

# ECO ELEMENTUM

## COMPANY INTRODUCTION - SAIMM

SPECIALIST CONSULTING SERVICES  
ENGINEERING AND ENVIRONMENTAL

03/03/2026



[www.ecoe.co.za](http://www.ecoe.co.za)



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# ECO E

ENVIRONMENTAL & ENGINEERING

Eco E  
Environmental

Eco E  
Engineering

Eco E  
Mechanical/  
Electrical

Eco E  
Mining/Geology

Eco E  
Intelligence

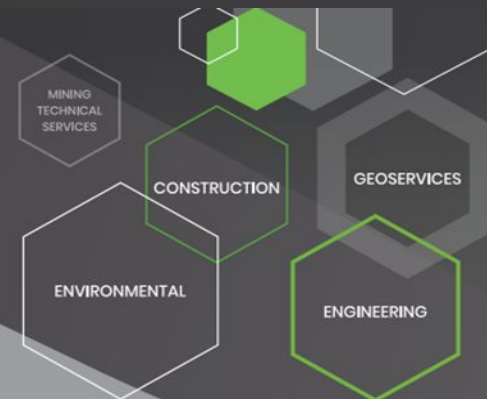
Eco E  
Construction

ELLS  
Electric Leak  
Location Services



# ECO E

INNOVATIVE CONSULTING





# Operating Overview

- **Consultancy operational since 2013**
- **Group Turnover \$ 15+ Million (USD)**
- **Offices** - South Africa (Pretoria and Johannesburg), the Democratic Republic of Congo and Australia
- **Countries of Experience**
  - ✓ Australia, Belgium, Botswana, Brazil, Colombia, Congo, DRC, eSwatini, Kenya, Lesotho, Liberia, Libya, Madagascar, Mali, Mauritius, Mozambique, Namibia, Oman, Peru, Portugal, Saudi Arabia, Somalia, South Africa, Tanzania, Zimbabwe, Zambia





# High-quality team

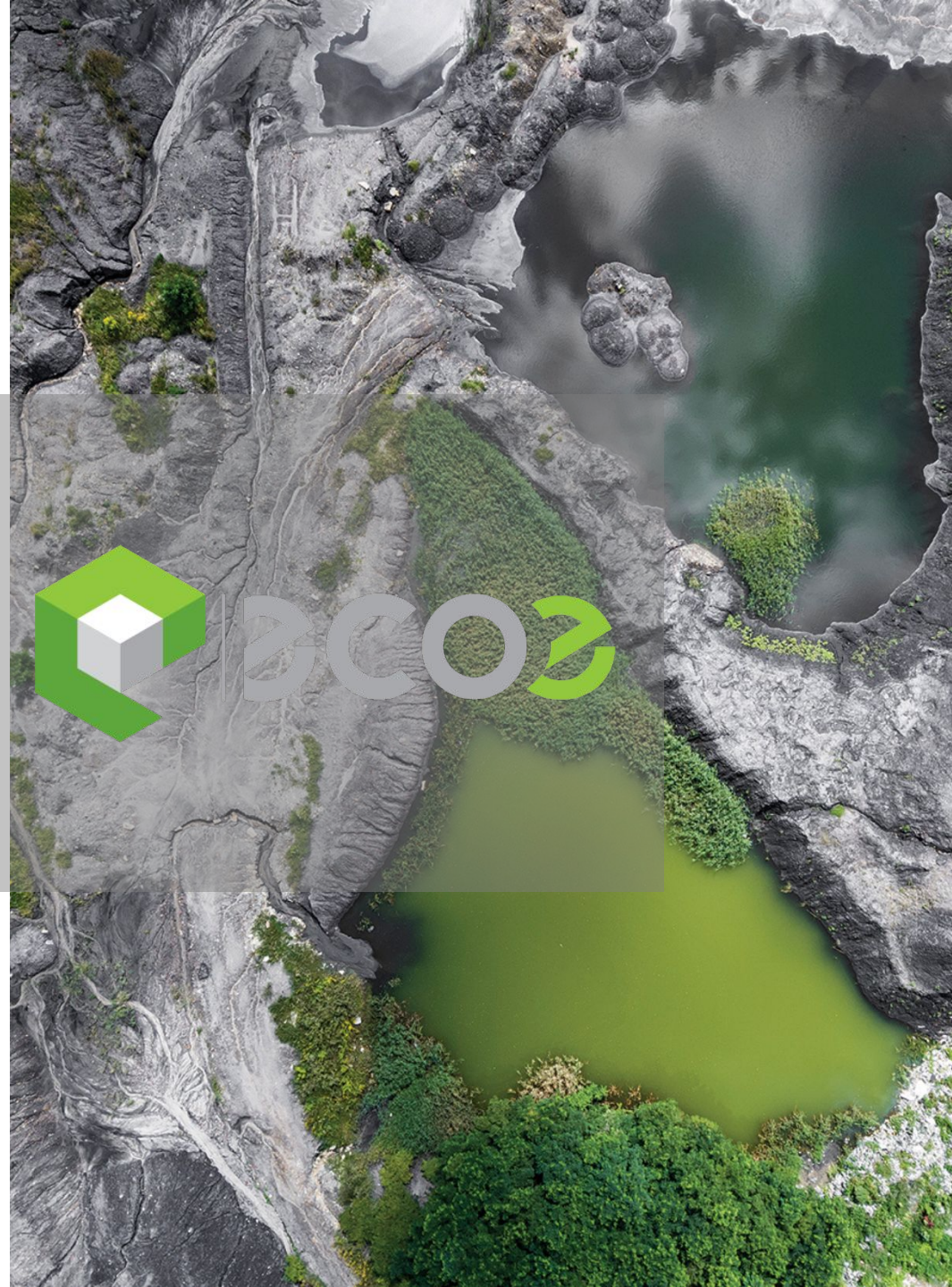
- Hundred and five (105) full-time staff
- **Eighteen (18) Pr.Eng** (Civil, Geotechnical, Structural, Mechanical, Process, EC&I)
- **Two (2) approved professional persons** for large dams, one as a Cat III TSF APP (60 m)
- **Ten (10) Environmental Assessment Practitioners** (EAPs) (EAPASA)
- **Fifteen (15) Professional Scientists** (Pr.Sci.Nat).
- **Eight (8) Professional Geologists** (Pr.Sci.Nat).
- **Two (2) Mining Engineers**
- **Two (2) Environmental Legal Specialists (LLM)**





# Capabilities

- ✓ Geotechnical Engineering
- ✓ Engineering/Mining Geology
- ✓ Tailings and Mine Waste Management
- ✓ Environmental Engineering
- ✓ Water Resource Engineering
- ✓ Civil Infrastructure
- ✓ Control and Instrumentation Design
- ✓ Mechanical and Electrical Engineering
- ✓ Structural Engineering
- ✓ Multi-disciplinary Studies and Projects Execution (EPC/M)





# Software proficiency

- ✓ Geotechnical – Slide2, GeoStudio, PLAXIS 2D, RS2, Settle3, CPeT-IT, CLiq.
- ✓ Mining – Datamine, Deswik.
- ✓ Civil - Civil3D/Revit, PCSWMM, Prokon, RIFT TD, MUK3D.
- ✓ Mechanical - SolidWorks/Inventor, Helix, Flownex.
- ✓ Hydrology – GoldSim, PCSWMM, HEC-RAS/HEC-GEO.
- ✓ Geohydrology – WISH, MODFLOW, Aquaveo, FEFLOW.
- ✓ Air quality – AERMOD.



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# STRATEGIC SERVICE OFFERING

## TAILINGS ENGINEERING



Our multi-disciplinary engineering team allows us to undertake the design of the entire tailings management system, we refer to it as Total Tailings Management, from the thickener underflow (upstream) to the return water delivery back at the process water dam (downstream).

- **Multidisciplinary Engineering:** A single team handling all technical disciplines, eliminating interface gaps (*process, civil, geotech, mechanical, electrical, control, and instrumentation*).
- **Compliance by Design:** Solutions pre-engineered to meet NEMA, ICOLD, GISTM, regulatory frameworks and IFC funding.
- **Risk-Reduced Execution:** Proactively identifying geotechnical, hydraulic, and environmental failure points.
- **Lifecycle Cost Efficiency:** Designs optimisation for CAPEX, OPEX, and closure liability.
- **Environmental Compliance:** Integration with our internal environmental team from the scoping phase.

# STRATEGIC SERVICE OFFERING

## TAILINGS ENGINEERING

### DESIGN & ENGINEERING – MULTIDISCIPLINARY.

- Status Quo Assessments.
- Concept and Trade-off studies.
- Pre-Feasibility, Feasibility, FEED, and detailed designs for TSFs & ancillaries.
- Rehabilitation, remediation, and breach analysis.
- Geotechnical & geohydrological investigations.
- Water balance & conservation studies.
- Licensing & DWS approvals.





# STRATEGIC SERVICE OFFERING

## TAILINGS ENGINEERING

### OPERATIONS & COMPLIANCE

- TSF monitoring, safety inspections & Engineer of Record (EoR) services.
- Deposition modelling, stage capacity & consolidation analysis.
- OMS Manuals, EPRP, CoP development & maintenance.
- Mine-influenced water treatment (passive/active).
- Closure, rehabilitation design & financial quantum.

### CONSTRUCTION & OVERSIGHT

- QA/QC, CQA & contract administration (FIDIC, NEC, GCC).
- Lump Sum Turnkey.



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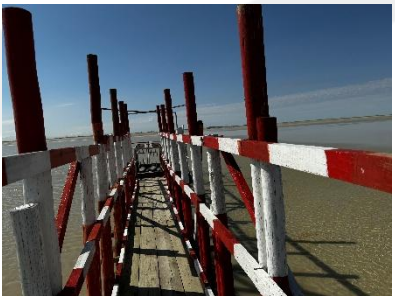


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# RELEVANT TAILINGS EXPERIENCE





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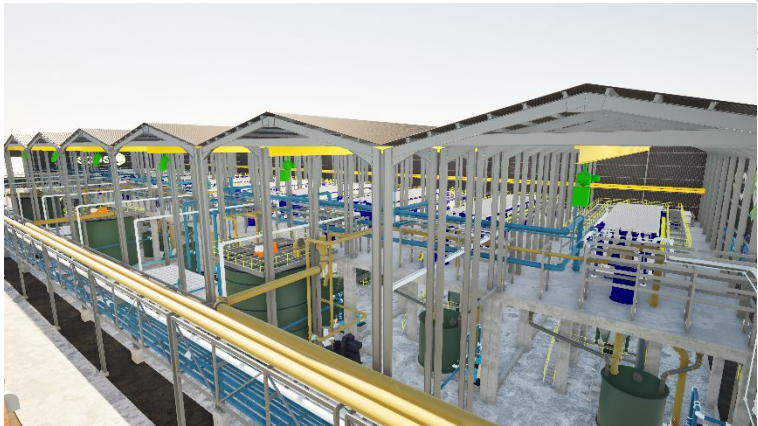
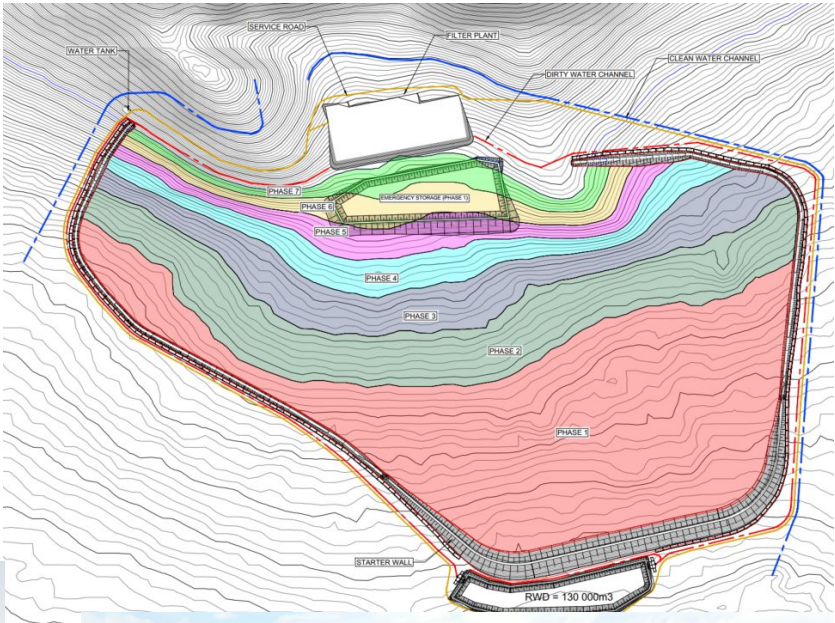
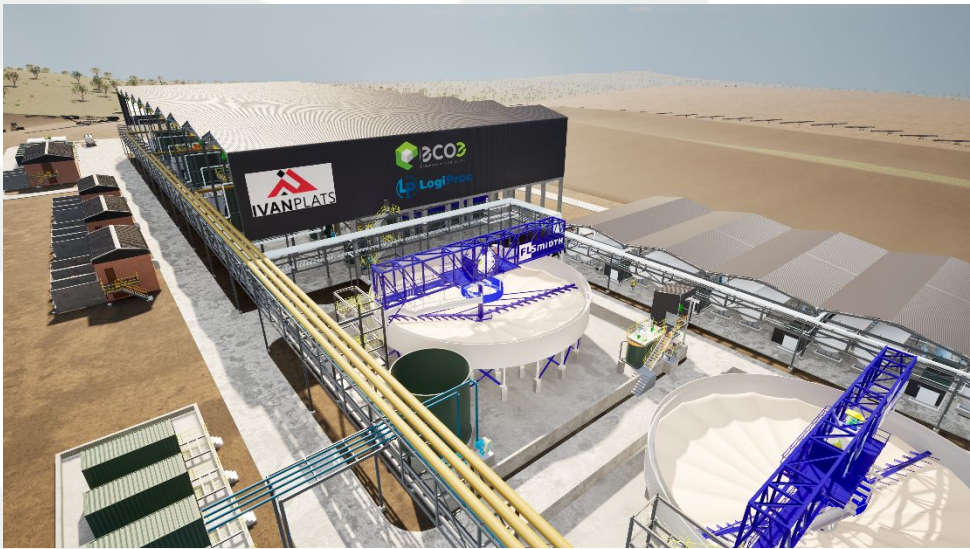


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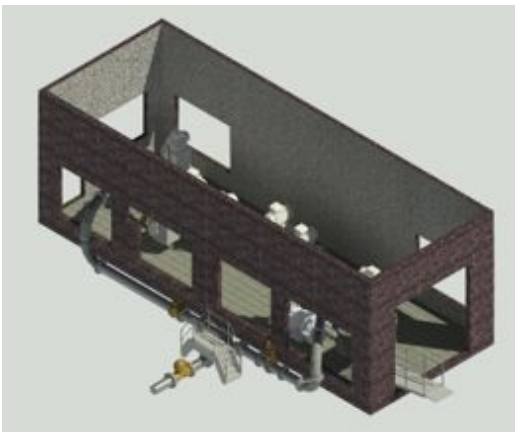
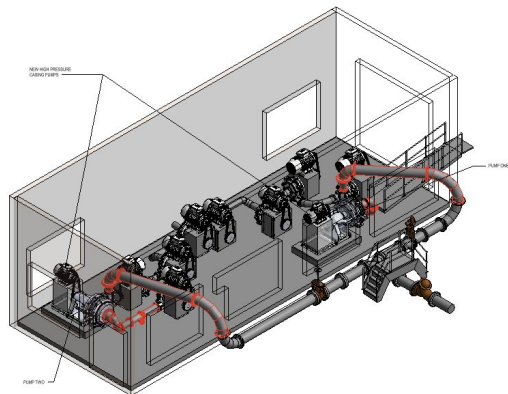




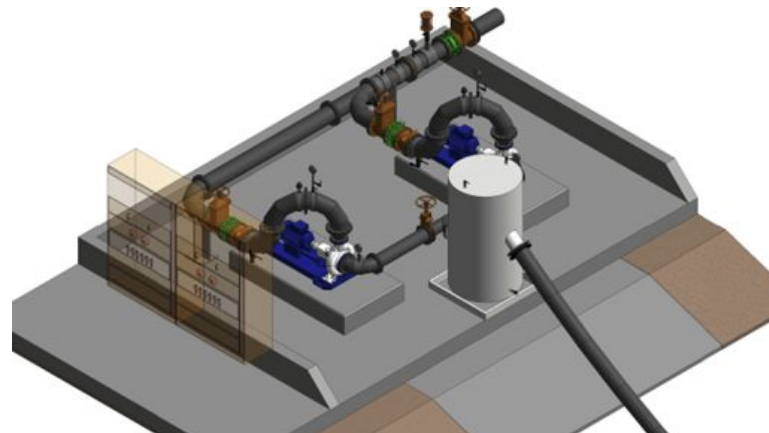
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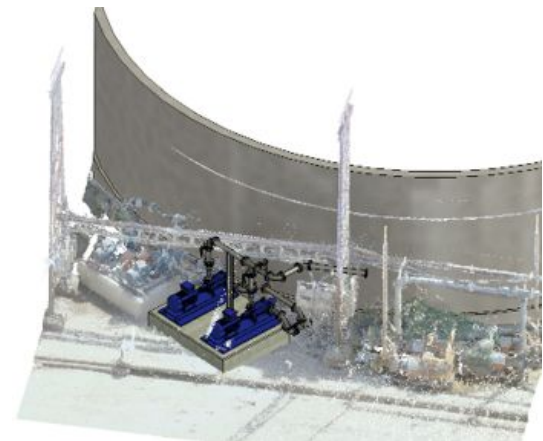




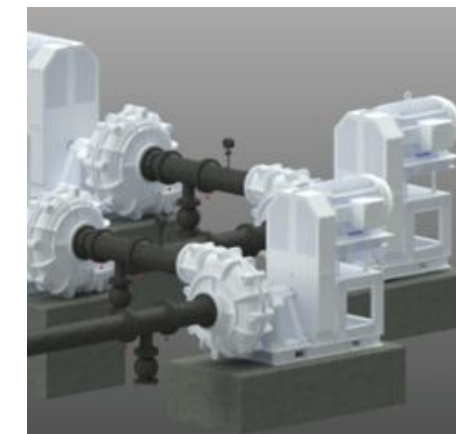
## Recent Projects





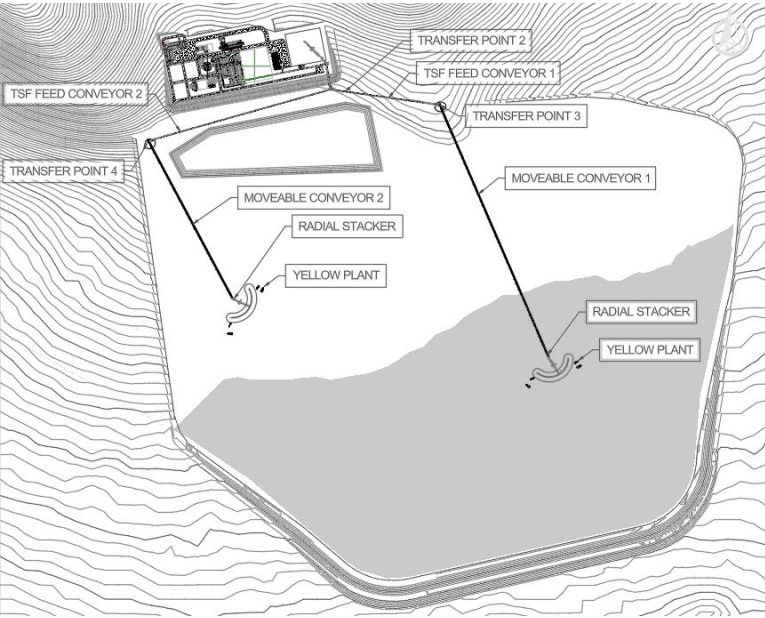
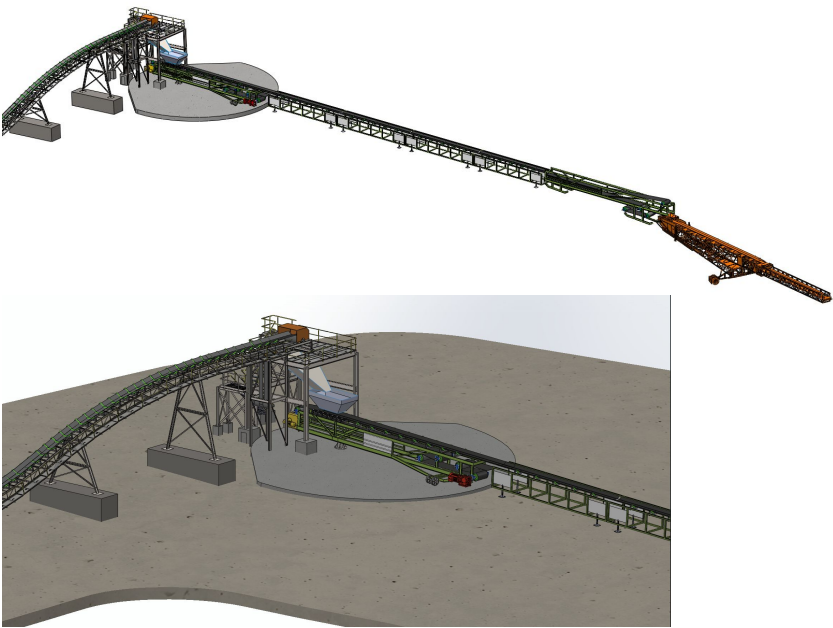
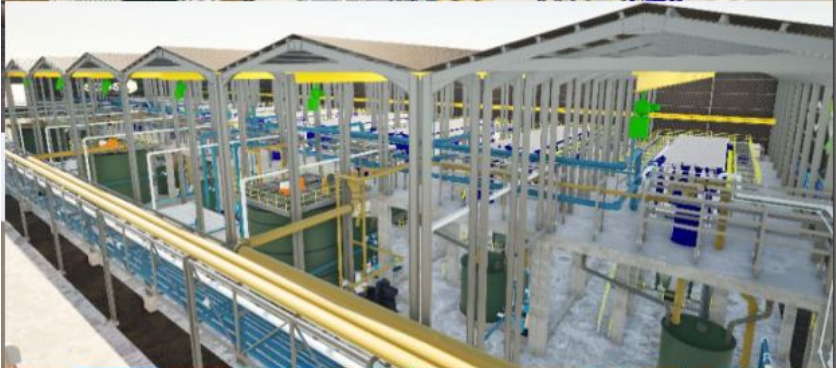
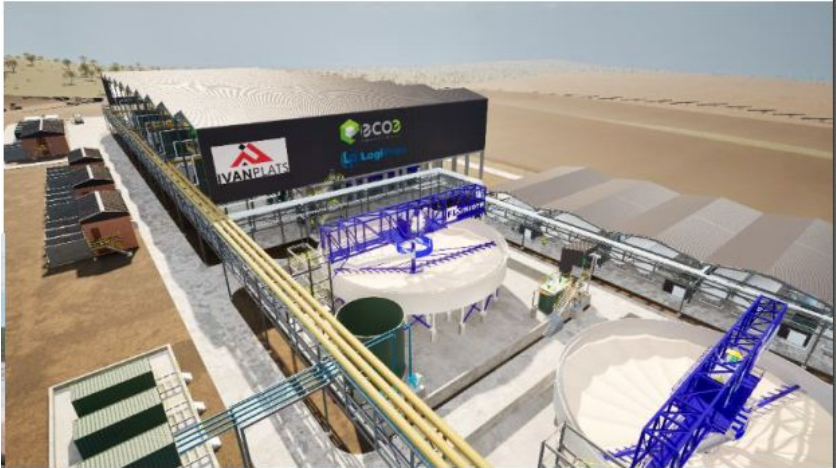
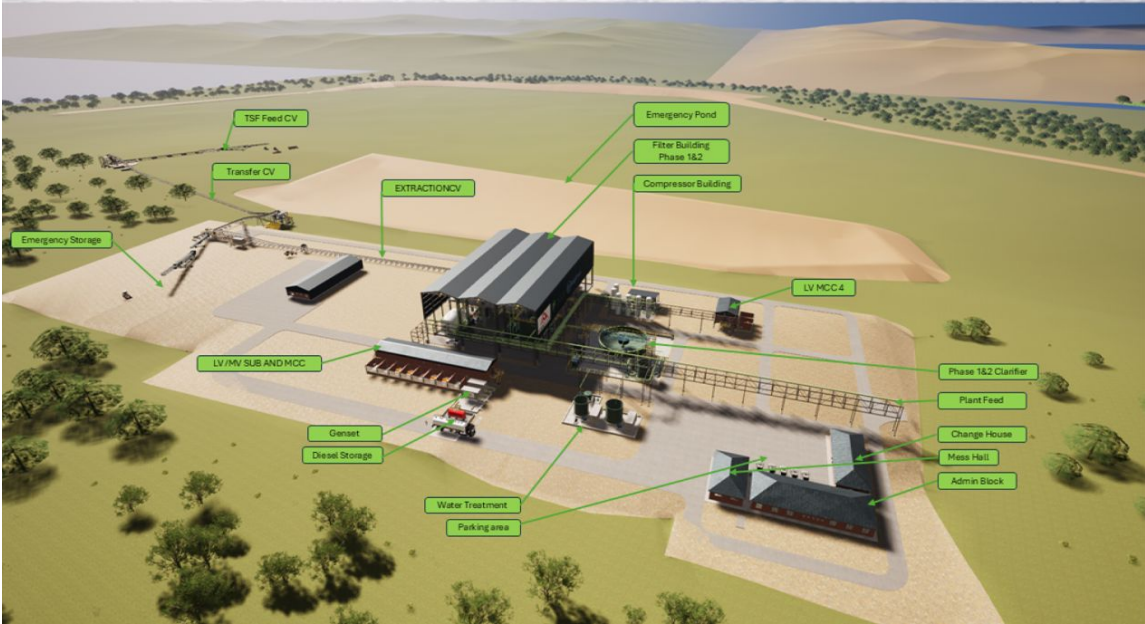


## Recent Projects





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# Contact Us



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