./L.	Cell: 082 779 5427	P.O. Box 68 Stella 8650	Sannieslaagte Stella 8650 North West
32	ZZ2 Polokwane, Mooketsi, Politsi & Musina (limpopo) ceres and Riebeek wes (WC) Langkloof(EC)		Tel: 015 395 2040	Box 19 Mooketsi 0825	
33	Jacbro Boerdery (Groundnuts)	Dirk D.C.	Cell: 082 371 7296 Fax: 086 502 1978	P.O. Box 80 Tosca 8618	Farm Harcoirt Tosca 8618 Northern Cape
34	Sterkwater Boerdery (Onions)	Gibson W.J	Tel: 023 313-3596 Cell: 082 493 0596 Fax: 086 529 1249 admin@sterkwater.co.za	P.O. Box 103 Ceres 6835	Sterkwater Ceres 6835 Western Cape
35	BR Coetzee (Groundnuts)	Coetzee B.R.	Tel: 082 820 4055 Fax: 053 474-1910	P.O. Box 254 Jan Kempdorp 8550	Perseel 3AY Jan Kempdorp 8550 Northern Cape
36	DE JAGER BOERDERY (Raisins)	De Jager	Tel: 054 491-1013 Cell; 082 783 2089 Fax: 054 491-1169 goggy@mweb.co.za	P.O. Box 33 Kanoneiland 8806	33 Kanoneiland Upington 8806 Northern Cape
37	JH KEMP	Kemp J.H.	Cell: 082 899 4008	P.O. Box 2401	Perseel 2D8

	(Wheat, Raisins, Groundnuts, barley, Lucerne & cotton)		Fax: 053 474-1121 kempgesin@gmail.com	Hartswater 8570	Jan Kempdorp 8550 Northern Cape
38	S.A.W. VERMEULEN (maize, wheat & groundnuts)	Vermeulen S.A.W.	Tel: 053 474-2314 Fax: 053 474-1121	P.O. Box 275 Jan Kempdorp 8550	Perseel 1 C 2 Jan Kempdorp 8550 Northern Cape
39	EJ VISSER BOERDERY (Peanuts)	Visser E.J.	Tel; 053 474-1910 Cell: 082 948 2666 Fax: 053 474-1910	P.O. Box 1 Hartswater 8570	Perseel 1 F 7 Hartswater 8570 Northern Cape
40	NIEUWOUDT TRUST (Maize, wheat & groundnuts)	Nieuwoudt M.P.	Tel: 053 474-1235 Cell; 072 247 9682 Fax: 053 474-1121	P.O. Box 2187 Hartswater 8570	Perseel HE9 3EB Hartswater 8570 Northern Cape
41	BOSSIESBULT BOERDERY (maize, Lucerne, wheat, groundnuts & cotton)	Jacobs R.	Tel; 053 591-7080 Cell: 082 371 8143 Fax: 053 591-7080	P.O. Box 17 Jacobsdal 8710	Perseel B57 Jacobsdal 8710 Free State
42	HERMANUS CROUS BOERDERY EDMS BPK (Potatoes)	Crous H.	Tel: 056 212-6967 Cell: 082 800 6438 Fax: 086 613 7059	P.O. Box 7221 Kroonpark 9502	Welgelegen Farm Kroonstad 9500 Free State
43	ZZ2 CERES - WINKELHAAK (Onions)	Du Toit R.C.	Tel: 023 313-3242 Cell: 082 801 3707 Fax: 023 313-3594 rcdutoit@zz2.biz	P.O. Box 150 Ceres 6835	Winkelhaak Ceres 6835 Western Cape
44	JACBRO BOERDERY (Groundnuts)	Jacobs D.C.	Tel: 082 371 7296 Fax: 086 502 1978	P.O. Box 80 Tosca	Farm Harcoirt Tosca

				8618	8618 Northern Cape
45	STILLERUS BOERDERY TRUST (wheat, maize, sunflower & groundnuts)	Venter A.J.	Tel; 057 899-2406 Cell: 079 699 4681 Fax: 086 619 4485 stillerus@live.co.za	P.O. Box 130 Wesselsbron 9680	Welkom Plaas Wesselsbron 9680 Free State
46	SPES BONA BOERDERY (Grain Sorghum, maize, wheat & groundnuts)	Roos J.J.	Tel: 053 421-9045 Cell: 082 773 1021	P.O. Box 309 Hoopstad 9479	Spes Bona Hoopstad 9479 Free State
47	SARINA BOERDERY	Erasmus L.A	Cell: 082 378 4316 Fax: 086 502 1978	P.O. Box 299 Hoopstad 9479	Farm Sarina Hoopstad 9479 Free State
48	STERKWATER BOERDERY (onions)	Gibson W.J.	Tel; 023 313-3596 Cell: 082 493 0596 Fax: 086 529 1249 admin@sterkwater.co.za	P.O. Box 103 Ceres 6835	Leeuwkuil, Koue Bokkeveld Op-Die-Berg 6836 Western Cape
49	RIETFontein BOERDERY (onions)	Van Zyl W.P.D.	Tel: 023 317-0820 Cell: 083 457 2369 Fax: 023 317-0014	P.O. Box 17 Koue Bokkeveld 6836	Rietfontein Koue Bokkeveld 6836 Western Cape
50	MORESTER LANDGOED (MHB BOERDERY PTY) LTD (onions & potatoes)	Van der Merwe D.	Tel: 023 317-0757 Fax: 023 317-0752	P.O. Box 415 Ceres 6835	Morester, Koue Bokkeveld Ceres 6835 Western Cape

51	RIETGAT (potatoes)	Wessels G.M.	Tel: 056 212-5944 Cell: 082 829 4299 Fax: 056 212-5944 gert@gcs.co.za	P.O. Box 7262 Kroonstad 9500	Farm Rietgat Kroonstad 9500 Free State
52	MOTHEO FARMING CO-OPERATIVE LTD (Peppers, onions, potatoes, beetroot, cucumber)	Mofokeng N.J.	Cell: 082 432 8927	6997 Manyane Street, Unique Homes Phahameng 9323	Paradys & Sydenham Farm Bloemfontein 9300 Free State
53	BAMBOO ROCK (maize meal & maize flour)	Heyns J.M.	Tel: 058 304-2611 Cell: 082 824 9979 Fax: 058 304-3722 bamboo.foods@vodamail .co.za	P.O. Box 634 Bethlehem 9700	Rooirand Bethlehem 9700 Free State
54	KRANSFONTEIN VEGETABLE PRODUCERS PTY LTD	Schabort J.N.B.	Tel: 058 304-2321 Cell: 082 464 3974 Fax: 058 304-3134 krf@csfs.co.za	P.O. Box 1633 Bethlehem 9700	Kransfontein Bethlehem district Bethlehem 9700 Free State
55	MCB le Roux (potatoes)	Le Roux M.C.B.	Tel: 058 863-1516 Cell: 082 371 8553 Fax: 058 863-1516	P.O. Box 151 Reitz 9810	Elma Reitz 9810 Free State
56	KRY BOERDERY H/A VREDELUST BOERDERY (potatoes & plums)	Du Toit C.J.	Tel: 023 317-0633 Cell: 023 317-0627	P.O. Box 38 Koue Bokkeveld 6836	Vredelust Koue Bokkeveld 6836 Western Cape
57	RW MOEHRKE PROP (Vegetables)	Mr. Mecker P.	Tel: 011 314-1171 Cell: 072 389 9236 Fax: 011 314-1171	P.O. Box 50422 Rantjesfontein 1683	Halfway House 1683 Gauteng

58	LEON GRIESSEL (groundnuts)	Griessel L.	Cell: 082 443 4550 Fax: 086 502 1978	P.O. Box 352 Hoopstad 9479	Rooidraai Hoopstad 9479 Free State
59	LANGGELUK BELEGGING (EDMS) BPK (potatoes)	Van Niekerk H.J.	Tel: 056 212-4000 Cell: 082 550 0417 Fax: 086 635 1693 monica@ges.co.za	P.O. Box 7128 Kroonpark 9502	Geluk Kroonstad 9499 Free State
60	BUFFEL BOEDERY TRUST (potatoes)	Du Plessis O.	Tel: 058 821-0777 Cell: 082 784 0167 Fax: 058 821-1089	P.O. Box 34 Villiers 9840	Buffel Petrus Steyn 9840 Free State
61	JA van Zyl (potatoes)	Van Zyl J.A.	Tel: 058 643-0646 Cell: 082 780 0115 Fax: 058 643-0643	P.O. Box 92 Warden 9890	Skool Street Warden 9890 Free State
62	PACIFIC EAGLE PROPERTIES 201 (PTY) LTD (wheat, maize, sunflower & groundnuts)	Swanepoel B.	Tel: 057 352-8638 Cell: 082 412 3468 Fax: 057 352-8634	P.O. Box 14 Hennenman 9445	Nooitgedaght Welkom 9460 Free State
63	NIC KRIEK BOERDERY (EDMS) BPK (potatoes)	Kriek J.G.	Tel: 058 863-1137 Cell: 082 783 7702 Fax: 086 667 8810 johankriek@webmail.co.za	P.O. Box 599 Reitz 9810	Uitkyk Reitz 9810 Free State
64	MIKATEKO PROCESSING COMMODITIES (maize)	Grobler B.C.G.	Tel: 053 444-1555 Cell: 082 564 3431 Fax: 053 444-1555	P.O. Box 355 Hoopstad 9479	Billersbekhoek Hoopstad 9479 Free State

65	SMALDEEL BOERDERY (wheat, maize, sunflower &groundnuts)	Van der Meulen N.J.P.	Tel: 053 421-9344 Cell: 082 775 1923 Fax: 053 421-9344	P.O. Box 54 Hoopstad 9479	Farm Smaldeel Hoopstad 9479 Free State
66	DURABRO BK (potatoes)	Du Randt W.	Tel: 058 304-1230 Cell: 084 491 1377 Fax: 058 304-1230 wessel@isat.co.za	P.O. Box 332 Bethlehem 9700	subito Bethlehem 9700 Free State
67	ALLEM BROTHERS (PTY) LTD (maize)	Allem G.D.	Tel: 056 343-3111 Cell: 083 259 0329 Fax: 056 343-2341 gda@allems.co.za	P.O. Box 14 Viljoenskroon 9520	11 Rendezvous str, Industrial sites Viljoenskroon 9520 Free State
68	P.A. VAN NIEKERK (groundnuts)	Van Niekerk P.A.	Cell: 082 722 4669 Fax: 086 502 1978	P.O. Box 241 Magogong 8575	Perseel 3 L 8 Magogong 8575 Northern Cape
69	J. GROBBELAAR (groundnuts)	Grobbelaar J.	Cell: 082 948 2923 Fax: 086 502 1978	P.O. Box 231 Hartwater 8570	Perseel 5L12 Perseel 3 L 8 Magogong 8575 Northern Cape
70	J SWART (Wheat, maize, dry beans, soya beans, sunflower)	Swart J.P.	Tel: 056 931-0626 Cell: 082 001 2688 Fax: 056 931-0626	P.O. Box 32 Vredefort 9595	Farm Gansvlei Vredefort 9595 Free State
71	PRETORIUS EN SEUN BOEDERY BPK (potatoes)	Pretorius F.J.J.	Tel: 058 821-0534 Cell: 082 825 5969 Fax: 058 821-0534 / 086 129 751	P.O. Box 39 Villiers 9840	Vaalrivier Villiers 9840 Villiers 9840 Free State

			tolla@ftr.dorea.co.za		
72	HENDRIKS BOERDERY (wheat, maize, sunflower & groundnuts)	Hendriks N.	Tel: 053 421-9243 Cell: 083 262 3186 Fax: 053 421-9243	P.O. Box 108 Hertzogville 9482	Arbeidsgenot Boshof 8340 Free State
73	MAKAU-SIBLEY VENNOOTSKAP (maize, barley, wheat groundnuts)	Sibley R.G.	Cell: 082 937 7571 Fax: 053 591-7045	P.O. Box 209 Jacobsdal 8710	Perseel P. 229 Jacobsdal Jacobsdal 8710 Free state
74	N BARNARD (pumpkins)	Barnard N.	Cell: 082 411 3805	P.O. Box 146 Wolseley 6830	Kliphuis Wolseley 6830 Western Cape
75	HENDRIKS BOERDERY (wheat, maize, sunflower & groundnuts)	Hendriks N.	Tel: 053 421-9243 Cell: 083 262 3186 Fax: 053 421-9243	P.O. Box 108 Hertzogville 9482	Arbeidsgenot Boshof 8340 Free State
76	BRANDWATER BOERDERY (potatoes)	Du Plessis H.L.	Tel: 058 223-0472 Cell: 083 700 8592 Fax: 058 223-0437	Bloemhoek Fouriesbur4g 9725	Bloemlhoek Fouriesbur4g 9725 Free State
77	GELUKSBULT BOERDERY (Groundnuts)	Van Niekerk P.J.	Cell: 082 773 6239 Fax: 086 502 1978	P.O. Box 332 Bloemhof 2660	Geluksbult Boerdery Hoopstad 9479 Free State
78	Easy Greens (potatoes)	De Klerk F.S.	Cell: 083 786 5031 Fax: 058 813-2587 fsdek@mweb.co.za	P.O. Box 858 Frankfort 9830	Luyt street 12 Frankfort 9830

					Free State
79	DE KEUR LANDGOED (Rocklands) (onions)	Dutoit	Tel: 023 315-5603 Cell: 083 6306217 Fax: 023 315-5750 dirk@dekeur.co.za	P.O. Box 85 Ceres 6836	Koue Bokkeveld Ceres 6836 Western Cape
80	CERES REMHOOGTE BOEDERY (onions)	Hanekom A.	Tel: 023 317-0004 Cell: 082 926 2759 Fax: 023 317-0507 destraadt@lando.co.za	P.O. Box 70 Koue Bokkeveld 6836	De Straadt Op-Die-Berg 6836 Western Cape
81	PC MALHERBE BOERDERY (EDMS) BPK (FAIRFIELD) (Butternuts)	Malherbe P.C.	Tel: 023 315-5840 Cell: 082 497 7029 Fax: 023 315-5840 connie.ceres@mindsmail.co.za	P O Box 51 Ceres 6836	Fairfield Ceres 6836 Western Cape
82	ZANDBERG CITRUS LANDGOED - SUIDERLAND PLASE (PTY) LTD (potatoes)	Claassen J.J.	Tel: 027 482-2518 Cell: 082 821 5041 Fax: 027 482-2518 quality@sland.co.za / welverdiend@telkomsa.net	P.O. Box 128 Clanwilliam 8135	Zandberg Citrus Landgoed Clanwilliam 8135 Western Cape
83	LAASTEDRIF BOERDERY (Onions & butternuts)	Cillie P.R.	Tel: 023 316-1330 Cell: 082 453 1486 Fax: 023 312-2091 innis@cillie.co.za	P O Box 135 Ceres 6836	Laastedrif, Warm-Bokkeveld Ceres 6836 Western Cape
84	CERES REMHOOGTE BOEDERY		Tel: 023 317-0685 Cell: 083 229 9130 Fax: 023 317-0896 stokkies@dekeur.co.za	P.O. Box 8 Koue Bokkeveld 6836	Remhoogte Bokkeveld Ceres 6836 Western Cape

85	MIDDELТУIN BOERDERY (EDMS) BPK - OLYFENBOSCHKRAAL A (Watermelon, squash, sweet corn, carrots, butternuts)	Smit J.H.	Tel: 027 482-2634 Cell: 083 630 6278 Fax: 027 482-2675 kobus@middeltuyn.co.za	P.O. Box 72 Clanwilliam 8135	Olyfenboschkraal A Clanwilliam 8135 Western Cape
86	ARBORLANE BOERDERY - TWEEFONTEIN (onions)	Van der Merwe W.P.	Tel: 023 317-0617 Cell: 082 925 6663 Fax: 023 317-0221 arborl@lando.co.za	P.O. Box 44 Koue Bokkeveld 6836	Tweefontein Koue Bokkeveld 6836 Western Cape
87	PJ MOLLER (JNR) BK (potatoes & onions)	Fourie C.	Tel: 023 313-3323 Cell: 082 896 2154 Fax: 023 313-3323 corne@devlakte.co.za	P O Box 115 Ceres 6836	De Vlakte Ceres 6836 Western Cape
88	MORCEAUX (salad, carrots & butternuts)	Rossouw	Tel: 023 316-1330 Cell: 082 453 1486 Fax: 023 312-2091 innis@cillie.co.za	P O Box 135 Ceres 6836	Morceaux, Ceres Ceres 6836 Western Cape
89	WELBEDAG (potatoes & onions)	Van der Merwe I.W.	Tel: 023 317-0775 Cell: 082 789 5841 Fax: 023 317-0779 stokkies@dekeur.co.za	P.O. Box 19 Koue Bokkeveld 6836	Welbedag Op-Die-Berg 6836 Western Cape
100	BRONAAR PLASE (PTY) LTD – Bronaar (Wheat & onions)	Van der Merwe F.J.	Tel: 023 317-0729 Cell: 083 444 9742 Fax: 023 317-0661 fanie@bronaar.co.za	P.O. Box 4 Koue Bokkeveld 6836	Bronaar, Koue Bokkeveld Ceres 6840 Western Cape
101	MIDDELТУIN BOERDERY (EDMS)	Podges M.	Tel: 027 482-2634 Cell: 083 630 6278	P.O. Box 72 Clanwilliam	Middeltuyn A Clanwilliam

	BPK - Middeltuyn A (watermelon, onions, carrots, sweet corns)		Fax: 027 482-2675 kobus@middeltuyn.co.za	8135	8135 Western Cape
102	SANDVELD GROENTEMARK CC (Potatoes & onions)	Marais M.A.	Tel: 027 432-9900 Cell: 083 647 6465 Fax: 027 432-9901 suurfontein@telkomsa.net	P.O. Box 77 Lambertsbay 8130	Suurfontein Lambertsbay 8130 Western Cape
103	STERKWATER BOERDERY (onions)	Gibson W.J.	Tel: 023 313-3596 Cell: 082 493 0596 Fax: 086 529 1249 admin@sterkwater.co.za	P.O. Box 103 Ceres 6840	Bucleuch Ceres 6840 Western Cape
104	KLEIN VLAKTE (onions, carrots, butternuts)	Cillie P.R.	Tel: 023 316-1330 Cell: 082 453 1486 Fax: 023 312-2091 innis@cillie.co.za	P O Box 135 Ceres 6840	Klein Vlakte, Warm-Bokkeveld Ceres 6840 Western Cape
105	HARDING BOERDERY JPF		Tel: 0157955246		Lyden burg Road Phalaborwa
106	SHAWN PRETORIUS				Lyden burg Road Phalaborwa
107	JPF HARDING		Tel: 015755246		Jonkmanspruit Hoedspruit
108	BLYDERUS PORTION 14				Blyderus Hoedspruit Hoedspruit
109	LAGOS FARMING AND PROJECTS		Cell: 082 878 1241		Masodi - Mokopane - Mokopane
110	CHANMAR MUSHROOMS		Cell: 082 3586542		Sterkrivier Road Mokopane

111	DAANSPAN FAMILIE TRUST		Tel: 015 491 8221		Uitloop Mokopane Mokopane
112	HOEWEL 4 EELMADAL		Tel: 015 2257159		Eelmadal Polokwane
113	MOUNTE MARE FARM		Cell: 0836917606		Eerstegoed Polokwane
114	MINNAAR BOERDERY		Tel: 015 9401868		Wildebeesfontein Polokwane
115	PALMIETKUIL FARM		Cell: 0832278370		Palmietkuil Polokwane
116	HENTINA BOERDERY		Cell: 0839850771		Zandriverspoort Polokwane
117	HERMANES BESTER		Tel: 015 2636504		914 Onverwacht Polokwane
118	HANS KOTINGS FARM		Cell: 0829401868		Wildebeesfontein Polokwane
119	KROMDRAAI FARM		Tel: 015 2999903		Kromdraai
120	DE PUT FARM		Tel: 015 2960043		Onverwacht Polokwane
121	V DU BRUIN FARM		Cell: 0834198410		Waterval Polokwane
122	KAREE BOSCH OLYNE		Tel: 015 2911636		Karee Bosch Polokwane
123	KAREE BOSCH FARM		Tel: 015 2899506		Karee Bosch Polokwane
124	PAPKUIL FARM		Cell: 0824185668		Papkuil

					Polokwane
125	ZANDRIVIERSPOORT FARM		Cell: 0828086020		Zandrivier Polokwane
126	PAPKUIL FARM/DEON FOURIE		Cell: 0835163579		Papkuil Polokwane
127	MARK MCMAHON FARM		Cell: 0783365067		Watervaal Polokwane
128	GALDEKOPPIES FARM		Cell: 0821196536		Galdokoppies Polokwane
129	BUTTERNUT FARM		Cell: 0845246419		Montina Road Polokwane
130	CHERIO FARM		Cell: 0832637663		Makgobaskloof Polokwane
131	WINDBULT BOERDERY		Cell: 0828533985		Windbult Polokwane
132	GLADDE KOPPIES FARM		Tel: 015 3974468		Gladde Koppies Polokwane
133	DIEFONTEIN FARM		Tel: 015 3974611		Drie Polokwane Fontein Polokwane
134	GERT LOMBARD FARM		Cell: 0827738591		Die Bult Polokwane
135	DIE DRIFT FARM		Tel: 015 2957158		Tshebeng /Mashashasne Polokwane
136	ZZ2 N1 ROAD		Cell: 0836294875		N Polokwane

					1 Road
137	ZANDRIVIERSPOORT		Cell: 0840716782		Zandriverspoort Farm L5851 Polokwane
138	KAREEBOSCH 50 FARM				Kareebosch 50
139	HERMAN'S BESTER				914 Onverwacht Polokwane
140	DENNIS WILSON'S FARM				Onverwacht Polokwane
	JAKU VILJOEN FARM		Cell: 0712056391		Onverwacht
141	KING REST FARM				Doornfontein Polokwane

16.6 Construction

(Building Contractors, House Builders, Civil Engineering Contractors, Industrial Buildings, Roofing Contractors, Maintenance / Repairs, Block Paving, road constructions)

No.	Company Name	Contact Person	Contact No:	Postal Address	Residential address
1	MURRAY & ROBERTS		Tel: 011 820 4600 Fax: 011 820 4627	P.O. Box 8212 Elandsfontein 1406	Doglous House Barbara Rd, Elandsfontein Gauteng
2	WBHO		Tel: 011 321 7200 Fax: 011 887 4364	PO Box 531 Bergvlei 2012	53 Andries Street Wynberg Sandton090
3	A L P BUILDING CONTRACTORS CC	ATT: A J H MCKNIGHT	Tel: 011-435-1168/9 Fax: 011-435-4051 audrey@alpbuilding.co.za	P O BOX 168 LINMEYER 2105	26 SOUTH ROAD THE HILL JOHANNESBURG 2197
4	ABBEYDALE BUILDING AND CIVILS (PTY) LTD	CLINTON FRONEMAN	Tel: 011-823-2755/6/7 Fax: 011-823-2103 clinton@abbeydale.co.za		UNIT 9 LAKEVIEW BUSINESS YALDWYN ROAD JET PARK 1459
5	ADAMSON NIELSEN CONSTRUCTION (PTY) LTD	ROD NIELSEN	Tel: 011-786-4455 Fax: 011-786-4491	P. O BOX 191 BERGVLEI 2012	42 FOURTH STREET WYNBERG SANDTON 2090
6	ADDA CONSTRUCTION	ALEX LEONSINS	Tel: 011-708-4700 Fax: 011-708-4844	P O BOX 41118 CRAIGHALL JOHANNESBURG 2024	PORTION 3 OF 7 ZANDSPRUIT FARMALL SANDTON
7	ADMIRAL	TONY PHELP	Tel: 011-514-0085	P O BOX 67110	1ST FLOOR SCHARRER HSE

	CONSTRUCTION(P TY)LTD		Fax: 011-514-0087	BRYANSTON 2021	GEORGIAN COURT BRYANSTON
8	ALBERTON CONSTRUCTION CO(PHY)LTD	STATHOULIS	Tel: 011-907-3530/8 Fax: 011-907-3539	P O BOX 140 ALBERTON 1450	J S CENTRE VOORTREKKER RD NEW REDRUTH
9	ALMINIC CONSTRUCTION(P TY) LTD	A P FOGOLIN	Tel: 011-615-7303 Fax: 011-622-3551	P O BOX 28959 SANDRINGHAM 2131	94 VAN DER LINDE RD BEDFORDVIEW
10	AMOYA CONSTRUCTION CC	ELIZE COERTZE	Tel: 011-314-8301 Fax: 011-314-8293	P O BOX 5494 HALFWAY HOUSE 1685	UNIT 2 270 ROAN CRES CORPORATE NORTH PARK MIDRAND
11	ANDREW GRIFFITHS CONSTRUCTION CC	ANDREW GRIFFITHS	Tel: 011-465-6903 Fax: 011-465-5902	P O BOX 2430 CRAMERVIEW 2060	CNR PROPROP HOUSE MULBARTON & VALBOME BEVERLEY
12	ARCHSTONE CONSTRUCTION (PTY) LTD	JOAO DOS SANTOS	Tel: 012-346-3491 Fax: 012-460-6900	P O BOX 25424 MONUMENT PARK PRETORIA, 0105	134 BRONKHORST ST NIEUW MUCKLENEUK PRETORIA 0081
13	ATLANTIS CONSTRUCTION COMPANY (PTY) LTD	BENJY JAFFAD	Tel: 011-472-3210/1787 Fax: 011-674-4376	P O BOX 486 MARAISBURG 1700	42 ROSETTENVILLE RD VILLAGE MAIN JOHANNESBURG 2001
14	B C O CONSTRUCTION(P TY)LTD	FRANCESCO MASSELLI	Tel: 011-487-2448 Fax: 011-487-1047	P.O. BOX 78851 SANDTON 2146	39 ST PETER ROAD UPPER HOUGHTON
15	B CON BUILDERS & CONTRACTORS	CHARMAINE BEZUIDENHOUT	Tel: 011-704-0320 Fax: 011-704-0321	P O BOX 2808 HONEYDEW	419 VALLEY ROAD NORTH RIDING

				2040	2194
16	B K BUILDERS	BEN KRAMER	Tel: Fax:	29 BERG WEG FLORENTIA 1449	
17	B M L KONSTRUKSIE BK	PIET BOOYZEN	Tel: 012-368-1030 Fax: 012-368-1030	P O BOX 1318 MENLYN CENTRAL 0077	CNR LOIS & ATTERBURY ST MENLYN SHOPPING CENTRE
18	B O H CONSTRUCTION CC	HARDY BOTES	Tel: 011-462-1067 Fax: 086-618-1900	P O BOX 32 SUNDOWNER 2161	532 JUWEEL ST JUKSKEI PARK
19	BANTRY CONSTRUCTION SERVICES (PTY) LTD	COLIN ERIKSON	Tel: 011-472-2925 Fax: 011-672-4564	P O BOX 724 MARAISBURG 1700	1156 MINNIE POSTMA AVE FLORIDA EXT 11
20	BARROW CONSTRUCTION (PTY)LTD	MR JOHN BARROW	Tel: 011-483-0727 Fax: 011-483-0728	P O BOX 2516 HOUGHTON 2041	101 CENTRAL AVENUE HOUGHTON
21	BARTLETT CONSTRUCTION(P TY)LTD	WAYNE BARTLETT	Tel: 011-472-3633/8 Fax: 011-672-3769	P.O. BOX 87 MARAISBURG 1700	8 TENTH STREET MARAISBURG 1700
22	BARWIT CONSTRUCTION	HENNIE BADENHORST	Tel: 011-704-2342 Fax: 011-704-2342	P O BOX 3820 RANDBURG 2125	18 SMARAG STREET JUKSKEI PARK 2194
23	BASIL READ BUILDING (PTY) LTD	ANDRE OOSTHUYSEN	Tel: 011-418-6456 Fax: 011-418-6333	P/BAG X170 BEDFORDVIEW 2008	388 GILD ROAD LILANTON BOKSBURG
24	BELELA CONSTRUCTION	CAROL	Tel: 012-654-1551 Fax: 012-654-1551	P O BOX 172359 CLUBVIEW	95 SECURITY BLD COMMISSIONER ST

	(PTY) LTD			0014	JOHANNESBURG
25	BELL'S CONSTRUCTION CC	KEITH BELL	Tel: 011-763-7210 Fax: 011-763-8188	P O BOX 5429 WELTEVREDENP ARK 1715	STAND 139 , DAME STR HAMBERG ROODEPOORT
26	BELO & KIES CONSTRUCTION(P TY)LTD	WIMPIE KIES	Tel: 011-963-0623 Fax: 011-963-0010	P O BOX 978 GLENVISTA 2058	259 8TH ROAD BREDELL 1623
27	BENSTRA CONSTRUCTION (PTY) LTD	WIM FOURIE	Tel: 012-664-0064 Fax: 012-664-1180	P O BOX 788 IRENE 0062	1018 KRUGER AVENUE CENTURION 0140
28	BEURDEN CONSTRUCTION CC	CHRIS VAN BEURDEN	Tel: 011-442-0042 Fax: 011-447-0229	P O BOX 84613 GREENSIDE 2034	40 6TH STREET PARKHURST
29	BHEJANE PROJECTS CC	BYRON NAUDE	Tel: 011-975-2070 Fax: 011-975-2055	P O BOX 15075 IMPALA PARK BOKSBURG 1472	52 DANN ROAD ASTON MANOR KEMPTON PARK 1619
30	BILLION CONSTRUCTION (PTY) LTD	PIETER	Tel: 011-552-8195 Fax: 011-552-8198	P O BOX 30034 JET PARK 1469	MEERZIGHT BUS PARK 33 KELLY ROAD JET PARK 1459
31	BLARNEY STONE CONSTRUCTION PROJECTS	STEVE MARTIN	Tel: 082-979-5659 Fax:	P O BOX 88 MAGALIESBURG 1791	PLOT 19 - 20 BOFFELSFONTEIN NW PROVINCE
32	BLK CONSTRUCTION CC	KABELO CLIFF MOPAI	Tel: 011-431-1570 Fax: 011-431-1570	5 HEDWIN QUEENS AVE WINDSOR EAST RANDBURG	5 HEDWIN QUEENS AVE WINDSOR EAST RANDBURG 2194

				2194	
33	BOUPEN CONSTRUCTION(P TY)LTD	DAVID BOTHA	Tel: 011-678-4551 Fax: 011-678-4583	P O BOX 35429 NORTHCLIFF 2115	1ST FLOOR LIBRARY CENTRE, FIR DRIVE NORTHCLIFF
34	BOUWMEESTER CONSTRUCTION CC	ROEL BOUWMEESTER	Tel: 012-332-0936 Fax: 012-332-2472	1228 DICKENSONLAA N AVE WAVERLEY 0186	1228 DICKENSONLAAN AVE WAVERLEY 0186
35	BRAMWELL CONSTRUCTION PROJECTS CC	JOHN BRAMWELL	Tel: 011-452-1617/8 Fax: 011-452-3614	P.O. BOX 8705 EDENGLLEN 1613	29 PLANTATION ROAD. EASTLEIGH EDENVALE
36	BRAND C A BUILDING(PHY)LT D	CHRIS HOLDEN	Tel: 011-310-1630 Fax: 011-310-1025	P O BOX 12727 CHLOORKOP 1624	SARASEEN ROAD CHLOORKOP EXT 10 KEMPTON PARK
37	BUSISIWE CONSTRUCTION	RAYMOND MADANDO	Tel: 012-991-7664 Fax: 012-991-7626	P O BOX 11540 TRAMSHED 0126	717 TIPPERARY WAY FAERIE GLEN EXT 7 0043
38	CARLOP CONSTRUCTION CC	NAOMI PRINSLOO	Tel: 011-435-0754/9 Fax: 011-435-0765	P O BOX 497 ROSETTENVILLE 2197	13 AUGUSTA ROAD REGENTS PARK
39	C'EST CONSTRUCTION CC	DEREK	Tel: 011-425-5535 Fax: 011-425-2398	P O BOX 15668 FARRAMERE BENONI 1518	49 CAMBRIDGE GARDENS CHAUCER ST FARRAMERE 1501
40	CHARLIE'S BUILDING CONSTRUCTION	CHARLES MOYO	Tel: 011-485-4991 Fax: 011-640-6907	294 LOUIS BOTH AVE ORANGEGROVE	294 LOUIS BOTH AVE ORANGEGROVE 2192

	CC			2192	
41	CHAZOWN CONSTRUCTION PROJECTS CC	DONANVAN KOOPMAN	Tel: 011-976-0527 Fax: 086-573-4317	P O BOX 12462 EDLEEN 1625	13 ANTBEAR ST ESTHER PARK 1619
42	CKJ BUILDING CONSTRUCTION CC	FERDINAND KILIAN	Tel: 012-661-5264 Fax: 012-661-9755	POSBUS 3545 THE REEDS 0158	42 PELICAN ST ROOIHUISKRAAL 0158
43	CLAUNET CONSTRUCTION GAUTENG(PTY)LT D	CLAUDE MARAIS	Tel: 012-548-1597 Fax: 012-567-6001	P O BOX 275 MONTANA PARK 0159	935 RIETHAAN ST MONTANA PARK
44	CONCEPT 2 CONSTRUCTION (PTY) LTD	STEFAN FRIESE	Tel: 011-782-4503 Fax: 011-888-9874	P O BOX 1980 CRESTA 2118	96 4TH ST LINDEN JOHANNESBURG 2195
45	CONCOR HOLDINGS (PTY) LTD	FRANS GERBER	Tel: 011-495-2222 Fax: 011-837-6442	P O BOX 8259 JOHANNESBURG 2000	13 CHURCH STREET EXT CROWN MINES JOHANNESBURG 2091
46	CORLETT D F CONSTRUCTION (PTY) LTD	D H MITCHELL	Tel: Fax: 011-440-5520	26 KNOX STREET WAVERLEY 2090	26 KNOX STREET WAVERLEY 2090
47	CROUCAMP CONSTRUCTION CC	VERNON MITCHELL	Tel: 011-672-0417/8/9 Fax: 011-672-0651	P O BOX 1453 FLORIDA 1710	1047 KATROL AVENUE ROBERTVILLE EXT 10 FLORIDA
48	D M G CONSTRUCTION CC	DINO GREGORIOU	Tel: 012-347-0842 Fax: 012-347-7057	P O BOX 26485 MONUMENT PARK 0105	269 ORION ROAD WATERKLOOF RIDGE PRETORIA

49	D3 CONSTRUCTION (PTY) LTD	CRAIG PLESSIS DU	Tel: 012-643-0498 Fax: 086-689-9874	P O BOX 48214 ROOSEVELT PARK 2129	5 LARCH NOEK ST ZWARKOPS EXT 4
50	DDW BUILDING PROJECTS	DENNIS DE WITT	Tel: 012-335-8611 Fax: 012-335-8612	P O BOX 32024 TOTIUSDAL 0134	PAUL KRUGER ST TRANSNET GROUNDS CAPITAL PARK
51	DELOISE CONSTRUCTION CC	MARIUS NEL	Tel: 012 654 4414 Fax: 012 654 4414	P O BOX 910 WEIRDA PARK 0149	40 HENRI ROAD CENTURION PRETORIA 0149
52	DEMIN CONSTRUCTION	SHAWN	Tel: 011-783-6991 Fax: 011-783-6855	P O BOX 52023 SAXONWOLD 2132	4 ABROATH AVE HURLINGHAM SANDTON
53	DESRE CONSTRUCTION	RIAAN PLESSIS DU	Tel: 011-976-5956 Fax: 011-976-5956	SUITE 9109 PRIVATE BAG X32 EDLEEN 1620	30 PARADYSVINK ST BIRCH ACRES KEMPTON PARK 1619
54	DRACON CONTRACTORS (PTY) LTD	LANCE HARROD	Tel: 011-786-2800 Fax: 011-786-2458	P O BOX 466 BERGVLEI 2012	CNR 4TH & SOUTH ST WYNBERG SANDTON 2090
55	DRAGON CONSTRUCTION CC	IAN SHIPP	Tel: 011-465-8208 Fax: 011-462-4112	P O BOX 69835 BRYANSTON 2021	196 WILLOW AVE GRAIGAVON SANDTON 2021
56	DSV CONSTRUCTION	DAVID VILJOEN	Tel: 072-113-8678 Fax: 011-811-2129	P O BOX 11611 SELCOURT	5 NASTURTUIM AVE EDELWEISS

				1567	SPRINGS 1560
57	DUNCANRIG CONSTRUCTION(P TY)LTD	ILANA BOVDER	Tel: 011-608-1464/6 Fax: 011-608-2550	P O BOX 4048 EDENVALE 1610	45 SECOND ROAD LINBRO PARK AGRICULTURAL HOLDINGS
58	DUNKLEY CONSTRUCTION (PTY) LTD	BRUCE DUNKLEY	Tel: 011-444-1125 Fax: 011-444-6473	P O BOX 76040 WENDYWOOD 2144	11 COMMERCE CREC. EASTGATE EXT13
59	EDILCON CONSTRUCTION (PTY) LTD	DANIE DE VILLIERS	Tel: 011-907-9410 Fax: 011-907-9268	P O BOX 132 ALBERTON 1450	18 RADIO STREET ALBERTON NORTH
60	EIGHT J CONSTRUCTION PROJECTS	ANDREW JENNINGS	Tel: 011-782-7447 Fax: 011-782-7447	P O BOX 681 CRESTA 2118	108 8TH ST LINDEN 2195
61	ENGEL & RUYTER CONSTRUCTION CC	CHRIS PRONK	Tel: 012-348-7656 Fax: 012-361-9228	P O BOX 36499 MENLO PARK 0102	226 FAKKEL STREET SILVERTON PRETORIA 0184
62	ENZA CONSTRUCTION (PTY) LTD	ROBERT	Tel: 011-803-7000 Fax: 011-803-7111	P O BOX 98774 SLOANE PARK 2152	3RD FLOOR LILLIPARK 354 RIVONIA BLV RIVONIA 2128
63	ERIC BETZ CONSTRUCTION MANAGEMENT SERVICES CC	ERIC BETZ	Tel: 011-475-0740 Fax: 011-475-0740	P O BOX 1832 BROMHOF 2154	949 JAVELIN CNR WELTEVREDEN PARK 1709
64	FERRO BROS CONSTRUCTION CO (PTY) LTD	SARA OPETTI	Tel: 011-444-2185 /6 Fax: 011-444-6893	P O BOX 76161 WENDYWOOD 2144	22 COMMERCE CRESCENT EASTGATE EXT12

65	FHATA CONSTRUCTION GROUP	NCEBA GOMOMO	Tel: 011-805-6065 Fax: 011-312-3557	P O BOX 91 HALFWAY HOUSE 1685	TGG HOUSE 850 BARBARA PLACE VORNA VALLEY MIDRAND 1688
66	FSB CONSTRUCTION CC	FLORA SEPENG	Tel: 011-403-2068 Fax: 011-403-3888	P O BOX 1515 KELVIN 2054	24 12TH AVE ALEXANDRA TOWNSHIP 2090
67	G I P BUILDERS (PTY)LTD	MERYN ROBINS	Tel: 011-794-1732 Fax: 011-794-3722	P O BOX 1623 HONEYDEW 2040	18 ZEISS ROAD HONEYDEW 2040
68	H K W CONSTRUCTION CC	KLAUS WEISSWANGE	Tel: 011-673-6289 Fax: 011-673-6289	P O BOX 66 BERGBRON 1712	84 MALUTI AVE NORTHCLIFF
69	H C PROJECTS (CONSTRUCTION) CC	MIKE	Tel: 011-453-5462 Fax: 011-453-5463	P O BOX 9527 EDENGLLEN 1613	33 FIRST AVENUE EDENVALE
70	HILLCO CONSTRUCTION	ALTINO COUTO	Tel: 011-802-7141 Fax: 011-802-4713	P O BOX 243 BUCCLEUGH 2066	SUITE 11 WENDYWOOD SHOPPING CENTRE WENDYWOOD
71	IAN BOLTON CONSTRUCTION (PTY) LTD	IAN BOLTON	Tel: 011-789-3604 Fax: 011-789-4710	P O BOX 56160 PINEGOWRIE 2123	5 CONRAD DRIVE BLAIRGOWRIE RANDBURG 2123
72	INDEPENDENT PROJECTS(Landsca ping) CC	STEVE MUTS	Tel: 012-329-0991 Fax: 012-329-0971	POSTNET SUITE211 PRIVATE BAG X06 0145	155 SOUTSPANSBERG RD RIVIERA PRETORIA 0084

73	KELRO CONSTRUCTION SERVICES CC	GRANT WAINWRIGHT	Tel: 011-880-6070 Fax: 011-880-3398	P O BOX 697 RIVONIA 2128	14 - 6TH ST PARKHURST 2193
74	LANDPROP CONSTRUCTION CC	DAVE LANCASTER	Tel: 011-678-6346 Fax: 011-678-2897	176 FREDERICK DRIVE NORTHCLIFF EXT 2 2195	176 FREDERICK DRIVE NORTHCLIFF EXT 2 2195
75	LAZZIE PROJECTS CC	LAZZIE	Tel: 011-975-4420 Fax:	P O BOX 8596 HALFWAY HOUSE 1685	OFFICE 21 SELWYN COURT 14 WEST ST KEMPTON PARK 1620
76	L V CONSTRUCTION PROJECTS	BRUCE JACOBS	Tel: 011-794-9684 Fax: 011-794-9685	P O BOX 1397 HONEYDEW 2040	1466 VLOOTBOOT ST HONEYDEW EXT 20
77	L F V PROJECTS (PTY) LTD	JOHAN LOMBARD	Tel: 012-345-5582 Fax: 086 680 1540	POSTNET SUITE529 PRIVATE BAG X 4 MENLO PARK 0102	464 SUSSEX AVE LYNWOODRIDGE
78	LONA BUILDING PROJECTS (PTY) LTD	CHRIS MAREE	Tel: 012-541-2060/1 Fax: 012-541-5015	P O BOX 911-1803 ROSSLYN 0200	CNR HARDIE MULLER & WILLIAM HOY STR ROSSLYN 0200
79	LSB PROJECT CC	JOE RAPOSO	Tel: 082-497-3320 Fax: 011-318-2461	P O BOX 516 MIDSTREAM- ESTATES 1692	CNR HARDIE MULLER & WILLIAM HOY STR ROSSLYN 0200

80	LUSHAKA CONSTRUCTION (PTY) LTD.	LUCIANO AQUINO	Tel: 011-454-2070 Fax: 011-454-2181	P O BOX 394 BEDFORDVIEW 2008	3 WILLOW CRESCENT ST ANDREWS EXT 10
81	MARK WARNER CONSTRUCTION CC	MARK WARNER	Tel: 083-305-9656 Fax: 086-613-7213	P O BOX 69721 BRYANSTON 2021	35 BORDER RD SUNRELLA RANDBURG
82	MOULDCOR CONSTRUCTION CC	HECTOR CARBONARI	Tel: 011-432-3838 Fax: 011-432-3668	PO BOX 39313 BOOYSENS 2016	SUITE 6, VISTA PLACE C/O VORSTER & GLEN AVE GLENANDA
83	MURRAY & DICKSON CONSTRUCTION (PTY) LTD	MR A MURRAY	Tel: 011-463-1962/3 Fax: 011-706-5354	P O BOX 591 PARKLANDS 2121	NO 1 SOMERSET OFFICE PARK 5 LIBERTAS ROAD
84	MURRAY & ROBERTS CONSTRUCTION(P TY)LTD	P MARTINS	Tel: 011-820-4600 Fax: 011-820-4656	P O BOX 8212 ELANDSFONTEI N 1406	DOUGLAS HOUSE BARBARA ROAD ELANDSFONTEIN
85	MVELA PHANDA CONSTRUCTION(P TY)LTD	M S AZIZ JOOSUB	Tel: 012-803-5997 Fax: 012-803-4105	P O BOX 2919 PRETORIA 0001	256 VONKPROP STREET SAMCOR PARK X1 SILVERTON
86	NDB CONSTRUCTION	NGETANE MOHLALA	Tel: 011-962-1265 Fax:	PRIVATE BAG X03 DAVEYTON 1509	1442 ZITHULELE ST ETWATWA EXT 2 DAVEYTON 1519
87	NASITRA ARTISANS CC	DAVID VENTER	Tel: 011-915-8484 Fax: 011-220-4586	12 WAXBERRY ST VAN DYK PARK BOKSBURG 1459	12 WAXBERRY ST VAN DYK PARK BOKSBURG 1459

88	NORTH RICH CONSTRUCTION	JUAN PIERRE	Tel: 012-803-9865 Fax: 012-803-9801	P O BOX 1284 BRONKHORSTSP RUIT 1020	SHIRLEY AVE EAST PASELLA NO 2 MURRAYFIELD 0184
89	OILCON CONSTRUCTION CC	ANDRE CALITZ	Tel: 083-625-0919 Fax: 044-695-2453	P O BOX 824 HARTENBOS 6520	BOB BOUWER NO 13 BAYVIEW MOSELBAY
90	PAUL SANTOS CONSTRUCTION	PAUL SANTOS	Tel: 011-452-6334 Fax: 011-452-6334	P O BOX 9387 EDENGLLEN 1613	18 EURUS MEWS 64 TERRACE ROAD EDENGLLEN 1613
91	PLATYNUM CONSTRUCTION CC	ROBERT CLOUSTON	Tel: 011-886-6368 Fax: 011-787-3206	P O BOX 158 MORNINGSIDE 2057	376 OAK AVENUE FERNDALE RANDBURG 2194
92	POLMAR CONSTRUCTION CC	ANDREW MARCINIAK	Tel: 011-822-2360 Fax: 011-822-2360	P O BOX 6824 HOMESTEAD 1412	21 VEGA STREET FISHERS HILL GERMISTON 1401
93	PROBEST PROJECTS (PTY) LTD	RENE DE MATTEIS	Tel: 011-886-6806 Fax: 011-781-2089	P O BOX 4101 RANDBURG 2125	236 PINE AVENUE FERNDALE RANDBURG
94	RADCO CONSTRUCTION (PTY) LTD	MR VASCO RADER	Tel: 011-802-3314 Fax: 011-804-5319	P O BOX 283 KELVIN 2054	28 NORTHWAY KELVIN 2054
95	RE EMA BOHLE ENGINEERING	HENDRI RIEKERT	Tel: 012-546-9756 Fax: 012-546-9556	P O BOX 54380 NINAPARK 0156	246 EEUFEE ST PRETORIA NORTH 0182

96	S G BUILDING CONSTRUCTION	GIFT NKOSI	Tel: 011-680-6798 Fax: 011-680-6794	P O BOX 347 PIMVILLE 1808	60 MENTS ST BOOYSENS JOHANNESBURG
97	SKINNER R A KONSTRUKSIE BK	ROBERT SKINNER	Tel: 012-803-0811 Fax: 012-803-9605	P O BOX 35677 MENLOPARK 0102	176 VONKPROP ST SILVERTON SANCOR PARK
98	TARGO CIVILS	STEVE	Tel: 011-394-0183 Fax: 011-394-7202	PRIVATE BAG X27 KEMPTON PARK 1620	13 LA PROVENCE GARDENIA ST KEMPTON PARK 1619
99	TELFORD CONSTRUCTION (PTY) LTD.	IAN LOWE	Tel: 012-653-1476 Fax: 012-653-0023	P O BOX 10734 CENTURION 0046	PLOT NO 19, THEUNS AVENUE, SIMARLO CENTURION
100	TOP RANK	MESCHACK MBOKANE	Tel: 012-546-1707 Fax: 012-546-1707	P O BOX 341 PRETORIA 0001	629 PRESIDENT STEYN ST PRETORIA NORTH 0002
101	TYRIS CONSTRUCTION (PTY) LTD	CHRIS ERASMUS	Tel: 012-450-1600 Fax: 012-450-1800	P O BOX 1318 SILVERTON 0127	SUITE 61 REGENCY PAV 36 REGENCY DRIVE ROUTE 21 CORPORATE PARK
102	W B H O CONSTRUCTION (PTY) LTD.	LOUWTJIE NEL	Tel: 011-321-7200 Fax: 011-887-4364	P O BOX 531 BERGVLEI BERGVLEI	53 ANDRIES STREET WYNBERG SANDTON 2199
103	UPLINE PROJECTS CC	LOUIS ERASMUS	Tel: 012-346-5845 Fax: 012-346-0771	POSBUS 11180 MAROELANA 0161	390 LAWLEY STREET WATERKLOOF PRETORIA
104	WITHAAR BA BUILDER	BART WITHAAR	Tel: 012-329-3616 Fax: 012-329-8596	P O BOX 11220 QUEENSWOOD 0121	179 ROSE STREET RIVEIRA PRETORIA

					0084
105	WRAY HARRIS & ASSOCIATES	JOE DE BEER	Tel: 011-465-3533 Fax: 011-465-5006	P O BOX 899 WITKOPPEN 2068	55 KINGFISHER DRIVE FOURWAYS
106	ZATMAR CONSTRUCTION	U MARSELLA	Tel: 011-828-1781 Fax: 011-828-1781	P O BOX 19018 FISHERS HILL 1408	39 NEPTUNE STREET SOLHEIM GERMISTON 1401
107	ZF CONSTRUCTION (PTY) LTD	JULIAN GLOWACKI	Tel: 011-301-3601 Fax: 086-645-6928	P O BOX 418 RUIMSIG 1732	89 ST GEORGES ST NEWLANDS
108	KATHIDE CIVILS AND ROAD CONSTRUCTION C.C		Tel: Fax:	P.O. Box 167761, Brackendowns, 1454	
109	MOSEME ROADS CONSTRUCTION CC		Tel: 011 9692900 Cell: 082 7725339 Fax: 011 9692902 office@moseme.co.za	527 pretoria rd fairleads benoni	
110	STEFANUTTI STOCKS CIVILS (PTY) LTD		Tel: 011 5714300 Fax: 011 3931860 www.stefanuttistocks.com	cnr zuurfontein & oranjeriver dr kempton park	
111	AFRICA PEZULU CONSTRUCTION CC	ARTHUR ZONNEVELD	Tel: 013-744-1888 Fax: 013-744-0551	P O BOX 19274 NELSPRUIT 1200	VENN 34 NELSPRUIT EXT 4 1200
112	B B M (EDMS) BPK	KOOS BARNHOORN	Tel: 013-764-1105 Fax: 013-764-2097	POSBUS 186 SABIE 1260	OU LYDENBURG WEG SABIE 1260

113	BALKOR KONSTRUKSIE BK	FRED BALT	Tel: 013-656-3626 Fax: 013-656-3368	POSBUS 1330 WITBANK 1035	PLOT 86 JACKAROO HOEWES 1035
114	BOER P (EDMS)BPK	P BOER	Tel: 017-719-1117 Fax: 017-719-1117	POSBUS 19 STANDERTON 2430	30 PIET RETIEF STR STANDERTON
115	CVT PROJECTS (PTY) LTD	CHARLES VENTER	Tel: 013-753-2705 Fax: 013-752-5406	P O BOX 1427 NELSPRUIT 1200	62 BESTER ST NELSPRUIT 1200
116	ELANDRE CONSTRUCTION CC	SUSAN PHEIFFER	Tel: 013-692-7304 Fax: 013-692-7338	POSBUS 13434 LERAATSFONTEI N 1038	23 FRIEDA STR DEL JUDOR X12 WITBANK 1035
117	IKOTWE KONSTRUKSIES	ANDREAS VAN TONDER	Tel: 013-750-1200 Fax: 013-750-1184	P O BOX 1988 WHITE RIVER 1240	22 RUSSEL STREET NELSPRUIT
118	J N J BOUERS (EDMS) BEPERK	JAN GROBLER	Tel: 013-745-7123 Fax: 013-745-7143	POSBUS 676 NELSPRUIT 1200	PLOT 26 MAGGIESDAL NELSPRUIT
119	JOUBERT BROERS BOUKONTRAKTE URS (EDMS) BEPERK	ANDRIES JOUBERT	Tel: 013-712-2178/9 Fax: 013-712-6205	POSBUS 2 BARBERTON 1300	VAN DER MERWE STRAAT 2 BARBERTON 1300
120	LOWVELD CONSTRUCTION	PAUL WHITAKER	Tel: 013-744-1013 Fax: 086-524-7655	P O BOX 14094 NELSPRUIT 1200	40B ENTERPRISE ST NELSPRUIT 1200
121	STANDARD DEVELOPMENT PROJECTS (PTY)	RICHARD TAINTON	Tel: 017-819-5262 Fax: 017-819-3056	P O BOX 1005 ERMELO 2350	97 CLOETE ST ERMELO 2351

	LTD				
122	TONY LAGERWEY (PTY) LTD.	R ANDERSON	Tel: 013-758-1323 Fax: 013-758-1375	P O BOX 4556 WHITE RIVER 1240	CNR SMUTS & BASSON S ROCKY DRIFT WHITE RIVER 1240
123	VAN DER PLAS KONSTRUKSIE (EDMS) BEPERK	JAN VAN DER PLAS	Tel: 017-826-2381/2382 Fax: 017-826-3509	P O BOX 231 PIET RETIEF 2380	1C DE WETSTREET PIET RETIEF 2380
124	VALENTINE PROJECTS CC	DAVE HINTON	Tel: 013-235-1366 Fax: 013-235-3837	P O BOX 122 LYDENBURG 1120	VALENTINE FARM MORGAN STREET LYDENBURG 1120
125	ANSAKI CONSTRUCTION	KARL	Tel: 015-307-1595 Fax: 015-307-2420	P O BOX 239 TZANEEN 0850	MAROELA SENTRUM CNR SKIRVING & CLAUDE WHEATLEY ST, TZANEEN 0850
126	BOUNET BUILDERS CC	JOHN MEANEY	Tel: 015-297-1058 Fax: 015-297-4031	P O BOX 1663 POLOKWANE 0700	NO 5, 22ND AVENUE INDUSTRIA POLOKWANE
127	BUSLER CONSTRUCTION	JAKOBUS GROBLER	Tel: 014-786-0086 Fax: 014-786-0086	P O BOX 563 SWARTKLIP 0370	
128	C M C KOCH KONSTRUKSIE BK	CLEMONS KOCH	Tel: 015-263-6306 Fax: 015-263-6306	POSBUS 4182 POLOKWANE 0700	DALMADA 156 POLOKWANE 0700
129	CONTIDE CC	WILLIE	Tel: 015-292-1106 Fax: 015-292-0031	P O BOX 31548 SUPERBIA 0759	43 GYPSUM ST SUPERBIA POLOKWANE

					0699
130	EXECU CON CC	EVELYN	Tel: 015-345-1152 Fax: 086-621-4857	P O BOX 1464 LETSITELE 0885	16 NOVENGILLA FARM LETSITELE 0885
131	GERAVICO(NORT H)(PTY)LTD	D. SMIT	Tel: 015-293-1655 Fax: 015-293-2522	P O BOX 4025 POLOKWANE 0700	70 KOPER ST LABORIA POLOKWANE
132	JJ & COMPANY CIVIL AND BUILDING CONTRACTORS	JOHAN SWART	Tel: 015-307-3977 Fax: 015-307-2825	P O BOX 1011 TZANEEN 0850	56 KOOSNEL ST AQUA PARK TZANEEN 0850
133	HAVANA PROJECTS CC	THINUS KOEKEMOER	Tel: 012-997-3724 Fax: 012-997-3724	P O BOX 100713 MORELETA PLAZA 0167	711 WEKKER ST MORELETA PARK PRETORIA 0044
134	J J G CONSTRUCTION(P TY)LTD	MR GELDENHUYS	Tel: 018-484-1427 Fax: 018-484-5017	P O BOX 66 STILFONTEIN 2550	GOUDSTRAAT 14 STILFONTEIN 2550
135	JORDAAN C C (EDMS) BPK	JOHAN JORDAAN	Tel: 018-297-7387 Fax: 018-293-0278	POSBUS 705 POTCHEFSTROO M 2520	20 INDUSTRIA STREET POTCHINDUSTRIA 2520
136	JUMBOU AFRICA (PTY) LTD	BEN	Tel: 082-941-3513 Fax: 086-515-9026	POSTNET SUITE 4151 PRIVATE BAG X82323 RUSTENBURG 0300	PLOT 109 WATERVAL EAST RUSTENBURG 0299
137	MOLL	JOHANNES	Tel: 018-469-1977	POSBUS 430	33 RADIUM

	KONSTRUKSIE BK	MOLL	Fax: 018-469-3643	KLERKSDORP 2570	URANIAVILLE KLERKSDORP 2570
138	MW KONTRAKTEURS	JOZUA MOLL	Tel: 018-469-4821 Fax: 018-469-3643	P O BOX 11272 KLERKSDORP 2570	RADIUMSTRAAT 33A URANIAVILLE KLERKSDORP 2570
139	PRETORIA KONSTRUKSIE (EDMS) BPK	HANS SLINGERLAND	Tel: 014-596-5962 Fax: 014-596-5962	P O BOX 20132 PROTEA PARK 0305	ENKELDORINGLAAN 6 PROTEAPARK RUSTENBURG
140	TRONKON (PTY) Ltd	CHARLES THERON	Tel: 018-293-0470 Fax: 018-297-1033	P O BOX 20509 NOORDBRUG 2522	7 AGAAT STREET POTCHINDUSTRIA 2522
141	VISION BUILD CC	ROBIN STOCKEN	Tel: 018-464-2565 Fax: 018-462-4814	P O BOX 7170 FLAMWOOD 2572	1 BOTHA STREET PIENAARSDORP KLERKSORP 2571
142	WATERKROON EIENDOMME (PTY) LTD	ANTON VENTER	Tel: 014-537-2751 Fax: 014-537-2336	P O BOX 626 KROONDAL 0350	PLOT 184 WATERKLOOF REX RUSTENBURG 0300
143	CEMENTATION CONSTRUCTIO N PTY LTD		Tel: 031-4666426 Fax: 031-4662914		185 Maxwell Avenue, Brighton Beach, Durban, 4001
144	WBHO Kwazulu- Natal		Tel: 031 700 9050 Fax: 031 700 9094 wbhokwaz@wbho.co.za		19 Monte Carlo Road, Mahogany Ridge, Westmead
145	WBHO Cape Town		Tel: 021 795 5500		Ovcon House, Constantia Road,

			Fax: 021 794 6671 wbhocape@wbho.co.za		Constantia, 7806
146	WBHO Port Elizabeth Branch		Tel: 041 398 4600 Fax: 041 360 8962 wbhope@wbho.co.za		81 Warbler Street, Cotswold, Port Elizabeth
147	WBHO East London Branch		Tel: 043 745 2208 Fax: 043 745 2817 wbhoel@wbho.co.za		6 Regent Street, Eureka, East London
148	A BARTH CONSTRUCTIO N & MAINTENANCE		Tel: 031-2085982 Fax: 031-2085982		16 Springfield Road, Berea, 4001 KZN
149	BRUN CONSTRUCTIO N CC		Tel: 031-7014018 Fax: 031-7015708		38 Halifax Road, Pinetown, 3610 KZN
150	BASIL READ BUILDING PTY LTD-DBN		Tel: 031-5664770 Fax: 031-5664772		Kingfisher Cres, 1 Dumat Place, Tvt Park, 0000 KZN
151	ADMIRAL CONSTRUCTION(P TY)LTD	TONY PHELP	Tel: 011-514-0085 Fax: 011-514-0087 phelp@wbs.co.za	P O BOX 67110 BRYANSTON 2021	1ST FLOOR SCHARRER HSE GEORGIAN COURT BRYANSTON
152	ALBERTON CONSTRUCTION CO(PTY)LTD	A STATHOULIS	Tel: 011-907-3530/8 Fax: 011-907-3539 statsco@wol.co.za	P O BOX 140 ALBERTON 1450	J S CENTRE VOORTREKKER RD NEW REDRUTH

153	AVAX SA 431 CC	JOAN DRYDEN	Tel: 011-318-2920 Fax: 011-318-2838	P O BOX 828 NOORDWYK 1687	1740 14TH STREET NOORDWYK EXT 32
154	BARTOSCH DEVELOPMENTS CC	PETER BARTOSCH	Tel: 011-708-7178 Fax: 011-708-7177	P O BOX 1185 LONEHILL 2062	16 SUMMERDOWN CLOSE LONEHILL 2062
155	BOTHA R J J & SON (PTY)LTD	V L BOTHA	Tel: 011-435-3770 Fax: 011-436-2622	40 NINTH STREET LA ROCHELLE 2190	43 NINTH STREET LA ROCHELLE JOHANNESBURG
156	BRANDBILD(PTY) LTD	EWERD BRAND	Cell: 082-601-0489 Fax: 086-601-2754	P O BOX 3551 NORTHCLIFF 2115	200 WILSON ST FAIRLANDS JOHANNESBURG
157	COLBYCON CONSTRUCTION CC		Tel: 011-698-1827 Fax: 011-698-1120 cc@lantic.net	P O BOX 3758 RANDGATE 1763	197 Wattin St Randfontein
158	CONCEPT 2 CONSTRUCTION (PTY) LTD	STEFAN FRIESE	Tel: 011-782-4503 Fax: 011-888-9874	P O BOX 1980 CRESTA 2118	96 4TH ST LINDEN JOHANNESBURG 2195
159	DAKOTA CONSTRUCTION(P TY)LTD	MR L A SMIT	Tel: 013-932-4385 Fax: 013-935-1055	PO BOX 1050 BRONKHORSTSP RUIT 1020	71 KRUGER STREET BHS FORUM BRONKHORSTSPRUIT 1020
160	ELZAAN BELEGGINGS	ADRIAAN ODENDAAL	Tel: 012-543-2176 Fax: 086-686-9116	P O BOX 2219 MONTANA PARK 0159	306 ZAMBESI ROAD SINOVILLE
161	GLOBICON	ALWYN VAN	Tel: 012-998-1835	PRIVATE BAG X6	665 CNR BLOUHAAK & HANS

		ZYL	Fax: 012-998-1840	ELARDUSPARK 0047	STRYDOM MORELETTA PARK 0047
162	H K W CONSTRUCTION CC	KLAUS WEISSWANGE	Tel: 011-673-6289 Fax: 011-673-6289	P O BOX 66 BERGBRON 1712	84 MALUTI AVE NORTHCLIFF
163	H. MARAIS CONSTRUCTION	HANS	Tel: 011-425-1003 Fax: 011-425-1003	P O BOX 900 BOKSBURG 1460	31 GOODMAN ST RYNFIELD BENONI 1501
164	HELM CONSTRUCTION (PTY) LTD	ABBY DE GROOT	Tel: 011-475-3129 Fax: 011-475-3132	P O BOX 103 ALLENSNEK 1737	PLOT 12 PAUL KRUGER STR WILGESPRUIT
165	HOMES IMPROVEMENTS & MAINTENANCE	MARGARET BOUCA	Tel: 011-679-2745 Fax: 011-679-2745	14 REINETTE DRIVE CONSTANTIA KLOOF ROODEPOORT 1709	14 REINETTE DRIVE CONSTANTIA KLOOF ROODEPOORT 1709
166	IAN WALKER BUILDING	IAN WALKER	Tel: 011 440 9680 Fax: 086 652 1460	P O BOX 221 PRIVATE BAG X5 NORWOOD 2117	22 7TH AVE HIGHLANDS NORTH 2117
167	JEFF SABER CONSTRUCTION CC	JEFF SABER	Tel: 011-788-3081 Fax: 011-880-4818	P O BOX 41601 CRAIGHALL 2024	PORTION 10 OF 4 FARM BULTFONTEIN LANSERIA 533
168	JOPAZ CONSTRUCTION	JORGE DE JESUS PINTO	Tel: 011-453-4810 Fax: 011-453-4709	1 MINUACH ROAD	1 MINUACH ROAD BUURENDAL

	CC			BUURENDAL GERMISTON 1401	GERMISTON 1401
169	KUMING & STAPLES CONSTRUCTION CC	JOHN STAPLES	Tel: 011-440-1100 Fax: 011-440-1101	P O BOX 95565 GRANT PARK 2051	32 PRETORIA STR EXT HIGHLANDS NORTH EXT1
170	L A K PROJECTS (PTY) LTD	LAWRENCE KNEZOVICH	Tel: 011-678-7572 Fax: 011-678-7571	PO BOX 35133 NORTHCLIFF 2115	301 LAK HOUSE 4 FIR DRIVE NORTHCLIFF EXT 2
171	MABRA KONSTRUKSIE(ED MS)BPK	WILLIE SMIT	Tel: 012-809-2686 Fax: 012-809-2502	P O BOX 101934 MORELETA PLAZA 0167	TYGERVALLEI KANTOOR PARK EMWIL HOUSE, WESTERN ENT. PONY ST 15 TIJGERVALLEI
172	MAGLIN HOMES CONSTRUCTION CC	COLIN ROBERTSON	Tel: 011-975-9833/4/5 Fax: 011-975-6198	P O BOX 16390 ATLASVILLE 1465	65 PIENAAR AVE, NIMROD PARK KEMPTON PARK
173	MANFRED MULLER CONTRACTS CC	MANFRED MULLER	Tel: 011-440-8317 Fax: 012-205-1144	P O BOX 781 LANSERIA 1748	80A JOHANNESBURG RD LYNDHURST 2192
174	NEAT BUILDERS (PTY) LTD	MR. A CARVALHO	Tel: 011-334-6848 Fax: 011-334-3731	PO BOX 61971 MARSHALLTOW N 2107	65 DURBAN STREET CITY AND SUBURBAN
175	NUICON DEVELOPERS CC	HENRI DU TOIT	Tel: 013-932-1815 Fax: 013-932-2940	P O BOX 1462 BRONKHORSTSP RUIT 1020	22 VERSTERPARK BRONKHORSTSPRUIT 1020
176	PETANNE	ANNE	Tel: 011-702-1311	P O BOX 735	735 LONGACRES

	CONSTRUCTION CC	MCANULTY	Fax: 011-702-1312	KYALAMI 1685	KYALAMI ESTATES
177	POLMAR CONSTRUCTION CC	ANDREW MARCINIAK	Tel: 011-822-2360 Fax: 011-822-2360	P O BOX 6824 HOMESTEAD 1412	21 VEGA STREET FISHERS HILL GERMISTON 1401
178	QUOIN CONSTRUCTION (PTY) LTD	IAN CLASEN	Tel: 011-464-7145 Fax: 011-464-7149	P O BOX 3539 WITKOPPEN 2068	33 SADDLEBROOK ESTATE KYALANI
179	REGAL CONSTRUCTION CC	LEE REGAL	Tel: 011-974-4559 Fax: 011-974-4559	P O BOX 8961 EDENGLLEN 1613	5 LIMONIET ROAD CROYDON KEMPTON PARK 1619
180	ROCON BUILDING (PTY) LTD	ROMANO CAVINA	Tel: 011-234-4262 Fax: 011-234-4271	P O BOX 3019 RIVONIA 2128	41 DE LA REY ROAD EDENBERG RIVONIA 2128
181	STYLE BUILDING PROJECTS	JOHAN TROLLIP	Tel: 012-548-0548 Fax: 012-548-1548	P O BOX 2860 MONTANA PARK 0159	248 VISVANGER ST MONTANA PARK 0159
182	TE BRAKE H G & SONS CC	CHRISTO TE BRAKE	Tel: 011-793-5653 Fax: 011-791-3515	P O BOX 50379 RANDBURG 2125	351 LONG AVE FERNDALE RANDBURG
183	TUNDWE KONSTRUKSIES BK	TINUS SNYMAN	Tel: 012-811-0062 Fax: 012-811-0063	P O BOX 92753 MOOIKLOOF 0059	228 MARK STREET GROOTFONTEIN LANDBOUHOEWE
184	VOGUE CONSTRUCTION	JOHN FULLER	Tel: 011-794-9102 Fax: 011-794-9102	P O BOX 514 OLIVEDALE 2158	292 OLIEVENHOUT AVE NORTH RIDING EST 2162

185	WATERFORD CONSTRUCTION CC	COLIN GIBBINGS	Cell: 083-251-1169 Fax: 011-468-1560	P O BOX 30864 KYALAMI 1684	205 JUTLANDER ROAD BEAULIEU MIDRAND
186	WEDGEWOOD HOMES CC	FRANCES RICHARDSON	Tel: 011-462 2832 Fax: 011-462 2646	P O BOX 57 FERNDALE 2160	8 STAAL STREET KYA SANDS RANDBURG 2194
187	WHIPPET CONSTRUCTION CC	JOHAN PASCH	Tel: 011-468-1307 Fax: 011-468-2852	P O BOX 775 HALFWAY HOUSE 1685	22 WALTON SREET CARLSWALD MIDRAND
188	WYNAND DU TOIT	WYNAND DU TOIT	Tel: 012-998-3871 Fax: 012-998-3871	P O BOX 4612 RIETVALLEIRAN D 0174	41 WALDEN CRESCENT CLEARWATER ESTATE RIETVALLIERAND 0174
189	J M PLUMBING & CONSTRUCTION	JIMMY MAHLANGU	Tel: 013-934-4317 Fax: 013-934-4317	P O BOX 1465 EKANGALA 1021	4019 SECTION B EKANGALA
190	MERAN TRADING	TONY DALRYMPLE	Tel: 013-751-2934 Fax: 086-502-0473	P O BOX 1328 WHITE RIVER 1240	26 FRANK TOWNSEND ST WHITE RIVER
191	BOSS PAVING(PTY)LTD	JILL HIND	Tel: 011-485-5100 Fax: 011-485-5974	P.O. BOX 87060 HOUGHTON 2041	15 DURHAM RD RAEDENE
192	CREATIVE TILES	ROB SPENCER- SCARR	Tel: 014-597-3652 Fax: 014-592-7977	P O BOX 5692 RUSTENBURG 0300	60, BOOM STREET RUSTENBURG 0300
193	EHLERS B TILING & MODERNIZING	MRS M EHLERS	Tel: 011-614-6035 Fax: 011-614-4044	P O BOX 33573 JEPPESTOWN	62 DERBY ROAD BERTRAMS

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194	EXQUISITE TILING CC	NAAS SCHUTTE	Tel: 012-668-1861 Fax: 012-668-1862	P O BOX 2553 THE REEDS 0158	2 FRANS STREET THE REEDS CENTURION
195	BAYET BUILDING SERVICES		Tel: 031-5646572 Fax: 031-5646572		59 Park Station Road, Greenwood Park, 4051
196	DIXON AND BYRNE CC		Tel: 031-7656523 Fax: 031-7656523		
197	D.B HALL T/A D.B HALL CONSTRUCTIO N		Tel: 031-7052619 Fax: 031-7052635		10 Leechwood Park, 8 Henred Road, New Germany, 3620
198	D. KONIGKRAMER CC		Tel: 031-7651775 Fax: 031-7651775		15 Springside Road, Hillcrest, 3610
199	EXPO CONSTRUCTIO N & PROJECTS MANAGERS PTY LTD		Tel: 031-5635210 Fax: 031-5635210		62 Danville Avenue, Durban North, 4051
200	J.T. ROSS (PTY) LTD		Tel: 031-3729700 Fax: 031 3031122		
201	KELBURN CONSTRUCTIO N & PROPERTY DEVELOPERS		Tel: 031-5395171 Fax: 031-5027070		9 Fairways Lane, Fairways Park, Mount Edgecombe, 4016
202	LIONEL MADSEN PTY		Tel: 031-7641888 Fax: 031- 7643677		16 Ridge Road, Kloof, 3610

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203	NATAL HOUSING CORPORATION PTY LTD		Tel: 031-7655522 Fax: 031-7655522	28 Knelsby Avenue, Hillcrest, 3610
204	DEZZO PROJECTS CC		Tel: 031-5632522 Fax: 031-5632671	11b Cordova Close, Briardene Industrial, Briardene, 4051
205	PILCOM PROJECTS		Tel: 031 4035883 Fax: 031 4018409	26-33rd Ave, Umhlatuzana, 4091
206	MARAIS HOMES		Tel: 031-4622982 Fax: 031-4622982	20 Weaver Road, Yellowwood Park, 4004
207	PROJECTS IN MOTION CC		Tel: 031-7025485 Fax: 086 5412711	190 Old Main Road, Cowies Hill, 3610
208	RHO-TECH		Tel: 031-9140966 Fax: 031-9140968	52 Beechgate Cres, Southgate Bus Park, Umbogintwini, 4125
209	DAVESETT PROJECTS CC		Tel: 031-5775342 Fax: 031-5775342	611 Inanda Rd, Parlock, 4037
210	NGOZA CONSTRUCTION		Tel: 031-9067851 Fax: 031 9067900	P1153 Mlungu Circle, Umlazi, 4089
211	G&S BUILDING AND MAINTENANCE		Tel: 031-5611677 Fax: 031-5611677	37 Kingston Drive, Umhlanga, 4320
212	NONDABA BROTHERS CONSTRUCTION		Tel: 031-2664601 Fax: 031-2084135	29 Severn Drive, Westville, 3629
213	HAZY CREST CONSTRUCTION		Tel: 031-7029683 Fax: 031-7021800	7 Moss Road, Westmead, Pinetown, 3608

	N				
314	INKONJANE DEVELOPMENT S PTY LTD		Tel: 031-7012517/8 Fax: 0317012519		48 Sunnyside Lane, Suite 8 Sunnyside, Pinetown, 3600
315	NOVA PROJECTS CC		Tel: 031-5642376 Fax: 031-5635757		179 Lothian Road, Durban North, 4016
216	ISIBONELO CONSTRUCTIO N		Tel: 035-9014524		14 Drongo Domain, Birdswood, Richards Bay, 3900
217	KINGS CONSTRUCTIO N CC		Tel: 035-4741452 Fax: 035-4742443		30 Mangosuthu, Buthelezi Drive, Eshowe, 3815
218	BENCON PROJECTS CC		Tel: 0861113051 Fax: 0861114002		15 Azalea Avenue, Mtunzini, 3867
219	DLABANE CONSTRUCTIO N PTY LTD		Tel: 035-7535708 Fax: 035-7534531		30 Bauxite Bay, Alton, Richards Bay, 3900
220	MTM CIVILS CC		Tel: 035-7896787 Fax: 035-7896460		115 Dollar Drive, Richards Bay, 3901
221	IMVUSA PROJECTS T/A		Tel: 0357891993/4 Fax: 035-7895569		13 Bullion Boulevard, Richards Bay, 3900
222	GENESIS BUILDING CONTRACTORS		Tel: 035-7911375 Fax: 0865156751		36 President Swart, Empangeni, 3880
223	APEX CONSTRUCTIO N		Tel: 032-9462118 Fax: 032-9462119		24 Dunkirk Road, Salt Rock, 4391
224	IKHAYA LAKHO		Tel: 035-7724820 Fax: 035-7724832		1 Commercial Street, Suite 10, nedbank Bui, Empangeni,

	HOUSING CC				3880
225	DHD CONSTRUCTION		Tel: 039-6951733 Fax: 039-6951218		Po Box 21674, Umtentweni, 4235
226	CHA CONSTRUCTION		Tel: 039-3166871/2/3 Fax: 039-3166874		185 Southbroom Ave, Margate, 4275
227	ANTHONY & BASSON DEVELOPMENT PTY LD		Tel: 039-3156418 Fax: 0865158333		Enterprise Road, Lot 2003 Sub 11, Uvongo Industrial, 1759
228	GLACIER ELECTRICAL CC		Tel: 039-3157747 Fax: 0866654531		779 Shepston Road, Shelly Beach, 4265
229	FS GONZALVES CONSTRUCTION		Tel: 039-6821613 Fax: 039-6821613		7 Park Lane, Marburg Ridge, Port Shepstone, 4240
230	HESSLER BUILDING PROJECTS CC		Tel: 039-3130591 Fax: 039-3130591		31 Hood Avenue, Trafalger, 4275
231	HIDEAWAY DEVELOPERS (PTY) LTD		Tel: 039-6846201 Fax: 039-6846201		198 Main Road, Umzumbe, 4225
232	CLEAR SKIES TRADING 2 CC T/A		Tel: 039-3168925 Fax: 039-3168925		409 Captain Smith Rd, Southbroom, 4277
234	GQABAVANE TRADING		Tel: 039-4332454 Fax: 039-4332454		12 Stafford Street, Harding, 4680

	PROJECTS				
235	DYASON CONSTRUCTIO N		Tel: 039-3192115 Fax: 039-3192115		Lot 516,, Charles Stuart Ave, Munster, 4278
236	LEOCON CC		Tel: 039-6951669 Fax: 039-6951669		14 Eagle Road, Umtentweni, 4235
237	DTB CONTRACTING		Tel: 033-3305701 Fax: 033-3305708		4 Jacaranda Cnt, Hilton, 3245
238	ANOS CONSTRUCTIO N		Tel: 033-3452710 Fax: 033-3422534		265 Prince Alfred St, Pietermaritzburg, 3201
239	LIZEKA'S CONSTRUCTIO N CC		Tel: 0823704833		23 Kenneth Road, Oak Park, Pietermaritzburg, 3201
240	BUILD ON CONSTRUCTIO N		Tel: 033-3473940 Fax: 033-3473940		26 Craigie Drive, 7 Charlie Wood, Pietermarizburg, 3201
241	ICON SERVICES		Tel: 033-3425072 Fax: 033-3428296		390 Loop Street, Pietermaritzburg, 3201
242	CARLOS DACOSTA BUILDING CC		Tel: 033-3461133 Fax: 033-3461130		77 Pentrich Road, Pietermaritzburg, 3201
243	APAO CIVILS & DEVELOPMENT PROJECTS		Tel: 033-3306963 Fax: 033-3304475		7 Ogilvie Road, Merrivale, 3291
244	CERDO PTY LTD		Tel: 0878086552 Fax: 0866628248		18 The Crest, 3 Dawood Close, Ballito, 4420
245	ACTION BUILDING &		Tel: 032-4591667 Fax: 032-4591024		18 Red Street, Isithebe

	CIVILS				
246	OF&A BUILDING		Tel: 032-9463759 Fax: 032-9461892		15 Patricia Road, Ballito, 4418
247	CHANNING HOMES		Phone: 033-3304924 Fax: 0866095306		22 Fraser Street, Howick, 3290
248	DUNBAR CONSTRUCTIO N (TRAC		Tel: 033-3305960 Fax: 033-3305960		18 Trevior Place, Howick, 3290
249	LEZANT BUILDING CONTRACTORS		Tel: 03431-27077		13 Gland Avenue, Hutten Heights, Newcastle, 2940
250	AART VAN DEN BRINK & SONS CC	Aart van den Brink	Tel: 018 381 0070/1 Cell: 083 676 3548 Fax: 018 381 2625 avdbink@intekom.co.za	P O Box 261 Mafikeng 2745	39 First Street Industrial Sites Mafikeng 2745 North West
251	AFRI-DEVO (PTY) LTD	Andrew Kesiamang	Tel: 053 861 1514 Cell: 083 269 5948 Fax: 053 861 1516 andrew@afridevo.co.za	P O Box 1058 Kimberley 8300	65 Swansway Heuwelsig Kimberley 8301 Northern Cape
252	AFRISAM (SA) (PTY) LTD	Willie Oosthuizen	Tel: 051 411 4760 Cell: 083 452 7939 Fax: 051 433 2290 willie.oosthuizen@za.afrisam.c om	P O Box 22316 Hilton 9313	Rudolph Greyling Street Bloemfontein 9301 Free State
253	AGISANE CIVIL CONSTRUCTION	Riebeeck Olivier	Tel: 053 712 2758 Cell: 082 888 6039	P O Box 1082 Kuruman	97 Seodin Road Kuruman

	T/A OLIVIER CONSTRUCTION CC		Fax: 053 712 2757 rolivier@olivierconstruction.co.za	8460	8460 Northern Cape
254	AJL KONSTRUKSIE BK H/A VAN ZYL'S ALUMINIUM & GLAS	De Waal Venter	Tel: 053 832 4202 Cell: 083 233 6050 Fax: 053 832 4203 vzaluglass@absamail.co.za	68 George Street Kimberley 8301	68 George Street Kimberley 8301 Northern Cape
255	BELIZE CONSTRUCTION (PTY) LTD	Craig Wittstock	Tel: 053 841 0615 Cell: 082 400 7828 Fax: 053 841 0616 belizekby@mweb.co.za	P O Box 1261 Kimberley 8300	8 Cabinet Street Kimberley 8301 Northern Cape
256	BLUEPRINT CONSTRUCTION	Arno Barnard	Tel: 053 861 3325 Cell: 082 703 8581 Fax: 086 505 1352 arno@complete-solutions.co.za	P O Box 110729 Hadison Park 8306	34 Edna Street Kimberley 8301 Northern Cape
257	BORNFREE CONSTRUCTION (PTY) LTD	Jan Ellis	Tel: 016 349 5594 Cell: 082 469 5838 Fax: 016 349 1818 jcellis@bornfree-sa.co.za	P O Box 820 Heidelberg 1438	1 Bessie Lanser Street Heidelberg 1441
258	CHARLES JANSEN BOUERS	Charles Jansen	Tel: 054 339 1630 Cell: 082 490 2135 Fax: 054 332 3241 chabou@mweb.co.za	P O Box 1171 Upington 8800	17 Soutpan Street Upington 8801
259	DENVER CONSTRUCTION	Keith van Rensburg	Tel: 053 833 7375 Cell: 083 258 9921 Fax: 053 833 7375 wavanrensburg@justice.gov	P O Box 94 Kimberley 8300	Plot 185 Landbou Road Kimberley 8301
260	DOMANI BOUERS	Chris Wiese	Tel: 051 340 6475	P O Box 34142 Faunasig	11B Pine Street East End

			Cell: 082 304 3312 chris@domani.co.za	Bloemfontein 9325	Bloemfontein 9301 Bloemfontein
261	EDIDOR CONSTRUCTION CC	Arnold Wilkens	Tel: 053 842 2024 Cell: 082 552 3166 Fax: 053 842 0300 hshcon@netactiv.co.za	P O Box 10197 Beaconsfield 8315	2 Harris Street Beaconsfield 8315
262	GEAR CIVILS LTD	Gollie Prins	Tel: 053 841 0140 Cell: 083 261 3497 Fax: 053 841 0510 gearcivils@telkomsa.net	P O Box 2160 Kimberley 8300	8 Carlstein Street Kimberley 8301
263	HSH CONSTRUCTION CC	Albert Pretorius	Tel: 053 842 0044 Cell: 082 467 3101 Fax: 053 842 0300 albertpret@mweb.co.za	P O Box 10197 Beaconsfield 8315	2 Harris Street Beaconsfield 8315
264	INTEGRICON	Marco or Stephanie Kasselman	Tel: 053 791 1006/7/8 Cell: 079 534 9360 Fax: 086 627 1439 info@integricon.co.za	P O Box 912 Kathu 8446	Farm Halliford 466 District Dibeng 8463
265	JERRY HORN BUILDING CONTRACTORS	Roelf Jacobs	Tel: 053 831 3226 Cell: 082 576 0929	P O Box 11029 Hadison Park 8306	5-7 Graham Street Kimberley 8301
266	KEN BROWN CONTRACTORS CC	Keith Brown	Tel: 053 832 4695 Cell: 083 262 3696 Fax: 053 832 9027 keithbrown@telkomsa.net	P O Box 10147 Beaconsfield 8315	6 Haberfield Street Kimberley 8301
267	KOBUS DUVENHAGE BOUERS BK	Kobus Duvenhage	Tel: 054 332 2848 Cell: 082 578 0909 Fax: 054 332 1474 kobus@kdbuild.co.za	Postnet Suite 111 Private Bag X5879 Upington 8800	6 Vooruit Street Upington 8801

268	STABILAN (PTY) LTD (Floor slabs)	Stoffel Botha			
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16.7 Sandstone

No.	Company Name	Contact Person	Contact No:	Postal Address	Residential address
1	MAPHUTI SAND STONE		Cell: 07273756737 Fax: 0583039026		8175 Phase 7 Bethlehem
2	MANONELA SANDSTONE		Cell: 072 7919 572		Makoane Village Phuthaditjhaba
3	SANDSTONE CITY	Mr. HC Venter or Attie	Cell: 083 4300734 Tel: 058 2230421 attie@sandstonecity.co.za	P.O. Box 212 Fouriesburg 9725	Fouriesburg Slabbertweg Free State
4	LOOTSBERG SANDTEEN	Thabo Venter	Tel: 058 223 1004/5 Cell: 0833010050 Cell: 079 546 2568 Tel: 0865205754		Farm Brooklyn Ficksberg Free State
5	HERITAGE SANDSTONE		Tel: 082 571 3609		Lessing Avenue Bloemfontein
6	LE GRAND RECONSTRUCTED SANDSTONE				Meyerton Gauteng South
7	KADI SANDSTONE				1930 Zone A Lebowakgomo
8	NABOOMSPRUIT SANDSTONE (Sandstone Projects cc)		Tel: 012 8042344 Cell: 082 652 0685 Fax: 012 804 3394		153 brandwag Street Silverton Pretoria
9	SANDSTONE CONTRACTS		Tel: 128041023		108 Fascia Rd, Silverton, 0184 Gauteng

10	SA SANDSTONE		Tel: 058 2230421 Cell: 083 4108995 Fax: 086111 2693		slabbertswag fouriesburg 9725
11	ELYON SANDSTONE CC		Tel: 021 9820529 Cell: 084 9016969 Fax: 021 9816969		43 koorsboom cres vredeloof brackenfell 7560
12	CAPE SANDSTONE CLADDING CC		Tel: 021 9811500 Cell: 072 7857613 Tel: 021 9135003 Tel: 021 9811512		58 heuwel st brackenfell
13	AIP SANDSTONE		Tel: 044 6966197 Cell; 079 4384118		21 aliwal suid st fraaiuitsig little brak river
14	UNION TILES (PTY) LTD		Tel: 011 6632000		19 north reef rd activia park bedfordview 2008
15	UNION TILES (CENTURION)		Tel: 013 7526775 Tel: 012 6431360 Tel: 011 4555395 Fax: 012 643 0124		19 north reef rd bedfordview 2007
16	HERITAGE SANDSTONE CC		Cell: 082 5713609 Fax: 051 4366775		8 lessing av bloemfontein
17	UNION TILES RANDBURG (PTY) LTD		Tel: 011 7914925 Tel: 011 7914924 Tel: 012 6430121 Tel: 011 4554220		struik st strijdom park randburg

			Fax: 011 455 6395		
18	SLATE SHOP		Tel: 011 7043937 Tel: 011 7043938		228 montrose rd randburg 2194
19	AFRICAN STONE TRADERS		Tel: 021 8510060 Tel: 021 8510067 Tel: 021 8536624 Fax: 021 851 0067		5 stuart clse someset west bus prk someset west
20	SANDSTONE PROJECTS CC		012 8042344 082 6520685 012 8043394 info@sandstoneprojects.co.za		Brandwag St Silverton Pretoria 0184
21	SANDSTONE CONTRACTS		012 8041023 012 8041054		1 Trans Rd Silverton Pretoria 0184
22	THE SANDSTONE STORIES	Gesela & Lila	Tel: 032 946 3249 Cell: 083 564 0988/ 082 339 5571 Fax: 032 946 3274		Unit 6 Ashley Park (Behind Lifestyle Centre) Ballito
23	Out Of Africa Stone	Clifford & Chris	Cell: 079 492 1584/ 082 651 4261 Fax: 086 610 5169		Waterford Farm Off William Nicol Drive Fourways

16.8 Other Non-mining companies reported to the Department of Labour

No.	Company Name	Contact Person	Contact No:	Postal Address	Residential address
1	HOLCIM SILICA FUME		Tel: 032 533 1835		Quarry Road, Redcliff KZN
2	AKR READY MIX CONCRETE		Tel: 031 500 8688		150 Aberdare Drive, Phoenix KZN
3	TONGAAT ASPHALTS		Tel: 032 941 5921		34 Maharaj Road, Tongaat KZN
4	LANCASTER PRECAST		Tel: 036 6373991 Fax: 036 361 2200		35 Bloukrans Road, Dranskraal, Ladysmith KZN
5	AFRISAM SOUTH AFRICA(HOLCIM)		Tel: 036 6389200 Fax: 036 637 3777		Madiba Street, Steadville,Ladysmith
6	ROFF NYWERHEDE		Tel: 056 343 1261	P.O. Box 1285 Viljoenskroon 9520	Kroonstad Free State 9500
7	SENTRALE WASSERY			Kroon Industria Kroonstad, 9500	
8	MECCA GLASS		Tel: 056 212 1057		22 Buitekant street Kroonstad 9500
9	KROON PANEL BEATERS		Tel: 056 212 8197		40 8 th Street Kroonstad 9500

10	INDUSTRIA PANEL BEATERS		Tel: 056 212 3258		7 th Avenue Kroonstad 9500
11	OCTA ENGINEERING		Tel: 056 212 1900		31 7 th Avenue, Kroonindustria Kroonstad, 9500 Free State
12	OMEGA GRAFSTENE		Tel: 056 212 3283		7 th Avenue Kroonindustria Kroonstad, 9500 Free State
13	HALBERG GUSS		Tel: 012 250 2920	P.O. Box 1031 Brits 0250	15 Piet Pretorius Str Industrial Site Brits North West
14	LAFARGE ROOFING (PTY) LTD		Tel: 012 250 2964	P.O. Box 3516 Brits 0250	27 Piet Rautenbach Sttreet Industrial Site Brits, North West
15	METRO GRANITE (PTY) LTD		Tel: 012 250 2040	P.O. Box 673 Brits 0250	13 Piet Rautenbach Sttreet Industrial Site Brits, North West
16	RIO MEMORIAL WORKS		Tel: 012 252 4634	P.O. Box 826 Boksburg 1460	Spoorweg Straat Brits 0250 North West
17	TOMBSTONE HOUSE		Tel:		Railway Street Ext Brits 0250 North West

18	THE TOMBSTONE FACTORY		Tel:	P.O. Box 1749 Burgersfort 1150	13 Stassie Street Burgersfort Limpopo
19	BELA BELA TOMBSTONE			P.O. Box 1098 BELA BELA 0480	21 Industria Rd BELA BELA Limpopo
20	XITSUNDZUXO TOMBSTONE			P.O. Box 2504 GIYANI 0826	House 1578 Section F Stand 917 Siyandani House Limpopo
21	A J BRICK SALES		Tel: 021 9054761 Cell: 083 2516212 Fax: 021 9053635 andcloe@mweb.co.za		Range Rd Blackheath Cape Town Western Cape

