# PROPOSED INERT WASTE RECOVERY TEN YARDS LANE QUARRY, DENHOLME, WEST YORKSHIRE

# HYDROGEOLOGICAL RISK ASSESSMENT

*Prepared for*

Silkstone Environmental Limited

March 2026
Ref:033/57/tylq/hra/0326

S M Foster Associates Limited
*Hydrological and Hydrogeological Consultants*

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# 1. Introduction

## 1.1 Report context

This Hydrogeological Risk Assessment (HRA) relates to proposed inert waste recovery at Ten Yards Lane Quarry, Denholme, West Yorkshire. The site is operated by Birks Royd Stone Limited, The Quarry, Ten Yards Lane, Thornton, Bradford, West Yorkshire. This report has been prepared by S M Foster Associates Limited, Hydrological and Hydrogeological Consultants, 7 Bownas Road, Boston Spa, Wetherby, West Yorkshire, LS23 6EX.

Ten Yards Lane Quarry is established in the Pennine Lower Coal Measures. A quarry has been present at the site for many years and has most recently been in continuous operation since June 1985. Some areas of the quarry site had been previously backfilled and have subsequently been subject to final restoration to original ground level as part of the approved restoration scheme for the site.

The quarry is established in the Elland Flags and mineral extraction is continuing in a south westerly direction. The approved restoration scheme for the current workings requires infilling to return the site to original ground level. Importation of inert fill materials is required to allow achievement of the approved scheme.

This HRA has been prepared to support a waste recovery permit application related to deposition of inert fill materials, as required, to achieve the final restoration profile. Available records indicate the potential presence of historic landfilling beneath restored areas of the site. As a consequence, the Environment Agency has advised[1] that a bespoke waste recovery permit is required for this site.

This HRA has been prepared following a detailed site hydrological survey, new hydrogeological baseline assessment and conceptual hydrogeological model development. Given the relatively high hydrological sensitivity of the site, located in close proximity to Doe Park Reservoir, detailed quantitative risk assessment has been undertaken to investigate risk to local water resources. Risk assessment has been supported by development of a probabilistic risk model using the Environment Agency's LandSim modelling tool.

[1] Environment Agency (2023). Email to SEL date 24/10/2023

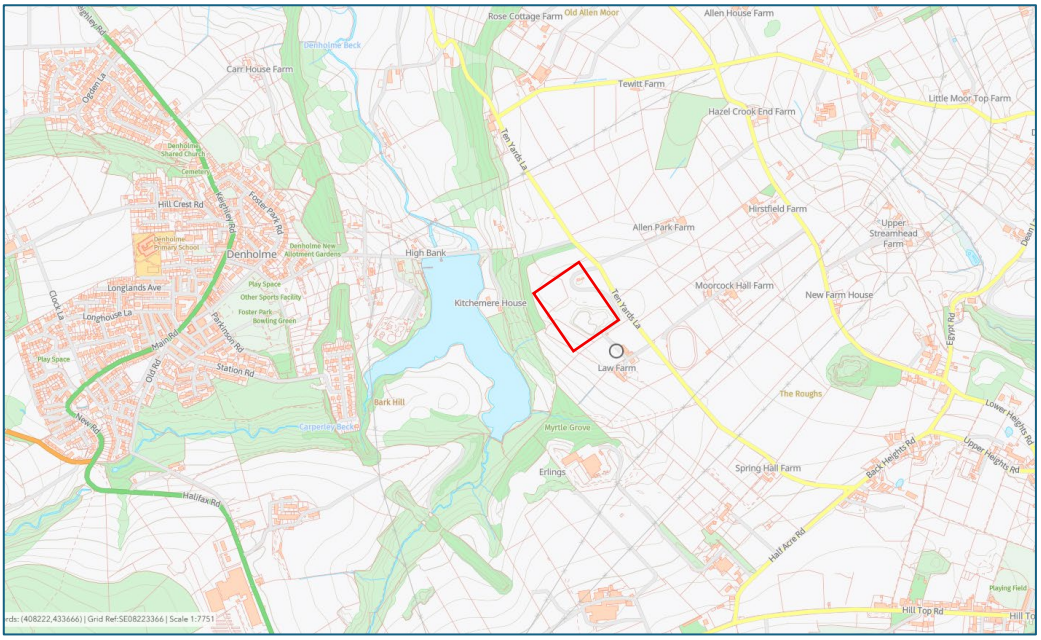
## 1.2 Conceptual hydrogeological site model

Assessment of existing hydrological and hydrogeological conditions at the site and surrounding area has been undertaken by reference to published information sources, site hydrological survey and reference to site specific ground investigation data.

### *1.2.1 Site location, land-use and hydrological context*

Ten Yards Lane Quarry is located to the west of Ten Yards Lane in Thornton, near Denholme in Bradford. The quarry site is accessed directly from Ten Yards Lane. The current working area, the permit application area, is situated in the eastern and southern areas of the quarry site with land to the north and west already fully restored. Site location is shown in Figure 1.

**Figure 1: Site location** © Ordnance Survey




The quarry site is surrounded on all sides by agricultural land consisting of rough pasture and livestock farming. The nearest residential property is Kitchmere House located approximately 150 m to the west of the western site boundary. Doe Park Reservoir is located approximately 120 m from the western site boundary at the closest point. An aerial view of the quarry in relation to surrounding land use is presented as Figure 2.

The quarry is located within the surface water catchment of Denholme Beck which flows south to north via Doe Park Reservoir. There are no surface water features within the quarry site. Springs close to the western site boundary support streams that drain directly to the Doe Park Reservoir. The reservoir is operated by Yorkshire Water as a public water supply reservoir. The location of the site in relation to local hydrology is shown on Drawing 033/57/01.

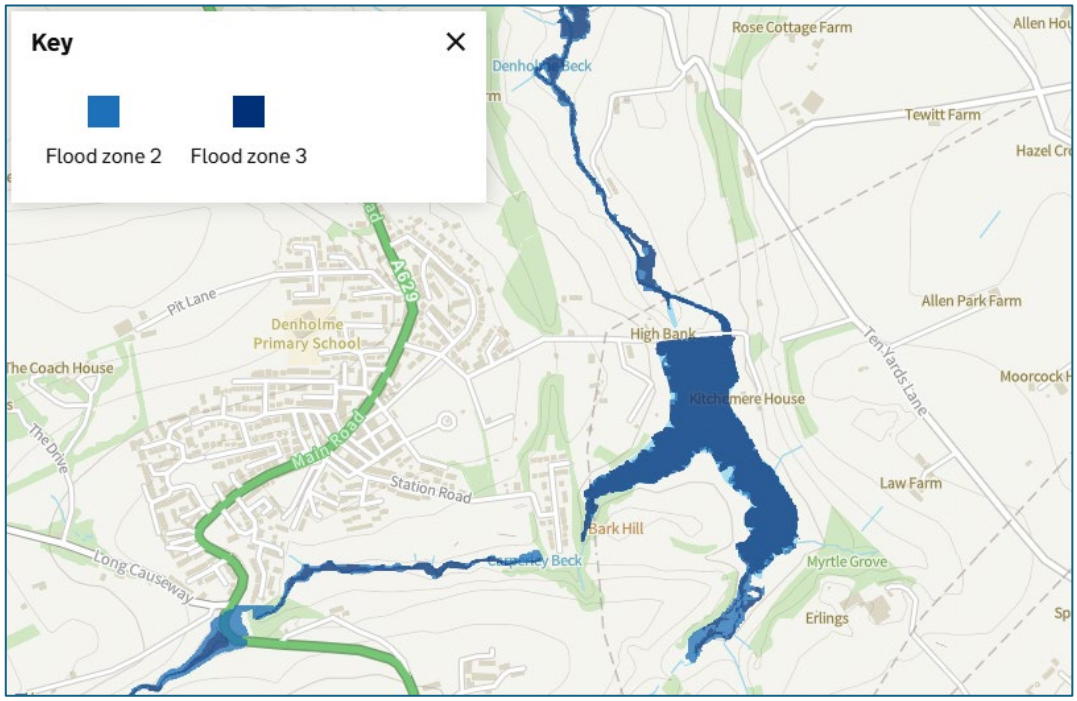
Doe Park Reservoir receives inflow from both Carperley Beck and Denholme Clough to the south of Ten Yards Lane Quarry site. Outflow from the reservoir flows northwards along Denholme Beck to feed Hewenden Reservoir approximately 1.2 km to the north.

FEH catchment modelling indicates that the reservoir receives inflow from a catchment area of 7.95 km$^2$ extending from Thornton Moor in the west and Denholme gate in the south.

**Figure 2: Aerial view of Ten Yards Lane Quarry** © Ordnance Survey


The only other water feature in the vicinity of the quarry is a small spring that originates from strata approximately 50 m to the west of the application area. The spring emerges from a brick built headwall and flows in a shallow channel westwards to Doe Park Reservoir. The spring was visited on 13th March 2026 and observed to be flowing at approximately 0.5 l/s with clear water.

**Figure 3: Environment Agency Flood Map for Planning extract** © Environment Agency



The Environment Agency Flood Map for Planning confirms that the quarry and surrounding area is designated Flood Zone 1 and therefore is not considered to be at risk of fluvial flooding. An extract from the flood map is included as Figure 3. The Environment Agency surface water flood risk map for the area indicates that, with the exception of a shallow depression within the quarry site, the only areas considered to be at risk of surface water flooding are the routes of local surface watercourses.

Reference to the Defra mapping of the Site and surrounding area confirms that there are no statutory or non-statutory designed sites within the area and no other defined hydrologically dependent features.

Surface water quality in Harden Beck downstream of Hewenden Reservoir to the north east of the Site was last determined in 20000 resulting in a GQA quality classification of B.

### *1.2.2 Local geology*

As shown in the geological report at Appendix A, British Geological Survey (BGS) mapping of the site and surrounding area indicates that Ten Yards Lane Quarry is established in the Elland Flags sandstone of the Pennine Lower Coal Measures consisting of interbedded mudstone, siltstone and sandstone. There is no recorded superficial cover.

Permitted mineral extraction incorporates excavation to a depth of up to 26 mbgl in the south eastern part of the quarry. With pre-extraction ground level of approximately 295 mAOD, the minimum floor elevation is 269 mAOD. Lithological sections for the quarry site indicate interbedded mudstone, sandstone and flagstone. Borehole logs provide a general geological succession for the site as summarised in Table 1. Borehole logs, locations and the planned base of excavation are shown on drawings at Appendix B

**Table 1: General geological succession at Ten Yards Lane Quarry**

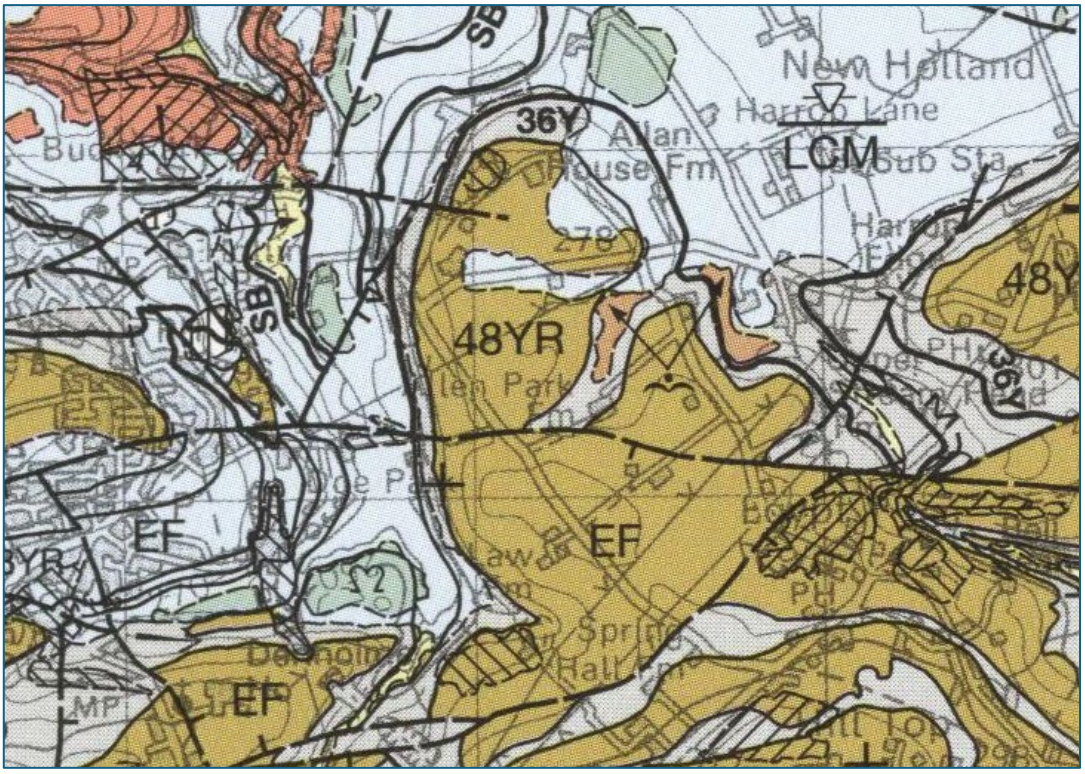
| Lithology | Thickness (m) |
|---|---|
| Brown Sandstone | 13 |
| Grey Mudstone | 7 |
| Brown Sandstone | 6 |
| Grey Mudstone | 1 |
| Brown Sandstone | 2 |
| Grey Shale/Mudstone | 21.5+ |

British Geological Survey (BGS) mapping of the area (Sheet 69 Bradford) indicates that the Elland Flags are generally dipping to the east at an angle of 4 – 9$^{o}$ with direction of dip influenced by local and regional faulting. This is consistent with the configuration of quarry in which the deepest excavations are located at the eastern side of the site. The geological structure in the area is shown on Figure 4.

The Elland Flags are underlain by coal measure mudstone with a mapped thickness of up to 50 m. Historic borehole logs in the vicinity of Ten Yards Lane Quarry indicates a mudstone thickness of 15 m beneath the Elland Flags and above the underlying 80 Yard

Rock. As indicated in Table 1, borehole records demonstrate over 21.5 m of mudstone at BH1 in the north of the site.

**Figure 4: Extract from BGS Sheet 69 Bradford showing general geological structure in the vicinity of Ten Yards Lane Quarry** © BGS




As shown in Figure 4, the Elland Flags are faulted against the 48 Yard Rock to the north with an extensive east-west trending fault approximately 100 m to the north of the application area.

Survey of historic land use at the site indicates the presence of a former landfill in the north western corner of the site, but outside the permit application area. As indicated in Envirocheck data reports at Appendix A, the area is identified as a landfill that received inert waste and operated between March 1969 and December 1974. There are no other available records of historical landfilling at the site.

The majority of the area identified as a historic landfill site was re-worked to recover stone by the current site operator several years ago and the area has now been backfilled and fully restored to greenfield land at original ground level. The site operator reports that no waste deposits were encountered whilst working in the area and there was no evidence to indicate that the site received waste materials. It is speculated that, whilst a permission to deposit inert waste was obtained by the previous site owner, the quarry was never actually used as a waste repository due to preferential use of a nearby historic landfill at Black Dyke Quarry.

### *1.2.3 Hydrogeology*

The Pennine Lower Coal Measures bedrock is designated a Secondary A Aquifer by the Environment Agency, based on the following definition.

*Secondary A Aquifers are permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases form an important source of base flow to rivers.*

In general, coal measures strata consist of a sequence of interbedded mudstones, siltstones and sandstones, with associated coals and seatearth. Sandstone units within the sequence tend to have greatest capacity for storage and transmission of groundwater, although many sandstone horizons are relatively impersistent and exhibit highly variable thickness. The highly indurated nature of most coal measures sandstones means that groundwater flow tends to occur via transmissive discontinuities, where present. Weathered or fractured sequences within coal measures mudstones may also have limited potential for storage and lateral transmission of groundwater. The interlayered nature of coal measures strata, dominated by lower permeability mudstones, tends to preclude the development of any significant vertical hydraulic continuity and hence the more permeable sandstone horizons tend to act as discrete aquifer units.

The Elland Flags constitute one of the more important Lower Coal Measures sandstone aquifers in the area[2], although water resource significance is influenced by aquifer partitioning due to local faulting. The Elland Flags form a series of jointed and fractured sandstone, siltstone and mudstone beds. Any groundwater present in the Elland Flags in the vicinity of Ten Yards lane Quarry is likely to be flowing at the base of the sequence at the junction with the underlying mudstone.

Groundwater flowing along mudstone boundaries within multi-layered coal measures sequence tends to emerge at springs and issues where stratigraphic junctions are intersected. As shown on Drawing 033/57/01, two springs emerge from the base of the Elland Flags to the west and south west of the quarry site. The topographic elevation of the spring line suggests that groundwater is emerging at an elevation of approximately 255 mAOD around the western boundary of the site with a north east-south west hydraulic gradient. On this basis the rest groundwater level within the quarry site would be approximately 260 mAOD, well below the planned base of extraction at approximately 269 mAOD.

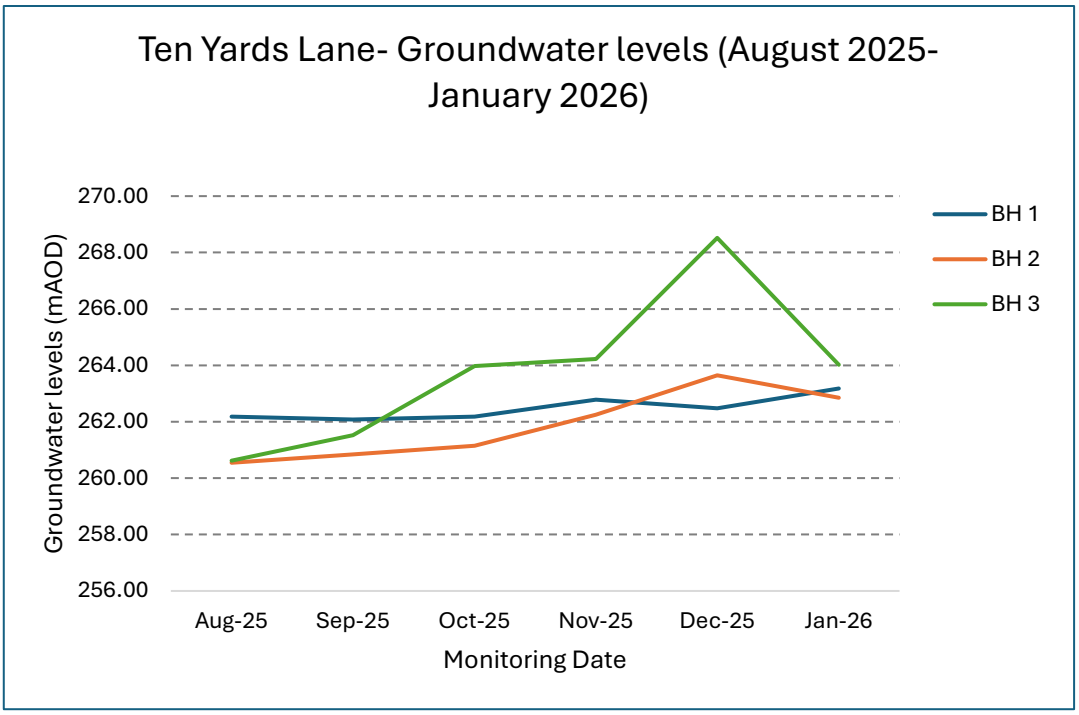
Three groundwater monitoring boreholes were installed at the site in 2025. Borehole locations are shown on drawings at Appendix B. On the basis of the inferred groundwater flow direction, as discussed above, two of the boreholes are located down-gradient (BH2 and BH3) and the third (BH1) is located up-gradient. Groundwater levels and groundwater quality has been monitored on a regular basis since borehole installation. Groundwater levels for the period August 2025 to January 2026 are presented in Figure 5.

As shown in Figure 5, during August 2025 the observed groundwater level in BH1 was approximately 262.0 mAOD with levels at BH2 and BH3 approximately 260.5 mAOD. This is consistent with the local hydraulic gradient determined from spring locations. During site hydrological survey in March 2026 it was observed that a substantial volume of water had accumulated in the base of the deeper excavations within the quarry. It was

[2] Environment Agency. (2000). The physical properties of minor aquifers in England and Wales. R&D publication 68. NERC 2000.

noted that in two locations, excavation had progressed to greater depth than 269 mAOD. Accumulated water within the quarry is considered to be the result of excessive rainfall during early 2026. Elevated water level in BH3 in particular, is likely to be representative of water level within the locally flooded excavation area rather than a true representation of groundwater at the base of the Elland Flags. As indicated on Figure 5, by the end of January groundwater level at BH3 had started to decline.

**Figure 5: Groundwater level variation Aug 25 – Jan 26**




The above analysis suggests that groundwater in the Elland Flags is flowing in a south westerly direction with an average hydraulic gradient of approximately 0.01. It is considered likely that any groundwater flowing through or beneath the quarry excavations is emerging at the two springs to the west and south west of the site. There is unlikely to be any significant potential for groundwater to drain vertically to underlying strata.

A search of local agency records confirms that there is one licenced groundwater abstractions within a 1km radius of the centre of the site. Details are included in full in the Envirocheck datasheet at Appendix A and summarised in Table 2.

**Table 2: Licenced groundwater abstractions within 1km radius of Ten Yards lane Quarry**

| Licence No. | Owner | Location | Distance from site (m) | Source |
|---|---|---|---|---|
| Ne/027/0016/017 | Omega Proteins Ltd | Erling Works – Boiler feed water | 478 S | LCM |

Records indicate that groundwater abstracted under licence Ne/027/0016/017 is abstracted from a borehole. There are no available records to indicate the depth of the borehole or the source of groundwater. However, given that groundwater present in the Elland Flags beneath the quarry site appears to occur at shallow depth, there may be

insufficient resource available to meet industrial demand. Groundwater may therefore be abstracted from greater depth e.g. the underlying 80 Yard Rock.

It is noted that there is usually a nominal 50 m radius groundwater source protection zone (SPZ) around licenced groundwater abstractions. Available records (Magic map) show that there is no SPZ at the Erling Works abstraction. This may mean that the abstraction is no longer operational. It is understood that the only previously identified private water supply (OWS) in the area, at Kitchemere House, is no longer in use and was replaced by a mains water supply several years ago.

Groundwater quality data for all three monitoring boreholes is available for each of the six months from August 2025 to January 2026. Full details are included for reference at Appendix C. Analytical results demonstrate that groundwater at the base of the Elland Flags is uncontaminated. There is a general absence of heavy metals in groundwater and no evidence of organic contamination. Monitoring data indicates that, in general, groundwater down-gradient of the quarry site is slightly better quality than groundwater up-gradient, confirming that extractive operations are having no adverse impact on local groundwater quality.

The only observed exceedance of EAL, based on the MRV for hazardous substances, is the total PAH content of groundwater samples. In comparison to an MRV of 0.1 ug/l, up-gradient groundwater results indicate a maximum total PAH value of 7.07 ug/l with maximum values of 9.42 ug/l and 9.88 ug/l at BH2 and BH3 respectively. Reference to PAH data confirms that the majority of the PAH content is derived from phenanthrene and pyrene, both of which are related to coal tar (creosote) sources. Given the similarity of PAH content up-gradient and down-gradient of the site it is considered unlikely that such substances are derived from quarry activity and may be naturally derived from drainage through coal measures strata.

Whilst there is no data to determine the quality of water in either of the peripheral springs, during on-site observation there was no visual evidence of any contamination of flowing spring water at the western spring.

It is apparent, on the basis of groundwater quality analysis, that if landfilling of waste materials did occur at the north western corner of the site up until 1974, it is having no adverse impact on groundwater quality at the base of the Elland Flags. Given that the western spring is located at the southern boundary of the area defined as a former inert landfill, associated with backfilling previous quarry workings, there is no evidence to indicate contamination of groundwater as a consequence of historic landfilling.

### *1.2.4 Conceptual hydrogeological model*

Potential hydrogeological impacts of the proposed development have been assessed by reference to a standard source-pathway-receptor approach to impact assessment. The source-pathway-receptor relationships at the site are illustrated through the development of a conceptual hydrogeological model which is presented on Drawing 033/57/02.

Sources

The site would be licensed to accept inert wastes only. For the purpose of this assessment it has been assumed that all waste received at the site would comply with the inert waste acceptance criteria (WAC). The inert waste WAC limit values have been used to derive a source term for risk modelling.

By definition, inert waste deposited at the site should be stable and non-reactive. However, given the types of waste accepted, there is potential for inclusion of trace quantities of some substances that may be leachable in infiltrating rainwater. With particular reference to the potential presence of concrete, construction waste and ceramics it is considered that waste materials could contain trace amounts of the following substances:

- Chloride
- Sulphate
- Arsenic
- Lead

Sulphate is included to represent the potential for construction waste to contain small amounts of plasterboard and similar products. Arsenic and lead can be present in glazes or paints used on ceramic products, tiles etc. Chloride is included as a reference conservative substance. For the purpose of this assessment it has been assumed that all waste received at the site would comply with the inert waste acceptance criteria (WAC). The inert waste WAC limit values have been used to derive a source term for risk modelling.

Limit value concentrations in mg/l have been derived by division of the L/S 10 l/kg leach test data by 10. The analysis indicates that several substances included in the WAC would be below the UK Drinking Water Standard (UKDWS) concentration at source and therefore achieve the relevant environmental assessment level (EAL) without any further attenuation. With the exception of the four substances listed above, such substances have been excluded from the source term for risk assessment.

**Table 3: Inert waste source term derivation**

| Substance | Reference concentration (mg/l) | EAL (mg/l) |
|---|---|---|
| Arsenic | 0.05 | 0.01 |
| Barium | 2.00 | 1.00 |
| Cadmium | 0.004 | 0.0001 |
| Chloride | 14 - 120 | 250 |
| Lead | 0.05 | 0.0002 |
| Nickel | 0.04 | 0.02 |
| Sulphate | 73 - 690 | 250 |

The source term has been developed from substances that would exceed the UKDWS at source. The source term used in all risk assessment is defined in Table 3. In addition, a source concentration for chloride and sulphate has been determined by reference to

historic analytical data[3] for comparable inert waste leachate obtained from other sites. The full source term is presented in Table 3

Pathways

At full development, the quarry excavation area would be as indicated on drawings at Appendix B. The quarry floor would be underlain by residual interbedded layers of sandstone and mudstone above the underlying lower coal measures mudstone. Areas of the current excavation that have extended below the planned base of working would be infilled with on-site quarry overburden to bring the floor level back up to planned levels. The top of the underlying mudstone formation is estimated to be approximately 248 - 262 mAOD across the site with groundwater at approximately 260 mAOD.

As shown on Drawing 033/57/02, the above analysis indicates that the excavation floor would be underlain by 9-20 m thickness of unsaturated Elland Flags, consisting of interbedded sandstone and mudstone, above the underlying lower coal measures mudstone.

As discussed above, there is no significant potential for groundwater at the base of the Elland Flags to drain vertically due to the low vertical permeability of the underlying mudstone. All potential groundwater flow pathways are therefore based on lateral flow at the base of the flags. Faults to the north and south of the quarry site may limit the potential for groundwater flow across fault lines. With a south westerly direction of flow, the primary pathway for groundwater flowing beneath the site would be south westerly flow through the lower few metres of the Elland Flags, towards surface water discharge at peripheral springs. Pathways are defined as follows.

**Pathway 1** – Vertical drainage from inert waste deposits through the unsaturated zone followed by lateral drainage to local spring receptors.

Potential contaminant migration pathways are shown graphically on Drawing 033/57/02.

Contaminant migration characteristics via Pathway 1 would be influenced by the hydrogeological properties of mudstone and sandstone formations and local groundwater flow conditions. There is no site-specific data to define the hydraulic conductivity of the Elland Flags, or the lower coal measures in general, at the quarry site. Reference to published data sets[4] indicates that coal measures sandstones are generally extremely hard and dense with little primary porosity and low intergranular permeability. Groundwater storage and movement occurs predominantly within and through fractures in the sandstones.

Analysis of core samples from coal measures sandstones indicates average Lower Coal Measures porosity and permeability of 15% and 0.42 m/day respectively. There is very limited pumping test information on hydraulic properties of coal measures strata, with available data suggesting a transmissivity of 4 to 40 m/day. If, for the dataset referenced,

[3] Todd (2005) Groundwater hydrology
[4] Environment Agency. (2000). The physical properties of minor aquifers in England and Wales. R&D publication 68. NERC 2000.

an average sandstone thickness of 10 m is assumed, with fully saturated conditions, a hydraulic conductivity range of 0.4 to 4 m/day results. On the basis of available information it is reasonable to assume that coal measures sandstones typically have intergranular permeability of around 0.4 m/day ($4.6 \times 10^{-6}$ m/sec) with secondary fracture-based permeability an order of magnitude higher at around 4m/day ($4.6 \times 10^{-5}$ m/sec).

Laboratory hydraulic conductivity testing on coal measures mudstone at a nearby location returned a value of $8.8 \times 10^{-13}$ m/sec. However, it is acknowledged that this is a rock mass hydraulic conductivity and may not be representative of mudstone hydraulic conductivity at site-scale when fracture induced secondary porosity is accounted for if present. A representative mudstone hydraulic conductivity value of $1 \times 10^{-9}$ m/s has been assumed in the HRA.

Receptors

Baseline hydrogeological assessment has provided the basis to identify potential discharge points from the groundwater systems at and beneath the quarry site. Available evidence indicates that groundwater in the Elland Flags discharges to peripheral springs at the western side of the application site. Both springs drain directly to Doe Park Reservoir.

Review of the location of local licenced groundwater abstractions in relation to hydrological and geological data for the area has demonstrated that a single licenced abstraction is located within a 1km radius of the quarry site. Whilst available evidence indicates that groundwater abstracted from a borehole at Erling Works, 478 m south of the quarry site, is likely to be derived from greater depth, it is included in this risk assessment as a potential receptor of any contamination arising from waste deposition at the site. On the basis of the above analysis, the following receptors are relevant to hydrogeological risk assessment.

- Groundwater in the Elland Flags Sandstone
- Spring flow at the western site boundary
- Groundwater at Erling Works
- Surface water in Doe Park Reservoir

Groundwater in the Elland Flags beneath the site is relevant to risk associated with migration of any hazardous substances where the relevant compliance point is the base of the unsaturated zone. For non-hazardous substances, the relevant compliance points are the downstream receptors at local springs, abstractions and surface water systems.

# 2. Hydrogeological risk assessment

## 2.1 The nature of the hydrogeological risk assessment

Hydrogeological risk assessment has been undertaken on a tiered basis, in accordance with current Environment Agency guidance. The hydrogeological sensitivity of Ten Yards Lane Quarry is considered to be relatively high due to the location of Doe Park Reservoir close to the western site boundary. Although located on a Secondary A Aquifer, the aquifer designation primarily relates to the more permeable sandstone units within the

Lower Coal Measures Formation beneath the site. The site is underlain by low permeability coal measures mudstone.

The proposed waste recovery activity would be restricted to importation of inert waste materials only. As a consequence, the activity would involve the use of materials with low polluting potential. Tier 1 – Qualitative risk screening has been undertaken to establish whether the activity would have the potential to introduce risk to local groundwater systems and surface water receptors. Where necessary, more detailed Tier 3 – detailed quantitative risk assessment has been undertaken in relation to specific substances and receptors.

## 2.2 The proposed assessment scenarios

Risk assessment has been undertaken for the full operational phase of the recovery activity and for the post-completion period. It is assumed that recovery operations will take place over a period of up to 10 years. The site will then be restored by placement of soils to produce a suitable drainage profile. Completion risk assessment has been undertaken for the remaining period.

*Lifecycle phases*

The composition of waste accepted at the site is expected to remain relatively constant over the lifetime of the facility. Lifecycle phases are therefore restricted to pre and post operational phases in which there would be no major hydrogeological change.

The source term is defined by the list of substances that could be present in the waste in trace quantities. Source term definition has been based on the results of leachate composition analysis from other sites accepting similar waste and analysis of inert waste WAC values. The source term used in the LandSim model is defined in Table 4.

**Table 4: Inert waste source term derivation**

| Substance | Source term concentration (mg/l) |
|---|---|
| Arsenic | 0.05 |
| Barium | 2.00 |
| Cadmium | 0.004 |
| Chloride | 14 - 120 |
| Lead | 0.05 |
| Nickel | 0.04 |
| Sulphate | 73 - 690 |

## 2.3 Review of technical precautions

The site would be licensed to receive inert waste. As discussed at Section 1 of this report, the site is located on a Secondary A Aquifer. In addition to a layer of compacted quarry backfill, the quarry floor consists of low permeability coal measures mudstone that would form a natural hydraulic barrier between inert waste materials and the lower sandstone aquifer. Groundwater monitoring records indicate that and unsaturated zone of 9 -20 m would be present beneath the base of the inert waste material.

## 2.4 Tier 1 – Qualitative risk screening

Tier 1 risk screening has been undertaken in accordance with Environment Agency guidance on groundwater risk assessment for environmental permitting. Derivation of a representative inert waste source term, as detailed at Section 1, has already involved initial risk screening to establish which substances potentially present in inert waste materials could be present at concentration above the relevant EQS. The analysis resulted in the conclusion that five substances could exceed the relevant EQS and, together with two other representative substances, should therefore be subject to further risk analysis.

Of the seven priority substances, arsenic, cadmium and lead are defined as hazardous substances. Barium, chloride, nickel and sulphate are defined as non-hazardous substances. The compliance point for hazardous substances is entry to groundwater i.e. the base of the unsaturated zone. Dilution and dispersion processes in the aquifer are therefore not relevant to risk assessment for hazardous substances. Relevant attenuation processes are restricted to processes active during migration through the unsaturated zone. For non-hazardous substances, the compliance point is defined as the relevant downstream receptor and therefore dilution in the aquifer is relevant.

Dilution factors for the contaminant migration pathway have been calculated by comparison of potential leachate migration rates and groundwater flow rates beneath or adjacent to the quarry site.

A provisional estimate of the effect of attenuation processes in the unsaturated zone, consisting of the in-situ sandstone and mudstone, has been undertaken by estimation of substance retardation factors on the following basis.

Retardation factor (Rf) = 1 + (p/n) x Kd, where

p = bulk density of the mudstone ($g/cm^3$)
n = effective porosity of the mudstone
Kd = substance specific distribution coefficient (ml/g)

Retardation, resulting from a combination of processes including ion exchange, sorption, degradation and precipitation/dissolution, can result in significantly increased substance travel time leading to a reduction in peak concentration. Retardation effects have been estimated through calculation of changes to the groundwater recharge volume over an increased migration timescale and hence proportionate reduction in substance concentration. Unsaturated zone properties and substance specific parameters have been derived from other quantitative studies of inert leachate migration through unconsolidated granular materials. Most quantitative assessments apply a range of Kd values to represent parameter uncertainty. For this Tier 1 assessment, adopting a conservative approach, minimum Kd values have been applied to represent reasonable ‘worst case’ conditions. The results are presented in Table 5.

**Table 5: Estimated substance concentrations after attenuation**

| Substance | Source term (mg/l) | EAL (mg/l) | Assumed minimum Kd | Retardation factor | Attenuated concentration at base of unsaturated zone (mg/l) |
|---|---|---|---|---|---|
| Arsenic | 0.05 | 0.005 | 100 | 400 | 0.0001 |
| Barium | 2.00 | 1.00 | 300 | 1200 | 0.0017 |
| Cadmium | 0.004 | 0.0001 | 1.6 | 6.4 | 0.0006 |
| Chloride | 120 | 250 | 0 | 0 | 120 |
| Lead | 0.05 | 0.0002 | 27 | 108 | 0.0005 |
| Nickel | 0.04 | 0.02 | 400 | 1600 | 0.0005 |
| Sulphate | 690 | 250 | 0 | 0 | 690 |

The results of provisional attenuation analysis, as presented in Table 5, suggest that, at the base of the unsaturated zone, the concentration of all priority substances is likely to have been reduced to below the relevant EAL, with the exception of cadmium, lead and sulphate. The difference between the estimated attenuated concentrations and the relevant EAL is generally large enough to account for uncertainty and assumptions used in the analysis. On the basis that the relevant compliance point for hazardous substances cadmium and lead is the point of entry to groundwater, the analysis indicates that there could be a discernible release of hazardous substances to groundwater. Further quantified risk analysis is required for cadmium and lead.

**Table 6: Estimated substance concentrations after attenuation and dilution**

| Substance | Source term (mg/l) | EAL (mg/l) | Attenuated concentration at base of mudstone/barrier (mg/l) | Concentration after attenuation and dilution (mg/l) |
|---|---|---|---|---|
| Arsenic | 0.05 | 0.005 | 0.0001 | - |
| Barium | 2.00 | 1.00 | 0.0017 | 0.0009 |
| Cadmium | 0.004 | 0.0001 | 0.0006 | - |
| Chloride | 120 | 250 | 120 | 67 |
| Lead | 0.05 | 0.0002 | 0.0005 | - |
| Nickel | 0.04 | 0.02 | 0.0005 | 0.0003 |
| Sulphate | 690 | 250 | 690 | 383 |

On the basis of Tier 1 analysis, the only non-hazardous substance predicted to exceed the EAL is sulphate. For non-hazardous substances the relevant compliance point is the down-gradient boundary of the site or defined down-gradient receptors. Dilution in the groundwater system is therefore relevant to non-hazardous substances. A dilution factor has been estimated by comparison of recharge rate over the site and groundwater flow rate through the unsaturated zone beneath the site. Recharge is calculated as 20% of annual rainfall over an approximate site area of 45,000 $m^2$, resulting in a site-wide recharge rate of approximately 20 $m^3/d$. Groundwater flow is estimated for a mixing zone of 3 m, a hydraulic gradient of 0.01 and an average hydraulic conductivity of 4.6 x $10^{-5}$ m/s, resulting in an average groundwater flow rate beneath the site of approximately 36

$m^3$/d. The resultant dilution factor is therefore approximately 1.8. Non-hazardous substance concentrations after dilation are presented in Table 6.

The effect of dilution would further reduce non-hazardous substance concentrations at the downstream compliance point of defined receptors.

The above Tier 1 Qualitative risk screening analysis indicates that at the relevant compliance point the concentration of all non-hazardous priority substances, with the exception of sulphate, would be reduced to below the relevant EAL following retardation and dilution.

Tier 1 analysis indicates that the concentration of hazardous substances cadmium and lead and non-hazardous substance sulphate have the potential to exceed the relevant EAL at the relevant compliance point. Further quantitative analysis is therefore required to investigate the fate of these substances in more detail. As the requirement for quantitative analysis is substance specific, rather than generic, it is appropriate to bypass Tier 2 Generic quantitative risk assessment and undertake Tier 3 Detailed quantitative risk assessment for both cadmium and lead.

## 2.5 Tier 3 – Detailed quantitative risk assessment

Quantified hydrogeological risk assessment has been undertaken with the LandSim v2.5 model which is approved by the EA for use in the UK. The model allows simulation of contaminant migration to multiple receptors and supports analysis of simulation uncertainty through sensitivity analysis. Full details of model configuration are provided in following sections of this report. Relevant model file names are as follows:

LandSim model files

**Baseline model**

Configuration files: *Ten Yards.sim*

Results file: *Ten Yards.rst*

**Sensitivity analysis results files**

*Ten Yards varied kd.rst*

*Ten Yards varied kd.rst*

### *2.5.1 Model parameterisation*

Model parameterisation has been based on published data sets and site-specific information derived from previous hydrogeological studies and recent monitoring at the site. The majority of model input parameters are defined as a single value due to an absence of more detailed data from which to define data ranges. However, to produce a more representative input for substance retardation factors in granular materials alternative Kd values have been applied.

For cadmium, the LandSim reference suggests a Kd within the range 1.6 – 1500 l/kg for sand and loam. Reference to other studies for cadmium distribution indicate higher Kd

values. Kd values for cadmium in alluvium in a 1989 US study[5] were within the range 4,430 – 6,410 l/kg and a 2003 Danish study[6] reported Kd values in the range 5 – 3000 l/kg. On this basis a mid-point value of 1500 l/kg has been applied to cadmium for quantitative risk modelling in LandSim.

For lead, the LandSim reference suggests a Kd within the range 27 – 270,000 l/kg for sand and loam. This wide range incorporates the range of values referenced elsewhere in the literature and has therefore been applied to risk modelling in LandSim.

Full model configuration details are provided in the LandSim model file included at Appendix F. Key model input parameters are summarised in Table 7.

**Table 7: Model input parameters.**

| PARAMETER | VALUE | DERIVATION/JUSTIFICATION |
|---|---|---|
| Infiltration | Infiltration to open waste – 100mm/year<br><br>Infiltration through restored surface – 50mm/year | Rainfall obtained from FEH rainfall ddf models for the site. Infiltration estimated by reduction of losses to evapotranspiration and surface runoff within the site.<br><br>The site will be restored and re-profiled leading to increased runoff and evapotranspiration post completion. |
| Cell Geometry | Phase 1: Model based on 1 cell with dimensions 350m x 200m.<br><br>Waste thickness – uniform distribution 5 – 20m<br><br>Waste porosity – triangular distribution (0.639,0.64,0.642)<br><br>Waste density – triangular distribution (1.58,1.59,1.60)<br><br>Waste Field capacity – triangular distribution (0.2, 0.3, 0.35) fraction<br><br>Leachate head at surface breakout – 5m | Dimensions abstracted from site survey drawings<br><br>Dimensions obtained from site survey drawings<br><br>Estimate based on average laboratory analysis of similar inert wastes from other sites<br><br>Estimate based on average laboratory analysis of similar inert wastes from other sites<br><br>LandSim default range<br><br>Estimate based on site levels and configuration |
| Leachate Inventory | Lead<br>Leachate – single value<br>0.05 mg/l<br>Cadmium | Leachate concentrations for all substances taken from leachate source term |

[5] Del Debbio J A (1990) Sorption of strontium, selenium, cadmium and mercury in soil. Radiochimica Acta 52/53 181-186
[6] Holm PE et al (2003) Correlation of cadmium distribution coefficients to soil characteristics

| | | |
|---|---|---|
| | Leachate – single value<br>0.004 mg/l<br>Sulphate<br>Leachate – single value<br>690 mg/l | |
| Engineered barrier | No EBS | |
| Unsaturated pathway<br>Elland Flags | Pathway length<br>Uniform distribution<br>9.0 – 20.0 m<br><br>Moisture content – 0.4 fraction<br><br>Hydraulic conductivity $4.6 \times 10^{-6}$ - $4.6 \times 10^{-5}$ m/s<br><br>Longitudinal dispersion – 0.3m | Data from monitoring borehole logs<br><br>Estimate for unsaturated silty sand & gravel based on analytical data from other site and reference to technical literature<br><br>Typical value obtained from literature<br><br>Based on LandSim manual guidance using Neuman 1990 formula |
| Aquifer flow<br>Elland Flags | Pathway width – 300m<br><br>Mixing zone thickness – uniform distribution<br>2m – 9m<br><br>Hydraulic conductivity $4.6 \times 10^{-5}$ m/s<br><br>Regional Gradient – 0.01<br><br>Pathway porosity – 0.25 fraction<br><br>Pathway longitudinal dispersivity – 30m<br><br>Pathway transverse dispersivity – 3m | Groundwater flow pathway width estimated from hydrogeological assessment as summarised in conceptual hydrogeological model<br><br>Estimate based on conceptual hydrogeological model<br><br>Typical value obtained from EA publication Physical properties of minor aquifers in England and Wales.<br><br>Hydraulic gradient measured from spring levels in WHR.<br><br>Typical value obtained from EA publication Physical properties of minor aquifers in England and Wales.<br><br>Based on LandSim manual guidance as 0.1 x pathway length<br><br>Based on LandSim manual guidance and reference to technical literature as 0.1 x longitudinal dispersivity. |

### *2.5.2 Sensitivity analysis*

Quantified risk modelling results are most sensitive to variation in the characteristics of the unsaturated zone. Sensitivity analysis has been undertaken to investigate variation in unsaturated zone hydraulic conductivity and substance retardation parameters. Hydraulic conductivity values have been increased by an order of magnitude. Retardation parameters have been varied to represent alternative data sets reported in the literature.

Retardation parameters for cadmium are amended to the LandSim reference range of 1.6 – 1500 l/kg and for lead are amended to a single mid-point value of 135,000 l/kg to investigate sensitivity to variation in retardation characteristics. The results of all models are presented in the following sections.

### *2.5.3 Accidents and their consequences*

There are no engineered system to damage. Accidental spillage or local contamination within the site would be fully contained within the site boundary and managed as part of the site internal water management system without additional risk to water resources.

## 2.6 Emissions to groundwater

### *2.6.1 Hazardous substances*

The potential release of hazardous substances to groundwater at the base of the unsaturated zone has been investigated through detailed quantitative risk modelling. The results are presented in full at Appendix D.

Model results indicate that over the lifetime of the proposed recovery activity and subsequent years, the peak concentration of priority substances at the base of the unsaturated zone would be as summarised in Table 8.

**Table 8: Hazardous substance peak concentrations at the base of the unsaturated zone**

| Substance | Peak concentration (mg/l) | Time of peak concentration (yrs) |
|---|---|---|
| Cadmium | 0.0 | n/a |
| Lead | 0.0 | n/a |

Model results demonstrate that, at the 95% confidence level, there would be no discernible release of either cadmium or lead at the base of the unsaturated zone.

Increasing the unsaturated zone hydraulic conductivity range by an order of magnitude to 4.6 x $10^{-5}$ to 4.6 x $10^{-4}$ m/s has no effect on the predicted concentration of either cadmium or lead at the base of the unsaturated zone.

Predicted substance concentrations with varied Kd values, as summarised at section 2.5.2, are summarised in Table 9.

**Table 9: Hazardous substance peak concentrations at the base of the unsaturated zone with alternative Kd range**

| Substance | Peak concentration (mg/l) | Time of peak concentration (yrs) |
|---|---|---|
| Cadmium | 0.00000035 | 1000 |
| Lead | 0.0 | n/a |

The above analysis indicates peak concentration sensitivity to variation in the Kd values applied to risk analysis for cadmium. The variation has no impact on lead concentrations. The predicted cadmium concentration of 0.00000035 mg/l would remain below the relevant EAL of 0.0001 mg/l resulting in no discernible release of cadmium to groundwater.

Whilst predicted substance concentrations are sensitive to variation in applied retardation factors, it is concluded on the basis of the best estimate of Kd values for cadmium and lead that there is low probability of a discernible release of hazardous substances to groundwater beneath the site.

#### *2.6.2 Non-hazardous substances*

Tier 1 risk assessment supported the conclusion that, with the potential exception of sulphate, there would be no unacceptable release of non-hazardous substances from the site. Model results demonstrate that, at the boundary monitor well, the maximum predicted concentration of sulphate would be 143 mg/l after 30 years. The predicted maximum sulphate concentration is well below the EAL of 250 mg/l. As a consequence, it is concluded that there would be no polluting release of non-hazardous substances from the infilled quarry excavation.

### 2.7 Hydrogeological completion criteria

Tier 1 and Tier 3 risk assessment has been undertaken for the site during recovery operations i.e. with inert waste materials fully open to rainfall recharge. The site would be restored with surface gradients designed to promote effective runoff of surface water. As a consequence, waste recharge rates would reduce following completion of inert waste deposition and site restoration. The site would therefore continue to meet the requirements of the Groundwater Regulations throughout its operational life and to the point of closure and permit surrender.

## 3. Requisite surveillance

### 3.1 The risk based monitoring scheme

#### *3.1.1 Groundwater monitoring*

A total of 3 groundwater monitoring wells have been installed at the site. Groundwater level monitoring commenced in August 2025. All wells are equipped with 50 mm diameter well screen and are therefore suitable for collection of groundwater samples from the Elland Flags sandstone beneath the site. Monitoring boreholes provide coverage of groundwater up-gradient and down-gradient of proposed waste recovery operations.

Groundwater will continue to be monitoring at up-gradient and down-gradient boreholes, as follows.

Up-gradient – BH1
Down-gradient – BH2 and BH3

Groundwater quality monitoring will continue on a monthly basis to establish background groundwater quality over a full twelve month period. It is anticipated that sampling and analysis could then reduce to quarterly. The monitoring scheme should include all priority substances plus the addition of ammoniacal nitrogen as an indicator of any organic component to the imparted materials. As risk assessment has indicated that there would be no discernible release of hazardous or non-hazardous substance, it is proposed that compliance limits are set at the relevant EAL for all substances until background groundwater quality is established. Provisional limit values for all priority substances are presented in Table 10. Limit values will need to be reviewed in response to background groundwater quality data when available.

**Table 10: Proposed limit values**

| Substance | Inert WAC limit value (mg/l) | EAL (mg/l) | Proposed limit values (mg/l) |
|---|---|---|---|
| Ammoniacal nitrogen | | 0.5 | 0.5 |
| Arsenic | 0.05 | 0.005 | 0.005 |
| Barium | 2.00 | 1.00 | 1.00 |
| Cadmium | 0.004 | 0.0001 | 0.0001 |
| Chloride | 80 | 250 | 250 |
| Lead | 0.05 | 0.0002 | 0.0002 |
| Mercury | 0.001 | 0.00001 | 0.00001 |
| Nickel | 0.04 | 0.02 | 0.02 |
| Sulphate | 100 | 250 | 250 |

#### *3.1.2 Surface water monitoring*

It is proposed that surface water quality monitoring is undertaken at the small stream emerging from the western spring. The surface water monitoring schedule will be consistent with the groundwater monitoring schedule with provisional limit values as defined in Table 10 until background surface water quality data is available.

# 4. Conclusions

## 4.1 Compliance with the Groundwater Regulations 2009

The hydrogeology of the site and surrounding area has been determined through prior investigation and development of a conceptual hydrogeological model.

Tier 1 Qualitative risk screening has demonstrated that inert waste recovery operations at Ten Yards Lane Quarry is unlikely to result in any discernible release of hazardous substances to groundwater and that there would be no deterioration in groundwater quality due to any release of non-hazardous substances.

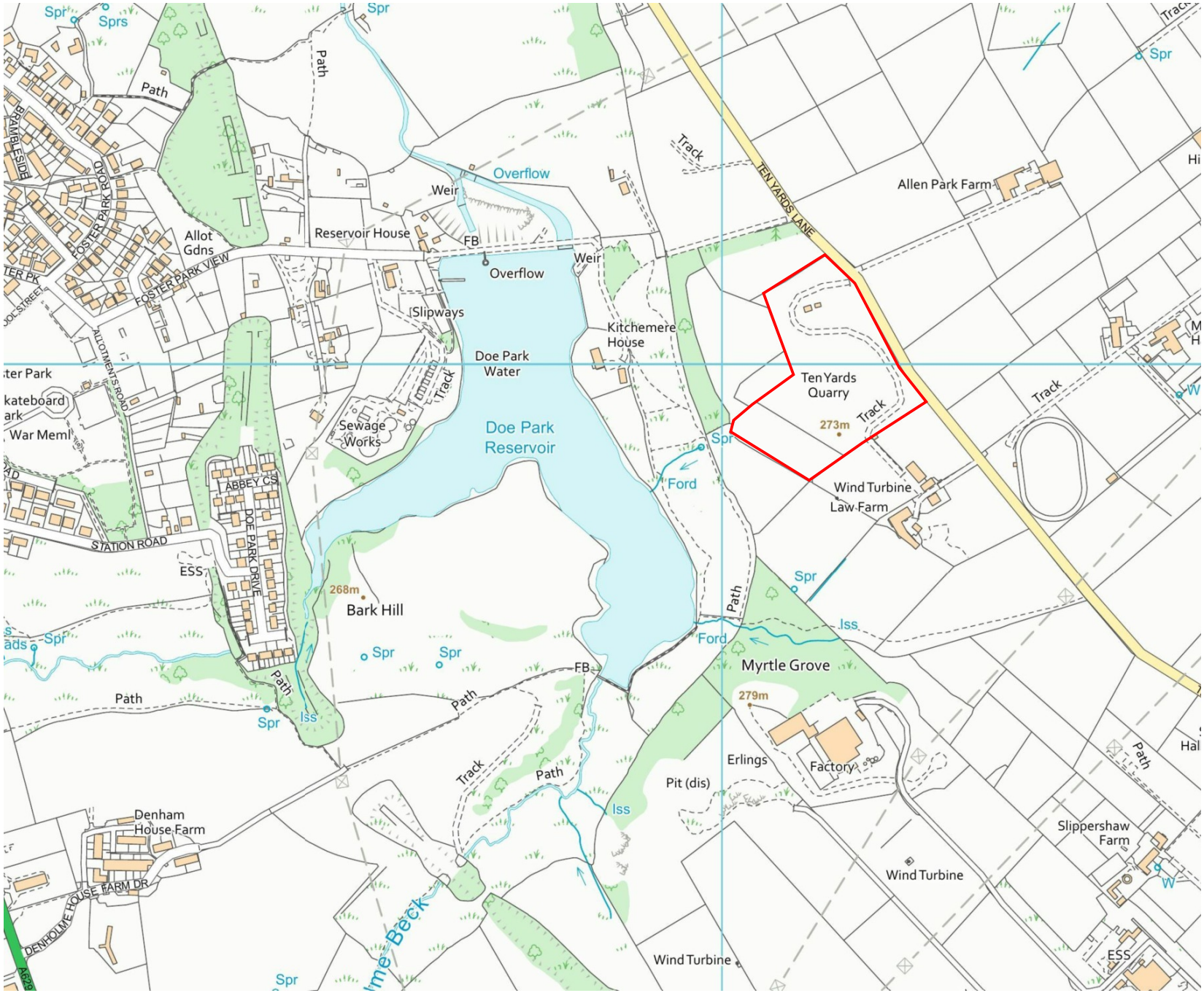
Proposals for the monitoring of groundwater quality and the establishment of proposed permit limit values as part of the requisite surveillance program have been established.

The proposed development would therefore be compliant with the requirements of the Groundwater Regulations 2009.

For S M Foster Associates Limited

Stephen M Foster
BSc MSc PhD CGEOL MCIWEM CSi CEnv FIQ
**Principal Consultant**

Drawings

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Email:stephen.foster@smfassociates.co.uk

Approximate site boundary

**CLIENT:**
SILKSTONE ENVIRONMENTAL LIMITED

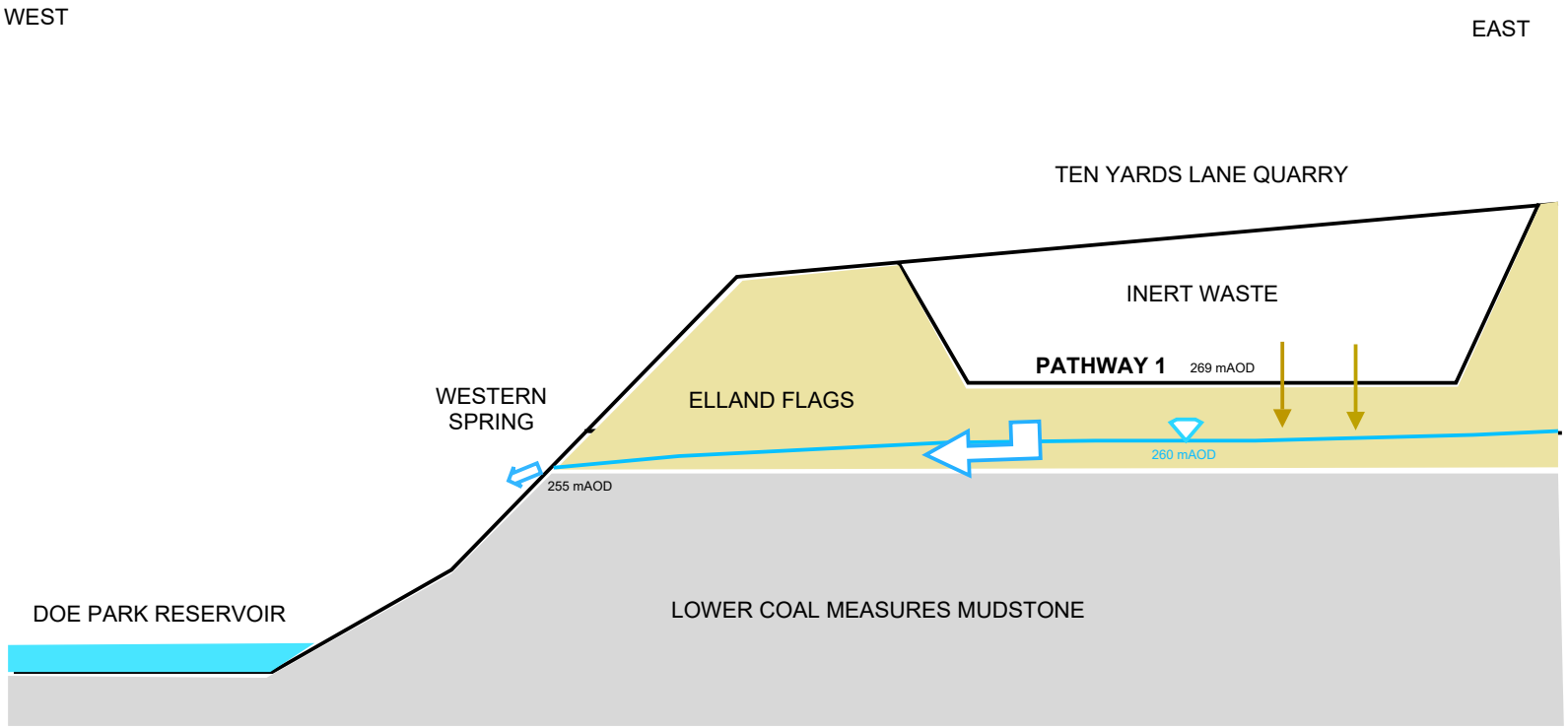
**PROJECT:**
INERT WASTE RECOVERY
TEN YARDS LANE QUARRY

HYDROGEOLOGICAL RISK ASSESSMENT

| Ref:033/57/01/0326 | Date: March 2026 |
|---|---|
| Approved: smf | Rev: |

# DRAWING 033/57/01
## SITE LOCATION AND LOCAL HYDROLOGY

# CONCEPTUAL HYDROGEOLOGICAL MODEL

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Email:stephen.foster@smfassociates.co.uk

**CLIENT:**
SILKSTONE ENVIRONMENTAL LIMITED

**PROJECT:**
INERT WASTE RECOVERY
TEN YARDS LANE QUARRY

HYDROGEOLOGICAL RISK ASSESSMENT

| | |
|---|---|
| Ref:033/57/02/0326 | Date: March 2026 |
| Approved: smf | Rev: |

**DRAWING 033/57/02**
**CONCEPTUAL HYDROGEOLOGICAL MODEL**

# Appendix A

Envirocheck datasheets

# Envirocheck® Report:

## Datasheet

### Order Details:

**Order Number:**
397739872_1_1

**Customer Reference:**
03357

**National Grid Reference:**
408100, 433980

**Slice:**
A

**Site Area (Ha):**
0.01

**Search Buffer (m):**
1000

### Site Details:

Site at
Denholme
Bradford

### Client Details:

Mr S Foster
SM Foster Associates Ltd
7 Bownas Road
Boston Spa
Leeds
LS23 6EX

Envirocheck®
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| Hazardous Substances | - |
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**Introduction**

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination.
For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client.
In this datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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**Scottish Natural Heritage Copyright**



**Ove Arup Copyright Notice**



**Stantec Copyright Notice**



**Radon Potential dataset Copyright Notice**



**Natural Resources Wales Copyright Notice**

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Report Version v53.0

# Contents

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# Summary

| Data Type | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|---|---|---|---|---|---|
| **Agency & Hydrological** | | | | | |
| BGS Groundwater Flooding Susceptibility | pg 1 | Yes | Yes | Yes | n/a |
| Contaminated Land Register Entries and Notices | | | | | |
| Discharge Consents | pg 2 | | | | 32 |
| Prosecutions | pg 10 | | | 1 | 2 |
| Enforcement and Prohibition Notices | | | | | |
| Integrated Pollution Controls | | | | | |
| Integrated Pollution Prevention And Control | pg 10 | | | | 2 |
| Local Authority Integrated Pollution Prevention And Control | pg 11 | | | | 1 |
| Local Authority Pollution Prevention and Controls | pg 11 | | | | 2 |
| Local Authority Pollution Prevention and Control Enforcements | | | | | |
| Nearest Surface Water Feature | pg 11 | | Yes | | |
| Pollution Incidents to Controlled Waters | pg 11 | | | 2 | 1 |
| Historical Prosecutions | | | | | |
| Registered Radioactive Substances | | | | | |
| Substantiated Pollution Incident Register | pg 12 | | | 1 | |
| Water Abstractions | pg 12 | | | 1 | (*7) |
| Water Industry Act Referrals | | | | | |
| Groundwater Vulnerability Map | pg 14 | Yes | n/a | n/a | n/a |
| Groundwater Vulnerability - Soluble Rock Risk | | | n/a | n/a | n/a |
| Groundwater Vulnerability - Local Information | | | n/a | n/a | n/a |
| Bedrock Aquifer Designations | pg 14 | Yes | n/a | n/a | n/a |
| Superficial Aquifer Designations | | | n/a | n/a | n/a |
| Source Protection Zones | | | | | |
| Extreme Flooding from Rivers or Sea without Defences | pg 14 | | Yes | n/a | n/a |
| Flooding from Rivers or Sea without Defences | pg 14 | | Yes | n/a | n/a |
| Areas Benefiting from Flood Defences | | | | n/a | n/a |
| Flood Water Storage Areas | | | | n/a | n/a |
| Flood Defences | | | | n/a | n/a |
| OS Water Network Lines | pg 14 | | 3 | 16 | 28 |
| Water Framework Directive - Catchment | pg 19 | Yes | Yes | | |
| Water Framework Directive - Groundwater | pg 20 | Yes | | | |
| Water Framework Directive - Surface Waters | pg 20 | | | Yes | |

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# Summary

| Data Type | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|---|---|---|---|---|---|
| **Waste** | | | | | |
| BGS Recorded Landfill Sites | pg 21 | | 1 | | 4 |
| Historical Landfill Sites | pg 21 | | 1 | 1 | 7 |
| Integrated Pollution Control Registered Waste Sites | | | | | |
| Licensed Waste Management Facilities (Landfill Boundaries) | pg 23 | | | | 4 |
| Licensed Waste Management Facilities (Locations) | pg 24 | | | 3 | 4 |
| Local Authority Landfill Coverage | pg 25 | 1 | n/a | n/a | n/a |
| Local Authority Recorded Landfill Sites | | | | | |
| Potentially Infilled Land (Non-Water) | pg 25 | | 1 | 1 | 27 |
| Potentially Infilled Land (Water) | pg 27 | | | | 1 |
| Registered Landfill Sites | pg 27 | | | | 6 |
| Registered Waste Transfer Sites | | | | | |
| Registered Waste Treatment or Disposal Sites | | | | | |
| **Hazardous Substances** | | | | | |
| Control of Major Accident Hazards Sites (COMAH) | | | | | |
| Explosive Sites | | | | | |
| Notification of Installations Handling Hazardous Substances (NIHHS) | | | | | |
| Planning Hazardous Substance Consents | | | | | |
| Planning Hazardous Substance Enforcements | | | | | |

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# Summary

| Data Type | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|---|---|---|---|---|---|
| **Geological** | | | | | |
| BGS 1:625,000 Solid Geology | pg 30 | Yes | n/a | n/a | n/a |
| BGS Estimated Soil Chemistry | pg 30 | Yes | Yes | Yes | Yes |
| BGS Recorded Mineral Sites | pg 32 | | 2 | 3 | 34 |
| BGS Urban Soil Chemistry | | | | | |
| BGS Urban Soil Chemistry Averages | | | | | |
| CBSCB Compensation District | | | n/a | n/a | n/a |
| Coal Mining Affected Areas | pg 39 | Yes | n/a | n/a | n/a |
| Mining Instability | pg 39 | Yes | n/a | n/a | n/a |
| Man-Made Mining Cavities | pg 39 | | | | 4 |
| Natural Cavities | | | | | |
| Non Coal Mining Areas of Great Britain | pg 40 | Yes | | n/a | n/a |
| Potential for Collapsible Ground Stability Hazards | pg 40 | Yes | | n/a | n/a |
| Potential for Compressible Ground Stability Hazards | | | | n/a | n/a |
| Potential for Ground Dissolution Stability Hazards | | | | n/a | n/a |
| Potential for Landslide Ground Stability Hazards | pg 40 | Yes | Yes | n/a | n/a |
| Potential for Running Sand Ground Stability Hazards | pg 40 | | Yes | n/a | n/a |
| Potential for Shrinking or Swelling Clay Ground Stability Hazards | pg 40 | | Yes | n/a | n/a |
| Radon Potential - Radon Affected Areas | pg 40 | Yes | n/a | n/a | n/a |
| Radon Potential - Radon Protection Measures | pg 40 | Yes | n/a | n/a | n/a |
| **Industrial Land Use** | | | | | |
| Contemporary Trade Directory Entries | pg 41 | | | 1 | 5 |
| Fuel Station Entries | | | | | |
| Points of Interest - Commercial Services | pg 41 | | | | 3 |
| Points of Interest - Education and Health | pg 41 | | | | 3 |
| Points of Interest - Manufacturing and Production | pg 42 | | 5 | 5 | 16 |
| Points of Interest - Public Infrastructure | pg 44 | | | 8 | 2 |
| Points of Interest - Recreational and Environmental | pg 45 | | | | 3 |
| Underground Electrical Cables | | | | | |

# Summary

| Data Type | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|---|---|---|---|---|---|
| **Sensitive Land Use** | | | | | |
| Ancient Woodland | | | | | |
| Areas of Adopted Green Belt | pg 46 | 1 | | | |
| Areas of Unadopted Green Belt | | | | | |
| Areas of Outstanding Natural Beauty | | | | | |
| Environmentally Sensitive Areas | | | | | |
| Forest Parks | | | | | |
| Local Nature Reserves | | | | | |
| Marine Nature Reserves | | | | | |
| National Nature Reserves | | | | | |
| National Parks | | | | | |
| Nitrate Sensitive Areas | | | | | |
| Nitrate Vulnerable Zones | | | | | |
| Ramsar Sites | | | | | |
| Sites of Special Scientific Interest | | | | | |
| Special Areas of Conservation | | | | | |
| Special Protection Areas | | | | | |
| World Heritage Sites | | | | | |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Limited Potential for Groundwater Flooding to Occur | A13NE (N) | 0 | 1 | 408103 433984 |
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A13SW (SW) | 170 | 1 | 408000 433850 |
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Potential for Groundwater Flooding to Occur at Surface | A13SW (S) | 192 | 1 | 408050 433800 |
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Limited Potential for Groundwater Flooding to Occur | A13NW (W) | 204 | 1 | 407900 433984 |
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Limited Potential for Groundwater Flooding to Occur | A13SE (S) | 284 | 1 | 408103 433700 |
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A13NW (W) | 311 | 1 | 407800 434050 |
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A13SW (SW) | 314 | 1 | 407850 433800 |
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A13SW (SW) | 332 | 1 | 407800 433850 |
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A13NW (NW) | 334 | 1 | 407850 434200 |
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A12NE (W) | 354 | 1 | 407750 434000 |
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Limited Potential for Groundwater Flooding to Occur | A13SW (SW) | 355 | 1 | 407800 433800 |
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A12NE (W) | 360 | 1 | 407750 434050 |
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A13NW (NW) | 368 | 1 | 407850 434250 |
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Limited Potential for Groundwater Flooding to Occur | A12NE (W) | 372 | 1 | 407750 434100 |
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Limited Potential for Groundwater Flooding to Occur | A13NE (NE) | 401 | 1 | 408350 434300 |
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A12NE (W) | 404 | 1 | 407700 433984 |
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Limited Potential for Groundwater Flooding to Occur | A12NE (W) | 404 | 1 | 407700 434000 |
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Limited Potential for Groundwater Flooding to Occur | A13NW (NW) | 406 | 1 | 407850 434300 |
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Limited Potential for Groundwater Flooding to Occur | A13SW (SW) | 416 | 1 | 407800 433700 |
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Limited Potential for Groundwater Flooding to Occur | A18SE (NE) | 416 | 1 | 408300 434350 |
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A12SE (W) | 426 | 1 | 407700 433850 |
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Limited Potential for Groundwater Flooding to Occur | A12NE (W) | 454 | 1 | 407650 433984 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Limited Potential for Groundwater Flooding to Occur | A12SE (W) | 455 | 1 | 407650 433950 |
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Limited Potential for Groundwater Flooding to Occur | A18SW (NW) | 476 | 1 | 407800 434350 |
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Limited Potential for Groundwater Flooding to Occur | A8NW (SW) | 480 | 1 | 407900 433550 |
| | **BGS Groundwater Flooding Susceptibility**<br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A12SE (SW) | 494 | 1 | 407700 433700 |
| 1 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 13<br>Effective Date: 22nd December 2024<br>Issued Date: 15th March 2024<br>Revocation Date: 30th March 2025<br>Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status:** **Varied under EPR 2010**<br>Positional Accuracy: Located by supplier to within 10m | A12NE (NW) | 541 | 2 | 407633 434250 |
| 1 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 13<br>Effective Date: 22nd December 2024<br>Issued Date: 15th March 2024<br>Revocation Date: 30th March 2025<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status:** **Varied under EPR 2010**<br>Positional Accuracy: Located by supplier to within 10m | A12NE (NW) | 541 | 2 | 407633 434250 |
| 1 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 12<br>Effective Date: 31st March 2024<br>Issued Date: 15th March 2024<br>Revocation Date: 21st December 2024<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status:** **Varied under EPR 2010**<br>Positional Accuracy: Located by supplier to within 10m | A12NE (NW) | 541 | 2 | 407633 434250 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 1 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 14<br>Effective Date: 31st March 2025<br>Issued Date: 15th March 2024<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Varied under EPR 2010**<br>Positional Accuracy: Located by supplier to within 10m | A12NE (NW) | 541 | 2 | 407633 434250 |
| 1 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 14<br>Effective Date: 31st March 2025<br>Issued Date: 15th March 2024<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Varied under EPR 2010**<br>Positional Accuracy: Located by supplier to within 10m | A12NE (NW) | 541 | 2 | 407633 434250 |
| 1 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 12<br>Effective Date: 31st March 2024<br>Issued Date: 15th March 2024<br>Revocation Date: 21st December 2024<br>Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Varied under EPR 2010**<br>Positional Accuracy: Located by supplier to within 10m | A12NE (NW) | 541 | 2 | 407633 434250 |
| 1 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 10<br>Effective Date: 6th February 2018<br>Issued Date: 6th February 2018<br>Revocation Date: 31st March 2018<br>Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Varied under EPR 2010**<br>Positional Accuracy: Located by supplier to within 10m | A12NE (NW) | 541 | 2 | 407633 434250 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 1 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 10<br>Effective Date: 6th February 2018<br>Issued Date: 6th February 2018<br>Revocation Date: 31st March 2018<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Varied under EPR 2010**<br>Positional Accuracy: Located by supplier to within 10m | A12NE (NW) | 541 | 2 | 407633 434250 |
| 1 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 11<br>Effective Date: 1st April 2018<br>Issued Date: 6th February 2018<br>Revocation Date: 30th March 2024<br>Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Varied under EPR 2010**<br>Positional Accuracy: Located by supplier to within 10m | A12NE (NW) | 541 | 2 | 407633 434250 |
| 1 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 11<br>Effective Date: 1st April 2018<br>Issued Date: 6th February 2018<br>Revocation Date: 30th March 2024<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Varied under EPR 2010**<br>Positional Accuracy: Located by supplier to within 10m | A12NE (NW) | 541 | 2 | 407633 434250 |
| 1 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 9<br>Effective Date: 1st April 2009<br>Issued Date: 14th October 2008<br>Revocation Date: 5th February 2018<br>Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)**<br>Positional Accuracy: Located by supplier to within 10m | A12NE (NW) | 544 | 2 | 407630 434250 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 1 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 9<br>Effective Date: 1st April 2009<br>Issued Date: 14th October 2008<br>Revocation Date: 5th February 2018<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)**<br>Positional Accuracy: Located by supplier to within 10m | A12NE (NW) | 544 | 2 | 407630 434250 |
| 1 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 6<br>Effective Date: 26th March 2002<br>Issued Date: 26th March 2002<br>Revocation Date: 31st May 2002<br>Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)**<br>Positional Accuracy: Located by supplier to within 10m | A12NE (NW) | 544 | 2 | 407630 434250 |
| 1 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 6<br>Effective Date: 26th March 2002<br>Issued Date: 26th March 2002<br>Revocation Date: 31st May 2002<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)**<br>Positional Accuracy: Located by supplier to within 10m | A12NE (NW) | 544 | 2 | 407630 434250 |
| 1 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 7<br>Effective Date: 1st June 2002<br>Issued Date: 26th March 2002<br>Revocation Date: 31st December 2005<br>Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)**<br>Positional Accuracy: Located by supplier to within 10m | A12NE (NW) | 544 | 2 | 407630 434250 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 1 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 7<br>Effective Date: 1st June 2002<br>Issued Date: 26th March 2002<br>Revocation Date: 31st December 2005<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)**<br>Positional Accuracy: Located by supplier to within 10m | A12NE (NW) | 544 | 2 | 407630 434250 |
| 1 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 8<br>Effective Date: 1st January 2006<br>Issued Date: 29th May 2001<br>Revocation Date: 31st March 2009<br>Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)**<br>Positional Accuracy: Located by supplier to within 10m | A12NE (NW) | 544 | 2 | 407630 434250 |
| 1 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 8<br>Effective Date: 1st January 2006<br>Issued Date: 29th May 2001<br>Revocation Date: 31st March 2009<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)**<br>Positional Accuracy: Located by supplier to within 10m | A12NE (NW) | 544 | 2 | 407630 434250 |
| 1 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 3<br>Effective Date: 22nd May 2001<br>Issued Date: 22nd May 2001<br>Revocation Date: 28th May 2001<br>Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)**<br>Positional Accuracy: Located by supplier to within 10m | A12NE (NW) | 544 | 2 | 407630 434250 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 1 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 3<br>Effective Date: 22nd May 2001<br>Issued Date: 22nd May 2001<br>Revocation Date: 28th May 2001<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)**<br>Positional Accuracy: Located by supplier to within 10m | A12NE (NW) | 544 | 2 | 407630 434250 |
| 1 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 4<br>Effective Date: 29th May 2001<br>Issued Date: 22nd May 2001<br>Revocation Date: 25th March 2002<br>Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)**<br>Positional Accuracy: Located by supplier to within 10m | A12NE (NW) | 544 | 2 | 407630 434250 |
| 1 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 4<br>Effective Date: 29th May 2001<br>Issued Date: 22nd May 2001<br>Revocation Date: 25th March 2002<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)**<br>Positional Accuracy: Located by supplier to within 10m | A12NE (NW) | 544 | 2 | 407630 434250 |
| 2 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 2<br>Effective Date: 21st October 1985<br>Issued Date: 21st October 1985<br>Revocation Date: 21st May 2001<br>Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Transferred from COPA 1974**<br>Positional Accuracy: Located by supplier to within 100m | A12NE (NW) | 548 | 2 | 407600 434200 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 2 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 2<br>Effective Date: 21st October 1985<br>Issued Date: 21st October 1985<br>Revocation Date: 21st May 2001<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Transferred from COPA 1974**<br>Positional Accuracy: Located by supplier to within 100m | A12NE (NW) | 548 | 2 | 407600 434200 |
| 2 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 1<br>Effective Date: 19th July 1967<br>Issued Date: 19th July 1967<br>Revocation Date: 20th October 1985<br>Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Transferred from Rivers (Prevention of Pollution) Act 1951-1961**<br>Positional Accuracy: Located by supplier to within 100m | A12NE (NW) | 548 | 2 | 407600 434200 |
| 2 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 1<br>Effective Date: 19th July 1967<br>Issued Date: 19th July 1967<br>Revocation Date: 20th October 1985<br>Discharge Type: Sewage Discharges - Pumping Station - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Transferred from Rivers (Prevention of Pollution) Act 1951-1961**<br>Positional Accuracy: Located by supplier to within 100m | A12NE (NW) | 548 | 2 | 407600 434200 |
| 2 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 1<br>Effective Date: 19th July 1967<br>Issued Date: 19th July 1967<br>Revocation Date: 20th October 1985<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Transferred from Rivers (Prevention of Pollution) Act 1951-1961**<br>Positional Accuracy: Located by supplier to within 100m | A12NE (NW) | 548 | 2 | 407600 434200 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 2 | **Discharge Consents**<br>Operator: Yorkshire Water Services Limited<br>Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY)<br>Location: Denholme (Doe Park) Wwtw Off Foster Park View, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2251<br>Permit Version: 1<br>Effective Date: 19th July 1967<br>Issued Date: 19th July 1967<br>Revocation Date: 20th October 1985<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Transferred from Rivers (Prevention of Pollution) Act 1951-1961**<br>Positional Accuracy: Located by supplier to within 100m | A12NE (NW) | 548 | 2 | 407600 434200 |
| 3 | **Discharge Consents**<br>Operator: 4 Wheelrace Cottages<br>Property Type: DOMESTIC PROPERTY (MULTIPLE) (INCL FARM HOUSES)<br>Location: 4 Wheelrace Cottages Whalley Lane, Denholme, Bradford, -, Bd13 4ll<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 799<br>Permit Version: 1<br>Effective Date: 26th February 1958<br>Issued Date: 26th February 1958<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Transferred from Rivers (Prevention of Pollution) Act 1951-1961**<br>Positional Accuracy: Located by supplier to within 10m | A17SE (NW) | 710 | 2 | 407570 434451 |
| 4 | **Discharge Consents**<br>Operator: Peter Jackson<br>Property Type: Undefined Or Other<br>Location: Hollin Park Whalley Lane, Denholme, Bradford, West Yorkshire<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 2617<br>Permit Version: 1<br>Effective Date: 10th April 1970<br>Issued Date: 10th April 1970<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Denholme Beck<br>**Status: Transferred from Rivers (Prevention of Pollution) Act 1951-1961**<br>Positional Accuracy: Located by supplier to within 100m | A17NE (NW) | 891 | 2 | 407650 434750 |
| 5 | **Discharge Consents**<br>Operator: 4 Low Stream Head<br>Property Type: DOMESTIC PROPERTY (MULTIPLE) (INCL FARM HOUSES)<br>Location: 3 & 4 Stream Head, Thornton, Bradford, West Yorkshire, Bd13 3ru<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 1669<br>Permit Version: 1<br>Effective Date: 30th November 1963<br>Issued Date: 30th November 1963<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Pitty Beck<br>**Status: Transferred from Rivers (Prevention of Pollution) Act 1951-1961**<br>Positional Accuracy: Located by supplier to within 10m | A19SE (NE) | 949 | 2 | 408910 434483 |

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|---|---|---|---|---|---|
| 6 | **Discharge Consents**<br>Operator: Mrs P Birch<br>Property Type: Domestic Property (Single)<br>Location: 1 Low Stream Head, Old Allen Road, Thornton, BRADFORD, West Yorkshire, BD13 3RU<br>Authority: Environment Agency, North East Region<br>Catchment Area: Aire<br>Reference: 3476<br>Permit Version: Not Supplied<br>Effective Date: Not Supplied<br>Issued Date: Not Supplied<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Effluent<br>Discharge Environment: Freshwater Stream/River<br>Receiving Water: Pitty Beck<br>**Status: Not Given**<br>Positional Accuracy: Located by supplier to within 100m | A19SE (NE) | 989 | 2 | 409000 434400 |
| 7 | **Prosecutions**<br>Location: Doe Park Reservoir, Thornton Bradford, West Yorkshire Bd13<br>Prosecution Text: Not Supplied<br>Prosecution Act: WATER RESOURCES ACT 1991, SECTION 85 (1)<br>Hearing Date: 6th March 2002<br>Verdict: Guilty<br>Fine: 3500<br>Cost: Not Supplied<br>Positional Accuracy: Manually positioned to the road within the address or location | A12SE (W) | 369 | 2 | 407735 433971 |
| 8 | **Prosecutions**<br>Location: Doe Park Reservoir, Denholme Nr. Bradford, West Yorkshire<br>Prosecution Text: Not Supplied<br>Prosecution Act: WATER RESOURCES ACT 1991, SECTION 85 (1)<br>Hearing Date: 26th March 2001<br>Verdict: Guilty<br>Fine: 8000<br>Cost: Not Supplied<br>Positional Accuracy: Manually positioned to the road within the address or location | A12SE (W) | 702 | 2 | 407451 433727 |
| 9 | **Prosecutions**<br>Location: Jerusalem Farm, Thornton Bradford, West Yorkshire Bd13 3pz<br>Prosecution Text: Not Supplied<br>Prosecution Act: ENVIRONMENTAL PROTECTION ACT 1990, SECTION 33 (1) (B)<br>Hearing Date: 6th March 2002<br>Verdict: Guilty<br>Fine: 3500<br>Cost: Not Supplied<br>Positional Accuracy: Manually positioned within the geographical locality | A9SW (SE) | 786 | 2 | 408455 433282 |
| 10 | **Integrated Pollution Prevention And Control**<br>Name: Omega Proteins Limited<br>Location: Omega Proteins Ltd, Erlings Works,Omega Proteins Ltd, Half Acre Road,Thornton,, Bradford, West Yorkshire, BD13 3SG<br>Authority: Environment Agency, North East Region<br>Permit Reference: HP3621SJ<br>Original Permit Ref: Hp3621sj<br>Effective Date: 22nd July 2024<br>**Status: Effective**<br>Application Type: New<br>App. Sub Type: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m<br>Activity Code: AR01<br>Activity Description: MCP<br>Primary Activity: Y<br>Activity Code: AR02<br>Activity Description: MCP<br>Primary Activity: N | A9NW (SE) | 714 | 2 | 408506 433395 |
| 11 | **Integrated Pollution Prevention And Control**<br>Name: Woolcombers Group Plc<br>Location: Black Dyke Quarry, Black Dyke Lane, Thornton, West Yorkshire, BD13 3HT<br>Authority: Environment Agency, North East Region<br>Permit Reference: Kp3832pu<br>Original Permit Ref: Kp3832pu<br>Effective Date: Not Supplied<br>**Status: Application refused**<br>Application Type: Application<br>App. Sub Type: New<br>Positional Accuracy: Located by supplier to within 10m<br>Activity Code: 5.2 A(1) (A)<br>Activity Description: Waste Landfilling; Greater Than 10 T/D With Capacity Greater Than 25,000T Excluding Inert Waste<br>Primary Activity: Y | A14SE (E) | 759 | 2 | 408850 433850 |

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| 12 | **Local Authority Integrated Pollution Prevention And Control**<br>Name: Omega Proteins Ltd<br>Location: Erlings Works, Half Acre Road, Denholme, BD13 3SG<br>Authority: Bradford Metropolitan City Council, Environmental Health<br>Permit Reference: A/237/M<br>Dated: 18th June 1999<br>Process Type: Other Activities<br>Description: SG8<br>**Status: Permit Issued**<br>Positional Accuracy: Manually positioned to the address or location | A9SW (SE) | 825 | 3 | 408509 433266 |
| 13 | **Local Authority Pollution Prevention and Controls**<br>Name: C R Taylor (Timber) Ltd<br>Location: Station Sawmills, Station Road, Denholme, BRADFORD, West Yorkshire, BD13 4BS<br>Authority: Bradford Metropolitan City Council, Environmental Health<br>Permit Reference: 164<br>Dated: 1st October 1996<br>Process Type: Local Authority Air Pollution Control<br>Description: PG6/2 Manufacture of timber and wood-based products<br>**Status: Authorised**<br>Positional Accuracy: Automatically positioned to the address | A12SW (W) | 696 | 3 | 407422 433847 |
| 14 | **Local Authority Pollution Prevention and Controls**<br>Name: Omega Proteins Ltd<br>Location: Erlings Work, Thornton, BRADFORD, BD13 3SG<br>Authority: Bradford Metropolitan City Council, Environmental Health<br>Permit Reference: 237<br>Dated: 18th June 1999<br>Process Type: Local Authority Pollution Prevention and Control<br>Description: PG6/26 Animal feed compounding<br>**Status: Transferred to LAIPPC**<br>Positional Accuracy: Manually positioned to the address or location | A9SW (SE) | 825 | 3 | 408509 433266 |
| | **Nearest Surface Water Feature** | A13SW (SW) | 153 | - | 407975 433901 |
| 15 | **Pollution Incidents to Controlled Waters**<br>Property Type: Quarrying (Hard Rock)<br>Location: Robin Hood Well , Private Drinking Supply, Doe Park Road<br>Authority: Environment Agency, North East Region<br>Pollutant: Miscellaneous - Inert Suspended Solids<br>Note: Harden Beck; No Fish Killed<br>Incident Date: Not Supplied<br>Incident Reference: SL981093<br>Catchment Area: Aire Tributaries<br>Receiving Water: Groundwater<br>Cause of Incident: Not Given<br>Incident Severity: Category 2 - Significant Incident<br>Positional Accuracy: Located by supplier to within 100m | A13NW (NW) | 373 | 2 | 407800 434200 |
| 16 | **Pollution Incidents to Controlled Waters**<br>Property Type: Water Company Sewage: Foul Sewer<br>Location: Mouth/Source Harden Beck Af<br>Authority: Environment Agency, North East Region<br>Pollutant: Unknown<br>Note: Not Supplied<br>Incident Date: 30th January 1990<br>Incident Reference: 107295<br>Catchment Area: Not Given<br>Receiving Water: Freshwater Stream/River<br>Cause of Incident: Not Given<br>Incident Severity: Category 2 - Significant Incident<br>Positional Accuracy: Located by supplier to within 100m | A12SE (W) | 413 | 2 | 407700 433900 |
| 17 | **Pollution Incidents to Controlled Waters**<br>Property Type: Industrial Premises<br>Location: Doe Park Reservoir<br>Authority: Environment Agency, North East Region<br>Pollutant: Blood And Offal<br>Note: Not Supplied<br>Incident Date: 19th January 1989<br>Incident Reference: 8653<br>Catchment Area: Not Given<br>Receiving Water: Freshwater Stream/River<br>Cause of Incident: Not Given<br>Incident Severity: Category 2 - Significant Incident<br>Positional Accuracy: Located by supplier to within 100m | A7NE (SW) | 634 | 2 | 407600 433600 |

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| 18 | **Substantiated Pollution Incident Register**<br>Authority: Environment Agency - North East Region, Yorkshire Area<br>Incident Date: 22nd July 2012<br>Incident Reference: 1016708<br>Water Impact: Category 1 - Major Incident<br>Air Impact: Category 4 - No Impact<br>Land Impact: Category 4 - No Impact<br>Positional Accuracy: Located by supplier to within 10m<br>Pollutant: Organic Chemicals/Products: Pesticides And Biocides | A13SW (W) | 339 | 2 | 407766 433955 |
| 19 | **Water Abstractions**<br>Operator: Omega Proteins Ltd<br>Licence Number: Ne/027/0016/017<br>Permit Version: 1<br>Location: Borehole - Millstone Grit - Erlings Works<br>Authority: Environment Agency, North East Region<br>Abstraction: Other Industrial/Commercial/Public Services: Boiler Feed<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Groundwater<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Not Supplied<br>Authorised Start: 01 April<br>Authorised End: 31 March<br>Permit Start Date: 16th May 2018<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m | A8NE (S) | 478 | 2 | 408183 433513 |
| | **Water Abstractions**<br>Operator: Iqbal Brothers Poultry<br>Licence Number: 2/27/16/180<br>Permit Version: 101<br>Location: Borehole - Millstone Grit - Wilsden<br>Authority: Environment Agency, North East Region<br>Abstraction: General Farming And Domestic<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Groundwater<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Station Road, Wilsden, Bradford, West Yorkshire<br>Authorised Start: 01 January<br>Authorised End: 31 December<br>Permit Start Date: 26th January 2012<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 100m | A23NE (N) | 1420 | 2 | 408200 435400 |
| | **Water Abstractions**<br>Operator: Mr M Barker<br>Licence Number: 2/27/16/180<br>Permit Version: 100<br>Location: Borehole - Millstone Grit - Wilsden<br>Authority: Environment Agency, North East Region<br>Abstraction: General Farming And Domestic<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Groundwater<br>Daily Rate (m3): 256<br>Yearly Rate (m3): 61360<br>Details: Station Road, Wilsden, Bradford, West Yorkshire<br>Authorised Start: 01 January<br>Authorised End: 31 December<br>Permit Start Date: 23rd March 1989<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 100m | A23NE (N) | 1420 | 2 | 408200 435400 |
| | **Water Abstractions**<br>Operator: Mr M Barker<br>Licence Number: 2/27/16/180<br>Permit Version: 103<br>Location: Borehole - Millstone Grit - Wilsden<br>Authority: Environment Agency, North East Region<br>Abstraction: Food And Drink: Process Water<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Groundwater<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Not Supplied<br>Authorised Start: 01 April<br>Authorised End: 31 March<br>Permit Start Date: 16th November 2016<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m | A23NE (N) | 1555 | 2 | 408176 435537 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **Water Abstractions**<br>Operator: Mr M Barker<br>Licence Number: 2/27/16/180<br>Permit Version: 103<br>Location: Borehole - Millstone Grit - Wilsden<br>Authority: Environment Agency, North East Region<br>Abstraction: Food And Drink: Non-Evaporative Cooling<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Groundwater<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Not Supplied<br>Authorised Start: 01 April<br>Authorised End: 31 March<br>Permit Start Date: 16th November 2016<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m | A23NE (N) | 1555 | 2 | 408176 435537 |
| | **Water Abstractions**<br>Operator: Iqbal Brothers Poultry<br>Licence Number: 2/27/16/180<br>Permit Version: 102<br>Location: Borehole - Millstone Grit - Wilsden<br>Authority: Environment Agency, North East Region<br>Abstraction: Food And Drink: Process Water<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Groundwater<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Not Supplied<br>Authorised Start: 01 April<br>Authorised End: 31 March<br>Permit Start Date: 27th May 2015<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m | A23NE (N) | 1555 | 2 | 408176 435537 |
| | **Water Abstractions**<br>Operator: Iqbal Brothers Poultry<br>Licence Number: 2/27/16/180<br>Permit Version: 102<br>Location: Borehole - Millstone Grit - Wilsden<br>Authority: Environment Agency, North East Region<br>Abstraction: Food And Drink: Non-Evaporative Cooling<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Groundwater<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Not Supplied<br>Authorised Start: 01 April<br>Authorised End: 31 March<br>Permit Start Date: 27th May 2015<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m | A23NE (N) | 1555 | 2 | 408176 435537 |
| | **Water Abstractions**<br>Operator: Yorkshire Water Plc<br>Licence Number: 2/27/16/101<br>Permit Version: Not Supplied<br>Location: Manywells Springs , HEWENDEN<br>Authority: Environment Agency, North East Region<br>Abstraction: Water Undertaking<br>Abstraction Type: Not Supplied<br>Source: Spring<br>Daily Rate (m3): 227<br>Yearly Rate (m3): 22730<br>Details: Not Supplied<br>Authorised Start: Not Supplied<br>Authorised End: Not Supplied<br>Permit Start Date: Not Supplied<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 100m | A22NW (NW) | 1852 | 2 | 407200 435600 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| | **Groundwater Vulnerability Map**<br>Combined Classification: Secondary Bedrock Aquifer - High Vulnerability<br>Combined Vulnerability: High<br>Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer<br>Pollutant Speed: High<br>Bedrock Flow: Well Connected Fractures<br>Dilution: >550 mm/year<br>Baseflow Index: >70%<br>Superficial Patchiness: <90%<br>Superficial Thickness: <3m<br>Superficial Recharge: No Data | A13NE (N) | 0 | 2 | 408103 433984 |
| | **Groundwater Vulnerability - Soluble Rock Risk**<br>None | | | | |
| | **Bedrock Aquifer Designations**<br>Aquifer Designation: Secondary Aquifer - A | A13NE (N) | 0 | 2 | 408103 433984 |
| | **Superficial Aquifer Designations**<br>No Data Available | | | | |
| | **Extreme Flooding from Rivers or Sea without Defences**<br>Type: Extent of Extreme Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial Models<br>Boundary Accuracy: As Supplied | A13SW (SW) | 235 | 2 | 407930 433826 |
| | **Flooding from Rivers or Sea without Defences**<br>Type: Extent of Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial Models<br>Boundary Accuracy: As Supplied | A13SW (SW) | 235 | 2 | 407930 433826 |
| | **Areas Benefiting from Flood Defences**<br>None | | | | |
| | **Flood Water Storage Areas**<br>None | | | | |
| | **Flood Defences**<br>None | | | | |
| 20 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 86.0<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A13SW (SW) | 153 | 4 | 407975 433901 |
| 21 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 66.9<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A13SE (S) | 222 | 4 | 408148 433767 |
| 22 | **OS Water Network Lines**<br>Watercourse Form: Reservoir<br>Watercourse Length: 53.2<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A13SW (SW) | 235 | 4 | 407913 433847 |
| 23 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 49.8<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A13SE (S) | 268 | 4 | 408105 433716 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 24 | **OS Water Network Lines**<br>Watercourse Form: Reservoir<br>Watercourse Length: 135.0<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Denholme Beck<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A13SW (SW) | 274 | 4 | 407878 433829 |
| 25 | **OS Water Network Lines**<br>Watercourse Form: Reservoir<br>Watercourse Length: 205.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Denholme Beck<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A13SW (SW) | 278 | 4 | 407860 433851 |
| 26 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 121.5<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A13SW (S) | 305 | 4 | 408047 433685 |
| 27 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 69.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A13SW (S) | 311 | 4 | 408077 433675 |
| 28 | **OS Water Network Lines**<br>Watercourse Form: Reservoir<br>Watercourse Length: 69.6<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A13SW (SW) | 321 | 4 | 407927 433717 |
| 29 | **OS Water Network Lines**<br>Watercourse Form: Reservoir<br>Watercourse Length: 122.7<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Denholme Beck<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A13SW (SW) | 322 | 4 | 407907 433729 |
| 30 | **OS Water Network Lines**<br>Watercourse Form: Reservoir<br>Watercourse Length: 120.9<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Denholme Beck<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A13NW (NW) | 327 | 4 | 407805 434116 |
| 31 | **OS Water Network Lines**<br>Watercourse Form: Transfer<br>Watercourse Length: 173.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Denholme Beck<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A13NW (NW) | 328 | 4 | 407815 434138 |
| 32 | **OS Water Network Lines**<br>Watercourse Form: Reservoir<br>Watercourse Length: 457.1<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Carperley Beck<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A13NW (W) | 340 | 4 | 407767 434028 |

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|---|---|---|---|---|---|
| 33 | **OS Water Network Lines**<br>Watercourse Form: Reservoir<br>Watercourse Length: 113.9<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Denholme Beck<br>Catchment Name: Aire and Calder<br>Primacy: 2 | A13NW (W) | 340 | 4 | 407767 434028 |
| 34 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 33.5<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Denholme Beck<br>Catchment Name: Aire and Calder<br>Primacy: 2 | A12NE (W) | 415 | 4 | 407715 434129 |
| 35 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 74.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Denholme Beck<br>Catchment Name: Aire and Calder<br>Primacy: 2 | A12NE (NW) | 439 | 4 | 407701 434160 |
| 36 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 152.6<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Denholme Beck<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A8NW (SW) | 439 | 4 | 407855 433623 |
| 37 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 71.0<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A18SE (NE) | 451 | 4 | 408361 434353 |
| 38 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 600.0<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Denholme Beck<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A12NE (NW) | 490 | 4 | 407681 434231 |
| 39 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 21.1<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Denholme Beck<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A8NW (SW) | 566 | 4 | 407825 433491 |
| 40 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 48.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A8NW (SW) | 566 | 4 | 407825 433491 |
| 41 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 411.0<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Denholme Beck<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A8NW (SW) | 578 | 4 | 407803 433491 |

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|---|---|---|---|---|---|
| 42 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 163.4<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A8NW (SW) | 582 | 4 | 407809 433482 |
| 43 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 67.7<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A18SW (N) | 631 | 4 | 408089 434614 |
| 44 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 4.5<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A18SE (N) | 640 | 4 | 408156 434622 |
| 45 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 21.6<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A18SE (N) | 641 | 4 | 408161 434622 |
| 46 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 100.0<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Carperley Beck<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A12SE (SW) | 668 | 4 | 407502 433695 |
| 47 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 4.8<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A12SE (SW) | 668 | 4 | 407502 433695 |
| 48 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 110.1<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A12SE (SW) | 669 | 4 | 407503 433691 |
| 49 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 272.7<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Carperley Beck<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A12SW (SW) | 768 | 4 | 407410 433656 |
| 50 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 79.7<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Pitty Beck<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A19SW (NE) | 807 | 4 | 408741 434478 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 51 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 95.7<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Pitty Beck<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A19SW (NE) | 809 | 4 | 408735 434489 |
| 52 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 2.4<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Pitty Beck<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A19SW (NE) | 809 | 4 | 408736 434487 |
| 53 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 7.7<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Pitty Beck<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A19SE (NE) | 840 | 4 | 408803 434448 |
| 54 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 106.7<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Pitty Beck<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A19SE (NE) | 844 | 4 | 408810 434445 |
| 55 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 155.4<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A8SE (S) | 908 | 4 | 408155 433078 |
| 56 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 8.2<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Pitty Beck<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A19SE (NE) | 930 | 4 | 408914 434438 |
| 57 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 283.0<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Pitty Beck<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A19SE (NE) | 934 | 4 | 408922 434434 |
| 58 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 87.6<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A7SE (SW) | 936 | 4 | 407556 433225 |
| 59 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 9.9<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A7SE (SW) | 936 | 4 | 407556 433225 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 60 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 624.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Denholme Beck<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A7SE (SW) | 937 | 4 | 407564 433219 |
| 61 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 14.0<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A7SE (SW) | 972 | 4 | 407476 433242 |
| 62 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 5.3<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A7SE (SW) | 972 | 4 | 407476 433242 |
| 63 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 155.1<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A7SE (SW) | 977 | 4 | 407471 433241 |
| 64 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 25.3<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A12SW (W) | 984 | 4 | 407175 433660 |
| 65 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 34.3<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Carperley Beck<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A7NW (W) | 996 | 4 | 407170 433637 |
| 66 | **OS Water Network Lines**<br>Watercourse Form: Inland river<br>Watercourse Length: 172.2<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Denholme Beck<br>Catchment Name: Aire and Calder<br>Primacy: 1 | A17NE (NW) | 997 | 4 | 407458 434743 |
| | **Water Framework Directive - Catchment**<br>Class Code: River Catchment<br>WaterBody Name: Harden Beck from Source to River Aire<br>WaterBody ID: GB104027062870<br>Operational Catchment: Aire Middle<br>Management Catchment: Aire and Calder<br>Catchment Name: Aire & Calder | A13NE (N) | 0 | 2 | 408103 433984 |
| | **Water Framework Directive - Catchment**<br>Class Code: River Catchment<br>WaterBody Name: Clayton Beck (Source to Bradford Bk)<br>WaterBody ID: GB104027062861<br>Operational Catchment: Aire Middle<br>Management Catchment: Aire and Calder<br>Catchment Name: Aire & Calder | A13NE (NE) | 116 | 2 | 408180 434070 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **Water Framework Directive - Groundwater**<br>Waterbody Name: Aire & Calder Carb Limestone / Millstone Grit / Coal Measures.<br>Waterbody ID: GB40402G700400<br>URL Address: https://environment.data.gov.uk/catchment-planning/WaterBody/GB40402G700400<br>Overall Rating: Poor<br>Chemical Rating: Poor<br>Quantitative Measure: Good<br>Year: 2019 | A13NE (N) | 0 | 2 | 408103 433984 |
| | **Water Framework Directive - Surface Waters**<br>Class Code: River<br>Waterbody Name: Harden Beck From Source To River Aire<br>Waterbody ID: GB104027062870<br>URL Address: Not Supplied<br>Overall Rating: Not Assessed<br>Chemical Rating: Not Assessed<br>Classification Year: 2022 | A13NW (NW) | 327 | 2 | 407807 434122 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 67 | **BGS Recorded Landfill Sites**<br>Site Name: Law Quarry<br>Location: Ten Yards Lane, Denholme, BRADFORD, West Yorkshire<br>Authority: British Geological Survey, National Geoscience Information Service<br>Ground Water: Information not available<br>Surface Water: Information not available<br>Geology: N/A<br>Positional Accuracy: Positioned by the supplier<br>Boundary Accuracy: Moderate | A13NW (NW) | 14 | - | 408095 433995 |
| 68 | **BGS Recorded Landfill Sites**<br>Site Name: Black Dyke Lane Quarry<br>Location: Thornton, BRADFORD, West Yorkshire<br>Authority: British Geological Survey, National Geoscience Information Service<br>Ground Water: Information not available<br>Surface Water: Information not available<br>Geology: N/A<br>Positional Accuracy: Positioned by the supplier<br>Boundary Accuracy: Moderate | A14SE (E) | 736 | - | 408820 433819 |
| 69 | **BGS Recorded Landfill Sites**<br>Site Name: Egypt Quarry<br>Location: Black Dyke Lane, THORNTON, West Yorkshire<br>Authority: British Geological Survey, National Geoscience Information Service<br>Ground Water: Threat to ground water<br>Surface Water: Threat to surface water<br>Geology: N/A<br>Positional Accuracy: Positioned by the supplier<br>Boundary Accuracy: Moderate | A14SE (E) | 780 | - | 408878 433897 |
| 70 | **BGS Recorded Landfill Sites**<br>Site Name: Thornton Tip<br>Location: Back Heights Road, BRADFORD, West Yorkshire<br>Authority: British Geological Survey, National Geoscience Information Service<br>Ground Water: Information not available<br>Surface Water: Information not available<br>Geology: N/A<br>Positional Accuracy: Positioned by the supplier<br>Boundary Accuracy: Good | A9NW (SE) | 891 | - | 408698 433322 |
| 71 | **BGS Recorded Landfill Sites**<br>Site Name: Illingworths land at Thornton Quarries<br>Location: BRADFORD, West Yorkshire<br>Authority: British Geological Survey, National Geoscience Information Service<br>Ground Water: Threat to ground water<br>Surface Water: No threat to surface water<br>Geology: N/A<br>Positional Accuracy: Positioned by the supplier<br>Boundary Accuracy: Good | A9NE (SE) | 977 | - | 408909 433433 |
| 72 | **Historical Landfill Sites**<br>Licence Holder: M Leach<br>Location: Ten Yards Lane, Denholme, Bradford, West Yorkshire<br>Name: Law Quarry<br>Operator Location: Not Supplied<br>Boundary Accuracy: As Supplied<br>Provider Reference: EAHLD31558<br>First Input Date: 31st March 1969<br>Last Input Date: 31st December 1974<br>Specified Waste Type: Deposited Waste included Inert Waste<br>EA Waste Ref: 0<br>Regis Ref: Not Supplied<br>WRC Ref: 4700/0410<br>BGS Ref: 1026<br>Other Ref: 276 | A13NW (NW) | 14 | 2 | 408095 433995 |
| 73 | **Historical Landfill Sites**<br>Licence Holder: Not Supplied<br>Location: Off Half Acre Road, Thornton Heights<br>Name: Erlings Works<br>Operator Location: Not Supplied<br>Boundary Accuracy: As Supplied<br>Provider Reference: EAHLD35366<br>First Input Date: 1st January 1949<br>Last Input Date: 1st November 1989<br>Specified Waste Type: Deposited Waste included Inert Waste<br>EA Waste Ref: 0<br>Regis Ref: Not Supplied<br>WRC Ref: Not Supplied<br>BGS Ref: Not Supplied<br>Other Ref: M168 | A8NW (S) | 414 | 2 | 408052 433573 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 74 | **Historical Landfill Sites**<br>Licence Holder: Not Supplied<br>Location: Off Station Road, Denholme<br>Name: Denholme House Farm<br>Operator Location: Not Supplied<br>Boundary Accuracy: As Supplied<br>Provider Reference: EAHLD35367<br>First Input Date: 1st January 1989<br>Last Input Date: 31st December 1989<br>Specified Waste Type: Deposited Waste included Inert Waste<br>EA Waste Ref: 0<br>Regis Ref: Not Supplied<br>WRC Ref: Not Supplied<br>BGS Ref: Not Supplied<br>Other Ref: M169 | A7NE (SW) | 694 | 2 | 407602 433504 |
| 75 | **Historical Landfill Sites**<br>Licence Holder: Black Dyke Quarry<br>Location: Black Dyke Lane, Bradford, Thornton, West Yorkshire<br>Name: Black Dyke Quarry<br>Operator Location: Thornton Road, Bradford, West Yorkshire<br>Boundary Accuracy: As Supplied<br>Provider Reference: EAHLD35754<br>First Input Date: Not Supplied<br>Last Input Date: Not Supplied<br>Specified Waste Type: Deposited Waste included Industrial, Commercial and Household Waste<br>EA Waste Ref: 60615<br>Regis Ref: Not Supplied<br>WRC Ref: Not Supplied<br>BGS Ref: Not Supplied<br>Other Ref: Not Supplied | A14SE (E) | 714 | 2 | 408795 433807 |
| 76 | **Historical Landfill Sites**<br>Licence Holder: Bursaul Landfill Site Services Limited<br>Location: Black Dyke Lane, Thornton, Bradford<br>Name: Egypt Quarry<br>Operator Location: 5 Egypt Road, Thornton, Bradford<br>Boundary Accuracy: As Supplied<br>Provider Reference: EAHLD33025<br>First Input Date: 31st December 1962<br>Last Input Date: 1st January 1992<br>Specified Waste Type: Deposited Waste included Inert and Industrial Waste, and Liquid Sludge<br>EA Waste Ref: 60614<br>Regis Ref: YQ3/L/BUR001<br>WRC Ref: 4700/0277<br>BGS Ref: 373<br>Other Ref: B116, 51, NE4608 | A14SE (E) | 759 | 2 | 408859 433922 |
| 77 | **Historical Landfill Sites**<br>Licence Holder: Mr D Bottomley<br>Location: Harecroft, Wilsden<br>Name: Land at Aycliffe Farm<br>Operator Location: Not Supplied<br>Boundary Accuracy: As Supplied<br>Provider Reference: EAHLD03984<br>First Input Date: 31st December 1981<br>Last Input Date: 31st December 1984<br>Specified Waste Type: Deposited Waste included Inert and Commercial Waste<br>EA Waste Ref: 0<br>Regis Ref: Not Supplied<br>WRC Ref: 4700/0339<br>BGS Ref: Not Supplied<br>Other Ref: 4700/0284 | A18NW (N) | 833 | 2 | 407986 434809 |
| 78 | **Historical Landfill Sites**<br>Licence Holder: Not Supplied<br>Location: Back Heights Road, Bradford, West Yorkshire<br>Name: Thornton Tip<br>Operator Location: Not Supplied<br>Boundary Accuracy: As Supplied<br>Provider Reference: EAHLD31805<br>First Input Date: 30th April 1941<br>Last Input Date: 31st December 1980<br>Specified Waste Type: Deposited Waste included Industrial, Commercial and Household Waste, and Liquid Sludge<br>EA Waste Ref: 0<br>Regis Ref: Not Supplied<br>WRC Ref: Not Supplied<br>BGS Ref: 448<br>Other Ref: Not Supplied | A9NW (SE) | 891 | 2 | 408699 433322 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 79 | **Historical Landfill Sites**<br>Licence Holder: J G Leach and Son<br>Location: Wilsden<br>Name: Land at Birchenlea Farm<br>Operator Location: Not Supplied<br>Boundary Accuracy: As Supplied<br>Provider Reference: EAHLD30219<br>First Input Date: 23rd August 1989<br>Last Input Date: 13th February 1992<br>Specified Waste Type: Deposited Waste included Inert and Commercial Waste<br>EA Waste Ref: 0<br>Regis Ref: Not Supplied<br>WRC Ref: 4700/0482<br>BGS Ref: Not Supplied<br>Other Ref: 4700/0694 | A17NE (NW) | 945 | 2 | 407699 434837 |
| 80 | **Historical Landfill Sites**<br>Licence Holder: T Hillingworth<br>Location: Bradford, West Yorkshire<br>Name: Thomas Illingworths land<br>Operator Location: Not Supplied<br>Boundary Accuracy: As Supplied<br>Provider Reference: EAHLD03981<br>First Input Date: 31st January 1970<br>Last Input Date: 31st December 1983<br>Specified Waste Type: Deposited Waste included Commercial and Household Waste, and Liquid Sludge<br>EA Waste Ref: 0<br>Regis Ref: Not Supplied<br>WRC Ref: 4700/0406<br>BGS Ref: 450<br>Other Ref: 4700/0270 | A9NE (SE) | 977 | 2 | 408910 433433 |
| 81 | **Licensed Waste Management Facilities (Landfill Boundaries)**<br>Name: Bunkers Hill Farm<br>Licence Number: 60667<br>Location: J A Stevenson, Field No. 5, Thornton, Bradford, West Yorkshire, BD13 3SB<br>Licence Holder: J A Stevenson<br>Authority: Environment Agency - North East Region, Yorkshire Area<br>Site Category: Landfills Taking Other Wastes (Construction, Demolition, Dredgings)<br>Max Input Rate: Not Supplied<br>**Licence Status: Closure**<br>Issued: 5th April 1991<br>Positional Accuracy: Positioned by the supplier<br>Boundary Accuracy: As Supplied | A18SW (N) | 599 | 2 | 407877 434538 |
| 82 | **Licensed Waste Management Facilities (Landfill Boundaries)**<br>Name: Black Dyke Quarry<br>Licence Number: 60615<br>Location: Land / Premises At, Black Dyke Lane, Thornton, Bradford, West Yorkshire, BD13 3RR<br>Licence Holder: Woolcombers Group Plc<br>Authority: Environment Agency - North East Region, Yorkshire Area<br>Site Category: Household, Commercial And Industrial Waste Landfills<br>Max Input Rate: Not Supplied<br>**Licence Status: Inactive**<br>Issued: 11th July 1978<br>Positional Accuracy: Positioned by the supplier<br>Boundary Accuracy: As Supplied | A14SE (E) | 714 | 2 | 408794 433806 |
| 83 | **Licensed Waste Management Facilities (Landfill Boundaries)**<br>Name: High Stream Head Farm<br>Licence Number: 60664<br>Location: P Drake, High Stream Head Farm, Off Black Dyke Lane, Thornton, Bradford, West Yorkshire, BD13 3SA<br>Licence Holder: P Drake<br>Authority: Environment Agency - North East Region, Yorkshire Area<br>Site Category: Landfills Taking Non-biodegradeable Wastes (Not Construction)<br>Max Input Rate: Not Supplied<br>**Licence Status: Closure**<br>Issued: 16th January 1992<br>Positional Accuracy: Positioned by the supplier<br>Boundary Accuracy: As Supplied | A19SW (NE) | 738 | 2 | 408689 434431 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 84 | **Licensed Waste Management Facilities (Landfill Boundaries)**<br>Name: Egypt Quarry<br>Licence Number: 60614<br>Location: Black Dyke Lane, Thornton, Bradford<br>Licence Holder: Bursaul Landfill Site Services Ltd<br>Authority: Environment Agency - North East Region, Ridings Area<br>Site Category: Landfills Taking Non-biodegradeable Wastes (Not Construction)<br>Max Input Rate: Small (Less than 25,000 tonnes per year)<br>**Licence Status:** **Inactive**<br>Issued: 20th June 1978<br>Positional Accuracy: Positioned by the supplier<br>Boundary Accuracy: As Supplied | A14SE (E) | 758 | 2 | 408859 433921 |
| 85 | **Licensed Waste Management Facilities (Locations)**<br>Licence Number: 65226<br>Location: Jerusalem, Half Acre Road,, Thornton, Bradford, West Yorkshire, BD13 3SG<br>Operator Name: BARBARA & CATHERINE MITCHELL<br>Operator Location: Not Supplied<br>Authority: Environment Agency - North East Region, Yorkshire Area<br>Site Category: Incinerators<br>**Licence Status:** **Expired**<br>Issued: 17th April 2002<br>Last Modified: Not Supplied<br>Expires: Not Supplied<br>Suspended: Not Supplied<br>Revoked: Not Supplied<br>Surrendered: Not Supplied<br>IPPC Reference: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m | A8NE (S) | 417 | 2 | 408150 433570 |
| 85 | **Licensed Waste Management Facilities (Locations)**<br>Licence Number: 65226<br>Location: Jerusalem, Farm, Half Acre Road,, Thornton<br>Operator Name: Barbara & Catherine Mitchell<br>Operator Location: Unit 4 Jerusalem Farm, Half Acre Road, Thornton, Bradford, West Yorkshire, BD13 3SG<br>Authority: Environment Agency - North East Region, Ridings Area<br>Site Category: Incinerators<br>**Licence Status:** **Issued**<br>Issued: 17th April 2002<br>Last Modified: Not Supplied<br>Expires: Not Supplied<br>Suspended: Not Supplied<br>Revoked: Not Supplied<br>Surrendered: Not Supplied<br>IPPC Reference: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m | A8NE (S) | 417 | 2 | 408150 433570 |
| 85 | **Licensed Waste Management Facilities (Locations)**<br>Licence Number: 65226<br>Location: Jerusalem, Half Acre Road,, Thornton, Bradford, West Yorkshire, BD13 3SG<br>Operator Name: BARBARA & CATHERINE MITCHELL<br>Operator Location: Not Supplied<br>Authority: Environment Agency - North East Region, Yorkshire Area<br>Site Category: Incinerators<br>**Licence Status:** **Expired**<br>Issued: 17th April 2002<br>Last Modified: Not Supplied<br>Expires: Not Supplied<br>Suspended: Not Supplied<br>Revoked: Not Supplied<br>Surrendered: Not Supplied<br>IPPC Reference: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m | A8NE (S) | 417 | 2 | 408150 433570 |
| 86 | **Licensed Waste Management Facilities (Locations)**<br>Licence Number: 60667<br>Location: Field No. 5, Thornton, Bradford, West Yorkshire, BD13 3SB<br>Operator Name: J A Stevenson<br>Operator Location: Not Supplied<br>Authority: Environment Agency - North East Region, Yorkshire Area<br>Site Category: Landfills Taking Non-biodegradeable Wastes (Not Construction)<br>**Licence Status:** **Surrendered**<br>Issued: 5th April 1991<br>Last Modified: Not Supplied<br>Expires: Not Supplied<br>Suspended: Not Supplied<br>Revoked: Not Supplied<br>Surrendered: 5th October 2023<br>IPPC Reference: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m | A18SW (N) | 633 | 2 | 408004 434609 |

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|---|---|---|---|---|---|
| 87 | **Licensed Waste Management Facilities (Locations)**<br>Licence Number: 60615<br>Location: Land / Premises At, Black Dyke Lane, Thornton, Bradford, West Yorkshire, BD13 3RR<br>Operator Name: WOOLCOMBERS GROUP PLC<br>Operator Location: Not Supplied<br>Authority: Environment Agency - North East Region, Yorkshire Area<br>Site Category: Household, Commercial And Industrial Waste Landfills<br>**Licence Status: Expired**<br>Issued: 11th July 1978<br>Last Modified: Not Supplied<br>Expires: Not Supplied<br>Suspended: Not Supplied<br>Revoked: Not Supplied<br>Surrendered: Not Supplied<br>IPPC Reference: Not Supplied<br>Positional Accuracy: Located by supplier to within 100m | A14SE (E) | 818 | 2 | 408900 433800 |
| 87 | **Licensed Waste Management Facilities (Locations)**<br>Licence Number: 60615<br>Location: Land / Premises At, Black Dyke Lane, Thornton, Bradford, West Yorkshire, BD13 3RR<br>Operator Name: WOOLCOMBERS GROUP PLC<br>Operator Location: Not Supplied<br>Authority: Environment Agency - North East Region, Yorkshire Area<br>Site Category: Household, Commercial And Industrial Waste Landfills<br>**Licence Status: Expired**<br>Issued: 11th July 1978<br>Last Modified: Not Supplied<br>Expires: Not Supplied<br>Suspended: Not Supplied<br>Revoked: Not Supplied<br>Surrendered: Not Supplied<br>IPPC Reference: Not Supplied<br>Positional Accuracy: Located by supplier to within 100m | A14SE (E) | 818 | 2 | 408900 433800 |
| 88 | **Licensed Waste Management Facilities (Locations)**<br>Licence Number: 60664<br>Location: High Stream Head Farm, Off Black Dyke Lane, Thornton, Bradford, West Yorkshire, BD13 3SA<br>Operator Name: P Drake<br>Operator Location: Not Supplied<br>Authority: Environment Agency - North East Region, Yorkshire Area<br>Site Category: Landfills Taking Non-biodegradeable Wastes (Not Construction)<br>**Licence Status: Closed**<br>Issued: 16th January 1992<br>Last Modified: Not Supplied<br>Expires: Not Supplied<br>Suspended: Not Supplied<br>Revoked: Not Supplied<br>Surrendered: Not Supplied<br>IPPC Reference: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m | A19NW (NE) | 933 | 2 | 408731 434673 |
| | **Local Authority Landfill Coverage**<br>Name: Bradford Metropolitan City Council<br>- Has not been able to supply Landfill data | | 0 | 5 | 408103 433984 |
| 89 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: NW<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A13NW (NW) | 66 | 7 | 408053 434026 |
| 90 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: NW<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A17SE (NW) | 489 | 7 | 407753 434324 |
| 91 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: N<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A18SE (N) | 621 | 7 | 408148 434603 |
| 92 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: NE<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A14NW (NE) | 621 | 7 | 408640 434296 |
| 93 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: NW<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A17SE (NW) | 621 | 7 | 407638 434395 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 94 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: NW<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A18SW (NW) | 624 | 7 | 407808 434533 |
| 95 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: NW<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A17SE (NW) | 671 | 7 | 407658 434485 |
| 96 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: SW<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A7NE (SW) | 673 | 7 | 407610 433527 |
| 97 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: N<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A18SW (N) | 683 | 7 | 407854 434619 |
| 98 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: N<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A18SE (N) | 709 | 7 | 408325 434657 |
| 99 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: E<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A14SE (E) | 728 | 7 | 408815 433834 |
| 100 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: NW<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A17SE (NW) | 738 | 7 | 407564 434487 |
| 101 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: NW<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A17SE (NW) | 741 | 7 | 407491 434399 |
| 102 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: NW<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A18NW (NW) | 788 | 7 | 407800 434711 |
| 103 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: N<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A18NW (N) | 794 | 7 | 407820 434725 |
| 104 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: NE<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A19SE (NE) | 802 | 7 | 408821 434340 |
| 105 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: NE<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A19SE (NE) | 823 | 7 | 408830 434370 |
| 106 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: NW<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A17SW (NW) | 825 | 7 | 407386 434391 |
| 107 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: N<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A18NW (N) | 852 | 7 | 407957 434822 |
| 108 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: NW<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A17NE (NW) | 867 | 7 | 407702 434752 |
| 109 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: SE<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A9NW (SE) | 879 | 7 | 408695 433335 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 110 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: NE<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A19SE (NE) | 900 | 7 | 408854 434479 |
| 111 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: N<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A18NW (N) | 903 | 7 | 408009 434881 |
| 112 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: E<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A14NE (E) | 909 | 7 | 408986 434202 |
| 113 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: NW<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A17NE (NW) | 949 | 7 | 407690 434838 |
| 114 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: N<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1982 | A18NE (N) | 951 | 7 | 408269 434920 |
| 115 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: NE<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A19SE (NE) | 967 | 7 | 408962 434429 |
| 116 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: SW<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A7SE (SW) | 977 | 7 | 407701 433093 |
| 117 | **Potentially Infilled Land (Non-Water)**<br>Bearing Ref: NW<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990 | A17SW (NW) | 990 | 7 | 407262 434505 |
| 118 | **Potentially Infilled Land (Water)**<br>Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc)<br>Date of Mapping: 1852 | A12SW (W) | 972 | 7 | 407161 433745 |
| 119 | **Registered Landfill Sites**<br>Licence Holder: Mrs J A Stevenson<br>Licence Reference: 920<br>Site Location: Bunkers Hill Farm, Thornton, BRADFORD, West Yorkshire, BD12 3SB<br>Licence Easting: 408000<br>Licence Northing: 434650<br>Operator Location: As Site Address<br>Authority: Environment Agency - North East Region, Ridings Area<br>Site Category: Landfill<br>Max Input Rate: Small (Equal to or greater than 10,000 and less than 25,000 tonnes per year)<br>Waste Source Restrictions: No known restriction on source of waste<br>Status: Site Closed<br>Dated: 5th April 1991<br>Preceded By Licence: Not Given<br>Superseded By Licence: Not Given<br>Positional Accuracy: Manually positioned to the address or location<br>Boundary Accuracy: Not Applicable<br>Authorised Waste: Uncontam. Constr'N/Demol. Waste; Uncontam. Earth & Excavation Waste<br>Prohibited Waste: Biodegradable Materials; Liable To Cause Environmental Hazards; Paper/Cardboard; Plastics; Poisonous, Noxious, Polluting Wastes; Wood | A18SW (N) | 675 | 2 | 408000 434650 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 120 | **Registered Landfill Sites**<br>Licence Holder: A T Burton t/a Bursual Landfill Site Serv<br>Licence Reference: 51<br>Site Location: Egypt Quarry, Black Dyke Lane Farm, Thornton, Bradford, West Yorkshire<br>Licence Easting: Not Supplied<br>Licence Northing: Not Supplied<br>Operator Location: 19 Gooseland Court, Wickersley, ROTHERHAM, South Yorkshire, S66 0DW<br>Authority: Environment Agency - North East Region, Ridings Area<br>Site Category: Landfill<br>Max Input Rate: Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year)<br>Waste Source Restrictions: No known restriction on source of waste<br>Status: Licence lapsed/cancelled/defunct/not applicable/surrendered<br>Dated: 1st February 1993<br>Preceded By Licence: 51<br>Superseded By Licence: Not Given<br>Positional Accuracy: Positioned by the supplier<br>Boundary Accuracy: Good<br>Authorised Waste: Construction And Demolition Wastes<br>Excavation Waste<br>Max.Waste Permitted By Licence<br>Prohibited Waste: All Biodegradable Waste<br>Liable To Cause Environmental Hazards<br>Poisonous, Noxious, Polluting Wastes<br>Special Wastes (As In '96 Regs)<br>Waste N.O.S. | A14SE (E) | 759 | 2 | 408859 433920 |
| 121 | **Registered Landfill Sites**<br>Licence Holder: P Drake<br>Licence Reference: 906<br>Site Location: Old Allen Road, Thornton Road, Bradford, West Yorkshire<br>Licence Easting: 408750<br>Licence Northing: 434400<br>Operator Location: High Str. Head Farm, Black Dyke Lane, Thornton, BRADFORD, West Yorkshire, BD13 3SA<br>Authority: Environment Agency - North East Region, Ridings Area<br>Site Category: Landfill<br>Max Input Rate: Small (Equal to or greater than 10,000 and less than 25,000 tonnes per year)<br>Waste Source Restrictions: No known restriction on source of waste<br>Status: Site Closed<br>Dated: 16th January 1992<br>Preceded By Licence: Not Given<br>Superseded By Licence: Not Given<br>Positional Accuracy: Manually positioned to the address or location<br>Boundary Accuracy: Not Applicable<br>Authorised Waste: Uncontam. Constr'N/Demol. Waste<br>Uncontam. Earth & Excavtion Waste<br>Prohibited Waste: Liable To Cause Environmental Hazards<br>Other Biodegradable Waste<br>Paper<br>Plasterboard<br>Plastics<br>Poisonous, Noxious, Polluting Wastes<br>Wood | A19SW (NE) | 769 | 2 | 408750 434400 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 122 | **Registered Landfill Sites**<br>Licence Holder: Woolcombers (Holdings) Ltd<br>Licence Reference: 127<br>Site Location: Black Dyke Lane Quarry, Thornton, Bradford, West Yorkshire<br>Licence Easting: 408900<br>Licence Northing: 433800<br>Operator Location: Victoria Road, Saltaire, BRADFORD, West Yorkshire, BD18 3LD<br>Authority: Environment Agency - North East Region, Ridings Area<br>Site Category: Landfill<br>Max Input Rate: Very Small (Less than 10,000 tonnes per year)<br>Waste Source Restrictions: Only waste produced on site<br>Status: Operational as far as is knownOperational<br>Dated: 11th July 1978<br>Preceded By Licence: Not Given<br>Superseded By Licence: Not Given<br>Positional Accuracy: Manually positioned to the address or location<br>Boundary Accuracy: Not Applicable<br>Authorised Waste: Boiler Ash<br>Construction And Demolition Wastes<br>Excavation Waste<br>Max.Waste Permitted By Licence<br>Washed Ind.Eff.Treatment Sludge<br>Prohibited Waste: Biodegradable Waste<br>Liable To Cause Environmental Hazards<br>Poisonous, Noxious, Polluting Wastes<br>Spec.Waste (Epa'90:S62/1996 Regs) | A14SE (E) | 818 | 2 | 408900 433800 |
| 123 | **Registered Landfill Sites**<br>Licence Holder: D Bottomley<br>Licence Reference: 284<br>Site Location: Aycliffe Farm, Harecroft, Wilsden, BRADFORD, West Yorkshire, BD13 3RY<br>Licence Easting: Not Supplied<br>Licence Northing: Not Supplied<br>Operator Location: As Site Address<br>Authority: Environment Agency - North East Region, Ridings Area<br>Site Category: Landfill<br>Max Input Rate: Undefined<br>Waste Source Restrictions: No known restriction on source of waste<br>Status: Licence lapsed/cancelled/defunct/not applicable/surrendered<br>Dated: 9th November 1981<br>Preceded By Licence: Not Given<br>Superseded By Licence: Not Given<br>Positional Accuracy: Positioned by the supplier<br>Boundary Accuracy: Moderate<br>Authorised Waste: Construction And Demolition Wastes<br>Excavated Natural Materials $<br>Prohibited Waste: Biodegradable/Putrescible Waste<br>Poisonous, Noxious, Polluting Wastes | A18NW (N) | 834 | 2 | 407989 434809 |
| 124 | **Registered Landfill Sites**<br>Licence Holder: Clugston Ltd<br>Licence Reference: 51<br>Site Location: Egypt Quarry, Black Dyke Lane Farm, Thornton, Bradford, West Yorkshire<br>Licence Easting: 409000<br>Licence Northing: 433900<br>Operator Location: As Site Address<br>Authority: Environment Agency - North East Region, Ridings Area<br>Site Category: Landfill<br>Max Input Rate: Undefined<br>Waste Source Restrictions: No known restriction on source of waste<br>Status: Record superseded<br>Dated: 20th June 1978<br>Preceded By Licence: Not Given<br>Superseded By Licence: 51<br>Positional Accuracy: Manually positioned to the address or location<br>Boundary Accuracy: Not Applicable<br>Authorised Waste: Com. + Ind. Non-Haz, Non-Biodegrad.<br>Construction And Demolition Wastes<br>Ind. Non-Haz. Potentially Combustible<br>Prohibited Waste: Biodegradable/Putrescible Waste<br>Poisonous, Noxious, Polluting Wastes | A14SE (E) | 901 | 2 | 409000 433900 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **BGS 1:625,000 Solid Geology**<br>Description: Pennine Lower Coal Measures Formation And South Wales Lower Coal Measures Formation (Undifferentiated) | A13NE (N) | 0 | 1 | 408103 433984 |
| | **BGS Estimated Soil Chemistry**<br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Rural Soil<br>Arsenic Concentration: 15 - 25 mg/kg<br>Cadmium Concentration: <1.8 mg/kg<br>Chromium Concentration: 60 - 90 mg/kg<br>Lead Concentration: <100 mg/kg<br>Nickel Concentration: 15 - 30 mg/kg | A13NE (N) | 0 | 1 | 408103 433984 |
| | **BGS Estimated Soil Chemistry**<br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Rural Soil<br>Arsenic Concentration: 25 - 35 mg/kg<br>Cadmium Concentration: <1.8 mg/kg<br>Chromium Concentration: 60 - 90 mg/kg<br>Lead Concentration: <100 mg/kg<br>Nickel Concentration: 15 - 30 mg/kg | A13SW (SW) | 240 | 1 | 407892 433870 |
| | **BGS Estimated Soil Chemistry**<br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Rural Soil<br>Arsenic Concentration: <15 mg/kg<br>Cadmium Concentration: <1.8 mg/kg<br>Chromium Concentration: 60 - 90 mg/kg<br>Lead Concentration: <100 mg/kg<br>Nickel Concentration: <15 mg/kg | A8NW (SW) | 429 | 1 | 407875 433621 |
| | **BGS Estimated Soil Chemistry**<br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Rural Soil<br>Arsenic Concentration: <15 mg/kg<br>Cadmium Concentration: <1.8 mg/kg<br>Chromium Concentration: 60 - 90 mg/kg<br>Lead Concentration: <100 mg/kg<br>Nickel Concentration: <15 mg/kg | A18SE (NE) | 432 | 1 | 408346 434341 |
| | **BGS Estimated Soil Chemistry**<br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Rural Soil<br>Arsenic Concentration: 25 - 35 mg/kg<br>Cadmium Concentration: <1.8 mg/kg<br>Chromium Concentration: 60 - 90 mg/kg<br>Lead Concentration: <100 mg/kg<br>Nickel Concentration: 15 - 30 mg/kg | A12NE (W) | 544 | 1 | 407564 434050 |
| | **BGS Estimated Soil Chemistry**<br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Rural Soil<br>Arsenic Concentration: 25 - 35 mg/kg<br>Cadmium Concentration: <1.8 mg/kg<br>Chromium Concentration: 60 - 90 mg/kg<br>Lead Concentration: <100 mg/kg<br>Nickel Concentration: 15 - 30 mg/kg | A18SE (N) | 612 | 1 | 408271 434572 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **BGS Estimated Soil Chemistry**<br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Rural Soil<br>Arsenic Concentration: 25 - 35 mg/kg<br>Cadmium Concentration: <1.8 mg/kg<br>Chromium Concentration: 60 - 90 mg/kg<br>Lead Concentration: <100 mg/kg<br>Nickel Concentration: 15 - 30 mg/kg | A12NE (W) | 650 | 1 | 407498 434219 |
| | **BGS Estimated Soil Chemistry**<br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Rural Soil<br>Arsenic Concentration: 25 - 35 mg/kg<br>Cadmium Concentration: <1.8 mg/kg<br>Chromium Concentration: 60 - 90 mg/kg<br>Lead Concentration: <100 mg/kg<br>Nickel Concentration: 15 - 30 mg/kg | A12NE (W) | 682 | 1 | 407445 434158 |
| | **BGS Estimated Soil Chemistry**<br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Rural Soil<br>Arsenic Concentration: 25 - 35 mg/kg<br>Cadmium Concentration: <1.8 mg/kg<br>Chromium Concentration: 60 - 90 mg/kg<br>Lead Concentration: <100 mg/kg<br>Nickel Concentration: 15 - 30 mg/kg | A12NW (W) | 710 | 1 | 407399 434073 |
| | **BGS Estimated Soil Chemistry**<br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Rural Soil<br>Arsenic Concentration: 25 - 35 mg/kg<br>Cadmium Concentration: <1.8 mg/kg<br>Chromium Concentration: 60 - 90 mg/kg<br>Lead Concentration: <100 mg/kg<br>Nickel Concentration: 15 - 30 mg/kg | A12NW (W) | 737 | 1 | 407395 434184 |
| | **BGS Estimated Soil Chemistry**<br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Rural Soil<br>Arsenic Concentration: 25 - 35 mg/kg<br>Cadmium Concentration: <1.8 mg/kg<br>Chromium Concentration: 60 - 90 mg/kg<br>Lead Concentration: <100 mg/kg<br>Nickel Concentration: 15 - 30 mg/kg | A12NW (W) | 756 | 1 | 407392 434239 |
| | **BGS Estimated Soil Chemistry**<br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Rural Soil<br>Arsenic Concentration: <15 mg/kg<br>Cadmium Concentration: <1.8 mg/kg<br>Chromium Concentration: 60 - 90 mg/kg<br>Lead Concentration: <100 mg/kg<br>Nickel Concentration: <15 mg/kg | A19SW (NE) | 760 | 1 | 408717 434432 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **BGS Estimated Soil Chemistry**<br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Rural Soil<br>Arsenic Concentration: 25 - 35 mg/kg<br>Cadmium Concentration: <1.8 mg/kg<br>Chromium Concentration: 60 - 90 mg/kg<br>Lead Concentration: <100 mg/kg<br>Nickel Concentration: 15 - 30 mg/kg | A18NE (N) | 787 | 1 | 408285 434749 |
| | **BGS Estimated Soil Chemistry**<br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Rural Soil<br>Arsenic Concentration: <15 mg/kg<br>Cadmium Concentration: <1.8 mg/kg<br>Chromium Concentration: 60 - 90 mg/kg<br>Lead Concentration: <100 mg/kg<br>Nickel Concentration: <15 mg/kg | A17SE (NW) | 821 | 1 | 407491 434530 |
| | **BGS Estimated Soil Chemistry**<br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Rural Soil<br>Arsenic Concentration: 25 - 35 mg/kg<br>Cadmium Concentration: <1.8 mg/kg<br>Chromium Concentration: 60 - 90 mg/kg<br>Lead Concentration: <100 mg/kg<br>Nickel Concentration: 15 - 30 mg/kg | A12NW (NW) | 866 | 1 | 407306 434321 |
| | **BGS Estimated Soil Chemistry**<br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Rural Soil<br>Arsenic Concentration: <15 mg/kg<br>Cadmium Concentration: <1.8 mg/kg<br>Chromium Concentration: 60 - 90 mg/kg<br>Lead Concentration: <100 mg/kg<br>Nickel Concentration: <15 mg/kg | A17SW (NW) | 911 | 1 | 407316 434441 |
| 125 | **BGS Recorded Mineral Sites**<br>Site Name: Ten Yards Lane Quarry<br>Location: Denholme, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 72332<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Elland Flags<br>Commodity: Sandstone<br>Positional Accuracy: Located by supplier to within 10m | A13NW (W) | 112 | 1 | 408000 434025 |
| 126 | **BGS Recorded Mineral Sites**<br>Site Name: Ten Yards Lane Quarry<br>Location: Ten Yards Lane, Denholme, Bradford, West Yorkshire, Bd13 3se<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 347<br>Type: Opencast<br>**Status: Active**<br>Operator: Birks Royd Stone<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Elland Flags<br>Commodity: Sandstone<br>Positional Accuracy: Located by supplier to within 100m | A13NW (NW) | 156 | 1 | 408000 434100 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 127 | **BGS Recorded Mineral Sites**<br>Site Name: Erling Quarry<br>Location: Thornton, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 13930<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Elland Flags<br>Commodity: Sandstone<br>Positional Accuracy: Located by supplier to within 10m | A8NE (S) | 436 | 1 | 408145 433550 |
| 128 | **BGS Recorded Mineral Sites**<br>Site Name: Erling Quarry<br>Location: Thornton, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 252861<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Calvin Cockcroft Ltd.<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Elland Flags<br>Commodity: Sandstone<br>Positional Accuracy: Located by supplier to within 10m | A8NW (S) | 476 | 1 | 408060 433510 |
| 129 | **BGS Recorded Mineral Sites**<br>Site Name: Cripple Croft Plantation<br>Location: Denholme, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 73187<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Pennine Coal Measures Group<br>Commodity: Coal - Deep<br>Positional Accuracy: Located by supplier to within 10m | A12NE (NW) | 491 | 1 | 407740 434314 |
| 130 | **BGS Recorded Mineral Sites**<br>Site Name: Cripple Croft Plantation<br>Location: Denholme, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 73186<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Pennine Coal Measures Group<br>Commodity: Coal - Deep<br>Positional Accuracy: Located by supplier to within 10m | A18SW (NW) | 523 | 1 | 407811 434417 |
| 131 | **BGS Recorded Mineral Sites**<br>Site Name: Erling Quarry<br>Location: Thornton, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 252860<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Calvin Cockcroft Ltd.<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Elland Flags<br>Commodity: Sandstone<br>Positional Accuracy: Located by supplier to within 10m | A8NW (S) | 534 | 1 | 407978 433465 |
| 132 | **BGS Recorded Mineral Sites**<br>Site Name: Erling Quarry<br>Location: Thornton, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 252862<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Calvin Cockcroft Ltd.<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Elland Flags<br>Commodity: Sandstone<br>Positional Accuracy: Located by supplier to within 10m | A8NW (S) | 615 | 1 | 407872 433415 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 133 | **BGS Recorded Mineral Sites**<br>Site Name: Wheel Race<br>Location: Denholme, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 73188<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Pennine Coal Measures Group<br>Commodity: Coal - Deep<br>Positional Accuracy: Located by supplier to within 10m | A17SE (NW) | 616 | 1 | 407637 434385 |
| 134 | **BGS Recorded Mineral Sites**<br>Site Name: Thorn Gate<br>Location: Denholme, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 73185<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Pennine Coal Measures Group<br>Commodity: Coal - Deep<br>Positional Accuracy: Located by supplier to within 10m | A18SW (NW) | 617 | 1 | 407802 434522 |
| 135 | **BGS Recorded Mineral Sites**<br>Site Name: Old Allen Corner Coal Pit<br>Location: Thornton, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 72514<br>Type: Underground<br>**Status: Ceased**<br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Pennine Coal Measures Group<br>Commodity: Coal - Deep<br>Positional Accuracy: Located by supplier to within 10m | A18SE (N) | 622 | 1 | 408157 434603 |
| 136 | **BGS Recorded Mineral Sites**<br>Site Name: Hazel Crook<br>Location: Black Dike Lane, Thornton, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 20951<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: 48 Yard Rock<br>Commodity: Sandstone<br>Positional Accuracy: Located by supplier to within 10m | A14NW (NE) | 634 | 1 | 408655 434295 |
| 137 | **BGS Recorded Mineral Sites**<br>Site Name: Wheel Race<br>Location: Denholme, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 73189<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Pennine Coal Measures Group<br>Commodity: Coal - Deep<br>Positional Accuracy: Located by supplier to within 10m | A17SE (NW) | 663 | 1 | 407657 434474 |
| 138 | **BGS Recorded Mineral Sites**<br>Site Name: Cripple Croft Plantation<br>Location: Denholme, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 72504<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: 48 Yard Rock<br>Commodity: Sandstone<br>Positional Accuracy: Located by supplier to within 10m | A18SW (NW) | 680 | 1 | 407843 434612 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 139 | **BGS Recorded Mineral Sites**<br>Site Name: Birk Hill<br>Location: Denholme, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 72301<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Elland Flags<br>Commodity: Sandstone<br>Positional Accuracy: Located by supplier to within 10m | A7NE (SW) | 690 | 1 | 407607 433506 |
| 140 | **BGS Recorded Mineral Sites**<br>Site Name: Old Allen Moor Coal Pit<br>Location: Thornton, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 72527<br>Type: Underground<br>**Status: Ceased**<br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Pennine Coal Measures Group<br>Commodity: Coal - Deep<br>Positional Accuracy: Located by supplier to within 10m | A18NE (N) | 729 | 1 | 408339 434673 |
| 141 | **BGS Recorded Mineral Sites**<br>Site Name: Cripple Croft Plantation<br>Location: Denholme, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 73184<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Pennine Coal Measures Group<br>Commodity: Coal - Deep<br>Positional Accuracy: Located by supplier to within 10m | A18NW (NW) | 779 | 1 | 407799 434700 |
| 141 | **BGS Recorded Mineral Sites**<br>Site Name: Cripple Croft Plantation<br>Location: Denholme, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 73183<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Pennine Coal Measures Group<br>Commodity: Coal - Deep<br>Positional Accuracy: Located by supplier to within 10m | A18NW (N) | 783 | 1 | 407821 434714 |
| 142 | **BGS Recorded Mineral Sites**<br>Site Name: Black Dyke Lane Quarry<br>Location: Black Dyke Lane, Thornton, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 5641<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Calvin Cockcroft Ltd.<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Elland Flags<br>Commodity: Sandstone<br>Positional Accuracy: Located by supplier to within 10m | A14SE (E) | 791 | 1 | 408875 433810 |
| 142 | **BGS Recorded Mineral Sites**<br>Site Name: Black Dyke Lane Flagstone Mine<br>Location: Thornton, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 252879<br>Type: Underground<br>**Status: Ceased**<br>Operator: Calvin Cockcroft Ltd.<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Elland Flags<br>Commodity: Sandstone<br>Positional Accuracy: Located by supplier to within 100m | A14SE (E) | 818 | 1 | 408900 433800 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 143 | **BGS Recorded Mineral Sites**<br>Site Name: Wheel Race<br>Location: Denholme, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 73182<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Pennine Coal Measures Group<br>Commodity: Coal - Deep<br>Positional Accuracy: Located by supplier to within 10m | A17SE (NW) | 798 | 1 | 407489 434493 |
| 144 | **BGS Recorded Mineral Sites**<br>Site Name: Hazel Crook<br>Location: Thornton, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 73211<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Pennine Coal Measures Group<br>Commodity: Coal - Deep<br>Positional Accuracy: Located by supplier to within 10m | A19SE (NE) | 808 | 1 | 408832 434333 |
| 145 | **BGS Recorded Mineral Sites**<br>Site Name: Denholme Coal Pit<br>Location: Denholme, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 72505<br>Type: Underground<br>**Status: Ceased**<br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Pennine Coal Measures Group<br>Commodity: Coal - Deep<br>Positional Accuracy: Located by supplier to within 10m | A17SW (NW) | 820 | 1 | 407384 434376 |
| 146 | **BGS Recorded Mineral Sites**<br>Site Name: Egypt Quarry<br>Location: Black Dyke Lane, Thornton, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 5640<br>Type: Opencast<br>**Status: Ceased**<br>Operator: John Farrar & Sons Ltd.<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Elland Flags<br>Commodity: Sandstone<br>Positional Accuracy: Located by supplier to within 10m | A14SE (E) | 846 | 1 | 408945 433900 |
| 147 | **BGS Recorded Mineral Sites**<br>Site Name: Black Dyke Lane Quarry<br>Location: Thornton, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 241284<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Calvin Cockcroft Ltd.<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Elland Flags<br>Commodity: Sandstone<br>Positional Accuracy: Located by supplier to within 10m | A14SE (E) | 878 | 1 | 408963 433806 |
| 148 | **BGS Recorded Mineral Sites**<br>Site Name: Stream Head<br>Location: Thornton, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 73214<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Pennine Coal Measures Group<br>Commodity: Coal - Deep<br>Positional Accuracy: Located by supplier to within 10m | A19SE (NE) | 909 | 1 | 408865 434479 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 149 | **BGS Recorded Mineral Sites**<br>Site Name: Egypt Quarry<br>Location: Black Dyke Lane, Thornton, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 252874<br>Type: Opencast<br>**Status: Ceased**<br>Operator: John Farrar & Sons Ltd.<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Elland Flags<br>Commodity: Sandstone<br>Positional Accuracy: Located by supplier to within 10m | A14SE (E) | 919 | 1 | 409020 433925 |
| 150 | **BGS Recorded Mineral Sites**<br>Site Name: Thornton Heights Delf<br>Location: Thornton, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 20965<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Jonas Wilkinson<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Elland Flags<br>Commodity: Sandstone<br>Positional Accuracy: Located by supplier to within 10m | A9NW (SE) | 924 | 1 | 408755 433330 |
| 151 | **BGS Recorded Mineral Sites**<br>Site Name: Thornton Quarries<br>Location: Thornton, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 252863<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Jonas Wilkinson<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Elland Flags<br>Commodity: Sandstone<br>Positional Accuracy: Located by supplier to within 10m | A9SW (SE) | 924 | 1 | 408673 433257 |
| 152 | **BGS Recorded Mineral Sites**<br>Site Name: Park Wood<br>Location: Denholme, Keighley, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 73119<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Pennine Coal Measures Group<br>Commodity: Coal - Deep<br>Positional Accuracy: Located by supplier to within 10m | A18NW (N) | 944 | 1 | 407912 434908 |
| 153 | **BGS Recorded Mineral Sites**<br>Site Name: Thornton Heights Delf<br>Location: Thornton, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 20966<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Jonas Wilkinson<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Elland Flags<br>Commodity: Sandstone<br>Positional Accuracy: Located by supplier to within 10m | A9NE (SE) | 958 | 1 | 408825 433355 |
| 154 | **BGS Recorded Mineral Sites**<br>Site Name: Moscow Quarry<br>Location: Thornton, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 252889<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Willie Jennings<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Elland Flags<br>Commodity: Sandstone<br>Positional Accuracy: Located by supplier to within 10m | A9NE (SE) | 965 | 1 | 408890 433425 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 154 | **BGS Recorded Mineral Sites**<br>Site Name: Moscow Quarry<br>Location: Thornton, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 252864<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Willie Jennings<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Elland Flags<br>Commodity: Sandstone<br>Positional Accuracy: Located by supplier to within 10m | A9NE (SE) | 970 | 1 | 408867 433387 |
| 155 | **BGS Recorded Mineral Sites**<br>Site Name: Old Allen Moor<br>Location: Harecroft, Wilsden, Shipley, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 51202<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: 48 Yard Rock<br>Commodity: Sandstone<br>Positional Accuracy: Located by supplier to within 10m | A18NW (N) | 973 | 1 | 408055 434955 |
| 156 | **BGS Recorded Mineral Sites**<br>Site Name: Hare Croft Coal Pit<br>Location: Wilsden, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 72491<br>Type: Underground<br>**Status: Ceased**<br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Pennine Coal Measures Group<br>Commodity: Coal - Deep<br>Positional Accuracy: Located by supplier to within 10m | A18NE (N) | 976 | 1 | 408289 434942 |
| 157 | **BGS Recorded Mineral Sites**<br>Site Name: High Stream Head<br>Location: Thornton, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 73212<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Pennine Coal Measures Group<br>Commodity: Coal - Deep<br>Positional Accuracy: Located by supplier to within 10m | A14NE (E) | 976 | 1 | 409058 434185 |
| 158 | **BGS Recorded Mineral Sites**<br>Site Name: Denholme Gate Farm<br>Location: Denholme, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 72304<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Elland Flags<br>Commodity: Sandstone<br>Positional Accuracy: Located by supplier to within 10m | A7SE (SW) | 979 | 1 | 407612 433138 |
| 159 | **BGS Recorded Mineral Sites**<br>Site Name: Egypt Quarry<br>Location: Black Dyke Lane, Thornton, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 252875<br>Type: Opencast<br>**Status: Ceased**<br>Operator: John Farrar & Sons Ltd.<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Elland Flags<br>Commodity: Sandstone<br>Positional Accuracy: Located by supplier to within 10m | A14SE (E) | 983 | 1 | 409077 433855 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 160 | **BGS Recorded Mineral Sites**<br>Site Name: Denholme Carr<br>Location: Denholme, Bradford, West Yorkshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 73181<br>Type: Opencast<br>**Status: Ceased**<br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Carboniferous<br>Geology: Pennine Coal Measures Group<br>Commodity: Coal - Deep<br>Positional Accuracy: Located by supplier to within 10m | A17SW (NW) | 993 | 1 | 407253 434495 |
| | **BGS Measured Urban Soil Chemistry**<br>No data available | | | | |
| | **BGS Urban Soil Chemistry Averages**<br>No data available | | | | |
| | **Coal Mining Affected Areas**<br>Description: In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report. | A13NE (N) | 0 | 6 | 408103 433984 |
| | **Mining Instability**<br>Mining Evidence: Inconclusive Coal Mining<br>Source: Ove Arup & Partners<br>Boundary Quality: As Supplied | A13NE (N) | 0 | 7 | 408103 433984 |
| | **Man-Made Mining Cavities**<br>Easting: 408900<br>Northing: 433800<br>Distance: 818<br>Quadrant Reference: A14<br>Quadrant Reference: SE<br>Bearing Ref: E<br>Cavity Type: Elland Flagstone Mine-Details Unknown<br>Commodity: Flagstones<br>Solid Geology Detail: Lower Coal Measures<br>Superficial Geology Detail: No Details | A14SE (E) | 818 | 7 | 408900 433800 |
| | **Man-Made Mining Cavities**<br>Easting: 409000<br>Northing: 433900<br>Distance: 901<br>Quadrant Reference: A14<br>Quadrant Reference: SE<br>Bearing Ref: E<br>Cavity Type: Elland Flagstone Mining-Details Unknown<br>Commodity: Flagstones<br>Solid Geology Detail: Lower Coal Measures<br>Superficial Geology Detail: No Details | A14SE (E) | 901 | 7 | 409000 433900 |
| | **Man-Made Mining Cavities**<br>Easting: 408100<br>Northing: 434900<br>Distance: 917<br>Quadrant Reference: A18<br>Quadrant Reference: NW<br>Bearing Ref: N<br>Cavity Type: Not supplied<br>Commodity: Fireclay<br>Solid Geology Detail: No Details<br>Superficial Geology Detail: No Details | A18NW (N) | 917 | 7 | 408100 434900 |
| | **Man-Made Mining Cavities**<br>Easting: 409000<br>Northing: 433600<br>Distance: 976<br>Quadrant Reference: A9<br>Quadrant Reference: NE<br>Bearing Ref: SE<br>Cavity Type: Elland Flagstone Mine-Details Unknown<br>Commodity: Flagstones<br>Solid Geology Detail: Lower Coal Measures<br>Superficial Geology Detail: No Details | A9NE (SE) | 976 | 7 | 409000 433600 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **Non Coal Mining Areas of Great Britain**<br>Risk: Likely<br>Source: British Geological Survey, National Geoscience Information Service | A13NE (N) | 0 | 1 | 408103 433984 |
| | **Potential for Collapsible Ground Stability Hazards**<br>Hazard Potential: Very Low<br>Source: British Geological Survey, National Geoscience Information Service | A13NE (N) | 0 | 1 | 408103 433984 |
| | **Potential for Compressible Ground Stability Hazards**<br>Hazard Potential: No Hazard<br>Source: British Geological Survey, National Geoscience Information Service | A13NE (N) | 0 | 1 | 408103 433984 |
| | **Potential for Ground Dissolution Stability Hazards**<br>Hazard Potential: No Hazard<br>Source: British Geological Survey, National Geoscience Information Service | A13NE (N) | 0 | 1 | 408103 433984 |
| | **Potential for Landslide Ground Stability Hazards**<br>Hazard Potential: Very Low<br>Source: British Geological Survey, National Geoscience Information Service | A13NE (N) | 0 | 1 | 408103 433984 |
| | **Potential for Landslide Ground Stability Hazards**<br>Hazard Potential: Moderate<br>Source: British Geological Survey, National Geoscience Information Service | A13SW (W) | 180 | 1 | 407929 433941 |
| | **Potential for Landslide Ground Stability Hazards**<br>Hazard Potential: Low<br>Source: British Geological Survey, National Geoscience Information Service | A13NW (W) | 223 | 1 | 407880 433986 |
| | **Potential for Landslide Ground Stability Hazards**<br>Hazard Potential: Very Low<br>Source: British Geological Survey, National Geoscience Information Service | A13SW (W) | 248 | 1 | 407870 433902 |
| | **Potential for Running Sand Ground Stability Hazards**<br>Hazard Potential: No Hazard<br>Source: British Geological Survey, National Geoscience Information Service | A13NE (N) | 0 | 1 | 408103 433984 |
| | **Potential for Running Sand Ground Stability Hazards**<br>Hazard Potential: Very Low<br>Source: British Geological Survey, National Geoscience Information Service | A13SW (SW) | 200 | 1 | 407966 433838 |
| | **Potential for Shrinking or Swelling Clay Ground Stability Hazards**<br>Hazard Potential: No Hazard<br>Source: British Geological Survey, National Geoscience Information Service | A13NE (N) | 0 | 1 | 408103 433984 |
| | **Potential for Shrinking or Swelling Clay Ground Stability Hazards**<br>Hazard Potential: Very Low<br>Source: British Geological Survey, National Geoscience Information Service | A13SW (W) | 180 | 1 | 407929 433941 |
| | **Potential for Shrinking or Swelling Clay Ground Stability Hazards**<br>Hazard Potential: Very Low<br>Source: British Geological Survey, National Geoscience Information Service | A13NE (N) | 215 | 1 | 408143 434195 |
| | **Potential for Shrinking or Swelling Clay Ground Stability Hazards**<br>Hazard Potential: No Hazard<br>Source: British Geological Survey, National Geoscience Information Service | A13NW (W) | 245 | 1 | 407864 434035 |
| | **Radon Potential - Radon Affected Areas**<br>Affected Area: The property is an Intermediate probability radon area (3 to 5% of homes are estimated to be at or above the Action Level).<br>Source: British Geological Survey, National Geoscience Information Service | A13NE (N) | 0 | 1 | 408103 433984 |
| | **Radon Potential - Radon Protection Measures**<br>Protection Measure: Basic radon protective measures are necessary in the construction of new dwellings or extensions<br>Source: British Geological Survey, National Geoscience Information Service | A13NE (N) | 0 | 1 | 408103 433984 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 161 | **Contemporary Trade Directory Entries**<br>Name: Omega Proteins Ltd<br>Location: Erlings Works, Half Acre Road, Thornton, Bradford, West Yorkshire, BD13 3SG<br>Classification: Abattoirs<br>**Status: Active**<br>Positional Accuracy: Automatically positioned to the address | A8NE (S) | 432 | 7 | 408137 433554 |
| 162 | **Contemporary Trade Directory Entries**<br>Name: Pets At Rest<br>Location: Hirst Field Farm, Black Dyke Lane, Thornton, Bradford, West Yorkshire, BD13 3RR<br>Classification: Pet Cemeteries & Crematoria<br>**Status: Inactive**<br>Positional Accuracy: Automatically positioned to the address | A14NW (NE) | 617 | 7 | 408659 434251 |
| 163 | **Contemporary Trade Directory Entries**<br>Name: Airedale Animal Feeds<br>Location: Jerusalem Farm, Half Acre Road, Thornton, Bradford, West Yorkshire, BD13 3SG<br>Classification: Pet Foods & Animal Feeds<br>**Status: Inactive**<br>Positional Accuracy: Automatically positioned to the address | A9SW (SE) | 779 | 7 | 408485 433305 |
| 164 | **Contemporary Trade Directory Entries**<br>Name: Eurofill Ltd<br>Location: Unit 1, Old Allen Barn, Old Allen Road, Thornton, Bradford, West Yorkshire, BD13 3RY<br>Classification: Bottling Machinery & Equipment<br>**Status: Inactive**<br>Positional Accuracy: Manually positioned to the address or location | A18NE (N) | 927 | 7 | 408197 434906 |
| 164 | **Contemporary Trade Directory Entries**<br>Name: Eurofill Ltd<br>Location: Unit 1, Old Allen Barn, Old Allen Road, Thornton, Bradford, West Yorkshire, BD13 3RY<br>Classification: Bottling Machinery & Equipment<br>**Status: Inactive**<br>Positional Accuracy: Automatically positioned to the address | A18NE (N) | 947 | 7 | 408179 434928 |
| 165 | **Contemporary Trade Directory Entries**<br>Name: Marcus Bradford Ltd<br>Location: Back Heights Road, Thornton, Bradford, West Yorkshire, BD13 3RP<br>Classification: Road Haulage Services<br>**Status: Inactive**<br>Positional Accuracy: Automatically positioned to the address | A9NE (E) | 974 | 7 | 409015 433642 |
| 166 | **Points of Interest - Commercial Services**<br>Name: Marcus Bradford Ltd<br>Location: Back Heights Road, Thornton, Bradford, BD13 3RP<br>Category: Transport, Storage and Delivery<br>Class Code: Distribution and Haulage<br>Positional Accuracy: Positioned to address or location | A9NE (E) | 974 | 8 | 409015 433642 |
| 166 | **Points of Interest - Commercial Services**<br>Name: Marcus Bradford Ltd<br>Location: Low Fold Farm, Back Heights Road, Thornton, Bradford, BD13 3RP<br>Category: Transport, Storage and Delivery<br>Class Code: Distribution and Haulage<br>Positional Accuracy: Positioned to address or location | A9NE (E) | 974 | 8 | 409015 433642 |
| 167 | **Points of Interest - Commercial Services**<br>Name: Scrap Yard<br>Location: BD13<br>Category: Recycling Services<br>Class Code: Scrap Metal Merchants<br>Positional Accuracy: Positioned to address or location | A19NE (NE) | 993 | 8 | 408795 434696 |
| 168 | **Points of Interest - Education and Health**<br>Name: David Mitchell Equine Disposal & Cremation Service<br>Location: Hirst Fields Farm, Black Dyke Lane, Thornton, Bradford, BD13 3RR<br>Category: Animal Welfare<br>Class Code: Pet Cemeteries and Crematoria<br>Positional Accuracy: Positioned to address or location | A14NW (NE) | 618 | 8 | 408660 434251 |
| 169 | **Points of Interest - Education and Health**<br>Name: Pets at Rest<br>Location: Jerusalem Farm, Half Acre Road, Thornton, Bradford, BD13 3SG<br>Category: Animal Welfare<br>Class Code: Pet Cemeteries and Crematoria<br>Positional Accuracy: Positioned to address or location | A9SW (SE) | 779 | 8 | 408485 433305 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 169 | **Points of Interest - Education and Health**<br>Name: Pets at Rest-Pet Cremation Service<br>Location: Unit 4 Jerusalem Farm, Thornton, Bradford, West Yorkshire, BD13 3SG<br>Category: Animal Welfare<br>Class Code: Pet Cemeteries and Crematoria<br>Positional Accuracy: Positioned to address or location | A9SW (SE) | 788 | 8 | 408466 433285 |
| 170 | **Points of Interest - Manufacturing and Production**<br>Name: Quarry (Disused)<br>Location: BD13<br>Category: Extractive Industries<br>Class Code: Unspecified Quarries Or Mines<br>Positional Accuracy: Positioned to an adjacent address or location | A13NW (N) | 73 | 8 | 408092 434055 |
| 170 | **Points of Interest - Manufacturing and Production**<br>Name: Quarry (Disused)<br>Location: BD13<br>Category: Extractive Industries<br>Class Code: Unspecified Quarries Or Mines<br>Positional Accuracy: Positioned to an adjacent address or location | A13NW (NW) | 120 | 8 | 408040 434085 |
| 170 | **Points of Interest - Manufacturing and Production**<br>Name: Quarry (Disused)<br>Location: BD13<br>Category: Extractive Industries<br>Class Code: Unspecified Quarries Or Mines<br>Positional Accuracy: Positioned to an adjacent address or location | A13NW (NW) | 172 | 8 | 407965 434086 |
| 171 | **Points of Interest - Manufacturing and Production**<br>Name: Quarry (Disused)<br>Location: BD13<br>Category: Extractive Industries<br>Class Code: Unspecified Quarries Or Mines<br>Positional Accuracy: Positioned to an adjacent address or location | A13SW (W) | 77 | 8 | 408027 433976 |
| 172 | **Points of Interest - Manufacturing and Production**<br>Name: Wind Turbine<br>Location: BD13<br>Category: Industrial Features<br>Class Code: Energy Production<br>Positional Accuracy: Positioned to an adjacent address or location | A13SE (S) | 142 | 8 | 408141 433847 |
| 173 | **Points of Interest - Manufacturing and Production**<br>Name: Tank<br>Location: BD13<br>Category: Industrial Features<br>Class Code: Tanks (Generic)<br>Positional Accuracy: Positioned to an adjacent address or location | A8NE (S) | 435 | 8 | 408193 433559 |
| 173 | **Points of Interest - Manufacturing and Production**<br>Name: Erlings Works<br>Location: BD13<br>Category: Industrial Features<br>Class Code: Unspecified Works Or Factories<br>Positional Accuracy: Positioned to address or location | A8NE (S) | 435 | 8 | 408142 433551 |
| 173 | **Points of Interest - Manufacturing and Production**<br>Name: Erlings Works<br>Location: BD13<br>Category: Industrial Features<br>Class Code: Unspecified Works Or Factories<br>Positional Accuracy: Positioned to an adjacent address or location | A8NE (S) | 491 | 8 | 408137 433495 |
| 174 | **Points of Interest - Manufacturing and Production**<br>Name: Erlings Quarry (Disused)<br>Location: BD13<br>Category: Extractive Industries<br>Class Code: Unspecified Quarries Or Mines<br>Positional Accuracy: Positioned to an adjacent address or location | A8NW (S) | 476 | 8 | 408012 433517 |
| 174 | **Points of Interest - Manufacturing and Production**<br>Name: Erlings Quarry (Disused)<br>Location: BD13<br>Category: Extractive Industries<br>Class Code: Unspecified Quarries Or Mines<br>Positional Accuracy: Positioned to address or location | A8NW (S) | 498 | 8 | 408024 433493 |
| 175 | **Points of Interest - Manufacturing and Production**<br>Name: Works<br>Location: BD13<br>Category: Industrial Features<br>Class Code: Unspecified Works Or Factories<br>Positional Accuracy: Positioned to an adjacent address or location | A12SE (W) | 532 | 8 | 407572 433965 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 176 | **Points of Interest - Manufacturing and Production**<br>Name: Wind Turbine<br>Location: BD13<br>Category: Industrial Features<br>Class Code: Energy Production<br>Positional Accuracy: Positioned to an adjacent address or location | A8NE (S) | 601 | 8 | 408222 433395 |
| 177 | **Points of Interest - Manufacturing and Production**<br>Name: Wind Turbine<br>Location: BD13<br>Category: Industrial Features<br>Class Code: Energy Production<br>Positional Accuracy: Positioned to an adjacent address or location | A18SE (N) | 662 | 8 | 408109 434645 |
| 178 | **Points of Interest - Manufacturing and Production**<br>Name: Wind Turbine<br>Location: BD13<br>Category: Industrial Features<br>Class Code: Energy Production<br>Positional Accuracy: Positioned to an adjacent address or location | A8SW (S) | 702 | 8 | 408022 433287 |
| 179 | **Points of Interest - Manufacturing and Production**<br>Name: Tank<br>Location: BD13<br>Category: Industrial Features<br>Class Code: Tanks (Generic)<br>Positional Accuracy: Positioned to an adjacent address or location | A12SW (W) | 721 | 8 | 407417 433766 |
| 180 | **Points of Interest - Manufacturing and Production**<br>Name: R G Penny<br>Location: Hazel Crook End, Black Dyke Lane, Thornton, Bradford, BD13 3RR<br>Category: Farming<br>Class Code: Livestock Farming<br>Positional Accuracy: Positioned to address or location | A19SW (NE) | 742 | 8 | 408599 434536 |
| 181 | **Points of Interest - Manufacturing and Production**<br>Name: Black Dyke Lane Quarry (Disused)<br>Location: BD13<br>Category: Extractive Industries<br>Class Code: Unspecified Quarries Or Mines<br>Positional Accuracy: Positioned to an adjacent address or location | A14SE (E) | 770 | 8 | 408857 433828 |
| 181 | **Points of Interest - Manufacturing and Production**<br>Name: Black Dyke Lane Quarry (Disused)<br>Location: BD13<br>Category: Extractive Industries<br>Class Code: Unspecified Quarries Or Mines<br>Positional Accuracy: Positioned to an adjacent address or location | A14SE (E) | 780 | 8 | 408863 433809 |
| 181 | **Points of Interest - Manufacturing and Production**<br>Name: Black Dyke Lane Quarry (Disused)<br>Location: BD13<br>Category: Extractive Industries<br>Class Code: Unspecified Quarries Or Mines<br>Positional Accuracy: Positioned to address or location | A14SE (E) | 803 | 8 | 408877 433772 |
| 182 | **Points of Interest - Manufacturing and Production**<br>Name: Tank<br>Location: BD13<br>Category: Industrial Features<br>Class Code: Tanks (Generic)<br>Positional Accuracy: Positioned to an adjacent address or location | A9SW (SE) | 771 | 8 | 408469 433306 |
| 182 | **Points of Interest - Manufacturing and Production**<br>Name: Works<br>Location: BD13<br>Category: Industrial Features<br>Class Code: Unspecified Works Or Factories<br>Positional Accuracy: Positioned to an adjacent address or location | A9SW (SE) | 824 | 8 | 408501 433263 |
| 182 | **Points of Interest - Manufacturing and Production**<br>Name: Works<br>Location: Not Supplied<br>Category: Industrial Features<br>Class Code: Unspecified Works Or Factories<br>Positional Accuracy: Positioned to an adjacent address or location | A9SW (SE) | 826 | 8 | 408508 433264 |
| 183 | **Points of Interest - Manufacturing and Production**<br>Name: Wind Turbine<br>Location: BD13<br>Category: Industrial Features<br>Class Code: Energy Production<br>Positional Accuracy: Positioned to an adjacent address or location | A8SW (S) | 791 | 8 | 408073 433194 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 184 | **Points of Interest - Manufacturing and Production**<br>Name: Wind Turbine<br>Location: BD13<br>Category: Industrial Features<br>Class Code: Energy Production<br>Positional Accuracy: Positioned to an adjacent address or location | A8SW (S) | 800 | 8 | 407976 433195 |
| 185 | **Points of Interest - Manufacturing and Production**<br>Name: D Emmerson<br>Location: Manor Farm, Stream Head, Thornton, Bradford, BD13 3RU<br>Category: Farming<br>Class Code: Livestock Farming<br>Positional Accuracy: Positioned to address or location | A19SW (NE) | 862 | 8 | 408778 434520 |
| 186 | **Points of Interest - Manufacturing and Production**<br>Name: Egypt Quarry (Disused)<br>Location: BD13<br>Category: Extractive Industries<br>Class Code: Unspecified Quarries Or Mines<br>Positional Accuracy: Positioned to address or location | A14SE (E) | 877 | 8 | 408979 433942 |
| 187 | **Points of Interest - Public Infrastructure**<br>Name: Weir<br>Location: BD13<br>Category: Water<br>Class Code: Weirs, Sluices and Dams<br>Positional Accuracy: Positioned to an adjacent address or location | A13NW (NW) | 328 | 8 | 407813 434136 |
| 187 | **Points of Interest - Public Infrastructure**<br>Name: Weir<br>Location: BD13<br>Category: Water<br>Class Code: Weirs, Sluices and Dams<br>Positional Accuracy: Positioned to an adjacent address or location | A13NW (NW) | 333 | 8 | 407807 434134 |
| 188 | **Points of Interest - Public Infrastructure**<br>Name: Sludge Tank<br>Location: BD13<br>Category: Infrastructure and Facilities<br>Class Code: Waste Storage, Processing and Disposal<br>Positional Accuracy: Positioned to an adjacent address or location | A8NE (S) | 455 | 8 | 408104 433529 |
| 189 | **Points of Interest - Public Infrastructure**<br>Name: Weirs<br>Location: BD13<br>Category: Water<br>Class Code: Weirs, Sluices and Dams<br>Positional Accuracy: Positioned to an adjacent address or location | A12NE (NW) | 461 | 8 | 407714 434229 |
| 189 | **Points of Interest - Public Infrastructure**<br>Name: Weir<br>Location: BD13<br>Category: Water<br>Class Code: Weirs, Sluices and Dams<br>Positional Accuracy: Positioned to an adjacent address or location | A12NE (NW) | 475 | 8 | 407676 434189 |
| 189 | **Points of Interest - Public Infrastructure**<br>Name: Weir<br>Location: BD13<br>Category: Water<br>Class Code: Weirs, Sluices and Dams<br>Positional Accuracy: Positioned to an adjacent address or location | A12NE (NW) | 479 | 8 | 407670 434187 |
| 190 | **Points of Interest - Public Infrastructure**<br>Name: Sewage Treatment Works<br>Location: BD13<br>Category: Infrastructure and Facilities<br>Class Code: Waste Storage, Processing and Disposal<br>Positional Accuracy: Positioned to address or location | A12SE (W) | 490 | 8 | 407616 433942 |
| 190 | **Points of Interest - Public Infrastructure**<br>Name: Sewage Treatment Works<br>Location: BD13<br>Category: Infrastructure and Facilities<br>Class Code: Waste Storage, Processing and Disposal<br>Positional Accuracy: Positioned to address or location | A12SE (W) | 492 | 8 | 407614 433943 |
| 190 | **Points of Interest - Public Infrastructure**<br>Name: Sewage Treatment<br>Location: BD13<br>Category: Infrastructure and Facilities<br>Class Code: Waste Storage, Processing and Disposal<br>Positional Accuracy: Positioned to an adjacent address or location | A12SE (W) | 533 | 8 | 407571 433977 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 191 | **Points of Interest - Public Infrastructure**<br>Name: Refuse Tip<br>Location: BD13<br>Category: Infrastructure and Facilities<br>Class Code: Refuse Disposal Facilities<br>Positional Accuracy: Positioned to an adjacent address or location | A14SE (E) | 773 | 8 | 408857 433814 |
| 192 | **Points of Interest - Recreational and Environmental**<br>Name: Play Area<br>Location: Not Supplied<br>Category: Recreational<br>Class Code: Playgrounds<br>Positional Accuracy: Positioned to an adjacent address or location | A12NW (W) | 881 | 8 | 407224 434033 |
| 192 | **Points of Interest - Recreational and Environmental**<br>Name: Play Area<br>Location: BD13<br>Category: Recreational<br>Class Code: Playgrounds<br>Positional Accuracy: Positioned to an adjacent address or location | A12NW (W) | 890 | 8 | 407216 434046 |
| 193 | **Points of Interest - Recreational and Environmental**<br>Name: Skatepark<br>Location: BD13<br>Category: Recreational<br>Class Code: Playgrounds<br>Positional Accuracy: Positioned to an adjacent address or location | A12SW (W) | 995 | 8 | 407109 433973 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 194 | **Areas of Adopted Green Belt**<br>Authority: Bradford Metropolitan City Council<br>Plan Name: Bradford District Replacement Udp<br>**Status: Adopted**<br>Plan Date: 31st October 2005 | A13NE (N) | 0 | 10 | 408103 433984 |

| Agency & Hydrological | Version | Update Cycle |
|---|---|---|
| **Contaminated Land Register Entries and Notices** | | |
| Calderdale Metropolitan Borough Council - Environmental Health | July 2025 | Annual Rolling Update |
| Environment Agency - Head Office | November 2023 | Annually |
| Bradford Metropolitan City Council - Environmental Health | October 2025 | Annual Rolling Update |
| **Discharge Consents** | | |
| Environment Agency - North East Region | January 2026 | Quarterly |
| **Enforcement and Prohibition Notices** | | |
| Environment Agency - North East Region | March 2013 | |
| **Integrated Pollution Controls** | | |
| Environment Agency - North East Region | January 2009 | |
| **Integrated Pollution Prevention And Control** | | |
| Environment Agency - North East Region | October 2025 | Bi-Annually |
| **Local Authority Integrated Pollution Prevention And Control** | | |
| Bradford Metropolitan City Council - Environmental Health | October 2014 | Variable |
| Calderdale Metropolitan Borough Council - Environmental Health | October 2014 | Variable |
| **Local Authority Pollution Prevention and Controls** | | |
| Calderdale Metropolitan Borough Council - Environmental Health | December 2020 | Annual Rolling Update |
| Bradford Metropolitan City Council - Environmental Health | October 2014 | Annual Rolling Update |
| **Local Authority Pollution Prevention and Control Enforcements** | | |
| Bradford Metropolitan City Council - Environmental Health | October 2014 | Variable |
| Calderdale Metropolitan Borough Council - Environmental Health | October 2014 | Variable |
| **Nearest Surface Water Feature** | | |
| Ordnance Survey | January 2026 | |
| **Pollution Incidents to Controlled Waters** | | |
| Environment Agency - North East Region | December 1998 | |
| **Historical Prosecutions** | | |
| Environment Agency, North East Region | March 2013 | Not Applicable |
| **Prosecutions** | | |
| Environment Agency - Head Office | February 2024 | Annually |
| **Registered Radioactive Substances** | | |
| Environment Agency - Head Office | May 2023 | |
| Environment Agency - North East Region | May 2023 | |
| **Substantiated Pollution Incident Register** | | |
| Environment Agency - North East Region - Ridings Area | January 2026 | Quarterly |
| Environment Agency - North East Region - Yorkshire Area | January 2026 | Quarterly |
| **Water Abstractions** | | |
| Environment Agency - North East Region | January 2026 | Quarterly |
| **Water Industry Act Referrals** | | |
| Environment Agency - North East Region | October 2017 | |
| **Groundwater Vulnerability Map** | | |
| Environment Agency - Head Office | June 2018 | As notified |
| **Bedrock Aquifer Designations** | | |
| Environment Agency - Head Office | January 2018 | As notified |
| **Superficial Aquifer Designations** | | |
| Environment Agency - Head Office | January 2018 | As notified |
| **Source Protection Zones** | | |
| Environment Agency - Head Office | August 2025 | Quarterly |
| **Extreme Flooding from Rivers or Sea without Defences** | | |
| Environment Agency - Head Office | December 2023 | As notified |
| **Flooding from Rivers or Sea without Defences** | | |
| Environment Agency - Head Office | December 2023 | As notified |

| Agency & Hydrological | Version | Update Cycle |
|---|---|---|
| **Areas Benefiting from Flood Defences**<br>Environment Agency - Head Office | February 2023 | |
| **Flood Water Storage Areas**<br>Environment Agency - Head Office | June 2025 | Quarterly |
| **Flood Defences**<br>Environment Agency - Head Office | August 2022 | |
| **OS Water Network Lines**<br>Ordnance Survey | January 2026 | Quarterly |
| **Surface Water 1 in 30 year Flood Extent**<br>Environment Agency - Head Office | May 2018 | Annually |
| **Surface Water 1 in 100 year Flood Extent**<br>Environment Agency - Head Office | May 2018 | Annually |
| **Surface Water 1 in 1000 year Flood Extent**<br>Environment Agency - Head Office | May 2018 | Annually |
| **Surface Water Suitability**<br>Environment Agency - Head Office | February 2016 | Annually |
| **BGS Groundwater Flooding Susceptibility**<br>British Geological Survey - National Geoscience Information Service | May 2013 | As notified |
| **Water Framework Directive - Catchment**<br>Environment Agency - Head Office | July 2025 | Annually |
| **Water Framework Directive - Groundwater**<br>Environment Agency - Head Office | July 2025 | Annually |
| **Water Framework Directive - Surface Waters**<br>Environment Agency - Head Office | July 2025 | Annually |

| Waste | Version | Update Cycle |
|---|---|---|
| **BGS Recorded Landfill Sites** | | |
| British Geological Survey - National Geoscience Information Service | November 2002 | As notified |
| **Historical Landfill Sites** | | |
| Environment Agency - Head Office | November 2025 | Bi-Annually |
| **Integrated Pollution Control Registered Waste Sites** | | |
| Environment Agency - North East Region | January 2009 | Not Applicable |
| **Licensed Waste Management Facilities (Landfill Boundaries)** | | |
| Environment Agency - North East Region - Ridings Area | November 2025 | Quarterly |
| Environment Agency - North East Region - Yorkshire Area | November 2025 | Quarterly |
| **Licensed Waste Management Facilities (Locations)** | | |
| Environment Agency - North East Region - Ridings Area | October 2025 | Bi-Annually |
| Environment Agency - North East Region - Yorkshire Area | October 2025 | Bi-Annually |
| **Local Authority Landfill Coverage** | | |
| Bradford Metropolitan City Council - Planning Department | February 2003 | Not Applicable |
| Calderdale Metropolitan Borough Council - Environmental Health | February 2003 | Not Applicable |
| **Local Authority Recorded Landfill Sites** | | |
| Bradford Metropolitan City Council - Planning Department | October 2018 | |
| Calderdale Metropolitan Borough Council - Environmental Health | October 2018 | |
| **Potentially Infilled Land (Non-Water)** | | |
| Landmark Information Group Limited | December 1999 | |
| **Potentially Infilled Land (Water)** | | |
| Landmark Information Group Limited | December 1999 | |
| **Registered Landfill Sites** | | |
| Environment Agency - North East Region - Ridings Area | March 2006 | Not Applicable |
| Environment Agency - North East Region - Yorkshire Area | March 2006 | Not Applicable |
| **Registered Waste Transfer Sites** | | |
| Environment Agency - North East Region - Ridings Area | April 2018 | |
| Environment Agency - North East Region - Yorkshire Area | April 2018 | |
| **Registered Waste Treatment or Disposal Sites** | | |
| Environment Agency - North East Region - Ridings Area | June 2015 | |
| Environment Agency - North East Region - Yorkshire Area | June 2015 | |

| Hazardous Substances | Version | Update Cycle |
|---|---|---|
| **Control of Major Accident Hazards Sites (COMAH)** | | |
| Health and Safety Executive | June 2025 | Bi-Annually |
| **Explosive Sites** | | |
| Health and Safety Executive | March 2017 | |
| **Notification of Installations Handling Hazardous Substances (NIHHS)** | | |
| Health and Safety Executive | August 2001 | |
| **Planning Hazardous Substance Enforcements** | | |
| Calderdale Metropolitan Borough Council | February 2016 | Variable |
| Bradford Metropolitan City Council - Planning Department | July 2023 | Variable |
| **Planning Hazardous Substance Consents** | | |
| Bradford Metropolitan City Council - Planning Department | July 2022 | Variable |
| Calderdale Metropolitan Borough Council | November 2022 | Variable |

| Geological | Version | Update Cycle |
|---|---|---|
| **BGS 1:625,000 Solid Geology**<br>British Geological Survey - National Geoscience Information Service | January 2009 | As notified |
| **BGS Estimated Soil Chemistry**<br>British Geological Survey - National Geoscience Information Service | December 2015 | As notified |
| **BGS Recorded Mineral Sites**<br>British Geological Survey - National Geoscience Information Service | April 2025 | Bi-Annually |
| **CBSCB Compensation District**<br>Cheshire Brine Subsidence Compensation Board (CBSCB)<br>Cheshire Brine Subsidence Compensation Board (CBSCB) | August 2011<br>November 2020 | As notified |
| **Coal Mining Affected Areas**<br>The Coal Authority - Property Searches | February 2023 | |
| **Mining Instability**<br>Ove Arup & Partners | June 1998 | Not Applicable |
| **Non Coal Mining Areas of Great Britain**<br>British Geological Survey - National Geoscience Information Service | May 2015 | Not Applicable |
| **Potential for Collapsible Ground Stability Hazards**<br>British Geological Survey - National Geoscience Information Service | April 2020 | As notified |
| **Potential for Compressible Ground Stability Hazards**<br>British Geological Survey - National Geoscience Information Service | January 2019 | As notified |
| **Potential for Ground Dissolution Stability Hazards**<br>British Geological Survey - National Geoscience Information Service | January 2019 | As notified |
| **Potential for Landslide Ground Stability Hazards**<br>British Geological Survey - National Geoscience Information Service | January 2019 | As notified |
| **Potential for Running Sand Ground Stability Hazards**<br>British Geological Survey - National Geoscience Information Service | January 2019 | As notified |
| **Potential for Shrinking or Swelling Clay Ground Stability Hazards**<br>British Geological Survey - National Geoscience Information Service | January 2019 | As notified |
| **Radon Potential - Radon Affected Areas**<br>British Geological Survey - National Geoscience Information Service | November 2025 | Annually |
| **Radon Potential - Radon Protection Measures**<br>British Geological Survey - National Geoscience Information Service | November 2025 | Annually |
| **Industrial Land Use** | **Version** | **Update Cycle** |
| **Contemporary Trade Directory Entries**<br>Thomson Directories | December 2025 | Quarterly |
| **Fuel Station Entries**<br>Green Street Advisor (UK) Ltd | February 2026 | Quarterly |
| **Points of Interest - Commercial Services**<br>PointX | March 2026 | Quarterly |
| **Points of Interest - Education and Health**<br>PointX | March 2026 | Quarterly |
| **Points of Interest - Manufacturing and Production**<br>PointX | March 2026 | Quarterly |
| **Points of Interest - Public Infrastructure**<br>PointX | March 2026 | Quarterly |
| **Points of Interest - Recreational and Environmental**<br>PointX | March 2026 | Quarterly |
| **Underground Electrical Cables**<br>National Grid | January 2024 | |

| Sensitive Land Use | Version | Update Cycle |
|---|---|---|
| **Ancient Woodland** | | |
| Natural England | September 2025 | Bi-Annually |
| **Areas of Adopted Green Belt** | | |
| Bradford Metropolitan City Council | July 2025 | Quarterly |
| Calderdale Metropolitan Borough Council | July 2025 | Quarterly |
| **Areas of Unadopted Green Belt** | | |
| Bradford Metropolitan City Council | July 2025 | Quarterly |
| Calderdale Metropolitan Borough Council | July 2025 | Quarterly |
| **Areas of Outstanding Natural Beauty** | | |
| Natural England | November 2025 | Bi-Annually |
| **Environmentally Sensitive Areas** | | |
| Natural England | August 2023 | |
| **Forest Parks** | | |
| Forestry Commission | May 2023 | Not Applicable |
| **Local Nature Reserves** | | |
| Natural England | January 2026 | Bi-Annually |
| **Marine Nature Reserves** | | |
| Natural England | February 2026 | Bi-Annually |
| **National Nature Reserves** | | |
| Natural England | January 2026 | Bi-Annually |
| **National Parks** | | |
| Natural England | September 2025 | Annually |
| **Nitrate Sensitive Areas** | | |
| Natural England | April 2023 | Not Applicable |
| **Nitrate Vulnerable Zones** | | |
| Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | April 2016 | |
| Environment Agency - Head Office | February 2026 | Annually |
| **Ramsar Sites** | | |
| Natural England | February 2026 | Bi-Annually |
| **Sites of Special Scientific Interest** | | |
| Natural England | November 2025 | Bi-Annually |
| **Special Areas of Conservation** | | |
| Natural England | January 2026 | Bi-Annually |
| **Special Protection Areas** | | |
| Natural England | November 2025 | Bi-Annually |

# Data Suppliers

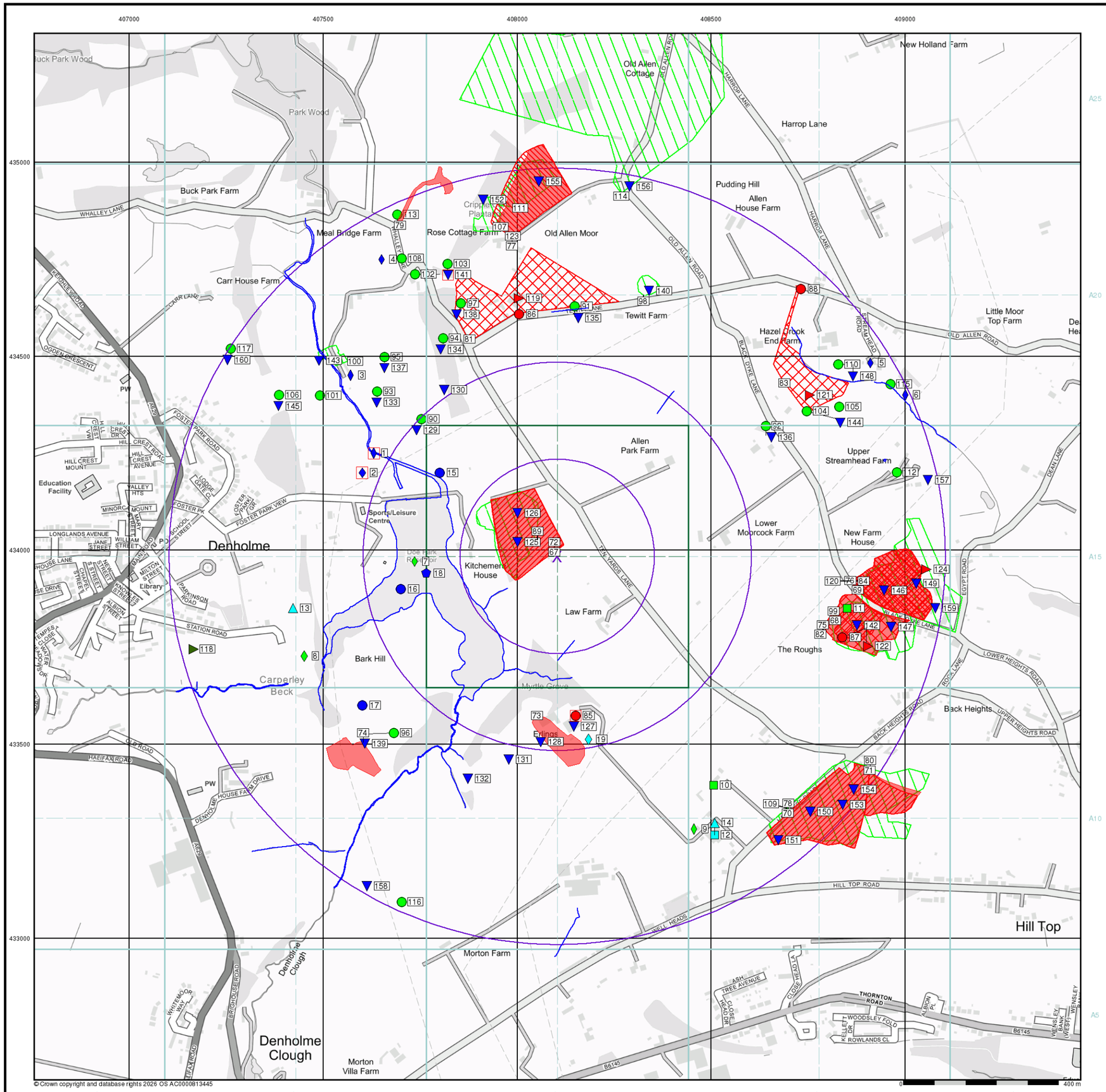
A selection of organisations who provide data within this report

| Data Supplier | Data Supplier Logo |
|---|---|
| Ordnance Survey | |
| Environment Agency | |
| Scottish Environment Protection Agency | |
| The Coal Authority | |
| British Geological Survey | |
| Centre for Ecology and Hydrology | |
| Natural Resources Wales | |
| Scottish Natural Heritage | |
| Natural England | |
| Public Health England | |
| Ove Arup | |
| Stantec UK Ltd | |

# Useful Contacts

| Contact | Name and Address | Contact Details |
|---|---|---|
| 1 | **British Geological Survey - Enquiry Service**<br>British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG | Telephone: 0115 936 3143<br>Fax: 0115 936 3276<br>Email: enquiries@bgs.ac.uk<br>Website: www.bgs.ac.uk |
| 2 | **Environment Agency - National Customer Contact Centre (NCCC)**<br>PO Box 544, Templeborough, Rotherham, S60 1BY | Telephone: 03708 506 506<br>Email: enquiries@environment-agency.gov.uk |
| 3 | **Bradford Metropolitan City Council - Environmental Health**<br>Town Hall, Kirkgate, Shipley, West Yorkshire, BD18 3EJ | Telephone: 01274 432111<br>Fax: 01274 752045<br>Website: www.bradford.gov.uk |
| 4 | **Ordnance Survey**<br>Adanac Drive, Southampton, Hampshire, SO16 0AS | Telephone: 03456 05 05 05<br>Email: customerservices@ordnancesurvey.co.uk<br>Website: www.ordnancesurvey.co.uk |
| 5 | **Bradford Metropolitan City Council - Planning Department**<br>3rd Floor, Jacobs Well, Bradford, West Yorkshire, BD1 5RW | Telephone: 01274 432111<br>Fax: 01274 752045<br>Website: www.bradford.gov.uk |
| 6 | **The Coal Authority - Property Searches**<br>200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG | Telephone: 0345 762 6848<br>Fax: 01623 637 338<br>Email: groundstability@coal.gov.uk<br>Website: www2.groundstability.com |
| 7 | **Landmark Information Group Limited**<br>Landmark Information Group, Imperium, Imperial Way, Reading, Berkshire, RG2 0TD | Telephone: 0330 036 6619<br>Fax: 0844 844 9951<br>Email: helpdesk@landmark.co.uk<br>Website: www.landmark.co.uk |
| 8 | **PointX**<br>5-6 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY | Website: www.pointx.co.uk |
| 9 | **Natural England**<br>County Hall, Spetchley Road, Worcester, WR5 2NP | Telephone: 0300 060 3900<br>Email: enquiries@naturalengland.org.uk<br>Website: www.naturalengland.org.uk |
| 10 | **Bradford Metropolitan City Council**<br>City Hall, Bradford, West Yorkshire, BD1 1HY | Telephone: 01274 432111<br>Fax: 01274 752045<br>Website: www.bradford.gov.uk |
| - | **Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards**<br>Chilton, Didcot, Oxfordshire, OX11 0RQ | Telephone: 01235 822622<br>Fax: 01235 833891<br>Email: radon@phe.gov.uk<br>Website: www.ukradon.org |
| - | **Landmark Information Group Limited**<br>Landmark Information Group, Imperium, Imperial Way, Reading, Berkshire, RG2 0TD | Telephone: 0330 036 6618<br>Fax: 0844 844 9951<br>Email: helpdesk@landmark.co.uk<br>Website: www.landmark.co.uk |

Please note that the Environment Agency / Natural Resources Wales / SEPA have a charging policy in place for enquiries.




# Envirocheck®

LANDMARK INFORMATION GROUP®

## General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Map ID

Several of Type at Location

## Agency and Hydrological

- Contaminated Land Register Entry or Notice (Location)
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Local Authority Integrated Pollution Prevention and Control
- Local Authority Pollution Prevention and Control
- Local Authority Pollution Prevention and Control Enforcement
- Pollution Incident to Controlled Waters
- Historical Prosecutions
- Prosecutions
- Registered Radioactive Substance
- River Network or Water Feature
- Substantiated Pollution Incident Register
- Water Abstraction
- Water Industry Act Referral

## Waste

- BGS Recorded Landfill Site (Location)
- BGS Recorded Landfill Site
- EA Historic Landfill (Buffered Point)
- EA Historic Landfill (Polygon)
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facility (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Local Authority Recorded Landfill Site (Location)
- Local Authority Recorded Landfill Site
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Registered Landfill Site
- Registered Landfill Site (Location)
- Registered Landfill Site (Point Buffered to 100m)
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

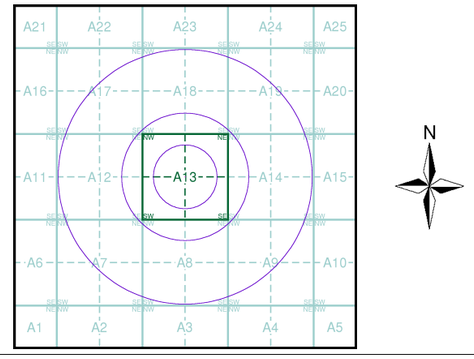
## Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

## Geological

- BGS Recorded Mineral Site

## Site Sensitivity Map - Slice A




## Order Details

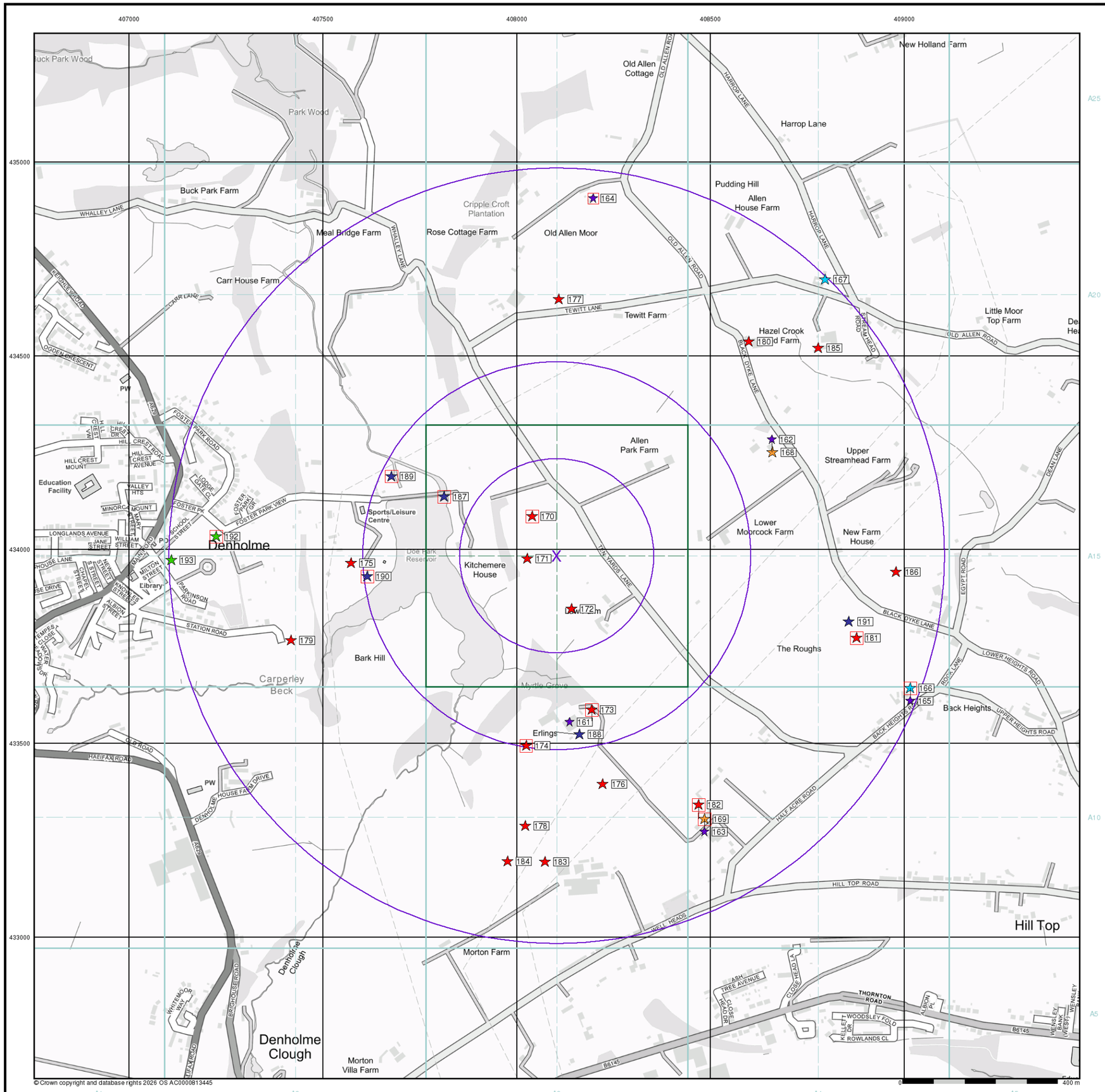
| | |
|---|---|
| Order Number: | 397739872_1_1 |
| Customer Ref: | 03357 |
| National Grid Reference: | 408100, 433980 |
| Slice: | A |
| Site Area (Ha): | 0.01 |
| Search Buffer (m): | 1000 |

## Site Details

Site at, Denholme, Bradford


Landmark® INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk




# Envirocheck®

LANDMARK INFORMATION GROUP®

## Industrial Land Use Map

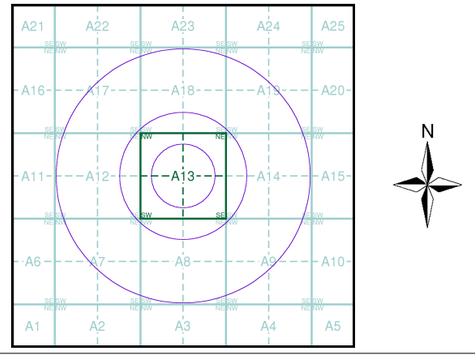
### General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

### Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry
- Points of Interest - Commercial Services
- Points of Interest - Education and Health
- Points of Interest - Manufacturing and Production
- Points of Interest - Public Infrastructure
- Points of Interest - Recreational and Environmental
- Underground Electrical Cables

## Industrial Land Use Map - Slice A

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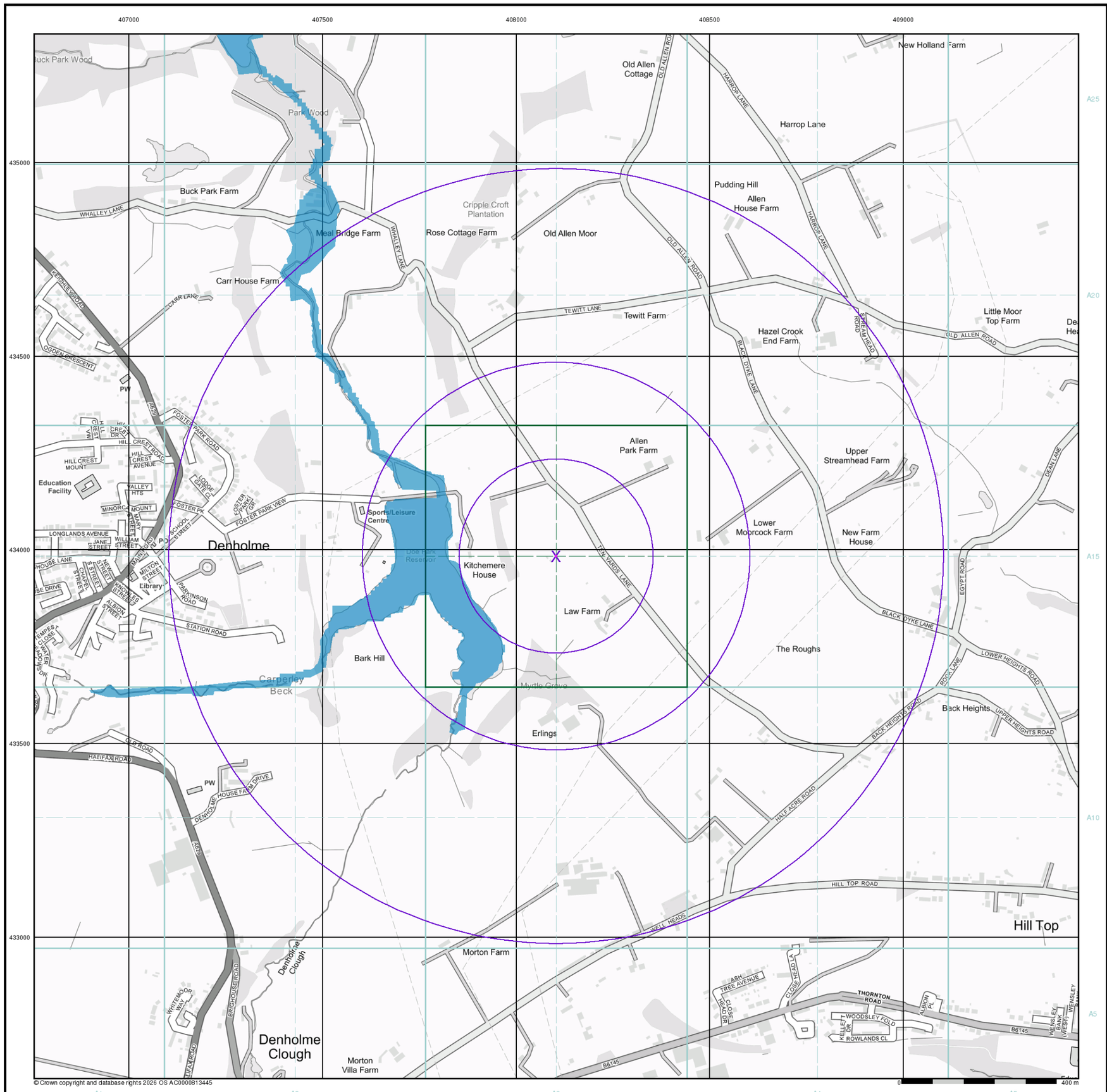


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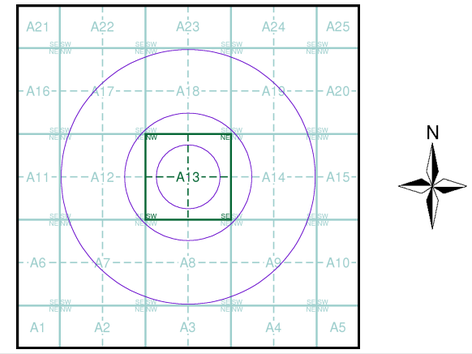
## General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

## Agency and Hydrological (Flood)

- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Area Benefiting from Flood Defence
- Flood Water Storage Areas
- Flood Defence

## Flood Map - Slice A

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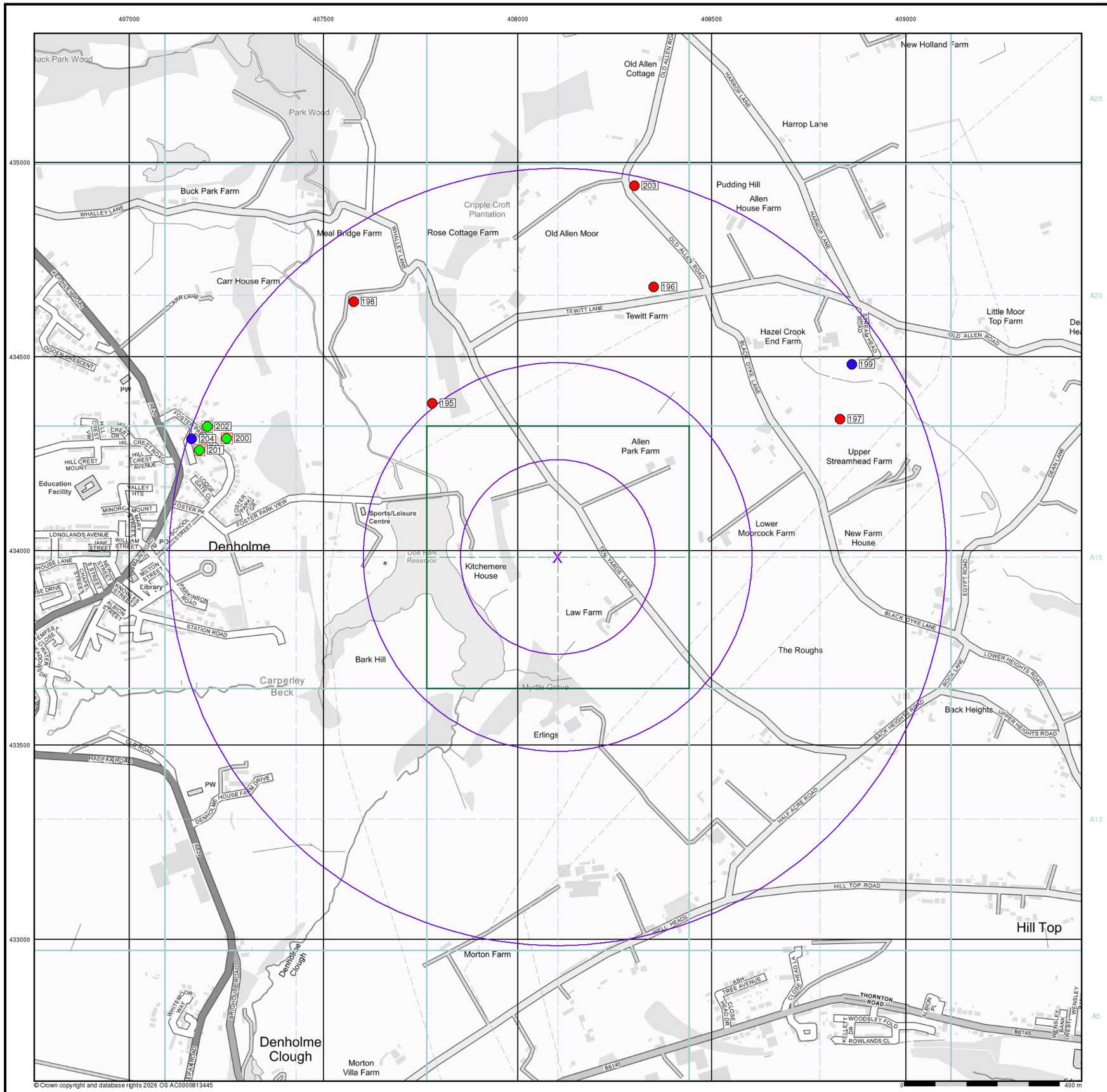


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## General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

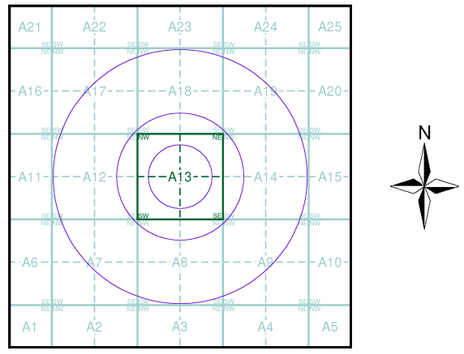
## Agency and Hydrological (Boreholes)

- BGS Borehole Depth 0 - 10m
- BGS Borehole Depth 10 - 30m
- BGS Borehole Depth 30m +
- Confidential
- Other

For Borehole information please refer to the Borehole .csv file which accompanied this slice.

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

## Borehole Map - Slice A

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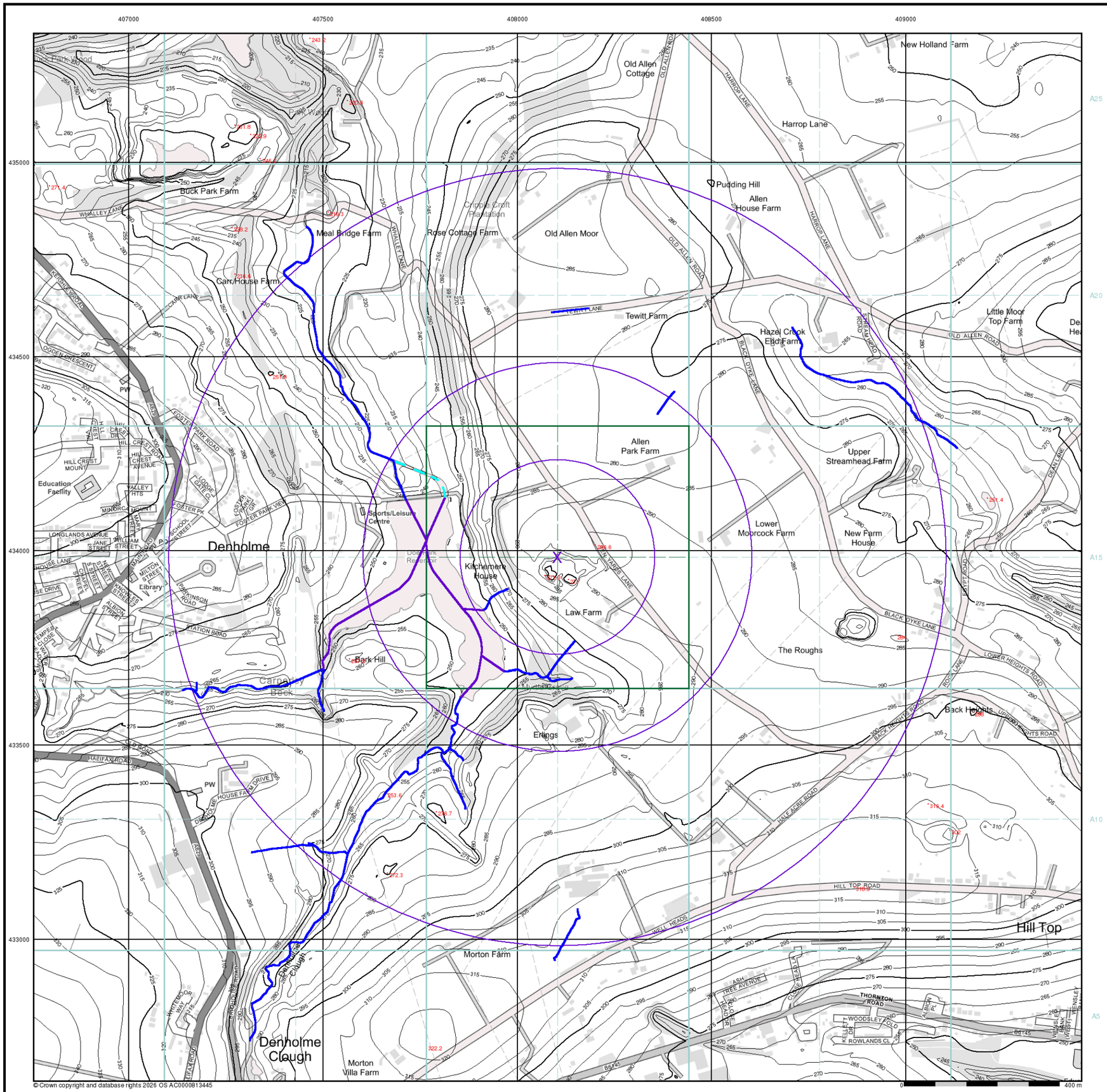



# Envirocheck®

LANDMARK INFORMATION GROUP®

## General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

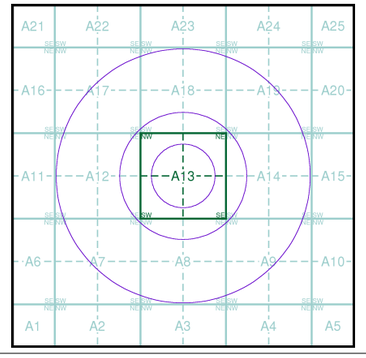
## OS Water Network Data

- Canal
- Reservoir
- Foreshore
- Marsh
- Tidal River
- Inland River
- Drain
- Other
- Lake
- Transfer
- Lock Or Flight Of Locks
- Sea

## Contours (height in meters)

- Standard Contour
- Master Contour
- Spot Height 167.3
- MLW Mean Low Water
- MHW Mean High Water

## OS Water Network Map - Slice A

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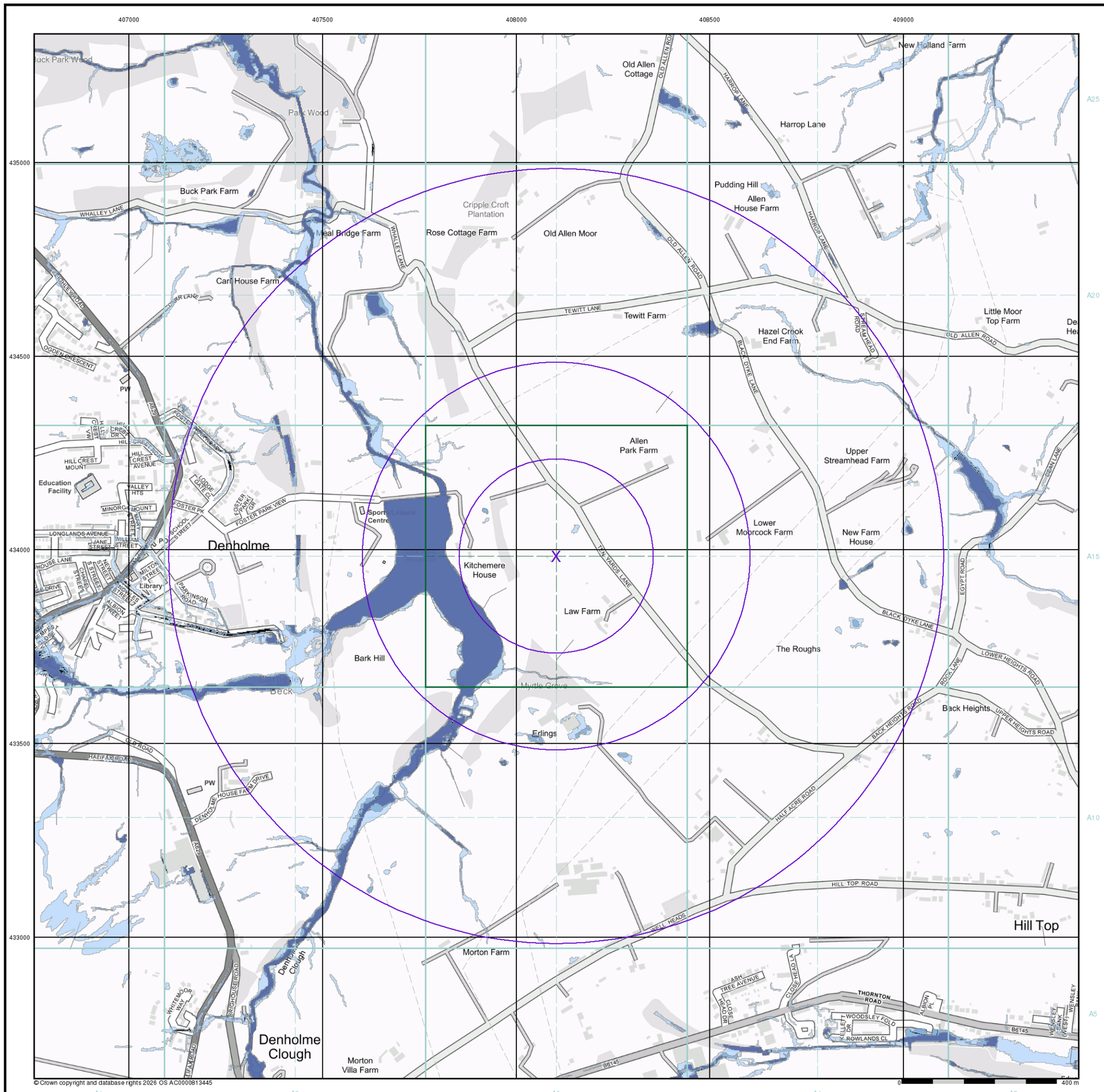


Envirocheck®

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## General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

## Risk of Flooding from Surface Water

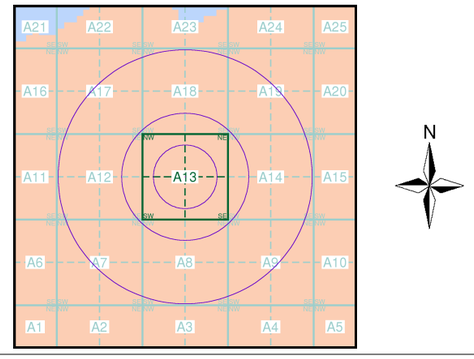
- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

## Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

## EA/NRW Suitability Map - Slice A

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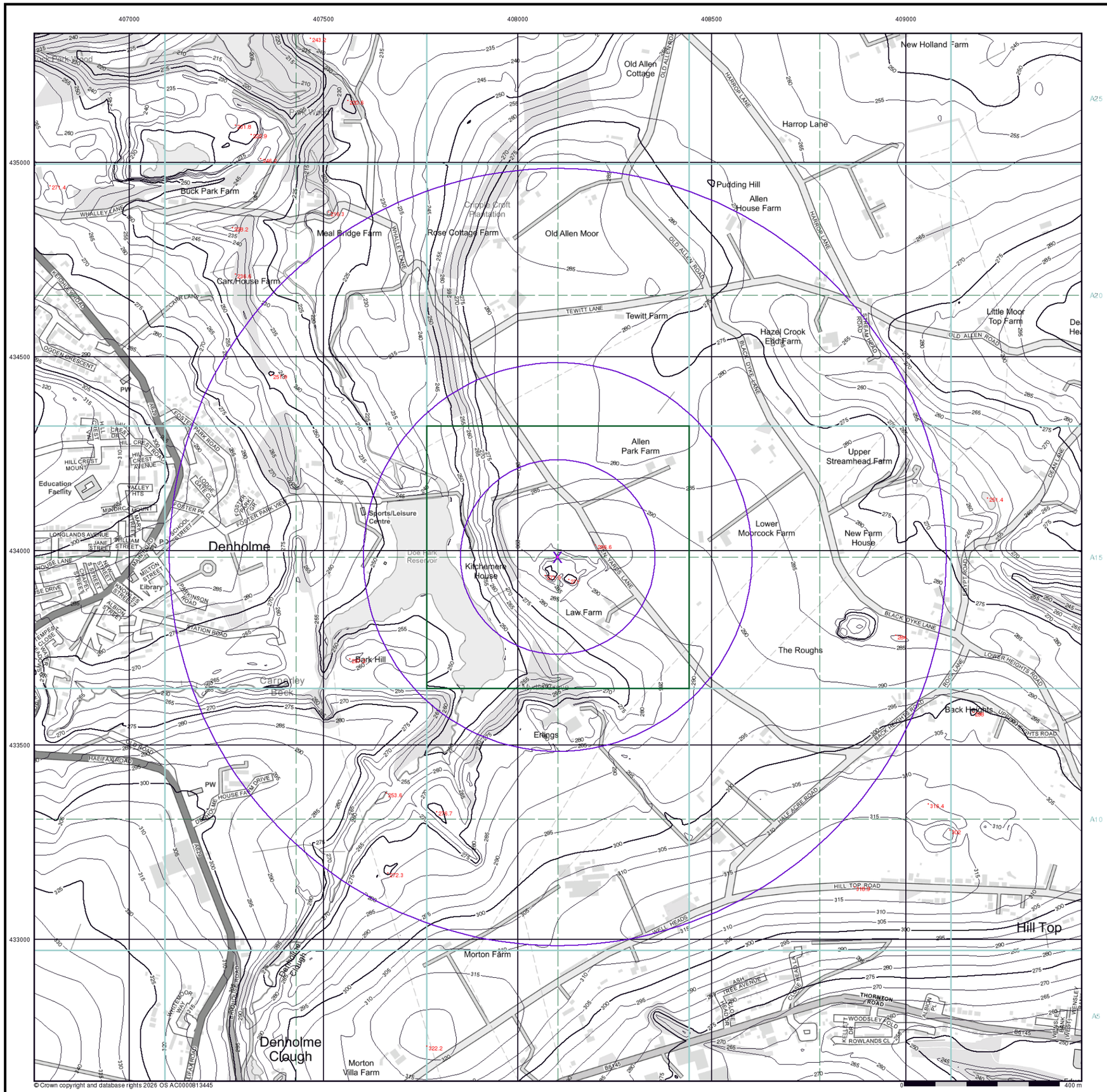



# Envirocheck®

LANDMARK INFORMATION GROUP®

## WFD Surface Waters Map

### General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

### Water Framework Directive - Surface Water Quality

- High
- Good
- Moderate
- Poor
- Bad

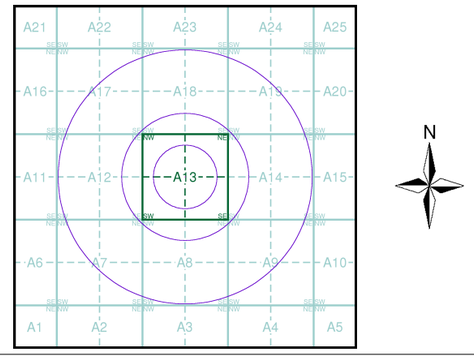
### Contours (height in meters)

Standard Contour 105 100 95 — MLW Mean Low Water

Master Contour — MHW Mean High Water

Spot Height * 167.3

### WFD Surface Waters Map - Slice A

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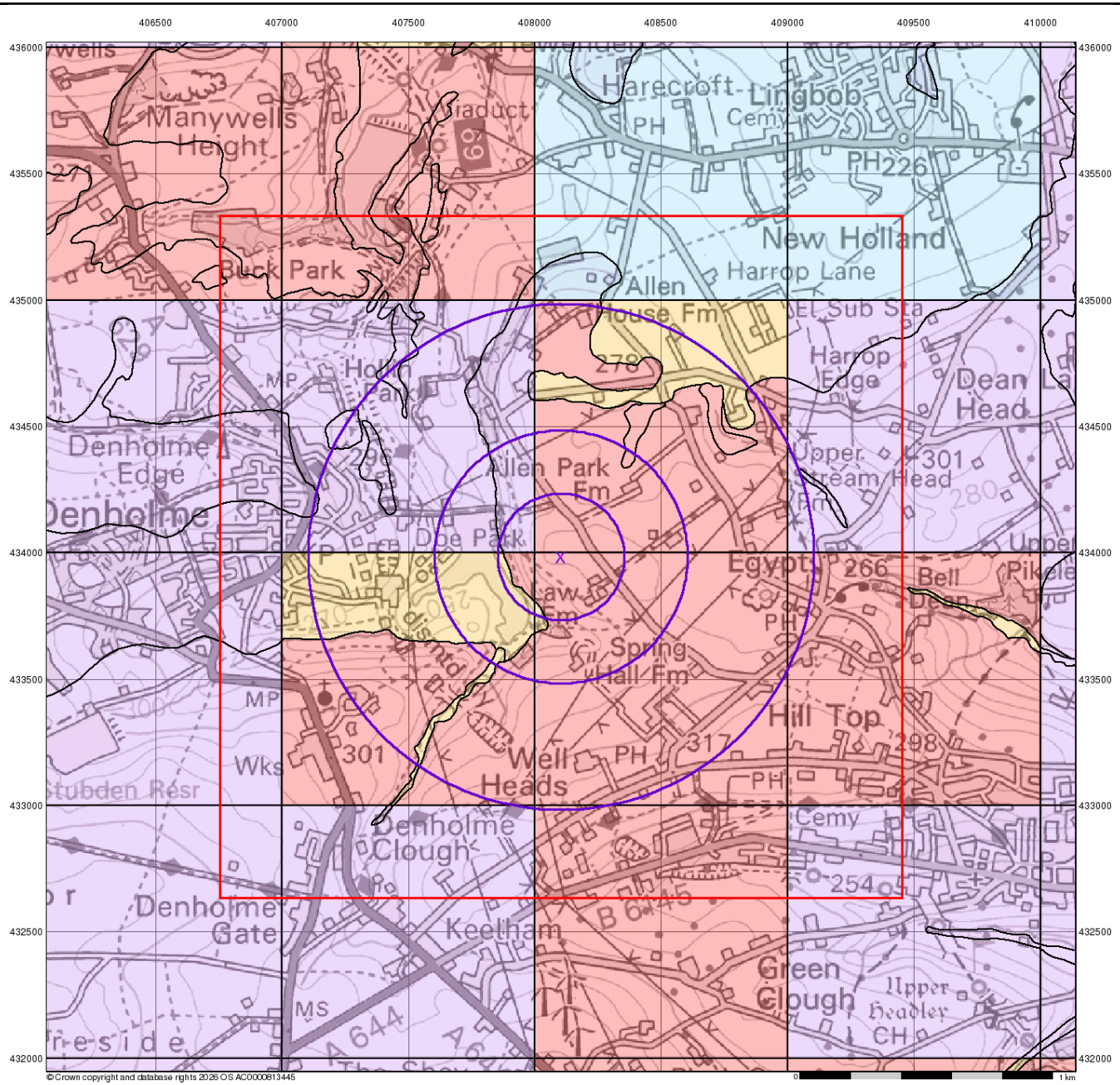



# Envirocheck®

LANDMARK INFORMATION GROUP®

## Groundwater Vulnerability

### General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

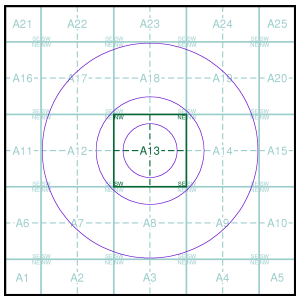
### Agency and Hydrological

| Bedrock Aquifers | Superficial Aquifers |
|---|---|
| High Vulnerability, Principal Aquifer | High Vulnerability, Principal Aquifer |
| High Vulnerability, Secondary Aquifer | High Vulnerability, Secondary Aquifer |
| Medium Vulnerability, Principal Aquifer | Medium Vulnerability, Principal Aquifer |
| Medium Vulnerability, Secondary Aquifer | Medium Vulnerability, Secondary Aquifer |
| Low Vulnerability, Principal Aquifer | Low Vulnerability, Principal Aquifer |
| Low Vulnerability, Secondary Aquifer | Low Vulnerability, Secondary Aquifer |

Unproductive Aquifer

Soluble Rock

### Site Sensitivity Context Map - Slice A

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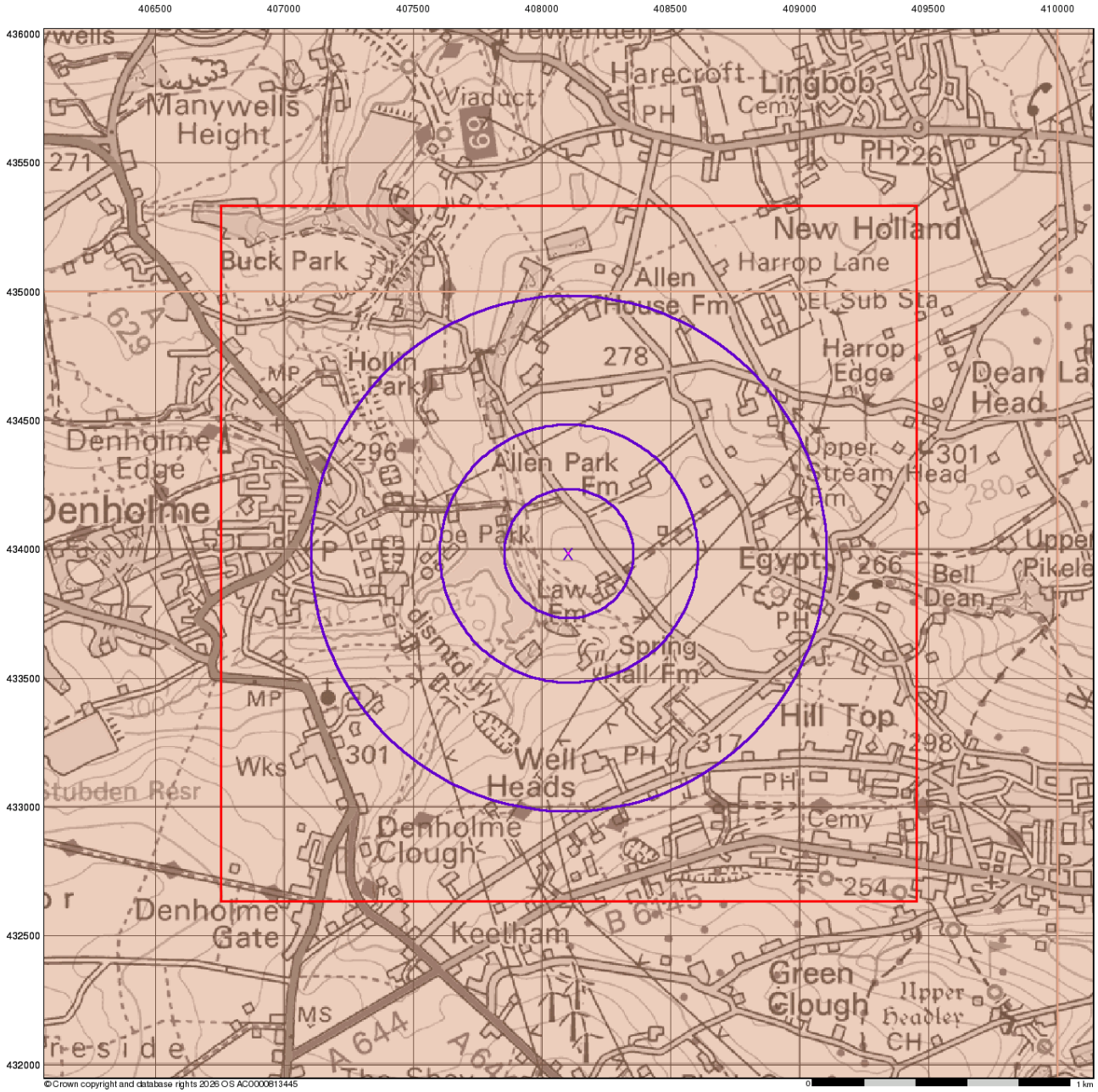



# Envirocheck®

LANDMARK INFORMATION GROUP®

## Bedrock Aquifer Designation

### General

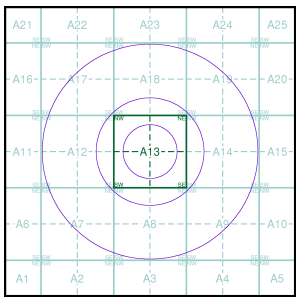
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

### Agency and Hydrological

**Geological Classes**

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

### Site Sensitivity Context Map - Slice A

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### Site Details

Site at, Denholme, Bradford


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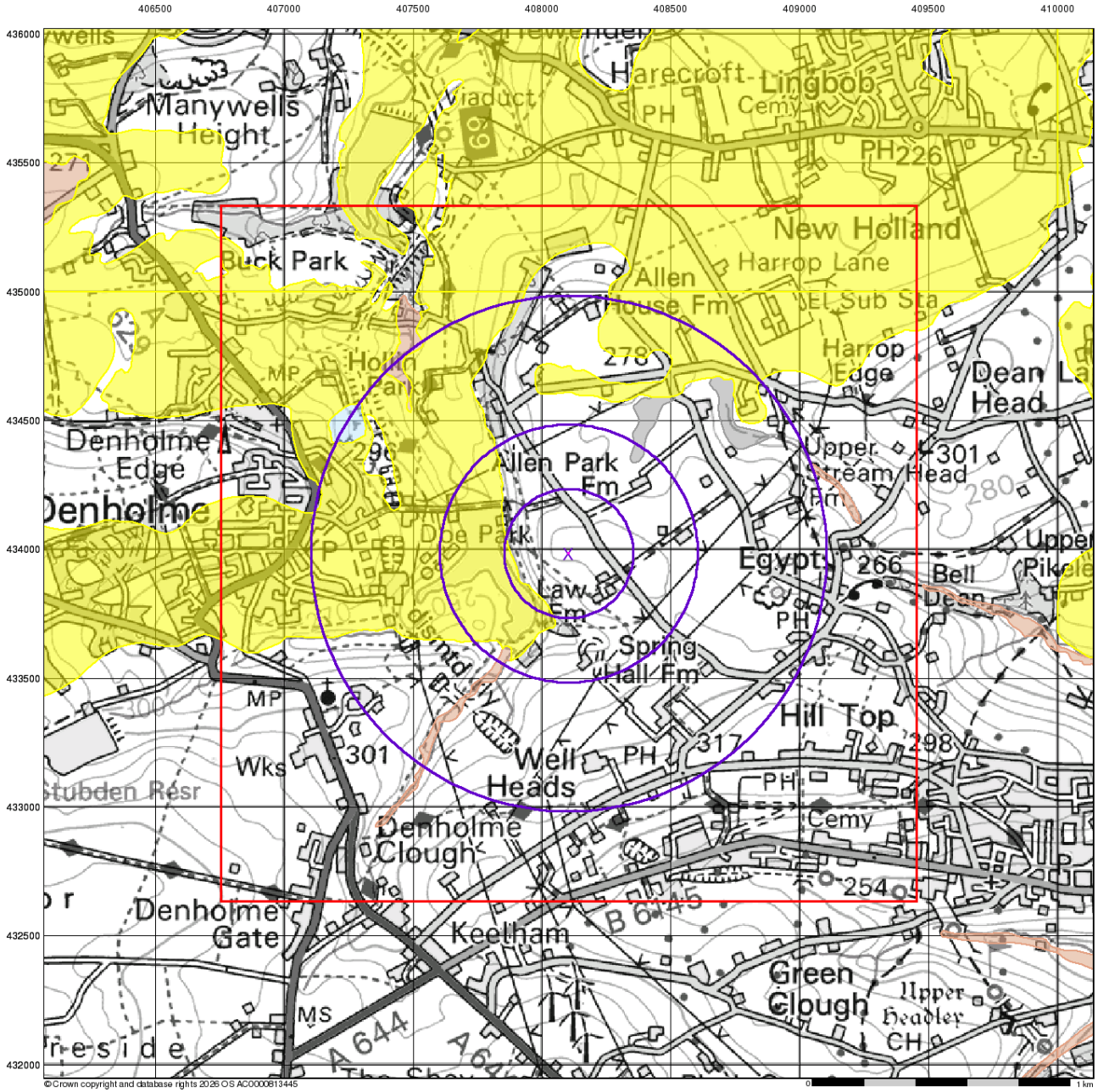


# Envirocheck®

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## Superficial Aquifer Designation

### General

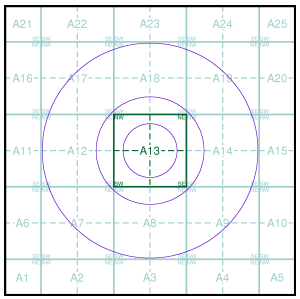
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

### Agency and Hydrological

**Geological Classes**

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

### Site Sensitivity Context Map - Slice A

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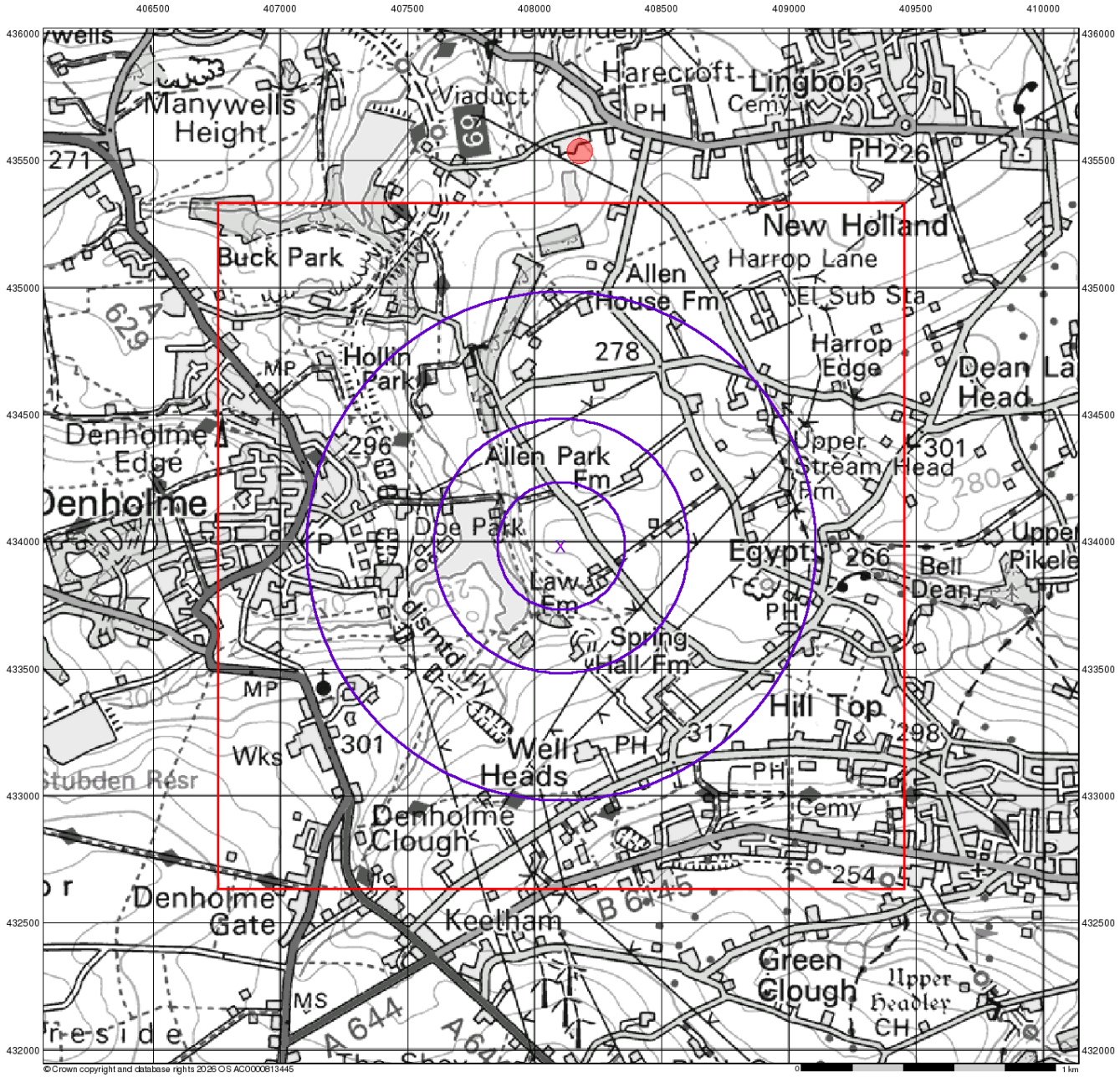


# Envirocheck®

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## Source Protection Zones

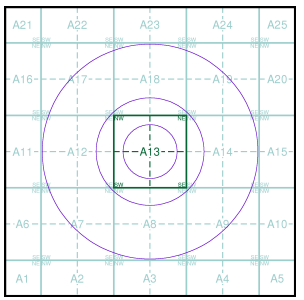
### General

Specified Site | Specified Buffer(s) | Bearing Reference Point
Slice | Map ID

### Agency and Hydrological

- Inner zone (Zone 1)
- Inner zone - subsurface activity only (Zone 1c)
- Outer zone (Zone 2)
- Outer zone - subsurface activity only (Zone 2c)
- Total catchment (Zone 3)
- Total catchment - subsurface activity only (Zone 3c)
- Special interest (Zone 4)

### Site Sensitivity Context Map - Slice A

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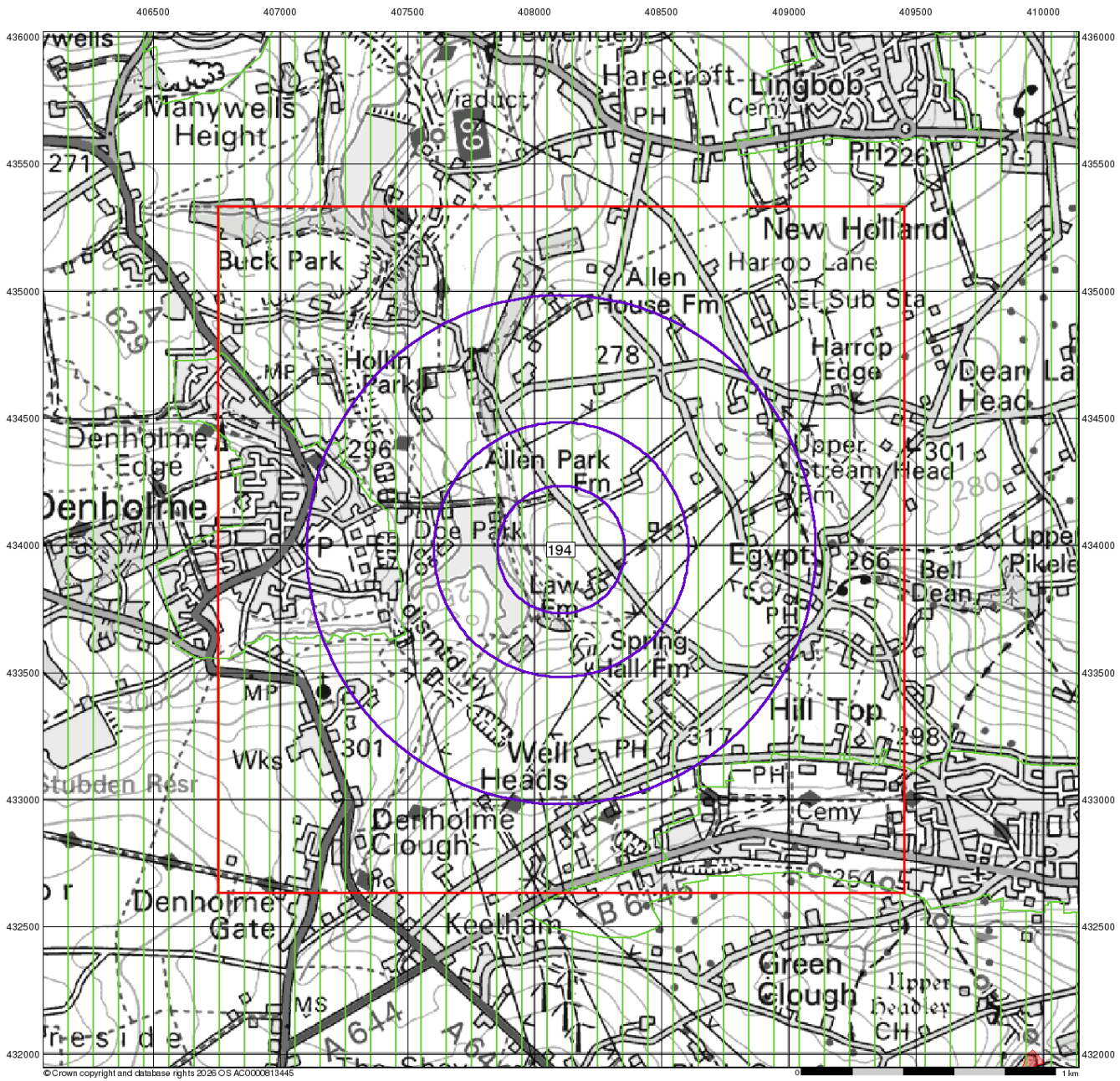


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## Sensitive Land Uses

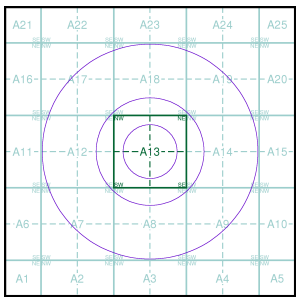
### General

Specified Site | Specified Buffer(s) | Bearing Reference Point
Slice | Map ID

### Sensitive Land Uses

- Ancient Woodland
- Area of Adopted Green Belt
- Area of Unadopted Green Belt
- Area of Outstanding Natural Beauty
- Environmentally Sensitive Area
- Forest Park
- Local Nature Reserve
- Marine Nature Reserve
- National Nature Reserve
- National Park
- Nitrate Sensitive Area
- Nitrate Vulnerable Zone
- Ramsar Site
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area
- World Heritage Sites

### Site Sensitivity Context Map - Slice A

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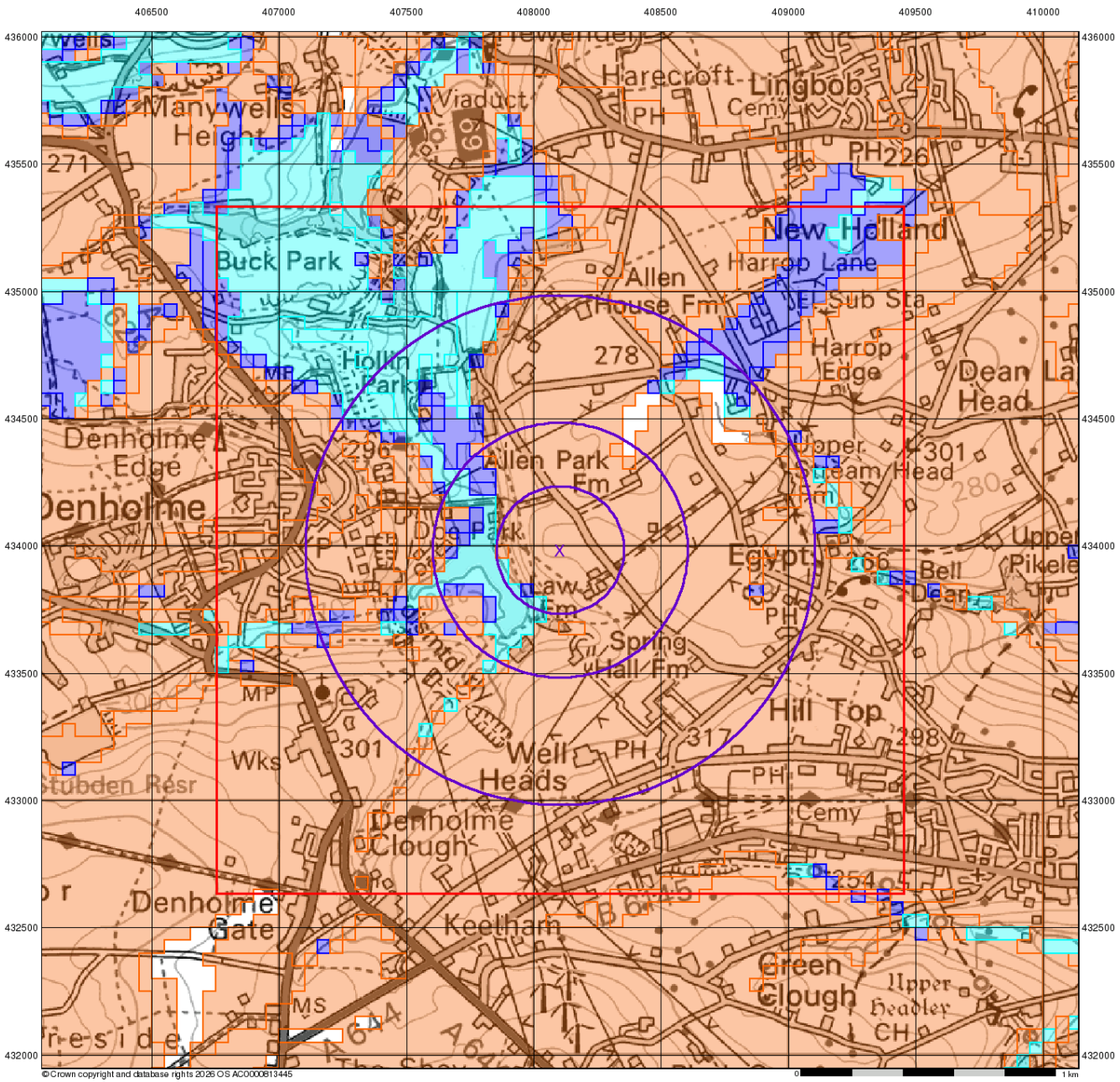


# Envirocheck®

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## BGS Flood GFS Data

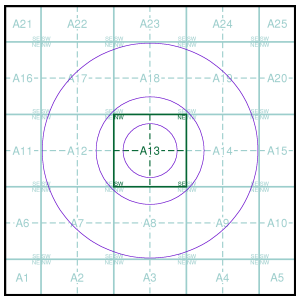
### General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice

### Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

## Site Sensitivity Context Map - Slice A

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# Geology 1:10,000 Maps Legends

## Artificial Ground and Landslip

| Map Colour | Lex Code | Rock Name | Rock Type | Min and Max Age |
|---|---|---|---|---|
| | MGR | Made Ground (Undivided) | Artificial Deposit | Holocene - Holocene |
| | WGR | Worked Ground (Undivided) | Void | Holocene - Holocene |
| | WMGR | Infilled Ground | Artificial Deposit | Holocene - Holocene |
| | DDGR | Disturbed Ground (Undivided) | Unknown/Unclassified Entry | Holocene - Holocene |
| | SLIP | Landslide Deposit | Unknown/Unclassified Entry | Quaternary - Quaternary |

## Superficial Geology

| Map Colour | Lex Code | Rock Name | Rock Type | Min and Max Age |
|---|---|---|---|---|
| | ALV | Alluvium | Clay, Silt, Sand and Gravel | Flandrian - Pleistocene |
| | TILLD | Till, Devensian | Diamicton | Devensian - Ipswichian |
| | GFDUD | Glaciofluvial Deposits, Devensian | Sand and Gravel | Devensian - Ipswichian |
| | HMGD | Hummocky (Moundy) Glacial Deposits | Diamicton | Pleistocene - Pragian |
| | HEAD | Head | Clay, Silt, Sand and Gravel | Quaternary - Ryazanian |
| | PEAT | Peat | Peat [Unlithified Deposits Coding Scheme] | Quaternary - Ryazanian |
| | RTDU | River Terrace Deposits (Undifferentiated) | Sand and Gravel | Quaternary - Ryazanian |
| | HEAD | Head | Diamicton | Quaternary - Ryazanian |

## Bedrock and Faults

| Map Colour | Lex Code | Rock Name | Rock Type | Min and Max Age |
|---|---|---|---|---|
| | EF | Elland Flags | Sandstone | Langsettian - Langsettian |
| | PLCM | Pennine Lower Coal Measures Formation | Mudstone, Siltstone and Sandstone | Langsettian - Langsettian |
| | FEYR | 48 Yard Rock | Sandstone | Langsettian - Langsettian |
| | PLCM | Pennine Lower Coal Measures Formation | Sandstone | Langsettian - Langsettian |
| | STNR | Stanningley Rock | Sandstone | Langsettian - Langsettian |
| | EYR | 80 Yard Rock | Sandstone | Langsettian - Langsettian |
| | RR | Rough Rock | Sandstone | Yeadonian - Yeadonian |
| | RF | Rough Rock Flags | Sandstone | Yeadonian - Yeadonian |
| | MG | Millstone Grit Group [See also Migr] | Mudstone, Siltstone and Sandstone | Namurian - Namurian |

| Map Colour | Lex Code | Rock Name | Rock Type | Min and Max Age |
|---|---|---|---|---|
| | Fault | | | |
| | Rock | | | |

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## Geology 1:10,000 Maps

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:10,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around a site. This mapping may be more up to date than previously published paper maps.

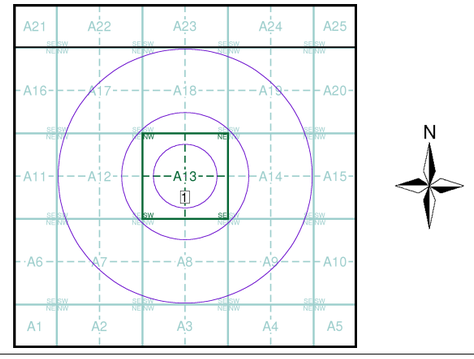
The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page.

Please Note: Not all of the layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

### Geology 1:10,000 Maps Coverage

| | | | |
|---|---|---|---|
| **Map ID:** | | **Map ID:** | 1 |
| **Map Name:** | SE03NE | **Map Name:** | SE03SE |
| **Map Date:** | 1993 | **Map Date:** | 1996 |
| **Bedrock Geology:** | Available | **Bedrock Geology:** | Available |
| **Superficial Geology:** | Available | **Superficial Geology:** | Available |
| **Artificial Geology:** | Available | **Artificial Geology:** | Available |
| **Faults:** | Available | **Faults:** | Available |
| **Landslip:** | Available | **Landslip:** | Available |
| **Rock Segments:** | Available | **Rock Segments:** | Available |

### Geology 1:10,000 Maps - Slice A




### Order Details

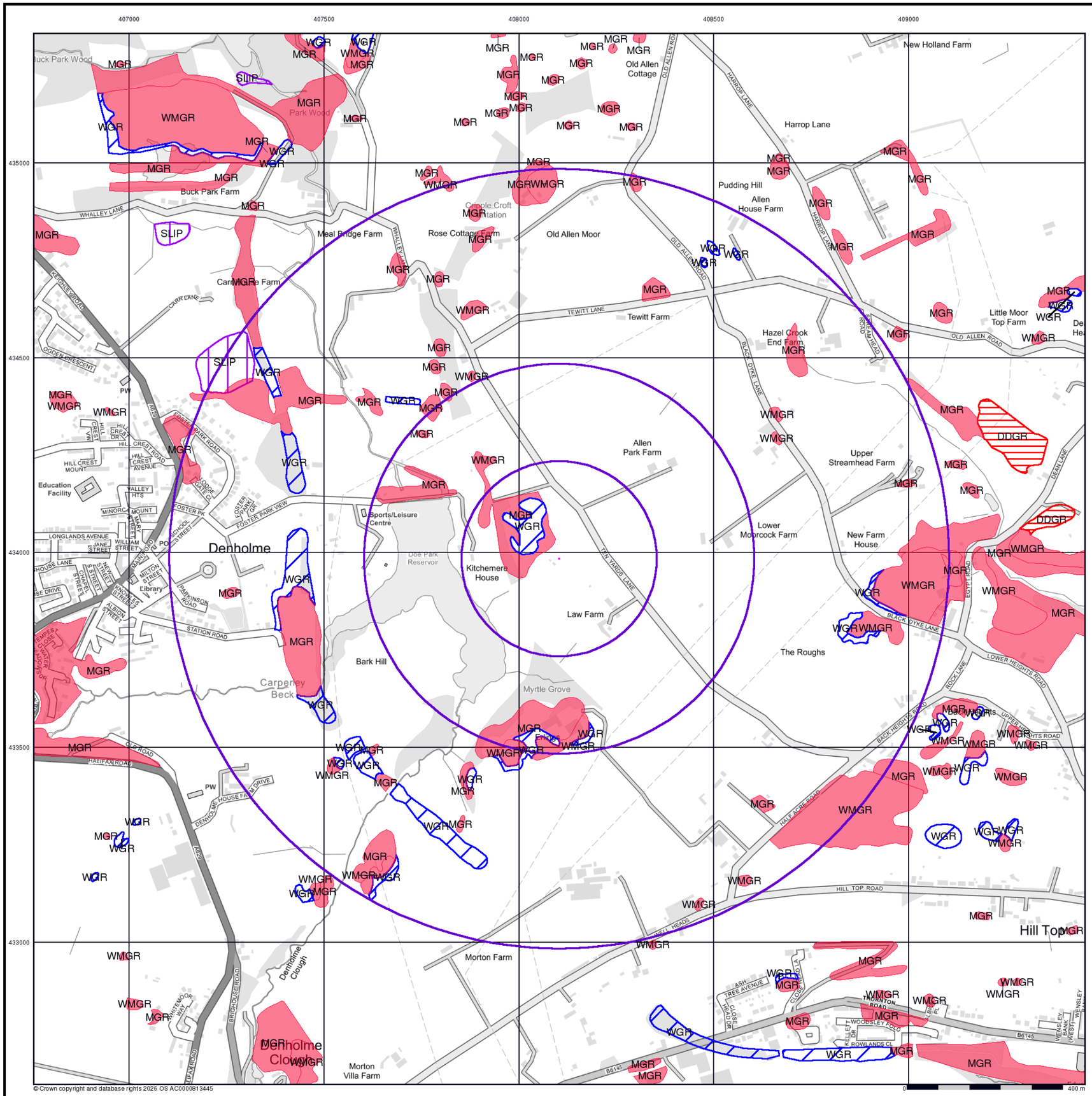
| | |
|---|---|
| Order Number: | 397739872_1_1 |
| Customer Ref: | 03357 |
| National Grid Reference: | 408100, 433980 |
| Slice: | A |
| Site Area (Ha): | 0.01 |
| Search Buffer (m): | 1000 |

### Site Details

Site at, Denholme, Bradford


Landmark® INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

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## Artificial Ground and Landslip

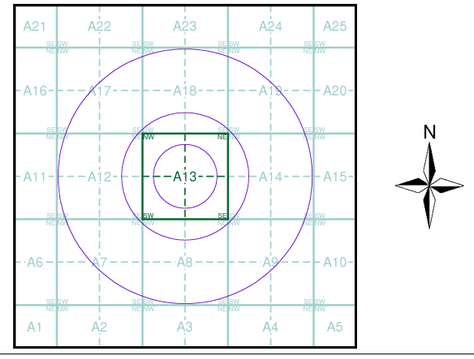
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground - man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground - areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground - areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground - areas where the surface has been reshaped.
- Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

## Artificial Ground and Landslip Map - Slice A




## Order Details

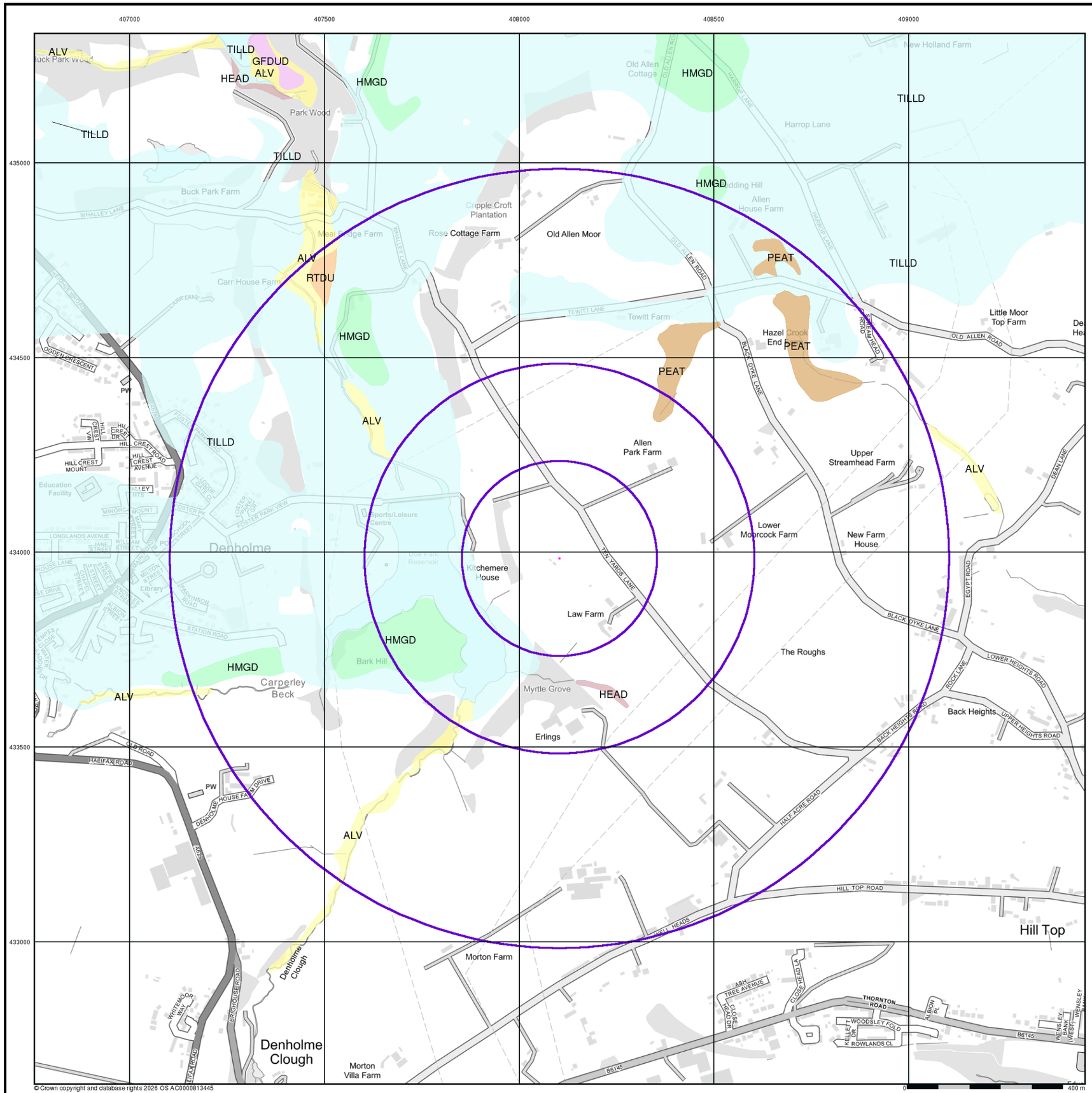
| | |
|---|---|
| Order Number: | 397739872_1_1 |
| Customer Ref: | 03357 |
| National Grid Reference: | 408100, 433980 |
| Slice: | A |
| Site Area (Ha): | 0.01 |
| Search Buffer (m): | 1000 |

## Site Details

Site at, Denholme, Bradford


Landmark® INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

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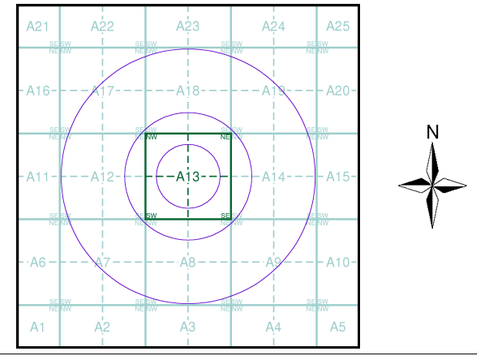
## Superficial Geology

BGS 1:10,000 Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

## Superficial Geology Map - Slice A




## Order Details

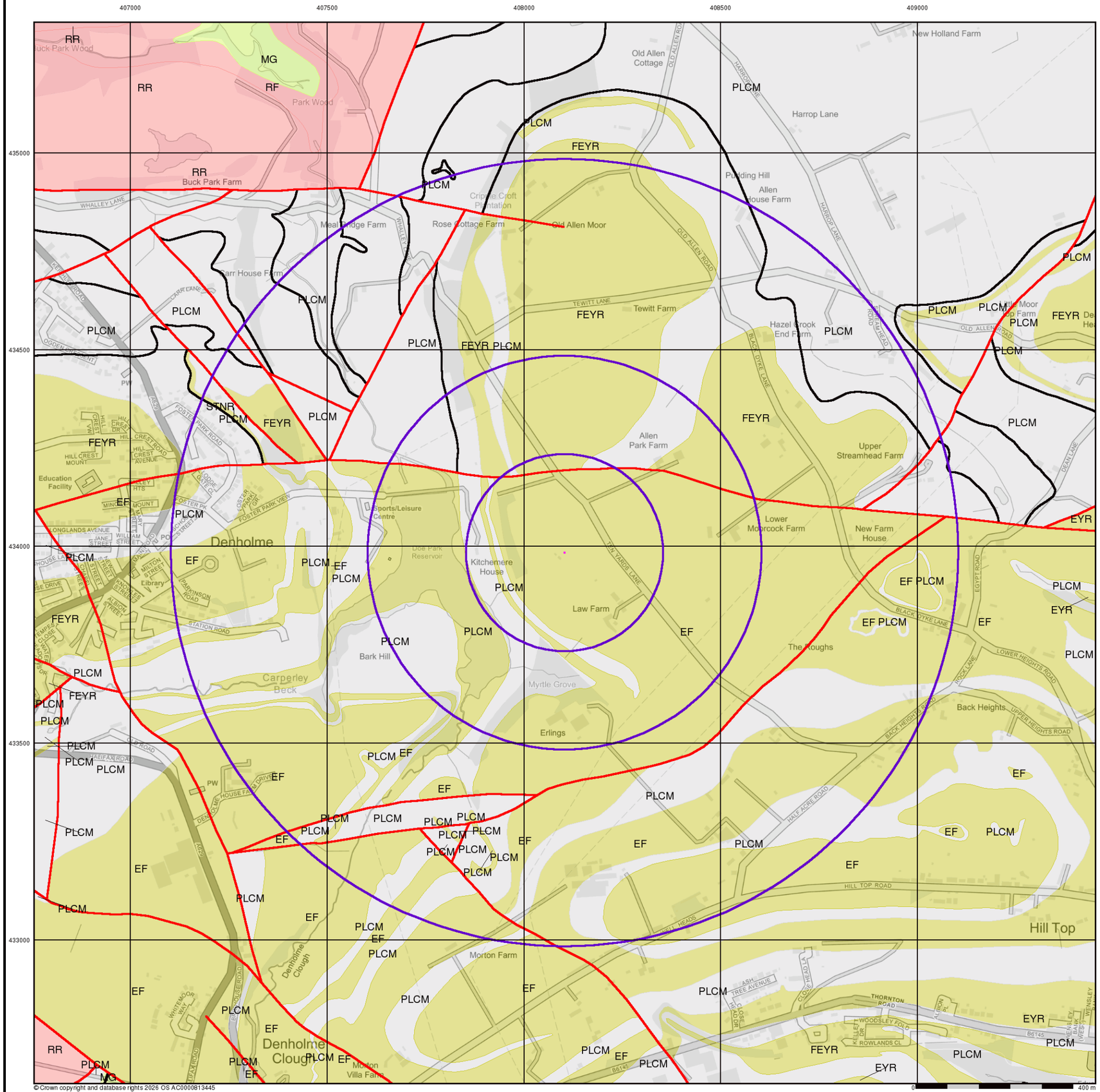
| | |
|---|---|
| Order Number: | 397739872_1_1 |
| Customer Ref: | 03357 |
| National Grid Reference: | 408100, 433980 |
| Slice: | A |
| Site Area (Ha): | 0.01 |
| Search Buffer (m): | 1000 |

## Site Details

Site at, Denholme, Bradford


Landmark INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk





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## Bedrock and Faults

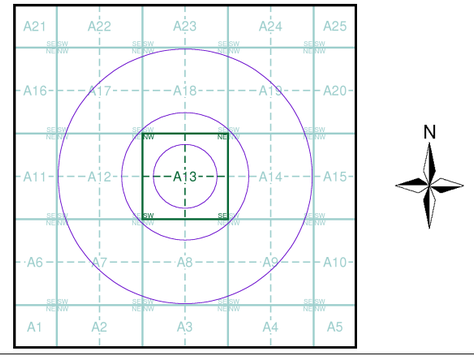
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults and thin beds mapped as lines such as coal seams and mineral veins. These are not restricted by age and could relate to features of any of the 1:10,000 geology datasets.

## Bedrock and Faults Map - Slice A




## Order Details

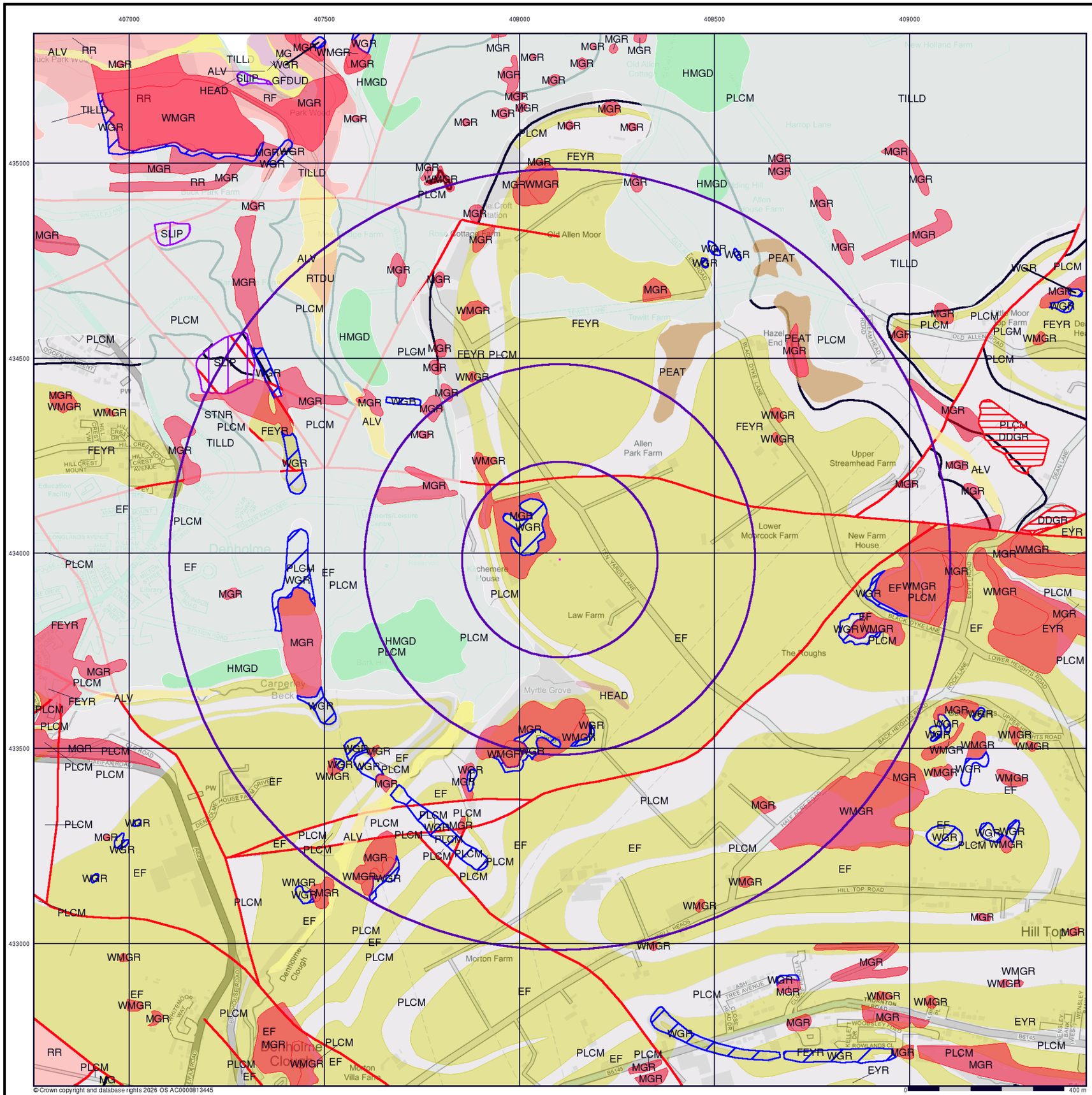
| | |
|---|---|
| Order Number: | 397739872_1_1 |
| Customer Ref: | 03357 |
| National Grid Reference: | 408100, 433980 |
| Slice: | A |
| Site Area (Ha): | 0.01 |
| Search Buffer (m): | 1000 |

## Site Details

Site at, Denholme, Bradford

Landmark INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk




# Envirocheck®

LANDMARK INFORMATION GROUP®

## Combined Surface Geology

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

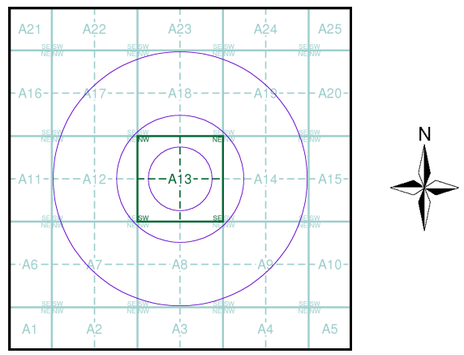
### Additional Information

More information on 1:10,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

### Contact

British Geological Survey
Kingsley Dunham Centre
Keyworth
Nottingham
NG12 5GG
Telephone: 0115 936 3143
Fax: 0115 936 3276
email: enquiries@bgs.ac.uk
website: www.bgs.ac.uk

## Combined Geology Map - Slice A




## Order Details

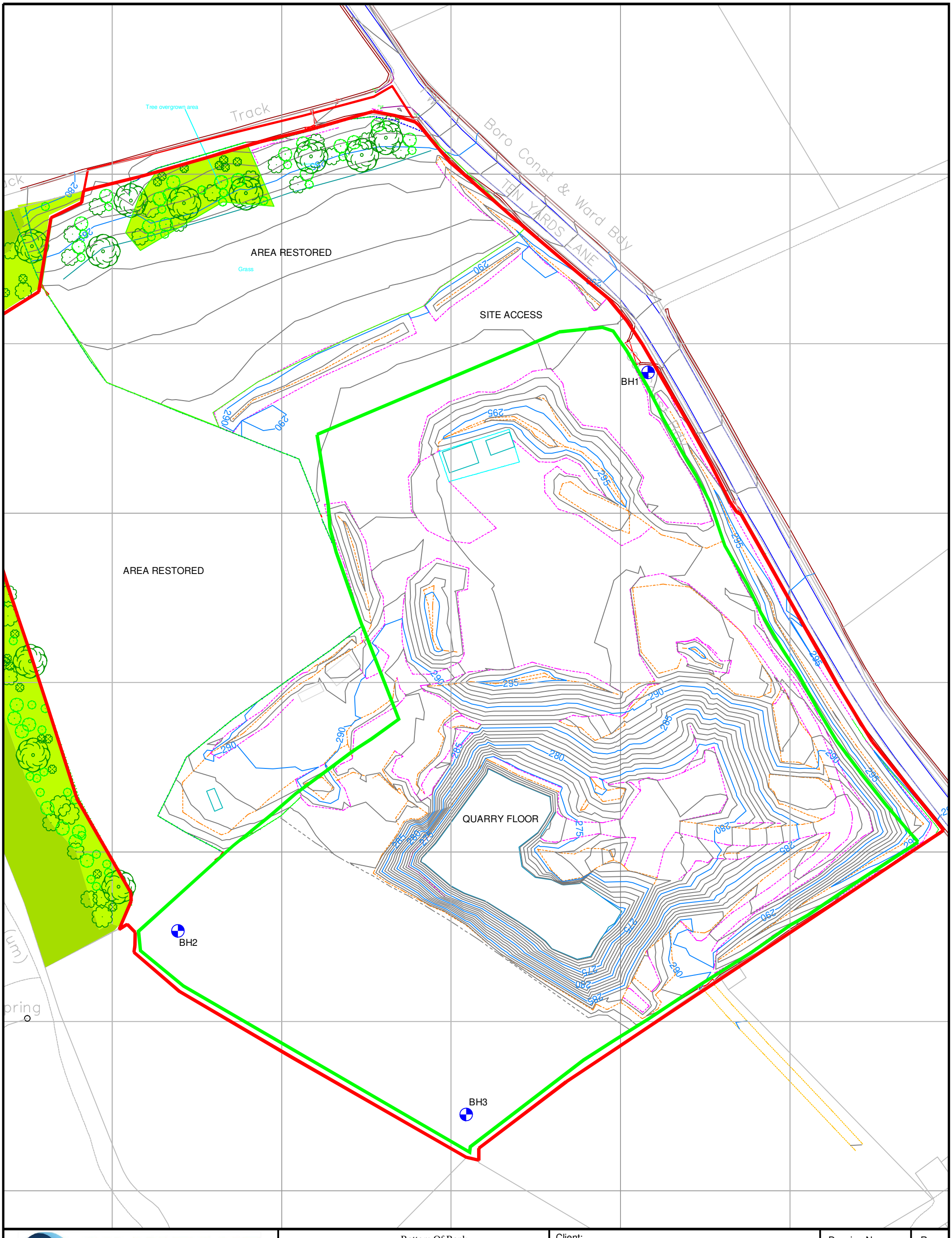
| | |
|---|---|
| Order Number: | 397739872_1_1 |
| Customer Ref: | 03357 |
| National Grid Reference: | 408100, 433980 |
| Slice: | A |
| Site Area (Ha): | 0.01 |
| Search Buffer (m): | 1000 |

## Site Details

Site at, Denholme, Bradford

# Appendix B

Borehole locations and logs




**SILKSTONE ENVIRONMENTAL**

GEOTECHNICAL, PLANNING & SURVEYING CONSULTANTS

A PHENNA GROUP COMPANY

7 Hall Annex, Thorncliffe Park, Chapeltown, Sheffield, S35 2PH
Tel (0114) 2573487 www.silkstoneenvironmental.co.uk



- Bottom Of Bank
- Top Of Bank
- Fence
- Road
- Wall
- Normal Contour (1m AOD)
- Prominent Contour (5m AOD)
- Planning Permission Boundary
- Waste Recovery Area
- BH1 Borehole Location & ID

Client: Birks Royd Stone

Project: Ten Yards Lane Quarry

Plan Title: Proposed Borehole Location Plan

Drawing No. 25209/1

Rev

Project No. 25209

Date: Aug '25

Scale: 1:1000 @ A3

Drawn: MS

Chkd: DG

# Drillers Daily Borehole Log

Ace Drilling Services

Office 6, Rear Walled Garden, Nostell Estate, Wakefield,
West Yorkshire, WF4 1AB Office: (01924) 80202
Stuart@acedrillingservicesltd.com

| | |
|---|---|
| Contract No. | 25209 |
| Rig | Beretta GT54-7 |
| Driller | Pete Smallwood |
| Date | 18.8.25 |

**Site:** Ten Yards Lane Quarry

| | |
|---|---|
| Borehole No: | BH03 |
| Borehole Dia: | 4" |
| Type of Bit / Barrel: | PCD |
| Type of Flush: | Air Mist |

**Casing used**

| | |
|---|---|
| Size | PW |
| Depth to | 6.0 |

**Water strikes**

| | |
|---|---|
| Depth | |
| Inflow | |
| Water level | |
| Depth sealed off | |

**Hours on site**

| | |
|---|---|
| From | 8.00 |
| To | 15.30 |
| Water level AM | |
| Water level PM | 20.2 |

| Strata description | | Depth | | Drilling / Coring | | | | | | | | | Penetration Tests | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Colour | Strata | From | To | Type OH/C/DS/ SPT | Sample No | Depth From | Depth To | Run Length | Core Recovered | Percentage of Recovery | Flush Colour | Flush Returns | 75mm | 75mm | 75mm | 75mm | 75mm | 75mm | Refusal |
| Brown | Sandstone | 0.00 | 17.50 | OH | | 0.00 | 32.50 | | | | Brown | 100% | | | | | | | |
| Grey | Mudstone | 17.50 | 26.00 | | | | | | | | | | | | | | | | |
| Brown | Sandstone | 26.00 | 32.50 | | | | | | | | | | | | | | | | |

**Consumables used**

| | |
|---|---|
| Core Boxes | |
| Liner | |
| Gravel | |
| Bentonite | |
| Postcrete | |
| Install Cover | |

**Crew**

| | |
|---|---|
| Driller | Pete Smallwood |
| 2nd man | Ryan Stevens |
| 3rd man | |

| Dayworks | Time From | Time To |
|---|---|---|
| Mob to Site | | |
| Move to Position - BH03 | 8.30 | 9.00 |
| Setup on Postion - BH03 | 9.00 | 10.00 |
| Flush BH prior to installation | 14.00 | 14.15 |

| Standing | Time From | Time To |
|---|---|---|
| Await delivery of geosock for installation pipe | 14.45 | 17.30 |

| Installation Size | Installation Type | Depth From | Depth To |
|---|---|---|---|
| | | | |

**Remarks**

BH03 Water level immediately after pulling rods out of BH - 19.80m

BH03 Water level 20 minutes after initial water level dip - 20.20m

# Drillers Daily Borehole Log

Ace Drilling Services

Office 6, Rear Walled Garden, Nostell Estate, Wakefield,
West Yorkshire, WF4 1AB Office: (01924) 80202
Stuart@acedrillingservicesltd.com

| | |
|---|---|
| Contract No. | 25209 |
| Rig | Beretta GT54-7 |
| Driller | Pete Smallwood |
| Date | 19.8.25 |

**Site:** Tem Yards Lane Quarry

| | |
|---|---|
| Borehole No: | BH03 |
| Borehole Dia: | 4" |
| Type of Bit / Barrel: | PCD |
| Type of Flush: | Air Mist |

## Casing used

| | |
|---|---|
| Size | PW |
| Depth to | 6.0 |

## Water strikes

| | |
|---|---|
| Depth | |
| Inflow | |
| Water level | |
| Depth sealed off | |

## Hours on site

| | |
|---|---|
| From | 7.30 |
| To | |
| Water level AM | 21.8 |
| Water level PM | |

## Strata description / Drilling / Coring / Penetration Tests

| Strata description | | Depth | | Drilling / Coring | | | | | | | | | Penetration Tests | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Colour | Strata | From | To | Type OH/C/DS/ SPT | Sample No | Depth From | Depth To | Run Length | Core Recovered | Percentage of Recovery | Flush Colour | Flush Returns | 75mm | 75mm | 75mm | 75mm | 75mm | 75mm | Refusal |
| | | | | | | | | | | | | | | | | | | | |

## Consumables used

| | |
|---|---|
| Core Boxes | |
| Liner | |
| Gravel | 19 |
| Bentonite | 2 |
| Postcrete | 1 |
| Install Cover | 1 |

## Crew

| | |
|---|---|
| Driller | Pete Smallwood |
| 2nd man | Ryan Stevens |
| 3rd man | |

## Dayworks

| Dayworks | Time From | Time To |
|---|---|---|
| | | |

## Standing

| Standing | Time From | Time To |
|---|---|---|
| Await geosock for installation pipe | 7.30 | 14.00 |

## Installation

| Installation Size | Installation Type | Depth From | Depth To |
|---|---|---|---|
| 50mm | Slotted | 32.50 | 2.50 |
| 50mm | Plain | 2.50 | 0.00 |
| | Gravel | 32.50 | 2.50 |
| | Bentonite | 2.50 | 0.50 |
| | Concrete | 0.50 | |
| | Barrel Cover | | |

**Remarks**

# Drillers Daily Borehole Log

Ace Drilling Services

Office 6, Rear Walled Garden, Nostell Estate, Wakefield,
West Yorkshire, WF4 1AB Office: (01924) 80202
Stuart@acedrillingservicesltd.com

| | |
|---|---|
| Contract No. | 25209 |
| Rig | Beretta GT54-7 |
| Driller | Pete Smallwood |
| Date | 19.8.25 |

**Site:** Ten Yards Lane Quarry

| | |
|---|---|
| Borehole No: | BH02 |
| Borehole Dia: | 5" |
| Type of Bit / Barrel: | PCD |
| Type of Flush: | Air Mist |

**Casing used**

| | |
|---|---|
| Size | PW |
| Depth to | 3.0 |

**Water strikes**

| | |
|---|---|
| Depth | |
| Inflow | |
| Water level | |
| Depth sealed off | |

**Hours on site**

| | |
|---|---|
| From | |
| To | |
| Water level AM | |
| Water level PM | |

| Strata description | | Depth | | Drilling / Coring | | | | | | | | | Penetration Tests | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Colour | Strata | From | To | Type OH/C/DS/SPT | Sample No | Depth From | Depth To | Run Length | Core Recovered | Percentage of Recovery | Flush Colour | Flush Returns | 75mm | 75mm | 75mm | 75mm | 75mm | 75mm | Refusal |
| Brown | Sandstone | 0.00 | 17.00 | OH | | 0.00 | 26.50 | | | | Brown | 100% | | | | | | | |
| Grey | Mudstone w/ | 17.00 | | | | | | | | | | | | | | | | | |
| | Sandstone bands | | 25.50 | | | | | | | | | | | | | | | | |
| Brown | Sandstone | 25.50 | 26.50 | | | | | | | | | | | | | | | | |

**Consumables used**

| | |
|---|---|
| Core Boxes | |
| Liner | |
| Gravel | |
| Bentonite | |
| Postcrete | |
| Install Cover | |

**Crew**

| | |
|---|---|
| Driller | Pete Smallwood |
| 2nd man | Ryan Stevens |
| 3rd man | |

| Dayworks | Time From | Time To |
|---|---|---|
| Move to Position - BH02 | 14.00 | 14.30 |
| Setup on Postion - BH02 | 14.30 | 15.00 |

| Standing | Time From | Time To |
|---|---|---|
| Insructed to leave site due to Quarry Owner | 16.30 | |
| wanting to shut gates | | 17.30 |

| Installation Size | Installation Type | Depth From | Depth To |
|---|---|---|---|
| | | | |

**Remarks**

Ace Drilling Services

# Drillers Daily Borehole Log

Office 6, Rear Walled Garden, Nostell Estate, Wakefield,
West Yorkshire, WF4 1AB Office: (01924) 80202
Stuart@acedrillingservicesltd.com

| | |
|---|---|
| Contract No. | 25209 |
| Rig | Beretta GT54-7 |
| Driller | Pete Smallwood |
| Date | 20.8.25 |

**Site:** Ten Yards Lane Quarry

| | |
|---|---|
| Borehole No: | BH02 |
| Borehole Dia: | 5" |
| Type of Bit / Barrel: | PCD |
| Type of Flush: | Air Mist |

## Casing used

| | |
|---|---|
| Size | PW |
| Depth to | 3.0 |

## Water strikes

| | |
|---|---|
| Depth | |
| Inflow | |
| Water level | |
| Depth sealed off | |

## Hours on site

| | |
|---|---|
| From | 7.30 |
| To | 16.00 |
| Water level AM | |
| Water level PM | |

| Strata description | | Depth | | Drilling / Coring | | | | | | | | | Penetration Tests | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Colour | Strata | From | To | Type OH/C/DS/SPT | Sample No | Depth From | Depth To | Run Length | Core Recovered | Percentage of Recovery | Flush Colour | Flush Returns | 75mm | 75mm | 75mm | 75mm | 75mm | 75mm | Refusal |
| Brown | Sandstone | 26.50 | 34.50 | OH | | 26.50 | 34.50 | | | | Brown | 100% | | | | | | | |

## Consumables used

| | |
|---|---|
| Core Boxes | |
| Liner | |
| Gravel | 19 |
| Bentonite | 2 |
| Postcrete | 1 |
| Install Cover | 1 |

## Crew

| | |
|---|---|
| Driller | Pete Smallwood |
| 2nd man | Ryan Stevens |
| 3rd man | |

| Dayworks | Time | | Standing | Time | | Installation | | Depth | |
|---|---|---|---|---|---|---|---|---|---|
| | From | To | | From | To | Size | Type | From | To |
| | | | | | | 50mm | Slotted | 34.50 | 3.00 |
| | | | | | | 50mm | Plain | 3.00 | 0.00 |
| | | | | | | | Gravel | 34.50 | 3.00 |
| | | | | | | | Bentonite | 3.00 | 0.50 |
| | | | | | | | Concrete | 0.50 | 0.00 |
| | | | | | | | Barrel Cover | | |

**Remarks** Water level once settled - 21.80m

# Drillers Daily Borehole Log

Ace Drilling Services

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West Yorkshire, WF4 1AB Office: (01924) 80202
Stuart@acedrillingservicesltd.com

| | |
|---|---|
| Contract No. | 25209 |
| Rig | Beretta GT54-7 |
| Driller | Pete Smallwood |
| Date | 20.8.25 |

**Site:** Ten Yards Lane Quarry

| | |
|---|---|
| Borehole No: | BH01 |
| Borehole Dia: | 5" |
| Type of Bit / Barrel: | PCD |
| Type of Flush: | Air Mist |

**Casing used**

| | |
|---|---|
| Size | PW |
| Depth to | 3.0 |

**Water strikes**

| | |
|---|---|
| Depth | |
| Inflow | |
| Water level | |
| Depth sealed off | |

**Hours on site**

| | |
|---|---|
| From | 7.30 |
| To | 16.00 |
| Water level AM | |
| Water level PM | |

| Strata description | | Depth | | Drilling / Coring | | | | | | | | | Penetration Tests | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Colour | Strata | From | To | Type OH/C/DS/SPT | Sample No | Depth From | Depth To | Run Length | Core Recovered | Percentage of Recovery | Flush Colour | Flush Returns | 75mm | 75mm | 75mm | 75mm | 75mm | 75mm | Refusal |
| Brown | Sandstone | 0.00 | 13.00 | OH | | 0.00 | 50.50 | | | | Brown | 100% | | | | | | | |
| Grey | Mudstone | 13.00 | 20.00 | | | | | | | | | | | | | | | | |
| Brown | Sandstone | 20.00 | 26.00 | | | | | | | | | | | | | | | | |
| Grey | Mudstone | 26.00 | 27.00 | | | | | | | | | | | | | | | | |
| Brown | Sandstone | 27.00 | 29.00 | | | | | | | | | | | | | | | | |
| Grey | Shale | 29.00 | 50.50 | | | | | | | | | | | | | | | | |

**Consumables used**

| | |
|---|---|
| Core Boxes | |
| Liner | |
| Gravel | |
| Bentonite | |
| Postcrete | |
| Install Cover | |

**Crew**

| | |
|---|---|
| Driller | Pete Smallwood |
| 2nd man | Ryan Stevens |
| 3rd man | |

| Dayworks | Time From | Time To |
|---|---|---|
| Move to Position - BH01 | 11.00 | 11.30 |
| Setup on Postion - BH01 | 11.30 | 12.00 |

| Standing | Time From | Time To |
|---|---|---|
| Pipe required from Ace Drilling Yard | 16.00 | 17.30 |

| Installation Size | Installation Type | Depth From | Depth To |
|---|---|---|---|
| | | | |

**Remarks:** Water level once settled - 30.0m

# Drillers Daily Borehole Log

Ace Drilling Services

Office 6, Rear Walled Garden, Nostell Estate, Wakefield,
West Yorkshire, WF4 1AB Office: (01924) 80202
Stuart@acedrillingservicesltd.com

| | |
|---|---|
| Contract No. | 25209 |
| Rig | Beretta GT54-7 |
| Driller | Pete Smallwood |
| Date | 21.8.25 |

**Site:** Ten Yards Lane Quarry

| | |
|---|---|
| Borehole No: | BH01 |
| Borehole Dia: | 5" |
| Type of Bit / Barrel: | PCD |
| Type of Flush: | Air Mist |

| Casing used | |
|---|---|
| Size | PW |
| Depth to | 3.0 |

| Water strikes | |
|---|---|
| Depth | |
| Inflow | |
| Water level | |
| Depth sealed off | |

| Hours on site | |
|---|---|
| From | 7.30 |
| To | 11.00 |
| Water level AM | |
| Water level PM | |

| Strata description | | Depth | | Drilling / Coring | | | | | | | | | Penetration Tests | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Colour | Strata | From | To | Type OH/C/DS/SPT | Sample No | Depth From | Depth To | Run Length | Core Recovered | Percentage of Recovery | Flush Colour | Flush Returns | 75mm | 75mm | 75mm | 75mm | 75mm | 75mm | Refusal |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

| Consumables used | |
|---|---|
| Core Boxes | |
| Liner | |
| Gravel | 27 |
| Bentonite | 1 |
| Postcrete | 1 |
| Install Cover | 1 |

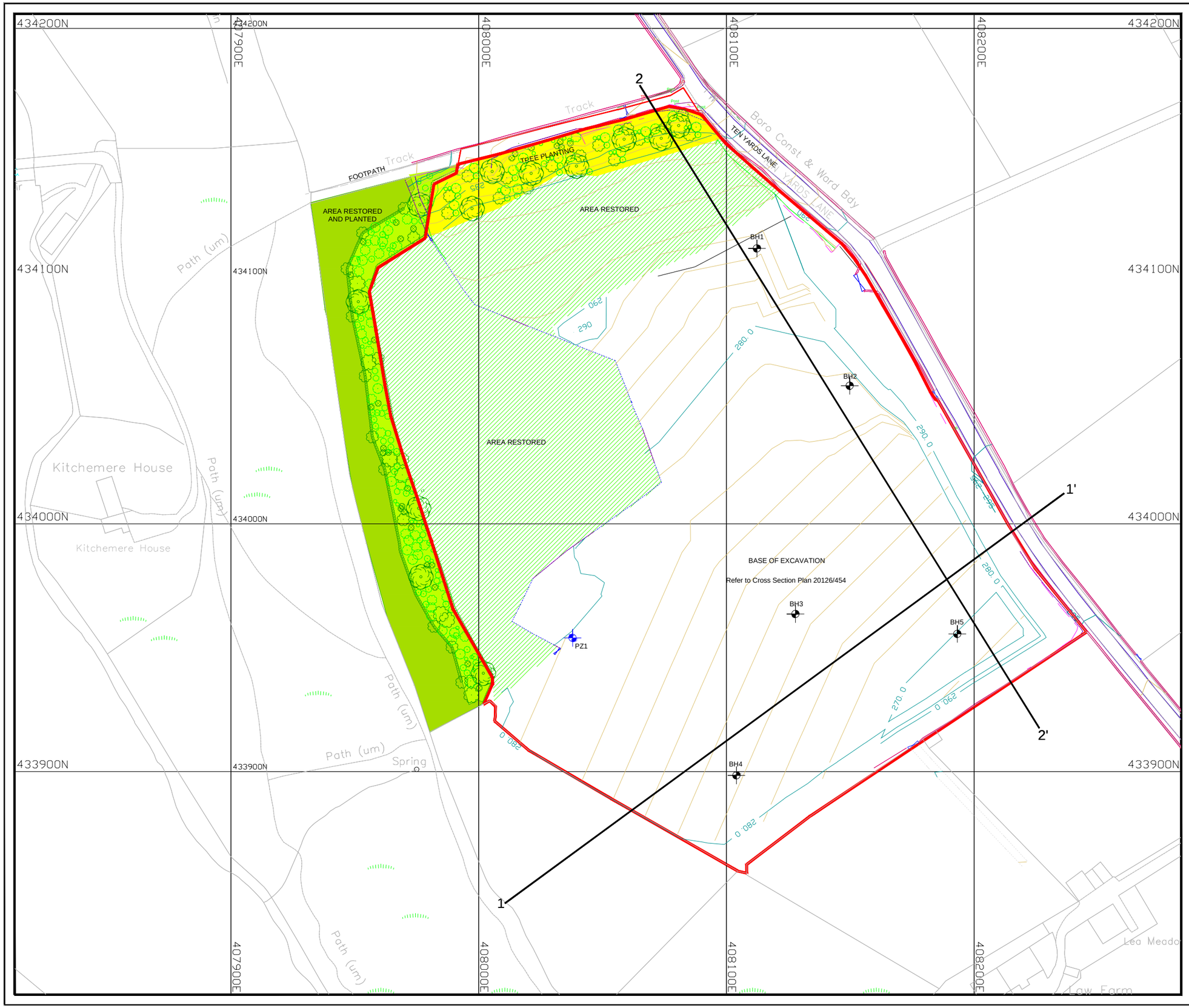
| Crew | |
|---|---|
| Driller | Pete Smallwood |
| 2nd man | Ryan Stevens |
| 3rd man | |

| Dayworks | Time From | Time To |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

| Standing | Time From | Time To |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

| Installation Size | Installation Type | Depth From | Depth To |
|---|---|---|---|
| 50mm | Slotted | 45.00 | 3.00 |
| 50mm | Plain | 3.00 | 0.00 |
| | Gravel | 45.00 | 3.00 |
| | Bentonite | 3.00 | 0.50 |
| | Concrete | 0.50 | 0.00 |
| | Barrel Cover | | |
| | | | |
| | | | |
| | | | |
| | | | |

**Remarks** Pipe installed at 45.0m due to hole collapsing overnight.




## LEGEND

- PLANNING BOUNDARY
- BOTTOM OF BANK
- TOP OF BANK
- FIELD BOUNDARY
- TRACK
- AREA CURRENTLY RESTORED TO GRASSLAND
- EXISTING WOODED/PLANTED AREA
- TOPSOIL STORAGE
- PZ — PIEZOMETER BOREHOLE
- BH — EXPLORATION BOREHOLE
- STOCKPROOF FENCE LINE
- ACCESS GATE

| Rev | Description | Date | Drawn | Chkd |
|---|---|---|---|---|

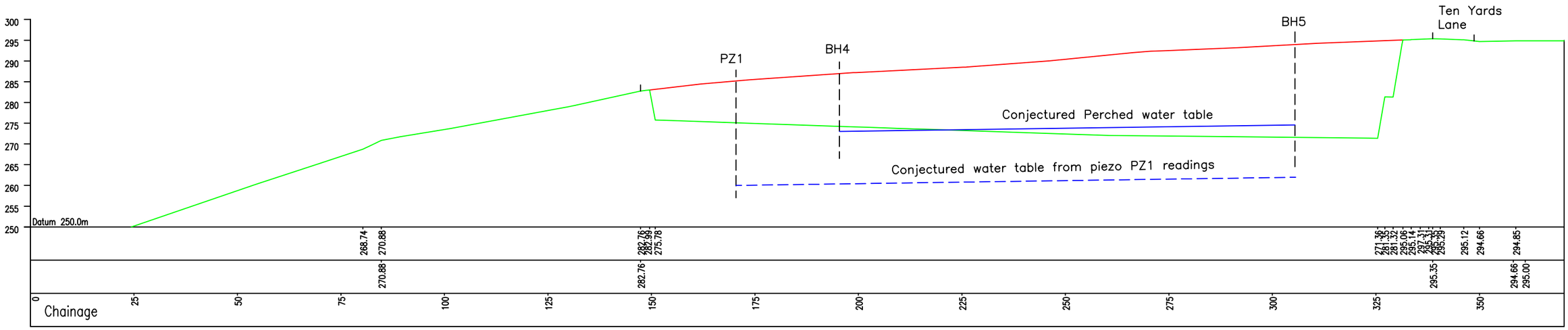
Client:
BIRKSROYD STONE LTD

Project:
TEN YARDS LANE QUARRY

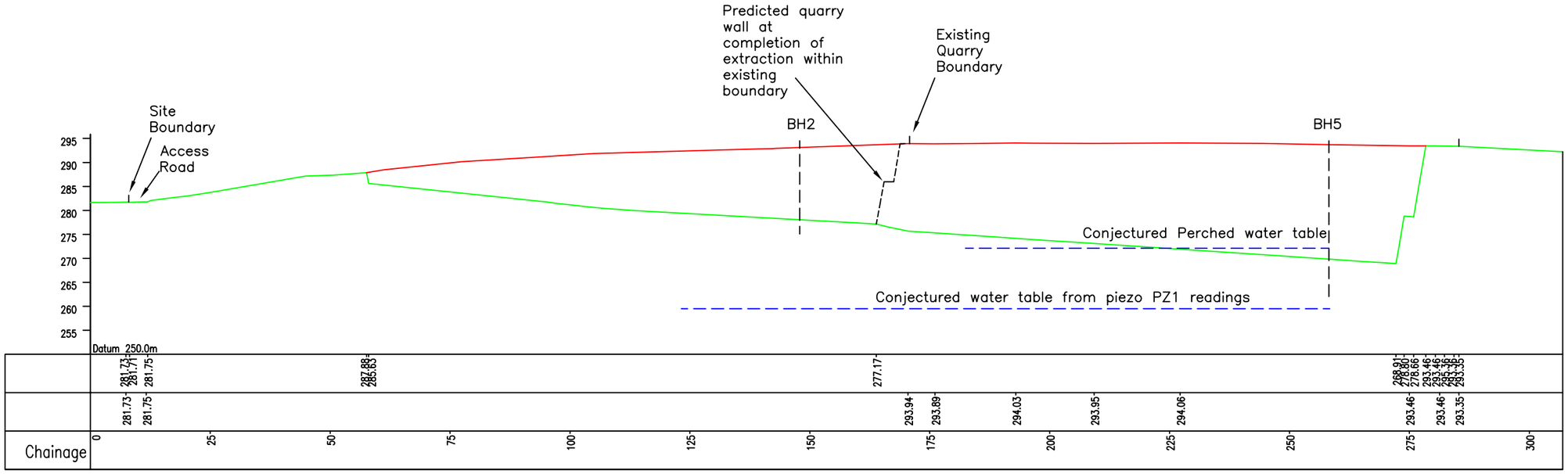
Plan Title:
BASE OF EXCAVATION PLAN


**Silkstone**
Environmental Ltd
www.silkstoneenvironmental.co.uk
7, Hall Annex, Thorncliffe Park, Chapeltown, Sheffield, S35 2PH
Tel (0114) 2573487 Fax (0114) 2573459


| Project No.20126 | Dwg No. 20126/453 | Rev |
|---|---|---|
| Date: OCT 2020 | Scale: 1:1500 @ A3 | |




Section 1-1'




Section 2-2'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LEGEND

Total excavation profile

Restoration profile

| Rev | Description | Date | Drawn | Chkd |
|---|---|---|---|---|

Client: BIRKSROYD STONE LTD

Project: TEN YARDS LANE QUARRY

Plan Title: CROSS SECTIONS

| Project No. 20126 | Dwg No. 20126/454 | Rev |
|---|---|---|
| Date: OCT 2020 | Scale: 1:1000@A3 | |

# Appendix C

Groundwater quality data

SOCOTEC
Environmental Chemistry

# Certificate of Analysis

**Client:** Silkstone Environmental Ltd

**Project:** 25083959

**Quote:** BEC250842160 V1.1

**Project Ref:** Silkstone Environmental ltd

**Site:** Ten Yards Lane

**Contact:** Richard Drown

**Address:** 7 Hall Annex
Thorncliffe Park
Chapeltown
Sheffield
S35 2PH

**E-Mail:** rdrown@silkstoneenvironmental.co.uk

**Phone:** 0114 257 3433

**No. Samples Received:** 3

**Date Received:** 29/08/2025

**Analysis Completed:** 08/09/2025

**Date Issued:** 08/09/2025

**Report Type:** Version 01

This report supersedes any versions previously issued by the laboratory

Reported by Customer Service Co-Ordinator
Julie Dickinson
01283 204 384
Julie.Dickinson@socotec.co.uk

## Project Number: 25083959

**Client:** Silkstone Environmental Ltd
**Date Issued:** 08/09/2025
**Project Name:** Silkstone Environmental ltd - Ten Yards Lane

### Samples Analysed

| Text ID | Sample Reference | Sampling Date | Sample Type | Sample Description |
|---|---|---|---|---|
| 25083959-001 | BH1 | 28/08/2025 12:25:00 | WATER | Ground Water |
| 25083959-002 | BH2 | 28/08/2025 11:32:00 | WATER | Ground Water |
| 25083959-003 | BH3 | 28/08/2025 11:50:00 | WATER | Ground Water |

## Analysis Results

| Method Code | Analysis | MDL | Accred. | SOCOTEC Sample ID: | 25083959-001 | 25083959-002 | 25083959-003 |
|---|---|---|---|---|---|---|---|
| | | | | Sampling Date: | 28/08/2025 12:25 | 28/08/2025 11:32 | 28/08/2025 11:50 |
| | | | | Customer ID: | BH1 | BH2 | BH3 |
| PHCONDW | pH | 1 pH units | U | | 7.1 | 7.6 | 7.5 |
| PHCONDW | Conductivity at 20°C | 90 µS/cm | U | | 488 | 384 | 220 |
| WSLM12 | Total Alkalinity | 2 mg/l | U | | 238 | 149 | 63.0 |
| WSLM27 | TDS as mg/L | 5 mg/l | N | | 430 | 176 | <5 |
| TOCW | Dissolved Organic Carbon | 0.4 mg/l | U | | 0.66 | 0.76 | 0.96 |
| KONENS | Nitrite as N | 0.01 mg/l | U | | <0.01 | <0.01 | <0.01 |
| KONENS | Ammoniacal Nitrogen as N | 0.01 mg/l | U | | 0.04 | <0.01 | 0.01 |
| KONENS | Chloride as Cl | 1 mg/l | U | | 21 | 22 | 13 |
| ISEF | Fluoride as F | 0.1 mg/l | U | | 0.4 | 0.2 | 0.1 |
| ICPMSW (Dissolved) | Arsenic as As | 0.001 mg/l | U | | <0.001 | <0.001 | <0.001 |
| ICPWATVAR (Dissolved) | Boron as B | 0.01 mg/l | U | | 0.03 | 0.02 | 0.01 |
| ICPMSW (Dissolved) | Cadmium as Cd | 0.00002 mg/l | U | | 0.00024 | 0.00006 | 0.00012 |
| ICPWATVAR (Dissolved) | Calcium as Ca | 1 mg/l | U | | 68 | 61 | 29 |
| ICPMSW (Dissolved) | Total Chromium as Cr | 0.001 mg/l | U | | <0.001 | <0.001 | <0.001 |
| ICPMSW (Dissolved) | Copper as Cu | 0.001 mg/l | U | | <0.001 | <0.001 | <0.001 |
| ICPWATVAR (Dissolved) | Iron as Fe | 0.01 mg/l | U | | <0.01 | <0.01 | <0.01 |
| ICPMSW (Dissolved) | Lead as Pb | 0.0002 mg/l | U | | <0.0002 | <0.0002 | <0.0002 |
| ICPWATVAR (Dissolved) | Magnesium as Mg | 1 mg/l | U | | 26 | 18 | 10 |
| ICPMSW (Dissolved) | Manganese as Mn | 0.002 mg/l | U | | 2.52 | 0.037 | 0.731 |
| ICPMSW (Dissolved) | Mercury as Hg | 0.00003 mg/l | U | | <0.00003 | <0.00003 | <0.00003 |
| ICPMSW (Dissolved) | Nickel as Ni | 0.001 mg/l | U | | 0.002 | <0.001 | <0.001 |
| ICPWATVAR (Dissolved) | Potassium as K | 1 mg/l | U | | 2 | 1 | <1 |
| ICPMSW (Dissolved) | Selenium as Se | 0.001 mg/l | U | | <0.001 | <0.001 | <0.001 |
| ICPWATVAR (Dissolved) | Sodium as Na | 1 mg/l | U | | 13 | 12 | 8 |
| ICPWATVAR (Dissolved) | Total Sulphur as SO4 | 3 mg/l | U | | 32 | 49 | 31 |
| ICPMSW (Dissolved) | Zinc as Zn | 0.002 mg/l | U | | 0.008 | 0.003 | 0.006 |
| PAHMSW | Acenaphthene | 0.01 µg/l | U | | <0.40 ᵦ | <0.40 ᵦ | <0.40 ᵦ |
| | Acenaphthylene | 0.01 µg/l | U | | <0.40 ᵦ | <0.40 ᵦ | <0.40 ᵦ |
| | Anthracene | 0.01 µg/l | U | | <0.40 ᵦ | <0.40 ᵦ | <0.40 ᵦ |
| | Benzo[a]anthracene | 0.01 µg/l | U | | <0.40 ᵦ | <0.40 ᵦ | <0.40 ᵦ |
| | Benzo[a]pyrene | 0.01 µg/l | U | | <0.40 ᵦ | <0.40 ᵦ | <0.40 ᵦ |
| | Benzo[b]fluoranthene | 0.01 µg/l | U | | <0.40 ᵦ | <0.40 ᵦ | <0.40 ᵦ |
| | Benzo[g,h,i]perylene | 0.01 µg/l | U | | <0.40 ᵦ | <0.40 ᵦ | <0.40 ᵦ |
| | Benzo[k]fluoranthene | 0.01 µg/l | U | | <0.40 ᵦ | <0.40 ᵦ | <0.40 ᵦ |
| | Chrysene | 0.01 µg/l | U | | <0.40 ᵦ | <0.40 ᵦ | <0.40 ᵦ |
| | Dibenzo[a,h]anthracene | 0.01 µg/l | U | | <0.40 ᵦ | <0.40 ᵦ | <0.40 ᵦ |
| | Fluoranthene | 0.01 µg/l | U | | <0.40 ᵦ | 0.45 | <0.40 ᵦ |
| | Fluorene | 0.01 µg/l | U | | <0.40 ᵦ | <0.40 ᵦ | 0.45 |
| | Indeno[1,2,3-cd]pyrene | 0.01 µg/l | U | | <0.40 ᵦ | <0.40 ᵦ | <0.40 ᵦ |
| | Naphthalene | 0.01 µg/l | U | | <0.40 ᵦ | 0.45 | 2.29 |
| | Phenanthrene | 0.01 µg/l | U | | 1.07 | 3.12 | 1.85 |
| | Pyrene | 0.01 µg/l | U | | <0.40 ᵦ | 0.61 | 0.49 |
| | Total PAH 16 | 0.16 µg/l | U | | 7.07 | 9.42 | 9.88 |
| SVOCSW | 1,2,4-Trichlorobenzene | 0.005 mg/l | N | | <0.200 ᵦ | <0.200 ᵦ | <0.200 ᵦ |
| | 1,2-Dichlorobenzene | 0.005 mg/l | N | | <0.200 ᵦ | <0.200 ᵦ | <0.200 ᵦ |
| | 1,3-Dichlorobenzene | 0.005 mg/l | N | | <0.200 ᵦ | <0.200 ᵦ | <0.200 ᵦ |
| | 1,4-Dichlorobenzene | 0.005 mg/l | N | | <0.200 ᵦ | <0.200 ᵦ | <0.200 ᵦ |
| | 1-Methylnaphthalene | 0.002 mg/l | N | | <0.080 ᵦ | <0.080 ᵦ | <0.080 ᵦ |
| | 2,4,5-Trichlorophenol | 0.02 mg/l | N | | <0.800 ᵦ | <0.800 ᵦ | <0.800 ᵦ |
| | 2,4,6-Trichlorophenol | 0.02 mg/l | N | | <0.800 ᵦ | <0.800 ᵦ | <0.800 ᵦ |
| | 2,4-Dichlorophenol | 0.02 mg/l | N | | <0.800 ᵦ | <0.800 ᵦ | <0.800 ᵦ |
| | 2,4-Dimethylphenol | 0.02 mg/l | N | | <0.800 ᵦ | <0.800 ᵦ | <0.800 ᵦ |
| | 2,4-Dinitrophenol | 0.01 mg/l | N | | <0.400 ᵦ | <0.400 ᵦ | <0.400 ᵦ |
| | 2,4-Dinitrotoluene | 0.005 mg/l | N | | <0.200 ᵦ | <0.200 ᵦ | <0.200 ᵦ |
| | 2,6-Dinitrotoluene | 0.005 mg/l | N | | <0.200 ᵦ | <0.200 ᵦ | <0.200 ᵦ |
| | 2-Chloronaphthalene | 0.002 mg/l | N | | <0.080 ᵦ | <0.080 ᵦ | <0.080 ᵦ |
| | 2-Chlorophenol | 0.02 mg/l | N | | <0.800 ᵦ | <0.800 ᵦ | <0.800 ᵦ |
| | 2-Methylnaphthalene | 0.002 mg/l | N | | <0.080 ᵦ | <0.080 ᵦ | <0.080 ᵦ |
| | 2-Methylphenol | 0.005 mg/l | N | | <0.200 ᵦ | <0.200 ᵦ | <0.200 ᵦ |
| | 2-Nitroaniline | 0.005 mg/l | N | | <0.200 ᵦ | <0.200 ᵦ | <0.200 ᵦ |
| | 2-Nitrophenol | 0.02 mg/l | N | | <0.800 ᵦ | <0.800 ᵦ | <0.800 ᵦ |
| | 3- & 4-Methylphenol | 0.02 mg/l | N | | <0.800 ᵦ | <0.800 ᵦ | <0.800 ᵦ |
| | 3-Nitroaniline | 0.005 mg/l | N | | <0.200 ᵦ | <0.200 ᵦ | <0.200 ᵦ |
| | 4,6-Dinitro-2-methylphenol | 0.05 mg/l | N | | <2.00 ᵦ | <2.00 ᵦ | <2.00 ᵦ |
| | 4-Bromophenyl-phenylether | 0.005 mg/l | N | | <0.200 ᵦ | <0.200 ᵦ | <0.200 ᵦ |
| | 4-Chloro-3-methylphenol | 0.005 mg/l | N | | <0.200 ᵦ | <0.200 ᵦ | <0.200 ᵦ |
| | 4-Chloroaniline | 0.005 mg/l | N | | <0.200 ᵦ | <0.200 ᵦ | <0.200 ᵦ |
| | 4-Chlorophenol | 0.02 mg/l | N | | <0.800 ᵦ | <0.800 ᵦ | <0.800 ᵦ |
| | 4-Chlorophenyl-phenylether | 0.005 mg/l | N | | <0.200 ᵦ | <0.200 ᵦ | <0.200 ᵦ |
| | 4-Nitroaniline | 0.005 mg/l | N | | <0.200 ᵦ | <0.200 ᵦ | <0.200 ᵦ |
| | 4-Nitrophenol | 0.05 mg/l | N | | <2.00 ᵦ | <2.00 ᵦ | <2.00 ᵦ |
| | Acenaphthene | 0.002 mg/l | N | | <0.080 ᵦ | <0.080 ᵦ | <0.080 ᵦ |
| | Acenaphthylene | 0.002 mg/l | N | | <0.080 ᵦ | <0.080 ᵦ | <0.080 ᵦ |
| | Anthracene | 0.002 mg/l | N | | <0.080 ᵦ | <0.080 ᵦ | <0.080 ᵦ |
| | Azobenzene | 0.01 mg/l | N | | <0.400 ᵦ | <0.400 ᵦ | <0.400 ᵦ |
| | Benzo[a]anthracene | 0.002 mg/l | N | | <0.080 ᵦ | <0.080 ᵦ | <0.080 ᵦ |
| | Benzo[a]pyrene | 0.002 mg/l | N | | <0.080 ᵦ | <0.080 ᵦ | <0.080 ᵦ |
| | Benzo[b]fluoranthene | 0.002 mg/l | N | | <0.080 ᵦ | <0.080 ᵦ | <0.080 ᵦ |
| | Benzo[g,h,i]perylene | 0.002 mg/l | N | | <0.080 ᵦ | <0.080 ᵦ | <0.080 ᵦ |

## Analysis Results

| Method Code | Analysis | MDL | Accred. | SOCOTEC Sample ID: | 25083959-001 | 25083959-002 | 25083959-003 |
|---|---|---|---|---|---|---|---|
| | | | | Sampling Date: | 28/08/2025 12:25 | 28/08/2025 11:32 | 28/08/2025 11:50 |
| | | | | Customer ID: | BH1 | BH2 | BH3 |
| SVOCSW | Benzo[k]fluoranthene | 0.002 mg/l | N | | <0.080 D | <0.080 D | <0.080 D |
| | Benzoic Acid | 0.1 mg/l | N | | <4.00 D | <4.00 D | <4.00 D |
| | Benzyl alcohol | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Biphenyl | 0.002 mg/l | N | | <0.080 D | <0.080 D | <0.080 D |
| | bis(2-Chloroethoxy)methane | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | bis(2-Chloroethyl)ether | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | bis(2-Chloroisopropyl)ether | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | bis(2-Ethylhexyl)phthalate | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Butylbenzylphthalate | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Carbazole | 0.01 mg/l | N | | <0.400 D | <0.400 D | <0.400 D |
| | Chrysene | 0.002 mg/l | N | | <0.080 D | <0.080 D | <0.080 D |
| | Coronene | 0.05 mg/l | N | | <2.00 D | <2.00 D | <2.00 D |
| | Dibenzo[a,h]anthracene | 0.002 mg/l | N | | <0.080 D | <0.080 D | <0.080 D |
| | Dibenzofuran | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Diethylphthalate | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Dimethylphthalate | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Di-n-butylphthalate | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Di-n-octylphthalate | 0.002 mg/l | N | | <0.080 D | <0.080 D | <0.080 D |
| | Diphenyl ether | 0.002 mg/l | N | | <0.080 D | <0.080 D | <0.080 D |
| | Fluoranthene | 0.002 mg/l | N | | <0.080 D | <0.080 D | <0.080 D |
| | Fluorene | 0.002 mg/l | N | | <0.080 D | <0.080 D | <0.080 D |
| | Hexachlorobenzene | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Hexachlorobutadiene | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Hexachlorocyclopentadiene | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Hexachloroethane | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Indeno[1,2,3-cd]pyrene | 0.002 mg/l | N | | <0.080 D | <0.080 D | <0.080 D |
| | Isophorone | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Naphthalene | 0.002 mg/l | N | | <0.080 D | <0.080 D | <0.080 D |
| | Nitrobenzene | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | N-Nitroso-di-n-propylamine | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | N-Nitrosodiphenylamine | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Pentachlorophenol | 0.05 mg/l | N | | <2.00 D | <2.00 D | <2.00 D |
| | Phenanthrene | 0.002 mg/l | N | | <0.080 D | <0.080 D | <0.080 D |
| | Phenol | 0.02 mg/l | N | | <0.800 D | <0.800 D | <0.800 D |
| | Pyrene | 0.002 mg/l | N | | <0.080 D | <0.080 D | <0.080 D |
| VOCHSAW | 1,1,1,2-Tetrachloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1,1-Trichloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1,2,2-Tetrachloroethane | 1 µg/l | N | | <1 | <1 | <1 |
| | 1,1,2-Trichloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1-Dichloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1-Dichloroethene | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1-Dichloropropene | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2,3-Trichlorobenzene | 5 µg/l | U | | <5 | <5 | <5 |
| | 1,2,3-Trichloropropane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2,4-Trichlorobenzene | 5 µg/l | U | | <5 | <5 | <5 |
| | 1,2,4-Trimethylbenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2-Dibromo-3-chloropropane | 5 µg/l | U | | <5 | <5 | <5 |
| | 1,2-Dibromoethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2-Dichlorobenzene | 5 µg/l | U | | <5 | <5 | <5 |
| | 1,2-Dichloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2-Dichloropropane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,3,5-Trimethylbenzene | 0.6 µg/l | U | | <0.6 | <0.6 | <0.6 |
| | 1,3-Dichlorobenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,3-Dichloropropane | 1 µg/l | N | | <1 | <1 | <1 |
| | 1,4-Dichlorobenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | 2,2-Dichloropropane | 1 µg/l | N | | <1 | <1 | <1 |
| | 2-Chlorotoluene | 1 µg/l | U | | <1 | <1 | <1 |
| | 4-Chlorotoluene | 1 µg/l | U | | <1 | <1 | <1 |
| | Benzene | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromobenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromochloromethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromodichloromethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromoform | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromomethane | 5 µg/l | N | | <5 | <5 | <5 |
| | Carbon Tetrachloride | 1 µg/l | U | | <1 | <1 | <1 |
| | Chlorobenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | Chloroethane | 5 µg/l | U | | <5 | <5 | <5 |
| | Chloroform | 5 µg/l | U | | <5 | <5 | <5 |
| | Chloromethane | 1 µg/l | U | | <1 | <1 | <1 |
| | cis 1,2-Dichloroethene | 1 µg/l | U | | <1 | <1 | <1 |
| | cis 1,3-Dichloropropene | 1 µg/l | N | | <1 | <1 | <1 |
| | Dibromochloromethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Dibromomethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Dichlorodifluoromethane | 1 µg/l | N | | <1 | <1 | <1 |
| | Ethylbenzene | 0.5 µg/l | U | | <0.5 | <0.5 | <0.5 |
| | Hexachlorobutadiene | 5 µg/l | U | | <5 | <5 | <5 |
| | iso-Propylbenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | m and p-Xylene | 1 µg/l | U | | <1 | <1 | <1 |
| | MTBE | 1 µg/l | N | | <1 | <1 | <1 |

## Project Number: 25083959

**Client:** Silkstone Environmental Ltd
**Date Issued:** 08/09/2025
**Project Name:** Silkstone Environmental ltd - Ten Yards Lane

1252

## Analysis Results

| Method Code | Analysis | MDL | Accred. | SOCOTEC Sample ID: | 25083959-001 | 25083959-002 | 25083959-003 |
|---|---|---|---|---|---|---|---|
| | | | | Sampling Date: | 28/08/2025 12:25 | 28/08/2025 11:32 | 28/08/2025 11:50 |
| | | | | Customer ID: | BH1 | BH2 | BH3 |
| VOCHSAW | Naphthalene | 5 µg/l | U | | <5 | <5 | <5 |
| | n-Butylbenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | o-Xylene | 1 µg/l | U | | <1 | <1 | <1 |
| | p-Isopropyltoluene | 1 µg/l | U | | <1 | <1 | <1 |
| | Propylbenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | sec-Butylbenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | Styrene | 1 µg/l | U | | <1 | <1 | <1 |
| | tert-Butylbenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | Tetrachloroethene | 5 µg/l | U | | <5 | <5 | <5 |
| | Toluene | 1 µg/l | U | | <1 | <1 | <1 |
| | trans 1,2-Dichloroethene | 1 µg/l | U | | <1 | <1 | <1 |
| | trans 1,3-Dichloropropene | 1 µg/l | U | | <1 | <1 | <1 |
| | Trichloroethene | 5 µg/l | U | | <5 | <5 | <5 |
| | Trichlorofluoromethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Vinyl Chloride | 1 µg/l | U | | <1 | <1 | <1 |

## Project Number: 25083959

**Client:** Silkstone Environmental Ltd
**Date Issued:** 08/09/2025
**Project Name:** Silkstone Environmental ltd - Ten Yards Lane

### Deviating Sample Report

All samples received in an appropriate condition with no deviancies noted with the samples.

### Analysis Method

| Method Code | Method Description | Analysis Method |
|---|---|---|
| ICPMSW (Dissolved) | Arsenic (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Cadmium (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Chromium (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Copper (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Lead (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Manganese (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Mercury (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Nickel (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Selenium (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Zinc (Diss.) in Water by ICPMS | Filtered |
| ICPWATVAR (Dissolved) | Boron (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Calcium (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Iron (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Magnesium (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Potassium (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Sodium (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Total Sulphur as SO4 (Diss.) in Water | Filtered |
| ISEF | Fluoride by ISE | Unfiltered |
| KONENS | Ammoniacal Nitrogen as N | Filtered |
| KONENS | Chloride by Colorimetry | Filtered |
| KONENS | Nitrite as N by Colorimetry | Filtered |
| PAHMSW | 16 PAHs by GCMS | Unfiltered |
| PHCONDW | Electrical Conductivity @ 20°C | Unfiltered |
| PHCONDW | pH | Unfiltered |
| SVOCSW | SVOCs (Target List) by GCMS | Unfiltered |
| TOCW | DOC: Dissolved Organic Carbon | Filtered |
| VOCHSAW | VOCs (Target List) by GCMS | Unfiltered |
| WSLM12 | Total Alkalinity as CaCO3 | Unfiltered |
| WSLM27 | TDS: Total Dissolved Solids | Filtered |

## Project Number: 25083959

**Client:** Silkstone Environmental Ltd
**Date Issued:** 08/09/2025
**Project Name:** Silkstone Environmental ltd - Ten Yards Lane

### Result Report Notes

Letters alongside results signify that the result has associated report notes.
The report notes are as follows:

| Letter | Note |
|---|---|
| A | Due to the matrix of the sample the laboratory has had to deviate from our standard protocols to be able to process the sample and provide a result. Where applicable the accreditation has been removed and this should be taken into consideration when utilising the data. |
| B | The QC associated with this result has not wholly met the QMS requirements, the accreditation has therefore been removed. However, the Laboratory has confidence in the performance of the method as a whole and that the integrity of the data has not been significantly compromised. |
| C | Due to matrix interference, the internal standard and/or surrogate has not met the QMS requirements. This should be taken into consideration when utilising the data. |
| D | A non-standard volume or mass has been used for this test which has resulted in a raised detection limit. |
| E | Due to the parameter value being beyond our calibration range (and following the maximum size of dilution allowed, where applicable), the result cannot be quantified and as such the result will appear as a greater than symbol (>) with the accreditation removed. This data should be used for indicative purposes only. |
| F | Based on the sample history, appearance and smell a dilution was applied prior to testing. Unfortunately, the result is either above (>) or below (<) our calibration range. Results above our calibration range have accreditation removed. The data should be used for indicative purposes only. |
| G | The day 5 oxygen reading was below the capability of the instrument to detect, and therefore the calculated BOD has been reported unaccredited for guidance purposes only. |

### HWOL Acronym Key

| Acronym | Description |
|---|---|
| HS | Headspace Analysis |
| EH | Extractable Hydrocarbons - i.e everything extracted by the solvent(s) |
| CU | Clean up - e.g. by florisil, silica gel |
| 1D | GC - Single coil gas chromatography |
| Total | Aliphatics & Aromatics |
| AL | Aliphatics only |
| AR | Aromatics only |
| + | Operator to indicate cumulative e.g. EH_CU+HS_1D_Total |

### SVOCSW - N-Nitrosodiphenylamine

N-Nitrosodiphenylamine decomposes in the GC inlet and cannot be separated from diphenylamine. For this reason we will report a combined result for N-Nitrosodiphenylamine and Diphenylamine.

## Project Number: 25083959

**Client:** Silkstone Environmental Ltd
**Date Issued:** 08/09/2025
**Project Name:** Silkstone Environmental ltd - Ten Yards Lane

### Additional Information

This report refers to samples as received. SOCOTEC UK Ltd takes no responsibility for accuracy or competence of sampling by others.

Results within this report relate only to the samples tested.

The accreditation codes are as follows:

U = UKAS accredited analysis
M = MCERT accredited analysis
N = Unaccredited analysis

Any accreditation marked with ^ signify results are reported on a dry weight basis of 105 ° C.

All Air Dried and Ground Samples (ADG) are oven dried at less than 35° C.

This report shall not be reproduced except in full, without written approval of the laboratory.

Opinions and interpretations given are outside the scope of our UKAS accreditation.

Any results marked with * are not covered by our scope of UKAS accreditation. If applicable, further report notes have been added.

Any solid samples where the Major Constituents are not one of the following (Sand, Silt, Clay, Made Ground) are not one of our accredited matrix types.

Any samples marked with a tick in the deviant table is deviant for the specific reason.

Any samples reported as IS, NA, ND mean the following:

IS = Insufficient Sample to complete analysis
NA = Sample is not amenable for the required analysis
ND = Results cannot be determined

Items listed with a 'SUB' method code prefix have been carried out by another SOCOTEC department or by an external subcontracted laboratory. Further information is available upon request.

Our deviating sample report does not include deviancy information for Subcontracted analysis. Please see the report from the subcontracted lab for information regarding any deviancies for this analysis.

Summaries of analysis methods are available upon request.

## End of Certificate of Analysis

SOCOTEC
Environmental Chemistry

# Certificate of Analysis

**Client:** Silkstone Environmental Ltd

**Project:** 25092768

**Quote:** BEC250842160 V1.1

**Project Ref:** Ten Yards Lane

**Site:** Ten Yards Lane

**Contact:** Richard Drown

**Address:** 7 Hall Annex
Thorncliffe Park
Chapeltown
Sheffield
S35 2PH

**E-Mail:** rdrown@silkstoneenvironmental.co.uk

**Phone:** 0114 257 3433

**No. Samples Received:** 3

**Date Received:** 18/09/2025

**Analysis Completed:** 09/10/2025

**Date Issued:** 09/10/2025

**Report Type:** Version 01

This report supersedes any versions previously issued by the laboratory

Reported by Customer Service Co-Ordinator
Julie Dickinson
01283 204 384
Julie.Dickinson@socotec.co.uk

## Project Number: 25092768

**Client:** Silkstone Environmental Ltd
**Date Issued:** 09/10/2025
**Project Name:** Ten Yards Lane - Ten Yards Lane

### Samples Analysed

| Text ID | Sample Reference | Sampling Date | Sample Type | Sample Description |
|---|---|---|---|---|
| 25092768-001 | BH1 | 16/09/2025 13:35:00 | WATER | Ground Water |
| 25092768-002 | BH2 | 16/09/2025 12:50:00 | WATER | Ground Water |
| 25092768-003 | BH3 | 16/09/2025 13:05:00 | WATER | Ground Water |

## Analysis Results

| Method Code | Analysis | MDL | Accred. | SOCOTEC Sample ID: | 25092768-001 | 25092768-002 | 25092768-003 |
|---|---|---|---|---|---|---|---|
| | | | | Sampling Date: | 16/09/2025 13:35 | 16/09/2025 12:50 | 16/09/2025 13:05 |
| | | | | Customer ID: | BH1 | BH2 | BH3 |
| PHCONDW | pH | 1 pH units | U | | 7.1 | 7.4 | 7.3 |
| PHCONDW | Conductivity at 20°C | 90 µS/cm | U | | 484 | 375 | 163 |
| WSLM12 | Total Alkalinity | 2 mg/l | U | | 238 | 136 | 41.8 |
| WSLM27 | TDS as mg/L | 5 mg/l | N | | 411 | 299 | 133 |
| TOCW | Dissolved Organic Carbon | 0.4 mg/l | U | | 0.65 | 0.66 | 0.98 |
| KONENS | Nitrite as N | 0.01 mg/l | U | | <0.01 | <0.01 | <0.01 |
| KONENS | Ammoniacal Nitrogen as N | 0.01 mg/l | U | | 0.04 | <0.01 | <0.01 |
| KONENS | Chloride as Cl | 1 mg/l | U | | 22 | 21 | 10 |
| ISEF | Fluoride as F | 0.1 mg/l | U | | 0.4 | 0.2 | 0.1 |
| ICPMSW (Dissolved) | Arsenic as As | 0.001 mg/l | U | | <0.001 | <0.001 | <0.001 |
| ICPWATVAR (Dissolved) | Boron as B | 0.01 mg/l | U | | 0.03 | 0.02 | 0.02 |
| ICPMSW (Dissolved) | Cadmium as Cd | 0.00002 mg/l | U | | 0.00004 | 0.00004 | 0.00007 |
| ICPWATVAR (Dissolved) | Calcium as Ca | 1 mg/l | U | | 75 | 55 | 19 |
| ICPMSW (Dissolved) | Total Chromium as Cr | 0.001 mg/l | U | | <0.001 | <0.001 | <0.001 |
| ICPMSW (Dissolved) | Copper as Cu | 0.001 mg/l | U | | <0.001 | <0.001 | <0.001 |
| ICPWATVAR (Dissolved) | Iron as Fe | 0.01 mg/l | U | | <0.01 | <0.01 | <0.01 |
| ICPMSW (Dissolved) | Lead as Pb | 0.0002 mg/l | U | | <0.0002 | <0.0002 | <0.0002 |
| ICPWATVAR (Dissolved) | Magnesium as Mg | 1 mg/l | U | | 25 | 17 | 6 |
| ICPMSW (Dissolved) | Manganese as Mn | 0.002 mg/l | U | | 2.36 | <0.002 | 0.071 |
| ICPMSW (Dissolved) | Mercury as Hg | 0.00003 mg/l | U | | <0.00003 | <0.00003 | <0.00003 |
| ICPMSW (Dissolved) | Nickel as Ni | 0.001 mg/l | U | | 0.002 | <0.001 | <0.001 |
| ICPWATVAR (Dissolved) | Potassium as K | 1 mg/l | U | | 2 | <1 | <1 |
| ICPMSW (Dissolved) | Selenium as Se | 0.001 mg/l | U | | <0.001 | <0.001 | <0.001 |
| ICPWATVAR (Dissolved) | Sodium as Na | 1 mg/l | U | | 12 | 12 | 5 |
| ICPWATVAR (Dissolved) | Total Sulphur as SO4 | 3 mg/l | U | | 39 | 45 | 21 |
| ICPMSW (Dissolved) | Zinc as Zn | 0.002 mg/l | U | | 0.006 | <0.002 | 0.005 |
| PAHMSW | Acenaphthene | 0.01 µg/l | U | | <0.40 D | <0.20 D | <0.20 D |
| | Acenaphthylene | 0.01 µg/l | U | | <0.40 D | <0.20 D | <0.20 D |
| | Anthracene | 0.01 µg/l | U | | <0.40 D | <0.20 D | <0.20 D |
| | Benzo[a]anthracene | 0.01 µg/l | U | | <0.40 D | <0.20 D | <0.20 D |
| | Benzo[a]pyrene | 0.01 µg/l | U | | <0.40 D | <0.20 D | <0.20 D |
| | Benzo[b]fluoranthene | 0.01 µg/l | U | | <0.40 D | <0.20 D | <0.20 D |
| | Benzo[g,h,i]perylene | 0.01 µg/l | U | | <0.40 D | <0.20 D | <0.20 D |
| | Benzo[k]fluoranthene | 0.01 µg/l | U | | <0.40 D | <0.20 D | <0.20 D |
| | Chrysene | 0.01 µg/l | U | | <0.40 D | <0.20 D | <0.20 D |
| | Dibenzo[a,h]anthracene | 0.01 µg/l | U | | <0.40 D | <0.20 D | <0.20 D |
| | Fluoranthene | 0.01 µg/l | U | | <0.40 D | <0.20 D | <0.20 D |
| | Fluorene | 0.01 µg/l | U | | <0.40 D | <0.20 D | <0.20 D |
| | Indeno[1,2,3-cd]pyrene | 0.01 µg/l | U | | <0.40 D | <0.20 D | <0.20 D |
| | Naphthalene | 0.01 µg/l | U | | <0.40 D | <0.20 D | <0.20 D |
| | Phenanthrene | 0.01 µg/l | U | | <0.40 D | <0.20 D | <0.20 D |
| | Pyrene | 0.01 µg/l | U | | <0.40 D | <0.20 D | <0.20 D |
| | Total PAH 16 | 0.16 µg/l | U | | <6.40 D | <3.20 D | <3.20 D |
| SVOCSW | 1,2,4-Trichlorobenzene | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | 1,2-Dichlorobenzene | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | 1,3-Dichlorobenzene | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | 1,4-Dichlorobenzene | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | 1-Methylnaphthalene | 0.002 mg/l | N | | <0.400 D | <0.080 D | <0.080 D |
| | 2,4,5-Trichlorophenol | 0.02 mg/l | N | | <4.00 D | <0.800 D | <0.800 D |
| | 2,4,6-Trichlorophenol | 0.02 mg/l | N | | <4.00 D | <0.800 D | <0.800 D |
| | 2,4-Dichlorophenol | 0.02 mg/l | N | | <4.00 D | <0.800 D | <0.800 D |
| | 2,4-Dimethylphenol | 0.02 mg/l | N | | <4.00 D | <0.800 D | <0.800 D |
| | 2,4-Dinitrophenol | 0.01 mg/l | N | | <2.00 D | <0.400 D | <0.400 D |
| | 2,4-Dinitrotoluene | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | 2,6-Dinitrotoluene | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | 2-Chloronaphthalene | 0.002 mg/l | N | | <0.400 D | <0.080 D | <0.080 D |
| | 2-Chlorophenol | 0.02 mg/l | N | | <4.00 D | <0.800 D | <0.800 D |
| | 2-Methylnaphthalene | 0.002 mg/l | N | | <0.400 D | <0.080 D | <0.080 D |
| | 2-Methylphenol | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | 2-Nitroaniline | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | 2-Nitrophenol | 0.02 mg/l | N | | <4.00 D | <0.800 D | <0.800 D |
| | 3- & 4-Methylphenol | 0.02 mg/l | N | | <4.00 D | <0.800 D | <0.800 D |
| | 3-Nitroaniline | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | 4,6-Dinitro-2-methylphenol | 0.05 mg/l | N | | <10.0 D | <2.00 D | <2.00 D |
| | 4-Bromophenyl-phenylether | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | 4-Chloro-3-methylphenol | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | 4-Chloroaniline | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | 4-Chlorophenol | 0.02 mg/l | N | | <4.00 D | <0.800 D | <0.800 D |
| | 4-Chlorophenyl-phenylether | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | 4-Nitroaniline | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | 4-Nitrophenol | 0.05 mg/l | N | | <10.0 D | <2.00 D | <2.00 D |
| | Acenaphthene | 0.002 mg/l | N | | <0.400 D | <0.080 D | <0.080 D |
| | Acenaphthylene | 0.002 mg/l | N | | <0.400 D | <0.080 D | <0.080 D |
| | Anthracene | 0.002 mg/l | N | | <0.400 D | <0.080 D | <0.080 D |
| | Azobenzene | 0.01 mg/l | N | | <2.00 D | <0.400 D | <0.400 D |
| | Benzo[a]anthracene | 0.002 mg/l | N | | <0.400 D | <0.080 D | <0.080 D |
| | Benzo[a]pyrene | 0.002 mg/l | N | | <0.400 D | <0.080 D | <0.080 D |
| | Benzo[b]fluoranthene | 0.002 mg/l | N | | <0.400 D | <0.080 D | <0.080 D |
| | Benzo[g,h,i]perylene | 0.002 mg/l | N | | <0.400 D | <0.080 D | <0.080 D |

## Analysis Results

| Method Code | Analysis | MDL | Accred. | SOCOTEC Sample ID: | 25092768-001 | 25092768-002 | 25092768-003 |
|---|---|---|---|---|---|---|---|
| | | | | Sampling Date: | 16/09/2025 13:35 | 16/09/2025 12:50 | 16/09/2025 13:05 |
| | | | | Customer ID: | BH1 | BH2 | BH3 |
| SVOCSW | Benzo[k]fluoranthene | 0.002 mg/l | N | | <0.400 D | <0.080 D | <0.080 D |
| | Benzoic Acid | 0.1 mg/l | N | | <20.0 D | <4.00 D | <4.00 D |
| | Benzyl alcohol | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | Biphenyl | 0.002 mg/l | N | | <0.400 D | <0.080 D | <0.080 D |
| | bis(2-Chloroethoxy)methane | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | bis(2-Chloroethyl)ether | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | bis(2-Chloroisopropyl)ether | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | bis(2-Ethylhexyl)phthalate | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | Butylbenzylphthalate | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | Carbazole | 0.01 mg/l | N | | <2.00 D | <0.400 D | <0.400 D |
| | Chrysene | 0.002 mg/l | N | | <0.400 D | <0.080 D | <0.080 D |
| | Coronene | 0.05 mg/l | N | | <10.0 D | <2.00 D | <2.00 D |
| | Dibenzo[a,h]anthracene | 0.002 mg/l | N | | <0.400 D | <0.080 D | <0.080 D |
| | Dibenzofuran | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | Diethylphthalate | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | Dimethylphthalate | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | Di-n-butylphthalate | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | Di-n-octylphthalate | 0.002 mg/l | N | | <0.400 D | <0.080 D | <0.080 D |
| | Diphenyl ether | 0.002 mg/l | N | | <0.400 D | <0.080 D | <0.080 D |
| | Fluoranthene | 0.002 mg/l | N | | <0.400 D | <0.080 D | <0.080 D |
| | Fluorene | 0.002 mg/l | N | | <0.400 D | <0.080 D | <0.080 D |
| | Hexachlorobenzene | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | Hexachlorobutadiene | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | Hexachlorocyclopentadiene | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | Hexachloroethane | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | Indeno[1,2,3-cd]pyrene | 0.002 mg/l | N | | <0.400 D | <0.080 D | <0.080 D |
| | Isophorone | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | Naphthalene | 0.002 mg/l | N | | <0.400 D | <0.080 D | <0.080 D |
| | Nitrobenzene | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | N-Nitroso-di-n-propylamine | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | N-Nitrosodiphenylamine | 0.005 mg/l | N | | <1.00 D | <0.200 D | <0.200 D |
| | Pentachlorophenol | 0.05 mg/l | N | | <10.0 D | <2.00 D | <2.00 D |
| | Phenanthrene | 0.002 mg/l | N | | <0.400 D | <0.080 D | <0.080 D |
| | Phenol | 0.02 mg/l | N | | <4.00 D | <0.800 D | <0.800 D |
| | Pyrene | 0.002 mg/l | N | | <0.400 D | <0.080 D | <0.080 D |
| VOCHSAW | 1,1,1,2-Tetrachloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1,1-Trichloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1,2,2-Tetrachloroethane | 1 µg/l | N | | <1 | <1 | <1 |
| | 1,1,2-Trichloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1-Dichloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1-Dichloroethene | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1-Dichloropropene | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2,3-Trichlorobenzene | 5 µg/l | U | | <5 | <5 | <5 |
| | 1,2,3-Trichloropropane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2,4-Trichlorobenzene | 5 µg/l | U | | <5 | <5 | <5 |
| | 1,2,4-Trimethylbenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2-Dibromo-3-chloropropane | 5 µg/l | U | | <5 | <5 | <5 |
| | 1,2-Dibromoethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2-Dichlorobenzene | 5 µg/l | U | | <5 | <5 | <5 |
| | 1,2-Dichloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2-Dichloropropane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,3,5-Trimethylbenzene | 0.6 µg/l | U | | <0.6 | <0.6 | <0.6 |
| | 1,3-Dichlorobenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,3-Dichloropropane | 1 µg/l | N | | <1 | <1 | <1 |
| | 1,4-Dichlorobenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | 2,2-Dichloropropane | 1 µg/l | N | | <1 | <1 | <1 |
| | 2-Chlorotoluene | 1 µg/l | U | | <1 | <1 | <1 |
| | 4-Chlorotoluene | 1 µg/l | U | | <1 | <1 | <1 |
| | Benzene | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromobenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromochloromethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromodichloromethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromoform | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromomethane | 5 µg/l | N | | <5 | <5 | <5 |
| | Carbon Tetrachloride | 1 µg/l | U | | <1 | <1 | <1 |
| | Chlorobenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | Chloroethane | 5 µg/l | U | | <5 | <5 | <5 |
| | Chloroform | 5 µg/l | U | | <5 | <5 | <5 |
| | Chloromethane | 1 µg/l | U | | <1 | <1 | <1 |
| | cis 1,2-Dichloroethene | 1 µg/l | U | | <1 | <1 | <1 |
| | cis 1,3-Dichloropropene | 1 µg/l | N | | <1 | <1 | <1 |
| | Dibromochloromethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Dibromomethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Dichlorodifluoromethane | 1 µg/l | N | | <1 | <1 | <1 |
| | Ethylbenzene | 0.5 µg/l | U | | <0.5 | <0.5 | <0.5 |
| | Hexachlorobutadiene | 5 µg/l | U | | <5 | <5 | <5 |
| | iso-Propylbenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | m and p-Xylene | 1 µg/l | U | | <1 | <1 | <1 |
| | MTBE | 1 µg/l | N | | <1 | <1 | <1 |

## Project Number: 25092768

**Client:** Silkstone Environmental Ltd
**Date Issued:** 09/10/2025
**Project Name:** Ten Yards Lane - Ten Yards Lane

UKAS TESTING 1252

## Analysis Results

| Method Code | Analysis | MDL | Accred. | SOCOTEC Sample ID: | 25092768-001 | 25092768-002 | 25092768-003 |
|---|---|---|---|---|---|---|---|
| | | | | Sampling Date: | 16/09/2025 13:35 | 16/09/2025 12:50 | 16/09/2025 13:05 |
| | | | | Customer ID: | BH1 | BH2 | BH3 |
| VOCHSAW | Naphthalene | 5 µg/l | U | | <5 | <5 | <5 |
| | n-Butylbenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | o-Xylene | 1 µg/l | U | | <1 | <1 | <1 |
| | p-Isopropyltoluene | 1 µg/l | U | | <1 | <1 | <1 |
| | Propylbenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | sec-Butylbenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | Styrene | 1 µg/l | U | | <1 | <1 | <1 |
| | tert-Butylbenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | Tetrachloroethene | 5 µg/l | U | | <5 | <5 | <5 |
| | Toluene | 1 µg/l | U | | <1 | <1 | <1 |
| | trans 1,2-Dichloroethene | 1 µg/l | U | | <1 | <1 | <1 |
| | trans 1,3-Dichloropropene | 1 µg/l | U | | <1 | <1 | <1 |
| | Trichloroethene | 5 µg/l | U | | <5 | <5 | <5 |
| | Trichlorofluoromethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Vinyl Chloride | 1 µg/l | U | | <1 | <1 | <1 |

## Project Number: 25092768

**Client:** Silkstone Environmental Ltd
**Date Issued:** 09/10/2025
**Project Name:** Ten Yards Lane - Ten Yards Lane

### Deviating Sample Report

All samples received in an appropriate condition with no deviancies noted with the samples.

### Analysis Method

| Method Code | Method Description | Analysis Method |
|---|---|---|
| ICPMSW (Dissolved) | Arsenic (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Cadmium (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Chromium (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Copper (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Lead (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Manganese (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Mercury (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Nickel (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Selenium (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Zinc (Diss.) in Water by ICPMS | Filtered |
| ICPWATVAR (Dissolved) | Boron (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Calcium (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Iron (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Magnesium (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Potassium (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Sodium (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Total Sulphur as SO4 (Diss.) in Water | Filtered |
| ISEF | Fluoride by ISE | Unfiltered |
| KONENS | Ammoniacal Nitrogen as N | Filtered |
| KONENS | Chloride by Colorimetry | Filtered |
| KONENS | Nitrite as N by Colorimetry | Filtered |
| PAHMSW | 16 PAHs by GCMS | Unfiltered |
| PHCONDW | Electrical Conductivity @ 20°C | Unfiltered |
| PHCONDW | pH | Unfiltered |
| SVOCSW | SVOCs (Target List) by GCMS | Unfiltered |
| TOCW | DOC: Dissolved Organic Carbon | Filtered |
| VOCHSAW | VOCs (Target List) by GCMS | Unfiltered |
| WSLM12 | Total Alkalinity as CaCO3 | Unfiltered |
| WSLM27 | TDS: Total Dissolved Solids | Filtered |

## Project Number: 25092768

**Client:** Silkstone Environmental Ltd
**Date Issued:** 09/10/2025
**Project Name:** Ten Yards Lane - Ten Yards Lane

### Result Report Notes

Letters alongside results signify that the result has associated report notes.
The report notes are as follows:

| Letter | Note |
|---|---|
| A | Due to the matrix of the sample the laboratory has had to deviate from our standard protocols to be able to process the sample and provide a result. Where applicable the accreditation has been removed and this should be taken into consideration when utilising the data. |
| B | The QC associated with this result has not wholly met the QMS requirements, the accreditation has therefore been removed. However, the Laboratory has confidence in the performance of the method as a whole and that the integrity of the data has not been significantly compromised. |
| C | Due to matrix interference, the internal standard and/or surrogate has not met the QMS requirements. This should be taken into consideration when utilising the data. |
| D | A non-standard volume or mass has been used for this test which has resulted in a raised detection limit. |
| E | Due to the parameter value being beyond our calibration range (and following the maximum size of dilution allowed, where applicable), the result cannot be quantified and as such the result will appear as a greater than symbol (>) with the accreditation removed. This data should be used for indicative purposes only. |
| F | Based on the sample history, appearance and smell a dilution was applied prior to testing. Unfortunately, the result is either above (>) or below (<) our calibration range. Results above our calibration range have accreditation removed. The data should be used for indicative purposes only. |
| G | The day 5 oxygen reading was below the capability of the instrument to detect, and therefore the calculated BOD has been reported unaccredited for guidance purposes only. |

### HWOL Acronym Key

| Acronym | Description |
|---|---|
| HS | Headspace Analysis |
| EH | Extractable Hydrocarbons - i.e everything extracted by the solvent(s) |
| CU | Clean up - e.g. by florisil, silica gel |
| 1D | GC - Single coil gas chromatography |
| Total | Aliphatics & Aromatics |
| AL | Aliphatics only |
| AR | Aromatics only |
| + | Operator to indicate cumulative e.g. EH_CU+HS_1D_Total |

### SVOCSW - N-Nitrosodiphenylamine

N-Nitrosodiphenylamine decomposes in the GC inlet and cannot be separated from diphenylamine. For this reason we will report a combined result for N-Nitrosodiphenylamine and Diphenylamine.

## Project Number: 25092768

**Client:** Silkstone Environmental Ltd
**Date Issued:** 09/10/2025
**Project Name:** Ten Yards Lane - Ten Yards Lane

### Additional Information

This report refers to samples as received. SOCOTEC UK Ltd takes no responsibility for accuracy or competence of sampling by others.

Results within this report relate only to the samples tested.

The accreditation codes are as follows:

U = UKAS accredited analysis
M = MCERT accredited analysis
N = Unaccredited analysis

Any accreditation marked with ^ signify results are reported on a dry weight basis of 105 ° C.

All Air Dried and Ground Samples (ADG) are oven dried at less than 35° C.

This report shall not be reproduced except in full, without written approval of the laboratory.

Opinions and interpretations given are outside the scope of our UKAS accreditation.

Any results marked with * are not covered by our scope of UKAS accreditation. If applicable, further report notes have been added.

Any solid samples where the Major Constituents are not one of the following (Sand, Silt, Clay, Made Ground) are not one of our accredited matrix types.

Any samples marked with a tick in the deviant table is deviant for the specific reason.

Any samples reported as IS, NA, ND mean the following:

IS = Insufficient Sample to complete analysis
NA = Sample is not amenable for the required analysis
ND = Results cannot be determined

Items listed with a 'SUB' method code prefix have been carried out by another SOCOTEC department or by an external subcontracted laboratory. Further information is available upon request.

Our deviating sample report does not include deviancy information for Subcontracted analysis. Please see the report from the subcontracted lab for information regarding any deviancies for this analysis.

Summaries of analysis methods are available upon request.

## End of Certificate of Analysis

SOCOTEC
Environmental Chemistry

# Certificate of Analysis

**Client:** Silkstone Environmental Ltd

**Project:** 25103439

**Quote:** BEC250842160 V1.1

**Project Ref:** Scheduled Samples 10-2025

**Site:** Ten Yards Lane

**Contact:** Richard Drown

**Address:** 7 Hall Annex
Thorncliffe Park
Chapeltown
Sheffield
S35 2PH

**E-Mail:** rdrown@silkstoneenvironmental.co.uk

**Phone:** 0114 257 3433

**No. Samples Received:** 3

**Date Received:** 23/10/2025

**Analysis Completed:** 04/11/2025

**Date Issued:** 04/11/2025

**Report Type:** Version 01

This report supersedes any versions previously issued by the laboratory

Reported by Account Manager
Lucy Bailey

Lucy.Bailey@socotec.co.uk

## Project Number: 25103439

**Client:** Silkstone Environmental Ltd
**Date Issued:** 04/11/2025
**Project Name:** Scheduled Samples 10-2025 - Ten Yards Lane

### Samples Analysed

| Text ID | Sample Reference | Sampling Date | Sample Type | Sample Description |
|---|---|---|---|---|
| 25103439-001 | BH1 | 21/10/2025 13:00:00 | WATER | Ground Water |
| 25103439-002 | BH2 | 21/10/2025 11:35:00 | WATER | Ground Water |
| 25103439-003 | BH3 | 21/10/2025 12:00:00 | WATER | Ground Water |

## Analysis Results

| Method Code | Analysis | MDL | Accred. | SOCOTEC Sample ID: | 25103439-001 | 25103439-002 | 25103439-003 |
|---|---|---|---|---|---|---|---|
| | | | | Sampling Date: | 21/10/2025 13:00 | 21/10/2025 11:35 | 21/10/2025 12:00 |
| | | | | Customer ID: | BH1 | BH2 | BH3 |
| PHCONDW | pH | 1 pH units | U | | 7.1 | 7.5 | 6.9 |
| PHCONDW | Conductivity at 20°C | 90 µS/cm | U | | 576 | 261 | 131 |
| WSLM12 | Total Alkalinity | 2 mg/l | U | | 198 | 61.8 | 29.2 |
| WSLM27 | TDS as mg/L | 5 mg/l | N | | 385 | 197 | <5 |
| TOCW | Dissolved Organic Carbon | 0.4 mg/l | U | | 1.27 | 2.09 | 1.23 |
| KONENS | Nitrite as N | 0.01 mg/l | U | | <0.01 | <0.01 | <0.01 |
| KONENS | Ammoniacal Nitrogen as N | 0.01 mg/l | U | | 0.01 | <0.01 | <0.01 |
| KONENS | Chloride as Cl | 1 mg/l | U | | 52 | 11 | 5 |
| ISEF | Fluoride as F | 0.1 mg/l | U | | 0.3 | 0.1 | 0.1 |
| ICPMSW (Dissolved) | Arsenic as As | 0.001 mg/l | U | | <0.001 | <0.001 | <0.001 |
| ICPWATVAR (Dissolved) | Boron as B | 0.01 mg/l | U | | 0.03 | 0.03 | 0.02 |
| ICPMSW (Dissolved) | Cadmium as Cd | 0.00002 mg/l | U | | 0.00030 | 0.00003 | <0.00002 |
| ICPWATVAR (Dissolved) | Calcium as Ca | 1 mg/l | U | | 71 | 32 | 15 |
| ICPMSW (Dissolved) | Total Chromium as Cr | 0.001 mg/l | U | | <0.001 | <0.001 | <0.001 |
| ICPMSW (Dissolved) | Copper as Cu | 0.001 mg/l | U | | <0.001 | 0.001 | <0.001 |
| ICPWATVAR (Dissolved) | Iron as Fe | 0.01 mg/l | U | | <0.01 | <0.01 | <0.01 |
| ICPMSW (Dissolved) | Lead as Pb | 0.0002 mg/l | U | | <0.0002 | <0.0002 | <0.0002 |
| ICPWATVAR (Dissolved) | Magnesium as Mg | 1 mg/l | U | | 19 | 11 | 5 |
| ICPMSW (Dissolved) | Manganese as Mn | 0.002 mg/l | U | | 0.752 | <0.002 | 0.003 |
| ICPMSW (Dissolved) | Mercury as Hg | 0.00003 mg/l | U | | <0.00003 | <0.00003 | <0.00003 |
| ICPMSW (Dissolved) | Nickel as Ni | 0.001 mg/l | U | | 0.002 | <0.001 | <0.001 |
| ICPWATVAR (Dissolved) | Potassium as K | 1 mg/l | U | | 2 | 1 | <1 |
| ICPMSW (Dissolved) | Selenium as Se | 0.001 mg/l | U | | <0.001 | <0.001 | <0.001 |
| ICPWATVAR (Dissolved) | Sodium as Na | 1 mg/l | U | | 36 | 8 | 5 |
| ICPWATVAR (Dissolved) | Total Sulphur as SO4 | 3 mg/l | U | | 59 | 42 | 19 |
| ICPMSW (Dissolved) | Zinc as Zn | 0.002 mg/l | U | | 0.007 | <0.002 | <0.002 |
| PAHMSW | Acenaphthene | 0.01 µg/l | U | | <0.40 ▫ | <0.20 ▫ | <0.20 ▫ |
| | Acenaphthylene | 0.01 µg/l | U | | <0.40 ▫ | <0.20 ▫ | <0.20 ▫ |
| | Anthracene | 0.01 µg/l | U | | <0.40 ▫ | <0.20 ▫ | <0.20 ▫ |
| | Benzo[a]anthracene | 0.01 µg/l | U | | <0.40 ▫ | <0.20 ▫ | <0.20 ▫ |
| | Benzo[a]pyrene | 0.01 µg/l | U | | <0.40 ▫ | <0.20 ▫ | <0.20 ▫ |
| | Benzo[b]fluoranthene | 0.01 µg/l | U | | <0.40 ▫ | <0.20 ▫ | <0.20 ▫ |
| | Benzo[g,h,i]perylene | 0.01 µg/l | U | | <0.40 ▫ | <0.20 ▫ | <0.20 ▫ |
| | Benzo[k]fluoranthene | 0.01 µg/l | U | | <0.40 ▫ | <0.20 ▫ | <0.20 ▫ |
| | Chrysene | 0.01 µg/l | U | | <0.40 ▫ | <0.20 ▫ | <0.20 ▫ |
| | Dibenzo[a,h]anthracene | 0.01 µg/l | U | | <0.40 ▫ | <0.20 ▫ | <0.20 ▫ |
| | Fluoranthene | 0.01 µg/l | U | | <0.40 ▫ | <0.20 ▫ | <0.20 ▫ |
| | Fluorene | 0.01 µg/l | U | | <0.40 ▫ | <0.20 ▫ | <0.20 ▫ |
| | Indeno[1,2,3-cd]pyrene | 0.01 µg/l | U | | <0.40 ▫ | <0.20 ▫ | <0.20 ▫ |
| | Naphthalene | 0.01 µg/l | U | | <0.40 ▫ | <0.20 ▫ | 0.22 |
| | Phenanthrene | 0.01 µg/l | U | | 0.63 | <0.20 ▫ | <0.20 ▫ |
| | Pyrene | 0.01 µg/l | U | | <0.40 ▫ | <0.20 ▫ | <0.20 ▫ |
| | Total PAH 16 | 0.16 µg/l | U | | 6.63 | <3.20 ▫ | 3.22 |
| SVOCSW | 1,2,4-Trichlorobenzene | 0.005 mg/l | N | | <0.200 ▫ | <0.200 ▫ | <0.200 ▫ |
| | 1,2-Dichlorobenzene | 0.005 mg/l | N | | <0.200 ▫ | <0.200 ▫ | <0.200 ▫ |
| | 1,3-Dichlorobenzene | 0.005 mg/l | N | | <0.200 ▫ | <0.200 ▫ | <0.200 ▫ |
| | 1,4-Dichlorobenzene | 0.005 mg/l | N | | <0.200 ▫ | <0.200 ▫ | <0.200 ▫ |
| | 1-Methylnaphthalene | 0.002 mg/l | N | | <0.080 ▫ | <0.080 ▫ | <0.080 ▫ |
| | 2,4,5-Trichlorophenol | 0.02 mg/l | N | | <0.800 ▫ | <0.800 ▫ | <0.800 ▫ |
| | 2,4,6-Trichlorophenol | 0.02 mg/l | N | | <0.800 ▫ | <0.800 ▫ | <0.800 ▫ |
| | 2,4-Dichlorophenol | 0.02 mg/l | N | | <0.800 ▫ | <0.800 ▫ | <0.800 ▫ |
| | 2,4-Dimethylphenol | 0.02 mg/l | N | | <0.800 ▫ | <0.800 ▫ | <0.800 ▫ |
| | 2,4-Dinitrophenol | 0.01 mg/l | N | | <0.400 ▫ | <0.400 ▫ | <0.400 ▫ |
| | 2,4-Dinitrotoluene | 0.005 mg/l | N | | <0.200 ▫ | <0.200 ▫ | <0.200 ▫ |
| | 2,6-Dinitrotoluene | 0.005 mg/l | N | | <0.200 ▫ | <0.200 ▫ | <0.200 ▫ |
| | 2-Chloronaphthalene | 0.002 mg/l | N | | <0.080 ▫ | <0.080 ▫ | <0.080 ▫ |
| | 2-Chlorophenol | 0.02 mg/l | N | | <0.800 ▫ | <0.800 ▫ | <0.800 ▫ |
| | 2-Methylnaphthalene | 0.002 mg/l | N | | <0.080 ▫ | <0.080 ▫ | <0.080 ▫ |
| | 2-Methylphenol | 0.005 mg/l | N | | <0.200 ▫ | <0.200 ▫ | <0.200 ▫ |
| | 2-Nitroaniline | 0.005 mg/l | N | | <0.200 ▫ | <0.200 ▫ | <0.200 ▫ |
| | 2-Nitrophenol | 0.02 mg/l | N | | <0.800 ▫ | <0.800 ▫ | <0.800 ▫ |
| | 3- & 4-Methylphenol | 0.02 mg/l | N | | <0.800 ▫ | <0.800 ▫ | <0.800 ▫ |
| | 3-Nitroaniline | 0.005 mg/l | N | | <0.200 ▫ | <0.200 ▫ | <0.200 ▫ |
| | 4,6-Dinitro-2-methylphenol | 0.05 mg/l | N | | <2.00 ▫ | <2.00 ▫ | <2.00 ▫ |
| | 4-Bromophenyl-phenylether | 0.005 mg/l | N | | <0.200 ▫ | <0.200 ▫ | <0.200 ▫ |
| | 4-Chloro-3-methylphenol | 0.005 mg/l | N | | <0.200 ▫ | <0.200 ▫ | <0.200 ▫ |
| | 4-Chloroaniline | 0.005 mg/l | N | | <0.200 ▫ | <0.200 ▫ | <0.200 ▫ |
| | 4-Chlorophenol | 0.02 mg/l | N | | <0.800 ▫ | <0.800 ▫ | <0.800 ▫ |
| | 4-Chlorophenyl-phenylether | 0.005 mg/l | N | | <0.200 ▫ | <0.200 ▫ | <0.200 ▫ |
| | 4-Nitroaniline | 0.005 mg/l | N | | <0.200 ▫ | <0.200 ▫ | <0.200 ▫ |
| | 4-Nitrophenol | 0.05 mg/l | N | | <2.00 ▫ | <2.00 ▫ | <2.00 ▫ |
| | Acenaphthene | 0.002 mg/l | N | | <0.080 ▫ | <0.080 ▫ | <0.080 ▫ |
| | Acenaphthylene | 0.002 mg/l | N | | <0.080 ▫ | <0.080 ▫ | <0.080 ▫ |
| | Anthracene | 0.002 mg/l | N | | <0.080 ▫ | <0.080 ▫ | <0.080 ▫ |
| | Azobenzene | 0.01 mg/l | N | | <0.400 ▫ | <0.400 ▫ | <0.400 ▫ |
| | Benzo[a]anthracene | 0.002 mg/l | N | | <0.080 ▫ | <0.080 ▫ | <0.080 ▫ |
| | Benzo[a]pyrene | 0.002 mg/l | N | | <0.080 ▫ | <0.080 ▫ | <0.080 ▫ |
| | Benzo[b]fluoranthene | 0.002 mg/l | N | | <0.080 ▫ | <0.080 ▫ | <0.080 ▫ |
| | Benzo[g,h,i]perylene | 0.002 mg/l | N | | <0.080 ▫ | <0.080 ▫ | <0.080 ▫ |

## Analysis Results

| Method Code | Analysis | MDL | Accred. | SOCOTEC Sample ID: | 25103439-001 | 25103439-002 | 25103439-003 |
|---|---|---|---|---|---|---|---|
| | | | | Sampling Date: | 21/10/2025 13:00 | 21/10/2025 11:35 | 21/10/2025 12:00 |
| | | | | Customer ID: | BH1 | BH2 | BH3 |
| SVOCSW | Benzo[k]fluoranthene | 0.002 mg/l | N | | <0.080 D | <0.080 D | <0.080 D |
| | Benzoic Acid | 0.1 mg/l | N | | <4.00 D | <4.00 D | <4.00 D |
| | Benzyl alcohol | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Biphenyl | 0.002 mg/l | N | | <0.080 D | <0.080 D | <0.080 D |
| | bis(2-Chloroethoxy)methane | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | bis(2-Chloroethyl)ether | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | bis(2-Chloroisopropyl)ether | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | bis(2-Ethylhexyl)phthalate | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Butylbenzylphthalate | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Carbazole | 0.01 mg/l | N | | <0.400 D | <0.400 D | <0.400 D |
| | Chrysene | 0.002 mg/l | N | | <0.080 D | <0.080 D | <0.080 D |
| | Coronene | 0.05 mg/l | N | | <2.00 D | <2.00 D | <2.00 D |
| | Dibenzo[a,h]anthracene | 0.002 mg/l | N | | <0.080 D | <0.080 D | <0.080 D |
| | Dibenzofuran | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Diethylphthalate | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Dimethylphthalate | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Di-n-butylphthalate | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Di-n-octylphthalate | 0.002 mg/l | N | | <0.080 D | <0.080 D | <0.080 D |
| | Diphenyl ether | 0.002 mg/l | N | | <0.080 D | <0.080 D | <0.080 D |
| | Fluoranthene | 0.002 mg/l | N | | <0.080 D | <0.080 D | <0.080 D |
| | Fluorene | 0.002 mg/l | N | | <0.080 D | <0.080 D | <0.080 D |
| | Hexachlorobenzene | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Hexachlorobutadiene | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Hexachlorocyclopentadiene | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Hexachloroethane | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Indeno[1,2,3-cd]pyrene | 0.002 mg/l | N | | <0.080 D | <0.080 D | <0.080 D |
| | Isophorone | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Naphthalene | 0.002 mg/l | N | | <0.080 D | <0.080 D | <0.080 D |
| | Nitrobenzene | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | N-Nitroso-di-n-propylamine | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | N-Nitrosodiphenylamine | 0.005 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Pentachlorophenol | 0.05 mg/l | N | | <2.00 D | <2.00 D | <2.00 D |
| | Phenanthrene | 0.002 mg/l | N | | <0.080 D | <0.080 D | <0.080 D |
| | Phenol | 0.02 mg/l | N | | <0.800 D | <0.800 D | <0.800 D |
| | Pyrene | 0.002 mg/l | N | | <0.080 D | <0.080 D | <0.080 D |
| VOCHSAW | 1,1,1,2-Tetrachloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1,1-Trichloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1,2,2-Tetrachloroethane | 1 µg/l | N | | <1 | <1 | <1 |
| | 1,1,2-Trichloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1-Dichloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1-Dichloroethene | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1-Dichloropropene | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2,3-Trichlorobenzene | 5 µg/l | U | | <5 | <5 | <5 |
| | 1,2,3-Trichloropropane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2,4-Trichlorobenzene | 5 µg/l | U | | <5 | <5 | <5 |
| | 1,2,4-Trimethylbenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2-Dibromo-3-chloropropane | 5 µg/l | U | | <5 | <5 | <5 |
| | 1,2-Dibromoethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2-Dichlorobenzene | 5 µg/l | U | | <5 | <5 | <5 |
| | 1,2-Dichloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2-Dichloropropane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,3,5-Trimethylbenzene | 0.6 µg/l | U | | <0.6 | <0.6 | <0.6 |
| | 1,3-Dichlorobenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,3-Dichloropropane | 1 µg/l | N | | <1 | <1 | <1 |
| | 1,4-Dichlorobenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | 2,2-Dichloropropane | 1 µg/l | N | | <1 | <1 | <1 |
| | 2-Chlorotoluene | 1 µg/l | U | | <1 | <1 | <1 |
| | 4-Chlorotoluene | 1 µg/l | U | | <1 | <1 | <1 |
| | Benzene | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromobenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromochloromethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromodichloromethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromoform | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromomethane | 5 µg/l | N | | <5 | <5 | <5 |
| | Carbon Tetrachloride | 1 µg/l | U | | <1 | <1 | <1 |
| | Chlorobenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | Chloroethane | 5 µg/l | U | | <5 | <5 | <5 |
| | Chloroform | 5 µg/l | U | | <5 | <5 | <5 |
| | Chloromethane | 1 µg/l | U | | <1 | <1 | <1 |
| | cis 1,2-Dichloroethene | 1 µg/l | U | | <1 | <1 | <1 |
| | cis 1,3-Dichloropropene | 1 µg/l | N | | <1 | <1 | <1 |
| | Dibromochloromethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Dibromomethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Dichlorodifluoromethane | 1 µg/l | N | | <1 | <1 | <1 |
| | Ethylbenzene | 0.5 µg/l | U | | <0.5 | <0.5 | <0.5 |
| | Hexachlorobutadiene | 5 µg/l | U | | <5 | <5 | <5 |
| | iso-Propylbenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | m and p-Xylene | 1 µg/l | U | | <1 | <1 | 2 |
| | MTBE | 1 µg/l | N | | <1 | <1 | <1 |

## Project Number: 25103439

**Client:** Silkstone Environmental Ltd
**Date Issued:** 04/11/2025
**Project Name:** Scheduled Samples 10-2025 - Ten Yards Lane

UKAS TESTING 1252

## Analysis Results

| Method Code | Analysis | MDL | Accred. | SOCOTEC Sample ID: 25103439-001 / Sampling Date: 21/10/2025 13:00 / Customer ID: BH1 | 25103439-002 / 21/10/2025 11:35 / BH2 | 25103439-003 / 21/10/2025 12:00 / BH3 |
|---|---|---|---|---|---|---|
| VOCHSAW | Naphthalene | 5 µg/l | U | <5 | <5 | <5 |
| | n-Butylbenzene | 1 µg/l | U | <1 | <1 | <1 |
| | o-Xylene | 1 µg/l | U | <1 | <1 | <1 |
| | p-Isopropyltoluene | 1 µg/l | U | <1 | <1 | <1 |
| | Propylbenzene | 1 µg/l | U | <1 | <1 | <1 |
| | sec-Butylbenzene | 1 µg/l | U | <1 | <1 | <1 |
| | Styrene | 1 µg/l | U | <1 | <1 | <1 |
| | tert-Butylbenzene | 1 µg/l | U | <1 | <1 | <1 |
| | Tetrachloroethene | 5 µg/l | U | <5 | <5 | <5 |
| | Toluene | 1 µg/l | U | <1 | <1 | 1 |
| | trans 1,2-Dichloroethene | 1 µg/l | U | <1 | <1 | <1 |
| | trans 1,3-Dichloropropene | 1 µg/l | U | <1 | <1 | <1 |
| | Trichloroethene | 5 µg/l | U | <5 | <5 | <5 |
| | Trichlorofluoromethane | 1 µg/l | U | <1 | <1 | <1 |
| | Vinyl Chloride | 1 µg/l | U | <1 | <1 | <1 |

## Project Number: 25103439

**Client:** Silkstone Environmental Ltd
**Date Issued:** 04/11/2025
**Project Name:** Scheduled Samples 10-2025 - Ten Yards Lane

### Deviating Sample Report

All samples received in an appropriate condition with no deviancies noted with the samples.

### Analysis Method

| Method Code | Method Description | Analysis Method |
|---|---|---|
| ICPMSW (Dissolved) | Arsenic (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Cadmium (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Chromium (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Copper (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Lead (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Manganese (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Mercury (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Nickel (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Selenium (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Zinc (Diss.) in Water by ICPMS | Filtered |
| ICPWATVAR (Dissolved) | Boron (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Calcium (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Iron (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Magnesium (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Potassium (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Sodium (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Total Sulphur as SO4 (Diss.) in Water | Filtered |
| ISEF | Fluoride by ISE | Unfiltered |
| KONENS | Ammoniacal Nitrogen as N | Filtered |
| KONENS | Chloride by Colorimetry | Filtered |
| KONENS | Nitrite as N by Colorimetry | Filtered |
| PAHMSW | 16 PAHs by GCMS | Unfiltered |
| PHCONDW | Electrical Conductivity @ 20°C | Unfiltered |
| PHCONDW | pH | Unfiltered |
| SVOCSW | SVOCs (Target List) by GCMS | Unfiltered |
| TOCW | DOC: Dissolved Organic Carbon | Filtered |
| VOCHSAW | VOCs (Target List) by GCMS | Unfiltered |
| WSLM12 | Total Alkalinity as CaCO3 | Unfiltered |
| WSLM27 | TDS: Total Dissolved Solids | Filtered |

## Project Number: 25103439

**Client:** Silkstone Environmental Ltd
**Date Issued:** 04/11/2025
**Project Name:** Scheduled Samples 10-2025 - Ten Yards Lane

### Result Report Notes

Letters alongside results signify that the result has associated report notes.
The report notes are as follows:

| Letter | Note |
|---|---|
| A | Due to the matrix of the sample the laboratory has had to deviate from our standard protocols to be able to process the sample and provide a result. Where applicable the accreditation has been removed and this should be taken into consideration when utilising the data. |
| B | The QC associated with this result has not wholly met the QMS requirements, the accreditation has therefore been removed. However, the Laboratory has confidence in the performance of the method as a whole and that the integrity of the data has not been significantly compromised. |
| C | Due to matrix interference, the internal standard and/or surrogate has not met the QMS requirements. This should be taken into consideration when utilising the data. |
| D | A non-standard volume or mass has been used for this test which has resulted in a raised detection limit. |
| E | Due to the parameter value being beyond our calibration range (and following the maximum size of dilution allowed, where applicable), the result cannot be quantified and as such the result will appear as a greater than symbol (>) with the accreditation removed. This data should be used for indicative purposes only. |
| F | Based on the sample history, appearance and smell a dilution was applied prior to testing. Unfortunately, the result is either above (>) or below (<) our calibration range. Results above our calibration range have accreditation removed. The data should be used for indicative purposes only. |
| G | The day 5 oxygen reading was below the capability of the instrument to detect, and therefore the calculated BOD has been reported unaccredited for guidance purposes only. |

### HWOL Acronym Key

| Acronym | Description |
|---|---|
| HS | Headspace Analysis |
| EH | Extractable Hydrocarbons - i.e everything extracted by the solvent(s) |
| CU | Clean up - e.g. by florisil, silica gel |
| 1D | GC - Single coil gas chromatography |
| Total | Aliphatics & Aromatics |
| AL | Aliphatics only |
| AR | Aromatics only |
| + | Operator to indicate cumulative e.g. EH_CU+HS_1D_Total |

### SVOCSW - N-Nitrosodiphenylamine

N-Nitrosodiphenylamine decomposes in the GC inlet and cannot be separated from diphenylamine. For this reason we will report a combined result for N-Nitrosodiphenylamine and Diphenylamine.

## Project Number: 25103439

**Client:** Silkstone Environmental Ltd
**Date Issued:** 04/11/2025
**Project Name:** Scheduled Samples 10-2025 - Ten Yards Lane

### Additional Information

This report refers to samples as received. SOCOTEC UK Ltd takes no responsibility for accuracy or competence of sampling by others.

Results within this report relate only to the samples tested.

The accreditation codes are as follows:

U = UKAS accredited analysis
M = MCERT accredited analysis
N = Unaccredited analysis

Any accreditation marked with ^ signify results are reported on a dry weight basis of 105 ° C.

All Air Dried and Ground Samples (ADG) are oven dried at less than 35° C.

This report shall not be reproduced except in full, without written approval of the laboratory.

Opinions and interpretations given are outside the scope of our UKAS accreditation.

Any results marked with * are not covered by our scope of UKAS accreditation. If applicable, further report notes have been added.

Any solid samples where the Major Constituents are not one of the following (Sand, Silt, Clay, Made Ground) are not one of our accredited matrix types.

Any samples marked with a tick in the deviant table is deviant for the specific reason.

Any samples reported as IS, NA, ND mean the following:

IS = Insufficient Sample to complete analysis
NA = Sample is not amenable for the required analysis
ND = Results cannot be determined

Items listed with a 'SUB' method code prefix have been carried out by another SOCOTEC department or by an external subcontracted laboratory. Further information is available upon request.

Our deviating sample report does not include deviancy information for Subcontracted analysis. Please see the report from the subcontracted lab for information regarding any deviancies for this analysis.

Summaries of analysis methods are available upon request.

## End of Certificate of Analysis

SOCOTEC
Environmental Chemistry

# Certificate of Analysis

**Client:** Silkstone Environmental Ltd

**Project:** 25113250

**Quote:** BEC250842160 V1.1

**Project Ref:** Scheduled Samples 11-2025

**Site:** Ten Yards Lane

**Contact:** Richard Drown

**Address:** 7 Hall Annex
Thorncliffe Park
Chapeltown
Sheffield
S35 2PH

**E-Mail:** rdrown@silkstoneenvironmental.co.uk

**Phone:** 0114 257 3433

**No. Samples Received:** 3

**Date Received:** 22/11/2025

**Analysis Completed:** 09/12/2025

**Date Issued:** 09/12/2025

**Report Type:** Version 01

This report supersedes any versions previously issued by the laboratory

Reported by Reporting Officer
Aniko Gondolne-Mantler
01283 554434
Aniko.Gondolne-Mantler@socotec.co.uk

## Project Number: 25113250

**Client:** Silkstone Environmental Ltd
**Date Issued:** 09/12/2025
**Project Name:** Scheduled Samples 11-2025 - Ten Yards Lane

### Samples Analysed

| Text ID | Sample Reference | Sampling Date | Sample Type | Sample Description |
|---|---|---|---|---|
| 25113250-001 | BH1 | 19/11/2025 09:20:00 | WATER | Ground Water |
| 25113250-002 | BH2 | 19/11/2025 10:00:00 | WATER | Ground Water |
| 25113250-003 | BH3 | 19/11/2025 10:35:00 | WATER | Ground Water |

SOCOTEC

# Project Number: 25113250

**Client:** Silkstone Environmental Ltd
**Date Issued:** 09/12/2025
**Project Name:** Scheduled Samples 11-2025 - Ten Yards Lane

UKAS TESTING 1252

## Analysis Results

| Method Code | Analysis | MDL | Accred. | SOCOTEC Sample ID: | 25113250-001 | 25113250-002 | 25113250-003 |
|---|---|---|---|---|---|---|---|
| | | | | Sampling Date: | 19/11/2025 09:20 | 19/11/2025 10:00 | 19/11/2025 10:35 |
| | | | | Customer ID: | BH1 | BH2 | BH3 |
| PHCONDW | pH | 1 pH units | U | | 7.4 | 7.5 | 6.8 |
| PHCONDW | Conductivity at 20°C | 90 µS/cm | U | | 618 | 267 | 139 |
| WSLM12 | Total Alkalinity | 2 mg/l | U | | 185 | 89.0 | 21.6 |
| WSLM27 | TDS as mg/L | 5 mg/l | N | | 265 | 172 | 120 |
| TOCW | Dissolved Organic Carbon | 0.4 mg/l | U | | 1.77 | 1.58 | 1.41 |
| KONENS | Nitrite as N | 0.01 mg/l | U | | <0.01 | <0.01 | <0.01 |
| KONENS | Ammoniacal Nitrogen as N | 0.01 mg/l | U | | <0.01 | <0.01 | <0.01 |
| KONENS | Chloride as Cl | 1 mg/l | U | | 68 | 12 | 7 |
| ISEF | Fluoride as F | 0.1 mg/l | U | | 0.2 | 0.1 | <0.1 |
| ICPMSW (Dissolved) | Arsenic as As | 0.001 mg/l | U | | <0.001 | <0.001 | <0.001 |
| ICPWATVAR (Dissolved) | Boron as B | 0.01 mg/l | U | | 0.03 | 0.03 | 0.02 |
| ICPMSW (Dissolved) | Cadmium as Cd | 0.00002 mg/l | U | | 0.00007 | <0.00002 | <0.00002 |
| ICPWATVAR (Dissolved) | Calcium as Ca | 1 mg/l | U | | 76 | 30 | 13 |
| ICPMSW (Dissolved) | Total Chromium as Cr | 0.001 mg/l | U | | <0.001 | <0.001 | <0.001 |
| ICPMSW (Dissolved) | Copper as Cu | 0.001 mg/l | U | | <0.001 | <0.001 | <0.001 |
| ICPWATVAR (Dissolved) | Iron as Fe | 0.01 mg/l | U | | <0.01 | <0.01 | 0.01 |
| ICPMSW (Dissolved) | Lead as Pb | 0.0002 mg/l | U | | <0.0002 | <0.0002 | <0.0002 |
| ICPWATVAR (Dissolved) | Magnesium as Mg | 1 mg/l | U | | 15 | 12 | 5 |
| ICPMSW (Dissolved) | Manganese as Mn | 0.002 mg/l | U | | 0.107 | <0.002 | 0.006 |
| ICPMSW (Dissolved) | Mercury as Hg | 0.00003 mg/l | U | | <0.00003 | <0.00003 | <0.00003 |
| ICPMSW (Dissolved) | Nickel as Ni | 0.001 mg/l | U | | 0.001 | <0.001 | <0.001 |
| ICPWATVAR (Dissolved) | Potassium as K | 1 mg/l | U | | 2 | <1 | <1 |
| ICPMSW (Dissolved) | Selenium as Se | 0.001 mg/l | U | | <0.001 | <0.001 | <0.001 |
| ICPWATVAR (Dissolved) | Sodium as Na | 1 mg/l | U | | 51 | 10 | 6 |
| ICPWATVAR (Dissolved) | Total Sulphur as SO4 | 3 mg/l | U | | 68 | 29 | 19 |
| ICPMSW (Dissolved) | Zinc as Zn | 0.002 mg/l | U | | <0.002 | 0.003 | <0.002 |
| PAHMSW | Acenaphthene | 0.01 µg/l | U | | <0.40 ᵬ | <0.40 ᵬ | <0.40 ᵬ |
| | Acenaphthylene | 0.01 µg/l | U | | <0.40 ᵬ | <0.40 ᵬ | <0.40 ᵬ |
| | Anthracene | 0.01 µg/l | U | | <0.40 ᵬ | <0.40 ᵬ | <0.40 ᵬ |
| | Benzo[a]anthracene | 0.01 µg/l | U | | <0.40 ᵬ | <0.40 ᵬ | <0.40 ᵬ |
| | Benzo[a]pyrene | 0.01 µg/l | U | | <0.40 ᵬ | <0.40 ᵬ | <0.40 ᵬ |
| | Benzo[b]fluoranthene | 0.01 µg/l | U | | <0.40 ᵬ | <0.40 ᵬ | <0.40 ᵬ |
| | Benzo[g,h,i]perylene | 0.01 µg/l | U | | <0.40 ᵬ | <0.40 ᵬ | <0.40 ᵬ |
| | Benzo[k]fluoranthene | 0.01 µg/l | U | | <0.40 ᵬ | <0.40 ᵬ | <0.40 ᵬ |
| | Chrysene | 0.01 µg/l | U | | <0.40 ᵬ | <0.40 ᵬ | <0.40 ᵬ |
| | Dibenzo[a,h]anthracene | 0.01 µg/l | U | | <0.40 ᵬ | <0.40 ᵬ | <0.40 ᵬ |
| | Fluoranthene | 0.01 µg/l | U | | <0.40 ᵬ | <0.40 ᵬ | <0.40 ᵬ |
| | Fluorene | 0.01 µg/l | U | | <0.40 ᵬ | <0.40 ᵬ | <0.40 ᵬ |
| | Indeno[1,2,3-cd]pyrene | 0.01 µg/l | U | | <0.40 ᵬ | <0.40 ᵬ | <0.40 ᵬ |
| | Naphthalene | 0.01 µg/l | U | | <0.40 ᵬ | <0.40 ᵬ | <0.40 ᵬ |
| | Phenanthrene | 0.01 µg/l | U | | 0.71 | <0.40 ᵬ | <0.40 ᵬ |
| | Pyrene | 0.01 µg/l | U | | <0.40 ᵬ | <0.40 ᵬ | <0.40 ᵬ |
| | Total PAH 16 | 0.16 µg/l | U | | 6.71 | <6.40 ᵬ | <6.40 ᵬ |
| SVOCSW | 1,2,4-Trichlorobenzene | 0.005 mg/l | N | | <0.100 ᵬ | <0.100 ᵬ | <0.100 ᵬ |
| | 1,2-Dichlorobenzene | 0.005 mg/l | N | | <0.100 ᵬ | <0.100 ᵬ | <0.100 ᵬ |
| | 1,3-Dichlorobenzene | 0.005 mg/l | N | | <0.100 ᵬ | <0.100 ᵬ | <0.100 ᵬ |
| | 1,4-Dichlorobenzene | 0.005 mg/l | N | | <0.100 ᵬ | <0.100 ᵬ | <0.100 ᵬ |
| | 1-Methylnaphthalene | 0.002 mg/l | N | | <0.040 ᵬ | <0.040 ᵬ | <0.040 ᵬ |
| | 2,4,5-Trichlorophenol | 0.02 mg/l | N | | <0.400 ᵬ | <0.400 ᵬ | <0.400 ᵬ |
| | 2,4,6-Trichlorophenol | 0.02 mg/l | N | | <0.400 ᵬ | <0.400 ᵬ | <0.400 ᵬ |
| | 2,4-Dichlorophenol | 0.02 mg/l | N | | <0.400 ᵬ | <0.400 ᵬ | <0.400 ᵬ |
| | 2,4-Dimethylphenol | 0.02 mg/l | N | | <0.400 ᵬ | <0.400 ᵬ | <0.400 ᵬ |
| | 2,4-Dinitrophenol | 0.01 mg/l | N | | <0.200 ᵬ | <0.200 ᵬ | <0.200 ᵬ |
| | 2,4-Dinitrotoluene | 0.005 mg/l | N | | <0.100 ᵬ | <0.100 ᵬ | <0.100 ᵬ |
| | 2,6-Dinitrotoluene | 0.005 mg/l | N | | <0.100 ᵬ | <0.100 ᵬ | <0.100 ᵬ |
| | 2-Chloronaphthalene | 0.002 mg/l | N | | <0.040 ᵬ | <0.040 ᵬ | <0.040 ᵬ |
| | 2-Chlorophenol | 0.02 mg/l | N | | <0.400 ᵬ | <0.400 ᵬ | <0.400 ᵬ |
| | 2-Methylnaphthalene | 0.002 mg/l | N | | <0.040 ᵬ | <0.040 ᵬ | <0.040 ᵬ |
| | 2-Methylphenol | 0.005 mg/l | N | | <0.100 ᵬ | <0.100 ᵬ | <0.100 ᵬ |
| | 2-Nitroaniline | 0.005 mg/l | N | | <0.100 ᵬ | <0.100 ᵬ | <0.100 ᵬ |
| | 2-Nitrophenol | 0.02 mg/l | N | | <0.400 ᵬ | <0.400 ᵬ | <0.400 ᵬ |
| | 3- & 4-Methylphenol | 0.02 mg/l | N | | <0.400 ᵬ | <0.400 ᵬ | <0.400 ᵬ |
| | 3-Nitroaniline | 0.005 mg/l | N | | <0.100 ᵬ | <0.100 ᵬ | <0.100 ᵬ |
| | 4,6-Dinitro-2-methylphenol | 0.05 mg/l | N | | <1.00 ᵬ | <1.00 ᵬ | <1.00 ᵬ |
| | 4-Bromophenyl-phenylether | 0.005 mg/l | N | | <0.100 ᵬ | <0.100 ᵬ | <0.100 ᵬ |
| | 4-Chloro-3-methylphenol | 0.005 mg/l | N | | <0.100 ᵬ | <0.100 ᵬ | <0.100 ᵬ |
| | 4-Chloroaniline | 0.005 mg/l | N | | <0.100 ᵬ | <0.100 ᵬ | <0.100 ᵬ |
| | 4-Chlorophenol | 0.02 mg/l | N | | <0.400 ᵬ | <0.400 ᵬ | <0.400 ᵬ |
| | 4-Chlorophenyl-phenylether | 0.005 mg/l | N | | <0.100 ᵬ | <0.100 ᵬ | <0.100 ᵬ |
| | 4-Nitroaniline | 0.005 mg/l | N | | <0.100 ᵬ | <0.100 ᵬ | <0.100 ᵬ |
| | 4-Nitrophenol | 0.05 mg/l | N | | <1.00 ᵬ | <1.00 ᵬ | <1.00 ᵬ |
| | Acenaphthene | 0.002 mg/l | N | | <0.040 ᵬ | <0.040 ᵬ | <0.040 ᵬ |
| | Acenaphthylene | 0.002 mg/l | N | | <0.040 ᵬ | <0.040 ᵬ | <0.040 ᵬ |
| | Anthracene | 0.002 mg/l | N | | <0.040 ᵬ | <0.040 ᵬ | <0.040 ᵬ |
| | Azobenzene | 0.01 mg/l | N | | <0.200 ᵬ | <0.200 ᵬ | <0.200 ᵬ |
| | Benzo[a]anthracene | 0.002 mg/l | N | | <0.040 ᵬ | <0.040 ᵬ | <0.040 ᵬ |
| | Benzo[a]pyrene | 0.002 mg/l | N | | <0.040 ᵬ | <0.040 ᵬ | <0.040 ᵬ |
| | Benzo[b]fluoranthene | 0.002 mg/l | N | | <0.040 ᵬ | <0.040 ᵬ | <0.040 ᵬ |
| | Benzo[g,h,i]perylene | 0.002 mg/l | N | | <0.040 ᵬ | <0.040 ᵬ | <0.040 ᵬ |

## Analysis Results

| Method Code | Analysis | MDL | Accred. | SOCOTEC Sample ID: | 25113250-001 | 25113250-002 | 25113250-003 |
|---|---|---|---|---|---|---|---|
| | | | | Sampling Date: | 19/11/2025 09:20 | 19/11/2025 10:00 | 19/11/2025 10:35 |
| | | | | Customer ID: | BH1 | BH2 | BH3 |
| SVOCSW | Benzo[k]fluoranthene | 0.002 mg/l | N | | <0.040 D | <0.040 D | <0.040 D |
| | Benzoic Acid | 0.1 mg/l | N | | <2.00 D | <2.00 D | <2.00 D |
| | Benzyl alcohol | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Biphenyl | 0.002 mg/l | N | | <0.040 D | <0.040 D | <0.040 D |
| | bis(2-Chloroethoxy)methane | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | bis(2-Chloroethyl)ether | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | bis(2-Chloroisopropyl)ether | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | bis(2-Ethylhexyl)phthalate | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Butylbenzylphthalate | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Carbazole | 0.01 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Chrysene | 0.002 mg/l | N | | <0.040 D | <0.040 D | <0.040 D |
| | Coronene | 0.05 mg/l | N | | <1.00 D | <1.00 D | <1.00 D |
| | Dibenzo[a,h]anthracene | 0.002 mg/l | N | | <0.040 D | <0.040 D | <0.040 D |
| | Dibenzofuran | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Diethylphthalate | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Dimethylphthalate | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Di-n-butylphthalate | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Di-n-octylphthalate | 0.002 mg/l | N | | <0.040 D | <0.040 D | <0.040 D |
| | Diphenyl ether | 0.002 mg/l | N | | <0.040 D | <0.040 D | <0.040 D |
| | Fluoranthene | 0.002 mg/l | N | | <0.040 D | <0.040 D | <0.040 D |
| | Fluorene | 0.002 mg/l | N | | <0.040 D | <0.040 D | <0.040 D |
| | Hexachlorobenzene | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Hexachlorobutadiene | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Hexachlorocyclopentadiene | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Hexachloroethane | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Indeno[1,2,3-cd]pyrene | 0.002 mg/l | N | | <0.040 D | <0.040 D | <0.040 D |
| | Isophorone | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Naphthalene | 0.002 mg/l | N | | <0.040 D | <0.040 D | <0.040 D |
| | Nitrobenzene | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | N-Nitroso-di-n-propylamine | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | N-Nitrosodiphenylamine | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Pentachlorophenol | 0.05 mg/l | N | | <1.00 D | <1.00 D | <1.00 D |
| | Phenanthrene | 0.002 mg/l | N | | <0.040 D | <0.040 D | <0.040 D |
| | Phenol | 0.02 mg/l | N | | <0.400 D | <0.400 D | <0.400 D |
| | Pyrene | 0.002 mg/l | N | | <0.040 D | <0.040 D | <0.040 D |
| VOCHSAW | 1,1,1,2-Tetrachloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1,1-Trichloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1,2,2-Tetrachloroethane | 1 µg/l | N | | <1 | <1 | <1 |
| | 1,1,2-Trichloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1-Dichloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1-Dichloroethene | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1-Dichloropropene | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2,3-Trichlorobenzene | 5 µg/l | U | | <5 | <5 | <5 |
| | 1,2,3-Trichloropropane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2,4-Trichlorobenzene | 5 µg/l | U | | <5 | <5 | <5 |
| | 1,2,4-Trimethylbenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2-Dibromo-3-chloropropane | 5 µg/l | U | | <5 | <5 | <5 |
| | 1,2-Dibromoethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2-Dichlorobenzene | 5 µg/l | U | | <5 | <5 | <5 |
| | 1,2-Dichloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2-Dichloropropane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,3,5-Trimethylbenzene | 0.6 µg/l | U | | <0.6 | <0.6 | <0.6 |
| | 1,3-Dichlorobenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,3-Dichloropropane | 1 µg/l | N | | <1 | <1 | <1 |
| | 1,4-Dichlorobenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | 2,2-Dichloropropane | 1 µg/l | N | | <1 | <1 | <1 |
| | 2-Chlorotoluene | 1 µg/l | U | | <1 | <1 | <1 |
| | 4-Chlorotoluene | 1 µg/l | U | | <1 | <1 | <1 |
| | Benzene | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromobenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromochloromethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromodichloromethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromoform | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromomethane | 5 µg/l | N | | <5 | <5 | <5 |
| | Carbon Tetrachloride | 1 µg/l | U | | <1 | <1 | <1 |
| | Chlorobenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | Chloroethane | 5 µg/l | U | | <5 | <5 | <5 |
| | Chloroform | 5 µg/l | U | | <5 | <5 | <5 |
| | Chloromethane | 1 µg/l | U | | <1 | <1 | <1* B |
| | cis 1,2-Dichloroethene | 1 µg/l | U | | <1 | <1 | <1 |
| | cis 1,3-Dichloropropene | 1 µg/l | N | | <1 | <1 | <1 |
| | Dibromochloromethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Dibromomethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Dichlorodifluoromethane | 1 µg/l | N | | <1 | <1 | <1 |
| | Ethylbenzene | 0.5 µg/l | U | | <0.5 | <0.5 | <0.5 |
| | Hexachlorobutadiene | 5 µg/l | U | | <5 | <5 | <5 |
| | iso-Propylbenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | m and p-Xylene | 1 µg/l | U | | <1 | <1 | <1 |
| | MTBE | 1 µg/l | N | | <1 | <1 | <1 |

## Project Number: 25113250

**Client:** Silkstone Environmental Ltd
**Date Issued:** 09/12/2025
**Project Name:** Scheduled Samples 11-2025 - Ten Yards Lane

UKAS TESTING 1252

## Analysis Results

| Method Code | Analysis | MDL | Accred. | SOCOTEC Sample ID: 25113250-001<br>Sampling Date: 19/11/2025 09:20<br>Customer ID: BH1 | 25113250-002<br>19/11/2025 10:00<br>BH2 | 25113250-003<br>19/11/2025 10:35<br>BH3 |
|---|---|---|---|---|---|---|
| VOCHSAW | Naphthalene | 5 µg/l | U | <5 | <5 | <5 |
| | n-Butylbenzene | 1 µg/l | U | <1 | <1 | <1 |
| | o-Xylene | 1 µg/l | U | <1 | <1 | <1 |
| | p-Isopropyltoluene | 1 µg/l | U | <1 | <1 | <1 |
| | Propylbenzene | 1 µg/l | U | <1 | <1 | <1 |
| | sec-Butylbenzene | 1 µg/l | U | <1 | <1 | <1 |
| | Styrene | 1 µg/l | U | <1 | <1 | <1 |
| | tert-Butylbenzene | 1 µg/l | U | <1 | <1 | <1 |
| | Tetrachloroethene | 5 µg/l | U | <5 | <5 | <5 |
| | Toluene | 1 µg/l | U | <1 | <1 | <1 |
| | trans 1,2-Dichloroethene | 1 µg/l | U | <1 | <1 | <1 |
| | trans 1,3-Dichloropropene | 1 µg/l | U | <1 | <1 | <1 |
| | Trichloroethene | 5 µg/l | U | <5 | <5 | <5* B |
| | Trichlorofluoromethane | 1 µg/l | U | <1 | <1 | <1 |
| | Vinyl Chloride | 1 µg/l | U | <1 | <1 | <1 |

## Project Number: 25113250

**Client:** Silkstone Environmental Ltd
**Date Issued:** 09/12/2025
**Project Name:** Scheduled Samples 11-2025 - Ten Yards Lane

### Deviating Sample Report

| Sample Reference | Text ID | Method Code | Incorrect Container | Incorrect Label | Headspace | Incorrect/No Preservative | No Sampling Date | Holding Time |
|---|---|---|---|---|---|---|---|---|
| BH1 | 25113250-001 | **PHCONDW** | | | | | | ✓ |
| BH2 | 25113250-002 | **PHCONDW** | | | | | | ✓ |
| BH3 | 25113250-003 | **PHCONDW** | | | | | | ✓ |

### Analysis Method

| Method Code | Method Description | Analysis Method |
|---|---|---|
| ICPMSW (Dissolved) | Arsenic (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Cadmium (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Chromium (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Copper (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Lead (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Manganese (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Mercury (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Nickel (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Selenium (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Zinc (Diss.) in Water by ICPMS | Filtered |
| ICPWATVAR (Dissolved) | Boron (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Calcium (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Iron (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Magnesium (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Potassium (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Sodium (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Total Sulphur as SO4 (Diss.) in Water | Filtered |
| ISEF | Fluoride by ISE | Unfiltered |
| KONENS | Ammoniacal Nitrogen as N | Filtered |
| KONENS | Chloride by Colorimetry | Filtered |
| KONENS | Nitrite as N by Colorimetry | Filtered |
| PAHMSW | 16 PAHs by GCMS | Unfiltered |
| PHCONDW | Electrical Conductivity @ 20°C | Unfiltered |
| PHCONDW | pH | Unfiltered |
| SVOCSW | SVOCs (Target List) by GCMS | Unfiltered |
| TOCW | DOC: Dissolved Organic Carbon | Filtered |
| VOCHSAW | VOCs (Target List) by GCMS | Unfiltered |
| WSLM12 | Total Alkalinity as CaCO3 | Unfiltered |
| WSLM27 | TDS: Total Dissolved Solids | Filtered |

## Project Number: 25113250

**Client:** Silkstone Environmental Ltd
**Date Issued:** 09/12/2025
**Project Name:** Scheduled Samples 11-2025 - Ten Yards Lane

### Result Report Notes

Letters alongside results signify that the result has associated report notes.
The report notes are as follows:

| Letter | Note |
|---|---|
| A | Due to the matrix of the sample the laboratory has had to deviate from our standard protocols to be able to process the sample and provide a result. Where applicable the accreditation has been removed and this should be taken into consideration when utilising the data. |
| B | The QC associated with this result has not wholly met the QMS requirements, the accreditation has therefore been removed. However, the Laboratory has confidence in the performance of the method as a whole and that the integrity of the data has not been significantly compromised. |
| C | Due to matrix interference, the internal standard and/or surrogate has not met the QMS requirements. This should be taken into consideration when utilising the data. |
| D | A non-standard volume or mass has been used for this test which has resulted in a raised detection limit. |
| E | Due to the parameter value being beyond our calibration range (and following the maximum size of dilution allowed, where applicable), the result cannot be quantified and as such the result will appear as a greater than symbol (>) with the accreditation removed. This data should be used for indicative purposes only. |
| F | Based on the sample history, appearance and smell a dilution was applied prior to testing. Unfortunately, the result is either above (>) or below (<) our calibration range. Results above our calibration range have accreditation removed. The data should be used for indicative purposes only. |
| G | The day 5 oxygen reading was below the capability of the instrument to detect, and therefore the calculated BOD has been reported unaccredited for guidance purposes only. |

### HWOL Acronym Key

| Acronym | Description |
|---|---|
| HS | Headspace Analysis |
| EH | Extractable Hydrocarbons - i.e everything extracted by the solvent(s) |
| CU | Clean up - e.g. by florisil, silica gel |
| 1D | GC - Single coil gas chromatography |
| Total | Aliphatics & Aromatics |
| AL | Aliphatics only |
| AR | Aromatics only |
| + | Operator to indicate cumulative e.g. EH_CU+HS_1D_Total |

### SVOCSW - N-Nitrosodiphenylamine

N-Nitrosodiphenylamine decomposes in the GC inlet and cannot be separated from diphenylamine. For this reason we will report a combined result for N-Nitrosodiphenylamine and Diphenylamine.

## Project Number: 25113250

**Client:** Silkstone Environmental Ltd
**Date Issued:** 09/12/2025
**Project Name:** Scheduled Samples 11-2025 - Ten Yards Lane

### Additional Information

This report refers to samples as received. SOCOTEC UK Ltd takes no responsibility for accuracy or competence of sampling by others.

Results within this report relate only to the samples tested.

The accreditation codes are as follows:

U = UKAS accredited analysis
M = MCERT accredited analysis
N = Unaccredited analysis

Any accreditation marked with ^ signify results are reported on a dry weight basis of 105 °C.

All Air Dried and Ground Samples (ADG) are oven dried at less than 35° C.

This report shall not be reproduced except in full, without written approval of the laboratory.

Opinions and interpretations given are outside the scope of our UKAS accreditation.

Any results marked with * are not covered by our scope of UKAS accreditation. If applicable, further report notes have been added.

Any solid samples where the Major Constituents are not one of the following (Sand, Silt, Clay, Made Ground) are not one of our accredited matrix types.

Any samples marked with a tick in the deviant table is deviant for the specific reason.

Any samples reported as IS, NA, ND mean the following:

IS = Insufficient Sample to complete analysis
NA = Sample is not amenable for the required analysis
ND = Results cannot be determined

Items listed with a 'SUB' method code prefix have been carried out by another SOCOTEC department or by an external subcontracted laboratory. Further information is available upon request.

Our deviating sample report does not include deviancy information for Subcontracted analysis. Please see the report from the subcontracted lab for information regarding any deviancies for this analysis.

Summaries of analysis methods are available upon request.

## End of Certificate of Analysis

SOCOTEC
Environmental Chemistry

# Certificate of Analysis

**Client:** Silkstone Environmental Ltd

**Project:** 25122978

**Quote:** BEC250842160 V1.1

**Project Ref:** Scheduled Samples 12-2025

**Site:** Ten Yards Lane

**Contact:** Richard Drown

**Address:** 7 Hall Annex
Thorncliffe Park
Chapeltown
Sheffield
S35 2PH

**E-Mail:** rdrown@silkstoneenvironmental.co.uk

**Phone:** 0114 257 3433

**No. Samples Received:** 3

**Date Received:** 18/12/2025

**Analysis Completed:** 07/01/2026

**Date Issued:** 07/01/2026

**Report Type:** Version 01

This report supersedes any versions previously issued by the laboratory

Reported by Customer Service Co-Ordinator
Julie Dickinson
01283 204 384
Julie.Dickinson@socotec.co.uk

## Project Number: 25122978

**Client:** Silkstone Environmental Ltd
**Date Issued:** 07/01/2026
**Project Name:** Scheduled Samples 12-2025 - Ten Yards Lane

### Samples Analysed

| Text ID | Sample Reference | Sampling Date | Sample Type | Sample Description |
|---|---|---|---|---|
| 25122978-001 | BH1 | 16/12/2025 12:54:00 | WATER | Ground Water |
| 25122978-002 | BH2 | 16/12/2025 13:26:00 | WATER | Ground Water |
| 25122978-003 | BH3 | 16/12/2025 13:51:00 | WATER | Ground Water |

SOCOTEC

# Project Number: 25122978

**Client:** Silkstone Environmental Ltd
**Date Issued:** 07/01/2026
**Project Name:** Scheduled Samples 12-2025 - Ten Yards Lane

UKAS TESTING 1252

## Analysis Results

| Method Code | Analysis | MDL | Accred. | SOCOTEC Sample ID: | 25122978-001 | 25122978-002 | 25122978-003 |
|---|---|---|---|---|---|---|---|
| | | | | Sampling Date: | 16/12/2025 12:54 | 16/12/2025 13:26 | 16/12/2025 13:51 |
| | | | | Customer ID: | BH1 | BH2 | BH3 |
| PHCONDW | pH | 1 pH units | U | | 7.3 | 7.8 | 7.5 |
| PHCONDW | Conductivity at 20°C | 90 µS/cm | U | | 718 | 280 | 147 |
| WSLM12 | Total Alkalinity | 2 mg/l | U | | 162 | 93.1 | 22.0 |
| WSLM27 | TDS as mg/L | 5 mg/l | N | | 435 | 147 | 139 |
| TOCW | Dissolved Organic Carbon | 0.4 mg/l | U | | 1.36 | 1.14 | 1.05 |
| KONENS | Nitrite as N | 0.01 mg/l | U | | 0.02 | 0.01 | 0.01 |
| KONENS | Ammoniacal Nitrogen as N | 0.01 mg/l | U | | <0.01 | <0.01 | <0.01 |
| KONENS | Chloride as Cl | 1 mg/l | U | | 109 | 13 | 6 |
| ISEF | Fluoride as F | 0.1 mg/l | U | | 0.3 | 0.2 | 0.1 |
| ICPMSW (Dissolved) | Arsenic as As | 0.001 mg/l | U | | <0.001 | <0.001 | <0.001 |
| ICPWATVAR (Dissolved) | Boron as B | 0.01 mg/l | U | | 0.03 | 0.03 | 0.01 |
| ICPMSW (Dissolved) | Cadmium as Cd | 0.00002 mg/l | U | | 0.00005 | <0.00002 | <0.00002 |
| ICPWATVAR (Dissolved) | Calcium as Ca | 1 mg/l | U | | 74 | 32 | 14 |
| ICPMSW (Dissolved) | Total Chromium as Cr | 0.001 mg/l | U | | <0.001 | <0.001 | <0.001 |
| ICPMSW (Dissolved) | Copper as Cu | 0.001 mg/l | U | | <0.001 | <0.001 | <0.001 |
| ICPWATVAR (Dissolved) | Iron as Fe | 0.01 mg/l | U | | <0.01 | <0.01 | <0.01 |
| ICPMSW (Dissolved) | Lead as Pb | 0.0002 mg/l | U | | <0.0002 | <0.0002 | <0.0002 |
| ICPWATVAR (Dissolved) | Magnesium as Mg | 1 mg/l | U | | 14 | 13 | 5 |
| ICPMSW (Dissolved) | Manganese as Mn | 0.002 mg/l | U | | <0.002 | <0.002 | 0.004 |
| ICPMSW (Dissolved) | Mercury as Hg | 0.00003 mg/l | U | | <0.00003 | <0.00003 | <0.00003 |
| ICPMSW (Dissolved) | Nickel as Ni | 0.001 mg/l | U | | <0.001 | <0.001 | <0.001 |
| ICPWATVAR (Dissolved) | Potassium as K | 1 mg/l | U | | 2 | <1 | <1 |
| ICPMSW (Dissolved) | Selenium as Se | 0.001 mg/l | U | | <0.001 | <0.001 | <0.001 |
| ICPWATVAR (Dissolved) | Sodium as Na | 1 mg/l | U | | 74 | 10 | 5 |
| ICPWATVAR (Dissolved) | Total Sulphur as SO4 | 3 mg/l | U | | 81 | 26 | 17 |
| ICPMSW (Dissolved) | Zinc as Zn | 0.002 mg/l | U | | <0.002 | <0.002 | <0.002 |
| PAHMSW | Acenaphthene | 0.01 µg/l | U | | <0.01 | <0.01 | <0.01 |
| | Acenaphthylene | 0.01 µg/l | U | | <0.01 | <0.01 | <0.01 |
| | Anthracene | 0.01 µg/l | U | | <0.01 | <0.01 | <0.01 |
| | Benzo[a]anthracene | 0.01 µg/l | U | | <0.01 | <0.01 | <0.01 |
| | Benzo[a]pyrene | 0.01 µg/l | U | | <0.01 | <0.01 | <0.01 |
| | Benzo[b]fluoranthene | 0.01 µg/l | U | | <0.01 | <0.01 | <0.01 |
| | Benzo[g,h,i]perylene | 0.01 µg/l | U | | <0.01 | <0.01 | <0.01 |
| | Benzo[k]fluoranthene | 0.01 µg/l | U | | <0.01 | <0.01 | <0.01 |
| | Chrysene | 0.01 µg/l | U | | <0.01 | <0.01 | <0.01 |
| | Dibenzo[a,h]anthracene | 0.01 µg/l | U | | <0.01 | <0.01 | <0.01 |
| | Fluoranthene | 0.01 µg/l | U | | 0.01 | <0.01 | <0.01 |
| | Fluorene | 0.01 µg/l | U | | <0.01 | <0.01 | <0.01 |
| | Indeno[1,2,3-cd]pyrene | 0.01 µg/l | U | | <0.01 | <0.01 | <0.01 |
| | Naphthalene | 0.01 µg/l | U | | <0.01 | <0.01 | <0.01 |
| | Phenanthrene | 0.01 µg/l | U | | 0.04 | <0.01 | <0.01 |
| | Pyrene | 0.01 µg/l | U | | 0.02 | <0.01 | <0.01 |
| | Total PAH 16 | 0.16 µg/l | U | | 0.20 | <0.16 | <0.16 |
| SVOCSW | 1,2,4-Trichlorobenzene | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 1,2-Dichlorobenzene | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 1,3-Dichlorobenzene | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 1,4-Dichlorobenzene | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 1-Methylnaphthalene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | 2,4,5-Trichlorophenol | 0.02 mg/l | N | | <0.400 ▫ | <0.400 ▫ | <0.400 ▫ |
| | 2,4,6-Trichlorophenol | 0.02 mg/l | N | | <0.400 ▫ | <0.400 ▫ | <0.400 ▫ |
| | 2,4-Dichlorophenol | 0.02 mg/l | N | | <0.400 ▫ | <0.400 ▫ | <0.400 ▫ |
| | 2,4-Dimethylphenol | 0.02 mg/l | N | | <0.400 ▫ | <0.400 ▫ | <0.400 ▫ |
| | 2,4-Dinitrophenol | 0.01 mg/l | N | | <0.200 ▫ | <0.200 ▫ | <0.200 ▫ |
| | 2,4-Dinitrotoluene | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 2,6-Dinitrotoluene | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 2-Chloronaphthalene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | 2-Chlorophenol | 0.02 mg/l | N | | <0.400 ▫ | <0.400 ▫ | <0.400 ▫ |
| | 2-Methylnaphthalene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | 2-Methylphenol | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 2-Nitroaniline | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 2-Nitrophenol | 0.02 mg/l | N | | <0.400 ▫ | <0.400 ▫ | <0.400 ▫ |
| | 3- & 4-Methylphenol | 0.02 mg/l | N | | <0.400 ▫ | <0.400 ▫ | <0.400 ▫ |
| | 3-Nitroaniline | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 4,6-Dinitro-2-methylphenol | 0.05 mg/l | N | | <1.00 ▫ | <1.00 ▫ | <1.00 ▫ |
| | 4-Bromophenyl-phenylether | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 4-Chloro-3-methylphenol | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 4-Chloroaniline | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 4-Chlorophenol | 0.02 mg/l | N | | <0.400 ▫ | <0.400 ▫ | <0.400 ▫ |
| | 4-Chlorophenyl-phenylether | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 4-Nitroaniline | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 4-Nitrophenol | 0.05 mg/l | N | | <1.00 ▫ | <1.00 ▫ | <1.00 ▫ |
| | Acenaphthene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | Acenaphthylene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | Anthracene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | Azobenzene | 0.01 mg/l | N | | <0.200 ▫ | <0.200 ▫ | <0.200 ▫ |
| | Benzo[a]anthracene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | Benzo[a]pyrene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | Benzo[b]fluoranthene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | Benzo[g,h,i]perylene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |

## Analysis Results

| Method Code | Analysis | MDL | Accred. | SOCOTEC Sample ID: | 25122978-001 | 25122978-002 | 25122978-003 |
|---|---|---|---|---|---|---|---|
| | | | | Sampling Date: | 16/12/2025 12:54 | 16/12/2025 13:26 | 16/12/2025 13:51 |
| | | | | Customer ID: | BH1 | BH2 | BH3 |
| SVOCSW | Benzo[k]fluoranthene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | Benzoic Acid | 0.1 mg/l | N | | <2.00 ▫ | <2.00 ▫ | <2.00 ▫ |
| | Benzyl alcohol | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | Biphenyl | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | bis(2-Chloroethoxy)methane | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | bis(2-Chloroethyl)ether | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | bis(2-Chloroisopropyl)ether | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | bis(2-Ethylhexyl)phthalate | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | Butylbenzylphthalate | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | Carbazole | 0.01 mg/l | N | | <0.200 ▫ | <0.200 ▫ | <0.200 ▫ |
| | Chrysene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | Coronene | 0.05 mg/l | N | | <1.00 ▫ | <1.00 ▫ | <1.00 ▫ |
| | Dibenzo[a,h]anthracene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | Dibenzofuran | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | Diethylphthalate | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | Dimethylphthalate | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | Di-n-butylphthalate | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | Di-n-octylphthalate | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | Diphenyl ether | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | Fluoranthene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | Fluorene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | Hexachlorobenzene | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | Hexachlorobutadiene | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | Hexachlorocyclopentadiene | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | Hexachloroethane | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | Indeno[1,2,3-cd]pyrene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | Isophorone | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | Naphthalene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | Nitrobenzene | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | N-Nitroso-di-n-propylamine | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | N-Nitrosodiphenylamine | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | Pentachlorophenol | 0.05 mg/l | N | | <1.00 ▫ | <1.00 ▫ | <1.00 ▫ |
| | Phenanthrene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | Phenol | 0.02 mg/l | N | | <0.400 ▫ | <0.400 ▫ | <0.400 ▫ |
| | Pyrene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| VOCHSAW | 1,1,1,2-Tetrachloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1,1-Trichloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1,2,2-Tetrachloroethane | 1 µg/l | N | | <1 | <1 | <1 |
| | 1,1,2-Trichloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1-Dichloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1-Dichloroethene | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1-Dichloropropene | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2,3-Trichlorobenzene | 5 µg/l | U | | <5 | <5 | <5 |
| | 1,2,3-Trichloropropane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2,4-Trichlorobenzene | 5 µg/l | U | | <5 | <5 | <5 |
| | 1,2,4-Trimethylbenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2-Dibromo-3-chloropropane | 5 µg/l | U | | <5 | <5 | <5 |
| | 1,2-Dibromoethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2-Dichlorobenzene | 5 µg/l | U | | <5 | <5 | <5 |
| | 1,2-Dichloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2-Dichloropropane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,3,5-Trimethylbenzene | 0.6 µg/l | U | | <0.6 | <0.6 | <0.6 |
| | 1,3-Dichlorobenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,3-Dichloropropane | 1 µg/l | N | | <1 | <1 | <1 |
| | 1,4-Dichlorobenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | 2,2-Dichloropropane | 1 µg/l | N | | <1 | <1 | <1 |
| | 2-Chlorotoluene | 1 µg/l | U | | <1 | <1 | <1 |
| | 4-Chlorotoluene | 1 µg/l | U | | <1 | <1 | <1 |
| | Benzene | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromobenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromochloromethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromodichloromethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromoform | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromomethane | 5 µg/l | N | | <5 | <5 | <5 |
| | Carbon Tetrachloride | 1 µg/l | U | | <1 | <1 | <1 |
| | Chlorobenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | Chloroethane | 5 µg/l | U | | <5 | <5 | <5 |
| | Chloroform | 5 µg/l | U | | <5 | <5 | <5 |
| | Chloromethane | 1 µg/l | U | | <1 | <1 | <1 |
| | cis 1,2-Dichloroethene | 1 µg/l | U | | <1 | <1 | <1 |
| | cis 1,3-Dichloropropene | 1 µg/l | N | | <1 | <1 | <1 |
| | Dibromochloromethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Dibromomethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Dichlorodifluoromethane | 1 µg/l | N | | <1 | <1 | <1 |
| | Ethylbenzene | 0.5 µg/l | U | | <0.5 | <0.5 | <0.5 |
| | Hexachlorobutadiene | 5 µg/l | U | | <5 | <5 | <5 |
| | iso-Propylbenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | m and p-Xylene | 1 µg/l | U | | <1 | <1 | <1 |
| | MTBE | 1 µg/l | N | | <1 | <1 | <1 |

## Project Number: 25122978

**Client:** Silkstone Environmental Ltd
**Date Issued:** 07/01/2026
**Project Name:** Scheduled Samples 12-2025 - Ten Yards Lane

UKAS TESTING 1252

## Analysis Results

| Method Code | Analysis | MDL | Accred. | SOCOTEC Sample ID: 25122978-001<br>Sampling Date: 16/12/2025 12:54<br>Customer ID: BH1 | 25122978-002<br>16/12/2025 13:26<br>BH2 | 25122978-003<br>16/12/2025 13:51<br>BH3 |
|---|---|---|---|---|---|---|
| VOCHSAW | Naphthalene | 5 µg/l | U | <5 | <5 | <5 |
| | n-Butylbenzene | 1 µg/l | U | <1 | <1 | <1 |
| | o-Xylene | 1 µg/l | U | <1 | <1 | <1 |
| | p-Isopropyltoluene | 1 µg/l | U | <1 | <1 | <1 |
| | Propylbenzene | 1 µg/l | U | <1 | <1 | <1 |
| | sec-Butylbenzene | 1 µg/l | U | <1 | <1 | <1 |
| | Styrene | 1 µg/l | U | <1 | <1 | <1 |
| | tert-Butylbenzene | 1 µg/l | U | <1 | <1 | <1 |
| | Tetrachloroethene | 5 µg/l | U | <5 | <5 | <5 |
| | Toluene | 1 µg/l | U | <1 | <1 | <1 |
| | trans 1,2-Dichloroethene | 1 µg/l | U | <1 | <1 | <1 |
| | trans 1,3-Dichloropropene | 1 µg/l | U | <1 | <1 | <1 |
| | Trichloroethene | 5 µg/l | U | <5 | <5 | <5 |
| | Trichlorofluoromethane | 1 µg/l | U | <1 | <1 | <1 |
| | Vinyl Chloride | 1 µg/l | U | <1 | <1 | <1 |

## Project Number: 25122978

**Client:** Silkstone Environmental Ltd
**Date Issued:** 07/01/2026
**Project Name:** Scheduled Samples 12-2025 - Ten Yards Lane

### Deviating Sample Report

| Sample Reference | Text ID | Method Code | Incorrect Container | Incorrect Label | Headspace | Incorrect/No Preservative | No Sampling Date | Holding Time |
|---|---|---|---|---|---|---|---|---|
| BH2 | 25122978-002 | **PAHMSW** | | | | | | ✓ |
| BH2 | 25122978-002 | **PHCONDW** | | | | | | ✓ |
| BH3 | 25122978-003 | **PAHMSW** | | | | | | ✓ |
| BH3 | 25122978-003 | **PHCONDW** | | | | | | ✓ |

### Analysis Method

| Method Code | Method Description | Analysis Method |
|---|---|---|
| ICPMSW (Dissolved) | Arsenic (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Cadmium (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Chromium (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Copper (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Lead (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Manganese (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Mercury (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Nickel (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Selenium (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Zinc (Diss.) in Water by ICPMS | Filtered |
| ICPWATVAR (Dissolved) | Boron (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Calcium (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Iron (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Magnesium (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Potassium (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Sodium (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Total Sulphur as SO4 (Diss.) in Water | Filtered |
| ISEF | Fluoride by ISE | Unfiltered |
| KONENS | Ammoniacal Nitrogen as N | Filtered |
| KONENS | Chloride by Colorimetry | Filtered |
| KONENS | Nitrite as N by Colorimetry | Filtered |
| PAHMSW | 16 PAHs by GCMS | Unfiltered |
| PHCONDW | Electrical Conductivity @ 20°C | Unfiltered |
| PHCONDW | pH | Unfiltered |
| SVOCSW | SVOCs (Target List) by GCMS | Unfiltered |
| TOCW | DOC: Dissolved Organic Carbon | Filtered |
| VOCHSAW | VOCs (Target List) by GCMS | Unfiltered |
| WSLM12 | Total Alkalinity as CaCO3 | Unfiltered |
| WSLM27 | TDS: Total Dissolved Solids | Filtered |

## Project Number: 25122978

**Client:** Silkstone Environmental Ltd
**Date Issued:** 07/01/2026
**Project Name:** Scheduled Samples 12-2025 - Ten Yards Lane

### Result Report Notes

Letters alongside results signify that the result has associated report notes.
The report notes are as follows:

| Letter | Note |
|---|---|
| A | Due to the matrix of the sample the laboratory has had to deviate from our standard protocols to be able to process the sample and provide a result. Where applicable the accreditation has been removed and this should be taken into consideration when utilising the data. |
| B | The QC associated with this result has not wholly met the QMS requirements, the accreditation has therefore been removed. However, the Laboratory has confidence in the performance of the method as a whole and that the integrity of the data has not been significantly compromised. |
| C | Due to matrix interference, the internal standard and/or surrogate has not met the QMS requirements. This should be taken into consideration when utilising the data. |
| D | A non-standard volume or mass has been used for this test which has resulted in a raised detection limit. |
| E | Due to the parameter value being beyond our calibration range (and following the maximum size of dilution allowed, where applicable), the result cannot be quantified and as such the result will appear as a greater than symbol (>) with the accreditation removed. This data should be used for indicative purposes only. |
| F | Based on the sample history, appearance and smell a dilution was applied prior to testing. Unfortunately, the result is either above (>) or below (<) our calibration range. Results above our calibration range have accreditation removed. The data should be used for indicative purposes only. |
| G | The day 5 oxygen reading was below the capability of the instrument to detect, and therefore the calculated BOD has been reported unaccredited for guidance purposes only. |

### HWOL Acronym Key

| Acronym | Description |
|---|---|
| HS | Headspace Analysis |
| EH | Extractable Hydrocarbons - i.e everything extracted by the solvent(s) |
| CU | Clean up - e.g. by florisil, silica gel |
| 1D | GC - Single coil gas chromatography |
| Total | Aliphatics & Aromatics |
| AL | Aliphatics only |
| AR | Aromatics only |
| + | Operator to indicate cumulative e.g. EH_CU+HS_1D_Total |

### SVOCSW - N-Nitrosodiphenylamine

N-Nitrosodiphenylamine decomposes in the GC inlet and cannot be separated from diphenylamine. For this reason we will report a combined result for N-Nitrosodiphenylamine and Diphenylamine.

## Project Number: 25122978

**Client:** Silkstone Environmental Ltd
**Date Issued:** 07/01/2026
**Project Name:** Scheduled Samples 12-2025 - Ten Yards Lane

### Additional Information

This report refers to samples as received. SOCOTEC UK Ltd takes no responsibility for accuracy or competence of sampling by others.

Results within this report relate only to the samples tested.

The accreditation codes are as follows:

U = UKAS accredited analysis
M = MCERT accredited analysis
N = Unaccredited analysis

Any accreditation marked with ^ signify results are reported on a dry weight basis of 105 ° C.

All Air Dried and Ground Samples (ADG) are oven dried at less than 35° C.

This report shall not be reproduced except in full, without written approval of the laboratory.

Opinions and interpretations given are outside the scope of our UKAS accreditation.

Any results marked with * are not covered by our scope of UKAS accreditation. If applicable, further report notes have been added.

Any solid samples where the Major Constituents are not one of the following (Sand, Silt, Clay, Made Ground) are not one of our accredited matrix types.

Any samples marked with a tick in the deviant table is deviant for the specific reason.

Any samples reported as IS, NA, ND mean the following:

IS = Insufficient Sample to complete analysis
NA = Sample is not amenable for the required analysis
ND = Results cannot be determined

Items listed with a 'SUB' method code prefix have been carried out by another SOCOTEC department or by an external subcontracted laboratory. Further information is available upon request.

Our deviating sample report does not include deviancy information for Subcontracted analysis. Please see the report from the subcontracted lab for information regarding any deviancies for this analysis.

Summaries of analysis methods are available upon request.

## End of Certificate of Analysis

SOCOTEC
Environmental Chemistry

# Certificate of Analysis

**Client:** Silkstone Environmental Ltd

**Project:** 26013437

**Quote:** BEC251143671 V1.1

**Project Ref:** Scheduled Samples 01-2026

**Site:** Ten Yards Lane

**Contact:** Richard Drown

**Address:** 7 Hall Annex
Thorncliffe Park
Chapeltown
Sheffield
S35 2PH

**E-Mail:** rdrown@silkstoneenvironmental.co.uk

**Phone:** 0114 257 3433

**No. Samples Received:** 3

**Date Received:** 28/01/2026

**Analysis Completed:** 16/02/2026

**Date Issued:** 16/02/2026

**Report Type:** Version 01

This report supersedes any versions previously issued by the laboratory

Reported by Customer Service Co-Ordinator
Julie Dickinson
01283 204 384
Julie.Dickinson@socotec.co.uk

## Project Number: 26013437

**Client:** Silkstone Environmental Ltd
**Date Issued:** 16/02/2026
**Project Name:** Scheduled Samples 01-2026 - Ten Yards Lane

### Samples Analysed

| Text ID | Sample Reference | Sampling Date | Sample Type | Sample Description |
|---|---|---|---|---|
| 26013437-001 | BH1 | 26/01/2026 13:25:00 | WATER | Ground Water |
| 26013437-002 | BH2 | 26/01/2026 14:00:00 | WATER | Ground Water |
| 26013437-003 | BH3 | 26/01/2026 14:25:00 | WATER | Ground Water |

## Analysis Results

| Method Code | Analysis | MDL | Accred. | SOCOTEC Sample ID: | 26013437-001 | 26013437-002 | 26013437-003 |
|---|---|---|---|---|---|---|---|
| | | | | Sampling Date: | 26/01/2026 13:25 | 26/01/2026 14:00 | 26/01/2026 14:25 |
| | | | | Customer ID: | BH1 | BH2 | BH3 |
| PHCONDW | pH | 1 pH units | U | | 7.3 | 7.3 | 7.2 |
| PHCONDW | Conductivity at 20°C | 90 µS/cm | U | | 640 | 273 | 185 |
| WSLM12 | Total Alkalinity | 2 mg/l | U | | 170 | 92.4 | 26.2 |
| WSLM27 | TDS as mg/L | 5 mg/l | N | | 399 | 203 | 110 |
| TOCW | Dissolved Organic Carbon | 0.4 mg/l | U | | 1.58 | 1.21 | 0.98 |
| KONENS | Nitrite as N | 0.01 mg/l | U | | 0.01 | <0.01 | <0.01 |
| KONENS | Ammoniacal Nitrogen as N | 0.01 mg/l | U | | <0.01 | <0.01 | <0.01 |
| KONENS | Chloride as Cl | 1 mg/l | U | | 87 | 16 | 7 |
| ISEF | Fluoride as F | 0.1 mg/l | U | | 0.1 | <0.1 | <0.1 |
| ICPMSW (Dissolved) | Arsenic as As | 0.001 mg/l | U | | <0.001 | <0.001 | <0.001 |
| ICPWATVAR (Dissolved) | Boron as B | 0.01 mg/l | U | | 0.02 | 0.02 | 0.01 |
| ICPMSW (Dissolved) | Cadmium as Cd | 0.00002 mg/l | U | | 0.00020 | 0.00003 | <0.00002 |
| ICPWATVAR (Dissolved) | Calcium as Ca | 1 mg/l | U | | 71 | 31 | 19 |
| ICPMSW (Dissolved) | Total Chromium as Cr | 0.001 mg/l | U | | <0.001 | <0.001 | <0.001 |
| ICPMSW (Dissolved) | Copper as Cu | 0.001 mg/l | U | | <0.001 | <0.001 | <0.001 |
| ICPWATVAR (Dissolved) | Iron as Fe | 0.01 mg/l | U | | <0.01 | <0.01 | <0.01 |
| ICPMSW (Dissolved) | Lead as Pb | 0.0002 mg/l | U | | <0.0002 | <0.0002 | <0.0002 |
| ICPWATVAR (Dissolved) | Magnesium as Mg | 1 mg/l | U | | 13 | 13 | 8 |
| ICPMSW (Dissolved) | Manganese as Mn | 0.002 mg/l | U | | 0.223 | 0.003 | 0.002 |
| ICPMSW (Dissolved) | Mercury as Hg | 0.00003 mg/l | U | | <0.00003 | <0.00003 | <0.00003 |
| ICPMSW (Dissolved) | Nickel as Ni | 0.001 mg/l | U | | 0.001 | <0.001 | <0.001 |
| ICPWATVAR (Dissolved) | Potassium as K | 1 mg/l | U | | 1 | <1 | <1 |
| ICPMSW (Dissolved) | Selenium as Se | 0.001 mg/l | U | | <0.001 | <0.001 | <0.001 |
| ICPWATVAR (Dissolved) | Sodium as Na | 1 mg/l | U | | 60 | 10 | 5 |
| ICPWATVAR (Dissolved) | Total Sulphur as SO4 | 3 mg/l | U | | 69 | 25 | 19 |
| ICPMSW (Dissolved) | Zinc as Zn | 0.002 mg/l | U | | 0.005 | 0.003 | 0.005 |
| PAHMSW | Acenaphthene | 0.01 µg/l | U | | 0.01 | <0.01 | <0.01 |
| | Acenaphthylene | 0.01 µg/l | U | | <0.01 | <0.01 | <0.01 |
| | Anthracene | 0.01 µg/l | U | | <0.01 | <0.01 | <0.01 |
| | Benzo[a]anthracene | 0.01 µg/l | U | | 0.03 | <0.01 | 0.01 |
| | Benzo[a]pyrene | 0.01 µg/l | U | | 0.07 | 0.01 | 0.02 |
| | Benzo[b]fluoranthene | 0.01 µg/l | U | | 0.08 | 0.02 | 0.04 |
| | Benzo[g,h,i]perylene | 0.01 µg/l | U | | 0.05 | 0.01 | 0.02 |
| | Benzo[k]fluoranthene | 0.01 µg/l | U | | 0.03 | <0.01 | 0.01 |
| | Chrysene | 0.01 µg/l | U | | 0.04 | 0.01 | 0.02 |
| | Dibenzo[a,h]anthracene | 0.01 µg/l | U | | 0.01 | <0.01 | <0.01 |
| | Fluoranthene | 0.01 µg/l | U | | 0.10 | 0.02 | 0.04 |
| | Fluorene | 0.01 µg/l | U | | 0.03 | <0.01 | <0.01 |
| | Indeno[1,2,3-cd]pyrene | 0.01 µg/l | U | | 0.04 | <0.01 | 0.01 |
| | Naphthalene | 0.01 µg/l | U | | 0.05 | 0.03 | 0.01 |
| | Phenanthrene | 0.01 µg/l | U | | 0.28 | 0.04 | 0.03 |
| | Pyrene | 0.01 µg/l | U | | 0.12 | 0.03 | 0.05 |
| | Total PAH 16 | 0.16 µg/l | U | | 0.98 | 0.26 | 0.31 |
| SVOCSW | 1,2,4-Trichlorobenzene | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 1,2-Dichlorobenzene | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 1,3-Dichlorobenzene | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 1,4-Dichlorobenzene | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 1-Methylnaphthalene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | 2,4,5-Trichlorophenol | 0.02 mg/l | N | | <0.400 ▫ | <0.400 ▫ | <0.400 ▫ |
| | 2,4,6-Trichlorophenol | 0.02 mg/l | N | | <0.400 ▫ | <0.400 ▫ | <0.400 ▫ |
| | 2,4-Dichlorophenol | 0.02 mg/l | N | | <0.400 ▫ | <0.400 ▫ | <0.400 ▫ |
| | 2,4-Dimethylphenol | 0.02 mg/l | N | | <0.400 ▫ | <0.400 ▫ | <0.400 ▫ |
| | 2,4-Dinitrophenol | 0.01 mg/l | N | | <0.200 ▫ | <0.200 ▫ | <0.200 ▫ |
| | 2,4-Dinitrotoluene | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 2,6-Dinitrotoluene | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 2-Chloronaphthalene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | 2-Chlorophenol | 0.02 mg/l | N | | <0.400 ▫ | <0.400 ▫ | <0.400 ▫ |
| | 2-Methylnaphthalene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | 2-Methylphenol | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 2-Nitroaniline | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 2-Nitrophenol | 0.02 mg/l | N | | <0.400 ▫ | <0.400 ▫ | <0.400 ▫ |
| | 3- & 4-Methylphenol | 0.02 mg/l | N | | <0.400 ▫ | <0.400 ▫ | <0.400 ▫ |
| | 3-Nitroaniline | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 4,6-Dinitro-2-methylphenol | 0.05 mg/l | N | | <1.00 ▫ | <1.00 ▫ | <1.00 ▫ |
| | 4-Bromophenyl-phenylether | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 4-Chloro-3-methylphenol | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 4-Chloroaniline | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 4-Chlorophenol | 0.02 mg/l | N | | <0.400 ▫ | <0.400 ▫ | <0.400 ▫ |
| | 4-Chlorophenyl-phenylether | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 4-Nitroaniline | 0.005 mg/l | N | | <0.100 ▫ | <0.100 ▫ | <0.100 ▫ |
| | 4-Nitrophenol | 0.05 mg/l | N | | <1.00 ▫ | <1.00 ▫ | <1.00 ▫ |
| | Acenaphthene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | Acenaphthylene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | Anthracene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | Azobenzene | 0.01 mg/l | N | | <0.200 ▫ | <0.200 ▫ | <0.200 ▫ |
| | Benzo[a]anthracene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | Benzo[a]pyrene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | Benzo[b]fluoranthene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |
| | Benzo[g,h,i]perylene | 0.002 mg/l | N | | <0.040 ▫ | <0.040 ▫ | <0.040 ▫ |

## Analysis Results

| Method Code | Analysis | MDL | Accred. | SOCOTEC Sample ID: | 26013437-001 | 26013437-002 | 26013437-003 |
|---|---|---|---|---|---|---|---|
| | | | | Sampling Date: | 26/01/2026 13:25 | 26/01/2026 14:00 | 26/01/2026 14:25 |
| | | | | Customer ID: | BH1 | BH2 | BH3 |
| SVOCSW | Benzo[k]fluoranthene | 0.002 mg/l | N | | <0.040 D | <0.040 D | <0.040 D |
| | Benzoic Acid | 0.1 mg/l | N | | <2.00 D | <2.00 D | <2.00 D |
| | Benzyl alcohol | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Biphenyl | 0.002 mg/l | N | | <0.040 D | <0.040 D | <0.040 D |
| | bis(2-Chloroethoxy)methane | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | bis(2-Chloroethyl)ether | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | bis(2-Chloroisopropyl)ether | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | bis(2-Ethylhexyl)phthalate | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Butylbenzylphthalate | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Carbazole | 0.01 mg/l | N | | <0.200 D | <0.200 D | <0.200 D |
| | Chrysene | 0.002 mg/l | N | | <0.040 D | <0.040 D | <0.040 D |
| | Coronene | 0.05 mg/l | N | | <1.00 D | <1.00 D | <1.00 D |
| | Dibenzo[a,h]anthracene | 0.002 mg/l | N | | <0.040 D | <0.040 D | <0.040 D |
| | Dibenzofuran | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Diethylphthalate | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Dimethylphthalate | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Di-n-butylphthalate | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Di-n-octylphthalate | 0.002 mg/l | N | | <0.040 D | <0.040 D | <0.040 D |
| | Diphenyl ether | 0.002 mg/l | N | | <0.040 D | <0.040 D | <0.040 D |
| | Fluoranthene | 0.002 mg/l | N | | <0.040 D | <0.040 D | <0.040 D |
| | Fluorene | 0.002 mg/l | N | | <0.040 D | <0.040 D | <0.040 D |
| | Hexachlorobenzene | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Hexachlorobutadiene | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Hexachlorocyclopentadiene | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Hexachloroethane | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Indeno[1,2,3-cd]pyrene | 0.002 mg/l | N | | <0.040 D | <0.040 D | <0.040 D |
| | Isophorone | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Naphthalene | 0.002 mg/l | N | | <0.040 D | <0.040 D | <0.040 D |
| | Nitrobenzene | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | N-Nitroso-di-n-propylamine | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | N-Nitrosodiphenylamine | 0.005 mg/l | N | | <0.100 D | <0.100 D | <0.100 D |
| | Pentachlorophenol | 0.05 mg/l | N | | <1.00 D | <1.00 D | <1.00 D |
| | Phenanthrene | 0.002 mg/l | N | | <0.040 D | <0.040 D | <0.040 D |
| | Phenol | 0.02 mg/l | N | | <0.400 D | <0.400 D | <0.400 D |
| | Pyrene | 0.002 mg/l | N | | <0.040 D | <0.040 D | <0.040 D |
| VOCHSAW | 1,1,1,2-Tetrachloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1,1-Trichloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1,2,2-Tetrachloroethane | 1 µg/l | N | | <1 | <1 | <1 |
| | 1,1,2-Trichloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1-Dichloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1-Dichloroethene | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,1-Dichloropropene | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2,3-Trichlorobenzene | 5 µg/l | U | | <5 | <5 | <5 |
| | 1,2,3-Trichloropropane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2,4-Trichlorobenzene | 5 µg/l | U | | <5 | <5 | <5 |
| | 1,2,4-Trimethylbenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2-Dibromo-3-chloropropane | 5 µg/l | U | | <5 | <5 | <5 |
| | 1,2-Dibromoethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2-Dichlorobenzene | 5 µg/l | U | | <5 | <5 | <5 |
| | 1,2-Dichloroethane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,2-Dichloropropane | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,3,5-Trimethylbenzene | 0.6 µg/l | U | | <0.6 | <0.6 | <0.6 |
| | 1,3-Dichlorobenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | 1,3-Dichloropropane | 1 µg/l | N | | <1 | <1 | <1 |
| | 1,4-Dichlorobenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | 2,2-Dichloropropane | 1 µg/l | N | | <1 | <1 | <1 |
| | 2-Chlorotoluene | 1 µg/l | U | | <1 | <1 | <1 |
| | 4-Chlorotoluene | 1 µg/l | U | | <1 | <1 | <1 |
| | Benzene | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromobenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromochloromethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromodichloromethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromoform | 1 µg/l | U | | <1 | <1 | <1 |
| | Bromomethane | 5 µg/l | N | | <5 | <5 | <5 |
| | Carbon Tetrachloride | 1 µg/l | U | | <1 | <1 | <1 |
| | Chlorobenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | Chloroethane | 5 µg/l | U | | <5 | <5 | <5 |
| | Chloroform | 5 µg/l | U | | <5 | <5 | <5 |
| | Chloromethane | 1 µg/l | U | | <1 | <1 | <1 |
| | cis 1,2-Dichloroethene | 1 µg/l | U | | <1 | <1 | <1 |
| | cis 1,3-Dichloropropene | 1 µg/l | N | | <1 | <1 | <1 |
| | Dibromochloromethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Dibromomethane | 1 µg/l | U | | <1 | <1 | <1 |
| | Dichlorodifluoromethane | 1 µg/l | N | | <1 | <1 | <1 |
| | Ethylbenzene | 0.5 µg/l | U | | <0.5 | <0.5 | <0.5 |
| | Hexachlorobutadiene | 5 µg/l | U | | <5 | <5 | <5 |
| | iso-Propylbenzene | 1 µg/l | U | | <1 | <1 | <1 |
| | m and p-Xylene | 1 µg/l | U | | <1 | <1 | <1 |
| | MTBE | 1 µg/l | N | | <1 | <1 | <1 |

## Project Number: 26013437

**Client:** Silkstone Environmental Ltd
**Date Issued:** 16/02/2026
**Project Name:** Scheduled Samples 01-2026 - Ten Yards Lane

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## Analysis Results

| Method Code | Analysis | MDL | Accred. | SOCOTEC Sample ID: 26013437-001<br>Sampling Date: 26/01/2026 13:25<br>Customer ID: BH1 | 26013437-002<br>26/01/2026 14:00<br>BH2 | 26013437-003<br>26/01/2026 14:25<br>BH3 |
|---|---|---|---|---|---|---|
| VOCHSAW | Naphthalene | 5 µg/l | U | <5 | <5 | <5 |
| | n-Butylbenzene | 1 µg/l | U | <1 | <1 | <1 |
| | o-Xylene | 1 µg/l | U | <1 | <1 | <1 |
| | p-Isopropyltoluene | 1 µg/l | U | <1 | <1 | <1 |
| | Propylbenzene | 1 µg/l | U | <1 | <1 | <1 |
| | sec-Butylbenzene | 1 µg/l | U | <1 | <1 | <1 |
| | Styrene | 1 µg/l | U | <1 | <1 | <1 |
| | tert-Butylbenzene | 1 µg/l | U | <1 | <1 | <1 |
| | Tetrachloroethene | 5 µg/l | U | <5 | <5 | <5 |
| | Toluene | 1 µg/l | U | <1 | <1 | <1 |
| | trans 1,2-Dichloroethene | 1 µg/l | U | <1 | <1 | <1 |
| | trans 1,3-Dichloropropene | 1 µg/l | U | <1 | <1 | <1 |
| | Trichloroethene | 5 µg/l | U | <5 | <5 | <5 |
| | Trichlorofluoromethane | 1 µg/l | U | <1 | <1 | <1 |
| | Vinyl Chloride | 1 µg/l | U | <1 | <1 | <1 |

## Project Number: 26013437

**Client:** Silkstone Environmental Ltd
**Date Issued:** 16/02/2026
**Project Name:** Scheduled Samples 01-2026 - Ten Yards Lane

### Deviating Sample Report

| Sample Reference | Text ID | Method Code | Inadequate Transit Cooling | Incorrect Container | Incorrect Label | Headspace | Incorrect/No Preservative | No Sampling Date | Holding Time |
|---|---|---|---|---|---|---|---|---|---|
| BH1 | 26013437-001 | **PHCONDW** | | | | | | | ✓ |
| BH2 | 26013437-002 | **PHCONDW** | | | | | | | ✓ |
| BH3 | 26013437-003 | **PHCONDW** | | | | | | | ✓ |

### Analysis Method

| Method Code | Method Description | Analysis Method |
|---|---|---|
| ICPMSW (Dissolved) | Arsenic (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Cadmium (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Chromium (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Copper (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Lead (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Manganese (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Mercury (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Nickel (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Selenium (Diss.) in Water by ICPMS | Filtered |
| ICPMSW (Dissolved) | Zinc (Diss.) in Water by ICPMS | Filtered |
| ICPWATVAR (Dissolved) | Boron (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Calcium (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Iron (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Magnesium (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Potassium (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Sodium (Diss.) in Water by ICPOES | Filtered |
| ICPWATVAR (Dissolved) | Total Sulphur as SO4 (Diss.) in Water | Filtered |
| ISEF | Fluoride by ISE | Unfiltered |
| KONENS | Ammoniacal Nitrogen as N | Filtered |
| KONENS | Chloride by Colorimetry | Filtered |
| KONENS | Nitrite as N by Colorimetry | Filtered |
| PAHMSW | 16 PAHs by GCMS | Unfiltered |
| PHCONDW | Electrical Conductivity @ 20°C | Unfiltered |
| PHCONDW | pH | Unfiltered |
| SVOCSW | SVOCs (Target List) by GCMS | Unfiltered |
| TOCW | DOC: Dissolved Organic Carbon | Filtered |
| VOCHSAW | VOCs (Target List) by GCMS | Unfiltered |
| WSLM12 | Total Alkalinity as CaCO3 | Unfiltered |
| WSLM27 | TDS: Total Dissolved Solids | Filtered |

## Project Number: 26013437

**Client:** Silkstone Environmental Ltd
**Date Issued:** 16/02/2026
**Project Name:** Scheduled Samples 01-2026 - Ten Yards Lane

### Result Report Notes

Letters alongside results signify that the result has associated report notes.
The report notes are as follows:

| Letter | Note |
|---|---|
| A | Due to the matrix of the sample the laboratory has had to deviate from our standard protocols to be able to process the sample and provide a result. Where applicable the accreditation has been removed and this should be taken into consideration when utilising the data. |
| B | The QC associated with this result has not wholly met the QMS requirements, the accreditation has therefore been removed. However, the Laboratory has confidence in the performance of the method as a whole and that the integrity of the data has not been significantly compromised. |
| C | Due to matrix interference, the internal standard and/or surrogate has not met the QMS requirements. This should be taken into consideration when utilising the data. |
| D | A non-standard volume or mass has been used for this test which has resulted in a raised detection limit. |
| E | Due to the parameter value being beyond our calibration range (and following the maximum size of dilution allowed, where applicable), the result cannot be quantified and as such the result will appear as a greater than symbol (>) with the accreditation removed. This data should be used for indicative purposes only. |
| F | Based on the sample history, appearance and smell a dilution was applied prior to testing. Unfortunately, the result is either above (>) or below (<) our calibration range. Results above our calibration range have accreditation removed. The data should be used for indicative purposes only. |
| G | The day 5 oxygen reading was below the capability of the instrument to detect, and therefore the calculated BOD has been reported unaccredited for guidance purposes only. |

### HWOL Acronym Key

| Acronym | Description |
|---|---|
| HS | Headspace Analysis |
| EH | Extractable Hydrocarbons - i.e everything extracted by the solvent(s) |
| CU | Clean up - e.g. by florisil, silica gel |
| 1D | GC - Single coil gas chromatography |
| Total | Aliphatics & Aromatics |
| AL | Aliphatics only |
| AR | Aromatics only |
| + | Operator to indicate cumulative e.g. EH_CU+HS_1D_Total |

### SVOCSW - N-Nitrosodiphenylamine

N-Nitrosodiphenylamine decomposes in the GC inlet and cannot be separated from diphenylamine. For this reason we will report a combined result for N-Nitrosodiphenylamine and Diphenylamine.

## Project Number: 26013437

**Client:** Silkstone Environmental Ltd
**Date Issued:** 16/02/2026
**Project Name:** Scheduled Samples 01-2026 - Ten Yards Lane

### Additional Information

This report refers to samples as received. SOCOTEC UK Ltd takes no responsibility for accuracy or competence of sampling by others.

Results within this report relate only to the samples tested.

The accreditation codes are as follows:

U = UKAS accredited analysis
M = MCERT accredited analysis
N = Unaccredited analysis

Any accreditation marked with ^ signify results are reported on a dry weight basis of 105 ° C.

All Air Dried and Ground Samples (ADG) are oven dried at less than 35° C.

This report shall not be reproduced except in full, without written approval of the laboratory.

Opinions and interpretations given are outside the scope of our UKAS accreditation.

Any results marked with * are not covered by our scope of UKAS accreditation. If applicable, further report notes have been added.

Any solid samples where the Major Constituents are not one of the following (Sand, Silt, Clay, Made Ground) are not one of our accredited matrix types.

Any samples marked with a tick in the deviant table is deviant for the specific reason.

Any samples reported as IS, NA, ND mean the following:

IS = Insufficient Sample to complete analysis
NA = Sample is not amenable for the required analysis
ND = Results cannot be determined

Items listed with a 'SUB' method code prefix have been carried out by another SOCOTEC department or by an external subcontracted laboratory. Further information is available upon request.

Our deviating sample report does not include deviancy information for Subcontracted analysis. Please see the report from the subcontracted lab for information regarding any deviancies for this analysis.

Summaries of analysis methods are available upon request.

## End of Certificate of Analysis

# Appendix D

LandSim configuration and results

**Calculation Settings**

Number of iterations: 1001

Results calculated using sampled PDFs

Full Calculation

Clay Liner:

Retarded values used for simulation

No Biodegradation

Unsaturated Pathway:

Retarded values used for simulation

No Biodegradation

Saturated Vertical Pathway:

No Vertical Pathway

Aquifer Pathway:

Retarded values used for simulation

No Biodegradation

Timeslices at: 30, 100, 300, 1000

**Decline in Contaminant Concentration in Leachate**

| | |
|---|---|
| Cadmium | Non-Volatile |
| c (kg/l): 0.1589 | m (kg/l): 0.0823 |
| Lead | Non-Volatile |
| c (kg/l): 0.0171 | m (kg/l): 0.0443 |
| Sulphate | Non-Volatile |
| c (kg/l): 0.1209 | m (kg/l): 0.0166 |



RECORD OF RISK ASSESSMENT MODEL
Project: Waste Recovery
Project Number: Risk 0000
Customer: SEL
Write Project Notes Here

**Background Concentrations of Contaminants**

Justification for Contaminant Properties

Unjustified value

All units in milligrams per litre

***Phase: Phase 1***

**Infiltration Information**

| | |
|---|---|
| Cap design infiltration (mm/year): | SINGLE(50) |
| Infiltration to waste (mm/year): | SINGLE(100) |
| End of filling (years from start of waste deposit): | 10 |

Justification for Specified Infiltration
Unjustified value

Duration of management control (years from the start of waste disposal): 10

**Cell dimensions**

| | |
|---|---|
| Cell width (m): | 250 |
| Cell length (m): | 150 |
| Cell top area (ha): | 6 |
| Cell base area (ha): | 3.75 |
| Number of cells: | 1 |
| Total base area (ha): | 3.75 |
| Total top area (ha): | 6 |
| Head of Leachate when surface water breakout occurs (m) | SINGLE(5) |
| Waste porosity (fraction) | TRIANGULAR(0.639,0.64,0.642) |
| Final waste thickness (m): | UNIFORM(5,20) |
| Field capacity (fraction): | TRIANGULAR(0.2,0.3,0.35) |
| Waste dry density (kg/l) | TRIANGULAR(1.58,1.59,1.6) |

Justification for Landfill Geometry
Unjustified value





**Source concentrations of contaminants**

*All units in milligrams per litre*

Declining source term

| | |
|---|---|
| Cadmium | SINGLE(0.004) |
| | *Substance to be treated as List 1* |
| Lead | SINGLE(0.05) |
| | *Data are spot measurements of Leachate Quality* |
| Sulphate | SINGLE(690) |
| | *Data are spot measurements of Leachate Quality* |

Justification for Species Concentration in Leachate
Unjustified value

**Drainage Information**

Fixed Head.

| | |
|---|---|
| Head on EBS is given as (m): | SINGLE(0.1) |

Justification for Specified Head
Unjustified value

**Barrier Information**

There is no barrier

Justification for Engineered Barrier Type
Unjustified value

**Elland Flags pathway parameters**

*Modelled as unsaturated pathway*

| | |
|---|---|
| Pathway length (m): | UNIFORM(9,20) |
| Flow Model: | porous medium |
| Pathway moisture content (fraction): | SINGLE(0.4) |
| Pathway Density (kg/l): | SINGLE(1.6) |

Justification for Unsat Zone Geometry
Unjustified value

| | |
|---|---|
| Pathway hydraulic conductivity values (m/s): | UNIFORM(4.6e-006,4.6e-005) |

Justification for Unsat Zone Hydraulics Properties
Unjustified value

| | |
|---|---|
| Pathway longitudinal dispersivity (m): | SINGLE(0.3) |

Justification for Unsat Zone Dispersion Properties
Unjustified value

*Retardation parameters for Elland Flags pathway*
Modelled as unsaturated pathway
Uncertainty in Kd (l/kg):

| | |
|---|---|
| Cadmium | SINGLE(1500) |
| Lead | UNIFORM(27,270000) |
| Sulphate | SINGLE(0) |

Justification for Kd Values by Species
Unjustified value

**Aquifer Pathway Dimensions for Phase**

| | |
|---|---|
| Pathway length (m): | UNIFORM(160,360) |
| Pathway width (m): | SINGLE(300) |

**pathway parameters**

No Vertical Pathway





**Elland Flags pathway parameters**

*Modelled as aquifer pathway.*

| | |
|---|---|
| Mixing zone (m): | UNIFORM(2,9) |

Justification for Aquifer Geometry
Unjustified value

| | |
|---|---|
| Pathway regional gradient (-): | SINGLE(0.01) |
| Pathway hydraulic conductivity values (m/s): | SINGLE(4.6e-005) |
| Pathway porosity (fraction): | SINGLE(0.25) |

Justification for Aquifer Hydraulics Properties
Unjustified value

| | |
|---|---|
| Pathway longitudinal dispersivity (m): | SINGLE(30) |
| Pathway transverse dispersivity (m): | SINGLE(3) |

Justification for Aquifer Dispersion Details
Unjustified value

*Retardation parameters for Elland Flags pathway*
Modelled as aquifer pathway.
Uncertainty in Kd (l/kg):

| | |
|---|---|
| Cadmium | SINGLE(1.6) |
| Lead | SINGLE(27) |
| Sulphate | SINGLE(0) |

Justification for Aquifer Kd Values by Species
Unjustified value

| | |
|---|---|
| Pathway Density (kg/l): | SINGLE(1.6) |

*Concentration of Cadmium in groundwater [mg/l]*

At 30 years

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

Minimum 0 Maximum 0

Mean 0 Std. Dev. 0 Variance 0

At 100 years

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

Minimum 0 Maximum 0

Mean 0 Std. Dev. 0 Variance 0

At 300 years

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

Minimum 0 Maximum 0

Mean 0 Std. Dev. 0 Variance 0

At 1000 years

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

Minimum 0 Maximum 0

Mean 0 Std. Dev. 0 Variance 0



RECORD OF RISK ASSESSMENT RESULTS

Project: Waste Recovery

Project Number: Risk 0000 Customer: SEL

Write Project Notes Here

*Concentration of Cadmium in groundwater [mg/l]*

At infinity

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

Minimum 0 Maximum 0

Mean 0 Std. Dev. 0 Variance 0

*Concentration of Lead in groundwater [mg/l]*

At 30 years

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 100 years

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 300 years

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 1000 years

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |



RECORD OF RISK ASSESSMENT RESULTS

Project: Waste Recovery

Project Number: Risk 0000 Customer: SEL

Write Project Notes Here

*Concentration of Lead in groundwater [mg/l]*

At infinity

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

*Concentration of Sulphate in groundwater [mg/l]*

At 30 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 100 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 300 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 1000 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |





*Concentration of Sulphate in groundwater [mg/l]*

At infinity

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

**Phase: Phase 1**

*Concentration of Cadmium at base of Unsaturated Zone [mg/l]*

At 30 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 100 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 300 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 1000 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |





**Phase: Phase 1**

*Concentration of Cadmium at base of Unsaturated Zone [mg/l]*

At infinity

01% of values less than 8.1531E-017
05% of values less than 3.27518E-016
10% of values less than 2.88922E-015
50% of values less than 5.47568E-010
90% of values less than 6.36205E-007
95% of values less than 1.18812E-006
99% of values less than 1.94102E-006

| | | |
|---|---|---|
| Minimum 3.87485E-017 | Maximum 2.73925E-006 | |
| Mean 1.769E-007 | Std. Dev. 4.15202E-007 | Variance 1.72393E-013 |

**Phase: Phase 1**

*Concentration of Lead at base of Unsaturated Zone [mg/l]*

At 30 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 100 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 300 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 1000 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |





**Phase: Phase 1**

*Concentration of Lead at base of Unsaturated Zone [mg/l]*

At infinity

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 6.83132E-017

| | | |
|---|---|---|
| Minimum 0 | Maximum 6.83434E-005 | |
| Mean 6.82751E-008 | Std. Dev. 2.16013E-006 | Variance 4.66615E-012 |

**Phase: Phase 1**

*Concentration of Sulphate at base of Unsaturated Zone [mg/l]*

At 30 years

| | | |
|---|---|---|
| 01% of values less than 524.187 | | |
| 05% of values less than 545.281 | | |
| 10% of values less than 561.764 | | |
| 50% of values less than 618.99 | | |
| 90% of values less than 642.149 | | |
| 95% of values less than 646.219 | | |
| 99% of values less than 650.592 | | |
| Minimum 513.636 | Maximum 655.118 | |
| Mean 609.74 | Std. Dev. 32.1252 | Variance 1032.03 |

At 100 years

| | | |
|---|---|---|
| 01% of values less than 159.89 | | |
| 05% of values less than 183.272 | | |
| 10% of values less than 217.166 | | |
| 50% of values less than 372.572 | | |
| 90% of values less than 459.027 | | |
| 95% of values less than 465.729 | | |
| 99% of values less than 471.753 | | |
| Minimum 152.908 | Maximum 473.184 | |
| Mean 354.143 | Std. Dev. 89.8203 | Variance 8067.68 |

At 300 years

| | | |
|---|---|---|
| 01% of values less than 6.24043 | | |
| 05% of values less than 9.67659 | | |
| 10% of values less than 16.6854 | | |
| 50% of values less than 94.9497 | | |
| 90% of values less than 185.774 | | |
| 95% of values less than 194.711 | | |
| 99% of values less than 202.891 | | |
| Minimum 5.40309 | Maximum 204.917 | |
| Mean 98.1437 | Std. Dev. 61.6734 | Variance 3803.6 |

At 1000 years

| | | |
|---|---|---|
| 01% of values less than 0.000100564 | | |
| 05% of values less than 0.000395958 | | |
| 10% of values less than 0.00244189 | | |
| 50% of values less than 0.855911 | | |
| 90% of values less than 8.24471 | | |
| 95% of values less than 9.65909 | | |
| 99% of values less than 11.0986 | | |
| Minimum 6.36909E-005 | Maximum 11.4778 | |
| Mean 2.55751 | Std. Dev. 3.23252 | Variance 10.4492 |



RECORD OF RISK ASSESSMENT RESULTS
Project: Waste Recovery
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**Phase: Phase 1**

*Concentration of Sulphate at base of Unsaturated Zone [mg/l]*

At infinity

| | | |
|---|---|---|
| 01% of values less than 0 | | |
| 05% of values less than 0 | | |
| 10% of values less than 1.12941E-013 | | |
| 50% of values less than 1.58499E-012 | | |
| 90% of values less than 5.55207E-012 | | |
| 95% of values less than 7.65531E-012 | | |
| 99% of values less than 1.36548E-011 | | |
| Minimum 0 | Maximum 4.34095E-011 | |
| Mean 2.50773E-012 | Std. Dev. 3.14733E-012 | Variance 9.90571E-024 |

**Phase: Phase 1**

*Concentration of Cadmium at Phase Monitor Well [mg/l]*

At 30 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 100 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 300 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 1000 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |





**Phase: Phase 1**

*Concentration of Cadmium at Phase Monitor Well [mg/l]*

At infinity

01% of values less than 0
05% of values less than 1.92592E-018
10% of values less than 2.06305E-017
50% of values less than 2.7602E-011
90% of values less than 1.64231E-007
95% of values less than 3.54972E-007
99% of values less than 6.20341E-007

| | | |
|---|---|---|
| Minimum 0 | Maximum 1.1877E-006 | |
| Mean 4.87163E-008 | Std. Dev. 1.30103E-007 | Variance 1.69267E-014 |

**Phase: Phase 1**

*Concentration of Lead at Phase Monitor Well [mg/l]*

At 30 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 100 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 300 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 1000 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |





**Phase: Phase 1**

*Concentration of Lead at Phase Monitor Well [mg/l]*

At infinity

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 6.50445E-005 | |
| Mean 6.49796E-008 | Std. Dev. 2.05586E-006 | Variance 4.22657E-012 |

**Phase: Phase 1**

*Concentration of Sulphate at Phase Monitor Well [mg/l]*

At 30 years

01% of values less than 47.2707
05% of values less than 50.6879
10% of values less than 53.3329
50% of values less than 71.6747
90% of values less than 131.419
95% of values less than 143.364
99% of values less than 164.048

| | | |
|---|---|---|
| Minimum 44.8831 | Maximum 172.229 | |
| Mean 82.7202 | Std. Dev. 30.0008 | Variance 900.047 |

At 100 years

01% of values less than 17.9522
05% of values less than 22.1309
10% of values less than 25.9308
50% of values less than 44.2359
90% of values less than 80.458
95% of values less than 96.8039
99% of values less than 116.558

| | | |
|---|---|---|
| Minimum 15.2882 | Maximum 124.391 | |
| Mean 49.7047 | Std. Dev. 22.0805 | Variance 487.548 |

At 300 years

01% of values less than 1.05477
05% of values less than 1.66037
10% of values less than 2.70874
50% of values less than 13.212
90% of values less than 30.8823
95% of values less than 37.7657
99% of values less than 50.6928

| | | |
|---|---|---|
| Minimum 0.731901 | Maximum 57.284 | |
| Mean 15.2095 | Std. Dev. 11.2521 | Variance 126.61 |

At 1000 years

01% of values less than 5.23683E-005
05% of values less than 0.00022276
10% of values less than 0.000899675
50% of values less than 0.203623
90% of values less than 1.52712
95% of values less than 2.04054
99% of values less than 3.15353

| | | |
|---|---|---|
| Minimum 2.48836E-005 | Maximum 4.05357 | |
| Mean 0.539164 | Std. Dev. 0.728502 | Variance 0.530715 |





**Phase: Phase 1**

*Concentration of Sulphate at Phase Monitor Well [mg/l]*

At infinity

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 1.92848E-012
90% of values less than 6.90043E-012
95% of values less than 9.62077E-012
99% of values less than 2.27337E-011

| | | |
|---|---|---|
| Minimum 0 | Maximum 1.19802E-010 | |
| Mean 3.25065E-012 | Std. Dev. 5.98126E-012 | Variance 3.57755E-023 |

*Concentration of Cadmium in groundwater [mg/l]*

At 30 years

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

Minimum 0 Maximum 0

Mean 0 Std. Dev. 0 Variance 0

At 100 years

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

Minimum 0 Maximum 0

Mean 0 Std. Dev. 0 Variance 0

At 300 years

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

Minimum 0 Maximum 0

Mean 0 Std. Dev. 0 Variance 0

At 1000 years

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

Minimum 0 Maximum 0

Mean 0 Std. Dev. 0 Variance 0



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*Concentration of Cadmium in groundwater [mg/l]*

At infinity

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

Minimum 0 Maximum 0

Mean 0 Std. Dev. 0 Variance 0

*Concentration of Lead in groundwater [mg/l]*

At 30 years

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

Minimum 0 Maximum 0

Mean 0 Std. Dev. 0 Variance 0

At 100 years

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

Minimum 0 Maximum 0

Mean 0 Std. Dev. 0 Variance 0

At 300 years

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

Minimum 0 Maximum 0

Mean 0 Std. Dev. 0 Variance 0

At 1000 years

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

Minimum 0 Maximum 0

Mean 0 Std. Dev. 0 Variance 0



RECORD OF RISK ASSESSMENT RESULTS

Project: Waste Recovery

Project Number: Risk 0000 Customer: SEL

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*Concentration of Lead in groundwater [mg/l]*

At infinity

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

Minimum 0 Maximum 0

Mean 0 Std. Dev. 0 Variance 0

*Concentration of Sulphate in groundwater [mg/l]*

At 30 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 100 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 300 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 1000 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |



RECORD OF RISK ASSESSMENT RESULTS
Project: Waste Recovery
Project Number: Risk 0000
Customer: SEL
Write Project Notes Here

*Concentration of Sulphate in groundwater [mg/l]*

At infinity

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

**Phase: Phase 1**

*Concentration of Cadmium at base of Unsaturated Zone [mg/l]*

At 30 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 100 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 2.3174E-006 | |
| Mean 2.33253E-009 | Std. Dev. 7.3247E-008 | Variance 5.36513E-015 |

At 300 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 3.62367E-007

| | | |
|---|---|---|
| Minimum 0 | Maximum 0.00203671 | |
| Mean 6.67897E-006 | Std. Dev. 0.000100375 | Variance 1.00752E-008 |

At 1000 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 7.46137E-017
95% of values less than 3.5282E-007
99% of values less than 0.000396997

| | | |
|---|---|---|
| Minimum 0 | Maximum 0.00138012 | |
| Mean 1.36983E-005 | Std. Dev. 0.000107983 | Variance 1.16603E-008 |



RECORD OF RISK ASSESSMENT RESULTS
Project: Waste Recovery
Project Number: Risk 0000
Customer: SEL
Write Project Notes Here

**Phase: Phase 1**

*Concentration of Cadmium at base of Unsaturated Zone [mg/l]*

At infinity

01% of values less than 0
05% of values less than 3.08218E-017
10% of values less than 5.31452E-015
50% of values less than 1.95908E-007
90% of values less than 5.25781E-006
95% of values less than 6.88008E-006
99% of values less than 9.27606E-006

| | | |
|---|---|---|
| Minimum 0 | Maximum 1.0919E-005 | |
| Mean 1.52744E-006 | Std. Dev. 2.32951E-006 | Variance 5.42663E-012 |

**Phase: Phase 1**

*Concentration of Lead at base of Unsaturated Zone [mg/l]*

At 30 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 100 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 300 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 1000 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 2.48067E-008 | |
| Mean 2.4782E-011 | Std. Dev. 7.84066E-010 | Variance 6.1476E-019 |



RECORD OF RISK ASSESSMENT RESULTS
Project: Waste Recovery
Project Number: Risk 0000
Customer: SEL
Write Project Notes Here

**Phase: Phase 1**

*Concentration of Lead at base of Unsaturated Zone [mg/l]*

At infinity

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 8.23034E-014

| | | |
|---|---|---|
| Minimum 0 | Maximum 6.36587E-005 | |
| Mean 6.39001E-008 | Std. Dev. 2.01206E-006 | Variance 4.04839E-012 |

**Phase: Phase 1**

*Concentration of Sulphate at base of Unsaturated Zone [mg/l]*

At 30 years

| | | |
|---|---|---|
| 01% of values less than 529.122 | | |
| 05% of values less than 551.153 | | |
| 10% of values less than 565.002 | | |
| 50% of values less than 622.033 | | |
| 90% of values less than 642.552 | | |
| 95% of values less than 646.79 | | |
| 99% of values less than 651.395 | | |
| Minimum 517.65 | Maximum 654.875 | |
| Mean 612.352 | Std. Dev. 29.7065 | Variance 882.476 |

At 100 years

| | | |
|---|---|---|
| 01% of values less than 160.961 | | |
| 05% of values less than 195.783 | | |
| 10% of values less than 222.716 | | |
| 50% of values less than 379.497 | | |
| 90% of values less than 458.98 | | |
| 95% of values less than 465.958 | | |
| 99% of values less than 471.765 | | |
| Minimum 153.345 | Maximum 473.503 | |
| Mean 360.542 | Std. Dev. 86.6579 | Variance 7509.59 |

At 300 years

| | | |
|---|---|---|
| 01% of values less than 6.37497 | | |
| 05% of values less than 11.9687 | | |
| 10% of values less than 18.1109 | | |
| 50% of values less than 100.723 | | |
| 90% of values less than 185.781 | | |
| 95% of values less than 195.008 | | |
| 99% of values less than 202.926 | | |
| Minimum 5.45267 | Maximum 205.383 | |
| Mean 101.992 | Std. Dev. 60.7704 | Variance 3693.04 |

At 1000 years

| | | |
|---|---|---|
| 01% of values less than 0.00010499 | | |
| 05% of values less than 0.000857752 | | |
| 10% of values less than 0.00327256 | | |
| 50% of values less than 1.04493 | | |
| 90% of values less than 8.24412 | | |
| 95% of values less than 9.70977 | | |
| 99% of values less than 11.1051 | | |
| Minimum 6.64041E-005 | Maximum 11.5643 | |
| Mean 2.6904 | Std. Dev. 3.26811 | Variance 10.6806 |



RECORD OF RISK ASSESSMENT RESULTS
Project: Waste Recovery
Project Number: Risk 0000
Customer: SEL
Write Project Notes Here

**Phase: Phase 1**

*Concentration of Sulphate at base of Unsaturated Zone [mg/l]*

At infinity

| | | |
|---|---|---|
| 01% of values less than 0 | | |
| 05% of values less than 0 | | |
| 10% of values less than 1.16665E-013 | | |
| 50% of values less than 1.60427E-012 | | |
| 90% of values less than 6.03052E-012 | | |
| 95% of values less than 8.37166E-012 | | |
| 99% of values less than 1.73289E-011 | | |
| Minimum 0 | Maximum 1.09052E-010 | |
| Mean 2.64677E-012 | Std. Dev. 4.5283E-012 | Variance 2.05055E-023 |

**Phase: Phase 1**

*Concentration of Cadmium at Phase Monitor Well [mg/l]*

At 30 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 100 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 8.93539E-009 | |
| Mean 8.97025E-012 | Std. Dev. 2.82422E-010 | Variance 7.97623E-020 |

At 300 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 7.70739E-009

| | | |
|---|---|---|
| Minimum 0 | Maximum 0.000183012 | |
| Mean 6.53829E-007 | Std. Dev. 9.91169E-006 | Variance 9.82416E-011 |

At 1000 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 1.04064E-008
99% of values less than 4.58844E-005

| | | |
|---|---|---|
| Minimum 0 | Maximum 0.000285575 | |
| Mean 1.58149E-006 | Std. Dev. 1.39968E-005 | Variance 1.9591E-010 |





**Phase: Phase 1**

*Concentration of Cadmium at Phase Monitor Well [mg/l]*

At infinity

01% of values less than 7.81163E-019
05% of values less than 7.8618E-017
10% of values less than 1.56842E-015
50% of values less than 8.13031E-008
90% of values less than 3.15989E-006
95% of values less than 4.31314E-006
99% of values less than 6.04626E-006

| | | |
|---|---|---|
| Minimum 0 | Maximum 8.32779E-006 | |
| Mean 9.06553E-007 | Std. Dev. 1.49098E-006 | Variance 2.22303E-012 |

**Phase: Phase 1**

*Concentration of Lead at Phase Monitor Well [mg/l]*

At 30 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 100 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 300 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 0 | |
| Mean 0 | Std. Dev. 0 | Variance 0 |

At 1000 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

| | | |
|---|---|---|
| Minimum 0 | Maximum 1.11024E-011 | |
| Mean 1.10913E-014 | Std. Dev. 3.50913E-013 | Variance 1.2314E-025 |





**Phase: Phase 1**

*Concentration of Lead at Phase Monitor Well [mg/l]*

At infinity

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 2.70071E-015

| | | |
|---|---|---|
| Minimum 0 | Maximum 2.12632E-005 | |
| Mean 2.1266E-008 | Std. Dev. 6.72063E-007 | Variance 4.51669E-013 |

**Phase: Phase 1**

*Concentration of Sulphate at Phase Monitor Well [mg/l]*

At 30 years

01% of values less than 47.7283
05% of values less than 51.4526
10% of values less than 53.5886
50% of values less than 70.5892
90% of values less than 131.629
95% of values less than 145.038
99% of values less than 160.939

| | | |
|---|---|---|
| Minimum 44.3823 | Maximum 171.357 | |
| Mean 82.4642 | Std. Dev. 29.8282 | Variance 889.724 |

At 100 years

01% of values less than 18.3617
05% of values less than 23.403
10% of values less than 26.778
50% of values less than 44.3321
90% of values less than 84.8312
95% of values less than 95.1486
99% of values less than 115.813

| | | |
|---|---|---|
| Minimum 15.2832 | Maximum 125.684 | |
| Mean 50.201 | Std. Dev. 22.0225 | Variance 484.99 |

At 300 years

01% of values less than 0.963798
05% of values less than 2.11476
10% of values less than 3.11085
50% of values less than 13.8602
90% of values less than 31.2537
95% of values less than 37.9641
99% of values less than 49.4746

| | | |
|---|---|---|
| Minimum 0.728943 | Maximum 57.1841 | |
| Mean 15.6779 | Std. Dev. 11.1301 | Variance 123.88 |

At 1000 years

01% of values less than 4.63522E-005
05% of values less than 0.000376443
10% of values less than 0.00132663
50% of values less than 0.235396
90% of values less than 1.57495
95% of values less than 2.13463
99% of values less than 3.20428

| | | |
|---|---|---|
| Minimum 2.41992E-005 | Maximum 3.89795 | |
| Mean 0.563439 | Std. Dev. 0.732211 | Variance 0.536134 |





**Phase: Phase 1**

*Concentration of Sulphate at Phase Monitor Well [mg/l]*

At infinity

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 2.05456E-012
90% of values less than 7.69898E-012
95% of values less than 1.19317E-011
99% of values less than 2.12403E-011

| | | |
|---|---|---|
| Minimum 0 | Maximum 1.13564E-010 | |
| Mean 3.38661E-012 | Std. Dev. 5.4712E-012 | Variance 2.9934E-023 |