

# Proposed change of use (part retrospective) – from China Clay Linhay Building to Laboratory, Visitor Centre and Staff Welfare Units associated with lithium related developments, land at Trelavour Dryers, St Dennis, Cornwall, PL26 8DY

**Supporting Statement V2** 

January 2023



# Contents

- 1. Introduction
- 2. Site Description
- 3. Proposed Development
- 4. Planning History
- 5. Justification
- 6. Community Consultation and Engagement
- 7. Identified Impacts of the Development
- 8. Conclusion

Appendix 1 - Site Drawings Appendix 2 - Site Photographs Appendix 3 – Fire Risk Assessment



#### 1. Introduction

Cornish Lithium Plc. ("CL" or the "Company") is incorporated and registered in England and Wales (company number 10205021), with a registered office at Tremough Innovation Centre, Penryn, Cornwall, and operational centres at United Downs, near Redruth and St Dennis, near St Austell.

CL is a highly innovative UK-based mineral exploration and development company whose projects are focussed on the responsible exploration and sustainable extraction of lithium. Deposits of this critical mineral are found in hard rock deposits or geothermal waters across the historical mining districts of Cornwall.

Given its role in batteries for electric cars and renewable energy systems, lithium is a key enabler of the UK's transition to clean energy. A stable and domestic source of lithium and battery manufacturing supply chains are vital components of the future UK economy.The Trelavour Hard Rock Lithium Project is operated by Cornish Lithium G5 Limited (company number 13088939), which is a wholly owned subsidiary of CL. The Company has secured the Trelavour Quarry site along with the nearby TreLith Processing Facility, which is a brownfield mineral processing site, which benefits from excellent logistics and existing infrastructure, including power, rail, road and access to port facilities.

In 2018 and 2019 CL began onsite surface explorations at Trelavour Downs near St Dennis. Project identification was achieved through extensive research into exclusive historical resources, combined with the use of modern geological, geochemical, and geophysical datasets. This work identified Trelavour Downs and china clay pit as a priority site for exploration and development, combined with the knowledge that Trelavour Downs was the only known site in Cornwall to have produced economic lithium during the second world war.

During 2021 CL accelerated work to prove the viability of the Trelavour project. This included drilling an extensive 3,400m resource definition programme. Further drilling (circa 14,000m) has taken place during 2023 to extend the known footprint of lithium-enriched granite at Trelavour Downs.

The results from the drilling programmes will help CL to progress the project to Feasibility Study stage during 2024. To help achieve this, CL plans to develop a Lithium Hydroxide Demonstration Facility at the former Trelavour Dryers site, now known as TreLith, near St Dennis. The Facility will assure the Company, the Community, The Environment Agency, Cornwall Council and investors that it will be possible to safely and economically produce the vital lithium hydroxide component of batteries.

#### 2. Site Description

The Site lies at the former Trelavour Dryers, St Dennis, Cornwall, PL26 8DY. The Trelavour Dryers site was part of Trelavour 'Works', located within the northwest of the St Austell China Clay Area to the south-west of St Dennis, Cornwall. The St Austell China Clay Area is divided into a number of 'Operational Areas' and the Site lies within Operational Area 5 - Trelavour Works. The Site is currently occupied by several very large buildings, formerly used as china



clay dryers and railhead infrastructure by the china clay industry and associated concrete hardstandings.

Going forward it is CL's intention to rename the Trelavour Dryers site TreLith, this will enable those who might be unfamiliar with the geography of the area to clearly distinguish between Trelavour Pit and Trelavour Dryers.

Vehicular access to the Site is available from the public highway which runs in a south-west to north-east direction approximately 400m to the south of the Site where there is a significant established highway access associated with both the Parkandillick Dryers and Trelavour Dryers sites.

In land-use planning terms Operational Area 5 Trelavour Works is governed by the overarching 1998 china clay blanket Review of Mineral Permissions (ROMP's) permission namely decision notice 97/00965 dated 10.02.1998 and the site-specific conditions of decision notice OA5 Trelavour kilns (R10.Env/OA5), dated 18th May 2000. The Site has also been subject to several improvements and expansions over the years, the majority of which have been granted under permitted development.

The Site is shown within the Minerals Safeguarding Development Plan Document (Cornwall Council December 2018) as lying within the St Austell China Clay Mineral Safeguarding Area (inset CC1) (pg. 60) and partly within and adjacent to an 'Area Identified for Plant Infrastructure'.

There are no Conservation Areas within the vicinity of the Site. The Site does not lie within The Cornwall and West Devon Mining Landscape World Heritage Site. The nearest Listed Building (the Grade II\* Parkandillick Engine House) lies approximately 300m from the Site to the SSW.

A public footpath runs approximately 100m to the north of the Site in a south-west to northeast direction.

The Site does not lie within an Area of Outstanding Natural Beauty, a Local/National Nature Reserve or County Wildlife/Geology Site. The Mid Cornwall Moors Site of Special Scientific Interest (SSSI) lies approximately 150m to the north-west of the Site. The Breney Common and Goss and Tregoss Moors Special Area of Conservation (SAC) lies approximately 300m to the north-west of the Site.

The Site is not within Flood Zone 2-3b, or within a critical drainage area or an area susceptible to surface water flooding.

There are no tree preservation orders/areas or Ancient Woodland within the vicinity of the Site.

## 3. Proposed Development

CL is exploring the potential for lithium production from a former china clay (Kaolin) pit at Trelavour Downs. Lithium is contained within the mica minerals of the Nanpean "Topaz G5" Granite in this region.



CL has prepared a formal mineral resource estimate and Scoping Study, following promising results from two drilling campaigns at the site in 2020 and 2021. A further drilling campaign and preparation for a full Feasibility Study (FS) is in progress.

The viability of the project will be contingent on the successful production of lithium concentrate from the unique mineralogy of the Nanpean Granite, at sufficient quantity and quality to support a full-scale operation. To prove this, it is necessary to demonstrate, through pilot scale trials, the performance of the chosen mineral process.

Laboratory-based testwork, using a patented "Lepidico" process, has been carried out in Australia, on comparable material to the Nanpean Granite. CL has also processed the Nanpean Granite itself through the same pilot process, to ensure the initial results reflected the mineral resource at Trelavour.

To support the FS, CL intends to develop and operate a Demonstration Facility at TreLith. The Facility will be an experimental research facility of much reduced scale to that required for any industrial production. The scale chosen is essentially as small as possible, without compromising the flowsheet or technology used at commercial scale.

The Demonstration Facility will allow representative material from Trelavour Pit to be continuously processed, tested, and refined, as needed, to achieve optimal yields. The reduced scale of the Facility will afford the opportunity for cost-effective adjustments to the engineering design and performance.

There are no equivalent processes in the UK or Europe, so the Facility will also allow residue streams and by-products to be adequately characterised, in accordance with the requirements of the Environmental Permitting Regulations (England and Wales), 2016, and for suitable residue deposition/recovery/recycling sites to be identified and designed as part of the Feasibility Study.

A separate submission has been made to the Mineral Planning Authority of Cornwall Council detailing the proposed development of the Demonstration Facility. This submission was determined on 10<sup>th</sup> January 2024, under Ref No PA23/09395.

The details contained within this Supporting Statement relate to a change of planning status for an existing building to accommodate laboratory, staff welfare and visitor centre facilities.

It is proposed that a laboratory comprising containerised office space, workbenches and onsite analysis equipment, staff welfare facilities together with a small visitor centre will be located within an existing building at the TreLith site. This building was originally granted planning consent under Ref No CC/R/85/05/00289/JPR/AS which was dated 22<sup>nd</sup> May 1986.



The original use of the building was as a clay store (Linhay), its location, outlined in red, is shown on Drawing No 670056-GT-01-XX-DR-PL-0001 which is attached at Appendix 1.

The Demonstration Facility will assure the Company, the Community, The Environment Agency, Cornwall Council and investors that it will be possible to safely and economically produce the vital lithium hydroxide component of batteries.

Access to an onsite laboratory will be a vital tool to allow residue streams and by-products to be adequately characterised, in accordance with the requirements of the Environmental Permitting Regulations (England and Wales), 2016, and for suitable residue deposition/recovery/recycling sites to be identified and designed as part of the Company's Feasibility Study.

Three containerised lab blocks are proposed to be located at floor level within the building. An additional block will be constructed on a mezzanine level.

Welfare facilities for staff will comprise two locker / drying rooms, a canteen, shower block plus toilet facilities.

CL recognise the importance of engaging with the local community, regulators, and elected representatives. Much work has been done to date on this matter, as shown in Section 6 below.

A dedicated Visitor Centre, on site at TreLith, will allow more opportunities for engagement to take place on a regular basis, including giving people the chance to look around the Demonstration Facility whilst it is operational.

CL also plan to invite local school pupils and college students to site to learn more about the sustainable extraction of lithium and to explain its role in batteries for electric cars and renewable energy systems.

The visitor centre will be located inside the linhay building on the mezzanine, adjacent to the laboratory.

There will be **no** additional external facilities or structures associated with this application.

The locations of all the proposed facilities are shown on Drawing Ref 670056-GT-04-XX-DR-S-3000 which is attached at Appendix 1.

A drawing showing a typical section thought the mezzanine is also included within Appendix 1.



#### 4. Planning History

The Trelavour Dryers (TreLith) site is an established, permitted, mineral site with extant planning permission for the winning and working of china clay, china stone, mica, sand and allied minerals, the deposit of mineral waste and operations ancillary to mining. However, in recent years china clay operations have ceased and the site has been subject to extensive decommissioning prior to being acquired by Cornish Lithium.

The location of the proposed laboratory, welfare units and visitor cente is within a building originally consented under Decision No. CC/R/85/05/00289/JPR/AS which was dated 22nd May 1986, as a Linhay Building. All plant and infrastructure within the building has been decommissioned and removed.

In advance of refurbishment and new development at TreLith CL submitted a 'Do I need Planning Permission' enquiry to Cornwall Council on 13th April 2022 – this application was registered as PA22/00819/PREAPP.

On the 19th June 2022 the Planning Dept. of Cornwall Council issued a without prejudice view, based on the information and drawings submitted at that time, that the land in question is an approved site, the principal purpose would be treatment of minerals and if all is to be enclosed within the existing buildings then it would be hard to argue that the external appearance of the mine will be materially affected. Consequently, it was considered that planning permission was not required, and the proposal constituted permitted development under Part 17 of The Town and Country Planning (General Permitted Development) (England) Order 2015.

On 4th April 2023 a site visit to monitor compliance with a planning permission and legal agreement for a minerals / waste site under relevant requirements of the Planning and Compulsory Purchase Act 2004 was undertaken.

Following the site visit and having given due consideration to the planning history of the TreLith site, it has been recommended that further clarification regarding the planning requirements going forward, should be sought from the Mineral Planning Authority. On 25th September 2023, CL contacted, by email, Tim Warne Principal Development Officer - Minerals and Waste, Cornwall Council seeking further clarification as to how the development of the Demonstration Facility could be regularised.

In response to this enquiry, without prejudice advice received from Mr Warne was that

'....Part 17, Class B can only apply with the 'prior approval of the Mineral Planning Authority' so if the development has already commenced then this Class cannot apply and



the alternative option in order to seek to progress this scheme may be through a 'change of use' planning application.'

As some works have commenced within the Linhay building the appropriate route to seek approval for further works and to regularise those works which have commenced is through a Change of Use application.

# 5. Justification

The viability of Cornish Lithium's Hard Rock Project will be contingent on the successful production of lithium concentrate from the unique mineralogy of the Nanpean Granite, at sufficient quantity and quality to support a full-scale operation.

To prove this, it is necessary to demonstrate, through pilot scale trials, the performance of the chosen mineral process. The Demonstration Facility will allow representative material from Trelavour Pit to be continuously processed, tested and refined, as needed, to achieve optimal yields. The reduced scale of the Facility will afford the opportunity for cost-effective adjustments to the engineering design and performance.

There are no equivalent processes in the UK or Europe, so the Facility will also allow residue streams and by-products to be adequately characterised, in accordance with the requirements of the Environmental Permitting Regulations (England and Wales), 2016, and for suitable residue deposition/recovery/recycling sites to be identified and designed as part of the forthcoming Feasibility Study.

Provision of suitable and adequate, on site, laboratory facilities will be a key element towards the success of the pilot scale trials.

It is anticipated that up to 30 new members of staff will be employed within the Demonstration Facility and laboratories. Provision of sufficient welfare facilities to ensure compliance with all Health and Safety, and Employment, legislation for these employees is essential to the project.

Utilising existing buildings at the site will enable all identified impacts to be controlled and minimized.

It is anticipated that all testing campaigns will be completed within a 12-month period following the completion of the commissioning phase. Currently CL are expecting build and commissioning between February and May 2024, with the demonstration campaigns running through to H1 2025.

## 6. Community Engagement and Consultation



Cornish Lithium recognises that the views of the local community are an important consideration in the process to bring the Hard Rock Project at Trelavour to fruition.

Every effort has been made to inform the public of CL's intentions and whilst, at this early project stage, it has not been possible to answer some of the specific questions raised the data and learning that will be obtained from the operation of the Demonstration Facility will help the Company to share more information with the public (and Regulators) going forward.

Date Venue Type of Engagement 31/03/2023 St Dennis Football club **Presentation Evening** St Dennis 18/04/2023 St Dennis Parish Council Meeting 06/06/2023 St Dennis St Dennis Parish Council Meeting 20/09/2023 St Dennis Football club Presentation evening St Dennis ClayTawc 07/10/2023 Coffee morning 24/10/2023 St Dennis ClayTawc Drop-in session Treviscoe Institute and 28/10/2023 **Drop-in session Community Centre** 02/12/2023 Nanpean Social Club **Drop-in session** 07/12/2023 St Dennis ClayTawc Drop-in session

During 2023 public engagement has taken place at the venues and dates shown below.

It is CL's intention to expand its programme of engagement before and during construction and commissioning of the plant and whilst the Feasibility Study is underway, to ensure the local community are aware of progress and are kept informed.

Presentations will be given to Parish Councils local to the site.

A dedicated Visitor Centre on site will enable engagement with a wider audience to be undertaken.

## 7. Identified Impacts of the Development

All elements proposed within this Change of Use application will be implemented as support infrastructure for CL's Demonstration Facility. There are no external structures or buildings external to the existing linhay building, consequently the potential for the proposed development to impact upon the environment are minimal.

However, for completeness reference is made below to several factors.



The requirement to provide a Phase 1 Contaminated Land Assessment has been identified. This work is in hand; a separate Report will be submitted covering this matter as part of the Application documents.

## 7.1 Noise

All activities will be conducted within purpose made, containerised installations which will be housed within an existing walled industrial building. Activities with the potential to generate noise are limited however, during working hours all external doors will remain closed.

# 7.2 Traffic

It is anticipated that up to 30 new members of staff will be employed within the Demonstration Facility as a whole. Staff will work either on a daywork or on a shift basis, mornings afternoons or evenings with exact times yet to be determined.

Considering a 'worst case' scenario whereby each member of staff travels to work separately up to 20 additional vehicle movements per day at shift changeover could be generated.

All vehicles accessing the site do so by way of the existing Parkandillick junction, off the public highway which runs from St Dennis to Treviscoe. This access route is deemed to be suitable and sufficient for existing and predicted traffic movements to and from the site.

Staffing and traffic levels have been raised and addressed within Decision No PA23/09395 (determined 10/1/2024) and should not be duplicated herein.

## 7.3 Fire Risk Assessment

As part of the pre-operation fire risk assessment for the visitor centre and laboratory temporary structures within the existing linhay building a review of the requirements of Approved Document B (fire safety) volume 2: Buildings other than dwellings, 2019 edition incorporating 2020 and 2022, relating to the materials of construction, layout and number of exists relating to fire safety requirements has been undertaken.

The conclusions of this assessment were that :-

As, the structures being constructed are;

- Less than 11m height from ground (from exit level) and top of built structure less than 18m from ground level at lowest point of the building (entrance).
- Less than 500m2
- Will have a maximum number of 30 people.



• The maxim travel distance within any room to the exit point is 12m.

There are no specified requirements for the internal or external structure or finish to be made of material with a specified fire rating.

A copy of the Assessment is attached at Appendix 3.

#### 7.4 Working Hours

The Demonstration Facility is designed to be run on a campaign basis, improving control and stability. It is anticipated that a minimum of fifteen, 24hr × 10-day, trial runs of each section of the Facility, will take place after a period of commissioning.

This amounts to some 3600 hours of operational demonstration time and will allow CL to test for ore variability within the deposit.

Staff will work either on a daywork or on a shift basis, mornings afternoons or evenings with exact times yet to be determined.

Staff employed within the Facility will make use of the welfare units during their shifts. Laboratory staff will always work whilst the Facility is operational and may also be on site at other times, most likely on a dayshift basis.

#### 7.5 Lighting

There will be no additional external lighting required as part of this application.

Where practicable existing lighting within the building will be upgraded to energy efficient LED lighting. Any additional lighting will also be LED. All lighting will be positioned / screened so as not to cause annoyance to residents / businesses or users of the public highway network.

#### 7.6 Odour

Cornish Lithium does not envisage any issues with odour generation arising from the activities described within this application.

It is acknowledged that an assessment of odour emissions has been requested by Cornwall Council,

There are no significant organics present within materials which will be subject to laboratory testing and the reagents should not be odorous.

Site materials are not expected to be odorous. Furthermore, process emissions will be subject to abatement. The laboratory facility will be operable on a temporary basis. The odour source potential is considered to be negligible.



The nearest sensitive receptors are located >150m east of the Site boundary, along Hendra Road. These receptors are separated by dense vegetation which acts as a natural barrier – limiting exposure. The pathway is considered ineffective.

Based on the above reasons, odour impacts are expected to be negligible and have been scoped out of assessment.

#### 8. Conclusion

The Company considers that the Site is the most appropriate location for the proposed development given the planning status of the Site and the purpose and function of the Demonstration Facility. The development would have a negligible impact on the amenity of the local area.

This Supporting Statement and the accompanying documents identify that the development would not result in any adverse impacts that would significantly and demonstrably outweigh the benefits. It is therefore considered that planning permission should be granted.

CL will undertake the Development as detailed within this Supporting Statement and in accordance with any Condition(s) imposed as part of the Decision Notice.