



Bowline  
Professional  
Services

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# **COMPANY PROFILE AND SERVICE OFFERING**

Prepared by  
**BOWLINE PROFESSIONAL SERVICES (PTY) LTD**

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## 1. INTRODUCTION

Bowline Professional Services (Pty) Ltd (Bowline) is an **independent mining consulting** company based in Johannesburg, South Africa. Our management team consists of mining engineers and geology experts, with extensive project management experience.

Bowline's management have many years of combined experience in a variety of commodities including Platinum, Gold, Diamonds, Coal, Uranium, Chrome, Rare Earths, Nickel, Copper, Iron Ore to name a few. They have worked for **large, medium and small scale** companies in **production, project consulting, engineering, financial** and various other business areas; managing projects, departments and divisions as business units. Each required either project (or operational) office administration, marketing, networking, project/proposal management, HR considerations and budget, time and quality management. More recently we have also been involved with **asset valuations** for various business rescue and liquidation practitioners; and business plan development for start-up businesses in other non-mining related engineering service industries.

Even though the management team are **mining and geology specialists** by training they have developed skills suitable for **general management, business administration and project management** and are more than capable of operating in any environment, not only mining.

The Bowline team has over **80 years combined experience** in management and consulting across the mine to market value chain and are capable of handling the project life cycle from exploration through feasibility studies and project implementation.

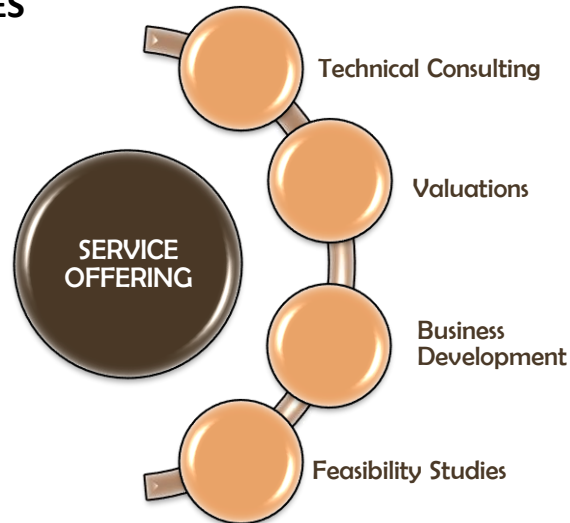
Bowline predominantly aims to serve:

- Mining companies
- State owned mining companies
- Private mineral asset owners
- Engineering houses and consulting firms
- Business rescue / liquidation outfits



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## 2. COMPANY ACTIVITIES



Bowline typically gets involved with the following activities:

- Mineral Asset Transactions and associated Technical-Economic Advisory
- Mine operations
- Project management
- Mining engineering
- Rock engineering
- Process engineering
- Mineral asset valuations
- Due diligences
- Feasibility studies
- Asset valuations
- EPCM contracts
- Business plan developments
- Owners project team management



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### 3. OUR DIFFERENTIATOR

Bowline's company strategy is to competitively operate with sufficient staff contingents which allows us the flexibility to successfully manage the cost structure of projects and allows us to expertly execute projects in a timely fashion. Bowline has strong strategic alliances with similar like-minded companies that allow us to address all areas of the mining value chain.

Clients deal directly with company decision makers at all times. Bowline is sufficiently flexible to accommodate different pricing models (fee structures) which are addressed on a project by project basis. Generally, we offer a fixed price per project as opposed to following a traditional cost reimbursable model. Bowline gets involved much earlier in the project life cycle and is prepared to stay on into the mine operation phase.

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### 4. MANAGEMENT TEAM

#### **BRETON SCOTT: MANAGING DIRECTOR**



Breton has 2 decades' post-qualification experience in the mining and project engineering industry. He has been involved in a variety of activities ranging from mine operations, project management, mining and rock engineering, mineral asset valuations, mineral asset transactions, independent due diligences and reviews, EPCM contracts and related feasibility studies.

Over the past 13 years, whilst in the project consulting and engineering industry (excluding production experience) Breton has systematically built significant experience in managing projects, departments and divisions as business units. Each required office administration, marketing, networking, proposal management, HR considerations and budget, time and quality management. Even though Breton is a mining engineer by training, he has developed skills suitable for general management, business administration and project management. He is capable of operating in any engineering environment, not only mining. (Examples include process plants, water treatment plants, business advisory to other consulting engineering practices etc.).

He has extensive experience in a variety of commodities, including gold, platinum, coal, base metals, iron ore, nickel, copper, rare earths, uranium to name a few. More recently, Breton has also been involved with asset valuations for various business rescue and liquidation practitioners and business plan development for start-up businesses in other non-mining related engineering service industries



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### **ROB PATTERSON – CONSULTING ENGINEER**



Rob is a fully qualified diploma Mining Engineer with extensive International, Commercial and Technical experience in a wide diversity of mining related environments. He has demonstrated his ability to rationalise Project Management & Project Services for improved productivity and profitability. Rob has over 40 years' experience in the preparation of estimates, tenders, the purchasing of the equipment and the project management and control for large-scale surface and underground mining operations. He has been involved with the preparation of NI 43-101 Technical reports and LoM planning and he is experienced in freight logistics and trading in African and the Middle East countries. Most recently Rob has been project managing as the client's representative on a significant gold project and a uranium project; both of them incorporating the metallurgical and tailings facility, diesel generator banks and the Mine infrastructure.

### **DR NICOLAAS CASPER STEENKAMP – CONSULTING GEOLOGIST**



Dr Nicolaas C. Steenkamp works as a Geologist and Business Analyst and has over 12 years of experience in a broad range of fields. Nicolaas obtained a PhD in Geology at the University of Pretoria and is a registered PrSciNat with SACNASP. He is also a member of the GSSA, SASS and SAIMM.

He is involved in contractor management, geological, geotechnical and geometallurgical project work and studies. Dr Steenkamp has a background in the geological field that includes, but is not limited to: Geological- and geotechnical core logging, underground face mapping, regional surface mapping, greenfields- and brownfields exploration. He has also been involved in technical reporting, due diligence and desktop studies. He also has a background in X-ray analytical methods, specifically EMP and XRF. He was most recently involved in a shaft sinking and decline rehabilitation project where a unique set of geological and geotechnical challenges are faced in terms of development through sand and stiff clays.

### **ANTHONY JAMIESON – ENGINEERING MANAGER**



Anthony has been in the engineering fraternity for 3 decades and has skills in the management and execution of Projects, ensuring effective coordination of the respective staff within the Project environment. He has extensive experience in planning, directing, coordinating and budgeting of the activities concerning the construction and maintenance of Construction Projects, as well as overseeing the Project organization, scheduling and Implementation. In particular, he has skills for the verification of construction structures, the coordination of the control of material and equipment inventory, monitoring the usage of materials in relation to the Project Plan and managing the relevant Quantity Surveyors. In addition, he is proficient in the development and implementation of SHEQ policies and Risk Management Plans.



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## **ARAYAN GOVINDASAMY – ASSOCIATE CONSULTING ENGINEER**



Arayan is a qualified BSc Mechanical Engineer and is registered as a Project Management Professional (PMP) through the Project Management Institute in the USA. He has worked as a Mechanical Engineer since graduation in 2006. He has extensive experience in both mechanical engineering and project management for high value capital projects in both the Petro-Chemical as well as the Mining environments. This includes managing local and international EPCM/EPC projects from conceptualisation right through to commissioning and operation.

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## **5. INDEPENDENT REVIEW APPROACH / METHODOLOGY**

### **What is a Due Diligence?**

A due diligence (DD) is that independent study, investigation or audit which is a process of evaluating a prospective business decision by getting information about a company or project specifically by reviewing information about legal, financial or any other technical material. Due diligences are most often conducted for the purposes of informing an investment decision or for the purposes of a peer review to ensure the technical and commercial integrity of business / project planning. Typically, a due diligence is to perform a sufficiently detailed review of a project such that the significant components are examined, the accuracy and reasonableness of the data is confirmed, the reasonableness and achievability of the concept is confirmed and any errors, omissions, duplications, or areas of concern are identified.

### **Methodology**

Bowline's core strengths cover exploration potential, mine/resource geology, mining reserves, mining capital and operating costs, and environment. Bowline would then organise the remaining functions through its wide group of associates, where Bowline would look to bring in the relevant expertise based on the nature of the project being considered – such as commodity, location, open pit or underground, nature of mineralisation, processing etc.

In addition, Bowline would look to work closely with the other advisors that would form part of a DD – such as the financial/accounting and legal teams. These advisors could be appointed either as part of the Bowline team or by the client directly. Bowline believes that this is important as there are a number of overlapping areas/implications in determining the final value of a property or company.

Bowline would typically take on the role of the overall due diligence coordinator and compile the final report. The actual scope of work, level of detailed review, duration and cost of the due diligence depends on:

- the quality and quantity of information available for review,
- the ultimate objective for the due diligence

All aspects of a DD would typically need to be addressed; however, the review can be of varying degrees of detail. The following table summarises the typical DDs that can be done.

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Scope	Full DD	Partial DD	Desktop DD
<i>Level of Detail</i>	<i>Detailed Review, Full scope</i>	<i>Detailed Review, Partial Scope or Less detail for grouped items</i>	<i>High Level Overview (All aspects covered but with less detail)</i>
Legal Review	x	x	x
Financial / Accounting Review	x	x	x
Environmental (EIA, EMPR, Social & Labour Plan etc.)	x	x	x
Ground Water and Hydrology	x	x	
Rehabilitation and Closure	x	x	
Geology	x	x	x
Mineral Resource Estimate	x	x	
Data and Assay Review	x		
Mining Method and Mining Plan (Including equipment selection)	x	x	x
Mineral Reserve Estimate	x		
Geotechnical Engineering	x		
Mining Capex	x	x	x
Mining Opex	x		
Processing Philosophy and Recovery/Yield (Including equipment selection)	x	x	x
Process Capex	x		
Process Opex	x	x	x
Engineering and Infrastructure	x		
Utilities (Bulk power and water supply)	x		
Engineering Capex	x	x	x
Engineering Opex	x		
Tailings	x	x	x
Health and Safety	x	x	
Human Resources	x	x	
<b>Site Visit</b>	<b>Compulsory</b>	<b>Recommended</b>	<b>Not necessary</b>
<b>Duration</b>	<b>± 8 weeks</b>	<b>± 6 weeks</b>	<b>± 3 weeks</b>



## 6. COMPANY EXPERIENCE – Selected Projects

YEAR	PROJECT NAME	PROJECT TYPE	COMMODITY/INDUSTRY	COUNTRY
2014	Ergosat Coal Proposal to Eskom	Business Case Study	Coal	South Africa
2013	Sudor Due Diligence	Due Diligence	Coal	South Africa
2013	Brakfontein Techno-Economic Review	Due Diligence	Coal	South Africa
2014	Sudor Coal CPR and MRE	Independent Technical Report	Coal	South Africa
2015	Sudor Coal CPR and MRE update	Independent Technical Report	Coal	South Africa
2017	Nndanganeni Colliery	Mine Operations – Mine Management Contract	Coal	South Africa
2015	Nigeria Agricultural Projects	Project Management	Agricultural Infrastructure Projects	Nigeria
2016	SPMP Oman Project	Project Management	Antimony	Oman
2014	High Level Mine Plan	Advisory	Barites	Kenya
2013	Mooihoek Chrome Business Rescue	Valuation	Chrome	South Africa
2015	Charisma Clay Mine Business Plan	Business Case Study	Clay	South Africa
2014	Musina Copper Dumps Business Plan	Business Case Study	Copper	South Africa
2016	Limited Review of Gecamines JVs	Due Diligence	Copper	DRC
2015	Moroccoa Desktop Study	Business Case Study	Copper, Silver	Morocco
2015	Opinion Letter and Review	Advisory	Diamonds	South Africa
2014	Mogale Gold Krugersdorp	Advisory	Gold	South Africa
2013	Gold Mine in Kenya	Concept Study	Gold	Kenya
2017	Jolly Boys Desktop Study	Concept Study	Gold	Zimbabwe
2014	Giyani Gold Project	Due Diligence	Gold	South Africa
2014	Tarill Gold Project Zimbabwe	Due Diligence	Gold	Zimbabwe
2014	Wafi Gold Project	Project Management	Gold	Papua New Guinea
2015	Kibali Desliming Cyclone SMPP	Project Management	Gold	DRC
2014	Management of Doornhoek Mine	Small-scale Mine Development	Gold	South Africa
2014	Giyani Gold Project Phase 2A	Small-scale Mine Development	Gold	South Africa
2015	Sudan Gold Mining Project	Small-scale Mine Development	Gold	Sudan
2015	Anesu Gold Mine	Small-scale Mine Development	Gold	Zimbabwe
2013	Blyvooruitzicht Mine Valuation	Valuation	Gold	South Africa
2014	Kilamapesa Valuation	Valuation	Gold	Kenya
2016	NI43-101 Report, Concept Study & Prospecting	Independent Technical Report	Graphite	Tanzania
2013	Business Plan Development	Advisory	HVAC	South Africa
2014	Business Plan Updates	Advisory	HVAC	South Africa
2016	Company Valuation	Valuation	HVAC	South Africa
2013	DK Business Plan	Advisory	ICT	South Africa





2015	Guinea Infrastructure Projects	Project Management	Infrastructure, Power Plant, Roads, Housing	Guinea
2013	London Mining ITR update	Independent Technical Report	Iron	Sierra Leone
2014	London Mining March 14 update	Independent Technical Report	Iron	Sierra Leone
2017	MOU Preparation	Advisory	Marketing, Cleaning Products	South Africa
2017	Company Valuation	Valuation	Medical	South Africa
2017	Valuation of Shareholding	Valuation	Phosphates	South Africa
2017	VCC Model Review	Advisory	Rock support products	South Africa
2014	Business and Project Management Assistance	Advisory	SME's	South Africa
2014	Advanced Workplace Upskilling Workshop	Advisory	Student engineers	South Africa
2013	Avalloy Business Rescue	Valuation	Super Alloys	South Africa
2015	Water Treatment Plant (Newmont in Ghana)	Project Management	Water	Ghana
2017	Vedanta Gamsberg Project	Advisory	Zinc, Lead	South Africa

**Thank you,  
Team Bowline**

**For more information please contact us**

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Longitude: 27° 55' 31.2" E  
For copy & paste into Google maps / GPS etc.: S26.077999, E27.925341

