

Mining Risk Assessment

Land at Kerrier Way, Camborne

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With guidance										
Report date:	11.10.2023									
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Reviewed by:	Carey Turner									
Client:	MeiLoci									
Your ref:	Kerrier Way									
Our ref:	GEO1740158135									



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Conclusion:

This Mining Risk Assessment aims to identify mining related ground instability that has potential to impact the value of the site in its current form. A site visit has been conducted by one of our mining specialists, which has included a visual inspection from ground level. A review of previous works and all previously observed features have been reviewed in relation to the proposed use for the site. This review focused on a possible backfilled tunnel in the north of the site.

Following the mining risk assessment and compiling all the known evidence, it is considered that the mining risk in relation to the site proposal is low and therefore should be considered acceptable. See the risk assessment for details.

Guidance has been provided that should the plans for the site change and this area becomes subject to development of new buildings then a site investigation should be carried out. This would need to be done in conjunction with South West Water due to the proximity of their assets. In the unlikely event that any signs of ground movement occur within this area, a further assessment and investigation may be required. Groundsure would be happy to assist in this regard.

It is therefore considered, based on the available information, that the mining risk to the property, in its current form, is within acceptable limits.

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Historical Mining Activity

The site is located within an area of historical mining activity. In such areas, unrecorded mining features may exist. Historical mining features or the unconsolidated backfill material within them can present a ground stability risk.

Site Description

The Site is approximately 0.78 ha in size and is centered approximately on Ordnance Survey National Grid reference Easting 165379.7, Northing 40275.6. The Site is located within the village of Reskadinnick, approximately 3.6 miles west of Pool.

The site comprises an irregular parcel of land, divided by an asphalt road named Kerrier Way. The site is currently undeveloped and overgrown with various grasses and weeds.

We understand the following relates to the proposed development of the site:

Public Open Space - soft landscaping, hard surface paths and seating

Previous Works

A Summary Report (ref: GEO1740158135.SR) was conducted by Groundsure Ltd on 11.08.2023. This documented all known site investigations carried out at the site to date.

That report concluded:

"Multiple site investigations have been carried out across the subject site by means of trenching, site stripping and drilling. Ten historical mining features have been observed within the boundary of the site.

Nine of the features (1-8 & 34) are described as backfilled exploratory pits and trench workings are reported to have been excavated to a natural undisturbed horizon within the natural ground and backfilled with engineered fill to secure the features. No further action is required for these features.

An unrecorded tunnel-like (T1) working at located near the northern boundary of the site was identified during a previous drilling investigation. The full extent of this tunnel-like feature is unknown and it currently is considered to pose an ongoing risk of settlement or subsidence in the north of the site.

Further action is therefore recommended to mitigate the potential ongoing mining-related ground stability risk of the tunnel-like feature in the north of the site. Further investigation should be undertaken at the property to delineate the full extents of the observed working. Following any further site investigation an appropriate remediation scheme may be required to mitigate the potential ongoing settlement and/or subsidence risk.

With regards the contaminated land aspect of the subject site, Groundsure considers that further action as regards to Arsenic and Beryllium concentration is necessary. Given the relatively low likelihood that further testing will provide a favourable result, the site should be considered contaminated with Arsenic and Beryllium and a suitable remediation strategy should be implemented.

As with any development, the standard Health and Safety guidance should be referred to during the course of the development (Protection of workers and the general public during the development of Contaminated Land).

While it is not considered likely, should any new buildings be part of the redevelopment of the site, a foundation inspection should be carried out by a suitably qualified person."



Mining Risk Assessment

The findings of the Summary Report noted above raised a slight risk regarding the backfilled tunnel that was observed during one of the previous site investigations.

"An unrecorded tunnel-like (T1) working at located near the northern boundary of the site was identified during a previous drilling investigation. The full extent of this tunnel-like feature is unknown and it currently is considered to pose an ongoing risk of settlement or subsidence in the north of the site."

Initially it was recommended that the tunnel be subject to further investigation and if necessary appropriate securing works. Following our site visit, to survey the site including visible services and overlaying locations onto our plan, it was clear to see that the location of the possible backfilled tunnel was directly affected by South West Water assets. This would make any kind of site investigation difficult to acheive.. Considering this information and a further assessment of the documentary evidence, it has been determined that a Mining Risk Assessment would be suitable based on the proposed end use of the site.

Following a further assessment of the documentary evidence and the location of the underground services, along with the proposed end use of the site, it was determined that a Mining Risk Assessment would be suitable in this regard.

The backfilled tunnel was observed to have a base between 2.2 metres and 2.7 metres from the ground surface. The drilling indicated that the tunnel was aligned approximately E-W and was located towards the northern end of the site. The site was also indicated to have a blanket layer of made ground across the site of between 1.3 and 2.3 metres across the site. This makes it very possible that the interpretation of a tunnel is incorrect and this may represent a backfilled trench like working. This would also align more with the findings across the rest of the site where a number of pit/trench like workings were found which were all proven to have natural bases.

During the excavations for the South West Water assets being built it is considered likely that any voids or poor ground conditions would have been cleared at the time.

Due to the location of the services in this area, investigation by trenching or drilling is likely to be inconclusive and may cause damage to third party assets.

The site is not subject to any new buildings or lode bearing structures which reduces the risk. The previous site investigations indicated that the possible tunnel was backfilled and had a base. This would suggest the feature is a slight settlement risk as opposed to significant subsidence. As the proposed development is a landscaping exercise with no major excavations it is considered at this time the mining related risk in this regard is low and therefore should be considered acceptable.

Should the development plans change to include any new foundations or significant excavations it would be prudent for these to be inspected by a suitably qualified person. Should any signs of ground movement be observed a further assessment may be required. Groundsure would be happy to assist in this regard.



Photographic Record

Site Visit:

The attached photos indicate the site as seen during our site visit.

A view of the site and the manholes indicating the presence of SWW services in the vicinity if the possible tunnel:



View of the site at the time of the site visit:

A view of the site and the manholes indicating the presence of SWW services in the vicinity if the possible tunnel:



View of the site at the time of the site visit:







Limitations

The above observations and interpretation has been made based upon the ground conditions visible within the foundation excavations at the time of the inspection. As with any site, there is a possibility that ground conditions may vary outside that covered by the inspected foundation excavations, for which Groundsure Ltd cannot be held responsible.

This report should not be considered to be an environmental or contaminated land survey.

This report is intended to provide information following a foundation inspection to aid an assessment of the potential for mining features to impact foundations of new developments.

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https://www.groundsure.com/groundsure-standard-terms-and-conditions-april-2023/



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See Plan DATE: 11.10.2023	A3 Report No. GEO1740158135	Mining Risk Assessment Plan Land at Kerrier Way, Camborne	This drawing is not to be used in whole or part other than for the intended purpose and project as defined on this drawing. Refer to the contract for full terms and conditions.	 Plan drawn from on site measurements. Underground services not shown. Refer to Report No GEO1740158135 of October 2023 for ground description and logs. 	001 GM CT	Rev: Drawn by: Approved by:	Any services shown are approximate		Site Overview	Recorded lode at surface outcrop	Recorded lode at undefined elevation	Recorded adit	Easement around SWW services	Subsurface tank	Approximate location of SWW services	Approximate location of buildings	Outline of subject property	Background mapping	Legend	Conversion of the second secon