

A corporate governance framework for South African mining companies when placing a mine on care and maintenance

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PREFACE

I have been part of the management team tasked to place a mine on care and maintenance on two different occasions. During the first instance, a close friend remarked that I am gaining extremely valuable experience. My response at the time was that placing a mine on care and maintenance is not a pleasant experience. I referred to it as “experience I hoped to never use in future”.

Four years later, the experience gained proved valuable. Another mine, in the same group of companies, was placed on care and maintenance. In this instance I was not involved in the planning process from the beginning. When approached to provide input, it became clear that the team tasked to plan and execute the care and maintenance process were just as uncertain about what to do as the original team four years earlier. This is where the seeds for the present research were planted.

All honour and glory belong to the Lord. Being able to present this research is another, of so many other, blessings bestowed on me.

I would like to express my thanks and appreciation to the following people:

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My three children, Corlise, Ettiene and Stefan: “Pappa is baie lief vir julle. Dankie dat julle so geduldig was en verstaan het as Pappa nie altyd by julle aktiwiteite kon uitkom nie.”

My dearest wife Louise: “Dankie vir al jou ondersteuning, advies en liefde.”

ABSTRACT

Directors and management teams of mining companies are likely to be confronted with external or internal circumstances that may cause mining operations to be placed on care and maintenance. This is a complex process that poses several challenges in the following areas: governance, health and safety, environmental, socio-economic and financial.

When large mining operations implement measures that lead to significant downscaling of activities, or cease production, this has severe impacts and wide-spreading consequences. Employees, shareholders, financiers, contractors and suppliers, surrounding communities as well as neighbouring mines are stakeholders who may be impacted negatively.

Difficult decisions will be required. In making these decisions, directors need to strike a balance between the long-term sustainability of the company, and stakeholders' needs. Ethical behaviour and responsible citizenship require directors to make decisions in a manner that demonstrates considerations that reach beyond profits.

However, no evidence could be found of prior research constructing a corporate governance framework that could guide and assist South African mining companies in their decision-making and actions when dealing with care and maintenance. Therefore, the primary objective of the present study was to develop such a framework, which would help directors of South African mining companies apply their fiduciary duties of skill, care and diligence effectively and efficiently when mining operations are placed on care and maintenance.

Firstly, a literature review identified core components of corporate governance and care and maintenance. These include legal and regulatory compliance, risk management and accountability towards stakeholders and society in which the company operates. The relationship between corporate governance and South African legislative frameworks was investigated. Key aspects were identified of relevant legislation governing mines in South Africa, issues of inter-dependency, as well as care and maintenance. International guidance was also pursued.

Secondly, a qualitative research approach was followed. Semi-structured interviews elicited data from participants with relevant experience care and maintenance. These interviews helped confirm and identify discrepancies in the data obtained from the literature review.

Thirdly, a framework was developed, contextualised from the literature review and data collected from the semi-structured interviews. This framework identified the objectives, underlying values, risks, processes and procedures and ethical considerations of a corporate governance framework for care and maintenance. A recurring theme was that mining companies should not use care and maintenance as a reason to delay mine closure.

Finally, the participants confirmed that the framework, if followed, will assist directors of mining companies in the discharge of their fiduciary duties of skill, care and diligence when having to place a mine on care and maintenance. Thus, the framework underlines the present study's unique contribution to expand the body of knowledge on corporate governance and its practical application within the mining industry.

Key terms: Ethics, care and maintenance, corporate governance, corporate governance framework, King IV, mining, responsible corporate citizenship, suspension of operations

DEFINITIONS AND ABBREVIATIONS

Care and maintenance is a term used in the mining industry referring to a process or situation where mining operations are temporarily suspended (become inoperative), without a clear definitive strategy for permanent closure (Bauba Platinum Limited, 2016; Picarelli, *et al.*, 2014: 93). Another term describing this situation or process is “suspension of operations” (Lazenby, 2012). As mining operations are “temporarily suspended” and a clear definitive strategy for permanent closure is lacking, the situation is expected to be temporary with a clear expectation that conditions may improve.

Adapting Macmillan’s definition (Macmillan), the developed **framework** will entail “a set principles and ideas”. Such a framework will help guide directors and senior managers to form their decisions and judgements on considerations when placing a mine on care and maintenance.

Corporate governance refers to the way in which power (authority, direction and control) is regulated within a company. This process includes the creation and ongoing monitoring of systems as well as checks and balances. The aim is to ensure power is exercised in a balanced manner, legal and regulatory obligations are complied with, and risks are identified and managed. This includes practices that are developed to keep the company accountable to its stakeholders and society in which the company operates (Naidoo *et al.*, 2016: 4).

Mine closure refers to the “final rehabilitation, decommissioning and closure of the prospecting, exploration, mining or production operations at the end of the life of operations, as reflected in a final rehabilitation, decommissioning and mine closure plan” as stipulated by Government Notice 1147 (South Africa, 2015: 9).

Various abbreviations are used in this report and these, plus their meanings, are presented in Table 1 below.

Table 1: Abbreviations used in the report

Abbreviation	Meaning
CCMA	Commission of Mediation, Conciliation and Arbitration
DMR	Department of Mineral Resources
EIA	Environmental Impact Assessments
EMP	Environmental Management Plans

Table 1: Abbreviations used in the report (continued)

Abbreviation	Meaning
GNR 1147	Government Notice 1147 of the National Environmental Act, 1998 (Act No. 107 of 1998) Regulations for the financial provisioning for prospecting, exploration, mining or production operations
GNR 1228	Government Notice 1228 of the National Environmental Act, 1998 (Act No. 107 of 1998) Proposed regulations pertaining to the financial provision for prospecting, exploration, mining or production operations
HDSA	Historically Disadvantaged South Africans
JSE	Johannesburg Stock Exchange
King III	King III Report on Corporate Governance for South Africa 2009
King IV	King IV Report on Corporate Governance for South Africa 2016
LRA	Labour Relations Act No 66 of 1995
MHSA	Mine Health and Safety Act No 29 of 1996 and Regulations
MPRDA	Mineral and Petroleum Resources Development Act No 28 of 2002
NEDLAC	National Economic Development and Labour Council
NEMA	National Environmental Management Act No 107 of 1998
SENS	Stock Exchange News Service

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CHAPTER 1: NATURE AND SCOPE OF THE STUDY

1.1 Introduction

Mining companies may decide, or may be required, to suspend mining operations temporarily due to technical, environmental, financial or labour-related issues (Swart, 2003: 490). Where mining operations are suspended temporarily, without a definitive strategy for their permanent closure, these are referred to as inoperative mines (Picarelli *et al.*, 2014: 93). In the South African context, such mines are considered placed on care and maintenance (Bauba Platinum Limited, 2016); or placed on suspension of operations (Lazenby, 2012).

The incidence of mining operations that are placed on care and maintenance, may increase as the outlook for South Africa's mining industry continues to weaken. This bleak outlook is confirmed by Business Monitor International. Their prediction is that producers of precious metals, coal, and iron ore operating in South Africa will experience difficult trading conditions due to high production costs and low global commodity prices (Business Monitor International, 2017: 9). In their overview of the South African mining landscape, PricewaterhouseCoopers begins by describing the general outlook as "challenging" and "subdued at best". In addition to low commodity prices and increased pressure on operating models, they also identify regulatory uncertainty, loss of confidence by investors and South Africa's credit-ratings downgrade as factors making it more difficult to raise capital (PricewaterhouseCoopers, 2016: 5).

The challenges facing the South African mining industry include the following:

- uncertainty over mineral policy (Beech, 2017; Davenport, 2016; Lane *et al.*, 2015; PricewaterhouseCoopers, 2016: 5; Teke, 2016);
- labour instability and unrest (Davenport, 2016; PricewaterhouseCoopers, 2016: 5);
- low commodity prices (Beech, 2017; Business Monitor International, 2017: 9; Davenport, 2016; Lane *et al.*, 2015; PricewaterhouseCoopers, 2016: 5; Teke, 2016);
- low investor confidence (Davenport, 2016; PricewaterhouseCoopers, 2016; Teke, 2016);
- cost increases (Beech, 2017; Business Monitor International, 2017: 9, Davenport, 2016; Lane *et al.*, 2015; PricewaterhouseCoopers, 2016: 5; Teke, 2016);
- unreliable energy supply (Beech, 2017; PricewaterhouseCoopers, 2016: 29; Teke, 2016);
- and
- community demands (Beech, 2017).

According to Davenport (2016), the impact of the above challenges facing the South African mining industry becomes clear by the following declines:

- mineral exports (as a percentage of total merchandise exports) in 2015 was 26% (2011: 35%);
- contribution to the JSE in 2015 of 15% (2011: 38%);
- contribution to foreign direct investment in 2015 of 15% (2011: 33%).

The challenges facing the mining industry is also evident from the statistics given at the 2016 Investing in African Mining Indaba. At this occasion, the Chairperson of the South African Chamber of Mines informed the delegates that approximately 50% of the coal and gold mining and approximately 80% of the platinum operations in South Africa are not profitable (Teke, 2016).

It is, therefore, no surprise that, in recent years, various South African companies announced plans to place mining operations on care and maintenance. This include:

- Great Basin Gold's Burnstone mine (Lazenby, 2012);
- Rockwell Diamonds's Tirisano mine (Rockwell Diamonds Inc, 2012);
- Glencore's Optimum mine (Glencore Plc, 2015);
- Bauba Platinum's Moeijelik mine (Bauba Platinum Limited, 2016);
- Rustenburg Platinum's Union mine and Twickenham project (Anglo American Ltd, 2017);
- Anglo Gold Ashanti's Kopaneng mine and Savuka section of the TauTona mine (AngloGold Ashanti Limited, 2017);
- Sibanye Gold's Beatrix West and Cooke operations (De Bruyn, 2017).

The likelihood is therefore increasing where directors and senior management of mining companies are confronted with decisions to place mines on care and maintenance.

1.2 Problem statement and research questions

1.2.1 Problem statement

Placing a mine on care and maintenance is not a normal, day-to-day business activity. Therefore, it is possible that directors of a mining company may not have previous experience in this regard. A literature review that was conducted did not reveal prior research in the South African context that can guide directors and senior managers of mining companies on considerations when placing a mine on care and maintenance. Some of the issues that can be encountered when a mine is placed on care and maintenance are detailed below. It is argued that a corporate governance framework that provide guidance will help directors and managers of mining companies to deal with these matters.

Ignorance in how to deal with matters relating to care and maintenance could result in unnecessary costs, further losses and reputational damage. For instance, considering that

placing a mine on care and maintenance would result in employees being retrenched, there are a myriad of matters that must be considered to ensure that due process is followed. The following section, adapted from Venter (2014), provides more context.

The downscaling or retrenchment of staff will most likely require compliance with Section 189A of the Labour Relations Act and The Code of Good Practice on Dismissal Based on Operational Requirements. This is due to the fact that the mining industry is a human-capital intensive industry and employers are bound to employ more than 50 personnel. Retrenchment is not a decision that employers can implement unilaterally and would require due process to be followed. This includes consultation with trade unions, who, in turn, may request facilitation by third parties such as the Commission for Conciliation, Mediation and Arbitration.

Non-compliance to the required procedure could cause the mining company further financial losses as the retrenchment process may take longer to complete, or the courts may intervene if the process was found to be unfair. The reason is that dissatisfied or aggrieved employees (e.g. where due process or “fair procedure” was not followed) may approach the Labour Court. They may request an interdict preventing the employer to dismiss the employees, reinstate dismissed employees, obtain a compensation award, or compel the employer to comply with fair procedure.

Section 66 (1) of the Companies Act infers the responsibility to manage and direct the business and affairs of a company to the Board of directors. Responsibility and accountability does not end with the Board of directors. Section 77 of the Companies Act extends accountability to officers and any member serving on a subcommittee of the Board (South Africa, 2011).

If mining companies do not comply with legislation during the care and maintenance phase, this can also lead to claims against these organisations and their directors. A criminal case was recently opened against three directors of Blyvooruitzicht and Village Main Reef gold mining companies. They were cited for failing to take action and implement the required measures to remedy and further prevent environmental damage and pollution associated with dust fallout exceeding dust fall standards. The directors face fines of up to R10 million, possible jail sentences of up to 10 years, or both (Beega, 2017). In this instance, even though the mining operation is under liquidation, the owners and directors of the company are deemed to remain responsible for environmental liability, pollution, ecological degradation and non-compliance to environmental authorisation.

Summarising the above, care and maintenance is not a day-to-day business activity. Inappropriate decisions can be costly and potentially lead to claims against companies and directors. Beech (2017) makes it clear that the complexity of care and maintenance should not be underestimated. In this regard, certain questions arise: How should directors and management teams of mining companies approach the decision to place a mine on care and maintenance? Is there guidance during the process? What would the main objectives be, what are the risks, and what support structures should be in place for guidance and advice?

The problem thus identified, which forms the basis of this research, is that no research has been conducted to formulate a corporate governance framework applicable to care and maintenance in the South African context.

1.3 Research objectives

1.3.1 Primary research objective

The primary objective of the present research was to construct a corporate governance framework incorporating principles and ideas, helping directors of South African mining companies to demonstrate the satisfactorily discharge of their fiduciary duties of skill, care and diligence, when placing a mine on care and maintenance.

1.3.2 Secondary research objectives

In order to address the primary research objective, the following secondary objectives were analysed in detail:

- Identify the objectives, from a governance perspective, that companies need to achieve when mines are placed on care and maintenance.
- Understand the main risks that companies need to be aware of when mines are placed on care and maintenance.
- Determine whether there are ethical matters requiring consideration and what these are when mines are placed on care and maintenance.
- To provide recommendations for further study.

To achieve the research objectives described in this section, the research questions detailed below need to be answered.

1.4 Research questions

1.4.1 Primary research question

Considering the challenges currently facing the South African mining industry, it can reasonably be expected that more mines may be placed on care and maintenance in the foreseeable future.

This leads to the following primary research question:

What should a corporate governance framework consist of in order for directors of South African mining companies to satisfactorily demonstrate the discharge of their fiduciary duties of skill, care and diligence when placing a mine on care and maintenance?

1.4.2 Secondary research questions

The specific research questions and the research methods that were employed to achieve the secondary research objectives are indicated in Table 1-1 below:

Table 1-1: Secondary research questions and research methods

Secondary research question	Research method
1. What are the objectives, from a governance perspective, of a company when placing a mine on care and maintenance?	Literature review and semi-structured interviews with officials who have had actual experience in placing mines on care and maintenance.
2. What are the main risks faced by a company when placing a mine on care and maintenance?	Literature review and semi-structured interviews with officials who have had actual experience in placing mines on care and maintenance.
3. What are the ethical matters that should be considered when placing a mine on care and maintenance?	Semi-structured interviews with participants who have had actual experience in placing mines on care and maintenance.

1.4.3 Importance and benefits of this study

Mining in South Africa is a highly regulated and complex industry, which requires compliance to a variety of laws and regulations. Directors, as the custodians of a company's governance, have a duty to ensure compliance to the relevant laws and regulations. Placing a mine on care and maintenance will require the same levels of compliance with less resources (personnel and financial), which may increase the personal risk and heighten the liability for the companies and directors.

According to the common law principles about delict, a director who is found to breach the statutory duty of care, skill and diligence, may be held liable personally. Directors, therefore, must act proactive and ensure they are informed about the business of companies where they hold directorships (Naidoo *et al.*, 2016: 211). There are a variety of compliance and governance risks that must be addressed and managed when a mine is placed on care and maintenance. This situation does not provide a company leniency regarding compliance. Rather, as pointed out previously, in general terms the same levels of compliance must be attained, albeit with fewer resources.

To date, research in South Africa has (over several years) focused on mine closure and the environmental (Graham & Nicholls, 1995; Limpitlaw, *et al.*, 2005), legislative (Alberts, *et al.*, 2016; Marais, 2013; Swart, 2003), financial and social impacts of such a closure (Ackerman, 2013; Graham & Nicholls, 1995; Mackenzie, 1992; McKenna, 2008; Stacey, *et al.*, 2011).

No evidence could be found of research conducted to establish a corporate governance framework that directors of South African mining companies could use to ensure they fulfil their fiduciary duties when a mine is placed on care and maintenance. Directors of South Africa mining companies would thus benefit from a generic framework or tool, which would help them to assess the completeness of the presented care and maintenance plans.

The absence of such a corporate governance framework increases the risk for directors and senior management when they have to place a mine on care and maintenance. These role-players may be required to make decisions without fully understanding the full considerations when placing a mine on care and maintenance. This view is supported by Beech (2017) who asserts, "To the extent that there is a perception that mines can simply 'be switched off', downscaled, placed on care and maintenance, or employees retrenched, this is incorrect."

The findings of the present research provide directors and management teams of mining companies the above-mentioned framework that can serve as a reference to ensure that decisions to place mines on care and maintenance are properly planned, co-ordinated and

executed. As a result, such a framework will help reduce potential liabilities of non-compliance to legislative requirements and ensure corresponding decisions are implemented efficiently and effectively. This will lessen the possible incurrence of unnecessary costs resulting from not following correct procedure.

1.5 Scope and delimitations

A first delimitation that affects the present study's scope is that the framework that was developed apply only to South African mining companies.

Secondly, the study focused on care and maintenance, a process or situation where mining operations are suspended *temporarily*. The analysis did not extend to permanent closure, which may be an eventual outcome if mining activities fail to resume.

Thirdly, the study did not assess the merits, or analysed the reasons guiding the decision to place a mine on care and maintenance. A review was not undertaken to determine whether such a decision was correct.

Fourthly, the study did not include the socio-economic impacts that a decision to place a mine on care and maintenance could potentially have. In September 2017, Hogan Lovells reported that it is estimated that the mining industry in South Africa had shed more than 80 000 jobs in the last three years (Beech, 2017). This is a significant number on its own. Beech (2017) went further to expand on this number by stating that it is generally accepted that the multiplier effect applicable to the mining industry suggests that each person employed in the mining industry supports "six to eight people, if not more".

Fifthly, the study did not include a detailed review of the license conditions that regulate mining rights or any other deeds-of-ownership titles.

A sixth delimitation was that the study did not attempt to explain in full, the details and linkages between various legislative provisions that regulate care and maintenance activities.

Finally, the study population did not include all commodities being mined in South Africa and some requirements, that may be applicable to only particular minerals, may not be covered.

1.6 Research design

This study was conducted by following the *qualitative* research approach. This approach was deemed suited best for this topic as the framework which was developed and tested relied on subjective, personal and socially-constructed realities (Mouton, 1996: 196).

Research was conducted through semi-structured interviews. Such interviews entail a series of broadly framed questions that are contained on an interview schedule where the interviewer has some latitude to change the sequence or ask follow-up questions (Bryman *et al.*, 2014: 255).

The research involved an in-depth study focusing on a group of individuals who share the same characteristics (individuals who have previous experience and an understanding of care and maintenance). Their knowledge and experience were fundamental to the development and validation of the framework. The semi-structured interviews provided opportunities to gain more data or clarify data. This was achieved through follow-up questions and opportunities to clarify responses, a notion supported by Bryman *et al.* (2014: 255).

Data collected from these individuals provided information that is *transferable* (Bryman *et al.*, 2014: 45) to other instances where mines are placed on care and maintenance.

The research design was *cross-sectional* (Du Plooy, 2009: 91), as interviews and validation were conducted within a relatively brief time-frame (3 months).

1.7 Literature review

The components for corporate governance, presented in the Definitions and Abbreviations on page iv, can be unpacked into core components to inform the care and maintenance framework developed in this study. Such a framework should provide support to directors, ensuring appropriate controls remain in place to facilitate:

- balanced exercise of power;
- legal and regulatory compliance;
- risk management;
- accountability towards stakeholders and society in which the company operates.

A thorough literature review was imperative since no evidence could be found of similar research that proposes corporate governance frameworks for care and maintenance within the South African context.

Guidance was also pursued based on international perspectives.

Sources of information include the internet, EbscoHost, company publications, subject literature, acts and legislation, previous dissertations and academic journals.

1.8 Study population and sampling

1.8.1 Study population

The study population consisted of directors, senior managers and advisors of companies who were involved in placing South African mines on care and maintenance or closure during the past 10 years (since 2007).

A study population or target population entails the “entire class or groups of units, objects or subjects to which we want to generalize findings” (Du Plooy, 2009: 56). Similarly, it can be defined as “the entire set of objects or people that is the focus of a research project and about which the researcher wants to determine some characteristics” (Bless, *et al.*, 2013: 162).

There may be differences in the legislative frameworks and requirements to which mining companies must adhere according to South African legislation. However, the purpose of the present study was to identify and proposes components of a generic framework for corporate governance. The study population was, therefore, not limited to employees in specific commodities or to certain geographical areas.

One of the objectives when determining the study population was to ensure it included individuals who have had actual experience or a detailed understanding of placing mines on care and maintenance. In this sense, the population selected for the present study was homogenous. This was an important consideration in order to document information about their actual experience and the lessons they learnt. Valuable input was obtained to use in developing the framework. This input helped the researcher understand what went well and what they would do differently if they had to undergo a similar experience.

1.8.2 Sample and sampling strategy

The research strategy employed convenience sampling as well some aspects of purposeful sampling. One of the predetermined objectives was that the developed framework should represent a range of variations. Therefore, the sample did not merely comprise typical members (e.g. limited to persons with a legal background). During the final sample selection, a deliberate attempt was made to obtain data from individuals who are specialists the following functional fields:

- executive management;
- finance;
- human resources;
- environmental; and

- legal.

A further objective was to obtain data on care and maintenance experiences from at least two non-related mining companies.

1.9 Saturation

Malterud *et al.*, (2015) introduced the concept of “information power” to the saturation concept to guide researchers in determining sample sizes for qualitative studies. Saturation, entails a process of ongoing analysis of observations. New observations are compared with previous analyses to identify similarities and differences. Researchers are advised to assess the following elements as a collective during the planning and data collection processes. These elements are: aim of the study, sample specificity, use of established theory and quality of dialogue and analysis strategy. An inverse relationship exists between the determined sample size and “information power”. Information power as a concept means that the more information a sample holds that is relevant to the study, the smaller the number of sample participants required will be.

Based on the guidance by Malterud *et al.*, (2015), saturation and the way in which it was achieved in the present study is explained below.

Overall, the aim of this study can be described as *narrow*. On the one hand, the research outcome was a comprehensive corporate governance framework, which required a broad focus. On the other hand, the framework was developed with a narrowed-down application in mind: South African mines that are placed on care and maintenance.

A less extensive sample was required due to the unique characteristics of the participants. Given that, care and maintenance of mines South Africa is a highly specific topic, the participants had to present similar characteristics (experience in care and maintenance). Variations within the participants experience were dealt with by selecting individuals who represent diverse functional fields (as explained in 1.8.2, “Sample and sampling strategy”, above. The research could elicit information from individuals with diverse professional orientations, operating in a specialised environment (mining), who have experience with care and maintenance. These characteristics enhanced the information power.

A comprehensive literature review was undertaken. The information obtained from the review was valuable to confirm the responses from the interviewees and to identify discrepancies. This also helped increase the information power of this study.

The dialogue was of a high quality. The semi-structured interviews were conducted on a one-on-one basis. The researcher has experience in placing two mines on care and maintenance. He

was able to rely on his own experiences and participate as a knowledgeable interviewer with the interviewees. Again, this enhanced the information power.

As mentioned previously, an aim in sample selection was to obtain data on care and maintenance experiences from at least two non-related companies. This increased the variability of the provided data. Eventually, eight individuals participated in the study. Six interviewees provided data during the semi-structured interviews. A further two respondents were used to validate the research outcome. Collectively, these eight individuals are employed at five different companies. As a result, the data was enhanced by results from five different companies representing information on more than 10 mines that were placed on care and maintenance.

1.10 Validation

Validity, which indicates the integrity of research findings (Bryman *et al.*, 2014: 25) was confirmed through a combination of the following actions:

The convenience sampling was designed to ensure data would be gathered from participants who represent at least two non-related companies.

Similarities and discrepancies identified in data from the interviewees and the literature review were highlighted as part of the discussion and analysis in Chapters 4, “Empirical study” and 5 “Corporate governance framework”.

The recommended corporate governance framework, which represents the research findings to the primary research question, was provided to the following sample:

- all the individuals who participated in the study;
- a further two individuals, both who met the criteria specified in 1.8.1, “Study population”, above.

These persons were asked to answer the following two questions:

Validation question 1: Is the developed framework developed sufficient in order for directors of South African mining companies to satisfactorily demonstrate the discharge of their fiduciary duties of skill, care and diligence when placing a mine on care and maintenance?

Reasons, motivation “No” as an answer, was requested.

Validation question 2: If any fatal flaws could be identified in the developed framework which would result in directors not being able to demonstrate the discharge of their fiduciary duties of skill, care and diligence when placing a mine on care and maintenance?

Reasons, motivation “Yes” as an answer, was requested.

1.11 Confidentiality

All participants were assured of confidentiality. The researcher emphasised that the identity of participants and companies covered by the selected sample would remain anonymous. It was necessary to ensure confidentiality since the gathered data may have been:

- sensitive in nature;
- possible disclosures of non-compliance with legislation;
- containing negative comments about experiences or processes followed; or
- divulging information not readily available in the public domain.

1.12 Layout of the research

The present research commenced with this chapter, which outlined the nature and scope of the study. The importance and benefits of the study were explained. A definition was provided of the primary and secondary research objectives. Thereafter, the research questions were posed and the research methodology explained and discussed.

Chapter 2, "Literature review", seeks to identify core components of corporate governance, legislation and international guidance related to care and maintenance.

Chapter 3, "Data gathering and data analyses", explains the data collection and validation process. Considerations for ethical research are expounded, as considered and explained to the study participants.

In Chapter 4, "Empirical study", the data, gathered through the semi-structured interviews, are presented and analysed. The chapter provides answers to the three secondary research questions, as identified in 1.4.2, "Secondary research questions" above.

The framework, which is the research outcome of the present study, is presented in Chapter 5, "Corporate governance framework".

Chapter 6, "Conclusion and recommendations" summarises the answers to the research questions and makes recommendations for future research. It also contains information on ways in which the primary and secondary research objectives were achieved.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

Research, as part of the motivation for the present study, did not reveal evidence to date of prior studies proposing a corporate governance framework for South African companies when a mine is placed on care and maintenance.

A literature review was therefore conducted to identify the core components of corporate governance, applicable legislation, and best practice related to care and maintenance. In the absence of relevant South African literature, guidance was also sought from an international perspective.

The definition for corporate governance, presented in Definitions and Abbreviations, can be unpacked into core components to inform the corporate governance framework for care and maintenance developed in this study. Such a framework should provide support to directors, ensuring appropriate controls remain in place to facilitate:

- balanced exercise of power;
- legal and regulatory compliance;
- risk management;
- accountability towards stakeholders and society in which the company operates (Naidoo *et al*, 2016:4).

2.2 South African legal framework

2.2.1 Corporate governance and the responsibility of directors

Corporate governance is an important part of management that requires directors of companies' consideration. Therefore, it is important to understand the relationship between corporate governance and legislative frameworks within the South African context. Furthermore, the decision to place a mine on care and maintenance should be taken and implemented in a way that ensure the role-players comply with relevant laws and regulations. For this reason, key aspects of legislation are discussed below. Directors need to be aware of such legislation when placing a mine under care and maintenance.

2.2.1.1 Companies Act

Fiduciary duty of directors

From a legislative perspective, the responsibility to manage and direct the business and affairs of a company is inferred to the Board of directors in terms of Section 66(1) of the Companies Act. Based on the provisions made by Section 77 of the Companies Act, accountability for companies' actions extends beyond the Board of directors and includes prescribed officers and any member serving on a subcommittee of the Board. These persons may all be held liable in terms of common law principles regulating breach of a fiduciary duty or delict (South Africa, 2011). This is affirmed by (Naidoo *et al.*, 2016: 213), who states that a director who is found to be in breach of the statutory duty of care, skill and diligence, may be held liable personally. Thus, directors must act proactive and ensure they are informed about the business of the companies where they hold directorships (Naidoo *et al.*, 2016: 201).

Naidoo *et al.* (2016: 201) explains that being a fiduciary "lies at the heart of governance" and is derived from the Latin word, *fidere*, which means "to trust". Fiduciary conduct thus, entails "acting as you would wish another to act on your behalf". Fiduciary duties are laid on directors since they act in their capacity of shareholder-representatives.

As already indicated, an individual who accepts the appointment as a director, assumes duties of care, skill and judgement. Such an official is obliged to display "utmost good faith towards the company and in all dealings on its behalf" (Naidoo *et al.*, 2016: 200).

Business rescue considerations

When directors decide to place a mine on care and maintenance, certain points of interest should become relevant (or may already be). The first point is how this decision will impact the financial viability of the company. Secondly, the question arises: Should the company consider to commence voluntary business rescue proceedings? The latter refers to proceedings that facilitate the rehabilitation of companies that are financially distressed in terms of Chapter 6 of the Companies Act (South Africa, 2011).

The failure of any of the following two tests will indicate whether a company can be classified as financially distressed:

- **Test 1:** When it is reasonably likely that a company will not be able to pay all of its debts as they become due and payable within the following six months, or;
- **Test 2:** If it is reasonably likely that a company will become insolvent within the following six months (South Africa, 2011).

It may happen that the Board of directors has reasonable grounds to believe a company is distressed, but they decide against initiating business rescue proceedings. In such a case, in terms of Section 129 (7) of the Companies Act, the Board must deliver a written notice to each person who may be affected and state the reasons why they are not initiating business rescue proceedings (South Africa, 2011). The most logical “affected persons” would be a company’s creditors, financiers and shareholders and employees who would be at risk if a company becomes unable to honour its commitments.

Any retrenchment of employees, if included in the company’s business rescue plan, would still be subject to Section 189 and Section 189A of the Labour Relations Act, 1995. Furthermore, directors must continue to exercise their functions, which are then subject to the authority of the business rescue practitioner (South Africa, 2011).

Directors should give careful consideration to the need to initiate business rescue as one of the responsibilities of the business rescue practitioner in terms of Section 141 of the Companies Act is to report any evidence or reckless trading, fraud or contravention of any law to the relevant authorities (South Africa, 2011). It is argued that directors can be charged with reckless trading should it be determined that they did not initiate business rescue proceedings or failed to do so early enough. These charges can be instituted should creditors be able to demonstrate that they incurred losses due to the directors’ inability to take action.

2.2.1.2 King IV

2.2.1.2.1 Application and general guidance

Compliance to the King IV Report on Corporate Governance for South Africa 2016 (“King IV”) is not mandatory. Nevertheless, a corporate governance code, even if applied voluntary, may trigger legal consequences. When determining whether those charged with governance showed the appropriate conduct, a court will consider all relevant circumstances. These include whether standards of care were applied by using established best practices as reference. Thus, directors may be found liable since they failed to meet established corporate governance practices (Institute of Directors Southern Africa, 2016: 35).

King IV replaced the King III Report of on Corporate Governance for South Africa 2009 (“King III”) (Institute of Directors Southern Africa, 2009). Despite this fact, the definition of corporate governance contained in King III cannot be ignored as it still provides directives that are important for the purpose of the present study. King III explained that corporate governance “involves the establishment of structures and processes, with appropriate checks and balances that enable directors to discharge their legal responsibilities and oversee compliance with legislation”.

2.2.1.2.2 Ethics and responsible corporate citizenship

Recent events in South Africa surrounding allegations of “state capture” has evoked strong reaction from society in general and corporations in particular. These reactions illustrate the severe impact that errors in judgement can have on a company’s image, profitability and ability to continue as a going concern. Examples are demise of a public relations company (Bell Pottinger), clients terminating business relations with KPMG (an audit firm), and allegations of improper conduct by the consulting firm, McKinsey & Company (February, 2017).

It is difficult to ignore the relevance and thus increased emphasis and importance of the three shifts in the corporate world (ethical leadership, stakeholder inclusivity and integrated thinking and integrated reporting) that form the foundations of King IV viewed from the perspective of when a mine is placed on care and maintenance. In many aspects, placing a mine on care and maintenance will negatively impact sustainability. Particularly from the perspective of effected employees and communities. This is diametrically opposed to the concept of “inclusive capitalism” – a philosophy whereby companies’ business models are required to have a positive impact on society and the environment (Institute of Directors Southern Africa, 2016: 4). Directors, in adhering to the spirit of King IV, would really need to consider the way in which the decision to place a mine on care and maintenance is taken and implemented *from an ethical perspective*.

Naidoo *et al.*, (2016: 375-376) explains corporate citizenship as metaphor supporting the notion that companies have a similar presence to that of human citizens. Therefore, society demands similar behaviour from corporate entities as would be expected from human citizens. In assessing corporate citizenship behaviour, companies will be judged based on their utilisation of resources and how they balance the societal needs to achieve “positive, lasting outcomes for itself, the society and the environment”. Companies are required to think beyond matters affecting profits alone. Decision-making and thinking should consider the impact that companies’ decisions and actions have on the societies within which they operate.

Corporate social responsibility should not be confused with corporate citizenship (Naidoo *et al.*, 2016: 377). Although related, and often used interchangeably, these concepts are dissimilar. Corporate social responsibility can be described as a form of corporate philanthropy. It entails a strong developmental approach and often focuses on the upliftment of communities within which organisations operate.

Three underlying principles for sound corporate governance inform leadership, ethics and corporate citizenship. These principles guide the governing bodies of organisations and are based on Part 5.1 of King IV (Institute of Directors Southern Africa, 2016: 43-45). These are:

- Principle 1: Lead ethically and effectively.
- Principle 2: Establish an ethical culture in the organisation.
- Principle 3: Ensure the organisation is and is viewed as a responsible corporate citizen.

Principle 1: Lead ethically and effectively

King IV identifies six characteristics of an ethical disposition that should be cultivated through individual and collective conduct. These characteristics are:

- integrity;
- competence;
- responsibility;
- accountability;
- fairness; and
- transparency.

Through the characteristics listed above, King IV provides relevant guidance for a case when a mine is placed on care and maintenance:

Integrity: Organisational conduct should extend beyond mere legal compliance.

Responsibility: The governing body should be pro-active and anticipate, prevent or minimise any negative impacts that may result from an organisation's activities.

Fairness: A stakeholder-inclusive approach should be adopted and the organisation directed in such a manner that the environment, society and future generations are not affected adversely.

Principle 2: Establish an ethical culture in the organisation

Codes of conduct should be adopted and policies on ethics formulated that encompasses the organisation's interactions with internal and external stakeholders as well as the broader society. These codes and policies should address the key ethical risks facing the organisation. The policies should be monitored throughout. Sanctions and remedies should be implemented to guide management and the governing body in dealing with breaches.

Principle 3: Ensure the organisation is and is viewed as a responsible corporate citizen

The governing body must ensure an organisation's conduct represents that of a responsible corporate citizen. Means through which this objective can be achieved include the following:

- Comply with the Constitution of South Africa, laws and regulations, leading standards and an organisation's own codes and policies.

-
- Evaluate the core aspects of an organisation's vision, mission, values, strategies and conduct for consistency with responsible citizenship.
 - Assess and monitor whether an organisation's activities could impact negatively on its perceived status as a responsible citizen. Areas to consider are matters related to the workplace, economy, society and environment.

Care and maintenance poses a threat to mining companies' status as perceived responsible corporate citizens. Decisions are likely to be taken that will have a negative impact on:

- the workplace – employees may be retrenched;
- society – communities in the areas in which the mines operate, as well as labour-sending areas can be expected to feel the impacts;
- environment – negative impacts are inherent to mining, thus it requires a continued focus to ensure care and maintenance does not increase adverse effects, as compared to under operational circumstances. King IV identifies the following specific matters to consider: the control of pollution, waste disposal, and protection of biodiversity.

King IV expanded the emphasis on ethical culture, good performance, effective control and legitimacy. This report tasks governing bodies to ensure that an organisation's conduct is in accordance of directives for a responsible corporate citizen. For the purpose of the present study, the following guidelines contained in King IV are highlighted: ensuring the health and safety of employees, not putting public health and safety at risk, and avoid damaging the environment through pollution (Institute of Directors Southern Africa, 2016: 45). The perceived risks increase when a mine is placed on care and maintenance, seeing that less resources are available for effective monitoring and control. These mentioned risks must be addressed by the directors of a company who take such a decision. Role-players must take cognisance of the following factors contributing to this increased risk:

- loss of critical skills and knowledge because of reduction in employees;
- failing to meet financial obligations due to loss of income (a mine under care and maintenance does not generate revenue); and
- inability to monitor and contain environmental hazards due to loss of critical skills or financial constraints.

The obligations advocated by King IV are not limited to directors. Therefore, this report pays particular attention to the definition, and inclusion of the following role-players: senior management (who report to executive management); executive management (highest decision-making authority) and executive managers (members of the executive management team

including members of the governing body and prescribed officers as defined by the Companies Act; Institute of Directors Southern Africa, 2016: 14).

The combined assurance model, a concept that was introduced in King III, is expanded in King IV to. An effective combined assurance model requires all assurance functions, seen as a collective unit, to:

- be effective in enabling control;
- facilitate internal decision-making by supporting the integrity of information; and
- support the integrity of external reporting (Institute of Directors Southern Africa, 2016: 10).

2.2.1.2.3 Committees

An underlying governance principle of King IV is the establishment of committees. Committees support the Board of directors in its effective discharge of its duties, promote independent judgement and exerting of balance of power (Institute of Directors Southern Africa, 2016: 54).

The following committees, recommended by King IV, have been identified as governance bodies who could be relied on to provide input when a mine is placed on care and maintenance.

Audit committee

King IV recommends that an Audit committee be established by all organisations that issue audited financial statements, even in the absence of statutory obligations that would compel an organisation to do so (Institute of Directors Southern Africa, 2016: 55).

The Audit committee is tasked to provide independent oversight to the governing body on:

- the effectiveness of combined assurance arrangements that includes external assurance providers, internal audit and the finance function;
- the integrity of external reports and annual financial statements that are issued by the organisation (Institute of Directors Southern Africa, 2016: 55).

The governing body may elect to delegate the responsibility of risk governance to the Audit committee. Irrespective of whether this has been done, the Audit committee is responsible to oversee the management of financial and other risks that may have an effect on the integrity of any external reports issued by the organisation (Institute of Directors Southern Africa, 2016: 55).

When placing a mine on care and maintenance, the Board of directors should obtain assurance from the the Audit committee regarding:

- risk management;
- disclosure in financial statements and any external reports.

Internal audit

An effective Internal audit function remains a pivotal component of corporate governance. The role of Internal audit is seen to have evolved in recent years to move beyond compliance. Internal audit is also providing advice and insight into the activities of an organisation (Institute of Directors Southern Africa, 2016: 31).

Internal audit should function independently from management and fall under the oversight of the Audit committee (Institute of Directors Southern Africa, 2016: 69). As such, if an established internal audit function is in place, the Audit committee would provide direction to the internal audit function with regards to the risk management and disclosure objectives mentioned above.

Risk committee

King IV advises establishing a dedicated committee that is tasked with the responsibility to oversee risk governance. Alternatively, the responsibility to oversee risk governance should be delegated to one of the established committees (Institute of Directors Southern Africa, 2016: 57).

Any reviews conducted by the Risk committee (if established) on care and maintenance would be beneficial to the Board of directors to demonstrate the effective discharge of its duties.

Social and ethics committee

Companies should consider (if not a statutory requirement) to establish a Social and ethics committee. Responsibility should be delegated to oversee and report on the following: ethics within the organisation, responsible corporate citizenship, sustainable development and stakeholder relationships (Institute of Directors Southern Africa, 2016: 57).

These ethical matters are all deemed relevant by the researcher when a mine on is placed care and maintenance and links well with secondary research question 3 "What are the ethical matters that should be considered when placing a mine on care and maintenance?".

Remuneration committee

Establishing a dedicated committee that is tasked to oversee matters relating to remuneration is recommended (Institute of Directors Southern Africa, 2016: 57).

As it is likely that employees will be retrenched or offered voluntary severance packages when a mine is placed on care and maintenance, the Board of directors should seek guidance from the Remuneration committee.

Disclosure committee

A review of King IV did not reveal recommendations regarding the establishment of a Disclosure committee. Disclosure is identified as one of the primary responsibilities of the governing body who needs to ensure accountability for organisational performance by reporting and disclosure (Institute of Directors Southern Africa, 2016: 21).

No evidence could be found of regulations guiding South African companies to establish Disclosure committees. International guidance provided by Deloitte (2014) explains the purpose of Disclosure committees as follows: assist the Chief executive officer, Chief financial officer and Audit committee prepare disclosures required by security exchanges and ensure disclosure controls and procedures are implemented.

Safety, health and environmental committee

Committees established to oversee the risks that mining companies face in areas such as safety, health and environment, is a common practice in the mining industry (Anglo American Platinum, 2017: 76; Lonmin, 2015).

The terms of reference of Lonmin Plc's Safety, health and environmental committee is used to provide context on the purpose of such committees (Lonmin, 2015). This entails the following actions:

- Set aspirational safety, health and environmental standards by management.
- Implement and enforce a culture that promotes acceptable standards of safety, health and environmental conduct.
- Provide oversight and advise the Board of directors in matters regarding regulatory compliance with safety, health and the environment.
- Appraise the Board of directors on developments, trends and pending changes in legislation.
- Implement robust assurance audit processes.
- Review of external reporting and disclosure related to safety, health and environment related matters.

2.2.1.2.4 King IV and JSE listing requirements

The JSE requires the application and disclosure of King IV on all documents (circulars and annual reports) submitted on or after the 1 October 2017 (Johannesburg Stock Exchange, 2017). Compliance to the basic principles of King IV based on "apply and explain" is in essence mandatory for companies listed on the JSE. King IV tasks those charged with governance with a

duty to ensure the concept of “compliance” is well understood and that they hold a holistic view on the interrelation of applicable laws, non-binding rules, codes and standards (Institute of Directors Southern Africa, 2016: 30).

2.2.2 Labour Relations Act (LRA)

When an employer contemplates dismissing one or more employees for operational reasons, Sections 189 and 189A of the LRA places obligations on the employer to consult with any registered trade union whose members are likely to be retrenched (Beech W, 2017).

According to Section 189 of the LRA, employers contemplating retrenchment are required to consult in terms of the stipulations regarding collective agreements, where applicable. Where such agreements lack, employers should consult with workplace forums or registered trade unions. In the absence of these latter channels, management should consult with employees likely to be affected, or with their representatives (South Africa, 1995: 102-103).

Consultation needs to be conducted in a spirit of engagement in terms of Section 189 (2) of the LRA. The aim should be to reach a common ground through a meaningful, joint-consensus process. The focus must be on appropriate measures to avoid retrenchment, minimise the number of employees retrenched, change the timing of retrenchments (i.e. defer if possible), and to mitigate the negative impacts from the planned retrenchments (South Africa, 1995: 103). Other matters to be consulted on, include the selection method that will be applied to select employees to be retrenched and the severance packages to be paid.

In terms of Section 189 (3) of the LRA (South Africa, 1995: 103) the notices issued must be in writing, informing the parties with whom consultation will be taking place. Such notices must disclose all relevant information, including, but not limited to the following (numbering in the section below corresponds with the relevant subsection of Section 189 (3) of the LRA):

- (a) the reasons for the envisaged retrenchments;
- (b) alternatives the employer considered and reasons why these alternatives have been rejected, prior to issuing the intended notice of possible retrenchments;
- (c) details of the number of employees and job categories likely to be impacted;
- (d) the proposed method to select employees who will be retrenched;
- (e) the expected timeframes when the retrenchments are likely to take place;
- (f) the likelihood of future re-employment of employees who are retrenched;
- (g) the number of employees currently employed; and

- (h) details of other employees who have been retrenched during the previous 12 months for operational reasons.

Directors should note that they have an obligation to consult. They cannot use the approach of merely informing affected employees that they will be retrenched. A mere informing will imply that a decision to retrench has already been taken. In terms of Section 189 (5) of the LRA, the employer must give the parties engaged in the consultation process the opportunity to make representations on the matters that are addressed in terms of Sections 189 (2), (3) and (4) of the LRA.

Section 189A of the LRA is a continuation of Section 189 as described above, but adds requirements should the company have more than 50 employees. As mentioned previously (1.2.1, "Problem statement") adapted from Venter (2014), the downscaling or retrenchment of staff will most likely have to comply with Section 189A of the Labour Relations Act and The Code of Good Practice on Dismissal Based on Operational Requirements. This is because the mining industry is an example of a human-capital intensive industry, in which it is likely that more than 50 personnel are employed.

Relevant sections from a governance perspective stipulated in Section 189A (South Africa, 1995: 104-106) read as follows:

- *Section 189A (2) (b)*: The rights of employees are protected and they may participate in strike action. The rights of the employer are protected as well, and the latter may enforce a lock out.
- *Section 189A (3) (a) and (b)*: The appointment of a facilitator by the Commission for Conciliation, Mediation and Arbitration if requested by the employer. This must be done in the employer's Section 183 (3) notice or, within 15 days if requested by the parties consulting on behalf of the employees;
- *Section 189A (6)*: The Minister of Labour may, after consulting with NEDLAC and the Commission for Conciliation, Mediation and Arbitration, make regulations concerning (numbering below corresponds to the relevant subsection of Section 189A (6) of the LRA):
 - (a) the period and changes to the periods of facilitation;
 - (b) the powers and duties of the facilitators;
 - (c) the circumstances according to which the Commission for Conciliation, Mediation and Arbitration may charge a fee to conduct facilitation and the applicable costs;
 - (d) any other matter where facilitation is deemed necessary.

- *Section 189A (7) (a) and (b)*: An employer may give notice to terminate the services of employees within 60 days after the notice of possible dismissals was given. Employees and registered trade unions may give notice to strike, or refer a dispute to the Labour Court if they believe there are grounds for dispute.
- *Section 189A (8) (a) and (b)*: In instances where a facilitator is not appointed, any party may refer a dispute to the Commission for Conciliation, Mediation and Arbitration after 30 days of issuing the notice of possible retrenchments. The employer may give notice to terminate the services of employees if a period of 30 days, or any extended period as agreed to between the parties, has elapsed since the matter was referred to the Commission for Conciliation, Mediation and Arbitration. Employees and registered trade unions may give notice to strike, or refer a dispute to the Labour Court if they believe that there are grounds for such a dispute.
- Directors should pay particular attention to the fact that affected employees and registered trade unions may give notice to commence strike action if any employees are retrenched or notices of dismissal (retrenchment) is given before the timeframes described in *Sections 189A (7) and (8)* have lapsed.

As mentioned in 1.2.1, “Problem statement” above, non-compliance to the required procedures could result in further financial losses for the mining company. The reason is that the retrenchment process could take longer to complete, or the courts could intervene if the process was established as unfair. In instances where due process or “fair procedure” were not followed, dissatisfied or aggrieved employees may approach the Labour Court to request an interdict. Such a legal measure may prevent the employer from dismissing these employees, order the reinstatement of dismissed employees, provide for a compensation award, or compel the employer to comply with fair procedure. Venter’s (2014) interpretation is consistent with the stipulations of Section 189A (13) (a) to (b) that deal with instances where employers do not comply with fair procedure.

2.2.3 Mine Health and Safety Act (MHSA)

As stated in 1.5, “Scope and delimitations” above, the researcher did not attempt to explain the full details and linkages between various legislative provisions regulating care and maintenance activities. Edward Nathan Sonnenberg’s publication, *Mines Health and Safety Act and Regulations applicable in South Africa*, contains more than 900 pages (Edward Nathan Sonnenbergs, 2013). This fact is mentioned to illustrate how comprehensive the requirements are for mine health and safety in South Africa. Thus, a study of this nature would be unable to address matters of health and safety comprehensively. It is, therefore, recommended that

directors of mining companies take the necessary steps to ensure that they have persons as fellow directors who have a full understanding and comprehension of health and safety issues in the mining industry. Should a Board of directors not have mine health and safety skill sets, established sub-committees of the Board (such as the Risk committee recommended by King IV; Institute of Directors Southern Africa, 2016: 30) should include individuals with relevant knowledge and experience of health and safety in the mining industry.

Based entirely on a review of the main headings of Chapter 2 of the MHSA (Edward Nathan Sonnenbergs, 2013: 14-26), evidently certain obligations are imposed on employers in the mining industry. These obligations require the following actions: maintain a safe and healthy environment, provide adequate health and safety equipment to workers, and ensure the mine is staffed with due regard to health and safety, develop and implement health and safety policies and provide training on these aspects. Furthermore, employers should assess risks and respond accordingly, ensure occupational hygiene is monitored, systems of medical surveillance are implemented, medical examinations are conducted on an annual basis, and medical exit examinations take place.

It should be noted that there are no provisions in the Mine Health and Safety Act, No 29 of 1996 that provides any relief to employers in terms of their responsibilities to ensure the safety of workers as detailed in Chapter 2 of the MHSA if a mine is placed on care and maintenance.

Statutory legal appointments in terms of the MHSA would still be required in terms of regulations 2A (2), 2A (3) and 4(1). These appointments include the Chief Executive Officer, any director who holds specific appointments and persons to whom responsibility was delegated in terms of the MHSA. Le Roux, a director in Edward Nathan Sonnenbergs' Mine and occupational health and safety department points out that the Department of Minerals and Energy may, however, approve the appointment of individuals in part-time positions (Kolver, 2013).

2.2.4 Mineral and Petroleum Resources Development Act (MPRDA)

2.2.4.1 Section 52 notice

Directors of South African mining companies need to be aware that, in terms of Section 52 of the MPRDA (South Africa, 2002), the holder of a mining right must, *after consultation with registered trade unions or affected employees*, issue a notice of profitability and curtailment of mining operations affecting employment. This notice, which must be directed to the Department of Mineral Resources if prevailing economic conditions lead to a ratio of profit against revenue of less than 6% on average over a continuous period of 12 months (Section 52 (1) (a)), or, if any mining operation is to be scaled down or stopped which may result in 10% of the employees or

more than 500 (whichever is less) being retrenched within 12 months (Section 52 (1) (b)) (South Africa, 2002). The phrase emphasised above: *after consultation with registered trade unions*, is important for further discussions on the interrelatedness of legislation (refer 2.4, “Inter-relationship of legislation”, below).

After receiving a Section 52 notice (South Africa, 2002), the Department of Mineral Resources must investigate the socio-economic and labour implications and the circumstances that may lower the profit to revenue ratio to under 6% (Section 52 (2) (a)), or which may lead to 10% or more than 500 employees being retrenched (Section 52 (2) (b)).

In terms of Section 52 (3) of the MPRDA the Minister of Mineral Resources has the powers to, after consultation with the Minister of Labour and any registered trade union or affected persons, issue a directive to the holder of the mining right. The aim is to implement corrective measures in accordance with the terms and conditions deemed appropriate (South Africa, 2002). To clarify, Beech (2017) summarises that Sections 52 (2) and 52 (3) in effect specifies “what must take place, once the Minister of Mineral Resources has been notified.”

The holder of a mining right is obliged to comply with such a directive issued by the Minister of Minerals and Energy and must confirm, in writing, that the corrective measures have been applied. If companies do not comply with the directives of Section 52, they are at risk that the Minister of Mineral Resources may provide assistance or apply for the mining operation to be placed under judicial management (South Africa, 2002).

2.2.4.2 Optimal mining of mineral resources

Section 51 of the MPRDA affords the Minister of Mineral Resources the power to intervene and issue directives to the holder of a mining right, should the Department of Mineral Resources determine that a mineral resource is not being mined optimally in accordance with the approved mining works program. Before issuing such a directive, the Minister must be advised whether the technical and financial resources of the holder of the mining right and prevailing market conditions justify such an intervention (South Africa, 2002).

Directors, therefore, must understand: there has to be valid reasons why a mine is placed care and maintenance. This includes understanding the impact of such a decision on the company’s ability to comply with the approved mining works program.

Failure to comply with a directive issued by the Minister of Mineral Resources in terms of Section 51, may result in the suspension or cancellation of a mining right (South Africa, 2002).

2.2.4.3 Social and labour plan

Social development is an important focus area of the MPRDA.

Section 2 (f) identifies the promotion of employment and advancement of the social and economic welfare of all South Africans as objectives of the MPRDA. The Minister of Mineral Resources is tasked in Section 3 (3) with the responsibility to ensure the sustainable development of South Africa's mineral resources while promoting economic and social development (South Africa, 2002).

One of the means used by the MPRDA is the requirement that a mining right should be accompanied by an approved social and labour plan that includes measures and commitments on the following aspects:

- human-resources development (plans for skills development, career progression, mentorship, bursaries and internships);
- mine-community development;
- housing as well as living conditions of employees;
- employment equity;
- prevention of job losses; and
- managing of downscaling and/or mine closure (Department of Mineral Resources, 2010: 4).

The Department of Mineral Resources (2010) identifies the following objectives for the social and labour plan:

- promoting economic growth;
- promoting development of mineral and petroleum resources;
- advancing social and economic welfare of all South Africans;
- promoting employment;
- ensuring mining companies contribute towards socio-economic development in the areas where they operate, as well as areas from where the majority of their workforce are sourced; and
- increasing HDSA empowerment by utilising and expanding skills.

In Section 4 of the guideline (Department of Mineral Resources, 2010: 23), the DMR acknowledges that workers may be retrenched by companies "for economic reasons and to remain globally competitive". Mining companies are reminded to "take note and follow the procedures" regulating the downscaling and retrenchment of employees in the LRA. The

companies are also tasked to develop turnaround strategies and mechanisms to avoid job losses and unemployment.

Where companies apply for mining rights, applicants are required to establish a Future forum within two years of being granted a mining right. This forum should comprise representatives of the mining right holder's management, employees or employees' representatives. As minimum aims, the future forum should focus on the following actions:

- Promote ongoing discussions between the mining company and employees on the future of the mine.
- Adopt a forward-looking approach to identify potential problems, challenges for productivity and employment, and seek possible solutions.
- Develop turnaround and redeployment strategies.
- Work towards the implementation of agreed strategies by both employer and employees (Department of Mineral Resources (2010: 24)).

Companies must provide details on the financial provision required in monetary terms, covering all the components of the social and labour plan, which commitment is the sole responsibility of the mining right holder (Department of Mineral Resources (2010: 24)).

2.3 Mine closure and rehabilitation

As indicated previously ("Definitions and abbreviations"), a component of the definition of care and maintenance involves the absence of a "clear defined strategy regarding permanent closure" (Picarelli, *et al.*, 2014: 93), which would suggest that permanent closure may well be an outcome at a later stage.

South Africa has a comprehensive legal framework that governs the rehabilitation and closure of new and former mine sites. Although this framework conforms with international best practice, it is regarded as extremely complex and unwieldy (Alberts, *et al.*, 2016: 1). To illustrate this point of critique, Alberts *et al* identified more than 15 acts of parliament which are relevant to mining and the outcomes of mining activities. Furthermore, a substantial number of guiding documents directly or indirectly cover mine closure, management of abandoned mine sites, the mitigation of environmental risks, and the rehabilitation of abandoned mine sites (Alberts, *et al.*, 2016: 3-6).

To illustrate how broad the environmental and socio-economic obligations inferred on mining companies are worded, the examples below are extracted from key legislation (also identified by Alberts, *et al.*, 2016).

Historically, according to Section 38 (d) of the MRPDA, there was an obligation on the holder of mining rights and permits to rehabilitate the environment to such an extent that it is returned to approximate its natural state, or a predetermined state, or a land use that will conform to generally accepted principles of sustainable development. Section 38(e) expands these obligations by making a holder responsible for “any environmental damage, pollution, or ecological degradation inside and outside of its boundaries” (South Africa, 2002).

In terms of Section 39 (1) of the MRPDA, mining companies required environmental impact assessments (EIA's) and environmental management plans (EMP's) approved by the Department of Mineral Resources (DMR). In particular, the EMP had to contain details on the environmental objectives for mine closure and rehabilitation, the identification of environmental risks and its management as well as details (methods and quantum) on liabilities and the required financial provisions. EMP's were required to extend to matters beyond environmental matters and also contained matters such as socio-economic and cultural heritage (Alberts, *et al.*, 2016: 3-4).

Sections 38-42 of the MRPDA were repealed in the MRPDA amendment Bill of 2013 and since the introduction of NEMA (South Africa, 1998), which came into effect in December 2014. The result was that environmental impacts and considerations regarding mine closures were hereafter governed in terms of Section 24 of NEMA (Alberts, *et al.*, 2016: 5-7), which contains provisions similar to those provided in the repealed MRPDA sections.

The following relevant sections contained in NEMA are worth noting for purposes of the present study (South Africa, 1998):

- Section 24P (3) requires annual assessments of environmental liabilities and the adjustment of financial provisions (if required).
- Section 24Q regulates ongoing environmental monitoring and assessment and ensuring compliance environmental authorisations as well as the updating of environmental management programs (if required).
- Section 24R imposes the obligation on “every holder, holder of an old order right and owner of works *remain responsible* for any environmental liability, pollution or ecological degradation, the pumping and treatment of extraneous water, the management and sustainable closure thereof”.

Adding to the information above, 2.4, “Inter-relationship of legislation” below provides further details explaining the complexity of the inter-relation between legislation, particularly when dealing with care and maintenance.

The “Regulations pertaining to the financial provisions for prospecting, exploration, mining or production operations” are published under Government Notice 1147 (South Africa, 2015a: 15-16) (“GNR 1147”). These regulations prohibit any holder of a right or permit to operate under care and maintenance without the approval of the Minister responsible for mineral resources. An application for mines to be placed on care and maintenance should be on the prescribed form and must include:

- detailed explanation by the applicant of the merits of the care and maintenance decision;
- care and maintenance plan (no more than 5 years), which conforms with the requirements of Appendix 6 to the Regulations.

If approved, the care and maintenance plan must be audited annually and, if required (based on the audit findings), be updated annually. Annual reporting requirements include the submission of the audited and updated care and maintenance plan, a status update on the merits to remain on care and maintenance and a forecast indicating the duration of care and maintenance. A review of the financial provision required for closure and rehabilitation should be performed and, if required, the financial provision should be adjusted in accordance with regulation 11 (South Africa, 2015a: 15-16).

Appendix 6 of the “Regulations pertaining to the financial provisions for prospecting, exploration, mining or production operations”, provides guidance about the content of a care and maintenance plan and can be used to provide directors with some guidance.

GNR 1147 also imposes an onerous obligation on a mining company in that the care and maintenance plan must be subjected to a similar stakeholder review, commentary as well as auditing as the mine’s environmental management program.

Further details that must be contained in the care and maintenance plan include (South Africa, 2015a: 44-45):

- the person who prepared the care and maintenance plan and his/her expertise;
- the responsible person tasked with the implementation of the care and maintenance plan;
- timelines for implementing the care and maintenance measures;
- the reasons/conditions resulting in an application for care and maintenance being lodged and a description and estimate of when this intervention may no longer be required;
- an environmental audit of the affected site and the results including further identified residual or latent impacts;
- management of environmental risks associated with mining activities;

-
- planned progressive rehabilitation activities and closure performance monitoring, which should include the methodology, control systems and remedial strategies;
 - preserving of idle infrastructure and machinery;
 - the emergency response plan;
 - costs of the care and maintenance monitoring program;
 - a plan, drawn to scale, describing the final and future land use for the affected area;
 - legal obligations and notifications;
 - a record of the notices, registers, meetings and comments of consultation meetings with interested and affected parties;
 - training that will be provided to persons responsible for implementing the care and maintenance plan; and
 - a health and safety management plan.

On November 10th, 2017, the Department of Environmental Affairs published Government Notice 1228, Proposed regulations pertaining to the financial provision for prospecting, exploration, mining or production operations (South Africa, 2017: 18-54) (GNR 1228). Interested and affected were provided the opportunity to provide written representations or objections within 30 days of the date of publication. GNR 1147 will be repealed once the final version of GNR 1228 is published in the Government Gazette.

GNR 1228, if promulgated in its current form, will have consequences from a regulatory perspective on the present study, as all of the provisions pertaining to care and maintenance contained in GNR 1147 have been removed.

It is argued that a repeal of GNR 1147 and implementation of GNR 1228 in its current draft form would result in less restrictive regulations pertaining to care and maintenance. The Minister of Mineral Resources would still be able to issue directives in terms of Sections 51 and 52 of the MPRDA. However, application for his consent will not be required – it reverts back to an implicit power, as the mine would need to obtain approval of an amended mine works program. A detailed care and maintenance plan that contains the items as described on the previous page above will no longer be a regulatory requirement.

2.4 Inter-relationship of legislation

The complexities related to the various sections of legislation applicable to mines in the context of mine closure was briefly discussed in 2.3, “Mine closure and rehabilitation” above. As stated previously in 1.5, “Scope and delimitations”, the study did not attempt to provide the full details and connections between various legislative provisions applicable to care and maintenance activities.

However, it seems that the various stakeholders and regulators in the mining industry do not grasp the inter-relationship between Section 52 of the MPRDA and Section 189 of the LRA. Beech (2017) refers to this matter as “one of the most intensely debated aspects in relation to downscaling operations”. For the purpose of the present study further context is included to expound the inter-relationship (or lack of it) between Section 52 of the MPRDA and Section 189 of the LRA.

Beech (2017), confirms the information presented in 2.2.4.3, “Social and labour plan” when stating that all holders of mining rights are required to have such an approved plan, the contents of which are dealt with in terms of Section 46 of the MPRDA. Relevant to care and maintenance, is that this plan includes processes relating to the management, downscaling and retrenchment of employees. Requirements include the establishment of a Future forum, mechanisms to save and avoid job losses, mechanisms to find alternatives solutions to curtail job losses and mechanisms to reduce the socio-economic impact on “individuals, regions or economies where retrenchments or closure of the mine is certain”.

According to Beech (2017), historically, mining companies have often taken a holistic view when considering compliance with the requirements of Section 52 of the MPRDA, Section 189 of the LRA, the contents of the social and labour plan and, more recently, the Regulations pertaining to the financial provisions for prospecting, exploration, mining or production operations. Two recent Labour court cases are cited where various aspects of the inter-relationship of legislation were in contention and, therefore, had to be clarified:

- (i) National Union of Mineworkers v Anglo American Platinum and Others (South Africa, 2013b); and
- (ii) Association of Mineworkers and Construction Union and Others v Buffalo Coal Dundee Proprietary Limited and Zinoju Coal Proprietary Limited (South Africa, 2015b).

In National Union of Mineworkers v Anglo American Platinum and Others (South Africa, 2013b), the applicants were unsuccessful to obtain an interdict preventing Anglo American Platinum Ltd from continuing with the Section 189 LRA consultation process until the Section 52 MPRDA

process was completed. In his ruling, Judge van Niekerk concluded that a mining right holder's failure to comply with Section 52 of the MPRDA does not necessarily result in procedural unfairness for the purposes of Section 189 of the LRA (South Africa, 2013b: 16).

The case between the Association of Mineworkers and Construction Union and Others v Buffalo Coal Dundee (Pty) Ltd and Another (South Africa, 2015b), dealt with a situation where the holder of the mining right (Zinoju Coal (Pty) Ltd) was, strictly speaking, not the employer of the retrenched employees. The reason was that it had outsourced its mining activities to Buffalo Coal Dundee (Pty) Ltd.

The Labour Court was asked to rule whether Zinoju Coal (Pty) Ltd, as the holder of the mining right, should have been part of the Section 189 consultation process. The Labour Court issued a determination that (1) third party contractors who provide services to mining companies are obligated to involve the mining company as part of the Section 189 process; and (2) that the mining company (the owner of the mining right) is obligated to involve itself in the retrenchment process (Beech, 2017).

Directors of mining companies should be aware of the implications of the case, Association of Mineworkers and Construction Union and Others v Buffalo Coal Dundee (Pty) Ltd and Another (South Africa, 2015b). The ruling of the Labour Court on this case has far-reaching implications for contractors and labour brokers in mining industry and mining companies as such. According to Beech (2017), a mining company as the holder of the mining right would remain "responsible for management of the implementation of the retrenchment processes". The reason is that the MPRDA obligations remain (see earlier discussion in 2.2.4.1, "Section 52 notice" and "Social and Labour Plan" discussed in the paragraph above).

2.5 Reporting considerations

2.5.1 IAS 36 - Impairment of assets

The accounting standard: International Accounting Standard 36 Impairment of Assets, seeks to ensure that an entity's assets are not carried at more than their recoverable amount. The "recoverable amount" is calculated as the higher of fair value minus the expected costs of disposal or the value in use. If there is an indication of impairment, entities should conduct an impairment test to determine whether or not the current carrying value of the asset is more than its recoverable amount (Deloitte, 2013).

Placing a mine on care and maintenance is regarded as an indicator of impairment. Directors should, therefore, also ensure that assets that have become redundant are written off. Additional

disclosure of assets placed on care and maintenance is required in the company's accounting policies and the carrying value of effected assets should be disclosed (PricewaterhouseCoopers, 2016: 58).

2.5.2 JSE listing requirements

If the company is listed on the Johannesburg Stock Exchange (JSE), the impact of placing a mine on care and maintenance and possible disclosure should be considered in terms of the JSE listing requirements. The latter requires, as a general principle to be followed, to ensure that "full, equal and timeous public disclosure is made to all holders of securities and the general public at large regarding the activities of an issuer that are price sensitive" and to "promote investor confidence in standards of disclosure and corporate governance in the conduct of applicant issuers' affairs and in the market as a whole" (Johannesburg Stock Exchange, 2017: 2).

A company first would have to consider whether disclosure is required in terms of *materiality*. The JSE provides guidance by defining "material" (Johannesburg Stock Exchange, 2017: 12) as: "Information that, if omitted or misstated, could influence the economic decisions of users and includes a change in, or constituent of, a particular factor that may be regarded in the circumstances as being material and that, as a rule of thumb, would normally be equal to or exceed 10%." It follows that the test would be subjective and that the market's reaction to, for instance share price movement, cannot be predicted with absolute certainty.

King IV (Institute of Directors Southern Africa, 2016: 14) provides further guidance on materiality by explaining that, as a concept, it should be judged in terms of its inherent nature, impact (influence), use value and the relevant circumstances in which it occurs. When assessed in the context of integrated reporting, it will most likely be a matter that "could substantively affect the organization's ability to create value over the short, medium and long term". This is based on the The International Integrated Reporting Council (2013: 5), as cited in King IV.

Confidentiality is a further aspect that should be considered carefully. This depends on how material the impact to place a mine on care and maintenance will be on the company considering this intervention. In strong material cases, the decision to do so, and even the fact that this action is being considered, could be deemed as "price-sensitive information". By definition, the JSE regards the following as price-sensitive: unpublished information, which, if available and known to the general public, would have a material effect on a company's share price (Johannesburg Stock Exchange, 2017: 13). Directors would, therefore, ensure confidentiality is maintained until a decision is made. Thereafter, soon after the decision, issue a press release and make a Stock Exchange News Service (SENS) announcement.

Failure by a company listed on the JSE to adhere to the provision of the JSE listing requirements may result in censure and penalties. In terms of Section 1.20 (Johannesburg Stock Exchange, 2017: 11, 21), these can be imposed against the applicant issuer (company) or the issuer's directors, individually or jointly.

2.6 International guidance

The focus of the present study was to develop a framework that can be used in the South African context. However, the researcher decided to expand the literature review to include international research and publications. This was to help identify possible frameworks that could be referred to for international best practice. This review should prove beneficial, as it can also be used for benchmarking and comparison to the items listed in Appendix 6 as contained in Government Notice 1147.

2.6.1 An Australian perspective

Unless indicated otherwise, information presented in sections 2.6.1.1 to 2.6.1.8 below are adapted extracts from a care and maintenance framework published by Australian Law firm Gilbert and Tobin (Blackiston *et al.*, 2016). This framework identifies key focus areas which Australian companies should consider when placing a mine on care and maintenance.

The benefits of executing care and maintenance properly, according to Blackiston *et al* (2016), include the following: savings in costs, time and effort and the ability for rapid ramp up and resuming of operations should a decision be made to resume operations.

2.6.1.1 Identification and managing of environmental obligations

The first recommended action is to conduct a risk-based environmental audit and allocate an environmental risk status for a minimum period of two years to all land and infrastructure. Opportunities should also be identified to reduce the scope and frequency of environmental monitoring and reporting during the care and maintenance phase, as this may reduce the minimum holding cost.

Following the risk-based environmental audit, a care and maintenance plan should be compiled. This plan should be based on the existing mine closure plan to manage the environmental risks that were identified during the mentioned audit.

Furthermore, the existing emergency response plan should be updated to ensure that serious environmental incidents can be dealt with effectively and timely.

Regular monitoring and reporting requirements regarding environmental matters should be confirmed with the relevant regulatory bodies.

2.6.1.2 Employee and consultant engagement

The decision to place a mine on care and maintenance would impact the workforce significantly. Therefore, a company must consider the dismissal of certain employees and consultants carefully. This also requires considering the need to offer different positions and contractual terms to personnel. Recommended actions include:

- Review employment contracts and company policies.
- Consult with employees and unions.
- Identify positions that may become redundant and determine the criteria to be applied when deciding which employees will be dismissed, or retained;
- Give due consideration to legislative requirements governing the termination of employment.
- Obtain tax advice to ensure correct tax deduction from the termination payments.
- Monitoring and safeguarding of intellectual property and other confidential information. The risk that these items can be copied, lost or stolen increases when employees' services are terminated.

The retrenchment and termination of employees often lead to litigation. Potential pitfalls can be avoided if parties seek advice during the early stages. The risk of litigation can also be reduced if a fair process is followed.

2.6.1.3 Health and safety obligations

As statutory health and safety obligations continue to apply for a mine that is on care and maintenance, companies are advised to do the following:

- Identify all possible hazards.
- Appoint an experienced caretaker team tasked with monitoring the mine and safety measures.
- Take necessary actions to ensure a safe working environment for all employees and contractors who will remain during the care and maintenance phase.
- Train employees and contractors in the specific tasks, safety aspects and issues to focus on whilst the mine is under care and maintenance.

An important safety objective during care and maintenance is taking precautionary measures that ensure people accessing the mine (including trespassers) are not exposed to hazards.

2.6.1.4 Disclosure considerations

When deciding to place a mine on care and maintenance, companies need to carefully consider what information need to be disclosed to its shareholders (including regulatory requirements that may be required due to being listed on a stock exchange), key investors and other stakeholders.

The suspension of operations may influence a company's ability to meet its performance obligations in terms of financing arrangements. Such condition would pose a risk of non-compliance with covenants, of which the possible impact should be considered and discussed with the company's financiers. The probability of a potential default of financing arrangements would need to be assessed.

2.6.1.5 Security of tenure

It is crucial to maintain and retain mining titles. This is one of the most essential considerations for any mining company when considering to place a project or operation on care and maintenance. The following two key issues must be considered:

- how to minimise the potential risk of losing licenses when performance obligations are not met; and
- whether non-core tenements can be relinquished and if there will be ongoing liabilities after relinquishment.

2.6.1.6 Contractual arrangements

Service contracts, supply contracts and offtake agreements must to be reviewed to determine whether any of these contain clauses on hardship relief or conditions for suspension. The review should also assess whether force-majeure clauses would allow the company some relief in performance obligations. The terms and conditions that govern termination of contracts must also be ascertained.

Particular attention must be paid to the decision-making process in joint venture agreements (if applicable). A decision to suspend operations would most likely require consent from joint-venture partners.

2.6.1.7 Board of directors

The Board of directors needs to be provided with the right detailed information to allow the directors to properly assess the impact of the decision to place a mine on care and maintenance. The information should be adequate to guide the directors on whether such a decision would be in the best interest of the company's shareholders. The provided information must include the details of what care and maintenance would involve and the possible consequences of such a

decision (i.e. reputation). The assessment should also focus on the consequences of implementation on, for instance, employees and financiers, and include an analysis of advantages and disadvantages.

A further important consideration is also to ascertain which Board should be tasked with making such a decision and frameworks for group governance should be followed. It should be determined which Board has the decision-making authority. Such a decision may also involve the mine of a subsidiary in a group of companies. In such a case, it is important to note that it would be the role and duty of the subsidiary's Board, not that of the parent company, to make decisions on the subsidiary.

Joint venture agreements, if applicable, would need to be considered as the decision to place a mine on care and maintenance would likely require the consent of joint venture partners. The same may apply to instances where there are outside shareholders.

2.6.1.8 Financing

Being on care and maintenance may impede a company's ability to generate income. Consequently, the risk will increase of failing to honour its debt commitments (long term and trade creditors). Therefore, importance cannot be "overstated" of reviewing the company's financing and security position.

2.6.2 Vale S.A. Brazil

The Mine Closure and Projects Management team of Vale S.A., Brazil outlines the main management challenges expected when placing a mine on care and maintenance and managing such a mine. These challenges entail:

- Taking of decisions and being able to operate in different environments and under different conditions as dictated by priorities.
- Identify the main risks for the company's image and reputation.
- Develop plans for maintenance and monitoring.
- Tackle environmental conditions and obtain updates on recommendations from previous environmental audits.
- Coordinate various field operations and site rehabilitations.
- Monitor and re-evaluate the progress with rehabilitation over time.
- Provide support for the mine closure team (Picarelli, *et al.*, 2014: 93).

2.7 Conclusion

Mining companies operate in a complex environment that requires compliance to numerous laws and regulations.

Based on the literature review in this chapter, it is expected that a corporate governance framework applicable to care and maintenance focus strongly on using Board committees effectively, as recommended by King IV. These committees will play an integral role in helping the Board of directors demonstrate the satisfactory discharge of its fiduciary duties. The primary focus of the mentioned committees will be to ensure legal compliance, adherence to policies and procedures and facilitate conduct that represents ethical behaviour and responsible corporate citizenship.

CHAPTER 3: DATA GATHERING AND DATA ANALYSIS

3.1 Introduction

This chapter provides information about the individuals who contributed data for the current study. This is followed by discussing the ethical considerations and use of qualitative data-analysis software.

Two methods were used to collect data from individuals (interviewees), all of whom with relevant knowledge and experience of care and maintenance. Firstly, semi-structured interviews were conducted. Secondly, the developed framework, representing the research outcomes of the present study, was presented for validation to the interviewees as well as two other individuals (both of whom are experienced in matters of care and maintenance).

3.2 Ethical considerations

For the purpose of the present research, two different consent forms were prepared. One form was used for purposes of the semi-structured interviews. The other was used for the purposes of the two additional participants who agreed to participate in the validation process. The targeted candidates were informed of the following aspects:

- approved title of this research;
- the researcher's name, student number, cell phone number;
- brief explanation of the purpose of this research;
- The following four items were included in the first consent form only:
 - explanation that the research will be conducted through semi-structured interviews, at a time and venue convenient to the interviewee;
 - the expected duration (90 minutes);
 - notification that a voice-recording would be made;
 - the planned interview schedule;
- assurance that the data collected during the study will be kept anonymous and that:
 - the participant's name will not appear as source next to the research findings;
 - responses would be treated as strictly confidential;
 - it would not be possible to identify individual participants based on the responses;
- notification that participation is voluntary and that the participants may also withdraw from the research at any time without negative consequences;
- assurance that the results of the study will be used for academic purposes only and may be published in an academic journal; and

- an invitation to contact the study leader (contact telephone number and e-mail address provided) with comments or questions regarding the research;

A copy, confirming ethical clearance granted by the NWU School of Business and Governance for the mentioned research, was attached.

Persons who agreed to participate in the research were requested to sign the consent form and provide their name, date of consent and signature.

Recordings and transcriptions of the interviewees were saved on the researcher's personal laptop and the details were not shared with any other parties.

3.2.1 Ethical clearance

A copy of confirmation of ethical clearance granted by the NWU School of Business and Governance for this study is attached as Annexure A.

3.3 Semi-structured interviews

A date and venue for the semi-structured interviews was set, which was convenient for the participants who agreed to participate in the research. The consent forms, interview schedule and copy of the ethical clearance letter issued by the North-West University were sent to the participants prior to conducting the interviews. This was done to provide participants sufficient time to gather their thoughts and prepare for the interviews.

The following questions were posed to interviewees:

- *Question 1:* What are the objectives that a company want to achieve when a mine is placed on care and maintenance?
- *Question 2:* What are the main risks that should be considered when placing a mine on care and maintenance?
- *Question 3:* What should be included in a corporate governance framework, which will allow directors of South African mining companies to satisfactory demonstrate the discharge of their fiduciary duties of skill, care and diligence when placing a mine on care and maintenance?
- *Question 4:* In your experience, what did companies do well when placing a mine/(s) on care and maintenance?
- *Question 5:* If you could advise a company that had placed a mine on care and maintenance, what would you recommend the company do differently?
- *Question 6:* What ethical aspects should be considered when placing a mine on care and maintenance?

The interviews were recorded and notes taken during the interviews. Transcriptions of the interviews were prepared, which were used for data analyses.

3.4 Description of interviewees

A total of 6 respondents were interviewed for the present study. A brief description of the interviewees is presented below:

Interviewee 1: A male respondent who is a partner of a global legal firm with more than 1 000 partners worldwide. He has 22 years' experience and has specialised in mining for the past 14 years, focusing on occupational health and safety, labour and environmental matters. His first experience with advising a client on matters of care and maintenance was in 2008. He advised three further clients since 2014. Date interviewed: 11 August 2017.

Interviewee 2: A male respondent working in the mining industry since 1979, specialising in safety. He is currently working for a mining company that has announced that two of their operations would be placed on care and maintenance. Date interviewed: 21 August 2017.

Interviewee 3: A male respondent who is a mining executive with a National Higher Diploma in Mining and BSc Engineering with more than 30 years' experience in the mining industry, 20 of which are in managerial and senior management positions. He has been involved with at least half a dozen instances of placing a mine on care and maintenance. Date interviewed: 30 August 2017.

Interviewee 4: A female respondent with a B Juris LLB and Master's degree in Labour Law. She has been involved with three instances of placing a mine on care and maintenance since 2016. She works for the same employer as interviewee 3. Date interviewed: 30 August 2017.

Interviewee 5: A male respondent who is a qualified Chartered Accountant and with more than 20 years' experience, of which 15 were providing advisory and assurance services to clients in the mining industry, including companies who have placed mines on care and maintenance. Currently, he is the regional Head of the Energy, Utilities and Mining division of an international auditing firm. Date interviewed: 20 September 2017.

Interviewee 6: A male respondent with a PhD in Geohydrology (Pr. Sci. Nat). He has 18 years' experience and is an associate director in the Energy, Utilities and Mining division of one of the international auditing firms. Currently approximately 70% of his work evolves around mine closure and the financial provisions that are required. He works for the same employer as Interviewee 5. Date interviewed: 20 September 2017.

3.5 Validation respondents

The six the interviewees described above all provided validation of the framework that was developed.

Two respondents, purposefully selected due their knowledgeable and experience in care and maintenance, were selected to provide data for validation purposes. This strategy was deployed to expand validation beyond the body of knowledge obtained from the semi-structured interviews and literature review. Brief descriptions of these two individuals are presented below:

Respondent 1: A male respondent whose tertiary qualifications include BSc (Civil Engineering), BSc (Mining) (Hons) and B Comm. In a career that has spanned more than 40 years in the mining industry, he has held numerous senior management, executive and non-executive directorships. Respondent 1 is a non-executive director of the same company employing Interviewee 2.

Respondent 2: A male respondent with a BSc (Mining and Civil Engineering), MA in Mineral Economics and MBA. He has more than 20 years' experience in the mining industry. His experience includes placing two mines on care and maintenance. One of these involved business rescue proceedings. This respondent holds directorships in several coal, platinum and ferro-chrome mining companies.

3.6 Data analysis

The present study's approach is inclined towards the *grounded theory* of data analyses as the "data collection, analysis and eventual theory will stand in close relationship to one another". The collection and analysis of the data occurred in tandem (Bryman, *et al.*, 2014: 345). There was a close connection between the data and how it was conceptualised for inclusion (or exclusion) into the framework that was developed.

During the interview process, the researcher focused on identifying keywords that could be used as possible category labels for *coding*. *Coding* is an important component of grounded theory (Bryman, *et al.*, 2014: 345).

Once the interviews were transcribed, the researcher read through the transcriptions to identify further possible category labels, which helped condense the large volume of data. The aim of condensing was to simplify and extract data that appear in field notes and interview transcripts (Bryman, *et al.*, 2014: 336). Particular focus was placed on "discrete units of meaning" and "key concepts" as well as phrases and concepts that could be grouped together.

The transcripts were imported into ATLAS.ti, which is a software program that analyses qualitative data. The key concepts, relevant words, phrases and code groupings that were identified during

the review of the transcripts, were used for the coding in ATLAS.ti. to deduce the data. ATLAS.ti was used due to this program's ability to provide "express relationships between codes, concepts, and themes in a range of different ways" (Silver & Lewins, 2014: 210).

The outcomes generated by the data analyses was used to draft a concept framework for corporate governance. Such a framework can be used by directors of South African mining companies to satisfactorily demonstrate the discharge of their fiduciary duties of skill, care, and diligence when placing a mine on care and maintenance.

CHAPTER 4: EMPIRICAL STUDY

4.1 Introduction

In this chapter the data, gathered through the semi-structured interviews, is presented and analysed as part of the empirical study of the qualitative research. This is done to identify similarities and differences in the information from the literature review conducted in Chapter 2, "Literature review".

The secondary research questions are answered and dealt with in this chapter through discussion and analyses.

Secondary research question 1: What are the objectives, from a governance perspective, of a company when placing a mine on care and maintenance?

Secondary research question 2: What are the main risks faced by a company when placing a mine on care and maintenance?

Secondary research question 3: What are there ethical matters that should be considered when placing a mine on care and maintenance?

The framework, which represents the research outcome of the present study as well as response to primary research question, will be presented in the following chapter. This question will be partially addressed in this chapter by providing and discussing the interviewee's responses.

4.2 Objectives of a company from a governance perspective when placing a mine on care and maintenance

This section addresses *secondary research 1* mentioned above. Certain key concepts were identified from the analysed data captured from the semi-structured interviews. These concepts describe a company's objectives when placing a mine on care and maintenance, as viewed from a governance perspective:

- regulatory compliance;
- security of tenure;
- value preservation and retaining optionality;
- mitigation of the negative impacts on stakeholders and the environment.

4.2.1 Regulatory compliance

Five of the six interviewees commented on the importance of legal or regulatory compliance as an objective when placing a mine on care and maintenance. Interviewee 6 went as far as rating this as the “most relevant objective”. Compliance was not merely stated as an objective of care and maintenance activities, but also of the process to be followed when deciding to implement care and maintenance.

Four of the interviewees (1, 2, 3 and 6) emphasised that there is no automatic compliance relief for an entity when a mine is placed care and maintenance. Compliance to the Companies Act, MHPA, NEMA and MPRDA is still required. These responses support the validity of the statement contained in 2.6.1.3, “Health and safety obligations” to South Africa in that “statutory health and safety obligations continue to be in place for a mine that is on care and maintenance”.

The risk of delays and associated costs if the correct procedure is not followed during the Section 189 LRA consultation or Section 52 MPRDA processes. This fact was highlighted by Interviewees 1 and 4. Reasons for delays and additional costs that were mentioned are: additional and extended consultation with affected employees may be required, or affected employees may successfully challenge the validity and procedural fairness of the retrenchment process in a court of law. This finding confirms the validity and applicability to a South African context of the information in 2.6.1.2, “Employee and consultant engagement” of the literature review that “retrenchment and termination of employees often lead to litigation”. This is also consistent with Venter’s view (2014) as described in 1.2.1, “Problem statement”. Further details of the risks associated with time delays are provided in 4.3.2, “Time delays” below.

4.2.2 Security of tenure

During the semi-structured interviews, participants described retention of an entity’s mining right as an objective of entering the phase of care and maintenance (Interviewees 1 and 3). Both these interviewees also identified such retention as a major risk, due to possible government intervention and the potential threat that mining rights may be revoked if mines are placed onto care and maintenance. This condition is explained in more detail in 4.3.3.1, “Security of tenure” below and also confirms the risk and interpretation described in 2.2.4.2, “Optimal mining of mineral resources” regarding the optimal mining of mineral resources. A mining right is most likely a mine’s most valuable asset. Thus, it can be described as unexpected that only two of the six interviewees identified security of tenure as a key objective.

The provided responses are, however, sufficient to support this item as identified in the literature review in 2.6.1.5, “Security of tenure” and be applicable from a South African perspective.

4.2.3 Value preservation and retaining optionality

Value preservation was used in terms of deferring or postponing the extraction of minerals until conditions may become more favourable. Although closely linked to the objective, security of tenure, (see 4.2.2, “Security of tenure” above), value preservation also addresses the reasons as to why an entity decides to place a mine on care and maintenance.

As explained by Interviewee 1, the overall objective is to determine *how best to address* external and internal factors that cause a mine to be placed on care and maintenance. External factors can entail low commodity prices or a downturn in the economy. Internal factors can be cash-flow problems or labour issues. The decision to place a mine on care and maintenance can also be a result of both external and internal factors. A mining company’s aim is to ensure its major asset is retained – namely, its mining right. When a mine ceases operation, its value decreases. The mine’s environmental liabilities may increase, finances are needed to maintain its equipment, which gets older. The shareholders will need to continue to provide funding to preserve the asset. Through care and maintenance, a company attempts to preserve a perishable asset. A mineral resource is not infinite. Interviewee 1 described a mine’s resources as a “perishable asset”.

A concept associated with value preservation, is the maintenance of equipment and infrastructure which is required to be undertaken during care and maintenance. This is to facilitate restart of mining activities in future, as was mentioned by Interviewees 1, 3, 4, 5 and 6.

Two interviewees (3 and 5) expanded the concept of value preservation as follows: Ensuring the sustainability of the organisation and understanding that difficult decisions may be required to place certain mines or shafts on care and maintenance, to avoid compromising the financial wellbeing of the entire entity.

Four interviewees (3, 4, 5 and 6) discussed optionality in the context of having to make a choice between care and maintenance and permanent mine closure. In certain instances, sufficient mineral resources remain that can potentially still be mined economically in the future if circumstances were to improve. In this regard, the Interviewees 3, 5 and 6 explained the objective as value preservation by retaining the optionality. This means having the ability to mine the mineral resources in the future. Interviewee 4 introduced the concept of optionality at a more strategic level – retaining the option of selling the mine or operation. Care and maintenance versus permanent mine closure and the ethical responsibility of directors to distinguish these two concepts accurately are discussed in more detail further in 4.4.1.5, “Care and maintenance and the issue of commencing mine closure” below.

4.2.4 Mitigating the negative impact on stakeholders and the environment

The interviewees made specific comments on the complexity (Interviewees 1, 2, 4 and 5) of the decision to place a mine on care and maintenance. This is because such a decision has a negative impact on various areas:

- *Communities* (Interviewees 1, 2, 3 and 5): The decision to place a mine on care and maintenance does not only affect the local communities in which the mine operates, but also communities further away where people are supported financially by those employees working at a mine (Interviewee 5).
- *Employees* (Interviewees 1, 2, 3, 4 and 5). Employees are affected by uncertainty (Interviewees 3 and 4) irrespective of whether they are earmarked for retrenchment or retrenched. This decision has also has a significant impact on those responsible for making it. Thus, on both accounts, this experience is extremely stressful and emotional (Interviewees 3 and 4).
- *Environment* (Interviewees 1, 2, 3, 5 and 6). This effect was described best by Interviewee 6 who explained that a mine's impact on the environment does not stop when it ceases its operations, seeing that several impacts are latent or residual.
- *Suppliers and contractors* (Interviewees 3 and 5) are affected by a loss of revenue.
- *Shareholders and financiers* (Interviewees 1 and 5) are impacted negatively due to lower returns on investment.
- *Safety* (Interviewees 1 and 2) due to a loss in critical skills and changed activities.
- *Local government* (Interviewees 1, 2 and 5) where additional pressure is placed on local support structures. This is mainly due to unemployment or since services currently provided by the mine are placed on care and maintenance (e.g. the water supply).
- *Neighbouring mines or operations* (Interviewees 2 and 3) that, for instance, rely on the affected mine's pumping activities to avoid their own underground areas from being flooded.

From a governance perspective, directors must be aware of these impacts. As a stated objective, directors must be satisfied that mitigating measures are developed and implemented to curb the negative impacts of these factors as best as possible.

4.3 Main risks a company faces when placing a mine under care and maintenance

This section addresses secondary research question 2: *What are the main risks faced by a company when placing a mine on care and maintenance?*

The discussion and analyses in this section is based on the key concepts captured from responses to a direct question posed to the participants. They were asked to identify the main risks that should be considered when placing a mine on care and maintenance. The researcher deemed it important to obtain data about risks. The motivation was that the definition of corporate governance, as presented in the Definitions and Abbreviations on page iv, contains a component of risk management. Data obtained as part of the responses were also analysed and considered to identify risks.

Undertaking formal risk assessments is a commonly used practice used in the mining industry to identify risks. This focus of the present research is supported by the literate review (refer 2.6.1.1, "Identification and managing of environmental obligations" above) and specific references about the need to conduct risk assessments are made by Interviewee's 2, 3 and 6. These risk assessments cover the various aspects of the business and identify how a change in the mine environment will impact the company (Interviewee 3).

4.3.1 Funding

Five of the six interviewees commented that placing a mine on care maintenance is expensive (Interviewees 1, 2, 3, 4, 5). Relevant comments include: "It will cost you money" (Interviewee 1), "Financial considerations are important as it is expensive to keep a mine on care and maintenance", "It costs money to place a mine on care and maintenance. You need to know what you are in for. You are not going to get rid of all your costs" (Interviewee 1).

The following significant costs were identified by the interviewees:

- Retrenchment costs and downscaling commitments (Interviewees 1, 2, 3, 4 and 5). This includes the payment of voluntary or retrenchment separation packages; compulsory exit medical and ongoing primary health care costs; portable skills training; and employee assistance and counselling.
- Maintenance of equipment, infrastructure and safety inspections (Interviewees 1, 3 and 6).
- Personnel required to conduct: maintenance activities (Interviewees 1, 2 and 3); regulatory monitoring and reporting activities (Interviewees 1, 2 and 6); and legal appointments in terms of the MHSA (Interviewees 1, 2 and 3).
- Pumping and management of water (Interviewees 1, 2, 3, 5 and 6).

- Electricity required for pumping and ventilation activities (Interviewees 2 and 3).
- Obligations and commitments remain based on the social and labour plan approved by the Department of Mineral Resources (Interviewee 1).
- Security and other measures to prevent theft and illegal mining (Interviewees 1, 2 and 5).
- Cancelling of supplier agreements (Interviewee 2).
- Ongoing or concurrent rehabilitation activities (Interviewees 2, 4 and 6).

Over time, this risk seems to increase and it becomes more expensive to restart a mine the longer it remains on care and maintenance (Interviewees 1 and 5). Directors also must understand what resources would be necessary to restart operations (Interviewees 1 and 5).

It should be noted that an entity will most likely already be under financial strain due to internal or external factors (refer 4.2.3, “Main risks a company faces when placing a mine under care and maintenance”) when a mine is placed on care and maintenance. Therefore, directors must understand and appreciate the costs of such a process and which sources would fund these costs.

The interviewees’ responses are consistent with the finding of Blackiston *et al.* (2016) that being on care and maintenance will increase the risk of not honouring debt commitments (as discussed in 2.6.1.8, “Financing” above).

4.3.2 Time delays

A further point raised by Interviewees 1, 2, 3 and 4, is that it is time-consuming to place a mine on care and maintenance. This inevitably has a cost implication as employees still need to be paid during the period when the Section 189 LRA consultation takes place. Although legislation mandates a 60-day consultation process, all of the interviewees who provided commentary on this aspect indicated that in practice it takes longer. This is a risk that must be considered (as discussed already in 4.2.1, “Regulatory compliance”).

Reasons that were provided why the Section 189 LRA consultation process may exceed the legislated 60 days are:

- Government intervention (Interviewees 1 and 3). Interviewee 1 cited an example where this consultation started in December and the Department of Minerals and Energy and Commission of Mediation, Conciliation and Arbitration successfully applied for the period between 15 December to 16 January to be excluded from this process. Interviewee 3 commented that Government is under pressure due to the large-scale job losses in the mining industry over the past few years, to influence mining companies’ decisions to place mines on care and maintenance.

- Section 189 LRA consultation process requires employers to consider alternatives that may prevent job losses. Thus, there is a possibility that on the last day of consultation, the trade unions can table an alternative for consideration, which would need more time to be investigated (interviewee 4).
- Depending on the number of affected employees, the available resources and infrastructure to process large-scale retrenchments may be insufficient to facilitate the necessary administrative processes, for example, exit medical examinations (Interviewees 2 and 4).
- If employers do not adhere to the correct procedure, this may cause time extensions for the Section 189 LRA consultation process. The reason is that unions or affected employees may be successful in obtaining an interdict if they can prove that due process were not followed (interviewee 4).

From participants' responses it became clear that the sequence in the issuing of Section 189 LRA consultation notice and Section 52B MPRDA notices can also lead to time delays. In this regard, participants provided contradicting information. According to Interviewee 1, an entity is under the obligation to notify the Department of Minerals and Energy in terms of Section 52 (1) (b) about the MPRDA before the Section 189 LRA consultation process is initiated or that "at worst, these two processes need to commence at the same time". Interviewee 2, however, held a different view and indicated that legislation is not prescriptive in this regard. Thus, the recommended approach is to issue the Section 189 LRA consultation notices prior to issuing the Section 52 (1) (b) MPRDA notice. This is because the Department of Mineral Resources may intervene to prevent an entity from issuing the Section 189 LRA consultation notices. This situation is explained by Interviewee 3 as follows, "As soon as the Section 189 notice is issued the clock starts ticking in terms of consultation". Interviewee 4 provided further information to clarify the difference between the interpretations of interviewee 1 and 3. The matter about whether the Section 52(1)(b) MPRDA and Section 189 LRA notices are inter-related was clarified in a recent labour court case (*National Union of Mine Workers v Anglo American Platinum Ltd and Others*). Interviewee 4 confirmed the information presented in the literature review (see 2.4, "Inter-relationship of legislation" above).

4.3.3 Government intervention

Analyses of the responses coded in ATLAS.ti with the label "Government intervention" revealed three distinct risks associated with such an intervention: security of tenure, attempts by Government to influence the care and maintenance decision; and the potential risk of calling up financial guarantees that were provided to fund closure rehabilitation.

4.3.3.1 Security of tenure

The risk was mentioned that mining rights may be revoked, which impact the security of tenure (also see 4.2.2, “Security of tenure” above).

Interviewee 1 indicated that the MPRDA was quite clear that the holder of a mining right must start mining within one year of the right being issued and that “you need to continue mining”. One of the objectives of the MPRDA is to ensure that companies do not hold on to resources that they do not intend to mine.

The concept of care and maintenance is thus not a process that can be embarked on unilaterally. There is a legal requirement “to follow certain processes”, namely those of Section 52 MPRDA and the Section 189 LRA consultation. Interviewee 1 added that a mining right can be seen as an agreement between the holder and the Government, which stipulates certain conditions. In essence, a mining right consists of three major components: (1) the mine works program, (2) the social and labour plan and (3) the environmental management plan.

The Department of Mineral Resources can, therefore, view non-compliance on any of the three components as applicable to the mining right in full. The Department has the powers to issue instructions in terms of Section 93 of the MPRDA, which could force a holder of a mining right to implement actions which would remedy non-compliance. In extreme circumstances, the Department may start proceedings under Section 47 of the MPRDA to retract a mining right. Mining activities cease when going under care and maintenance, which means an entity does not follow its mine works program. This is consistent with the obligation that an entity has to mine a mineral resource “optimally” (as described in 2.2.4.2, “Optimal mining of mineral resources” above).

Interviewee 3 highlighted the retention of licenses as a risk, because he expected Government to apply the “use it or lose it principle” at some stage.

Clear risks associated with non-compliance of the approved social and labour plans were identified by the interviewees. These risks, about which directors must inform themselves, are expounded below. Key concepts describing the components of the approved social and labour plans are:

- It entails a commitment that is reviewed and updated every five years. The Department of Mineral Resources grandfathers all instances of non-compliance regarding previous social and labour plans to new social and labour plans, which means an entity does not get rid of its non-compliance (Interviewee 1).

- Being on care and maintenance does not relieve an entity from its obligations as stipulated in its approved social and labour plan (Interviewee 1).
- The requirement to establish a “Future forum” (Interviewees 1, 2 and 4), which should consist of representatives from the company, employees, community (Interviewee 4) trade unions (Interviewee 1). Each Future forum operates according to its own constitution. The scope of the its activities includes measures to avoid job losses (Interviewees 1 and 4); cost containment (Interviewee 4); improved productivity (Interviewee 4); mitigating impacts of the downscaling on communities (Interviewees 1 and 4); and upskilling and training that employees can apply outside of mining (Interviewees 1 and 4). This confirms the information presented in 2.4, “Inter-relationship of legislation“.
- The approved social and labour plan contains commitments and obligations to set funds aside covering various aspects that the Future forum must address. In an example cited by Interviewee 1, a Future forum was not established and the allocated funds for the approved social and labour plan were not set aside. In response, the trade unions brought these matters of non-compliance to the attention of the Department of Mineral Resources.

Compliance to the environmental management plan (the third component of a mining right as identified by Interviewee 1) is discussed in 4.3.6.3, “Non-compliance to environmental laws and regulations” below.

4.3.3.2 Attempts to influence the care and maintenance decision

There is a risk that Government would attempt to influence an entity’s decision, which may result in time delays (refer 4.3.2, “Time delays” above). Interviewee 3 indicated that a risk assessment is required to determine which actions or strategies the Department of Mineral Resources may deploy when a Section 52 MPRDA notice is issued. The reason is that, “Government is under pressure to try to influence or impact mining companies’ decisions to go onto care and maintenance.”

Interviewee 1 was of the view that Government was “in a state of panic and it is expected of to intervene” due to all the recent announcements of job losses in the mining industry. Thus, the interviewee stressed the importance of following the correct processes, seeing that Government “would do everything in its power to stop or stall the processes”.

- None of these aspects were identified in the literature review.

4.3.3.3 Calling up of financial guarantees

The possible call-up of financial guarantees to fund closure rehabilitation was listed as a risk by Interviewee 1. The validity of this assumption is supported by actual experience, namely “A recent trend that has started to emerge is that when a mine is placed on care and maintenance, that the DMR immediately calls up all of the guarantees provided in terms of rehabilitation.” When asked whether they had similar experiences, Interviewees 3 and 6 responded in the negative, and confirmed they were not aware of any such cases. However, Interviewee 3 added that he would expect this to be a real possibility in instances where mines are placed on care and maintenance, were single-operation companies (in other words, companies possessing only one mine).

- This aspect was not identified in the literature review.

4.3.4 Theft and illegal mining

As many as five of the six interviewees highlighted the dangers associated with illegal mining as a risk. Only Interviewee 6 did not identify this as a risk. Special measures to avert dangers include closing and sealing off the underground work areas to prevent illegal access (Interviewee 2). Interviewee 1 described illegal mining as “organized, not just individuals. Illegal miners with knowledge and equipment will continue to try to get access to the ore bodies”. Interviewee 5 recommended that the “reality of illegal mining needs to be understood” and added “if you think that you can just rely on a couple of security guards you are mistaken”.

Interviewee 1 indicated that, in his opinion, the Department of Mineral Resources has responsibility to police illegal mining, but the department unfortunately does not have the required resources. The police are not effective since they can only intervene if it can be proved to them that the activity is illegal. Furthermore, they do not know which persons on a mine’s property are the actual workers.

- Interviewees 1 and 2 listed theft of materials and equipment as a risk when a mine is placed on care and maintenance.
- The risk of unauthorized access was identified as a safety risk in the literature review in 2.6.1.3, “Health and safety obligations” above, namely that “precautionary measures to ensure that persons accessing the mine (including trespassers) are not exposed to hazards”.

4.3.5 Safety

Interviewee 2 cautioned that as soon as a notice is issued informing employees of possible retrenchments, “the impact on safety will immediately be felt”. The reason is that often personnel

with the required skills sets can be lost the moment voluntary severance packages are offered. Or: teams who have worked together are broken up and redeployed as possible measures to avoid job losses.

Interviewee 3 emphasised the risk as follows, “None of the legal requirements in terms of the Mine Health and Safety Act fall away – with less staff”. This implies that the risks of safety and of non-compliance increase due to the reduction in staff.

Other safety risks the respondents identified in particular:

- controlling and destruction of explosives (Interviewee 2);
- monitoring and detection of dangerous gasses in underground workings (Interviewee 2);
- ventilation (Interviewees 1 and 2);
- maintenance of rescue bays (Interviewee 2);
- updating survey and rescue plans if areas are closed (interviewee 2);
- rope and hoist examinations (Interviewee 3);

The information included in this section also links with the following risks that were identified:

- Losing persons with required knowledge, skills and experience – discussed in 4.3.7, “Risk of losing personnel with the required knowledge, skills and expertise” below;
- Non-compliance with laws and regulations – discussed in 4.3.6, “Non-compliance with laws and regulations” below.

4.3.6 Non-compliance with laws and regulations

Regulatory compliance was one of the identified objectives when placing a mine on care and maintenance (refer 4.2.1, “Regulatory compliance” above). Therefore, it follows that non-compliance to laws and regulations is a perceived risk.

Interviewees made various comments about the risk of non-compliance to laws and regulations, either during planning and implementation phase or the actual care and maintenance phase.

Part of Interviewee 1’s response to secondary research question 3 (about ethical considerations), indicates an increased probability that a company’s own employees will bring non-compliance with laws and regulations to the attention of regulating authorities. This would take place if entities strive only for minimum regulatory compliance and not adhere to the “spirit of the law”. This does not imply that avoiding the risk of exposure should be the main motivating factor for legal compliance. Directors of mining companies should, however, understand the probability that employees may become disgruntled during the consultation process leading to retrenchment, or as a reaction to being retrenched.

4.3.6.1 Non-compliance to the Companies Act

Interviewee 1 listed various risks regarding non-compliance to the Companies Act. He stressed that directors of mining companies should be aware of and consider these risks. This particularly applies to solvency and potential business rescue, seeing that a company may be forced into this process without having planned to apply properly for such a rescue. He explained, “The problem with business rescue from a director’s perspective is this is where the directors of companies are at risk.” A company (through its directors) has to project the financial results six months in advance. This is done to ensure the company passes liquidity and solvency tests. If the tests show that the company will not be solvent, the directors must consider whether or not to apply for business rescue proceedings. If a company is financially distressed, but the directors decide against applying for rescue proceedings, they must inform all of its creditors of the decision and state reasons why the company has not applied. Should directors fail to inform creditors, they may be held liable if the creditors subsequently incurred losses.

This confirms the validity of the information presented previously in 2.2.1.1, “Companies Act”, dealing with business rescue proceedings.

Interviewee 1 further stressed the importance of Section 141 of the Companies Act and the need for directors to be aware of the obligation. This entails that a business rescue practitioner is compelled to “investigate and report on all matters relating to non-compliance of laws and regulations”. The mentioned obligation is not limited to reporting non-compliance only to the Companies Act, but to all laws and regulations.

4.3.6.2 Non-compliance to the MHSA

As stated before in 2.2.3, “Mine Health and Safety Act (MHSA)”, there are no provisions in the MHSA that relieve employers from their responsibilities to ensure the safety of workers if a mine is placed on care and maintenance.

Interviewee 2 recommended that risk assessment be undertaken that focuses specifically on the planned activities during care and maintenance. This is because the company would still be required to comply with legal requirements. Legal appointments would still be necessary and as mentioned in 4.3.5, “Safety” above, “the impact on safety will immediately felt”.

Interviewee 2’s views were shared by Interviewee 3, who asserted, “None of the legal requirements in terms of the Mine Health and Safety Act fall away – with less staff”, and Interviewee 1, who indicated that a mining company “remains obliged to comply with the requirements of the Mine Health and Safety Act, even if no activities are undertaken, until a

closure certificate is obtained". The need to conduct a risk assessment (as suggested by Interviewee 2) was also confirmed by Interviewee 3.

It should be noted, however, that both interviewees referred to the need for risk assessments in a wider context of regulatory compliance. Thus, their comments were not limited to compliance to the MHSA. Blackiston *et al* (2016) correctly identified the need to identify safety hazards, the undertaking of environmental audits, and the updating of emergency response plans (described before in 2.6.1.1, "Identification and managing of environmental obligations" and 2.6.1.3, "Health and safety obligations").

4.3.6.3 Non-compliance to environmental laws and regulations

Interviewee 6 assessed the risk of non-compliance with "all regulatory aspects from an environmental perspective" as the first risk to be considered and that directors should be satisfy themselves that a detailed and complete care and maintenance plan exists that deals with this aspect.

A particular concern from Interviewee 6 was that current legislation does not adequately address the requirements of being on care and maintenance. The risk, in the absence of proper regulatory guidance, is that several companies scale down their monitoring activities due to reduced budgets. Consequently, they find "... that basic regulatory monitoring is not complied with". He added that it was important to understand that a mine's impact does not cease when it stops mining, seeing that many impacts are latent and residual. Furthermore, a mine remains legally bound to its environmental management plan.

The participants identified the following specific environmental risks:

- water use license and monitoring requirements (Interviewees 1 and 6);
 - dams and tailings facilities maintained, storm-water control, cleaning of trenches (Interviewee 6);
 - monitoring of ground and surface water (Interviewee 6);
- fissure water flooding underground workings (Interviewees 1, 2 and 3);
- monitoring of air quality (Interviewee 1);
- waste disposal (Interviewee 1);
- monitoring and control of invasive species (Interviewee 6)

Interviewee 6 identified a weakness in current legislation: There are no requirements to include care and maintenance as a possible outcome at the outset. This is namely, when environmental management plans are prepared in terms of NEMA in support of mining right applications. The

result of this weakness is that there are extremely limited existing environmental management programs that address care and maintenance adequately.

4.3.6.4 Non-compliance to codes and best practices

In his response, Interviewee 6 highlighted non-compliance to voluntary codes and best practices that a company has subscribed to as a risk, which none of the other respondents identified. This is for example the codes and best practices prescribed by the International Council on Mining and Metals.

- This aspect was not identified in the literature review.

4.3.6.5 Non-compliance to the MPRDA

The interviewees identified the following risks of non-compliance to the MPRDA from the perspective of care and maintenance:

- non-compliance to the approved mine-works program and potential loss of mining rights (refer 4.2.2, “Security of tenure” above);
- non-compliance to the approved social and labour plan (refer 4.3.3.1, “Security of tenure” above);
- non-compliance to the approved environmental management plan (refer 4.3.6.3, “Non-compliance to environmental laws and regulations” above);
- delays and associated costs if the correct procedure is not followed during the Section 52 consultation processes (refer 4.2.1, “Regulatory compliance” above); including failure to provide the Department of Minerals and Energy with the required notices (Interviewee 1) or to submit the notices at the right time (Interviewees 1 and 4).

Significantly, no interviewees referred specifically to the contents of the Section 52 notice. A review of this section as described in the legislation revealed that it does not prescribe content other than that notice has to be given in the “prescribed manner” according to Section 52 (1) (South Africa, 2002).

From the exposition above, the researcher deduces that an explanation would be necessary of the “prevailing economic conditions” from Section 52 (1) (a) and the socio-economic and labour implications” from Section 2 (2) (b). In this regard, Interviewee 4 did, however, indicate that management cannot enter into a Section 189 or Section 52 process with preconceived ideas. Therefore, the directors cannot start discussions and negotiations by stating how many persons will lose their jobs. The reason is clear: such statements would indicate that a decision has already

been made, which would negate the need for consultation or to consider alternatives and ultimately, compromise the process.

4.3.6.6 Non-compliance to the LRA

There is the risk of delays and associated costs if the correct procedure is not followed during the Section 189 and 189A consultation processes (refer 4.2.1, “Regulatory compliance” above). Similar to the observation in 4.3.6.5, “Non-compliance to the MPRDA” above, none of the interviewees made special reference to the contents of the Section 189 and 189A notices. The applicable legislation is, however, more prescriptive in this instance, as pointed out previously (refer 2.2.2, “Labour Relations Act (LRA)”). Directors of mining companies who are considering to place mines on care and maintenance should, therefore, ensure the notices issued in terms of Section 189 and 189A comply with the stipulated minimum requirements. In this regard, Interviewee 4’s comment above remain relevant, namely that management cannot enter a Section 189 or Section 52 process with preconceived ideas – which would ultimately compromise the process.

The view of Interviewee 4 on this matter supports the comments in 2.2.2, “Labour Relations Act (LRA)” above), namely that “Directors should note that there is an obligation to consult and the process cannot be approached in a manner whereby affected employee are merely informed that they will be retrenched.”

Interviewee 4 further mentioned the risk of failing to identify properly the persons or positions that may be impacted. The risk entails that names cannot be added to the list of potentially impacted employees (thus employees with whom consultation will be taken place) once the consultation process has commenced. If such persons or positions are identified after consultation commenced, these parties have to be notified and separate consultations conducted subject to their own timelines.

4.3.6.7 Non-compliance to the JSE listing requirements

Interviewee 5 indicated that the impact must be considered when deciding to go onto care and maintenance. Based on this impact, the directors may determine the need to inform the market if a company is listed on the JSE. This interviewee’s comment validates the observations included in the literature review about the JSE’s reporting requirements (refer 2.5.2, “JSE listing requirements” above). It also supports the applicability from an international perspective as identified by Blackiston *et al.*, (2016) (refer 2.6.1.4, “Disclosure considerations” above).

4.3.7 Risk of losing personnel with the required knowledge, skills and expertise

According to interviewee 6, mining in general does not fully understand the implications of going onto care and maintenance. The directors often are ignorant of the additional structures required to maintain certain facilities as well as the increased pressure placed on the reduced environmental management team. Interviewee 6 further pointed out that care and maintenance was different to an operational mine since there are “significantly fewer personnel” and the specialist inputs required may also be different than for an operational scenario.

As described previously (refer 4.3.5, “Safety” above), Interviewees 2 and 3 linked the risk of losing employees with the required knowledge, skills and experience, to an increased safety risk.

Also linked to losing personnel, is the increased risk that intellectual property or confidential information will be forfeited, copied or stolen, as highlighted by Blackiston *et al.*, (2016: 4). This risk was not identified by any of the interviewees, but the researcher views this as potentially relevant to the South African context.

4.3.8 Lack of proper communication

Key themes emerged when analysing the various items coded as “communication” by using ATLAS.ti. The focus was on the importance to make full disclosure, and communicate regularly with regulators and employees. This communication can take on two forms:

- internal communication with employees (Interviewees 2, 3 and 4). Discussed further in “Employee wellbeing” in 4.3.9 below;
- external communication with regulators, including:
 - Department of Minerals and Energy (Interviewees 1, 2, 5 and 6);
 - Department of Environmental Affairs (Interviewee 6); and
 - Department of Water and Sanitation (Interviewee 6).

Interviewee 2 indicated that communication with stakeholders (employees, regulators, communities, suppliers and municipalities) were handled effectively. However, when asked what could have been done better, the interviewee pointed out the following requirements, which relates to communication:

- Liaising with communities could have been sooner so that their long-term planning could incorporate the eventuality of the mine being placed on care and maintenance.
- Keeping the Department of Mineral Resources informed so as to not surprise them was emphasized.

The importance of Interviewee 2's observation about keeping the Department of Minerals informed, becomes clear when considering the comments of interviewees 1 and 5 below.

Interviewee 1 attributed the success of one of the case studies (a chrome mine in the North-West Province) to the fact that the Department of Minerals and Energy was consulted properly and kept informed throughout the process. In another case study (a chrome mine in Limpopo), presented as an example of how care and maintenance should *not* be done, the company did not follow the Section 52 process and did not consult properly with the Department of Minerals and Energy. This complicated the process and made it cumbersome. Only after the business rescue practitioners intervened and made full disclosure to the Department, did the relationship with the Department improve.

In light of the findings above, Interviewee 1 stressed the importance of playing open cards with the Department of Minerals and Energy when a mine is placed on care and maintenance, seeing that Government allows such a concession. Interviewee 5 concurred and added that it is "getting more and more important in the South African environment that you take the Department with you early in the process with good communication."

Proper communication, which is open and transparent, with regulating authorities is crucial. This will help a company deal with a more accommodating regulator when seeking mutual agreement on issues.

4.3.9 Employee wellbeing

According to Interviewees 1, 3 and 4, employees' wellbeing is impacted when a company announces that personnel may lose their jobs. Interviewees 3 and 4 added that the resulting uncertainty affects people, even those who are not retrenched. The interviewees provided the following reasons why employees who are not retrenched are impacted as well:

- uncertainty, because they initially were included in the list of possible personnel for retrenchment, but in the end, they were retained (Interviewee 4);
- general fear since "the ones who are staying behind are scared because they do not know what is going to happen or who is next" (Interviewee 3);
- The impact on those tasked with making the decision to place a mine on care and maintenance should not be discounted, seeing that they fully understand the implications that such a decision will have on peoples' livelihoods (Interviewee 3).

The participants identified specific risks in this regard:

- Employees become concerned and worry; may even consider suicide, while alcohol and substance abuse may increase (Interviewee 4).
- Conflict may develop within the organisation since not all personnel will agree with management's recommended course of action, even at senior-management levels (Interviewee 4).

4.4 Ethical considerations

This section directly addresses secondary research question 3: What are the ethical matters that should be considered when placing a mine on care and maintenance?

The answers participants provided during the semi-structured interviews to this research question were analysed and coded through ATLAS.ti by using "Ethics" as key word. The analysis was not limited to the data provided in response to the mentioned question. All other data which the interviewees provided were reviewed and assessed to identify matters that would be relevant to the key theme "Ethics". From several analyses of all the items coded as "Ethics", other items coded on ATLAS.ti were captured as sub- themes or matters relevant to the "Ethics" code. Thereafter, the researcher created in ATLAS.ti "Ethics" as a group and the following codes were linked to this theme:

- Ethics;
- Counselling;
- Policies on retrenchment;
- Skills training;
- Transparency;
- Voluntary severance packages;
- Closure versus care and maintenance.

Certain general comments by the interviewees, which can be regarded as "philosophical" or "overriding guiding principle statements", include the following:

- Transparency and full disclosure is essential (Interviewees 1, 2 and 3).
- Ethical behaviour extends to more than merely adhering to legislation, but should also comply with the intention or spirit of legislation (Interviewee 1). Thus, compliance should strive to exceed the minimum legal requirements (Interviewee 4). The views expressed correspond with the "integrity" characteristic identified in King IV (refer 2.2.1.2.2, "Ethics and responsible corporate citizenship" above).

- Care and maintenance as a concept is not unethical (Interviewee 3). It would be unethical to allow a struggling operation to compromise the rest of the organisation. This is one reason why a company needs a competent Board of directors who can take difficult decisions at the right time (Interviewee 5).
- Ethical behaviour requires fair conduct (Interviewees 3 and 4), which is in line with the “fairness” characteristic of King IV described in 2.2.1.2.2, “Ethics and responsible corporate citizenship”).
- Care and maintenance should not be used an excuse to avoid commencing with mine closure (Interviewees 5 and 6).
- Decisions should be made in the context of a company’s “social license to operate”, which is a concept that is similar to responsible citizenship, as discussed in 2.2.1.2.2, “Ethics and responsible corporate citizenship” above. This requires a holistic approach that considers the impact on the relevant stakeholders (employees, community, neighbouring mines, local businesses, shareholders and financiers). The focus should move beyond “the money side of business” (Interviewee 5).

4.4.1.1 Transparency and full disclosure

Interviewee 1 recommended transparency and full disclosure to the regulating authorities. Such disclosure should include details of the current status of compliance and non-compliance, what the company can do and will do to rectify non-compliance, and which aspects of non-compliance the company will not be able to remedy. Interviewee 2 provided support for interviewee 1’s views and addressed this matter more holistically. He emphasised that all dealings should be transparent and open and include full disclosure of the reasons why the process of care and maintenance is considered.

4.4.1.2 Placing a mine on care and maintenance is an ethical decision as such

Interviewee 3 emphasised that a mine does not have infinite resources. Therefore, the mine cannot be sustainable in the long run since the resources cannot be replaced. Going onto care and maintenance and eventual closure form part of the natural life cycle of any mine. It would thus be regarded as unethical to allow a struggling operation to jeopardise the sustainability and financial viability of the rest of the organisation.

Boards must be able to balance the impact that placing a mine on care and maintenance will have on its shareholders, financiers, employees, communities, contractors and all other stakeholders. This should be done in such a manner that it remains the correct decision ensuring a sustainable business enterprise in the long run (Interviewee 5).

4.4.1.3 Support to employees

Interviewees 2, 3 and 4 mentioned the obligation of the employer to find alternative employment for affected workers and contacting other mines to find out whether they can recruit employees. Furthermore, if the company had more than one operation, the required skills of the other operations should be reviewed to determine whether some of the affected employees cannot be redeployed.

According to Interviewee 2, ethical behaviour requires management's developing of and adherence to policies that will determine who will be retrenched. This interviewee limited these policies to standardised selection criteria that will identify which employees should be retrenched. Interviewee 2 indicated that these policies should not include the calculation method to determine severance packages. The reason is that mining companies must work within the agreed principles as directed by, for instance, the Chamber of Mines.

In the same vein, Interviewee 2 advised against paying retrenchment packages that exceed the agreed industry norm since this would create problems for other role-players in the industry. This view was supported by Interviewee 5. In this regard, Interviewee 4 emphasised the importance of having wage agreements that include the basis on how settlement amounts will be calculated in case of forced retrenchments.

Interviewee 4 shared an example where the company had decided and agreed on a minimum amount payable to retrenched employees. If the calculated settlement amount for an employee was less than the minimum, that employee would receive the minimum amount.

Interviewee 2 suggested that voluntary severance packages be used as a mechanism that afford employees the opportunity to agree to the termination of employment on terms that would be more favourable than would be negotiated through the Section 189 consultation processes. In this way, employees would be able to receive higher severance packages than the industry norm.

Although Interviewee 2 mentioned, as an ethical consideration, the provision of portable skills training to affected employees, he had reservations about whether such an objective was practical to achieve in the case of large-scale retrenchments. He pointed out that portable skills training cannot be given to a large number of people during a 90-day period. Interviewees 3 and 4 had very similar responses and indicated that providing portable basic skills training such as bricklaying courses, plumbing courses or cash settlement in lieu of training, does not suffice. Such training cannot mitigate the impact of thousands of people losing their jobs since here is no real opportunities in the current economic environment for these people to apply those skills.

From the participants' responses, further possible ethical considerations could be inferred:

- Interviewee 4 cautioned that a retrenchment process should not be exploited to get rid of problem or underperforming employees.
- Interviewees 3 and 4 recommended counselling programs through which all employees (affected or unaffected) can have access to counsellors who can render support and guidance.
- Interviewee 4 recommended making primary health care available to retrenched employees, seeing that such care is currently only available to existing employees.
- Interviewee 4 suggested that If retrenched employees still owe money to the company, it should be written off.

4.4.1.4 Contractors and suppliers

Interviewee 3 accentuated ethical behaviour towards contractors and suppliers: ethical conduct should extend to ensuring contractual agreements are in place. Fair conduct requires honouring the terms and conditions of agreements, including force-majeure clauses. Even if it is evident that a supplier will be going out of business due to a mine's downscaling, a company is acting ethical as long as the terms and conditions of the agreement with the supplier is honoured. Mining companies should, however, consider and investigate alternative usage for the supplier in other areas of the organization, thereby lessening the impact on the supplier. This becomes more important in instances where suppliers from the local community are involved, as mines should strive to minimise the negative impacts on local communities (Interviewees 3 and 5).

4.4.1.5 Care and maintenance and the issue of commencing mine closure

Interviewee 5 indicated that care and maintenance versus mine closure is a morality issue that a Board of directors need to consider. It would be unethical to use care and maintenance as an excuse to postpone commencing with mine closure. He gave the following guidance: "If, with all of the information at your disposal, it is clear that there is no way that the mine will ever be taken out of care and maintenance, then obviously it is not care and maintenance."

Interviewee 6 echoed this guidance and added that a Board of directors must ascertain whether the reasons for going on care and maintenance are valid, or whether the recommendation is made only to avoid commencing with the closure process. If there is no real possibility that the mine will be viable in future, the company should commence with closure.

4.4.1.6 Fair conduct

In his response to the research question about ethics, Interviewee 3 asserted that "It is only unethical if you treat people unfairly. If you treat everybody fair, it is ethical." Interviewee 4

described being “fair” as the most important test that should be passed when placing a mine on care and maintenance.

The interviewees’ responses confirm fairness as a characteristic of good corporate governance as identified in the literature review (see 2.2.1.2.2, “Ethics and responsible corporate citizenship” above). This characteristic is found applicable to considerations of care and maintenance.

None of the interviewees mentioned the involvement of the Social and ethics committee in the care and maintenance process. A review of the corporate governance structures, as reported on the companies’ websites, revealed that two of the companies represented by the interviewees had established Social and ethics committees.

4.5 Corporate governance framework

Research question 4 reads: “What should a corporate governance framework consist of in order for directors of South African companies to satisfactorily demonstrate the discharge of their fiduciary duties of skill, care and diligence when placing a mine on care and maintenance?” The data collected from the interviewees in response to this research question will not conclude the research. The question posed during the interview is also the primary research question of the present study. Therefore, this question can only be addressed conclusively and comprehensively by incorporating the research findings for all three previous research questions into a single, overarching framework.

In addition to asking the interviewees the primary research question, the following two questions were posed to the interviewees to draw on their experience and obtain data based on lessons that they would have learnt:

- What did the company do well when placing a mine on care and maintenance?
- What would the interviewee advise a company to differently?

The responses provided for these two questions are discussed and analysed first.

4.5.1 What companies did well

Interviewees 1, 3 and 4 listed proper planning as an activity that companies did well. Interviewee 4 included scenario planning in her response. From interviewee 3’s response about risks during the planning process, it is evident that the concept of planning should include scenario planning and the drafting of budgets to determine the cost of each scenario.

Interviewee 2 listed the establishment of a decision-making committee as a sound initiative, as this furthered prompt decision making, which is essential in times of uncertainty. Interviewee 3 identified the establishing of support structures to facilitate discussion of issues with the executive

team. This enhanced decision making and provided the required mandate to the management team tasked with consultation.

Furthermore, Interviewee 2 found that communication was also handled well with the various stakeholders, whom he identified as employees, regulators, communities, suppliers and municipalities. This participant, however, contradicted himself to a certain extent, by also indicating that liaison with communities could have been sooner and the DMR be kept informed to ensure they are not caught by surprise. Interviewees 3 and 4 both listed communication as an aspect that was handled well and in a transparent manner.

Interviewees 3, 4 and 5 listed the following of regulatory processes as matters that companies are doing well. This is mainly because companies are also beginning to learn from experience, an aspect that was mentioned by Interviewees 3, 4 and 5.

Interviewee 6, who provided his response from the perspective of environmental management, was of the view that mining companies are not faring well at all in care and maintenance, as currently there is an “absence of good guidance from a regulatory perspective”.

4.5.2 What companies should do differently

In response to the question about what should have been done differently, participants had various responses:

- Interviewee 1 indicated that the strategic objectives should have been defined and planned.
- Community engagement must take place sooner. In this way, long-term planning of affected communities can incorporate a scenario of a mine being placed on care and maintenance (Interviewee 2).
- Planning can improve to expedite the process of putting employees, who will be retrenched, through the mandatory exit medicals (Interviewee 2).
- Communication with the DMR could improve, according to Interviewee 2. However, as indicated above (4.5.1 “What companies did well”, above), this statement contradicts what this participant identified as an aspect that was handled well.
- Interviewee 5 cautioned mining companies against underestimating the severity of the impact the duration of being on care and maintenance has on underground infrastructure. Care should be taken to ensure this infrastructure is maintained and preserved, seeing the possibility of restarting an underground mine will become very remote if not properly maintained.

- Mining companies are advised to recognise the threat posed by illegal mining and not reduce their security (Interviewee 5).

4.5.3 What should be included in a corporate governance framework that will allow directors of South African companies to satisfactorily demonstrate the discharge of their fiduciary duties of skill, care and diligence when placing a mine on care and maintenance?

In response to this question, interviewee 1 indicated that such a framework must aim for *legal compliance* with particular focus on the following aspects:

- Compliance to the Companies Act with particular focus on a company's ability to keep on paying its creditors.
- Measures that implemented that ensure compliance to the MHSA entail:
 - ensuring all legal appointments are in place as required by law;
 - monthly monitoring and reporting;
 - continued focus on ensuring a safe working environment (safety inspections, pumping of water and ventilation).
- Compliance to NEMA, seeing that all environmental obligations remain. This includes items such as air quality monitoring, water management, waste management and reporting requirements.
- The requirements of the various MPRDA components and how these will be addressed should be detailed in the framework. This entails the following aspects:
 - documenting the extent of non-compliance to the mine works program as a result of the mine going onto care and maintenance and identifying required amendments to the mine works program;
 - details of the expected duration of care and maintenance and envisaged rehabilitation activities during this period needs to be documented;
 - commitments to the social and labour plans and how the mine intends to keep on meeting these commitments. This includes: ongoing portable skills training, counselling, other training, the effective functioning of the Future forum as well as annual reporting and honouring of downscaling commitments.
- Details provided of the various processes and measures implemented that ensure compliance to the LRA for possible retrenchments. This includes the timing of the applicable notice plus a confirmation that sufficient funds are available to pay retrenchment packages.

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- Directors must be provided with updated calculations of the mine's rehabilitation liabilities, the financial guarantees available as well as the necessary rehabilitation and restoration activities that would need to be undertaken.
 - Detailed strategy provided how the threat of illegal mining will be countered.
 - Sufficient information should help directors understand the financial risks associated with the decision to place the operation on care and maintenance. This includes information on:
 - how the decision impacts the carrying value of assets (impairment);
 - how being on care and maintenance and its duration will influence the costs to restart operations;
 - the point where it will become too expensive to restart the operations, which would trigger mine closure.

Data was obtained from Interviewee 2 through a variation on this research question. The participant had to indicate: What questions should directors ask to ensure the decision to place a mine on care and maintenance will be implemented correctly? He pointed out the following aspects to determine:

- Most importantly, directors should ascertain whether risk assessments were conducted by a team that had the right mixture of skills, experience and technical knowledge required to perform this task and that this team can be relied on to provide the correct recommendations.
- Was an implementation plan developed for care and maintenance, and what was its details?
- Were details provided of the envisaged monitoring activities to ensure the care and maintenance plan was implemented properly and are these still being complied with?
- What was frequency of reviews of the care and maintenance plan and identification of the needs to amend the plan? This is similar to the recommendation to monitor and re-evaluate progress over time identified in the literature review, refer 2.6.2, "Vale S.A. Brazil" above.
- Directors should, during the care and maintenance phase, request information on how the care and maintenance plans are updated based on incidents and experience.

Interviewee 3 indicated that, in his experience, directors did not request extensive details since they assumed the management team would do what they were supposed to. He would, however, request the following facets:

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- Details of the overall strategy – whether the objective is to maintain optionality, or the recommendation to the directors is the first step towards mine closure.
 - Information should be presented in as much detail as the annual budgets, which are presented to the Board for approval and should include additional details about:
 - trade-off studies with information about the costs to be on care and maintenance against the cost the if company to continue on its current path;
 - actions that management consider to optimise the cost of care and maintenance;
 - The impact of care and maintenance on the carrying value of the company’s assets and details of impairment provisions that must be disclosed in press releases.

Interviewee 4 did not provide a response for this question.

According to interviewee 5, it was important that directors should be presented with a holistic view covering the various aspects of care and maintenance. The information should not be limited to details about, for example the financial impact; it should include items such as:

- environmental implications;
- water management.
- expected duration of care and maintenance;
- impact of external factors on the mine over time;
- the possible duration for the mine to be on care and maintenance before this intervention would be unviable;
- specialist studies presented to the Board that indicate the expected impact of the decision on local communities, employees, local government and supporting infrastructure in and around the mine;
- the criteria of requirements to reverse the decision of being on care and maintenance.

According to interviewee 5, directors should critically assess the information presented to them. This will help them decide whether care and maintenance is not being presented as “an easy way out” to avoid commencing mine closure.

Regarding governance, the Board of directors would need confirmation from the Audit committee, as the gatekeeper for proper governance, that management followed due process in their recommendation to place a mine on care and maintenance. For the Audit committee to provide confirmation that the correct procedure was followed it would be important that the Risk committee, which is a subcommittee of the Audit committee (as recommended by King IV), worked closely with management throughout this process. Interviewee 5 described the Risk

committee as having a policing role to ensure management gave due consideration to the relevant matters.

In a follow-up telephonic conversation, Interviewee 5 was asked to identify financial reporting implications that should be considered. In his response he indicated that the Audit committee must also provide assurance to the Board that the financial impact of the decision to place the mine on care and maintenance is recorded accurately in the company's financial statements and in any press releases. Interviewee 5 identified the following accounting standards that should be considered:

- IAS 36 – Impairment of assets
- IFRS 5 – Non-current assets held for sale and discontinued operations
- IAS 37 – Provisions, contingent liabilities and contingent assets
- IFRS 5- Rights to interests arising from decommissioning, restoration and environmental funds
- IFRS 8 – Operating segments

Responding about the items that should be included in the governance framework, interviewee 6 highlighted the following focal points:

- Ensure compliance with applicable legislation.
- Include any voluntary codes of practices that a company has subscribed to.
- Provide reasons why care and maintenance is recommended and not full closure.
- Make economic forecasts that will allow the directors to make a “critically ethical decision” to determine whether the mine will be restarted; thus determine the real reasons why the mine is being placed on care and maintenance.
- Calculate the quantified costs to rehabilitate the mine and manage latent and residual pollution and compare these costs to the future economic potential of the mine. This will give the directors a degree of comfort that future revenues will be sufficient to cover the cost of remedial rehabilitation.
- A clear distinction is required regarding the nature of rehabilitation liabilities. Directors would need to understand whether they exist or are contingent and how, if a mine were to commence with closure, this distinction would change.
- Focus on the items listed in Appendix 6 of GNR 1147, even if these specific items are removed from legislation (see discussion below).

Interviewee 6 was asked how a Board of directors would know that management considered everything that they were supposed to? He responded that, due to the complexities involved, he

would recommend that directors utilise the services of specialists and not rely solely on internally developed plans. He strongly recommends subjecting the care and maintenance plan to an external audit by a credible institution – which is consistent with the intention of GNR 1147.

Interviewee 6 indicated that there was speculation in the industry suggesting that updated legislation, replacing GNR 1147 was eminent. One of the anticipated changes was that care and maintenance would be removed. This subsequently happened, as explained in 2.3, “Mine closure and rehabilitation” above.

The responses of Interviewee 6 are consistent with the recommendation by Blackiston *et al.*, (2016) and GNR 1147 that risk-based environmental audits must be undertaken. The benefits of such external audits are:

- assurance that care and maintenance plans were implemented effectively;
- deviations from these plans identified and reported to the directors and DMR.

The disadvantages of such external audits are that they are cost expensive.

4.5.4 International perspective

According to Blackiston *et al.*, (2016), the Board of directors must consider its decision-making authority. However, this consideration was not identified by any interviewees (refer 2.6.1.7, “Board of directors” above).

Consideration is necessary to determine which company’s Board should make the decision in a group structure. The context would be where a parent company’s Board retain effective control, while the mine placed on care and maintenance, is owned by a subsidiary company. Careful consideration should also be given in the case of outside shareholders or joint venture partners, seeing that their consent may be required. The researcher is of the view that this matter may be of particular relevance to the South African scenario and can be expanded to Black Economic Empowerment partners in the South African context.

4.6 Summary

In this chapter, the researcher identified and provided commentary on care and maintenance, from the perspective of corporate governance. This was done by analysing the data from the interviews and the literature review on the following aspects:

- objectives;
- risks faced;
- ethical considerations; and

- responses provided by the interviewees about specific items that should be included in the framework for corporate governance.

The items listed above are important and form an integral part of the corporate governance framework developed and presented in the following chapter.

The researcher identified inconsistency in legal experts' interpretation of the sequence to be followed if Section 52 MPRDA and Section 189 or Section 189A notices have to be issued.

None of the data collected during the semi-structured interviews contradicted information previously presented in Chapter 2, "Literature review". However, a number of items were identified during the data collection that were not captured in the literature review:

- the risk of Government's intervention to influence a company's decision to place a mine on care and maintenance;
- the risk that Government may call up the financial guarantees provided to fund rehabilitation;
- existing non-voluntary codes of best practices to which must be applied if a company had adopted these voluntarily;
- the negative impact of care and maintenance on employees' wellbeing;
- the threat posed by illegal mining.

Overriding themes that were identified were: the importance of transparency and full disclosure; regular communication; fair behaviour; and the caution that care and maintenance should not be used as an excuse to avoid commencing mine closure.

Only one of the six interviewees referred to the King reports on corporate governance (Interviewee 5). This raises questions whether senior managers and directors in the mining industry understand the importance of the various King reports on corporate governance? This matter is recommended for possible future research (refer 6.4, "Recommendations for future research" below).

None of the interviewees referred to contributions and assurance that the Internal audit function can provide. This is a surprising outcome for the researcher, considering that King IV continues to emphasise the importance of such a function as part of corporate governance. The lack of references appears to contradict King IV's assertion that Internal audit help provide advice on and insight into the activities of an organisation (as described in 2.2.1.2, "King IV" above). Further research, conducted in the South African mining industry, to test if King IV's assertion regarding the more expansive role of Internal audit is recommended for possible future research (refer 6.4, "Recommendations for future research" below).

In their responses, the participants did not specifically identify the involvement of the Risk, Remuneration, as well as Social and ethics committees. These are all committees recommended by King IV. Interviewee 5 did, however, mention risk management as the responsibility of the Audit committee.

Legislative changes, that may lead to a repeal of GNR 1147, are currently being considered.

CHAPTER 5: CORPORATE GOVERNANCE FRAMEWORK

5.1 Introduction

In this chapter, the aim is to formulate a framework to facilitate corporate governance. The following information is used: that presented in Chapter 2, “Literature review” as well as data gathered during the semi-structured interviews and contextualised to answer secondary research questions 1 to 3 (Chapter 4, “Empirical study”). This framework presents the research findings in response to the primary research question:

What should a corporate governance framework consist of in order for directors of South African mining companies to satisfactorily demonstrate the discharge of their fiduciary duties of skill, care and diligence when placing a mine on care and maintenance?

As indicated previously (see 4.5, “Corporate governance framework” above), the data collected from the interviewees in response to the primary research question, did not conclude the research. The findings for secondary research questions 1 – 3 are essential components of the framework, which are developed as the research outcome of the present study.

5.2 Corporate governance framework

The research framework is presented under the following headings:

- General objectives;
- Risk management;
- Governance committees;
- Regulatory compliance;
- Mine closure considerations;
- Care and maintenance plan;
- Ethical considerations;
- Financial considerations;
- Decision-making authority.

Guidance is given in various ways. This include general statements, discussions, comments, direct references to legislation and the listing of questions that directors should ask.

5.2.1 General objectives

The general objective is providing guidance to directors and management teams of South African mining companies. This is done through a governance framework that can serve as reference when a mine is placed on care and maintenance.

As asserted in the previous chapter (4.2, “Objectives of a company from a governance perspective when placing a mine on care and maintenance”), the main objectives of the proposed framework are:

- regulatory compliance;
- security of tenure;
- preserving investment, infrastructure and equipment values;
- retaining optionality to be able to restart mining operations or sell the mine;
- mitigating the negative impacts on stakeholders and the environment.

The framework must be built on the overriding values of transparency and full disclosure, regular communication and fair behaviour. Care and maintenance should not be used as an excuse to avoid commencing mine closure.

5.2.2 Risk management

Risk management was identified as a core component of corporate governance (refer 1.4.2, “Secondary research questions ”). It was explained that a proposed research framework must provide support to directors, ensuring the appropriate controls remain in place to manage risks.

The research findings to secondary research question 2, “What are the main risks faced by a company when placing a mine on care and maintenance?” was discussed in 4.3, “Main risks a company faces when placing a mine on care and maintenance” above. These research outcomes identified the following main risks:

- The company may be unable to fund its care and maintenance activities and honour its ongoing debt commitments.
- There may be time delays due to Government’s intervention, the regulatory consultation process, insufficient resources to manage large-scale retrenchment processes, and failure to follow legislated procedure.
- Mining rights may be revoked due to a company’s failure to comply with the approved mine works program, social and labour plan commitments, or approved environmental management plan.

- Government may attempt to influence the care and maintenance decision due to the pressure of the recently announced job losses in the mining industry.
- Government may decide to call up all guarantees provided for rehabilitation, particularly in single-operation companies.
- Instances of theft and illegal mining may increase.
- There may be non-compliance with laws and regulations, including:
 - Companies Act;
 - Mine Health and Safety Act;
 - environmental laws and regulations;
 - codes and best practices;
 - Mineral and Petroleum Resources Development Act;
 - Labour Relations Act;
 - JSE-listing requirements.
- Loss of personnel with the required knowledge, skills and expertise;
- Inadequate communication, which may not be perceived to be open and transparent, with internal and external stakeholders.
- Negative impacts on employee' wellbeing as employees become concerned and conflict within the organisation increases.

Directors should, therefore, be placed in a position where they are satisfied that due processes were followed to identify significant risks. Furthermore, they should attest that appropriate mitigating and monitoring controls have been developed to manage these risks and that they are informed of the nature of these risks.

The question arises: Have risk assessments been conducted and control procedures and strategies developed to mitigate the identified risks? In answer to this question, the following aspects should be considered:

- risk-based environmental audits (Blackiston *et al.*, 2016, Interviewees 2, 3 and 6; GNR 1147);
- activities undertaken during care and maintenance (Interviewees 2, 3) and its impact on health and safety of workers;
- changes to emergency response plans (Blackiston *et al.*, 2016; interviewee 2; GNR 1147);
- identification of safety hazards (Blackiston *et al.*, 2016; Interviewee 2);
- impact of critical skills and knowledge that may be lost (Interviewees 2, 3 and 6);
- Government intervention to influence the care and maintenance decision (Interviewees 1 and 3);

- preventing theft and illegal mining as (refer 4.3.4, “Theft and illegal mining”) (Blackiston *et al.*, 2016; Interviewees 1 to 5);
- the company’s ability to keep on funding the costs of care and maintenance, solvency, liquidity, continue as a going concern and default of debt commitment (refer 4.3.1, “Funding”);
- adhering to the correct legislative procedures in notifying:
 - employees (Beech, 2017, Blackiston *et al.*, 2016; Venter, 2014; Interviewees 1 and 4). (Also refer 2.2.2, “Labour Relations Act (LRA)”);
 - regulatory authorities (Beech, 2017; Interviewees 1 and 4). (Also refer, 2.2.4.1, “Section 52 notice”);
 - investors/financiers (refer 2.5.2, “JSE listing requirements”; 2.6.1.4, “Disclosure considerations”; Blackiston *et al.*, 2016 and Interviewees 3 and 5);
- security of tenure (discussed in more detail in 5.2.4.4, “Mineral and Petroleum Resources Development Act (MPRDA)” below);
- the loss, copying or theft of intellectual property and confidential information (Blackiston *et al.*, 2016).

It is required that the directors should be comfortable about the following aspects:

- Risk assessments were conducted by a team with the right mixture of skills, experience, and technical knowledge (Interviewee 2).
- Consultation with external experts where internal expertise may be lacking (Interviewees 5 and 6).
- The Risk committee endorsed the findings and recommendations of the risk assessments (Interviewee 5).
- The level of internal audit involvement was adequate (see 5.2.3.2, “Internal audit function” below).

5.2.3 Governance committees

Various committees were identified that could provide support to the directors to demonstrate the effective discharge of its duties (refer 2.2.1.2.3, “Committees” above).

5.2.3.1 Audit committee

Based on the literature review (refer 2.2.1.2.3, “Committees” above) and data collected during the semi-structured interviews (Interviewee 5), the Audit committee has two important responsibilities when dealing with matters related to care and maintenance:

- gatekeeper to ensure proper governance;

- ensuring the impact of care and maintenance is disclosed correctly in the company's financial reports and press releases.

The Board of directors must seek confirmation from the Audit committee that due process was followed and that the Risk committee has endorsed management's recommendations (refer 2.2.1.2.3, "Committees" above).

The Board of directors should also ascertain the level of internal audit's involvement (refer 2.2.1.2.3, "Committees" above and 5.2.3.2, "Internal audit function" below).

Regarding financial disclosure, the Board must seek assurance from the Audit committee that the financial disclosure requirements as discussed in 5.2.10.2, "Financial disclosure" below, were adequately addressed and considered.

5.2.3.2 Internal audit function

Directors should determine, through the Audit committee, whether they are comfortable with the level of Internal audit's involvement in the care and maintenance process. As was explained in 2.2.1.2.3, "Committees" above, the role of internal audit has evolved beyond compliance. Presently, it also provides advice and insight on the activities of an organisation.

The proposed framework recommends that Internal audit's skills and expertise should be used to assess and report on the adequacy and completeness of the developed care and maintenance plan (refer 5.2.8, "Care and maintenance plan" below).

5.2.3.3 Risk committee

If a Risk committee has been established, the directors should enquire about the committee's level of involvement (refer 2.2.1.2.3, "Committees") and request to be briefed on the findings of these reviews.

5.2.3.4 Remuneration committee

The present research did not focus on the specific matters on which the Remuneration committee must be consulted and advised. From the literature review and data collected during the interviews, the researcher identified the following matters that may require inputs or recommendations from the Remuneration committee:

- voluntary retrenchment packages (Interviewees 1, 2 and 4);
- retrenchment packages not governed by collective wage agreements (interviewee 4);
- other benefits that can be offered such as waiving debts that are due to the company (Interviewee 4);
- tax advice and tax directives (Blackiston *et al*, 2016: 4).

5.2.3.5 Disclosure committee

If the company has an established Disclosure committee (refer 2.2.1.2.3, “Committees” above) the Board of directors must obtain confirmation that the planned press releases and JSE SENS releases (if applicable), has been approved by this committee. There should also be effective interaction between the Disclosure committee and Audit committee (refer 5.2.3.1, “Audit committee” above).

5.2.3.6 Safety, health and environmental committee

Compliance to the Mine Health and Safety Act (MHSA) and environmental laws and regulations are strong recurring themes in both the objectives of the proposed framework (refer 5.2.1, “General objectives” above) and the risks when a mine is placed on care and maintenance (see 4.3.6, “Non-compliance with laws and regulations”).

The mentioned framework recommends that the Board of directors obtain comfort from the Safety, health and environment committee regarding their input into and their endorsement of:

- risk assessments conducted – recommended in 5.2.2, “What companies did well above;
- care and maintenance plan – see 5.2.8, “Care and maintenance plan” below.

5.2.3.7 Care-and-maintenance-task-team

For Interviewee 2, the establishing of a decision-making committee benefits the period leading up to the implementation of care and maintenance. Interviewee 4 proposed a function similar to a decision-making committee by establishing support structures. These structures are credited with facilitating discussion of issues with the executive team, decision-making, and for providing the required mandates (refer 4.5.1., “What companies did well” above).

For the purpose of the proposed framework, the researcher chose the term “Care-and-maintenance-task-team” as a collective reference to committees identified by interviewee’s 2 and 4.

This framework recommends the implementation of a Care-and-maintenance-task-team, which should be provided with clear terms of reference. These terms should stipulate the following aspects: decision-making powers delegated to the committee, to whom the committee reports, and the process to secure mandates on matters outside of or exceeding its delegated authority.

5.2.3.8 Social and ethics committee

None of the Interviewees included any reference to the role and function of established Social and ethics committees in the care and maintenance process. The establishing of such committees is a recommendation of King IV (discussed in 2.2.1.2.3, “Committees”, above). As indicated previously in 4.4.1.6, “Fair conduct”, two of the companies represented by the Interviewees had established Social and ethics committees.

The framework recommends that directors should be made aware of social and ethical considerations. Further details are provided in 5.2.9, “Ethical considerations” below.

5.2.4 Regulatory compliance

As mentioned in 4.2.1 (“Regulatory compliance”, above), five of the six participants identified legal and regulatory compliance as an objective of care and maintenance. Compliance to laws and regulations is also a stated objective of corporate governance (refer 1.7, “Literature review” above).

5.2.4.1 Companies Act

5.2.4.1.1 Business rescue considerations

As explained in section 4.3.1 (“Funding”), being on care and maintenance is expensive. An entity considering placing itself on care and maintenance will likely already be suffering a measure of financial strain. As identified by Blackiston *et al.* (2016), the risk of the company being unable to honour its debt commitments (long term and creditors) increases.

Directors, therefore, must fully appreciate and understand the costs associated with being on care and maintenance, debt commitments and what sources will help fund these costs and obligations.

Specific consideration should be given to whether or not the company can be classified as financially distressed, or will likely reach that stage, by failing any of the two tests referred to in 2.2.1.1, “Companies Act” above. Failure or likely failure, would require directors to consider whether or not business rescue proceedings should be initiated (Interviewee 1, South Africa, 2011).

Should the directors decide against starting business-rescue proceedings, they must send written notices to all the company’s creditors, stating the reasons why such proceedings will not be initiated (Interviewee 1, South Africa, 2011).

This framework recommends that directors formally assess the possible impact of care and maintenance on the business. They must also retain evidence of their decisions and recommendations in this regard.

5.2.4.2 Labour Relations Act

The importance to comply with the LRA was identified by interviewees 1 and 4. The proposed framework recommends that directors must be satisfied that the various processes and measures they implemented will ensure compliance to the LRA (Interviewee 1). This should include confirmation that any notices issued in terms of Section 189 or Section 189A of the LRA, comply with the requirements of the Act regarding the content and manner in which these notices will be released.

Particular care should be taken to ensure the following:

- A consultative approach must be followed. As was highlighted in 2.2.2, “Labour Relations Act (LRA)” and confirmed by Interviewee 4, forced retrenchments should not be enacted prior to the completion of the consultation required by law (refer 4.3.6.6, “Non-compliance to the LRA” above).
- Due care and consideration must be given to identify all the employees or positions that may potentially be impacted, before providing these affected employees with consultation notices (Interviewee 4).
- Sufficient funds must be made available to pay retrenchment packages (Interviewee 1).

In addition, a system must be implemented whereby the Board of directors receive regular feedback on the progress during the consultation process. This feedback should include details of alternative measures recommended to prevent job losses and the outcomes of management’s investigation of these measures (interviewee 4).

Directors should be aware of the implications of the Labour Court ruling (*Association of Mineworkers and Construction Union and Others v Buffalo Coal Dundee Proprietary Limited and Zinoju Coal Proprietary Limited* (South Africa, 2015b)). This ruling obliges both the third party, mining service providers and mining company (owner of the mining right) to involve the mining company in the Section 189 consultation process.

5.2.4.3 Mine Health and Safety Act (MHSA)

Based on the outcomes of the risk assessments described in 5.2.2, “Risk management” above, directors should request or be provided with information that will help them ascertain whether due consideration was given to the following aspects:

- legal appointments (Interviewees 1, 2 and 3) as described in 2.2.3, “Mine Health and Safety Act (MHSA)” and 4.3.6.2, “Non-compliance to the MHSA”. (Note: Only directors

and employees carrying legal appointments in terms of Sections 2A (3), or 2A (2) or 4 (1) can be held liable in terms of the MHSA);

- preventative and monitoring measures to ensure the safety of workers (Blackiston *et al.* (2016), interviewees 1, 2 and 3);
- continued adequate staffing of the mine with due regard to health and safety (refer 2.2.3, “Mine Health and Safety Act (MHSA)”);
- training, should employees’ role and function change (Blackiston *et al.* (2016));

Usually the entity has an established Safety, health and environment committee (refer 5.2.3.6, “Safety, health and environmental committee” above). In such a case, the directors must get confirmation that the committee was consulted. They must be satisfied that their observations and recommendations were considered in the conducted risk assessments and compiled care and maintenance plans.

5.2.4.4 Mineral and Petroleum Resources Development Act (MPRDA)

The relevant components of the governance framework and its application to the MPRDA are discussed under the following headings:

- Section 52 notices
- Mine works program
- Social and labour plan

Governance considerations regarding the approved environmental management plan is discussed in 5.2.4.5 below.

5.2.4.4.1 Section 52 notices

During the data collection, it was found that legal experts in the industry differed about the inter-relationship of Section 52 of the MPRDA and Section 189 of the LRA. The difference in opinion confirms Beech’s (2017) view that the inter-relationship between these two sections of legislation is “one of the most intensely debated aspects in relation to downscaling of operations”.

The ruling by Judge van Niekerk (South Africa, 2013b: 16) clarified the uncertainty in the industry about the timing of the Section 52(1)(b) and Section 189 notices. Judge van Niekerk’s ruling is interpreted as confirming that there is no procedural requirement to issue Section 52 (1) (b) before issuing Section 189 notices.

This framework recommends that directors familiarise themselves with the status of:

- Section 52 (1) (a) notice: ratio of profit against revenue will be less than 6% percent on average for a continuous period of 12 months.

- Section 52 (1) (b) notice: any mining operation will be scaled down or terminated, which may result in 10% of the workforce or more than 500 employees (whichever is less) retrenched within a 12-month period.

The researcher pointed out in 4.3.6.5, “Non-compliance to the MPRDA” above, that legislation is not prescriptive in terms of the required content of Section 52 notices. Nor did the interviewees provide guidance about the specific content of such notices. The researcher inferred that the following information should be included to explain the reasons and impact of the care and maintenance decision:

- explanation of the prevailing economic conditions; and
- socio-economic and labour implications;

5.2.4.4.2 Mine works program

Going onto care and maintenance will lead to non-compliance to the MPRDA. The reason is that the mine will fail to conduct its activities in terms of its approved mine works program (Interviewee 1). The mine can be deemed as failing to mine the mineral resource “optimally”, as described in the literature review (2.2.4.2, “Optimal mining of mineral resources” above). In extreme circumstances this may lead to a loss of the mining right (Interviewees 1 and 3).

The introduction of GNR 1147 made it evident that a holder of a mining right is prohibited to cease mining and place itself on care and maintenance without the approval of the Minister of Mineral Resources (South Africa, 2015a). GNR 1147 also requires a care and maintenance plan to be submitted for approval, which is considered as an amendment to the mine works program.

From a governance perspective, directors should ascertain the expected extend of non-compliance to the mine works program (Interviewee 1). They should further ensure responsibility is delegated to persons with the required experience and skills. These persons should be tasked to review and approve the amendments to the mine works program as well as care and maintenance plan that will be submitted for approval to the Department of Mineral Resources (see 5.2.8, “Care and maintenance plan”, below).

GNR 1147 is however likely to be repealed. The replacement legislation proposed, should GNR 1228 be promulgated in its current form, will lead to less onerous obligations regarding care and maintenance. Should this happen, compliance to the spirit of GNR 1147 is recommended based on ethical values that imply compliance levels that are beyond mere legal compliance.

5.2.4.4.3 Social and labour plan

Interviewee 1 explained that care and maintenance does not relieve an entity from the commitments of its social and labour plan. Moreover, the Department of Mineral Resources grandfathers all instances of non-compliance to previous social and labour plans in future social and labour plans. An entity, therefore, do not get rid of its non-compliance.

According to the proposed governance framework, directors are advised to obtain information about the company's social and labour plans, explaining (Interviewee 1):

- level of non-compliance;
- impact of care and maintenance on the company's ability to meet its social and labour plan obligations; and
- funds set aside to manage downscaling and retrenchments.

Particular focus should be placed on information about the effective functioning of the Future forum (Interviewees 1, 2 and 4). This should include suggestions made by the forum on:

- alternatives to avoid job losses (Interviewees 1 and 4);
- cost containment (Interviewee 4);
- productivity improvement (Interviewee 4); and
- mitigation of the impact on communities (Interviewees 1 and 4).

5.2.4.5 Environmental laws and regulations

A mine's impact on the environment does not stop when mining activities cease (Interviewee 6). This impact must still be monitored, mitigated and reported on. Five of the six interviewees identified environmental related matters in their responses. From an international perspective, (Blackiston *et al.* (2016) recommends that risk-based environmental audits should be undertaken and the scope and frequency of monitoring and reporting determined.

A mine must keep on complying with its approved environmental management plan as well as any other environmental licenses and permits, as was explained in the literature review (see 2.3, "Mine closure and rehabilitation") and through the data collected (refer 4.2.1, "Regulatory compliance" and 4.3.6.3, "Non-compliance to environmental laws and regulations").

From a governance perspective, directors would have to apply professional judgement when assessing how well management has addressed the outcomes of the environmental audit, as required by GNR 1147. Inputs from the Safety, health and environment committee (refer 5.2.3.6), Risk committee (see 5.2.3.3), Audit committee (see 5.2.3.1) and Internal audit (refer 5.2.3.2) would assist directors in formulating an informed opinion.

If such an audit has not been done, the Board must issue a directive urging management to remedy the non-compliance.

A particular item that should be considered is the potential impact on neighbouring mining operations. These entities may rely on the mine on care and maintenance to continue pumping water, thereby avoiding their underground workings from flooding (Interviewees 2 and 3).

The framework will continue to support these recommendations, even if GNR 1147 is repealed.

5.2.5 JSE reporting requirements

The proposed framework recommends that due consideration should be given to notifying investors through SENS announcements and press releases if a company is listed on the JSE (refer 4.3.6.7, “Non-compliance to the JSE listing requirements”). The Audit and Disclosure committees should guide the directors in this regard.

5.2.6 Voluntary codes and practices

The proposed framework also focuses on confirmation provided to the directors that the company will keep on complying with voluntary codes and best practices, such as those prescribed by the International Council on Mining and Metals – should these be adopted (Interviewee 6). This confirmation would be required from the Safety, health and environmental committee.

5.2.7 Mine closure considerations

This framework recommends that directors should be provided with the following:

- Details of the overall strategy that will allow directors to assess whether the strategy is to preserve value, or if recommendation to place the mine on care and maintenance is the first step towards mine closure (Interviewee 3). This should include a detailed motivation why the process of care and maintenance is recommended, and not full closure (Interviewee 6).
- Updated calculations of the costs to rehabilitate the mining areas placed on care and maintenance (Interviewees 1 and 6). These calculations should include the costs to manage latent and residual pollution (Interviewee 6).
- Calculations whether the provided financial guarantees are sufficient to fund the rehabilitation costs, should the mine commence with closure (Interviewees 1 and 6).
- Projections to determine if future revenues could cover the cost of remedial activities, should operations resume under more favourable conditions (Interviewee 6).

- The time frame of the period on care and maintenance before closure becomes a foregone conclusion (Interviewee 4).

5.2.8 Care and maintenance plan

The introduction of GNR 1147 in 2015, formalised the need for a detailed care and maintenance plan as part of the process of applying for consent from the Minister of Mineral Resources to implement care and maintenance. However, as indicated, (refer 2.3, “Mine closure and rehabilitation”, above) GNR 1147 may be repealed. This framework supports the inclusion of the items below, regardless of the eventual outcome.

The literature review identified the following items (South Africa, 2015a) that should form part of a care and maintenance plan. Inclusion of these items are recommended as components of this framework:

- details of the people who compiled the plan, including their experience;
- the person who will be tasked with implementation;
- implementation timelines;
- the factors resulting in approval to go onto care and maintenance;
- criteria that would result in mining operations commencing;
- the expected duration before operations are expected to restart;
- confirmation that an environmental audit was undertaken and its results provided, including any identified residual and latent impacts;
- measures planned to mitigate environmental risks;
- the methodologies, control systems and remedial strategies planned for progressive rehabilitation and monitoring of closure activities;
- planned actions to preserve idle infrastructure and equipment;
- details of the emergency response plan during care and maintenance;
- details of the expected costs to incur;
- final and future land use envisaged for the affected areas on plans that are drawn to scale;
- information on legal obligations and notifications;
- information about the consultation meetings with interested and affected parties, including notices of meetings, attendance registers, meeting minutes and comments received;
- training that will be provided to the personnel who will conduct care and maintenance activities; and
- details of the health and safety management plan.

This framework supports the ongoing monitoring of the care and maintenance plan as recommended by Interviewee 1.

Confirmation that is needed includes details on the following aspects:

- Are monitoring activities still complied with?
- How frequently were the care and maintenance plan reviewed and were any requirements identified to amend the plan?
- Have any safety, health, or environmental incidents occurred that indicate the need to update the plan?

5.2.9 Ethical considerations

The literature review (refer 2.2.1.2.2, “Ethics and responsible corporate citizenship”), supported by the gathered research data (see 3.2.1, “Ethical ”) highlighted the potential risks for companies’ reputation due to perceptions of good-corporate citizenship stemming from care and maintenance.

Secondary research question 3, “What are the ethical matters that should be considered when placing a mine on care and maintenance?”, focused specifically on ethical considerations and issues of care and maintenance.

The effective functioning of the Social and ethics committee (refer 5.2.3.8, “Social and ethics committee” above) should play an integral part in providing the directors with the required assurance and/or advice on the appropriate handling of the following matters:

- Transparent and full disclosure to regulating authorities, including the current status of compliance and non-compliance with the mine works program, social and labour plan and environmental management plan (Interviewees 1 and 2);
- Assistance provided to employees helping them find alternative employment. Assistance includes contacting other mines or redeployment to other operations where possible (Interviewees 2, 3 and 4);
- Enforce strict adherence to existing retrenchment policies (Interviewee 2) and to recognised wage agreements (Interviewee 4). This include matters related to the selection of employees identified for retrenchment and the basis on which retrenchment packages are calculated. The retrenchment process should also not be used as an opportunity to get rid of problem or underperforming employees (Interviewee 4).
- Consider introducing a minimum amount payable as part of the consultation process. Such a minimum amount will assist employees without the benefit of having been in the company’s service for an extended period (Interviewee 4);

- Use voluntary retrenchment packages as mechanism to reduce the impact of forced retrenchments (Interviewee 2). Persons who have a higher probability of finding alternative employment, or with other plans to replace their lost income, may choose to accept such voluntary packages.
- Portable skills training (Interviewees 2, 3 and 4), or cash settlement in lieu of training (Interviewee 3).
- Provide counselling programs for all employees (affected or unaffected) as highlighted by Interviewees 3 and 4.
- Continue to make primary health care available to retrenched employees (Interviewee 4);
- Waive the requirement to repay any loans such employees still owe to the company (Interviewee 4).
- Linked to 5.2.7, “Mine closure considerations” above, Interviewees 5 and 6 emphasised directors’ moral obligation to ensure care and maintenance is not used as an excuse to avoid commencing with mine closure.
- If required, directors need the courage to make difficult decisions relating to care and maintenance. This will help ensure the long-term sustainability of the organisation (Interviewees 3 and 5) whilst balancing the needs of shareholders, financiers, employees, communities, contractors and other relevant stakeholders.
- Conduct should be fair in interaction with employees (Interviewees 3, 4 and 5), contractors and suppliers (Interviewee 3 and 5).
- Alternative options should be made available to assist contractors and suppliers if it becomes evident that the decision to place the mine on care and maintenance will cause the supplier its business.

5.2.10 Financial considerations

The proposed framework outlines strategic information on financial considerations that should be presented to the Board of directors, as will be expounded below.

5.2.10.1 Budget for care and maintenance

A budget is necessary for care and maintenance that covers all applicable activities that would be undertaken during such a process (Interviewee 3). This budget should be aligned with the care and maintenance plan and may include the following items.

- Particular items identified in 4.3.1, “Funding” entail:
 - voluntary and retrenchment separation packages;
 - compulsory exit medical costs;

- ongoing primary health care costs;
 - portable skills training;
 - employee counselling and assistance programs;
 - maintenance of equipment and infrastructure;
 - regulatory monitoring and reporting costs, including those required for safety inspections;
 - ongoing employee costs, which should include all of the legal appointments required in terms of the MSHA, primary health care and training;
 - electricity costs, with water management and ventilation identified as the two major cost drivers;
 - commitments regarding the social and labour plan;
 - security, focusing particularly on measures to prevent illegal mining;
 - cancellation of supplier agreements;
 - ongoing and concurrent rehabilitation. (Also refer to 5.2.7, “Mine closure considerations” above).
- Trade-off studies conducted to compare the cost of being on care and maintenance against those continuing operations (Interviewee 3);
 - Management actions considered to reduce the cost of care and maintenance (interviewee 3).
 - Sources of funding identified to finance debt commitments and ongoing costs of care and maintenance (Blackiston *et al.*, 2016);
 - Interviewees 1 and 5 indicated that directors should also be presented with information to help them gain an understanding of the expected duration of care and maintenance and required resources and associated costs to restart operations.

5.2.10.2 Financial disclosure

The literature review and collected data identified the following accounting statements and standards that may need to be considered for financial reporting:

- IAS 36 – Impairment of assets (Interviewees 1, 3 and 5; 2.5.1, “IAS 36 - Impairment of assets”)
- IFRS 5 – Non-current assets held for sale and discontinued operations (Interviewee 5);
- IAS 37 – Provisions, contingent liabilities and contingent assets (Interviewees 5 and 6);
- IFRC 5 – Rights to interests arising from decommissioning, restoration and environmental funds (Interviewee 5);

- IFRS 8 – Operating segments (Interviewee 5).

As mentioned in 5.2.3.1 above, the framework recommends that the Board of directors seek assurance from the Audit committee that these accounting statements and standards were addressed adequately and considered thoroughly.

5.2.11 Decision-making authority

Significantly, no interviewees identified any matters that may require the Board of directors' consideration based on to decision-making authority (refer 14.5.4, "International perspective"). These aspects are identified by Blackiston *et al.* (2016).

This framework recommends that the Board should seek clarification on the following issues:

- Which company's Board should be tasked with decision-making, should the mine that is to be placed on care and maintenance be owned by a subsidiary company?
- What consent is required from outside shareholders, as well as partners from joint ventures, and Black Economic Empowerment.

5.3 Summary and validation

A summary of the framework, representing the research outcome of the present study, is presented in Table 5-1 below.

Table 5-1: Corporate governance framework for care and maintenance

Corporate governance framework for care and maintenance			
Main objectives Regulatory compliance Security of tenure Value preservation and optionality Mitigation of negative impacts		Overriding values Transparency and full disclosure Regular communication Fair behaviour	
Risk management <i>Main risks:</i> Lack of funding Time delays Loss of mining rights Government intervention Call-up of financial guarantees Theft and illegal mining Non-compliance to laws and regulations Loss of knowledge, skills and expertise Inadequate communication Negative impacts on employee wellbeing <i>Controls:</i> Risk assessments Specialist inputs Risk committee endorsement Internal audit involvement	Committees Audit committee Internal audit function Risk committee Remuneration committee Disclosure committee Safety, health and environmental committee C&M task team Social and ethics committee	Mine closure Overall strategy to be determined - C&M vs mine closure Updated rehabilitation calculations, including latent and residual pollution Adequacy of financial guarantees Future income projections vs closure costs Maximum period of C&M before closure becomes a foregone conclusion	Care and maintenance plan (continued) <i>Contents (continued):</i> Confirmation of environmental audit and outcomes Environmental mitigation measures Progressive rehabilitation and monitoring of closure activities Preservation of idle infrastructure and equipment Emergency response plans Cost of C&M Plans of final and future land use Legal obligations and notifications IAP consultation Training Health and safety management plan <i>Controls:</i> Compliance with monitoring requirements Frequency of reviews Safety, health and environmental incidents as indicators that the C&M plan should be
	Financial considerations Budget for C&M Retrenchment costs Cost optimisation measure Sources of funding Liquidity, solvency and going concern Ability to honour debt commitments Trade-off studies	Care and maintenance plan <i>Note: This may no longer be a legislative requirement if GNR 1147 is repealed. This framework still recommends compilation of</i> <i>Contents:</i> Details and experience of persons who compiled the Person tasked with implementation Implementation timeline Reasons for C&M Criteria to commence operating activities Expected duration of C&M	
Decision-taking authority Identifying the legal entity board responsible Outside shareholder, joint venture partner & BEE partner consent	Disclosure Financial reporting * IAS 36 * IFRS 5 * IAS 37 * IFRC 5 * IFRS 8 Press releases JSE SENS announcements		

Table 5-1: Corporate governance framework for care and maintenance (continued)

Corporate governance framework for care and maintenance (continued)			
Ethical considerations			
Transparency and full disclosure, including non-compliance	Employee assistance Adherence to retrenchment policies	Minimum retrenchment payment Continued primary health care	Voluntary retrenchment packages Support to contractors and suppliers who face potential bankruptcy
Reputational risk relating to good-corporate-citizenship	Counselling programs Write-off employee loans	Portable skills training or funds in lieu of training	Honour agreements
Fair conduct	C&M not excuse for closure		
Regulatory compliance			
Companies Act	Labour Relations Act	Mine Health and Safety Act	MPRDA
Business rescue considerations Financially distressed test (S128(1)(f)) Need for S128(f)(7) notices considered	S189 & S189A notices All affected employees identified Consultation per collective agreements, workplace forums, registered trade unions, employees or nominated employee representatives Matters consulted * Avoidance measures * Minimising no of affected employees * Timing * Selection criteria * Severance packages Mining company should be part of contractor consultation process	Suitable persons remaining to be placed in legal appointments Safe and healthy environment maintained Provision of health and safety equipment Staff remaining are adequate in number and have required skills and experience to ensure health and safety of workers Health and safety policies updated Ongoing monitoring and reporting Annual medical Medical exit examinations Safety, health and environmental committee sign-off	S52(1)(a) and / or S52(1)(b) notices Amendment to the mine works program Care and maintenance plan (No longer a legislative requirement if GNR 1147 is repealed) Social and labour plan (SLP) * Level of compliance to be assessed * Impact of C&M on ability to meet SLP * Funds set aside to manage downscaling and retrenchments Effective functioning of Future forum
Codes and Practices			
Compliance to voluntary codes and practices adopted			
Environmental laws and regulations			
Response to environmental audit outcomes Committee inputs: * Safety, health and environmental committee * Risk committee * Audit committee * Internal audit Impact on neighbouring mines			
			JSE
			Audit committee and Disclosure committee guidance on: * SENS announcements * Press releases

Undefined abbreviations used in this table:

C&M - care and maintenance

IAP - interested and affected parties

SLP - social and labour plan

A draft version of the detailed framework (attached as Annexure B), as outlined in 5.2 to 5.2.11 above, was distributed to the interviewees (described in 3.4, "Description of interviewees") and respondents (described in 3.5, "Validation respondents"). These individuals were asked to provide response to the following questions:

Validation question 1: Is the developed framework sufficient in order for directors of South African mining companies to satisfactorily demonstrate the discharge of their fiduciary duties of skill, care and diligence when placing a mine on care and maintenance?

Reasons were requested motivating "No" as a response.

Validation question 2: If any fatal flaws could be identified in the developed framework which would result in directors not being able to demonstrate the discharge of their fiduciary duties of skill, care and diligence when placing a mine on care and maintenance?

Reasons were requested motivating “No” as a response.

Some minor editorial edits were subsequently made. These resulted from grammatical corrections, specific feedback and the inclusion of additional information necessitated by new information pertaining to GNR 1147. References alerting directors to the implications of Zinoju Coal case described in 2.4, “Inter-relationship of legislation” were added to 5.2.4.2, “Labour Relations Act” above.

Validation question 1

All six interviewees and both respondents confirmed that the framework proposed in this chapter, is sufficient for directors of South African mining companies to satisfactorily demonstrate the discharge of their fiduciary duties of skill, care and diligence when placing a mine on care and maintenance.

Interviewee 1 advised to make it clear to the reader that not all directors may be held liable under the MHSA Act. Only the Chief Executive Officer or member of the Board designated legal accountability under Sections 2A (3), or 2A (2) or 4 (1) can be held liable. The framework was amended to reflect this recommendation (see 5.2.4.3, “Mine Health and Safety Act (MHSA) above. These exceptions were only applicable to the MHSA. For environmental liabilities and all other statutes directors can be held liable.

Interviewee 2 added the following explanation, “The author starts off by making it quite clear that care and maintenance should not be used as an excuse to avoid commencing mine closure. When one does take the decision to put a shaft on care and maintenance it goes hand in hand with thoughts to close the mine altogether. The framework as described will definitely assist directors to put sound systems and processes in place.”

Interviewee 4 recommended that the words “less than six percent on average for a continuous period of 12 months” should be added to the first bullet point in 5.2.4.4.1, “Section 52 notices” above. This was done.

Interviewee 5 qualified his response: “Yes. Taking materiality into consideration”.

Validation question 2

No responses were received indicating fatal flaws. Interviewee 2 explained the situation as follows: “As far as my experience goes with the recent closure/care and maintenance plans observed from [names of mines removed], this seems well defined and adequate.”

Again, Interviewee 5 added a qualification to his response: No, again applying materiality to my review.”

Respondent 2 stressed the need for valid and defensible reasons for placing a mine on care and maintenance. He recommended to include compliance with the Social and labour plan expenditure commitments (the framework had this included). Security of tenure was confirmed to refer to a company’s ability to retain mining and prospecting licenses. These are separate rights and not the same as ownership of land. The obligation to honour the requirements of the environmental plan, unless amended by mutual agreement and approval was highlighted.

Comments, of a general nature were received include the following:

Interviewee 4: “From my perspective you have certainly covered broader requirements than purely my area of expertise.”

Interviewee 6 described the framework as “the most comprehensive that I have seen to date” and stated that “All key aspects including governance structures have been well documented and their roles explained.”

Respondent 1: “...it will add a lot of value to the care and maintenance plans of companies.”

Respondent 2: “This is a comprehensive list of issues to be considered by a Board of directors.”

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

In Chapter 1, “Nature and scope of the study”, various challenges facing the South African mining industry were identified. The researcher argued the increasing possibility of mines being placed on care and maintenance. Since this does not involve “a normal, day-to-day business activity”, the process of care and maintenance increases the risk for mining companies and directors. No evidence could be found of prior research that constructed a corporate governance framework for directors of South African mining companies covering care and maintenance. The present research therefore adds to the body of knowledge and makes a meaningful contribution for directors and executive management teams of mining companies in this regard.

A literature review was conducted in Chapter 2, “Literature review”. This review included international guidance on the topic. The objectives were to identify the core components of corporate governance, applicable legislation, and best practice that inform the process of placing a mine on care and maintenance.

The research design explained in Chapter 1, “Nature and scope of the study”, was expanded in Chapter 3, “Research methodology”. Summarised information was provided of the individuals who contributed data to the current study. The manner was explained according to which ethical considerations were dealt with. This particularly entailed protecting the identities of the individuals who participated in the research and the companies involved. ATLAS.ti was used to code “discrete units of meaning” and “key concepts”.

The main focus of Chapter 4, “Empirical study” was to provide answers for the following three secondary research questions through discussion and analyses.

Secondary research question 1: What are the objectives, from a governance perspective, of a company when placing a mine on care and maintenance?

Secondary research question 2: What are the main risks faced by a company when placing a mine on care and maintenance?

Secondary research question 3: What are the ethical matters that should be considered when placing a mine on care and maintenance?

A framework, to facilitate corporate governance and answer the primary research question, was developed and validated in Chapter 5, “Corporate governance framework”. The question was: “What should a corporate governance framework consist of in order for directors of South

African mining companies to satisfactorily demonstrate the discharge of their fiduciary duties of skill, care and diligence when placing a mine on care and maintenance?" The framework was contextualised by analysing data that were gathered during the semi-structured interviews and literature review.

6.2 Research assessment

The success of the research is determined by the achievement of the primary and secondary objectives identified in Chapter 1, "Nature and scope of the study". Refer 1.3."Research objectives".

6.2.1 Primary research objective

The primary objective of the present research was to construct a corporate governance framework incorporating principles and ideas, helping directors of South African mining companies to demonstrate the satisfactorily discharge of their fiduciary duties of skill, care and diligence, when placing a mine on care and maintenance.

The primary objective was achieved through secondary objectives and a specific, primary research question, as explained in 6.2.2, "Secondary research objectives" and 6.3, "Primary research question" below.

6.2.2 Secondary research objectives

In order to address the primary objective, the following secondary objectives were analysed in detail:

- Identify the objectives, from a governance perspective, that companies need to achieve when mines are placed on care and maintenance.

Assessment: *The governance objectives of care and maintenance was discussed and analysed in 4.2, "Objectives of a company from a governance perspective when placing a mine on care and maintenance". The results were incorporated in 5.2.1, "General objectives" of the corporate governance framework that is presented in the previous chapter.*

- Understand the main risks that companies need to be aware of when mines are placed on care and maintenance.

Assessment: *The main risks relating to care and maintenance, were discussed and analysed in 4.3, "Main risks a company faces when placing a mine under care and maintenance". The identified risks and recommended governance measures to*

manage such risks were included in the corporate governance framework in 5.2.2, “Risk management” of the previous chapter.

- Determine whether there are ethical matters requiring consideration and what these are when mines are placed on care and maintenance.

Assessment: *Ethical considerations were discussed and analysed in 4.4, “Ethical considerations” above. These matters were included in the corporate governance framework and are explained in 5.2.9, “Ethical considerations”.*

- To provide recommendations for further study.

Assessment: *Recommendations for further study are discussed in 6.4, “Recommendations for future research”, below.*

Secondary research questions were designed to facilitate achieving the first three secondary research objectives. These questions, and summary conclusions of their answers, are presented in Table 6-1 below.

Table 6-1: Answers to the secondary research questions

Secondary research question	Answer
1. What are the objectives, from a governance perspective, of a company when placing a mine on care and maintenance?	<ul style="list-style-type: none"> • regulatory compliance; • security of tenure; • value preservation and retaining optionality; • mitigating the negative impacts on stakeholders and the environment.
2. What are the main risks faced by a company when placing a mine on care and maintenance?	<ul style="list-style-type: none"> • lack of funding; • time delays; • loss of mining rights; • Government intervention; • call-up of financial guarantees; • theft and illegal mining; • non-compliance with laws and regulations; • loss of knowledge, skills and expertise; • inadequate communication;

Table 6.1: Answers to the secondary research questions (continued)

Secondary research question	Answer
What are the main risks faced by a company when placing a mine on care and maintenance?	<ul style="list-style-type: none"> • negative impacts on employees' wellbeing.
3. What ethical matters that should be considered when placing a mine on care and maintenance?	<ul style="list-style-type: none"> • care and maintenance not to be used as an excuse to avoid commencing with mine closure; • fair conduct; • reputational risks relating to perceptions of good corporate citizenship; • transparent and full disclosure; • employee assistance regarding alternative employment or redeployment; • adherence to existing retrenchment policies and recognised wage agreements; • selection criteria of employees identified for retrenchment; • retrenchment process not used to terminate services of "problem" or underperforming employees; • introduction of a minimum retrenchment amount; • use of voluntary retrenchment packages; • skills training or cash settlement in lieu of training; • counselling programs; • primary health care; • writing-off employee loans;

Table 6.1: Answers to the secondary research questions (continued)

Secondary research question	Answer
What ethical matters that should be considered when placing a mine on care and maintenance?	<ul style="list-style-type: none"> • allocating new business to contractors and suppliers facing potential bankruptcy.

6.3 Primary research question

What should a corporate governance framework consist of in order for directors of South African mining companies to satisfactorily demonstrate the discharge of their fiduciary duties of skill, care and diligence when placing a mine on care and maintenance?

A corporate governance framework was contextualised from information obtained during the literature review (Chapter 2, “Literature review”), interpretation of data gathered during the semi-structured interviews through discussion and analyses (Chapters 4 and 5). Individuals who participated in the semi-structured interviews were experienced senior managers or directors of mining companies or professional services firms that provide advice to mining companies. The interviewees were all experienced in and knowledgeable about matters related to care and maintenance. Data collected, therefore, presented valuable insights into real-life experience. The researcher identified similarities in and discrepancies between the literature review and the gathered qualitative data. These were mainly differences in legal experts’ opinions about the application of Section 52 of the MPRDA and Section 189 or 189A of the LRA. Identified discrepancies were investigated further.

The above-mentioned discussion helped the researcher identify matters for inclusion in a corporate governance framework relevant to care and maintenance. **This led to the attainment of the primary research objective**, as stated in 6.2.1, “Primary research objective”, above.

The proposed corporate governance framework will provide support to directors and management teams of South African mining companies to ensure appropriate controls that facilitate the following prerequisites:

- balanced exercise of power;
- legal and regulatory compliance;
- management of risks; and

- ethical decisions that also consider obligations for responsible corporate citizenship.

The research outcomes of the present study entailed the following components of a care and maintenance corporate governance framework:

- the overall objectives,
- risks that must be identified and mitigated; and
- ethical considerations that must be adhered to.

At the heart of this framework is requirements for a care and maintenance plan, which will help directors of an organisation understand motivations for care and maintenance, how risks were identified, and how they will be managed. The plan will also give insight into regulatory compliance.

The framework identified various key aspects of relevant South African legislation, codes and standards of best practice that must be considered. These include the Mineral and Petroleum Resources Development Act, Labour Relations Act, Mine Health and Safety Act, Companies Act, National Environmental Management Act, accounting standards and JSE listing requirements.

The framework alerts directors to determine the status of their compliance to the approved social and labour plan and ensure effective functioning of the Future forum. Financial considerations, including liquidity, solvency and going concern determinations are also explained. The framework also advises directors to familiarise themselves with the current status of the company's environmental liabilities and whether financial provisions is adequate in his regard.

Established committees, comprising persons with the relevant skills and experience form the backbone of the framework. The directors are advised to obtain assurance that due processes were followed from the following committees and functional units: Audit committee, Risk committee, Remuneration committee, Disclosure committee, Safety, health and environmental committee and Social and ethics committee. It is also recommended that the Board ascertain the level of internal audit's involvement in the process.

A recommendation identified from the semi-structured interviews is that a task team should be introduced to manage care and maintenance. This task team must have clear terms of reference. Such a body will facilitate the discussion of issues with the executive team, improve decision-making and efficient process to secure mandates.

The corporate governance framework was provided to the interviewees who contributed data, as well as two other individuals with relevant experience in the field. Confirmation was

obtained that the framework was considered relevant to guide corporate governance for care and maintenance. Interviewees and respondents identified no fatal flaws in the proposed framework.

6.4 Recommendations for future research

A clear limitation of the present study's scope is that the developed framework applies only to South African mining companies. Although comparisons were drawn with international guidance, similar research would be recommended to compare this framework to international versions.

The case studies utilised in the present research, represented gold, uranium, platinum, chrome and coal mines. The researcher did not ascertain whether there are specific regulations that guide the mining of different commodities. It is, thus, recommended that further research should be conducted to refine the proposed framework by including a broader spectrum of minerals.

The corporate governance framework developed for care and maintenance, captures various principles and ideas. Validity of these items was tested by presenting a draft copy to the participants who provided data, and two other individuals with relevant experience. All the responses confirmed the matters included in the framework. No information is, however, available to assess the importance of the various items in the framework. It is recommended that such assessment should be done through further research, which can be conducted quantitatively.

The final sample selection purposefully focused on individuals with actual experience and a detailed understanding of care and maintenance. These persons all worked for mining companies or companies providing professional services to the mining industry. Government intervention was highlighted as a risk. The views on which the corporate governance framework were formulated are, therefore, biased to reflect those of the mining industry. Further research is recommended whereby Government departments are consulted as well. Recommended departments would be: Department of Labour, Department of Mineral Resources and Department of Environmental Affairs.

Care and maintenance may be the first step towards mine closure if the external or internal factors leading to care and maintenance do not reverse. Further research is recommended to determine if this framework can be relied on for guidance if actions to commence with mine closure are initiated.

As indicated in 4.6, “Summary” above, only one of the six interviewees referred to the King codes of corporate governance. Further research is therefore recommended to critically assess whether senior managers and directors in the mining industry understand the importance of the various King reports on corporate governance.

King IV’s assertion that the role of Internal audit has evolved in recent years to move beyond compliance and now provide advice and insight into the activities of an organisation was identified in 2.2.1.2.3, “Committees” of the literature review. None of the interviewees included any reference to the Internal audit function in their responses. Further research is recommended regarding Internal audit’s role and function in matters beyond compliance in the South African mining industry.

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ANNEXURE A: ETHICAL CLEARANCE LETTER

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15 June 2017

ETHICAL CLEARANCE

This letter serves to confirm that the research project of **BEZUIDENHOUT, W** has undergone ethical review. The proposal was presented at a Faculty Research Meeting and accepted. The Faculty Research Meeting assigned the project number **EMSPBS16/06/03-01/44**. This acceptance deems the proposed research as being of minimal risk, granted that all requirements of anonymity, confidentiality and informed consent are met. This letter should form part of your dissertation manuscript submitted for examination purposes.

Yours sincerely

A handwritten signature in black ink, appearing to read 'CJ Botha'.

Prof CJ Botha

Manager: Research - NWU Potchefstroom Business School

ANNEXURE B: DRAFT CORPORATE GOVERNANCE FRAMEWORK

The draft version of the corporate governance framework used for validation purposes is presented below:

CHAPTER 5: CORPORATE GOVERNANCE FRAMEWORK

5.1 Introduction

In this chapter, the aim is to formulate a framework to facilitate corporate governance. The following information is used: that presented in the literature review (Chapter 2) as well as data gathered during the semi-structured interviews and contextualised to answer Research questions 1 to 3 (Chapter 4). This framework presents the research findings in response to the primary research question:

What should a corporate governance framework consist of in order for directors of South African mining companies to satisfactorily demonstrate the discharge of their fiduciary duties of skill, care and diligence when placing a mine on care and maintenance?

As indicated previously (see 4.5, "Corporate governance framework"), the data collected from the interviewees in response to Research question 4, did not conclude the research. The findings for Research questions 1 – 3 are essential components of the framework, which are developed as the research outcome of the present study.

5.2 Corporate governance framework

The research framework is presented under the following headings:

- General objectives
- Risk management
- Governance committees
- Regulatory compliance
- Mine closure considerations
- Care and maintenance plan
- Ethical considerations
- Financial considerations
- Decision-taking authority

Guidance is given in various ways. This include general statements, discussions, comments, direct references to legislation and the listing of questions that directors should ask.

5.2.1 General objectives

The general objective is providing guidance to directors and management teams of South African mining companies. This is done through a governance framework that can serve as reference when a mine is placed on care and maintenance.

As asserted in the previous chapter (4.2, "Objectives of a company from a governance perspective when placing a mine on care and maintenance"), the main objectives of the proposed framework are:

- regulatory compliance;
- security of tenure;
- value preservation and retaining optionality;
- mitigating the negative impacts on stakeholders and the environment.

The framework must be built on the overriding values of transparency and full disclosure, regular communication and fair behaviour. Care and maintenance should not be used as an excuse to avoid commencing mine closure.

5.2.2 Risk management

Risk management was identified as a core component of corporate governance (refer 1.3, "Specific research questions and research methods"). It was explained that a proposed research framework must provide support to directors, ensuring the appropriate controls remain in place to manage risks.

The research findings to research question 2, "What are the main risks faced by a company when placing a mine on care and maintenance?" was discussed in Chapter 4.3. These research outcomes identified the following main risks:

- The ability of the company to fund its care and maintenance activities and honour its ongoing debt commitments.
- Time delays resulting from government intervention, regulatory consultation process, available resources to manage large-scale retrenchment processes and failure to adhere to legislated procedure.
- Mining rights may be revoked due to a company's failure to comply with the approved mine works program, social and labour plan commitments or approved environmental management plan.
- Government attempts to influence the care and maintenance decision as Government is under pressure due to all of the recent announcements of job losses in the mining industry.
- Government may decide to call up all guarantees provided in terms of rehabilitation, particularly in single-operation companies.
- An increase in instances of theft and illegal mining.
- Non-compliance with laws and regulations, including:
 - Companies Act;
 - Mine Health and Safety Act;
 - Environmental laws and regulations;
 - Codes and best practices;
 - Mineral and Petroleum Resources Development Act;
 - Labour Relations Act;
 - JSE listing requirements.
- Loss of personnel with the required knowledge, skills and expertise;
- Inadequate communication, which may not be perceived to be open and transparent, with internal and external stakeholders.
- Negative impacts on employee' wellbeing as employees become concerned and conflict within the organisation increases.

Directors should, therefore, be placed in a position where they are satisfied that due processes were followed to identify significant risks. Furthermore, they should attest that appropriate mitigating and monitoring controls have been developed to manage these risks and that they are informed of the nature of these risks.

The question arises: Have risk assessments been conducted and control procedures and strategies developed to mitigate the identified risks? In answer to this question, the following aspects should be considered:

- risk-based environmental audits (Blackiston, *et al.*, 2016, Interviewees 2, 3 and 6; GNR 1147);
- activities undertaken during care and maintenance (Interviewees 2, 3) and its impact on health and safety of workers;
- changes to emergency response plans (Blackiston, *et al.*, 2016; interviewee 2; GNR 1147);
- identification of safety hazards (Blackiston, *et al.*, 2016; Interviewee 2);
- impact of critical skills and knowledge that may be lost (Interviewees 2, 3 and 6);
- government intervention to influence the care and maintenance decision (Interviewees 1 and 3);
- preventing theft and illegal mining as (refer 4.3.4, "Theft and Illegal mining") (Blackiston, *et al.*, 2016; Interviewees 1 to 5);
- the company's ability to keep on funding the costs of care and maintenance, solvency, liquidity, continue as a going concern and default of debt commitment (refer 4.3.1, "Funding");
- adhering to the correct legislative procedures in notifying:
 - employees (Beech, 2017, Blackiston, *et al.*, 2016; Venter, 2014; Interviewees 1 and 4). (Also refer 2.1.2, "Labour Relations Act (LRA));
 - regulatory authorities (Beech, 2017; Interviewees 1 and 4). (Also refer 2.1.4.1, "Section 52 Notice");
 - investors/financiers (refer 2.4.2, "JSE Listing Requirements"; 2.5.1.4, "Disclosure considerations"; Blackiston, *et al.*, 2016 and Interviewees 3 and 5);
- security of tenure (discussed in more detail in 5.2.4.4 below);
- the loss, copying or theft of intellectual property and confidential information (Blackiston, *et al.*, 2016).

It is required that the directors should be comfortable about the following aspects:

- Risk assessments were conducted by a team with the right mixture of skills, experience, and technical knowledge (Interviewee 2).
- Consultation with external experts where internal expertise may be lacking (Interviewees 5 and 6).
- The risk committee endorsed the findings and recommendations of the risk assessments (Interviewee 5).
- The level of internal audit involvement was adequate (see 5.2.3.2 below).

5.2.3 Governance committees

Various committees were identified that could provide support to the directors to demonstrate the effective discharge of its duties (refer 2.1.1.2.2, "Committees").

5.2.3.1 Audit committee

Based on the literature review (refer 2.1.1.2.2, "Committees") and data collected during the semi-structured interviews (Interviewee 5), the audit committee has two important responsibilities when dealing with matters related to care and maintenance:

- gatekeeper to ensure proper governance;
- ensuring the impact of care and maintenance is disclosed correctly in the company's financial reports and press releases.

The board of directors must seek confirmation from the audit committee that due process was followed and that the risk committee has endorsed management's recommendations (refer 2.1.1.2.2, "Committees").

The board of directors should also ascertain the level of internal audit's involvement (refer 2.1.1.2.2, "Committees" and 5.2.3.2 below).

Regarding financial disclosure, the board must seek assurance from the audit committee that the financial disclosure requirements as discussed in 5.2.10.2 below were adequately addressed and considered.

5.2.3.2 Internal audit function

Directors should determine, through the audit committee, whether they are comfortable with the level of internal audit's involvement in the care and maintenance process. As was explained in 2.1.1.2.3, "Committees", the role of internal audit has evolved to move beyond compliance to include providing advice and insight regarding the activities of an organisation.

This framework recommends that internal audit's skills and expertise be used to assess and report on the adequacy and completeness of the care and maintenance plan developed (refer 5.2.8 below).

5.2.3.3 Risk committee

If a risk committee has been established, the directors should enquire about the committee's level of involvement (refer 2.1.1.2.3, "Committees") and request to be briefed on the findings of these reviews.

5.2.3.4 Remuneration committee

The present research did not focus on the specific matters on which the remuneration committee must be consulted and advised. From the literature review and data collected during the interviews, the researcher identified the following matters that may require inputs or recommendations from the remuneration committee:

- voluntary retrenchment packages (Interviewees 1, 2 and 4);
- retrenchment packages not governed by collective wage agreements (interviewee 4);
- other benefits that can be offered such as waiving debts that are due to the company (Interviewee 4);
- tax advice and tax directives (Blackiston, *et al*, 2016: 4).

5.2.3.5 Disclosure committee

If the company has an established disclosure committee (refer 2.1.1.2.3, "Committees") the board of directors must obtain confirmation that the planned press releases and JSE SENS releases (if applicable), has been approved by this committee. There should also be effective interaction between the disclosure committee and audit committee (refer 5.2.3.1 above).

5.2.3.6 Safety, health and environmental committee

Compliance to the Mine Health and Safety Act (MHSA) and environmental laws and regulations are strong recurring themes in both the objectives of this framework (refer 5.2.1, above) and the risks of when a mine is placed on care and maintenance (see 4.3.6, "Non-compliance with laws and regulations").

This framework recommends that the Board of directors obtain comfort from the Safety, health and environment committee regarding their input into and endorsement of:

- risk assessments conducted as recommended in 5.2.2 above;
- care and maintenance plan (5.2.8 below).

5.2.3.7 Care and maintenance-task-team

For Interviewee 2 the establishing of a decision-making committee benefits the period leading up to the implementation of care and maintenance. Interviewee 4 proposed a function similar to a decision-making committee by establishing support structures. These structures are credited with facilitating discussion of issues with the executive team, decision-making, and for providing the required mandates (refer 4.5.1., "Funding").

For the purpose of the proposed framework, the researcher chose the term "care and maintenance-task-team" as a collective reference to committees identified by interviewee's 2 and 4.

This framework recommends the implementation of a care and maintenance-task-team which, should be provided with clear terms of reference. The terms of reference should stipulate the following aspects: decision-making powers delegated to the committee, to whom the committee reports, and the process to secure mandates on matters outside of or exceeding its delegated authority.

5.2.3.8 Social and ethics committee

None of the Interviewees included any reference to the role and function of established Social and ethics committees in the care and maintenance process. The establishment of such committees is a recommendation of King IV (see 2.1.1.2.3, "Committees"). As indicated in 4.4.1.6, "Fair conduct", two of the companies represented by the Interviewees had established Social and ethics committees.

This framework recommends that directors be appraised of social and ethical considerations. Further details are provided in 5.2.9 below.

5.2.4 Regulatory compliance

As mentioned in 4.2.1 ("Regulatory compliance"), five of the six participants identified legal and regulatory compliance as an objective of care and maintenance. Compliance to laws and regulations is also a stated objective of corporate governance (refer 1.3., "Specific research questions and research methods").

5.2.4.1 Companies Act

5.2.4.1.1 Business rescue considerations

As explained in section 4.3.1 ("Funding"), being on care and maintenance is expensive. An entity considering placing itself on care and maintenance will likely already be suffering a measure of

financial strain. As identified by Blackiston, *et al.* (2016), the risk of the company being unable to honour its debt commitments (long term and creditors) increases.

Directors, therefore, must fully appreciate and understand the costs associated with being on care and maintenance, debt commitments and what sources will help fund these costs and obligations.

Specific consideration should be given to whether or not the company can be classified as financially distressed, or will likely become financially distressed, by failing any of the two tests referred to in 2.1.1.1, "Companies Act". Failure or likely failure, would require directors to consider whether or not business rescue proceedings should be initiated (Interviewee 1, South Africa, 2011).

Should the directors decide against starting business-rescue proceedings, they must send written notices to all the company's creditors, stating the reasons why such proceedings will not be initiated (Interviewee 1, South Africa, 2011).

This framework recommends that directors formally assess the possible impact of care and maintenance on the business. They must also retain evidence of their decisions and recommendations in this regard.

5.2.4.2 Labour Relations Act

The importance to comply with the LRA was identified by interviewees 1 and 4. The proposed framework recommends that directors must be satisfied that the various processes and measures they implemented will ensure compliance to the LRA (Interviewee 1). This should include confirmation that any notices issued in terms of Section 189 or Section 189A of the LRA, comply with the requirements of the Act regarding the content and manner in which these notices will be released (refer 2.1.2).

Particular care should be taken to ensure the following:

- A consultative approach must be followed. As was highlighted in 2.1.2, "Labour Relations Act (LRA)" and confirmed by Interviewee 4, forced retrenchments should not be enacted prior to the completion of the consultation required by law (refer 4.3.6.6, "Non-compliance to the LRA").
- Due care and consideration must be given to identify all of the employees or positions that may potentially be impacted, before providing these affected employees with consultation notices (Interviewee 4).
- Sufficient funds must be made available to pay retrenchment packages (Interviewee 1).

In addition, a system must be implemented whereby the board of directors receive regular feedback on the progress during the consultation process. This feedback should include details of alternative measures recommended to prevent job losses and the outcomes of management's investigation of these measures (interviewee 4).

5.2.4.3 Mine Health and Safety Act (MHSA)

Interviewees 1, 2 and 3 included specific references to the MHSA in their responses.

Based on the outcomes of the risk assessments described in 5.2.2 above, directors should request or be provided with information that will help them ascertain whether due consideration was given to the following aspects:

- legal appointments (Interviewees 1, 2 and 3) as described in 2.1.3, "Mine Health and Safety Act (MHSA)" and 4.3.6.2, "Non-compliance to the MHSA";
- preventative and monitoring measures to ensure the safety of workers (Blackiston, *et al.* (2016), interviewees 1, 2 and 3);
- continued adequate staffing of the mine with due regard to health and safety (refer 2.1.3, "Mine Health and Safety Act (MHSA)");
- training should employees' role and function change (Blackiston, *et al.* (2016));

Usually the entity has an established Safety, health and environment committee (discussed in 5.2.3.6 above). In such a case, the directors must get confirmation that the committee was consulted and that their observations and recommendations were considered in the risk assessments conducted and care and maintenance plans compiled.

5.2.4.4 Mineral and Petroleum Resources Development Act (MPRDA)

The relevant components of the governance framework and its application to the MPRDA are discussed under the following headings:

- Section 52 notices
- Mine works program
- Social and labour plan

Governance considerations of the approved environmental management plan is discussed in 5.2.4.5 below.

5.2.4.4.1 Section 52 notices

During the data collection legal experts in the industry differed in opinion about the inter-relationship of Section 52 of the MPRDA and Section 189 of the LRA. The difference in opinion confirms Beech's (2017) view that the inter-relationship between these two sections of legislation is "one of the most intensely debated aspects in relation to downscaling of operations".

The ruling by Judge van Niekerk (*National Union of Mine Workers v Anglo American Platinum Ltd and Others*, 2013: 16) clarified the uncertainty in the industry about the timing of the Section 52(1)(b) and Section 189 notices. Judge van Niekerk's ruling is interpreted as confirming that there is no procedural requirement to issue Section 52(1)(b) before issuing Section 189 notices.

This framework recommends that directors familiarise themselves with the status of:

- Section 52(1)(a) notice: ratio of profit against revenue will be less than 6% over a continuous period of 6 months.
- Section 52(1)(b) notice: any mining operation will be scaled down or terminated, which may result in 10% of the workforce or more than 500 employees (whichever is less) retrenched within a 12-month period.

The researcher pointed out in 4.3.6.5, "Non-compliance to the MPRDA" that legislation is not prescriptive in terms of the required content of Section 52 notices. Nor did the interviewees provide guidance about the specific content of such notices. The researcher inferred that the following

information should be included to explain the reasons and impact of the care and maintenance decision:

- explanation of the prevailing economic conditions; and
- socio-economic and labour implications;

5.2.4.4.2 Mine works program

Going onto care and maintenance will lead to non-compliance to the MPRDA. The reason is that the mine will fail to conduct its activities in terms of its approved mine works programme (Interviewee 1). The mine can be deemed as failing to mine the mineral resource “optimally”, as described in the literature review (2.1.4.2, “Optimal mining of mineral resources”). In extreme circumstances this may lead to a loss of the mining right (Interviewees 1 and 3).

The introduction of GNR 1147 made it evident that a holder of a mining right is prohibited to cease mining and place itself under care and maintenance without the approval of the Minister of Mineral Resources (South Africa, 2015). GNR 1147 also requires a care and maintenance plan to be submitted for approval, which is considered as an amendment to the mine works program.

From a governance perspective, directors should ascertain the expected extend of non-compliance to the mine works programme (Interviewee 1). They should further ensure that responsibility is delegated to persons with the required experience and skills. These persons should be tasked to review and approve the amendments to the mine works programme as well as care and maintenance plan that will be submitted for approval to the Department of Mineral Resources (see 5.2.8 below).

5.2.4.4.3 Social and labour plan

Interviewee 1 explained that care and maintenance does not relieve an entity from the commitments of its social and labour plan. Moreover, the Department of Mineral Resources grandfatheres all instances of non-compliance to previous social and labour plans in future social and labour plans. An entity, therefore, do not get rid of its non-compliance.

According to the proposed governance framework, directors are advised to obtain information about the company’s social and labour plans, explaining (Interviewee 1):

- level of non-compliance;
- impact of care and maintenance on the company’s ability to meet its social and labour plan obligations; and
- funds set aside to manage downscaling and retrenchments.

Particular focus should be placed on information about the effective functioning of the Future forum (Interviewees 1, 2 and 4). This should include suggestions made by the forum on:

- alternatives to avoid job losses (Interviewees 1 and 4);
- cost containment (Interviewee 4);
- productivity improvement (Interviewee 4); and
- mitigation of the impact on communities (Interviewees 1 and 4).

5.2.4.5 Environmental laws and regulations

A mine's impact on the environment does not stop when mining activities cease (Interviewee 6). This impact must still be monitored, mitigated and reported on. Five of the six interviewees identified environmental related matters in their responses. From an international perspective, (Blackiston, et al. (2016) recommends that risk-based environmental audits be undertaken and the scope and frequency of monitoring and reporting be determined.

A mine must keep on complying with its approved environmental management plan as well as any other environmental licenses and permits, as was explained in the literature review (see 2.2, "Mine closure and rehabilitation") and through the data collected (refer 4.2.1, "Regulatory compliance" and 4.3.6.3, "Non-compliance to environmental laws and regulations").

From a governance perspective, directors would have to apply professional judgement when assessing how well management has addressed the outcomes of the environmental audit, as required by GNR 1147. Inputs from the Safety, health and environment committee (refer 5.2.3.6), Risk committee (see 5.2.3.3), Audit committee (see 5.2.3.1) and Internal audit (refer 5.2.3.2) would assist directors in formulating an informed opinion.

If such an audit has not been done, the board must issue a directive urging management to remedy the non-compliance.

A particular item that should be considered is the potential impact on neighbouring mining operations. These entities may rely on the mine under care and maintenance to continue pumping water, thereby avoiding their underground workings from flooding (Interviewees 2 and 3).

5.2.5 JSE reporting requirements

The proposed framework recommends that due consideration be given to notifying investors through SENS announcements and press releases if a company is listed on the JSE (refer 4.3.6.7, "Non-compliance to the JSE listing requirements"). The audit and disclosure committees should guide the directors in this regard.

5.2.6 Voluntary codes and practices

The proposed framework includes confirmation to be provided to the directors that the company will continue to comply with voluntary codes and best practices, such as those prescribed by the International Council on Mining and Metals, if adopted (Interviewee 6).

This confirmation would most likely be required from the Safety, health and environmental committee.

5.2.7 Mine closure considerations

This framework recommends directors to be provided with the following:

- Details of the overall strategy that will allow directors to assess whether the strategy is to preserve value, or if recommendation to place the mine on care and maintenance is the first step towards mine closure (Interviewee 3). This should include a detailed motivation why care and maintenance is recommended and not full closure (Interviewee 6).

- Updated calculations of the costs to rehabilitate the mining areas placed on care and maintenance (Interviewees 1 and 6). These calculations should include the costs to manage latent and residual pollution (Interviewee 6).
- Calculations whether the provided financial guarantees are sufficient to fund the rehabilitation costs should the mine commence with closure (Interviewees 1 and 6).
- Projections to determine if future revenues could cover the cost of remedial activities, should operations resume under more favourable conditions (Interviewee 6).
- The time frame of the period under care and maintenance before closure becomes a foregone conclusion (Interviewee 4).

5.2.8 Care and maintenance plan

The introduction of GNR 1147 in 2015, formalised the need for a detailed care and maintenance plan as part of the process to apply for consent from the Minister of Mineral Resources to implement care and maintenance (refer 2.2, "Mine closure and rehabilitation").

The literature review identified the following items that should be form part of a care and maintenance plan and inclusion of these items are recommended as part of this framework:

- details of the people who compiled the plan, including their experience;
- the person who will be tasked with implementation;
- implementation timelines;
- the reasons resulting in approval to go onto care and maintenance;
- criteria that would result in operations commencing again;
- the expected duration before operations are expected to restart;
- confirmation that an environmental audit was undertaken and the its results provided, including any identified residual and latent impacts;
- measures planned to mitigate environmental risks;
- the methodologies, control systems and remedial strategies planned for progressive rehabilitation and monitoring of closure activities;
- planned actions to preserve idle infrastructure and equipment;
- details of the emergency response plan during care and maintenance;
- details of the expected costs to incur;
- final and future land use envisaged for the affected areas on plans that are drawn to scale;
- information on legal obligations and notifications;
- information about the consultation meetings with interested and affected parties, including notices of meetings, attendance registers, meeting minutes and comments received;
- training that will be provided to the personnel who will conduct care and maintenance activities; and
- details of the health and safety management plan.

This framework supports the ongoing monitoring of the care and maintenance plan as recommended by Interviewee 1 (see 4.5.3, "What should be included in a corporate governance framework that will allow directors of South African companies to satisfactory demonstrate the discharge of their fiduciary duties of skill, care and diligence when placing a mine on care and maintenance?"). Confirmation required includes details on the following:

- Whether monitoring activities are still being complied with?

- How frequently reviews of the care and maintenance plan have been conducted and whether these identified any needs to amend the plan?
- Whether any safety, health or environmental incidents have occurred which indicate the need to update the plan.

5.2.9 Ethical considerations

The literature review (refer 2.1.1.2.2, "Ethics and responsible corporate citizenship"), supported by the research data gathered (see 3.1.3, "Ethical considerations") highlighted the potential reputational risks for companies relating to good-corporate-citizenship perceptions stemming from care and maintenance.

Research question 3, "Are there ethical matters that should be considered when placing a mine on care and maintenance?", was designed to focus specifically on ethical considerations and issues of care and maintenance.

The effective functioning of the Social and ethics committee (refer 5.2.3.8 above) should play an integral part in providing the directors with the required assurance and/or advice on the appropriate handling of the following:

- Transparent and full disclosure to regulating authorities, including the current status of compliance and non-compliance regarding the mine works program, social and labour plan and environmental management plan (Interviewees 1 and 2);
- Assistance provided to employees to find alternative employment. Assistance includes contacting other mines or redeployment to other operations where possible (Interviewees 2, 3 and 4);
- Strict adherence to existing retrenchment policies should be enforced (Interviewee 2) and recognized wage agreements (Interviewee 4). This include matters related to the selection of employees identified for retrenchment and the basis on which retrenchment packages are calculated. The retrenchment process should also not be used as an opportunity to get rid of problem or underperforming employees (Interviewee 4).
- Consideration should be given to introduce a minimum amount payable as part of the consultation process. Such a minimum amount will be for the benefit of employees who do not have the benefit of having been in the company's service for a long period (Interviewee 4);
- The use of voluntary retrenchment packages as a mechanism to reduce the impact of force retrenchments (Interviewee 2). Persons who have a higher probability of finding alternative employment, or who have other plans to replace their lost income, may elect to accept voluntary retrenchment packages.
- Portable skills training (Interviewees 2, 3 and 4) or cash settlement in lieu of training (Interviewee 3);
- Counselling programmes for all employees (affected or unaffected) as highlighted by Interviewees 3 and 4;
- Continuing to make primary health care available to retrenched employees (Interviewee 4);
- Waiving the requirement to repay any loans still owing to the company (Interviewee 4);
- Linked to 5.2.7 above, Interviewees 5 and 6 emphasised the moral obligation that directors have to ensure that care and maintenance is not used as an excuse to commence with mine closure;

- If required, directors are required to have courage to take difficult decisions relating to care and maintenance to ensure the long-term sustainability of the organisation (Interviewees 3 and 5) whilst balancing the needs of shareholders, financiers, employees, communities, contractors and all other stakeholders.
- Conduct should be fair. This includes conduct towards employees (Interviewees 3, 4 and 5), contractors and suppliers (Interviewee 3 and 5).
- Alternative options available to assist contractors and suppliers if it becomes evident that the decision to place the mine on care and maintenance will lead to the supplier going out of business.

5.2.10 Financial considerations

Information pertaining to financial considerations to be presented to the board of directors recommended by this framework include:

5.2.10.1 Budget for care and maintenance

A budget for care and maintenance which includes all of the activities to be undertaken during care and maintenance (Interviewee 3). This budget should be aligned with the care and maintenance plan. Some specific items identified in 4.3.1, "Funding" include:

- voluntary and retrenchment separation packages;
- compulsory exit medical costs;
- ongoing primary health care costs;
- portable skills training;
- employee counselling and assistance programs;
- maintenance of equipment and infrastructure;
- regulatory monitoring and reporting costs, including the costs required to conduct safety inspections;
- ongoing employee costs, which should include all of the legal appointments required in terms of the MHSA, primary health care and training;
- electricity costs, with water management and ventilation as the two biggest cost drivers;
- social and labour plan commitments;
- security, with a particular focus on measures to prevent illegal mining;
- cancellation of supplier agreements;
- ongoing and concurrent rehabilitation. Also refer to 5.2.7 above.
- Trade-off studies comparing the cost of being on care and maintenance against the cost of continuing to operate (Interviewee 3);
- Management actions considered to reduce the cost of care and maintenance (interviewee 3).
- Sources of funding to finance debt commitments and ongoing care and maintenance costs (Blackiston, *et al.*, 2016);
- Interviewees 1 and 5 indicated that directors should also be presented with information to help them gain an understanding of the expected duration of care and maintenance and required resources and associated costs to restart operations.

5.2.10.2 Financial disclosure

The literature review and data collected identified the following accounting statements and standards that may need to be considered from a financial reporting perspective.

- IAS 36 – Impairment of assets (Interviewees 1, 3 and 5; 2.4.1, “IAS 36 Impairment of assets”)
- IFRS 5 – Non-current assets held for sale and discontinued operations (Interviewee 5);
- IAS 37 – Provisions, contingent liabilities and contingent assets (Interviewees 5 and 6);
- IFRC 5 – Rights to interests arising from decommissioning, restoration and environmental funds (Interviewee 5);
- IFRS 8 – Operating segments (Interviewee 5).

As already mentioned in 5.2.3.1, this framework recommends that the board of directors seek assurance from the audit committee that these accounting statements and standards were adequately addressed and considered.

5.2.11 Decision-taking authority

None of the matters requiring the board of directors’ consideration related to its decision-taking authority identified by Blackiston, *et al.*, (2016) were identified by the Interviewees (see 14.5.4, “International perspective”).

This framework recommends that clarification be obtained on the following:

- Which company’s board should be tasked with taking the decisions if the mine being placed on care and maintenance is owned by a subsidiary company;
- Whether consent is required from outside shareholders, joint venture partners and Black Economic Empowerment partners.