

DESY RIKAYANTI

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SUMMARY

Civil (Geotechnical) Engineer with extensive experience in Australia and overseas, specialising in tailings dam and mine waste design, geotechnical investigations, WHS compliance, site inspections/supervision, and technical audits. Proficient in applying risk management principles and safety legislation, including GISTM, DEMIRS, ANCOLD, and Dams Safety NSW. A strong communicator with a proven track record in regulatory reporting, conducting inspections, and leading multidisciplinary teams. Committed to driving safety reforms and continuous improvement in the mining sector.

QUALIFICATIONS

Certificate IV in Work Health and Safety	2019
OHSA, Queensland - Australia	
Master of Environmental Engineering and Pollution Control	2017
Griffith University, Queensland - Australia	
• Thesis on "First Flush Phenomena in Urban Catchments,: Processes, Modelling and Synthesis".	
Bachelor of Civil Engineering (Geotechnical)	2005
Syiah Kuala University, Banda Aceh - Indonesia	
• Thesis on "Stability analysis of soil base layers and critical embankment sections using PLAXIS software".	

AWARD

Australia Awards Scholarship (2013)

Awarded for a strong track record of academic excellence in engineering and demonstrated leadership skills.

WORK EXPERIENCE

Geotechnical Engineer	July 2025 - Present
Maxwell Energy Resources - Perth WA - NSW	
• Conduct slope stability analysis using Slope/W software and prepare technical memo	
• Assist with blasting vibration assessment and prepare technical memo	
Tailings Engineer	July 2025 - Present
Geoanalytica - Perth WA	
• Develop tailings storage facility (TSF) designs and analysis using Muk3D	
Project Geotechnical Engineer	Feb 2023 - May 2025
Resource Engineering Consultant - Perth WA	
• Involved in complex tailings dam designs (TSF/IWLTSF) and waste dump projects in Australia and overseas, using Muk3D and GDMS	
• Contributed to mine site layout and site planning projects in Australia	

- Conducted geotechnical analyses based on GSI testing and laboratory results
- Performed seepage and slope stability analyses using SLIDE2; interpret CPT results using CPET-IT; and work on dam break, stormwater, and water balance assessments
- Carried out comprehensive project analyses, identifying and resolving discrepancies in engineering designs
- Coordinated project tasks to ensure compliance with engineering standards and regulatory requirements
- Developed Detailed Design Reports, Critical Containment Infrastructure Reports, Annual Audit Reports, Design Basis Reports, Operating Manuals, Operation and Monitoring Plans, Dam Safety Management Systems, Geotechnical Factual Finding Reports, Emergency Plans, Quarterly Reports, and Engineer of Record
- Implemented effective time management and deliver complex engineering projects on schedule and within budget
- Managed project timelines and collaborate with cross-functional teams
- Involved in presentations and meetings with clients regarding project delivery, cost-effectiveness, risks, safety and efficiency
- Assisted graduate engineers in modelling, technical works, and soil/rock loggings using Tablogs

Geotechnical Engineer

July 2021 - Feb 2023

CMW Geosciences - Brisbane, QLD and Perth, WA

Tailings Team Member (Perth Office), Oct 2022 - Feb 2023

- Assisted in tailings dam designs and analysis
- Assisted in GSI loggings
- Performed seepage and slope stability analyses using SLIDE2; interpreted CPT results using CPET-IT; and worked on water balance assessments
- Coordinated project tasks to ensure compliance with engineering standards and regulatory requirements
- Assisted in Design Reports, Critical Containment Infrastructure Reports, and Operating Manuals
- Implemented effective time management and managed project timelines
- Collaborate with cross-functional teams

Construction Phase Surveillance (CPS) Geotechnical Team Member at Cross River Rail project (Brisbane), Sept 2021 - Sept 2022

- Conducted GSI (drillings and loggings) for boreholes, light pole foundations, and bridge foundations
- Conducted site inspections for foundations, crane pads, batter slopes, trenches, pits, and watermain excavations
- Supervised soil nail drilling and installation
- Assisted with Dynamic Cone Penetrometer (DCP) and SPT testing
- Assisted in preparing Geotechnical Site Records (GSR)
- Developed site inspection and supervision reports
- Managed project database and assisted with scheduling site inspections and supervision activities
- Implemented effective time management and managed project timelines and collaborate with cross-functional teams, contractors and sub-contractors
- Assisted graduate engineers in drillings and soil/rock loggings

Geotechnical Team Member (Brisbane office), July 2021 - Sept 2021

- Conducted GSI data analysis for boreholes
- Developed proposals and GSI factual finding reports
- Implemented effective time management and managed project timelines
- Collaborate with cross-functional teams and clients

PROFESSIONAL TRAINING

Nov 2019 - July 2020

- Completed Carry out the Risk Management Processes (G2) training by OHSA
- Completed Mining Supervisor (S1, S2 and S3) training by OHSA
- Completed Mining Induction (Standard 11) training by OHSA
- Completed PRINCE2® 2017 Foundation in Project Management and obtained the AXELOS certification.

SOFTWARE PROFICIENCY

- Muk3D
- SLIDE2
- Slope/W
- GDMS
- CPET-IT
- AutoCAD
- PLAXIS
- QGIS
- Tablogs
- OpenGround
- Microsoft Office

PROFESSIONAL MEMBERSHIPS

- Member of Australasian Institute of Mining and Metallurgy (AusIMM)
- Member of International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE)

SKILLS

- Geotechnical site investigations
- Tailings dam design
- Construction site supervision
- Geotechnical modelling
- Project management
- Technical report writing
- Regulatory compliance
- Team leadership
- Client relations

HOBBIES & INTERESTS

- Reading non-fiction books (self development, business, and technical skills)
- Learning coding (Python and JavaScript)
- Back End and Web Development
- Cooking and Baking
- Gardening