



CAPABILITY STATEMENT

MINING & MINERALS

THE PURPOSE

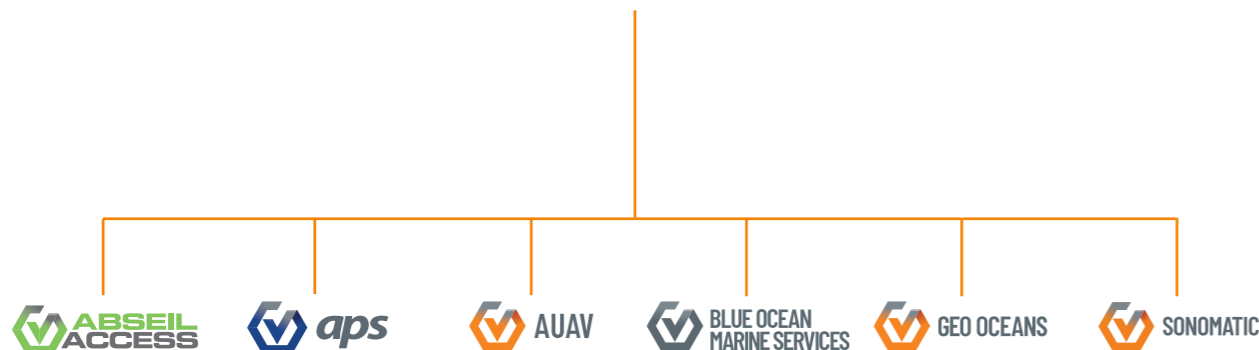
This document will assist our clients and the supply chain in understanding our group operating structure and a high-level understanding of the benefits, services, and specialist packages associated with our mining & minerals specialisation.



COMBINED SERVICES

Vertech Group is a leading provider of specialist Mining and minerals services. We support the development, inspection, integrity and maintenance of mine sites and the nationwide infrastructure. Our services include project management, NDT, drone inspections, 3D modelling, and specialist maintenance. We also offer Jetty and export infrastructure services, including NDT, inspection, and environmental surveys. Our commitment to enhancing Australia's Mining infrastructure contributes significantly to our economic stability and growth. Our group comprises complementary and specialist service providers assisting us in innovation and project delivery across the mining landscape.

Vertech provides specialist access, maintenance and repairs; Geo Oceans is an industry leader in Mini-ROV IRM and water inspection services. Sonomatic is recognised as a global leader in specialised NDT. AUAV delivers specialist UAVs, Drones and 3D Modelling, and Blue Ocean Marine Services are experts in deploying AUVs and ASVs. As a cohesive unit, we can provide an unparalleled array of services and packages tailored to the needs of each client and the specific asset. No matter the scope, we offer the best, including a pedigree in specialist access solutions, NDT and inspection, high mobility fabric maintenance, composite wraps, geophysical, met ocean and environmental surveys, AUV, ASV, ROV survey and inspection.



MINING & MINERALS

Vertech Group is at the forefront of delivering specialised services to the mining and minerals sectors, emphasising excellence in project and program management, comprehensive shutdown and turnaround support, non-destructive testing (NDT), drone inspections, 3D modelling, and specialised maintenance. Our commitment extends to offering tailored solutions for access, integrity, and remediation of import and export terminals and jetties, thereby contributing significantly to maintaining and enhancing Australia's mining infrastructure—a key pillar of our nation's economic stability and growth.

Within our accomplished team, we boast specialised service providers who bring innovative solutions to the marine infrastructure landscape. Geo Oceans specialises in Mini-ROV IRM and subsea inspection services, while Sonomatic excels in specialised NDT services. AUAV takes the lead in delivering cutting-edge UAVs, drones, and 3D modelling services. Conversely, Blue Ocean Marine Services is an expert in deploying autonomous underwater vehicles (AUVs) and surface vehicles (ASVs). Our commitment extends to crafting customised packages that cater to each client's unique needs.

With a wealth of experience, we are proficient in delivering specialist access solutions, NDT and inspection services, fabric maintenance, geotechnical, met ocean, environmental surveys, and AUV, ASV, and ROV survey and inspection services. Vertech Group is dedicated to pushing the boundaries of innovation and excellence, ensuring Australia's mining's sustainable development and resilience.

ASSET OPERATING EXPERIENCE



GROUP ACCREDITATIONS

- ISO 9001:2015
- ISO 14001:2015
- ISO 29001:2020
- ISO 45001:2018
- ABS Approved Supplier for UAV
- ABS Remote Inspection Techniques (ROV)
- BV Remote Inspection Techniques
- Vertech IRATA Operator
- LR Thickness Measurements of Hull Structure
- NATA Lifting and Lifted Inspection
- NATA Pressure Vessel Inspection
- NATA NDT Inspection
- CASA UAV Accreditation



Geo Oceans has supported mining & minerals clients to obtain environmental approvals and construct, develop and maintain jetties, wharves, channels, harbours and renewables infrastructure throughout Australia and internationally for over a decade. Our experience includes designing and implementing survey and monitoring programs for benthic marine habitats and engineering inspections, surveys and intervention tasks for pipelines, jetties, wharves and marine infrastructure.

We develop and deploy industry-leading and award-winning remote technologies, including:

GO Visions™ benthic habitat mapping and monitoring software and towed underwater camera and Mini ROV hardware used for environmental approvals and compliance monitoring around jetties, harbours, shore crossing pipelines and inshore marine environments;
Mini-ROV CSS - ROV technologies we deploy from wharves or vessels for engineering inspections, subsea cleaning, NDT, and light intervention work around the jetty and wharf infrastructure.

We have a strong team of Marine Science, Subsea Inspection and engineering professionals dedicated to deploying remote subsea survey and inspection technologies to add value to our client projects.



Sonomatic is a worldwide organisation whose expertise in ultrasonic inspection design, development and application dates back more than Thirty years to our roots in the nuclear sector. Today, the company has widened its focus. It provides proven yet pioneering services to customers in defence and power generation. However, our most extensive client base is in the challenging oil and gas industry, both upstream and downstream.

Sonomatic's capabilities for developing software, systems and scanners, often for bespoke applications, coupled with the expertise of our engineers, means we are among the leaders within this highly specialised field.

Sonomatic pioneered the industrial application of a range of widely used inspection methods, e.g. Time of Flight Diffraction (TOFD), and continues with active development of innovative inspection and deployment methods that are applied by our team of experienced field service engineers.

Sonomatic also provides Integrity Services, supporting our clients with planning and evaluating inspections and using advanced statistical methods to maximise the value of data obtained. Integration of our integrity and inspection services for non-intrusive inspection (NII) benefits the client by allowing vessels and equipment suitable for NII to be identified. It reduces the need for costly plant shutdowns to assess the internal condition.



Established in 2013, AUAV has revolutionised Australia's drone inspection, survey, and mapping services. Our distinctive approach includes a dedicated full-time staff, ensuring uncompromised safety, technical expertise, and ISO-certified excellence. With end-to-end data control and specialised inSite™ software, we optimise data collection and insights across diverse industries.

AUAV's expertise extends to coastal environments, where we excel in assessing and managing coastal assets. From erosion monitoring to coastal infrastructure assessment, our drone technology offers tailored solutions to unique coastal challenges. Our recent integration with the Vertech Group further enhances our capabilities, combining complementary skills and expanding our service offerings to include underwater inspection, NDT, and rope access.

Driven by innovation and professionalism, AUAV continues to set industry standards. Our commitment to delivering exceptional results, coupled with our comprehensive coastal component and expanded capabilities through Vertech Group, solidifies AUAV's position as a drone inspection, survey, and mapping services leader.



Blue Ocean Marine Services (BOMS) is a Joint Venture between Blue Ocean Marine Tech Systems and the Vertech Group. With a strong management team and a clear vision, the company is committed to driving positive change across the offshore industry by collaborating with clients and partners to increase efficiencies and lower costs. Combining unconventional thinking and decades of experience, they provide highly effective offshore survey solutions using leading-edge autonomous (unmanned) survey platforms and sensors.

The company's approach is agility and innovation, promptly developing and responding to clients' specific technology needs and project requirements. This approach has seen the company quickly gain the attention of significant clients across various sectors and forge new ways to provide fit-for-purpose, cost-effective data acquisition solutions.

MINING & MINERALS SERVICES

JETTY 3D DIGITAL TWIN

AUAV's inSite™ is a proprietary web GIS platform for presenting high-resolution 3D models with a linked photo view for asset inspection, measurement and annotation tools, including issue discussion threads, drone and other data sources, satellite data, GIS and BIM overlays.

Clients or 3rd party engineering firms can use the 3D models to create work packs and tenders, manage asset integrity or for general inspection review.

MECHANICAL FITTING

Our multi-disciplinary teams provide high mobility mechanical maintenance, upgrade or repair services on a range of equipment during routine operations, shutdowns, turnarounds or on a call-out basis.

PAINTING & BLASTING

Vertech's fabric maintenance teams provide a range of high-mobility surface treatments and coating system applications, all underpinned by our various access specialisations. In addition to standard or conventional methods, we can apply a range of composite wraps explicitly selected for each scenario and structure.

HAZARDOUS AREA INSPECTION

Our team and electrical partners provide end-to-end electrical solutions, including engineering, design, procurement, installation and repair. Our electrical specialisation focuses on Ex hazardous area inspections, testing, compliance and installations with a custom-built management system with RFID capability.

ACCESS MANAGEMENT

Vertech was a pioneer of rope access in Australia. We imported the first decking systems to the Asia Pacific region and were responsible for designing and installing the first offshore safety netting and tension netting systems in Australia. Our team is also highly experienced in installing scaffold and custom access platforms on oil and gas sites, having done so across the country.

WELDING & BOILER MAKING

We offer various site welding services, including welding procedure qualifications (WPS/ PQR/WQR), QA/QC, and NDT verification. Our teams have completed liner replacements, bin repairs, structural repairs, jetty weld refurbishment and equipment modification work.

MAINTENANCE

INSPECTION



NON DESTRUCTIVE TESTING

Vertech Group are certified to ISO 17025 as an NDT inspection body by the National Association of Testing Authorities (NATA). Our NDT inspection personnel are highly qualified, skilled and experienced in the application of conventional and advanced inspection and testing methods.

UAV & REMOTE DIGITAL VISUAL INSPECTION (RDVI)

Vertech was the first Australasian company accredited for ABS and Lloyd's registered UAV inspections. Our fleet of UAVs is capable of extensive land mass survey and mapping, jetty surveying, process, plant and structural inspection and confined space inspections.

Our RDVI Division has an active partnership with GE Inspection Robotics to offer cutting-edge RDVI inspections. Our team combines proprietary tools and systems with the latest crawlers and advanced camera systems to eliminate the risk of confined space entry.

API & AICIP INSPECTION

Vertech provides comprehensive inspections of pressure piping and pressure vessels. Our SMEs are trained in applying Australian and NZ in-service standards such as AS3788, AS4343 and AS1210. Our team is also qualified in API codes such as API 510, API 570, and API 579 and ASME codes ASME B31.3 and ASME B16.5.

MINI ROV INSPECTION

Through our wholly-owned subsidiary Geo Oceans, we deliver detailed structural inspections, post-cyclone surveys, NDT and other detailed environmental or industrial Inspections with Mini Remotely Operated Vehicles (Mini-ROV). We can remove the risk, cost, and time associated with diving operations by deploying from the shore, jetty, or nearby structures.

AUTONOMOUS UNDERWATER VEHICLE (AUV)

AUVs are unmanned vehicles that navigate deep seas autonomously. They are used offshore for seabed mapping, pipeline inspection, and more. AUVs are a safer, cost-effective, and time-efficient alternative to traditional methods. They reduce the need for human divers in potentially hazardous environments. AUVs provide high-resolution data for accurate decision-making in various projects. The deployment of AUVs ensures enhanced safety and sustainability in ocean-based industries.

SPECIALIST PACKAGES



UNDER JETTY ACCESS & MAINTENANCE

An all-encompassing above and below-water turnkey jetty integrity package. Our team utilises specialised access systems, engineered decking, NDT, and mini remotely operated vehicles (ROV) to plan and implement remediations for jetties and wharves. This package has consistently recorded savings between 40-60% compared to conventional campaigns.



SHUTDOWN & TURNAROUND

Vertech's V-TAR Specialist Package offers integrity, inspection, and access services for specialist shutdown or turnaround projects. A well-planned shutdown can positively impact the plant and extend its operating life. Vertech has completed major shutdown and turnaround projects across Australia and New Zealand. They have refined their processes to ensure minimal chances of delay.



GEOTECH

Our Geo Tech package includes survey, planning, drilling, anchoring, meshing, stabilisation, and various access systems to ensure the stability and safety of all geotechnical features or slopes. This package can also include UAV inspection and area surveys.



INSITE DIGITAL TWIN

inSite™ is a web-based GIS platform focusing on visual asset inspection using drones. It offers a complete 3D site capture and displays various data types, such as laser scans, videos, as-built models and reports. All data is securely accessible using a standard web browser. inSite™ hosts large datasets and multiple GIS datasets within a single portal. It also offers built-in measurement and analysis tools.





AERIAL SURVEY & MAPPING

AUAV offers top-tier aerial surveying and mapping services using state-of-the-art drones and skilled surveyors. We aim to provide the highest quality results with centimetre-level accuracy, enabling our clients to make agile decisions. Our maps and survey data have a 1-3cm resolution per pixel, and our 3D terrain models are accurate to approximately 50mm horizontally and 50-80mm vertically.

3D DIGITAL TWINS (InSite)

AUAV's InSite software is a cloud-based drone data presentation and asset inspection platform. Its features include 3D site capture, integration with other systems, customisable options, and versatile data display capabilities. The software is geared towards clear data capture, essential for in-depth analysis and informed decision-making in drone operations and data processing services.

DETAILED CLOSE VISUAL INSPECTION

Drones are crucial for detailed, safe, and efficient visual inspections in infrastructure maintenance, construction, and energy. With high-resolution cameras and advanced stabilisation technologies, drones can inspect structures like bridges, wind turbines, and high-rise buildings, reducing the need for human inspectors in dangerous or hard-to-reach areas. The agility of drones captures a wide range of angles and perspectives, providing comprehensive visual data that speeds up the inspection process, increases accuracy, and improves maintenance decisions. Using drones exemplifies the integration of technology in modernising and optimising industrial and maintenance practices, making them safer, more efficient, and cost-effective.



LIDAR

Drone-based LiDAR is an aerial surveying technique for generating point cloud data for topographical surveys. AUAV has extensive experience in collecting, processing and delivering LiDAR data for mining, engineering power sector and environmental clients. With hundreds of points per square meter, the data is beneficial for surveying areas with vegetation, analysing power line infrastructure and landslip analysis.

MARINE DRONE INSPECTION

AUAV's Terrestrial and Marine Bathymetry services utilise advanced drone technology for marine inspections and asset management. They offer a modular industrial inspection rover with an integrated camera and lighting for detailed imagery in confined spaces. The service specialises in capturing 3D spatial and condition data for marine infrastructure using drone aircraft and surface/submarine ROV technology. This approach reduces risks, saves time, and allows access to hidden or inaccessible areas while cutting traditional inspection costs and providing comprehensive asset data.

AERIAL PHOTOGRAMMETRY

Photogrammetry is the term used for creating very accurate 3D data from photographs. This is a speciality of AUAV, where our team routinely captures and processes models with 100,000 high-resolution images to create digital twins of assets. These digital twins have resolutions between 1cm and 1mm, enabling the engineering inspection of assets, tendering for remediation or demolition, facilitating design works or various virtual reality applications. AUAV have developed a bespoke online platform, inSite,

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