



Noise Management Plan

(Waihi Operations)

November 2023

Document ID: WAI-200-PLN-014

Department	Sustainability
Location/Site	Waihi

Approval Table

	Position Title	Name	Date
Revised by	Senior Environmental Advisor	Russell Squire	Nov 2023
Approved by	Environmental Superintendent	Mark Burroughs	Nov 2023
Certified by	Senior Project Planner, HDC	Leigh Robcke	Nov 2023

Document issuance and revision history

Document Name: Noise Management Plan

Document ID: WAI-200-PLN-014

Revision Number	Revision Date	Section	Page	Description	Effective Date
	May 2010			Amalgamation of plans	May 2010
	Mar 2012			Review	Mar 2012
	Nov 2013			Incorporation of East Layback	Nov 2013
	Jul 2017			Incorporation of MDDP	Aug 2017
	May 2019			Incorporation of Project Martha	May 2019
V3	May 2023			Review	Aug 2023
V4	Nov 2023	4		Incorporation of TSF works	Nov 2023

OceanaGold Waihi

Noise Management Plan - Waihi

November 2023

Prepared By: Russell Squire

Approved By: Mark Burroughs
Environmental Superintendent



1/11/2023

Certified By: Leigh Robcke
for Hauraki District Council



1/11/2023

Contents

1. INTRODUCTION	1
1.1 Plan Objective	1
2. MARTHA PIT.....	1
2.1 Background	1
2.2 Martha Pit Consent Conditions.....	2
2.3 Hours of Work	2
2.4 Activities	2
2.5 Martha Pit Compliance Monitoring	3
2.5.1 Construction	3
2.5.2 Operations.....	3
3. UNDERGROUND MINES.....	4
3.1 Background	4
3.2 Underground Consent Conditions	5
3.3 Hours of Work	5
3.4 Activities	5
3.4.1 Polishing Pond Stockpile	5
3.4.2 Underground Ventilation.....	5
3.4.3 In-pit Stockpiling.....	6
3.4.4 Cement Aggregate Fill (CAF) Plant.....	6
3.5 Underground Compliance Monitoring.....	6
4. TAILINGS STORAGE FACILITIES.....	7
4.1 Background	7
4.2 TSF Consent Conditions	8
4.3 Hours of Work	8
4.4 Activities	8
4.5 TSF Compliance Monitoring.....	8
5. NOISE LIMITS.....	9
6. MONITORING PROCEDURES.....	10
7. NOISE MITIGATION.....	10
7.1 Status Assessment Criteria	10
7.2 Noise Mitigation Measures	11
8. REPORTING	13
9. COMMUNITY LIAISON	13
10. COMPLAINT RESPONSE.....	13
11. TRAINING.....	14
12. NOISE MANAGEMENT PLAN REVIEW.....	14
13. REFERENCES	14

NOISE MANAGEMENT PLAN

1. INTRODUCTION

1.1 Plan Objective

The objectives of this Noise Management Plan (“Plan”) are to detail the methods to be used by OceanaGold NZ Ltd (OGNZL) to:

- comply with the relevant conditions of Mining Licence (ML) 32-2388, Hauraki District Council (HDC) Land Use Consent (LUC) 97/98 - 105 for the Extended Martha Mining Area (EMMA), HDC LUC 85.050.326.E for the Favona Mine, HDC LUC RC-15774 for the Trio Underground Mine, HDC LUC RC-202.2112 for the Correnso Underground Mine, HDC LUSE-202.2017.664.001 for the Martha Drill Drive Project (MDDP), HDC LUC 202.2018.857.001 for Project Martha (Martha), HDC LUSE 202.2018.00000812.001 for Tailings Storage Facility 2 (TSF2) Crest Raise Preparation Works, and HDC LUSE 202.2021.00001466.001 for the Tailings Storage Facility 1A (TSF1A) Crest Raise.
- comply with relevant noise standards in the HDC Operative District Plan.
- liaise with the community and respond to complaints and concerns as they arise.
- avoid or mitigate unreasonable noise as required by s16 of the Resource Management Act 1991.

2. MARTHA PIT

2.1 Background

Mining in recent years in the Martha Pit has seen several cutbacks to improve the stability of the walls. While these have resulted in improvements, there are ongoing stability issues that remain to be mitigated. April 2010 saw the beginning of the Martha East Layback. The footprint of the cutback remained entirely within either the existing mining licence or the Extended Martha Mining Area (EMMA) boundaries and noise management was in accordance with those authorities.

In April 2015, a slip on the North Wall caused the suspension of mining. Mining ceased for the remainder of 2015 as investigations were undertaken to evaluate the options, safety, and viability of re-entry. Mining began again in January 2016 with a narrow switchback entry from the western wall of the pit (outside the slip failure zone). This was curtailed in April 2016 when further instability in the north wall precluded more work. Work resumed with a further cutback of the north wall in January 2017, with interim unloading of the highwall completed in August 2017.

Project Martha seeks to make comprehensive improvements to the pit wall stability. Mining will extend outside the EMMA boundary, requiring a modification to the Bulltown Rd/Cambridge Rd corner, and will push back the north wall to create a more stable batter. In addition, the haul road will be reinstated and access to the bottom of the pit will be regained, allowing access to remaining ore in the pit floor and secondary/emergency access to the underground portal within the pit.

For an early pit cutback (the Southern Stability Cutback), OGNZL and HDC entered a Memorandum of Understanding (MoU) to provide a framework within which HDC and OGNZL agree appropriate mitigation responses to nuisance effects associated with the stability cutback activities. In 2016, the MoU was revised for the North-wall Stability Cutback (Appendix 8). OGNZL recognises the value of the agreements that were entered, and the principles of the MoU will be respected for future in-pit mining operations.

2.2 Martha Pit Consent Conditions

The conditions of the ML are included in this Plan as Appendix 1. The HDC LUC 97/98-105 and LUC 202.2018.857.001 conditions relating to noise are included as Appendices 2 and 7 respectively.

In summary these conditions require OGNZL to comply with the following:

- The appointment of a Company Liaison Officer (CLO) (refer ML 7Ba-c, EMMA 3.4a-c, Martha Sch. One (2)).
- The provision of all reasonable costs associated with the appointment and support of a Regional/Local Council Liaison Officer to be employed during construction activities (refer ML 7Bd-g, EMMA 3.4d- g).
- Conditions relating to hours of work (refer ML 8 & 19, EMMA 3.7, Martha 8).
- Conditions specifically relating to construction activities and monitoring frequencies during these activities (refer ML 9, EMMA 3.8 & 3.9, Martha 15-21).
- Noise monitoring at intervals not exceeding six months during operations for the duration of the project (refer ML 30a-b, EMMA 3.9a-b, Martha 27).
- The provision of summary reports at three monthly intervals (refer ML 30c, EMMA 3.9c, Martha 21 & 26A).
- Existing procedures to be followed for complaints management (refer ML 7C, EMMA 3.5, Martha Sch. One (3) and internal OGNZL procedures).
- Prepare a Noise Management Plan to be approved by HDC (refer ML 21e, EMMA 3.9d, Martha 21 & 27).

2.3 Hours of Work

The following table summarises the relevant operational hours of work conditions. Appendices 1, 2, 3, and 7 should be referred to for further detail.

Table 1: Martha Pit working hours

Monday-Friday	0700-2100 ¹
Saturday	0700-1200

Notes: ¹ - The hours of work are only permitted between 1900 and 2100 hours Monday-Friday if the operations are of an urgent nature, necessary for the effective carrying out of mining operations and comply with the noise level criteria.

2.4 Activities

The following operating equipment and activities may generate noise and, if utilised, will be included in the monitoring procedures detailed below:

- Heavy vehicles e.g., haul trucks, excavators, loaders, bulldozers, graders, watercarts/service trucks;
- The rock crushers, transfer station and conveyor;
- Drill rigs;
- Light vehicle traffic;
- Maintenance work, possibly at night.

2.5 Martha Pit Compliance Monitoring

2.5.1 Construction

An Assessment of Noise Effects (ANE) was undertaken by Hegley Acoustic Consultants for Project Martha (refer Section 13). This ANE derived its assessment around the noisiest phase of construction activities, utilising the proposed equipment fleet and with no screening effects (a worst-case scenario). While the actual construction will be generally in accordance with that used for the ANE, it is unlikely that all the specified machinery will be operating at once, meaning that the noise effects will be usually less than those assessed (refer Figures 5 to 7 of the ANE).

In addition to working as above, OGLNZ has negotiated purchase of the ANE-assessed critical properties, so the received noise at the nearest privately-owned property (without any written agreement with OGLNZ) will be well within construction limits. With the construction works undertaken as proposed in the ANE, using the machinery as specified in the ANE, and negotiating with the residences most affected, compliance with noise limits will be achieved.

The consent conditions (ML 9, EMMA 3.8 & 3.9, Martha 15-21) require that the company will as a minimum monitor at weekly intervals during construction activities. The locations for this monitoring are dependent on the proximity of the works to the nearest applicable residence, the prevailing weather conditions and as defined in the various consent conditions appended to this Plan.

If noise limits (see Section 4) are exceeded, or legitimate complaints are received, the monitoring frequency may be increased while steps are taken to remedy the situation.

2.5.2 Operations

The ANE referred to in Section 2.5.1 also assessed the noise implications of operational mining. Like construction, the ANE derived its operational assessment around the worst-case scenario (maximum number of drilling rigs, trucking to stockpile, multiple crushing activities with associated loaders and bulldozers working at once). While the actual operations will be generally in accordance with that used for the ANE, it is unlikely that all the specified machinery will be operating at once, meaning that the noise effects will be usually less than those assessed (refer Figures 10 to 13 of the ANE).

The negotiations with affected residences as part of the construction activities will also benefit the subsequent operational activities. With activities in accordance with the ANE and negotiated settlements, the received noise at the nearest privately-owned property (without any written agreement with OGLNZ) will be well within operational limits. Compliance with noise limits will be achieved by undertaking the operational activities as proposed in the ANE, using the machinery as specified, and negotiating with the residences most affected.

There are three Martha Mine routine noise monitoring sites for Operations (Figure 1). These sites may be revised following consultation with HDC if monitoring results and complaints indicate other sites of greater sensitivity. For example, while the upper levels of the north wall are being worked, additional monitoring may be required near Bulltown Road, but the requirement for this to continue will drop off as mining gets deeper into the pit.

The representative noise levels during operations must be measured and assessed in accordance with the methods specified in ML c9 & 21, EMMA 3.8(a-e), and Martha 22-26. If elevated noise readings are obtained, the mitigation procedures as defined in Section 7 will be followed.

A penalty will apply for operational noise with special audible characteristics. This includes noises with special impulsiveness or tonality. When this noise occurs, the L_{Aeq} limit will be reduced arithmetically by 5dB compared to the measured level. No penalty for special audible characteristics is applied for construction noise.



Figure 1: Martha Monitoring Sites

3. UNDERGROUND MINES

3.1 Background

Modern underground mining at Waihi started in 2005 with the development of the Favona mine to the east of the town. This was followed up by the Trio mine (under Union Hill), then subsequently the Correnso mine under Waihi East (along with the Slevin project, an adjunct to Correnso, which has no noise conditions). The increased dewatering in Correnso also created an opportunity to redevelop the Trio mine at depth; this was completed in 2020.

MDDP (driving two parallel exploration drives under the south-eastern wall of the pit) has been completed (although the consents remain active), and has enabled the development of the current mining activity, Project Martha.

Project Martha (Martha) was approved in February 2019 and is mining under the open pit, seeking to extract untouched ore bodies and remnant ore left from historic mining, and in another ore body to the southeast of the pit (the Rex ore body).

The Underground mines utilise infrastructure developed as part of the original Martha Mine, in particular the processing plant and tailings facilities. Located on Baxter Road, the existing process plant currently generates noise levels consistently below the specified noise limits (e.g., 40 dB L_{Aeq} at night). The Underground Mines' portal is near the plant and noise from underground activity has not caused the overall noise level to increase appreciably. The vent shaft on Union Hill and the in-pit portals emit the other significant source from underground activity, but the low level of noise and the distance from residences has enabled compliance with night noise limits. Most of the underground activity is designed and operated to meet a noise level below 35 dB at surface.

3.2 Underground Consent Conditions

The HDC LUC conditions relating to noise for Underground operations are included as Appendices 3, 4, 5, 6 and 7. In summary these conditions require the following:

- the combined noise level from the Underground Mines and the existing Processing Plant to be no more than 55dB L_{Aeq} Monday to Friday daytime (0700-2100) and Saturday mornings (0700 - 1200), and at all other times to be no more than 40dB L_{Aeq} and 70dB L_{max} at the monitoring locations as detailed (*refer Section 4 for clarification on units of measure*).
- that prior to the commencement of operations on or in association with the polishing pond stockpile at night (2100 hrs to 0700 hrs) the consent holder shall demonstrate that the noise conditions can be met and detail the process proposed to demonstrate compliance in the Noise Management Plan.
- establishment of maximum sound power levels for individual items of mine equipment at Favona and Trio and record these in the Noise Management Plan.
- noise monitoring at weekly intervals during construction of buildings, haul and access roads, noise bunds, ventilation infrastructure and during stockpile site preparation works and for the first six months of production operations and thereafter at intervals not exceeding three months.
- the provision of summary reports at three monthly intervals.

3.3 Hours of Work

Underground mining at Favona, Trio, Correnso, MDDP and Project Martha is authorised for 24 hours/day, 7 days/week. Surface operations in association with the Polishing Pond Stockpile is authorised for 24 hours/day, conditional on continuing to meet the 40dB L_{Aeq} night noise limit. Most of the underground activity is currently in relation to Project Martha, but opportunities may be taken where available to extract additional ore in the largely completed mines when changing circumstance make such options available. These circumstances may include new technology, lowered water levels, and better cost margins.

3.4 Activities

The following Underground-related activities are expected to generate noise and will be included in the monitoring procedures detailed below.

3.4.1 Polishing Pond Stockpile

This stockpile is designed to contain overflow material from Underground and the pit load-out conveyor when production of ore or waste exceeds the amount that can be processed or re-used, and the storage capacity around the ROM (Run of Mine) pad is insufficient. The stockpile may contain Underground waste material and, once pit production resumes, pit ore and waste. Sound generated from activities could include truck noise associated with transporting the waste/ore material, an excavator and a D8 bulldozer (the latter two sources associated with the loading, spreading and compacting of the waste material).

The handling of material in relation to the polishing pond stockpile (including transportation to and from, its spreading, and compaction) is only permitted by the consent conditions if compliance with night-time noise limits is demonstrated. In early 2015, waste from Correnso development was required to be stockpiled at the polishing pond stockpile and monitoring was undertaken to verify that this activity was compliant at night. At times when the stockpile is utilised, the 'Purcell's' monitoring site (Figure 2) is nearby and applicable for verifying compliance.

3.4.2 Underground Ventilation

Currently, there are two ventilation outlets (Trio Vent Shaft on Union Hill and the 920 Pit Portal near the base of the pit) that service the Underground operations. Air coming into the Underground is sourced from the main portal near the processing plant and an inlet portal within the pit.

The main source of noise from these outlets is the fan/s, with the additional potential for overpressure from blasting within the mine to be emitted via the vent shaft. The primary controls for these emissions are the fitting of the fans a significant distance away from the surface expression of the outlet, and the installation of silencers mounted after the fans. Noise monitoring at commissioning (and routine monitoring since) has shown the noise from these outlets has complied with consented noise limits.

Along with the existing ventilation outlets, the Correnso conditions provide for an additional vent shaft, indicated to be near the north-eastern edge of the pit. Based on current design, the Underground mines can be adequately ventilated from the existing ventilation system. If the additional ventilation shaft provided for by the Correnso consent is required, the noise limits specified in that consent's conditions (Correnso c8, 10, 11) will be complied with.

3.4.3 In-pit Stockpiling

Stockpiling of rock (predominantly waste) within Martha Pit (as authorised by Martha c11) is being undertaken to reduce haulage distances; the alternative is to haul to the Polishing Pond Stockpile several kilometres further away. Noise generated from this activity consists of the dumping activities of underground trucks, and the stockpile and tip-head maintenance by loaders and/or excavators. The primary mitigations for noise generation are the stockpile's depth in the pit (approximately 200m below the pit rim), the elevated pit rim, and distance from the pit to residences. The nearest receivers are approximately 400m from the noise source and screened by the pit rim.

Noise issues from open-pit mining of the Martha Pit in the past have generally been in relation to activities near the crest of the pit (trucks on the uppermost haul roads, ROM pad stockpiling, the crusher and transfer station, and drill rigs on the north high wall). The stockpiling of underground rock occurs at depth in the pit, providing a significantly longer and more complex path for noise transmission.

Stockpiling was initially undertaken during daytime to verify noise compliance and assess if the lower night noise limits could be complied with (refer Table 5 for Martha Pit Operations Noise Limits). Monitoring indicated that some components of the stockpiling can be undertaken at night, while other activities may be restricted to daytime or the higher limit periods. Ongoing monitoring will occur to verify compliance and identify any potential issues.

3.4.4 Cement Aggregate Fill (CAF) Plant

A CAF plant has been constructed near the water treatment plant to meet the current Martha underground mining plans and enable effective structural backfill of historic workings encountered while mining under the Martha Pit. Operation of the CAF plant, along with the nearby Polishing Ponds Stockpile and Favona Portal, has been monitored to ensure that cumulative noise levels do not exceed the limits specified in Martha c23:

Table 2: CAF Plant Noise Limits

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

3.5 Underground Compliance Monitoring

Compliance monitoring is undertaken in accordance with HDC LUC No. 85.050.326.E, condition 5, HDC LUC RC-15774 (Conditions 5 & 6), HDC LUC 202.2012 (Conditions 10 & 11), LUSE-202.2017.664.001 (Martha Drill Drives Project (MDDP) (Conditions 10 & 11)), and LUC 202.2018.857.001 (Project Martha) (Conditions 15-26).

The monitoring will be undertaken in a manner that provides the greatest opportunity of determining representative noise levels from Favona, Trio Correnso, MDDP and Martha Underground by minimising complications due to the influence of extraneous noise sources and meteorological factors. Prior to monitoring, weather conditions are checked to verify the suitability of meteorological conditions (particularly wind speed and direction) for monitoring. In addition, the likelihood of

extraneous noises is considered (e.g., the period before and after school) and monitoring adapted in time or location where these extraneous effects can be mitigated.

OGNZL will assess and record representative noise levels generated by Underground operations at intervals not exceeding three months (even though some consents stipulate six-monthly (e.g., Martha c27), normal practice at site is to undertake all routine monitoring on a three-monthly schedule and report the results in the quarterly monitoring reports). Without in any way diminishing OGNZL's obligation to meet the consent condition limits at all points along the compliance boundary at private properties, the monitoring locations for Underground Operations shall be at the sites shown on Figure 2, known as Purcell's (Barry Road, for polishing pond stockpile & CAF plant), Scout Hall (Baker St, for Trio vent shaft), and Slevin St or Islington Tce (for in-pit stockpiling). Selection of the monitoring site on any given occasion will depend on meteorological conditions at the time, to ensure the best chance for obtaining representative noise levels.

Monitoring is undertaken in accordance with internal SOPs developed for compliance with the following standards:

- NZS 6802:2008 Acoustics – Environmental Noise
- NZS 6801:2008 Acoustics – Measurement of environmental sound
- NZS 6803:1999 Acoustics – Construction Noise

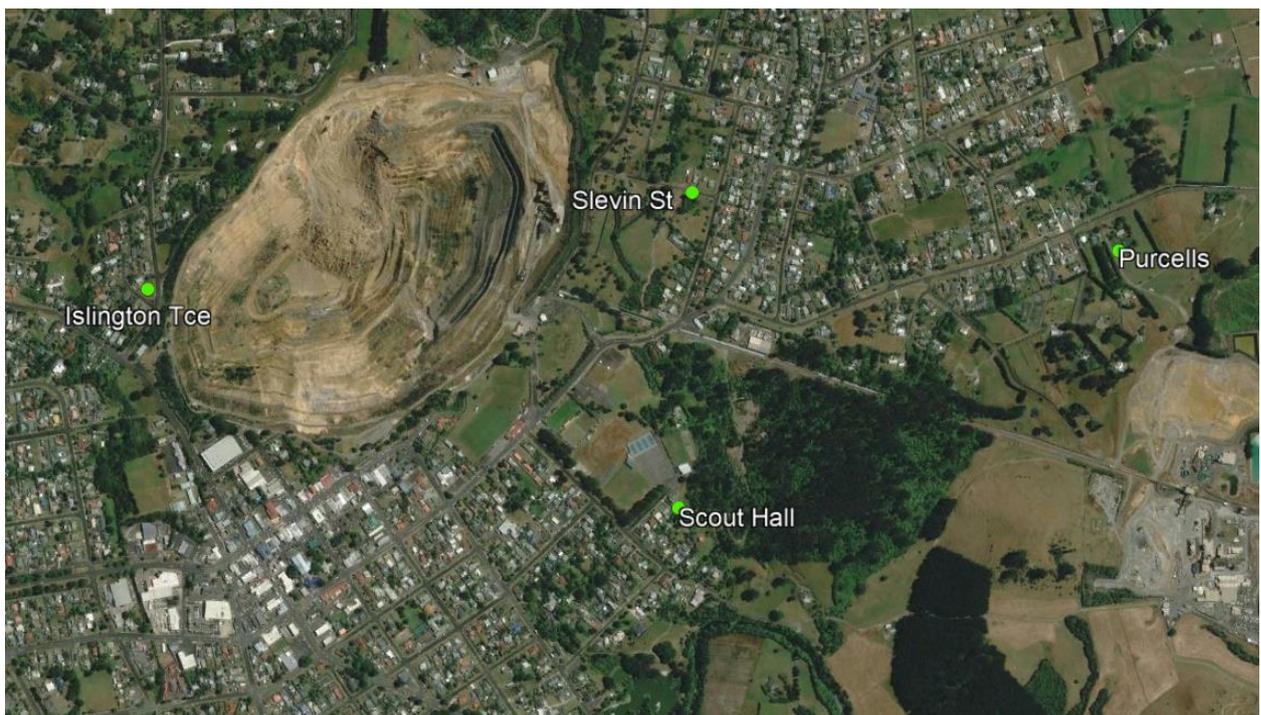


Figure 2: Underground Operations & Processing Plant Monitoring Sites

4. TAILINGS STORAGE FACILITIES

4.1 Background

Construction and progressive raising of the Tailings Storage Facilities (TSFs) has been an integral component of the mining process throughout the mine's life; as a repository for both waste rock for embankment construction and processing tailings within the impoundments. With the advent of Project Martha, additional tailings storage requirements have necessitated the raising of the crests of both TSF2 and TSF1A.

4.2 TSF Consent Conditions

The conditions relating to noise for operating the TSFs are included as Appendices 1 - 9. Area D, as specified in several consents, includes the TSFs and the processing facility, along with specific parts of the Underground operations. As such, noise compliance limits for the TSFs are the same as for the processing plant and CAF plant (Table 6), summarised as:

Monday-Friday	0700-2100	55dB LAeq
Saturday	0700-1200	55dB LAeq
All other times		40dB LAeq
	2100-0700 (the following day)	70dB LAFmax

4.3 Hours of Work

Tailings Disposal

Tailings disposal generates negligible noise (primarily just light vehicles and machinery relating to inspections and maintenance of the tailings pipelines) and is authorised for 24 hours/day, 7 days/week.

Crest Raise Earthworks

Construction operations in association with the preparation for and raising of the TSF crests requires the use of medium-sized earthmoving machinery. Like the open pit mining, the operation of this machinery is limited to:

Monday-Friday	0700-2100 ¹
Saturday	0700-1200

Notes: ¹ - The hours of work are only permitted between 1900 and 2100 hours Monday-Friday if the operations are of an urgent nature, necessary for the effective carrying out of mining operations and comply with the noise level criteria.

4.4 Activities

The following activities and operating equipment may generate noise:

- Earthworks, utilising medium machinery e.g., (proposed 60t trucks, 20-100t excavators, D7-8 dozers, graders, loaders and watercarts);
- Supervision and monitoring using light vehicles;
- Maintenance work, possibly at night, utilising light vehicles and occasionally road trucks.

Construction operations around the TSFs over the decades has indicated that equipment has been compliant with noise limits when operated in accordance with approved hours and maintained in accordance with good practice. Given that the machinery used in early impoundment construction was significantly larger (80t trucks, 110t excavator, D9 dozer) than the proposed machinery, there is an added level of confidence that noise limits will be complied with.

4.5 TSF Compliance Monitoring

Compliance monitoring is undertaken in accordance with the Mining Licence and Related HDC Land Use Consent (refer Appendices 1 - 9).

Given the past compliance with consent conditions (with older and larger equipment than that proposed in this Plan), no specific noise monitoring activities are proposed for the TSF activities. However, mitigation will still be employed via several existing practices:

- Community liaison and complaints programmes (Sections 9 and 10).
- Compliance with hours of operation (Section 4.3), which will avoid earthmoving machinery being operational during quieter hours.
- Modern and well-maintained machinery.

- Trained monitoring personnel (Section 11), with calibrated equipment available, to respond to and assess any noise issue that may arise.

5. NOISE LIMITS

The operational noise limits at the time of previous Plans were complicated by a progressive legislative change from using different units of measure (dB L₁₀ to dB L_{Aeq}) for noise compliance determination. The Favona, Trio and Correnso operations function under the dB L₁₀ units while the later MDDP, Martha and recently varied Mining Licence use dB L_{Aeq}. In effect the units of measure were similar, and monitoring for Correnso, Favona and Trio was undertaken for some years without a compliance issue. Now that Martha is the primary operation, dB L_{Aeq} will be reported upon, although data in both units of measure will continue to be collected and recorded in the site's database.

Construction Activities:

Table 3: Noise limits within the boundary of Waihi Central School (during the school term):

Day	Time	Noise Limit	
Monday – Friday	0830 - 1500	55 dB L _{Aeq}	75 dB L _{AFmax}

Table 4: Noise limits all locations (including Waihi Central School outside the times above)

Day	Time	Noise Limit	
Monday – Friday	0630 - 0730	60 dB L _{Aeq}	75 dB L _{AFmax}
	0730 - 1800	75 dB L _{Aeq}	90 dB L _{AFmax}
	1800 - 2000	70 dB L _{Aeq}	85 dB L _{AFmax}
Saturday	0730 - 1800	75 dB L _{Aeq}	90 dB L _{AFmax}
All other times		40 dB L _{Aeq}	

Operational Activities:

Table 5: Martha Pit Operations (including ventilation)

Day	Time	Noise Limit
Monday – Friday	0700 - 2100	50 dB L _{Aeq}
Saturday	0700 - 1200	50 dB L _{Aeq}
All other times		40 dB L _{Aeq}
Monday - Sunday	2100 - 0700	70 dB L _{AF max}

Table 6: Processing/Disposal Area

(Polishing Pond Stockpile, CAF plant, Processing Plant, TSFs, and including Trio Vent Shaft operation),

Day	Time	Noise Limit
Monday – Friday	0700 - 2100	55 dB L _{Aeq}
Saturday	0700 - 1200	55 dB L _{Aeq}
All other times		40 dB L _{Aeq}
On all nights	2100-0700	70 dB L _{AF max}

6. MONITORING PROCEDURES

All monitoring and compliance assessment shall be undertaken generally using the procedures set out in Standard Operating Procedures WAI-200-PRO-016 Sound Monitoring and WAI-200-PRO-026 Noise Compliance Assessment. These SOPs have been prepared in accordance with the following New Zealand Standards:

- NZS 6802:2008 Acoustics – Environmental Noise
- NZS 6801:2008 Acoustics – Measurement of environmental sound
- NZS 6803:1999 Acoustics – Construction Noise

Meteorological data will continue to be monitored at the OGNZL Meteorological Station on Barry Road.

7. NOISE MITIGATION

It is acknowledged that noise levels may be influenced by certain operating and weather conditions. Where noise is elevated, complaints are received, or monitoring demonstrates that relevant noise limits are being exceeded, prompt mitigation action will be taken to comply with the consents relating to noise as well as minimise effects on the community.

When monitoring is undertaken, or complaints responded to, the level of noise generated by mining activities is assessed to three different status levels. Depending on the status level, different mitigation measures are considered.

7.1 Status Assessment Criteria

1 Green Status

- a) Normal operational mode where:
- Measurements have been made they are within the consent limits.
 - No justifiable noise complaints have been received.

2 Yellow Status

- a) The wind speed at the Grey St meteorological station exceeds 3 m/s and a site assessment has determined mine noise to be potentially objectionable.
- b) The mine noise is assessed by site management as excessive, but the wind speed at the receiver exceeds 5 m/s and a noise measurement cannot be made.
- c) A mine-dominant noise measurement is above the consent level.

3 Red Status

- a) A follow up compliance noise measurement is above the consent level after noise mitigation measures have been implemented in response to a yellow status or marginal exceedance condition.
- b) Where noise mitigation measures implemented in response to a yellow status condition have not reduced the perceived noise to an acceptable level, but the wind speed at the receiver exceeds 5m/s and no noise measurement is possible.

Notes:

At the time the noise measurement is made or where the measurement is unable to be made under 2b & 3b, a note will be made of the dominant noise sources to permit targeting of these activities by the mining operations.

Meteorological conditions may be taken into account when deciding whether to go to a yellow, red or back to green status, e.g. rain, cold or other conditions that would normally mean most residents would be in-doors.

7.2 Noise Mitigation Measures

Where particular mine-related noise sources dominate, these will be targeted by Mining Operations to ensure that the greatest reduction in noise is achieved with the least disruption to mining operations.

Yellow Status - indicative measures that could be undertaken are:

- a) Slowing of equipment on the Stockpile Forwarding Area.
- b) The stopping of equipment deemed to be a significant noise contributor e.g. the rock breaker or bogger.
- c) Stopping of rehandle with trucks from the SFA stockpiles.
- d) Change of material into the crusher – e.g. from ignimbrite to PAF.
- e) Change of crusher type – i.e. Jaw to Stamler.
- f) Stopping of one excavator and or part of truck fleet.
- g) Stopping of all crushing but allowing stockpiling of mined material.

The dominant noise sources and meteorological effects must be considered when deciding upon the appropriate actions to take. For example, when the measured background noise (L_{95}) is greater than the consent limit and beyond the control of the operation and wind is a contributing factor, the decision may be to proceed with part or all mining activities.

Red Status - the following action is mandatory.

- a) Closure of all SFA and mining noise producing activities that are not contained wholly within the pit itself.

Drilling, rock breaking and tramming or haulage of oversize or other material within the confines of the pit may be permitted.

Reverting to Green Status

Yellow or Red Status may be set back to Green under the following conditions:

- a) A follow-up noise measurement confirms a marginal level or a noise level below the consent limits, or a background reading exceeds the consent limit, i.e. dominates the ambient noise.
- b) Change in meteorological conditions e.g. change in wind direction or speed, heavy rainfall etc.

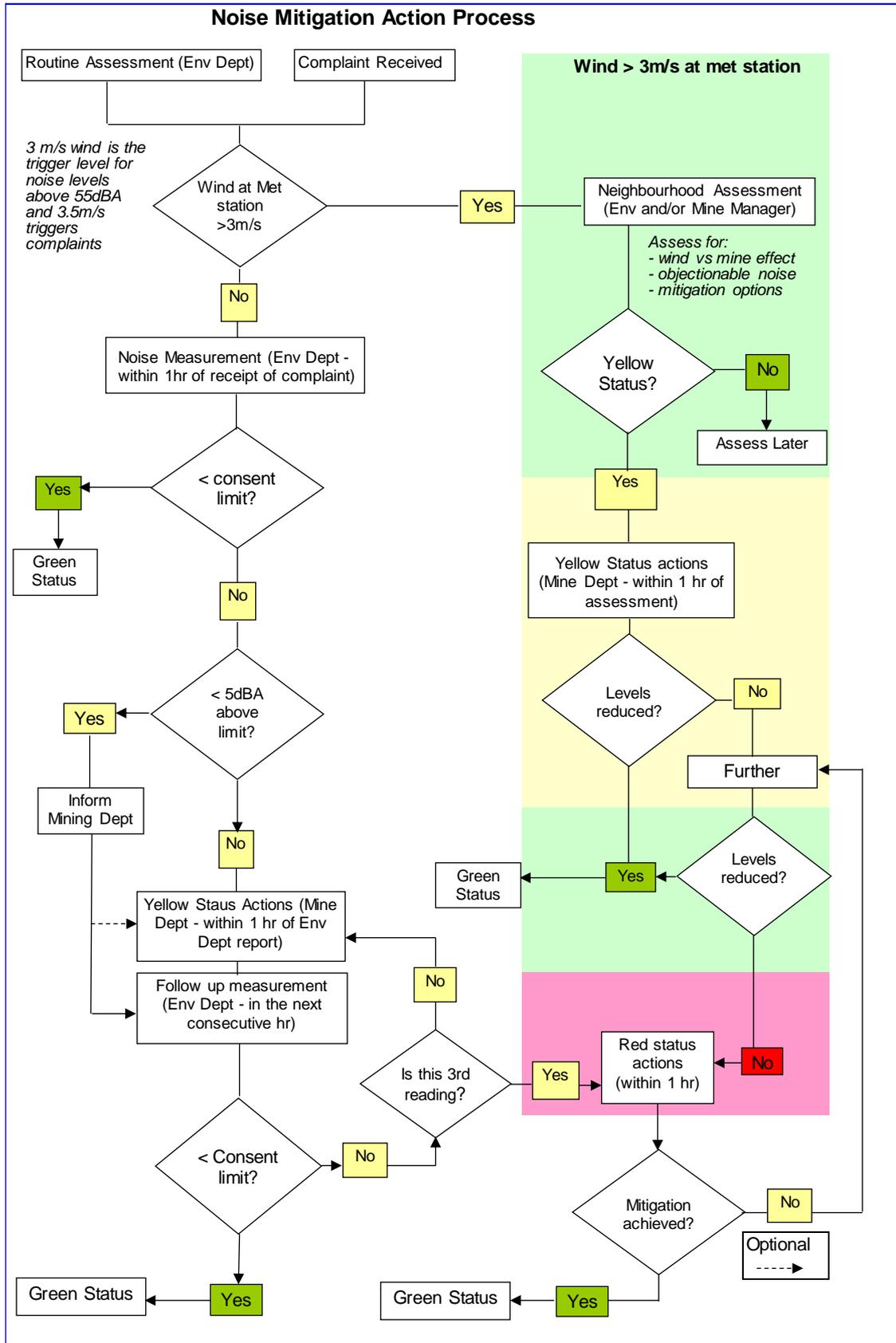


Figure 3: Noise Mitigation Action Flowsheet

8. REPORTING

Records of all noise monitoring will be maintained and provided to HDC on request.

To meet the combined requirements of ML c30, HDC EMMA c3.9c, Favona c9, Trio c6d and Correnso c11, MDDP c11d, and Martha c26A, OGNZL will (unless otherwise directed to do so by HDC following consultation with OGNZL) provide a collective summary report to the HDC after each March, June, September, and December quarter.

9. COMMUNITY LIAISON

In accordance with ML c7B, EMMA c3.4, Favona c40 & 41, Trio c25, Correnso c78 & 79, MDDP c33, and Martha Sch One c2, OGNZL will maintain a Community Liaison Officer (CLO) position to liaise between OGNZL, the community and HDC. The CLO shall have sufficient delegated authority to be able to deal immediately with complaints received and shall be required to investigate those complaints as soon as possible after receipt.

The name of the CLO together with the contact phone numbers for that person will be periodically notified in local newspapers. The current CLO and contact details are:

CLO - Donna Fisher DDI: 07 863-9827 Mobile: 027 279-9739

Free call: 0800 WAIHIGOLD (0800 924 444)

Waihi's Gold Discovery Centre provides a contact point for the community and numerous educational groups. At the Centre the public can obtain details about mining operations, including details on noise management.

OGNZL has developed a range of communication and engagement strategies that can be utilised for different stakeholder groups as appropriate, including:

- A monthly "Update" column in the Waihi Leader, providing information on current mining activities and items of interest.
- An OceanaGold Facebook page
- Press releases in local newspapers in response to media requests or project milestones.
- An actively managed website, <http://www.waihigold.co.nz/>, providing information on mining activities and including the "Update".
- Public notice boards erected at Martha viewing areas to provide project information.
- Letter drops within the community when information about specific issues needs to be circulated.
- House visits to residents seeking further information.
- The use of various forums and groups to gain feedback and provide information (e.g. Waihi Community Forum and Iwi Advisory Group)
- For Martha, regular public meetings are held to present information and receive feedback on past and proposed mining activities, and monitoring results.
- Operating a Project Information Office in Waihi's main street, providing a venue for public enquiries.

10. COMPLAINT RESPONSE

The OGNZL Standard Operating Procedure for Complaints (WAI-800-PRO-007 Managing Public Complaints) will be used for any complaints received from the community.

11. TRAINING

All management, staff and contractors undertake an induction when newly appointed, and refreshers are taken every two years. In addition to the site health and safety training, the induction aims at raising general awareness of individual responsibilities for managing and reporting environmental and community effects. Reporting procedures and accountabilities to departmental managers and environmental staff are outlined, and all inductees are provided with a site contact list.

Responsibility for staff environmental awareness and training rests with the Environmental Superintendent or delegated representative. Environmental personnel undertake noise monitoring under the guidance of existing experienced personnel, with additional specialist training, support and guidance provided periodically by Hegley Acoustic Consultants Ltd.

12. NOISE MANAGEMENT PLAN REVIEW

This Plan should be regarded as a working document. Although there is no review period specified in consents, amendments to the document may be required as operations proceed, with reviews being subject to recertification by HDC.

13. REFERENCES

OGNZL, 2023 [WAI-200-PRO-016 Sound Monitoring](#) Standard Operating Procedure for sound monitoring. Internal OGNZL document.

OGNZL, 2023 [WAI-200-PRO-026 Noise Compliance Assessment](#) Internal procedure for processing compliance data for reporting. Internal OGNZL document.

OGNZL, 2023 [WAI-800-PRO-007 Concerns, Complaints and Grievances Procedure](#) Standard Operating Procedure for managing public concerns, complaints and grievances. Internal OGNZL document.

Hegley Acoustic Consultants, May 2018. Project Martha, Waihi, Assessment of Noise Effects. Supporting document for Project Martha Consent Application (Appendix F).

Appendix 1

Variation to Mining Licence 32-2388

Noise conditions

Dated as of 02 June 2017

1. The work to be undertaken pursuant to this licence shall be limited to the following:

(d) Monitoring

The regular monitoring of pit slopes, tailings retaining structures, ground movement, noise, blasting, vibration, air quality and rehabilitation programmes together with the necessary rectification work as required.

7B Company Liaison Officer

(a) The licensee shall appoint a person ("the Company Liaison Officer"), subject to the approval of the Minister to liaise between the licensee, the community, and the Minister as set below. The Company Liaison Officer shall have sufficient delegated power to be able to deal immediately with complaints received and shall be required to investigate those complaints as soon as possible after receipt.

(b) The name of the Company Liaison Officer together with the contact phone numbers for that person shall be publicly notified in local newspapers by the licensee prior to the commencement of the extended project (at least one month prior, but not more than two months prior to the commencement of construction activities) and at least once a year thereafter.

(c) The Company Liaison Officer shall be appointed prior to the commencement of the extended project and this position shall be filled at all times during the construction activities as defined in Condition 3.

Council Liaison Officer

(d) The licensee shall provide all the reasonable costs associated with the appointment and support of a Council Liaison Officer, to be employed by and be responsible to the Minister during the construction activities as defined in Condition 3.

(Note: The following is for information purposes only and does not form part of the condition.

The Council Liaison Officer may either be a new appointment or may be an existing employee.

Whether or not the appointee is an existing employee, the Council Liaison Officer's role shall be independent and objective and designed to promote effective gathering of information of effects upon the community from the mining activity; and, in the light of such information, to promote effective liaison with the Company Liaison Officer so that the effects identified may be remedied or mitigated.)

The functions and responsibilities of the Council Liaison Officer shall be as follows:

- (i) Liaise between the Company Liaison Officer, members of the community, the Waihi Liaison Forum (or its equivalent), and the Minister;
- (ii) Report to the Minister on an "as events happen" basis, and weekly on complaints received, actions undertaken by the licensee and the complainant in respect to complaints, and on any other relevant actions and activities occurring during the week;
- (iii) Ensure that the Company Liaison Officer is providing information to residents in the area around the mine and tailings facilities of the activities that are programmed to be undertaken in the coming week (especially land clearance, construction and blasting), activities that were carried out in the previous week and any other material that will inform the residents of what is programmed to happen in the coming weeks;
- (iv) Facilitate the appointment of a mediator, venue, time etc agreeable to both parties, to undertake the mediation of disputes or concerns between the licensee and members of the community. Except in those situations where both parties are in agreement, the Council Liaison Officer's function is not to act as a mediator. The role of mediation is a specialist one that needs to be undertaken by persons experienced and trained in this area.
- (e) The Company Liaison Officer shall, during construction activities, report weekly to the Council Liaison Officer on all complaints received in the prior week and the action taken to investigate those complaints. In addition, the Company Liaison Officer shall investigate and report on any other matters as directed by the Council Liaison Officer concerning or arising out of construction activities. (See periods of construction activities as defined in condition 3.)

(f) The Company Liaison Officer shall give residents who are likely to be affected and the Council Liaison Officer reasonable (minimum one week's) prior notice of construction activities, indicating likely timing and duration.

(g) Following completion of initial construction activities, and prior to the commencement of other construction activities (ie during operations stage), the Company Liaison Officer shall report six monthly to the Minister on the following:

- (i) All complaints received during the previous six month period, action taken by the licensee and the resolutions, if any;
- (ii) Other matters of concern raised by the community;
- (iii) Any mediation entered into by the licensee and others with respect to operational matters and the outcome (unless the parties have agreed to keep such confidential).

7C Complaints procedure and mediation

Note: the following is for information purposes only and does not form part of the condition.

- Complainants will be expected to contact the Company Liaison Officer in the first instance (refer condition 7B(a)).
- During construction activities, if a complainant is dissatisfied with the response by the Company Liaison Officer, they shall contact the Council Liaison Officer with the details of the complaint and the Company Liaison Officer's response. Outside the construction activities, complainants shall contact any officer of the Minister.

The licensee shall comply with the following complaints procedure and mediation process:

(a) The Company Liaison Officer shall meet with the complainant and the Council Liaison Officer to discuss the complaint and ways in which the issue can be resolved

(b) If the parties cannot agree on a resolution, the matter shall be put to mediation.

(Note: The following is for information purposes only and does not form part of the condition:

- (i) Refer condition 7B(d)(iv) above.
- (ii) Unless the parties agree the outcome of mediation shall not be binding.)

7D Noise Bunds

(a) The licensee shall, prior to commencing construction and reworking activities associated with the noise bunds associated with the extended project prepare and submit detailed proposals to the Minister.

(b) Proposals shall indicate:

- Activities to be carried out, including their sequence and duration. A discussion on construction and removal methods considered shall be provided.
- Plant and equipment proposed to be used.
- Any activities likely to be undertaken on land beyond the ownership or control of the licensee, 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.
- Proposals with respect to the removal or demolition of existing houses lying within or adjacent to the proposed noise bund (construction proposals only).
- Proposed measures to mitigate potential adverse effects (in particular noise, dust, traffic generation and visual impact) occurring as a consequence of construction and removal activities, in particular measures aimed at safeguarding adjacent residential amenity.

(c) This condition shall be read in conjunction with Condition 25, including the proposals under this condition to incorporate the screen planting provisions.

(d) The Company Liaison Officer shall also 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 his/her opinion are likely to experience the effects of these activities and to the Council Liaison Officer. This programme shall be provided at least 5 days in advance of the work being undertaken.

(e) The construction of part of the noise bund over Junction Road cannot be undertaken until such time as the stopping of Junction Road has been completed.

(f) A 2 metre high close boarded wooden fence shall be constructed along the Grey Street frontage to visually screen the site and to provide noise attenuation, prior to any clearance of vegetation or other activities associated with the extended project are undertaken. Once the noise bund is completed, the 2 metre high closed boarded wooden fence can be removed to be used on the top of the noise bund.

(g) 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.

Hours of work

8. Construction work shall be limited to within the following hours:

Monday – Friday	0700-2000 daily
Saturdays	0730-1800

(a) Provided that construction work hours at the process plant site shall be permitted outside of the above hours as long as the noise levels do not exceed those specified in Condition 9(a).

(b) The above hours of work do not apply with respect to the use of water trucks for the purpose of controlling dust, so long as this activity complies with the noise level criteria of condition 9.

Construction noise during construction period

9. (a) With the exception of Waihi Central School where the construction noise limit shall be 55 dB L_{Aeq} at any point within the boundary of the school, all construction activities provided for by the Mining Licence taking place within the Mining Licence area shall not exceed the following limits:

Monday-Friday	Saturdays	L_{Aeq}	L_{AFmax}
0630-0730		60	70
0730-1800	0730-1800	75	90
1800-2000		70	85

At all other times, including Sundays and Public Holidays, the noise level shall not exceed 40 dB L_{Aeq}

All noise shall be measured within or close to the boundary of any residentially zoned site or the notional boundary of any occupied rural dwelling site not owned by the licence holder or related Company or not subject to an agreement with the licence holder or related Company.

In the event that a property is sold and ceases to be subject to an agreement between the licence holder (or related Company) and the purchaser, or in the event that there is no longer an agreement between the licence holder (or related Company) and the landowner, the location for the measurement of noise shall revert to being on or close to the boundary of that residentially zoned site or the notional boundary of the occupied rural site.

(b) Construction noise shall be managed, measured and assessed in accordance with New Zealand Standard 6803:1999 Acoustics – Construction Noise.

(e) Tree-felling shall be conducted to minimise as far as practicable noise intrusion on all neighbouring properties.

(f) Unwanted surface material at the mine site shall be used wherever practical when barriers are required close to the pit edge or near the rotary crusher to reduce noise.

(g) Soil stored in the waste disposal area shall be used where practical when noise attenuation is required.

(h) All equipment and machinery shall be regularly maintained to ensure noise levels as low as reasonably attainable.

Hours of work

19. (a) Open Pit Mining and Conveying (other than maintenance work)

Permissible operating hours within the open pit, adjacent service facilities and conveyor corridor shall be restricted to:

Monday-Friday	0700-2100
Saturday	0700-1200

(b) Operations within the process plant

The plant may operate twenty-four (24) hours per day, seven (7) days per week.

(c) Operations within the waste and tailings area (other than maintenance work)

Permissible operating hours within the waste and tailings area shall be restricted to:

(i) Waste disposal:

Monday-Friday	0700-2100
Saturday	0700-1200

(ii) Tailings disposal:

Twenty-four (24) hours per day, seven (7) days per week.

(d) The above hours of work to apply provided that operations in (a) and (c)(i) above are only permitted between 1900 and 2100 hours Monday-Friday if the operations are of an urgent nature and necessary for the effective carrying out of mining operations and that they comply with the noise level criteria as specified in Condition 21(a).

(e) Details of all operations conducted under (d) above shall be entered into a record book kept for that purpose.

(f) The above hours of work do not apply with respect to the use of water trucks for the purpose of controlling dust, so long as this activity complies with the noise level criteria of condition 21.

Noise

21. (a) All activities provided for by the Mining Licence taking place on any site within the Mining Licence area shall not exceed the following limits when measured at or within the boundary of any residentially zoned site or the notional boundary of any occupied dwelling in the Rural Zone and measured over the periods specified below:

Monday-Friday	0700-2100	55 dB LAeq
Saturday	0700-1200	55 dB LAeq
All other times		40 dB LAeq
	2100-0700 (the following day)	70 dB LAFmax

All noise shall be measured within or close to the boundary of any residentially zoned site or the notional boundary of any occupied rural dwelling site not owned by the licence holder or related Company or not subject to an agreement with the licence holder or related Company.

In the event that a property is sold and ceases to be subject to an agreement between the licence holder (or related Company) and the purchaser, or in the event that there is no longer an agreement between the licence holder (or related Company) and the landowner, the location for the measurement of noise shall revert to being on or close to the boundary of that residentially zoned site or the notional boundary of the occupied rural site.

(d) Noise shall be measured in accordance with the provisions of New Zealand Standard NZS 6801:2008 Acoustics – Measurement of Environmental Sound and assessed in accordance with the provisions of NZS 6802:2008 Acoustics – Environmental Noise.

(e) **Noise Management Plan**

The licence holder shall prepare a Noise Management Plan. This Management Plan shall be submitted to and approved by Hauraki District Council. The objective of this plan is to detail the methods to be used to comply with conditions 21 and 30.

Noise

30.

(a) The licensee shall at weekly intervals during construction activities (as defined in Condition 3) and at intervals not exceeding six (6) months during operational activities, assess and record representative noise levels generated by mining operations.

(b) Representative noise levels during construction and operation activities shall be measured and assessed in accordance with the methods specified in Conditions 9 and 21.

(c) The licensee shall, unless otherwise directed to do so by the Minister following consultation with the licensee, provide a quarterly summary report to the Minister on the representative noise levels.

Appendix 2

Martha Mine Extended Project - HDC LUC# 97/98-105

NOISE CONDITIONS

3.4 Liaison Officers

Company Liaison Officer

- a) The consent holder shall appoint a person ("the Company Liaison Officer"), subject to the approval of the Hauraki District Council and the Waikato Regional Council to liaise between the consent holder, the community, the Hauraki District Council and the Waikato Regional Council as set out in this consent. The Company Liaison Officer shall have sufficient delegated power to be able to deal immediately with complaints received and shall be required to investigate those complaints as soon as possible after receipt.
- b) The name of the Company Liaison Officer together with the contact phone numbers for that person shall be publicly notified in local newspapers by the consent holder prior to the exercising of this consent (at least one month prior, but not more than two months prior to the commencement of construction activities) and at least once a year thereafter.
- c) The Company Liaison Officer shall be appointed prior to the exercising of this consent and this position shall be filled at all times during the construction activities as defined in Condition 3.3.

Council Liaison Officer

- d) The consent holder shall provide all the reasonable costs associated with the appointment and support of a Council Liaison Officer, to be employed by and be responsible jointly to the Hauraki District Council and Waikato Regional Council during the construction activities as defined in Condition 3.3.

(Note: The following is for information purposes only and does not form part of the condition.

The Council Liaison Officer may either be a new appointment or may be an existing employee. Whether or not the appointee is an existing employee, the Council Liaison Officer's role shall be independent and objective and designed to promote effective gathering of information of effects upon the community from the mining activity; and, in the light of such information, to promote effective liaison with the Company Liaison Officer so that the effects identified may be remedied or mitigated.

The functions and responsibilities of the Council Liaison Officer shall be as follows:

- i) liaise between the Company Liaison Officer, members of the community, the Waihi Liaison Forum (or its equivalent), Hauraki District Council and Waikato Regional Council;
- ii) report to the Hauraki District Council and Waikato Regional Council on an "as events happen" basis, and weekly on complaints received, actions undertaken by the consent holder and the complainant in respect to complaints, and on any other relevant actions and activities occurring during the week;
- iii) ensure that the Company Liaison Officer is providing information to residents in the area around the mine and tailings facilities of the activities that are programmed to be undertaken in the coming week (especially land clearance, construction and blasting), activities that were carried out in the previous week and any other material that will inform the residents of what is programmed to happen in the coming weeks;
- iv) facilitate the appointment of a mediator, venue, time etc agreeable to both parties, to undertake the mediation of disputes or concerns between the consent holder and members of the community. Except in those situations where both parties are in agreement, the Council Liaison Officer's function is not to act as a mediator. The role of mediation is a specialist one that needs to be undertaken by persons experienced and trained in this area).
- e) The Company Liaison Officer shall, during construction activities, report weekly to the Council Liaison Officer on all complaints received in the prior week and the action taken to investigate those complaints. In addition, the Company Liaison Officer shall investigate and report on any other matters as directed by the Council Liaison Officer concerning or arising out of construction activities. (See periods of construction activities as defined in condition 3.3)
- f) The Company Liaison Officer shall give residents who are likely to be affected and the Council Liaison Officer reasonable (minimum one week's) prior notice of construction activities, indicating likely timing and duration.

g) Following completion of initial construction activities, and prior to the commencement of other construction activities (ie during operations stage), the Company Liaison Officer shall report six monthly to the Hauraki District Council and the Waikato Regional Council on the following:

- (i) All complaints received during the previous six month period, action taken by the consent holder and the resolutions, if any;
- (ii) Other matters of concern raised by the community;
- (iii) Any mediation entered into by the consent holder and others with respect to operational matters and the outcome (unless the parties have agreed to keep such confidential).

3.5 Complaints Procedure and Mediation

(Note: The following is for information purposes only and does not form part of the condition:

- i) Complainants will be expected to contact the Company Liaison Officer in the first instance (refer to Condition 3.4 a)).
- ii) During the construction activities, if the complainant is dissatisfied with the response by the Company Liaison Officer, they shall contact the Council Liaison Officer with details of the complaint and the Company Liaison Officer's response. Outside the construction activities, complainants shall contact the Manager Planning and Environmental Services or any other Officer of Council.).

The consent holder shall comply with the following complaints procedure and mediation process:

- a) The Company Liaison Officer shall meet with the complainant and the Council Liaison Officer, to discuss the complaint and ways in which the issue can be resolved.
- b) If the parties cannot agree on a resolution, the matter shall be put to mediation.

(Note: The following is for information purposes only and does not form part of the condition:

- i. Refer to Condition 3.4 d), Note iv)
- ii. Unless the parties agree, the outcome of the mediation shall not be binding.)

3.7 Hours of work

(a) Construction Activities (refer to definition in Condition 3.3)

Monday - Friday	0700 - 2000
Saturday	0730 - 1800

(b) Mining Operations and Conveying (other than maintenance work)

Permissible operating hours within the open pit, adjacent service facilities and conveyor corridor shall be restricted to:

Monday - Friday	0700 - 2100
Saturday	0700 - 1200

(c) Operations within Area D (other than maintenance work)

Permissible operating hours within Area D for waste disposal and stockpiling of topsoil shall be restricted to:

Monday - Friday	0700 - 2100
Saturday	0700 - 1200

(d) The above hours of work to apply provided that operations in (b) and (c) above are only permitted between 1900 and 2100 hours Monday - Friday if the operations are of an urgent nature and necessary for the effective carrying out of mining operations and they comply with the noise level criteria as specified in Condition 3.8(b). Details of all such operations are to be recorded and available to the Council upon request.

(e) The above hours of work do not apply with respect to the use of water trucks for the purpose of controlling dust, as long as this activity complies with the noise level criteria of Condition 3.8.

3.8 Noise

(a) Construction (refer to the definition in Condition 3.3)

With the exception of Waihi Central School where the construction noise limit shall be 55 dB L_{Aeq} at any point at or within the boundary of the school during school hours, all construction activities provided for by this consent shall not exceed the following limits:

Monday - Friday	Saturdays	dB L_{Aeq}	dB L_{AFmax}
0630 – 0730		60	70
0730 – 1800	0730 – 1800	75	90
1800 – 2000		70	85

At all other times, including Sundays and Public Holidays, the noise level (L_{10}) shall not exceed 40 dB L_{Aeq} .

All noise shall be measured within or close to the boundary of any residentially zoned site or the notional boundary of any occupied rural dwelling site not owned by the consent holder or related Company or not subject to an agreement with the consent holder or related Company.

In the event that a property is sold and ceases to be subject to an agreement between the consent holder (or related Company) and the purchaser, or in the event that there is no longer an agreement between the consent holder (or related Company) and the landowner, the location for the measurement of noise shall revert to being on or close to the boundary of that residentially zoned site or the notional boundary of the occupied rural site.

Construction noise shall be managed, measured and assessed in accordance with New Zealand Standard NZS6803:1999 Acoustics – Construction Noise.

(b) Operations

i) Activities Within Area B

The noise level (L_{Aeq}) at any point outside the 55 dB and 50 dB control boundaries shown in Plan 2 (copy attached in Appendix E) arising from mining and related activities when measured within or close to the boundary of any residentially zoned site or the notional boundary of any occupied dwelling in the Rural Zone not owned by the Company or not subject to an agreement with the Company or related Company shall not exceed the limits specified below:

		55 dB Control Boundary	50 dB Control Boundary
Monday – Friday	0700-2100	55 dB	50 dB
Saturday	0700-1200	55 dB	50 dB
All other times		40 dB	40 dB

In the event that a property is sold and ceases to be subject to an agreement between the consent holder (or related Company) and the purchaser, or in the event that there is no longer an agreement between the consent holder (or related Company) and the landowner, the location for the measurement of noise shall revert to being within or close to the boundary of that residentially zoned site or the notional boundary of the occupied rural site.

ii) Activities Within Areas C & D

The noise level (L_{Aeq}) measured within or close to the boundary of any Residential or Low Density Residential zoned site, or the notional boundary of any occupied rural dwelling site within the Rural zone not owned by the Company or not subject to an agreement with the Company or related Company shall not exceed the following limits:

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

In the event that a property is sold and ceases to be subject to an agreement between the consent holder (or related Company) and the purchaser, or in the event that there is no longer an agreement between the consent holder (or related Company) and the landowner, the location for the measurement of noise shall revert to being within or close to the boundary of that residentially zoned site or the notional boundary of the occupied rural site.

iii) Activities Within Areas E, F, H, I, & K

The provisions of Rule 8.3.1.3 of the Operative Hauraki District Plan 2014 shall apply.

In considering the action to be taken as a result of any breach of the noise limits, Council shall have regard to the following factors:

- 1) The total time duration for which the noise exceeded the limit
- 2) The time of the day at which the breach occurred
- 3) Whether the breach occurred as a result of factors beyond the control of the consent holder or contractor
- 4) The amount by which the noise limit was exceeded
- 5) The likelihood that the breach will recur
- 6) The actions taken to prevent recurrence of the breach
- 7) Action taken to mitigate the noise and whether the best practicable option for the circumstances was adopted

For the purposes of 4) above, a breach of the noise limit by 5dB or less shall be considered marginal. The Council will seek an explanation of the reasons for a marginal breach, and will seek that action be taken to avoid a recurrence if practical. The Council will not take enforcement action in respect of a marginal breach to achieve compliance where this would impose unreasonable restrictions on mine operations, such breach being one that will not impose anything more than minor adverse effects upon the residential areas in the vicinity of the mine. The Council may pursue enforcement action if the breach persists unduly in the circumstances or if the best practicable option is not being adopted.

(e) 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 NZS 6802:2008 Acoustics – Environmental Noise.

3.9 Monitoring and Reporting on Noise Levels

(a) The consent holder shall at weekly intervals during construction activities (as defined in Condition 3.3) and at intervals not exceeding six (6) months during operational activities, assess and record representative noise levels generated by mining operations.

(b) Representative noise levels during construction and operation activities shall be measured and assessed in accordance with the methods specified in Condition 3.8.

(c) The consent holder shall, unless otherwise directed to do so by the Council following consultation with the consent holder, provide a summary report to the Council at the end of each February, May, August and November on the representative noise levels.

(d) The consent holder shall prepare a Noise Management Plan. This Management Plan shall be submitted to and approved by Hauraki District Council. The objective of this plan is to detail the methods to be used to comply with condition 3.8.

Appendix 3

Favona - HDC LUC# 85.050.326.E

Noise conditions

Noise

5. All noise associated with the construction and use of the Favona Underground Mine Project (including associated activities of stockpiling and construction works) shall be measured at any point within or at the boundary of any residentially zoned site or the notional boundary of any occupied rural dwelling site not owned by the consent holder or related Company, or not subject to an agreement with the consent holder or related Company as shown on Figure 2-3 of the Assessment of Environmental Effects (attached to this consent as **Attachment A**). In the event that a property is sold, and is not subject to an agreement between the consent holder (or related Company) and the purchaser, or in the event that there is no longer an agreement between the consent holder (or related Company) and the occupier, the measurement of noise shall revert to being measured at any point within or at the boundary of the residentially zoned site or the notional boundary of the occupied rural site.

The noise associated with the construction and use of the Favona Underground Mine Project shall be measured cumulatively with other noise emanating from the Exploration Decline (should this be operated simultaneously), all operations within the process plant, operations within the waste and tailings areas, and the conveyor and associated activities over the periods specified below, and shall not exceed the following limits:

Monday – Friday	0700-2100	55dBA L ₁₀
Saturday	0700-1200	55dBA L ₁₀
All other times		40dBA L ₁₀
All nights	2100-0700 (the following day)	70dBA L _{max}

The measurement periods to determine the daytime L₁₀ shall be representative of any single working day (i.e., 0700 – 2100 Monday to Friday, and 0700 – 1200 Saturday) and shall consist of at least three measurement periods of at least 15 minutes duration each, in any non-consecutive 60-minute periods spread over the working day.

The daytime mean corrected noise level shall be calculated on an energy basis from the measurements and no single corrected measured level shall exceed the permitted mean level by more than 5dBA.

(Note: The term ‘related Company’ includes Waihi Mines Limited, Welcome Gold Mines Limited, Auag Resources Limited, Martha Mining Limited, Waihi Gold Mining Company Limited, and Waihi Gold Company Nominees Limited.)

6. Subject to the express provisions of Condition 5, the noise levels shall be measured and assessed in accordance with the requirements of the New Zealand Standards NZS 6801:1999 Measurement of Environmental Sound and NZS 6802:1991 Assessment of Environmental Sound.

7. Before any operations take place on or in association with the polishing pond stockpile between the hours of 2100 hrs and 0700 hrs the following day the consent holder shall demonstrate in practice, to the satisfaction of the Manager – Planning and Environmental Services, that it is able to comply with Condition 5. The process proposed to demonstrate compliance shall be included in the Noise Management Plan (Condition 10) and will require Council to obtain a report from the liaison officer appointed under Condition 40 as to complaints received and the steps taken in response.

8. The consent holder shall establish maximum sound power levels for individual items of Favona Mine equipment and record these in the noise management plan. All equipment and machinery shall be regularly maintained to ensure compliance with the noise levels in Condition 5.

9. Monitoring and Reporting

Unless it can be demonstrated that adverse weather conditions prevented noise monitoring on each day of the seven day period, the consent holder shall monitor noise levels at weekly intervals during any construction of buildings, haul and access roads, any noise bunds and the vent shaft riser and during stockpile site preparation works. In addition and unless it can be demonstrated that adverse weather conditions prevented noise monitoring on each day of the seven day period the consent holder shall monitor noise levels at weekly intervals for the first six months of production operations and, if the monitoring demonstrates compliance with the noise limits, thereafter at intervals not exceeding 3 months. In the event that noise limits are exceeded then monitoring shall continue at weekly intervals while steps are undertaken to remedy the situation. Such measures shall be implemented immediately.

Records of all noise monitoring shall be maintained and provided to Council on request.

Representative noise levels shall be measured and assessed in accordance with the methods specified in Condition 6, and as set out in the Noise Management Plan (Condition 10).

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 3 month period from commencement of work to completion of the project (i.e. once all rehabilitation has been completed) on the following:

- i) Results of the noise monitoring;
- ii) Any complaints received during the previous 3 month period, action taken by the consent holder and the resolution (if any): and
- iii) Any other matters of concern raised with the consent holder.

10. Noise Management Plan

The consent holder shall, 1 month prior to exercising this consent, prepare a noise management plan to the satisfaction of the Manager Environment and Planning. The objective of this plan is to detail the methods to be used to comply with Conditions 5, 6, 7, 8 & 9.

Appendix 4

Trio – HDC LUC# RC-15774

Noise conditions

Noise

5. All noise associated with the Trio Underground Mine Project shall be measured on or close to the boundary of any residentially zoned site or the notional boundary of any occupied rural dwelling site not owned by the consent holder or related company or not subject to an agreement with the consent holder or related company. In the event that a property is sold and ceases to be subject to an agreement between the consent holder (or related company) and the purchaser, or in the event that there is no longer an agreement between the consent holder (or related company) and the landowner, the measurement of noise shall revert to being on or close to the boundary of the residentially zoned site or the notional boundary of the occupied rural site.

All noise associated with the Trio Underground Mine Project shall be over the periods specified below, and shall not exceed the Noise Level limits specified below:

Time Period	Noise Limits	
	L ₁₀	L _{max}
Monday – Friday 0700-2100	55	NA
Saturday 0700-1200	55	NA
On all nights 2100-0700 (the following day)	NA	70
All other times	40	NA

The noise shall be measured cumulatively with other noise emanating from the Martha Mine and Favona Underground Mine (should there be simultaneous sources of noise generation), all operations within the process plant, operations within the waste and tailings area, and the conveyor and associated activities

The day time measurement periods to determine the L₁₀ noise level shall be representative of any single working day and shall consist of at least three measurement periods of at least 15 minutes duration each, in any non-consecutive 60-minute periods spread over the working day.

The mean corrected noise level shall be calculated on an energy basis from the measurements and no single corrected measured level shall exceed the permitted mean level by more than 5dBA.

Subject to the express provisions in the table in this condition, the noise levels shall be measured and assessed in accordance with the requirements of the New Zealand Standards NZS6801:1999 Measurement of Environmental Sound and NZS6802:1991 Assessment of Environmental Sound.

6. Noise Monitoring and Reporting

a) Noise monitoring to confirm compliance with the noise levels in Condition 5 shall be undertaken as follows:

Unless it can be demonstrated that adverse weather conditions prevented noise monitoring on each day of the seven day period, the consent holder shall monitor noise levels for the site at weekly intervals for 6 weeks from the commencement of Trio Underground mining operations, and if the monitoring demonstrates compliance with the noise limits, thereafter at intervals not exceeding three months.

In the event that noise limits are exceeded then monitoring shall continue at weekly intervals while steps are undertaken to comply with Condition 5. Such measures to comply with Condition 5 shall be implemented immediately.

Note: Such ongoing monitoring may be undertaken in conjunction with the Favona Land Use Consent (85.050326E) and the Martha Mining Licence (ML 322388).

Records of all noise monitoring shall be maintained and provided to Council on request.

- b) Representative noise levels shall be measured and assessed in accordance with the methods specified in Condition 5, and as set out in the Noise Management Plan (Condition 7).

- c) 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 3 month period from commencement of work Trio Underground mining operations to completion on the following:
 - (i) Results of the noise monitoring that is of direct relevance to the Trio Underground Mine Project;
 - (ii) All complaints received during the previous 3 month period, action taken by the consent holder and the resolution (if any); and
 - (iii) Any other matters of concern raised with the consent holder.

7. Noise Management Plan

The consent holder shall, 1 month prior to the exercise of this consent, prepare a noise management plan for the Trio Underground Mine Project for the written approval of the Manager Environment and Planning, Hauraki District Council. The objective of this plan is to detail the methods to be used to comply with Conditions 5 and 6 of this consent.

Appendix 5

Correnso – HDC LUC# RC-202.2012

Noise conditions

Noise

- 7 All noise associated with the use of existing facilities and infrastructure by the Correnso Underground Mine provided for under ML32 2388 and the Extended Project and Favona and Trio land use consents referenced in Condition 2 above and identified in Schedule A of this consent shall not exceed the applicable Noise Level limits contained in the existing licences and consents identified in Schedule A of this consent.
- 8 The mean corrected noise level (L10) arising from the construction, operation and decommissioning of the Correnso Underground Mine vent shaft shall not exceed the limits shown in Figure 2 – Noise Monitoring Sites attached to this consent and specified below:

		55 dBA Control Boundary	50 dBA Control Boundary
Monday – Friday	0700-2100	55 dBA	50 dBA
Saturday	0700-1200	55 dBA	50 dBA
All other times		40 dBA	40 dBA

- 9 The mean corrected noise level (L10) arising from the construction, operation and decommissioning of the Correnso Underground Mine cemented aggregate fill plant at any point measured on the boundary of any Residential, Rural Residential, Reserve (Passive), Industrial (Light) zoned site or the notional boundary of any occupied rural dwelling site within the Rural Zone shall not exceed the limits specified below:

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

- 10 Except as provided for in Condition 8, all noise associated with the Correnso Underground Mine shall be measured within or close to the boundary of any residentially zoned site or the notional boundary of any occupied rural dwelling site not owned by the consent holder or related company, or not subject to an agreement with the consent holder or related company. In the event that a property is sold and ceases to be subject to an agreement between the consent holder (or related company) and the purchaser, or in the event that there is no longer an agreement between the consent holder (or related company) and the landowner, the measurement of noise shall revert to being on or close to the boundary of that residentially zoned site or the notional boundary of the occupied rural site.

The noise shall be measured cumulatively with other noise emanating from the Martha Mine and the Favona and Trio Underground Mines (should there be simultaneous operations), all operations within the process plant area, operations within the waste and tailings area, and the conveyor and associated activities.

The daytime measurement periods to determine the L10 shall be representative of any single working day and shall consist of at least three measurement periods of at least 15 minutes duration each, in any non-consecutive 60-minute periods spread over the working day.

The mean corrected noise level shall be calculated on an energy basis from the measurements and no single corrected measured level shall exceed the permitted mean level by more than 5dBA.

Subject to the express provisions in this condition, the noise levels shall be measured and assessed in accordance with the requirements of the New Zealand Standards NZS6801:1999, Measurement of Environmental Sound and NZS6802:1991, Assessment of Environmental Sound.

- 11 Noise Monitoring and Reporting
- a) The consent holder shall undertake the monitoring required by these conditions at its cost. Noise monitoring to confirm compliance with the noise levels in Conditions 7, 8 and 9 shall be undertaken as follows:

- i) Unless it can be demonstrated that adverse weather conditions prevented noise monitoring on each day of the seven day period, the consent holder shall monitor noise levels for the site at weekly intervals for 6 weeks from:
 - Commencement of construction of the ventilation shaft in the Surface Facilities Area; and
 - Commencement of the Correnso Underground Mine.
- ii) Monitoring of noise from the operation of the ventilation fan shall be undertaken on two separate nights. This monitoring shall be undertaken within 2 months of the ventilation fan being installed and operating.

If the monitoring required in i) and ii) above demonstrates compliance with the noise limits, noise monitoring shall be undertaken thereafter at intervals not exceeding three months for the duration of the activity identified above.

In the event that noise limits are exceeded then monitoring shall continue at weekly intervals while steps are undertaken to comply with Conditions 7, 8 and 9. Such measures to comply with Conditions 7, 8 and 9 shall be implemented immediately.

- iii) Such ongoing monitoring shall be undertaken in conjunction with the Martha Mining Licence (ML 32 2388), the Extended Project Land Use Consent (97/98-105), the Favona Land Use Consent (85.050.326E) and the Trio Land Use Consent (RC-15774).
- b) Records of all noise monitoring shall be maintained and provided to Council on request.
- c) Representative noise levels shall be measured and assessed in accordance with the methods specified in Condition 10, and as set out in the Noise Management Plan (Condition 12).
- d) 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 3 month period from commencement of work to completion on the following:
 - i) Results of the noise monitoring that is of direct relevance to the Correnso Underground Mine; and
 - ii) All complaints received during the previous 3 month period, action taken by the consent holder and the resolution (if any); and
 - iii) Any other matters of concern raised with the consent holder.

12 Noise Management Plan

The consent holder shall prepare a Noise Management Plan for the written approval of the Council. The objective of the Plan is to detail the methods to be used to comply with Conditions 7, 8, 9, 10 and 11 of this consent. This Plan shall be submitted to the Council at least 1 month prior to the exercise of this consent and the consent shall not be exercised until the Noise Management Plan has been approved by the Council. The Noise Management Plan may be reviewed and amended from time to time, subject to the approval of Council but not in a manner inconsistent with these conditions.

Advice note:

The Noise Management Plan may be prepared in conjunction with Noise Management Plans prepared in accordance with the consent requirements applying to other mines in the Waihi Area.

Appendix 6

Martha Drill Drive Project – HDC LUC# 202.2017.664.001

NOISE CONDITIONS

Noise

- 7 Prior to the installation of the ventilation fan, the consent holder shall provide an acoustic report, prepared by a suitably qualified and experienced acoustical consultant to the Hauraki District Council for its certification. The acoustic report shall include the manufacturer's noise data for the ventilation fan the predicted noise levels at critical neighbouring sites, a recommendation on whether silencers are required to ensure compliance with the noise limits in condition 9 (on a cumulative basis), and the acoustic performance of any silencers, if required. Should the Council (in liaison with an independent, suitably qualified noise expert) refuse to certify the report, it will explain its reasons and the consent holder shall submit a revised report to Council. The fan shall not be operated until the report is certified.
- 8 Noise associated with the use of existing facilities and infrastructure by the MDDP provided for in the licences and consents identified in Schedule A of this consent shall not exceed the applicable noise level limits contained in the existing licences and consents identified in those licences and consents.
- 9 The mean corrected noise level (L_{Aeq}) arising from the construction, operation and decommissioning of the inlet ventilation portal and fan located in the south-west wall of the Martha Pit shall not exceed the limits shown in Figure 2 – Noise Control Boundaries and specified below:

		55 dBA Control Boundary	50 dBA Control Boundary
Monday – Friday	0700-2100	55 dBLAeq	50 dBLAeq
Saturday	0700-1200	55 dBLAeq	50 dBLAeq
All other times		40 dBLAeq	40 dBLAeq

- 10 All noise associated with the MDDP shall be measured within or close to the boundary of any residentially zoned site or the notional boundary of any occupied rural dwelling site not owned by the consent holder or related company, or not subject to an agreement with the consent holder or related company. In the event that a property is sold and ceases to be subject to an agreement between the consent holder (or related company) and the purchaser, or in the event that there is no longer an agreement between the consent holder (or related company) and the landowner, the measurement of noise shall revert to being on or close to the boundary of that residentially zoned site or the notional boundary of the occupied rural site.

The noise shall be measured cumulatively with other noise emanating from the Martha Mine and the underground mines of Favona, Trio, CEPPA and SUPA (should there be simultaneous operations), all operations within the process plant area, operations within the waste and tailings area, and the conveyor and associated activities.

Subject to the express provisions in this condition, the noise levels 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 NZS6802:2008 Acoustics - Environmental Noise.

11 Noise Monitoring and Reporting

- a. The consent holder shall undertake the monitoring required by these conditions at its cost. Noise monitoring to confirm compliance with the noise levels in conditions, 8, 9 and 10 shall be undertaken as follows:
- Unless it can be demonstrated that adverse weather conditions prevented noise monitoring on each day of the seven day period, the consent holder shall monitor noise levels for the site at weekly intervals throughout the period of construction of the ventilation portal.
 - Monitoring of noise from the operation of the ventilation fan shall be undertaken on two separate nights. This monitoring shall be undertaken within two months of the ventilation fan being installed and operating.

- iii. If the monitoring required in i) and ii) above demonstrates compliance with the noise limits, noise monitoring shall be undertaken thereafter at intervals not exceeding three months for the duration of the activity identified above.

In the event that noise limits are exceeded then monitoring shall continue at weekly intervals while steps are undertaken to comply with conditions 8, 9 and 10. Such measures to comply with conditions 8, 9 and 10 shall be implemented immediately.

- iv. Such ongoing monitoring shall be undertaken in conjunction with that required under the licences and consents identified in Schedule A of this consent.

Records of all noise monitoring shall be maintained and provided to Council on request.

Representative noise levels shall be measured and assessed in accordance with the methods specified in condition 10, and as set out in the Noise Management Plan (condition 12).

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:

- v. Results of the noise monitoring that are of direct relevance to the MDDP; and
- vi. All complaints received during the previous three month period, action taken by the consent holder and the resolution (if any); and
- vii. Any other matters of concern raised with the consent holder.

12 Noise Management Plan

The consent holder shall prepare a Noise Management Plan for the written approval of the Council. The objective of the Plan is to detail the methods to be used to comply with conditions 8 to 11 of this consent. This Plan shall be submitted to the Council at least two weeks prior to the exercise of this consent and the consent shall not be exercised until the Noise Management Plan has been approved by the Council. The Noise Management Plan may be reviewed and amended from time to time, subject to the approval of Council but not in a manner inconsistent with these conditions.

Advice note:

The Noise Management Plan may be prepared in conjunction with Noise Management Plans prepared in accordance with the consent requirements applying to other mines in the Waihi Area.

Appendix 7

Project Martha – HDC LUC# 202.2018.857.001

NOISE CONDITIONS

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:
- All works associated with the construction of the noise bund / fencing;
 - The construction of the cement aggregate fill plant;
 - The rehabilitation of the Martha Pit;
 - The construction of the intake structure, associated infrastructure and pipeline for the pit lake.
 - The construction of the outlet and discharge structure for the pit lake; and
 - The construction of the limestone addition plant for the pit lake.
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	L _{Aeq}	L _{AFmax}
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	L _{Aeq}	L _{AFmax}
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_{Aeq}.
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* 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:
- Owned by the consent holder or a related company; or
 - 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_{Aeq}) 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 LAF max

23. The noise level (LAeq) 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:
- Owned by the consent holder or a related company; or
 - 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:

- Results of the noise monitoring that is of direct relevance to the Martha Pit; and
 - All complaints received during the previous three-month period, action taken by the consent holder and the resolution (if any); and
 - 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.

APPENDIX 8

**TSF2 Crest Raise Preparation Works – HDC LUSE
202.2018.00000812.001**

NOISE CONDITIONS

9. All activities associated with the TSF2 crest raise in combination with activities authorised by Hauraki District Plan Rule 5.17.4.1 P1 shall not exceed the following limits when measured over the periods specified below, at or within the boundary of any residentially zoned site or the notional boundary of any occupied dwelling in the Rural Zone:

Monday-Friday	0700-2100	55dB LAeq
Saturday	0700-1200	55dB LAeq
All other times		40dB LAeq
	2100-0700 (the following day)	70dB LAFmax

10. All noise shall be measured within or close to the boundary of any residentially zoned site or the notional boundary of any occupied rural dwelling site not owned by the licence holder or related Company or not subject to an agreement with the licence holder or related Company.
11. In the event that a property is sold and ceases to be subject to an agreement between the licence holder (or related Company) and the purchaser, or in the event that there is no longer an agreement between the licence holder (or related Company) and the landowner, the location for the measurement of noise shall revert to being on or close to the boundary of that residentially zoned site or the notional boundary of the occupied rural site.
12. Noise shall be measured in accordance with the provisions of New Zealand Standard NZS 6801:2008 Acoustics – Measurement of Environmental Sound and assessed in accordance with the provisions of NZS6802:2008 Acoustics – Environmental Noise.

Noise Management Plan

13. The consent holder shall prepare a Noise Management Plan. This Management Plan shall be submitted to and approved by Hauraki District Council. The objective of this plan is to detail the methods to be used to comply with conditions 9 to 12 including a programme of noise monitoring. This Plan shall be submitted to the Council at least 1 month prior to the exercise of this consent and the consent shall not be exercised until the Noise Management Plan has been approved by the Council. The Noise Management Plan may be reviewed and amended from time to time, subject to approval of Council but not in a manner inconsistent with these conditions.

Advice Note:

The Noise Management Plan may be prepared in conjunction with Noise Management Plans prepared in accordance with the consent requirements for other mines in the Waihi Area.

APPENDIX 9

TSF1A Crest Raise Works – HDC LUSE 202.2021.00001466.001

NOISE CONDITIONS

2. The activities authorised by this consent shall be:

- (a) Carried out in general accordance with the plans and information submitted in the application; and
- (b) Subject to the terms and conditions in expired Mining Licence 32 2388 and expired Land Use Consent 97/98-105 insofar as they apply to land the subject of this application, with all references to the 'Minister' in mining Licence 32 2388 meaning 'Hauraki District Council';

Except as amended by the conditions set out below.

Advice note: Copies of expired Mining Licence 32 2388 and expired Land Use Consent 97/98-105 contain conditions addressing the following which apply to the works authorised by this consent:

- Provision of an annual work programme;
- Appointment of a Company Liaison Officer;
- Hours of work;
- Noise;
- Fencing;
- Lighting;
- Compliance of buildings (which includes the TSF1A structure) with the New Zealand Building Code;
- Rehabilitation; and
- Insurance, bond, and trust requirements.

APPENDIX 10

OGNZL STABILITY CUTBACK

memorandum of understanding

MEMORANDUM OF UNDERSTANDING

between

OCEANA GOLD (NEW ZEALAND) LTD

and

HAURAKI DISTRICT COUNCIL

Dated: 25 November 2016

BACKGROUND

1. This Memorandum of Understanding is entered into between Hauraki District Council ("the Council") and Oceana Gold (New Zealand) Ltd ("OGNZL").
2. The Council is a territorial authority constituted under the Local Government Act 2002.
3. OGNZL is the holder of the necessary mining licence and resource consents for various mining projects in and around Waihi. OGNZL and its predecessor companies have been undertaking mining operations in the area for the past 29 years.

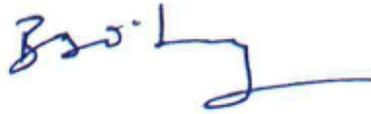
STATEMENT OF INTENT

4. The intention of this Memorandum of Understanding is to express the commitment on the part of both the Council and OGNZL to continue to act in a socially responsible manner. The parties commit to respond in a timely manner, and engage in meaningful dialogue, when issues relating to potential nuisance effects on members of the Waihi community arise with respect to OGNZL mining operations.

COMMITMENTS OF THE PARTIES

5. The parties commit to the establishment of a project-focussed working party, constituted by representatives from both the Council and OGNZL, and at a minimum, will include the HSEC Manager for OGNZL or their delegate. Consideration may be given to the involvement of a community representative. Technical advisors may also be called to take part in discussions where appropriate.
6. The parties commit to meaningfully discuss in a timely manner, any issues and legitimate unresolved complaints arising from activities being undertaken in relation to the mining operations in and around the urban area of Waihi. Initially complaints will be responded to through the processes set out in the mitigation and management plans and the complaints procedure, regardless of whether consent limits are exceeded.
7. The parties commit to promptly implement any agreed actions to address issues or legitimate complaints, whether that be by way of amendments to the management and mitigation plans, or by other means.
8. The parties agree to meet to discuss how unresolved complaints, other than those considered to be vexatious, are to be addressed, and to discuss technical issues relating to effects and actual or proposed mitigation responses.
9. The Council commits to identifying an employee to act as the Council Liaison Officer (in accordance with conditions 3.4 of Land Use consent No. 97/98 – 105 and 7B of ML 32 2388). The Council Liaison Officer is the person to whom all complaints and issues raised by the Waihi community are to be directed in the first instance. The Council Liaison Officer will liaise with the Company Liaison Officer and, as necessary, with the working party.

The above intention and commitments are agreed to by the Council and OGNZL as shown by the signatures below:



Bernie O'Leary
General Manager for
OGNZL – Waihi Operations



Langley Cavers
Chief Executive Officer for
Hauraki District Council