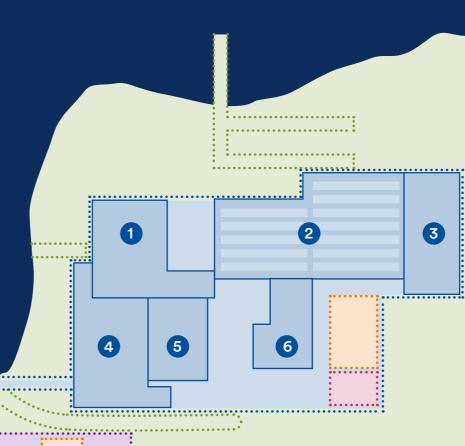
# **REMEDIATION AND BY-PRODUCTS**

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 PARTNERSHIP

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.



**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.

**BLUFF** 

## Key:

Smelter



Dross Residues SCL





V1 April 2022



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.



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



### **SMELTER**

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

### TIWAI PENINSULA





implemented in Q3 2021

Operated by RioTinto

Drains



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



# **REMEDIATION TIMELINE**

### SPENT CELL LINING (SCL)

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

### **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)

#### 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

### 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

### 2022



### 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

### 

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

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

### 2023

### ,<u>ط</u>و\_\_\_ 30,000 tonnes of SCL exported (target)

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

### 

### 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

# 

#### 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



#### **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**

- NZAS CULTURAL HERITAGE MANAGEMENT PLAN IN PARTNERSHIP WITH NGAI TAHU
- 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 (waiting on the final report) Working with Awarua Runanga, Te Ao Marama, Department of Conservation

#### NZAS BIODIVERSITY MONITORING PLAN IN PARTNERSHIP WITH NGAI TAHU

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





### 2024 - 2030





#### **Continue progressive remediation**

**Commence closure** execution for landfill

Work underway and will be

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