

# Castillo Copper's Cangai Copper Mine Plans

## Yet another environmental battle looms for the Clarence Valley

1<sup>st</sup> October, 2018

In the winter of 2017, a small advertisement appeared in Grafton's Daily Examiner announcing that a mining company would be undertaking exploration drilling in the Jackadgery area of the Clarence Valley. They were said to be looking for cobalt, which is apparently associated with Lithium, a mineral currently in great demand in the manufacture of batteries.

Minerals exploration has always been a matter of concern, and speculative drilling occurs every time the price of any particular mineral rises. Most of the time, these speculators pack up and leave when ultimately the prices drop again, and they run out of investor funds. Nevertheless the Clarence Environment Centre (CEC) did learn that the operations were focussed on the historic Cangai copper mine which had been shut down some 80 years earlier.

It seems the exploration licence changed hands in 2017, and in mid 2018 the new owners, Castillo Copper, stepped up its on-line promotional efforts, with reference to promising assay results from core samples, with talk about investing in the latest diamond drill technology. There were even suggestions that if the promising drill results were confirmed, they planned to proceed to an open-cut mining operation.

The CEC was justifiably concerned as the site lies in very close proximity to the Mann River, the largest tributary of the Clarence River system, which carries water from the combined Mann, Nymboida, and Boyd River catchments, with a mean annual flow near Cangai of about 1,475,000ML, rising to a maximum annual flow of 5,631,000ML. That catchment is enormous, covering thousands of square kilometres, stretching south and west from Nymboida, all the way to Dorrig and to Armidale.



*The Cangai drill site, shown by the red flag, lies within a huge loop of the Mann and Clarence Rivers*

Castillo's exploration area, shown by the red flag at Drill site 2018 1. GPS 450787E – 6736326.6N, lies within a huge loop of the Mann and Clarence Rivers. At the point directly south of the drill marker, the Mann River flows in a north-westerly direction, carrying the combined run-off from that catchment drained by the Nymboida, Blinks, Boyd, the Upper Mann and Guy Fawkes Rivers.



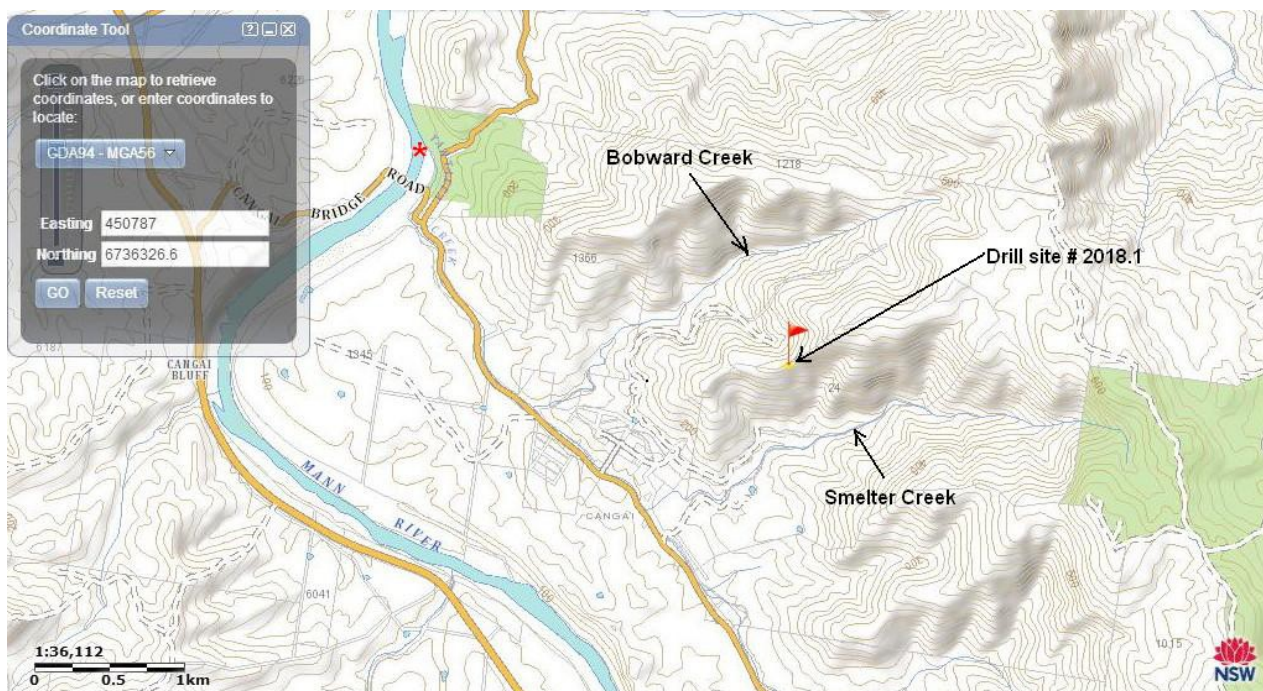
At its northernmost point, the Mann joins the Clarence River which rises in Queensland, and from that point the river swings through 180 degrees and flows back through The Gorge, in a south easterly direction to Grafton, and ultimately disgoring into the the Pacific Ocean at Yamba.

Alarm bells begin when reading through Castillo's licence application and “Review of Environmental Factors” (REF), which is their assessment of the environmental impacts of their proposed exploration works, and we find no mention of either the Mann or Clarence Rivers. Instead Section 19.4, which is specifically aimed at determining the threat levels to surface water, we find under the heading: “**Surface water sources**”, the following question:

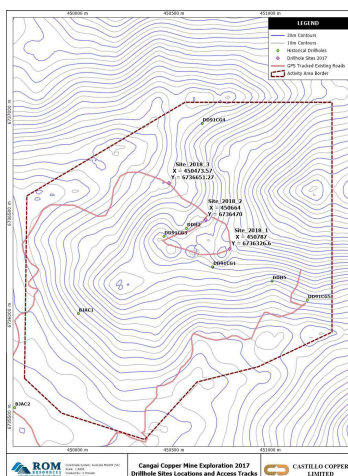
***“Provide details of the existing surface water sources in the area that are likely to be affected by the activity. Provide details of the nearest watercourse/s and the distance between the proposed disturbance area/s and the nearest watercourse/s”.***

Castillo's response is:

***“The proposed activity area bounded by Bobward creek from the west and Smelter creek from the east. The distance from disturbance area to Bobward creek is 550 – 620m; the distance to Smelter creek is about 500m. The water for drilling if required will most likely will be taken from Bobward creek. Permission has been sought and granted by the landowner”.***



***Map showing Bobward and Smelter creeks which converge and join south of the drill site, then flow north-west into the Mann River just downstream of the Cangai Bridge, shown by the red asterisk.***



While technically, Castillo was only required to mention the impacts of drilling 3 holes in the ground, it is significant that the REF makes no mention of the Mann River into which both Bobward and Smelter creeks run just a few kilometres away. Likewise, while the application form talks about “impacts” to that surface water, Castillo's response focusses on the possible use of that water which they claim to have permission from the landowner to use.

The published maps of the drilling area are also careful not to show the river (see image at left). all of which begs the question: “*Would the exploration licence have been so readily granted if the proximity to the Mann River, with its endangered Eastern Freshwater Cod population, had been mentioned?*”

The potential for pollution by toxic residues from a major mining operation in this high rainfall area, is extreme, and any toxic spillage from the Cangai site can only flow into the Mann River, and thence down the Clarence. The consequences of such an event would be catastrophic, affecting all elements of the local economy, namely agriculture, fisheries and tourism.

Adding to those concerns is the following Google Earth image showing the copper/gold mineralisation around the Cangai area, which clearly indicates higher concentrations immediately adjacent to the Mann River itself. i.e. where will exploration, and ultimately extraction, stop?



Copper mining has an appalling record of waterway pollution around the world, even in Australia. Cases such as the Redbank copper mine which poisoned Hanrahan's Creek, in the Northern Territory, and the contamination of waterways from the abandoned Mt Oxide mine at Camoweel near Mount Isa in Western Queensland are just 2 notable examples. The latter disaster reportedly turned local waterways bright blue, and only this month (September 2018) we learned, through the ABC's 7.30 Report, of a major pollution incident involving the 'moth-balled' Baal Gammon copper mine, south-west of Cairns, where toxic spillages have effectively rendered the previously pristine Walsh River and Jamie Creek, unusable.

One of the conditions of an exploration licence is community consultation, so the CEC wrote through Castillo's on-line "Contact us" portal, requesting that the Centre be included on their Community Consultative Committee, a body that, as far as we could determine, didn't exist. A month went by with no response so we reported this breach of licence to the industry regulator.

Staff at the regulator's office, a section within the Department of Planning, were very helpful, and confirmed that we were well within our rights to request consultation, and promised we would be contacted by the company shortly. Sure enough a week later we received an email from Castillo's Executive Director, Alan Armstrong. His email clearly aimed to downplay what was happening at Cangai, claiming:

***"Currently the program is in early stage exploration, albeit on an old historical mine site. The focus is to try and understand whether a potentially economic source of copper may exist. Should we get to the stage of a scoping study, we will be conducting a lot more extensive community consultations, especially on the environmental front.***

***We want to work closely with the local community and the wider area.***



*We are not yet at that stage and are currently conducting grassroots exploration on private freehold land, in compliance with the environmental conditions of the mineral exploration licence.*

*In saying that, I appreciate any concerns you may have and if you have any specific concerns you would like to address, please do not hesitate to ask.*

*I look forward to discussing with you in more detail shortly”.*

Clearly Mr Armstrong was keen to get the message across that they were operating on private property, and “*in compliance with the environmental conditions of the mineral exploration licence*”. However, suggesting they were not at a stage where community consultation is required, is a clear breach of the requirements of their exploration licence.

The claims that “*the program is in early stage exploration*”, and their, “*focus is to try and understand whether a potentially economic source of copper may exist*”, through “*grassroots exploration*”, do not match the rhetoric on Castillo's website. For example an interview posted on the internet at **The Proactive Investors Stocktube (PIS)** internet site, dated 22<sup>nd</sup> August 2018 (2 days before Mr Armstrong's email), tells a different story.



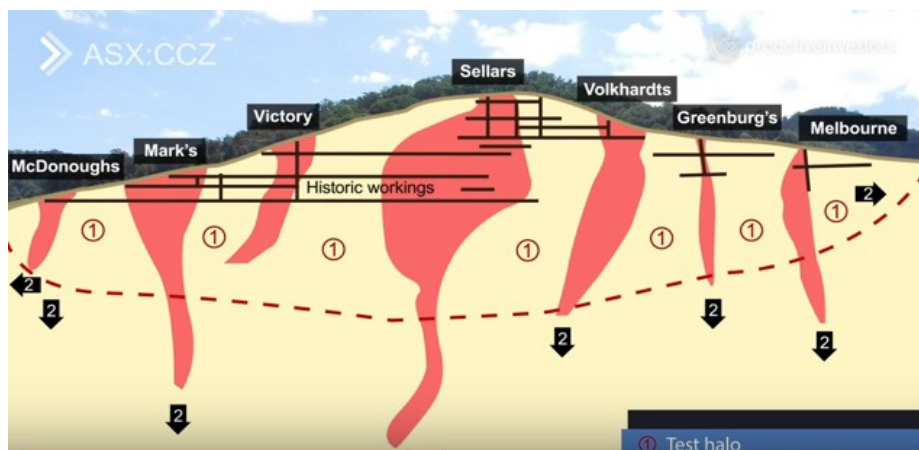
*PIS's interview with Mr Armstrong is, or made to appear to be, taking place in a major network studio.*

That interview with Mr Armstrong takes place, or is made to appear to have taken place, in a major TV network studio (see above).

The headline for the interview is: “**Castillo Copper seeing 'extraordinary results very early on' from drilling at Cangai Project**”, and contains the following quotes:

- **Interviewer:** “*High grade has to be the calling sign for Cangai. You've found ore at 3.35% around Cangai whereas the average grade for copper around Australia is about 0.6%. Are there any comparable results from Australia or around the world, what accounts for this tremendous geology you seem to have on your hands?*”
- **Alan Armstrong:** “*we now have a very detailed 3D mine plan*”. “*Over the next few months we are going to see some very exciting next steps*”.

That 3D mine plan statement is accompanied by the following images. However, whether or not the first image is of the Cangai site, is not clear to us.



### Other Internet quotes of interest include:

\* [Castillo Copper Ltd \(ASX:CCZ\)](#) has struck success with the first few holes of its phase II drilling campaign at the Cangai Copper Project intersecting shallow, highly mineralised massive sulphide.

Visible copper and zinc minerals have been observed in the core with the drilling at the historical project in northern New South Wales showing potential to expand the resource size.

Shares increased 14% to 4 cents after a trading halt was lifted.”

### **READ: Castillo Copper aims to add to Cangai copper bounty with phase II drilling**

With only five holes completed in the 39-hole program, there is significant incremental exploration upside with the company now intending to ramp-up the campaign. Castillo's chairman Peter Meagher said: “This is an excellent start to our second drilling campaign. “Hitting highly mineralised semi-massive and massive sulphides in multiple holes from 41 metres near the start of the drilling program is truly a game-changer, especially with 34 more drill-holes to complete.)

### **“Objective to reopen mine on track”**

“This early result materially de-risks the project and firmly places our core strategic objective to re-open Cangai Copper Mine on track.”

In one hole (CC0023R) 18 metres of mineralisation was intersected, including 10 metres of massive sulphides from 41 metres and 2 metres from 56 metres.

The massive sulphides intersected in this hole have extensive visible chalcopyrite, sphalerite, pyrite and pyrrhotite present, which is consistent with historical mine reports.”

After receiving Mr Armstrong's email and comparing his comments with the above announcements, the Clarence Environment Centre responded with:

*“Thank you for the update. As you can imagine, the prospect of an open cut mine so close to the Mann River, and the Clarence for that matter, raises concerns of pollution and siltation of the entire river system.*

*I have to say, your description of being "in early stage exploration", and that your "focus is to try and understand whether a potentially economic source of copper may exist", is somewhat at odds with the glowing reports of striking rich deposits etc, on your web site.*

*Either way, Our committee would appreciate your meeting with us to discuss some of our concerns, or better still perhaps a site visit to Cangai.*

*I appreciate that you are probably a very busy man. However, if you can spare time for a meeting, we would appreciate it”.*

The immediate response from Mr Armstrong was clearly aimed at further allaying our concerns.

*I appreciate your concerns.*

*I just want to make it clear that any potential mining operation at Cangai is still a long way off.*

*We are currently carrying out an exploration works program in connection with our exploration licences on freehold farm land.*

*In order to even consider mining, a mining licence must be applied for and granted in connection with a very detailed Environmental Impact Statement, various mining feasibility studies and extensive community consultation and engagement with organisations such as yourselves.*

*We currently have no plans to commence a mining licence application and are yet to even begin any of the many stages of mining feasibility studies required to allow that process to occur.*

*I would also like to note that NSW has the most stringent mining approvals process in Australia and we acknowledge that the required level of detail provides highly informed outcomes for all parties.*

*I am currently planning my next visit to Cangai, which will likely occur around the middle of September and I will keep you informed of those dates.*

*I look forward to meeting with you and I hope to be able to allay some of your concerns.*

Are these reports just Castillo “spin” or is there truth in it? Locals who have spoken to workers at the drilling site report that in recent times they have become pretty excited by the results. We have also learned that they are having serious difficulties getting the drill rig into position up a very steep incline, with one rig rolling over and 2 workers hospitalised following that incident.

The middle of September has now come and gone with no further word from Mr Armstrong, or Castillo. However, a source has told us that a senior executive did visit Cangai at about that time. We will give the company the benefit of the doubt for now, but a further complaint to the regulator seems inevitable.

One of the claims made in Castillo's REF is that total clearing (existing and proposed) for the initial 3 drill pads would be 120m<sup>2</sup>. 3 drill pads = 40m<sup>2</sup> each, an eight by five metre area for each pad.

There is an admission that *“The area of the proposed activity is located on the side of Cangai Hill, therefore the slopes generally exceed 18 degrees. Clearing the tracks and drill sites on the slopes more than 18 degrees may introduce an erosion hazard”.*

May introduce an erosion hazard? We believe it would **guarantee** an erosion hazard.



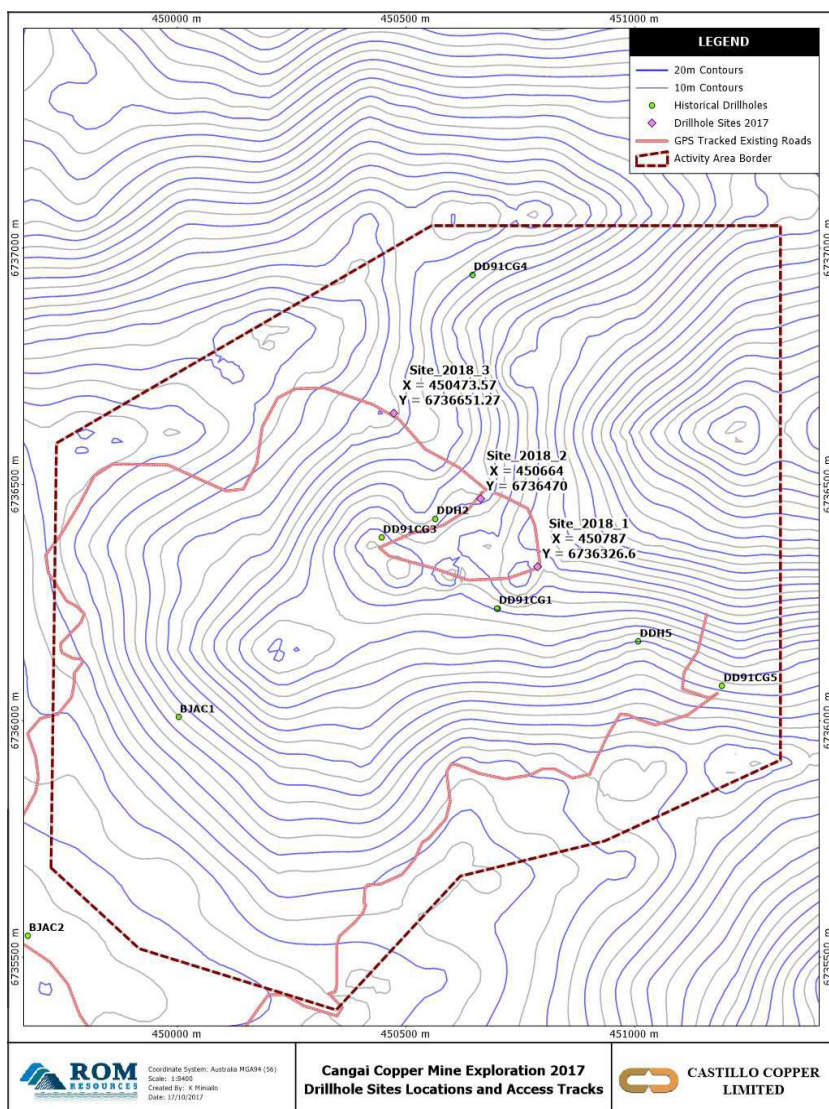
There are proposed mitigation measures: *“The mitigation measures include above all, avoiding removal of the trees in the areas with slopes >18 degrees, selecting less steeper areas for the access tracks and rehabilitation to a high degree at completion of works. water drainage well be carefully established and cleared/fallen vegetation will be spread over sites to assist with erosion control and reseeding/revegetation”.*

The topographical map of the drill area clearly shows most slopes well in excess of 30° (see right), and also shows some 7 to 8km of “existing tracks” which they claim were recently re-cleared by the landowner for fire access, but will still need to be “touched up”

The convenient clearing for fire access must be taken with a high degree of scepticism. No fire fighter would attempt to drive up those extreme slopes, to the top of a mountain, to fight a fire.

As stated several times in the licence application, the landowner has the earth-moving equipment and will be contracted to undertake the “touching up” of the tracks and eventual rehabilitation works. Therefore there seems little doubt that the re-clearing of the tracks was to facilitate access to the drill sites.

Then there is the very concerning image of a drill pad below which clearly shows the steep terrain where the work is occurring.



Looking at the above image, there appears to be little consideration of worker safety or erosion control, and that combined with the story of the rig roll-over, and the difficulties the drillers are having getting the equipment up the slope, justifies an investigation by both the EPA and Worksafe Australia.

To that end, the CEC has requested the EPA investigate what is going on, but a week after sending in the report, my follow-up call for information about any progress isn't being responded to, so presumably the EPA haven't done anything yet. I will continue to attempt to engage with Castillo and will let you all know what eventuates.

To be continued!

**Compiled by John Edwards  
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