red earth engineering

RedEarthEngineering.com.au

Brisbane | Perth

About us

30+ professionals

Red Earth Engineering (REE) deliver innovative, reliable and efficient engineering consultancy solutions in the areas of mining, mineral processing, oil and gas, and infrastructure.

Since 2009 we have forged our reputation based on our unique ability to thoroughly understand and exceed client objectives and expectations at each stage of the project lifecycle, whilst maintaining the highest level of safety, accountability and transparency in everything we do.

Our leadership team includes highly respected engineers, designers and scientists. Team members have geotechnical, geosynthetic and civil engineering experience working on infrastructure projects including light and heavy vehicle roads, tailings and water dams, wastewater and aggressive process fluid dams and mine closures.

With this experienced leadership actively driving our dedicated team to safely deliver every project within our client's budget and time schedule requirements, REE will continue to deliver value, results and peace of mind through innovation, accountability and technical excellence on all of our projects.

Directors

- SYMON JACKSON
  Civil/Geotechnical/Tailings Specialist
- ATTILA MARTA
  Geosynthetics/Civil/Geotechnical Specialist
- WADE LUDLOW
  Civil/Tailings/Geotechnical Specialist
- EDDIE BAKER
  Geotechnical/Tailings/Project Delivery Specialist

Our clients

Over the past decade we have successfully delivered projects in Australia and internationally.

We are proud to report zero lost time due to injuries, which is the result of our commitment to, and daily implementation of effective Health, Safety, Environment and Quality (HSEQ) management systems.

Our clients include some of the world's largest oil, gas, mining and construction companies. We maintain these relationships by understanding the full scope of work from concept to completion, identifying and resolving potential issues early, and provide cost-efficient and comprehensive engineering solutions to consistently exceed expectations.

BHP

SOUTH32

GLENCORE

arrow energy
go further

RioTinto

QGC

EGA

Downer
Relationships creating success

BRISBANE CITY

VEOLIA

OUR CLIENTS DESCRIBE US AS

- PROACTIVE
- TRUSTED
- RESPONSIVE

Services

GEOTECHNICAL ENGINEERING

Planning and scoping studies | Investigation supervision | Parameter verification | Design and analysis
Risk and optimisation studies

Our geotechnical engineers have vast experience providing investigation, interpretation and design recommendations for a wide range of civil projects including; foundations, earthworks, cut and fill slope stability and retaining structures. All our recommendations and designs are accompanied by detailed geotechnical analysis using the most advanced geotechnical software.

CIVIL ENGINEERING

Earthworks | Hydrology and flood analysis | Stormwater management and drainage design
Water balance (using GoldSim) | Hydraulic structures | Road, pavement and hardstand design
Water management plans and erosion of sediment control plan

Civil engineering forms the backbone of the services we provide, allowing us to combine our geotechnical and water engineering expertise to design more efficient structures. Our team also includes structural engineers, hydrological modellers and pavement engineers who focus on getting the best from existing site conditions. REE has invested heavily in acquiring state of the art modelling software to allow pragmatic decision making and management of site specific risks, rather than just applying the relevant standards.

GEOSYNTHETIC ENGINEERING

Geomembrane liner selection and design | Geocomposite drainage systems | Leak detection and collection systems | Geostructures (bladder tanks / floating covers) | Independent liner integrity testing (LIT)
Soil improvement using geogrids and geotextiles

REE leads the industry in innovative use of geosynthetics for challenging applications, pushing the technology and materials to the limit including the use of specialised geomembrane liners and geosynthetics in the coal seam gas industry, and for the bulk storage of extremely aggressive process fluids. Our storage tank designs are a more flexible and economic alternative to large steel tanks for mine and refinery applications. Our technical understanding ensures the correct grades and combination of geosynthetics are applied. REE also utilises the skills of world renowned experts and researchers to complement our in-house skills, ensuring the latest products are used to optimise the designs for our clients.

DELIVERING ON TIME AND WITHIN BUDGET.

TAILINGS & WATER DAMS

Dam design (OOM, PFS, FS) | Closure design and planning | Risk reviews | Dam break analysis
Consequence category assessment | Tailings characterisation | Tailings deposition modelling
Operational plans | Emergency planning | Annual inspections | Constructability reviews

REE has a proven track record for providing a dynamic and flexible design process that creates safe, constructible, fit-for-purpose assets. In doing so clients benefit from significant cost and schedule benefits, and the highest level of confidence in the asset's integrity. We have extensive experience in geotechnical and geosynthetic engineering, water management, and water balance and tailings deposition behaviour. REE can also assist with the design of delivery and decant infrastructure. We specialise in the use of Muck3D to accurately predict tailings deposition and maximise storage efficiency.

PEER REVIEW / SUBJECT MATTER EXPERT

Design development | Internal and external approvals | Interaction with operations
Contracting and procurement strategy | Tendering and evaluation | Execution planning

Early involvement of REE's subject matter experts will improve your project outcomes. REE provide expert project support in-house or externally as your trusted consulting firm. We are experienced in contracting and procurement, project management, execution, commissioning and handover of projects. We are dedicated to safety and delivering tailored design solutions with a holistic project management approach where quality assurance is front of mind. This allows us to consistently deliver on clients' requirements, and also proactively manage risks.

CONSTRUCTION SUPPORT & QUALITY ASSURANCE

Inspections | Material testing and acceptance criteria | Construction verification and certification
Claims management and contractual dispute resolution | Value engineering | Temporary structures
Quality assurance management | Auditing of external soil laboratories

REE are specialists in providing all aspects of construction engineering support, from material testing and instrumentation to survey and final project close-out reporting. We apply appropriate and accurate quality assurance and quality control testing throughout the project. We can also assist with the compilation of as-built reports, monitoring and maintenance plans. REE's Principal Engineers are contractually astute and can provide support for relevant claims or assist in resolution of relevant contractual disputes.

Our approach

Providing expertise, specialist solutions and a 'lead-by-example' approach to health and safety.

With many of REE's directors and leadership previously working as the client on many projects, we have a unique understanding of the internal management pressures our clients face. Therefore, we consistently go beyond what is expected to ensure we deliver safe, cost efficient, timely and innovative solutions on even the most complex projects.

We take great pride in our ability and tenacity in developing the full scope of services required, and identifying potential problems in the early stages of a project. This allows us to develop realistic and robust engineering and project delivery outcomes that fit within our client's requirements.

By understanding and responding to our clients' needs, we can apply our superior technical skills and project management experience to drive efficient and cost-effective outcomes. All whilst maintaining the highest technical safety and environmental standards.

We believe in working as an integrated team with our clients rather than delivering a discrete package of work. You can often find us in clients' offices, discussing our findings and their impact on a project. This commitment to transparent and responsive communication allows us to best understand the requirements of every project, reducing costs, timeframes and risks.

Our philosophy

Our philosophy is centred on providing valued expertise and specialist solutions with a lead-by-example approach to health, safety, environment and quality. We don't replicate. We identify ways to deliver innovative and safety focused solutions that work best for you by:

LISTENING TO OUR CLIENTS & DELIVERING PROMISED RESULTS

STAYING ON TIME AND ON BUDGET

PROVIDING TANGIBLE VALUE

COMMUNICATING IN A TRANSPARENT AND TIMELY MANNER

COMMITMENT TO IMPROVING SAFETY & ENVIRONMENTAL IMPACT

INNOVATING TO PROVIDE TAILORED, SUSTAINABLE & PRACTICAL SOLUTIONS

Our strengths

We are acutely aware of our strengths and where we provide the most value to clients. This is why we focus our activities on industries we know best, where our expertise, experience, big picture thinking, and tailored solutions maximise client value whilst minimising risk.

An adaptive and innovative approach to each project, supported by continual investment in the best available people and technology, has been a driving force behind our industry reputation for delivering high-quality work within tight timeframes.

Our design culture is iterative and creative with a strong emphasis on ease of construction, and our construction support expertise means we are able to effectively manage and monitor changes to meet project objectives and the design intent.

In addition to the expertise of our 30+ team members, we have established relationships with independent industry experts , ensuring our clients have access to the most experienced minds to produce the best ideas and most robust solutions.

“Red Earth Engineering is the only engineering consultancy that I’ve worked with that consistently explores, listens and responds to what we (the client) needs.”

RIO TINTO MANAGER

DESIGN MANAGEMENT SPECIALIST

WORKING COLLABORATIVELY WITH CLIENTS

TAILORED, ADAPTIVE SOLUTIONS

EXCELLENT SAFETY RECORD

Safety is our priority

As a company born out of the mining, oil and gas industries, Health, Safety, Environment and Quality (HSEQ) is inherent in our culture here at REE and is at the forefront of everything we do. To us, safety is not just a regulatory necessity, it is a core business pillar and our success to date has been largely supported by our approach to HSEQ.

Every day our team members look to improve our HSEQ system, finding practical ways to make our work methods safer for workers and the environment. REE has developed our own **R**ed **E**arth **S**afety **Cue**'s (**RESCUE**'s) to identify the highest risk activities.

over
185,000
hours of work

0
lost time injuries

The **RESCUE**'s have been designed to raise awareness of the activities most likely to result in injury or death, and are intended to help us get better at spotting unsafe situations and acts, protecting those working for us and with us.

1. DRIVING

2. LINE OF FIRE

3. MOBILE EQUIPMENT INTERACTION

4. SERVICES

5. MANUAL HANDLING

6. HEAT STRESS AND SUN EXPOSURE

7. SLIPS, TRIPS AND FALLS

OUTCOME FOCUSED

TECHNICALLY DRIVEN

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