

# The East Ender

Distributed to residents  
of Waihi East

APRIL 2015

## *In this issue*

*With this edition coming out at Easter it was suggested that we change the title to the 'Easter Ender' for this month. Here's what's in the April issue.*

### **Vibration workshop report**

*We held a Vibration Workshop early in March at which independent expert presenters explained the practical science behind vibration and its effects and our underground manager worked through what we are doing underground and how.*

### **Correnso Community Meetings**

*Two Correnso Community Meetings were held on March 11. Minutes have been emailed.*

### **Additional information on East Ender maps**

*As a result of requests at the Community Meetings, we have included additional information on the maps featured in each issue.*

### **Underground visits continue**

*Underground visits for Waihi East residents and property owners are continuing. Let us know if you wish to visit our Correnso operation.*

### **Vibration workshop report**

Early in March we held a vibration workshop in the Memorial Hall lounge. Last year around 40 people had indicated that they could be interested in attending, but when we sent out invitations 11 people said they would definitely attend. Due to low numbers we cancelled the Saturday workshop, so nine people attended the Friday session.

At the workshop two independent experts provided information on vibration. Jon Styles from the Styles Group in Auckland presented information on what vibration is, how it is measured and how people perceive it. He also addressed the issue of how we can be sure that levels of vibration generated by Correnso will not damage residential property. He also discussed why blast vibration sometimes feels more obvious inside a house than outside, and the differences between blast vibration and an earthquake.

Consulting engineer John Crabtree explained the various loads on structures such as residential properties. He detailed the effects of factors such as wind, temperature and ground movement due to seasonal moisture content.

Newmont Waihi Gold Underground manager Charlie Gawith explained consent conditions relating to vibration and how these conditions were put into practice. He was followed by Andrea Durie, External Affairs manager, who briefly explained the process Newmont will follow for property damage concerns.

If there is sufficient interest we will offer this workshop again later in the year. If you are interested in attending, please let us know.

### **Underground visits continue**



*Visitors to Correnso have travelled down the spiral decline in a 4WD, viewed the Correnso vein, watched a drilling rig, and been inside a refuge chamber*

To date we have conducted two underground visits to Correnso this year, with more scheduled. We are able to take six people on each tour. If you own property or live in Waihi East, have not been underground before, and you wish to join us on a tour, please let Jeannine know. You can contact her by phone on 863 9776 or by email, [jeannine.wiki@newmont.com](mailto:jeannine.wiki@newmont.com). To visit underground you need to be reasonably fit and capable of climbing in and out of the back of a rather high 4x4 station wagon. If you have no trouble walking around the steeper section of the pit rim walkway you should be just fine underground.

*Find out more*  
**[www.waihigold.co.nz](http://www.waihigold.co.nz)**

*Contact us:*  
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0800 NEWMONT (0800 639 6668)

**NEWMONT**

## Additional information on East Ender maps

At the Correnso Community Meetings held recently we received a number of requests for additional information to be included in the monthly mine maps that feature on pages three and four.

These included:

- Adding the date the mine plan was prepared.
- Showing the depth (RL) of the new workings each month.
- Colour-coordinating the new and existing workings so that the colours are the same on both maps and the cross section graphic.

You will see these changes in this month's images on the following two pages.

### Correnso Community Meetings

*Two Correnso Community Meetings were held on March 11. Minutes have been emailed to people on our distribution list. If you have not received an email copy of the minutes and wish to do so, please let us know.*

*Printed copies of the minutes are also available at the iSite in the Gold Discovery Centre building and at the Hauraki District Council Service Centre in the library on Rosemont Road. Audio recordings on CD are also available at both places. The next meeting is scheduled for September.*



*Above: A drive that has been tight filled with waste rock.*

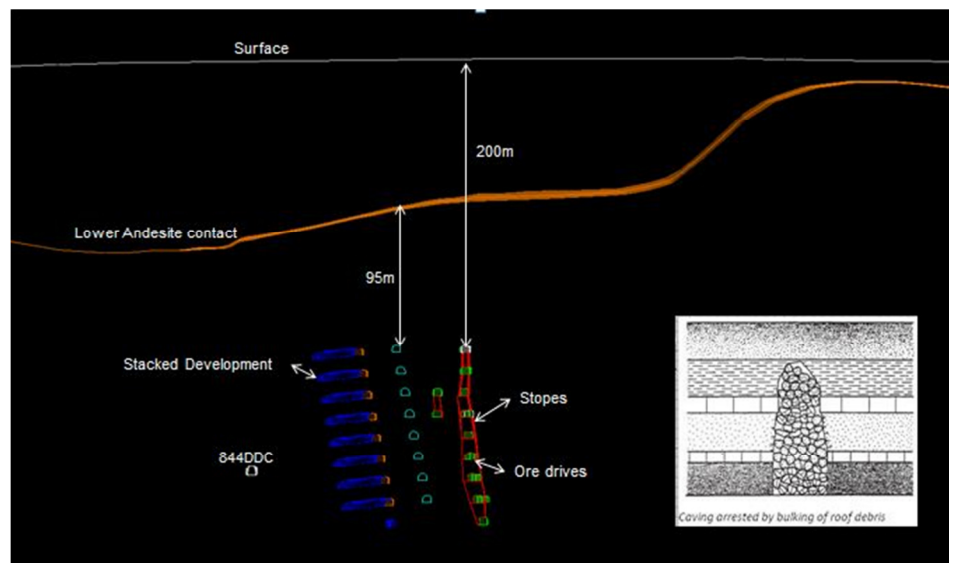
*Below: The 2001 'House in the hole' was caused by historic mining which left behind unfilled stopes.*



### Backfilling: what is it and why do we do it?

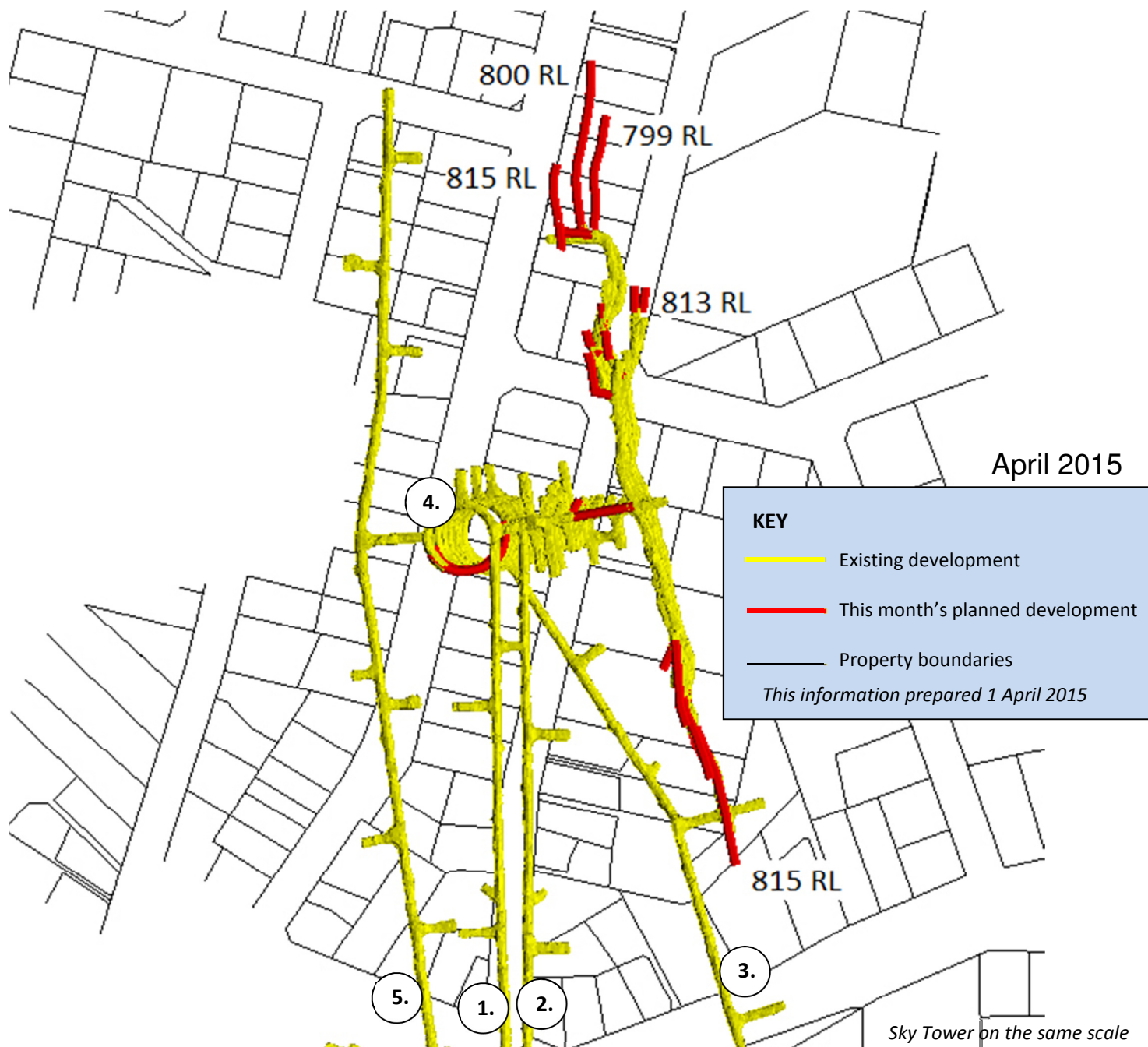
We will backfill the Correnso stopes and the 'stacked development', but not all of the access tunnels. Why do we not also fill these?

The consent conditions require us to backfill underground workings 'where geotechnical conditions require backfilling to ensure long term stability'. This means that we must backfill all of the stopes. The way the mine is worked 'bottom up' also means that we must backfill the stopes to move up to the next level. We will also backfill 'stacked development'. This refers to areas where tunnels are constructed one on top of the other, for example in a spiral decline. Why then, do we not backfill all of the tunnels?



*Above: We will backfill the stopes, associated ore drives, and the stacked development. We will not backfill all of the tunnels. On the right is a diagram showing rock 'bulking up' and 'choking off'.*

When rock falls from the roof of a drive, it swells or 'bulks up' because of the air gaps between the pieces of rock. The rock in the Correnso area 'bulks up' by a factor of between 1.3 and 1.5. So, one cubic metre of original rock becomes up to half as big again when it collapses. An everyday example would be firewood stacked tidily in rows and firewood just thrown in a heap. The heap is bigger, but there is still the same amount of firewood. So, if rock has a bulking capacity of 1.5 and it falls from the roof of a drive it will fill an area half as big again as the gap it creates when it falls. This only has to happen a few times and the void 'chokes off'. There is no room left for rock to fall, and no possibility of a void 'migrating' to the surface.



Sky Tower on the same scale





