IN THE MATTER of the Resource Management Act 1991

AND an application pursuant to section 88 of the Act to the Hauraki District Council for resource consent by Newmont Waihi Gold to carry out underground mining and associated activities at Waihi.

DECISION BY THE INDEPENDENT COMMISSIONERS' HEARINGS PANEL

1.0 DECISION SUMMARY

The below decision report leads to a decision to grant consent, but only for the Correnso Underground Mine and subject to conditions that are additional to those proposed by parties to the hearing.

The details are explained fully in the following decision report, but the key factors influencing our decision are as follows:

- The positive effects of the proposal are significant.
- The most significant adverse effect on amenity is vibration.
- The adverse effects of the proposal will be minor, other than in respect of the amenity effects caused by vibration, and the associated indirect effects of vibration, such as those on property values and social wellbeing.
- We are satisfied that the development of the Correnso Underground Mine will, subject to appropriate conditions, enable people and communities to provide for their social, economic and cultural wellbeing. The potential of natural and physical resources to meet the reasonably foreseeable needs of future generations will be achieved, while the life-supporting capacity of the local environment will be appropriately safeguarded. The adverse effects of the proposal will be avoided, remedied or mitigated, subject to the imposition of appropriate conditions.
- However we do not consider that consent should be granted for the wider Golden Link Project Area for a number of reasons:

    i. There will always be some uncertainty around the potential effects of blasting activity and the effects of mining activity on surface stability given the variable geological conditions that can be struck over a larger area.

    ii. The Correnso Underground Mine is the first area of gold mining directly below a residential area in New Zealand which indicates a precautionary approach is appropriate.

iii. Rather than creating certainty for property owners in the GLPA an all-encompassing consent would have those outside the area directly affected by the Correnso Underground Mine on "tenterhooks" as they waited over a 20 year period for the applicant to proceed or not with mining beneath their properties, noting also that the actual effects of vibration (as opposed to a maximum permitted level) are very dependent on the location of the mining operations. Such a consent would have the effect of leaving property owners in a position of not knowing whether to carry out improvements to their properties and arguably lead to a situation of property blight.

iv. With an all-encompassing consent there would be limited opportunity to introduce additional resource consent conditions, particularly if it is found additional conditions are needed in relation to social and wellbeing effects.

v. There is the inherent disadvantage of an all-encompassing consent not having the ability to anticipate all relevant effects or matters of detail that may affect the receiving environment.

vi. Public input to future proposals is effectively vetoed.

vii. We note too, the evolving nature of mitigation methods, whether such are offered or imposed. In this respect, since the time of the Trio mine consent in 2011 the applicant has considerably advanced its property purchase and amenity impact programmes. It is not unrealistic to expect there to be further changes to such programmes and we would not want to be limiting such change through having granted a long term consent.

viii. We also note that the "project by project" approach to consenting has been the applicant's (and its predecessor companies') preferred approach to consenting.

The consent for the Correnso Underground Mine is predicated on imposing a number of conditions that we address in the decision report and on the basis of:

- Holding the applicant to the magnitude and number of blast events described in its evidence and particularly the number of blasts that are expected to exceed 3 mm/sec; and

- The property purchase and other property-related initiatives offered by the applicant being necessary mitigation for the blasting induced vibrations that exceed 3 mm/sec; and

- There being a greater role for an independent body in administering the necessary fund and its distribution, with the opportunity for property owners wishing to sell to be able to do so without financial loss and without undue delay.

2.0 THE APPLICATION

The application by Newmont Waihi Gold ("**the applicant**" or "**NWG**" or "**the company**") is for land use consent to allow underground mining within the area referred to as Area L of the Golden Link Project Area ("**GLPA**"). The GLPA covers 742ha. It lies immediately east of the

existing Martha mine (or excavated pit) to include the eastern part of the settlement of Waihi. It also extends further eastward to include the existing tailings dams for the mining operations at Waihi.

Within this area is located the Correnso ore body which is sufficiently defined to enable the mining of this resource to be included in the application. However, there are other known areas of mineralisation in the Waihi East area and Area L (being the north western "half") of the GLPA which has been defined to include these other areas. The application seeks land use consent to undertake the mining of such deposits if they are proven by exploration activities to be viable underground mines. For any such future underground mining project beyond the proposed Correnso Underground Mine ("**the Correnso mine**") it would need to be demonstrated that compliance with the terms of the land use consent could be achieved by the provision of appropriate information, in the form of an Assessment of Environmental Effects ("**AEE**") report, to the satisfaction of the Hauraki District Council ("**the Council**"). This process would not involve public input but rather the Council would determine if a future proposal within the GLPA (Area L) would be able to be conducted in compliance with the conditions imposed on the Golden Link Project ('**GLP**"), including the Correnso mine consent (if it was granted).

Future underground mining operations, including the Correnso mine within the GLPA (Area L), primarily rely on the use of existing consented facilities and infrastructure (the Favona mine portal, access drives / shafts forming part of the Favona and Trio underground mines, conveyor, stockpiles, processing plant / facilities, waste disposal area). All these facilities are located within Area L of the GLPA, other than the waste disposal area which is included in the GLPA as Area M. Area M largely covers the tailings dams. It is to be noted that underground mining activity within (under) Area M of the GLPA is specifically excluded from the application. While there are existing mining operations (described below) and associated infrastructure within the GLP application area, all these activities operate and would continue to operate under the authorisations they hold (Mining Licences, land use consents, resource consents). While arguably the surface infrastructure (stockpiles, mill, water treatment, tailings dam, etc) could be used for the GLP, including Correnso mine works, clearly underground mining (outside the Favona and Trio consented mines) is not provided for within current authorisations, notwithstanding that some of these cover land within the GLPA.

However, it could be argued that the use of the Favona mine portal/drives, the Trio mine incline and decline, established vent shafts, etc are restricted to those projects and may not be available as an access or ventilation to another mineralised area (eg Correnso).

For the avoidance of doubt, the GLP, including the Correnso application, includes seeking consent for the use of existing surface and underground infrastructure. However, such use will be in accordance with the authorisations applying to such works / operations (conditions of consent, etc). Accordingly, conditions for any consent granted to the GLP, including Correnso, application will need to be consistent with those existing authorisations for infrastructure/facilities that the new consented activities will rely on.

The detailed activities which the applicant seeks land use consent for are described in the AEE included as part of the application. These are:

Within Area L of the GLPA:

- Earthworks

- Use of existing surface and underground facilities and infrastructure
- Construction of access drives, declines and inclines, and underground ventilation and service shafts
- Construction and use of a ventilation shaft in the Surface Facilities Area ("**SFA**")
- Construction and operation of a concrete batching plant and the associated stockpiling of aggregate within the Favona stockpile area
- Drilling and blasting
- Underground mining
- The removal of waste rock and ore
- Rehabilitation activities, including backfilling with waste rock and cemented aggregate fill, and flooding with treated water and water from the Ohinemuri River
- Ongoing exploration of ore bodies
- The storage and use of hazardous substances including the construction and use of underground storage areas
- Construction and use of underground support facilities including maintenance and servicing workshop areas.

Within Area M of the GLPA:

- Use of existing facilities, infrastructure and capacity
- All activities provided for under ML322388 and the Martha Extended Project, Favona and Trio mine land use consents where relevant.

A 20 year term is sought for the land use consent although, as stated in the AEE, the standard lapse period of 5 years is sought.

3.0 PROJECT DESCRIPTION

The application seeks land use consent for the GLP which covers underground mining within Area L of the GLPA from development and mining through to rehabilitation of the land. The application also specifically seeks to consent the Correnso mine which falls within the GLPA (Area L).

In terms of detail, only the Correnso mine project can be fully described. For future underground mine operations it will need to be demonstrated that those mines can comply with the conditions of any consent granted to the GLP including the Correnso mine project by way of the provision of adequate technical studies to the Council.

The Correnso mine proposal is located beneath residential land in north east Waihi running generally north to south and parallel to Gladstone Road/Walmsley Road between Richmal Street and south of Barry Road.

The top of the Correnso ore body is approximately 130m below the land surface but the current proposal has the top of the mine workings at 157m below the surface. The ore body extends to 430m below the surface, with the majority of the proposed mining to take place at a depth of 270m to 350m below the surface. The mine will be accessed by drives and a spiral decline from the existing Trio mine and Favona mine workings. The surface access point will be the existing Favona mine portal located near the processing plant.

The Correnso mine project is planned to start in mid 2013 and to be completed by December 2020 (7.5 years). The initial work will involve development activities (main accesses, ventilation shafts, etc) with actual mining of the ore commencing from 2015.

The project involves the extraction of approximately 997,891 tonnes of waste and 2,539,675 tonnes of ore.

Mining of the Correnso ore body will involve three different underground mining methods (transverse stoping, longhole AVOCA and overhand cut and fill) to produce approximately 570,000 oz of gold.

Most waste rock will be returned underground as backfill for excavated stopes. Tailings from the processed ore will be disposed of at Tailings Storage Facility 1A. All stopes are to be backfilled (tunnels, drives will not be) and in addition to waste rock from the Correnso mine itself a further 1,000,000 tonnes of waste rock from the Martha mine will be used for backfill (to be stored at an existing stockpile awaiting use). Backfilling will also involve the use of cemented aggregate fill ("**CAF**") in areas where the ore body is quite wide. Some 540,000 tonnes of imported crushed rock will be required for the CAF. A concrete batching plant will be established near the Favona mine portal for this purpose.

With the Correnso mine project operating, the applicant would employ between 330 and 400 full time employees (ie all operations). Most are expected to transfer from the current NWG operations in the area (Favona, Trio and Martha mines).

The Correnso mine will operate 24 hours a day, 7 days a week. Blasting will not take place at night, on Sundays or public holidays. Blasting will be limited to three blast events per day, these "most likely" taking place in the one hour window at shift changes (7am and 7pm) and during meal breaks (1pm).

New surface structures required as part of the Correnso mine comprise the following:

- Ventilation shaft in the SFA of the Martha mine
- Concrete batching plant near the Favona portal.

Additional dewatering is required to allow for the development of the Correnso mine. The Trio mine has required dewatering to RL 755m. The lower levels of the Correnso mine sit some 55m below this level and dewatering of the additional depth is required.

4.0 SITE DESCRIPTION

The GLP, including the Correnso mine, application area comprises two contiguous areas being Areas L and M. The total area covered by the application is 742 ha.

Area L is approximately 365 ha in area and it is within this area that underground mining is proposed (includes Correnso). Much of the existing mining infrastructure that the Correnso mine and any future underground mines will rely on is located in Area L (stockpiles, portal, processing plant, water treatment plant, etc).

The other part of the application area is Area M which includes the existing tailings disposal dams ("**TSF 1A**" and "**TSF 2**"). Area M is 377 ha in area. Waste tailings from the processing of Correnso ore and ore from any other underground mine developed under the GLP area (Area L) will be disposed of in the tailings dams in Area M. The GLP, including the Correnso mine, application, does not seek consent to carry out underground mining within Area M. All activities within Area M will be conducted in accordance with the existing consents applying to this area (waste disposal etc).

Much of the area of the GLP, including Correnso, application is already the subject of land use authorisations for mining activities. These authorisations are:

- For the Martha Mine (or open pit); the mine and associated processing mill, tailings dams, conveyor, stockpiles were authorised under Mining Licence ML 322388 (in terms of the Mining Act 1971) granted in 1987. The licence expires in 2017.

- For the Martha Mine Extended Project; land use consent was granted in 1999 to allow for an extension of activities mainly at the north eastern end of the pit. This consent expires in 2019.

- For the South Wall Stability Cutback and Eastern Layback; these are works to address stability of parts of the Martha Mine or pit as approved in 2006 and 2009 respectively. Both works can be undertaken within the terms of the Martha mining licence and the consent for the Extended Project. This work in the open pit is expected to be completed by early 2016 following completion of the Eastern Layback.

- For the Favona Underground Mine; land use consent was granted in 2004 and the mine was completed early in 2012.

- For the Trio Underground Mine; land use consent was granted in 2011, mining has commenced and is expected to be completed in early 2015.

However, much of Area L is not subject of any of the above authorisations and further, the Favona and Trio mine consents are restricted to carrying out the mining operations as provided for in those consents.

5.0 NOTIFICATION

In its application, NWG specifically requested that the application for land use consent be publicly notified pursuant to section 95A(2)(b) of the Resource Management Act 1991 ("**RMA**"). In accordance with the request, the application was publicly notified on 9, 10 and 11 August 2012 in the Waihi Leader, Hauraki Herald and Waikato Times respectively.

Notice of the application was also served on the potentially affected owners and occupiers of land within:

- the GLPA (Areas L and M)

- an area adjoining the GLPA which was considered may also be adversely affected by the proposal.

The application was made publicly available in Council's offices and libraries and on the Council's website on Thursday 28 June 2012 and this was publicised in the Waihi Leader. This was on the basis that the Council wished the application to be available to the public for study well before the formal public notification for submissions on 9 August 2012.

The closing date for submissions was 28 September 2012.

6.0 SUBMISSIONS[1]

6.1 Submissions Received

500 submissions (including 10 late submissions) were received to the application with the overall stated position as follows:

Support (in entirety)	=	364
Support (with modifications, and/or with conditions)	=	10
Neutral	=	10
Not Stated	=	1
Oppose	=	115
TOTAL	=	500

6.2 Location of Submitters

The location of the submitters is identified in the below Table where the submitters have provided a physical address in Waihi or where this was able to be ascertained by Council staff. It shows the location within Area L of the GLPA, within Waihi and outside Waihi.

Table 1: Submitter Location

Submitter Location[1]	Support	Conditional Support	Oppose	Neutral	Not Stated	Total Submissions
Within Area L	49	9	69	6	1	134
Within Waihi (Outside Area L)	133	-	33	2	-	168
Waihi Total[2]	203	9	105	8	1	326

[1] This section of the decision report is largely taken from the section 42A report, section 10.

Submitter Location[1]	Support	Conditional Support	Oppose	Neutral	Not Stated	Total Submissions
Outside Waihi Total	161	1	10	2	-	174

Note that submitter No. 70 (Housing NZ) is in support of the application. This submitter owns 19 dwellings within Waihi (12 of these dwellings are located within Area L). This submitter is accounted for once in the Table in the Waihi total number in support. Submitter No. 283 (Power Inc) representing 15 persons (some of whom are landowners within Area L or within Waihi) is accounted for once in the table as within Area L. Those submitters who gave a Waihi PO Box address (ie Waihi physical address is unknown) are included in the Waihi total only.

There are a total of 660 rateable properties within Area L and 499 of these properties contain dwellings (30 of these are owned by the applicant). Based on the number of residential properties within Area L approximately 9% are in support and 13% opposed and some 75% of the property owners/residents did not make a submission.

6.3 Submissions Received Out of Time

Ten submissions were received after the close of the submission period of 4.30pm on 28 September 2012. The Table below sets out who these submissions were received from, when they were received and how late they were.

Table 2: Late submissions

Sub No.	Submitter	Date Received	Extent Out of Time
490	Tracy Sellars	4.44pm 28/09/2012	14 minutes
491	Terry Edwards	4.44pm 28/09/2012	14 minutes
492	Paul Rex Savage	4.44pm 28/09/2012	14 minutes
493	David Robert Ballie	Served on applicant only on 2/10/2012	Provided to HDC by applicant on 4/10/12 – 4 working days late
494	Brett James Congalton	Served on applicant only on 2/10/2012	Provided to HDC by applicant on 4/10/12 – 4 working days late
495	George Scott Andrew White	Served on applicant only on 2/10/2012	Provided to HDC by applicant on 4/10/12 – 4 working days late
496	Albert Rohrlach	Served on applicant only on 2/10/2012	Provided to HDC by applicant on 4/10/12 – 4 working days late
497	Rob Smart	Served on applicant only on 2/10/2012	Provided to HDC by applicant on 4/10/12 – 4 working days late
498	Siegfried Frederick	Served on applicant	Provided to HDC by applicant

Sub No.	Submitter	Date Received	Extent Out of Time
	Beneke	only on 2/10/2012	on 4/10/12 – 4 working days late
499	Michael Leslie Muir	Served on applicant only on 2/10/2012	Provided to HDC by applicant on 4/10/12 – 4 working days late
501	Steve Anthony Sunde	23/10/12	16 working days late

We are required to decide whether to accept or reject the ten late submissions in accordance with section 37A of the RMA, after taking into account the matters specified in subsection (1):

- the interests of any person who, in its opinion, may be directly affected by the extension or waiver;
- the interests of the community in achieving adequate assessment of the effects of the proposal, policy statement, or plan; and
- the duty under section 21 to avoid unreasonable delay.

Pursuant to section 37A of the Resource Management Act 1991, the Hearings Panel resolves to extend the time period to allow for these late submissions to be accepted because:

- Three of the late submissions (Nos. 490 to 492) were received by the Council on the closing day of submissions, only 14 minutes late.
- Seven late submissions (Nos. 493 to 499) were served on the applicant and not lodged with the Council. This perhaps shows a mis-understanding of what is required.
- All the late submissions were received by the Council within the doubling of the submission time period available in accordance with s37A of the RMA.
- The submissions are all in general support of the application. They do not raise any new matters.
- All of the late submitters stated they did not wish to be heard, other than Submitter No. 501.

6.4 Overview of Submissions Received

A summary of the issues raised by submitters was provided in the section 42A RMA report along with a more detailed discussion of the issues raised in the submissions. As stated in the section 42A report, the general tenor of the submissions in opposition is predominantly based on residential amenity effects (from blasting, noise and dust) and the associated effects on their health and wellbeing and property values with the submitters generally requesting the application be declined. A number of the submissions in opposition sought stringent conditions particularly on blasting should consent be granted and/or a reduced scale of the application based on the Correnso ore body.

The Table below summarises the main issues raised in the submissions received. We record that it is not an exhaustive list.

Table 3: Key issues raised in submissions

Issue	Explanation
Positive benefits	Economic and employment benefits for Waihi, region and nationally associated with continuation of mining. Community benefits through support and financial contributions by applicant to range of local non-profit organisations, schools, sports groups etc. Environmental benefits through contribution by applicant to various environmental enhancement projects in and around Waihi. Enhancement of historic mine works and current mine activities by applicant attracts tourists.
Amenity	Adverse effects on amenity values including vibration, noise, dust, traffic, and visual impacts. Adequacy of monitoring effects and addressing complaints.
Social, health and wellbeing	Adverse health effects associated with adverse amenity effects, uncertainty of effects on structural/hazard effects associated with mining below submitters' properties and other community facilities (ie. education facilities), loss of property values, increased insurance costs. Social effects of divided community over continued mining within Waihi. Cumulative impact on community being subject to mining activities since 1985.
Mine Stability	Effect of potential mine and tailings dam collapse, adequacy of back filling of mine tunnels, structural damage to houses from blasting/land settlement, inadequate monitoring of stability/structural effects
Economic	No analysis of potential negative economic effects (eg. top up and property purchase scheme on property market), devaluation of properties, negative effects on insurance cover and costs
Cultural values	Adverse effects on cultural values. Proposal contrary to Memorandum of Understanding between applicant and Ngati Hako. Cultural assessment required.
Traffic Safety	Impact on traffic safety associated with heavy truck movements on State Highway 2 (Crean Road/SH2 and Baxter Rd/SH2 intersection). Stability risk to state highway network.
Groundwater	Insufficient information/assessment of effects on groundwater (volume, quality, availability, contamination) during and after de-watering, effects on bore water supplies
Air Quality	Contaminants from vent shaft affecting rain water supply, dust from blasting and use of above ground infrastructure.

Issue	Explanation
Property Access	Approval of land owners to access beneath properties not owned by applicant. Does not meet requirements of s57 Crown Minerals Act
Property Purchase Programme/Compensation	Adequacy and effectiveness of programme. Insufficient compensation to address adverse effects
Rehabilitation	Delay of timeframe for lake filling of Martha pit promised by applicant through previous consent processes
Consultation	Project area significantly greater than what applicant consulted on. Lack of consultation with Maori. Misleading or incorrect information in terms of scale of effects and benefits.
Resource Management	Separating assessment of land use consents from regional consents has limited ability to assess integrated resource management issues. Does not give effect to Part 2 RMA. Does not meet threshold tests for non-complying activity. Application pre-judges outcome on appeals to Hauraki Proposed District Plan.
Consent Term	Inappropriate to allow for a 20 year term of consent, given level of uncertainty as to where mining may occur, and adequately manage adverse effects

7.0 APPOINTMENT

The Hauraki District Council appointed ourselves, Dr Philip Mitchell, Mrs Dorothy Wakeling and Mr Alan Watson (chair), to be the Independent Commissioners Hearings Panel ("**Hearings Panel**" or **Commissioners**") in terms of section 34A of the RMA to hear the application, the submitters, and the reporting officer and advisers to the Council, and to make a decision on the application.

The information available to us prior to the hearing comprised;

- the application and accompanying AEE report dated June 2012;
- the further information provided with a cover letter dated 10 July 2012;
- the submissions (compiled in two volumes);
- a spiral bound document titled "Golden Link Project - Annual Vibration Monitoring" with a cover letter dated 26 September 2012; and,
- the report prepared by the planning consultants David Burton and Gillian Cockerell which was prepared in terms of section 42A of the RMA ("**the section 42A report**"). That report includes specialist input from consultants Peter Fuller (geotechnical engineer), Nigel Lloyd (noise), Cameron McKenzie (vibration & blasting), Philip McDermott (economic) and Kirsty Austin & Dianne Buchan (social).

Site visits to various parts of the current operation were arranged for the Hearings Panel prior to the hearing. We also toured the area potentially affected by the proposal both before and

during the course of the hearing. In addition arrangements were made for us to experience the blasting on 5 occasions. In all cases the Hearings Panel was accompanied by Steve Rice, the Hearings Administrator.

8.0 THE HEARING

8.1 Process

The hearing was convened at the Waihi Memorial Hall, Seddon Street, Waihi on 3, 4, 5, 6, 10, 11, 12, 13, 14, 17 and 18 December 2012. Following the presentations by the applicant and the submitters, the hearing was adjourned on 18 December 2012 so that further information could be received from the applicant. Directions dated 21 December 2012 were issued by the Hearings Panel that detailed questions of the applicant by which the Panel sought the further information. The Directions also detailed the manner in which submitters and the reporting officer for the Council would have the opportunity to comment in writing on the further information and the timings for doing so.

The Hearings Panel received comprehensive information and comments in response to the Directions.

The hearing was reconvened at Waihi on 11 and 12 March 2013. At that time the applicant provided some updated information and supplementary evidence and responded to questions from the Hearings Panel on the further information that had been received, the Panel having had the benefit of receiving comments from the submitters and from the Council's reporting officer in respect of that information.

The Council officers then reported to the Hearings Panel with Andrew Green providing legal submissions before calling expert witnesses to provide evidence as part of the presentation of the section 42A report. That report was presented by David Burton along with proposed consent conditions. The hearing was adjourned on 12 March 2013 for the Hearings Panel to consider whether it had all the information needed. The Hearings Panel met in Auckland on 20 March 2013 and following discussion closed the hearing as at that date and resolved to extend (double) the period for the decision from 12 April 2013 to 6 May 2013, pursuant to sections 37 and 37A RMA, on the grounds that there are complex issues involved in their considerations which require the additional time for a decision.

8.2 Appearances

Appearances were from:

Applicant:	Rob Fisher, Legal Counsel
	Michelle van Kampen, Legal Counsel
	Kate Reid, Legal Counsel
	Glen Grindlay, General Manager
	Charles Gawith, Underground Production Manager
	Sefton Darby, External Affairs Manager

Kerry Watson, Environmental Manager

Thomas Parrott, Geotechnical Engineer

Laurie Richards, Consultant Geotechnical Engineer

Trevor Matuschka, Consultant Engineer (land settlement)

Peter Millar, Consultant Geotechnical Engineer

John Heilig, Consultant Engineer (blasting &vibration)

Nevil Hegley, Consultant Acoustics Engineer

David Fougere, Marketing & Social Researcher

Leanne Dunne, Registered Clinical Psychologist

Douglas Saunders, Registered Valuer

Brent Wheeler, Consultant Economist

Buddy Mikaere, Consultant (tangata whenua & cultural)
(evidence tabled, as Mr Mikaere was absent due to ill-health)

David Serjeant, Consultant Planner

Submitters:

Number	Submitter	Presenter
Supporting		
243	Waikato Community Forum: Being - Selwyn Baker, Tineke Inversen, Jennifer Koopu, Michael Scahill, Rodney McNae, Bhavesh Ranchhod, Harry Shepherd	Jennifer Koopu & Rodney McNae
268	Bennie	Shayne Bennie
229	Carruthers	Peter Noel Carruthers
501	Sunde	Steve Anthony Sunde
302	Carter	David John Carter
245	Church	Charles Peter Church
343	Crawford	Danielle Lani Crawford
033	Fisher	David Neil Fisher
115	Waihi Association Football Club	Neil Fisher
025	Baylis	Philip Wayne Baylis
096	Harley	Teresa Harley
144	Minto	David Edward Minto

442	Faulkner	Hellen Faulkner
237	Fisher	Donna Fisher
458	Gawith	Miriam Gawith
221	MacDougall	Stuart Neil MacDougall
074	Hutchins	Mark Hutchins
147	Huurnink	Gerard Huurnink
100	Leyland	Christopher Maurice Leyland
029	Butterworth	Stan Butterworth
266	Hutching	Errol George Hutching
008	H G Leach & Co Ltd	Eric Souchon
264	Macmahon Contractor (NZ)	Bruce Preddy
469	Leighton Contractors Mining Division	Craig Surtees
228	New Zealand Engineering Manufacturing & Printing Union	Myles Leeson
273	Sprengers	Sacha Alwynne Sprengers
123	Peterson	David Peterson
174	Ruddock	Jeff Ruddock
262	Skinner	Gary Shane Skinner
004	Single	Kerry Raymon Single
486	Torckler	Lorrance Torckler
252	Seymour	Sheryl Eileen Seymour
295	Bartz	Damian P Bartz
142	Dunstall	Gael Samuel Dunstall
244	McNeil	Nicola Maree McNeil
018	Morton	Alex Ranui Morton
275	Wiki	David Wiki
064	Wiki	Jeannine Wiki
137	Croker	David Croker (AWF Mourant)
328	Johnson	Shannon Diana Johnson
341	Norman Walter Richards	Shannon Diana Johnson
095	McLeod	Doreen Isa Katheleen McLeod
219	Buckman	Warwick Arthur Buckman
290	Keall	Peter Cameron Keall
286	Walker	Noel Walker
267	Hawkes	Kenneth Murray Hawkes
172	Lorette Berryman	Kenneth Murray Hawkes
049	Mohi	Rodd Ereatara Bruce Mohi
317	Feehily	Geraldine Margaret Feehily
214	Gray	Murray Gray
500	Salmon	Phillip Salmon

Neutral		
274	McNae	Rodney Andrew McNae
310	Waihi Beach Community Board	Derek Mills
187	Porter	Thomas James Porter
480	McHardy Bate	Alister McHardy and Nicole Bate
224	Silberer	Sandra Jean Silberer
227	Helen Joy Marini Spence	Sandra Jean Silberer
Opposing		
437	Kerr	Anne-Marie Louise Kerr
094	Powell	Christine Mary Powell
066	Powell	Brian William Powell
005	McDonald	Donna Joy McDonald
269	Kurukaanga	Brenda Rose Kurukaanga
327	Spicer Trubshaw	Annemarie Spicer and Paula Trubshaw
247	Riddle	Dale Raymond Riddle
283	Protection of Waihi Environment and Raterpayers Incorporated ("**POWER**")	Robert Enright (Counsel) & Brigid McDonald (Counsel)
127	POWER & Ordish	Ruth Farringdon Ordish
240	POWER & Mackenzie	Tessa Mackenzie
161	POWER & Mewse	Clare Louise Mewse
299	POWER & Titford	Michael Titford
272	POWER & Anderson	Jean Anderson
457	POWER & Lauder	Mervyn Kenneth Lauder
375	POWER & Beadle	Ian and Raelene Beadle
225	POWER & Cotter	Alison Dulcie Cotter
468	POWER & Ireland	Sonja Ireland
016	POWER & Martin	Tania Martin
103	POWER & McGill	Frank Claude McGill and Alison Joy McGill
322	POWER & Ireland	Beverley Ann Ireland
308	POWER & Parker	Tara Parker
253	POWER & Annette Maxine Bowater	(Tabled)
022	POWER & Dragicevich	Gail Patricia Dragicevich
358	POWER & Hallums	Christopher Leonard Hallums

065	POWER & Miller	Christina Patricia Miller
360	POWER &Tracey Pedersen	Ian Beadle
278	POWER & Woollams	Timothy John Woollams
149	POWER & Green	Mark Green
148	POWER & Green	Heather Green
305	POWER & McCarthy (Mataura Holdings Ltd)	Robert William McCarthy
400	POWER & Fisher	Stephen Charles Fisher
381	POWER & Faber	Emma Faber
068	POWER & Spalding	Collette Richell Spalding
466	POWER & van Dourne	Keri Ann van Dourne
439	Grey Power Waihi	Mervyn Lauder
319	Susanne Ellen Sarjant	Cindy Satake
015	Judith Frances Cotter-Ellis	Collette Richell Spalding
455	Boggiss	Paul Edward Boggiss
454	Kelly Moana Boggiss	Paul Edward Boggiss
151	Ireland	Mary Ireland
145	Graeme Alistar Ireland	Mary Ireland
385	Sherman	Peter John Sherman
326	Te Kupenga O Ngati Hako Inc	Pauline Clarkin
304	Waihi East Ratepayers Group Incorporated ("**WERGI**")	Nicholas Swallow (Counsel)
304	WERGI	Terry Podmore (Witness)
012	WERGI & Don & Evelyn Dunnet	(Tabled)
023	WERGI & Gaybrielle Takuira	Christine Lealand
304	WERGI	Joyce Mahy (Witness)
169	WERGI William George Reid	Christine Lealand
167	WERGI Sonia Grace Reid	Christine Lealand
132	WERGI & Loft	Jennifer Wendy Loft
304	WERGI	Linda Compton (Witness)
304	WERGI	Jillyanne Puata (Witness)
304	WERGI	Jeanette Distlebrink (Witness)
304	WERGI	Iris Thomson-Prosser (Witness)
304	WERGI	Gaylene Rosenburg (Witness)
401	WERGI & Waugh	William Douglas Waugh / Christine Lealand
304	WERGI	John Wilson (Witness)
304	WERGI	Graham Walker (Witness)
446	Norman	Raewyn Elizabeth Norman

287	Madsen	Graeme & Judith Madsen
462	Moskal	Michael George Moskal
294	Armstrong	Mark Ian Armstrong
226	Nabbs	Dolores Ann Nabbs
436	Vanessa Twidle	Eric Roger Wainhouse
460	Stack	James & Yvonne Stack
217	Wainhouse	Eric Roger Wainhouse
332	Wainhouse	Valerie Jeanne Wainhouse
380	Forges	Roger Louis des Forges
459	McDuff	Nina Rae McDuff
485	Arthur	Paula Lee Arthur

Council officers: David Burton, Reporting Planner (consultant)

Gillian Cockerell, Consultant Planner

Cameron McKenzie, Consulting vibration/blasting expert

Nigel Lloyd, Consultant Acoustics Engineer

Dianne Buchan, Social Impact Assessment expert

Peter Fuller, Consultant Geotechnical Engineer

Phil McDermott, Consultant in Development Planning (economic).

Hearings Administrator: Steve Rice.

9.0 THE REASONS FOR RESOURCE CONSENT BEING REQUIRED

The application is subject to the provisions of the Operative District Plan 1997 ("**ODP**") and the Proposed District Plan 2010 ("**PDP**"), to the extent that these provisions are operative or otherwise have legal effect. It was common ground that the application represents a non-complying activity applying the "bundling" principle and determined in accordance with sections 86B to 86G of the RMA.

Underground mining is provided for as a discretionary activity in the relevant zones of both the ODP and the PDP except that in the ODP it is a non-complying activity in the Reserve Active and Reserve Passive zones. We do note that while the application is to be assessed as a non-complying activity, only a small part (some 5%) of the GLPA is zoned Reserve (Passive) and Reserve (Active). Of more significance is that the Decisions Version of the PDP now provides for underground mining in the Reserve (Passive) and Reserve (Active) zones as a discretionary activity. That means if the application was lodged now it would be considered as a discretionary activity.

10.0 THE PRINCIPAL ISSUES THAT WERE IN CONTENTION

The principal issues that were in contention were many and varied and include all the matters listed in Table 3 above.

11.0 SUMMARY OF EVIDENCE HEARD

The evidence that has been significant in our considerations for this decision, and determinative of the application, is referred to below in our Findings. We have not sought to mention all matters raised by all persons who appeared at the hearing – to do so would be an enormous task and increase the size of what is an already significant exercise in covering the matters we need to in this decision.

We do wish to record that we have considered carefully all the material put before us and extend our thanks to all the parties for the efforts made in ensuring we have a comprehensive understanding of the views variously held and the reasons for those views.

12.0 FINDINGS ON THE PRINCIPAL ISSUES IN CONTENTION

12.1 Permitted baseline

The matter that was brought to our attention by the applicant was that the Decisions Version of the PDP contained standards for a permitted activity that include, for vibration from blasting, a maximum velocity of 5 mm/sec with a blast duration of 1 second and one blast per day for 6 days a week. The 5 mm/sec has not been challenged and becomes technically operative whereas the 1 blast per day has been challenged by way of an appeal by NWG. The applicant did not however place great reliance upon a permitted baseline approach to the consideration of the adverse effects of the proposal. We have had greater regard to a more "absolute" assessment of particularly the effects of blasting and considered those effects in the context of the potential impacts on the submitters rather than what is provided for in the Decisions Version of the PDP. We consider that to be the appropriate approach.

12.2 Existing Environment

The existing environment in Area L of the GLPA includes the existing mining operations (Martha, Favona and Trio along with the processing and waste disposal area); residential and rural-residential uses; and a range of community uses (Waihi East School, Waihi Kindergarten, Morgan Park, Banks Street Reserve).

As submitted by Mr Fisher[2], it is the further effects of underground mining within Area L of the GLPA over and above the existing level of effects associated with the existing environment that is relevant for our considerations.

[2] Opening Legal Submissions by R Fisher, paragraph 48

12.3 Geotechnical and surface stability (land settlement)

The applicant was of the view, in accordance with the opening legal submissions by Mr Fisher, that the underground mining operations can be undertaken with negligible likelihood of any damaging surface movements. He explained key points supporting that view as including the manner in which backfilling occurs as mining progresses. Basically the backfilled stope becomes the floor for the next phase of the operations above. He also pointed out the geological and geotechnical conditions within the greater GLPA are reasonably consistent and that the estimated settlements arising due to the proposed de-watering are small, while differential settlements (which are normally the concern for buildings and shallow buried surfaces) if they occur, are expected to be very small (less than 1 in 1000). The evidence would, he submitted, demonstrate that the damage potential from settlement due to de-watering is negligible.

For the applicant, expert geotechnical evidence was presented by Thomas Parrott who, apart from his experience in underground mining, has been responsible for all geotechnical aspects of the Correnso mine including ground surface stability assessment. Mr Parrott acknowledged that without appropriate management, sub-surface workings such as stoping and tunnelling can result in changes to the ground surface, including local and regional settlement, cracking, subsidence or collapse. This is for a variety of reasons including surrounding geology, general rock mass conditions, size and shape of the excavations and time dependency. In the context of Waihi he pointed out that ground surface stability events have been related only to the collapse of historic large unfilled stoping voids which typically occurred after significant periods of time have elapsed.

Mr Parrott described the various measures by which the stability of the proposed mining for the Correnso mine would be managed which includes limiting the spans of open stopes; prompt backfilling of all stope voids; and, leaving a sufficiently sized remnant pillar (a crown pillar[3]) to separate new workings from the ground surface and the ignimbrite-andesite contact to minimise impact on ground surface stability. He also described the monitoring that would take place which, along with the mitigation measures he had described, would mean the effects of ground surface stability as a result of mining activities within the GLPA will be reduced to a level where there are no effects generating damage to properties, including buildings and land.

Mr Parrott explained the various mining methods that had been selected to best reduce the effects on ground surface stability and how the backfilling of all stoping voids is a necessary part of the mining methods selected which removes the likelihood of collapse. His evidence was that in the highly unlikely event that a stope or drive became unstable and started to cave prior to backfill being placed or ground support installed, then the resultant voids would not reach the surface given their depth below ground surface.

The investigations by Mr Parrott were reviewed by Laurie Richards, an independent engineering consultant specialising in the investigation, design and construction and surface of underground excavations in rock. In considering the geological and geotechnical aspects of ground surface stability above the underground workings of the Correnso mine, Dr Richards concluded that the

[3] A crown pillar is the horizontal pillar of rock left in place between the upper-most level of mining and the ground surface.

proposed mining operations can be undertaken with negligible likelihood of any damaging surface movements, and the proposed mitigation and monitoring actions are appropriate and virtually eliminate surface effects capable of damaging property and/or infrastructure. We note that his evidence was accompanied by useful diagrams and photographs which were used to further explain the details provided in evidence.

Trevor Matuschka provided evidence which addressed the potential effects on ground settlement of the proposed de-watering as a consulting engineer with expertise in geotechnical and earthquake engineering. He described how the ground water level in the GLPA will have to be lowered to allow for the development of the Correnso mine. This de-watering will be achieved by continued pumping of water from the Martha Pit in a manner that has now been granted a resource consent from the WRC. Dr Matuschka nevertheless addressed the potential effects on ground settlement of the proposed de-watering, stating that settlement caused by de-watering arises as a result of lowering the ground water and depressurisation of the water within the defects and pores within the ground. This results in increased stresses within the ground and compression resulting in settlement.

Dr Matuschka stated that over the life of the current mining operations, settlements due to de-watering at Waihi have been small and over a broad area and no damage to property or infrastructure has been attributed to settlement induced by de-watering. He explained that the proposed de-watering is expected to be confined to the andesite bedrock so the ground water levels in the overlying younger volcanic deposits are generally not expected to be affected. He saw that estimated settlements arising due to the proposed de-watering would be small and expected to occur within the andesite rock mass rather than in the shallower volcanic deposits. Differential settlements, which are normally the concern for buildings in shallow buried surfaces, if they did occur, are expected to be very small and in the order of less than 1 in 1000.

He did however recommend additional settlement markers be installed in the immediate vicinity of the Correnso mine to allow confirmation of the effects expected to be associated with the proposed de-watering and that the trigger levels in the De-watering and Settlement Monitoring Plan be re-set taking into account the settlements expected as a result of the additional de-watering now proposed.

As part of the Council's reporting on the application Peter Fuller had been engaged to provide advice on the geotechnical aspects of mine design, mine stability and safety. He has previously advised the Council with respect to other project applications by NWG. Dr Fuller had provided a review report[4] in which his key findings included:

- The upper andesite found in the GLPA has been shown from previous de-watering for Trio to act as a seal separating the upper ground water system in the near surface ignimbrite/alluvium cover from the lower quartz andesite host unit.

- Mining methods proposed for the Correnso mine all include stopes which have small spans which are conservative in terms of stability.

[4] Appendix E to the section 42A report

- Incremental lowering of the water level to allow mining in Correnso will result in small additional surface settlement and differential settlement well below the 1 in 1000 limit to avoid damage to surface infrastructure.

- The consent conditions recommended by the Council's consultants include a number of methods to monitor the rock mass response to mining the Correnso deposit and include additional settlement markers being required in the vicinity of the Correnso mine for monitoring reasons.

The concerns raised by submitters included:

- Risk of surface collapse

- Extraction methods

- Effective additional dewatering

- Monitoring

- Independent Review

- Insurance cover for loss or damage due to earthquakes.

The submitters did not call expert evidence but relied largely on examples of damage to buildings and ground settlement that they claimed were caused by mining activity. However it is the case that the applicant had arranged for each of these cases to be independently assessed and the damage/settlement was not able to be conclusively shown to be caused by mining activity.

The evidence presented by the applicant and on behalf of the Council responded to these concerns raised by submitters. The applicant presented evidence provided by geotechnical experts with experience in mining and that was supplemented by evidence relating to any potential settlement effects from the dewatering proposed with all of this material in turn being reviewed by Dr Fuller on behalf of the Council.

Dr Fuller addressed these issues raised in submissions pointing out that the risk of surface collapse can be appropriately managed by backfilling all stope voids and that the extraction methods to be used at the Correnso mine are not experimental but rather are well proven. The further de-watering proposed for the Correnso mine is an extension of that already in place for Trio which will see minimal, if any, change to the soil moisture and water bore levels as a result of this further de-watering. In essence, this is because the affected aquifers are deeper than those contributing to soil moisture and water bores. Further, monitoring and independent reviews of geotechnical/surface settlement and stability conditions are all a part of the long term management of regional stability and information provided to the Council.

We concur with Dr Fuller in his conclusions that with the conditions proposed, and as amended by him towards the end of the hearing, any geotechnical/surface settlement and stability will be adequately controlled and those conditions along with monitoring consent conditions will provide safeguards that compliance will be achieved. The conditions take into account all the measures referred to by the experts in order that any settlement would be minimal.

During the course of the hearing information came to hand that ground settlement had been experienced and had affected some properties in Gladstone Road. Dr Matuschka provided additional evidence in which he concluded the most likely cause of damage to the properties was settlement of older fill associated with gully and fill to form a tramway in earlier years. He commented that localised settlement of shallow more compressible ground due to de-watering associated with the drilling by the applicant of a deep geotechnical investigation drill hole in February 2012 seemed unlikely because that would require, as one possibility, localised draw down of groundwater in the area where settlement is occurring. He recommended further investigation.

In supplementary evidence dated 8 February 2013 Mr Matuschka reported from that investigation that the ground settlement had indeed been caused by the drilling of the exploratory hole because it had only been grouted to a depth of about 40m. Below this to a depth of about 130m it was not grouted to the depth of the andesite in order to prevent water seeping from the more weathered material above it. We understand that grouting of the entire depth would be standard procedure. Due to this oversight, water from the ground beneath the house had flowed through the ungrouted area of the borehole, thus causing the settlement of the ground surface. Dr Matuschka was able to recommend measures by which such a situation would be unlikely to occur again.

His work was reviewed by Dr Richards who concurred with the cause of the settlement and the measures to ensure it does not occur again. Those measures are included as conditions of the consent to the Correnso mine.

We note that NWG did purchase the five affected properties and did so before it became apparent that the company's drill hole had been the cause of the settlement.

In relation to this localised settlement, Dr Fuller expressed some concern that the piezometer[5] data from the location had shown a reduction in water level during March 2012, within one month of the exploratory hole being completed, and this was not assessed to be unusual. As he stated, at the very least, this suggests that review procedures for piezometer data need to be examined to ensure the thresholds for water level changes and response procedures are properly defined. Similarly, in light of the depressurisation of the surface ground water system that had occurred at Gladstone Road, there was a need for a minimum thickness of andesite between the upper level stopes and the base of the younger volcanics layer at the surface to ensure an effective basal seal for the upper groundwater system above and around upper level mine stopes. All of these matters are addressed in the surface stability conditions that he recommended for inclusion as part of any grant of consent to the application.

We find that the issue of potential land settlement as a result of the Correnso mining proposal, has been well investigated and the subject of reporting and evidence from a number of geotechnical experts. From that evidence, and the independent reviewing and commentaries from Dr Fuller, it is apparent to us that the recommended conditions take into account all the measures referred to by the experts in order that any settlement would be minimal.

It is also apparent that the localised settlement that occurred around the properties in Gladstone Road was caused by proper procedures not being followed and that is a matter that can be more effectively addressed.

[5] A piezometer measures the pressure of groundwater.

We conclude that any adverse effects associated with surface stability/land settlement from the Correnso mine will be minor.

12.4 Noise

The only potential noise sources relating to the Correnso mine and underground mining in the GLPA are:

- Construction and operation of the vent shaft behind the noise bund in the existing SFA of the Martha pit;
- Construction and operation of a CAF batch plant in the current stock pile area near the Favona mine portal; and
- The use of the existing stockpile areas for the temporary storage of ore and waste rock and for the crushed rock and aggregate for backfilling.[6]

Nevil Hegley described in his evidence how these new noise sources are located in areas which are already the subject of mining activity for which there are existing land use authorisations. Those existing authorisations include noise conditions and for consistency, he stated that the same noise controls should apply to the potential noise sources associated with the proposal. Indeed, he pointed out that the application of the relevant noise limits set out in the existing consents means the levels to be imposed on a grant of consent to the applicant's proposal are more restrictive than the Proposed District Plan.

Mr Hegley explained that the activities for which consent is sought are located underground and will not give rise to noise effects at the surface. The use of existing infrastructure and facilities will continue in accordance with current operations and within the terms of the existing conditions of consent. He also described how noise from underground blasts had been assessed based on the most exposed location at the ground surface by the Trio mine ventilation shaft. The noise from one of the larger blasts (regeneration noise) could just be heard although the noise was similar to that generated by the ventilation fan. Based upon the testing, blast noise would remain well below the 40 dBA night time criteria with blasting however only occurring during daytime hours.

Concerns raised in the submissions included potential noise associated with the new ventilation shaft to be constructed at the SFA near Grey Street. Mr Hegley's evidence was that the noise from the vent shaft fan will be able to comply with the night time noise limit of 40 dBA, being designed to that lower night time noise limit to ensure it does not cause any noise nuisance. Concern was also raised by submitters about possible noise generated from underground mining activity. Mr Hegley pointed out the applicant had not been able to measure any noise at all from underground mining although it has been able to measure regeneration noise from underground blasting. In that respect, noise monitoring carried out showed it to be well below a level that will have any adverse effects for residents. He pointed out that the design is not to eliminate noise but rather to control the noise to be within a reasonable level which it would be.

The applicant's noise assessment work had been reviewed by Nigel Lloyd as part of the section 42A reporting and he also presented evidence at the hearing[7]. He acknowledged the

[6] Evidence of N Hegley, para 5.1

submissions concerned about different aspects of noise generation but stated that the noise sources that are identified as part of the application are discrete and can be dealt with adequately by way of conditions. He commented, consistent with Mr Hegley, that any noise discerned would be from vibrations being transmitted through the ground as regenerated noise. Mr Lloyd saw the proposed noise conditions as being appropriate and noted there are also monitoring conditions that will provide safeguards that compliance will be achieved.

We note that the proposed noise conditions include, consistent with existing consent requirements, that noise shall be measured cumulatively with other noise emanating from the Martha mine (including the Martha Exploration Project), and the Favona and Trio 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 facilities. Further, that noise monitoring and reporting is required to confirm compliance with the relevant limits.

We find the analysis of potential noise effects to be comprehensive in terms of both the applicant's and the Council's approaches. The potential adverse noise effects can be satisfactorily managed with the proposed consent conditions and on that basis the associated adverse effects will be minor.

12.5 Dust

Many submitters had stated in their submissions that dust is one of the environmental issues that they are concerned about with the proposal[8]. A comprehensive assessment completed by Kevin Rolfe is included in the application details.[9] It concludes that any adverse effects are less than minor and he states that the results of ambient air monitoring over 29 years have provided no evidence of any deterioration in the air quality as a result of mining operations.

In the section 42A report Mr Burton stated that the management of discharges to air associated with the current mining operations is by means of an existing air discharge permit held by the applicant and issued by the Waikato Regional Council. His understanding is that a high level of compliance with the associated conditions of this consent is achieved[10].

The WRC has now issued what is in effect a replacement consent for the existing air discharge permit as part of the consents it granted on 3 December 2012. That consent provides a continuation of the existing consent and includes the proposed vent shaft for the Correnso mine as well as discharges from the existing stockpiling, processing and waste disposal areas. It does not include the open pit operations, which are of concern to some submitters, because those operations are scheduled to be finished by early 2016, prior to the 2017 expiry date of the current consent[11]. We note that in the reporting carried out as part of the WRC's consideration it is stated:

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[7] Appendix C to the updated section 42A report.

[8] Section 42A report, section 13.5

[9] Application AEE, Appendix E

[10] Ibid

[11] Evidence of D Serjeant, paragraph 45

> "When considering all the various discharges to air that will be associated with the Correnso underground mining project I am confident that there will be no more than minor effect on the environment and is unlikely to have any measurable impact on air quality in the Waihi air shed.
>
> In addition to this, it is clear from the location of the respective discharges that no parties will be affected. There will be a less than minor effect on residents living in eastern Waihi as a result of emissions from the proposed vent shaft."
>
> "The proposed consent conditions and existing management procedures along with the proposed continuation of the comprehensive air quality monitoring programme should ensure that the effects of the discharges to air from the Correnso underground mining project are maintained at a less than minor level." [12]

We find that the management of the discharge of dust is satisfactorily managed by that air discharge consent and that it is a matter for the WRC. We do observe that one of the reasons stated by the WRC for granting the further resource consent is that the activity will have the same or no more than minor actual or potential adverse effects on the environment.

12.6 Traffic and Roading

The applicant's AEE included a Transportation Impact Assessment ("**TIA**") of the proposal to transport aggregate from the Waitawheta Quarry situated westward of the mines area, to the processing plant area and mine portal. This is a 10.6km route along McLean Road, Waitawheta Road, Frankton Road, Crean Road, Tauranga Road (State Highway 2) and Baxter Road. The aggregate would be used onsite to produce cemented aggregate fill as part of the backfilling of the Correnso mine.

The aggregate would be transported between 7am and 5pm five days a week by truck and trailer units. Some 43 additional vehicle trips per day ("**vpd**") can be expected on each of the roads on the haul route in 2015 increasing to 71vpd during peak production in 2016, before falling to 43, 4, 2 and 2 in subsequent years.

The intersections of Crean Road and Baxter Road with State Highway 2 ("**SH2**") are separated by a short distance of approximately 70m. It is stated in the TIA that the absence of a right turning bay for traffic turning from SH2 into Crean Road or Baxter Road means that vehicles slowing to make these movements are often vulnerable. Further, that the relatively high traffic volumes on SH2 mean that vehicles intending to turn right into either road often have to stop completely and wait on SH2 for a suitable gap in traffic to make the turn. The TIA also records that the existing quarry is not restricted in terms of annual extraction volumes or traffic.

It is recommended in the TIA that both intersections warrant a right turn bay in the carriageway of SH2 to enable the safe and efficient movement of trucks across it between Creans Road and Baxter Road and a concept design is provided. It is stated that will comprehensively mitigate the potential adverse effects from the additional truck movements on SH2, and provide additional benefits to all traffic carrying out turning movements at the intersections.

The reporting officer for the Council agrees, having had the Council's Roading Asset Manager consider the traffic situation[13]. These improvements are also supported by the NZ Transport

[12] Waikato Regional Council, Consent Evaluation Report, File 61 54 92 A, dated 3 December 2012, section 6.1

[13] Section 42A report, section 13.10

Agency ("**NZTA**") in its submission.[14] We were advised that the applicant agrees that these improvement works need to be completed prior to the transport of aggregate through these intersections and in this respect has a Heads of Agreement with NZTA[15].

We agree with the need for improvements to the SH2 intersections, supported by our own inspections of the location. In addition to the Heads of Agreement, the recommended improvements are reflected in the conditions of consent for Correnso mine.

The TIA also included comments on some shortcomings in the sightlines at the intersection of McLean Road and Waitawheta Road and with the seal width on McLean Road as well as on the three one-way bridges on the haul route. However the conclusion was that these would operate satisfactorily. These were not raised as concerns in the section 42A report or in the updated section 42A report other than a concern regarding the potential pavement impacts on local roads. The Council's Roading Asset Manager pointed out that Baxter Road is more significantly affected given it does not currently carry a high percentage of heavy traffic. The impact of quarry traffic on the other roads could he said be assessed as part of the resource consent that was required for the continuation of the quarry[16]. A condition had accordingly been recommended by him and included in the proposed consent conditions presented with the updated section 42A report[17]. That condition requires a baseline survey of the pavement condition of Baxter Road, an annual survey and the applicant returning it to its baseline condition as may be required. We understand the applicant agrees with that condition.

We have considered the information regarding Baxter Road and the associated recommended condition. We find that this matter can be addressed by the consent condition recommended by the Council officers.

We find that with the conditions relating to the SH2 intersections and to Baxter Road will ensure that the adverse effects of the proposal in terms of traffic and roading will be minor.

12.7 Tangata whenua matters

The applicant's cultural consultant, Buddy Mikaere, wrote evidence that was not presented in person at the hearing as illness prevented him from attending that day. His evidence draws attention to the concerns raised by both Ngati Tamatera and Ngati Hako and considers how these concerns fit in with the RMA and the perspectives of decision-making bodies such as the Waitangi Tribunal and the Environment Court. Ngati Tamatera prepared a cultural impact assessment for NWG in November 2012. Their representatives did not present this assessment at the hearing, it was tabled and taken as read. Ngati Hako representatives met several times with the applicant. This consultation has not yet reached a conclusion. Pauline Clarkin of Ngati Hako presented evidence at the hearing.

The primary cultural issues relate to the *mauri* of the land area known as Ohinemuri and to the *mauri* of the mountain, Pukewa. The land of Ohinemuri has been mined for gold since 1868

[14] Submission 329

[15] Evidence of G Grindlay, para 12.31

[16] Updated section 42A report, section 5.2

[17] Appendix F to the updated section 42A report

when Ngati Tamatera signed an agreement to sell the land to the Crown for the purposes of mining. Ngati Tamatera received a deposit from the Crown but was to be paid the remaining value in fees for 'Miners Rights'. The fairness of payments for these mining rights was to become a feature of the 2006 Hauraki Waitangi Tribunal decision. The understanding of what the agreement entailed differed among the parties to the agreement and successive NZ governments interpreted the agreement differently. However, the adverse effects of mining initially undertaken on the natural resources of land and water became a concern soon after mining commenced more than 150 years ago. The effect on land quality for future generations and the pollution of nearby streams and rivers is highlighted in Ngati Tamatera's assessment where historic correspondence from Tamatera Chief, Haora Tarenranui, highlighted the effect pollution was having on the eels and whitebait.

The former hill/mountain Pukewa has been excavated and is now the Martha Hill pit. This hill is likely to have contained a burial site; such as an urupa which would have been destroyed during the course of this mining. The effect on groundwater from the excavation also continues to be a subject of concern. In 2003 the NWG signed an agreement with Ngati Hako; this agreement expired in 2006. The agreement anticipated that mining at Martha Hill would cease. Consultation has not yet reached the stage of Ngati Hako reaching an accord with NWG to find a culturally appropriate solution. In fact the Environment Court in its 2012 decision noted that nothing in NWG's proposals for the Martha Exploration Project addresses the relationship of Ngati Hako their culture and traditions with Pukewa apart from the promise to talk further in the future. The Court stated:

> "We are not satisfied that the MEP recognises and provides for the relationship of Ngati Hako and their culture and traditions with Pukewa."

The Hearings Panel recognises that the Correnso mine may not be as culturally offensive as the removal of Pukewa (Martha Hill) which would have had considerable spiritual meaning for *tangata whenua*. However Ngai Hako considers that the current application does have a negative impact on the *mauri* of both the land and water. It is therefore desirable to continue consultation until another agreement can be reached with Ngati Hako.

12.8 Heritage features

We are satisfied that the risk of any damage to heritage features (such as the Union Hill cyanide tanks and roasting kilns) is remote and adequately addressed by the condition proferred in that regard.

12.9 Blasting and vibration

Ground vibration is an inevitable consequence of underground blasting, while blasting itself is a necessity when undertaking underground hard rock mining. In the context of this application, the key issue we need to determine is whether the effects of vibration are acceptable in RMA terms. We focus on that below, but first address a number of over-arching matters that are central to our evaluation.

Two different types of blasting are proposed, being:

Development Blasting – where blasting is used to create a network of accesses to the ore body and accesses between different levels of the mine; and

Production Blasting – where blasts create an initial expansion void at the start of a mining block to allow room for the blasted rock to expand and to fragment the ore body within the stoping blocks.

The magnitude of vibration at any particular location and for any individual blast is dependent on a number of factors, including the configuration of the quantity of explosive used in each blast hole (referred to as the Maximum Instantaneous Charge ("**MIC**")); the distance from the blast; geological conditions; the extent of confinement of the charges; surface topography; and groundwater conditions. The situation is further complicated because at any one time blasting can occur at multiple locations and include both development and production blasts.

We note at this juncture that the effects of blasting have, for the purposes of this decision, been divided into two different categories – the **direct effects** (being the quantification of the scale and intensity of vibration and its consequences for the built environment and peoples' individual residential amenity); and the **indirect effects** (being those relating to property values, social impacts and the like). We stress that we have made this distinction solely to assist in the preparation of this decision, with the aim of clearly explaining our reasoning.

The applicant's proposed approach to managing the **direct effects** of blasting induced vibration includes the following key elements:

- Avoiding any blasting at night or on Sundays.
- Confining blasting to three discrete 18 second duration "windows" per day (Monday to Saturday only).
- Undertaking (more expensive) the "cut and fill" mining methods in the upper sections of the mine, given its lower blasting needs.
- Within any window, limiting production blasting to a duration of 9 seconds and development blasting to a duration of 12 seconds.
- Limiting the times of day within which each "window" should typically occur: 7.00 – 8.00 am; 1.00 – 2:00 pm; and 7:00 – 8:00 pm.
- Implementing blast notification procedures.
- Designing all blasts so that maximum ground velocities are predicted not to exceed 5 mm/s for 95% of blast events.
- Limiting measured maximum ground velocities at any location to a maximum of 5 mm/s for 95% of blast events.
- Programming blasting to ensure that no property receives more than 1 vibration event per week having a velocity of 3 mm/s or more.
- Committing to preparing and adhering to the provisions of a Vibration Management Plan, a key purpose of which would be to set out practices to minimise the effects of blasting and ensure compliance with consent conditions.

- Committing to an "Amenity Effects Programme" and various community-related initiatives.

The applicant proposed that all these matters, other than the last one, would be covered by consent conditions.

The applicant proposed further that the **indirect effects** of vibration would be addressed by measures that include the following:

- Committing to preparing a Social Impact Management Plan and to have social impacts identified, assessed, monitored and managed by an independent specialist and to have this process undertaken and reported on annually.

- Implementing a Property Support Programme to address possible declines in property values in Waihi East and to do so in accordance with its Property and Community Investment Policy ("**PCIP**").

- Committing to continued funding of the Waihi Community Forum.

- Having the PCIP administered and overseen by an independent Peer Review Panel.

The amount of vibration that would be expected at various locations around Waihi East and how this would vary over the life of the Correnso mine project, was addressed in detail in the evidence of John Heilig for the applicant and peer reviewed by Cameron McKenzie on behalf of the Council. These were the only witnesses that had specific expertise in the prediction of blast induced vibration levels.

There was no disagreement between Dr Heilig and Dr McKenzie as to the magnitude of blast induced vibration and how this would vary spatially and temporally. However, we record, and the experts agree, that irrespective of how sophisticated the predictions of vibration levels are they are just that – predictions that are always subject to inherent uncertainty. In that regard both Dr Heilig and Mr Grindlay told us that to ensure compliance with any consent limit a blast design level of some 50% of the limit needed to be applied.

The key matters that were agreed between Dr Heilig and Dr McKenzie that are central to this decision are:

- Ground velocity is the most appropriate parameter to characterise the effects of vibration.

- Other factors, such as frequency and duration, are also important when assessing the human perception of blast events.

- That the predictions of vibration produced by Dr Heilig were appropriate for assessing effects, Dr McKenzie noting that:

> "no major areas of disagreement [with Dr Heilig's analysis] had been identified [by him]"[18]

and

> "the analyses by Heilig and Partners provide the best estimates of [peak blast induced velocities] likely to be experienced by properties in the vicinity of the Correnso ore-body"[19]

- That the levels of vibration predicted by Dr Helig would not cause damage to dwellings and other structures.
- That timing of a number of the complaints about vibration do not correlate with measured vibration levels.
- That compliance with the 5 mm/s vibration limit sought (to apply 95% of the time) could be achieved in practice, although Dr McKenzie originally considered there to be:

> "a high probability of compliance"[20], while later in the hearing he stated "[t]he analysis conducted by Heilig and Partners show that the applicant will be able to comply with the proposed conditions … though there is a risk that drill and blast costs will be higher than expected if the assumed vibration parameters under-estimate peak levels."[21]

How vibrations of different magnitudes are perceived by people was set out by Dr Heilig, as follows[22], noting that these levels of response are "typical" levels and certain individuals would be expected to be more or less sensitive than this:

Approximate Vibration Levels	Degree of Perception
0.10 mm/s	Not felt
0.15 mm/s	Threshold of perception
0.35 mm/s	Barely noticeable
1.0 mm/s	Noticeable
2.2 mm/s	Easily noticeable
6 mm/s	Strongly noticeable

[18] Evidence of Dr C McKenzie, para 1.3 - (Appendix B of Section 42A Update Report)

[19] Ibid, para 5.1

[20] Section 42 A Report, page 195

[21] Evidence of Dr C McKenzie, para 1.3 - (Appendix B of Section 42A Update Report)

[22] Primary Evidence of Dr J Heilig, para 98

14 mm/s	Very strongly noticeable

The key difference of opinion between the two experts was the degree to which the levels of vibration predicted by Dr Heilig were protective of residential amenity. Dr Heilig considered that the effects of vibration:

> "…can be controlled to a level suitable (sic) protective of human comfort and sure to prevent damage to properties when coupled with a well managed quality assurance program, a well documented and implemented Vibration Management Plan, a community consultation process and world's best practices with respect to monitoring and blast design process."[23]

Dr McKenzie was more cautious on this point. He stated as follows:

> "It is considered that vibration conditions which focus only on [peak velocities] are unlikely to provide a reliable means of managing effects and perceptions relating to quality of life and personal amenity, especially … where blasting occurs 3 times per day, 6 days per week, for at least 7 years, and where perceivable disturbances can persist for periods of between 9 and 12 seconds."[24]

He then went on to say:

> "Notwithstanding the above, a focus on controlling [peak velocities] is consistent with practices throughout Australia and Scandinavia, and while North American and European conditions have frequency-dependent [peak velocity] limits, compliance with the maximum permissible [peak velocity] proposed by the applicant will ensure compliance with all known international standards."[25]

and:

> "From the perspective of controlling effects of blast disturbance, the proposed conditions appear much less appropriate in the Waihi context than the same conditions applied to normal quarrying and construction blasting activities."[26]

When asked by us to put mining economics to one side, and consider only the effects of vibration, Dr McKenzie stated that a peak velocity limit of 3 mm/s was appropriate to protect residential amenity. From Dr Heilig's table that we have reproduced above, vibration of this magnitude would be more than "easily noticeable" and less than "strongly noticeable" by the majority of people.

The dilemma we face when considering appropriate limits was succinctly stated by Dr McKenzie when, during an interpolation in his written evidence, he stated:

> "[When setting vibration standards] we are out on our own like a shag on a rock and that's an uncomfortable place to be."

[23] Ibid, para 203

[24] Evidence of Dr C McKenzie, para 6.3 - (Appendix B of Section 42A Update Report)

[25] Ibid, para 6.4

[26] Ibid, para 7.3

In order to form an overall conclusion regarding the effects of vibration, we think it is first necessary to set out, in some detail, the levels of vibration that the experts predict would be experienced at/by individual properties, and groups of properties, over time.

The approach taken by Dr Heilig was to undertake detailed simulations of blasting throughout the life of the Correnso mine project at 10 separate locations throughout Waihi East. This information was also presented by Dr Mckenzie, who had also, very helpfully determined[27] the number of other properties in Waihi East that were represented by the modelling results from the 10 different locations. In that we were able to see clearly how the levels of vibration were predicted to vary throughout the whole of Waihi East during the life of the Correnso mine project.

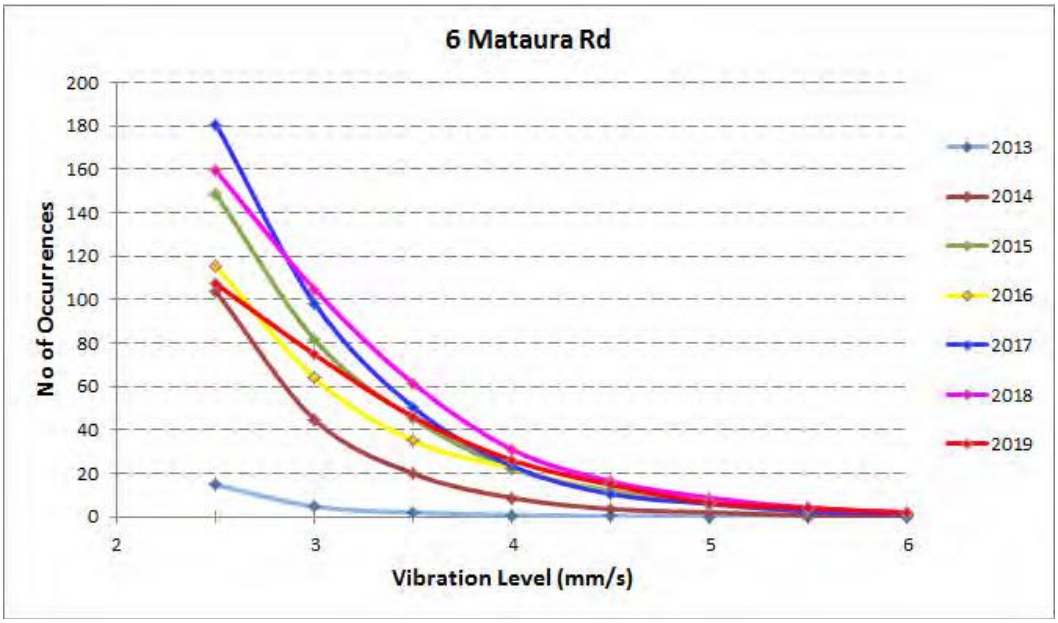
The 10 individual locations and the number of properties to which results from each location relate[28], are as follows:

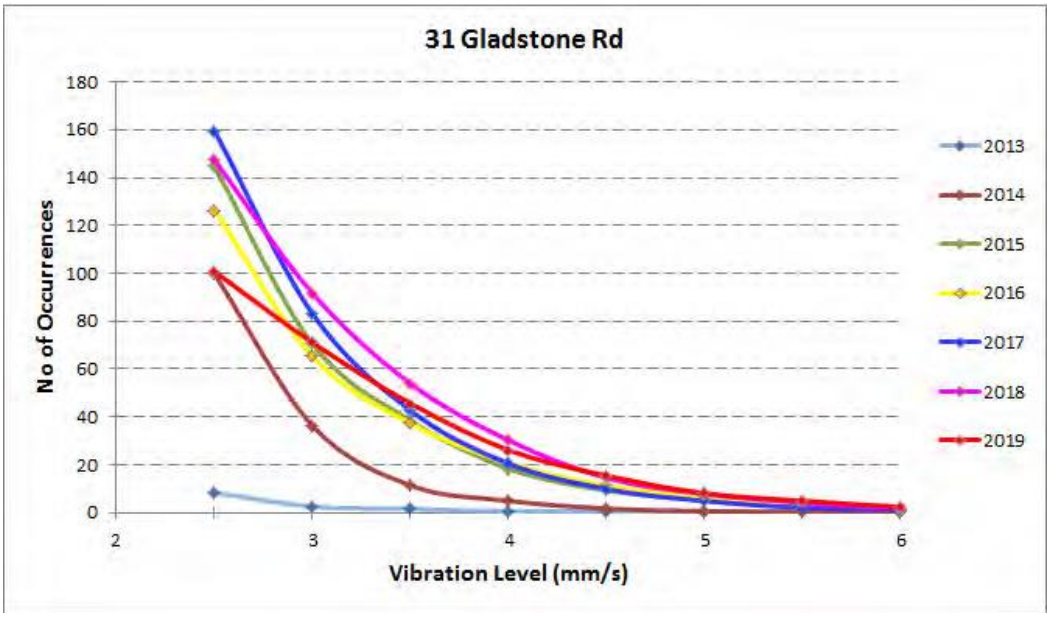
Location	Number of properties represented
4 Dobson Street	15
6 Mataura Road	15
6 Stafford Street	40
17 Richmal Street	30
18 Gladstone Road	25
31 Gladstone Road	30
57 Barry Road	15
67 Gladstone Road	40
68 Barry Road	30
Waihi East School	35

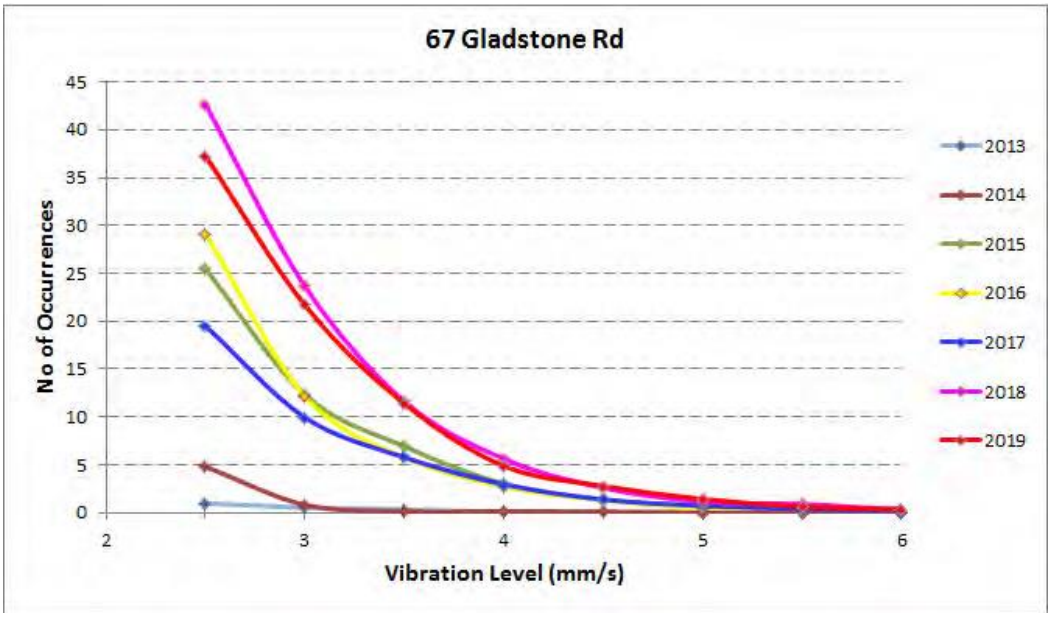
[27] Ibid, Appendix D

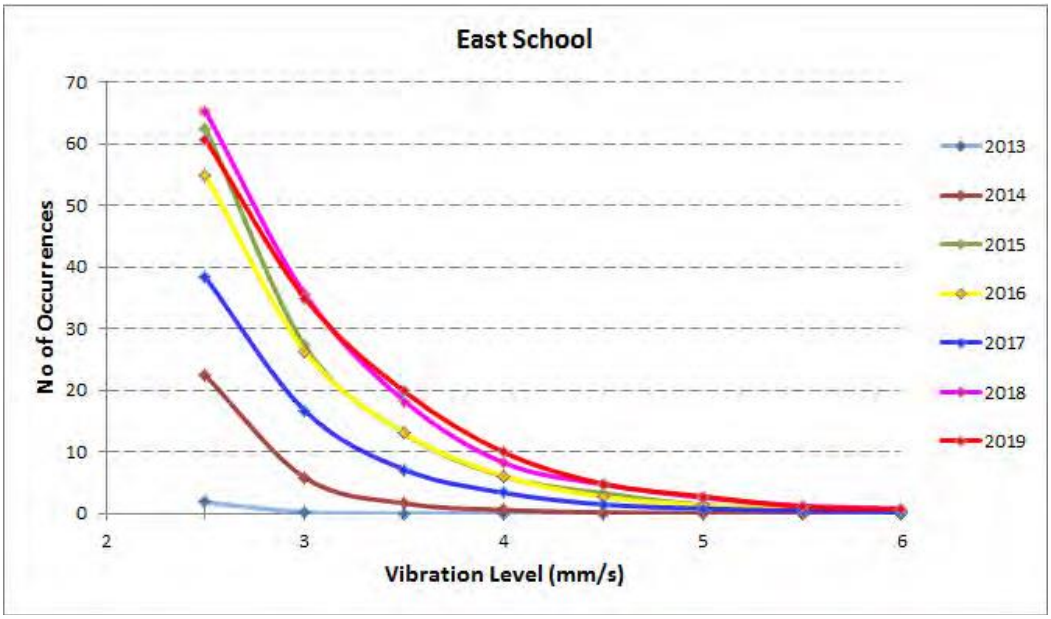
[28] Ibid

For illustrative purposes, the results from 4 of these locations are reproduced below:






67 Gladstone Rd
No of Occurrences
Vibration Level (mm/s)
2013
2014
2015
2016
2017
2018
2019


East School
No of Occurrences
Vibration Level (mm/s)
2013
2014
2015
2016
2017
2018
2019

We note that Dr Heilig used the results from 31 Gladstone Road as being "*the most affected property*"[29]. We make three observations in this regard:

- The results from 6 Mataura Road are much the same as those from Gladstone Road, which is unsurprising given that both locations lie directly above the proposed Correnso workings.

- Results from these two locations are representative of vibration that would be experienced at a total of approximately 45 properties in Waihi East. Again, unsurprisingly, these locations overlay the Correnso ore-body.

- Levels of vibration reduce quite significantly as the horizontal distance from the Correnso ore-body increases, as the graphs presented above clearly show, and which we discuss further below.

Dr Heilig explained[30] that using 2015 as a worst case year (involving both development works and full production), 31 Gladstone Road would experience the following levels of peak vibration events:

Peak vibration velocity (mm/s)	Number of predicted occurrences
≥ 2	263
≥ 3	90
≥ 4	27
5	8

We have reviewed these data and compared it with the analysis prepared by Dr McKenzie. Having done so, we have concluded that what Dr Heilig refers to as a "blast event" at para 134 of his primary evidence is in reality an individual "blast". As such the figures in the above table need to be divided by 1.8 if they are to be used to describe "blast events".

On the basis that the results for 31 Gladstone Road and 6 Mataura Road are approximately equivalent, the levels of vibration shown in the above table (noting that we consider the numbers refer to the number of blasts, not blast events, that would be experienced) would be expected to occur at approximately 45 properties in the immediate vicinity of the Correnso ore-body.

[29] Primary Evidence of Dr J Heilig, para 134

[30] Ibid

The comparable numbers of vibration events having velocities above 3 mm/s at nearby 67 Gladstone Road and Waihi East School (which are not immediately above the Correnso ore-body) are approximately 3 and 6 times, respectively, lower than those experienced immediately above the ore-body, while those at the more remote Stafford Road site (not reproduced here) are some 15 times lower than those above the ore-body.

This information shows clearly that the level of vibration experienced at any one property is affected very significantly by its proximity to the location of blasting. In the Correnso mine situation approximately 45 properties (located directly above the proposed Correnso ore-body) would be subjected to about 50 blast events (or 90 blasts) per year that were at or above Dr McKenzie's 3 mm/s threshold, this being the value he considers appropriate to protect residential amenity. As shown above, these figures drop quite sharply as horizontal distance from the blasting activities increases.

Having heard all the evidence and submissions, and experienced a number of blasts ourselves, we have reached the following conclusions:

- The proposed Correnso mine would not be viable if blast sizes were required to be less than those proposed by the applicant.

- For most people, and for most of the time, blast induced vibration will be, at most, slightly noticeable.

- The levels of vibration predicted will not cause structural damage to houses and other structures.

- A peak blast induced velocity of 3mm/s is the level above which the effects on residential amenity become significant and adverse, especially when experienced as often as 50 - 90 times per year.

- Reliance solely on peak blast induced velocities as a compliance tool and the implementation of a management regime to minimise blast effects is not sufficient to adequately protect residential amenity.

- Because the location of future mining within the proposed GLPA is, as yet, unknown the scale and extent of the amenity related effects of vibration from such operations is likewise unknown (other than vibration would not exceed 5 mm/s (on a 95% basis) at any location). As we discuss later in this decision report, that uncertainty as to the extent to which individual properties will be adversely affected by vibration from future mining is central to our conclusion that consent for activities beyond those at the Correnso mine should not be granted at this time.

We acknowledge the information passed on to us by submitters regarding their experiences with the blasting from the Trio underground mine. The results from monitoring the blast levels at that mine provided base information against which they could relate their experiences to us.

Given all the above, the acceptability or otherwise of the Correnso mine proposal hinges on the extent to which the adverse effects of vibration, both direct and indirect, can be avoided, remedied or mitigated. The proposed level of 5 mm/s is higher than the level needed to protect residential amenity, especially given the frequency of events above this value and the proposed

approximately 7 ½ year life of the Correnso project. Also, we were told in no uncertain terms by Mr Grindlay that reducing peak vibration levels below this level would make the development of the mine non-viable. Therefore, consideration of the indirect effects of the mine (particularly effects on the economy of Waihi, effects on property values, and social and psychological effects) and how the adverse effects can be avoided, remedied or mitigated, need to be undertaken. We now turn to this.

12.10 Economic effects

The applicant's economic consultant, Dr. Brent Wheeler, analysed the direct, indirect, and induced effects of the Correnso mine over its planned 7 ½ year span. He concluded it would provide approximately 266 jobs directly and an average spend of $81 million annually. Indirect and induced spending would result in a further 400 jobs and $312 million average spent. 406 jobs are provided by NWG now, predominantly through its current mining operations of Trio and Martha Hill. These operations will be winding down during the time that the Correnso mine was operating. It is anticipated that many of those currently employed in the Trio or Martha Hill mines will continue their line of work at the Correnso mine.

The value of donations ($400,000/year), district council rates ($490,000/year), regional council rates ($35,000/yr), taxes ($8.2 million/year), and royalties ($5.95 million/year) are also regarded as an economic contribution to the wider community.

The Council's economic consultant, Dr Philip McDermott, concurs with this estimate of economic effects on the community as a whole.

374 of the submitters drew the positive economic effects of the proposal to our attention, particularly in terms of their employment and incomes and the overall prosperity of the Waihi township. Some took the time to present their submissions to the Hearings Panel. On the other hand many of the 115 submitters in opposition foresaw a loss of equity in the properties they own.

It is acknowledged that the largest negative economic impact of the proposal is on house prices in the GLPA. This negative impact began as soon as the Correnso project was announced and was swiftly followed with a voluntary offer from NWG to help maintain values by developing the Property and Community Investment Policy ("**PCIP**") with the community. The effectiveness and fairness of this policy / method to maintain values has been called into question by many of the individual submitters in opposition to the proposal.

The purchase of a house is usually the biggest financial investment made by an individual or family. It is understandable that many submitters see the proposal as a threat to the value of their largest investment. The negative impact of the proposal on house values is not in dispute. The duration of that impact and the best methods to counter the reduction in values are some of the main matters in contention.

Dr McDermott points out that the economic impact of mining ceasing at Waihi would have an even more marked effect on the value of houses. He concurs that a run down in existing mining operations over the next five years would depress property values along with a loss of jobs and income for individuals and businesses.

The Hearings Panel appreciates that were the consent to the Correnso mine to be declined, this would have an adverse economic impact on the community as a whole, including those people

whose houses are located in the area of Waihi East that would be adversely affected by the proposal.

12.11 Property Values

The applicant called Douglas Saunders, a registered valuer and fellow of the NZ Institute of Valuers and Property Institute of NZ, to assess how the proposal will impact the value of houses located above the proposed mine. Mr Saunders concluded that:

> "…the perception of greater vibration for properties overlying the proposed underground workings may influence a change in property values for a short period, until the market becomes accustomed to the activity and experience shows that vibration is much the same as for Favona"[31].

The applicant sought a peer review by Iain Gribble. Mr Gribble was not available at the hearing. His letter supported the Saunders' conclusions that the greatest potential change in notional property values would occur at the announcement of the project and that once the project is underway the values would eventually recover.

Mr Saunders tracked the prices for housing in Waihi over 32 years. He compared these trends with Paeroa and Te Aroha, nearby rural towns, and with house prices in New Zealand overall. He concluded that Waihi's prices are generally slightly higher because of the gold mining but nonetheless in a similar range to those of nearby towns.

Mr Saunders predicts that the influence of the Correnso mine on the reduction of house prices will diminish in time but could have an influence of up to 5% devaluation through to 7 ½ years when the mining of Correnso would stop.[32] Currently the value of houses in Waihi East has dropped 15 – 20%. This mine would be likely to have less of an influence on prices, should the real adverse effects be less than those worst feared. Mr Saunders based his evidence on perceptions of adverse effects being greater than the reality.

The Hearings Panel recognises that housing prices are likely to be less adversely affected, should the community experience fewer adverse effects than it currently expects and people living in the GLPA get accustomed to the range of effects.

Nonetheless it is the view of the Hearings Panel that the short to medium term devaluation has a significant impact on the lives of those home owners who would like to move on but may not be able to sell their properties in an unadjusted market because of the mine.

To its credit, NWG recognised the adverse effect on the housing market that the proposed Correnso mine would have. The company consulted with the community from the time of the Correnso mine announcement and it set out to consider the means to correct its impact on housing values.

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[31] It should be noted that the Favona mine was located beneath mainly rural properties so not many people in houses above would have experienced the vibration levels anticipated for Correnso. It should be noted that the complaints regarding vibrations from Favona have been of residents in the Boyd Road and Moore St. area.

[32] Mr Saunder's conclusions are based on an expectation that the ability of home owners to get property insurance will not be adversely affected.

Sefton Darby in his evidence stated:

> "... the key issue is whether the policy is doing what it set out to do, which is to ensure that residents of Waihi East are no worse off as a result of NWG's announcement...."

NWG undertook some fundamental social research to understand the composition of residents and how best to communicate information and consult with those affected by mining before it announced the Correnso mine proposal. Along with the announcement it embarked on developing its PCIP through consultation with community groups, council, real estate agents and individual residents. There were a wide range of views to consider.

NWG appeared to construct its offer on the basis,

- that company purchase of many properties would change the composition of the community, a community that valued private property ownership; and

- that there was a misunderstanding about how severe the adverse effects would be in spite of its efforts to reduce magnitude, frequency and timing of blasts to less than its other mining.

After consultation with the community, the company announced a 'package' of options in March 2012 that included:

- a guarantee that the company would pay for damage caused by mining operations.

- a property purchase fund for 6 – 10 properties in 2012 and in 2013 that would be overseen by an Independent Review Panel; in addition, the company purchased 5 properties directly above the Correnso mine that were for sale at the time of the announcement.

- a revised 'Top Up' programme to pay the difference between a fair offer and market value for purchasing houses—a maximum of 20 houses a year to receive a top up.

- refinements to its existing Amenity Effects Programme ("**AEP**") which would include three bands of fixed payment zones – this programme basically pays specific amounts averaging around $700 per annum to those living in properties most directly affected by mining. Payment levels are based on noise and vibration monitoring.

- annual payments to schools and other community investments.

- assistance with home insulation to complement the EECA programme (140 houses so far have received this assistance at no cost to the home owners).

At the same time the company initiated the Waihi Community Forum ("**WCF**") and the Independent Review Panel ("**IRP**"). The function of the WCF is outlined in its terms of reference agreed on the 22nd November 2012. In addition, a memorandum of understanding between the Council and NWG was signed on the 20th November 2012. This emphasised the voluntary nature of the PCIP offer and that neither the Council nor company would be bound by the decisions of the WCF. The IRP has now been appointed. Its purpose is administer the PCIP fund, to mediate property damage claims, mediate contested Top Up requests and make recommendations to NWG on changes and improvements to the PCIP.

There are 26 applicants for the first round of purchases (February 2013). NWG has volunteered to purchase between 6 and 10 of those properties.

It is important to note that NWG is already implementing some of its initiatives. For instance, the Top Up provisions of the PCIP have been used in all 7 house sales in Waihi East from July 2012 – Sept 2012. The amount of top up required to maintain values at or near prices before then, is understandably commercially sensitive and not directly relevant to the Hearing Panel's findings on this matter. According to Mr Saunders, the volume of sales during such a period is within historic parameters. Mr Darby in his evidence indicated that by December 2012, 10 top ups had been completed.

During the course of the hearing, the Panel heard directly from many submitters who feared that they would experience adverse environmental effects and anticipated devaluation of their homes as a consequence of the Correnso mine. Some expressed a concern that their ability to insure their property would be adversely affected. Clearly many people had started to consider their personal options as well as the options for the community as a whole.

Two submitters presented alternative methods for protecting the value of properties:

1. Rodney McNae presented an equity model which relies on calculating the average government valuation of Waihi West (the control) with those in Waihi East. The concept is for NWG to deposit the difference in house valuation averages between the two parts of town into a trust account over the 20 year life of the whole programme (Correnso Mine and subsequent mining in the GLPA). If over the life of the mine, the value decreased by 10%, then as an example if the average CV of houses were $300,000 owners could lose $30,000 in value. Dividing the $30,000 loss over the 20 years, NWG would need to deposit $1500 annually into this trust fund for every house. The equity accumulated would be the source of funds to top-up the losses when owners come to sell. It is our understanding that Mr McNae intended that this method would provide certainty that this amount of money would be available and potentially administered independently.

   To operate simply, Mr McNae's model depends upon a uniform decline in valuations for each year that mining takes place. Valuation evidence indicates that the decline is more significant at the outset – predicted to be 15 – 20%, reducing to a 5% loss by year 7 for Correnso. Government valuations to document the changes are undertaken only every three years so would not be available to track the changes annually. The exact location and timing of any further mining under the GLPA is also uncertain. Just how the mining would be undertaken from years 7 – 20 would make a difference to how values respond. Mr McNae's model has merit but could be too complex to administer. There are many variables that could be contested for assessing equity loss. The duration of the consent and the frequency of government valuation are but two of these variables.

   Mr McNae rightly points out that the funds to make up the losses in value through the PCIP were not guaranteed at the time the proposal was notified. Since notification, the equivalent amount of the government valuations for the houses directly above the stopes of Correnso has been offered in the applicant's version of Condition 30. NWG is 'volunteering' the PCIP as the method for distributing that money and intends controlling the allocation of funds for it. We return to this matter later, noting that we agree with Mr McNae that such funds should be independently administered.

2. Rob McCarthy, a licensed real estate agent, proposed that NWG lease the land under every affected property in Waihi East at 7% of current land value, back dated to the commencement of the mining permit, April 2006. In this way, he would anticipate that the current owners of properties would pay a nominal rent to the leaseholder, NWG, and could sell their houses. Houses on leasehold land would cost less, thus creating a good market for first time home buyers. He claims that owners would receive a 9.7% return on a $200,000 outlay.

   Mr McCarthy's proposition is even more complex to execute. For NWG to buy the land and lease it back to individual home owners would require thousands of hours of negotiation. Sales and purchase could not be enforced through consent conditions.

The Hearings Panel asked during the hearing how many home owners wished to sell. It was advised by Mr Podmore of Waihi East Ratepayers Group Incorporated ("**WERGI**") that currently 57 houses in Waihi East are for sale. Because the PCIP provides for many fewer direct house purchases and because the top up scheme is reliant on willing buyers, it is understandable that a number of people will currently feel frustrated and uncertain about their ability to sell and leave as more owners are wishing to do so than money is made available to assist. We also observe that the negative publicity courted by some of those in opposition to the proposal will have exacerbated this situation.

In the view of the Hearings Panel, the combination of methods in the proposed PCIP can potentially alleviate individual reactions to the proposed mine, to retain the equivalent of the market value of a high proportion of the properties prior to the Correnso mine announcement, and to provide for fair, independent decisions on purchases and top ups. Importantly the mix provides for a longer-term balance of solutions that is likely to retain a high proportion of owner-occupied dwellings. However, it does not clearly provide for adjustments to the Property Support Programme to retain pre-market house values over the full duration of the consent. More structured consultation at appropriate intervals, appropriate monitoring of house values and provision for adjustments to the property support programme would be necessary to achieve this. In our opinion, a community-wide body needs to be set up to consult, monitor and recommend adjustments to the PCIP should they be required. We see this as being separate from the existing WCF (which we do not consider directly represents affected parties) with a widened and clearer legal mandate. We return to this aspect later

The Hearings Panel notes that NWG is not offering financial assistance equivalent to the initial market value loss of all the houses (275) affected by the proposed mine. Valuation evidence estimated an initial market value loss of up to 20%. David Serjeant's evidence and response to questions clarified that the PCIP allocation volunteered by the company for Top Ups, AEP, and Streets Ahead programmes stands at $7.8 million. This does not include the funds allocated to purchase up to 20 houses during 2013 and 2014. While it is logical and fair to provide for a range of financial responses through the PCIP to ensure house values are kept up to the 2011 equivalent, the amount of money offered so far may well fall short of achieving this. The Panel agrees that wholesale purchase of all houses affected would be inappropriate and change the composition of the community.

The version of Condition 30 proposed by the applicant in its right of reply would serve to enshrine many of the above-mentioned proposals in an enforceable consent condition. It was

proffered on an *Augier*[33] basis, meaning that it is offered voluntarily by the applicant, but it was submitted by Mr Fisher that it is not a condition that the Hearings Panel could impose. We do not agree that this is an *Augier*-type condition. We are of the view it is needed as a mitigation measure.

Mr Fisher explained to us in opening[34] that effects on property values were not a relevant consideration in determining whether consent should be granted, and cited Chen v Christchurch City Council[35] where the Court held that the reduction in value of certain properties was the quantification of the adverse effects on certain amenity values. In a subsequent case that relied on Chen[36], the Court held[37]:

> "The adverse effects have all been considered in detail earlier in the decision, and as stated … [in the Chen decision] to place separate weight on the valuation evidence in this respect would be to "double weigh" these factors."

Mr Green, for the Council also addressed us on this point. He addressed the matter in a similar manner to Mr Fisher. However, he went on to say[38] that the Environment Court has observed that diminution of property value could be considered as an environmental effect in itself warranting mitigation measures where there is sufficient evidence to demonstrate that the effects exist and are not minor[39].

We consider that a property support programme is one of the key measures for mitigating the adverse effects of the proposal, without which the effects of the activity would be significantly adverse for a number of property owners. We are very mindful of the Environment Court's recent decision in respect of the Martha Expansion Project[40], especially in respect of conditions needed to protect the most sensitive and vulnerable residents. However, that is not the case here, on the facts before us. Dr McKenzie's evidence, which we accept, is that an upper limit on peak vibration velocity of 3 mm/s is necessary to appropriately protect residential amenity of the community. That agrees with our experience of blast events. We see that level as being an appropriate upper limit in these circumstances, all things being equal and if that was the level being proposed by the applicant, then we would, in all likelihood have reached a different conclusion in respect of this application. However, as it stands, the applicant was unequivocal in its position – that being that a more restrictive vibration limit than the 5 mm/s proposed would render the project non-viable.

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[33] Augier v. Secretary of State for the Environment (1978) 38 P & CR 219 (QBD

[34] Opening Legal Submissions by R Fisher, para 94

[35] Chen v Christchurch City Council EnvC C102/97

[36] Foote v Wellington City Council EnvC W073/98

[37] Ibid, para 255

[38] Legal submissions byA Green, para 16

[39] Land, Air Water Association v Waikato Regional Council A110/01

[40] C Francis and others v Minister Of Energy & Resources, Waikato Regional Council, Hauraki District Council & Waihi Gold Ltd T/A Newmont Waihi Gold EnvC [2012] 253

It is our clear view, absent an appropriate property support programme enshrined in conditions, that the application made on that basis would fail, as the adverse effects on the amenity of the community would be unacceptable. It is on that basis that we consider a property support programme to be a critical part of this proposal, and that if consent is to be granted for that programme to be more robust than that proposed by the applicant. We return to this matter later in this decision, but note at this juncture that we consider that:

- The funds available need to be sufficient to provide for the loss of valuation (predicted by Mr Saunders to be up to 20% of 2011 values in the short term at the most affected properties and for these to return to normal levels after a period of adjustment). We are mindful of his estimates being just that, estimates, and the very significant consequences that would arise if people adversely affected by the development were unable to sell their properties. As such we consider that a precautionary approach is required and the funds initially available need to be sufficient to provide confidence as to the adequacy of the fund. In that regard, we have determined that an initial fund quantum of $16 million is appropriate.

- Such funds should be provided by NWG, but be administered independently of the company by the IRP.

- The IRP would also be charged with ensuring that the funding remained at the required level and could increase or decrease the amount of funding required, as circumstances dictated over time.

12.12 Psychological & Social Effects

The applicant called Leanne Dunne, a clinical psychologist, to provide evidence on psychological effects. She confirmed that there are very few psychological studies of similar underground mining to draw upon. Her evidence was primarily based on an analysis of submissions and discussions with NWG staff. She did not interview any individuals affected by the proposal. She recognises the considerable stress the proposal is causing for certain people, particularly the anxiety and fear of anticipated effects primarily vibrations, potential damage to houses and land, devaluation of houses, and the feeling of mining taking place beneath their property. Her evidence indicates that she has been assured by NWG that the effects will not be as significant as people anticipate. Consequently her evidence is founded on initial fears abating, should the mining take place and effects prove to be less than expected. She recognises that some people are going to be more sensitive to these effects than others, particularly those with pre-existing medical conditions. In her view, individuals are more likely to adapt if they know to expect what will happen and when.

Her recommendations for best practice include:

- a trial blast so that concerned residents can experience the vibration effects;

- keeping the timeframe for blasts closer to 7.30am than 7.00am in the morning when people are more likely to be up and busy;

- undertaking higher magnitude blasts in the 1pm timeframe—also when people are occupied;

- providing warning systems such as pagers for those who want them; and

- educating people to the difference between earthquake and blast vibrations.

NWG has adopted some but not all of her recommendations to mitigate psychological effects as part of its application. For instance, the trial blasts, to approximate the range of vibration levels including the 5mm/sec limit, requested by the Hearings Panel and suggested by Ms. Dunne, were not provided during the course of the hearing. At this stage many of the submitters who are concerned about vibrations have not yet experienced the vibration at the high end of magnitude anticipated by the proposal. In that regard, the Hearings Panel is satisfied it has experienced an appropriate range of blast levels, but we feel compelled to record our disappointment that, despite our specific requests, NWG seemed more intent on having us experience low level vibration (on the basis this was the situation predicted to occur most frequently) rather than the much higher levels that the application seeks to permit.

The existing complaints register already serves an important function in ensuring that people who are disturbed by noise, dust, and vibration effects from mining operations can report their concerns. As an example, the Panel was supplied with the complaints register for underground mining from January – June 2012. This indicated that the majority of complaints during this period were about vibration or the noise caused through the vibration of buildings above ground. These were prompted by the magnitude of the blast as well as the timing as some residents were woken around 1am. The company has a protocol of receiving and responding to complaints. All complaints are recorded and followed up by the Community Liaison Officer or those delegated to assist her. A vibration complaint is checked by accessing the "Blast Hub" so that the magnitude recorded on the nearest monitor provides a reference point. Even though the consent for the Trio mine permitted blasting of up to 1mm/sec in the middle of the night, it appears as though this level was occasionally exceeded, thus disturbing sleep. The pattern of complaints does not correspond with the level of blast magnitude. This could reflect differences in house structure, location in relation to recording at blast monitors, as well as the different perceptions/reactions of different complainants. The Panel is also aware that some people who are adversely affected would choose not to complain for a variety of reasons.

It is noted that the pattern of complaints indicated a high level of reaction to disturbance from the blasting which took place during the 1 am break. Perhaps as a consequence, the company is not proposing to blast at this time for the Correnso mine and will be confining blasting to the other three staff breaks and shift changes.

In the view of the Hearings Panel, the cumulative reaction of individuals since the announcement of the Correnso mine proposal is already having a profound social effect. The fear of adverse effects has divided opinion within the town and caused some to decide to leave if their property can be sold. There is now a higher proportion of houses for sale than normally available. Leaving a neighbourhood or town often means severing or weakening social ties. The current age range of the population in the Waihi East area includes many young families and older people, indicating that the Waihi East area tends to serve first time buyers and retirees. An increase in house sales and changes in ownership could transform the composition of the population in this part of Waihi. It is therefore important that the efficacy of the mix of PCIP options should be monitored and the mitigation adapted over time.

The company commissioned Social Impact Assessment ("**SIA**") studies in the past (2006/2009); one is currently underway but has not been available to the Hearings Panel during the course of

the hearing. The last one was based on group interviews with 38 people representing a cross-section of the community. The greatest concern expressed was the lifecycle of extractive industries and the inevitability of eventual mine closure. This led the company to consider post-mining initiatives and diversification of the economy as part of its community involvement – this resulted in street art representing Waihi's mining history, the setting up of other tourist attractions, and its involvement in Vision Waihi Trust.

The applicant's June 2012 AEE for this application relies on 2006 census data (the scheduled 2011 census was postponed until 2013). Census and labour force survey information draws attention to Waihi's higher than national rates of:

- over 65's, (21.8% compared with 12.3% nationally)
- unemployed (8.3% compared with 5.1% nationally), and
- people on sickness and invalid's benefits.

This demographic profile indicates a potentially more vulnerable community than the NZ average.

The Council commissioned a peer review of social effects from Corydon Consultants Ltd and Diane Buchan presented evidence at the hearing. The key issues she identified included the inadequacy of previous SIA's to inform the potential social effects of a new operation and no appropriate assessment of effects on people and the community. In her view, matters such as quality of life and the effect of reduced equity in homes have not been appropriately explored.

One of Ms Buchan's final points is that the success of mitigating adverse social effects is dependent upon the governance arrangements to support the Social Impact Assessment.

The Hearings Panel agrees that the AEE does not fully address the social effects relevant to an underground mine beneath existing houses, homes to hundreds of people. The cumulative effect of fears and actual reaction to real and perceived adverse effects such as vibration over a period of the 7 ½ years of the mine's life has not been anticipated or well-described. Perhaps there has been an assumption that once the mine is in operation individuals living above it will adapt or not find the adverse effects of such concern as they do now. The current reaction of so many home owners wishing to sell and leave the community will have social repercussions on both the composition of the community and participation in the community. The relative change in property values is of itself a socio-economic indicator. Whilst the PCIP provides a mix of options that might ameliorate reactions and compensate individuals, there may be still further measures that could be taken to strengthen community ties and provide for individuals to adapt. Once clear indicators of social health are identified through a SIMP, these need to be monitored, peer-reviewed, and reported on annually. We return to this later.

13.0 OTHER ISSUES

13.1 Waikato Regional Council ("WRC") consents

The proposed mining activities required resource consents from the WRC to undertake an additional 55m of dewatering beyond that already consented for the Trio mine; to deposit waste rock and cemented aggregate fill material to ground (underground) for backfilling purposes; and,

to provide for flooding of the workings on completion of the GLP. Replacement consents were also sought for resource consents which would expire or lapse before the completion of the GLP. These consents were to cover the air discharge from the proposed vent shaft in the SFA; the water take from the Ohinemuri River and discharge permit to accelerate flooding of underground workings and the Martha pit; and, for the intake structure in the Ohinemuri River.

Six applications were lodged covering these matters. These were dealt with on a non-notified basis and the consents granted by the WRC in a decision dated 3 December 2012. A copy was provided to the Hearings Panel during the hearing.

Some submitters had commented on the separate processes of the WRC and the Council (Hauraki District) in this respect and stated that did not promote the comprehensive and co-ordinated consideration of the GLP, including the Correnso proposal. We acknowledge the benefits of joint hearings and considerations, as supported by the RMA, but we have no influence on the manner in which the WRC considers applications to it. We also observe, in relation to these regional consent applications, that:

- Some works are relatively minor and the adverse effects can be readily managed, eg backfill operations.
- The additional dewatering will extend currently approved dewatering by only 4 years and the additional depth appears to be of little consequence of itself.
- The general air discharge permit is not specific to the GLP including Correnso project.
- The take from the Ohinemuri River to accelerate filling the pit is a matter of timing.

The WRC decision includes a reason that the activity will have the same or no more than minor actual or potential adverse effects on the environment.

13.2 Submitters' Concerns Regarding Consultation

A concern of some submitters was that the early consultation by the applicant had related only to the Correnso mine project and not the wider GLPA. As stated by Sefton Darby:

> "...the GLPA was a concept that was born of the initial consultation and that when it was announced, NWG did its best to ensure that everyone in the community understood it."
>
> In any event, the approach to the GLPA and the PCIP were announced in March 2012, with the application and accompanying AEE made available in June 2012 ...[41]

The consultation undertaken by the applicant prior to lodgement of the application is detailed in the AEE (Section 7) and in the evidence of Mr Darby. We are unable to find that fell short of any reasonable expectations for consultation or that the applicant set out to mislead any party.

The application was also publicly notified at the request of the applicant and the notification to potentially affected parties was extensive providing ample opportunity for submissions by persons considering themselves affected by the proposal.

[41] Evidence of S Darby, page 18 (the paragraph numbers in the evidence are jumbled and hence no reference to them).

13.3 Crown Minerals Act 1991 and Access to Land

The matter of the application of section 57 of the Crown Minerals Act 1991 ("**CMA**") was raised in submissions and during the hearing. In particular the issue was whether access arrangements are required with landowners and/or occupiers in circumstances where residents consider that the value of their property has been diminished by the proposal or where they hold fears of property damage arising from vibration or regarding the stability of the ground surface due to underground workings.

Section 57 provides, in relation to the meaning of entry on land, that:

> *For the purposes of sections 53 and 54, prospecting, exploration, or mining carried out below the surface of any land shall not constitute prospecting, exploration, or mining on or in land if it-*
>
> *(a) Will not or is not likely to cause any damage to the surface of the land or any loss or damage to the owner or occupier of the land; or*
>
> *(b) Will not or is not likely to have any prejudicial effect in respect of the use and enjoyment of the land by the owner or occupier of the land; or*
>
> *(c) Will not or is not likely to have any prejudicial effect in respect of any possible future sue of the surface of the land.*

For the applicant, Mr Fisher stated in his opening submissions that the law is clear, that access to land is a matter separate to the RMA. He submitted that section 88 RMA provides that any person may apply for resource consent, including resource consent affecting land that the person does not own or have rights to, and that although access is a matter for the landowner and consent holder it is not relevant for the purposes of this hearing.[42]

Mr Green provided legal submissions on behalf of the Council in which he similarly pointed out that the CMA provides a code for dealing with disputes as to access but access is not a matter which is justiciable before us. He submitted it was not a resource management effect and should not be a factor in our consideration of the proposal. Mr Green explained that the need for an access arrangement will only be triggered where there are surface expressions, damage to buildings or other structures on the land, loss of opportunity to use the surface of the land in the future or unreasonably, tangible and measurable environmental effects that affect the use and enjoyment of the land by the owner or occupier. A temporary loss in property value is not, he submitted, such an effect.[43]

Mr Fisher extended that discussion in his submissions in reply in pointing out that whether or not the applicant has, or even needs, access rights to the land in the GLPA is not a relevant consideration under the RMA. It is, he submitted, a matter that we as the Hearings Panel have no jurisdiction over and this was common ground between the legal counsel that presented at the hearing of the application.

Accordingly, we make no findings on the CMA, and in particular on the matter of access arrangements under section 57 of that Act, other than to say that the legal submissions we received made it clear this was not a matter for us to consider under the RMA.

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[42] Opening Legal Submissions by R Fisher, paragraphs 99 and 100

[43] Legal Submissions by A Green, paragraphs 5 to 7 inclusive

14.0 STATUTORY TESTS

The statutory tests we need to address are as follows:

a) Whether the section 104D(1)(a) test of the RMA relating to non-complying activities, is met, that being whether the adverse effects of the activity on the environment will be minor, with particular regard to adverse effects from blasting & vibration and land settlement.

b) Whether the section 104(D)(1)(b) test of the RMA is met, that being whether the application is for an activity that will not be contrary to the objectives and policies of the Operative and/or Proposed District Plan.

c) Whether on the basis of the above, the application meets section 104D RMA in order for further consideration under section 104 RMA.

d) Whether section 104 RMA is satisfied in relation to:

- Any actual and potential effects on the environment of allowing the activity;
- Any relevant provisions of the relevant planning documents;
- Any relevant provisions of the national environmental standards;
- Any relevant provisions of the regional planning documents; and
- Any other matter considered relevant and reasonably necessary to determine the application.

e) Whether the proposal can be considered to be consistent with Part 2 of the RMA, being the purpose and principles of the Act.

f) The appropriate term of consent.

g) The conditions of consent that should be imposed.

We address each of these matters in turn below.

14.1 Section 104D(1)(a) of the RMA

We have set out our evaluation of all the relevant environmental effects in Section 13 of this decision and do not need to repeat all those details here. It suffices to say that we are satisfied that the direct and indirect adverse effects of vibration are more than minor, such that the application fails the section 104D(1)(a) test.

14.2 Section 104(D)(1)(b) of the RMA

The provisions of the following documents were considered in reaching this decision.

- Hauraki Operative District Plan 1997.

- Hauraki Proposed District Plan, notified 24 August 2010, now available as the Decisions Version 15 August 2012 and with parts subject to appeals.

- Waikato Regional Policy Statement 2000.

- Proposed Waikato Regional Policy Statement, notified 2010, now available as the Decisions Version dated November 2012 and with parts subject to appeals.

- National Environmental Standard for Air Quality, 2004 and 2011 amendment.

- National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health, 2011.

- Hauraki Gulf Marine Park Act 2000.

It was common ground between the two planning experts who provided evidence at the hearing (David Sergeant for the applicant and David Burton for the Council) that the respective objectives and policies in both district plans are for the most part, the same or very similar. Mr Burton pointed out that in essence, the objectives and policies are framed to ensure that the environmental effects of activities not specifically provided for in the zone concerned, are undertaken in a manner that ensures that the environmental effects are minor or less than minor and that the amenity of the area concerned is not unduly impacted. This is the approach he said that has been taken in both district plans for the consideration of mining activities.[44]

At the time the AEE for the application was prepared the Council had not notified its decisions on submissions to the PDP. However, a decisions version of the PDP was released on 14 September 2012 with the appeal period closing on 29 October 2012. Given that the period for lodging appeals to the PDP had closed at the time of the hearing both Messrs Sergeant and Burton agreed that considerable weight can be given to the relevant objectives and policies of the PDP that were in effect, operative.

Mr Burton provided as part of the section 42A report[45] a copy of the relevant objectives and policies of the PDP identifying those that are subject to appeal and highlighting some additional relevant objectives and policies that were not considered in the AEE. He otherwise adopted the review of the objectives and policies of the district plans that had been provided in the AEE, commenting he considered it reasonable and appropriate. His view was that the proposal does not offend the objectives and policies of the district plans.

Mr Sergeant in his evidence provided a combined assessment of both district plans in which he identified all relevant provisions, and in particular the most stringent of these amongst the zones and general provisions. The specific objectives and policies are found in the relevant zone provisions, the GLPA covering the Rural, Residential, Low Density Residential, Martha Mineral, and Reserve (Active) zones. Mr Sergeant detailed the various objectives and policies under each of the zones.

We note that in the Rural zone the objectives and policies seek to provide for the investigation and utilisation of mineral resources recognising that these minerals can only be extracted from where they are found but requiring that the adverse effects be avoided, remedied or mitigated.

[44] Section 42A report, section 12.1

[45] Ibid, Appendix D

The Residential zone objectives and policies seek to provide for residential development that maintains and enhances neighbourhood amenities and qualities and any activities are to be sited, designed and operated in such a way that avoids, remedies or mitigates adverse effects. The objectives and policies relating to the Low Density Residential zone, applying to the north western part of Area L, are similar to the Rural and Residential zones. The Martha Mineral zone seeks to provide for the utilisation of the mineral resource in a sustainable manner whilst also ensuring that the amenity values of Waihi and the wider community are protected. The Reserve (Active) zone seeks to provide for active recreational and social uses.

As stated by Mr Sergeant, the district plan provides a range of assessment matters that contribute to a determination of whether a proposal is contrary to the objectives and policies, or that it achieves the environmental outcomes in the plan. He listed those matters as:

- Noise effects
- Vibration effects
- Long term stability effects
- Dust effects
- Visual effects
- Use or enjoyment of the local reserves
- Safety and efficiency of the road network
- Use and storage of hazardous substances
- Whether the use of the mineral resource is provided for in a sustainable manner
- The extent to which the proposal provides for the social, economic and cultural wellbeing of the people of the district.

Mr Sergeant in his evidence considered all of these matters in terms of the specific amenity objectives and policies within the respective zones. He expressed the view that none of the provisions are written in a manner that sets a high threshold that would see the proposed activity as being contrary to any of these objectives and policies. That conclusion relies on his view that the adverse effects of the proposed activity on the environment will be no more than minor. He was also unequivocal in his supplementary evidence again stating that based on his analysis of all the relevant district plan provisions, his conclusion was that the proposal is not contrary to these provisions and indeed added *"or anywhere near being contrary."* [46]

For the submitters, the objectives and policies of the district plans were addressed by legal counsel Nick Swallow and Robert Enright for Waihi East Ratepayers Group Inc ("**WERGI**") and Power Incorporated ("**POWER**") respectively.

[46] Supplementary Evidence of D Serjeant, paragraph 18

Mr Swallow quoted various objectives and policies from each of the district plans in support of his submission that in the policy framework across the zones there is a variance in the anticipation of mineral utilisation between the zones. He submitted the key difference is between the Rural and Residential zones and the anticipation of mineral utilisation in the former indicate acceptance that this activity is less problematic in that area. That difference, is a logical extension of the recognition that mining is problematic when its adverse effects interact with people. He went on to submit that the controls on amenity in the Martha Mineral zone and the fact that the only policy support outside this zone is in low population areas (in the Rural zone) indicates that underground mining in the Residential zone is contrary to the objectives and policies of both district plans. Mr Enright also quoted various objectives and policies from the district plans orally as part of his otherwise written legal submissions on behalf of POWER.

We have to say that neither counsel called expert evidence to support their legal submissions on this point but rather relied on the evidence of the residents they represented to address the adverse effects that they saw as impacting upon them. Whilst we comment on the adverse effect associated with blasting and vibration in another part of this decision report, we find, from all the information put before us, that the most effective approach to the assessment of a proposal is not to isolate individual objectives and policies but to take them as a whole and to determine what it is the Council is seeking through these plan provisions to achieve in the local environment.

It is the case that underground mining is provided for as a discretionary activity in all the zones other than the Reserve zones that cover a small part of the application area. Accordingly, the district plans do not set out to prevent mineral extraction and underground mining is clearly anticipated in these zones. It is the case that a key part of the objectives and policies is to avoid, remedy or mitigate adverse effects on the environment, natural and physical resources and the amenity values of the Hauraki District. This can be achieved by way of the various measures included in the application details and which can be confirmed as conditions of consent.

We find, from the evidence and information presented to us, that the application is for an activity that is not contrary to the objectives and policies of the district plans.

14.3 Conclusion on Section 104D of the RMA

We are satisfied that one of the s 104D tests is satisfied, allowing the application to be considered against the provisions of s 104.

14.4 Section 104 of the RMA

14.4.1 Actual and Potential Effects

We have addressed the range of adverse and positive effects of the proposal above in this decision report. We have found that the direct and indirect adverse effects of vibration are more than minor. However, in the judgement we make in assessing both adverse and positive effects we find that the Correnso mine can be approved subject to conditions that strike a reasonable balance in terms of the consideration of the overall effects of it.

14.4.2 National Environmental Standards

National Environmental Standards for Air Quality

This has been addressed in the air discharge consent granted by the WRC to ensure the potential contaminants, including total suspended particulates and respirable dust, are less than the criteria.

National Environmental Standard for Assessing and Managing Contaminants in Soil

The provisions of this NES are not triggered given the continued use of existing areas and facilities that are authorised and the separation distance of the proposed underground mining from any actual or potential source of contamination within any previously undisturbed land.

14.4.3 Regional Planning Considerations

Operative Waikato Regional Policy Statement ("**RPS**")

The RPS provides strategic guidance and it recognises that mining is of vital importance to the economic and social wellbeing of the region. It anticipates mining while also recognising the need for appropriate environmental controls to avoid, remedy and mitigate adverse environmental effects. It also recognises the minimal locational flexibility of such mineral resources.

The adverse effects of the proposed underground mining can be managed through the manner in which the mining is to be carried out and in compliance with the conditions of consent. In that manner it is not inconsistent with the RPS.

Proposed Waikato Regional Policy Statement (**"PRPS"**)

The Decisions Version – November 2012 of the PRPS does not provide a great deal of guidance for the consideration of the application. It seeks that management of the built environment appropriately recognises a number of matters that include the potential for impacts of development on access to mineral resources, the potential benefits of further development of the region's minerals and the potential for land use development that is inconsistent with nearby mining activities.

The PRPS is then more directed to providing for mining and avoiding potential conflicts whereas much of the area involved in this application is already occupied by "the built environment". As such the policy direction of the PRPS is of limited assistance. However the application is not considered by us to be inconsistent with the PRPS.

Waikato Regional Plan ("**WRP**")

The WRP sets out the policy framework and applicable rules against which the consent applications to the WRC have been assessed. There are no provisions within it that provide any particular guidance with respect to this application.

14.4.4 Other Matters

Other matters that we consider are relevant and reasonably necessary to determine the application include the below.

Hauraki Gulf Marine Park Act 2000

The effects of the proposal on the natural character, coastal processes, ecology, cultural values, access to and public enjoyment of the Hauraki Gulf will be minimal and managed through imposition of and adherence to appropriate resource consents, in particular those to be considered by WRC. These consents recognise and allow for the fact that takes and discharges in the Waihi catchment are from the Ohinemuri River and its tributaries which discharge into the Waihou River and subsequently into the Firth of Thames.

14.4.5 Conclusion on Section 104 of the RMA

We find that the proposal, in the form that we are granting consent along with the conditions, satisfies the provisions of section 104 RMA.

14.5 Part 2 of the RMA

Our evaluation under section 104 is "subject to Part 2" of the RMA,

Part 2 of the RMA comprises the Act's purpose (section 5) and a number of principles set out in sections 6 to 8. We do not consider it necessary to canvas the section 6 to 8 matters in this decision report, as they are not central to our decision and have been well canvassed by the applicant and the Council's advisors. In this respect we refer to and adopt the applicant's assessment of effects report and the section 42A report. We have expressly covered matters of relevance to tangata whenua considerations above.

We note that section 5 states:

> **Purpose**
>
> (1) The purpose of this Act is to promote the sustainable management of natural and physical resources.
>
> (2) In this Act, **sustainable management** means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while—
>
> (a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and
>
> (b) Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and
>
> (c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment.

Our evaluation under Part 2 requires us to exercise an overall broad judgement about the proposal, whilst being mindful of the various section 104 matters discussed above.

This application is perhaps a little unusual in that it seeks consent to allow underground mining anywhere within what was referred to as Area L of the GLPA, which encompasses quite a large area of land in the eastern part of Waihi. The application also includes the details of a specific mining project, that being the Correnso mine. The proposed consent conditions provided by the applicant require NWG to demonstrate to both the Council and the WRC that any new mining

project can be carried out in full compliance with the conditions of the resource consent to apply to the Correnso mine. Those proposed conditions include particular restrictions on blasting; land settlement; ground surface stability; the depth of mining; there being no new surface infrastructure beyond that sought for Correnso; and there being no underground mining under the tailings and waste disposal area (Area M). The term of consent sought is for 20 years. The applicant proposed that if a new mining project can meet the proffered conditions, then it would be authorised by the current consent and a new application would not need to be made.

Mr Fisher explained[47] that the application seeks to provide the certainty that NWG understands is sought by the community by providing a clear indication of the area in which there is known and predicted mineralisation and where NWG is focussing its exploration interests in the hope of defining another viable resource. This approach of seeking an "envelope" of effects within which an activity can occur is not a novel approach he submitted in providing examples of similar approaches in case law from the Environment Court. It could be adopted in this case given that there is sufficient information on which to assess the effects of underground mining within Area L of the GLPA and on which to frame appropriate conditions. It would avoid potentially time consuming and costly future hearings.

This "comprehensive approach" was further explained in the evidence of Mr Serjeant[48] who saw it as preferable to a "piecemeal" approach. He pointed out there is no more "sensitive" environment within the GLPA than the area affected by the Correnso mine so that the conditions that applied to that mine could be used elsewhere with such a comprehensive approach giving the public certainty about if and when a new mining activity may be proposed. Mr Serjeant said that in a mineralised area, within a district or region which has policies supportive of mining activity, the expectation must be for continued mining operations.

We acknowledge the considerable economic benefits that future underground mining in Waihi will create for the local, regional, and even national scales. We also acknowledge that there is merit in a consent that provides for the apparent future intentions of the applicant to mine over the wider area and that it would arguably reduce the demands on the parties from further consent applications. However we do not consider the comprehensive approach can be supported in this case for a number of reasons:

i. There will always be some uncertainty around the potential effects of blasting activity and the effects of mining activity on surface stability given the variable geological conditions that can be struck over a larger area. This was for example, evidenced by the applicant's engineers referring to the presence of completely weathered ignimbrite, with some very weak zones, being associated with the ground settlement and building damage that occurred in Gladstone Road.[49]

ii. This is the first area of gold mining directly below a residential area in New Zealand which indicates a precautionary approach is appropriate.

[47] Opening Legal Submissions of R Fisher, paragraphs 29 and 30

[48] Evidence of D Serjeant, paragraphs 20 to 37

[49] Further Supplementary Evidence of T Matuschka, paragraphs 1.15 to 1.17

iii. Rather than creating certainty for property owners in the GLPA an all-encompassing consent would have those outside the area directly affected by Correnso on "tenterhooks" as they waited over a 20 year period for the applicant to proceed or not with mining beneath their properties, noting also that the actual effects of vibration (as opposed to a maximum permitted level) are very dependent on the location of the mining operations. Mr Enright submitted this situation *"is arguably a perverse certainty"*[50] which would create more uncertainty than certainty. We agree. Such a consent would have the effect of leaving property owners in a position of not knowing whether to carry out improvements to their properties and arguably lead to a situation of property blight.

iv. With an all-encompassing consent there would be limited opportunity to introduce additional resource consent conditions, particularly if it is found additional conditions are needed in relation to social and wellbeing effects.

v. There is the inherent disadvantage of an all-encompassing consent not having the ability to anticipate all relevant effects or matters of detail that may affect the receiving environment.

vi. Public input to future proposals is effectively vetoed.

vii. We note too, the evolving nature of mitigation methods, whether such are offered or imposed. In this respect, since the time of the Trio consent in 2011 the applicant has considerably advanced its property purchase and amenity impact programmes. It is not unrealistic to expect there to be further changes to such programmes and we would not want to be limiting such change through having granted a long term consent.

viii. We also note that the "project by project" approach to consenting has been the applicant's (and its predecessor companys') preferred approach to consenting.

For all these reasons we find that the comprehensive, or envelope, approach to consent whereby consent is sought to both the Correnso mine and to provide for mining in the wider GLPA is inappropriate.

We are satisfied that the development of the Correnso mine will, subject to appropriate conditions, enable people and communities to provide for the social, economic and cultural wellbeing. The potential of natural and physical resources to meet the reasonably foreseeable needs of future generations will be achieved, while the life-supporting capacity of the local environment will be appropriately safeguarded. The adverse effects of the proposal will be avoided, remedied or mitigated, subject to the imposition of appropriate conditions, a matter we return to below.

14.7 Consent term

The Correnso mine has a total life of six or 5 years and a production life of around 5 years[51]. The project is planned to start in mid-2013 and to be completed by December 2020, that is, 7.5

[50] Legal Submissions of R Enright, paragraph 21

[51] Evidence of G Grindlay, paragraph 8.4

years.[52] Given that consent is not being granted to that part of the application that seeks consent to an approach that provides for mining activities within the wider GLPA we consider the term of consent for the Correnso mine should be limited to less than the 20 year term sought in the application.

We acknowledge that land use consents are not usually subject to limited terms but in this case it is appropriate given the nature of the activity to do so to give certainty to persons affected by it. Accordingly we have limited the term of the consent to the Correnso mine to 10 years from the date of the consent.

14.8 Conditions

We have carefully considered the conditions proposed by the applicant, the Council and submitters. We are satisfied that the conditions proffered by Mr Fisher in closing are generally appropriate, but we consider that a number of important amendments and additions are necessary in order to avoid, remedy or mitigate the adverse effects of the Correnso mine on the environment. We do not address every nuance of conditions drafting, nor do we differentiate between conditions proposed by the applicant or the Council advisors, except to the extent we consider it necessary. Rather, we confine our commentary to what we consider to be the key changes we have made to the conditions, which we set out in full in Appendix 1 to this decision. These are as follows:

- Removing all references to mining beyond the Correnso proposal.
- Renumbering the conditions.
- Including a new condition (renumbered Condition 4) setting out that the consent is predicated on not exceeding the envelope of effects predicted by the applicant in respect of vibration and effects on property values. (In that regard, we have expressed all vibration limits in terms of "blast events", noting our earlier comments[53] regarding Dr Heilig's use of that term, when we concluded he was actually referring to individual "blasts".)
- Deleting the requirement proposed by Council advisors for programming blasting activities to limit the frequency at which residences receive vibration above 3 mm/s (this issue is satisfactorily addressed by other conditions we have imposed).
- Amending what was referred to during the hearing as "Condition 30" and which relates to the property support programme (renumbered Condition 46) to:
    - Reflect our finding that a property support initiative is a critical means of mitigating the adverse effects of the proposal on the residents of Waihi East.
    - Require the establishment of a "Waihi East Property Support Fund", the purposes of which are to:

[52] Section 42A report, section 4.0

[53] This decision – Section 12.9, page 35

        - ensure that sufficient funds are available to ensure that the sale prices of properties in the area marked “Area L” in the attached Figure 1 are not adversely affected by the activities authorised by this consent in the event owners wish to sell properties during the life of this consent; and

        - enable those property owners wishing to sell their properties to do so without suffering financial loss and without undue delay.

    - Require the Independent Review Panel to administer the fund and disburse funding.

    - Requiring an initial fund quantum of $16 million dollars, whilst making provision for the quantum to vary (up or down) over time to ensure that the stated purposes of the fund are being achieved.

- Requiring the formation of a “Waihi East Community Consultation Group” (renumbered condition 47) to facilitate direct liaison between the mining company and the residents of Waihi East. We consider this to be a more appropriate mechanism, in RMA terms, than the current Waihi Community Forum.

- Broadening the role of the Independent Review Panel (renumbered condition 48) to reflect its role in administering and managing the Waihi East Property Support Fund.

- Amending the review condition (renumbered Condition 79) to reflect the requirements of new Condition 4 and to provide for reviews to occur annually.

We wish to express our thanks to the submitters, who have assisted us greatly by explaining the effects they experience currently and their concerns about the current proposal. As stated at the hearing by the applicant and the Council’s advisors, we are mindful the RMA is not a “no effects statute”. However, we consider that the conditions we have imposed are necessary to ensure that the RMA’s purpose is achieved and that the adverse effects are avoided, remedied or mitigated. We consider that the conditions imposed will allow the applicant and the wider community to enjoy the considerable benefits of the proposal, whilst ensuring that these benefits are not achieved to the detriment of the social and economic wellbeing of the residents of Waihi East.

15.0 DECISION

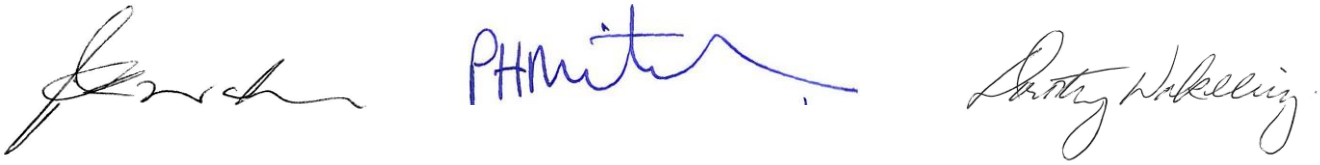
Pursuant to sections 104, 104B, 104D and 108 and Part 2 of the Resource Management Act 1991, consent is **granted** to that part of the application by Newmont Waihi Gold to provide for the Correnso Underground Mine and associated facilities, subject to the conditions attached as Appendix 1.

Pursuant to sections 104, 104B, 104D and 108 and Part 2 of the Resource Management Act 1991, consent to provide for underground mining and associated activities within the wider Golden Link Project Area is **refused.**

The reasons for the decision are covered in the preceding account of our Findings.

Pursuant to section 108 of the Resource Management Act 1991, the conditions imposed are those contained in the attached Appendix 1.

Signed by:



AR Watson (Chair) **PH Mitchell** **D Wakeling**

Independent Hearings Commissioners

30 April 2013

APPENDIX 1

CONDITIONS OF CONSENT

CONDITIONS OF CONSENT

General

1. The activities authorised by this consent shall be carried out on the site described in Figure 1 attached to this consent and in general accordance with the plans and information submitted in the application, but as amended by the conditions set out below. For the avoidance of doubt, mining is limited to the area denoted "Correnso" in the attached Figure 1

2. This consent shall be exercised in accordance with the additional licences and consents identified in Schedule A of this consent where relevant.

3. The land use activities permitted under this consent for all activities and facilities relating to the Correnso Underground Mine, being underground mining through to the rehabilitation of the land and final mine closure, include but are not limited to, the following:

   Within the Correnso Underground Mine, as identified in Figure 1:

   - Earthworks
   - Use of existing surface and underground facilities and infrastructure
   - Construction of access drives, declines and inclines, and underground ventilation and service shafts
   - Drilling and blasting
   - Underground mining
   - The removal of waste rock and ore
   - Rehabilitation activities, including backfilling with waste rock and cemented aggregate fill, and flooding with treated water and water from the Ohinemuri River
   - On-going underground exploration of the ore bodies by drives and / or drilling
   - The storage and use of hazardous substances including the construction and use of underground storage areas
   - Construction and use of underground support facilities including maintenance and servicing workshop areas.

   Outside the area of the Correnso Underground Mine:

   - Use of existing facilities and infrastructure 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.
   - Construction and use of a ventilation shaft in the Surface Facilities Area within Area B of the Extended Project land use consent referenced in Condition 2 above and identified in Schedule A of this consent.
   - Construction and operation of a concrete batching plant and the associated stockpiling of aggregate within the Favona stockpile area.
   - Construction and use of access drives from Favona and Trio drives/workings and within ML 32 2388 (beneath the existing conveyor) to serve the Correnso Underground Mine, all as identified on Figure 1.

4. This consent is predicated on the following being satisfied:

   i) That notwithstanding Conditions 13, 14 and 15, peak blast induced velocities at any one of the monitoring sites established pursuant to Conditions 19 and 20 shall not exceed:

      a) 4 mm/s for more than 15 blast events per calendar year

      b) 3 mm/s for more than 50 blast events per calendar year

c) 2 mm/s for more than 146 blast events per calendar year.

ii) That notwithstanding Conditions 13, 14 and 15, peak blast induced velocities averaged across all the monitoring sites established pursuant to Conditions 19 and 20 shall not exceed:

a) 4 mm/s for more than 3 blast events per calendar year

b) 3 mm/s for more than 11 blast events per calendar year

c) 2 mm/s for more than 48 blast events per calendar year.

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iii) That the provisions of Condition 46 are effective in ensuring that the price received on the sale of any individual property is not adversely affected by activities authorised by this consent.

5. The consent holder shall at least 1 month before the first exercise of this consent, advise the Manager, Planning and Environmental Services, Hauraki District Council ("Council"), in writing, of the date upon which the exercise of this consent is to be physically commenced which will be the commencement of the access drives from either the Favona or Trio workings, whichever occurs first.

Annual Work Programme

6. a) The consent holder shall, within 1 year of the date of commencement of this consent and every year thereafter, prepare and submit to the Council for information purposes an Annual Work Programme for the following year's work.

b) The Annual Work Programme shall, amongst other matters:

i) Clearly demonstrate that all proposed workings are within the area of the Correnso Underground Mine as identified in Figure 1; and

ii) Set out the timing and intended location of proposed extraction within the ore body.

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 (L_{10}) 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 (L_{10}) 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 L_{10} 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) 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 8 and 9. Such measures to comply with Conditions 7, 8 and 9 shall be implemented immediately.

Advice note: Such ongoing monitoring shall be undertaken in conjunction with the Martha Mining Licence (ML 322388), 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.

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.

Blasting and Vibration

13. Ground Vibration

All blast events shall comply with the vibration levels, numbers of events and durations specified in Condition 14.

14. Impulsive Vibration from Blasting

The activity shall comply with the following standard as measured at the boundary of any residentially zoned site or the notional boundary of any occupied rural dwelling 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 is not subject to an agreement between the consent holder (or related company) and the purchaser or related company, or in the event that there is no longer an agreement between the consent holder and the landowner, the measurement of vibration shall revert to being on or close to the boundary of that residentially or low-density residentially zoned site or the notional boundary of the occupied rural dwelling.

Time	**Maximum number of blast events per period[1]**	**Maximum ground vibration level (instantaneous vector sum of velocity components – 95% compliance[2])**
Monday to Saturday 0700 to 2000	3	5.0 mm/s
Monday to Saturday 2000 to 0700 the following day	0	N/A
Sundays & Public Holidays	0	N/A

Notes:

[1] "Period" means the durations referred to in the column headed "Time".
[2] "95% compliance" is defined as the level not to be exceeded by 95% of blast events measured over the preceding 6-month period.

i) Compliance with the 95-percentile limit shall be determined separately for development blast events and for production blast events where;

- Development blast events are defined as those events containing only development blasts.
- Production blast events are defined as those events containing at least one production blast and may contain any number of development blasts.

ii) For all blast events, including those involving a combination of production and development blasts (95% compliance);

- Production blasts shall have a total duration of not more than 9 seconds;
- Development blasts shall have a total duration of not more than 12 seconds;
- A combination of production and development blasts shall have a duration of not more than 12 seconds.
- No blast event shall have a duration of more than 18 seconds

iii) A 'Blast Event' is defined as:

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

iv) A 'Development Blast' is defined as:

'Any blast with a duration of greater than 6 seconds and/or with a charge weight per hole of no more than 7 kilograms of explosive.'

v) A 'Production Blast' is defined as:

'Any blast in which a single hole contains a maximum instantaneous charge weight of more than 7 kilograms of explosive.' Slot blasts are deemed to be Production Blasts for the purpose of this definition.

15. Minimisation of Blasting Impacts

In addition to complying with the requirements of Condition 14, the consent holder shall minimise, to the extent practicable, the impacts of blasting vibrations for the Community. The measures to be applied in this regard shall be set out in the Vibration Management Plan (Condition 19) and will include details of how the following requirements will be achieved to the greatest extent practicable:

i. Restrict the duration of blast events to the minimum consistent with safe and efficient mining operations

ii. Fire the production blasts within the 1pm meal break

iii. Fire the three defined daily blast windows at shift changes and meal breaks

iv. Implement timely blast notification procedures

v. Report blast vibration results in a timely manner.

16. Where blast events provided under this consent occur simultaneously with blast events at Trio or Favona Underground Mines or the Martha Mine, the consent holder shall ensure that such blast events comply with the maximum ground vibration level limits specified in Condition 14 of this consent.

17. In the first two months of development blasting and of production blasting activity at the Correnso Underground Mine, any more than 5 recorded vibration 'blast events' in excess of 5mm/sec will be deemed to be non-compliant. Following the first two months of blasting

activity, the 95% compliance requirement shall apply based on all the recorded blast events for the first 6 month period. Thereafter a rolling 6 month period shall apply.

18. Ventilation Shaft Construction

No blasting shall be employed in the construction of the ventilation shaft which is approved in terms of this consent.

19. Vibration Management Plan

The consent holder shall prepare a Vibration Management Plan for written approval by the Council. The objective of the Plan is to provide detail on how vibration consent condition compliance will be achieved for the duration 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 Vibration Management Plan has been approved by the Council.

The Plan shall specifically include the following:

a) Measures to be adopted to meet the conditions of this consent to ensure that blast vibrations for both development and production blasts are minimised to the greatest extent practicable, including;

   i. Description of the blast design criteria and blast design review procedures. All blasts shall be designed to a 95% level of confidence to achieve the vibration levels specified in Condition 14 and the requirements of Conditions 4 i), 4 ii) and 15 .

   ii. The numbers, times (generally around shift changeovers), duration of blast events, and in general terms the coordination of development and production blasts into one blast event and steps to minimise the duration of blast events.

   iii. Procedures to be adopted where vibration levels approach the maximum permitted levels and mitigation actions to be implemented in the event of an exceedance of the limits stated in Condition 14.

   iv. The methods and procedures to be adopted to enable the separate recording and reporting of development and slot / production blasting.

   v. Identification of properties for structural condition survey (refer Condition 20 e)).

   vi. Mitigation actions and procedures to repair any damage to structures identified as having resulted from mining activities from the Correnso Underground Mine.

b) The location of permanent monitoring locations to be established in accordance with Condition 20 d).

c) Records to be kept, including blast design data.

d) Measures to make blast monitoring results publicly available in a timely manner.

Advice note: The Vibration Management Plan may be prepared in conjunction with the Vibration Management Plans prepared in accordance with the consent requirements applying to other mines in the Waihi area.

20. Blasting and Vibration Monitoring

a) Impulsive vibration from all blast events shall be monitored.

b) The monitoring system shall be automated to allow for the prompt analysis of each blast event.

c) Suitably trained personnel shall conduct monitoring. Equipment used for monitoring, equipment calibration and vibration measurement procedures shall comply with the current Australian Standard AS2187.2 (or equivalent international standards) and equipment manufacturers' recommendations.

d) Unless otherwise confirmed in the Vibration Management Plan (Condition19) monitoring locations for the Correnso Underground Mine shall be those shown in the evidence of Dr McKenzie and included as Figure 3.

The monitoring positions shall not be on or inside a building or structure.

e) Before blasting associated with the Correnso Underground Mine starts, and provided the property owner consents, the consent holder shall complete a structural condition survey for up to 15 representative properties as agreed in writing by the Council. The representative properties are to be located in the area directly above the Correnso ore body. In addition to these properties, structural condition surveys shall be carried out as follows (subject to owner's agreement):

- At 'control' properties beyond the 3mm/sec vibration contour Plate No F (Heilig & Partners) attached as Figure 4.

- At Waihi East School

- At the former Mine Manager's house (57 Barry Road).

The survey properties shall be identified in the Vibration Management Plan (Condition19).

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

f) A roving monitor shall be deployed to record vibrations in locations where complaints regarding vibration have been made.

g) A complete record of each blast event shall be maintained. The record shall include:

(i) Types of measurement instrument used
(ii) Time and duration of blast event
(iii) Location of blasts
(iv) Locations of monitoring positions
(v) Distances from the blasts to the monitoring position and nearest residence
(vi) Measured vibration levels
(vii) Total amount of explosive used
(viii) Delay sequence of the blast event
(ix) Maximum instantaneous charge
(x) Volume of rock blasted
(xi) Complaints (including the nature of effects, for example rattling window, was the complainant awoken) and whether the vibration mitigation action process has been undertaken (Condition 22b)
(xii) Advice as to whether the blast was a safety or minor maintenance blast
(xiii) Design criteria not covered in items (i) to (xii) above.

21. Health and Safety

All blasting and material storage and handling shall be carried out so as to ensure the safety of persons in, and in the vicinity of, the Correnso Underground Mine. The Health and Safety in Employment Act 1992 and the Health and Safety in Employment (Mining Underground) Regulations 1999 shall be complied with.

The consent holder shall notify the Health and Safety Inspector of the blasting procedures to be employed and of any changes to the procedures.

22. Management and Reporting

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

b) In the event that blast monitoring shows that the vibration standards have been exceeded, the consent holder shall implement mitigation actions to ensure compliance. Possible mitigation actions include but are not limited to:

(i) Limiting the rate of excavation advance
(ii) Reducing the blast hole diameter
(iii) Reducing the weight of explosive in the blast hole
(iv) Using alternative explosive types
(v) Using electronic delays to adjust sequencing
(vi) Decking
(vii) Changing the blast pattern
(viii) Drilling and blasting in two passes
(ix) Changing the method of mining

c) The consent holder shall provide a report to Council for each blast event where the measured vibration exceeds the specified maximum limits. The reports shall be submitted within five (5) days after the blast event and include the records listed in Condition 20) above and mitigation actions taken to limit subsequent blast vibrations to the maximum limits or less as generally outlined in Condition 22).

d) The consent holder shall provide a summary report to Council at three (3) monthly intervals after commencement of the Correnso Underground Mine. The report shall include the following:

(i) Confirmation of actions taken during the previous reporting period
(ii) All vibration related complaints received during the current reporting period and mitigation actions taken by the consent holder
(iii) Results of vibration monitoring separately for development and production blasts.

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

Surface Stability

23. Underground mining within the Correnso Underground Mine shall be conducted to ensure ground surface stability. This shall include adoption of the following measures:

- Mining methods shall be restricted to those that require stope voids to be backfilled to provide an operating floor for further stoping to proceed.
- No stoping shall occur above whichever of the following criteria sets the lower (deeper) level:
    - A depth of at least 130m below the ground surface
    - A depth of at least 40m below the top of the andesite unless geotechnical investigations reported to the Council demonstrate to its satisfaction that a greater or lesser depth is appropriate to ensure surface stability.
- Backfilling of any other underground workings where geotechnical conditions require backfilling to ensure long-term stability.
- Seismic monitoring and rock movement monitoring of underground mine workings for the duration of mining including backfilling and any other underground rehabilitation work.
- Grouting of all future surface-drilled holes to a depth below the top of the andesite.

Additional measures to be adopted to ensure ground surface stability shall be reported to the Council in accordance with Conditions 25 and 26.

24. Prior to the first exercise of this consent, the consent holder shall provide to the Council a report describing preventative and mitigation actions that would be implemented to ensure that the mining provided for under this consent does not drain the strata overlying the andesite via existing drillholes and structures. Preventative and mitigation actions may include:

- Avoiding intercepting the drillholes with mine workings;
- Grouting drillholes from underground where underground development intercepts holes that are making water or geological defects with significant and sustained water flows;
- Undertaking geotechnical investigations to demonstrate to the satisfaction of Council that draining of the drillhole(s) will not adversely affect surface stability.

25. The consent holder shall provide to the Council on an annual basis (within one month of the agreed anniversary) a report:

a) Describing the location, depth height and volume (m^3) of stopes; and a summary of the data required by Condition 26 regarding unfilled stope voids; and
b) Describe lengths of development that, due to the encountered geotechnical conditions or where multiple levels overlap, will require backfilling prior to mine closure; and
c) Describing the backfilling and compaction associated with each stope; and
d) Describing the ground conditions revealed by the mine excavations; and
e) Describing the monitoring and measures adopted to ensure ground surface stability, particularly as provided for in Condition 23 and the outcomes of such measures.; and
f) The location and depth of exploratory drives;
g) Confirming that the extent of the mining works are confined to the area of the Correnso Underground Mine, as defined in Figure 1.

26. Reporting on Filled/Unfilled Stopes and Seismic Monitoring

i) The consent holder shall report to the Council on a monthly basis on the total stope volume and volume of filled stopes for that month for each mining method employed namely cut and fill area; transverse stope area; and all Avoca areas combined. The report shall be in a form acceptable to the Council and the data shall be for the situation as at the 20th day of the reporting month. The report shall be delivered on or before the end of the calendar month covered.

ii) The consent holder shall report to the Council on a monthly basis detailing any anomalous results from the seismic monitoring and rock movement monitoring required by Condition 23. The report shall be delivered on or before the end of the calendar month covered.

Dewatering and Settlement Monitoring Plan

27. The objectives of the groundwater and settlement management system shall be to ensure that dewatering operations do not give rise to surface instability and differential settlement beyond that authorised by this consent.

28. Within 2 months of the exercise of this consent, the consent holder shall prepare, and submit to the Council for its written approval, a Dewatering and Settlement Monitoring Plan. The purpose of this Plan is to monitor and assess the effects of the activities on land settlement and the groundwater hydraulic regime, and also to detail the contingency measures that will be actioned should groundwater or surface settlement triggers be exceeded.

29. The Plan shall, as a minimum, provide an overall description of the groundwater and settlement monitoring system and the measures to be adopted, including contingency measures, to meet the objectives of the groundwater and settlement management system set out in Condition 27. The monitoring regime shall be designed to assess the effects of:

a) Dewatering on the regional groundwater system; and

b) Dewatering on settlement.

30. Monitoring locations are to provide appropriate resolution of surface tilt relative to the scale of surface infrastructure and final details are to be agreed with the Council. The Plan shall also provide trigger limits that will initiate the implementation of contingency mitigation and/or monitoring measures and shall detail any linkages with the Martha pit operation.

31. The exercise of this consent shall be in accordance with the Plan as approved by the Council. The Plan shall be reviewed and updated as necessary by the consent holder. Any updated Plan shall be promptly forwarded to the Council for written approval and following approval, the updated Plan shall be implemented in place of the previous version.

32. In the event that a tilt greater than 1 in 1000 occurs between any two network monitoring locations installed in accordance with the De-watering and Settlement Monitoring Plan required pursuant to Condition 28 of this consent, or there is a significant variance from the predicted settlement rates, the consent holder shall notify the Hauraki District and Waikato Regional Councils in writing, within 20 working days of receiving the results of the monitoring. The consent holder shall then:

a) Explain the cause of the non-conformance;
b) Propose appropriate settlement contingency measures to the Councils and the timing of implementation thereof by the consent holder;
c) Implement settlement contingency measures as appropriate within the agreed time limit;
d) Advise the Councils on the steps the consent holder proposes to take in order to prevent any further occurrence of the situation.

33. The consent holder shall as a matter of urgency, advise the Council of any significant anomalies identified by the regular (monthly) reading of groundwater levels in the piezometer network. Such advice is to include an explanation of the anomalous results and actions proposed to address any issues identified. This report is to be provided to the Council within 10 working days of the anomalous results being identified.

A “significant anomaly” is defined as 15m or more offset occurring in piezometer recordings over a 1 month period.

34. In the event of any conflict or inconsistency between the conditions of this consent and the provisions of the Dewatering and Settlement Monitoring Plan, then the conditions of this consent shall prevail.

Advice notes:
:

i) The Dewatering and Settlement Monitoring Plan shall be consistent with the Dewatering and Settlement Monitoring Plan prepared as a condition of the ground dewatering consent (RC 124860) granted by the Waikato Regional Council.

ii) The monitoring undertaken in terms of the Dewatering and Settlement Monitoring Plan may need to be continued for a period beyond the term of this consent depending on recharge of the groundwater following cessation of underground mining activities and the filling of the Martha Pit.

Dewatering and Settlement Monitoring Report

35. The consent holder shall provide to the Council an annual Dewatering and Settlement Monitoring Report. The Report shall, as a minimum, provide the following information:

a) The volume of groundwater abstracted;
b) The data from monitoring undertaken during the previous year, including groundwater contour plans (derived from the data) in respect of the piezometer network;
c) An interpretation and analysis of the monitoring data, in particular any change in the groundwater profile over the previous year, predictions of future impacts that may arise as a result of any trends that have been identified including review of the predicted post closure effects based on actual monitoring data, and what contingency actions, if any, the consent holder proposes to take in response to those predictions. This analysis shall be undertaken by a party appropriately experienced and qualified to assess the information;
d) Any contingency actions that may have been taken during the year; and

e) Comment on compliance with Conditions 27 - 34 of this consent including any reasons for non-compliance or difficulties in achieving conformance with the conditions of consent.

The report shall be forwarded in a form acceptable to the Council.

Advice note: The Dewatering and Settlement Monitoring Report shall be consistent with the Dewatering and Settlement Monitoring Report prepared as a condition of the ground dewatering consent (RC 124860) granted by the Waikato Regional Council.

Hazardous Substances Underground Depot(s)

36. All hazardous substances are to be stored in approved and bunded containment in accordance with the relevant New Zealand Standards and Codes of Practice and the Hazardous Substances and New Organisms Act 1996 and Regulations. A Hazardous Substances Use and Management Plan setting out details of the substances used / stored, containment measures, risk management and emergency response approach shall be submitted to the Manager, Planning and Environmental Services, Hauraki District Council prior to the use of the hazardous substances underground depot(s).

Hours of Work

37. Activities may take place 24 hours per day 7 days per week where not otherwise constrained by any other consent conditions.

Social Impacts Management Plan

38. Within 3 months of this consent commencing, the consent holder shall engage a suitably qualified and independent social impact assessment (SIA) specialist, whose brief and appointment shall be approved by the Council, to prepare a Social Impact Management Plan (SIMP). The SIMP shall be submitted to and approved by the Council prior to the commencement of this consent.

39. The purpose of the SIMP shall be to provide an updateable framework to identify, assess, monitor, manage, and re-assess the social effects (positive and negative) of the Correnso Underground Mine in combination with the other Newmont Waihi Gold (NWG) mining projects operating in the area, on the community, and also to provide an annual report on the outcomes of this work.

40. The responsibilities of the independent SIA specialist, engaged under Condition 38, will include:

(a) Recommending indicators and methods of measuring to be used in monitoring;

(b) Advising the Council on trigger points for mitigation actions in terms of other conditions of this consent;

(c) Developing data collection and analysis, methodologies and an annual reporting template;

(d) Finalising the initial SIMP for consideration by the Council

(e) Preparing an initial SIA for submission to the Council as required by Condition 41(b).

41. The SIMP will be based on best practice guidelines and procedures for social impact assessment and shall include:

a) A set of indicators covering the drivers and outcomes of potential social effects attributable to the presence and operation of the Correnso Underground Mine in combination with the other NWG mining projects in Waihi. This may include:

- Numbers employed in the mine operations – NWG and contractors (‘workers’)
- Location of mine workers i.e. numbers of workers residing locally (Waihi/Waihi Ward/Waihi Beach) regionally and beyond.
- Workers housing (rental vs owner occupied, new builds and existing houses).
- Location and number of NWG owned houses in Waihi and breakdown between employee/contractor renters and public renters.

- Changes in housing market – house and rent prices and relationship to mine operations.
- Relationship of mine operations to any impacts on local services (education, health, community etc).
- Relationship of mine operations to any impacts on emergency services (fire, civil defence, ambulance).
- Changes in participation of voluntary and recreational groups.
- Changes in local business activity arising from mining activity.
- Take up of NWG property purchase and top up policy.
- Distribution and use of NWG Amenity Effect Programme and Streets Ahead policy.
- Complaints received by the consent holder and the response to those complaints.

b) An initial social impact assessment (SIA) to be undertaken by the independent SIA specialist once the SIMP is approved by the Council, to provide baseline figures for the agreed indicators. The SIA shall be submitted to the Council within nine (9) months of this consent commencing or before stoping operations commence whichever is the sooner.

42. Annually following the submission of the first SIA to the Council the consent holder shall engage a social impact assessment specialist approved by the Council to prepare a report on the monitoring results, analysis of those results, and management of effects outlined in the SIMP. The report will also include any recommendation on changes to the agreed indicators. The annual report shall be provided to the Council and made publicly available.

43. In the event that the SIMP identifies a significant adverse trend in the indicators that are the result of the consent holder's mining activities within the Correnso Underground Mine, the consent holder shall report to Council on any appropriate mitigation actions it has taken in response to the trend.

44. The SIMP shall be reviewed as required over the life of the consent but at a minimum every 5 years from the agreement of the Council to the initial SIMP.

45. The consent holder shall consult with the Council in undertaking the review of the SIMP and the reviewed SIMP shall be approved by the Council before it is implemented.

Property Programme

46. Waihi East Property Support Fund

a) Prior to exercising this consent, the consent holder shall establish a "Waihi East Property Support Fund", the purposes of which are to:

i) ensure that sufficient funds are available to ensure that the sale prices of properties in the area marked "Area L" in the attached Figure 1 are not adversely affected by the activities authorised by this consent in the event the owners wish to sell their properties during the life of this consent; and:

ii) enable those property owners wishing to sell their properties to do so without suffering financial loss and without undue delay.

b) The Waihi East Property Support Fund shall be established in the name of, and administered by, the Independent Review Panel established pursuant to Condition 48, to the satisfaction of the Council. Other than providing and maintaining funding for the Waihi East Property Support Fund as required by this consent, the operation of the fund shall be entirely independent of the consent holder.

c) Immediately on establishing the Waihi East Property Support Fund the consent holder shall provide a sum of $16 million to that fund and provide such additional moneys that the Independent Review Panel determines to be necessary from time to time in order to ensure that the requirements of Condition 46 a) can continue to be satisfied. Moneys that the Independent Review Panel considers surplus to achieving the requirements of Condition 46 a) shall be returned to the consent holder.

d) In the event that the Correnso Project does not proceed, the consent holder will not be obliged to provide the support identified in this condition.

e) For the avoidance of doubt the Waihi East Property Support Fund shall not be used to fund the Amenity Effect Programme or the Streets Ahead Programme

f) Any decline in values associated with the cessation or suspension of mining activities or closure of the mine shall not be subject to this condition.

47. Waihi East Community Consultation Group

a) The consent holder shall invite owners of all land containing one or more dwellings that is located in the area marked "Area L" in the attached Figure 1 and representatives of the Council to participate in the Waihi East Community Consultation Group (WECCG). The purpose of the WECCG shall include:

i) providing feedback to the consent holder and the Council on the operation of the Waihi East Property Support Fund required by Condition 46.

ii) receiving copies of monitoring results.

iii) providing a mechanism for the consent holder to liaise with the community regarding the exercising of this consent, including but not limited to receiving feedback from the community about the effects of vibration.

iv) providing a mechanism for the consent holder to liaise with the community regarding any plans for future expansion of mining operations in and around Waihi.

b) The consent holder shall maintain the WECCG for the duration of mining provided for under this consent.

c) The consent holder shall, at least once every 4 months, from the date of commencement of this consent convene a meeting of the WECCG to discuss matters relating to the exercise and monitoring of this consent, including but not limited to the Waihi East Property Support Fund. At this time the consent holder shall provide information on matters relating to the exercise and monitoring of this consent, including but not limited to the Waihi East Property Support Fund, the proposed work programme for the following 12 months and an update on plans for any expansion to mining operations in and around Waihi, beyond those for which consent is already held. The information shall be provided to the WECCG sufficiently in advance of the meeting so that the WECCG has time to review and consider it.

d) Meetings of the WECCG shall be chaired by an independent person, to be elected at the first meeting of the WECCG. The election of the chairperson, and any replacement that may be required from time to time, shall be by simple majority of those present in person at the relevant meeting. For the avoidance of doubt, the chairperson may not be a current or past resident of the Hauraki District.

d) The consent holder shall keep minutes of the meetings held in accordance with clause c) of this condition and shall forward them to all attendees within ten working days.

e) The consent holder shall provide final copies of the reports prepared in accordance with the conditions of this consent to the WECCG concurrently with them being submitted to the consent authority.

Advice note: The requirements of this condition are additional to those associated with the existing Waihi Community Forum, which the consent holder has made a commitment to continue to participate in and fund.

48. Independent Review Panel

Prior to exercising this consent the consent holder shall establish and fund an Independent Review Panel (IRP). The purpose of the IRP shall be:

i) administering the Waihi East Property Support Fund;

ii) determining the level of funding needed to enable the Waihi East Property Support Fund to satisfy the requirements of Condition 46;

iii) determining the process to be followed to enable payments to property owners from the Waihi East Property Support Fund;

iv) authorising the quantum and timing of all payments from the Waihi East Property Support Fund;

v) mediating property damage claims; and

vi) mediating contested Top Up requests.

The IRP shall be made up of independent experts from outside Waihi from a range of backgrounds relevant to the purpose of the IRP, with membership of the IRP to be proposed by the consent holder, and approved by the Council.

Funding of the IRP shall be the responsibility of the consent holder.

The IRP shall be maintained for the duration of mining provided for under this consent.

All property that is purchased outright using the Waihi East Property Support Fund shall be owned by the consent holder.

Heritage Protection

49. Should modelling show that any activity authorised by this consent will generate ground vibration levels of 5mm/sec (instantaneous vector sum of velocity components) within 20m of the Union Hill Cyanide Tanks or Union Hill Ore Roasting Kilns the Heritage Items Monitoring Plan as approved for the Trio Mine Land Use Consent and dated June 2012 (NOW-ENV-012-SYS-M44 Version 1) shall be activated and the baseline data updated (or continued if still operating) to the satisfaction of the Council.

Transport

50. At least one month prior to the commencement of haulage of aggregate ~~and~~ for backfilling the Correnso Underground Mine, the consent holder shall engage a suitably qualified road maintenance engineer to record the condition of the existing road pavement of Baxter Road and submit the assessment to the Council. The inspection and recording of the road pavement condition shall be undertaken in consultation with the Council's Roading Asset Manager. The road pavement condition rating shall be used as the baseline (including vehicle counts) for assessing the works required during the term of the consent, to return the road pavement to at least its standard/condition prior to the commencement of the aggregate/backfill haulage activity.

51. The consent holder shall in conjunction with a Council representative undertake an annual road pavement inspection of Baxter Road during the period that the road is used for the aggregate/backfill haulage activity.

52. The consent holder shall during the term of this consent reimburse the Council for the cost of the road pavement maintenance (potholes/surface rutting etc) caused by the cartage of aggregate and backfill material along Baxter Road. The maintenance cost will be calculated on a pro-rata basis against the baseline heavy vehicle traffic volumes and taking into account any financial assistance received by Council for maintenance.

Advice note: The Council will invoice the consent holder for any maintenance costs annually in arrears commencing one (1) year from the receipt of the pre-commencement road pavement condition survey by the Council.

53. At the completion of the aggregate/backfill haulage activity associated with this consent, the consent holder shall return Baxter Road to the agreed road pavement condition, as identified in the road pavement condition survey carried out in accordance with Condition 50 of this consent, at the consent holder's expense to the satisfaction of the Council, where not otherwise reimbursed in accordance with Condition 52.

54. If the aggregate/backfill material required for the Correnso Underground Mine is not sourced from the Waitawheta Quarry on McLean Road, the Council shall be advised at least one month prior to the commencement of the aggregate/backfill haulage activity of the location of the source of the material and the expected haulage routes.

55. Intersection upgrades of State Highway 2 and Baxter Road and/or Crean Road shall be completed by and at the cost of the consent holder, prior to the first use of these intersections by trucks importing quarry rock to the site for the purpose of creating cemented aggregate fill (as approved under this land use consent). Prior to the commencement of the intersection upgrade, the consent holder shall submit to Council details of the design of the proposed upgrade, along with written confirmation from NZTA (as the road controlling authority for State Highway 2) that the NZTA accepts the proposed design.

Rehabilitation

56. The consent holder shall prepare a Rehabilitation Plan covering all areas that may be affected by the construction and use of workings associated with the Correnso Underground Mine. This plan shall be submitted to the Waikato Regional Council and the Hauraki District Council for written approval prior to the commencement of the Correnso Underground Mine.

The Plan shall be in two parts:

- Part A shall describe the programme of progressive rehabilitation (including re-vegetation and backfilling) that is proposed for the site(s) for the following twelve months, should closure not be proposed during that period; and shall report on any such works undertaken during the previous year.
- Part B shall:
    a) Describe the proposed method of rehabilitation and closure should closure occur within the following 12 months;
    b) Include an assessment of any residual risk that the site(s) would pose to the environment and the neighbouring community should closure occur within the following 12 months; and
    c) Include a programme for monitoring of the site(s) following closure, and list all maintenance works likely to be necessary at the closed site(s) for the foreseeable future.

The consent holder shall implement Part A of the approved Plan and shall implement Part B of the approved Plan in the event of closure occurring.

57. Plan Review

The Plan shall be reviewed and updated annually and the concepts shall be described in more detail as appropriate.

The consent holder shall submit the Plan, and each annual review and update thereof, to the Peer Review Panel (as required by the Martha Extended Project) for its review.

The consent holder shall then submit the peer reviewed Plan to the Hauraki District Council and Waikato Regional Council for approval.

58. Rehabilitation Plans associated with the Martha Extended Project and Favona and Trio Underground Mines

The Rehabilitation Plan may also include any other information that the consent holder wishes, and may be combined with the Rehabilitation Plan(s) associated with the Martha open pit and Favona and Trio underground mines.

Liaison Officer

59. At least 1 month prior to exercising this consent, the consent holder shall appoint a person (the “Liaison Officer”), and any replacement person subject to the approval of the Hauraki District Council and the Waikato Regional Council (the “Councils”), to liaise between the consent holder, the community and the Councils. The 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. The Liaison Officer shall be appointed for the duration of activities associated with this consent. The name of the 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 and at least once a year thereafter.

60. The Liaison Officer shall also be active in informing the Waihi community regarding any new proposed underground mining projects (beyond Correnso) in the area marked “Area L” in the attached Figure 1.

Complaints Procedure

61. The consent holder shall maintain and keep a complaints register for any complaints received from the community. As a minimum, the register shall record, where this information is available, the following:

a) The date, time, and details of the incident that has resulted in a complaint.
b) The location of the complainant when the incident was detected
c) The possible cause of the incident.
d) Any corrective action taken by the consent holder in response to the complaint, including timing of that corrective action.
e) Communication with the complainant in response to the complaint

The complaints register shall be made available to the Council on request and relevant aspects shall be reported to Council in the 3 monthly noise and vibration monitoring summary reports (refer Conditions 11 and 22).

Term and Lapse Period

62. This consent is for a term of 10 years from the date of commencement.

63. This consent lapses unless given effect to 5 years after the commencement of this consent under Section 116 of the Resource Management Act 1991.

Bond

64. Unless otherwise agreed in writing by the Hauraki District Council and the Waikato Regional Council, the consent holder shall provide and maintain in favour of the Councils a rehabilitation bond(s) to:

(i) Secure compliance with the conditions of this consent and to enable any adverse effect on the environment resulting from the consent holder’s activities and not authorised by a resource consent to be avoided, remedied, or mitigated;

(ii) Secure the completion of rehabilitation and closure of the activities authorised by this consent in accordance with the Rehabilitation Plan approved by the Councils; and

(iii) Ensure the performance of any monitoring obligations of the consent holder under this consent.

65. The bond(s) shall be in a form approved by the Councils and shall, subject to these conditions, be on the terms and conditions required by the Councils.

66. The bond(s) shall provide that the consent holder remains liable under the Resource Management Act 1991 for any breach of the conditions of consent which occurs before expiry of this consent and for any adverse effects on the environment which become apparent during or after the expiry of the consent.

67. Unless the bond(s) is a cash bond, the performance of all of the conditions of the bond(s) shall be guaranteed by a guarantor acceptable to the Councils. The guarantor shall bind itself to pay for the carrying out and completion of any condition in the event of any default of the consent holder, or any occurrence of any adverse environmental effect requiring remedy.

68. The amount of the bond shall be fixed prior to the exercise of this consent and thereafter at least annually by the Councils which shall take into account any calculations and other matters submitted by the consent holder, which are relevant to the determination of the amount. The

amount of the bond shall be advised in writing to the consent holder at least one month prior to the review date.

69. The annual review of the rehabilitation bond shall be undertaken concurrently with the annual reviews for the Martha Mine (ML 322388 and Extended Project land use consent) and the Favona and Trio Underground Mines (land use consents) while these latter bond requirements remain in force.

70. The amount of the bond shall include:
    (i) The estimated costs (including any contingencies necessary) of rehabilitation and closure in accordance with the conditions of this consent, on completion of the operations proposed for the next year;
    (ii) Any further sum which the Councils consider necessary to allow for remedying any adverse effect on the environment that may arise from the exercise of this consent;
    (iii) The estimated costs of monitoring, in accordance with the monitoring conditions of this consent, until the consent expires; and
    (iv) Any further sum which the Councils consider necessary for monitoring any adverse effect on the environment that may arise from the exercise of this consent including monitoring anything which is done to avoid, remedy, or mitigate an adverse effect.

71. Should the consent holder not agree with the amount of the bond(s) fixed by the Councils then the matter shall be referred to arbitration in accordance with the provisions of the Arbitration Act 1996. Arbitration shall be commenced by written notice by the consent holder to each of the Councils advising that the amount of the bond(s) is disputed, such notice to be given by the consent holder within two weeks of notification of the amount of the rehabilitation bond(s). If the parties cannot agree upon an arbitrator within a week of receiving the notice from the consent holder, then an arbitrator shall be appointed by the President of the Institute of Professional Engineers of New Zealand. Such arbitrator shall give an award in writing within 30 days after his or her appointment, unless the consent holder and the Councils agree that time shall be extended. The parties shall bear their own costs in connection with the arbitration. In all other respects, the provisions of the Arbitration Act 1996 shall apply. Pending the outcome of that arbitration, and subject to Condition 72, the existing bond(s) shall continue in force. That sum shall be adjusted in accordance with the arbitration determination.

72. If, for any reason other than default of the Councils, the decision of the arbitrator is not made available by the 30th day referred to above, then the amount of the bond(s) shall be the sum fixed by the Councils, until such time as the arbitrator does make his/her decision. At that stage the new amount shall apply. The consent holder shall not exercise this consent if the variation of the existing bond(s) or new bond(s) is not provided in accordance with this condition.

73. The bond(s) may be varied, cancelled, or renewed at any time by agreement between the consent holder and the Councils provided that cancellation will not be agreed to unless a further or new bond acceptable to the Councils is available to replace immediately that which is to be cancelled (subject however to Condition 74 below as to release of the bond(s) on the completion of the rehabilitation).

74. The Councils shall release the bond(s) on the completion of the rehabilitation. This means when the rehabilitation has been completed in accordance with the approved Rehabilitation Plan and demonstrated to be successful, to the satisfaction of the Councils.

75. All costs relating to the bond(s) shall be paid by the consent holder.

76. This consent shall not be exercised unless and until the consent holder provides the bond(s) to the Councils or provides such securities as may be acceptable to the Councils until the bond is received.

77. These conditions form an integrated whole and are not severable.

Advice notes: 1: This condition is complementary to Waikato Regional Council consents.

2: The bond(s) covers only those elements of the Correnso Underground Mine not already subject to the rehabilitation bonds imposed by the land use and other resource

consents granted for the Martha Extended Project and Favona and Trio Underground Mines.

Administrative Charges

78. The consent holder shall pay to the Council all actual and reasonable charges arising from the monitoring of consent conditions and any other administrative charges fixed in accordance with Section 36 of the Resource Management Act 1991, or any charge prescribed in accordance with regulations made under Section 360 of the Resource Management Act 1991.

Review of Conditions

79. Pursuant to Section 128(1)(a)(i) and (ii) of the Resource Management Act 1991, the Council may, 12 months from the commencement of this consent and annually thereafter, review any or all of the conditions of this consent for any of the following purposes:

(i) To ensure that the provisos contained in Condition 4 are being met

(ii) To review the effectiveness of the conditions of this consent in avoiding, remedying or mitigating any adverse effect on the environment that may arise from the exercise of the consent (in particular the potential adverse environmental effects in relation to vibration, noise, surface stability and social impacts) and if necessary to avoid, remedy or mitigate such effects by way of further or amended conditions

(iii) To address any adverse effects on the environment which have arisen as a result of the exercise of this consent that were not anticipated at the time of commencement of the consent

(iii) To consider possible actions where it is demonstrated that the objective of the property support programme is not being met

(iv) To review the adequacy of, and necessity for, any of the monitoring programmes or management plans that are part of the conditions of this consent.

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

80. Notwithstanding Condition 79 above, where Council elects to review Conditions 23 - 35 and 65 - 77 this consent, such a review shall be undertaken after consultation with the Waikato Regional Council.

Advice notes:

i In the exercise of the power to certify management plans and monitoring programmes conferred by these conditions, the Council will act on the advice of technical experts with expertise relevant to the subject of the plan or programme in question.

ii. If any activity associated with this consent is likely to damage, modify or destroy any pre-1900 archaeological site (whether recorded or unrecorded) an 'authority' (consent) from the New Zealand Historic Places Trust (NZHPT) must be obtained for the work prior to commencement. It is an offence to damage or destroy a site for any purpose without an authority. The consent holder is reminded of the need to comply with all conditions of authorities that may be granted by the NZHPT for this project under the Historic Places Act 1993.

SCHEDULE A: ADDITIONAL LICENCES AND CONSENTS

- Mining Licence ML 32 2388
- Variations to Mining Licence ML 32 2388
- Hauraki District Council Land Use Consent for the Martha Mine Extended Project (97/98–105)
- Hauraki District Council Land Use Consent for the Favona Decline Project 85.050.325.D
- Hauraki District Council Land Use Consent for the Favona Mine Project 85.050.326E
- Hauraki District Council Land Use Consent for the Trio Development Project [RC-15735]
- Hauraki District Council Land Use Consent for the Trio Underground Mine Project [RC-15774]
- Waikato Regional Council consents for the Martha Mine ~~Extended~~ Project.
- Waikato Regional Council consents for the Favona Decline Project 108554 & 108556
- Waikato Regional Council consents for the Favona Mine 109741, 109742, 109743, 109744, 109745 and 109746.
- Waikato Regional Council consents for the Trio Development Project (121416 – 121418, 121446, 121447)
- Waikato Regional Council consents for the Trio Mine Project (121694 – 121697)
- Waikato Regional Council consents for the Golden Link Project and Correnso Underground Mine (No x – x)

Figure 1 Correnso Underground Mine Plan

GIS Plan Produced at Hauraki District Council (GIS Section).

HAURAKI DISTRICT COUNCIL

Map compiled 30/04/2013

FIGURE 1 - CORRENSO UNDERGROUND MINE PLAN - WAIHI

Area L

Correnso

Favona

Trio

Moonlight

MAP KEY

(White) Area L - Correnso Property Support Area (Refer Conditions 46 & 47)

Martha Mining Licence Area

Martha Extended Project Consent Area

Trio Underground Mining Consent Area

Favona Underground Mining Consent Area

Note: where boundaries overlay each other they are shown as dashed lines

0 500 1,000

metres

The information displayed has been compiled from various sources and is made available in good faith but its accuracy or completeness is not guaranteed. Council accepts no liability for any errors or omissions and it is the users responsibility to ensure that the data contained herein is appropriate to the end use intended.

(Consent Ref. LUSE 202.2012.00000050.001)

Rural Aerial Photography flown April 2012. Urban Aerials flown April 2011.

Figure 2 Noise Monitoring Sites

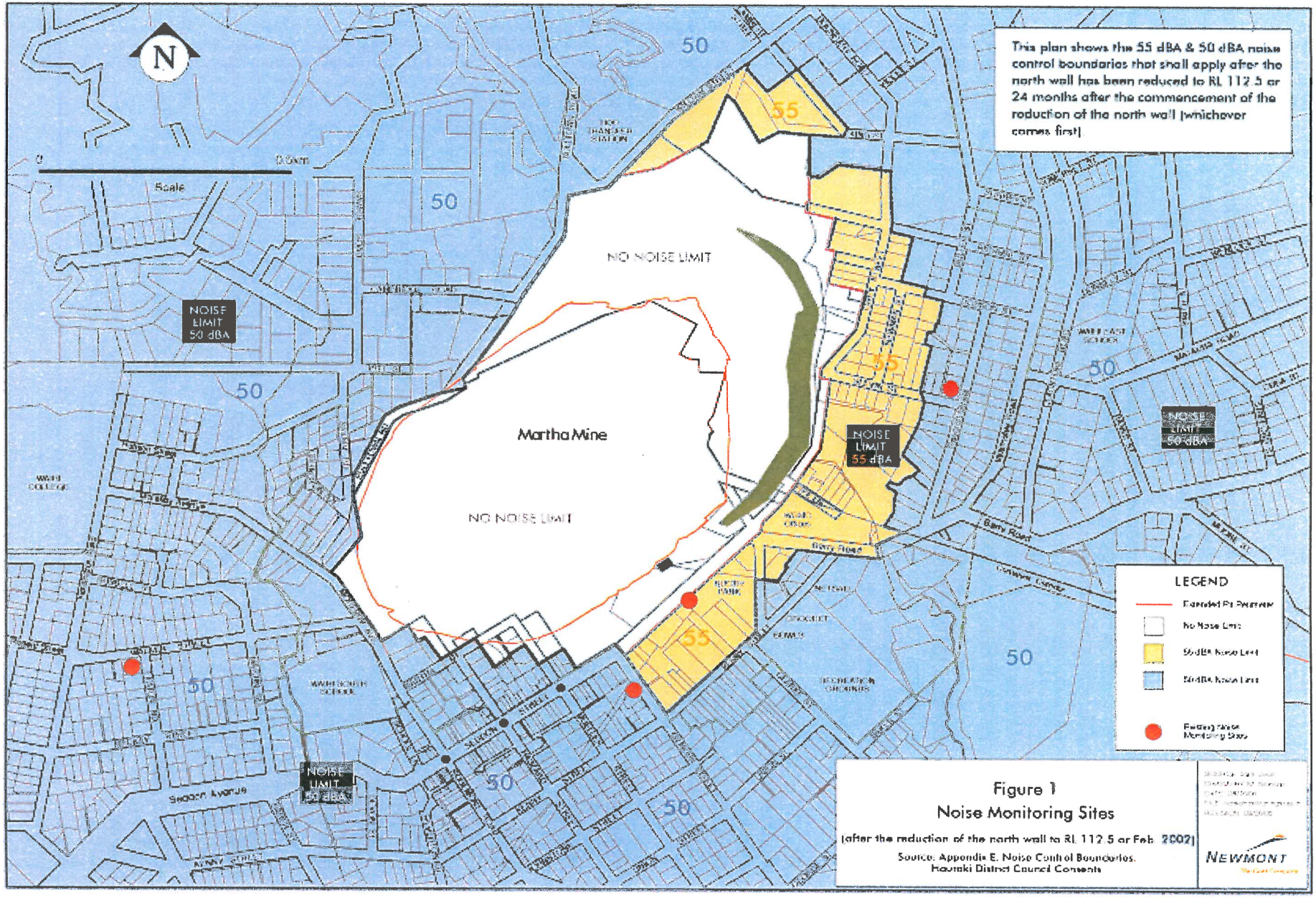

This plan shows the 55 dBA & 50 dBA noise control boundaries that shall apply after the north wall has been reduced to RL 112.5 or 24 months after the commencement of the reduction of the north wall (whichever comes first)
N
Scale
NO NOISE LIMIT
Martha Mine
NO NOISE LIMIT
NOISE LIMIT 50 dBA
NOISE LIMIT 55 dBA
50
55
LEGEND
Extended Pit Perimeter
No Noise Limit
55dBA Noise Limit
50dBA Noise Limit
Fenton Street
Seddon Avenue
Barry Road
Figure 1
Noise Monitoring Sites
(after the reduction of the north wall to RL 112.5 or Feb 2002)
Source: Appendix E. Noise Control Boundaries.
Hauraki District Council Consents
NEWMONT

Figure 3 Location of Vibration Monitoring Sites

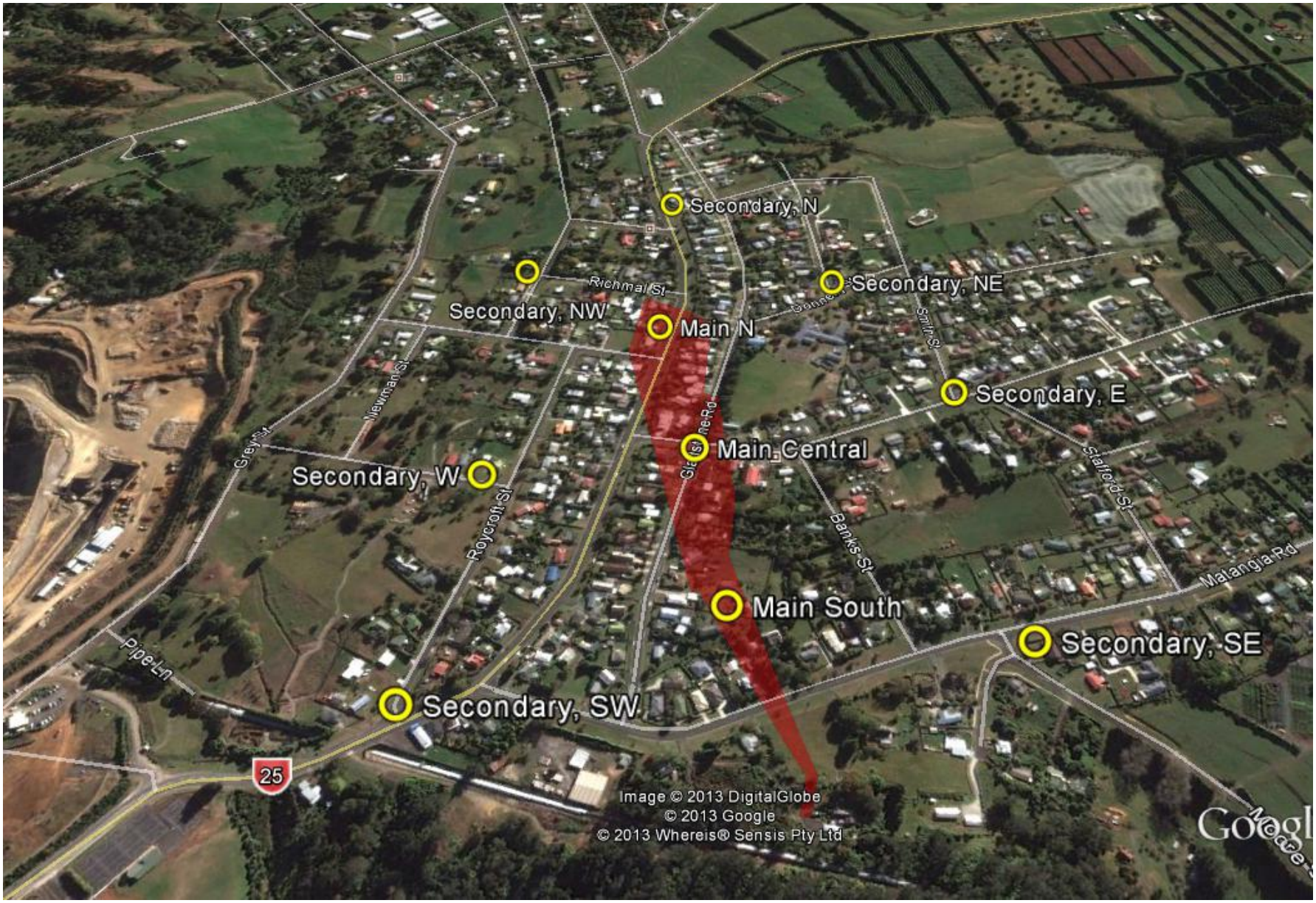
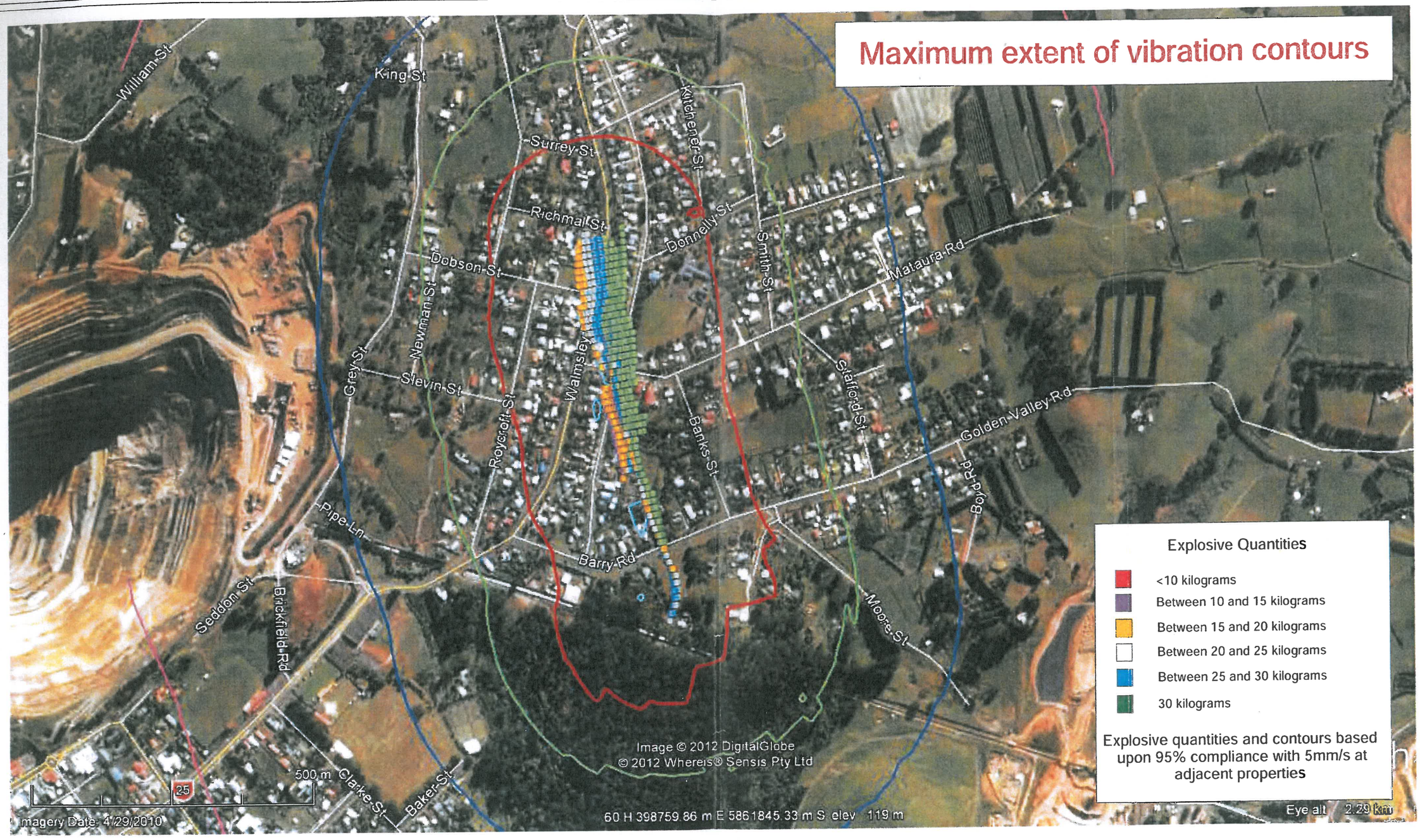

Secondary, N
Secondary, NE
Secondary, NW
Main N
Secondary, E
Main Central
Secondary, W
Main South
Secondary, SE
Secondary, SW
Richmal St
Newman St
Roycroft St
Banks St
Stafford St
Matangia Rd
Pipe Ln
25
Image © 2013 DigitalGlobe
© 2013 Google
© 2013 Whereis® Sensis Pty Ltd

Figure 4 Production Stoping Blasting Vibration Contours

Maximum extent of vibration contours



Explosive Quantities

- <10 kilograms
- Between 10 and 15 kilograms
- Between 15 and 20 kilograms
- Between 20 and 25 kilograms
- Between 25 and 30 kilograms
- 30 kilograms

Explosive quantities and contours based upon 95% compliance with 5mm/s at adjacent properties

SCALE

0 100 200 300 400 500m

LEGEND

- Expected 5 mm/s Vibration Contour
- Expected 4 mm/s Vibration Contour
- Expected 3 mm/s Vibration Contour
- Expected 2 mm/s Vibration Contour
- Expected 1 mm/s Vibration Contour

Project Description: Newmont Waihi Gold - Correnso - Expected explosive weights for production stoping blasting based upon compliance with a 5mm/s vibration criterion.

NEWMONT

HEILIG & PARTNERS

P.O. Box 176
Sumner Park Business Centre
QLD. 4074. Australia
Telephone +61 7 3715 7599
Mobile 0419 196 369
Facsimile +61 7 3715 7588
Email john@heiligandpartners.com.au

Plate No. F	**Date Drawn: 26 March 2012**
Scale as Shown	**Ref No: Correnso March 2012 V1**

ABN 56 082 976 714