



## Projectworx Company Overview

Founded as a project management and engineering consultancy firm, with its head office located in Adelaide, South Australia and an office in Pune, India. Projectworx offers services for projects of all sizes, including the development of new mine sites as well as the expansion and modification of existing installations in the mining and resources sectors.

Our team has several decades of combined experience in open cut mining, dredge mining, minerals sands processing, cement, power generation, water treatment, pulp and paper, infrastructure, copper processing, engineering and project management in South Africa, Botswana, Mozambique, Sri Lanka, India, New Zealand and Australia.

Projectworx offers an enviable knowledge base equipped with best-practice project management processes, techniques and tools combined with engineering and technical services and industry experience to ensure efficient, cost-effective, and innovative project delivery with a strong focus on customer collaboration, sustainability, and innovation.



## Services

We provide project and engineering management for projects of all sizes, including developing new mine sites as well as the expansion and modification of existing installations, which can be packaged as a whole project or as individual work packages.

We provide the following services:

### Project Management

Projectworx assists clients to develop their projects for any or all project phases such as:

- Assess (Scoping Study Phase).
- Select (Preliminary Phase).
- Develop (Definitive Feasibility Phase).
- Execute (Construction Phase).

Including office or site-based professional support during any project phases, such as Study Managers, Project Managers, Package Managers, Project Engineers, Discipline Technical Experts, Project Controls Personnel, Construction Managers, Commissioning Managers, Contracts & Procurement Management, Admin/Doc controllers, Etc.

Our Project Management (PM) services will help clients develop strategies, identify project needs and manage risk.

Projectworx supports clients to create their own Project Management Plans (PMP). This process will identify all supplementary plans, prepare, coordinate, and incorporate them into a comprehensive PMP.

These management plans will include but are not limited to, Scope, Cost, HR, Communications, Procurement, Contract, Risk, Health & Safety, Schedule, Stakeholder, Commissioning, Construction, Operational Readiness, Etc.

### ***Project Management Office (PMO)***

Projectworx offers the establishment of a PMO for clients with a best-practice framework that would include:

- Establishing a governance structure for clients' projects to be adequately supported and professionally managed.; and
- Recruitment and development of project owners' team.

This would include the development of a Project Management System (PMS) that provides the framework documents, policies, processes, and templates for executing Studies and Projects, such as:

## *Projectworx Capability Statement*

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- Project Management Framework Documentation.
- Project Management Processes.
- Policies.
- Document Control Processes.
- Project Initiation and Setup Processes.
- Feasibility Studies Processes.
- Engineering Processes.
- Accounting & Administration Processes.
- Project Controls Processes.
- Contract Management and Procurement Processes.
- Construction Processes.
- Commissioning Processes.
- Operational Readiness Processes.
- Project Close-Out Processes.
- Plant Modification Processes.
- Project Health & Safety.
- Risk and quality management.

### ***Feasibility Studies***

Assist clients by conducting feasibility studies that are undertaken during the 'Assess (Scoping)', 'Select (Pre-feasibility)' and 'Develop (Definitive Feasibility)' phase prior to the 'Execute (Construction)' phase of a project.

This would include:

- Development of Project Management Plans.
- Development of Project Charters.
- Development of Study Execution Plans.
- Development of the scope of works for multi-disciplinary work packages.
- Development of Capex and Opex budgets.
- Development of project financial modelling.
- Conduct project's independent technical reviews.
- Provide project gating peer reviews and facilitate the internal customer approvals process.

## ***Project Realisation***

Projectworx will assist their clients to:

- Review, update and implement the Project Execution Plan.
- Facilitate Risk workshop, update and maintain the Risk register.
- Implement the Assurance plan.
- Develop engineering documentation, including drawings, scopes of work, and specifications developed and issued to the construction team.
- Manage contracts and Purchase Orders for design, construction, and procurement activities.
- Complete constructability, operability, and reliability reviews.
- Implement Quality, HSE, Risk Management and Contract Management Plans.
- Implement design, procurement, expediting and construction plans.
- Develop and implement pre-commissioning & commissioning plans.
- Develop Punch lists.
- Develop manuals, operations and maintenance procedures and training programs.
- Review Manufacturers Data Report.
- Prepare Hand-over documentation and completion certificates.
- Provide office or site based professional support during any project phases, such as Study Managers, Project Managers, Package Managers, Construction Managers, Commissioning Managers, Project Engineers, Discipline Technical Experts, Tradespersons, Project Controls Personnel, Contracts & Procurement Management, Admin/Doc controllers, Etc.

## ***Project Controls***

Assist clients over the entire Project Lifecycle (Feasibility Studies and Realisation phase) with the Monitoring and Controlling of the projects to track the progress and performance against the Project Management Plan through:

- Planning and Scheduling
- Cost controlling and reporting any deviations.
- Quality management and control by monitoring project activities using Key Performance Indicators
- Change management.
- Recommending corrective or preventive actions

## Engineering, Design and Analysis

Utilising our engineering and operational experience, we can develop engineering solutions ranging from conceptual to detailed design, including equipment selection. Our experts can collaborate with the client team to determine its requirements, identify technical solutions, create engineering datasheets, and develop detailed engineering solutions that may include the following:

### **Engineering Design**

- Apron feeders, belt conveyors, pneumatic conveying and screw feeders.
- Trommels, scrubbers, ball mills, static screen, sizers, vibrating screens.
- Tanks/hoppers, and cyclone stackers (fixed or mobile).
- Designing of heat exchangers, pressure vessels and associated pressure parts.
- Pumping, piping and skid designs, including motor, drive selection and associated process control instrumentation.
- Structures designed for modular plants and warehouses, including load calculations.
- Troubleshooting of existing systems through analysis of operational trends and then redesigning to rectify the issues.

All designs are compliant to the various international codes and standards, such as,

- Australian and New Zealand Standards (AS/NZ)
- The American Society of Mechanical Engineers (ASME)
- European Standards (EN)
- American Petroleum Institute (API)
- Tubular Exchangers Manufacturers Association (TEMA)

### **Electrical, Instrumentation and Control**

Provide EI&C engineering design and services such as:

- Power reticulation and distribution.
- Substations, Motor Control Centres, and switch-room designs.
- Soft starts, VSD and DOL designs.
- Specification and selection of instrumentation.
- Process control philosophy, inclusive of process control systems PLC/SCADA/HMI support.
- Field verification of assets and updating drawings to As-Built status, ensuring legislative compliance.
- Development of critical electrical spares list to ensure the smooth operations of a mine site and processing facility.

### ***Civil and Structural***

Projectworx will help the client develop Structural engineering solution such as:

- Total design solutions and cost estimates of industrial buildings, warehouses, and storage sheds.
- Structural design solutions and cost estimates for hoppers, modular plant buildings, pipe supports and other small structures.
- Plant pipe designs and changeovers along with their pipe supports and other structures.

### ***Process and Metallurgical***

Our metallurgists have years of process design and operational experience. A metallurgist from Projectworx can function as either an autonomous resource or an integrated member of the owner's team, aiding clients in designing and developing process circuits and generating a mass flow balance that serves as the foundation for metallurgical investigations. Additionally, our metallurgist specialist can provide the following services,

- Provide metallurgical support to an operating plant.
- Development of conceptual process flow diagrams to be utilised during all feasibility study phases.
- Provide highly developed process modelling on a range of platforms including Metsim<sup>®</sup>, SpeedUp and Excel-VBA
- Work in alliance with the owners' team or team representative to witness, monitor, analyse and report test results developed by third-party labs or work as an independent third-party reviewer.
- Process control design support includes selecting and programming PLC hardware, commissioning, troubleshooting, and telemetry solutions for communications equipment.
- Assist during identifying the process of bottlenecks and provide de-bottlenecking solutions.
- Work as a commissioning lead or be part of the commissioning team to help the client successfully commission a new or existing plant.

### ***Value Engineering***

The Projectworx team can provide a structured and logical method for achieving project objectives at the lowest possible cost. The value engineering process encourages innovation and material substitution to achieve desired objectives without compromising quality or standards through,

- Review of existing capital and operational estimates.
- Advice on fit for purpose engineering and tailoring to desired goals.
- Perform a cost-benefit analysis for selected options..
- Access market for cost-effective options.

## *Projectworx Capability Statement*

- Conduct condition assessments of the Client's surplus assets and provide status reports to aid decision-making.

Provide an independent cold-eyes evaluation of a project at any project phase to provide the business with an update and the likelihood of deviation, success or failure. Our experienced team can work independently or as part of the owners' team to deliver the following:

- Independent review of project scopes and activities.
- Independent Project Reviews (IPRs) to ascertain the level of completion of completed project phase before advancing to the next project phase.
- Independent Technical Reviews (ITRs) on newly commissioned projects performance against key project base case design requirements and assumptions.
- Value improvement advice within key focus areas such as identified bottlenecks, downtime events, rectification plans and continuous improvement projects.
- Ad-hoc advisory services.

### ***Design Drafting***

The Projectworx team can produce detailed designs, including developing 3D models and 2D Drafting, at a competitive cost without compromising quality or standards. These may include the following,

#### **General Arrangement and Detailed drawings**

- Drafting of Process Flow Diagrams (PFD) and Piping & Instrumentation Diagrams (P&ID).
- Development of Bill Of Materials (BOM).
- Designing of Jigs and Fixtures.
- Preparation of welding plans and welding map drawings.
- Preparation of ASBUILT drawings.

#### **Drafting of Fabrication and Manufacturing Drawings**

- Piping Isometrics and Ducting drawings.
- Heat exchangers, pressure vessels detailed drawings.
- Storage tanks and hopper drawings.
- Skids and structural detailed drawings.
- DXF, IGES, STEP files for Computer Numerical Control (CNC), and Vertical Milling Machine (VMM) input programming.

#### **CAD Design Services and 2D to 3D Conversion**

- Development of CAD models from sketches / drawings / concepts.
- Conversion of hard copy PFDs, P&ID diagrams to CAD.
- Conversion of 2D CAD drawings to 3D CAD models.

## Advanced Engineering

The Projectworx team has specialised engineering experience, and the necessary skill sets to complete complex engineering tasks such as Finite Element Analysis (FEA), Computational Fluid Dynamics (CFD) and Piping Stress Analysis.

### ***Finite Element Analysis (FEA):***

Projectworx will provide Clients with accurate designs by utilising FEA to validate, verify, and eliminate errors to improve product quality and performance-enhancing product reliability through the execution of a more significant number of test cases/design configurations. Our team assesses components' effectiveness under various loading, operational, and other conditions.

### ***Thermal, Structural and Dynamic Analysis of Pressure vessels and Heat exchangers for the following conditions:***

- Pressure, Temperature (Thermal expansion)
- Wind loads, External pipe loadings, Seismic loads, Snow loads
- Live loads, Fatigue analysis
- Modal analysis (Vibration analysis)
- Flange joint analysis for leakage (Non-linear)

### ***Thermal, Structural and Dynamic Analysis of Industrial Products:***

- Pumps, Compressors, Motors and Alternators
- Cooling Systems: Radiators, Charge Air Coolers (CAC) and Heat Exchangers
- Machine Tools and Special Purpose Machines (SPMs)
- Diesel and Gas Gensets
- Domestic Appliances

### ***Other Analysis Including:***

- Response spectrum analysis (RSA)
- Thermo-Mechanical analysis (TMA)
- Concept Design or Design Optimisation



### ***Computational Fluid Dynamics (CFD):***

Based on the conservation laws governing fluid motion (mass, momentum, and energy conservation), Projectworx can conduct Computational Fluid Dynamics to provide quantitative predictions of fluid-flow occurrences in the following areas:

- Concept validation, process solutions for irregular process.
- Solutions for R&D activities in product development (while minimising actual costs).
- Performance and rating of heat exchangers.
- Solutions for product geometric changes caused by thermal and physical fluid flow behaviour.
- Temperature and velocity profiles, as well as pressure drop analysis for various fluids.
- Performance curve prediction of the fans, gas turbines and shifting of curves at desired point by undertaking design modifications.
- Prediction of heat transfer coefficients and pressure data for structural analysis.
- Optimisation/sizing of heat exchangers such as radiator, charge air cooler, and oil cooler.

### ***Piping Stress Analysis:***

Projectworx provides Pipe Stress Analysis to evaluate piping system stresses, deformations, and forces to ensure safe and reliable operation in various industries, considering various loads such as:

- Design Pressure and operating temperature.
- Insulation weight.
- Wind load.
- Seismic load.
- Performing Flexibility analysis using Caesar II.

Plant Design Management System (PDMS) is utilised by Projectworx for engineering and design, which includes:

- Plant layout.
- Structural and equipment modelling.
- Piping modelling with valves and instruments.
- Specializing in high-temperature and high-pressure power piping design.
- Piping system arrangement, Isometric drawings and support detail drawings.

## Benefits

Our services provide clients with the benefits of:

- Predictable project outcomes.
- The company has the greatest chance of achieving the set project returns.
- Plants are sustainable, secure, operational and productive.
- Interests of all stakeholders (internal/external) are acknowledged and managed.
- Risks are managed appropriately.
- Clients are engaged regularly.
- Changes are minimized to the project after the capital has been approved.
- Generates new and appropriate information for each project phase that can be applied to future projects.

## Our Clients and Projects



**Iluka Resources Limited:** Iluka is an Australian mining company listed on the Australian Securities Exchange (ASX), with a market capitalisation of approximately A\$5.3 billion. The company is the largest producer of zircon and rutile globally; and is also a major producer of synthetic rutile. The company possesses more than 60 years' experience in the mineral sands industry and has a proven track record of delivering major projects. Iluka maintains high environmental standards that align with international industry practice. Iluka's current operations and project development are located in various Australian States.

- Projectworx is currently undertaking a mechanical and electrical condition and capacity assessment of the existing Rocklands pump station, Strathlynn Borefield and Rocklands to Douglas pipeline (21km), and complete the engineering for a new 8GL/year, 38km pipeline from a tie-in to the Rocklands to Douglas pipeline up to the Wimmera (WIM100) project site, including a booster pump station.
- Provide Independent Peer Reviews for various completed feasibility projects to be gated to the next project phase.
- Provide an experienced Project Study Manager to conduct a project scoping study in Victoria and provide project site support staff in NSW.
- Projectworx completed optimisation of an existing MUP (mining unit plant) that included an investigation of current operations, ore sampling, and redesigning elements of existing screening equipment to improve the ore processing and overcome bottlenecks.
- Projectworx conducted a scoping study to identify potential engineering solutions for our client's complex ore. The scope of work included concept development, supplier engagement, concept drawings, Capex and Opex estimations, and financial analysis of all proposed technical solutions.
- Projectworx assists our client's existing operations by providing engineering support such as pumping and piping review of existing and new systems, debottlenecking, process review, and plant upgrade recommendations for single or multiple circuits.
- Projectworx is assisting our client in project managing the relocation of a Mining Unit Plant, which will include schedule management, scope management, risk management, development of engineering scope of works (Civil, SMP, E&I), subcontractor management, drafting, and development of plans (Execution, Construction and Commissioning plans).
- Additionally, Projectworx assists their client with preparing monthly operational internal accounting and reporting at one of their flagship mines, ensuring that it is accurate and completed on time.

**Astron Corporation Limited:** Astron Corporation Listed on the ASX in 1983, Astron is a mining and processing company, domiciled in Hong Kong. Astron has more than thirty years' experience in mineral sands processing, technology. Astron Corporation is currently in the Definitive Feasibility Study Optimisation phase of the Donald Mineral Sands (DMS) Project. Astron's Donald operating model encompasses ore mining, gravity concentration to produce a heavy mineral concentrate (HMC), and processing to produce zircon, titania, and rare earth element concentrate as final products (REEC).

- Projectworx is appointed as the Project Managers for Astron Corporation's-DMS project, responsible for overseeing the recently completed Detailed Feasibility Study phase and ongoing works post the DFS (Workplan support and Pre-FID activities). Projectworx's in-house project management team supporting this project includes the project manager, principal mechanical engineer, principal electrical engineer, commercial manager, business analyst, project scheduler, cost controller, document controller, senior project engineer, and an associate drafting team. The Projectworx team manages the work packages, project controls, and the overall Capex and Opex development from our Adelaide office, with some work packages being executed in-house and others being outsourced. External vendors report to our Project Management team, which manages external vendors as subject matter experts on the client's behalf.

The packages include plant and process design, pilot testing, mining and tailings, radio and telecommunications, fire water system, civils, transportation, and logistics, as well as offsite infrastructures such as high voltage power supply, road upgrades, camp and water supply. Furthermore, our Commercial Manager and Business Analyst developed the financial model for the project utilising inputs from the various sources.

- Additionally, Projectworx assists the client in the ongoing development of their current mining licence, exploration licence, and retention licence annual technical reports. These reports discuss the annual technical work completed during the previous fiscal year and the technical work planned for the current fiscal year. These annual technical reports are prepared on behalf of the client and submitted to Earth Resources-Victoria by the client.

**Puttalam Ilmenite Limited (PIL):** The company is in Sri Lanka and holds an exploration licence over the Puttalam Quarry, a large deposit of predominantly sulphate ilmenite situated in Sri Lanka's Puttalam District, approximately 170 kilometres from the capital Colombo. The mineral sands ore lies above a limestone deposit that a local company is currently mining. A pre-feasibility study was completed in 2019 and will be followed by an Environmental Impact Assessment and Definitive Feasibility Study.

- Projectworx has been providing ongoing technical assistance and advice for the Puttalam project's future development.

**Murray Zircon Limited:** MZ is a Mineral Sands company in the South Australian mining sector and has set its sights on becoming a sustainable mineral sands producer for the long term. Murray Zircon is proposing to initiate operations of the Mindarie Mineral Sands Project by re-commencing mining along the Mercunda strandline.

- Projectworx has been supporting the project by providing an experienced full time construction manager and Project Manager for the execute phase of the project. (Process plant D&C, HV, Process water supply, Civils, Camp, etc.)
- Providing project scheduling services in collating all the individual work package schedules into an overall project master schedule, weekly updates and reporting.
- Provide the services of a Mining Geologist for ongoing assistance and technical support.

**Strandline Resources Limited:** Coburn mine owned by Strandline is one of the largest and most capital-efficient mineral sands (zircon and titanium rich deposit) projects in the world, with an exceptional zircon-titanium product suite, low costs and ability to generate strong financial returns. It is situated in the well-established mining jurisdiction of Western Australia, close to key infrastructure.

Projectworx was engaged to conduct an independent technical review of Coburn processing infrastructure performance against the key project Base Case design requirements and assumptions, including the Wet Concentration Plant (WCP), Mineral Separation Plant (MSP) and associated services.

Key areas of focus included a review of the current identified deficiencies, downtime events, rectification plans and continuous improvement projects, such as:

- LFCU performance to achieve ore and tailings density and control requirements.
- Level of processing plant instrumentation and process control design for critical/sensitive areas of the process (review auto start, stop and trip sequences, startup procedures and important control loops).
- Dozer Mining Unit (DMU) robustness and performance.
- HMC conditioning, attritioning and belt filter effectiveness and performance.
- WCP and MSP mineral recovery and separation efficiencies.
- Pump mechanical seal design and performance.
- Tailings and slimes management plans, designs and associated infrastructure, as well as review the rationale and plans for a potential tailings stacker project.
- Raw water and process water management plans, designs and associated infrastructure.
- Product sampling, metallurgical accounting, process plant tuning practices, and reporting (and areas to optimise mineral recovery and product grade).
- Maintenance strategies, systems and processes, as well as management of critical spares

**Tronox Mining Limited:** With approximately 6,500 employees across six continents, Tronox mines and processes titanium ore, zircon and other materials and manufactures titanium dioxide pigment, specialty titanium dioxide products and high-purity titanium chemicals.

Projectworx has been engaged in the following projects:

- Complete the engineering and scope development for the Atlas-Campaspe Village Expansion.
- Scope of Work development for High Voltage (HV) solar farm, power corridor, generator powerhouse earthworks and Distribution Board (DB) Connections.
- Broken Hill MSP process optimisation review and undertake MSP Wet Plant Mass and Water Balance.
- Projectworx is also involved in providing ongoing Engineering assistance to Tronox's East Coast Sustaining Capital projects.

**Westland Mineral Sands Co (NZ):** WMS holds significant reserves of industrial minerals such as Ilmenite and Garnet, as well as the vital Rare Earth Elements (REE, rare earths). WMS commenced production at their Nine Mile Area in 2023, with future expansions targeted for the Brownlee pit, situated south of the Nine Mile Area.

Projectworx has been engaged in the following projects:

- Carried out a preliminary site inspection at the WMS mine site to review the current operations and provide an independent review identifying potential optimisation opportunities.
- Develop a Brownlee Extension Cost Benefit Analysis project to identify the most economically viable option for transporting the Brownlee pit ore to the WCP, including tailings.

## Management Team



### Victor Araujo

Victor has over 25 years of experience in project, construction and maintenance management in mineral sands mining and processing, cement, power generation, water treatment, pulp and paper, infrastructure and engineering in South Africa, Botswana, Mozambique, Sri Lanka and Australia.

Victor has worked in various senior management roles worldwide, starting as an Instrumentation and Process Control Engineer in his early career, developing into roles such as Construction Manager, Commissioning Manager, Maintenance Manager, Engineering Manager, Project Manager and Country Manager for some of the world's industry-leading organisations.

Victor's extensive leadership skills of multi-disciplined teams and diverse industry experience provides customers with safe, fit for purpose, cost-efficient and innovative project delivery.

### Victor Araujo

**(Director and Co-founder)**

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### Ajit Deshmukh

Ajit is a Chartered Professional Engineer with a bachelor's degree in mechanical engineering and a double postgraduate degree in manufacturing engineering and engineering management. Ajit has over 15 years of professional experience in mineral sands mining and processing, copper processing, air-conditioning and automotive industry.

Ajit brings versatile experience for executing major projects and sustaining capital projects encompassing project scoping, assessing, pre-feasibility, detailed feasibility, execution, construction, commissioning, and operations support.

Having worked in various roles such as Project Manager, Package Manager, Engineering Lead, Project Engineer, Commissioning Engineer, and Reliability Engineer Ajit demonstrates strong technical skills complemented by project management expertise.

Among the professional world, Ajit also holds the position of Chair for an Engineers Australia Mechanical Engineering College committee branch for South Australia.

Ajit also manages the engineering team in India under the leadership of Sachin Pol, Deepak Babar, and Tushar Vidhate, who control the inhouse design and engineering team, consisting of 54 engineers and drafting personnel.

### Ajit Deshmukh

**(Director and Co-founder)**

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## Associates



### **Stephen Tregoweth**

Stephen is a Certified Professional Accountant (CPA) with over 35 years of experience in commercial management and accounting in primary production, commercial construction, and manufacturing, the last 15 of which have been spent in the gold and mineral sands mining industries.

Stephen has been a critical member of several significant mining construction projects and numerous feasibility studies, providing financial analyses, options analysis, funding requests, and project reporting. Stephen has also provided insightful advice to the project teams and management on strategic objectives, procurement, cost control, cost estimation, risk management, and schedule review throughout this period. Stephen conducts in-depth analysis of the project's financial status to achieve the most cost-effective financial, commercial, and capital-efficient outcomes possible.

Stephen possesses exceptional communication skills with a diverse range of key stakeholders in order to achieve successful outcomes and agreements.



### **Rafael Orschulok**

Rafael is a Chartered Professional Engineer with a Master's Degree in Electrical Engineering, Fellow of the Engineers Australia, Registered Professional Engineer of Queensland and an APEC Engineer IntPE (Aust).

Rafael is highly skilled Principal Electrical Engineer with over 40 years of robust experience and an impeccable record of performance delivering exceptional results on projects within the heavy industry, mining, power generation and industrial sectors. Solutions focused with an enviable portfolio of achievement providing technical engineering advice and design services, including critical review of design, systems and documents with an emphasis on continuous improvement. Adept at establishing and implementing procedures for optimised performance and expertly manages compliance with Electrical Standards, Regulations, Operating and Workplace Health and Safety procedures, delivering systems of best practice. Engaging people person, cultivating strategic business relationships at all levels with staff, clients, and key stakeholders from diverse backgrounds, driving unity and success.





**Darren Law**

Darren has over a decade of experience as a cost controller on Mineral Sands projects in Australia. He understands the importance of developing an accurate reporting system for evaluating the project's performance.

Darren's experience ranges from prefeasibility Studies through to Construction.

Darren's extensive experience in construction cost control includes a major mineral separation plant upgrade and the establishment of several mineral sands mine site projects in Australia.



**Ross McClelland**

Ross is an accomplished Principal Metallurgist who holds a Bachelor of Science in Metallurgy, is a member of the Australasian Institute of Mining and Metallurgy and has co-authored numerous publications.

He has over 40 years of experience across the broad spectrum of the minerals industry and a wide range of extraction processes ranging from mineral beneficiation to both hydrometallurgical and pyrometallurgical treatment. Ross has had a particular focus on the analysis, modelling, optimisation and development of both existing and new processes, projects and businesses. He has been specifically involved with WIM-style mineral sands since 1990.

Ross has extensive experience in process modelling on various platforms, including Metsim®, SpeedUp, and Excel-VBA, as well as a strong research and development background and world-class thermodynamics skills.

He is organised, diligent, and adaptable, with strong analytical capabilities, a deep technical basis, and exceptional interpersonal skills both individually and in teams.



**George Boumis**

George is an accomplished senior project manager focusing on safety and quality. He has a Bachelor's degree in civil engineering and more than 25 years of experience in South Australia, Western Australia, Victoria, Northern Territory, and Queensland markets. George's technical proficiencies are strongly complimented by his business development experience, emphasis on effective communication, and timely project delivery. He strives to create commercially viable technical solutions by fostering effective collaboration among all relevant stakeholders while targeting positive business opportunities and growth.

His professional career has been primarily focused on consulting and end-to-end project delivery. He has accumulated extensive experience in construction delivery, contracts, risk management, operations, and stakeholder negotiations. Multidisciplinary project and design management, master-planned multi-stage subdivisions, business development, major earthworks, general civil engineering, land remediation, and hydrocarbon projects are among the specific areas of expertise.



**James Gibbons**

James is a degree qualified project Manager, with a bachelor's degree in mechanical and manufacturing engineering and a diploma of computer and information technology. With 15 years' experience in multi-disciplined projects (field and design office).

He is creative, resourceful, capable to adapt to change and maintains a professional positive attitude. Knowledgeable in safety, design, engineering, construction, operations and maintenance, he also has the ability to manage multiple projects.

Experienced in a variety of projects varying in phases, concept, pre-feasibility, feasibility, front-end engineering design, detailed design and construction he is capable of utilising PMBOK flexibly, providing strategic thinking approaches to interlink each stage, aligning forward thinking. Having worked in multiple industries such as oil & gas, mining, manufacturing, construction and defence, James is able to provide solutions-based outcomes, leveraging team relationships and personalities. Currently James is studying an MBA to support his drive for project excellence.



### **Zoe Townsend**

Zoe has 10 years' experience in Quality and Completions roles in various oil, gas and mining projects in Queensland, Northern Territory, South Australia and Papua New Guinea.

Zoe brings experience at developing and delivering, quality and completions project documentation systems, and strategies to enable projects to be delivered efficiently from project start-up through to project close-out. Zoe demonstrates strong technical ability to liaise with other technical functions within the project management team to complete tasks relevant to project deliverables or solving problems related to delivering the project successfully. In addition, Zoe has experience in completing audits to ensure compliance to the relevant project plans and procedures to ensure continuous improvement in maintained throughout the project.

Supporting the above skills and experience, Zoe is an exceptional communicator who is skilled at engaging with a wide range of stakeholder to deliver successful projects.



### **Matthew Harding**

Matthew has over 25 years of experience in Environmental and Approvals disciplines, with 20 years in iron ore, uranium, and mineral sands mining. Matthew's qualifications: Bachelor of Science, Graduate Diploma in Environmental Studies, Graduate Certificate in Community Engagement, Diploma in Project Management; holder of numerous radiation licences from the South Australian Environmental Protection Agency; and member of the Environmental Institute of Australia and New Zealand.

He has played a crucial role in the start-up of two Adelaide-based mining operations, from EIA and consents to construction and commercial operation, encompassing all aspects of environmental management. Matthew has worked across multiple Australian and international jurisdictions and is a specialist in applying operational experience to impact assessment and obtaining regulatory approvals.

Matthew's core areas of specialisation are mining approvals, impact assessment and study coordination, and environmental management and monitoring.

Matthew is increasingly interested in social impact and communication of impact assessment issues, and he has extensive experience working with First Nations peoples.

Matthew's most recent position was Principal – Approvals SA for Iluka Resources, where he oversaw all SA regulatory approvals, including the Atacama Mineral Sands Project's primary approvals.



**Sachin Pol**

Sachin obtained a Mechanical Engineering degree and a Postgraduate in Pressure Vessel Design from Pune University. Having over eleven years of experience in the development and innovation of technology.

Sachin has experience in the power, oil and gas, renewable energy, and processing industries, among others. In addition to his diverse experience in static equipment design and FEA, he is a corporate trainer.

Sachin has instructed over three hundred professionals throughout India on PV Elite and ASME Codes. Prior to that, he held positions at prestigious companies including PRAJ, Thermax, and Quadrogen.



**Deepak Babar**

Deepak is a Mechanical Engineer with excellent skills in 3D software like SolidEdge, Inventor, and Creo and a professional trainer for SolidWorks. Deepak has vast work experience in Design & Development and Detail Design.

Deepak possesses more than fourteen years of combined experience in the energy and oil and gas industries. Deepak's international work experience includes the United States, India, and Italy.

Deepak has accumulated professional experience at esteemed organisations such as Quadrogen, Dresser Masoneilan, Tata Motors, and Halliburton.



**Tushar Vidhate**

As a Mechanical Engineer, Tushar possesses exceptional proficiency with AutoCad and 3D applications such as SolidWorks and Creo. Tushar has held various Design and Development and Detail Engineering positions throughout his career.

With over a decade of combined experience in the power and oil and gas sectors, Tushar has acquired extensive expertise in welding and fabrication details.

Tushar has gained substantial professional experience through his tenure at prestigious companies, including Quadrogen, Tata Motors, and Thermax.



**Colin Bazeley**

Colin is a seasoned Senior Project Manager with a Bachelor of Science in mechanical engineering from the University of the Southwest in Bristol, United Kingdom.

Colin has more than 35 years of project management, contract administration, engineering management, and design experience in mining and the bulk materials industry in South Africa, Australia, and abroad. Colin has specialised on project management and business development across greenfield and brownfield projects and businesses.

Colin has extensive experience recruiting and managing Engineers and EPCM contractors for a diverse range of projects, including his role as EPCM support for the Snapper mineral sands project and Honeymoon Uranium Mine.

Colin is organised, diligent, and adaptable, with excellent analytic skills, a deep technical foundation, and exceptional interpersonal skills, both individually and in teams.