



Elders Colliery

Final

Environmental Audit Report

Submitted as contemplated in Regulation 34 under Part 3 of Chapter 5 of the amended National Environmental Management Act, 1998 (Act 107 of 1998)(NEMA) Environmental Impact Assessment Regulations, 2014 (Government Notice No. 326) (EIA Regulations, 2014)

DMR Reference No.:
MP 30/5/1/2/3/2/1 (10117) EA

November 2021

As of 7 June 2021, following the completion of the demerger of high-quality export thermal coal operations from Anglo American, Thungela has successfully listed on the Johannesburg and London stock exchanges. As such, we will now legally change our name from Anglo Operations Proprietary Limited ("AOPL") to Thungela Operations Proprietary Limited ("TOPL")

Thungela offers investors access to a high-quality thermal coal business with low cash cost and high-margin assets, as well as a strong balance sheet, underpinned by a robust environmental, social and governance ("ESG") framework

Thungela owns interests in and produces thermal coal predominantly from six collieries located in Mpumalanga, South Africa. The business address has changed to **25 Bath Avenue; Rosebank; 2196; South Africa** however, the specific mines addresses remain unchanged. It is important to note that the legal name change from Anglo Operations (Pty) Ltd to Thungela Resources (Pty) Limited will officially be effective early 2022.

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1. INTRODUCTION

Elders Colliery is an underground mining operation owned by Anglo Operations (Pty) Ltd (“AOL”). The Elders Colliery mining right area is situated in the magisterial district of Bethal, approximately 40 km kilometres south of Witbank and 25 km north of Bethal in the Mpumalanga Province. The mining area is located approximately 17 km southeast of AOL’s existing Goedehoop Colliery. Elders Colliery falls mainly within the Govan Mbeki Local and Gert Sibande District Municipalities.

The underground mining at Elders Colliery will be undertaken using the bord and pillar mining technique making use of continuous miners and shuttle cars. The No. 2 and No. 4 coal seams will be exploited at Elders Colliery. Run off mine coal from the underground mining workings will be stored in a coal silo from where it will be transported via a new conveyor and existing/reconstructed overland conveyor belt to Goedehoop Colliery Plant Complex for beneficiation. A crushing station will be installed after the coal storage silo before depositing coal on an overland conveyor system to the Goedehoop Colliery. The underground workings will be accessed via an incline shaft through the boxcut. Approximately 64.5 million tons of coal will be mined over the life of mine, utilising six continuous miner sections.

At the time of conducting the audit, Elders Colliery was not yet commenced with and no construction activities had taken place. The above was confirmed through the site visit undertaken at the project area.

The following Environmental Authorisations (EA) and EMPr were granted and approved for Elders Colliery:

- Environmental Authorisation (“EA”)
 - Integrated Environmental Authorisation (“IEA”) issued in terms of the NEMA as amended, the EIA Regulations, 2014 and the National Environmental Management: Waste Act 59 of 2008 (“NEMWA”) and Government Notice 921 of 2013 for proposed mining and associated infrastructure (Elders Colliery) (Reference Number (MP) 30/5/1/2/3/2/1/ (10117) EM).
- Environmental Management Programme (“EMPr”):
 - Elders Colliery Aligned EMPr (DMR Reference number. MP 30/5/1/2/3/2/1 10117 EA)

In terms of the National Environmental Management Act, 1998 (“NEMA”), the amended NEMA Environmental Impact Assessment Regulations, 2014 and the EMPr approval letters, AOL must assess its compliance with the conditions of the EA and commitments in the approved EMPr for its activities at Elders Colliery.

AOL appointed Geovicon Environmental (Pty) Limited to assess the compliance of Elders Colliery’s operation against conditions/commitments of the EA and the EMPr issued and approved in terms of the NEMA. This report was compiled after completion of the virtual environmental audit and a site visit and is hereby submitted for review by the competent authority and the public.

2. LEGAL FRAMEWORK

2.1. NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998), AS AMENDED (“NEMA”)

Regulation 34 (1) of the EIA Regulations, 2014 states that:

The holder of an environmental authorisation must, for the period during which the environmental authorisation and EMPr, and where applicable the closure plan, remain valid—

- (a) ensure that the compliance with the conditions of the environmental authorisation and the EMPr, and where applicable the closure plan, is audited; and*
- (b) submit an environmental audit report to the relevant competent authority.*

Regarding the environmental audit report, Regulation 34 (2) further states that

The environmental audit report contemplated in subregulation (1) must—

- (a) be prepared by an independent person with the relevant environmental auditing expertise;*
- (b) provide verifiable findings, in a structured and systematic manner, on*
 - (i) the level of performance against and compliance of an organisation or project with the provisions of the requisite environmental authorisation or EMPr and, where applicable, the closure plan; and*
 - (ii) the ability of the measures contained in the EMPr, and where applicable the closure plan, to sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity;*
- (c) contain the information set out in Appendix 7 (of the NEMA EIA Regulations, 2014 as amended).*
- (d) be conducted and submitted to the competent authority at intervals as indicated in the environmental authorisation.*

The competent authority in the case of Elders Colliery is the Department of Mineral Resources and Energy, Mpumalanga Regional Office.

In view of the above and in complying with the above approval conditions of the EMPr and relevant regulations of the NEMA EIA Regulations, a compliance assessment for Elders Colliery's approved EMPs and issued NEMA IEA are undertaken.

3. SCOPE AND PURPOSE OF THE ENVIRONMENTAL AUDIT

The purpose of this assessment is to undertake an audit in terms of section 34 of the NEMA in order to verify the mine's compliance with and adequacy of the following IEA and EMPr –

EMPr:

- Elders Colliery Aligned EMPr (DMR Reference number. MP 30/5/1/2/3/2/1 10117 EA);

IEA:

- Integrated Environmental Authorisation ("IEA") issued in terms of the NEMA as amended, the EIA Regulations, 2014 and the National Environmental Management: Waste Act 59 of 2008 ("NEMWA") and Government Notice 921 of 2013 for proposed mining and associated infrastructure (Elders Colliery) (Reference Number (MP) 30/5/1/2/3/2/1/ (10177) EM.

The environmental audit was conducted to determine the level of performance against and compliance of the mining operation with the provisions of the issued IEA and approved EMPr. The audit was conducted to further determine the ability of the measures contained in the approved EMPr to sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with Elders Colliery's operation and associated surface infrastructure and activities.

In view of the above, the scope of this compliance assessment is as follows:

- To report on the compliance of the mine with the conditions, commitments and/or mitigation measures in the EMP and IEA and the extent to which the avoidance, management and mitigation measures provided for in the EMP, achieve the objectives and outcomes of the EMP.
- To identify and assess any new impacts and risks arising from the Elders Colliery mining activities;
- To evaluate the effectiveness of the EMP;
- To identify any inadequacies in the EMP; and
- To identify the need for any changes to the avoidance, management and mitigation measures provided for in the EMP.

4. METHODOLOGY ADOPTED IN PREPARING THE ENVIRONMENTAL AUDIT REPORT

4.1. AUDIT TEAM

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Experience of the Auditor

Mr. O.T. Shakwane obtained his BSc (Microbiology and Biochemistry) from the University of Durban Westville in 1994 and completed his honours degree in Microbiology in 1995. Mr O.T. Shakwane has also completed short courses on environmental law, environmental impact assessment, environmental risk assessment and environmental management systems with a number of tertiary institutions. He has worked within the three state departments tasked with mining and environmental management i.e. Department of Water and Sanitation (Gauteng and Mpumalanga Region), Department of Mineral Resources (Mpumalanga Region) and Department of Agriculture, Conservation and Environment

(Gauteng Region). Mr. Shakwane has been in the consulting field since 2004 and has undertaken environmental audits for mining operations similar to Elders Colliery. Mr. Shakwane is one of the auditors that audited Elders Colliery's compliance with their IEA and EMPs. Mr. Shakwane has been involved in the field of environmental auditing for the past sixteen years.

He is registered with the Environmental Assessment Practitioners Association of South Africa and South African Council for Natural Scientific Professions as an Environmental Assessment Practitioner and a Professional Natural Scientist in terms of section 24H of the National Environmental Management Act, (Act 107 of 1998) and section 20(3) of the Natural Scientific Professions Act, 2003 (Act 27 of 2003), respectively. He is also a member of the International Association for Impact Assessment, South Africa.

Mr. Ornassis Tshepo Shakwane of Geovicon Environmental (Pty) Limited, hereby declares that he is an independent auditor and that Geovicon Environmental (Pty) Limited and himself have no business, financial, personal or other interest in this project in respect of which Geovicon Environmental (Pty) Limited is appointed. Furthermore, no circumstances exist that may compromise the objectivity of Geovicon Environmental (Pty) Limited, excluding fair remuneration for work performed in connection with this environmental audit.

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Mr. Ornassis Tshepo Shakwane of Geovicon Environmental (Pty) Limited, hereby declares that he is an independent auditor and that Geovicon Environmental (Pty) Limited and himself have no business, financial, personal or other interest in this project in respect of which Geovicon Environmental (Pty) Limited is appointed. Furthermore, no circumstances exists that may compromise the objectivity of Geovicon Environmental (Pty) Limited, excluding fair remuneration for work performed in connection with this environmental audit.

4.2 FREQUENCY OF REPORTING

In terms of regulation 34(2)(d) of the NEMA EIA Regulations “*the environmental audit report contemplated in sub-regulation (1) must be conducted and submitted to the competent authority at intervals as indicated in the environmental authorisation*”. This supported by regulation 26 (e) of the NEMA EIA Regulations which requires an environmental authorisation to specify the frequency of auditing of compliance with the conditions of the environmental authorisation and compliance with the approved EMPr.

Condition 8.4.1 of the IEA states that the holder of the authorisation must submit annual environmental audit reports during the operation of the activity, unless otherwise requested by the Department of Mineral Resources and Energy. In view of the above and in compliance with the above-mentioned condition, the auditing interval for Elder Colliery is annual.

4.3 PERIOD THAT APPLIES TO THIS COMPLIANCE ASSESSMENT

The audit review period for this environmental audit report is August 2020 to August 2021.

4.4 PROCEDURE USED DURING THE COMPLIANCE ASSESSMENT

The following was used as a procedure for the compliance assessment i.e.:

- Desktop assessment of the approved Elders Colliery EMPr and NEMA IEA. The desktop assessment was used to list all commitments and conditions indicated in the EMP, and IEA.
- The Environmental Audit was conducted by reviewing and abstracting the commitments (management and mitigation measures) from the approved EMPr and conditions from the approved IEA in cases where the commitments had not been fulfilled, such has been indicated in this report. As described further below, we also had extensive electronic interviews with the relevant Elders Colliery personnel. These interviews were held over a period of one (1) day.
- To assess the compliance with the conditions and commitments of the IEA and EMPr and to reach our findings, we conducted extensive interviews with mine personnel. For this purpose, Microsoft Teams meetings were used for conducting the audit interviews (virtual audit). The virtual audit was conducted with relevant mine personnel over one day (10th March 2021). This was therefore used to determine measures implemented to mitigate potentially negative environmental impacts, and measures to enhance positive impacts, which determined compliance of the mining operation with the conditions and commitments in the IEA and EMPr. The use of virtual interviews were supplemented with the review of documented evidence of compliance (reports, documents and photos).
- A site visit was scheduled and was undertaken (22nd March 2021) to confirm the state of compliance at the mine site. Through the above-mentioned site visit, to confirm that mining operation at Elders Colliery has not been commenced with yet, no inconsistencies were identified between comprehensive virtual audit and site visit.
- In addition to assessing the compliance with the EMPr commitments and IEA conditions, the adequacy of the information was also assessed through evaluating activities and verifying such

against the descriptions and risk assessments provided in the EMPr and IEA, and whether location specific risks and the necessary specialist assessments had been considered.

4.5 EVALUATION CRITERIA USED DURING THE COMPLIANCE ASSESSMENT

Evaluation criteria used during the compliance assessment include the following:

- Are the measures and structures as indicated in the EMPr and IEA in place?
- Are the measures adequate and structures maintained, and at what frequency?
- Has the monitoring as indicated in the EMPr and IEA been conducted? (Data, reports).
- Is the reported frequency of the monitoring in accordance with the EMPr and IEA? (Reports)
- Determining whether any new measures are required to prevent or mitigate the existing environmental impacts and/or other potential impacts.

Evaluation of the appropriateness and adequacy of the EMPr and IEA:

- Compliance with relevant laws pertaining to the environment.
- Compliance of mining and associated activities with the EMPr and IEA. (Is the mine conducting activities that are not indicated in the EMPr and the IEA?)

4.6 RATING OF FINDINGS

The compliance category was rated as indicated in the table below:

Compliance category	Findings
Condition/mitigation measure/commitment has been achieved with evidence provided in the form of a document.	Compliant
The failure to comply with, or satisfy the requirements of an applicable condition, commitment and/or mitigation measure. When site visits are finally conducted, non-compliances will include instances where although the current condition or mitigation measure has been achieved, there have been new impacts and risks arising from the activity; whether the current measures are effective and whether there are any shortcomings which need to be address through changes in the systems or amendment of the EMPr.	Non-Compliant
The condition, commitment and/or mitigation measure is Not Applicable. A "Not Applicable" finding is also noted in events where such condition, commitment and/or mitigation measure is either obsolete, alternative effective measure is utilised or commitment and/or mitigation measure is not yet relevant but is still relevant for future activities.	Not Applicable

Compliance category	Findings
The condition, commitment and/or mitigation measure that does not require any specific action.	Noted

5 ASSUMPTIONS, UNCERTAINTIES AND GAPS IN KNOWLEDGE

Although all reasonable attempts were made to verify comments made during interviews held with relevant Elders Colliery personnel as well as the review of documentation, it is assumed that such comments and documents provided are a true and accurate reflection of the audit.

In an event where insufficient information was provided to support the verification of compliance status, the auditors' general approach was to indicate that such commitments/conditions could not be verified, and as such, the findings were noted as non-compliant.

6 EMP_r RECOMMENDATION REPORT

Regulation 34(4) of the EIA regulation, 2014 state the following

Where findings of the Environmental Audit Report indicate:

- insufficient mitigation of environmental impacts associated with the undertaking of activity;
- insufficient levels of compliance with the environmental authorisation or EMP_rs and where applicable the closure plan;

The holder of the must when submitting the environmental audit report to the competent authority in terms of sub regulation (1), submit recommendations to amend the EMP_r or closure plan in order to rectify shortcomings identified in the environmental audit report and such recommendations must have been subjected to a public participation process as agreed to by the competent authority.

Based on the findings no recommendation for the amendment of the approved EMP_r is proposed.

7 RESULTS OF THE ENVIRONMENTAL AUDIT

The results of the Environmental Audit are given in the Tables below. The tables below outlines the EMP_r's and the IEA's for each of the authorised activities at Elders Colliery.

7.1 ELDERS COLLIERY'S EIA AND ENVIRONMENTAL MANAGEMENT PROGRAMME (DMR REFERENCE NUMBER: MP 30/5/1/2/3/2/1 10117 EA)

ENVIRONMENTAL ASPECT	POTENTIAL IMPACT	MITIGATION MEASURE	PHASE	FINDINGS	OBSERVATIONS/AUDIT EVIDENCE
Air Quality	Increase in dust fallout, PM ₁₀ and PM _{2.5} particles affecting adjacent communities	Water sprays; this will results in 50% control efficiency	Construction, operation, closure	Not-Applicable	No mining activities are currently taking place at Elders Colliery. Therefore, these conditions are not applicable.
		Water sprays on unpaved roads, stockpiles and material handling points; this will results in 50% control efficiency			
		Enclose the crusher and fit with a dust extraction system.			
		Traffic control done through restriction of traffic volumes on roads and vehicle speeds.			
		Use water sprays on all stockpiles with special attention given to active stockpiles.			
		Long-term stockpiles should be vegetated or turfed.			
		Net screens with fine mist sprays around stockpiles areas.			
		Adhere to specified design (with a roof and one side covered). The conveyor covering should be in the direction where most sensitive receptors are located (westerly direction of the mine)			
Biodiversity	Permanent loss of habitat for flora and fauna Habitat fragmentation	Removal of vegetation should be restricted to the relevant infrastructure footprints only	Construction	Not-Applicable	Construction at Elders Colliery has not commenced. The associated EMPr commitments are not yet applicable.
		Topsoil should be stored separately to be used in rehabilitation and landscaping	Construction, operations	Not-Applicable	Construction at Elders Colliery has not commenced. The associated EMPr commitments are not yet applicable.
		No off-road driving into the natural remaining vegetation should be allowed especially by heavy machinery	Construction, operation, closure	Not-Applicable	No mining activities are currently taking place at Elders Colliery. Therefore, these conditions are not applicable.
		The development of erosion gullies should be monitored and managed			
		Prevent any and all effluent from the mining activities of entering the wetland habitat			
		Prevent all open fires, provide fire-safe zones, facilities and suitable fire control measures			
		Use of branches of trees, shrubs or any vegetation for fire making purposes is strictly prohibited			
		Provide sufficient on-site ablution, sanitation and waste management and hazardous materials management facilities			
		The use of the natural veld for ablution purposes shall not be permitted under any circumstances			
		Dust control on all roads should be prioritised			
	A road management plan should be compiled prior to commencement of construction activities.				
Loss of species of concern	Remaining areas of natural vegetation, irrespective of their ecological state (poor or good) should be inspected	Construction	Not-Applicable	Construction at Elders Colliery has not commenced. The associated EMPr commitments are not yet applicable.	

		for the presence of species of concern during the optimal time prior to construction by a registered and experienced biodiversity team. This might require a number of visits over a number of months.			
		Employees at the mine should be educated about the environment, the species of concern present and how to deal with them. Ignorance paves the way for prejudice.			
		Employees should not be allowed to harvest, utilise, manage or control any natural resource (water, soil, flora, fauna) unless it is done within the framework of a biodiversity action plan	Construction, operation, closure	Not-Applicable	No mining activities are currently taking place at Elders Colliery. The associated EMPr commitments are not yet applicable.
		No alien invasive plant or feral animal (domestic or wild) should be introduced into the area or be allowed to establish or spread in the area. Alien invasive or feral species already in the areas should be managed and controlled within the framework of a biodiversity action plan.			
		Only regionally, biome specific indigenous species should be used in the landscaping and rehabilitation. The seed and seedlings can be obtained by effectively managing the topsoil prior to construction. A professionally registered biodiversity team consisting of pedologists, botanists and zoologists should assist with the rehabilitation and landscaping plans.	Closure	Not-Applicable	No mining activities are currently taking place at Elders Colliery. The associated EMPr commitments are not yet applicable.
		No animal may be hunted, trapped, snared or captured for any purpose whatsoever. Fences and boundaries should be patrolled weekly in order to locate and remove snares and traps. Fences should be made visible, especially for flying fauna, specifically avifauna	Construction, operation, closure	Not-Applicable	No mining activities are currently taking place at Elders Colliery. The associated EMPr commitments are not yet applicable.
Groundwater	The formation of acid mine drainage (AMD) as a result of ingress water and oxygen into the stockpiled overburden	Verify AMD generation potential through sampling and analyses of actual overburden excavated.	Pre-construction	Not-Applicable	No construction is currently taking place at Elders Colliery. The associated EMPr commitments are not yet applicable.
		Place the overburden on a properly prepared and compacted footprint. This will optimize lateral drainage of percolated water and minimize infiltration into the subsurface.	Construction	Not-Applicable	No construction currently taking place at Elders Colliery. The associated EMPr commitments are not yet applicable.
		A civil engineering design, incorporating footprint preparation, leachate control and storm water management, must nevertheless be done for the Overburden Stockpile and submitted to DWS for approval	Pre-construction	Not-Applicable	No construction currently taking place at Elders Colliery. The associated EMPr commitments are not yet applicable.
	Influx of groundwater into boxcut void	The cone of depression can be minimized by sealing the box-cut walls with shotcrete/gunite which will allow groundwater levels to re-establish and the cone of depression to become smaller. However, the maximum distance of groundwater lowering around the box-cut was calculated as 208 m which is insignificant in terms of a groundwater availability impact.	Construction	Not-Applicable	No construction or operational activities are currently taking place at Elders Colliery. The associated EMPr commitments are hence not yet applicable.
		Maintain compaction and shape to ensure free draining of surface run-off to minimize rainfall infiltration.	Construction, operation		
	Do not deviate from the planned bord and pillar mining and ensure stability integrity of overlying strata	Operation	Not-Applicable		

	<p>Influx of groundwater into the mine workings</p> <p>The formation of AMD in groundwater resources</p>	<p>Mine according to design mine stability safety factor.</p> <p>Optimize storage of mine water make in mined out underground sections</p> <p>Monitor groundwater quality.</p> <p>Maintain underdrain system and dam integrity.</p> <p>Monitor groundwater quality and level in backfilled boxcut during closure.</p>	<p>Operation</p> <p>Operation</p> <p>Construction, operation, closure</p> <p>Construction, operation</p> <p>Closure, post closure</p>		<p>No mining activities are currently taking place at Elders Colliery. The associated EMPr commitments are not yet applicable.</p>
<p>Surface Water</p>	<p>Pollution of surface water resource</p>	<p>Appropriate storm water management measures will be implemented, including the temporary diversion of upstream run-off from the construction and laydown areas.</p> <p>Servicing of construction vehicles will take place only in dedicated areas that are equipped with drip trays.</p> <p>Bunded containment and settlement facilities will be provided for hazardous materials, such as fuel and oil.</p> <p>Spill-sorb or a similar product will be kept on site, and used to clean up hydrocarbon spills in the event that they should occur.</p> <p>Erosion protection measures will be implemented at steep areas.</p> <p>A waste management plan will be developed</p> <p>Water quality monitoring will be undertaken downstream of the construction areas, before and during construction where practical, in order to detect any increase in suspended solids or turbidity.</p> <p>The storm water runoff from the overburden stockpile will be caught in a clean water cut off channel. The channel will convey the water to a silt trap from where it will discharge into the proposed clean water channel at the office area and conveyed into the veld.</p> <p>Prior to discharge to the veld, the water quality from overburden stockpile channel will be assessed and pumped to the PCD if not suitable for discharge to the environment.</p> <p>The maximum volume of water expected to be generated at the start of mining at the box cut in 2018 is likely to be around 167 m³/day during the summer period. The water will be contained at the site, in the PCD, for re-use in dust suppression on haul roads, and as construction water, if the quality is suitable. The water will not be discharged.</p> <p>The aerial extent of the disturbed and potentially contaminated areas will be kept to the demarcated construction footprint.</p> <p>Areas where dirty construction activities are carried out (e.g. servicing areas and workshops, fuel storage areas,</p>	<p>Construction, operation, closure</p> <p>Construction</p> <p>Construction</p>		

	waste storage areas) will be minimised and surrounded by bunds.		
	Clean upslope runoff will be diverted around construction activities.	Construction	
	Containment of all dirty water generated on the mine in a lined PCD, sized to have a risk of spill of 2% or less in any one year	Construction, operations, closure	
	Provision of a water treatment plant to treat a maximum of 5.0 Ml/day of dirty water generated at the mining operations.	Construction, operations, closure	
	Treatment of excess dirty water for reuse at the Elders operations, including supply of domestic and service water requirements.	Construction, operations, closure	
	Excess water that cannot be treated or reused will be pumped to storage in underground compartments at around 2025, when storage becomes available at Elders 2 Seam underground sections. Prior to storage becoming available underground, surplus water will need to be pumped to Goedehoop Colliery, should a review of the LOM plan not enable the early provision of storage on the 2 Seam.	Construction, operations	
	Provision of water management facilities with a risk of spill that is lower than 2% in any one year.	Construction, operation, closure	
	All pipeline routes will be inspected regularly to enable early detection of leaks.	Construction, operation, closure	
	Washdown and waste water from the workshops will be passed through oil skimmers before discharging to the storm water system for containment in the PCD and eventual treatment for reuse, or pumping to underground storage	Construction, operation, closure	
	An inspection and maintenance plan will be implemented on the storm water system to ensure that all oil skimming and sediment handling facilities are maintained and that storm water canals and pipelines remain unblocked and free flowing – monthly inspections will be carried out.	Construction, operation, closure	
	In line with best practice, the PCDs will be operated as empty as possible at all times to ensure that sufficient storm water retention capacity is available at all times.	Construction, operation, closure	
	In the event that there is insufficient available capacity in the main PCD during extreme rainfall conditions, excess storm water will be pumped to the Elders underground storage compartments	Construction, operation, closure	
	The pollution control dams will be equipped with geomembrane liners to minimise leakage of contaminated water to the surface or ground water systems.	Construction, operation, closure	
	The lining system on the PCDs will include a sub-surface drainage layer to detect any leakages, as well as to prevent the build-up of hydrostatic pressure beneath the geomembrane liner. Water collected in the sub-surface drainage system will be discharged to a sump and pumped back into the PCD.	Construction, operation, closure	

		Excess water will therefore drain via the dirty storm water system to the PCD and will be pumped back to the water treatment plant for reuse in the mining operations.	Construction, operation, closure		
		The WTP will be isolated within a designated dirty water area. All runoff and spills from the treatment plant will be collected in a sump, from which water will be pumped to the PCD.	Construction, operation, closure		
		Discharge water quality will be continuously monitored for early detection of discharge water quality problems.	Construction, operation, closure		
		Should upset conditions occur, or poor discharge water quality be detected, the WTP discharge will be directed to the PCD	Construction, operation, closure		
		Initially one brine dam will be constructed, with a second to be constructed at a later stage, as the WTP's treatment capacity is increased.	Construction, operation, closure		
		The brine dams will be lined with a compacted clay layer with a 1.5 mm thick HPDE geomembrane, to minimise seepage of contaminated water to the groundwater system. The brine dams will also be equipped with a leak detection sump.	Construction, operation, closure		
		The gypsum pads will be paved with concrete. The concrete slabs will be underlain by a 1.5 mm thick HDPE geomembrane liner. The gypsum pad will be provided with concrete bunds to ensure no storm water runoff from the area. The storm water will be directed to a sump at the lower end of the gypsum area, from where water will be directed to the brine dam via a sloping pad and concrete lined channel.	Construction, operation, closure		
		Gypsum will be removed from the site on a regular basis. This will occur in a timely manner to prevent overloading of the gypsum drying pad.	Construction, operation, closure		
		Removal from site of gypsum will be undertaken by an appropriately licensed waste removal contractor	Construction, operation, closure		
		Disposal of gypsum will be at a licensed hazardous waste disposal facility, such as Holfontein Landfill.	Construction, operation, closure		
		The gypsum pad will be bunded to prevent clean storm water from entering the pad and to contain all storm water generated on the pad itself. Storm water from the pad will be collected in a sump and pumped to the PCD.	Construction, operation, closure		
		An inspection and maintenance plan will be implemented to ensure that the pipelines and dams are kept in good working order.	Construction, operation, closure		
		A surface water quality monitoring programme will be implemented to detect any impacts. The WTP will be isolated within a designated dirty water area. All runoff and spills from the treatment plant will be collected	Construction, operation, closure		
		Erosion protection measures at the discharge point	Construction, operation, closure		

		The quality of the water discharged will be closely monitored to ensure that it falls within the specified IRWQO at all times.	Construction, operation, closure		
	Pollution of surface water resource	The Goedehoop pipe will be pressure tested before commissioning backfilling the trench to ensure that all joints are properly sealed.	Construction	Not-Applicable	No mining activities are currently taking place at Elders Colliery. The associated EMPr commitments are not yet applicable.
		Monitoring will be implemented downstream of all watercourse crossings to detect any impacts.	Construction, operation, closure		
		The conveyor service road will cross the watercourses by means of low-level crossings. These will be designed to withstand the flow velocities expected during extreme floods with minimal damage.	Construction		
		The belt drive and transfer infrastructure at either end of the conveyor will be paved with concrete, bunded to prevent run-on of clean water and to contain dirty runoff.	Construction		
		Conveyors will be rotated at the either end to ensure that the dirty side faces upwards at all times.	Construction, operation, closure		
		Belt scrubbers will be provided at either end to clean the belt to prevent carbonaceous material from being dropped along the route.	Construction, operation, closure		
		The conveyor will be completely enclosed at the bridge crossing to prevent any spillage of water or coal into the watercourses.	Construction, operation, closure		
		Watercourse crossings will be designed to accommodate at least the 1:100 year event without overtopping.	Construction, operation, closure		
		Dust suppression will be employed at the either end of the conveyor to minimise dust emissions.	Construction, operation, closure		
		A shroud will be provided along the entire conveyor length, on the upwind side, to prevent rain from falling directly onto the conveyor and to protect it from wind.	Construction, operation, closure		
		Monitoring will be implemented downstream of all watercourse crossings along the conveyor route.	Construction, operation, closure		
		The storm water management measures, including the PCD will be decommissioned last, to ensure adequate storm water management during the rehabilitation phase	Closure		
		A waste management plan will be developed for the closure phase, which will include the handling of contaminated materials / soils found on site.	Closure		
		All traces of hydrocarbons and residual waste will be removed before infrastructure is demolished.	Closure		
	Contaminated soils will be excavated and placed on the discard facilities prior to their rehabilitation, or removed from site by an appropriately licensed waste contractor.	Closure			

		An appropriate sewage management strategy will be implemented during the decommissioning phase, including decommissioning of the sewage treatment plant as late as possible in the process.	Closure		
		Water quality monitoring will be undertaken downstream of the demolished areas, in order to detect any increase in suspended solids or turbidity.	Closure		
		If erosion is evident or the water quality monitoring indicates an increase in suspended solids, water management around the decommissioning areas will be reviewed.	Closure		
		The incline shaft will be sealed, backfilled and made free draining.	Closure		
		The underground workings will be left to fill to a predetermined environmental safe level (below decant level) before active water level management is implemented.	Closure		
		Monitoring of water levels in the mine and the associated water quality is committed to. This will allow both calibration of the post mining water quality and water volumes.	Closure, post closure		
		The water level in the workings will be actively managed to ensure it remains below the decant elevation.	Closure, post closure		
		Treated water will be discharged to the river system.	Closure, post closure		
		The incline shaft will be backfilled, rehabilitated and made free-draining.	Closure		
		Monitoring of water levels in the mine and the associated water quality is committed to. This will allow both calibration of the post mining water quality and water volumes.	Closure, post closure		
		The water level in the workings will be actively managed to ensure it remains below the decant elevation.	Closure, post closure		
		Discharge of clean water to the river system	Closure, post closure		
Heritage	Impact on heritage resources – Graves	Graveyard to be fenced off and clearly demarcated. Upgrading should take place well outside of the fenced off area.	Construction, operation, closure	Not-Applicable	No construction or operational activities are currently taking place at Elders Colliery. The associated EMP commitments are not yet applicable.
		The graveyard will be accessible to descendants.			
		A management plan for the preservation of the graves will be compiled by a heritage expert and will be implemented by the mine and appointed construction contractor.			
		Dust control around the graveyard will be implemented.			
		Should the graves fall directly within the proposed conveyor footprint, the graves must be exhumed and relocated.	Pre-construction		

		Grave exhumation permits will be obtained from SAHRA should it be necessary to exhume the graves.	Pre-construction		
Noise	General rise in ambient noise levels	Ensure high level of equipment maintenance, especially intake and exhaust mufflers	Construction, operation, closure	Not-Applicable	No construction or operational activities are currently taking place at Elders Colliery. The associated EMPr commitments are not yet applicable.
		Withdraw equipment for maintenance if change in noise emission characteristics is noticeable	Construction, operation, closure		
		Replace pure tone (beeping) with broadband (hissing) reversing alarms	Construction, operation, closure		
		Maintain noise complaint register and act promptly to complaints	Construction, operation, closure		
		Ensure high level of equipment maintenance, especially intake and exhaust mufflers	Construction, operation, closure		
Soils	The loss of utilisable resource (sterilisation and erosion), compaction and contamination or salinisation.	Limiting the area of impact to as small a footprint as possible, inclusive of waste management facilities, resource stockpiles and the length of servitudes, access and haulage ways and conveyor systems wherever possible.	Construction	Not-Applicable	No construction or operations currently taking place at Elders Colliery. The associated EMPr commitments are not yet applicable.
		The development and inclusion of soil management as part of the general housekeeping operations, and the independent auditing of this management	Construction, operation, closure		
		Concurrent rehabilitation of all affected sites that are not required for the operation – rehabilitation of temporary structures and footprint areas used during the feasibility investigation (geotechnical pits, trenching etc.) and the construction phase.	Construction		
		Separation of the utilisable soils and ferricrete base materials from each other and from the soft overburden	Construction		
		Effective cladding of the berms and soil, ferricrete stockpiles/heaps with vegetation or large rock fragments, and the minimising of the height of storage facilities to 15m and soil berms to 1,5m wherever possible.	Construction, operation		
		Restriction of vehicle movement over unprotected or sensitive areas, this will reduce compaction.	Construction, operation, closure		
		Soil amelioration (cultivation) to enhance the oxygenation and growing capability (germination) of natural regeneration and/or seed within the stockpiled soils (maintain the soils viability during storage) and areas of concurrent rehabilitation.	Construction, operation, closure		
		The area must be fenced, and all animals kept off the area until the vegetation is self-sustaining.	Construction, operation, closure		
		Newly seeded/planted areas must be protected against compaction and erosion (Vetiver hedges etc.).	Construction, operation, closure		

		Traffic should be limited where possible while the vegetation is establishing itself.	Construction, operation, closure		
		Plants should be watered and weeded as required on a regular and managed basis where possible and practical.	Construction, operation, closure		
		Replace unhealthy or dead plant material.	Construction, operation, closure		
		Fertilise, hydro seeded and grassed areas soon after germination			
		Contour and stabilise slopes to be free draining and limit/control vehicle movement and dirty water outflows, vehicle maintenance and assessment of risk of contamination from infrastructure prior to demolition	Construction, operation, closure		
		Re-instatement of the stored soils onto areas of disturbance where infrastructure has been demolished and removed.	Construction, operation, closure		
		Cultivate, amelioration and oxygenation of growing medium, the planting of required vegetative cover and irrigation if required, will reduce/mange erosion, decrease compaction and stabilise the land form. This will once cover has been obtained, effectively see the sites returned to a grazing land capability rating.	Construction, operation, closure		
		Replace soils on rehabilitated areas as per the soils management plan.	Closure		
		Effective soil cover and adequate protection from wind (dust) and dirty water contamination – vegetate and/or rock cladding.	Construction, operation, closure		
		Regular servicing of all vehicles in well-constructed and bunded areas.	Construction, operation, closure		
		Regular cleaning and maintenance of all access ways, conveyors and service ways, drains and storm water control facilities.	Construction, operation, closure		
		Containment and management of spillage	Construction, operation, closure		
		Soil replacement and the preparation of a seed bed to facilitate and accelerate the re-vegetation program and to limit potential erosion on all areas that become available for rehabilitation (temporary servitudes).	Closure		
		Soil amelioration (rehabilitated and stockpiled) to enhance the growth capability of the soils and sustain the soils ability to retain oxygen and nutrients, thus sustaining vegetative material during the storage stage. Monitoring should always be carried out at the same time of the year and at least six weeks after the last application of fertilizer.	Construction, operation, closure		
Wetland	Loss and disturbance of wetland habitat Increased surface run-	Fence off all wetland areas outside the direct development footprint. Include a 50m buffer zone around all wetlands within the fenced off area. Where fencing of the wetlands is not practical/desirable, the proposed	Construction	Not-Applicable	Construction at Elders Colliery has not commenced. The associated EMP commitments are not yet applicable.

off from bare soil areas Increased sedimentation in adjacent wetlands Water quality deterioration Establishment of alien species Increased risk of erosion within wetlands Decreased flows in wetlands due to dewatering of underground aquifer Altered flow within Olifants river Altered water quality within Olifants River	development footprint should be fenced off and all activities contained within the fenced off area.			
	Rehabilitate and re-vegetate all disturbed areas as soon as possible following disturbance.	Construction		
	Areas in and around the wetlands should not be cleaned, graded and ditched/trenched more than a week before construction activities commence.	Construction		
	Divert flows from upslope of the construction area around the cleared area.	Construction, operation, closure	Not-Applicable	No construction or operations currently taking place at Elders Colliery. The associated EMPr commitments are not yet applicable.
	No washing of equipment or machinery in any waterbody or wetland on site.	Construction, operation, closure		
	Store potential contaminants in designated areas with spill containment measures.	Construction, operation, closure		
	Keep sufficient spill clean-up material on site to deal with small spills	Construction, operation, closure		
	Develop emergency response procedures to deal with large spills.	Construction, operation, closure		
	inform contractors regarding the location and sensitivity of all wetland areas	Construction		
	Compile and implement alien vegetation management plan to remove and control establishment and spread of alien species.	Construction, operation, closure		
	Limit all activities to the conveyor servitude.	Construction,		
	No stockpiling of materials or placement of temporary construction infrastructure in the wetlands or within 50m of the wetlands.	Construction,		
	Use existing farm tracks and roads for access, as well as for service road as far as possible.	Construction, operation, closure		
	The conveyor should span the entire width of the active channel in valley bottom crossings. Conveyor footings within the wetlands should be kept to a minimum.	Construction		
	Post construction all alien invasive vegetation should be removed from site. This will also require long-term follow up to ensure establishment of natural vegetation in all disturbed areas.	Closure		
	Install erosion prevention measures prior to the onset of construction activities	Construction		
No conveyor footings should be placed within the active channel of any valley bottom wetlands. The active channel should be spanned	Construction			
Service road crossings over valley bottom wetlands should be via low level bridges – low flows should be accommodated via culverts and flood flows should overtop the low level bridge.	Construction			

		Culvert capacity should be such to prevent impoundment upslope of the crossing and flow concentration downslope.	Construction		
		Ensure sufficient space under the conveyor to allow free movement of small mammals.	Construction, operation, closure		
		Maintain a pillar size/safety factor that will ensure that no surface subsidence occurs under any of the wetlands on site	Operation		
		Run-off from topsoil stockpiles should enter a sediment trap prior to discharge to the environment.	Construction, operation, closure		
		Regular inspection and maintenance of the entire conveyor route should be undertaken.	Construction, operation, closure		
		All vehicular and machinery movement along the servitude must be restricted to the service road. No offroad driving.	Construction, operation, closure		
		Protect discharge point against erosion and incorporate energy dissipaters.	Construction, operation, closure		
		Ensure discharge water quality is always in line with the IRQO's set for the Olifants River	Construction, operation, closure		
		Only treated water to be discharged.	Construction, operation, closure		
		All brine ponds and sludge dams should be lined. A suitable engineered multiple liner should be installed in the brine ponds and sludge dams to ensure zero seepage of water out of the ponds.	Construction		
		Leak detection mechanisms should form part of the liner system.	Construction		
		Ponds should be of sufficient capacity to ensure that no overflow occurs	Construction		
		Brine should be temporarily stored on site and disposed of offsite in a suitable facility.	Construction, operation, closure		
		A surface water quality monitoring plan and biomonitoring program should be implemented to monitor downslope water resources for signs of pollution derived from the brine ponds and sludge dams.	Construction, operation, closure		
		Wetlands downslope of the treatment plant should be included in the water quality and biomonitoring plan for the mine.	Closure		
		All solid waste should be removed from site and disposed of at suitable waste disposal sites offsite.	Construction, operation, closure		
		Areas where soils could potentially have been contaminated should be tested to determine contamination levels and appropriate remediation activities	Construction, operation, closure		

		Landscape disturbed area to the approximate natural landscape profile and to drain into the adjacent wetland as in the predevelopment state	Construction, closure		
		Post mining landscape should avoid steep slopes and concentrated runoff.	Closure		
		Re-vegetate replaced soils as soon as possible following placement using a suitable mix of indigenous species	Construction, closure		
		Implement a long term management and monitoring plan.	Construction, operation, closure		
		Construct and operate a water treatment plant during closure to treat water to acceptable levels (RQO).	Closure		
		Manage water levels within the mined out areas to prevent decant.	Closure, post closure		
		Prevent decant from the mined-out areas by actively managing water levels within the mined-out areas.	Closure, post closure		
Socio-economic	Improved relation with local communities and stakeholders Unmet expectation for the relocation of the Vlakkuielen community and loss of social licence due to changes in mine planning Unmet expectations from communities within the primary ZOI to benefit from economic opportunities and improved living conditions Increased pressure on social services and infrastructure and in increase in social pathologies and social disruptions due to influx of people and construction workers resulting in spontaneous settlements Employment and income Dissatisfaction over employment opportunities and conditions of procurement Improved employment and enterprise	Compile and implement the management measures detailed in the SLP.	Construction, operation, closure	Not-Applicable	No construction or operations currently taking place at Elders Colliery. The associated EMP commitments are not yet applicable.
		Prioritise the employment of the communities residing within the Primary ZOI for semi-skilled and unskilled job opportunities during construction.	Construction, operation, closure		
		Enforce the contractor management plan, especially relating to local recruitment and procurement.	Construction, operation, closure		
		Where possible, engage with the Govan Mbeki Local Municipality to identify opportunities of collaboration and capacity building for the provision of social services to the communities within the Primary ZOI.	Construction, operation, closure		
		Develop a clear and concise employment and recruitment policy that prioritizes local recruitment. Ensure that contractors adhere to this policy.	Construction, operation, closure		
		Identify and support community development programmes that address challenges raised by population influx and spontaneous settlement.	Construction, operation, closure		
		Enforce the Anglo American principles regarding employee and contractor behaviour;	Construction, operation, closure		
		Continuously monitor the housing and living conditions of employees receiving living out allowances.	Construction, operation, closure		
		Support local government capacity for integrated development planning.	Construction, operation, closure		
		Participate in the local government's strategy to address issues related to and potentially enhanced by project-induced influx. This strategy will be developed in order to clearly define how participants, including AOL, local government and relevant stakeholders, intend to manage the impacts caused by influx where possible.	Construction, operation, closure		
Implement vocational training programs to promote local workforce capacity as per the Labour and Human Resources Plan (LHRP).	Construction, operation, closure				

<p>development opportunities through skills development and capacity building initiatives Improved infrastructure in the study area due to social investment activities Increased direct revenue to local government Increased direct revenue to local government Loss of employment and enterprise development opportunities due to closure of mine.</p>	<p>Purchase goods and services at a local level, if available. Formalize this policy in company purchasing guidelines and contractors' agreements.</p>	<p>Construction, operation, closure</p>		
	<p>Work closely with the local communities before and during the project to identify and communicate required skills and resources that the local community could provide;</p>	<p>Construction, operation, closure</p>		
	<p>Provide or facilitate training of local people in mining and general business skills before and during mining activities, such as through internships, scholarships, and/or vocational and skills training programs.</p>	<p>Construction, operation, closure</p>		
	<p>Prepare a detailed vocational training program in consultation with the local community to be implemented during the construction phase.</p>	<p>Construction, operation, closure</p>		
	<p>Through the stakeholder engagement process ensure that expectations are managed around employment opportunities and practices.</p>	<p>Construction, operation, closure</p>		
	<p>In order to promote skills development and capacity building initiatives to both employees and the broader population and, in particular amongst youth, the SLP should focus on enterprise development and capacity building;</p>	<p>Construction, operation, closure</p>		
	<p>Support local government in their skills development and training initiatives;</p>	<p>Construction, operation, closure</p>		
	<p>Furthermore, AOL's closure plan will aim to reinforce the objectives of the SLP by reducing the reliance on AOL for employment by promoting skills transfer to enable alternative livelihoods; and,</p>	<p>Construction, operation, closure</p>		
	<p>Support, participate and report on the payment and spending of revenue s to government according to the EITI principles and guidelines.</p>	<p>Construction, operation, closure</p>		
	<p>Include affected communities in the decision-making processes of the project, particularly around potential Corporate Social Investment (CSI) opportunities, and SLP projects;</p>	<p>Construction, operation, closure</p>		
	<p>Ensure that all stakeholder engagement includes women, youth and vulnerable groups;</p>	<p>Construction, operation, closure</p>		
	<p>Provide regular and transparent feedback to the Vlakkuielen and Middelkraal communities specifically;</p>	<p>Construction, operation, closure</p>		
	<p>Discuss and manage issues, concerns, changes and impacts related to the project as soon as they arise;</p>	<p>Construction, operation, closure</p>		
	<p>Monitor and implement the Grievance Management Mechanism;</p>	<p>Construction, operation, closure</p>		
	<p>Involve Local Ward Councillors and keep them informed about project developments, and included in all stakeholder engagement processes. Their involvement will assist with the successful development of relationships between the mine, the municipality and the communities;</p>	<p>Construction, operation, closure</p>		
<p>Regularly consult with local government through the Govan Mbeki Local Municipality around issues of</p>	<p>Construction, operation, closure</p>			

		community development, employment, co-operation and project activities;			
		Where possible CSI initiatives and SLP projects with the Govan Mbeki Local Municipality IDP with the goal of improving both sustainability and feasibility (this would only occur once the mine was operational);	Construction, operation, closure		
		Durable participatory and consultative structures should be in place pre-closure to mitigate the impacts of closure.	Construction, operation, closure		
		Continue the discussions with and planning for the livelihoods restoration for the Vlakkuielen community;	Construction, operation, closure		
		Continue engaging the community and Ward Councilor to provide information about the project progress; and,	Construction, operation, closure		
		Enforce the Anglo American Contractor Management Plan, which should in addition address accommodation, living standard, transport and health and safety standards of contractors;	Construction, operation, closure		
		Employ local workers if qualified applicants with the appropriate skills are available. Formalize this policy in company Human Resources guidelines and contractors' agreements;	Construction, operation, closure		
		Develop a clear and concise employment policy prioritizing local employment;	Construction, operation, closure		
		Through the stakeholder engagement process ensure that expectations are managed around employment opportunities and practices.	Construction, operation, closure		
		Furthermore, AOL's closure plan should aim at reinforcing the objectives of the SLP by reducing the reliance on AOL for employment by promoting skills transfer to enable alternative livelihoods.	Construction, operation, closure		

7.2 INTEGRATED ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (NEMA) AS AMENDED, THE ENVIRONMENTAL IMPACT ASSESSMENT (EIA) REGULATIONS, 2014 AND THE NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT AND GOVERNMENT NOTICE 921 OF 2013 FOR MINING AND ASSOCIATED INFRASTRUCTURE AT ELDERS COLLIERY (DMR REFERENCE NUMBER: (MP) 30/5/1/2/3/2/1/ (10177) EM)

Condition Reference No.	Condition of Environmental Authorisation (as stated in EA)	Finding	Observations/Audit Evidence
8.1 Standard Conditions			
8.1.1	Authorisation of the activity is subject to the conditions contained in this authorisation, which form part of the environmental authorisation and are binding on the holder of the authorisation.	Noted	Elders Colliery is aware of this condition and the requirements thereof are noted.
8.1.2	The holder of the authorisation must ensure compliance with these conditions by any person acting on his or her behalf, including but not limited to, an agent, sub-contractor, employee or person rendering a service to the holder of the authorisation.	Noted	Elders Colliery is aware of this condition and the requirements thereof are noted.
8.1.3	Any changes to, or deviations from, the project description set out in this authorisation must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further authorisation in terms of the regulations.	Noted	Elders Colliery is aware of this condition and the requirements thereof are noted. AOL confirmed during the virtual interview that the no changes or deviation to the project description set out in this authorization has taken place.
8.1.4	Where any of the applicant's contact details change, including the name of the responsible person, the physical or postal address and/or telephonic details, including the transfer of this authorization, the applicant must in writing notify the Regional manager of this Department, within fourteen (14) days of the above specified change.	Noted	Elders Colliery is aware of this condition and the requirements thereof are noted. AOL confirmed during the virtual interview that the no changes to applicant's contact details has taken place.
8.1.5	A copy of this authorisation must be kept on site. The Authorisation must be produced to any Governmental official(s) who may requests to see it for inspection purposes and must be made available to the contractor(s) [subcontractor(s) authorised to undertake to work at the property.	Not Applicable	Since no construction or operations are currently taking place at Elders Colliery, a copy of the authorization is kept AOL head offices. This arrangement will be changed once Elders Colliery has commenced.
8.1.6	This authorisation does not negate the holder of the Authorisation's responsible to comply with any other statutory requirements that may be applicable to the undertaking of the activity.	Noted	Elders Colliery is aware of this condition and the requirements thereof are noted. To this extent, an integrated water use license was applied for and was subsequently granted for the Elders Colliery water use activities.
8.1.7	After an appeal period has been expired and no good course to extent the appeal period has been submitted in accordance with Chapter 2 of the National Appeal Regulations of 2014, a thirty (30) day-written notice must be given to the Department that the activity will commence. Commencement for purpose for the purpose of this condition includes site preparation, The notice must include a date on which it is anticipated that the activity will commence.	Noted	It was confirmed during the audit that AOL and Elders Colliery is aware of this condition and the requirements thereof are noted.
8.2 Specific Conditions			
8.2.1 Commissioning of the activity			
8.2.1.1	This Authorisation is hereby solely granted for the mining of coal using underground method (board and pillar) with the following box cut, access road, powerlines, pipelines, ventilation shafts, bulk storage for fuel, fencing, topsoil stockpile, overburden stockpile, pollution control dam, waste and scrap yard, sewage treatment plant, water treatment plant, wash bay, substation, storage of explosive, primary crusher, conveyer belt and water management infrastructure on portions 3 and 10 of the farm Elandsfontein 75 IS, portions 1 and 2 of the farm Geluk 226 IS, portion 2,3,4,12 and	Noted	Elders Colliery is aware of this condition and the requirements thereof are noted.

	13 of the farm Halfgewonden 190 IS, portions 0,3,5, and 6 of the farm Middelkraal 50 IS, farm Legdaar 78 IS, farm Schurvekop 227 IS, farm SchoonVlei 52 IS, Kleinfontein 49 IS, Goedehoop 46 IS and Koornfontein 27 IS. Magisterial District of Gert Sibande, Mpumanga Region.		
8.2.1.2	The activities may not commence without the necessary permits/licenses/approvals and/or service agreements, where it is relevant, from or with the relevant regulatory authorities whether national, provincial or local.	Not Applicable	Construction of the Elders Colliery activities has not yet commenced. Therefore, this condition is not yet applicable. It must however be noted that an integrated water use licence was applied for and was subsequently granted for the Elders Colliery's water use activities.
8.2.1.3	The applicant must apply the principle of best practicable environmental option for all technologies used/implemented during mining.	Noted	Elders Colliery is aware of this condition and the requirements thereof are noted.
8.2.1.4 Pre-construction Phase			
a)	The applicant must appoint an independent Environmental Control Officer (ECO) who will monitor contractors, compliance with EMP and EA (see 8.2.2. Management of the activity for more details).	Not Applicable	Construction of the Elders Colliery's activities has not yet commenced. Therefore, these conditions are not yet applicable.
b)	The applicant must provide all contractors and sub-contractors with a copy of Environmental Management Plan and Environmental Authorisation prior to the mining activities.	Not Applicable	
c)	All pre-construction phase mitigation measures as outlined in the Environmental Management Programme (EMP) attached in Environmental Impact Assessment report must be adhered to at all times.	Not Applicable	
d)	In order to ensure safety, all employees must be given the necessary personnel protective equipment (PPE).	Not Applicable	
e)	Appropriate notification sign must be erected at the mining area, warning the public (residents, visitors etc.) about the hazard around the mining area and presence of heavy vehicles and machinery.	Not Applicable	
f)	Construction must include design measures that allow surface and subsurface movement of water along the drainage lines so as not to impede natural surface and subsurface water flow, and drainage measures must promote the dissipation of storm water runoff	Not Applicable	
g)	Construction areas (e.g. material lay down areas), topsoil and subsoil must be protected from contamination or pollution. Stockpiling must not take place in drainage lines or areas where it will impede surface water runoff.	Not Applicable	
h)	If any soil contamination is noted at any phase of the proposed activity (ies), the contaminated soil must be removed to a licensed waste disposal facility and the site must be rehabilitated to the satisfaction of the Department and Department of Water and Sanitation. The opportunity for the onsite remediation and re-use of contaminated soil must be investigated prior to the disposal and this Department must be informed in this regard.	Not Applicable	
8.2.1.5 Access roads and traffic impact			
a)	Necessary signage and traffic measures must be implemented for safe and convenient access to the site from adjacent roads	Not Applicable	No mining operations are currently taking place at Elders Colliery. Therefore, these conditions are not yet applicable.
b)	Access roads must be well maintained throughout the mining operation.	Not Applicable	
8.2.1.6 Air quality management			
a)	Proper measures must be put in place to suppress dust in order to minimize nuisance conditions,	Not Applicable	Construction of the Elders Colliery's activities has not yet commenced. Therefore, these conditions are not yet applicable.
b)	A speed restriction of 40km/h must be enforced and monitored on site for all mining vehicles.	Not Applicable	

8.2.1.7 Proliferation of alien species			
a)	All mining/construction equipments and vehicles must be cleaned before entering and leaving the site to reduce the chances of spreading weeds and invasive species,	Not Applicable	Construction of the Elders Colliery's activities has not yet commenced. Therefore, these conditions are not yet applicable.
8.2.1.8 Noise			
a)	Mining/construction activity must be limited to normal working hours (7h00 - 17h00).	Not Applicable	No mining operations/ construction currently taking place at Elders Colliery. Therefore, these conditions are not yet applicable.
b)	Mining vehicles must be fitted with standard silencers prior to beginning of construction.	Not Applicable	
8.2.1.9 Erosion control measures			
a)	All soil surfaces compacted as a result of mining/construction activities must be ripped, and imported materials must be removed	Not Applicable	Construction of the Elders Colliery's activities has not yet commenced. Therefore, these conditions are not yet applicable.
b)	Any erosion channel developed during mining/construction period or during vegetation establishment must be restored to a proper condition.	Not Applicable	
8.2.1.10 Excavation activities			
a)	Topsoil must be stripped and stockpiled prior to excavation in a designated area.	Not Applicable	Construction of the Elders Colliery activities has not yet commenced. Therefore, this condition is not yet applicable.
b)	Under no circumstances should material stockpiles be disposed of outside the boundary of the mining area.	Not Applicable	
8.2.1.11 Waste management			
a)	General waste must be kept in containers which are wind and scavenger proof, and disposed of at a permitted landfill site. No temporary dumping and littering of waste is allowed on site.	Not Applicable	Construction of the Elders Colliery's activities has not yet commenced. Therefore, these conditions are not yet applicable.
b)	No waste must be disposed of through burying and burning.	Not Applicable	
c)	All hazardous waste must be disposed of at an official registered site, or be removed by registered hazardous waste contractors.	Not Applicable	
d)	An emergency preparedness plan to address any pollution incidents (e.i such as oil spillage etc) that occur on site must be developed.	Not Applicable	
8.2.1.12 Surface and groundwater contamination must be prevented and/or mitigated by implementation of the following conditions			
a)	Specific area must be demarcated for fueling and workshop services. And such area must be bunded to reduce the possibility of soil and water contamination.	Not Applicable	Construction of the Elders Colliery's activities has not yet commenced. Therefore, these conditions are not yet applicable.
b)	Irrespective of the nature of a spillage (whether major or minor), all spillages must be cleaned up as soon as they occur.	Not Applicable	
c)	In the case of accidental spillage, contaminated soil must be removed for bioremediation or disposed of at a facility for the substance concerned. Disturbed land must be rehabilitated and seeded with vegetation seed naturally occurring on site.	Not Applicable	
d)	Untreated sewage water must not be discharged directly into the natural environment.	Not Applicable	
8.2.1.13 Fire prevention and management			
a)	Fire extinguishers that are in good working conditions must be made available at all times for their usage during the occurrence of accidental fires.	Not Applicable	Construction of the Elders Colliery's activities has not yet commenced. Therefore, these conditions are not yet applicable.
b)	Workers must be adequately trained in the handling of fire fighting equipments.	Not Applicable	
c)	Open fires must strictly be prohibited	Not Applicable	
d)	Smoking must be prohibited in the vicinity of flammable substances,	Not Applicable	

8.2.1.14 Storm water management			
a)	Storm water management plan must be developed, and implemented on site.	Not Applicable	Construction of the Elders Colliery activities has not yet commenced. Therefore, this condition is not yet applicable.
8.2.1.15 Safety			
a)	Potentially hazardous area must be demarcated with danger tape.	Not Applicable	Construction of the Elders Colliery activities has not yet commenced. Therefore, this condition is not yet applicable.
b)	Appropriate signage must be placed to caution employees and contractors not to attempt to enter certain structures without being authorised.	Not Applicable	Construction of the Elders Colliery activities has not yet commenced. Therefore, this condition is not yet applicable.
8.2.1.16 Emergency Response Plan			
a)	An Emergency Response Plan should be available for accidental spills and firefighting during both construction and operation of the project.	Not Applicable	Construction of the Elders Colliery activities has not yet commenced. Therefore, this condition is not yet applicable.
b)	In the event of emergency, the holder must notify the department within 24hrs, and contact relevant emergency services in the area.	Not Applicable	
c)	All significant pollution incidents must be reported to this Department within forty eight (48) hours of occurrences	Not Applicable	
8.2.1.17 Compliance with other legislation			
a)	The National Water Act, 1998 (Act 36 of 1998), with particular reference to the sections pertaining to mining in the proximity of dams and their catchments areas, rivers, marshes, streams, pans and other water courses.	Noted	Elders Colliery is aware of this condition and the requirements thereof are noted. It was confirmed during the interview that necessary measures will be taken to ensure that the mine complies with the requirements stipulated in the legislation listed under these conditions.
b)	The Environmental Conservation Act, 1989 (Act 73 of 1989) with particular reference to the requirements of section 20 of the above-mentioned Act.	Noted	
c)	The National Environmental Management Air Quality Act (Act 36 of 2004), with particular reference to the sections pertaining to the liberation of dust, and other emissions, created by prospecting activities, into the atmosphere.	Noted	
d)	The Conservation of Agriculture Resources Act, 1983 (Act 43 of 1983), with particular references to the sections pertaining to soil conservation.	Noted	
e)	The National Heritage Resources Act, 1989 (Act No 25 of 1999), with particular reference to the protection of all historical and pre-historical cultural remains.	Noted	
f)	The Mine Health and safety Act, 1996 (Act 29 of 1996) in conjunction with the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), with particular reference to those sections and regulations pertaining to health and safety at mines; mining within 100 m from structures that must be protected; as well as those sections pertaining to rehabilitation of the surface.	Noted	
g)	The National Environmental Management Act, 1998 (Act 107 of 1998), with particular reference to the principles in chapter 2 of the said Act.	Noted	

h)	Firebreaks should be established in terms of the requirements and conditions of the National Veld and Forest Fires Act, 1998 (Act No. 101 of 1998).	Noted	
i)	All provisions of the Occupational Health and Safety Act, 1993 (Act No.85 of 1993) and any other applicable legislation must be adhered to by the holder of this Authorisation.	Noted	
8.2.1.18 Liability of the holder of this Authorisation			
a)	The competent authority shall not be held responsible for any damages or losses suffered by the holder or his/her successor in title in any instance where mining/ construction or operation subsequent to construction are to be temporarily or permanently stopped for reasons of non-compliance by the holder with conditions of approval as set out in the document or any other subsequent document emanating from this Authorisation. The holder shall be responsible for all the costs necessary to comply with the above condition unless otherwise specified.	Noted	Elders Colliery is aware of this condition and the requirements thereof are noted.
b)	Any complaint from the public during the life of mine must be attended to by the holder of this Authorisation as soon as possible to the satisfaction of parties concerned.	Noted	
c)	The contractor must ensure that serviceable ablution facilities are available for employees. It is the responsibility of the holder of the Authorisation to see to it that this condition is adhered to.	Noted	
8.2.2. Management of the Activity			
8.2.2.1	A copy of an Environmental Authorisation and EMP must always be available on site so as to monitor compliance with conditions outlined in both the documents. Both documents must be used as on-site reference document during the life of mine.	Noted	Elders Colliery is aware of this condition and the requirements thereof are noted.
8.2.2.2	The Environmental Management Plan (EMP) prepared by SRK Consulting (attached to the EIA Report) must be adhered to during the life of the mine.	Noted	
8.2.2.3	All duties and responsibilities as outlined in the EMP attached are binding throughout the life of the mine.	Noted	
8.2.2.4	Any proposed amendments to the EMP (as a result of this authorisation or otherwise) must be submitted in writing to this Department for approval prior to the amendment being implemented. On approval of the proposed amendment the EMP must be accordingly amended and adhered to.	Noted	
8.2.3 Appointment of Environment Control Officer			
a)	An Environmental Control Officer must be appointed, who will monitor and ensure compliance and correct implementation of all mitigation measures and provisions as stipulated in the Environmental Authorisation and Environmental Management Plan, prior to any commencement of mining activities on site.	Not Applicable	Construction of the Elders Colliery activities has not yet commenced. Therefore, this condition is not yet applicable.
b)	The Environment Control Officer appointed must monitor the construction of the infrastructure to ensure that the layout plans are in accordance to the designs and record important findings of the site inspection.	Not Applicable	
c)	The ECO must also monitor the implementation of specific elements of the Environmental Management Plan by contractors.	Not Applicable	
d)	All duties and responsibilities as outlined in the EMP attached are binding throughout the life of mine.	Noted	Elders Colliery is aware of this condition and the requirements thereof are noted.
8.2.4 Site Closure and Decommissioning			

8.2.4.1	The commissioning and decommissioning of individual activity within the overall listed mining activity must take place within the phases and timeframes as set out in EMP or EMPr.	Noted	Elders Colliery is aware of this condition and the requirements thereof are noted.
8.2.4.2	The application for closure indicated above must be submitted together with all relevant documents as indicated in Section 43 of Mineral and Petroleum Resources Development Act (Act 28 of 2002), as amended.	Noted	
8.2.4.3	All mitigation measures for the decommissioning phase, as outlined in the EA. The holder of EA must apply for a closure certificate in terms of Section 43 of Mineral and Petroleum Resources Development Act (Act 28 of 2002), as amended within 180 days of occurrence of lapsing, abandonment, cancellation, cessation, relinquishment and completion of the operation.	Noted	
8.3 Monitoring			
8.3.1	This Department reserves the right to monitor and audit the activity to ensure compliance with legislation and the conditions stipulated in this authorisation.	Noted	Elders Colliery is aware of this condition and the requirements thereof are noted.
8.3.1	It is the holder of this Authorisation's responsibility to ensure that an ongoing management and monitoring of the impacts of the activity on the environment throughout the life of the mine is put into practice.	Noted	
8.4 Recording and Reporting to the Department			
8.4.1	The authorization holder must submit <u>annual</u> environmental audit reports during the operation of the activity, unless otherwise requested by the department	Not Applicable	Construction of the Elders Colliery activities has not yet commenced. Therefore, this condition is not yet applicable.
8.4.2	The audit report must convey the following:	Not Applicable	
8.4.3	The date in which the audit was carried out,	Not Applicable	
8.4.4	The outcome of the audit, in relation to the conditions stipulated in the environmental authorization and the approved EMPr as well as the actions taken to mitigate environmental impacts on site	Not Applicable	
8.4.5	Records of monitoring and/or auditing must be made available for inspection to this Department and any other relevant authority inspecting the development activities.	Not Applicable	
8.4.6	Records relating to compliance and non-compliance with the conditions of this authorisation must be kept in good order. Such records shall be made available to this Department within seven (7) days of receipt of a written request by the Department. Environmental compliance will further be monitored through complaints received from the public.	Not Applicable	
8.4.7	All records relating to the implementation of the Environmental Management Programme must be kept in the office where it is safe and can be retrievable.	Not Applicable	
8.5 Non-Compliance			
8.5.1	In the event of non-compliance by any contractor during the mining/construction of the authorised activity, the holder of this Authorisation will be liable.	Noted	Elders Colliery is aware of this condition and the requirements thereof are noted.
8.5.2	The holder shall be responsible for all costs necessary to comply with the above conditions unless otherwise specified. 03/B11A/ACFGIJ/5047	Noted	
8.5.3	The holder must in the event of non-compliance with any condition of this Authorisation inform the Regional Manager of Mpumalanga region of this Department, in writing, within forty eight (48) hours.	Noted	
8.5.4	Non-compliance to this authorisation is an offence as provided for in terms of the National Environmental Management Act, 1998, Section 49(a) and Regulation 48. Any conviction of such offence, may result in Section 49(a) being enforced,	Noted	

9. Appeal of Authorisation			
9.1	The holder of the authorisation must notify every registered interested and affected party, in writing and within fourteen (14) days of receiving the Department's decision.	Compliant	AOL received the environmental authorization for Elder Colliery on the 29 th July 2020. Notification of the granting of the Elders Colliery's environmental authorization to AOL we sent to registered interested and affected parties on the 04 th August 2020. Proof of the notification was provided by AOL during the audit.
9.2	The notification referred to in 9.1 must		
9.2.1	Specify the date on which the Authorisation was issued.	Compliant	Registered interested and affected parties were informed of the granting of the environmental authorization by AOL. A copy of the notice was provided for confirmation.
9.2.2	Inform the registered interested and affected parties of the appeal procedure provided for in Chapter 2 of the National Appeal Regulations of 2014.	Compliant	
9.2.3	Advise the interested and affected parties that a copy of the Authorisation and reasons for the decision will be furnished on request.	Compliant	
9.2.4	An appeal against the decision must be lodged in terms of Chapter 2 of the National Appeal Regulations of 2014.	Compliant	

8. DELIBERATIONS

8.1 ADEQUACY AND COMPLIANCE WITH THE ELDERS COLLIERY'S EMPR (DMR REF. No.: MP 30/5/1/2/3/2/1 10117 EA)

8.1.1 ADEQUACY OF THE ELDERS COLLIERY'S EMPR

An assessment was conducted for the determination of the ability of the EMPr to adequately address the impacts that are arising from the Elders Colliery operation. From the assessment of the EMPr, we are of the opinion that the EMPr sufficiently provides for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the mining activities at Elders Colliery.

8.1.2 COMPLIANCE WITH THE ELDERS COLLIERY'S EMPR

No non-compliances were identified during the audit.

8.2 ADEQUACY AND COMPLIANCE WITH THE ELDERS COLLIERY'S INTEGRATED ENVIRONMENTAL AUTHORISATION (DMR REF. NUMBER: (MP) 30/5/1/2/3/2/1/ (10177) EM)

8.2.1 COMPLIANCE WITH THE ELDERS COLLIERY'S INTEGRATED ENVIRONMENTAL AUTHORISATION

No non-compliances with the integrated environmental authorisation were identified during the audit.

9. CONCLUSION

This environmental audit report was compiled to comply with the relevant legislative requirements specifically the NEMA, with the main objectives to report on the compliance status of the commitments and conditions, as well as the appropriateness and adequacy of the EMPr and EIA. This audit report will be submitted to the competent authority. Within 7 days of submission of this Audit Report to the competent authority (DMRE), Anglo Operations (Pty) Limited, Elders Colliery, must and will notify all potential and registered I&APs of the submission, and make this report immediately available to anyone on request and on a publicly accessible website.

10. DISCLAIMER

This report has been produced by Geovicon Environmental (Pty) Limited, with the skill and care normally exercised by a reasonable Independent Environmental Consultant during the rendering of the service. The service provided by Geovicon Environmental (Pty) Limited should not be considered as a legal opinion of any kind but shall be a representation of the findings. The work performed was based on the Client's scope of work, time and resource allocations, as well as information provided by the Client. Any reference to legislation in this report should not be considered as a substitute for the provisions of such legislation.

Geovicon Environmental (Pty) Limited ensures by all means, that information provided by management and/or representatives is correct and relevant, and that this report is based on information that could reasonably have been sourced within the time period allocated to the audit performed. It should not be assumed that all possible and applicable findings are included in this report as this report represents a

sample of the audit. Therefore should additional information become available, Geovicon Environmental (Pty) Limited reserves the right to amend its findings accordingly.

11. DECLARATION

I Ornassis Tshepo Shakwane of Geovicon Environmental (Pty) Limited, hereby declares that I am an independent auditor and that Geovicon Environmental (Pty) Limited and myself have no business, financial, personal or other interest in this project in respect of which Geovicon Environmental (Pty) Limited is appointed. Furthermore, no circumstances exist that may compromise the objectivity of Geovicon Environmental (Pty) Limited, excluding fair remuneration for work performed in connection with this environmental audit.

Signed: _____



Date: 05\11\2021

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