

Release

Stock Exchange Listings NZX (MEL) ASX (MEZ)

Meridian and NZAS Sign Long Term Contracts

31 May 2024

Meridian Energy and New Zealand's Aluminium Smelter (NZAS)¹ have signed a package of conditional 20-year contracts for part of the NZAS Tiwai Point aluminium smelter's electricity needs. The package includes a long-term fixed price contract for wholesale electricity price cover and a significant demand response agreement.

Meridian Energy Chief Executive Neal Barclay says the agreement is an excellent result after many years of hard work.

"This is a fantastic outcome for New Zealand and the Southland region. It's further proof that large industrial businesses can utilise New Zealand's renewable energy advantage and create low carbon sustainable products, high value jobs and export dollars for our country."

"We are very pleased that the NZAS team have adopted a more flexible approach toward their operations. The demand response element of this new agreement is groundbreaking, not only for this country but globally. The level of flexible demand offered by NZAS will support the electricity system to become even more renewable, while relying less on coal and gas when the hydro lakes are low."

Mr Barclay says the contracts are also a good result for Meridian.

"This new package of contracts is commercially sustainable and delivers value for our shareholders, so we are talking a real win-win here. The NZAS decision to extend the smelter life removes significant uncertainty for the electricity sector, which also helps pave the way for new renewable energy to be built."

Meridian will now consider implications on future pipeline investment and dividend policy. An update on the dividend policy can be expected at Meridian's full year results briefing in late August.

Key terms of the long-term contracts include:

- 377 MW base load volume from 2025
- pricing that begins 1 July 2024 with a 20-year term, up to and including 31 December 2044
- four demand response options, ranging from 25 MW to 185 MW an upper limit that roughly equates to one of Huntly's Rankine units. Three quarters of a called option will come off Meridian's contracted volume

¹ NZAS is a joint venture between Rio Tinto (79.36%) and Sumitomo Chemical Company Limited (20.64%)



A maximum of approximately 800 GWh of demand response is available in any given year, with an average of approximately 400 GWh per annum over the 20-year term of the contract. This will be valuable during periods of low lake inflows, providing critical dry year cover to the electricity system.

The new arrangements will replace all the current arrangements between Meridian and NZAS, with the current arrangements terminating when the new arrangements take effect.

The contracts are conditional on satisfaction of conditions precedent, which include regulatory approval from the Electricity Authority. If approval is given, the contracts will take effect from the later of 1 July 2024 and the date Meridian confirms to NZAS that all conditions precedent are satisfied or waived. If conditions precedent are not all satisfied or waived before 31 December 2024, the contracts will not come into effect.

NZAS has provided Meridian with a letter setting out their commitment to environmental remediation of the smelter site, including details of their work to date with key stakeholders. A copy of the environmental remediation letter accompanies this release.

A copy of the long-term electricity contract, the demand response agreement and the other related conditional contracts signed by Meridian and NZAS are available here. A summary of the key terms of the long-term electricity contract and the demand response agreement accompanies this release.

ENDS

Neal Barclay Chief Executive Meridian Energy Limited

Investor & Media Briefing

Neal Barclay and Meridian CFO Mike Roan will host an investor and media call via Microsoft Teams at 11am NZST (9am AEST) today. This will include an opportunity to ask questions. Click here to register for this call. Pre-registration is required to attend.

Please note:

- For the Q&A, guests will be required to raise their (virtual) hand if they wish to ask a question. This will place you in the queue. When invited to ask your question, you will need to unmute your microphone. There will be no chat available for written questions.
- When you join the meeting, your name will appear to all meeting participants.
- The call will be recorded and a replay posted to the <u>investor presentations</u> page of the Meridian website. Meridian's <u>Privacy Policy</u> applies.

Media Interviews

Mr Barclay also has limited availability for media interviews from 9.45am to 10.30am NZST. See media contact below.



Background

- On 23 October 2019, Meridian was advised by the New Zealand Aluminium Smelters Limited's (NZAS) major shareholder Rio Tinto, that it intended to initiate a strategic review of the Tiwai Point Aluminium Smelter.
- On 9 July 2020, Rio Tinto gave notice it was terminating the contract with Meridian relating to the Tiwai Point Aluminium Smelter, with effect on and from 31 August 2021.
- On 14 January 2021, Rio Tinto accepted new short term 'staged exit' contract terms offered by Meridian, effective from that date through to 31 December 2024.
- On 28 July 2022, Meridian noted NZAS's statement that they had begun exploring potential
 pathways for the smelter to remain operational after December 2024 and announced that it would
 engage in contract negotiations with NZAS as part of the process.

For investor relations queries, please contact: Owen Hackston

Investor Relations Manager 021 246 4772 For media queries, please contact:
Philip Clark
Head of Communications
027 838 5710



Today's announcement

- Meridian Energy and Rio Tinto have conditionally signed a package of long-term contracts for part of the NZAS¹ Tiwai Point aluminium smelter's electricity needs.
- The package includes a long-term fixed price contract for wholesale electricity price cover (Base Contract) and a demand response agreement.
- The Base Contract includes the following elements:
 - sustainable pricing that begins 1 July 2024,
 - a 20-year term, up to and including 31 December 2044,
 - 377 MW base load volume from 2025.
- The demand response agreement gives Meridian four demand response options that incentivise the smelter to reduce consumption, in blocks ranging from 25 MW to 185 MW.



Today's announcement

- The contracts are subject to satisfaction of conditions precedent, including:
 - NZAS agreeing terms with other parties, and
 - Regulatory approval from the Electricity Authority.
- Effective Date is the later of 1 July 2024 or the satisfaction of conditions precedent. If the contracts take effect, regardless of the Effective Date, the pricing is backdated to 1 July 2024.
- Conditions precedent must be satisfied before 31 December 2024, unless waived.



Meridian NZAS contracts – further detail

Base Contract for difference

- 472MW from Effective Date to 31 December 2024.
- 377MW from 1 January 2025.
- New pricing from 1 July 2024 with annual price escalation based on CPI from start of 2028, conditional on LME Aluminium Prices in the previous year being higher than the year before the previous year.
- Term of 20 years to 31 December 2044. However, NZAS may provide 2 years' notice of termination any time from 31 December 2032 onwards but must make an irrevocable payment of \$180M to Meridian when providing that notice.
- Aggregate of \$235M (first 10 years of term) and \$180M (remainder of term) in prudential support to Meridian in parent company and bank guarantees.

Meridian NZAS contracts – further detail

<u>Demand response contract</u>

- Flexible demand response with four demand options exercisable by Meridian. An exercised demand option reduces the volume of cover provided by Meridian under the Base Contract by the demand option volume.
- The sizes of the four demand options are 138.75MW, 75MW, 37.5MW, 18.75MW.
- Exercise of a demand option will incentivise NZAS to reduce consumption by 185MW, 100MW, 50MW or 25MW (as applicable).
- Payment of half of the annual premium depends on NZAS's compliance with demand response calls.
- Strike price payable based on actual reduction.
- Annual price escalation based on CPI from start of 2028, conditional on LME Aluminium Prices
 in the previous year being higher than the year before the previous year.
- Term of 20 years as per the Base Contract and terminates automatically on termination of Base Contract.
- Maximum of approximately 800 GWh of demand response is available in any given year, with an average of approximately 400 GWh per annum over the term.



Meridian NZAS contracts – further detail

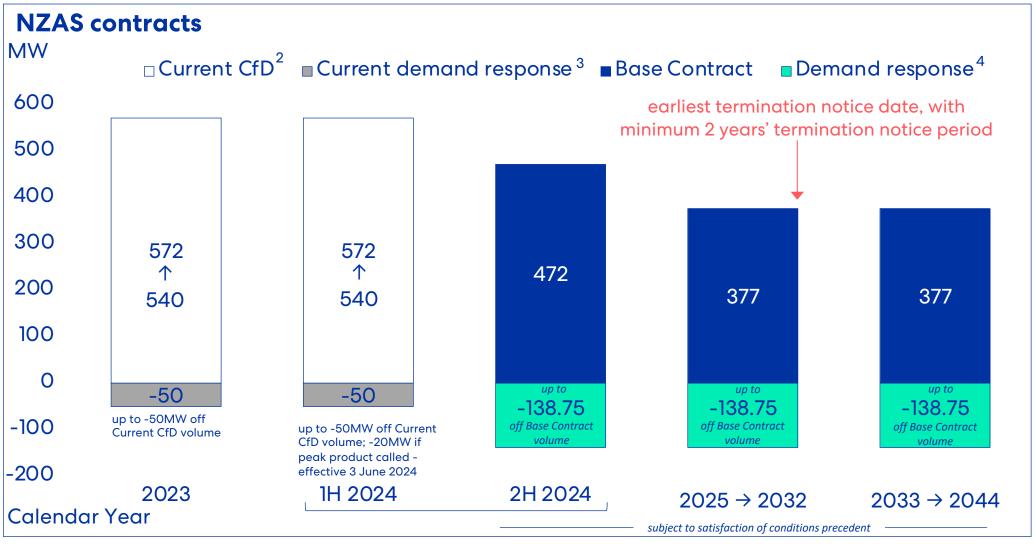
<u>Demand response contract – summary of demand options</u>

Option	Equivalent reduced consumption (MWh per hour)	Exercisable Reduction from Meridian demand response agreement (MWh per hour)	Usual Ramp- Down Notice Period	DR Period (equivalent number of days)	Usual Ramp- Down Period (equivalent number of days)	Usual Ramp-Up Notice Period (equivalent number of days)	Usual Ramp-Up Period (equivalent number of days)	Maximum Calls
1	25	18.75	3 Business Days	Minimum 10 days, maximum 150 days	5 days	3 days	15 days	Unlimited, but the Option cannot be exercised more than 4 times in any 12-month period
2	50	37.5	3 Business Days	Minimum 15 days, maximum 145 days	10 days	3 days	30 days	Unlimited, but the Option cannot be exercised more than 2 times in any 18-month period
3	100	75	3 Business Days	Minimum 22 days, maximum 137 days	18 days	5 days	100 days	The Option cannot be exercised more than 8 times over the Term
4	185	138.75	5 Business Days	Minimum 30 days, maximum 75 days	25 days	5 days	200 days	The Option cannot be exercised more than 4 times over the Term

Stand down periods apply between the exercise of options.



Meridian NZAS contracts



 $^{^{2}\,}$ Follows smelter load, with minimum volume of 540MW and maximum volume of 572MW.

⁴ If called, the demand response reduction volume comes off the volume of the Base Contract between Meridian and NZAS.



³ If called, the current demand response reduction volume of up to 50MW comes off the volume of the Current CfD between Meridian and NZAS. Meridian and NZAS have separately agreed an up to 20MW peak demand response agreement for winter 2024 (effective 3 June 2024).

Current arrangements

- The current arrangements between Meridian and NZAS, including the electricity agreement, 2023/2024 demand response agreement and 2024 peak demand response agreement will all terminate at midnight on the day before the date the new arrangements take effect.
- If the new arrangements do not come into effect, the current arrangements will expire at the end of 2024 at the latest (if they have not otherwise expired or been terminated earlier).



Closing comments

- This major milestone removes significant uncertainty for the people of Southland.
- The smelter's commitment to a long term relationship with New Zealand will facilitate the development of further renewable energy options.
- The demand response agreement is groundbreaking and will provide critical dry year cover, further supporting decarbonisation of New Zealand's economy.
- We also confirm our investor day scheduled for 24 and 25 June will proceed. You will hear more about this in the next few days.



Disclaimer

The information in this presentation was prepared by Meridian Energy with due care and attention. However, the information is supplied in summary form and is therefore not necessarily complete. In addition, neither the company nor any of its directors, employees, shareholders nor any other person shall have liability whatsoever to any person for any loss (including, without limitation, arising from any fault or negligence) arising from this presentation or any information supplied in connection with it.

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This presentation does not constitute financial advice. Further, this presentation is not and should not be construed as an offer to sell or a solicitation of an offer to buy Meridian Energy securities and may not be relied upon in connection with any purchase of Meridian Energy securities.

The information contained in this presentation should be considered in conjunction with the company's financial statements, which are available at:

www.meridianenergy.co.nz/investors

All currency amounts are in New Zealand dollars unless stated otherwise.



COMMERCIAL IN CONFIDENCE



NEW ZEALAND ALUMINIUM SMELTERS LIMITED

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Courier / Delivery Address: 3 Spey Street, Invercargill
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02 May 2024

Neal Barclay Chief Executive Meridian Energy Limited (via email)

Dear Neal

Environmental Remediation Update

You have asked for confirmation as to NZAS' environmental remediation plans.

I confirm on behalf of NZAS that we are satisfied as to the likelihood of stakeholder acceptance of our environmental remediation plans, and the significant progress by NZAS on environmental remediation, addressing outstanding historic issues, and partnering with iwi.

In particular, I would highlight the following:

- NZAS' progressive MOU with Ngāi Tahu, signed in 2022, which has seen the formation of the Remediation Advisory Working Group (RAWG), between Mana Whenua and NZAS to drive a true partnership approach to remediation, and ensure iwi involvement in all decisions relating to environmental efforts at Tiwai. Recent comments from Ngāi Tahu on the success of the partnership are attached to this letter as is the original MOU announcement (see **Annexure 1**). The MOU marks a new chapter in NZAS' long-term partnering with Ngāi Tahu and provides us a substantial foundation for multi-lateral input on remediation, future planning, as well as partnering and economic development opportunities.
- Ongoing extensive monitoring, above and beyond regulatory requirements. A comprehensive review by GHD in 2023, confirmed overall low risk of ecological impacts from our operations, and assisted NZAS in identifying specific areas of focus for remediation going forward, which has also been confirmed by the RAWG as priority areas. A similar, albeit less comprehensive study by Environment Southland, had broadly similar conclusions and remediation focus areas. (the media release on the GHD report is enclosed as **Annexure 2**)

COMMERCIAL IN CONFIDENCE

- Successful repatriation (to the Tiwai smelter site) and export of all 'Ouvea Premix' which had been stored in the community.
- Commencement of export of Spent Cell Lining (SCL) from Tiwai to be processed in Australia and recycled into cement manufacture, with over 20,000 tonnes planned for export in the next 12 months and potential for a significant increase moving forward.
- Closure of the onsite landfill in 2022 and commencement of remediation planning for the site.
- Improved operating practices, including the maintenance of the drains (particularly removal of sediment behind the weirs etc.) to reduce contaminant flux, the implementation of better management processes for the discharge of stormwater prior to discharge and improvements to stormwater retention systems.
 Potential engineered solutions are being explored through our co-design commitment with Ngāi Tahu.

A current snapshot of the status of the full remediation programme is enclosed as **Annexure 3.**

For completeness NZAS is committed to removing all SCL from the site during any remediation process. This material will then be suitably processed along with any dross residues resulting from the smelting process. Furthermore, NZAS is dedicated to progressively remediating land and water contamination to meet appropriate environmental standards. The final closure solution of the landfill will form part of the overall remediation plan and planning is currently underway with our partners Ngāi Tahu on this.

I trust this satisfies your concerns and am happy to discuss these in more detail with you and your team.

Although we have more work to do, now and moving forward, we are particularly proud of the significant progress made in addressing present and historic environmental and operational matters of concern, and of the platform we have developed internally and with partners, to set NZAS up for success in remediation and sustainable operations.

Ngā mihi

Chris Blenkiron

CHIEF EXECUTIVE



ANNEXURE 1







MEDIA RELEASE

26 February 2024

Ngāi Tahu relationship with Tiwai a model for others

The partnership between NZAS, Rio Tinto and Ngāi Tahu is a demonstration of Te Tiriti o Waitangi partnership in action, according to Jacqui Caine, Te Rūnanga o Ngāi Tahu Group Head of Strategy & Environment, and a Trustee of Awarua Rūnaka.

Speaking at Te Rau Aroha marae in Bluff on Waitangi Day, Ms Caine shared her perspectives on how NZAS and Rio Tinto are working collaboratively with Murihiku Rūnaka and Te Rūnanga o Ngāi Tahu towards delivering against the Memorandum of Understanding (MOU) signed in 2022.

"Ngāi Tahu did not enter this relationship lightly. We wanted any relationship to be something that went beyond tokenism and nice words, to be something firmly rooted in the expression of partnership articulated in the Treaty."

"I feel that we have been able to build a mutually beneficial relationship that is seeing substantial progress on Tiwai's site remediation, and engagement on environmental and broader community programs, to ensure the overall significance and mana of the land, the Rūnaka and our history is taken into account."

"This relationship is nested within the Treaty of Waitangi principles of partnership, participation and protection. The MOU captures a partnership that will ensure the voice of Murihiku Rūnaka is even stronger regarding remediation and the future of the smelter. Mana whenua now participate in the discussions on plans to remove waste, conduct environmental monitoring, and remediate the Tiwai Point site, which is a key priority for mana whenua, NZAS and Rio Tinto." Ms Caine said.

"The agreement is a commitment by the iwi to share mātauranga Māori (Māori knowledge) and kōrero tuku iho (history and traditions) relative to Tiwai to support Rio Tinto to responsibly manage and protect the environment as the future of the smelter is determined," Ms Caine said.

She said the future of the smelter was a key concern for Awarua, Ngāi Tahu and the wider Southland economy.

"Tiwai provides jobs for our whānau, and economic activity for our region. With the relationship we as mana whenua now have with NZAS, we are confident that remediation will continue and that the future contribution will not just be economic, but also cultural, as our partnership continues to develop," Ms Caine said.

NZAS Chief Executive Chris Blenkiron echoed these sentiments.

"The partnership with Ngāi Tahu and Awarua Rūnaka really is making a substantial difference in how we operate currently, how we both deal with our legacy over 50 years, and how we plan for a future which will embed a true and enduring partnership.

"The Treaty can often be a vexed topic, but putting its principles around partnership in action, as we have done with our relationship with Ngāi Tahu and Awarua Rūnaka shows how it can drive tangible long-term achievements for the benefits of everyone in the community," Mr Blenkiron said.

The MOU signed in 2022 by Murihiku Rūnaka, Te Rūnanga o Ngāi Tahu, New Zealand Aluminium Smelters Limited (NZAS) and Rio Tinto Aluminium Limited established a partnership to work together on restoring the whenua (land) at the Tiwai Peninsula and the future of the Tiwai aluminium smelter beyond December 2024.

The MOU established a Remediation Advisory Working Group, with representatives from Mana Whenua and NZAS, and also initiated a NZ\$2 million Community Development Fund, to provide funding for organisations working in wellbeing, cultural, environmental, education and innovation and economic development initiatives in the Southland community.

ENDS

Media contact:

For media enquiries please contact Senior Communications Advisor, Te Rūnanga o Ngāi Tahu Crisselda De Leon-Singson, <u>crisselda.deleon-singson@ngaitahu.iwi.nz</u>







MEDIA RELEASE

4 October 2022

New agreement with mana whenua marks a positive step towards a future for Tiwai Smelter

An agreement has been reached by Murihiku Rūnaka and Te Rūnanga o Ngāi Tahu with the New Zealand Aluminium Smelters Limited (NZAS) and Rio Tinto Aluminium Limited to work together on restoring the whenua (land) at the Tiwai Peninsula and the future of the Tiwai aluminium smelter beyond December 2024.

The agreement was signed on Friday at Te Rau Aroha Marae at Motupōhue (Bluff) by representatives from Murihiku Rūnaka and Te Rūnanga o Ngāi Tahu.

All parties agreed to work together on plans to remove waste, conduct environmental monitoring, and remediate the Tiwai Point site, which is a key priority for mana whenua, NZAS and Rio Tinto.

NZAS Chief Executive Chris Blenkiron said "We're proud to be working alongside Murihiku Rūnaka and Te Rūnanga o Ngāi Tahu in continuing this important mahi. Their guidance will be invaluable as we progressively remediate the site."

"This agreement reinforces the commitments we've made to remove waste and remediate the site, irrespective of the smelter's future," he said.

Murihiku Rūnaka hold mana whenua and mana moana over the region and are kaitiaki (guardians) over the whenua and moana. Murihiku Rūnaka is comprised of four Papatipu Rūnanga including Te Rūnaka o Awarua, Waihōpai Rūnaka, Ōraka Aparima Rūnaka and Hokonui Rūnanga.

Te Rūnaka o Awarua is leading the partnership on behalf of Murihiku Rūnaka and will actively engage with NZAS and all parties around remediation, cultural considerations, and future intentions.

Upoko o Te Rūnaka o Awarua Tā Tipene O'Regan has advocated for this partnership and is pleased to reach this milestone.

"I have always believed there is a future for this land. Now we can engage in responsible environmental management and look at a long-term future for Tiwai."

"It is important to note that while the remediation issue is led by Te Rūnaka o Awarua, it is also supported by other Rūnaka within Murihiku," he said.

The agreement is a commitment by the iwi to share mātauranga Māori (Māori knowledge) and kōrero tuku iho (history and traditions) relative to Tiwai to support Rio Tinto to responsibly manage the environment as the future of the smelter is determined.

Rio Tinto Aluminium Chief Executive Ivan Vella said "NZAS produces some of the lowest carbon, highest purity aluminium in the world. We are working hard to secure a longer future for NZAS so it can continue supporting global decarbonisation, and we must make sure its environmental performance matches these objectives."

"Rio Tinto is working to improve our relationship with mana whenua and to do this in a way that recognises their kaitiaki responsibilities. This partnership demonstrates how we intend to operate in Aotearoa going forward," he said.

All parties believe the region has a strong future with a range of potential new industries, technologies and renewable energy bringing new jobs and a wide range of economic benefits.

ENDS

Note to Editors

Image caption: Representatives from Murihiku Rūnaka and Te Rūnanga o Ngāi Tahu sign the agreement.

Seated L-R: Michael Stevens (Te Rūnanga o Awarua Alt Rep); Rewi Davis (Ōraka Aparima Rūnaka Rep); Cyril Gilroy (Chair Waihōpai Rūnaka); Terry Nicholas (Hokonui Rūnanga Rep); Riki Dallas (Kaihautū - General Manager Ōraka Aparima Rūnaka); Dean Whaanga (Kaiwhakahaere Awarua Rūnaka)

Standing L-R: Albert Brantley (Advisor to parties); Megan Reid (Project Manager for Awarua Working Group); Gail Thomson (Te Rūnanga o Awarua Rep); Nicole Atherton (Rio Tinto General Manager Closure Readiness)

Media contacts:

For media enquiries for Rio Tinto and NZAS please contact: Jonathan Webb, jonathan.webb@riotinto.com, 021 044 8453

For media enquiries for the Murihiku Rūnaka collective, including Te Rūnaka o Awarua, Te Rūnanga o Ngāi Tahu please contact: Belinda Milnes, <u>belinda@sbaconsulting.co.nz</u> 021 802 447 or Crisselda De Leon-Singson, <u>crisselda.deleon-singson@ngaitahu.iwi.nz</u> 021 051 6239

ANNEXURE 2



Media Release

Please direct all enquiries to: simon.king2@riotinto.com

For Immediate Release 10 November 2023 Embargoed until 6am

Extensive environmental testing at Tiwai concludes low risk of human or ecological impact

New Zealand's Aluminium Smelter (NZAS) has today released a report undertaken by global professional services company GHD which concluded that there was a limited risk to marine ecology and no increased risk of health effects for people who come into contact with sediment and surface water or consume kai moana inhabiting the surrounding coastal marine area.

NZAS engaged GHD to complete extensive testing in and around the Tiwai smelter site to further build on the findings of a detailed site investigation undertaken in 2021 to establish baseline indicators for the site. NZAS is committed to further improving its environmental footprint and mitigating the impacts of the smelter.

The purpose of this report and the investigations was to understand discharges occurring from the smelter and to determine whether these were having an adverse effect on the ecology of the coastal marine area environment, or people using the coastal area for recreation and food gathering. As part of the investigation, concentrations of analytes in soil, sediment, groundwater and ocean water were compared to various regulatory criteria as per Ministry of Environment guidelines.

Given the importance of mahinga kai (food gathering) activities at or near Awarua/Tiwai peninsula to Ngāi Tahu, this work included testing of kaimoana (seafood) in the coastal marine area adjacent to the site.

The report made three key findings:

- There is no increased risk of health effects from the smelter and its operations for people who come
 into contact with sediment and surface water within the coastal marine area or consume seafood
 inhabiting nearshore areas of the coastal marine area.
- There is a limited risk to marine ecology related to discharges from the landfill. While localised
 effects on aquatic organisms are plausible, elevated concentrations of copper found in marine water
 near the landfill are unlikely to have a measurable long-term effect. Elevated copper concentrations
 were evident in water quality samples from numerous locations around Bluff Harbour, including other
 locations distant from the NZAS smelter indicating secondary sources.
- The three drains are the primary pathway for contaminant transport towards the coastal marine area. Within the vicinity of the North Drain discharge point, adverse effects to aquatic organisms are plausible, however, once discharge reaches the coastal marine area, beyond the drain water mixing zone, there is a low risk of measurable adverse long-term effects on aquatic organisms.

The studies undertaken by GHD in 2021 - 2023 support the findings of previous studies released in 1995 and 2006 that discharges from NZAS drains were having a limited impact upon marine species within the coastal marine area.

NZAS Chief Executive Chris Blenkiron said, "We are pleased with the findings of the report as they provide us with confidence that we are implementing effective actions to mitigate the smelter's environmental impact but it also provides us with clarity around where we can look to do better."

Media Release 2/2

"Tiwai is more than 50 years old, and we acknowledge that our practices haven't always met expectations but we've worked hard to improve our environmental record and this report confirms we're doing the right things."

"In particular, I was really pleased that the report found that there was no increased risk of health effects for people consuming kai moana from the surrounding coastal marine area. Food gathering from the ocean is incredibly significant to our Ngāi Tahu partners but also our wider community here in Southland."

Spokesperson for Ngāi Tahu, Jacqui Caine said "Ngāi Tahu has welcomed the partnership with NZAS on remediating the whenua (land) and coastal environment around Tiwai Point. Protection of mahinga kai activities is of upmost importance to Awarua and Ngāi Tahu more broadly. It is reassuring to know that the kai moana in the harbour is safe to eat and that we can continue this important practice that we have done for several hundred years."

A memorandum of understanding (MoU) was agreed in 2022 between Murihiku Rūnaka and Te Rūnanga o Ngāi Tahu with the New Zealand Aluminium Smelters Limited (NZAS) and Rio Tinto Aluminium Limited. The parties have been working closely together over the last year to build a shared vision of remediation of the site.

The Advisory Group established under the MoU works to protect both Te Ao Tūroa (natural environment) and mahinga kai activities at or near Awarua/Tiwai peninsula coastal environment. With technical support from a joint Remediation Working Group, site specific remediation criteria have been co-designed with NZAS and Rio Tinto. A plan for the remediation of the onsite drain network is currently under development.

"We are really pleased with the progress made in developing a partnership with NZAS to remediate the site. The first remediation plan we are co-designing is for the drain network. The GHD report confirms we have selected the right focus area and we are looking forward to continuing this important mahi," Caine said

Siobhan Hartwell, Regional General Manager NZ Pacific for GHD said "Our extensive programme of investigations has helped NZAS build a detailed picture of the site and the surrounding environment. Our technical support for NZAS will help the continuing environmental improvements and remediation of Tiwai."

A full copy of the report, including an executive summary, can be found at <u>Sustainability | New Zealand's</u> Aluminium Smelter | NZAS

ENDS

Background: Ongoing environmental testing and monitoring

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- As part of NZAS' commitment to the environment, regular monitoring and testing of environmental impacts provides important indicators to ensure the measures in place are effective and further work is prioritised appropriately.
- The detailed site Investigation (DSI), completed in 2021, started to provide a baseline of site conditions.
- The 2021 DSI report recommended further testing to continue to build on knowledge of site conditions and understand any seasonal variation.
- When NZAS released the DSI we committed to keeping the community updated as work progressed and we have proactively met this commitment.
- GHD is a company with expertise in contamination assessment and remediation and have specialist skills in environmental testing and monitoring.
- This GHD report was an important part of the work undertaken by the Advisory Group established to enable Te Rūnaka o Awarua and NZAS to work together to progress remediation priorities and criteria.

NZAS is a joint venture company owned by Rio Tinto (80%) and Sumitomo Chemical Company of Japan (20%).

Contact: Simon King (021) 2425723

REMEDIATION AND BY-PRODUCTS

ANNEXURE 3

VERSION FOUR – STATUS AS AT 31 OCTOBER 2023

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

Murihiku Rūnaka and Ngāi Tahu with NZASand Rio Tinto have an agreement to work together on restoring the whenua at the Tiwai Peninsula and thefuture of the Tiwai aluminium smelter beyond December 2024.

All parties are working together on plans to remove waste, conduct environmental monitoring, and remediate the Tiwai Point site, which is a key priority for mana whenua, NZAS and Rio Tinto.

SMELTER

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

TIWAI PENINSULA

LANDFILL

No further waste to be deposited in onsite landfill.

1

4

5

DROSS **RESIDUES**

Commercial contracts are in place for 42,000 tonnes to be processed and recycled.

6

These contracts cover 100% of Ouvea and MRP landfilled dross residue.

SCL

3

Commercial contracts are in place for up to 30,000 tonnes per annum to be exported for processing and recycling offshore.

Key:

Landfill

UUU

Dross Residues

SCL

PROGRESSIVE REMEDIATION OBJECTIVES

(agreed with Awarua Representatives on Advisory Group):

SPENT CELL LINING (SCL)

Remove all SCL from the Tiwai peninsula, to be recycled for alternative industrial use by 2029.

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DROSS

Return all Ouvea stored in the community back to NZAS site. Process and remove all dross residues from the Tiwai peninsula, to be recycledfor alternative industrial use by 2029.

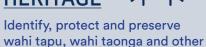
LAND & WATER CONTAMINATION

Progressively remediate the site to protect Te Ao Tūroa (natural environment) and mahinga kai (food gathering) activities at or near Awarua/Tiwai peninsula coastal environment.

ONSITE LANDFILL

Develop a long-term pathway for the closure of the landfill with an initial focus on seeking reuse and recycling options for material in the landfill to align with our waste philosophy.

CULTURAL HERITAGE



sites of significance at Tiwai Point.



REMEDIATION TIMELINE



2024-2030 2022 2023

SPENT CELL LINING (SCL)

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



17,000 tonnes of SCL exported (target)

- 5,500 tonnes of SCL exported
- Sampling/characterisation of SCL pad material



30,000 tonnes of SCL exported (target)



Stored SCL removed by 2029 (target)

On-site facility:

- Pre-Feasibility study completed.
- Funding approved to finalise study work.
- Consent application development started.

Export:

2,000T planned to be exported in Q4.



8,000 tonnes of Ouvea exported (target)

- All remaining Ouvea will be exported by end of
- 1,800 tonnes of MRP dross residue (landfill) recycled YTD
- Sampling of Haysom's Dross Residue.



◯ Stored dross residues

processed and 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)

- 100% (24,800 tonnes) of Ouvea stored in community returned to site
- 7,800 tonnes of Ouvea exported

LAND & WATER CONTAMINATION

We have shared

20 years of groundwater monitoring results from the SCL pad & landfill along with the results of our Detailed Site Investigation



Further testing to increase understanding of contamination sites

- Additional five rounds of environmental testing (based on results of DSI)
- Extensive sampling within the Coastal Marine Environment
- Additional 50 groundwater monitoring bores installed

Actions to prevent further contamination to soil and groundwater

- By-products storage facility constructed
- Ceased wet washing of reduction cell shells and superstructures
- Improvements to washdown facility



Address possible contamination sources

Commence progressive remediation

- Remediation Advisory Working Group (RAWG) established with Ngai Tahu
- RAWG co-design the standard and criteria for progressive remediation
- Draft remediation plan created for the first area of land to be remediated
- Draft remediation plan for the drain network and assess options for future open drain design



Continue progressive remediation

LANDFILL

Existing landfill volume approx. 807,000m³

Potential landfill materials that could be reused / recycled:

- Dross residues c. 33.500 tonnes
- Carbon fines c. 100.000 tonnes



Reduction of waste

- Ceased depositing any waste in NZAS landfill from May 2022.
- Extensive environmental assessments within and around the landfill including groundwater monitoring, ecological assessments, water, soil, marine sediment and marine biota sampling



Closure study for landfill



Commence closure execution for landfill

- RAWG supported strategy change to submit a short term 5 year consent for landfill to provide time to develop appropriate long term closure design.
- 5 year consent submitted to ES.