
Remediation Method Statement

at: New Place Farm,
Pulborough, RH20 1AT

for: BDW Southern
Counties

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LEAP ENVIRONMENTAL GENERAL NOTES

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Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

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EXECUTIVE SUMMARY

The circa 17 Ha site is located approximately 1.1 km northeast of Pulborough town centre in West Sussex. The site is a former plant/tree nursery and consisted of farm buildings in the western region of the site and open fields across the rest of the site. Previously, polytunnels used to be present across the site but have since been removed following demolition and clearance activities. It is proposed to redevelop the site with 170 residential properties with associated infrastructure and public open spaces, under planning application DC/21/2321.

Historically the majority of the site was an undeveloped field with a number of buildings in the northwest, then the nursery was constructed in the 1970s including a reservoir and pump house which was further expanded to the current layout in the early 2000s.

A geo-environmental risk assessment has been completed following investigation and contamination testing of the soils. The testing has identified one made ground sample with an exceedance of lead, and one made ground sample with exceedances of benzo(a)pyrene and naphthalene, with both locations in the northwest corner of the site. One topsoil sample has been identified containing asbestos fibres (chrysotile) below the limit of detection, also from the northwestern region of the site.

In addition, elevated concentrations of arsenic were detected in one stockpile mound M1, now described as SP2, which is located in the northeastern corner of the site. Also, the additional testing of the stockpiles in the northeastern region also identified contamination within stockpile SP2 (M1), with elevated TPH, specifically >C8-C10 Aromatic and >C16-C21 Aromatic hydrocarbon chains.

Given that no contamination was encountered in other exploratory locations onsite, the exceedances of lead, PAHs, and asbestos are currently considered to be hotspots. However, further intrusive investigation is required in the pre-construction phase to: delineate the extent of the hotspots; assess the footprint of the pump house and former above ground heating oil tank room; and assess inaccessible areas such as buildings footprints and areas of dense vegetation. Following the further investigations and risk assessments this remedial strategy should be updated.

At the construction phase where hotspots of contamination are identified, these should be excavated and removed to a suitably licensed waste receiving facility, following waste classification. Sidewall validation is required, and base validation may be required if made ground remains. The excavation void should be backfilled with chemically compliant material. Remediation in other areas may be required subject to the findings of the further investigations. Although hotspots of contamination were only identified in three areas, it was considered that made ground soils were unlikely to be suitable to remain in soft landscaped areas including private gardens due to coarse and sharps content. Where made ground is present the material should be removed to 0.60 m bgl in private gardens, 0.30 m bgl in soft landscaping areas, or to natural soils in either, whichever is shallower. Following the removal of made ground to the required depth, the made ground should be replaced with chemically compliant material.

A procedure is set out in the event that previously unidentified contamination is identified.

1 INTRODUCTION

1.1 Authority

RSK Environment Ltd trading as Leap Environmental (hereafter referred to as **LEAP**) were engaged by BDW Trading Limited, Barratt House Cartwright Way Forest Business Park, Bardon Hill, Coalville, LE67 1UF herein referred to as the “Client” to produce a remediation method statement for the land at New Place Farm, London Road, Pulborough RH20 1AT. The site location is shown in Drawing 3750966-LW-111-XX-D-G-11102-C01, **Appendix B**.

The works were undertaken by way of Project order number HS-9376/00045 issued under the RSK Environment Ltd consultant framework agreement with BDW Trading Ltd.

References in this report to ‘we’, ‘us’ or ‘our’ shall mean Leap Environmental as a trading name of RSK Environment Limited (company no.SC115530) at registered address 65 Sussex Street Glasgow G41 1DX.

The report should be read and used in accordance with the limitations and constraints identified in the report text, and at **Appendix A – Service Constraints**.

1.2 Objective

LEAP understands that the site is currently owned by Newey Group and that the proposed development comprises the construction of 170 residential dwellings and country park with associated infrastructure. The site is being developed under the Horsham District Council planning application DC/21/2321. A proposed layout plan for the development at New Place Farm is included in **Appendix B** (Drawing no. H9376-GPA-XX-XX-DR-UD-203001-C01).

Two parts of condition 8 relate to contamination and remediation. These were included within the decision notice for the site, notably:

- Condition 8: Part c) Full details of the remediation measures required and how they are to be undertaken based on the results of the intrusive site investigation (b) and an options appraisal.
- Condition 8: Part d) A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in (c) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action where required.

At the time of writing part of the site (western half of the site as shown in Drawing 3750966-LW-113-XX-D-G-11302-C02, **Appendix B**) was considered inaccessible for investigation. To support the discharge of condition 8, part c) and part d) for the proposed development within the accessible region of the site (eastern half of the site) **LEAP** have been instructed to produce a remediation method statement for this region of the site, based on all the works undertaken to date.

The objectives of this report are to:

- Provide a remediation method statement, to support redevelopment of the accessible area of the site (eastern half of the site) and to ensure that no unacceptable risks exist to future site users and other identified receptors.
- Provide a verification plan to outline the methodology for verifying the remedial works undertaken.

1.3 Previous studies

The site has been the subject of previous investigation by GRM, TSA Asbestos, and LEAP. The following site investigation reports have been supplied by the Client, and these reports should be read in conjunction with this report.

- GRM 'Phase I Site Appraisal (Desk Study)' Dated January 2016 (ref: GRM/P7298/DS.1).
- GRM 'Re: Soakaway Testing at Drovers Lane, Pulborough' Dated 10th March 2016 (ref P7298 – SA1).
- TSA Asbestos 'Asbestos Survey Report at New Place Nursery' Dated 9th March 2016.
- GRM 'Phase II Site Appraisal' Dated April 2016 (ref: GRM/P7298/F.1).
- GRM 'Re: Gas Addendum Letter for Land north east of Glebelands, Pulborough' Dated 26th July 2016 (ref: P7298\GAL).
- GRM 'Phase I Site Appraisal (Desk Study)' Dated August 2020 (ref: GRM/P7298/DS.1/RevA) NOTE: This desk study provides an update of the previous desk study undertaken in 2016 following expansion of the site boundary to include the northern portion of the site.
- GRM 'Soakaway Testing Letter Report' ref P7298 SA.2 - April 2021.
- GRM 'Land Off Drovers Lane, Pulborough: Phase II Site Appraisal report' Dated August 2022 (ref: GRM/P7298/F.2).
- LEAP 'Technical Appraisal Form' Dated 26th January 2024 (ref: LPTA3601).
- LEAP 'Phase III Site Investigation' Dated 10 July 2024 (ref:3750605/PIII/1)
- LEAP 'Preliminary Waste Classification – Stockpiles' Dated 14 August 2024 (ref:3750605/WC/1)
- LEAP 'Soil Management and Resource Survey' Dated 13 October 2025 (ref:3750966/SM-RS/1)
- LEAP 'Phase IV Site Investigation – Accessible Areas' Dated 28 November 2025 (ref:3750966/PIV/1)

1.4 Limitations

This report is subject to the RSK service constraints given in **Appendix A** and limitations that may be described below and throughout this document.

This report was prepared in accordance with good practice guidance at the time of issue. Consideration should be considered in the light of changes in legislation, statutory requirements, or industry practices subsequent to the date of issue.

The study aims to principally identify and assess the potential risks and liabilities associated with contamination of the ground, on and in the vicinity of the site. While this includes consideration of current operations and housekeeping on the site, the report does not constitute a comprehensive environmental audit of the site, as covered under ISO 14001.

In particular, it should be noted that there may be areas of made ground and potential contamination not detected due to the limited nature of the investigations or the thickness and quality of made ground and concentrations of contamination across the site may be variable. In addition, groundwater levels and groundwater concentrations may vary from those reported due to seasonal, or other, effects.

2 ENVIRONMENTAL SETTING

Previous investigation reports produced by GRM and LEAP describe the environmental setting and former site usage. The following section summarises the information from these reports.

2.1 Site Location and Description

The circa 14.7 Ha site is located approximately 1.1 km northeast of Pulborough town centre in West Sussex, as shown on the site location plan in **Appendix B**, Drawing 3750966-LW-111-XX-D-G-11102-C01. The approximate National Grid Reference of the site is TQ 057 193 and . The site lies at an estimated elevation of 36 m to 50 m Above Ordnance Datum (mAOD).

The site layout is shown in Drawing 3750966-LW-113-XX-D-G-11302-C02, **Appendix B**. At the time of the most recent investigation, the site was secured with Heras fencing and comprised predominantly open fields, however there were farm buildings and areas of hardstanding in the western region of the site which were inaccessible due to works being carried out to remove asbestos from these structures. The site is bounded by residential properties to the south, open fields to the east, and mature trees to the north and the south. There is one man-made surface water feature (reservoir) in the eastern central region of the site, which is fenced off with Heras fencing. The reservoir is lined and is approximately 30 x 30m. It was used for the storage of water for irrigation.

In addition, there are 2 No. waste stockpiles present in the northeastern corner of the site. The location of these stockpiles in relation to the wider site are shown in are illustrated in **Appendix B**, Drawing No. 3750966-LW-222-XX-D-G-22204-C01. Stockpile SP1 comprised plant/tree container arisings, with some pieces of broken plastic container. The arisings comprised brown gravelly and silty sandy loam with quartzite, sandstone and abundant roots and other woody plant material. In comparison, stockpile SP2 was observed to contain a mixture of timber, damaged pallets, green waste mainly comprising conifer, some plastic netting, and the remains of three bonfires. It is understood that the materials were stockpiled by the plant nursery pending being burned. The bonfire remains were noted to contain sandy ashy soil with metal items including hinges, brackets, nails, and screws, along with some glass, brick, pieces of burned timber and pallet, and plastic. Although it appeared there were perhaps three bonfire areas, these were all conjoined, within the same area and contained the same types of material within their ashes and were considered to form part of one stockpile / burning area.

2.2 Site History

Between 1876 and 2002 the site was predominantly an open field bounded by hedgerows to the east, southeast and west with buildings present in the northeastern corner of the site, labelled as 'New Place'. From 1972 onwards, a reservoir and pump house are present in the central region of the site, with long, rectangular buildings labelled as 'New Place Farm'. Following this, from 2002 onwards, further buildings have been erected onsite, and the site is referred to as a nursery on the historical maps.

During the LEAP investigation in April 2024, the northern, central, southwestern regions of the site were described as comprising polytunnels, part demolished polytunnels, and in the eastern and southeastern regions of the site, a series of rectangular geotextile sheets secured to the ground, with wooden stakes supporting wire for securing immature trees in rows along the strips. These features were no longer present at the time of the most recent LEAP investigation as demolition and clearance activities have been undertaken to remove the polytunnels, irrigation systems, and geotextile sheets.

2.3 Geology

The site is mapped as being underlain by the Hythe Formation (Sandstone) with superficial Head Deposits mapped above the Hythe Formation in the southernmost corner of the site. The Head Deposits to the south are shown to extend approximately east to west in a 270 m wide band, then cutting to the north of the site following the railway track. No superficial deposits are mapped across the rest of the site.

2.4 Hydrogeology & Hydrology

The superficial Head Deposits soils mapped beneath the southernmost corner of the site are classified as a secondary A aquifer whilst the underlying Hythe Formation is classed as a principal aquifer. In addition, the site is not situated within a groundwater Source Protection Zone (SPZ).

2.5 Encountered Ground Conditions

The ground conditions encountered during the investigation by LEAP are described in detail in the previous site investigation reports and summarised in **Table 1** below.

Table 1: Summary of soils encountered across the site

Depth From (m)	Depth To (m)	Strata	Description
0.00	0.10 / 0.70	TOPSOIL / REWORKED TOPSOIL	Brown slightly gravelly silty SAND or sandy SILT with localised wood fragments, rootlets and organic material. Sand is fine to medium. Gravel is fine to coarse, angular to subangular flint, sandstone, and or limestone. Occasional brick and plastic.
0.00	0.15 / 0.60	MADE GROUND	Light brown sandy, silty GRAVEL or gravelly silty SAND. Sand is fine to medium. Gravel is medium to coarse, subangular concrete. Or Light brown sandy gravelly SILT / slightly gravelly, silty CLAY. Sand is fine to medium. Gravel is angular to subrounded, fine to medium flint and sandstone with brick,

Depth From (m)	Depth To (m)	Strata	Description
			concrete, charcoal, and rare metal and charcoal. (Only identified in TP413, TP415, HA407, HA409, HA410, HA412, HA414, HA415, and HA420 during this investigation)
0.00 / 0.50	0.10 / 0.70	MADE GROUND (REWORKED HEAD DEPOSITS / HYTHE FORMATION)	MADE GROUND: Light greyish brown silty, gravelly SAND, or gravelly or sandy SILT. Gravel is fine to coarse, angular to rounded flint, limestone, and sandstone with occasional plastic, rope, brick, chalk, tarpaulin, and concrete.
0.00 / 0.70	0.40 / 3.00*	HEAD DEPOSITS	Yellow-brown gravelly, clayey SAND or gravelly, sandy, silty CLAY. Gravel is fine to coarse, angular to subrounded sandstone and mudstone. (Only identified in SA401, SA402, BH401, and BH402 during this investigation and WS305, WS310 and WS314 in the previous 2024 LEAP investigation)
0.00 / 0.70	0.80 / 3.65	HYTHE FORMATION (WEATHERED)	Light brown silty SAND with varying gravel content comprising sandstone, mudstone and limestone.
0.60 / 3.65	20.00*	HYTHE FORMATION (BEDROCK)	Interbedded extremely weak to medium strong light orangish brown and light grey medium grained SANDSTONE and medium strong light grey fine-grained LIMESTONE.

*Maximum depth of excavation

The soils encountered generally comprised sandy topsoil or made ground over silty sand of the Hythe Formation. Head Deposits were encountered in the southern region of the site.

Due to the previous site activities and recent demolition and clearance activities which have been undertaken across a large portion of the site a lot of the near surface soils, particularly topsoil, have been disturbed and reworked and therefore whilst essentially natural, do contain some infrequent anthropogenic inclusions (e.g. brick fragments etc.)

Where topsoil/reworked topsoil was not identified, made ground was commonly present. The majority of this made ground has been described as reworked natural soil (either reworked Head Deposits or reworked weathered Hythe Formation). These reworked soils have likely been generated because of the previous demolition activity that has been

undertaken onsite. It should also be noted that a shallow thickness of blacktop (5 cm) overlying a shallow thickness of concrete (5 cm) and subbase materials comprising sandy gravel and gravelly sand was encountered in the northwest of the site.

Underlying the topsoil, made ground and, where present in the south of the site, superficial interbedded sandy and clayey Head Deposits, sand of the weathered Hythe Formation bedrock was generally encountered, which typically comprised slightly gravelly, silty sand.

2.6 Previous Investigations

The site has been the subject of a number of reports undertaken by GRM, LEAP and others between 2016 and 2025, the findings of which are summarised below. A location plan which illustrates the location of all the site investigation locations from all the investigations carried out onsite to date is included in **Appendix B**, Drawing No. 3750966-LW-112-XX-D-G-22201-C01.

The findings of these investigations are summarised below.

2.6.1 GRM Phase I Site Appraisal (Desk Study) ref GRM/P7298/DS January 2016

GRM were appointed by Catesby Estates Limited to undertake a Phase I Site Appraisal. The site was proposed to be developed with up to 100 dwellings and associated infrastructure.

Significant features identified during the inspection included potential pesticide contamination from the current site use as a plant nursery, drainage ditches as possible receptors and trees requiring deepening of foundations.

The CSM identified pesticides as a potential risk to human health and controlled waters concluding that the risk was considered low.

2.6.2 GRM Phase II Site Appraisal project ref GRM/P7298/F.1 April 2016

The GRM Phase II investigation encountered a shallow depth of made ground comprising red brown, grey and brown clayey gravelly sand within four exploratory holes on the access routes between the growing beds of the nursery. The made ground ranged in depth from 0.3 to 0.4 m bgl. The made ground was found to be underlain by Head Deposits to depths between 0.9 to 2.7 m bgl and was on average 1.4 m thick.

The underlying Hythe Formation comprising medium dense orangish brown, greyish brown, and reddish-brown silty sand with sandstone gravel, becoming extremely weak to weak sandstone with depth, was encountered to the terminal depth of each exploratory hole.

No visual or olfactory evidence of potential contamination was encountered during the fieldwork or the following period of gas/groundwater monitoring.

Gas and groundwater monitoring wells were installed in seven of the exploratory holes. Due to the absence of any significant depth of made ground, the response zones were installed within the underlying natural strata.

One gas and groundwater monitoring visit was carried out on 17 March 2016. Standing water was recorded at a depth of 1.67 m bgl in monitoring well WS5. All other monitoring wells were dry.

No methane was detected in any of the monitoring wells, carbon dioxide concentrations of between 0.0% v/v and 4.5% v/v were recorded. No VOCs were detected by the PID. No gas flows were recorded.

Made ground had been identified as a potential source of contamination of controlled waters and so soil leachate testing was conducted. Leachate testing of soil samples taken during the intrusive investigation recorded concentrations of all contaminations of concern as being below relevant threshold values when compared against UKDWS and EQS values, and the risk to controlled waters determined to be negligible.

2.6.3 GRM Gas Addendum Letter ref P7298\GAL July 2016

Gas monitoring post site works was carried out fortnightly over a two-month period between 17 March and 25 May 2016.

No methane was detected. Carbon dioxide concentrations of between 0.0% v/v and 7.0% v/v were recorded. No gas flows were recorded. Groundwater was encountered in WS5 in the east-southeast of the site between 1.67 and 1.95 m bgl, however the remainder of the wells were generally dry up to 3 m bgl.

The gas risk assessment derived a GSV (Gas Screening Value) of 0.007 l/hr for carbon dioxide, based on the maximum recorded steady state carbon dioxide concentration of 7.0% v/v and the default flow rate of 0.1 l/hr which is adopted when no gas flow is recorded.

Although the GSV is less than 0.07 l/hr, which would indicate that a Characteristic Situation CS1 was appropriate, due to the maximum concentration of carbon dioxide recorded being greater than 5.0% v/v, further consideration was given as to whether CS1 was appropriate for the site.

GRM's detailed logging of the soils encountered during the site investigation did not reveal any high ground gas potential source such as paper, timber, refuse etc. and on the basis of the low number of carbon dioxide readings exceeding 5.0% v/v (5/42), and the absence of any gas flow, a Characteristic Situation CS1 was deemed appropriate.

2.6.4 GRM Phase I Site Appraisal (Desk Study) ref GRM/P7298/DS.1/RevA – 2020-12-08 (updated to larger site area) August 2020

The GRM 2016 Phase I and II reports were completed for the southern area of the site only. The northern part of the site was subsequently included within an updated Phase I in 2020.

The 2020 Phase I report identified the presence of the bonfire stockpile and the stockpile of discarded plants and pots in the northeast of the site (mistakenly reported as northwest of the site in the report).

Small stockpiles of general waste were identified across the site, although no potentially contaminative materials were noted.

The presence of the pump house associated with the centrally located reservoir was noted.

The presence of suspected asbestos containing corrugated cement roof panels on the pesticide store in the northwest of the site was noted, as was the bunded oil tank.

Both pesticide contamination and localised TPH contamination were considered likely based on the former and current land use. Soil capping and/or localised removal of any contaminated soils, including hotspot removal for the bonfire area, were recommended.

2.6.5 GRM Phase II Site Appraisal report ref GRM/P7298/F.2 August 2022

A further 25 exploratory holes were excavated for the purposes of confirming ground conditions and contamination levels across the site. The contamination assessment recommendations suggested that no remediation of the site was required, but careful management and disposal of mounded soils (the bonfire stockpile area) would be required due to an elevated arsenic concentration in one sample of the mounded soils of 87 mg/kg against the generic assessment criteria (GAC) of 37 mg/kg for the Residential with Home Grown Produce (RESI_{HGP}) and 79 mg/kg for the Public Open Space Residential (POS_{RESI}) end-use scenarios.

No concentrations of petroleum hydrocarbons were reported in exceedance of their respective GACs. Where pesticides were recorded above the limit of detection of the test the recorded concentrations were below their threshold values. Asbestos screening of soil samples did not reveal the presence of asbestos in any of the samples analysed.

Further ground gas monitoring summarised in GRM/P7298/F.2 recorded the following data for monitoring wells installed within the made ground;

- Maximum gas flow below limit of detection,
- Methane concentration 0% to 5% v/v (WS202),
- Carbon dioxide concentration 2.3% to 2.5% v/v, and
- Oxygen concentration 16.1% to 17.4% v/v.

The following data was recorded for monitoring wells installed within the natural strata;

- Maximum gas flow -0.4 l/hr (this is a negative gas flow, and no positive gas flows were recorded),
- Methane concentration below limit of detection,
- Carbon dioxide concentration 0.0% to 7.3% v/v, and
- Oxygen concentration 7.7% to 20.3% v/v.

Based on the maximum gas flow rates and concentrations, following the guidance in BS8485:2015+A1:2019 *Code of practice for the design of protective measures from methane and carbon dioxide ground gases for new buildings*, the ground gas risk assessment placed the site within Characteristic Situation CS1, for which no gas protection measures are required. Whilst one well found methane at a concentration of up to 5% v/v, this was an isolated occurrence, and no other wells recorded methane levels above detection limits on any monitoring occasion. Based on the isolated nature of this methane detection and the overall gas screening value being well below that needed to bring the site into a higher risk band the conclusion of CS1 was maintained.

A recommendation was made for additional testing in areas previously not investigated due to existing structures/vegetation.

Made ground had previously been identified as a potential source of contamination of controlled waters. Report GRM/P7298/F.2 referred back to the leachate testing carried out for GRM/P7298/F.1 and repeated the conclusion that the risk to controlled waters was determined to be negligible.

With respect to water supply pipes, the investigation report considered that at the concentrations of contaminants recorded to date (report date August 2022), and based on UKWIR guidance, the standard water supply pipes should be suitable for the site. However, it was recommended that the local water supply company be approached for confirmation of their requirements.

2.6.6 Asbestos Survey

TS Asbestos carried out a HSG264 (2010) Asbestos Management Survey into the presence of asbestos containing material at the site in March 2016, report no. Si 1382. The survey identified asbestos containing materials within the fabric of the workshop/warehouse/storage building in the western part of the site. The materials comprised:

- Asbestos cement Mill Board internal cladding containing crocidolite/chrysotile.
- Asbestos cement corrugated roof panels throughout containing chrysotile.
- Asbestos cement Mill Board external cladding containing crocidolite/chrysotile.
- Asbestos cement rainwater gutter and downpipes containing chrysotile.

The asbestos management survey report made recommendations to apply “asbestos beware” labels, maintain an asbestos register, repair or remove broken panels and manage asbestos which is to remain in place. A comment was made that the asbestos management plan must advise incoming tradesmen of the location of the asbestos.

2.6.7 LEAP Phase III Site Investigation ref LP3646 dated July 2024

LEAP's Phase III Investigation comprised of 52 locations including 28 hand pits and 24 windowless boreholes carried out between 22 and 25 April 2024. 44 soil samples were submitted for laboratory analysis, including heavy metals, speciated polycyclic aromatic hydrocarbons and asbestos screening. Four samples were tested for total petroleum hydrocarbons, and eight samples were tested for organochloride and organophosphorus pesticides.

Chemical analysis identified that two made ground samples (HA301 and HA303) in the northwest corner of the site contained concentrations of contaminants in exceedance of their respective GACs for a RESI_{HGP} end-use scenario; namely an exceedance of lead in HA301 and PAHs in HA303.

No further contamination was encountered by LEAP in the made ground across the wider site, nor was any contamination encountered in the topsoil and underlying natural soils.

Elevated arsenic was detected in a stockpile in the northwest of the site. Following the stockpile removal from the site, the report indicated that the underlying soils should be inspected to confirm sufficient removal of the waste material.

The insecticide DDT and its derivatives were detected above the LOD in two samples from the north and centre of the site but was not considered elevated sufficiently to pose a significant risk to human health.

Ground gas monitoring identified a low risk from ground gases and characterised the site as CS1, but the report noted that the presence of buildings and dense vegetation limited the spacing of the monitoring well installation. It concluded that should any further made ground or organic rich soils be encountered in these areas then further gas risk assessment may be required.

The report recommended that further investigation would be required in the footprint of existing buildings following demolition; that the elevated lead and PAH impacted soils should be removed.

Prior to development, the report recommended consideration should be given to any on-site materials and their potential for re-use as part of, or during construction of, the proposed development. Where made ground soil is to be re-used on site then it was recommended that this is carried out under the CL:AIRE Definition of Waste Industry Code of Practice (DoWCoP) for re-use of soils¹.

2.6.8 LEAP Preliminary Waste Classification Report for 2 No. Stockpiles ref: 3750966/PWC dated November 2025

As part of the LEAP August 2025 investigation, LEAP undertook sampling of the 2 No. stockpiles in the northeastern corner of the site. The stockpiles were referenced as SP1 (previously referenced as M2) and SP2 (previously referenced as M1). A preliminary hazardous waste assessment was carried out and the testing carried out found that stockpile SP1 may be classified as non-hazardous soils and stones (17 05 04), whilst SP2 may be classified as hazardous soils and stones (17 05 03*), due to elevated zinc.

WAC testing was carried out on both stockpiles. SP1 was found to be not suitable for inert landfill and should be sent to a non-hazardous landfill, due to elevated TOC (>3%). Also, SP2 was found to be not suitable for a hazardous waste landfill due to elevated loss on ignition and TOC, therefore pre-treatment is required before it goes to landfill.

2.6.9 LEAP Soil Management and Resource Survey ref 3750605/SM-RS/1 dated October 2025

Additionally, as part of the August 2025 investigation, LEAP carried out hand pitting across the site (20 No. locations) to undertake sampling and analysis of the natural soils (topsoil and subsoil) to enable the production of a soil management and resource survey for the site. 15 No. samples (10 No. topsoil and 5 No. subsoil) were sent for laboratory analysis in accordance with BS3882:2015 for topsoil and BS8601:2013 for subsoil.

The topsoil analysis found that the topsoil was generally non-compliant with BS3882:2015 specification for multipurpose topsoil due to the following characteristics, low clay content in one location, and low total nitrogen and high carbon to nitrogen ratios sitewide. Furthermore, the subsoil analysis found that the subsoil was generally non-compliant with BS8601:2013

¹ The Definition of Waste: Development Industry Code of Practice. Version 2 2011. CL:AIRE

specification for multipurpose subsoil due to a high SOM content in four out of the 5 No. samples tested.

Recommendations are given for the sustainable reuse onsite. For the topsoil, this includes the addition of high nitrogen compost or nitrogen fertiliser to increase the total nitrogen concentration of the topsoil and decrease the high carbon:nitrogen ratios in line with the characteristics for multipurpose topsoil specified in BS3882:2015. In addition, recommendations for improving the subsoil onsite include methods which reduce the soil organic matter content, these include tilling the soil, which exposes organic matter to oxygen and microbial action.

2.6.10 LEAP Phase IV Site Investigation – Accessible Areas ref 3750966 dated November 2025

As part of the August 2025 investigation, LEAP carried out a Phase IV investigation, with the main purpose of the investigation being to update the ground model, geoenvironmental assessment, and geotechnical assessment provided in the July 2024 LEAP Phase III investigation report. Including the hand pits, which were excavated for the soil management and resource survey, 58 No. investigation locations were undertaken across the site.

A geoenvironmental assessment was carried out and contamination testing of the soils in the LEAP 2024 investigation identified 1 No. made ground sample with an exceedance of lead and 1 No. made ground sample with exceedances of benzo(a)pyrene and naphthalene, with both locations in the northwest corner of the site. In addition, in the recent August 2025 investigation, loose fibres of chrysotile (<0.001%) were detected in one topsoil sample from the northwest corner of the site. Given that no contamination was encountered in other locations in the northwest of the site, the exceedances in lead and PAHs are considered to be hotspots. Further investigation of these should be completed to delineate the extent of these. Also, further investigation should be carried out in vicinity of the asbestos detection in the topsoil to see if it is an isolated detection or whether further asbestos contamination is present.

This report notes that a remedial strategy should be prepared to deal with these hotspots, including verification of the hotspots, and allowances should also be made for inspection of stripped formations, and confirmatory testing of soils where there is any visual or olfactory evidence of potential contamination.

Gas protection measures were not considered necessary following the 2024 investigation and the findings of this investigation have not given any reason to change this assessment.

3 CONCEPTUAL SITE MODEL

3.1 Geoenvironmental Conceptual Site Model

3.1.1 Approach

A risk-based approach is used in the UK to assess contaminated or potentially contaminated land. For a potential risk to exist, there must be a contaminant linkage in place, i.e. there must be a source of contamination, a potential receptor, and a pathway linking the two. The purpose of this preliminary conceptual site model (CSM) was to systematically identify all of the potential contaminant linkages using the information provided in **Section 2** of this report. The preliminary CSM was then used to enable uncertainties and further assessment requirements to be identified.

3.1.2 Sources of Contamination

Based on the information obtained from the investigations reported in **Section 2**, **Table 2** provides a summary of the current and historical on- and off-site sources with the anticipated nature and distribution of the sources:

Table 2: Potential Sources of Contamination

Potential Source	Contaminants of Concern	Anticipated Distribution
Made Ground and topsoil in north-west of the site	Lead was detected in made ground soils in HA301 at 0.20 m and PAHs were detected in HA303 at 0.25 m. Asbestos detected in topsoil in TP420 at 0.20m. Loose fibres of chrysotile below limit of detection	Made ground in HA301 extended to 0.55 m and to 0.40 m in HA303. A black material was identified in HA303 at 0.30 m, which may be the PAH source. The contaminant distribution is anticipated to be localised and limited to the shallow made ground. Testing in the vicinity of HA301 and HA303 by Leap and GRM did not report elevated concentrations of Lead or PAHs. Asbestos not found in other locations in northwest of the site; however it is possible that the asbestos is associated with the demolition of the structures that existed in this area.
Above ground storage heating oil tanks in north-west of site	Heating oil range hydrocarbons	Trial holes in the vicinity by GRM in 2021 (WS114, SS205) did not report olfactory or visual evidence of hydrocarbons. A shallow hand pit in the vicinity was excavated in 2024 (HA301) and no olfactory or visual evidence of hydrocarbons.

Potential Source	Contaminants of Concern	Anticipated Distribution
		Potential for localised hydrocarbons beneath the footprint of the former heating oil tank store, although not considered a significant risk in the LEAP Phase III Investigation Report (ref:3750605 dated 10/07/24).
Pump house containing diesel powered pump	Diesel contaminated soils	WS315 in close proximity to the pump house did not record any made ground or visual/olfactory evidence of hydrocarbons. Laboratory testing did not detect petroleum hydrocarbons above analytical limits of detection. Potential for localised hydrocarbons beneath the footprint of the pump house, although not considered a significant risk in the LEAP Phase III Investigation Report (ref:3750605 dated 10/07/24)
Mounded soils in stockpile M1 (SP2)	Moderately high arsenic and TPH concentrations detected in stockpile M1 (SP2)	Potential for arsenic and TPH to have leached from M1 (SP2) and impacted surficial soils beneath the footprint of the stockpile.
Building in west of site	Asbestos – chrysotile and crocidolite were identified by the asbestos survey.	Potential for localised contamination of soils within the vicinity of the building or wider spread contamination of soils due to tracking and or following demolition.
Silt trap/sump in washdown area outside workshop in west of site	Petroleum hydrocarbons, polycyclic aromatic hydrocarbons, solvents.	Localised to area around silt trap/sump and associated pipework.
Areas not investigated: beneath existing structures, around the existing reservoir.	Heavy metals, petroleum hydrocarbons, polycyclic aromatic hydrocarbons, asbestos containing materials, pesticide/herbicides.	Limited investigation has been undertaken in areas where structures are present or around the existing reservoir. Contamination, if present likely to be limited to near surface soils and made ground.

3.1.2.1 Discounted sources

The results of previous investigations have concluded that the site has a very low risk from ground gas (Characteristic Situation 1 (CS1)) and therefore this has been excluded as a potential source.

An off-site historic landfill and electrical substation were discounted from further assessment based on distance from site. The off-site historic landfill is separated from the site by the railway cutting and there is not considered to be a plausible contamination pathway.

3.1.3 Potential Receptors

In the context of the proposed future land use, the following potential receptors of ground contamination were identified:

3.1.3.1 Human health

- Future residents/site users
- Construction workers

3.1.3.2 Controlled waters

- Superficial Head Deposits (Secondary A aquifer)
- Hythe Formation (Principal aquifer)
- Drains around the boundary of the site.

3.1.3.3 Other

- Material construction of buildings and infrastructure
- Neighbouring properties

3.1.4 Relevant Contaminant Linkages (RCLs)

Based on the relevant sources of contamination identified above the following are taken forward for remediation or further evaluation:

Table 3: Summary of Relevant Contaminant Linkages

RCL	Potential Source	Pathway	Receptor
RCL1	Made ground in the vicinity of HA301 and HA303, where lead and PAHs concentrations exceed assessment criteria Topsoil in the vicinity of TP420, where asbestos fibres (chrysotile) were	Direct contact, soil ingestion, ingestion of soil attached to home grown produce, dust inhalation (indoor/outdoor), indoor/outdoor vapour inhalation (PAHs only)	Future site users, construction/maintenance workers, buried pipework

RCL	Potential Source	Pathway	Receptor
	detected below the limit of detection	Direct contact with buried potable water pipes (PAHs)	
RCL2	Localised heating oil contamination in footprint of above ground fuel tank store	Direct contact, soil ingestion, ingestion of soil attached to home grown produce, dust inhalation (indoor/outdoor), indoor/outdoor vapour inhalation (PAHs only) Direct contact with buried potable water pipes (TPH)	Future site users, construction/maintenance workers, buried pipework, groundwater
RCL3	Localised diesel contamination in footprint of above ground pump room	Direct contact, soil ingestion, ingestion of soil attached to home grown produce, dust inhalation (indoor/outdoor), indoor/outdoor vapour inhalation (TPH only) Direct contact with buried potable water pipes (TPH)	Future site users, construction/maintenance workers, buried pipework, groundwater
RCL4	Contaminated soils (arsenic and TPH) beneath footprint of waste stockpiles	Direct contact, soil ingestion, ingestion of soil attached to home grown produce, dust inhalation (indoor/outdoor),	Future site users, construction/maintenance workers, groundwater
RCL5	Areas with limited investigation, in particular beneath buildings in the north-west of the site and around the inaccessible reservoir. Contaminants include heavy metals, PAHs, fuel oils, herbicides/pesticides; asbestos containing materials	Direct contact, soil ingestion, ingestion of soil attached to home grown produce, dust inhalation (indoor/outdoor), indoor/outdoor vapour inhalation (hydrocarbons) Direct contact with buried potable water pipes (hydrocarbons)	Future site users, construction/maintenance workers, buried pipework, groundwater
RCL6	Previously unidentified contamination. Contaminants include heavy metals, PAHs, fuel oils, herbicides/pesticides; asbestos containing	Direct contact, soil ingestion, ingestion of soil attached to home grown produce, dust inhalation (indoor/outdoor), indoor/outdoor vapour inhalation (hydrocarbons)	Future site users, construction/maintenance workers, buried pipework, groundwater

RCL	Potential Source	Pathway	Receptor
	materials, ground gas generating materials	Direct contact with buried potable water pipes (hydrocarbons)	

4 REMEDIATION STRATEGY

4.1 Remediation Objectives and Constraints

4.1.1 Objectives

The primary objective of the remediation activities will be for the safe redevelopment of the site that is suitable for the proposed end use.

Considering the relevant contaminant linkages the options chosen will either:

1. Manage (remove, destroy, modify or immobilise) the source.
2. Interrupt the pathway; or
3. Modify the receptor or behaviour of the receptor.

Option 3 is unlikely to be a feasible route, as such remedial options will consider management or interruption. Management typically involves removal, destruction or transformation of the source(s); pathway interruption involves blocking of the pathway, destruction or removal of the contaminants along a pathway.

This can be achieved via permanent reduction of the contaminant concentrations to acceptable limits; source removal; or pathway interruption.

4.1.2 Constraints

There are a number of constraints at the site that affect the proposed remediation works/options, namely:

- A number of structures and areas of the site have had limited site investigation (in particular the western, inaccessible area of the site). The risk to receptors is not known.
- Development time scales are not known.
- Final site layout is not known.

4.2 Initial Outline Remediation Options

4.2.1 Pre-construction activities

Further ground investigation will be needed prior to the site being developed. All RCL identified above would benefit from further investigation, as outlined below:

4.2.1.1 Lead, PAH and asbestos contaminated soils

- **RCL1** – shallow hand pitting to determine the extent of lead, PAH, and asbestos contaminated soils. It is anticipated that the contaminated soils are localised and are likely to be limited in depth and lateral extent.

4.2.1.2 Stockpile M1 (SP2) and M2 (SP1) removal

- **RCL4** – following removal and disposal of waste material to a licensed facility the ground within the footprint of stockpile M1 (SP2) and M2 (SP1) should be inspected for gross contamination and shallow soils beneath stockpile M1 (SP2) should be sampled and tested for arsenic and TPH.

- The material in stockpiles M1 (SP2) and M2 (SP1) will require direct off-site disposal to a suitable waste facility. Further comments are provided in Section 4.2.3.

4.2.1.3 Post demolition of structures in west of site and reservoir in centre of site

- **RCL2 & 3** – site investigation following demolition and slab removal – trial hole to extend through any made ground soil in the building footprints to at least 2 m into natural soils. Testing to include petroleum hydrocarbon analysis.
- **RCL2 & 3** – where there is historical drainage or there are utility runs in the vicinity of the heating oil tank area or pump house these should be inspected and bedding material screened for hydrocarbons using a PID.
- **RCL5** – further ground investigation should be undertaken to determine ground conditions and chemical composition of soils in the previously restricted areas.

4.2.2 Construction Phase

4.2.2.1 RCL1 (Lead, PAH, and asbestos contaminated soils- hotspot removal)

- After the further site investigation is completed to determine the extent of lead, PAH and asbestos impacted soils in the north of the site the material should be excavated and disposed from site as a waste. Hotspots should be excavated to an initial distance of 5 m from where the contamination has been identified. Due to the shallow nature of made ground at these locations it is anticipated that the full depth of made ground should be removed (up to max depth of 0.60 m). If made ground extends below 0.60 m then it may remain, but subject to base verification testing.
- Excavated made ground material should be classified based on chemical testing prior to disposal to a suitable waste facility. Further comments are provided in Section 4.2.3.
- Verification samples should be collected from each side wall face – at 5 m centres and from the base one per 25 m². Samples from the hotspot associated with HA301 should be tested for lead and from the hotspot associated with HA303 should be tested for PAHs and screened against relevant HH GACs for a residential with homegrown produce land use. Samples from the hotspot associated with TP420 should be tested for the presence of asbestos.
- Where a verification sample exceeds the GAC, or is found to contain asbestos a further 0.50 m depth of the sidewall should be removed and re-tested and in case of base samples it is anticipated that the base extends to natural ground. If this fails a further 0.25 m should be removed from the base of the excavation.

4.2.2.2 RCL2-5

The remediation requirements for RCL 2-5 are subject to the findings of any further investigation and as such this section will require updating once complete. If no significant contamination is identified in these areas, then no further remediation will be required.

4.2.2.3 RCL6 -previously unidentified contamination

It is considered possible that as yet unidentified contamination may be encountered during construction works. Where additional contamination is identified during works this will be subject to further assessment and documented accordingly. It may be necessary to recommend the removal of additional soils or to propose alternative remedial solutions.

In the context of 'contamination' this may be determined initially by visual or olfactory cues, including but not limited to the following examples:

- Strong odours e.g. egg smell/rotten vegetables/sewage/petroleum fuel odours/sweet solvent odours etc.
- PID readings >5 ppm.
- Strong discoloured soils e.g. black staining; blue or highly discoloured soils.
- Non-aqueous phase liquids/oils or fuels.
- Asbestos containing materials or fibrous materials.
- Coal/clinker/asphalt gravels.
- Buried materials (domestic/commercial/industrial wastes; buried wood/plant waste/animal waste etc).

Verification engineers are to be informed if any material suspected to be contaminated is encountered during the course of the development, so that appropriate revisions to remedial strategy can be implemented as required.

4.2.2.4 Soft Landscaped Areas

To date, with the exception of locations HA301, HA303 and TP420, made ground in areas tested has not been found to pose a risk to future land users for a residential land use. The made ground soils have not been tested for compliance with British Standard for Topsoil/Subsoil (BS3882:2015 or BS8601:2013) as they are unlikely to be initially suitable for use in gardens or soft landscaping due to the coarse fragment content and rare sharps (brick/concrete/asphalt gravels, on occasion whole bricks and rare glass, metal, wood).

On this basis and subject to confirmation with the landscape architect the following is recommended **where made ground soils are present** in:

4.2.2.4.1 Private gardens (front and rear gardens)

An allowance should be made for the removal of sufficient made ground to make space for a thickness of 600 mm of clean cover soil or removal of made ground to natural soils if encountered sooner, with inspections at strip formation (both in areas where made ground is suspected and where it is not to confirm absence of made ground).

The 600 mm cover system should comprise a minimum of 150 mm certified clean topsoil and 450 mm certified clean subsoil. This may be shallower if made ground thickness is less than 600 mm.

Where significant asbestos containing materials is encountered at strip formation inspection, then further excavation will be required to allow the inclusion of an engineered clean cover system to comprise:

- Further excavation to 1000 mm below finish level;
- Placement of a geotextile marker layer at 1000 mm below finish level;
- Placement of 150 mm verified clean crush as an 'anti-dig' layer;
- Placement of a second geotextile marker; and

- Placement of 750 mm verified clean cover soils (including at least 150 mm topsoil)

4.2.2.4.2 Soft landscaped areas

An allowance should be made for the removal of 300 mm of made ground material within proposed soft landscaped areas of public open space (or shallower if natural soils are encountered sooner), with inspections at reduced formation in all areas.

Provision and placement of 300 mm verified clean cover soils comprising a minimum of 150 mm topsoil.

If further previously unidentified contaminants of concern or the presence of asbestos are recorded at reduced formation level, then further soils will need to be removed and/or an engineered cover system (including anti-dig layer), may be required.

4.2.2.4.3 Private gardens and soft landscaped areas where made ground is not present

In gardens (front/rear) and soft landscaped areas where made ground was not identified these are likely to require 150 mm of chemically suitable topsoil, which should be tested as chemically suitable at the rates detailed in Section 5.1.1. Prior to backfilling these areas should also be checked to be free from made ground and building materials including piling mats, waste materials, brick, glass, concrete etc.

4.2.2.4.4 Other considerations

In order to meet the requirements of the warrantor, a minimum of 450 mm freely diggable soils (free from obstructions and construction wastes) and a minimum of 150 mm of topsoil (maximum of 300 mm) to create a suitable 'growing medium' for plants, must be placed within all private gardens and areas of public open space.

For all areas of the site, a watching brief must be maintained during construction in the event that any further contamination is identified, with measures in place to assess suspect soils appropriately and deal with them accordingly.

All remediation works will be verified by a validation engineer by a process of regular site inspections and as appropriate soil sampling and laboratory analysis. The validation engineer will thereby maintain a watching brief, although the ultimate responsibility for delivery of the remediation strategy remains with the developer.

On completion, a verification report will be provided, documenting the results of the site inspections and laboratory testing. Details of soils -re-used on site or imported to complete the remediation will also be included within the verification report. Further details are provided within Section 5.

4.2.3 Protection of Incoming Services

Given the limited ground contamination identified to date, protection of new utilities such as potable water pipes may not be required. It is recommended that confirmation is obtained by the water supply company.

Ultimately the local water supply company will have their own specification, and they should be consulted to confirm whether they will require protection measures to be adopted.

4.2.4 Waste Disposal

It is anticipated that the proposed development will generate waste soils and materials will need to be removed from site as part of the construction process. In this instance, waste soils are anticipated from where reduced formations within private gardens and areas of soft landscaping is required and in addition from the existing stockpiles in the northeast of the site.

In line with current European Commission Regulations including the Waste Framework Directive 2014 and The Waste (England and Wales) (Amendment) Regulations 2012, and Environment Agency Guidance (WM3 2015), waste holders and their advisors (producer, carrier or disposal facility) are required to make an assessment of waste materials and classify them as hazardous, non-hazardous waste or inert.

Once the waste has been classified as either hazardous or non-hazardous and prior to disposal, further analysis may be needed to confirm whether soils to be exported meet the proposed receiver landfill site's Waste Acceptance Criteria. Where a waste is classified as non-hazardous a Waste Acceptance Classification test (WAC) is required to determine whether the material can be accepted at either an inert or non-hazardous landfill. Where the WAC test results exceed hazardous waste WAC limits that waste cannot be accepted at a hazardous landfill site without prior treatment.

Where soils are to be disposed off-site, it is the duty of the waste producer, to ensure that all waste is disposed of appropriately and that any that is sent to landfill is sent to an appropriately licensed one.

Where made ground soil is to be re-used on site or natural clean soils (topsoil or subsoil) may be suitable for re-use on another site, then it is recommended that this is carried out under the CL:AIRE Code of Practice for re-use of soils.

WM3 also recommends various forms of pre-treatment that are acceptable to try and reduce hazardous classifications to non-hazardous/inert.

Waste soils awaiting testing, classification and disposal will be placed on plastic sheeting, segregated by fencing and labelled appropriately. Any potentially hazardous or inert soils will require WAC testing.

It is strongly advised that detailed discussions be held with remediation/groundworks contractors and that receiving landfill sites are identified in advance of commencing any waste removal.

4.2.5 CL: AIRE Development Industry Waste Code of Practice

It is anticipated that clean natural soils generated from foundation and/or drainage excavations may be suitable for re-use on site within the cover layer system or as part of the ground releveling.

Excavated made ground may be suitable for re-use for ground releveling in hard landscaped areas subject to it meeting the geotechnical requirements for re-use and provided that it is free of asbestos.

If made ground soils are to be reused on-site, then it is recommended that this is undertaken in accordance with the DoWCoP. The Guidance presents key principals for demonstrating compliance with DoWCoP to reuse of soils as non-waste, this needs to be lines of evidence based to demonstrate that soils are not waste. Lines of evidence must

be set out in the Material Management Plan. Key principals to be met when reusing soils as non-waste are as follows:

- Reuse of material will not create unacceptable risk to human health or other identified receptors – i.e. risk assessment confirming suitability for reuse.
- Suitability for reuse without further treatment – suitable chemically and geotechnically – must meet relevant specification – e.g. use as backfill beneath cover systems buildings or hardstanding or for site regrading.
- Certainty of Use – must demonstrate that material will actually be used and is not just a probability – i.e. there is planning for the scheme and that backfill is required to make up levels or clean soils required for cover systems.
- Quantities – materials used should only be in the quantities required – i.e. use of excessive material will = landfill on site as disposing waste soils that aren't required.

A Material Management Plan should be submitted to a 'Qualified Person' (QP) for review and if appropriate the QP will sign a declaration that proposals within the MMP are in accordance with DoWCoP. The QP must be independent from and have had no prior involvement with the project.

On completion a verification report must be produced documenting whether proposals set out in MMP were implemented on site – confirming volumes of material reused, reuse locations, and compliance with specifications.

5 VERIFICATION

5.1 Site Works

During the re-development works, the verification engineer will observe and verify the following on a part time/on call basis (subject to suitable notice) :

- Inspection and verification testing of hotspot removal;
- Visual inspection of the formation level soils following site strip;
- Verification of the chemical nature and thickness of the applied clean cover soils; and
- Verification of excavations where contaminated soils are deemed present.

The engineer will also be available to visit site and provide guidance should any previously undiscovered contamination be encountered.

5.1.1 Inspection and verification testing of hotspot removal

Where hotspots have been identified as requiring removal the verification engineer shall attend and inspect the excavated locations. They shall collect soil samples as described in Section 4.2.2.1 for testing for the relevant contaminants to demonstrate the successful removal of impacted soils.

5.1.2 Strip Formation Inspections

The remediation strategy states that strip formation inspections are required to confirm the absence of gross contamination in soft landscaped areas (private front / rear gardens; public open spaces and soft landscaped verges), through visual inspections and confirmatory testing (if required i.e. in hotspot areas or where gross contamination is observed). This must be completed by the verification engineer prior to placement of any clean cover to determine if an anti-dig layer is required.

At this stage where further investigations are outstanding and where made ground is still present at strip formation (300 mm or 600 mm below finish level) confirmatory testing for contaminants of concern is recommended, and should be completed at a frequency of:

- 1 per 3 plots or every circa. 20 m² in areas of public open space unless asbestos or gross contamination is identified.

Where made ground is not recorded garden and soft landscaped areas require visual inspection only at the above rates to confirm that no deleterious materials are present prior to topping up with suitable growing medium soils.

5.1.3 Verification testing of imported soils or site won soils

As stated in the remediation strategy above, the verification engineer will approve imported soil sources prior to use, based on site investigation and/or test results.

Once a source has been approved for importation the verification engineer will complete onsite inspections and verification testing. Imported topsoil and subsoil will be tested at a frequency of a **minimum of one sample per 150 m³ of imported soil/site won with a**

minimum of three samples per source of material. Testing will be undertaken at a UKAS and MCERTS accredited laboratory.

All imported soils will be required to meet the specification as given in **Appendix C** irrespective of the depth at which they are to be placed. Any unsuitable material will be removed from site.

Where site won soils are used they shall meet the specification as for imported soils, with the exception that contamination levels should be lower than the residential with home-grown produce GACs used for the risk assessment previously completed.

The re-use of any imported topsoil or subsoil 'site-won' from another site or 'site- won' made ground will require a Materials Management Plan (MMP) with a declaration signed by a Qualified Person (QP) in accordance with the CL:AIRE Definition of Waste Code of Practice (DoW CoP). Manufactured topsoil with appropriate end of waste certification is exempt from the CoP. The CoP **cannot** be used to import Made Ground.

5.1.4 Depth of Clean Cover

Where it has been determined that clean cover is required then the depth of the placed topsoil and subsoil layers in rear gardens and soft landscaped areas will be verified by the excavation of hand dug holes through completed areas. This depth will be specified to meet the requirements of this strategy as well as those of the regulators and warrantors. The frequency of inspection will be at the discretion of the engineer. Noting warrantor expectations, the standard frequency of inspections is anticipated to be:

- 1 per 3 plots at the site or every circa. 20 m² in areas of public open space unless asbestos or gross contamination is identified.

5.1.5 Verification Report

All verification works will be presented in a final verification report upon completion. This report will comprise source certificates, delivery notes and test results of imported soils and photographic records showing any stockpiling areas and demonstrating the location and thickness of the applied clean cover soils. On receipt, the verification report should be submitted to the Local Planning Authority and Building Control Warrantors to enable the discharge of conditions related to contaminated land.

All relevant information shall be collected during the remediation works and a validation report compiled on completion and comprise as a minimum:

- A summary of the background site information and the RMS;
- Parties involved in the works;
- Details of any hitherto undiscovered contamination along with its remediation and verification;
- Waste classification and management documents to include as a minimum:
- Volumes and source of any materials removed from site, along with transfer tickets and acceptance notes at the relevant facilities.
- Laboratory validation test results and transfer notes for any imported materials;

- Records of earthworks including as built drawings, photographs and quantities of materials;
- Records of any specialist remediation contractors works as a technical appendix if relevant (i.e. Japanese Knotweed/gas protection); and,
- Records of any variation from this strategy including details of correspondence with statutory authorities.

APPENDIX A – SERVICE CONSTRAINTS

APPENDIX A

SERVICE CONSTRAINTS

1. Service Constraints

1.1. This Report (the "Report") and any study, inspection, investigation, sampling, testing and or interpretation carried out in connection with the Report (together the "Services") were compiled and carried out by RSK Environment Limited (RSK) trading as Leap Environmental or RSK Geosciences, for the Client named in the first paragraph of the Report (the "Client") in accordance with the terms of an RSK Fee Proposal including RSK Environment Standard Terms and Conditions (the "Appointment") between RSK and the Client, unless otherwise stated in the first paragraph of the Report. The Services were performed by RSK with the reasonable skill and care ordinarily exercised by a geo-environmental consultant at the time the Services were performed. Nothing in this Report shall be construed as imposing any fitness for purpose obligation. Further, and in particular, the Services were performed by RSK taking into account the limits of the scope of works required by the Client, the time scale involved and the resources, including financial and manpower resources, agreed between RSK and the Client.

1.2 Other than that, expressly contained in paragraph 1 above, RSK provides no other representation or warranty whether express or implied, in relation to the Services. RSK shall not be liable in respect of any action or proceedings arising out of or in connection with this Report whether in contract, in tort, for breach of statutory duty or otherwise after the expiry of six (6) years from either (i) the date of the Report or (ii) such earlier date as prescribed by law, unless varied in the terms of the Appointment.

1.3 Unless otherwise agreed in writing, the Services were performed by RSK exclusively for the purposes of the Client. RSK is not aware of any interest of or reliance by any party other than the Client in or on the Services. Unless expressly provided in writing, RSK does not authorise, consent, or condone any party, other than the Client relying upon the Services. Should this Report or any part of this Report, or details of the Services or any part of the Services, be made known to any such party, and such party relies thereon, that party does so wholly at its own and sole risk, and RSK disclaims any liability to such parties. Any such party would be well advised to seek independent advice from a competent geo-environmental consultant and/or lawyer.

1.4 The Client shall not, without the prior written consent of RSK, assign, transfer, charge, mortgage, subcontract, or deal in any other manner with all or any of the benefits provided in this Report. Unless specified in the Appointment, RSK shall not be obliged to assign the benefit of the Report whether by collateral warranty, third party rights pursuant to the Contracts (Rights of Third Parties) Act 1999, letter of reliance or otherwise. If RSK agrees to any assignment of the benefit of this Report, in whatever form, benefits to third parties through collateral warranties, third party rights or letters of reliance shall not be provided unless a fee for each right, warranty or letter is agreed. The form of wording used in the warranty or letter shall be provided by RSK for agreement by the Client. Any reasonable changes to the form of wording will be implemented by mutual agreement, however the terms in the warranty or letter cannot offer the third party any greater benefit than the Appointment offered to the Client.

1.5 It is the understanding of RSK that this Report is to be used for the purpose described in the introduction to the Report. That purpose was a significant factor in determining the scope and level of the Services. Should the purpose for which the Report is used, or the proposed use of the site change, this Report may no longer be valid and any further use of or reliance upon the Report in those circumstances by the Client without the review and advice of RSK shall be at the Client's sole and own risk. RSK shall not be liable for any use of this Report for any purpose other than that for which it was provided.

1.6 The passage of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the Report inaccurate or unreliable. The information and conclusions contained in this Report should not be relied upon in the future without the written advice of RSK. In the absence of such written advice of RSK, reliance on the Report in the future shall be at the Client's own and sole risk.

1.7 The observations and conclusions described in this Report are based solely upon the Services which were provided pursuant to the agreement between the Client and RSK. RSK has not performed any observations, investigations, studies or testing not specifically set out, or required by the Appointment between the Client and RSK. RSK is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the Services. For the avoidance of doubt, unless otherwise expressly referred to in the introduction to this Report, RSK did not seek to evaluate the presence on or off site of asbestos, invasive plants, electromagnetic fields, lead paint, heavy metals, radon gas, fuel storage, persistent bio-accumulative or toxic chemicals (including PFAS and related compounds) or other radioactive or hazardous materials, unless specifically identified in the Services.

1.8 The Services are based upon RSK's observations of existing physical conditions at the Site gained from a visual inspection of the site together with RSK's interpretation of desk based publicly available information, including documentation, obtained from third parties and from the Client on the history and usage of the site, unless specifically identified in the Services and the limitations below:

- a. The Services were based on information and/or analysis provided by independent testing and information services or laboratories upon which RSK was reasonably entitled to rely.
- b. The Services were limited by the accuracy of the information, including documentation, reviewed by RSK and the observations possible at the time of the visual inspection.
- c. The Services did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the Client or third parties, including laboratories and information services, during the performance of the Services.
- d. The Client has identified in writing to RSK, the information, reports, findings, surveys and preliminary works RSK may not rely upon when providing the Services.

RSK is not liable for any inaccurate information or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to RSK, and including the doing of any independent investigation of the information provided to RSK, save as otherwise provided in the terms of the Appointment between the Client and RSK.

1.9 Any site drawing(s) provided in this Report is (are) not meant to be an accurate base plan for scale measurement but is (are) used to present the general relative locations of features on, and surrounding, the site. Features (intrusive and sample locations etc) annotated on site plans are not drawn to scale but are centred over the approximate location. Such features should not be used for accurate setting out and should be considered indicative only.

1.10 Should RSK be requested to review the Report after the date of issue of this Report, RSK shall be entitled to additional payment at the existing rates, or such other terms as agreed between RSK and the Client.

2. Service Constraints where the Report provides an intrusive assessment of ground conditions:

2.1 The intrusive environmental ground investigation aspects of the Services are a limited sampling of soil from the site, at pre-determined locations based on the known historic / operational configuration of the site. The conclusions given in this Report are based on information gathered at the specific test locations and can only be extrapolated to an undefined limited area around those locations. The extent

of the limited area depends on the properties of the materials adjacent and local conditions, together with the position of any current structures and underground utilities and facilities, and natural and other activities on site. In addition, chemical analysis was carried out for a limited number of parameters (as stipulated in the scope agreed between the Client and RSK, based on an understanding of the available operational and historical information) and it should not be inferred that other chemical species (not tested) are not present.

2.2 The comments given in this Report and the opinions expressed are based on the ground conditions encountered during the site work and on the results of tests made in the field and in the laboratory. The extent of the exploratory holes, laboratory testing and monitoring undertaken may have been restricted due to a number of factors including accessibility, the presence of buried or overhead services, current development, site usage, timescales or the Client's specification. The exploratory holes only assess a small proportion of the site area with respect to the site as a whole, and as such may only provide an indicative assessment of ground conditions on site. There may be conditions pertaining to the site that have not been disclosed by the investigation and therefore could not be taken into account. In particular, it should be noted that there may be areas of made ground not detected due to the limited nature of the investigation or the thickness and quality of made ground across the site may be variable. In addition, groundwater levels and ground gas concentrations and flows, may vary from those reported due to seasonal, or other, effects and the limitations stated in the data should be recognised. The presence of hotspots of undisclosed contamination or exceptional and unforeseen ground conditions cannot be discounted.

2.3 Where the Services include Investigation of an exploratory nature or relating to physical ground works, any costings and prices provided in the Report are estimated and provided for guidance purposes only. The actual cost and time quantities shall be remeasured and shall be dependent upon the ground or other conditions, constraints present, and number and depth of the investigation locations, which shall influence the number of samples and tests required, and the quantities of soil being classified.

2.4 Asbestos is often observed to be present in soils in discrete areas. Whilst asbestos-containing materials may have been locally encountered during the fieldworks or supporting laboratory analysis, the history of brownfield and demolition sites indicates that asbestos fibres may be present more widely in soils and aggregates, which could be encountered during more extensive ground works. However, this Report does not constitute an asbestos survey. On this basis, the presence of asbestos on site cannot be discounted and a full asbestos survey should be undertaken.

2.5 Unless stated otherwise, only preliminary geotechnical recommendations are presented in this Report and these should be verified in a Geotechnical Design Report, once proposed construction and structural design proposals are confirmed. Eurocode 7 gives guidance on the type of sampling, sample quality, number and spacing of intrusive investigations, and number of laboratory tests required. It is intended that the Geotechnical Information section of this Report will fulfil the general requirements of the Ground Investigation Report as set out in section 6 of Eurocode7, although this is subject to the restrictions imposed on the investigation, as listed above. For geotechnical design, Eurocode 7 requires the Geotechnical Design Report to address both the geotechnical and structural aspects of the geotechnical design for both the limit and serviceability states. The Geotechnical Appraisal section of this Report will not meet the requirements of a Geotechnical Design Report (GDR) and should therefore be used for preliminary guidance only.

3. Service Constraints where the Report relates to Surface Water Management:

3.1 The Surface Water Management Inspection (SWMI) Report, documents provided, observations, actions, and recommendations, with respect to the management of potential pollution issues to surface waters, made during the site Inspection visit, are those present at the time of the visit, and may not represent those recorded by others on the same day.

3.2 The comments given in this Report and the opinions expressed are based on the weather, ground and ground water conditions encountered during the site work and on the results of tests made in the field and in the laboratory. However, there may be conditions pertaining to the site that have not been disclosed by the inspection and therefore could not be taken into account. In addition, groundwater levels and flows, may vary from those Reported due to seasonal, or other, effects and the limitations stated in the data should be recognised.

3.3 RSK places a degree of dependence upon oral information provided by site representatives, which is not readily verifiable through visual inspection, or supported by any available written documentation. RSK shall not be held responsible for conditions or consequences arising from relevant facts that were not fully disclosed by facility or site representatives at the time this Report was prepared.

3.4 This Report is a live document, to be continually reviewed and updated as the development progresses or other changes occur on site. RSK can only maintain the currency of this Report through the Client requesting support with supplementary site visits or attendance at meetings ahead of key stages of the development in relation to surface water management. Our risk rating assesses a number of risk factors in line with the source-pathway- receptor model and is therefore subject to constant change.

3.5 Standard design drawings are indicative. Material types, dimensions and construction details will need to be adjusted by the Client to suit the specific conditions / flows on Site.

3.6 The full responsibility for implementing the site-specific protection and maintenance measures to protect the surface water system as stated in this Report, remains with the Client and their site management team. Additional control measures may be required to achieve the objectives set out in the Surface Water Management Plan to be implemented and financed by the Client.

4. Service Constraints where the Report relates to Waste Management:

4.1 In accordance with the definition provided in the Waste Framework Directive (WFD), materials are only considered waste if 'they are discarded, intended to be discarded or required to be discarded, by the holder'. Naturally occurring soils are not considered waste if re-used on the site of origin for the purposes of development. Soils such as made ground that are not of clean and natural origin (irrespective of whether they are contaminated or not) and other materials such as recycled aggregate, do not necessarily become waste until the criteria above are met. Excavation arisings from the development may therefore be classified as waste if surplus to requirements and/or unsuitable for re-use.

4.2 It is the duty of the waste producer, to ensure that all waste is accurately classified prior to waste disposal. Technical Guidance WM3 (EA, 2018) sets out in its Appendix D requirements for waste sampling. It is a legal requirement to correctly assess and classify waste. The level of sampling should be proportionate to the volume of waste and its heterogeneity. Unless otherwise stated, the waste assessment presented in this Report should be considered as preliminary and further testing and assessment of the waste under the provisions of a Waste Sampling Plan may be required to obtain the necessary level of data required for basic characterisation of the waste in support of disposal.

4.3 Unless stated otherwise in the Report, information relating to historical operations at the site was not reviewed as part of the assessment by RSK. In addition, unless otherwise stated in the Services, RSK was not present during the collection of the samples nor had any input on the chemical testing suite. Therefore, the waste assessment and classification detailed in this Report are based solely on any information that were provided to RSK (e.g., laboratory chemical data, exploratory hole records) and were completed without prejudice for our Client.

4.4 RSK assumes that any ground investigation data, chemical testing results etc., that were provided by the Client to inform the waste assessment and supporting review were carried out in accordance with current best practice and relevant guidance/ standards, where applicable. Thus, the

comments given in this Report and the opinions expressed are based solely on the information provided by the Client. However, it is noted that there may be conditions pertaining to the site that have not been disclosed by the investigation and therefore could not be taken into account as part of the RSK assessment.

5. Service Constraints for Construction Environmental Management Plan Reports:

5.1 This Report should be considered in the light of any changes in legislation, statutory requirement or industry practices that may have occurred subsequent to the date of issue.

5.2 The measures and comments outlined in this Report and any opinions expressed are based on the plans provided at the time and discussions with relevant parties. However, there may be conditions pertaining to the site that have not been disclosed by investigations and therefore could not be taken into account.

5.3 This CEMP is a live document and is subject to change throughout the project, as and when necessary, to ensure management of environmental aspects remains relevant, and to ensure continued compliance with legislation and commitments as they may change. RSK understands that this CEMP will be reviewed by the Client every six months and updated as and when necessary.

5.4 It is the full responsibility of the Principal Contractor/ Client to ensure that their works do not contravene legal requirements, and adherence to this CEMP alone cannot be a full defence regarding legal action against the Principal Contractor.

6. Service Constraints where the Report relates to Ground Gas Membrane Verification:

6.1 This Report is limited to the verification of the gas resistant membrane/vapour membrane/radon barrier after installation and no inspections were undertaken of the substrate (i.e. prepared ground). The Report therefore does not constitute as a full verification of ground gas protection system.

6.2 The comments given in this Report and the opinions expressed, are based on the condition of the ground gas membrane as encountered at the time of inspection by suitably qualified personnel. RSK cannot accept liability for any subsequent change to the status of the gas membrane by follow-on trades or other construction activity.

6.3 Where not designed by RSK, the verification of protection measures is carried out with reference to the gas protection design provided by the Client. RSK assume the scope of gas protection measures as determined by third parties to be correct and to have achieved any required approval from authorities.

6.4 The Ground Gas Design Report/Remediation Strategy and Verification Plan contains details of the procedures to be adopted for inspection and validation of the works. However, it should be noted that responsibility for the correct implementation of the strategy lies with the appointed contractor. RSK cannot be held responsible for any remedial works that are carried out without the agreed procedures involving either direct supervision by RSK, or inspection and validation of the works by a representative from RSK.

7. Service Constraints for Environmental Due Diligence (EDD) Reports:

7.1 The comments given in this Report and the opinions expressed are based on the information obtained and reviewed as part of the desk-based assessment. However, there may be conditions pertaining to the Site that have not been disclosed by the assessment and therefore could not be taken into account. Furthermore, no intrusive investigations, monitoring or sampling have been undertaken to confirm the environmental status of the site, therefore any comments relating to ground conditions and subsurface contamination are based solely on a review of desk-based information.

7.2 This Report describes the results of the EDD exercise. The scope of this EDD Report, where appropriate, covers legal or regulatory compliance with respect to UK or international regulations associated with environmental matters.

7.3 As with any EDD exercise, there is a certain degree of dependence upon information provided by the target company. The EDD does not include a site walkover / visit or liaison with site representatives unless identified in the Services. Therefore, the assessment is based on the available desk study information. Also, there is a certain degree of dependence upon oral information provided by site representatives, which is not readily verifiable through visual inspection, or supported by any available written documentation. RSK shall not be held responsible for conditions or consequences arising from relevant facts that were not fully disclosed by facility or site representatives at the time this EDD exercise was performed.

7.4 This Report, including all supporting data and notes (collectively referred to hereinafter as "information"), was prepared or collected by RSK for the benefit of its Client.

7.5 The comments given in this Report and the opinions expressed are based on the information obtained and reviewed as part of the desk-based assessment and the site inspection visit. However, there may be conditions pertaining to the Site that have not been disclosed by the assessment and therefore could not be taken into account. Furthermore, no intrusive investigations, monitoring or sampling have been undertaken to confirm the environmental status of the Site therefore any comments relating to ground conditions and subsurface contamination are based solely on a review of desk-based information and observations collected during the site inspection visit.

8. Service Constraints for Ground source heat energy Reports:

8.1 It is understood that this is a desktop survey only and that there are no requirements for a site walkover, service utility survey, or provision of service plans. These services can be provided upon request if required.

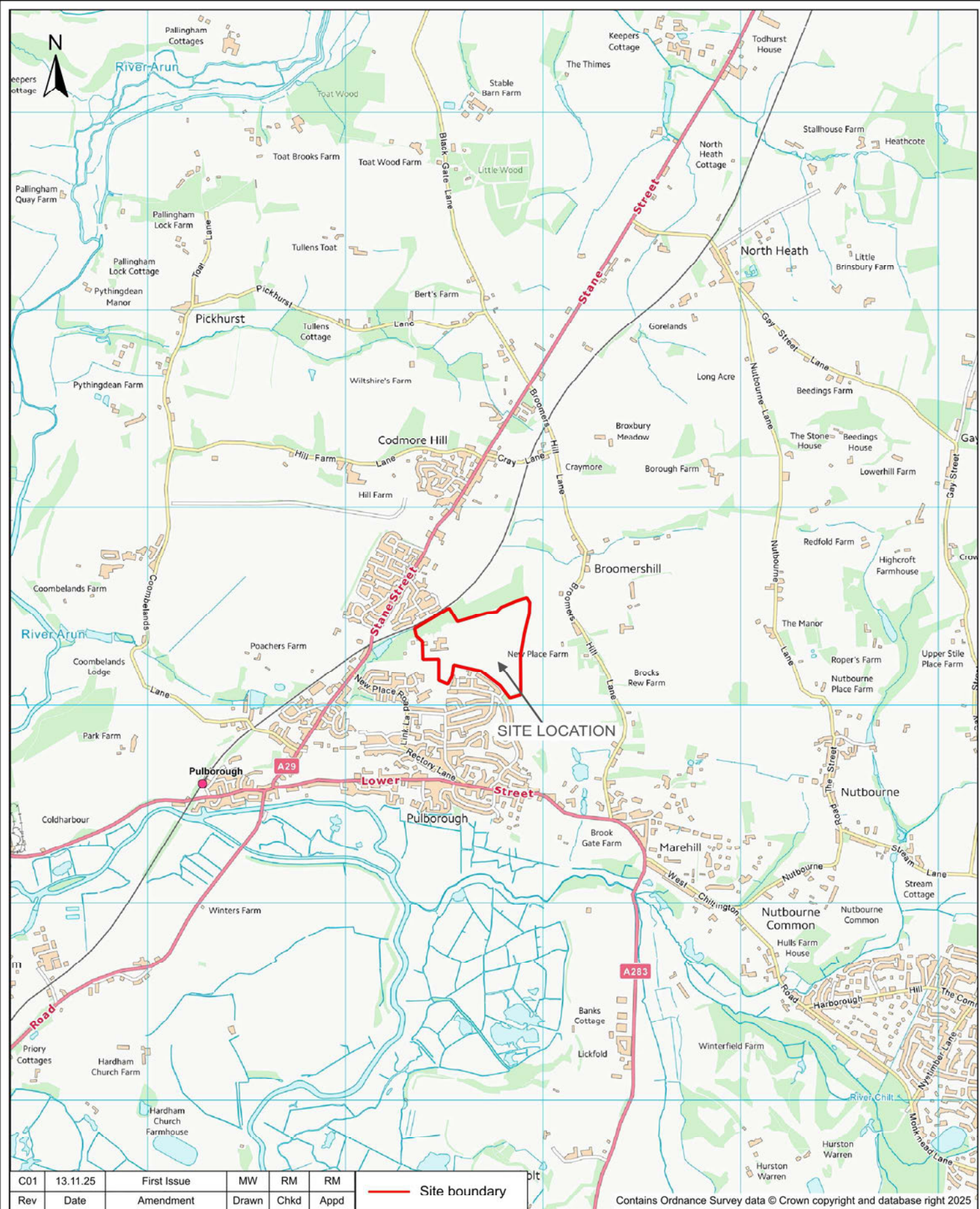
8.2 At a later stage, it is possible that a thermal response test (TRT) will need to be completed, for which a test borehole will have to be drilled, and these would be costed at the time. RSK can provide all aspects of subsequent site work for a GSHP system if required.

9. Service Constraints for Water Abstraction Borehole Reports:

9.1 The Report aims principally to only identify and assess the suitability of the site for a water abstraction borehole. This Report should be considered in the light of any changes in legislation, statutory requirements, and industry practices, that have occurred subsequent to the date of the Report.

9.2 Unless stated in the Report, the opinions expressed in this Report including all comments and recommendations provided are on the basis of the information obtained from a desk-based assessment.

APPENDIX B – FIGURES AND DRAWINGS



1 Forest Park Way, Pease Pottage,
West Sussex, RH11 9ZG

Client

BDW

Project Name

New Place Farm

Description

Site Location Plan

Dimension	Size	Scale	Geolocation	Project ID	Drawing no	Rev	File name
m	A4	1:25,000	505666,119327	3750966	11102	C01	3750966-LW-111-XX-D-G-11102-C01

