

## Mount George & Manning Valley Fact Sheet

MCI Carbon would like to acknowledge and thank the Mount George and Manning Valley community for sharing your questions and concerns about our early-stage exploration activities. Our team continues to review all submissions of concern and enquiry so we can be better prepared for future community engagement.

We appreciate your feedback and want to explain more about who we are, why we're here, and how we work. This Fact Sheet addresses key concerns raised by the wider community.

As a brief update, we have temporarily paused the planned drone geological surveying and small-scale drilling. This will give us time to connect with the community, landowners and stakeholders before moving forward. We're also postponing the March meeting to ensure we have enough time to plan effectively and provide plenty of notice. In the meantime, our community engagement team is available by phone or email if you need anything else.

Thank you for your patience and understanding.

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### Who is MCI Carbon?

MCI Carbon is a proudly Australian clean technology company based in Newcastle. Our team of 50+ local engineers, scientists and commercial experts are focused on combating climate change through a process known as **mineral carbonation**. We've developed a method for capturing carbon dioxide (CO<sub>2</sub>) emissions from industrial sources and transforming them into stable, solid materials. We decarbonise industries while creating valuable by-products.

By capturing CO<sub>2</sub> directly at the source - such as from steel, concrete or chemical manufacturers - the process locks away carbon in a stable form for use in building materials and other products. This supports global efforts to mitigate climate change and fosters collaborative partnerships focused on environmental stewardship.

### How the Technology Works

1. **CO<sub>2</sub> Capture:** The process begins by capturing or sourcing carbon dioxide from industrial flue gases or other emission streams.
2. **Mineral Carbonation Reaction:** The CO<sub>2</sub> reacts with mineral-rich rock or industrial by-products, such as steel slag, in an energy efficient process which chemically binds the CO<sub>2</sub> into new output materials
3. **Stable Outputs:** These output materials can be used in various industries, including building products – this approach is called carbon capture and utilisation (CCU).

Unlike carbon capture and storage (CCS), **we don't store or inject CO<sub>2</sub> underground; we convert it into something usable**. Our team is focused on **stopping industrial emissions at the source**. We currently don't use methods for capturing CO<sub>2</sub> from the atmosphere.

MCI Carbon began as a collaboration between the NSW Government, University of Newcastle, Orica, and private Australian investment in 2013, following years of dedicated research. Since 2016, we've operated a world-leading Mineral Carbonation Research Pilot Plant in Newcastle.

Our partners and funders include the Australian Federal Government, NSW Government, *Orica*, Japan's *ITOCHU Corporation* and our first global commercial customer *RHI Magnesita* in Austria.

By assisting in the development of MCI Carbon technology, Orica focuses on providing engineering and safety expertise, as well as support for scaling. This collaboration has helped Orica gain valuable insights into MCI Carbon's potential to lower emissions and meet sustainability targets.

It is important to note that Orica is not a mining company and does not operate any mining facilities; rather, Orica manufactures and distributes commercial explosives and blasting systems. MCI Carbon is committed to meaningful action on climate change and only chooses partners and investors who share this commitment.

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## Why Mount George?

We hold **Exploration Licences (EL 9479 and 9503)** in the Mount George area to explore and research a small quantity of **serpentinite rock**, which may be suitable to demonstrate our technology. Mount George isn't our only option at this demonstration stage. **We're conducting research on many types of rock**, in addition to steel slag and other industrial by-products, both around Australia and globally. The shorter distance to Newcastle makes Mount George a particularly sustainable and economic choice, **if the rock proves to be suitable at this demonstration stage.**

All planned activities within the Exploration Licence areas have received approval from the NSW Resources Regulator. **We are not a mining company and do not hold a mining licence.**

This pre-feasibility concept stage involves:

### **Drone geological surveys – *schedule to be advised to affected landholders***

- The third-party drone operator conducting the drone surveying, are a certified and licensed and follow strict regulations set by the Civil Aviation Safety Authority – such as navigational lights when flying at night.
- Land access agreements with landholders are required for drone take off/landing
- The purpose of the drone surveys across **EL 9479 and 9503** is to assist our geologists interpret rock types while identifying and enhancing the relevant serpentinite resource maps – however, this doesn't mean we will conduct future work in those areas.
- **Drones fly at ~50m, producing low noise** generally undetectable by people or animals. If the third-party drone operators see any wildlife (such as eagles) they pause or adjust flights. In response to community feedback, flights will **occur between 5pm and 5am**

### **Small-scale drilling to understand the rock's characteristics – *schedule to be advised***

- We have received approvals from the NSW Resources Regulator to **drill up to 57 holes** to better understand rock characteristics.
- These **13-metre-deep holes** will be drilled primarily using Air core drilling collected directly into plastic bags to capture cuttings and control dust, with the assistance of air quality monitoring equipment.
- Whenever wet drilling is involved, we use water and sediment control pits to stop runoff from reaching creeks or rivers. Disturbed rock is collected and buried on site.

- We follow a specific procedure to restore and stabilise the land once we've finished drilling - backfilling drill holes, reseeding or planting native vegetation if necessary, and monitoring the area over time to ensure it remains healthy and safe.
- All surface disturbing works are conducted with the assumption that Naturally Occurring Asbestos (NOA) is present and treated with caution until lab testing proves otherwise.

#### Minimal environmental disruption under close ecological oversight

- Before submitting our application for the assessable prospecting operation (APO), we conducted a comprehensive ecological survey of the APO area, carried out by third-party ecologists based in Newcastle.
- This assessment focused on identifying endangered flora, fauna habitats (including the Manning River helmeted turtle), precise waterway locations, and assessing slopes for potential environmental risks. Our operations will avoid slopes greater than 18 degrees and maintain a 40-metre buffer from surveyed tributaries and waterways.
- During the application process, we further refined our plans by resurveying the specific areas intended for drilling.
- This step comprehensively assessed potential risks to endangered flora, koala habitats, reducing tree clearing by adjusting drilling sites around mature trees and stands.

Because we hold these exploration licences, no other company can pursue different licences in the same zone. Our intent is to conduct preliminary concept research to maintain our exploration licences.

These licences do not cover coal, which requires a Group 9 Exploration Licence, and **do not allow for open-cut mining**.

EL9503 in Mooral Creek is an additional site which is yet to be progressed as part of MCI Carbon geological research. The current focus is on better understanding the Mount George serpentinite.

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#### Introducing Our “Myrtle” Demonstration Plant

A key reason for researching serpentinite is to support our new demonstration facility, called “Myrtle,” located in Newcastle. Currently being commissioned, this small-scale plant:

- **will operate on various rock sources** and other materials—including steel slag—to further validate the technology and assess the carbon dioxide reactivity - so it is not solely reliant on Mount George rock.
- **may test an initial ‘bulk sample’** (if approvals are granted) of approximately 1500 tonnes of serpentinite from Mount George – *schedule to be advised*
- **the extraction volume** for the demonstration bulk sample would be at maximum the size of an Olympic swimming pool – *exact dimension unknown*

This bulk sample would require further community engagement and environmental review, and we'd need to conduct a full environmental study, including further ecological surveys. The exact location of the planned bulk sampling is 133 Black Flat Lane, Mount George (within EL9479), but this activity has not been subject of any applications under the exploration licence.

This is all dependant on the results of the drones and drilling activities, securing all approvals and whether the activity passes economic viability.

## Does MCI Carbon hold a mining licence?

MCI Carbon does not hold a mining licence.

Our current work is strictly on a small-scale exploratory basis to research the local serpentinite rock and identify if it can support our current demonstration scale operations, not a large-scale commercial operation.

- **No Open-Cut Mining:** Holding an exploration licence does not allow us to begin mining or start a quarry. At most, we can apply for approval to collect limited bulk samples.
  - **Other Minerals and Coal:** Past exploration licences in Mount George, held by other companies, have expired due to no viable mineral or coal deposits of interest. While our licences mention Group 2 non-metallic minerals, that's simply the technical category.
  - **Our only interest is in serpentinite:** the Group 2 non-metallic minerals relevant to our exploration licences serve no purpose to any affiliated party.
  - **Future Steps:** If any company would consider actual mining, it would involve an entirely new process and could take up to 6-8 years, complete with extensive environmental, community, and regulatory reviews. The community would play a major role in those discussions before anything could move forward.
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## Asbestos Concerns in Serpentinite

Serpentinite may occasionally contain **Naturally Occurring Asbestos (NOA)**. Safety is our top priority, and we use best practice in geology:

- **Identification & Avoidance:** We map potential asbestos zones with drone surveys and focus drilling where asbestos is unlikely to be present.
- **Strict Protocols:** Everyone on our team undergoes **mandatory asbestos training** which includes safe work practices and use of personal protective equipment. We use **dust suppression** and carefully **monitor air quality**.
- **Regulatory Oversight:** Any material leaving the site is transported in line with NSW hazardous materials rules.

## Landholder Implications, Community Concerns & Access

We respect private property and local concerns:

- **Land Access Agreements:** We **cannot** enter any private land without permission. All activities are discussed and agreed upon with the landowner. If a landowner chooses not to grant access, we will not enter their property.
- **No Forced Acquisition:** Exploration laws do **not** allow for forced acquisition. We do **not** hold a mining licence.

If you have questions about your rights as a landholder, please visit [www.resources.nsw.gov.au](http://www.resources.nsw.gov.au)

## Traffic & Roadways

We understand the importance of safe, quiet roads:

- **Light Vehicles Only:** Most exploration tasks only use 4WDs and small trucks.
- **No Heavy Haulage:** Bulk sample transport (if approved) could happen if we receive further approvals, with approx. 1-2 local trucks per week, and would not be heavier than current logging trucks
- **Coordination:** We work with local councils and landowners to share traffic updates and ensure safety.

## Sustainability & Lifecycle Assessment

Our mission is to **reduce CO<sub>2</sub> emissions** by converting carbon dioxide into solid materials:

- **Less Mining Overall:** Using CO<sub>2</sub> as a raw ingredient can reduce demand for limestone or other mined resources.
- **Using By-Products:** Our team is developing methods for incorporating mineral-rich waste streams (e.g., steel slag, mine tailings and concrete waste) as an alternative to rock such as serpentinite to avoid additional extraction.

We thank the community for voicing their concerns. MCI Carbon wants to foster a **mutually respectful dialogue** about our exploration activities and the future of mineral carbonation technology. We hope this Fact Sheet helps clarify our scope of work and our commitment to environmental stewardship, public safety, and transparent engagement.

**Next Step:** We will connect again with the community later in the year to organise future engagements in line with rescheduled drone flights and drilling activities. In the meantime, please feel free to connect with us if you have further questions or concerns.

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