

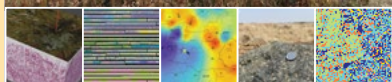
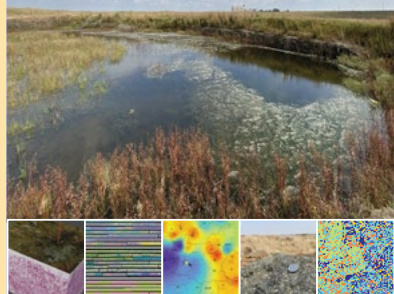


Council for Geoscience

Umbiko womNyaka wee-2023/24

Geological characterisation of a proposed carbon sequestration site in Govan Mbeki Municipality, Mpumalanga, South Africa

T. Dhanasey

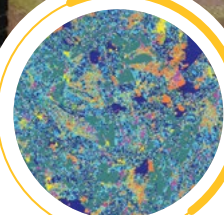
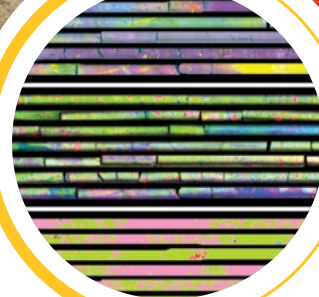


MINERALS AND ENERGY VALUE-ADDED OUTPUT

Energy Division



Council for Geoscience



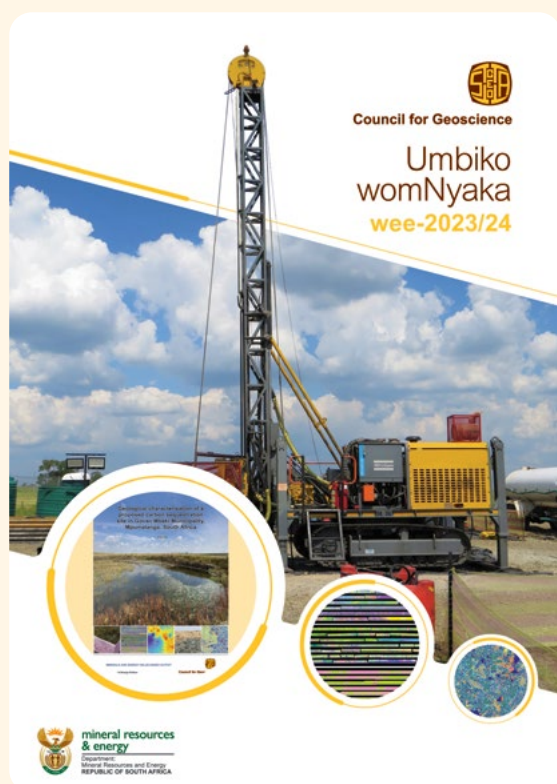
mineral resources
& energy

Department:
Mineral Resources and Energy
REPUBLIC OF SOUTH AFRICA

Umbiko womNyaka wee-2023/24 womKhandlu we-Geoscience wommango othi

‘i-Geoscience isekela ukuthuthuka kwabantu’

kumlayezo owethulwa ngu-CEO, UNom Mosa Mabuza, wamukelwa yihlangano ngomnyaka wee-2019.



Iinthombe zeKhava yomBiko womNyaka:

Ukudrila idayimani mayelana namatshwayo wejiyoloji wokufakwa kwekhabhoni ehlongozwako, ukusetjenziswa kanye nedamu lokubeka amanzi (i-CCUS) endaweni okukusetjenzelwa kiyo eduze kwe-Leandra, ePhrovinsini yeMpumalanga. Umthathiinthombe: **Ngu-Dorh Valerie Nxumalo**, umKhandlu we-Geoscience. Faka iinthombe ngenzasi komtjhini omkhulu odrila iDayimani (ukusukela esandleni sesincele ukuya kweokudla): Ikhasi lekhava lomBiko we-Geological Characterisation Report (2023) wendawo ye-CCUS ehlongozwako eseduze kwe-Leandra, Govan Mbeki Municipality yenziwe **ngu-Dorh Tafseeq Dhansay**, nomKhandlu i-Council for Geoscience. Iqhinga elihlongozwe miphumela ye-CCUS yedamu, ama-indeksi ahlukeneko wombala atjengisa iindawo ezihlukeneko zamaminerali namatshwayo wawo wokumunywa kwekhabondayoksayidi begodu nesithombe semiphumela ehlukeneko yamaminerali wezinto ezingaphasi kwemayikhroskowubhu ngaphakathi kwedamu le-CCUS elihlongozwako. IMineraloji itjengisa ukuba Ikhona kwemiphumela emajadu ekhona yamaminerali engakghona ukumunya i-anthropogenic carbon dioxide.

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Irhelo leenRhunyezo nama-Akhronimi

3D	Three-dimensional	ISPIIA	International standards for the professional practice of internal auditing
AI	Artificial intelligence	LIMS	Laboratory Information Management System
APP	Annual performance plan	MEDP	Management and Executive Development Programme
AU	African Union	MEWMP	Mine and Environmental Water Management Programme
B-BBEE	Broad-based Black Economic Empowerment	MoA	Memorandum of agreement
BCEA	Basic Conditions of Employment Act	MoU	Memorandum of understanding
CCUS	Carbon capture, utilisation and storage	MPRDA	Mineral and Petroleum Resources Development Act
CEO	Chief Executive Officer	MQA	Mining Qualifications Authority
CGS	Council for Geoscience	MTEF	Medium-Term Expenditure Framework
COVID-19	Coronavirus disease 2019	MTSF	Medium-Term Strategic Framework
DDM	District Development Model	NDP	National Development Plan
DMRE	Department of Mineral Resources and Energy	NMCS	National Mine Closure Strategy
DSI	Department of Science and Innovation	OAGS	Organisation of African Geological Surveys
EE	Employment equity	OEM	Original equipment manufacturer
EEZ	Exclusive economic zone	PAIA	Promotion of Access to Information Act
EMEs	Exempted micro-enterprises	PanAfGeo	Pan-African Support to the EuroGeoSurveys – Organisation of African Geological Surveys Partnership
ERP	Enterprise resource planning	PFMA	Public Finance Management Act
ERRP	Economic Reconstruction and Recovery Plan	PPPFA	Preferential Procurement Policy Framework Act
EXCO	Executive Committee	PSHA	Probabilistic seismic hazard assessment
GIS	Geographic information system	QSE	Qualifying small enterprise
GRAP	Generally Recognised Accounting Practice	REE	Rare-earth element
GTP	Geoscience Technical Programme	SABC	South African Broadcasting Corporation
HVAC	Heating, ventilation and air-conditioning	SANSN	South African National Seismograph Network
ICDP	International Continental Scientific Drilling Programme	SP	Strategic plan
ICT	Information and Communications Technology	SSHAC	Senior Seismic Hazard Analysis Committee
IDC	Industrial Development Corporation	UNICATT	Università Cattolica del Sacro Cuore (Catholic University of the Sacred Heart)
IEC	International Electrotechnical Commission	Unisa	University of South Africa
IGEO	Instituto Geológico de Angola	US	United States
IMMP	Integrated and Multidisciplinary Geoscience Mapping Programme	WB	World Bank
ISSET	Innovation, science, engineering and technology		
ISO	International Organization for Standardization		

Ingcenye

A

hlathululo efitj hazana yomkhawulo ohlangana namatje wendawo engaphasi phakathi kwe-3.2Ga granitoid ne-Pongola Supergroup nge-White Mfolozi Inlier. Amakhwadzi anombala okhrimu welitjeeli nesanta wedibhu ye-Mantonga Formation ngehlangothini langepumalanga ngamadigri ama-~20 begodu ambozwe kuthuthumba okunande kube khona kwesiBumbeko se-Nhlebelo Formation ngesinceleni somgwalo.

Ilwazi eliJayelekileko

Ilwazi eliJayelekileko

Ibizo elirejistaraweko: Council for Geoscience

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**Isiphande
sewebhusayidi:** www.geoscience.org.za

**Ama-oditha
wangaphandle:** Auditor-General South Africa

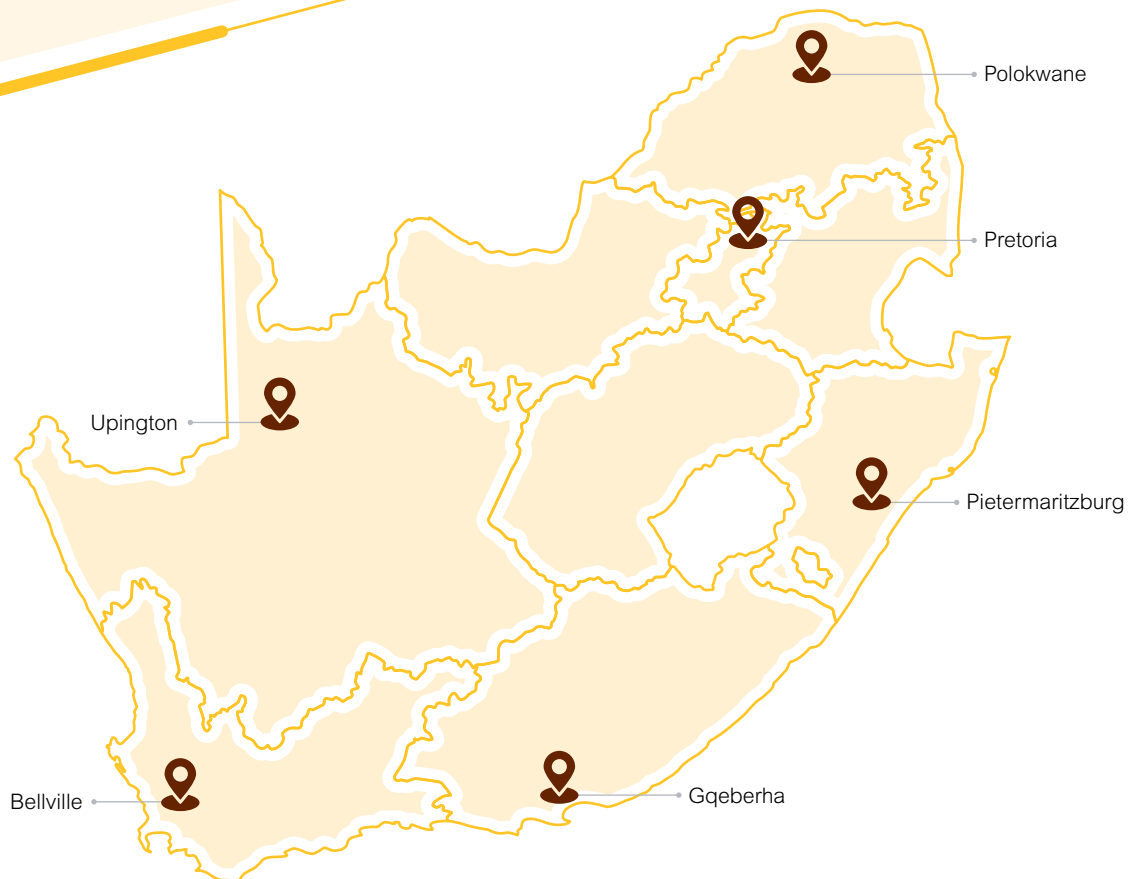
Ibhanga: Nedbank and Absa in
Silverton, Pretoria

**Unobhala webhodi
(umjaphethe):** UMm. uNomkhosi Cele

Council for Geoscience

UmThetho we-Geoscience Act (No. 100 of 1993) njengombana ukhitjelelwe, wahloma umKhandlu i-Council for Geoscience (i-CGS) hlangana nokhunye ukuba mthogomeli wedatha ye-geoscientific, ilwazi nokwazi eRiphabliki yeSewula Afrika.

I-CGS seyithuthuke yaba yihlangano yanje eneenkghonakalisi eziphambili, iimpahla nelwazi. Iindawo ezinqophe kusayensi yehlangano zitjengisa iindawo zesede yemimongo efaka hlangana i-Minerali ne-Eneji; zamaPhilo, amanzi wangaPhasi neBhoduluko; umthangalasisekelo nokuSetjenziswa kweNdawo, ukusungula ngobutjha i-Geoscience kanye ne-Geoscience Diplomacy. I-CGS inama-ofisi wesifunda asithandathu eSewula Afrika, i-ofisi ekulu ise-Silverton, ePitori (Umgwalo1).



Isithombe 1: Ama-ofisi asithandathu wesifunda we-CGS eSwula Afrika

1 Isethulo esenziwe nguSihlalo weBhodi

Kulithabo nokuhlonipheka ukunethulela umBiko womNyaka weemali wee-2023/2024 womKhandlu i-Council for Geoscience (i-CGS). Umnyaka lo kube mnyaka wokuthoma wokusebenza kweBhodi, nalokha umsebenzi wehlangano nawuragela phambili, begodu bewutjhayisana nokuphela kokuphatha kombuso kwehlandla lesi-6. Ngqiqinisekisa ukuzibophelela kwethu njengamalunga weBhodi ekuyeleliseni i-CGS ekutheni ikhule, iphumelele begodu ikhiqize ngendlela efaneleko. I-CGS izuze okunengi khulu emnyakeni weemali wee-2023/24, ngokukhambisana nokufunwa yihlangano ukobana *i-geoscience ibe sisekelo setuthuko yomuntu*.



Umbuso weSewula Afrika nabantu babeka ithemba labo ku-CGS njengabantu ababona iindlela ekuhlomeni ibhudango lokuthi sibone indawo zenarha zilungisiwe. Kilokhu, i-CGS imtikitli wesivumelwano i-memorandum of understanding (i-MoU) phakathi komNyango wangaphambilini wemiThombo yamaMinerali (osele ubizwa ngomThombo (i-Mineral and Petroleum Resources) kanye ne-Industrial Development Corporation (IDC) mayelana nokusetjenziswa iimali ezincani esatlikitwa ngyanga kaMhlojana (February) ngomnyaka wee-2024 ngesikhathi somhlangano we-Africa Mining Indaba eKapa. Indima ye-CGS kuqinisekisa bona abanamalungelo wokumayina basekelwa ngelwazi elifunekako le-geological ukuze basebenze kuhle kumahlelo wabo womsebenzi. Iinkhathi ezinqotjhiweko zokuhlola ziphonyeleliske kuhle ngokusetjenziswa ngefanelo kwelwazi lejijoloji lokususa ingozi kwenye nenye iphrojekthi nokurhaba msinya kuhlonywe imisebenzi yokumayina enepumelelo elindele ukuthukisa lokho okunzulwa yituthuko yelizwe loke.

Esikhathini sokubika se-GCS, njenge-ejenti esebenzako etjhebiswaneni eliphakathi komBuso weSewula Afrika kanye neBhanga yePhasi, iragele phambili nerhubhululo elimayelana nokungabi nekhakhoni emnothweni wenarha ngokubamba ikhakhoni, ukuyisebenzisa nokuyibibha (carbon capture, utilisation and storage [CCUS]). Umsebenzi lo uhlala uyiphrojekthi eqakathkileko yelizwe loke begodu kuyindlela elamulako eqakathkileko yokwesayensi ekusekeleni umGomo wombuso obizwa i-Just Energy Transition Policy. Ngibethela i-CGS izandla ngokobana iqede ukudrila kilendawo yephrojekthi elingwako e-Leandra. Isigabesi siqedelela amatshwayo wejijoloji wendawo begodu sisibeka endaweni ehle yokobana iragele phambili nesigaba esilandelako sephrojekthi.

Kutjhatjhalazi, iSewula Afrika inethudu lokuba nemithombo yamalahle namarizeva begodu ikhetho

ukuhlola ukusetjenziswa ngefanelo kwemithombo le, ngokungatjhugulukiko ngokweenlinganiso zokuphungula ubujamo betlayimethi. Nalokha itjhebiswano eliphakathi kombuso neBhanga yePhasi seliphelile kwanjesi, i-CGS seyinetjhebiswano nabalingani bekoro yangeqadi eziinkutani ukuphumelelisa iphrojekthi esigabeni sesibili. Abalinganaba bafaka hlangana i-Sasol, Exxaro, iThungela, Arcelor Mittal, the Development Bank of Southern Africa kunye ne-Net-Zero Technology Centre (United Kingdom).

Ukuphumelela kwephrojekthi ye-CGS' CCUS kunikela ithuba lamambala lokuzuzwa ukususwa kwekhakhoni ngaphandle kokurhabela ukuphungula amalahle ehlanganiseleni ye-eneji yenarha. I-CGS bekusifiso sayo ngikho nje ibe neragelo phambili elihle khulu ekuvikeleni isekelo labahlanganyeli abaqakathkileko ngalokhu enarheni. Bekube nje, i-CGS seyibambe ilungelunge leemfundobandulo emaphrovisini ahlukeneko ukwabelana nawo ngeragelo phambili nangokuqakatheka komsebenzi lo nabantu emphakathini, iimfundiswa, amabubulo, abafundi nabanye abahlanganyeli abafaneleko. AmaSewula Afrika akhambela iimfundobandulwezi ze-CCUS ararwa begodu akarwa bukhulu berhubhululo begodu neensombululo zesayensi ezethulwa yiphrojekthi le. Kwangithabisa khulu ukubona i-CGS ilethe abafundi besikolo, njengombana lokhu kuligadango elikhulu naziza ekudluliseni imisebenzi eyenziwako idluliselwe esizukulwaneni esizako. Ukungezelela, i-CGS imeme neenkhumli zeentjhabatjhaba eemfundobandulini lezi ukwenzela bona iSewula Afrika ifunde khudlwana eemfundweni zalabo esele bangaphambi kwethu ngokwemisebenzi ye-CCUS.

I-CGS iragela phambili nokuzibandakanya nabalingani ebambisene nabo, ingasi ukobana ithuthukise begodu isekelo iqhinga elifiswa yi- *Geoscience for Diplomacy* kwaphela, kodwana okhanye godu ukobana ikhwezelele imizamayo yokungezelela irevenyu. Ngakwamanye amahlangothi

we-African Mining Indaba, eyabanjwa ngenyanga kaMhlonjani 2024 e-Cape Town, i-CGS nabalingani bayo bange-Angola, Instituto Geológico de Angola, bangenela iqhinga lesivumelwano esifuna ukuthuthukisa itjhebiswano erhubhululweni le-geoscientific ngokuragela phambili ne-Agenda 2063. Okhunye godu, ngokulandela ukutlilitwa kwe-MoU phakathi kwemibuso yeSewula Afrika ne-South Sudan, i-CGS yenza iphrojekthi ne-South Sudan ukwenza imisebenzi ye-geoscientific ukusiza inarha. Itjhebiswano ne-Eswatini Geological Survey lisaragela phambili begodu liqinisekisa ukukhula ngepumelelo kwemigadangiso yeminikelo ye-geoscience yeSewula Afrika enarhakazini engaphasi, ukusekela iimfunda zeSewula Afrika ukufaka umgomo weenarha zangaphandle.

I-CGS iragela phambili nokuqinisa amatjhebiswano kiyo yoke i-Afrika ngokuzibandakanya kwayo ne-Organisation of African Geological Surveys (OAGS), lapha yenza khona umsebenzi wokuba nguNobhala wasaFuthi. Ngabika ngomnyaka ogadungileko bona i-OAGS seyaziwa nanga yi-African Union, okube yituthuko eqakatheke khulu. Ngokutjho njalo, i-OAGS seyijameleke ngokusemthethweni begodu i-GCS, idose phambili beyakghonakalisa ukutloliswa kwekhamphani engenzi inzuzo (i-NPC), okuyipumelelo ehle khulu emlandweni we-OAGS begodu isisendlalelo sokuzuzisa amazinga aphezulu wepumelelo.

IBhodi ye-CGS iwenza kuhle umsebenzayo wokutjheja iimbopho zayo ekusebenzeleni ukuvikela *ngefanelo nokutjhogulula umphakathi, nokukghonakalisa iinsombululo ze-geoscience*. Kufanele kuyelelwe bona uMhloni weNcwadi i-Auditor-General yeSewula Afrika iziqedile iinkambiso zoku-oditha umBiko womNyaka wee-2023/24 we-CGS begodu nanje siwutholile umphumela wombiko woku-oditha onganamitjhapo. Okhunye godu, kuyangithabisa ukubika bona i-GCS kikho koke iphumelele ngamalengiso njengehlangano yazuzisa amaphesende ama-91% kilomnyaka, okuyinto etjengisa ukuzimisela nomzamo wabaphathi nabasebenzi kanye neBhodi ye-CGS.

IBhodi ye-CGS ibethela boke abasebenzi ehlanganweni izandla abathole iziqu ezitja soloko lokha nakuqedelelwa umbiko womnyaka ogadungileko. Ngithanda ukubethela abalingani abalandelako izandla ngokwethweswa kwabo iziqu zobuDorhoda: Dorh Robert Netshitungulwana – Doctor of Philosophy in Geology; Dorh Rebeca Singh – Doctor of Philosophy in Geography and Environmental Science; no-Dorh Rendani Matakanye – Doctor of Business Leadership. Ipumelelo nenzuzo yabasebenzi bethu kwamambala itjengisa iinthelo ozitholako lokha nawuzikhandlako begodu nokusisa kwethu kumalungiselelo wokwakha umBuso onekghono mayelana neenzukulwana ezizako.

Ibhodi idlulisa amezwi wokutjhiriya kilabo balingani

abakhanjelwe malunga womndeni nabangani phakathi komnyaka. Ubuhlungu bokukhanjelwa bubethe khulu umndeni we-CGS ngokudlula ephasini kwabalingani bethu abathathu okungu, Nom Sipho Johannes Mahlangu (Assistant Technical Officer – Drilling); uNom Johannes Sejamagapu Radebe (Senior Scientist) no-Nom Brian Sibonelo Zulu (Senior Scientist).

“ Ngesikhathi sokubika i-CGS, njenge-ejenti esebenzako etjhebiswaneni eliphakathi komBuso weSewula Afrika neBhanga yePhasi, iragele phambili nerhubhululo layo lokulungisa umnotho wenarha ngokubamba ikhabhoni, ukuyisebenzisa nokuyibibha. Umsebenzi lo uhlala uyiphrojekthi eqakathkileko yelizwe loke begodu kuyindlela elamulako eqakathekileko yokwesayensi ekusekeleni umGomo wombuso obizwa i-Just Energy Transition Policy.

Ukuswaphelisa, ngithanda ukuthokoza khulu uMhlonitjhwane uNgqongqotjhe wezeNjiwa ne-Eneji, uNom SG Mantashe (MP) ngokungethemba kwakhe kunye neBhodi ngokutjheja ihlangano ngeqhinga eliqakathekileko kuRiphabliki yeSewula Afrika. Ngithokoza amalunga ahloniphekileko aphumako we-Portfolio Committee of Mineral Resources and Energy, ngaphasi kobudosisiphambili buka-Nom Zet Luziphu begodu ngilangazelele ukusebenza namalunga we-Parliamentary Portfolio Committee on Mineral and Petroleum Resources ehlandleni le-7 lokuphatha. Ngithokozisa isigungu esiphetheko se-CGS, nabo boke abasebenzi besayensi nabasekelako, ngokuzibophelela kwabo nangomsebenzi omuhle abawenzileko ngokwegunya le-CGS.



UNom Kelepile Dintwe

USihlalo

IBhodi yomkhandlu we-Geoscience

31 July 2024

2 Ihlathululo efithazana eyenziwe ngu-Chief Executive Officer

Kungithabisa khulu ukwethulela iSigungu i-Council for Geoscience (i-CGS) umBiko womNyaka, owendlala yoke imisebenzi yehlangano emayelana nomnyaka weemali wee- 2023/24. Isikhathesi asitjengisi kwaphela ukuphela kwe-Phahla leQhinga i-Medium Strategic Framework (MTSF) 2019–2024, kodwana siqedelela umnyaka wokuthoma wokuphatha kweBhodi yanje, engaphasi kobudosiphambili bakaNom Kelepile Dintwe onguSihlalo. Kuhle khulu ukuthokoza woke amalunga womndeni we-CGS ngokuragela phambili nokuzimisela kwawo, ukuzinikela nokusebenza ngokuzikhandla ehlanganweni ukuqinisekisa bona igunya lemisebenzi ye-CGS liba yipumelelo.



UNom Mosa Mabuza
Chief Executive Officer

Emizamenethu eragela phambili nokusekela iimbawo zeGeoscience kilokho kileyotuthuko enyulwako elizweni loke, esekelwa kumedwa kwamagugu adlula iminyaka eli-112 soloko yahlonywako ngomnyaka wee-1912, sikhumbula isendlalelo esiqinileko esendlalwa badosiphambili bangaphambili ku-geoscience. Iqhinga lokubumba ihlangano ngobutjha lenze bona sikhone ukutjhida msinya eqhingeni elimayelana namamebhe ahlanganisiweko nemikhakha eminengi ye-geoscience erhabisa msinya iminqophethu esiyivezileko. Umbiko womNyaka wendlala isirhunyezo salokho esikuzuzileko ngo,nyaka wee-2023/24 utshwaya iragelo phambili letuthuko yokusebenzisa iqhinga elivezwe ngehlela nanje elisesemthethweni soloko lethulwa. Ngalokho, sitjhugulule amano ekukhambeni kwesikhathi ukobana sikhambisane nobujamo bamamatheriyali obukhona kibo okutholakala bona ukusebenza kuyenziwa.

Sesiqale elinye ihlangothi lokobana sisise ekutheni umphakathi ulemuke imisebenzi nemikhiqizo ye-CGS. Lokhu kufakazelwa kungezeka kwekareko nokwaziwa komsebenzi we-CGS eenkundleni ezihlukahlukeneko zokuthintana. Kilokhu, kukhutjhe **ama-athikili weendaba ama-64**, lokha ngakwelinye ihlangothi ibhrendi ye-CGS yaphrofayilwa kumatjhaneli ahlukahlukeneko wokuthintana afana nemikhangiso, amabhibhodi, iinkundla zokuthintana, amaphodkhasti wemirhatjho nabomabonakude. Ukungezelela, izinga lokwaneliseka kwabahlanganyeli libe ngcono ngamaphesende ama-83% ukusuka kuma-79% arekodwe emnyakeni weemali ogadungileko. NjengesiGungu seSayensi, i-CGS iragele phambili nalokho ekutjhejileko ekusekeleni umkhakha welwazi lesayensi eenkundleni zokusabalalisa ilwazi elihlukeneko. Ekukhambeni kwesikhathi se-MTSF, isiqhema se-CGS sikhuphe ubuncani **bama-athikili angaphasi kwe-180** okuthiwe kufanele aqaliswe kuhle yikambiso yehlolo labangani yesayensi. Ukunikela ihlathululo

ngeqhinga lethu elinemikhakha eminengi ehluahlukeneko nelihlanganiswe ngokwemvelo, imikhiqizo inqophela kumimongo yazo zoke iindawo, ongokhamba phambili kube mikhakha yamamebhe we-geoscience, isayensi eqalene neenhlekelele ne-geoscience yemanzini. Inani elihle lemikhiqizo etlolwe batloli ngokuyihlanganyela inikela ihlathululo ezwakalako yokubambisana ngokubumbana okwenziweko ngaphakathi komphakathi onabileko we-geoscientific. Lokhu kuveza tjhatjhalazi umnqopho esiwuhlosileko ekuvezeni ukwenziwa ngcono komsebenzethu we-geoscience emphakathini wendawo nephasini mazombe le-geoscience begodu nempakathini wokana.

Ukwakha nokutjheja amaqhinga wamatjhebiswano nabahlanganyeli beemfunda nalabo beentjhabatjhabeni ukungezelela isekelo le-geoscience kungelinye lemiphumela yamaqhinga we-CGS. Ngesikhathi somnyaka wee-2023/24 ihlangano yabandakanya begodu yabambisana nabalingani be-Afrika nabanye bezinye iingcenywe zephasi mazombe. Ngakwamanye amahlangothi we-African Mining Indaba, eyabanjwa ngenyanga kaMhlojanja (February) 2024 e-Cape Town, i-CGS nabalingani bayo bange-Angola, Instituto Geológico de Angola, bangenela iqhinga lesivumelwano esifuna ukuthuthukisa itjhebiswano erhubhululweni le-geoscientific ngokuragela phambili ne-Agenda 2063. Okhunye godu, ukusekela imizamo yokuhlanganisa iimfunda zenarha, i-CGS ikhulumisane ne-Côte d'Ivoire, i-Niger, i-Central African Republic, i-South Sudan, i-Angola, ne-Eswatini. Ngokufanako, i-CGS izibandakanye nephenyo lejyoloji le-United Kingdom, i-Saudi Arabia ne-Russia. Ekufuneni ukungezelela itjhebiswano lezinto zejyoloji hlangana nabalingani bethu, kwabanjwa imikhulumiswano nama-Embasi alandelako: I-Japan, i-European Union ne-Pakistan. Umsebenzi lo usekela iNyulo le-7 le-MTSF yelizwe loke enqophe ukwakha “i-Afrika engcono kanye nephasi”.

I-CGS iragela phambili nokusebenzisa iqhinga layo eliphunyelelisiweko, iHlelo eliHlangeneko elibizwa i-the Integrated and Multidisciplinary Geoscience Mapping Programme (i-IMMP), enqophe ukunikela mayelana, hlangana nokhunye, eQhingeni leSewula Afrika i-South Africa's Exploration Strategy and Implementation Plan, ngokubeka ngeqadi ubuncani bamaphesende ama-5% wokuphenywa kweendleko zephasi mazombe ngendlela yokusebenzisa ilwazi nalokho okwaziwako ku-geoscience. Ekusetjenzisweni kweHlelo i-Geoscience Technical Programme (i-GTP), i-CGS ifuna ukuvula ikghono lemithombo yamaminerali newe-eneji weSewula Afrika nokunikela ekutheni kuzuzwe itjhuguluko lokuya emnothweni wekhabhoni ephasi. I-GTP, ngesikhathi somnyaka weemali obuyekwezako, inqophe ekukhiqizeni isilinganiso samamebhe we-geoscience wangaphandle newangaphakathi ayi- 1:50 000, ngombono wokuzusa ilwazi eliqakathekileko le-geoscience. Ukufakwa kwamebhe ye-geoscience wenarha yangaphakathi kukhuphuke ukusuka ngaphasi kwamaphesende ama-5% ngaphambi kobana kuthonywe i-IMMP ukuyokufika kumaphesende ali-**16%**. Bekube kunamhlanjesi, ama-307 wenani loke lamamebhe wokukala ali-**1 916** 1:50 000 sekakhiqiziwe ngomnyaka wee-2023/24. Ukutjengiswa kwamebhe yangaphandle yenarha ingezeke ukusuka kumaphesende ama-0.05% abikiweko eminyakeni egadungileko ukuya kumaphesende ama-**0.3%**. Imiphumela le inikela ilwazi lendawo yelwandle magega nenarha yebhoduluko leSewula Afrika begodu izakusiza ngokunikela ilwazi elithhokeka khulu le-geoscience mayelana nepumelelo ekulu yomnotho ohlaza okwesibhakabhaka eSewula Afrika. Ngokuhlanganiswa kwamahlelo ahlukahlukeneke we-geoscience, imiphumela yemithelo ye-geoscience enikela emamineralini, ku-eneji, emanzini waphasi, ekuthuthukisweni komthangalasisekelo nokusetjenziswa kwendawo, koke lokhu kwakhiqizwa.

I-CGS iaekela ukuhlonywa kwesiKhwama se-Junior Miner's Exploration Fund, esakhiwa mNyango wangaphambilini wemiThombo yemaMinerali ne-Eneji (i-DMRE), ngokubambisana ne-Industrial Development Corporation. I-CGS imtikitli we-MoU mayelana nesikhwamesi, ukusetjenziswa kwemihlobo leyo esondele ekupheleni. I-CGS nayo izama ukunikela amandla emThethweni we-Geoscience okghonakalisa ukobana ikghone ukwenza iphenyo. Ukuhlonywa namkha ukusetjenziswa komnikelo lo kuyingcenywe yeenkambiso zokubandakanyeka ezifiswako ukuphumelelisa iphenyo elilangazelelwako enarheni, elihlangene, hlangana nokhunye, ukurahlela amaminerali (kuhlekuhle aziwa ngamaminerali aqakathekileko) afuna ukuphumelelisa ukuzibophelela ephasini mazombe naziza ekutjhiyweni kwesilinganiso se-ziro.

Ukubanjwa kweKhabhoni, ukuBeka nokuSetjenziswa (i-CCUS) ihlonitjha khulu njengamanye wamathuba wokuphungula iingozi zamatjhuguluko wetlayimethi. Ngokwamandla akhulako wephasi mazombe wegandelelo lokuphungula ukususwa kwerhasi ye-green house, okulindelwe yi-CCUS eSewula

Afrika kunikela ithuba elinengi lokuphungula ukususwa kwekhabondayoksayidi nokuvikela iimpilo zenengi lamaSewula Afrika abayeme ekukhiqizweni kwamalahle. Ngalokhu-ke, i-CGS iragele phambili nokwenza iPhrojecthi yokuLinga yokuba mdosiphambili welizwe loke ku-CCUS eLeandra. Ukudrilwa kwesibhobo esidibhako ehlelweni amatje kwenziwe kuhle khulu. Iimfundo ezitheknikhali zitjengise ukuthoma kokunziza kwelndawo enekghono lokubeka ilitje elilinganiswa emhlobeni wamathani wamabhiliyoni ayi-34 (Gt) hlangana nendawo yerhubhululo yamapharamitha ayi-25 km². Leli likghono elikhulu kunalelo lokuthoma elilinganiselwa ku-5Gt elenze ngcono khuluukhlangana komnikelo naziza etjhugululweni lokuba nomnotho wekhabhoni ephasi nokuzibandakanya komphakathi etlayimethini. Okhunye godu i-CGS izibandakanye e-United Nations Framework Convention on Climate Change (UNFCCC) 28th Conference of the Parties (COP28) yethula amatshwayo wejijoloji wePhojekthi eaLingwako ye-Leandra.

“ Ekusetjenzisweni kweHlelo i-Geoscience Technical Programme, i-CGS ifuna ukuvula ikghono lemithombo yamaminerali newe-eneji weSewula Afrika nokunikela ekutheni kuzuzwe itjhuguluko lokuya emnothweni wekhabhoni ephasi.

I-CGS isekele i-Eskom ngendaba yezokuphepha mayelana nokuvuselelwa kwelayisensi yesikhathi eside ye-Koeberg Nuclear Power Station, nangokuhlola isayensi yejijoloji mayelana nekghono lokufakwa kwenyutla esikhathini esizako. Kwenziwe iimfundo namkha amarhubhululo amanengana wesayensi, aphephe ngokuhlolwa kwamatje neengozi zetsunami, atjengisa ukuba miphumela eqakathekileko kudizayini yobunjiniyera efunekako kanye neendingo zokusebenza zesitetjhi. Yoke imiphumela yesayensi yokuthoma mayelana nendaba yokusebenzisa zokuphepha emayelana ne-National Nuclear Regulator yaqedwa ngomnyaka weemali, kulandela ibuyekozo labalingani elinamandla nobufakazi bemitlolo kanye nemiphumela. Umsebenzi lo utjengisa umnikelo onamandla owenziwa yi-CGS mayelana nokuzusa ivikeleko le-eneji eSewula Afrika, lokha nakunikelwa iinqiniseko zesayensi mayelana nokuragela phambili kwevikeleko lokusebenzisa inyutla ye-neji eyenziwe enarheni. I-CGS yenze umsebenzi lo ngokubambisana nezazi zendawo kanye nezeentjhabatjhaba, ukunikela kwazo mayelana nokuzuzwa kwehlelo eliqakathekilekweli kuthokozelwa khulu. Okhunye godu, umsebenzi bewutlanyelwe ukusekela ikghono lendawo elizakughonakalisa umbono ongcono emBusweni, eenhlanganweni zefundo nezangeqadi ukwenza ukuhlola ekwenziweni kwamaphrojekthi anqotjhiweko ekufanele atjhejwe mbuswethu, ngembona aaveziwe emgomeni we-eneji.

Umsebenzi ophathelene namaMinerali ne-Eneji, ukhwezelela emsebenzini weminyaka eminingi ngaphambilini ebeyihlongozwa kiwo woke amaphrovinsi we-Limpopo, we-Northern Cape naKwaZulu-Natal, sewunamakhakhazela wemiphumela emihle. Umsebenzi lo unikela ilwazi lesayensi yejiyoloji ukuqedelela amahlelo apheleleko naziza kilokho okufunwa liqhinga lokuvikela isabelo seendleko zephenyo lephasi esidlula amaphesende ama-5%. Imiphumela yemithelo ebeyibuthelwe hlangana nomnyaka itjheje iimibiko yehlaziyo lejiyoloji yamakhemikhali nokuhlola amahlelo wamaminerali mayelana nerhawuda ephethe i-greenstone ePhrovinsini yeLimpopo. Ekwenzeni umnikelo khudlwana mayelana nevikaleko le-eneji nelwazi lesayensi yejiyoloji ukusekela lokho okunyulwa mgomo we-eneji yelizwe loke, i-CGS ikhuphe umbiko wetshwayo elipheleleko kumathuba wesayensi yejiyoloji mayelana nokubamba ikhakhoni, ukusetjenziswa nekghono lokubeka ePhrovinsini yeMpumalanga. Ukuhlola kwejiyoloji okuphathelene nemithombo esathomako ye-eneji evuselelwako, okukungezelela i-eneji ye-geothermal, nakho lokhu kwaphethwa ukuhlola ikhgonakalo yakho eSewula Afrika.

Amaphrojekthi womthangalasisekelo nommango wokuSetjenziswa kweNdawo asekelo iNyulo lesi-5 le-MSTF yelizwe loke (ukuhlenganisa isikhala, ukuhlaliswa kwabanyu nombuso wendawo) nelesi-6 (ukubumbana komphakathi nemiphakathi ephaphileko). Ngikho nje, i-CGS isaragela phambili nokusekela iminqopho ephaphileko nethuthukako kizo zoke iimfunda ze-Thaba Tshwane ePitori nomthangalasisekelo oqakathekileko wendlela yelizwe loke kiyo yoke inarha. Indawo eqakathekileko okunqotjhe kiyo mayelana netuthuko ephaphileko kanye nevikaleko lomphakathi isekelwa lirhubhululo eliragela phambili etshwayeni lesilinganiso sendawo okungenzeka kube yindawo ethandwa madolomayithi begodu nokuzusa amatshwayo amanengi enziwe ngcono wemithombo yamatje kanye nokuqinisekiswa kweengozi ezingahle zibe khona.

Ukuhlolwa kwesayensi yejiyoloji okunqophe kwezamaphilo, amanzi wangaphasi neragelo phambili lebhoduluko, ngokutjheja ukulungisa amandla wamanzi athintwa kumbi kumayina, ukunikela mayelana nokuphungulwa kokutjhoda kokusabalalisa kwamanzi ngokusebenzisa iindlela zeenthombe zamanzi, kanye nokuphungula iingozi ezitholakala emphumeleni wemisebenzi yokumayina. Umsebenzi lo unikele ngobufakazi obusekelwa miphumela yesayensi ekubunjweni kweQhinga i-National Mine Closure Strategy kanye nomTlamo walo osebenzako, begodu neQhinga lamaMayini angaSasebenziko nanganaBanikazi wakade we-DMRE, esele njenganje imNyango we-Department of Mineral and Petroleum Resources (i-DMPR). Imizamo yamamebhe wamanzi weemfunda, khulukhulu eemfundeni zepumalanga yeMpumalanga Highveld, yaqedwa ngesikhathi somnyaka weemali, yanikela ilwazi lesayensi elingeneleleko elithhokeka khulu ematjhugulukweni wamanzi wangaphasi eemfundeni. Umsebenzi lo usekela ivikeleko lezebhoduluko nemizamo yokuhloma iinsekelo ngaphambi kokwenziwa kwe-anthropogenic carbon dioxide injection mayelana neminqopho yokulinga.

Indima eqakathekileko ye-CGS njengomnikazi wesayensi yamadatha woke elizweni loke kanye nelwazi ifuna ilwazi

elingaphazanyiswako nesayensi yejiyoloji etholakalako namahlelo wokuphatha ilwazi, avumela ukuthathwa kuhle kweenqunto, hlangana nokhonye, ukuphathwa ngepumelelo kwemithombo yemvelo nokuphungulwa kwamandla weengozi zejiyoloji. Idatha yeSayensi yejiyoloji nePhothali yeWazi, ehlonywe ngomnyaka wee-2021/22, isaragela phambili nokunikela amarekhodi welwazi akhiqizwe yi-CGS ngokwendlela yamamebhe, imitlolo namahlelo. Ilwazi lingatholwa bahlanganyeli namatlayendi ephasini mazombe. Amadawunlowudu angaphezu kwama-30 900 bekatlolwe phasi ngesikhathi sokuhlolwa kweemali, kwaba neembawo zamamebhe wejiyoloji, amabhulethini, ihlathululo yamamebhe, imikhiqizo/imibiko namafayili wejamo lezinto zejiyoloji.

IsiTatimende sobuJamo beMali se-CGS sitjengisa inani loke lepahla ebiza iingidi ezima-R596.8, ezibumba ipahla engasi ngeyanje kanye nepahla yanje ebiza iingidi ezima-R373.1 nezima-R223.7 ngokulandelana. I-CGS ingezelele umsebenzayo ngamandla, kuhlekuhle nakuqalwa ubudisi bomnotho wetlayimethi, obunenani loke lerevenyu yeengidi ezima-R860.5 kanye nesalela yeengidi ezima-R51.3. Umbiko ophetheleko ngelwazi leemali uyatholakala esiGabeni F sombiko lo.

Ipumelelo iqakathekile egunyeni le-CGS nebhizinisini emazingeni wezeemali/wezomnotho. wehlalakuhle, womhlanganyeli newezebhoduluko. Ipumelelo ingaphakathi kwalokho okunqotjhe yisayensi nokutjhugululwa okwenziwa hlangana nehlango ne-CGS yihle ekutheni izuze abasebenzi abazwanako nabahlukeneko ababona ihlango njengomqatjhi abamkethileko. Ngithanda ukwamukela amalunga amatjha womndeni we-CGS, nakulabo abasitjhiyileko, ngiyarithokoza ngomsebenzenu begodu nginifisela ipumelelo kilokho enizabe nikwenza esikhathini esizako.

Ngithanda ukuhalalisela amalunga alandelako wabasebenzi abathole iziqu ezitja emNyakeni weeMali wee-2023/24.

Ibizo	Idigri
U-Dorh Robert Netshitungulwana	UDorhodera weFilosofi: Ijiyoloji
U-Dorh Rebekah Singh	UDorhodera weFilosofi: Iimfundo ze-Geography and Environmental Studies
U-Dorh Rendani Matakanye	UDorhodera we-Business Leadership
UNom Lebogang Ledwaba	I-Master of Business Administration
UNom Sifiso Ngubelanga	I-Master of Science: I-Engineering & Environmental Science
UMm. Andisani Makhado	I-Master of Science: I-Geographical Information System and Remote Sensing
UNom Mzoli Breakfast	I-Master of Science: Ijiyoloji
UMm. Connie Setladi	I-Master of Science: Ijiyoloji
UMm. Yasmeen Abrahams	I-Master of Science: I-Applied Geology
UMm. Tshiamo Moleele	I-Master of Science: I-Applied Geology
UMm. Nangamso Dunga	I-Master of Science: Ijiyoloji

Omunye nomunye umnyaka utshwaywa ngokuhle namaphuzu aphasi. Ngesikhathi somnyaka obuyekwezako, i-CGS yaloba amanye amathalente wayo, kufakwe hlangana abanye abadosiphambili bamambala besayensi yejiyoloji, ngokuthatha imihlala phasi. Sibungaza iminikelo emihle yabalinganaba abayisebenzele kuhle khulu ihlangano. Abobaba nabomma abalandelako bahlangana nalabo abanikele iimpilo zabo zomsebenzi ehlanganweni:

Amabizo	Isikhundla	Iyunithi yeBhizinisi	Iminyaka yokusebenza
UNom Willem Kupido	Isiphathiswa i-Junior Technical Officer	I-Geophysics & Remote Sensing	42
UMm. Suzette Power	Umlawuli i-Senior Cashbook Administrator	Ukuphatha zeemali	37
UNom Timothy Thabang Molea	Isiphathiswa i-Junior Technical Officer	Umthangalasisekelo nokuSetjenziswa kweNdawo	36
UNom Molefe Letsoalo	Isiphathiswa i-Junior Technical Officer	Ukuphatha ilwazi	21
UMm. Pauline Mmakhwini Malatsi	Umsizi Zombebele	Ukuphatha ilwazi	16
UNom Christo Craill	Usosayensi ophezulu	ImiSebenzi ebuThekniki	9
U-Mm Maria Fafa Khosa	Umhlwengisi	Ukuphatha iinsetjenziswa	7
UNom Lesios Shutelang Seerane	Umsizi womSebenzi wokuDla	Ukuphatha iinsetjenziswa	5

Kilomnyaka okubikwa kiwo, ngebhadi silobe abalingani abambalwa. Bona nguNom Siphoh Johannes Mahlangu (Umsizi i-Assistant Technical Officer – Drilling), uNom Johannes Sejamagapu Radebe (USosayensi oPhezulu) noNom Brian Sibonelo Zulu (USosayensi oPhezulu). Ngithanda ukutjhiya ngidudze iinhlobo nabangani babo. Isibawo sokutjhiya phasi kuka-Mm u-Anea Harding ngebanga lokugula saphumeleliswa emnyakeni okubikwa kiwo begodu sinaye emikhulekweni. Abalingani abalulamako ekuguleni njenganje, siphokophelele phambili ukobana sibamukele msinya.

Ngithanda ukuthokoza khulu uNgqongqotjhe wemiThombo yamaMinerali ne-Eneji, uNom Gwede Mantashe kanye nomnyango, ngingalibali amalungethu weBhodi ngaphasi kwesiyeeleliso sezomthetho sikasihlalo wethu, uNom Kelepile Dintwe, ngegalelo lakhe nangesekelo lakhe. Ngithanda khulu nokuthokoza i-Komidi i-Parliamentary Portfolio Committee kumiThombo yamaMinerali ne-Eneji ngesekelo labo elithembekileko, ukuzikhandla nangeeyeleliso ezihle.

Ngiswaphelisa ibuyekozo lami ngokuveza bona sakhe isisekelo esinamandla mayelana ne-CGS, esiqinileko begodu esinqophe khulu emikhiqizweni, begodu nesitjengisa ihlangano enekhono lokusebenza kuhle. Kunande kuyabuyeleleka bona ukuzuzokhu kukghoneka kwaphela ngombana sithethe eenkakheni zezazi ezidala ebezidosa ngaphambilini.



UNom Mosa Mabuza
Chief Executive Officer
Council for Geoscience

31 July 2024

3 Isitatimende sesiBopho nokuQinisekiswa kweNembo mayelana nomBiko womNyaka

Ngokwazi nangokukholwa kwami, ngiqinisekisa lokhu okulandelako:

Loke ilwazi neemali eziveziweko emBikweni womNyaka ziyakhambisana neenTatimende zomNyaka weeMali ezi-odithwe yi- Auditor-General.

Umbiko womNyaka uphelele, uyanemba begodu awunayo imitjhapho etjhiyiweko.

UmBiko womNyaka ulungiswe ngokukhambisana nemigomo eesemibikweni yomnyaka, njengombana ikhutjhwe yi-National Treasury.

IsiTatimende seeMali somNyaka (Ingcinye F) silungiswe ngokukhambisana nemigomo namazinga akhona kumabhizinisi womphakathi i-Generally Recognised Accounting Practice (i-GRAP).

IBhodi ye-CGS kumsebenzayo ukwenza amalungiselelo weenTatimende zeeMali zomNyaka nangokwahlulelwa okwenziwa kilelilwazi.

IBhodi ye-CGS kumsebenzayo ukuhloma nokusebenzisa amahlelo alawula ngaphakathi atlanywe ukobana aqinisekise ngokuzeleko ukudzimelela emigomeni nokuthembeka kwelwazi elimayelana nomsebenzi, imithombo yabantu kunye neenTatimende zeeMali zomNyaka.

Ama-oditha wangeqadi sekakhethiwe ukobana aveze wabo umbono ozijameleko eenTatimendeni zeeMali zomNyaka.

Ngokubona kwami, umBiko womNyaka utjengisa imisebenzi emihle, ilwazi lomsebenzi, imithombo yabantu neendaba zeemali zebhizinisi yomphakathi mayelana nomnyaka weemali ophele ngomhlaka-31 kuNtaka (March) 2024.

Ngimi ophetheko



UNom Mosa Mabuza
Chief Executive Officer
Council for Geoscience

31 July 2024



UNom Kelepile Dintwe
USihlalo
IBhodi yomkhandlu we-Geoscience

31 July 2024

4 Ihlathululo efithazana yeQhinga

Igunya le-CGS litloliwe emithethweni yayo yokuthoma. Ibhudango, okwenziwako begodu nemikghwa eqakathekileko yehlangano kubonakala kuhle, njengombana buveziwe emThethweni i-Geoscience Act (No. 100 of 1993) njengombana ukhithjelwe, ngalindlela elandelako:

Ibhudango

Ibhudango le-CGS ku:

Umphakathi onepumelelo notjhugulukileko osizwa ziinsombululo ze-geoscience.

Okwenziwako

Okwenziwa yi-CGS kunikela kuSewula Afrika enepumelelo ngoku:

- Nikela amamebhe ahlangeneko, ahlelekileko nanemimongo nokwenza irhubhululo endaweni ezingaphakathi kwemikhawulo nakulezo ezingaphandle kwemikhawulo yejiyoloji eSewula Afrika njengokugunyazwa, uku:
 - Ukukghonakalisa ituthuko yeminerali, i-eneji nezelimo;
 - Ukunikela ekuhlolweni nokuphathwa kuhle kwamaminerali, imithombo ye-geohydrological neye-geoenvironmental; begodu
 - Ukusekela ukuthuthukiswa komthangalasisekelo
- Ukuba mjaphethe wegunya lokuyelelisa elizweni loke ngesilaphazeko lebhoduluko le-geo-environmental
- Ukunikela umthombo welwazi nekundla yokwethula ekghonakalisa iinqunto ezingenzeka nokutholakala kwelwazi elifaneleko litholwe bahlanganyeli abafaneleko.
- Ukudlulisa igunya ngendlela esekela itjhuguluko kanye nezinto eziqakathekileko zetuthuko yelizwe loke.

Imikghwa eqakathekileko

Imikghwa eqakathekileko yehlangano nginasi:

- **Ukusungula ngobutjha:** Ukufaka nokusebenzisa imibono emitjha nemiphumela ebumba ukuba negugu
- **Ukuhlukana:** Ukwamukela isiko elifaka koke elisekela itjhuguluko nelithokozela iminikelo ebuya kibo boke abahlanganyeli
- **Ipumelelo:** Ukulwela ukuphumelela kwelinye nelinye ihlangothi lobujamo bebhizinisi
- **Ukuzibophelela:** Ukukhuthaza ukuthembeka nokuzibophelela, ukuba neembopho nobunikazi
- **Ukufunda:** Ukuthuthuka ngokubumba ilwazi
- **Ukuphepha, zamaphilo, kanye nebhoduluko:** Ukuthathela phezulu zamaphilo nokuphepha kwabo boke abasebenzi nabahlanganyeli, kuahlanganyelwe nabadosiphambili kwezebhoduluko
- **Ukubonakala:** Ukuphakela imisebenzi ngokwehlangothi, ngendlela efaneleko, ngokulinganako nangokwendlela ebonakalako.

5 Umthetho neliNye iGunya

UmThetho i-Public Finance Management Act (PFMA) (No. 1 of 1999) irhelise i-CGS njengeTjhejuli 3A iBhizinisi yomPhakathi.

Umthetho i-Geoscience Act (No. 100 of 1993) nomThetho olandelako okhitjelelweko we-Geoscience Amendment Act (No. 16 of 2010) uhlome i-CGS. Igunya le-CGS lifaka hlangana, ngaphandle kokuba nombandela woku:

- a) **Ukuleleka ngaphakathi komkhawulo nangaphandle komkhawulo** ngokwemebhe ye-geoscientific yeSewula Afrika.
- b) **Ukwenza irhubhululo le-geoscientific** nezinye iintuthuko zetheknoloji ezihlobene nalo.
- c) **Ukubuthelelwa nokuhlelwa** kwayo yoke idatha ye-geoscience nokusebenza njengendawo okubijwa kiyo i-geoscience yelizwe loke.
- d) **Ukubuthelelwa nokuthuthukiswa kwelwazi elipheleleko nelihlangeneko le-geoscience** elifana nejiyoloji i-geology, i-geophysics, i-geochemistry, i-engineering geology, i-economic geology, i-geochronology, i-palaeontology, i-geohydrological aquifer systems, i-geotechnical investigations, i-marine geology, i-geomagnetism, i-seismology, i-geohazards, i-environmental geology neminye imikhakha ehlobene nayo.
- e) **Ukuletha emehlweni kaNgqongqotjhe elinye nelinye ilwazi eliphathelene nepumelelo yokumayina imithombo yamaminali**, okungenzeka isetjenziswe namkha yenze iRiphabliki izuze.
- f) Ukuthuthukisa ukufunwa kwamaminali nokucatjhezwa kwamanye namanye kuRiphabliki.
- g) Ukufunda namkha ukwenza irhubhululo (i) **ukusatjalaliswa nomhlobo wemithombo yamaminali** begodu (ii) izinto ezabe zenzeka kade, nanjenganje nokucatjhezwa kwamaminali esikhathini esizako ebhodulukweni le-geoenvironmental.
- h) Ukufunda namkha ukwenza irhubhululo ngokusetjenziswa **kwendawo ephezulu nendawo**

engaphasi kwenarha kanye nengaphasi kwamanzi, begodu ngokombono we-geoscientific kuyeleliswe iinhlango zombuso nomphakathi wokana ngokusebenza kuhle nokuphepha kwayo ngombono wokukghonakalisa ukuthuthuka okunepumelelo.

- i) Ukuthuthukisa nokutjheja **ibulungelo leencwadi lizwe loke le-geoscientific**, isentha yelwazi lelizwe loke le-geoscientific, **i-National Borehole Core Depository, iindawo zokuhlola zelizwe loke ze-geophysical and geochemical test sites, imyuziyemu yelizwe loke ye-geoscience**, ithungelelwano lelizwe le-seismological nesikghonakalisi selizwe loke sokuhlaziya i-geoscience.
- j) Ukwenza amaphenyo nokwenza imisebenzi ekhethekileko equntiweko eenhlanganweni zomphakathi nezangasese.
- k) Ukwenza imisebenzi yelwazi le-geoscience **nokuyelelisa umBuso**.

Ngokwamatjhuguluko enziwe emThethweni we-Geoscience Act, izigaba 4(c), 4(eA), 4(f), 5(b) and 8 oqalene, hlangana nokhunye nobunikazi belwazi le-geoscientific, ukubuyekeza nokuhlola imibiko ye-geotechnical, ukulungiswa kwezinye iinsetjenziswa zelizwe loke, nokukhethwa kweKomidi yeenLilo ye-Geotechnical kwajanyiswa. Okwenzekako, umThetho we-Mineral and Petroleum Resources Development Act (MPRDA) tjhatjhalazi unikela i-CGS igunya lokuthola, lokuqinisekisa nokuphumelelisa ilwazi lejiyoloji ekutheni lingasetjhwazwa begodu nabanikazi belungelo lokumayina njengengcinye yalokho okufunwa mithetho yayo yokuphatha ngendlela efaneleko. Amatjhuguluko la abumba amathuba wokukhula begodu anabisa khudlwana igunya le-CGS.

Igunya lomgomo: UMGomo wamaMinerali nokuMayina eSewula Afrika (wee-1998) uqinisekisa i-CGS njengomkhandlu wesayensi osekela irhubhululo netuthuko esekella ipumelelo yokuthuthuka ebubulweni lokumayina. Lokhu kuveza igunya lomThethosisekelo, njengombana livezwe kuhle emithethweni yekambiso ye-CGS.

5.1 Eminye imigomo emihlahlandlela

Ngokutjheja ukurhabeka kokulungisa izinto eziqakathekileko zelizwe loke, i-CGSiqinisekisa bona isithombe sebhizinisi yayo kanye nayo yoke imisebenzayo ilungisa imiphumela yeqhinga lelizwe loke ngokuyenza ikhambisane neBhudango lomTlamo oThuthukisa iliZwe loke i-National Development Plan (NDP) Vision 2030:

- **Imisebenzi enesithunzi ngokuthuthukisa umnotho ofaka hlangana koke:** Ngokuphakela ilwazi lesikhala se-geoscience nemisebenzi elulubeza abasisimali bendawo kanye nabeentjhabatjhaba ukuthuthukisa amaminerali nokukhulisa imithombo yeentaputapu.
- **Abasebenzi abanelwazi namakghono afaneleko ukusekela ukukhulisa yoke into:** Ukwakha umthamo ngokwe-geoscientific, amakghono wokuphatha begodu newokudosaphambili lokha nakusathuthukiswa imiphumela yamaqhinga amatjha, amahlelo kanye nemisebenzi.
- **Ithungelelwano elifaneleko, elinephaliswano begodu eliziphendulela kumthangalasisekelo womnotho:** Ilwazi le-Geoscience nemiphumela yemisebenzi emayelana nokuthuthukiswa komthangalasisekelo ekusekeleni ukuthuthuka komnotho weSewula Afrika wemithombo yamaminerali nokukhuliswa kweentaputapu.
- **Ukuba majadu, ukulingana nokusiza imiphakathi yemakhaya ngokubanikela ivikeleko lokudla kibo boke:** Ukunikelwa kwelwazi le-geoscientific elikghonakalisa ituthuko yezolimo nokuphenya amanzi angaphasi, hlangana nokhunyane.
- **Ipahla yebhoduluko nemithombo yemvelo evikelwe kuhle neragela phambili nokusekelwa:** Ukwenza irhubhululo ngalokho, hlangana nokhunyane, i-esidi yokudreyina emayinini nokubamba ikhabhoni namathekhnoloji wokubibha nokuhloma amaphenyo aqala ubujamo bebhoduluko mayelana nokuthuthukiswa kwerhasi esikhathini esizako.
- **Umsebenzi womphakathi omuhle, onepumelelo nokuthuthukisa umsebenzi womphakathi ofaka hlangana umphakathi nezakhamuzi ezinikelwe amandla nezazi koke:** Ukukhulisa i-CGS ukundlondlobalisa ukwethulwa kwegunya layo nokuphumelelisa ihlelo lokutjhugulula umBuso weSewula Afrika.

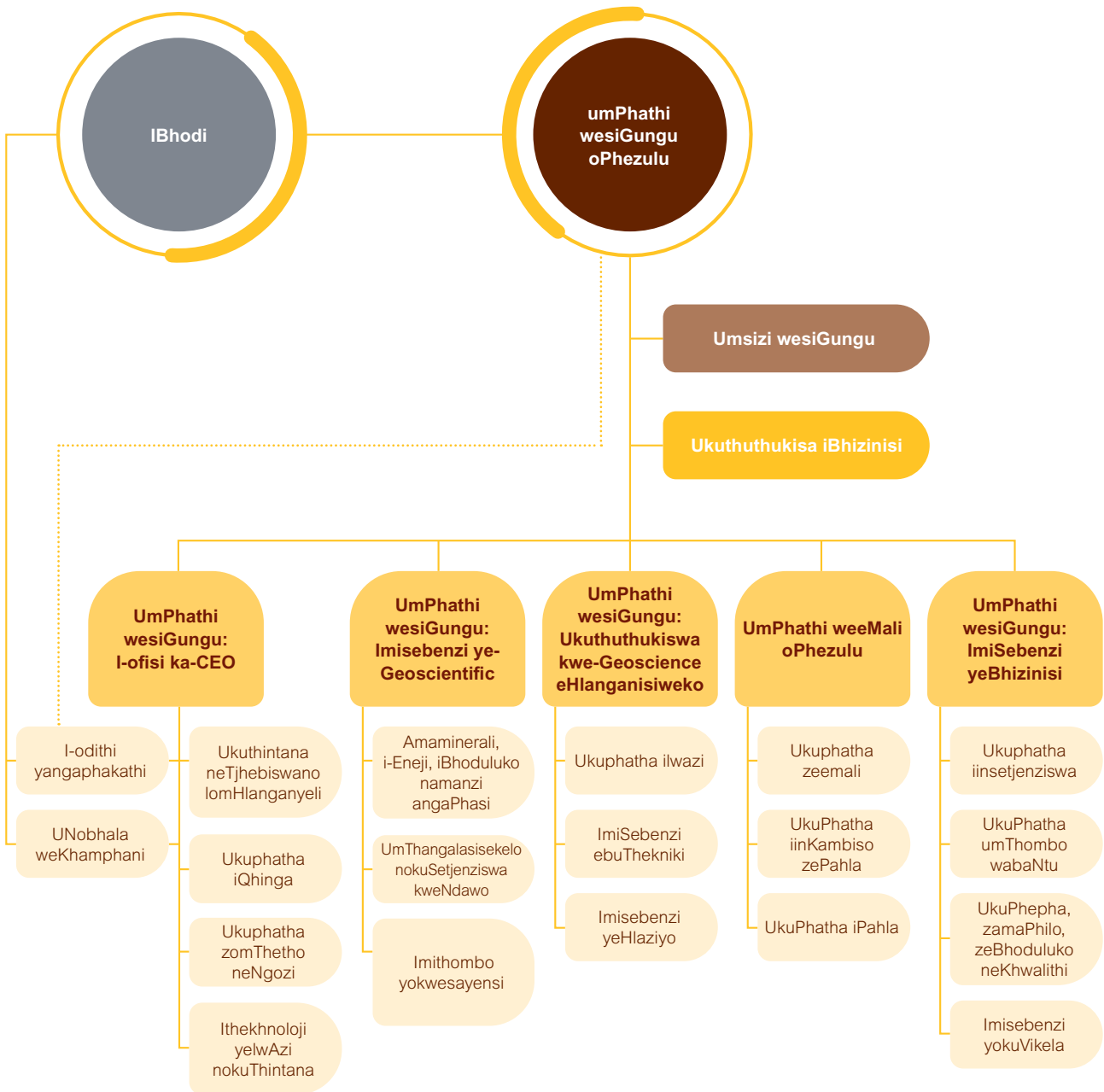
Okhunye godu nge-NDP kunye ne-Medium-Term Strategic Framework (MTSF), iminqopho ye-CGS ihlelwe ukobana isekele iminqopho yomNyango we-Department of Mineral Resources and Energy (DMRE), onqophe ukutjheja khulu umthetho, itjhuguluko nokuthuthukiswa kwekoro yamaminerali ne-eneji begodu nokunikela i-eneji enepumelelo begodu engabizi khulu mayelana nokukhula netuthuko yawo woke amaSewula Afrika.

Eminye iminqopho ye-DMRE, esekelwa yi-CGS begodu naleyo ehlanganiswe nemisebenzi yayo, ifaka hlangana ukunikela etjhugululweni lokuya emnothweni wekhabhoni ephasi; kuvulwe imithombo enamandla amakhulu yamaminerali ne-eneji; ukuhlukanisa nokusatjalaliswa kwemithombo yamaminerali ekusekeleni iinkoro zombili yokumayina ne-eneji; ukungezelela isisomali ekorweni yamaminerali neyeentaputapu nemaraga ye-eneji, ngaphakathi nangaphandle komkhawulo; kungezelelwe isabelo seSewula Afrika samaminerali wephasi mazombe nemaraga ye-eneji; kungezelelwe isabelo seSewula Afrika sebhajedi ecatjhezwa ephasini mazombe; ukuhlukaniswa kwemithombo ye-eneji ngokuhloma umtamo i- Integrated Resource Plan 2019; ukungezelela ukusisa imali kumthangalasisekelo eenkorweni zombili kweyomphakathi nakweyangasese' kufakwe koke, ukulingana nokuhlola iphaliswano nokuqinisekisa bona kuba namakghono aneleko nafaneleko ekorweni yokumayina neye-eneji. I-CGS isusela iqhinga lokuhlonywa kwayo ku-MTSF 2019 to 2024, yombuso, ukuziBophelela kwabaHlanganyeli eQhingeni mayelana nokuThuthuka kokuKhula nokuTjhugulula kuHle iBubulo lokuMayina eSewula Afrika le-DMRE, nomthetho wee- 2019 White Paper kuSayensi, iThekhnoloji nokusungulwa ngobutjha komNyango i-Department of Science and Innovation (i-DSI).

6 Ihlelo lehlango

I-oganogramu ye-CGS (Umgwalo 2) sihlathulula isakhiwo sokubika kwehlangano. Isakhiwo senziwa ukobana sisekele imisebenzi efaneleko, enepumelelo nokusebenza kuhle kwehlangano begodu kuhlelwe ukubumbeka kweBhodi yabaNqophisi nesigungu esiphetheko. Isiqhema sesigungu esiphetheko se-CGS sidoswa phambili Mphathi wesiGungu oPhezulu i-Chief Executive

Officer (i-CEO) ebika kumPhathimandla eziziPhendulelako (okuyiBhodi ye-CGS – qala iNgcenywe C yombiko lo). Isiqhema sesigungu esiphetheko, sigcina sesitjheja amaphothifoliyo amahlanu: Ituthuko eHlangeneko ye-Geoscience, imiSebenzi ye-Geoscientific, Iimali, i-Ofisi ka-CEO, nemiSebenzi yeBhizinisi (qala iNgcenywe A, isigaba 7).



Isithombe 2: Ihlelo lesakhiwo se-CGS

7 IsiQhema sesiGungu esiPhetheko



UNom Mosa Mabuza
Chief Executive
Officer



U-Dorh Thuli Khumalo
I-ofisi lomPhathi
wesiGungu lika-CEO



UNom Thabo Molikoe
UmPhathi weeMali
oPhezulu (Umjaphethe)



UMm Sipelele Buthelezi
UmPhathi wesiGungu
semiSebenzi
ye-Geoscientific



UNom Willem Meintjes
UmPhathi wesiGungu
esiThuthukisa i-Geoscience
eHlanganisiweko



UMm Zodwa Mbatha
UmPhathi wesiGungu:
ImiSebenzi yeBhizinisi

Ingcenye B

*Quartzites Dagbreek
formation, Vaalkoppies Group*

Ilwazi lokusebenza

Isigabesi sombiko sinikela ilwazi eliqakathekileko lokusebenza elitjengisa ukuzuza kokuphakelwa komsebenzi we-CGS. Ilwazi elimumethwe lapha likhambisana nokuphathwa kuhle kwehlangano, ukutlama, ukubhajeda, ukuhlonywa, ukutjheja nokuhlolwa kwemisebenzi. Amandla nemiphumela yezenzo zayo asekelwa mahlelo wokutlama, ukuphatha imikhiqizo begodu nemisebenzi ukuzuza imiphumela efiswako.

Ilwazi lomsebenzi owenziwako liqinisekisa ukuhlangana kwamandla nemiphumela emtlameni weqhinga (i-SP), ihlelo lemikhiqizo ekhambisana nalo, kanye neentjengiso zomkhiqizo nokunqotjhiweko emtlameni womsebenzi womnyaka (i-APP) kanye neminye imitlolo ekhambisana nebhajedi. Isigabesi siveza nalokho okuzuziweko okulinganiswa neentjengiso zomsebenzi kanye nalokho okunqotjhiweko okuvezwe ku-SP, ku-APP nemitolweni yebhajedi.

1 Umbiko womPhathiimali maZombe: Iminqopho equntwe ngaphambilini

Umphathiimali maZombe we-Sewula Afrika (i-AGSA) wenze ikambiso efaneleko yoku-oditha ngelwazi lomsebenzi we-CGS ukobana anikele isiqiniseko esifaneleko ngokwendlela yokuphetha i-odithi. Isiphetho se-odithi mayelana neminqopho equntw ngaphambilini embikweni oya esigungwini esiphetheko, ngalokho okufunyenweko

okubikiweko embikweni ngaphasi kwesihloko esithi imiNqopho yangaPhambilini esigabeni sombiko ka-oditha mayelana neziNye iinDingo zangokomThetho eziLawulako.

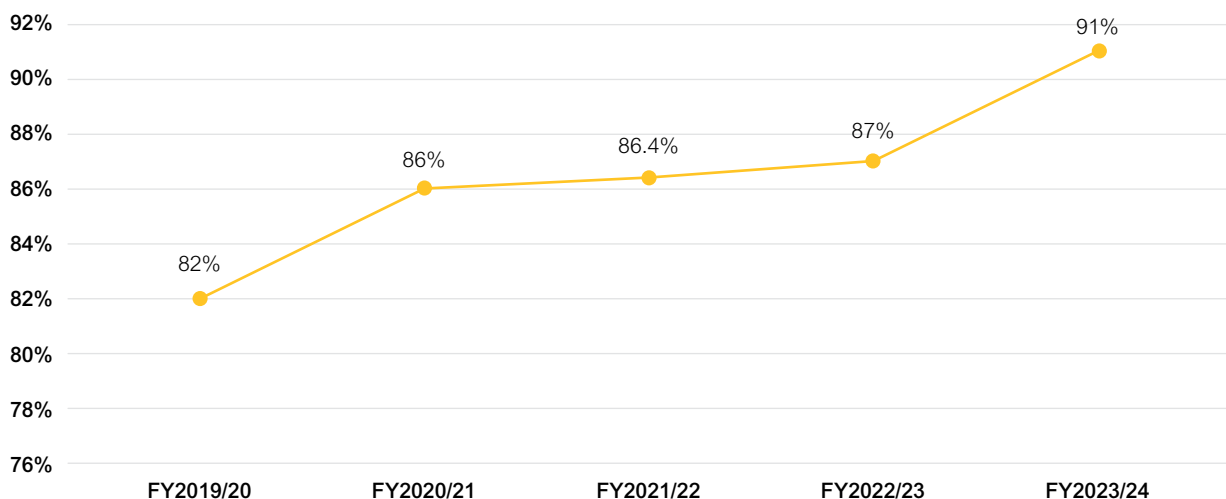
Umbiko kamPhathiimali maZombe, okhutjwe njengengcenywe F: Ilwazi leemali, lisemakhasini 104 ukuya ku 109.

2 Isirhunyezo somSebenzi owenziweko

2.1 Ibhoduluko lokuphakela umsebenzi

Umnyaka okubikwa ngawo utjengisa ukufika ekugcineni kwe-**MSTF** 2019-2024 begodu ijamaela godu umnyaka wekhomba wokuragela phambili nokuhlonywa kwesigaba sanje seHlelo eliHlanganisiweko i-Integrated and Multidisciplinary Geoscience Mapping Programme (IMMP) njengesisetjenziswa sokudlulisa ukuhlelwa ngobutjha kweqhinga le-CGS. I-IMMP inqopha ekuthatheni iinqunto zokuhloma igunya le-CGS elitlolwe emthethweni okhona we-the Geoscience Act (No. 100 of 1993) njengombana utjhugululiwe. Lokhu kufaka

hlangana ukubuthelela, ukonga, ukubutha nokudlulisa idatha ye-geoscience eseqophelweni eliphezulu, ilwazi nokwaziwako mayelana neSewula Afrika. I-IMMP yenziwa hlangana nemimongo emihlanu eqakathekileko, erheliswe lapha, neentjengisweni ezisebenzako (qala isiGaba B, isigaba 4). I-CGS yenze inengi lama-APP wayo anqotjhiweko kilomnyaka okubikwa ngawo, ngenani loke lesikoro sokusebenza samaphesende ama-**91%**, kulawulwe kuqedelelwa kwe-odithi yomnyaka eyenziwa yi-AGSA. Isithombe sesi-3 sirhunyeza umsebenzi woke owenziwe yi-CGS ukusukela ekuthomeni kwe-MTSF 2019-2024.



Isithombe 3: Umsebenzi woke owenziwe yihlangano soloko kwathoma i-MTSF 2019-2024

Ummongo woku-1: I-Geoscience mayelana nemiThombo yamaMinerali ne-Eneji

Umbuso weSewula Afrika umemezele umtamo wawo onamandla wokuzuzwa ubuncani bamaphesende ama-5% webhaxhaxhi yokuhlola ephasini mazembe engaba pheze mabhiliyoni ama-US\$10 qobe mnyaka eminyakeni emihlanu ukuya kwemithathu ezako. I-CGS ithabela ukuba phambili ekuhlaziyeni nekulungiseni ukucatjhezwa kwendawo, ngokungatjhungulukiko nekhwalithi yejiyoloji ephakamisa bona inarha ihlale yindawo ephenyako. Ukuzuzwa kweqhinga elifiswa yinarha lisekelwa kutholakala, ubukhulu, nekhwalithi yamasede wedatha aqakathekileko we-geoscience njengeny yeensekelo eziqakathekileko zokuphungula ingozi zemisebenzi yokuphenya. Ekunikeleni umphumela kilomzamo, i-CGS iragela phambili nokubuthelela begodu nokuhlaziya ibuthelelo lelwazi eliqakathekileko le-geoscientific elifunwa bahlanganyeli bayo ngokwamaHlelo athatha iminyaka eminengi we-Geoscience Technical Programme (i-GTP). Lokhu kusekelwa khudlwana ngokwengeza ukufakwa komsebenzi we-geoscience yeSewula Afrika ezingeni elihlanganiswe neendingo zokuphenya lokho okuhlanganyelweko. Ikanuko esathomako nenengi mayelana namaminerali aqakathekileko naneqhinga, ifuna ukuzuzwa ukuzibophelela kokunqotjhiweko, yenza iSewula Afrika indawo yokuhlanganyela ngokusisa engakhethwa. I-CGS iragela phambili nokunikela isekelo elibuthekhniko eliqakathekileko le-geoscientific kumanani amanengana wemizamo edoswa phambili yi-DMRE efana nokuhlonywa kweQhinga lokuButhelela Kanye neHlelo i-Mine and Environmental Water Management Programme (i-MEWWP).

Kusaragelwa phambili nokunyullwa ukunikela endaweni yeSewula Afrika enabileko ye-eneji ngaphasi kwendawo yomongo wemithombo yaminerali ne-eneji. I-CGS isanqophe ukutjheja ihlathululo yemahluko yamahlelo we-eneji yemvelo kanye nemihlobo yaminerali wesifunda anikela evikelweni le-eneji. Okuqakatheke khulu, liphenyo lekghonakalo ye-geothermal yeSewula Afrika engalungisa amaHlelo we-Eneji anePumelelo nangaVuselelwa enarheni esikhathini esincani nesikhathini eside, begodu nokuragela phambili kokutjheja amahluko waminerali afunekako mayelana namathekhnoloji wokubuthelela i-eneji ehlanzekileko kanye nomnotho wekhabhoni ephasi.

I-CGS, njenge-ejensi ehloko, isaragela phambili nokuba mnikazi owenza irhubhululo ngekhabhoni, ukusetjenziswa nokubekwa kwayo (i-CCUS). Umnqopho wokulinga i-CCUS njengeny yabandakanyeka kwezethekhnoloji ezakunikela ekuzuzweni iminikelo emihle equntiweko lokha ngakwelinye ihlangothi kubuyiswa iindlela ezijayelekileko zokubuthelelwa kwe-eneji. Ukubandakanywa kwerhubhululokhu kuqinisekisa ukuzibophelela kwenarha ku-eneji ehlanzekileko nokuphungula amatjhunguluko wetlayimethi. Iragelo phambili elingezwako ekuhlomeni ihlelo elitjhejiweko elithatha isikhathi eside lisaragela phambili nokunikela iinsekelo zobuthekhniko lezo ukukhula komnotho ofaka koke kusafuneka khulu begodu neendingo zevikeleko le-eneji yinarha lingazuzwa.

Ummongo wesi-2: I-Geoscience yezamaPhilo, amaNzi waphasi Kanye neBhoduluko

Ukubuthelelwa kwamaminerali nemisebenzi yokucaphaza seyithatha elinye inyawo, kugandelelwe khulu ubunikazi bezebhoduluko. Ukuhlangana phakathi kokuthuthuka kwemayini nokutlhogonyelwa kwezebhoduluko sekungomunye umnqopho ophambili walokho okunqotjhe yindawo yerhubhululo ku-CGS. Kilokhu, okubonakala kuyinto etjhayisanako kungokwenziwa lirhubhululo elifuna ukuhlanganisa okukhona, kulinganiswe ngerhubhululo lesayensi. Okhunye godu, ukuzwisisa imithombo yamanzi, kuhlekuhle soloko iSewula Afrika inganawo amanzi eemfundeni ezinengi, kuyindawo enyulwa lirhubhululo ngaphasi kwendawo yomongo lo. Idatha nelwazi elibuthelelwe kilomongo kwenzelwe ukwenza ngcono ukuzwisiswa kwamahlelo wamatjhe akhambisa amanzi ngaphasi eemfundeni nelawulo lawo ngokwejiyoloji, ukuyelelisa indlela yokusetjenziswa kwemithombo yamanzi wangaphasi ngepumelelo.

Ummongo wesi-3: I-Geoscience emayelana nomthangalasisekelo nokuSetjenziswa kweNdawo

I-CGS igunyazwe mthetho ukobana inikele isiyeleliso esiphrofetjhinale nesibuthekhniko naziza ekuthuthukisweni komthangalasisekelo, khulukhulu eendaweni ezingaphasi kwamatjhe. Igunya langezelelwa ngomThetho oTjhungululiweko we-Geoscience (oyiNomboro 16 wee-2010) ukufaka ukuhlolwa nokubuyekeza kokuthuthukiswa kwayo yoke imithangalasisekelo eendaweni ezibonakala zingalinyzwa ziingozi zejiyoloji. I-CGS iragele phambili nokukhulumisana nabahlanganyeli abaqakathekileko abalawula ukuthuthukiswa komthangalasisekelo ukuqedelela iindlela eziphrakthikhali ukusebenzisa i-geoscience ukwenza bona isetjenziswe enarheni nekuthuthukisweni komthangalasisekelo. Ukusetjenziswa kwe-geoscience evikelweni lomphakathi nekuziphenduleleni eenhlekeleleni kuhlala kuyinto enqotjhe khulu. Okutjhejekako, i-CGS isaragela phambili nokwenza umsebenzayo wokutjheja iThungelelwano i-National Seismic Network, eragela phambili nokuthola ukudengezela kwephasi kwemvelo nalokho okudalwa kumayina eSewula Afrika bese yenza irhubhululo ukukghona ukubona iingozi ze-geological emazingeni ahlukahlukeneko enarheni yokana.

Ummongo wesi-4: Ukuhlonywa ngobutjha kwe-Geoscience

I-CGS iragela phambili nokukhulisa amandla wokuhlonywa ngobutjha kwesayensi emikhakheni ehlukeneko nekusetjenzisweni kuma-geoscience. Ithekhnoloji yedrowuni yamukelwe ukusekela igunya le-CGS nokunikela indlela esebenza kuhle yokuphatha idatha ye-geoscience ukuzuzwa ihlangothi lePhasi lokukhwezelela iinsetjenziswa ezidzimelele ngaphasi. Ekuthomeni kwe-Fourth Industrial Revolution, i-CGS seyithomile ukwenza irhubhululo ekusetjenzisweni kwe-artificial intelligence

(i-AI) nokufunda ngomtjhini ku-geoscience ngokwakhiwa kweensetjenziswa ukulungisa, hlangana nokhunye, amahlelo ahlanguhlanguwamaminali wesifunda nokulungisa iintjhihilo zamanzi wangaphasi, kanye nokuhlanganiswa kwebuthelolelwazi elikhambelanako le-geoscience ekulu.

Ummongo wesi-5: Ikghono lokuphatha i-Geoscience

I-CGS yamukela begodu isebenzisa indimayo njengesetjenziswa esitheknikhali mayelana nekghonakalo okungasebenza komgomo wangaphandle we-Riphabliki yeSewula Afrika, ngokwamahlangothi we-geoscience. Ngaphasi komnyaka weemali, isigaba sesibili sesisombululo esiphezulu seHlelo lokuLungisa i-Geoscience lathoma eSwatini. Lokhu kufaka hlangana ukukhiqizwa kwamabuthelolelo ahlukahlukeneko ahlunganisweko we-geoscience ekusekeleni imizamo eqakathekileko yokuthuthukisa amaminali ne-eneji. Okhunye godu, iHlelo lokuphatha i-Geoscience nalo linikele isekelo elitheknikhali emizamani ehlukeneko yokuphatha eyenziwa eSouth Sudan, Namibia, Kingdom of Eswatini, Ivory Coast, and Niger, elinqophe ukuthola ezinye iindawo ezingezekileko okungazuzwa kizo nokusebenzisa amaqhinga we-CGS wokuhloma ngobutjha ukurhabisa ukuthuthuka kwe-geoscience kileziindawo. I-CGS ibambe iingcoco eziphenyako kanye nokuzibandakanya kanengana ne- Angola, the European Embassy, Embassy of Japan, Central African Republic, British Geological Survey, French Government, Russia, and the United States (US) Geological Survey, ezinqophe ukwenza ngcono ama-geosciences. I-CGS iragele phambili nokudlala indima yokuba ngunoBhala wasafuthi weHlangano i-Organisation of African Geological Surveys (i-OAGS), ethuthukisa ukuzwana hlangana kwamalunga wemibuso ye-Afrika ebujameni berhubhululo le-geoscience. Kwafinyelelwa esivumelwaneni esiqakathekileko lokh a i-OAGS nayingenela isivumelwano ne-African Union (i-AU), yayenza kwaba yihlangano etloliswe ngokusemthethweni ku-AU. i-OAGS ijamele iinkareko zeehlangano ze-African geological survey organisations begodu isebenzisana kuhle namaphenyo we-European Geological Surveys, hlangana namanye, ukuhlola isekelo le-Pan-African Support kuma-GeoSurveys – iHlangano i-Organisation of African Geological Surveys Partnership (i-PanAfGeo) ekwakheni amandla kiyo yoke inarhakazi yeKhonthinede ye-Afrika.

Ibhizinisi ye-CGS

Ekusebenziseni igunya layo, ukuhlanganyela hlangana ne-CGS nabanye abahlanganyeli abaqakathekileko kufaka hlangana, ngaphandle kokubandakanyeka kwaphela ku:

- Kumaqhinga wamaprojekthi weminye iminyango yomBuso/yeenhlangothi namabubulo womphakathi
- Amaprojekthi wekoro yangeqadi.

Njengombana kusitjho umthetho, i-CGS isaragela phambili nokuhloma amaprojekthi asemthethweni nemisebenzi evezwe kumThetho i-Geoscience Act (No. 100 of 1993)

njengombana utjhugululiwe. Lokhu kufaka, hlangana nokhunye, lokhu okulandelayo:

- Ithungelelwano i-National Seismic Network (elihlanganiswe namathungelelwano wephasi mazombe), atjheja imisebenzi ye- seismic endaweni yekhaya
- Ukutjheja umsebenzi wephasi loke wamagagasi womoya aphasi njengengcenywe yokuhlanganyela neHlangano i-Comprehensive Nuclear Test Ban Treaty Organisation
- Ikambiso yokukhetha i-National Borehole Core Depository, efakwe ikghono lokuskena amahayiphasphektirali nezindlu zamabhorhowulu ezingaba pheze makhilimitha ayi-850 kanye neminye imithombo eligugu yamamatheriyali wezinto zejijoloji
- Ikambiso yokukhetha i-National Geoscience Museum, enikela ngelwazi begodu ebulunga, izinto ezibusayensi eziligugu kanye namasampula aligugu wejijoloji
- Ibulungelo leencwadi i-The National Geoscientific Library kunye nesiTolo seencwadi, esinikela ngemikhiqizo yezinto zejijoloji namamebhe emphakathini
- Isetjenziswa i-The National Geoscience Analytical Facility, esikhona ukobana sihlaziye, hlangana nokhunye, amasampula wezinto zejijoloji, amasampula wamanzi namamatheriyali wamabubulo angakahlanzwa.

Ukubuyiselwa esigeni kwesiSetjenziswa se-National Geoscience Analytical Facility

Soloko kwahlonywa iphenyo i-Geological Survey (owabe apethe ngaphambilini ku-CGS) ngomnyaka wee-1912, iziko i-the Analytical Services Unit (“ilabhorathri”) idlale indima ekulu ekulemukeni igunya le-CGS. Ngomnyaka wee-2018, kwenzeka ilungelunge lezehlakalo ezingasi mmandi, kwakatelelwa ukobana ilabhorathri ivalwe ngesimanga sokucajelwa lisilaphazeko lomoya. Lokhu kwarhagaliswa kuqinteliswa kwamakhombo okwabangelwa yi-COVID-19 elizweni loke ngomnyaka wee-2020. Ukufakwa kwamahlelo womoya otjhisako, umoya ohlanzekileko nezinto ezenza umoya (i-HVAC) nakho kwathinta kumbi ukuthonywa phasi godu kwemisebenzi eyenziwako nemisebenzi ebe yenziwa yilabhorathri ngaphambilini. Ekugcineni, ezinye iingaba zelabhorathri sezivuliwe godu kodwana zinikela imisebenzi eyimbijana ngesimanga seendawo zokuhlala okwesikhatjhana kanye nobujamo bezebhoduluko.

Abaphathi be-CGS bavumele ukubuyiselwa esigeni kwemisebenzi yokuhlaziya, kuthonywe ngokuthuthukiswa kobungako kweeqhema ukubuyisela iabhorathri esigeni, okwaphunyeleliswa ngekota yesi-4 yomnyaka wee-2022/23. Ngaso sona lesi sikhathi, imisebenzi erhabekileko yelabhorathri beyibekwa. Kilomnyaka weemali, amaphesende ama-70% wobungako beenqhema besele asetjenziswa ngokuzeleko ekwenzeni amalungiselelo wokungafakwa kumazinga we-International Organization for Standardization (ISO). Ukuphelela kokusetjenziswa kobungako beenqhema kweyame ebujameni belabhorathriesebenza ngokuzeleko ngokobujamo bezebhoduluko. Lokhu kufaka ukwakha ngamalanga nokulungisa iinsetjenziswa, nokufakwa kwehlelo lokudosa, elivumela ukuvuselelwa kweLabhorathri yeKhemistri, hlangana nokhunye. Ilabhorathri izakufuna

ukobana ikhambisane khudlwana nehlelo lokuphatha ukukhwezelelwa kwekhwalthi njengengceny e qakathekileko yokwenziwa ngcono kwayo, nokuhloma ilawulo lekhwalithi neenkambiso zokuqinisekisa ikhwalthi ukutjengisa ukukhambisana neendingo zamva zeenkambiso zekhwalthi namazinga abekwe yi-ISO. Lokhu kuzakuqinisekisa bona ikhwalthi efaneleko yemisebenzi neenkambiso zenziwa ngefanelo mayelana nokukhiqiza nepumelelo elabhorethri esebenza kuhle.

Ukubuyiselwa esigeni kwelabhorethri kuyinto eqakatheke khulu mayelana nokuhlonywa kwe-GTP ekunikeleni imiphumela yehlaziyo elithembekileko kusesenesikhathi okuyinto eqakathekileko ekuthuthukiseni amadathabheyizi esayensi kanye nokuthuthukisa amaminerali. Okhunye godu, ukuhlonywa kobungako besiqhema selabhorethrinegunyazo le-ISO kunikela amathuba wokuragela phambili nokwenza imisebenzi ngelabhorethri, ukungezelela ukunikela kwayo ebheyizini yetlayendi enabileko. Ngaleyondlela, emalungiselelweni wokungezokhu, ilabhorethri ikhula ngokweqhinga lentengo ukukghonakalisa ituthuko le. Lokhu angeze kwasiza kwaphela ilabhorethri ukobana ithathe indawayo, kodwana okhunye godu kungezelela emniklweni we-CGS mayelana netuthuko yeSewula Afrika. Lokhu kufaka hlangana ukukhula komnotho, ukwakha imisebenzi, ukuphungula umthago nepilo ehle kibo boke abantu.

Ngemiphumela elindelweko emisebenzini yokuthuthukisa iphasi mazombe, njengombana iinarha ezinengi zifuna ukukhulisa umnothwazo nokwakha iimpilo ezingcono kizo zoke izakhamuzi ngokusebenzisa amahlelo womthombo wamaminerali, ilabhorethri ye-CGS ithuthuka ngendlela efaneleko ngokuqinisekisa bona zoke iindingo ezisebenzako zokusebenziswa kuhle kwelabhorethri efaneleko ziba khona. Kuhlekuhle, ilabhorethri izakuyelela umTlamo wokuSekela ukuTlanywa okuphumeleliswe yi-DMRE. Ukuqakatheka kwemisebenzi yokuhlaziya emsinya emmongweni eqakathekileko ehlukehlukeneko ku-CGS angeze kwabekwa ngendlela enamandla. Isidingweni sifaka hlangana ukusekela amahlelo welizwe loke we-eneji, wamanzi, nevikeleko lokudla begodu nokuthuthukisa umthangalasisekelo ngokwemizamo emitjha nemisebenzi eyenzelwe ihlaziyo lemisebenzi kubahlanganyeli abaqakathekileko. Umphumela wedatha nelwazi elibuya emisebenzini yelabhorethri iqakathekile kileyo datha yangaphambilini ye-geoscience, eyenzelwe ukwenza ngcono ukuzithemba kwabasisiimali begodu nokwenza iSewula Afrika indawo elulubezako eyabe ingiyo eminyakeni elitjhumu eyadlulako. Njengesikhathini sakade, ilabhorethri nanje isengaba msebenzi okhamba phambili enarhakazini eyiKhonthinedi ye-Afrika.

Ukuzuzwa kwamarigi wokudrila asebenza imisebenzi eminengi

Ngomnyaka wee-2021/22, i-CGS yafumana imvumo yokuthoma ukuthuthukisa amarigi amabili wokudrila enza imisebenzi eminengi 'athathwa njengepahla eqakathekileko' ngokutjho kwe-PFMA. Ukuthengwa kwamarigi wokudrila

la enzelwe ukusiza ukuhlonywa kwe-GTD nokuthuthukisa idatha ye-geoscience mayelana nokuthi isetjenziswe ekubumbeni kwamatje namaminerali, amanzi wangaphasi, nokulinganisa umthombo. Nakuthoma umnyaka wee-2022/23, abaphakeli bomsebenzi abakhethiweko, nomkhiqizi wamambala wesisetjenziswa (i-OEM) samarigi amabili wokudrila enza imisebenzi eminengi bathoma ukwakhiwa kwamarigi. I-Ejensi i-Small Enterprise Finance Agency yabe ikhamba phambili ekunikeleni isekelo leemali kubaphakeli bemisebenzi ukobana kuthonywe ngephrojekthi.

I-OEM yaba nokuliyeka okunengana ekuhlanganiseni nokulungisa imitjhapho kumarigi adrilwako, ngesimanga salokho amarigi wokudrila akhange asetjenziswe njengombana bekufisiwe. I-CGS, i-OEM nabaphakeli bemisebenzi (Gqozi Group Investment and Mission Point Investment Holdings) zaba nesivumelwano esimahlangothi mathathu njengengceny yomtamo wokubuyisa esigeni ukuzuza iminqopho ehlosiweko. Ngesimanga sokubhalelwa kwe-OEM ukuhlanganisa nokwethula amarigi wamadriili asebenzako ngomhlaka-30 kuMgwengweni (June), nangomhlaka-31 kuVelabahlinze (July) ngokulandelana, njengombana kuveziwe esivumelwaneni esimahlangithi mathathu, i-CGS seyihlome iinkambiso zokulungisa msinya eHlangothini lakwaZulu-Natal leKhotho ePhakemeko ukobana kulungiswe ngokusemthethweni iindabezi begodu kurhatjiswe ukuphakelwa kwemisebenzi.

Ngenyanga kaNobayeni (December) ngomnyaka wee-2023, iJaji elinguMengameli wePhiko lakwaZulu-Natal wavumelana nesibawo sokobana kube nelanga elinyulwako lokulalelwa begodu nokuhlanganiswa kwazo zombili iindaba ukobana zilalelwe ngelanga elilodwa. Isibawesi sanikelwa begodu zombili iindaba zendlalwa ukobana zilalelwe ngomhlaka-20 kuNtaka (March) ngomnyaka wee-2024.

Mayelana nendaba yerigi yedrili yesibili (i-Phuzu leMitjhini), iKhotho yalayela i-Geosonic ukobana ithumele irigi ephelileko esebenzako ku-CGM kungakapheli amalanga alikhomba wekhotho. Isiqunto esithethwe yikhotho sitjho bonyana ukuphika kwe-Geosonic ukobana beyingakakatelelwa ukobana ilethe irigi yePhuzu leMitjhini bekufikele lapha ibhadalwa khona ibhalansi eyitleyimileko, akhange ikhotho ikwamukele lokho.

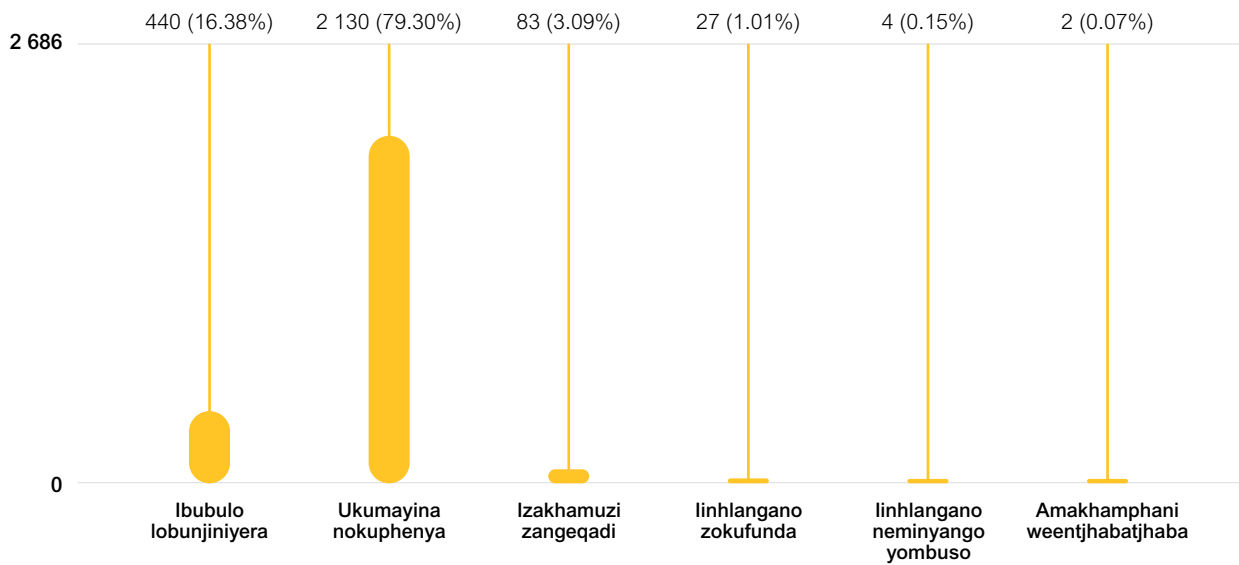
Mayelana nendaba yokuthoma yerigi yokudrila, i-Geosonic ilwele bona ngemuva kokufakwa kwesibawo, isebenze kuhle ngokupheleleko ngokweembopho zayo lokha nayyethula iinsetjenziswa eziseleko. I-CGS iphenduliile yatjho bona irigi yedrili nanje ayisebenzi. Ngokweempendulwezi, ikhotho yathola bona kusesenesinghonyoyilo esiliqiniso ekusafanele silungiswe kuhle begodu yabawa bona indaba le itshwiliiselwe elinye ilanga ukunikela zoke iinqhema ithuba lokobana ziyokukhwezelela ama-afidavidazo. Kulindelwe bona indaba le izalelwe ngekota yoku-1 yomnyaka weemali wee-2024/25. Okwanje, i-CGS ithome ngeenkambiso zokuhlala ukobana ukudrila kwenziwe yiphaneli yabadrilako, ekufanele ikhethwe ngaphambi kwekota yoku-1 ukungezelela imisebenzi yokudrila ye-GTP.

2.2 Ibhoduluko lehlango

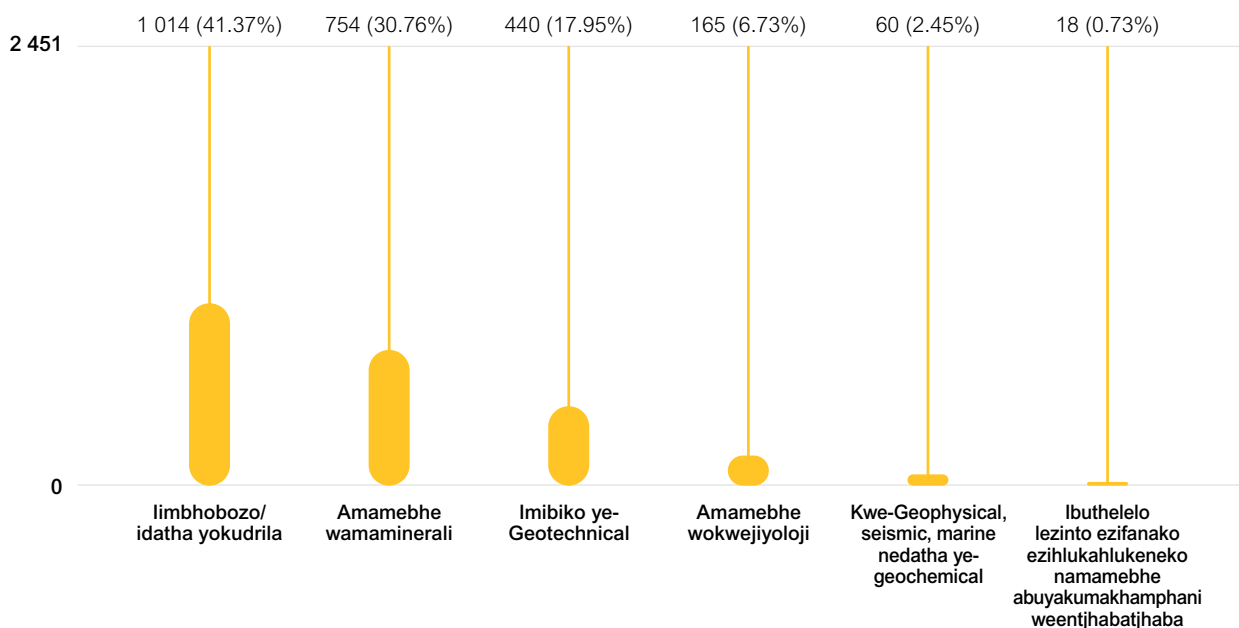
Ngesikhathi somnyaka wokuhlola zeemali, i-CGS beyineenkhalo ezintathu zabaphathi besigungu esiphezulu, kwathi zimbili zazo zazaliswa. Kokuthoma, kuphothifoliyo yemiSebenzi ye-Geoscience, esikhundleneso kwathathwa umuntu wengubo, kwathi sesibili, kuphothifoliyo yokuThuthukisa iBhizinisi le-Geoscience eHlanganisiweko, kwathathwa umuntu wembaji.

Njengomnikazi wedatha yakho koke nedatha ye-geoscience yangaphandle kwenarha kunye nelwazi eSewula Afrika, i-CGS iragela phambili nokusabalalisa idatha ye-geoscience

nelwazi kubahlanganyeli namatlayendi nge-Ofisayo yelwazi lomPhakathi. Ilwazi le-geoscience nedatha kwasatjalaliswa ku-data@geoscience.org.za and info@geoscience.org. zakwathunyelwa kubahlanganyeli abahlukahlukeneko, kufakwe hlangana nezakhamuzi zangeqadi, ibubulo lokumayina nokuphenya, ibubulo lobunjiniyera, iihlangano zokufunda, ezinye iihlangano nakweminye iminyango yomBuso, begodu nakumakhamphani weentjhabatjhaba. (Qala isithombe sesi-4). Ledatha ye-geoscience nelwazi ifaka hlangana iimbhobozi/idatha yokudrila; amamebhe wamaminerali, amamebhe walokho kwejiyoloji kweenlinganiso ezihlukahlukene, amamebhe walokho kwe-geochemical, idatha e-seismic namarine (Isithombe sesi-5).

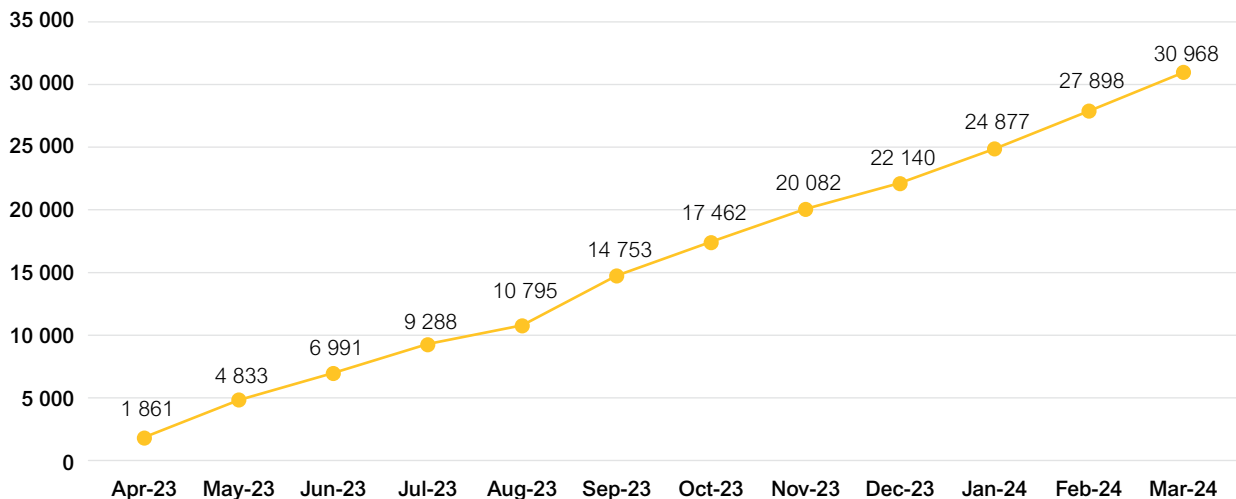


Isithombe 4: Inani leembawo ku-info@geoscience.org.za ne- data@geoscience.org.za qobe libubulo ngomnyaka wee-2023/24



Isithombe 5: Iimbawo zemikhakha yedtha nelwazi zomnyaka wee-2023/24

Idatha ye-geoscience nelwazi lephothali, elahlonywa ngomnyaka wee-2021/22, isaragela phambili nokunikela idatha ye-geoscience namarekhodi welwazi akhutjwe yi-CGS ngokwendlela yamamebhe, imitlolo namadathabheyizi. Ilwazeli lingatholwa bahlanganyeli namatlayendi ephasini mazombe. Amadawunlowudu angaphezu kwama-30 000 (Isithombe sesi-6) atlolwa phasi ngesikhathi sokuhlolwa kweemali kwaba neembawo zamamebhe wejiyoloji, amabhulethini, ihlathululo yamamebhe, imikhiqizo/imibiko namafayili wejamo lezinto zejiyoloji.



Isithombe 6: Amadawunilowudu wedatha ngokwephothali ephethe idatha ye-geoscience ngenyanga kaSihlabantanga (April) 2023–kuNtaka 2024

2.3 Ukuqakatheka kokuthuthuka komgomo namatjhuguluko womthetho

Akhange kube namatjhuguluko womgomo aqakathekileko emThethweni we-Geoscience Amendment Act (No. 16 of 2010) soloko wathomako ngomhlaka-1 kuVelabahlinze 2012. Ngenyanga ka-Ntaka 2022, ukusetjenziswa komThetho i-Geoscience Act Regulations kwaba liqiniso, ngokusebenza kwendima edlalwa yi-CGS njengomnikazi wedatha nelwazi le-geoscience ngaphandle kwenarha. Imithetjhwana i-The Geoscience Act Regulations yabe ilandelwa yikambiso ephelileko yokubandakanya abahlanganyeli. Ngomhlaka-22 kuMhlojana (February) 2024, i-DMRE yagazeda umThetho i-Geoscience Act Regulations ukobana umphakathi uveze wabo amaziso. Umthetho i-Geoscience Act Regulations ogazediweko uphakamisa bona kususwe imithetjhwana elandelako:

- UmThetjhwana wesi-4 oqalene nokufakwa kwedatha nelwazi le-geoscience lakade
- UmThetjhwana wesi- 5 oqalene nokuhlelwa kwedatha nelwazi le-geoscience elifakiweko kungaba ngokwefihlo namkha lenziwe idatha engasiyo ifihlo
- UmThetjhwana we-7 oqalene nokuthunyelwa kwedatha nelwazi le-geoscience lisiwe kubahlanganyeli.

I-CGS yenze isitatimende esinamandla nalokho ekuthumele ku-DMRE.

Ngomnyaka weemali wee-2023/24, i-DMRE yabuyisa ikambiso yokutjhugulula umThetho i-Mineral and Petroleum Resources Development Act (i-MPRDA). I-CGS yakhonjelwa ukobana izibandakanye kilekambiso, ibe phezulu ekukthumeleni imibiko etloliweko nabajameli ababuya ku-CGS kwathunyelwa ku-DMRE. Imibono yahlongoza bona amatjhuguluko enziwe ku-MPRDA lapha kwabonwa kunokubuyelela umzamo okhambisana nokubuthelelwa kwedatha kanye nelwazi le-geoscience.

Okhanye godu i-CGS ithumele okhanye yanikela ngamahlangothi wesayensi aqakathekileko ukusekela umTlamo womThombo oHlanganisiweko wee-2023 njengomgomo obamba i-eneji yenarha. Iimphakamiswezi zatjengisa ukuqakatheka zamathekhnoloji angeneleleko wokungasasebenzisi ikhabhoni ukuphungula amandla wokutjhuguluka kwetlayimethi ngokusekela indlela yokuthuthukisa ukuphungulwa kwekhambhoni ibe phasi begodu nokuhlangabezana nemibandela yokupungula equntwe elizweni loke. Ukungezelela kilokho, amandla asathomako wokwenza i-eneji evuselelwako ngokwendlela yemithombo ye-eneji ye-geothermal yavezwa kuhle. Ukuzenzela i-eneji yenyutla, njengenye yeendlela ethuthukiswako ethatha isikhathi eside, kwasekelwa ngesimanga sokuqakatheka kwemithombo yesibaseli senyutla yemvelo, begodu nelwazi elithekhnikhali ekuthuthukisweni kwe-eneji yenyutla yeqhinga eliqakathekileko elibunjwe yiSewula Afrika kiyo yoke iminyaka.

2.4 Iragelo phambili mayelana nokuzuzwa kwamandla wehlangano kanye nemiphumela

Amandla wesitatimende se-CGS asuselwa kusitatimende sombonwayo: “Umphakathi onepumelelo notjhugulukileko osizwa ziinsombululo ze-geoscience”. Iqhinga elamukelweko le-CGS (i-IMMP) lisekela ipumelolelo yehlangano nalokha kunokutjhuguluka kwemibono, umnotho ongakaninzi begodu nendawo yethekholoji eyenziwa ngcono. Iqhingeli lenzelwe ukuqinisekisa amandla wokwenziwa kwegunya eliqakathekileko nokunikela

iinsombululo ezitja ze-geoscience ukusekela i-NDP 2030 neminye imitlamo yombuso elungisa ukukhula komnotho, umthhago, ukungalingani, ukwakha imisebenzi, zefundo, amanzi ahlanzekileko, i-eneji ethengekako nehlanzekileko, begodu nemiphakathi ephephileko eSewula Afrika. Isithombe se-7 sitjengisa indlela enamandla yeqhinga le-CGS, imiphumelayo neendawo ezinamandla.

Ithebula loku-1 itjengisa iragelo phambili elenziwe yi-hlangano naziza ekuzuzweni kwalokho okunqotjhe ngiyo eminyakeni emihlanu ngokungafaniko neentjengiso zomphumela we-SP yayo yomnyaka wee-2020–2025.



Isithombe 7: Iqhinga eliqalwako nendlela yamandla we-CGS

Ithebula loku-1: Iragelo phambili elenziwe yi-CGS ekuphetheni i-SP enqotjhe ngomnyaka wee-2020–2025

Imiphumela	Iintengiso zomphumela	Okusisekelo	Okunqotjhe eminyakeni emihlanu	Iragelo phambili naziza ekuzuzeni okunqotjhe eminyakeni emihlanu
Okunyulwa yi-MTSF	Okunyulwako kwesi- 1: Umbuso onekghono, osebenza kuhle nosathuthukako			
Ukuphatha umthombo weemali ngendlela efaneleko nenepumelelo	Ukungabikhona kwemitjhapho etholakele ku-odithi	0	I-odithi enganayo imitjhapho nakufika umnyaka wee-2025	I-CGS ithole umphumela we-odithi ehlanzekileko enganazo neemphoso (okutjho bona i-odithi ehlanzekileko) mayelana nomnyaka wee-2022/23. I-odithi yomnyaka wee-2023/24 isesesendleleni. Ukuphathwa kuhle kwmahlelo wokuphatha ngaphakathi kusaragela phambili nokusekelwa ukobana kutholwe ama-odithi ahlanzekileko.
Ukukhambisana neenkambiso zombuso/nemithetjhwana	Isinghonghoyilo sehlangano esinemithetho efaneleko	Isitjengiso esitjha	Ihlangano ekhambisana nomthetho ngokwamaphesende ali-100% ngomnyaka wee- 2025	Amarhelo wokuhlola amahlanu akhambisana nomthetho sekaphelile enziwe ngokukhambisana nomThetjhwana i-Regulatory Universe ye-CGS. I-CGS isaragela phambili nokuhlala ikhambisana nomthetho ngokwamaphesende ali-100% ne-PFMA begodu nomThetho wobuDlelwano babaSebenzi i-Labour Relations Act. Inani loke lezehlakalo ezili-16 zokungakhambisani nomthetho zibonakele ngesikhathi sokuhlolwa komThetho oThuthukisa ukuThola ilwazi i-Promotion of Access to Information Act (i-PAIA), umThetho wobuJamo besisekelo somSebenzi i-the Basic Conditions of Employment Act (BCEA) kanye nomThetho wamaPhuzu weLizwe loke aQakathekileko i-the National Key Points Act 102 of 1980 (njengombana utjhugululwe mThetho oQakathekileko womThangalasisisekelo). Abaphathi be-CGS bazimisele ukulungisa iindabezi begodu kunemitlamo yokwenza esele ihleliwe begodu izakunande ihlolwa qobe yinyanga bekufikele lapha ilungiswa khona.
Okunyulwa yi-MTSF	Okunyulwako kwesi-3: Zefundo, amakghono nepilo			
Amakghono nelwazi labantu abafunekako	Iphahla lokuphatha isiPhiwo sokwakha, ukulungisa nokuthuthukisa	Isitjengiso esitjha	Abasebenzi abanikelwe amandla, abatjhugulukileko, abanomdlandla nabahlonyiswe ngamakghono ngomnyaka we-2025	Iphahla lokuphatha isiPhiwo sokwakha lithuthukisiwe begodu njenganje seliyatjhejwa ukobana liphunyelelwe begodu lisebenze.

Imiphumela	lintengiso zomphumela	Okusisekelo	Okunqotjwe eminyakeni emihlanu	Iragelo phambili naziza ekuzuzeni okunqotjwe eminyakeni emihlanu
Okunyulwa yi-MTSF	Okunyulwako kwesi-2: Ukutjhugulula umsebenzi nokwakha imisebenzi Okunyulwako kwesi-5: Ukuhlanganisa isikhala, ukuhlaliswa kwabanyu nombuso wendawo Okunyulwako kwesi-6: Ukubumbana komphakathi nemiphakathi ephephileko			
limbawo ezithuthukisiweko zelwazi le-geoscience nelwazi lokuvikela ubuncani bezabelo ezimaphesende ama-5% wokuhlola iindleko ephasini mazombe	Ukungezelela ukukhavarwa kwemebhe ye-geoscience yenarha yangaphakathi	Isitjengiso esitjha	16%	Ukuragela phambili nokusebenza kwe-geoscience kubonakale kunokungezeka kokukhavarwa kwalokho kwenarha yangaphakathi ukusukela ngaphasi kwamaphesende ama-5% ngaphambi kokuthoma kwe-IMMP ukuya kumaphesende ali-16. Bekube kunamhlanjisi, ama-307 wenani loke lamamebhe wokukala ali-1 916 1:50 000 sekakhiqiziwe.
	Ukungezelela ukukhavarwa kwemebhe ye-geoscience yenarha yangaphandle	Isitjengiso esitjha	0,6%	Iragelo phambili lokwakha ama-geoscience wangaphandle nokukhiqizwa kwamanye godu amamebhe wangaphandle kungezelelwe kumamebhe amabili wangaphandle ebekakhiqizwe eminyakeni egadungileko, kwenze inani loke lokukhavarwa libe maphesende ama-0.3% wenani loke lamamebhe atlanyisiwe ayi-1 828.
	Ukuhlonywa kwe-GTP mayelana namaminerali, i-eneji. amanzi wangaphasi, umthangalasisekelo, ukusetjenziswa kwendawo kanye nebhoduluko	Isitjengiso esitjha	Ukusetjenziswa kwelwazi le-geoscience naziza ekuthuthukiseni umphakathi	I-CGS yaragela phambili nokusebenzisa begodu nokuzuzwa ilwazi le-geoscience kilawo madathabheyizi akhona nalawo abuthelelweko narhumutjhe ku-IMMP ukunikela kumatshwayo wamaminerali ne-eneji ekulindelwe bona adose amaphesende ama-5% wokuhlola iindleko zephasi mazombe eSewula Afrika eminyakeni emithathu ukuya kwemihlanu ezako. Imiphumela eqakathekileko yobungako obungezwe ku-geoscienc belikhiqiziwe ukobana linikele ekuthuthukisweni kwamaminerali ne-eneji, amanzi wangaphasi nokuthuthukisa umthangalasisekelo, begodu nokusetjenziswa kwenarha ngendlela ephephileko nesemthethweni.
Ilemuko elenziwe ngcono lebhrendi ye-CGS, imisebenzi nemikhiqizo	Ukuthintana okuHlanganyelweko neQhinga leTjhebiswano lomHlanganyeli elihloniweko	Isitjengiso esitjha	Abahlanganyeli banelisekile ngezinga lemisebenzi nemikhiqizo ye-CGS	Isisomali elenziwe yi-CGS naziza ekwenzen ngcono ilwazi, ilemuko nokuqedelelwa kwebhrendi yayo nakho sekunomkhanyo. Ekukhambeni kwesikhathi, i-CGS ibe nelemuko lekareko ekhulako nokukhavarwa umsebenzayo eenkundleni ezihlukahlukeneko zemirhatjho. Okhanye godu, iJima le-CCUS neHlelo lokuSekela lenze bona ihlangano ikghone ukubonana newoma labahlanganyeli ababuya eendaweni ezihlukeneko zenarha. Okhanye godu, ukuba khona nokuthintana msinya ngokudengezela kwephasi kubonakalise ukuba khona kwazo begodu nokuqakatheka komphakathi. Ngokwehlelo layo elinamandla lokuBandakanya abahlanganyeli. i-CGS ikghonile kumnyama kubovu ukwenza lokho okufunwa yi-GTP yayo nokuhloma amatjhebiswano anepumelelo nabahlanganyeli abaqakathekileko. Ngesikhathi somnyaka wokubuyeka, kukhutjwe ama-athikili weendaba ama-64, lokha ngakwelinye ihlangothi ibhrendi ye-CGS yaphrofayilwa kumatjhaneli ahluahlukeneko wokuthintana afana nemikhangiso, amabhibhodi, iinkundla zokuthintana, amaphodkhasti wemirhatjho nabomabonakude. Ukungezelela, izinga lokwaneliseka kwabahlanganyeli libe ngcono ngamaphesende ama-83% – ukuya phezulu ukusuka kuma-79.4% arekodwe emnyakeni weemali ogadungileko.

Imiphumela	lintengiso zomphumela	Okusisekelo	Okunqotjhwe eminyakeni emihlanu	Iragelo phambili naziza ekuzuzeni okunqotjhwe eminyakeni emihlanu
Indawo ye-geoscientific eyenziwe ngcono ngokuphatha ilwazi ngepumelelo	Ukusetjenziswa kwehlelo lokuphatha ilwazi i-geoscience ehlanganisiwe-ko	Isitjengiso esitjha	Idatha ye-geoscience ephethwe ngepumelelo kanye nelwazi ngomnyaka wee-2025	<p>I-CGS iragela phambili nokudijithayiza idatha yeminyaka eminengi, ukususa, namahlelo woku-oditha wamaphesende ama-50% azuziweko mayelana nokuthuthukisa ihlelo lelwazi le-geoscience ehlanganisiweko.</p> <p>Bekube nje, i-CGS seyizuze amaphesende ali-105% (ngokungafaniko namaphesende ali-100% anqotjhwe emnyakeni wesibili) ekuhlolweni kwabasunguli bedatha bomnyaka wesibili).</p> <p>Ifuduko ledijithali (ledatha ekhona ye-geoscience) seyidlule okunqotjhiweko ngakubuyelelwe kabili (ngokungafaniko nokunqotjhiweko kwe-100%) ngokuskena okungeneleleko kwamamebhe angeziweko we-geoscience.</p> <p>UmThetho i-Geoscience Act Regulations Portal waphethwa, begodu umhlangano wokuwethula wabanjwa ngenyanga kaNtaka 2024. Iphothali njenganje iyaphila begodu isebenza ngokupheleleko.</p>
Okunyulwa yi-MTSF	Okunyulwako kwesi-7: I-Afrika engcono kanye nephasi			
Ukwenza ngcono amakhono we-geoscience	Kuhlonywe amatjhebiswano weqhinga leentjhabatjhaba	Isitjengiso esitjha	Ukunikela kwe-geoscience naziza "ku-Afrika engcono kanye nephasi" okuqinise ngomnyaka we-2025.	<p>I-CGS iqinise iHlelo lokuSekela ngokuqinisa amatjhebiswano nabalingani beentjhabatjhaba ngesikhathi se-MTSF. Ngesikhathi somnyaka weemali, i-CGS itlikitle imemorandumu yesivumelwano ne-Instituto Geológico de Angola (i-IGEO). Iqhingeli letjhebiswano lifuna ukusekela itjhebiswano lesifunda mayelana nerhubhululo ekwenzeni i-African Agenda 2063 nomgomo wesifunda ohlanganisiweko wenarha.</p>

* I-odithi ehlanzekileko ihlathululwe njengombono oqinisekisiweko ongamiphumela ezinganamitjhapho. Umbono oqinisekisiweko uyanikelwa lapha imiphumela beyibonwa kodwana bekulungiswa ngesikhathi se-odithi.

Ukuzuza umphumela wokuphatha imithombo yeemali efaneleko nenepumelelo nokuzuzwa kwe-odithi ehlanzekileko ngokwe-SP2020–2025, i-CGS izakuragela phambili nokuthuthukisa begodu nokutjheja amahlelo atjhatjhalazi, ifake amahlelo wokulawula ngaphakathi nokuphatha iingozi ezingahle zibe khona. I-CGS izakuragela phambili nokusebenza ngamandla ukobana ithole ama-odithi ahlanzekileko. Iintatimende zeemali zizakuragela phambili nokulungiswa kuhle nokukhambisana ne-GRAP kanye neendingo ze-PFMA. Iindlela zokulawula sezihloniwe ukuqinisekisa ukuphathwa kuhle kwepahla, irevenyu, iindleko ezimali engenako nephumako kanye neenkolodo. Umsebenzi wehlelo lokuphatha ipahla elihloniweko lizakuqinisekisa ukulandelwa kuhle kwamahlelo wokwenza imisebenzi namahlelo wokuthumela ipahla ngendlela efaneleko, elinganako, etjhatjhalazi, enephaliswano nengabizi khulu. Ngokwemisebenzi yoku-oditha ngaphakathi nemisebenzi yokuphatha ingozi, i-CGS itjheja ukusebenza kuhle kwamahlelo wangaphakathi, ukuhlola ukuphathwa kweemali ngaphakathi nokulungisa okungakhambi kuhle kwezemali okufana nobukhwananisi, ukweba, iindleko ezingakhambi kuhle, begodu neemali ezingakasetjenziswa kuhle.

Ukukhambisana neenkambiso zombuso, nemithetjhwana neminye imithetho eqakathekileko ekwenzeni i-CGS ikghone ukunikela ekuzuzweni kokuNuylwako koku-1 ku-MSTF, ukuzuza nokutjhejwa “kombuso onekghono, osebenza kuhle nosathuthukako.” Ukuzuza izinga elifaneleko lokusebenza, i-CGS inqophe ukwenza ngcono nokuthuthukisa khudlwana ukukhula kokuphatha ngendlela efaneleko ngokubeka imigomo efaneleko neenkambiso ukobana zibe khona ukobana izuze lokho ekunqophileko ekutheni ihlangano isebenze kuhle ngomnyaka wee-2025. I-CGS isebenza ebhodulukweni elihlangahlanganeko, elihlukeneko nelingeneleleko nemithetjhwana elawulako yephasi mazombe, begodu kufanele ikhambisane nemithetho eminenzana. Ukukhambisana nomthetho kuzakuzuzwa ngendlela ehlelekileko ukuqinisekisa ukufakwa ngokuzeleko ngaphakathi kwemisebenzayo.

Iphaliswano elihle le-CGS lihlala lisekghonweni labasebenzi bayo. Ukudoda, ukubamba, ukubandakanya nokuthuthukisa isiphiwo namkha ikghono elifaneleko, i-CGS ithuthukise ipahla lokuphatha isiphiwo elihlanganiswe neqhinga layo, ebelitjhejwa ukobana libunyelwe begodu lisetjenziswe.

Iqhinga le-IMMP ukunikela emTlameni woKwakha ngobutjha nokuBuyisela esigeni umNotho weSewula Afrika (i-ERRP) ngokuvikela ubuncani bamaphesende ama-5% weendleko zokuhlola iphasi maombe ngendlela yokusetjenziswa kwelwazi le-geoscience. Ekusetjenzisweni kwe-GTP yayo, iqhinga eliqakathekileko lesisetjenziswa se-CGS, ihlangano ifuna ukuvula ikghono lemithombo yamaminerali ne-eneji nokobana inikele ekutheni kuzuzwe itjhuguluko lokuya emnothweni wekhabhoni ephasi. Umnqopho oqakathekileko we-CGS, mkhiziqo oragela phambili wesilinganiso se-1:50 000 ngaphakathi nangaphandle kwamamebhe we-geoscience, okukulapho kuphehlwa khona ilwazi eliqakathekileko. Umzamo lo unqophe

ukuvumbulula amakghono womnotho wamaminerali weSewula Afrika. Imiphumela eqakathekileko yesisekelo se-geoscience okhanye godu iyazuza begodu isilinganiso sokusekela ukuphepha nokuthuthukisa umthombo womthangalasisekelo oyipumelelo, ukusetjenziswa kwendawo ngokusemthethweni nokuba banikazi bezebhoduluko. Nakuthoma ithekhnoloji ye-Fourth Industrial Revolution, amathekhnoloji asathomako afana nokufunda ngomtjhini namaqhinga we-AL ayasetjenziswa ukuphehla ilwazi le-geoscientific. Ngesikhathi somnyaka wokubuyekeza, amamebhe wangaphandle **ama-77 amatjha1:50 000-isilinganiso** samamebhe wangaphakathi we-geoscience akhiqizwa, kwagcina sekangezeke ngamaphesende ali-**16%** kukhavareji yokusekela ilizwe loke. Inzuzo le itjengisa ukusebenza ngcono khulu ukusuka ngaphasi kwamaphesende ama-5% ngaphambi kokuthoma kwe-IMMP. Imiphumela esetjenziswako engezelela ukunikela kumaminerali, ku-eneji, emanzini wangaphasi, ukuthuthuka komthangalasisekelo nokusetjenziswa kwendawo, nakho kwakhiqizwa. Kuhlekuhle, i-CGS yenza irhubhululo lezejiyoloji kanye namatshwayo webheyizin ePhrovinsini yeMpumalanga, yazuza isehlakalo esiqakathekileko mayelana nekutholeni isilinganiso sokuzuza umsebenzi we-CCUS, olindelwe bona wenze umnikelo omkhulu ekutjhugulukeni komnotho ube yikhabhoni ephasi eSewula Afrika. Iragelo phambili elitjhejwako libekwe esisekelweni nesisekelweni sesimbi esifaneleko, khulukhulu naziza ekusekeleni nokutjengisa lokho okubizwa ‘ngamaminerali wesikhathi esizako’ kiyo yoke iPhrovinsi ye-Northern Cape. I-CGS yeke seyenza iragelo phambili naziza ekuvikeleni amaphesende ama-5% wokuhlola iindleko zephasi mazombe.

Ukwenza ngcono ilemuko lebhrendi ye-CGS, imisebenzi nemikhiziqo, ukuThintana okuHlanganisiweko neQhinga leTjhebiswano labaHlanganyelikwahlonywa ngomnyaka wokubuyekizwa kweemali. I-CGS ihlome iqhinga ngamandla begodu selithome ukuvuna amarhubhelo wokwakha ilemuko elingeziweko, okuphetha ngokuthi iphrofayili yayo yomphakathi ikhule. Ihlangano iragela phambili nokutjhejwa ukukhula kwebhrendi yayo ngokwendlela yeensetjenziswa ezifana namaphenyo wabahlanganyeli.

Njengomnikazi elizweni loke wayo yoke idatha ye-geoscience, ukuhlonywa komThetho i-Geoscience Act Regulations kweyame ekuqinikiseni ilwazi elaneleko nelipheleleko kanye nomthangalasisekelo weThekhnoloji yokuThintana (i-ICT). Ngaleyondlela, i-CGS ithuthukise iphothali edijithali eengabeni ezihlukahlukene mayelana nokuthunyelwa kwedatha ye-geoscience kanye nelwazi ukukhonakalisa ukukhambisana nemiThetjhwana ye-Geoscience. I-CGS yenze godu elinye iragelo phambili kusiGaba soku-1 sephrojekthi ngokunikelwa kwamahlelo wokufakwa kwedatha ebonakalako ye-geoscience nelwazi elingazaliswa begodu lihlolwe kwenye nenye indawo bese lithunyelwa eendaweni ezifaneleko zamacabazi we-CGS. Ngalokhu amakhamphani wokuhlola ahlukahlukene, amakhamphani wokumayina namaziko wezefundo apethe idatha yanje neyakade abambisene ne-CGS ngokuveza idatha ye-geoscience enjalo

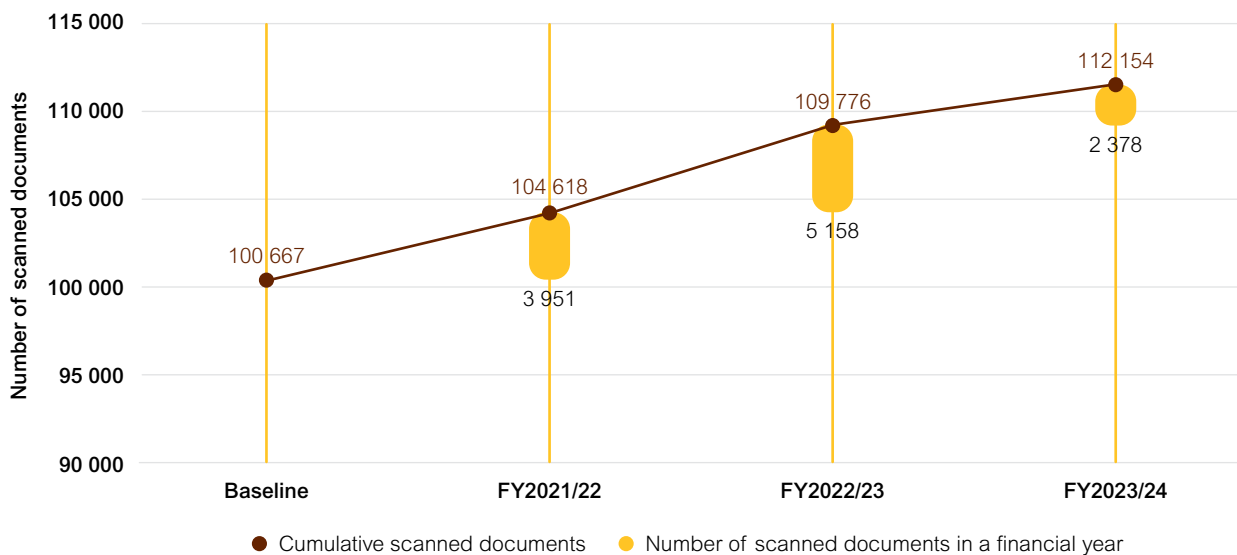
bese ngemuva kwalapho kwahlelwa ukobana idatha ekhona lapho naleyo edijithali zibuthelelwe bese zisiwa ku-CGS.

Kilomnyaka wokubuyekwezwa kweemali, i-CGS iphumelele ekuqedeni isiGaba sesi-2 sephrojekthi, edijithayiza neyenza kukghoneke ukuqinisekisa ngaphakathi nokuhlola ilwazi nedatha efakiweko ye-geoscience. Lokhu kwenziwa ukuqinisekisa bona i-CGS ingakghona ukuhlangabezana neembopho zayo zomthetho ngokunikela iinkundla zejithali mayelana nokuthunyelwa kwedatha nelwazi le-geoscience. Iphothali edijithali nayo izakuqinisekisa ukukhambisana nomthetho ngamazinga ahlukene wokuba buntumba nesithunzi ngokwedatha nelwazi le-geoscientific elifakiweko (imibiko, iimbhobozi ezibonakalako, idatha ehlaza, njll.).

Iphrojekthi yeminyaka eminengi yefuduko ledijithali ehlanganisiweko ukutjhugulula i-analogu yomlando wedatha ye-geoscience, kufakwe hlangana imikhiqizo, imibiko, ama-seismogremu, namamebhe ngokwendlela yedijithali ngokuwaskena, lokhu kube neragelo phambili

elihle khulu. Bekube nje, imitlo eli-112 154 (Isithombe sobu-8) hiskenwe ngepumelelo.

I-CGS inqophe ukwenza ngcono ukuhlonywa kokuHlolwa kwendawo yomongo we-Geoscience ekusekeleni umgomo welizwe loke wangaphandle ukusekela ukuhlolwa komnotho namahlelo wokusekela mayelana nokunikela kweSewula Afrika ekwakheni **iSewula Afrika engcono kunye nephasi**, elikhambisana nemiNqopho yee-2030 enePumelelo ekuThuthukiseni i-United Nations ne-Agenda 2063 ye-African Union. Amahlelo wegeoscience anqopha ezintweni ezithuthukisa abantu, ukutjhugulula iinhlango ubudosiphambili/bokuphatha nokulawula, ukuthuthukisa amakghono nokuhlonywa kwamahlelo okuvunyelwe ngawo. Ngesikhathi somnyaka weemali, i-CGS itlikittle imemorandamu yesivumelwano ne-Instituto Geológico de Angola (i-IGEO). Iqhingeli lokubambisana lifuna kubanjisanwe ekusekeleni okunyulwako elizweni loke, ukurhubhulula, begodu nesiyeleliso se-geoscientific kunye netuthuko.



Isithombe 8: Iqhinga eliqalwako nendlela yamandla we-CGS

3 IHlelo lalokho kweehlangano lelwAzi lomSebenzi

Ngokukhambisana neqhinga le-CGS, indlela yekarada lesikoro elidzimeleleko liyasetjenziswa ukuziphendulela emsebenzini woke wehlangano. Ikarada lesikoro elidzimeleleko kuhlekuhle limeda umsebenzi we-CGS ezingeni lebhizinisi nezingeni lomuntu ngamunye. Amahlelo wamaqhinga amahlanu afaka amakhastama we-CGS (abahlanganyeli); ikambiso yangaphakathi yebhizinisi (amahlelo anepumelelo); ukufunda nokukhula (abantu abasezingeni eliphezulu ephasini); namahlangothi wokukhula kweemali (Isithombe se-9). Amahlelo la aziphendulela emiphumeleni elikhomba yehlangano, njemngombana ivezwe ma-SP we-CGS wee-2020–2025 begodu ayakhambisana nokunyulwa yi-MTSF yomBuso.

Amahlelo wamaqhinga okhunye godu alungisa iindawo ezithinta abomma, itja nabantu abaphila nokukhubazeka.

Ilwazi lokusebenza kwe-CGS lifaka yoke iminingwana yebhoduluko lokuphakela umsebenzi, imikhakha enabileko yokuphakela imisebenzi, namatlayendi kanye nabahlanganyeli abenzelwa imisebenzi. Ukuhlola umsebenzi webhizinisi we-CGS, ihlangano ibumbe namkha yakhe iintjengiso zomsebenzi okuthi, zona nokunqotjhw emsebenzini wee-2023/24, zihunyezwe kuThebula lesi-2 linzuzo zalokho okunqotjhiweko mayelana neentjengiso zomkhiqizo mayela anelinye nelinye ihlelo leqhinga mayelana nomnyaka weemali obuyekezako nazo zihlelwe kuhle kuThebula lesi-2.



Isithombe 9: Isirhunyezo samahlelo namalinki kilokho okunyulwa kuqala yi-MTSF 2019–2024 nekarada lesikoro sebhizinisi

3.1 Umbiko wokuSebenza kweBhizinisi ngomnyaka wee-2023/24

Ithebula lesi-2: Umbiko wokuSebenza kweBhizinisi ongakhambisani ne-APP yomnyaka wee-2023/2024 eyethuliweko

Ihlangothi lezomNotho/lokuKhula kweeMali

Ihlelo loku-1: Ukusebenza kuhle kweeMali

Umqopho: Ukuqinisekisa ipumelelo nokuthunyelwa kuhle kwemisebenzi yokuphatha zeemali; ukuthola imali emisebenzini ehloliweko nehlanganyelweko kanye namatjhebiswano kanye nokunzenzela imali zesondlo

Imiphumela yehlangano yeHlelo loku-1: Ukuphatha umthombo weemali ngendlela efaneleko nenepumelelo

Imiphumela	Umkhqizo	Isifjengiso somkhqizo	Umsebenzi wamabala o-odithiweko wee-2021/22	Umsebenzi wamabala o-odithiweko wee-2022/23	Iminqopho etlanyelwe umNyaka wee-2023/24	Kwama-mbala okuzuzwe ngomnyaka wee-2023/24	Ukupha-mbuka eminqo-pheni etlanyelwe-ko ukuya kokuzuzwe ngomnyaka-ka wee-2023/24	linzathu zokuphambuka
Ukuphatha umthombo weemali ngendlela efaneleko nenepumelelo	Imibiko yeemali ezi-odithiweko	1. Amaphesende weendleko zokusebenza enanini loke leendleko	54.90%	60.67%	66%	52.09%	Akukho*	Okunqotjiweko okuzuziweko.
	Imibiko yeemali ezi-odithiweko	2. Amaphesende weendleko zabasebenzi enanini loke leendleko	57.18%	52.41%	70%	44.82%	Akukho*	Okunqotjiweko okuzuziweko.
	Imibiko yeemali ezi-odithiweko	3. Irevenyu ebuya emisebenzini ehlanganyelweko/kumatjhebiswano	R107.9m	R132.6m	R130.2m	R253.7m	+R123.5m	Okunqotjiweko okudlulileko. Kwagandelelwa khulu amaphrojekthi wamathwebo ukuqinisekisa bona i-CGS ihlangabezana nalokho okunqotjiweko, khulukhulu naziza emaphrojekthini we-Eskom kanye nawe-CCUS.
	Imibiko yeemali ezi-odithiweko	4. Irevenyu yegranti	R464.3m	R420.3m	R559.4m	R580.3m	+R20.9m	Okunqotjiweko okudlulileko. Igranti esisekelo etholiweko ngokukhambisana netjhejuli esukela phasi kanye nemali engakarhabhi ukungena kweminye iminyaka yangaphambili ekhona kilomnyaka.

* Akukho: Okunqotjiweko bekutlanyelwe bekuyindawo kunokobana kube sithombe (Umsebenzi ofiswako eminqopheni ehlelileko: Umsebenzi olinganako namkha ongaphasana komthelo obekiweko).

Amahlelo anepumelelo iHlangothi (leHlangano)

Ihlelo lesi-2: Ukusebenza kuhle nepumelelo yehlangano

Umnqopho: Ukuthuthukisa nokusebenzisa imigomo ekhambisana nomthetho, iinkambisolawulo neenkambiso zebhizinisi ngokusekela isithombe semisebenzi yokuphakela imisebenzi ehlanganeko ye-CGS; ukulandela iinkambiso ezifaneleko zokuzuzwa umbuso onepumelelo; ukunikela nokusebenzisa iinsombululo ezijugutijugulukako, ezinabako nezivikela imiphumela ye-ICT

Imiphumela yehlangano yeHlelo lesi-2: ukuphatha umthombo weemali ngendlela efaneleko nenepumelelo nekhambisana neenkambiso zombuso/nemithethwana.

Imiphumela	Umkhiqizo	Isifjengiso somkhiqizo	Umsebenzi wamabala o-odithiweko wee-2021/22	Umsebenzi wamabala o-odithiweko wee-2022/23	Iminqopho etlanyelwe umNyaka wee-2023/24	Kwama-mbala okuzuzwe ngomnya-ka wee-2023/24	Ukupa-mbuka eminqo-pheni etlanyelwe kokuzuzwe ngomnya-ka wee-2023/24	Iinzathu zokuphambuka
Ukuphatha umthombo weemali ngendlela efaneleko nenepumelelo nekhambisana neenkambiso zombuso/nemithethwana.	Umbiko womnyaka o-odithiweko	5. Inani lama-odithi angakaphumeleli	0	0	0	0	0	Okunqotjihiweko okuzuziweko.
	Umbiko womnyaka o-odithiweko	6. Amaphesende wenani loke lemali esetjenziswe emisebenzini nekuthengeni ipahla kumabhizinisi amancani, aphakathi namakhulu (ama-QSE nama-EME) ngokutjho komThetho i-Preferential Procurement Policy Framework Act PPPFA of 2017	42.48%	49%	40%	53%	+13%	Okunqotjihiweko okudlulileko. Umsebenzi lo ulindele ukutjheja nokunqophla ekuthengeni kumabhizinisi aphezulu (ama-EME) namanye amabhizinisi amancani (ama-QSE) agunyaziweko.
	Umbiko otholalako	7. Ukutholalaka kwemisebenzi yebhizinisi eqakathekileko	99.89%	99.62%	99%	100%	+1%	Okunqotjihiweko okudlulileko. ngesimanga sesekelo eliyipumelelo nokukhandela ukulungisa imisebenzi ye-ICT.

Ihlangothhi labaNtu abaPhezulu ePhasini mazombe

Ihlelo lesi-3: Abasebenzi abanikelwe amandla, abatjhugulukileko, abanomdlandla nabahlonyiswe ngamakghono

Umqopho: Ukudosa nokubamba abasebenzi abanekghono lesayensi ebubulweni le-geoscience; ukwakha ikghono ngokwe-geoscience; amakghono wokuphatha/wokulawula lokha nakusathuthukiswa imikhqizo emijha, amahlelo nemisebenzi; nokuthukisa nokusisa ekujhugululeni imithombo ebabantu nokuhlukana

Imiphumela yehlangano yeHlelo lesi-3: Amakghono nelwazi labantu abafunekako

Imiphumela	Umkhiziso	Isifjengiso somkhiziso	Umsebenzi wamabala o-odithiweko wee-2021/22	Umsebenzi wamabala o-odithiweko wee-2022/23	Iminqopho etlanyelwe umNyaka wee-2023/24	Kwama-mbala okuzuzwe ngomnya-ka wee-2023/24	Ukupa-imbuka eminqo-pheni etlanyelwe-ko ukuya kokuzuzwe ngomnya-ka wee-2023/24	Iinzathu zokuphambuka
Amakghono nelwazi labantu abafunekako	Imibiko yomThombo wabaNtu	8. Amaphesende wabasebenzi abanesayensi eziqini zabo ze-Masters namkha ze-Doctoral	41.22%	48.51%	42%	56%	+14%	Okunqotjiweko okudluliweko ngesimanga sokuragela phambili kokusisa kwabaPhathi be-CGS emizameni yokufunda nokuthukisa.
	Imibiko yomThombo wabaNtu	9. Amaphesende weendleko zokubandula esambeni semali yoke yomrholo	2.33%	1.93%	1%	2%	+1%	Okunqotjiweko okudluliweko ngesimanga sokuragela phambili kokusisa kwabaPhathi be-CGS emizameni yokufunda nokuthukisa.
	Imibiko yomThombo wabaNtu	10. Inani labasebenzi abatjhiya phasi	4.99%	7.89%	10%	10%	Not applicable*	Okunqotjiweko okungakazuzwa ngesimanga sabasebenzi abaphumako ehlanganweni (okujho bona ngokujhiya phasi, ukuthatha umhlalaphasi, ukuphela kwekontraga, ukuhlongakala namkha ukuqothwa) ngesikhathi somnyaka wokubuyekeza.
	Imibiko yomThombo wabaNtu	11. Amaphesende wabasebenzi abaphila nokukhubazeka	1.86%	1.84%	1.8%	1.7%	-0.1%	Okunqotjiweko okungakazuzwa ngesimanga sokuphuma kwabasebenzi ababili abaphila nokukhubazeka ngesikhathi okubikwa ngaso, okubangele bona kwehle ukujameleka kilesisiqhema.
	Imibiko yomThombo wabaNtu	12. limbalobalo ze-EE, isiqhema esinesayensi (Ukujameleka kwabantu bengubo)	39%	42.57%	43%	49%	+6%	Okunqotjiweko okudluliweko ngesimanga sokuzibophelela kwabaPhathi be-CGS eHlelweni i-Gender Diversification Programme.

Imiphumela	Umkhiqizo	Isifjengiso somkhiqizo	Umsebenzi wamabala o-odithiweko wee-2021/22	Umsebenzi wamabala o-odithiweko wee-2022/23	Iminqopho etlanyeiwe umNyaka wee-2023/24	Kwama-mbala okuzuzwe ngomnya-ka wee-2023/24	Ukupha-imbuka eminqopheni etlanyeiwe-ko ukuya kokuzuzwe ngomnya-ka wee-2023/24	Iinzathu zokuphambuka
Amakghono nelwazi labantu abafunekako (Ukuragela phambili)	Imibiko yomThombo wabaNtu	13. Iimbalo ze-EE Stats, abaphathi abafPhezulu (Ukujameleka kwabantu bengubo)	New measure	41.18%	50%	50%	0	Okunqotjiweko okuzuziweko.
	Imibiko yomThombo wabaNtu	14. Iimbalo ze-EE, abaphathi abafPhezulu* (Ukujameleka kwabantu bengubo)	20%	50%	50%	60%	+10%	Okunqotjiweko okudlulileko ngesimanga sokuzibophelela kokuhlukana ngobulii emsebenzini.

* Akukho: Okunqotjiweko bekutlanyisiwe bekuwindawo kunokobana kube sithombe (Umsebenzi ofiswako eminqopheni ehleleko: Ukuzuza imali engaphasi kwaleyo enqotjiweko).

Imakethe ihlangothi (IomHlanganyeli/leKhastama)

Ihlelo lesi-4: Igunya lokwethula

Umnqopho: Kusebenzisa ihlelo eliHlanganisiweko nelinemiKhakha amanengi wamaMebhe we-Geoscience

Imiphumela yeHlangano yehlelo lesi-4: Ukuthuthukisa ukusejenziswa kweIwazi nalokho okwaziwako ku-geoscience; nokuvikela ubuncani bamaphesende ama-5% wezabelo zeendleko zokuphenya ephasini mazombe begodu nokuthuthukiswa ikghono le-geoscience

Imiphumela	Umkhqiqizo	Isifjengiso somkhqiqizo	Umsebenzi wamambala o-odithiweko wee-2021/22	Umsebenzi wamambala o-odithiweko wee-2022/23	Iminqopho etlanyelwe umNyaka wee-2023/24	Kwama-mbala okuzuzwe ngomnya-ka wee-2023/24	Ukupha-mbuka eminqo-pheni etlanyelwe-ko ukuya kokuzuzwe ngomnya-ka wee-2023/24	Iinzathu zokuphambuka
Iimbawo ezithuthukisiweko zeliwazi le-geoscience nelwazi lokuvikela ubuncani bezabelo ezimaphesende ama-5% wokuhlola iindleko ephasini mazombe nokuKhuthaza isekelo le-geoscience	Amamebhe we-geoscience wenarha yangaphakathi	15. Ukukhavarwa kwamebhe ye-geoscience yenarha yangaphandle	10.7%	12%	16%	16%	0	Okunqatjhiweko okuzuziweko.
	Amamebhe we-geoscience wangaphandle	16. Ukukhavarwa kwamebhe ye-geoscience yenarha yangaphandle	0.05%	0.11%	0.3%	0.3%	0	Okunqatjhiweko okuzuziweko.
	Imiphumela ye-geoscience enomthelo efana nemibiko ehlanganisiweko, iinthombe zama-3D, iinsombululo ezitja, amahlelo wamaminerali neenthombe zokubeka	17. Imiphumela ye-geoscience esetjenziselwa amaminerali ne-eneji	4	7	9	10	+1	Okunqatjhiweko okudlulileko. Ukuzokhu kungesimanga sokusetjenziswa kweHlelo lokuPhenya ukusekela iqhinga lokuphenya eSewula Afrika nomtiam wayo wokusebenza.
Imiphumela ye-geoscience enomthelo efana nemibiko ehlanganisiweko, iinthombe zama-3D, iinsombululo ezitja	18. Imiphumela ye-geoscience esetjenziselwa umthangalasisekelo, ukusejenziselwa indawo, zamaphilo, amanzi wangaphasi nebhoduluko	7	6	11	11	0	Okunqatjhiweko okuzuziweko.	

Imakethe ihlangothi (IomHlanganyeli/leKhasama)

Ihlelo lesi-5: Ukuyeleisa, ukubandakanya abahlanganyeli nokuphatha ilwazi

Umnqopho: Kukwenza ngcono ijhebiswano labahlanganyeli ngokusebenzisana neentlangano ezineqhingana elikhambelana nelabo, ikoro yangeqadi nomphakathi wokana

Imiphumela yeHlangano yomphumela wesi-5: Ilemuko elenziwe ngcono lebhrendi ye-CGS, imisebenzi nemikhqizo kanye nendawo ye-geoscience eyenziwe ngcono ngokweendlela zokuphatha ilwazi ngepumelelo

Imiphumela	Umkhqiizo	Isitjengiso somkhqiizo	Umsebenzi wamabala o-odithiweko wee-2021/22	Umsebenzi wamabala o-odithiweko wee-2022/23	Iminqopho etlanyelwe umNyaka wee-2023/24	Kwama-mbala okuzuzwe ngomnya-ka wee-2023/24	Ukupha-imbuka eminqo-pheni etlanyelwe-ko ukuya kokuzuzwe ngomnya-ka wee-2023/24	Iinzathu zokuphambuka
Ilemuko elenziwe ngcono lebhrendi ye-CGS, imisebenzi nemikhqiizo	Ama-athikili weemBikiindaba	19. Inani lama-athikili akhqiizwe eenkundleni zeembikiindaba	24	48	32	64	+32	Okunqotjihiweko okudlulileko. Ukusebenzokhu kungesimanga sokuhlonywa ngamandla kweQhinga eliHlangeneko lokuThintana neTjhebiswano lomHlanganyeli ukuphrofayila ibhrendi ye-CGS ngendlela efaneleko emphakathini.
	Umbiko wephenyo lomhlanganyeli	20. Izinga lokwaneliseka komhlanganyeli	66.4%	79.4%	70%	83%	+13%	Okunqotjihiweko okudlulileko. Lokhu kumphumela wokunqophha nekwenzi ngcono ukubandakanyeka komhlanganyeli.
	Ama-athikili abuyekezwe basebenzisani akhqiizwe kumajenali wesayensi, izahluko zencwadi namavolumu a-edithiweko	21. Inani lama-athikili akhqiizweko abuyekezwe basebenzisani	30	40	34	34	0	Okunqotjihiweko okuzuziweko.
Indawo ye-geoscientific eyenziwe ngcono ngokuphatha ilwazi ngepumelelo	Iimbonelo: amabhayografi, amabhulethini, iincwadi nama-atlasi	22. Inani lemikhqiizo ye-CGS	8	12	10	10	0	Okunqotjihiweko okuzuziweko.
	Iimbonelo: iinfunyozorhubhululo, iinfunyozorhubhululo ezingeziweko namaphepha wekhonferensi namakhinothi, njll.	23. Inani lamaphepha akhqiizweko eenkambisweni zekhonferensi	32	126	40	41	+1	Okunqotjihiweko okudlulileko. ngesimanga sokuzibandakanya kuKholokhiyamu yee-2023 mayelana ne-African Geology (i-CAG'29).

Ithebula yesi-3: Umsebenzi ohlanganiswe nebhajedi

Ihlelo/umsebenzi/umnqopho	2023/24			2022/23		
	Ibhajedi R'000	Iindleko zamamba-la R'000	Iindleko (ezingaPhasi)/ ezingaPhezulu R'000	Ibhajedi R'000	Iindleko zamamba-la R'000	Iindleko (ezingaPhasi)/ ezingaPhezulu R'000
Ihlelo loku-1: Ukusebenza kuhle kweeMali	59 138	51 735	7 403	65 013	73 566	(8 553)
Ihlelo lesi-2: Ukusebenza kuhle nepumelelo yehlangano	92 856	81 231	11 625	102 080	115 510	(13 430)
Ihlelo lesi-3: Abasebenzi abanikelwe amandla, abatjhugulukileko, abanomdlandla nabahloniyiswe ngamakghono	13 242	11 584	1 658	14 557	16 473	(1 916)
Ihlelo lesi-4: Igunya lokwethula	679 688	652 200	27 488	386 418	437 256	(50 838)
Ihlelo lesi-5: Ukyelelisa, ukubandakanya abahlanganyeli nokuphatha ilwazi	14 217	12 438	1 779	15 631	17 687	(2 056)
Inani loke	859 141	809 188	49 953	583 699	660 492	(76 793)

Iqhinga lokwenza ngcono iindawo okungakasetjenzwa kuhle kizo

Amaqinga wokwenza ngcono iindawo okungakasetjenzwa kuhle kizo afaka hlanguka:

- I-CGS iragela phambili nokuzibeka endaweni yomqatjhi okhethwako ngokunikela ibhoduluko elihlelokusebenza; ukwamukela ipumelelo, ukuveza tshatshalazi amaqhinga wephrojekthi nokuzwana kuhle kwabasebenzi. Lapha kutholakala khona bona abasebenzi batjhiya phasi ku-CGS, abaphathi bayazibophezela ekutheni bazakwenza ngcono batjhugulule iinkhathi ekambisweni yokuthola abasebenzi abatjha ukubalekela imisebenzi eminengi.
- I-CGS izakuragela phambili namajima wokulemukisa abantu ngokuba nokukhubazeka anqophe ukukhuthaza abasebenzi ukobana baveze enye nanye indlela yokuba nokukhubazeka kwabo. Izakunqophisa kilabo bantu abanokukhubazeka neenkambiso zabo zokuthola abantu lapha kukhona khona begodu baragele phambili nokwamukela kuhle abasebenzi abaphila nokukhubazeka.

4 Imisebenzi eyEnziwako

4.1 Ihlelo elitheknikhali le-Geoscience

Indlela ehlanganisiweko nefaka imikhakha eminengi ye-CGS imgodlha weHlelo eliTheknikhali le-Geoscience (i-GTP) begodu lihlose ukunikela kilemimongo yeendawo ezilandelako: Amaminerali namkha izenjiwa ne-Eneji; zamaPhilo, amaNzi angaphasi neBhoduluko; umthangalasisekelo nokuSetjenziswa kweNdawo; nokuHloma ngobutjha neKghono le-Geoscience. I-IMMP njenganje isetjenziswa ngokwe-GTP begodu ifaka hlangana ibuthelelo lamandla amakhulu werhubhululo le-geoscience namaphrojekthi wamamebhe. Kilomnyaka wokubuyekeza iimali, i-GTP ifake amaphrojekthi wezomthetho kanye newamabubulo. Okukhambé phambili epumelelweni ye-GTP ngomnyaka wee-2023/24 kucocwa ngakho eengabeni ezilandelako.

4.1.1 I-Geoscience mayelana nemiThombo yamaphrojekthi wamaMinerali ne-Eneji

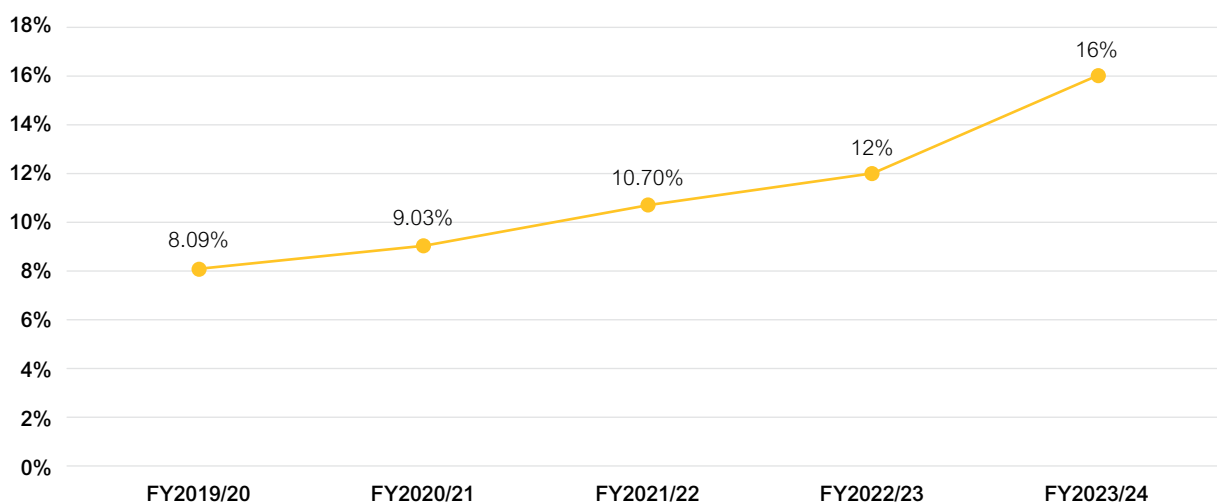
Ngomnyaka weemali wee-2023/24, kwaba neminikelo eqakathekileko eyenziwako mayelana nokulangazelela ukuthuthukisa amaminerali ne-eneji eSewula Afrika. Lokhu kufaka hlangana:

- Ukungezelela ukufakwa kwamamebhe we-geoscience wenarha yangaphakathi eSewula Afrika ayi-1:50 000

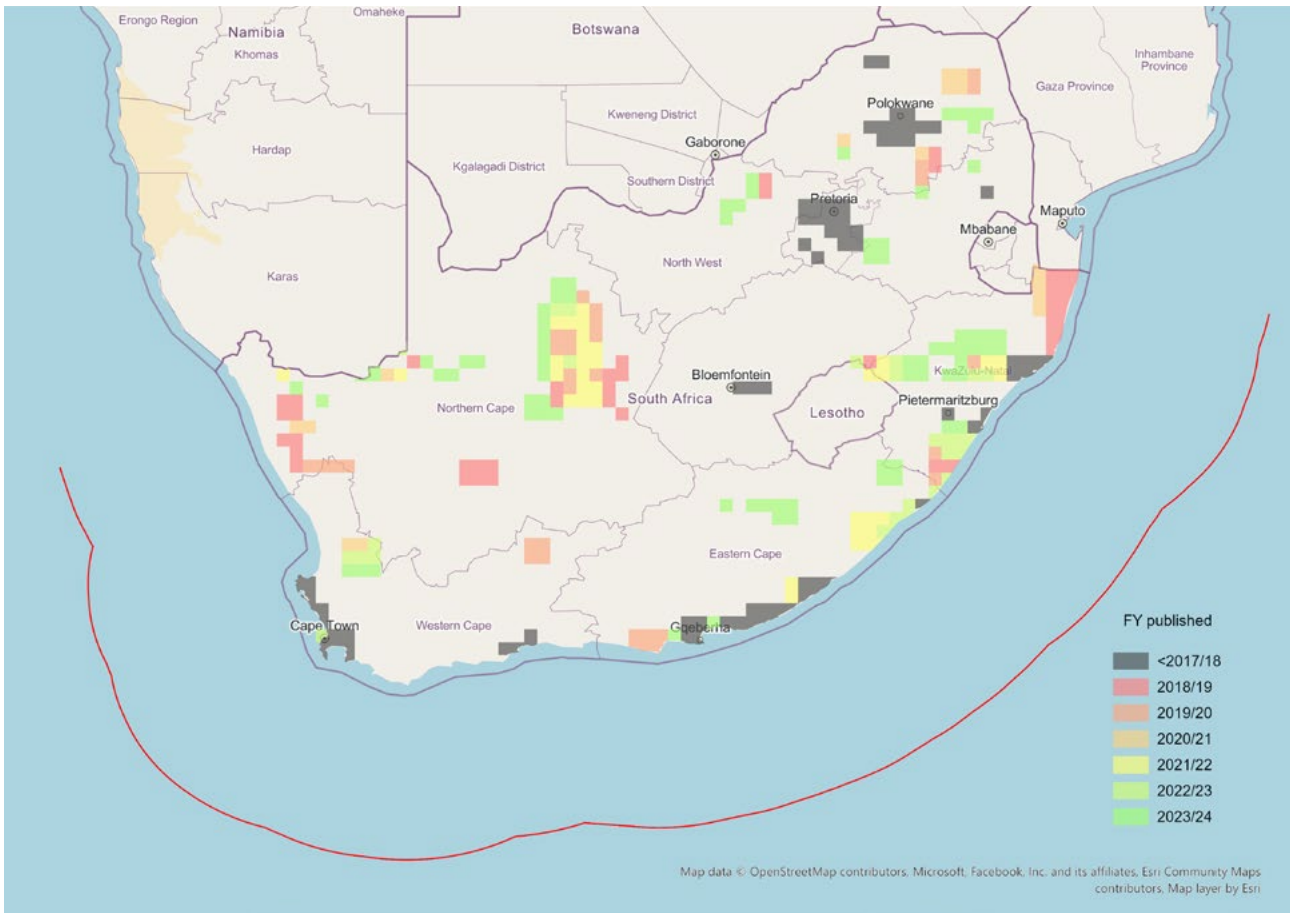
- Ukubuthelelwa kwedatha yenarha yangaphandle engezelelweko engophe ukurhabisa ukufakwa kwesilinganiso esiyi-1:50 000 eSewula Afrika.
- Ukukhiqizwa kwemiphumela eli-10 yamaminerali ne-eneji enomthelo kuqalwe khudlwana isisekelo seensimbi ePhrovinsini yeLimpopo, ikghono le-geothermal energy potential nerhubhululo le-CCUS.

4.1.1.1 IHlelo lamaMebhe we-Geoscience wenarha yangaPhakathi

Ihlelo lamaMebhe we-Geoscience wenarha yangaPhakathi abe neragelo phambili elihle ekungezeni ukuba khona kwe-geoscience yenarha yangaphakathi eSewula Afrika. Ukuba khona kungezeke kwafika kumaphesende ali-16% (linthombe 10 ne-11) kizo zoke iimfunda ezinamamebhe. Ukungezekokhu kutjengisa ukuzibophelela okwenziwako ukunikela idatha yejijoloji ephelileko mayelana neSewula Afrika. Ihlelo liphethe ngokubuthelelwa kwamahlelo aqakathekileko we-geoscience asebenza njengesisekelo somthelo womphumela we-geoscience ekusekeleni lokho okuqakathekileko okuthuthukiswako elizwenoi loke kanye neminqopho yeqhinga le-CGS. Ihlelo likghone ukuba nemikhiqizo eqakathekileko yemiphumela yamaminerali ne-eneji eengcenyeni ezihlukeneko zenarha, kufakwe hlangana amaPhovinsi waKwaZulu-Natal, i-Northern Cape neLimpopo.



Isithombe 10: Amaphesende wamebhe ye-geoscience wenarha yangaphakathi ku-MTSF 2019–2024



Isithombe 11: Iragelo phambili ngokufakwa kwamamebhe welizwe loke wenarha yangaphakathi nakuyokuphela umnyaka weemali wee-FY2023/24

4.1.1.2 IHlelo lamaMebhe we-Geoscience wenarha yangaPhandle

Ihlelo lamaMebhe we-Geoscience wenarha yangaPhandle linqophe ukubuthelela ukuzwisiswa kule kwe-geoscience yeSewula Afrika yesifunda sangaphandle naziza ekuvumbululeni ikghono elipheleleko lomnotho ohlaza sasibhakabhaka wenarha. Izowunu yomnotho (i-EEZ) ekhethekileko wenarha yangaphandle eSewula Afrika ifaka indawo eqakathekileko esoloko ingakaphenywa. Ngalokho-ke, ukufakwa kwamamebhe ngokungeneleleko kuyafuneka ukutjengisa iindawo zeenarha zangaphandle bese kutjengisa iindingo zomtlamo wokuthuthuka. Nakuqalwa umhlobo omkhulu ongakaphenywa weemfunda zeenarha zangaphandle, ukwenza iinyulo ngobutjha emizameni yamamebhe we-geoscience esilinganisweni esifaneleko kuyasekela ekutheni kutholwe umbono wejyoloji yesifunda, ngaphambi kokuzusa ilwazi lesisombululo esiphezulu se-geoscientific. Okhanye godu, ukufakwa ngokupheleleko kweendawo zenarha yangaphandle eSewula Afrika – kufakwe hlangana iihlengele nama-EEZ – wenarha atjhejwa ngokupheleleko emizameni yamamebhe njengendlela eyenziwe ngcono yesikhathi

esizako, ngokungafaniko nendlela yanje enqophe eemfundeni ezimagega nendlela ye-Sewula Afrika nama-EEZ wayo. Nakuqalwako, ukungezeka kokufakwa kwamebhe kuyangezelelwa ukobana kufake hlangana iindawo zeenarha zangaphandle eSewula Afrika.

Imizamo yamamebhe we-geoscience wangaphandle bekube nje anqophe ekuzuzeni idatha enomphumela ophezulu edude neemfunda zangaphandle zifake amabhimu enza imisebenzi eminengi wetjhada, itjhada eliphasi amaqhinga wokwenza imebhe phasi elwandle. Idatha etholakeleko iyakhanjiswa kusetjenziswe amakhawudu enziwe ngcono nama-algorithms, khulukhulu mayelana nerhubhululo phasi elwandle. Ngomnyaka wee-2023/24, ukufakwa kwenarha yangaphandle kwenyuka kwayokufika kumaphesende ama-0.3% (ukusukela ku-0.11% eminyakeni egadungileko). Lokhu kwagcina ngokuthi kukhinqizwe amamebhe we-geoscience wangaphandle amathathu (okungilawa 3418BA_Mitchell’s Plain, 3418BB_Gordons Bay ne- 3418BC_Flase Bay) in the Western Cape Province begodu atjengisa iragelo phambili eliqakathekileko elenziwe lihlelo ngomnyaka owodwa.

4.1.1.3 IHlelo leMebhe yeMinerali

Ihlelo leMebhe yamaMinerali we-CGS kumsebenzaloukunikelwa idatha ye-geoscience ukusekela ukwenziwa nokuthuthukiswa kwemithombo ehlukeneko yamaminerali ne-eneji eSewula Afrika. Imithombo le ifaka hlangana isisekelo samamethali webhehlayisi, amamethali amahle namaminerali wezelimo, okhanye nokhanye kudlala indima eqakathekileko ekuthuthukiseni itekhnoloji nekukhuliseni ibubulo.

Ngesikhathi sokubika somnyaka we-2023/24, kwakhiqizwa imiphumela emithathu eqakathekileko ye-geoscience, okungilawa- umbiko i-Geochemical Synthesis Report we-Eastern ne-Northern BushveldComplex, umbiko wamaHlelo ahlanganisiweko wamaMinerali eLimpopo, neKambiso yokuThola amatshwayo wendawo ngokuSekela iMebhe eHlanganisiweko ye-Geoscience eNamaqualand. Lokhu kusize khulu ematshwayeni wemithombo yamaminerali begodu nokwenza ngcono ukuzwisiswa kwamahlelo wokwenza amaminerali wesifunda. Okhanye godu, imibiko isebenza njengomthombo oqakathekileko kumakhamphani enza iphenyo, kubasisiimali, nakubarhubhululi abafuna ukuzwisisa umnotho wamaminerali aseemfundeni lezi.

4.1.1.4 IHlelo leMebhe ye-Eneji

Ihlelo le-CGS leMebhe ye-Eneji lenza irhubhululo eliqakathekileko ngombono wokusekela itjhuguluko leSewula Afrika elimayelana nomnotho wekhabhoni ephasi. Bekube nje, i-CGS isaragela phambili nokuthuthukisa okuqakathekileko kanye nedatha efunekako ku-geoscience nelwazi ukusekela amatshwayo nokuthuthuka kwe-eneji ehlanganisiwe nemithombo ukusekela itjhuguluko elenziwako eSewula Afrika. Ihlelo liphenya amahydrokhabhoni ahlukeneko nezinye iinrhasi zemvelo esifundeni se-Karoo begodu nemithombo ye-eneji engavuselelwa, efana namahlelo we-geothermal.

Ngesikhathi somnyaka we-2023/24 umsebenzi wanqopha kumithombo ye-eneji engavuselelwa naleyo enepumelelo. Imizamo eyelelwako yabe inqotjhiswe kumaphrovinsi waKwaZulu-Natal neLimpopo ukuzwisisa amandla we-eneji ye-geothermal. Imibiko yokungakghonakalisa ukusebenza nekghono lokulawula i-eneji ye-geothermal njengomthombo ongavuselelwa ukusuka kuShu-Shu naku-Tshipise yakhiqizwa. Okuqakathekileko, umbiko womthelo ngamatshwayo wokuthathwa kwendawo yekhabhoni ehlongozwako ngokusemthethweni endaweni kaMasipala u-Govan Mbeki, ngeMpumalanga, eSewula Afrika wakhiqizwa, okumzamo oqakatheke khulu eSewula Afrika wokufuna ibhoduluko elinepumelelo nelineempendulo zeensombululo ze-eneji

4.1.1.5 IHlelo lePhenyo lamaMinerali

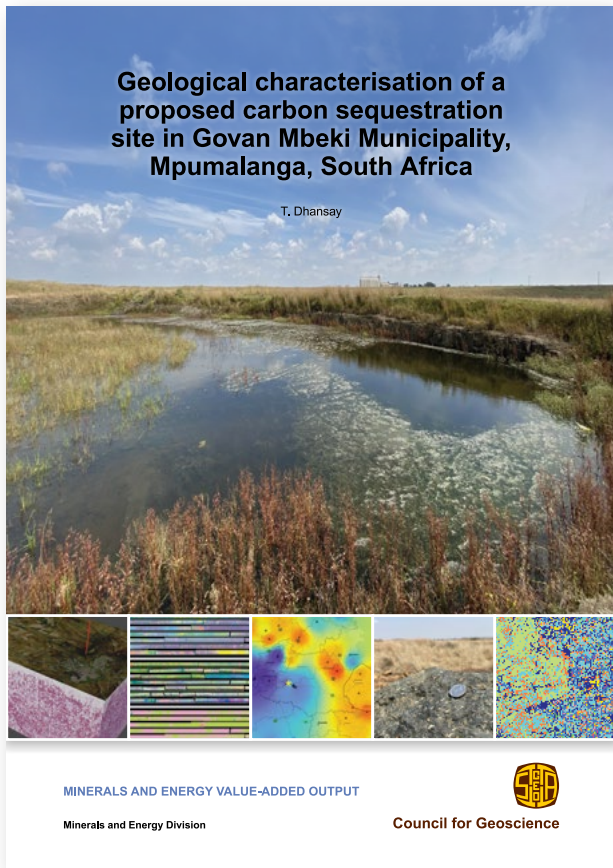
Indima ye-CGS ekusizeni ukuthuthuka komnotho netjhuguluko leSewula Afrika litlolwe kuhle emThethweni we-Geoscience Amendment Act (No. 16 we-2010).

Igunya lingeziwe ukobana lifake ukuthuthukisa irhubhululo mayelana nokucatjhezwa kwamaminerali kuriphabliki, nokwenza eminye neminye imisebenzi yokuphenya, ukwemba neminye imisebenzi ephathelene nalokho ngombono wokuphenya imisebenzi. Lokhu kunamandla bunqopha ekuhlonyweni komtlamu wokunqotjhiweko wokubamba ubuncani bamaphesende ama-5% wenani loke elisiswe ephenyeni lephasi mazombe.

Ukuhlonywa kwehlelo lokuphenya kulindelwe ukobana kungeze indlela iphenyo elenziwa ngakhona eSewula Afrikanokurhabisa amaphrojekthi ekufanele enziwe okungenzeka agcine ngokuba semayini. Bekube nje, i-CGS yanikelwa enye godu ibhajedi engeziweko kilomzombe we-MTEF ukurhabisa imebhe ye-geoscience ekusekeleni iphenyo. Ukufaka imebhe ye-geoscience yenarha yangaphakathi kungezeke kwafika kumaphesende ali-16% lokha imebhe yangaphandle izuze amaphesende ama-0.3. Ihlelo leMebhe ye-Geoscience livumbulula iindawo ezitja zekareko mayelana nokusisa ekuphenyeni begodu kwenziwe omunye nomunye umzamo ukuhlanganisa ilwazi ukuzuza umnqopho onqotjhiweko.

4.1.1.6 Ukubamba iKhabhoni, iPhrojekthi yokuSebenzisa nokuBeka

Ukubamba iKhabhoni, iPhrojekthi yokuSebenzisa nokuBeka (i-CCUS) ingomunye godu umzamo oqakathekileko naziza ekuthini iSewula Afrika ifuna iinsombululo ze-eneji enepumelelo nebhoduluko elinokuziphendulela. Isekelwa ngeemali mBuso weSewula Afrika neBhanga yePhasi i-World Bank (i-WB), ukusekela ngeemali kwe-WB kwapheliswa ekugcineni kwangomhlaka-29 kuMhlolanja 2024. Iphrojekthi ihlose ukuhloma isisekelo sokuthoma senarha sendawo esemthethweni ye-anthropogenic carbon dioxide, kwathi indawo ye-Govan Mbeki ePhrovinsini yeMpumalanga yathathwa begodu kwahlongozwa ukobana ibe yindawo okwenzelwa kiyo. Iindawo zeqhingezi zibeka iphrojekthi eduze khulu nesithumela amakhabhondayoksayidi kanye namarizeva aqakathekileko wamalahle. Ngesikhathi somnyaka we-2023,24, iPhrojekthi ye-CCUS izuze imiphumela embalwa. Okuzuzwe khulu kufakwa ihlangano ukuqedelelwa nokukhiqizwa kombiko wamatshwayo (isiThombe se-12), ukuqedelelwa kokuhlolwa kwamandla wezebhoduluko newehlalakuhle (i-ESIA), nomtlamu ofaka koke wobunjiniyera ukuqinisekisa ivikeleko nepumelelo yephrojekthi. Ukungeza kilokho, iragelo phambili lemisebenzi yokubandakanyaabahlanganyeli yenziwa. Umbiko wamatshwayo wejiyoloji ubuyekwezwe ngaphakathi, kwaqinisekiswa ikghonakalo lejiyoloji leembumbeko ezinqotjhiweko zamatje. Iletha godu umkhanyo ngamanye amakhetho angaba khona wokubeka izinto ezikhethwako zeyiyoloji kileyo ndawo. Umtlamu ofaka koke wobunjiniyera nerhubhululo lekghonakalo liveze amandla wesilinganiso sokubeka endaweni ekhethiweko enafika kumagigation ama-34.



Isithombe 12: Ikhasi lekhava lomBiko we-Geological Characterisation Report (2023) wendawo ye-CCUS ehlongozwako eseduze kwe-Leandra, Govan Mbeki Municipality

I-CGS ibumbe amaqhinga wamatjhebiswano ne-Sasol, the Development Bank of Southern Africa, Exxarone-ArcelorMittal begodu iqale ekubambeni ngamandla amathekhnoji namathuba wokusetjenziswa mayelana ne-CO₂ ebanjiweko. Njenganje, i-CGS ifisa ukwenza isiGaba sesi-2 sephrojekthi efaka hlangana ukwakhiwa kweplanti elingwako ne-injektjhini endaweni yeplanti. I-CO₂ ithethwe e-Sasol, eyakhiwe ibanga elimakhilomitha ama-30 ukusuka endaweni elingwako.

4.1.2 I-Geoscience mayelana nomthangalasisekelo nokusetjenziswa kwendawo

Ngaphasi komgomo othi, I-Geoscience mayelana nomThangalasisekelo nokuSetjenziswa kweNdawo, I-CGS ikhiqize imiphumela yomthelo esithandathu ye-geoscience, inengi layo beyingeyerhwebo ngokwemvelo. Lokhu kufaka hlangana imibiko ehlanganyelweko kumazinga wekghonakalo kokunzina kwedolomayithi, amaphenyo we-geotechnical ePhrovinsini yeGauteng begodu nokungaba

khona kwehlaziyo leengozi zamatje (i-PSHA) endaweni yenyutla ye-Duynefontyn, e-Phrovinsini ye-Western Cape. Eminye imiphumela ifaka hlangana amamebhe welungelunge le-geotechnical le-Port St Johns.

Iphrojekthi ye-Duynefontyn kuyiphrojekthi yerhwebo, i-CGS eyenzela i-Eskom ukusekela ukulayisenswa kwendawo yenyutla ese-Duynefontyn ehlalise i-Koeberg Nuclear Power Station. Umsebenzi omkhulu ufaka hlangana i-PSHA ngokukhambisana neKomidi ePhezulu eHlaziya iinGozi zamaTje (i-SSHAC) indlela yeziNga lesi-2, elivezwe kuhle emithetjhwani yenyutla ye-United States Nuclear Regulatory Commission (I-USNRC), lokha ngakwelinye ihlangothi ikhambisana nemithetjhwana neeyeleliso ze-National Nuclear Regulator (NNR). I-PSHA isekelwa maphenyo wejiyoloji amanengi ngakujijoloji yesifunda, amatje womlando naqakathekileko we-Western Cape, begodu nehlaziyo lobujamo bendawo yekhaya. Inengi lamaphenyo wejiyoloji ne-PSHA enziwa emnyakeni weemali wee-2023/24. Umsebenzi ngekghonakalo yehlaziyo lengozi yetsunami (i-PTHA) mayelana nendawo usaragela phambili.

4.1.3 Amaprojekthi akateleleko nasemthethweni

UmThetho i-The Geoscience Act (No. 100 of 1993) njengombana utjhugululiwe, ufuna i-CGS yenze eminye imisebenzi ekateleleko, okungile:

1. Ukusebenza nokutjhejwa kwethungelelwano le-seismograph yelizwe loke, indawo yokuhlola elizweni loke yejiyoloji ebonakalako i-geophysical nedathabheyizi yeengcenyze zelizwe loke ezibonakalako
2. Ukubakhona kobufakazi obeyeme kusayensi kumPhathimandla zomBuso emkhakheni weengozi zejiyoloji nokuhlola i-geotechnical ukuqinisekisa ukuthuthukiswa kokuphepha endaweni yedolomayithi.

4.1.3.1 Ukutjheja iinHlekelele nokulungisa ithungelelwano

Umnqopho wokuTjheja ihlekelele nePhrojekthi yeThungelelwano kukutjheja nokubika ukuba khona kwezehlakalo zeenhlekelele ngaphakathi nabunqopho magega neSewula Afrika. Ithungelelwano i-The South African National Seismograph Network (i-SANSN) ikhwezelele ibhanga yedatha ngeensombululo ze-ephisentrali ezima-5 505. Ihlaziyo lethungelelwano lemayini ehlanganisiweko lithole izehlakalo eziyi-5 980, okuthi i-West Rand kude kube ngiyo emajadu khulu ngokweenhlekelele begodu iqalene nezehlakalo ezimaphesende ama-82% wazo zoke izehlakalo ezihlaziyeke. Okhanye godu, idathabheyizi ehlanganisiweko yehlekelele yamapharamitha yathuthukiswa beyakhwezelelwa, kuhlanganiswa idatha ebuya ku-SANSN begodu kubuyiselwe ithungelelwano lokuhlanganisa amamayini, bese kuqinisekiswa ukuba khona kwedatha yanje yamapharamitha mayelana nehlaziyo leengozi zeenhlekelele.

4.1.3.2 Umbiko wokubuyeleza i-geotechnical yeliZwe loke

I-CGS okhanye godu igunyazwe mThetho we-Geoscience ukobana ibuyeleze imibiko ye-Geotechnical bese iyelalisa iimPhathimandla ngeengozi zejijoloji ezithinta kumbi ukuthuthukiswa komthangalasisekelo begodu beyithatha umsebenzi wokuba mhlazini soloko kwangomnyaka wabo-1950. Ngomnyaka wee-2023/24, i-CGS ithole beyabuyeleza okuthunyelweko okuyi-1 029, yaqala imibuzo ethekhnikhali ema-477 bese yabamba imihlangano ema-51 emayelana nokuthuthukiswa kwendawo yedolomayithi. Kwakhutjiswa iincwadi ezima-565 sezizoke, ngokwe-avareji yesikhathi esingangamalanga ama-30. Okhanye godu i-CGS ibeke ilwazi endaweni eyodwa begodu yadijithayiza ilwazi ukobana ithuthukise imikhiqizo ye-geoscientific ekghona ukutholakala ngephothali yewebhu.

4.4.1 I-Geoscience mayelana nezamaphilo, amanzi angaphasi kanye namaprojekthi wezebhoduluko

I-Geoscience yezamaPhilo, amaNzi waphasi kanyenommongo weBhoduluko uthuthukisa ubunikazi bezebhoduluko, khulukhulu eendaweni ezivamise ukucajelwa ngokwemisebenzi efana nokuphenya nokucatjhezwa kwamaminali. Ngaphasi kwalommongo, imithombo yamanzi wangaphasi iyabonakala begodu yenzelwe imiphakathi, amabubulo nezelimo. Ukwenza ngcono okufana nokubekwa kwamanzi wokuzenzela angaphasi nakho lokho kuyatjhejwa njengento eragela phambili yerhubhululo lesayensi.

4.1.4.1 Ihlelo lokuMayina nokuPhatha amaNzi wezeBhoduluko

Ihlelo lokuMayina nokuPhatha amaNzi wezeBhoduluko (i-MEWMP) liragela phambili nokusekela iimphakamiso zomTlamo wokwenza weMayini ekuthuthukiseni ukungenelela ekulungiseni ukuphathwa kuhle kwamanzi wemayini enarheni. Irhubhululo lenziwa ngaphasi kwemisebenzi elithoba, okungile: Ilawulo le-Ingress, Long-term Witwatersrand mine water management, Passive treatment, Coexistence of mining and environment, Geopolymer liner research, Air quality and climate change, Portal management, Coastal planning and management, and Sustainable development goals management. Okuqakathekileko, ngesikhathi somnyaka weemali, i-CGS iragele phambili nokuthola iindawo eziqakathekileko zokungena emanzini ngaphasi kubheyizini ye-East Rand ukuragela phambili neminikelo yokugada imithombo yamanzi.

4.1.4.2 Irhubhululo eliHlanganiswe nokuValwa kweMayini

Itjhejo lePhrojekthi yeRhubhululo elihlanganisiweko ekuValweni kweMayini (i-IRMC) ingeendlela ezimbili: ukusekela iQhinga lokuValwa iMayini eliZweni loke (i-NMCS),

nokurhubhulula ngomtlamo wangaphambi kokuvala nalayo wangemva kokuvalwa. Ukulandela ukugazedwa kwe

NMCS, umtlamo womsebenzi bewuphelile, utjheje imiphumela yerhubhululo neemphakamiso ezivela ekambisweni yokubonisana. Ingcenye yerhubhululo yephrojekthi inqophe ukuhlola amandla wokusebenziswa kwemayini ngemva kokumayina kweemfunda. Amaphenyo enziwe ngehlabathi, umoya nekhwalithi yamanzi nezinye iingcenywe ezibonakalako ezifana nokunzina kwetatwu. Kilomnyaka weemali obuyelezwako, ukungenelela kwezehlakalo zangemva kokumayina beziphenywa endaweni ye-Klerksdorp–Orkney–Stilfontein–Hartebeesfontein (KOSH) begodu nePhrovinsini yeMpumalanga. Le yiphrojekthi eragela phambil, begodu imikhiqizo ehlanganisiweko izakwethulwa eminyakeni ezako yeemali. Ituthuko yenziwe ehlelweni kilomnyaka weemali wee-2023/24 kilemisebenzi elandelako: Iqhinga i-National Mine Closure Strategy ne-the Review of Derelict and Ownerless Mine Strategy; nemiHlahandlela mayelana nokuHloma kweQhinga lokuValwa kweMayini eliZweni loke eendaweni zokunzina kwetatwu, ikhemistri yehlabathi, indawo namanzi angaphasi, begodu nekhwalithi yomoya.

4.1.4.3 UkuHlola nokuPhatha amanzi angaPhasi

I-CGS yenza imebhe yejijoloji yamanzi ngomnqopho wokuzwisisa imithombo yamanzi angaphasi hlangana namaprojekthi weqhinga lamaminali ne-eneji. Ukuzwisisa imithombo yamanzi angaphasi kusiza ekuqinikiseni ukutjhejwa ngokwaneleko nokutlhogonyelwa kuhle kwebhoduluko ngesikhathi sokucatjhezwa kwamaminali neminye imisebenzi efana nokubanjwa kwekhabhoni, ukuhlajwa nokubekwa. Esikhathini sokubika, ukwenza imebhe kunqotjhiswe kumaPhrovinsini weMpumalanga kanye newakwaZulu-Natal, kokubili njalo kuphathelene nephrojekthi ye-CCUS. Isilinganiso samamebhe amathathu ayi-1:50 000 aqedwa endaweni ye-Delmas, eJozini ne-Evander. Amamebhe wemanzini akhambisana nePhrojekthi yamaMebhe eyenziwa yi-CGS begodu inqophe ukunikela ngelwazi elithembekileko neliqakathekileko lamanzi wangaphasi ngezehlakalo ezenzeka emanzini mayelana nabahlanganyeli abahlukahlukeneko. Lokhu kuzakuzuzwa babantu abenza imebhe emanzini ukuhlola ikhwalithi nobunengi kokusatjalaliswa kwamanzi wangaphasi mayelana nomtlamo womthombo wamanzi ongcono, ukuphatha nokuthuthukisa. Okhanye godu iphrojekthi ilangazelela ukunikela ilwazi ngokuqakatheka kwamanzi wangaphasi nejijoloji ye,manzini kilabo basebenzisi bemebhe abaphrofejthinali nalabo abangasiphrofejthinali.

Kuyabonakala bona, amamebhe wamanzi we-Delmas ne-Evander wesilinganiso se-1:100 000 ayafiswa ukobana asebenze njengesendlalelo selwazi le-geoscientific njengengcenywe yokugada zebhoduluko nokutjheja imisebenzi esikhathini esizako ukuvumela ukobana kube nokufakwa ngendlela ephiphileko kwekhabhondayoksayidi eengabeni ezilingwako.

Ukusetjenziswa kwesithombe samanzi wangaphasi kumkhakha osathuthukako ku-CGS begodu kuvunyelwa emaphrojekthini ahlukeneko afana nokuhlola amanzi wangaphasi esifundeni. Ukuhlola okungeziweko kuyenziwa begodu iimbawo ezithuthukiswako ziragela phambili nokwenza ngcono ukuzethemba eengozini zembhe namamebhe anamandla wangaphasi, ngokuqala i-Artificial Intelligence neensetjenziswa zokufunda ngomtjhini. Nasiqala ukuthogeka kwamanzi neengozi ezihlobene nalokho, iphenyo le-geoscientific ngaphakathi kwamakwama-aquifer alawulwako linqo phe ukuqala iindawo lapha ukubuyiselwa esigeni kwamanzi kungenziwa.

4.1.5 Ikghono lokuphatha i-Geoscience

Ekukhambisaneni nomnqopho weqhinga lokuphathwa kwendawo yomongo we-Geoscience, i-CGS iragela phambili nokusebenza njengomyelelisi othekekhali ukuphumelelisa umgomo wenarha wangaphandle eemvumelwaneni ezenza imisebenzi ehlukeneko ezikhethwe yiSewula Afrika ukunikela imvumo njengelunga lomphakathi weentjhaba zephasi mazombe. Ngesikhathi somnyaka weemali wee-2023/24 umsebenzi wesayensi unqophe ekurageleni phambili namaphrojekthi e-Eswatini ne-Namibia, kufakwe hlangana ukukhiqizwa kwebuthelelo lelwazi elihlanganisiweko le-geoscience. Amamebhe wokwejiyoloji wokugcina wephrojekthi ye-Namibia anikelwa ngokomthetho ePhenyweni lezeJiyoloji le-Namibia ngalowo manyaka, kwaragelwa phambili nemizamo yokubandula nokuqedelelwa kombiko ohlanganisiweko ukudlulisa ilwazi lesifunda nokuzwisisa okuzuzwe eendaweni ezifanako zokuhlanganiswa ngaphakathi kwejiyoloji zikhambisane nebheyizini ye-Orange River yesifunda seSewula Afrika. Ukulandela ipumelelo yokuqedwa kwesiGaba soku-1 sePhrojekthi ye-Eswatini, isigaba sesi-2 sisazokuhlonywa begodu sifaka hlangana ukukhiqizwa kwamabuthelelo

welwazi ahlanganisiweko we-geoscience ekusekeleni imizamo yokuthuthukisa amaminerali ne-eneji ekhona. Ngokwehlelo lokuPhatha, i-CGS iragele phambili nokunikela isekelo emizameni wokuphatha enziwa ku-South Sudan, Ivory Coast ne-Niger, ngombono wokuthola iindawo ezingazuza ngokufanako nokusebenzisa amaqhinga amatjha we-geoscience ukurhabisa ituthuko. I-CGS, ikhethwe njengonobhala we-Organisation of African Geological Surveys (OAGS) wasafuthi, okhona kalisa ukwenziwa ngcono kwamaphenyo wejiyoloji ne-Pan-Africanism hlangana namalunga ahlukeneko enarhakazini yoke.

Ngale kwemikhawulo yenarhakazi ye-Afrika, i-CGS iragele phambili yasebenza njengesazi esithekekhali njengamajamo weSigungu seSewula Afrika mayelana nokungaNgezeki kweenKhali zokuTjhalalisa iWoma. Isigundu sitjheja ukusetjenziswa komThetho omayelana nokungaNgezeki kweenKhali zokuTjhalalisa iWoma, i-Non-Proliferation of Weapons of Mass Destruction Act (No. 87 of 1993), ongena esiVumelwaneni se-Non-Proliferation of Nuclear Weapons ngaphasi kwesiyeleliso se-Comprehensive Test Ban Treaty (CTBT). Bekube nje, usosayensi we-CGS, u-Mm uTebogo Matlou, wakhethwa ngokusemthethweni njengosekela sihlalo wesiQhema i-Working Group-B, okungiyiyo eqalene neendaba ezithekekhali neziphathelele nesayensi eziphathelele nokunikela imvumo nokusetjenziswa kwesivumelwano pheze hlangana namalunga wombuso ali-187.

Okhunye godu, i-CGS yazibandakanya eKhonferensini i-Conference of Parties (COP) 28, eyabe ibanjelwe e-Dubai ngenyanga kaSinyikhaba (November) nekaNobayeni (December) 2023, ukusekela ipumelelo ekulu eyenziweko ngemizamo yokususa ikhabhoni ngokungenelela kwe-CCUS nokunqophela kumatshwayo wejiyoloji bese kulandele ukufakwa kokulingwa kwe-anthropogenic carbon dioxide.

5 ImiSebenzi yokuPhatha ilwazi nokwaziwako ku-Geoscience

Ukuphathwa kwamaMinerali nebuthlelo leensalela ze-CGS, iimbhobo, ukudijithayizwa kwamarekhodi we-analogi, nokusabalalisa okuhlobene nedatha nelwazi kuhlala kuyinto eqakathekileko emisebenzini emihle yehlangano. Ukukhwezelela ilwazi lesisekelo se-geoscience yelizwe loke, i-CGS iragela phambili nokuhlola iindawo zazo zokubeka isayensi yejijoloji. Emnyakeni lo obuyekwezako, iHlelo lokuDijithayiza libe neragelo phambili eliqakathekileko ngokuskena pheze amarekhodi angaphezulu kwe-2 378, amumethe imibiko yalokho okubonakalako namamebhe, kufakwe hlangana amarekhodi abuya kuma-ofisi weemfunda we-CGS.

Ukuhlonywa kwe-GTP kweyeme khulu kudatha nelwazi elikhona elisezingeni eliphezulu. Ukuphatha ilwazi kube lisizo khulu ekunikeleni idatha yesikhala esezingeni eliphezulu eqakatheke khulu ekuthuthukiseni amadathabheyizi wesayensi nokukghonakalisa ukukhiqizwa kwemebhe. Umnotho wesikhala sedatha kunye nelwazi uyatholakala ngokutjingga kuphuthali ephethe idatha begodu nakubhizinisi yamadathabheyizi wejijoloji, utjheja iindingo zabahlanganyeli bobabili bangaphakathi nalabo bangeqadi.

IBulungelo leencwadi leSayensi lejijoloji yeliZwe elilungiswe ngobutjha neSenta yelwazi ihlala imthombo oqakathekileko wokuphatha idatha ebonwako mayelana nabo bobabili abasebenzisi bangaphakathi nabangeqadi. Isenta idlala indima eqakathekileko mayelana nokubuthelela, ukuhlela nokudlulisela ilwazi eliqakathekileko lesayensi yejijoloji ukusekela irhubhululo, ukuphenya neenkambiso zokuthatha iinqunto emikhakheni ehlukeneko. Ngeenkghonakalisi zayo ezikhwezelelweko namakghono angeziweko, isenta isaragela phambili nokwenza lokho i-CGS ezibophelele kikho ukwenza bona umnotho welwazi utholakale kanye nemithombo ezakwenza bona umphakathi wesayensi uzuze nangale kwalokho.

I-CGS isungule iHlelo leDathabheyizi yoku-Oditha i-Geoscience elisebenza kuhle ukusekela i-IMMP

nokuhloma iphahla mayelana nesisombululo sedatha ye-geoscience ehlanganisiweko. Ukusungulokhu kutlanyelwe ukulungisa ukuhlukahlukana kwedatha yemvelo nelwazi elibuthelelweko ngaphakathi kwehlangano. I-odithi ihlola umnqopho ofiswako wedatha ebuthelelweko, ihlola bona ingabe idatha isakhambelana neminqopho yehlangano, begodu nokuhlola ipumelelo yayo ekwenzeni lokho elindelwe bona ikwenze.

Ukuhlolwa kwe-Ofisi eKulu ye-CGS ngebuthlelo le-palaeontology kusaragela phambili begodu kumumethe imadaniso elinamandla lomunye nomunye umhlobo walokho okubonakalako namakhathalogu akhona, amarekhodi namaleyibuli. Okhunye nokhunye okutjhungutjhungulukako okubonwako kutlolwa phasi ukuqinisekisa bona ukubuthelelweko kuba ngendlela efaneleko njengomthombo osekewako mayelana nerhubhululo nesifundo sezefundo. Ukungezelela, i-CGS yenze ihlolombono elingeneleleko ngamaqhinga we-3D photogrammetry ngokwedijithali ukuthola lokho ebekwenzeka kade. Umnqopho walokho kuhlola ukungaba kuhle kokuhlanganiswa kwamathekhnoloji la, okungenzeka kulethe elinye ilarha lokubibha mayelana namagugu aqakathekileko la.

Ukuragela phambili nomkhakha welwazi we-geoscience yelizwe loke, i-CGS iragela phambili nokwenza namajima aqakathekileko wokufuna iimbobo. Okutjhejekako, inengi lalokho okuqakathekileko kwaskenwa ngokusebenzisa iskena se-CGS i-hyperspectral ngemva kwalokho kwabekwa endaweni i-National Borehole Core Depository hlangana nomnyaka we-2023/24. Iingcenyazi zisukela kumaphrojekthi afana nalawa i- International Continental Scientific Drilling Programme (ICDP), Dwynefontyn Probabilistic Seismic Hazard Analyses (PSHA), nePhrojekthi i-CGS CCUS Project. Ikumba yokuskena ye-National Borehole Core Depository njenganje iyalungiswa ngokobana ingezelele begodu ifake umhlolo wetafula erolako ekhanjiswa yigezi ukukghonakalisa ukusatjalaliswa kweengcenyazi zisiwe begodu zibuyiswe kusikena se-hyperspectral.

6 Ithekhnoloji yelwAzi nokuThintana

Hlangana nomnyaka wee-2023/24, kwenziwa lemisebenzi eqakathekileko ye- ICT ukwenza ngcono ukusebenza kuhle nepumelelo ye-CGS.

6.1 Ukutholakala kwemisebenzi yebhizinisi eqakathekileko

Ubungako be-ICT bakhiwe ngokubumba umphakathi onelwazi elifaneleko neliyipumelelo nothola kuhle imisebenzi nelwazi le-CGS. Kilomnyaka obuyekwezako, iinsombululo ezimbalwa ze-ICT, zeendaba zokulungisa nokuhlola neendaba zokutjheja zibangele ukukghoneka kokuzuzwa kwesilinganiso samaphesende ali-100% wokutholakala komsebenzi, angaphezeldwana kancani emnqopheni wamaphesende ama-99%.

Inani loke lepumelelo neragelo phambili le-CGS lathuthukiswa kuragela phambili nokutheja nokulungisa amahlelo.

6.2 Ikambiso yokuvikela amahlelo nokuthuthukisa kwethekhnoloji

6.2.1 Ikambiso yokuvikela amahlelo

i-CGS inikele imikhakha ehlukeneko eqinisekako embalwa, efana ne- State Security Agency (i-SSA), ngokuragela phambili nokuphenya iingozi zekambiso yokuvikela amahlelo endaweni nokwenza i-CGS iyelele iingozi ezingaba khona ekambiswenayo yokuvikela amahlelo. Iinsetjenziswa ezimbalwa zekambiso yokuvikela amahlelo kanye neenkambiso zokulawula ezifana nemigomo, iinsetjenziswa zokukhandela nokulungiswa okusaseleko ukobana kutjhejwe ukuphepha kwejamu nepahla ye-CGS yekambiso yokuvikela amahlelo hlangana nomnyaka wee-2023/24.

Ukuqinisa khudlwana ibhoduluko lekambiso yokuvikela amahlelo we-CGS, i-CGS ihlome lamalerhe amanengi ahluhlukeneko asemthethweni ukwehlisa iingozi zalabo abeba ilwazi labantu lokungena eliqakathekileko. Ukuragela phambili nebandulo lokulemukisa abantu ngekambiso yokuvikela amahlelo ukufundisa abasebenzi ngeengozi ezithomako zekambiso yokuvikela, begodu edlalwa msebenzi ngamunye ekutjhejeni ijamo lekambiso yokuvikela amahlelo ye-CGS, lokhu kwenziwa ngesikhathi somnyaka weemali.

6.2.2 Ukungezelelwa kwethekhnoloji

Hlangana nomnyaka wee-2023/24 i-CGS iqatjhe umphakeli

wemisebenzi omutjha ukobana ahlole ngokungeneleleko amahlelo wanje wendawo ye-CGS, begodu nokutlamba, ukulungisa nokuhloma ihlelo lokuTlamba umthombo webhizinisi ukulungisa iindingo ze-CGS.

Umnqopho oqakathekileko wephrojekthi le, enesihloko esithi-Project GeoSync, kunikela isisombululo esihlanganisiweko nombono owodwa welwazi lehlango, iinkambiso nokusebenza, begodu nokwenza ngcono ukunikelwa kwemisebenzi kubahlanganyeli kanye neBhodini. Ihlelo le-ERP kufanele linikele ukusebenza kiwo wo ke amayunithi webhizinisi nokobana litholakale e-Ofisini eKulu yePitori kanye nama-ofisi weemfunda.

I-CGS ihlome ubunzinzolwazi obenziwe ngobutjha, i-intranet, ukusetjenziswa kwabomaledinini, ubunzinzolwazi be-OAGS ne-African Seismological Commission (AfSC) ngesikhathi sokubuyekeza. Ubunzinzolwazi obutjhubu njenganje bufaka hlangana hlangana nokhunye, isisetjenziswa sokufuna umsebenzi ngethungelelwano kanye nephothali yomThetho i-Geoscience Act Regulation ekghonakalisa ukubuthelelwa kwedatha ye-geoscience nelwazi. Ukungezelela kilokho, i-CGS seyithuthukise isisetjenziswa sakamaledinini ukwenza ukukhiqizwa kwelwazi le-geoscience kukhambisane nesikhathi, kufakwe hlangana ukusabalaliswa kweeyeleliso zezehlakalo zamatje.

Ukunikelwa kwesisetjenziswa sikamalaledinini, benze ubunzinzolwazi ngobutjha begodu i-intranet itjhuguluke yaba yi-CGS efaneleko nenepumelelo. Ubunzinzolwazi obenziwe ngobutjha nesisetjenziswa sikamalaledinini kuzizinto eziqakathekileko etjhugululweni ledijithali lokuphakelwa komsebenzi we-CGS begodu nokukghonakalisa ukudluliswa kuhle kwelwazi hlangana ne-CGS kanye nomphakathi we-geoscience.

6.3 Ukuraga kwebhizinisi

Hlangana nomnyaka wee-2023/24 i-CGS ithuthukise umTlamo wayo we-Disaster Recovery Plan kufakwe hlangana ukuba nezinto ezigada isimetjhe ezihluhlukeneko neenhlahlubo zokubuyisela into esigeni mayelana namahlelo aqakathekileko ukukghona ukubona iindingo ekufanele kwenziwe ngcono kizo nokulungisa ukuqinisekisa bona ibhizinisi iragela phambili nangahle kube nehlekelele eyenzekako. Ukuragela phambili nokwenza ngcono umTlamo wokuRaga kwebhizinisi kuhlala kuyindawo enqotjhe ye-CGS.

7 Imiphumela yeRhubhululo le-Geoscience

I-CGS idlulisela imiphumela yerhubhululo layo kubahlanganyeli bayo ngokwelungelunge lemikhiqizo, kufakwe hlangana, kodwana kungatjhiywa ngaphandle imilando, amabhulethini, iinhlahlathululo nama-athikili weemBikiindaba kanye neenkambiso zamakhonferensi. Imiphumela le yethulwe eengabeni ze-7.1 ukuya kweze-7.3. Ngokutjheja ngobutjha igunya layo nokuzuzwa kwedatha etja enemikhakha minengi, i-CGS seyakhe amatjhebiswano wangaphandle amatjha neenqhema ezitja begodu ikghonile ukukhiqiza imikhiqizo eminye godu.

I-CGS iragele phambili nokuthembeka ekuthuthukiseni umkhakha welwazi le-geoscience ngokweenkundla zayo zokudlulisa ilwazi. Imiphumela yerhubhululo layo yabelanwa nabahlanganyeli ngokwelungelunge lemikhiqizo, kufakwe hlangana imilando, amabhulethini, iinhlahlathululo nama-athikili weemBikiindaba kanye neenkambiso zamakhonferensi begodu nama-athikili wesayensi abuyekwezwa bangani. Imiphumela le yethulwe eengabeni ze-7.1 ukuya kweze-7.3. Ngokutjheja ngobutjha igunya layo nokuzuzwa kwedatha etja enemikhakha minengi, i-CGS seyakhe amatjhebiswano wangaphandle amatjha neenqhema ezitja begodu ikghonile ukukhiqiza imikhiqizo eminye godu. Ekuphumeleliseni iphuzu legunya elinqotjhiweko, i-CGS inikele ngenani eliphezulu khulu lama-athikili ewatole ngokuwahlanganyela abuyekwezwe bangani ngokuragela phambili kwabo nokubambisana namanye ama-geoscientists, okhunye godu yazitolela amaphephayo.

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Ingcenye

C

UMm uMbatha athokozela iimbobozi ezitholakele endaweni ye-CCUS

Ukubusa

Amahlelo neenkambiso ezilawula i-CGS afaka hlangu amahlelo, izakhiwo neenkambisolawulo lezo ezenza ibhizinisi inqophe, ilawulwe begodu ibe nokuziphendulela. Amahlelo la asetjenziswa ngokukhambisana nemithetho yomthetho osebenzako we-CGS, i-Geoscience Act (No. 100 of 1993) njengombana itjhugululiwe, the PFMA (No. 1 of 1999) njengombana itjhugululiwe, i-National Treasury Regulations, the Protocol on Corporate Governance in the Public Sector, kanye nemigomo yehlangano. Ingcenye le yombiko yendlala kuhle amahlelo ihlangano ewasebenzisela ukuphatha, izakhiwo kanye neenkambisolawulo.

- **Ibhodi namakomidi wayo** – isibumbeko sebhodi namakomidi, Ukufundiswa kwebhodi, iimali eziphiwa iBhodi nokuziphatha kwayo, nendima edlalwa yibhodi kanye nemisebenzayo. the composition of the Board and committees, Board induction, Board remuneration and conduct, and role and responsibilities of the Board
- **Ukukhambisana nemithetho nemithethojwana** – ubujamo be-CGS bokusebenza kuhle nemithetho elawulako
- **Ilawulo langaphakathi nokuphatha ingozi** – ipahla lokuphatha ingozi elihloniyeweko kanye nokusebenza ngepumelelo kwelawulo langaphakathi kwehlangano.
- **Ubukhwabanisi nekohlakalo** – iindlela zokubona nokukhanda imisebenzi yobukhohlakali
- **I-odithi yangaphakathi** – imisebenzi yomsebenzi we-odithi yangaphakathi
- **Ukuqinisekisa ikhwalithi** – ubujamo bokuqinisekisa ikhwalithi
- **Zamaphilo, zokuphepha neendaba zebhoduluko** – ukukhambisana nezokuphepha, zamaphilo, zebhoduluko namazinga weKhwalthi.

1 USihlalo weHlangano

UNgqongqotjhe wemiThombo yamaMinerali ne-Eneji (UNgqongqotjhe), ngokweBhodi ye-CGS, unesibopho sokulawula, ukuphatha nokuphatha umsebenzi wabaphathi be-CGS. Kuhlekuhle, ihlangano ithumela imibiko qobe yikota naqobe mnyaka ngokutjho kwe-National Treasury Regulation (26.1) iyithumele ku-DMRE, ngomhlaka-30 kuSihlabantangana, ngomhlaka-31 kuVelabahlinze, ngomhlaka- 31 kuSewula nangomhlaka-31 kuTjhirhweni, ngaphandle kwalokha nangabe i-National Treasury itjho okhunye.

2 IBhodi yesiGungu se-Geoscience

2.1 Ukubumbeka kweBhodi kanye nemisebenzi

UNgqongqotjhe ukhetha iBhodi ye-CGS. Isikhathi seBhodi egadungileko siphela ngomhlaka-30 kuSihlabantangana 2023, kwathi iBhodi yanje yakhethwa ukusukela ngomhlaka-1 kuMgwengweni 2023 ngokutjho kwesigaba sesi-4 womThetho we-Geoscience Act (No. 100 of 1993) njengombana utjhugululiwe. IBhodi ifaka hlangana uSihlalo (ozijameleko) amalunga alitjhumu angasiwo wesigungu), amalunga amabili adlheganako kanye ne-CEO (ilunga lesigungu).

2.2 IBhodi yaNje – 1 kuMgwengweni 2023 ukuya kumhlaka-30 kuMrhayili 2026



UNom Kelepile Dintwe
USihlalo weBhodi

UNom Dinkwe unelemuko leminyaka engaphezu kwama-25 ebulweni lokumayina ngerhawuda begodu wakhethwa njengoSihlalo weBhodi ye-CGS ngomhlaka-1 kuMgwengweni ngomnyaka wee-2023. Njenganje nguye omdosiphambili we-Business Improvement and Technology undertaking at Harmony Gold Ltd, lapha athoma khona ngomnyaka wee-2021. Sekabuthelele ilemuko leminyaka eli-13 eendimeni ezihlukeneko zokuphatha phezulu e-AGA, kufakwe hlangana ukuba liSekela likaMengameli emikhakheni yamabhizinisi ahlukkeneko efana ne-Qhinga leBhizinisi; ukuTlamela iBhizinisi; iTjhebiso labasisiimali; iTjhebiso lomBuso nomPhakathi; begodu nokuPhatha zeBhoduloko. Uqede neminyaka emithathu afakwa kwezinye iinkhundla njengomsebenzi olungisako endimeni yokuba liSekela lukaMengameli ebhizinisini ye-AGA e-West Africa, e- Republic of Ghana. Umkhizwakhe wobudosiphambini bokusebenza njengomPhathi maZombe bufaka hlangana amanye amazanga angeneleleko wokumayina ngaphasi komhlaba, imisebenzi eyenziwa ngaphezulu emayinini namanye amaplanti ahlukahlukene wokumayina ngerhawuda. Ibizelo lakhe elibonakala khulu ngaphandle kwekoro yokumayina lifaka hlangana iindima azidlalileko ku-Altron Group (Willard Batteries) nokaMphathi wobuNjiniyera ozibophelele ephrojekthini ye-Eskom's Grootvlei Power Station's RTS. Ilemuko lakhe kubudosiphambili emkhakheni wokuphatha lifaka hlangana ukukhethwa kwamaBhodi wangaphasi we-AGA Ghana Ltd begodu mhlapha nje ukhethwe njengoSihlalo we-South African-based Bigen Africa Group Holdings. Uneziqu ze-BSc Electrical Engineering degree azithole e-University of the Witwatersrand begodu neziq ze-Executive Leadership Development Programme azithole e-University of Pretoria ngokubambisana ne-Harmony Gold.



UNom Mosa Mabuza
Chief Executive Officer

UNom Mabuza uneziqu ze-BSc (Hons) ku- Geology ne-Postgraduate Diploma ku-Business Administration. Wakhethwa njengelunga leBhodi ye-CGS ngomhlaka-1 kuMgwengweni ngomnyaka wee-2023. Ungu-CEO we-CGS okhethwe ngomhlaka 15 kuVelabahlinze ngomnyaka wee-2017. Ikontragakhe yavuselelwa, ukusukela ngomhlaka-15 kuMgwengweni ngomnyaka wee-2022 wanikelwa enye ithemu yeminyaka emihlanu. Usebenze hlangana nokhunye e-De Beers njeongomphenyi wemithombo i-Explorationist, i-Laboratory Geologist nomHlaziyi i-Senior Business Analyst; e-DMRE njengomNqophisi oPhezulu oThuthukisa amaMinerali, e- Anglo American Platinum njengeHloko yamaTjhebiso womBuso; begodu e-DMRE njengeSekela-mNqophisi Zombebele mayelana nomGomo wamaMinerali neTuthuko.



UNom Xolisa Mvinjelwa
Usekelasihlalo weBhodi

UNom Mvinjelwa uneziqu ze-BSc ku-Chemistry e-University of Cape Town, iziqu ze-Master's degree ku-Business Administration nesitifikayidi ku- Management of Advanced Programmes e-University of the Witwatersrand naku-Business School. Uneziqu ze-Diploma in Production Management azithole e-Production Management Institute yeSewula Afrika. Wakhethwa godu njengosekelasihlalo weBhodi ye-CGS ngomhlaka-1 kuMgwengweni ngomnyaka wee-2023. Unelemuko leminyaka engaphezu kwama-30 ebubulweni lokumayina, wathoma ibizelo lakhe e-Vereeniging Refractories (Anglo American subsidiary) njengomsizi wezobuthekniki emNyangweni we-R&D, waragela phambili ekhamphanini njengomLawuli weKambiso i-Process Controller, Quality Superintendent, Plant Manager, Market Analyst and Technical Sales Representative. Ekukhambeni kwesikhathi wajoyina i-Rhino Minerals (ANGLOVAAL engaphasi) njengoMphathi omSizi kubuThekniki bokuMaketha lapha bekaqalene khona nokuthukisa amamakethe amatjha ephasini mazombe. Usebenzele i-IMERYS South Africa (IMERYS engaphasi) iminyaka edlulileko ema-20 begodu bekaphethe iinkhundla ezimbalwa, kufakwe hlangana ukuba Mphathi we-Sales & Marketing; umNqophisi: AmaPhrojekthi aKhethekileko; iHloko yemiSebenzi yomGomo neQinga ku-HR; nokuba nguNobhala weBhodi. Njenganje sekamNqophisi wesiGungu: We-Ethics & Transformation e-IMERYS South Africa begodu noSihlalo weKomidi yeBhodi ye-Social & Ethics. Uphethe kumabhodi wamakhamphani ambalwa khulukhulu kumabubulo wokumayina nahlobene nawo. UnguSihlalo we-Coastal Fuels, okuyimayini emayina ngamalahle engencani enepahla yamalahle. Okhunye godu unguSihlalo we-Ticamode, okuyikhamphani ye-B-BBEE company hlanganyeli we-IMERYS.



U-Advokheyithi uNtika Maake
Ilunga lebhodi

U-Advokheyithi Maake wakhethwa godu njengelunga leBhodi ye-CGS ngomhlaka-1 kuMgwengweni ngomnyaka wee-2023. Uneziqu ze-B. Iuris neze-LLB; i- Diploma in Corporate Governance (e-Unisa); i-Diploma in Project Management (e-Executive College); i-Postgraduate Certificate in Climate Change and Energy Law; i- Postgraduate Certificate in Water Law (-niversity of the Witwatersrand); ne-Master of Laws degree in the Extractive Industriese-Afrika. UliKhandideyidi le-LLD ku-Property Law (Property Clause) (e-University of Pretoria). Usebenze emabhizinisini ambalwa womphakathi, kufakwe hlangana i-Eskom Holdings, i-City of Tshwane nomNyango wezoBulungiswa nokuThuthukisa umThethosisekelo. Njenganje unguSihlalo we-Water Tribunal emNyangweni we-Human Settlements, Water & Sanitation. U-Advokheyithi uMaake ulilunga leKomidi eJezisako ye-Premier Soccer League.



UNom Andries Moatshe
ilunga leBhodi

UNom Moatshe wakhethwa ngobutjha godu njengelunga leBhodi ye-CGS ngomhlaka-1 kuMgwengweni ngomnyaka wee-2023. Uneziqu ze-Master's degree ku- Environmental Management ne-Higher Diploma ku-Public Health. Njenganje usebenzela i-DMRE njengomNqophisi oPhezulu we-Mine Environmental Management begodu ufake igalelo ekuthuthukiseni imigomo yeminyango.



U-Dorh Mayshree Singh
Ilunga lebhodi

UDorh Singh wakhethwa ngobutjha godu njengelunga leBhodi CGS ngomhlaka-1 kuMgwengweni ngomnyaka wee-2023. Uneziqu ze-Bachelor's degree ku-Physics ne-Geology; i-Master's ku-Geophysics; ne-PhD ku-Geomatics. Uzivulele ibhizinisakhe yokubonisana, i-aya Geophysics, esebenza ngeengozi zeenhlekelele nerhubhululo elihlobene neengozi nokuphenya iindawo ezikhona. Uneminyaka ema-20 enza amarhubhululo begodu belemuko ebubulweni begodu ungunsolwazi emkhakheni we- seismotectonics. Usebenze kumaphrojekthi wenyutla namabubulo aqinisekisako, amadamu amakhulu, neentetjhini zegezi. Bekayilektjha e-University of KwaZulu-Natal begodu usebenze njengomrhubhululi kusiGungu se-Geoscience. Utlhogomela begodu uyelelisaabafundi be-postgraduate begodu ufundisa amakhoso aqakathekileko wesayensi ezingeni leyunivesithi. UDorh uSingh wenze kube nokubambana nabarhubhululi emazikweni wefundo begodu uzibandakanya emizameni enqophe ekuzwisiseni ukuba sengozini kwemakhiwo eenhlekeleleni zokusinkinyeka okungaphasi nokwenza ngcono ukuzwisa kwethu iinhlekeleleezihlobene ne-tectonic nezakhiwo ezingakalungi.



U-Dorh Siyanda Mngadi
Ilunga lebhodi

UDorh Mngadi uneziqu ze-PhD ku-Geophysicsazithole e-University of the Witwatersrand, begodu ukhcie amaphepha ahlolwe bangani kumajenali weentjhabatjhaba. Wakhethwa njengelunga leBhodi CGS ngomhlaka-1 kuMgwengweni ngomnyaka wee-2023. Wathoma ibizelo lakhe njengomfundi oligrajuweyithi e-CCSIR Centre for Mining Innovation kwathi ekukhambeni kwesikhathi wasebenza ngokuphatha nipahla njengomhlaziyi we-quantitative and fundamental investment atjheja amaphiko wokumayina newe-eneji. Waphatha iinkhundla ezimbalwa, kufakwe hlangana leso sokuba mphathi wesigungu oqalene nokuhlanganisa nokutholela ikhamphani yokusisa eneenkareko ekumayineni naku-eneji. Usebenze njengomnqophisi ongasilo ilunga lesigungu eenhlanganweni ezimbalwa kufakwe hlangana i-Anglo American Inyosi Coal, Inyosi Coal, UJU Mining nakumakomidi webhodi we-CGS. UmNqophisi oPhetheko wemiThombo yeNtuthuko Resources, oqalene nokuphenya amaminerali, amabubulo wokumayina ne-eneji. I-Ntuthuko Resources njenganje ibandakanyeka ekuphenyeni izinto ezingatholakali lula ephasini (i-REE), i-lithium, iron ore, manganese, ne-nickel.



UMm uNtombifuthi Nxumalo
Ilunga lebhodi

UMm uNxumalo wakhethwa njengelunga leBhodi CGS ngomhlaka-1 kuMgwengweni ngomnyaka wee-2023. Umumuntu ofundele i-geoscience une- BSc (Hons) degree ku-Geology (e-University of the Witwatersrand) ne-MBA in Global Business & Sustainability (UNICATT). Wenze isifundo sokuthubhulula sesihloko esithi, **ukuvalwa kwamamayini wamalahle eSewula Afrika: Iphahla elikghonakalisa umthetjhwana wangemva kokuvalwa kwalokho okusetjenziswa enarheni ukusekela imiphakathi eziphilisa ngokumayina.** Iruhbululo liphanya indima edlalwa mthetjhwana wanje weSewula Afrika kumaminerali nemithetjhwani yokumayina nepahlani elilawulako ekuzuzeni ukusetjenziswa kwendawo yokumayina enepumelelo ezokwenza imiphakathi eziphilisa ngokumayina ithuthuke ngemva kokuvalwa. UMm uNxumalo unebizelo lomsebenzi elihlukilekiyo kiyo yoke imikhakha yokumayina ne-eneji. Wathoma ayii-a geologist ku-Free State Goldfields, ngemva kwalokho wajoyina i-DMRE: UmNqophisi womThetjhwana wamaMinerali. Wasebenza godu ne-Eskom ephikweni layo le-eneji elingaPhasi. Eminyakeni embalwa eyadlulako, njengosomarhwebo, uye waphatha i-Sustainability Consultancy, Luhlaza-ISS. Usebenze ebhodini i-South African Diamond and Precious Metals Regulator njengesekelasihlalo nosihlalo we-Technical Committee hlangana nomnyango wee-2016 newee-2019. Usebenze godu njengosihlalo we-Pelindaba Safety Information Forum of the National Nuclear Regulator begodu nanjengelunga lePhaneli yeZazi i-Panel of Experts eyelelisa abosomarhwebo ku-Innovation Hub.



UMm uThobeka Njozela
Ilunga lebhodi

UMmu uNjozela uneziqu ze-MBA azithole e-University of Pretoria, i-BCompt (Hons) e-University of Transkei ne-BCom ayithole e-University of Fort Hare. Uqede iHlelo lokuPhatha i-GIBBS Executive Management Programme and Management Programme e-Rhodes University. NjengomNqophisi oGunyaziweko, wathola iziqu ze-Certified Internal Audit begodu uneentifikeyidi ku-Control Self-Assessment, naku-Risk Management Assurance. UMm uNjozela wakhethwa njengelunga leBhodi CGS ngomhlaka-1 kuMgwengweni ngomnyaka wee-2023. Usebenze njengelunga lamakomidi woku-oditha naweengozi eminyangweni yelizwe loke, yamaphrovinsi nemabhizinisini womphakathi. Unelwazi elingeneleleko lokuphatha ekorweni yomphakathi; ukulawula nokuphatha iingozi zeemali; ukuphatha ingozi; uku-oditha ngaphakathi; ukuthuthukisa umgomo, ukuthuthukisa khudlwana ibhizinisi; nokuthuthukisa iqhinga, ukusebenzisa, ukutjheja nokuhlola.



UDorh uMoloko Matlala
Ilunga lebhodi

UDorh Matlala uneziqo ze-Doctor of Philosophy (PhD) ku-Genetics azithole e-University of Pretoria, i-Master of Science (MSc) ku-Zoology azithole e-University of Limpopo, ne-Master of Business Administration (MBA) ayithole e-University of the Witwatersrand Business School. Uphethe godu ne-Secondary Teachers Diploma (i-STD) uyithole e-Setotlwane College of Education. Umtlohi okhizako emikhakheni yeSayensi nokuPhatha. Unelemuko leminyaka engaphezu kwama-20 ekorweni yamanzi lapha athoma khona ibizelo lakhe njengesiphathiswa esilawula isilaphazeko lamanzi (i-WPCO) e-Ofisini yesifunda seMpumalanga emNyangweni wamaNzi neHlwengiso aqale khulu hlangana nokhunye ukugunyazwa kokusetjenziswa kwamanzi kumamayini endaweni ye-Olifants. Ebizelweni lakhe loke, ube mphathi eenkhundleni ezimbalwa, kufakwe hlangana ukuba liSekela lomNqophisi, begodu ukuba mNqophisi emNyangweni wamaNzi neHlwengiso. Njenganje sekamNqophisi oPhezulu: UmPhathi welwazi lomThombo wamaNzi emNyangweni wamaNzi neHlwengiso. Ulilunga lesiGungu ku-Genetically Modified Organisms, isigungu esiyeleleisa umNyango wezeLimo, ukuTjhugulula iNdawo nokuThuthukisa iindawo zemaKhaya ngetuthuko, umkhizako, ukusebenza nokusetenziswa kwehlofuzo elitjhugululiweko lalokho okuphilako enarheni. UDorhMatlala wakhethwa njengelunga leBhodi CGS ngomhlaka-1 kuMgwengweni ngomnyaka wee-2023.



UNom uMandla Malindisa
Ilunga lebhodi

UNom Malindisa wakhethwa kuBhodi njengelunga elidhlegana noDorh Moloko Matlala ngomhlaka-1 kuMgwengweni ngomnyaka wee-2023. Uneziqo ze-Bachelor of Commerce degree, isitifikayidi ku-Programme Forensic and Investigative Auditing nezinye godu iintifikayidi. Njenganje usebenza emNyangweni wamaNzi neHlwengiso njengomNqophisi oPhezulu oPhethe iNgozi nokuSebenzisana kwazo unelemuko leminyaka eli-19 emkhakheni wokuphatha ingozi, ukulawula ngaphakathi, uku-oditha ngaphakathi, kanye nokuphenya ngokukhethekileko ukwetjiwa kweemali. Usebenze njengesiPhathiswa esiPhezulu seNgozi eminyangweni emithathu yombuso welizwe loke; ukuba nguSolwazi wokuPhatha iNgozi e-KwaZulu-Natal Provincial Treasury; isiPhathiswa esiPhezulu seNgozi esiYingini sakaMasipala we-Sikhukhune; siFundiswa sokuPhatha iNgozi e-Statistics South Africa; begodu nokuba yi-Senior State Accountant emNyangweni wezeFundo kwaZulu-Natal.



UDorh uMmboneni Muofthe
Ilunga lebhodi

UDorh Muofthe uliSekelamNqophisi i-Deputy Director-General (i-DDG) le-Socio-Economic Innovation abaBambisani emNyangweni i-Department of Science and Innovation (i-DSI). Wakhethwa njengelunga leBhodi CGS ngomhlaka-1 kuMgwengweni ngomnyaka wee-2023. Ngaphambilini waphatha iinkhundla njenge-DDG mayelana ne-International Resources and Cooperation and DDG for Technology Innovation emnyangweni wona lowo. Unelemuko leminyaka eminyaka kusayensi, kutheknoloji nemahlelweni enziwa ngobutjha kufakwe hlangana irhubhululo lesayensi, ukuphatha irhubhululo, itjhebiswano langaphakathi, ukuthuthukiswa kweenkimo zeemali ezenziwe ngobutjha nokuhlonywa kwemizamo neensetjenziswa ezihlukahlukeneko ze-DSI. Udose phambili ukuhlonywa kwamaqhinga amanengi wesayensi, itheknoloji nalawo wokwenziwa ngobutjha afana ne-National Space Science Strategy, Bioeconomy, and Hydrogen South Africa (energy). Okhunye godu udose phambili neenkambiso zokuthuthukisa umbiko omayelana nobujamo beSewula Afrika bokulunga kwezeSayensi ukuSekela iBubulo leRhasi ye-Shale. Usebenze eendimeni ezihlukeneko zokuphatha, kufakwe hlangana amaBhodi we-Biovac (ikhamphani ekhizako umjovo eSewula Afrika), njenganje sekaku-CGS begodu useKomidini eLawulako ye-World Health Organization's mRNA Technology Transfer Hub. Usebenze njengelunga leBhodi yabaLawuli be-International Centre for Genetic Engineering and Biotechnology begodu njenganje umbambisani Sihlalo odosa phambilli wesiQhema esiTjheja iPhasi. Uneziqo ze-BSc (Univen), MSc (UCT), MBA (UP) ne- a PhD in Management of Technology and Innovation (da Vinci Institute).



UDorh uPatience Gwaze
Ilunga lebhodi

UDorh Gwaze wakhethwa njengelunga leBhodi ngomhlaka-27 kuVelabahlinze ngomnyaka wee-2023. Uneziqo ze-PhD emikhakheni e-physical ne-chemicalye-aerosol particles ayithole e-University of the Witwatersrand's Max Planck Institute for Atmospheric Science, ne-Master's degree iekuphenyeni i-geophysics ne-BSc (Hons) ku-physics ayithole e-University of Zimbabwe. Usebenze emkhakheni wesayensi i-atmospheric science iminyaka edlula ema-20 begodu udlale inqima eqakatheke khulu ekuThuthukiseni nekuHlomeni kwamaHlelo we-National Emissions Inventory System (i-NAEIS) ne-South African Air Quality Information System (i-SAAQIS). UDorh Gwaze ujoyine uMyango wamaHlathi neenHlambi neBhoduluko ngomnyaka wee-2010, begodu njenganje umNqophisi oPhezulu: We-Air Quality Information, nesiPhathiswa esikhethiweko seKhwalthi yoMoya eliZweni loke i-National Air Quality Officer.



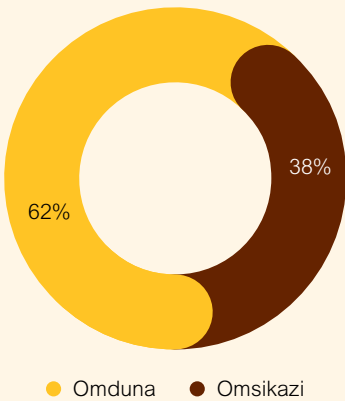
UDorh uSabelo Malaza
Ilunga lebhodi

UDorh Malaza wakhethwa kuBhodi njengelunga elidlhegana noDorh Patience Gwaze ngomhlaka-27 kuVelabahlinze ngomnyaka wee-2023. Uneziqu ze-PhD ku-Business Management, i-Master's degree in Business Administration, iziqu ze-BPhil degree ku-Knowledge and Information Management, i-BSc degree neziqo ku-Management Development uzithole ku- Gordon Institute for Business Science. Usisebenzi sokuphatha zebhoduluko unelemuko elidlula iminyaka eli-18 ekorweni yomphakathi. UDorh Malaza ube mphathi womNyango wezamaNzi nomNyango wamaHlathi, iinHlambi neBhoduluko emikhakheni ehlukeneko. Njenganje sekamNqophisi oPhezulu, utjheja ukuhlola ikambiso yamandla wezebhoduluko emNyangweni wamaHlathi, iinHlambi neBhoduluko.



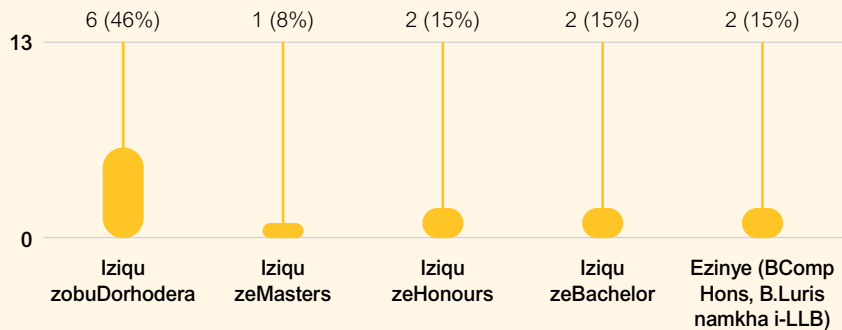
UDorh uJennifer Miremba
Ilunga lebhodi

UDorh Miremba wakhethwa njengelunga leBhodi ngomhlaka-27 kuVelabahlinze ngomnyaka wee-2023. Uthole iziqu zakhe ze-Doctorate in Town Planning on the impact of Technology (specifically ICT) on people, space and planning e-University of Pretoria. Mayelana neziqo zakhe ze- Master of City Planning and Urban Design degree, uzithole e-University of Cape Town, watlonyeliswa yi-Urban Design Institute of South Africa ngonongorwana we-thesis ekhamba phambili. UDorh Miremba nebandulo leentjhabatjhaba ngamandla wethekhnoloji ekuhlaleni kwabantu begodu uneentifikeyidi ezinengana ekuphatheni, nokuba sisazi ekutlameni emadorobheni neemfundeni. Umrhubhululi ophezulu ohlanganyeleko e-University of Johannesburg, uyihloko yephothifoliyo yezefundo esiFundeni i-Urban Design Institute Gauteng Region, ulisekela lomphathiimali ku-Gauteng Institute for Architects, begodu umphathi onqophileko ku-Innovation and Transformative Technologies emNyangweni wokuHlaliswa kwabaNtu eliZweni loke. Usitjhotjhovu esilelwa ukulingana nepumelelo yabantu bengubo ku-akhitekthjha e-Afrika. Indima edlalwa ngu-Dorh Miremba njenganje ngeyokuba mnQophisi we-Delivery Channel Management/Chief Town and Regional Planner emNyangweni wokuHlaliswa kwabaNtu eliZweni loke.

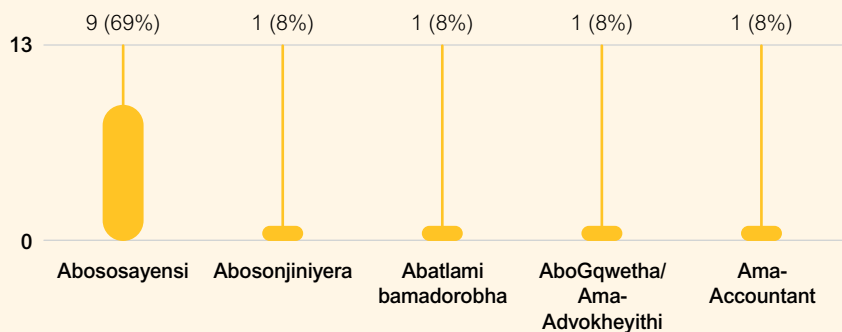


● Omduna ● Omsikazi

Isithombe 13: Isirhunyezo seemalobalo zobulili bamalunga weBhodi ye- CGS



Isithombe 14: Isirhunyezo seziqo zamalunga weBhodi ye- CGS



Isithombe 15: Isirhunyezo sokuhlelwa kwamakghono wamalunga weBhodi ye- CGS

IBhodi isekela begodu yenza kuhle imisebenzayo yokuphatha iimali evezwe esigabeni sama-50 se-PFMA Act (No. 1 of 1999) njengombana utjhugululiwe, ofuna bona amalunga weBhodi:

- a) Enze kuhle umsebenzawo ngetlhogomelo ukobana avikele ipahla namarekhodi we-CGS
- b) Aziphathe ngendlela ehloniphekileko ngendlela ethabelwa yi-CGS ekuphatheni iindaba zeemali zehlangano
- c) Abalekele ukusebenza ngendlela etjhugutlukako ekwenzeni imisebenzi abaquntelwe yona
- d) Abalekele ukusebenzisa iinkhundla zawo begodu/namkha amandlawo namkha ilwazi eliyifihlo abalitholako njengamalunga weBhodi ukobana bazizuzel bona namkha ukobanabenze omunye umuntu azuze ngendlela engasi semthethweni, begodu
- e) Aveze begodu batjho iinkareko ezinye nezinye ezibunqopho namkha ezingasibunqopho lezo bona namkha abalingani bazo namkha amalunga womndeni abatihidelene nawo abangaba nalo ezingenza bona kube nokutjhayisana kweenkareko.

IBhodi ihloma ukuukeyezwa kweenkareko kwaqobe mnyaka (ukuvezwa kweemali) begodu nokuveza kweenkareko kwenye nanye ikomidi nemihlanganweni yeBhodi ukuqinisekisa bona amalunga aveza izinto eziliqiniso namkha iarano elisezako kwenye nanye indaba ngaphambi kwesiPhathiswa eseziPhendulelako. Amalunga weBhodi kufanele arhoqise eenkambisweni lokha iindaba ezinjalo ziba khona ngaphandle nje nangabe iBhodi ithatha esinye isiqunto.

Kulawulwe yindlela umThetho we-Geoscience oqunta ngayo (No. 100 of 1993) njengombana utjhugululiwe, funda kokubili ne-PFMA, iBhodi kufanele iziphendulele emsebenzini owenziwa yi- CGS. IBhodi kufanele ilawule begodu iphathe iindaba ze-CGS, ihlele iqhinga ekufanele lilandelwe yihlangano, iphumelelise ibhudango layo, umsebenzi, iminqopho nemigomo yeqhinga.

Ukungezelela, iBhodi itjheja ukukhambisana kuhle nemigomo nokwenziwa kwesayensi, ukuphatha neminqopho yezeemali. IBhodi kumsebenzayo kwaphela ukwenza isiqiniseko sokobana i-CGS inamahlalo begodu ilandela amahlalo anepumelelo natjhatjhalazi wokuphathwa kweemali, ukuphatha ingozi noku-oditha ngaphakathi, begodu neenkambiso ezifaneleko, ezilinganako, nezinephaliswano ezisebenzisa iimali ngendlela engabizi khulu.

IBhodi inegunya lokudosaphambili, ukulawula nokuphatha ibhizinisi ye-CGS begodu yamukele umjameli ophelileko wegunya lephahla ngokukhambisana nesigaba sama-56 se-PFMA, ekhetha ukobana yoke imisebenzi yokuphatha iindaba zangamalanga ze-CGS zenziwe ngu-CEO. Ukukhethwa komgomo wegunya akuphambukisi

nakancani iBhodi emsebenzinayo nekuzibopheleleni kwayo ehlanganweni.

2.3 ITjhatha yeBhodi nemisebenzi yeBhodi

ITjhatha yeBhodi ebuyekezwa qobe mnyaka, inikela lokhu okulandelako:

- a) Indima yobudosiphambili edlalwa yiBhodi, ukwahlulela nelayelo leqhinga
- b) Ukubumbeka kweBhodi
- c) Ukuziphendulela, imisebenzi, imisebenzi yangokomthatho kanye nemisebenzi
- d) Indlela yokuziphatha kweBhodi
- e) Umthethosisekelo nokukhethwa kwamakomidi
- f) Ukulawula neenkambiso zemihlangano
- g) Ukuphatha izinto ezingabangela ingozi
- h) Isibopho mayelana nokwamukela imitlamo yeqhinga nokutjhejwa komsebenzi owenziwako nokuphatha
- i) Ukuqunta nokuphumelelisa kwemigomo
- j) Ukuphatha ingozi
- k) Ukuphatha ingozi, ubujamo nokuhlola.

2.4 Ikambiso yokwamukela nokuJayeza iBhodi

I-CGS ineHlelo lokwamukela amalunga wayo amatjha.

2.5 Ukubandula amalunga amaTjha weBhodi

UmNqophisi weHlelo lokuThuthukisa uqinisekisa bona amalunga weBhodi anande abandulwa kuhle ukuqinisekisa bona banelwazi elifaneleko lalokho okwenziwako, begodu bayathuthukiswa bafundiswe iinkambiso namahlalo wokuphatha ibhizinisi. Kuqalwa amakhoso aneleko afunekako anikelwa ziinhlangotho namkha atjhugululwa kuhle ukungezelela amakhono weBhodi nokuzibandakanya kwayo. IBhodi namalunga wekomidi bayakhuthazwa ukobana bazise uNobhala weBhodi lokha nabaqala ibandulo elingezelelweko elingathuthukisa umnikelwabo ehlanganweni. Ngendlela yemibiko yekota nemigomo, amalunga weBhodi abekwa emkhanyweni ngezakhiwo ezilawula i-CGS, amaphrojekthi weqhinga nokusebenza kwebhodi ukwenzela bona akghone ukwenza imisebenzayo nokuziphendulela.

2.6 Imihlangano yeBhodi

IBhodi yangaphambilini yabamba umhlangano owodwa ngomnyaka wee-2023/24, ngaphambi kobona isikhathi sayo siphela ngomhlaka-30 kuSihlabantangana 2023. Ithebula yesi-4 iveza iminingwana yemihlangano ekhanjelwe ngelinye nelinye ilunga leBhodi ngenyanga kaSihlabantangana ngomnyaka wee-2023.

Ithebula yesi-4: IBhodi yangaphambili ye-CGS – imihlangano yeminyaka yee- 2023/24

Amalunga weBhodi	26 kuSihlabantanga 2023	Inani lemihlangano ekhanjelweko
Dorh H Mathe (USihlalo)	Abakhona	1
UNom M Mabuza (u-CEO)	Abakhona	1
UNom X Mvinjelwa (USekelasihlalo)	Abakhona	1
UDorh P Gwaze	Isincancabezo (woke amalunga aphumelele)	0
UDorh S Malaza	Abakhona	1
UMm D Mochotlhi	Abakhona	1
UNom P Nel	Abakhona	1
UMm R Mdubeki	Abakhona	1
UMm P Tsotetsi	Isincancabezo (ilunga eliqakathekileko eliphumeleleko)	0
U-Adv U-N Maake	Abakhona	1
UMm A Chowan	Abakhona	1
UDorh J Mirembe	Abakhona	1
UNom B Gerrys	Abakhona	1
UNom A Moatshe	Abakhona	1

IBhodi yanje yabamba imihlangano emithathu ngomnyaka wee-2023/24 Ithebula yesi-5 iveza imininingwana yemihlangano ekhanjelwe ngelinye nelinye ilunga leBhodi ngomnyaka wee-2023/24.

Ithebula yesi-5: IBhodi yanje ye-CGS – imihlangano yeminyaka yee- 2023/24

Amalunga weBhodi	29 kuMrhayili 2023	28 July 2023	27 KuSewula 2023	28 KuMgwengweni 2024	Inani lemihlangano ekhanjelweko
UNom K Dintwe (USihlalo)	Awekho amalunga weBhodi amajadu	Abakhona	Abakhona	lincancabezo	2 - 3
UNom M Mabuza	Awekho amalunga weBhodi amajadu	Abakhona	Abakhona	Abakhona	3 - 3
UNom X Mvinjelwa (USekelasihlalo)	Awekho amalunga weBhodi amajadu	Abakhona	Abakhona	Abakhona	3 - 3
UDorh P Gwaze	Awekho amalunga weBhodi amajadu	*	lincancabezo	Abakhona	1 - 2
UDorh S Malaza	Awekho amalunga weBhodi amajadu	*	lincancabezo	lincancabezo	0 - 3
U-Adv U-N Maake	Awekho amalunga weBhodi amajadu	Abakhona	Abakhona	Abakhona	3 - 3
UMm T Njozela	Awekho amalunga weBhodi amajadu	Abakhona	Abakhona	Abakhona	3 - 3
UDorh J Mirembe	Awekho amalunga weBhodi amajadu	*	Abakhona	Abakhona	2 - 2
UNom A Moatshe	Awekho amalunga weBhodi amajadu	lincancabezo	Abakhona	lincancabezo	1 - 3
UDorh M Matlala	Awekho amalunga weBhodi amajadu	Abakhona	lincancabezo	Abakhona	2 - 3
UDorh S Mngadi	Awekho amalunga weBhodi amajadu	Abakhona	Abakhona	Abakhona	3 - 3
UDorh M Muofhe	Awekho amalunga weBhodi amajadu	Abakhona	Abakhona	Abakhona	3 - 3
UDorh M Singh	Awekho amalunga weBhodi amajadu	Abakhona	Abakhona	Abakhona	3 - 3
UNom M Malindisa	Awekho amalunga weBhodi amajadu	Abakhona	Abakhona	Abakhona	3 - 3
UMm N Nxumalo	Awekho amalunga weBhodi amajadu	Abakhona	Abakhona	Abakhona	3 - 3

* Kutjho bona akakahabi ukuba lilunga.

2.7 Imali ebhadalwa iBhodi

Imali ebhadalwa amalunga weBhodi iquntwa nguNgqongqotjhe wezeeMali ngokubonisana noNgqootjhe wemiThombo yamaMinerali ne-Eneji begodu ukhutjwa qobe mnyaka kumaphakeji wamaRhubhelo womSebenzi womnyango ophethe zeeMali eliZweni loke. Amanani anikela ngokwenani lelanga elenzelwe ukulungiselela umhlangano begodu nokukhambela umhlangano kanye neendleko zamakhambo.

Ithebula ye-6: Imali ebhadalwa amalunga we-CGS (2023/24)

Amalunga weBhodi	Imali ebhadalwako	Esinye isibonelelo	Ezinye iimali ezibhadalwako	Inani loke
UNom K Dintwe	145 449			145 449
Dr H Mathe*	R37 308			R37 308
Nom X Mvinjelwa	R195 405			R195 405
U-Adv U-N Maake	R149 749			R149 749
UDorh M Singh	R131 014			R131 014
UMm T Njozela	R164 546			R164 546
UMm N Nxumalo	R130 348			R130 348
UDorh S Mngadi	R224 300			R224 300
U-Adv U-A Chowan*	R80 132			R80 132

* Amalunga weBhodi egadungileko, isikhathi sawo esiphela ngomhlaka-30 kuSihlabantangana 2023.

2.8 Amakomidi weBhodi

Ngokutjho kwesigaba 15 somThetho we-Geoscience Act (No. 100 of 1993) njengombana utjhuuliwe, iBhodi ingahloma ikomidi ngaphandle kokulayela iBhodi, izakwenza imisebenzi enjalo yeBhodi njengombana iquntwa ngaso soke isikhathi. Okhanye godu, isigaba 56 se-PFMA Act (No. 1 of 1999) njengombana utjhugululiwe uveza bona eminye imisebenzi yeBhodi nobujamo bokuphatha be-CGS buinganelwa amaKomidi weBhodi ngaphandle kokuwamuka iindima nemisebenzawo. Yeke amaKomidi wamaBhodi, ayakhonjelwa ukobana abe neemphakamiso azenza eBhodini ephelileko ngaphambi kobana iinqunto zeqhinga zihlonywe baphathi. Ngokugunyazwa sigaba 15 somThetho we-Geoscience Act (No. 100 of 1993) njengombana utjhugululiwe, isigaba 56 se-PFMA neemphakamiso ze-King Code, iBhodi ihlome begodu yanikela eminye yemisebenzayokilamakomidi weBhodi amane:

- Ikomidi yoku-Oditha neyeNgozi
- Ikomidi yezeeMali
- Ikomidi yobuThekhniki
- Ikomidi yabaSebenzi, ukuBhadala kanye neTjhuguluko.

2.9 Ikomidi yoku-Oditha neyeNgozi

Ikomidi yoku-Oditha neyeNgozi yahlonywa ngokutjho kwesigaba 77 se-PFMA nomThetjhwana i-National Treasury Regulation 27. Ikomidi inikela imisebenzayo ngokutjho kweTjhatha yeKomidi yoku-Oditha neyeNgozi, ehlela ukubumbeka, iindima nemisebenzi yekomidi. Iragela phambili nokutjheja ikhwalithi nokuthembeka kwelwazi leemali ze-CGS elisetjenziswa yiBhodi, iintatimende zeemali ezikhutjwa yiCGS neminye imisebenzi ehluhlukeneko ngaphakathi kwehlangano. Ikomidi yoku-Oditha neyeNgozi iqinisekisa bona iingozi ezisathomako zibonwa msinya nokuthi iinkambiso ezifaneleko nezinepumelelo zokulawa ziba khona ukulungisa iingozezi. Ukubumbeka kwekomidi nokukhanjelwa kwemihlanganwayo ukusukela ngomhlaka-1 kuSihlabantangana ukuya kumhlaka-31 kuNtaka 2024 kuveziwe kuThebula ye-7.

Amalunga wekomidi	20 kuSihlabantangana 2023	21 July 2023	19 KuSewula 2023	23 KuMgwegweni 2024	Imihlangano ekhanjelweko
UMm K Maropa	Abakhona	*	*	*	1 - 1
UNom S Maetle	*	Abakhona	Abakhona	*	2 - 2
UNom O Willcox	Abakhona	Abakhona	Abakhona	Abakhona	4 - 4
UDorh S Mngadi	Abakhona	*	*	*	1 - 1
UNom M Malindisa	*	Abakhona	Abakhona	Abakhona	3 - 3
UMm D Morabe	Abakhona	Abakhona	Abakhona	lincancabezo	3 - 4
U-Adv U-A Chowan	Abakhona	Abakhona	Abakhona	Abakhona	4 - 4
U-Adv. N Maake	Abakhona	Abakhona	Abakhona	lincancabezo	3 - 4
UNom S Xulu	lincancabezo	*	*	*	0 - 1
Nom X Mvinjelwa	*	Abakhona	Abakhona	Abakhona	3 - 3
UMm T Njozela	*	Abakhona	Abakhona	Abakhona	3 - 3
UDorh M Singh	*	Abakhona	Abakhona	Abakhona	3 - 3
UNom R Maboe	*	Abakhona	lincancabezo	Abakhona	2 - 3

* Ilunga lalingasimajadu ngesikhathi okubikwa ngaso.

2.9.1 Umbiko welkomidi yoku-Oditha neyeNgozi

Ikomidi yoku-Oditha neyeNgozi zibika bona zikhambisene nemisebenzazo evela kusigaba 77 se-PFMA nomThejhwana i-National Treasury Regulation 27.1. Ikomidi ibika nangokuthi yamukele iTjhatha yeKomidi yoku-Oditha neyeNgozi njengombana iinkambiso zayo ekufanele zilandelwe, zihlele iindaba zazo ngokukhambisana netjhatha le begodu inikele ngemisebenzi yoke emunyethwe lapha.

Ekwenzeni imisebenzayo, ikomidi hlanguka nokhunye yenze, lemisebenzi elandelako:

2.9.2 Ukuhlola nokulawula ngaphakathi

Ikomidi ilayele, itjhejile begodu yahlola imisebenzi eyenziwe msebenzi woku-oditha ngaphakathi. Ngokomsebenzi we-odithi yangaphakathi, ikomidi inande kancani kancani itjheja ukuthuthuka kwelawulo langaphakathi ngaphakathi kwe-sCGS bese iyahlola bona ingabe umsebenzi we-odithi yangaphakathi iwenze ngefanelo umsebenzayo. Ngesikhathi somnyaka wee-2023/24 ilawulo langaphakathi labikwa godu lithuthuke kule khulu kwezinye iindawo, yeke inani loke lelawulo kwabikwa bona lisafuna ukwenziwa ngcono. Kusesekhona isikhathi sokobana kungalungiswa kilokhu okulandelako:

- Ukuphatha iinkambiso zepahla
- Ukuphatha ipahla
- Ukuphatha zeemali
- Ukuphatha idatha ye-Geoscience
- Iinsetjenziswa ezilawula i-ICT
- Ilwazi lokusebenza
- Ukuphepha, zamaphilo, kanye nebhoduluko
- Ukuphatha iinsetjenziswa
- Ukuphatha iphrojekthi ye-GTP.

Ikomidi ibika bona iragelo phambili ekuhlonyweni kweendlela zokulungisa ukurarulula imiraro efunyenweko kuyatjhejwa nokobana imibiko yeragelo phambili ibuthelelwa qobe yikota.

2.9.3 Ukuhlolwa kombiko womnyaka

Ikomidi yenze lokhu:

- Ibuyekeze umbiko we-CGS ngokwelwazi lokusebenza kwebhizinisi
- Ibuyekeze imigomo neekambiso zokuziphendulela ze-CGS
- Ibuyekeze ukufaneleka nesizo lelwazi leemali elinikelwa mhloli weencwadi zombebele
- Ihlole, yabuyekeza begodu yacoca nomHloli weencwadi Zombebele neenTatimende zeeMali ezi-odithiweko nazo zifakwe hlanguka emBikweni womNyaka wagadesi
- Ibuyekeze umbiko womphathi womHloli weencwadi Zombebele nombiko we-Oditha.

Ngokwelwazi elinikelwe yikomidi, ikomidi ithethe isiqu nto sokobbana iinTatimende zomNyaka zeeMali ziyakhambisana nalokho okufunwa yi-PFMA, i-National Treasury Regulations kanye ne-South African GRAP standards.

2.9.4 Ukuphatha ingozi

Ikomidi ibika bona ngesikhathi somnyaka obuyekwezako iphumelelise lemigomo ye-Strategic Risk Register, Anti-Fraud and Corruption Policy and the Enterprise Risk and Compliance Management Policy. Imigomo le ngemuva kwalokho yabonisanwa nabasebenzi begodu yafakwa esikwenipilo le-CGS. Ikomidi ibuyekeze:

- Ukulangazelela ingozi kwehlangano namazinga wokubekezela
- Iingozi eziqakathekileko ezibonakalako ze-CGS nabaphathi abalayelwa ukutjhejwa nokwenza amaqhinga wokulungisa mayelana nalokho okubonwako, kufakwe hlanguka iingozi ezihlobene nesithunzi, imisebenzi, ubukhwabanisi, iqhinga.

2.9.5 Ukuhlolwa kweentatimende zeemali

Ikomidi ibuyekeze begodu yacocisana ngencwadi yokuphatha nomHloli weencwadi Zombebele kwacocwa ngeentatimende zeemali zomnyaka ophela ngomhlaka-31 kuNtaka 2024. Okhunye godu ibuyekeze incwadi yokuphatha yomHloli weencwadi Zombebele neempendulo zabaphathi ngayo. Ikomidi inombono othi iintatimende zeemali zikhambisana nemithetho, begodu akunami edliweko, zikhambisana neendingo ze-PFMA kanye ne-South African GRAP standards.

2.9.6 Umbiko ka-Oditha

Ikomidi yoku-Oditha neyeNgozi ibuyekeze umtlamu wokusebenza mayelana nalokho okutholakele ku-odithi yomnyaka wee-2022/23 ngaphambi kokuphela kwethemu yokuphuma e-ofisini begodu yabika ngaleso sikhathi ngokuthi inani lemiphumela eqakathekileko ilungisiwe. Abaphathi bazibophelele ekulungiseni koke okutholakele embikweni okusazokwenziwa.



UNom L Lepulana

USihlalo

Ikomidi ye-Odithi neyeNgozi yesiGungu se-Geoscience

31 July 2024

2.10 Ukubumbeka nemisebenzi yeKomidi yeeMali

Ikomidi yezeemali ye-CGS igunyazwe ukutjheja nokuphakamisa, ukobana iBhodi iphumelelise, iindaba ezilandelako:

- Imisebenzi yeemali eqakathekileko
- Ubujamo be-CGS bepahla yemali neemali
- linkolodo ezimbi ezisuliweko
- Imahluko yamamatheriyali kumabhajedi aphumelelisiweko womnyaka begodu/namkha abuyekezwe ngokukhambisana nokuQakatheka kwelwazi nomTlamo wePhahla oQakathekileko
- Iimali ezihlongozwe nebhajedi esebenzako mayelana neendleko zeemali
- Iintatimende zeemali mayelana nomBiko womNyaka
- Yoke imigomo ethintekako kwezeemali
- Ukuphatha ilwazi lokusebenza kwebhizinisi nakuqalwa ibhajedi ephumelelisiweko.

Ikomidi yezeemali ibunjwe malunga alithoba angasiwo wesegungu kanye ne-CEO (lolilunga lesiGungu) Imininingwana yamalunga yethulwe kuThebula yobu-8 nemarejista wokukhambela imihlangano afakiwe ukusukela ngomhlaka-1 kuSihlabantangana 2023 ukuya ku-31 kuNtaka 2024.

Ithebula yobu-8: Imihlangano yeKomidi yezeemali ngomnyaka wee-2023/24

Amalunga wekomidi	20 kuSihlabantangana 2023	21 July 2023	19 KuSewula 2023	23 KuMgwengweni 2024	Imihlangano ekhanjelweko
UNom P Nel	Abakhona	*	*	*	1 - 1
UMm D Morabe	Abakhona	Abakhona	Abakhona	lincancabezo	3 - 4
UDorh S Mngadi	*	Abakhona	Abakhona	Abakhona	3 - 3
UNom M Mabuza	Abakhona	Abakhona	Abakhona	Abakhona	4 - 4
UMm N Nxumalo	*	Abakhona	Abakhona	Abakhona	3 - 3
UNom O Willcox	Abakhona	Abakhona	lincancabezo	Abakhona	3 - 4
U-Adv U-N Maake	Abakhona	Abakhona	Abakhona	lincancabezo	3 - 4
UDorh J Mahachi	Abakhona	Abakhona	Abakhona	lincancabezo	3 - 4
UNom M Malindisa	*	Abakhona	Abakhona	Abakhona	3 - 3
UMm T Njozela	*	Abakhona	Abakhona	Abakhona	3 - 3
UNom R Maboe	*	Abakhona	Abakhona	Abakhona	3 - 3

* Ilunga lalingasimajadu ngesikhathi okubikwa ngaso.

2.11 IKomidi yobuThekhniki

IKomidi yobuThekhniki ye-CGS inikelwe igunya lokobana itjheje bese yenza iimphakamiso mayelana nokobana iBhodi phumelelise kwesayensi yomnyaka kanye nehlelo leqhinga elitheknikhali (i-GTP) yehlangano, ukobana ihlole umphumela wesayensi newetheknikhali nokutjheja ukuhlonywa kweqhinga le-ICT kanye nokuhlolwa kokuphela kwethemu.

Ukubumbeka kwekomidi nokukhanjelwa kwemihlanganwayo kweKomidi eThekhnikhali ukusukela ngomhlaka-1 kuSihlabantanga ukuya kumhlaka-31 kuNtaka 2024 kuveziwe kuThebula ye-9.

Ithebula ye-9: Imihlangano yeKomidi eThekhnikhali ngomnyaka wee-2023/24

Amalunga wekomidi	20 kuSihlabantanga 2023	20 July 2023	18 KuSewula 2023	22 KuMgwengweni 2024	Imihlangano ekhanjelweko
UNom B Gerrits	Abakhona	*	*	*	1 - 1
Nom X Mvinjelwa	Abakhona	*	*	*	1 - 1
UDorh S Mngadi	*	Abakhona	Abakhona	Abakhona	3 - 3
UDorh S Malaza	Abakhona	*	*	Abakhona	2 - 2
UDorh M Matlala	*	lincancabezo	Abakhona	Abakhona	2 - 3
UDorh M Singh	*	Abakhona	Abakhona	Abakhona	3 - 3
UNom M Mabuza	Abakhona	Abakhona	Abakhona	Abakhona	4 - 4
UMm T Njozela	*	Abakhona	Abakhona	Abakhona	3 - 4
UDorh M Mayekiso	Abakhona	Abakhona	Abakhona	Abakhona	4 - 4
UNom A Moatshe	Abakhona	*	*	*	1 - 1
UDorh J Mahachi	Abakhona	Abakhona	Abakhona	lincancabezo	3 - 4
UNom S Ndaba	*	Abakhona	lincancabezo	Abakhona	2 - 3
UMm N Nxumalo	*	Abakhona	Abakhona	Abakhona	3 - 3

* Ilunga lalingasimajadu ngesikhathi okubikwa ngaso.

2.12 AbaSebenzi, ukuBhadala kanye neKomidi yeTjhuguluko

Abasebenzi, ukuBhadala kanye neKomidi yeTjhuguluko igunyazwe ukutjheja nokuphakamisa ukobana iBhodi iphumelelise amaqhinga wemithombo yabantu nemigomo ye-CGS, umhlobo wembhadalo yehlangano, ukubhadala abaphathi besigungu nokunuswa kwemirholo qobe mnyaka. Okhunye godu ikomidi ihlola begodu yenza iimphakamiso ekubhadalweni kwamabhonasi womsebenzi begodu itjheja imibiko yomsebenzi wehlangano ngeendaba eziphathelele nomsebenzi, ukulingana emsebenzini nokubandulwa kwabasebenzi begodu neendaba zokuthuthukisa.

Ukubumbeka kwekomidi nokukhanjelwa kwemihlanganwayo kweKomidi yeTjhuguluko ukusukela ngomhlaka-1 kuSihlabantanga ukuya kumhlaka-31 kuNtaka 2024 kuveziwe kuThebula ye-10.

Ithebula ye-10: Abasebenzi, ukuBhadala kanye nemihlangano yeKomidi yeTjhuguluko ngomnyaka wee-2022/23

Amalunga wekomidi	20 kuSihlabantanga 2023	20 July 2023	18 KuSewula 2023	22 KuMgwengweni 2024	Imihlangano ekhanjelweko
UMm R Mdubeki	Abakhona	*	*	*	1 - 1
Nom X Mvinjelwa	Abakhona	Abakhona	Abakhona	Abakhona	4 - 4
UDorh M Muofhe	*	Abakhona	Abakhona	Abakhona	3 - 3
UNom M Mabuza	Abakhona	Abakhona	Abakhona	Abakhona	4 - 4
UDorh M Mayekiso	Abakhona	Abakhona	Abakhona	Abakhona	4 - 4
UNom R Maboe	*	Abakhona	Abakhona	Abakhona	3 - 3
UDorh J Mirembe	Abakhona	*	*	*	1 - 1
UMm M Seane	Abakhona	*	*	*	1 - 1
UDorh S Malaza	*	*	*	Abakhona	1 - 1
UNom S Ndaba	*	Abakhona	lincancabezo	Abakhona	2 - 3
U-Adv U-A Chowan	*	Abakhona	Abakhona	Abakhona	3 - 3
UDorh M Matlala	*	lincancabezo	Abakhona	Abakhona	2 - 3
UNom A Moatshe	lincancabezo	Abakhona	lincancabezo	Abakhona	2 - 4

* Kutjho bona akakahabi ukuba lilunga/akakarhabi ukuqatjiswa.

3 Ukuphatha iNgozi

IBhodi ye-CGS iqalene nokuhloma abaphathi abalawula ingozi ngendlela yobudosiphambili obunepumelelo. Abaphathi baziphendulela kuBhodi mayelana nokuhlanganiswa kokuphatha ingozi emisebenzini yangamalanga we-CGS begodu namayelana nokuhloma nokutjheja iinkambiso zokuphatha ingozi. Ikomidi yoku-Oditha neyeNgozi ziziinhlango ezizijameleko eziqalene nokutjheja ingozi ekhona ehlobene nokulawula nokuphatha ingozi. I-CGS ithuthukise irejistara yeqhinga lengozi yaqobe mnyaka emayelana neqhinga lezinto zehlangano. Lokhu kutjhejwa qobe yikota begodu kunikela isiqiniseko kuBhodi ngokuthi i-CGS iphatha kuhle iingozi ezitholakalako. Irejistara yeqhinga lengozi yenzelwa isifundobandulo neBhodi qobe mnyaka. Iingozi zomsebenzi ziphathwa ngokomsebenzi nangokwamarejistara weqhinga lengozi nawo womabili amarejistara weengozi kucocwa ngawo lokha nakunemihlangano yokuPhatha umSebenzi weNgozi kanye neKomidi eHlanganisa ukuQiniseka. Iinkambiso zokuQala iNgozi nomGomo oPhatha ukulandelwa komThetho kwabuyekezwa kokugcina begodu kwakhwezelelwa ngenyanga kaSihlabantangana ngomnyaka wee-2022 Isakhiwo esilawula ukuphathwa kwengozi yehlangano ye-CGS sethulwe esiThombeni se-13.



Isithombe 16: Isakhiwo sokulawula ukuphathwa kwengozi ehlanganweni ye-CGS

4 Ukulawula ngaPhakathi

Abaphathi baqalene nokudizayina, ukuhloma nokuragela phambili nokubuyekeza ilawulo langaphakathi ukunikela isiqiniseko mayelana ngokusebenza kuhle nangepumelelo yemisebenzi begodu nangokuthembeka kokubika ngeemali, nangokugada nokutjheja ukuzibophelela neempahla zehlangano. Amalawulo la atjhejwaki baphathi nabasebenzi

kiyo yoke i-CGS ngokuhlukanisa kuhle imisebenzi. Umsebenzi we-odithi yangaphakathi wenza ukubuyekezwa okuzijameleko ekutheni ingabe iindlelezi zisebenza kuhle njengengcenywe yomtlambo we-odithi yangaphakathi yomnyaka ephumelelisiweko, kanye nemibiko ye-odithi yangaphakathi yethulwa kuKomidi yoku-Oditha neyeNgozi.

5 I-Odithi yangaPhakathi

Umsebenzi we-odithi yangaphakathi wahlonywa ngokutjho kwe-PFMA begodu wamukele indlela esekela uku-odithwa kwengozi ngokukhambisana ne-international Standards for the Professional Practice of Internal Auditing (i-ISPPA). Umsebenzi we-odithi yangaphakathi ye-ukhambisana ne-ISPPA ikomidi yoku-Oditha neyeNgozi ibuyekeze yaphumelelisa itjhatha esemthethweni ye-odithi yangaphakathi.

Ikomidi yoku-Oditha neyeNgozi iphume umtamo waqobe mnyaka we-odithi yangaphakathi, imibiko ye-odithi yangaphakathi yethulwa ekomidini qobe yikota. Ilandelela lama-odithi lenziwa ngomnyaka owandulela imiphumela ye-odithi. Umsebenzi we-odithi yangaphakathi wenza godu amaphenyo wokuthoma ngeendaba ezibikelwe umtato wababethifengwana kanye nemitlolophenyo eyenziweko ekhonjelwe baphathi.

6 Ukukhambisana nemiThetho kanye nemiThetjhwana

I-CGS ikhambisana nemiThetjhwana i-National Treasury Regulations ngokukhambisana nerhelo lokuhlola kanye nekhalenda ye-PFMA, okuzizinto ezinande zitjhejwa begodu zikhwezelelwa. Ukukhambisana nemithetho kanye nemithetjhwana kutjhejwa ngokwemisebenzi ye-Odithi neKomidi yeNgozi begodu nangokweZiko eliKhambisana neNgozi ezingeni lokusebenza, okunzize ekulawulweni yiphasi-

CGS elaphunyelelwa yiBhodi ngenyanga kaVelabahlizze ngomnyaka wee-2022. Amahelo wokuhlola ukukhambisana nomthetho ayathuthukiswa mayelana nayo yoke imithetho nemithetjhwana ekhona erheliswe ephasini elilawulwa nelitjhejwa ngokwamahlelo. Izinga lokukhambisana nomthetho kucocwa ngalo emihlanganweni yomsebenzi nokuPhatha iNgozi kanye neKomidi eHangeneko yokuQinisekisa.

7 Ubukhwabanisi neKohlakalo

Ngokutjho kwe-PFMA, i-CGS inesibopho sangokomthetho sokuthatha amagadango ukukhandela iindleko ezingakagunyazwa, ezinganamsebenzi, zokona imali begodu nokuloba okubangelwa kukwenziwa kobulelesi. Umgomo we-CGS wobuKhwabanisi neKohlakalo wabuyekizwa begodu waphumeleliswa ngenyanga kaSihlabantangana ngomnyaka wee-2022 kwahlonywa nomtato osemthethweni wababethifengwana. Umsebenzi lo

ulawulwa ngaphandle yi-Whistle Blowers (Pty) Ltd. Imibiko iyatholakala begodu lokha ababethifengwana nababika emtatweni, begodu koke ukurhononwa kobukhwabanisi kuphenywa ma-oditha wangaphakathi bese abikelwa iKomidi yoku-Oditha neyeNgozi lingozi zobukhwabanisi ziyabonakala ngesikhathi sekambiso yokuhlola ingozi bese ziyatjhejwa ngokwamarejistara ahlukahlukeneko wengozi e-CGS.

8 Ukuphungula amandla wokuziNjingisa ngokungemThetho

Boke abasabalalisi bepahla nemisebenzi ye-CGS kufuneka izalise umTlolo onzinzisiweko we-standardised National Treasury documentation (SBD4 Declaration of Interest). Ngokombono wehlebezana engaba khona yokukhetha ngokwazana nangokusebenzisa amandla wokuzinjingisa, nanGE kwenzeka kuba nomsebenzi ophiwako, namkha kuba yingcenywe yalokho, inikelwe abantu abasebenza ku-CGS, namkha abantu abahlobene namkha abazana

nabasebenzi be-CGS, kufuneka bona loyo obhidako namkha umjmelakhe ogunyaziweko atjho isikhundla sakhe kusiphathiswa esihlolako/esijajako Ukungezelela, abasebenzi be-CGS ababandakanyekako kilokhu i-Bid Specification, Bid Evaluation ne-Adjudication Committee bayakhonjelwa ukobana bazalise amaforomo wesivumelwano sokungavezi litho komunye nomunye umhlangano.

9 Indlela yokuziPhatha

Indlela yokuziphatha kwe-CGS ilawula ukuziphatha kwelinye nelinye ilunga lomsebenzi, nabo boke abasebenzi abatjha ababandulwako elimayelana nendlela le yokuziphatha lokha nabangeniswa emsebenzini. Elinye nelinye ilunga lomsebenzi kuyafuneka ukobana litlikitle isibopho qobe mnyaka, batjengise bona bayazwisisa okumunyethwe kundlela yokuziphatha nokobana enye nenye indlela yokungawulandeli umthetho lo kuzakuba nemiphumela emimbi, okungenzeka kufake nesenzo sokujeziswa. Indlela yokuziphatha eHlanganweni ifaka hlanguana iindawo ezilandelako:

- Imisebenzi ye-CGS
- Indlela ejayelekileko yokuziphatha emsebenzini kanye nokubekezela nokuhlonipha boke abantu
- Ukuzibophelela nokutjhayisana kweenkareko
- Ukwamukelwa kweziphopho nemithokozo
- Ukungakhambisani nobukhwabanisi kanye nekohlakalo, ukuthorisa ngokomseme begodu nokusabisa
- Ipolitiki emsebenzini
- Ukutlhogomela ngefanelo netjhejo lomsebenzi owenziwako
- Itlhogomelo nokutjhejwa kwepahla
- Ukuthintana ngokwe-elokhroniki nokuvikelwa kwelwazi eliyifihlo.

Okhunye godu, i-CGS izibophelela kileenkambiso ezilandelako:

- Ukusebenza kuhle nesithunzi ekurageni ibhizinisi, kufakwe hlanguana ukuphathwa kuhle kwemiraro ekhona neyamambala hlanguana namatjhebiswano abonakalo naphrofetjhinali.
- Ihlonipho mayelana namalungelo wobuntu begodu nesithunzi sabo boke abasebenzi

- Ukwamukelwa kwamasiko ahlukeneko, zekolo, ubutjhaba, ubulili nokuzijayeza zomseme
- Ukuthembeka, ubutjhatjhalazi nokuzibophelela
- Ukukhambisana namazinga afaneleko wokulawulwa kwebhizinisi kanye nemithetho
- Ukuziphatha ngendlela eningeze nasolwa ngayo lokha nanijamele ihlangano begodu nokuziphendulela ngezenzo zabo ngaso soke isikhathi
- Ukuziphatha ngokuthemba kizo zoke izinto ezenziwa namalunga weBhodi/weKomidi, abasebenzi, abathumelipahla, amakhastama namkha abathengi begodu nabanye abahlanganyeli
- Ukuhlonipha yoke imithetho yombuso ekhona, imithetho nemithetjhwana nokubalekela ukwenza imilandu yobulelesi
- Ukubalekela ukungavezi pepenene izinto nokuziveza lokha nazibonakalako
- Ukungasebenzisi ilwazi lebhizinisi mayelana nomunye nomunye umnqopho kunokulisebenzisela lowo ekufanele usetjenziselwe wona nokungavezi ilwazi eliyifihlo
- Ukubalekela ukuzibandakanya ezenzweni namkha ukwenza iinkareko ngeqadi ezitjhayisana nalezo ze-CGS namkha lezo ezingenza bona i-CGS kube nalokho ekulobako namkha kube nomonakalo obangelwa ngilokho.

NgokomThetho wokuziPhatha we-CGS, boke abantu abajamele i-CGS kufanele baziphathe kuhle khulu nangesithunzi ebhizinisi. Okhunye godu, boke abasebenzi, abosokontraga, ababonisani nalabo abajamele i-CGS kufanele bayijamele kuhle nangokuthembeka ihlangano begodu babalekele ukuzibandakanya komunye nomunye umsebenzi namkha ihlelo elizama ukudlela abantu iimali, ipahla nemisebenzi. Isithunzi nokuthembeka kwe-CGS kujamela ikghono lehlangano lokusebenza kuhle njengehlangano yomBuso.

10 UNobhala weBhodi

UNobhala weBhodi unikela imisebenzi yokweluleka begodu wazisa amalunga weBhodi ngemithetjhwana etjhugulukileko nangeentuthuko ezitja ekulawuleni ibhizinisi. Okhunye godu, uNobhala weBhodi uyelelisa iBhodi kanye namaKomidi weBhodi ngokuthi kufanele

bayenze njani imisebenzabo ngokwendlela elindelwe yihlangano. UNobhala weBhodi ukghonakalisa begodu ukhambela imihlangano yeBhodi neyamakomidi weBhodi begodu uba mnikazi wayo yoke imitlolo yemigomo.

11 Zamaphilo, ukuPhepha neBhoduluko

I-CGS ithatha ukunikelwa komsebenzi webhoduluko lezokuphepha nelezamaphilo njengezinto eziqakathekileko ezenza kusetjenzwe ngamandla. Lokhu kubonakala kuhle eentjhabatjhabeni nemizameni enqotjhiweko ukunikela isiko eliphephileko nelinepilo njengombana kuvezwe emGomeni we-Safety, Health and Environment Management Policy ehlanganiswe nomThetho i-Occupational Health and Safety Act (No. 85 of 1993) kanye nemiThetjhwana begodu inqophe ukunikela ivikeleko emsebenzini ngaphandle kokubeka iimpilo zabantu engozini. Okhuny egodu umgomo ubeka isibopho nomsebenzi kubasebenzi ukobana basebenze begodu baziphathe ngendlela yokulayelwa ngezokuphepha ehlanganweni. I-CGS yenza bona ihlangano ikhona ukutjhayela ukukhambisana nemithetho ngokuhlola

ukukhambisana nemithetjhwana i-Occupational Health and Safety regulations qobe yikota. Irhelo lokuhlola ukukhambisana nomthetho elisetjenzisiweko linikela iintjengiso ezimbalwa lezo ezitjhayisana nendlela umsebenzi kilendawo otjhejwa ngakhona, ukuqinisekisa ukuphungulwa kwezinto ezingabangela umonakalo nokuphungulwa kweengozi. Ubujamo banje bokukhambisana nomthetho bukumaphesende ama-93% linkambiso ziragela phambili ukulungisa iindawo ezingakhambisaniko nomthetho. Ihlangano ihlome iKomidi yezokuPhepha, zamaPhilo, kanye nezeBhoduluko ehlangana okungaseni kanye qobe yinyanga ukubonisana ngeendaba zamaphilo, zokuphepha ezithinta boke abasebenzi. I-CGS iqatjhe umjameli wezokuphepha ozakutjheja zoke iindawo zamaphilo nezevikeleko.

12 Ukusebenzisana nomPhakathi

Iqhinga lehlango ye-CGS kuhlekuhle lisetjenziselwa begodu likghonakaliswa kuthintana okuhlanganisiweko nokuzibandakanya ngepumelelo bomhlanganyeli. Ihlangano yamukele iQhinga lokuThintana okuHlanganisiweko namaTjhebiswano wabaHlanganyeli elidzimelele ekwakheni nekutjhejeni amatjhebiswano anamandla, akhako nabahlanganyeli abaqakathekileko, kuhle kuhle iindawo lapha i-CGS isebenza khona.

I-CGS iragele phambili nokuzama ukwakha amatjhebiswano amahle nabahlanganyeli bayo ukuze bobabili bazuze, yenze ngcono amatjhebiswano nokuphatha okulindelweko ngokudlulisa ilwazi elinembako, elifaneleko nelikhambisana nesikhathi. Lapha kukghoneka khona, ihlangano ibuyisele emiphakathini lapha beyisebenza khona ngokubambisana namanye amabhizinisi angawombuso, kanye nabomasipala bephrovinsi, besiyingi nabendawo ukwabela nanabo ilwazi nalokha abakwaziko ngeendaba ze-geoscience begodu banikela ekukhuphuleni ubujamo behlalakuhle yomnotho bebdawo leyo.

Lokhu okulandelako kumizamo ehlonywe yi-CGS ngesikhathi somnyaka wokubuyekeza:

- Izibandakanye ngokumajadu kuSenta ePhatha iinHlekelele eliZweni loke efuna ukuthuthukisa ihlelo elihlanganeko nelihlanganisiweko lokukhandela ihlekelele, ukulungisa nokuphatha ingozi. Ihlangano yabelane ngerhubhululo layo eliphathelene nokuwa kwephasi, njengegunya eliyelisa ngeengozi zokutjhingela kweendawo ezinamadalameyidi ezingathinta kumbi ituthuko nokusetjenziswa kwendawo.

- Ukukhiqizwa kwendawo enemayini nokunziza kwamamebhe asiza ukutlanywa kwesikhala nokuthatha iinqunto nemitlamo yokuphatha ihlekelele. Amamebhe ahlela iindawo zokumayina namacabazazo azenze amazowunu anamazinga ahlukeneko wokunziza namkha ukungaba njalo.
- Ukuragela phambili nokutjheja imisebenzi yamatje begodu ngokumajadu kwabelanwa nelwazi elimayelana nezehlakalo zemisebenzi yamatje neembikiindaba nomphakathi, ukobana zenzeka kuphi nini. Emnyakeni obuyekwezako, i-CGS iziphendulela emibuzweni emineni ebuya eenkundleni zeenrhatjhi ezihlukeneko nemikhiqizweni, kibomasipala nakumalunga athintekako womphakathi mayelana neenhlekelele ezinjalo ezithusa umphakathi.
- Ukungezelela ukusabalaliswa kwamanzi emathresteni amahlanu amagega nendawo i-Nzimakwe, e-South Coast te-KZN. Bekube nje, i-CGS idrile iimboboze ezingaphakela kuhle amanzi aselwako ebantwini abangaba zii-1 280 qobe lilanga.
- Isize imiphakathi ehlukeneko endaweni ku-Govan Mbeki Local Municipality ngokuphakelwa kwamanzi wangaphasi eendaweni ezithintekako ezinganawo amanzi, kutjhejwe iimfunda ezine endaweni kamasipala.
- Isize umphakathi we-Umgababa, south of KZN, lapha isondo laleyo ndawo lalithintekile ngenyanga kaSihlabantangana ngomnyaka wee-2022 ngeenkhukhula nangeenhlekelele e- KZN. Isiqhema sesayensi ye-CGS sasiza ngokuhlola zobuthekhnikhi begodu sayelelisa magega nendawo ethintekileko begodu sabona iingozi ezibonakalako zejyoloji ukunikela amandla abahlanganyeli kileyo ndawo ukobana bathathe iinqunto ezifaneleko.

- Ukuqatjiswa kwesikhatjhana kwabasebenzi bamatorho kumaphrojekthi ahlukahlukeneko wesithekhnikhi ukusekela imisebenzi yesayensi, ngalokho kwakhiwa amakghono ngokwebandulo eendaweni lapha kusebenza khona i-CGS.
- Ngokuhlanganisa nangokuzibandakanya kumahlelo wokukhangisa amabizelo mayelana nabafundi bamabanga aphezulu enarheni yoke. Okhunye godu, i-CGS yamenywa ukobana yabelane ngomsebenzayo eenkulumeni ezihlelwe minyango ye-geoscience yamayunivesithi ahlukahlukeneko.
- Yazibandakanya kumaforamu we-District Development Model (i-DDM) ngalokho abomasipala sebethoma ukulemuka ukuqakatheka kwe-geoscience emtlamenayo yeqhinga, efana nokuThuthukisa imitlamo eHlanganisiweko.
- Ukukhumbula iLanga lakaNelson Mandela ngokugwala, ukuhlwengisa nokunikela ngezinto zokutlola, iinsetjenziswa, ukudla neengubo ukwenza ngcono iimpilo zemiphakathi enganalitho endaweni.

I-CGS izibophelele ekuletheni iinsombululo ze-geoscience ezithinta kumbi umphakathi nokwenza isiqiniseko sokobana imiphakathi ithola ubungakoerhubhululweni le-geoscience. Ukungeza kilokhoo, ihlangano iragela phambili nokuba libhizinisi elibambisana nezakhamuzi elitlhogomela imiphakathi nebhoduluko layo. Nalokha kunemizamo le, i-CGS iyakghona godu nokwenza iphrofayili yebhredayo bese ilemukisa ngemisebenzayo kubahlanganyeli abaqakathekileko kanye nomphakathi.

12.1 Ukwakha ibhrendi ye-CGS

Emnyakeni obuyekezwako, i-CGS ihlanganise imizamo yokuthi ibhrendi yaziwe ukungezelela ilemuko lelwazi labahlanganyeli lomsebenzabo. Ukuqedelela umzamo lo, amajima, izehlakalo, ukubandakanyeka kwabahlanganyeli, ukukhambela amakhonferensi, ukwakha nokuphatha amatjhebiswano wababikiindaba begodu nokuhlanganisa amaqhinga nabalingani lokhu kwahlanganiswa kuhle.

Ubuhle bokwakha ibhrendi obufakiweko:

- I-athikili efaka zeembikiindaba yakhutjiswa ku- *Mining News* ngokuqakatheka kwamaminali weSewula Afrika ekuhlonyweni kwangokomthetho komhlangano we-Critical Minerals Summit.
- Isikhangiso seembikiindaba sakhutjiswa ku *SAICE Civil Engineering* mayelana nendawo yamambala yesimbi nokususwa kwe-manganese: okusombululo seenunwana eziba semanzini angaphasi.
- I-athikili yeembikiindaba yakhutjiswa ku- *Mining Weekly* ku-CGS ngokukhuthaza isizukulwana esizako seemfundiswa ezisakuhlako ehlanganweni.
- Imikhiqizo yababikiindaba embalwa, efana ne-Business Day Live, Beeld, Germiston News, News 24, Times Live, SABC News, Nozindaba, Suidkaap Forum, Eyewitness News, Cape Town ETC, and IOL, zikhizwe izehlakalo ezenzeke e-East and West Rand nalezo zehlakalo zamatje ezenzeke e-Cape Town.

- Isikhangisi seembikiindaba sakhutjiswa ku- *Mining Weekly* edzimelele endimeni ye-CGS yokwenza ngcono ukuphenya eSewula Afrika.
- I-athikili yeembikiindaba itjengise imizamo emitjha yesikhathi esizako eyenziwa yi-CGS eyakhutjiswa ku *Black Business Quarterly*.
- I-athikili yakhutjiswa ku *Mpumalanga Business Journal* mayelana nesiGungu samamebhe we-Geoscience amayelana nokuphepha kokukhula komnotho.
- I-CGS ikhuphe i-athikili ku *Mining Review Africa* ngeendima zayo neminikelo mayelana nokuqinisekisa ipumelelo yokungenelela emanzini akhekako.
- Abososayensi ababili baphrofayiliwe ku- *Innovation, Science, Engineering and Technology (ISET) Careers SA* njengengcenywe yeragelo phambili lehlangano ukuthuthukisa amabizelo ephasini lamasayensi.
- Isikhangisi seembikiindaba sakhutjiswa ku- *African Science Star* sitjheje ijyoloji yemanzini nendimayo yokusekela umnotho wokuthuthukisa ukusetjenziswa kuhle kwemithombo yelwandle.
- I-athikili ekukhulunywa ngayo yakhutjiswa ku- *Mining Weekly* lapha i-CGS itjengisa khona ukuqakatheka kwamakhamphani abelana ngedatha yezomlando ukuvuselela iphenyo.
- I-athikili yeembikiindaba emayelana nokuhlangana kwe-CGS ne-SASOL ukuthuthukisa irhubhululo le-CCUS eSewula Afrika lakhuyjiswa emikhiqizweni ehlukeneko yeembikiindaba efana ne- *Mining Weekly, Engineering News and Carbon Capture Journal*.
- I-CGS ehlathululwe ku-Ashley Philander's journey, ukusukela nakasathomako ukuyokufika ekubeni ngusosayensi ozijameleko, ku- *The Courier* ese-Beaufort West.
- U-CEO we-CGS, uNom Mosa Mabuza yahlathululwa ku- *Mining Review Africa*.
- I-athikili yeembikiindaba yakhutjiswa ku- *Mining Review Africa's* flagship *Elites* umkhiqizo omayelana nesifiso sehlangano sokulodlulula irhubhululo nenkghono lamaminali ngokwamatjhebiswano.
- Isikhangisi seembikiindaba esihlathulula imisebenzi yeHlaziyo le-CGS sakhutjiswa ku-*African Decisions*.
- I-athikili yeembikiindaba mayelana nephothali yedatha ye-geoscience yelizwe loke yakhutjiswa ku-*Africa Mining News*.
- I-athikili yeembikiindaba emayelana nokurhatjiswa kwamamebhe we-geoscience wenarha yangaphakathi yakhutjiswa ku- *Opportunity*.
- I-athikili yababikiindaba mayelana nesivumelwano semithombo ye-CGS ne-Exxaromayelana nokuphungulwa kwekhabhoni yakhutjiswa ku-*Enterprise Africa*.
- Inani lama-athikili wamaphrojekthi alingwako we-CCUS akhutjiswa emikhiqizweni embalwa kufakwe hlangana i- *IOL Business Report, City Press, The Citizen, Miningmx, Polokwane Observer, Sunday Times, Engineering News, Sowetan, South Africa Mining Magazine, Cape Town Today, and Government News* ekhavare amasetjheni womphakathi asekhona i-CCUS aba khona kumaphrovinsi ahlukeneko.

- Inani loke lemikhangiso yemikhiqizo lakhutjwa eembikiindabeni ezihlukeneko zamabubulo, ihlathulula begodu ithuthukisa umsebenzi wehlangano nendima yomphakathi.
- Isikhathi samambala seendaba ezitjengisa ithuthuko yehlangano, imizamo yokubandakanya abahlanganyeli, amajima, izehlakalo nelwazi le-geoscience elisize ekukhuleni kwabalandeli eenkundleni zokuthintana ze-CGS ezifana ne-Facebook, X, YouTube and LinkedIn.

Ukuhlungwa kweembikiindaba kufake:

- UDorh Eldridge Kgaswane wahlungwa yi-Turf FM ne-SAFM ngendaba yokudengezela kwephasi e-West ne-East Rand.
- Iimbikiindaba ezihlukehlukeneko ezifana ne-SABC News's @Theagenda, eNCA, Newsroom Afrika, SAFM, INX Prime and Chai FM zahlunga uNom Willem Meintjes ngokudengezela kwephasi e-East Rand ne-Roodepoort.
- Iimbikiindaba ezihlukehlukeneko ezifana ne-eNCA, Capricorn FM, 5FM and SABC News Full View zahlunga uMm u- Michelle Grobbelaar ngendaba yokudengezela kwephasi e-East Rand.
- UNom Mosa Mabuza wahlungwa yi-BizNews nge-oli nerhasi esendaweni yeSewula Afrika.
- UMm uNomvelo Mkhize wahlungwa yi-Radio Pulpit ngendaba yokudengezela kwephasi e-East Rand.
- Izindlu zeeimbikiindaba ezihlukeneko ezifana ne-Kragbron FM, OFM, ne-Capricorn FM zahlunga u-Dorh Tafeeq Dhansay noNom Ngqondi Nxokwana ngephrojekthi elingwako ye-CCUS.
- Isethulo saka-Dorh Tafeeq Dhansay sakhulunywa yi-Eswatini TV nakuhlonywa isiGaba sesi-2 seHlelo le-Multi-Disciplinary Geoscience Mapping Programme e-Swazila.
- UMm uSiphelele Gobeni wahlungwa ku- Radio 2000 ngendima edlalwa yi-CGS ze-Group Earth Observations Ministerial Summit e-Cape Town.
- I-CGS ihlathulule iphrojekthi elingwako ye-CCUS ngokwendlela zokufunda bunqophu eentetjhini zemirhatjho ehlukeneko efana ne-Rise FM, i-Gagasi FM ne-Capricorn FM.
- USihlalo weBhodi ye-CGS u-Nom Kepile Dintwe, wahlungwa ku-Rise FM ngephrojekthi elingwako ye-CCUS.
- Izindlu zeembikiindaba ezifana ne-Gagasi FM, i-Capricorn FM, ne-Newzroom Afrika zahlunga uNom Mosa Mabuza ngephrojekthi ye-CCUS.
- Ezinye izindlu zemirhatjho ezimbalwa ezifana ne-Gagasi FM, OFM, Ikwewezi, i-Kosmos, i-Voice of the Community, i-Kragbron FM ne-Jozi FM zafaka uNom Ngqondi Nxokwana wakhuluma ngokuqakatheka kwephrojekthi ye-CCUS.
- UNom Mbuyiseni Ngcobo wahlungwa ku-uKhozi FM ngendima edlalwa yitheknoloji ye-CCUS.
- Ukuhlungwa okumbalwa kwahlelwa kizo zoke iinkundla zokuthintana ezihlukeneko kufakwe hlangana i-Newzroom Afrika, SABC News, SAFM, Mining Mx, and Financial Insight Zambia, kucocwa ngokubandakanyeka kwe-CGS ku-African Mining Indaba eyayibanjelwe e-Cape Town.
- Ukungezelela kilokho, i-CGS iziphendulele emigadangisweni evela kanengi nemibuzweni engena ngethungelelwano emayelana nokudengezela kwephasi ukobana lokhu kwenzeke nini.

Amajima nezehlakalo ezifakiweko:

- Ngesikhathi seNyanga yamaGugu ngenyanga kaKhukhulamungu, i-CGS igidinge inyanga le ukutjengisa ukuhlukana kwamasiko wayo ngokweenkundla zokuthintana ngaphandle nangaphakathi.
- I-Out of Home (ibhithhodo), ebekwe e-Pretoria Road e-Silverton, ihlathulule i-CGS nemilayezayo eqakathekileko qobe yinyanga.
- I-CGS ingezelele ukobana yaziwe khulu nokulemukisa umphakathi ngemizamo eyenziwa yi-CCUS ngokukhangisa emapaleni nokukhangisa kumathreyila e-Secunda, eMpumalanga; nakumabhena weenkundla zokuthintana, imikhangiso ye-squeeze-back television namabhena wama-web afakwe emkhizweni i-Business Live digital publication.
- Ekugidingeni inyanga yetja, i-CGS ihlathulule abasebenzi bayo abambalwa ngokubafaka eenkundleni zokuthintana zangaphakathi nezangaphandle.
- I-CGS lizibandakanye eKhonferensini i-Junior Indaba Conference ngenyanga kaMgwengweni ngomnyaka wee-2023, lapha uNom Mosa Mabuza aba nesethulo khona esimayelana nesekelo leSewula Afrika emayinini ezisakhulako.
- I-CGS yazibandakanya ku-World Mining Congress ngenyanga kaMgwengwni ngomnyaka wee-2023 e-Australia. UDorh Thakane Ntholi wethula iphepha lesihloko esithi 'Progress towards Responsible Environmental Management for Sustainable Mining' begodu wahlala kuphaneli yesihloko esithi- 'International Approaches to Environmental Sustainability'.
- I-CGS izibandakanye ekhonferensini ye-DMRE ehlanganyelwe yi-Northern Cape Mining and Energy. I-CEO, uNom Mosa Mabuza bekakuphaneli engcocweni yesihloko esithi 'Incentives and uplifts needed to boost exploration and mining in South Africa'.
- I-CGS izibandakanye ku-International Seabed Authority 28th Session Council & General Assembly Meeting ngenyanga kaVelabahlince ngomnyaka wee-2023, e-Kingston Jamaica.
- I-CGS izibandakanye ku-Human Settlement Women Indaba ngenyanga kaRhoboyi ngomnyaka wee-2023, e-Kimberley, e-Northern Cape bese u-Dorh Thakane Ntholi wabe akuphaneli engcocweni yesihloko esithi 'Innovation & Alternative Building Technologies'.
- I-CGS izibandakanye kuma-expo ambalwa maPhrovinsini weMpumalanga, we-Western Cape, we- Gauteng, neweLimpopo ukukhuthaza abafundiukobana bathathe amabizelo emkhakheni wephasi lesayensi.
- I-CGS izibandakanye ku-African Critical Minerals Summit ngenyanga kaRhoboyi ngomnyaka wee-2023, e-Johannesburg Gauteng. uNom Mosa Mabuza wabe akuphaneli engcocweni yesihloko esithi 'Mapping and exploring Africa's critical minerals: unlocking the continent's resource potential'.

- I-CGS izibandakanye ku-Africa Down Under Conference in Perth, Australia, ngenyanga kaKhukhulumungu ngomnyaka wee-2023. UNom Mosa Mabuza wabe ayingcenyeyengcoco yomlandu wesisomali kumamayini weSewula Afrika.
- I-CGS izibandakanye ku-International Association of Hydrogeologists' Congress e- Cape Town, ngenyanga Khukhulamungu ngomnyaka wee-2023, lapha beyitjengisa khona ngemisebenzayo ngokuyethula ngomlomo nangamaphosta.
- I-CGS izibandakanye ku-29th Colloquium of African Geology (CAG) Conference e- Windhoek, Namibia ngenyanga kaKhukhulamungu ngomnyaka wee-2023. Ukuzibandakanya kufake hlangana ukwethula ngomlomo nokwethula ngamaphosta.
- I-CGS izibandakanye ku-Joburg Indaba Conference ngenyanga kaSewula ngomnyaka wee-2023, e Johannesburg, lapha uNom Mosa Mabuza abe akuphaneli khona engcocweni yesihloko esithi 'Reviving mining and exploration in South Africa – how do we breathe the new life into mining and exploration?'.
 • I-CGS yazibandakanya eKhonferensini ye-DMRE Mining Investment ngenyanga kaSewula ngomnyaka wee-2023 ePolokwane. UNom Sibongiseni Hlatshwayo wabe ayingcenyeyengcoco zephaneli mayelana nokuphenya nokuzuza.
- I-CGS izibandakanye ku-Group Earth Observations Ministerial Summit ngenyanga kaSinyikhaba ngomnyaka wee-2023, e-Cape Town. Umnqopho wokuzibandakanya bekukhulumisana nabahlanganyeli abahlukeneke ngeendaba zokukhuluma ukutjhuguluka kwetlayimethi.
- I-CGS izibandakanye ku-Conference of the Parties (COP 28) ukusukela ngenyanga kaSinyikhaba -ngenyanga kaNobayeni ngomnyaka wee-2023 eDubai, e-UAE. UNom Mosa Mabuza, uDorh Thuli Khumalo, uDorh Taufeeq Dhansay kanye noNom Ngqondi Nxokwana bazibandakanye eenkundleni ezihlukahlukeneke mayelana netuthuko yamaprojekthi we-CCUS eSewula Afrika.
- I-CGS ibambe ilungelunge lemibuthano esekela umphakathi we-CCUS eMphrovinsini weMpumalanga, weFree State, KwaZulu-Natal, e-Western Cape, e-Gauteng neLimpopo ukwakha ilemuko nokwabelana ngelwazi ngokutjhuguluka kwetlayimethi.
- I-CGS izibandakanye African Mining Indaba Conference e-Cape Town, ngenyanga kaMhloLANJA ngomnyaka wee-2024. Ukuzibandakanya kufaka hlangana izethulo, iingcoco zamaphaneli, umrhatjho, ukuhlungwa kumabonakude nakumagazini bese nokukhona kalisa amatjhebiswano eqhingeni.
- I-CGS izibandakanye ku-Prospectors & Developers Association of Canada Conference ngenyanga kaNtaka ngomnyaka wee-2024, e-Toronto, e-Canada. Ukuzibandakanya bekungendlela yeengcoco zamaphaneli bese nokukhona kalisa amatjhebiswano eqhingeni.

12.2 Ukubandakanya umhlanganyeli

Ihlelo le-CGS lokuBandakanya umHlanganyeli lingaphakathi kokuphatha kwayo, eqhingeni nemisebenzini ukwenza bona kuba nokwenziwa okufaneleko nokunepumelelo kokwenza imisebenzi yabo egunyaziweko. Ukubandakanya umHlanganyeli kutlanyelwe ukwakha, ukukhulisa nokunabisa amatjhebiswano asekelwa mbono othi i- “geoscience iyinto edlala indima eqakathekileko ekuthuthukiseni abantu”. Kilokho, ihlelo lokuBandakanya umHlanganyeli lenza i-CGS ikhona ukutjingga eenqhemeni ezinengi zabahlanganyeli lapha isebenza khona ngokusebenzisa amaskena wezebhoduluko, nokuhlola ngamandla ukwaneliseka komhlanganyeli. Ngalo khoke, i-CGS izibandakanya beyikhulumisane nabahlanganyeli abanabileko, kufakwe hlangana abasebenzi, iminyango yeentjhabatjhaba, yelizwe loke neyephrovinsi, abomasipala, iimphathiswa zamakhosi, amabhizinisi angewombuso, abalimi, ifora, iihlangano ngokwebhoduluko ezingasizo zombuso, ama-akhademikhi nemikhakha ephrofetjhinale, amakhamphani wangeqadi nomphakathi wokana.

Emnyakeni lo obuyekezako, kwenziwa umzamo ngokubambisana ukwenza ngcono ikhwalithi namahlandla amanengi wokuhlangana nabahlanganyeli ngombono wokuthuthukisa isekelo nebhoduluko elibumbeneko ngaphakathi lelo i-CGS ingazalisa ngalo igunya layo begodu nokuzuza okunyulwa liqhinga layo. Ihlelo le-CGS lokuBandakanya umHlanganyeli lilandela indlela ehlangeneko efaka hlangana ukuzwisisa, ukuhlanganisa nokuphatha okulindelwe mhlanganyeli, kusekelwa msebenzi webhizinisi, ukuphatha kuhle nokwenza izinto ngendlela etjhatjhalazi. Ukuphatha umhlanganyeli kubonwa njengento eqakathekileko nekghonakalisa lula ukobana kuhlonywe i-GTP namaprojekthi wamarhwebo. Bekube nje, abaphathi be-CGS, kwesayensi, abasebenzi abathekhnikhali nabasekelako boke bathabela ukubandakanywa komhlanganyeli njengombana kuthinta khudlwana ibhrendi nesithunzi sehlangano.

Ngesikhathi sangomnyaka wee-2023/24 isethulo neengcoco zabanjwa nabahlanganyeli abaqakathekileko ukukhona kalisa ukuhlonywa kwe-GTP, ukusekela, ukubandakanya amabhizinisi nezehlakalo. Okulandelako kusirhunyezo seengcoco ezitjengisa bona ibhrendi nendima ye-CGS sezithonywa ukuthabelwa bahlanganyeli.

E-Northern Cape: Iphrojekthi yokwenza amaMebhe aSekelwe yiSimbi

Emzamenayo wokwenza irhubhululo eliqakathekileko ngemihlobo ehlukeneko yebheyisi yeensimbi zemagnetic kanye nehayiidrothermal, i-CGS izibandakanye nemihlobo emineni yabahlanganyeli ePhrovinsini ye-Northern Cape: ukutjengisa isekelo labo, khulukhulu ukuqinisekisa bona umphakathi othintekileko uvumela abososayensi be-CGS ukobana bangene epahleni yangeqadi ukuzokubuthelela idatha yezinto zejyoloji. Abososayensi babuthelele idatha mayelana nebheyizi yamaminali wesimbi e-Namaqualand

ngaphakathi kwephahla lesilinganiso semebhe yejima eyi-1:50 000-. Abahlanganyeli okwayiwa kibo bafaka hlangana abajameli be-ZF Mgcawu, Kai!Garib, Khâi-Ma, David Kruiper, nabomasipala bama-Nama-Kho; abalimi nabasebenzi bemayini. Ukungezelela, i-CGS yabamba umhlangano ne-Oranjerivier Landbou-Unie (ORLU) ngaphasi komdosiphambili we-Agri Noord-Kaap ukunikela elinye ilwazi elikhwezelelweko ngemiphumela ebuya kumahlelo wamamebhe womnyaka ogadungileko nokufuna isekelo lemisebenzi etlanyelwe umnyaka wee-2023/24. Ukubumbana kugandelele ukuqakatheka kokuhlonipha 'iinkambisolawulo zokuNgena ePlasini', kugandelelwa bona iimbekisosikhathi kufanele zenziwe kusesenesikhathi nabalimi begodu neminingwana yabososayensi, kufakwe hlangana iminingwana yeenkoloji, kufanele kwabelanwe ngayo ngengengcenywe yalokho okufunwa livikeleko.

I-CGS inikelwe umsebenzi wokuhloma i-CUS nokutjheja woke amahlangothi ahlobene nehlahakuhle, zomnotho neendaba zebhoduluko. EPhrovinsini yeMpumalanga, iHlelo lokuBndakanya umHlanganyeli lanikela isekelo eliqakathekileko eHlelweni lamaMebhe we-Geoscience ngombono wokukhulisa iinlinganiso zamamebhe ayi-1:50 000-, nerhubhululo netuthuko ukutjengisa iimbumbeko zejyoloji ezifaneleko mayelana nokuhlonywa kobunikazi be-CO₂. Umnqopho womsebenzi lo kuqinisekisa ivikeleko le-eneji eSewula Afrika ngokwe-CCUS nokukhona kalisisa itjhuguluko lenarha lokuphuma emnothweni wekhabhoni ephasi. Irhubhululweli liqinisa ukuzibophelela kweSewula Afrika ukobana itjhide endleleni yomnotho wekhabhoni ephasi, ikhambisane neemphakamiso ezilandelwa ziintjhabatjhaba zokutjhuguluka kwetlayimethi. I-CGS ibambe imikhulumiswano emingqana nabahlanganyeli, kufakwe hlangana imiphakathi, amaforamu wamabhezansi, iimphathiswa zamabubulo neemphathiswa zendawo. Ngokwemihlangano le, i-CGS izibandakanye ekusebenzeni ne-Sasol, Exxaro, ArcelorMittal ne-Thungela Resources, ezakuvula indlela mayelana nokuhlanganyela ezintweni ezikulu ngokwerhubhululo le-CCUS.

Njengengcenywe yemizamo yokwakha amakghono, i-CGS yaba nekhambo lokuyokwenza irhubhululo e-Iceland ne-UK ukuyokuphenya ngamathekhonoloji ahlukeneko we-CCUS. Ikhambo labumba ingcenywe yemisebenzi yokwakha amakghono ye-CCUS neHlelo lokuPhenya elibhadalelwa yi-World Bank. Ikhambo lalibekelwe isikhathi esifaneleko njengombana belikhambisana nokuqedelwa kwamatshwayo wejyoloji, ubunjiniyera nokutlama iingaba zerhubhululo ngaphambi kokwakhiwa nokufakwa. Ikhambo lokuyokwenza irhubhululo lilandele iimvumelwano ezinengi ngokuqakatheka kwamathekhonoloji we-CCUS ngesikhathi somhlangano i-COP 28 Summit. Okuqakathekileko, kwafakwa abanye abahlanganyeli abambalwa abaqakathekileko, kufakwe hlangana uMasipala we-Govan Mbeki, ibubulo nabososayensi be-CGS. Laba bahlanganyeli amabhezansi wabo angenelele khulu kukhabhoni begodu njenganje athintwa ngilokho okulangazelelwa maTjhuguluko weSewula Afrika. Amathekhonoloji we-CCUS anikela ukungenelela bunqophu ekuphunguleni ikhabhoni kibo.

I-Kwazulu-Natal: IHlelo lamaMebhe eliPhakathi neliku-Far North

Ukuthuthukisa amatjhebiswano ngaphakathi kwemibuso, u-CEO we-CGS waba neenkulumiswano neHloko yomNyango yakwaZulu-Natal, zeVakatjhobukela neenNdaba zeBhoduluko (i-EDTEA) ukuhlola iindawo okungahlanganyelwa kizo njengombana kuveziwe esiphakamisweni sephahla okubambisenwe kilo. I-CGS inobudlelwano bakade nephrovinsi, ikghone ukuhlanganisa imihlangano eragele phambili nakweminye imikhakha efana neKoro yezomNotho, iSisomali, ukuThuthukisa iHlanganisela yomSebenzi nomThangalasisekelo (i-ESIED) kanye neHlanganisela ye IHlanganisela yePolotiki yePhrovinsi. Inani lamaprojekthi amancani, aphakathi nathatha isikhathi eside kwacocwa ngawo ehlanganiseleni, njengombana isitatimende esirhunyeziweko sendlaliwe ngaphambi kwezakhiwo okukhulunywe ngazo. Lokhu kufaka hlangana amaprojekthi ngaphakathi kweendawo yeqinga le-CGS, kufakwe hlangana amaminerali ne-eneji; nokuthuthukiswa komthangalasisekelo nokusetjenziswa kwendawo; nezamaphilo, nezebhoduluko namanzi angaphasi.

E-Gauteng: IHlelo leBhoduluko leMayini neHlelo lokuPhatha amaNzi neeNgozi zamanzi eliZweni loko

Ukungenelela ekulawuleni kuyinto etshwenyako eHlelweni leBhoduluko lokuMayina neHlelo lokuPhatha amaNzi (i-MEWMP). I-CGS ibe nemikhulumiswano nabahlanganyeli eDorobheni le-Ekurhuleni ngokukhambisana nokuNgenelela eLawulweni lamaNzi ePhrojekthini eKulu Witwatersrand Basin. Umnqopho womhlangano kwabe kukuthokoza uMasipala we-Ekurhuleni ngePhrojekthi yokuNgenelela kweeNdlela zokuLawula amaNzi emrhosweni i-Van Ryn Canal nokwethula imitlamo mayelana nomtlamo wamanzi wamadamini. I-CGS ithole isekelo kumasipala ukuqinisekisa bona umsebenzi uragela phambili ngaphandle kokuphazanyiswa begodu nokobana iinqhema zabahlanganyeli abathintekako nebanekareko kuthintanwa nabo. Amavakatjho enziwa endaweni yeprojekthi esendaweni ye-Modderbee ne-Van Ryn canals ngaphakathi kwendawo kaMasipala we-Ekurhuleni.

Umsebenzi lo waphakanyiswa siqhema sabosolwazi mayelana nokuDreyina i-Esidi yeMayini e-Witwatersrand Goldfields ngomnyaka wee- 2010/11. Kuhlekuhle, i-DMRE yanikela i-CGS umsebenzi wokuhloma ukungenelela eendleleni zokulawula ukuphungula amanzi angaphezulu ekuthini angenzi iinkhukhula akhukhule imisebenzi yemayini engasatjhejwako ye-Witwatersrand Goldfields.

Ngokukhambisana neHlelo le-National Geohazards Programme i-CGS ibone kukuhle ukobana ilungise iindawo ezithathwa 'njengeendawo zamadolomayithi' enarheni yoke, ngokudrila iimboboza begodu nokusebenzisa ilwazi elikhona leemboboza sought to refine the areas considered as 'dolomite land' for the entire country, by drilling boreholes and using available borehole information. Ekugcineni, kwaba nemihlangano nombuso wendawo begodu iinkolo eziKwaThema ukobana kufunwe isekelo

lazo nokubambisana nazo ngesikhathi nakwenziwa kokubili ukhlanganisa nokudrila (idatha ezuzwako).

I-CGS yathoma ngenyanga kaNtaka nyaka wee-2024, yathoma ngokudrila iimbobo ezintathu ezinqoptjhiweko magega nomkhawulo wendawo yedolomayithi ngaphakathi kwesifunda se-Kwa-Thema eyakhiwe e-East Rand ngaphakathi kwedorobha likaMasipala we-Ekurhuleni. Umnqopho omkhulu ngomsebenzi wokudrila lo kulungisa kuhle umkhawulo wendawo yedolomayithi kwezinye iindawo zakwaThema, okuyinto eqakathekileko mayelana nokuhlola zoke iingozi zamadolomayithi nengozi yokuphatha idolomayithi esifundeni.

E Limpopo: Giyani Greenstone Belt

I-CGS yenza isethulo esetjhenini yokutlamela amaqhinga eyabe ibanjwe eLimpopo, yenziwa ma-Traditional Councils e-Giyani, ababizwa, ngoMabunda no-Hlaneki. Isethulo se-CGS satjengisa umsebenzi werhubhululo elenziwe ngaphakathi kwesiYingi sikaMasipala we-Mopani, kufakwe hlangana amamebhe wokwejiyoloji, ne-jiyothekhnikhali kanye namanzi angaphasi. Ilimphakamiso ezasukela eengcaweni zifaka hlangana ukuba khona kwedatha erhubhululweni elenziwe mhlapha, nokutholakala kombiko wokuthoma kanye nemiphumela yawo. AbaLaphi beNdabuko babawa umbiko onayo yoke imininingwana mayelana nemikhulumiswano eyenzekako ngaphambi kokwenziwa kwerhubhululo le-GCB nalokha nalenziwako. I-CGS itlama ukuvakatjhela ama-Traditional Councils eGiyani ukuyokwethula isirhunyezo sePhrojekthi i-Giyani Greenstone Belt Project, ezabasiza khulu ekuthatheni iinqunto ezifaneleko ezisekelwa yisayensi.

E-Free State: IHlelo lamaMebhe

Umbuso wePhrovinsi ye-Free State, odoswa phambili nguNdunakulu uMxolisi Dukwana, wamema i-CGS ukobana ikhambele umhlangano e-Bloemfontein ngenyanga kaSewula ngomnyaka wee-2023 tukukhulisa amatjhebiswano wokusebenza hlangana neenqhema zombili. Umhlangano waqala umsebenzi we-CGS (we-geotechnology ne-hydrogeology), namathuba mayelana nokuphenywa kwamaminali nemithombo yemvelo ephrovinsini. Ekugcineni, i-CGS yamenywa eKhonferensini

yoesisoMali e-Free State; eyatjheja iindawo ezihlanu eziqakathekileko: okungilezi umtlamo wokwenza we-eneji nemiphumela yesikhathi esizako; zelimo njengento ekhamba phambili ekukhuliseni umnotho; amathuba wesisomali kumthangalasisekelo; zeemali; nokumayina. Ikhonferensi yanikela i-CGS ithuba lokukhulisa isilinganiso samamebhe wayo we-geoscience ali-1:50 000 ngokuqinisekisa iindawo zokubeka amaminali ezaziwako namaphenyo amatjha wamaminali ephrovinsini.

E-Western Cape: IHlelo lamaMebhe

I-CGS yangezelela izinga lerhubhululo layo ngokuba khona kwesimbi (Fe^{2+}) nemanganisi (Mn^{2+}) ama-ayoni emanzini wangaphasi ePhrovinsini ye-Western Cape. Amaminali la atjengisa ukuba neentjhihlo eziphathelene nakho kokubili ukusabalalisa amanzi (ubunengi) nekhwalithi, khulukhulu ukubalekelwa kokukhiqizwa kweembzo. Imikhulumiswano yabanjelwa eDorobheni le-Cape Town: mayelana nokukhiqizwa kweembobo, ngomnqopho wokuhloma ngobutjha iplanti elingwako ukuqunta iindawo zamahlelo mayelana nokulungiswa kwamazowuni ku-akhafaya ephakathi. Umnqopho olindelweko kuqunta amahlelo weendawo zoke ukuze kubikwe ngomsebenzi weplanti nokunikela iimphakamiso ezihlobene nalokho. Imihlangano beyifuna ukulungisa amatjhebiswano wokusebenza ngokuhloma isivumelwano sokuzwisana (i-MoU). Isivumelwano sisazokuqedelelwa.

Amahlelo wesiVumelwano

I-CGS ne-Sasol bahlele itjhebiswano labo lomsebenzi ngokuthi batlikile i-MoU mayelana ne-CCUS ukuhlalisa kuhle amatjhebiswano namakghono akhona.

I-CGS yenze isivumelwano se-MoU ne-Exxaro ukuthuthukisa ipumelelwabo nemizamo yokuphungula ikhabhoni kusetjenziswe itekhnoloji ye-CCU, kusekeleni ukuzibophelela etjhugululweni le-eneji yeSewula Afrika.

I-DMRE ne-IDC baqede imemorandamu yesivumelwano (i-MoA) ehloa isiKhwama seeMali i-Junior Mining Exploration Fund. I-CGS njengomtlikitli we-MOA, inikelwe umsebenzi wokunikela isekelo lobuthekhni.

13 Ukukhambisana kwe-B-BBEE nelwAzi lomSebenzi

Ithebula ye-11 iphethiwe ngokukhambisana neendingo ze-Broad-based Black Economic Empowerment (B-BBEE) zomThetho i-B-BBEE Act (No. 46 of 2013) njengombana utjhugululiwe, begodu njengombana uquntwe mNyango wezeRhwebo, iBubulo nePhaliswano.

Ithebula ye-11: CGS Ukukhambisana kwe-B-BBEE nelwAzi lomSebenzi

Ingabe umNyango/iBhizinisi isebenzise i-Code of Good Practice (B-BBEE Certificate Levels 1–8) mayelana nalokhu okulandelayo:		
Ikambiso	Ipendulo lye/Awa	Ingcoco <i>(faka ingcoco ependulwenakho bese utjho iinkambiso ezithethweko ukobana ukhambisane nalokhu)</i>
Ikambiso yokuqunta amakhwalifikhetjheni wokukhupha amalayisensi, iimvumelwano namkha elinye igunya naziza emsebenzini womnotho ngokutjho komunye nomunye umthetho?	Awa	I-CGS ayinikelani ngamalayisensi njengombana ayikho egunyeni lokwenza lokho. Ukukhutjwa kwamalayisensi kwenziwa yi-DMRE.
Ukuthuthukiswa nokuhlonywa komgomo wokuthenga?	Iye	Ukuthenga okunyulwako kufakwe ngaphakathi komGomo oPhatha iinkambiso zePahla nokuhlonywa kuragela phambili kulawulwe mithetho emitjha ye-National Treasury statutes.
Ukuqunta ukuqinisekisa ikambiso yokuthengiswa kwamabhizinisi angewombuso?	Awa	Akukho ngaphasi kwegunya le-CGS ukuthengisa amabhizinisi angewombuso.
Ukuthuthukisa ikambiso yokungena kumatjhebiswano nekoroyangeqadi?	Iye	I-CGS ingasebenzisana nekoroyangeqadi, ilawulwa kukobana amakhono ahleliweko akhambisana njani, nokobana elinye nelinye itjhebiswano lineenkambiso zalo.
Determining criteria for the awarding of incentives, grants and investment schemes in support of Broad-based Black Economic Empowerment?	Awa	The CGS does not issue grants and investments schemes; however, bursaries are issued based on the CGS Bursary Policy.

Ingcenye

D

limbhobozi eziqakathekileko ezitholwe endaweni ezanywako ye-CCUS (e-Leandra) ngePhrovinsini yangeMpumalanga

UkuPhatha umThombo wabaNtu

Isigabesi sethula iindawo ezinqotjhwako eziqakathekileko ze-Human Resources Business Unit zesikhathi sokubika somnyaka wee-2023/24, kufakwe hlanguana ibandulo nemizamo yokutjhugulula.

Isigabesi sifaka nalokhu:

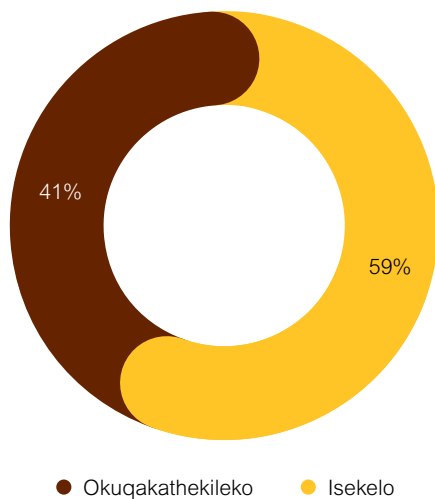
- Amahlelo wokulinganisa umsebenzi ukuhlola umsebenzi
- Ukuphatha ukondleka kwabasebenzi ukuqinisekisa ipilo ehle yabasebenzi
- Imisebenzi eqakathekileko yomthombo wabantu kilowo mnyaka
- lintjhijilo zeemali
- Iminqopho yomThombo wabantu
- limbalobalo zomThombo wabantu.

I-CGS ithatha boke abasebenzi bayo njengemithombo eqakathekileko ekwenzeni iminqopho yamaqhingayo. Bekube nje, i-Human Resources Business Unit imhlanganyeli weqhinga ehlanganweni leyo indimayo ekukuqinisekisa bona i-CGS idosa beyenze amakghono nemithombo efunekako ihlale ukobana iragele phambili nokwenzaigunya layo langokomthetho kanye neminqopho yamaqhinga.

1 Ihlathululo yeeNdaba zemiThombo yabaNtu

1.1 Ingcenye yabasebenzi

I- CGS inenani labasebenzi abangaba ma-458 kizo zoke iimdunda ezisithandathu, okungilezi, i- Pretoria (Head Office), Gqeberha, Bellville, Limpopo, Pietermaritzburg ne-Upington. Kubasebenzi abama-458, abama-32 bama-interns, amaphesende ama- 41% aqatjhe emsebenzini oqakathekileko (wesayensi) imisebenzi bese amaphesende ama-59% aqatjhe emisebenzini yokusekela (Isithombe se-17). Ilangano isisa khulu ebasebenzini bayo ngokutjheja khulu itja nabomma. I-CGS izikhakhazisa ngabasebenzi bayo enabo okuthi amaphesende wabo kube bomma.



Isithombe 17: Ukwakheka kwabasebenzi be-CGS ngomnyaka wee-2023/24

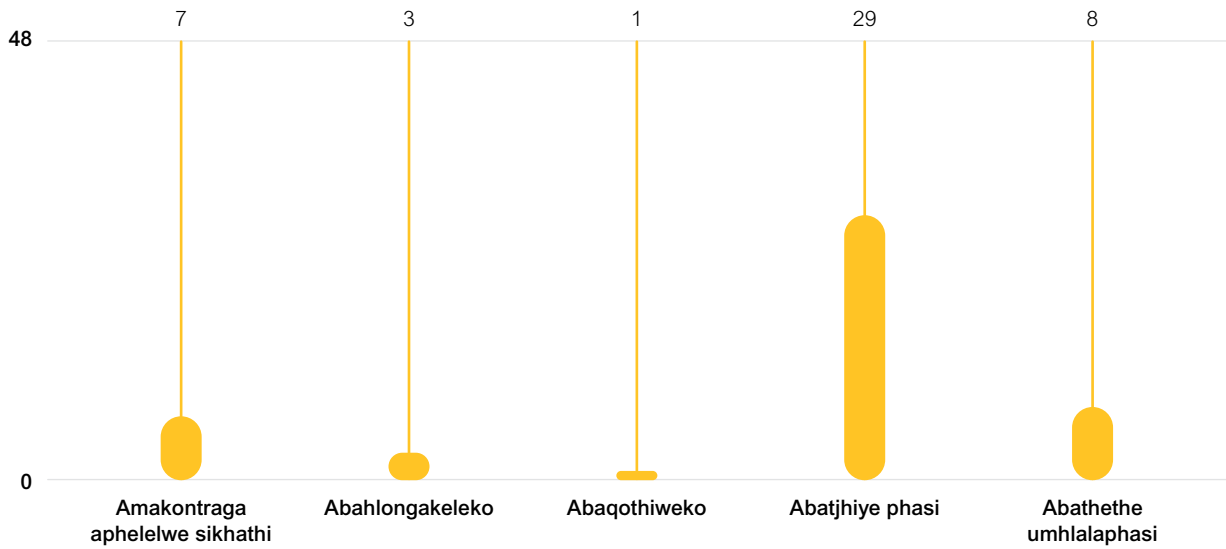
1.2 Imisebenzi eqakathekileko yemithombo yabantu nalokho okuzuzwe hlangana nomnyaka wee-2023/24

- I-The Mining Qualifications Authority (I-MQA) inikele i-CGS igranathi yokungaba nehlelo lama-Intern ne-Management and Executive Development Programme (i-MEDP). Iimali zokubhadalela abasebenzi abahlanu bama-intership nabasebenzi ababili njenganje abafunda ngaphasi kwe-MEDP kwaphunyeleliswa. Ukuzuzokhu kutjengisa ukuzibophelela kwe-CGS ekuphatheni umsebenzi nokusekela ukuthuthukiswa kwabasebenzi ngombono wokufuna ukwakha ithalente elinepilo kanye nokunqotjiswa kuhle emsebenzini.
- Ukubandulelwa ukungena komsebenzi ngepumelelo kwenziwa ngesikhathi somnyaka wokubuyekeza, lapha abaphathi besigungu nabaphathi bethula khona imisebenzi nemigomo eqakathekileko neenkambiso ezikhona kumayunithi wamabhizinisabo. Umnikeli msebenzi omSebenzi wamaPhilo noKondleka oqatjhiweko

wethula imisebenzi ekhona kubasebenzi be-CGS namalungabo wemindeni.

- Umnikeli msebenzi omSebenzi wamaPhilo noKondleka wenza iimfundobandulo ezimbili, ngelemuko lokuphila nokukhubazeka nelemuko lomkhumbulo. Isifundobandulo sokulemukisa ngokuphila nokukhubazeka sitjengise imihlobo ehlukeneko yokuphila nokukhubazeka nesekele elikhona elinikelwa abasebenzi abaphila nokukhubazeka. Isifundobandulo seLemuko lePilo yomKhumbulo sabe sinqophe ekuhlomiseni abasebenzi ukobana baqalane neentjhijilo eziphathelene nomkhumbulo nokukhuthaza abasebenzi ukobana basebenzise imisebenzi yepilo noKondleka kwabaSebenzi enikelwa simahla yi-CGS kubasebenzi nemindeni etjhidelene nabo khulu.
- Iimfundobandulo eziletha ilemuko lemiThetho yeNdawo yomsebenzi nemiGomo zenziwa ngaphakathi. Umnqopho weemfundobandulo bekukufundisa abasebenzi ngemithetho yemsebenzini nangemigomo ye-CGS.
- I-CGS yahloma ngepumelelo ibizelo i-Career Progression for Junior Scientists, okuthi labo abanengunya bathuthukiselwe eenkhundleni zokuba bosoSayensi. Lo kungomunye umzamo wokwazi abasebenzi onqophe ukubamba abasebenzi.
- Abaphathi abaphezulu ababili, munye womuntu wengubo namunye womuntu wembaji, baphumelela ukobana bakhethwe ukobana bavale iinkhala zokuba baPhathi besiGungu esiphezulu. Imisebenzi ye-Geoscientific nomPhathi wesiGungu: Ukuthuthukiswa kwe-Geoscience eHlanganisiweko. Ukuqatjiswa kwababilaba kwenza bona i-CGS ihlangabezane nokunqotjhiweko kwamaphesende ama-60% wabajameli ababomma ezingeni eliphezulu.
- I-CGS iphumelele ukubhadala amabhonasi wabo boke abasebenzi abanengunya lokuwathola ngenyanga kaNobayeni ngomnyaka wee-2023. Ukubhadalwa kwamabhonasi womsebenzi kutjengisa bona i-CGS izibophelele ekukhuthazeni abasebenzi nekutlomeliseni abasebenzi ngomsebenzi omuhle.
- UmGomo wamalifu we-CGS wabuyekeza ngepumelelo begodu waphumeleliswa yiBhodi.
- Ilangano wesayensi, i-CGS yakhangisa begodu yanikela imifundalizi emitjha kubasebenzi abama-55 abanengunya lokuwathola. Imifundalizi yababamba amatorho yanikelwa abasebenzi be-CGS bese kwathi imifundalizi yabasebenza ngamalanga yanikelwa labo abangasibo abasebenzi, ngombono wokunikela emzameni wombuso wokuthuthukisa amakhono begodu nokwakha amathuba womsebenzi. Umzamo wokunikela ngemifundalizi utjengisa ukuzibophelela kwe-CGS ekuthuthukiseni abasebenzi.
- Umbiko wokuLingana kwemiSebenzi wethulwa ngepumelelo emNyangweni wabaSebenzi nomSebenzi.
- UmTlamo wamaKghono emSebenzini kanye nomBiko weBandulo laqobe mnyaka lathunyelwa ngepumelelo ku-MOA.
- Imikhulumiswanongemirholo yaphethwa msinya.

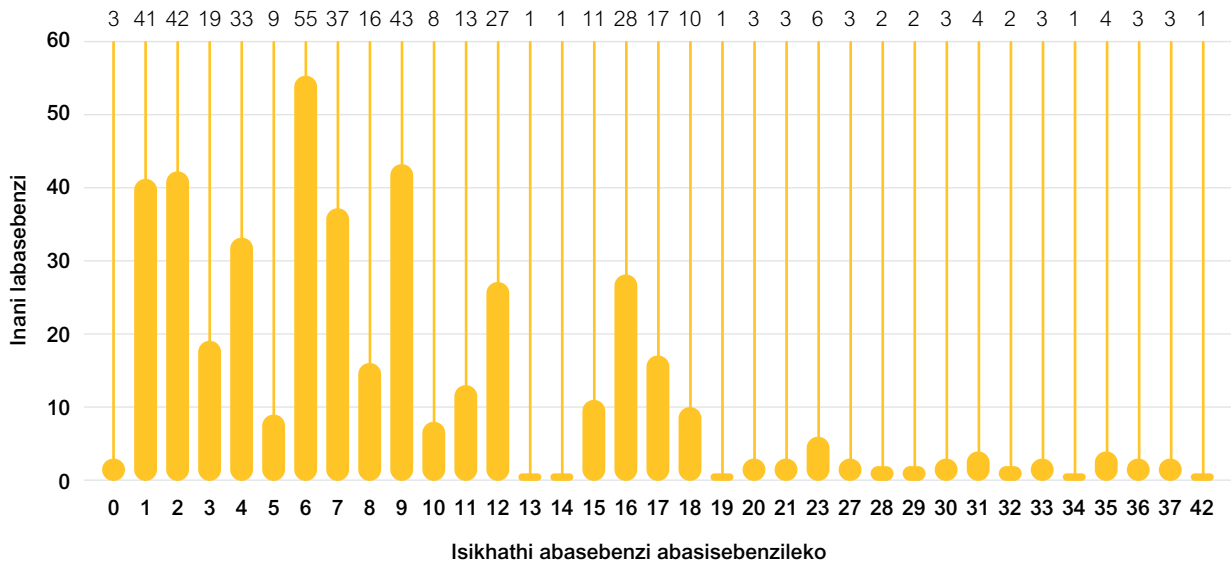
1.3 Ihlaziyo lokutjhiya phasi kwabasebenzi



Isithombe 18: Abasebenzi abatjhiye phasi ku-CGS ngomnyaka wee-2023/24

Ukutjhiya phasi kwabasebenzi kulinganisa amaphesende wabasebenzi abatjhiya phasi ku-CGS ngesikhathi somnyaka obuyekwezako, begodu nenani lelo iinkhudla ezivalwa ngalo. Umnyaka uphele sekunabasebenzi abaphumileko abama-10%, kwathi abatjhiya phasi baba ma-62% bese kwathi abamaphesende ali-15% kwaba ngabathatha umhlalaphasi. Abasebenzi abaqakathekileko bajamele amaphesende ama-38% wabo boke abaphumileko lokha abasebenza abasekelako bajamele amaphesende ama-62%.

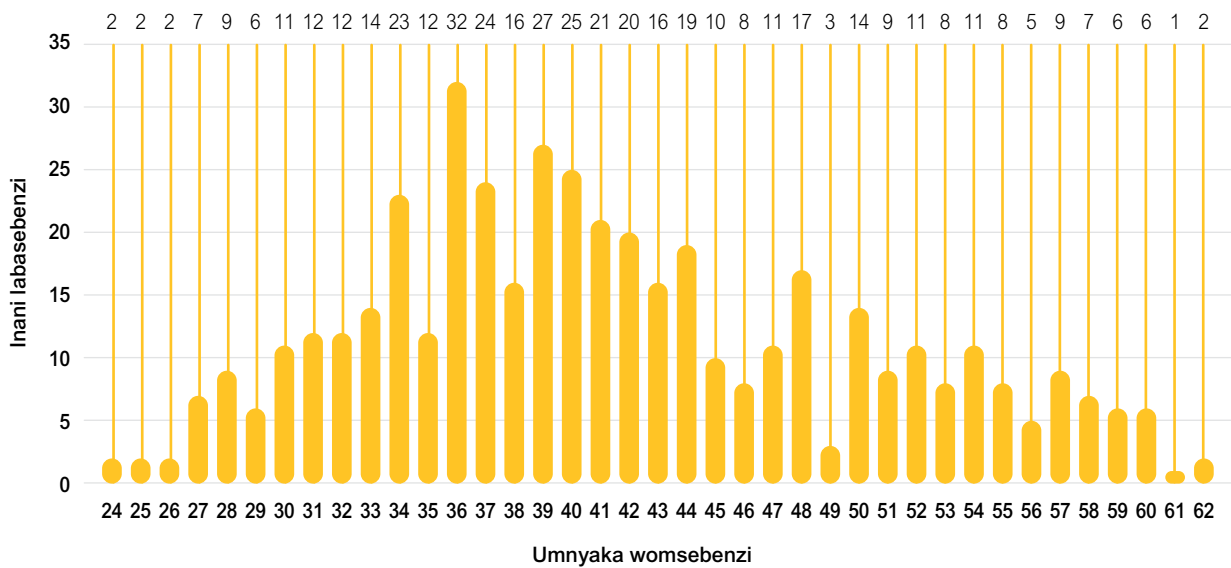
1.4 Inani lesikhathi esisetjenzwe basebenzi



Isithombe 19: Inani elisetjenzwe basebenzi ngaphakathi kwe-CGS

Ngokwenani labasebenzi boke bamatorho, ama-69.87% wabasebenzi be-GS bahlezi basebenza e-CGS iminyaka emihlanu namkha edlulako. Lokha abasebenzi abasebenze isikhathi eside banelwazi lesiko, imisebenzi, kanye negunya le-CGS, kuqakathekile ukubhalansa ubungako besilinganiso sokubamba ilwazeli ngeminqopho eqakathekileko yokuqatjha abasebenzi abatjha abaineka ngemibono emitjha. Kuyinto ehle ku-CGS ukobana abasebenzi bayo batjengisa ukuba yihlanganisela yezinto ezimbili.

1.5 Ihlaziyo leminyaka yabasebenzi

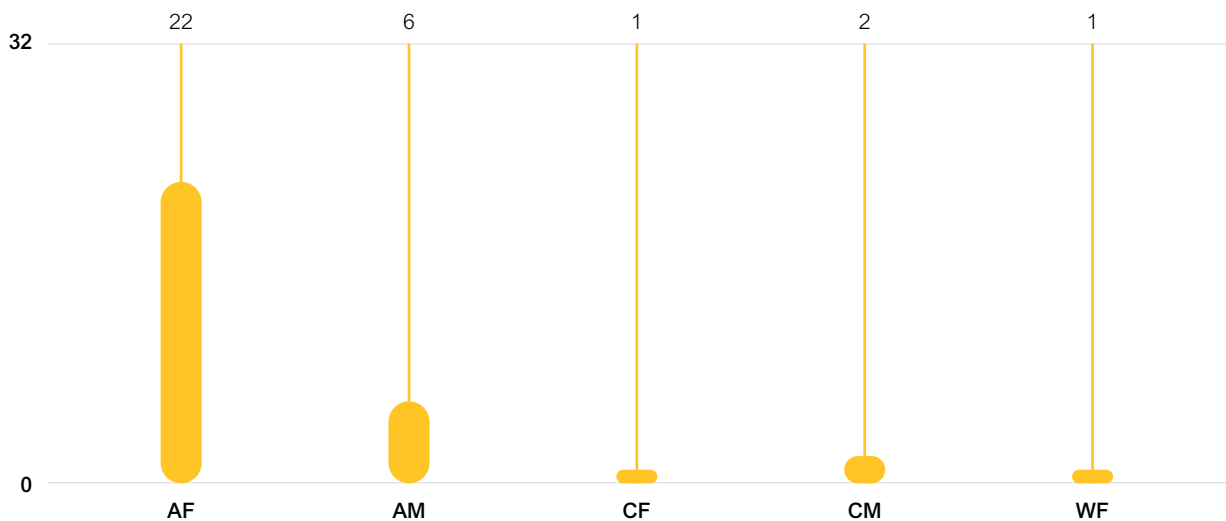


Isithombe 20: Ihlaziyo leminyaka yabasebenzi be-CGS

Kilelonani labasebenzi be-CGS, abamaphesende ama-bafakwe ngaphasi kwetja. Iimbalobalwezi zijamele ukungezeka ukusuka kumaphesende ama-22% ngomnyaka wee-2023/24. Ukunikela abantu bayo amakghono, i-CGS iragela phambili nokunikela amathuba kubasebenzi (nakuzakhamuzi zenarha) ngokwamahlelo wemiFundalize nama-Internshipi.

1.6 Ihlelo lokubandulela umsebenzi

Isithombe 21 sijamele isirhunyezo sehlelo lokubandulela umsebenzi le-CGS kilomnyaka obuyezekwako.

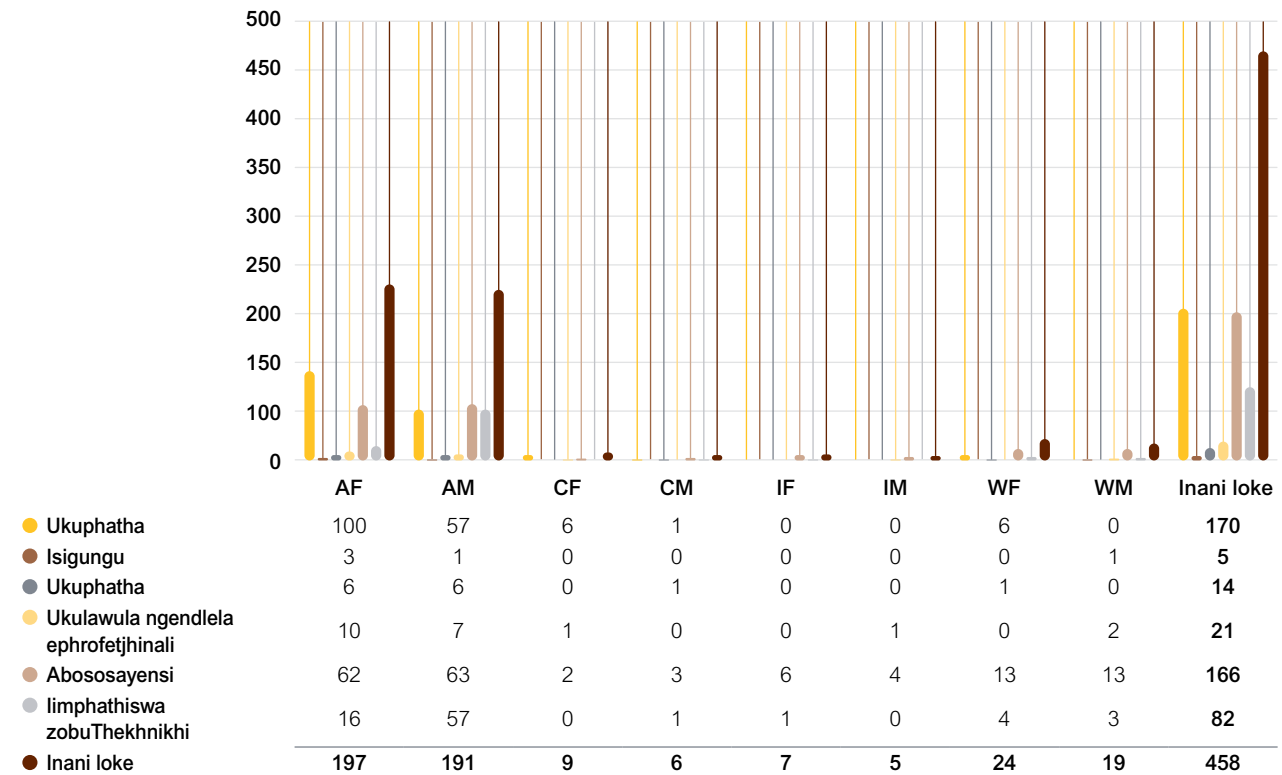


Isithombe 21: Ihlelo lokubandulela umsebenzi ku-CGS ngomnyaka wee-2023/24

Amanothi: AF – Abantu abanzima ababomma; AM – Abantu abanzima ababobaba; CF – Amakhaladi abomma; CM – Amakhaladi abobaba; WF – Abantu abamhlophe ababomma

Njenganje kunama-intens ama-32 e-CGS ehlelweni elithatha iminyaka emibili. Amaphesende amatjumi amathathu nanye (31%) wama-interns afakwe nabasebenzi abaqathekileko behlangano, lokha amaphesende ama-69% asemisebenzini esekelako. Ihlelo linikela amagrajuweyithi ukobana bavelele khudlwana ukungezelela ikghonakalo yomsebenzi. Amanye ama-intern anikelwa umsebenzi wasafuthi lokha abanye nabanikelwa amakontraga ngaleso sikhathi namkha ngemva kwamakontraga wehlelo lokubandulelwa umsebenzi, kulandelwe ikambiso enamandla yokufuna abasebenzi.

1.7 Ihlaziyo labasebenzi



Isithombe 22: Iphrofayili yabasebenzi be-CGS: iindawo ngokobutjhaba, ubulili nomkhakha womsebenzi

Amanothi: AF – Abantu abanzima ababomma; AM – Abantu abanzima ababobaba; CF – Amakhaladi abomma; CM – Amakhaladi abobaba; IF – AmaNdiya abomma; IM – AmaNdiya abobaba; WF – Abantu abamhlophe ababomma; WM – Abantu abamhlophe ababobaba

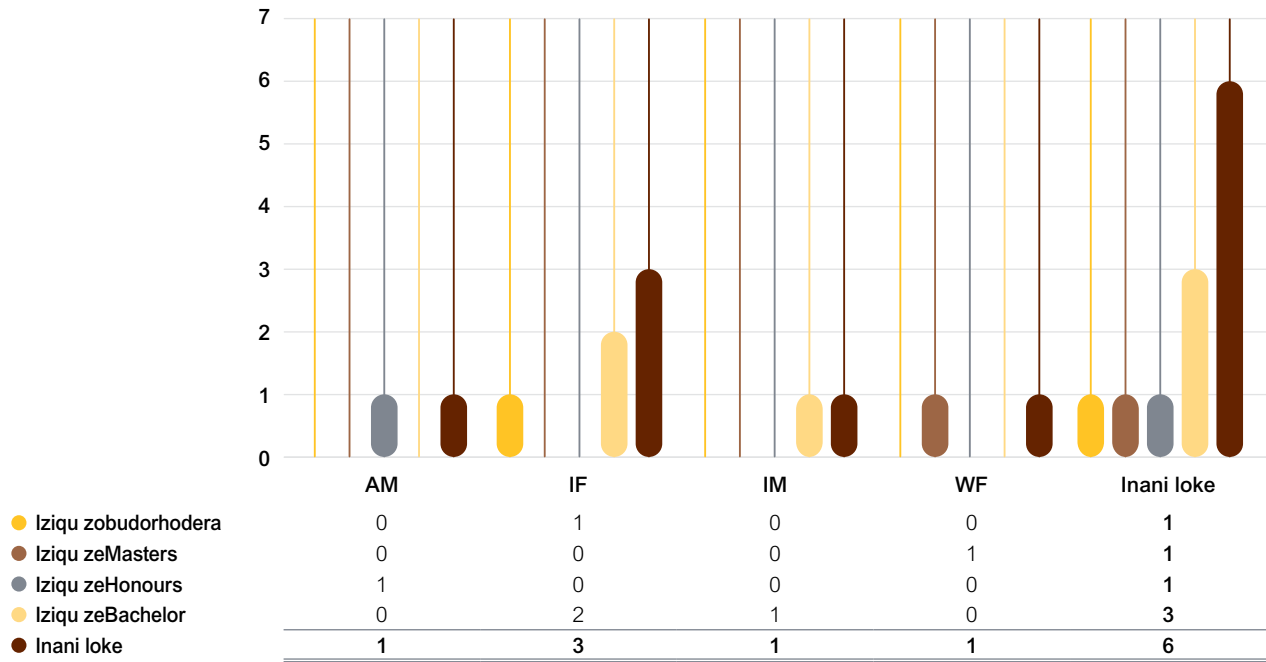
Lokha ukujameleka ngobulili buzuziwe ezingeni lehlango, kunethuba lokwenza ngcono ukujameleka kwezinye iindawo zeqhinga eliqakathekileko. Okutjhejekako, amaphesende ama-51% wabomma babantu abanzima baseendimeni zokulawula, lokha amaphesende ama-3.05% baseekhundleni zokuphatha. Abaphathi sebona kungcono bahlome iinkambiso zokuyelela ubulili ukuqinisekisa bona aabomma abanengi babaNtu abanzima bayaqatjha eenkhundleni eziqakathekileko.

1.8 Imifundalize

UmGomo wokuFunda nokuThuthukisa wenza bona kutholwe imifundalize kwabafunda okwesikhatjhana nabafunda ngokupheleleko. IKomidi yokuFunda nokuThuthuka inikelwe umsebenzi wokutjheja zoke iimbawo mayelana nemifundalize nokwenza iimphakamiso ku-CEO. Ikambiso yokukhetha ihlahlwa yikambiso evezwe esikhangisweni njengombana iyelaliswa kukhambisana komkhakha wefundo ebhodulukweni le-CGS.

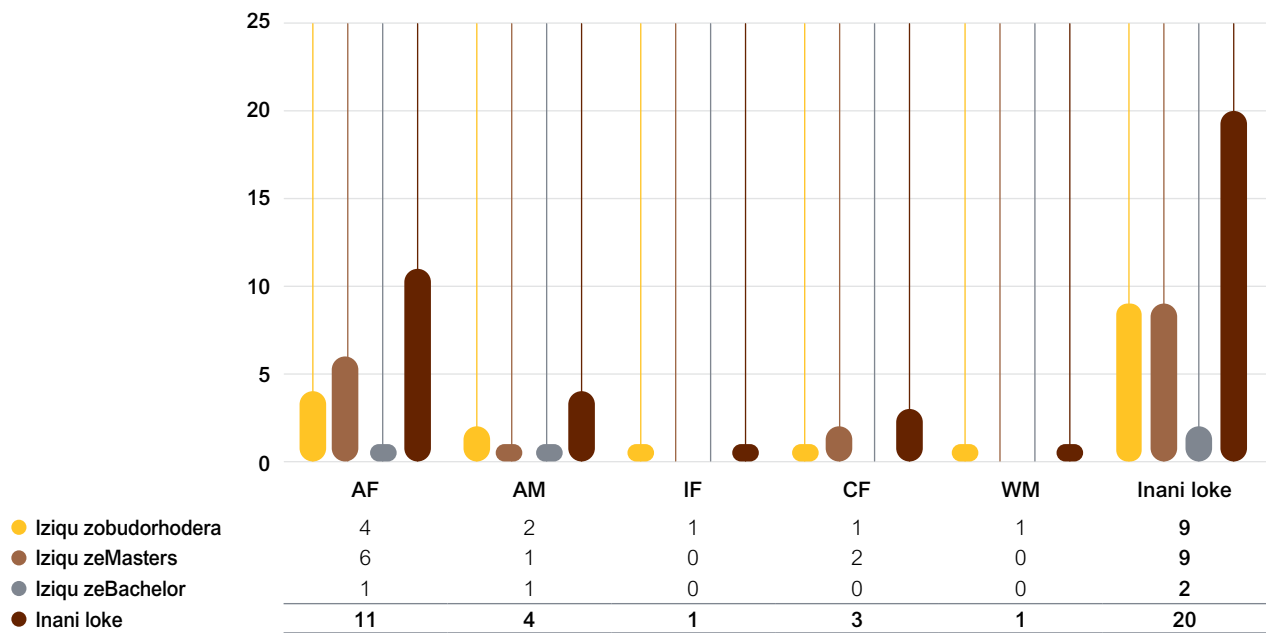
1.8.1 Imifundalize epheleleko

Ihlelo langaphandle lemifundalize epheleleko lisekela abafundi abanemphiwo ababuya emiphakathini etllhagako. Ngomnyaka wee-2023 wokufunda, i-CGS ibe nenani lemifundalize ema-26 ngokwabiwa ngokobulili bamaphesende ama-77% wabomma namaphesende ama-23% wabobaba. Abasithandathu balabo abanikelwe imifundalize baqede iimfundo zabo ngomnyaka wokubuyekizwa (Isithombe sama-20). Kwabama-20 abathole imifundalize epheleleko, abomma abasithandathu abathole imifundalize sebenza iimfundo zobudorhoda bese ababanane benza iziqu ze-masters (Isithombe sama-23) Lokhu kutjengisa ukuzibophelela kwe-CGS ekunikeleni abomma amandla ebhodulukweni le-CGS.



Isithombe 23: Sitjengisa abathole imifundalize ephelileko abaqede iimfundo zabo kilomnyaka obuyekezwako

Amanothi: AM – Abantu abanzima ababobaba; IF – AmaNdiya abomma; IM – AmaNdiya abobaba; WF – Abantu abamhlophe ababomma



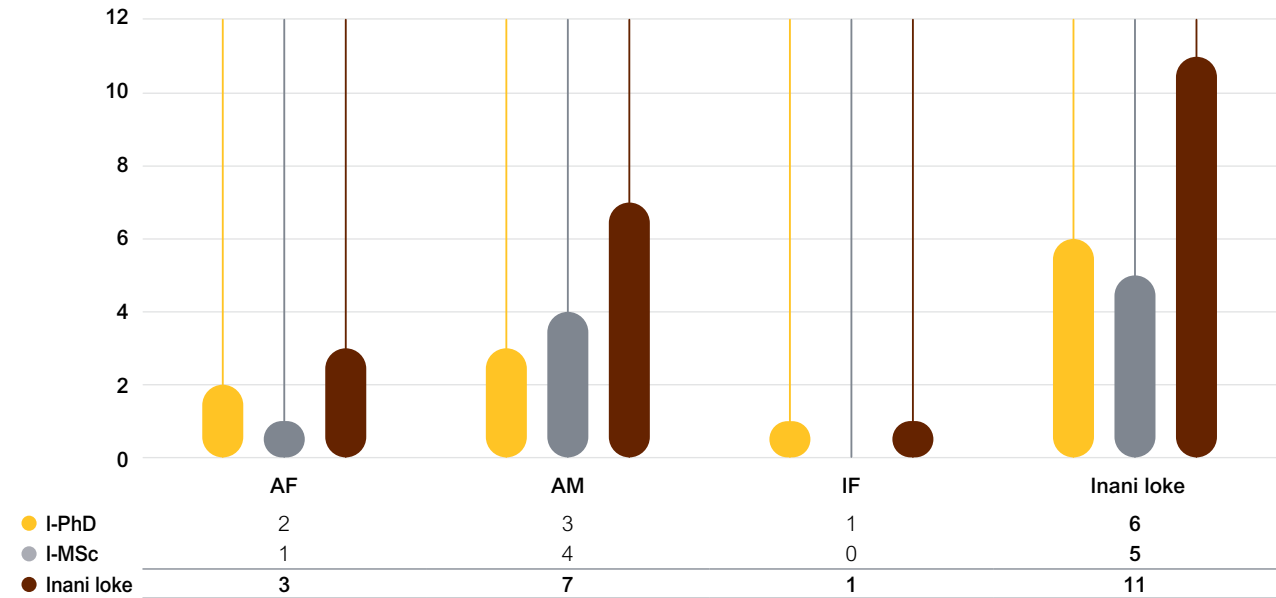
Isithombe 24: Abathole imifundalize ephelilekoku-CGS ngomnyaka wee-2023/24

Amanothi: AF – Abantu abanzima ababomma; AM – Abantu abanzima ababobaba; IF – AmaNdiya abomma; CF – Amakhaladi abomma; WM – Abantu abamhlophe ababobaba

1.8.2 Imifundalize yesikhatjhana

Imifundalize yesikhatjhana iyanikelwa kubasebenzi be-CGS mayelana nokufundela iimfundo zesayensi nezezinye izinto ezingasizo sesayensi. Ihlelo lomFundalize wesikhatjhana liqakathekile ekuthuthukiseni ibizelo le-CGS nokubamba amaqhinga. Bekunemifundalize yesikhatjhana ema-34 emitjha kolomnyaka wokubuyekeza. Kilawa, alikhomba ngeweziq ezizakathekileko bese i-17 kube ngeweziq eziphathelene nokusekela. Amaphesende amatjhumi amahlanu (59%) wabantu abathole imifundalize bomma lokha ama-41% kubobaba. Imizamo yokuthuthukisa amakghono itjengisa bona i-CGS izibophelele ekwakheni nekusekeleni abasebenzi abanamakghono nabanelwazi.

Isithombe sama-25 sinikela isirhunyezo salabo abasithandathu abathole imifundalize basenza iimfundo zabo zobudorhodera bese kuthi abahlanu basenza iziqu ze-Masters kilowo mnyaka. Okutjhejekako: amaphesende amatjhumi, 57% abathole imifundalize bomma lokha ama-43% kubobaba.



Isithombe 25: Abanikelwe imifundalize abenza iziqu ze-PhD neze-Masters ngokwengcenywe e-CGS

Amanothi: AF – Abantu abanzima ababomma; AM – Abantu abanzima ababobaba; IF – AmaNdiya abomma

1.9 Ikambiso yokubandula ephethwe hlangana nomnyaka

Iinkambiso zokubandula eziphethwe hlangana nomnyaka obuyekeziweko zethulwe ngalindlela:

1. Ikomidi yokuBhida
2. Ukubandula Kwenyoka
3. Ibandulo lamaKghono wokulawula
4. Ibandulo lesizo lokuthoma
5. Ibandulo le-XRF
6. Ukuhlonywa kwe-ISO 14001:2015
7. I-NEBOSH National Environmental Certificate
8. ISO 14001:2015 Ibandulo loku-Oditha ngaPhakathi
9. ISO 9001:2015 Ukuzwisisa nokuHlonywa kwe-QMS
10. I-Aerial Surveying (UAV) for 3-D Surface Modelling and Detailed Mapping
11. UkuPhatha umThombo wamaMinerali
12. Umgomo wamaMinerali neSisomali
13. Amahlelo wokuPhatha zeBhoduluko
14. Umnotho wamaMinerali, isiLinganiso somThombo nomGomo neSisomali
15. Ihlaziyo leDatha
16. Isitjengisi se-Adobe
17. I-Adobe Photoshop
18. I-Adobe InDesign
19. Amahlelo weenThuthi neBandulo lokuPhatha umHlambi
20. Iphenyo lesehlakalo
21. Ihlaziyo lesiSusa
22. Ukubamba nokuWa neBandulo lokuSindisa
23. Ihlaziyo leDatha mayelana nama-Oditha wangaphakathi ngokusebenzisa iBandulo (le-DAEX)
24. Isethulo seBandulo le-Stable Isotopes
25. ISO 9001:2015 AbaPhathi abaPhezulu (AmaHlelo wokuPhatha iKhwalthi) ILemuko leBandulo
26. ISO 9001:2015 Abasebenzi (AmaHlelo wokuPhatha iKhwalthi)
27. ISO 14001:2015 Abasebenzi (AmaHlelo wokuPhatha zeBhoduluko)
28. ISO 45001:2018 Abasebenzi (AmaHlelo wezamaPhilo emSebenzini nokuPhatha zeVikelekos)
29. Ilemuko lamaPhilo womKhumbulo.

1.10 Ukusisa kubasebenzi

Ngokukhambisana nalokho okunyulwa kulingana komsebenzi wenarha, i-CGS yenza umsebenzayo wokunikela abasebenzi amandla khudlwana, khulukhulu labo ababuya emiphakathini ethagako, bese ikhulisa isisekelo sesayensi nemisebenzi yokusekela imithombo yabantu ejanyelwe bulili. Abantu bethu bathanda lokho abakwenzako, njengombana amaphrofayili alandelako wabany beenkutani zethu ezisebenze kuhle akufakazela.



U-Dorh Rebekah Grow

Wayijoyina nini i-CGS?

Ngajoyina i-CGS ngomhlaka-8 kuTjhirhweni ngomnyaka wee-2001.

Yini owabe ufuna ukuyenza lokha nawukumethriki?

Lokha nangenza imethriki, ngaba nekareko ebizelweni lesayensi. Lokha nangithoma iifundo zami zeziqo ze-BSc, nganginaso isiqiniseko somkhakha wesayensi engangifuna ukuwufundela. Nangiseyunivesithi, iphosta eyayitjengisa amarhubhelo webizelo leJiyoloji lenza ukobana ngizithole nginekareko. Ngokukhuthazwa mndenami, ngakhetha ukuthatha iJiyoloji njengebizelo lami engililandelako.

I-CGS ikusize njani ekuphumeleliseni ibhudango lakho?

Ukuba ngumma osesemutjha eSewula Afrika, ngithola isekelo elinengi e-CGS ekuphumeleliseni ibhudango lami lokuba ngusosayensi. Nasele ngiqede iziqu zami ze-BSc (Hons) eYunivesithi ye-Durban Westville njengomuntu ohlomule kumfundalize we-CGS, ngithome ngebizelo lami e-CGS njengososayensi ongaphasi. Ngokunande ngiragla phambili, ngaragela phambili ngaba sesikhundleni sokuba ngusosayensi ophezulu. Ngesikhathi sokuragela phambili nomsebenzi, ngizibandakanye kumaprojekthi ahlukahlukeneke we-geoscience akhulise ikghono lami begodu angivulela iminyango yokwenza ezinye iifundo. Ngesekelo le-CGS, ngathola iziqu zami ze-MSc degree ku-Geology e-Uniiversity of the Witwatersrand ngomnyaka wee-2009, begodu mhlapha nje ngiqede bengaphothula i-PhD engiyithole e-Stellenbosch University. Ukukhula kwebizelo lami ngaphakathi kwe-CGS kusizwe khulu ziyeleliso nokukhuthazwa ebengikuthola kubaphathi nabalingani bami. Ngithokoza khulu ukobana i-CGS izinikele isikhathi sokuthuthukisa abasebenzi bayo, batjengise ngokusisa kwabo eziqini ezisemthethweni, nangasekelo abanginikele lona kiyo yoke iminyaka yebizelo lami.

Ngiyiphi indimakho njenganje?

Njenganje ngingusosayensi ophezulu eZikweni i-Geophysics and Remote Sensing Unit.

Wenza ini kileyondima begodu yini etlomelelisa ngayo?

Njengososayensi ophezulu ngimsizi womdosiphambili eemfundweni zamamebhe wokuwa kwamatje enarheni. Kilendima ngiyatjheja bese nginikela izeluleko emisebenzini embalwa yokuwa kwamatje. Ngisebenzisa amathekhnoloji wokusenza ngikude namathekhnoloji wesikhala sejiyoloji ukuqala nokubona amazowunu wamatje awako. Indima yalokho engikwenzako engikara khulu kunikela evikelweni lomphakathi ngokwakha iinsetjenziswa ezifana nokunzina kwamamebhe weengozi zamatje awako. Insetjenziswezi zingasiza ukuphungula iingozi zamatje awako begodu zithuthukise ipumelelo yokuplanwa kokusebenzisa indawo.

Indimakho ihlangana njani neminqopho weqhinga le-CGS?

Endimenami ekhethekileko eemfundweni zamamebhe wamatje awako, ngisekela umnqopho weqhinga le-CGS ngaphasi kweHlelo le-National Geohazards Mapping Programme ngokuthuthukisa ikghono le-CGS ngeendaba eziphathelelene neengozi zamatje awako eSewula Afrika.

Ngiziphi iintjhihilo ohlangabezana nazo?

Ukuhlala ngazi koke ngamathekhnoloji akhulako wesikhala sejiyoloji, ukutjhugulula idatha ehlangahlangeneko yezinto zejiyoloji, nokubhalansa umsebenzi othekhnikhali ngokubonisana kuhle nabahlanganyeli abahlukahlukeneko.

Ngokuzwisisa ubujamo, ingabe bewuzokukhetha elinye ibizelo elihlukileko?

Awa, nginekareko mayelana nebizelo lami lesayensi.

Ungabakhuthaza njani:

Abantu abatjha abafuna ukulandela ibizelo lakho?

Thembela khulu kilokho okholelwa kikhlo, ulungise umkhumbulwakho, begodu uthembele emakghonwenakho nakilawo wabanye. Tjengisa ukuzimisela ekuphumeleliseni iinhloso zakho begodu uzimisele ukwenza kuhle ngaso soke isikhathi. Sebenzisa amaprojekthi akhona neendima ezivezwako ukobana ube nelemuko begodu ube namatjhebiswano ubambisane nabasebenzi bebubulo.

Abasebenzi be-CGS abanetjisakalo ngaphasi kwezinga lakho?

Khetha ukuragela phambili nokufunda nokuthuthukisa amakghono, usebenzise amathungelelwano anamandla, wenze imizamo emisebenzini yamaprojekthi ahlukeneke onikelwe yona. Funa imibiko ebuyako ngaso soke isikhathi, tjala amakghono wobudosiphambili, bese uhlala wazi izinto ngalokho okwenzeka ebubulweni ukuvula indlela yokuthuthuka kwakho ngaphakathi kwe-CGS.



UMm u-Andisani Makhado

Wayijoyina nini i-CGS?

Ngajoyina i-CGS ngomhlaka-3 kuRhoboyi ngomnyaka wee-2015 njenge-geophysics intern.

Yini owabe ufuna ukuyenza nawenza imethriki?

Nganifuna ukwenza i-Electrical Engineering, kodwana ngemva kokufunda i-athikili yejoyoloji engayithola encwadini ye-geography ngatjhugulula umkhumbulwami ngathatha isiqunto sokwenza i-Geology.

I-CGS ikusize njani ekuphumeleliseni ibhudango lakho?

Nangifika e-CGS ngomnyaka wee-2015 ngangili-intern. Nganine-B-tech ku-Geology, bengazi ngaso soke isikhathi ukobana anginawo umkhawulo. Ngokubona amaprojekthi ahlukeneko nendlela engithanda ngayo isayensi, i-CGS yanginikela ithuba lokobana ngiragele phambili neemfundo zami ngokungivumela ukobana ngisebenzise enye yamaprojekthayo njengento enginganqopha kiyo mayelana nerhubhululo lami le-MSc. Ngaphezulu kwakho koke lokho, i-CGS yabhadalela iimfundo zami, begodu khonokho yaba yingcenywe yalokho okwenza ngilemuke amabhudangwami wokuragela phambili neemfundo zami.

Ngiyiphi indimakho njenganje?

Ngingusosayensi ku-Geophysics and Remote Sensing Division ngaphasi kweZiko lamaMinerali ne-Eneji yeBhizinisi.

Wenza ini kileyondima begodu yini etlomelisako ngayo?

Indimami ifaka hlangana amaprojekthi amanengi we-geoscience nokwenza irhubhululo. Ngokwazi bona amaprojekthi engiwezako anikela ekuthuthukiseni amamebhe lokho kuyangithabisa.

Indimakho ihlangana njani neminqopho yeqhinga le-CGS?

Ngisebenza ngamaprojekthi asisa ngokuphungula umthwalo wamarhasi we-greenhouse afana CO₂ ukusuka esibhakabhakeni. Omunye weminqopho we-NDP kukwenza ngcono ubujamo betlayimethi ngokuphungula imikhiqizo yerhasi esibhakabhakeni begodu i-CGS nayo iyazibandakanya ekwenzeni isiqiniseko sokobana umnqopho lo uyazuzwa.

Ngiziphi iintjhijilo ohlangabezana nazo?

Umuntu enginguye namhlanjesi kufanele azame ngokusemandlenakhe ukuba mumuntu ongcono ebenginguye esikhathini esidlulileko.

Ngokuzwisisa ubujamo, ingabe bewuzokukhetha elinye ibizelo elihlukileko?

Ngesimanga sokobana ngiinethudu lokusebenza kumaziko ahlukeneko we-geoscience, ngiyakghona ukukhetha lokho engikuthandako, njengombana nginelwazi elinabileko lamahlelo enziwa yi-CGS. Angicabangi bona bengingabawa enye indawo engcono engingaba kiyo. Iye khona, bengingeze ngakhetha ukusebenza kwenye indawo kunokusebenza lapho ngikhona njenganje.

Ungabakhuthaza njani:

Abantu abatjha abafuna ukulandela ibizelo lakho?

Awukabekelwa umkhawulo, ungazuzwa nanyana yini ofuna ukuyizuzwa wena. Namhlanjesi sinamahlelo afana nama-career expos, anikela amathuba wokuthola umqatjhi omthandako nokuthola ilwazi elinengi ngebizelo olikhethako. Iba nelwazi.

Abasebenzi be-CGS abanetjisakalo ngaphasi kwezinga lakho?

I-CGS inikela abasebenzi bayo amathuba amanengi, kufakwe hlangana ukuzibandakanya kumaprojekthi ahlukeneko, ibandulo ngokwamaHlelo aThuthukisa umTlamo, iimfundobandulo, imifundalize namakhonferensi. Lokhu koke nje kuziinkundla zokufunda lapha umuntu angazibandakanya khona abe mumuntu ongcono.



UMm uNangamso Dunga

Wayijoyina nini i-CGS?

Ngajoyina isiGungu se-Geoscience ngenyanga kaMgwengweni ngomnyaka wee-2019 njenge-intern eZikweni lamaMebhe, njenganje esele liyingcenyane ekulu yeZiko lamaMinerali ne-Eneji.

Yini owabe ufuna ukuyenza nawenza imethriki?

Ngangifuna ukufundela i-Environmental Health, engafaka isibawo kiyo ngamukelwa. Umfundisami we-physical sciences wabe acabanga bona ngisebenza kuhle kiso isifundwesi kodwana ngangingasithandisi kuhle. Ngafunda esikolweni sesayensi (i-St John's College –eMthatha), yeke ngangenza iimfundo ze-Physics, i-Geography, i-Mathematics, ne-Biology. Ngifunde kuhle kumagreyidi wami woke yeke umfundisami we-Physics wacabanga bona ngingaba likhandideyidi elihle le-Geology. Ingcenye ekarisako kukobana ngangicabanga bona i-Geology itjho i-Geography bekufike lapha ngenza khona irhubhululo elingeneleleko ngayo. Ngakhamba ngayo e-internet café, ngaqala amaziko anikela amahlelo, ngafaka isibawo khona mhlokho sokobana ngifundele i-Geology. Ngamukelwa begodu ngathaba khulu ngalokho engikukhethileko soloko kwamhlokho.

I-CGS ikusize njani ekuphumeleliseni ibhudango lakho?

Ihlelo lami lokuthoma lokubandulelwa umsebenzi ngemva kokuya eyunivesithi, ngangizitjela bona i-Geology iphathelele nokumayina kwaphela, njengomuntu ongazwisisiko bona i- Geology iyini. Kube lithabo kimi ekutheni ngitjengiswe amanye amaphrojekthi alisizo emiphakathini ngokwesiGungu se-Geoscience. Ngikhumbula ngiseseli-intern lokha nangizibandakanya ephrojekthini i-Landslide Mapping Project KwaZulu-Natal, ngakghona ukufunda izinto nokukhulumisana nemiphakathi nokubona bona ngingawenza njani umahluko namkha ngingabasiza njani. Ngendlela ibizelo lami elikhula ngakhoma, ngangineziqhu ze-Master's ku-Geology lokha nangijoyina i-CGS, nginqophe ukuthola i-PhD ku-Geology ngelinye ilanga.

Ngijoyi indimakho njenganje?

Ngingusosayensi osezingeni eliphasi eZikweni leBhizinisi yamaMinerali ne-Eneji.

Wenza ini kileyondima begodu yini etlomelelisa ngayo?

Indimamai iphathelele khulukhulu nomkhakha wamamebhe nerhubhululo le-geoscientific. Okutlomelelisa ngendima lemathaba wokusebenzisa amakghono la eendaweni ezihlukeneko nakumaphrojekthi.

Indimakho ihlangana njani neminqopho yeqhinga le-CGS?

Iminqopho yeqhinga le-CGS lifaka hlanguka ukukhula komnotho nepumelelo yezebhoduluko. Ukungezelela ekwenzeni ngcono ukuzwisiswa kwejiyoloji eSewula Afrika, ngibandakanyeka emamebheni ngokweminqopho yokuphenya, hlanguka neminye imisebenzi. Ngizibandakanya godu ephrojekthini yerhubhululo enqophe ukuzuza i-eneji evikelekileko nethuthukako, begodu netjhuguluko ekusekeleni i-NDP.

Yini esitjhijilo kuwe?

Mina, ngizama ngokusemandlenami ukuba mumuntu otjhugululekeko lokha nangijoyina isiGungu se-Geoscience.

Ngokuzwisisa ubujamo, ingabe bewuzokukhetha elinye ibizelo elihlukileko?

Awa bengingekhe. Akhange ngilikhetha ibizelweli; ngayelelisa ukobana ngenze njalo kodwana bekube kunamhlanjisi angzisoli nakancani.

Ungabakhuthaza njani:

Abantu abatjha abafuna ukulandela ibizelo lakho?

Ngizakuthi yenzani isiqiniseko sokobana nithabela ukuba ngaphandle ntanzi ngombana ngikhulwa bona leyo ngiyo ingcenyane yokuthoma yokuba yi-geologist. Nanyana ungenzani, angeze wabalekela ukufuna ilwazi (ukuthola ilwazi ngokubona izinto bunqopho). Ngaphandle kwalokho, kufanele ukuthande ukwenza irhubhululo ufune ukufunda ebizelweni lakho loke ngombana nge-Geology kufanele ube mumuntu ohlala aphenya. Kwamaswaphelo, ithabele! Ngitjho bona, amaGeologist akhamba phambili!

Abasebenzi be-CGS abanetjhisakalo ngaphasi kwezina lakho?

Ngizakuthi zakhele isithunzi wena ngokwakho, umsebenzakho awuzikhulumele. Yenza isiqiniseko sokobana waziwa ngokwenza izinto ezihle kiyo yoke into oyenzako. Lokho kuzakusa kude – ngiyakholwa bona nami kungibeke lapha ngikhona.



UDorh Robert Netshitungulwana

Wayijoyina nini i-CGS?

Ngathoma ukusebenza e-CGS ngenyanga kaSihlabantangana ngomnyaka wee-2006 njengosayensi osezingeni eliphasi eZikweni le-Laboratory ne-Geochemistry Unit.

Yini owabe ufuna ukuyenza nawenza imethriki?

Ukukhulela emakhaya, ngangidlala ngamatje namagade amakhulu ngokweminqopho ehluhlukeneko. Ngakarwa ziingcinye ezikhethekileko zenye nenye imatheriyali, lokho kwenza bona ngibe nekarekoyokwenza iziqu zesayensi eyunivesithi namkha etheknikhon.

I-CGS ikusize njani ekuphumeleliseni ibhudango lakho?

I-CGS idlale indima ekulu ekuthuthukiseni ibizelo lami ngemva kobana ngiqede iziqu zami, okuyinto engiyithokozelako leyo. Ngathoma ngisebenza njengosayensi osezingeni eliphasi (i-P9) esiGabeni se-Geochemistry. Ngaphambi kwalokhu, nganginelemuko lokuba ngosabandulwako ku-geologist emkhakheni wokuphenya ne-De Beers Consolidated Mines Pty (Ltd) begodu ngenza ihlaaziyo lamakhemikhali wemigadango yomunni i-(LA-ICP-MS, SEM) yerhawuda yeSewula Afika neyama-Zimbabwe mayelana nokuqala imithombo, okwabe kuyinto iphrojekthami ye-MSc eyayinqophe kikho. Ngomnyaka wee-2010 ngakutjhulelwa esikhundleni sakasosayensi (i-P8) ngokuragela phambili kwendlela yebizelo. Indima ifaka hlangana ukusebenza ngaphandle utlamela amaphrojekthi, uphatha amaphrojekthi, umthhogomeli wamaphrojekthi (kufakwe hlangana amaphrojekthi weentjhabatjhaba afana newe-Uganda newe-Rwanda), ukwenza amahlaziyo athogonyelwako we-XRF nokuhlathulula idatha, nokutlola imibiko yamakota. Ngomnyaka wee-2011, ngakutjhulelwa esikhundleni sokuba ngusosayensi ophezulu begodu ngajoyina iZiko le-Environmental Geoscience Unit lapha ngabandakanyeka khona kumaphrojekthi wokuhlola amandla webhoduluko le-geo-environmental mayelana namanzi, iindawo zokulahlala emayinini, nokulahlwa kwamaminali amancani eemfundweni ze-geochemical. Indima ifaka hlangana ukuthhogomela nokuyelelisa abososayensi abasesephasi ekutlameni amaphrojekthi, umsebenzi wangaphandle, ukuhlathulula idatha nokutlola imibiko. Umsebenzi owenzeke ngesimanga seziqu zami ze-PhD, owasekelwa yi-CGS ngakho koke. Ngomnyaka wee-In 2014, ngajoyina iZiko i-Minerals and Energy Unit njengososayensi osesephasi ngemva kokuthlelwa ngobutjha kwe-CGS. Umsebenzami bewufaka

hlangana ukuphatha amaphrojekthi (kufakwe hlangana ukuba mjaphethe njengoMphathi weZikor), ukuyelelisa, nokuthhogomela abososayensi abasesebancani nokutlola imibiko. Amakghono engiwafundileko afaka hlangana ukwenza iphenyo lamakhemikhali wejiyoloji (lenziwa ngakho kokubili ukukhamba ngesiphaphamthjini nangokukhamba ngeenyawo) ukuphenya kwe-geochemistry, ijiyoloji yezebhoduluko namaqhinga wokuhlaziya afana ne-LA-ICP-MS, SEM, XRF neseli elihlola umrhwamuko, kanye nelemuko ku-geochemical modelling ngokusebenzisa i-Geochem Workbench software.

Ngiyiphi indimakho yanje?

Soloko kwangomnyaka wee-2018, ngibambe isikhundla sokuba ngusosayensi ophezulu, owenza irhubhululo nokuthuthuka emhlalheni we-geochemistry, ukuphenya amaminali nejiyoloji yezomnotho.

Wenza ini kileyondima begodu yini etlomelisako ngayo?

Indima yami kuphatha ihlelo lamaMinerali eZikweni lamaMinerali ne-Eneji ngengengcinye yeHlelo i-Multidisciplinary Geoscience Mapping Programme. Ihlelweni lisiza khulu kumiphumela yeqhinganelidosa amaphesende ama-5% wezabelo eendlekwini zokuphenya ephasini mazombe.

Indimakho ihlangana njani neminqopho yeqhinga le-CGS?

Isiza khulu ekwethulweni kwegunya le-CGS, ukusekela ukukhula kwehlalakhule yomnotho ngokwephenyo elinepumelelo lamaminali, begodu nokunikela ivikeleko le-eneji.

Yini esitjhijilo kuwe?

Ukuba ngekokuthoma kwamamnerali akhutjhwakokusihloko esinzima. Ukungezelela, ukuba ngekokuthoma kwerhawuda e-Witwatersrand Basinnakho kuyindaba enzima. Angeze sakhuluma khulu ngokwetheoloji nakuqalene nama-Big Bang theories of genesis.

Ngokuzwisisa ubujamo, ingabe bewuzokukhetha elinye ibizelo elihlukileko?

Ibizelo lami likhambisana nalokho ebengikuthanda nangisesemncani, begodu ngikuthanda khulu ukusebenza ngenge-geologist.

Ungabakhuthaza njani:

Abantu abatjha abafuna ukulandela ibizelo lakho?

Kulibizelo elimnandi khulu ebantwini abatjha, begodu lisavulekile (linekghono lokukhiqiza iingidigidi zama-PhD). Ukuziphendulela ebujameni obuneentjhijilo i-geo eqalene nabo, obufana nokutjhuguluka kwetlayimethi, namkha ithogeko yokusebenzisa amaminali wetheknoloji ephezulu, kufanele siqale phambili, abantu abasesebatjha abakhuthazekako ukobana balethe imibono emitjha kilomkhakha, nokuthoma izinto ngobutjha nakho kuyafuneka.

Abasebenzi be-CGS abanetjisakalo ngaphasi kwezina lakho?

Lezi kuziinkambiso ezisisekelo zepilo esafundiswa zona eenkolweni ezihlukeneko (emabangeni aphasi, esekondari, emazikweni aphezulu, ekhaya, esondweni nemphakathini). Umnqopho weenkambiswezi kusenza ukobana sizithobe, sithembeke begodu siziphathe kuhle. Nange sikghona ukuphila ngeenkambiswezi, sizakukghona ukuzuza iminqophethu.



UNom Ngqondi Nxokwana

Wayijoyina nini i-CGS?

Ngajoyina i-CGS ngomnyaka wee-2009 njengososayensi osesephasi esiGabeni se-Petrography of the Analytical Services Unit.

Yini owabe ufuna ukuyenza nawenza imethriki?

INgangifuna ukwazi bona ibhoduluko lemayini lisebenza njani begodu ngangifuna ukuba yingcenywe yalo.

I-CGS ikusize njani ekuphumeleliseni ibhudango lakho?

I-CGS inginikele thuba amanengi ukobana ngiragele phambili neemfundo zami. Ngokwehlelo lomFundalize we-CGS Bursary Programme ngiphothule iziqu zami ze-Master's degree ku-Geology, iintifikeyidi ku-Project Management begodu ngiqede iHleloi-Management Development Programme. Njenganje ngenza umnyaka wokugcina we-Master's degree yami ku-Business Leadership. Nginikelwe godu nethuba lokobana ngikhule ehlanganweni, ukusukela ngithoma phasi ngingusosayensi osesephasi eminyakeni eli-15 egadungileko ukoyokuba ngusosayensi ophezulu namhlanjesi.

Ngiyiphi indimakho yanje?

Njenganje ngimphathi wephrjekthii yokuBamba iKhabhoni ukuBeka nokuSetjenziswa.

Wenza ini kileyondima begodu yini etlomelisako ngayo?

Indima ifaka hlangana ukuhlanganisa imisebenzi yamaphrojekthi ahlukene nokwenza isiqiniseko sokobana imikhiqizo yenziwa ngesikhathi begodu ikhambisane nebjeedi. This is one of South Africa's important interventions towards climate change abatement. Le yindlela eqakatheke khulu yokungenelela kweSewula Afrika mayelana nokuphunguka kokutjhuguluka kwetlayimethi. Kuyinto ehle ukuba yingcenywe yabantu abenza izinto zesayensi eziqakatheke kangaka emphakathini.

Indimakho ihlangana njani neminqopho yeqhinga le-CGS?

Indimami yanje ikhuluma ngepumelelo yezebhoduluko, ivikeleko le-eneji nokukhula komnotho. Koke lokhu kusesentha yeqhinga le-CGS nalokho okunylwa kuthuthukiswa eSewula Afrika.

Yini esitjhijilo kuwe?

Kusitjhijilo esihle ukuba yingcenywe yehlangano enikelwe amaphrojekthi aqakatheke kangaka enarheni. Njengabososayensi sinomsebenzi wokuqinisekisa bona lokhu kuletha iinsombululo ezifuneka khulu begodu kwethula amandla afunekako emphakathini.

Ibhoduluko lokuphatha iphrojekthi litjhuguluka kanengi ngokuba nezinto ezinengi ezikhambakhambako ukuletha koke ngamalanga. Esikhathini einengi akurayeki, kuyatjhijila begodu kuyakarisa. It's mostly unpredictable, challenging and exciting.

Ngokuzwisisa ubujamo, ingabe bewuzokukhetha elinye ibizelo elihlukileko?

Ibizelweli linginikele amathuba amanengi wokufunda, ukukhula begodu nekundla yokwenza umehluko kwezinye iindawo ezineentjhijilo iSewula Afrika eqalene nazo, ezifana nevikeleko le-eneji nkanye nokutjhuguluka kwetlayimethi. Angiliboni ibizelo lami litjhuguluka.

Ungabakhuthaza njani:

Abantu abatjha abafuna ukulandela ibizelo lakho?

Leli libizelo elinamathuba amanengi ukobana lingathathwa. Amathuba amatjha aragela phambili nokuvela eendaeweni ezinjalo njenge-eneji evuselelwako nokufuna amaminerali aqakathekileko. Thola indawakho bese usebenze ngamandla kiyo.

Abasebenzi be-CGS abanetjisakalo ngaphasi kwezinga lakho?

I-CGS amathuba amanengi wokuragela phambili nokufunda ngokwehlelo lemifundalize. Nawuthatha imifundalize le ukobana uragele phambili neemfundo zakho lokhu kuzakuvulela amathuba amanengi emkhakheni lo onabileko. Taking this up to further your studies would expand your horizon in this vast field. Kwesibili, phuma lapha uledlthe khona bese uzinuka amakhwapha uqale ezinye iindima obewungacabangi bona zingakufanela. Akhe uzame uzakurareka bona ukghona ukwenza izinto ezingangani!



UNom Sivuyile Ngamlana

Wayijoyina nini i-CGS?

Ngajoyina i-CGS ngomnyaka wee-2008 njengesiphathiswa esitheknikhali eZikweni i- Analytical Services Unit.

Yini owabe ufuna ukuyenza nawenza imethriki?

Nangenza imethriki, ngangifuna ukwenza ibizelo emkhakheni wobunjiniyera.

I-CGS ikusize njani ekuphumeleliseni ibhudango lakho?

Lokha nangijoyina i-CGS in 2008 njengesiphathiswa esitheknikhali nganginesitifikeyidi semethriki kwaphela, begodu ngangisebenza kiwo womabili amaziko le-Laboratory nele-Geochemistry lapha bengidlala khona indima yokulungisa ihlabathi/amasampula wamatje ukobana ahlaziywe. Ngangidlala etatawini ngenza ukusampula ngeemphamthjini. Ukuhlangana nabantu abanamabizelo ahlukeneko e-CGS kwangikhuthaza khulu kwangikhumbuzana ngalokho engithembise bona ngizokwenza. Ngemva kwalokho ngathatha isiqunto sokuzitlolisela i-National Diploma in Information Technology begodu ngayiqeda.

NgeHlelo lommFundalize le-CGS Bursary Programme, ngazitlolisa begodu ngaqeda i-Advanced Diploma in Information Resource Management and a BSc (Hons) ku-Computing. Iziqu lezi zombili zangibeka ebujameni bokobana ngikhwalfayele begodu ngikalukane endimeni engiyidlalako le.

Ngiyiphi indimakho yanje?

Ngimhlanganisi we-scientific database coordinator eZikweni le-Analytical Service Unit.

Wenza ini kileyondima begodu yini etlomelelisa ngayo?

Ngenza isiqiniseko sokobana abasebenzi be-Analytical Service Unit bangakghona ukuthola ilwazi le-Laboratory Information Management System (LIMS) ngesikhathi esifanako; ukwakha amathempleyidi wemibiko namaforomo afanele asetjenziselwe imiphumela nemibiko yamakota; ukubandulwa kwabasebenzi abenza imisebenzi yehlaziyo ku-LIMS; nokuhlela amahlelo njengombana alindelwe ziindingo zomunye nomunye umsebenzisi. Kufuneka ngifunde amakghono amatjha ngenze nesiqiniseko sokobana ukutholwa kwedatha kuphelela kubasebenzisi abangyaziweko kwaphela.

Indimakho ihlangana njani neminqopho yeqhinga le-CGS?

Njenganje iZiko le-Analytical Service Unit lisebenzela ukuthola i-akhredithetjini ye-ISO/IEC 17025:2017; Indima engiyidlalako njenge-Scientific Database Coordinator kuqinisekisa bona abasebenzi abenza imisebenzi yehlaziyo bayabandulwa begodu bayakghona ukusebenzisa amahlelo nokuragela phambili nokukhwezelela amarekhodi. Ukuthola i-akhredithetjini ye-ISO/IEC 17025:2017 kuqakatheke khulu ekuqinisekiseni bona iZiko le-Analytical Services Unit liba sikhonakalisi esiphuma phambili sehlaziyo.

Yini esitjhijilo kuwe?

Ngaso soke isikhathi yenza izinto ngconywa kunelanga eligadungileko. Kusitjhijilo esikarisako ukuba sendaweni ye-ICT esathomako, ukobana ngitjeje amatheknoloji amatjha pheze woke malanga.

Ngokuzwisisa ubujamo, ingabe bewuzokukhetha elinye ibizelo elihlukileko?

Ibizelo lami lanje liyangithabisa. Koke enginetjisakalo yokukwenza kuragela phambili neemfundo zami nokukhulisa ilwazi lami emkhakheni engikiwo njenganje.

Ungabakhuthaza njani:

Abantu abatjha abafuna ukulandela ibizelo lakho?

Engikhuthaza ngakho abantu abatjha kukuthi awukatjhiywa sikhathi ukobana uthome. Ngisakhumbula lokha nangizitlolisela i-National Diploma yami, ngangineminyaka ema-29.

Abasebenzi be-CGS abanetjisakalo ngaphasi kwezinga lakho?

Qala lokho ofuna ukukuzuzisa epilweni begodu ungathomi ulise kufunda.



UNom Sashan Manikam

Wayijoyina nini i-CGS?

Ngajoyina i-Council for Geoscience ngomhlaka- 2 kuTjhirhweni ngomnyaka wee-2024.

Yini owabe ufuna ukuyenza nawenza imethriki?

Ngangifuna ukufundela i-Geology ngifunde ngizwisise indlela iindawo zethu nebhoduluko lethu elibumbeke nelithuthuka ngakhona ekukhambeni kwesikhathi. Kuhlekuhle ngangifuna ukuzibandakanya ekwakheni ilwazi nekwenzeni ngcono indlela esizwisisa ngayo iinkambiso zePhasi eSewula Afrika/ebujameni be-Afrika.

I-CGS ikusize njani ekuphumeleliseni ibhudango lakho?

I-CGS isinikele ibhoduluko elifaneleko lokwenza amarhubhululo wamanzi we-geoscientific nokwenza amamebhe ngokunikela iinsetjenziswa, i-softwe nemithombo engangenwa lula. I-CGS iyabasekela abasebenzi begodu iyabakhuthaza bona baragele phambili neemfundo zabo, okuyinto engiyithokozelako leyo.

Ngiyiphi indimakho yanje?

Indima engiyidlala njenganje kukuba ngusosayensi ngaphakathi kweZiko lamaMinerali ne-Eneji.

Wenza ini kileyondima begodu yini etlomelelisa ngayo?

Indimami ifaka hlangana ukwenza amarhubhululo we-coastal and marine geological mapping ngenze amarhubhululo ngaphakathi kwendawo yeSewula Afrika ye-coastal ne-marine. Lokhu kufaka hlangana ukubuthelela idatha ye-marine geophysical and hydrographic yaphasi elwandle bese ingene ngaphasi emkhumbini okhamba ngaphasi kwamanzi. Idatha le isetjenziselwa ukwakha immongo yamamebhe ahlukeneko nedatha i- webhoduluko lenarha yangaphandle nokwenza irhubhululo elingeneleleko.

Kuyinto ehle ukukhona ukwakha ilwazi ngokunikela ngalo ebhodulukweni langaphandle kwenarha leSewula Afrika. Inengi lebhoduluko leSewula Afrika lenarha yangaphandle isazokwenzelwa amamebhe kusetjenziswe iindlela mamatheknoloji wanje, ukuze likhona ukubandakanywa ezintweni ezikarisako.

Indimakho ihlangana njani neminqopho yeqhinga le-CGS?

Indimami likhambisana nominqopho weqhinga ngeendlela ezilandelako:

- Ukwenza amamebhe nokwakha ilwazi elisisekelo lebhoduluko lemanzini kusiza bunqopho ekungezeni ukuba khona kwamamebhe eSewula Afrika ngokubuthelelweko begodu kuhlekuhle ebujameni benarha yangaphandle.

- Ukuqunta ikhono lemithombo yangaphandle narheni kwenza bona sikhona ukuthatha iinqunto ngepumelelo yezomnotho neyezebhoduluko.
- Ukunikela isisekelo selwazi ngokweshwayo lehlathi engaphasi kwelwandle neendawo ezingaphasi kusiza ukuyelelisa ngokusetjenziswa kwendawo nokukhona kalisa ituthuko enepumelelo lapha kukhona khona.

Yini esitjhijilo kuwe?

Ukuphenya ngemiraro yebhoduluko elikhethekileko kusitjhijilo esikarisako salokho. Yeke, inarhethu iqalene neentjhijilo ezinengi zehlalakuhle yomnotho netuthuko ngokukhambisana namalwandle nebhoduluko lenarha yangaphandle, okuyinto eyenza umsebenzami uragele phambili. Ukuqunta imithombo enamandla yangaphandle narheni nokusebenza kuhle kwayo kungasiza ekwakheni ihlakuhle yomnotho enepumelelo nelinganako nemibandela yomthangalasisekelo engenza imiphakathi izuze ngakhona kalisa ituthuko yemiphakathi yelwandle. Imiphakathi eminengi esemalwandle nayo isengozini yokusatjiswa mazinga welwandle akhuphukako, ukuphephuka kwemimoya neenkukhula zelwandle. Nginethemba lokobana ilwazi engilizuleko lingasiza ekwenzeni ngcono ukutjhunguluka, ukuba namandla, nepumelelo yokuthuthukisa imiphakathi le.

Ngokuzwisisa ubujamo, ingabe bewuzokukhetha elinye ibizelo elihlukileko?

Benginekareko yokufunda, yokurhubhulula nokutlola ngezinto zemvelo zebhoduluko ngitlotelele ababukeli abanengi ngaso soke isikhathil.

Ungabakhuthaza njani:

Abantu abatjha abafuna ukulandela ibizelo lakho?

Ukwenza ilandelela nokubona izinto kulisizo khulu. Angeze kumane kulandelele indlela ebuthjelela begodu lokho kulungile. It may not necessarily follow a smooth trajectory and that is okay. Zama ukuyelela ibhoduluko lemvelo inasi ubuhle balo kwaphela. Buza imibuzo ethi khuyini eyenza libe ngaleyondlela elingakhona. Zama ukungenelela emithonjeni ekhona ngethungelelwano nakukhona ekako begodu akukafaneli kube makhosos. Iincwadi, iinkulamo, amavidiyo, iindabamlonyeni zoke zinikela ngelwazi eliqakathekileko elingasebenza njengalokho okukusizako. Nangabe imithombo enjalo kubudisi ukobana ibe khona, zama ukuthola kwakho emiphakathini ekhona. Khulumisana nabafundisi nalabo ofunda nabo nakukhona ekako uzame ukubandakanya nomndenakho. I-Geology ingabonakala kancani kancani ekukhambeni kwesikhathi ngokuzibandakanya nebhoduluko lemvelo yeke hlala utjhejile ngaso soke isikhathi.

Abasebenzi be-CGS abanetjisa kulo ngaphasi kwezinga lakho?

Zama ukuzibandakanya begodu unabise ibhudango lakho. Kunamathuba amanengi nabantu ongafunda kibo. Ukuhlanganyela kuyinto eqakathekileko, efunekako khulukhulu kumaphrojekthi amakhulu begodu kuyinto emnandi ethabisako. Umkhakha lo uhlake khulu begodu unande uyatjhunguluka yeke zama ukobana ube mumuntu onetjisa kulo yokufuna ukwazi begodu ube nomkhumbulo ovulekileko.

1.11 Ubudlelwano babasebenzi

Ngesikhathi somnyaka wokubuyekeza, imilandu yokungaziphathi kuhle yaphetha ngemiphumela elandelako: ukutjhotjwa kwemikhumbulo kune, ukukhalinywa ngomlomo kubunane, ukukhalinywa ngencwadi kunye, ukukhalinywa ngencwadi kokugcina kunye, ukuqothwa kunye begodu kubili kwaba kuhlukaniswa.

Umhlobo wezenzo zokujezisa	Inani
Ukuthotjwa umkhumbulo	4
Ukukhalinywa ngomlomo	8
Ukukhalinywa ngencwadi	1
Ukukhalinywa ngencwadi kokugcina	1
Abaqothiweko	1
Ukuhlukaniswa kwababili	2

1.12 Isikhathi sevikeleko esilotjwe ngokulimala

Ngesikhathi sokubuyekeza kwabikwa imilandu yabantu abali-15 abalimala begodu kwaba namagadango athathwako ukukhandela bona izehlakalo ezinje zingasenzeka godu.

1.13 Imisebenzi etlanyelwe iminyaka yee-2024/25

IZiko leBhizinisi yemiThombo yabaNtu itlama imisebenzi elandelako yomnyaka wee-2024/25:

- a) Ukuphatha umsebenzi – ukukontraga, ukubuyekeza phakathi komnyaka nokuhlola kokugcina
- b) UmTlamo wamaKghono emSebenzini kanye nomBiko weBandulo I i-MOA
- c) Ukuhloma umTlamo wokuLingana ngomSebenzi nokubika emNyangweni womSebenzi kanye nabaSebenzi
- d) Ukubuyekeza umgomo
- e) Isifundobandulo esilemukisa ngomgomo
- f) Ihlelo lokuVuselela uKwelulekwa
- g) Iinkambiso zokwamukela abasebenzi
- h) Ijima lokulemukisa ngokuphila ngokukhubazeka
- i) Ukuhlonywa kwemizamo enqotjhiweko yomnyaka wee-2022/23 yephenyo labasebenzi, noku
- j) Hlonywa kwephahla eliphunyelelisiweko lokuphatha ithalente.



UNom Maupa, oyi-'Geoscientist we-CCUS, uhlathulula indlela umtjhini werigi wokudrila osebenza ngayo

Ingcenywe

E

Imisebenzi yokudrila endaweni ye-CCUS (e-Leandra)

Umbiko Okhambisama ne-PFMA

Ingcenywe le yombiko inikela ngelwazi eliphathelene nokukhambisana nomthetho we-Public Finance Management Act. kwe-CGS. Isigaba sifaka ilwazi elilandelako:

- ukungakhanjiswa kuhle kwezinto, ukumoroswa, neendleko ezibhadalwa kunganamsebenzi nokulotjwa kwepahla
- Ukubhadalwa ngemva kwesikhathi/ukungabhadalwa kwabasabalalisipahla
- Ukuphatha iinkambiso zamahlelo wepahla.

1 Ukungakhanjiswa kuhle kwezinto, ukumoroswa, neendleko ezibhadalwa kunganamsebenzi nokulotjwa kwepahla

1.1 Iindleko ezingakhanjiswa kuhle

a) Ukulungiswa kweendleko ezingakhanjiswa kuhle

Description	2023/24 R'000	2022/23 R'000
Opening balance	-	-
Adjustment to opening balance	-	-
Opening balance as restated	-	-
Add: Irregular expenditure confirmed	-	-
Less: Irregular expenditure condoned	-	-
Less: Irregular expenditure not condoned and removed	-	-
Less: Irregular expenditure recoverable	-	-
Less: Irregular expenditure not recoverable and written off	-	-
Closing balance	-	-

Ukuhlanganisa amanothi

Description	2023/24 R'000	2022/23 R'000
Irregular expenditure that was under assessment	-	-
Irregular expenditure that relates to the prior year and identified in the current year	-	-
Irregular expenditure for the current year	-	-
Total	-	-

b) Imininingwana yeendleko ezingakhanjiswa kuhle (ngaphasi kokuhlola, isiphakamiso nokuhlola)

Description	2023/24 R'000	2022/23 R'000
Irregular expenditure under assessment	-	-
Irregular expenditure under determination	-	-
Irregular expenditure under investigation	-	-
Total	-	-

c) Imininingwana yeendleko ezingakhanjiswa kuhle ezamukelwako

Description	2023/24 R'000	2022/23 R'000
Irregular expenditure condoned	-	-
Total	-	-

d) Imininingwana yeendleko ezingakhanjiswa kuhle ezisuswako (ezingamukelwako)

Description	2023/24 R'000	2022/23 R'000
Irregular expenditure NOT condoned and removed	-	-
Total	-	-

e) Imininingwana yeendleko ezingakhanjiswa kuhle ezibuyiswako

Description	2023/24 R'000	2022/23 R'000
Irregular expenditure recoverable	-	-
Total	-	-

f) Imininingwana yeendleko ezingakhanjiswa kuhle ezisulwako (ezingatholakaliko)

Description	2023/24 R'000	2022/23 R'000
Irregular expenditure written off	-	-
Total	-	-

Okhunye okuvezwako okuphathelene namahlelo weenhlango zombili

g) Imininingwana yemilandu yokungakhambisani nomthetho lapha ihlangano ibandakanyeka kusivumelwano seenhlangano zombili (lapha ihlangano enjalo akusiyo engakhambisaniko nomthetho)

Description	2023/24 R'000	2022/23 R'000
None	-	-
Total	-	-

h) Imininingwana yemilandu yokungakhambisani nomthetho lapha ihlangano ibandakanyeka kusivumelwano seenhlangano zombili (lapha ihlangano enjalo kungiyo engakhambisaniko nomthetho)

Description	2023/24 R'000	2022/23 R'000
None	-	-
Total	-	-

i) Imininingwana yamagadango wokujezisa namkha wobulelesi athethwe ngesimanga seendleko ezingakhanjiswa kuhle

Disciplinary steps taken

None

1.2 Iindleko engathana zibalekelwe

a) Imininingwana yeendleko engathana zibalekelwe (ngaphasi kokuhlola, isiphakamiso nokuhlola)

Description	2023/24 R'000	2022/23 R'000
Opening balance	18 496	18 496
Adjustment to opening balance	-	-
Opening balance as restated	-	-
Add: Fruitless and wasteful expenditure confirmed	-	-
Less: Fruitless and wasteful expenditure recoverable	-	-
Less: Fruitless and wasteful expenditure not recoverable and written off	-	-
Closing balance	18 496	18 496

Iindleko engathana zibalekelwe zabonakala nakuhlonywa ihlelo le-umidity, Ventilation and Air-Conditioning (HVAC) system ukuyokufikela ngomnyaka wee-2017. Umsebenzi watholakala bona awamukeleki begodu bewufuna ukubuyiselwa emva. Abaphathi bahlala bazibophelela ukuphungula nokubalekela ezinye nezinye iindleko engathana ziyabalekelwa.

Ukuhlanganisa amanothi

Description	2023/24 R'000	2022/23 R'000
Fruitless and wasteful expenditure that was under assessment	-	-
Fruitless and wasteful expenditure that relates to the prior year and identified in the current year	-	-
Fruitless and wasteful expenditure for the current year	-	-
Total	-	-

b) Imininingwana yeendleko ezingathana ziyabalekelwa ezibuyiswako

Description	2023/24 R'000	2022/23 R'000
Fruitless and wasteful expenditure under assessment	-	-
Fruitless and wasteful expenditure under determination	-	-
Fruitless and wasteful expenditure under investigation	-	-
Total	-	-

c) Imininingwana yeendleko ezingathana zibalekelwe ezingatholakaliko ezisuswako

Description	2023/24 R'000	2022/23 R'000
Fruitless and wasteful expenditure recoverable	-	-
Total	-	-

d) Imininingwana yeendleko ezingathana ziyabalekelwa ezibuyiswako

Description	2023/24 R'000	2022/23 R'000
Fruitless and wasteful expenditure written off	-	-
Total	-	-

e) Imininingwana yamagadango wokujezisa namkha wobulelesi athethwe ngesimanga seendleko ezingathana zibalekelwe

Disciplinary steps taken

None

1.3 Okhunye okuvezwako okuhlobene nokulotjwa kwepahla ngokutjho kwe-PFMA Section 55(2)(b)(i) &(iii)

a) Imininingwana yepahla elotjwako ngesimanga sezenzo zobulelesi

Material losses through criminal conduct	2023/24 R'000	2022/23 R'000
Theft	-	-
Other material losses	-	-
Less: Recoverable	-	-
Less: Not recoverable and written off	-	-
Total	-	-

b) Imininingwana yenye ipahla elotjwako

Nature of other material losses	2023/24 R'000	2022/23 R'000
None	-	-
Total	-	-

c) Ezinye iimpahla ezilotjwako ezitholakeleko

Nature of losses	2023/24 R'000	2022/23 R'000
None	-	-
Total	-	-

d) Ezinye iimpahla ezilotjwako ezingatholakaliko begodu ziyasulwa

Nature of losses	2023/24 R'000	2022/23 R'000
None	-	-
Total	-	-

2 Ukubhadalwa ngemva kwesikhathi/ ukungabhadalwa kwabasabalalisipahla

Description	Number of invoices	Consolidated value R'000
Valid invoices received	5 213	329 286
Invoices paid within 30 days or agreed period	3 887	235 634
Invoices paid after 30 days or agreed period	1 326	93 651
Invoices older than 30 days or agreed period (unpaid and without dispute)	-	-
Invoices older than 30 days or agreed period (unpaid and in dispute)	-	-

Ama-invoyisi abhadalwa ngemuva kwamalanga ama-30 bekuma-invoyisi okuphikisanwa ngawo nabasabalalisipahla kungaba ngesimanga sepreyisi namkha sezinga lepahla namkha imisebenzi etholiweko.

3 UkuPhatha iinKambiso zePahla

3.1 Iinkambiso zokuthenga ngenye indlela

Project description	Name of supplier	Type of procurement by other means	Contract number	Value of contract R'000
Appointment of a single source for the renewal of the existing Microsoft software enterprise licences contract for a period of three (3) years	Microsoft	Deviation	n/a	R19 403 358.21
Appointment of a single source for a 3D high-resolution reflection seismic survey over the potential CCUS storage site near Leandra Mpumalanga	University of the Witwatersrand	Deviation	n/a	R17 535 966.36
Appointment of a single source for a period of one (1) year, to provide Tsunami Modelling Services	WSP USA Environment and Infrastructure Inc	Deviation	n/a	R4 754 995.00
Appointment of a single source for a period of one (1) year for the provision of wave propagation modelling services	PRDW Consulting Port and Coastal Engineers	Deviation	n/a	R4 100 000.00
Appointment of a service provider for the provision of PPE	Cape Union Mart	Deviation	n/a	R3 000 000.00
Appointment of a sole source for the hyperspectral processing software licence (IntelliCorp) over a period of three (3) years	Geospectral Imaging (Pty) Ltd. T/A Terracore Africa	Deviation	n/a	R2 210 817.50
Appointment of a single source to supply, deliver, and install additional fence adjacent to the CGS pilot project site for the CGS CCUS Project, approximately 1 000 meters in total Length, located on the farm Goedehoop, Leandra, Mpumalanga Province	Spec Africa	Deviation	n/a	R3 951 036.69
Appointment of a single source for diamond core drilling of eight (8) holes at Nchwaning 267	Mzansi Exploration Drilling and Mining	Deviation	n/a	R25 233 788.07
Appointment of a single source for one corporate licence for Oasis Montaj and Leapfrog software	Bentley Systems International Limited	Deviation	n/a	R4 397 500.00
Appointment of a single source for engineering and design services to design and prepare the specifications for the proposed pilot injection site in South Africa	Carbfix HF	Deviation	n/a	R5 000 000.00
Appointment of a single source for the extension of a lease period of two backup generators for a period ending 31 January 2024	AGP Engineering	Deviation	n/a	R1 688 775.00
Appointment of a drilling consultant for technical advisory services for the drilling of a 1 800 m vertical stratigraphic borehole	Colin Rice Exploration and Training	Deviation	n/a	R700 000.00
Appointment of a service provider for the supply of Picarro equipment to support geoenvironmental baseline investigations on the CCUS project	Elemental Analytics (Pty) Ltd	Deviation	n/a	R2 354 613.50
Appointment of a service provider as a single source supplier of high-resolution airborne geophysics data collection for commercial integrated geoscience mapping in the Kingdom of Eswatini	New Resolution Geophysics (NRG)	Deviation	n/a	R17 653 311.90
Appointment of a service provider through direct selection/single source procurement method to implement and develop an environmental and social management plan (ESMP)	Nemai Consulting	Deviation	n/a	R1 040 543.00
Appointment of Microsoft Corporation through a single source process for the provision of Microsoft suite enterprise licences	Microsoft Corporation	Deviation	n/a	R1 636 200.00

Project description	Name of supplier	Type of procurement by other means	Contract number	Value of contract R'000
Appointment of a service provider through a single source process for the provision of additional server storage media	NEC XON	Deviation	n/a	R1 984 131.11
Appointment of a service provider for the provision of hosting services for the CGS' Disaster Recovery and Offsite Backup Data Centre	The Council for Scientific and Industrial Research (CSIR)	Deviation	n/a	R2 283 224.08
Appointment of a service provider for the provision of internet connectivity and related services on a month-to-month basis for a period of up to 12 months	Dimension Data	Deviation	n/a	R1 500 000.00
Appointment of a service provider for accelerated Abbreviated ESIA activities for a period of 12 months	Nemai Consulting	Deviation	n/a	R3 888 380.00
Appointment of a service provider for the provision of internal audit services (co-source) and risk management services for a period of twelve (12) months	SONDLO Chartered Accountants	Deviation	n/a	R3 000 000.00
Total				R127 316 640.42

3.2 Imehluko kumakontraga nokungezwa

Project description	Name of supplier	Contract modification type (Expansion or Variation)	Contract number	Original contract value R'000	Value of previous contract expansion/s or variation/s (if applicable) R'000	Value of current contract expansion or variation R'000
Contract extension with additional financial implication for the Reverse Circulation drilling of seven (7) holes at Nchwaning 267 Exploration Project for a period of 7 weeks	Gobora Drilling (Pty) Ltd	Variation	n/a	R2 563 752.50	n/a	R2 172 177.50
Contract extension with additional financial implications for the library and bookshop renovation project	Masana Mashold Projects (Pty) Ltd	Variation	n/a	R3 537 222.00	n/a	R204 725.03
Contract variation with additional financial implications for Nemai Consulting PO-053337 to undertake accelerated abbreviated ESIA completion in support of the CCUS project	Nemai Consulting	Variation	n/a	R1 543 875.00	n/a	R1 837 325.00
Contract variation between the Council for Geoscience and Gobora Exploration Drilling	Gobora Exploration Drilling	Variation	n/a	R2 563 752.50	R2 172 177.50	R216 545.00
Contract variation between Mzansi Exploration, Drilling & Mining Pty Ltd and Council for Geoscience	Mzansi Exploration, Drilling & Mining Pty Ltd	Variation	n/a	R25 233 788.07	n/a	R2 841 558.00
Total						R7 272 330.53

Ingcenye

F

Impophoma yelitje lesanta yesibumbeko i-Vryheid formation (Karoo Supergroup) iingenelele ngaphakathi kwamalarha we-carbonaceous shale (Mcitsheni Village, Ladysmith, KZN)

Ilwazi lezeeMali

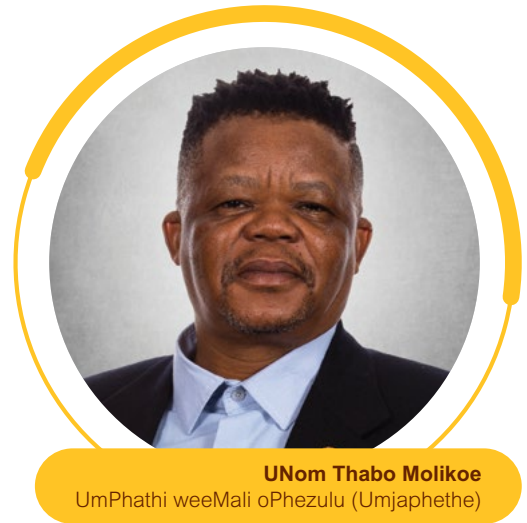
Ingcenye le yombiko inikela ngelwazi lokuphathwa kuhle kweemali ze-CGS egodu ifaka ilwazi elilandelako:

- Umbiko womPhathi weeMali oPhezulu, ofaka ukubuyekizwa okujayekileko kweemali neendaba ezihlobene nemisebenzi ehlongozwako, ukubanjwa kwesalela, ukuphatha iinkambiso zamahlelo wepahla, umbiko we-odithi nemitlamo yesikhathi esizako.
- Umbiko womHloini cwadi Zombebele oya ePalamende nge-CGS. Umbiko lo unikela umbono omayelana nokusetjenziswa kuhle kweenTatimende zeeMali zomNyaka ekwethuleni ubujamo beemali behlangano, ukusebenza kweemali, imali engenako ngokukhambisana neendingo ze-South African GRAP standards and requirements of the PFMA kizo zoke iindaba zepahla Ubika ngomsebenzi kwezomthetho nokukhambisana nomthetho, ilawulo langaphakathi neendaba eziphathelene nalokho.
- IiTatimende zeeMali zaqobe mNyaka, zifake ubuJamo besiTatimende seeMali. isiTatimende sokuSebenza kweeMali, isiTatimende samaTjhuguluko ku-Net yeemPahla, iinTatimende zeMali eNgenako namanothi weentatimende zeemali.

1 Umbiko womPhathi weeMali oPhezulu

“Ungongi lokho okuseleko ngemuva kokusebenzisa imali, kodwana sebenzisa imali eseleko ngemuva kokonga”

~ Warren Buffet



UNom Thabo Molikoe

UmPhathi weeMali oPhezulu (Umjaphethe)

Isendlalelo

I-CGS irheliswe njengeTjhejuli 3A Public Entity in terms of the Public Finance Management Act (No. 1 of 1999) njengombana utjhugululwe Mthetho oyi-No. 29 of 1999 (PFMA). Iminqopho emayelana nokuhlonywa kwe-CGS kuhloma nokukhupha imikhiqizo yelwazi le-geoscience elikhamba phambili ephasini mazombe nokwenza imisebenzi ephathelene ne-geoscience emphakathini weSewula Afrika kanye nebubulweni.

Ubujamo beemali

UBujamo besiTatimende seeMali obungatjhugulukiko busesenjalo eminyakeni eli-14 edlulileko begodu inani loke lepahla linyuke nge-avareji yamaphesende ama-4% ekukhambeni kwesikhathi. Imali engeziweko eziingidi ezima-R220 ibekelwe ngeqadi ku-Medium-Term Expenditure Framework (MTEF) ukubhadala umtamo wokuvuselela imali weminyaka eminengi. Kungalitjalwa irhubhululo lomthangalasisekelo osele umdala, i-CG nanje isakghona ukubhadalela ipahlayo, inani loke lesilinganiso sepahlayo engangeengidi ezima-R583.9 million edlula inani leenkolodo eziziingidi ezima-R214. Iinkambiso zokuhlolwa kweemali zitjengisa bona i-CGS isebujameni obuhle beemali. Iretjhiyo yanje yenziwe ngcono ukufikela ku-1.1:1 ukusuka ku-1.0:1 ingomnyaka wee-2022/23 begodu iretjhiyo yekhetjhi inyuke ukuyokufika ku-0.74:1 ukusuka ku-0.6:1 ngesikhathi esifanako.

Ukusebenza kweemali

I-CGS iveze imali edlula iindleko ezingangeengidi ezima-R51.3 ejamele ituthuko yomnyaka nomnyaka ekhule ngamaphesende ama-37% ukuya eengidini ezima-R140.8,

ukusukela eengidini ezima-R89.5 ezitjhodako ngomnyaka weemali wee-2022/23. Isalela ibangelwe linani loke lemalingeniso edlule kude imitlamo yalokho okuphanelwe umnyaka lowo.

Ipahla neensetjenziswa

Ngesikhathi somnyaka obuyekezwako kwasiswa iingidi ezima-R37.4 million epahleni, eplantini neensetjenzisweni. Ukuragela phambili nokusisa imali kumthangalasisekelo wesayensi neensetjenziswa kuhlala kuyinto enyulwako ukuqinisekisa bona iintlabagelo neensetjenziswa ezizuzwako ngesiseqopheleni eliphezulu begodu ziyatjhejwa.

Ukuphatha imalingeniso

Ikhetjhi nalokho okulingana nekhetjhi kwehla ukusukela eengidini ezima-R170.2 ngomnyaka wee-2022/23 ukuyokufika eengidini ezili-R140.9 million ngomnyaka weemali wee-2023/24 kwabangela bona kube nemali ephumako yeengidi ezima-R29.3 million. Imali ephumako le ibangelwe ziindleko ezibe khona kumaprojekthi lawo asekelo ituthuko yokubuyiselwa esigeni komnotho ngokuhlonywa kwehlelo lamamebhe we-geoscience.

Ukuragela phambili nebhizinisi esikhathini esizako

IiTatimende zeeMali ze-CGS zilungiswe ngokuqala iragelo phambili lebhizinisi esikhathini esizako. Isigungu esiphetheko senze ibuyekezo elisemthethweni lekghono le-CGS lokuragela phambili nebhizinisi esikhathini esizako, begodu ngokulawulibuyekezo, itjheja bona ukwethulwa kweentatimende zeemali ngalindlela kuyinto efaneleko.

Izehlakalo ngemuva kwelanga lokubika

I-CGS ayazi litho ngesehlakalo senye nenye ipahla esenzeke ngemuva kwelanga lokubika okungaba yinto engaba nomthelela eenquntweni zomnotho ezithethwe ngokulawulwa ziintatimende zayo zeemali.

Isibawo sokubanjwa kwesalela

Ngokutjho kwesiGaba i-Section 53(3) of the PFMA, i-CGSithole imvumo ebuya ku-National Treasury ukobana bangabamba iinsalela. Imvumo yatholwa ngesikhtathi sokubika mayelana nokusetjenziswa kweensalela ezingezekileko ukusukela ngomnyaka wee-2022/23 mayelana nokulungiswa kwesisomali eensetjenzisweni zesayensi nomthangalasisekelo, nokuhlonywa kweqhinga lokubeka. Isibawo esitjha sizakwenziwa mayelana nomnyaka obuyekezwako.

Ukuphatha iinkambiso zepahla

Iziko leenkambiso zamahlelo wepahla liyasebenza ngaphasi komkhakha wesiPhathiswa seeMali esiPhezulu. Iziko lebhizinisi linikela ngehlelo elifaneleko lepahla nokuthenga

okuyinto ehle, elinganako, etjhatjhalazi nengabizi khulu, begodu ihlonywe ngokwesiGaba i-Section 54 of the PFMA. Ngokutjho kwesiGaba i-Section 13G (1) of the Broad-based Black Economic Empowerment (B-BBEE) Act (No. 46 of 2013) njengombana sitjhugululiwe, i-CGS ibuthelele nomphathi welawulo kanye nokuthuthukisa amarahwebo wabalalisipahla.

Iindaba zombiko we-odithi

Iindaba ezivezwe kilombiko womHloli weencwadi Zombebele zivezwe kuhle iragelo phambili lemibono ye-odithi ehlwengekileko mayelana nomnyaka ophela ngomhlaka-31 kuNtaka (March) ngomnyaka wee-2024 begodu izakuragela phambili nokuqinisa ibhoduluko lelawulo layo langaphakathi.

Ukusebenza kuhle kweeMali

Ukuqinisekisa bona iimali zisetjenziswa kuhle, i-CGS izimisele ukuphenya ilwazi layo elinengi le-geoscience, ilwazi, namandla wesayensi ukuthuthukisa ukubumbeka kweenlinganiso ezifanele koke isisolemali nelerhwebo.

2 Umbiko womHlooliincwadi Zombebelele oya ePalamende nge- Council for Geoscience

Report on the audit of the financial statements

Opinion

1. I have audited the financial statements of the Council for Geoscience set out on pages 110 to 140, which comprise the statement of financial position as at 31 March 2024, statement of financial performance, statement of changes in net assets and cash flow statement and of statement of comparison of budget information with actual information for the year then ended, as well as notes to the financial statements, including a summary of significant accounting policies.
2. In my opinion, the financial statements present fairly, in all material respects, the financial position of the Council for Geoscience as at 31 March 2024 and its financial performance and cash flows for the year then ended in accordance with South African Standards of Generally Recognised Accounting Practise (SA Standards of GRAP) and the requirements of the Public Finance Management 1 of 1999 (PFMA).

Basis for opinion

3. I conducted my audit in accordance with the International Standards on Auditing (ISAs). My responsibilities under those standards are further described in the responsibilities of the auditor-general for the audit of the financial statements section of my report.
4. I am independent of the public entity in accordance with the International Ethics Standards Board for Accountants' *International code of ethics for professional accountants (including International Independence Standards)* (IESBA code) as well as other ethical requirements that are relevant to my audit in South Africa. I have fulfilled my other ethical responsibilities in accordance with these requirements and the IESBA code.
5. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Responsibilities of the accounting authority for the financial statements

6. The accounting authority is responsible for the preparation and fair presentation of the financial statements in accordance with the SA Standards of

GRAP and the requirements of the PFMA and for such internal control as the accounting authority determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

7. In preparing the financial statements, the accounting authority is responsible for assessing the public entity's ability to continue as a going concern; disclosing, as applicable, matters relating to going concern; and using the going concern basis of accounting unless the appropriate governance structure either intends to liquidate the public entity or to cease operations, or has no realistic alternative but to do so.

Responsibilities of the auditor-general for the audit of the financial statements

8. My objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error; and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with the ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.
9. A further description of my responsibilities for the audit of the financial statements is included in the annexure to this auditor's report.

Report on the annual performance report

10. In accordance with the Public Audit Act 25 of 2004 (PAA) and the general notice issued in terms thereof, I must audit and report on the usefulness and reliability of the reported performance information against predetermined objectives for the selected material performance indicators presented in the annual performance report. The accounting authority is responsible for the preparation of the annual performance report.
11. I selected the following material performance indicators related to Delivery of the Mandate presented in the annual performance report for the year ended 31 March 2024. I selected those indicators that

measure the public entity's performance on its primary mandated functions and that are of significant national, community or public interest.

- Onshore geoscience map coverage
- Offshore geoscience map coverage
- Applied geoscience outputs for minerals and energy
- Applied geoscience outputs for infrastructure, land use, groundwater and the environment.

12. I evaluated the reported performance information for the selected material performance indicators against the criteria developed from the performance management and reporting framework, as defined in the general notice. When an annual performance report is prepared using these criteria, it provides useful and reliable information and insights to users on the public entity's planning and delivery on its mandate and objectives.

13. I performed procedures to test whether:

- the indicators used for planning and reporting on performance can be linked directly to the public entity's mandate and the achievement of its planned objectives
- all the indicators relevant for measuring the public entity's performance against its primary mandated and prioritised functions and planned objectives are included
- the indicators are well defined to ensure that they are easy to understand and can be applied consistently, as well as verifiable so that I can confirm the methods and processes to be used for measuring achievements
- the targets can be linked directly to the achievement of the indicators and are specific, time bound and measurable to ensure that it is easy to understand what should be delivered and by when, the required level of performance as well as how performance will be evaluated
- the indicators and targets reported on in the annual performance report are the same as those committed to in the approved initial or revised planning documents
- the reported performance information presented in the annual performance report in the prescribed manner
- there is adequate supporting evidence for the achievements reported and for the reasons provided for any over- or underachievement of targets/ measures taken to improve performance.

14. I performed the procedures to report material findings only; and not to express an assurance opinion or conclusion.

15. I did not identify any material findings on the reported performance information for the selected indicators.

Other matter

16. I draw attention to the matter below.

Achievement of planned targets

17. The annual performance report includes information on reported achievements against planned targets and provides explanations for over-achievements.

Report on compliance with legislation

18. In accordance with the PAA and the general notice issued in terms thereof, I must audit and report on compliance with applicable legislation relating to financial matters, financial management and other related matters. The accounting authority is responsible for the public entity's compliance with legislation.

19. I performed procedures to test compliance with selected requirements in key legislation in accordance with the findings engagement methodology of the Auditor-General of South Africa (AGSA). This engagement is not an assurance engagement. Accordingly, I do not express an assurance opinion or conclusion.

20. Through an established AGSA process, I selected requirements in key legislation for compliance testing that are relevant to the financial and performance management of the public entity, clear to allow consistent measurement and evaluation, while also sufficiently detailed and readily available to report in an understandable manner. The selected legislative requirements are included in the annexure to this auditor's report.

21. The material finding on compliance with the selected legislative requirements, presented per compliance theme, is as follows:

Annual financial statements

22. The financial statements submitted for auditing were not fully prepared in accordance with the prescribed financial reporting framework, as required by section 55(1) (a) and (b) of the PFMA.

Material misstatements of current assets, liabilities and disclosure items identified by the auditors in the submitted financial statement were corrected, resulting in the financial statements receiving an unqualified audit opinion.

Other information in the annual report

23. The accounting authority is responsible for the other information included in the annual report, which includes the audit committee's report and CEO's report. The other information referred to does not include the financial statements, the auditor's report and those selected material indicators in the scoped-in

programme presented in the annual performance report that have been specifically reported on in this auditor's report.

24. My opinion on the financial statements, the report on the audit of the annual performance report and the report on compliance with legislation do not cover the other information included in the annual report and I do not express an audit opinion or any form of assurance conclusion on it.
25. My responsibility is to read this other information and, in doing so, consider whether it is materially inconsistent with the financial statements and the selected material indicators in the scoped-in programme presented in the annual performance report, or my knowledge obtained in the audit, or otherwise appears to be materially misstated.
26. I did not receive the other information prior to the date of this auditor's report. When I do receive and read this information, if I conclude that there is a material misstatement therein, I am required to communicate the matter to those charged with governance and request that the other information be corrected. If the other information is not corrected, I may have to retract this auditor's report and re-issue an amended report as appropriate. However, if it is corrected this will not be necessary.

Internal control deficiencies

27. I considered internal control relevant to my audit of the financial statements, annual performance report and compliance with applicable legislation; however, my objective was not to express any form of assurance on it.
28. The matters reported below are limited to the significant internal control deficiencies that resulted in the basis

for the opinion, and the material findings on compliance with legislation included in this report.

29. Management did not adequately prepare accurate and complete financial reports that are supported and evidenced by reliable information. As a result, there were material misstatements identified during the audit, which were caused by inadequate reviews.

Other reports

30. I draw attention to the following engagements conducted by various parties. These reports did not form part of my opinion on the financial statements or my findings on the reported performance information or compliance with legislation.
31. Various investigations were initiated by the public entity into allegations of possible unethical behaviour and allegations of procurement and contract management irregularities. These investigations were in progress at the date of this auditor's report.

Auditor-General

Pretoria

31 July 2024



AUDITOR-GENERAL
SOUTH AFRICA

Auditing to build public confidence

Isithasiselo embikweni ka-Oditha

The annexure includes the following:

- The auditor-general's responsibility for the audit
- The selected legislative requirements for compliance testing.

Isithasiselo – Umsebenzi womHoliincwadi Zombebele mayelana ne-Oditha

Professional judgement and professional scepticism

As part of an audit in accordance with the ISAs, I exercise professional judgement and maintain professional scepticism throughout my audit of the financial statements and the procedures performed on reported performance information for selected material performance indicators and on the public entity's compliance with selected requirements in key legislation.

Financial statements

In addition to my responsibility for the audit of the financial statements as described in this auditor's report, I also:

- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error; design and perform audit procedures responsive to those risks; and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations or the override of internal control
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the public entity's internal control
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made

- conclude on the appropriateness of the use of the going concern basis of accounting in the preparation of the financial statements. I also conclude, based on the audit evidence obtained, whether a material uncertainty exists relating to events or conditions that may cast significant doubt on the ability of the public entity to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial statements about the material uncertainty or, if such disclosures are inadequate, to modify my opinion on the financial statements. My conclusions are based on the information available to me at the date of this auditor's report. However, future events or conditions may cause a public entity to cease operating as a going concern
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and determine whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

Communication with those charged with governance

I communicate with the accounting authority regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

I also provide the accounting authority with a statement that I have complied with relevant ethical requirements regarding independence and communicate with them all relationships and other matters that may reasonably be thought to bear on my independence and, where applicable, actions taken to eliminate threats or safeguards applied.

Ukukhambisana nomthetho - lindingo zomthetho ezikhethiweko

The selected legislative requirements are as follows:

Legislation	Sections or regulations
PFMA	Section 1 (definition of irregular expenditure) Section 38(1)(a)(iv) Section 38(1)(b) Section 38(1)(c)(i) Section 38(1)(c)(ii) Section 38(1)(d) Section 38(1)(h)(iii) Section 39(1)(a) Section 39(2)(a) Section 40(1)(a) Section 40(1)(b) Section 40(1)(c)(i) Section 43(4) Section 44 Section 45(b) Section 51(1)(a)(iv) Section 57(b)
Treasury Regulations	Regulation 4.1.1 Regulation 4.1.3 Regulation 5.1.1 Regulation 5.2.1 Regulation 5.2.3(a) Regulation 5.2.3(d) Regulation 5.3.1 Regulation 6.3.1(a) Regulation 6.3.1(b) Regulation 6.3.1(c) Regulation 6.3.1(d) Regulation 6.4.1(b) Regulation 7.2.1 Regulation 8.1.1 Regulation 8.2.1 Regulation 8.2.2 Regulation 8.2.3 Regulation 8.4.1 Regulation 9.1.1 Regulation 9.1.4 Regulation 10.1.1(a) Regulation 10.1.2 Regulation 11.4.1 Regulation 11.4.2 Regulation 11.5.1 Regulation 12.5.1 Regulation 15.10.1.2(c) Regulation 16A3.2 (fairness) Regulation 16A3.2(a) Regulation 16A6.1 Regulation 16A6.2(a) Regulation 16A6.2(b) Regulation 16A6.3(a) Regulation 16A6.3(b) Regulation 16A6.3(c) Regulation 16A6.3(e) Regulation 16A6.4 Regulation 16A6.5 Regulation 16A6.6 Regulation 16A7.1 Regulation 16A.7.3 Regulation 16A7.6 Regulation 16A.7.7 Regulation 16A8.3 Regulation 16A8.4 Regulation 16A9.1(d) Regulation 16A9.1(e) Regulation 16A9.1(f) Regulation 16A9.2(a)(ii) Regulation 17.1.1 Regulation 18.2 Regulation 19.8.4
Construction Industry Development Board (CIDB) Act 38 of 2000	Section 18(1)

Legislation	Sections or regulations
CIDB Regulations	Regulations 17 Regulation 25(7A)
Preferential Procurement Policy Framework Act 5 of 2000	Section 1(i) Section 2.1(a) Section 2.1(b) Section 2.1(f)
Preferential Procurement Regulations of 2011	Regulation 4.1 Regulation 4.3 Regulation 5.5 Regulation 6.1 Regulation 6.5 Regulation 7.1 Regulation 9.1 Regulation 9.5 Regulation 11.2 Regulation 11.5
Preferential Procurement Regulations of 2017	Regulation 4.1 Regulation 4.2 Regulation 5.1 Regulation 5.3 Regulation 5.6 Regulation 5.7 Regulation 6.1 Regulation 6.2 Regulation 6.3 Regulation 6.5 Regulation 6.6 Regulation 6.8 Regulation 7.1 Regulation 7.2 Regulation 7.3 Regulation 7.5 Regulation 7.6 Regulation 7.8 Regulation 8.2 Regulation 8.5 Regulation 9.1 Regulation 10.1 Regulation 10.2 Regulation 11.1 Regulation 11.2
Prevention and Combating of Corrupt Activities Act 12 of 2004	Section 34(1)
Public Service Regulations of 2016	Regulation 18(1) Regulation 18(2) Regulation 25(1)(e)(i) Regulation 25(1)(e)(iii)
State Information Technology Agency Act 88 of 1998	Section 7(3)
NT SCM Instruction Note 05 of 2009/10	Paragraph 3.3
NT SCM Instruction Note 04 of 2015/16	Paragraph 3.4
NT SCM Instruction Note 03 of 2016/17	Paragraph 8.1 Paragraph 8.2 Paragraph 8.3 Paragraph 8.5
NT SCM Instruction Note 4A of 2016/17	Paragraph 6
NT SCM Instruction Note 07 of 2017 /18	Paragraph 4.3
NT SCM Instruction note 03 of 2019/20 [Annexure A - FIPDM]	Paragraphs 5.5.1(vi) Paragraph 5.5.1(x)
NT SCM Instruction Note 08 of 2019/20	Paragraph 3.1.1 Paragraph 3.6 Paragraph 3.7.2 Paragraph 3.7.6(i) Paragraph 3.7.6(ii) Paragraph 3.7.6(iii)
NT SCM Instruction Note 03 of 2020/21	Paragraph 3.6 Paragraph 3.7 Paragraph 5.1(i) Paragraph 6.1 Paragraph 6.3

3 linTatimende zeeMali zomNyaka oPhele ngomhlaka-31 kuNtaka 2024

Ubujamo besiTatimende seeMali ngomhlaka-31 KuNtaka 2024

	Notes	2024 R'000	2023 (Restated) R'000
Assets			
Non-current assets			
Property and equipment	4	353 085	359 579
Intangible assets	5	2 432	4 039
Heritage assets	26	17 562	17 562
Current assets			
Inventories	6	5	5
Trade and other receivables from exchange transactions	8	104 824	60 077
Cash and cash equivalents	9	140 898	170 186
Total assets		618 806	611 450
Net assets and liabilities			
Accumulated surplus		382 793	331 502
Non-current liabilities			
Post-employment benefit liabilities	7	8 539	5 979
Trade and other payables	10	6 679	-
Current liabilities			
Trade and other payables	10	108 410	72 419
Deferred income	11	77 952	168 869
Accruals	12	34 432	32 682
Total net assets and liabilities		618 806	611 450

IsiTatimende sokuSebenza kweeMali

mayelana nesikhathi esiphele ngomhlaka 31 kuNtaka 2024

	Notes	2024 R'000	2023 (Restated) R'000
Total revenue		860 479	570 975
Revenue from exchange transactions	13	237 079	171 459
Revenue from non-exchange transactions	13	623 400	399 516
Total cost of projects		(387 721)	(259 744)
Cost of commercial projects	13	(219 830)	(117 139)
Cost of statutory projects	13	(167 891)	(142 605)
Gross surplus		472 758	311 231
Administrative expenses	13	(419 896)	(399 094)
Other operating expenses	13	(1 535)	(1 624)
Surplus/(Deficit) from operations		51 327	(89 487)
Finance cost	14	(36)	(29)
Net surplus/(deficit) for the year		51 291	(89 517)

IsiTatimende samaTjhuguluko weNani loke lePahla

mayelana nesikhathi esiphele ngomhlaka 31 kuNtaka 2024

	Notes	Accumulated surplus R'000	Total R'000
Opening balance at 31 March 2021		436 115	436 115
Net loss for the period		(15 096)	(15 096)
Closing balance at 31 March 2022		421 019	421 019
Net loss for the period		(87 770)	(87 770)
Correction of prior period error	24	(1 747)	(1 747)
Restated net loss for the period		(89 517)	(89 517)
Restated balance at 31 March 2023		331 502	331 502
Net surplus for the period		51 291	51 291
Balance at 31 March 2024		382 793	382 793

IsiTatimende semalingeniso

mayelana nesikhathi esiphele ngomhlaka 31 kuNtaka 2024

	Notes	2024 R'000	2023 (Restated) R'000
Cash outflow from operating activities		7 557	(64 348)
Cash receipts from customers		789 251	561 403
Cash paid to suppliers and employees		(798 161)	(634 553)
Cash generated from operations	15	(8 910)	(73 150)
Interest received	13	16 503	8 831
Finance cost	14	(36)	(29)
Cash outflow from investing activities		(36 844)	(58 464)
Acquisition of:			
Property and equipment	16.1	(37 434)	(59 397)
Intangible assets	16.2	-	(183)
Proceeds from sale of asset	13	155	-
Insurance proceeds for property and equipment	4.1	435	1 116
Net increase/(decrease) in cash and cash equivalents		(29 288)	(122 811)
Cash and cash equivalents at beginning of period	9	170 186	292 997
Cash and cash equivalents at end of period	9	140 898	170 186

Amanothi ngesiTatimende seeMali somNyaka

wesikhathi esiphele ngomhlaka 31 kuNtaka 2024

1 Accounting policies

1.1 Basis of preparation

Statement of compliance

1. The financial statements have been prepared in accordance with the Standards of Generally Recognised Accounting Practices (GRAP) including any interpretations, guidelines and directives issued by the Accounting Standards Board.

The financial statements have been prepared on a historic cost basis and accounting policies are consistent with prior years.

These Annual Financial Statements have been prepared on a going concern basis, i.e. the assumption that the Council for Geoscience will continue to operate as a going concern for at least the next 12 months.

2. The cash flow statement has been prepared in accordance with the direct method.

3. Specific information is presented separately on the Statement of Financial Position such as:

- a) receivables from non-exchange transactions, including taxes and transfers;
- b) taxes and transfers payable; and
- c) trade and other payables from non-exchange transactions.

The budget reporting standard does not apply to the Council for Geoscience as our budget is tabled as part of the Department of Mineral Resources and Energy (now the Department of Mineral and Petroleum Resources) budget.

1.2 Revenue recognition

Revenue comprises the revenue from non-exchange transactions recognised as income in the current year, contract income and sales of publications.

The Council for Geoscience measures revenue at the fair value of the consideration received or receivable. Revenue is recognised only when it is probable that the economic benefits associated with a transaction will flow to the Council for Geoscience, and the amount of revenue and associated costs incurred or to be incurred, can be measured reliably.

1.2.1 Revenue from non-exchange transactions

The Council for Geoscience receives grants in the form of a baseline allocation from the Department of Mineral Resources and Energy.

Revenue from non-exchange transactions is recorded as deferred income when it is received. It is then recognised as

income proportionate to the costs incurred or to the extent that CGS has complied with any of the criteria, conditions or obligations embodied with the grant.

Other baseline allocation funds are recognised as revenue upon receipt.

1.2.2 Revenue from exchange transactions

Revenue from exchange transactions comprises sales and contract revenue as follows:

Sales revenue

Sales revenue represents the invoiced value of goods and services supplied by the Council for Geoscience. This revenue is recognised when the revenue recognition criteria are met.

Contract revenue

Revenue from contracts is recognised by means of progress payments over the duration of the contracts. Revenue from contracts in progress is recognised when the revenue criteria are met. When the outcome of a contract can be estimated reliably, revenue is recognised by referring to the stage of completion of the contract outcome.

1.3 Interest received

Interest is recognised on a time proportionate basis with reference to the principal amount receivable and the effective interest rate applicable.

1.4 Property and equipment

Property and equipment are tangible non-current assets that are held for use in the production or supply of goods or services, or for administrative purposes, and are expected to be used during more than one period.

The cost of an item of property and equipment is recognised as an asset when:

- it is probable that future economic benefits associated with the item will flow to the Council for Geoscience; and
- the cost of the item can be measured reliably.

Land and buildings were valued at initial recognition and subsequently only the building is depreciated using the straight-line method.

Costs include costs incurred initially to acquire or construct an item of property and equipment and costs incurred subsequently to add to, replace part of, or service it. If the cost of a replacement part is recognised in the carrying amount of an item of property and equipment, the carrying amount of the replaced part is derecognised.

Property and equipment are carried at cost less accumulated depreciation and any impairment losses.

Day to day expenses incurred on property and equipment are expensed directly to surplus or deficit for the period.

Where an asset is acquired at no cost, or at a nominal cost, its cost is its fair value as at the date of acquisition.

Major refurbishment that meets the recognition criteria of an asset is capitalised.

Depreciation is provided on all property and equipment other than freehold land, to write down the cost, less residual value, on a straight-line basis over their average useful lives, as follows:

Asset	Useful lives
Land	Not depreciable
Buildings	30 years
Motor vehicles	5 to 14 years
Equipment	5 to 16 years
Aircraft and Helicopter – Body	15 to 18 years
Aircraft and Helicopter – Components	Useful hours as per Civil Aviation Authority
Boat	10 years
Office furniture	20 to 29 years
Computer equipment*	3 to 17 years

* All existing computer equipment continue to depreciate for 6 years from date of purchase. New computer equipment procured on or later than 1 April 2022 will adopt the new useful life of 3 years.

Asset	Useful lives
Specialised equipment	15 years
Electronic devices	2 years

The depreciation charges for each period are recognised in the Statement of Financial Performance, unless it is included in the carrying amount of another asset.

The average useful lives and residual values are reviewed on an annual basis and changes are reflected as a change in accounting estimates on a prospective basis.

The residual value of motor vehicles is 10% of cost. The residual value of land and buildings is the market value at the end of the useful life. The residual value of aircraft body is 10%. The residual value of boats is 10%.

1.5 Intangible assets

An intangible asset is recognised when:

- it is probable that the expected future economic benefits that are attributable to the asset will flow to the Council for Geoscience; and
- the cost of the asset can be measured reliably.

Capitalised computer software is carried at cost less accumulated amortisation and less accumulated impairment losses. Computer software is tested annually for impairment or changes in estimated future benefits. Amortisation is provided to write down the intangible assets to their residual value, on a straight-line basis, being two to eleven years.

Research and development

Expenditure on research activities is recognised as an expense in the period in which it is incurred.

An internally generated intangible asset arising from research and development is recognised as part of intangible assets only if all of the following conditions are met:

- an asset is created that can be identified;
- it is probable that the asset created will generate future economic benefits;
- the development cost of the asset can be measured reliably.

Where no internally generated intangible asset can be recognised, development expenditure is recognised as an expense in the period in which it is incurred. Internally generated assets are amortised on a straight-line basis over their useful lives.

1.6 Heritage assets

Heritage assets are assets held for their cultural, environmental or historical significance. Heritage assets are initially recognised at deemed cost which has been determined, due to the nature of heritage assets, by specialist valuers. Heritage assets are reflected at deemed cost and are not depreciated. At each reporting date heritage assets are assessed for indications of impairment. If any such indication exists, an estimate of the recoverable amount or the recoverable service amount of the heritage assets will be determined and tested against the carrying amount.

1.7 Inventories

The Council for Geoscience is a custodian of scientific information that produces publications in the form of books, maps and map explanations etc. These publications are distributed to the public for free or at a nominal charge.

Inventories are initially measured at deemed costs (fair value) and subsequently measured at the lower of cost and net realisable value.

1.8 Translation of foreign currencies

Foreign currency transactions

A foreign currency transaction is recorded, on initial recognition in Rand, by applying to the foreign currency amount the spot exchange rate between the Rand and the foreign currency at the date of the transaction.

At each Statement of Financial Position date:

- foreign currency monetary items are translated using the closing rate.

Exchange differences arising on the settlement of monetary items or on translating monetary items at rates different from those at which they were translated on initial recognition during the period or in previous Annual Financial Statements are recognised in the Statement of Financial Performance in the period in which they arise.

Cash flows arising from transactions in a foreign currency are recorded in Rand by applying to the foreign currency amount the exchange rate between the Rand and the foreign currency at the date of the cash flow.

1.9 Deferred income

Deferred income is accounted for in the Statement of Financial Position. The related revenue is recognised on an accrual basis in the Statement of Financial Performance in the period in which it satisfies the revenue recognition criteria.

1.10 Retirement benefit costs

Short-term employee benefits

The cost of short-term employee benefits (those payable within 12 months after the service is rendered, such as bonuses, paid vacation leave and sick leave) is recognised in the period in which the service is rendered and is not discounted.

The expected cost of compensated absences is recognised as an expense as the employees render services that increase their entitlement or, in the case of non-accumulating absences, when the absence occurs.

Defined contribution and defined benefit plans

The Council for Geoscience operates both a defined contribution pension and provident fund and a defined benefit plan in respect of post-retirement medical aid contributions. For the defined benefit plan, the defined benefit obligation and the related current service cost, is determined by using the projected unit credit method. The defined benefit plan is subject to an annual actuarial valuation. The qualifying plan asset of this scheme is held and administered by Momentum Group Limited.

The actuarial gains or losses are further limited to the extent that the net cumulative unrecognised actuarial gains or losses (before recognition of that actuarial gain or loss) exceed the unrecognised part of the transactional liability. Payments to defined contribution retirement benefit plans are charged to the Statement of Financial Performance in the year to which they relate.

1.11 Provisions and contingent liabilities

Provisions are recognised when:

- the entity has a present obligation as a result of a past event;
- it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation; and
- a reliable estimate can be made of the obligation.

The amount of a provision is the present value of the expenditure expected to be required to settle the obligation.

Commitments

The Council for Geoscience classifies commitments as contracted future transactions that are non-cancellable or only cancellable at significant cost, and that will normally result in the outflow of cash.

This excludes steady routine transactions such as salary commitments relating to employment contracts or social security benefits.

Disclosure is made of the aggregate amount of capital expenditure contracted for at the reporting date, to the extent that the amount has not been recorded in the financial statements in line with GRAP 17 and 13.

If a commitment is for a period longer than a year, it is stated in the note to the commitments.

1.12 Financial instruments

Initial recognition

The entity classifies financial instruments, or their component parts, on initial recognition as a financial asset, a financial liability or an equity instrument in accordance with the substance of the contractual arrangement.

Financial assets and liabilities are recognised on the entity's Statement of Financial Position when the Council for Geoscience becomes party to the contractual provisions of the instrument.

Financial assets and liabilities are recognised initially at fair value.

Derecognition of financial instruments

The entity derecognises a financial asset only when the

contractual rights to the cash flows from the asset expire, or it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity.

The entity derecognises financial liabilities when the entity's obligations are discharged, cancelled or they expire.

Impairment of loans and receivables

Financial assets are assessed for indicators of impairment at each Statement of Financial Position date. Financial assets are impaired where there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, the estimated future cash flows of the investment have been impacted.

The carrying amount of trade receivables is reduced through the use of an allowance account (bad debt provision). When a trade receivable is considered uncollectible, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited against the allowance account. Changes in the carrying amount of the allowance account are recognised in surplus or deficit.

The fair value of trade and other payables is determined at a price charged at transaction date and impaired when indicators of impairment are present. At year end there were no differences between the book value and the fair values of trade and other payables.

Fair value of trade and other receivables

The fair value of trade and other receivables is determined at a price charged at transaction date and impaired when indicators of impairment are present. At year end there were no differences between the book value and the fair values of trade and other receivables because of the short-term maturity.

Financial assets carried at amortised cost

Loans and receivables are measured at amortised cost less any impairment losses recognised to reflect irrecoverable amounts. Impairment is determined on a specific basis, whereby each asset is individually evaluated for impairment indicators. Write-offs of these assets are expensed in surplus or deficit.

Cash and cash equivalents

Cash and cash equivalents are short-term, highly liquid investments that are readily convertible to known amounts of cash. Cash and cash equivalents are measured at fair value.

Financial liabilities carried at amortised cost

Trade and other payables are initially measured at fair value and are subsequently measured at amortised cost.

1.13 Operating leases

Leases of assets under which all the risks and rewards of ownership are effectively retained by the lessor are classified as operating leases. Lease payments under an operating lease are recognised as an expense on a straight-line basis over the lease term.

Any contingent rents are expensed in the period they are incurred.

1.14 Impairment

The Council for Geoscience identifies cash-generating assets as assets that are managed with the objective of generating a commercial return, and non-cash-generating assets as assets that do not generate market related cash flows from that asset.

The entity assesses at each Statement of Financial Position date whether there is any indication that an asset may be impaired. If there is any indication that an asset may be impaired, the recoverable amount is estimated for the individual asset. The recoverable amount of an asset is the higher of fair value less assumed costs to sell and its value in use.

If the recoverable amount of an asset is less than its carrying value, the carrying value of the asset is reduced to its recoverable amount. That reduction is an impairment loss recognised immediately in surplus or deficit.

At each reporting date the entity assesses impairment losses recognised in prior years for continued existence or decreases. If such indication exists, the recoverable amounts of those assets are estimated. The increase in the carrying amount of an asset attributable to a reversal of an impairment loss does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset in prior periods. A reversal of an impairment loss of assets carried at cost less accumulated depreciation or amortisation is recognised immediately in surplus or deficit.

1.15 Critical accounting estimates and judgements

Provision for bad debts

Past experience indicates a reduced prospect of collecting debtors over the age of four months. Debtor balances are regularly assessed by management and provided for in line with the policy.

Provisions

Provisions were raised and management determined an estimate based on the information available and in line with the policy.

Property and equipment

Management has made certain estimations with regard to the determination of estimated useful lives and residual values of items of property and equipment.

Leases

Management has applied its judgement to classify all lease agreements that the entity is party to as operating leases, as they do not transfer substantially all risks and ownership to the entity. Furthermore, as the operating lease in respect of premises is only for a relatively short period of time, management has made a judgement that it would not be meaningful to classify the lease into separate components for the land and for the buildings for the Polokwane office current lease, and the agreement will be classified in its entirety as an operating lease.

1.16 Sources of estimation uncertainty

There are no key assumptions concerning the future and other key sources of estimation uncertainty at the Statement of Financial Position date that could have a significant risk of causing material adjustment to the carrying amounts of assets and liabilities within the next financial year.

1.17 Irregular expenditure

Irregular expenditure is recorded in the notes to the financial statements when confirmed. The amount recorded is equal to the value of the irregular expenditure incurred, unless it is impractical to determine, in which case reasons therefore must be provided in the notes. Irregular expenditure receivables are measured at the amount that is expected to be recovered and are de-recognised when settled or written off as irrecoverable.

Irregular expenditure must be removed from the balance of the irregular expenditure notes when it is either:

- a) condoned by the relevant authority if no official was found to be liable in law;
- b) recovered from an official liable in law;
- c) written off if it is irrecoverable from an official liable in law; or
- d) written off if it is not condoned and not recoverable.

1.18 Fruitless and wasteful expenditure

Fruitless and wasteful expenditure is expenditure that was made in vain and would have been avoided had reasonable care been exercised. Fruitless and wasteful expenditure, where identified, is accounted for in the related year. The expenditure is accordingly classified with its nature, and

where subsequently recovered or written off, it is accounted for accordingly in surplus or deficit.

1.19 Post-reporting date events

Events after the reporting date are those events, both favourable and unfavourable, that occur between the reporting date and the date when the financial statements are authorised for issue. Two types of events can be identified:

- Those that provide evidence of conditions that existed at the reporting date (adjusting events after the reporting date)
- Those that are indicative of conditions that arose after the reporting date (non-adjusting events after the reporting date).

The Council for Geoscience will adjust the amounts recognised in the financial statements to reflect adjusting events after the reporting date once the event occurs.

The Council for Geoscience will disclose the nature of the event and estimate its financial effect or a statement that such estimate cannot be made in respect of all material non-adjusting events, where non-disclosure could influence the economic decisions of users taken on the basis of the financial statements.

1.20 Related party transactions

Individuals as well as their close family members, and/or entities are related parties if one party has the ability, directly or indirectly, to control or jointly control the other party or exercise significant influence over the other party in making financial and/or operating decisions. Management is regarded as a related party and comprises the Board Members and Senior management. Related party transfers/payments of appropriated funds, specific-purpose allocations, etc. would generally fall under the disclosure exemption in GRAP 20, and such transfers and allocations are therefore part of the normal supplier and/or client/recipient relationships and are therefore not disclosed.

1.21 Principal-agent relationships

The CGS engages in principal-agent relationships where we act as the principal. In these arrangements, agents are appointed to act on our behalf for specific tasks, such as the collection of funds due. The agents are authorised to act on our behalf, and the transactions carried out by the agents are recognised in our financial statements.

2 New standards and interpretations

2.1 Standards and interpretations issued, but not yet effective

The Council for Geoscience has not applied the following standards and interpretations, which have been approved but are not yet effective for the accounting period 2023/24:

GRAP statement	Description	Impact	Effective date
GRAP 1	Presentation of Financial Statements	None	To be determined
GRAP 103	Heritage Assets	None	To be determined
GRAP 104	Financial Instruments (revised)	None	1 April 2025
GRAP 105	Transfer of Functions between Entities under Common Control	None	To be determined
GRAP 106	Transfer of Functions between Entities not under Common Control	None	To be determined
GRAP 107	Mergers	None	To be determined
IGRAP 7	Limit on a Defined Benefit Asset Min Fund Requirement and Interact	None	To be determined

3 Going concern assessment

Management has considered the following matters relating to the going concern.

In the current year under review the CGS had recognised a surplus of R51.3 million, and negative cash outflow of R29.2 million. In the current year there has been no change in any legislation to suggest that the entity's objectives are threatened and as a result, its ability to continue as a going concern. The CGS has also received a significant grant allocation over the current MTEF period. There are no legal or court claims or litigation against the Council which would threaten the entity's ability to operate as a going concern. There are no material uncertainties related to events or conditions that may cast significant doubt about the CGS's ability to continue as a going concern.

Under the going concern assumption, CGS is viewed as continuing operations for the foreseeable future and therefore accounts for its assets and liabilities on the basis that it will be able to realise and discharge them in the normal course of operations. Taking the aforementioned into account, management has prepared the Annual Financial Statements on the going concern basis.

4 Property and equipment

2024	Buildings and fixtures		Equipment*	Office furniture	Aircraft and boat	Motor vehicles	Computer equipment	Total
	Land R'000	R'000						
Gross carrying amount	18 231	281 810	224 640	14 645	24 792	31 446	77 602	673 166
Accumulated depreciation at the beginning of the period	(1 600)	(88 624)	(156 843)	(9 283)	(10 965)	(20 092)	(26 181)	(313 589)
Opening net carrying amount at 31 March 2023	16 631	193 186	67 797	5 361	13 827	11 355	51 421	359 579
Movements during the period:								
Work in progress (refer to note 4.2)	-	2 402	4 836	-	-	-	5 887	13 125
Acquisitions	-	-	16 383	706	-	2 239	4 981	24 309
Disposals	-	-	(30)	(47)	-	(1 037)	(118)	(1 232)
Disposals – Cost	-	-	(5 050)	(418)	-	(4 907)	(2 211)	(12 586)
Disposals – Depreciation	-	-	5 020	371	-	3 870	2 093	11 354
Depreciation	-	(10 074)	(19 546)	(489)	(526)	(2 797)	(9 264)	(42 697)
Closing net carrying amount at 31 March 2024	16 631	185 515	69 440	5 531	13 301	9 760	52 906	353 085
Gross carrying amount	18 231	284 212	240 809	14 932	24 792	28 778	86 258	698 013
Accumulated depreciation/impairment	(1 600)	(98 697)	(171 369)	(9 401)	(11 491)	(19 018)	(33 352)	(344 928)

* Equipment in the table includes the following categories of equipment: Specialised Equipment, Audio and Visual, Technical Equipment, Office Equipment and Scientific Equipment.

4 Property and equipment (continued)

2023	Buildings and fixtures		Equipment*	Office furniture	Aircraft and boat	Motor vehicles	Computer equipment	Total
	Land R'000	R'000						
Gross carrying amount	18 231	254 227	209 552	14 134	24 792	30 713	68 497	620 146
Accumulated depreciation at the beginning of the period	(1 600)	(81 015)	(138 609)	(9 098)	(10 439)	(17 576)	(20 345)	(278 682)
Opening net carrying amount at 31 March 2022	16 631	173 212	70 942	5 036	14 353	13 137	48 152	341 463
Movements during the period:								-
Work in progress (refer to note 4.2)	-	(83 295)	(141)	-	-	-	2 599	(80 837)
Reversal of impairment	-	-	-	-	-	-	-	-
Acquisitions	-	110 878	18 895	836	-	790	8 835	140 235
Disposals	-	-	(226)	(18)	-	(27)	(396)	(666)
Disposals – Cost	-	-	(3 665)	(325)	-	(57)	(2 329)	(6 376)
Disposals – Depreciation	-	-	3 439	308	-	30	1 933	5 710
Depreciation	-	(7 610)	(21 673)	(493)	(526)	(2 546)	(7 769)	(40 618)
Closing net carrying amount at 31 March 2023	16 631	193 186	67 797	5 362	13 827	11 355	51 421	359 579
Gross carrying amount	18 231	281 810	224 640	14 645	24 792	31 446	77 602	673 166
Accumulated depreciation/impairment	(1 600)	(88 624)	(156 843)	(9 283)	(10 965)	(20 092)	(26 181)	(313 589)

* Equipment in the table includes the following categories of equipment: Specialised Equipment, Audio and Visual, Technical Equipment, Office Equipment and Scientific Equipment.

4 Property and equipment (continued)

The transfer of the following land and buildings as stipulated under Section 26 of the Geoscience Act (Act No. 100 of 1993) has not yet been completed.

Location	Fair value at date of transfer R'000
474 Carl Street, Town Lands 351JR, Pretoria West	2 800
280 Pretoria Street, Silverton, Pretoria	94 000

The value of these properties has been included in the carrying amount of land and buildings and was determined by an independent valuator.

Details regarding land and buildings are kept at the Council for Geoscience head office and will be supplied upon written request.

4.1 Compensation from third parties for property and equipment lost

Location	2024 R'000	2023 R'000
Proceeds from insurance	435	1 116

4.2 Property and equipment in the process of being constructed

Cumulative expenditure recognised in the carrying value of property and equipment being developed/constructed

	Buildings and fixtures R'000	Equipment* R'000	Aircraft and boat R'000	Total R'000
Gross carrying amount	7 428	23 208	1 040	31 676
Opening net carrying amount at 31 March 2023	7 428	23 208	1 040	31 676
Movement	2 402	10 724	-	13 126
Closing net carrying amount at 31 March 2024	9 830	33 932	1 040	44 802

* Equipment in the table includes the following categories of equipment: Specialised Equipment, Audio and Visual, Technical Equipment, Office Equipment and Scientific Equipment.

Repairs and maintenance

Repairs and maintenance expenditure incurred for the year to repair and maintain property and equipment.

	2024 R'000	2023 R'000
Land and buildings	5 080	8 966
Office equipment and furniture	818	39
Technical and scientific equipment	5 568	2 669
Computer equipment	3 637	158
Aircraft	336	2 260
	15 440	14 092

5 Intangible assets

	2024 R'000	2023 R'000
Computer software		
Gross carrying amount	13 132	16 752
Accumulated amortisation	(9 093)	(11 110)
Opening net carrying amount at 31 March 2023	4 039	5 641
Movements during the period:		
Acquisitions	-	183
Disposals	-	(72)
Disposals – Cost	(206)	(3 803)
Disposals – Amortisation	206	3 731
Amortisation	(1 607)	(1 714)
Closing net carrying amount at 31 March 2024	2 432	4 039
Gross carrying amount	12 926	13 132
Accumulated amortisation	(10 494)	(9 093)

6 Inventories

	2024 R'000	2023 R'000
Publication inventories	5	5

7 Retirement benefit

7.1 Post-retirement medical aid fund

The Council for Geoscience has made provision for the medical aid fund covering all its qualifying employees. All eligible employees are members of the defined benefit scheme. To improve management of this defined benefit scheme the Council for Geoscience established a qualifying plan asset in October 2010, which is held and administered by Momentum Group Limited and evaluated annually as at 31 March.

The amount recognised in the Statement of Financial Performance is determined as follows:

	2024 R'000	2023 R'000
Current service costs	37	54
Interest charge	2 281	2 471
Expected return on planned assets	(1 638)	(1 513)
Actuarial (gain)/loss recognised	1 880	(2 607)
Recognition of loss on asset realisation	-	(3 956)
	2 560	(5 551)

7 Retirement benefit (continued)

The amount included in the Statement of Financial Position arising from Council for Geoscience obligation in respect of the post-retirement medical aid fund is as follows:

	2024 R'000	2023 R'000	2022 R'000	2021 R'000	2020 R'000
Present value of fund obligations	23 542	22 210	25 894	26 070	24 348
Fair value of planned assets	(15 003)	(16 231)	(14 364)	(14 810)	(15 094)
Liability recognised in the Statement of Financial Position	8 539	5 979	11 530	11 260	9 254

Movement in net liability during the period is as follows:

	2024			2023		
	Liability R'000	Planned asset R'000	Net R'000	Liability R'000	Planned asset R'000	Net R'000
Liability at beginning of period	22 210	-	22 210	25 894	-	25 894
Value of planned assets at beginning of period	-	(16 231)	(16 231)	-	(14 364)	(14 364)
	22 210	(16 231)	5 979	25 894	(14 364)	11 530
Interest charge/expected return of planned asset	2 281	(1 638)	643	2 471	(1 513)	958
Contributions received	-	-	-	-	(3 956)	(3 956)
Current service costs	37	-	37	54	-	54
Benefits paid	(2 481)	2 481	-	(2 360)	2 360	-
Actuarial (gain)/loss	1 495	385	1 880	(3 849)	1 242	(2 607)
Closing balance	23 542	(15 003)	8 539	22 210	(16 231)	5 979

Contributions expected to be paid

Top up payments are expected to be made during the 2024/25 financial year.

Expected rate of return on assets 12.11%

Assumptions

Discount rates 12.11%

Basis of discount rates: JSE zero coupon bond yield after the market closed on 31 March 2024

Return on assets 12.11%

Expected salary increases 5.00%

Healthcare cost inflation rate 8.43%

7 Retirement benefit (continued)

Sensitivity analysis on accrued liability (R millions) for the year ending 31 March 2024

Assumption	Change	In service	Continuation	Total	Change
Central assumptions	-	1 138	22 404	23 542	-
Healthcare inflation	1%	1 370	23 831	25 201	7%
	-1%	950	21 110	22 060	-6%
Discount rate	1%	956	21 123	22 079	-6%
	-1%	1 367	23 838	25 205	7%
Post-retirement mortality	-1 year	1 165	23 355	24 520	4%
Average retirement date	-1 year	1 240	22 404	23 644	0%
Continuation of membership at retirement	-10%	1 032	22 404	23 436	0%

The table above indicates, for example that if medical inflation is 1% greater than the long-term assumptions made, the liability will be 7% higher than that shown.

Sensitivity analysis for current service and interest cost (R millions) for the year ending 31 March 2024

Assumption	Change	In service	Continuation	Total	Change
Central assumptions	-	36 767	2 281 468	2 318 235	-
Healthcare inflation	1%	44 906	2 462 951	2 507 857	8%
	-1%	30 247	2 120 333	2 150 580	-7%
Discount rate	1%	30 689	2 316 941	2 347 630	1%
	-1%	44 397	2 237 456	2 281 853	-2%
Post-retirement mortality	-1 year	37 689	2 381 122	2 418 811	4%
Average retirement date	-1 year	40 463	2 290 680	2 331 143	1%
Continuation of membership at retirement	-10%	33 091	2 265 418	2 298 509	-1%

The table above indicates, for example, that if medical inflation is 1% greater than the long-term assumptions made, the liability will be 8% higher than that shown.

7.2 Pension and provident fund benefits

The Council for Geoscience and its employees contribute to a defined contribution plan. The assets of the scheme are held separately from the Council for Geoscience in funds under the control of trustees. The total cost charged to income of R17.240 million (2023: R16.274 million) represent equal contributions of 7.5% by the employer and employee.

8 Trade and other receivables

	2024 R'000	2023 R'000
Trade and other receivables from exchange transactions		
Trade receivables	24 931	27 670
Contract customers	40 970	30 082
Other receivables	10 537	8 161
	<u>76 438</u>	<u>65 913</u>
Less – Provision for bad debts	(2 252)	(5 836)
	74 186	60 077
Trade and other receivables from non-exchange transactions		
Trade receivables	8 638	-
Other receivables	22 000	-
	<u>30 638</u>	<u>-</u>
	104 824	60 077
Provision for bad debts		
Opening balance	5 836	2 252
Movement	(3 584)	3 584
Closing balance	2 252	5 836
Analysis of impairment		
Long overdue debtors considered impaired	2 252	5 836
	<u>2 252</u>	<u>5 836</u>

There is no difference between the fair value of trade and other receivables and their book value.

9 Cash and cash equivalents

Cash and cash equivalents at the end of the period are represented by the following balances:

	2024 R'000	2023 R'000
Cash at bank	59 514	143 566
Call accounts	81 384	26 620
	<u>140 898</u>	<u>170 186</u>

There is no difference between the fair value of cash and cash equivalents and their book value.

10 Trade and other payables

	2024 R'000	2023 R'000
Current		
Trade payables	49 434	29 304
Other payables	58 976	43 115
	108 410	72 419
Non-current		
Other payables	6 679	-
	6 679	-
Total trade and other payables	115 089	72 419

There is no difference between the fair value of trade payables and their book value.

11 Deferred income

Exchange revenue

	2024 R'000	2023 R'000
11.1 Deferred income arising as a result of an agreement entered into with the Department of Science and Innovation to develop an intellectual property management office (Geoscience Act Par 5(1)(g))		
Carrying amount at the beginning of period	2 607	2 607
Amounts used during the period	-	-
Carrying amount at the end of period	2 607	2 607
11.2 Deferred income arising as a result of an agreement with the Organisation of African Geological Surveys		
Carrying amount at the beginning of period	1 371	335
Amounts received	1 115	1 036
Carrying amount at the end of period	2 486	1 371
11.3 Deferred income arising as a result of an agreement entered into with the Department of Mineral Resources and Energy to develop and implement various measures to mitigate the effect of mining-induced contamination and integrated research into mine closure.		
Carrying amount at the beginning of period	32 479	52 271
Amounts used during the period	(8 786)	(19 792)
Carrying amount at the end of period	23 693	32 479
11.4 Deferred income arising as a result of an agreement entered into with the National Research Foundation		
Carrying amount at the beginning of period	110	110
Amounts received	-	-
Amounts used during the period	-	-
Carrying amount at the end of period	110	110

11 Deferred income (continued)

	2024 R'000	2023 R'000
11.5 Deferred income arising as a result of Carbon Capture, Storage and Utilisation Project		
Carrying amount at the beginning of period	19 466	57 441
Amounts receivable*	22 000	-
Amounts used during the period	(15 881)	(37 975)
Carrying amount at the end of period	25 585	19 466
* Refer to Note 27		
11.6 Deferred income arising as a result of Carbon Capture, Storage and Utilisation Project funded by the World Bank		
Amounts received	95 708	101 000
Amounts used during the period	(84 398)	(5 292)
Carrying amount at the end of period	11 310	95 708
11.7 Deferred income arising as a result of an agreement with the Department of Mineral Resources and Energy		
Carrying amount at the beginning of period	17 128	43 690
Amounts used during the period	(4 968)	(26 562)
Carrying amount at the end of period	12 160	17 128
Total deferred income	77 952	168 869

12 Accruals

	2024 R'000	2023 R'000
Accruals for leave pay		
Carrying amount at the beginning of period	26 954	28 698
Provision current period	5 138	1 795
Amounts used during the current period	(3 740)	(3 540)
Carrying amount at the end of period	28 352	26 953
The leave pay provision relates to the estimated liabilities as a result of leave days due to employees.		
Accruals for 13th cheque		
Carrying amount at the beginning of period	5 729	6 094
Provision current period	352	(365)
Carrying amount at the end of period	6 081	5 729
The 13 th cheque accrual relates to the structuring of the employee costs to company and is paid out on employees' birthdays.		
Total accruals	34 432	32 682

13 Surplus/Deficit from operations

Operating surplus/deficit is arrived at after taking the following items into account:

	2024 R'000	2023 R'000
Revenue	860 479	570 975
Non-exchange revenue		
Total grant received	559 458	355 761
Project related revenue	4 968	-
Contracting revenue	58 974	43 755
Total non-exchange revenue	623 400	399 516
Exchange revenue		
Department of Mineral Resources and Energy project related revenue	-	2 599
Contracting revenue	191 166	110 494
Publication revenue	3 551	2 868
Carbon, capture, storage and utilisation	15 881	37 975
	210 598	153 936
Other exchange revenue		
Foreign currency gains	627	881
Proceeds from sale of asset	155	-
Property, plant and equipment received by donation*	3 618	-
Recovery of asset losses	435	1 116
Reversal of provision for bad debts	3 584	-
Sundry income	1 559	6 694
	9 978	8 692
Interest received		
- Interest income on call accounts	11 265	4 214
- Interest income on current accounts	5 238	4 618
	16 503	8 831
Total exchange revenue	237 079	171 459
Total cost of contracts	387 721	259 744

* The Council for Geoscience (CGS) and the Petroleum Agency of South Africa (PASA) have entered into a service level agreement (SLA) for the Karoo Baseline Seismic Monitoring project and the agreement stipulates the transfer or donation of assets to CGS upon completion of the project.

* South Africa is designated to host four waveform stations operated and maintained by the Council for Geoscience (CGS). The Comprehensive Test Ban Treaty (CTBT) established an international body called the Comprehensive Nuclear-Test-Ban Treaty Organisation (CTBTO) who donated equipment to CGS to assist in establishing South Africa's National Data Centre, utilising the international data products. The donation is a part of the Preparatory Commission's ongoing technical assistance to Signatory States of the Comprehensive Nuclear-Test-Ban Treaty.

13 Surplus/Deficit from operations (continued)

	2024 R'000	2023 R'000
Cost of commercial projects		
Direct cost	176 815	80 979
Personnel expenditure	43 015	36 160
	219 830	117 139
Cost of statutory projects		
Direct cost	59 803	30 668
Personnel expenditure	108 088	111 937
	167 891	142 605
Administrative expenses include:		
Audit fees	5 169	3 117
- Current period	3 780	2 448
- Internal audit	682	591
- Fee for other services	707	78
Provision for bad debts	-	3 584
Depreciation – On owned assets	42 696	40 617
- Buildings	10 074	7 610
- Equipment	19 546	21 673
- Office furniture	489	493
- Motor vehicles	2 797	2 546
- Aircraft	299	299
- Boat	227	227
- Computer equipment	9 264	7 769
Reversal of impairment	-	-
Amortisation – Intangible assets		
- Computer software	1 607	1 714
Rentals in respect of operating leases		
- Land and buildings	1 478	1 400
- Multifunctional printers	5 549	1 695
Other operating expenses		
Net loss on disposal of equipment	30	226
Net loss on disposal of vehicles	1 037	27
Net loss on disposal of intangible assets	-	72
Net loss on disposal of computer equipment	118	396
Net loss on disposal of office furniture	47	18
Foreign currency losses	303	886
	1 535	1 624
Staff costs	362 662	345 924

13 Surplus/Deficit from operations (continued)

	2024 R'000	2023 R'000
Included in staff costs are:		
Defined benefit plan expense for the post-retirement medical aid fund	2 560	(5 551)
- Current service cost	37	54
- Interest cost	2 281	2 471
- Expected return on plan assets	(1 638)	(1 513)
- Recognised actuarial (gain)/loss	1 880	(2 607)
- Recognition of loss on asset realisation	-	(3 956)
Defined contribution plan expenses for the pension and provident fund	17 240	16 274

Emoluments

Senior management	2023/24						Total R'000
	Pensionable salary R'000	Performance bonus R'000	Provident/ Pension fund contributions R'000	Other contributions* R'000	Termination/ Resignation benefits R'000		
Mr Mabuza M	4 058	247	468	152	-		4 925
Mr Matsepe LD	2 435	147	176	128	2 346		5 231
Ms Monoko PR	359	23	-	19	378		779
Mr Molikoe LT	2 197	88	137	101	-		2 523
Mr Meintjes JWP	2 168	117	147	106	-		2 538
Dr Khoza TD	503	33	-	30	239		805
Ms Mbatha ZB	2 135	160	-	89	-		2 384
Dr Khumalo TN	2 507	159	-	96	-		2 762

Senior management	2022/23						Total R'000
	Pensionable salary R'000	Performance bonus R'000	Provident/ Pension fund contributions R'000	Other contributions* R'000	Termination/ Resignation benefits R'000		
Mr Mabuza M	3 811	368	232	147	-		4 557
Mr Matsepe LD	2 686	256	163	579	-		3 685
Ms Monoko PR	2 023	183	132	115	-		2 453
Dr Tshipa J	796	-	48	558	2 273		3 675
Dr Khoza TD	2 032	177	124	115	-		2 447
Ms Mbatha ZB	240	-	18	11	-		269
Dr Khumalo TN	242	-	18	11	-		271

* Other contributions relate to employer contributions towards statutory deductions and leave.

13 Surplus/Deficit from operations (continued)

Board emoluments

Non-executive Board Members	2024 R'000	2023 R'000
Mr Dintwe K	145	-
Dr Mathe H	37	147
Mr Mvinjelwa X	195	189
Adv. Maake N	150	181
Ms Chowan A	80	89
Dr Sing M	131	-
Ms Njozela T	165	-
Ms Nxumalo N	130	-
Dr Mngadi S	224	-
Dr Matlala M	-	-
Dr Mirembe J	-	-
Mr Malaza S	-	-
Mr Malindisa M	-	-
Dr Muofhe M	-	-
Mr Nel P	-	-
Ms Mdubeki R	-	-
Ms Mochothli D	-	-
Ms Tsoetsi P	-	-
Ms Madiba L	-	-
Mr Moatshe A	-	-
Mr Gerrys B	-	-
Dr Gwaze P	-	-
	1 257	606

14 Finance cost

	2024 R'000	2023 R'000
Finance cost on motor vehicle fleet cards	36	29

15 Reconciliation of net surplus/(loss) for the period to cash generated from operations

	2024 R'000	2023 R'000
Net surplus for the period	51 291	(89 517)
Interest	36	29
Depreciation on property and equipment	42 696	40 617
Amortisation – Intangible assets	1 608	1 714
Proceeds from sale of assets	(155)	-
Compensation from third parties for property and equipment lost	(435)	(1 116)
Net loss on disposal of fixed assets	1 232	738
Interest earned	(16 503)	(8 831)
Provision for post-retirement medical aid benefits	2 560	(5 551)
Operating cash flows before working capital changes	<u>82 330</u>	<u>(61 917)</u>
Working capital changes:		
Increase in provision for accumulated leave pay and 13 th cheque	1 751	(2 109)
(Increase)/Decrease in trade and other receivables	(44 747)	7 109
Increase/(Decrease) in trade and other payables	42 671	20 085
Increase/(Decrease) in deferred income	(90 916)	(36 314)
Cash generated from operations (including finance costs)	<u>(8 910)</u>	<u>(73 150)</u>

16 Acquisition of:

	2024 R'000	2023 R'000
16.1 Property and equipment		
Land and buildings	-	110 878
Equipment	16 383	18 895
Office furniture	706	836
Aircraft and boat	-	-
Motor vehicles	2 239	790
Computer equipment	4 981	8 835
	<u>24 309</u>	<u>140 235</u>
Work in progress – Acquisitions		
Land and buildings	2 402	(83 295)
Computer equipment	5 887	2 599
Equipment	4 836	(141)
Aircraft and boat	-	-
	<u>13 125</u>	<u>(80 837)</u>
Total acquisitions	<u>37 434</u>	<u>59 397</u>
16.2 Intangible assets		
Computer software	-	183
	<u>-</u>	<u>183</u>

17 Contingent liability

	2024 R'000	2023 R'000
17.1 Pending legal action		
The Council for Geoscience has an estimated legal liability due to pending labour cases	-	529
	-	529

18 Taxation

No provision for income tax was made as the Council for Geoscience is exempted in terms of Section 10(1)(Ca)(i) of the Income Tax Act.

19 Operating lease commitments

	2024 R'000	2023 R'000
19.1 Lease of office space		
The operating lease between a supplier and the Council for Geoscience entered into from 1 December 2023 to 30 November 2024.		
At reporting date, the outstanding commitments under non-cancellable operating leases, which fall due are as follows:		
Up to one year	408	493
Two to five years	-	-
Total lease commitments	408	493
19.2 Lease of office printing equipment		
The operating lease contracts with suppliers from 1 May 2021 to 30 January 2025.		
At the reporting date, the outstanding commitments under non-cancellable operating leases, which fall due are as follows:		
Up to one year	1 225	2 631
Two to five years	-	749
Total lease commitments	1 225	3 380
19.3 Lease of office generators		
The operating lease between AGP Electrical and Instrumentation and the Council for Geoscience entered into on 30 January 2023 to 31 January 2024.		
At reporting date, the outstanding commitments under non-cancellable operating leases, which fall due are as follows:		
Up to one year	-	1 778
Two to five years	-	-
Total lease commitments	-	1 778

19 Operating lease commitments (continued)

	2024 R'000	2023 R'000
19.4 Commitments*		
Operating expenditure		
Approved and contracted	-	110 137
Approved but not yet contracted	-	3 030
Capital expenditure		
Approved and contracted: Property and equipment	124 924	51 000
Approved but not yet contracted: Property and equipment	-	5 997
Total commitments	124 924	170 164
Commitments		
Up to one year	6 187	41 548
Two to five years	118 736	128 616
Total commitments	124 924	170 164

The Council for Geoscience has usage based contracts for the provision of the following services:

- Sampling Services Geophysics
- Accommodation and travel
- Courier services

* In the current financial year the CGS opted to not disclose operating commitments as well as approved but not contracted commitments in line with GRAP.

20 Financial instruments

Financial instruments consist of cash and cash equivalents, investments with financial institutions, trade and other receivables and trade and other payables.

20.1 Credit risk

Financial assets, which potentially subject the Council for Geoscience to concentrations of credit risk, consist principally of cash, short-term deposits and trade receivables. The Council for Geoscience's cash equivalents and short-term deposits are placed with high credit quality financial institutions. Trade receivables are presented net of the allowance for doubtful debts. Credit risk with respect to trade receivables is limited due to the large number of customers being dispersed across different industries and geographical areas. Accordingly the Council for Geoscience has no significant concentration of credit risk.

The carrying amounts of financial assets included in the Statement of Financial Position represent the Council for Geoscience's exposure to credit risk in relation to those assets.

Trade and other receivables are controlled by well-established policies and procedures which are reviewed and updated on an on-going basis. The Council for Geoscience does not have any significant exposure to any individual customer or counterparty.

Trade receivables and other payables are carried at amortised costs. Refer to notes 7 and 9.

20 Financial instruments (continued)

20.2 Interest rate risk

The entity's exposure to interest rate risk and the effective interest rates on the financial instruments at reporting date are:

	Weighted average effective interest rate %	Weighted average effective interest rate %
Assets		
Cash	1.20%	1.00%
Call accounts	6.96%	4.88%

Short-term deposits

The risk is perceived to be low due to the following factors:

- Funds are only invested with approved financial institutions according to the policy of the Council for Geoscience.
- Short-term deposits are only reinvested or invested with Management approval.

20.3 Foreign currency risk

The Council for Geoscience undertakes certain transactions denominated in foreign currencies, hence exposures to exchange rate fluctuations arise. It is not the policy for the Council for Geoscience to take out cover on these outstanding foreign currency transactions due to the fact that these transactions take place on an ad-hoc basis. The Council for Geoscience's exposure at 31 March 2024 is disclosed in note 21.

20.4 Airborne operations risk

It is the policy of the Council for Geoscience to transfer risk in respect of airborne operations to third parties, namely insurance and an external operator.

21 Foreign currency exposure

	2024			2023		
	Exchange rate	Foreign amount '000	R-value R'000	Exchange rate	Foreign amount '000	R-value R'000
21.1 Trade receivables						
Foreign currency						
US Dollar	R18.72690	\$28	524	R17.52660	\$41	726
21.2 Banks						
Foreign funds						
Euro	R20.07360	€241	4 840	R18.96690	€240	4 552

22 Related party transactions

During the period, the following related party transactions took place between the Council for Geoscience and the Department of Mineral Resources and Energy:

	2024 R'000	2023 R'000
Total grant received	559 458	355 761

Relationships:

Parent National Department: Department of Mineral Resources and Energy

Refer to note 11 for further details regarding transactions with the Department of Mineral Resources and Energy.

Income received from related parties

During the year funds were received and revenue recognised, for services rendered by the CGS, from the following related parties that are related to the entity as indicated below. The balances at year-end as contained in deferred income and debtors is disclosed. Amounts receivable from these entities are subject to the same terms and conditions as normal trade receivables.

	2024 R'000	2023 R'000
Debtors balances		
Department of Mineral Resources and Energy	8 638	-
Department of Defence	-	3 376
Petroleum Agency SA	2 299	-
Eskom	4 033	19 892
Housing Development Agency*	-	3 584
Deferred income balance		
Department of Science and Innovation	2 607	2 607

* A provision for bad debt for an equal amount has been recognised due to the amount outstanding for longer than 60 days.

Relationship: National sphere of government

Services rendered by related parties

During the year expenses were incurred and recognised, for services rendered to the CGS, to the following related parties that are related to the entity as indicated below. The balances at year-end as contained in trade payables is disclosed. Amounts due to these entities are subject to the same terms and conditions as normal trade payables.

	2024 R'000	2023 R'000
Creditors balances		
Department of Public Works and Infrastructure	5 232	-
Council for Scientific and Industrial Research	30	-

Relationship: National sphere of government

All related-party transactions were concluded at arm's length.

23 Events after reporting date

Non-adjusting events

Eminent acquisition of services

Acquisition of printing services in support of the Council for Geoscience head office building. The estimated cost for this acquisition is R9.8 million.

24 Correction of prior year error

		2024 R'000	2023 R'000
Correction of prior year error			
Nature	Period		
A correction was made to the financial statements to receivables for the prior period.	31 March 2023	-	1 273
A correction was made to expenditure that was not recognised in the correct period.	31 March 2023	-	474
		-	1 747
Effect			
Statement of Financial Performance as at 31 March 2023			
Administrative expenses		-	474
Revenue from exchange transactions		-	1 273
		-	1 747
Effect			
Statement of Financial Position as at 31 March 2023			
Trade and other receivables from exchange transactions		-	(1 317)
Trade and other payables		-	(430)
Accruals		-	-
Property and equipment		-	-
Statement of Net Assets for the period ended 31 March 2023			
Accumulated surpluses		-	(1 747)
Correction of prior year error disclosure			
Nature			
Disclosure as at 31 March 2023			
Restatement of closing balances of cumulative expenditure recognised in the carrying value of commitments.			
Restatement of closing balances of commitments			
Approved and contracted		-	(6 679)
Effect			
None (only disclosure item)			

25 Change in accounting estimate

The useful lives of property and equipment was reassessed. This resulted in change of estimated remaining lives of certain assets in the categories listed below:

Useful lives

	Old	New
Equipment	5–7 years	5–16 years
Office furniture	20 years	20–29 years
Motor vehicles	5–8 years	5–12 years
Computer equipment	6 years	6–17 years
Computer software	2–5 years	2–11 years
Aircraft	15 years	18 years

The effect of the change in accounting estimate has resulted in depreciation amounting to R1 114 611 in 2023/24.

The change of R2 229 222 will be reflected in future periods.

	2024 R'000	2023 R'000
Due to the change in accounting estimate regarding the useful life and residual values of assets, the depreciation expense is reported at:	1 114	34 493
Equipment	979	21 673
Office furniture	35	493
Motor vehicles	-	2 546
Computer equipment	85	7 769
Computer software	15	1 714
Aircraft	-	299
Depreciation expense using the previous rates would have been reported at:	3 344	35 360
Equipment	2 938	22 130
Office furniture	106	497
Motor vehicles	-	2 720
Computer equipment	254	7 852
Computer software	46	1 719
Aircraft	-	443
Difference in useful lives	2 230	867
Equipment	1 959	457
Office furniture	71	4
Motor vehicles	-	174
Computer equipment	169	83
Computer software	31	5
Aircraft	-	144

26 Heritage assets disclosure

GRAP 103 defines heritage assets as assets which have a cultural, environmental, historical, natural, scientific, technological or artistic significance and are held indefinitely for the benefit of present and future generations.

Certain heritage assets are described as inalienable items thus assets which are retained indefinitely and cannot be disposed of without consent as required by law or otherwise.

	2024 R'000	2023 R'000
Nature		
The Council for Geoscience has the following different classes of heritage:		
- Gemstone collections	1 445	1 445
- Meteorite collections	2 804	2 804
- Mineral collections	13 313	13 313
	17 562	17 562

The heritage assets were at initial recognition valued at fair value using valuers with the following credentials:

- Fossils – Professor for Paleontological Research, University of the Witwatersrand
- Mineral collections – MSc Geology and Professor and Chairman of the Department of Geology, University of the Witwatersrand
- Meteorite collections – Author of “Meteorites”, private collector of meteorites
- Gemstones – MSc Geology

Various valuation methods were used taking into account the different types of heritage assets held by the Council for Geoscience.

The valuations reports are held at the Council for Geoscience offices and are available for inspection.

The Palaeontological (fossil) assets have no monetary value as legislation does not permit the purchase or sale of fossils. (National Heritage Resources Act 1999 Par 35(4)(c)).

The Council for Geoscience is in possession of old scientific equipment only for display purposes. This equipment does not carry any value.

27 Principal-agent relationship

Nature of the principal-agent relationship

The CGS engaged Goitseona Pilane (the agent) to investigate and collect payments from SANEDI on its behalf. Goitse Pilane is authorised to collect funds which are then remitted to us.

Significant judgments and assumptions

In determining the existence of a principal-agent relationship, we considered the following:

- Goitse Pilane has the authority to act on CGS's behalf in collecting funds.
- The funds collected are for our benefit.
- The CGS retains control over which clients are pursued and the methods used for collection.

Amounts recognised

During the financial year, Goitseona Pilane collected R22 million on behalf of the CGS (refer to note 11). This amount is recognised as deferred revenue in the financial statements.

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