CORPORATE PROFILE

Managing Your Risk, Assets, Plant & Equipment
COMPANY DETAILS

Company Name
PNG Technical Solutions
A joint venture between MDR Certification Engineers & The Anitua Group

Address
PNG

Lot 11, Section 55, Soare St, Gordons, NCD, Port Moresby
PO Box 911, Port Moresby, NCD121

AUSTRALIA

Unit 2/2 Redemptora Rd, Henderson, WA 6166
PO Box 608, Leederville, WA 6903

Website Address

www.mdr.net.au
www.anitua.com.pg

Year Established
PNG Technical Solutions 2017
MDR Certification Engineers 2001
The Anitua Group 1989
WHO WE ARE

PNG Technical Solutions are a Quality Engineering Business

In 2017 we began providing asset management and inspection services in PNG. The new PNG Technical Solutions office in Port Moresby offers end-to-end package solutions for facilities in the oil and gas and mining industries.

We provide to industries involved in mineral and energy development, chemicals and bulk liquids storage and production, fabrication and manufacturing to provide technical inspection, testing and business assurance services.

Our clients trust us to certify that their facilities and equipment are ready to perform to agreed specifications and production targets.

Multiple Services & A Tailored Approach

Managing Your Risk, Assets, Plant & Equipment
CORPORATE STRUCTURE & SUPPORT

PNG Technical Solutions is a Joint Venture Company

Our parent companies, MDR Certification Engineers and The Anitua Group, have forged the perfect partnership. Together, they represent 40+ years of technical expertise and PNG operational experience.

Parent Companies

MDR Certification Engineers is a Western Australian owned company. Established in Perth in 2001, they provide quality assurance and non-destructive (NDT) services for the oil and gas, construction, fabrication and mining industries in Australia and internationally.

The Anitua Group is a 100% PNG owned group of companies. Established in 1989, they provide a diverse range of services to clients throughout PNG and across numerous industries, including a strong focus on mining, oil and gas, construction, and civil construction.

The perfect solution for your engineering certification requirements.
MORE ABOUT MDR ENGINEERING CERTIFICATION

An Australian company established in 2001 in response to the requirement for quality assurance and inspection in the oil and gas industry, MDR Certification Engineers has grown to incorporate quality assurance demands in the mining, construction, fabrication and preventative maintenance market sectors. The company is now a trusted, third party quality assurance and inspection partner with its global portfolio spanning Australia, New Zealand, Asia, and now PNG.

The core competencies of MDR Engineering Certification are to categorize, assess, inform and mitigate risk when conducting welding procedures, pressure equipment inspection, welding inspection, certification or non-destructive testing. Their focus is to assess, advise and offer alternatives and solutions to eliminate or manage the most critical operating risk potentials.

MDR Certification Engineers offer:

- Quality Management
- Risk Based Inspection
- Non-Destructive Testing
- Non-Intrusive Inspection
- Quality Project Management
- Technical Excellence & Innovation

A team of more than 40 qualified technicians, inspectors and engineers (AICIP, AINDT, WTIA and API accredited) are charged with the innovative and technical aspects of MDR’s services. Their skill level, customer commitment and safety focus are second to none in the industry, enabling MDR to deliver both ‘off the shelf’ and tailor made client solutions.

Internationally Accredited

Our technical competence is accredited by NATA for ISO 9001 specific to 17020 and 17025, which underpins our approach to third party assurance services.
MORE ABOUT THE ANITUA GROUP

A 100% PNG landowner owned company established in 1989, the purpose of establishing the Anitua Group was to provide a means for landowners to participate in the Lihir gold project, one of the world’s largest gold mines.

The Group’s impressive portfolio of businesses includes:

- Anitua Corporate Services
- Anitua Mining Services
- Anitua Radial Drilling Services
- Central Drillers
- Anitua Constructions
- GDA Fabrications
- PNG Technical Solutions
- Anitua Protective Services
- Anitua Supermarket
- Anitua Hardware
- Anitua Investments
- Anitua Properties
- Anitua Insurance Brokers
- Anitua Farms
- Lihir Auto Services
- Lihir Investments (Australia)
- NCS Holdings
- The Alliance Group (TAG)

Financially Stable With Good Governance

The Anitua Group is a World Bank commended “premier example of a group of successful landowner owned business in PNG.” All of its companies are run to board level, with proper accounting, board meetings, dividends and sustainability provisions.

Community Commitment & Prosperity

Anitua provides prosperity to the communities in which it operates through employment, training, social services and sponsorship – 97% of Anitua’s workforce are PNG nationals. It is little wonder that the Group has gained the respect and confidence of many landowner groups across PNG given its commitment to ensuring that landowners get to participate in, and benefit from, major projects.
**PNG TECH SOLUTIONS & OUR SERVICE**

1. Quality Project Management
2. Non-Invasive Testing
3. Risk Based Inspection
4. Non-Destructive Testing
5. Technical Solutions

**OUR TECHNICAL EXPERTISE**

<table>
<thead>
<tr>
<th>QPM &amp; QM</th>
<th>NII</th>
<th>RBI</th>
<th>NDT</th>
<th>TS</th>
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</thead>
<tbody>
<tr>
<td>QUALITY &amp; PROJECT MANAGEMENT</td>
<td>NON-INVASIVE INSPECTION</td>
<td>RISK BASED INSPECTION</td>
<td>NON DESTRUCTIVE TESTING</td>
<td>TECHNICAL SOLUTIONS</td>
</tr>
<tr>
<td>NDT, RBI, NII, QM</td>
<td>CM (corrosion mapping)</td>
<td>CPI (classified plant inspection)</td>
<td>UT (ultrasonic testing)</td>
<td>Sand blasting &amp; painting</td>
</tr>
<tr>
<td>Coating Inspection</td>
<td>LS (laser surveys)</td>
<td>WPQ (weld procedure qualification)</td>
<td>MT (magnetic particle testing)</td>
<td>Hydrostatic testing</td>
</tr>
<tr>
<td>Material Inspection</td>
<td>X-Ray</td>
<td>WQ (welder qualification)</td>
<td>PT (dye penetrant testing)</td>
<td>PWHT (post weld heat treatment)</td>
</tr>
<tr>
<td>NDT</td>
<td>Drone Inspection Surveys</td>
<td>EA (engineering assessments)</td>
<td>RT (radiographic testing)</td>
<td>Insulation &amp; lagging</td>
</tr>
<tr>
<td>Commissioning</td>
<td>Thermography</td>
<td>Condition Monitoring</td>
<td>EC (eddy current testing)</td>
<td>Oil &amp; fuel analysis</td>
</tr>
<tr>
<td>WPQ (weld procedure qualification)</td>
<td>Vibration Analysis</td>
<td></td>
<td>VBT (vacuum box testing)</td>
<td>Mechanical testing</td>
</tr>
<tr>
<td>WPS (weld procedure specifications)</td>
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<td></td>
<td>PA (phased array)</td>
<td></td>
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<tr>
<td>MDR (manufactured data records)</td>
<td></td>
<td></td>
<td>PMI (positive material identification)</td>
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<tr>
<td>ITP (inspection test plans)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>WI (welding inspection)</td>
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**ADDITIONAL SERVICES TAILORED TO YOUR SPECIFIC NEEDS**

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PNG Technical Solutions draws upon 40+ years of international experience in workplace health and safety in the mining and oil and gas industries. Our systems and procedures are governed by some of the strictest safety legislation in the world and are in accord with PNG and Australian safety legislation.

We have a team of more than 80 technicians, inspectors and engineers on projects in PNG.

Employee training and development drives continuous improvement in safety and in the management of risk throughout our workplaces, operations and processes.

PNG Technical Solutions’ focus on safety extends beyond our organisation to collaborative programs with our clients and business partners.

Our expert Safety, Health, Environment and Community team operates with the single aim of maintaining safety as our number one priority. Our systems align to ISO 18001, 14001 and 9001 principles.
MAP OF LOCATIONS

MAP KEY

- C Construction
- M Mining
- O Oil & Gas
- P Petrochemicals
- F Fabrication
- O Office

Cities and Locations:
- Mumbai
- Dalian
- Shanghai
- Seoul
- Hong Kong
- Kuala Lumpur
- Pagerungan
- Melbourne
- Grove
- Port Morsby
- Sydney
- Wellington
- Kawarau
- Gujaret
- Mumbai
- Kununurra
- Port Hedland
- Dampier
- Derby
- Karratha
- Broome
- Onslow
- Exmouth
- Carnarvon
- Perth
- Kwinana
- Northam
- Albany
- Cook
- Geraldton
- Newman
- Darwin
- Port Morsby
- Lihir
- Port Morsby
- Grove
- Port Morsby
- Lihir
- Port Morsby
PROJECT HISTORY & EXPERIENCE

New Client Relationship

Timeline

- BHP IRON ORE
- RIO TINTO
- EVT WHEATSHORE PROJECT
- TRONEX
- FMG WHARF CONSTRUCTION
- SAMSUNG ROY HILL
- COOGEE CHEMICALS
- BHP NICKEL
- LIHIR GOLD
- NEWCREST MINING

Timeline Key:
- C Construction
- O Oil & Gas
- F Fabrication
- M Mining
- P Petrochemicals
## CASE STUDIES

<table>
<thead>
<tr>
<th>CLIENT</th>
<th>LOCATION</th>
<th>YEAR</th>
<th>SERVICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mondelphous &amp; LCS / Downer</td>
<td>Papua New Guinea</td>
<td>2017</td>
<td>Conducted industrial X-rays on various production piping and other assets at Newcrest Mining’s Lihir gold operation. Cost savings through the use of PNG Based business. Also, repairs, variations, and additional work that may be required could be approved immediately and reported onsite prior to demobilisation reducing the time production assets may be shutdown.</td>
</tr>
<tr>
<td>Samsung</td>
<td>China</td>
<td>2015</td>
<td>Inspected the fabrication compliance of the iron ore ship loaders, iron stackers, car dumpers fabricated in Dalian, China for the Roy Hill iron ore project. MDR Inspectors played a major role ensuring these assets were fabricated to Australian standards. This reduced the cost of the repair works to the assets on arrival in Australia. The average cost saving on re-work per production asset was between $50,000-80,000. In total 12 production assets were fabricated. Additional savings associated with the reduced downtime for the mining asset to start mining production.</td>
</tr>
<tr>
<td>BHP</td>
<td>India</td>
<td>2014</td>
<td>Audited and evaluated the welding, material coating, piping, packing and compliance to Australian standards of various pressure vessels fabricated in India for an oxygen plant in Australia. The rework required in Australia was minimal. Four areas of major cost savings: 1) Repairs or non-compliant items were corrected and paid for by the fabricator. Repairs were approved for compliance prior to shipping to the client’s site. 2) Auditing and quality management at the fabrication site reduced the cost of re-work on receipt of the asset at the client’s site. 3) Minimal delays in the commencement of production. 4) Reduced number of maintenance shutdowns and possible 5-10 year extension of production life of the asset (when production process well managed).</td>
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## CASE STUDIES CONTINUED

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<tr>
<td>Chevron</td>
<td>Wheatstone, WA</td>
<td>2016</td>
<td>Contracted by EVT to undertake the inspection of the LNG and condensate tanks. Each tank diameter is approx. 90m by 54m high, which equates to more than 900 km of testing and inspection. MDR has worked outside of its scope of works in keeping the construction schedule on track, utilising conventional and non-conventional inspection methods.</td>
</tr>
<tr>
<td>Coogee Chemicals</td>
<td>Kwinana, WA</td>
<td>2007 - 2016</td>
<td>Current scope of works includes inspection of a new petroleum pipeline and ongoing preventative maintenance. Pipeline scope of works required x-ray inspection, however MDR's proposition to use UT has saved the client around $50k, as well as reduced potential exposure to radiation with zero disruption to production.</td>
</tr>
<tr>
<td>Rio Tinto</td>
<td>Pannawonica, WA</td>
<td>2015 - 2016</td>
<td>Scope of works include maintenance inspection of mining and production assets. MDR introduced a new phased array technique for the inspection of iron ore conveyor belts, which previously required inspectors to climb onto the belts. MDR's initiative has enabled inspection to be conducted from walkways creating a safer workplace.</td>
</tr>
<tr>
<td>BHP Nickel</td>
<td>Kwinana, WA</td>
<td>2016</td>
<td>Scope of works include the assessment of deformation, banding and settlement of a nickel process tank. To ensure zero production downtime, laser scanning technologies have been engaged to assess the entire tank from ground level, without the requirement for scaffolders, or manual inspection. The result provides 3D images of the deformation area for an engineering assessment to assist with the risk based inspection.</td>
</tr>
</tbody>
</table>
## CASE STUDIES CONTINUED

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</thead>
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<tr>
<td>Lihir Gold</td>
<td>Lihir Island, Papua New Guinea</td>
<td>2009 - 2011</td>
<td>Construction of a 600 person camp including all messing, accommodation, laundries and recreational facilities. This project provided employment for well over 250 local Papua New Guineans and remains one of the mines number one accommodation areas.</td>
</tr>
<tr>
<td>Newcrest Mining</td>
<td>New Ireland Province, Papua New Guinea</td>
<td>2012 - Current</td>
<td>Construction of remote school buildings and facilities throughout the New Ireland Province. We’ve completed over 30 dwellings between Lihir Island and New Hanover. We’re currently constructing an additional 15 buildings in Kavieng while employing as much local labour from the surrounding villages as possible. Anitua are working closely with our client to offer additional construction services in remote PNG.</td>
</tr>
<tr>
<td>General</td>
<td>Papua New Guinea</td>
<td>2004 - Current</td>
<td>We continue to offer services to Newcrest Mining on Lihir Island as well as other clients throughout PNG. Our services are tailored to our clients’ needs and include but are nowhere limited to: Construction of housing, warehouses and shop fitouts. We offer a full glass and aluminium service as well as a complete joinery workshop. We provide such works as construction of Armco Barriers, office and container refurbishments, optic fibre installations, concreting and all general building and construction maintenance.</td>
</tr>
</tbody>
</table>
KEY CONTACTS

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