

RESOURCES

**DECOMMISSIONING, DECONSTRUCTION
& REMEDIATION CAPABILITY**



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Our team has delivered some of the largest and most complex decommissioning, demolition and remediation projects in the world. Tap the play button above to learn more about what we do.

Liberty Industrial

We are an award-winning provider of specialist decommissioning, deconstruction, and remediation services across the globe.

Our team generate value by providing complete integrated solutions. Together, we have set a new benchmark for our industry, cementing our status as a contractor of choice for the delivery of large and complex projects near and far.



01

Closure Consulting & Demolition Engineering



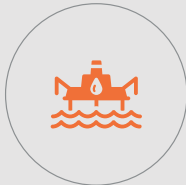
02

Demolition Simulation & Modelling



03

Decommissioning



04

Decontamination & Industrial Cleaning



05

Ground & Waste Water Treatment



06

Dismantling & Demolition



07

Asset & Resource Recovery



08

Site Remediation



Future Proof & Fit-for-Purpose

As dependency on the coal mining industry decreases alongside Australia's rapid move towards cleaner energy solutions and lower emissions, coal-fired power stations are entering into a new phase - end of useful life.

Closure of these sites often require comprehensive closure planning and subsequent decommissioning, decontamination, deconstruction and remediation. These stages are necessary to prepare the site for more diverse future uses.

WHAT WE DO

Liberty Industrial offers a comprehensive range of integrated capabilities, including consulting services such as early contractor involvement, decommissioning, decontamination and hazardous material removal, demolition and dismantling services, industrial cleaning and site remediation and rehabilitation.

THE BENEFITS

Continuity of works, an accelerated delivery schedule and cost savings are just some of the synergy benefits of our integrated services offering.

Douglas Mine Site Demolition, VIC for Illuka Resources



Accurate Closure Planning

We provide specialist decommissioning, demolition and remediation consulting services to complement our contracting division and deliver high-quality, objective advice.

As an industrial specialist, we can provide long term plant closure concepts, budgets, and redevelopment strategies for redundant sites.

Years of experience enable us to expertly assess and engineer closure plans and provide advice compliant with International Financial Reporting Standards.

WHAT WE DO

- Decommissioning, Deconstruction & Remediation Planning
- Detailed Costing/Estimating
- Project Risk Register
- Early Contractor Involvement
- Quantity Take-off
- Detailed Methods
- Scheduling & Programming
- 3D Modelling & Structural Analysis
- Drone 3D Mapping, Thermal Imaging & LIDAR scanning

By understanding the client key drivers (including the end point or future site use) we are better equipped to provide fit-for-purpose, sustainable closure solutions.



Hismelt Kwinana Closure, WA for Rio Tinto

3D MODELLING & SIMULATION

Liberty Industrial has acquired the exclusive Australian propriety license to operate the Extreme Loading for Structures (ELS) software developed by Applied Sciences International (ASI) based in the USA.

Liberty Industrial can model and simulate proposed demolition methodologies before execution. Serving as a key risk minimisation strategy for clients with large, technically challenging projects, the software allows us to visually demonstrate several plans and scenarios.

EARLY CONTRACTOR INVOLVEMENT

By understanding the client key drivers (including the end point or future site use) we are better equipped to provide fit-for-purpose closure solutions. This can include:

- De-energisation and decommissioning plans.
- Hazardous material audits.
- Identification of project risk items.
- Identification of salvageable infrastructure and equipment to maximise commercial benefit and lower decontamination costs.
- Initiating the diversion of services so that future demolition activities are not impacted.
- Developing best-practice demolition methodologies.
- Contaminated material management and licensing for potential on-site landfill.
- Providing cost-benefit analysis for transport and disposal/risk allocation/on-site depository scenarios.
- Identifying environmental considerations and understanding sustainability drivers.
- Providing information and staging plans for scrap processing and laydown yards.
- Temporary power requirement.
- Early engagement with regulatory authorities - Guidance with local council and EPA.
- Providing certainty on programming and project timeframes.
- Development of accurate costings for budgetary purposes.

Bulwer Island Refinery Gantry Demolition, QLD
for BP



Dismantling & Asset Recovery

Liberty Industrial offers a complete dismantling and asset recovery service, covering all aspects of dismantling, resale and relocation.

We have demonstrated experience realising maximum value from a wide range of reusable plant, process equipment and scrap materials. We also have an extensive network of asset resale and resource recovery partners to negotiate the sale of unwanted or disused assets.

We provide all facets of the chain of custody to ensure structures are easily match-marked for reconstruction.



Gladstone Air Separation Unit (ASU) Plant
Demolition, QLD for Air Liquide

Resource Recovery & Recycling

We take a resourceful and innovative approach to project delivery, ensuring waste is managed responsibly and sustainably.

We have established a national network of waste recovery and recycling resources to ensure we optimise salvage and recovery value to deliver positive commercial outcomes for all.

SERVICES WE OFFER

- Scrap Metal Processing & Recycling
- Precious Metal Segregation & Salvage
- Screening for Waste Minimisation
- On-site Crushing for Reuse
- Resale Options for Recycled Materials
- Reuse of Recycled Materials for Engineered Remediation Solutions or Rehabilitation



ENVIRONMENTAL STEWARDS

We are committed to exemplary environmental compliance and stewardship, so our goal of environmental sustainability always underpins our business practices and guides our daily operations.

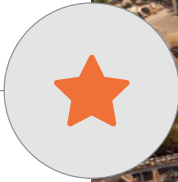
An enviable track record of environmentally sustainable practices and an uncompromising approach to environmental management has allowed us to routinely achieve upwards of **95% recovery**, delivering positive environmental outcomes and creating value for our project stakeholders.

Wallerawang Power Station Demolition, NSW
for Greenspot



SAFETY

Our highest priority and the foundation of everything we do.



EXCELLENCE

Industry leadership, best practice and operational excellence.



INNOVATION

Challenging convention and leveraging technology to deliver expert solutions.



SUSTAINABILITY

Exemplary environmental performance and stewardship.



PEOPLE

Commitment to our people, social diversity, and our contribution to the community.

Expert Delivery

Investment in the future is our priority.

Utilising the most advanced technology and equipment in combination with our ability to leverage the best minds in the business has ensured we deliver innovative, cost-effective solutions that maximise value for our clients and project stakeholders – every time.



Argyle Diamond Mine Closure, WA for Rio Tinto

Diversity in Demolition

Strategically designed demolition methodologies ensure we can manage the risks associated with complex demolition events.

Liberty Industrial has extensive experience with a broad range of demolition methods. These methods include:

- High Reach Demolition
- Mechanical Demolition
- Explosive Demolition
- Cut & Pull
- Cut & Lift

1. OK Tedi Mine Demolition, Papua New Guinea
2. Douglas Mine Site Demolition, VIC for Illuka Resources
3. Hammerhead Crane Deconstruction, NSW for Department of Defence
4. Munmorah Power Station, NSW for Generator Property Management

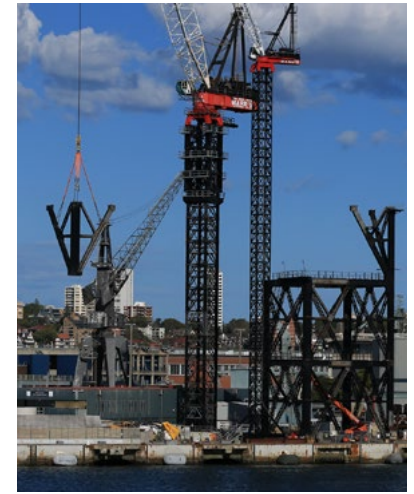
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Geospatial Technology

Liberty Industrial are certified by the Civil Aviation Service Authority (CASA) for performing commercial UAV operations. With this Remote Operators Certificate (ReOC), we are able to provide a multitude of quality deliverables and services which help aid in Planning, Reporting, Recordkeeping, QA, Rehab Monitoring Data, etc.

UAV/DRONE SERVICES:

- Aerial photography/videography
- Photogrammetry
- LiDAR Imagery
- Multispectral Imagery

AERIAL PHOTOGRAPHY/VIDEOGRAPHY

- Reporting & record keeping via Photography
- High resolution inspection photography
- Project Time-lapse - Automated waypoint flying allows flights to be repeated at any time.



PHOTOGRAMMETRY

By using industry leading photogrammetry software, our high-resolution images are merged and processed to create a highly accurate geospatially aligned Orthomosaic Image and Point Cloud Model which are suitable for a wide range of additional analyses and deliverables.

- 2D Mapping
- 3D Modelling
- Stockpile / Excavation Volume Reports
- Contour line generation
- Geo-located image overlays
- Cloud Based 3D model viewing enabling area & volume calculations
- Cloud based 2D & 3D project status comparisons

These deliverables are then used by our team to:

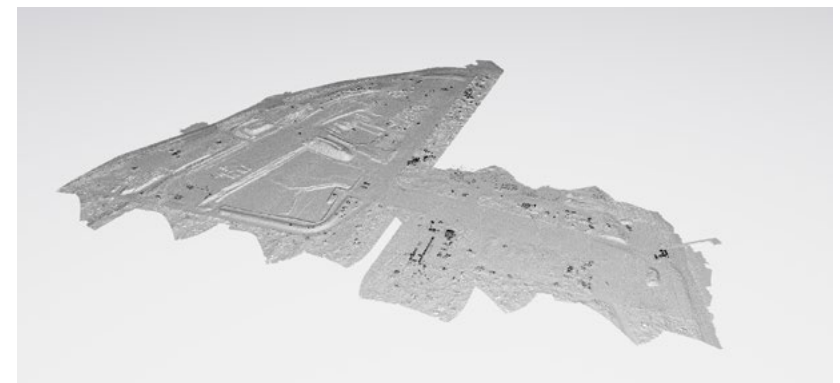
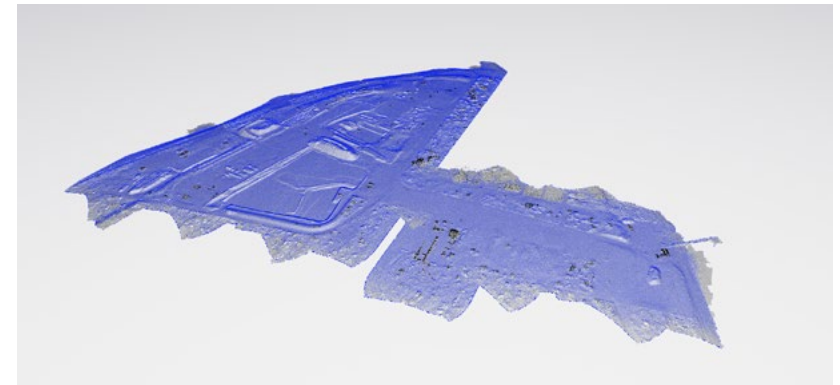
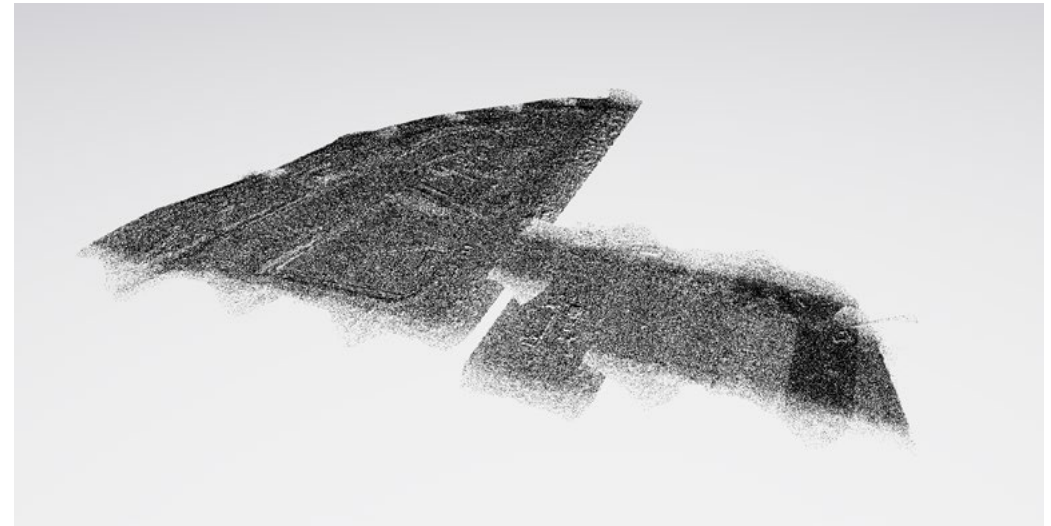
- Monitor progress
- Update scheduling
- Plan and measure changes
- Keeping both site and office-based teams informed.
- Ease communication to workforce

LIDAR

By making use of our LiDAR Payload, we are able to penetrate the vegetation canopy and produce a high-density point cloud of the site regardless of vegetation and light conditions, that can be used for Final Landform initial design, landform progress tracking (cut/fill reporting) and QA verification of Final Landform.

MULTISPECTRAL

By making use of our Multispectral camera, we are able to provide calibrated high-resolution multispectral and RGB imagery, that can be used by the Environmental Scientists for rehabilitation monitoring purposes.



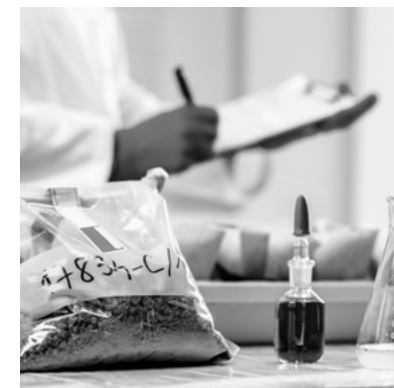
Responsive Remediation

To complement our core decommissioning, demolition and deconstruction activities, we provide innovative, sustainable and cost-effective remediation solutions to unlock the future potential of brownfield sites.

We have a comprehensive understanding of regulatory requirements to remediate contaminated sites. This includes designing engineered solutions, alongside technical and industrial service activities required to treat contaminated material in situ and/or remove contaminated material offsite for further processing.

WHAT WE DO

- Hazardous Waste Management & Removal
- Asbestos Management & Removal
- Contaminated Land Remediation
- Site Rehabilitation
- Groundwater & Wastewater Treatment
- In-ground Remediation
- Industrial Cleaning
- Emergency Response



1.



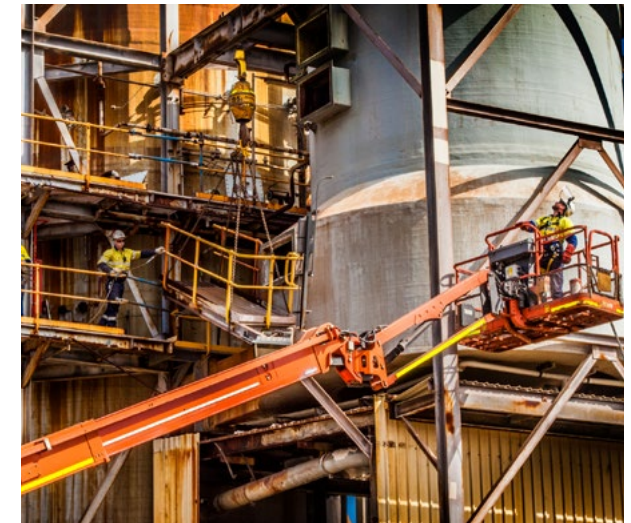
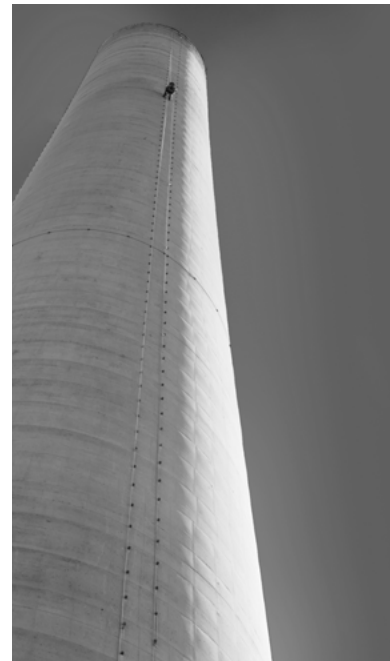
1. Moorebank Intermodal Terminal Asbestos Stockpile Remediation, NSW for QUBE Logistics

1.

Our experienced personnel have a proven track record of working in this highly skilled environment and are backed by state-of-the-art plant and equipment alongside leading-edge technology to execute highly complex projects safely and efficiently.

Our team boast a range of additional qualifications that complement the removal of hazardous material works, including:

- Rope Access
- Rigging
- Scaffolding
- Oxy Cutting / Hot Works
- Confined Space
- Cold Cutting
- Elevating Work Platforms
- Working at Heights



2.

1. Boodarie Hot Briquette Iron Ore Plant Closure, WA for BHP Billiton

2. Hismelt Kwinana Closure, WA for Rio Tinto

Past Experience, Present Expertise

We thrive on a challenge and have built a strong reputation for delivering some of the toughest decommissioning, deconstruction and remediation projects in the world.

MINE HIGHLIGHTS

- Argyle Diamond Mine Closure
- Awaba Colliery Deconstruction
- Boodarie Hot Birquette Iron Ore Plant Closure
- Bunbury Outer Harbour Site Demolition
- Collinsville Open Cut Coal Mine Removal of Redundant Infrastructure
- Douglas Mine Site Demolition
- Ellendale Diamond Mine Deconstruction
- Eneabba Mineral Sands Mine Pre-Concentrator Plant Demolition
- Gingin Mine Concentrator Process Plant Demolition
- Hay Point Expansion Project Demolition Package
- Hismelt Kwinana Closure
- Iluka Program of Works
- Macquarie Coal Preparation Plant Demolition
- Middle Robe Demolition & Remediation
- Narngulu Synthetic Rutile Services Corridor Demolition
- Norwich Park Coal Mine Plant Demolition
- OK Tedi Mine Demolition
- WRP Kulwin Ouyen Process Plant Demolition



WE PRIORITISE

- Rigorous thinking and project development
- A collaborative and considered approach
- Focus on driving commercial returns
- Efficient and safe project delivery
- Maximising commercial viability
- Accessing industry insights and best practice

Argyle Diamond Mine Closure

LOCATION Lake Argyle, WA

CLIENT Rio Tinto

DURATION 36 Months

VALUE AUD 39,000,000

STATUS Underway

OUR PROJECT

Upon closure of mining activities by Rio Tinto, Liberty Industrial has been engaged to remove all infrastructure located within the mining lease, including the process plant and ancillary facilities such as the mine camps, power station and airport. The scope of works also include the construction and management of site-based landfills and the remediation of contaminated areas across site.

THE CHALLENGES

As we progress with site works, Liberty Industrial personnel face critical challenges including, site remoteness (the closest township is at least 185km away); hot, humid and rainy weather; the induced collapse of high rise structures and difficulty reaching the ROM structures, and connecting

conveyors located on an escarpment; as well as efforts to optimize opportunities for Traditional Owners.

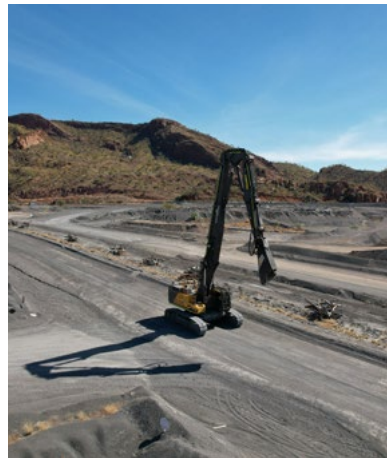
ROBUST SOLUTIONS

To overcome some of the key challenges, we intend to establish a self-sufficient site & minimise the requirement for frequent transport; undertake staged project activities and implement a comprehensive environmental management plan; mobilise a fleet of high-reach excavators ranging from 100 to 200t; develop detailed methodologies and 3D modelling for the induced collapse of overland conveyor leading to the ROM pad.

Our project manager also aims to work closely with Traditional Owners and ensure work opportunities are presented fairly.

EXCEPTIONAL OUTCOMES

To complete this project without injury, and within the closure timeframes and allocated budget; we will rely on our skilled and competent project team, state-of-the-art plant and equipment, as well as efficient stakeholder communication and management that is supported by the strength of our existing relationship with Rio Tinto.



Ellendale Diamond Mine Deconstruction

LOCATION Ellendale, WA

CLIENT Department of Mining Industry Regulation & Safety

DURATION 9 Months

VALUE AUD 6,950,000

STATUS Underway

OUR PROJECT

The Government of Western Australia's Department of Mining Industry Regulation and Safety (DMIRS) engaged Liberty Industrial to carry out the complete demolition, disposal, recycling, and rehabilitation works at the former Ellendale Diamond Mine, situated 140km east of Derby within the Bunuba Native Title Lands.

The scope of works involves the demolition of all non-mining and mining infrastructure including conveyors, diamond processing areas and sorting shed dump hoppers, alongside site-wide rehabilitation.

THE CHALLENGES

- The site, which sits adjacent to the Balili or Devonian Reef Conservation Park is rich in cultural history and all

planning for the project must consider the surrounding flora, fauna and heritage marked areas.

- Enhancing employment and engagement of local and indigenous people and subcontractor teams.
- As the site has sat dormant for some time, existing structures are in partial states or unknown conditions.

ROBUST SOLUTIONS

- As the site is large and work areas scattered, work will be sequenced in a controlled approach to each work face that ensures our demolition teams seamlessly transition from one area to another. Multiple work fronts will operate at a time to ensure the coordination of the project is adequately supervised, traffic control with heavy and light vehicles

interactions is clear, manageable, safe, and coordinated always.

- All structures will be dismantled using mechanical demolition techniques and a combination of Liberty Industrial's 38 and 48t excavators.
- Careful consideration to the optimal handling of scrap and waste materials. We have considered various options for salvage items as outlined in the Waste Management Strategy. We plan to implement waste minimisation practices following the waste hierarchy (salvage, recycling, reuse, and effective management) to divert and minimise waste disposal to offsite landfill facilities.
- Liberty Industrial is currently working closely with the local Indigenous peoples to ensure adequate Cultural Awareness Training is completed over the duration of the project. A priority of

the Project Manager and procurement team is to ensure work opportunities are created and prioritised for local and indigenous subcontractors.

EXCEPTIONAL OUTCOMES

Work is currently underway and is expected to be completed in October 2022.



Ok Tedi Mine Demolition

LOCATION Papua New Guinea

CLIENT Ok Tedi Mining Limited

DURATION 6 Months

VALUE AUD X2,500,000

STATUS Completed 2021

OUR PROJECT

Liberty Industrial was engaged to undertake the safe and controlled demolition of redundant structures at the Ok Tedi Gold and Copper Mine located 11km north-west of Tabubil in the Western Province of Papua New Guinea (PNG). This project was carried out in the following two stages to facilitate the exchange of crews from Australia:

- Stage 1 - Demolition of the IPC & Screening Plant
- Stage 2 - Demolition of the Dump Pocket, Transfer Station, and Conveyors.

THE CHALLENGES

- The works were conducted around live-infrastructure.

- Our skilled project team were required to battle extreme weather conditions in a highly challenging remote location. Conditions were heightened with the rampant second wave of COVID-19 in PNG.

ROBUST SOLUTIONS

A significant component of the project was the salvage and deconstruction of a scalping screen and bridge by the way of oxy cutting, rigging, and lifting with a 400t Crawler Crane and 200t all-terrain mobile crane. A heavy crane lift specialist and a third-party structural engineer were engaged to prevent shock loading to retained infrastructure. To overcome the challenges of terrain height and location, our 200t High Reach Demolition Excavator fitted with a 7t shear attachment was utilised to carry out the demolition of the IPC,

elevated Conveyors and Dump Pocket structures. A series of structural-engineer-approved pre-weakening cuts were created for the Transfer Station structure to be demolished by an 85t excavator.

Site establishment was a crucial component of this project. Our team undertook months of project planning and engineering to set up plant, equipment, and personnel on-site. Considerable logistical issues were taken care of to relocate plant and equipment from Australia to the project site in PNG. Our skilled project team also battled extreme weather conditions and the second wave of COVID-19 in PNG.

An estimated 5,000t of ferrous and non-ferrous steel was demolished, downsized, and recycled. Light to medium gauge steel was processed

in situ by Liberty Industrial and transported to a stockpile for future shipping by the client.

EXCEPTIONAL OUTCOMES

Liberty Industrial achieved successful project completion in the agreed 6-month timeframe.



Boodarie Hot Briquette Iron Ore Plant Closure

LOCATION Boodarie, WA

CLIENT BHP Billiton

DURATION 12 Months

VALUE AUD 21,000,000

STATUS Completed 2011

AWARDS

2013 World Demolition Award Shortlist
Industrial Demolition Award

2012 World Demolition Award Shortlist
Industrial Demolition Award

OUR PROJECT

BHP Billiton Iron Ore commissioned Liberty Industrial to demolish the briquetting and reactor structures together with the adjacent gas plant.

The reactor, the tallest structure on-site, at 104m high represented the largest demolition project ever undertaken in the Southern Hemisphere.

THE CHALLENGES

This landmark facility in the Pilbara region of Western Australia was one of BHP's top 10 risks worldwide.

ROBUST SOLUTIONS

- Meticulous planning and consultation at the onset to develop a precise and safe demolition methodology.
- Use of 3D modelling simulation software.
- Use of a combination of techniques from pre-weakening cuts to allow mechanically induced collapses, to oxy cutting and controlled explosives implosions.
- Provision of state-of-the-art demolition equipment, including Liberty Industrial's heavy-duty customised 230t Liebherr 994 complete with the world's largest shear attachment – the Genesis GXT 2555R to downsize and process the scrap metal.

EXCEPTIONAL OUTCOMES

The project was masterfully executed as planned to the client's complete satisfaction, on budget, on schedule and without issue or injury.

Liberty Industrial was the first Australian company to reach the finals of the 2012 World Demolition Awards when the Boodarie HBI Closure project was shortlisted.

The project was shortlisted again at the 2013 World Demolition Awards in the Industrial Demolition category.



TAP, WATCH & LEARN

vimeo.com/116829253



Hismelt Kwinana Smelter Deconstruction

LOCATION Kwinana, WA

CLIENT Rio Tinto

DURATION 20 Months

VALUE AUD 26,000,000

STATUS Completed 2014

AWARDS

2014 World Demolition Award
Overall Winner

2014 World Demolition Award Winner
Industrial Demolition

TAP, WATCH & LEARN

vimeo.com/237485616

OUR PROJECT

Rio Tinto commissioned Liberty Industrial for the deconstruction of this High-Intensity Smelting Facility – a complex dismantling and salvaging of significant components of industrial plant and equipment which included a 65m high, 1.2t coal drying and grinding structure; Flue gas desulphurisation plant; Hot metal handling equipment with an 80-tonne induction furnace; Hot metal desulphurisation plant; Off gas scrubbing and cooling infrastructure; and a 25 megawatt power station.

THE CHALLENGES

This project was the first of its kind and had never before been attempted in Australia.

- Realising maximum value possible for the client from a number of reusable plant, equipment and materials.
- Minimising waste disposed in landfill.
- Carrying out lifts of up to 108t, relying heavily on complex engineering lifts using large crawler and mobile cranes.
- Managing a crew of up to 60 members (at peak) across multiple work fronts within a very small footprint.

ROBUST SOLUTIONS

- Careful planning and extensive consultation to develop an innovative asset and recovery methodology.
- Use of 3D modelling simulation software.
- Sourcing of asset and resources recovery buyers.

- Deployment of two Project Managers, three Safety Managers, five Supervisors, three Leading Hands, and five Project Engineers to support demolition crew.
- Provision of state-of-the-art demolition equipment, including Liberty Industrial's heavy duty customised 230t Liebherr 994 complete with the world's largest shear attachment – the Genesis GXT 2555R.

EXCEPTIONAL OUTCOMES

This ground breaking project was masterfully executed in alignment with Rio Tinto's budget (Liberty realised a cash positive outcome), schedule, and zero incident policy.

- Over 2000 bulk units were methodically dismantled, cleaned to export standard, match-marked,

labelled, recorded and packed, with each item given clear instructions on how to be reassembled.

- Four bulk shipments of over 18,000m² and 280 shipping containers were shipped 7600km away to Shandong Province in China.
- 108,000t (97%) of the site's 111,000t of waste was recycled with only 300t (3%) of all waste going to landfill.
- 12,000t of scrap metal was recycled.



Douglas Mine Site Demolition

LOCATION Douglas, VIC

CLIENT Iluka Resources

DURATION 3 Months

VALUE AUD 1,200,000

STATUS Completed 2019

OUR PROJECT

Liberty Industrial was engaged in the rehabilitation process at Iluka Resources redundant mining operations located at the Douglas Mine Site in Kanagulk, Victoria. The scope included the demolition of a wet concentrator plant, mining unit, and all associated infrastructure.

THE CHALLENGES

- Presence of Naturally Occurring Radioactive Material (NORM).
- Segregation, recycling/salvage of metals, concrete, transformers, and pipes.

ROBUST SOLUTIONS

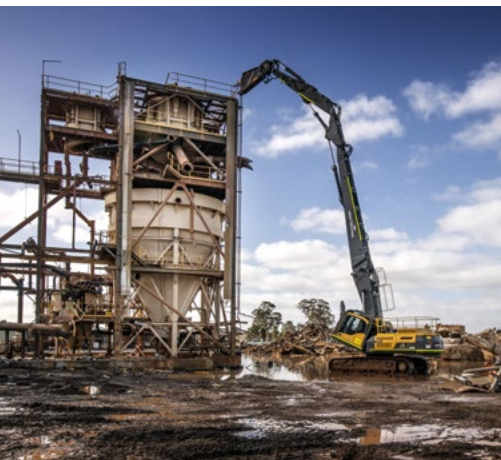
- A 48t excavator was utilized to safely demolish the Wet Concentrator plant (PC13), and the Mining Unit (MU11).

- Before demolition began, an accredited Radiation Safety Officer (RSO) completed a detailed NORM survey. Testing was done to all structures using a portable radioactivity counter device and all parts were marked below or above the limit.
- Structural parts that exceeded the client's transport clearance limits were marked and separately stockpiled for further decontamination.
- Materials with NORM levels below the allowable limit were verified by the client's representative and transported to a licensed facility. Liberty Industrial's trucks that were licensed to carry radioactive materials were utilised.
- Scrap material from the demolition works was processed to 1m sections by a 38t excavator with 335 and 660 shear attachments and loaded out for recycling.

- Poly-pipes and transformers were segregated, cut to length, cleaned, and then sold for reuse/salvage.
- Pulverised concrete was sold to a concrete recycling facility for future use as a road base. Concrete rebar was separated and recycled.
- Separation and disposal of SF6 units from switch gears, hydrocarbons, chemical residue, and testing transformer oil for PCB.

EXCEPTIONAL OUTCOMES

- Over 90% of all waste was recycled. Liberty Industrial achieved successful and safe offsite disposal of all potential contaminants through a licenced contractor. This project was completed to the client's satisfaction, on budget, and without any safety incidents.



WRP Kulwin Ouyen Process Plant Demolition

LOCATION Ouyen, VIC

CLIENT Iluka Resources

DURATION 4 Months

VALUE AUD 3,700,000

STATUS Completed 2019

OUR PROJECT

Iluka Resources commissioned Liberty Industrial for demolition works across two sites (WRP and Kulwin) that were critical to future rehabilitation plans of Woonack, Rownack and Pirro mining and concentrating operations.

The site works included the removal of the Wet Concentrator Plant, WHIMS Building, Spiral Concentrator Building, Tails treatment building and thickeners, Flocculant Plant, Lime Plant, Process Water Dams, Mining Unit MU10, all redundant services and approximately 70km of poly pipes.

THE CHALLENGES

Naturally Occurring Radioactive Material (NORM) – a dedicated Radiation Safety Officer (RSO) was appointed to survey all recyclable and waste materials.

ROBUST SOLUTIONS

- All scrap and poly pipes with NORM readings above the statutory limits, a pressure washer setup was utilised to remove the radioactive material. Following the cleaning process the items would be re-tested and any items which still had high NORM readings were stockpiled and made ready for disposal to a licenced facility. All loads were tracked from point-to-point.

- Key structural demolition works were carried out using Liberty Industrial's 120t high-reach excavator with a 990R Genesis shear attachment which was able to comfortably reach the top of each structure and progressively demolish them to the ground.
- The poly pipe was cut, cleaned and loaded in 20-metre lengths for reuse in nearby farms, and any remaining poly pipes were delivered to a recycling yard in Adelaide.
- Large TSF Settlement ponds were lined with 7.5km of poly dam liners. These were later tested and cleared for NORM contamination and removed using excavators with grab attachments and loaded out to a recycling facility.
- All concrete was transported to the WRP site for further processing and removed to a local recycling facility.

EXCEPTIONAL OUTCOMES

Based on the successful completion of works at the WRP project and other contracts undertaken for Iluka Resources, Liberty Industrial was awarded Iluka's Douglas Mine Site Demolition Project also located in Victoria.



Norwich Park Mine Coal Preparation Plant Demolition

LOCATION Dysart, QLD

CLIENT BHP / BM Alliance Coal Operations Pty Ltd

DURATION 6 Months

VALUE AUD 2,677,350

STATUS Completed 2020

OUR PROJECT

BHP Mitsubishi Alliance commissioned Liberty Industrial to achieve the safe and controlled demolition of nominated redundant structures which previously comprised the Coal Handling Preparation Plant at the Norwich Park Mine site in Central Queensland.

The scope of work included demolition of all above ground structures such as coal handling conveyors, the Breaker Station, Reject Bins, Product Coal Stackers, Raw Coal Reclaim Tunnel, Radial Stackers, Thickeners and Clarifier tanks and the Coal Handling Preparation Plant which stood 37m above ground level. The project also included a significant civil works program which comprised detailed backfilling and compaction under level 1 geotechnical supervision.

THE CHALLENGES

- Developed a carefully considered deconstruction methodology designed for maximum effectiveness.
- Mobilised qualified crew and equipment fleet.

EXCEPTIONAL OUTCOMES

Liberty Industrial achieved successful project completion in the agreed 6-months timeframe, within budget and without incident.

A total of 4,500t of ferrous and non-ferrous steel was recycled with 6,000t of brick and concrete downsized and stockpiled on site for client's future reuse. The project resource recovery exceeded 95% of all materials with only 5% of the waste generated going to landfill, that being asbestos and general rubbish.



Collinsville Open Cut Coal Mine

Removal of Redundant Infrastructure

LOCATION Collinsville, QLD

CLIENT Glencore

DURATION 3 Months

VALUE AUD 2,000,000

STATUS Completed 2019

OUR PROJECT

Glencore commissioned Liberty Industrial to demolish several redundant installations at the Collinsville Open Cut Mine located in Queensland. Demolition works included a Train Load Out facility with a 120m long inclined conveyor, the Raw Coal Crushing facility and the Road Load Out installation along with an adjoining 200m long inclined conveyor.

THE CHALLENGES

The redundant Raw Coal Crushing facility was straddling a live conveyor line and could not be demolished in situ so the removal works had to be carefully planned and engineered to prevent any damage to the surrounding live plant as well as minimise impact to daily operations.

The structure had to be methodically rigged, separated from the structures beneath, then lifted using a range of mobile cranes.

ROBUST SOLUTIONS

- Liberty Industrial developed an extensive methodology to enable minimal disruption to Glencore's daily operations, keeping shutdowns and outages to absolute minimum occurrences and durations.
- We mobilised a team of qualified crew, alongside state-of-the-art plant and equipment for the works.
- Liberty Industrial's 200t Kocurek modified Hitachi EX1200 High Reach Excavator was deployed to demolish the Road Load Out Installation. The machine was fitted with a 7t shear to demolish the inclined conveyor first.

Then, changing the attachment for a 6t Concrete Cracker, the concrete bin was demolished from the top down in less than two days.

EXCEPTIONAL OUTCOMES

The project was masterfully executed as planned to the client's complete satisfaction, on budget, on schedule and without injury or incident.



Macquarie Coal Preparation Plant Demolition

LOCATION Killingworth, NSW

CLIENT Oceanic Coal Australia Ltd

DURATION 6 Weeks

VALUE AUD 4,000,000

STATUS Completed 2018

OUR PROJECT

Oceanic Coal Australia Limited commissioned Liberty Industrial to undertake the demolition and removal of the Macquarie Coal Preparation Plant located in the Lake Macquarie Region of New South Wales.

The project included above and below ground tunnels and 2kms of conveyor systems, demolition of several coal transfer towers, coal bins, thickener tank, and substation. The project was the second stage of works we had undertaken. The first being demolition of the West Wallsend Colliery Pit Top Coal Handling Facilities in 2017.

THE CHALLENGES

- The Site was located in close proximity to Lake Macquarie and residents.
- Protecting the railway line for future use.

ROBUST SOLUTIONS

- Conducted structural engineering analysis of the weakening methodology for all key structures to undergo induced collapse.
- Deployed specialist asbestos and demolition crew along with eight excavators ranging from 8 to 120t, as well as various support machinery, plant and equipment.
- Removed all hazardous materials on site including asbestos in both plant and buildings, draining of oils from machinery, cleaning of tanks and

pumping out contaminated water to prevent contamination and protect local environment.

- Induced collapsed conveyor systems, the largest being the two Coal Stack Out conveyors spanning 150m in length to the west and 120m in length to the east of the transfer tower; the conveyors reaching 35m in height supported by hollow steel legs mass filled with concrete, standing either side of the 45m high transfer tower itself weighing 500t.
- Demolished the Rail Loading Bin, standing 55m high and consisting of 2,200t of concrete using controlled explosive techniques.
- Prior to being induced collapsed with explosives, the main Coal Washery Plant building standing 30m high and 60m long was progressively weakened involving the cutting by hand of over

300 columns, beams and braces, allowing the structure to be collapsed using the simultaneous pulling by a 120t and 70t excavator.

EXCEPTIONAL OUTCOMES

The project was executed on time, within budget and without injury or incident. 98% of material including steel and non-ferrous metals were recovered for recycling.



Quality Assurance

The safety and wellbeing of our people is our highest priority and the foundation of everything we do – from the decisions we make right down to our daily operations.

We pride ourselves on being a safe and reliable contractor who is accustomed to working to stringent compliance requirements for the management of occupational health and safety, quality and environmental performance.

Our achievements in safety and training have received:

Shortlisting at the **2022** and **2019 World Demolition Awards** in the Safety & Training Award category.

Shortlisting at the **2022 WHS Foundation** in the **WHS Promotion & Program** category.

Highly commended at the **2019 National Safety Association Excellence Awards** for the development of our Oxy Cutting and Excavator Operator training program.



SAI GLOBAL CERTIFICATION

Our accredited Business Management System is independently certified by SAI Global Certification and includes:

- ISO 9001:2015
Quality Management System
- ISO 45001:2018
Occupational Health & Safety Management System
- ISO 14001:2015
Environment Management System



ISO 9001



ISO 45001



ISO 14001

Community and Indigenous Participation

We understand the importance of supporting the communities in which we operate.

Our business strategy focuses on mutually beneficial initiatives for engaging communities. This is realised through procurement policies and procedures that reflect our long-term commitment to ensuring locally owned and operated businesses and individuals share the economic and capacity building benefits projects bring to the regions we work in.

INDIGENOUS INCLUSION

We welcome the opportunity to work with Indigenous individuals, businesses, organisations, and communities to maximise participation and engagement across our business.

We support initiatives that assist and encourage Indigenous people in the transition from education and training to the workforce and the broader local economy.

Liberty Industrial's framework for indigenous engagement comprises the following elements:

- Direct employment
- Entry-level employment, training, and development
- Subcontractor and supplier relationships and indigenous supply and partnerships
- Joint venture participation with Indigenous businesses
- Cross-cultural awareness and diversity training program



Liberty's newly formed relationship with **IWIMRA (Indigenous Women in Mining & Resources Australia)** sets out a partnership in which IWIMRA will help to provide a structured approach towards creating a vision of cultural inclusion, cultural safety, and best practice within the operational confines of all Liberty Industrial's upcoming projects.

Through this Community Engagement Strategy IWIMRA and Liberty will focus on deeper engagement across all areas of the business and its processes including;

- Community commitment to all areas and sites Liberty Industrial currently service
- Workforce investment
- Indigenous procurement policy
- Cultural capability training

Internationally Acclaimed

Liberty Industrial has received local and international recognition, most notably at the World Demolition Awards, winning five awards in the last nine years including the inaugural overall World Demolition Award.

2022 WHS Foundation, WHS Promotion & Program – Shortlist

Subcontractor Improvement & Subby Buddy Initiative

2022 World Demolition Awards, Civils Demolition – Shortlist

Port Kembla Gas Terminal Early Works

2022 World Demolition Awards, Safety & Training – Shortlist

Subcontractor Improvement & Subby Buddy Initiative

2021 World Demolition Awards, Explosive Demolition - Shortlist

Remote Demolition of a Wind Turbine

2020 World Demolition Awards, Industrial Demolition - Shortlist

Iluka Program of Demolition Works

2020 World Demolition Awards, Contract of the Year Under US\$1M - Winner

Blackwattle Bay Batching Plant Demolition

2019 World Demolition Awards, Industrial Demolition - Winner

Munmorah Power Station Removal

2019 World Demolition Awards, Contract of the Year Over US\$1M - Finalist

Port Kembla Coal Terminal Stacker and Reclaimer Demolition (Stage 2)

2019 World Demolition Awards, Contract of the Year Under US\$1M - Finalist

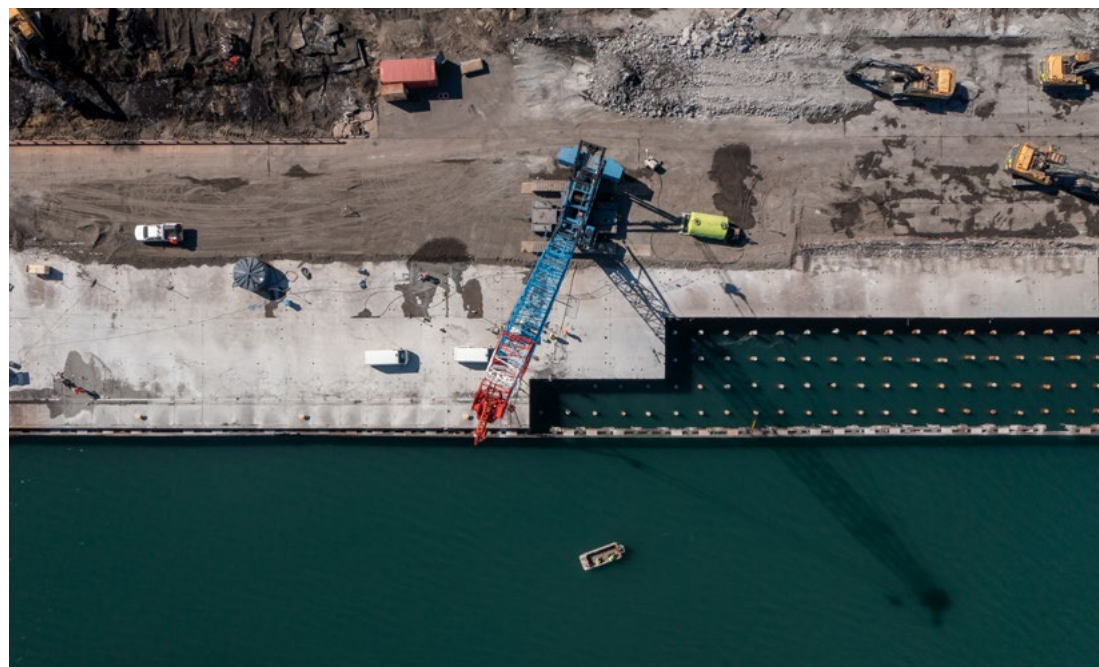
Port Kembla Gateway Crane Project (Stage 2)

2019 World Demolition Awards, Safety & Training - Finalist

2019 National Safety Awards of Excellence - Highly Commended

Best WHS Training Program

Port Kembla Gas Terminal Demolition & Remediation, NSW for Australian Industrial Energy



ORGANIZED BY
WORLD DEMOLITION AWARDS 2022
SHORTLISTED
CIVILS DEMOLITION AWARD

ORGANIZED BY
WORLD DEMOLITION AWARDS 2022
SHORTLISTED
SAFETY & TRAINING AWARD



1.

2019 CCF Earth Awards, Excellence in Civil Construction Over \$75M - Finalist
Moorebank Intermodal Terminal Remediation

2018 ALGA Excellence Awards, Best Remedial Project Over \$1M - Winner
Moorebank Intermodal Terminal Remediation

2018 World Demolition Awards, Industrial Demolition - Finalist
Port Kembla Gateway Coal Terminal Project (Stage 1)

2017 World Demolition Awards, Urban Demolition - Finalist
Sydney Harbour Control Tower Demolition

2016 World Demolition Awards, Contract of the Year Under US\$1M - Winner
Duck River Bridge Dismantling

2016 World Demolition Awards, Civil Demolition - Finalist
Hamilton Wharves Demolition

2016 World Demolition Awards, Contract of the Year Over US\$1M - Finalist
Clyde Oil Refinery Removal

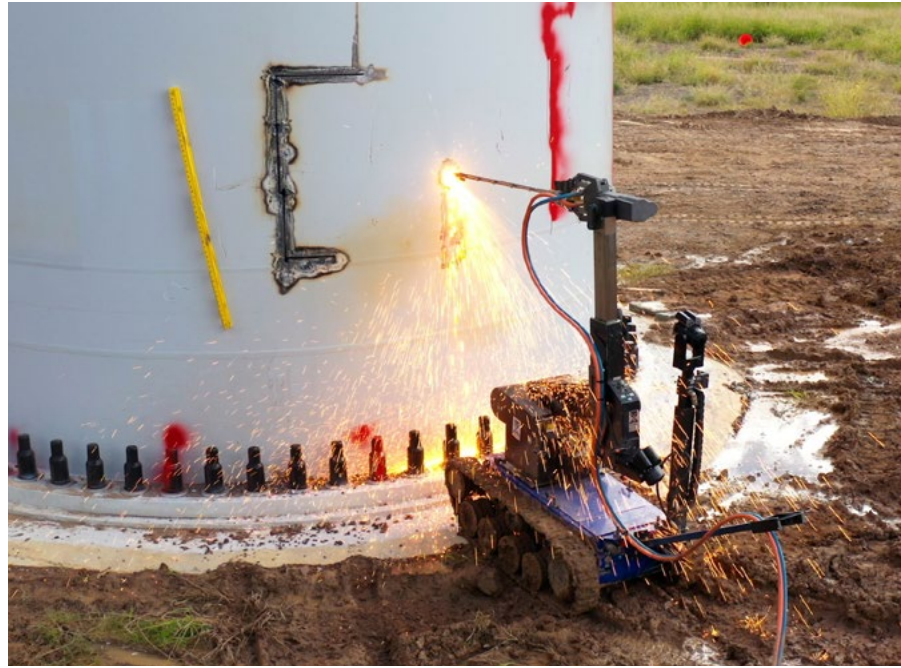
2015 World Demolition Awards, Contract of the Year Over US\$1M - Finalist
Garden Island Hammerhead Crane Deconstruction

2015 World Demolition Awards, Explosive Demolition - Winner
Omega Tower Demolition

2014 World Demolition Awards, Industrial Demolition - Winner
Rio Tinto's Hlsmelt Kwinana Closure

2013 World Demolition Awards, Industrial Demolition - Shortlist
BHP Billiton's Boodarie Hot Briquette Iron Plant Closure

2012 World Demolition Awards, Industrial Demolition - Shortlist
BHP Billiton's Boodarie Hot Briquette Iron Plant Closure



WORLD DEMOLITION AWARDS 2021
SHORTLISTED
EXPLOSIVE DEMOLITION AWARD

2.



WORLD DEMOLITION AWARDS 2020
WINNER
CONTRACT OF THE YEAR UNDER US\$1 MILLION

1. Remote Demolition of Wind Turbine, QLD for General Electric

2. Blackwattle Bay Concrete Plant Demolition, NSW for Hanson

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MECHANICAL DEMOLITION INT