



Jays Close
Viables Industrial Estate
Site Baseline Report

LevertonHELM Ltd

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1.0 Introduction

1.1. General

In June 2021, Rodgers Leask Limited (RLL) was appointed by St. Modwen Developments Ltd to prepare a Development Completion Land Quality Statement (DCLQS) for the St Modwen's Park development, located at the former ITT Viables Business Park within Basingstoke (referred to hereafter as the 'Site').

Geo-environmental assessments of the Site have previously been undertaken by Rodgers Leask Environmental Limited (RLE).

This Site Baseline Report (BSR) presents factual information regarding the known development history of the Site, the results of ground investigations, details of remediation work undertaken within the Site boundary, construction drawings and information from the Contractor relating to the development. The data has been obtained from existing third-party reports, publicly available data sources and regulatory correspondence.

1.2. Sources of Information

The following documents and data sources have been reviewed in the preparation of this BSR and should be read in conjunction with the DCLQS (ref DCLQSV00):

- British Geological Survey's Geology of Britain Viewer website (<http://mapapps2.bgs.ac.uk/geoindex/home.html>)
- Public Health England 'UK Maps of Radon' (<http://www.ukradon.org/information/ukmaps>)
- Phase 1 Desk Study Report, ITT Viables Basingstoke, ref. 19303-RLE-19- XX-RP-O-0001, RLE, October 2019 (**Appendix B from doc DCLQS00**)
- Preliminary Geo-environmental Interpretive Report, ITT Viables Basingstoke, ref. 19303-RLE-19-XX-RP-O-0002, RLE, September 2019 (**Appendix B from doc DCLQS00**)
- Addendum Geo-environmental Interpretive Report, ITT Viables Basingstoke, ref. 19303-RLE-20-XX-RP-O-0003, RLE, March 2020 (**Appendix B from doc DCLQS00**)
- Remediation Strategy, St Modwen Park Basingstoke, ref. 19303-RLE-20- XX-RP-O-0004, RLE, dated March 2020 (**Appendix C from doc DCLQS00**)
- Earthworks Specification, St Modwen Park Basingstoke, ref. 19303-RLE-20-XX-RP-O-0006, RLE, November 2020 (**Appendix D from doc DCLQS00**)
- Enabling Works Validation Report, St Modwen Park Basingstoke, ref. 19303-RLE-21-XX-RP-O-0012, RLE, April 2021 (**Appendix E from doc DCLQS00**)
- Construction Phase Validation Report, St Modwen Park Basingstoke, ref. 19303-RLE-21-XX-RP-O-0013 RLE, June 2021 (**Appendix F from doc DCLQS00**)

1.3. Scope of the Site Baseline Report

The scope of this report is the description of the environmental setting in relation to the development of the St. Modwen site for the manufacturing of inorganic chemicals.

2.0 Site Details

2.1. Site Location and Description

The St. Modwen site, which is now leased by LevertonHELM, covers an area of approximately 4.7 hectares, is located at land off Jay's Close, Viables Park, Basingstoke, RG22 4BA at National Grid Reference SU 63439 50172. The Site boundary is shown on **Drawing ref SLBD01 in Appendix A**.

Prior to recent development, the Site was approximately flat and was covered by a large factory footprint, a gym, ancillary structures, hardstanding and landscaped areas. A vegetated bund was located in the north-east of the Site. The Site was demolished by February 2021. Level changes to achieve final ground level (FGL) are shown on the Isopachyte Levels Plan (**Drawing P586-0600-ISO-001 in Appendix A from doc DCLQS00**).

2.2. Development

The development comprises three large commercial units ranging in size from approximately 37,000 ft² to 98,000 ft² and two small Class A3 units alongside associated yard areas, access, parking and limited areas of soft landscaping. The site layout is shown on **Drawing SLD01 in Appendix A**.

2.3. Site History

2.3.1. Sources of Information

Information on the history and former uses of the Site has been obtained from historical mapping and descriptions of the Site included within the reports listed in Section 1.2.

2.3.2. Historical Land Use

The Site historically comprised two small residential structures, constructed in the early 1900's, which were subsequently demolished to allow construction of the M3 Motorway by the early 1970's. The factory was constructed at some time between 1973 and 1981 along with associated hardstanding and landscaped areas.

Further details regarding the Site history are presented in **Appendix B from document DCLQS00**.

2.3.3. Anecdotal Evidence

Anecdotal evidence received on 20th September 2019 from Mark Vincent (worked on the Site with his father who was the design and build manager for Miller Buckley who constructed the existing large unit) identified the following potential issues:

- There is a significant infilled chalk pit under the existing building. Apparently, it was filled and capped with lean mix and then the slab suspended over it.
- There is a line of trench dug during the Second World War that was part of the defence against any potential invasion force. It runs along a line that meanders between the Viables estate and M3 and whilst this feature was not found on the ITT Site, they stumbled across it on a number of the other sites built on the estate.

2.4. Review of AECOM Decommissioning Report

The AECOM H&S report indicates that parts of the factory covering an area of ~1100m¹ comprises a former metal plating facility, associated effluent treatment plant and chemical store. This had been decommissioned by November 2014. At this time the building was occupied by other industrial / commercial tenants. It is understood plating operations took place between 1979 and April 2014. A number of potential contaminants including heavy metals, acids and cyanides were used in this part of the building. A decommissioning report identified some residual risks associated with metal salts continuing to precipitate from the concrete sub-slab within the plating shop that will need to be managed.

The remainder of the factory appears to have been used for less potentially contaminative uses, including assembly line, offices, archives, and canteens.

2.5. Geology, Hydrogeology and Hydrology

2.5.1. Published Geology

Information regarding to the geology of the Site has been obtained via a GroundSure GeolInsight Report (**Appendix B from document DCLQS00**) and from the British Geological Survey website² which indicates that the underlying bedrock is the Seaford Chalk Formation which is described by the BGS as being composed of *'Firm white chalk with conspicuous semi-continuous nodular and tabular flint seams. Hardgrounds and thin marls are known from the lowest beds. Some flint nodules are large to very large'*.

2.5.2. Radon

Information presented on the Public Health England 'UK Maps of Radon' website²

¹ <http://www.ukradon.org/information/ukmaps>

² <http://mapapps2.bgs.ac.uk/geoindex/home.html>

indicates that the Site is not within a Radon Affected Area, as less than 1% of properties are above the Action Level. No radon protection measures are deemed to be required in the construction of the new development.

2.5.3. Hydrogeology

Reference to the Geo-Environmental Report (**Appendix B from document DCLQS00**) indicates that the underlying Seaford Chalk Formation is classified as a Principal Aquifer. This classification is *'layers of rock or drift deposits that have high intergranular and/or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale'*

The Site is situated 2m from a Zone 3 Total Catchment groundwater Source Protection Zone (SPZ).

There are no groundwater / potable groundwater abstractions licensed by the Environment Agency under the Water Resources Act 1991 within 1km of the Site.

The closest potable groundwater abstraction is located 1.23km to the southeast of the Site.

2.5.4. Hydrology

The nearest surface water feature is an unnamed river located 93m to the north of site.

Information presented on the Flood Map for Planning website indicates that the Site is located within Flood Zone 1 indicating between a 1 in 1000 or greater annual probability of river flooding.

2.5.5. Mining Records

The Site does not lie with a Coal Mining Report Area, as defined by the Coal Authority.

The Site is within an area where there is a risk of non-coal mining records within 1km of the Site. The assessment of likelihood is 'Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered.'

2.5.6. Regulatory Review

The Site is not determined as contaminated land under Section 78R of the Environmental Protection Act 1990. There are no such sites within 50m.

There are three records of List 2 pollution incidents recorded on the Site. These occurred in February 2003 listed a Category 4 (No Impact) to water, land or air, and related to Chemically Contaminated Firefighting Run-Off.

There is one historical landfill site within 250m of the Site, situated 175m to the south-west listed as 'rail cutting adjacent to Jays Close'. No further details are provided.

There are two records of current industrial data sites located within the Site boundary: one is for an electricity substation situation close to the southern boundary; the second is Raydens Lighting - Consumer products. Four potentially contaminative uses are identified on Site from 1:10,000 scale mapping. These comprise cuttings (for M3 adjacent to Site), two records for an unspecified factory, and an unspecified heap (the small heap in the north-west of the Site).

There are two records on Site of potentially infilled land relating to cutting and an unspecified heap.

2.5.7. Landfills

Information included within the Phase 1 Desk Study (**Appendix B from document DCLQS00**) indicates that there is one historical landfill site within 500m of the Site, located 175m south-west associated with an infilled railway cutting.

No other landfills or waste sites are recorded within 500m of the Site.

3.0 Pre-Development Ground Conditions

3.1. Previous Ground Investigations

Two phases of ground investigation works were undertaken on Site by RLE between 2019 and 2020 as detailed in the following reports:

- Preliminary Geo-environmental Interpretive Report, ITT Viables Basingstoke, ref. 19303-RLE-19-XX-RP-O-0002, RLE, September 2019.
- Addendum Geo-environmental Interpretive Report, ITT Viables Basingstoke, ref. 19303-RLE-20-XX-RP-O-0003, RLE, March 2020.

The reports and a summary of the data for the Site are provided within **Appendix B from document DCLQS00**.

3.2. Geology

The ground investigations were undertaken prior to the full demolition of the factory within in the Site between October 2020 and February 2021.

The ground conditions encountered at the Site generally comprised cover of Made Ground or Topsoil overlying the weathered chalk of the Seaford Chalk Formation.

The depth of encountered strata underlying the Site, along with a description of each stratum is summarised in the following table:

Strata Encountered	Mean depth to top of strata (m) [range, m]	Mean depth to base of strata (m) [range, m]	Mean thickness of strata (m) [range, m]
MADE GROUND - Topsoil / Natural TOPSOIL Brown sandy gravelly TOPSOIL. Generally natural in the south and southeast of the Site. Reworked elsewhere.	0.00	0.22 [0.01-0.04]	0.22 [0.01-0.04]
MADE GROUND Grey/brown sandy gravelly CLAY, or clayey sandy GRAVEL.	0.18 [0.05-0.03]	0.98 [0.45-2.40]	0.80 [0.25-2.30]
SEAFORD CHALK FORMATION Brown/white, occasionally red/brown clayey gravelly SAND, sandy gravelly CLAY or clayey sandy GRAVEL (CIRIA Grade Dm/Dc).	0.72 [0.20-2.40]	Not proven	Not proven
MADE GROUND - Topsoil / Natural TOPSOIL Brown sandy gravelly TOPSOIL. Generally natural in the south and southeast of the Site. Reworked elsewhere.	0.00	0.22 [0.01-0.04]	0.22 [0.01-0.04]

3.2.1. Groundwater

Groundwater was not encountered during the intrusive investigations.

Groundwater was not encountered in the majority of the boreholes during the subsequent monitoring visits, with the following exceptions (See DCLQsver00 Appendix B):

- BH206 at 17.65m (18/03/20)
- BH215 at 19.41m (18/03/20)
- BH219 at 21.08m (18/03/20)

3.2.2. Infiltration Testing

21 infiltration tests were undertaken in seven locations across the Site with results ranging from 1.02E-04 to 9.38E-05. Overall, the results reflected relatively consistent soil infiltration rates across the Site within the Seaford Chalk Formation. The rates recorded would indicate that soakaway drainage is likely to provide a suitable storm drainage solution for the Site subject to confirmation by a Drainage Engineer and detailed design.

3.3. Chemical Test Data

Chemical data for soils, groundwater and surface water, as well as ground gas monitoring data, was assessed in 2019. The assessments are summarised below,

full details are provided in (See **DCLQS00 Appendix B**).

3.3.1. Human Health

A total of 43 samples were collected from across Site during the intrusive investigations. Samples were analysed for heavy metals, total petroleum hydrocarbons (TPH), polycyclic aromatic hydrocarbons (PAH), Polychlorinated biphenyls (PCBs), semi-volatile organic compounds/volatile organic compounds (SVOC/VOCs) and polyfluoroalkyl and perfluoroalkyl substances (the PFAS suite). Not all samples were tested for all determinands. 24 samples were also tested for asbestos. Chemical test results were compared against a selected GAC by RLE for a commercial end use (See **DCLQS00 Appendix B**).

The following exceedance of threshold values for a commercial end use was encountered, obtained from concrete drilled within the former metal plating facility:

- Nickel (WS14) of 19,000mg/kg at 0.20m

No asbestos was identified in the 24 samples tested.

One exceedance was recorded within the analysed samples, collected from a sample of concrete at WS14 (drilled within the former metal plating facility). A decommissioning report reviewed within the Desk Study (**Appendix B from document DCLQS00**) identified some residual risks associated with metal salts continuing to precipitate from the concrete sub-slab within the plating shop that will need to be managed. It was recommended that an additional assessment of the concrete within the area of the plating facility is undertaken prior to demolition to assist in the management of any demolition rubble produced and to ensure appropriate management of material with potentially elevated concentrations of metals. Material found to contain elevated contaminants should be segregated and appropriately managed separate to 'general demolition rubble'

ACM's were identified throughout the existing ITT Building as documented within SL Environmental Refurbishment and Demolition Survey. It was recommended that the Refurbishment and Demolition Survey is reviewed, and an asbestos specialist is consulted with regard to appropriate management and removal of ACM's from within existing buildings prior to demolition (**Appendix B from doc DCLQS00**).

3.4. Controlled Waters Risk Assessment

A controlled waters risk assessment identified the following groundwater regimes within the Site (**Appendix B from document DCLQS00**):

- Shallow Perched Groundwater (sporadic within the Made Ground);
- Regional Groundwater (within the underlying Principal Aquifer associated with the Seaford Chalk Formation);
- The un-named river located 93m north.

The Water Framework Directive provides Environmental Quality Standard (EQS) for a range of different substances, used to classify the grade or quality of surface waters. Where an EQS value is not available, the UK Drinking Water Standards Criteria has been used instead.

Due to a lack of groundwater encountered, no groundwater samples were taken.

A total of 15 leachate samples were collected from across Site during the intrusive investigations. Samples were analysed for heavy metals, total petroleum hydrocarbons (TPH), and total polycyclic aromatic hydrocarbons (PAH). Chemical test results were compared against EQS or UK DWS Criteria by RLE (**Appendix B from doc DCLQS00**).

Exceedances of EQS or UK DWS were encountered in the following table.

Summary of Exceedances EQS for Leachate					
Contaminant	Location	Depth (mbgl)	Concentration (µg/l)	EQS (µg/l)	DWS (µg/l)
Cyanide (total)	WS107 ES2	0.30	120	-	50
Chromium	BH214 ES2	0.20	81.8	32	50
	WS102 ES2	0.25	75.2		
	WS110 ES2	0.20	37		
	WS101 ES2	0.25	111		
Copper	WS02	0.40	1.7	1	2000
	WS10	0.20	1.1		
	BH214 ES2	0.20	58.4		
	WS110 ES2	0.20	17		
	WS101 ES2	0.25	19.4		
	WS101 ES3	0.60	1.61		
PAH (total)	WS14	0.40	5.0	-	0.1
	BH214 S2	0.20	0.107		

The Site is generally considered to present a low risk to Controlled Waters (**Appendix B from document DCLQS00**). The proposed redevelopment will predominantly comprise buildings with hardstanding and will incorporate a positive drainage solution which will reduce the potential for infiltration. Stormwater is proposed to be drained via soakaways constructed below the Made Ground which will reduce the potential for contaminants to be leached from the Made Ground into the underlying chalk. No formal remediation was considered necessary at the Site in relation to controlled waters, however it was recommended that a watching brief is undertaken during demolition for visual and olfactory evidence of contaminated (**Appendix B from document**

DCLQS00).

3.5. Pre-Remediation Ground Gas Monitoring

Gas monitoring has been undertaken across the Site. An assessment was made based on the worst-case scenario with a maximum flow rate of 0.1 l/hr, a carbon dioxide concentration of 7.1% v/v, and a methane concentration of 0.1% v/v. However, typical carbon dioxide values across the Site were below 5%. As such the Site was identified as Characteristic Situation 1 in accordance with CIRIA C665 (**Appendix B from doc DCLQS00**).

4.0 Remediation Strategy

A Remediation Strategy was produced for the Site by RLE in March 2020 (**Appendix C from doc DCLQS00**). The strategy provided chemical standards for the soils remaining on the Site, for Site derived demolition materials and imported soils. The strategy also provided a methodology for the removal and validation of contaminated soils.

The Remediation Strategy concluded that at this stage no contamination has been identified within Site soils with regard to risk to human health and the materials can be considered suitable for use based on the proposed commercial development.

It recommended that soil remediation shall be carried out should unexpected contamination be identified post demolition (such as unidentified underground tanks). Should exceedances be identified, further testing and assessment shall be required to delineate any hotspots requiring remediation. Contingency arrangements for unexpected contamination are outlined with the Remediation Strategy (**Appendix C from doc DCLQS00**).

Any pits or basements encountered on the Site shall be fully broken out and the resultant formation tested and assessed for contamination using the appropriate remediation criteria. Following the removal of any contaminated material, the resultant excavation shall be backfilled with Site won material which meets the remediation criteria.

All obstructions such as column bases, machine bases, service pits and drains shall require breaking out and removal. It is recommended that such works are monitored by an Engineer and appropriate records maintained.

Concrete arisings are proposed to be crushed and screened to an appropriate specification for use in the construction of the proposed development.

Tarmac on Site shall be removed by plaining and tested to assess whether it can be retained on Site.

ACM's were identified throughout the existing ITT Building as documented within SL Environmental Refurbishment and Demolition Survey. The Remediation strategy recommended the removal of asbestos containing materials (ACM's) within the

existing ITT building by a suitably qualified and experienced contractor prior to demolition.

The strategy also recommended that additional assessment of the concrete within the area of the plating facility is undertaken prior to demolition to assist in the management of the demolition rubble produced and to ensure appropriate management of material with potentially elevated concentrations of metals. Material found to contain elevated contaminants should be segregated and appropriately managed separate to 'general demolition rubble'.

Earthworks are required to form a developable platform on the Site using Site won materials. Surplus material will be stockpiled and removed from Site for reuse (if applicable) or disposal at a suitable waste facility. Material used for backfill must be appropriately tested against the selected General Assessment Criteria (GAC). In accordance with the Remediation Strategy (**Appendix C from document DCLQS00**), following backfilling, earthworks and validation sampling, a validation report will be prepared to provide a record of the earthworks on site including the chemical data collected on the backfill material.

4.1. Concrete Sulphate Protection

The results and sulphate classifications undertaken during the RLE 2019 and 2020 intrusive investigations indicate that a Design Sulphate Class DS-1 and Aggressive Chemical Environment for Concrete Class AC-1 should be used for design purposes.

5.0 Enabling Works and Site Validation

5.1. Enabling Works

This section summarises the following reports:

- St Modwen Park, Basingstoke, Earthworks Specification, RLE, Ref. 19303-RLE-20-XX-RP-O-0006, dated November 2020 (**Appendix D from doc DCLQS00**).
- St Modwen Park, Basingstoke, Enabling Works Validation, RLE, Ref. 19303-RLE-21-XX-RP-O-0012, dated April 2021. (**Appendix E from document DCLQS00**).
- St Modwen Park, Basingstoke, Demolition Specification, RLL, Ref. 19292-RLL-19-XX-SP-S-1500.

The enabling works comprised an asbestos strip, demolition works and below ground obstruction/ tank removal in accordance with the RLE Demolition Specification, Earthworks Specification and Remediation Strategy.

5.2. ACM Strip

An asbestos strip was undertaken at the former ITT Viables factory in October 2020 by 1st Environmental Services Limited. The works included the removal of textured coating to ceilings within the entrance area of the Gymnasium building and the removal of textured coating to lower sections of beams throughout the office block.

More detailed information is available in the Enabling Works Validation Report (**Appendix E from document DCLQS00**).

5.3. Demolition Works

Demolition of the former ITT Viables factory was undertaken by Wooldridge Demolition between the 12th October 2020 and the 4th February 2021 in accordance with the Rodgers Leask Demolition Specification.

On the 23rd of October 2020 fifteen samples of the concrete were obtained by Wooldridge Ecotec from the former metal plating facility. The tests recorded two of the fifteen samples as having a higher concentration than the Remediation Strategy screening value of 1,790mg/kg for Nickel with concentrations of 2,600mg/kg and 2,200mg/kg.

In accordance with the Remediation Strategy, concrete won from the plating facility was broken out and stockpiled separately to other materials on the Site. Once processed into a 6F5 material it was placed as sub-base beneath areas of concrete hardstanding in accordance with the Remediation Strategy.

Tarmac plainings (E.W.C Code 17-03-02) amounting to 1,440 tonnes was segregated and collected from the Site during the demolition works by Wooldridge Demolition.

During their works Wooldridge Demolition broke out and removed below ground obstructions including floor slabs, column bases, service pits and drains. Broken out concrete was crushed to a 6F5 grading on site and was tested and subsequently placed as sub base beneath areas of concrete hardstanding in accordance with the remediation strategy.

An Engineer from Rodgers Leask attended the Site on a part time basis throughout the demolition works to monitor compliance with the specification.

More detailed information is available in the Enabling Works Validation Report (**Appendix E from document DCLQS00**).

5.4. Below Ground Tank Removal and Validation

In January 2021 a below ground tank was encountered during the demolition works in the south-east corner of the former main factory building. The tank contained what is thought to be used oil associated with the heating system. The contents of the tank were removed to an appropriately licensed facility using a vacuum tanker. The Demolition Contractor (Wooldridge) removed the tank on the 14th of January 2021

and the excavation was assessed and sampled by an RLE engineer on the 15th of January 2021. The samples collected did not record exceedances of the screening criteria.

RLE produced a Validation Technical Note to present photographs, consignment notes and chemical testing associated with the works. More detailed information is available in the Enabling Works Validation Report (**Appendix E from document DCLQS00**).

5.5. Below Ground Obstruction

Anecdotal evidence from September 2019 suggested that a potential infilled pit was present on Site. It is understood the feature was backfilled with a lean mix concrete and the concrete floor slab suspended over it.

During the demolition works, in December 2020, the Demolition Contractor (Wooldridge) identified the presence of a large obstruction in the centre of the Site. Following on Site assessment, the obstruction was found to comprise a lean mix concrete measuring approximately ~25m x ~20m, present between approximately 1.0mbgl and 3.0mbgl. It was believed to be a former chalk pit that had been infilled.

The concrete obstruction was found to overlie competent chalk consistent with the chalk within the wider site and no evidence of a void between the concrete and the competent chalk was recorded during the ground investigation. The concrete used to infill the former chalk pit has been assessed to be suitable for retention as a fill material given the difficult digging characteristics. The lean mix concrete, used to infill the former chalk pit, is unlikely to constrain the proposed development.

RLE prepared a Technical Note providing information on the extent and nature of the concrete obstruction. More detailed information is available in the Enabling Works Validation Report (**Appendix E from document DCLQS00**).

5.6. Validation Sampling of the Construction Platform

On the 8th of March 2021 an RLE engineer attended the Site to obtain fifteen surface samples from the completed construction platform to assess material suitability. Samples were located to provide even coverage across the site at a depth of 0.1mbgl and to recover suitable samples on an approximate 25m x 25m grid.

The samples collected were assessed against criteria presented within the Remediation Strategy. No exceedances were recorded from the fifteen samples tested. Asbestos was not identified in the samples analysed.

More detailed information is available in the Enabling Works Validation Report (**Appendix E from document DCLQS00**).

6.0 Construction Records

A number of recommendations were made within the RLE Remediation Strategy (**Appendix C from document DCLQS00**) that were required to be completed by the Building contractor (Readie Construction) during construction and included the following:

- Importation of construction materials to form hardstanding (e.g. concrete and asphalt) over suitable fill material (e.g. sub-base) over the majority of the Site. Re-use of Site won topsoil.
- Importation of commercially available topsoil from a topsoil manufacturer.

During the construction process Readie Construction imported construction materials to form hardstanding (e.g. concrete and asphalt) over suitable fill material (e.g. sub-base) over the majority of the Site. Readie Construction confirmed imported materials were suitable and from either a natural quarried, or clean recycled source produced in accordance with WRAP protocols. Readie Construction provided RLE with the aggregate data sheets and chemical testing of fill materials prior to importation. More detailed information is available in the Construction Phase Validation Report (**Appendix F from document DCLQS00**).

The reuse of site won material was recorded in a material management plan for the site declared under DoWCoP. In areas of soft landscaping a suitably thick layer of suitable growing medium was placed. Where possible topsoil that was retained from the enabling works was used in landscaped areas, however a slight shortfall meant that a small volume of imported topsoil was also used in landscaping areas of development. The Remediation Strategy (**Appendix C from document DCLQS00**) outlined that all site won and imported topsoil should be tested and the results screened against the Environment Agency's CLEA Soil Guideline Values for the proposed end use, as well as confirming compliance with British Standard (BS3882:2015) Specification for Topsoil.

Chemical testing of the site won topsoil was undertaken by RLE as part of the Geo-Environmental Report (**Appendix B from document DCLQS00**). The samples collected were assessed against criteria presented within the Remediation Strategy and no exceedances were recorded from the samples tested. To supplement this a Topsoil Analysis Report was undertaken by Tim O'Hare Associates for the site won topsoil which included BS3882:2015 testing (**Appendix F from document DCLQS00**).

Commercially available imported topsoil was supplied by Freeland Horticulture Limited. Prior to import the manufacturer supplied a Topsoil Analysis Report (**Appendix F from document DCLQS00**).

7.0 Conclusions

The Site, which is owned by St. Modwen Developments Limited, covers an area of approximately 4.7 hectares, is located at land off Jay's Close, Viables Park, Basingstoke, RG22 4BA. The Site was fully demolished by February 2021.

The Site historically comprised two small residential structures were constructed in the early 1900's which were subsequently demolished to allow construction of the M3 Motorway by the early 1970's. The factory was constructed at some time between 1973 and 1981 along with associated hardstanding and landscaped areas.

Ground investigations undertaken prior to the full demolition of the Site found the area to be underlain by a cover of Made Ground or Topsoil overlying the weathered chalk of the Seaford Chalk Formation. 21 infiltration tests were undertaken in seven locations across the Site with permeability results ranging from 1.02E-04 to 9.38E-05.

The Remediation Strategy concluded that at this stage no contamination has been identified within Site soils with regard to risk to human health and the materials can be considered suitable for use within a commercial development without any remedial measures.

In accordance with the Remediation Strategy, the residual remedial actions undertaken by the Building Contractor included ACM strip, tarmac plaining removal, breakout of basement (along with segregation of concrete), below ground tank removal and validation sampling of the construction platform.

A Design Sulphate Class DS-1 and Aggressive Chemical Environment for Concrete Class AC-1 was used for all on site buried concrete.

Ground gas monitoring results from the previous phases of ground investigation indicated that a classification of CS1 was required.

In accordance with the Remediation Strategy, the Building Contractor placed a suitably thick layer of suitable growing medium or construction materials to form hardstanding (e.g. concrete and asphalt) over suitable fill material (e.g. sub-base) over the majority of the Site.

Based on the information reviewed in the preparation of this document, it is considered that the Site is suitable for the intended use in accordance with outline planning application reference 19/02725/FUL.

Appendix A: Site layout and boundary Drawing



Appendix B: Site Plan

Viabes Site Plan

Operator: LevertonHelm Ltd
Site Name: St. Modwen Park
National Grid Reference:
SU 63439 50172
Scale: See image
Date 29/04/2022

