# **Project Martha** Hauraki District Council

Land Use Conditions for landuse consent LUC 202.2018.00000857.001

#### HAURAKI DISTRICT COUNCIL LAND USE CONSENT CONDITIONS

## **GENERAL CONDITIONS**

1. The activities authorised by this consent are those set out in Appendix 1, and within the Project Martha area as defined on the plans entitled 'Plan A: Project Martha Project Area – Mining Area' and 'Plan B: Project Martha – Ancillary Area' in Appendix 2, and shall be undertaken in general accordance with the information contained in the Assessment of Environmental Effects (25 May 2018) and supporting technical documents submitted by OceanaGold New Zealand Limited ("the consent holder") to the Hauraki District Council ("the Council") in support of its resource consent applications for Project Martha, and as subsequently confirmed or modified in further information supplied to the Council in response to requests for further information provided in accordance with Section 92 of the Resource Management Act 1991 ("Act"), and as amended by the conditions below.

This consent authorises a pit generally in accordance with the following dimensions:

- a. Pit area: 51.1 ha;
- b. Pit depth: 275 m;
- c. Total waste rock volume (bcm): 48M;
- d. Total ore processed (tonnes): 31M;
- e. Pit depth consented (mine datum mRL): 875; and
- f. Pit length x breadth: 960 m x 770 m.

In the event of any conflict or discrepancy between the documents noted above and the conditions of this consent, the conditions shall be determinative.

#### Advice Note:

The activities authorised by this consent will rely on the use of existing mining infrastructure in Waihi - including the conveyor and surface mine roads, the processing plant, the water treatment plant, stockpile areas and the tailing storage facilities. This consent does not apply to the use of this infrastructure as they are authorised by other permits and consents held by the consent holder.

- 1A. This consent also enables the use, maintenance and rehabilitation of existing and consented underground mining infrastructure (e.g. for the transportation of material). However, it does not authorise underground mining in these other underground areas as the consent holder already holds a number of permits and consents for these areas, which are:
  - a. Favona: 85.050.326.E (2004);
  - b. Trio: RC-15735 (2012);
  - c. Correnso: #LUSE-202.2012.0000050.001 (2013);
  - d. SUPA: LUSE-202.2016.00000544.001;
  - e. MDDP1: LUSE-202.2017.00000664.001; and

- f. MDDP2: LUSE-202.2018.00000881.001.
- 2. Pursuant to Section 134(1) of the Act, this consent may only be exercised by OceanaGold New Zealand Limited or its successor.
- 3. Pursuant to Section 125(1) of the Act, this consent shall lapse if not given effect to within five years of the date of commencement of this consent.
- 4. Pursuant to Section 123(b) of the Act, this consent is for an unlimited period.
- 5. At least 20 working days prior to the first exercise of this consent, the consent holder shall advise the Council in writing of the date upon which the exercise of this consent is to be physically commenced.
- 6. Any earthworks or remedial works in the buffer zone<sup>\*</sup> of the Martha Pit for pit stability reasons shall only occur with the approval of the Council. All such works shall be carried out in compliance with the provisions of Condition 70 of this consent.
  - \* For the purpose of this condition the buffer zone is that zone provided for the EMMA consent (85.030.009E) updated to reflect the design of the Phase 4 Cutback.

## SCHEDULE ONE

7. The consent holder shall comply with the common conditions between the Council and the Waikato Regional Council in Schedule One as relevant to the management of the mining and rehabilitation activities authorised by this consent.

## HOURS OF WORK

8. Permissible operating hours within the Martha Pit (including the operation of the mobile crusher) and Surface Facilities Area shall be restricted to:

Monday to Friday 0700 – 2100; and Saturday 0700 - 1200

The above hours of work apply provided that operations are only permitted between 1900 and 2100 on Monday - Friday if the operations are of an urgent nature and necessary for the effective carrying out of mining activities and that they comply with the noise limits specified in Condition 22.

Details of operations conducted between 1900 - 2100 on Monday - Friday shall be recorded and made available to the Council on request.

The above hours of work do not apply with respect to the use of water trucks for controlling dust so long as the activity complies with the noise limits specified in Condition 22.

9. Underground mining activities authorised by this consent may be carried out 24 hours per day, seven days per week.

- 10. Vehicle access to, and from, the Martha Underground Mine via the Martha Pit may be carried out 24 hours per day, seven days per week provided the activity complies with the noise limits specified in Condition 22.
- 11. Hauling ore and waste rock between the open pit portals and in pit stockpiles and associated stockpiling and rehandling, and the use of the pit lake filling corridor may be carried out 24 hours per day, seven days per week provided these activities comply with the noise limits specified in Condition 22.
- 12. Ventilation shafts and fresh air / return air portals, and the cement aggregate fill plant, authorised by this consent may be operated 24 hours per day, seven days per week provided these activities comply with the noise limits specified in Conditions 22 and 23.
- 13. Maintenance activities may be carried out 24 hours per day, seven days per week provided this activity complies with the noise limits specified in Conditions 22 and 23.

#### CONSTRUCTION ACTIVITIES

- 14. The construction noise conditions in this consent apply to the following activities authorised as part of this consent:
  - a. All works associated with the construction of the noise bund / fencing;
  - b. The construction of the cement aggregate fill plant;
  - c. The rehabilitation of the Martha Pit;
  - d. The construction of the intake structure, associated infrastructure and pipeline for the pit lake.
  - e. The construction of the outlet and discharge structure for the pit lake; and
  - f. The construction of the limestone addition plant for the pit lake.

#### NOISE

#### **Construction Noise**

15. All construction activities authorised by this consent shall not exceed the following noise limits within the boundary of Waihi Central School during the school term:

Monday – Friday	LAeg	LAFmax
0830 - 1500	55 dB	75 dB

16. At all locations, including the Waihi Central School outside the times specified in Condition 15, all construction activities authorised by this consent shall not exceed the following noise limits:

Monday – Friday	Saturdays	LAeq	L <sub>AFmax</sub>
0630 - 0730		60 dB	75 dB
0730 - 1800	0730 – 1800	75 dB	90 dB
1800 - 2000		70 dB	85 dB

- 17. At all other times, including Sundays and public holidays, the noise level from all construction activities authorised by this consent shall not exceed 40 dB L<sub>Aeq</sub>.
- 18. Construction noise shall be managed, measured and assessed in accordance with New Zealand Standard NZS6803:1999 Acoustics Construction Noise.
- 19. All construction noise shall be measured at any occupied dwelling<sup>\*</sup> not owned by the consent holder or related company, or not subject to an agreement with the consent holder or related company.
  - \* 'Occupied' dwelling means any building or part of a building lawfully used for residential purposes.
- 20. The construction noise limits above shall not apply to any property or site that is:
  - a. Owned by the consent holder or a related company; or
  - b. Owned by a third party which is subject to either a registered covenant or a written agreement (a copy of which is provided to the Council) whereby noise effects on the property caused by activities authorised under this consent are not to be taken into account for monitoring and compliance purposes.
- 21. The consent holder shall prepare a Noise Management Plan for certification by the Council. The objective of the Noise Management Plan is to provide detail on how compliance with Conditions 15 to 18 will be achieved for the duration the construction activities referred to in Condition 14.

As a minimum, the Noise Management Plan shall consider the requirements of Annex E of New Zealand Standard NZS6803:1999 Acoustics – Construction Noise, design limits, complaints procedures and noise monitoring. With respect to noise monitoring, the Noise Management Plan shall record that the company will assess and record representative noise levels on a weekly basis during construction activities and provide a summary report to the Council on a three-monthly basis.

The Noise Management Plan shall be submitted to the Council at least 20 working days prior to the first exercise of this consent. If certification is not provided within 20 working days of Council's receipt of the Noise Management Plan activities authorised by this consent may commence. The Noise Management Plan may be reviewed and amended from time to time, subject to the certification of the Council but not in a manner inconsistent with these conditions.

#### Advice Note:

The Noise Management Plan may be prepared in conjunction with any Noise Management Plans prepared in accordance with the consent or permitted activity performance standards requirements applying to the consent holder's other mines in the Waihi area.

#### **Operational Noise**

22. The noise level (L<sub>Aeq</sub>) around the Martha Pit arising from mining and mining related activities shall not exceed the limits specified below:

Monday – Friday	0700 - 2100	50 dB
Saturday	0700 - 1200	50 dB
All other times		40 dB
Monday - Sunday	2100 - 0700	70 dB L <sub>AF max</sub>

23. The noise level (L<sub>Aeq</sub>) associated with the use of the cement aggregate fill plant, Favona portal and polishing pond stockpiles and the pit lake filling pipeline corridor shall not exceed the limits specified below:

Monday – Friday	0700 - 2100	55 dB
Saturday	0700 - 1200	55 dB
All other times		40 dB

- 24. Operational noise shall be measured in accordance with the provisions of New Zealand Standard NZS6801:2008 Acoustics Measurement of Environmental Sound and assessed in accordance with the provisions of New Zealand Standard NZS 6802:2008 Acoustics Environmental Noise.
- 25. All operational noise shall be measured at any occupied dwelling not owned by the consent holder or related company or not subject to an agreement with the consent holder or related company.
- 26. The operational noise limits shall not apply to any property or site that is:
  - a. Owned by the consent holder or a related company; or
  - b. Owned by a third party which is subject to either a registered covenant or a written agreement (a copy of which is provided to the Council) whereby noise effects on the property caused by activities authorised under this consent are not to be taken into account for monitoring and compliance purposes).
- 26A. The consent holder shall, unless otherwise directed to do so by Council following consultation with the consent holder, provide a summary report to the Council at the end of each three-month period from commencement of work to completion on the following:
  - a. Results of the noise monitoring that is of direct relevance to the Martha Pit; and
  - b. All complaints received during the previous three-month period, action taken by the consent holder and the resolution (if any); and
  - c. Any other matters of concern raised with the consent holder.
- 27. The consent holder shall prepare a Noise Management Plan for certification by the Council. The objective of the Noise Management Plan is to provide detail on how compliance with Conditions 22 to 24 will be achieved for the duration the consent.

With respect to noise monitoring, the Noise Management Plan shall require that the company assess and record representative noise levels at intervals not exceeding six months during mining and related activities and provide a summary report following the completion of each monitoring event.

The Noise Management Plan shall be submitted to the Council at least 20 working days prior to the first exercise of this consent. If certification is not provided within 20 working days of Council's receipt of the Noise Management Plan activities authorised by this consent may commence. The Noise Management Plan may be reviewed and amended from time to time, subject to the certification of the Council but not in a manner inconsistent with these conditions.

#### Advice Note:

The Noise Management Plan may be prepared in conjunction with any Noise Management Plans prepared in accordance with the consent or permitted activity performance standards requirements applying to the consent holder's other mines in the Waihi area.

#### **BLASTING AND VIBRATION**

#### Impulsive Vibration from Blasting

28. Ground Vibration

All blast events shall comply with the vibration levels, number of events and durations specified in Conditions 29 to 33.

29. Impulsive Vibration from Blasting

All blast events shall comply with the limits and standards set out below as measured at the boundary of any residential, low density residential or town centre zoned site that is lawfully used for residential purposes, or the notional boundary of any occupied rural dwelling.

- 30. The standards in Condition 33 shall not apply to any property or site that is:
  - a. Owned by the consent holder or a related company; or
  - b. Owned by a third party which is subject to either a registered covenant or a written agreement (a copy of which is provided to the Council) whereby vibration effects on the property caused by activities authorised under this consent are not to be taken into account for monitoring and compliance purposes.
- 31. Underground Blasting

There shall be no more than three blast events per day, from Monday to Saturday and between 0700 and 2000 (excluding any blasts for maintenance / safety purposes).

No blasting shall be undertaken between 2000 and 0700 the following day (excluding any blasts for maintenance / safety purposes).

Blasts for maintenance / safety purposes can occur at any time and shall not exceed a maximum peak particle velocity of 1.00mm/s.

32. Pit Blasting

Blasting is permitted between the hours of 1000 – 1500 Monday to Friday and 1000 – 1200 Saturday.

No blasting in the Pit shall occur concurrently with underground blasts other than for safety reasons.

The maximum overpressure is 128 dBL for any blast.

#### 33. All Blasting

- a. No blasting shall be undertaken on Sundays or on public holidays (excluding any underground blasts for maintenance / safety purposes).
- b. The peak particle velocity (vector sum) shall be no more than:
  - (i) For development blasts;
    - 5mm/s for 95% of the monitored events
    - 2mm/s on average.
  - (ii) For production blasts;
    - 5mm/s for 95% of the monitored events
    - 3mm/s on average.
  - (iii) For Martha Pit blasts;
    - 5mm/s for 95% of the monitored events
  - (iv) For maintenance/safety blasts;
    - 1.0mm/s for all blast events
- c. Compliance with the 95% and average limits shall be measured over a six-month rolling period.
- d. Compliance with the 95% limit shall be determined separately for development blast events and for production blast events, and based on the highest recorded vibration for each blast event measured at any monitor, where the blast type is assigned on a monitor-by-monitor basis according to the blast with the minimum scaled distance from each monitor.
- e. Compliance with the average limit shall be determined separately for each blast monitor based on the total number of blast events in the six-month rolling period.
- f. For all underground blast events, including those involving a combination of production and development blasts (95% compliance);
  - (i) Production blasts shall have a total duration of not more than 9 seconds;
  - (ii) Development blasts shall have a total duration of not more than 12 seconds;
  - (iii) A combination of production and development blasts shall have a duration of not more than 12 seconds;
  - (iv) Maintenance/safety blasts shall have a total duration of not more than 2 seconds, other than for maintenance to retain tunnels, shafts and accessways in Correnso and SUPA.
- g. No underground blast event shall have a duration of more than 18 seconds.
- h. Duration is to be calculated as the time from the nominal firing time of the first charge to the nominal firing time of the last charge.
- i. A 'Blast Event' is defined as:

'An individual or number of linked individual blasts of not more than the total duration periods specified above.'

j. A 'Development Blast' is defined as:

'Any blast that is used in the creation or enlargement of a tunnel for the purposes of mine construction or access.'

k. A 'Production Blast' is defined as:

'Any blast that is not a development blast (excluding any blast for maintenance / safety purposes)'.

k1. A 'Maintenance / Safety Blast' is defined as:

'Blasts for maintenance / safety purposes includes breaking over-sized rocks, trimming / slashing of backs, walls and floors, firing of mis-fired explosives and removal of bridged stopes.'

I. Prior to the first blast within a radius of 250 m (horizontal or vertical) of the Pumphouse, and every 5 years thereafter unless otherwise agreed by Council, the consent holder shall engage a structural engineer to undertake a survey of and produce a report on the structural integrity of the Cornish Pumphouse with particular emphasis upon changes that are likely to have been caused by blast induced vibrations. Each such report shall be supplied to the Council within 30 working days of its completion. The consent holder shall make good any damage identified in the structural engineer's report referred to above.

#### Advice Note:

There should be no more than three development / production blast events per day from within all of the underground mines operated by the consent holder combined in the area covered by Mining Permit 41808.

#### **Minimisation and Mitigation of Blasting Impacts**

- 34. In addition to complying with the requirements of Condition 28, the consent holder shall minimise, to the extent practicable, the impacts of blasting vibrations on the community. The measures to be applied in this regard shall be set out in the Vibration Management Plan (Condition 46) and will include details of how the following requirements will be achieved where practicable:
  - a. Restrict the duration of blast events to the minimum consistent with safe and efficient mining operations;
  - b. Fire the underground production blasts within the 1330 meal break;
  - c. Fire the three defined daily underground blast windows at shift changes and meal breaks;
  - d. Implement timely blast notification procedures; and
  - e. Report blast event vibration results in a timely manner.

- 34A Prior to the commencement of blasting within the Martha Pit, the consent holder shall conduct a risk assessment, the objective of which is to minimise the risks associated with flyrock having considered all relevant and material factors including but not limited to:
  - a. Proximity of blasting to the pit crest, property and areas with public access;
  - b. Blast design parameters such as stemming length, loading horizon, explosive quantity, explosive density, blast hole inclination, blast orientation and degree of ground fracturing;
  - c. Identification and treatment of any uncharged holes or voids;
  - d. Degree of ground saturation; and
  - e. Potential risk control measures.

The assessment shall be facilitated by a person suitably qualified or experienced in risk assessment. The risk control measures, and the methods and procedures for implementing them, shall be set out in the Vibration Management Plan required under Conditions 46 and 47.

- 35. While blasting is occurring as provided for by this consent, the consent holder shall also continue to implement the Amenity Effects Programme ("AEP") in respect of vibration as set out below, provided that owners and / or tenants who have entered into a separate arrangement with the consent holder and / or have otherwise agreed not to receive the AEP will not be eligible to receive AEP payments under this condition.
- 36. The consent holder shall use the recorded data from the vibration compliance monitoring network to estimate the vibration received at occupied residences from blasting associated with the Martha Pit and the Martha Underground Mine, and shall make payments to the occupiers of those residences in accordance with the table and criteria below:

Vibration Magnitude (mm/s)	Payment Per Blast Event (\$)
≥ 1.5	18.68
≥ 3.5	55.92
≥ 5	186.75
≥ 6	371.69

- 37. The stated payment rates are those existing at 1 January 2018. The rates will be adjusted for the start of each calendar year by the Consumer Price Index (CPI) published by Statistics New Zealand and made publicly available on the consent holder's website.
- 38. An occupied residence (including properties lawfully used for residential purposes in the Town Centre Zone) shall be eligible to receive AEP payments if it receives two or more blast events generating vibration of 1.5 mm/s or greater in any month.
- 39. The AEP does not apply to any unoccupied houses or undeveloped residential property.
- 40. Occupiers of eligible residences shall receive a minimum payment of \$250 per six-monthly period.
- 41. Payments to occupiers of eligible residences shall be calculated six-monthly, and payment made within two months or as soon as practicable thereafter.
- 42. Should AEP payments become taxable, the consent holder shall not be liable for any taxes associated with the payments. Nor shall the consent holder be liable for any future changes to

national superannuation or other benefits as a result of an eligible occupier receiving the AEP payments in accordance with this consent.

- 43. Where blast events provided for under this consent occur simultaneously with blast events at other underground mines operated by the consent holder and set out in Condition 1A above, the consent holder shall ensure that such blast events comply with the maximum ground vibration level limits specified in Condition 33 of this consent.
- 44. For the initial 100 underground blast events of each type, no more than one exceedance of 5mm/s in every 20 consecutive blast events shall be deemed to be compliant with the 95 percent limit stated in Condition 33.

The assessment of compliance with the average limits stated in Condition 33 shall not apply until 100 underground blast events of each type have been fired.

Once 100 underground blast events of each type have been fired, compliance with both the 95 percent and average limits shall be separately assessed for each blast type as per Conditions 33(d) and (e) respectively.

#### **Blasting and Vibration Monitoring**

- 45. Blasting and vibration monitoring shall be managed as follows:
  - a. The consent holder shall monitor impulsive vibration from all blast events associated with the mining activities provided for under this consent;
  - b. The monitoring system shall be automated to allow for the prompt analysis of each blast event;
  - c. Suitably trained personnel shall conduct any monitoring required under this consent, including the installation of roving monitors. Equipment used for monitoring, equipment calibration and vibration measurement procedures shall comply with the current Australian Standard *AS2187.2* (or equivalent international standards) and equipment manufacturers' recommendations;
  - d. Unless otherwise required or confirmed in writing by the Council, the fixed monitoring locations for the Martha Pit, Martha Underground Mine and Rex Orebody shall be those shown in Appendix 3;
  - e. The fixed monitoring locations shall not be on, or inside, a building or structure;
  - f. Pursuant to Condition 45(d), data received from a roving monitor may identify a new or additional permanent monitoring location;
  - g. A roving monitor shall be deployed to record vibrations in locations where complaints regarding vibration have been made in accordance with a procedure specified in the Vibration Management Plan required under Conditions 46 and 47; and
  - h. A complete record of each blast event shall be maintained. The record shall include:
    - (i) Types of measurement instrument used;
    - (ii) Time and duration of blast event;

- (iii) Locations of blasts;
- (iv) Locations of monitoring positions;
- (v) Distances from the blasts to the monitoring position and nearest residence;
- (vi) Measured vibration levels;
- (vii) Total amount of explosive used;
- (viii) Delay sequence of the blast event;
- (ix) Maximum instantaneous charge;
- (x) Volume of rock blasted;
- (xi) Complaints (including the nature of effects, for example rattling window, was the complainant awoken) and whether the vibration mitigation action process has been undertaken (Condition 50); and
- (xii) Design criteria not covered in items (i) to (xi) above.

#### Advice Note:

While this condition relates only to the monitoring of blast vibration associated with the mining activities provided for under this consent, similar conditions apply to all of the consent holder's other mining operations and require the consent holder to monitor blast vibrations from all of its mining activities.

#### Vibration Management Plan

46. The consent holder shall prepare a Vibration Management Plan for certification by the Council. The objective of the Vibration Management Plan is to provide detail on how compliance with Conditions 28 to 54 will be achieved for the duration of this consent. The Vibration Management Plan shall be submitted to the Council at least 30 working days prior to the first blast event authorised by this consent. If certification is not provided within 30 working days of Council's receipt of the Vibration Management Plan blasting authorised by this consent may commence.

The Vibration Management Plan may be reviewed and amended from time to time, subject to the certification of the Council but not in a manner inconsistent with these conditions.

- 47. The Vibration Management Plan shall specifically include the following:
  - a. Measures to be adopted to meet the conditions of this consent to ensure that blast vibrations are minimised to the greatest extent practicable, including:
    - Description of the blast design criteria and blast design review procedures. All blasts shall be designed to a 95-percentile level of confidence to achieve the ground vibration level limits specified in Condition 33;
    - (ii) The numbers, times (generally around shift changeovers), duration of blast events, and in general terms the coordination of blasts into one blast event and steps to minimise the duration of blast events;

- (iii) Procedures to be adopted where vibration levels approach the maximum limits and mitigation actions to be implemented in the event of an exceedance of the ground vibration level limits stated in Condition 33;
- (iv) The methods and procedures to be adopted to enable the separate recording and reporting of development and slot / production blasting;
- (v) The methods and procedures to be adopted for managing and monitoring of overpressure;
- (vi) The methods and procedures identified by the risk assessment required by Condition 34A to be adopted for managing flyrock;
- (vii) The methods and procedures to be adopted in deploying the roving monitor(s), data usage from the roving monitors, procedures for converting a roving monitor location to a fixed monitoring location, and identifying circumstances where vibration monitoring within structures shall be considered. Any monitoring undertaken by roving monitors or within structures is deemed not to be compliance monitoring; and
- (viii) The methods and procedures for identifying and addressing anomalous vibration results recorded at any monitored site, including sites monitored with roving monitors.
- b. The location of fixed monitoring locations to be established in accordance with Condition 45(d); and
- c. Further detail on the Amenity Effects Programme as required under Condition 35;
- d. The properties to be surveyed in accordance with Condition 55; and
- e. Records to be kept, including blast design data.

#### Advice Note:

The Vibration Management Plan may be prepared in conjunction with the Vibration Management Plans prepared in accordance with the consent requirements applying to the consent holder's other mines in the Waihi area.

#### **Management and Reporting**

48. Throughout the period of mining the Rex Orebody as authorised under this consent, the consent holder shall prepare a two-dimensional plan at the start of each calendar month showing the existing mining and the proposed areas of mining activities during that month. The plan shall be loaded onto a page of the consent holder's website. A downloadable pdf version of the plan shall be available from the website and hard copies shall also be available for collection from the Waihi Information Centre and the Council's Waihi Service Centre, and on request.

The consent holder shall use its best endeavours to restrict its blasting to the work areas defined on the plan recognising that operational constraints prevail and may lead to deviations from the plan during the course of the month.

49. No blasting operations shall be carried out without the written approval of the Mine Manager. Before blasting commences, the Mine Manager shall ensure that the operations will not cause danger, damage or undue discomfort to any person nor danger and damage to property.

- 50. In the event that blast monitoring shows that the vibration standards have been exceeded, the consent holder shall implement mitigation actions to ensure compliance. Possible mitigation actions include, but are not limited to:
  - a. Limiting the rate of excavation advance;
  - b. Reducing the blast hole diameter;
  - c. Reducing the weight of explosive in the blast hole;
  - d. Using alternative explosive types;
  - e. Using electronic delays to adjust sequencing;
  - f. Decking;
  - g. Changing the blast pattern;
  - h. Drilling and blasting in two passes; and
  - i. Changing the method of mining.
- 51. The consent holder shall provide a report to Council for each blast event where the measured vibration exceeds the applicable peak particle velocity specified in Condition 33. The report shall be submitted within five working days after the blast event and include the records listed in Condition 45(h) above and mitigation actions taken to limit subsequent blast vibrations to the maximum limits or less as generally outlined in Condition 50.
- 52. The consent holder shall, prior to the first development blast event pursuant to this consent, establish a page on its website that will show the recorded vibration magnitude for the last ten blast events for each of the compliance monitors required under Condition 45(d). The results of the most recent blast event will:
  - a. Be posted on the consent holder's webpage as soon as practicable after the occurrence of that blast event; and
  - b. Remain provisional until they are verified.
- 53. The consent holder shall provide a summary report to Council at three-monthly intervals after the first exercise of this consent. The report shall include the following:
  - a. Confirmation of actions (including all blasts for maintenance / safety purposes) taken during the previous reporting period;
  - b. All vibration related complaints received during the current reporting period and mitigation actions taken by the consent holder;
  - c. Results of vibration monitoring separately for underground maintenance/safety, development and production blasts, and for Martha Pit blasts; and
  - d. All roving monitor data results recorded during the quarter.

54. Monitoring records, reports and complaint schedules shall be stored securely and maintained in a systematic manner for 12 months after completion of all blasting at the underground mine. Records shall be available for perusal by Council and its representatives on request.

#### **Property Damage**

- 55. Before blasting associated with the Rex Orebody of the Martha Underground Mine commences, and provided the property owner consents, the consent holder shall:
  - a. Undertake a BRANZ survey for each building (excluding out buildings and garages) in accordance with the Project Martha Property Policy as on the consent holder's website as at 19 October 2018;
  - b. Complete a structural condition survey for at least five representative properties (excluding properties owned by the consent holder at that time). The representative properties are to be located in the vicinity of the vibration monitors required under Condition 45(d); and
  - c. In addition to these properties, structural condition surveys shall be carried out at 'control' properties removed from the influence of any potential vibration effects from mining.

The survey properties shall be identified in the Vibration Management Plan (Conditions 46 and 47).

The surveys shall be carried out by an independent structural engineer suitably qualified and experienced in domestic building design and construction. The survey reports shall include a visual inspection and video of all existing built surfaces and defects including concrete accessways.

56. Upon receipt of a complaint of property damage suspected by the property owner to be caused from activities authorised by this consent, an appropriately qualified staff member of the consent holder shall investigate and respond to the complaint within five business days or as soon thereafter as practicable unless the matter is considered urgent.

If the property owner does not agree with advice from the consent holder's representative the consent holder may, or if the cause of the damage is unclear the consent holder shall, engage an appropriately qualified independent third party to investigate and report to both the property owner and consent holder. The consent holder shall request that report to be available in 30 days unless considered urgent by the independent third party in which case the report shall be made available as soon as practicable. If the property owner does not agree with the advice or the consent holder does not engage a third party then the property owner may contact the Council, and if the Council determines, after investigation, that a third-party investigation is warranted then the consent holder shall commission and meet the reasonable costs of that investigation.

If the advice of the independent third party or the consent holder's representative determines that the cause of the damage is attributable to the activities authorised by this consent, then the consent holder will remedy the damage at its cost as soon as practicable in accordance with any recommendation by the consent holder's representative or by the third party and to the reasonable satisfaction of the property owner.

If any dispute arises in accordance with this condition, then the matter shall be referred to arbitration in accordance with the provisions of the Arbitration Act 1996. An arbitrator shall be appointed by the President of the Institute of Professional Engineers in New Zealand. The arbitrator shall give their determination within 30 working days of their appointment, unless the consent holder and the property owner agree that time shall be extended. In all other respects,

the provisions of the Arbitration Act 1996 shall apply. If the property owner chooses not to participate in the binding arbitration, then the consent holder's obligations under this condition are at an end.

#### FENCING

- 57. The consent holder shall provide and maintain a secure fence around the Martha Pit and the Surface Facilities Area, and any other area required for public safety purposes.
- 58. On the completion of mining activities authorised by this consent, the consent holder shall provide a secure fence around the Martha Pit / pit lake and any other areas previously subjected to mining activities that require fencing for public safety purposes in accordance with the final Rehabilitation and Closure Plan (which will detail where fencing is required at the completion of mining activities).

## LIGHTING

59. Any night lighting established in the Martha Pit shall be installed, designed and located and shaded in order that the level of lighting measured at the boundary of any site not owned by the consent holder or related company, or not subject to an agreement with the consent holder or related company, is no greater than 8.0 lux.

## LANDSCAPE MITIGATION

- 60. The consent holder shall prepare and implement a maintenance programme for the removal of invasive exotic trees, plants and seedlings in areas surrounding the Martha Pit. The maintenance programme shall be documented in the Rehabilitation and Closure Plan required in accordance with Condition 24 of Schedule One.
- 61. Prior to the first exercise of this consent, the consent holder shall submit a landscape plan that is in general accordance with the landscape mitigation concept plan included with the Landscape Mitigation Plan prepared by Boffa Miskell Ltd and contained within Appendix D of the Assessment of Environmental Effects (25 May 2018) for Project Martha to the Council for certification. The landscape plan shall detail the following:
  - a. The trees and plants to be removed as part of the activities in, and around, the Martha Pit that are authorised as part of this consent;
  - b. The relocation of the pit rim walkway between Miners Place and Cambridge Road;
  - c. The measures to ensure all disturbed areas outside the operational mine are planted to soften changes in landform and complement adjoining areas of vegetation;
  - d. The measures to ensure the water intake and outlet tunnel structures minimise disturbance along the Ohinemuri River and Mangatoetoe Stream respectively, and soften any necessary built elements with planting which appears integrated within adjoining riparian areas;
  - e. Indicate the species, size and number of proposed plants within identified planting areas; and
  - f. Outline maintenance and replacement requirements for the first three years following establishment to promote plant survival.

The landscape plan required in accordance with this condition may be part of the Rehabilitation and Closure Plan required in Condition 24 of Schedule One, and shall be implemented within the first available planting season following completion of the relevant works and maintained in accordance with the requirements of the plan.

#### CONSTRUCTION MANAGEMENT PLAN

- 62. 20 working days prior to commencing construction activities associated with the noise bund (including its reworking) and the pit rim walkway, the consent holder shall prepare and submit a Construction Management Plan for certification by the Council. If certification is not provided within 20 working days of Council's receipt of the Construction Management Plan construction activities authorised by this consent may commence.
- 63. The Construction Management Plan shall indicate:
  - a. Activities to be carried out, including their sequence and duration. A discussion on construction and removal methods considered shall be provided (including the establishment of laydown areas);
  - b. Plant and equipment proposed to be used;
  - c. The management of construction traffic;
  - d. The measures proposed to control sedimentation and erosion in accordance with the requirements of the Waikato Regional Council's "Erosion and Sediment Control Guidelines for Soil Disturbing Activities, dated January 2009";
  - e. Any activities likely to be undertaken on land beyond the ownership or control of the consent holder, the duration of such activities, and proposed measures to mitigate adverse effects that might be experienced by the general public and/or adjacent residents as a consequence of these activities;
  - f. Proposals with respect to the removal or demolition of existing houses lying within or adjacent to the proposed noise bund (construction proposals only); and
  - g. Proposed measures to mitigate potential adverse effects (in particular noise, dust and traffic generation) occurring as a consequence of construction and removal activities, in particular measures aimed at safeguarding adjacent residential amenity.

#### Advice Note:

The consent holder should ensure that the Construction Management Plan developed for this consent is not inconsistent with that developed for the subdivision consent SUBD-201.2018.00000857.001.

- 64. The Liaison Officer shall ensure that the programme of construction and reworking the noise bunds is provided to all residents in the immediate area surrounding the bund who, in their opinion, are likely to experience the effects of these activities and to the Council. This programme shall be provided at least five working days in advance of the construction or reworking of the noise bund being undertaken.
- 65. Non-acid forming material shall be used in the construction of the noise bund to ensure that no leaching occurs during, or after, construction of the noise bund.

#### RIVER INTAKE AND LAKE OUTLET CONSTRUCTION

66. Prior to commencing construction of the water intake and lake outlet structures and infrastructure, the consent holder shall prepare a detailed construction / design report and management plan for certification by the Council.

#### Advice Note:

The consent holder will also need to comply with the conditions of Consents AUTH139551.09.01 and AUTH139551.10.01 from the Waikato Regional Council with respect to the construction of the river intake and lake outlet structures.

- 67. The construction / design report and management plan shall indicate the main construction activities to be undertaken, materials to be delivered to the construction area, materials to be removed from the construction area, duration and timing of earthworks and construction of structures, and proposals concerning the rehabilitation of areas disturbed during construction.
- 68. The Liaison Officer shall ensure that the programme of construction of the water intake and lake outlet structures is provided to all residents in the immediate area who, in their opinion, are likely to experience the effects of these activities and to the Council. This programme shall be provided at least five working days in advance of the construction work being undertaken.
- 69. The construction of the lake outlet structures shall be carried out and completed to the satisfaction of the Group Manager Planning and Environmental Services.

#### PIT SLOPE MANAGEMENT PLAN

- 70. The consent holder shall prepare a Pit Slope Management Plan. This plan shall be peer reviewed by the Peer Review Panel (required in accordance with Condition 13 of Schedule One) and submitted to Council for certification 30 working days prior to the exercise of this consent. If certification is not provided within 30 working days of Council's receipt of the Pit Slope Management Plan activities authorised by this consent may commence. The Pit Slope Management Plan shall address at least the following issues:
  - a. Procedures for the investigation, monitoring, excavation and backfilling of old mine stopes where practical and safe to undertake within 30 m below the toe of the Phase 4 Cutback;
  - b. Development of a monitoring regime focused on monitoring groundwater and pit slope behaviour, including pit wall movement due to underground mining;
  - c. Location and installation of horizontal drains for the purposes of addressing groundwater and surface water effects;
  - d. The identification of areas around the Martha Pit that may be subject to ground deformation and associated structures / facilities that may be at risk; and
  - e. Development of a contingency response appropriate to these facilities / structures in the event of instability including restoring these facilities to their former condition, the provision for interim structures / facilities or alternative structures / facilities in the event they are affected by the mining activities authorised by this consent.

#### UNDERGROUND AND SURFACE STABILITY

- 71. Underground mining within the Martha Underground Mine shall be conducted to ensure ground surface stability. This shall include adoption of the following measures:
  - a. Mining methods shall be restricted to those that require stope voids created or enlarged as a result of this consent to be backfilled;
  - b. Historical open voids formed from caving or stoping shall be identified to be backfilled to ensure that these do not cause localised disturbance or displacement as a result of interaction with future stoping. This is to ensure short term and long-term stability;
  - c. No stoping in the Rex Orebody shall occur above a depth of at least 40m below the top of the andesite, unless investigations reported to the Council demonstrate to its satisfaction that a lesser depth will ensure surface stability. Any such investigation report is to include, at least, results from groundwater monitoring above the Rex workings, results from extensometers installed from the surface above the Rex workings, and surface settlement results from markers in the area above the Rex Orebody;
  - d. No stoping shall occur within 20 m of the mapped extent of the Milking Cow Zone. This three dimensional zone is held within the consent holder's geological model and shown schematically as Appendix 4;
  - e. Backfilling of any other underground workings that overlap with the Martha Underground Mine where geotechnical conditions require backfilling to ensure long-term stability;
  - f. Seismic monitoring and rock movement monitoring of underground mine workings for the duration of mining including backfilling and any other underground rehabilitation work to include at least the monitoring of three extensometers to be installed from the surface above the Rex Orebody where practicable; and
  - g. Grouting of all future surface-drilled holes to a depth below the top of the andesite.
- 72. 30 working days prior to the commencement of any underground mining authorised by this consent, the consent holder shall provide to the Council for certification a Void Management Plan. If certification is not provided within 30 working days of Council's receipt of the Void Management Plan activities authorised by this consent may commence.

The objective of the Void Management Plan is to confirm the location and shape of old unfilled and filled mine voids, and to identify the risks and controls required to ensure ground surface stability. The plan will include, but will not be limited to:

- a. Proposed remnant mining methods;
- b. The procedures / methods for the backfilling of stope voids (including historic stopes);
- c. Modelling;
- d. Probe drilling;
- e. Monitoring and operating procedures;
- f. Specifications for construction and placement of stope pillars where required;

- g. The conducting of sufficient investigations to develop an adequate understanding of the ground conditions, and verify the location, status and extent of historical mine workings; and
- h. Reviewing the information from the investigations and adjust the mine design and stope design to ensure that there is a high level of confidence that the stopes will be stable prior to backfilling and in the long term.

The consent holder shall review and update the plan as necessary including whenever there is any change in the methods or procedures used for void detection monitoring or operating procedures and shall provide the updated plan to the council for certification.

- 73. The Void Management Plan shall include a procedure describing preventative and mitigation actions that would be implemented to ensure that the mining in the Rex Orebody does not drain the strata overlying the andesite via existing drill holes and structures. Preventative and mitigation actions may include:
  - a. Avoiding intercepting the drill holes with mine workings;
  - b. Grouting drill holes from underground where underground development intercepts holes into which water flows or geotechnical defects with significant and sustained water flows; and
  - c. Undertaking geotechnical investigations to demonstrate to the satisfaction of Council that draining of the drill hole(s) will not adversely affect surface stability.
- 74. The consent holder shall provide to the Council on an annual basis (within one month of an agreed anniversary date) a report:
  - a. Describing the location, depth height and volume (m<sup>3</sup>) of stopes and a summary of the data required by Condition 75 regarding unfilled stope voids; and
  - b. Describing the lengths of the development that, due to the encountered geotechnical conditions or where multiple levels overlap, will require backfilling prior to mine closure; and
  - c. Describing the backfilling associated with each stope; and
  - d. Describing the ground conditions revealed by the mine excavations; and
  - e. Describing the monitoring and measures adopted to ensure surface stability, particularly as provided for in Condition 71 and the outcomes of such measures; and
  - f. Describing the location and depth of exploratory drives; and
  - g. Confirming that the extent of the mining works is confined to the Project Martha area as defined in Plan A of Appendix 2.
- 75. The consent holder shall report to the Council on a monthly basis on the total stope volume and volume of filled stopes for that month for each mining method employed. This shall include the volume of voids created, the volume of fill in voids that have been created and the volume of fill in surveyed unfilled historic voids (including the volume of fill up to 30 m below the toe of the Phase 4 Cutback). The report shall be in a form acceptable to the Council and the data shall be for the

situation as at the 20th day of the reporting month. The report shall be delivered no later than 10 working days after the end of the calendar month covered.

The consent holder shall report to the Council on a monthly basis detailing any anomalous results from the seismic monitoring and rock movement monitoring required by Condition 71. The report shall also report against the stand-off distances specified within the Void Management Plan required by Condition 72 (where applicable). The report shall be delivered no later than 10 working days after the end of the calendar month covered.

#### HAZARDOUS SUBSTANCES MANAGEMENT

76. All hazardous substances are to be stored in approved and bunded containment in accordance with the relevant New Zealand Standards and Codes of Practice and the Hazardous Substances and New Organisms Act 1996 and Regulations. A Hazardous Substances Use and Management Plan setting out details of the substances used / stored, containment measures, risk management and emergency response approach shall be submitted to the Council for certification prior to the use of any hazardous substances depot(s) authorised as part of this consent.

#### SOCIAL IMPACTS MANAGEMENT PLAN

- 77 Prior to the first exercise of this consent, the consent holder shall engage a suitably qualified and independent social impact specialist, whose brief and appointment shall be agreed with the Council, to prepare a Social Impact Management Plan ("SIMP"). The SIMP shall be submitted to the Council for certification within three months of the notice given under Condition 5 or as otherwise approved in writing by the Council.
- 78 The purpose of the SIMP shall be to provide an updateable framework to identify, assess, monitor, manage and re-assess the social effects (positive and negative) of the Martha Pit and Martha Underground Mine, in combination with the other mining projects undertaken by the consent holder in the area, on the community and to also provide an annual report on the outcomes of this work.
- 79 The SIMP will be based on best practice guidelines and procedures for social impact assessment and shall include a set of indicators covering the drivers and outcomes of potential social effects attributable to mining activities authorised as part of this consent in combination with the other mining projects undertaken by the consent holder in Waihi. This may include:
  - a. Numbers employed in the mine operations OGNZL and contractors ("workers");
  - b. Location of mine workers (i.e. number of workers residing locally Waihi / Waihi Ward / Waihi Beach) regionally and beyond;
  - c. Workers' housing (rental vs owner occupied, new builds and existing houses);
  - d. Location and number of OGNZL owned houses in Waihi and breakdown between employee / contractor / renters and public renters;
  - e. Changes in housing market house and rent prices and relationship to mine operations, including variations or trends in property sales and enquiries;
  - f. Relationship of mine operations to any impacts on local services (i.e. education, health, vulnerable member of the community);

- g. Relationship of mine operations to any impacts on emergency services (i.e. fire, civil defence, ambulance);
- h. Changes in participation of voluntary and recreational groups;
- i. Changes in local business activity arising from mining activity;
- j. Take up of the consent holder's property purchases and top up policy\*;
- k. Distribution and use of the Amenity Effects Programme; and
- I. Complaints and associated information received by the consent holder and the response to those complaints.

\*The consent holder's property purchases and top up policy (the Project Martha Property Policy) is as per the consent holder's website at 19 October 2018.

- 80 The consent holder shall engage a social impact assessment specialist, agreed with the Council, to prepare a report on a bi-annual basis on the monitoring results, analysis of those results, and management of effects outlined in the SIMP. The report will also include any recommendation on changes to the agreed indicators. The report shall be provided to the Council and made publicly available.
- 81 In the event that the social impact assessment specialist identifies a significant adverse trend in the indicators measured in the SIMP, that are the result of the consent holder's mining activities authorised by this consent, the consent holder shall undertake appropriate mitigation action and shall report to the Council on any appropriate mitigation actions it has taken in response to the trend. For the avoidance of doubt, the effect of cessation or suspension of mining activities authorised by this consent will not be considered when assessing adverse trends.
- 82 The SIMP may be reviewed over the life of the mining activities authorised by this consent, but shall be reviewed at a minimum of every five years from its certification by the Council.
- 83 The consent holder shall consult with the Council and with key stakeholders identified in the SIMP in undertaking the review of the SIMP, and the reviewed SIMP shall be certified by the Council before it is implemented.

#### Advice Note:

The SIMP referred to in the above conditions can be an extension of that required under the Correnso consent conditions and if so, the requirements of Condition 77 are considered to have already been met.

## PROPERTY PROGRAMME

- 84 At least three months prior to the placement of the first explosives for any blasts immediately beneath any part of the legal title to a residential property overlying stopes or a spiral decline for any mining of the Rex Orebody provided for under this consent, the consent holder shall offer to:
  - a. Purchase that property from the registered proprietor at market value. This offer shall be set by reference to the two independent valuations required by Condition 90; or

b. If the registered proprietor prefers, to provide an ex gratia payment equal to 5% of the property's market value to the registered proprietor.

For the purpose of Conditions 84 to 98 "Residential Property" means a property that has a residential dwelling constructed on it.

85 Prior to the placement of the first explosives for any development blasts immediately beneath any part of the legal title to a residential property for any mining of the Rex Orebody provided for under this consent, the consent holder shall offer to provide an ex gratia payment equal to 5% of the property's market value to the registered proprietor of that title.

The location of any mining operation, and in particular whether any obligation under Condition 84 or 85 has been triggered, shall be determined by reference to the plan of existing and proposed operations required under Condition 48.

- 86 If the consent holder's offer under Conditions 84 or 85 is not accepted, but the registered proprietor wishes to negotiate, the consent holder shall offer to commit to a binding arbitration process in relation to the property purchase or ex gratia payment referred to above (whichever is applicable), provided that the basis for determining the ex gratia payment is not amenable to further negotiation.
- The arbitration process, which can be initiated by either party by written notice to the other party, shall be in accordance with the provisions of the Arbitration Act 1996. If the parties cannot agree upon an arbitrator within a week of receiving the written notice, then an arbitrator shall be appointed by the President of the Property Institute of New Zealand. Such arbitrator shall give an award in writing within 30 days after his or her appointment, unless the consent holder and the registered proprietor agree that time shall be extended. The consent holder shall bear the reasonable costs of the arbitrator and the venue. In all other respects, the provisions of the Arbitration Act 1996 shall apply. If the registered proprietor does not wish to enter into that binding process, then the consent holder's obligations under Conditions 84 and 85 are at an end. For the avoidance of doubt, provided that the consent holder has made the offer in Conditions 84 or 85, there is nothing that prevents the consent holder from commencing mining activities beneath that residential property.
- 88 Only one offer under each or either Conditions 84 or 85 need be made for any relevant property in order for the conditions to be satisfied.
- 89 For the purpose of this consent, "market value" is the value determined by a registered valuer at the time of making the valuation, ignoring the announcement of, and the existence / operation of Project Martha but including sales data from outside Waihi if appropriate, and any other relevant information.
- 90 The market valuation required by Conditions 84 and 85 shall be undertaken by two independent registered valuers paid for by the consent holder, one of whom shall be selected by the consent holder and the registered proprietor shall be given the option of selecting another valuer.
- 91 A registered proprietor electing to sell their property under the terms of Condition 84(a) shall receive the following additional payments as part of the payment on settlement of the transaction:
  - a. \$1,570 to assist with legal costs;
  - b. \$3,130 to assist with moving costs; and

c. \$15,660 as an inconvenience payment.

The above payments apply from 1 January 2018. They shall be adjusted annually by the Consumer Price Index (CPI) published by Statistics New Zealand.

- 92 Upon receipt of a confirming letter from a registered proprietor's bank or other financial institution, the consent holder shall reimburse a registered proprietor electing to sell their property under the terms of Condition 84(a) for any penalty interest charged for breaking a fixed mortgage associated with that property. For the avoidance of doubt, the consent holder need not reimburse the registered proprietor where the mortgage is cancelled or transferred to a new property without a penalty being charged.
- 93 A registered proprietor electing to sell their property under the terms of Condition 84(a) can choose to remain in that property and pay rent at a reduced rate in lieu of receiving the AEP.
- A recipient of an ex gratia payment made under Condition 84(b) has the right to require the consent holder to purchase the property at any time during the mining activities provided for under this consent under the same terms provided for in Condition 84(a), including receiving the payments specified in Condition 91, except that the ex gratia payment shall be deducted from the market value.
- 95 A recipient of an ex gratia payment made under Conditions 84(b) or 85 shall be eligible for the AEP pursuant to Condition 36.
- 96 The processes described in Conditions 84 and 85 shall be managed by an independent third party engaged and funded by the consent holder.
- 97 Conditions 84 to 96 do not apply if the consent holder and the landowner have entered into a separate agreement that constitutes an agreement for the purposes of these conditions.
- 98 At the commencement of this consent, and annually thereafter until all offers required under Conditions 84 and 85 have been made, the consent holder shall provide a report to Council on the offers made.

#### COMMUNITY MEETING

99 Following the first exercise of this consent (i.e. upon the consent holder giving notice under Condition 5), the consent holder shall hold a consultation meeting open to the public. The meeting shall be called quarterly during the first year of mining activities provided for under this consent, and six-monthly thereafter.

The meeting shall be chaired by an independent chairperson, whom will be paid for by the consent holder and approved by the Council. The purpose of the meeting shall be to:

- a. Present information from the preceding six months on the following:
  - i. A description of the mining activities provided for under this consent that have been undertaken;
  - ii. A summary of relevant environmental monitoring results; and
  - iii. Progress on any matters raised at the preceding meeting;

b. Receive feedback from the meeting attendees on the consent holder's activities and progress on the matters listed above.

## TRANSPORT

100 At least two months prior to the commencement of haulage of aggregate for the manufacture of cement aggregate fill for backfilling the Martha Underground Mine, the consent holder shall engage a suitably qualified road maintenance engineer to prepare a programme to record the condition of the existing road pavement, and the bridge, on Baxter Road. This programme shall be submitted to the Council for approval before the assessment is conducted. The inspection and recording of the road pavement condition, and bridge condition, shall be undertaken in consultation with the Council's Transportation Manager.

The road pavement condition rating shall be used as the baseline (including vehicle counts) for assessing the works required during the period in which mining activities authorised by this consent are occurring, to return the road pavement to at least its standard / condition prior to the commencement of the aggregate / backfill haulage activity.

- 101 The consent holder shall in conjunction with a Council representative undertake an annual road pavement inspection of Baxter Road during the period that the road is used for the aggregate / backfill haulage activity.
- 102 The consent holder shall reimburse the Council for the cost of the road pavement maintenance (potholes / surface rutting etc) caused by the cartage of aggregate and backfill material along Baxter Road during the period in which mining activities authorised by this consent are occurring. The maintenance cost will be calculated on a pro-rata basis against the baseline heavy vehicle traffic volumes and taking into account any financial assistance received by Council for maintenance.

#### Advice Note:

The Council will invoice the consent holder for any maintenance costs annually in arrears commencing one year from the receipt of the pre-commencement road pavement condition survey by the Council.

- 103 At the completion of the aggregate / backfill haulage activity associated with this consent, the consent holder shall return Baxter Road to the agreed road pavement condition as identified in the road pavement condition survey carried out in accordance with Condition 100 of this consent at the consent holder's expense and to the satisfaction of the Council, where not otherwise reimbursed in accordance with Condition 102.
- 104 If the aggregate / backfill material required for the Martha Underground Mine is not sourced from the Waitawheta Quarry on McLean Road or should vehicles longer than 11 m be used for the transport of aggregate/backfill material from the Waitawheta Quarry, the Council shall be advised at least one month prior to the commencement of the aggregate / backfill haulage activity of the location of the source of the material, the expected haulage routes and the authorisations being relied upon for the haulage of the aggregate.

#### Advice Note:

Conditions 105 to 109 relate to the intersections of State Highway 2 with Baxter and Crean Roads. The proximity and configuration of these intersections make them unsuitable for heavy vehicles with a tracking curve wider than a 11 m long rigid heavy vehicle (e.g. multi-unit) to manoeuvre safely between the two. The conditions do not apply to travel utilising only one or the other of the intersections but rather utilising both (i.e. exiting Crean Road and turning directly into Baxter Road, and vice versa).

- 105 No heavy vehicles associated with the Martha Underground Mine that are larger than a 11 m long rigid heavy vehicle shall travel via Baxter Road, State Highway 2 and Crean Road (in either direction) prior to the intersections being upgraded in accordance with Condition 106.
- 106 Where necessary, the consent holder shall upgrade the intersections of State Highway 2 with Baxter Road and Crean Road (at its cost) prior to the first use of these intersections by heavy vehicles larger than a 11 m long rigid heavy vehicle associated with the Martha Underground Mine. The intersections shall be designed to accommodate the largest heavy vehicle configuration proposed to be utilised; the design shall be in accordance with the requirements of the relevant standards set out in the New Zealand Transport Agency's Register Network Standards and Guidelines ISBN 978-0-458-3821 (Online), and submitted to Hauraki District Council for certification together with evidence to demonstrate that the requirements of the road controlling authorities have been met.

#### Advice Note:

It is recognised that the New Zealand Transport Agency intends to upgrade State Highway 2 between Waihi and Omokoroa as part of its safe roads programme. As such, the exact scope of upgrade works required to the intersection of State Highway 2 with Baxter Road and Crean Road in order to accommodate heavy vehicles associated with the haulage of aggregate for the manufacture of cement aggregate fill for backfilling the Martha Underground Mine will be dependent on the completion of the upgrade works proposed by the New Zealand Transport Agency as part of its safe roads programme.

- 107 The design of the proposed upgrade of the intersection of State Highway 2 with Baxter Road and Crean Road shall be subject to an independent design safety audit and post construction safety audit. The audits are to be carried out by safety auditors experienced in highway intersection design, appointed in consultation with the New Zealand Transport Agency. Any changes recommended as a result of the safety audits, including design changes and post construction changes, shall be agreed with Hauraki District Council in consultation with the New Zealand Transport Agency.
- 108 No heavy vehicles associated with the Martha Underground Mine that exceed one or more of the dimensions of the largest heavy vehicle configuration the intersection has been designed to accommodate in accordance with Condition 106 shall travel via Baxter Road, State Highway 2 and Crean Road (in either direction) following the intersection being upgraded in accordance with Condition 105.
- 109 The consent holder shall submit a Traffic Management Plan for the haulage of aggregate for the manufacture of cement aggregate fill for backfilling the Martha Underground Mine to the Hauraki District Council for certification at least 30 working days prior to the haulage of aggregate first occurring. If certification is not provided within 30 working days of Council's receipt of the Traffic Management Plan the hauling of aggregate material authorised by this consent may commence. The Traffic Management Plan shall provide details of at least the following:
  - a. Imported material source locations;
  - b. Heavy vehicle transport routes;
  - c. Daily and peak hour traffic volumes;
  - d. Driver inductions;
  - e. Maximum size vehicles to be utilised;

- f. Measures to managed peak departure traffic to minimise loss of service; and
- g. Process for review of the Traffic Management Plan.
- 110 The consent holder shall maintain a log at the Baxter Rd Mine Access Gate for the duration of this consent, which records details on the following vehicle movements associated with the import of aggregate for the manufacture of Cement Aggregate Fill:
  - a. Date;
  - b. Registration number of vehicle;
  - c. Entrance or Departure;
  - d. The time of Entrance or Departure; and
  - e. Identification of load carried.
- 111 The consent holder shall make the log required by Condition 110 available to the Hauraki District Council, in a digital spreadsheet format, within ten working days of a request being received.

## HERITAGE FEATURES

- 112 The consent holder shall maintain a representative photographic record of any potential pre-1900 workings encountered as part of the mining activities authorised by this consent, and should also seek to retrieve items from the historic workings that might be useful for displays and interpretation, subject to the safety of staff and the mining activities being undertaken.
- 113 Prior to mining into pre-1900 workings, the consent holder shall undertake laser scanning to identify the extent of the old workings in order to aid in understanding of early mining activities in Waihi.

#### **REMOVAL OF TRAMP MATERIAL**

- 114 The consent holder may remove up to a maximum of six truck loads (i.e. 12 truck movements) on any one day of tramp material from the Martha Pit to the existing recycling depot on Baxter Road, for either recycling or controlled burning or other authorised disposal.
- 115 The consent holder shall maintain screen planting at the existing recycling depot, together with a vehicle parking and manoeuvring area to an all-weather metalled standard.
- 116 Where necessary, due to weather conditions or otherwise, all vehicles carrying tramp material from the mine shall pass through a wheel wash at the mine before entering onto a public road.
- 117 The recycling depot shall not operate outside the hours of 0700 to 2000 on any day.
- 118 Only one sign may be erected on the recycling depot site and shall not exceed 1.5 m<sup>2</sup>.
- 119 The consent holder shall retain a record of each truck load of tramp material carried and these records are to be made available for inspection by the Council upon request.

120 The recycling depot shall be bunded to divert all stormwater on the site into a containment pond. The bund and pond are to be constructed and maintained to the satisfaction of the Council's Manager of Planning and Environmental Services.

#### SCOUT HALL

121 The First Waihi Scout Group Hall shall be relocated from its current site to a site on the reserve at the eastern end of the pit lake. The location of the building, the vehicular access, carparking, earthworks, and landscaping shall be subject to Council approval following receipt of appropriate plans and reports.

## ADMINISTRATIVE CHARGES

122 The consent holder shall pay to the Council all actual and reasonable charges arising from the monitoring of the conditions of this consent and any other administrative charges fixed in accordance with Section 36 of the Act, or any charge prescribed in accordance with regulations made under Section 360 of the Act.

## **REVIEW OF CONDITIONS**

- Pursuant to Section 128(1)(a)(i) and (iii) of the Act, the Council may, 12 months from the commencement of this consent and annually thereafter, or on receipt of any of the reports required by this consent, review any or all of the conditions of this consent for the following purposes:
  - a. To review the effectiveness of the conditions of this consent in avoiding, remedying or mitigating any adverse effects on the environment that may arise from the exercise of this consent, and if necessary to avoid, remedy or mitigate such effects by way of further or amended conditions. In deciding to undertake a review and where further or amended conditions are deemed necessary, the Council shall have regard to all of the information contained in the reports required under the conditions of this consent – including data obtained from fixed and roving vibration monitors;
  - b. To address any adverse effects on the environment which have arisen as a result of the exercise of this consent that were not anticipated at the time of commencement of the consent; or
  - c. To review the adequacy of, and necessity for, any of the monitoring programmes or management plans that are part of the conditions of this consent.
  - d. To review whether the proposed haulage route (including intersections) referred to in Condition 104 above can accommodate the proposed vehicle configuration and confirm whether any upgrades are required for the route and setting a financial contribution that the consent holder shall pay in contributing to any such upgrades.
- Pursuant to Section 128(1)(a)(i) and (iii) of the Act, the Council may review Conditions 41 to 46 in Schedule One of this consent following any change made to the Trust Deed referred to in Condition 41 of Schedule One.

#### Advice Notes:

Such a review should only be commenced after consultation between the consent holder and the Council, and the consent holder shall pay the actual and reasonable costs of the review.

Notwithstanding Condition 123 above, where the Council elects to review Conditions 71 to 75 or Schedule One of this consent, such a review should be undertaken after consultation with the Waikato Regional Council.

#### SCHEDULE OF CONSENTED ACTIVITIES – PROJECT MARTHA

#### MARTHA UNDERGROUND MINE

- 1. Underground mining associated within the Martha Underground Mine, including, but not limited to:
  - a. Sill drive development;
  - b. Drilling, blasting, earthworks and the removal of rock material and ore;
  - c. Stockpiling of rock material from underground mining in the Martha Pit;
  - d. Further lowering of the groundwater table to enable mining activities within the Martha Underground Mine;
  - e. The establishment and use of a Return Air Portal, Return Air Shaft and Fresh Air Portal in the Martha Pit; and
  - f. Backfilling of stopes with rock and Concrete Aggregate Fill, and flooding of the workings.
- 2. The use and storage of hazardous substances in the Martha Underground Mine.
- 3. The use, maintenance and rehabilitation of existing and consented portals, access drives, ventilation shafts and other underground facilities and infrastructure outside of the Martha Underground Mine, which are currently authorised as part of the:

a.	Favona Underground Mine	85.050.326.E (2004)
b.	Trio Underground Mine	RC-15735 (2012)
с.	Correnso Underground Mine	LUSE-202.2012 (2013)
d.	SUPA	LUSE-202.2016.00000544.001
e.	Martha Drill Drive Project 1	LUSE-202.2017.00000664.001
f.	Martha Drill Drive Project 2	LUSE-202.2018.00000881.001

#### PHASE 4 CUTBACK

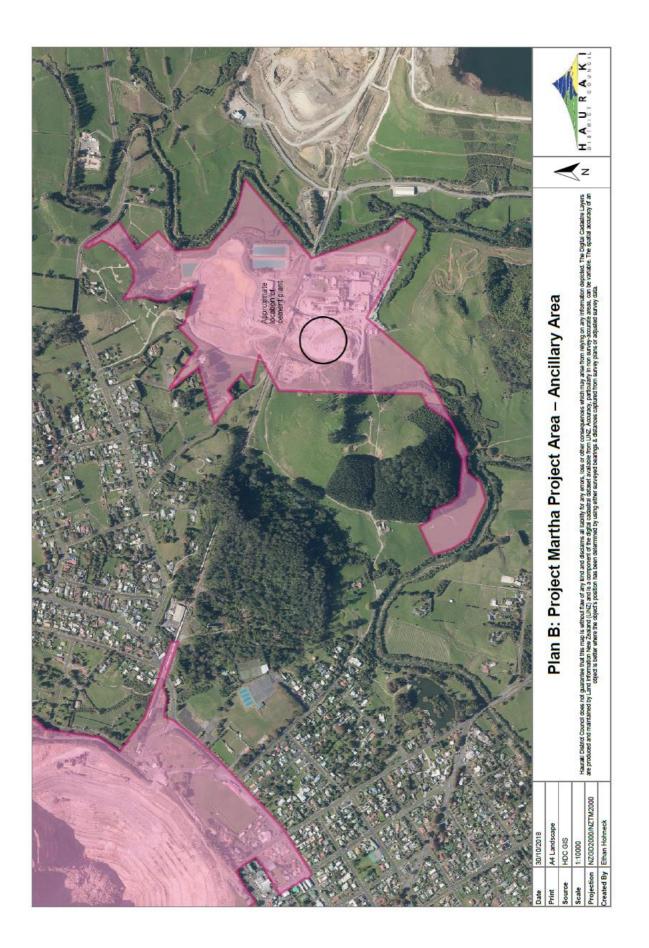
- 4. Mining operations associated with the Martha Pit, including, but not limited to:
  - a. The establishment of a new noise bund and fencing;
  - b. The realignment of the pit rim walkway and associated landscaping;
  - c. The realignment of Magazine Road (internal mine road);
  - d. The formalisation of a vehicle access off Grey Street (unformed road);
  - e. The removal of overburden and rock from the Martha Pit, and the stacking and storage of that material within the pit;
  - f. The use of machinery and vehicles on haul roads and along pit walls, including for the provision of access to the Martha Underground Mine;
  - g. The use of a mobile crusher within the Martha Pit;
  - h. The use of the Surface Facilities Area to process and stockpile material from the Martha Pit and Martha Underground Mine;
  - i. Rehabilitation of the Martha Pit by way of the creation of a lake and associated recreation facilities and landscaping, including the establishment of a limestone storage silo and pump unit and associated water take and discharge;
  - j. The establishment of an intake structure on the margin of the Ohinemuri River and an associated pipeline route; and
  - k. The establishment of a discharge structure for overflow water from the pit lake.
- 5. Surface mining in the Martha Mineral Zone.

## USE OF EXISTING ABOVE GROUND INFRASTRUCTURE

- 6. Use of the stockpiles at the Favona Portal and Polishing Pond for the temporary stockpiling of ore and rock, and for the temporary stockpiling of imported crushed rock.
- 7. Use of the concrete batching plant (consented but not yet constructed).
- 8. Use of other existing mine infrastructure which was authorised by ML 32 2388 or is currently authorised by LUC 85.030.009E (Extended Martha Mine Area 'EMMA').

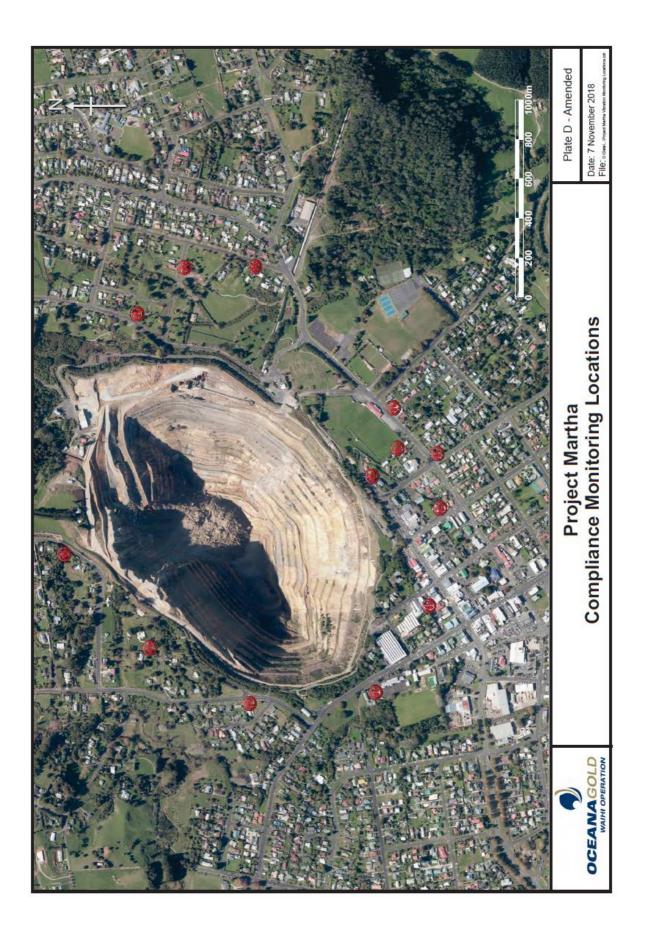
Plan A:Project Martha Project Area – Mining AreaPlan B:Project Martha Project Area – Ancillary Area





### **Fixed Vibration Monitor Locations**

Note: the location of the monitor on the south east corner of Gilmour Street and Kenny Street may depend on constraints around access, extraneous vibration sources, and power/telephone connections.



## MAPPED EXTENT OF MILKING COW ZONE

This figure shows the mapped extent of the Milking Cow relative to the existing stopes and the Phase 4 plt.

The Milking Cow Caved Zone has now been defined as a discrete zone of caved rock, which is within the broader rock mass deformation zones at Martha.

The model name is "Milking Cow Caved Zone (Ezra, 2013)" and is held in the OceanaGold Geological Model.

