

Application for a Mining Right and Associated Environmental Authorisation and Waste Management License (WML) for the Proposed Mining of diamond, diamondiferous kimberlite, limestone, manganese, aggregate, sand, lead, and gold within the Administrative District of Mahikeng, North West Province - NW30/5/1/2/2/10274MR

Draft Scoping Report

DMPR Reference Number: NW30/5/1/2/2/10274MR

Report Prepared for


G and E Global Mining (Pty) Ltd



Report Prepared by



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<i>Title:</i>	<i>Draft Scoping Report for Application for a Mining Right and Associated Environmental Authorisation and Waste Management Licence (WML) for Proposed Mining of diamond, diamondiferous kimberlite, limestone, manganese, aggregate, sand, lead, and gold within the Administrative District of Mahikeng, North West Province - NW30/5/1/2/2/10274MR</i>
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Executive Summary

Introduction

G and E Global Mining (Pty) Ltd (G and E Global) applied for a Mining Right (MR) from the Department of Mineral and Petroleum Resources for the proposed Mining of Diamond, diamondiferous kimberlite, limestone, manganese, aggregate, sand, lead, and gold on Portions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13 and the Remaining Extent of the farm Colga 132 JO within the Administrative District of Mahikeng, North West Province - NW30/5/1/2/2/10274MR. The proposed mining project will cover an area of 3927 hectares and is located approximately 11.5 km southeast of Mahikeng in the Ngaka Modiri Molema District Municipality, North West Province of South Africa.

Exploration work and historical mining conducted on the proposed mining area led to the identification of diamond, diamondiferous kimberlite, limestone, manganese, aggregate, sand, lead, and gold ore deposits that are deemed feasible to mine. G and E Global is therefore applying for a MR in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 22 of 2002) (MPRDA) from the Department of Mineral and Petroleum Resources North West Province (DMPR) Regional Office for diamond, diamondiferous kimberlite, limestone, manganese, aggregate, sand, lead, and gold mining. Before the MR will be granted, G and E Global must also undertake an Environmental Authorisation (EA) and Waste Management Licence (WML) processes in terms of the National Environmental Management Act (Act No. 107 of 1998) (NEMA) and the National Environmental Management: Waste Act (Act No. 59 of 2008) (NEM: WA). Since the proposed mining project triggers activities listed in Listing Notice 1 and 2 of the NEMA, a full Environmental Impact Assessment (EIA) including scoping and impact assessment phases was required per the requirements of NEMA Government Notice Regulation (GNR) 982 (as amended by GNR325 of 7 April 2017 and 21 June 2021). The Department of Forestry, Fisheries and the Environment (DFFE) has identified the need to align environmental authorisations. It has promulgated a single environmental management system under NEMA whereby the DMPR has become the competent authority for the authorisation of mining-related projects under the NEMA Environmental Impact Assessment (EIA) Regulations. This will result in simultaneous decisions in terms of NEMA and other environmental management Acts. The competent authority for the EA/WML process is the DMPR.

Who is conducting the EIA?

G and E Global has appointed Ndi Geological Consulting Services (Pty) Ltd as the independent Environmental Assessment Practitioner (EAP) to conduct the MRA/EA/WML application process for the project.

The reports and documentation for the integrated EA/WML application process will be compiled and finalised for submission to the DMPR for the EA/WML in terms of the NEMA for consideration and decision-making. The DMPR will consult with other government authorities as required in terms of Section 24(K) of the NEMA.

Who will evaluate the EIA?

Before the proposed development can proceed, approval must be obtained from the regulatory authorities. The Scoping Report will be submitted to the DMPR for review. The competent authorities will then advise the project team on how the project should proceed for the impact assessment phase. The impact assessment phase will entail detailed specialist investigations, reporting and further stakeholder involvement. Only once a Final Environmental Impact Assessment and Environmental Management Programme (EIA/EMPr Report) has been submitted to DMPR can the Department decide whether the project should proceed.

Description of the Proposed Development

G and E Global Mining (Pty) Ltd (G and E Global) applied for a Mining Right (MR) from the Department of Mineral and Petroleum Resources for the proposed Mining of diamond, diamondiferous kimberlite, limestone, manganese, aggregate, sand, lead, and gold on Portions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 and the Remaining Extent of the farm Colga 132 JO within the Administrative District of Mahikeng, North West Province - NW30/5/1/2/2/10274MR. The proposed mining project will cover an area of 3927 hectares and is located approximately 11.5 km southeast of Mahikeng in the Ngaka Modiri Molema District Municipality, North West Province of South Africa.

The required infrastructure will include:

- Ablution facility*
- Access roads*
- Diesel storage*
- Fences*
- Office site*
- Plant site*
- Slimes dam*
- Vehicle parking area*

The mining right and EA/WML will be required for a period of fifteen (15) years.

Motivation for the Proposed Project

Minerals would not exist without mining and mineral processing activities, highlighting the importance of the mining industry in supporting economic growth and industrial development. The mining sector plays a critical role in supplying raw materials required for manufacturing, infrastructure development, energy production, and technological advancement, thereby contributing significantly to both local and global economies

For years, Mining Industry in South Africa has been a driving force behind South Africa's economy and continues to make a significant contribution to national economic development. The country's economy was historically built on gold and diamond mining, with gold previously accounting for more than a third of the country's exports. South Africa's diamond mining industry was recognised as one of the largest in the world in 2009.

Mining is expected to continue playing an important role in the economy, particularly through foreign exchange earnings, infrastructure development, and employment creation. The sector remains one of the primary sources of employment opportunities for unskilled and semi-skilled workers. According to the Minerals Council South Africa, the mining sector contributed approximately R351 billion to South Africa's Gross Domestic Product (GDP) in 2018. During the same period, approximately 456 438 people were employed within the mining sector, with each employee supporting several indirect dependants through economic linkages.

Should the application for a Mining Right be successful, the proposed project is expected to create employment opportunities and contribute positively to the economy of the Ngaka Modiri Molema District Municipality, which will in turn contribute to the broader provincial and national economies.

G and E Global commits to promoting sustainable community development through the implementation of a Social and Labour Plan (SLP), which will outline the Local Economic Development (LED) programmes intended for Mahikeng and the surrounding communities. The primary focus of these LED programmes will be to improve education, provide mentorship and skills development opportunities, and promote socio-

economic upliftment within surrounding communities, with particular emphasis placed on Historically Disadvantaged South Africans (HDSAs).

Alternatives Considered

The alternatives considered were as follows:

- *The proposed project area is predominantly underlain by andesitic and tuffaceous rocks of the Allanridge Formation within the Platberg Group of the Ventersdorp Supergroup. These geological units are further underlain by dolomitic rocks of the Malmani Subgroup.*

The diamondiferous gravel deposits identified within the area are interpreted as erosional remnants of a palaeo-fluvial system that historically transported material from the north and north-east towards the south and south-west along an ancient surface gradient (Wilson et al., 2006). Field observations indicate the presence of two fundamentally different types of diamondiferous gravels within the project area, suggesting favourable geological conditions for diamond occurrence.

Based on the geological characteristics, mineralisation potential, and field evidence obtained during the investigation, the site is considered suitable and preferred for the proposed project. Consequently, no feasible site alternatives are considered at this stage of the assessment process.

- *Type of Activity: The preferred type of activity involves the establishment and operation of a mining project for the extraction of the targeted mineral resource within the identified mining area. This alternative was selected based on the favourable geological conditions, mineralisation potential, economic viability of the resource, and the potential socio-economic benefits associated with the project.*

The proposed mining activities will include:

- *Site establishment and infrastructure development;*
- *Vegetation clearing and topsoil stripping;*
- *Excavation and mineral extraction;*
- *Hauling and transportation of ore/material;*
- *Stockpiling and processing activities;*
- *Stormwater and water management infrastructure; and*
- *Rehabilitation activities concurrent with mining operations.*

The preferred mining method was considered the most feasible and practical approach due to the depth, extent, and nature of the mineral deposit.

- *Design or Layout of the Activity: conditions, accessibility, operational efficiency, and environmental considerations. The proposed layout was designed to minimise unnecessary disturbance of surrounding areas while allowing for safe and efficient mining operations.*
 - *The preferred layout generally includes the following infrastructure:*
 - *Mining pit/excavation areas;*
 - *Haul and access roads;*
 - *Stockpile areas;*
 - *Topsoil storage areas;*
 - *Stormwater management infrastructure;*

- *Pollution control dams;*
- *Workshop and laydown areas;*
- *Processing infrastructure (where applicable); and*
- *Rehabilitation areas.*

The positioning of infrastructure was informed by the geological characteristics of the site, topography, drainage patterns, and environmentally sensitive features identified during the assessment process.

Certain layout alternatives were not considered feasible due to increased environmental impacts, engineering limitations, operational inefficiencies, or the potential sterilisation of economically viable mineral resources.

- *The preferred technology involves the use of conventional mining equipment and methods considered appropriate for the type, depth, and extent of the mineral resource. The selected technology is regarded as the most practical and economically feasible option for the proposed mining operation.*

The preferred technology will include:

- *Excavators and front-end loaders for material excavation;*
- *Haul trucks for transportation of ore and waste material;*
- *Screening and crushing equipment (where applicable);*
- *Water bowsers for dust suppression;*
- *Mobile processing equipment;*
- *Stormwater and pollution control infrastructure; and*
- *Mechanical rehabilitation equipment for concurrent rehabilitation activities.*

Some technological alternatives were not considered feasible because of excessive operational costs, lower production efficiency, increased environmental disturbance, or incompatibility with the characteristics of the mineral deposit.

- *The Operation Aspects of the Activity: The preferred operational aspects of the activity involve conducting mining activities in a controlled and phased manner to optimise mineral extraction while minimising environmental impacts. The operational approach was selected based on the geological characteristics of the deposit, production requirements, safety considerations, and environmental management objectives.*

The preferred operational activities will include:

- *Phased mining and excavation activities;*
- *Controlled hauling and transportation of material;*
- *On-site stockpiling of ore and waste material;*
- *Dust suppression and stormwater management;*
- *Use of designated access and haul roads;*
- *Controlled fuel storage and refuelling procedures;*
- *Waste management and pollution prevention measures; and*

- *Concurrent rehabilitation of disturbed areas where feasible.*

The phased operational approach is intended to minimise the extent of disturbance at any given time and facilitate progressive rehabilitation throughout the life of the project.

Other operational alternatives were not considered suitable due to increased environmental impacts, excessive operational costs, reduced efficiency, or potential safety concerns.

- *No-go Option: The No-Go Alternative would avoid the potential environmental impacts associated with the proposed mining activities, including vegetation clearance, soil disturbance, dust generation, noise impacts, increased traffic, and potential impacts on water resources and biodiversity. In addition, no mining-related infrastructure or operational activities would be developed within the project area.*

However, the No-Go Alternative would also result in the loss of potential socio-economic benefits associated with the proposed project. These benefits may include:

- *Employment creation for local communities;*
- *Skills development and training opportunities;*
- *Increased business opportunities for local suppliers and contractors;*
- *Local and regional economic stimulation;*
- *Contributions towards municipal and provincial economic growth; and*
- *Potential community development initiatives through Social and Labour Plan (SLP) commitments.*

Furthermore, the No-Go Alternative would prevent the potential utilisation of economically viable mineral resources within the project area, which may contribute towards the mining sector and broader economic development objectives within South Africa.

Although the No-Go Alternative remains a legally viable option, the proposed project is considered preferable due to the anticipated economic and social benefits associated with the development, provided that the identified environmental impacts can be effectively managed and mitigated through the implementation of appropriate mitigation measures and environmental management practices.

Environmental Impact Assessment Process

An EIA seeks to identify the environmental consequences of a proposed project from the beginning and helps to ensure that the project will be environmentally acceptable and integrated into the surrounding environment in a sustainable way over its life cycle. The project triggers activities listed in Listing Notices 1 and 2 of the NEMA and GNR921 and GNR633 of the NEM: WA and requires that a full EIA (scoping and impact assessment phases) be conducted.

Two parallel processes are followed during the scoping phase: the Environmental technical and Stakeholder engagement processes. This report is the draft Scoping Report and forms one of the first steps in the scoping process, after which the EIA phase will be initiated. A summary of this process is shown in Figure ES-1.

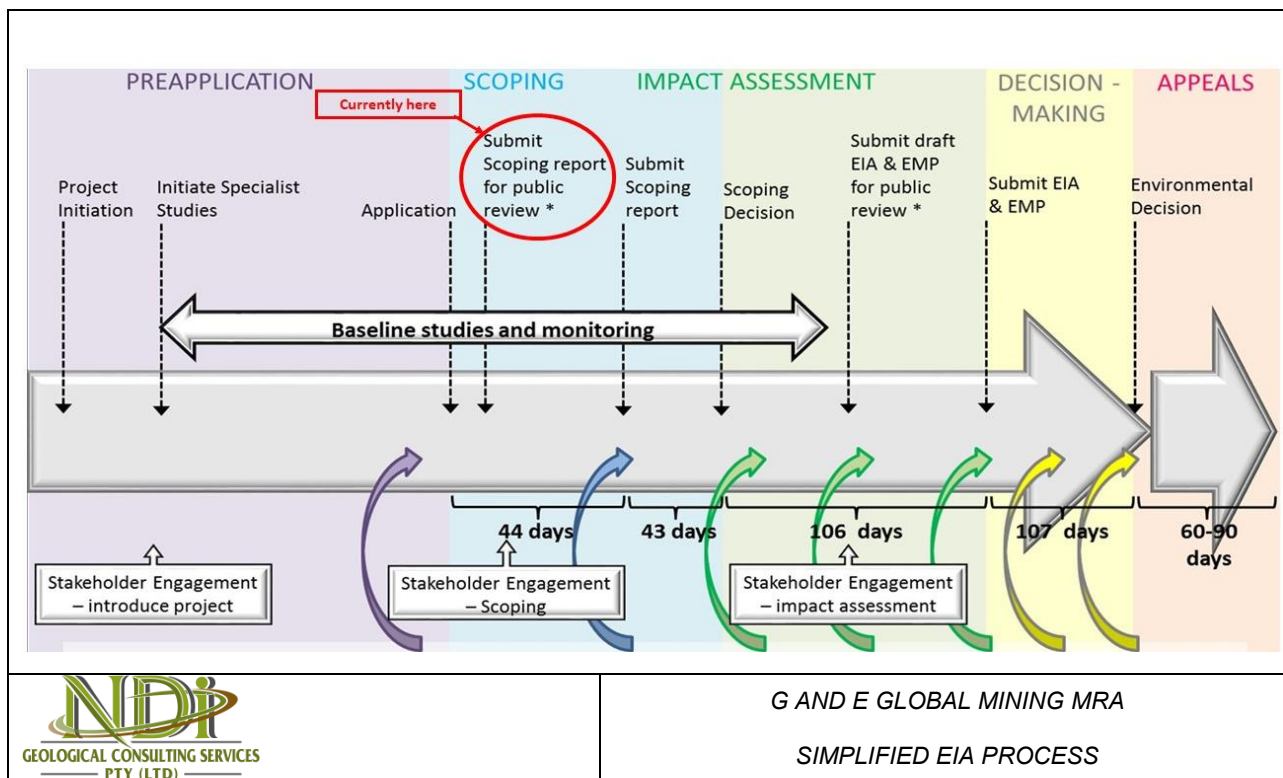


Figure ES-1: Illustration of the EIA process to be followed

Stakeholder Engagement Process

Activities that have been undertaken for the public involvement process during the scoping phase are:

- Identification of Interested and Affected Parties (I&APs) and development of a stakeholder database: I&APs were identified using GIS and cadastral information to identify affected and adjacent properties. The affected and adjoining property owners were identified using the surveyor's general website, www.deedsweb.gov.za. In addition, registered I&APs were also sourced from responses to the advertisements, site notices and written notification to I&APs associated with the project. The I&APs register will be maintained for the duration of the study, during which the details of stakeholders are captured and automatically updated upon communication with the EAP. Identification, registration, and comments from I&APs will be ongoing activities.

The opportunity to participate in the EIA and to register as an I&AP was announced through the following means:

- Letter of invitation to register and background information documents;
- Newspaper advertisements;
- Site notices erected at several places in and around the proposed mining area;
- Collation of comments received into a Comments and Responses table (CRR table) and
- Obtaining and documenting registration and comment sheets.

The Draft Scoping Report will be made available for a 30-day commenting period. All issues, comments, and suggestions received from stakeholders will be reviewed, collated into a CRR table, and included in all reports. Where necessary, comments from stakeholders will also be incorporated into the Final Scoping Report, which will be submitted to the DMPR for decision-making. Should it be required, a public meeting will be held during the Scoping Phase of the project.

Once the DMPR has accepted the Final Scoping Report, the EAP will compile the EIA/ EMPr Report and specialist studies identified in this Scoping Report, which will also be made available to the stakeholders for a 30-day review and comment period. Where required, a public meeting will be held to discuss the findings from the specialist studies and impact assessment phase. Comments received will be incorporated into the Final EIA/EMPr Report, which will be submitted to the DMPR for decision-making. The comments will also be collated into the CRR table, forming an Appendix to the EIA/EMPr Report.

The stakeholders will be notified once DMPR's final decision on the project has been communicated to the EAP and applicant (G and E Global).

Profile of the receiving environment

The scoping report provides a general description of the status quo of the receiving environment in the project area. It sets the scene and gives context to where the scoping exercise was conducted. This section also includes the main issues/impacts associated with each aspect and how the proposed expansion will affect the biophysical and social environment. A summary of the main baseline aspects is included in Table ES-1, with more detail included in Section 11 of the report.

Table ES-1: Summary of the Profile of the Receiving Environment

Aspect	Description
Geographical	<p>The area is known as the Mahikeng Local Municipality (NW383) and is situated in the North West Province, 20 kilometers south of the Botswana Border. Mahikeng is the capital city of North West Province and used to be known as the City Council of Mafikeng. The local municipality is considerably large compared to the four other local municipalities (Category B Municipalities) constituting Ngaka Modiri Molema District Municipality that was established in terms of the Municipal Demarcation Act (Act No. 27 of 1998). Neighbouring local municipalities which border the Ngaka Modiri-Molema District Municipality are: Ramotshere Moiloa Local Municipality, Tswaing Local Municipality, Ditsobotla Local Municipality and Ratlou Local Municipality. The affected property is approximately 11.5 km southeast of Mahikeng in the Ngaka Modiri Molema District Municipality, North West Province.</p>
Topography	<p>The project area is characterized by predominantly flat to moderately undulating terrain; Gentle surface gradients with localized shallow drainage features with isolated low ridges and slightly elevated areas occurring sporadically. Surface drainage is generally flowing toward seasonal drainage lines and pans are typical of the area.</p> <p>The Mathonyane River, also referred to as the Polfonteinspruit River, traverses the southern portion of the study area. In addition, a non-perennial drainage line crosses the northern portion of the study area.</p> <p>These watercourses may play an important role in local surface water drainage and ecological functioning within the area. As such, the proposed project activities will need to consider appropriate buffer zones, stormwater management measures, erosion control, and pollution prevention measures to minimise potential impacts on the surrounding aquatic environment.</p> <p>The presence of both perennial and non-perennial drainage features within and adjacent to the study area may require further assessment during the environmental authorisation process, including potential wetland and hydrological investigations where applicable.</p> <p>The altitude ranges between 1370m to 1372m above sea level.</p> <p>The topography map of the proposed mining area shows that the altitude of the site is</p>

Aspect	Description
	1 440 mamsl.
Climate	<p><i>The summer months (from August to March) bring brief but refreshing afternoon thundershowers. The town has an above average rainfall of 300 to 700 mm annually. Summer temperatures range between 22 and 34°C and winter brings with it dry, sunny days and chilly nights. The average winter (from May to July) temperature is 16°C but can range from an average of 2 to 20°C in a single day.</i></p> <p><i>Average Temperatures and Monthly Rainfall</i></p> <p><i>Mahikeng experiences significant seasonal variation in monthly rainfall. The rainy period of the year lasts for 8.0 months, from September 18 to May 18, with a sliding 31-day rainfall of at least 12.7 mm. The month with the most rain in Mahikeng is January, with an average rainfall of 76.2 mm.</i></p> <p><i>The rainless period of the year lasts for 4.0 months, from May 18 to September 18. The month with the least rain in Mahikeng is July, with an average rainfall of 10.16 mm. Monthly precipitations above 150mm are mostly wet, and below 30mm, mostly dry</i></p> <p><i>The "mean daily maximum" (solid red line) shows the maximum temperature of an average day for every month for Mahikeng. Likewise, "mean daily minimum" (solid blue line) shows the average minimum temperature. Hot days and cold nights (dashed red and blue lines) show the average of the hottest day and coldest night of each month of the last 30 years</i></p>
Geology	<p><i>The geology of South Africa is extremely varied and spans a period of about 4 billion years (SACS, 1980). The northeast portion of the country is dominated by the granitic rocks and belts of volcanic and sedimentary rocks forming the Archaean Kaapvaal Craton. Much of the rest of the country is covered by Phanerozoic sediments.</i></p> <p><i>The earliest clusters of diamondiferous kimberlites, namely Kuruman and Cullinan, intruded into South Africa during the Proterozoic era. The main kimberlitic (both diamondiferous and barren) intrusive event, however, took place in the late Mesozoic. All the kimberlites that host economic deposits occur on the Kalahari Archon (Kaapvaal and Zimbabwe Cratons), while those occurring in the surrounding Proterozoic basement are non-diamondiferous (Gurney, Moore, Otter, Kirkley, Hops, & McCandless, 1991). Over 2,000 kimberlite pipes, blows and fissures have been recorded across South Africa, Lesotho, Swaziland, Botswana and Zimbabwe, spanning emplacement age range of approximately 1,700 – 40 million years ago ("Ma"), with peaks at 1,700Ma, 1,200Ma, 600-500Ma, 240Ma, and 200-80Ma. Kimberlite emplacement was followed by the liberation and entrainment of diamonds and the subsequent deposition of terraces on the ancient Vaal and Orange Rivers.</i></p> <p><i>Two prolonged periods of exposure and erosion, firstly, between the Archaean eruption of the Ventersdorp lavas and initial Karoo sedimentation at about 300Ma and later between the end of the major Karoo event at 150 Ma and the Vaal River sedimentation at 5Ma, would have substantially re-shaped the surface across which the palaeo-Vaal and its tributaries flowed. Added to this, the super-continental scale Dwyka glacial event that marked the onset of Karoo sedimentation would, itself, have exerted a transformational effect on the post-Ventersdorp surface. The surface over which the palaeo-Vaal and Orange Rivers flowed and on which the diamondiferous gravels were subsequently deposited, would have been irregular, affording high potential for diamond traps.</i></p> <p><i>Later, river evolution was strongly influenced by the two periods of uplift known to have affected the eastern part of the interior of southern Africa. The first uplift of 200-</i></p>

Aspect	Description
	<p>300m occurred at about 18.6 Ma, which was followed at 2.5 Ma by an event of by 900m uplift. This uplift would have triggered a period of accelerated river incision and simultaneous lowering and peneplanation of the land surfaces, accompanied by the supply of detritus, which included minute proportions of diamonds (De Wit, the distribution and stratigraphy of inland alluvial diamond deposits in South Africa, 1996) (De Wit, Ward, Jacob, Spaggiari, & van der Westhuisen, 1997).</p> <p>The present drainage of the region consists of the Vaal-Harts River from the north</p> <p>The alluvial diamonds of the Middle Orange, thus, have several probable primary source areas:</p> <ul style="list-style-type: none"> □ The diamondiferous kimberlites of Lesotho, eroded by the present Orange River; □ Diamonds from the same source as the Lichtenburg - Western Transvaal diamond-fields, eroded by the Vaal-Harts system; □ Diamonds derived from the kimberlites of the Kimberley area; and □ Diamonds from Botswana and the Postmasburg fields, including the Finch kimberlite, eroded by the palaeo-drainage noted above. <p>Local geology</p> <p>According to the available 1: 250 000 geological map, sheet 2524 Mafikeng, the entire project area is underlain by andesitic and tuff rocks of the Allanridge formation, Platberg Group of Ventersdorp Supergroup which is further underlain by the dolomitic rocks of the Malmani subgroup.</p> <p>The diamondiferous gravel deposits of the area are erosion remnants of a palaeo-fluvial system that transported material from the north and north-east along an ancient surface gradient towards the south and south-west (Wilson et al., 2006). Field evidence indicates that there are two, fundamentally- different types of diamondiferous gravels characterizing the project area.</p> <p>Rooikoppie Gravel</p> <p>The Rooikoppie Gravel were identified on the northwestern part of the mining permit area and characterized by clast-supported gravel almost entirely consists of siliceous lithologies such as quartz, quartzite, chert and BIF. It has been defined as reddish brown, intact, gravely sand with angular quartzite cobbles found over the hard massive calcrete rock.</p> <p>The alluvial diamonds associated with this gravel deposits are generally of high quality, as a result of the presence of larger stones (50 to 200 ct). The Rooikoppie gravels occur as a 1-2m-thick, unsorted, matrix-supported, generally-upward-fining unit that has been completely lateralized.</p> <p>These gravels were dominating the upper section of the project area's and are generally overlain by a thin (0,5-1,0m), soil overburden.</p> <p>This layer is believed to be as a result of post-depositional modification has resulted in the formation of colluvial and eluvial "Rooikoppie" deposits, which were preferentially mined by the artisanal diggers of the previous century</p>
Land use and land capability	<p>The land on the proposed mining area is used for:</p> <p>Agriculture</p> <p>The area is mainly utilised for livestock grazing and limited subsistence farming</p>

Aspect	Description
	<p><i>activities. Open rangelands dominate much of the property</i></p> <p>Natural Vegetation</p> <p><i>Large portions of the site remain covered by natural grassland and savanna vegetation typical of the North West Province.</i></p> <p>Transportation Infrastructure</p> <p><i>Existing gravel access roads and secondary rural roads traverse the area and connect to regional roads leading toward Mahikeng and nearby settlements</i></p> <p>Natural Vegetation</p> <p>Surface Water Features <i>Seasonal drainage lines and small impoundments/dams may occur within portions of the farm depending on rainfall patterns</i></p> <p>Rural Settlements</p> <p><i>Scattered rural homesteads and small settlements occur in the broader surrounding area outside the main project footprint</i></p>
Biodiversity	<p>Biodiversity</p> <p><i>According to the National Biodiversity Strategy (NBS), biodiversity considerations are to be integrated into all other strategies and plans at the local government level, such as poverty eradication and developmental programmes. The NBS provides a map for achieving the biodiversity-related objectives contained, i.e. reducing the rate at which biodiversity is lost. The goal of the NBS has always been to conserve and manage biodiversity to ensure sustainability and that it can benefit the people of South Africa through cooperation and partnerships that build on strengths and opportunities.</i></p> <p>Biomes</p> <p><i>The proposed mining area is in the Grassland Biome. There are two categories of grass plants: sweet grasses have a lower fibre content, maintain their nutrients in the leaves in winter and are therefore palatable to stock. Sour grasses have a higher fibre content and tend to withdraw their nutrients from the leaves during winter so that they are unpalatable to stock. At higher rainfall and on more acidic soils, sour grasses prevail, with 625 mm per year taken as the level at which unpalatable grasses predominate. C4 grasses dominate throughout the biome, except at the highest altitudes where C3 grasses become prominent.</i></p> <p><i>Grass plants tolerate grazing, fire, and even mowing, well: most produce new stems readily, using a wide variety of strategies. Overgrazing tends to increase the proportion of pioneer, creeping and annual grasses, and it is in the transition zones between sweet and sour grass dominance that careful management is required to maintain the abundance of sweet grasses. The Grassland Biome is the mainstay of dairy, beef and wool production in South Africa. Pastures may be augmented in wetter areas by the addition of legumes and sweet grasses.</i></p> <p><i>The Grassland Biome is the cornerstone of the maize crop, and many grassland types have been converted to this crop. Sorghum, wheat and sunflowers are also farmed on a smaller scale. Urbanization is a major additional influence on the loss of natural areas - the Witwatersrand is centred in this biome. The Grassland Biome is considered to have an extremely high biodiversity, second only to the Fynbos Biome. Rare plants are often found in the grasslands, especially in the escarpment area. These rare species are often endangered, comprising mainly endemic geophytes or dicotyledonous herbaceous plants. Very few grasses are rare or endangered. The scenic splendour of the escarpment region attracts many tourists.</i></p>

Aspect	Description
	<p>Bioregions</p> <p><i>The proposed mining area has vegetation belonging to the Dry Highveld Grassland Bioregion. The Dry Highveld Grassland is an arid bioregion within South Africa's Grassland Biome, spanning regions of the North West, Free State, and Northern Cape. Characterized by open, flat to undulating landscapes at high elevations (1,200 m to 1,800 m), it supports drought-resistant grasses, shrubby vegetation, and diverse forbs.</i></p> <p><i>Dry Highveld Grassland prevails in the western region of the Grassland Biome where the annual rainfall is below 600 mm per annum. These grasslands fall within the "sweet" grassland type with a predominance of chloridoid grasses.</i></p> <p><i>In terms of conservation and disturbance, 44 % of the vegetation type is already transformed by cultivation, plantations, mines, and urbanisation. No serious alien invasion, but Acacia mearnsii can dominate in certain areas.</i></p> <p>Vegetation Type</p> <p><i>The vegetation types were identified in the proposed mining area, that is the Klerksdorp Thornveld (Gh13), and the Western Highveld Sandy Grassland (Gh14)</i></p> <p>Klerksdorp Thornveld</p> <p><i>The Klerksdorp Thornveld (Gh 13) occurs in two patches, one in the Wolmaransstad, Ottosdal and Haarteesfontein and the other from Botsolano Game Park to the Madibogo. The dominating plant species include Acacia karroo, A. caffra, Celtis Africana, Acacia hebeclada, Gymnosporia senegalensis with low shrubs such as Asparagus larcinus, A suaveolens, Felicia muricata. The grass layer is dominated by Aristida congesta, Cynodon, dactylon, Eragrostis lehmanniana, Themenda triandra, Panicum coloratum, Sporobolus fimbriatus and Microchloa caffra. This vegetation is regarded as Vulnerable and only about 2.5% is conserved in the Mafikeng Game Reserve, Botsolano Game Park and Faan Meintjes Nature Reserve.</i></p> <p>Western Highveld Sandy Grassland</p> <p><i>The Western Highveld Sandy Bushveld (Gh 14) is distributed in the North West province, from the Mafikeng to the Schweizer-Reneke in the south and from Broedersput and kamel in the west to Lichtenburg and Ottosdal in the east. The most important taxa on this vegetation unit include Anthepora pubscens, Aristida congesta, A. diffusa, Cymbopogon pospischilii, Cynodon dactylon, Eragrostis lehamanniana, Themenda triandra. The herb layer is dominated by species such as Gazania krebsiana, Stachys spathulata, Barleria macrostegia, and Dicoma anomala. Mucina and Rutherford have categorised this vegetation as Endangered.</i></p>
Heritage Resources	<p><i>Heritage resources, such as buildings and archaeological artefacts, may be tangible, such as landscapes and living heritage, or intangible. Their significance is based upon their aesthetic, architectural, historical, scientific, social, spiritual, linguistic, economic or technological values; their representation of a particular period; their rarity and their sphere of influence. There are several heritage and cultural resources in the North West Province.</i></p> <p><i>According to the screening tool report, the site is not sensitive to the Archaeological and cultural heritage theme. Nonetheless, should there be any heritage sites (graves) within the mining area, they will be identified and fenced before any mining activities take place.</i></p>

Aspect	Description
	<i>Features with a high paleontological sensitivity were however identified on the proposed mining area. A Phase 1 Palaeontological Impact Assessment (PIA) will be conducted to map outcropping fossils before ground-clearing begins.</i>
Wetlands	<p><i>According to the SANBI data, there are two wetlands occurring within the study area.</i></p> <p><i>It is important to note that the wetlands are recognised as a National Freshwater Priority Area by the SANBI. During the mining phase, a minimum of 32-50m buffer is recommended from the wetlands to protect and maintain the integrity of the wetlands.</i></p>
Conservation Plan	<p><i>The study area is predominantly characterised by Critical Biodiversity Areas (CBAs) classified as Critical Biodiversity Area 2 (CBA 2), with smaller portions of Ecological Support Areas (ESA) 1 and ESA 2 occurring mainly within the northern section of the study area. These biodiversity categories indicate areas that contribute significantly towards maintaining ecological processes and landscape connectivity within the region.</i></p> <p><i>The presence of the Matlhonyane River along the southern boundary of the proposed Mining Right area has resulted in the classification of portions of the area as Ecological Support Area 1 (ESA 1) associated with aquatic biodiversity features. These aquatic support areas are considered important for maintaining the ecological functioning, hydrological processes, and biodiversity integrity of the riverine environment.</i></p> <p><i>The identified biodiversity sensitivities within the study area may therefore require the implementation of appropriate mitigation and management measures to minimise potential impacts on terrestrial and aquatic ecosystems during the construction, operational, and rehabilitation phases of the proposed mining project</i></p>
Protected Areas	<i>The DFFE South African Conservation Areas Database (SACAD), South African Protected Areas Database (SAPAD) and the Important Biodiversity Area (IBA) database show that there are no protected areas or important bird areas affected by the proposed mining activities.</i>
Threatened Ecosystems	<p><i>The vegetation in the proposed mining area, the Western Highveld Sandy Grassland is classified as a critically endangered or highly threatened ecosystem. Approximately 65% of this vegetation type has been irreversibly transformed, largely due to crop farming (maize) and urban expansion.</i></p> <p><i>Specialist biodiversity assessments to quantify the exact impact on the grassland will need to be conducted to map the exact boundaries of the Western Highveld Sandy Grassland on the property to and to identify pristine areas versus already degraded patches. The study will also focus on Species of Special Concern (SCC), searching for threatened, protected, or endemic plant and animal species that require special permits for relocation.</i></p>
Surface water	<p><i>The surface water resources associated with the Colga 132JO area form part of the broader drainage network within the Middle Vaal Water Management Area. The study area is influenced primarily by the Polfonteinspruit (Matlhonyane River) system and associated non-perennial drainage lines occurring within and adjacent to the property.</i></p> <p><i>The surface water environment in the area is characterised by seasonal and non-perennial drainage features; shallow drainage channels associated with summer rainfall events; localised alluvial and gravel deposits linked to palaeo-fluvial systems; and surface runoff flowing generally along natural drainage gradients toward the</i></p>

Aspect	Description
	<p><i>regional catchment system.</i></p> <p><i>Mahikeng town, which has a population of around 300 000 (when including the surrounding peri-urban area) is almost solely dependent on ground-water. The main sources of water to the town are the Molopo Eye spring, which yields about 20 Ml/day of water, and the Grootfontein Well-field, which yield about 8 Ml/day.</i></p>
Groundwater	<p>Aquifer Characterisation</p> <p><i>Mahikeng requires about 18.3 Mm³/y (million cubic metres per annum) of water. This water comes from three sources: a large spring about 40 km east of the city called the Molopo Eye (about 7.3 Mm³/y or 40%); a well field in the Grootfontein Aquifer about 20 km to the south-east (about 3.7 Mm³/y or 20%); and the Setumo Dam on the Molopo River to the west (another 7.3 Mm³/y or 40%). The peri-urban areas surrounding Mahikeng are almost completely groundwater dependent, mainly from smaller stand-alone boreholes not connected to urban Mahikeng's supply.</i></p> <p><i>The Molopo Eye spring and the Grootfontein Aquifer are located in the North-West dolomites, a series of extensive and prolific aquifers that are amongst South Africa's most important groundwater resources (Meyer, 2012). It is estimated that the North-West dolomites together contain a similar volume of water to South Africa's largest dam, the Gariep Dam (roughly 5000 Mm³), and that the aquifers are currently recharged at a rate of around 300 Mm³/y (Stephens and Bredenkamp, 2002).</i></p> <p><i>Average groundwater levels in the Grootfontein compartment continued to fall as both irrigating farmers and the city of Mahikeng continued to pump water from the aquifer. The groundwater level is now more than 28 m below ground level near the old spring (Cobbing, 2017). Episodic recharge and the heterogeneity of the Grootfontein Aquifer complicate the picture, but analysis of records dating from the 1970s show that water levels in the Grootfontein Aquifer have fallen by about 0.4 m/y on average across the compartment (Cobbing, 2018). One reason why the well field delivers less water today than it did in the past, is that the groundwater level is now too deep for several of the boreholes to reach.</i></p> <p><i>At some point irrigating farmers were abstracting about 13.6 Mm³/y, whilst the Grootfontein well field supplying Mahikeng abstracts about 3.7 Mm³/y (Cobbing, 2018). Other smaller users abstract about another 1.5 Mm³/a. Since average recharge is a maximum of about 10 Mm³/y, these figures imply a significant continuing deficit of about 8.8 Mm³/y (Cobbing, 2018). If a substantial reduction in abstractions (particularly irrigation abstractions) could be agreed, and the water level decline arrested and stabilised, then appropriators would all have greater long-term water supply certainty. This would in turn make the water supply to Mahikeng more reliable, lowering risk and increasing confidence. A stable water level that was closer to ground level would also lower pumping costs, and wear and tear on equipment.</i></p>

Anticipated Impacts

Table ES-2 Table 13-2 This provides a high-level assessment of the potential impacts and associated mitigation measures resulting from the proposed mining during construction, operation, and decommissioning/closure. These impacts will be further refined and assessed according to the impact assessment methodology in Section 14.

Table ES – 2: Anticipated Impacts

Element of Environment	Potential Impact Descriptions
-------------------------------	--------------------------------------

Element of Environment	Potential Impact Descriptions
<i>Socio-Economic</i>	<i>Possible job opportunities during the construction and operation.</i>
<i>Geohydrology</i>	<i>Possible groundwater contamination.</i>
<i>Surface water</i>	<i>Possible surface water contamination.</i>
<i>Air Quality</i>	<i>Possible impact on Air Quality in the area.</i>
<i>Climate Change</i>	<i>Possible contribution to climate change through emission of Green House Gases</i>
<i>Drilling, Blasting and mining</i>	<i>Possible impacts on private properties and fauna due to drilling and blasting</i>
<i>Noise</i>	<i>Possible generation of noise during construction and operation.</i>
<i>Visual</i>	<i>Possible visual impacts during construction and operation</i>
<i>Biodiversity</i>	<i>Disturbance and loss of biodiversity, especially floral and faunal SCC.</i>
<i>Aquatic ecology</i>	<i>Possible loss, sedimentation and contamination of aquatic resources</i>
<i>Heritage</i>	<i>Possible impact on heritage and cultural resources (including graves) in the area.</i>
<i>Traffic</i>	<i>Potential safety issues due to the increased traffic.</i>
<i>Cumulative Impacts</i>	<i>Cumulative Impacts</i>

Specialist Studies

The following specialist studies based on the mentioned aspects and the findings from the DFFE screening tool will be assessed further during the EIA phase investigation to be undertaken:

- *Terrestrial Biodiversity Assessment;*
- *Aquatic Assessment;*
- *Heritage Impact Assessment;*
- *Geohydrological Assessment;*
- *Hydrological Assessment;*
- *Noise Impact Assessment;*
- *Air Quality Assessment;*
- *Agricultural Potential Assessment; and*
- *Rehabilitation and Closure Planning.*

In addition, the following will continue during the EIA phase:

- *Public participation and consultation;*
- *Environmental Management Programme;*
- *Comparative alternatives assessment;*
- *Amend site layout designs and Mining Works Programme, if required.*

Certain impacts that are anticipated to be limited or less significant, either by virtue of their scale, their short duration (e.g., construction phase only), the disturbed nature of the receiving environment, and/or their distance from communities, will be assessed by the EAP Team and reported directly into the EIA Report.

The EAP will use the impact assessment methodology described in Section 14 and ensure that the specialist studies reports comply with Appendix 6 of the NEMA requirements.

Quantification of Impacts

The anticipated impacts associated with the proposed project will be assessed according to a standardised impact assessment methodology presented in Section 14. This methodology has been utilised for the assessment of environmental impacts where the consequence (severity of impact, spatial scope of impact and duration of impact) and likelihood (frequency of activity and frequency of impact) have been considered in parallel to provide an impact rating and hence an interpretation in terms of the level of environmental management required for each impact.

Plan of Study for the EIA

The Scoping Report is concluded with a Plan of Study (PoS) for the EIA, which explains how the EIA will be conducted for the project by the following:

- Key environmental issues identified during the scoping phase to be investigated further in the EIA phase;*
- Where applicable, feasible alternatives to be assessed further in the EIA phase;*
- Development of the EMPr for the management of negative environmental impacts;*
- The public participation process to be followed;*
- Contents of the EIA/EMPr Report; and*
- Consultation with the authorities.*

Conclusion and Recommendation

This Scoping Report aims to provide an indication of the identified positive and negative environmental and socio-economic impacts associated with the proposed project activities. The stakeholder engagement in the Scoping Phase will play an important role in determining possible impacts and allowing public concerns to be adequately addressed in the Impact Assessment Phase of the EIA process. The Draft Scoping Report has presented:

- The environmental assessment process undertaken so far;*
- A brief description of the proposed project;*
- A baseline description of the current environment;*
- The potential environmental and social impacts identified to date; and*
- The recommended environmental process to be followed to develop the EIA/EMPr Report (Plan of Study).*

A comprehensive public involvement process will be implemented during scoping. The EIA process is, however, iterative and therefore, additional potential issues/impacts and alternatives may be identified during the impact assessment phase that may require further investigation/consideration. Once the Scoping Report comment period is concluded, the report will be updated with the additional issues and submitted to DMPr. An EIA/ EMPr Report will be compiled and subjected to public comment. The EIA will then be presented to the authorities for decision-making. On submission of the EIA/ EMPr Report to the DMPr, notification will be sent to registered I&APs to inform them of the submission of the documents and the opportunity to request copies of the Final reports.

Extensive consideration has been given to the proposed design of the project. No fatal flaws have been identified during the scoping phase of this project. A comprehensive impact assessment will be undertaken and incorporated into the EIA/EMPr Report during the impact assessment phase. The proposed

comprehensive stakeholder engagement process in the PoS will ensure that the stakeholders are involved, from the conception of the EA/WML application process to the end. It is anticipated that implementation of the PoS presented in this report will result in an adequate EIA process, which will result in formulating a sound EMPr for the proposed mine.

It is anticipated that implementing the PoS presented in this report will result in an adequate EIA process, which will formulate a sound EMPr to be implemented throughout G and E Global's mining activities.

The process followed during the detailed impact assessment phase will meet the legislation's requirements to ensure that the DMPR receives enough information to enable informed decision-making.

YOUR COMMENT ON THE SCOPING REPORT

This Draft Scoping Report will be available for comment for a period of 30 days **from 23 May 2026 to 23 June 2026**. Copies of the Scoping Report have been made available at the following public places for review

Public Place	Locality	Telephone
Ndi Geological website	http://www.ndigeoservices.co.za/	0610173302

An electronic copy will also be available on CD on request from the stakeholder engagement officers. I&APs are requested to provide comments and information on the following aspects of the proposed project:

1. Information on how I&APs consider that the proposed activities will impact on them or their socio-economic conditions;
2. Written responses stating their suggestions to mitigate the anticipated impacts of each activity;
3. Information on current land uses and their location within the area under consideration;
4. Information on the location of environmental features on site to make proposals as to how and to what standard the impacts on site can be remedied; and
5. How to mitigate the potential impacts on their socio-economic conditions and propose how the potential impacts on their infrastructure can be managed avoided or remedied.

DUE DATE FOR COMMENT

23 June 2026

Please submit comments to the EAP:

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 Ndi Geological Consulting Services (Pty) Ltd
 38 Ophelia Street
 Kimberley, 8301
 Cell: 082 760 8420
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Disclaimer

The opinions expressed in this Report have been based on the information supplied to Ndi Geological Consulting Services (Pty) Ltd by G and E Global Mining (Pty) Ltd (G and E Global). The opinions in this Report are provided in response to a specific request from G and E Global to do so. Ndi Geological Consulting Services (Pty) Ltd has exercised all due care in reviewing the supplied information. Whilst Ndi Geological Consulting Services (Pty) Ltd has compared key supplied data with expected values, the accuracy of the results and conclusions from the review are entirely reliant on the accuracy and completeness of the supplied data. Ndi Geological Consulting Services (Pty) Ltd does not accept responsibility for any errors or omissions in the supplied information and does not accept any consequential liability arising from commercial decisions or actions resulting from them. Opinions presented in this report apply to the site conditions and features as they existed at the time of Ndi Geological Consulting Services (Pty) Ltd.'s investigations, and those reasonably foreseeable. These opinions do not necessarily apply to conditions and features that may arise after the date of this Report, about which Ndi Geological Consulting Services (Pty) Ltd had no prior knowledge nor had the opportunity to evaluate.

List of abbreviations

CA:	Competent Authority
CRR:	Comments and Responses Register
DFFE:	Department of Forestry, Fisheries and the Environment
DMPR:	Department of Mineral and Petroleum Resources
DMS:	Dense Media Separation
DWS:	Department of Water and Sanitation
EA:	Environmental Authorisation
EAP:	Environmental Assessment Practitioner
EIA:	Environmental Impact Assessment
EIAR:	Environmental Impact Assessment Report
EMPr:	Environmental Management Programme
GDP:	Gross Domestic Product
I&APs:	Interested and Affected Parties
IDP:	Integrated Development Plan
IWUL:	Integrated Water Use Licence
LM:	Local Municipality
Mamsl:	Meters above mean sea level
MPRDA:	Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002)
NEM: WA:	National Environmental Management: Waste Act, 2008 (Act 59 of 2008)
NEMA:	National Environmental Management Act, 1998 (Act 107 of 1998)
NFEPA:	National Freshwater Ecosystems Priority Areas
PAIA:	Promotion of Access to Information Act (Act No. 2 of 2000)
PHRA:	Provincial Heritage Resources Agency
PoS:	Plan of Study
PPE:	Personal Protective Equipment

SAHRA:	South African Heritage Resources Agency
SCC:	Species of Conservation Concern
SDF:	Spatial Development Framework
WMA:	Water Management Area
WML:	Waste Management Licence



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

SCOPING REPORT

FOR LISTED ACTIVITIES ASSOCIATED WITH THE PROPOSED MINING OF DIAMOND, DIAMOND (ALLUVIAL), DIAMOND (KIMBERLITE), AGGREGATE, LEAD, MANGANESE ORE, LIMESTONE, SAND AND GOLD ORE, NORTH WEST PROVINCE - NW30/5/1/2/2/10274MR.

SUBMITTED FOR ENVIRONMENTAL AUTHORIZATIONS IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 AND THE NATIONAL ENVIRONMENTAL MANAGEMENT WASTE ACT, 2008 IN RESPECT OF LISTED ACTIVITIES THAT HAVE BEEN TRIGGERED BY APPLICATIONS IN TERMS OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (MPRDA) (AS AMENDED).

NAME OF APPLICANT	G and E Global Mining (Pty) Ltd
TEL NO	081 045 8645
FAX NO:	
POSTAL ADDRESS	31 Apex Road, Apex Benoni, Benoni, Gauteng, 1501
PHYSICAL ADDRESS	2026, Palm Springs, Sebokeng, Gauteng, 1984
FILE REFERENCE NUMBER SAMRAD	NW30/5/1/2/2/10274MR

IMPORTANT NOTICE

In terms of the Mineral and Petroleum Resources Development Act (Act 28 of 2002 as amended), the Minister must grant a Prospecting or Mining Right if among others the mining “will not result in unacceptable pollution, ecological degradation or damage to the environment”.

Unless an Environmental Authorisation can be granted following the evaluation of an Environmental Impact Assessment and an Environmental Management Programme report in terms of the National Environmental Management Act (Act 107 of 1998) (NEMA), it cannot be concluded that the said activities will not result in unacceptable pollution, ecological degradation or damage to the environment.

In terms of section 16(3)(b) of the EIA Regulations, 2014, any report submitted as part of an application must be prepared in a format that may be determined by the Competent Authority and in terms of section 17 (1) (c) the competent Authority must check whether the application has considered any minimum requirements applicable, or instructions or guidance provided by the competent authority to the submission of applications.

It is therefore an instruction that the prescribed reports required in respect of applications for an environmental authorisation for listed activities triggered by an application for a right or permit are submitted in the exact format of, and provide all the information required in terms of, this template. Furthermore, please be advised that failure to submit the information required in the format provided in this template will be regarded as a failure to meet the requirements of the Regulation and will lead to the Environmental Authorisation being refused.

It is furthermore an instruction that the Environmental Assessment Practitioner must process and interpret his/her research and analysis and use the findings thereof to compile the information required herein. (Unprocessed supporting information may be attached as appendices). The EAP must ensure that the information required is placed correctly in the relevant sections of the Report, in the order, and under the provided headings as set out below, and ensure that the report is not cluttered with un-interpreted information and that it unambiguously represents the interpretation of the applicant.

OBJECTIVE OF THE SCOPING PROCESS

- 1) The objective of the scoping process is to, through a consultative process—
 - (a) identify the relevant policies and legislation relevant to the activity;
 - (b) motivate the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location;
 - (c) identify and confirm the preferred activity and technology alternative through an impact and risk assessment and ranking process;
 - (d) identify and confirm the preferred site, through a detailed site selection process, which includes an impact and risk assessment process inclusive of cumulative impacts and a ranking process of all the identified alternatives focusing on the geographical, physical, biological, social, economic, and cultural aspects of the environment;
 - (e) identify the key issues to be addressed in the assessment phase;
 - (f) agree on the level of assessment to be undertaken, including the methodology to be applied, the expertise required as well as the extent of further consultation to be undertaken to determine the impacts and risks the activity will impose on the preferred site through the life of the activity, including the nature, significance, consequence, extent, duration and probability of the impacts to inform the location of the development footprint within the preferred site; and
 - (g) identify suitable measures to avoid, manage, or mitigate identified impacts and to determine the extent of the residual risks that need to be managed and monitored.
-

1 Project background

G and E Global Mining (Pty) Ltd (G and E Global) applied for a Mining Right (MR) from the Department of Mineral and Petroleum Resources for the proposed Mining of diamond, diamondiferous kimberlite, limestone, manganese, aggregate, sand, lead, and gold on Portions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 and the Remaining Extent of the farm Colga 132 JQ within the Administrative District of Mahikeng, North West Province - NW30/5/1/2/2/10274MR. The proposed mining project will cover an area of 3927 hectares and is located approximately 11.5 km southeast of Mahikeng in the Ngaka Modiri Molema District Municipality, North West Province of South Africa.

Exploration work and historical mining conducted on the proposed mining area led to the identification of diamond, diamondiferous kimberlite, limestone, manganese, aggregate, sand, lead, and gold ore deposits that are deemed feasible to mine. G and E Global is therefore applying for a MR in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 22 of 2002) (MPRDA) from the Department of Mineral and Petroleum Resources North West Province (DMPR) Regional Office for diamond, diamondiferous kimberlite, limestone, manganese, aggregate, sand, lead, and gold mining. Before the MR will be granted, G and E Global must also undertake an Environmental Authorisation (EA) and Waste Management Licence (WML) processes in terms of the National Environmental Management Act (Act No. 107 of 1998) (NEMA) and the National Environmental Management: Waste Act (Act No. 59 of 2008) (NEM: WA). Since the proposed mining project triggers activities listed in Listing Notice 1 and 2 of the NEMA, a full Environmental Impact Assessment (EIA) including scoping and impact assessment phases was required per the requirements of NEMA Government Notice Regulation (GNR) 982 (as amended by GNR325 of 7 April 2017 and 21 June 2021). The Department of Forestry, Fisheries and the Environment (DFFE) has identified the need to align environmental authorisations. It has promulgated a single environmental management system under NEMA whereby the DMPR has become the competent authority for the authorisation of mining-related projects under the NEMA Environmental Impact Assessment (EIA) Regulations. This will result in simultaneous decisions in terms of NEMA and other environmental management Acts. The competent authority for the EA/WML process is the DMPR.

G and E Global appointed Ndi Geological Consulting Services (Pty) Ltd (Ndi Geological) as the independent Environmental Assessment Practitioner (EAP) to facilitate the EA/WML process for the proposed diamond, diamondiferous kimberlite, limestone, manganese, aggregate, sand, lead, and gold ore mining project.

Before an EAP submits a final report, it must have given registered I&APs access to and an opportunity to comment on the report prior to submitting it to the competent authority for approval. Once the Scoping Report has been finalised and approved by the DMPR, the registered I&APs will be provided with an opportunity to review and comment on this draft Scoping Report and the draft Impact Assessment Report.

The stakeholder engagement process is conducted in terms of NEMA (as amended), which provides clear guidelines for stakeholder engagement during an EIA, as part of the EA/WML process. One of the general objectives of integrated environmental management set out in Section 23(2) of NEMA is to ensure the *“adequate and appropriate opportunity for public participation in decisions that may affect the environment”*. The stakeholder engagement process is primarily aimed at allowing stakeholders and Interested and Affected Parties (I&APs) the opportunity to gain an understanding of the project. In addition, the purpose of consultation with the landowners, affected parties and communities is to provide them with the necessary information about the proposed project so that they can make informed decisions as to whether and to which degree the project will affect them.

The purpose of consultation with the stakeholders and I&APs is to provide the competent authority with the necessary information for them to make informed decisions.

Before an EAP submits a final report, it must have given registered I&APs access to and an opportunity to comment on the report prior to submitting it to the competent authority for approval. Once the Scoping Report has been finalised and approved by the DMPR, the registered I&APs will be provided with an opportunity to review and comment on this draft Scoping Report and the Impact Assessment Report.

The reports and documentation for the integrated EA/WML application process will be compiled and finalised for submission to the DMPR for the EA/WML in terms of the NEMA for consideration and decision-making. The DMPR will consult with other government authorities as required in terms of Section 24(K) of the NEMA.

2 Purpose and context of this document

The project triggers activities listed in terms of Listing Notice 1, 2 and 3 of the NEMA (as amended) and will require an EA) from the DMPR. The proposed slime dams will trigger activities listed in GNR 921 (Category B) NEM: WA and will, therefore, require a WML from the DMPR. An integrated application for an EA and WML will be conducted where a full Environmental Impact Assessment (EIA), including Scoping and Impact Assessment, will be followed as stipulated in GNR 326 of the NEMA and GNR921 of the NEM: WA.

- This document serves as the draft Scoping Report for the first phase of the overall EIA process and includes the following objectives as a minimum:
- To establish the legal framework relevant to the proposed project;
- To identify and engage with Interested and Affected Parties (I&APs) and allow for adequate participation in the process;
- To assess the receiving environment in terms of its current state and determine potential positive or negative impacts which may result due to the proposed development;
- To consider alternatives for achieving the project's objectives;
- To identify significant issues to be investigated further during the execution of the EIA phase; and
- To determine the scope of the EIA phase, specialist studies, public participation, assessment of impacts and alternatives; and allow for informed decision-making regarding the EIA process.

2.1 Integrated Environmental Authorisation and Waste Management Licence Application Process

The first Phase of the EA/WML application process is the scoping phase, which will inform the impact assessment phase. This phase provides I&APs with an opportunity to provide the EAP with issues and concerns regarding the proposed project to inform the technical studies so that they can evaluate these concerns during the impact assessment phase of the project.

This Scoping Report describes the proposed project and sets out the proposed scope of the EIA and EMPr that will be undertaken for it. This includes alternatives that will be evaluated for various aspects of the project, the anticipated potential environmental impacts, issues raised by stakeholders, the specialist studies that will be undertaken, including the terms of reference of the specialist studies, and the qualifications and experience of the study team.

Stakeholder engagement is a key element of the environmental decision-making process, and it forms part of the scoping and impact assessment phases.

The Draft Scoping Report will be available for public review prior to submission to DMPR for decision-making. All the comments received will be captured and addressed where feasible in the final Scoping Report and the EIAR/EMPr Report.

Figure 2 1 illustrates the proposed EIA process that will be followed.

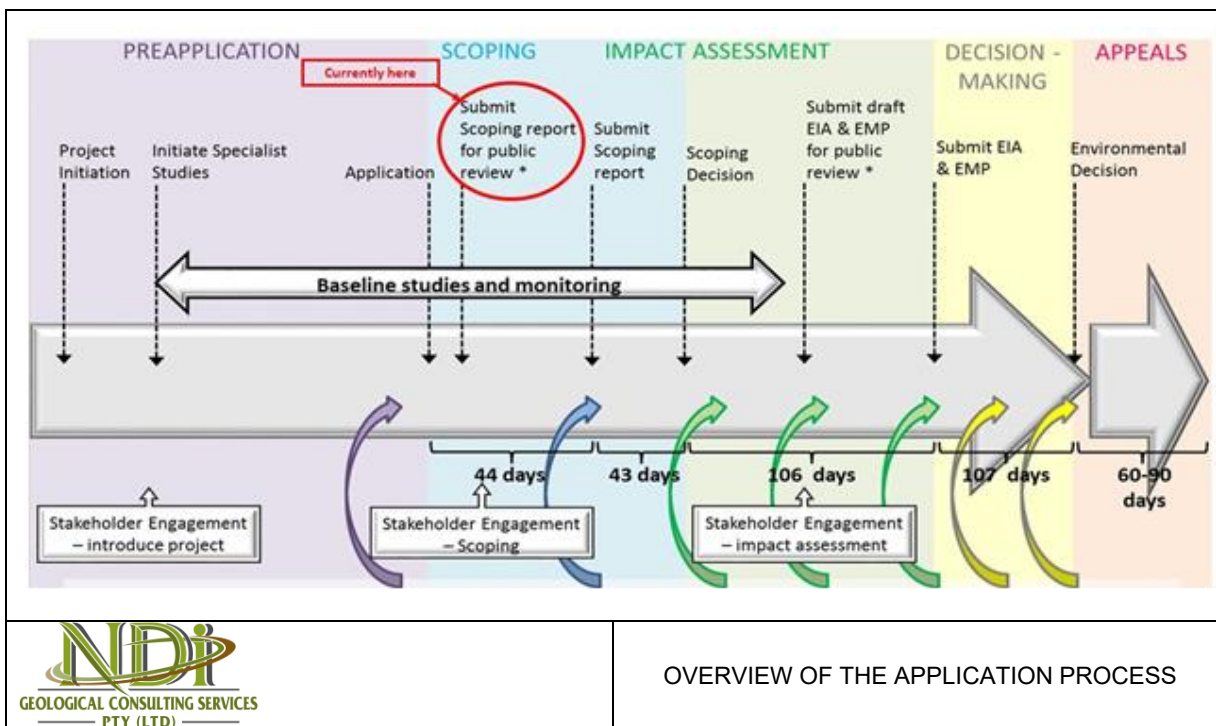


Figure 2-1: Overview of the Environmental Impact Assessment Process

2.2 Report Index in Relation to the NEMA Regulations

Regulation 2, Appendix 2 of GNR 982, published in terms of NEMA, stipulates the minimal requirements and issues that must be addressed in the Scoping Report. This report strives to address all these requirements as per regulations. Table 2-1 indicates the regulations that have been addressed and the section of the Scoping Report where these requirements can be found.

Table 2-1: Requirements of Regulation 2 of GNR 982

Section of the EIA Regulations, 2014	Description of EIA Regulations Requirements for Scoping Reports	Section
Appendix 2 (a)	Details of – the EAP who prepared the report; and the expertise of the EAP, including a curriculum vitae	Section 3
Appendix 2 (b)	The location of the activity, including – The 21-digit Surveyor General code of each cadastral land parcel; Where available, the physical address and farm name; Where the required information in items (i) and (ii) is unavailable, coordinates of the property's boundary or properties.	Section 4 Figure 4-1
Appendix 2 (c)	A plan which locates the proposed activity or activities applied for at an appropriate scale, or, if it is – A linear activity is a description and coordinates of the corridor in which the proposed activity or activities are to be undertaken; or On land where the property has not been defined, the coordinates within which the activity will be undertaken, or.	Figure 5-1
Appendix 2 (d)	A description of the scope of the proposed activity, including – All listed and specified activities triggered; A description of the activities, including associated structures and infrastructure.	Section 5
Appendix 2 (e)	A description of the policy and legislative context within which the	Section 6

Section of the EIA Regulations, 2014	Description of EIA Regulations Requirements for Scoping Reports	Section
	development is proposed includes an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments applicable to this activity and are to be considered in the assessment process.	
Appendix 2 (f)	Motivation for the need and desirability of the proposed development, including the need and desirability of the activity in the context of the preferred location.	Section 7
Appendix 2 (g)	A full description of the process followed to reach the proposed preferred activity, site and location within the site, including- Details of all alternatives considered; Details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs; A summary of the issues raised by interested and affected parties and an indication of how they were incorporated or the reasons for not including them. The environmental attributes associated with the alternatives focus on the geographical, physical, biological, social, economic, heritage and cultural aspects. The impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration, and probability of the impacts, including the degree to which the impacts- (aa) can be reversed; (bb) may cause irreplaceable loss of resources; and (cc) can be avoided, managed, or mitigated. The methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives; Positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographic, physical, biological, social, economic, heritage and cultural aspects; The possible mitigation measures that could be applied and level of residual risk; The outcome of the site selection matrix; If no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such and; A concluding statement indicating the preferred alternatives, including preferred location of the activity.	Section 9
		Section 10
		Table 10-6
		Section 11
		Section 13
		Section 14
		Section 13
		Section 13
		Section 17 Section 18 Section 19

Section of the EIA Regulations, 2014	Description of EIA Regulations Requirements for Scoping Reports	Section
Appendix 2 (h)	<p>A plan of study for undertaking the environmental impact assessment process to be undertaken including-</p> <p>A description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity;</p> <p>A description of the aspects to be assessed as part of the environmental impact assessment process;</p> <p>Aspects to be assessed by specialists;</p> <p>A description of the proposed method of assessing the environmental aspects, including a description of the proposed method of assessing the environmental aspects including aspects to be assessed by specialists;</p> <p>A description of the proposed method of assessing duration and significance;</p> <p>An indication of the stages at which the competent authority will be consulted;</p> <p>Particulars of the public participation process that will be conducted during the environmental impact assessment process;</p> <p>A description of the tasks that will be undertaken as part of the environmental impact assessment process;</p> <p>Identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored.</p>	Section 20
Appendix 2 (i)	<p>An undertaking under oath or affirmation by the EAP in relation to</p> <p>The information provided in the report is correct.</p> <p>The inclusion of the comments and inputs from stakeholders and interested and affected parties; and</p> <p>Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties.</p>	Section 21
Appendix 2 (j)	<p>An undertaking under oath or affirmation by the EAP in relation to the level of agreement between the EAP and interested and affected parties on the plan of study for undertaking the environmental impact assessment.</p>	Section 22
Appendix 2 (k)	<p>Where applicable, any specific information is required by the competent authority.</p>	Section 20.10
Appendix 2(l)	<p>Any other matter in terms of Section 24(4)(a) and (b) of the NEMA</p>	Section 20.10.3

3 Contact Person and Correspondence

G and E Global has appointed Ndi Geological Consulting Services (Pty) Ltd as the independent Environmental Assessment Practitioner (EAP) to undertake the necessary environmental authorisation process and associated stakeholder engagement process to meet the requirements of NEMA and NEM: WA.

3.1 Details of EAP who prepared the report

The EAP involved in the compilation of this Scoping Report and contact details are provided in Table 3-1.

Table 3-1: EAP Contact Details

EAP Name	Contact Number	Email Address
Ndivhudzannyi Mofokeng	0610173302	atshidzaho@gmail.com ndi@ndigeoservices.co.za

3.2 Expertise of the EAP

3.2.1 Qualifications of the EAP

The qualifications of the EAP are provided in Table 3-2 below, and copies of the qualifications are provided in Appendix B.

Table 3-2: EAP Qualifications

EAP Name	Qualifications	Professional registration	Years' Experience
Ndivhudzannyi Mofokeng	BSc (Hons) Earth Sciences in Mining and Environmental Geology	EAPASA Reg Number 2020/1554 GSSA Prof Reg	15

3.2.2 Summary of EAP's experience

The EAP, Mrs Ndivhudzannyi, is a registered EAP (EAPASA Reg Number 2020/1554) with a BSc (Hons) in Earth Sciences, majoring in Mining and Environmental Geology. She is a self-motivated and hardworking Geologist with 15 years of experience in environmental, mining exploration, open cast work and consulting in the mining industry. She has proven leadership skills from supervising exploration rigs (Reverse Circulation and Percussion Drilling). Proven field experience in exploration, i.e. mapping, borehole logging, borehole sampling, sample preparation for laboratory analysis, and supervisory duties in the field. Her responsibilities involve but are not limited to managing all Environmental matters: Environmental Impact Assessment and Environmental Management Programme, Environmental Authorizations, Environmental Auditing & Risk Assessment, Mine Closure & Rehabilitation, and conducting & reviewing Environmental specialists' studies. Ndivhudzannyi also has experience writing geological reports, including Prospecting Work Programmes and Mining Work Programmes Environmental Management Plans, handling Department of Mineral Resources and Energy documents in general like the submission of Mining & Prospecting Right Applications and Renewals.

Please refer to Appendix 2 for a copy of the EAP's Curriculum Vitae and Professional Registration Certificate.

4 Project Location

4.1 Property Description

The description of the affected property is provided in Table 4-1 and map showing the affected property is provided in Figure 4-1.

Table 4-1: Description of Properties affected by the Mining Project

Farm Name:	Portions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13 and the Remaining Extent of the farm Colga 132 JO				
Application area (Ha)	3927ha				
Magisterial district:	Mahikeng				
Distance and direction from nearest town	The proposed mining area is approximately 11.5 km southeast of Mahikeng in the Ngaka Modiri Molema District Municipality, North West Province.				
21-digit Surveyor General Code for each farm portion	Surveyor General Code	Farm Portion	Farm Name		Activity
	T0JO00000000013200000	0	Colga 132 JO		Surface
	T0JO00000000013200001	1	Colga 132 JO		Surface
	T0JO00000000013200002	2	Colga 132 JO		Surface
	T0JO00000000013200003	3	Colga 132 JO		Surface
	T0JO00000000013200004	4	Colga 132 JO		Surface
	T0JO00000000013200005	5	Colga 132 JO		Surface
	T0JO00000000013200006	6	Colga 132 JO		Surface
	T0JO00000000013200007	7	Colga 132 JO		Surface

		TJO0000000001320008	8	Colga 132 JO		Surface
		TJO0000000001320009	9	Colga 132 JO		Surface
		TJO0000000001320010	10	Colga 132 JO		Surface
		TJO0000000001320012	12	Colga 132 JO		Surface
		TJO0000000001320013	13	Colga 132 JO		Surface

4.2 Locality map

The proposed G and E Global Mining project is in the North West Province of South Africa, about 11.5 km southeast of Mahikeng in the Ngaka Modiri Molema District Municipality, North West Province.

A copy of the locality map is provided in Appendix 3.

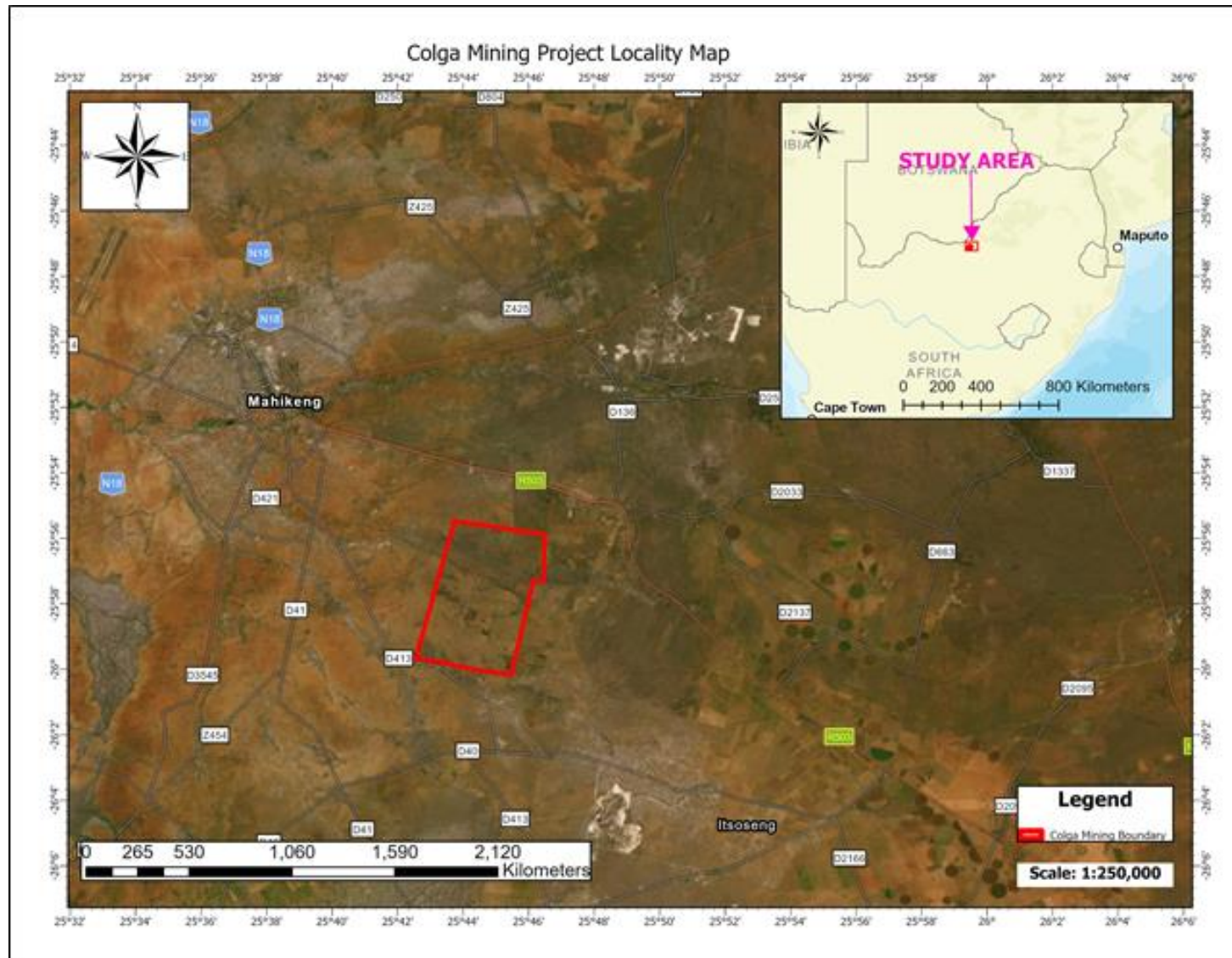


Figure 4-1: Locality map

5 Project description

5.1 Overview

The MR/EA/WML applications are for the proposed mining of Diamond, Diamond (alluvial), Diamond (kimberlite), Aggregate, Lead, Manganese Ore, Limestone, Sand and Gold Ore. There are 4 mining areas that have been identified for the proposed mining project. Where present vegetated soil overlying the planned mining areas is to be stripped prior to mining and stockpiled on dedicated stockpile areas next to each mining area which will be used for rehabilitation purposes at a later stage.

Exploration on the mining right has proven that the entire project area is underlain by andesitic and tuff rocks of the Allanridge formation, Platberg Group of Ventersdorp Supergroup which is further underlain by the dolomitic rocks of the Malmani subgroup.

The Rooikoppie Gravel were identified on the northwestern part of the mining permit area and characterized by clast-supported gravel almost entirely consists of siliceous lithologies such as quartz, quartzite, chert and BIF.

Exploration targets were generated by means of surface excavations. The ores will be loaded onto the dump trucks from the open excavations by excavator and hauled to the crushing and screening plant. Blasting is required when extreme hard materials are to be mined out of the pits.

5.2 Mining activities

Due to the proximity and the nature of the orebodies, mining will be done by conventional opencast mining method, which is designed based on the nature of the orebodies on the mine. Each mining area will be treated as a separate pit. Access to the opencast mining areas will be provided by a number of haul roads to the processing plant for the minerals.

Pits will be excavated to expose the layer of alluvial gravel; the upper layer of silty clay top soil will be removed and piled on a side followed by the removal of the Co-lluvial and Rooikoppie gravel layer which will also be stockpiled as bulk samples.

G and E Global proposes to put a plant for the processing of gravel material from the pits. The gravel will be hauled from the pits to the processing plant and also adhering to a 100m buffer zone; to avoid polluting the river.

The plant is more than 90% effective, that is if density tests are done regularly, and pans adjusted accordingly. The Dense Media Separation (DMS) cyclone is a 360mm diameter and reportedly operates at a feed pressure of 130 kPa. This translates to a feed capacity of 77 m³/hr. If it is assumed the media to ore ratio operates at the minimum permissible level for a diamond operation of 5:1, then the feed tonnage is 40 TPH. Majority of the plant feed will be returned to the excavations in the form of dry tailings. The rehabilitation process will be undertaken using the topsoil and overburden varying in thickness of 0.1m to 4m (seldom more than 0.5m) will be stored next to the excavation and used for to backfill the excavations in their respective order to ensure cost effective rehabilitation. The slimes dam filled with puddle from rotating pans will also contribute material (dry slime) to be used as surface cover for the excavations in the rehabilitation process.

5.3 Listed and specified activities

Section 16 of the MPRDA requires, upon request by the Minister that an Environmental Management Programme (EMPr) be submitted, and that the applicant must notify and consult with Interested and Affected Parties (I&APs). Section 24 of the NEMA requires that listed activities, which may potentially affect the environment negatively, must obtain an environmental authorisation from a relevant authority before the activities may commence.

Such activities are listed under the EIA Regulations (2014, which has been amended in 2017 and 2021) and consist of:

- EIA Process (Government Notice Regulation (GNR) 982);
- Listing Notice 1 GNR 983 – Basic Assessment process,
- Listing Notice 2 GNR 984 – Scoping and EIA process;
- Listing Notice 3 GNR 985 – Activities in specific identified geographical areas only.

GNR 982, 983, 984 and 985 have been amended in 2017 and in 2021 through GNR 324, 325, 326 and 327, respectively.

The purpose of these regulations is to avoid negative impacts on the environment, and where these cannot be avoided, ensure the mitigation and management of the impacts to acceptable levels while optimising positive environmental impacts.

The proposed mining activity, triggers activities listed in NEMA Listing Notice 1 and 2. Table 5-2 provides a summary of the identified NEMA listed activities that will be triggered by the mining project.

Table 5-1: Applicable Activities

NAME OF ACTIVITY <small>(E.g. For prospecting - drill site, site camp, ablation facility, accommodation, equipment storage, sample storage, site office, access route etc...etc...etc E.g. for mining, - excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablation, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc.)</small>	Aerial extent of the Activity Ha or m ²	LISTED ACTIVITY <small>(Mark with an X where applicable or affected).</small>	APPLICABLE LISTING NOTICE <small>(GNR 983, GNR 984 or GNR 985)</small>	WASTE MANAGEMENT AUTHORISATION <small>(Indicate whether an authorisation is required in terms of the Waste Management Act). (Mark with an X)</small>
<p>Mining Right Application in terms of Section 16 and Regulation 7(1) of the Mineral and Petroleum Resources Development Act.</p> <p>Drilling</p> <p>Excavation of pits.</p> <p>The removal and disposal of a mineral, which requires permission as stated in terms of Section 20 of the Mineral and Petroleum Resources Development Act, as well as any other applicable activity as</p>	3927ha	X	<p>GNR 983 (as amended by GNR327): Activity 27</p> <p>GNR 985 (as amended by GNR324): Activity 12 g (ii)</p> <p>GNR 983 (as amended by GNR327): Activity 20</p> <p>GNR 983 (14)</p> <p>GNR 985 (10 g (ee), (gg))</p> <p>GNR 985 (12 g (ii))</p> <p>GNR 985 (4 g (ii) (ee) (gg))</p> <p>GNR 984 (as amended on 7 April 2017 & 11 June 2021: Activity 19).</p>	

NAME OF ACTIVITY (E.g. For prospecting - drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access route etc...etc...etc E.g. for mining, - excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc.)	Aerial extent of the Activity Ha or m²	LISTED ACTIVITY (Mark with an X where applicable or affected).	APPLICABLE LISTING NOTICE (GNR 983, GNR 984 or GNR 985)	WASTE MANAGEMENT AUTHORISATION (Indicate whether an authorisation is required in terms of the Waste Management Act). (Mark with an X)
contained in this Listing Notice, in Listing Notice 1 of 2014 or Listing Notice 3 of 2014, required to exercise the permission.				
The clearance of an area of 1 ha or more, but less than 20ha of indigenous vegetation, except where such clearance of indigenous vegetation is required for- (i) the undertaking of linear activity; or (i) maintenance purposes undertaken in accordance with a maintenance management plan	<20ha	X	GNR 983 (as amended by GNR327): Activity 27 GNR 985 (as amended by GNR324): Activity 12 g (ii) GNR 983 (as amended by GNR327): Activity 20	
Rehabilitation	Rehabilitation will be required for all disturbed areas	X	GNR 983 (as amended by GNR327): Activity 27 GNR 983 (as amended by GNR327): Activity 19 GNR 985 (as amended by GNR324): Activity 12 g (ii) GNR 983 (as amended by GNR327): Activity 20	
Temporary waste storage areas.	<50m ² each	X	GNR 983 (as amended by GNR327): Activity 27 GNR 985 (as amended by GNR324): Activity 12 g (ii) GNR 983 (as amended by GNR327): Activity 20	GNR 921 Category A Activity 10 GNR 921 Category A Activity 12
Stormwater Management/control infrastructure	>1ha	X	GNR 983 (as amended by GNR327): Activity 27 GNR 985 (as amended by GNR324): Activity 12 g (ii) GNR 983 (as amended by GNR327): Activity 20	
Stockpiling	>2ha		GNR 983 (as amended by GNR327): Activity 27 GNR 985 (as amended by GNR324): Activity 12 g (ii) GNR 983 (as amended by GNR327): Activity 20	
Crusher plant	300m ²		GNR 983 (as amended by GNR327): Activity 27 GNR 985 (as amended by GNR324): Activity 12 g (ii) GNR 983 (as amended by GNR327): Activity 20 GNR 984 (as amended 7 April 2017 & 11 June 2021: Activity 19).	
Ablution facility	<32 m ²	X	GNR 983 (as amended by	

NAME OF ACTIVITY (E.g. For prospecting - drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access route etc...etc...etc E.g. for mining, - excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc.)	Aerial extent of the Activity Ha or m²	LISTED ACTIVITY (Mark with an X where applicable or affected).	APPLICABLE LISTING NOTICE (GNR 983, GNR 984 or GNR 985)	WASTE MANAGEMENT AUTHORISATION (Indicate whether an authorisation is required in terms of the Waste Management Act). (Mark with an X)
			GNR327): Activity 27 GNR 985 (as amended by GNR324): Activity 12 g (ii)	
Topsoil Stockpile	>1 ha	X	GNR 983 (as amended by GNR327): Activity 27 GNR 985 (as amended by GNR324): Activity 12 g (ii)	
Access roads	4 ha	X	GNR 983 (as amended by GNR327): Activity 24 GNR 983 (as amended by GNR327): Activity 27 GNR 985 (as amended by GNR324): Activity 4 g (ii) (ee) (gg) GNR 985 (as amended by GNR324): Activity 12 g (ii)	
Chemical storage	<30m ²	X	GNR 983 (as amended by GNR327): Activity 14 GNR 985 (as amended by GNR324): Activity 10 g (iii), (ee) GNR 985 (as amended by GNR324): Activity 12 g (ii)	
Diesel storage	<30m ²	X	GNR 983 (as amended by GNR327): Activity 20 GNR 983 (as amended by GNR327): Activity 14 GNR 985 (as amended by GNR324): Activity 10 g (iii), (ee) GNR 985 (as amended by GNR324): Activity 12 g (ii)	
Fences	1ha	X	GNR 983 (as amended by GNR327): Activity 27 GNR 983 (as amended by GNR327): Activity 20 GNR 985 (as amended by GNR324): Activity 12 g (ii)	
Office site	0.3ha	X	GNR 983 (as amended by GNR327): Activity 27 GNR 983 (as amended by GNR327): Activity 20 GNR 985 (as amended by GNR324): Activity 12 g (ii)	
Water dam	<10 ha	X	GNR 983 (as amended by GNR327): Activity 27 GNR 985 (as amended by GNR324): Activity 12 g (ii) GNR 983 (as amended by GNR327): Activity 20	GNR 921 Category B (1, 5, 10) GNR 633 Activity 15
Vehicle parking area	<1ha	X	GNR 983 (as amended by GNR327): Activity 27 GNR 985 (as amended by GNR324): Activity 12 g (ii)	

NAME OF ACTIVITY (E.g. For prospecting - drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access route etc...etc...etc E.g. for mining, - excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc.)	Aerial extent of the Activity Ha or m²	LISTED ACTIVITY (Mark with an X where applicable or affected).	APPLICABLE LISTING NOTICE (GNR 983, GNR 984 or GNR 985)	WASTE MANAGEMENT AUTHORISATION (Indicate whether an authorisation is required in terms of the Waste Management Act). (Mark with an X)
Contractors' Camp	1 ha	X	GNR 983 (as amended by GNR327): Activity 27 GNR 985 (as amended by GNR324): Activity 12 g (ii)	
Waste rock dumps	3ha	x	GNR 983 (as amended by GNR327): Activity 27 GNR 985 (as amended by GNR324): Activity 12 g (ii) GNR 983 (as amended by GNR327): Activity 20	X Category A (1, 3, 12)
Hauling and Transport			Not Listed	
Dust Suppression			Not Listed	
Power Generators			Not Listed	

5.4 Activities to be undertaken

5.4.1 Mining

Please refer to Sections 5.1 to 5.2 for a detailed description of the mining activities to be undertaken.

5.4.2 Accommodation

Contractors will be accommodated on-site, and all others will be accommodated in the nearby Mahikeng town. Workers will be transported to and from the mining site daily. Once equipment has been established on-site, night security staff will be employed.

5.4.3 Water Supply

Water will be used for dust suppression and other non-production purposes. The project will likely use boreholes (groundwater) and River water since there are rivers that cross the mining right area.

The Department of Water and Sanitation will be contacted to seek their recommendation on the use of water:

- Regarding Section 21(a) WUL for taking water from a water resource
- Regarding Section 21(b) WUL for Storing water
- Regarding Section 21(c) WUL for Impeding or diverting the flow of water in a watercourse.;
- Regarding Section 21(i) WUL for altering the bed, banks, courses or characteristics of a watercourse.
- Regarding Section 21(f) WUL for discharging waste or water containing waste into a water resource
- Regarding Section 21(g) WUL for disposing of waste in a manner which may detrimentally impact on a water resource

5.4.4 Power Supply

Primary Power: Portable Diesel Generators (typically 250kVA to 500kVA for a 100tph plant) will be used.

Secondary Power: Small mobile "lighting plants" for 24-hour security and solar-powered systems for the administrative site office will also be used to support diesel generators.

5.4.5 Access Roads

The mining site requires a tiered road system to handle heavy earth-moving equipment (yellow metal) and product transport.

External Access: Connection from the nearest public road (e.g., R503 or N14) to the farm gate is through existing farm tracks will be used and if they require graveling to support 20-ton trucks.

Internal Haul Roads: Temporary, unpaved "scraper-cut" roads within the 3,978-ha area will be maintained by the graders to connect the active pits to the central processing plant.

5.4.6 Waste Management Areas

Hazardous waste

Hazardous waste to be generated includes mineral residue, hydrocarbon wastes (oil and liquid fuel wastes) and sewage waste. Hydrocarbon waste will be collected in drums for storage. The drums or any other appropriate receptacle will be removed by a registered waste disposal company for disposal at a registered, licensed waste disposal site. The drums will be placed on protected ground. Mineral residue will include mud and drilling chips generated during the drilling of the exploration boreholes. The mineral residue will be removed from the site and disposed of at a registered waste disposal site. Oil waste and liquid fuel waste include used oils from mine machinery and vehicles and diesel/petrol waste.

General Waste

General waste generated from the proposed project area will include domestic waste, which includes old food, polystyrene, old stationary, discarded Personal Protective Equipment (PPE) and old clothing generated from the drilling and campsites. General waste will be collected in drums and disposed of at a registered domestic waste disposal site.

Storage of Dangerous Goods (Hydrocarbons)

During the drilling activities, limited quantities of diesel fuel, oil, and lubricants will be stored on site. The only dangerous good that will be stored in any significant amount is diesel fuel. No more than 30 m³ will be stored above ground in diesel storage tanks.

5.4.7 Stockpile Areas

The required stockpile areas will include:

- Tailings Stockpile Areas: Temporary stockpile areas will be required from where waste will be used for backfilling or hauled to waste rock dump areas; and
- Topsoil stockpile areas for the temporary storage of topsoil which will be used for the rehabilitation of disturbed areas

5.4.8 Temporary Site Offices

A temporary site office area will be put up at the mining sites.

5.4.9 Sewage Management

Sewage waste will be generated from the campsite and mining sites. Portable chemical toilets will be used to manage this waste on site.

5.4.10 Slimes Dam

A slimes dam will be required to separate mud from water; this will allow the water to be pumped back to the plant thereby reducing "make-up" water requirement by up to 80%.

5.4.11 Blasting

It is expected that blasting may be required as part of mining. RC boreholes will be drilled for blasting.

The map in Figure 5-1 shows the plan contemplated in Regulation 2(2) of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) (MPRDA), depicting the land to which the application relates. The map also denotes the directly affected farms and the boundary coordinates of the application area.

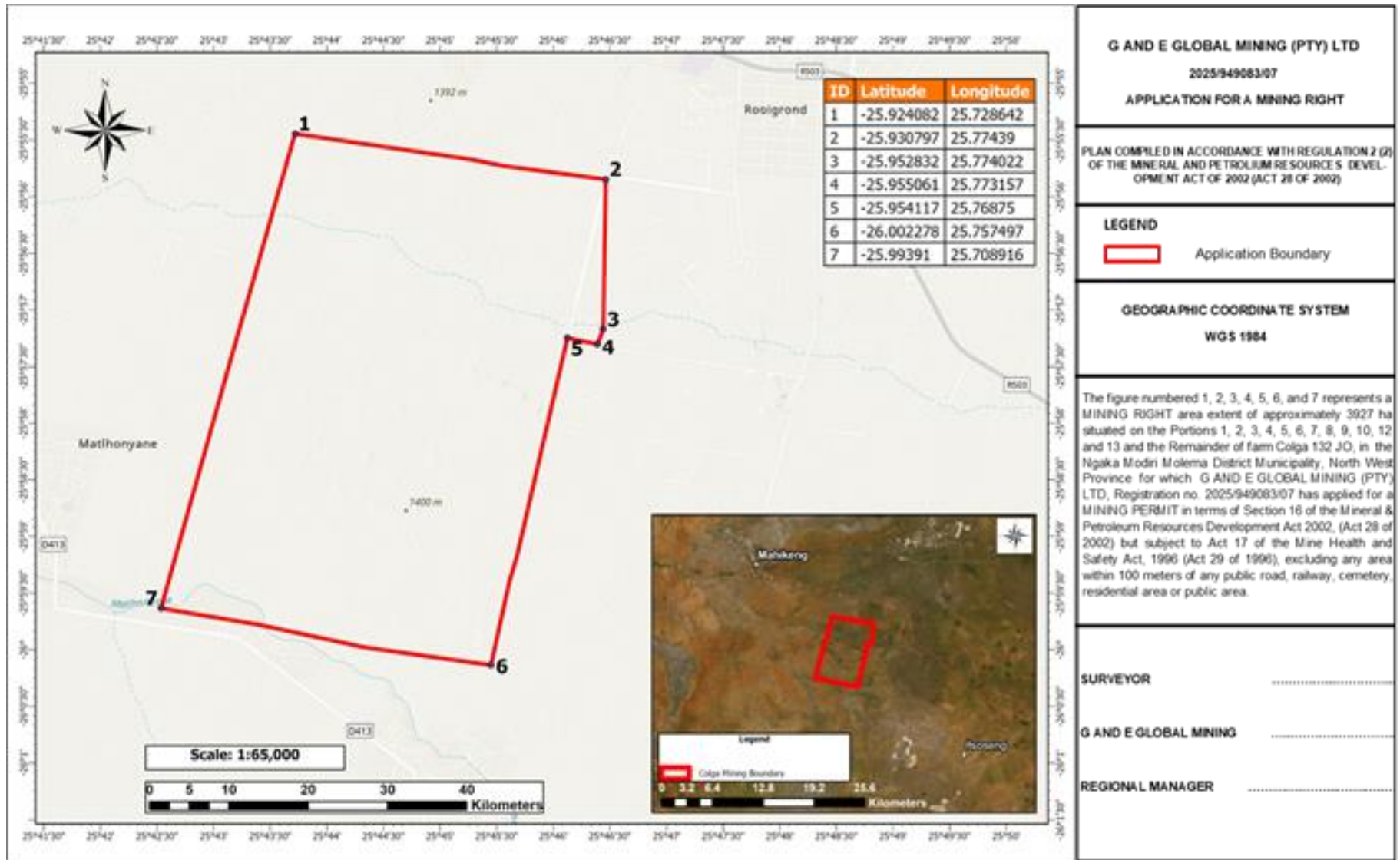


Figure 5-1: Mining Right Application Area

6 Policy and legislative context

Table 6-1 lists the applicable legislation, policies and guidelines identified as relevant to the proposed project. In addition, a description of how the proposed activity complies with and responds to the legislation and policy context is provided. This list is not exhaustive but rather represents an indication of the most applicable pieces of legislation relevant to the project.

Table 6-1: Policy and Legislative Context of Proposed Project

Legislation	Description and Relevance	Authority
Constitution of the Republic of South Africa, (No. 108 of 1996)	<p>Chapter 2 – bill of rights</p> <p>Section 24 – Environmental Rights</p> <p>The proposed activities shall be conducted in such a manner that significant environmental impacts are avoided, where significant impacts cannot all together be avoided, they will be minimised and mitigated in order to protect the environmental rights of South Africans</p>	N/A
Promotion of Access to Information Act (Act No. 2 of 2000) (PAIA)	<p>The Promotion of Access to Information Act (Act No. 2 of 2000) (PAIA) recognises that everyone has a right of access to any information held by the state and by another person when that information is required to exercise or protect any right. The purpose of the Act is to promote transparency and accountability in public and private bodies and to promote a society in which people have access to information that enables them to exercise and protect their right.</p> <p>The EIA/EMPr process to be undertaken in terms of the NEM: WA, NEMA and where required, the NWA, where the associated stakeholder consultation process will be aligned with the PAIA in the sense that all I&APs will be given an opportunity to register as an I&APs prior to the initiation of the project and all registered stakeholders will in turn be provided a fair opportunity to review and comment on any reports submitted to the competent authorities for decision making.</p>	N/A
Protection of Private Information Act 2021 (POPIA)	<p>The POPIA aims to promote protection of personal information. The EIA Regulations, 2014 require, inter alia, transparent disclosure of registered stakeholders and their comments. In terms of the EIA Regulations, 2014, stakeholders who submit comment, attend a meeting or request registration in writing are deemed registered stakeholders who must be added to the project stakeholder database. By registering, stakeholders are deemed to give their consent for relevant information (including contact details) to be processed and disclosed, in fulfilment of the requirements of the EIA Regulations, 2014 and the National Appeal Regulations, 2014.</p> <p>The stakeholder engagement process will comply with the requirements of the new Protection of Personal Information Act (POPIA) which came into effect on 1 July 2021.</p>	N/A
Minerals and Petroleum Resources Development Act 28 of 2002 (MPRDA)	<p>The Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) (MPRDA) makes provision for equitable access to and sustainable development of South Africa's mineral resources. The MPRDA requires that the environmental management principles set out in NEMA shall apply to all mining operations and serves as a guideline for the interpretation, administration and implementation of</p>	Department of Mineral Resources, North West.

Legislation	Description and Relevance	Authority
	<p>the environmental requirements of NEMA.</p> <p>The MPRDA requires that a reconnaissance permission, prospecting right, mining right, mining permit, retention permit, technical corporation permit, reconnaissance permit, exploration right, production right, prospecting work programme; exploration work programme, production work programme, mining work programme, environmental management programme, or an environmental authorization issued in terms of the National Environmental Management Act, 1998, as the case may be, may not be amended or varied (including by extension of the area covered by it or by the addition of minerals or a share or shares or seams, mineralized bodies, or strata, which are not at the time the subject thereof) without the written consent of the Minister.</p> <p>Section 22 of the MPRDA as amended by Section 18 of Act 49 of 2008</p> <p>The proposed project requires a Mining Right from the DMPR.</p>	
National Environmental Management Act (NEMA) (No. 107 of 1998)	<p>Section 24 – Environmental Authorisation (control of activities which may have a detrimental effect on the environment)</p> <p>Section 28 – Duty of care and remediation of environmental damage</p> <p>Environmental management principles will be incorporated into the EIA and EMP, which the applicant will be required to comply with to ensure that negative impacts on the environment are avoided or kept to a minimum and that positive impacts are enhanced.</p>	
National Environmental Management Act, 1998 (Act 107 of 1998) (NEMA) and the EIA Regulations 2014 (Government Notice (GN) 984), as amended	<p>The EIA Regulations (GNR 982) were promulgated in terms of Sections 24 of the NEMA, to manage the process, methodologies and requirements for the undertaking of an EIA. The GNR 982 stipulates that the applicant for activities listed under GNR 983, 984 or 985 must appoint an independent EAP to manage the EIA process. Listed Activities are activities identified in terms of Section 24 of the NEMA which are likely to have a detrimental impact on the environment, and which may not commence without an EA from the Competent Authority (CA). EA required for Listed Activities is subject to the completion of either a Basic Assessment (BA) process or full Scoping and Environmental Impact Assessment (S&EIA) with applicable timeframes associated with each process. The EA must be obtained prior to the commencement of those listed activities.</p> <p>The project triggers activities listed in Listing Notices 1, 2 and 3 and will require an EA from the DMPR. According to GNR 326 of the NEMA, activities listed in Listing Notice 2 require that a full S&EIA be undertaken. The applicable listed activities that will be triggered by the project is provided in Table 5-2.</p>	
Department of Environmental Affairs (DEA)	Environmental impacts will be generated primarily in the construction phase of this project with	

Legislation	Description and Relevance	Authority
Integrated Environmental Management Guideline Series, Guideline 5: Assessment of the EIA Regulations, 2012 (Government Gazette 805)	associated operational phase impacts. These will be assessed as part of the EIA process.	
Integrated Environmental Assessment Guideline Series 11, published by the DEA in 2004	A full EIA (scoping and impact assessment) is required for the proposed project as activities are triggered under Listing Notice 2.	
Review in Environmental Impact Assessment, Integrated Environmental Management, Information Series 13, Department of Environmental Affairs and Tourism (DEAT), Pretoria.		
DEA Integrated Environmental Management Guideline Series, Guideline 7: Public Participation in the Environmental Impact Assessment Process, 2012 (Government Gazette 807)	Public participation is a requirement of the Scoping/EIA Process and will be conducted for the proposed project as stipulated in Chapter 6 of the NEMA.	
National Water Act, 1998 (Act 36 of 1998)	All activities taking place within 100 m of a watercourse will be licensed under Section 21 c and i	Department of Water and Sanitation (DWS), North West.
National Environmental Management Waste Act (Act No. 36 of 1998)	It is expected that activities listed in GNR921 and GNR 633 will be triggered for the waste facilities and will require a waste management licence. Table 5-2 provides a list of GNR921 activities triggered by the project.	DMPR and DWS, North West through the integrated application process
National Environmental Management Air Quality Act (Act No. 39 of 2004)	Air quality management Section 32 – Dust control. Section 34 – Noise control.	Department of Environmental Affairs and Mahikeng Local Municipality

Legislation	Description and Relevance	Authority
	<p>Section 35 – Control of offensive odours.</p> <p>The principles of the NEM: AQA, focusing on minimisation of pollutant emissions will also be taken cognisance of in the development of the EMPr.</p>	
The National Forestry Act, 1998 (Act No. 84 of 1998) (NFA)	<p>The NFA protects against the cutting, disturbance, damage, destruction or removal of protected trees.</p> <p>A biodiversity specialist study will be undertaken for the application. The study will include an assessment of the significance of biodiversity impacts and mitigation measures will be included in the EMPr. Should there be any protected trees that are affected by the project, G and E Global will apply for the required permits for the removal and/or relocation of the trees.</p>	Department of Agriculture, Forestry and Fisheries (DAFF)
The National Environmental Management: Biodiversity Act (Act No. 10 of 2004) (NEM:BA)	<p>The National Environmental Management: Biodiversity Act (Act No. 10 of 2004) (NEMBA) provides for the management and conservation of South Africa's biodiversity within the framework of NEMA, as well as the protection of species and ecosystems that warrant national protection and the sustainable use of indigenous biological resources. The Act provides for listing of threatened or protected ecosystems, in one of four categories: critically endangered, endangered, vulnerable or protected</p> <p>During the EIA process, biodiversity hotspots and bioregions will be investigated to determine the potential impacts that the project may have on the receiving environment. The management and control of alien invasive species on the impacted areas during all the phases of the project will be governed by the NEM: BA. The NEM: BA ensures that provision is made by the site developer to remove any alien species, which have been introduced to the site or are present on the site.</p>	Department of Environmental Affairs
North West Nature Conversation Act No. 9 of 2009	<p>This Act provides sustainable utilization of wild animals, aquatic biota and plants to provide for them implementation of the convention on international trade in endangered species of wild fauna and flora. The Act provides for offenses and penalties of contravention Act, further provide for the appointment nature conservator to implement the provision of the Act. It also provides the issuing of the permits and other authorisations and provides matters connected therewith.</p> <p>Should there be any protected trees that are affected by the project, G and E Global will apply for the required permit for the removal and/or relocation of the trees. This will be determined during the biodiversity assessment.</p>	North West Department of Nature Conservation (DENW)
Mine Health Safety Act, 1996 (Act No. 29 of 1996) (MHSA)	<p>The Mine Health and Safety Act (Act No. 29 of 1996) (MHSA) aims to provide for protection of the health and safety of all employees and other personnel at the mines of South Africa.</p> <p>G and E Global will need to ensure that employees, contractors, sub-contractors and visiting personnel, adhere to this Act and subsequent amendment regulations on site.</p>	Department of Mineral Resources (North West)

Legislation	Description and Relevance	Authority
Conservation of Agricultural Resources Act (Act No. 43 of 1983)	<p>Control measures for erosion</p> <p>Control measures for alien and invasive plant species</p> <p>The EMPr will include measures to control and manage alien invasive plant species.</p>	Department of Agriculture Forestry and Fisheries
National Heritage Resources Act 25 of 1999	<p>Heritage Permit for structures 60 years or older.</p> <p>A phase 1 heritage resources specialist study will be conducted for the project. The study will include an assessment of the significance of heritage impacts and mitigation measures will be included in the EMPr. Should there be any heritage and cultural resources that are affected by the project, G and E Global will apply for the required permit for the destruction and/or relocation of the heritage or cultural resources.</p>	North West Heritage Resource Authority
Restitution of Land Rights Act, 1994 (Act No. 22 of 1994), as amended in 2014.	<p>Land Claims.</p> <p>There is no land claims associated with the affected properties.</p>	Department of Rural Development and Land Reform

6.1 Municipal Plans and Policies: Mahikeng Integrated Development Plan

According to the Integrated Development Plan (IDP) for the Mahikeng Local Municipality (2023/2024), the local mining industry is not very active. However, small-scale mining can hold tremendous potential in certain areas. Mining in Mahikeng LM can be a powerful source in economic development and poverty reduction. Mining in Mahikeng LM can help fight poverty in a number of ways:

- It can be a catalyst for further private sector development.
- It can create jobs directly and indirectly as well as opportunities for growth for lateral or downstream businesses.
- There are also indirect linkages through investments, which in turn enable better social services and catalyse improvements in physical infrastructure.
- Large mining operations, often invest in Local Economic Development through training, social services and public goods such as clean water, transport, energy and other infrastructure.
- There are also many tourism opportunities linked to the mining sector, which includes the manufacturing of arts and crafts and group tours, as done by Slurry.

6.2 Other guidelines

Other guidelines that were consulted include:

- North West Provincial Biodiversity Conservation Plan;
- Department of Water and Sanitation (DWS), 2022. Mine Water Management Policy. Pretoria, South Africa. Available from the DWS official website.

This policy specifically addresses mine water management challenges associated with active, abandoned, and proposed mining operations in provinces including the North West Province.

- Department of Water and Sanitation, 2024. Water and Sanitation in North West Celebrates Water Month.

The publication highlights sustainable water resource management and water conservation initiatives within the North West Province.

- Department of Water and Sanitation, 2025. Draft Rehabilitation Management Guidelines for Water Resources. Pretoria, South Africa.

The guidelines provide updated approaches for rehabilitation and restoration of rivers, wetlands, groundwater systems, lakes, and dams affected by development activities including mining.

- Department of Water and Sanitation. e-WULAAS Documents and Water Use Licence Application Guidelines.

Available online through the DWS e-WULAAS portal and includes updated procedural requirements and water use licence guidance relevant to mining developments.

- Department of Water and Sanitation, 2016. Guideline for the Development and Implementation of Water Conservation and Water Demand Management Plans for the Mining Sector. Developed in collaboration with the Minerals Council South Africa.

- Department of Water and Sanitation, 2016. Benchmarks for Water Conservation and Water Demand Management in the Mining Sector. Pretoria, South Africa.
- Department of Environmental Affairs (DEA), 2017. Guideline on Need and Desirability. Pretoria, South Africa.
- Department of Environmental Affairs (DEA), 2012. Companion to the EIA Regulations 2010, Integrated Environmental Management Guideline Series 7. Pretoria, South Africa.
- Jones & Wagener, 2024. Integrated Regulatory Process for the Proposed Rhovan In-Pit Disposal of Tailings, North West Province. The report includes Integrated Water and Waste Management Plan (IWWMP) considerations relevant to mining developments in the North West Province.
- Department of Water and Sanitation, 2024. Mine Water Management: A Regulatory Overview. This publication discusses mine water management challenges and regulatory approaches relevant to South

7 Motivation

7.1 Benefits of Mining.

Minerals would not exist without mining and mineral processing activities, highlighting the importance of the mining industry in supporting economic growth and industrial development. The mining sector plays a critical role in supplying raw materials required for manufacturing, infrastructure development, energy production, and technological advancement, thereby contributing significantly to both local and global economies

For years, Mining Industry in South Africa has been a driving force behind South Africa's economy and continues to make a significant contribution to national economic development. The country's economy was historically built on gold and diamond mining, with gold previously accounting for more than a third of the country's exports. South Africa's diamond mining industry was recognised as one of the largest in the world in 2009.

Mining is expected to continue playing an important role in the economy, particularly through foreign exchange earnings, infrastructure development, and employment creation. The sector remains one of the primary sources of employment opportunities for unskilled and semi-skilled workers. According to the Minerals Council South Africa, the mining sector contributed approximately R351 billion to South Africa's Gross Domestic Product (GDP) in 2018. During the same period, approximately 456 438 people were employed within the mining sector, with each employee supporting several indirect dependants through economic linkages.

Should the application for a Mining Right be successful, the proposed project is expected to create employment opportunities and contribute positively to the economy of the Ngaka Modiri Molema District Municipality, which will in turn contribute to the broader provincial and national economies.

G and E Global commits to promoting sustainable community development through the implementation of a Social and Labour Plan (SLP), which will outline the Local Economic Development (LED) programmes intended for Mahikeng and the surrounding communities. The primary focus of these LED programmes will be to improve education, provide mentorship and skills development opportunities, and promote socio-economic upliftment within surrounding communities, with particular emphasis placed on Historically Disadvantaged South Africans (HDSAs)

7.2 Environmental responsibility

The mining project is expected to have negative environmental impacts, including, but not limited to, the impacts included in Section 13 of this report.

The impacts will be investigated in detail during the impact assessment phase of the project. Where possible, measures to mitigate the project's impacts will be identified and finalised during the impact assessment phase of the project. The mitigation measures will include designs and management practices that will be embarked on to prevent and/or minimise the identified impacts on the social, cultural and environmental aspects. Mitigation measures will be specified for each potential significant impact identified. High-level mitigation measures have been included in Section 13 of this report. These mitigation measures will be described in more detail in the EMPr that G and E Global must comply with throughout the mining period.

The EMPr will also include an environmental monitoring programme that will allow G and E Global to monitor the project's environmental impacts and, where necessary, take remedial action.

7.3 Socio-economic benefits

The proposed mining project is expected to create employment opportunities for local communities and contribute positively to the local economy during both the construction and operational phases of the project. Additional economic benefits may include increased demand for local goods and services such as accommodation, transportation, catering, fuel supply, security, and equipment maintenance.

The mining operations will require both skilled and semi-skilled labour, which may contribute to skills development and capacity building within the surrounding communities. Furthermore, the project is anticipated to stimulate secondary business opportunities and support broader socio-economic development within the area.

Although certain specialised activities may be undertaken by experienced contractors and subcontractors, the project is expected to provide both direct and indirect employment opportunities throughout the life of mine.

7.4 No-go option

The option of not approving the proposed mining activities may result in the loss of an opportunity to fully determine and utilise the mineral potential of the identified properties, particularly with regard to Diamond, Aggregate, Lead, Manganese Ore, Limestone, Sand and Gold Ore resources. Should economically viable mineral reserves be present, the inability to proceed with the project could prevent the development and extraction of these resources.

Furthermore, the potential positive socio-economic benefits associated with the proposed mining project would not be realised. These benefits may include employment creation, local economic stimulation, infrastructure development, skills transfer, increased business opportunities for local suppliers and contractors, and contributions to municipal and provincial economic growth.

In addition, the project may contribute towards regional development initiatives and support broader economic objectives through investment in local communities and associated development programmes.

8 Period for which the Environmental Authorisation is required

The EA/WML will be required for a period of 15 years.

9 Details of all Alternatives Considered

Identifying and investigating alternatives is a key aspect of the S&EIA process. All reasonable and feasible alternatives must be identified and assessed during the scoping phase to determine the most suitable alternatives to consider and assess during the impact assessment phase. However, some significant constraints must be considered when identifying alternatives for a project of this scope. Such constraints include social, financial, and environmental issues, which will be discussed in the evaluation of the alternatives. The preferred option is to be highlighted and presented to the authorities.

Alternatives can typically be identified according to:

- Location alternatives;
- Process alternatives;
- Technological alternatives; and
- Activity alternatives (including the No-go option).

Any alternative must meet the need and purpose of the development proposal without presenting significantly high associated impacts. The alternatives are described, and the advantages and disadvantages are presented. It further indicates which alternatives are considered feasible from a technical as well as environmental perspective.

Incremental alternatives typically arise during the impact assessment process and are usually included to address identified impacts. These alternatives are closely linked to the identification of mitigation measures and are not specifically identified as distinct alternatives. This section provides information on the development footprint alternatives, the properties considered, as well as the type of activity, activity layout, technological and operational aspects of the activity.

9.1 The property on which or location where it is proposed to undertake the activity

The proposed project area is predominantly underlain by andesitic and tuffaceous rocks of the Allanridge Formation within the Platberg Group of the Ventersdorp Supergroup. These geological units are further underlain by dolomitic rocks of the Malmani Subgroup.

The diamondiferous gravel deposits identified within the area are interpreted as erosional remnants of a palaeo-fluvial system that historically transported material from the north and north-east towards the south and south-west along an ancient surface gradient (Wilson et al., 2006). Field observations indicate the presence of two fundamentally different types of diamondiferous gravels within the project area, suggesting favourable geological conditions for diamond occurrence.

Based on the geological characteristics, mineralisation potential, and field evidence obtained during the investigation, the site is considered suitable and preferred for the proposed project. Consequently, no feasible site alternatives are considered at this stage of the assessment process.

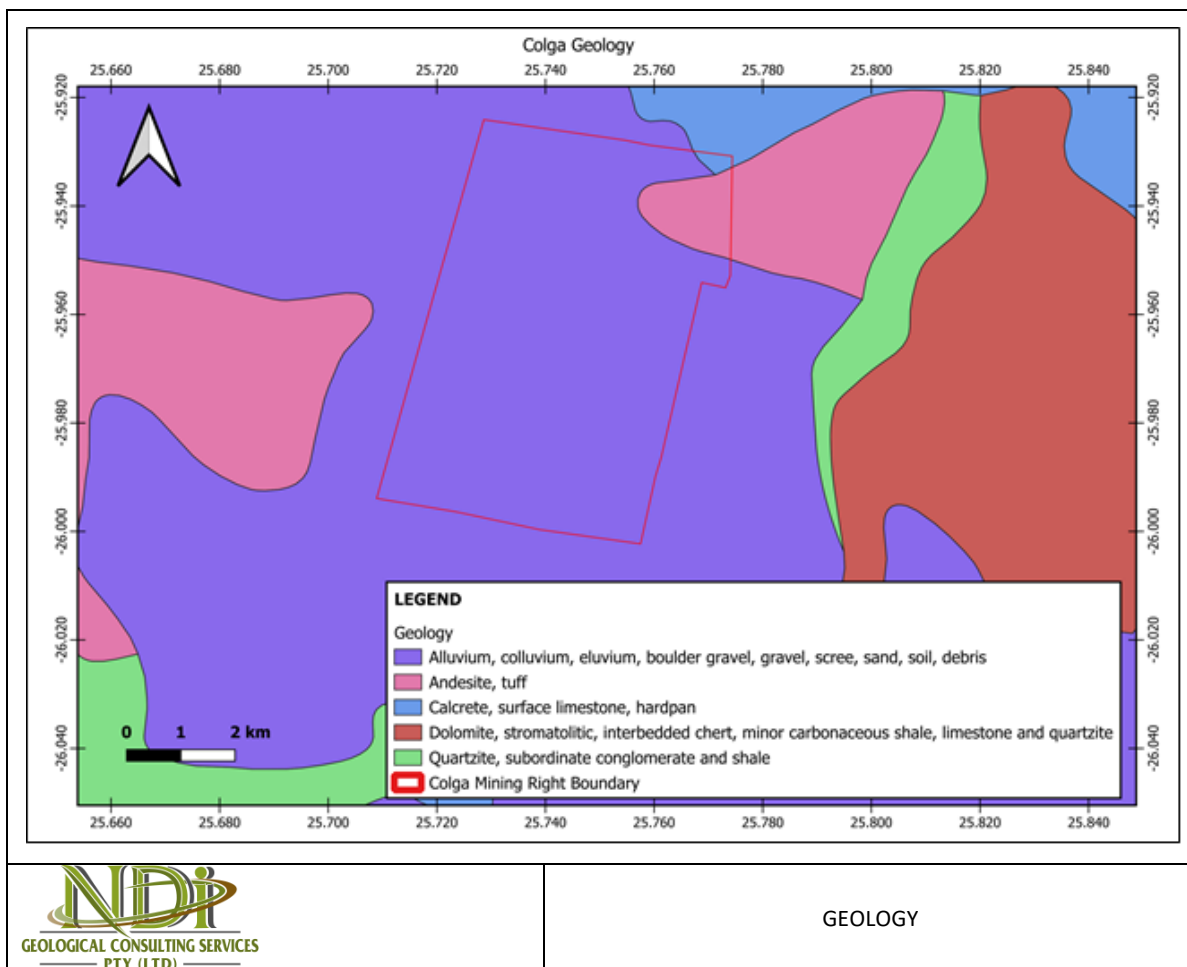


Figure 9-1: Geology of the mining area

9.2 Type of Activity

The preferred type of activity involves the establishment and operation of a mining project for the extraction of the targeted mineral resource within the identified mining area. This alternative was selected based on the favourable geological conditions, mineralisation potential, economic viability of the resource, and the potential socio-economic benefits associated with the project.

The proposed mining activities may include:

- Site establishment and infrastructure development;
- Vegetation clearing and topsoil stripping;
- Excavation and mineral extraction;
- Hauling and transportation of ore/material;
- Stockpiling and processing activities;
- Stormwater and water management infrastructure; and
- Rehabilitation activities concurrent with mining operations.

The preferred mining method was considered the most feasible and practical approach due to the depth, extent, and nature of the mineral deposit.

9.3 Design or Layout of the Activity

The preferred layout activity was selected based on the location of the mineralised zone, existing site conditions, accessibility, operational efficiency, and environmental considerations. The proposed

layout was designed to minimise unnecessary disturbance of surrounding areas while allowing for safe and efficient mining operations.

The preferred layout generally includes the following infrastructure:

- Mining pit/excavation areas;
- Haul and access roads;
- Stockpile areas;
- Topsoil storage areas;
- Stormwater management infrastructure;
- Pollution control dams;
- Workshop and laydown areas;
- Processing infrastructure (where applicable); and
- Rehabilitation areas.

The positioning of infrastructure was informed by the geological characteristics of the site, topography, drainage patterns, and environmentally sensitive features identified during the assessment process.

Certain layout alternatives were not considered feasible due to increased environmental impacts, engineering limitations, operational inefficiencies, or the potential sterilisation of economically viable mineral resources.

9.4 The Technology to be Used in the Activity

The preferred technology involves the use of conventional mining equipment and methods considered appropriate for the type, depth, and extent of the mineral resource. The selected technology is regarded as the most practical and economically feasible option for the proposed mining operation.

The preferred technology may include:

- Excavators and front-end loaders for material excavation;
- Haul trucks for transportation of ore and waste material;
- Screening and crushing equipment (where applicable);
- Water bowsers for dust suppression;
- Mobile processing equipment;
- Stormwater and pollution control infrastructure; and
- Mechanical rehabilitation equipment for concurrent rehabilitation activities.

Some technological alternatives were not considered feasible because of excessive operational costs, lower production efficiency, increased environmental disturbance, or incompatibility with the characteristics of the mineral deposit.

9.5 The Operation Aspects of the Activity

The preferred operational aspects of the activity involve conducting mining activities in a controlled and phased manner to optimise mineral extraction while minimising environmental impacts. The

operational approach was selected based on the geological characteristics of the deposit, production requirements, safety considerations, and environmental management objectives.

The preferred operational activities may include:

- Phased mining and excavation activities;
- Controlled hauling and transportation of material;
- On-site stockpiling of ore and waste material;
- Dust suppression and stormwater management;
- Use of designated access and haul roads;
- Controlled fuel storage and refuelling procedures;
- Waste management and pollution prevention measures; and
- Concurrent rehabilitation of disturbed areas where feasible.

The phased operational approach is intended to minimise the extent of disturbance at any given time and facilitate progressive rehabilitation throughout the life of the project.

Other operational alternatives were not considered suitable due to increased environmental impacts, excessive operational costs, reduced efficiency, or potential safety concerns.

9.6 The Option of Not Implementing the Activity

The No-Go Alternative would avoid the potential environmental impacts associated with the proposed mining activities, including vegetation clearance, soil disturbance, dust generation, noise impacts, increased traffic, and potential impacts on water resources and biodiversity. In addition, no mining-related infrastructure or operational activities would be developed within the project area.

However, the No-Go Alternative would also result in the loss of potential socio-economic benefits associated with the proposed project. These benefits may include:

- Employment creation for local communities;
- Skills development and training opportunities;
- Increased business opportunities for local suppliers and contractors;
- Local and regional economic stimulation;
- Contributions towards municipal and provincial economic growth; and
- Potential community development initiatives through Social and Labour Plan (SLP) commitments.

Furthermore, the No-Go Alternative would prevent the potential utilisation of economically viable mineral resources within the project area, which may contribute towards the mining sector and broader economic development objectives within South Africa.

Although the No-Go Alternative remains a legally viable option, the proposed project is considered preferable due to the anticipated economic and social benefits associated with the development, provided that the identified environmental impacts can be effectively managed and mitigated through the implementation of appropriate mitigation measures and environmental management practices.

10 Public Participation Process

Stakeholder engagement is a key element of the environmental decision-making process, and stakeholder engagement forms part of the scoping phase as well as the impact assessment phase. The process is primarily aimed at affording I&APs the opportunity to gain an understanding of the proposed project. In addition, the purpose of consultation with the landowners, key stakeholders, and I&APs is to provide them with the necessary information about the proposed project so that they can make informed decisions as to whether the project will affect them and provide the EIA team with local knowledge of the area and raise concerns relating to the biophysical, socio-economic and cultural impacts that may arise.

The stakeholder engagement process will be conducted in terms of NEMA, which provides clear guidelines for stakeholder engagement during an EIA, as summarised in Table 10-1.

Table 10-1: NEMA Stakeholder Guidelines

NEMA Section	Applicability to Stakeholder Engagement
Chapter 1	Outlines the principles of environmental management, several pertaining to public consultation (e.g., Chapter 1, subsections (2), (3), (4) (f), (g), (h), (k), (q) and (r).
Chapter 6,	Regulations 39 – 44 of the amended EIA Regulations GNR) 326, promulgated on 8 December 2014, specify the minimum requirements for stakeholder engagement in an EIA process conducted under the NEMA.
Section 24J of the NEMA	In 2017, the Minister of Environmental Affairs published, Section 24J of the NEMA in terms of, Public Participation Guidelines which guide the Public Participation Process in order to give effect to Section (2)(4)(f), (o) and 24 (1A) (C) of the NEMA.

In addition, the stakeholder engagement process will comply with the requirements of the new Protection of Personal Information Act (POPIA), which came into effect on 1 July 2021. The POPIA aims to promote the protection of personal information. The EIA Regulations, 2014, require, *inter alia*, transparent disclosure of registered stakeholders and their comments. Regarding the EIA Regulations, 2014, stakeholders who submit comments, attend a meeting or request registration in writing are deemed registered stakeholders who must be added to the project stakeholder database. By registering, stakeholders are deemed to give their consent for relevant information (including contact details) to be processed and disclosed in fulfilment of the requirements of the EIA Regulations, 2014 and the National Appeal Regulations, 2014.

The application process will commence with a scoping phase, which will inform the impact assessment phase. This scoping phase will provide Interested and Affected Parties (I&APs) with an opportunity to provide the EAP with issues and concerns regarding the proposed project to inform the technical studies so that they can evaluate these concerns during the EIA phase of the project.

The draft Scoping and EIA Reports will be made available for public review prior to submission to the DMPR for authorisation. All the comments received will be captured and addressed where feasible in the Scoping and EIA Reports.

Figure 10-1 provides a diagram of an Integrated Stakeholder Engagement Process for the proposed project.



Figure 10-1: Integrated EIA and Stakeholder Engagement Process

All the above-mentioned guidelines have been incorporated into this stakeholder engagement process. The application will be submitted to the DMPR as the competent authority for authorisation. Identified commenting authorities on this application include:

- DWS – Regional Office;
- SAHRA – Provincial;
- Mahikeng Local Municipality;
- Ngaka Modiri District Municipality;
- Department of Agriculture; and
- North West Department of Nature Conservation (DENW).

10.1 Details of the Public Participation Process

10.1.1 Stakeholder Identification Interested and Affected Parties

Interested and Affected Parties (I&APs) were identified using GIS and cadastral information to identify affected and adjacent properties. The affected and adjacent property owners were identified using the surveyor's general website, www.deedsweb.gov.za. In addition, registered I&APs were also sourced from responses to the advertisements, site notices and written notification to I&APs associated with the project.

The I&APs register will be maintained for the duration of the study. Here, the details of stakeholders are captured and automatically updated upon communication to the EAP. The identification, registration, and comments from I&APs will be an ongoing activity.

The affected properties are provided in Table 10-2.

Table 10-2: List of Affected Farm and Farm Portions

Farm	Portions	21 Digit Surveyor General Code
Colga 132 JO	Remaining Extent	TOJO00000000013200000
	1	TOJO00000000013200001
	2	TOJO00000000013200002
	3	TOJO00000000013200003
	4	TOJO00000000013200004
	5	TOJO00000000013200005
	6	TOJO00000000013200006
	7	TOJO00000000013200007
	8	TOJO00000000013200008
	9	TOJO00000000013200009
	10	TOJO00000000013200010
	12	TOJO00000000013200012
	13	TOJO00000000013200013

The adjacent properties are provided in Table 10-3 and Figure 10-2.

Table 10-3: List of Adjacent Farm and Farm Portions

Farm	Portions	21 Digit Surveyor General Code
Molopo-Ratshidi 302 JO	Remaining Extent	T0JO00000000030200000
Devondale 134 JO	Remaining Extent	T0JO00000000013400000
Devondale 134 JO	Portion 1	T0JO00000000013400001
Lentevallei 133 JO	Portion 1	T0JO00000000013300001
Lentevallei 133 JO	Portion 4	T0JO00000000013300004
Lente 415 JO	Portion 0	T0JO00000000041500000
Spring Valley 131 JO	Remaining Extent	T0JO00000000013100000
Rooigrond 135 JO	Remaining Extent	T0JO00000000013500000

A map of the affected and adjacent farm portions of the site is illustrated in Figure 10-2

10.1.2 Notification and Registration of the I&APs

Ndi Geological used various methods to inform stakeholders of G and E Global's intention to undertake the required EA/WML process. During the project's announcement phase, stakeholders were provided with the opportunity to participate and register as I&APs.

Distribution of BID Documents

Project BID documents were distributed to identified Interested and Affected Parties (I&APs), informing them of the proposed project and inviting them to participate in the public participation process.

Site Notice Placements

Sites notice boards (Size A2: 600 mm X 420 mm) notifying stakeholders and I&APs of the proposed activity were placed at conspicuous places in the project area. These placement areas were determined according to the quantity of potential I&APs that may pass by. Images of the placed site notices together with their corresponding GPS location coordinates are attached in Appendix 5.

Newspaper Advertisements

Newspaper advertisements notifying stakeholders about the proposed project and the opportunity to participate in the EIA process were placed in the Mahikeng Mail and Noordwester newspapers on the 22nd of May 2026. Newspaper advert tear sheets are attached in Appendix 5.

The notices were prepared and displayed in both English and Afrikaans to ensure effective communication with all Interested and Affected Parties (I&APs).

10.1.3 Notification of the Availability of the Draft Scoping Report

The DSR's availability was announced via SMS, letters, and emails to registered I&APs. The DSR, announcement letters, and comment forms were also made available for public viewing and comment in the same public places as for the project announcement phase.

10.1.4 Stakeholder commenting period

The Scoping Report will be made available for a 30-day commenting period from 23 May 2026 to 23 June 2026.

The Scoping Report will also be made available to the competent and commenting authorities during the 30-day stakeholder review and commenting period. Stakeholders are encouraged to submit their written comments to the EIA team using the contact details provided. They could also fill in comment forms at one of the public places and/or contact the EAP via telephone or email to submit comments and to discuss any issues of concern.

All comments received thus far have been incorporated into the Scoping Report. All comments raised by stakeholders will be recorded and will be included in the Final Scoping Report.

10.1.5 Public Meeting

Depending on the responses received during the registration period and requested by the stakeholders, a public meeting may be held during the project's Scoping Phase.

The stakeholders will have the opportunity to comment on the report and plan of study and raise issues that may need to be included in the impact assessment phase. All comments received will be incorporated into the final Scoping Report.

10.1.6 Comment and Response Report

A summary of comments received will be included in the Final Scoping Report to be submitted to the DMPR. However, comments received to date from pre-application consultations are included in Section 10.1.7.

10.1.7 Summary of Issues Raised by I&APs

No comments have been received from the stakeholders to date.

Table 10-4: Summary of the Issues Raised by the I&APs

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted.	Date Comments Received	Issues raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated.
<u>AFFECTED PARTIES</u>				
Landowner/s				
Municipal councillor				
Municipality				
No comments received to date.				
Organs of state (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DWS				
NO COMMENTS RECEIVED TO DATE				
Communities				
Dept. Land Affairs				
Traditional Leaders				
Dept. Environmental Affairs				
Other Competent Authorities affected				

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted.	Date Comments Received	Issues raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated.
OTHER AFFECTED PARTIES				

10.2 Public Participation Process Going Forward

The Public Participation Process will be ongoing throughout all the project phases. The stakeholder engagement proposed for the Impact Assessment Phase is presented below.

10.2.1 Stakeholder engagement during impact Assessment phase

Stakeholders will be informed once the competent authority (DMPR) has accepted the Scoping Report and Plan of Study (PoS) and granted permission for the commencement of the impact assessment phase of the process.

Stakeholder engagement during the Impact Assessment will focus on providing information and an opportunity for public comment on the findings and recommendations of the impact assessment and management programme/plan. The draft findings will be presented in the Draft EIA / EMPr Report for the public to review and comment on.

The Draft EIA and EMPr Report will be available for public comment in the same newspaper as the project announcement.

Registered I&APs will be informed through SMS, and letters will be distributed by email before the report is made available. Stakeholders will be invited to a public meeting where the contents of the Draft EIA/EMPr will be presented, and stakeholders will have the opportunity to comment. Stakeholders will be invited to comment on the Draft EMPr Report in any of the following ways:

- By raising comments during meetings where the content of the Draft EIA/EMPr Report will be presented;
- By completing comments forms available with the report at public places and by submitting additional written comments by email, or by telephone to EAP; and
- The draft EIA/EMPr Report will be available for comment for a period of 30 days at public places in the project area as per the announcement and scoping phase and placed on the Ndi Geological Consulting Services (Pty) Ltd website.

Depending on the responses received during the registration period and where requested by the stakeholders, a public meeting may be held during the impact assessment phase of the project.

Where necessary, comments and issues raised by I&APs during the commenting period will be consolidated into the Final EIAR and EMPr, with the relevant response issued by the EAP. The Final EIAR and EMPr will then be submitted to the DMPR for decision-making. The comments will also be collated into the Final EIAR.

10.2.2 Notification of Authority Decision

Registered stakeholders will be advised in writing (mail, email, and SMS) of the authority decision on the EIA / EMPr and details on the procedure to appeal the decision. The notification will summarise the authorities' decision and provide information according to legal requirements on how to lodge an appeal should they so wish.

11 Baseline Characterisation

This section provides a general overview of the status quo of the environmental and social context within which the proposed project is located. All the proposed activities will take place within the affected properties. While most of the descriptions below are focused on the site itself, where necessary, the regional context of the environmental features is also explained. For each environmental aspect discussed below, proposed environmental issues/impacts have been highlighted qualitatively where applicable. The EIA will explore these issues on a quantitative level.

11.1 Geographical

The area is known as the Mahikeng Local Municipality (NW383) and is situated in the North West Province, 20 kilometers south of the Botswana Border. Mahikeng is the capital city of North West Province and used to be known as the City Council of Mafikeng. The local municipality is considerably large compared to the four other local municipalities (Category B Municipalities) constituting Ngaka Modiri Molema District Municipality that was established in terms of the Municipal Demarcation Act (Act No. 27 of 1998). Neighbouring local municipalities which border the Ngaka Modiri-Molema District Municipality are: Ramotshere Moiloa Local Municipality, Tswaing Local Municipality, Ditsobotla Local Municipality and Ratlou Local Municipality. The affected property is approximately 11.5 km southeast of Mahikeng in the Ngaka Modiri Molema District Municipality, North West Province.

11.2 Topography

The project area is characterized by predominantly flat to moderately undulating terrain; gentle surface gradients with localized shallow drainage features with isolated low ridges and slightly elevated areas occurring sporadically. Surface drainage is generally flowing toward seasonal drainage lines and pans are typical of the area.

The Matlhonyane River, also referred to as the Polfonteinspruit River, traverses the southern portion of the study area. In addition, a non-perennial drainage line crosses the northern portion of the study area.

These watercourses may play an important role in local surface water drainage and ecological functioning within the area. As such, the proposed project activities will need to consider appropriate buffer zones, stormwater management measures, erosion control, and pollution prevention measures to minimise potential impacts on the surrounding aquatic environment.

The presence of both perennial and non-perennial drainage features within and adjacent to the study area may require further assessment during the environmental authorisation process, including potential wetland and hydrological investigations where applicable.

The altitude ranges between 1370m to 1372m above sea level.

The topography map of the proposed mining area shows that the altitude of the site is 1 440 mamsl (Figure 11-1).

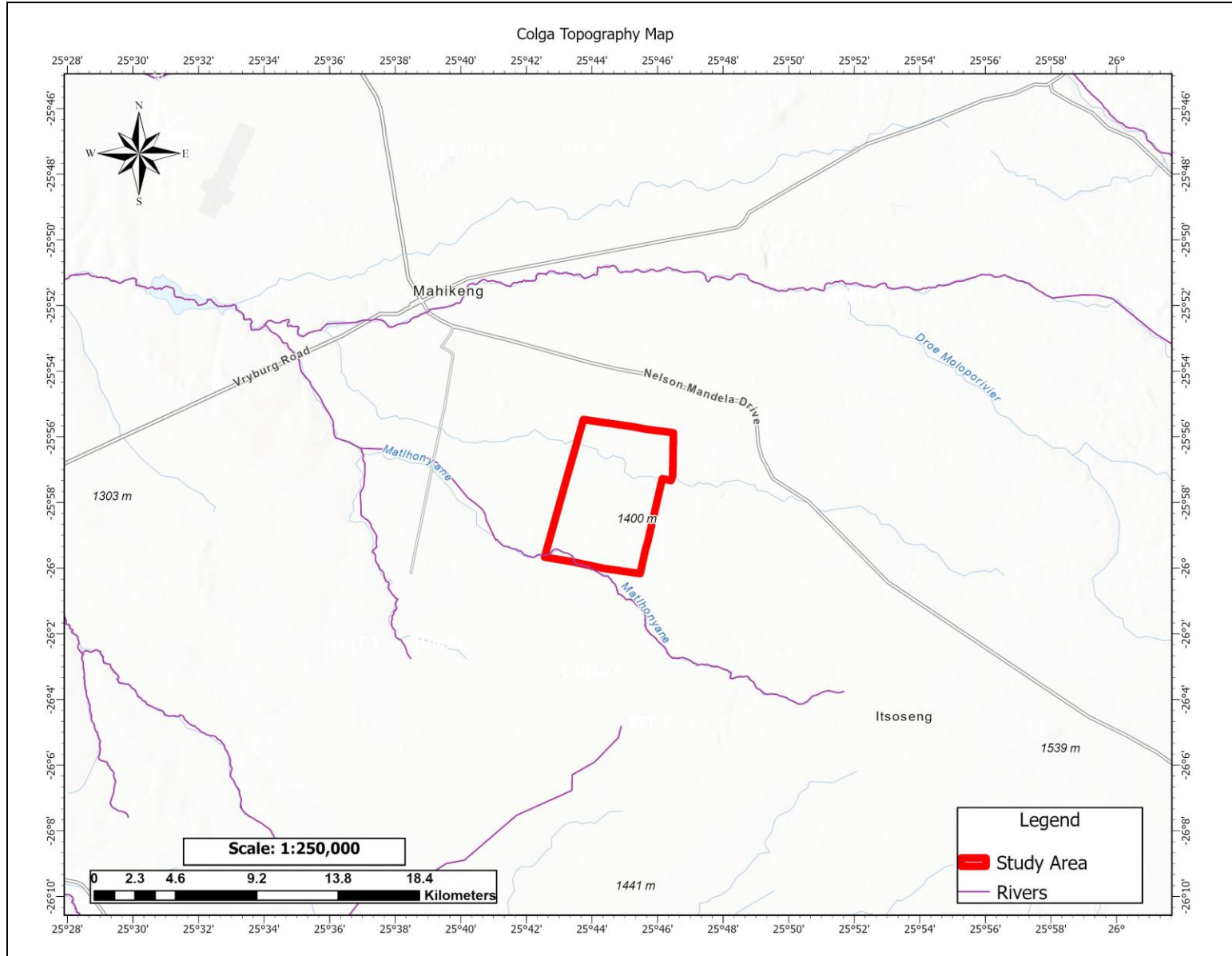


Figure 11-1: Topography

11.3 Climate

The summer months (from August to March) bring brief but refreshing afternoon thundershowers. The town has an above average rainfall of 300 to 700 mm annually. Summer temperatures range between 22 and 34°C and winter brings with it dry, sunny days and chilly nights. The average winter (from May to July) temperature is 16°C but can range from an average of 2 to 20°C in a single day.

11.3.1 Average Temperatures and Monthly Rainfall

Mahikeng experiences significant seasonal variation in monthly rainfall. The rainy period of the year lasts for 8.0 months, from September 18 to May 18, with a sliding 31-day rainfall of at least 12.7 mm. The month with the most rain in Mahikeng is January, with an average rainfall of 76.2 mm.

The rainless period of the year lasts for 4.0 months, from May 18 to September 18. The month with the least rain in Mahikeng is July, with an average rainfall of 10.16 mm. Monthly precipitations above 150mm are mostly wet, and below 30mm, mostly dry

The "mean daily maximum" (solid red line) shows the maximum temperature of an average day for every month for Mahikeng. Likewise, "mean daily minimum" (solid blue line) shows the average minimum temperature. Hot days and cold nights (dashed red and blue lines) show the average of the hottest day and coldest night of each month of the last 30 years (Figure 11-2).

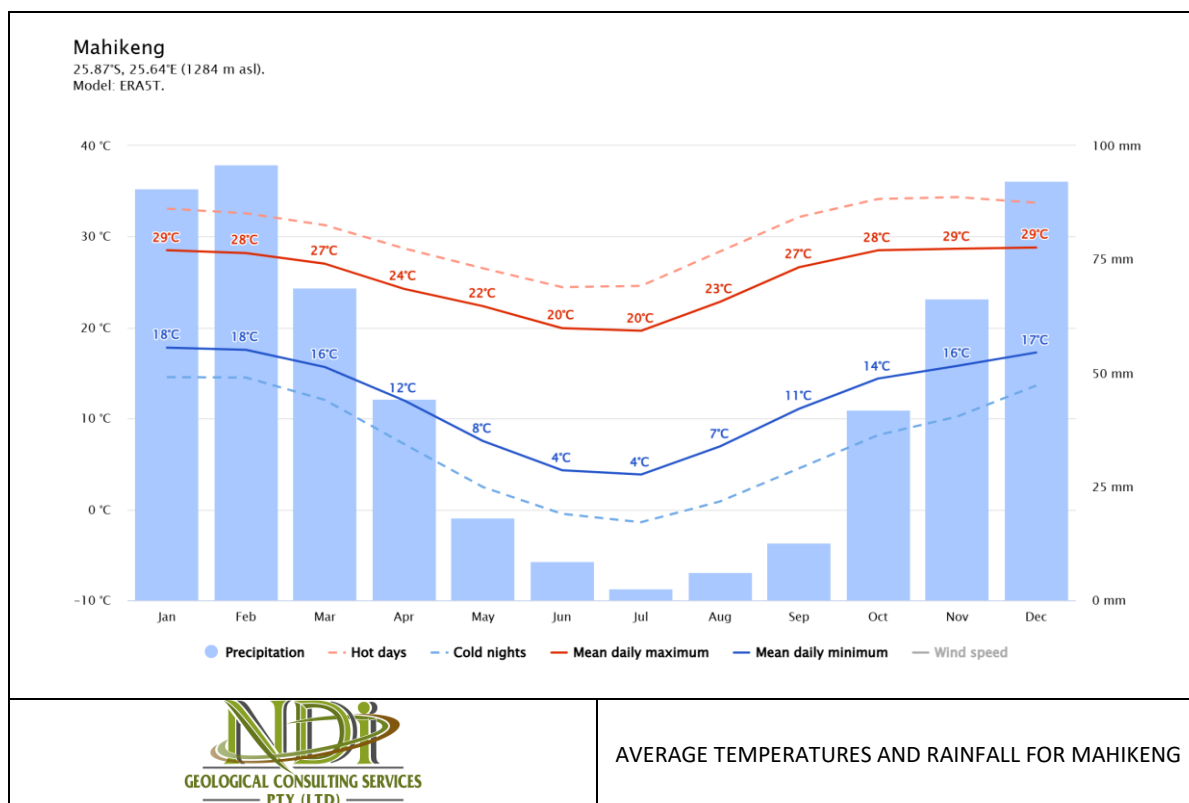


Figure 11-2: Average Temperatures for Mahikeng (Source: <https://www.meteoblue.com>)

11.4 Geology

The geology of South Africa is extremely varied and spans a period of about 4 billion years (SACS, 1980). The northeast portion of the country is dominated by the granitic rocks and belts of volcanic and sedimentary rocks forming the Archaean Kaapvaal Craton. Much of the rest of the country is covered by Phanerozoic sediments. (Figure 11-3).

The earliest clusters of diamondiferous kimberlites, namely Kuruman and Cullinan, intruded into South Africa during the Proterozoic era. The main kimberlitic (both diamondiferous and barren) intrusive event, however, took place in the late Mesozoic. All the kimberlites that host economic deposits occur on the Kalahari Archon (Kaapvaal and Zimbabwe Cratons), while those occurring in the surrounding Proterozoic basement are non-diamondiferous (Gurney, Moore, Otter, Kirkley, Hops, & McCandless, 1991). Over 2,000 kimberlite pipes, blows and fissures have been recorded across South Africa, Lesotho, Swaziland, Botswana and Zimbabwe, spanning emplacement age range of approximately 1,700 – 40 million years ago (“Ma”), with peaks at 1,700Ma, 1,200Ma, 600-500Ma, 240Ma, and 200-80Ma. Kimberlite emplacement was followed by the liberation and entrainment of diamonds and the subsequent deposition of terraces on the ancient Vaal and Orange Rivers.

Two prolonged periods of exposure and erosion, firstly, between the Archaean eruption of the Ventersdorp lavas and initial Karoo sedimentation at about 300Ma and later between the end of the major Karoo event at 150 Ma and the Vaal River sedimentation at 5Ma, would have substantially re-shaped the surface across which the palaeo-Vaal and its tributaries flowed. Added to this, the super-continental scale Dwyka glacial event that marked the onset of Karoo sedimentation would, itself, have exerted a transformational effect on the post-Ventersdorp surface. The surface over which the palaeo-Vaal and Orange Rivers flowed and on which the diamondiferous gravels were subsequently deposited, would have been irregular, affording high potential for diamond traps.

Later, river evolution was strongly influenced by the two periods of uplift known to have affected the eastern part of the interior of southern Africa. The first uplift of 200-300m occurred at about 18.6 Ma, which was followed at 2.5 Ma by an event of by 900m uplift. This uplift would have triggered a period of accelerated river incision and simultaneous lowering and peneplanation of the land surfaces, accompanied by the supply of detritus, which included minute proportions of diamonds (De Wit, the distribution and stratigraphy of inland alluvial diamond deposits in South Africa, 1996) (De Wit, Ward, Jacob, Spaggiari, & van der Westhuisen, 1997).

The present drainage of the region consists of the Vaal-Harts River from the no

The alluvial diamonds of the Middle Orange, thus, have several probable primary source areas:

- The diamondiferous kimberlites of Lesotho, eroded by the present Orange River;
- Diamonds from the same source as the Lichtenburg - Western Transvaal diamond-fields, eroded by the Vaal-Harts system;
- Diamonds derived from the kimberlites of the Kimberley area; and
- Diamonds from Botswana and the Postmasburg fields, including the Finch kimberlite, eroded by the palaeo-drainage noted above.

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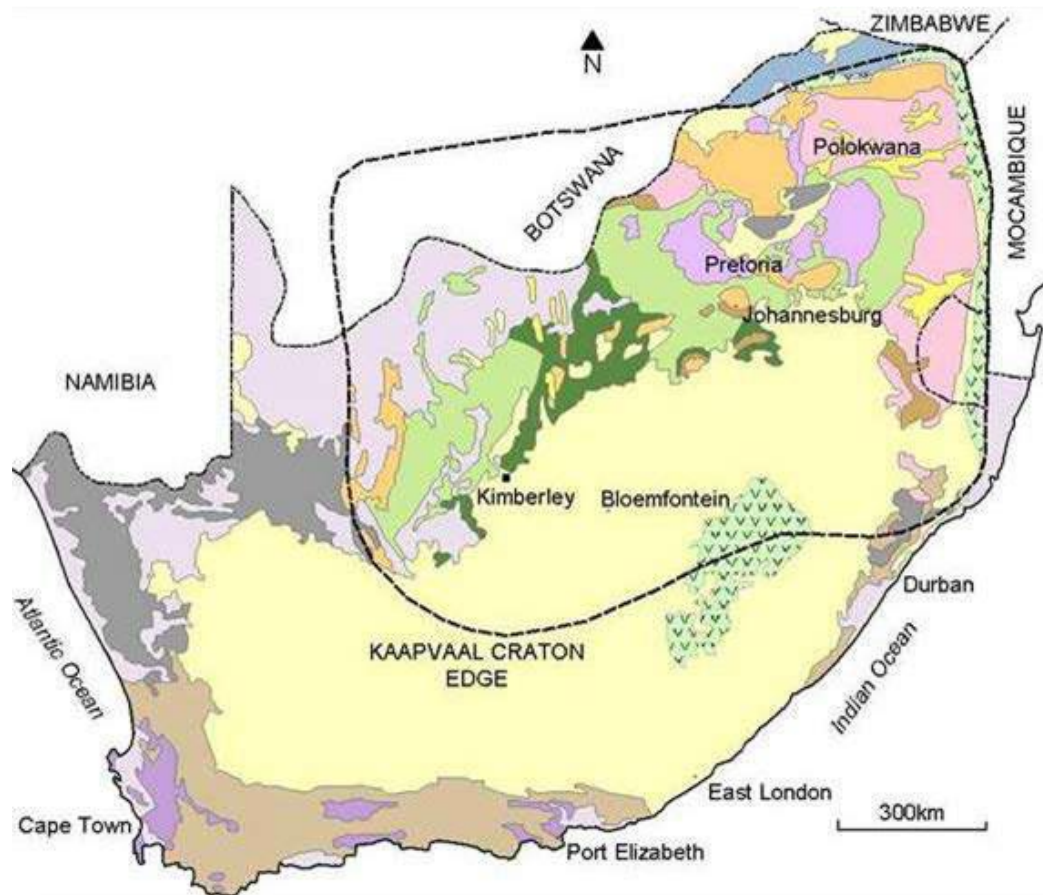


Figure 11-3: Geology of South Africa

Local geology

According to the available 1: 250 000 geological map, sheet 2524 Mafikeng, the entire project area is underlain by andesitic and tuff rocks of the Allanridge formation, Platberg Group of Ventersdorp Supergroup which is further underlain by the dolomitic rocks of the Malmani subgroup.

The diamondiferous gravel deposits of the area are erosion remnants of a palaeo- fluvial system that transported material from the north and north-east along an ancient surface gradient towards the south and south-west (Wilson et al., 2006). Field evidence indicates that there are two, fundamentally- different types of diamondiferous gravels characterizing the project area. The geology of the study area is shown in Figure 11-4.

Rooikoppie Gravel

The Rooikoppie Gravel were identified on the northwestern part of the mining permit area and characterized by clast-supported gravel almost entirely consists of siliceous lithologies such as quartz, quartzite, chert and BIF. It has been defined as reddish brown, intact, gravely sand with angular quartzite cobbles found over the hard massive calcrete rock.

The alluvial diamonds associated with this gravel deposits are generally of high quality, as a result of the presence of larger stones (50 to 200 ct). The Rooikoppie gravels occur as a 1-2m-thick, unsorted, matrix-supported, generally-upward-fining unit that has been completely lateritized.

These gravels were dominating the upper section of the project area's and are generally overlain by a thin (0,5-1,0m), soil overburden.

This layer is believed to be as a result of post-depositional modification has resulted in the formation of colluvial and eluvial "Rooikoppie" deposits, which were preferentially mined by the artisanal diggers of the previous century...

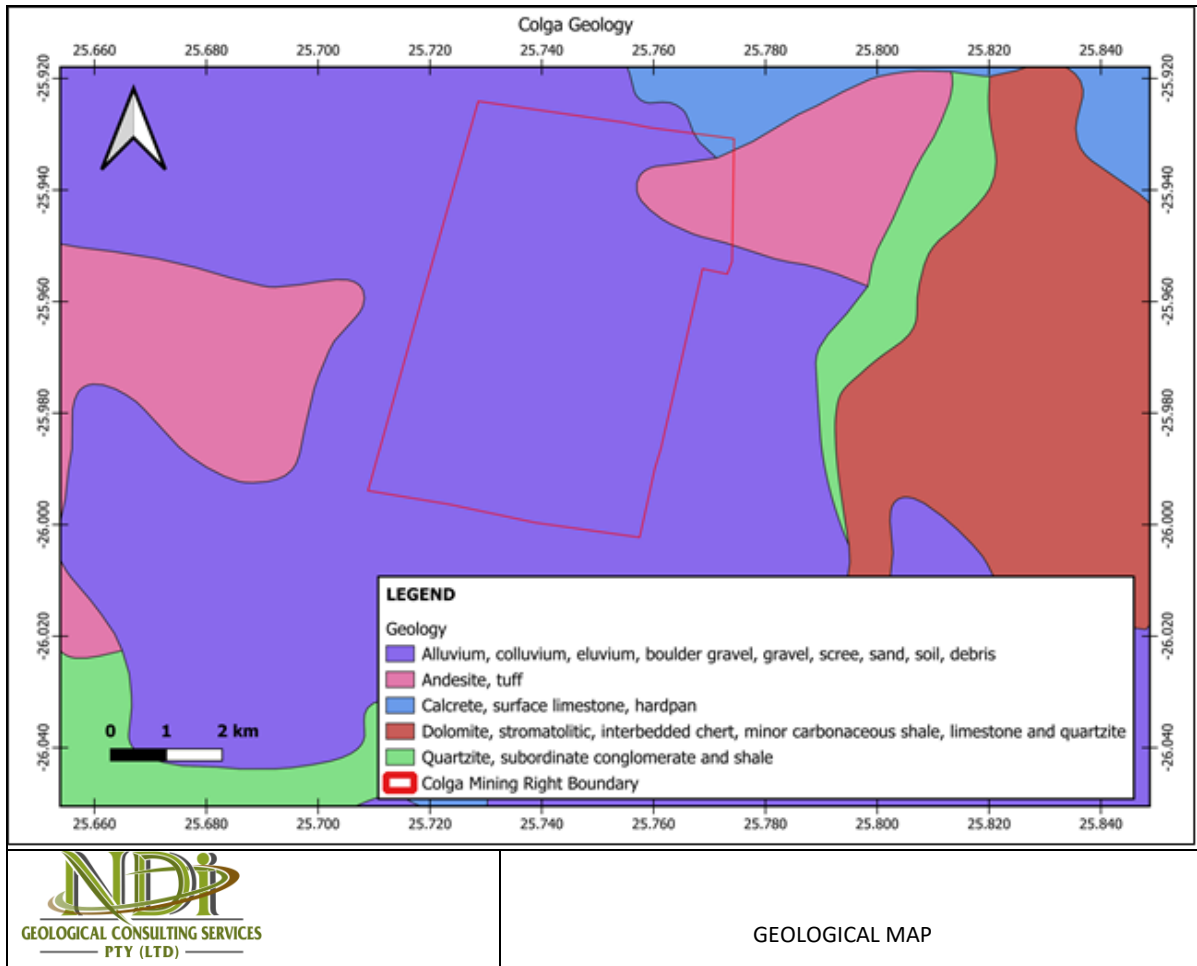


Figure 11-4: Geological Map

11.5 Surface Water

The surface water resources associated with the Colga 132 JO area form part of the broader drainage network within the Middle Vaal Water Management Area. The study area is influenced primarily by the Polfonteinspruit (Matlhonyane River) system and associated non-perennial drainage lines occurring within and adjacent to the property.

The surface water environment in the area is characterised by seasonal and non-perennial drainage features; shallow drainage channels associated with summer rainfall events; localised alluvial and gravel deposits linked to palaeo-fluvial systems; and surface runoff flowing generally along natural drainage gradients toward the regional catchment system.

Mahikeng town, which has a population of around 300 000 (when including the surrounding peri-urban area) is almost solely dependent on groundwater. The main sources of water to the town are the Molopo Eye spring, which yields about 20 Mℓ/day of water, and the Grootfontein Wellfield, which yield about 8 Mℓ/day.

Mahikeng also has a small surface water resource in the form of the Setumo Dam, located on the ephemeral Molopo River. However, for much of the year the water flowing into the dam is return flows from two wastewater treatment works, and the quality of the dam water is poor, which makes treatment expensive.

11.6 Wetlands

According to the SANBI data, there are two wetlands occurring within the study area as displayed in Figure 11-5.

It is important to note that the wetlands are recognised as a National Freshwater Priority Area by the SANBI. During the mining phase, a minimum of 32-50m buffer is recommended from the wetlands to protect and maintain the integrity of the wetland. Figure 11-6 shows the wetlands encountered on site during a survey.

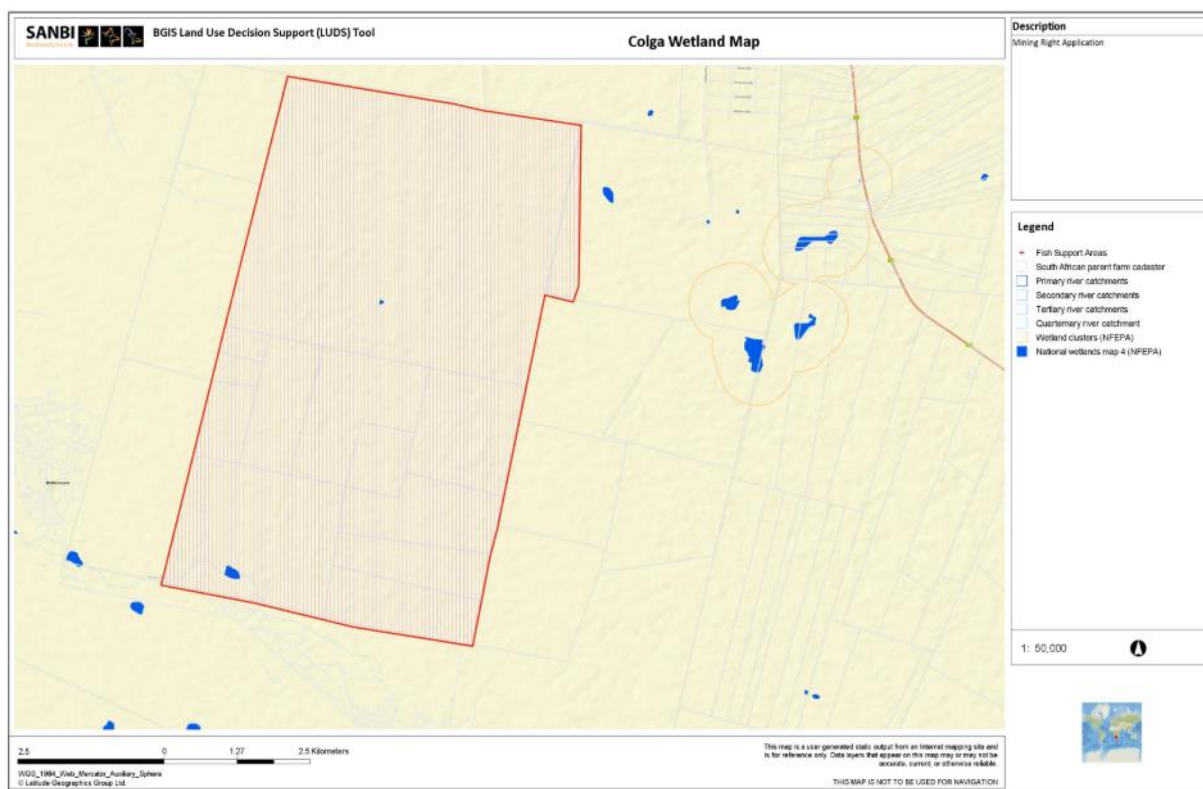


Figure 11-5: Wetland Types



Figure 11-6: Wetland on site

11.7 Groundwater

11.7.1 Aquifer Characterisation

Mahikeng requires about 18.3 Mm³/y (million cubic metres per annum) of water. This water comes from three sources: a large spring about 40 km east of the city called the Molopo Eye (about 7.3 Mm³/y or 40%); a well field in the Grootfontein Aquifer about 20 km to the south-east (about 3.7 Mm³/y or 20%); and the Setumo Dam on the Molopo River to the west (another 7.3 Mm³/y or 40%). The peri-urban areas surrounding Mahikeng are almost completely groundwater dependent, mainly from smaller stand-alone boreholes not connected to urban Mahikeng's supply.

The Molopo Eye spring and the Grootfontein Aquifer are located in the North-West dolomites, a series of extensive and prolific aquifers that are amongst South Africa's most important groundwater resources (Meyer, 2012). It is estimated that the North-West dolomites together contain a similar volume of water to South Africa's largest dam, the Gariep Dam (roughly 5000 Mm³), and that the aquifers are currently recharged at a rate of around 300 Mm³/y (Stephens and Bredenkamp, 2002).

Average groundwater levels in the Grootfontein compartment continued to fall as both irrigating farmers and the city of Mahikeng continued to pump water from the aquifer. The groundwater level is now more than 28 m below ground level near the old spring (Cobbing, 2017). Episodic recharge and the heterogeneity of the Grootfontein Aquifer complicate the picture, but analysis of records dating from the 1970s show that water levels in the Grootfontein Aquifer have fallen by about 0.4 m/y on average across the compartment (Cobbing, 2018). One reason why the well field delivers less water today than it did in the past, is that the groundwater level is now too deep for several of the boreholes to reach.

At some point irrigating farmers were abstracting about 13.6 Mm³/y, whilst the Grootfontein well field supplying Mahikeng abstracts about 3.7 Mm³/y (Cobbing, 2018). Other smaller users abstract about another 1.5 Mm³/a. Since average recharge is a maximum of about 10 Mm³/y, these figures imply a significant continuing deficit of about 8.8 Mm³/y (Cobbing, 2018). If a substantial reduction in abstractions (particularly irrigation abstractions) could be agreed, and the water level decline arrested and stabilised, then appropriators would all have greater long-term water supply certainty. This would in turn make the water supply to Mahikeng more reliable, lowering risk and increasing confidence. A stable water level that was closer to ground level would also lower pumping costs, and wear and tear on equipment.

11.8 Biodiversity

According to the National Biodiversity Strategy (NBS), biodiversity considerations are to be integrated into all other strategies and plans at the local government level, such as poverty eradication and developmental programmes. The NBS provides a map for achieving the biodiversity-related objectives contained, i.e. reducing the rate at which biodiversity is lost. The goal of the NBS has always been to conserve and manage biodiversity to ensure sustainability and that it can benefit the people of South Africa through cooperation and partnerships that build on strengths and opportunities.

11.8.1 Biomes

The proposed mining area is in the Grassland Biome (Figure 11-7). There are two categories of grass plants: sweet grasses have a lower fibre content, maintain their nutrients in the leaves in winter and are therefore palatable to stock. Sour grasses have a higher fibre content and tend to withdraw their nutrients from the leaves during winter so that they are unpalatable to stock. At higher rainfall and on more acidic soils, sour grasses prevail, with 625 mm per year taken as the level at which unpalatable grasses predominate. C4 grasses dominate throughout the biome, except at the highest altitudes where C3 grasses become prominent.

Grass plants tolerate grazing, fire, and even mowing, well: most produce new stems readily, using a wide variety of strategies. Overgrazing tends to increase the proportion of pioneer, creeping and annual grasses, and it is in the transition zones between sweet and sour grass dominance that careful management is required to maintain the abundance of sweet grasses. The Grassland Biome is the mainstay of dairy, beef and wool production in South Africa. Pastures may be augmented in wetter areas by the addition of legumes and sweet grasses.

The Grassland Biome is the cornerstone of the maize crop, and many grassland types have been converted to this crop. Sorghum, wheat and sunflowers are also farmed on a smaller scale. Urbanization is a major additional influence on the loss of natural areas - the Witwatersrand is centred in this biome. The Grassland Biome is considered to have an extremely high biodiversity, second only to the Fynbos Biome. Rare plants are often found in the grasslands, especially in the escarpment area. These rare species are often endangered, comprising mainly endemic geophytes or dicotyledonous herbaceous plants. Very few grasses are rare or endangered. The scenic splendour of the escarpment region attracts many tourists.



Figure 11-7: Biomes

11.8.2 Bioregions

The proposed mining area has vegetation belonging to the Dry Highveld Grassland Bioregion. The Dry Highveld Grassland is an arid bioregion within South Africa's Grassland Biome, spanning regions of the North West, Free State, and Northern Cape. Characterized by open, flat to undulating landscapes at high elevations (1,200 m to 1,800 m), it supports drought-resistant grasses, shrubby vegetation, and diverse forbs.

Dry Highveld Grassland prevails in the western region of the Grassland Biome where the annual rainfall is below 600 mm per annum. These grasslands fall within the "sweet" grassland type with a predominance of chloridoid grasses.

In terms of conservation and disturbance, 44 % of the vegetation type is already transformed by cultivation, plantations, mines, and urbanisation. No serious alien invasion, but *Acacia mearnsii* can dominate in certain areas.

11.8.3 Vegetation Type

The vegetation types were identified in the proposed mining area, that is the Klerksdorp Thornveld (Gh13), and the Western Highveld Sandy Grassland (Gh14) (Figure 11-8).

Klerksdorp Thornveld

The Klerksdorp Thornveld (Gh 13) occurs in two patches, one in the Wolmaransstad, Ottosdal and Haarteefontein and the other from Botsolano Game Park to the Madibogo. The dominating plant species include *Acacia karroo*, *A. caffra*, *Celtis Africana*, *Acacia hebeclada*, *Gymnosporia senegalensis* with low shrubs such as *Asparagus laricinus*, *A suaveolens*, *Felicia muricata*. The grass layer is dominated by *Aristida congesta*, *Cynodon*, *dactylon*, *Eragrostis lehmanniana*, *Themenda triandra*, *Panicum coloratum*, *Sporobolus*

fimbriatus and *Microchloa caffra*. This vegetation is regarded as Vulnerable and only about 2.5% is conserved in the Mafikeng Game Reserve, Botsolano Game Park and Faan Meintjes Nature Reserve.

Western Highveld Sandy Grassland

The Western Highveld Sandy Bushveld (Gh 14) is distributed in the North West province, from the Mafikeng to the Schweizer-Reneke in the south and from Broedersput and Kamel in the west to Lichtenburg and Ottosdal in the east. The most important taxa on this vegetation unit include *Anthepora pubescens*, *Aristida congesta*, *A. diffusa*, *Cymbopogon pospischilii*, *Cynodon dactylon*, *Eragrostis lehamanniana*, *Themenda triandra*. The herb layer is dominated by species such as *Gazania krebsiana*, *Stachys spathulata*, *Barleria macrostegia*, and *Dicoma anomala*. Mucina and Rutherford have categorised this vegetation as Endangered.

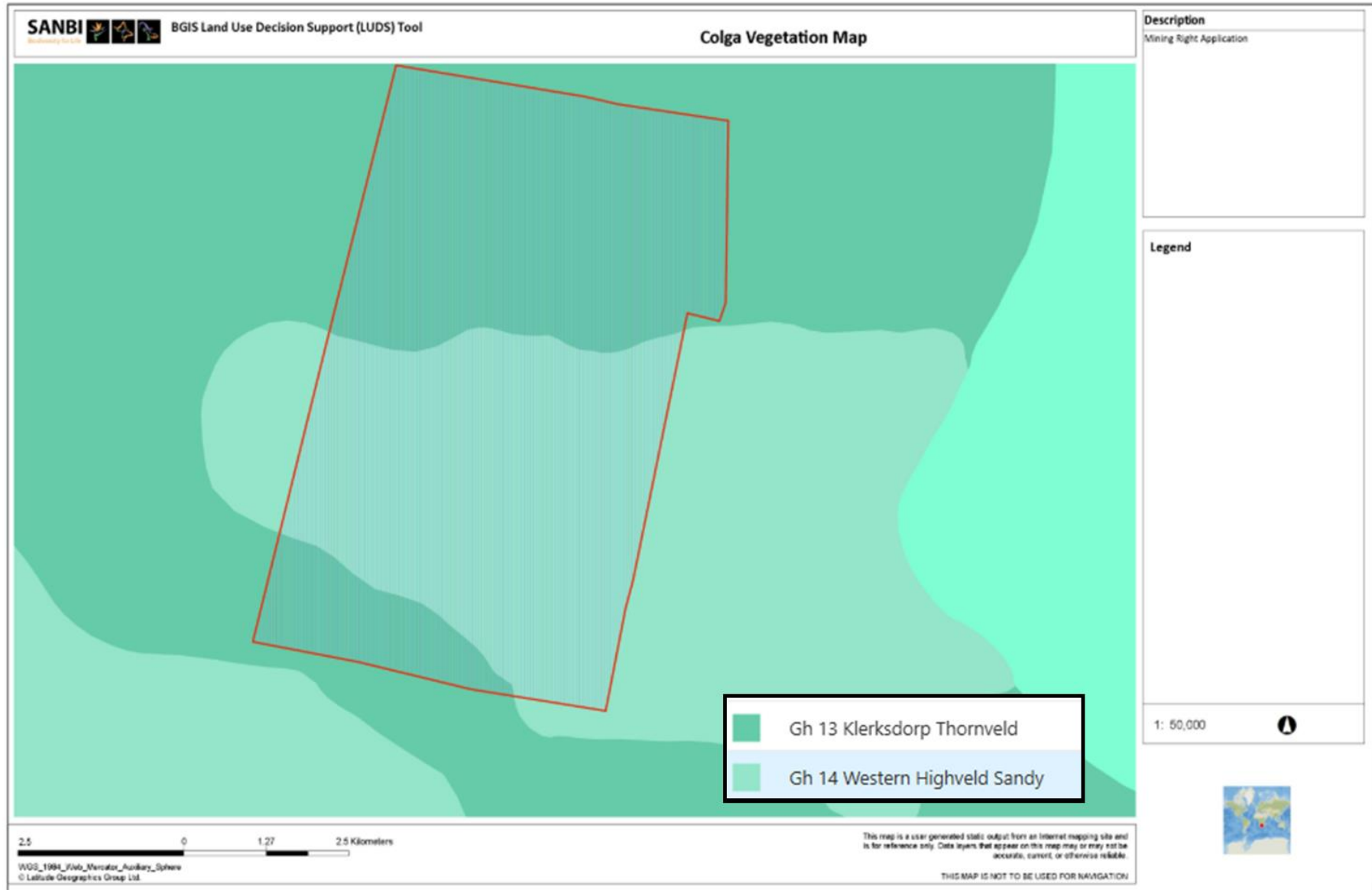


Figure 11-8: Vegetation map

11.9 Conservation Plan

Critical Biodiversity Areas (1) (CBA1):

Irreplaceable Sites. Areas required to meet biodiversity pattern and/or ecological process targets. No alternative Sites are Available to Meet targets. Maintain in a natural state with limited or no biodiversity loss. Rehabilitate degraded areas to a natural or near-natural state and manage for no further degradation.

Critical Biodiversity Area (2) (CBA2):

Best Design Selected Sites. Areas selected to meet biodiversity pattern and/or ecological process targets. Alternative sites may be available to meet targets. Maintain in a natural state with limited or no biodiversity loss. Maintain current agricultural activities. Ensure that land use is not intensified and that activities are managed to minimise the impact on threatened species.

Ecological Support Areas (1) (ESA1):

Natural, near-natural, and degraded areas support CBAs by maintaining Ecological processes. They maintain ecosystem functionality and connectivity, allowing for limited loss of biodiversity patterns.

Ecological Support Areas (2) (ESA2):

Areas without natural habitats that are important for supporting ecological processes. Avoid additional/new impacts on ecological processes.

Other Natural Areas (ONA):

Natural and intact but not required to meet targets or identified as CBA or ESA. No management objectives, land management recommendations or land-use guidelines are prescribed.

No natural habitat remaining:

Areas with no significant direct biodiversity value. Natural or degraded natural areas are not required by ESA, including intensive agriculture, urban areas, industry, and human infrastructure. No management objectives, land management recommendations or land-use guidelines are prescribed.

The study area is predominantly characterised by Critical Biodiversity Areas (CBAs) classified as Critical Biodiversity Area 2 (CBA 2), with smaller portions of Ecological Support Areas (ESA) 1 and ESA 2 occurring mainly within the northern section of the study area. These biodiversity categories indicate areas that contribute significantly towards maintaining ecological processes and landscape connectivity within the region.

The presence of the Matlhonyane River along the southern boundary of the proposed Mining Right area has resulted in the classification of portions of the area as Ecological Support Area 1 (ESA 1) associated with aquatic biodiversity features. These aquatic support areas are considered important for maintaining the ecological functioning, hydrological processes, and biodiversity integrity of the riverine environment.

The identified biodiversity sensitivities within the study area may therefore require the implementation of appropriate mitigation and management measures to minimise potential impacts on terrestrial and aquatic ecosystems during the construction, operational, and rehabilitation phases of the proposed mining project (Figure 11-9).

The northern portion of the proposed mining right area falls within a Critical Biodiversity Area (CBA) and will therefore be excluded from all mining and associated infrastructure development activities to avoid impacts on sensitive ecological features.

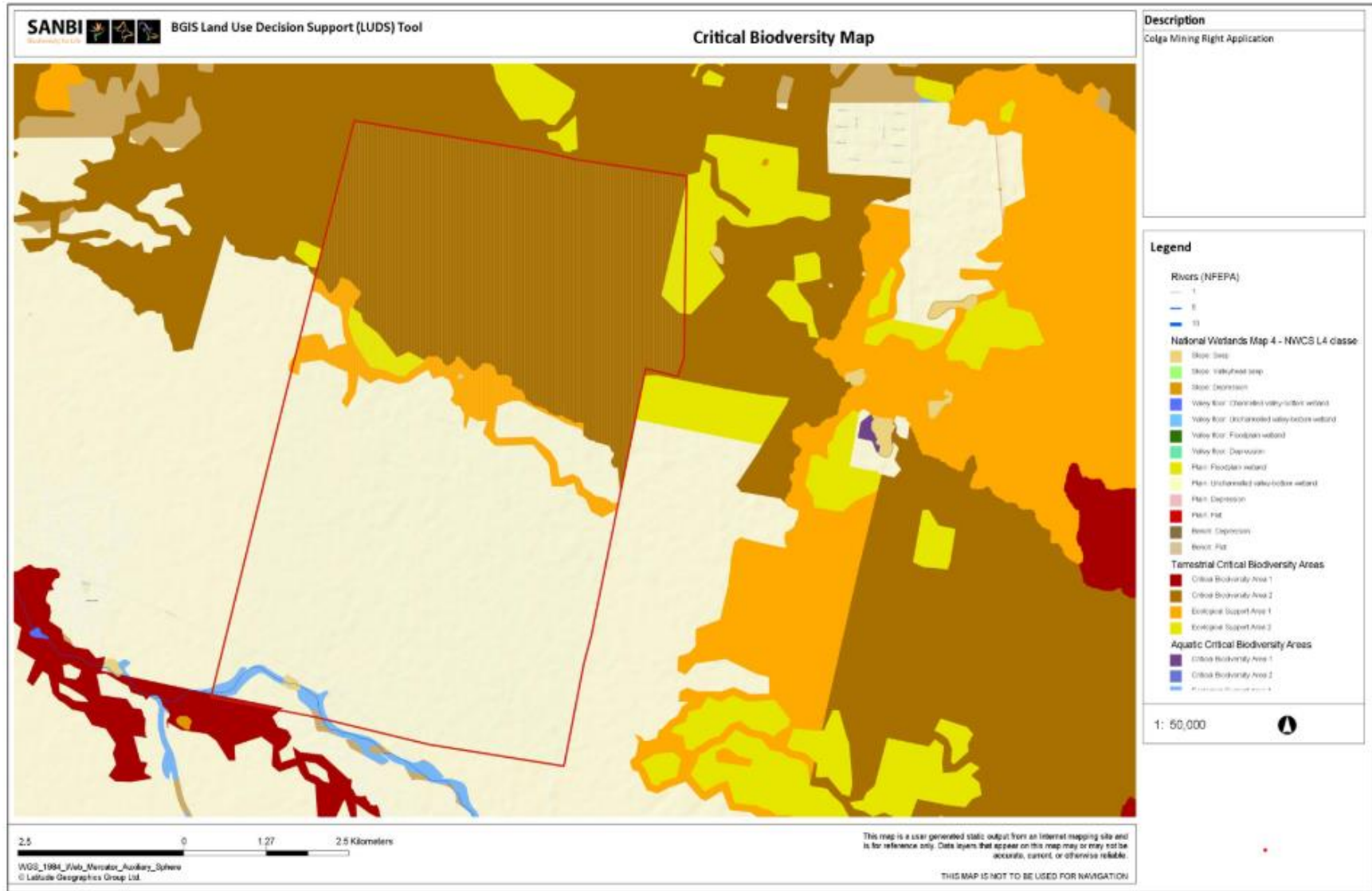


Figure 11-9: Areas of Conservation Importance

11.10 Protected Areas

The DFFE South African Conservation Areas Database (SACAD), South African Protected Areas Database (SAPAD) and the Important Biodiversity Area (IBA) database show that there are no protected areas or important bird areas affected by the proposed mining activities.

11.11 Threatened Ecosystem

The vegetation in the proposed mining area, the Western Highveld Sandy Grassland is classified as a critically endangered or highly threatened ecosystem. Approximately 65% of this vegetation type has been irreversibly transformed, largely due to crop farming (maize) and urban expansion.

Specialist biodiversity assessments to quantify the exact impact on the grassland will need to be conducted to map the exact boundaries of the Western Highveld Sandy Grassland on the property to and to identify pristine areas versus already degraded patches. The study will also focus on Species of Special Concern (SCC), searching for threatened, protected, or endemic plant and animal species that require special permits for relocation.

11.12 Heritage Resources.

Heritage resources, such as buildings and archaeological artefacts, may be tangible, such as landscapes and living heritage, or intangible. Their significance is based upon their aesthetic, architectural, historical, scientific, social, spiritual, linguistic, economic or technological values; their representation of a particular period; their rarity and their sphere of influence. There are several heritage and cultural resources in the North West Province.

According to the screening tool report, the site is not sensitive to the Archaeological and cultural heritage theme. Nonetheless, should there be any heritage sites (graves) within the mining area, they will be identified and fenced before any mining activities take place.

Features with a high paleontological sensitivity were however identified on the proposed mining area. A Phase 1 Palaeontological Impact Assessment (PIA) will conduct a survey of the footprint to map outcropping fossils before ground-clearing begins.

11.13 Socio-Economic

The proposed mining project is located within the Mahikeng Local Municipality (MLM) in the Ngaka Modiri District Municipality (NMDM) of the North West Province.

11.13.1 Population Age and Gender

The 2016 official community survey indicates that the population of Mahikeng Local Municipality has grown to 314 394 since 2016. It also indicates that the municipality has a predominantly African population with fewer Coloureds, Whites and Indian groups. It is estimated that the population growth has been 1.51%. The demographics also indicate that the municipality has a higher population of women than men. Statistics indicate that the municipality has the highest population of youth, therefore all programmes and budgeting must be directed at youth development and empowerment. These statistics are also reflected in the population composition and structure in Figure 11-10 and Figure 11-11.

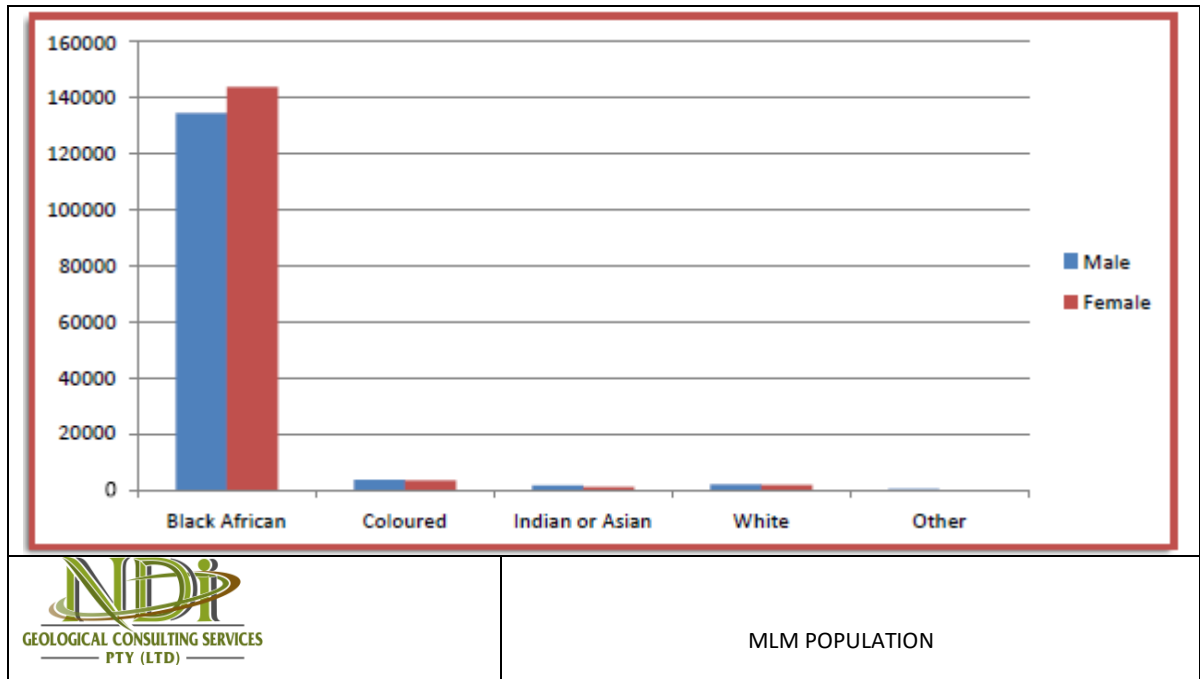


Figure 11-10: Population pyramid

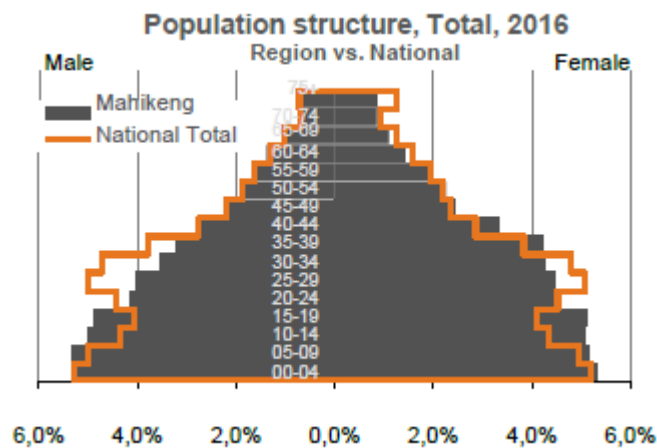


Figure 11-11: Age and Gender distribution

11.13.2 Income levels

The predominantly rural economy of the municipality is unable to provide individuals with remunerative jobs or self-employment opportunities. An estimated number of 13755 people in the municipality had no income in 2011. This amounts to 4.72% of the population. Taking the 1.16% annual growth to date into account, it means that to date this figure has risen to 14 405. In general terms, the majority of households in the municipality earns less than the poverty baseline (about R1, 600 per household per month) and can be considered poor. Those classified as economically active are employed in the services sector. This sector is dominated by the departments that render services such as health, justice, local government, education, SAPS, etc. The table below indicates the income categories within the municipality. Table 11-1 depict the income levels as per StasSA data from 2011 Census.

Table 11-1: Annual household income by geography

Annual household income by Geography			
For Household weighted			
	North West	DC38: Ngaka Modiri Molema	NW383: Mahikeng
No income	176090	34587	14 405
R 1 - R 4800	44720	11335	4223
R 4801 - R 9600	76068	21338	7525
R 9601 - R 19 600	200531	51572	16506
R 19 601 - R 38 200	210842	48975	15338
R 38 201 - R 76 400	162965	24052	9368
R 76 401 - R 153 800	93223	15891	7365
R 153 801 - R 307 600	56610	11416	5827
R 307 601 - R 614 400	28028	5360	2987
R 614 001 - R 1 228 800	8266	1506	854
R 1 228 801 - R 2 457 600	2629	516	257
R 2 457 601 or more	2025	450	231

11.14 Drivers of the economy

The economic drivers in the district includes Agriculture, Tourism (Heritage sites and Game farms), Mining Houses (Kalgold, Slurry, Sephaku, Lafarge, Majemantsho informal mining and Diamond informal mining). The Strategic Location of the District offers great opportunities towards the economic development of the district underpinned by various development corridors. The economic opportunities that lie within the district and have the potential to create much-needed jobs, reduce poverty and inequality.

11.14.1 Mining

The primary sector in NMMD consists mainly of Agriculture, Tourism and Mining sectors. In 2017 the Agricultural sector experiences the highest annual growth of 25.5% whereas the Mining sector reached its highest point of growth of 19.5% in 2015. The Agricultural and Mining sectors experienced the lowest growth of -17% and 14% respectively during 2015 and 2014. The sector growth forecast shows an increase from R30.68 billion in 2018 to R32.67 billion in 2023 which is an average annual growth of 1.27%. Economic drivers in NMMD includes Agriculture, Tourism (heritage sites, game farms), Mining houses (Kal gold, Slurry, Majemantsho informal mining, Sephaku, Larfage and Diamond informal mining).

11.15 Description of the current land uses.

The land on the proposed mining area is used for:

Agriculture

The area is mainly utilised for livestock grazing and limited subsistence farming activities. Open rangelands dominate much of the property

Natural Vegetation

Large portions of the site remain covered by natural grassland and savanna vegetation typical of the North West Province.

Transportation Infrastructure

Existing gravel access roads and secondary rural roads traverse the area and connect to regional roads leading toward Mahikeng and nearby settlements .

Natural Vegetation

Surface Water Features Seasonal drainage lines and small impoundments/dams may occur within portions of the farm depending on rainfall patterns

Rural Settlements

Scattered rural homesteads and small settlements occur in the broader surrounding area outside the main project footprint .

Figure 11-12 shows the current land use of the proposed mining site.

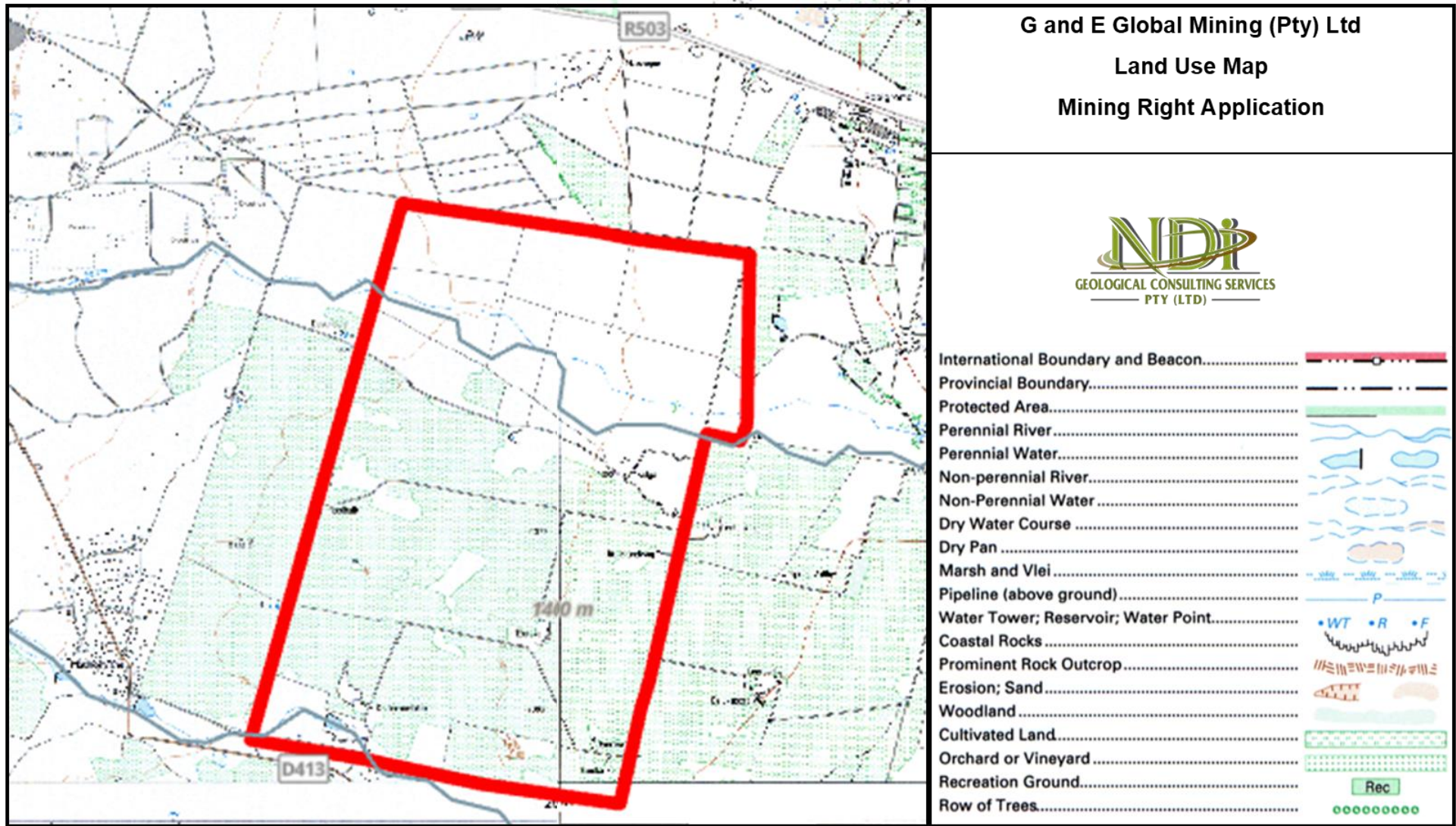


Figure 11-12: Landcover

12 Assumptions and limitations

In accordance with the purpose of scoping, this report does not include detailed investigations on the receiving environment, which will only form part of the impact assessment phase. The project area environment was assessed through site visits and desktop screening using existing environmental GIS databases, incorporating existing information from previous studies and input received from authorities and I&APs to date. A refinement of all maps will also be undertaken in the impact assessment phase, if necessary.

13 Anticipated Environmental, Social and Cultural Impacts

Table 13-1 provides a high-level assessment of the potential impacts and associated mitigation measures which could result from the proposed mining activities during construction, operation and decommissioning/closure. These impacts will be further refined and assessed according to the impact assessment methodology in Section 14.

Table 13-1: Summary of Potential Environmental Impacts Associated with the Proposed Project

Element of Environment	Potential Impact Descriptions
Socio-Economic	Possible job opportunities during the construction and operation
Geohydrology	Possible groundwater contamination
Surface water	Possible surface water contamination
Air Quality	Possible impact on Air Quality in the area
Climate Change	Possible contribution to climate change through emission of Green House Gases
Drilling, blasting and mining	Possible impacts on private property, infrastructure and fauna due to drilling and blasting activities
Noise	Possible generation of noise during construction and operation
Visual	Possible visual impacts during construction and operation
Biodiversity	Disturbance and loss of biodiversity, especially floral and faunal SCC
Aquatic ecology	Possible loss, sedimentation and contamination of aquatic resources
Heritage	Possible impact on heritage and cultural resources (including graves) in the area
Traffic	Potential safety issues due to the increased traffic
Cumulative Impacts	Cumulative Impacts

Table 13-2 provide a high-level assessment of the potential impacts and associated mitigation measures which could result from the proposed mine during construction (C), operation (O) and decommissioning/closure (D). These impacts will be further refined and assessed according to the impact assessment methodology in Section 14 during the impact assessment phase of the study.

Table 13-2: Anticipated impacts for the proposed G and E Global Mining Project

Aspect	Impact	Mitigation	Phase		
			C	O	D
Social	Influx of job seekers will have a negative social impact on the landowners and land occupiers.	<p>Random and regular alcohol and drug testing shall be conducted on all personnel responsible for operating machinery and driving construction vehicles to ensure the safety of the public;</p> <p>Security and safety should be emphasised;</p> <p>Recruitment will not be undertaken on site;</p> <p>Recruitment practises will favour locals, but farm labourers will not be employed unless agreed to with the farm owners;</p> <p>Liaise with the SAPD and existing forums to implement effective crime prevention strategies; and</p> <p>No construction workers shall be allowed to access private properties without the owner's knowledge and consent.</p>	X	X	X
	Unauthorised access to private property outside of the demarcated areas will result in conflict with landowners.		X	X	X
	Increased traffic in the area will increase the likelihood of accidents on the roads, posing a health and safety issue for the landowners and land occupiers.		X	X	X
	The influx of job seekers in the area may result in an increase in petty crimes.		X	X	X
	Ineffective communication channels leading to community unrest.		X	X	X
	Negative impact because of the dissection of land by clearing and excavations for construction of infrastructure, constraints to access to cultivated land to farmers, impacting on day-to-day farm activity.		X	X	X
	Negative impact because of localised loss of cultivated land, impacting on potential crop yield.		X	X	X
	Possible boost in short term local small business opportunities.		None	X	X
Groundwater	Localised spillages of oils from machinery leaching to groundwater contamination.	<p>No washing of vehicles shall be allowed outside demarcated areas. The bays will be clearly demarcated and will not be allowed to contaminate any surface runoff;</p> <p>Sufficient areas shall be provided for the maintenance and washing of vehicles;</p> <p>Refuelling of vehicles will only be allowed in designated areas;</p> <p>All construction equipment shall be parked in a demarcated area Drip trays shall be used when equipment is not used for some time;</p>	X	X	X
	Existing boreholes within the mining area may create conduits of flow to the groundwater unless sealed.		X	X	

Aspect	Impact	Mitigation	Phase		
			C	O	D
		<p>On surface bulk storage of hydrocarbons must be situated in a dedicated area which will include a bund or a drain where necessary to contain any spillages during the use, loading and off-loading of the material;</p> <p>Bund areas shall contain 110% of the stored volume;</p> <p>Bund areas must be impermeable;</p> <p>Bund areas must have a facility such as a valve/sump to drain or remove clean stormwater;</p> <p>Contaminated water shall be pumped into a container for removal by an approved service provider;</p> <p>Regular inspections shall be carried out to ensure the integrity of the bund walls;</p> <p>All preventative servicing of earth moving equipment and construction vehicles shall be undertaken off site;</p> <p>Runoff from this area shall be contained;</p> <p>Spill kits shall be made available, and all personnel shall be trained on how to use the kits and training records shall be made available on request.</p>			
Surface Water	Increase in silt load in runoff due to site clearing, grubbing and the removal of topsoil from the footprint area associated with the drill sites and associated infrastructure.	<p>Ensure that topsoil is properly stored, away from the streams and drainage areas;</p> <p>No construction activities will be undertaken within 100 metres of the nearby streams and 500 meters from riparian areas without consent from the DWS;</p> <p>Vehicle and personnel movement within watercourses and riparian areas shall be strictly prohibited;</p> <p>Adequate stormwater management must be incorporated into the design of the project to prevent contamination of water courses and riparian areas from dirty water.</p>	X	X	X
	Potential deterioration in water quality due to the potential accidental spillages of hazardous substances.		X	X	X
	Debris from poor handling of materials and/or waste blocking watercourses, resulting in flow impediment and pollution.		X	X	X
	Contaminated dirty water runoff to surrounding areas resulting in the impact on local surface water quality.		X	X	X
	Increase of surface runoff and potentially contaminated water that needs to be maintained in the areas where site clearing occurred.		X	X	X

Aspect	Impact	Mitigation	Phase		
			C	O	D
Aquatic Ecosystems	Localised changes to the riparian areas because of vegetation clearing.	<p>Adequate stormwater management must be incorporated into the design of the project to prevent erosion and the associated sedimentation of the aquatic system;</p> <p>No construction activities shall be allowed within 500 m of riparian zones without consent from the DWS;</p> <p>No vehicles may be allowed to indiscriminately drive through the riparian areas or within the active stream channels;</p> <p>All disturbed areas shall be re-vegetated with indigenous species;</p> <p>All construction materials shall be kept out of the riparian areas; and</p> <p>All vehicles shall be regularly inspected for leaks. Re-fuelling must take place outside the project area, on a sealed surface area to prevent ingress of hydrocarbons into topsoil and aquatic ecosystems</p>	X	X	X
	Loss of habitat and riparian ecological structure because of site clearance activities and uncontrolled wetland degradation.		X	X	X
	Impact on the riparian systems because of changes to the sociocultural service provisions.		X	X	X
	Increased runoff due to topsoil removal and vegetation clearance leading to possible erosion and sedimentation of wetland and riparian resources.		X	X	X
	Soil compaction and levelling because of construction activities and vehicle movement leading to loss of riparian habitat.		X	X	X
	Impact on the hydrological functioning of the riparian systems.		X	X	X
Heritage Resources	The proposed project has the potential to impact on local graves within the area.	<p>According to the screening tool report, the proposed mining area sensitivity is low on Archaeological and Cultural Heritage Theme. However, if archaeological sites or graves are exposed during construction work, it should immediately be reported to a heritage practitioner so that an investigation and evaluation of the finds can be made.</p> <p>No construction activities may be undertaken within 50 m of the heritage and/or cultural sites;</p>	X		
	The proposed project has the potential to impact on sites of archaeological importance.		X		
Palaeontological Resources	Drilling of exploratory boreholes has potential to impact on palaeontological resources	Should fossils be exposed during construction work, it should immediately be reported to a heritage practitioner so that an investigation and evaluation of the finds can be made.	X	X	
Flora	Loss of localised biodiversity habitats within sensitive areas due to site clearance and establishment of drill sites.	The Contractor shall be on the lookout for SCC and any floral SCC encountered within the development footprint are to be relocated to areas with suitable habitat, outside the disturbance footprint;	X	X	X
	Loss of localised floral species diversity including RDL and medicinal protected species due to site clearance and establishment of drill	Floral species of conservation concern, if encountered within the development footprint, are to be handled with care and the relocation of sensitive plant species to suitable similar habitat is to be overseen by a	X	X	X

Aspect	Impact	Mitigation	Phase		
			C	O	D
	sites.	<p>botanist;</p> <p>The proposed development footprint shall be kept to the minimum;</p> <p>All disturbed areas must be concurrently rehabilitated during construction;</p> <p>Prohibit the collection of any plant material for firewood or medicinal purposes;</p> <p>The existing integrity of flora surrounding the study area shall be upheld and no activities shall be carried out outside the footprint of the construction areas;</p> <p>Edge effect control shall be implemented to avoid further habitat degradation outside of the proposed footprint area;</p> <p>All sensitive open space areas will be demarcated and access into these areas shall be prohibited;</p> <p>Protected floral species occurring within the vicinity of the study area, but outside the disturbance footprint shall be fenced for the duration of the construction activities;</p> <p>Monitoring of relocation success will be conducted during the operational phase;</p> <p>Construction related activities shall be kept strictly within the development footprint;</p> <p>Construction vehicles shall only be allowed on designated roadways to limit the ecological footprint of the project.</p> <p>Alien Invasive Plant Species Management plan to be implemented;</p> <p>Edge effects of activities including erosion and alien/ weed control will be strictly managed in the riparian area;</p> <p>All sites disturbed by construction activities shall be monitored for colonisation by exotic or invasive plants;</p> <p>Exotic or invasive plants shall be controlled as they emerge;</p> <p>An alien vegetation control program must be developed and implemented within all disturbed areas. After removal of alien vegetation, the affected areas must be re-assessed to determine the success of the program and any follow up measures that may be required;</p> <p>The eradicated plant material must be disposed of at an approved solid waste disposal site;</p> <p>During post-construction, an alien vegetation removal and monitoring plan</p>			
	Potential spreading of alien invasive species as indigenous vegetation is removed, and pioneer alien species are provided with a chance to flourish.		X	X	X

Aspect	Impact	Mitigation	Phase		
			C	O	D
		<p>must be compiled for those areas which were not effectively rehabilitated;</p> <p>The extent of invasion must be established through investigation to identify priority areas;</p> <p>Priority species shall be identified to control and develop protocols for the removal of all alien species e.g., mechanical removal, herbicidal treatment etc. Mechanical, methods must be favoured for the removal of alien invasive species. Chemical removal shall only be undertaken by a suitably qualified and approved person; and</p> <p>As much vegetation growth as possible must be promoted to protect soils. In this regard, special mention is made of the need to use indigenous vegetation species where hydro seeding, rehabilitation planting (where applicable) is to be implemented.</p>			
Fauna	Vegetation clearance may result in loss of faunal habitat ecological structure, species diversity and loss of species of conservation concern.	<p>The proposed development footprint areas shall remain as small as possible and where possible be confined to already disturbed areas;</p> <p>No trapping or hunting of fauna shall be permitted;</p> <p>Edge effects of all construction and operational activities, such as erosion and alien plant species proliferation, which may affect faunal habitat, need to be strictly managed;</p> <p>Should any SCC be encountered within the study area, these species will be relocated to similar habitat within or in the vicinity of the study area with the assistance of a suitably qualified specialist;</p> <p>No informal fires in the vicinity of construction areas shall be permitted;</p> <p>An alien vegetation control plan must be developed and implemented to manage alien plant species occurring within the study area, and to prevent further faunal habitat loss.</p>	X	X	
	Habitat fragmentation because of construction activities of the access roads leading to loss of floral diversity.		X		
	Loss of faunal diversity and ecological integrity because of construction activities, erosion, poaching and faunal specie trapping.		X	X	X
	Movement of vehicles and machinery may result in collision with fauna, resulting in loss of fauna.		X	X	X
Air Quality	Possible increase in dust generation, PM ₁₀ and PM _{2.5} because of bulk earthworks, operation of heavy machinery, and material movement.	<p>Dust suppression measures shall be implemented on dry weather days and periods of high wind velocities;</p> <p>Appropriate dust suppression measures may include spraying with water;</p> <p>Where practical rehabilitation should be undertaken in tandem with the construction activities;</p> <p>A speed limit of 40 km/hr shall apply to limit vehicle entrained dust from the unpaved road;</p> <p>All construction equipment must be scheduled for preventative maintenance</p>	X	X	X
	Increase in carbon emissions and ambient air pollutants (NO ₂ and SO ₂) because of movement of vehicles and operation of machinery/equipment.		X	X	X

Aspect	Impact	Mitigation	Phase		
			C	O	D
		<p>to ensure the functioning of the exhaust systems to reduce excessive emissions and limit air pollution;</p> <p>Dust control suppression shall be implemented on dry weather days and periods of high wind velocities;</p> <p>Appropriate dust suppression measures may include limiting the extent of open areas, reducing the frequency of disturbance and spraying with water;</p> <p>Where practical rehabilitation should be undertaken progressively;</p> <p>Materials transported on public roads must be covered;</p> <p>Odours:</p> <p>Putrescible waste must be handled, stored and disposed of before the probability of it generating odours; and</p> <p>Chemical toilets must be emptied / serviced on a regular basis. Proof of this must be provided to the Engineer.</p>			
Visual	Scarring of the landscape because of the clearance of vegetation.	<p>The number of construction vehicles and machinery to be used shall be kept to a minimum;</p> <p>Movement of vehicles shall be kept to outside busy hours to minimise the visual impacts on the residents;</p> <p>Materials transported on public roads must be covered; and</p> <p>Where possible, rehabilitation of the work areas shall be undertaken in tandem with construction to ensure that areas stripped of vegetation are kept to a minimum.</p>	X	X	
	Visual intrusion because of the movement of machinery and the establishment of the required infrastructure.		X	X	X
	Indirect visual impact due to dust generation because of the movement of vehicles and materials, to and from the site area.		X	X	X
Noise	The use of vehicles and machinery may generate noise in the immediate vicinity.	<p>Adjacent landowners must be advised of any work that will take place outside of normal working hours, that may be disruptive (e.gw. noise) in advance;</p> <p>Surrounding communities must be notified in advance of noisy construction activities;</p> <p>All equipment should be provided with standard mufflers;</p> <p>Muffling units on vehicles and equipment must be kept in good working order.</p> <p>Construction staff working in areas where the 8-hour ambient noise levels exceed 85 Dba should wear ear protection equipment;</p> <p>Where possible, operation of several equipment and machinery simultaneously must be avoided;</p>	X	X	X

Aspect	Impact	Mitigation	Phase		
			C	O	D
		<p>All equipment must be kept in good working order, with immediate attention being paid to defective silencers, slipping fanbelts, worn bearings and other sources of noise;</p> <p>Equipment must be operated within specifications and capacity (e.g., no overloading of machines);</p> <p>Regular maintenance of equipment must be undertaken, particularly about lubrication;</p> <p>Equipment shall be switched off when not in operation;</p> <p>Appropriate directional and intensity settings must be maintained on all hooters and sirens;</p> <p>The Contractor must ensure that the employees conduct themselves in an appropriate manner while on site; and</p> <p>Noise/vibration producing activities shall be limited to daylight hours (Monday to Friday 07H00 to 17H30 and Saturday 07H00 -14H00).</p> <p>No noise/vibration producing activities shall be undertaken on Saturdays on farms unless this has been agreed to by the farmer.</p>			
Soil, Land use and Land Capability	Localised chemical pollution of soils because of vehicle hydrocarbon spillages and compaction.	<p>Contaminated soil shall be removed and disposed of to an appropriate licensed landfill site in terms of NEMWA, or can be removed by a service provider that is qualified to clean the soil;</p> <p>The time in which soils are exposed during construction activities should remain as short as possible;</p> <p>Erosion control measures shall be implemented where deemed necessary;</p> <p>In general, all steep slopes steeper than 1:3 or where the soils are more prone to erosion must be stabilised;</p>	X	X	X
	Localised clearing of vegetation and compaction of the construction footprint will result in the soils being particularly more vulnerable to soil erosion.	<p>If stockpiles are not going to be used immediately the stockpiles shall be rehabilitated to prevent erosion;</p> <p>Runoff from stockpiles shall be detained to support growth of vegetation;</p>	X		

Aspect	Impact	Mitigation	Phase		
			C	O	D
	Localised loss of resource and its utilisation potential due to compaction over unprotected ground/soil.	Runoff from the stockpiles shall be suitably managed to ensure that the runoff volumes and velocities are like pre disturbed levels; Vegetation shall be used to promote infiltration of water into the stockpile instead of increasing runoff; A monitoring programme will be implemented if the stockpiles are not used within the first year whereby the vegetation of the stockpiles is monitored in terms of basal cover and species diversity; If it is noticed that the vegetation on the stockpiles is not sustainable, appropriate corrective actions shall be taken to rectify the situation;	X	X	X
	Localised loss of soil and land capability due to reduction in nutrient status - de-nitrification and leaching due to stripping and stockpiling footprint areas.	Stockpiles shall be maintained until the topsoil is required for rehabilitation purposes; Topsoil stockpiles shall be monitored regularly to identify alien vegetation, which shall be removed as soon as possible to prevent further distribution of any alien vegetation.	X	X	
Traffic	Increase in traffic volumes because of pre-construction activities which may lead to an increase in traffic congestion along the public roads as well as the farm roads around the mining area.	Local speed limits and traffic laws shall always apply to minimise the occurrences of accidents on public roads; The number of construction vehicles and trips shall be kept to a minimum; and Where possible the transportation of construction materials and rubbish shall be undertaken outside traffic peak hours to minimise inconveniencing residents.	X	X	X
Climate	Emissions of Green House Gases because of the use of plant, heavy moving machinery, generators etc.	All the construction vehicles shall undergo maintenance on a regular basis to improve on the combustion engine vehicle efficiency.	X	X	X
Waste Management	Potential water and soil pollution because of inappropriate waste management practices.	<i>Separation of waste:</i> All waste shall be separated into general waste and hazardous waste; Hazardous waste shall not be mixed with general waste and in doing so increase the quantities of hazardous waste to be managed; General waste can further be separated into waste that can be recycled and or reused; No littering shall be allowed in and around the site, enough bins shall be provided for the disposal of waste; Where necessary dedicate a storage area on site for collection of construction waste.	X	X	X

Aspect	Impact	Mitigation	Phase		
			C	O	D
		<p><i>Storage of waste:</i></p> <p>No stockpiling of debris shall be permitted within 100 m of any water courses and drainage lines, or within 500 m of wetland and riparian areas;</p> <p>General waste will be collected in an adequate number of litter bins located throughout the construction site;</p> <p>Bins must have lids to keep rainwater out;</p> <p>Bins shall be emptied regularly to prevent them from overflowing;</p> <p>All work areas shall be always kept clean and tidy;</p> <p>All waste management facilities will be maintained in good working order;</p> <p>Waste shall be stored in demarcated areas according to type of waste;</p> <p>Runoff from any area demarcated for waste will be contained, treated and reused;</p> <p>Flammable substances must be kept away from sources of ignition and from oxidizing agents;</p> <p>No construction rubble shall be disposed of to the riparian area;</p> <p>If construction rubble is not removed immediately, it shall be stockpiled outside the 1:100-year flood line and outside the sensitive wetland and riparian areas;</p> <p>Demolition waste and surplus concrete shall be disposed of responsibly;</p> <p>Waste shall not be buried or burned on site; and</p> <p>The maximum retention time for temporary storage of waste generated shall not exceed 30 days, provided the waste does not present a health hazard or risk of odour.</p> <p><i>Disposal of hazardous waste:</i></p> <p>No dumping shall be allowed in or near the construction site;</p> <p>Hazardous containers shall be disposed of at an appropriate licensed site;</p> <p>Hazardous waste will be removed and managed by an approved service provider;</p> <p>A safe disposal certificate will be provided by the approved service provider as proof of responsible disposal of hazardous waste; and</p> <p>The safe disposal certificate shall be stored and provided on request.</p> <p><i>Disposal of general waste:</i></p> <p>No dumping shall take place in or near the construction site;</p>			

Aspect	Impact	Mitigation	Phase		
			C	O	D
		<p>All general waste shall be disposed of to the nearest licensed landfill site;</p> <p>Demolition waste and builders' rubble shall be disposed of to an appropriate licensed landfill site; and</p> <p>The necessary permissions must be obtained to dispose of builders' rubble at the landfill site.</p>			
Drilling and Vibrations	Impact of drilling ground vibration on houses, boreholes and roads, resulting in possible damage to infrastructure	<p>Drill sites shall be located as far from private property as possible.</p> <p>Affected property owners shall be notified of any drilling activities before the commencement of the activities.</p>		X	
	Fly rock impact on houses, boreholes and roads, resulting in possible damage to infrastructure;	<p>Property owners shall be appropriately compensated if there is damage to private property because of drilling activities.</p>		X	

14 Methodology to be used in determining the significance of environmental impacts

The following methodology for determining the significance of environmental impacts will be utilised for the EIA/EMPr phase.

The impact assessment methodology has been formalised to comply with Regulation 31(2) (i) of NEMA, which states the following:

(2) An environmental impact assessment report must contain all information that is necessary for the competent authority to consider the application and to reach a decision ..., and must include –

(l) an assessment of each identified potentially significant impact, including –

(i) **cumulative impacts**;

(ii) the **nature** of the impact;

(iii) the **extent** and **duration** of the impact;

(iv) the **probability** of the impact occurring;

(v) the **degree** to which the impact can be **reversed**;

(vi) the **degree** to which the impact may **cause irreplaceable loss of resources**; and

(vii) the **degree** to which the impact can be **mitigated**.

All the identified potential impacts will be assessed according to the following Impact Assessment Methodology described below. This methodology has been utilised for the assessment of environmental impacts where the consequence (severity of impact, spatial scope of impact and duration of impact) and likelihood (frequency of activity and frequency of impact) have been considered in parallel to provide an impact rating and hence an interpretation in terms of the level of environmental management required for each impact.

The first stage of any impact assessment is the identification of potential environmental activities¹, aspects² and impacts which may occur during the commencement and implementation of a project. This is supported by the identification of receptors³ and resources⁴, which allows for an understanding of the impact pathway and an assessment of the sensitivity to change. Environmental impacts⁵ (social and biophysical) are then identified based on the potential interaction between the aspects and the receptors/resources.

The significance of the impact is then assessed by rating each variable numerically according to defined criteria as outlined in Table 14-2. The rating aims to develop a clear understanding of influences and processes associated with each impact. The severity⁶, spatial scope⁷ and duration⁸ of

¹An **activity** is a distinct process or task undertaken by an organisation for which a responsibility can be assigned. Activities also include facilities or pieces of infrastructure that are possessed by an organisation.

²An **environmental aspect** is an 'element of an organisations activities, products and services which can interact with the environment'. The interaction of an aspect with the environment may result in an impact.

³**Receptors** comprise but are not limited to people or man-made structures.

⁴**Resources** include components of the biophysical environment.

⁵**Environmental impacts** are the consequences of these aspects on environmental resources or receptors of value or sensitivity, for example, disturbance due to noise and health effects due to poorer air quality. Receptors can comprise, but are not limited to, people or human-made systems, such as residents, communities and social infrastructure, as well as components of the biophysical environment such as aquifers, flora and palaeontology. In the case where the impact is on human health or well-being, this should be stated. Similarly, where the receptor is not anthropogenic, then it should, where possible, be stipulated what the receptor is.

⁶**Severity** refers to the degree of change to the receptor status in terms of the reversibility of the impact; sensitivity of receptor to stressor; duration of impact (increasing or decreasing with time); controversy potential and precedent setting; threat to environmental and health standards.

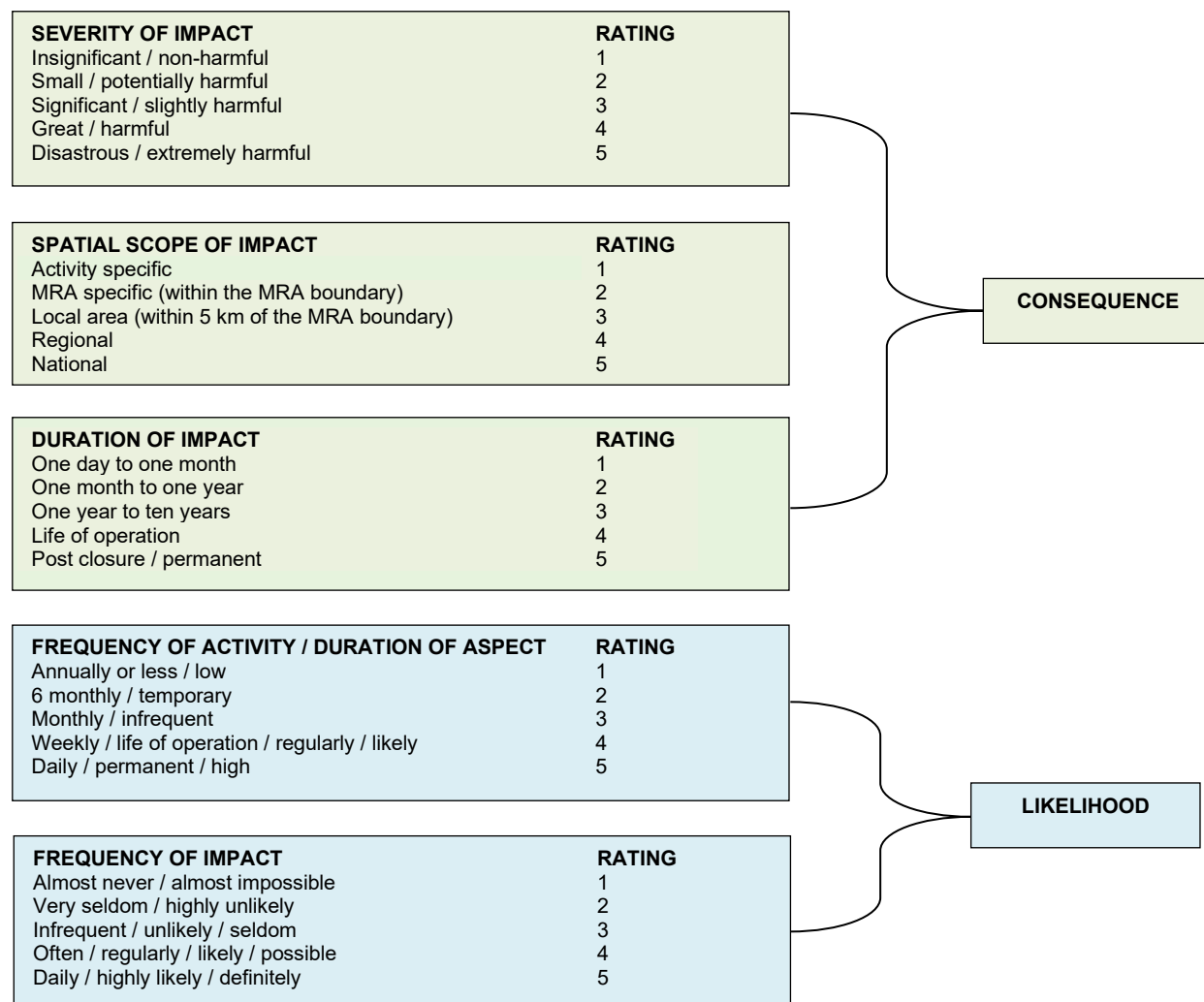
⁷**Spatial scope** refers to the geographical scale of the impact.

⁸**Duration** refers to the length of time over which the stressor will cause a change in the resource or receptor.

the impact together comprise the consequence of the impact and when summed can obtain a maximum value of 15. The frequency of the activity⁹ and the frequency of the impact¹⁰ together comprise the likelihood of the impact occurring and can obtain a maximum value of 10. The values for likelihood and consequence of the impact are then read off a significance rating matrix table as shown in Table 14-1. This matrix thus provides a rating on a scale of 1 to 150 (low, medium low, medium high or high) based on the consequence and likelihood of an environmental impact occurring.

Natural and existing mitigation measures, including built-in engineering designs, are included in the pre-mitigation assessment of significance. Measures such as demolishing infrastructure and reinstatement and rehabilitation of land are considered post-mitigation.

Table 14-1: Criteria for Assessing Significance of Impacts



⁹Frequency of activity refers to how often the proposed activity will take place.

¹⁰Frequency of impact refers to the frequency with which a stressor (aspect) will impact on the receptor.

Table 14-2: Impact Significance Rating

		Consequence														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Likelihood	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	
	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	
	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60	
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	
	7	14	21	28	35	42	49	56	63	70	77	84	91	98	105	
	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120	
	9	18	27	36	45	54	63	72	81	90	99	108	117	126	135	
	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	

	High	76 to 150	Improve current management
	Medium High	40 to 75	Maintain current management
	Medium Low	26 to 39	
	Low	1 to 25	No management required

SIGNIFICANCE = CONSEQUENCE x LIKELIHOOD

15 The positive and negative impacts that the proposed activity and alternatives

Refer to Section 13 for the positive and negative impacts identified for the proposed project. A detailed assessment of the positive and negative impacts associated with the project will be developed and included in the specialist studies reports and incorporated into the EIA/ EMPr Report.

16 Possible mitigation measures that could be applied and the level of risk

Refer to Section 13 for the positive and negative impacts identified for the proposed mining project. It is anticipated that the management measures associated with the activities will be adequate to manage the impacts associated with the project. This will be further assessed during the EIA/EMPr phase. Detailed mitigation and management measures of the positive and negative impacts associated with the project will be developed and included in the EIA/ EMPr Report.

17 The outcome of the site selection matrix

The proposed project's location is constrained by the location of the Diamond, Diamond (alluvial), Diamond (kimberlite), Aggregate, Lead, Manganese Ore, Limestone, Sand and Gold Ore deposits. Exploration has suggested that the mining right area has potential for Diamond, Aggregate, Lead, Manganese Ore, Limestone, Sand and Gold Ore. The area's geology supports the mineralisation of the targeted deposit. The site is, therefore, regarded as the preferred site, and as such, no property alternatives were viable to be considered for this project.

The scoping assessment conducted for the project shows that the project location does not have fatal flaws. However, should sensitive environments, such as heritage resources, SCC, etc., be affected by the project layout, the site layout plan will be revised.

18 Motivation where no alternatives were considered

The proposed project's location is constrained by the location of the Diamond, Diamond (alluvial), Diamond (kimberlite), Aggregate, Lead, Manganese Ore, Limestone, Sand and Gold Ore deposits. Exploration has suggested that the mining right area has potential for Diamond, Aggregate, Lead, Manganese Ore, Limestone, Sand and Gold Ore. The area's geology supports the mineralisation of the targeted deposit. The site is, therefore, regarded as the preferred site, and as such, no property alternatives were viable to be considered for this project.

The scoping assessment conducted for the project shows that the project location does not have fatal flaws. However, should the project layout affect sensitive environments, such as heritage resources, SCC, etc., the site layout plan will be revised.

19 Statement motivation the preferred site

The location of the manganese and iron ore deposits constrains the proposed project's location. A The proposed project's location is constrained by the location of the Diamond, Diamond (alluvial), Diamond (kimberlite), Aggregate, Lead, Manganese Ore, Limestone, Sand and Gold Ore deposits. Exploration has suggested that the mining right area has potential for Diamond, Aggregate, Lead, Manganese Ore, Limestone, Sand and Gold Ore. The area's geology supports the mineralisation of the targeted deposit. The site is, therefore, regarded as the preferred site, and as such, no property alternatives were viable to be considered for this project.

The scoping assessment conducted for the project shows that the project location does not have fatal flaws. However, should the project layout affect sensitive environments, such as heritage resources, SCC, etc., the site layout plan will be revised.

20 Plan of study for the environmental impact assessment process

20.1 Description of alternatives to be considered, including the option of not going ahead with the activity

According to the MPRDA and NEMA regulations, feasible alternatives need to be considered and assessed during the project's Scoping and Impact Assessment Phase. The alternatives identified must serve to achieve the triple bottom line of sustainability, i.e., they must meet the social, economic and ecological needs of the public. The alternatives must also aim to address the key significant impacts of the proposed project by maximising benefits and avoiding or minimising the negative impacts. The primary objective must be to avoid all negative impacts rather than to minimise them.

The "feasibility" and "reasonability" of and the need for alternatives must be determined by considering, inter alia:

- The general purpose and requirements of the activity;
- Need and desirability;
- Opportunity costs;
- The need to avoid negative impact altogether;
- The need to minimise unavoidable negative impacts;
- The need to maximise benefits, and
- The need for equitable distributional consequence.

Refer to Section 9 for consideration of alternatives.

20.2 Description of aspects to be assessed as part of the environmental impact assessment process

The proposed infrastructure and activities will be located within the property boundaries shown in Section 4.1. The key infrastructure provided in Section 5 will form part of the proposed project as the infrastructure footprints (and associated infrastructure footprints) and surrounding areas will need to be assessed by specialists during the impact assessment phases of the project. The specialist studies and impact assessment process will also include an assessment of the project alternatives described in Section 9 of this report.

20.3 Description of aspects to be assessed by specialists

The following specialist studies based on the mentioned aspects and the findings from the DFFE screening tool will be assessed further during the EIA phase investigation to be undertaken:

- Terrestrial Biodiversity Assessment;
- Aquatic Assessment;
- Heritage Impact Assessment;
- Geohydrological Assessment;
- Hydrological Assessment;

- Noise Impact Assessment;
- Air Quality Assessment;
- Agricultural Potential Assessment; and
- Rehabilitation and Closure Planning.

In addition, the following will continue during the EIA phase:

- Public participation and consultation;
- Environmental Management Programme;
- Comparative alternatives assessment;
- Amend site layout designs and Mining Works Programme, if required.

Certain impacts that are anticipated to be limited or less significant, either by virtue of their scale, their short duration (e.g., construction phase only), the disturbed nature of the receiving environment, and/or their distance from communities, will be assessed by the EAP Team and reported directly into the EIA Report.

The EAP will use the impact assessment methodology described in Section 14 and ensure that the specialist studies reports comply with Appendix 6 of the NEMA requirements.

20.4 Proposed method of assessing the environmental aspects, including the proposed method of assessing alternatives

Refer to Section 14 which describes the methodology to be used in the assessment of environmental impacts.

20.5 The proposed method of assessing duration significance

Refer to Section 14 which describes the methodology to be used in the assessment duration of significance.

20.6 The stages at which the Competent Authority will be consulted

The consultation process to be followed with the DMPP as part of the review and decision-making stages include:

- Scoping review and decision-making stage (Draft and Final);
- Environmental impact assessment review and decision-making stage (draft and final); and
- The environmental authorisation decision-making and appeal process stage.

20.7 Particulars of the public participation process with regard to the impact assessment process that will be conducted

The Public Participation Process will be ongoing throughout the project phases. The stakeholder engagement proposed for the Impact Assessment Phase is presented below.

20.7.1 Stakeholder engagement during impact Assessment phase

Stakeholders will be informed once the competent authority (DMPP) has accepted the Scoping Report and given permission for the commencement of the impact assessment phase of the process.

Stakeholder engagement during the impact assessment phase will focus on providing information and an opportunity for public comment on the findings of the specialist studies, the findings and

recommendations, the impact assessment, and the management programme. The draft findings will be presented in the Draft EIA / EMPr Report for the public to comment on.

The Draft EIA/ EMPr Report will be available for public comment in the same newspaper as the project announcement.

Registered I&APs will be informed through notification letters distributed by email before the report is made available. If required, stakeholders will be invited to a public meeting where the contents of the Draft EIA/EMPr will be presented and discussed. Stakeholders will have an opportunity to review and comment on the Draft EIA/EMPr Report in any of the following ways:

- By completing comments forms available with the report at public places and by submitting additional written comments, by email or by telephone, to the EAP; and
- The draft EIA/EMPr Report will be available for comment for 30 days at public places in the project area, per the announcement and scoping phase. It will be posted on the Ndi Geological Consulting Services (Pty) Ltd website.

Depending on the responses received during the registration period and were requested by the stakeholders, a public meeting may be held during the project's impact assessment phase.

Where necessary, comments and issues raised by I&APs during the commenting period will be consolidated into the Final EIAR and EMPr with the relevant response issued by the EAP. The Final EIAR and EMPr will then be submitted to the DMPr for decision-making. The comments will also be collated into the comments and responses table included in the Final EIAR.

20.7.2 Notification of Authority Decision

Registered stakeholders will be advised in writing (mail, email, and SMS) of the authority's decision on the EIA / EMPr. The notification will include details on the procedure for appealing the decision relating to each authorisation.

Notifying registered stakeholders will summarise the authorities' decision and provide information on how to appeal according to legal requirements.

20.8 Description of the tasks that will be undertaken during the environmental impact assessment process

The following activities will take place as part of the planned environmental authorisation process going forward:

- Develop the Final Scoping Report once comments and feedback have been received from stakeholders and authorities;
- Conduct the Specialist Studies and Impact Assessment according to the impact assessment methodology as provided in Section 14;
- Develop specialist recommendations: Findings from the specialist studies will be summarised in the EIA/EMPr Report;
- Develop an EMPr: The EMPr will be compiled to mitigate the impacts identified in the impact assessment;
- Provide stakeholder feedback on the assessment phase in accordance with the approach that is proposed in Section 10 of this report;
- Submit the draft EIA/EMPr for stakeholder and authority review: The Final EIA/EMPr will be submitted to the relevant authorities following the incorporation of stakeholder comments; and
- Communicate the decision on the MRA and EA/WML application to registered stakeholders.

20.9 Measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored

Detailed mitigation and management measures of the positive and negative impacts associated with the project will be developed and included in the EIA/ EMPr Report. Section 13 provides a preliminary assessment of potential impacts and mitigation measures that may be implemented to minimise, reverse or manage the identified impacts.

20.10 Other information required by the Competent Authority

20.10.1 Impact on the socio-economic conditions of any directly affected person

No specific report was generated on the socio-economic conditions. Current land uses inside the mining area, such as agriculture, may be temporarily impacted by the fenced areas within which drill rigs will operate. These will, however, be small areas that will be rehabilitated post-drilling activities, and the areas will once again become available for agriculture. Other potential socio-economic impacts will include:

- Nuisance noise due to onsite activities and drilling;
- Poor access control resulting in impacts on farming activities;
- Influx of jobseekers to the site, which may result in an increase in opportunistic crime;
- Uncontrolled access to private property outside of the demarcated boundaries; and
- Visual impact because of the vegetation clearance.

Although mining will be undertaken by specialist subcontractors, it is anticipated that there will be other skills required from the surrounding communities thereby creating employment opportunities.

Management and mitigation measures must be implemented to prevent environmental pollution that may impact environmental resources utilised by communities, landowners and other stakeholders. Measures to manage the potential impacts on communities, individuals or competing land uses in proximity include;

Noise due to construction and operational activities:

- Directly affected and adjacent landowners and occupiers must be informed of the planned drilling activities' dates, and a grievance lodging mechanism must be made available to the stakeholders.
- Site activities shall be concluded during daytime hours (0700 to 1730), to avoid night-time noise disturbances and collisions with fauna.

Poor access control resulting in impacts on farming activities:

- Access control procedures must be agreed on with the farm owners, and all on-site personnel must be trained on them.

The influx of job seekers to the site, which may result in increased opportunistic crime:

- Casual labour shall not be recruited at the site. This will eliminate the incentive for people to travel to sites seeking employment. Where necessary, a recruitment centre may be established in the major town areas;
- The landowners shall be notified on unauthorised persons encountered on-site; and

- Where necessary, the South African Police Service (SAPS) will be notified of unauthorised persons encountered on site.

Visual Impact:

- Dust suppression will be undertaken to manage nuisance dust from construction vehicle movements and other construction activities as and when necessary;
- The portable ablution facilities and any other infrastructure will be acquired with consideration for colour. Natural earth, green and mat black options which blend with the surroundings must be favoured;
- A waste management system will be implemented, and sufficient waste bins will be provided onsite. A fine system must be implemented to prohibit littering and poor housekeeping practices further; and
- Vegetation cover shall be used where drill rigs will be located to minimise visual impacts.

These issues will be assessed and discussed in detail during the EIA phase.

20.10.2 Impact on any national estate referred to in section 3(2) of the National Heritage Resources Act

The North West province is rich in archaeological sites and landscapes that reflect the complex South African heritage from the Stone Age to Colonial history. Within the region, Stone Age sites and complexes have been and are still being investigated in some detail.

A site-specific HIA may be conducted by a specialist as part of the impact assessment phase.

20.10.3 Other matters required in terms of Sections 24(4)(a) and (b) of the Act

Section 24(4)(b)(i) of the NEMA (as amended), provides that an investigation must be undertaken of the potential consequences or impacts of the alternatives to the activity on the environment and assessment of the significance of those potential consequences or impacts, including the option of not implementing the activity. Alternatives have been discussed in Section 9 of this draft Scoping Report and will be addressed in detail during the impact assessment phase once the specialist assessments and comments from I&APs, stakeholders and the competent authorities have been received.

21 Undertaking regarding correctness of information

I Ndivhudzannyi Mofokeng herewith undertake that the information provided in the foregoing report is correct, and that the comments and inputs from stakeholders and Interested and Affected parties has been correctly recorded in the report.



Signature of the EAP

DATE: 2026/05/23

22 Undertaking regarding level of agreement

I, Ndivhudzannyi Mofokeng herewith undertake that the level of agreement with interested and Affected Parties and stakeholders has been correctly recorded and reported herein.



Signature of the EAP

DATE: 2026/05/23

23 Statement of Ndi Geological Consulting Independence

Neither Ndi Geological Consulting Services (Pty) Ltd nor any of the authors of this report have any material present or contingent interest in the outcome of this report, nor do they have any pecuniary or other interest that could be reasonably regarded as being capable of affecting their independence or that of Ndi Geological Consulting Services (Pty) Ltd.

Ndi Geological Consulting Services (Pty) Ltd has no prior association with G and E Global Mining (Pty) Ltd regarding the proposed mining activities that are the subject of this report. Ndi Geological Consulting Services (Pty) Ltd has no beneficial interest in the outcome of the technical assessment is capable of affecting its independence.

Ndi Geological Consulting Services (Pty) Ltd.'s fee for completing this report is based on its normal professional daily rates plus reimbursement of incidental expenses. The payment of that professional fee is not contingent upon the outcome of the report.

24 Conclusion

This Scoping Report aims to provide an indication of the identified positive and negative environmental and socio-economic impacts associated with the proposed project activities. The stakeholder engagement in the Scoping Phase will play an important role in determining possible impacts and allowing the concerns by the public to be adequately addressed in the Impact Assessment Phase of the EIA process. The Draft Scoping Report has presented:

- The environmental assessment process undertaken so far;
- A brief description of the proposed project;
- A baseline description of the current environment;
- The potential environmental and social impacts identified to date; and
- The recommended environmental process to be followed to develop the EIA/EMPr Report (Plan of Study).

A comprehensive public involvement process will be implemented during scoping. The EIA process is, however, iterative and therefore, additional potential issues/impacts and alternatives may be identified during the impact assessment phase that may require further investigation/consideration. Once the Scoping Report comment period is concluded, the report will be updated with the additional issues and submitted to DMPR. An EIA/ EMPr Report will be compiled and subjected to a round of public comment. The EIA will then be presented to the authorities for decision-making. On submission of the EIA/ EMPr Report to the DMPR, notification will be sent to registered I&APs to inform them of the submission of the documents; and the opportunity to request copies of the Final reports.

Extensive consideration has been given to the proposed design of the project. No fatal flaws have been identified during the scoping phase of this project. A comprehensive impact assessment will be undertaken and incorporated into the EIA/EMPr Report during the impact assessment phase. The proposed comprehensive stakeholder engagement process in the PoS will ensure that the stakeholders are involved in the process, from the conception of the EA/WML application process to the end. It is anticipated that implementation of the PoS presented in this report will result in an adequate EIA process, which will result in formulating a sound EMPr for the proposed mine.

Implementing the PoS presented in this report is anticipated to result in an adequate EIA process, which will formulate a sound EMPr for use throughout G and E Global's mining activities.

The process followed during the detailed impact assessment phase will meet the legislation's requirements to ensure that the DMPR receives enough information to enable informed decision-making.

All data used as source material, plus the text, tables, figures, and attachments of this document, have been reviewed and prepared in accordance with generally accepted professional engineering and environmental practices.

Appendices

Appendix 1: EAP Qualifications



Appendix 2: EAP CV

NDIVHUDZANNYI MOFOKENG

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Address: Herlear, Kimberley, Northern Cape Province, South Africa

Email: atshidzaho@gmail.com

Mobile: +27 (0) 82 760 8420

Citizen : Republic of South Africa

PERSONAL DETAILS

Names	: Ndivhudzannyi
Surname	: Mofokeng
Nationality :	: South African
Gender :	: Female
Marital Status :	: Married
Drivers License	: Code B
Home Language :	: Tshivenda
Other Languages	: English and Setswana

CAREER SUMMARY

Ndivhudzannyi graduated with an Honours degree in Earth Science majoring in Mining and Environmental Geology. She is a self-motivated and hardworking Geologist with 8 years' experience in the environmental, mining exploration, open cast work and consulting in the mining industry. She has proven leadership skills from supervising exploration rigs (Reverse Circulation and Percussion Drilling). Proven field experience in exploration i.e. mapping, borehole logging, borehole sampling, sample preparation for laboratory analysis, supervisory duties in the field. Ndivhudza also has experience in writing geological reports including Prospecting Work Programmes and Environmental Management Plans, handling DMR documents in general.

KEY SKILLS

- Data management
- QAQC analysis
- Geological modeling
- Rock core logging
- Rock drilling supervision
- Geological surface mapping
- Surface mining supervision
- Geological and resource modelling in 3D
- Technical report writing

KEY PROFESSIONAL ASSOCIATIONS AND QUALIFICATIONS

GEOLOGICAL SOCIETY OF SOUTH AFRICA (GSSA)

2009 BACHELOR OF SCIENCE IN MINING AND ENVIRONMENTAL GEOLOGY (BE SMEG),
GEOLOGY (HONOURS)

University of Venda, South Africa

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- Have the financial and technical ability to run a project
- Section 11 and 102 Applications, Closure Applications
- Annual Reporting-Performance Assessment Report

February 2013 – May 2014 **Consultant Geologist – Centre for Advanced
Satellite and Mineral Exploration- Geoscientific Mineral Resources Consulting**

In this role I reported to the CEO

Responsibilities:

- I was appointed as a geologist to compile Geological Packages for Africa and Asia (Liberia, Angola, Mali, Nigeria, Portugal, South Africa, Zambia, Republic of the Union of Myanmar and Mongolia).
- Interpretation based on Quickbird 600mm Resolution Archive Satellite Image Data, Digital Elevation Data, Satellite Image Data ASTER, Satellite Image Data LANDSAT LCDM, Satellite Image Data Pléiades, Spectral Analysis, Synthetic Aperture Radar and Satellite Image Data RapidEye).
- Provide geological information for mining
- Site visit for inspection in the mine
- Mining Work Programme
- Financial and technical ability
- Environmental management Plan/Programme
- Scoping Report
- Social and Labour Plan
- Prospecting work programme
- Report on Results of Consultation
- Section 11 and 102 Application
- Closure application
- Annual Reporting-Performance Assessment Report
- Supervising and training of field staff on iron ore and gold projects

EMPLOYMENT HISTORY

May 2014 – to date **Environmental Assessment Practitioner –
Ndi Geological Consulting Services (Pty) Ltd**

Responsibilities:

- Compilation of Environmental Management Plans/Programmes
- Writing of Scoping Report, Social& Labour Plan, Prospecting Work Programme. Reporting on Results of Consultation
- Undertaking Environmental Impact Assessments, Waste Management Licence and Water Use Licence Applications for various projects
- Undertaking stakeholder engagement as part of the EA and WML processes
- Undertaking Environmental Audits
- Compiling geological reports for various areas to be incorporated in the Prospecting Work Permits (PWP) and Mining Permit applications for various commodities in South Africa as required in terms of the Mineral and Petroleum Resources Development Act (Act 28 of 2002)
- Producing sketch plans and geological maps to be incorporated in the PWPs for Prospecting Right, Mining Permit and MWP applications
- Writing desktop studies reports for various commodities in South Africa and other African countries
- Interpretation of sampling analytical results and review of small-scale mining projects
- Provide geological information for mining
- Conduct site visit for inspection on the mines
- Compiling Mining Work Programme

Major Projects

- Geological Desktop Study Report for Liberia, Angola, Mali, Nigeria, Portugal, South Africa, Zambia, Republic of the Union of Myanmar and Mongolia.

Achievements

- Successful Mining Right application, Mining Permit application and Prospecting Right

February 2012 – December 2012**Geologist – Pikwane Diamonds Mining Company****In this role I reported to the Chattered Accountant and the CEO (small scale mine).****Responsibilities:**

- I was appointed as a geologist to uplift section 54 issued for Bo-Karoo Company (Douglas) in January 2012 in which it was successful. Furthermore, the company was standing due to failure of compliance with rehabilitation plan. The financial provision quantum required a guarantee of R16.5M to be paid immediately. After the negotiation with the DMR to give me 1month to show the company commitment on rehabilitation, in three weeks period when I was supervising the rehabilitation, the new financial provision quantum required drop down to R13M.
- I received complement from the 10 miners I was supervising, the work ethics, communication and motivation they received was overwhelming.
- Workers were refusing to work overtime in order to meet the DMR deadline due to some in house problems occurred previously, but with my negotiation skills, motivation, and problem solving skills we end up working on 10hrs shift Monday to Sunday. The target and deadline was met with positive results within 3 weeks.
- The management where impressed with my work but I give the guys credit for giving me the opportunity to work with them.
- Grade control, face mapping, pebbles counting and drawing of cross sections
- Capturing geological data and management of database

Ndivhudzannyi Mofokeng**3**

- Provide geological information for mining
- Continuous supervision to the mining process to improve quantity and quality mined
- Status Report on the DMR documents
- Compiling prospecting work programme
- Site visit for inspection in the mine
- Field mapping
- Minor report writing and give recommendation

Major Projects

- Bo-Karoo.

Achievements

- The financial provision quantum required a guarantee of R16.5M to be paid immediately. After the negotiation with the DMR to give me 1month to show the company commitment on rehabilitation, in three weeks period when I was supervising the rehabilitation, the new financial provision quantum required drop down to R13M.

January 2010 – October 2011**Exploration Geologist- Geo-Rock International (Pty) Ltd**

-

In this role I reported to the Administrator, Manager and the Principal Geologist**Responsibilities:**

- Directly managing 2 geo-technicians, 3 fields assistant and the drilling contractors. Received complement from my seniors and client when I was overseeing Lohattha and Doornfontein project.
- Involved in the supervision of prospecting and mining of different commodities (which includes supervision of trenching sites, RC drilling, field mapping and taking manganese and iron samples to the laboratory for further analysis.
- Compiling prospecting work programme.
- Conduct basic assessments and Environmental Management Programme.
- Produce Sketch Plans (Survey plan, combined plan, Topographic plan, Locality plan and Prospecting plan using Arc view 9 software), and locating the areas using GPS, and map-source.
- Setting Borehole layouts and give coordinates using the Arcview 9 software.
- Digitizing maps using Global Mapper 9 Application.
- Geological report writing for the client (desktop study).

Ndivhudzanyi Mofokeng

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- Sampling.
- Grade control, face mapping, pebbles counting and drawing of cross sections.
- Capturing geological data and management of database.
- Training vocational students and geologist assistance.

Major Projects

Klipdam 157, Holpan 161, Saxendrift 20, Lanyon Vale 376/ Wouterspan, Makoensklouf/ Rieds Drift 74, Blaauw Bosch 78, and Zweetfontein 76

Achievements

Completed over 2000 RC boreholes between 2007 and 2008. Completed ±350 trenches in two months (October – November 2008).

Vacation Work

- IThemba Laboratory, Department of Geophysics December 2006 to January 2007
- Rio Tinto Mining and Exploration June 2005 – August 2006

PROFESSIONAL COURSES ATTENDED

Year	Course Attended	Course Offered By
22-23 August 2012	4th Annual Mineral Resources Compliance & Reporting Conference	Department of Mineral and Resources
June - September 2010	Microsoft office and excel 2007 Training	Georock International
2008	Mentoring course	Macvlei Company
24 - 24 August 2007	Annual diamond and kimberlite symposium Kimberley, South Africa	Geological Society of South Africa Directorate of Professional Programmes* (DPP)

- Drawing of cross-sections using Rockworks, Turbo-Cad and Turbo-sketch.
- Database management
- Mentoring Geo-technicians

Major Projects

Lohatliha and Doornfontein project

Achievements

When I was overseeing the Drilling at Lohatliha we Complete 350 boreholes of reverse circulation in three months period just before the client prospecting permit expires within 2 days.

January 2010 – October 2011**Exploration Geologist- Rockwell diamonds Mining Company****In this role I reported to the Mineral Resource Manager****Responsibilities:**

- Directly managing 2 Exploration drilling machines and attending to complaints from contractors on site.
- Supervise exploration drilling (Reverse Circulation) and Percussion drilling.
- Pit and trench logging.
- Phase mapping.
- Samples logging.
- Provide geological information for mining and pit planning.
- Continuous supervision to the mining process to improve quantity and quality of gravel mined.

Ndivhudzanyi Mofokeng

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KEY PERSONAL ATTRIBUTES

- Adaptable
 - Able to handle change and adapt to new situations.
 - Flexibility and positive attitude to change
- Communication
 - Able to communicate orally, in writing, or via electronic means
 - Excellent listener and communicator, effectively conveys information verbally and in writing.
 - Able to interact with other people at all levels of the organization.
- Confident
 - Effective judgment and decision making skills.
 - Able to see opportunities and to set and achieve goals.
 - Able to work on own initiative, with minimum supervision.
- Customer Service
 - Service oriented attitude and great customer facing skills
 - Excellent internal and external negotiation skills with ability to engage and influence clients.
 - Experience in recognition of customer needs and how to deliver an effective customer experience.
- Enthusiasm
 - Willing to learn and adapt to changing environments
 - Enthusiastic with the ability to motivate self and others in a pressurized environment.
- Leadership
 - An inspiring leader with the ability to think laterally, provide solutions and exercise independent judgment in the resolution of problems.
 - Proven leadership skills involving managing, developing and motivating teams to achieve their objectives.

TECHNICAL SKILLS AND PERSONAL ATTRIBUTES**COMPUTING**

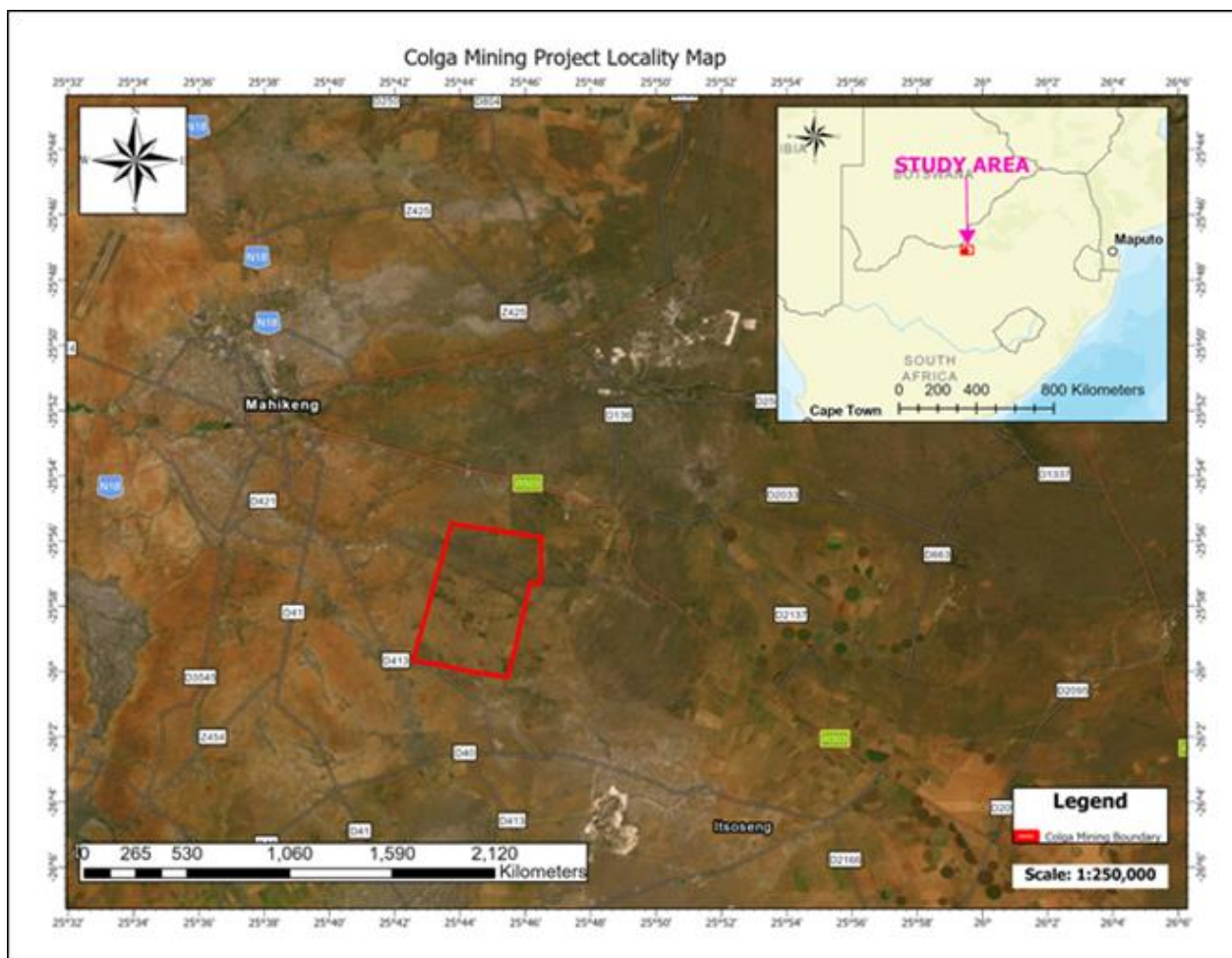
- Microsoft Office (Word, Excel, PowerPoint)
- GIS (arc view) software
- Google earth
- Map Source
- Global mapper
- Topo and Rec map
- Turbo-sketch
- Turbo-Cad
- Corel Draw
- Rockwork 2006
- Base Map

- **Motivated**
 - Focused, self motivated and target driven; determined to succeed.
 - Self-motivated
 - High personal drive

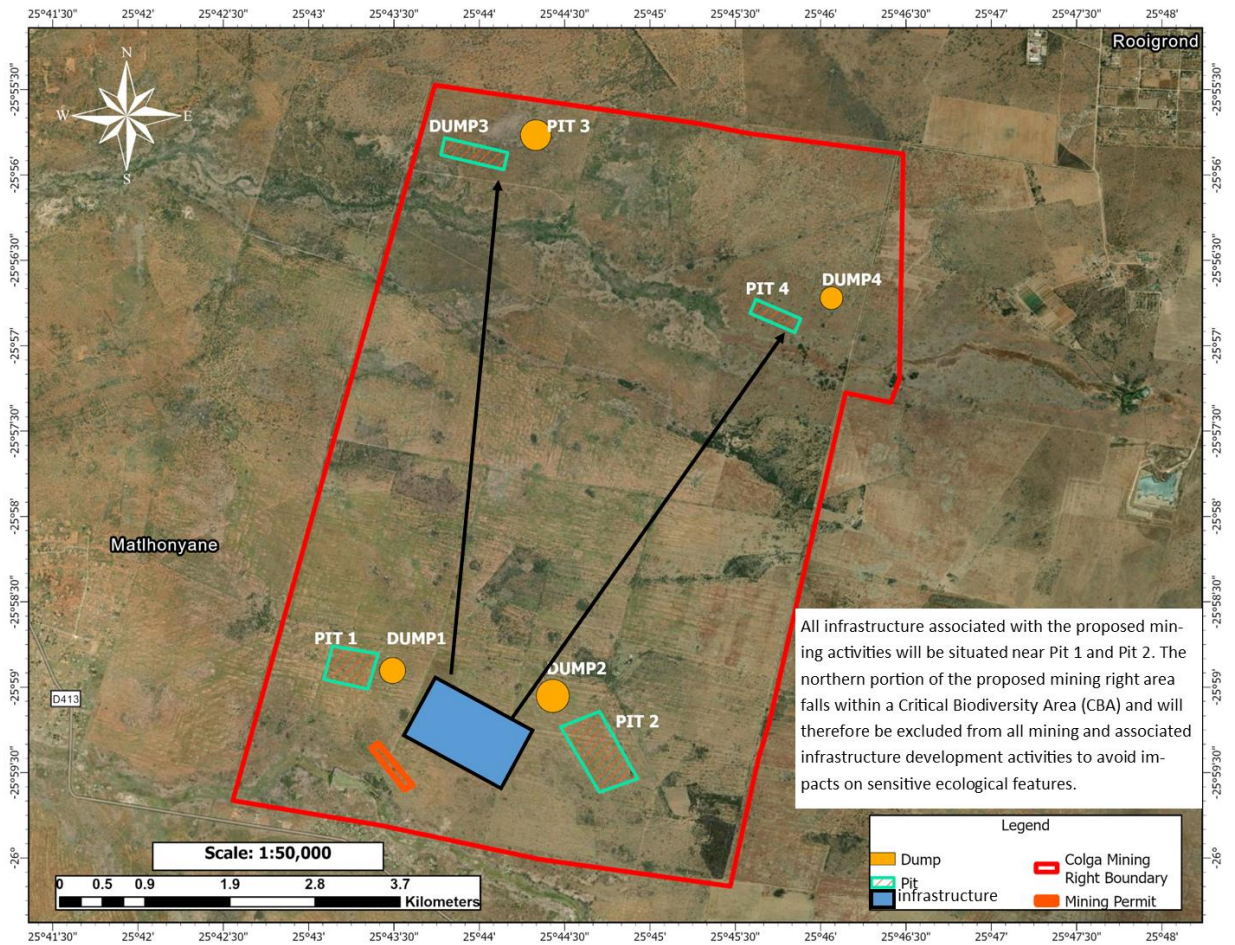
REFEREES

Available on request

Appendix 3: Locality Map



Appendix 4: Listed Activity Map



Appendix 5: Stakeholder Engagement Documentation

a) Mahikeng Mail newspaper

PAGE 6 MAHIKENG MAIL 22 MAY 2026

MAHIKENG MAIL Classifieds

PERSONAL

ADVERTISEMENTS

COMMERCIAL

PROPERTY

VEHICLES

LEGAL

NOTICES

PERSONAL

ADVERTISEMENTS

COMMERCIAL

PROPERTY

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SALES REPRESENTATIVE WANTED

A dynamic and results-driven company is seeking an experienced Sales Representative to join our growing team.

Requirements:

- Proven sales experience (essential)
- Own reliable vehicle
- Self-motivated with a target-driven mindset
- Valid driver's license
- Strong communication and negotiation skills

Package Includes:

- Basic salary
- Attractive commission structure
- Car allowance
- Company cellphone

Key Responsibilities:

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- Achieve and exceed sales targets
- Identify market opportunities and grow territory
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If you are passionate about sales and ready to take your career to the next level, we would like to hear from you.

To apply: Send your CV to hw.admin2@goldrushgroup.co.za

NOTICE. INVITATION TO REGISTER, PARTICIPATE AND COMMENT ON THE MR/EA/WUL APPLICATION PROCESSES. Notice is hereby given that G and E Global Mining (Pty) Ltd (G and E Global) applied for a Mining Right (MR) and associated Environmental Authorisation (EA) and Waste Management License (WML) in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), the National Environmental Management Waste Act (Act No. 59 of 2008) (NEM:WA) and the section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), as amended. The application was accepted on the 6th of May 2026. G and E Global appointed Ndi Geological Consulting Services (Pty) Ltd (Ndi Geological) as the independent Environmental Assessment Practitioner (EAP) to facilitate the EA/WML process for the proposed Diamond, Diamond (alluvial), Diamond (kimberlite), Aggregate, Lead, Manganese Ore, Limestone, Sand and Gold Ore mining project. Location: The above MR project will be conducted on portions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12,13 and the Remaining Extent of the farm Colga 132 JQ covering an area of 3927 hectares and is located 11.5 km southeast of Mahikeng in the Ngaka Modiri Molema District Municipality, North West Province. DMPR REFERENCE: NW30/5/1/2/2/10274MR. Environmental Authorisation Process: The project triggers activities listed in Listing Notices 1, 2 and 3, which require that a full Environmental Impact Assessment (EIA) (with Scoping and Impact Assessment phases) process be followed. Draft Scoping Report Available for Comment: Stakeholders are invited to register as Interested and Affected Parties (I&APs), attend a public meeting and comment on the draft SR. The Draft SR will be available for public review for a 30-day period from 23 May 2026 to 23 June 2026. All comments received on the report will be incorporated into the final SR that will be submitted to the DMPR for final decision-making. All registered Interested and Affected Parties (I&APs) will be informed of the public meeting details, including the date, time, and venue, once arrangements have been finalised. Stakeholder Engagement and Public Comments Invited: Chapter 6 of the NEMA requires the applicant to inform all potential I&APs of the proposed project and application for EA. We hereby invite you to register as an I&AP and provide comments on the application and draft SR through written submissions and/or comments by email, or telephone on the contact details below by 23 June 2026. Ndivhudzannyi Mofokeng, 38 Ophelia Street, Kimberley, 8301, Contact Numbers: 061 017 3302. atshidzaho@gmail.com/ndi@ndigeoservices.co.za

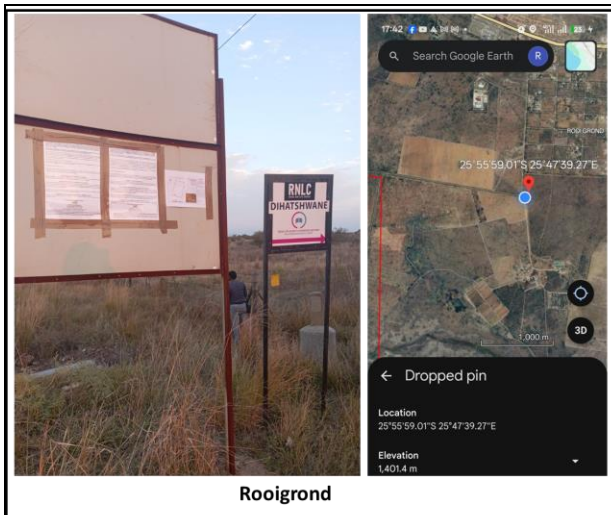
b) Noordwester newspaper

K6 22/5

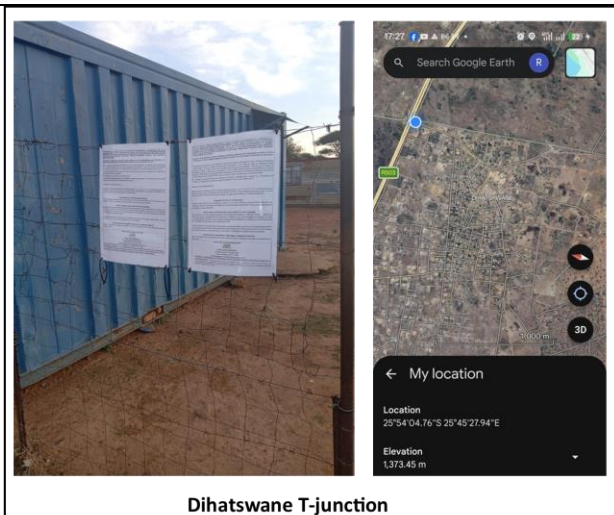
KITSISO. KITSHEDISO YA GO IKWADISA, GO TSAYA KAROLO LE GO TLHALOSA MAIKAELO MO TSAMAISONG YA KOPO YA MR/ EAWML Go itsisiwe gore G and E Global Mining (Pty) Ltd (G and E Global) e dirile kopo ya Tetla ya Meepo (Mining Right – MR) le Tetla ya Tikologo (Environmental Authorisation – EA) mmogo le Tetla ya Taolo ya Matlakala (Waste Management Licence – WML) go ya ka Molao wa Bosetšhaba wa Taolo ya Tikologo wa 1998 (Molao No. 107 wa 1998) (NEMA), Molao wa Bosetšhaba wa Taolo ya Matlakala wa 2008 (Molao No. 59 wa 2008) (NEM:WA) le Karolo 16 ya Molao wa Tihabololo ya Meepo le Petoroleamo wa 2002 (Molao No. 28 wa 2002) (MPRDA), jaaka o baakantswe. Kopo e amogetswe ka la 6 Mopitlwe 2026. G and E Global e tšhomile Ndi Geological Consulting Services (Pty) Ltd (Ndi Geological) jaaka badiri ba ba ikemetseng ba Tihatlhobo ya Tikologo (Environmental Assessment Practitioner – EAP) go tsamaisa tsotlhe tsotlhe tsotlhe tsa EAWML mabapi le porojeke e e sisintsweng ya meepo ya Taemane, Taemane ya alluvial, Taemane ya kimberlite, Aggregate, Loto (Lead), Manganese Ore, Limestone, Santa le Gauta. Lefelo: Porojeke e e fa godimo ya MR e tla dirwa mo dikarolong tsa 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13 le Remaining Extent ya polase Colga 132 JQ e e akaretsang lefelo la diheketara di le 3927 mme e fitlhelwa dikilometara di le 11.5 kwa borwa-botlhaba jwa Mahikeng mo Mmusong wa Kgaolo wa Ngaka Modiri Molema, Kwa Bokone Bophirima. Tshupetso ya DMPR: NW30/5/1/2/2/10274MR. Tsamaiso ya Tetla ya Tikologo: Porojeke e tsosa ditiro tse di mo Listing Notices 1, 2 le 3, tse di tšhokang gore go dirwe Tsamaiso e e Feletseng ya Tihatlhobo ya Kamego ya Tikologo (Environmental Impact Assessment – EIA), go akaretsa dikarolo tsa Scoping le Impact Assessment. Pegelo ya Draft Scoping e Buletswe Dikakgelo: Batho botlhe ba ba nang le kgatlhego kgotsa ba ba amegang (Interested and Affected Parties – I&APs) ba lalediwa go ikwadisa, go nna teng mo kopanong ya setšhaba le go neelana ka dikakgelo mo pegolong ya Draft Scoping Report (SR). Draft SR e tla nna teng gore setšhaba se e sekaseke mo malatsing a le 30 go simolola ka la 23 Mopitlwe 2026 go fitlha ka la 23 Seetebosigo 2026. Dikakgelo tsotlhe tse di amogetsweng di tla tšenngwa mo pegolong ya bofelo ya SR e e tla romelwang kwa DMPR gore go tšewe tšhwetso ya bofelo. Batho botlhe ba ba ikwadisitseng jaaka I&APs ba tla itsisiwe ka dintlha tsotlhe tsa kopano ya setšhaba, go akaretsa letsatsi, nako le lefelo, fa dithulaganyo tsotlhe di sena go wediwa. Kgolagano le Setšhaba le Dikakgelo di a Lalediwa: Kgaolo 6 ya NEMA e laela gore mokopi a itsise batho botlhe ba ba ka amegang kgotsa ba ba nang le kgatlhego ka porojeke e e sisintsweng le kopo ya EA. Ka jalo re lo laletsa go ikwadisa jaaka I&AP le go romela dikakgelo tsa lona mabapi le kopo le Draft SR ka dikwalo, imaille kgotsa mogala mo dintlheng tsa kgolagano tse di fa tlase pele ga kgotsa ka la 23 Seetebosigo 2026. Ndivhudzannyi Mofokeng, 38 Ophelia Street, Kimberley, 8301. Contact Numbers: 0610173302, atshidzaho@gmail.com/ndi@ndigeoservices.co.za

K7 22/5

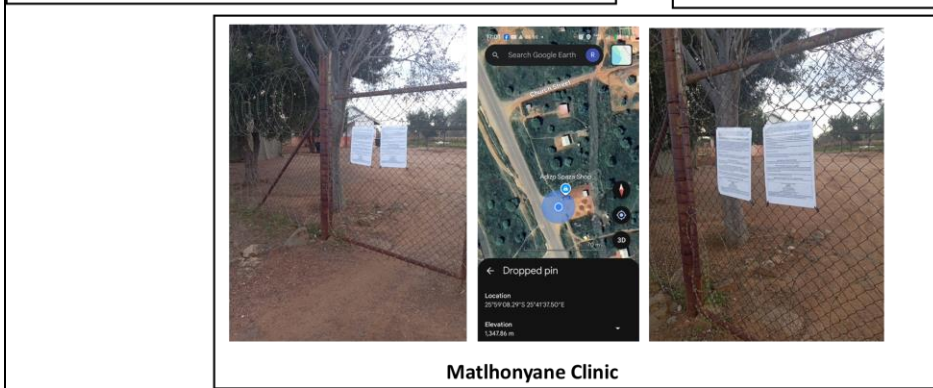
c) Site notices



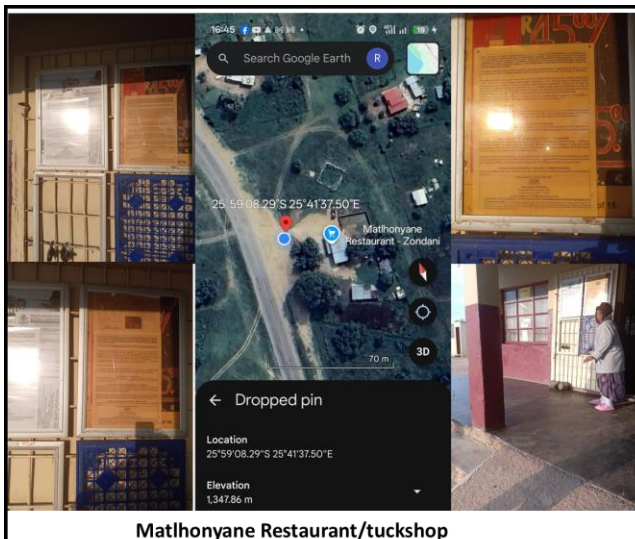
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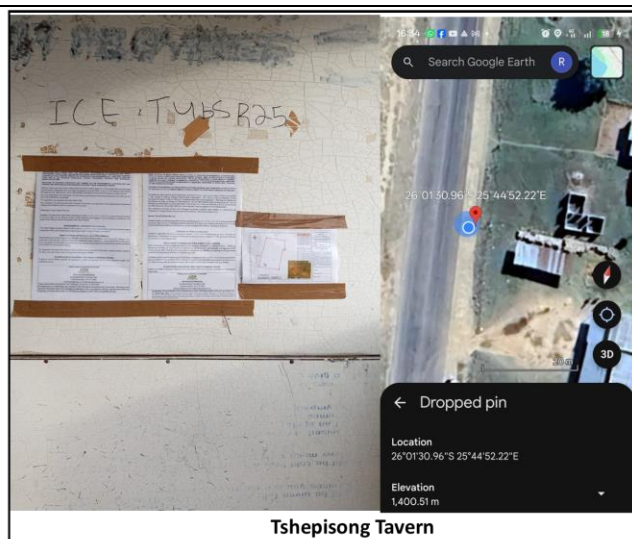
Dihatswane T-junction



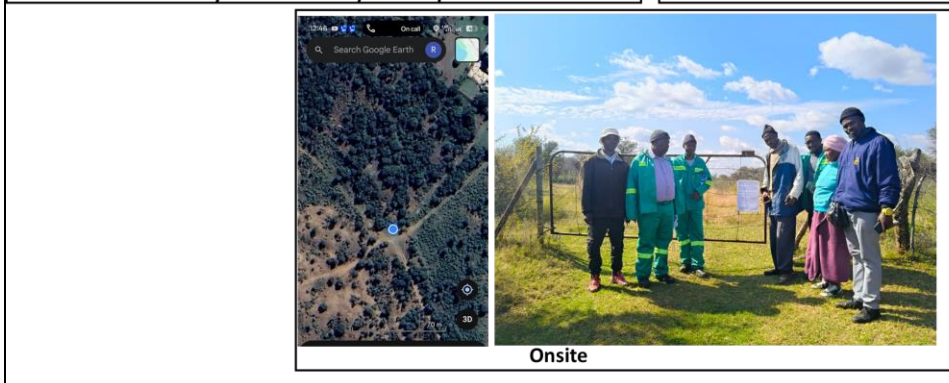
Mathonyane Clinic



Mathonyane Restaurant/tuckshop



Tshepisong Tavern



Onsite

