

CAPABILITY STATEMENT

MINING
NON PROCESS INFRASTRUCTURE

OVERVIEW

Peritas have a long-standing history with mining projects across Australia. More predominantly in Western Australia, we have delivered in excess of 90 projects over the past 14 years ranging from \$1-\$380 million in construction value. We are renowned for our quality, service and delivery across a variety of bulk earthworks, temporary works, non-process infrastructure (NPI) and process infrastructure (PI) designs for the mining sector.

RECENT PROJECTS:

NON-PROCESS INFRASTRUCTURE

KOODAIDERI LABORATORY & CAMPS 3&4, PILBARA WA
 MULLA MULLA VILLAGE, NEWMAN
 PORT HAVEN CENTRAL FACILITIES, PORT HEDLAND
 CAPE LAMBERT UTILITY BUILDING, WA
 HOPE DOWNS, NEWMAN
 BABY HOPE PROJECT, NEWMAN
 MINING AREA C, NEWMAN
 WEST ANGELAS MEM WORKSHOP, NEWMAN
 QUBE BULK STORAGE FACILITIES, WA
 MESA J HV & LV FACILITIES, PILBARA WAS
 ALBEMARLE LITHIUM PROCESSING PLANT, KEMERTON WA
 TIANQI LITHIUM PROCESSING PLANT, KWINANA WA
 MESA J NPI FACILITIES, NEWMAN WA



BHP'S PORT HAVEN CENTRAL FACILITIES - NPI



ALBEMARLE LITHIUM PROCESS PLANT - NPI

DISCIPLINES

STRUCTURAL & CIVIL DESIGN

- Early budget planning & feasibility,
- Masterplanning,
- Landfill management,
- Preliminary documentation for tenders,
- Concept, schematic and detailed design, documentation,
- Construction support,
- Storm water drainage, management & disposal,
- Flood mitigation & management.

TEMPORARY WORKS DESIGN

- Temporary & Transport Framing,
- Lifting & Rigging,
- Construction Methodology,
- Bespoke Formwork,
- Modularisation,
- Safety in design,
- Panel Propping,
- Design Review/Verification

CAPE LAMBERT UTILITIES BUILDING, RIO TINTO

SPECIALIST COMPETENCIES

Non Process Infrastructure (NPI)

Our capability in the NPI mining space includes:

- Workshops & warehouses
- Insitu facilities
- Camps & associated infrastructure
- Roads & drainage including mine access & hardstands

Process Infrastructure (PI)

In addition to our NPI capability, Peritas have design and analysis experience for structures involved in Process Infrastructure. These include:

- Structural Finite Element Analysis (FEA) on a variety of mining equipment & infrastructure,
- Design of supporting structures for conveyors, plant and various networks.

Bulk Earthworks

Peritas also provide civil design for large bulk earthwork packages which include major cut to fill, hardstand & building pad preparation, roads, open drains, parking, and other ancillary works (including dams, silt ponds, etc).



RIO TINTO - KOODAIKERI LABORATORY, WA - NPI



RIO TINTO'S, HOPE DOWNS HV TUNNEL WA - NPI



RIO TINTO'S BABY HOPE WA - NPI

CASE STUDY - MINING - NPI



CLIENT

Albemarle Lithium / Kerman Contracting

EXPERTISE

Structural & Civil design documentation & construction support.

LOCATION

Kemerton WA (outside of Bunbury)

TIME FRAME

4 months design across all buildings and civils.

ALBEMARLE LITHIUM PROCESS PLANT, KEMERTON WA

PROJECT NOTES:

Following the success at Tianqi's Lithium Processing Plant, Peritas were engaged by Kerman Contracting to provide structural and civil design for the 9 buildings located at their Kemerton site just outside of Bunbury WA.

Peritas' scope of work included structural design for the majority of the NPI buildings on the site, as well as the full structural and civil design of the pallet storage building.

Due to the success of the building engineering, Peritas and Kerman had their scope extended to include various concrete works throughout the site.

This included a 22,000m² handstand for the storage and movement of containers throughout the site. Peritas proposed a combi slab which incorporated steel fibre reinforcement combined with mesh reinforcement. This eliminated problematic movement joints and allowed for a more efficient design.





CLIENT

Tianqi Lithium / Kerman Contracting

EXPERTISE

Structural & civil design documentation
& site supervision.

LOCATION

61 Donaldson Rd, Kwinana Beach WA
6167

TIANQI LITHIUM PROCESSING PLANT, KWINANA WA

PROJECT NOTES:

Peritas were engaged by Kerman Contracting to provide competitive structural design solutions for the non-process infrastructure at the Tianqi Lithium processing plant.

Peritas worked with Kermans to develop an innovative design for tender purposes and then worked closely with the construction team to deliver the building designs seamlessly.

The design consisted of 4 buildings with a combined square meterage of 10,500 m².

Peritas have a long association with NPI and materials handling projects and this expertise provided fruitful for all involved.



CASE STUDY - MINING-NPI



CLIENT

Rio Tinto / Pindan

VALUE

\$25 million in construction value.

EXPERTISE

Civil & Structural design documentation & construction support.

TIME FRAME

3 Months Engineering.

UTILITIES WORKSHOP, CAPE LAMBERT WA

Peritas provided structural engineering design, documentation and construction support services to Pindan for the design and construct of Rio Tinto's Utilities Workshop at Cape Lambert.

The steel-framed building was completed in 2016 and comprised of a 1150m² administration/office area (approximately) and a 615m² workshop.

Aside from being designed for cyclonic conditions the administration area was designed as an importance level 4 structure and the workshop included a 20tonne gantry crane.

All design and documentation was carried out in accordance with the RTIO standards.

Peritas are proud to be the designer for another successful Rio Tinto project.



CASE STUDY - MINING-NPI



CLIENT

Rio Tinto
Kerman Contracting - Laboratory
Complete Site Service - Camp 3 & 4

VALUE

\$25 million in combined construction value (estimated).

EXPERTISE

Civil & Structural design documentation & construction support.

TIME FRAME

2020 - 2021.

KOODAIDERI TESTING LABORATORY

KOODAIDERI PROJECT, NEWMAN WA

PROJECT NOTES:

Peritas are providing civil and structural engineering design, documentation & construction support services as part of two design & construct team for the state of the art laboratory facility & Camps (3 & 4) at Rio Tinto's Koodaideri mine site.

This includes:

a) Koodaideri Laboratory & Administration building

Peritas were engaged by Kerman Contracting under a design and construct contract to provide structural and civil engineering services for the Testing Laboratory and Administration building at the Koodaideri mine. The building consists of a structural steel frame supported on foundations and a concrete slab, with walls and roof consisting of insulated panels for thermal control.

b) Koodaideri Camps 3 & 4

Peritas were engaged by Complete Site Service to provide structural and civil design, documentation and construction support for the following buildings:

- EPCM Office/Crib
- Meeting & Office Rooms
- Medical Facility
- Female, UA WC & Cleaner Male & UA WC Admin
- Retail Shop
- Ice Room
- Communications Room
- First Aid
- Gym
- Male Ablution Female & UA Ablution
- Cleaners Laundry
- Multifunction Facility



CASE STUDY - MINING-NPI



CLIENT

BHP / Decmil

VALUE

\$108 million in estimated construction value.

EXPERTISE

Civil & Structural design documentation & construction support.

PORT HAVEN VILLAGE, PORT HEDLAND

PROJECT NOTES:

Peritas provided structural engineering design, documentation & construction support services to the D&C contractor Decmil for the Port Haven Accommodation Village in Port Hedland.

BHP awarded Decmil the Port Haven accommodation village contract and issued the challenge of delivering a new benchmark in remote accommodation.

Peritas scope of works included the design for all the insitu central facilities buildings. This included:

- State-of-the-art dry mess & Kitchen,
- Administration Building,
- Wet mess,
- Gatehouse,
- Entry Statement,
- Gymnasium,
- Laundry,
- Bus Shelters,
- IL4 Cyclone Haven.

Peritas are proud to have been involved in this landmark remote accommodation development.



CASE STUDY - MINING NPI



CLIENT

FMG / Decmil Besix Joint Venture (DBJV)

EXPERTISE

Civil design documentation & construction supervision.

LOCATION

Anderson Point, Port Hedland WA

ONSHORE TUG INFRASTRUCTURE, ANDERSON POINT WA

PROJECT NOTES:

Peritas were engaged by FMG to undertake the civil engineering design and documentation for the proposed onshore facilities at Anderson Point, Port Hedland. This entailed the provision of a tug fleet, associated marine and onshore support facilities including a new fuel farm, dome shelter workshop, office, ablution facilities and emergency vehicle slab.

Peritas provided:

- Review of existing unsealed hardstand and determine adequacy of hardstand for a B-triple road train fuel delivery vehicle.
- Predicting pavement failure mode based on existing hardstand material.
- Assessing existing concrete slab adequacy to be re-used for slab (workshop) and foundation for 200kl self bunded fuel tank.
- Undertake earthworks grading suitable for a triple road train.
- Undertake vehicle movement assessment to ensure accessibility by triple road train.
- Undertake surface runoff drainage design.
- Complete detention basin design to manage off-site sediment transfer
- Complete safety in design assessment, including pedestrian stability safety and vehicle stability.
- Scour protection of embankment.



CASE STUDY - MINING-NPI



CLIENT

BHP / Decmil

VALUE

\$20 million in approximate construction value.

EXPERTISE

Structural design documentation & construction support.

TIME FRAME

4 Months Engineering.

MULLA MULLA VILLAGE, NEWMAN WA

PROJECT NOTES:

Peritas provided structural engineering design, documentation and construction support services to Decmil for the construction of the insitu built components of South Flanks' Mulla Mulla Village expansion.

New structures included:

- 3-storey cafe & wet mess,
- Administration Lobby Extension
- Bus Shelters,
- Maintenance Shed,
- Linen Shed,
- Breezeways,
- Recycling Shed,
- Sport Shed.

Our engineers worked with the builder to deliver a cost effective & lightweight structure that reduced transportation costs and improve constructability on site.

The Cafe structure in particular, was designed to allow for all structural steelwork to be erected at once prior to pouring bondek slabs, this removed the need for constant remobilisation of various contractors.



CASE STUDY - MINING-NPI



CLIENT

Rio Tinto / Austral Construction

VALUE

\$10 million in construction value.

EXPERTISE

Civil & Structural design documentation & construction support.

TIME FRAME

4 Months Engineering. Completed in 2019.

HOPE DOWNS 4 , NEWMAN WA

PROJECT NOTES:

Peritas provided structural engineering services with regard to the design and documentation of the precast arched tunnel.

Our civil department scope included stormwater design along with roadway/intersection design & documentation.

Our engineers work with the builder to overcome geotechnical issues with the site along with developing a solution that could support the higher density material and mining equipment expected to traverse/cross the tunnel.



12/10/2015 13:29

CASE STUDY - MINING-NPI



CLIENT

Rio Tinto / Austral Construction

VALUE

\$25 million in construction value.

EXPERTISE

Civil & Structural design documentation & construction support.

TIME FRAME

4 Months Engineering. Completed in 2019.

BULK FUEL STORAGE & DISTRIBUTION FACILITY

BABY HOPE, WA

PROJECT NOTES:

Peritas provided civil and structural engineering services as part of a design & construct team for the Baby Hope project. As part of our services we provided design and documentation for the following facilities;

Production Hub

- Earthworks including roads, drainage, parking areas and separation windrows;
- Administration building including crib room, ablutions block, ice room/locker room and office/pre-start room arranged around a central covered structure;
- Concrete slabs and foundations for Mining equipment maintenance (MEM) workshop (shipping container mounted dome shelter);
- Concrete slabs for potable water tank and treatment plant;
- A five (5) ml turkeys nest and associated infrastructure (production bores feeding turkeys nest located approximately two (2) km south west of production hub);
- Entry boom gates (located approximately five (5) km south west of the production hub);

Bulk Fuel Storage & Distribution Facility

- Earthworks including roads, drainage, parking areas and separation windrows;
- Foundations for two (2) x 200KL storage tanks and associated concrete works;
- Concrete slabs and drains for road tanker unloading system;
- Concrete slabs for heavy mining equipment (HME) and light vehicle (LV) refuelling;
- Concrete works (including drive in sump) for oily water separation and evaporation pond;
- Office and ablution building;
- Concrete slabs and foundations for MEM workshop (shipping container mounted dome shelter);



PRODUCTION HUB



PRODUCTION HUB



CONTACT DETAILS

PERTH

P: +61 8 6336 9299
E: enquiries@peritasgroup.com.au
A: 74 Goodwood Parade, Burswood WA 6100

MELBOURNE

P: +61 3 8657 9292
E: enquiries@peritasgroup.com.au
A: Suite 704, 1 Queens Road, Melbourne VIC 3004

BRISBANE

P: +61 3 8657 9292
E: enquiries@peritasgroup.com.au
A: Level 38, 71 Eagle Street, Brisbane QLD, 4000

NEW BUSINESS ENQUIRIES

Attention: Matt Waring - National Business Development Manager
E: mwaring@peritasgroup.com.au
P: +61 477 990 171

www.peritasgroup.com.au