Attachment 1: Proposed Restricted Activities and Consent Conditions

ATTACHMENT 1 - TRANS-TASMAN RESOURCES - FAST TRACK APPLICATION - PROPOSED AUTHORISED RESTRICTED ACTIVITIES AND CONSENT CONDITIONS

AUTHORISED RESTRICTED ACTIVITIES UNDER THE EEZ ACT

The marine consents authorise the following restricted activities, subject to the conditions stipulated below.

Section 20(2) (a) – the construction, placement, alteration, extension, removal, or demolition of a structure on or under the seabed.

a) The placement, movement and removal of the IMV anchor, including the anchor spread, on the seabed.
b) The placement, movement and removal of the SBC on the seabed.
c) The placement, movement and removal of the grade control drilling equipment on the seabed.
d) The placement, movement and retrieval of moored environmental monitoring equipment on the seabed.

Section 20(2)(d) – the removal of non-living natural material from the seabed or subsoil

a) The removal of sediment from the seabed and subsoil using the SBC and by grade control drilling.
b) The taking of sediment and benthic grab samples from the seabed and subsoil associated with environmental monitoring.

Section 20(2)(e) – the disturbance of the seabed or subsoil in a manner that is likely to have an adverse effect on the seabed or subsoil

a) The disturbance of the seabed and subsoil associated with the placement, movement and removal of the IMV anchor, including the anchor spread.
b) The disturbance of the seabed and subsoil associated with seabed material extraction via the SBC, through re-deposition of de-ored sediments, and from grade control drilling.
c) The disturbance of the seabed and subsoil associated with the placement, deployment, retrieval and mooring of environmental monitoring equipment.
d) The disturbance of the seabed and subsoil associated with the taking of sediment and benthic samples associated with environmental monitoring.

Section 20(2)(f) – the deposit of any thing or organism in, on, or under the seabed.

a) The re-deposition of de-ored sediments in, on or under the seabed.
b) The deposition of small amounts of marine organisms and solids in, on or under the seabed as a result of vessel maintenance, hull cleaning (biofouling).

Section 20(2)(g) – the destruction, damage, or disturbance of the seabed or subsoil in a manner that is likely to have an adverse effect on marine species or their habitat.

a) The disturbance and damage of the seabed as a result of the placement, movement and removal of the IMV anchor on the seabed.
b) The disturbance and damage of the seabed as a result of seabed material extraction via the SBC, the re-deposition of de-ored sediments, and the grade control drilling.
c) The disturbance and damage of the seabed as a result of the placement, deployment, retrieval and mooring of environmental monitoring equipment.
d) The disturbance and damage of the seabed as a result of the taking of sediment and benthic samples associated with environmental monitoring.

Section 20(4)(a) – the construction, mooring or anchoring long-term, placement, alteration, extension, removal, or demolition of a structure or part of a structure.

a) The anchoring of the IMV to the seabed, and the associated placement, movement and removal of the IMV anchor on the seabed.
b) The placement, movement and removal of the SBC in the water column above the seabed.
c) The placement, movement and removal of the grade control drilling equipment in the water column above the seabed.
d) The placement, deployment, retrieval and mooring of environmental monitoring equipment in the water column above the seabed.

Section 20(4)(b) – the causing of vibrations (other than vibrations caused by the normal operation of a ship) in a manner that is likely to have an adverse effect on marine life.

a) Vibration caused by the IMV and SBC during iron sand extraction activities.

Section 20B(1) - the discharge of a harmful substance from a structure into the sea or into or onto the seabed of the EEZ.

a) The release of seabed material (sediments) as a result of the seabed disturbance during grade control drilling activities.
b) The release of disturbed seabed material (sediments) as a result of the seabed disturbance during the SBC extraction operations; and
c) De-ored sediments and any associated contaminants discharged back to the water column from the IMV.
d) The release of disturbed seabed material (sediments) as a result of taking of sediment and benthic samples associated with environmental monitoring.

Section 20C(1) - the discharge of a harmful substance (if the discharge is a mining discharge) from a ship into the sea of the EEZ or into or onto the continental shelf.

a) All discharges from the IMV including de-ored sediments and any associated contaminants discharged back to the water column from the IMV.

GENERAL CONDITIONS

1. Pursuant to section 85 of the EEZ Act, these consents will lapse ten (10) years after the date of their commencement unless the consents are given effect to prior to that date.

2. Subject to compliance with these consent conditions, the activities authorised by these consents must be undertaken in accordance with the application and supporting documents submitted as part of the application lodged on 15 April 2025. Where there is an inconsistency between the application documents and the conditions, the conditions prevail.

DISCHARGE LIMITS

3. The Consent Holder must not extract more than 12.5 million tonnes of seabed material during any three (3) month period, and 50 million tonnes of seabed material during any twelve (12) month period.

   The Consent Holder must continuously record the mass of seabed material extracted and report on this as part of the Quarterly Operational Report required by Condition 103.

4. When undertaking the activities authorised by these consents, the following limits must not be exceeded:
   a. The rate of extraction of seabed material, averaged over any monthly period, must not exceed 8,000 tonnes per hour ("t/hr"); and
   b. The rate of discharge of de-ored sediment onto the seabed, averaged over any monthly period, must not exceed 7,190 t/hr; and
   c. The rate of discharge of de-ored sediment having a size of <38 microns ("µm") must not exceed:
      i. 130 cubic metres per hour ("m^3/hr"), averaged over any 48 hour period; and
      ii. 83 m^3/hr, averaged over any seven (7) day period; and
      iii. 66 m^3/hr, averaged over any three (3) month period.
   d. Averaged over any one (1) week period, the extraction of seabed material having a size of <8µm, must not exceed 1.8% of the total seabed material extracted.

The Consent Holder must record Particle Size Distribution, and the rate and volume/mass of the discharge of de-ored sediment continuously. The Consent Holder must advise the EPA of any exceedances of the discharge limits specified in clauses b., c. or d. above within twenty four (24) hours of any exceedance.

The information collected in accordance with this condition must be reported on as part of the Quarterly Operational Report required by Condition 103.

Advice Note:

For the purpose of c. above, the average value is to be derived from the use of continuous flow measurement and the analysis of one daily composite sample comprised of not less than the (twelve) 12 individual samples collected during each twenty four (24) hour period at a point immediately prior to discharge to the marine environment.

For the purpose of d. above, the average value is to be derived from the analysis of a minimum of twenty (20) representative samples of the excavated seabed material.

ENVIRONMENTAL LIMITS

Sediments

5. The activities authorised by these consents must not result in:
    a. An exceedance of a 95th percentile Suspended Sediment Concentration Limit ("SSC Limit") specified in Schedule 2; or
    b. An exceedance of any modified numerical values of an SSC Limit determined in accordance with Condition 52 (in which case a. above will no longer apply); or
    c. A more than 10% change of the 25th, 50th, or 80th percentile Suspended Sediment Concentrations ("SSC") at any of the ten (10) monitoring sites identified in Schedule 2, as determined over any twelve (12) month period. For the purpose of this condition, "change" means the difference between the measured actual SSC and modelled background statistical metric, as predicted by the validated OSPM.

    In the event that monitoring shows that limits in Condition 5.a. or 5.b. are exceeded, or the significance of change under Condition 5.c. exceeds 10%, then extraction activities must cease until the Consent Holder can demonstrate compliance with those conditions, to the satisfaction of the EPA.

6. The activities authorised by these consents must not result in an exceedance of any Interim Sediment Quality Guideline-High ("ISQG-High") value in the Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000 ("ANZECC 2000"), or any subsequent versions thereof, at any of the ten monitoring sites identified in Schedule 2.

   For the purpose of these consents, any reference to either ISQG-High is deemed to be a reference to the ISQG-High values for metals, metalloids, organometallic and organic compounds provided in the ANZECC 2000, or any subsequent versions thereof. The metals subject to this condition are those specified in Schedule 6.

Benthic Ecology

7. The activities authorised by these consents must not, result in:
   a. more than a 5% reduction in overall abundance of macro fauna and flora; or
   b. more than a 5% reduction in the average number of macro-faunal and floral taxa present; or
   c. more than a 5% reduction in total macro-faunal and floral biomass,

   at the monitoring sites listed in Schedule 4 when compared against the pre-commencement monitoring data as determined in accordance with Conditions 47 and 48 but taking into account natural variation.

   For the purpose of this condition, "a 5% reduction" at any specified location, is to be determined by comparing the mean values of all replicate samples collected at that location at the particular time.

Benthic Recovery

8. No later than five (5) years following the completion of all seabed material extraction within two (2) km of the location where extraction has first occurred, the Consent Holder must demonstrate that recovery of the macroinfauna benthic community at that location has occurred. For the purpose of this condition, "recovery of the macroinfauna benthic community" will have occurred when the macroinfauna communities at a specified location are within 15% of the average pre-mining total abundance, biomass and species richness, but taking into account natural variation; or when the annual monitoring results for that area (Condition 57) indicate that that such recovery is on track to be achieved.

In the event that annual monitoring shows that recovery is not on track to be achieved, then the Consent Holder must, as part of the next quarterly report, provide a report to the EPA that:

a. highlights the results of monitoring at the location that show that recovery is not on track to be achieved; and
b. includes analysis by a suitably qualified and experienced benthic ecology expert of:
    i. possible reasons why recovery is not on track to be achieved; and
    ii. potential measures to enhance recovery; and
c. explains how the Consent Holder will ensure that recovery of the macroinfauna benthic community will occur no later than five (5) years following completion of all seabed material extraction within two (2) km of the location where extraction first occurred.

Seabirds

9. The Consent Holder must ensure that:
    a. There are no adverse effects on seabird species that utilise the South Taranaki Bight that are classified under the New Zealand Threat Classification System as "Threatened" or "At-risk" or "Threatened" in the International Union for the Conservation of Nature "Red List"; and
    b. For species other than those identified in Condition 9a, adverse effects on seabirds, including but not limited to effects arising from:
        i. Lighting (including the Integrated Mining Vessel ("IMV"), Floating Storage and Offloading Vessel);
        ii. Spills; and
        iii. The effect of sediment in the water column on diving birds that forage visually,

    are mitigated, and where practicable avoided.

Marine Mammals

10. Notwithstanding the requirements of Conditions 11, 35, 66 and 88, with respect to marine mammals (excluding seals), the Consent Holder must ensure that:
    a. There are no adverse effects as a result of the activities authorised by this consent

on:

i. Blue whales; or

ii. Marine mammal species classified under the New Zealand Threat Classification System as “Nationally Endangered”, “Nationally Critical” or “Nationally Vulnerable”,

that utilise the South Taranaki Bight.

b. For species other than those identified in Condition 10a, adverse effects on marine mammals, including but not limited to effects arising from:

i. Noise;

ii. Collision and entanglement;

iii. Spills; and

iv. Sediment in the water column,

are avoided to the greatest extent practicable.

c. At all times during the operational activities authorised by these consents, at least one (1) dedicated and trained marine mammal observer is on-board each of the operational vessels, but not including bulk carriers. While the vessel is in motion, the observer must be in a position where a clear field of vision is provided over the forward section of the vessel and beyond the bow;

d. A video camera is placed in a prominent position on all operational vessels where a clear field of vision is provided over the forward section of the vessel, beyond the bow and to the sides of the bow and is recording at all times while the vessel is in motion. Further to the camera, a monitoring screen must be installed on the bridge of each vessel and the video feed from each of the cameras will be made available to the EPA and/or Department of Conservation staff upon request. The purpose of the cameras is to record passage of the vessels and any contact with marine mammals while in motion;

e. All employees and contractors undertaking airborne, seagoing and watch-keeping duties are informed of their obligations under the Marine Mammals Protection Act 1978 and Marine Mammals Protection Regulations 1992 or any subsequent Regulations;

f. All employees and contractors must record any sightings of marine mammals (except seals) including the date, time and, where possible, GPS position of the vessel. All records must be contained in an Observation Log and be made

available to EPA and/or Department of Conservation staff upon request and Annual Report required by Condition 104;

g. Any sightings of Maui or Hector's dolphins are immediately reported to the Department of Conservation;
h. Masters of all vessels are instructed to reduce speed to a 'no wake speed' of no greater than 5 knots within 300 m of any large cetaceans and feeding aggregations of blue whales, and take all necessary steps to avoid contact with the animals and, where practicable, maintaining a distance of at least 300 m from the animal/s;
i. Helicopters servicing the operation (subject to compliance with Safety and Civil Aviation Authority requirements) maintain a minimum altitude of 600 m (2,000 feet) except when landing and taking off;
j. Any marine mammal strikes, entanglements, injuries or deaths are reported to the Department of Conservation and the EPA as soon as practicable, but no later than five (5) working days, following any such event;
k. If a strike, entanglement, injury or death involves Maui or Hector's dolphin, and the carcass is recovered, the Department of Conservation and the EPA must be notified immediately of that recovery. The consent holder must ensure the carcass is returned to shore as soon as practicable, but no later than five (5) working days following such event, for collection by the Department of Conservation subject to the Consent Holder's obligations under the Marine Mammals Protection Act 1978 or any subsequent Regulations; and
l. Any other relevant operational response in relation to marine mammals that has been approved by the EPA is undertaken.

For the purpose of this condition, any observer engaged by the Consent Holder must be a trained and/or qualified observer as defined in the 2013 Department of Conservation Code of Conduct for Minimising Acoustic Disturbance to Marine Mammals from Seismic Survey Operations (or any subsequent updated Code of Conduct).

For the purpose of this condition, the term 'in motion' refers to any period when the Consent Holder's operational vessels are moving under the power of their own engines and travelling at a speed greater than 5 knots. It does not apply to movement of the IMV at those times when it is anchored to the seabed.

For the purpose of this condition, the term 'large cetaceans' refers to any of the following marine mammal species:

- All members of the Mysticeti group (i.e. Baleen whales); and/or
- All members of the Physeteriodea group (i.e. Sperm whales); and/or
- All members of the Ziphioidea group (i.e. Beaked whales); and/or
- All members of the Globicephala group (i.e. Pilot whales); and/or
- All members of the Orcinus group (i.e. Killer whales).

Underwater Noise

11. At all times during the operation of marine vessels and/or project equipment:
    a. The combined noise from the IMV and the Seabed Sediment Extraction Device ("Crawler") operating under representative full production conditions must be measured at a nominal depth of ten (10) m below the sea surface and at 300 m, 500 m, 750 m and 1,000 m from the port or starboard side of the IMV;
    b. The overall combined noise level at 500 metres from the IMV must not exceed 130 dB re 1µPa RMS linear in any of the following frequency ranges: low frequency 10-100 Hz, mid-frequency 100-10,000 Hz, and high frequency >10,000 Hz;
    c. The overall combined noise level at a nominal depth of ten (10) m below the sea surface and 500 m from the IMV, across all frequencies must not exceed a sound pressure level of 135 dB re 1µPa RMS linear;
    d. Measurements must be undertaken in calm sea conditions (e.g. Beaufort sea state less than three (3) (beginning of white-capping)), with no precipitation and no external noise sources (e.g. passing ships);
    e. The monitoring equipment must be calibrated before and after measurements; and
    f. The combined noise must be monitored:
        i. Within twenty (20) working days of seabed material extraction activities reaching no less than 90% of full production but no later than six (6) months following the commencement of the seabed material extraction activities, the Consent Holder must undertake continuous noise measurement for a period of no less than six (6) weeks;
        ii. An additional two (2) times in the first twelve (12) months of the commencement of 90% of full production. Each measurement being separated by a period of at least six (6) months;

iii. Annually for the following four (4) years;

iv. Every five (5) years thereafter; and

v. At any time reasonably requested by the EPA.

Should the operation of the IMV and Crawler be altered in any way which may change the magnitude or character of the underwater noise production, additional noise monitoring must be undertaken within twenty (20) working days of the change to demonstrate compliance with Condition 11.b. has been maintained.

Advice note: For the purpose of this condition, the reference to "full production conditions" equates to an operational extraction of 8,000 tonnes per hour as required by Condition 4.a.

12. The Consent Holder must design and construct the crawler and IMV to achieve, at full production, a total combined noise source level (measured in water), of not more than 177 dB re 1µPa RMS linear at one (1) metre.

13. Prior to deployment in New Zealand, the Consent Holder must obtain certification from a suitably qualified and experienced acoustic engineer that the crawler and IMV has been designed to achieve the criterion set out in Condition 12 above, and that the criterion set out in Condition 12 has been demonstrated for full production operation during pre-deployment commissioning. The testing undertaken in accordance with this condition must include both theoretical assessment and noise data collected from field measurements during pre-deployment commissioning.

14. The Consent Holder must not commence extraction activities authorised by these consents until the certification required by Condition 13 has been provided to the EPA.

15. The Consent Holder must undertake noise monitoring in the vicinity of the IMV and crawler once per week during the period referred to in Condition 11.f.i., in order to assess compliance with the criterion set out in Condition 12.

16. Underwater monitoring of the total combined noise from the crawler and IMV must also occur at the same times as monitoring is undertaken under Conditions 11.f.ii to v.

17. At the commencement of the operations authorised by these consents, the

Consent Holder must undertake robust underwater propagation modelling using empirical underwater noise data (i.e. as detailed and collected in Condition 11) to estimate the distance of the 120 dB contour from the noise source as identified in Schedule 7.

18. Within twenty (20) working days of any noise monitoring undertaken in accordance with Condition 11 and/or 17, the Consent Holder must provide a detailed report on the monitoring and results to the EPA. As a minimum, this report must include:
    a. Details of the equipment used, and calibration methods used; and
    b. A description of the measurement conditions and location; and
    c. A summary of the noise levels measured, including broadband and one third octave band frequency data and compliance of the operation with respect to the noise standards specified in Condition 11; and / or
    d. At the commencement of operations, validation of the noise model and confirmation of the extent of the predicted 120 dB contour (as shown by Schedule 7) generated by the IMV and crawler when operating at the centre of the mining area as specified in Condition 17.

Archaeological Remains (Shipwrecks)

19. If, during the extraction activities authorised by these consents, any of the following are discovered that are of potential historical or cultural importance:
    a. Steel;
    b. Brass;
    c. Other metals in solid state;
    d. Manufactured or worked timbers; or
    e. Other material not naturally found in the seabed material extraction area,

    the Consent Holder must immediately stop extraction activities within the discovery area.

20. The Consent Holder must record all discoveries made under Condition 19 and as a minimum record:
    a. GPS location and depth of the find;
    b. Photos of the find; and

c. A detailed description of the find.

This record must be provided to an appropriately qualified and experienced archaeologist for interpretation and identification and provided to the EPA and Heritage New Zealand Pouhere Taonga ("HNZ") upon completion.

21. Further to the requirements of Condition 20, the Consent Holder must notify the EPA within five (5) working days of any discoveries made in accordance with Condition 19.

    Additionally, the Consent Holder must consult with HNZ, and the iwi representatives referred to in Condition 72 to confirm the origin and any other relevant information to the discovery including, as a minimum:

    a. What it is that has been discovered; and
    b. What the age of the discovery is.

22. If the discoveries under Condition 19 are found to be a legally protected archaeological site (origins pre- dating 1900), the Consent Holder must obtain the relevant Archaeological Authority from HNZ prior to any seabed material extraction activities recommencing within the discovery area.

23. The Consent Holder must not recommence extraction activities in the discovery area until HNZ has confirmed the discovery does not qualify as a legally protected archaeological site (pre-1900 shipwreck) as described under the Heritage New Zealand Pouhere Taonga Act 2014 or the relevant Archaeological Authority has been obtained in accordance with Condition 22.

    The Consent Holder must inform the EPA of the outcome of any engagement with HNZ as soon as practicable, but no later than (5) working days following the completion of any engagement process.

OPERATIONAL CONTROLS

Vessel and Operational Management

24. When utilising the Crawler, the maximum cut depths must not exceed eleven (11) m below the pre-mined seabed level. Only one (1) Crawler is permitted to be in use, or in place, on the seabed at any time.

When operating the crawler, the Consent Holder must continuously record the cut depth below the pre-mined seabed level and report on this as part of the Quarterly Operational Report required by Condition 103.

25. The IMV must be anchored to the seabed at all times when the Crawler is operating. Upon each resetting of any anchor, the Consent Holder must undertake a 'proof-load test' for the anchor and keep a record of each test. In addition to recording the proof-loading tests, each test must be witnessed by the relevant Class society or Marine Warranty Surveyor. The record of all tests undertaken must be made available to the EPA upon request following a review by a suitably qualified expert.

    In situations where the mooring or thruster assistance of the IMV is in a degraded capability situation and is deemed unsafe by the Captain of the IMV, all Floating Storage and Off-loading transhipment operations must cease immediately and the IMV must be removed to a safe location until the capability situation is, in the opinion of the Captain of the IMV, deemed operationally safe.

    For the purpose of this condition, "safe location" is defined as "safe for the Consent Holder's personnel and assets, the Kupe assets, and shipping".

26. The discharge of all de-ored sediment from the IMV, must be by means of a dedicated pipe which discharges at a nominal distance of four (4) m above the seabed.

    The height and GPS position of any mounds created on the seabed as a result of the deposition of de-ored sediments must be recorded and reported on in the Quarterly Operational Report required by Condition 103. Re-deposition mound heights must be recorded with accuracy for both height and location of +/- one (1) m.
    All mounds remaining at the beginning of each lane must be no higher than four (4) m above the level of the original seabed.

    For the purpose of this condition, the 'seabed' refers to the area immediately below the point of discharge, whether that be the natural seabed or the base of the mining pit.

27. The Consent Holder must ensure that direct discharge or deposition of de-ored sediment onto the seabed does not occur within 300 m of the seaward boundary of the Coastal Marine Area.

28. The Consent Holder must ensure that all pits remaining at the end of each mining lane must be no more than ten (10) m maximum depth and five (5) m average depth below the pre-mined seabed level.

29. The Consent Holder must ensure that:
    a. Pits created by the removal of seabed material, other than those at the end of each mining lane, are backfilled using de-ored sediments; and
    b. Other than at the commencement of each mining lane, all de-ored sediment is backfilled into the mining lanes; and
    c. The average depth, maximum depth and GPS position of any unfilled pits remaining after completion of a mining lane must be recorded and reported in the Quarterly Operational Report required by Condition 103.

Effects on Existing Interests

30. The Consent Holder must, to the greatest extent practicable, mitigate and where practicable avoid, any adverse effects on the environment or on existing interests (including infrastructure and operations of licences) as a result of mooring failure or loss of position.

31. The Consent Holder must:
    a. Mitigate, and where practicable avoid, adverse biosecurity effects resulting from activities being undertaken by the IMV, Floating Storage and Offloading Vessel and other support vessels; and
    b. Ensure that there are effective procedures in place to manage biosecurity risk from overseas and domestic vessels.

32. The Consent Holder must manage all activities authorised by these consents associated with the seabed material extraction operations, including the project vessels and their operation, to ensure that the activities authorised by these consents do not result in any adverse effects on the Operator of the Kupe Petroleum Mining License #38146 ("the Kupe Operator") Kupe assets and Infrastructure.

Spill Prevention

33. The Consent Holder must undertake all necessary measures to ensure that there are no discharges or spills of oils or fuels from any of the operational vessels into any environment.

34. Notwithstanding Condition 33, in the event that there is a discharge or spill of oil or fuels, the Consent Holder must implement all necessary operational responses, including the measures set out in oil spill contingency plans required under Parts 130A and 131 of the Marine Protection Rules, to ensure that any adverse effects associated with such event/s are remedied or mitigated.

    As soon as practicable following any spill or discharge of oil or fuels, the Consent Holder must notify the EPA of any such event. Notification must include a description of the event, its location and the Consent Holder's response.

    Advice Note: Parts 130A and 130 of the Marine Protection Rules require oil spill contingency plans to be approved by MNZ for ships and installations.

"Soft Starts"

35. Any start-up of the IMV, Crawler and associated plant, whether related to commencement or re- commencement of operations after a break, of the seabed material extraction activities authorised by these consents must be completed as a "soft start", whereby equipment is gradually increased in power over at least a twenty (20) minute period.

    Soft starts must only commence in daylight hours and when there is at least 500 metres of visibility.

36. Prior to each start-up, the Consent Holder must use suitably trained marine mammal observer(s), in accordance with Condition 88, to monitor the area within a 500 metre radius (mitigation zone) of the IMV for at least 30 minutes prior to start up. There must be no whales or dolphins present within a 500 metre radius (mitigation zone) of the IMV at start up.

If any whales or dolphins are observed in the mitigation zone during pre-start observations, then the start-up must be delayed until the whales or dolphins are seen to leave the mitigation zone or have not been detected within the mitigation zone for a further thirty (30) minutes from the last sighting.

A record of pre-start observations must be kept and made available to the EPA on request and included in the Quarterly Operational Report required by Condition 103 and the Annual Report required by Condition 104.

For the purpose of this condition, any observer engaged by the Consent Holder must be a trained or qualified observer as defined in the 2013 Department of Conservation Code of Conduct for Minimising Acoustic Disturbance to Marine Mammals from Seismic Survey Operations (or any subsequent updated Code of Conduct.

Mooring of the Integrated Mining Vessel

37. All mooring lines and associated anchors for the IMV must be located within the area bounded by the co-ordinates set out below and within the boundary shown in Schedule 5:

Longitude	Latitude
174 02 25.991 E	39 50 31.772 S
174 02 50.521 E	39 50 36.773 S
174 03 01.220 E	39 50 44.081 S
174 03 37.595 E	39 51 19.249 S
174 06 08.626 E	39 51 11.999 S
174 06 34.844 E	39 51 10.325 S
174 07 03.608 E	39 51 26.161 S
174 07 29.690 E	39 51 19.249 S
174 07 34.410 E	39 51 10.688 S

Longitude	Latitude

174 07 48.173 E	39 51 00.184 S
174 09 17.294 E	39 50 08.963 S
174 01 54.984 E	39 50 44.354 S
174 01 38.867 E	39 51 00.295 S
174 01 29.982 E	39 51 19.120 S
174 01 27.257 E	39 52 37.056 S
174 01 38.838 E	39 53 00.222 S
174 02 21.106 E	39 53 34.505 S
174 02 21.106 E	39 53 34.505 S
174 03 20.239 E	39 54 15.826 S
174 03 24.102 E	39 54 18.205 S
174 04 08.746 E	39 54 42.628 S
174 04 27.660 E	39 54 48.330 S
174 05 33.180 E	39 54 54.950 S
174 07 17.836 E	39 55 01.477 S
174 07 43.140 E	39 54 56.884 S
174 09 26.539 E	39 54 08.428 S
174 12 40.756 E	39 52 22.433 S
174 12 45.767 E	39 52 19.229 S
174 13 29.914 E	39 51 45.857 S
174 10 22.771 E	39 49 12.680 S

38. If any equipment or machinery greater than one (1) m x one (1) m in size is lost overboard from any project or operational vessel, the Consent Holder must, where it is possible to do so, immediately collect it from the seafloor.

Where it is not possible to recover the item, the Consent Holder must provide a description of the item (including dimensions) and record the location and depth that the item was lost overboard. This information must be provided to the EPA, Land Information New Zealand, and the Harbour Master (if within the twelve (12) nautical mile limit) and placed on the Consent Holder's website (Condition 81) within twenty-four (24) hours of the item going overboard.

39. The Consent Holder must ensure that any equipment or structures involved with the extraction operations authorised by these consents are removed from the seabed, no later than twenty (20) working days following the completion of all seabed material extraction activities.

Advice Note: Conditions 38 and 39 do not remove any obligation of the Consent Holder to comply with Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act.

Other Discharges from Operational Vessels

40. The Consent Holder must not dispose of, or discharge, any harmful substances at sea.

All hazardous and/or oily waste must be stored on board each project vessel for transport in suitable containers or packaging to a shore side reception facility that is authorised to accept such material. The Consent Holder must keep a record of all such material and the reception facility/facilities and make this information available to the EPA upon request.

For the purpose of this condition, 'harmful substances' do not include any 'mining discharges' from the seabed material extraction activities as defined by section 4 of the EEZ Act.

41. All fuel used in the operational vessels must have a sulphur content compliant with the current International Maritime Organization limit, or no greater than 3.5% (w/w) by weight, whichever is the lesser.

A record of all fuel used in, and the sulphur content of, any of the project vessels must be kept and provided as part of the Annual Report required under Condition 104 and must be made available to the EPA upon request.

Biosecurity Management

42. All operational vessels carrying ballast water that travel to and from overseas ports, including bulk carriers, must be required to have a shipboard ballast water treatment system as part of their charter agreements with the Consent Holder. The ballast water treatment system must be in the Ministry for Primary Industry List of Approved Ballast Water Treatment Systems, or be an equivalent system approved by the International Maritime Organization.

    Any vessel that does not comply with the above requirements must not be used for any part of the activities authorised by these consents, unless the vessel's Master can demonstrate that the vessel complies with additional ballast water management options listed in the Maritime New Zealand 'Ballast Water Management - Guidance for operators, masters and officers, and surveyors of New Zealand ships on the implementation of the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 in New Zealand – October 2023', or any replacement rule or standard, including the Maritime New Zealand ("MNZ") Marine Protection Rules (Part 300: Ballast Water Management).

    The Consent Holder must keep a record of the approved ballast water management requirements for each vessel and must provide this information to the EPA upon request.

43. The Consent Holder must ensure that:
    a. All long term stay overseas vessels that are to be located in the project area, including but not limited to the IMV and Crawler; and
    b. All vessels servicing the seabed material extraction operation that regularly travel to and from overseas ports, including bulk carriers,

    meet the 'Clean Hull' for 'long-stay vessels' requirement specified in the Ministry for Primary Industries - Craft Risk Management Standard: Vessels, 13 October 2023 ("the CRMS"), or any subsequent version thereof. For vessels identified in Clause a. above, special measures to minimise biofouling risk must be included in the Biosecurity Management Plan ("BMP") developed under Condition 70.

    Any vessel that does not comply with the above requirements must not be used for any part of the seabed material extraction activities authorised by these consents.

44. Within twenty (20) working days of each anniversary of the commencement of these consents, the Consent Holder must provide a copy of the 'Biofouling Record Book' (Condition 70.b.iv) to a nominated representative of the Aquaculture Industry, as appointed by Aquaculture New Zealand.

    The Consent Holder must provide a copy of the Biofouling Record Book to the EPA upon request.

45. Vessels associated with operations authorised by these consents must only enter and anchor in Admiralty Bay for the purpose of seeking shelter in adverse weather or vessel safety requirements. Under no circumstances may any operational or maintenance activities, including the discharge of ballast water, be undertaken in Admiralty Bay unless:
    a. An emergency situation arises and, in the opinion of the vessel's Master, there is no practicable alternative; and
    b. MNZ, the Marlborough District Council, Aquaculture New Zealand and a nominated representative of Ngāti Koata are notified as soon as practicable, but no later than five (5) working days, following the occurrence of any such emergency event.

    The Consent Holder must keep a record of all notifications required by this condition and must provide this information to the EPA upon request.

    This condition does not apply if the Director of MNZ directs a vessel to enter Admiralty Bay as a safe anchorage in accordance with the Maritime Transport Act 1994.

46. Prior to any vessels associated with operations authorised by these consents entering and anchoring in Admiralty Bay in accordance with Condition 45, the Consent Holder must notify Ngāti Koata as soon as reasonably practicable, but no later than five (5) working days, and, where possible:
    a. Provide the opportunity for a nominated Ngāti Koata representative to have input in the anchoring location within the bay; and
    b. Provide the opportunity for a Ngāti Koata nominated iwi observer to monitor for the presence of marine mammals.

    The Consent Holder must keep a record of all notifications required by this condition and must provide this information to the EPA upon request.

PRE-COMMENCEMENT MONITORING

Pre-commencement Environmental Monitoring Plan

47. Prior to the commencement of any seabed material extraction activities authorised by these consents, the Consent Holder must undertake a minimum of two (2) years of pre-commencement environmental monitoring in accordance with Conditions 48 – 51 which, as a minimum, includes:
    a. Suspended sediment concentrations;
    b. Suspended and seafloor sediment quality;
    c. Subtidal and intertidal biology;
    d. Optical water quality;
    e. Physio-chemical parameters;
    f. Heavy metals;
    g. Oceanography;
    h. Primary production;
    i. Zooplankton;
    j. Seafood resources;
    k. Marine mammals;
    l. Underwater noise;
    m. Seabirds;
    n. Commercial fishing; and
    o. Recreational fishing.

    The Consent Holder must also undertake testing and monitoring of the matters, and for the purposes, set out in Schedule 6.

48. The Consent Holder must prepare, and undertake the pre-commencement environmental monitoring required by Condition 47, in accordance with the procedures and methods, at the locations (including representative points around the Kupe Well Head Platform and along the pipeline and umbilical route), and for the duration and frequency detailed in the certified Pre-commencement Environmental Monitoring Plan ("PCEMP"). The purpose of the PCEMP is to:
    a. Establish a set of environmental data that identifies natural background levels while considering spatial and temporal variation;
    b. Confirm the current understanding of the seasonality and natural variability of environmental parameters that will be monitored during seabed material extraction activities;

c. Provide data to validate the background data used in the Operational Sediment Plume Model (Condition 52), which predicts the sediment transportation processes in the South Taranaki Bight; and
d. Provide data to verify that the 'SSC Limit' values in Schedule 2 are appropriate following the validation of the Operational Sediment Plume Model (Condition 52); and
e. Ensure compliance with all regulatory requirements and guidelines; and
f. Provide data to establish the proxy relationship between turbidity and SCC at the monitoring sites listed in Schedule 2 and at a control site.

The PCEMP shall also include:

a. The roles and responsibilities of parties who are to undertake the pre-commencement environmental monitoring;
b. Objectives for the pre-commencement environmental monitoring associated with the activities authorised by these consents;
c. All parameters being monitored, including sampling design, methodology, frequency, duration and monitoring locations;
d. Details of data analysis and processing for all parameters being monitored; and
e. Report methods for all parameters being monitored.

The PCEMP must be prepared by a suitably qualified and experienced person(s) in and be generally consistent with the draft BEMP dated August 2016.

The PCEMP must be independently peer reviewed by a suitably qualified and experienced person(s) and then provided to the Technical Review Group ("TRG") (Condition 60) for confirmation that the intended monitoring meets the purposes of the PCEMP as set out in this condition.

The PCEMP, together with comments and recommendations of the TRG, including, where necessary, an explanation as to why a TRG recommendation has not been accepted, must be submitted to the EPA for certification that the PCEMP meets the requirements of this condition.

The pre-commencement monitoring required by these consents must be undertaken in accordance with the certified PCEMP.

Advice Note: The PCEMP is a renaming of the draft BEMP (Baseline Environmental Monitoring Plan) referred to in Condition 48.

49. The Consent Holder may amend the PCEMP at any time prior to the commencement of the extraction activities authorised by these consents. Any amendments must be prepared by a suitably qualified and experienced person(s) and then be independently peer reviewed by a suitably qualified of experienced person(s) and then reviewed by the Technical Review Group ("TRG"), unless the EPA confirms that a peer review is not necessary.

    Any amendment will only come into effect once it has been certified by the EPA as being consistent with purposes of, and follows the preparation and review processes of, Condition 48, and that the monitoring locations, duration and frequency of monitoring are representative and relevant to each of the environmental components being monitored.

    Where certification for an amended PCEMP is not received, the Consent Holder must continue to use the plan which was in place prior to the lodgement of the amended PCEMP.

50. The pre-commencement monitoring required by the PCEMP must be undertaken at all required times except:
    a. During a mechanical or technical breakdown or malfunction of monitoring equipment; or
    b. Where monitoring equipment has been damaged or is being replaced; or
    c. Due to unforeseen circumstances.

    If any of the above situations occur, the Consent Holder must notify the EPA as soon as practicable, but no later than twenty four (24) hours of the situation arising and identify:

    a. What monitoring was affected and how for long; and
    b. When the monitoring will recommence.

51. Prior to the commencement of seabed material extraction activities authorised by these consents, and following completion of the pre-commencement environmental monitoring required under Conditions 47 and 48, the Consent Holder must review the numerical values of the SSC Limits in Schedule 2 of these consents utilising the methodology specified in Schedule 3. The review of the numerical values must be undertaken by suitably qualified and experienced person(s) and submitted to the TRG for review and comment prior to being submitted to the EPA for certification.

In the event that the numerical values of the SSC Limits as a result of monitoring are different from the numerical values of the SSC Limits in Schedule 2 of these consents, the updated numerical values will supersede the numerical values of the SSC Limits in Schedule 2 for the purpose of these consents.

Any change to the numerical values in accordance with this condition shall not require a change of consent conditions but are to be identified in the Environmental Monitoring and Management Plan ("EMMP") required under Condition 55.

OPERATION SEDIMENT PLUME MODEL

52. Within six (6) months of the commencement of this consent, the Consent Holder must develop and maintain an Operational Sediment Plume Model ("OSPM"), in order to demonstrate that the activities authorised by these consents comply with the conditions of these consents and to provide an effective mechanism to assist in:
    a. Predicting background and extraction derived Suspended Sediment Concentrations to inform the management of the seabed material extraction activities;
    b. Distinguishing operationally derived contributions to Suspended Sediment Concentrations from background processes; and
    c. Forecasting, as accurately as practicable, sediment plume dynamics including, but not limited to:
        i. Intensity; and
        ii. Geographic spread.

    The OSPM must be:

    a. Developed and maintained by a suitably qualified and experienced person(s);
    b. Run in real time forecast mode using up to date MetOcean three (3), five (5), seven (7) or ten (10) day forecasts to inform the day to day mine operations and ensure that compliance with the SSC Limits specified in Condition 5 is maintained; and
    c. Independently peer reviewed by a suitably qualified and experienced person at the following intervals:
        i. Immediately following the development of the OPSM; and
        ii. At the conclusion of the PCEMP period prior to any seabed material extraction activities; and

iii. During seabed material extraction activities, immediately following each calibration and validation exercise at the frequencies defined in Condition 53.

The scope of the independent review of the OSPM must include the model, its calibration, validation, availability and applicability of data and the use of the OSPM in management of the seabed material extraction activities. The predictive fine sediment identification methods and sampling density set out in the Operational Assessment Report (Condition 87) must be included within the review scope.

Following the completion of each review, the Consent Holder must prepare an "OSPM report" that summarises the establishment, calibration, validation, operation, updating of the OSPM and the results of the independent peer review. The OSPM report, including the updated OSPM, must be provided to the TRG for review prior being provided to the EPA.

The OSPM report, including any updated OSPM, the comments and recommendations of the peer reviewer and the TRG, and explanations as to why any recommendation has not been accepted must be provided to the EPA for certification that the updated OPSM satisfies the requirements of this Condition 52.

Seabed material extraction must not commence until the EPA has certified the updated OPSM following the pre-commencement environmental monitoring period.

Where an updated OPSM is submitted, if certification is not received, the Consent Holder must continue to use the certified OSPM that was in use prior to lodgement of the updated OSPM.

53. The Consent Holder must calibrate and validate the OPSM at least:
    a. Every six (6) months during the PCEMP and for the first three (3) years of seabed material extraction activities; and
    b. Every twenty four (24) months thereafter,

utilising the sediment data from the PCEMP (Condition 48), the Operational Assessment Report (Condition 87) and the on-going monitoring information collected in accordance with Condition 54.

The calibration and validation exercise must review the modelled and measured sediment plume properties. The Consent Holder must review whether the benthic ecology and SSC monitoring sites are appropriately located to detect any adverse

effect of SSC and report the outcome of that review to the TRG under Condition 60.b. Any change to the location of benthic ecology or SSC monitoring sites must be by way of a change of conditions.

ENVIRONMENTAL MONITORING REQUIREMENTS

54. Following the completion of the pre-commencement monitoring required by Conditions 47 and 48 and the review of the SSC Limits required by Condition 51, the Consent Holder must, as a minimum, undertake monitoring of:
    a. Suspended sediment concentrations;
    b. Seafloor and suspended sediment quality;
    c. Subtidal and intertidal biology;
    d. Optical water quality;
    e. Physio-chemical parameters;
    f. Heavy metals;
    g. Oceanography;
    h. Primary production;
    i. Zooplankton;
    j. Biosecurity;
    k. Seafood resources;
    l. Marine mammals;
    m. Underwater noise;
    n. Seabirds; and
    o. Recreational fishing.

    The Consent Holder must also undertake testing and monitoring of the matters, and for the purposes, set out in Schedule 6. For the avoidance of doubt, both Schedule 6 and the matters set out above in this condition must be addressed.

ENVIRONMENTAL MANAGEMENT AND MONITORING PLAN

55. The Consent Holder must ensure that the monitoring required by Condition 54 and Schedule 6 is appropriate to ensure that the activities authorised by these consents do not result in any adverse effects that were not anticipated at the time of the granting of these consents. The EMMP must, as a minimum:
    a. Identify the sampling design and methodology for each of the parameters being monitored, including the frequency, duration and monitoring locations;
    b. Describe how the results of the pre-commencement environmental monitoring programme provided for in the PCEMP has been incorporated into the EMMP (Condition 48);

c. Outline the process for the on-going validation of the OSPM including the calibration and validation of the plume component of the model (Condition 52);
d. Identify the limits contained in the ISQG-High values (Condition 6);
e. Specify procedures for comparing the monitoring data against the background data that assist in determining if any activities authorised by the consents have resulted in adverse effects that were not anticipated at the time of the granting, including recovery of the benthic environment, as defined in Condition 7;
f. Identify the TRG membership, and their evaluation process in accordance with Conditions 60 – 64;
g. Identify the operational responses to be undertaken if unanticipated adverse effects are identified;
h. Detail data analysis and processing for all parameters being monitored;
i. Define the reporting methods and schedule for all parameters being monitored; and
j. To continue the ongoing calibration of the relationship between SSC and turbidity.

The EMMP must be prepared by a suitably qualified and experienced person(s) and be generally consistent with the draft EMMP dated August 2016. The EMMP must then be independently peer reviewed by a suitably qualified and experienced person(s) and then reviewed by the TRG (Condition 60) to confirm that the intended monitoring meets the purposes of the EMMP as set out in this condition.

The EMMP, together with comments and recommendations of the TRG including, where necessary, an explanation as to why a TRG recommendation has not been accepted, must be submitted to the EPA for certification that the EMMP meets the requirements of this condition.

The environmental monitoring required by these conditions must be undertaken in accordance with the EPA certified EMMP and must commence no later than twenty (20) working days prior to the commencement of the seabed material extraction activities.

56. The Consent Holder may amend the EMMP at any time during the seabed material extraction activities. Any amendments to the EMMP must be prepared by a suitably qualified and experienced person(s) and then independently peer reviewed by a suitably qualified and experienced person(s) and then reviewed by the TRG. Any changes will only come into effect once they have been certified by the EPA, that:

a. Such changes are consistent with the requirements of Conditions 54, 55 and Schedule 6; and
b. The processes set out in Condition 55 have been followed; and
c. The monitoring locations, and the duration and frequency of monitoring, continue to be representative and relevant to each of the environmental components being monitored; and/or
d. The change in monitoring location or timing of monitoring is necessary to reflect operational changes, or changes in methodology, due to advances in technology or scientific understanding.

Where certification of the amended EMMP is not received, the Consent Holder must continue to use the plan which was in place prior to the lodgement of the amended plan.

POST-EXTRACTION BENTHIC RECOVERY MONITORING

57. Following the completion of the seabed material extraction activities authorised by these consents, the Consent Holder must undertake five (5) years post-extraction monitoring of the biological environment, including heavy metal concentrations, within the consent area and its surrounds, the purpose of which is to assess whether recovery of the benthic environment, as defined in Condition 8, has been achieved.

At least three (3) months prior to the completion of the seabed material extraction activities, the Consent Holder must provide to the EPA for certification, a Post-extraction Monitoring Plan ("PEMP") which as a minimum, includes:

a. The roles and responsibilities of parties who are to undertake each aspect of the environmental monitoring;
b. Identification of the sampling design and methodology for each of the parameters being monitored, including the frequency, duration and monitoring locations as set out in Schedule 6;
c. Procedures for comparing the monitoring data against the background data that will assist in determining if the biological environment within the extraction area is recovering following the completion of the extraction activities;
d. Details of data analysis and processing for all parameters being monitored; and
e. Reporting method for all parameters being monitored.

The PMEP must be prepared by a suitably qualified and experienced person(s) and must then be peer reviewed by the TRG (Condition 60) to confirm that the PEMP meets the purposes of the PEMP, as set out in this condition.

The post-extraction monitoring must be undertaken in accordance with the certified PEMP.

58. Within three (3) months of the completion of the post-extraction monitoring programme, the Consent Holder must, following consultation with the TRG, prepare and lodge with the EPA, a Final Post- extraction Monitoring Report that includes as a minimum:
    a. A summary of all monitoring undertaken in the previous four (4) year period;
    b. A summary report of the findings of the monitoring undertaken, including a comparison against all the relevant environmental limits specified in the conditions of these consents, and conclusions drawn as to the recovery and overall biological heath of the seabed material extraction area; and
    c. Identification of any commentary or recommendations from the TRG and, where necessary, an explanation as to why any TRG recommendation has not been accepted.

LABORATORY ACCREDIATION

59. All laboratory based analyses undertaken in conjunction with the requirements of these consents must be performed by an IANZ accredited laboratory or, where applicable, any other accredited laboratory.

TECHNICAL REVIEW GROUP

60. At least six (6) months prior to the commencement of the PCEMP required by Conditions 47 and 48, the Consent Holder must establish a TRG, the role of which is to provide technical advice to the Consent Holder, including but not limited to the following:
    a. Prior to their lodgement with the EPA, review and advise on the appropriateness of the monitoring provided for in the PCEMP and EMMP (Conditions 48 and 55), and any review of the PCEMP and EMMP (Conditions 49 and 56);
    b. Compare the monitoring data against the pre-commencement data in order to assist in determining if any activities authorised by these consents have

resulted in adverse effects on the marine environment that were not anticipated at the time of the granting;

c. Consider and make recommendations on the need for any new parameter to be monitored in accordance with Conditions 54 and 55;
d. Community knowledge and "mātauranga māori" issues when reviewing the monitoring data;
e. The environmental management component of the seabed material extraction activities, by an annual data review whereby each year's monitoring results will be tabulated, reviewed, and compared against the previous monitoring data collected; and
f. Recommend when it considers that a review of the consent conditions in accordance with Condition 106 of these consents be instigated for the purpose of dealing with any adverse effects on the environment which may arise from the exercise of these consents and which it is appropriate to deal with at a later stage.

The Consent Holder must invite the following parties to nominate one suitably qualified and experienced representative to be involved in the TRG:

a. Taranaki Regional Council;
b. Fisheries Inshore New Zealand;
c. The Kaitiakitanga Reference Group (Condition 72);
d. Te Tai Hauāuru Regional Fishing Forum;
e. The Department of Conservation; and
f. The Kupe Operator

Each representative must have specialist expertise in one or more of the key environmental, ecosystem, mātauranga māori (Māori traditional knowledge) and / or engineering components being monitored.

If a Kaitiakitanga Reference Group, as specified in Condition 72, is not formed the Consent Holder is not required to extend an invitation to any alternative party (refer to the Advice Note below)

If Fisheries Inshore New Zealand do not accept the invitation to nominate a representative, the Consent Holder must invite Sanford Limited to do so.

At any time during the term of these consents, any party who appoints a representative to the TRG may change that representative provided that any new representative also has the relevant qualifications and experience.

At any time during the term of these consents, including if any party is not able, for whatever reason, to provide a representative to the TRG, the TRG may recommend to the Consent Holder that other suitably qualified and experienced specialists be seconded, or technical studies be commissioned for the proper exercise of the TRG functions. The decision on whether to act on such a recommendation will rest with the Consent Holder after consultation with the EPA, however the Consent Holder must ensure that the TRG always has a membership which includes specialist expertise in all of the specified fields.

Advice Note: The Consent Holder is still required to comply with Condition 79.

61. The Consent Holder must maintain the TRG for the duration of these consents, and beyond as necessary, to provide for the review and commentary on any post-extraction monitoring undertaken in accordance with these consents.

62. The Consent Holder must convene TRG meetings:
    a. Annually, following the completion of each year of monitoring, during the pre-commencement environmental monitoring period;
    b. Then, for the first five (5) years following the commencement of the seabed material extraction activities, on a quarterly basis (during the months of January, April, July and October of each year) with one meeting to occur following completion of each annual monitoring period;
    c. Then annually, following completion of each annual monitoring period, for the duration of these consents; and
    d. At any other time requested by the Consent Holder.

    For the purpose of this condition:

    - the 'annual monitoring period' is the twelve (12) month period commencing in the month in which the pre-commencement environmental monitoring or the operational environmental monitoring commenced; and
    - the 'annual post-extraction monitoring period' is the twelve (12) month period commencing in the month following the month that the seabed material extraction activities ceased.

63. The Consent Holder must fund the administration of each meeting of the TRG and must meet all actual and reasonable costs incurred by any other specialists seconded to the TRG, as provided for in Condition 60.

64. Minutes of each of the TRG meetings, including the identification of any disagreements between the TRG members and any recommendations provided by the TRG to the Consent Holder, must be taken and forwarded to its members, the Consent Holder, the Kaitiakitanga Reference Group, and the EPA, and provided on the Consent Holder's website (Condition 81), within ten (10) working days of any meeting being held.

    Minutes of each meeting must also be summarised in the Annual Report required by Condition 104.

MANAGEMENT PLANS

SEABIRD EFFECTS MITIGATION AND MANAGEMENT PLA N

65. The Consent Holder must prepare a Seabird Effects Mitigation and Management Plan ("SEMMP") that has been prepared following consultation with the Department of Conservation and the KRG (if it has been formed), which must, as a minimum:
    a. Set out how compliance with Condition 9 will be achieved;
    b. Set out indicators of adverse effects on seabird species that utilise the South Taranaki Bight due to mortality or injury of seabirds of the species classified under the New Zealand Threat Classification System as "Threatened" or "At-risk" or "Threatened" in the International Union for the Conservation of Nature "Red List";
    c. Identify responses / actions to be undertaken by the Consent Holder if the indicators in (b) are reached; and
    d. Outline any monitoring requirements for bird strike due to vessel lighting and, where necessary, provide for procedures to alter vessel lighting and vessel operations to reduce the incidence of bird strike.

    The SEMMP must be prepared by a suitably qualified and experienced person(s) in general accordance with the draft SEMMP dated April 2025 and submitted to the EPA for certification that the requirements of this condition have been met.

    No seabed material extraction may commence until the SEMMP has been certified by the EPA.

The Consent Holder may amend the SEMMP at any time provided the amendments have been prepared following consultation with the Department of Conservation, and any amendments are consistent with the purpose of this condition.

Any amendments to the SEMMP must be submitted to the EPA for certification and may only be implemented following certification by the EPA that the amended SEMMP meets the requirements of this condition. Where certification of an amended plan is not received, the Consent Holder must continue to use the plan which was in place prior to the lodgement of the amended plan.

The activities must be undertaken in accordance with the latest certified SEMMP.

A copy of the certified SEMMP, or any subsequently certified amendment, must be held on-board each of the Consent Holder's project vessels and at the Consent Holder's head office.

MARINE MAMMAL MANAGEMENT PLAN

66. The Consent Holder must prepare a Marine Mammal Management Plan ("MMMP") following consultation with the Department of Conservation and the KRG (if it has been formed), which must, as a minimum, set out:
    a. How compliance with Condition 10 will be achieved; and
    b. Procedures and protocols to minimise the risk of marine mammal entanglement; and
    c. Set out indicators of adverse effects on marine mammals that utilise the South Taranaki Bight listed in Condition 10.a.; and
    d. A framework relating to marine mammal operational responses; and
    e. Integrate any obligations under the Marine Mammals Protection Act 1978 and Marine Mammals Protection Regulations 1992, or any superseding legislation.

    The MMMP must be prepared by a suitably qualified and experienced person(s) in general accordance with the draft MMMP dated April 2025 and submitted to the EPA for certification that the requirements of this condition have been met.

    The seabed material extraction activities authorised by these consents must not commence until the MMMP has been certified by the EPA.

    Any amendments to the MMMP must be submitted to the EPA for certification and may only be implemented following certification from the EPA that the amended MMMP meets the requirements of this condition. Where certification of an amended plan is

not received, the Consent Holder must continue to use the plan which was in place prior to the lodgement of the amended plan.

The activities must be undertaken in accordance with the latest certified MMMP, a copy of which must be held on-board each of the Consent Holder's project vessels and at the Consent Holder's head office.

COLLISION (LOSS OF POSITION) CONTINGENCY MANAGEMENT PLAN

67. The Consent Holder must prepare a Collision (Loss of Position) Contingency Management Plan ("CCMP") following consultation with the Kupe Operator.

The purpose of the CCMP is to demonstrate how the objectives set out below will be achieved and to outline the specific operating procedures to be implemented during the seabed material extraction activities authorised by these consents. The CCMP must, as a minimum, identify the following:

a. How compliance with Conditions 30 and 32 will be achieved;
b. The processes, methods, procedures and responses to be implemented after any unplanned / emergency event that potentially results in mooring failure or loss of position;
c. The measures which will be taken to avoid, remedy or mitigate any adverse environmental effects or effects on existing interests such as the infrastructure and operations of the licensee of Petroleum Mining License #38146;
d. How the IMV will be operated to 'sit out' severe environmental conditions such that the risk of collision between the Consent Holder's assets and the Kupe assets is as low as reasonably practicable;
e. W emergency procedures to be implemented in the event of a mooring failure / loss of station- keeping by the IMV;
f. The protective measures / procedures proposed should any aspect of the thruster system, and its associated systems, be rendered out of service by accident or planned maintenance, such that they are immediately available in the event of a mooring leg failure;
g. The procedure for ensuring that, when the IMV is operating in any position where a station keeping failure may result in a potential collision of the IMV or its dragged mooring system with the Kupe assets, the thruster system be fully operational and active to enable immediate control of the IMV in the event of an

incident. This must include having such power generation capacity online at these times;

h. The procedures for the recovery and setting of the IMV anchors such that the required anchor holding capacity is achieved including an operability assessment assessing the likelihood that an anchor handling operation cannot be completed due to a fast rising storm;
i. The measures to address the reduced station keeping integrity of the mooring whilst recovering, running and re-setting anchors;
j. The planned inspection regime for the safety critical TAM systems including the discard criteria for the mooring wires;
k. The detailed emergency response procedure (including communication requirements and notification periods) addressing incidents such as mooring leg failure, loss of heading control, thruster drive off, and disablement of thruster system. The response must address the risk of collision between the Consent Holder's assets and the Kupe assets to ensure the risk is 'As Low As Reasonably Practicable';
l. The procedure for recovering and resetting of the mooring line and anchor buffer zone with regard to the requirements for the Anchor Handling Tug to recover and set anchors; and
m. The joint operating procedures for the trans-shipment of ore between the IMV and the Floating Storage and Off-loading Vessel.

All operational procedures must be developed to reflect the safe operating requirements outlined in the CCMP with clear descriptions on when each procedure is applicable (i.e. normal operations, or under emergency trigger conditions).

The CCMP must be prepared by a suitably qualified and experienced person(s) and submitted to the EPA for certification that the requirements of this condition have been met.

Prior to being finalised, the CCMP must be independently reviewed by a suitably qualified and internationally recognised person or body. The review must confirm that the CCMP is fit for purpose and demonstrates consistency with the objectives above, including sufficient detail as to the operating procedures required to achieve them. The recommendations of the review must be incorporated into the CCMP.

No seabed material extraction may commence until the CCMP has been certified by the EPA.

68. The Consent Holder may amend the CCMP at any time during the term of these consents following consultation with the Kupe Operator. At the Kupe Operator's request, the proposed amendments to the CCMP must be subject to a further independent peer review. The Consent Holder must consult with the Kupe Operator on the recommendations of that peer review prior to them being incorporated into the final amendments to the CCMP that are lodged with the EPA.

    Any changes to the CCMP will only come into effect once consultation with the Kupe Operator has occurred and any such amendment are certified by the EPA. A copy of the CCMP must be held on all operational vessels and at the Consent Holder's head office and must be provided to the EPA and the Kupe Operator upon request.

    The reviewer must be mutually agreed between the Consent Holder and the Kupe Operator. In the event that the Consent Holder and the Kupe Operator cannot reach agreement, each party must recommend one suitably qualified independent reviewer to the Chief Executive of the EPA who will decide on the reviewer to be appointed from the two recommendations. The Consent Holder will meet the costs of the review.

SIMULTANEOUS OPERATIONS PLAN

69. The Consent Holder must prepare a Simultaneous Operations Plan ("SIMOPP") in accordance with the requirements of IMCA M 203 Guidance on Simultaneous Operations (SIMOPS) following consultation with the Kupe Operator.

    The purpose of the SIMOPP is to:

    a. Define the procedures to be followed when two or more vessels are operating in the same general area and in close proximity to each other;
    b. Outline the consultation framework under which the Kupe Operator may provide input into the Consent Holder's design and execution of the mining operations;
    c. Identify how the Consent Holder will operate within the guidelines as specified in IMCA M 203, Guidelines on Simultaneous Operations; and
    d. Identify how the operations of both the Consent Holder and the Kupe Operator within the area of Petroleum Mining Licence #38146 will be conducted for the duration of the seabed material extraction operations.

    The SIMOPP must, as a minimum, set out:

a. How mining operations will be managed in the event that a 'Jack-up Drill Rig' is being moved into position or temporarily moored adjacent to the Kupe platform prior to spudding in or jacking down of a rig;
b. How the Consent Holder must confer with the Kupe Operator regarding the sequence of blocks of areas to be mined to ensure that any proposed pipeline corridor or location for a 'Jack -up Drill Rig' has time to consolidate, based on the geotechnical data relevant to that block.
c. How the Consent Holder must confer with the Kupe Operator with regards to the planning of maintenance activities undertaken by the Kupe Operator on the Kupe assets.

Prior to being finalised, the SIMOPP must be independently reviewed by a suitably qualified and internationally recognised person or body. The review must confirm that the SIMOPP is fit for purpose and identifies how the Consent Holder will operate within the guidelines as specified in IMCA M 203, Guidelines on Simultaneous Operations. The recommendations of that review must be incorporated into the SIMOPP.
The SIMOPP must be finalised and provided to the EPA and the Kupe Operator at least three (3) months prior to the commencement of any seabed material extraction activities.

The SIMOPP may be amended at any time during the term of these consents following consultation with the Kupe Operator. At the Kupe Operator's request, proposed amendments to the SIMOPP must be subject to a further independent peer review. The recommendations of that review must be incorporated into the SIMOPP.
The Consent Holder must ensure that the EPA has a copy of the most update version of the SIMOPP at all times and must provide a copy to the Kupe Operator upon request.
The reviewer must be mutually agreed between the Consent Holder and the Kupe Operator. In the event that the Consent Holder and the Kupe Operator cannot reach agreement, each party must recommend one suitably qualified independent reviewer to the Chief Executive of the EPA who will decide on the reviewer to be appointed from the two recommendations.

BIOSECURITY MANAGEMENT PLAN

70. The Consent Holder must, following consultation with the Ministry for Primary Industries and a nominated representative from Aquaculture New Zealand, prepare, a Biosecurity Management Plan ("BMP") which must, as a minimum, contain or require the following:

a. For overseas vessels, describe the 'acceptable measures' for biofouling management that will be implemented to meet the 'Clean Hull' requirement of the CRMS, or demonstrate an equivalent level of risk;
b. For all vessels, both overseas and domestic, prepare a vessel-specific 'Biofouling Management Plan', in accordance with the International Marine Organization 2011 '2023 Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species' ("the IMO Guidelines"), or any subsequent version thereof. The Biofouling Management Plan must include or require the following:
    i. Details of the anti-fouling systems and operational practices or treatments to be used, including those for niche areas (e.g. 'sea chests');
    ii. Identification of hull locations susceptible to biofouling, and a schedule of planned inspections, repairs, maintenance and renewal of anti-fouling systems;
    iii. Details of the recommended operating conditions suitable for the chosen anti-fouling systems and operational practices;
    iv. Other relevant details as described in Appendices 1 and 2 of the IMO Guidelines, including maintenance of a 'Biofouling Record Book', which records details of all inspections and biofouling management measures undertaken on the vessel;
c. For overseas vessels that are to be permanently located in the vicinity of the project area, the BMP must consider additional special measures that can be implemented to minimise biosecurity risk. These could include, but are not limited to, any of the following:
    i. Using new-build vessels that have appropriate anti-fouling systems;
    ii. Minimising the time vessels spend idle in water before departure from the overseas source port, in order to minimise the risk of colonisation by biofouling organisms;
    iii. Ensuring appropriate measures are in place for sources of risk in addition to biofouling, such as cleaning and removal of sediment; and
    iv. Acquiring vessels from regions that are not 'climatically matched' to the project area, in order to further mitigate any residual risk.

The BMP must be prepared by a suitably qualified and experienced person(s) and submitted to the EPA for certification that the requirements of this condition have been met.

No seabed material extraction authorised by these consents may commence until the BMP has been certified by the EPA.

The Consent Holder may amend the BMP at any time provided such amendments have been prepared in consultation with the Ministry for Primary Industries and a nominated representative from Aquaculture New Zealand, and the changes are consistent with the purposes of this condition.

The BMP must be updated as necessary to reflect the most up-to-date marine standards and guidelines, and any amendments to the BMP must be submitted to the EPA for certification, and may only be implemented following confirmation from the EPA that the amended BMP meets the requirements of this condition. Where certification for an amended plan is not received, the Consent Holder must continue to use the plan which was in place prior to the lodgement of the amended plan.

The activities authorised by these consents must be undertaken in accordance with the latest BMP. A copy of the latest BMP must be held on-board each of the Consent Holder's project vessels and at the Consent Holder's head office.

SAFETY CASE

71. The Consent Holder must, following consultation with WorkSafe New Zealand, prepare a Safety Case which must, as a minimum identify:
    a. What the major hazards are associated with the activities, from a safety and environmental perspective; and
    b. What control measures are necessary to prevent harm arising from these hazards; and
    c. The standards that such control measures would need to meet.

    The Safety Case must be prepared by a suitably qualified and experienced person(s). The Safety Case must then be independently peer reviewed by a suitably qualified and experienced person(s) to ensure that the requirements of this condition have been met before it is submitted to the EPA.

    No seabed material extraction authorised by these consents may commence until the independently reviewed Safety Case has been submitted to the EPA.

The Consent Holder may amend the Safety Case at any time provided such amendments have been prepared in consultation with WorkSafe New Zealand, and any changes are consistent with purposes of this condition.

The activities authorised by these consents must be undertaken in accordance with the latest Safety Case and a copy of the latest Safety Case must be held on-board each of the Consent Holder's project vessels and at the Consent Holder's head office, and provided to the EPA upon request.

RELATIONSHIP WITH TANGATA WHENUA

Advice Note: *To the extent that any of Conditions 72 – 84 are ultra vires, they have been proffered by the Consent Holder on an Augier basis*.

Advice Note: *Notwithstanding Conditions 72 and 78, the Consent Holder acknowledges the relationship of tangata whenua, including but not limited to Ngāti Ruanui, Ngaa Rauru and Ngāruahine, with the South Taranaki Bight, and undertakes to use its best endeavours to facilitate engagement with tangata whenua during the term of these consents*.

72. The relationship of tangata whenua including, but not limited to, Ngāti Ruanui, Ngā Rauru Kītahi and Ngāruahine, with the South Taranaki Bight must be recognised and provided for by the Consent Holder through:
    a. Provision for the establishment and maintenance of a Kaitiakitanga Reference Group (Condition 73);
    b. Provisions or involvement of the Kaitiakitanga Reference Group, in accordance with their defined role, in:
        i. The TRG (Condition 60); and
        ii. The Kaimoana Monitoring Programme (Condition 77).

73. Within twenty (20) working days of the commencement of these consents, the Consent Holder must provide to tangata whenua, including but not limited to Ngāti Ruanui, Ngā Rauru Kītahi and Ngāruahine, a written offer to establish and maintain a Kaitiakitanga Reference Group, the purpose of which is to:
    a. Recognise the kaitiakitanga of tangata whenua, including but not limited to Ngāti Ruanui, Ngā Rauru Kītahi and Ngāruahine, and their relationship with the South Taranaki Bight;
    b. Review and advise the Consent Holder on the suitability of the Kaimoana Monitoring Programme (Condition 77);

c. Provide for the on-going involvement of tangata whenua, who have a relationship with the South Taranaki Bight as kaitiaki, in monitoring the effects of the activities authorised by these consents, including a process for considering any future change to the membership of the Kaitiakitanga Reference Group;

d. Provide for kaitiaki responsibilities and values to be reflected in the monitoring of the seabed material extraction area and of the surrounding marine environment undertaken under these consents, including:

   i. To advise the Consent Holder on monitoring for changes to risk, or threat to, the cultural values of the South Taranaki Bight;

   ii. To evaluate the data obtained from physical monitoring insofar as it relates to the cultural values of the South Taranaki Bight and the effects on those values from the seabed material extraction and, if changes to effects are identified, advise the Consent Holder on possible monitoring or operational responses;

   iii. To advise the Consent Holder on the appropriateness of any operational responses as they relate to cultural values, proposed by others;

   iv. To provide a means of liaison between tangata whenua, including but not limited to Ngāti Ruanui, Ngā Rauru Kītahi and Ngāruahine, and the Consent Holder through providing a forum for discussion about the implementation of these consents; and

e. Be responsible for receiving requests for, and facilitating the provision of, any cultural ceremonies by tangata whenua, including but not limited to Ngāti Ruanui, Ngā Rauru Kītahi, Ngāruahine, and other tangata whenua groups who have a relationship with the South Taranaki Bight.

Advice Note: The Consent Holder records its commitment to implementing this condition in good faith and to using the services of an independent mediator, as necessary, in doing so.

74. Once the Kaitiakitanga Reference Group is formed, the Consent Holder must provide details of its membership, and any subsequent changes, to the EPA.

75. The Consent Holder must:

   a. Facilitate and fund the administration of each formal meeting of the Kaitiakitanga Reference Group. The first Kaitiakitanga Reference Group meeting must convene within three (3) months of the formation of the Kaitiakitanga Reference Group. As a minimum, meetings must be held at a sufficient

frequency to ensure that the obligations of the Kaitiakitanga Reference Group are met, but in any event, must not be less than one time per year.

b. Take minutes of the Kaitiakitanga Reference Group meetings, which must be forwarded to members and the EPA, within twenty (20) working days of each meeting being held.
c. Give members at least twenty (20) working days' notice of the date, time and location of the next Kaitiakitanga Reference Group meeting.
d. Ensure that, where appropriate, the agreed outcomes from the Kaitiakitanga Reference Group meetings are available to other tangata whenua groups and the wider public.

76. The Consent Holder must meet the actual and reasonable costs incurred by the Kaitiakitanga Reference Group for providing the services required of it by these consents, subject to normal business practice of invoicing and accounting.

77. At least twenty (20) working days prior to the commencement of any seabed material extraction activities authorised by these consents, the Consent Holder must prepare, and implement, a Kaimoana Monitoring Programme following consultation with the Kaitiakitanga Reference Group if this group has been established.

The objective of the Kaimoana Monitoring Programme is to provide for the monitoring of species important to customary needs, including from customary fishing grounds around the site, of Māori who have a relationship to the site and must identify as a minimum:

a. The roles and responsibilities of parties who are to conduct the kaimoana monitoring;
b. The methodology to be employed in the kaimoana monitoring, including to minimise the risks to health and safety, and the environment;
c. The kaimoana indicators to be monitored and any thresholds for desired actions that may arise from monitoring as a result of effects from the activities;
d. Any components of the EMMP that provide information on the kaimoana values and indicators; and
e. A reporting mechanism for results of the kaimoana monitoring to the Consent Holder, who must provide them to the EPA.

The Kaimoana Monitoring Programme may be amended at any time during the term of these consents. Any proposed changes to the Kaimoana Monitoring Programme must be prepared by the Consent Holder following consultation with the Kaitiakitanga Reference Group if must group has been established.

The Consent Holder must ensure that the EPA has a copy of the most update version of the Kaimoana Monitoring Programme.

78. The Consent Holder must use its best endeavours to engage tangata whenua representatives, including but not limited to Ngāti Ruanui, Ngā Rauru Kītahi, Ngāruahine and Te Tai Hauāuru Regional Fishing Forum representatives, to undertake the monitoring identified in the Kaimoana Monitoring Programme (Condition 77).

    The Consent Holder must meet the actual and reasonable costs of implementing the Kaimoana Monitoring Programme subject to the receipt of itemised invoices.

    Advice Note: The Consent Holder records its willingness to work collaboratively with tangata whenua, including Ngāti Ruanui, Ngā Rauru Kītahi and Ngāruahine, and to assist them financially in undertaking environmental initiatives or other initiatives that advance their cultural well-being.

79. In the event that a Kaitiakitanga Reference Group has not been established twelve (12) months following the date of the offer made by the Consent Holder required by Condition 72, and the Consent Holder has demonstrated, to the satisfaction of the EPA, that it has acted in good faith, the Consent Holder will have no further obligation under Conditions 72 - 76.

    For the avoidance of doubt, the Consent Holder must still comply with Conditions 77 and 78 in the event that the Kaitiakitanga Reference Group has not been established.

80. In addition to Condition 78, in the event that that a Kaitiakitanga Reference Group has not been established twelve (12) months following the date of the offer made by the Consent Holder required by Condition 73, the Consent Holder must, at least once every twelve (12) months, inform and seek to engage with relevant iwi entities on the general scope of the planned activities. The Consent Holder must keep a record of how it has complied with this condition and make this information available to the EPA upon request.

Advice Note: *The Consent Holder should seek advice from the EPA as to who the relevant iwi entities are. The Consent Holder is also encouraged to use this opportunity to investigate the involvement of the relevant iwi entities, as kaitiaki, in environmental management practices and the development of environmental indicators using both mātauranga Māori and western science.*

COMMUNITY RELATIONSHIPS

81. The Consent Holder must provide the public with up to date information on the seabed material extraction activities and environmental monitoring, including the pre-commencement environmental monitoring, undertaken in accordance with the conditions of these consents.

    The information must be made available through a website maintained by the Consent Holder for the duration of these consents.

    The Consent Holder must advise the EPA of the website address within five (5) working days of it going live.

82. For the duration of these consents, the Consent Holder must provide for and facilitate community meetings to keep the public informed of the seabed material extraction activities and any recent monitoring results and/or actions, or other matters that may be of interest to the public.

    The community meetings must be held six (6) monthly (during the months of February and July of each year) for the first five (5) years of the seabed material extraction activities and annually at all other times.

    At least twenty (20) working days prior to the date of any community meeting, notice must be placed on the Consent Holder's website (Condition 81) and by way of advertisements in the regional newspapers, including the Taranaki Daily News, the South Taranaki Star and the Wanganui Chronicle, and on local radio stations. Notice must include the date, time and location of the meeting and contact details of the meeting facilitator.

    The Consent Holder must keep a record of the details of each community meeting, including details of the notification mechanisms used for each meeting. A copy of these records must be provided to the EPA upon request.

83. Following the commencement of seabed material extraction activities authorised by these consents, the Consent Holder must provide an annual fund of $50,000 per year to be administered by the South Taranaki District Council in collaboration with the Consent Holder. The annual fund must be inflation adjusted.

    The purpose of the fund is to assist in the establishment of projects for the benefit of the South Taranaki community, in particular for the social and economic wellbeing of the community.

    The Consent Holder must keep records of the annual contributions and provide a copy of these to the EPA upon request.

84. Within twelve (12) months of the commencement of the construction of the IMV associated with the activities, the Consent Holder must establish and maintain a training facility located in the township of Hawera.

    The purpose of the training facility is to provide technical and marine skills based training to prospective trainee process operators and maintenance support staff from the South Taranaki communities who then can be employed by the Consent Holder as part of the seabed material extraction activities.

    In establishing the training facility, the Consent Holder must consult with the Hawera business community, local iwi, South Taranaki District Council and Accredited Education providers to ensure that the purpose of the training facility is being met. The Consent Holder must keep records of the consultation required by this condition and provide a copy of these to the EPA upon request.

    Advice Note: The Consent Holder has confirmed that it will, where practicable, offer training positions to members of local iwi and the community.

85. Prior to the commencement of any seabed material extraction activities, the Consent Holder must establish and maintain a geotechnical and environmental monitoring base located in the port of Whanganui.

    The purpose of the base is to support the seabed material extraction activities by providing, as a minimum:

    a. A permanent berthing site for a vessel;

b. A secure laydown area;
c. A storage area and warehouse;
d. An operation and maintenance workshop;
e. Administration offices; and
f. Scientific Laboratory.

The Consent Holder must provide written confirmation to the EPA that the base has been established.

Advice Note: The Consent Holder is committed to acquiring any additional consents required to enable the construction and operation of the Support Base. Construction of the base and associated berthing site will occur subject to any such consents being granted

FISHING INDUSTRY RELATIONSHIP

86. The Consent Holder must provide for six (6) monthly meetings between itself and representatives of the commercial fishing industry including any representatives nominated by Fisheries Inshore New Zealand. The purpose of the meetings must be to enable parties to share relevant information and to establish a coordinated approach between the seabed material extraction activities and commercial fishing activities, including communications protocols.

    The first meeting must occur no later than six (6) months prior to the commencement of the seabed material extraction activities.

    The Consent Holder must:
    a. Facilitate and fund the administration of each formal meeting; and
    b. Take minutes of each meeting, which must be forwarded to attendees, within twenty (20) working days of each meeting being held. The minutes must be included in the Annual Report required by Condition 104.

OPERATIONAL DOCUMENTATION

OPERATIONAL ASSESSMENT REPORT

87. No less than three (3) months prior to the commencement of any seabed material extraction activities, and every twelve (12) months thereafter the Consent Holder must

prepare, and provide to the EPA, an Operational Assessment Report which must include but not be limited to:

a. An outline of the area where removal of seabed material, targeting the extractable resource of titanomagnetite seabed material, will take place during the next twelve (12) month period, and the timing thereof;
b. Bathymetry of the seabed in the area where removal of seabed material is planned;
c. Bathymetry of the pits and mounds created during the extraction and deposition of sediments;
d. Extraction plan schedules;
e. Identification of the occurrence of fine sediments (<8 µm) in the area subject to extraction via grade control drilling conducted in accordance with the requirements for a 'Measured Mineral Resource' by "The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 or subsequent editions (the "JORC" code). The Operational Assessment Report is to demonstrate how compliance with Condition 4 has been achieved; and
f. Procedures for avoiding identified fine sediments to the extent necessary to meet the requirements of Conditions 4, 5 and 7.

Where extraction activities within the following twelve (12) month period will occur within the area of Petroleum Mining Licence #38146, the Consent Holder must also provide the Kupe Operator with a copy of the Operational Assessment Report at the same time the report is provided to the EPA.

TRAINING OF PERSONNEL

88. Pursuant to section 25(1)(b)(i) of the EEZ Act, the Consent Holder must ensure that all personnel on- board project related vessels receive the appropriate training prior to taking part in any duties related to any activities.

Training must be appropriate to ensure compliance with the conditions of these consents is achieved, including but not limited to training on:

a. The Consent Holder's obligations under these consent conditions, including any obligations under the EMMP and associated management plans;
b. Their responsibilities under any condition, the EMMP or management plan and how to meet those responsibilities; and

c. Their obligations under the Marine Mammals Protection Act 1978 and Marine Mammals Protection Regulations 1992, or any superseding legislation.

A record of all training carried out in accordance with this condition must be maintained by the Consent Holder and made available to the EPA upon request.

COMPLAINTS REGISTER

89. The Consent Holder must maintain a permanent register of any complaints received by any person or company about activities. The register must include:
    a. The contact details of the complainant, including the name and address of the complainant;
    b. The nature of the complaint, and the time which it was received;
    c. The location, date and time of the complaint and of the event associated with the complaint;
    d. The cause or likely cause of the event and any factors, such as weather conditions (including wind direction and approximate wind speed, the real-time New Zealand Met Service forecast for the seabed material extraction area and any forecast warning for the area and the presence of precipitation, fog or any other weather related impact on visibility), that may have influenced its severity;
    e. The outcome of any investigation into the complaint, including the nature and timing of any measures implemented by the Consent Holder to remedy or mitigate any adverse effects, if associated with the event;
    f. Details of any steps taken to prevent the reoccurrence of similar events; and g. Any other relevant information.

    This register must be held in the form of a Complaints Log at the Consent Holder's head office and should be made available to the EPA upon request.

    The Log must be updated within forty eight (48) hours following the receipt of any new complaint and should also be included as part of the Quarterly Operational Report required by Condition 103.

MARINE SAFETY MATTERS

90. The Consent Holder must ensure that the design and construction of the IMV complies with 'best practice' international marine standards and, as a minimum, must include:

a. A thruster assisted mooring system that meets the requirements of America Bureau of Shipping (“ABS”) ✠TAM-R notation with the system built, installed and commissioned to the satisfaction of ABS Survey;
b. A thruster system, including power, distribution, control and position reference systems that meet the redundancy requirement of ABS DPS-2 with the system built, installed and commissioned to the satisfaction of ABS Survey. Additionally, a Failure Modes, Effects, and Criticality Analysis (“FMECA”) of the system must be completed as an extension of the FMEA process required by class for achieving many of the special or optional Classification notations ACC, ACCU and DPS-2. (Ref: ABS GUIDANCE NOTES ON FAILURE MODE AND EFFECTS ANALYSIS (FMEA) FOR CLASSIFICATION. 2015);
c. Compliance with the ABS notation for Station Keeping Performance (“SKP”) for the specified limiting environmental conditions in the South Taranaki Bight;
d. A mooring system that complies with the design requirements for a permanent mooring system as specified in API 2SK, and that clearly defines the system's mode of operation, including its normal operating condition limits and performance in severe environmental conditions (including its proposed return period); and
e. Incorporation of an operational vessel motion monitoring and forecasting software system.

The Consent Holder must provide documentation to the EPA which confirms that the IMV complies with all the requirements of this condition.

91. Prior to the IMV being used in the seabed material extraction operations authorised by these consents, the IMV’s mooring design must be independently reviewed, in a technical capacity, by a suitably qualified and internationally recognised person or body. The review must confirm that the IMV mooring is fit for purpose and complies with ‘best practice’ international marine standards and the standards specified in Condition 90 above. The review must also:
    a. Confirm that approval from ABS for the IMV mooring concept has been provided;
    b. Consider the final mooring and thruster design assessment and confirm it is appropriate for the intended operational purposes (including in relation to proximity to the first de-ored sediment mound);
    c. Confirm that the thruster capacity is adequate to maintain the IMV position/heading in the event of a mooring failure;

d. Confirm that the operational (limit) environmental conditions specified for the IMV are appropriate for / consistent with the mooring system design.
e. Confirm that the location and design of the fairleads on the IMV are capable of accommodating the large changes expected in departure angle without the mooring rope clashing with deck structures or the articulation limits of the fairleads; and
f. Confirm the operation of the TAM system and the segregation of thruster power supply, control and distribution from that required for mining operations is fit for purpose.

The recommendations of the review must be incorporated into the final design of the IMV mooring system.

The Consent Holder must provide documentation to the EPA which confirms that the IMV's mooring design complies with the requirements of this condition.

The independent reviewer must be mutually agreed between the Consent Holder and the Kupe Operator. In the event that the Consent Holder and the Kupe Operator cannot reach agreement, each party must recommend one a suitably qualified independent reviewer to the Chief Executive of the EPA who will decide on the reviewer to be appointed from the two recommendations. The costs of the review will be met by the Consent Holder.

92. Annually, and within twenty (20) days of the anniversary of the commencement of the seabed material extraction operations, or where notice is received from the Kupe Operator providing confirmation of a commitment to deploy a 'Jack-up Drill Rig' within the Project Area identified in Schedule 1, the Consent Holder must prepare a Geotechnical Report for the previous twelve (12) months seabed material extraction activities authorised by these consents, for the identified location (where confirmation of a commitment to deploy has been received in accordance with this condition).

Each Geotechnical Report must report on the geotechnical properties of the backfilled mining lanes and include, as a minimum, the following information:

a. A detailed explanation of the geotechnical investigations undertaken, including the location of the investigations and the methodology undertaken, for the previous 12 month period;
b. All data / results from the geotechnical investigations including but not limited to:

i. Particle / grain size distribution;
ii. In-situ bulk density; and
iii. Cone penetrometer or shear strength value; and

c. A summary of the findings from the geotechnical investigations and the properties of the seabed investigated.

The Consent Holder must provide each Geotechnical Report to the Kupe Operator within three (3) months of the completion of the annual geotechnical investigations or within six (6) months of the receipt by the Consent Holder of notice from the Kupe Operator providing the confirmation above. The Geotechnical Report must be made available to the EPA upon request.

93. Annually, and within twenty (20) working days after each anniversary of the commencement of the seabed material extraction activities authorised by these consents, the Consent Holder must undertake an assessment of the impact of de-ored sediment discharges on the cathodic protection systems associated with the Integrated Mining Vessel's safety critical systems.

    The Consent Holder must provide a copy of its assessment report to the Kupe Operator within twenty (20) working days of the completion of the assessment outlined above and will make the report available to the EPA upon request.

94. Following the completion of the pre-commencement environmental monitoring required by Condition 47, the Consent Holder must commission an assessment of the visibility limits at the Kupe Platform and at the inshore border of the Project Area identified in Schedule 1.

    The results of this assessment must be provided to the Kupe Operator within twenty (20) working days of its completion and make the assessment available to the EPA upon request.

95. The Consent Holder must install and have operational, a Barge Management System for all vessels operating within the area of Petroleum Mining Licence #38146.

    A display from the Barge Management System must be made available to the Kupe Operator's control room for the Kupe assets at all times.

96. The Consent Holder must ensure that no iron ore transhipments take place when any aspect of the thruster or mooring system of the IMV or the Floating Storage and Off-loading vessel is inoperative due to maintenance or failure.

97. The Consent Holder must ensure that activities within the 'Kupe Platform Safety Zone' do not occur without prior approval in accordance with the requirements of the SIMOPP (Condition 69). Approval under this condition is not required during an emergency situation.

    The Consent Holder must keep records of any related correspondence with the Kupe Operator and these records must be made available to the EPA upon request.

98. The Consent Holder must undertake bathymetric surveys annually around the boundaries of the Kupe Operator's exclusion zones (existing or future), and representative points around the Kupe Well Head Platform and along the pipeline and umbilical route, to determine any migration of the mound and pit bathymetry.

    Access by the Consent Holder to representative points around the Kupe Well Head Platform and pipeline and umbilical route will be agreed with the Kupe Operator in advance in accordance with the SIMOPP (Condition 69).

    The Consent Holder must supply results of these surveys to the Kupe Operator within twenty (20) days of their completion and provide the results to the EPA upon request.

99. The Consent Holder must ensure that the Kupe Operator retains all rights to explore and develop assets within the Petroleum Mining Licence area #38146 to the extent provided for in that permit where it overlaps with the Project Area identified in Schedule 1.

100. The Consent Holder must ensure that all operations proposed by the Kupe Operator within the area of Petroleum Mining Licence #38416 have precedence over the Consent Holder's operations provided that the Kupe Operator gives at least twelve (12) months' notice its intentions to undertake such operations and provides specific details not less than six (6) months prior to the scheduled commencement of such operations.

101. For the duration of this consent, the Consent Holder must maintain a 500 m protection zone around all wellheads (except Kupe South 4 wellhead where the size of the

protection zone will be sufficient to ensure that the Consent Holder's activities do not result in the well-casing being exposed at any time), and a 1.5 km protection zone around the Kupe Well Head Platform.

For the purpose of this condition, the "protection zone" is an exclusion zone where the Consent Holder's vessels must not operate and no mining activities will occur, without the prior approval of the Kupe Operator.

Advice note: The Kupe South 4 wellhead refers to the abandoned wellhead located within the Consent Holder's Mineral Mining Permit area.

102. Notwithstanding any of the requirements of the conditions above, the Consent Holder must manage all activities associated with the seabed material extraction authorised by these consents, including the project vessels and their operation, to ensure that the activities do not result in any adverse effects on the Kupe assets.

REPORTING REQUIREMENTS

QUARTERLY OPERATIONAL REPORT

103. Following the commencement of seabed material extraction authorised by these consents, the Consent Holder must prepare a Quarterly Operational Report summarising the extraction activities undertaken for the previous quarter (three (3) months). The Quarterly Operational Report must, as a minimum, include the following operational information:
    a. GPS positions of anchor placements on the seabed and coordinates illustrated on a map with the seabed material extraction area clearly marked;
    b. GPS positions of the Crawler placement and tracks during seabed material extraction activities and coordinates illustrated on a map with the extraction area clearly marked;
    c. Any bathymetry measurements of the seabed measured in the reporting period for the area where removal of seabed material has taken place. (Note: Bathymetry will be assessed on a six (6) monthly basis);
    d. Quantity and rate of seabed material excavated and quantity and rate of de-ored sediment discharged including the PSD data recorded to assess compliance with Condition 4;

e. Maximum and average depth of seabed material extracted by the Crawler throughout each mining lane (from bathymetry);
f. Average and maximum depth, and GPS position of any unfilled pits remaining after completion of a mining lane (from bathymetry);
g. Average and maximum height, and GPS position of any mounds created during the deposition of de-ored sediment (from bathymetry);
h. Location and height above the seabed of discharge pipe whilst discharging de-ored sediments;
i. Details of any complaints received, including the Complaints Log; and
j. Details of any investigations, including recommendations, undertaken by the Consent Holder, the TRG or the Kaitiakitanga Reference Group including a summary of any commentary or recommendations from the TRG and, where necessary, an explanation as to why any TRG recommendation has not been accepted;
k. Actual 25, 50, 80 and 95th percentile SSC values during the preceding three (3) month period, including a comparison with the "naturally occurring" values predicted by the validated OSPM;
l. A record of pre-start observations as required by Condition 36; and
m. Any other components required by the conditions of these consents.

The Consent Holder must provide the Quarterly Operational Report to the EPA and the Kupe Operator within two (2) months of each quarter ending (being 31 March, 30 June, 30 September and 31 December) for the duration of the seabed material extraction activities authorised by these consents.

ANNUAL REPORT

104. The Consent Holder must prepare an Annual Report for the previous twelve (12) month period from the commencement of seabed material extraction activities authorised by these consents. Subsequently, an Annual Report must be prepared for each twelve (12) month period following the anniversary of commencement of the extraction activities. Each Annual Report must, as a minimum, include the following information:
    a. A critical evaluation of all monitoring data collected prior to the reporting date, including, but not limited to:
        i. The information contained in earlier Annual Reports; and
        ii. Identifying any trends in the monitoring and any emerging issues of actual or potential concern.

b. An Extraction Schedule detailing:
    i. The areas in which extraction and deposition is proposed to occur over the next twelve (12) month period;
    ii. The timing of proposed extraction and deposition activities in areas identified in Condition 104.a.i.;
    iii. The volume, mass, and rate of seabed material extracted and de-ored sediments deposited during the previous twelve (12) month period;
    iv. GPS locations or chart references detailing the location of extraction and deposition in the previous twelve (12) month period;
    v. Depths of extraction that are scheduled to occur; and
    vi. All updates of the extraction schedule that were notified to the EPA.
c. A summary report on all monitoring undertaken in the previous twelve (12) months in accordance with the EMMP required under Condition 55, including identification of any trends in results;
d. Details of monitoring proposed for the next twelve (12) months in accordance with the EMMP required under Condition 55 including the rationale for this, including by reference to clause a above;
e. Details of any exceedances of the limits as identified in Conditions 4, 5, 6, or 7, as well as any management / mitigation action(s) implemented in response to any exceedance including details of any investigations;
f. A record of all fuel used, and the sulphur content of the fuel, for each project related vessel as required under Condition 41;
g. A record of pre-start observations as required by Condition 36;
h. Details of the TRG review of the annual monitoring data and the EMMP, along with recommendations for any actions or changes to the EMMP or the seabed material extraction activities, and how these were provided for as well as any reasoning as to why recommendations were not accepted; and
i. Any other component required by the conditions of these consents.
j. The Consent Holder must provide the Annual Report to the EPA and the Kupe Operator within three (3) months of the completion of each twelve (12) month monitoring period.

105. The Consent Holder must inform the EPA of any modified operational extraction and deposition areas or periods which differ from those identified in the “the next twelve (12) month” period of any Annual Report required by Condition 104.

Where any such changes are in the Petroleum Mining Licence area #38146, or the project area immediately adjacent to the Kupe assets, the Consent Holder must also inform the Kupe Operator of any modified operational extraction and deposition areas or periods which differ from those identified.

The EPA, and where necessary the Kupe Operator, must be informed of any such changes no later than thirty (30) working days prior to commencement of works in the modified areas, or as otherwise agreed in the SIMOPP.

REVIEW CONDITION

106. Within twenty (20) working days of the receipt of either the Quarterly Report or Annual Report, or within twenty (20) working days of the EPA receiving the recommendation from either the Consent Holder or from the TRG, including any recommendations from the TRG not accepted or implemented by the Consent Holder, the EPA may serve notice on the Consent Holder, in accordance with sections 76 and 77 of the EEZ Act, of its intention to review the conditions of these consents for the purpose of:
    a. Adding, amending or cancelling any discharge limits, environmental limits, or operational controls (Conditions 4 - 46); and/or
    b. Including any new discharge limits, environmental limits, or operational controls; and/or
    c. Dealing with any adverse effects on the environment that may arise from the exercise of the consents and which it is appropriate to deal with after the consent(s) have been granted; and/or
    d. Reviewing monitoring or reporting required by any condition(s) of these consents.

RISK MANAGEMENT

107. The Consent Holder must, while giving effect to these consents, maintain public liability insurance for a sum not less than NZ$500,000,000 (2025 dollar value) for any one claim or series of claims arising from giving effect to these consents to cover costs of environmental restoration and damage to the assets of existing interests (including any environmental restoration as a result of damage to those assets), required as a result of an unplanned event occurring during the exercise of these consents.

108. The Consent Holder must submit a certificate demonstrating that it holds the insurance required by Condition 107 prior to giving effect to these consents and an updated certificate annually by 1 July of each year for the term of these consents to the EPA.

COST RECOVERY

109. The Consent Holder must meet the actual and reasonable costs incurred by the EPA when obtaining external advice it considers necessary to:
    a. Exercise its certification functions as required by these conditions; and
    b. Audit compliance with the conditions of consent, including, but not limited to, assessing the Annual Report required by Condition 104.

Advice Note: *Where a condition requires the Consent Holder to submit a plan or document to the EPA "for certification" the EPA may, if it considers it necessary, seek the advice of a suitably qualified and experienced external expert(s) before it certifies the plan/document. In addition, the EPA may request further information/clarification from the Consent Holder after it submits the plan/document. In such cases the EPA will advise the Consent Holder that it has not yet certified the plan/document and the clause in the respective condition which states that the plan is "deemed to be certified" after a specified time period will not apply. For clarity, certification includes the exercise of the responsibilities assigned to the CEO of the EPA by any condition.*

CONDITIONS SCHEDULES

SCHEDULE 1 – GRID REFERENCES OF THE PROJECT AREA

Point	Longitude	Latitude
1	174° 10' 51" E	39° 49' 39" S
2	174° 13' 03" E	39° 51' 21" S
3	174° 12' 16" E	39° 51' 56" S
4	174° 09' 02" E	39° 53' 42" S
5	174° 07' 21" E	39° 54' 29" S
6	174° 05' 37" E	39° 54' 23" S
7	174° 04' 33" E	39° 54' 16" S
8	174° 03' 49" E	39° 53' 52" S
9	174° 02' 52" E	39° 53' 12" S
10	174° 02' 09" E	39° 52' 38" S
11	174° 02' 12" E	39° 51' 20" S
12	174° 02' 28" E	39° 51' 04" S
13	174° 03' 18" E	39° 51' 53" S
14	174° 06' 30" E	39° 51' 43" S
15	174° 06' 30" E	39° 51' 39" S
16	174° 06' 40" E	39° 51' 34" S
17	174° 07' 23" E	39° 51' 45" S
18	174° 08' 10" E	39° 51' 28" S
19	174° 09' 46" E	39° 50' 33" S

Datum: NZGD2000

Note 1: This schedule is referred to in conditions 92, 94 and 99.

SCHEDULE 2 – SUSPENDED SEDIMENT CONCENTRATION (SSC) LIMITS

South Taranaki Bight Sites	Background Percentiles (SSC mg/L)							
	Surface				Bottom			
	25th	50th	80th	95th	25th	50th	80th	95th
Rolling Grounds (WGS 1984: 39 57 22.58780 S, 174 22 29.90885 E)	TRG	TRG	0.3	1.1	TRG	TRG	3.5	15.3
Graham Bank (WGS 1984: 39 53 16.22020 S, 174 24 40.68384 E)	TRG	TRG	1.7	4.5	TRG	TRG	32.8	84
Source A to Whanganui 1 km (WGS 1984: 39 51 22.41692 S, 174 13 46.13207 E)	TRG	TRG	1.1	2.7	TRG	TRG	16.9	44.2
Source A to Whanganui 20 km (WGS 1984: 39 53 14.34932 S, 174 27 08.62846 E)	TRG	TRG	2.3	5.9	TRG	TRG	29	76.6
South Traps (WGS 1984: 39 51 53.21010 S, 174 32 48.75387 E)	TRG	TRG	6.3	11.1	TRG	TRG	37.7	97.4
North Traps (WGS 1984: 39 51 02.22374 S, 174 31 10.63364 E)	TRG	TRG	7.2	12.4	TRG	TRG	46.5	115
Tūteremoana (WGS 1984: 39 55 00.03802 S, 174 47 41.29085 E)	TRG	TRG	8.5	13.6	TRG	TRG	23.7	62.5
The Crack 1 (WGS 1984: 39 49 12.00 S, 174 15 00.00 E) provisional	TRG	TRG	TRG	TRG	TRG	TRG	TRG	TRG
The Crack 2 (WGS 1984: 39 51 00.00 S, 174 18 00.00 E) provisional	TRG	TRG	TRG	TRG	TRG	TRG	TRG	TRG
The "Project Reef" (location to be set by TRG)	TRG	TRG	TRG	TRG	TRG	TRG	TRG	TRG

Note 1: This schedule is referred to in conditions 5, 6, 48, 51 and Schedule 3.

Note 2: The source of the numerical values of the levels of "naturally occurring" 80th and 95th percentile background limits contained in this table are as set out in Daniel Govier's evidence (Appendix 10) 16 December 2016, and have been derived from the sediment plume modelling ("no mining" scenario) which was informed by measurements of background sediment concentrations and other oceanographic parameters addressed by NIWA, as set out in the NIWA Oceanographic Measurements Report, the Nearshore Measurements Report, and the Remote Sensing Report.

For the purposes of operational management, the SSC Limits contained in this table are to be considered as inclusive of both natural and mining derived suspended sediment concentrations. All percentile values marked "TRG" are to be derived by the Technical Review Group. The SSC limits and location coordinates for The Crack 1 and 2, and The "Project Reef" are also to be derived by the TRG.

Note 3: Turbidity may be used as a proxy for suspended sediment concentrations when assessing against the limits in this table.

Note 4: The numerical values of this table that represent a percentile limit at a location may be amended by way of the process set out in Condition 51 but any change to the percentiles themselves (for instance amending 95th percentile to 90th) can only be changed by way of Condition 106 or in accordance with the EEZ Act.

Note 5: The 95th percentile is a fixed limit and is subject to Condition 5.a., unless subject to Condition 5.b. after the value has been modified under Condition 51. The 25th, 50th and 80th percentiles are subject to Condition 5.c. which allows variation of up to 10%.

SCHEDULE 3 – METHODOLOGY FOR REVIEWING AND ESTABLISHING THE SUSPENDED SEDIMENT CONCENTRATION LIMIT NUMERICAL VALUES IN SCHEDULE 2

The suspended sediment concentrations collected as part of the Pre-commencement Environmental Monitoring Programme (PCEMP) will be used to calibrate and validate the Operational Sediment Plume Model and provide data to verify and establish (those yet to be determined) the SSC Limit numerical values set in Schedule 2. As per Condition 53, calibration and validation of the Operational Sediment Plume Model will occur every six (6) months during the PCEMP and for the first three years of seabed material extraction activities, and then every 24 months thereafter with independent peer review as per Condition 52.

Validation will occur by statistically comparing the modelled and actual measured values to provide a measure of the Operational Sediment Plume Model accuracy. The aim of the validation process is to assess whether the actual measurements differ from the predicted values and if so by what margin, and over how much of the period that was being reviewed (i.e. the percentage of time the values differ and the range, median, mean, etc. of this difference). A range of statistical techniques (within suitable statistical programmes) can be employed to assess any differences, including, but not limited to, scatterplots of predicted vs actual concentrations (and examining the adjusted R2 value), residual plots (observed – predicted values) and calculating the root mean squared error (or standard error of the regression).

If the actual measured suspended sediment concentration values do not fall within 10% of the modelled values listed in Schedule 2 for 95% of time within each six (6) month review period, the model will be revised using the actual data to update the limit values. Long term time series data are preferable for comparison with the Schedule 2 statistical limits. Therefore, as the measured data accumulates over the PCEMP period comparisons are to make use of as much of the aggregated time-series data as possible.

As per Condition 51, in the event that the updated numerical values of the SSC Limits are different from the numerical values of the SSC Limits in Schedule 2, then the updated numerical values of the SSC Limits shall supersede the numerical values of the SSC Limits in Schedule 2. Any updated numerical values of the SSC Limits shall represent “background” conditions and not be influenced by any actual or model simulated seabed material extraction activity.

Note 1: This schedule is referred to in condition 51.

SCHEDULE 4 – BENTHIC ECOLOGY MONITORING SITES

(a) Rolling Grounds (WGS 1984: 39 57 22.58780 S, 174 22 29.90885 E)

(b) Graham Bank (WGS 1984: 39 53 16.22020 S, 174 24 40.68384 E)

(c) Source A to Whanganui 1 km (WGS 1984: 39 51 22.41692 S, 174 13 46.13207 E)

(d) Source A to Whanganui 20 km (WGS 1984: 39 53 14.34932 S, 174 27 08.62846 E)

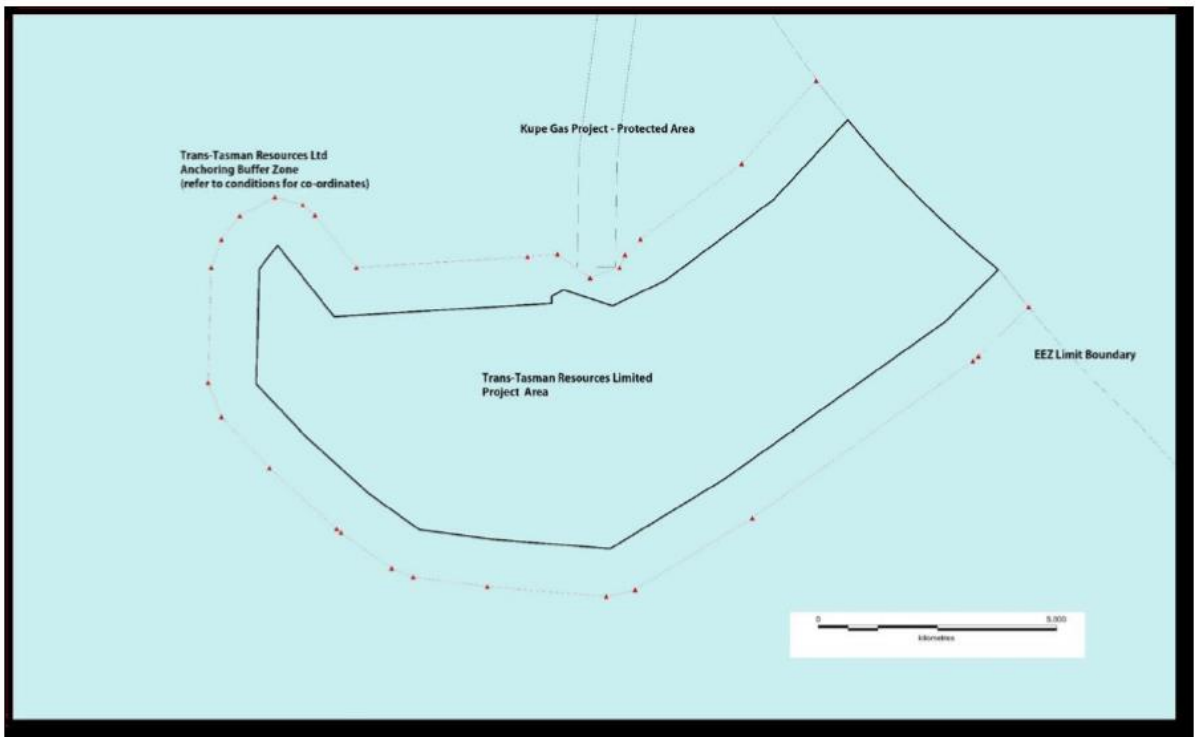
(e) South Traps (WGS 1984: 39 51 53.21010 S, 174 32 48.75387 E)

(f) North Traps (WGS 1984: 39 51 02.22374 S, 174 31 10.63364 E)

(g) Tūteremoana (WGS 1984: 39 55 00.03802 S, 174 47 41.29085 E)

Note 1: This schedule is referred to in condition 7.

SCHEDULE 5 – PLAN OF CONSENTED INTEGRATED MINING VESSEL MOORING AREA BOUNDARY



Note 1: This schedule is referred to in condition 37.

SCHEDULE 6 – MONITORING OF INDICATORS

Schedule 6– Monitoring Of Indicators	
Indicator	**Methods and Locations**
Metals Testing	
To be undertaken on: a. Sediments b. Water column (plume) c. Biological indicators d. Tailings slurry	Testing for: e. Cadmium f. Copper g. Nickel h. Mercury i. Lead j. Chromium k. Zinc l. Tributyltin m. Arsenic n. Antimony o. Manganese p. Selenium q. Iron r. Silver
Biological Indicators for Metals	
Indicator: a. Green lipped mussels	Locations: b. Source A to Whanganui 1km, The Traps
Ecotoxicology	
Indicator: a. Relevant local species (larval and adult stages) to assess lethal and sub-lethal end points	Method: b. Species exposed to dilute-acid extracted metals derived from elutriate tests of the fine fraction of the de-ored sediment, as would be released in the plume
Chronic Ecotoxicity	
Indicator: a. Relevant local species to address potential long terms effects on sensitive life stages	Method: b. Testing of sensitivity to dissolved and particulate nickel and copper
Benthic Fauna	
Indicator: a. All benthic fauna	Method: b. Identified to lowest practicable taxonomic level (genus or species)

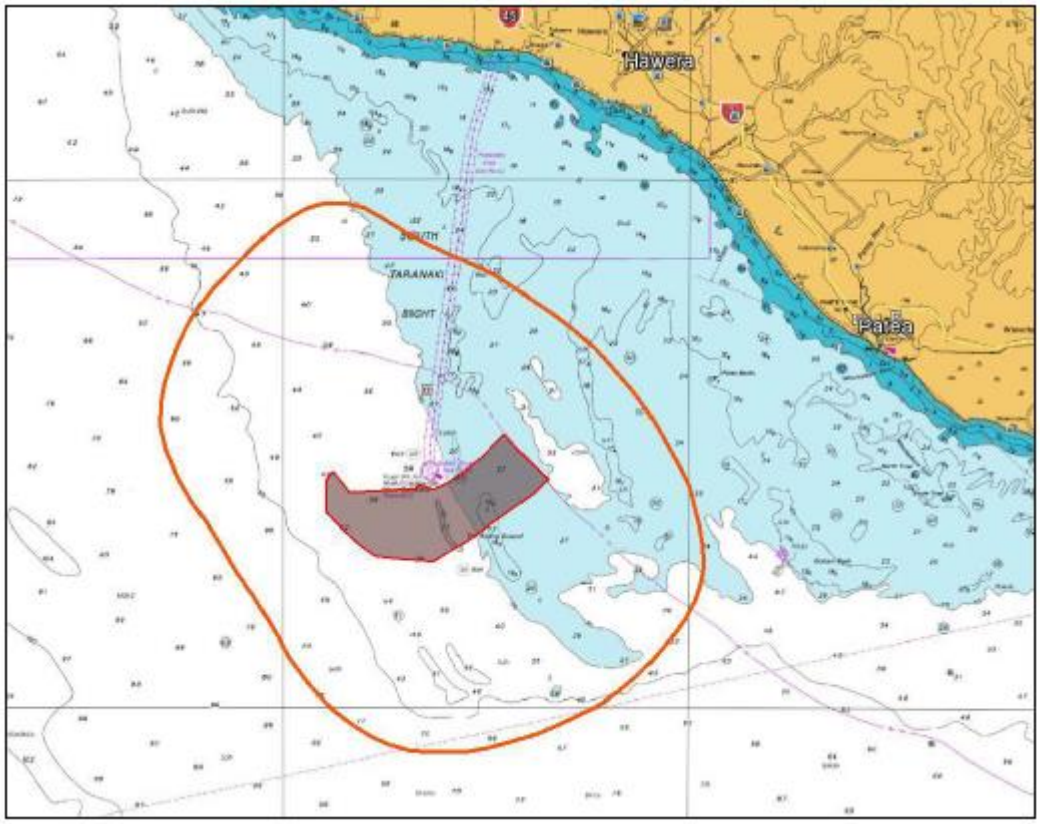
Schedule 6– Monitoring Of Indicators	
Indicator	**Methods and Locations**
Acid Volatile Sulphides	
Indicator:	Method:
a. Bioavailability potential for organisms inhabiting the seabed	b. Sampled from tailings slurry
Metals in Pore Water	
Indicator:	Method:
a. Metals in pore water	b. Analysis as required
Marine Mammal Monitoring	
Indicator:	Method:
a. Vessel strike	b. Post mortem
Fur Seals	
Indicator:	Method:
a. Fur seal distribution	b. Counts from IMV and FPSO
Marine Mammal Acoustic Surveys	
Indicator:	Method:
a. Marine mammal distribution	b. Three acoustic loggers to establish benchmark sound levels. Broad spectrum monitoring. Inclusion of bottlenose dolphin.
Resalinated Water	
Indicator:	Method:
a. Metals in water	b. Six monthly sampling

Schedule 6– Monitoring Of Indicators	
Indicator	**Methods and Locations**
Origin Kupe Assets	
Indicator:	Locations and Method:
a. Migration of mounds and pits	b. Bathymetric surveys, including around the WHP, pipeline, and umbilical route
Biosecurity Monitoring Plan	
Indicator:	Location and Method:
a. Algal blooms and marine pests	b. Surveillance in and surrounding project area. Primary productivity and subtidal benthos monitoring programmes.
Operational Monitoring	
Indicator:	Location and Method:
a. Near-field effects and recovery	b. Six stations within operational area c. Nine stations placed along first strip of mined seabed and monitored for term of consent d. Fifteen stations monitored quarterly, in triplicate

Note 1: This schedule is referred to in conditions 6, 47, 54, 55, 56 and 57.

SCHEDULE 7 – 120 DECIBEL CONTOUR

This map sets the position of the 120 dB contour referred to in Condition 16.



Note 1: This schedule is referred to in conditions 17 and 18.

Note 2: The 120 dB contour is an indicative location based on the combined operation of the IMV and crawler, when operating at the centre of the mining site.