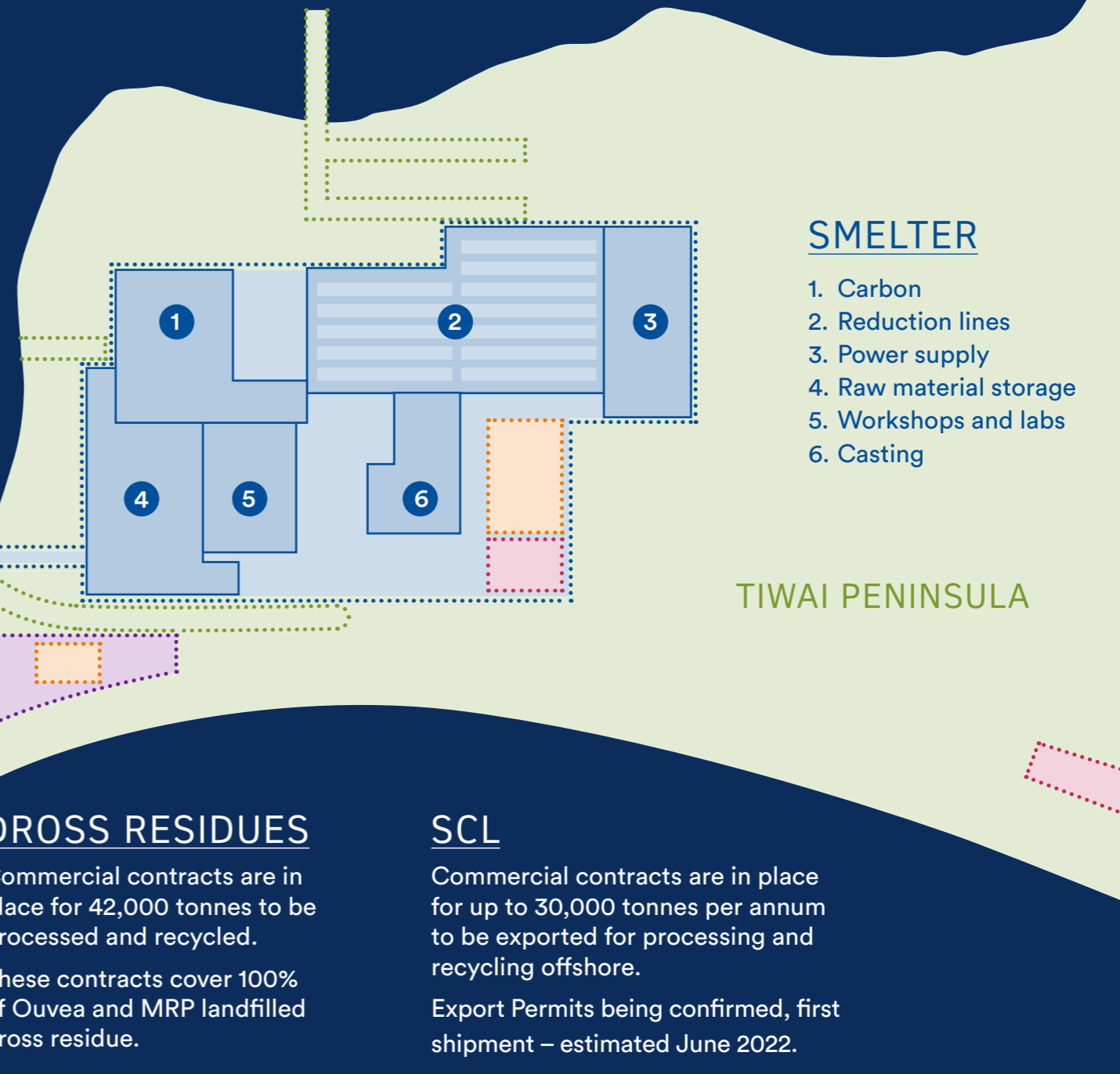


# REMEDIATION AND BY-PRODUCTS

We will remediate the site, irrespective of the date production ceases, and work is already underway to remove waste and improve our environmental performance.

## NGĀI TAHU ACTIVE ENGAGEMENT

We are working closely with Ngāi Tahu – the four papatipu rūnanga of Murihiku, in particular Te Runaka O Awarua – acknowledging their mana whenua over the Tiwai Point site.



### SMELTER

1. Carbon
2. Reduction lines
3. Power supply
4. Raw material storage
5. Workshops and labs
6. Casting

### DROSS RESIDUES

Commercial contracts are in place for 42,000 tonnes to be processed and recycled. These contracts cover 100% of Ouvea and MRP landfilled dross residue.

### SCL

Commercial contracts are in place for up to 30,000 tonnes per annum to be exported for processing and recycling offshore. Export Permits being confirmed, first shipment – estimated June 2022.

Key:

- Smelter
- Landfill
- Dross Residues
- SCL
- Drains



Operated by  
**RioTinto**

## PROGRESS ACHIEVED



70% of Ouvea has been returned to site with three storage locations complete and the remaining two to be emptied and returned to owners by Q3 2022.



Contracts are in place to begin exporting Spent Cell Lining (SCL) to industrial end users – all of this material will be removed from the site.



Our Detailed Site Investigation (DSI) was released late in 2021 enabling us to focus our remediation planning on specific areas of the smelter site.



Our Preliminary Closure Report has been released and is available via the NZAS website.



We are adopting new processes to reduce the risk of contamination. A dry cleaning process for reduction cells, which removes the use of water in this process, was implemented in Q3 2021.

# REMEDIATION TIMELINE



Operated by

RioTinto

2022

2023

2024–2030

## SPENT CELL LINING (SCL)

**220,000 tonnes** of SCL stored on site (approximately)



**17,000 tonnes** of SCL exported (target)

- Sampling/characterisation of SCL pad material
- Complete Pre-Feasibility Study for onsite SCL processing plant
- Finalise additional SCL disposal pathways



**30,000 tonnes** of SCL exported (target)

- Continue disposal of SCL which may include Feasibility Study for onsite processing plant



**Stored SCL** removed by 2029 (target)

## DROSS RESIDUES

**55,000 tonnes** of dross residue to be processed

- 21,500 tonnes of Ouvea
- 20,000 tonnes of MRP (landfill)
- 13,500 tonnes of Haysom's (landfill)



**3,000 tonnes** of dross exported (target)

- Finalise removal of Ouvea from community
- Commence processing of MRP dross residue (landfill)



**5,000 tonnes** of Ouvea exported (target)

- Develop recovery plan for Haysom's dross and MRP dross residue from landfill
- Sampling of Haysom's dross residue



**Stored dross residues** processed and removed by 2029 (target)

## LAND & WATER CONTAMINATION

We have shared **20 years** of ground & water monitoring results from the SCL pad & landfill along with the results of our Detailed Site Investigation



**Further testing to increase understanding of contamination sites**

- Identify and address possible contamination sources
- Identify early remediation opportunities

**Address possible contamination sources**

- Commence progressive remediation

**Continue progressive remediation**

## LANDFILL

Existing landfill volume approx. **807,000m<sup>3</sup>**

Potential landfill materials that could be reused / recycled:

- Dross residues – c. 33,500 tonnes
- Carbon fines – c. 100,000 tonnes



**Reduction of waste**

- Cease depositing any waste in NZAS landfill
- Identify and progress pathways for landfill materials
- Commence closure study for landfill

**Closure study for landfill**

**Commence closure execution for landfill**

## NZAS CULTURAL HERITAGE MANAGEMENT PLAN

- Update underway and will be completed in 2022
- Archaeological survey of Tiwai Peninsula (NZAS/Rio Tinto freehold land and along the beaches) was carried

- out in February 2022 by Southern Pacific Archaeological Research
- Working with Awarua Runanga, Te Ao Marama, Department of Conservation

## NZAS BIODIVERSITY MONITORING PLAN

- Work underway and will be completed in 2022
- Two biodiversity surveys of Tiwai Peninsula have been completed by Boffa Miskell (in March and December 2021)

- Working with Awarua Runanga, Te Ao Marama, Department of Conservation and Environment Southland