

Who is Cornish Lithium?

Cornish Lithium is a UK-owned innovative mineral exploration and development company with over 60 locally based employees, focused on the environmentally responsible extraction of lithium in Cornwall. This exploration project is to assess the potential production of lithium from the geothermal waters and will be supplementary to other projects across Cornwall. Cornish Lithium have successfully drilled 3 boreholes to depths of up to 2,000m (6,600 ft) to analyse the lithium content of geothermal waters below Cornwall at United Downs and Twelveheads.

What are you drilling for?

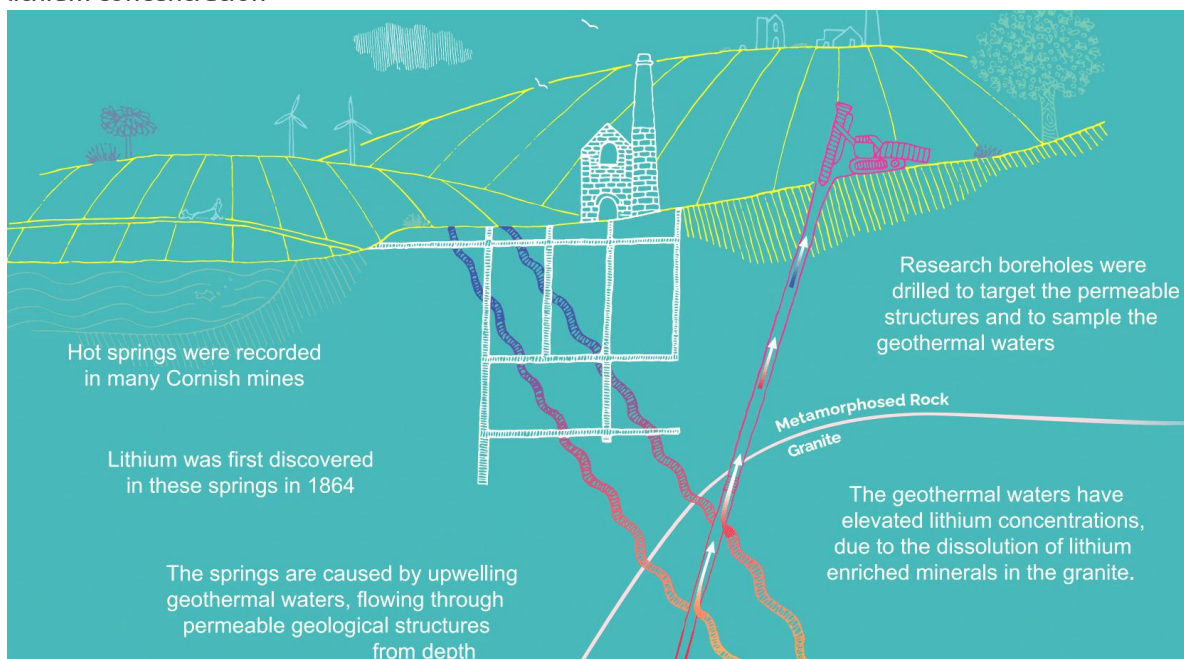
- Cornish Lithium are drilling for lithium contained within geothermal waters
- Lithium is a metal used in batteries for use in electric vehicles and renewable energy storage
- Lithium is dissolved in geothermal waters. These waters circulate naturally in the rock beneath Cornwall
- At present there is no domestic supply of lithium for the UK car industry. This metal is essential for the green energy transition and as the UK aims for all new vehicles to be electric by 2030, to reduce our carbon emissions and combat climate change

When are you drilling?

- Drilling for the initial research borehole at the Blackwater site started after Easter 2023
- The borehole will be around 10cm wide, and targeting a depth of 2,000 m (6,561ft)
- The programme is expected to last for 6 months, and permissions from the council have been granted to drill between 0700-0700 hours on a 24 hour basis (including weekends and bank holidays) though we will not utilise the option for 24 hour drilling every day within the 6 month period. Any other operation supporting the mineral exploration drilling programme including the establishment of drill pads, mobilisation of drill rigs, and all site restoration works shall only be carried out during the day shift, between 0700 1900 hours
- After completing the first borehole, a second one may be drilled if the results are favourable. The second borehole would be slightly larger in width, with a diameter of approximately 8 inches. This would only take place with further agreement from the council and engagement with the community
- After the drilling programme has finished, further test work will be undertaken to evaluate the lithium potential
- The borehole will be drilled by experienced contractors Priority Drilling Company Ltd., who drilled Cornish Lithium's previous exploration boreholes and several similar boreholes across Cornwall

Why Blackwater?

- Blackwater has been identified as a highly prospective area to explore for lithium in geothermal in Cornwall. The exact location is based on in-depth geological modelling of the subsurface, to increase the likelihood that the drilling intercepts the targets we are aiming for. This site was selected as the most appropriate due to a number of other factors too, including land constraints, mineral rights and land access.
- Rock core will be recovered from the initial borehole, which will be used to identify the location of naturally permeable structures in the rock that geothermal water is flowing through and can be extracted from
- A borehole pump will be used to obtain water samples from these geological structures, which will be analysed for their lithium concentration



A cross-section through a drilling site, showing how we plan to sample geothermal waters.

How will this affect me?

Noise

- The noise of the drill rig is similar to a moving HGV when stood directly by the rig, which reduces with distance. The location of the rig has been carefully selected to minimise noise impact
- Maximum noise limits of 55dB in the daytime and 40dB in the night time have been set by Cornwall Council based on background noise surveys taken before drilling, and this will be monitored throughout
- A 4m high wall of straw bales is in place to minimise noise impacts

Traffic

- The location is close to the A30, and a traffic management plan will be used for when the drill rig arrives and leaves the drill site to avoid disruption to local traffic. Daily traffic is expected to be 3-4 light vehicles (cars, vans and pick-ups)

Surface Impact

- The borehole will be drilled using a small mineral exploration rig (see photo from Cornish Lithium's 2022 drill site)
- The drillhole/s will be safely capped after use
- The potential to generate geothermal heat from these boreholes will also be reviewed in the future
- To ensure safe access to the site the gateway has been widened under the guidance of ecologists to ensure minimum disruption to the natural habitat, and will be reinstated at the end of the programme
- Groundworks to prepare the site were carried out after an ecological survey of the area had been completed. This includes temporary hardstanding, mud mats, gravel and heras fencing
- At the end of the 6 months, the site will be reinstated with the agreement from the council and landowner

Light

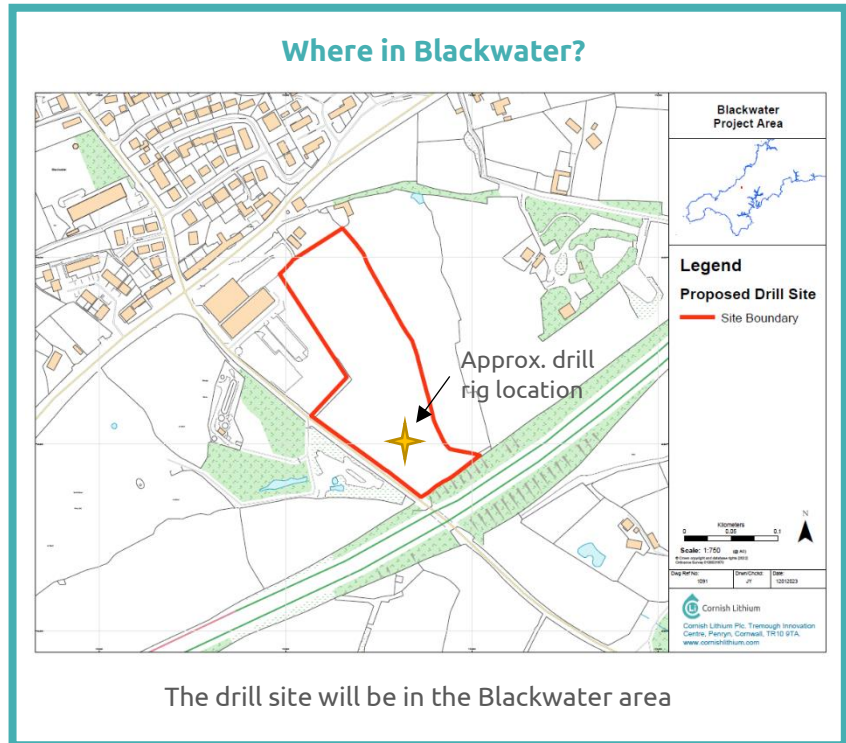
- The drill site has been specifically selected for its location away from residential properties and sensitive habitats
- The programme will follow recommendations from ecologists to minimise light pollution to nearby dwellings and habitats

Dust and mud

- The drilling method uses water to minimise the production of dust
- Any dust which might be created by vehicles will be suppressed with water as necessary
- The site will use gravel to minimise the amount of mud leaving the area

Permissions

- Agreements are in place between Cornish Lithium and the landowners, as well as the relevant mineral owners. The drilling will be carried out under a temporary 6 month General Permitted Development Order, which has been granted by Cornwall Council



Contact Us

If you would like more information or have any concerns, please contact the Cornish Lithium drilling team using the contact details below:

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