



Geophysics

Geotechnics

Environment

Groundwater

Rock Mechanics

Geophysics

Earthworks

Integrated Practical
Solutions



Geophysics Services



Our 50 years of experience gained over 100,000 completed projects, combined with our highly skilled and hands-on team of consultants, delivers clients innovative advice and solutions across a wide range of industries.

Expertise from the Earth's Surface Down

Douglas Partners provides expertise for projects that interface with the Earth's surface. Specialist disciplines include geotechnical engineering, rock mechanics, contaminated land, groundwater, geophysics and earthworks.

We have wide regional coverage, with over 500 staff in 20 branches across Australia including 15 NATA registered laboratories. This allows staff and resources to be available on the ground to service projects quickly and reliably. Our specialist disciplines work closely together to provide integrated and efficient service and solutions.

Quality is a hallmark of our work. Of course we have an ISO9001 accredited QA system, however our dedication to quality runs much deeper than this, it's part of the culture and can be summed up by our mantra: "Keep it Simple, Get it Right, Do it Well".

With an in-house team of professional consulting staff with advanced capability in both land based and marine geophysics, Douglas Partners' highly qualified Geophysicists provide clients with services across a wide range of industries.





Services Across Sectors

Douglas Partners consulting services provide our clients with a range of integrated and specialist skills with the aim of delivering practical solutions across a large number of business sectors including:



DEFENCE



PROPERTY & BUILDINGS



WASTE MANAGEMENT



ENERGY



RESOURCES



WATER



HEALTHCARE



SPORT & RECREATION



LAND DEVELOPMENT



TRANSPORT



MARINE

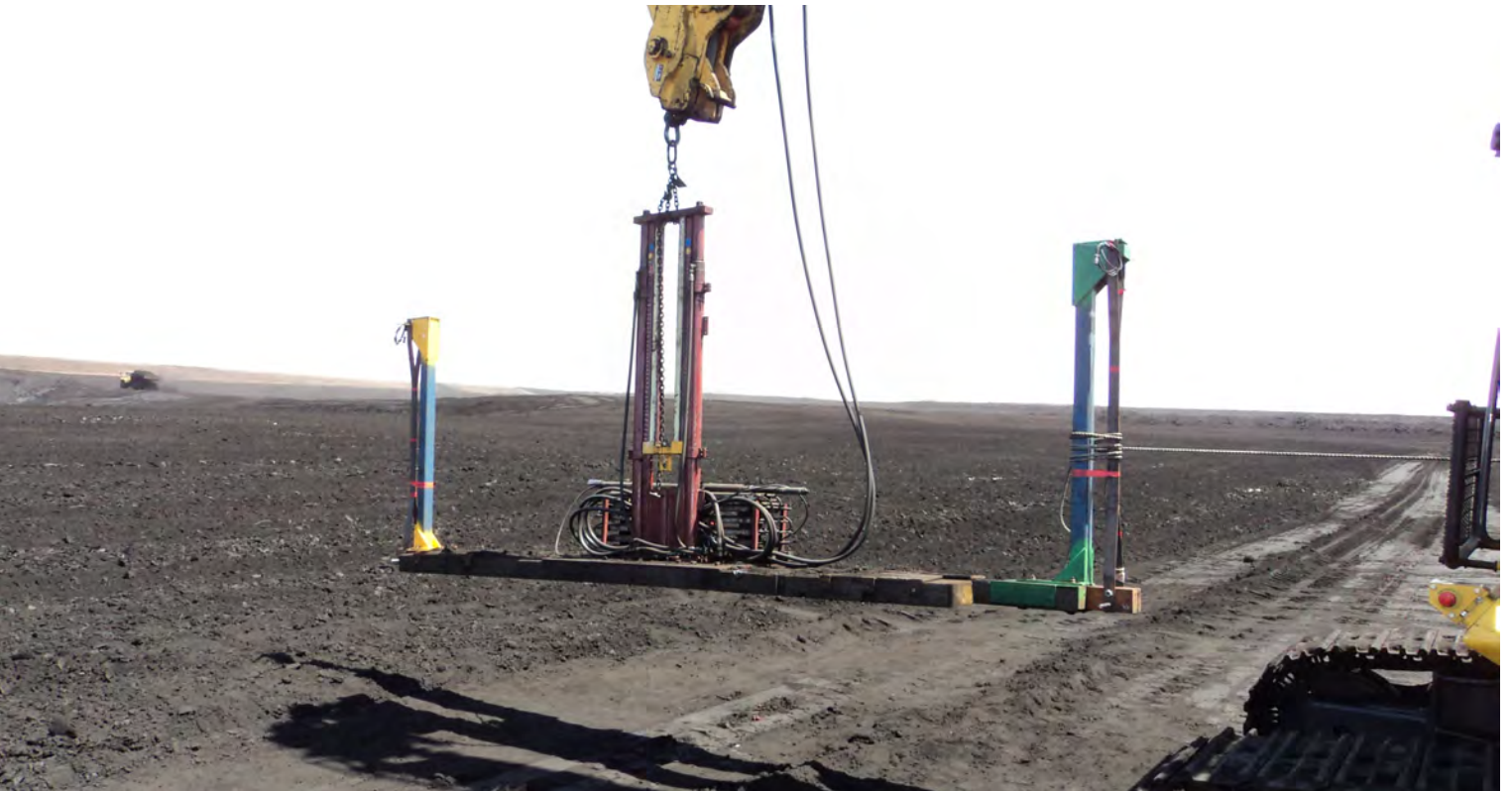


TELECOMMUNICATIONS



Integrated Practical Solutions

Geophysics Services



Utilising the expert skills of our in-house Geophysicists, Douglas Partners has a proven track record of providing innovative geophysical solutions, particularly where conventional intrusive methods are impractical or costly.

Our team of highly experienced Geophysicists specialise in the application of a broad range of techniques for geotechnical, environmental and groundwater investigations.

Geophysical Methods

Douglas Partners employs a variety of geophysical methods to investigate the subsurface. Commonly utilised techniques include:

- Seismic refraction profiling and tomography
- Electrical resistivity imaging and sounding
- Ground Penetrating Radar
- Multi-channel analysis of surface waves
- Downhole p- and s- wave and CPT seismic profiling
- Cross-hole 2D seismic imaging
- Marine Geophysics - seismic reflection and refraction, sonar, magnetics
- Geophysical borehole logging
- Ground Conductivity mapping
- Electromagnetics and Induced Polarisation
- Gravity and Magnetics

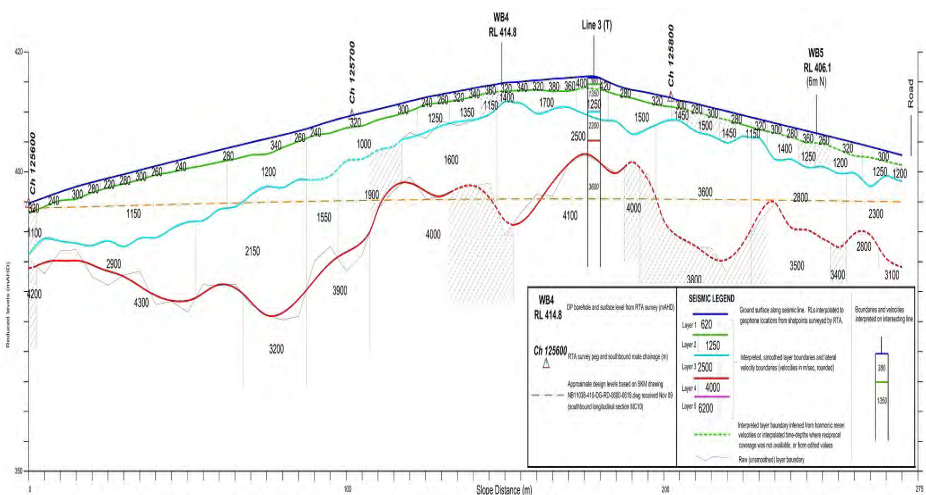


Seismic Refraction

Douglas Partners has been conducting seismic surveys across Australia and abroad for over 30 years. Seismic refraction is commonly used in geotechnical investigations to characterise rock strength for excavation planning.

Example:

Seismic Refraction Profiling along a proposed section of highway. Seismic velocities from the profile can be used to estimate excavatability.



“Without exception Douglas Partners have been able to add value to the project work we have been jointly involved in. We have found their staff to be knowledgeable, experienced, flexible, and a pleasure to work with.”

John Eggleston
Senior Project Manager
Robert Luxmoore Pty Ltd

Geophysics Services



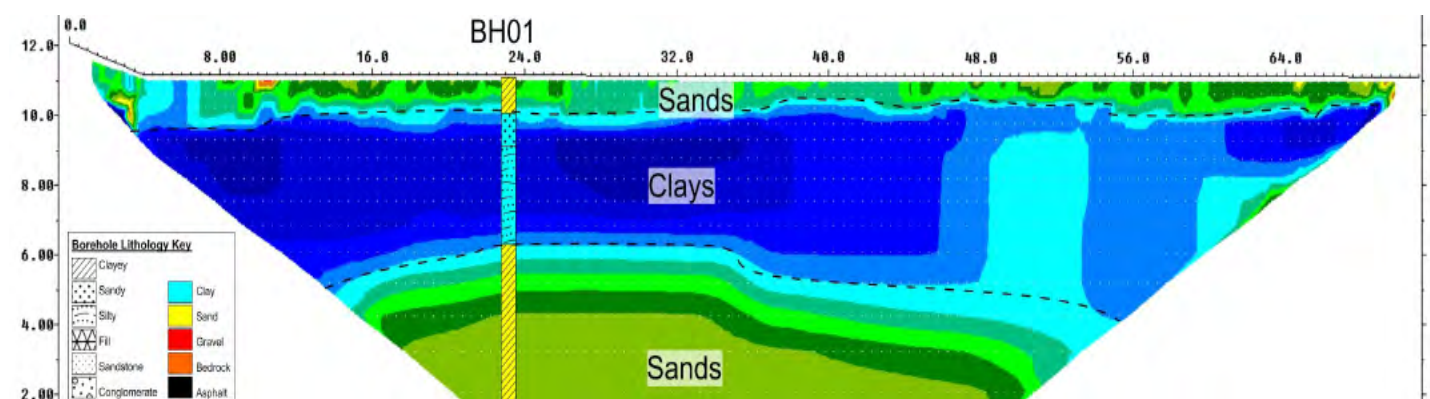
Electrical Resistivity Imaging & Sounding

Resistivity Imaging can provide cost effective, high resolution subsurface imaging, where sufficient contrast exists between the electrical properties of subsurface materials. The technique has been successfully applied by Douglas Partners in a wide variety of environments. Typical applications include:

- Layer mapping
- Depth to bedrock
- Landfill Investigations
- Void mapping
- Groundwater and contamination investigations

Example 1:

Mapping the continuity and thickness of a clay layer along a proposed highway route was considered necessary to help assess the likelihood of future subsidence. The models showed a strong correlation with nearby boreholes.



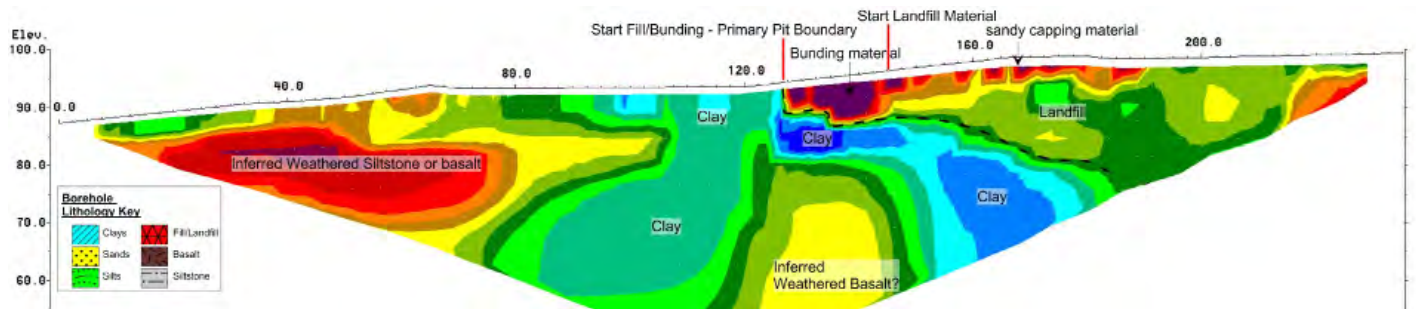


“At all times we have found that Douglas Partners has provided a high level of service to us. Their advice has been reliable and they have been very timely in their service delivery. Based on our experience to date, we wouldn’t hesitate to engage them in the future.”

*Stephen Parkin
Director
Armstrong Parkin Architects*

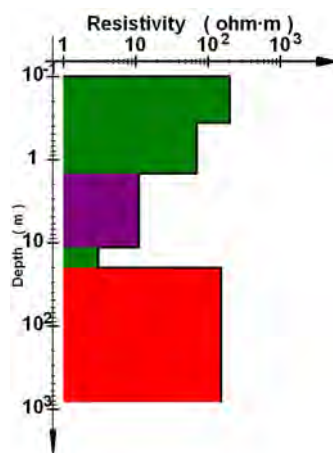
Example 2:

Mapping a landfill pit boundary was required for a proposed development. Resistivity contrasts between the landfill material and the underlying geology made delineation of the landfill boundary and thickness possible.



Vertical Electrical Soundings

Vertical Electrical Soundings provide a 1D electrical profile of the subsurface, commonly used in earthing design for lightning protection, electrical substations, power lines and pipelines.



Integrated Practical Solutions



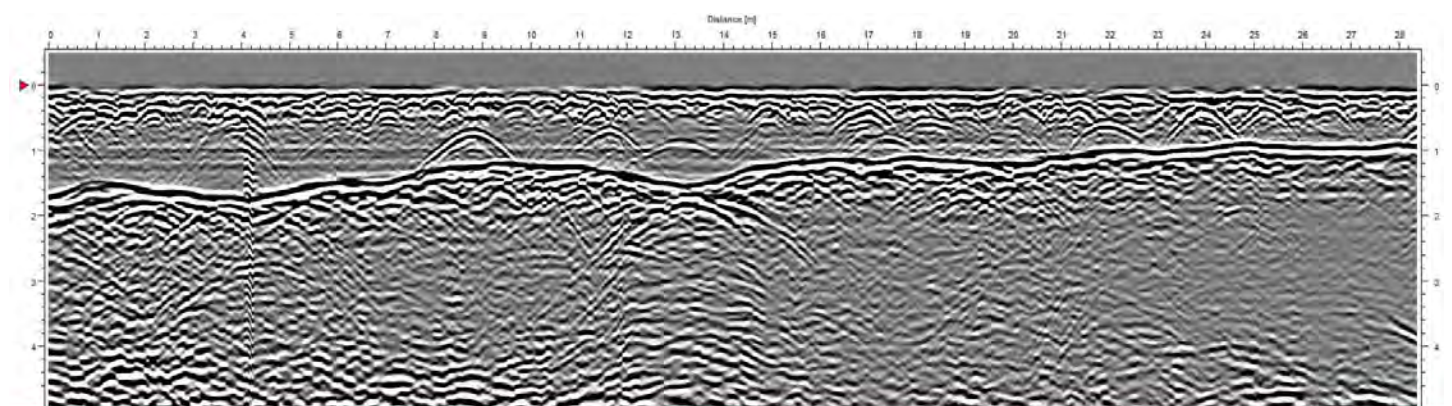
Geophysics Services



Ground Penetrating Radar

Ground Penetrating Radar (GPR) has gained widespread acceptance across a number of industries, in part due to the broad uptake by service locators and concrete scanners. However, implementation of GPR for more complex and detailed investigations requires specialist geophysical expertise. A good understanding of how soil conditions, survey design and data processing affect survey outcomes is vital for its successful implementation. Douglas Partners' Geophysicists have successfully implemented 2D and 3D GPR for a wide variety of applications, such as:

- Void mapping
- Pavement thickness assessment
- Depth to bedrock
- Coastal geology investigations
- Groundwater
- Structural engineering investigations
- Grave-site detection and mapping
- Archaeology

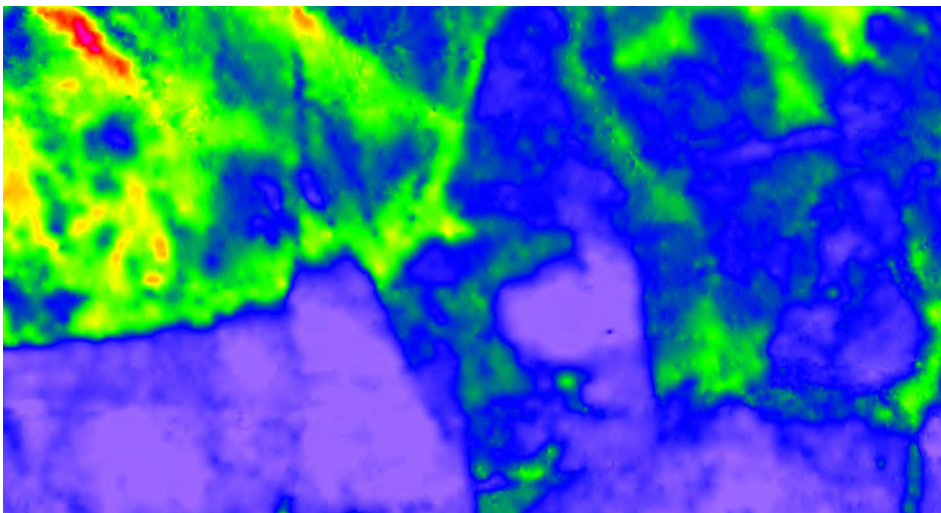




Ground Conductivity Mapping

Ground Conductivity Mapping is one of the most cost effective Geophysical methods available. Rapid acquisition is made possible using custom vehicle setups (using a 4WD or ATV). Ground conductivity and position data are logged continuously in real-time whilst driving, making it possible to cover many hectares in one day. Applications for conductivity mapping include:

- Salinity Mapping
- Soil thickness and depth to bedrock
- Landfill mapping
- Contamination plume mapping
- Soil mapping



“Sheargold use Douglas Partners for all of its geotechnical and contamination consulting because their services bring a brand of high quality and trusted service that is recognised by all stakeholders in the development industry.

When Sheargold engage Douglas Partners for assistance with challenging geotechnical issues, we are confident that we are getting the industry’s best practice solutions with a cost-conscious approach to the project.”

*Ryan Duff
Development Manager
Sheargold Group*



Geophysics Specialists

Our Geophysicists can mobilise to anywhere in Australia often at short notice. Our geophysical investigations utilise highly trained local field staff and logistical support from Douglas Partners' many offices nationwide. This enables projects to be undertaken effectively and at minimal cost to the client, as well as ensuring rapid deployment and a high level of quality control and safety on your project.

Directors and Principals are directly and actively involved in projects ensuring client access to the best available expertise and experience in the Company.

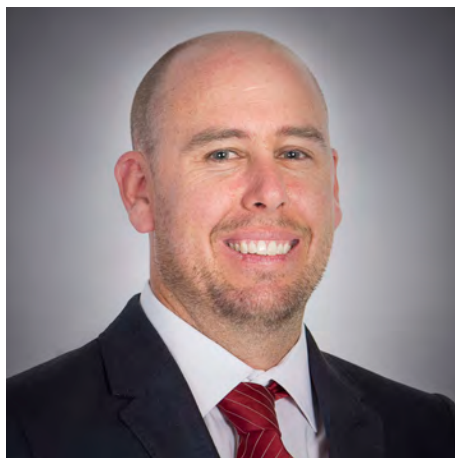
Meet some of our key geophysical experts from our Geophysical Group below.



ANTHONY KIELNIACZ

Senior Geophysicist

Anthony has over 20 years' experience in applying geophysical techniques to investigations ranging from exploration and mining to near-surface engineering. Anthony is interested in widening the range of geophysical methods that can be utilised in geotechnical and environmental investigations



JEREMY HILL

Senior Geophysicist

With over 10 years' experience in near surface geophysics, Jeremy specialises in the application of a variety of geophysical techniques for geotechnical, environmental and groundwater investigations. Jeremy has worked on numerous projects across Australia as well as the UK, Canada, Fiji, Taiwan, Cambodia, Chile and the Middle East.



JOHN LEAN

Principal / Engineering Geophysicist

John Lean is an engineering geophysicist with over 40 years of experience. John has carried out numerous land and marine investigations for geotechnical, environmental, groundwater and mining projects throughout Australasia, South East Asia and the Pacific and Indian Oceans, using a wide variety of geophysical methods.



FIONA MacGREGOR

Principal / Geotechnical Engineer

Fiona is a qualified engineering geologist and geotechnical engineer with more than 30 years' experience working on a wide range of projects around Australia. Fiona has undertaken geotechnical and hydrogeological investigations and provided geotechnical design and construction advice for road, highway, bridge, rail, tunnel, port and landfill projects as well as for residential and commercial developments.



JOHN BRAYBROOKE

Principal / Senior Engineering Geologist

John is a Senior Consulting Engineering Geologist with over 50 years of post-graduate experience in all facets of engineering geology, ranging from house sites to large scale infrastructure projects. John has worked in all states of Australia as well as Papua New Guinea, New Zealand, Indonesia, Malaysia, Philippines and Western Samoa.

“This team is efficient and service orientated and the level of mutual trust between our organisations ensures that Douglas Partners are our first choice consultant.”

*David Bobyreff
Director,
Minotaur Project
Management*



Metropolitan and Regional Coverage

For information on how Douglas Partners can assist on your project, please contact one of our branches below or email info@douglaspartners.com.au

BALLINA	☎ (02) 6681 1744
BRISBANE	☎ (07) 3237 8900
CAIRNS	☎ (07) 4055 1550
CANBERRA	☎ (02) 6260 2788
CENTRAL COAST	☎ (02) 4351 1422
COFFS HARBOUR	☎ (02) 6650 3200
DARWIN	☎ (08) 8948 6800
GEELONG	☎ (03) 5221 0711
GOULBURN	☎ (02) 4822 8395
GOLD COAST	☎ (07) 5568 8900
MACARTHUR	☎ (02) 4647 0075
MELBOURNE	☎ (03) 9673 3500
NEWCASTLE	☎ (02) 4960 9600
NTH WEST SYDNEY	☎ (02) 4666 0450
PERTH	☎ (08) 9204 3511
PORT MACQUARIE	☎ (02) 6581 5992
SUNSHINE COAST	☎ (07) 5351 0400
SYDNEY	☎ (02) 9809 0666
TOWNSVILLE	☎ (07) 4779 9866
WOLLONGONG	☎ (02) 4271 1836