



VBKOM

Capability Statement

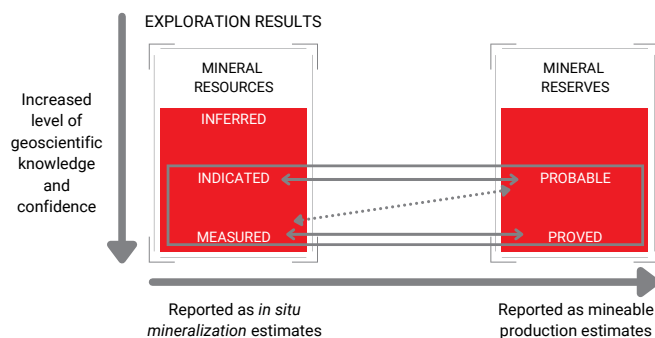
Mineral Resources and Mineral Reserves Estimations / Code Compliant Reporting

VBKOM has extensive experience in Mineral Resource and Mineral Reserve estimation, as well as the compilation of Competent/Qualified Persons Reports (CPR's) for clients of various sizes and across most commodities within the Mining Industry. We are well versed in the Reporting requirements and terminologies for all major Reporting Codes, including SAMREC (2016), JORC (2012) and NI 43-101.

Our Approach to Mineral Resource and Mineral Reserve Estimation

› **Site visit and data collection:** The Competent or Qualified Person (CP) for Mineral Resources and the CP for Ore Reserves are both required to conduct a site visit, as required by the relevant Reporting Code.

› **Mineral Resource Estimation:** The Competent/Qualified Person for Mineral Resources reviews the latest available CPR and related its associated Mineral Resource models and data. Other information pertinent to the compilation of a Competent Persons Report for the Reporting of Mineral Resources is also reviewed, evaluated and incorporated into the new CPR document. The Mineral Resources Statement is then updated and signed off after ensuring that the Mineral Resources have been correctly updated and Reported in accordance with the requirements as stipulated within the relevant Reporting Code.



› **Mineral Reserves Estimation:** The Competent or Qualified Person for Mineral Reserves will review the latest available CPR and Ore Reserve models, mine designs, production schedules, costs, modifying factors, and other relevant information required for assessing and declaring of Mineral Reserves. The Competent or Qualified Person may also rely on the expertise of the different disciplines team members at VBKOM as Technical Advisors for specific modifying factors. The Client's updated Life-Of-Mine plan is then reviewed to ensure that the total asset mineral value chain is represented at the required level of accuracy. The Mineral Reserves Statement for the CPR is then updated and signed off after ensuring that the operational or project plan is correctly modelled, simulated, updated, estimated and correctly Reported in accordance with the requirements as stipulated within the relevant Reporting Code.

Reporting Codes

VBKOM is well equipped to Report in terms of the SAMREC & SAMVAL (2016), the JORC (2012) Reporting Codes as well as the Canadian National instrument NI 43-101.

The SAMREC (2016) Code is the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves, while the SAMVAL (2016) Code is the South African Code for the Reporting of Mineral Asset Valuations.

The JORC (2012) Code is the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ('the JORC Code') is a professional code of practice that sets minimum standards for Public Reporting of minerals Exploration Results, Mineral Resources and Ore Reserves.

The NI43-101 refers to the National Instrument 43-101, which are the Standards of Disclosure for Mineral Projects and governs a company's public disclosure of scientific and technical information about its mineral projects.

› **Refer to:** <https://www.samcode.co.za/samcode-ssc/>, <http://www.jorc.org/> and <http://www.bcsc.bc.ca/securities-law/>, <https://mrmr.cim.org/media/1017/national-instrument-43-101.pdf> for more information.



What is a Competent or Qualified Person?

According to all the Reporting Codes, a general definition of a Competent or Qualified Person (CP) is a person who is registered with and internationally recognised professional affiliation such as SACNASP, or is a Member or Fellow of the SAIMM, the GSSA, IMSSA or a Recognised Professional Organisation (RPO) as recognised by the Committee for Mineral Reserves International Reporting Standards (CRIRSCO).

A Competent Valuator (CV) is a person who possesses the necessary qualifications, ability, and sufficient relevant experience in valuing minerals assets. A person being called upon to sign as a CP or CV shall be clearly satisfied in their own mind that they are able to pass the scrutiny of their peers and demonstrate competence in the Mineral Resource or Mineral Reserve declaration or asset valuation undertaken.

VBKOM has Competent or Qualified Persons and Competent Valuers, some of who are highlighted below for their specific competence in bulk commodities and precious metals.

George Olivier

- › Is a director of VBKOM (Pty) Ltd
- › Graduated with a B.Eng Mining degree from the University of Pretoria in 1999. He obtained his Mine Manager's Certificate of Competency in 2004 and became recognized as a professional engineer by the Engineering Council of South Africa in 2012. He thereafter completed his MBA from GIBS which is the Business School of the University of Pretoria.
- › Is a member of the following professional associations:
 - South African Institute of Mining and Metallurgy - Member
 - Engineering Council of South Africa



Has worked as a mining engineer for Anglo American Kumba Resources in the production environment for 5 years and worked in the mining consulting engineering environment for the last 15 years on various mining feasibility studies, due diligence studies and reserve estimations on most commodity types. Commodities iron ore, manganese, copper, bauxite, limestone, coal, aggregates, nickel, gold, PGMs, fluorspar, vanadium and phosphates.

Paul Obermeyer



- › Is Principal Geology consultant at VBKOM (Pty) Ltd.
- › Graduated with a Master of Science (Geology) degree from the University of the Witwatersrand in 2020, registered with SACNASP as Registered Professional Natural Scientist 2006. Reg. No. 400114/06.
- › Paul has 24 years of experience in the mining industry. He has gained extensive experience in the fields of sedimentology, stratigraphy, exploration, QA/QC, Mineral Resource estimation and Competent Person's Reports and has been involved in projects and has been involved in projects with commodities

such as of gold, platinum, coal, bauxite, industrial minerals and base metal projects. He was a geologist on a gold mine for 9 years and Chief Geologist on one of South Africa's most complex gold mines for 4 years. He has worked in a production environment for 13 years, as well as in exploration with the balance of his experience in consulting.

Paul has 7 years of experience in greenstone and shear-hosted gold and other precious metals (projects located all over western, eastern and southern Africa) as well as experience in many industrial minerals. Paul has an excellent understanding of the primary International Reporting Codes and is highly experienced in conducting Mineral Resource technical due diligences and audits on exploration projects as well as operating mines for most commodities.

Mike Carney

- › Is an associate of VBKOM (Pty) Ltd
- › Graduated with a BSc Honours Degree in Geology from the University of Natal in 1994, registered with SACNASP as Registered Professional Natural Scientist 2006. Reg. No. 400096/99.
- › Is a member of the Geological Society of South Africa.
- › He is a Competent person for SAMREC compliant Resource and Reserve estimates, Northern Cape iron ore deposits.



Has worked as a geologist for Anglo American Kumba Iron Ore, and has 20 years of open cast, hard rock mining experience, specifically within the geoscience – mine planning – mining engineering arena. In addition to 13 years of geological exploration in bulk commodities across South Africa.

Manie Kriel

- › Is a director of VBKOM (Pty) Ltd
- › He holds a Mining Engineering degree from the University of Pretoria which he obtained in 1994 and a Master's Degree in Business Leadership from UNISA, 2001. He is currently a Ph.D. Mining Candidate at the University of Pretoria.
- › His career started as a Mining Engineer with Anglo Gold at Vaal Reefs in 1995. In 1999 he moved to Germany where he worked on a large mechanised open-pit mine with a network of bucket wheel excavators. In Germany he received project management training, and returned to South Africa to manage the



commissioning of a new processing facility in Delmas, Mpumalanga.

His career progressed to operational- and production management, and he was appointed as General Mine Manager at the age of 35, responsible for four alluvial diamond mines, seven beneficiation plants, and two mining towns in the Northern Cape Province.

In 2006 he left production and steered his career into mining consultancy. He has a total of 26 years of experience in various commodities, such as aggregates, iron ore, manganese, coal, copper, gold, diamonds and gems, heavy mineral sands, bauxite, chrome and phosphate.



VBKOM's Industry Experience

Our footprint stretches across the African continent, and we have a track record of 27 projects where Mineral Resource-, Ore Reserve estimations or CPR's were delivered.

Commodity	Client Name	Project Description	Year
Iron Ore	AMSA	Motjoli Resources Due Diligence	2021
Iron Ore	Afrimat	Coza Resource Review	2021
Gold	Pan African Resources PLC	Mineral Resources Audit 2021	2021
Bauxite	Guinea Alumina Corporation (GAC)	JORC Compliant R&R Reporting	2021
Gold	Pan African Resources PLC	Mineral Reserves Audit 2021	2021
Cobalt	Worley	ERG - RTR Competent Persons Report	2020
Iron Ore	Afrimat	Coza Resource Review	2020
Iron Ore	AMSA	Coza Resource Verification	2018
Manganese	Aswan/Havilah	Gabon Libaye CPR	2018
Manganese	Tshipi e Ntle Manganese Mining	Reserve Estimation 2016	2017
Coal	RESGEN (Resource Generation Group)	Ledjadja Boikarabelo Reserve Statement	2017
Phosphate	ARME	Geological Modelling, mineral resource estimate and CPR	2017
Copper	ENRC	ERG - Dec2016 Resource and Reserve Update	2017
Iron Ore	Afrimat	Geological modelling and Mineral resource estimate	2017
Vanadium	Vametco	Resource and Reserve Report	2016
Copper	ENRC	Annual Copper and Cobalt Reserve Reporting	2016
Copper	ENRC	ERG - Dec2016 Resource and Reserve Update	2016
Copper	ENRC	RTR Updated CPR 2016	2016
Iron Ore	Kumba Iron Ore	Resource and Beneficiation Analysis	2015
Iron Ore	Kumba Iron Ore	Sishen Resource Analysis & Strategic Optimisation Phase 1	2015
Iron Ore	Diro Resources	Diro MRM Assistance	2015
Iron Ore	Kumba Iron Ore	Sishen Medium-term Resource and Reserve	2015
Manganese	AML	Kudumane - SAMREC Resource & Reserve	2014
Iron Ore	Diro Resources	Mining Engineering & Geological Services	2014
Iron Ore	AMSA	Coza Mining - Cost Model Estimate	2014
Manganese	Sebilo Resources	Sebilo LOM Plan	2014
Iron Ore	Diro Resources	R&V Demaneng Geological Model Update	2014

B-BBEE & ESG Commitments

VBKOM is a **B-BBEE Level 1** contributor and prides itself on the advancement of B-BBEE and ESG (Environment, Social, and Governance) goals, such as these recent initiatives in 2019 and 2020:

- As part of the Youth Employment Scheme (YES) Programme VBKOM has employed two (x2) graduates to help build their careers.
- VBKOM has concluded a joint-venture (JV) and formed Sehlare Sa Meetlwa, a local 51% black-owned company in the Northern Cape.
- VBKOM also contributes to the local community through charity organisations, i.e. CancerSA and Ki-Deo Children's Home

Please visit our sites to find out more:

VBKOM website:

<https://www.vbkom.com/>

LinkedIn:

<https://www.linkedin.com/company/vbkom-consulting-engineers/>

Facebook:

<https://www.facebook.com/VBKOM/>

ProjectPro website:

<https://projectpro.co.za/>

