

CHRISTIAN HEILI

PR.ENG., M.SC., MBA, M.ENG

PROFESSIONAL PROFILE

Senior Accomplished Management Professional with over 40 years' experience in mining engineering, operational management, project management and business development within the mining sector. Well known for my ability to implement change and effectively lead multifunctional internal and external contract teams including the Owner's Team.

Results driven, strategy focused, experienced technical and project specialist leading underground mining operations and beneficiation processes (gold, asbestos, copper) with an overall responsibility for a workforce of up to 15 direct and 2700 indirect reports within the Owner's team and Contractors. Track record of delivering profit focused operations on-time & within-budget.

Project Management (green- and brown fields), from conceptual studies to definitive (bankable) feasibility studies (coal, diamond, copper, lithium), project audits and due diligence reviews for funding acquisition.

Experience in the Engineering, Procurement, Construction, Management (EPCM) project environment including civil construction works in plants.

Extensive experience in Enterprise Risk Management and negotiation and finalization of long-term maintenance partnership and supply contracts. Wide-ranging experience in the field of Environmental & Social Impact Assessment studies (ESIA) including Equator Principle compliance, permitting procedures and mining licence applications.

Demonstrable expertise in finding pragmatic solutions to business problems. Delivering strategic outcomes in parallel with managing risk, ensuring compliance, and maintaining financial integrity. Collaborative leader with facilitative management style.

Professional Membership:

- Professional Engineer, Engineering Council of South Africa (ECSA) - 1990
- Fellow (FSAIMM), Southern African Institute of Mining and Metallurgy - 2004
- Member, Bergmaennischer Verband Oesterreichs (Mining Association of Austria) - 1982
- Member, Society for Mining, Metallurgy and Exploration (SME) of AIME - 1984

WORK EXPERIENCE

CONSULTING ENGINEER, DIRECTOR

Heili, Mining & Tunnelling
2015 – Current

Clients, Projects & Functions Delivered:

European Lithium Limited, Wolfsberg, Austria: Project Director for the Wolfsberg Lithium Project in Austria.

- European Lithium is a listed mining exploration and development company focusing on its wholly owned Wolfsberg Lithium Project in Austria with the aim to be the first local Lithium supplier into an integrated European battery supply chain.
- Responsible for the completion of the definitive feasibility study (DFS); increase of measured and indicated resources; permitting procedures and mining licence applications; environmental & social impact assessments.

FUGRO Germany Land GmbH, Berlin, Germany: Consultancy as Team Leader for the Feasibility Study for the Development of the Dighipara Coal Field at Dighipara, Dinjapur, Bangladesh.

- Leading the Consortium comprising of MIBRAG Consulting International GmbH, Germany; FUGRO Germany Land GmbH and Runge Pincock Minarco Limited, Australia.
- The project included the topographic survey over an area of 25 km²; drilling activities of 60 geological exploration boreholes; design, acquisition and interpretation of a 3D seismic survey over an area of 6.0 km²; characterization of the hydrogeological and hydrological conditions and development of a 3D hydrogeological model of the deposit; characterization of the geological conditions and development of a 3D geological model of the target coal seams and surrounding strata; assessment of underground and open cut mining methods; surface infrastructure and coal handling facilities.



CONTACT

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Passport: European Union (Austrian)

QUALIFICATIONS

M.Sc. (Mining), Montan-University of Leoben
Austria
1982

MBA, Henley Business School
Henley-on-Thames, UK
2003

M.Eng. NATM (New Austrian Tunneling Method)
University Graz / Leoben
Austria
2015

Applied Economics for Smart Decision Making
University Cape Town
South Africa
2011

South African Mine Manager's Certificate of Competency
1990

WORK EXPERIENCE

- Development of capital and operating costs estimates including a financial evaluation model; development of an Environmental Impact Assessment (“EIA”), an Environmental Management Plan (“EMP”) and socio-economic impact assessment; preparation of a tender document for engaging of a development operator.

Additional Project Involvement:

- Arundsegg AG, St. Gallen, Switzerland: Operational Assets Evaluation of Screenex Manufacturing (Pty) Ltd located in Alrode, Johannesburg, South Africa.
- The Mineral Corporation, Johannesburg, South Africa: Due diligence Study for the Bisie Tin Project, DRC owned by Alphamin Resources Corporation.
- Majwe Mining Joint Venture (Pty) Ltd, Jwaneng, Botswana: Desktop Study into the Botswana Resources Industry.
- Fluid Control Botswana (Pty) Ltd, Gaborone, Botswana: Mining Licence application / environmental studies for a quarry operation.
- Consulting work (tender preparation, budgeting, costing) to LHM Professional Services which is part of the LHM Healthcare Group, London, UK and Hyperbaric Tunneling & Medical Services Ltd.
- Lecturing a tunneling course, Programme in Tunnel Engineering through Enterprises and the Department of Mining Engineering at the University of Pretoria, South Africa.
- Completion of a risk management and crisis prevention curriculum for the tunneling industry in Austria and Europe accepted and published by the Montan-University of Leoben, Austria.

PROJECT FEASIBILITY MANAGER

Discovery Metals Limited, Botswana
2007 – 2015

Purpose of Role:

- Reporting to the CEO based in Brisbane, Australia.
- Responsible for managing internationally accredited consultancy companies and specialists with an annual consultancy fee budget of US\$ 3.5 million.
- Capital expenditure for the Boseto Copper Project: US\$ 250 million. The Boseto Copper project was commissioned and production of 3 Mtpa commenced mid-2012.

Key Accomplishments:

- Completion on time and within budget the bankable feasibility study (BFS) for open pit.
- Enhancement of the Life of Mine (LoM) with the completion of the definitive feasibility study (DFS) for the Zeta underground operations.
- Secured the necessary approval for the Environmental Impact Assessment studies (EIA) from the Department of Environmental Affairs (DEA).
- Mining Licence permit from the Department of Mines.
- Successful negotiations regarding essential supply contracts i.e. power.
- Improved supplier selection process; quality and technical requirements control.

CONSULTING ENGINEER / PRINCIPAL PROJECT MANAGER– MINING AND MINERALS PROCESSING

Hatch, Woodmead, South Africa
2003 - 2007

Clients, Projects & Functions Delivered:

Katanga Mining Limited, Kolwezi, Democratic Republic of Congo (DRC)

- Engineering, Procurement, Construction, Management (EPCM) Project Manager for the implementation of the Kamoto Rehabilitation and Redevelopment project. After the completion of the feasibility study and listing exercise of Katanga Mining Limited on the Toronto Stock Exchange, Hatch was retained as the EPCM partner for the project; civil construction and rehabilitation works of plants. Capital cost estimate for the rehabilitation of the Kamoto Mine: US\$ 430 million.

Kinross Forrest Limited, Lubumbashi, Democratic Republic of Congo (DRC)

- Completed the bankable feasibility study and Technical Report 43-101 (in compliance with the standards of the Canadian National Instrument) for the Kamoto Rehabilitation and Redevelopment project, Kolwezi.
- The feasibility study, commissioned to develop a comprehensive plan for the rehabilitation and redevelopment of the Kamoto mine and related infrastructure located near Kolwezi, Katanga province in the Democratic Republic of Congo (DRC). The Mine was owned and operated by Gecamines (La Generale des Carrieres et des Mines), the state-owned mining company. The essential elements of the project were, the Kamoto Concentrator, Lulu Metallurgical plant, Kamoto underground mine and various oxide open pit mines.
- After the completion of the study the newly formed Katanga Mining Limited company was listed on the Toronto Stock Exchange.

SKILLS



Communication Skills: English & German

Operations Management & Planning

Strategy Development & Execution

Process Improvement

Business Development

Engineering Management

Technical Management

Project Management, Planning & Execution

Contract Management & Negotiations (FIDIC)

Logistics Management

Spares & Suppliers Management

Procurement & Demand Planning

Key Stakeholder Management

Government Relations

Construction Management

Team Management & Development

Risk Management & Identification

Strategic Planning

Coaching/Mentoring

Emergency Management

Health & Safety

Problem Resolution

International Cultural Diversity

Crisis & Change Management

Mine Management

Production Management

Budget Management, Planning & Forecasting

Resources Management & Planning

HR & Labour Relations

WORK EXPERIENCE

De Beers, Venetia Diamond Mine, South Africa

- Project Manager for the execution of a Feasibility study for exploration and early shaft sinking and tunnel development access – Venetia underground. The depletion of the Venetia opencast ore resources was projected for the year 2019. The intention, to extend the Life of Mine (LOM) by means of an underground mining operation and exploit the resources up to an increased depth of approximately 1000 meters below surface.

AngloGold Ashanti, Sadiola Hill Mine, Mali

- Project Manager for the pre-feasibility study for the Sadiola Hill Mine Deep Sulphide project.
- The pre-feasibility study was contracted by AngloGold Ashanti to examine the potential for mining and processing the deep level sulphide ore at the existing Sadiola Hill Gold Mine, in Mali, West Africa. The Sadiola Gold Plant was originally designed to treat a soft, clay-like oxide ore. Under consideration, the oxide deposit nearing depletion and the processing of an underlying hard sulphide ore. Capital cost estimate US\$100 million.

De Beers, Cullinan Diamond Mine, South Africa

- Responsible as Senior Mining Engineer for the bankable feasibility study for the Centenary – Cut project of De Beers, Cullinan Diamond Mine, South Africa; preparation of a Class II capital and operating cost estimate for the underground equipment and labour schedule and forecasting for the abovementioned project. Capital cost estimate ZAR 2 billion.

Key Accomplishments:

- Competent Person (CP) for the Technical Report 43-101 (in compliance with the standards of the Canadian National Instrument) for the Kamoto Rehabilitation and Redevelopment project.
- Responsible as Engineering, Procurement, Construction, Management (EPCM) Project Manager for phase 1 of the Kamoto Rehabilitation and Redevelopment project. Capital cost: US\$ 100 million.
- Completion of the technical due diligence review for the sale of Samancor's Chrome Assets from Anglo American and BHP Billiton to the Kermas Group.
- Received the Hatch Award of Excellence in recognition for outstanding contributions within Hatch Africa.

MINE MANAGER

Mopani Copper Mines Plc, Mufulira Mine, Zambia
2001 - 2003

Key Accomplishments:

- The privatization of the Copper Mines in Zambia coupled with the low copper price and strong international competition, made the process of business transformation and the continuous improvement of production / labour efficiencies necessary.
- Initiated and executed the change to a flatter organizational structure and activity-based areas of responsibility against geographically defined underground areas was a major break with traditional mining structures.
- Appointed a Superintendent – Operational Change whose primary responsibility was to drive the "Change" process in the Mining department, this included multi-skilling & tasking, lines of responsibility, the identification of strategic positions and development, academic or otherwise of the incumbent; address issues of Standards & Best practices culminating and their implementation.
- Outsourced non-core business. The responsibility for all maintenance of major capital equipment (LHD's, hydraulic drill rigs, pumps, etc.) was negotiated back to the original equipment manufacturer.
- Negotiated and finalized long term partnership contracts for the supply of capital equipment and consumables including management contracts (Sandvik, Zambia, African Explosives Limited, etc.).
- Completed a Strategic Outsourcing document describing the degree to which outsourcing may support the successful Growth of the Zambian Copper Mining Industry (Dissertation).

CAREER HISTORY

- **Production Manager** at African Associated Mines (Pvt) Ltd, Shabanie Mine, Zimbabwe (1995 – 2001)
- **Section Manager – Production** at Anglo American Corporation, Vaal Reefs Exploration & Mining Company Ltd, Vaal Reefs & President Brand Mine, Welkom, South Africa (1989 – 1995)
- **Area Manager** at IMG Engineering (Pty) Ltd, GHH Mining & Industrial Vehicle Division, Welkom, South Africa (1988 – 1989)
- **Engineering & Technical Manager** at Transkei Mining Corporation, Government of the Transkei, Umtata, South Africa (1984 – 1988)
- **Engineering & Technical Manager** at Ministry of Commerce Industry & Tourism, Government of the Transkei, Umtata, South Africa (1983 – 1984)

REFERENCES



Additional information and references will be provided upon request.