Correnso (CEPA) / Slevin Underground Project Area (SUPA) Community Meeting

Thursday 20 September 2018

The following is a record of the CEPA/SUPA community meeting held at 4pm on 20 September 2018. Where possible, we have tried to capture individual contributions at the meeting but these do not purport to be verbatim notes.

Welcome

Tim Clarke introduced himself as the independent facilitator, and welcomed everyone to the 14th meeting in this process, which commenced in March 2014. He reminded attendees that the meeting is an opportunity to hear about CEPA and SUPA and the underground processes that are happening in the East End of Waihi.

Tim asked attendees if they had received the minutes of the previous meeting held in March 2018 and everyone confirmed that they had.

Tim outlined the structure of the meeting and said that there would be a series of presentations by Kit Wilson and Russell Squire. Kit said other members of the Oceana Gold External Affairs Team would also be speaking.

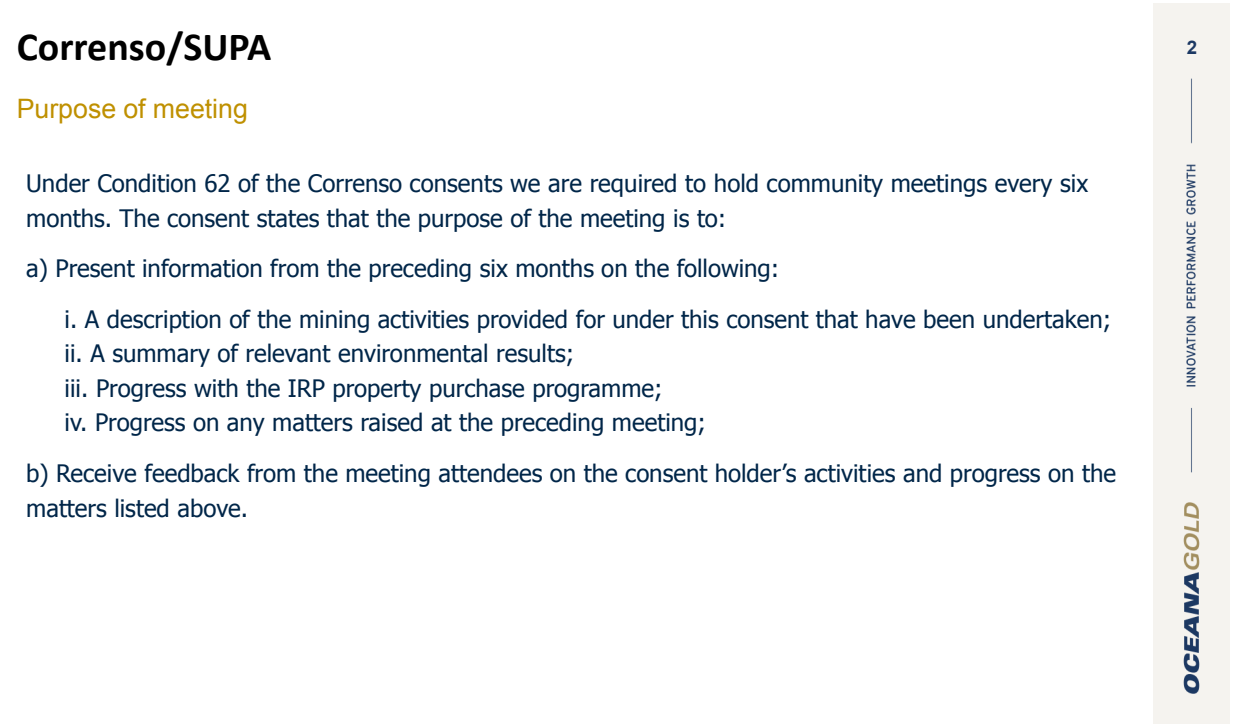
[Mark Samson, photographer, arrived and those present gave permission for him to photograph the group from the back of the room.]

Tim explained that the meeting is being recorded so that he and Louise Fielden (independent secretary) can prepare accurate minutes of the meeting. Oceana Gold can provide the recording via WeTransfer, on a memory stick or a CD/DVD. The minutes will be emailed to attendees within 2 weeks of today's meeting.

Kit said: If you've changed your email or if you didn't receive the East Ender or a copy of the agenda that means you're not on my list, so can you make sure you talk to Jeannine before you leave, that would wonderful. And Anne Marie, as of this morning, I have got all the Community Forum people on there.

Those present were asked to introduce themselves – see attendance list at the end of these minutes.

Item One: Project Overview



Kit said: These meetings are a resource consent requirement, but even if we didn't have to, we would, it's important that you understand what we're doing. These meetings give us a chance to explain to you what we're doing and how we're doing it, the thought process behind it and then you can check our thinking because as Russell and I would be quick to admit, we don't always get it right. Sometimes we think, "A and B", and you guys come to meetings and say, "You could have done D and F", and we realise we could. So that's why these meetings are important for us. This is what we think we'll be talking about today.

Project Martha (Martha Open Pit, North Wall, Rex)

Correnso/SUPA

Outline

- **PROJECT**

  Project Martha | Correnso & SUPA | Near mine exploration

- **SOCIAL/COMMUNITY**

  Communication | AEP | SIMP & surveys | WCF

- **ENVIRONMENT**

  Dewatering & Settlement management | Vibration management

3 INNOVATION PERFORMANCE GROWTH OCEANAGOLD

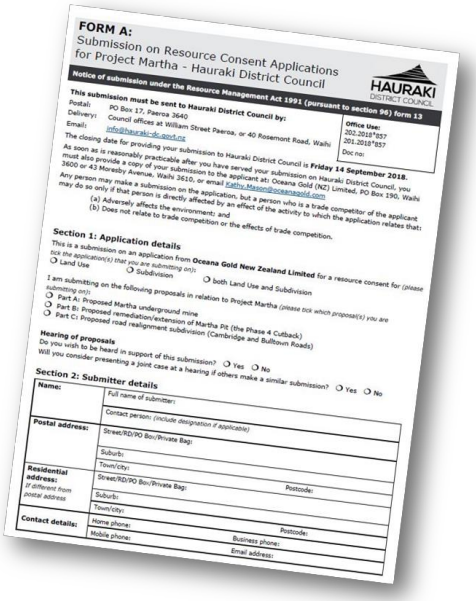
Submissions

Kit introduced Kyle Welton, replacing Danielle who is going to the Oceana Gold Brisbane Corporate Office.

Kyle said: I have relocated here from Cambridge, so not too far away and as Kit said I'm the new Danielle – same hairstyle, just a little bit a taller. We are still reading through the submissions, at this stage we know there's been about 257 received, a large proportion of those positive, some neutral and some mixed.

Project Martha

Submissions closed last Friday
Around 250 submissions received
Hearings scheduled to start on 12 November



FORM A:
Submission on Resource Consent Applications for Project Martha - Hauraki District Council

HAURAKI DISTRICT COUNCIL

Notice of submission under the Resource Management Act 1991 (pursuant to section 96) form 13

This submission must be sent to Hauraki District Council by:

Postal: PO Box 17, Paeroa 3640
Delivery: Council offices at William Street Paeroa, or 40 Rosemont Road, Waihi
Email: info@hauraki-dc.govt.nz

Office Use:
202.2018*857
201.2018*857
Doc no:

The closing date for providing your submission to Hauraki District Council is **Friday 14 September 2018.**

As soon as is reasonably practicable after you have served your submission on Hauraki District Council, you must also provide a copy of your submission to the applicant at: Oceana Gold (NZ) Limited, PO Box 190, Waihi 3600 or 43 Moresby Avenue, Waihi 3610, or email Kathy.Mason@oceanagold.com

Any person may make a submission on the application, but a person who is a trade competitor of the applicant may do so only if that person is directly affected by an effect of the activity to which the application relates that:
(a) Adversely affects the environment; and
(b) Does not relate to trade competition or the effects of trade competition.

Section 1: Application details

This is a submission on an application from **Oceana Gold New Zealand Limited** for a resource consent for *(please tick the application(s) that you are submitting on)*:
❍ Land Use ❍ Subdivision ❍ both Land Use and Subdivision

I am submitting on the following proposals in relation to Project Martha *(please tick which proposal(s) you are submitting on)*:
❍ Part A: Proposed Martha underground mine
❍ Part B: Proposed remediation/extension of Martha Pit (the Phase 4 Cutback)
❍ Part C: Proposed road realignment subdivision (Cambridge and Bulltown Roads)

Hearing of proposals

Do you wish to be heard in support of this submission? ❍ Yes ❍ No
Will you consider presenting a joint case at a hearing if others make a similar submission? ❍ Yes ❍ No

Section 2: Submitter details

Name:	Full name of submitter:	
	Contact person: *(include designation if applicable)*	
Postal address:	Street/RD/PO Box/Private Bag:	
	Suburb:	
	Town/city:	
Residential address: *If different from postal address*	Street/RD/PO Box/Private Bag:	Postcode:
	Suburb:	
	Town/city:	
Contact details:	Home phone:	Postcode:
	Mobile phone:	Business phone:
		Email address:

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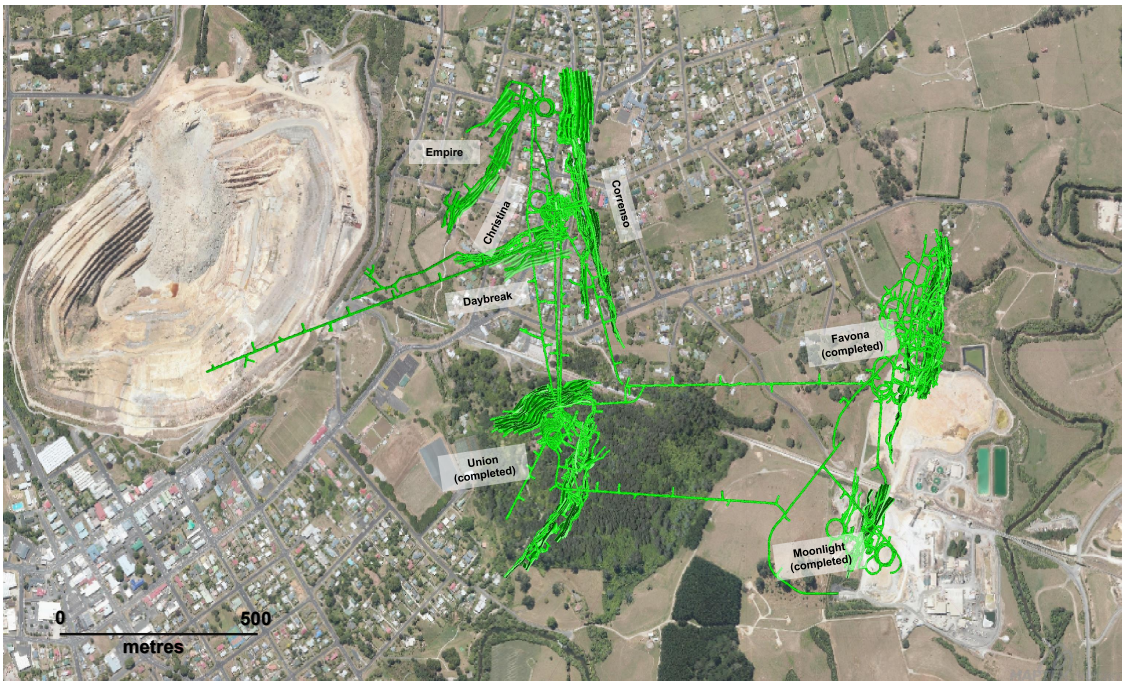
Kit said: Thank you very much Kyle. The reason we're saying *about* 257 is Mark's team at Hauraki District Council (HDC) have been working their tails off doing all their work and we've been doing the same at our end but we're pretty sure there will be one or two they have yet to send to us. For comparison, that's about half of the submissions received for Correnso – there were over 500 for Correnso. I'm not surprised at the difference, Correnso was a big deal and this one is smaller. Thank you to those of you who put a submission in. The hearings we think will start 12 November and Mark you thought it might take a week, maybe a bit longer?

Mark Buttimore said: Yes, a week, maybe 5 to 7 hearing days.

Kit said: If you would like to pop into the Town Hall and listen to the hearing that would be cool. (Notice the Heritage Group poppy display in the hall at the same time).

Projects Current (Consented)



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INNOVATION PERFORMANCE GROWTH

OCEANAGOLD

Kit said: This slide shows where we are at the present time. This slide (shows more than just the CEPA and SUPA) information because it was prepared by our manager Bernie O'Leary who spoke at a conference last week. I thought I'd pop it up here because it explains pretty much where we are and what we've done. The slide shows "Empire" which you know about, "Daybreak" here, "Correnso", "Union" which says "completed" but we are still having a bit of a play in there, "Favona" which was completed a long time ago and "Moonlight" which was completed a long, long time ago.

However, there is a "but" here because we are dewatering much deeper so there is the possibility that we can go down a couple more levels in some of the existing mines. So, if you are in this area here (Clarke Street/Baker Street) you may feel us. I talked to Brian and Glenis Gentil from Gold FM who are in this area, and they are feeling us. So, there is the possibility that we might go down a couple more levels and I'll let you know if that happens.

When I get to the Correnso graphic, which you've probably already seen in the East Ender, you'll understand we're almost finished there.

Project Martha (Proposed)

INNOVATION PERFORMANCE GROWTH

OCEANAGOLD

Kit said: You will have seen this if you've been to a Project Martha meeting, this is where we are looking.

The brown shading shows material that already exists. We have a cut-off grade of about 3g (of ore) per tonne, in other words 3 parts per million. For every tonne of rock, which just happens to be about a cubic metre, if we can get 3g of gold it's viable. That actually compares with our Macraes mine where they are running on a cut-off grade of 1g per tonne but they have got huge throughput, which means that at that volume it works. The backfill, which the old timers put in, is 12g per tonne. We shouldn't laugh too much because I have a sneaky feeling that long after we're not here someone will say the same thing about us, "They left behind the stuff that was 1g per tonne, what were they thinking?". So, yes they left 12g because they were working pretty much with manual labour, they were doing everything with little trolleys like the little cart out there, picks and shovels and horses. So, the fascinating thing for us is that's already been mined, it's been blasted, it's in bite-sized chunks and it's just sitting there so we don't even need to do anything we just need to go in and get it. Except, of course, going in to get that means you're going into old workings which brings with it a range of safety issues. We are doing a lot of probe drilling with the stuff that we're doing here.

These blue shaded bits show the new areas we plan to target. We intend coming in from Correnso, we come down the tunnel (shown on the slide) then circle our way down. Much of it's under the pit, a lot of it's slightly outside. We'll see how we go.

There's the bit called Rex and you'll see it's just an indeterminate blob at the present time, which is a little unfortunate. The reason it's an indeterminate blob is that we haven't got as much test drilling in there as we would like so we've just said, "We think it's there". So we're drilling now. We had a drill behind the Tenix Building, behind the Gold Discovery Centre that was heading that way, going into here.

That's how we will get there, we plan to put a spiral decline on the other side of the road from the church. If you are living there, you will be annoyed about the fact that we're going to put a spiral decline there, and many of those people have objected to our plans and fair enough.

The other thing that will happen is we will end up with a vent somewhere in here (southwest corner of the pit), the same as the one on Union Hill that pushes the water vapour up.

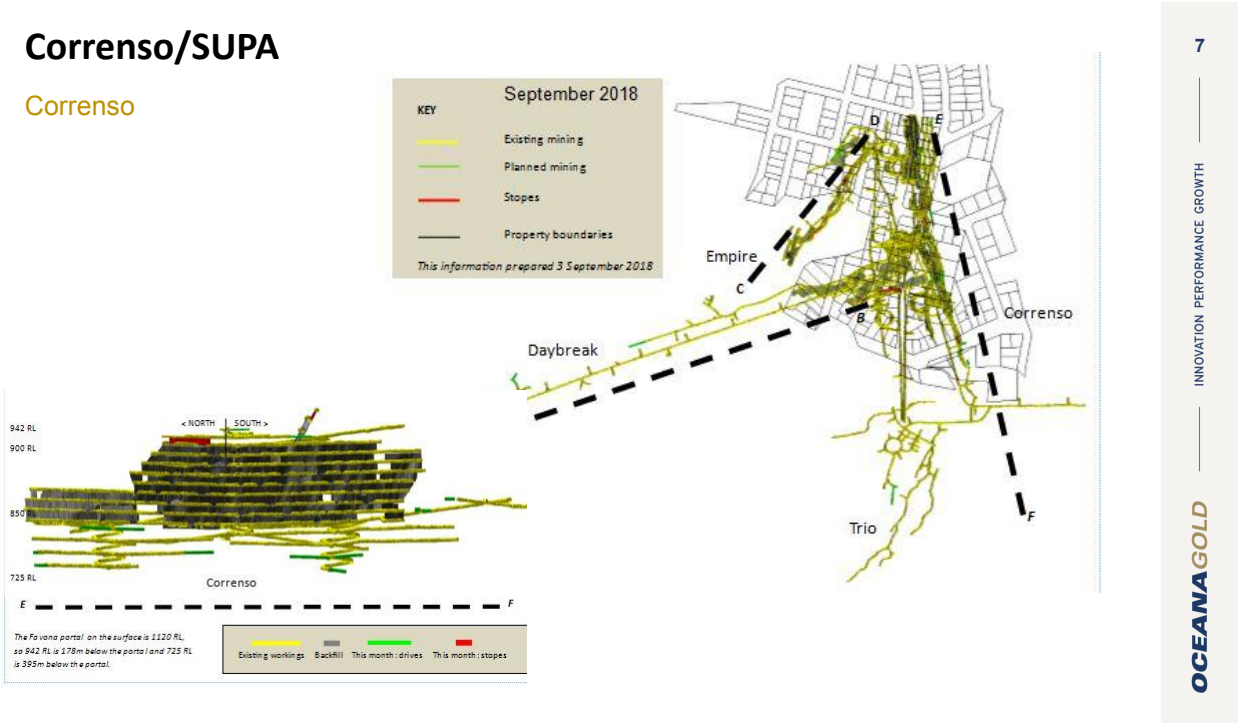
Erich Schmidt said: Three vents!

Kit said: No, one of them is a portal, might be even two portals, it might be two portals and one vent.

Erich said: Two at 5 x 5m?

Kit said: 5 x 5m is a portal. A vent is like the funnel on Union Hill, and a portal might get used for vehicles but may not. Because we are going to need somewhere over here to bring air in, let's put it this way, there will be three openings and that could mean that one of those is putting up water vapour in the same way as on Union Hill.

Correnso/SUPA



Kit said: This is the monthly progress map that you received in the East Ender. It has taken us 5 years to realise that we don't need to print this on a black background – a geologist came to us and said, "Do you know you can turn off that black?". This is Correnso showing all of this has been backfilled, and the green and red bits are where we are working right now, so we've got some tiny little bits happening down the bottom but we're almost there.

Kit said: These are the people we took underground. This is Scott Brown the US Ambassador (in this photo they are standing in front of the portal and that's that 5 x 5m). This is our Underground Mine Manager Charlie Gawith talking to our local National MP Scott Simpson, and the shadow Minister of Energy Jonathan Young. I wanted to show you that picture because of this thing here, which is like a big parking bollard sticking up out of the ground which I will talk to you about in a minute, that becomes really important.

Correnso/SUPA

Correnso

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INNOVATION PERFORMANCE GROWTH

OCEANAGOLD

Kit said: I know that many of you have not been underground. On the 29th of this month, so that must be just over a week from now, the Lions' Club who are raising money for St John are auctioning off a tour for three underground. So this is what the underground looks like at the present time, you'll note that some parts of it are rock bolted, they've got bolts and mesh, and some of it isn't.

Correnso/SUPA

Correnso

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INNOVATION PERFORMANCE GROWTH

OCEANAGOLD

Kit said: And I thought you'd like to see that one because you can see there's that quartz vein, that's what they're chasing.

Correnso/SUPA

Correnso

Kit said: This one is Simon from TV3 and the reason I wanted to show you that is because on the other side of Simon you see how it gets pretty dark down there? That's a stope, that's where we blast and that's where we pick stuff up from. What's happening here is the operator is putting drill holes into the ground here and then he'll back out and they'll put explosives in this area and that whole panel there will then drop and then they'll come in from the bottom and pick that up and then backfill it and then they'll keep working their way up again.

Kit said: Now you remember I talked to you about that bollard. This is the result of 2 years of work. You will be aware that we "lost" Tipowai underground. "Lost" is a euphemism, we killed Tipowai underground 2 years and a couple of months ago. At that time we were doing everything that every other mining company was doing. It's taken us this long to figure out how to fix it. (Kit showed a video of a bogger rolling forward but getting stopped before the edge of the stope by the bollards they had put there for that purpose).

There (on the video) is the bollard, there are three of them in a line. We drill holes close to that edge, quite deep and then we put these big steel pipes in and no matter what piece of machinery we use, the machine can't smash the pipes and the machine can't go over the edge and into that stope. I should explain that the bollards are there so that machinery can come along with a big bucket full of rock and tip it onto the other side of the bollard. (They do the bollards first) because once you get a big pile of rock there's no way that you can fix the problem. So those bollards are put there by people who are harnessed back so they can't fall down into the stope and then when everything is finished they come along with a sort of a lever jack thing and they lever them out.

The same thing is happening around the world. Boggers are ending up in stopes but certainly we have fixed it for here.

On 20 October which is Labour Weekend it is Tipowai's unveiling at Maraenui and our staff are heading there to pay their respects. If you've seen the plaque to Tipowai on the path at Gilmore at the reserve near the Tunnellers' Memorial, the whanau asked for a duplicate of that plaque and we have done that and they are going to insert that plaque into their grave marker.

Tim said: We are about to start on a new subject, are there any questions about what you have heard so far?

Erich said: I read somewhere that you've been to court, you got fined, and you had to pay $100,000 or something and then the insurers said they'd fight it. Why?

Kit said: We were the first (or second) company in NZ, as far as I'm aware, to be dealt with under the new legislation. The Judge worked out Tipowai was in his 30s, he had another 35 years of earning to go and estimated how much he would have earned in those 35 years. Then they took off a couple of hundred thousand dollars on account of our early guilty plea and I think we ended up with somewhere around, and this isn't the right figure, but it was something like $750,000. Now we are insured, but you can't be insured against a fine. It was a lot of money and the insurance company said they were unhappy about that because it set a precedent and they didn't think that was right. We said we'd rather we just paid it. They said they were going to fight it, and as far as I'm aware it's still going through the system.

Our response to that was irrespective of what happens we will ensure that Tip's whanau get paid the full amount. Irrespective of what happens with the insurance company and the court, Tipowai's whanau will get the amount originally ordered. It is messy – if you hear the media at some stage say, "Oceana Gold is appealing the fine", it's not us but there's no other way around that.

Erich said: It said the insurance company.

Kit said: Did it say that? I'm marginally happy about that, because you just look after your family.

Near Mine Exploration

Near mine exploration

Kit said: This is just for your information. You probably are aware that we are drilling at Wharekirauponga, on the Parakiwai Valley Road. Well we've found something and we think we've found something quite significant. The photos above are what it looks like from a helicopter. We've got a drill rig on a hillside there. If I show you the next picture that's what the drill rig looks like on the ground. We are not allowed to operate in an area bigger than about 10 x 10m, it's in a kauri dieback area, it's in an area which is significant for a number of indigenous flora and fauna, in particular Archey's Frog. We have built these really huge decks which just sit on the ground and then everything that we do sits on the deck – the drill rig, tanks for oil, tanks for water and everything else. Before we go there we put our feet into Trigene which is the disinfectant for kauri dieback, hop in a helicopter, go up there, if we move from one place to another we do the same thing.

Near mine exploration

Kit said: That's our pump down by the river. There were no frogs there so what we did was this – we put this fence in which is basically just a fence of polythene because frogs can't climb up polythene and that meant that they couldn't get from here to here. On places where we had hoses going over the fence we cut down funnels and turned them into these Frog Deflectors. These little fellows are really special, if you've never seen one, and I haven't. These little fellows are about that (thumbnail) size, they don't croak, they don't seem to have any ears, their young are born alive, they don't go through tadpole stage and what happens is as soon as they're born they climb up on the back of the male and I've seen a picture of a male with about 15 little froglets on his back. The other thing is they don't go near water so they spend their time in Harekeke, or in ferns or notches of little low trees, and that's where we find them.

So, if we find one in the area that we want to put a rig, we're allowed to do something there as long as we move that one frog. In all the time that we've been there, we've moved just one. If we have more than four or five frogs we're not allowed in that area. We have had 40 places disqualified, as in there's 40 places we can't go. And we will keep doing that and that's fine because it's the forest park and frogs are important.

Since the 1970's when drilling restarted on the Coromandel Peninsular everybody from then right through to now has occupied an area which is no bigger than 1/1000th of 1% of DOC land. If we find something here then we would head there underground. We think we can tunnel from here. We're having a discussion about whether we could actually tunnel all the way from there to the process plant, so you wouldn't even know. Like Correnso you wouldn't see us.

Item Two: Social Overview

Correnso/SUPA

Amenity Effect Programme (AEP)

- Payments to qualifying residents delivered last month
- 245 payments totalling $207,223.77

SIMP

- Report accepted by Hauraki District Council
- Results available on line www.waihigold.co.nz & www.hauraki-dc.govt.nz
- Phone surveys completed

Waihi Community Forum

- Request for new members

Other news

- Staff changes

AEP

Jeannine Wiki said: We made 245 payments totalling $207,223.77. That was 27 people less than the last round for the AEP. 27 less people got the vibration effects that triggered the AEP because we have moved, we've been moving round to the Empire area and away from the main Gladstone Road area. And it will change again if we keep moving around.

Kit said: It will. Are there any questions around AEP? Because it's usually the one that people get most interested in.

Jeannine said: Like, "Why didn't I get as much as my neighbour?"

Erich said: That is every time the question. No I give up, I really give up.

Kit said: Tell me why.

Erich said: I get less than my neighbour next door but he is just next door.

Kit said: I will get Russell to explain in his section later because he understands the triangulation and the algorithm.

Trevor Skinner said: Why do I get more than my neighbour?

Kit said: It is hard to understand, and I don't, but between Russell and myself we will explain later in the meeting.

Social Impact Management Plan (SIMP)

Danielle Crawford said: So, just an update on where we're at with the SIMP. Some of you may have been called last month by our researchers Phoenix Research. Our perception surveys have now been completed and we've just completed our staff survey as well. Those will be analysed in Auckland by our independent contractors Phoenix Research and we'll be putting data into the SIMP. Like it says up there our last year's SIMP was accepted by HDC and that's available on those websites (see the slide).

Kit said: Did anybody here get called? (Two people said yes.)

Danielle said: Generally (if people are called but don't fit the criteria then) it may have actually been that they were from outside of the area, so that's how people don't qualify for the survey. Sometimes if you're outside of the area, we're trying to pinpoint specifically in the Correnso area just so we can get a good range of perceptions from the affected area as well as the wider Waihi area so it may be that you're not in the right area.

Kit said: So that SIMP becomes Kyle's role from now on, so we'll see how we go with that. At the beginning of the meeting (before we started formally) I talked about the role of the Community Forum and that it is looking for new members (those interested please talk with Anne Marie), and we've talked about staff changes. My bit finishes with this.

Kit said: If you've walked the pit rim walkway, first of all you may have noticed that we are putting new metal or gravel down and that's a regular thing. You also may have noticed, if you've walked this way past the poppet head and down this way, we've got two drill rigs here at the present time. When it rains a lot what happens is the stormwater from the bank here rushes off there, across that piece of what used to be Seddon Street for those of you who remember that, and goes through where we've got the two rigs and comes down here and ends up in the town stormwater. It looks to all the world as if we are discharging drill cuttings or muddy water into the town stormwater system but we are not. Some time, very soon, we're going to re-contour that area, we're probably going to cut a notch here somehow, re-contour that so the stormwater off the bank above the rigs goes the other way.

Trevor said: Kit, I don't know if this is relevant, but who were the mining people before you?

Kit said: Newmont.

Trevor said: Were they going when that house went down in Barry Road?

Kit said: No, so in December 2001 when the house went into the hole the company was owned by Normandy and Newmont bought it shortly after that, in fact it was 6 or 8 months after.

Trevor said: Because all the signs were there that it was going to go, and I thought if the mining people (at the time) were paying attention they'd have picked it up. Jeanete noticed the footpath and all that buckling. Now if the mining people, Newmont, had have been going they would have picked that up and probably remedied it before it happened.

Tim said: So, there is an advantage in the current mining company being vigilant about other signs?

Trevor said: Yes.

Eric Rhodes said: In the future will the pit rim walkway come back along the top of the pit up here instead of going down?

Kit said: Yes, one of our great disappointments is that we had to move the pit rim walkway away (at all). As I think I've said to people before, one of the great things about the pit rim walkway was you could put the kids on it and say, "See you in an hour" and never touch the road. Now they've got to come near Cambridge Road and Bulltown Road so you can't do that. When we change things we will get that right.

The other thing we will do, if you imagine the noise you get, so this is Bulltown Road and then there's a noise bund right close to it, there'll probably also be a hebel wall which is an acoustic fence on the top and somewhere there we're going to try and sandwich in the pit rim walkway. But the problem is if you've got a wall you can't see into the pit, if you can't see into the pit you don't know what's going on so we're looking at the possibility of putting hebel walls like this so you can pop your head around and have a look because if you just put a hole in it, it lets the noise out again. So that's a really interesting one because the acoustic people say, "This is what you need" and us external affairs people are saying, "Yes that might be what we need but the public need to be able to see as well". So, in answer to your question, yes, we need to get that pit rim walkway back onto the pit rim.

I saw a magazine about the Waikato and the Hauraki districts recently and the pit rim walkway is one of their tourist attractions. Well, that bit on Cambridge Road isn't really a tourist attraction. We will fix it, but to be fair the other bits that we do look after, Russell and his team do an absolutely fantastic job of. It's a big part of Russell's budget to keep that the way it is.

Item Three: Environmental Overview

Russell Squire said: I'd been here for about 2 or 3 years and then all of a sudden someone mentioned about the historic garden and I didn't even know what it was. It's off the top end of Miners Place here and we went up and we actually started to tidy it up a little bit with the contractors and all of a sudden Jeannine and I were getting requests – how many weddings did we have up there, was it three?

Jeannine said: Yes, three I think.

Russell said: We had three weddings there of employees and various people. It's nice to have an area you can tidy up and people appreciate it that much.

Vibration management: six months to date performance

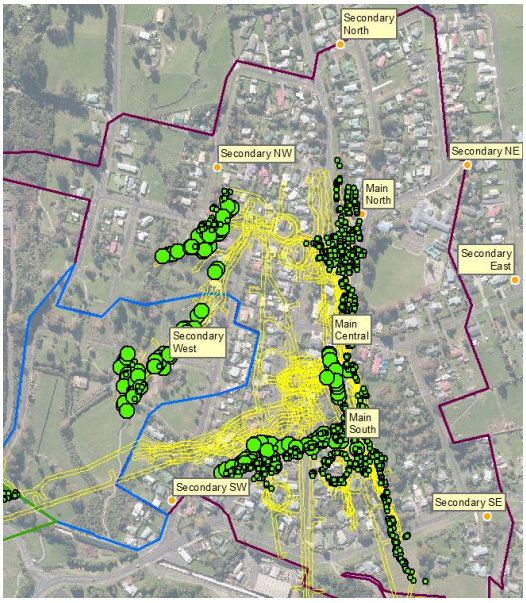
Correnso/SUPA

Vibration

Six-months to date performance

- Development blasting (*299 events*)
  - Average 0.61mm/s (consent limit 2mm/s)
  - 95 percentile 1.12mm/s (consent 5 mm/s)

- Production blasting (*130 events*)
  - Average 1.88mm/s (consent limit 3mm/s)
  - 95 percentile 4.35mm/s (consent 5 mm/s)



INNOVATION PERFORMANCE GROWTH

OCEANAGOLD

Russell said: So, vibration. This is the 6 months' performance to date as is required in the 6-monthly community presentation. It is not specifically related to AEP, it's 3 months on from that, but the representation is reasonably accurate. Jeannine was mentioning before about how we've moved. In the past when we were focused on Correnso itself which is the main central vein along Gladstone Road we were production blasting along the length of Strike. So, the production blasts are the primary ones that influence your AEP payments, those are the ones at lunchtime. When you end up with a larger blast up and down that road you end up with a lot of people getting at least minimum payments, or a lot of people getting contributions.

Since the start of 2018 we have largely finished in the northern part of Gladstone Road. What you can see there with those smaller dots is development blasting so we're now going back in. You might remember back a few slides where Kit was showing some development lower down, so we're actually underneath our earlier workings. Because we've dewatered further we can actually go underneath where we were previously mining. We are also developing by hand tools, air leg mining, some of the most shallow areas. So, that area to the north is currently development blasting, low charge-weights, so you will probably hear those blasts, they're the morning and evenings ones that go bump bump bump bump bump, rather than the big vibrations from lunchtime. The production blasting is still happening in Correnso South, it is finishing off in Daybreak and is now focused primarily in Christina and Empire areas.

When we talk about who's getting the AEP and who's not, the influence of where we're production blasting at the moment has had an unusual effect. It's not the people who live above the production blasting that have got big AEP payments this time round, it's actually the people in the middle between the blasting because they have qualified for payments from each blast from all of those four blasting zones. The people at the southern end or the northern end only get affected by one zone of blasting and we've noticed it changes very rapidly. That's just the function of the computer model that's being used.

Tim said: Picking up on Erich and Trevor's questions, is there a model that's based on the sensors that exist down on the east end there and so that reads the vibration that comes from those sensors after a blast and there's a calculation that's done that then determines who's affected by those vibrations?

Russell said: Yes.

Tim said: So how do you know where the vibration goes? Has somebody just drawn a line on a map and said it doesn't happen on this side but it does on the other side? Or is it more technical than that?

Russell said: No, we've got 10 monitors over Correnso and what the computer model does is it knows where the blast is because we feed that data in, it knows where the monitors are of course and it uses the vibrations from those monitors and knows where your property is and does an interpolation, or assessment, based on nearby monitors and the distances to those monitors versus your property in relation to those.

Tim said: Does it take into consideration transference of vibration through the ground?

Russell said: "Attenuation", yes.

Tim said: Erich do you have more questions of Russell?

Erich said: No.

Tim said: Trevor?

Trevor said: No.

Clive Hallam said: We're still worried that there's something underground that stops the vibrations coming our way. We've had the check metres and stuff there, and when we had those installed we were getting similar vibrations to Erich across the road and yet the payments don't come up with those.

Tim said: Right, so Russell there were some mobile monitors that were put in?

Russell said: Yes, I set up roving monitors in Kenny Street and that was really to determine whether the vibrations that people were getting at their properties were relative to the compliance monitors nearby. The results from that were that there weren't any significant differences, there are always minor fluctuations, but they were relatively accurate for the AEP assessment.

Tim said: Clive, are you saying that your vibration is not significantly less than Erich's?

Clive said: No, it's that Secondary Southwest (monitor) there, that's the one, it's set in rubber or something because it doesn't work. It's just started, in the last couple of days, and we've had two readings out of it and for the last 6 months it's done nothing.

Russell said: So it's certainly monitoring and I acknowledge it does monitor lower than you might expect. I have put roving monitors around that site and they are representative of the results that the Secondary Southwest monitor is showing. So, it is measuring accurately but the issue, I believe, is that it's actually probably the strata between the mining areas.

Clive said: If you told me there was a granite wall there and the vibrations were bouncing over it then fair enough.

Russell said: The problem with AEP, if there is one, is that it doesn't recognise the geology, it goes on distance and a computer attenuation. The problem with geology is you get faults and vibrations sometimes go through faults, sometimes they go along faults, they go through wet round, there is variability and so we might blast on one side of a fault and you may feel it significantly. If we blast 10m away on the other side of the fault you may not.

Clive said: Yes we noticed that, we're interested in watching.

Russell said: The best we can do is have a vibration monitor on the surface that measures at least over those …

Clive said: That's where we're interested because we live on top of it, not underneath it.

Russell said: Exactly, so there's variability but our attempt is to have 10 monitors to try and minimise that variability and then do a computer algorithm that averages it out.

Tim said: So, in terms of the system being fair you've been aware that there's lower readings because of the geotechnic structure and so you've measured it with the roving monitors and you're saying it's not perceivably different?

Russell said: Yes. I've monitored residential properties up and down the Roycroft Street area and they are very similar to the Secondary Southwest. So it's not that the monitor is incorrect it's that the geology between that monitor and the source of the vibration may be different. We've got top soil, sub soil, what they call volcanic layers before you get down to the andesite where the ore bodies are. All of those alter the transmission of vibration. What I believe we've got at Secondary Southwest is an area where it is a little bit dumber, if you like, a little bit quieter. But that's real and that's to the benefit of the people who live above it.

Tim said: So, Clive do you agree with that?

Clive said: Yes obviously it's just a difference that's all, it just bugs us.

Russell said: I think at last count we've had roving monitors at over 100 locations through the various mining activities and we get very good representation of the blasting.

Tim said: Is there is a process then if people are concerned that the (AEP) monitors are not representative they can approach you and you can bring the roving monitors?

Russell said: Yes, I look around this room and I think I've had monitors at probably half the properties here.

Tim said: So, it seems to me that there's always going to be questions and so you are saying there's an opportunity for people to ask them and for you to check them out?

Jeannine said: The AEP isn't taken by the roving monitors, its done by the set monitors.

Tim said: Right, the roving monitors just check the accuracy of the set monitors?

Russell said: That's correct.

Trevor said: Just one little question. You're getting closer and closer to the old mine workings where they used to drill a hole, put in a truckload of jelly and let it go. Will the vibration be less in that type of country than in the harder stuff?

Russell said: Vibration for you or vibration down there?

Trevor said: When you blast, will the old broken stuff vibrate as much?

Russell said: No it won't, vibration is disturbed if it tries to go through broken ground. But we have other issues other than that with broken ground. The issue for us with broken ground is its actual stability. So, actually, I was underground last week and in one of the drives that's heading out underneath the side of the pit, and the probe drilling that Kit talked about before had intercepted some old workings and they were aiming to hit the old workings head-on which is ideal because then you meet this relaxed zone of rock. But unfortunately the probe drilling determined that the old workings were actually about 3m higher than the original design expectation so they actually backed off and then had a slight ramp up so that they could hit the old workings head-on. When I arrived they had actually sealed off and concreted behind the site because staff aren't allowed into the old workings.

Tim said: It's amazing that they can be so precise.

Russell said: The old timers were very precise in their mining and surveying, within a few metres, which has been very reassuring for us.

Kit said: I should also say we have to get a permit from Heritage NZ because some of the old workings are pre-1900 and even though nobody is ever going to go in there and they're never going to be seen, under the legislation they are pre-1900. Heritage NZ have been accommodating and understand what we're doing.

Tim said: Does that answer your question Trevor?

Trevor said: When you apply for your licence who actually says what you do? Do you tell them, or does someone who knows less about mining tell you?

Russell said: So this is Project Martha for example?

Trevor said: Yes.

Russell said: We know approximately where the ore bodies are that we want to target. Mining engineers, our own personnel, draw up a model of how they might get to it. That is then reviewed by our independent offsite consultants. We also inform the council of what our expectations are and they employ their own consultants. So, there are ourselves, our experts, the council and their experts. It's actually a very positive activity because it means that you get these second opinions and you look for any pitfalls in the system.

Trevor said: As the people that okay what you're going to do, why aren't they working for you?

Tim said: Trevor do you just want to hear from Mark? I don't know if I'm putting you on the spot Mark, but why do you get your own consultants rather than just agreeing with the company?

Mark said: Our main concern with the old workings is what we call regional stability, so stability within the shaft is really a health and safety issue. We're more concerned about the stability of the rock over a wider basis. So, the company provides to us all the results of the probe drilling so we know where the old workings are and we also have conditions in the consent requiring stand-off distances from old stopes and old workings. Because we don't want to recreate the problem we're having from the old workings from the 1800's and 1900's where things come to the surface.

Tim said: So, Oceana and its experts look at the situation and they put in place what they think the conditions are that might meet the standard, but you audit them to make sure that they actually do?

Mark said: Yes and then once a year we bring our geotechnical expert across who does a review underground of the process and results that they've been getting and just checking that what they're doing is what they're supposed to be doing. So, it's a fairly tight circle.

Tim said: Mark, Trevor was just asking, are you the council? What's your role at council Mark?

Mark said: I basically project manage, amongst other things, the council's involvement with mining in Waihi, so project managing Project Martha.

Trevor said: Where do you get your expert from? Because as far as we're concerned Oceana is it.

Mark said: No, we have an expert of international standing in geotechnical matters and we have used him for many years and he has, I think, credibility with the company and is from Australia.

Tim said: And then back to you Russell, what you're saying is that it's a positive experience because you've got four sets of brains looking at the problem and making sure it's safe and is going to work.

Russell said: Yes.

Kit said: That's true of everything, so whether it's the tailings impoundment or the pit design and construction, each one of those activities is peer reviewed by external experts at some time, so it's not just us saying, "This is a good idea, let's do this".

David Carrington said: The public expect council to be independent, if you had a vested interest then the problems may not be spotted or solved.

Russell said: I guess the actual statistics probably mean little to most people here. So in the 6 months to date there have been 299 development blasts, so they're mostly the morning and evening ones and 130 production blasts. The average vibration of the monitors from the development blasts is only 0.6, 95 percentile means that basically 95% of them were under 1.12. The production blasts average 1.88 and the 95 percentile is 4.35. That's climbed a little bit in the last 6 months primarily because we had a couple of stuff-ups. That resulted in some fairly healthy AEP payments to certain people, but it's not something we are proud of and we try not to do it. It's not a compliance issue when we have the odd blast above 5mm/second but we do not want to do it partly because we don't want to upset you guys any more than we need to and we also have to explain what went wrong to the council and I'd have to say the underground engineers take a lot of pride in keeping the average under control.

Clive said: Tell us Russell, when you get a big one why don't we get it on the blast thing on the computer? Very often we get it some time later. What's happening to the results in the meantime?

Russell said: You mean on the live website? It should come up.

Clive said: Sometimes they don't, I'm not saying every time just every now and again when it's a big one it disappears into the mire and then we wait. Usually it's on a Saturday.

Jeannine said: Is that when the website was down?

Clive said: Yeah we have all sorts of computer glitches.

Russell said: We've had the odd one but I don't recall … there's nothing special about … I mean the whole system is automated. So the only reason it doesn't go as soon as possible …

Clive said: The readings don't go away and get smoothed?

Russell said: No, for several reasons. Firstly, I can't. When the monitors get triggered they send the data in. The data that gets sent to the database gets emailed to me and to Mark.

Clive said: So you'd expect us to see it on the screen within an hour?

Russell said: Yes. There can be problems with the simple process of communications. So these things run through modems and the modems can cut out. There's quite a lot of data for each result and the moment a modem cuts out it has to start again and if it does that a couple of times it goes, "I'm not going to do it now, I'll wait for 6 hours until my scheduled ring-in time", and that may be why some results take longer to get through.

Clive said: It always seems to be when it's a big one that's all.

Tim said: And Russell I didn't realise but what you said just then was that the system automatically emails you and the council so that even if you were able to massage the numbers, which you can't, then council's numbers wouldn't be massaged, there'd still be a problem and the council would notice.

Russell said: Yes.

Clive said: We're just cynical.

Tim said: That's why you're here asking questions isn't it? Because it's good to clarify what the process is and whether there is anything that does or should concern you.

Clive said: It's like we're supposed to get the 1 minute warning on the coasters but sometimes we get warnings and no blast and other times we get a blast and no warning.

Russell said: Sometimes there's warnings and no blast because the shot firers say, "We're ready", hit the button to warn people, then hit the firing button, and they get a dud.

Clive said: I understand that one.

Russell said: And I apologise for why the alert is not very long beforehand at times. We actually wanted at one stage to have a 10 to 15 minute warning but it turns out that it doesn't become practical because if you give a 10 minute warning beforehand and then they do all of their checks, the longer you leave it, because there's water underground, there's air, all these things that electricity loves, if the system's ready to go they really don't want to wait too long before they hit the "fire" button. So I apologise for that relatively short warning time but a lot of it's about reliability.

Clive said: It does vary.

Kit said: And to be fair we've had some other problems that Erich has picked us up on recently as in we've had the blast notification coaster go off and nothing happens, and you were talking about how we had problems with insects in the system and software upgrades. You name it, we've had it.

Russell said: Yes, ants love the vibration monitors because it's electricity and it's warm and they love both those things.

Trevor said: I've found the warning worse than the vibration.

Russell said: If the noise of the warning system annoys you I can change the tune. There's various concerto tunes, Jingle Bells, Hawaii Five-O.

Tim said: Can I go back to what Clive was saying, and I'm at risk of getting far too serious, but were you also saying that there were instances where the alert doesn't go and you get a blast?

Clive said: Yes. I can't understand why you've got two buttons. Why can't one button do both? A circuit with a delay in it and then the firing

Russell said: It's a human process. Fear (caution). When you approach a guy who charges and fires explosives for a living, and this is an electronic system, the last thing you can convince him to do is to put another electronic system on top of it. We tried. Steve Barnett and I had it all sorted out, we knew how we were going to do it. We even had two isolated circuits with one big button, you could hit the button and it enclosed two circuits. But we couldn't get it agreed to and at the time we couldn't convince the general manager either. They said if the firing crews are not confident with the system then it's a, "No". I'm sorry, I tried very hard to try and get one system. But that wouldn't have helped you with the warning, all that would have done was help you with the firing time accuracy. For the warning there'd still have to be a separate button.

Russell said: I guess the bottom line is you want your firing crews to be confident in what they've got. I don't think anybody would deny that when you're in charge of firing a lot of explosives you want to be confident in your tools and not have someone else with wires attached to it.

Tim said: Russell thank you. And so in terms of you saying that's a little bit higher, the 95 percentile of the production blasting is a little bit higher? How are the other numbers are tracking?

Russell said: Yes. You can imagine as blasting moves through different areas, the likes of Main North has a lower average now and areas like Secondary Northeast and Secondary North, gosh I can't remember the last time Secondary North has registered.

Erich said: And Southeast is the same.

Russell said: Whereas Northwest, Eric you will be feeling it?

Erich said: Yes.

Russell said: I'll apologise, I acknowledge you would be feeling some production blasts at the moment.

Trevor said: How much longer do you think Correnso will go before we lose our AEP payments?

Kit said: Our current life of the mine takes us out to about November 2019, so a year and a couple of months as of right now. But it could be that we scrabble and scratch around for a couple of months after that. But right now, based on what we know, a year and a bit.

Russell said: So, there are continual finds as the guys are mining. We're still doing drilling, and these may be areas that, because we are down there already, and because access is the big cost of getting to the mine, if we find other areas that are marginal grade all of a sudden they become viable and so you can actually work a bit more.

As we mentioned before, we are underneath where we were some years ago. When Oceana Gold purchased this mine from Newmont the first thing we did was put a concrete floor on the bottom of the mine workings and we're now underneath that concrete floor. I was down last week and looked up and you could see the concrete. We're dewatering further and going down further, so we're under areas we've backfilled.

Trevor said: So Russell under the pit, okay the deepest shaft was 3,000 feet …

Kit said: No, 2,000 feet or 600m.

Trevor said: 2,000 feet, oh yeah. But as they went down they got less and less gold. Now was that because the gold was running out or was it just the working conditions? Do you know?

Russell said: I can't guarantee but my expectation was it was more expensive to maintain the water level because it's much harder to pump it which means there's less margin in the gold. As you go deeper it becomes more expensive to get because it's harder to maintain your working environment – air and water.

Trevor said: There could have been just as much gold there.

Kit said: Hmm, maybe but remember in those days the gold price was fixed and this place had equipment that was starting to fall into disrepair, miners were leaving to start working on the hydro projects not just here but in the South Island, and on top of that as Russell said there was the depth issue. But it's highly likely that because of where the main Martha vein was it was starting to peter out as it got a bit lower. So on the whole there was a range of reasons. But because it was not productive for them it doesn't mean it isn't for us because of the technology we've got and also because we can work in a much lower grade.

Mark said: Yes, I just wanted to clarify, certainly the life of mine on Correnso is petering out but the Correnso and CEPA consents can be mined up to 2025. So if they keep finding stuff they can keep mining.

Mike Hayden said: I've got a question for Russell and I'm wearing my Heritage NZ hat at the moment. Going back to the old mine workings – you're not allowed to interfere with those is that correct?

Kit said: No, we are allowed to but we are very careful with what we do. We have had Heritage NZ down here, and we have worked out a protocol for dealing with the rock and then the next protocol is, "What happens if you find something?". Well we are finding things, we're finding mangled railway lines. So, what happens with those? Who do they go to? What's the process for that? Dealing with the rock is a technical issue. Dealing with artefacts is a heritage/cultural issue.

Mike said: But you can destroy the old mines?

Kit said: Yes we can.

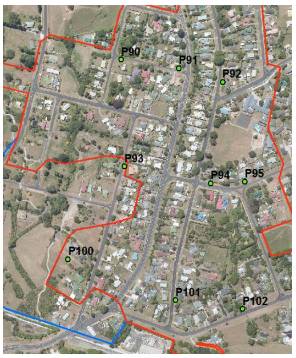
Dewatering and Settlement Management: Piezometer Update and 6 Month Settlement Survey

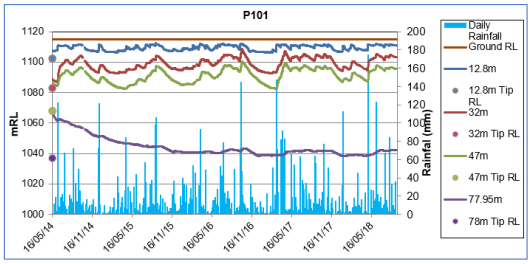
Correnso/SUPA

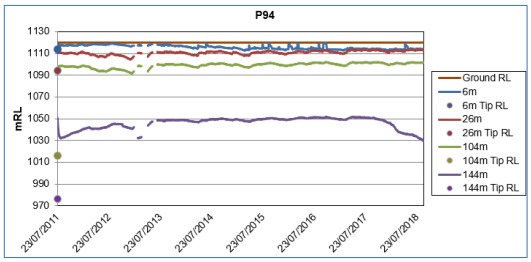
Dewatering

Established piezometers (e.g. P101)
- Shallow monitors respond to rain
- Deep monitors slow response

Piezo P94 (est. 2011) deeper Andesite piezometer in touch with upper mining levels (shallower levels unaffected)







INNOVATION PERFORMANCE GROWTH

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Russell said: This is the routine slide (we show you each meeting), we have number of water level monitors around town. You'll know them by the wooden posts and little stainless steel boxes in various places around the streets, and we go around once every 1 or 2 months and download information from them. They tell us what the water pressures are at various levels in the ground.

The top graph gives us the best indication over the workings, the southern end of the workings, and it demonstrates the response to rainfall. So, the blue vertical bars are the rainfall. You'll see how we got our lovely big rainfall (pointing at June) that took us up to 180mm in 24 hours, that's not in a day that's in a 24 hour period so it could be the night before, and you can see how the water levels in the upper areas of the soil rise – so these jump after rainfall events. The lower piezometer which is in the andesite which is around where we're mining, doesn't fluctuate significantly. It took a year to stabilise but now it's stabilised it doesn't fluctuate significantly with rainfall. That's a good indication which tells us that the rock that we're working in is different to the ground that you're living on. The ground that you're living on is affected by rain, it gets muddy, it gets dry and we're not draining it from underneath. The significant change that's happened since the previous meeting is in P94 which is towards the middle of Correnso. You'll see the shallow ones have fluctuated a little with rainfall but the deep one in this case has started to tail off. The relevance of this is that piezometer itself is sitting at a level 130m below ground. We are currently mining only about 10 to 20m directly below that. So it is being affected by our mining, it's right there. And that's a good indication that we're mining in that bit of rock, it's relaxed slightly and that's actually drained the ground underneath. But the interesting thing for me, and the reassuring thing, is that the ground waters above (above the andesite layer), which is where you guys are concerned, have not responded at all. So, there's a significant barrier from where we are down the bottom and where you are up at the top. And the expectation is in a couple of levels we may actually break out that piezometer because we're that close to it.

Mike said: Russell is that rock barrier preventing the pit from being filled up in the future as a lake?

Russell said: The bottom of the pit is directly hydraulically linked to Correnso. At the start of the year there used to be a pond in the bottom of the pit, I don't know whether any of you would have noticed it or not?

Clive said: We thought that was still there but the fill had slipped in and soaked it up.

Russell said: No, even more recently the pond was there and then it was identified that it had gone. The discovery was that the old number two shaft was in the bottom of the pit and it's actually drained the pit and we've connected it and it's been able to be traced to the underground workings. It's not coming through in a

rush but it is detectable, so there's a hydraulic link between the pit and the Correnso underground workings. We used to drain Correnso from the open pit. We used to have pumps down in the bottom of the pit. But then when the North Wall collapsed we lost access to the pit so we had to hurriedly put pumps and plumbing in Correnso to do the drainage from there.

The meeting adjourned for afternoon tea at 5.30pm and recommenced at 5.38pm.

Correnso/SUPA

Settlement

- Ninth survey of markers in May 2018. No settlement issues for Correnso.
- No significant change to minor tilt (1:879 to 1:851) detected around settled area in Slevin Park (see arrow).

INNOVATION PERFORMANCE GROWTH

OCEANAGOLD

Russell said: The last slide is settlement and there is nothing really to report on settlement. There's no settlement issues around the Correnso area, the only area that has technically required to be reported is the area that has been fenced off in Slevin Park and it has not changed significantly. I looked into the data and the variation in settlement over the last 2.5 years has been less than 5mm.

Tim said: Over 10m is it?

Russell said: The distance is to do with the tilt which in this particular instance is 70m and the change in elevation has been less than 5mm.

Trevor said: Are you mining anywhere near there?

Russell said: No, not at the moment. Our workings at the moment are probably 50 to 100m to the east and there's an area of old workings that are about the same distance away to the west. I looked on the map when I was preparing this and it got a bit complicated but there are no old workings or current workings directly underneath that settlement area. That raises the question of what's causing it, but settlement is a natural phenomenon strangely enough in various places. There's council works through the middle of that settlement area there but the settlement is totally counter-indicative of anything related to that because it's actually over a large area.

Oceana Gold Property Divestment Policy (Question from Last Meeting)

Kit said: I read the minutes from the last meeting 6 months ago this morning. I was asked, "Does the company have a divestment policy for its residential properties that it owns?" and I said, "Ask me in 6 months and I will have an answer". That was me (back then) thinking that in 6 months we will have one, and here we are 6 months later and we don't. So we don't have a specific divestment policy because we're not divesting anything and the Waihi Community Forum have been asking us the same question. We don't have a policy but we do have a philosophy, and the philosophy is what you'd expect from us and that is there's obviously no way we're going to start dumping residential properties on the market, (a) because that would be ridiculous for this town, (b) from our accountant's point of view that would be ridiculous too because it

wouldn't realise the asset we have, and (c) in terms of the community it would be devastating. So we will not do that. Also we're in expansion mode so the chances of us divesting properties at this time is quite low, in fact we've bought a couple of more so we're now getting closer to about 130 residential properties and as you may be aware we've also recently bought the big Hub complex where Roar and the tattoo parlour and all of those areas are. We have not bought the Hub to destroy it, we've bought it because at some stage it may be a strategic purchase for some time in the future.

And for those Heritage people, "Oceana Gold Buys Kings Hall" which has still got the best example of a pressed tin ceiling in this country.

Tim said: Anne Marie you were saying that you've been asking a question of the company every month?

Anne Marie Spicer said: Yes we have, we've had feedback from the community and it was just something we were quite interested in, but we did start asking these questions before the announcement of Project Martha, and the fact that you guys are going to stick around for quite a bit longer. We started asking when we thought we were looking at Correnso closing so the question has sort of become a little bit null and void now but I still think some sort of plan that people could hear about going forward would be quite useful.

Kit said: It needs to be formalised, it needs to be written down.

Anne Marie said: Yes, who knows what happens to companies, the intention could be there and that's all well and good, or Kit could move on in 2 years and all these wonderful people could move on and who knows who comes in so it's just nice to have some sort of plan that's tangible.

Kit said: Absolutely.

General Questions

Tim said: As we're winding up the meeting, are there any other questions?

Mike said: Kit, I don't know if you're the one I should be asking. If you have a concept of tunnelling out to Parakiwai can you also do the same thing to the old cypress workings out at Waitekauri, because they would be a similar distance?

Kit said: The distance as helicopters fly from here to there is 9.2km and you're quite correct that up to Golden Cross would be very similar but that would assume that we were prospecting in that area and have found something and we haven't. So in theory, yes, but we have to keep in mind that the Wharekirauponga idea could fall to bits spectacularly. The current government has a policy of no mining on conservation land. We accept that, that's the way democracy works. Does no mining on conservation land also mean no mining under conservation land? The Green Party believes that it does, New Zealand First say that it doesn't, the Labour Party haven't offered a view yet. If no mining on conservation land also means no mining under conservation land then obviously we're not tunnelling anywhere. So there is lots of water to go under lots of bridges before we go anywhere. But hypothetically it's do-able.

Tim said: How many people here are going to go to the Project Martha hearing? (6 said yes).

Helga Schmidt said: I have one question, where is the hearing?

Mark said: At the moment we've booked out the Waihi Town Hall. Given the number of submissions and the surprisingly small number of people who want to be heard I may in fact look at a different (smaller) venue. It will definitely it will be in Waihi.

Tim thanked everyone for attending, and Oceana Gold team for their presentation and the information that has been provided. Tim noted that the opportunity to ask questions and have this discussion in a relaxed forum is a great way of being able to get answers and ease any concerns that people have. The next meeting will be in March 2019.

The meeting concluded at 5.50pm.

(Since the meeting the St James Presbyterian Church Hall on Moresby Avenue has been booked for the Project Martha hearings scheduled to start on Monday 12 November.)

Attendance register	
Kit Wilson	Russell Squire
Danielle Crawford	Phil Salmon
Donna Fisher	Jeannine Wiki
Kyle Welton	Mark Buttimore
Clive Hallam	Trevor and Jeanete Skinner
Di and Alan Watts	Roger Pearce
Eric Rhodes	Helga and Erich Schmidt
Maxine and Deane Gilchrist	Vivienne Pickford
Anne Marie Spicer	Sandra and Ferg Cumming
Mike Hayden	David Carrington
Tim Clarke	Louise Fielden