

**PHASE 1 & PHASE 2 GEOTECHNICAL AND
GEO-ENVIRONMENTAL SITE INVESTIGATION**

**LAND AT NEW MILL ROAD,
HOLMFIRTH**

FOR

PROSPECT ESTATES



39141-001

1 December 2015

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ISSUE 1

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1.0 EXECUTIVE SUMMARY

1. This report presents the findings of a geotechnical and geo-environmental site investigation undertaken on a piece of land located to the west of New Mill Road, Holmfirth. The site has an area of around 2.3 hectares, and is centred around Ordnance Survey national grid reference SE 148 092 (414830 409280). It is proposed to redevelop the site for residential use.
2. The site is currently derelict, having previously been occupied by a car dealership with associated showrooms and workshop buildings, as well as car parking areas. It is understood that a fuel filling station was also located in the east of the site. The site is currently split over a number of terraces.
3. Historically, the site was used as a landfill probably from the mid-1960s, with a garage also occupying the south eastern corner of the site from a similar time. The former dealership is thought to have been constructed in the 1990s, and was removed sometime after 2003, when it closed.
4. The geological maps indicate the site to be underlain by strata of the Millstone Grit series. The Huddersfield White Rock sandstone is indicated to underlie the majority of the site, with the Marsden Formation mudstone and siltstone beneath the eastern edge of the site.
5. The site is not considered to be at risk from historical mine workings at shallow depth. A thin seam of coal is likely to be present below the eastern side of the site, but this is unlikely to have been worked.
6. A trial pit and borehole investigation has been undertaken on the site. A previous investigation was also undertaken by others in 2008.
7. The site has undergone a significant amount of filling previously with various landfill materials having been placed to depths of between 1.6 m and 11.3 m bgl. The landfill materials are variable in composition and compactness. Below the made ground, a relatively thin layer of firm to stiff clay is generally encountered with sandstone bedrock below this in the west of the site, and mudstone or siltstone in the east.
8. There is an area in the south west of the site where a significant depth of fill has not been placed, and natural ground is present at shallow depth, which comprises sandstone bedrock or firm to stiff clay overlying mudstone.

9. Piled foundations will be required for most plots due to the depth of filled ground. A number of plots in the south and south western parts of the site, where the depth of fill is much reduced, may use strip or trench fill footings constructed in the natural ground at a minimum depth of between 600 mm and 1 m bgl, and deeper near to trees where cohesive soils are present.
10. Precast concrete floors are recommended for all plots with a 300 mm ventilated void below.
11. No radon protective measures are required.
12. The site lies within a registered landfill. Elevated concentrations of methane and carbon dioxide have been recorded during previous gas monitoring undertaken on the site. Eastwood & Partners are due to undertake further monitoring to confirm these results, but at this stage it is considered necessary to adopt NHBC 'Amber 2' precautions for plots in the north western area of the site, and 'Amber 1' precautions elsewhere.
13. The site does not lie within an indicative flood plain due to river waters.
14. Soakaway drainage is not considered viable. Piped drainage will be required.
15. The results of sulphate testing indicate that Class DS-3 AC-3 sulphate precautions are required where foundations or other sub-surface concrete structures will be in contact with the made ground. Class DS-1 AC-1 concrete will be suitable where natural ground is present around sub-surface concrete.
16. The water supplier will need to confirm whether protective pipes will be required for clean water installations.
17. The made ground locally contains elevated concentrations of arsenic, lead and PAHs. It is recommended that a 600 mm capping layer of inert soil is placed over the made ground in all gardens and areas of soft landscaping. At least 150 mm of topsoil should be placed within the capping layer. A geo-textile marker is also recommended to be placed at the base of the capping layer. Clean subsoil and topsoil will need to be imported to site to construct the capping.
18. No significant risks are considered to be presented to construction workers, or to controlled waters.
19. The conclusions made in this report in relation to contamination are subject to agreement by the approving bodies such as the Local Authority and the NHBC, if applicable.

2.0 INTRODUCTION

2.1 Terms of Reference

This report presents the findings of a Phase 1 desktop and Phase 2 intrusive geotechnical and geo-environmental site investigation carried out by Eastwood & Partners (Consulting Engineers) Ltd for, and on the instructions of, Prospect Estates. Any other parties using the information in this report do so at their own risk and any duty of care is excluded.

2.2 Context

Ian Farmer Associates have previously undertaken an intrusive ground investigation on the site on behalf of others. A copy of their “Final Factual Report on Ground Investigation”, reference W08/40349, dated October 2008, has been provided by the client and reviewed by Eastwood & Partners. Relevant Information from the previous report has been used in designing this investigation.

No other investigations are known to have been undertaken on the site previously.

2.3 Aims and Objectives

The aims and objectives of this investigation were as follows.

- Assimilate Phase 1 data to derive an outline conceptual model identifying potential contaminants, pathways and receptors, as well as possible linkages between these;
- Obtain additional information and incorporate with previous data enabling refinement and subsequent further testing of the conceptual model;
- Detail the ground conditions and their geotechnical properties enabling outline foundation proposals to be made for the proposed residential properties;
- Carry out tiered risk assessment to establish the likely risks to future receptors, involving the use of generic assessment criteria and where unacceptable risks are identified, site specific assessment criteria within a detailed quantitative risk assessment;
- Identify feasible remediation options if unacceptable risks are highlighted;
- Develop an appropriate remediation strategy where remediation is required.

2.4 Scope of Investigation

This document is split into two sections. These constitute the findings of the Phase 1 and Phase 2 investigations consecutively.

2.4.1 Phase 1

The Phase 1 investigation involved a review of information extracted from published documentation as well as that obtained from a site reconnaissance. Information regarding the current and former land uses both on and surrounding the site, as well as the environmental sensitivity of the site location as determined by factors including geology, hydrogeology and hydrology have been examined.

Information analysed in this section of the report has been obtained from a variety of sources and included the following:

- A Landmark Envirocheck report. This includes historical Ordnance Survey maps, as well as information regarding environmental issues such as abstraction licenses, pollution incidents and waste facilities. It compiles information obtained from amongst others, the Environment Agency and the Local Authority.
- Coal Authority Mining Report.
- Geological Maps and associated Geological Memoirs, and
- A site walkover.

2.4.2 Phase 2

This part of the investigation consisted of intrusive works and laboratory analysis. The findings were used to test the conceptual model and produce a final risk assessment.

The intrusive works comprised trial pits which were excavated to enable:

- Examination of the upper few metres of ground;
- In situ description of soils, enabling any localised lateral and vertical changes in soil conditions to be logged;
- Assessment of any contamination identified using visual and olfactory methods;
- Collection of soil samples for chemical testing.

Cable percussion boreholes were also undertaken to investigate the soils at greater depth, beyond the reach of the excavator.

2.5 Limitations of Investigation

This report is based on the assumption that the site will be developed with two to four storey residential properties of conventional construction, with associated, roads, hard-standing and landscaping, and that existing ground levels will not alter significantly. If this is not the case, further advice may be needed.

Where assessments of site areas affected in particular ways are given, these are approximate. All information, comments and opinions given in this report are based on the ground conditions encountered during the site work, on the results of laboratory testing carried out as part of the investigation and information gained from a geological and historical desk study. However, there may be conditions at the site that have not been taken into account, such as unpredictable soil strata and water conditions between or below investigation points. It should also be noted that groundwater levels vary due to seasonal or other effects, and may at times differ from those measured during the investigation.

This report considers the ground and groundwater and does not cover any buildings or their fabric. Generally, testing has only been carried out for contaminants identified as potentially present with no assessment made of biological contamination. Risks to ecological receptors, such as bats, have not been considered.

3.0 THE SITE

3.1 Description

The site is located to the western side of the A635 New Mill Road, on the north eastern edge of Holmfirth town centre, in West Yorkshire. The site has an area of around 2.3 hectares, and is centred around Ordnance Survey national grid reference SE 148 092 (414830 409280).

The site is that of a former car dealership. The buildings were demolished some years ago to slab level. The site is constructed on a hillside, and is divided into various terraced plateau's to provide level areas for the former buildings and hard standings.

The top plateau is level with New Mill Road. The northern end of this is surfaced in macadam, whilst concrete slabs are present across much of the south. In the area adjacent to the eastern boundary, four concrete islands are present. This may have been for fuel filling pumps, although these have since been removed, No evidence of any underground or above ground tanks can be seen. The ground level then drops by between 7 m and 10 m to the west down a wooded banking. A retaining wall is present at the toe of the embankment in the south. An access ramp provides vehicular access between the levels. A split level macadam surfaced parking area is present on the lower side of the retaining wall in the south of the site. To the north, the access turns and runs along the base of the embankment to tennis courts located to the north of the site.

The level then drops again by a further 2 m to a concrete floor slab in the southern part of the site, whilst macadam parking areas in the central and western part of the site. An overgrown grassy area is present in the north.

In the south west of the site, a further lower level is then present, which is around 2 m below the level of the central parking area. This is mainly surfaced in concrete, with the remains of a building slab present. Sandstone bedrock is also seen in a small embankment running along the southern boundary of this area.

To the west of the site, the ground falls steeply into a valley. Trees and dense vegetation are present across the slope. Mature trees are also present around the perimeter of the site and around the various development levels.

The surrounding land is mainly residential in nature. Small commercial units are present to the north, beyond the tennis courts.

The general layout of the site is indicated on Drawing 39141/001/A, in Appendix 1.

3.2 History

Historical Ordnance Survey maps, obtained as part of the Envirocheck Report, have been reviewed to assess the previous use of the site and surrounding area. Copies of the maps are presented in Appendix 2.

3.2.1 The Site

The earliest map reviewed, dated 1854, shows the site to be undeveloped, and to comprise agricultural fields. No changes are noted until around 1906, when a quarry is labelled on the south western corner of the site. At this time, the quarry does not appear to extend a significant distance into the site. A dwelling, Midlothian Cottage, is shown in the site's south eastern corner, and a small wooden plantation is indicated in the north east.

By 1932, the quarry is still shown on the south western boundary, but earth works are now also shown in the north eastern corner of the site. This may be materials being placed to raise the ground. A second building is also shown in the south eastern corner adjacent to Midlothian Cottage, although the use of this is not indicated. A tank is labelled in the central area of the site, in the area now covered by the wooded slope from the upper level. Field boundaries are still shown across the remainder of the site.

The maps do not indicate any change in layout until between 1966 and 1967. By this time, development is indicated across the entire site. In the south east, the cottage is still shown, but the second building is removed, and replaced by a garage and an elongated building labelled as a bungalow. An embankment is indicated to the west of these buildings, running northwards, before cutting back to the road, forming a plateau around the dwellings and garage buildings. Tennis courts are shown on the southern edge of the site at the base of this embankment. In the north east of the site, new buildings are shown. These are mostly small and rectangular in shape, possibly comprising garages. Two refuse heaps are labelled in the western part of the site. The remainder of the site is shown to be split in to various levels, generally falling towards the west. The tank in the centre of the site is no longer shown.

By 1974, Midlothian Cottage is no longer shown, and the garage has expanded to cover the footprint of the former cottage. Additional buildings are also indicated around the garage. The central and western areas of the site are now labelled as a single refuse tip, and the various plateau's are no longer shown, potentially indicating that filling has occurred. A new rectangular building is shown in the central southern part of the site.

The site continues to be labelled as a tip until the late 1970s. The garage gradually expands over this period also. However, significant development is not shown until around 1996, when a new building is constructed in the south western corner of the site. The central area of the site is also indicated to have been hard covered by this time, probably to provide parking for the new building. A ramp from the garage down to the south western part of the site is also indicated by this time, indicating that the new buildings were probably associated with the garage business. Although not specifically shown by the maps, anecdotal information suggests that there was a fuel filling forecourt on the site at this time. The layout of the buildings shown by the historical maps, and the features remaining on site today would suggest that this was located in the south east of the site adjacent to the main garage buildings. The 'garage' also became a showroom in later years. It is understood that the workshop buildings were located in the west of the site, in the additional buildings.

The site was closed in 2003. The buildings have since been removed. No further development has taken place since that time.

3.2.2 The Surrounding Area

The earliest maps shown the area around the site to be predominantly agricultural and residential land. A railway line is shown around 30 m west of the site, presumably at a much lower level than the site itself due to the natural slope of the land. The River Holme is located around 100 m to the west. Occasional mills and small sandstone quarries are shown in the wider area. A quarry is also shown to the west of the site just beyond the boundary.

By 1906, further residential properties have been added to the south of the site along New Mill Road. The quarry to the west of the site has expanded and now extends onto the site boundary. A sandpit or refuse heap is indicated around 30 m north of the site.

By the 1930s, the sand pit/refuse heap is no longer shown, but earthworks are indicated in the same location with a long plateau indicated which extends southwards onto the development site. Smaller excavations are also indicated around 50m north of the site, which may be small quarries. Further housing has been added to the south and east of the site.

By 1949, a textile mill is indicated around 120 m north west of the site, to the west of the River Holme. A small foundry is also shown around 220m south west of the site.

An engineering works and garage/fuel station is present 250 m west of the site by 1974, both located to the west of the river. A council depot is labelled 15 m north of the site by this time. The railway to the west of the site is labelled as dismantled. A refuse tip is also labelled approximately 130 m north of the site.

Further residential development took place to the north, east and south of the site during the late 1970s, 1980s and 1990s.

Little further change is noted in the immediate vicinity of the site by subsequent maps. The council depot buildings remain to the present day, but are now occupied by shops and small businesses. Tennis courts were added immediately north of the site during the late 1990s or early 2000s.

3.3 Geology

The British Geological Survey (BGS) online Geology of Britain Map Viewer shows the site to lie above strata of the Millstone Grit Series. The Huddersfield White Rock sandstone is indicated to underlie the majority of the site, with the Marsden Formation mudstone and siltstone beneath the eastern edge of the site. The strata are generally indicated to dip towards the east.

No alluvial or other superficial deposits are indicated to be present. Made ground is expected to be present on the site given its historical use as a quarry and subsequently a tip.

No faults are shown to cross the site by the online maps, although faults are indicated to the south and north west of the site. However, Ordnance Survey Sheet 86 "Glossop" (1:50,000 series) indicates these faults to be in a slightly different location, and to cross the site from east to west and from north east to south east respectively. The site is indicated to be downthrown by both faults. Since the online maps are based on the most recent information, these should be regarded as the most reliable information.

3.4 Hydrology

The nearest surface water feature is indicated to be a small stream or drain, located around 23 m north of the site, flowing westwards towards the River Holme.

The Envirocheck report does not record any groundwater or surface water abstractions within 250 m of the site.

3.5 Hydrogeology

Information from the Environment Agency indicates that the site overlies a Secondary 'A' aquifer; these are permeable layers of rock capable of supporting water supplied at a local rather than strategic scale and may form an important source of base flow to rivers.

The site does not lie within a Groundwater Source Protection Zone.

3.6 Mining

The geological maps do not indicate any seams of coal to outcrop in the vicinity of the site. However, the memoirs indicate that a seam of coal is present within the Marsden Formation just above the Huddersfield White Rock. This could therefore be present beneath the east of the site around the transition between the two strata. Reference to the Coal Authority online maps shows that a seam of coal is expected to outcrop in this area, extending from the southern corner of the site for a short distance towards the south east up to the position of the faults mentioned in Section 3.3 above. This coal is expected to be the Upper Meltham Coal.

The Upper Meltham Coal is recoded in the geological memoirs as being thin (typically less than 300mm thick), but having a fireclay bed which occasionally worked. However, the main areas of working were to the north west of Holmfirth, around Meltham. The seam is expected to dip towards the east, and therefore the seam is unlikely to be present beneath the majority of the site. It is considered unlikely that the seam will have been worked in any case in this location due to the surrounding faults. The Coal Authority online maps do not indicate any recorded workings within the seam.

No other seams of coal are expected below the site within influencing distance of surface.

A Coal Authority mining report has been obtained for the site. This states that the site is not within the zone of likely influence of past workings in any seams of coal. However, the site is in an area in which the Coal Authority believe there to be coal at, or near to surface, which could have undergone unrecorded extraction in the past. This is likely to refer to the Upper Meltham Coal.

The site is not within the zone of likely influence of any current coal workings, and is not located within an area where workings are currently proposed to begin. The site is not within the boundary of a site which coal has been extracted by opencast methods, or where it is currently being worked.

There are no recorded mine entries within 20 m of the site. No record of any mine gas emission requiring action by the Coal Authority are present, and no claims for coal mining related subsidence have been made on the site.

Based on the above information, we consider that it is possible that the Upper Meltham Coal will be present beneath the southern corner of the site, but that it is very unlikely to have been worked due to the thin nature of the seam and limited area of outcrop due to the local geological faulting.

3.7 Ground Gas

3.7.1 Landfill

According to the Envirocheck report, there is one recorded landfill within 250 m of the site. This is located within the site, and was known as Berry Banks and was operated by West Yorkshire Waste Management. The landfill accepted household, industrial and commercial wastes up to 1977. The landfill start date is not given, but with reference to the historical maps, is likely to be in the early 1970s. The license is now lapsed.

As the landfill accepted household waste, there is the potential that biodegradable materials have been included in the fill, and therefore a potential risk of gas generation may be presented. Gas monitoring will need to be carried out prior to redeveloping the site. Some gas monitoring was undertaken during the previous investigation by Ian Farmer Associates, which is discussed further in Section 4.0.

No other landfill sites are indicated in the local area, and therefore there is not considered to be a significant risk of gas migration from the surrounding area.

3.7.2 Radon

According to the Envirocheck report, no radon protective measures are required for new dwellings at the site.

3.8 Pollution Incidents to Controlled Waters

The Envirocheck report lists four pollution incidents to controlled waters within 100 m of the site. The nearest is located about 15m south of the site, in 1995. No details of the incident are supplied but it was recorded as minor. As such it is not expected to have significantly impacted the site.

The three other incidents are all recorded at distances of between 55m and 60 m south west of the site and are all recorded as significant incidents, occurring between 1990 and 1991. Two of the pollutants are listed as septic tank effluent, and the third is unknown. The location is indicated as being on the embankment of the former railway line to the south west of the site. It is possible that a discharge from a septic tank from one of the surrounding residential properties overflowed and was the cause of these pollution incidents. However, they are not expected to have impacted the site due to the steep topography of this area, which would suggest that mobile pollutants would flow downslope towards the west, rather than towards the site.

3.9 Discharge Consents

Three discharge consents are listed within 100 m of the site. These are all located around 70 m north of the site, and are for the discharge of final treated effluent to the land via soakaway. The consents appear to all be revoked, but were previously registered to Midlothian Garage.

3.10 Flooding

According to information provided by the Environment Agency, the site does not lie within an indicative flood plain due to river waters.

4.0 REVIEW OF PREVIOUS REPORT

Ian Farmer Associates undertook an intrusive investigation across the site in 2008. A copy of their “Final Factual Report on Ground Investigation carried out at New Mill Road, Holmfirth”, reference W08/40349, dated October 2008 has been provided to Eastwood & Partners by the client for review.

At the time of the investigation, the site was disused and all buildings had been demolished to slab level. No desktop information was reviewed/provided as part of the investigation.

The intrusive works comprised the drilling of thirteen cable percussion boreholes, fifteen window sample holes and the excavation of twelve trial pits in April 2008. A subsequent visit was made in September 2008 when a further eight window sample holes were drilled in the east of the site.

A full copy of the Ian Farmer Associates report is included in Appendix 3.

4.1 Ground Conditions

No commentary on the ground conditions was provided in the report, but the exploratory hole records show deep made ground to have been encountered across much of the site. The made ground is generally described as comprising soft to firm clay and loose to medium dense sand with inclusions of plastic, metal, ash, glass, brick, concrete, sandstone and occasional paper and fabric. This is likely to comprise the landfill materials described in Section 3.7.1 above.

The fill generally deepened towards the north and west of the site. On the upper plateau in the east of the site, between 2.5 m and 4 m of fill was encountered in the south, extending to between 6 m and at least 7.4 m in the northern part. On the lower plateau's, between 0.5 m and 3.2 m of fill was encountered in the southern part of the site, deepening to between 8.2 m and 11.3 m in the west of the site adjacent to the top of the wooded embankment. In the northern part of the lower area, between 7.4 m and 10.4 m of fill was found to be present.

The natural ground was found to mainly comprise weak to hard sandstone in the south and west of the site, occasionally becoming siltstone. On the plateau in the south western corner of the site, bedrock was encountered at shallow depth, typically less than 1 m deep. In the north of the site, and across the eastern upper plateau, the bedrock typically comprised mudstone. Locally, the bedrock was overlain by a relatively thin layer of firm to stiff clay, which was logged as natural ground. Occasional plant remains were recorded, suggesting that this may have been original ground level prior to the backfilling works. In one hole in the centre of the site, coal fragments were also noted within the clay, just above the sandstone bedrock. No other coal was encountered on the site.

This generally matches the conditions expected from our geological review, although areas of sandstone in the western parts of the site appear to have been removed, possibly by natural erosion but more likely through previous quarrying.

Ten samples of the natural ground were submitted for laboratory analysis to determine plasticity index and moisture content of the clay soils. The results indicate that the materials should be regarded as being of low to medium volume change potential.

Five samples were also submitted for testing to determine the likely CBR value, with the results indicating values of between 0.5% (in made ground) and 5%.

Hydrocarbon odours were noted locally within the made ground, but a strong odour was noted in WS08 which was located in the east of the site adjacent to the area previously occupied by the fuel filling station.

4.2 Gas Monitoring

Gas monitoring wells were installed within seventeen of the exploratory holes, which were monitored on five occasions between 14 May 2008 and 20 October 2008. The monitoring results indicated that low levels of carbon dioxide were recorded across the site, and that methane concentrations were generally absent.

The exceptions to this were BH9, BH11 and BH12 in the north west of the site, where carbon dioxide concentrations of up to 19% v/v were recorded. Methane was also recorded on a number of occasions in these holes, with concentrations of up to 12%.

Significant gas flows were not recorded in any of the holes during most of the monitoring visits, with most results indicating either a zero or a negative flow.

4.3 Chemical Analysis

Samples from both phases of investigation were selected and submitted for chemical testing, although no assessment of the results is provided within the factual report.

Initially, 23 samples were selected and submitted for testing to determine concentrations of heavy metals/metalloids, polycyclic aromatic hydrocarbons (PAHs), total petroleum hydrocarbons (TPH), BTEX and MTBE, sulphates, and volatile organic compounds (VOCs). Ten of the samples were also submitted for semi-volatile organic compound (SVOC) analysis, and twelve of samples were screened for asbestos content. The samples included 19 samples of made ground and 4 samples of natural soil.

The results indicate that locally elevated concentrations of arsenic, lead, copper, zinc and boron are present, as well as PAHs including benzo(a)pyrene, dibenzo(a,h)anthracene and TPH. Significant concentrations of VOCs, SVOCs, BTEX and MTBE were not recorded. Only one of the samples recorded the presence of any asbestos containing materials. This was in a sample taken from TP02 at a depth of 2 m bgl. Chrysotile was recorded in this sample.

One sample in the eastern upper plateau recorded a more significant level of TPH, with a total concentration of 18,000 mg/kg in the sample from WS08 between 5 and 6m bgl. The window sample log described a dark grey sand with strong hydrocarbon odour to underlie the made ground in this location.

Another sample in this area recorded a significantly elevated concentration of lead at 14,000 mg/kg in WS10 at a depth of 1.5m. The material in this location comprised an ashy sand with inclusions of slag, and therefore this result may be the result of the presence of these materials.

A further 15 samples were submitted for leachate testing in June 2008. The chosen test suite included metals/metalloids, TPH and PAH. No significantly leachable contaminants were recorded.

It appears that the second phase of investigation was an attempt to delineate the significantly elevated concentrations of TPH and lead recorded in the east of the site previously. A further 6 samples, including three of made ground and three of natural ground, were collected and tested for lead, TPH, PAH and BTEX. No significant concentrations were recorded in any of these samples. One of the samples was also tested for VOCs, with no significant concentrations being recorded.

Three samples were tested for leachable concentrations of TPH and PAH. No significant concentrations were recorded.

The results of the sulphate testing undertaken on the samples which were tested generally indicated that DS-3 AC-3 precautions would be required for sub-surface concrete structures.

5.0 OUTLINE CONCEPTUAL MODEL

The site is being considered for redevelopment with residential dwellings, with associated private gardens, and areas of soft landscaping and hard-standing. Ground levels are expected to remain largely unchanged.

5.1 Potential Sources of Contamination

Historically, the site has been used as landfill, with household, commercial and industrial wastes being deposited. The site was also occupied by a car dealership, and also by a previous repair garage and a fuel filling station in the eastern part. There is therefore the potential for encountering elevated concentrations of hydrocarbons, fuels, heavy metals and other volatile compounds within the soils. However, previous investigations have generally not recorded such contamination, and record only mildly elevated levels of heavy metals including arsenic and lead, PAH and locally elevated concentrations of TPH. One sample also recorded the presence of asbestos.

An apparent hotspot of hydrocarbon contamination was identified in the east of the site where the filling station was probably located between 5m and 6m bgl. Additional testing around this original sample position did not record any further elevated concentrations.

Significant levels of contamination are therefore not expected to be encountered during this investigation, but there is the potential for encountering localised hotspots of contamination in the materials between the previous sampling positions. The expected potential contaminants would include TPH, PAH, metals/metalloids and asbestos containing materials. The previous testing did not indicate any significant presence of BTEX or MTBE (fuels), VOCs or SVOCs.

The natural ground is not expected to be significantly contaminated, with the previous testing not indicating any elevated concentrations to be present with the exception of the afore-mentioned hydrocarbon hotspot in the east.

None of the contaminants recorded previously were found to be significantly leachable, and therefore a significant risk to controlled waters is unlikely to exist.

5.2 Ground Gas

No radon precautions are required on this site. The results of previous gas monitoring undertaken indicated generally negligible concentrations of gas to be present. However, elevated concentrations of methane and carbon dioxide were recorded on several occasions in the north western area. Based on the concentrations recorded, Amber 2 gas precautions (in line with the

NHBC traffic light classification system) would be required in this area of the site, with Amber 1 precautions elsewhere on the site.

5.3 Potential Pollutant Linkages

The table below outlines the potential pollutant linkages that may be present at the site.

Source	Pathways	Receptor
<ul style="list-style-type: none"> Metals/metalloids, TPH and PAH in made ground/landfill materials. Potential concentrations of TPH and PAH in the natural ground. Volatile compounds if encountered within the landfill materials 	<ul style="list-style-type: none"> Ingestion, inhalation, direct contact. 	<ul style="list-style-type: none"> Future residents and visitors. Construction workers
	<ul style="list-style-type: none"> Migration through ground 	<ul style="list-style-type: none"> Secondary 'A' Aquifer
<ul style="list-style-type: none"> Asbestos containing materials in the made ground/landfill materials 	<ul style="list-style-type: none"> Inhalation 	<ul style="list-style-type: none"> Future residents and visitors to the site, Construction workers
<ul style="list-style-type: none"> Sulphates in made ground 	<ul style="list-style-type: none"> Direct contact 	<ul style="list-style-type: none"> Buried concrete
<ul style="list-style-type: none"> Elevated concentrations of methane, carbon dioxide or other landfill gases generated within the fill. 	<ul style="list-style-type: none"> Upward migration into dwellings. 	<ul style="list-style-type: none"> Future residents and visitors.

6.0 GROUND INVESTIGATION

6.1 Exploratory Holes

Sixteen trial pits were excavated between 28 October and 29 October 2015 using a JCB 3CX type backhoe mechanical excavator. The trial pits reached depths of between 0.6 m and 3.6 m bgl and were terminated either upon encountering hard strata through which no further progression could be made, or on the limit of the excavator reach/engineers instruction.

The trial pits were positioned to give good site coverage around the proposed development layout.

Four cable percussion boreholes were also drilled on the site between 4 November and 9 November 2015. These reached depths of between 8.7 m and 12.5 m bgl. The boreholes were positioned to give good site coverage, as well as to verify the results of the previous boreholes undertaken by Ian Farmer Associates.

Copies of all trial pit and borehole logs are presented in Appendix 4, and their locations are plotted on the Exploratory Hole Location Plan, Drawing number 39141/001 revision A in Appendix 1.

6.2 Laboratory Testing

6.2.1 Geotechnical Testing

Two samples of natural clay were submitted for geotechnical testing. The samples were tested for their natural moisture content and their potential for volume change. The geotechnical test results are presented in Appendix 5 and discussed further in Section 8.1.

6.2.2 Chemical Testing

Ten samples of made ground/landfill material, one sample of possible made ground/reworked natural material and one sample of undisturbed natural material were despatched for chemical testing. Soil samples were taken in 0.5 kg plastic tubs, 250 ml amber glass jars and 60 ml amber glass soil vials. The analysis was undertaken at Chemtest Laboratories, Newmarket, using MCERTs accredited methodologies where available. The chemical testing results are presented in Appendix 6 and discussed further in Sections 9 and 10.

7.0 GROUND CONDITIONS

7.1 Topsoil

Topsoil was only encountered in one of the exploratory holes undertaken on the site. In TP4, excavated in the north of the site adjacent to the entrance to the tennis club, a 100 mm thick layer of topsoil was encountered beneath the vegetation. No other topsoil was encountered on the site.

7.2 Hardstanding

Hardstanding was encountered at surface in thirteen of the trial pits and three of the boreholes undertaken by Eastwood & Partners. This comprised reinforced concrete slabs in three locations (TP1, TP2 and TP13) in the areas previously occupied by buildings, which were between 200 mm and 600 mm thick. A further, unreinforced, concrete slab was encountered in TP2 between 0.45 m and 0.7 m bgl.

Elsewhere, the hard surfacing comprised macadam, which was typically around 100 mm thick.

7.3 Made Ground

Made ground was encountered in all of the exploratory holes undertaken on the site. Two main types of made ground were found to be present.

The first type comprised limestone and sandstone hardcore, which was encountered beneath the hard surfacing where it had been placed as sub-base. The sub-base materials were generally in layers of approximately 200-300 mm thick. In TP10, the sub-base comprised macadam planings in 200 mm thick layer.

The second, and far more abundant type of made ground comprised landfill materials. These were encountered in the majority of the exploratory holes, and were found to comprise loosely placed clayey sands and sandy clays with inclusions of ash, clinker, brick, sandstone cobbles, plastic, metals, ceramics, fabrics, occasional timbers and other assorted waste items. Layers of reworked natural clay and sand were also locally included. Occasional organic odours were noted within the fill materials, but hydrocarbon odours were generally absent.

The materials were randomly deposited, in layers of varying thickness. In the south of the site, the made ground was found to be between 300 mm and 3 m deep. Across the central, western and northern areas, the base of the made ground could not be found in the trial pits, but was encountered at depths of between 5.6 m and 9.1 m bgl in the boreholes. In the east of the site, on the upper level, the made ground was between 1.8 m and 9 m deep.

SPT tests undertaken within the boreholes generally indicated N-values of between 2 and 8 within this made ground, which indicates the material to be loosely compacted. Occasional layers recorded slightly higher N-values of up to 12 and on one occasion, 23. However, this is likely to be the result of a sandstone boulder or other obstruction being present beneath the test location, and the SPTs below these tests at greater depth returned to lower results.

The depths and the descriptions of the landfill materials recorded in our exploratory holes generally matches those of the previous investigation by others, with the trend of an increasing thickness of made ground from the south towards the north and west also being proven by our boreholes.

7.4 Natural Ground

The natural ground was encountered in a number of trial pits and within all of the boreholes undertaken on the site. In the western half of the site, sandstone was recorded in TP12, TP13, TP16, BH2 and BH3 at depths of between 0.3 m (TP12 in the south) and 10.3 m bgl (BH3 in the north of the site). In BH3, a layer of soft becoming stiff clay was present above the bedrock from 9.1 m bgl to 10.3 m bgl.

In the eastern part of the site, mudstone was encountered. On the upper plateau, this was present from around 1.8 m bgl in the south of the site (TP1) and in the north, from 9.5m bgl (BH4) with a layer of weathered clay above from 8.6 m bgl.

Mudstone strata were also encountered in the east of the lower plateaued area. In the south of this area, TP9 and TP10 encountered firm to stiff sandy and gravelly clay from between 0.6 m and 1.1 m bgl with weak mudstone bedrock from between 2.1 m and 2.9 m bgl. A 250 mm thick seam of coal was also encountered in TP9 from 2.75m bgl, between the clay and the mudstone. Clay was also encountered in BH1 at 5.6m bgl, with mudstone bedrock from 6.5 mbgl.

Hand penetrometer readings within the natural clay indicated allowable bearing capacities of at least 150 kN/m², whilst SPT N-values of between 13 and 45 were recorded in the boreholes. The mudstone bedrock recorded N-values of between 31 and 50, whilst the sandstone recorded N-values of 50 in all tests undertaken on that strata. The results are largely consistent with those recorded by the previous investigation.

7.5 Groundwater

No significant groundwater was encountered during the investigation. Slight seepages were recorded in the boreholes, typically at the base of the made ground at the interface with the natural clay.

7.6 Evidence of Contamination

No obvious visual or olfactory evidence of contamination was encountered within any of the exploratory holes. As expected, localised inclusions of ash were encountered within the made ground, as well as items of domestic waste, although no chemical wastes or evidence of hydrocarbon impacted soils were found.

8.0 GEOTECHNICAL APPRAISAL

8.1 General

The results of our intrusive works correspond with the findings of the previous investigation undertaken in 2008. The site has undergone a significant amount of filling previously with various landfill materials having been placed to depths of between 1.6 m and 11.3 m bgl. The landfill materials are variable in composition and compactness, and are therefore not considered to be suitable for supporting foundations.

Below the made ground, a relatively thin layer of firm to stiff clay is generally encountered with sandstone bedrock below this in the west of the site, and mudstone or siltstone in the east. There is an area in the south west of the site where a significant depth of fill has not been placed, and natural ground is present at shallow depth, which comprises sandstone bedrock or firm to stiff clay overlying mudstone.

A thin layer of coal was encountered in one of the trial pits, TP9 in the south of the site. This was 250 mm thick and was described as being weathered and clayey. Coal has not been encountered in any of the other exploratory holes undertaken on the site. Based on this description and thickness, it is considered unlikely that this seam has been worked by underground methods in the past.

Geotechnical tests were carried out on two samples of the natural clay soils. The modified plasticity indices recorded were 39.5% (TP9, 1.2 m) and 41.8% (TP10, 1.0 m). The former equates to a medium volume change potential and the latter to a high volume change potential, in accordance with NHBC Standards, Chapter 4.2. We therefore recommend that the clayey soils are considered to be of high volume change potential for foundation design.

8.2 Foundations

Due to the depth and variability of the fill materials across the site, it is considered that piled foundations will be required for the majority of plots. Piles are likely to be driven precast concrete or steel, and are likely to be end bearing into the sandstone or mudstone bedrock at likely lengths of between 10 and 15 m.

There is an area in the south west of the site where traditional strip or trench fill footings could be considered. With reference to Loroc Architects Drawing Number 1447-102 revision A (copy included in Appendix 1), Plot numbers 44 to 56 are in an area where competent natural ground is present at shallow to moderate depth. Footings in this area could be constructed onto the natural firm to stiff clay or sandstone bedrock at depths of between 600 mm and 1.5 m below current ground level.

Footings in cohesive soils would need to be constructed at a minimum depth of 1 m below existing or proposed ground level, whichever is the lower, and those which are within influencing distance of existing or proposed trees would need to be deepened in accordance with NHBC Standards Chapter 4.2 guidance.

Plot 43 on the above drawing is part underlain by made ground in excess of 3 m deep, and it therefore recommended to use piled foundations.

8.3 Ground Floors

Due to the depth of made ground, and also due to the potential for ground gases to affect the site, it is recommended that all plots use precast concrete floor slabs with an underlying ventilated void of at least 300 mm height.

8.4 Superstructure Precautions

The requirement for additional superstructure precautions due to the ground conditions should not be necessary.

8.5 Excavation Problems

Excavation within the made ground and undisturbed natural ground should be possible using conventional plant, although hard bedrock may be encountered in deeper excavations, which may require some breaking.

Excavations are likely to be stable in the short term but deeper excavations within fill materials may encountered localised instability, particularly during periods of inclement weather. Support will be required in accordance with current Health & Safety Regulations wherever access is required to trenches deeper than 1.2 m or less where there is risk of collapse. Support may also be required where excavations are left open long term, or an allowance made for the slackening of side slopes.

8.6 Groundwater

Based on groundwater observations during the trial pitting, it is anticipated that normal excavations on the site are unlikely to encounter heavy groundwater ingress. Groundwater seepages were typically encountered within the boreholes near to the base of the landfill materials.

8.7 Obstructions

The foundations and redundant services from the previous buildings remain, and will need to be removed where they conflict with the construction of new structures or foundations.

Part of the site is understood to have previously been used as a fuel filling station. No below ground fuel tanks have been identified by either investigation to date, but there is always the potential to encounter such structures. If tanks are encountered during groundworks, they should be decommissioned and removed by a suitable contractor.

8.8 Roads

At this stage, a CBR value of 2% could probably be assumed. The ground should also be assumed to be frost susceptible. CBR testing should be allowed for along proposed roadways prior to construction so that a design value can be obtained to estimate road construction thickness.

8.9 Surface Water Drainage

The majority of the site is underlain by landfill materials, and therefore it is not considered that infiltration drainage will be suitable for the dissipation of surface water from the development, due to the risk of localised pockets of contaminated material and due to the potential for inundation settlement within the fill materials. The areas where deep made ground is not present are underlain by cohesive soils or hard bedrock, both of which are unlikely to offer satisfactory infiltration rates or capacity.

The site is currently hard surfaced in the most part, with surface water gulley's and piped drainage. It is therefore considered that this existing drainage system could be retained and reused, subject to approval by the regulators. Some additional on-site attenuation is likely to be required.

9.0 REFINEMENT OF OUTLINE CONCEPTUAL MODEL

9.1 Source Characterisation

An outline conceptual model, detailing the possible sources and associated contaminants of concern, potential pathways and receptors identified in the Phase 1 section and previous intrusive investigation was detailed in Section 4.

This section of the report documents the works undertaken to obtain information to test and refine this model enabling a risk assessment to be produced and, where significant risks are expected, remediation recommendations.

9.2 Ground Conditions

Apart from some localised ashy soils, no obvious visual or olfactory observations of contamination that was potentially more significant than that recorded by the previous investigation were noted in any of the trial pits or boreholes undertaken by Eastwood & Partners.

9.3 Chemical Testing

Ten samples of made ground, one sample of disturbed natural ground, and one of undisturbed natural material were sent for chemical testing following the field work. Each of the samples was analysed for the suite of contaminants listed below.

Contaminant Type	Actual Contaminants
Metals/Metalloids	Arsenic, cadmium, chromium (III and VI), lead, mercury, nickel, selenium, copper and zinc
PAHs	Speciated polycyclic aromatic hydrocarbons
TPH	Total Petroleum Hydrocarbons, fully fractionated (CWG bands)
Asbestos	Asbestos presence
pH	pH
Sulphates	Water soluble, acid soluble and total sulphur

Samples taken from the southern end of the upper plateau in the east of the site were also tested for BTEX compounds to determine whether any fuels are present within the soils, given the previous use of part of this area as a filling station.

All testing was undertaken by Chemtest Limited and MCERTs accredited methodologies were used where available. Copies of the test certificates are presented in Appendix 6.

The made ground samples were typically collected from shallow depth to enable an assessment to be made of the potential risks to the health of future site users, as these are the materials most likely to be encountered during routine activities within a residential development. The previous report tested a number of samples of made ground, and of the natural ground, but these tended to be at slightly greater depths.

9.4 Assessment Criteria

The assessment criteria relating to a residential end use have been used. Tables detailing the relevant assessment concentrations used are included in Appendix 6.

9.5 Chemical Test Results

Some preliminary risk assessment is undertaken in this section of the report where determinants can be readily discounted.

Metals/Metalloids

Within the made ground, a number of samples recorded elevated concentrations of metals/metalloids. Elevated concentrations of arsenic, copper, lead and zinc were recorded as follows:

Contaminant	Assessment Value (mg/kg)	Concentration/Location					
		TP1 0.6m	TP4 0.8m	TP5 0.5m	TP8 0.7m	TP9 0.8m	TP16 0.5m
Arsenic	37	-	-	130	-	-	110
Copper	200*	-	-	570	-	-	340
Lead	200	240	230	1600	-	210	4200
Zinc	300*	-	850	870	490	-	320

- Where no figure is given, result was below assessment value.

* pH dependant

No elevated concentrations were recorded within either sample of the natural materials.

Polycyclic Aromatic Hydrocarbons (PAHs)

Elevated concentrations of PAHs were recorded in eight of the ten samples of the made ground which were tested. The elevated concentrations are recorded in the table below:

Contaminant	Assessment Value (mg/kg)	Concentration/Location								
		TP1 0.6m	TP2 1.0m	TP3 0.6m	TP4 0.8m	TP5 0.5m	TP8 0.7m	TP9 0.8m	TP11 0.6m	
Benzo(a)anthracene	7.2	11	10	-	-	-	-	-	-	
Benzo(b)fluoranthene	2.6	15	12	3.7	2.8	5.0	-	6.2	9.2	
Benzo(a)pyrene	2.2	15	12	3.6	3.0	4.2	-	5.5	8.4	
Dibenzo(a,h)anthracene	0.24	1.7	0.31	0.26	-	0.41	-	-	1.0	

- Where no figure is given, result was below assessment value.

* pH dependant

No elevated concentrations were recorded within either sample of the natural ground.

TPH/BTEX

None of the samples tested recorded any elevated concentrations of any TPH fractions. The majority of results were below the laboratory limit of detection.

No BTEX compounds were recorded at concentrations above the limit of detection in any of the samples tested.

9.6 Asbestos

No asbestos fibres were detected in any of the samples of made ground or natural ground which were screened.

9.7 Sulphates

In accordance with BRE Special Digest 1:2005 "Concrete in Aggressive Ground", the site is taken as brownfield due to the presence of made ground. Groundwater is expected to be mobile through the shallow soils.

9.7.1 Made Ground

Ten samples of made ground were tested for sulphur and the results indicate total potential sulphate concentrations of between 0.03% and 0.96%. A characteristic value of 0.89% is calculated. The concentrations of water soluble sulphate were between 14 mg/l and 410 mg/l compared with the upper limit of Design Sulphate Class 1 of 500 mg/l. The pH of all samples was above 6.5.

On the basis of both the potential sulphate results and the water soluble sulphate results, the made ground would be assigned a Design Sulphate Class of DS-3 and Aggressive Chemical Environment for Concrete (ACEC) class of AC-3.

9.7.2 Natural Ground

Sulphate testing in the natural ground indicates a Design Sulphate Class of DS-1 and an ACEC of AC-1 to be applicable.

9.8 Significant Pollutant Linkages

The significant pollutant linkages consequently identified are documented in the table below.

Source	Pathways	Receptor
<ul style="list-style-type: none"> Locally elevated concentrations of arsenic and lead within the made ground. Elevated concentration of benzo(a)pyrene and other PAH compounds within the made ground. Very localised concentrations of TPH in east of the site recorded in 2008 SI in WS08 between 5 and 6m bgl 	<ul style="list-style-type: none"> Ingestion, inhalation, direct contact. 	<ul style="list-style-type: none"> Future residents and visitors. Construction workers
	<ul style="list-style-type: none"> Migration through ground 	<ul style="list-style-type: none"> Secondary 'A' Aquifer
<ul style="list-style-type: none"> Elevated concentrations of arsenic, copper and zinc within made ground. 	<ul style="list-style-type: none"> Root uptake 	<ul style="list-style-type: none"> Plants
<ul style="list-style-type: none"> Very localised asbestos containing materials in the made ground/landfill materials 	<ul style="list-style-type: none"> Inhalation 	<ul style="list-style-type: none"> Future residents and visitors to the site, Construction workers
<ul style="list-style-type: none"> Sulphates in made ground 	<ul style="list-style-type: none"> Direct contact 	<ul style="list-style-type: none"> Buried concrete
<ul style="list-style-type: none"> Elevated concentrations of methane, carbon dioxide or other landfill gases generated within the fill. 	<ul style="list-style-type: none"> Upward migration into dwellings. 	<ul style="list-style-type: none"> Future residents and visitors.

10.0 RISK ASSESSMENT

10.1 Human Health – Future Residents and Visitors

The results of the chemical testing undertaken in this investigation are broadly comparable to those recorded in the 2008 investigation by Ian Farmer Associates. The landfill materials locally contain elevated concentrations of arsenic and lead, usually at mildly elevated concentrations but occasionally at more significant levels. The made ground does contain ash and clinker however, which may be the cause of the higher concentrations, if such materials were present in the samples which were tested at the laboratory. Elevated concentrations of PAHs, including benzo(a)pyrene are also recorded, probably also partly due to the ash content of the fill materials. Hydrocarbon contamination is generally absent, apart from in one discrete location, where it is found at a depth of at least 5 m bgl, and hence this is not considered to present a significant risk to human health as it is unlikely that future residents will have any contact with materials at such depth. At this depth, vapour release is also not considered to be a plausible pathway and will not therefore present a significant risk.

Asbestos containing materials are not recorded across most of the site. One sample in 2008 recorded the presence of chrysotile fibres within the soil, at a depth of 2m bgl in TP02 in the centre of the site. This area is likely to be covered by the new estate road, according to the proposed layout. However, in any case, at this depth it is unlikely that residents will have any contact with the material, and fibre release to the air is unlikely from such depths. Asbestos is therefore not considered to present a significant risk to human health.

The concentrations of contaminants recorded are, in the most part, only mildly elevated above their respective assessment values, and therefore it is not considered that any treatment or removal of these materials from site is necessary. The risks to the health of future residents and visitors to the site will be most effectively mitigated through use of a capping layer of inert soil. This should be at least 600 mm thick, and it is considered prudent to include a geotextile membrane at the base of the capping to differentiate between the subsoil and the underlying made ground.

10.2 Human Health – Construction Workers

Ground workers employed during the construction phase of the development are most at risk of harm due to them having direct contact with the affected soils. However, the contact is generally of short duration, and all competent ground workers will be aware of the potential risks associated with soils of this nature. Therefore the overall risk to the health of construction workers is considered to be low.

All ground workers employed on the site should be made aware that elevated concentrations of arsenic, lead, TPH and PAHs are present, and normal site procedures such as the wearing of gloves when handling soils, and the washing of hands prior to eating should be implemented.

Any unusual, brightly coloured, ashy or odorous material encountered during construction should be brought to the attention of the site staff and investigated

10.3 Plants

Elevated concentrations of the phytotoxic metals copper, zinc and arsenic are present within the made ground on the site, and therefore a potential risk to plant growth is presented. However, the made ground is not suitable aesthetically to remain at surface in gardens or landscaped areas. It has been recommended, above, that a 600 mm thick capping layer is provided above any made ground. This will also mitigate any potential risk to plants.

It is recommended that at least the upper 150 mm of the capping layer is constructed from topsoil to provide a growing medium for plants and lawns.

10.4 Controlled Waters

The results of the previous leachate testing by Ian Farmer Associates did not record any significantly leachable contaminants. Additionally, potentially mobile contamination has not been recorded in either investigation, and samples of the natural ground have not recorded elevated concentrations of any contaminants.

It is therefore considered that a significant risk to controlled waters is not presented. The development will include piped drainage and large areas of hard cover, and therefore the groundwater regime at the site is unlikely to change significantly over present.

10.5 Ground Gas

The site is recorded as a landfill, and significant depths of fill are present. Previous gas monitoring recorded elevated concentrations of carbon dioxide of up to 19% v/v in BH9, BH11 and BH12 in the north west of the site. Methane was also recorded on a number of occasions in these holes, with concentrations of up to 12%. However, flow rates were low on all occasions.

It is considered appropriate at this stage to allow for gas protection measures in line with NHBC/CIRIA C665 'Amber 2' in plots which overlie the north western areas of the site. These would include a fully lapped and sealed proprietary gas membrane that is resistant to methane and carbon dioxide. The membrane should be pulled taut across the footprint of the slab and lapped and sealed

to the gas resistant damp proof course which should extend across the wall cavities. Gas proof products should be used to fully seal the membrane at overlaps and around service entries. The products used and installation should be in accordance with the manufacturer's recommendations. The installation would require verification by an independent consultant or by integrity testing. At present, Plot numbers 22-42 would require Amber 2 precautions.

All other plots would require installation of gas protective measures in line with 'Amber 1' requirements, which includes a fully lapped and sealed membrane, although independent verification should not be necessary.

It should be noted that Eastwood & Partners installed four new gas monitoring wells during our investigation, and it is proposed to undertake a further 6 rounds of monitoring to verify that the gas regime on the site has not dramatically changed. The results of this monitoring will be reported on under separate cover in due course.

10.6 Construction Materials

As discussed in section 9.7, the made ground is designated a classification of DS-3, AC-3 and the natural ground is designated a classification of DS-1 AC-1.

The test results should be forwarded to the water supplier to determine the level of pipe protection to clean water supplies that will be required. It is likely that protective measures will be required where pipes are laid within the made ground.

10.7 Unexpected Contamination Encountered During Groundworks

It is not considered likely that significant widespread contamination will be encountered during construction works.

However, should any unusual, brightly coloured, ashy or odorous material be encountered during construction this should be brought to the attention of the site staff and investigated.

No evidence of any underground fuel tanks has been found, and none have been encountered in any of the exploratory holes drilled across the area previously used as a fuel filling station. However, there is always the possibility of encountering relic tanks on sites such as this. Should any tanks be found during construction, they should be emptied of any remaining fuel, decommissioned and removed where necessary. Appropriate sampling should be undertaken on the soils surrounding the tank to confirm that significant contamination has not occurred.

11.0 CONTAMINATION - RECOMMENDATIONS AND APPROVALS

1. The made ground locally contains elevated concentrations of arsenic, lead and PAHs. It is recommended that a 600 mm capping layer of inert soil is placed over the made ground in all gardens and areas of soft landscaping. At least 150 mm of topsoil should be placed within the capping layer. A geo-textile marker is also recommended to be placed at the base of the capping layer. Clean subsoil and topsoil will need to be imported to site to construct the capping.
2. The results of sulphate testing indicate that Class DS-3 AC-3 sulphate precautions are required where foundations or other sub-surface concrete structures will be in contact with the made ground. Class DS-1 AC-1 concrete will be suitable where natural ground is present around sub-surface concrete.
3. No radon precautions are required at the site.
4. Elevated concentrations of methane and carbon dioxide have been recorded during previous gas monitoring undertaken on the site. Eastwood & Partners are due to undertake further monitoring to confirm these results, but at this stage it is considered necessary to adopt NHBC 'Amber 2' precautions for plots in the north western area of the site, and 'Amber 1' precautions elsewhere.
5. There should be no significant contamination risks to construction workers from the ground on the site but normal good hygiene precautions such as washing hands before eating should be implemented.
6. The conclusions made in this report in relation to contamination are subject to agreement by the approving bodies such as the Local Authority and the NHBC, if applicable.

Appendix 1

'Exploratory Hole Location Plan', Drawing 39141/001/A
Proposed Layout - Loroc Architects Drawing Number 1447-102 revision A



INFORMATION WITHIN THIS DRAWING IS NOT NECESSARILY PRODUCED TO SCALE.
ALWAYS USE FIGURED DIMENSIONS AND CO-ORDINATES - IF IN DOUBT, ASK.

NOTES

Key:

- Site Boundary.
- Approximate position of trial pit excavated by Eastwood & Partners on 28.10.15 and 29.10.15.
- Approximate position of cable percussion borehole drilled by Eastwood & Partners on 04.11.15 to 09.11.15.
- Approximate location of trial pit by Ian Farmer Associates in 2008.
- Approximate location of cable percussion borehole by Ian Farmer Associates in 2008.
- Approximate location of window sample by Ian Farmer Associates in 2008.



A	First Issue.			
REV	DESCRIPTION	SIG	CHK	DATE

PROSPECT ESTATES

LAND AT NEW MILL ROAD,
HOLMFIRTH

EXPLORATORY HOLE
LOCATION PLAN

Eastwood & Partners
CONSULTING ENGINEERS

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SCALE WHEN PLOTTED AT A1 1:500	DRAWING STATUS PRELIMINARY
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DRAWN	CHECKED	DATE	DRAWING NUMBER	REV
JB	AJK	01.12.15	39141/001	A

NEW MILL ROAD, HOLMFIRTH

CDM 2015

AREA PERCEIVED SIGNIFICANT RESIDUAL RISKS THAT ARE EITHER / OR ANY COMBINATION OF THE FOLLOWING:
NOT OBVIOUS ■ UNUSUAL ■ DIFFICULT TO MANAGE

CONSTRUCTION

USE

MAINTENANCE

DECOMMISSION

ADDITIONAL COMMENTS DENOTED ON DWG AREA AS (CDM)

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DO NOT SCALE

NO DIMENSIONS TO BE SCALED FROM THIS DRAWING. ALL DIMENSIONS TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF WORKS AND ANY DISCREPANCIES REPORTED TO THE ARCHITECT / ENGINEER / CONTRACTOR. ALL INFORMATION ON THIS DRAWING IS SUBJECT TO A FULL AND COMPREHENSIVE TOPOGRAPHICAL SURVEY AND CONFIRMATION OF RELEVANT TITLE.

ADDITIONAL NOTES

ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE BUILDING REGULATIONS AND THE REQUIREMENTS OF THE LOCAL AUTHORITY

NOTES

THIS DRAWING IS BASED ON DIGITAL SURVEY AND ORDINANCE SURVEY INFORMATION. IT IS SUBJECT TO CONFIRMATION OF BOUNDARIES / RIGHTS OF WAY / EASEMENTS AND CONSULTATION WITH THE LOCAL AUTHORITY, DESIGN TEAM AND PUBLIC UTILITIES, ETC.

HOUSE / APARTMENT DESIGNS (AND SQUARE FOOTAGE CALCULATION(S)) IS SUBJECT TO A DETAILED CAD DESIGN.

BOUNDARY TREATMENTS

- 1800mm HIGH STONE WALL WITH FEATURE PIERS AND CLOSE BOARDED TIMBER INFILL PANELS
- 1800mm HIGH TIMBER CLOSE BOARDED FENCE
- 1200mm HIGH RAILINGS
- 1000mm HIGH TIMBER POST & RAIL FENCE
- RETAINING WALLS
- GATE POSTS / PIERS
- BOUNDARY

GROUND TREATMENTS

- EXISTING BUILDINGS
- EXISTING BUILDINGS TO BE DEMOLISHED
- BRINDLE SETTS TO ACCESSWAY
- TARMAC TO ESTATE ROAD, PAVEMENTS / FOOTPATH AND DRIVES - UNLESS OTHERWISE STATED
- TURFED AREAS - ALL REAR GARDENS TO BE TURF
- PAVING SLABS TO PATHS & PATIOS
- LOW LEVEL SHRUBS TO INCLUDE SPECIES SUCH AS BOX, COTONEASTER, EUCONYMIUS, BERBERIS & MAHONIA, INTERSPERSED WITH LARGER SHRUB PLANTING TO INCLUDE SPECIES SUCH AS HAWTHORN, BLACKTHORN, CHERRY, CORNUS & ELDER

GENERAL KEY

- PEDESTRAIN & VEHICULAR ENTRANCE/S
- GATE
- SIDE WINDOW TO HABITABLE ROOMS (LOUNGE, DINING, KITCHEN, BEDROOM, ETC.)
- PROPOSED TREES TO INCLUDE SPECIES SUCH AS SILVERBIRCH, MOUNTAIN ASH & NATIVE CHERRY
- EXISTING TREES / SHRUBS / HEDGES TO BE REMOVED
- EXISTING TREES / SHRUBS / HEDGES TO BE RETAINED

A	CLIENT UPDATES	JC	-	11-15
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REV	DESCRIPTION	DRWN	CHKD	DATE
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CLIENT PROSPECT ESATES

PROJECT NEW MILL ROAD, HOLMFIRTH

TITLE SITE PLAN

SCALE	1/500 @ A1	DATE	11/15
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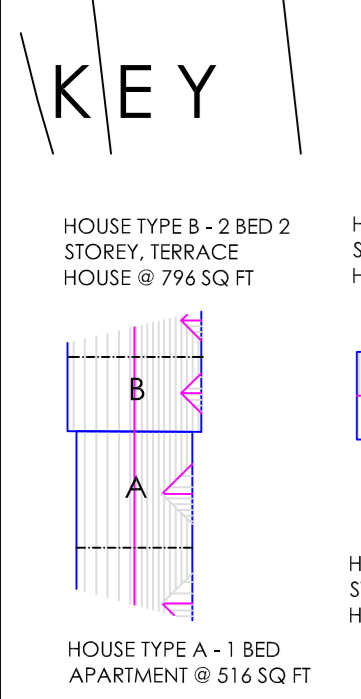
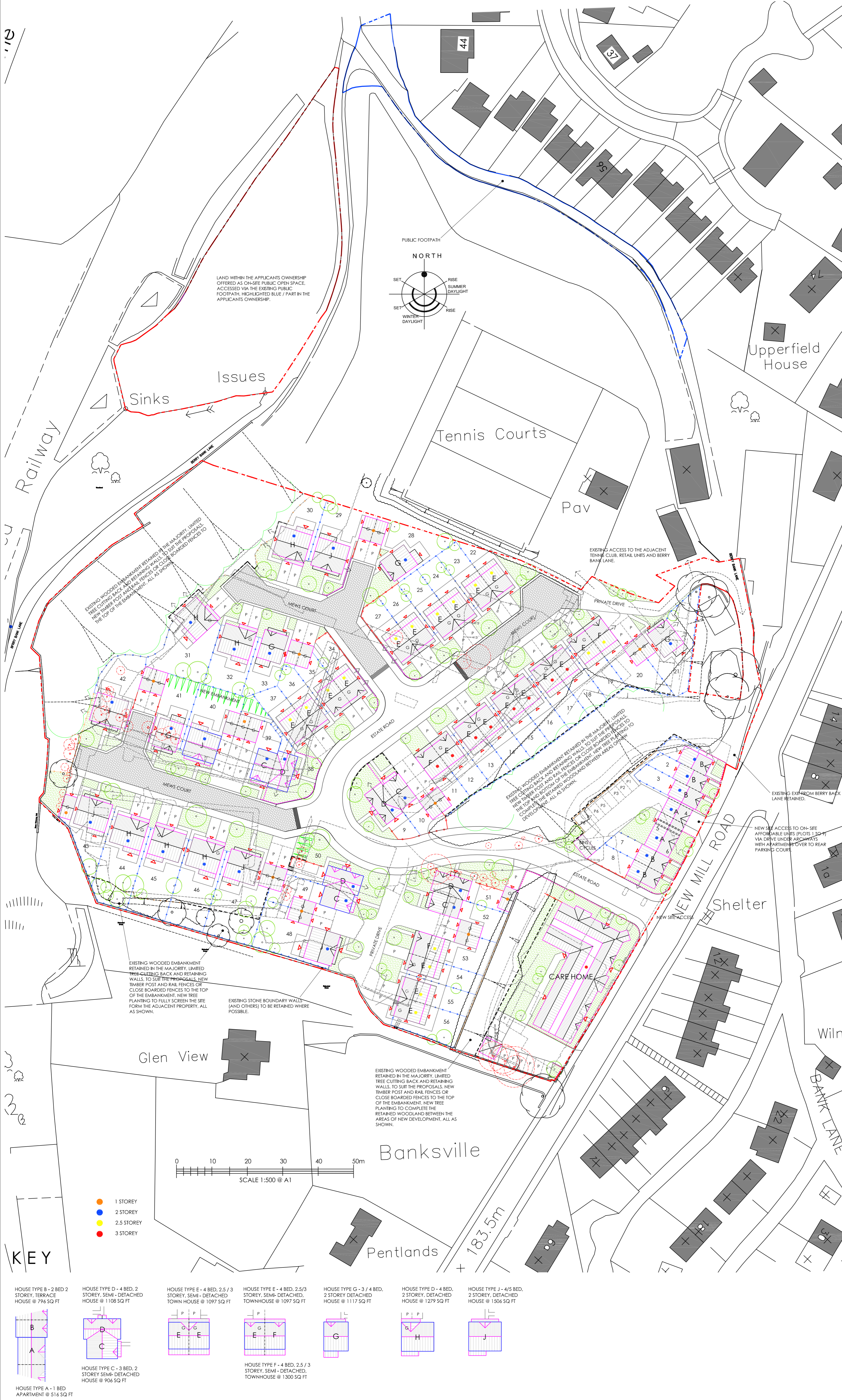
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DRAWN BY	JC	CHECKED BY	-
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PURPOSE OF ISSUE

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<input type="radio"/> APPROVAL	<input type="radio"/> COMMENT	<input type="radio"/> CONSTRUCTION

LOROC ARCHITECTS
WHITEHALL WATERFRONT
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11/15

33
32B

KEY

Appendix 2
Envirocheck Report
Coal Authority Mining Report

Historical Mapping Legends

Ordnance Survey County Series and Ordnance Survey Plan 1:2,500

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
County Burgh Boundary (Scotland)
Co. Boro. Bdy.
Co. Burgh Bdy.
BP BS Boundary Post or Stone **P.C.B** Police Call Box
B.R. Bridle Road **P** Pump
E.P Electricity Pylon **S.P** Signal Post
F.B. Foot Bridge **SL** Sluice
F.P. Foot Path **Sp.** Spring
G.P Guide Post or Board **T.C.B** Telephone Call Box
M.S Mile Stone **Tr.** Trough
M.P M.R Mooring Post or Ring **W** Well

Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
London Borough Boundary
Symbol marking point where boundary mereing changes
BH Beer House **P** Pillar, Pole or Post
BP, BS Boundary Post or Stone **PO** Post Office
Cn, C Capstan, Crane **PC** Public Convenience
Chy Chimney **PH** Public House
D Fn Drinking Fountain **Pp** Pump
EI P Electricity Pillar or Post **SB, S Br** Signal Box or Bridge
FAP Fire Alarm Pillar **SP, SL** Signal Post or Light
FB Foot Bridge **Spr** Spring
GP Guide Post **Tk** Tank or Track
H Hydrant or Hydraulic **TCB** Telephone Call Box
LC Level Crossing **TCP** Telephone Call Post
MH Manhole **Tr** Trough
MP Mile Post or Mooring Post **Wr Pt, Wr T** Water Point, Water Tap
MS Mile Stone **W** Well
NTL Normal Tidal Limit **Wd Pp** Wind Pump

Large-Scale National Grid Data 1:2,500 and 1:1,250

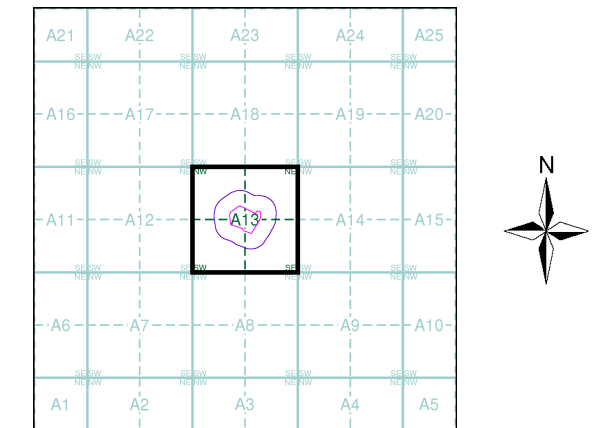
Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
B.M. 231.60m **Bench Mark** **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)
Bks Barracks **P** Pillar, Pole or Post
Bty Battery **PO** Post Office
Cemy Cemetery **PC** Public Convenience
Chy Chimney **Pp** Pump
Cis Cistern **Ppg Sta** Pumping Station
Dismtd Rly Dismantled Railway **PW** Place of Worship
EI Gen Sta Electricity Generating Station **Sewage Ppg Sta** Sewage Pumping Station
EI P Electricity Pole, Pillar **SB, S Br** Signal Box or Bridge
EI Sub Sta Electricity Sub Station **SP, SL** Signal Post or Light
FB Filter Bed **Spr** Spring
Fn / D Fn Fountain / Drinking Ftn. **Tk** Tank or Track
Gas Gov Gas Valve Compound **Tr** Trough
GVC Gas Governor **Wd Pp** Wind Pump
GP Guide Post **Wr Pt, Wr T** Water Point, Water Tap
MH Manhole **Wks** Works (building or area)
MP, MS Mile Post or Mile Stone **W** Well



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Yorkshire	1:2,500	1893	2
Yorkshire	1:2,500	1906	3
Yorkshire	1:2,500	1931 - 1932	4
Ordnance Survey Plan	1:2,500	1967	5
Ordnance Survey Plan	1:2,500	1974	6
Additional SIMs	1:2,500	1978 - 1984	7
Ordnance Survey Plan	1:2,500	1987	8
Additional SIMs	1:2,500	1987 - 1990	9
Large-Scale National Grid Data	1:2,500	1992 - 1995	10
Large-Scale National Grid Data	1:2,500	1995	11
Large-Scale National Grid Data	1:2,500	1996	12
Large-Scale National Grid Data	1:2,500	1996	13

Historical Map - Segment A13



Order Details

Order Number: 74181673_1_1
 Customer Ref: 39141/PR/AJK
 National Grid Reference: 414830, 409280
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 100

Site Details

New Mill Road, HOLMFIRTH, HD9 7LN



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

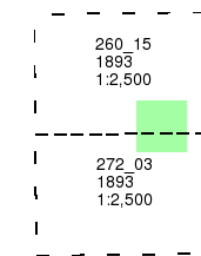
Yorkshire

Published 1893

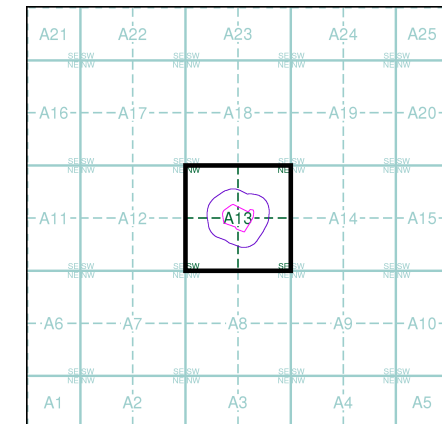
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13

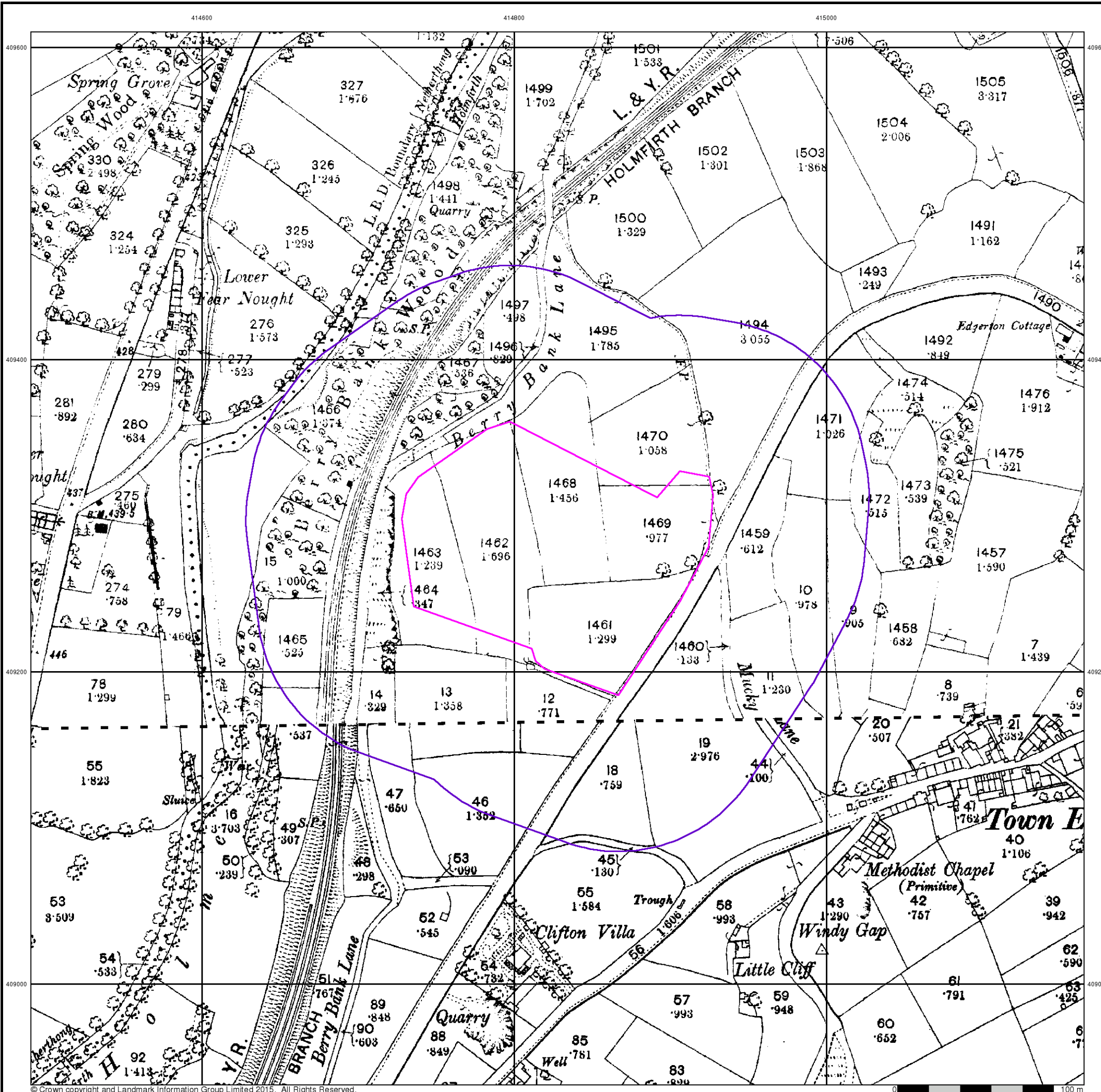


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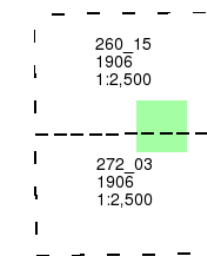
Yorkshire

Published 1906

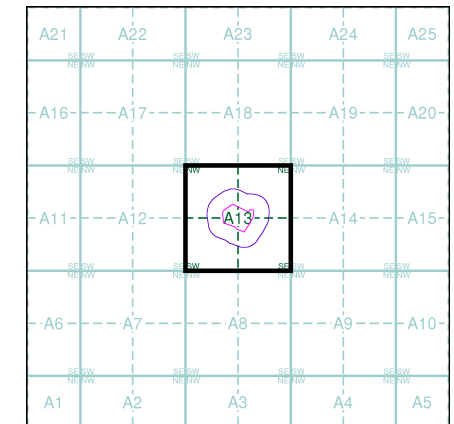
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

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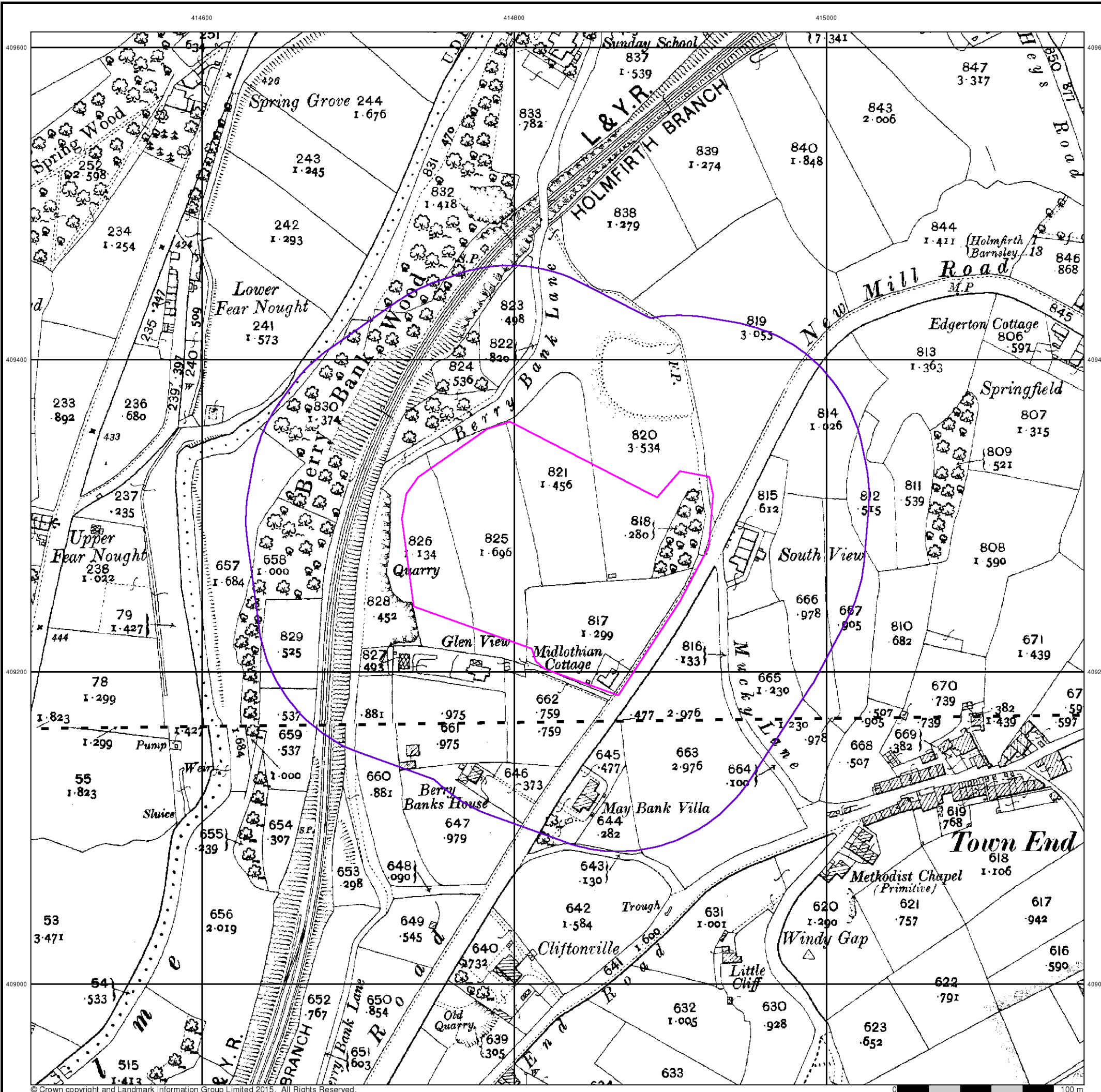


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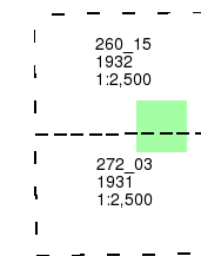
Yorkshire

Published 1931 - 1932

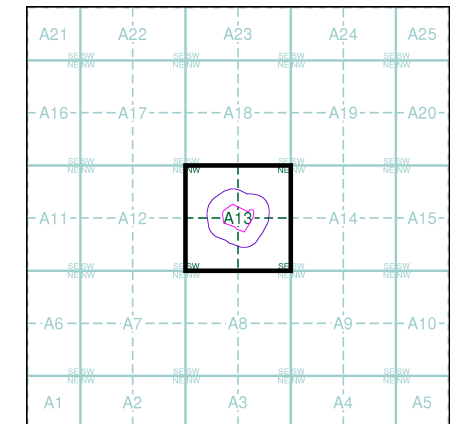
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

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Historical Map - Segment A13

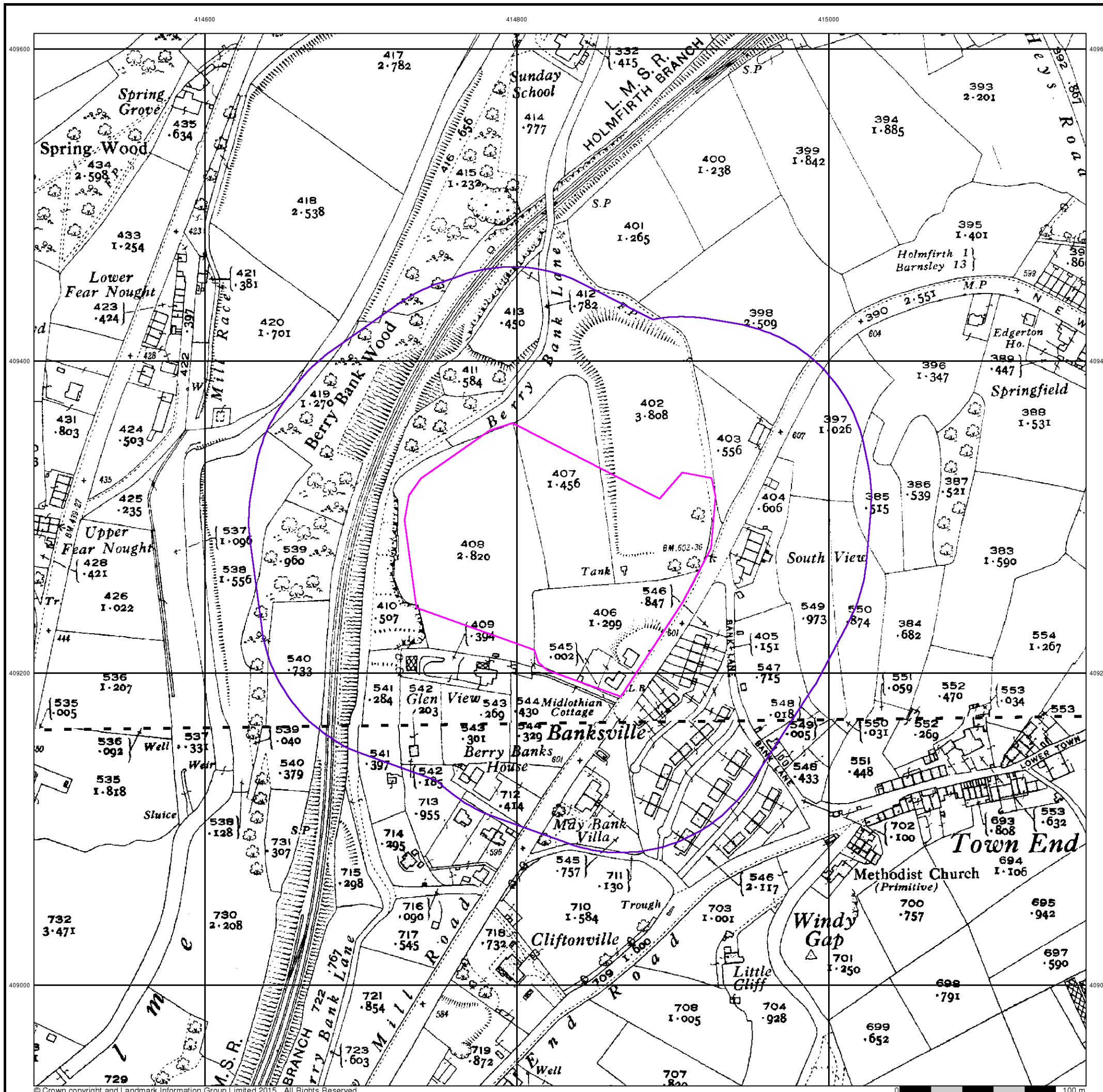


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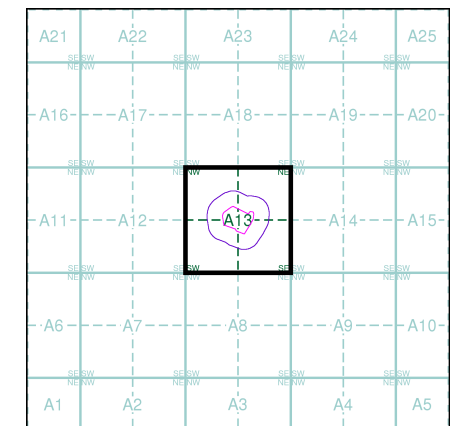
Ordnance Survey Plan
Published 1967
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

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SE 1408 1967 1:2,500	SE 1508 1967 1:2,500

Historical Map - Segment A13

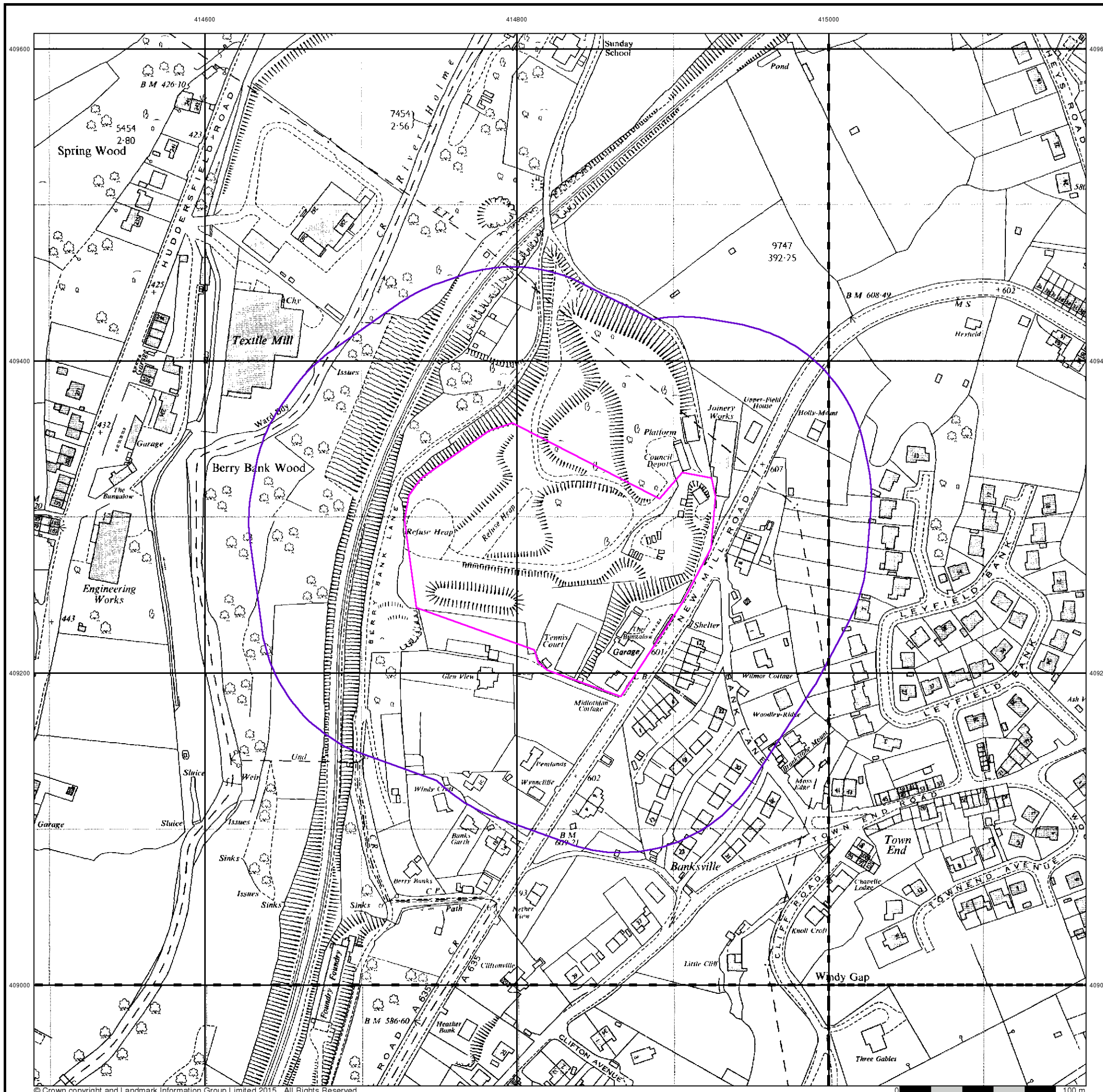


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New Mill Road, HOLMFIRTH, HD9 7LN



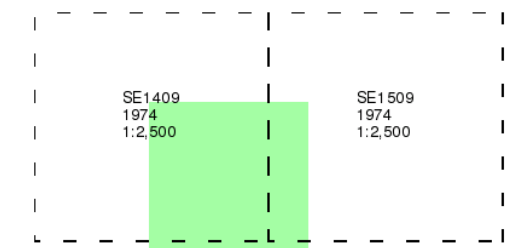
Ordnance Survey Plan

Published 1974

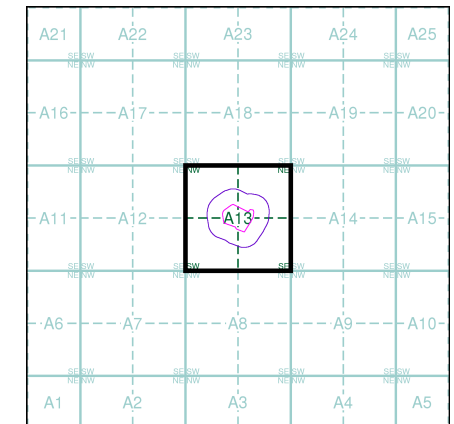
Source map scale - 1:2,500

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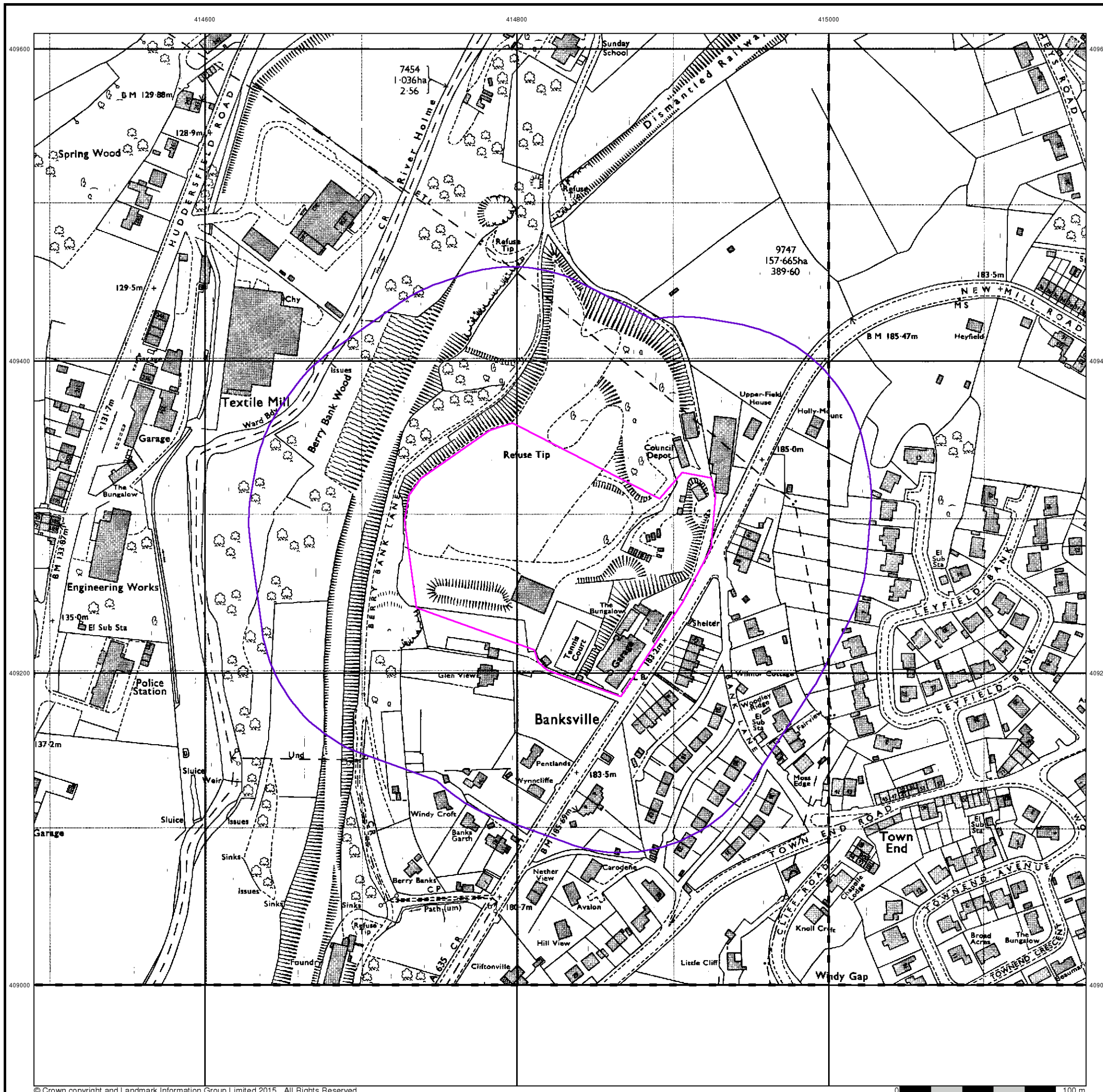


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Site Details

New Mill Road, HOLMFIRTH, HD9 7LN



Additional SIMs

Published 1978 - 1984

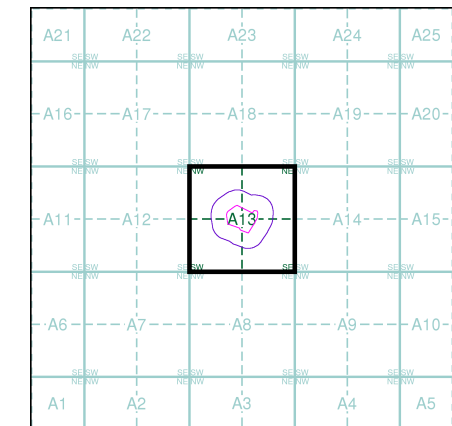
Source map scale - 1:2,500

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SE 1409 1982 1:2,500	SE 1509 1978 1:2,500
SE 1408 1984 1:2,500	SE 1508 1981 1:2,500

Historical Map - Segment A13



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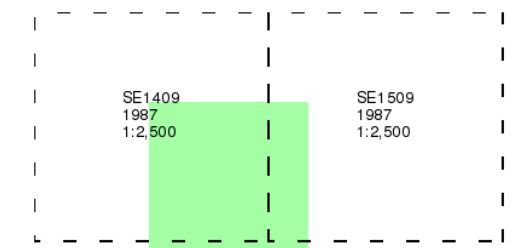
Ordnance Survey Plan

Published 1987

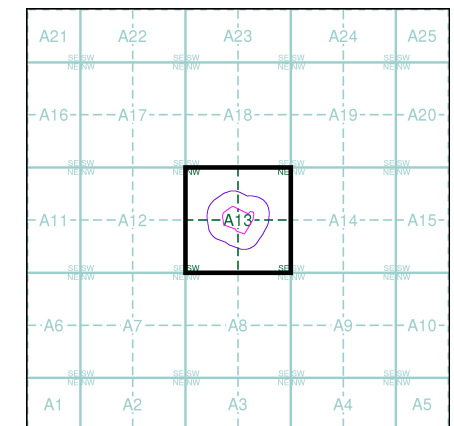
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Map Name(s) and Date(s)



Historical Map - Segment A13

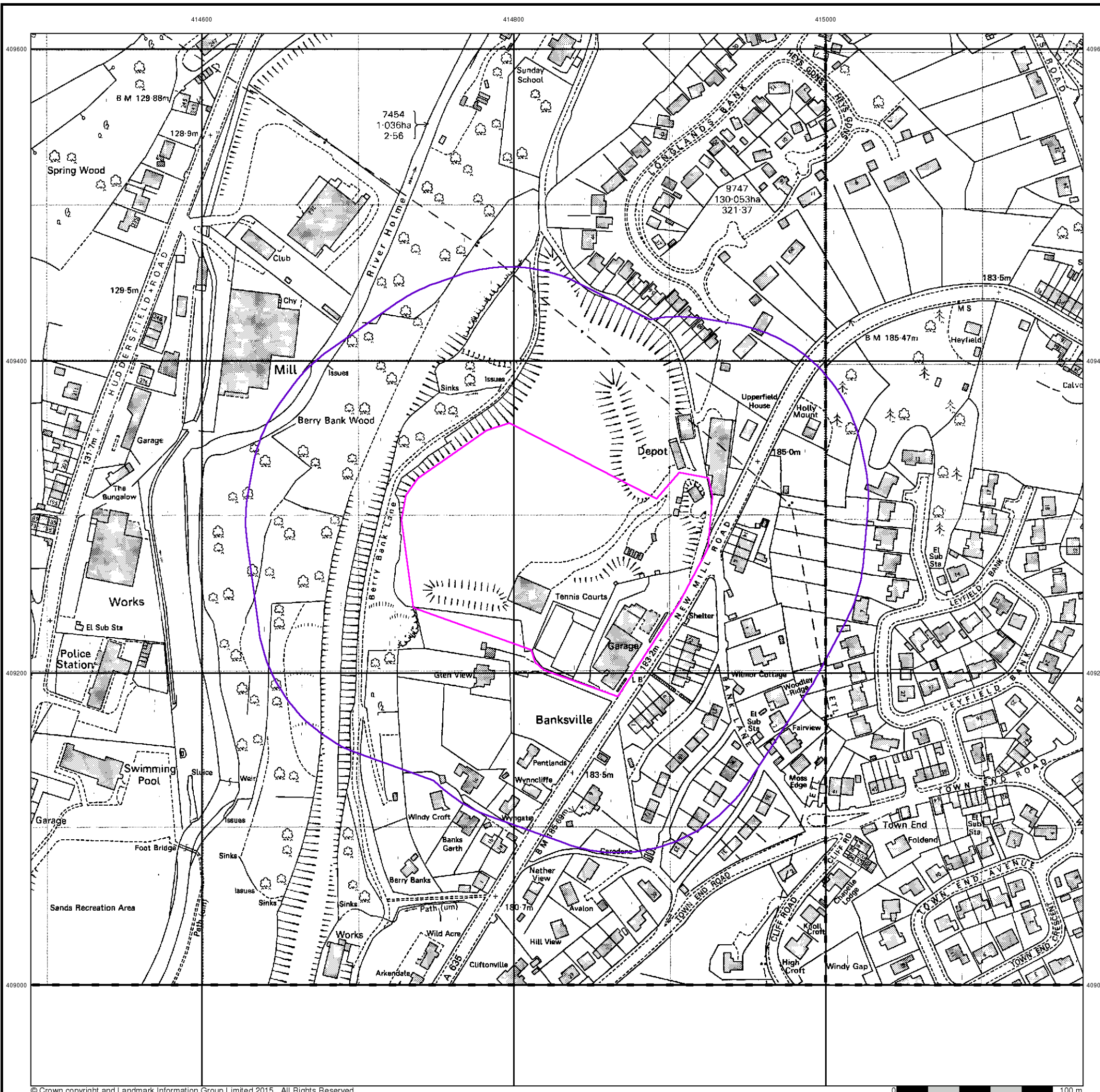


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Site Details

New Mill Road, HOLMFIRTH, HD9 7LN



Additional SIMs

Published 1987 - 1990

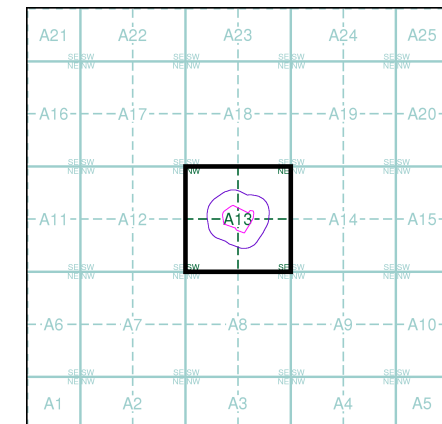
Source map scale - 1:2,500

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SE 1409 1987 1:2,500	SE 1508 1990 1:2,500
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Historical Map - Segment A13



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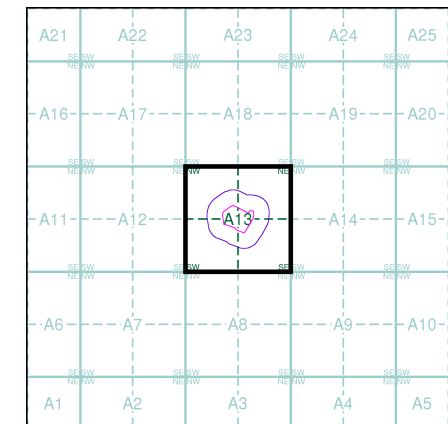
Large-Scale National Grid Data
Published 1992 - 1995
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SE 1409 1994 1:2,500	SE 1509 1992 1:2,500
SE 1408 1995 1:2,500	SE 1508 1992 1:2,500

Historical Map - Segment A13



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Site Details

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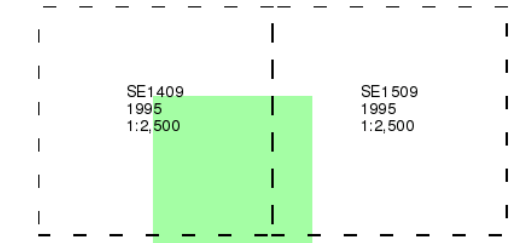
Large-Scale National Grid Data

Published 1995

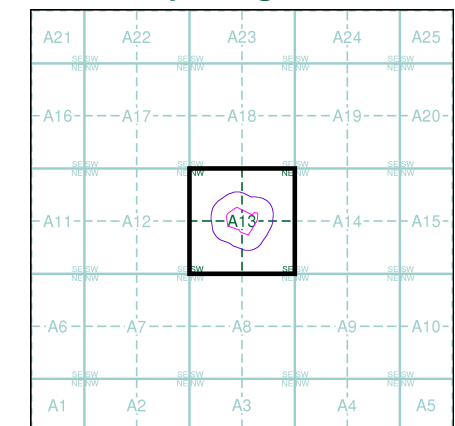
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13

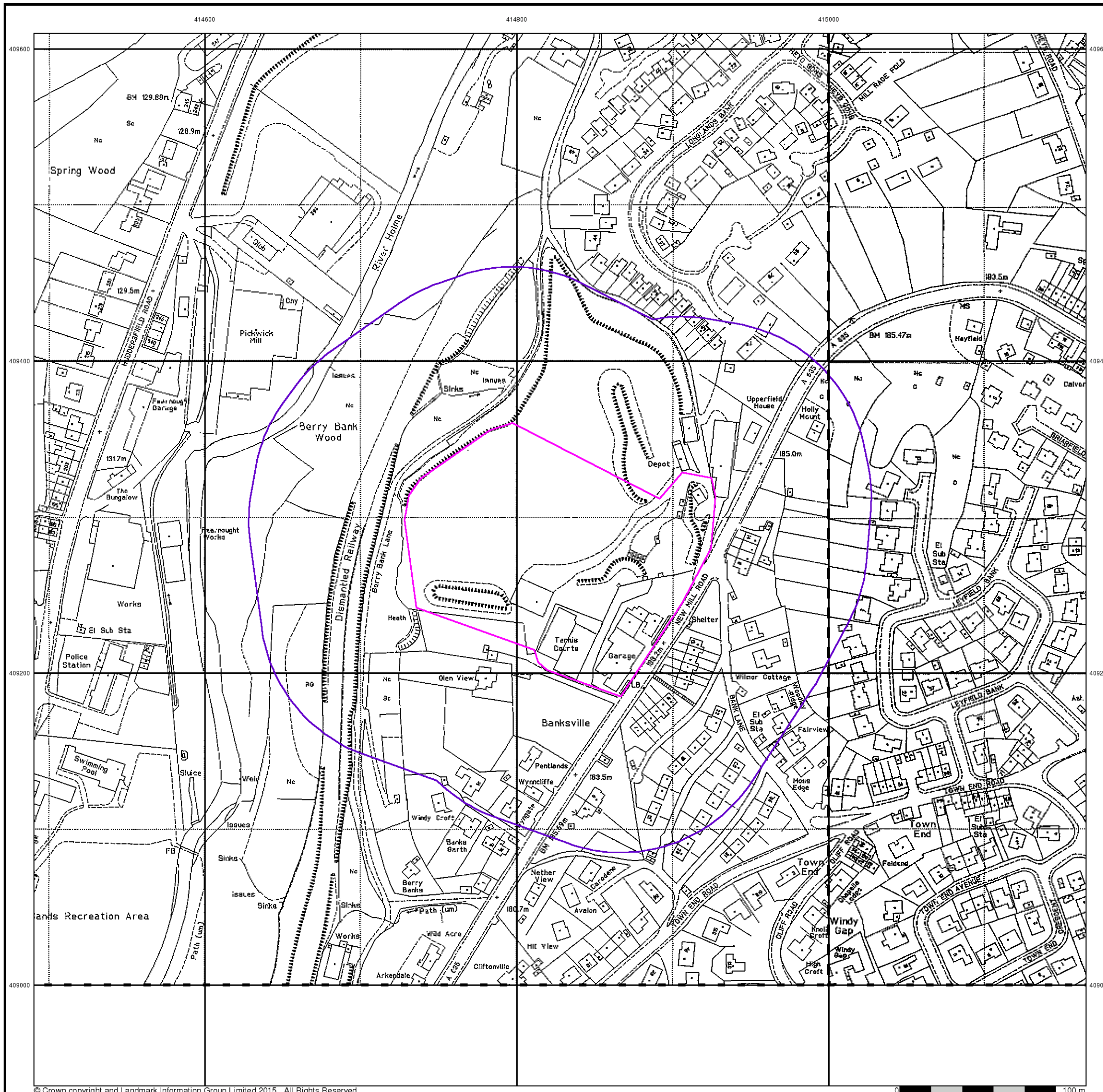


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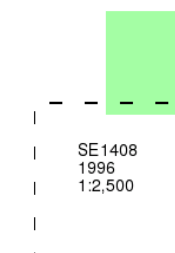
Large-Scale National Grid Data

Published 1996

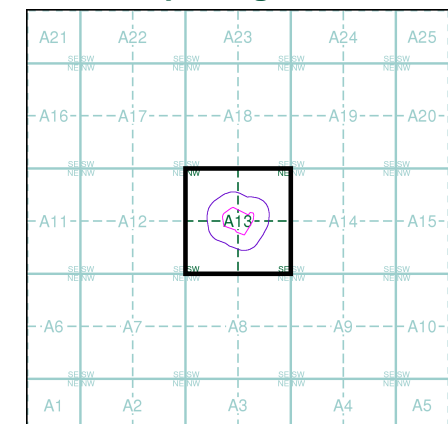
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13

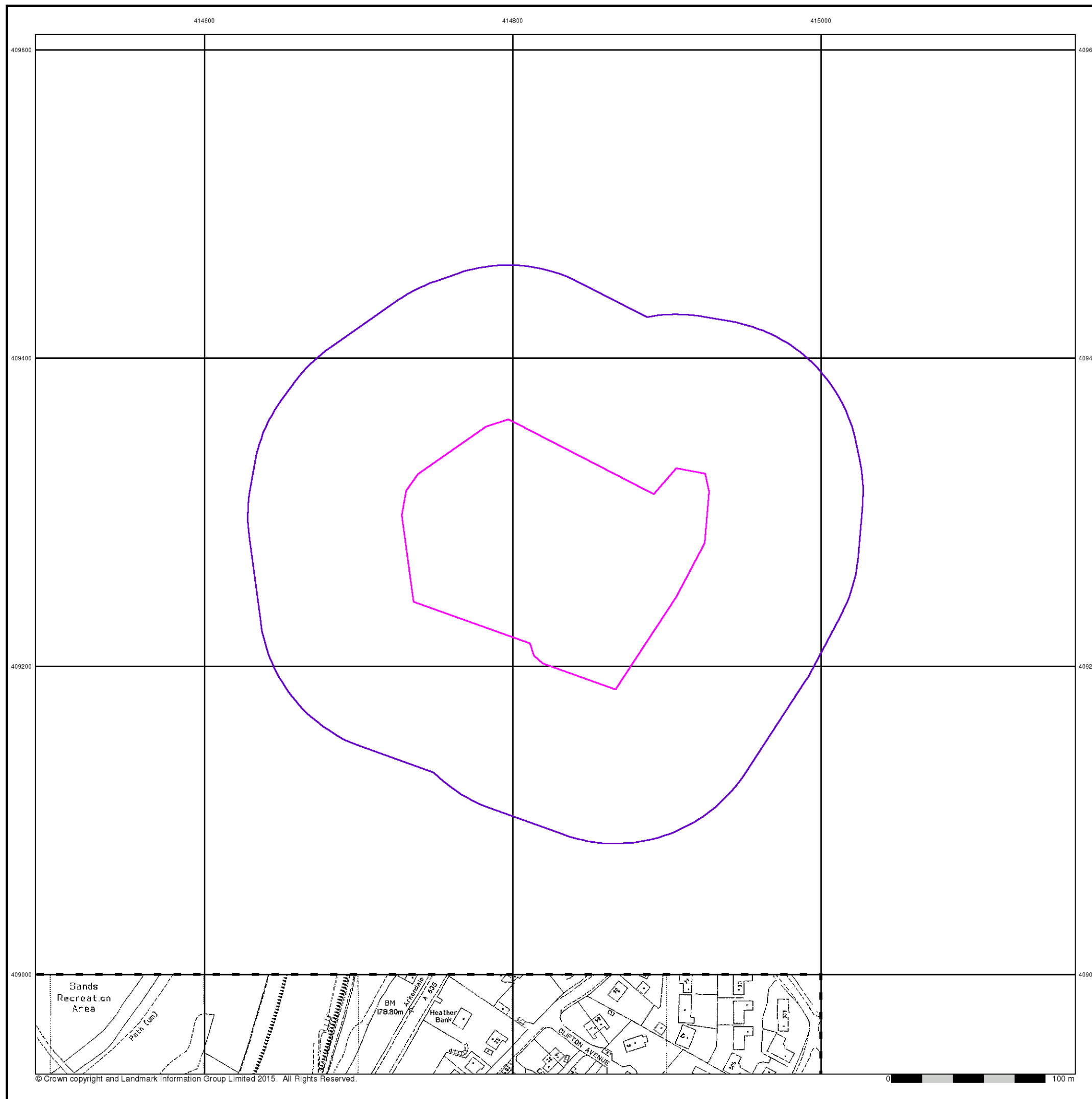


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 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 100

Site Details

New Mill Road, HOLMFIRTH, HD9 7LN



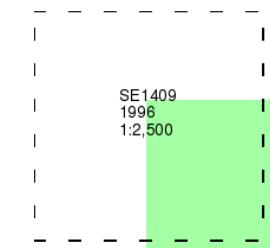
Large-Scale National Grid Data

Published 1996

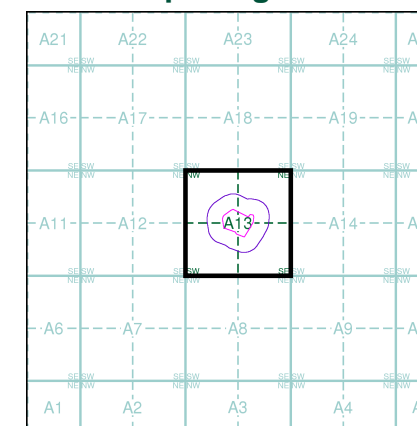
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 74181673_1_1
 Customer Ref: 39141/PR/AJK
 National Grid Reference: 414830, 409280
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 100

Site Details

New Mill Road, HOLMFIRTH, HD9 7LN



Historical Mapping Legends

Ordnance Survey County Series 1:10,560

- Gravel Pit
- Sand Pit
- Other Pits
- Quarry
- Shingle
- Orchard
- Osiers
- Reeds
- Marsh
- Mixed Wood
- Deciduous
- Brushwood
- Fir
- Furze
- Rough Pasture
- Arrow denotes flow of water
- Trigonometrical Station
- Site of Antiquities
- Bench Mark
- Pump, Guide Post, Signal Post
- Well, Spring, Boundary Post
- 285** Surface Level
- Sketched Contour
- Instrumental Contour
- Main Roads
- Minor Roads
- Sunken Road
- Raised Road
- Road over Railway
- Railway over River
- Railway over Road
- Level Crossing
- Road over River or Canal
- Road over Stream
- Road over Stream
- County Boundary (Geographical)
- County & Civil Parish Boundary
- Administrative County & Civil Parish Boundary
- County Borough Boundary (England)
- County Burgh Boundary (Scotland)
- Rural District Boundary
- Civil Parish Boundary

Ordnance Survey Plan 1:10,000

- Chalk Pit, Clay Pit or Quarry
- Gravel Pit
- Sand Pit
- Disused Pit or Quarry
- Refuse or Slag Heap
- Lake, Loch or Pond
- Dunes
- Boulders
- Coniferous Trees
- Non-Coniferous Trees
- Orchard
- Scrub
- Coppice
- Bracken
- Heath
- Rough Grassland
- Marsh
- Reeds
- Saltings
- Building
- Glasshouse
- Sloping Masonry
- Pylon
- Electricity Transmission Line
- Pole
- Cutting
- Embankment
- Standard Gauge Multiple Track
- Standard Gauge Single Track
- Siding, Tramway or Mineral Line
- Narrow Gauge
- Geographical County
- Administrative County, County Borough or County of City
- Municipal Borough, Urban or Rural District, Burgh or District Council
- Borough, Burgh or County Constituency
- Civil Parish
- BP, BS** Boundary Post or Stone
- Ch** Church
- CH** Club House
- F E Sta** Fire Engine Station
- FB** Foot Bridge
- Fn** Fountain
- GP** Guide Post
- MP** Mile Post
- MS** Mile Stone
- Pol Sta** Police Station
- PO** Post Office
- PC** Public Convenience
- PH** Public House
- SB** Signal Box
- Spr** Spring
- TCB** Telephone Call Box
- TCP** Telephone Call Post
- W** Well

1:10,000 Raster Mapping

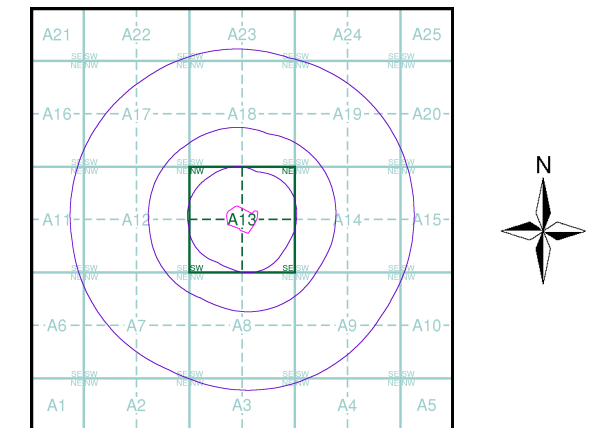
- Gravel Pit
- Rock
- Boulders
- Shingle
- Sand
- Slopes
- General detail
- Overhead detail
- Multi-track railway
- County boundary (England only)
- District, Unitary, Metropolitan, London Borough boundary
- Refuse tip or slag heap
- Rock (scattered)
- Boulders (scattered)
- Mud
- Sand Pit
- Top of cliff
- Underground detail
- Narrow gauge railway
- Single track railway
- Civil, parish or community boundary
- Constituency boundary
- Area of wooded vegetation
- Non-coniferous trees
- Coniferous trees
- Positioned tree
- Coppice or Osiers
- Heath
- Marsh, Salt Marsh or Reeds
- Flow arrows
- Mean high water (springs)
- Mean low water (springs)
- Electricity transmission line (with poles)
- Telephone line (where shown)
- Bench mark (where shown)
- Point feature (e.g. Guide Post or Mile Stone)
- Site of (antiquity)
- General Building
- Important Building



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Yorkshire	1:10,560	1854	2
Yorkshire	1:10,560	1894	3
Yorkshire	1:10,560	1906 - 1907	4
Yorkshire	1:10,560	1933	5
Yorkshire	1:10,560	1938 - 1948	6
Yorkshire	1:10,560	1949	7
Ordnance Survey Plan	1:10,000	1955 - 1956	8
Ordnance Survey Plan	1:10,000	1966 - 1969	9
Ordnance Survey Plan	1:10,000	1970 - 1979	10
Ordnance Survey Plan	1:10,000	1982 - 1984	11
Ordnance Survey Plan	1:10,000	1992	12
10K Raster Mapping	1:10,000	2006	13
VectorMap Local	1:10,000	2015	14

Historical Map - Slice A



Order Details

Order Number: 74181673_1_1
 Customer Ref: 39141/PR/AJK
 National Grid Reference: 414830, 409280
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

New Mill Road, HOLMFIRTH, HD9 7LN



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

Yorkshire

Published 1854

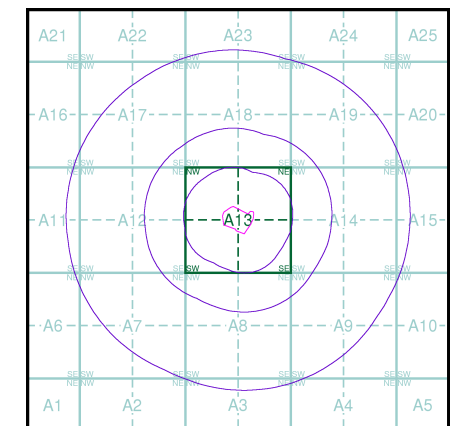
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

26000	1854	1:10,560
27200	1854	1:10,560

Historical Map - Slice A

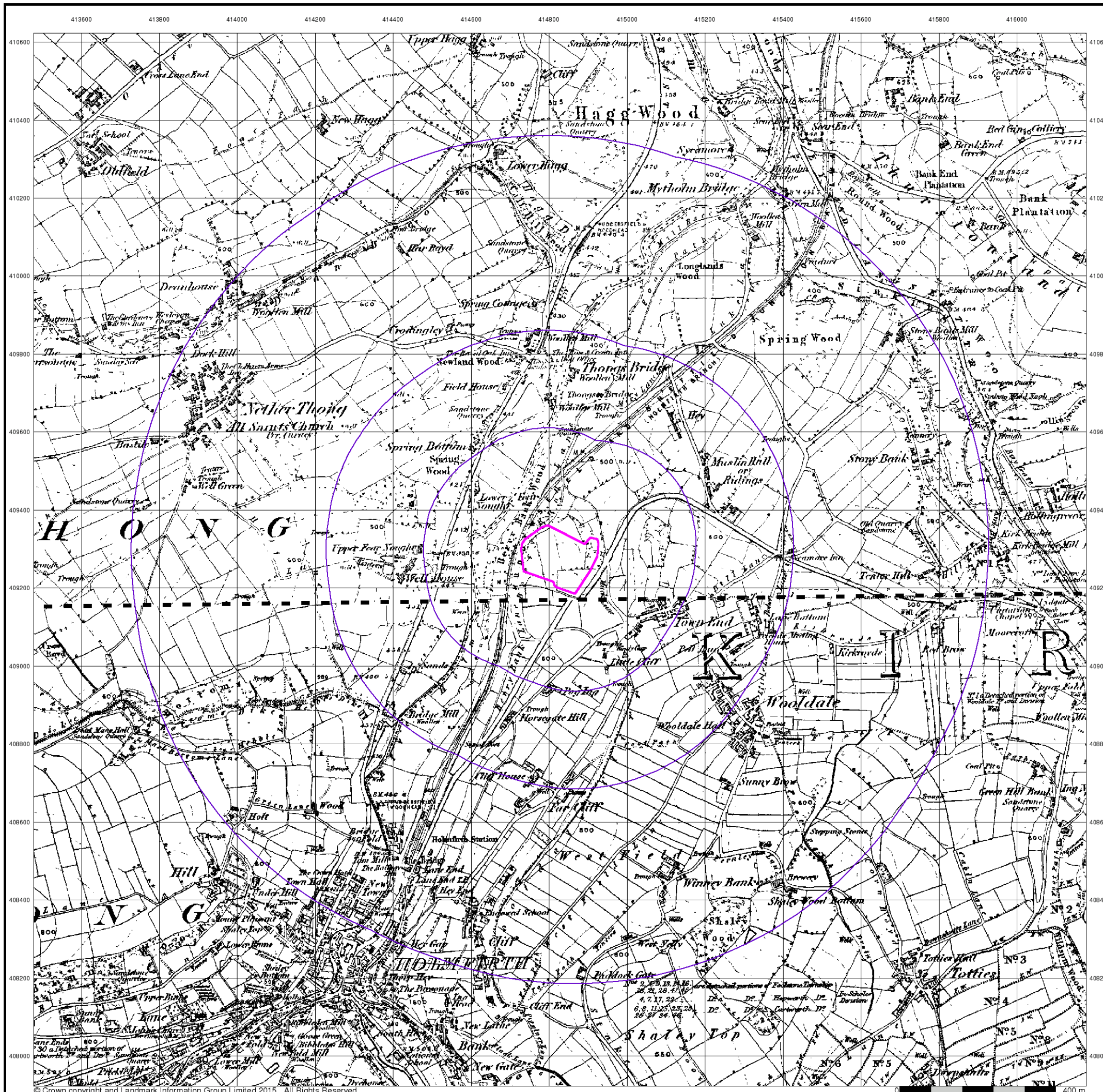


Order Details

Order Number: 74181673_1_1
 Customer Ref: 39141/PR/AJK
 National Grid Reference: 414830, 409280
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

New Mill Road, HOLMFIRTH, HD9 7LN



Yorkshire

Published 1894

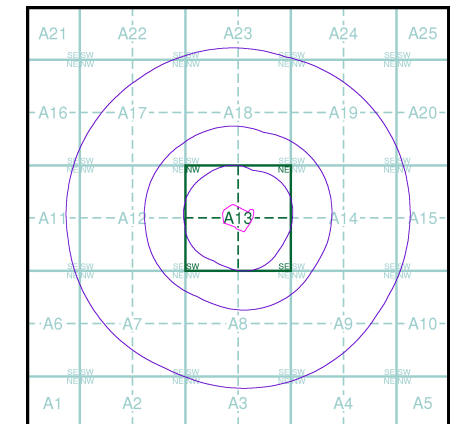
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

260SE	1894
1:10,560	
272NE	1894
1:10,560	

Historical Map - Slice A

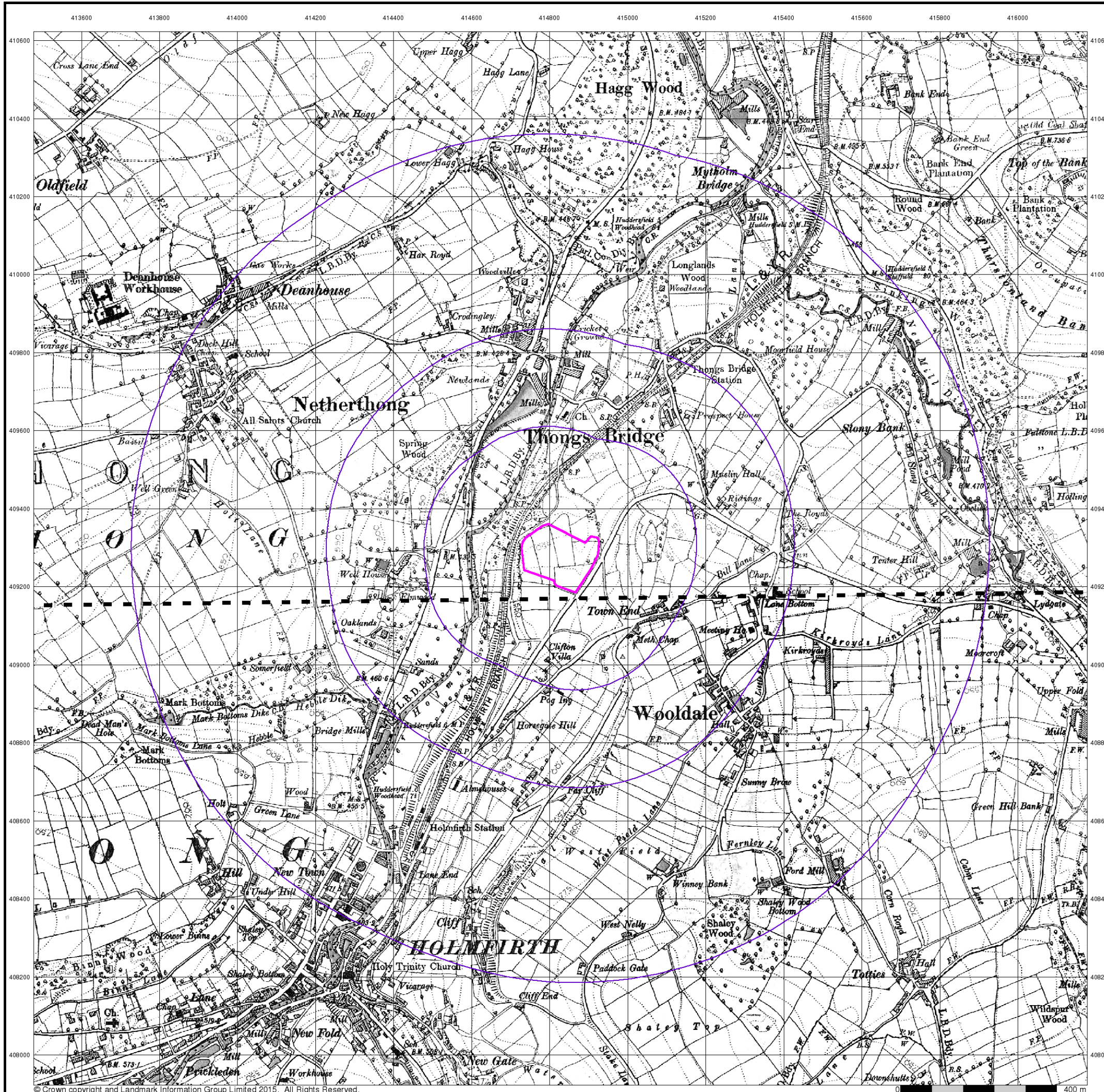


Order Details

Order Number: 74181673_1_1
 Customer Ref: 39141/PR/AJK
 National Grid Reference: 414830, 409280
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

New Mill Road, HOLMFIRTH, HD9 7LN



Yorkshire

Published 1906 - 1907

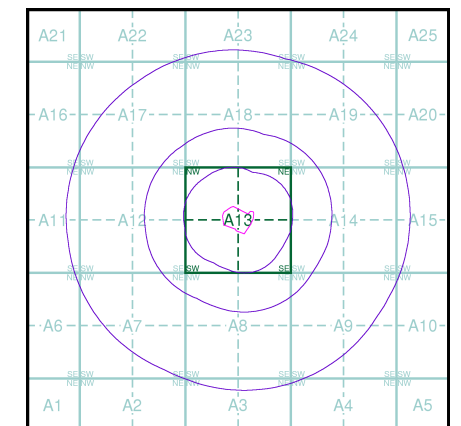
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

260SE	1907	1:10,560
272NE	1906	1:10,560

Historical Map - Slice A

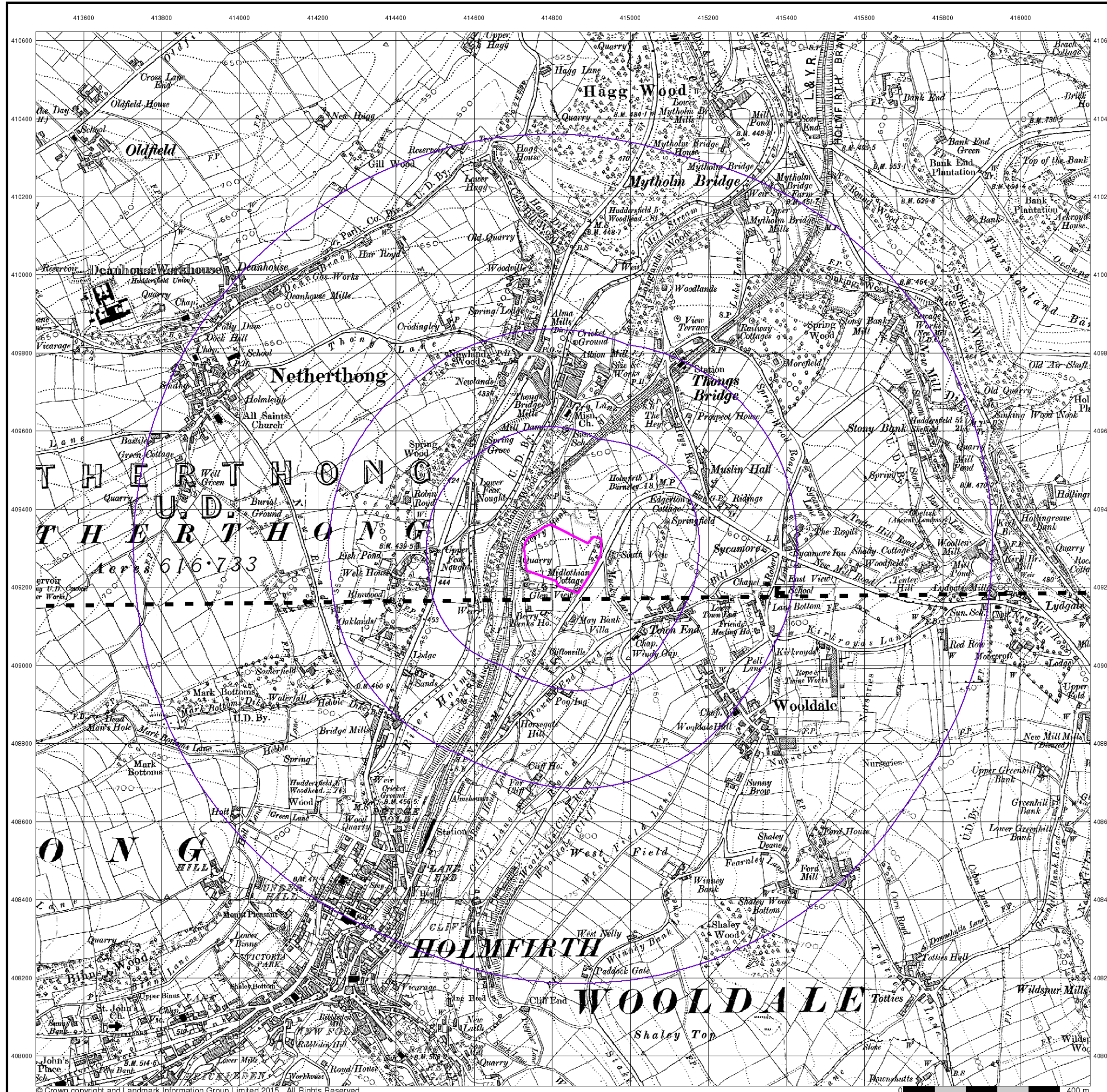


Order Details

Order Number: 74181673_1_1
 Customer Ref: 39141/PR/AJK
 National Grid Reference: 414830, 409280
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

New Mill Road, HOLMFIRTH, HD9 7LN



Yorkshire

Published 1933

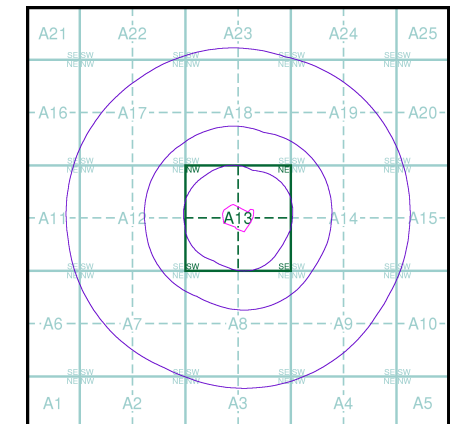
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

260SE	1933
1:10,560	
272NE	1933
1:10,560	

Historical Map - Slice A

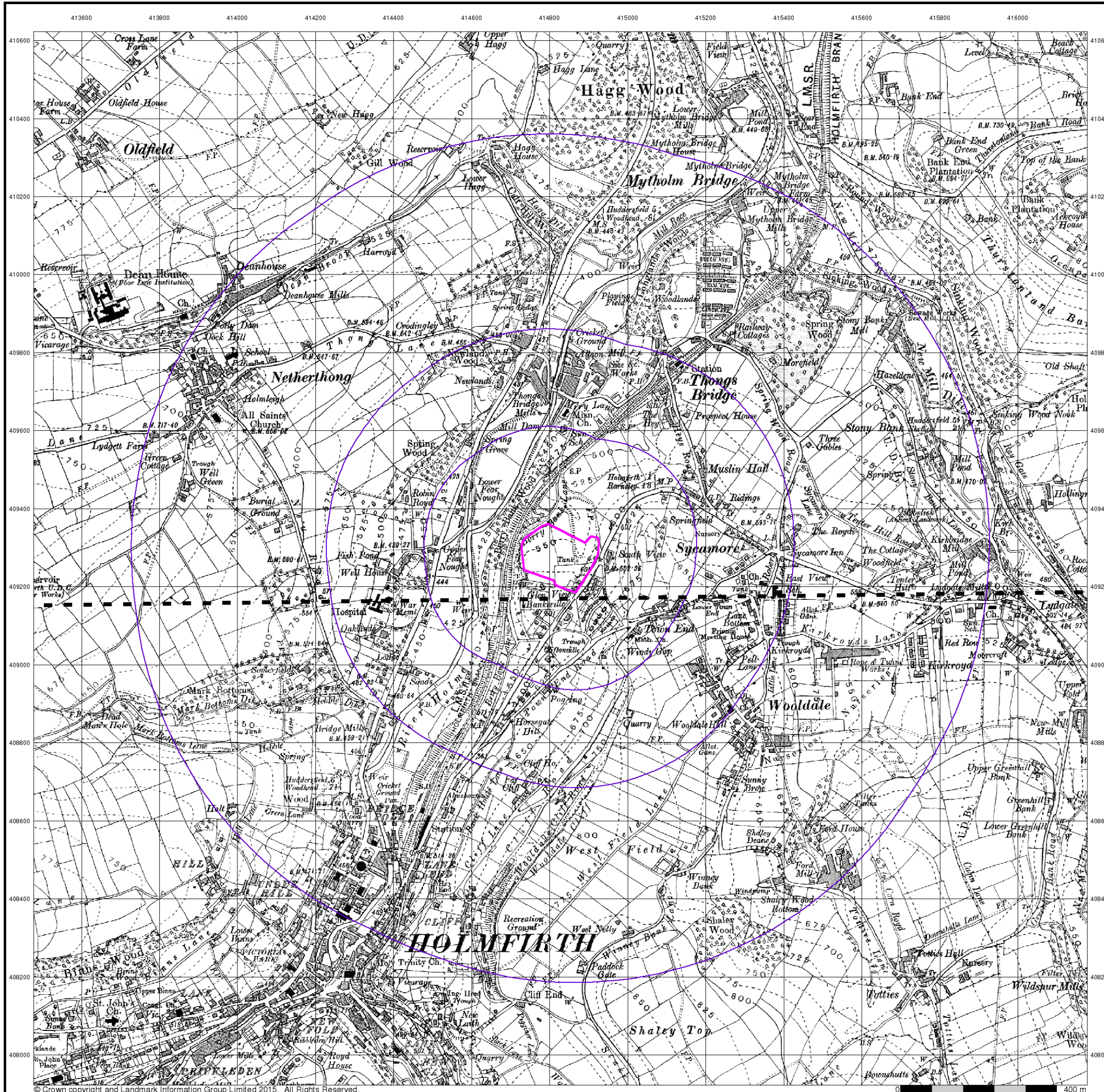


Order Details

Order Number: 74181673_1_1
 Customer Ref: 39141/PR/AJK
 National Grid Reference: 414830, 409280
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

New Mill Road, HOLMFIRTH, HD9 7LN



Yorkshire

Published 1938 - 1948

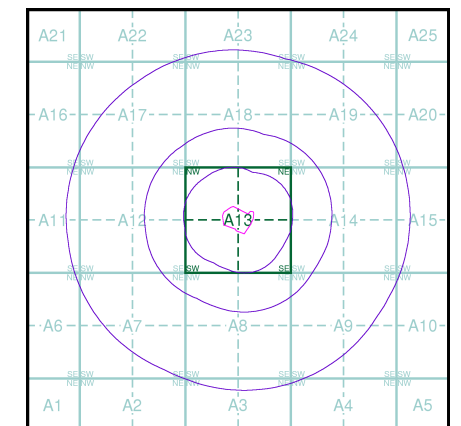
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

260SE	1938
1:10,560	
272NE	1948
1:10,560	

Historical Map - Slice A

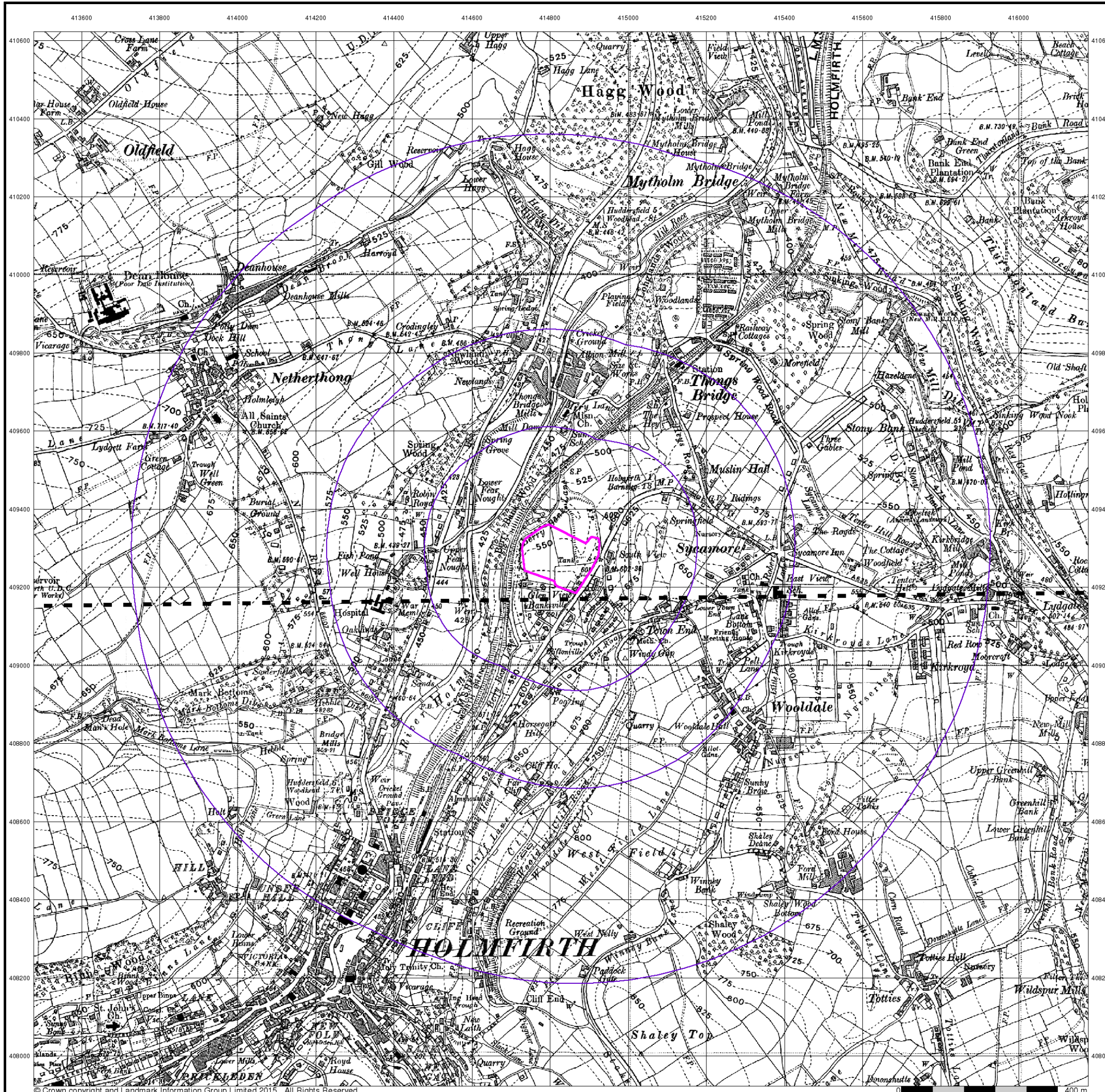


Order Details

Order Number: 74181673_1_1
 Customer Ref: 39141/PR/AJK
 National Grid Reference: 414830, 409280
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

New Mill Road, HOLMFIRTH, HD9 7LN



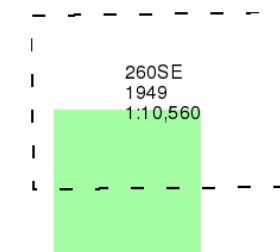
Yorkshire

Published 1949

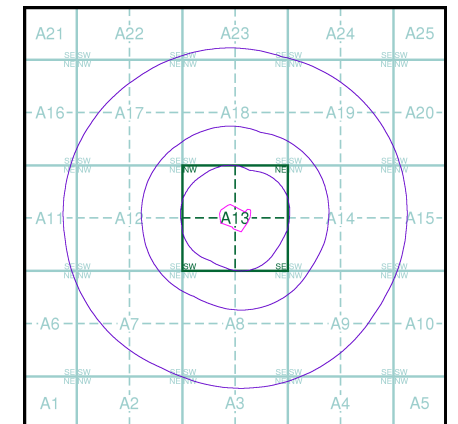
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A

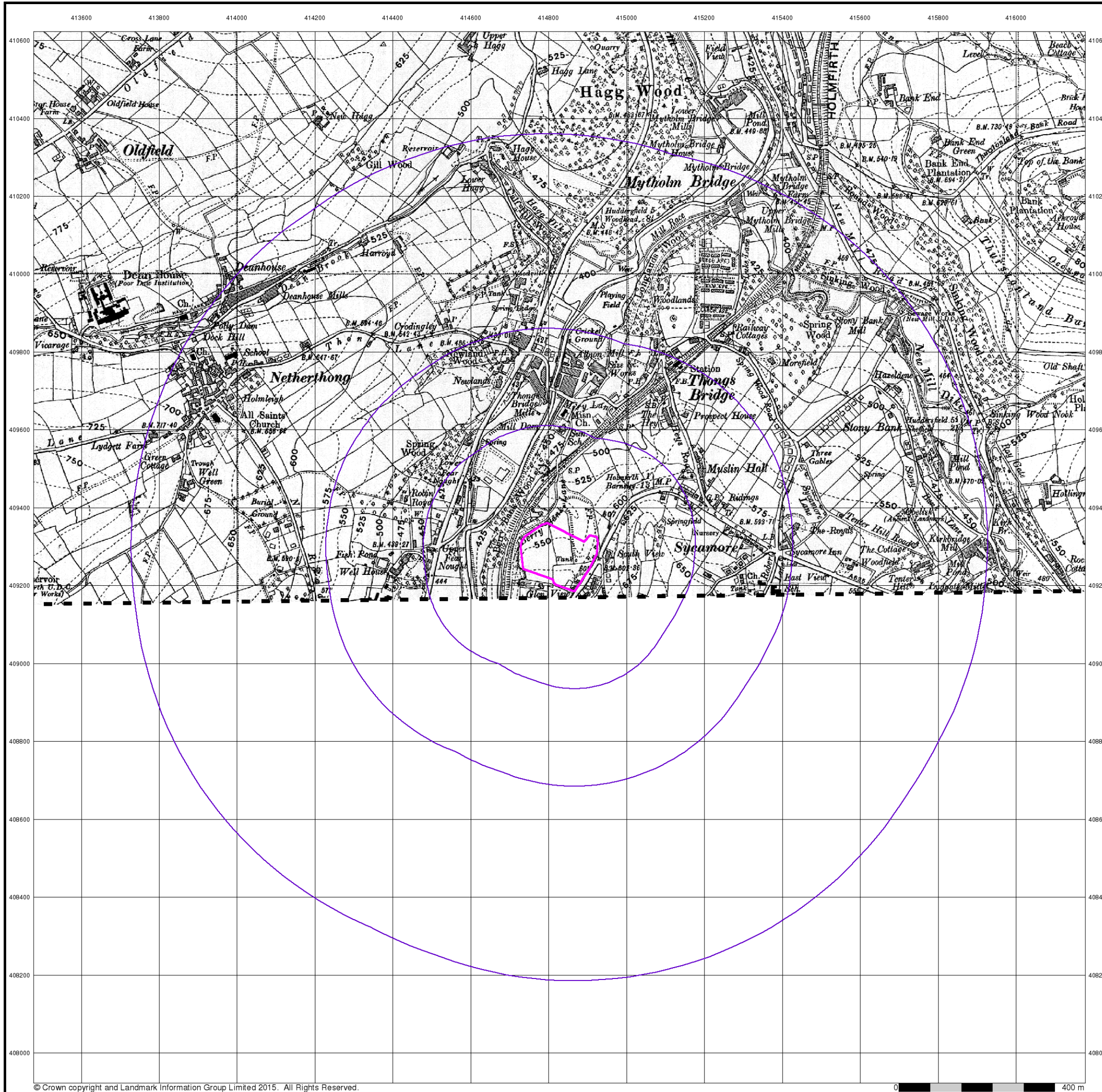


Order Details

Order Number: 74181673_1_1
 Customer Ref: 39141/PR/AJK
 National Grid Reference: 414830, 409280
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

New Mill Road, HOLMFIRTH, HD9 7LN



Ordnance Survey Plan

Published 1955 - 1956

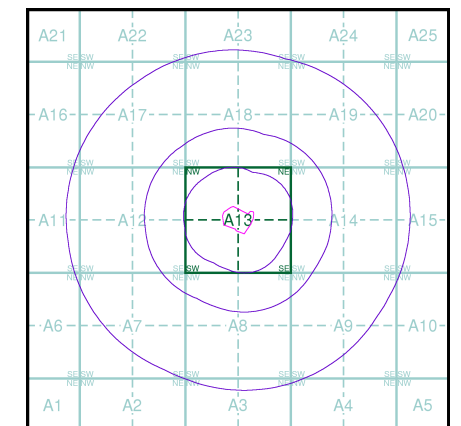
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SE11SW	SE11SE
1956	1955
1:10,560	1:10,560
SE10NW	SE10NE
1956	1955
1:10,560	1:10,560

Historical Map - Slice A

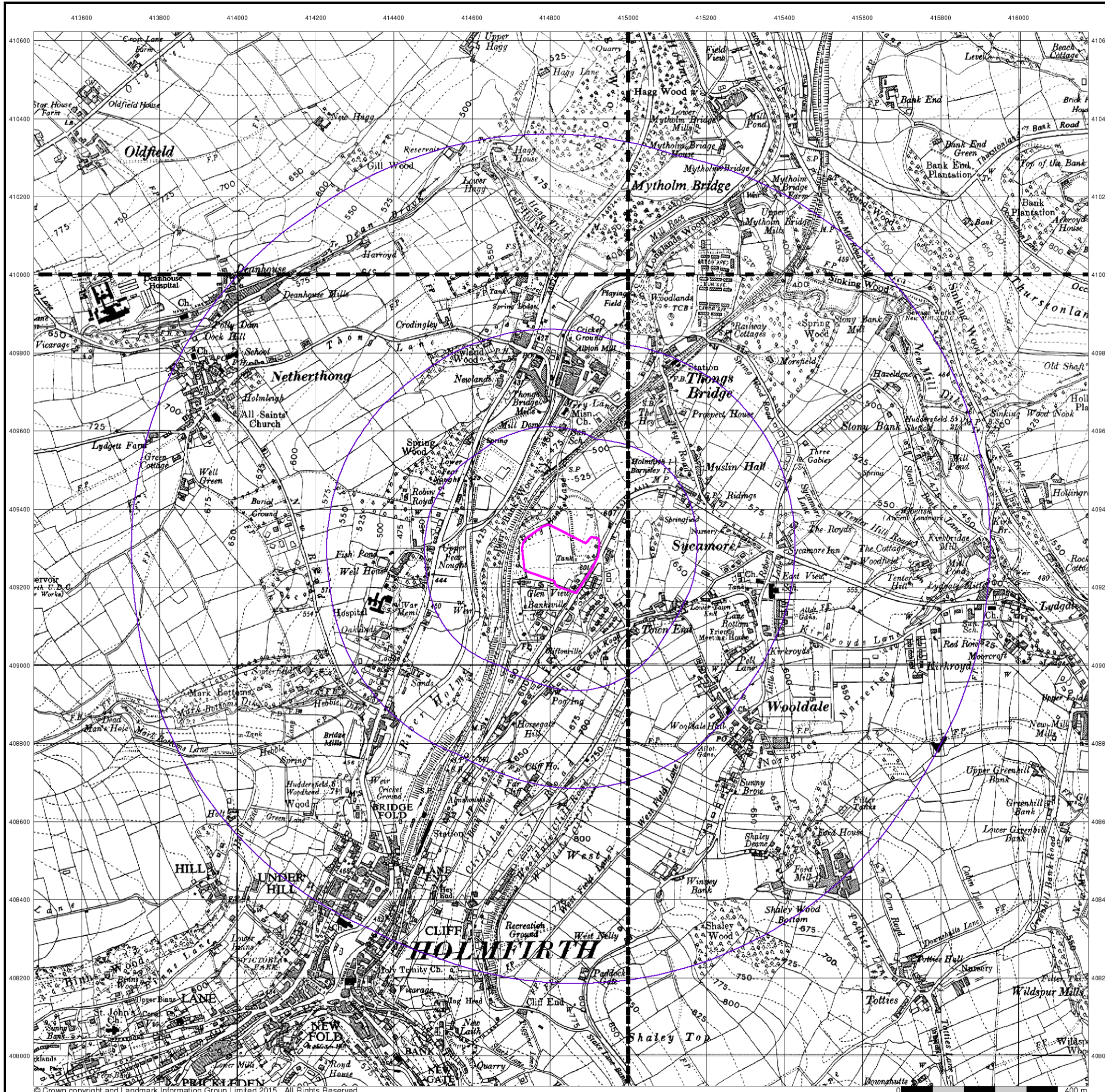


Order Details

Order Number: 74181673_1_1
 Customer Ref: 39141/PR/AJK
 National Grid Reference: 414830, 409280
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

New Mill Road, HOLMFIRTH, HD9 7LN



Ordnance Survey Plan

Published 1966 - 1969

Source map scale - 1:10,000

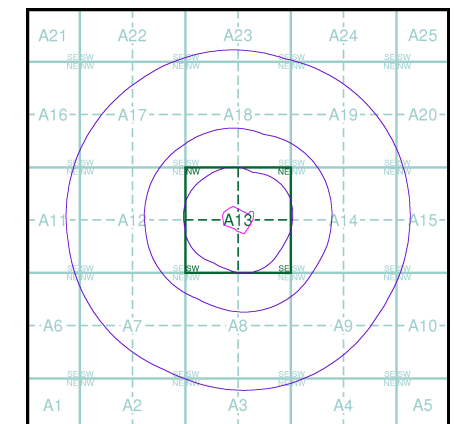
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SE11SW	SE11SE
1969	1968
1:10,560	1:10,560

SE10NW	
1966	
1:10,560	

Historical Map - Slice A

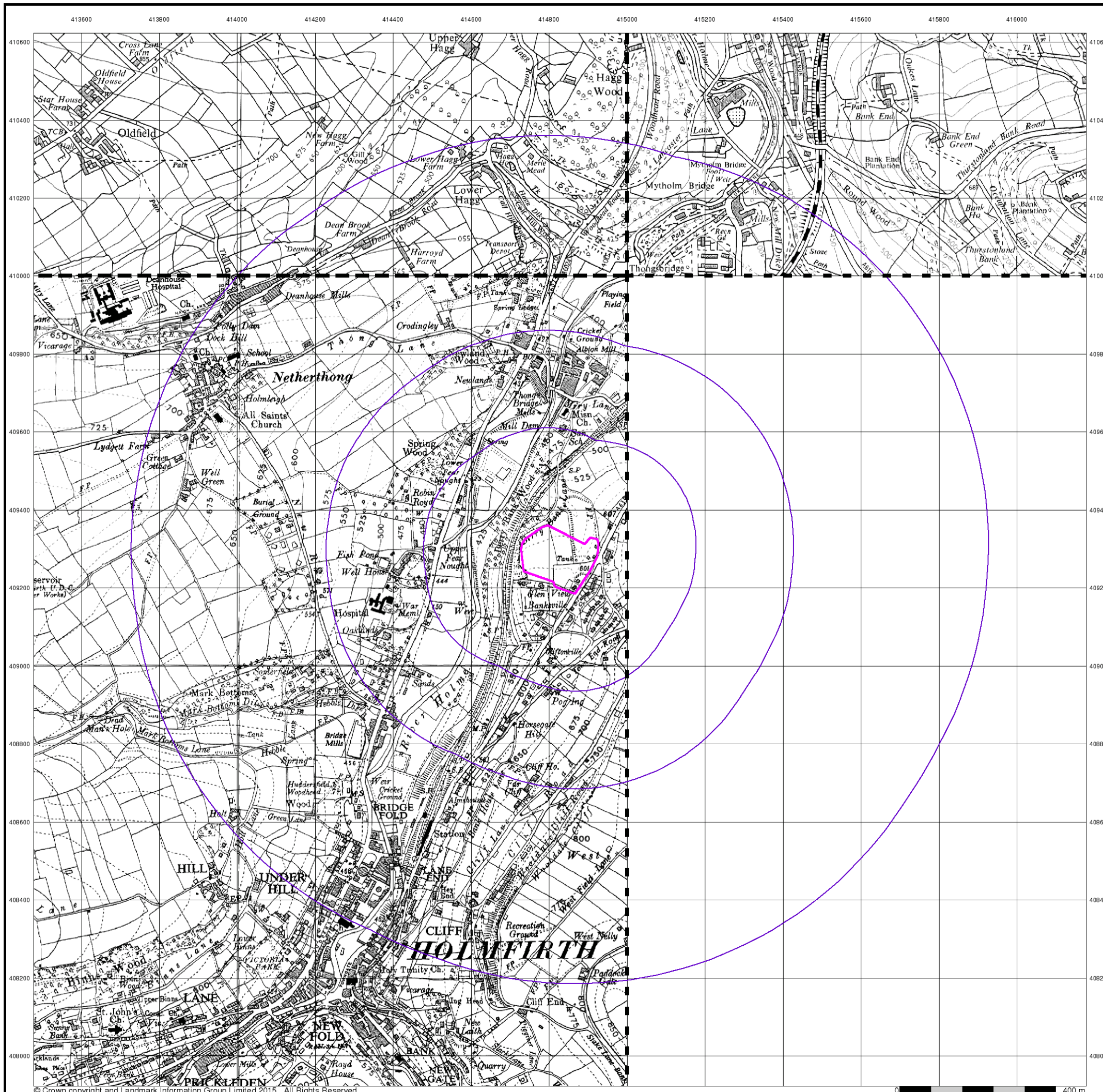


Order Details

Order Number: 74181673_1_1
 Customer Ref: 39141/PR/AJK
 National Grid Reference: 414830, 409280
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

New Mill Road, HOLMFIRTH, HD9 7LN



Ordnance Survey Plan

Published 1970 - 1979

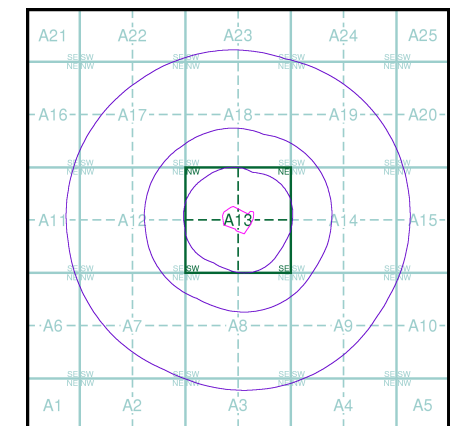
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SE11SE	1979	1:10,000
SE10NW	1970	1:10,560
SE10NE	1970	1:10,560

Historical Map - Slice A

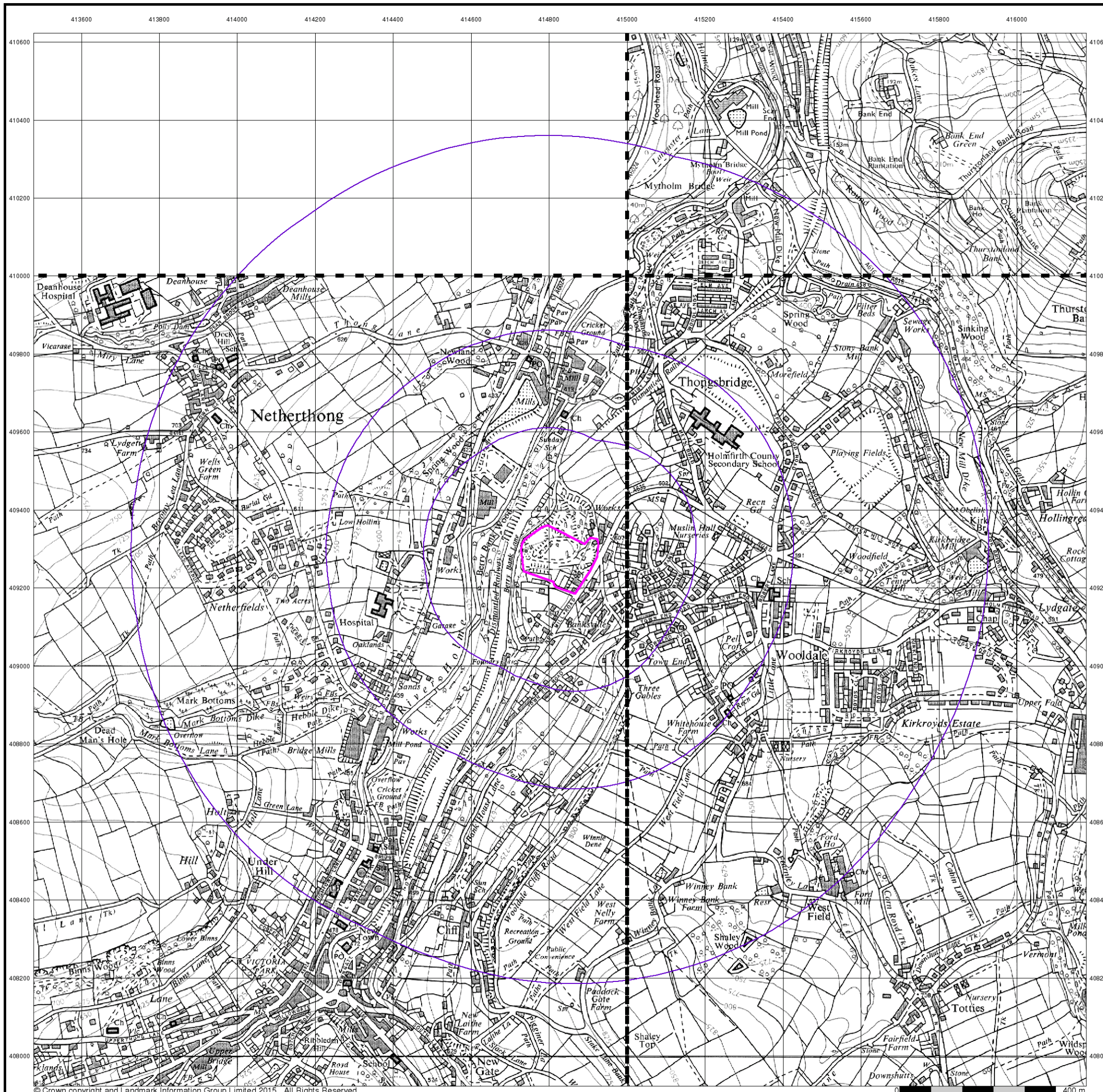


Order Details

Order Number: 74181673_1_1
 Customer Ref: 39141/PR/AJK
 National Grid Reference: 414830, 409280
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

New Mill Road, HOLMFIRTH, HD9 7LN



Ordnance Survey Plan

Published 1982 - 1984

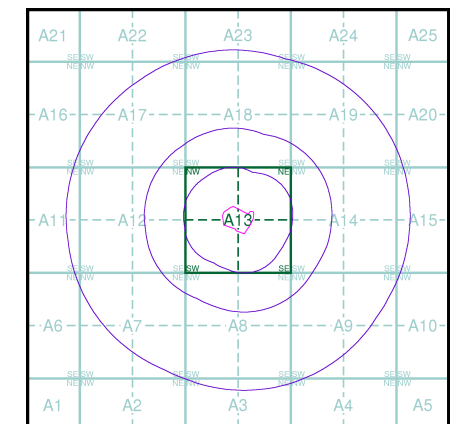
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SE11SW	1984	1:10,000
SE10NW	1982	1:10,000
SE10NE	1982	1:10,000

Historical Map - Slice A

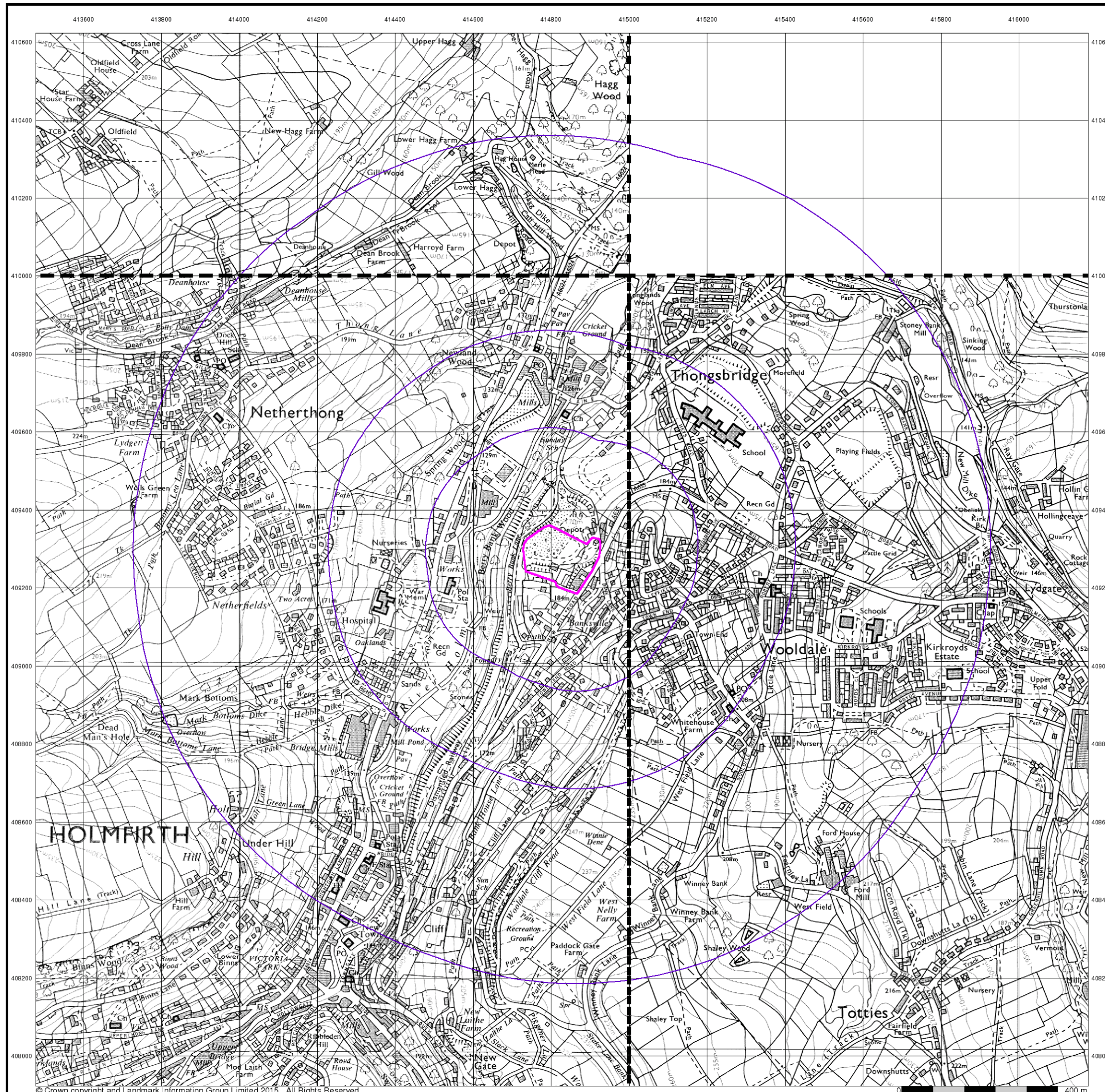


Order Details

Order Number: 74181673_1_1
 Customer Ref: 39141/PR/AJK
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 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

New Mill Road, HOLMFIRTH, HD9 7LN



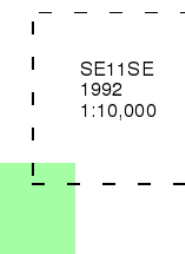
Ordnance Survey Plan

Published 1992

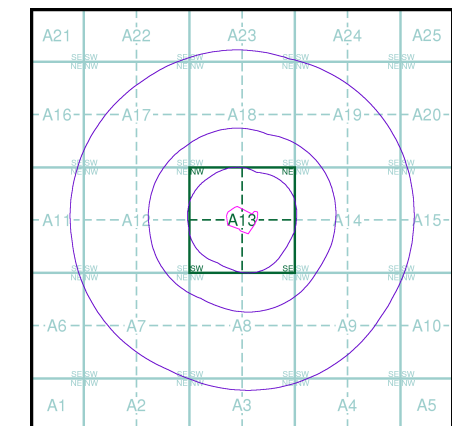
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A

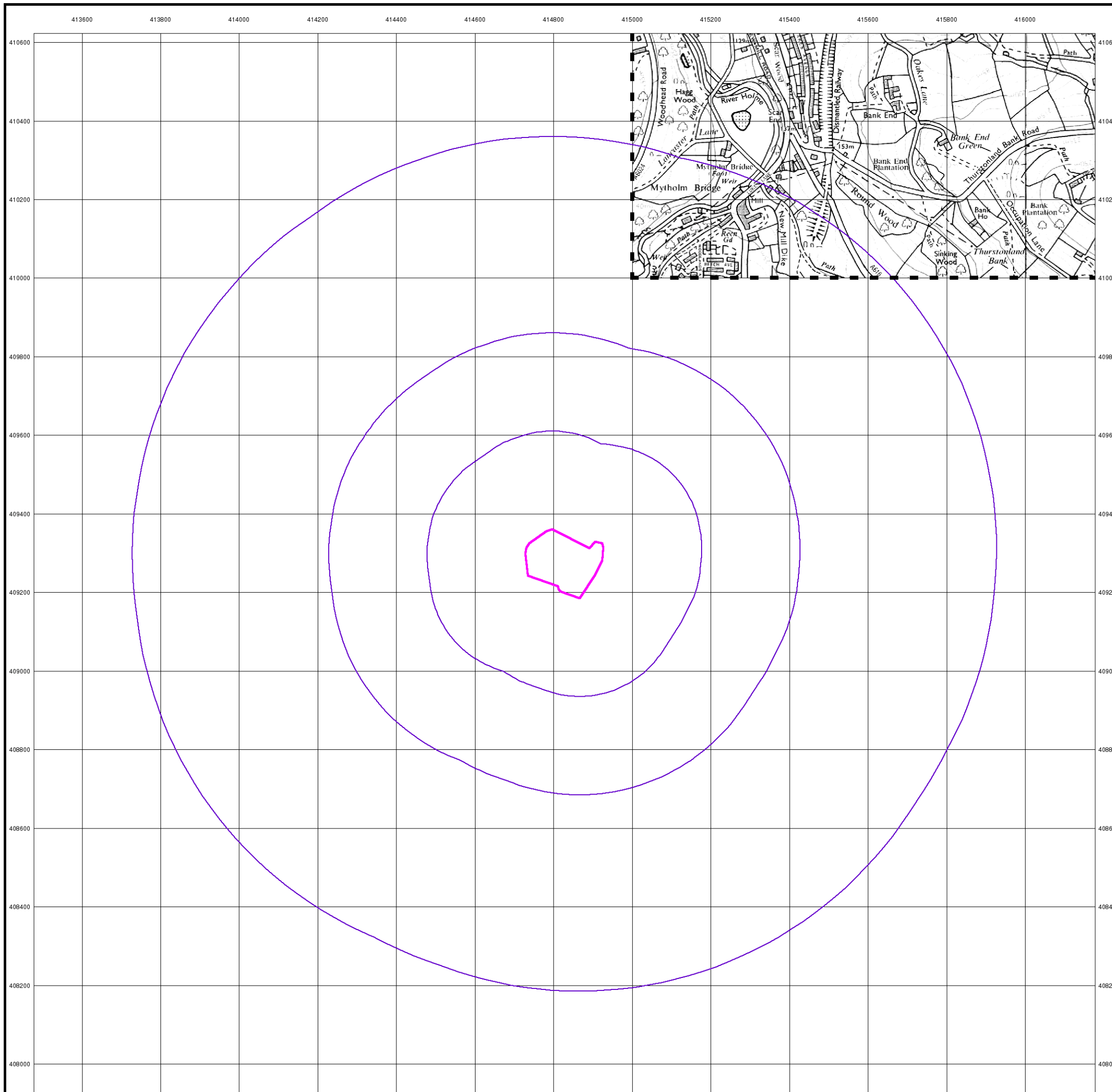


Order Details

Order Number: 74181673_1_1
 Customer Ref: 39141/PR/AJK
 National Grid Reference: 414830, 409280
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

New Mill Road, HOLMFIRTH, HD9 7LN



10k Raster Mapping

Published 2006

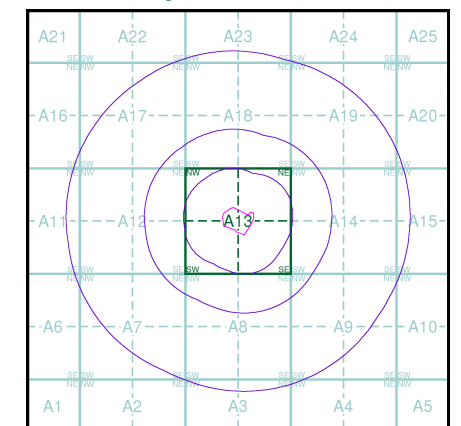
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

SE11SW	SE11SE
2006	2006
1:10,000	1:10,000
SE10NW	SE10NE
2006	2006
1:10,000	1:10,000

Historical Map - Slice A

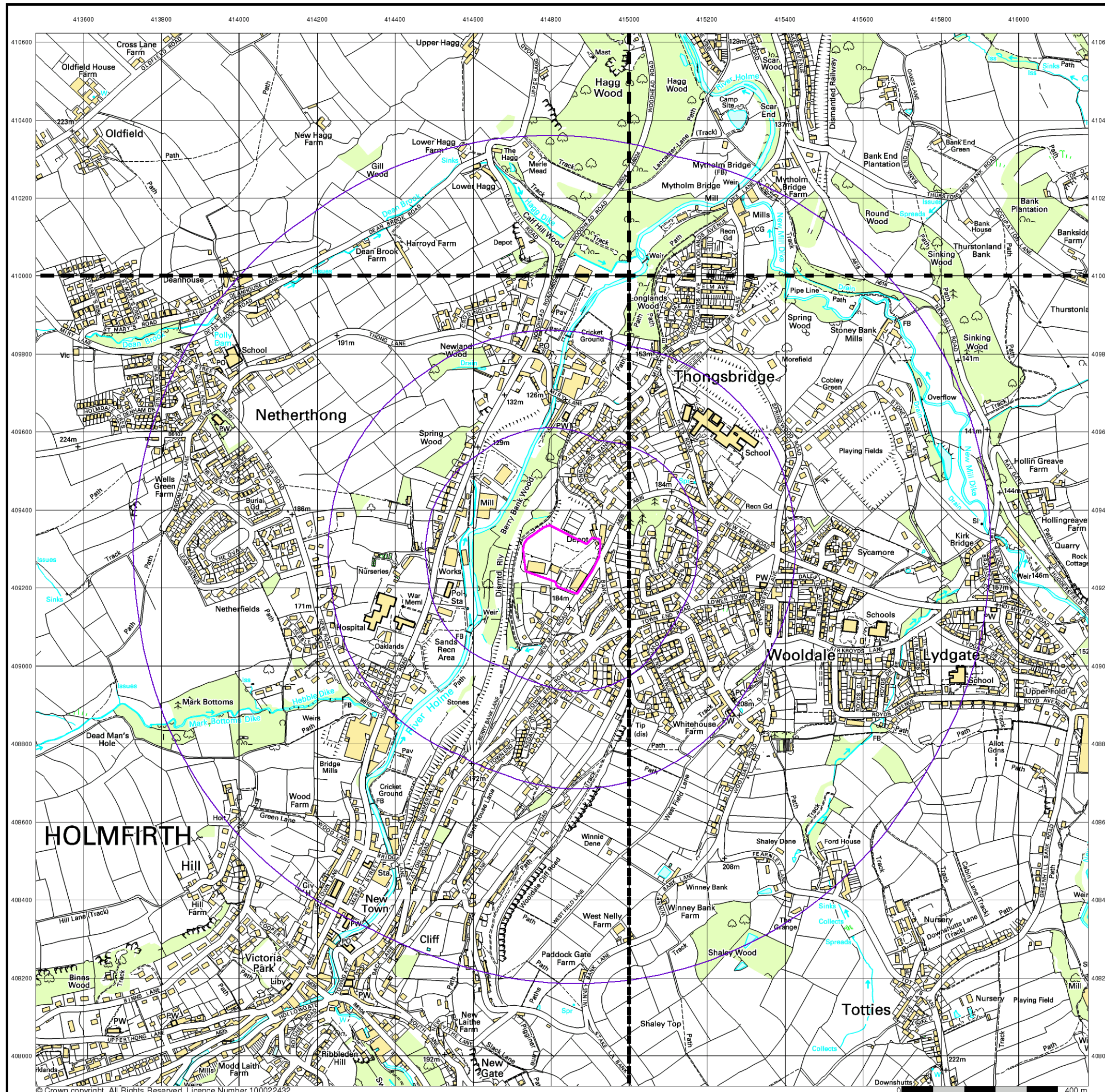


Order Details

Order Number: 74181673_1_1
 Customer Ref: 39141/PR/AJK
 National Grid Reference: 414830, 409280
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

New Mill Road, HOLMFIRTH, HD9 7LN



VectorMap Local

Published 2015

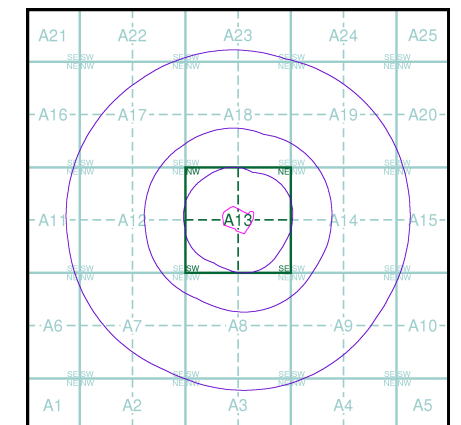
Source map scale - 1:10,000

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities), 1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

Map Name(s) and Date(s)

SE11SW 2015 Variable	SE11SE 2015 Variable
SE10NW 2015 Variable	SE10NE 2015 Variable

Historical Map - Slice A

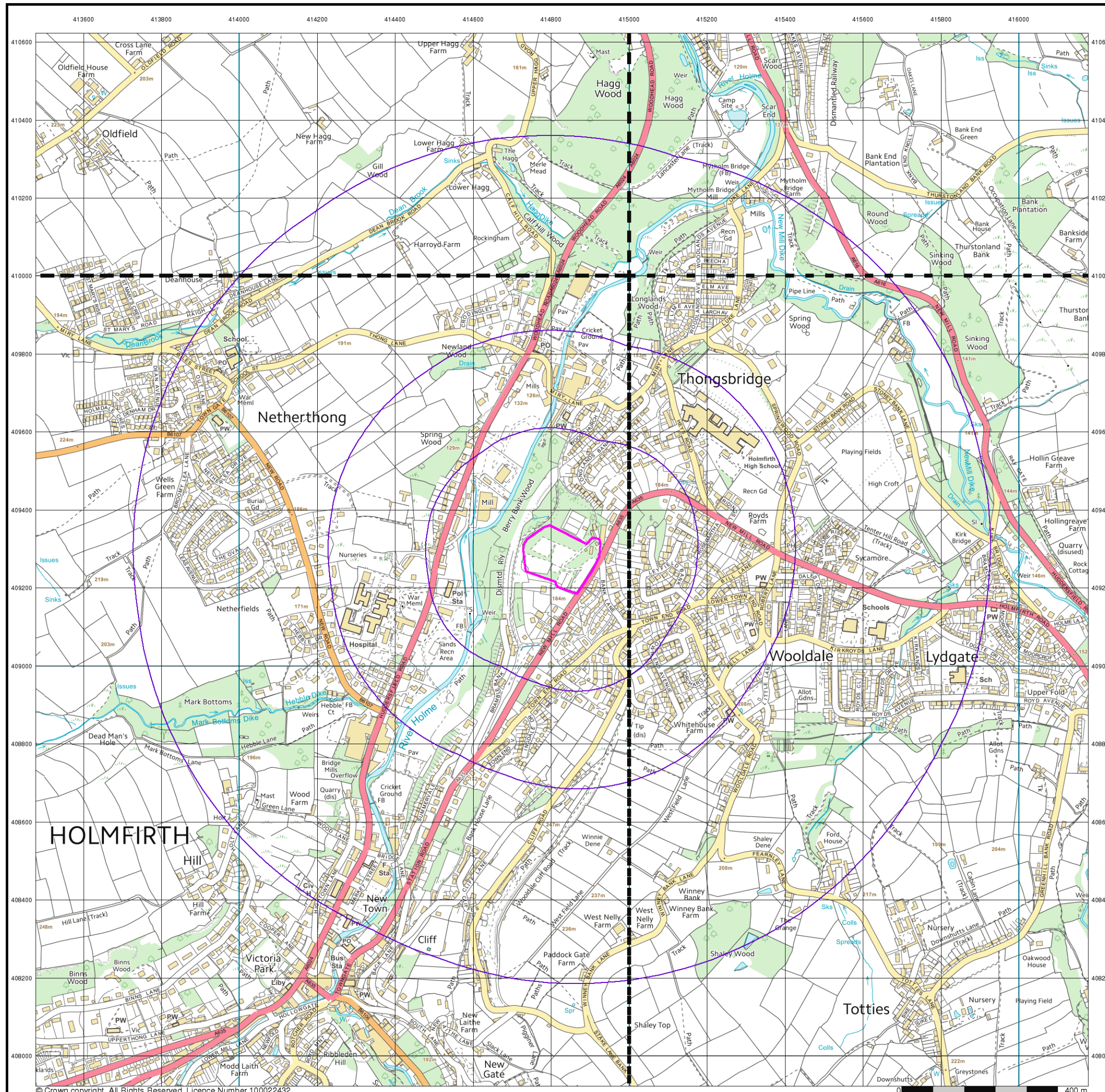


Order Details

Order Number: 74181673_1_1
 Customer Ref: 39141/PR/AJK
 National Grid Reference: 414830, 409280
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 Site Area (Ha): 2.26
 Search Buffer (m): 1000

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New Mill Road, HOLMFIRTH, HD9 7LN



Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

74181673_1_1

Customer Reference:

39141/PR/AJK

National Grid Reference:

414830, 409280

Slice:

A

Site Area (Ha):

2.26

Search Buffer (m):

1000

Site Details:

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Report Section	Page Number
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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 the attached 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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Report Version v50.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1		4		9
Enforcement and Prohibition Notices					
Integrated Pollution Controls	pg 4			1	
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 4	1	2		1
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 4		Yes		
Pollution Incidents to Controlled Waters	pg 5		7	8	31
Prosecutions Relating to Authorised Processes					
Prosecutions Relating to Controlled Waters					
Registered Radioactive Substances					
River Quality	pg 12		1		2
River Quality Biology Sampling Points	pg 13				1
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 13				2
Water Abstractions	pg 13			1	5 (*15)
Water Industry Act Referrals					
Groundwater Vulnerability	pg 18	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 19	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 19		Yes	n/a	n/a
Flooding from Rivers or Sea without Defences	pg 19		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
Detailed River Network Lines	pg 19		Yes	Yes	n/a
Detailed River Network Offline Drainage	pg 22			Yes	n/a

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites	pg 23	1			1
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Recorded Landfill Sites					
Registered Landfill Sites	pg 23	1			1
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites	pg 24		1		
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					
Geological					
BGS 1:625,000 Solid Geology	pg 25	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 25	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 41		2	3	6
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
Brine Compensation Area			n/a	n/a	n/a
Coal Mining Affected Areas	pg 43	Yes	n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 43	Yes	Yes	n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 43	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 43	Yes	Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 44	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 44	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 45	Yes	Yes	n/a	n/a
Radon Potential - Radon Affected Areas	pg 45	Yes	n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Industrial Land Use					
Contemporary Trade Directory Entries	pg 46		15	24	n/a
Fuel Station Entries	pg 49		2	1	
Sensitive Land Use					
Areas of Adopted Green Belt	pg 50			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					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	<p>Discharge Consents</p> <p>Operator: Mr & Mrs J E Bowden Property Type: Domestic Property (Single) Location: Former Midlothian Garage (Now Glenview), New Mill Road, Holmfirth, West Yorkshire</p> <p>Authority: Environment Agency, North East Region Catchment Area: Calder Reference: C4173 Permit Version: 3 Effective Date: 26th July 2012 Issued Date: 26th July 2012 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Land Adj To Midlothian Garage Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m</p>	A13NE (NE)	72	2	414900 409400
1	<p>Discharge Consents</p> <p>Operator: Mr & Mrs J E Bowden Property Type: Domestic Property (Single) Location: Former Midlothian Garage (Now Glenview), New Mill Road, Holmfirth, West Yorkshire</p> <p>Authority: Environment Agency, North East Region Catchment Area: Calder Reference: C4173 Permit Version: 2 Effective Date: 27th May 2004 Issued Date: 27th May 2004 Revocation Date: 25th July 2012 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Land Adj To Midlothian Garage Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m</p>	A13NE (NE)	72	2	414900 409400
1	<p>Discharge Consents</p> <p>Operator: Midlothian Garage (Yorkshire) Ltd Property Type: Domestic Property (Single) Location: Former Midlothian Garage (Now Glenview), New Mill Road, Holmfirth, West Yorkshire</p> <p>Authority: Environment Agency, North East Region Catchment Area: Calder Reference: C4173 Permit Version: 1 Effective Date: 12th March 1986 Issued Date: 12th March 1986 Revocation Date: 26th May 2004 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Land Adj To Midlothian Garage Status: Transferred from COPA 1974 Positional Accuracy: Located by supplier to within 100m</p>	A13NE (NE)	72	2	414900 409400
2	<p>Discharge Consents</p> <p>Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Sewers - Water Company Location: Pickwick Mill Cso Huddersfield Road Off (R/O Club), Holmfirth, Huddersfield, West Yorkshire</p> <p>Authority: Environment Agency, North East Region Catchment Area: Calder Reference: Wra8445 Permit Version: 1 Effective Date: 18th March 2005 Issued Date: 18th March 2005 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Holme Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p>	A13NW (NW)	114	2	414690 409430

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	<p>Discharge Consents</p> <p>Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Sewers - Water Company Location: Longlands Road Cso Miry Lane (Track Off), Thongsbridge, Holmfirth, Huddersfield</p> <p>Authority: Environment Agency, North East Region Catchment Area: Aire Reference: Wra8449 Permit Version: 1 Effective Date: 31st March 2005 Issued Date: 15th March 2005 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Holme Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p>	A18NE (N)	716	2	415020 410040
4	<p>Discharge Consents</p> <p>Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Sewers - Water Company Location: Woodlands Mill Cso Woodlands Avenue, Thongsbridge, Huddersfield, West Yorkshire</p> <p>Authority: Environment Agency, North East Region Catchment Area: Calder Reference: Ywuud2/57 Permit Version: 1 Effective Date: 12th November 1997 Issued Date: 12th November 1997 Revocation Date: 18th March 2011 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Holme Status: Surrendered under EPR 2010 Positional Accuracy: Located by supplier to within 10m</p>	A18NE (N)	811	2	415159 410101
5	<p>Discharge Consents</p> <p>Operator: Unspecified Operator Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, North East Region Catchment Area: Holme Reference: 44290555 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: 10th April 1985 Revocation Date: Not Supplied Discharge Type: Trade Effluent Discharge: Freshwater Stream/River Environment: Receiving Water: Not Supplied Status: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A7SE (SW)	823	2	414380 408500
5	<p>Discharge Consents</p> <p>Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Sewers - Water Company Location: Holmfirth Bridge Lane Cso Bridge Lane, Holmfirth, Huddersfield, West Yorkshire</p> <p>Authority: Environment Agency, North East Region Catchment Area: Calder Reference: Wra9270 Permit Version: 1 Effective Date: 4th September 2007 Issued Date: 4th September 2007 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Holme Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p>	A7SE (SW)	842	2	414400 408470

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
6	<p>Discharge Consents</p> <p>Operator: Mr Christopher Michael Parker Property Type: Domestic Property (Single) Location: West Field 59 Fearnley Lane, Wooldale, Holmfirth, West Yorkshire, Hd9 1ur Authority: Environment Agency, North East Region Catchment Area: Calder Reference: Wra8117 Permit Version: 1 Effective Date: 10th November 2003 Issued Date: 10th November 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Of New Mill Dike Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p>	A9SW (SE)	862	2	415460 408560
7	<p>Discharge Consents</p> <p>Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Sewers - Water Company Location: Luke Lane Cso Luke Lane, Holmfirth, Huddersfield, West Yorkshire Authority: Environment Agency, North East Region Catchment Area: Calder Reference: Ywuccd2/56 Permit Version: 1 Effective Date: 12th November 1997 Issued Date: 12th November 1997 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: New Mill Dike Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p>	A19NW (NE)	927	2	415301 410172
8	<p>Discharge Consents</p> <p>Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Sewers - Water Company Location: Sinking Wood Cso New Mill Road (Path Off), New Mill, Huddersfield, West Yorkshire Authority: Environment Agency, North East Region Catchment Area: Calder Reference: Wra8450 Permit Version: 1 Effective Date: 18th March 2005 Issued Date: 18th March 2005 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: New Mill Dike Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p>	A19SE (NE)	940	2	415690 409870
9	<p>Discharge Consents</p> <p>Operator: MR M A EASTWOOD Property Type: Domestic Property (Single) Location: NEW DWELLING ADJ TO 79 DEAN BROOK, ROAD, NETHERTHONG, HUDDERSFIELD, WEST YORKSHIRE Authority: Environment Agency, North East Region Catchment Area: Calder Reference: WRA7523 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: 19th July 1999 Revocation Date: Not Supplied Discharge Type: Sewage Effluent Discharge-Treated Effluent Discharge: Not Supplied Environment: Receiving Water: DEAN BROOK Status: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A17SW (NW)	989	2	413920 409880

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	Discharge Consents Operator: Mr M A Eastwood Property Type: Domestic Property (Single) Location: Adjacent To 79 Dean Brook Road Netherthong, Huddersfield, West Yorkshire, England Authority: Environment Agency, North East Region Catchment Area: Calder Reference: Wra7523 Permit Version: 1 Effective Date: 19th July 1999 Issued Date: 19th July 1999 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Dean Brook Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A17SW (NW)	989	2	413920 409880
10	Integrated Pollution Controls Name: Techfill Ltd Location: Thongsbridge Mills, Miry Lane, Thongsbridge Holmfirth, HUDDERSFIELD, HD7 2RY Authority: Environment Agency, North East Region Permit Reference: A13801 Dated: 29th March 1993 Process Type: Application since found to be exempt from IPC Description: 4.7 A Pesticide production within the Chemical Industry Status: Application since found to be exempt from IPCExempt Positional Accuracy: Unknown	A18SW (N)	373	2	414770 409733
11	Local Authority Pollution Prevention and Controls Name: Midlothian Garage (Yorkshire) Ltd Location: New Mill Road, Holmfirth, West Yorkshire, HD9 7LH Authority: Kirklees Metropolitan Borough Council, Environmental Health Department Permit Reference: Epa W 114 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG1/14 Petrol filling station Status: Not Supplied Positional Accuracy: Automatically positioned to the address	A13SE (SE)	0	3	414864 409207
12	Local Authority Pollution Prevention and Controls Name: Walter Green Ltd Location: Fearnought Garage, Huddersfield Road, Thongsbridge, HOLMFIRTH, West Yorkshire, HD9 3JL Authority: Kirklees Metropolitan Borough Council, Environmental Health Department Permit Reference: PPC W 124 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station Status: Permitted Positional Accuracy: Automatically positioned to the address	A13NW (W)	180	3	414561 409370
12	Local Authority Pollution Prevention and Controls Name: Fearnought Garage Location: Fearnought Garage, Huddersfield Road, Thongsbridge, Huddersfield, HD7 2TT Authority: Kirklees Metropolitan Borough Council, Environmental Health Department Permit Reference: Not Supplied Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG1/14 Petrol filling station Status: Authorised Positional Accuracy: Manually positioned to the address or location	A13NW (W)	181	3	414558 409367
13	Local Authority Pollution Prevention and Controls Name: J & J W Longbottom Ltd Location: Bridge Foundry, Holmfirth, Huddersfield, Hd9 7aw Authority: Kirklees Metropolitan Borough Council, Environmental Health Department Permit Reference: Ppc W 37 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG2/4 Iron, steel and non-ferrous metal foundry processes Status: Permitted Positional Accuracy: Manually positioned to the address or location	A7SE (SW)	750	3	414387 408578
	Nearest Surface Water Feature	A13NW (N)	23	-	414793 409383

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	Pollution Incidents to Controlled Waters Property Type: Other General Premises Location: HOLME Authority: Environment Agency, North East Region Pollutant: Unknown Note: Fish Killed: No Information; Holme Incident Date: 13th April 1995 Incident Reference: SL950473 Catchment Area: Calder Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SW (S)	16	2	414800 409200
15	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Sewage Treatment Works Location: Mouth/Source Skeeby Beck Af Authority: Environment Agency, North East Region Pollutant: Sewage - Septic Tank Effluent Note: Not Supplied Incident Date: 14th March 1991 Incident Reference: 120956 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A13SW (SW)	55	2	414700 409200
15	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Sewage Treatment Works Location: Mouth/Source Skeeby Beck Af Authority: Environment Agency, North East Region Pollutant: Unknown Note: Not Supplied Incident Date: 27th November 1990 Incident Reference: 117902 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A13SW (SW)	57	2	414705 409195
15	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Sewage Treatment Works Location: Mouth/Source Skeeby Beck Af Authority: Environment Agency, North East Region Pollutant: Sewage - Septic Tank Effluent Note: Not Supplied Incident Date: 9th September 1991 Incident Reference: 126621 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A13SW (SW)	59	2	414700 409195
16	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Treated Water Distribution System Location: River Holme, Holmfirth Swimming Pool Authority: Environment Agency, North East Region Pollutant: Miscellaneous - Inert Suspended Solids Note: Fish Killed: No Information Incident Date: 29th May 1997 Incident Reference: SL970555 Catchment Area: Calder Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NW (W)	128	2	414600 409300
16	Pollution Incidents to Controlled Waters Property Type: Construction/Demolition Location: Mouth/Source Holme Af Authority: Environment Agency, North East Region Pollutant: Miscellaneous - Inert Suspended Solids Note: Not Supplied Incident Date: 12th February 1992 Incident Reference: 130407 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NW (W)	128	2	414600 409295

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
17	Pollution Incidents to Controlled Waters Property Type: Other General Premises Location: Mouth/Source Holme Af Authority: Environment Agency, North East Region Pollutant: Mud/Clay/Soil Note: Not Supplied Incident Date: 15th January 1992 Incident Reference: 129744 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A13NW (W)	228	2	414500 409300
18	Pollution Incidents to Controlled Waters Property Type: Miscellaneous Premises: Unknown Location: Mouth/Source Holme Af Authority: Environment Agency, North East Region Pollutant: Unknown Note: Not Supplied Incident Date: 26th May 1990 Incident Reference: 111028 Catchment Area: Not Given Receiving Water: No Pollution Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SW (N)	335	2	414800 409695
18	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Albion Mills, Thornsbridge Authority: Environment Agency, North East Region Pollutant: Chemicals - Paints / Dyes Note: Pollution Found; Less Than Ten Fish Killed Incident Date: 6th September 1996 Incident Reference: SL961019 Catchment Area: Calder Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SW (N)	340	2	414800 409700
19	Pollution Incidents to Controlled Waters Property Type: Other General Premises Location: Mouth/Source Holme Af Authority: Environment Agency, North East Region Pollutant: Miscellaneous - No Visible Pollution/Nothing Found Note: Not Supplied Incident Date: 4th June 1989 Incident Reference: 9370 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SW (SW)	338	2	414500 409000
20	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Foul Sewer Location: Mouth/Source Holme Af Authority: Environment Agency, North East Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 12th December 1992 Incident Reference: 139436 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NW (SW)	416	2	414500 408900
21	Pollution Incidents to Controlled Waters Property Type: Domestic/Residential Location: Mouth/Source Holme Af Authority: Environment Agency, North East Region Pollutant: Rubbish Note: Not Supplied Incident Date: 11th November 1990 Incident Reference: 116658 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SW (N)	435	2	414800 409795

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
21	Pollution Incidents to Controlled Waters Property Type: Industrial Premises Location: Mouth/Source Holme Af Authority: Environment Agency, North East Region Pollutant: Unknown Note: Not Supplied Incident Date: 30th September 1989 Incident Reference: 103829 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SW (N)	435	2	414805 409795
21	Pollution Incidents to Controlled Waters Property Type: Industrial Premises Location: Mouth/Source Holme Af Authority: Environment Agency, North East Region Pollutant: Heating Oil Note: Not Supplied Incident Date: 20th November 1991 Incident Reference: 128374 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SW (N)	440	2	414800 409800
22	Pollution Incidents to Controlled Waters Property Type: Industrial Premises Location: Mouth/Source Holme Af Authority: Environment Agency, North East Region Pollutant: Wool Scour And Fibres Note: Not Supplied Incident Date: 3rd January 1991 Incident Reference: 118447 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SE (N)	452	2	414900 409800
23	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Foul Sewer Location: Mouth/Source Holme Af Authority: Environment Agency, North East Region Pollutant: Agricultural: Yard Run Off (Dirty Water) Note: Not Supplied Incident Date: 12th August 1991 Incident Reference: 125182 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A7NE (SW)	621	2	414300 408800
24	Pollution Incidents to Controlled Waters Property Type: Industrial Premises Location: CHAPEL HILL Authority: Environment Agency, North East Region Pollutant: Unknown Note: Not Supplied Incident Date: 2nd May 1989 Incident Reference: 8982 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12NW (W)	658	2	414100 409500
25	Pollution Incidents to Controlled Waters Property Type: Domestic/Residential Location: Mouth/Source Holme Af Authority: Environment Agency, North East Region Pollutant: Construction Materials Note: Not Supplied Incident Date: 11th March 1990 Incident Reference: 108588 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7NE (SW)	725	2	414400 408600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
26	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Foul Sewer Location: Mouth/Source Holme Af Authority: Environment Agency, North East Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 18th January 1994 Incident Reference: 149706 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	741	2	415500 408800
27	Pollution Incidents to Controlled Waters Property Type: Miscellaneous Premises: Unknown Location: Mouth/Source Holme Af Authority: Environment Agency, North East Region Pollutant: Unknown Note: Not Supplied Incident Date: 6th May 1994 Incident Reference: 150940 Catchment Area: Not Given Receiving Water: No Pollution Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SW (SW)	772	2	414500 408500
28	Pollution Incidents to Controlled Waters Property Type: Cattle (Dairy) Farming: Other Location: Stream Adjacent To Culvert Ho, Holmfirth Road, New Mill, HUDDERSFIELD Authority: Environment Agency, North East Region Pollutant: Organic Wastes: Silage Liquor Note: New Mill Dike; No Fish Killed Incident Date: 4th July 1998 Incident Reference: SL980687 Catchment Area: Calder Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14SE (E)	776	2	415700 409250
29	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Foul Sewer Location: Mouth/Source Holme Af Authority: Environment Agency, North East Region Pollutant: Unknown Note: Not Supplied Incident Date: 7th February 1994 Incident Reference: 149857 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18NE (N)	790	2	415100 410095
30	Pollution Incidents to Controlled Waters Property Type: Miscellaneous Premises: Unknown Location: Mouth/Source Holme Af Authority: Environment Agency, North East Region Pollutant: Miscellaneous - No Visible Pollution/Nothing Found Note: Not Supplied Incident Date: 23rd September 1993 Incident Reference: 147865 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SE (E)	797	2	415700 409100
31	Pollution Incidents to Controlled Waters Property Type: Construction Location: River Holme, Bridge Lane, HOLMFIRTH Authority: Environment Agency, North East Region Pollutant: Rubbish Note: Fish Killed: No Information Incident Date: 21st February 1997 Incident Reference: SL970194 Catchment Area: Calder Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	808	2	414405 408505

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
31	Pollution Incidents to Controlled Waters Property Type: Domestic/Residential Location: Mouth/Todmorden Calder Afl Authority: Environment Agency, North East Region Pollutant: Unknown Note: Not Supplied Incident Date: 22nd May 1990 Incident Reference: 110818 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	810	2	414400 408505
31	Pollution Incidents to Controlled Waters Property Type: Industrial Premises Location: Huddersfield Road Authority: Environment Agency, North East Region Pollutant: Foam/Soap Suds Note: Not Supplied Incident Date: 9th May 1989 Incident Reference: 9055 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	813	2	414405 408500
31	Pollution Incidents to Controlled Waters Property Type: Miscellaneous Premises: Unknown Location: Mouth/Source Holme Af Authority: Environment Agency, North East Region Pollutant: Rubbish Note: Not Supplied Incident Date: 17th June 1994 Incident Reference: 152311 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	817	2	414405 408495
32	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Foul Sewer Location: Denholme Lane, NETHERTHONG Authority: Environment Agency, North East Region Pollutant: Surcharged Sewage Note: Fish Killed: No Information Incident Date: 8th April 1997 Incident Reference: SL970362 Catchment Area: Calder Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A17NE (NW)	864	2	414201 410001
33	Pollution Incidents to Controlled Waters Property Type: Farm Location: Mouth/Source Holme Af Authority: Environment Agency, North East Region Pollutant: Agricultural: Yard Run Off (Dirty Water) Note: Not Supplied Incident Date: 13th June 1992 Incident Reference: 134061 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14SE (E)	880	2	415800 409195
33	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Foul Sewer Location: Mouth/Todmorden Calder Afl Authority: Environment Agency, North East Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 7th January 1991 Incident Reference: 118563 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14SE (E)	880	2	415800 409200

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
33	Pollution Incidents to Controlled Waters Property Type: Farm Location: Mouth/Source Holme Af Authority: Environment Agency, North East Region Pollutant: Agricultural: Yard Run Off (Dirty Water) Note: Not Supplied Incident Date: 13th June 1992 Incident Reference: 133902 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SE (E)	885	2	415805 409195
34	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Foul Sewer Location: Dean Brook, At Dean Brook Road, NETHERTHONG Authority: Environment Agency, North East Region Pollutant: Surcharged Sewage Note: Fish Killed: No Information Incident Date: 1st April 1997 Incident Reference: SL970310 Catchment Area: Calder Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A17NE (NW)	883	2	414300 410095
34	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Foul Sewer Location: Dean Beck, At Dean Brook Road, NETHERTHONG Authority: Environment Agency, North East Region Pollutant: Surcharged Sewage Note: Fish Killed: No Information Incident Date: 30th January 1997 Incident Reference: SL970082 Catchment Area: Calder Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A17NE (NW)	888	2	414300 410100
35	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Foul Sewer Location: TOTTIES Authority: Environment Agency, North East Region Pollutant: Unknown Note: Not Supplied Incident Date: 4th April 1989 Incident Reference: 8846 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9SW (SE)	933	2	415500 408500
35	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Foul Sewer Location: Totties Lane Authority: Environment Agency, North East Region Pollutant: Unknown Note: Not Supplied Incident Date: 13th April 1989 Incident Reference: 8907 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A9SW (SE)	937	2	415500 408495
36	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Foul Sewer Location: Mouth/Source Holme Af Authority: Environment Agency, North East Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 5th August 1989 Incident Reference: 102123 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A17SW (NW)	937	2	414000 409900

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
37	Pollution Incidents to Controlled Waters Property Type: Miscellaneous Premises: Unknown Location: Mouth/Source Holme Af Authority: Environment Agency, North East Region Pollutant: Miscellaneous - No Visible Pollution/Nothing Found Note: Not Supplied Incident Date: 12th September 1994 Incident Reference: 153108 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A23SW (N)	945	2	414700 410300
38	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Storm Overflow Location: New Mill Dike Authority: Environment Agency, North East Region Pollutant: Sewage - Storm Overflow Note: Watercourse :River Holme/Ramsden Clough; From Mag Brook To River Colne Incident Date: Not Supplied Incident Reference: SL980296 Catchment Area: Calder Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Unknown Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	946	2	415690 409880
39	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Sewage Treatment Works Location: Holme Af Authority: Environment Agency, North East Region Pollutant: Other Sewage Note: Fish Killed: No Information; Holme Af Incident Date: 23rd May 1995 Incident Reference: SL950613 Catchment Area: Calder Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19NW (NE)	952	2	415300 410200
40	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Storm Overflow Location: Thongs Bridge Authority: Environment Agency, North East Region Pollutant: Sewage - Storm Overflow Note: Fenay Beck/Shepley Dike; No Fish Killed Incident Date: 31st July 1998 Incident Reference: SL980886 Catchment Area: Calder Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A23SW (N)	954	2	414605 410295
40	Pollution Incidents to Controlled Waters Property Type: Farm Location: Mouth/Huddersfld Colne Afl Authority: Environment Agency, North East Region Pollutant: Agricultural: Yard Run Off (Dirty Water) Note: Not Supplied Incident Date: 30th April 1991 Incident Reference: 121894 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A23SW (N)	955	2	414600 410295
40	Pollution Incidents to Controlled Waters Property Type: Farm Location: Mouth/Source Holme Af Authority: Environment Agency, North East Region Pollutant: Agricultural: Yard Run Off (Dirty Water) Note: Not Supplied Incident Date: 19th April 1993 Incident Reference: 144332 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A23SW (N)	960	2	414600 410300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
41	Pollution Incidents to Controlled Waters Property Type: Other General Premises Location: Colne Afu Authority: Environment Agency, North East Region Pollutant: Unknown Note: Fish Killed: No Information; Colne Afu Incident Date: 16th June 1995 Incident Reference: SL951448 Catchment Area: Calder Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SW (S)	957	2	414500 408300
42	Pollution Incidents to Controlled Waters Property Type: Abandoned mine Location: New Mill Beck In Garden Of , 3 Holme Court, NEW MILL Authority: Environment Agency, North East Region Pollutant: Miscellaneous - Other Note: New Mill Dike; No Fish Killed Incident Date: 23rd August 1998 Incident Reference: SL980771 Catchment Area: Calder Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A15NW (E)	977	2	415900 409395
42	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Foul Sewer Location: Bramley Close, New Mill Authority: Environment Agency, North East Region Pollutant: Surcharged Sewage Note: New Mill Dike; No Fish Killed Incident Date: 1st July 1998 Incident Reference: SL980556 Catchment Area: Calder Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A15NW (E)	977	2	415900 409400
43	Pollution Incidents to Controlled Waters Property Type: Other General Premises Location: HOLME Authority: Environment Agency, North East Region Pollutant: Unknown Note: Fish Killed: No Information; Holme Incident Date: 4th May 1995 Incident Reference: SL950542 Catchment Area: Calder Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19NW (NE)	996	2	415400 410200
	River Quality Name: River_Holme/Ramsden_Cloug GQA Grade: River Quality B Reach: River_Ribble_New_Mill_Dik Estimated Distance (km): 2.4 Flow Rate: Flow less than 0.62 cumecs Flow Type: River Year: 2000	A13NW (NW)	20	2	414726 409344
	River Quality Name: New_Mill_Dike GQA Grade: River Quality C Reach: Jackson_Bridge_River_Holm Estimated Distance (km): 3.5 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000	A19NW (NE)	831	2	415426 409988

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	River Quality Name: River_Holme/Ramsden_Cloug GQA Grade: River Quality C Reach: New_Mill_Dike_Brook_Motor Estimated Distance (km): 1.3 Flow Rate: Flow less than 1.25 cumecs Flow Type: River Year: 2000	A19NW (NE)	916	2	415327 410148
44	River Quality Biology Sampling Points Name: Holme Reach: New Mill Dike To Brook Motors Estimated Distance: 1.30 Positional Accuracy: Located by supplier to within 100m Year: 1990 GQA Grade: River Quality Biology GQA Grade Not Supplied Year: 1995 GQA Grade: River Quality Biology GQA Grade E - Poor Year: 2000 GQA Grade: River Quality Biology GQA Grade C - Fairly Good Year: 2002 GQA Grade: River Quality Biology GQA Grade D - Fair Year: 2003 GQA Grade: River Quality Biology GQA Grade D - Fair Year: 2004 GQA Grade: River Quality Biology GQA Grade D - Fair Year: 2005 GQA Grade: River Quality Biology GQA Grade D - Fair Year: 2006 GQA Grade: River Quality Biology GQA Grade D - Fair Year: 2007 GQA Grade: River Quality Biology GQA Grade D - Fair Year: 2008 GQA Grade: River Quality Biology GQA Grade D - Fair Year: 2009 GQA Grade: River Quality Biology GQA Grade D - Fair	A19NW (NE)	952	2	415300 410200
45	Substantiated Pollution Incident Register Authority: Environment Agency - North East Region, Yorkshire Area Incident Date: 26th June 2001 Incident Reference: 11526 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Crude Sewage	A19SE (NE)	951	2	415710 409860
46	Substantiated Pollution Incident Register Authority: Environment Agency - North East Region, Yorkshire Area Incident Date: 13th February 2003 Incident Reference: 136851 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Inert : Other	A19NW (NE)	968	2	415309 410213
47	Water Abstractions Operator: Brook Dyeing Company Ltd Licence Number: 2/27/10/042 Permit Version: Not Supplied Location: Location Description Not Available Authority: Environment Agency, North East Region Abstraction: General Industrial Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): 4546 Yearly Rate (m3): 181840 Details: Licence Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A18SW (N)	451	2	414700 409800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
48	Water Abstractions Operator: H M Broadhead Licence Number: 2/27/10/102 Permit Version: 100 Location: Well - Millstone Grit - Holmfirth Authority: Environment Agency, North East Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 5 Yearly Rate (m3): 818 Details: Wooldale Nurseries Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 26th May 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	597	2	415330 408810
49	Water Abstractions Operator: Mark Iain Ohara Licence Number: 2/27/10/116 Permit Version: Not Supplied Location: Thongsbridge Tennis Club, Thongsbridge, HUDDERSFIELD Authority: Environment Agency, North East Region Abstraction: Water Power Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): 43187 Yearly Rate (m3): 10450000 Details: Not Supplied Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A18NE (N)	709	2	415030 410030
50	Water Abstractions Operator: O Tiltcher & Sons Ltd Licence Number: 2/27/10/076 Permit Version: 100 Location: R.Holme -- Pump Authority: Environment Agency, North East Region Abstraction: Other Industrial/Commercial/Public Services: General Use (Medium Loss) Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): 7 Yearly Rate (m3): 2273 Details: Mytholmbridge Mills, Thongsbridge Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 17th March 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A18NE (N)	795	2	415100 410100
51	Water Abstractions Operator: Atc Specialist Product & Service Division Ltd Licence Number: 2/27/10/034 Permit Version: Not Supplied Location: Location Description Not Available Authority: Environment Agency, North East Region Abstraction: General Industrial Abstraction Type: Not Supplied Source: Groundwater Daily Rate (m3): 164 Yearly Rate (m3): 40914 Details: Millstone Grit Licence Lapsed Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	815	2	414400 408500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
51	Water Abstractions Operator: Atc Specialist Product & Service Division Ltd Licence Number: 2/27/10/033 Permit Version: Not Supplied Location: Location Description Not Available Authority: Environment Agency, North East Region Abstraction: General Industrial Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): 764 Yearly Rate (m3): 190932 Details: Licence Lapsed Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	819	2	414400 408495
	Water Abstractions Operator: Moorhouse & Brook Ltd Licence Number: 2/27/10/004 Permit Version: 100 Location: Borehole - Millstone Grit - New Mill Authority: Environment Agency, North East Region Abstraction: Textiles And Leather: General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 136 Yearly Rate (m3): 34095 Details: Moorbrook Mills, New Mill, Huddersfield Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st December 1965 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A10NE (E)	1363	2	416200 408800
	Water Abstractions Operator: Holmfirth Dyers Ltd Licence Number: 2/27/10/083 Permit Version: 101 Location: Borehole - Millstone Grit - Ribbleden Dyeworks Authority: Environment Agency, North East Region Abstraction: Textiles And Leather: General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 364 Yearly Rate (m3): 90920 Details: Ribbleden Dyeworks, Holmfirth, Near Huddersfield Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 13th March 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A2SE (S)	1367	2	414400 407900
	Water Abstractions Operator: Holmfirth Dyers Ltd Licence Number: 2/27/10/082 Permit Version: 103 Location: River Ribble - Tributary Of River Holme- Ribbleden Authority: Environment Agency, North East Region Abstraction: Textiles And Leather: General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Ribbleden Dye Works, Holmfirth, Nr. Huddersfield Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 7th January 2015 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A3SW (S)	1530	2	414500 407700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Holmfirth Dyers Ltd Licence Number: 2/27/10/082 Permit Version: 102 Location: River Ribble - Tributary Of River Holme- Ribbleden Authority: Environment Agency, North East Region Abstraction: Textiles And Leather: General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Ribbleden Dye Works, Holmfirth, Nr. Huddersfield Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 17th April 2002 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A3SW (S)	1530	2	414500 407700
	Water Abstractions Operator: Holmfirth Dyers Ltd Licence Number: 2/27/10/082 Permit Version: 101 Location: River Ribble - Tributary Of River Holme- Ribbleden Authority: Environment Agency, North East Region Abstraction: Textiles And Leather: General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): 93 Yearly Rate (m3): 22730 Details: Ribbleden Dye Works, Holmfirth, Nr. Huddersfield Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st January 2001 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A3SW (S)	1530	2	414500 407700
	Water Abstractions Operator: Bower Roebuck & Co Ltd Licence Number: 2/27/10/056 Permit Version: 100 Location: Borehole - Millstone Grit - New Mill Authority: Environment Agency, North East Region Abstraction: Textiles And Leather: General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 77 Yearly Rate (m3): 19318 Details: Glendale Mills, New Mills, Nr. Huddersfield Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A10NE (SE)	1535	2	416300 408600
	Water Abstractions Operator: Bower Roebuck & Co Ltd Licence Number: 2/27/10/057 Permit Version: 100 Location: Springs Authority: Environment Agency, North East Region Abstraction: Other Industrial/Commercial/Public Services: Boiler Feed Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 0 Yearly Rate (m3): 0 Details: Glendale Mills, New Mills, Nr. Huddersfield Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 20th January 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A10NE (SE)	1625	2	416400 408600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Bower Roebuck & Co Ltd Licence Number: 2/27/10/057 Permit Version: 100 Location: Springs - Glendale Mills Authority: Environment Agency, North East Region Abstraction: Textiles & Leather: Boiler Feed Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Glendale Mills, New Mills, Nr. Huddersfield Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 20th January 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10NE (SE)	1625	2	416400 408600
	Water Abstractions Operator: Saxonmill Limited Licence Number: 2/27/10/023 Permit Version: Not Supplied Location: Smithy Place Mills, Brockholes, HUDDERSFIELD Authority: Environment Agency, North East Region Abstraction: General Industrial Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): 182 Yearly Rate (m3): 45460 Details: Status: Lapsed Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(N)	1753	2	415001 411101
	Water Abstractions Operator: Copley Marshall & Co Ltd Licence Number: 2/27/10/051 Permit Version: 100 Location: Spring - New Mill Authority: Environment Agency, North East Region Abstraction: Textiles And Leather: General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Wildspur Mills, New Mill, Huddersfield Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 20th January 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A5NE (SE)	1784	2	416200 408000
	Water Abstractions Operator: J Selwyn Smith (Shepley) Ltd Licence Number: 2/27/10/006 Permit Version: Not Supplied Location: Location Description Not Available Authority: Environment Agency, North East Region Abstraction: General Industrial Abstraction Type: Not Supplied Source: Spring Daily Rate (m3): 50 Yearly Rate (m3): 11930 Details: Licence Lapsed Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(S)	1787	2	414800 407400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Copley Marshall & Co Ltd Licence Number: 2/27/10/051 Permit Version: 100 Location: Spring - New Mill Authority: Environment Agency, North East Region Abstraction: Textiles And Leather: General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 109 Yearly Rate (m3): 27276 Details: Wildspur Mills, New Mill, Huddersfield Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 20th January 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A5SE (SE)	1852	2	416200 407900
	Water Abstractions Operator: Mr & Mrs K Mazurek Licence Number: 2/27/10/037 Permit Version: 100 Location: Well X3 - Millstone Grit - Holmfirth Authority: Environment Agency, North East Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 5 Yearly Rate (m3): 1659 Details: 2 Prospects Place, Holmfirth, Huddersfield Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 13th December 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(SW)	1889	2	414000 407500
	Water Abstractions Operator: Copley Marshall & Co Ltd Licence Number: 2/27/10/049 Permit Version: 100 Location: Jackson Bridge Dyke Authority: Environment Agency, North East Region Abstraction: Textiles And Leather: General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Wildspur Mills, New Mill, Huddersfield & Land At Scholes Mill Owned By J Thorpe & Sons Ltd Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 20th January 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A5SE (SE)	1926	2	416300 407900
	Water Abstractions Operator: Copley Marshall & Co Ltd Licence Number: 2/27/10/049 Permit Version: 100 Location: Jackson Bridge Dyke Authority: Environment Agency, North East Region Abstraction: Other Industrial/Commercial/Public Services: General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Wildspur Mills, New Mill, Huddersfield & Land At Scholes Mill Owned By J Thorpe & Sons Ltd Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 20th January 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A5SE (SE)	1926	2	416300 407900
	Groundwater Vulnerability Soil Classification: Soils of High Leaching Potential (U) - Soil information for restored mineral workings and urban areas is based on fewer observations than elsewhere. A worst case vulnerability classification (H) assumed, until proved otherwise Map Sheet: Sheet 11 South Pennines Scale: 1:100,000	A13NE (S)	0	2	414828 409278
	Drift Deposits None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13NE (S)	0	4	414828 409278
	Superficial Aquifer Designations No Data Available				
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NW (NW)	81	2	414672 409371
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NW (NW)	81	2	414672 409371
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
52	Detailed River Network Lines River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13NW (N)	23	2	414793 409383
53	Detailed River Network Lines River Type: Extended Culvert (greater than 50m) River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Below Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13NW (NW)	37	2	414754 409380
54	Detailed River Network Lines River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13NW (NW)	88	2	414685 409394
55	Detailed River Network Lines River Type: Primary River River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Flood Risk Management Indicative/Statutory Main River Management Status: Water Course: RIVER HOLME Name: Water Course: 0285 Reference:	A13NW (NW)	89	2	414670 409382

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
56	Detailed River Network Lines River Type: Primary River River Name: River Holme Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Flood Risk Management Indicative/Statutory Main River Management Status: Water Course: RIVER HOLME Name: Water Course: 0285 Reference:	A13NW (NW)	97	2	414678 409400
57	Detailed River Network Lines River Type: Secondary River River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13NW (W)	143	2	414598 409365
58	Detailed River Network Lines River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13SW (S)	159	2	414771 409051
59	Detailed River Network Lines River Type: Primary River River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Flood Risk Management Indicative/Statutory Main River Management Status: Water Course: RIVER HOLME Name: Water Course: 0285 Reference:	A13SW (SW)	167	2	414616 409126
60	Detailed River Network Lines River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13SW (SW)	167	2	414616 409126
61	Detailed River Network Lines River Type: Extended Culvert (greater than 50m) River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Below Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13SW (SW)	190	2	414717 409042

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
62	Detailed River Network Lines River Type: Primary River River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Flood Risk Management Indicative/Statutory Main River Management Status: Water Course: RIVER HOLME Name: Water Course: 0285 Reference:	A13SW (SW)	201	2	414597 409097
63	Detailed River Network Lines River Type: Extended Culvert (greater than 50m) River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Below Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A18SW (N)	396	2	414824 409755
64	Detailed River Network Lines River Type: Primary River River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Flood Risk Management Indicative/Statutory Main River Management Status: Water Course: RIVER HOLME Name: Water Course: 0285 Reference:	A18SW (N)	396	2	414824 409755
65	Detailed River Network Lines River Type: Secondary River River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A18SW (N)	434	2	414633 409762
66	Detailed River Network Lines River Type: Tertiary River River Name: Drain Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A18SW (NW)	442	2	414612 409763
67	Detailed River Network Lines River Type: Secondary River River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Flood Risk Management Indicative/Statutory Main River Management Status: Water Course: Hebble Dike Name: Water Course: 3262 Reference:	A7NE (SW)	500	2	414421 408854

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
68	Detailed River Network Lines River Type: Primary River River Name: Holme Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Flood Risk Management Indicative/Statutory Main River Management Status: Water Course: RIVER HOLME Name: Water Course: 0285 Reference:	A7NE (SW)	500	2	414421 408854
69	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A18SE (N)	351	2	414969 409673

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
70	Historical Landfill Sites Licence Holder: Not Supplied Location: New Mill Road, Holmfirth, Kirklees Name: Berry Bank Wood Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHL30203 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste: Deposited Waste included Industrial, Commercial and Household Waste Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: Not Supplied BGS Ref: Not Supplied Other Ref: Not Supplied	A13NE (S)	0	2	414828 409278
71	Historical Landfill Sites Licence Holder: North East Gas Location: Huddersfield Road, Holmfirth Name: Holmfirth Holder Station Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHL04231 First Input Date: 30th June 1977 Last Input Date: 31st December 1980 Specified Waste: Deposited Waste included Inert and Commercial Waste Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 4700/0767 BGS Ref: Not Supplied Other Ref: 4700/0057	A7SE (SW)	863	2	414335 408478
	Local Authority Landfill Coverage Name: Kirklees Metropolitan Borough Council - Has not been able to supply Landfill data		0	8	414828 409278
72	Registered Landfill Sites Licence Holder: West Yorks Waste Management Licence Reference: WY 34 Site Location: Berry Banks, Holmfirth, Huddersfield, West Yorkshire Licence Easting: 414800 Licence Northing: 409300 Operator Location: 54 Bradford Road, BRIGHOUSE, West Yorkshire, HD6 1RY Authority: Environment Agency - North East Region, Ridings Area Site Category: Landfill Max Input Rate: Undefined Waste Source: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 14th October 1977 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: House, Com + Ind.Waste Environment Agency: Notifiable Wastes must give specific authorisation for this waste to be acceptedWaste requires prior approval	A13NW (NW)	0	2	414800 409300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
73	<p>Registered Landfill Sites</p> <p>Licence Holder: Negas Licence Reference: 57 Site Location: Holmfirth Holder Station, Huddersfield Road, Holmfirth, Huddersfield, West Yorkshire Licence Easting: Not Supplied Licence Northing: Not Supplied Operator Location: New York Road, LEEDS, West Yorkshire, LS2 7PE Authority: Environment Agency - North East Region, Ridings Area Site Category: Landfill Max Input Rate: Undefined Waste Source: Only waste produced on site Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 22nd June 1977 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Positioned by the supplier Boundary Accuracy: Good Authorised Waste: Constr'N/Demol. Inert/Non-Combustible Prohibited Waste: Poisonous, Noxious, Polluting Wastes</p>	A7SE (SW)	862	2	414332 408480
74	<p>Registered Waste Treatment or Disposal Sites</p> <p>Licence Holder: B Wells Wells & Moorhouse (Disman.) Ltd Licence Reference: 1083 Site Location: Berry Banks, New Mill Road, Holmfirth, Huddersfield, West Yorkshire Operator Location: As Site Address Authority: Environment Agency - North East Region, Ridings Area Site Category: Scrapyard Max Input Rate: Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st June 1992 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Aluminum Brass Cable/Wiring Cars Cast Iron Lead Light Iron Other Vehicles Stainless Steel Steel Tyres Undrained Wet Cell Batteries Used Sump Oil Zincium</p>	A13SW (SW)	160	2	414730 409070

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Millstone Grit Group [See Also Migr]	A13NE (S)	0	4	414828 409278
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NE (S)	0	4	414828 409278
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NW (N)	0	4	414798 409353
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: <15 mg/kg	A13SW (SW)	0	4	414820 409272
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SW (SW)	0	4	414758 409243
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SE (S)	0	4	414846 409235
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: <15 mg/kg	A13NW (NW)	14	4	414731 409336

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A13NE (N)	35	4	414847 409373
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A13NW (NW)	53	4	414689 409348
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NW (W)	55	4	414678 409326
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NE (E)	73	4	415000 409278
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NW (NW)	77	4	414730 409412
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NE (NE)	86	4	414921 409413

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NW (NW)	109	4	414653 409393
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A13SE (E)	116	4	415036 409250
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A13SW (SW)	128	4	414702 409108
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A13SW (SW)	129	4	414648 409148
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NW (NW)	131	4	414691 409451
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NW (W)	143	4	414586 409312

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13SW (S)	154	4	414767 409058
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NE (NE)	154	4	415000 409459
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A13SE (S)	171	4	414830 409018
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A13NW (N)	179	4	414816 409538
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A13SE (S)	186	4	414828 409000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13SE (S)	186	4	414865 409000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13SW (S)	191	4	414819 409000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13SE (S)	200	4	414903 408989
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A13SE (SE)	207	4	414995 409023
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A13SE (SE)	208	4	415000 409027
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13SW (W)	212	4	414519 409262
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A13NW (W)	214	4	414515 409308

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A13SW (S)	217	4	414741 409000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A13SW (W)	218	4	414516 409239
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13SE (SE)	226	4	415000 409004
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13SE (SE)	229	4	415000 409000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A13SE (SE)	230	4	415002 409000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A13NE (NE)	245	4	415000 409558

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NW (NW)	246	4	414659 409571
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13SE (SE)	259	4	415000 408963
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A13SW (SW)	266	4	414626 409000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18SW (N)	281	4	414766 409639
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A18SW (N)	291	4	414708 409637
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A14NW (E)	291	4	415200 409420

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NE (W)	292	4	414436 409294
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A13SE (SE)	305	4	415061 408951
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A12SE (SW)	360	4	414469 409000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18SE (NE)	366	4	415000 409682
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A8NE (S)	385	4	415000 408824
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18SW (N)	444	4	414710 409795

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A14SW (SE)	469	4	415306 409000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18SW (N)	484	4	414821 409843
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A12NE (W)	528	4	414201 409312
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12SE (SW)	529	4	414266 409000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A9NW (SE)	572	4	415366 408905
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18SE (N)	583	4	415000 409907

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18SE (N)	590	4	415001 409913
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A18SE (N)	593	4	415000 409917
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A17SE (NW)	618	4	414477 409892
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A9NW (SE)	634	4	415433 408894
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18NE (N)	640	4	414828 410000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A18NW (N)	644	4	414724 410000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18NE (N)	646	4	414885 410000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18NE (N)	661	4	414962 410000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18NE (N)	671	4	415000 410000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A18NE (N)	683	4	415036 410000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A18NE (N)	685	4	414950 410028
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A12SW (W)	698	4	414081 409000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A12NW (W)	728	4	414000 409278
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A12NW (W)	729	4	414000 409314
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A18NE (N)	731	4	415000 410062
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NW (W)	739	4	414000 409424
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NW (W)	764	4	413965 409314
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18NE (N)	765	4	414903 410118

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A12NW (W)	770	4	414000 409555
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A9NW (SE)	774	4	415411 408634
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A12SW (W)	775	4	414000 409000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A9NW (SE)	777	4	415436 408657
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NE (E)	781	4	415701 409417
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12SW (W)	788	4	414000 408960

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 90 - 120 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A9NE (SE)	808	4	415619 408867
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A19NW (NE)	814	4	415448 409948
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A7NW (SW)	815	4	414095 408739
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18NE (N)	816	4	415000 410150
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 90 - 120 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8SE (S)	831	4	414966 408360
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 90 - 120 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8SE (S)	831	4	415000 408365

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A9NE (SE)	842	4	415524 408660
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A19NW (NE)	863	4	415476 409989
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A19NW (NE)	865	4	415465 410000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 90 - 120 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14SE (E)	868	4	415746 409000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A17NE (NW)	883	4	414383 410142
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18NE (N)	896	4	415136 410196

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8SE (S)	897	4	415000 408298
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A18NE (N)	924	4	414884 410280
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A19NE (NE)	925	4	415541 410015
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 90 - 120 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A19NE (NE)	934	4	415570 410000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A15NW (E)	943	4	415860 409451
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A8SE (S)	953	4	415104 408263

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A3NE (S)	970	4	415000 408225
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel <15 mg/kg Concentration:	A23SE (N)	984	4	415000 410323
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7SW (SW)	991	4	414000 408578
75	BGS Recorded Mineral Sites Site Name: Glen View Location: , Thongsbridge, Holmfirth, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 109899 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Millstone Grit Group Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A13SW (W)	19	4	414716 409246
76	BGS Recorded Mineral Sites Site Name: Clifton Villa Location: Town End Road, Town End, Holmfirth, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 97410 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Millstone Grit Group Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A13SW (S)	242	4	414776 408961
77	BGS Recorded Mineral Sites Site Name: Thongs Bridge Location: , Thongsbridge, Holmfirth, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94273 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Millstone Grit Group Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A18SW (N)	253	4	414807 409613

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
78	BGS Recorded Mineral Sites Site Name: Spring Bottom Location: , Thongsbridge, Holmfirth, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94274 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Guiseley Grit Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A18SW (NW)	325	4	414627 409640
79	BGS Recorded Mineral Sites Site Name: Wooldale Hill Quarry Location: , Town End, Holmfirth, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 95793 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Millstone Grit Group Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A8NE (SE)	342	4	415000 408871
80	BGS Recorded Mineral Sites Site Name: Lower Hagg Location: Lower Hagg, Thongsbridge, Holmfirth, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94249 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Huddersfield White Rock Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A18NW (N)	725	4	414737 410083
81	BGS Recorded Mineral Sites Site Name: Wood Location: , Underhill, Holmfirth, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 97409 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Guiseley Grit Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A7NE (SW)	773	4	414266 408629
82	BGS Recorded Mineral Sites Site Name: Tenter Hill Location: , Lydgate, Holmfirth, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94272 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Rough Rock Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A14NE (E)	783	4	415708 409366
83	BGS Recorded Mineral Sites Site Name: New Mill Road Location: New Mill Road, Holmfirth, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 97411 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Rough Rock Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A14SE (E)	829	4	415746 409176

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
84	BGS Recorded Mineral Sites Site Name: Mark Bottoms Location: , Mark Bottoms, Holmfirth, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 95792 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Huddersfield White Rock Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A7NW (SW)	866	4	413989 408803
85	BGS Recorded Mineral Sites Site Name: Well Green Location: , Netherthong, Holmfirth, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94275 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Huddersfield White Rock Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A11NE (W)	986	4	413751 409425
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas 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 (S)	0	5	414828 409278
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	4	414828 409278
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	73	4	415000 409278
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	4	414828 409278
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	73	4	415000 409278
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	94	4	414682 409399
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	188	4	414624 409091
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	4	414828 409278
	Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	0	4	414826 409281
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	73	4	415000 409278
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	94	4	414682 409399
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	188	4	414624 409091

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	4	414828 409278
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	73	4	415000 409278
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	4	414828 409278
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	0	4	414856 409269
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	0	4	414906 409259
	Potential for Landslide Ground Stability Hazards Hazard Potential: High Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	13	4	414932 409336
	Potential for Landslide Ground Stability Hazards Hazard Potential: High Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	31	4	414700 409317
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	68	4	414814 409133
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	73	4	415000 409278
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	94	4	414682 409399
	Potential for Landslide Ground Stability Hazards Hazard Potential: High Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	105	4	414890 409083
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	109	4	415026 409227
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	152	4	414980 409084
	Potential for Landslide Ground Stability Hazards Hazard Potential: High Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	157	4	415000 409463
	Potential for Landslide Ground Stability Hazards Hazard Potential: High Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	178	4	414798 409021
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	189	4	414622 409091
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	197	4	414973 409516
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	203	4	414531 409349
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	212	4	415000 409523
	Potential for Landslide Ground Stability Hazards Hazard Potential: High Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	245	4	414512 409423
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	4	414828 409278

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	0	4	414826 409281
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	73	4	415000 409278
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	118	4	414626 409368
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	4	414828 409278
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	0	4	414856 409269
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	31	4	414700 409317
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	73	4	415000 409278
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	94	4	414682 409399
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	109	4	415026 409227
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	125	4	414627 409383
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	152	4	414980 409084
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	188	4	414624 409091
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	4	414828 409278
	Radon Potential - Radon Affected Areas Affected Area: The property is in an intermediate probability radon area, as between 1 and 3% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	4	414828 409278

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
86	Contemporary Trade Directory Entries Name: G S L Activewear Ltd Location: Unit 1, Berry Bank Lane, Holmfirth, West Yorkshire, HD9 7LA Classification: Leisure & Sportswear Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (NE)	10	-	414931 409333
87	Contemporary Trade Directory Entries Name: Ron Womack Auto Repairs Ltd Location: 10, New Mill Road, Honley, Holmfirth, HD9 6PL Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (E)	25	-	414948 409273
87	Contemporary Trade Directory Entries Name: Jewson Location: 10, New Mill Road, Honley, Holmfirth, HD9 6PL Classification: Builders' Merchants Status: Active Positional Accuracy: Automatically positioned to the address	A13NE (E)	25	-	414948 409273
87	Contemporary Trade Directory Entries Name: Ron Womack Auto Repairs Ltd Location: 8, New Mill Road, Honley, Holmfirth, HD9 6PL Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (E)	26	-	414946 409267
87	Contemporary Trade Directory Entries Name: Graham S Gerrard Location: 12, New Mill Road, Honley, Holmfirth, HD9 6PL Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A13NE (E)	27	-	414951 409279
88	Contemporary Trade Directory Entries Name: As-Tech Homecare Location: 3, Leyfield Bank, Holmfirth, HD9 1XU Classification: Washing Machines - Servicing & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (SE)	142	-	415023 409166
89	Contemporary Trade Directory Entries Name: Sam Weller & Sons Ltd Location: Pickwick Mill, Huddersfield Road, Thongsbridge, Holmfirth, HD9 3JL Classification: Clothing & Fabrics - Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (NW)	142	-	414633 409420
89	Contemporary Trade Directory Entries Name: Microvox Location: 248, Huddersfield Road, Thongsbridge, Holmfirth, West Yorkshire, HD9 3JL Classification: Musical Instrument - Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (NW)	186	-	414587 409433
90	Contemporary Trade Directory Entries Name: R Marshall Location: Fearnought Works, Huddersfield Rd, Holmfirth, Huddersfield, West Yorkshire, HD7 2TT Classification: Road Haulage Services Status: Inactive Positional Accuracy: Manually positioned to the address or location	A13NW (W)	152	-	414577 409287
91	Contemporary Trade Directory Entries Name: Walter Green (Motor Engineers) Ltd Location: Fearnought Garage, Huddersfield Road, Thongsbridge, Holmfirth, HD9 3JL Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (W)	180	-	414561 409370
91	Contemporary Trade Directory Entries Name: W Green Ltd Location: Fearnought Garage, Huddersfield Road, Thongsbridge, Holmfirth, HD9 3JL Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (W)	180	-	414561 409370

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
91	Contemporary Trade Directory Entries Name: Holmfirth Cars Location: Huddersfield Road, Thongsbridge, Holmfirth, HD9 3JL Classification: Car Dealers - Used Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (W)	180	-	414561 409370
91	Contemporary Trade Directory Entries Name: Holmfirth Garage Ltd Location: 236, Huddersfield Road, Thongsbridge, Holmfirth, HD9 3TT Classification: Garage Services Status: Inactive Positional Accuracy: Manually positioned to the address or location	A13NW (W)	182	-	414560 409377
92	Contemporary Trade Directory Entries Name: Carroll Construction Location: 39, Woodchurch View, Thongsbridge, Holmfirth, HD9 7RX Classification: Damp & Dry Rot Control Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (N)	197	-	414855 409548
93	Contemporary Trade Directory Entries Name: J P A Motor Co Ltd Location: 234, Huddersfield Road, Thongsbridge, Holmfirth, HD9 3TT Classification: Car Dealers Status: Active Positional Accuracy: Automatically positioned to the address	A13SW (W)	210	-	414520 409272
94	Contemporary Trade Directory Entries Name: Scrubbers Location: 41, Bramble Bank, Holmfirth, HD9 7LE Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SW (SW)	254	-	414666 408998
95	Contemporary Trade Directory Entries Name: Hepworth Motor Co Ltd Location: 206-208, Huddersfield Road, Thongsbridge, Holmfirth, HD9 3JL Classification: Car Dealers Status: Active Positional Accuracy: Automatically positioned to the address	A12SE (SW)	287	-	414486 409101
96	Contemporary Trade Directory Entries Name: G M England Location: Cranborne, Clifton Avenue, Holmfirth, HD9 1AL Classification: Electrical Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (S)	288	-	414836 408899
96	Contemporary Trade Directory Entries Name: G M England Location: Cranborne, Clifton Avenue, HOLMFIRTH, HD9 1AL Classification: Electrical Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (S)	288	-	414836 408899
97	Contemporary Trade Directory Entries Name: Wooldale Services Location: 7, Wooldale Road, Holmfirth, HD9 1QN Classification: Boilers - Servicing, Replacements & Repairs Status: Active Positional Accuracy: Automatically positioned to the address	A14SW (SE)	301	-	415176 409113
98	Contemporary Trade Directory Entries Name: Muslin Hall Garage Ltd Location: New Mill Road, Holmfirth, HD9 7SG Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NW (E)	303	-	415213 409418
99	Contemporary Trade Directory Entries Name: Aardvark Special Machinery Location: Unit 9 Albion Mills, Miry La, Thongsbridge, Holmfirth, Huddersfield, West Yorkshire, HD7 2FP Classification: Engineers - General Status: Inactive Positional Accuracy: Manually positioned to the address or location	A18SE (N)	352	-	414838 409710

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
99	<p>Contemporary Trade Directory Entries</p> <p>Name: Wrought Iron Workshop Location: Albion Mills, Miry La, Thongsbridge, Holmfirth, West Yorkshire, HD9 7HP Classification: Wrought Ironwork Status: Inactive Positional Accuracy: Manually positioned to the address or location</p>	A18SE (N)	353	-	414838 409711
99	<p>Contemporary Trade Directory Entries</p> <p>Name: Holme Valley Joinery Ltd Location: Unit 13/14, Albion Mills, Miry Lane, Thongsbridge, Holmfirth, HD9 7HP Classification: Joinery Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A18SE (N)	354	-	414838 409712
99	<p>Contemporary Trade Directory Entries</p> <p>Name: Alpine Boilers Location: Unit 1, Albion Mills, Miry Lane, Thongsbridge, Holmfirth, HD9 7HP Classification: Heating Equipment - Sales & Service Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A18SE (N)	354	-	414838 409712
99	<p>Contemporary Trade Directory Entries</p> <p>Name: John Steel Location: Albion Mills, Miry Lane, Thongsbridge, Holmfirth, HD9 7HP Classification: Breakdown and Recovery Status: Active Positional Accuracy: Automatically positioned to the address</p>	A18SE (N)	354	-	414838 409712
99	<p>Contemporary Trade Directory Entries</p> <p>Name: Aardvark Ltd Location: Miry Lane, Thongsbridge, Holmfirth, West Yorkshire, HD9 7SA Classification: Mechanical Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A18SW (N)	370	-	414802 409730
100	<p>Contemporary Trade Directory Entries</p> <p>Name: Holme Valley Memorial Hospital Location: Huddersfield Road, Holmfirth, HD9 3TS Classification: Hospitals Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A12SE (SW)	357	-	414411 409096
101	<p>Contemporary Trade Directory Entries</p> <p>Name: Picsave Location: 4, Orchard Place, Holmfirth, HD9 1XN Classification: Copying & Duplicating Services Status: Active Positional Accuracy: Automatically positioned to the address</p>	A13SE (SE)	362	-	415143 408952
102	<p>Contemporary Trade Directory Entries</p> <p>Name: Holme Valley Memorial Hospital Location: Huddersfield Road, Holmfirth, HD9 3TS Classification: Hospitals Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A12SE (W)	373	-	414373 409155
103	<p>Contemporary Trade Directory Entries</p> <p>Name: Midhope Products Location: Unit 25/27, Albion Mills, Miry Lane, Thongsbridge, Holmfirth, HD9 7HP Classification: Rubber & Plastic Products - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A18SE (N)	382	-	414891 409730
103	<p>Contemporary Trade Directory Entries</p> <p>Name: Spectrum Screen Print Location: Unit 15 Albion Mills, Thongsbridge, Holmfirth, Huddersfield, W Yorkshire, HD7 Classification: Screen Process Printers Status: Inactive Positional Accuracy: Manually positioned within the geographical locality</p>	A18SE (N)	389	-	414846 409746
103	<p>Contemporary Trade Directory Entries</p> <p>Name: Screen Works Location: Albion Mills, Miry La, Thongsbridge, Holmfirth, West Yorkshire, HD9 7HP Classification: Screen Manufacturers & Suppliers Status: Inactive Positional Accuracy: Manually positioned within the geographical locality</p>	A18SE (N)	391	-	414844 409748
103	<p>Contemporary Trade Directory Entries</p> <p>Name: C T M Location: Unit 37, Albion Mills, Miry Lane, Thongsbridge, Holmfirth, HD9 7HP Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address</p>	A18SE (N)	414	-	414883 409765

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
104	Contemporary Trade Directory Entries Name: The Wood Flooring Co Location: Rustic House, Thongsbridge Mills, Miry Lane, Thongsbridge, Holmfirth, HD9 7RW Classification: Floorcoverings - Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SW (N)	398	-	414736 409753
104	Contemporary Trade Directory Entries Name: Stephen Marsden Location: Unit 1, Thongsbridge Mills, Miry Lane, Thongsbridge, Holmfirth, HD9 7RW Classification: Agricultural Machinery - Sales & Service Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SW (N)	414	-	414764 409773
105	Contemporary Trade Directory Entries Name: Holmfirth Van Centre Location: The Barn, Huddersfield Road, Thongsbridge, Holmfirth, West Yorkshire, HD9 3TT Classification: Commercial Vehicle Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SW (N)	417	-	414677 409759
106	Contemporary Trade Directory Entries Name: Blokes Stuff Ltd Location: Pell La, Holmfirth, West Yorkshire, HD9 1QL Classification: Electrical Goods Sales, Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A14SW (SE)	443	-	415292 409028
107	Contemporary Trade Directory Entries Name: F C S Consultants Location: 31, Summervale, Holmfirth, HD9 7AG Classification: Oil & Gas Exploration Supplies & Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (SW)	465	-	414564 408810
108	Fuel Station Entries Name: Midlothian Garage (Yorks) Ltd Location: New Mill Road, Holmfirth,, HUDDERSFIELD, West Yorkshire, HD9 7AB Brand: Obsolete Premises Type: Not Applicable Status: Obsolete Positional Accuracy: Automatically positioned to the address	A13NE (NE)	39	-	414952 409353
109	Fuel Station Entries Name: Holmfirth Filling Station Location: Thongsbridge, Holmfirth, Huddersfield, West Yorkshire, HD9 3TT Brand: Murco Premises Type: Petrol Station Status: Open Positional Accuracy: Manually positioned to the address or location	A13NW (NW)	174	-	414574 409388
110	Fuel Station Entries Name: Hepworth Motor Company Location: Huddersfield Road, Holmfirth,, HUDDERSFIELD, West Yorkshire, HD9 3JL Brand: Obsolete Premises Type: Not Applicable Status: Obsolete Positional Accuracy: Automatically positioned to the address	A12SE (SW)	288	-	414485 409101

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
111	Areas of Adopted Green Belt Authority: Kirklees Metropolitan Borough Council Plan Name: Kirklees Unitary Development Plan Status: Adopted Plan Date: 1st March 1999	A13NW (NW)	262	6	414528 409483

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards Kirklees Metropolitan Borough Council - Planning Services	July 2013 November 2013	Annual Rolling Update Annual Rolling Update
Discharge Consents Environment Agency - North East Region	July 2015	Quarterly
Enforcement and Prohibition Notices Environment Agency - North East Region	March 2013	As notified
Integrated Pollution Controls Environment Agency - North East Region	October 2008	Not Applicable
Integrated Pollution Prevention And Control Environment Agency - North East Region	July 2015	Quarterly
Local Authority Integrated Pollution Prevention And Control Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards Kirklees Metropolitan Borough Council - Environmental Health Department	April 2014 April 2014	Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Controls Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards Kirklees Metropolitan Borough Council - Environmental Health Department	April 2014 April 2014	Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards Kirklees Metropolitan Borough Council - Environmental Health Department	April 2014 April 2014	Annual Rolling Update Annual Rolling Update
Nearest Surface Water Feature Ordnance Survey	July 2012	Quarterly
Pollution Incidents to Controlled Waters Environment Agency - North East Region	December 1998	Not Applicable
Prosecutions Relating to Authorised Processes Environment Agency - North East Region	March 2013	As notified
Prosecutions Relating to Controlled Waters Environment Agency - North East Region	March 2013	As notified
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register Environment Agency - North East Region - Ridings Area Environment Agency - North East Region - Yorkshire Area	July 2015 July 2015	Quarterly Quarterly
Water Abstractions Environment Agency - North East Region	July 2015	Quarterly
Water Industry Act Referrals Environment Agency - North East Region	July 2015	Quarterly
Groundwater Vulnerability Environment Agency - Head Office	April 2015	Not Applicable
Drift Deposits Environment Agency - Head Office	January 1999	Not Applicable
Bedrock Aquifer Designations British Geological Survey - National Geoscience Information Service	October 2012	As notified
Superficial Aquifer Designations British Geological Survey - National Geoscience Information Service	January 2015	As notified
Source Protection Zones Environment Agency - Head Office	July 2015	Quarterly

Agency & Hydrological	Version	Update Cycle
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	August 2015	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	August 2015	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	August 2015	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	August 2015	Quarterly
Flood Defences Environment Agency - Head Office	August 2015	Quarterly
Detailed River Network Lines Environment Agency - Head Office	March 2012	Annually
Detailed River Network Offline Drainage Environment Agency - Head Office	March 2012	Annually
Surface Water 1 in 30 year Flood Extent Environment Agency - Head Office	October 2013	As notified
Surface Water 1 in 100 year Flood Extent Environment Agency - Head Office	October 2013	As notified
Surface Water 1 in 1000 year Flood Extent Environment Agency - Head Office	October 2013	As notified
Surface Water Suitability Environment Agency - Head Office	October 2013	As notified
Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites Environment Agency - North East Region - Ridings Area Environment Agency - North East Region - Yorkshire Area	May 2015 May 2015	Quarterly Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - North East Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - North East Region - Ridings Area Environment Agency - North East Region - Yorkshire Area	August 2014 August 2014	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency - North East Region - Ridings Area Environment Agency - North East Region - Yorkshire Area	July 2015 July 2015	Quarterly Quarterly
Local Authority Landfill Coverage Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards Kirklees Metropolitan Borough Council - Planning Services	May 2000 May 2000	Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards Kirklees Metropolitan Borough Council - Planning Services	May 2000 May 2000	Not Applicable Not Applicable
Registered Landfill Sites Environment Agency - North East Region - Ridings Area	March 2003	Not Applicable
Registered Waste Transfer Sites Environment Agency - North East Region - Ridings Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites Environment Agency - North East Region - Ridings Area	March 2003	Not Applicable

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	June 2015	Bi-Annually
Explosive Sites Health and Safety Executive	June 2015	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements Kirklees Metropolitan Borough Council - Planning Services Peak District National Park - Development Control Barnsley Metropolitan Borough Council - Planning Department	August 2015 March 2014 October 2013	Annual Rolling Update Annual Rolling Update Annual Rolling Update
Planning Hazardous Substance Consents Kirklees Metropolitan Borough Council - Planning Services Peak District National Park - Development Control Barnsley Metropolitan Borough Council - Planning Department	August 2015 March 2014 October 2013	Annual Rolling Update Annual Rolling Update Annual Rolling Update
Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	January 2010	Annually
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	May 2015	Bi-Annually
Brine Compensation Area Cheshire Brine Subsidence Compensation Board	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Mining Report Service	March 2014	As notified
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	July 2014	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	As notified
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	As notified

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	August 2015	Quarterly
Fuel Station Entries Catalist Ltd - Experian	August 2015	Quarterly
Sensitive Land Use	Version	Update Cycle
Areas of Adopted Green Belt Barnsley Metropolitan Borough Council - Planning Department Kirklees Metropolitan Borough Council	May 2015 May 2015	As notified As notified
Areas of Unadopted Green Belt Barnsley Metropolitan Borough Council - Planning Department Kirklees Metropolitan Borough Council	May 2015 May 2015	As notified As notified
Areas of Outstanding Natural Beauty Natural England	October 2015	Bi-Annually
Environmentally Sensitive Areas Natural England	October 2015	Annually
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Natural England	October 2015	Bi-Annually
Marine Nature Reserves Natural England	October 2015	Bi-Annually
National Nature Reserves Natural England	October 2015	Bi-Annually
National Parks Natural England	August 2015	Bi-Annually
Nitrate Sensitive Areas Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	October 2015	Not Applicable
Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	July 2014	Annually
Ramsar Sites Natural England	October 2015	Bi-Annually
Sites of Special Scientific Interest Natural England	October 2015	Bi-Annually
Special Areas of Conservation Natural England	October 2015	Bi-Annually
Special Protection Areas Natural England	October 2015	Bi-Annually

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	 <p>British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL</p>
Centre for Ecology and Hydrology	 <p>Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL</p>
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Peter Brett Associates	

Contact	Name and Address	Contact Details
2	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 08708 506 506 Email: enquiries@environment-agency.gov.uk
3	Kirklees Metropolitan Borough Council - Environmental Health Department West Riding House, 9 Manchester Road, Huddersfield, West Yorkshire, HD1 3HH	Telephone: 01484 221000 Email: customer.relations@kirklees.gov.uk Website: www.kirklees.gov.uk
4	British Geological Survey - Enquiry Service British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
5	The Coal Authority - Mining Report Service 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0845 7626848 Email: thecoalauthority@coal.gov.uk
6	Kirklees Metropolitan Borough Council Town Hall, Civic Centre, Huddersfield, West Yorkshire, HD1 2TA	Telephone: 01484 221000 Fax: 01484 442768 Website: www.kirklees.gov.uk
7	Environment Agency - Head Office Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
8	Kirklees Metropolitan Borough Council - Planning Services PO BOX B93, Civic Centre III, Off Market Street, Huddersfield, West Yorkshire, HD1 2JR	Telephone: 01484 221000 Fax: 01484 221613 Website: www.kirklees.gov.uk
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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

Index Map

For ease of identification, your site and buffer have been split into Slices, Segments and Quadrants. These are illustrated on the Index Map opposite and explained further below.

Slice

Each slice represents a 1:10,000 plot area (2.7km x 2.7km) for your site and buffer. A large site and buffer may be made up of several slices (represented by a red outline), that are referenced by letters of the alphabet, starting from the bottom left corner of the slice "grid". This grid does not relate to National Grid lines but is designed to give best fit over the site and buffer.

Segment

A segment represents a 1:2,500 plot area. Segments that have plot files associated with them are shown in dark green, others in light blue. These are numbered from the bottom left hand corner within each slice.

Quadrant

A quadrant is a quarter of a segment. These are labelled as NW, NE, SW, SE and are referenced in the datasheet to allow features to be quickly located on plots. Therefore a feature that has a quadrant reference of A7NW will be in Slice A, Segment 7 and the NW Quadrant.

A selection of organisations who provide data within this report:



Envirocheck reports are compiled from 136 different sources of data.

Client Details

Miss K Daddo-Langlois, Eastwood & Partners Ltd, St Andrews House, 23 Kingfield Road, Sheffield, S11 9AS

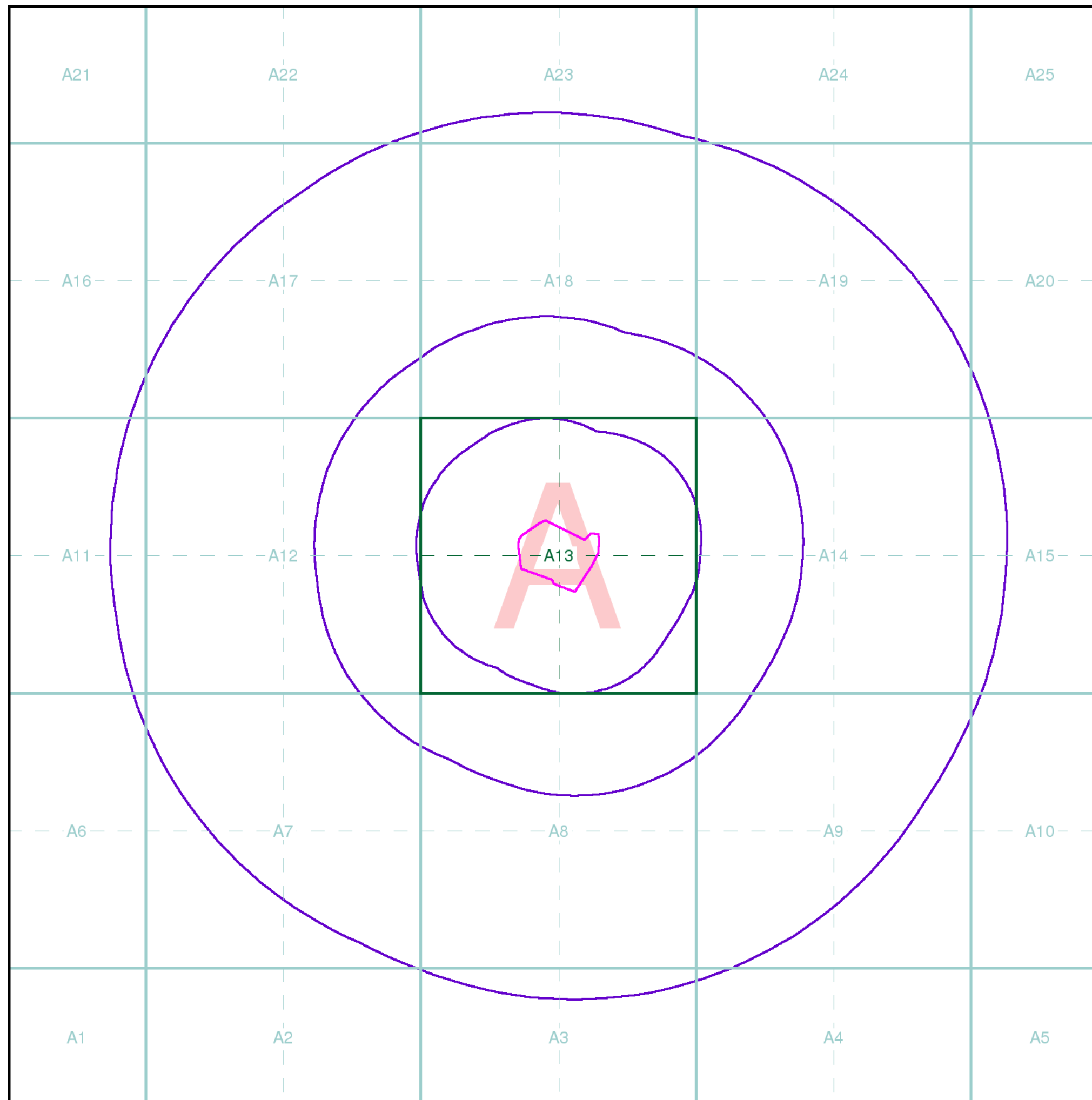
Order Details

Order Number: 74181673_1_1
 Customer Ref: 39141/PR/AJK
 National Grid Reference: 414830, 409280
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

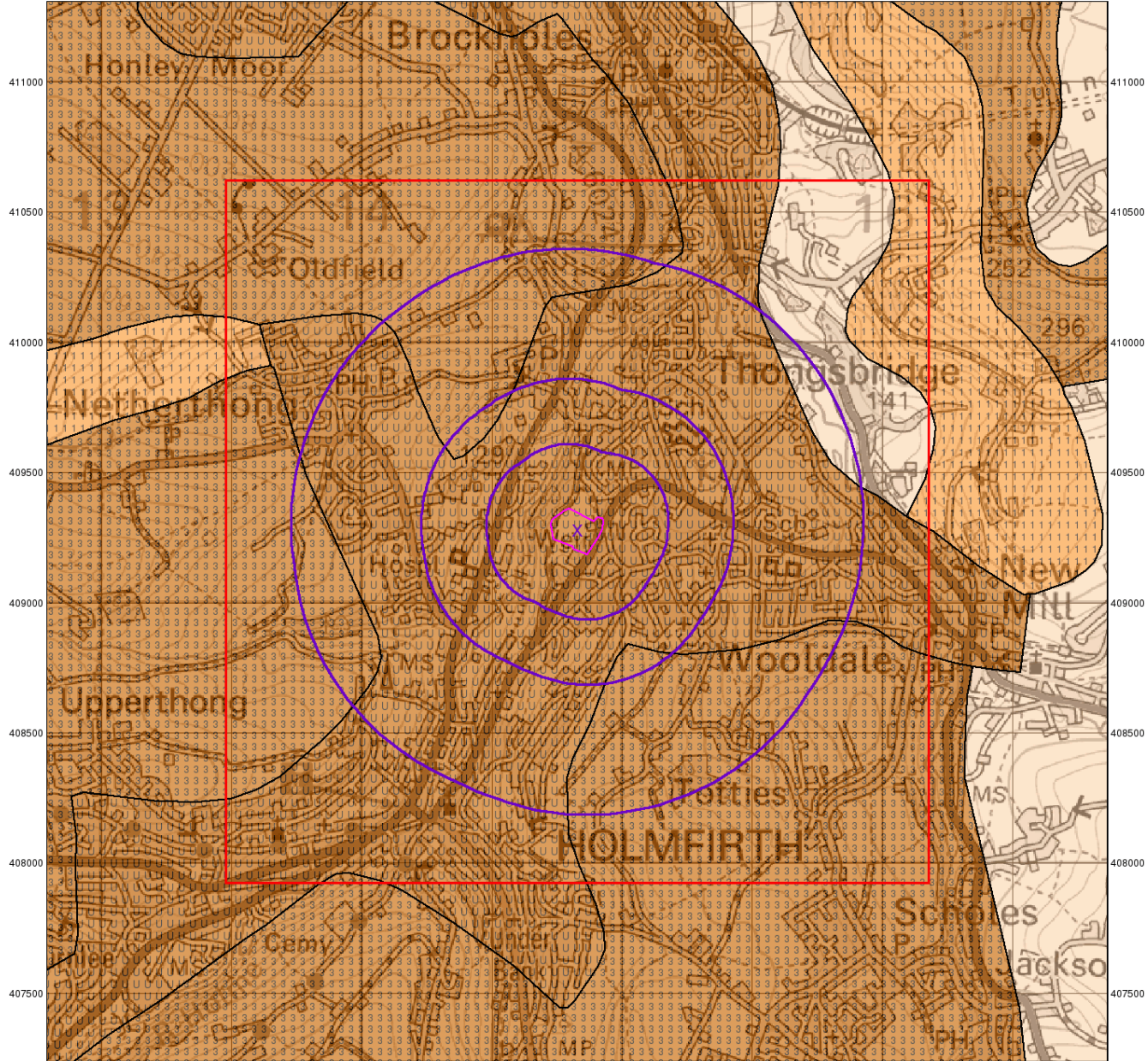
Site Details

New Mill Road, HOLMFIRTH, HD9 7LN

Full Terms and Conditions can be found on the following link:
<http://www.landmarkinfo.co.uk/Terms/Show/515>



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0 1 km



Groundwater Vulnerability

General

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

Agency and Hydrological

Geological Classes

Major Aquifer (Highly Permeable)

- High (H) 1, 2, 3, U
- Intermediate (I) 1, 2
- Low

Minor Aquifer (Variably Permeable)

- High (H) 1, 2, 3, U
- Intermediate (I) 1, 2
- Low

Non Aquifer (Negligibly Permeable)

-

Water or Sea

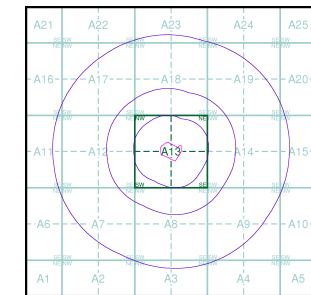
-

Drift Deposit

-

Soil Classes

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 74181673_1_1
 Customer Ref: 39141/PR/AJK
 National Grid Reference: 414830, 409280
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 Site Area (Ha): 2.26
 Search Buffer (m): 1000

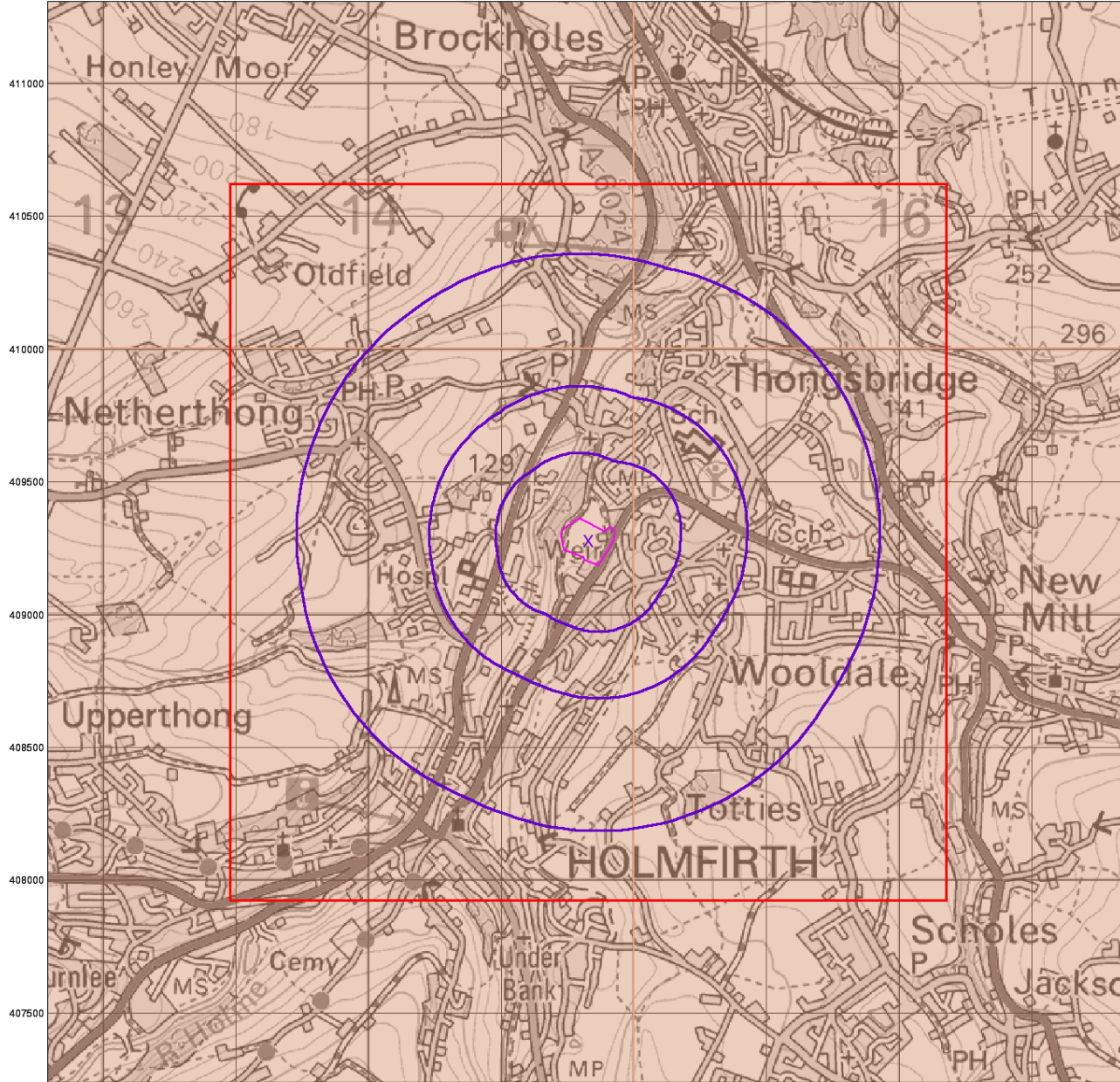
Site Details

New Mill Road, HOLMFIRTH, HD9 7LN



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

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0 1 km



Bedrock Aquifer Designation

General

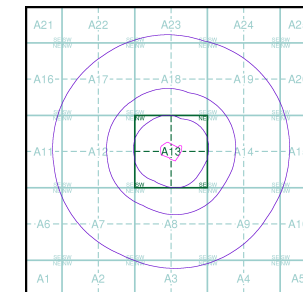
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown

Site Sensitivity Context Map - Slice A



Order Details

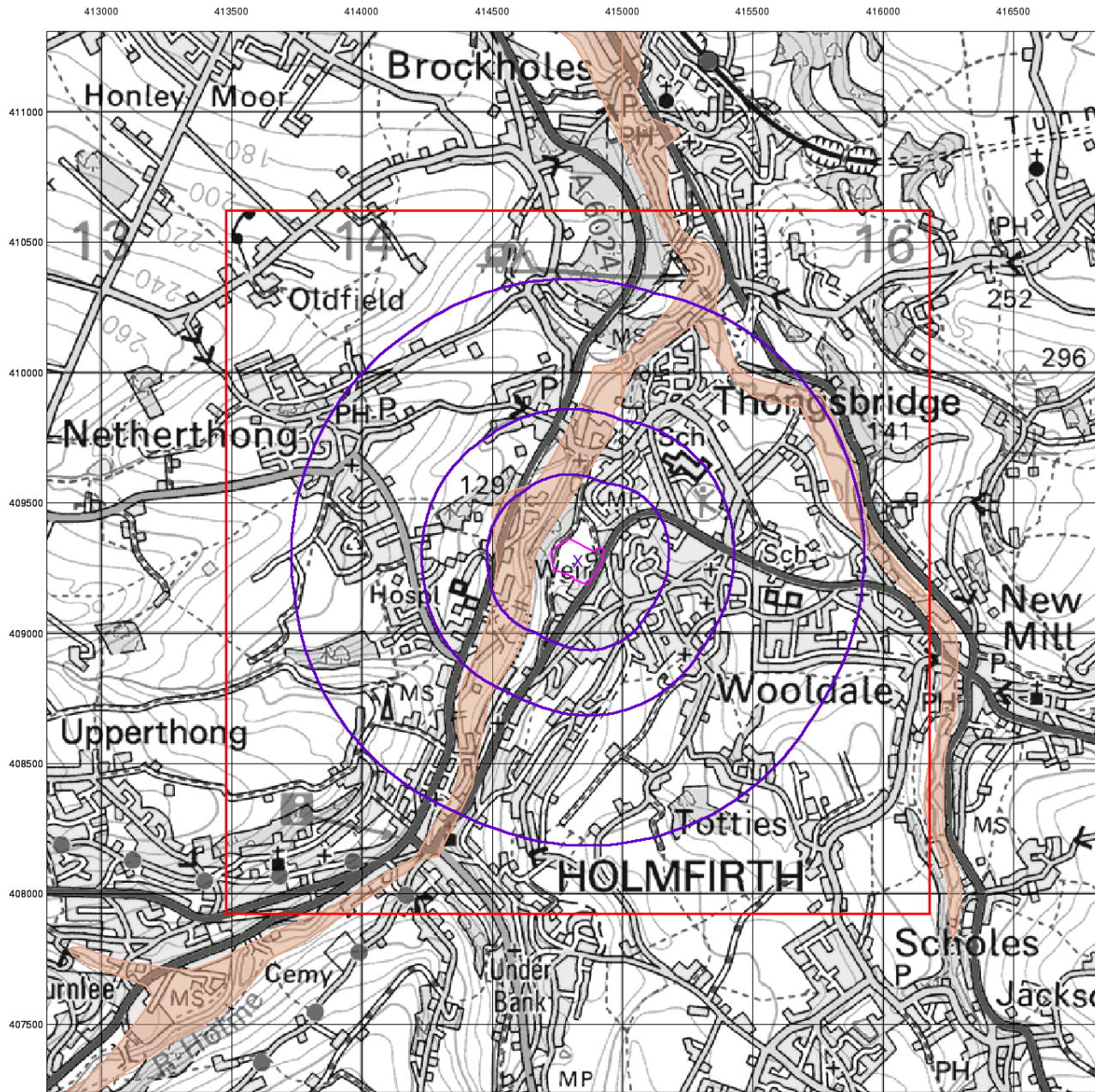
Order Number: 74181673_1_1
 Customer Ref: 39141/PR/AJK
 National Grid Reference: 414830, 409280
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

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Superficial Aquifer Designation

General

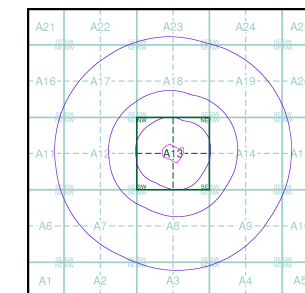
- ◆ Specified Site
- Specified Buffer(s)
- ✕ Bearing Reference Point
- Slice
- B Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 74181673_1_1
 Customer Ref: 39141/PR/AJK
 National Grid Reference: 414830, 409280
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

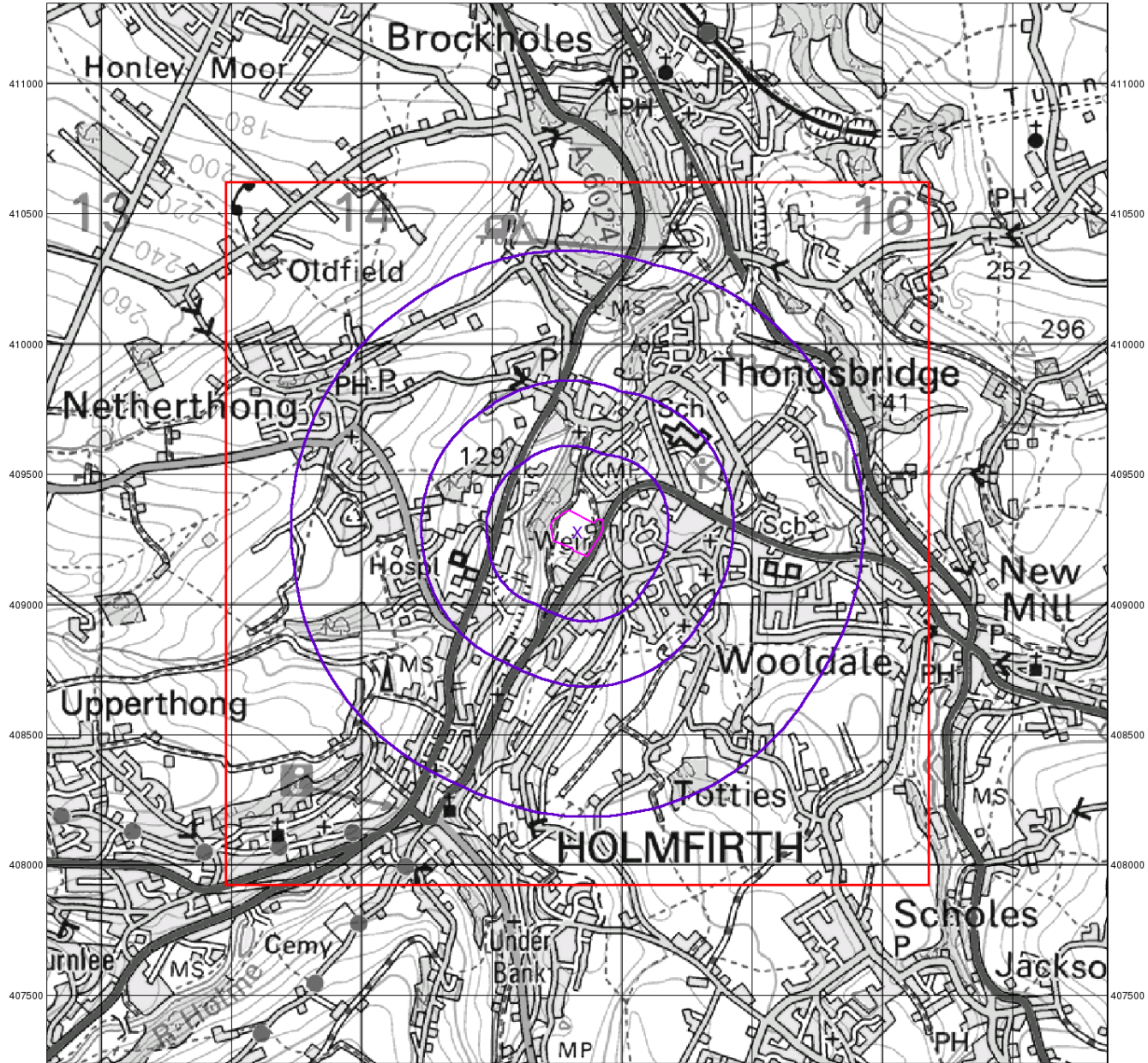
Site Details

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Source Protection Zones

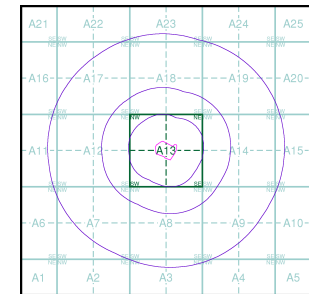
General

- 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)
- Source Protection Zone Borehole

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 74181673_1_1
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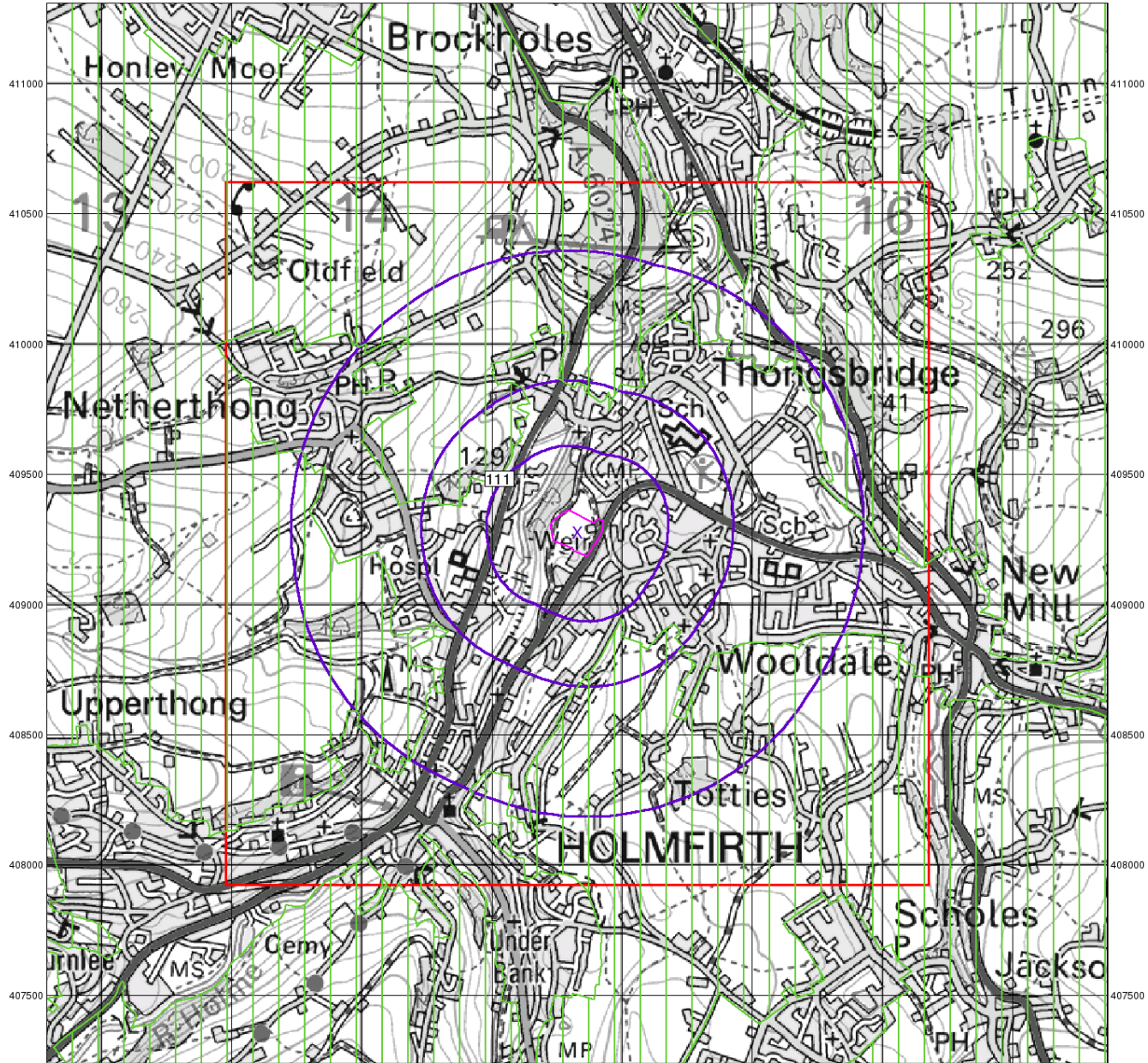
Site Details

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Sensitive Land Uses

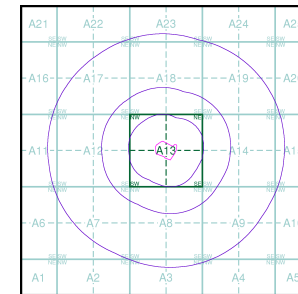
General

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

Sensitive Land Uses

- 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

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 74181673_1_1
 Customer Ref: 39141/PR/AJK
 National Grid Reference: 414830, 409280
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

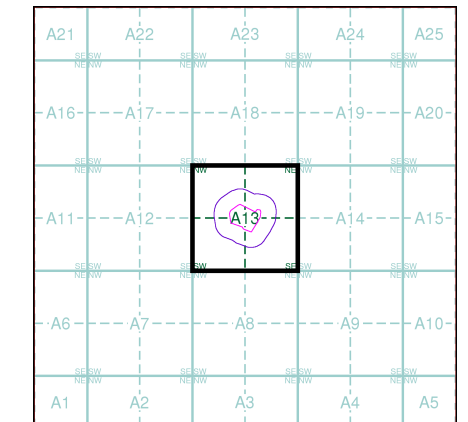
New Mill Road, HOLMFIRTH, HD9 7LN



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

- 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 Enforcement
 - Pollution Incident to Controlled Waters
 - Prosecution Relating to Authorised Processes
 - Prosecution Relating to Controlled Waters
 - Registered Radioactive Substance
 - River Network or Water Feature
 - River Quality Sampling Point
 - 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
 - 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
- Industrial Land Use**
- Contemporary Trade Directory Entry
 - Fuel Station Entry

Site Sensitivity Map - Segment A13

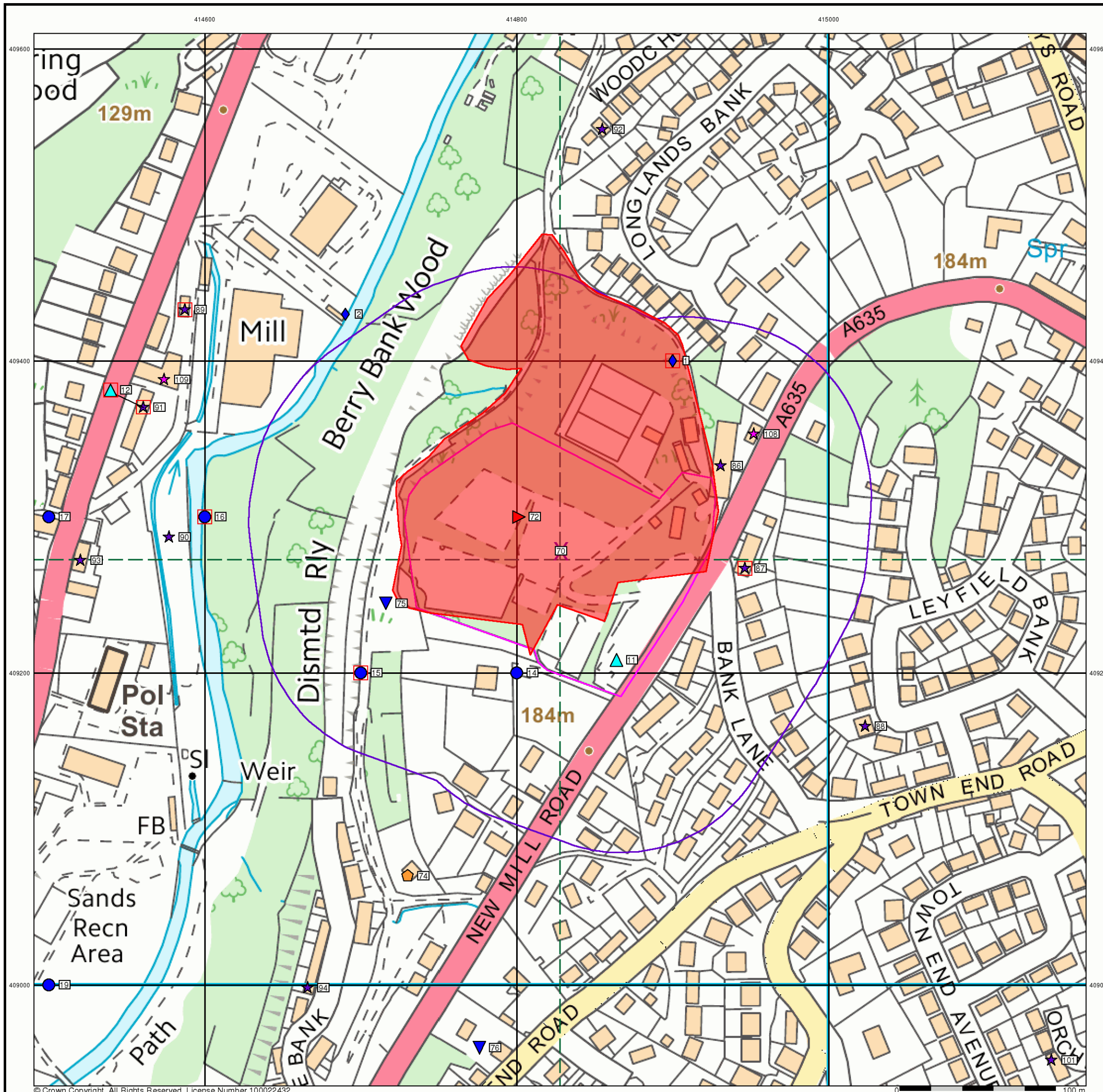


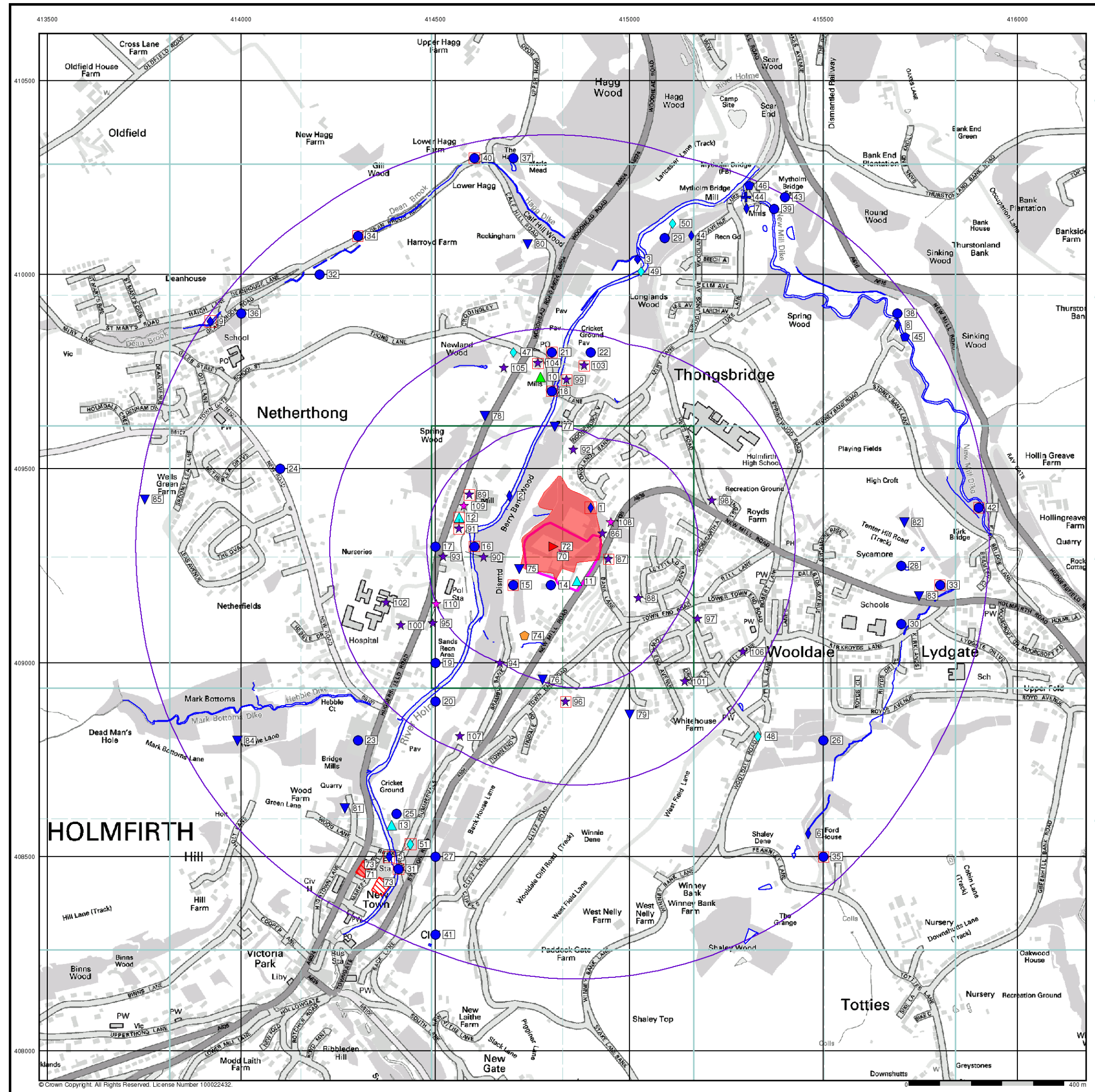
Order Details

Order Number: 74181673_1_1
 Customer Ref: 39141/PR/AJK
 National Grid Reference: 414830, 409280
 Slice: A
 Site Area (Ha): 2.26

Site Details

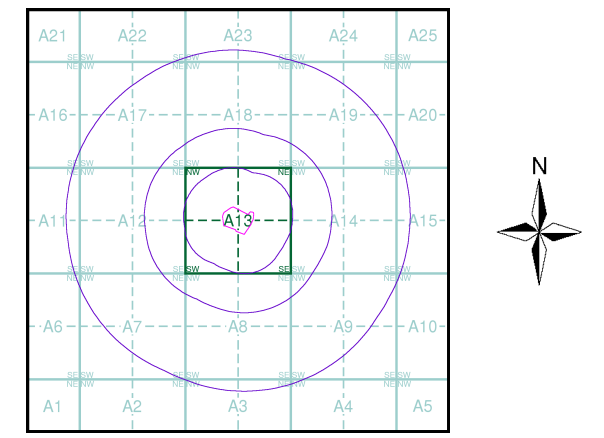
New Mill Road, HOLMFIRTH, HD9 7LN





- 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 Enforcement
 - Pollution Incident to Controlled Waters
 - Prosecution Relating to Authorised Processes
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 - Registered Radioactive Substance
 - River Network or Water Feature
 - River Quality Sampling Point
 - 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
 - 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
- Industrial Land Use**
- Contemporary Trade Directory Entry
 - Fuel Station Entry

Site Sensitivity Map - Slice A






Order Details






Order Number: 74181673_1_1
 Customer Ref: 39141/PR/AJK
 National Grid Reference: 414830, 409280
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details
 New Mill Road, HOLMFIRTH, HD9 7LN

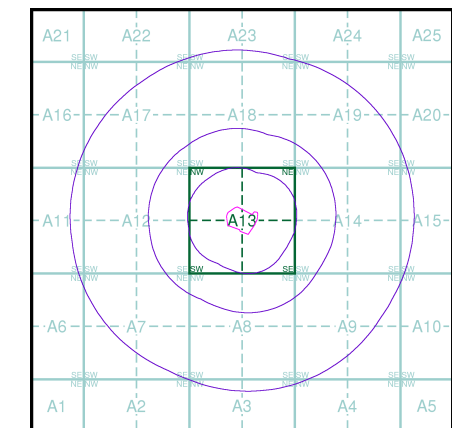
General

-  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

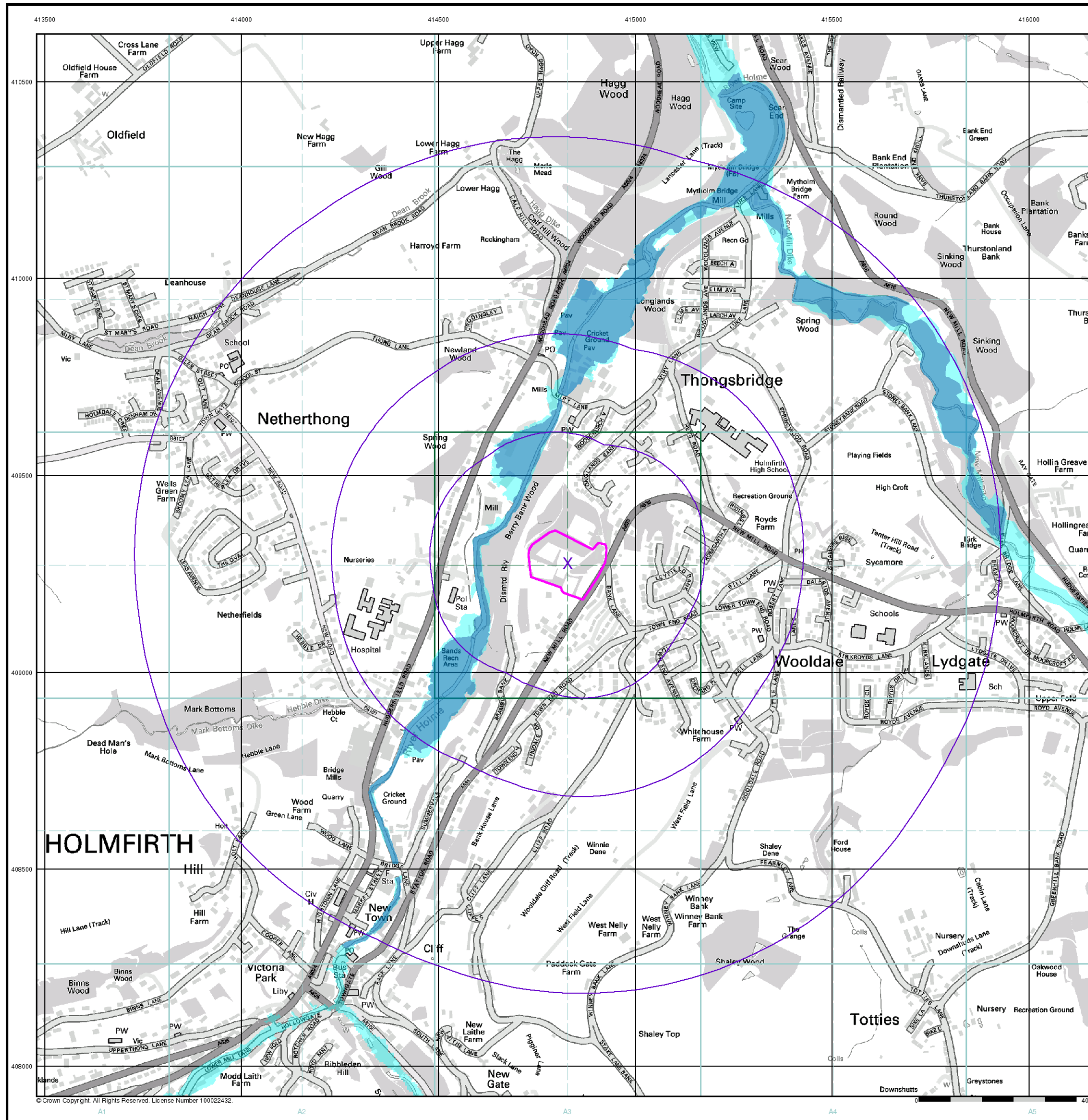


Order Details

Order Number: 74181673_1_1
 Customer Ref: 39141/PR/AJK
 National Grid Reference: 414830, 409280
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

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General

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

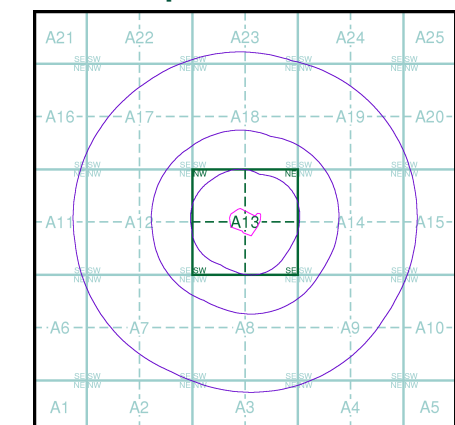
Agency and Hydrological (Boreholes)

- 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

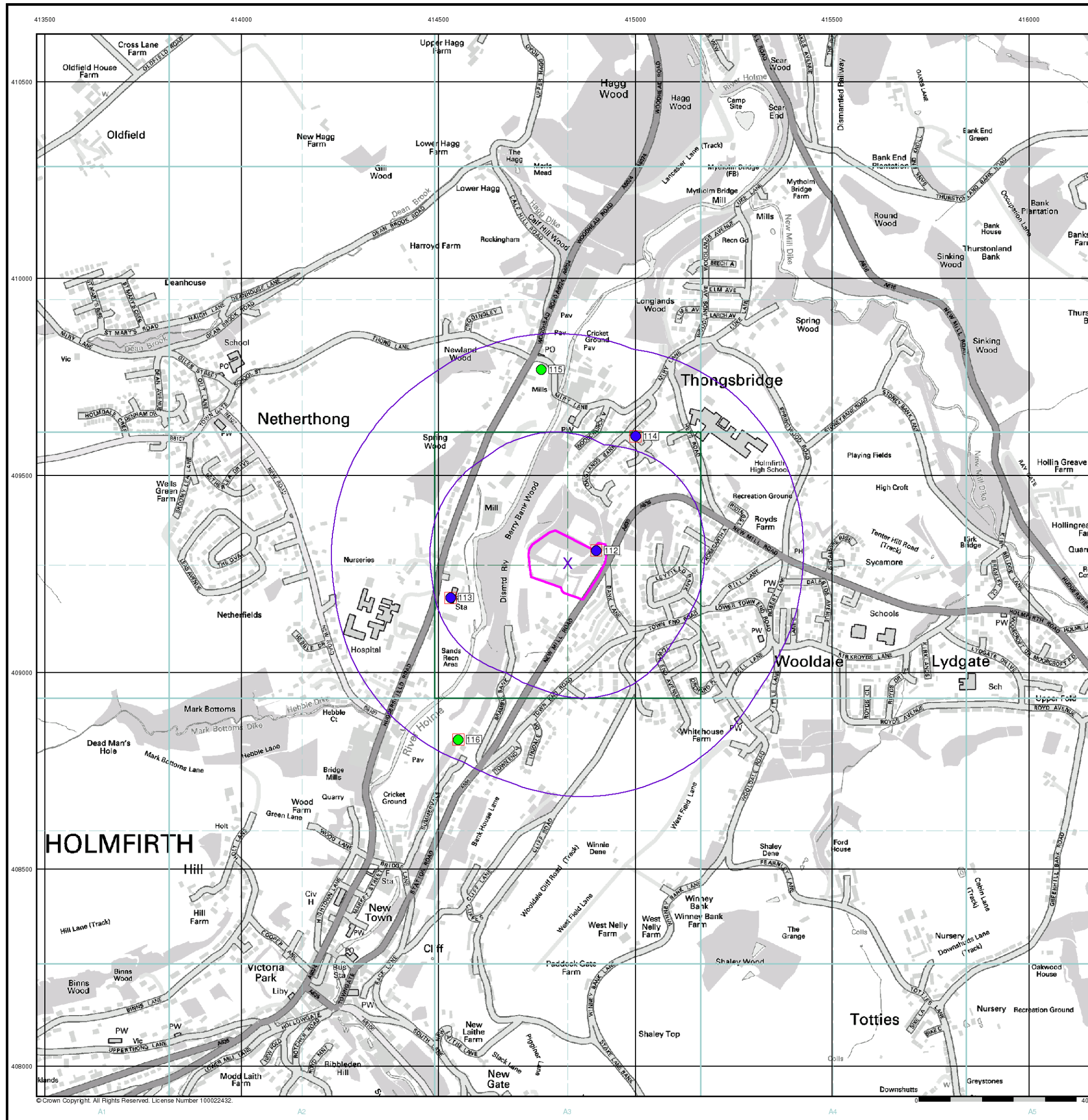


Order Details

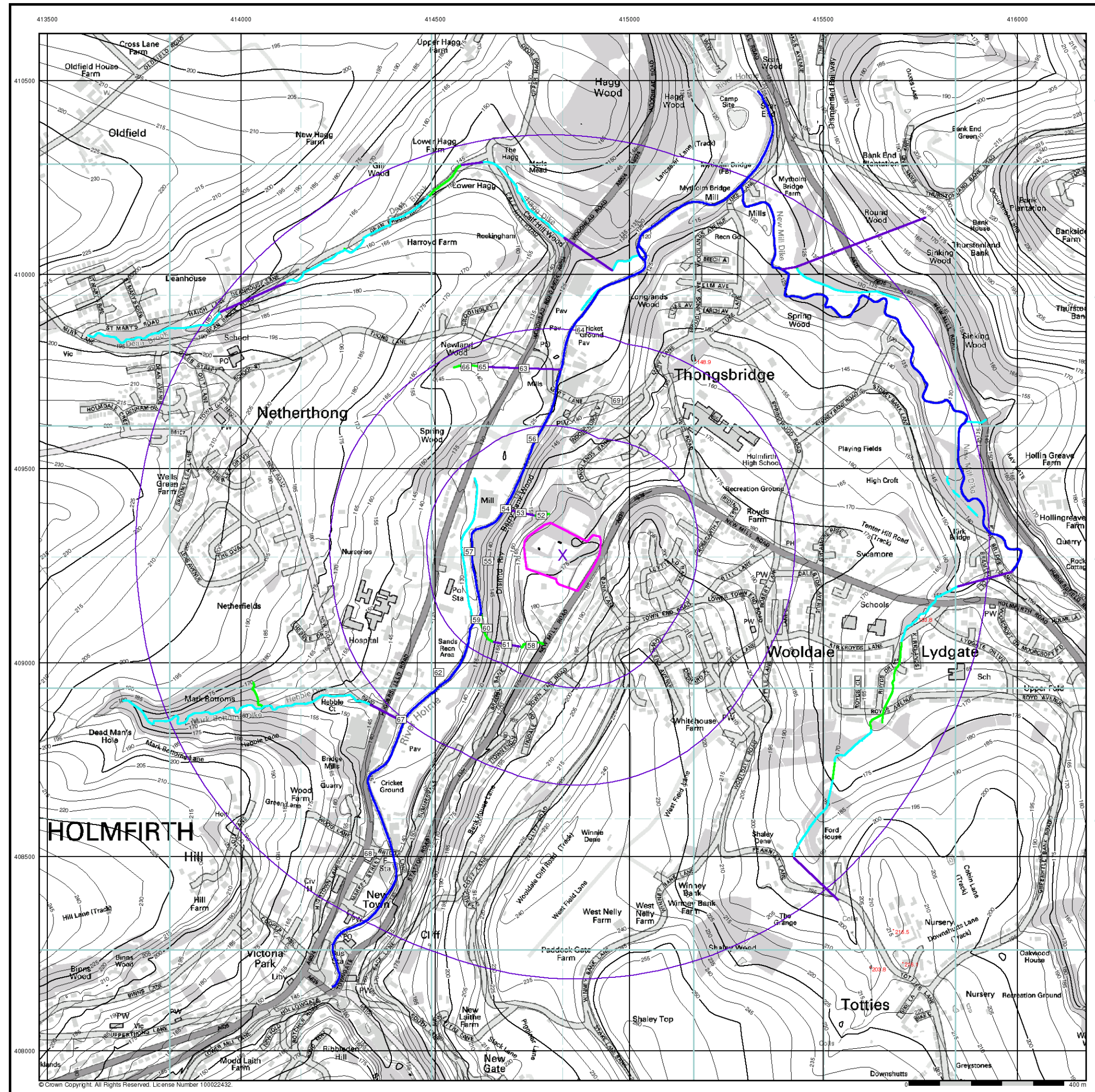
Order Number: 74181673_1_1
 Customer Ref: 39141/PR/AJK
 National Grid Reference: 414830, 409280
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

New Mill Road, HOLMFIRTH, HD9 7LN



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General

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

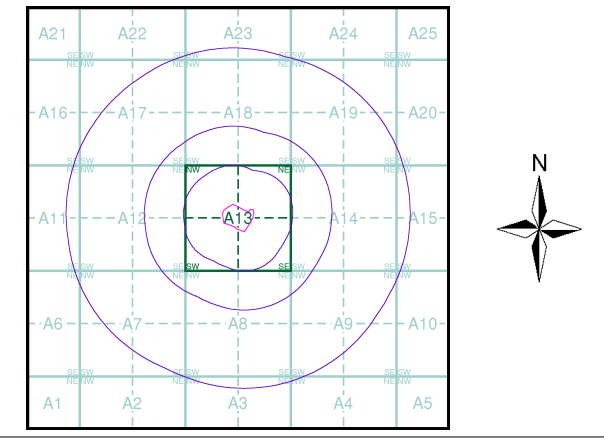
Detailed River Network Data

- Primary River
- Secondary River
- Tertiary River
- Canal
- Canal Tunnel
- Undefined River
- Lake/Reservoir
- Offline Drainage Feature
- Extended Culvert (greater than 50m)
- Underground River (inferred)
- Underground River (local knowledge)
- Downstream of High Water Mark
- Downstream of Seaward Extension
- Not assigned River feature

Contours (height in metres)

- Standard Contour 105
- Master Contour 100
- Spot Height 167.3
- MLW Mean Low Water
- MHW Mean High Water

E/NRW Detailed River Network Map - Slice A



Order Details

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 Customer Ref: 39141/PR/AJK
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Site Details

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

General

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

Risk of Flooding from Surface Water

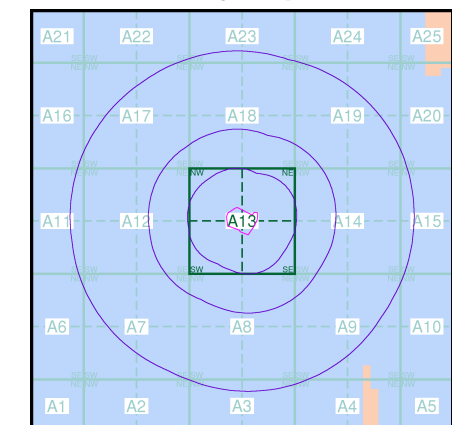
-  High - 30 Year Return
-  Medium - 100 Year Return
-  Low - 1000 Year Return

Suitability

See the suitability map below

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

EANRW Suitability Map - Slice A

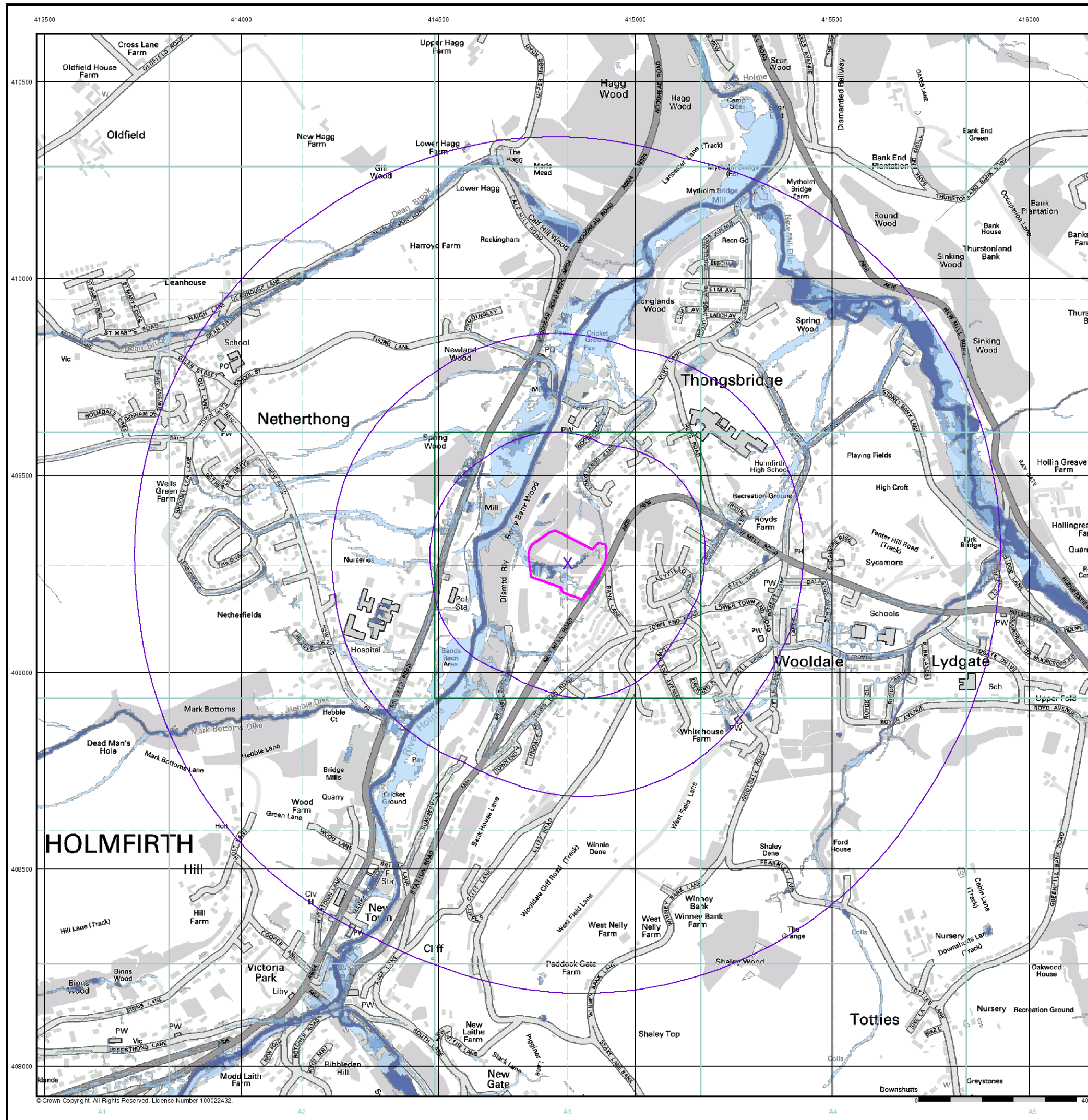


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Site Details

New Mill Road, HOLMFIRTH, HD9 7LN



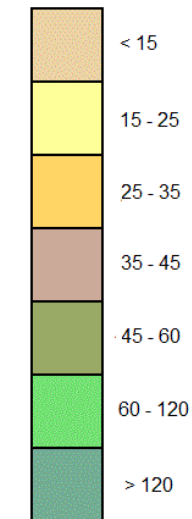
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General

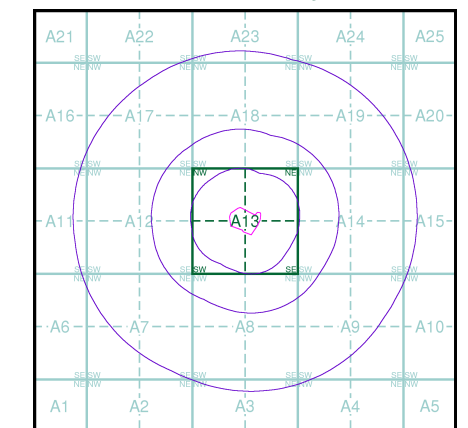
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- Specified Buffer(s)
- Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg



Estimated Soil Chemistry Arsenic - Slice A

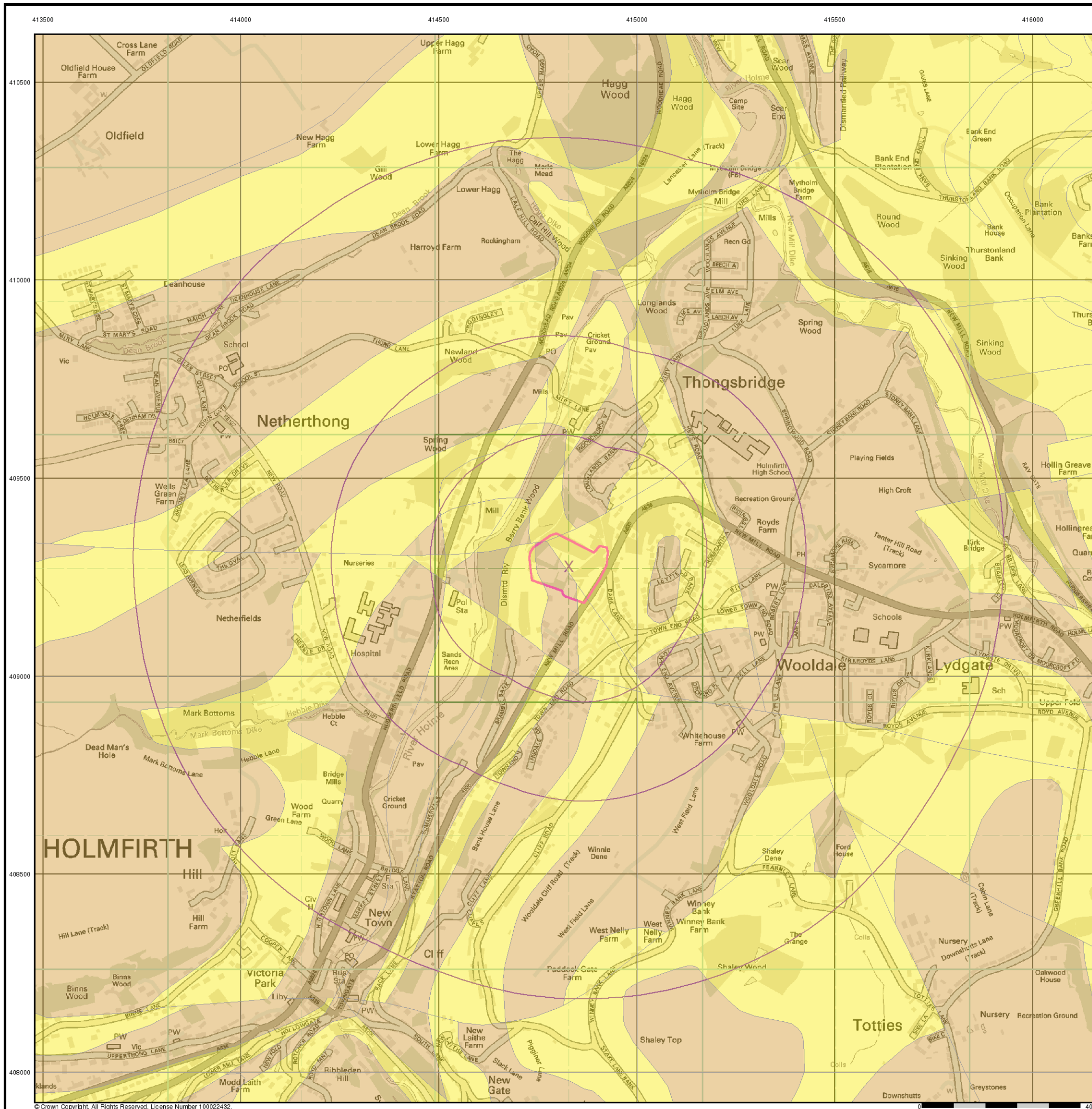


Order Details

Order Details: 74181673_1_1
 Customer Ref: 39141/PR/AJK
 National Grid Reference: 414830, 409280
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

New Mill Road, HOLMFIRTH, HD9 7LN



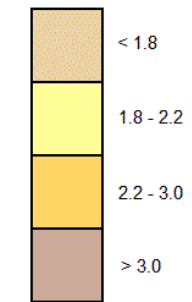
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General

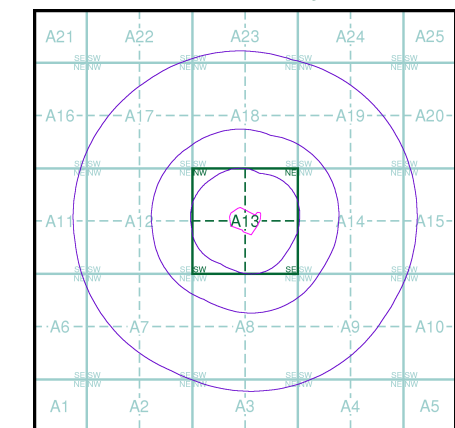
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Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg



Estimated Soil Chemistry Cadmium - Slice A

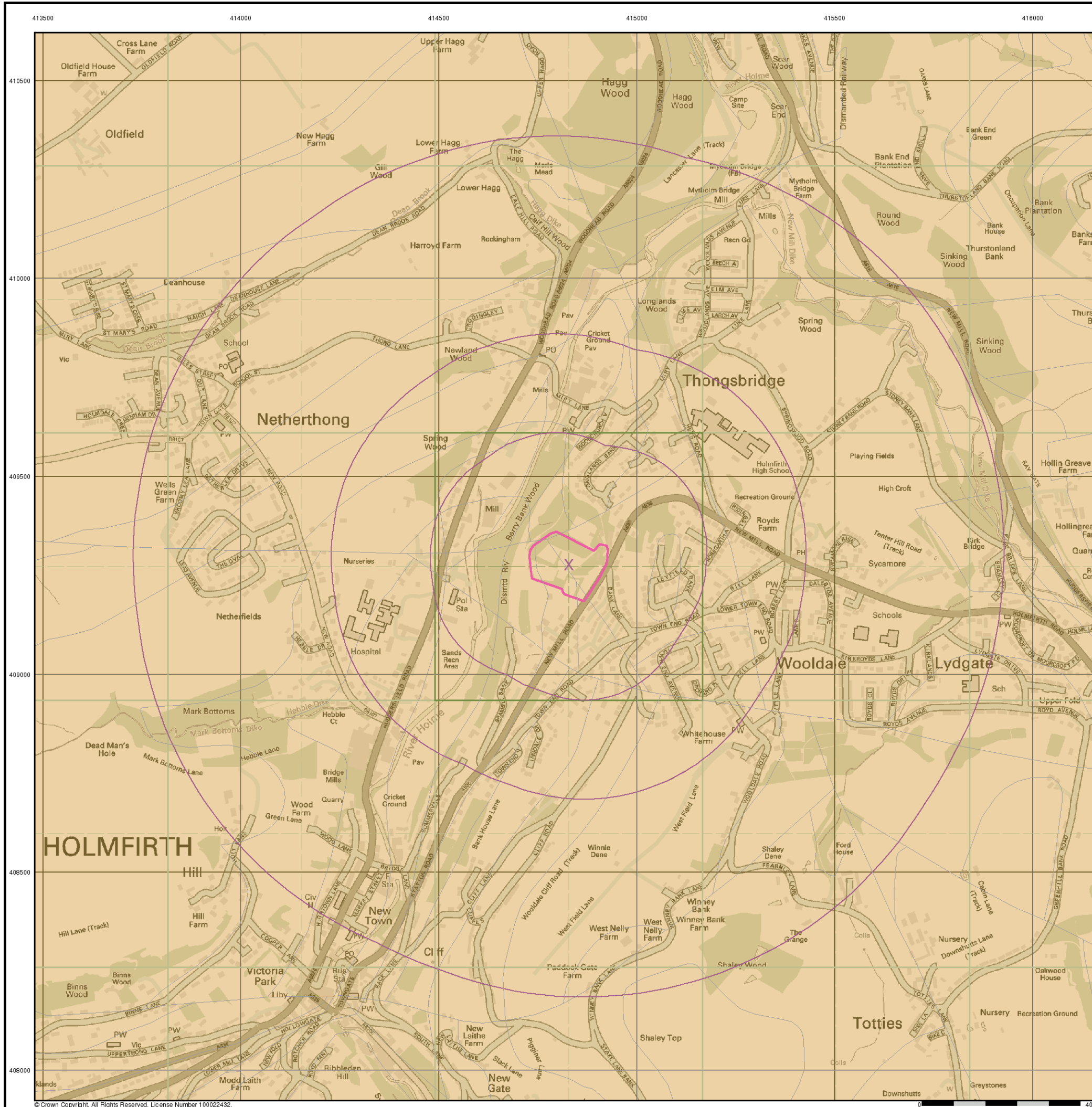


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Site Details

New Mill Road, HOLMFIRTH, HD9 7LN

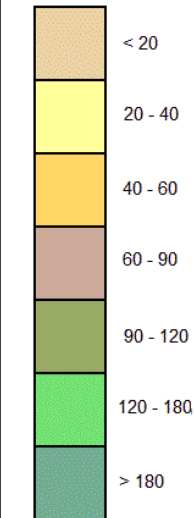


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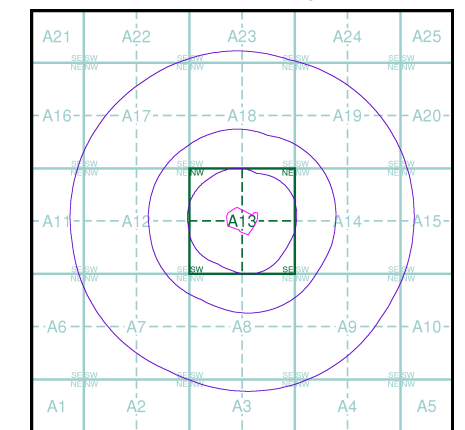
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Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



Estimated Soil Chemistry Chromium - Slice A

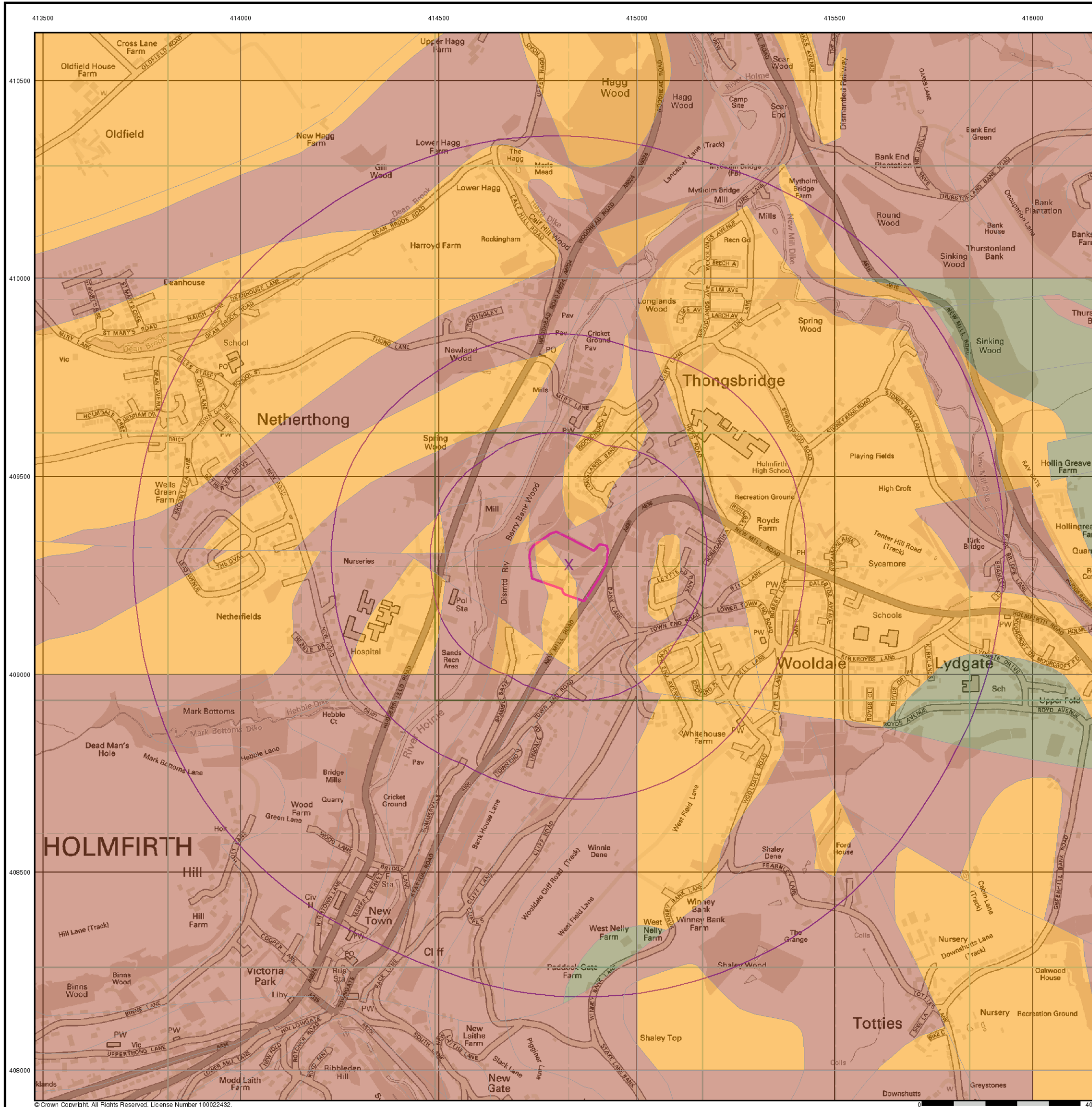


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Site Details

New Mill Road, HOLMFIRTH, HD9 7LN



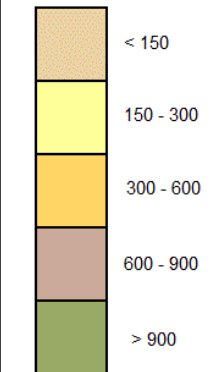
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General

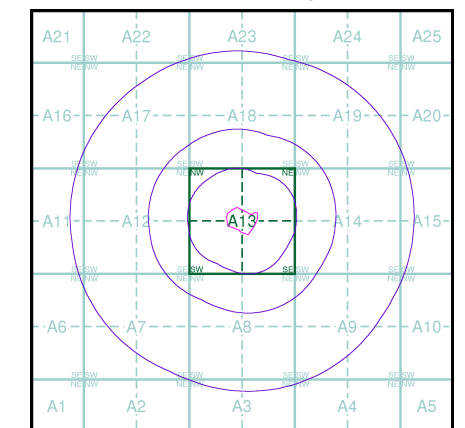
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- Specified Buffer(s)
- Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



Estimated Soil Chemistry Lead - Slice A

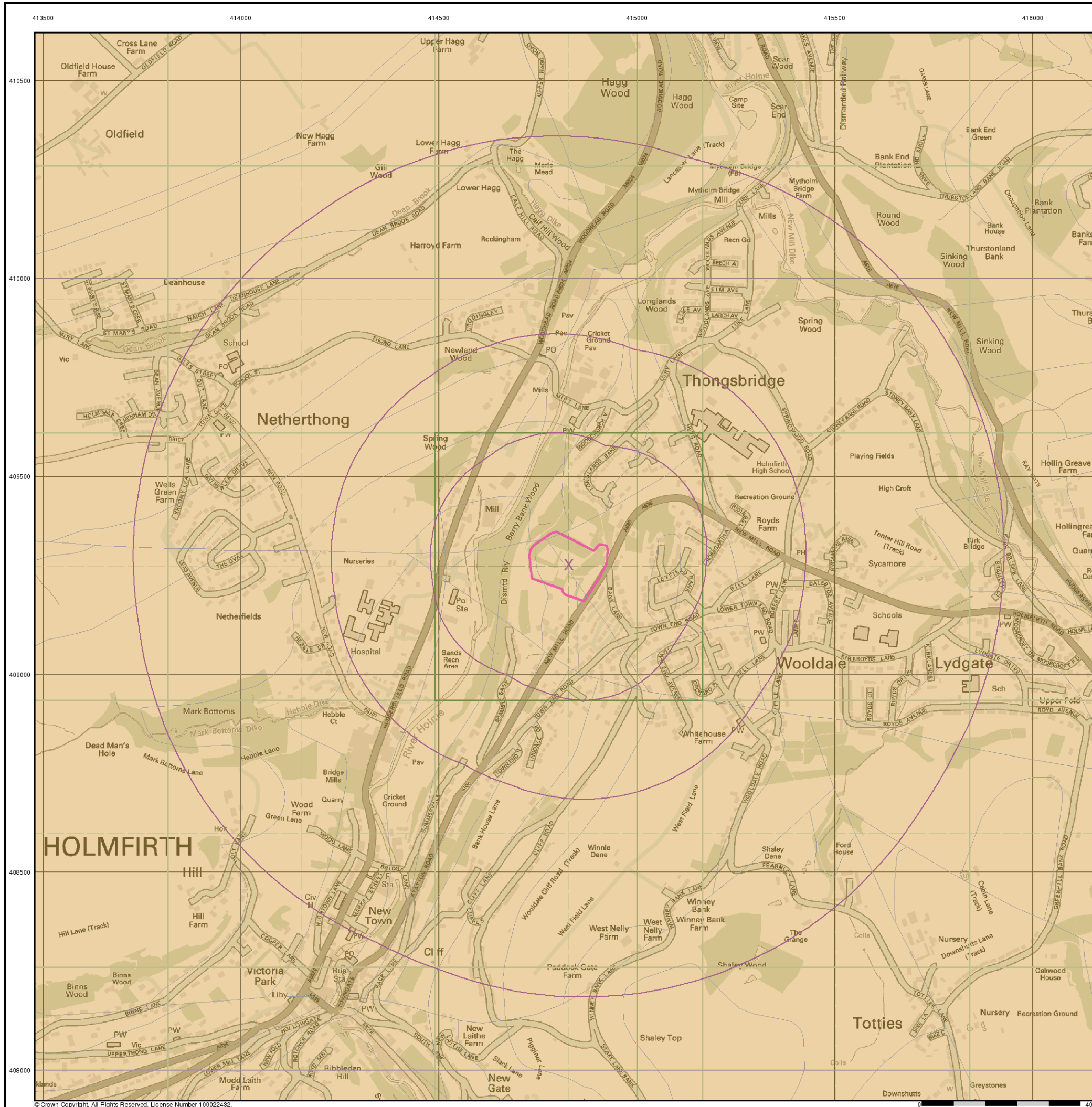


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 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

New Mill Road, HOLMFIRTH, HD9 7LN



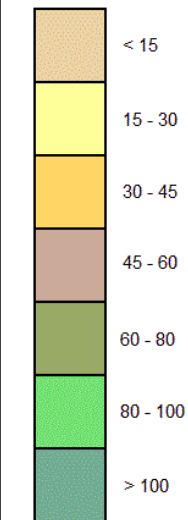
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General

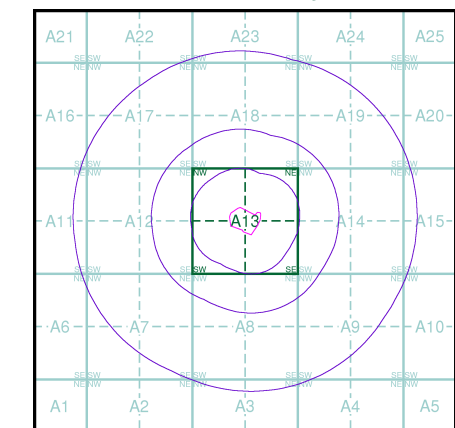
- Specified Site
- Specified Buffer(s)
- X Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg



Estimated Soil Chemistry Nickel - Slice A

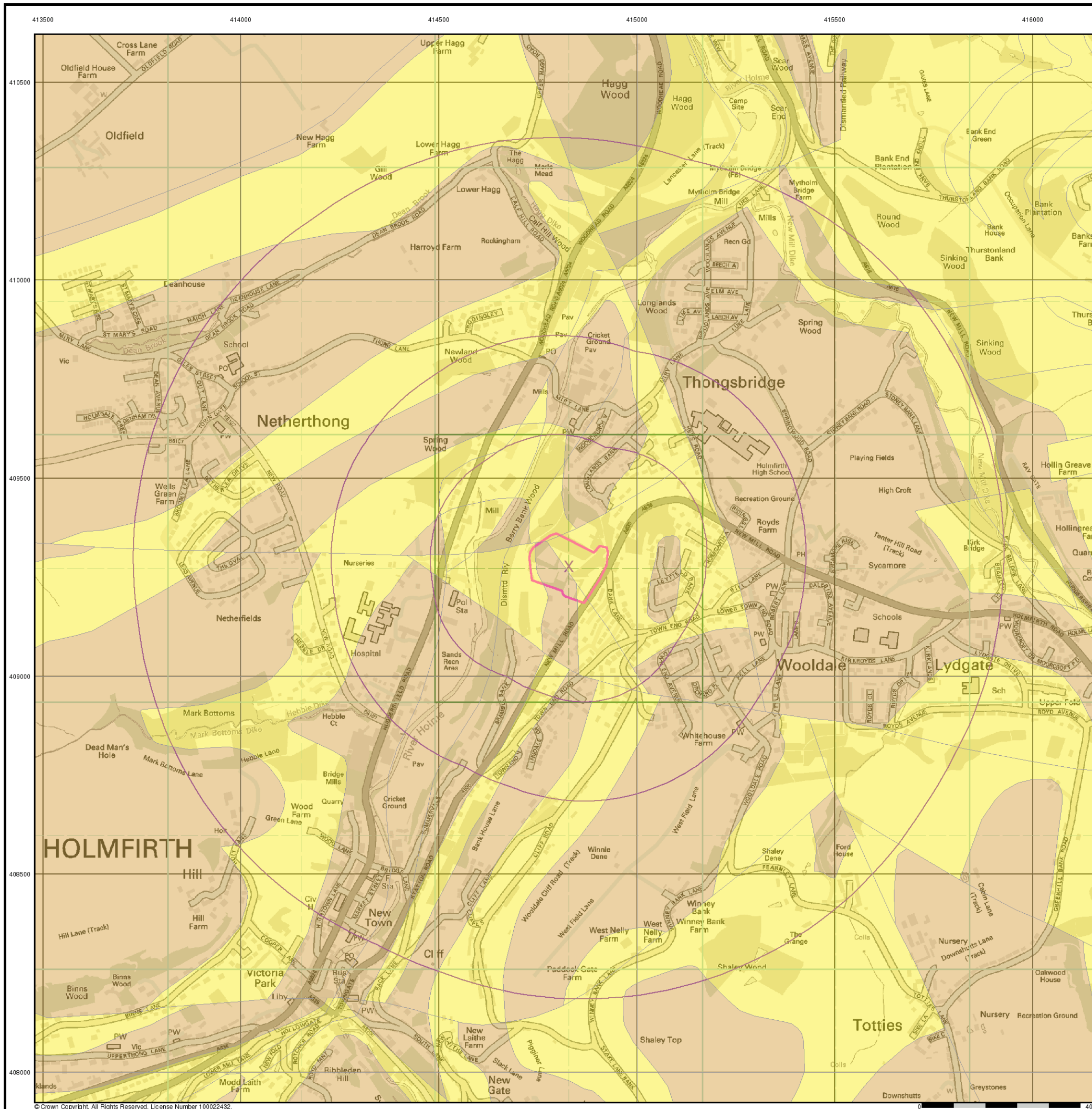


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Order Details: 74181673_1_1
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 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

New Mill Road, HOLMFIRTH, HD9 7LN



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Issued by:

The Coal Authority, Property Search Services, 200 Lichfield Lane, Berry Hill, Mansfield, Nottinghamshire, NG18 4RG
Website: www.groundstability.com Phone: 0345 762 6848 DX 716176 MANSFIELD 5

**LANDMARK INFORMATION GROUP
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SOWTON INDUSTRIAL ESTATE
ABBAY COURT
UNIT 5/7 EAGLE WAY
EXETER
DEVON
EX2 7HY**

Our reference: **51001027165001**
Your reference: **74181673_2|**
Date of your enquiry: **27 October 2015**
Date we received your enquiry: **27 October 2015**
Date of issue: **27 October 2015**

This report is for the property described in the address below and the attached plan.

Non-Residential Coal Authority Mining Report

SITE AT NEW MILL ROAD, HOLMFIRTH, WEST YORKSHIRE,

This report is based on and limited to the records held by, the Coal Authority, and the Cheshire Brine Subsidence Compensation Board's records, at the time we answer the search.

Coal mining	See comments below
Brine Compensation District	No

Information from the Coal Authority

Underground coal mining

Past

According to the records in our possession, the property is not within the zone of likely physical influence on the surface from past underground workings.

However the property is in an area where the Coal Authority believe there is coal at or close to the surface. This coal may have been worked at some time in the past. The potential presence of coal workings at or close to the surface should be considered prior to any site works or future development activity. Your attention is drawn to the Comments on Coal Authority Information section of the report.

Present

The property is not in the likely zone of influence of any present underground coal workings.

Future

The property is not in an area for which the Coal Authority is determining whether to grant a licence to remove coal using underground methods.

The property is not in an area for which a licence has been granted to remove or otherwise work coal using underground methods.

The property is not in an area that is likely to be affected at the surface from any planned future workings.

However, reserves of coal exist in the local area which could be worked at some time in the future.

No notice of the risk of the land being affected by subsidence has been given under section 46 of the Coal Mining Subsidence Act 1991.

Mine entries

There are no known coal mine entries within, or within 20 metres of, the boundary of the property.

Records may be incomplete. Consequently, there may exist in the local area mine entries of which the Coal Authority has no knowledge.

Coal mining geology

The Authority is not aware of any evidence of damage arising due to geological faults or other lines of weakness that have been affected by coal mining.

Opencast coal mining

Past

The property is not within the boundary of an opencast site from which coal has been removed by opencast methods.

Present

The property does not lie within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods.

Future

The property is not within 800 metres of the boundary of an opencast site for which the Coal Authority is determining whether to grant a licence to remove coal by opencast methods.

The property is not within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted.

Coal mining subsidence

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres, since 31st October 1994.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

Mine gas

There is no record of a mine gas emission requiring action by the Coal Authority within the boundary of the property.

Hazards related to coal mining

The property has not been subject to remedial works, by or on behalf of the Authority, under its Emergency Surface Hazard Call Out procedures.

Withdrawal of support

The property is not in an area for which a notice of entitlement to withdraw support has been published.

The property is not in an area for which a notice has been given under section 41 of the Coal Industry Act 1994, revoking the entitlement to withdraw support.

Working facilities orders

The property is not in an area for which an Order has been made under the provisions of the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof.

Payments to owners of former copyhold land

The property is not in an area for which a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

Comments on Coal Authority information

In view of the mining circumstances a prudent developer would seek appropriate technical advice before any works are undertaken.

Therefore if development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply good engineering practice developed for mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or mines of coal without the permission of the Coal Authority. Developers should be aware that the investigation of coal seams/former mines of coal may have the potential to generate and/or displace underground gases and these risks both under and adjacent to the development should be fully considered in developing any proposals. The need for effective measures to prevent gases entering into public properties either during investigation or after development also needs to be assessed and properly addressed. This is necessary due to the public safety implications of any development in these circumstances.

Information from the Cheshire Brine Subsidence Compensation Board

The property lies outside the Cheshire Brine Compensation District.

Additional Remarks

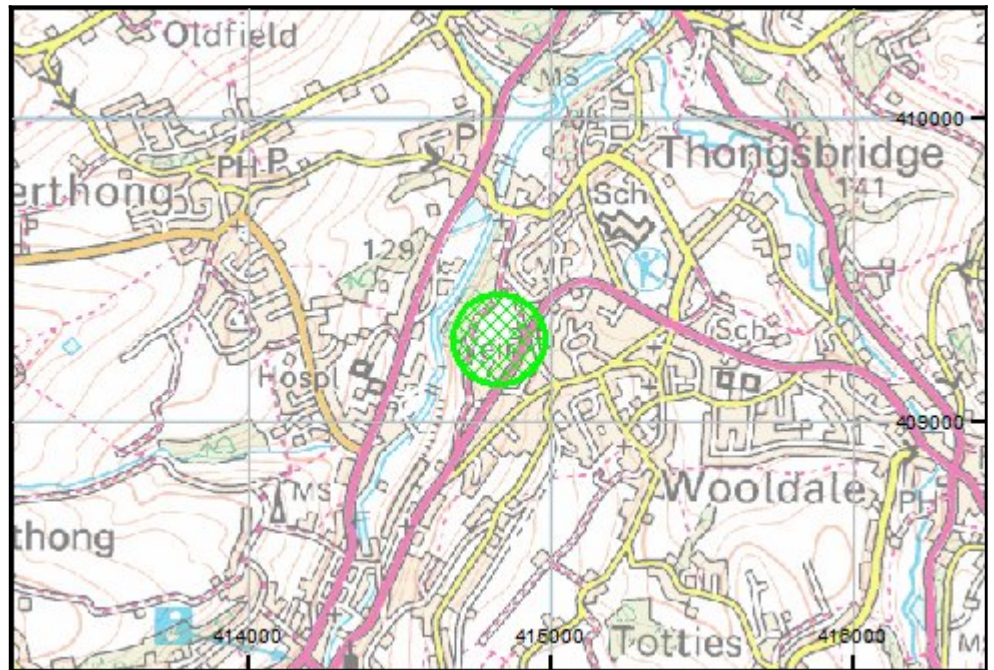
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Location map



Approximate position of property

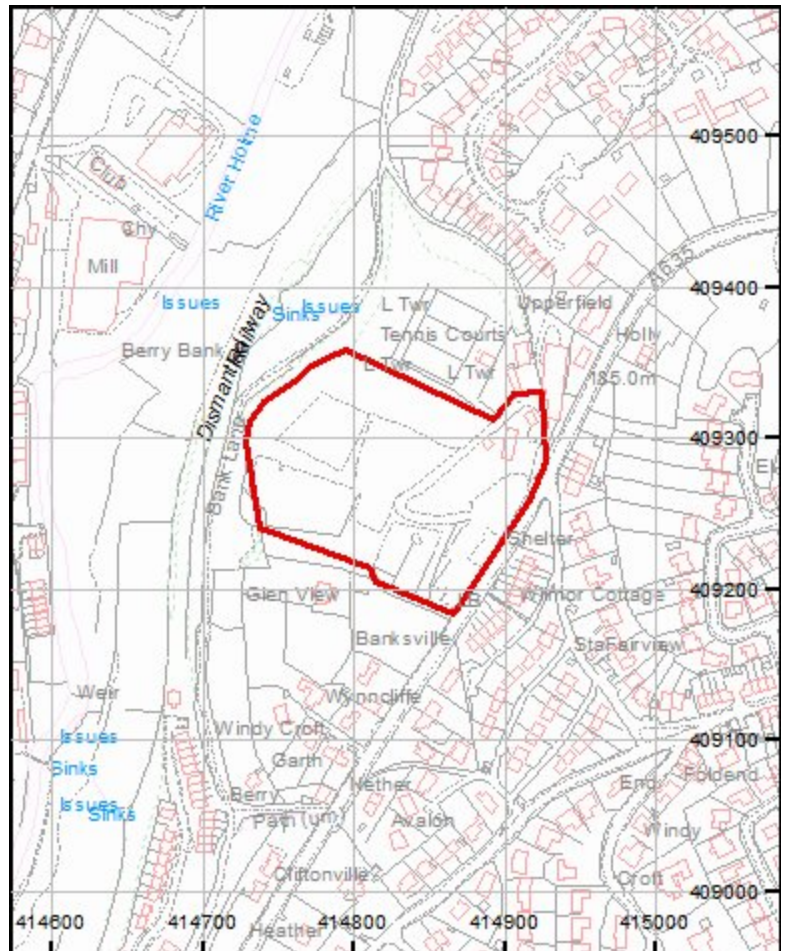


Enquiry boundary

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Key

Approximate position of enquiry boundary shown



Appendix 3

Ian Farmer Associates “Final Factual Report on Ground Investigation carried out at New Mill Road, Holmfirth”, reference W08/40349, October 2008

TESCO STORES LIMITED

**NEW MILL ROAD
HOLMFIRTH**

**FINAL FACTUAL REPORT ON
GROUND INVESTIGATION**

Contract: W08/40349

Date: October 2008

Ian Farmer Associates (1998) Limited
17 Rivington Court, Hardwick Grange, Woolston, Warrington, WA1 4RT
Tel: 01925 855 440
Fax: 01925 855 441

**FINAL FACTUAL REPORT ON
GROUND INVESTIGATION**

carried out at

NEW MILL ROAD

HOLMFIRTH

Prepared for

TESCO STORES LIMITED

Cirrus Building

Shire Park

Welwyn Garden City

Hertfordshire

AL7 1AB

Contract No: W08/40349

Date: October 2008

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1.0 INTRODUCTION

- 1.1 On the instructions of W.A. Fairhurst & Partners Consulting Engineers to Tesco Stores Limited, a ground investigation was undertaken to determine ground and groundwater conditions at the site.
- 1.2 This report has been prepared for the sole use of the Client for the purpose described and no extended duty of care to any third party is implied or offered. Third parties using any information contained within this report do so at their own risk.
- 1.3 The comments given in this report and the opinions expressed herein are based on the information received, the conditions encountered during site works, and on the results of tests made in the field and laboratory. However, there may be conditions prevailing at the site which have not been disclosed by the investigation and which have not been taken into account in the report.
- 1.4 The comments on groundwater conditions are based on observations made at the time the site work was carried out. It should be noted that groundwater levels vary owing to seasonal or other effects.

2.0 SITE SETTING

2.1 Site Location

- 2.1.1 The site is situated in off New Mill Road, near to the centre of Holmfirth and may be located by National Grid reference SE 148 093. A site location plan is included in Appendix 1, Figure A1.1.

2.2 Site Description

- 2.2.1 At the time of the investigation the site comprised unoccupied land with both tarmacadam and concrete hardstanding, dense vegetation, steep slopes and floor slabs of previously demolished buildings.
- 2.2.2 The site was bounded to the east by New Mill Road, to the north by open land and tennis courts, to the west by a steep embankment and to the south by residential properties.
- 2.2.3 A site plan is included in Appendix 1, Figure A1.2.

3.0 SITE WORK

- 3.1 The site work was carried out between 14th April and 29th April 2008 and an additional phase between 3rd September and 5th September 2008. The locations of exploratory holes were indicated by the Engineer, and the site works carried out on the basis of the practices set out in BS 10175:2001, ref. 5.1, and BS 5930:1999 ref. 5.2.
- 3.2 Thirteen boreholes, designated BH01 to BH13 were sunk by light cable percussion method, fifteen window sample holes, designated WS01 to WS12, WS12A, WS13 and WS13A, 2WS14 to 2WS20 and 2WS22, were sunk by drive-in window sampler techniques and twelve trial pits designated TP01 to TP12 were excavated by machine, at the positions shown on the site plan, Appendix 1, Figure A1.2. The depths of boreholes, window sample holes and trial pits, descriptions of strata encountered and comments on groundwater conditions are given in the borehole, window sample hole and trial records, Appendix 2, Figures A2.1, A2.2 and A2.4.
- 3.3 Eight window holes were undertaken during the phase 2 works, designated 2WS14 to 2WS20 and 2WS22, were sunk by drive-in window sampler techniques at the positions shown on the site plan, Appendix 1, Figure A1.2. The depths of window sample holes, descriptions of strata encountered and comments on groundwater conditions are given in the window sample hole and trial records, Appendix 2, Figure A2.3.
- 3.4 Representative disturbed and undisturbed samples were taken at the depths shown on the borehole records and despatched to the laboratory. Standard (split-barrel and cone) penetration tests, ref. 5.3 were carried out in the light cable percussion boreholes in the various strata to assess the relative density or consistency. The values of penetration resistance are given in the borehole records and in greater detail in Appendix 2, Figure A2.5.
- 3.5 Samples were collected for environmental purposes in amber glass jars and kept in a cool box.
- 3.6 Perforated standpipes, surrounded by pea shingle and protected by a stopcock cover were installed in seventeen boreholes, BH01, BH02, BH04, BH05, BH09, BH11, BH12, WS01, WS03, WS04, WS07, WS08, WS09, WS10, WS11, WS12 and WS13 as detailed in the borehole records and also in Appendix 2, Figure A2.6.
- 3.7 The ground levels at the borehole locations were not determined.
- 3.8 Gas and groundwater levels were recorded on five occasions following site works. Details of this monitoring are presented in Appendix 5.

4.0 LABORATORY TESTS

4.1 Geotechnical Testing

4.1.1 All soil samples were prepared in accordance with BS1377: Part One: 1990 ref. 5.3 and representative sub-samples were taken for testing. The following tests were carried out:

- 11 No. Moisture content
- 10 No. Plasticity indices
- 5 No. Californian Bearing Ratio

4.1.2 The results of these tests are presented in Appendix 3.

4.2 Chemical Testing

4.2.1 A suite of chemical analyses was undertaken based on instructions from the Engineer. The chemical analyses were carried out on thirty-five samples of soil and eighteen samples of leachate. The nature of the analyses is detailed below:

4.2.2 Soil Suite:

4.2.2.1 **General Suite** - arsenic, cadmium, chromium, selenium, mercury, lead, copper, nickel, zinc, boron (water soluble), polycyclic aromatic hydrocarbon (PAH) screen, total petroleum hydrocarbon (TPH) screen, cyanides (total, free and complex), thiocyanate, total sulphate, soluble sulphate, sulphur, sulphide, pH and total phenols.

4.2.2.2 **Concrete Suite** – total sulphate, water soluble sulphate, sulphide, total sulphur, water soluble magnesium, ammonium ion, pH, chloride ions and nitrate ions.

4.2.2.3 **Speciated Total Petroleum Hydrocarbons Screen.**

4.2.2.4 **VOC/SVOC Screen.**

4.2.2.5 **BTEX/MTBE Screen.**

4.2.2.6 **Calorific Value.**

4.2.2.7 **Asbestos.**

4.2.2.8 **WAC Classification.**

4.2.3 **Leachate Suite:**

4.2.3.1 **General Suite** - arsenic, cadmium, chromium, selenium, mercury, lead, copper, nickel, zinc, boron, polyaromatic hydrocarbons (PAH) screen, total petroleum hydrocarbons (TPH) screen, cyanides (total, free and complex), thiocyanate, total sulphate, soluble sulphate, sulphur, sulphide, pH and total phenols.

4.2.3.2 **Speciated Total Petroleum Hydrocarbons Screen.**

4.2.3.3 **Speciated Polyaromatic Hydrocarbons Screen.**

4.2.4 The results of these tests are shown in Appendix 4.

5.0 REFERENCES

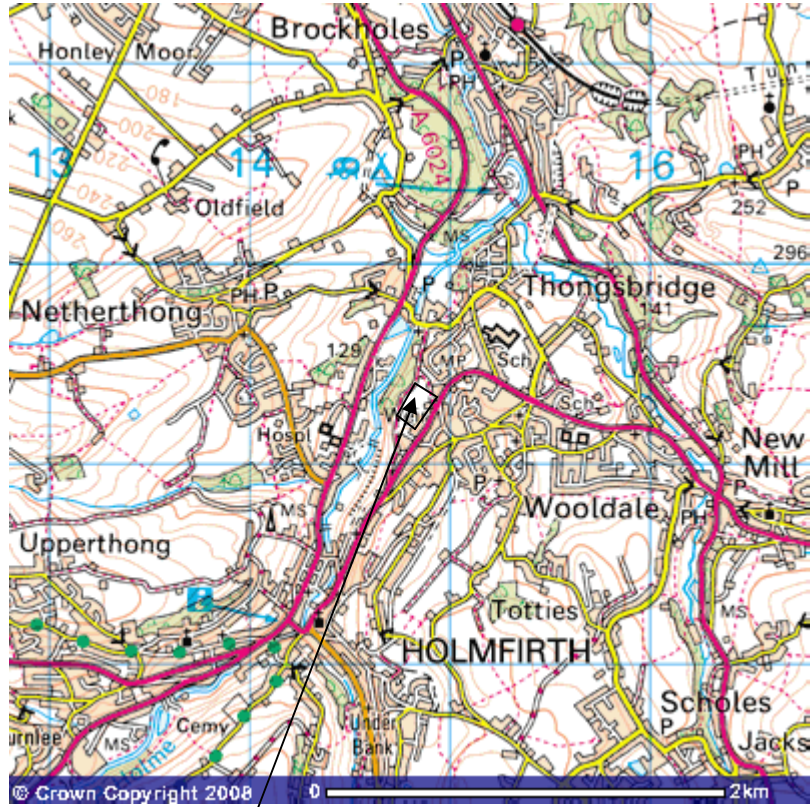
- 5.1 British Standards Institute: BS 10175 'Code of practice for the investigation of potentially contaminated sites', BSI 2001.
- 5.2 British Standards Institute: BS 5930 'Code of practice for site investigations', BSI 1999.
- 5.3 British Standard 1377:1990, Part 9, 'Methods of Test for Soils for Civil Engineering Purposes'.

For and on behalf of Ian Farmer Associates (1998) Limited

G Percival
BSc (Hons)
Engineering Geologist

J A Latimer
BSc (Hons) FGS
Director

APPENDIX 1
DRAWINGS



THE SITE

PROJECT: 40349 – New Mill Road, Holmfirth	
FIGURE No. A1.1.	SCALE: 1:50,000
TITLE: Site Location Plan	
 IAN FARMER ASSOCIATES Geotechnical & Environmental Specialists	

APPENDIX 2

SITE WORK

APPENDIX 2

GENERAL NOTES ON SITE WORKS

A2.1 SITE WORK

A2.1.1 Rotary Drilling

For exploration within rock rotary drilling methods are employed, where the drill bit is rotated on the bottom of the borehole. This method is occasionally used for drilling within soils. The drilling fluid is transferred from the surface through hollow drilling rods to the bit cooling and lubricating. Drilling fluids commonly comprise clean water, air, foam, mud or polymers which aid the transportation of drill cuttings to the surface and maximise core recovery.

There are two basic types of rotary drilling:

- Open hole where the drill bit cuts all the material within the diameter of the borehole. This technique is sometimes used in soils and weak rocks as a rapid and economical means of making holes for taking soil samples, carrying out insitu soil tests, installing instruments and probing for voids such as mine workings or solution cavities. The only samples recovered are the poor quality drill cuttings.
- Core drilling where an annular bit fixed to the bottom of the core barrel cuts a core, which is recovered within the innermost tube of the core barrel. Coring is normally carried out by triple tube core barrels. At the end of the core run the core barrel assembly is brought to the surface. The core is prevented from dropping out of the barrel by a core catcher made of spring steel. The non-rotating inner barrel contains a removable sample tube or liner. At the end of each coring run the liner is extracted from the barrel and stored in a core box, where it can be photographed, described and tested.

A2.1.2 Light Cable Percussion Boring

For routine soil exploration to depths in excess of 3m, the light cable percussion rig is generally employed for boring through soils and weak rocks. It consists of a powered winch and tripod frame, with running wheels that are permanently attached so that the rig may be towed behind a suitable vehicle. The rig is towed into position and set up using its own winching system.

The locations of services are checked to make sure the borehole is not situated unacceptably near any services. Regardless of the proximity of services, a CAT scan is undertaken at the borehole location and a trial hole dug to 1.20m by hand.

Boreholes are advanced in soil by the percussive action of the cable tool. The force of the cylindrical tool as it is dropped a short distance cuts a plug of cohesive soil that is removed by the tool.

In non-cohesive soils, the borehole is advanced by a 'shell', otherwise known as a 'bailer' or 'sand pump', which incorporates a clack valve. Material is transferred into the shell and retained by the clack valve. The water level in a borehole is maintained above that in the surrounding granular soil to allow for temporary reductions in the head of water as the shell is withdrawn from the borehole. Water should flow from the borehole into the surrounding soil at all times to prevent 'piping' and loosening the soil at the base of the hole. The casing is always advanced with the borehole in granular soil so that material is drawn from the base rather than the borehole sides.

Obstructions to boring are overcome by fitting a serrated chiselling ring to the base of the percussion tool. For large obstructions, a heavy chisel with a hardened cutting edge may have to be used.

Disturbed samples are taken in polythene bags, jars or tubs that are sealed against air or water loss.

Undisturbed samples are generally taken in cohesive materials at changes in strata and at one metre intervals to 5 metres then at 1.5 metre intervals to the full depths of the borehole. The general purpose open-tube sampler is suitable for firm to stiff clays, but is often used to retrieve disturbed samples of weak rocks, soft or hard clay and also clayey sand or silts. This has been adopted for routine use, and usually consists of a 100mm internal diameter tube (U100), which is capable of taking soil samples up to 450mm in length. The undisturbed samples are sealed at each end using micro-crystalline wax to prevent drying.

Standard penetration tests are generally carried out in non-cohesive soils but also in stiff clays and soft rocks at frequencies similar to that of undisturbed sampling.

A2.1.3 Drive-in Window Sampler

The drive-in window sampler consists of a series of cylindrical sample tubes, generally varying in diameter from 80mm to 35mm. A cutting shoe is fitted to the bottom of each tube, while a window, representing about a quarter of the circumference, is cut along the length of the tube.

The largest diameter tube is driven into the ground using a small vibrating breaker. The sample tube is extracted by means of a ratchet or hydraulic extraction system.

The borehole is extended by using progressively smaller diameter tubes.

Soil samples are extracted through the window of the tube.

A2.1.4 Dynamic Probing Heavy, DPH

This covers the determination of the resistance of in-situ soil to a 90° cone being driven dynamically, ref 5.3. Dynamic Probing can be used to determine presence of variations in strata, however, since samples are not recovered, it should be carried out in conjunction with sampling.

In principle, the test consists of driving a 90° cone of 15cm² cross-sectional area into the ground using a 50kg drop hammer falling a standard height of 500mm. At regular intervals, in order to minimise friction on the shaft, the rods are turned.

The results are recorded as the number of blows of the hammer to drive the cone 100mm, N_{100} , together with the torque to turn the rods.

As an approximate correlation, the resistance determined by the DPH may be related to the SPT 'N' value as:

$$\text{'N' value} = 2 \times N_{100}$$

A2.2 IN-SITU TESTS

A2.2.1 Standard Penetration Test

The Standard Penetration Test is carried out in accordance with the proposals recommended by BS 1377, Part 9, 1990, ref 5.3.

The standard penetration test, **SPT**, covers the determination of the resistance of soils to the penetration of a split barrel sampler. A 50mm diameter split barrel sampler is driven 450mm into the soil using a 65kg hammer with a 760mm drop. The penetration resistance is expressed as the number of blows required to obtain 300mm penetration below an initial seating drive of 150mm through any disturbed ground at the bottom of the borehole. The number of blows to achieve the standard penetration of 300mm is reported as the 'N' value.

The test is generally carried out in fine soils, however, it may also be carried out in coarse granular soils, weak rocks and glacial tills using the same procedure as for the SPT but with a 50mm diameter, 60° apex solid cone replacing the split spoon sampler, **CPT**.

When attempting the standard penetration test in very dense material or weathered rocks it may be necessary to terminate the test before completion to prevent damage to the equipment. In these circumstances it is important to distinguish how the blow count relates to the penetration of the sampler. This may be achieved in the following manner:

- Where the seating drive has been completed, the test drive is terminated if 50 blows are reached before the full penetration of 300mm is achieved. The penetration for 50 blows is recorded and an approximate N value obtained by linear extrapolation of the number of blows for the partial test drive.
- If the seating drive of 150mm is not achieved within the first 25 blows, the penetration after 25 blows is recorded and the test drive then commenced.
- For tests in soft rocks, the test drive should be terminated after 100 blows where the penetration of 300mm has not been achieved.

The N-value obtained from the Standard Penetration Test may be used to assess the relative density of sands and gravels as follows:

Term	SPT N-Value : Blows/300mm Penetration
Very Loose	0 - 4
Loose	4 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	Over 50

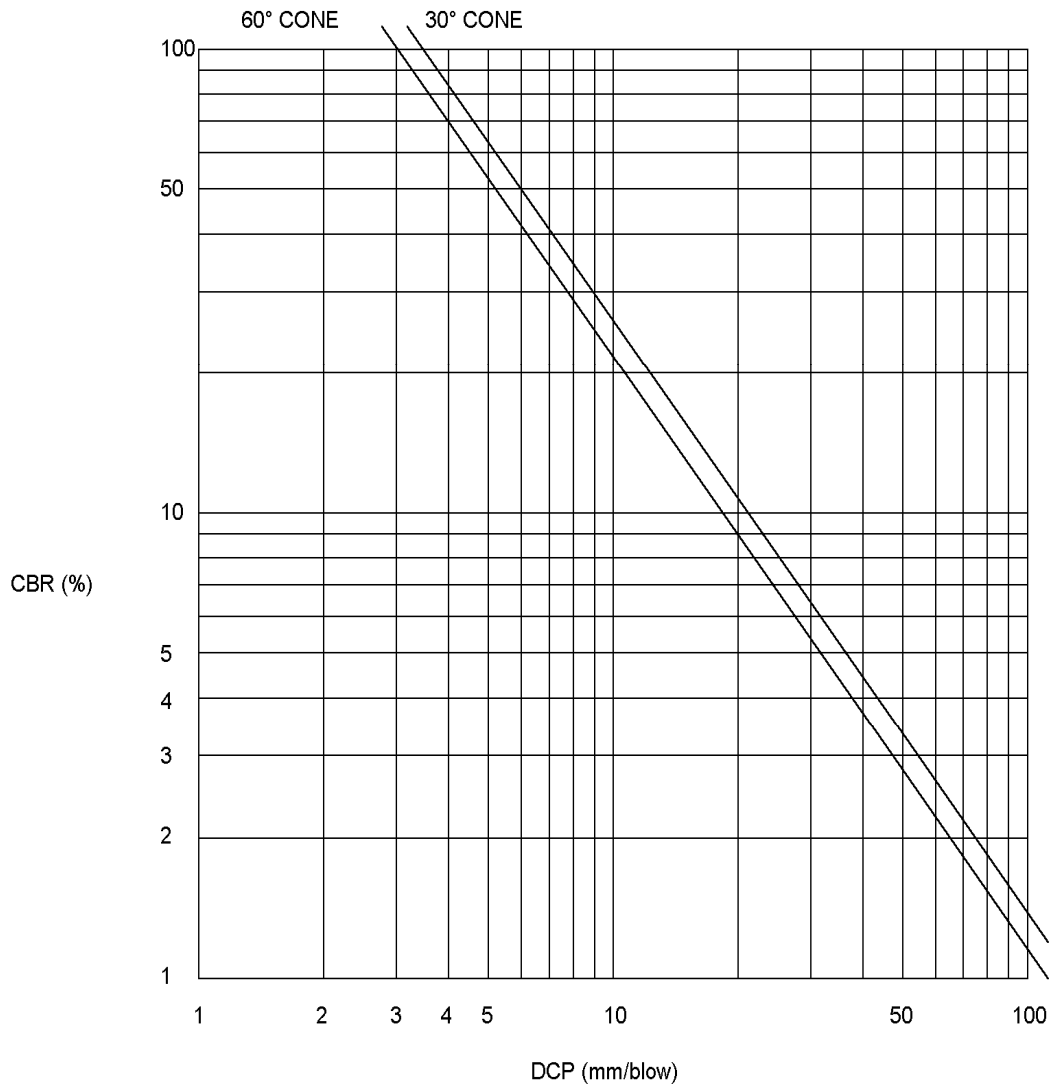
A2.2.2 Dynamic Cone Penetrometer, DCP

The dynamic cone penetrometer consists of a 16mm diameter rod with a 20mm diameter, 60° cone of tempered steel at one end. The impact is provided by means of an 8kg sliding hammer falling 575mm. The total weight of the instrument is about 12kg.

The correlation of DCP to California Bearing Ratio, CBR, has been determined to be as below.

The correlation for DCP to SPT 'N' value has been determined on the basis of equivalent energy imparted per unit area of penetrometer. This provides an approximate correlation of

$$\text{'N' value} = \frac{\text{DCP blows for 300mm}}{0.6}$$



A2.2.3 California Bearing Ratio, CBR

The California Bearing Ratio test is used to evaluate the strength of subgrade by measuring the load required to cause a plunger of standard size (50mm diameter) into the ground at a standard rate (1.00mm/min) and comparing the result with a standard material, ref 5.3.

The test is arbitrary in that the results cannot be accurately related to any of the fundamental properties governing soil strength. However, in that the deformation is predominantly shear, the CBR can be regarded as an indirect measurement of shear strength and modulus of subgrade reaction.

Alternative methods of determining the equivalent CBR by cone penetrometer can be undertaken. The Mexicone consists of a 30° cone of 129mm² cross-section that is pushed into the ground at a steady rate. The load is determined through a compression spring that deflects under load and is calibrated to give a direct reading of CBR on a dial. The instrument is best suited in cohesive or fine granular soil, but in gravelly soil it should not be used.

A2.3 SAMPLES

U(x) represents undisturbed 100mm diameter sample with (x) being the number of blows required to obtain sample.

U fail	indicates undisturbed sample not recovered
HV	represents Hand Vane test with equivalent undrained shear strength
PP	represents Pocket Penetrometer test with equivalent undrained shear strength
CBR	represents California Bearing Ratio test
B	represents large bulk disturbed samples
D	represents small disturbed sample
W	represents water sample
▽	represents water strike
▼	represents level to which water rose

A2.4 DESCRIPTION OF SOILS

A2.4.1 General

The procedures and principles given in Section 6 of BS 5930, ref. 5.2 have been used in the soil descriptions contained within this report.

A2.4.2 Predominantly Coarse Soils

A coarse soil (omitting any boulders or cobbles) contains about 65% or more coarse material and is described as a SAND or GRAVEL depending on which of the constituents predominates. The secondary constituents of coarse soils should precede the main soil type e.g. 'Medium dense brown very gravelly coarse SAND. Gravel is subangular fine and medium of sandstone and mudstone'.

A2.4.3 Deposits containing silt-sized and clay-sized particles

Most soils are mixtures of clay and silt sized particles. Fine soil should be described as either a clay or a silt, depending on the plastic properties. If ambiguous, the term CLAY/SILT should be used.

A2.4.4 Deposits containing mixtures of fine and coarse soil.

The appropriate quantified terms should be used before the principal soil type. It is recommended that the dominant secondary fraction come immediately before the principal soil term. Additional detail can be added in a separate sentence thus, 'Gravelly very clayey SAND. Gravel (10%) is fine of rounded quartz. Clay is firm'.

The terms 'silty' and 'clayey' are mutually exclusive as in a coarse soil and based on the plastic properties of the fine fraction.

Table 1 Deposits containing boulder-size and cobble-size particles

Term	Composition
BOULDERS (or COBBLES) with a little finer material	Up to 5% finer material
BOULDERS (or COBBLES) with some finer material	5 to 20% finer material
BOULDERS (or COBBLES) with much finer material	20 to 50% finer material
FINER MATERIAL with many boulders (or cobbles)	50 to 20% boulders (or cobbles)
FINER MATERIAL with some boulders (or Cobbles)	20 to 5% boulders (or cobbles)
FINER MATERIAL with occasional boulders (or cobbles)	up to 5% boulders (or cobbles)

Term	Principal Soil Type	Approximate proportion of secondary constituent
Slightly sandy or gravelly	SAND	Up to 5%
Sandy or gravelly	or GRAVEL	5 to 20%
Very sandy or gravelly		over 20%
	SAND and GRAVEL	about equal proportions

Table 2 Mixtures of coarse and fine fractions.

Term Before	Principal Term	Proportion of secondary Coarse soil	constituent Coarse and/or fine soil
Slightly clayey or silty and/or sandy gravelly	SAND		< 5
Clayey or silty and/or sandy or gravelly	and/or GRAVEL		5 – 20 %
Very clayey or silty and/or sandy or gravelly			20 %
Very sandy or gravelly	SILT or CLAY	< 65%	
Sandy and/or gravelly		35 – 65 %	
Slightly sandy an/or gravelly		<35 %	

For clays the strength scale is used as follows:

Term	Field Identification	Undrained shear strength (KN/m²)
Very Soft	Exudes between fingers when squeezed in hand	< 20
Soft	Moulded by light finger pressure	20 - 40
Firm	Can be moulded by strong finger pressure	40 - 75
Stiff	Cannot be moulded by finger. Can be indented by thumb.	75 - 150
Very Stiff	Can be indented by thumbnail.	150 - 300
Hard (or very weak mudstone)		> 300

A2.4.5 Man Made Soils

Man made soils (Made Ground or Fill) have been placed by man and can be divided into those composed of natural reworked soils and those composed of man-made materials. Fills are placed in the ground in a controlled manner and soils defined as Made Ground are placed without any engineering control. For example:

‘MADE GROUND comprising plastic bags, window frames, garden refuse and newspapers’.

‘MADE GROUND dense brown sandy GRAVEL with occasional tiles, wire and glass’.

‘Firm yellow brown slightly sandy CLAY with clods (up to 200mm) of firm to stiff orange CLAY (EMBANKMENT FILL)’.

A2.4.6 Organic Soils

Small quantities of dispersed organic matter can have a marked effect on plasticity and hence the engineering properties of the soil. The following quantifying terms are appropriate:

Term	Organic Content	Typical Colour
Slightly organic clay or silt	2 - 5	Grey
Slightly organic sand	1 - 3	As mineral
Organic clay or silt	5 - 10	Dark grey
Organic sand	3 - 5	Dark grey
Very organic clay or silt	>10	Black
Very organic sand	>5	Black

A2.5 GEOLOGICAL LOGGING

A2.5.1 General

The procedures and principles given in Section 6 of BS 5930, ref. 5.2 have been used in the rock descriptions contained within this report.

Open hole drilling (OH) was achieved with a tricone rock bit.

A core run is the length of rock drilled from the base of the hole each time the core barrel is run into the hole.

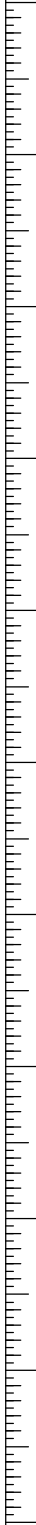

A2.5.2 Fracture State

Various criteria may be used for quantitative description of the Fracture State of rock cores. The standard terms are as follows.

TCR (%)	ratio of core recovered (solid and non intact) to length of core run.
SCR (%)	ratio of solid core recovered to length of core run.
RQD (%)	ratio of solid core pieces longer than 100mm to length of core run.
Fracture Index	a count of the number or spacing of fractures over an arbitrary length of core of similar intensity of fracturing. Commonly reported as either Fracture Index (FI, number of fractures per metre) or as Fracture Spacing (I_f mm).
NR	indicates no core recovery.
NI	indicates intensely fractured rock which is not of sufficient quality to allow an assessment of fracture spacing to be made.

Figure A2.1
Borehole Records

Boring Method Cable Percussion	Casing Diameter 150mm to 10.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 14/04/2008	Engineer W A Fairhurst & Partners	Sheet 2/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
10.00-10.37	D13					(0.87) 10.37 	Complete at 10.37m			

Remarks	Scale (approx) 1:50	Logged By GP
	Figure No. 40349.BH01	



Boring Method Cable Percussion	Casing Diameter 150mm to 12.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 15/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.00-0.50	B1					(0.50)	MADE GROUND: Light brown, slightly silty, very gravelly SAND with occasional cobbles of concrete. Gravel is angular to subangular, fine to coarse including sandstone and concrete.			
0.50-1.20	B2					0.50				
1.20-1.65 1.20-1.65	CPT N=5 B3	1.20	DRY	2,2/1,2,1,1			MADE GROUND: Loose, brown, clayey SAND and angular to subrounded, fine to coarse GRAVEL with occasional cobbles and metal shards. Gravel includes sandstone, ash and brick. Cobbles of sandstone. Below 1.20m: very clayey with occasional pockets of clay.			
2.00-2.45 2.00-2.45	CPT N=10 B4	1.50	DRY	1,1/3,3,2,2		(3.50)				
3.00-3.45 3.00-3.45	CPT N=8 B5	3.00	DRY	4,3/3,2,1,2						
4.00-4.45 4.00-4.45	CPT N=9 B6	4.00	DRY	2,2/3,2,2,2		4.00	MADE GROUND: Soft, brown, sandy, gravelly CLAY. Gravel is angular to subrounded, fine to coarse including brick, ash, sandstone and ceramic. Between 4.00m and 4.45m: slight hydrocarbon odour noted.			
5.00-5.45 5.00-5.45	CPT N=8 B7	4.50	DRY	1,2/2,3,2,1		(3.40)	Below 5.00m: orange/brown.			
6.00-6.45 6.00-6.45	CPT N=9 B8	6.00	DRY	2,1/2,2,3,2						
7.40 7.50-7.95	D9 U10 0.40	7.50	DRY	65 blows		7.40	Grey, mottled orange brown MUDSTONE, recovered as firm, friable, mottled grey/orange brown, sandy, gravelly clay. Gravel is angular, fine to coarse.			
8.00	D11									
9.00-9.45 9.00-9.45 9.00-9.45	SPT N=37 B12 D13	9.00	DRY	3,5/7,9,10,11		(4.74)	Below 9.00m: becoming stiff, mottled blue grey/orange brown.			

Remarks Excavating from 0.00m to 1.20m for 1.00 hour.	Scale (approx)	Logged By
	1:50	GP
	Figure No. 40349.BH02	



Boring Method Cable Percussion	Casing Diameter 150mm to 12.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 15/04/2008	Engineer W A Fairhurst & Partners	Sheet 2/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
10.50-10.95 10.50-10.95 10.50-10.95	SPT 50/295 B14 D15	10.50	DRY	5,7/10,12,14,14		(4.74)	Below 10.50m: very stiff.			
12.00-12.14 12.00-12.14	SPT 25*/70 50/70 D16	12.00	DRY	25/50		12.14	Complete at 12.14m			

Remarks	Scale (approx) 1:50	Logged By GP
	Figure No. 40349.BH02	



Boring Method Cable Percussion	Casing Diameter 150mm to 4.50m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 22/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.30-0.80	B1					(0.05) 0.05	MADE GROUND: Tarmacadam (driller's description).		
						(0.25) 0.30 (0.50)	MADE GROUND: Brown sandstone fill (driller's description).		
0.90	D2					0.80	MADE GROUND: Soft, dark brown, grey, sandy, slightly gravelly CLAY with some rootlets. Gravel is subangular to subrounded, fine to coarse including sandstone and siltstone. Slight organic odour noted.		
1.20-1.65 1.20-1.65 1.20-1.65	SPT N=10 D4 B3	1.20	DRY	1,1/2,2,3,3		(1.50)	Firm, light grey brown, sandy, slightly gravelly CLAY of high plasticity. Gravel is subangular to subrounded, fine to coarse including sandstone and siltstone.		
2.00-2.45	U5 0.30	1.50	DRY	90 blows		2.30			
2.50	D6					(0.70)	Dark blue grey SILTSTONE/MUDSTONE, recovered as slightly clayey, angular to subangular, fine and medium gravel.		
3.00-3.29 3.00-3.29 3.00-3.45	SPT 50/140 D8 B7	3.00	DRY	9,16/24,26		3.00	Orange brown SANDSTONE, recovered as silty sand and subangular to subrounded, fine to coarse gravel.		
4.00-4.34 4.00-4.34 4.00-4.45	SPT 50/185 D10 B9	4.00	DRY	7,12/16,21,13		(2.00)	Below 4.00m: very silty with occasional lenses of clay.		
5.00-5.06 5.00-5.06	CPT 25*/30 50/25 D11	4.50	DRY	25/50		5.00	At 5.00m: recovered as grey brown, angular to subangular, tabular, fine to coarse gravel.		
							Complete at 5.00m		

Remarks Chiselling from 4.70m to 5.00m for 1.00 hour. Excavating from 0.00m to 1.20m for 1.00 hour.	Scale (approx)	Logged By
	1:50	GP
	Figure No. 40349.BH03	



Boring Method Cable Percussion	Casing Diameter 150mm to 12.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 15/04/2008-16/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.10-1.20	B1						Grass over MADE GROUND: Loose, dark brown, very clayey SAND and angular to subrounded, fine to coarse GRAVEL with occasional pockets of clay. Gravel includes sandstone, siltstone and ash.			
1.20-1.65 1.20-1.65	CPT N=11 B2	1.20	DRY	3,3/4,2,3,2			At 1.20m: medium dense.			
2.00-2.45 2.00-2.45	CPT N=6 B3	1.50	DRY	1,2/1,2,2,1			Below 2.00m: silty.			
3.00-3.45 3.00-3.45	CPT N=6 B4	3.00	DRY	1,1/2,1,1,2						
4.00-4.45 4.00-4.45	CPT N=5 B5	4.00	DRY	1,2/1,1,1,2		(7.40)				
5.00-5.45 5.00-5.45	CPT N=6 B6	4.50	DRY	1,3/2,1,1,2			Below 5.00m: becoming very gravelly sand.			
6.00-6.45 6.00-6.45	CPT N=5 B7	6.00	DRY	2,1/1,2,1,1						
7.40 7.50-7.95	D8 U9 0.40	7.50	DRY	50 blows		7.40	Dark blue grey, mottled orange brown MUDSTONE, recovered as friable, orange brown, sandy, gravelly clay. Gravel is angular to subangular, fine and coarse.			
8.00	D10					(1.60)				
9.00-9.45 9.00-9.45 9.00-9.45	SPT N=30 D12 B11	9.00	DRY	3,5/6,7,8,9		9.00 (1.50)	Orange brown SILTSTONE/SANDSTONE, recovered as stiff, slightly friable, sandy, slightly gravelly clay. Gravel is subangular to subrounded, fine and medium.			

Remarks Excavating from 0.00m to 1.20m for 1.00 hour.	Scale (approx)	Logged By
	1:50	GP
	Figure No. 40349.BH04	



Boring Method Cable Percussion	Casing Diameter 150mm to 7.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 21/04/2008- 22/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.05-0.50	B1					(0.05) 0.05 (0.45)	MADE GROUND: Tarmacadam (driller's description).			
0.50-1.20	B2					0.50	MADE GROUND: Orange brown SAND and subangular to subrounded, fine to coarse GRAVEL. Gravel of sandstone.			
1.20-1.65 1.20-1.65	CPT N=14 B3	1.20	DRY	1,2/4,4,3,3			MADE GROUND: Medium dense, dark brown, clayey, very gravelly SAND with occasional pockets of clay. Gravel is angular to subrounded, fine to coarse including brick, sandstone and siltstone.			
2.00-2.45 2.00-2.45	CPT N=9 B4	2.00	DRY	1,2/2,3,2,2		(2.70)	At 1.20m: with occasional cobbles of brick. Below 2.00m: loose, very silty gravel with fabrics. Gravel includes ash, ceramic and glass.			
3.00-3.45 3.00-3.45	CPT N=12 B5	3.00	DRY	1,1/2,3,3,4		3.20	Firm, mottled orange brown, sandy, slightly gravelly CLAY with occasional rootlets. Gravel is subangular to subrounded, fine and medium including sandstone, siltstone and coal.			
3.50	D6					(1.00)				
4.00-4.45	U7 0.45	4.00	DRY	120 blows		4.20				
4.50	D8						Orange brown SANDSTONE/SILTSTONE, recovered as slightly silty sand and angular to subangular, fine to coarse gravel.			
5.00-5.35 5.00-5.35 5.00-5.45	SPT 50/200 D10 B9	4.50	DRY	5,9/14,20,16		(2.85)				
6.00-6.36 6.00-6.36 6.00-6.45	SPT 50/210 D12 B11	6.00	DRY	7,12/15,19,16						
7.00-7.05 7.00-7.05	CPT 25*/25 50/20 D13	7.00	DRY	25/50		7.05	At 7.00m: grey brown. Complete at 7.05m			

Remarks Chiselling from 6.70m to 7.00m for 1.00 hour. Excavating from 0.00m to 1.20m for 1.00 hour.	Scale (approx)	Logged By
	1:50	GP
	Figure No. 40349.BH05	



Boring Method Cable Percussion	Casing Diameter 150mm to 1.50m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 22/04/2008- 23/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.10-0.70	B1					0.10 0.10	MADE GROUND: Tarmacadam (driller's description).		
0.70-1.20	B2					0.70	MADE GROUND: Light brown SAND and angular to subrounded, fine to coarse GRAVEL. Gravel includes sandstone, siltstone and limestone.		
1.20-1.56 1.20-1.56 1.20-1.65	SPT 50/210 D4 B3	1.20	DRY	5,10/15,20,15		(1.35)	Brown SANDSTONE/SILTSTONE recovered as clayey, sandy, angular to subangular, fine to coarse gravel.		
2.00-2.05 2.00-2.05	CPT 25*/20 50/30 D5	1.50	DRY	25/50		2.05	At 2.00m: recovered as dark brown, slightly sandy, angular to subangular, fine to coarse gravel.		
							Complete at 2.05m		

Remarks Chiselling from 1.60m to 2.00m for 1.00 hour. Excavating from 0.00m to 1.20m for 1.00 hour.	Scale (approx)	Logged By
	1:50	GP
	Figure No. 40349.BH06	



Boring Method Cable Percussion	Casing Diameter 150mm to 12.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 17/04/2008- 18/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.10-1.20	B1						Grass over MADE GROUND: Medium dense, brown, slightly clayey, gravelly SAND. Gravel is angular to subrounded, fine to coarse including sandstone, concrete, brick, glass, ceramic and ash. Occasional plastic, wood, paper, wire and brick fragments.		
1.20-1.65 1.20-1.65	CPT N=11 B2	1.20	DRY	2,3/2,4,3,2					
2.00-2.45 2.00-2.45	CPT N=7 B3	1.50	DRY	1,2/2,1,2,2			Below 2.00m: loose.		
3.00-3.45 3.00-3.45	CPT N=6 B4	3.00	DRY	1,1/2,1,1,2					
4.00-4.45 4.00-4.45	CPT N=6 B5	4.00	DRY	1,1/1,1,2,2		(9.00)			
5.00-5.45 5.00-5.45	CPT N=12 B6	4.50	DRY	2,2/3,3,3,3			At 5.00m: medium dense.		
6.00-6.45 6.00-6.45	CPT N=9 B7	6.00	DRY	1,2/2,3,2,2					
7.50-7.95 7.50-7.95	CPT N=5 B8	7.50	DRY	1,1/1,2,1,1					
9.00-9.45 9.00 9.00-9.45 9.00-9.45	SPT N=30 D9 D11 B10	9.00	DRY	3,5/6,7,7,10		9.00	Orange brown SANDSTONE, recovered as very stiff, friable, very sandy, slightly gravelly clay. Gravel is angular to subrounded, fine to coarse.		

Remarks Excavating from 0.00m to 1.20m for 1.00 hour.	Scale (approx)	Logged By
	1:50	JT
	Figure No. 40349.BH07	



Boring Method Cable Percussion	Casing Diameter 150mm to 12.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 17/04/2008- 18/04/2008	Engineer W A Fairhurst & Partners	Sheet 2/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.50-10.78 10.50-10.78 10.50-10.95	SPT 50/125 D13 B12	10.50	DRY	9,15/23,27		(3.00)			
12.00-12.09 12.00	SPT 25*/50 50/40 D14	12.00	DRY	25/50		12.00	Complete at 12.00m		

Remarks	Scale (approx) 1:50	Logged By JT
	Figure No. 40349.BH07	



Boring Method Cable Percussion	Casing Diameter 150mm to 1.50m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 23/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.30	D1					(0.20)	MADE GROUND: Reinforced concrete (driller's description).		
0.50-1.20	B2					0.20 (0.30) 0.50	MADE GROUND: Yellow brown, angular to subangular, fine to coarse GRAVEL including sandstone.		
1.20-1.49 1.20-1.49 1.20-1.65	SPT 50/135 D4 B3	1.20	DRY	4,10/25,25		(1.50)	Yellow brown SANDSTONE, recovered as slightly clayey sand and angular to subrounded, fine to coarse gravel.		
2.00-2.04 2.00-2.04	CPT 25*/15 50/20 D5	1.50	DRY	25/50		2.00	At 2.00m: slightly sandy gravel		
							Complete at 2.00m		

Remarks Chiselling from 1.70m to 2.00m for 1.00 hour. Excavating from 0.00m to 1.20m for 1.00 hour.	Scale (approx)	Logged By
	1:50	JT
	Figure No. 40349.BH08	



Boring Method Cable Percussion	Casing Diameter 150mm to 10.50m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 17/04/2008	Engineer W A Fairhurst & Partners	Sheet 2/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
10.50-10.55 10.50	CPT 25*/25 50/20 D12	10.50	DRY	25/50		(1.50) 10.50	Complete at 10.50m			

Remarks Chiselling from 10.20m to 10.50m for 1.00 hour.	Scale (approx) 1:50	Logged By JT
	Figure No. 40349.BH09	



Boring Method Cable Percussion	Casing Diameter 150mm to 1.50m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 23/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20-0.60	B1					(0.10) 0.10	MADE GROUND: Tarmacadam (driller's description).		
						(0.10) 0.20	MADE GROUND: Roadstone fill (driller's description).		
0.60-1.20	B2					(0.40) 0.60	MADE GROUND: Grey brown, fine to coarse SAND and angular to subrounded, fine to coarse GRAVEL. Gravel includes sandstone.		
1.20-1.63 1.20-1.65 1.20-1.65	SPT 50/275 D4 B3	1.20	DRY	5,7/8,12,18,12		(1.40)	Yellow brown SANDSTONE, recovered as fine to coarse sand and angular to subrounded, fine to coarse gravel.		
2.00-2.05 2.00	CPT 25*/25 50/25 D5	1.50	DRY	25/50		2.00	At 2.00m: slightly sandy.		
							Complete at 2.00m		

Remarks Chiselling from 1.70m to 2.00m for 1.00 hour. Excavating from 0.00m to 1.20m for 1.00 hour.	Scale (approx)	Logged By
	1:50	JT
	Figure No. 40349.BH10	

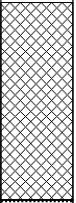
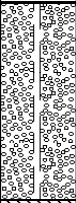
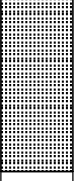





Boring Method Cable Percussion	Casing Diameter 150mm to 12.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 21/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.05-0.50	B1					(0.05) 0.05 (0.45)	MADE GROUND: Tarmacadam (driller's description).			
0.50-1.20	B2					0.50	MADE GROUND: Orange brown SAND and subangular to subrounded, fine to coarse GRAVEL. Gravel includes sandstone.			
1.20-1.65 1.20-1.65	CPT N=8 B3	1.20	DRY	1,1/1,2,1,4			MADE GROUND: Loose, dark brown, very clayey SAND and angular to subrounded, fine to coarse GRAVEL with occasional plastic shards/bottles, pockets of clay, newspaper, metal shards, polystyrene and fragments of synthetic fibres. Gravel includes sandstone, glass, ceramics and ash.			
2.00-2.45 2.00-2.45	CPT N=8 B4	1.50	DRY	1,1/2,2,1,3						
3.00-3.45 3.00-3.45	CPT N=6 B5	3.00	DRY	1,2/1,1,2,2						
4.00-4.45 4.00-4.45	CPT N=5 B6	4.00	DRY	1,1/1,1,2,1						
5.00-5.45 5.00-5.45	CPT N=5 B7	4.50	DRY	1,0/1,1,1,2						
6.00-6.45 6.00-6.45	CPT N=5 B8	6.00	DRY	1,2/1,1,1,2		(10.80)				
7.50-7.95 7.50-7.95	CPT N=7 B9	7.50	DRY	1,2/2,1,3,1						
9.00-9.45 9.00-9.45	CPT N=6 B10	9.00	DRY	1,1/1,2,1,2						

Remarks Excavating from 0.00m to 1.20m for 1.00 hour.	Scale (approx)	Logged By
	1:50	GP
	Figure No. 40349.BH11	

Boring Method Cable Percussion	Casing Diameter 150mm to 12.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 21/04/2008	Engineer W A Fairhurst & Partners	Sheet 2/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
10.50-10.95 10.50-10.95	CPT N=6 B11	10.50	DRY	1,2/1,1,2,2		(10.80)				
11.30	D12					11.30	Orange brown SANDSTONE, recovered as sandy, angular to subangular, fine to coarse gravel.			
12.00-12.44 12.00-12.45	SPT 50/285 D13	12.00	DRY	5,8/11,13,15,11		(1.14) 12.44	Below 12.00m: light grey/cream, slightly sandy.			
							Complete at 12.44m			

Remarks	Scale (approx) 1:50	Logged By GP
	Figure No. 40349.BH11	



Boring Method Cable Percussion	Casing Diameter 150mm to 10.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 18/04/2008- 21/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.40-1.20	B1					(0.05) 0.05 (0.35) 0.40	MADE GROUND: Tarmacadam (driller's description). MADE GROUND: Brown sandstone fill (driller's description). MADE GROUND: Loose, dark brown, clayey SAND and angular to subrounded, fine to coarse GRAVEL with some plastic bags, occasional pockets of clay and occasional paper and fabric fragments. Gravel includes ceramic, glass, brick, ash, sandstone and siltstone.			
1.20-1.65 1.20-1.65	CPT N=6 B2	1.20	DRY	1,1/1,2,1,2						
2.00-2.45 2.00-2.45	CPT N=6 B3	1.50	DRY	1,0/1,1,2,2						
3.00-3.45 3.00-3.45	CPT N=5 B4	3.00	DRY	1,2/2,1,1,1						
4.00-4.45 4.00-4.45	CPT N=5 B5	4.00	DRY	1,1/2,1,1,1		(7.80)				
5.00-5.45 5.00-5.45	CPT N=6 B6	5.00	DRY	2,1/1,2,1,2						
6.00-6.45 6.00-6.45	CPT N=7 B7	6.00	DRY	1,2/3,2,1,1			Below 6.00m: red brown.			
7.50-7.95 7.50-7.95	CPT N=10 B8	7.50	DRY	1,1/2,4,2,2			Below 7.00m: occasional cobbles and occasional fragments of slag and ash.			
8.20	D9					8.20	Orange brown SANDSTONE, recovered as sandy, angular to subangular, fine to coarse gravel.			
9.00-9.29 9.00-9.29 9.00-9.45	SPT 50/140 D11 B10	9.00	DRY	8,15/24,26		(1.80)	At 9.00m: very sandy gravel.			
10.00-10.06	50/30 CPT 25*/25	10.00	DRY	25/50		10.00	At 10.00m: gravel.			

Remarks Chiselling from 9.60m to 10.00m for 1.00 hour. Excavating from 0.00m to 1.20m for 1.00 hour.	Scale (approx)	Logged By
	1:50	GP
	Figure No. 40349.BH12	



**IAN FARMER
ASSOCIATES**

Site
New Mill Road, Holmfirth

**Borehole
Number**
BH12

Boring Method Cable Percussion	Casing Diameter 150mm to 10.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 18/04/2008- 21/04/2008	Engineer W A Fairhurst & Partners	Sheet 2/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
10.00	D12									

Remarks	Scale (approx) 1:50	Logged By GP
	Figure No. 40349.BH12	



Boring Method Cable Percussion	Casing Diameter 150mm to 12.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 16/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.10-1.20	B1						Grass over MADE GROUND: Medium dense, dark brown, slightly silty, gravelly, fine to coarse SAND. Gravel is subangular to rounded, fine to coarse including ash, brick, glass, ceramic. Occasional plastic, cloth and wood fragments.		
1.20-1.65 1.20-1.65	CPT N=12 B2	1.20	DRY	2,2/3,4,3,2					
2.00-2.45 2.00-2.45	CPT N=8 B3	1.50	DRY	2,3/3,2,1,2			Between 2.00m and 4.00m: loose, with occasional pockets of soft clay.		
3.00-3.45 3.00-3.45	CPT N=9 B4	3.00	DRY	1,1/3,2,2,2					
4.00-4.45 4.00-4.45	CPT N=12 B5	4.00	DRY	1,1/1,2,7,2		(9.30)			
5.00-5.45 5.00-5.45	CPT N=6 B6	4.50	DRY	1,2/1,1,2,2			At 5.00m: loose.		
6.00-6.45 6.00-6.45	CPT N=10 B7	6.00	DRY	1,1/2,2,3,3					
7.50-7.95 7.50-7.95	CPT N=11 B8	7.50	DRY	1,2/2,2,3,4			Below 7.50m: medium dense.		
9.00-9.45 9.00-9.45	CPT N=10 B9	9.00	DRY	1,2/2,2,3,3			At 9.00m: with some pockets of soft, grey clay.		
9.50	D10					9.30 (1.10)	Firm, grey CLAY with some partially decayed plant material.		

Remarks Excavating from 0.00m to 1.20m for 1.00 hour.	Scale (approx)	Logged By
	1:50	JT
	Figure No. 40349.BH13	



Boring Method Cable Percussion	Casing Diameter 150mm to 12.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 16/04/2008	Engineer W A Fairhurst & Partners	Sheet 2/2













Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.40 10.50-10.95	D11 U12 0.30	10.50	DRY	120 blows		(1.10) 10.40	Weak MUDSTONE, recovered as dark grey, slightly sandy, slightly clayey gravel. Gravel is angular to subangular, fine to coarse.		
11.00	D13					(1.60)	At 10.40m: orange, mottled grey, slightly gravelly. Gravel is angular to subrounded, fine to coarse including mudstone.		
12.00-12.12 12.00	SPT 25*/60 50/55 D14	12.00	DRY	25/50		12.00	Complete at 12.00m		

Remarks	Scale (approx) 1:50	Logged By JT
	Figure No. 40349.BH13	

Figure A2.2

Window Sample Hole Records

Excavation Method Drive-in Window Sampler	Dimensions	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 25/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.10					0.10	MADE GROUND: Concrete.			
0.50	J2								
0.50	V3								
0.50	D1								
1.00-1.45	SPT N=15	DRY	2,3/3,4,3,5		(1.50)	MADE GROUND: Medium dense, brown SAND and angular to subrounded, fine to coarse GRAVEL with occasional boulders. Gravel includes brick, sandstone and concrete.			
1.00-1.45	D4								
1.30	D5								
1.30	J6								
1.30	V7								
1.70	V10				1.60	Below 1.00m: gravel predominately of ash.			
1.70	D8								
1.70	J9								
2.00-2.45	SPT N=9	DRY	2,3/3,2,2,2			Below 1.50m: orange brown. Gravel is predominately of sandstone and ash.			
2.00-2.45	D11								
2.70	J13								
2.70	V14								
2.70	D12								
3.00-3.45	SPT N=11	DRY	1,1/3,2,3,3		(2.90)	Firm, brown, sandy, slightly gravelly CLAY. Gravel is subangular to subrounded, fine and medium including sandstone, siltstone and coal.			
3.00-3.45	D15								
3.30	D16								
3.30	J17								
3.30	V18								
3.70	D19								
3.70	J20								
3.70	V21								
4.00-4.45	SPT N=13	DRY	1,2/2,3,2,6						
4.00-4.45	D22								
					4.50	At 4.50m: driller notes obstruction.			
						Complete at 4.50m			

Remarks Excavating from 0.00m to 1.00m for 1.00 hour.	Scale (approx)	Logged By
	1:50	GP
	Figure No. 40349.WS01	



Excavation Method Drive-in Window Sampler	Dimensions	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 25/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.10)	MADE GROUND: Tarmacadam.		
					0.10			
					(0.20)	MADE GROUND: Orange brown SAND and subangular to subrounded, fine to coarse GRAVEL. Gravel of sandstone.		
					0.30			
0.50	J2							
0.50	V3							
0.50	D1							
1.00-1.45	SPT N=10	DRY	1,2/3,2,3,2			MADE GROUND: Loose, dark brown SAND and angular to subrounded, fine to coarse GRAVEL. Gravel includes sandstone, concrete and ash. Slight hydrocarbon odour noted.		
1.00-1.45	D4				(1.90)	Below 1.10m: sand and gravel is predominately of ash.		
1.50	D5							
1.50	J6							
1.50	V7							
2.00-2.45	SPT N=6	DRY	1,1/1,2,1,2					
2.00-2.45	D8				2.20			
2.30	V11				(0.30)	MADE GROUND: Firm, dark grey, slightly sandy, slightly gravelly CLAY. Gravel is subangular to subrounded, fine and medium including sandstone, siltstone and ash. Slight hydrocarbon odour noted.		
2.30	J10				2.50			
2.70	J13				(0.50)			
2.70	V14							
2.70	D12				3.00	Firm, mottled orange grey, slightly sandy, slightly gravelly CLAY with occasional rootlets. Gravel is subangular to subrounded, fine and medium including sandstone, siltstone, mudstone and quartz. (Possible weathered mudstone).		
3.00-3.45	SPT N=4	DRY	1,1/0,1,1,2					
3.00-3.45	D15							
3.50	D16							
3.50	J17							
3.50	V18							
4.00-4.45	SPT N=22	DRY	1,3/4,5,6,7					
4.00-4.45	D19				(2.45)	Grey MUDSTONE, recovered as stiff, grey, friable, sandy, gravelly CLAY. Gravel is angular to subangular, fine and medium.		
4.50	D20							
4.50	J21							
4.50	V22							
5.00-5.45	SPT N=46	DRY	4,11/11,11,12,12			At 5.00m: very stiff.		
5.00-5.45	D23				5.45			
						Complete at 5.45m		

Remarks Excavating from 0.00m to 1.00m for 1.00 hour.	Scale (approx)	Logged By
	1:50	GP
	Figure No. 40349.WS02	



Excavation Method Drive-in Window Sampler	Dimensions	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 29/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.50	V3				(0.20)	MADE GROUND: Concrete.	[Cross-hatch pattern]		[Dotted pattern]
0.50	J2				0.20				[Diagonal lines]
0.50	D1				(0.20)	MADE GROUND: Orange brown SAND and subangular to subrounded, fine to coarse GRAVEL. Gravel of sandstone.	[Cross-hatch pattern]		[Diagonal lines]
1.00-1.45	SPT N=10	DRY	2,2/2,2,3,3		0.40				[Diagonal lines]
1.00-1.45	D6								[Dotted pattern]
1.20	V5					MADE GROUND: Loose, dark brown, clayey SAND and angular to subrounded, fine to coarse GRAVEL. Gravel includes sandstone, ash, brick and concrete. Below 1.10m: gravel is predominately of ash.	[Cross-hatch pattern]		[Dotted pattern]
1.20	J4								[Diagonal lines]
2.00-2.45	SPT N=7	DRY	2,1/2,1,2,2		(3.60)	At 1.60m: occasional cobbles of sandstone. Below 1.70m: gravel is predominately of sandstone.	[Cross-hatch pattern]		[Dotted pattern]
2.00-2.45	D7								[Diagonal lines]
2.50	V9								[Dotted pattern]
2.50	J8								[Diagonal lines]
3.00-3.45	SPT N=10	DRY	3,4/4,2,2,2						[Dotted pattern]
3.00-3.45	D10								[Diagonal lines]
3.50	V13								[Dotted pattern]
3.50	J12								[Diagonal lines]
3.50	D11				4.00	At 4.00m: driller notes obstruction.			[Dotted pattern]
						Complete at 4.00m			

Remarks Window sample hole collapsed at 2.20m. Excavating from 0.00m to 1.00m for 1.00 hour.	Scale (approx)	Logged By
	1:50	GP
	Figure No. 40349.WS03	



Excavation Method Drive-in Window Sampler	Dimensions	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 24/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
					(0.10) 0.10	MADE GROUND: Concrete.			
0.50 0.50 0.50	J2 V3 D1					MADE GROUND: Loose, dark brown, slightly silty SAND and angular to subangular, fine to coarse GRAVEL. Gravel includes concrete brick and ceramic.			
1.00-1.45 1.00-1.45 1.20 1.20 1.20	SPT N=7 D4 D5 J6 V7	DRY	1,2/2,1,2,2		(2.20)	Below 1.10m: clayey.			
1.70 1.70 1.70 2.00-2.45 2.00-2.45	D8 J9 V10 SPT N=8 D11	DRY	1,2/2,3,2,1		2.30				
2.50 2.50 2.50	J13 V14 D12				(0.40) 2.70	MADE GROUND: Soft, friable, dark brown, sandy, gravelly CLAY. Gravel is angular to subrounded, fine to coarse including brick, ash and siltstone.			
3.00-3.45 3.00-3.45	SPT N=7 D15	DRY	2,3/2,2,1,2		(1.10)	Soft, brown, slightly sandy, slightly gravelly CLAY of intermediate plasticity. Gravel is subangular to subrounded, fine and medium including sandstone and siltstone (possible made ground).			
3.50 3.50 3.50	D16 J17 V18				3.80 (0.20) 4.00				
4.00-4.45 4.00-4.45	SPT N=14 D19	DRY	1,2/3,3,4,4		(1.00)	Firm, grey, occasionally mottled orange, brown, slightly sandy, slightly gravelly CLAY. Gravel is subangular to subrounded, fine and medium including sandstone, siltstone and quartz. Slight organic odour noted.			
4.50 4.50 4.50	D20 J21 V22				5.00	Blue grey, mottled orange brown MUDSTONE, recovered as stiff, friable, sandy, gravelly CLAY. Gravel is angular to subangular, fine and medium.			
5.00-5.45 5.00-5.45	SPT N=21 D23	DRY	2,3/4,5,6,6			Complete at 5.00m			

Remarks Excavating from 0.00m to 1.00m for 1.00 hour.	Scale (approx)	Logged By
	1:50	GP
	Figure No. 40349.WS04	



Excavation Method Drive-in Window Sampler	Dimensions	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 24/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.50 0.50 0.50	J2 V3 D1				(0.10) 0.10	MADE GROUND: Concrete.		
1.00-1.45 1.00 1.00 1.00 1.00-1.45 1.50 1.50 1.50	SPT N=5 D4 J6 V7 D5 V10 D8 J9	DRY	1,1/2,1,1,1		(3.40)	MADE GROUND: Loose, dark brown SAND and angular to subrounded, fine to coarse GRAVEL. Gravel includes ash, concrete and sandstone. Sand is predominately of ash.		
2.00-2.45 2.00-2.45	SPT N=4 D11	DRY	1,1/1,1,1,1			Below 3.00m: medium dense.		
2.50 2.50 2.50	D12 J13 V14				3.50	Soft, grey, sandy, slightly gravelly CLAY of high plasticity. Gravel is subangular to subrounded, fine to coarse including sandstone, siltstone and coal.		
3.00-3.45 3.00-3.45 3.20	SPT N=13 D15 J16	DRY	1,1/2,3,4,4		(0.95)	Below 3.70m: firm, mottled orange brown grey.		
3.80 3.80 3.80 4.00-4.45 4.00-4.45	D17 J18 V19 SPT N=39 D20	DRY	6,8/9,9,10,11		4.45	Below 4.00m: window sample hole collapsed.		
						Complete at 4.45m		

Remarks Excavating from 0.00m to 1.00m for 1.00 hour.	Scale (approx)	Logged By
	1:50	GP
	Figure No. 40349.WS05	



Excavation Method Drive-in Window Sampler	Dimensions	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 25/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.00-1.45	SPT N=6 D1	DRY	1,1/2,1,1,2		(0.20)	MADE GROUND: Concrete.		
1.00-1.45					0.20	MADE GROUND: Orange brown SAND and subangular to subrounded, fine to coarse GRAVEL of sandstone.		
1.50	D2				(0.20)			
1.50	J3				0.40			
1.50	V4				(0.80)	MADE GROUND: Dark brown, clayey SAND and angular to subrounded, fine to coarse GRAVEL. Gravel includes brick, sandstone, ash and concrete.		
2.00-2.45	SPT N=6 D5	DRY	1,1/1,1,2,2		1.20	Soft, orange/dark brown, sandy, slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse including sandstone and siltstone (possible made ground).		
2.00-2.45					(0.60)			
2.50	D6				1.80	Soft, friable, dark grey, sandy, gravelly CLAY. Gravel is angular to subangular, fine to coarse of mudstone (possible made ground).		
2.50	J7				(1.70)			
2.50	V8							
3.00-3.45	SPT N=10 D9	DRY	1,1/2,2,3,3		3.50	Firm, orange brown, slightly sandy, slightly gravelly CLAY. Gravel is subangular to subrounded, fine and medium including sandstone and quartz.		
3.00-3.45					(1.10)			
3.50	V11				4.60	Between 3.50m and 3.60m: light grey with slight organic odour noted. Below 4.20m: stiff, sandy.		
3.50	J10				4.60			
3.50	J12				(0.40)	Grey MUDSTONE, recovered as stiff, friable, sandy, slightly gravelly CLAY. Gravel is angular to subangular, fine and medium.		
3.70	D13				5.00			
3.90	V14							
4.00-4.45	SPT N=22 D15	DRY	2,3/4,5,6,7					
4.00-4.45								
4.40	J16							
4.40	V17							
4.80	D18							
5.00-5.45	SPT N=30 D19	DRY	2,4/5,7,8,10			Complete at 5.00m		
5.00-5.45								

Remarks Excavating from 0.00m to 1.00m for 1.00 hour.	Scale (approx)	Logged By
	1:50	GP
	Figure No. 40349.WS06	



Excavation Method Drive-in Window Sampler	Dimensions	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 29/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.50	V3				(0.20)	MADE GROUND: Concrete.	[Cross-hatch pattern]		[Dotted pattern]
0.50	J2				0.20	MADE GROUND: Brick obstruction/wall.	[Cross-hatch pattern]		[Diagonal lines]
0.50	D1				0.40	MADE GROUND: Dark brown, slightly clayey SAND and angular to subrounded, fine to coarse GRAVEL. Gravel includes ash, brick and sandstone.	[Cross-hatch pattern]		[Diagonal lines]
1.00-1.45	SPT N=9	DRY	1,2/2,3,2,2		1.10	MADE GROUND: Very soft, grey brown, sandy, slightly gravelly CLAY. Gravel is angular to subrounded, fine to coarse including brick, ash and sandstone.	[Cross-hatch pattern]		[Diagonal lines]
1.00-1.45	D4								
1.50	V7								
1.50	J6								
1.50	D5								
2.00-2.45	SPT N=8	DRY	1,0/1,2,3,2		(2.50)	Below 2.50m: slight hydrocarbon odour noted.	[Cross-hatch pattern]		[Diagonal lines]
2.00-2.45	D8								
2.50	V10								
2.50	J9								
2.60	D11								
3.00-3.45	SPT N=23	DRY	2,2/1,2,2,18						
3.00-3.45	D12								
3.40	V14				3.60	At 3.50m: fragments of cast iron pipe. At 3.60m: driller notes obstruction.	[Cross-hatch pattern]		[Diagonal lines]
3.40	J13					Complete at 3.60m			

Remarks Excavating from 0.00m to 1.00m for 1.00 hour.	Scale (approx)	Logged By
	1:50	GP
	Figure No. 40349.WS07	



Excavation Method Drive-in Window Sampler	Dimensions	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 24/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.30 0.30 0.50 0.50 0.50	V2 J1 D3 J4 V5				0.10 0.10	MADE GROUND: Tarmacadam.			
1.00-1.45 1.00-1.45	SPT N=6 D6	DRY	1,1/2,2,1,1		(1.70)	MADE GROUND: Loose, cream/grey SAND and subangular to subrounded, fine to coarse GRAVEL of limestone. Below 0.40m: orange brown, silty.			
1.60 1.60	J7 V8				1.80				
2.00-2.45 2.00-2.45	SPT N=7 D9	DRY	1,1/1,1,2,3		(3.70)	MADE GROUND: Soft, dark brown, sandy, gravelly CLAY. Gravel is subangular to subrounded, fine to coarse including sandstone, brick and ash.			
2.70 2.70 3.00-3.45 3.00-3.45	V11 J10 SPT N=8 D12	DRY	2,1/3,2,1,2						
4.00-4.45 4.00-4.45	SPT N=7 D13	DRY	1,2/2,2,1,2			Below 4.00m: light brown, slightly gravelly.			
5.00-5.45 5.00-5.45 5.00-6.00	SPT N=9 D14 J15	DRY	1,2/2,3,2,2		5.50	Dark grey, silty SAND. Strong hydrocarbon odour noted.			
6.70 6.70 6.70 6.80	D16 J17 V18 D19				(0.50) 7.00	Soft, mottled orange brown, slightly sandy, slightly gravelly CLAY of low plasticity with occasional rootlets. Gravel is subangular to subrounded, fine and medium including sandstone and siltstone. Slight hydrocarbon odour noted. Between 6.60m and 6.70m: band of subangular to subrounded, fine and medium gravel. Below 6.70m: firm, friable, dark grey with some plant material.			
						Complete at 7.00m			

Remarks Excavating from 0.00m to 1.00m for 1.00 hour.	Scale (approx)	Logged By
	1:50	GP
	Figure No. 40349.WS08	



Excavation Method Drive-in Window Sampler	Dimensions	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 25/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
					(0.10) 0.10	MADE GROUND: Concrete.			
0.50 0.50 0.50	J2 V3 D1				(1.40)	MADE GROUND: Loose, dark brown, slightly silty SAND and angular to subrounded, fine to coarse GRAVEL. Gravel includes concrete, brick, ash and sandstone. Below 1.00m: gravelly sand.			
1.00-1.45 1.00 1.00 1.00 1.00-1.45	SPT N=5 D4 J6 V7 D5	DRY	1,1/2,1,1,1		1.50	MADE GROUND: Soft, friable, brown, sandy, slightly gravelly CLAY. Gravel is angular to subangular, fine to coarse including mudstone and siltstone.			
1.70 1.70 1.70 2.00-2.45 2.00-2.45	V10 D8 J9 SPT N=9 D11	DRY	1,1/2,2,2,3		(1.50)	Below 1.80m: gravelly. Below 2.50m: orange brown with occasional pockets of dark brown/black silt. Slight organic odour noted.			
2.70 2.70 3.00-3.45 3.00-3.45	V13 J12 SPT N=6 D14	DRY	1,1/1,1,2,2		3.00	MADE GROUND: Loose, dark brown SAND and subangular to subrounded, fine to coarse GRAVEL. Gravel includes ash and sandstone.			
3.50 3.50	J15 V16				(1.00)				
4.00-4.45 4.00-4.45	SPT N=7 D17	DRY	1,1/2,2,1,2		4.00	Firm, grey, sandy, slightly gravelly CLAY of high plasticity. Gravel is subangular to subrounded, fine and medium including sandstone and siltstone.			
4.40	D18				4.50				
4.70 4.70 5.00-5.45 5.00-5.45	J19 V20 SPT N=25 D21	DRY	1,2/4,5,7,9		(0.50) 5.00	Firm, mottled orange brown grey, sandy, slightly gravelly CLAY. Gravel is angular to subangular, fine and medium including mudstone and siltstone (possible weathered mudstone).			
						Complete at 5.00m			

Remarks Excavating from 0.00m to 1.20m for 1.00 hour.	Scale (approx)	Logged By
	1:50	GP
	Figure No. 40349.WS09	



Excavation Method Drive-in Window Sampler	Dimensions	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 24/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
					(0.20)	MADE GROUND: Concrete.			
0.50	J2				0.20	MADE GROUND: Orange brown SAND and subangular to subrounded, fine to coarse GRAVEL. Gravel includes sandstone and limestone.			
0.50	V3				(0.20)				
0.50	D1				0.40				
1.00-1.45	SPT N=6	DRY	1,1/1,2,1,2		(1.60)	MADE GROUND: Loose, dark brown, clayey SAND and angular to subrounded, fine to coarse GRAVEL. Gravel includes ash, slag, sandstone and brick.			
1.50	D5					At 1.50m: very clayey. Between 1.50m and 1.60m: grey, silty sand. At 1.70m: band of gravel.			
1.50	J6								
1.50	V7								
2.00-2.45	SPT N=2	DRY	0,0/0,0,1,1		2.00	MADE GROUND: Very soft, orange, sandy, slightly gravelly CLAY. Gravel is subrounded, fine to coarse of sandstone.			
2.00-2.45	D8				(0.70)				
2.50	D9					MADE GROUND: Firm, grey, slightly sandy, slightly gravelly CLAY. Gravel is subrounded, fine and medium including sandstone and siltstone.			
2.60	J10				2.70				
2.60	V11								
3.00-3.45	SPT N=6	DRY	1,1/2,2,1,1			Below 3.50m: very soft, occasional dark brown.			
3.00-3.45	D12								
3.70	J14					(4.00)			
3.70	V15								
3.70	D13								
4.00-4.45	SPT N=5	DRY	1,1/1,1,2,1			Between 5.60m and 5.70m: band of wet, brown sand.			
4.00-4.45	D16								
4.70	J17					Below 6.40m: grey.			
4.70	V18								
5.00-5.45	SPT N=2	DRY	1,0/0,0,1,1						
5.00-5.45	D19					Firm, dark grey, sandy, slightly gravelly CLAY with some rootlets. Gravel is subangular to subrounded, fine and medium including sandstone and siltstone.			
5.70	J20				6.70				
5.70	V21				(0.30)	Complete at 7.00m			
6.00-6.45	SPT N=7	DRY	1,1/1,2,3,1		7.00				
6.00-6.45	D22								
6.70	J23								
6.70	V24								
7.00-7.45	SPT N=13	DRY	2,5/5,3,2,3						
7.00-7.45	D25								

Remarks Excavating from 0.00m to 1.00m for 1.00 hour.	Scale (approx)	Logged By
	1:50	GP
	Figure No. 40349.WS10	



Excavation Method Drive-in Window Sampler	Dimensions	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 25/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
					(0.10) 0.10	MADE GROUND: Concrete.			
0.50 0.50 0.50	J2 V3 D1				(1.40)	MADE GROUND: Very loose, brown, clayey SAND and angular to subrounded, fine to coarse GRAVEL. Gravel includes sandstone, ash and slag.			
1.00-1.45 1.00-1.45	SPT N=1 D4	DRY	0,0/0,0,1,0		1.50 (0.30) 1.80 (0.10) 1.90	MADE GROUND: Very soft, orange brown, sandy, slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of sandstone.			
2.00-2.45 2.00-2.45	SPT N=2 D8	DRY	0,0/0,1,0,1		(0.90) 2.80	MADE GROUND: Black, silty SAND.			
2.50 2.50 2.50	J10 V11 D9				(2.65)	MADE GROUND: Very loose, red brown SAND and angular to subrounded, fine and medium GRAVEL. Gravel includes ash.			
3.00-3.45 3.00-3.45	SPT N=2 D12	DRY	1,0/0,1,0,1		5.45	MADE GROUND: Soft, grey, sandy, slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of sandstone.			
3.90 3.90 4.00-4.45 4.00-4.45	D13 V14 SPT N=5 D15	DRY	2,1/1,1,2,1			Complete at 5.45m			
4.90 5.00-5.45 5.00-5.45	D16 SPT N=7 D17	DRY	2,1/2,1,2,2						

Remarks Excavating from 0.00m to 1.00m for 1.00 hour.	Scale (approx)	Logged By
	1:50	GP
	Figure No. 40349.WS11	




Excavation Method Drive-in Window Sampler	Dimensions	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 29/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
1.00-1.45 1.00-1.45	SPT N=11 D4	DRY	2,2/3,3,3,2		(0.80)	MADE GROUND: Concrete.			
1.50 1.50 1.50	D1 J2 V3				0.80	MADE GROUND: Soft, grey brown, sandy, gravelly CLAY with occasional pockets of sand. Gravel is subangular to subrounded, fine to coarse including sandstone and brick.			
2.00-2.45 2.00-2.45 2.20	SPT N=5 D5 J6	DRY	1,2/1,1,2,1		(2.10)	At 2.50m: band of gravelly sand.			
2.50	J7				2.90				
3.00-3.45 3.00-3.45	SPT N=3 D8	DRY	1,0/1,1,0,1		(0.90)	MADE GROUND: Very loose, dark brown, clayey, very gravelly SAND. Gravel is angular to subrounded, fine to coarse including brick, ash and sandstone.			
3.50 3.50 3.50	V11 D9 J10				3.80				
4.00-4.45 4.00-4.45	SPT N=7 D12	DRY	2,2/1,2,2,2		(3.70)	MADE GROUND: Soft, grey brown, sandy, gravelly CLAY. Gravel is subangular to subrounded, fine to coarse including sandstone and ash.			
4.70 4.70 4.80	V14 J13 D15								
5.00-5.45 5.00-5.45	SPT N=5 D16	DRY	1,0/1,1,1,2						
5.50 5.50 5.60	J17 V18 D19								
6.00-6.45 6.00-6.45	SPT N=7 D20	MOIST	1,1/1,2,2,2						
6.60 6.60 6.70	J21 V22 D23		Slow seepage(1) at 6.50m.						
7.00-7.45 7.00-7.45	SPT N=16 D24	6.00	2,3/4,5,4,3		7.50	At 6.70m: Very soft. Slight hydrocarbon odour noted.			
						Complete at 7.50m			

Remarks Excavating from 0.00m to 1.00m for 1.00 hour.	Scale (approx)	Logged By
	1:50	GP
	Figure No. 40349.WS12	



Excavation Method Drive-in Window Sampler	Dimensions		Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location		Dates 24/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.50) 0.50	MADE GROUND: Concrete (driller's description). Complete at 0.50m		

Remarks Window sample hole terminated at 0.50m due to concrete obstruction - redrilled as WS12.	Scale (approx) 1:50	Logged By n/a
	Figure No. 40349.WS12A	

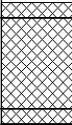


Excavation Method Drive-in Window Sampler	Dimensions	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 25/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.70	J2	DRY	1,0/0,0,0,0		(0.70)	MADE GROUND: Yellow brown, fine to coarse SAND and subangular to subrounded, fine to coarse GRAVEL. Gravel includes sandstone.			
0.70	J3				(0.70)	MADE GROUND: Very soft, brown, slightly sandy, gravelly CLAY. Gravel is subangular to subrounded, fine and medium including sandstone.			
0.70	V4	DRY	1,0/0,0,0,0		(2.00)				
1.00-1.45	SPT N=0				(2.00)				
0.70	D1	DRY	1,0/0,1,1,1		(1.10)	Very soft, brown, slightly sandy, slightly gravelly CLAY. Gravel is subangular to subrounded, fine and medium including sandstone.			
1.00-1.45	D5				(1.10)				
1.70	D6	DRY	2,3/5,7,7,9		(0.60)	Stiff, grey brown, slightly sandy, slightly gravelly CLAY. Gravel is subangular to subrounded, fine and medium including mudstone and sandstone.			
1.70	J8				(0.60)				
1.70	J7	DRY	2,3/5,7,7,9		(0.50)	Dark grey brown MUDSTONE, recovered as slightly clayey, slightly sandy, angular to subangular, fine to coarse gravel.			
2.00-2.45	SPT N=0				(0.50)				
1.70	V9	DRY	2,3/5,7,7,9		4.90	Complete at 4.90m			
2.00-2.45	D10				4.90				
2.70	V14	DRY	2,3/5,7,7,9		(0.60)	Stiff, grey brown, slightly sandy, slightly gravelly CLAY. Gravel is subangular to subrounded, fine and medium including mudstone and sandstone.			
2.70	D11				(0.60)				
2.70	J13	DRY	2,3/5,7,7,9		(0.50)	Dark grey brown MUDSTONE, recovered as slightly clayey, slightly sandy, angular to subangular, fine to coarse gravel.			
3.00-3.45	SPT N=3				(0.50)				
2.70	J12	DRY	2,3/5,7,7,9		4.90	Complete at 4.90m			
3.00-3.45	D15				4.90				
3.80	D16	DRY	2,3/5,7,7,9		(0.60)	Stiff, grey brown, slightly sandy, slightly gravelly CLAY. Gravel is subangular to subrounded, fine and medium including mudstone and sandstone.			
3.80	J17				(0.60)				
3.80	J18	DRY	2,3/5,7,7,9		(0.50)	Dark grey brown MUDSTONE, recovered as slightly clayey, slightly sandy, angular to subangular, fine to coarse gravel.			
4.00-4.45	SPT N=28				(0.50)				
3.80	V19	DRY	2,3/5,7,7,9		4.90	Complete at 4.90m			
4.00	D20				4.90				
4.00	J22	DRY	2,3/5,7,7,9		(0.50)	Dark grey brown MUDSTONE, recovered as slightly clayey, slightly sandy, angular to subangular, fine to coarse gravel.			
4.00	J21				(0.50)				
4.00	V23	DRY	2,3/5,7,7,9		4.90	Complete at 4.90m			
4.00-4.45	D24				4.90				
4.50	V28	DRY	2,3/5,7,7,9		(0.50)	Dark grey brown MUDSTONE, recovered as slightly clayey, slightly sandy, angular to subangular, fine to coarse gravel.			
4.50	D25				(0.50)				
4.50	J27	DRY	2,3/5,7,7,9		4.90	Complete at 4.90m			
4.50	J26				4.90				

Remarks Window sample hole terminated at 4.90m due to refusal. Excavating from 0.00m to 1.00m for 1.00 hour.	Scale (approx)	Logged By
	1:50	JT
	Figure No. 40349.WS13	

Excavation Method Drive-in Window Sampler	Dimensions		Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location		Dates 24/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.10) 0.10	MADE GROUND: Concrete.		
					(0.60)	MADE GROUND: Brown sandstone fill.		
					0.70 (0.10) 0.80	MADE GROUND: Concrete.		
						Complete at 0.80m		

Remarks Window sample hole terminated at 0.80m due to obstruction - redrilled as WS13. Excavating from 0.00m to 0.80m for 1.00 hour.	Scale (approx) 1:50	Logged By n/a
	Figure No. 40349.WS13A	

Figure A2.3

Phase 2 Window Sample Hole Records



Excavation Method Drive-in Window Sampler	Dimensions 100mm to 3.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 05/09/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.00	J1				(0.15) 0.15 (0.25) 0.40 (0.30) 0.70	MADE GROUND: Light grey concrete. MADE GROUND: Light grey, sandy, angular and subangular, fine to coarse GRAVEL of limestone. MADE GROUND: Grey concrete.		
2.00	J2					MADE GROUND: Firm, brown and dark grey, slightly sandy, gravelly CLAY with some cobbles of sandstone. Gravel is angular to subrounded, fine to coarse including mudstone, sandstone and brick.		
3.00	J3				(4.10)	Below 3.00m: dark grey, slightly sandy, slightly gravelly clay. Slight organic odour noted.		
4.00	J4							
5.00	J5				4.80	Weak, dark grey MUDSTONE, recovered as stiff, gravelly clay. Gravel is angular, fine and medium .		
6.00	D6				(1.60)	Below 6.00m: very stiff.		
					6.40	Complete at 6.40m		

Remarks Samples marked as J comprise 1x tub, 1 x amber jar, 1 x vial. Excavating from 0.00m to 1.00m for 1.00 hour.	Scale (approx)	Logged By
	1:50	TB
	Figure No. 40349.WS214	



Excavation Method Drive-in Window Sampler	Dimensions 100mm to 3.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 05/09/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.00	J1				(0.15) 0.15 (0.15) 0.30 (0.60) 0.90	MADE GROUND: Tarmacadam. MADE GROUND: Light grey, sandy, angular and subangular, fine to coarse GRAVEL of limestone. MADE GROUND: Brown, slightly clayey, sandy GRAVEL with many cobbles of sandstone and brick. Gravel is angular to subrounded, fine to coarse including mudstone, sandstone and brick.		
2.00	J2					MADE GROUND: Firm, dark brown and brown, sandy, gravelly CLAY with some cobbles of sandstone. Gravel is angular to subrounded, fine to coarse including mudstone, sandstone and brick. Between 1.40m and 1.50m: black, angular and subangular, fine and medium gravel of tarmacadam.		
3.00	J3					Between 3.10m and 3.20m: dark grey, medium to coarse sand.		
4.00	J4				(6.10)			
5.00	J5							
6.00	J6							
7.00	J7				7.00	Complete at 7.00m		

Remarks Samples marked as J comprise 1x tub, 1 x amber jar, 1 x vial. Excavating from 0.00m to 1.00m for 1 hour.	Scale (approx)	Logged By
	1:50	TB
	Figure No. 40349.WS215	



Excavation Method Drive-in Window Sampler	Dimensions 100mm to 3.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 04/09/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.60	J1				(0.20) 0.20 (0.30) 0.50	MADE GROUND: Light grey concrete.		
1.50	J2				(2.50)	MADE GROUND: Light brown, sandy, angular and subangular, fine to coarse GRAVEL of limestone.		
2.50	J3				3.00	MADE GROUND: Brown, very sandy, angular to subrounded, fine to coarse GRAVEL including sandstone, mudstone, brick, concrete and ceramic fragments. Between 0.50m and 1.00m: gravel includes clinker. Below 1.00m: clayey.		
3.50	J4				(3.40)	MADE GROUND: Firm, brown, slightly sandy, slightly gravelly CLAY with occasional cobbles of sandstone. Gravel is angular to subrounded, fine to coarse including sandstone, mudstone, brick and clinker. Slight organic odour noted.		
5.00	J5				6.40			
6.00	J6							
						Complete at 6.40m		

Remarks Samples marked as J comprise 1x tub, 1 x amber jar, 1 x vial. Excavating from 0.00m to 1.00m for 1.00 hour.	Scale (approx)	Logged By
	1:50	TB
	Figure No. 40349.WS216	



Excavation Method Drive-in Window Sampler	Dimensions 100mm to 3.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 04/09/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.00	J1				(0.20) 0.20	MADE GROUND: Pink brown concrete.		
					(0.80)	MADE GROUND: Brown, sandy, angular and subangular, fine to coarse GRAVEL of limestone.		
2.00	J2				1.00	MADE GROUND: Firm, brown, sandy, gravelly CLAY with occasional cobbles of sandstone. Gravel is angular to subrounded, fine to coarse including sandstone, mudstone, brick and glass.		
3.00	J3					Between 2.70m and 3.10m: band of dark brown, sandy gravel.		
4.00	J4				(5.60)	Between 3.90m and 4.50m: band of black, silty sand. Below 4.50m: with some cobbles of sandstone.		
5.00	J5					Between 5.00m and 6.00m: cobble obstruction (poor recovery).		
6.50	J6				6.60 (0.10)	MADE GROUND: COBBLES of sandstone.		
					6.70 (0.30)	Very weak, grey MUDSTONE, highly weathered.		
					7.00	Complete at 7.00m		

Remarks Samples marked as J comprise 1x tub, 1 x amber jar, 1 x vial. Excavating from 0.00m to 1.00m for 1.00 hour.	Scale (approx)	Logged By
	1:50	TB
	Figure No. 40349.WS217	



Excavation Method Drive-in Window Sampler	Dimensions 100mm to 3.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 04/09/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.00	J1				(0.15) 0.15 (0.45) 0.60	MADE GROUND: Light grey concrete. MADE GROUND: Light grey, sandy, angular and subangular, fine to coarse GRAVEL of limestone.		
2.00	J2				(2.20)	MADE GROUND: Dark brown, gravelly, fine to coarse SAND. Gravel is angular to subrounded fine to coarse including sandstone, clinker, mudstone and bitumen. Below 1.40m: red brown with crushed brick fragments.		
3.00	J3				2.80	MADE GROUND: Firm, brown, sandy, gravelly CLAY with many cobbles of sandstone. Gravel is subangular to subrounded, fine to coarse including sandstone, mudstone and brick.		
4.00	J4				(2.00)			
5.00	J5				4.80 (0.90)	Firm, brown, mottled light grey and orange, slightly sandy, slightly gravelly CLAY with some cobbles of sandstone. Gravel is angular to subrounded, fine and medium including sandstone and mudstone.		
6.00	J6				5.70 (1.30)	Very weak, light grey, mottled brown and orange MUDSTONE, recovered as stiff clay.		
7.00	D7	5.80			7.00	Below 6.70m: weak. Complete at 7.00m		

Remarks Samples marked as J comprise 1x tub, 1 x amber jar, 1 x vial. Excavating from 0.00m to 1.00m for 1.00 hour.	Scale (approx)	Logged By
	1:50	TB
	Figure No. 40349.WS218	



Excavation Method Drive-in Window Sampler	Dimensions 100mm to 3.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 04/09/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.50	J1				0.15	MADE GROUND: Tarmacadam.		
					0.15	MADE GROUND: Grey concrete.		
1.50	J2				0.30	MADE GROUND: Brown, very sandy, angular and subangular, fine to coarse GRAVEL including limestone and sandstone. Some subangular cobbles of sandstone.		
					(0.90)			
2.50	J3				1.20	MADE GROUND: Dark brown, gravelly, fine to coarse SAND. Gravel is subangular to subrounded, fine to coarse including brick, sandstone, concrete and mudstone.		
					(1.30)			
3.50	J4				2.50	MADE GROUND: Firm, grey brown, mottled orange, slightly sandy, slightly gravelly CLAY. Gravel is subangular to subrounded, fine to coarse including mudstone, sandstone and brick fragments.		
					(1.30)			
4.50	J5				3.80	MADE GROUND: Light brown, sandy, angular and subangular, fine to coarse GRAVEL including sandstone and brick.		
					(0.80)			
5.00-6.00	D7				4.60	MADE GROUND: Firm, grey brown, sandy, gravelly CLAY with occasional cobbles of brick and sandstone. Gravel is subangular to subrounded, fine to coarse including brick, sandstone and mudstone.		
					4.60			
5.50	J6				4.60	Between 5.30m and 5.50m: band of gravel (wet). Slight hydrocarbon odour noted.		
					(2.10)			
6.00	J8				6.70	Between 6.00m and 6.10m: moderate hydrocarbon odour noted.		
					(0.30)			
					7.00	Stiff, light grey and brown, mottled orange, slightly sandy, slightly gravelly CLAY. Gravel is angular, fine and medium of mudstone (possible weathered mudstone).		
						Complete at 7.00m		

Remarks Samples marked as J comprise 1x tub, 1 x amber jar, 1 x vial. Excavating from 0.00m to 1.00m for 1.00 hour.	Scale (approx)	Logged By
	1:50	TB
	Figure No. 40349.WS219	



Excavation Method Drive-in Window Sampler	Dimensions 100mm to 3.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 03/09/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.50	J1				0.40	MADE GROUND: Light grey, sandy, angular and subangular, fine to coarse GRAVEL of limestone.		
1.50	J2				1.50	MADE GROUND: Dark brown, gravelly, fine to coarse SAND. Gravel is angular to subrounded, fine to coarse including sandstone, mudstone, brick and ceramic fragments.		
2.50	J3				1.90	MADE GROUND: Firm, light brown, sandy, gravelly CLAY with occasional cobbles of sandstone. Gravel is angular and subangular, fine to coarse including sandstone and mudstone.		
3.50	J4				3.70	Light grey and brown, mottled orange MDUSTONE, highly weathered, recovered as a stiff, gravelly clay. Gravel is angular, fine and medium.		
4.50	J5							
5.50	J6				(3.30)	Between 5.00m and 6.10m: grey.		
6.50	J7				7.00	Complete at 7.00m		

Remarks Samples marked as J comprise 1x tub, 1 x amber jar, 1 x vial. Excavating from 0.00m to 1.00m for 1.00 hour.	Scale (approx)	Logged By
	1:50	TB
	Figure No. 40349.WS220	



Excavation Method Drive-in Window Sampler	Dimensions 100mm to 3.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 03/09/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.50	J1				(1.80)	MADE GROUND: Brown and light brown, slightly clayey, sandy, angular to subrounded, fine to coarse GRAVEL including sandstone, mudstone, limestone, concrete and brick. Some subangular cobbles of brick and sandstone.		
1.50	J2				1.80	MADE GROUND: Firm, brown, sandy, slightly gravelly CLAY with occasional cobbles of sandstone and concrete. Gravel is angular to subrounded, fine to coarse including mudstone, sandstone and concrete.		
2.50	J3				(2.30)			
3.50	J4				4.10			
4.50	J5				(0.80)	Firm, grey and brown, mottled light grey and orange, slightly sandy, slightly gravelly CLAY with some cobbles of sandstone. Gravel is subangular to subrounded, fine to coarse including sandstone and mudstone.		
					4.90	Below 4.50m: stiff.		
5.50	J6				(2.10)	Very weak, dark grey, mottled orange MUDSTONE, recovered as stiff, gravelly clay. Gravel is angular, fine and medium.		
						Below 5.90m: weak.		
6.50	J7				7.00	Complete at 7.00m		

Remarks Samples marked as J comprise 1x tub, 1 x amber jar, 1 x vial. Excavating from 0.00m to 1.00m for 1.00 hour.	Scale (approx)	Logged By
	1:50	TB
	Figure No. 40349.WS222	

Figure A2.4
Trial Pit Records






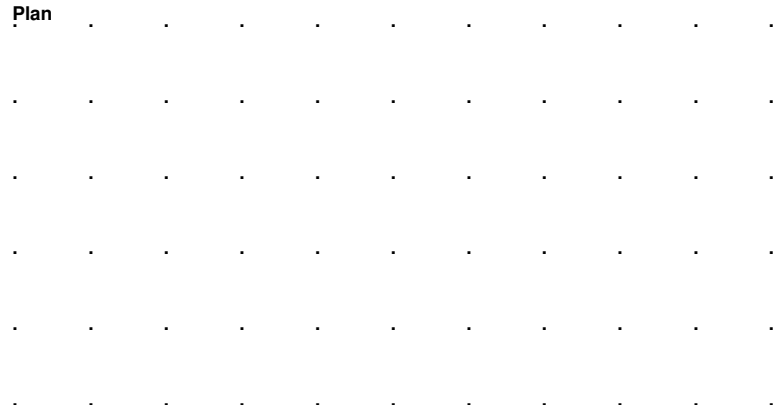
Excavation Method JCB 3CX	Dimensions 2.80m x 0.80m x 3.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 18/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.50 0.50 0.50	D2 HSV 80kPa B1		Water strike(1) at 0.50m. 76,80,84/Av. 80.00		(0.40) 0.40	MADE GROUND: Tarmacadam.		∇1
1.00 1.00 1.00	HSV 82kPa D4 B3		78,82,86/Av. 82.00		(1.50)	Firm, orange, mottled grey, slightly sandy, slightly gravelly CLAY of high plasticity. Gravel is subangular to subrounded, fine to coarse including sandstone and siltstone. Below 0.80m: mottled orange/blue grey.		
2.00 2.00	D6 B5				1.90	Below 1.70m: brown, friable, sandy, slightly gravelly.		
3.00 3.00	B7 D8				(1.10)	Dark orange brown MUDSTONE/SILTSTONE, recovered as slightly clayey, sandy, angular to subangular, fine to coarse gravel. Below 2.50m: blue grey.		
					3.00	Complete at 3.00m		

Plan .	Remarks		
	Groundwater located at 0.50m. Trial pit remained stable throughout excavation.		
	Scale (approx)	Logged By	Figure No.
	1:50	GP	40349.TP01

Excavation Method JCB 3CX	Dimensions 2.90m x 0.80m x 3.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 18/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.50 0.50	D2 B1				(0.05) 0.05 (0.25) 0.30	MADE GROUND: Tarmacadam. MADE GROUND: Orange brown SAND and subangular to subrounded, fine to coarse GRAVEL. Gravel includes sandstone and limestone. At 0.30m: geotextile.		
1.00 1.00	D4 B3				(2.70)	MADE GROUND: Brown, slightly clayey SAND and angular to subrounded, fine to coarse GRAVEL with occasional boulders. Gravel includes brick, concrete, glass and ceramic fragments. Occasional fabric, glass bottles and some plastic fragments. At 1.00m: slight organic odour noted. Below 1.00m: red brown.		
2.00 2.00	D6 B5					At 2.50m: occasional pockets of silty sand. Below 2.70m: gravel is predominately of ash and slag.		
3.00 3.00	B7 D8				3.00	Complete at 3.00m		

Plan 	Remarks Trial pit remained dry throughout excavation. Major spalling between 0.00m and 0.50m.		
	Scale (approx) 1:50	Logged By GP	Figure No. 40349.TP02



Excavation Method JCB 3CX	Dimensions 2.50m x 0.70m x 3.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 17/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.40	D2				0.40	Grass over Brown, clayey, sandy, slightly gravelly TOPSOIL with some rootlets. Gravel is subangular to subrounded, fine to coarse of sandstone.		
0.40	B1		98,96,100/Av. 98.00			Firm, orange brown, sandy, slightly gravelly CLAY of intermediate plasticity. Gravel is subangular to subrounded, fine to coarse of sandstone.		
0.50	HSV 98kPa							
0.50	D4							
0.50	B3		184,176,180/Av. 180.00					
1.00	HSV 180kPa							
1.00	D6				(1.50)	Below 1.00m: stiff, mottled blue grey/orange brown.		
1.00	B5							
2.00					1.90	Below 1.70m: brown.		
2.00	D8					Orange brown SILTSTONE/SANDSTONE, recovered as slightly silty sand and angular to subrounded, fine to coarse gravel.		
2.00	B7				(1.10)			
3.00	B9				3.00	At 3.00m: gravel is angular to subangular.		√1
3.00	D10		Water strike(1) at 3.00m.			Complete at 3.00m		

Plan .	Remarks Groundwater located at 3.00m. Trial pit remained stable throughout excavation.		
	<table border="1"> <tr> <td>Scale (approx) 1:50</td> <td>Logged By GP</td> <td>Figure No. 40349.TP03</td> </tr> </table>	Scale (approx) 1:50	Logged By GP
Scale (approx) 1:50	Logged By GP	Figure No. 40349.TP03	



Excavation Method JCB 3CX	Dimensions 2.80m x 0.70m x 3.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 17/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.30 0.30 0.50 0.50	D2 B1 D4 B3				0.10 0.10 (0.30) 0.40	Grass over MADE GROUND: Light brown, very clayey, sandy, slightly gravelly TOPSOIL with rootlets. Gravel is subangular to subrounded, fine to coarse including sandstone and brick.		
1.00 1.00	D6 B5					MADE GROUND: Firm, orange brown grey, slightly friable, sandy, slightly gravelly CLAY with some rootlets. Gravel is angular to subrounded, fine to coarse including brick, sandstone and ceramic fragments.		
2.00 2.00	D8 B7		Water strike(1) at 1.80m.		(2.60)	MADE GROUND: Dark brown, slightly clayey SAND and angular to subangular, fine to coarse GRAVEL with some plastic bags and timber fragments. Gravel includes brick, ceramic, glass and ash. Below 0.80m: some plastic bag, timber fragments, glass bottles and occasional newspaper. Below 2.00m: slight organic odour and ledger documents.		∇1
3.00 3.00	B9 D10				3.00	At 3.00m: occasional pockets of silt. Complete at 3.00m		

Plan .	Remarks Groundwater located at 1.80m. Major spalling between 1.00m and 2.00m.		
	<table border="1"> <tr> <td>Scale (approx) 1:50</td> <td>Logged By GP</td> <td>Figure No. 40349.TP05</td> </tr> </table>	Scale (approx) 1:50	Logged By GP
Scale (approx) 1:50	Logged By GP	Figure No. 40349.TP05	



Excavation Method JCB 3CX	Dimensions 2.90m x 0.70m x 3.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 17/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.50 0.50	D2 B1					Grass over MADE GROUND: Dark brown orange, slightly clayey, very gravelly SAND with occasional cobbles, glass bottles and plant material. Gravel is angular to subrounded, fine to coarse including brick, concrete, glass and ceramic fragments.		
1.00 1.00	D4 B3				(3.00)	At 1.00m: pocket of wood shavings. Below 1.00m: occasional fabrics and metal cans. Slight organic odour noted.		
2.00 2.00	D6 B5					Below 2.00m: strong organic odour noted.		
3.00 3.00	B7 D8				3.00	Below 2.70m: some plastic bags. At 3.00m: newspaper (dated 15th March 1975). Complete at 3.00m		

Plan .	Remarks Trial pit remained dry and stable throughout excavation.		
	<table border="1"> <tr> <td>Scale (approx) 1:50</td> <td>Logged By GP</td> <td>Figure No. 40349.TP06</td> </tr> </table>	Scale (approx) 1:50	Logged By GP
Scale (approx) 1:50	Logged By GP	Figure No. 40349.TP06	



Excavation Method JCB 3CX	Dimensions 2.80m x 0.80m x 3.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 18/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.50 0.50	D2 B1		Water strike(1) at 0.50m.		(0.10) 0.10 (0.30) 0.40 (0.40)	MADE GROUND: Tarmacadam. MADE GROUND: Orange brown SAND and subangular to subrounded, fine to coarse GRAVEL. Gravel includes sandstone and limestone. At 0.40m: geotextile.		∇1
1.00 1.00	D4 B3				0.80	MADE GROUND: Dark brown, friable, sandy, slightly gravelly CLAY with occasional paper fragments and glass bottles.		
2.00 2.00	D6 B5				(2.20)	MADE GROUND: Dark brown, clayey SAND and angular to subrounded, fine to coarse GRAVEL with some plastic, metal, fabric and glass and occasional newspaper (dated 31st August 1974). Gravel includes brick, concrete and sandstone. Slight organic odour noted. Below 2.30m: strong organic odour noted.		
3.00 3.00	B7 D8				3.00	Below 2.70m: sand predominately of ash with occasional wood fragments. Complete at 3.00m		

Plan .	Remarks		
	Groundwater located at 0.50m - rose to 0.45m (5 minutes). Slight spalling between 1.00m and 3.00m.		
	Scale (approx)	Logged By	Figure No.
	1:50	GP	40349.TP08



Excavation Method JCB 3CX	Dimensions 3.00m x 0.70m x 3.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 17/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.30	HSV 161kPa		160,164,160/Av. 161.33			Grass over MADE GROUND: Dark brown, silty, gravelly SAND. Gravel is subangular to subrounded, fine to coarse including brick, ash and sandstone.		
0.50	D2					Between 0.30m and 0.50m: stiff, orange grey, sandy clay with occasional partially decayed plant material.		
0.50	B1					Below 1.00m: very gravelly with glass, ceramic and with some plastic and fabrics (landfill waste).		
1.00	D4				(3.00)	Below 2.00m: some plastic, glass bottles, fabric and timber. Slight organic odour noted.		
1.00	B3							
2.00	D6							
2.00	B5							
3.00	D7				3.00	At 3.00m: old tyre and rubbish bags.		
						Complete at 3.00m		

Plan .	Remarks Trial pit remained dry and stable throughout excavation.		
	<table border="1"> <tr> <td>Scale (approx) 1:50</td> <td>Logged By GP</td> <td>Figure No. 40349.TP09</td> </tr> </table>	Scale (approx) 1:50	Logged By GP
Scale (approx) 1:50	Logged By GP	Figure No. 40349.TP09	



Excavation Method JCB 3CX	Dimensions 2.50m x 0.80m x 0.80m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 18/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.50 0.50	D2 B1				(0.20) 0.20 (0.20) 0.40 (0.40) 0.80	MADE GROUND: Concrete with re-bar. MADE GROUND: Orange brown SAND and subangular to subrounded, fine to coarse GRAVEL. Gravel includes sandstone, brick and limestone. Orange brown SANDSTONE, recovered as sandy, angular to subangular, fine to coarse gravel with some cobbles and occasional boulders. Complete at 0.80m		

Plan 	Remarks Trial pit remained dry and stable throughout excavation. Trial pit terminated at 0.80m due to lack of progress (0.50m-0.80m in 10 minutes).		
	Scale (approx) 1:50	Logged By GP	Figure No. 40349.TP10



Excavation Method JCB 3CX	Dimensions 2.80m x 0.70m x 3.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 17/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.50 0.50	D2 B1				(0.10) 0.10 (0.10) 0.20	MADE GROUND: Tarmacadam. MADE GROUND: Light brown, slightly clayey SAND and subangular to subrounded, fine to coarse GRAVEL. Gravel includes sandstone.		
1.00 1.00	D4 B3					MADE GROUND: Brown, clayey SAND and angular to subrounded, fine to coarse GRAVEL. Gravel includes sandstone, siltstone and occasional brick.		
2.00 2.00	D6 B5		Water strike(1) at 1.80m.		(2.80)			∇1
3.00 3.00	B7 D8				3.00	At 2.70m: pocket of black, silty sand. Complete at 3.00m		

Plan	<p>Remarks</p> <p>Groundwater located at 1.80m. Slight spalling between 1.00m and 3.00m. At 1.80m: 15 inch diameter encountered, old redundant clay pipe, contains negligible surface drainage water.</p>								
	Scale (approx)	Logged By	Figure No.						
	1:50	GP	40349.TP11						



Excavation Method JCB 3CX	Dimensions 2.80m x 0.70m x 3.00m	Ground Level (mOD)	Client Tesco Stores Ltd	Job Number 40349
	Location	Dates 17/04/2008	Engineer W A Fairhurst & Partners	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.40 0.40	D2 B1				(0.50) 0.50	MADE GROUND: Light brown/grey, very clayey, very sandy, gravelly TOPSOIL with occasional rootlets. Gravel is angular to subrounded, fine to coarse including sandstone, brick and ceramic.		
1.00 1.00	D4 B3				(2.50)	MADE GROUND: Dark brown, clayey SAND and angular to subrounded, fine to coarse GRAVEL with occasional plastic bags. Gravel includes brick, glass and ash. At 1.00m: some plastic bags and occasional glass bottles.		
2.00 2.00	D6 B5					At 2.00m: orange brown staining with occasional metal/tin lids.		
3.00 3.00	B7 D8				3.00	Complete at 3.00m		

Plan .	Remarks Trial pit remained dry throughout excavation. Slight spalling between 0.00m and 2.00m.		
	<table border="1"> <tr> <td>Scale (approx) 1:50</td> <td>Logged By GP</td> <td>Figure No. 40349.TP12</td> </tr> </table>	Scale (approx) 1:50	Logged By GP
Scale (approx) 1:50	Logged By GP	Figure No. 40349.TP12	

Figure A2.5
SPT Summary Table



Site : New Mill Road, Holmfirth

Client : Tesco Stores Ltd

Engineer : W A Fairhurst & Partners

Job Number

40349

Sheet

1 / 4

Borehole Number	Base of Borehole (m)	End of Seating Drive (m)	End of Test Drive (m)	Test Type	Seating Blows per 75mm		Blows for each 75mm penetration				Result	Comments
					1	2	1	2	3	4		
BH01	1.20	1.35	1.65	CPT	1	2	3	4	3	6	N=16	
BH01	2.00	2.15	2.45	CPT	1	1	1	1	2	1	N=5	
BH01	3.00	3.15	3.45	CPT	1	2	1	1	2	1	N=5	
BH01	4.00	4.15	4.45	CPT	1	2	1	3	3	2	N=9	
BH01	5.00	5.15	5.45	CPT	1	1	2	2	3	3	N=10	
BH01	6.00	6.15	6.45	CPT	1	2	2	2	2	2	N=8	
BH01	7.50	7.65	7.95	SPT	2	4	5	5	6	6	N=22	
BH01	10.00	10.15	10.37	SPT	5	10	13	17	20		50/220mm	
BH02	1.20	1.35	1.65	CPT	2	2	1	2	1	1	N=5	
BH02	2.00	2.15	2.45	CPT	1	1	3	3	2	2	N=10	
BH02	3.00	3.15	3.45	CPT	4	3	3	2	1	2	N=8	
BH02	4.00	4.15	4.45	CPT	2	2	3	2	2	2	N=9	
BH02	5.00	5.15	5.45	CPT	1	2	2	3	2	1	N=8	
BH02	6.00	6.15	6.45	CPT	2	1	2	2	3	2	N=9	
BH02	9.00	9.15	9.45	SPT	3	5	7	9	10	11	N=37	
BH02	10.50	10.65	10.95	SPT	5	7	10	12	14	14	N=29	50/295mm
BH02	12.00	12.07	12.14	SPT	25		50				25*/70mm 50/70mm	
BH03	1.20	1.35	1.65	SPT	1	1	2	2	3	3	N=10	
BH03	3.00	3.15	3.29	SPT	9	16	24	26			N=14	50/140mm
BH03	4.00	4.15	4.34	SPT	7	12	16	21	13		N=18	50/185mm
BH03	5.00	5.03	5.06	CPT	25		50				25*/30mm 50/25mm	
BH04	1.20	1.35	1.65	CPT	3	3	4	2	3	2	N=11	
BH04	2.00	2.15	2.45	CPT	1	2	1	2	2	1	N=6	
BH04	3.00	3.15	3.45	CPT	1	1	2	1	1	2	N=6	
BH04	4.00	4.15	4.45	CPT	1	2	1	1	1	2	N=5	
BH04	5.00	5.15	5.45	CPT	1	3	2	1	1	2	N=6	
BH04	6.00	6.15	6.45	CPT	2	1	1	2	1	1	N=5	
BH04	9.00	9.15	9.45	SPT	3	5	6	7	8	9	N=30	
BH04	10.50	10.65	10.95	SPT	3	6	8	9	10	12	N=39	
BH04	12.00	12.15	12.30	SPT	7	14	23	27			50/145mm	
BH05	1.20	1.35	1.65	CPT	1	2	4	4	3	3	N=14	
BH05	2.00	2.15	2.45	CPT	1	2	2	3	2	2	N=9	
BH05	3.00	3.15	3.45	CPT	1	1	2	3	3	4	N=12	
BH05	5.00	5.15	5.35	SPT	5	9	14	20	16		50/200mm	
BH05	6.00	6.15	6.36	SPT	7	12	15	19	16		50/210mm	
BH05	7.00	7.03	7.05	CPT	25		50				25*/25mm 50/20mm	
BH06	1.20	1.35	1.56	SPT	5	10	15	20	15		50/210mm	
BH06	2.00	2.02	2.05	CPT	25		50				25*/20mm 50/30mm	
BH07	1.20	1.35	1.65	CPT	2	3	2	4	3	2	N=11	
BH07	2.00	2.15	2.45	CPT	1	2	2	1	2	2	N=7	
BH07	3.00	3.15	3.45	CPT	1	1	2	1	1	2	N=6	



Site : New Mill Road, Holmfirth

Client : Tesco Stores Ltd

Engineer : W A Fairhurst & Partners

Job Number

40349

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Borehole Number	Base of Borehole (m)	End of Seating Drive (m)	End of Test Drive (m)	Test Type	Seating Blows per 75mm		Blows for each 75mm penetration				Result	Comments
					1	2	1	2	3	4		
BH07	4.00	4.15	4.45	CPT	1	1	1	1	2	2	N=6	
BH07	5.00	5.15	5.45	CPT	2	2	3	3	3	3	N=12	
BH07	6.00	6.15	6.45	CPT	1	2	2	3	2	2	N=9	
BH07	7.50	7.65	7.95	CPT	1	1	1	2	1	1	N=5	
BH07	9.00	9.15	9.45	SPT	3	5	6	7	7	10	N=30	
BH07	10.50	10.65	10.78	SPT	9	15	23	27			50/125mm	
BH07	12.00	12.05	12.09	SPT	25		50				25*/50mm 50/40mm	
BH08	1.20	1.35	1.49	SPT	4	10	25	25			50/135mm	
BH08	2.00	2.02	2.04	CPT	25		50				25*/15mm 50/20mm	
BH09	1.20	1.35	1.65	CPT	1	2	3	3	2	3	N=11	
BH09	2.00	2.15	2.45	CPT	2	2	1	2	3	2	N=8	
BH09	3.00	3.15	3.45	CPT	1	1	2	1	1	2	N=6	
BH09	4.00	4.15	4.45	CPT	1	2	2	3	1	2	N=8	
BH09	5.00	5.15	5.45	CPT	1	1	2	4	3	3	N=12	
BH09	6.00	6.15	6.45	CPT	1	2	4	3	3	2	N=12	
BH09	7.50	7.65	7.95	CPT	2	3	3	3	2	1	N=9	
BH09	9.00	9.15	9.37	SPT	8	12	14	18	18		50/215mm	
BH09	10.50	10.53	10.55	CPT	25		50				25*/25mm 50/20mm	
BH10	1.20	1.35	1.63	SPT	5	7	8	12	18	12	50/275mm	
BH10	2.00	2.03	2.05	CPT	25		50				25*/25mm 50/25mm	
BH11	1.20	1.35	1.65	CPT	1	1	1	2	1	4	N=8	
BH11	2.00	2.15	2.45	CPT	1	1	2	2	1	3	N=8	
BH11	3.00	3.15	3.45	CPT	1	2	1	1	2	2	N=6	
BH11	4.00	4.15	4.45	CPT	1	1	1	1	2	1	N=5	
BH11	5.00	5.15	5.45	CPT	1	0	1	1	1	2	N=5	
BH11	6.00	6.15	6.45	CPT	1	2	1	1	1	2	N=5	
BH11	7.50	7.65	7.95	CPT	1	2	2	1	3	1	N=7	
BH11	9.00	9.15	9.45	CPT	1	1	1	2	1	2	N=6	
BH11	10.50	10.65	10.95	CPT	1	2	1	1	2	2	N=6	
BH11	12.00	12.15	12.44	SPT	5	8	11	13	15	11	50/285mm	
BH12	1.20	1.35	1.65	CPT	1	1	1	2	1	2	N=6	
BH12	2.00	2.15	2.45	CPT	1	0	1	1	2	2	N=6	
BH12	3.00	3.15	3.45	CPT	1	2	2	1	1	1	N=5	
BH12	4.00	4.15	4.45	CPT	1	1	2	1	1	1	N=5	
BH12	5.00	5.15	5.45	CPT	2	1	1	2	1	2	N=6	
BH12	6.00	6.15	6.45	CPT	1	2	3	2	1	1	N=7	
BH12	7.50	7.65	7.95	CPT	1	1	2	4	2	2	N=10	
BH12	9.00	9.15	9.29	SPT	8	15	24	26			50/140mm	
BH12	10.00	10.03	10.06	CPT	25		50				25*/25mm 50/30mm	
BH13	1.20	1.35	1.65	CPT	2	2	3	4	3	2	N=12	
BH13	2.00	2.15	2.45	CPT	2	3	3	2	1	2	N=8	



Site : New Mill Road, Holmfirth

Client : Tesco Stores Ltd

Engineer : W A Fairhurst & Partners

Job Number
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Borehole Number	Base of Borehole (m)	End of Seating Drive (m)	End of Test Drive (m)	Test Type	Seating Blows per 75mm		Blows for each 75mm penetration				Result	Comments
					1	2	1	2	3	4		
BH13	3.00	3.15	3.45	CPT	1	1	3	2	2	2	N=9	
BH13	4.00	4.15	4.45	CPT	1	1	1	2	7	2	N=12	
BH13	5.00	5.15	5.45	CPT	1	2	1	1	2	2	N=6	
BH13	6.00	6.15	6.45	CPT	1	1	2	2	3	3	N=10	
BH13	7.50	7.65	7.95	CPT	1	2	2	2	3	4	N=11	
BH13	9.00	9.15	9.45	CPT	1	2	2	2	3	3	N=10	
BH13	12.00	12.06	12.12	SPT	25		50				25*/60mm 50/55mm	
WS0	1.00	1.15	1.45	SPT	1	2	2	1	2	2	N=7	
WS0	2.00	2.15	2.45	SPT	1	2	2	3	2	1	N=8	
WS0	3.00	3.15	3.45	SPT	2	3	2	2	1	2	N=7	
WS0	4.00	4.15	4.45	SPT	1	2	3	3	4	4	N=14	
WS0	5.00	5.15	5.45	SPT	2	3	4	5	6	6	N=21	
WS01	1.00	1.15	1.45	SPT	2	3	3	4	3	5	N=15	
WS01	2.00	2.15	2.45	SPT	2	3	3	2	2	2	N=9	
WS01	3.00	3.15	3.45	SPT	1	1	3	2	3	3	N=11	
WS01	4.00	4.15	4.45	SPT	1	2	2	3	2	6	N=13	
WS02	1.00	1.15	1.45	SPT	1	2	3	2	3	2	N=10	
WS02	2.00	2.15	2.45	SPT	1	1	1	2	1	2	N=6	
WS02	3.00	3.15	3.45	SPT	1	1	0	1	1	2	N=4	
WS02	4.00	4.15	4.45	SPT	1	3	4	5	6	7	N=22	
WS02	5.00	5.15	5.45	SPT	4	11	11	11	12	12	N=46	
WS03	1.00	1.15	1.45	SPT	2	2	2	2	3	3	N=10	
WS03	2.00	2.15	2.45	SPT	2	1	2	1	2	2	N=7	
WS03	3.00	3.15	3.45	SPT	3	4	4	2	2	2	N=10	
WS04	1.00	1.15	1.45	SPT	1	2	2	1	2	2	N=7	
WS04	2.00	2.15	2.45	SPT	1	2	2	3	2	1	N=8	
WS04	3.00	3.15	3.45	SPT	2	3	2	2	1	2	N=7	
WS04	4.00	4.15	4.45	SPT	1	2	3	3	4	4	N=14	
WS04	5.00	5.15	5.45	SPT	2	3	4	5	6	6	N=21	
WS05	1.00	1.15	1.45	SPT	1	1	2	1	1	1	N=5	
WS05	2.00	2.15	2.45	SPT	1	1	1	1	1	1	N=4	
WS05	3.00	3.15	3.45	SPT	1	1	2	3	4	4	N=13	
WS05	4.00	4.15	4.45	SPT	6	8	9	9	10	11	N=39	
WS06	1.00	1.15	1.45	SPT	1	1	2	1	1	2	N=6	
WS06	2.00	2.15	2.45	SPT	1	1	1	1	2	2	N=6	
WS06	3.00	3.15	3.45	SPT	1	1	2	2	3	3	N=10	
WS06	4.00	4.15	4.45	SPT	2	3	4	5	6	7	N=22	
WS06	5.00	5.15	5.45	SPT	2	4	5	7	8	10	N=30	
WS07	1.00	1.15	1.45	SPT	1	2	2	3	2	2	N=9	
WS07	2.00	2.15	2.45	SPT	1	0	1	2	3	2	N=8	



Site : New Mill Road, Holmfirth

Client : Tesco Stores Ltd

Engineer : W A Fairhurst & Partners

Job Number

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Borehole Number	Base of Borehole (m)	End of Seating Drive (m)	End of Test Drive (m)	Test Type	Seating Blows per 75mm		Blows for each 75mm penetration				Result	Comments
					1	2	1	2	3	4		
WS07	3.00	3.15	3.45	SPT	2	2	1	2	2	18	N=23	
WS08	1.00	1.15	1.45	SPT	1	1	2	2	1	1	N=6	
WS08	2.00	2.15	2.45	SPT	1	1	1	1	2	3	N=7	
WS08	3.00	3.15	3.45	SPT	2	1	3	2	1	2	N=8	
WS08	4.00	4.15	4.45	SPT	1	2	2	2	1	2	N=7	
WS08	5.00	5.15	5.45	SPT	1	2	2	3	2	2	N=9	
WS09	1.00	1.15	1.45	SPT	1	1	2	1	1	1	N=5	
WS09	2.00	2.15	2.45	SPT	1	1	2	2	2	3	N=9	
WS09	3.00	3.15	3.45	SPT	1	1	1	1	2	2	N=6	
WS09	4.00	4.15	4.45	SPT	1	1	2	2	1	2	N=7	
WS09	5.00	5.15	5.45	SPT	1	2	4	5	7	9	N=25	
WS10	1.00	1.15	1.45	SPT	1	1	1	2	1	2	N=6	
WS10	2.00	2.15	2.45	SPT	0	0	0	0	1	1	N=2	
WS10	3.00	3.15	3.45	SPT	1	1	2	2	1	1	N=6	
WS10	4.00	4.15	4.45	SPT	1	1	1	1	2	1	N=5	
WS10	5.00	5.15	5.45	SPT	1	0	0	0	1	1	N=2	
WS10	6.00	6.15	6.45	SPT	1	1	1	2	3	1	N=7	
WS10	7.00	7.15	7.45	SPT	2	5	5	3	2	3	N=13	
WS11	1.00	1.15	1.45	SPT	0	0	0	0	1	0	N=1	
WS11	2.00	2.15	2.45	SPT	0	0	0	1	0	1	N=2	
WS11	3.00	3.15	3.45	SPT	1	0	0	1	0	1	N=2	
WS11	4.00	4.15	4.45	SPT	2	1	1	1	2	1	N=5	
WS11	5.00	5.15	5.45	SPT	2	1	2	1	2	2	N=7	
WS12	1.00	1.15	1.45	SPT	2	2	3	3	3	2	N=11	
WS12	2.00	2.15	2.45	SPT	1	2	1	1	2	1	N=5	
WS12	3.00	3.15	3.45	SPT	1	0	1	1	0	1	N=3	
WS12	4.00	4.15	4.45	SPT	2	2	1	2	2	2	N=7	
WS12	5.00	5.15	5.45	SPT	1	0	1	1	1	2	N=5	
WS12	6.00	6.15	6.45	SPT	1	1	1	2	2	2	N=7	
WS12	7.00	7.15	7.45	SPT	2	3	4	5	4	3	N=16	
WS13	1.00	1.15	1.45	SPT	1	0	0	0	0	0	N=0	
WS13	2.00	2.15	2.45	SPT	1	0	0	0	0	0	N=0	
WS13	3.00	3.15	3.45	SPT	1	0	0	1	1	1	N=3	
WS13	4.00	4.15	4.45	SPT	2	3	5	7	7	9	N=28	

Figure A2.6
Instrumentation Details

Installation Type	Dimensions		Client Tesco Stores Ltd	Job Number 40349
	Location	Ground Level (mOD)	Engineer W A Fairhurst & Partners	Sheet 1/1

Legend	Water	Instr (A)	Level (mOD)	Depth (m)	Description	Groundwater Strikes During Drilling														
						Date	Time	Depth Struck (m)	Casing Depth (m)	Inflow Rate	Readings				Depth Sealed (m)					
				0.20	Concrete															
				1.00	Cement/Bentonite Grout															
						Groundwater Observations During Drilling														
						Start of Shift					End of Shift									
						Date	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	Date	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)			
					Slotted Standpipe															
						Instrument Groundwater Observations														
						Inst. [A] Type :														
						Date	Instrument [A]			Remarks										
						Time	Depth (m)	Level (mOD)												
				7.30	Cement/Bentonite Seal															
				8.30																
					General Backfill															
				10.00																

Remarks

Installation Type	Dimensions		Client Tesco Stores Ltd	Job Number 40349
	Location	Ground Level (mOD)	Engineer W A Fairhurst & Partners	Sheet 1/1

Legend	Water	Instr (A)	Level (mOD)	Depth (m)	Description	Groundwater Strikes During Drilling										
						Date	Time	Depth Struck (m)	Casing Depth (m)	Inflow Rate	Readings				Depth Sealed (m)	
5 min	10 min	15 min	20 min													
				0.20	Concrete											
				1.00	Cement/Bentonite Grout											
Groundwater Observations During Drilling																
					Slotted Standpipe	Date	Start of Shift				End of Shift					
							Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)
Instrument Groundwater Observations																
Inst. [A] Type :																
				7.40	Cement/Bentonite Seal	Date	Instrument [A]			Remarks						
							Time	Depth (m)	Level (mOD)							
				8.50												
				12.00	General Backfill											

Remarks

Installation Type	Dimensions		Client Tesco Stores Ltd	Job Number 40349
	Location	Ground Level (mOD)	Engineer W A Fairhurst & Partners	Sheet 1/1

Legend	Water	Instr (A)	Level (mOD)	Depth (m)	Description	Groundwater Strikes During Drilling														
						Date	Time	Depth Struck (m)	Casing Depth (m)	Inflow Rate	Readings				Depth Sealed (m)					
				0.20	Concrete															
				1.00	Cement/Bentonite Grout			10.20		slight seepage										
						Groundwater Observations During Drilling														
						Start of Shift					End of Shift									
						Date	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)				
					Slotted Standpipe															
						Instrument Groundwater Observations														
						Inst. [A] Type :														
				7.40		Date	Instrument [A]			Remarks										
						Time	Depth (m)	Level (mOD)												
					Cement/Bentonite Seal															
				12.30																

Remarks

Installation Type	Dimensions		Client Tesco Stores Ltd	Job Number 40349
	Location	Ground Level (mOD)	Engineer W A Fairhurst & Partners	Sheet 1/1

Legend	Water	Instr (A)	Level (mOD)	Depth (m)	Description	Groundwater Strikes During Drilling														
						Date	Time	Depth Struck (m)	Casing Depth (m)	Inflow Rate	Readings				Depth Sealed (m)					
				0.20	Concrete															
				1.00	Cement/Bentonite Grout															
				3.20	Slotted Standpipe	Groundwater Observations During Drilling														
						Start of Shift					End of Shift									
						Date	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)				
				4.20	Cement/Bentonite Seal	Instrument Groundwater Observations														
						Inst. [A] Type :														
						Date	Instrument [A]			Remarks										
						Time	Depth (m)	Level (mOD)												
				7.05	General Backfill															

Remarks

Installation Type	Dimensions		Client Tesco Stores Ltd	Job Number 40349
	Location	Ground Level (mOD)	Engineer W A Fairhurst & Partners	Sheet 1/1

Legend	Water	Instr (A)	Level (mOD)	Depth (m)	Description	Groundwater Strikes During Drilling											
						Date	Time	Depth Struck (m)	Casing Depth (m)	Inflow Rate	Readings				Depth Sealed (m)		
				0.20	Concrete			0.50		slight seepage							
				1.00	Cement/Bentonite Grout												
						Groundwater Observations During Drilling											
						Start of Shift					End of Shift						
						Date	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	Date	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)
					Slotted Standpipe	Instrument Groundwater Observations											
						Inst. [A] Type :											
						Date	Instrument [A]			Remarks							
						Time	Depth (m)	Level (mOD)									
				9.00													
					Cement/Bentonite Seal												
				10.50													

Remarks

Installation Type	Dimensions		Client Tesco Stores Ltd	Job Number 40349
	Location	Ground Level (mOD)	Engineer W A Fairhurst & Partners	Sheet 1/1

Legend	Water	Instr (A)	Level (mOD)	Depth (m)	Description	Groundwater Strikes During Drilling														
						Date	Time	Depth Struck (m)	Casing Depth (m)	Inflow Rate	Readings				Depth Sealed (m)					
				0.20	Concrete															
				1.00	Cement/Bentonite Grout															
						Groundwater Observations During Drilling														
						Start of Shift					End of Shift									
						Date	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)				
						Instrument Groundwater Observations														
						Inst. [A] Type :														
						Date	Instrument [A]			Remarks										
							Time	Depth (m)	Level (mOD)											
				11.30	Cement/Bentonite Seal															
				12.44																

Remarks



Installation Type	Dimensions		Client Tesco Stores Ltd	Job Number 40349
	Location	Ground Level (mOD)	Engineer W A Fairhurst & Partners	Sheet 1/1

Legend	Water	Instr (A)	Level (mOD)	Depth (m)	Description	Groundwater Strikes During Drilling										
						Date	Time	Depth Struck (m)	Casing Depth (m)	Inflow Rate	Readings				Depth Sealed (m)	
5 min	10 min	15 min	20 min													
				0.20	Concrete											
				1.00	Cement/Bentonite Grout											
						Groundwater Observations During Drilling										
						Date	Start of Shift				End of Shift					
							Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)
					Slotted Standpipe											
						Instrument Groundwater Observations										
						Inst. [A] Type :										
						Date	Instrument [A]			Remarks						
							Time	Depth (m)	Level (mOD)							
				8.20												
					Cement/Bentonite Seal											
				10.00												

Remarks



Installation Type	Dimensions		Client Tesco Stores Ltd	Job Number 40349
	Location	Ground Level (mOD)	Engineer W A Fairhurst & Partners	Sheet 1/1

Legend	Water	Instr (A)	Level (mOD)	Depth (m)	Description	Groundwater Strikes During Drilling														
						Date	Time	Depth Struck (m)	Casing Depth (m)	Inflow Rate	Readings				Depth Sealed (m)					
				0.20	Concrete															
					Cement/Bentonite Grout	Groundwater Observations During Drilling														
						Start of Shift					End of Shift									
						Date	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)				
				1.60																
						Instrument Groundwater Observations														
						Inst. [A] Type :														
					Slotted Standpipe	Date	Instrument [A]			Remarks										
						Time	Depth (m)	Level (mOD)												
				3.60																
					Cement/Bentonite Seal															
				4.50																

Remarks

Installation Type	Dimensions		Client Tesco Stores Ltd	Job Number 40349
	Location	Ground Level (mOD)	Engineer W A Fairhurst & Partners	Sheet 1/1

Legend	Water	Instr (A)	Level (mOD)	Depth (m)	Description	Groundwater Strikes During Drilling														
						Date	Time	Depth Struck (m)	Casing Depth (m)	Inflow Rate	Readings				Depth Sealed (m)					
				0.20	Concrete															
				0.50	Cement/Bentonite Grout															
						Groundwater Observations During Drilling														
						Start of Shift					End of Shift									
						Date	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)				
					Slotted Standpipe															
						Instrument Groundwater Observations														
						Inst. [A] Type :														
				2.20		Date	Instrument [A]			Remarks										
						Time	Depth (m)	Level (mOD)												
					General Backfill															
				4.00																

Remarks



Installation Type	Dimensions		Client Tesco Stores Ltd	Job Number 40349
	Location	Ground Level (mOD)	Engineer W A Fairhurst & Partners	Sheet 1/1

Legend	Water	Instr (A)	Level (mOD)	Depth (m)	Description	Groundwater Strikes During Drilling														
						Date	Time	Depth Struck (m)	Casing Depth (m)	Inflow Rate	Readings				Depth Sealed (m)					
				0.20	Concrete															
				1.00	Cement/Bentonite Grout															
				2.30	Slotted Standpipe	Groundwater Observations During Drilling														
						Start of Shift					End of Shift									
						Date	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)				
						Instrument Groundwater Observations														
						Inst. [A] Type :														
						Date	Instrument [A]			Remarks										
						Time	Depth (m)	Level (mOD)												
				5.00	Cement/Bentonite Seal															

Remarks



Installation Type	Dimensions		Client Tesco Stores Ltd	Job Number 40349
	Location	Ground Level (mOD)	Engineer W A Fairhurst & Partners	Sheet 1/1

Legend	Water	Instr (A)	Level (mOD)	Depth (m)	Description	Groundwater Strikes During Drilling															
						Date	Time	Depth Struck (m)	Casing Depth (m)	Inflow Rate	Readings				Depth Sealed (m)						
				0.30	Concrete																
					Topfill																
				1.00	Cement/Bentonite Grout	Groundwater Observations During Drilling															
						Start of Shift					End of Shift										
						Date	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)					
				2.00	Slotted Standpipe	Instrument Groundwater Observations															
						Inst. [A] Type :															
						Date	Instrument [A]			Remarks											
							Time	Depth (m)	Level (mOD)												
				3.00	General Backfill																
				3.60																	

Remarks



Installation Type	Dimensions		Client Tesco Stores Ltd	Job Number 40349
	Location	Ground Level (mOD)	Engineer W A Fairhurst & Partners	Sheet 1/1

Legend	Water	Instr (A)	Level (mOD)	Depth (m)	Description	Groundwater Strikes During Drilling														
						Date	Time	Depth Struck (m)	Casing Depth (m)	Inflow Rate	Readings				Depth Sealed (m)					
				0.20	Concrete															
						Groundwater Observations During Drilling														
						Start of Shift					End of Shift									
						Date	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)				
					Cement/Bentonite Grout															
						Instrument Groundwater Observations														
						Inst. [A] Type :														
				3.00		Date	Instrument [A]			Remarks										
						Time	Depth (m)	Level (mOD)												
					Slotted Standpipe															
				4.00																
					Cement/Bentonite Seal															
				5.00																

Remarks



Installation Type	Dimensions		Client Tesco Stores Ltd	Job Number 40349
	Location	Ground Level (mOD)	Engineer W A Fairhurst & Partners	Sheet 1/1

Legend	Water	Instr (A)	Level (mOD)	Depth (m)	Description	Groundwater Strikes During Drilling														
						Date	Time	Depth Struck (m)	Casing Depth (m)	Inflow Rate	Readings				Depth Sealed (m)					
				0.50	Concrete															
						Groundwater Observations During Drilling														
					Cement/Bentonite Grout	Date	Start of Shift					End of Shift								
							Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)				
						Instrument Groundwater Observations														
						Inst. [A] Type :														
					Slotted Standpipe	Date	Instrument [A]			Remarks										
							Time	Depth (m)	Level (mOD)											
				5.00																
				6.00																
				7.00	Cement/Bentonite Seal															

Remarks



Installation Type	Dimensions		Client Tesco Stores Ltd	Job Number 40349
	Location	Ground Level (mOD)	Engineer W A Fairhurst & Partners	Sheet 1/1

Legend	Water	Instr (A)	Level (mOD)	Depth (m)	Description	Groundwater Strikes During Drilling														
						Date	Time	Depth Struck (m)	Casing Depth (m)	Inflow Rate	Readings				Depth Sealed (m)					
				0.50	Concrete															
					Cement/Bentonite Grout	Groundwater Observations During Drilling														
						Start of Shift					End of Shift									
				2.00	Slotted Standpipe	Date	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)				
						Instrument Groundwater Observations														
				2.80		Inst. [A] Type :														
						Date	Instrument [A]			Remarks										
						Time	Depth (m)	Level (mOD)												
				5.45	Cement/Bentonite Seal															

Remarks

Installation Type	Dimensions		Client Tesco Stores Ltd	Job Number 40349
	Location	Ground Level (mOD)	Engineer W A Fairhurst & Partners	Sheet 1/1

Legend	Water	Instr (A)	Level (mOD)	Depth (m)	Description	Groundwater Strikes During Drilling														
						Date	Time	Depth Struck (m)	Casing Depth (m)	Inflow Rate	Readings				Depth Sealed (m)					
				0.20	Concrete															
				0.50	Cement/Bentonite Grout			6.50		Slow seepage										
						Groundwater Observations During Drilling														
						Start of Shift					End of Shift									
					Topfill	Date	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)				
						Instrument Groundwater Observations														
						Inst. [A] Type :														
				4.00		Date	Instrument [A]			Remarks										
						Time	Depth (m)	Level (mOD)												
					Cement/Bentonite Grout															
				6.50																
					Slotted Standpipe															
				7.50																

Remarks

Installation Type	Dimensions		Client Tesco Stores Ltd	Job Number 40349
	Location	Ground Level (mOD)	Engineer W A Fairhurst & Partners	Sheet 1/1

Legend	Water	Instr (A)	Level (mOD)	Depth (m)	Description	Groundwater Strikes During Drilling														
						Date	Time	Depth Struck (m)	Casing Depth (m)	Inflow Rate	Readings				Depth Sealed (m)					
				0.30	Concrete															
Groundwater Observations During Drilling																				
						Start of Shift					End of Shift									
						Date	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)	Time	Depth Hole (m)	Casing Depth (m)	Water Depth (m)	Water Level (mOD)				
					Cement/Bentonite Grout															
Instrument Groundwater Observations																				
Inst. [A] Type :																				
						Date	Instrument [A]			Remarks										
							Time	Depth (m)	Level (mOD)											
				3.50	Slotted Standpipe															
				4.50	Cement/Bentonite Seal															
				4.90																

Remarks

APPENDIX 3
LABORATORY TESTS

14 Faraday Close, District 15, Pattinson North Industrial Estate, Washington, Tyne & Wear, NE38 8QJ.
Tel. 0191 4166375 Fax. 0191 4191578 Email. lab@ifawashington.co.uk Internet. www.ianfarmerassociates.co.uk

Ian Farmer Associates (1998) Ltd
17 Rivington Court
Warrington
Cheshire
WA1 4RT

F.A.O. Mr A Latimer

TEST REPORT - 40349/1

Site : New Mill Road, Holmfirth

Job Number : 40349

Originating Client : Tesco Stores Ltd

Originating Reference : 40349

Date Sampled : Not Given

Date Scheduled : 02/06/08

Date Testing Started : 04/06/08

Date Testing Finished : 16/06/08

Remarks :

- First Report for above Job Number
- Samples will be disposed of 28 days after the report is issue unless otherwise agreed
- This report may contain results from tests which are not included within the scope of the UKAS accreditation. Please see final sheet for details.

Authorised By:



J.M. Jones

Position :

Senior Materials Engineer

Date : 16/06/08

Page 1 of 9

Site : New Mill Road, Holmfirth

Job Number

40349

Client : Tesco Stores Ltd

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DETERMINATION OF MOISTURE CONTENT

Borehole/ Trial Pit	Depth (m)	Sample	Moisture Content %	Description
BH03	1.20	B3	25	Brown gravelly slightly sandy CLAY
BH05	3.00	B5	26	Brown grey slightly gravelly slightly sandy CLAY
BH13	9.00	B9	55	Grey slightly sandy slightly gravelly CLAY slightly organic with ash
TP01	1.00	D4	38	Brown grey slightly sandy slightly gravelly CLAY
TP03	1.00	D6	25	Brown grey slightly gravelly CLAY
WS01	3.30	D16	7.1	Brown gravelly slightly sandy CLAY
WS04	3.00	D15	24	Brown slightly sandy gravelly CLAY
WS05	3.80	D17	33	Brown slightly sandy gravelly CLAY
WS08	6.70	D16	21	Brown slightly gravelly CLAY
WS09	4.40	D14	35	Brown slightly gravelly CLAY
WS10	7.00	D25	36	Brown gravelly CLAY

Method of Preparation : BS 1377:PART 1:1990:7.3.3 Preparation of samples for classification tests

Method of Test : BS 1377:PART 2:1990:3.2 Determination of oven dried moisture content

Remarks :

Site : New Mill Road, Holmfirth

Job Number

40349

Client : Tesco Stores Ltd

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**DETERMINATION OF MOISTURE CONTENT, LIQUID LIMIT AND PLASTIC LIMIT
AND DERIVATION OF PLASTICITY AND LIQUIDITY INDEX**

Borehole/ Trial Pit	Depth (m)	Sample	Natural / Sieved	Natural Moisture Content %	Sample Passing 425µm Sieve		Liquid Limit %	Plastic Limit %	Plasticity Index %	Liquidity Index	Class	Description / Remarks
					Percentage %	Moisture Content %						
BH03	1.20	B3	Natural	25	86	28	69	32	37	-0.11	CH	Brown gravelly slightly sandy CLAY
BH05	3.00	B5	Natural	26	92	27	62	32	30	-0.17	MH	Brown grey slightly gravelly slightly sandy CLAY
BH13	9.00	B9	Natural	55	82	65	64	33	31	1.03	MH	Grey slightly sandy slightly gravelly CLAY slightly organic with ash
TP01	1.00	D4	Natural	38	92	41	59	31	28	0.36	MH	Brown grey slightly sandy slightly gravelly CLAY
TP03	1.00	D6	Natural	25	86	28	49	27	22	0.05	CI	Brown grey slightly gravelly CLAY
WS01	3.30	D16	Natural	7.1	78	7.7		NP				Brown gravelly slightly sandy CLAY
WS04	3.00	D15	Natural	24	27	73	39	21	18	2.89	CI	Brown slightly sandy gravelly CLAY
WS05	3.80	D17	Natural	32	57	53	56	28	28	0.89	CH	Brown slightly sandy gravelly CLAY
WS08	6.70	D16	Natural	21	26	68	34	20	14	3.43	CL	Brown slightly gravelly CLAY
WS09	4.40	D14	Natural	35	82	41	56	31	25	0.40	MH	Brown slightly gravelly CLAY

Method of Preparation : BS 1377:PART 1:1990:7.4 Preparation of samples for classification tests BS 1377:PART 2:1990:4.2 & 5.2 Sample preparations

Method of Test : BS 1377:PART 2:1990:3.2 Determination of moisture content 4.3 Determination of the liquid limit 5.3 Determination of the plastic limit and plasticity index

Site : New Mill Road, Holmfirth
Client : Tesco Stores Ltd

Job Number
40349
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DETERMINATION OF CALIFORNIA BEARING RATIO (CBR)

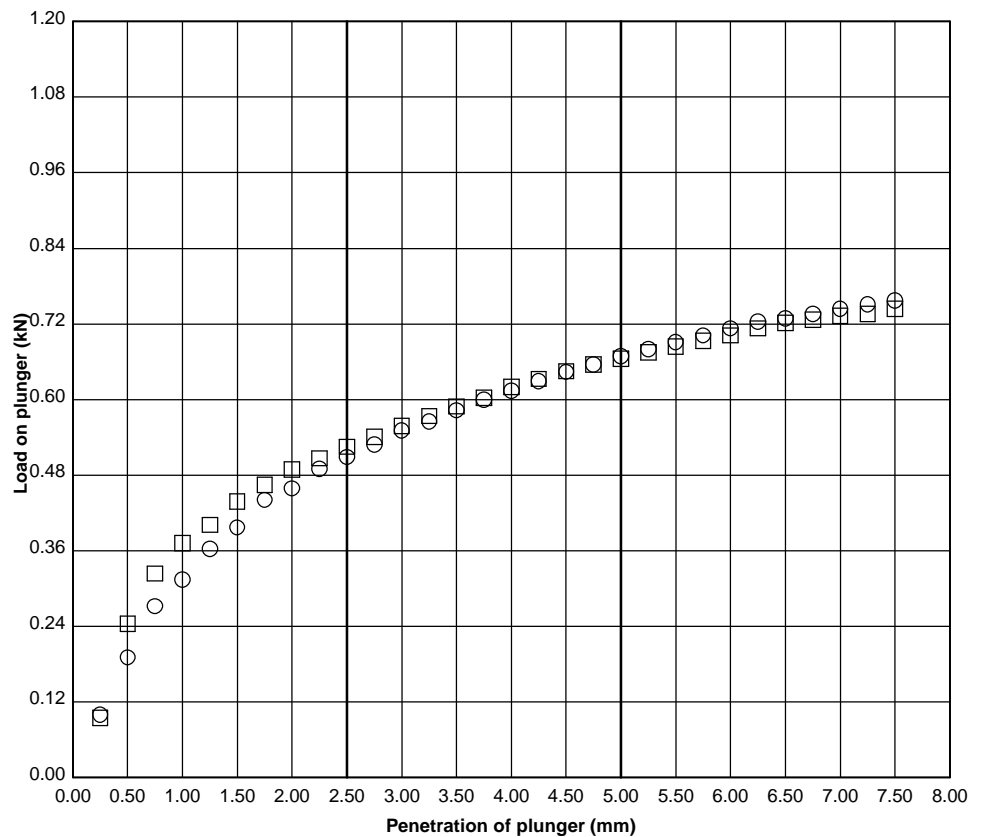
Borehole / Trial Pit	Depth (m)	Sample	% Passing 20 mm Sieve	Description
BH03	1.20	B3	99 %	Brown gravelly slightly sandy CLAY

Moisture Content %	
Bulk Density Mg/m ³	1.93
Dry Density Mg/m ³	1.47
Soaked Test	No

Test on	<input type="checkbox"/> TOP
Moisture Content %	33
Surcharge weight kg	4.50
Penetration mm	2.5 5.0
Force kN	0.52 0.67
Corrected CBR %	4.0 3.3

Test on	<input type="radio"/> BOTTOM
Moisture Content %	29
Surcharge weight kg	4.50
Penetration mm	2.5 5.0
Force kN	0.51 0.67
Corrected CBR %	3.9 3.3

Test on	TOP	BOTTOM
Reported CBR %	4.0	3.9
Mean CBR %	4.0	



Method of Preparation : The specimen was prepared by Dynamic compression using a 4.5 kg Rammer
BS 1377:PART 1:1990:7.6.1 General 1990:7.6.5 California bearing ratio test BS 1377:PART 4:1990:7.2 Preparation of test sample

Method of Test : BS 1377:PART 4:1990:7.4 Penetration test procedure

Remarks :

Site : New Mill Road, Holmfirth

Job Number

40349

Client : Tesco Stores Ltd

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DETERMINATION OF CALIFORNIA BEARING RATIO (CBR)

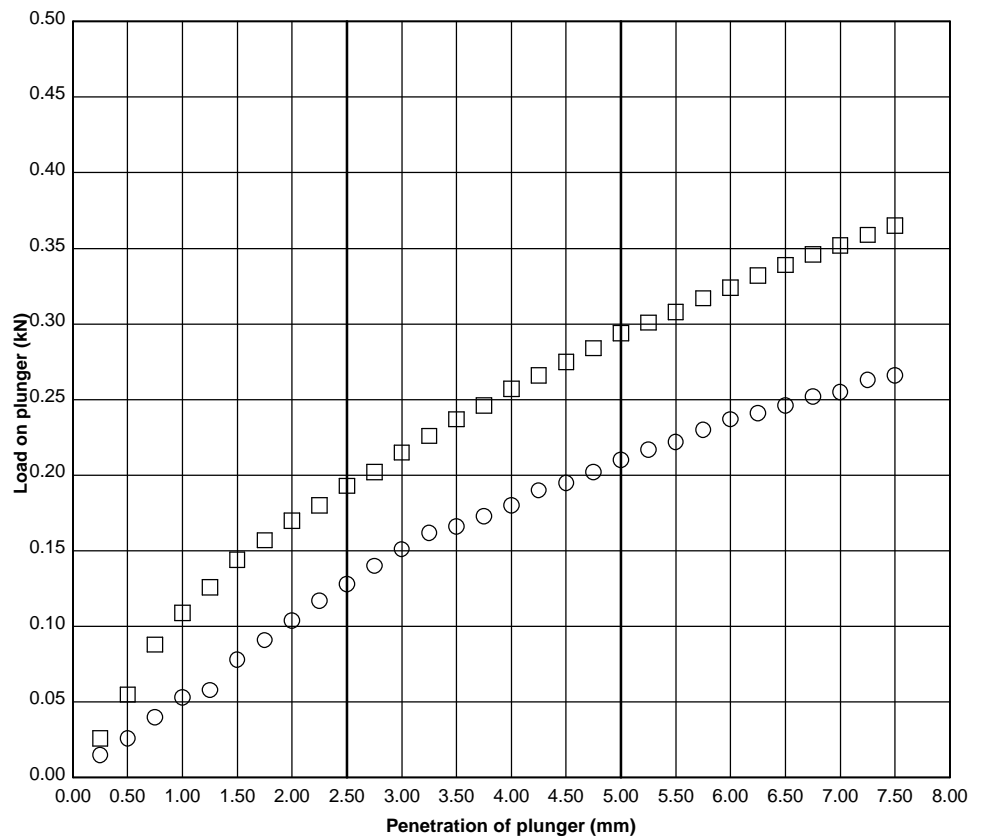
Borehole / Trial Pit	Depth (m)	Sample	% Passing 20 mm Sieve	Description
BH05	3.00	B5	99 %	Brown grey slightly gravelly slightly sandy CLAY

Moisture Content %	
Bulk Density Mg/m³	1.86
Dry Density Mg/m³	1.43
Soaked Test	No

Test on	<input type="checkbox"/> TOP
Moisture Content %	28
Surcharge weight kg	4.50
Penetration mm	2.5 5.0
Force kN	0.19 0.29
Corrected CBR %	1.5 1.5

Test on	<input type="radio"/> BOTTOM
Moisture Content %	32
Surcharge weight kg	4.50
Penetration mm	2.5 5.0
Force kN	0.13 0.21
Corrected CBR %	0.97 1.0

Test on	TOP	BOTTOM
Reported CBR %	1.5	1.0


Method of Preparation : The specimen was prepared by Dynamic compression using a 4.5 kg Rammer
 BS 1377:PART 1:1990:7.6.1 General 1990:7.6.5 California bearing ratio test BS 1377:PART 4:1990:7.2 Preparation of test sample

Method of Test : BS 1377:PART 4:1990:7.4 Penetration test procedure

Remarks :

Site : New Mill Road, Holmfirth

Job Number

40349

Client : Tesco Stores Ltd

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DETERMINATION OF CALIFORNIA BEARING RATIO (CBR)

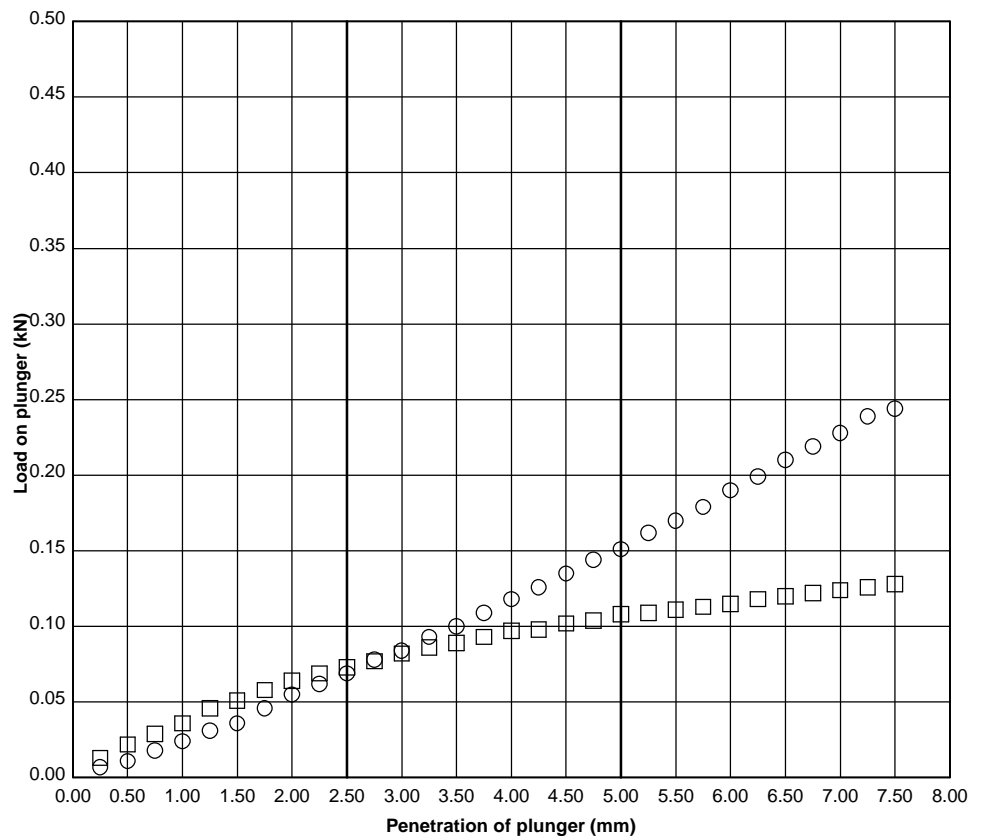
Borehole / Trial Pit	Depth (m)	Sample	% Passing 20 mm Sieve	Description
BH13	9.00	B9	90 %	Grey slightly sandy slightly gravelly CLAY slightly organic with ash

Moisture Content %	
Bulk Density Mg/m³	1.63
Dry Density Mg/m³	1.19
Soaked Test	No

Test on	<input type="checkbox"/> TOP
Moisture Content %	39
Surcharge weight kg	
Penetration mm	2.5 5.0
Force kN	0.07 0.11
Corrected CBR %	0.55 0.54

Test on	<input type="radio"/> BOTTOM
Moisture Content %	35
Surcharge weight kg	
Penetration mm	2.5 5.0
Force kN	0.07 0.15
Corrected CBR %	0.52 0.76

Test on	TOP	BOTTOM
Reported CBR %	0.55	0.76


Method of Preparation : The specimen was prepared by Dynamic compression using a 4.5 kg Rammer
 BS 1377:PART 1:1990:7.6.1 General 1990:7.6.5 California bearing ratio test BS 1377:PART 4:1990:7.2 Preparation of test sample

Method of Test : BS 1377:PART 4:1990:7.4 Penetration test procedure

Remarks :

Site : New Mill Road, Holmfirth

Job Number

40349

Client : Tesco Stores Ltd

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DETERMINATION OF CALIFORNIA BEARING RATIO (CBR)

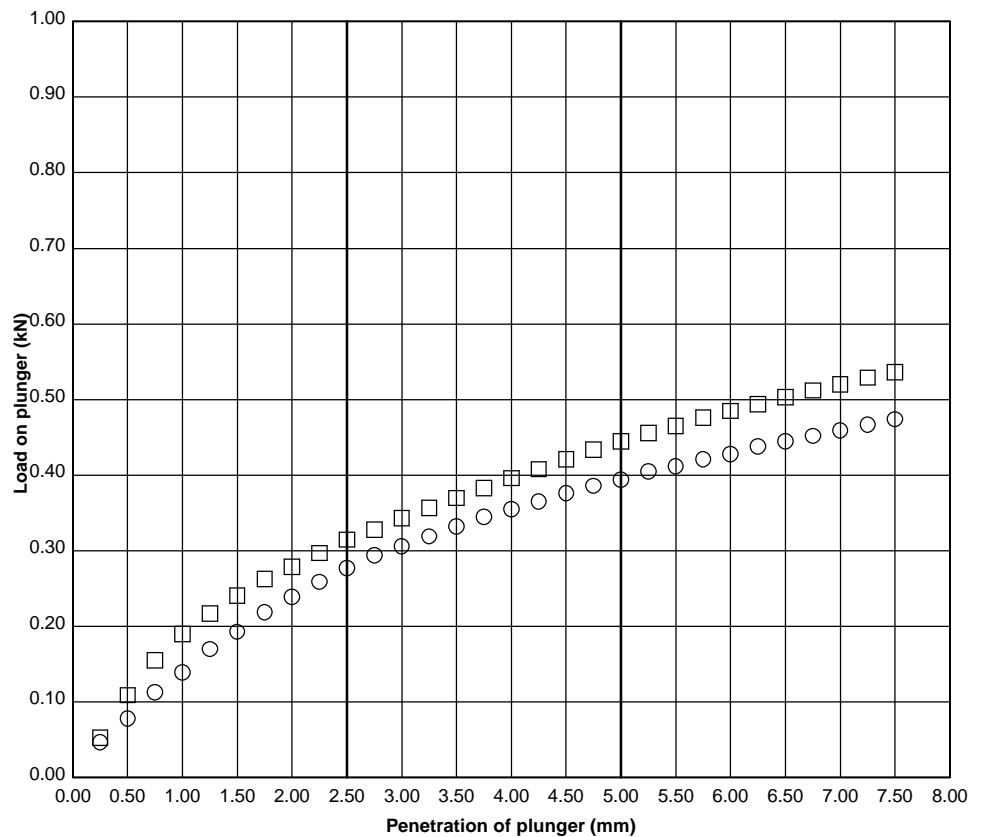
Borehole / Trial Pit	Depth (m)	Sample	% Passing 20 mm Sieve	Description
TP01	1.00	B3	100 %	Brown slightly gravelly CLAY

Moisture Content %	
Bulk Density Mg/m³	1.84
Dry Density Mg/m³	1.35
Soaked Test	No

Test on	<input type="checkbox"/> TOP
Moisture Content %	36
Surcharge weight kg	4.50
Penetration mm	2.5 5.0
Force kN	0.31 0.44
Corrected CBR %	2.4 2.2

Test on	<input type="radio"/> BOTTOM
Moisture Content %	36
Surcharge weight kg	4.50
Penetration mm	2.5 5.0
Force kN	0.28 0.39
Corrected CBR %	2.1 2.0

Test on	TOP	BOTTOM
Reported CBR %	2.4	2.1
Mean CBR %	2.2	


Method of Preparation : The specimen was prepared by Dynamic compression using a 4.5 kg Rammer
 BS 1377:PART 1:1990:7.6.1 General 1990:7.6.5 California bearing ratio test BS 1377:PART 4:1990:7.2 Preparation of test sample

Method of Test : BS 1377:PART 4:1990:7.4 Penetration test procedure

Remarks :

Site : New Mill Road, Holmfirth
Client : Tesco Stores Ltd

Job Number
40349
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DETERMINATION OF CALIFORNIA BEARING RATIO (CBR)

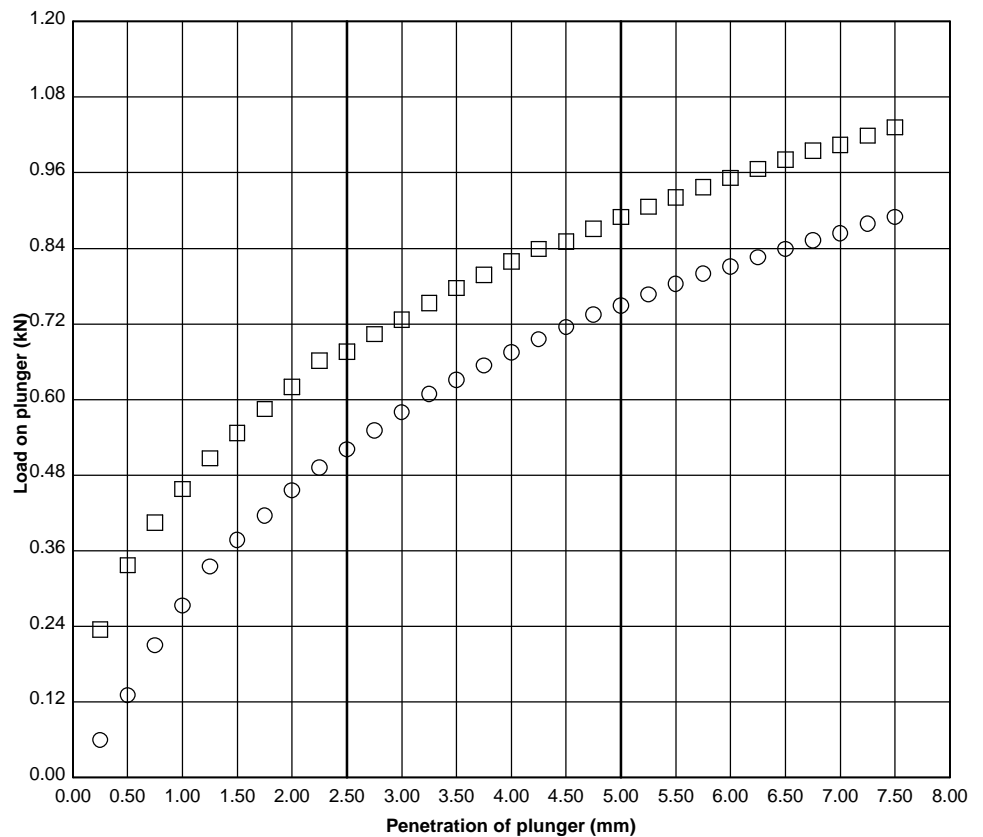
Borehole / Trial Pit	Depth (m)	Sample	% Passing 20 mm Sieve	Description
TP03	1.00	B5	99 %	Brown slightly gravelly sandy CLAY

Moisture Content %	
Bulk Density Mg/m ³	1.92
Dry Density Mg/m ³	1.48
Soaked Test	No

Test on	□	TOP
Moisture Content %	29	
Surcharge weight kg		
Penetration mm	2.5	5.0
Force kN	0.68	0.89
Corrected CBR %	5.1	4.4

Test on	○	BOTTOM
Moisture Content %	30	
Surcharge weight kg		
Penetration mm	2.5	5.0
Force kN	0.52	0.75
Corrected CBR %	4.0	3.8

Test on	TOP	BOTTOM
Reported CBR %	5.1	4.0



Method of Preparation : The specimen was prepared by Dynamic compression using a 4.5 kg Rammer
BS 1377:PART 1:1990:7.6.1 General 1990:7.6.5 California bearing ratio test BS 1377:PART 4:1990:7.2 Preparation of test sample

Method of Test : BS 1377:PART 4:1990:7.4 Penetration test procedure

Remarks :

Test Report : 40349/1

Site : New Mill Road, Holmfirth
Job Number : 40349
Originating Client : Tesco Stores Ltd

All opinions and interpretations contained within this report are outside of our Scope of Accreditation.

The following tests contained within this report are not UKAS Accredited.

Date of Issue : 16/06/08

APPENDIX 4
CHEMICAL TESTS



2139

Certificate of Analysis

Date: 28/05/2008

Certificate Number: 08-19406

Client: Ian Farmer Associates
17 Rivington Court
Hardwick Grange
Woolston
Warrington
Cheshire
WA1 4RT

Our Reference: 08-19406

Client Reference: 40349

Contract Title: New Mill Road, Holmfirth

Description: 23 soil samples


Date Received: 16/05/2008

Date Started: 16/05/2008

Date Completed: 28/05/2008

Test Procedures: Identified by prefix DETSn, details available upon request.

Notes: Observations and interpretations are outside the scope of UKAS accreditation
* denotes test not included in laboratory scope of accreditation
denotes test that holds MCERT accreditation
\$ denotes tests completed by approved subcontractors
I/S denotes insufficient sample to carry out test
N/S denotes that the sample is not suitable for testing
DETSM denotes tests carried out by DETS Midlands laboratory
Solid samples will be disposed 1 month and liquids 2 weeks
after the date of issue of this test certificate
Asbestos subsamples will be kept for 6 months

Approved By: 

Authorised Signatories: Richard Bennett
Director

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Summary of Chemical Analysis

Soil Samples

Our Ref: 08-19406

Client Ref: 40349

Contract Title: New Mill Road, Holmfirth

			132669	132670	132671	132672
		Lab No.				
		Sample Ref	WS02	WS02	WS02	WS03
		Depth	0.50	2.30	2.70	1.00-1.45
		Other Ref	2	10	13	6
		Sample Type	J	J	J	D
Test	Units	DETSxx				
Arsenic	mg/kg	DETS 042#	5	8	3	
Cadmium	mg/kg	DETS 042#	0.5	1	1.2	
Chromium	mg/kg	DETS 042#	12	19	25	
Copper	mg/kg	DETS 042#	21	18	22	
Lead	mg/kg	DETS 042#	110	55	15	
Mercury	mg/kg	DETS 081*	0.1	0.1	< 0.1	
Nickel	mg/kg	DETS 042#	12	17	20	
Selenium	mg/kg	DETS 042#	< 0.5	< 0.5	< 0.5	
Zinc	mg/kg	DETS 042#	49	51	50	
Chloride Aqueous Extract	g/l	DETS 055	0.02			
Nitrate Aqueous Extract as NO3	g/l	DETS 055	0.01			
Boron (water soluble)	mg/kg	DETS 020#	0.7	0.8	0.9	
Calorific Value	KJ/kg	DETS 037*				
Thiocyanate	mg/kg	DETS 025	1.3	< 1.0	< 1.0	
Cyanide total	mg/kg	DETS 067#	0.3	0.1	< 0.1	
Cyanide free	mg/kg	DETS 067#	< 0.1	< 0.1	< 0.1	
Cyanide complex	mg/kg	DETS 067	0.3	< 0.2	< 0.2	
Magnesium Aqueous Extract	g/l	DETS 042	< 0.01			
Sulphur (free)	mg/kg	DETS 049#	40	30	110	
Sulphide	mg/kg	DETS 024#	110	< 10	16	
Total Sulphate as SO4	%	DETS 075#	0.11	0.05	0.02	
Sulphate Aqueous Extract as SO4	g/l	DETS 076#	0.16	0.05	0.04	
Total Sulphur as S	%	DETS 064*	0.07			
pH		DETS 008#	10.9	8.6	8.6	
Aliphatic C5-C6	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	
Aliphatic C6-C8	mg/kg	DETS 072*	< 0.01	< 0.01	1.2	
Aliphatic C8-C10	mg/kg	DETS 072*	< 0.01	< 0.01	0.19	
Aliphatic C10-C12	mg/kg	DETS 072*	2.1	1.5	1.5	
Aliphatic C12-C16	mg/kg	DETS 072*	30	1.6	1.4	
Aliphatic C16-C21	mg/kg	DETS 072*	32	2.8	1.8	
Aliphatic C21-C35	mg/kg	DETS 072*	240	8.9	5.9	
Aromatic C5-C7	mg/kg	DETS 072*	< 0.01	< 0.01	0.58	
Aromatic C7-C8	mg/kg	DETS 072*	< 0.01	< 0.01	0.31	
Aromatic C8-C10	mg/kg	DETS 072*	< 0.01	< 0.01	0.04	
Aromatic C10-C12	mg/kg	DETS 072*	0.9	2.4	1.9	
Aromatic C12-C16	mg/kg	DETS 072*	29	0.7	0.5	
Aromatic C16-C21	mg/kg	DETS 072*	330	5.4	2.5	
Aromatic C21-C35	mg/kg	DETS 072*	500	23	22	
Aliphatic C5-C35	mg/kg	DETS 072*	310	15	12	
Aromatic C5-C35	mg/kg	DETS 072*	860	31	28	
TPH Ali/Aro	mg/kg	DETS 072*	1200	46	40	
Acenaphthene	mg/kg	DETS 050	9.5	0.7	< 0.1	
Acenaphthylene	mg/kg	DETS 050	1	0.4	< 0.1	
Anthracene	mg/kg	DETS 050	21	0.5	< 0.1	
Benzo(a)anthracene	mg/kg	DETS 050	15	0.4	< 0.1	

Summary of Chemical Analysis

Soil Samples

Our Ref: 08-19406

Client Ref: 40349

Contract Title: New Mill Road, Holmfirth

			Lab No.	132669	132670	132671	132672
			Sample Ref	WS02	WS02	WS02	WS03
			Depth	0.50	2.30	2.70	1.00-1.45
			Other Ref	2	10	13	6
			Sample Type	J	J	J	D
Test	Units	DETSxx					
Benzo(a)pyrene	mg/kg	DETS 050	11	< 0.1	< 0.1	< 0.1	
Benzo(b)fluoranthene	mg/kg	DETS 050	14	< 0.1	< 0.1	< 0.1	
Benzo(k)fluoranthene	mg/kg	DETS 050	4.8	< 0.1	< 0.1	< 0.1	
Benzo(g,h,i)perylene	mg/kg	DETS 050	6.9	< 0.1	< 0.1	< 0.1	
Chrysene	mg/kg	DETS 050	13	0.4	< 0.1	< 0.1	
Dibenzo(a,h)anthracene	mg/kg	DETS 050	1.5	0.3	< 0.1	< 0.1	
Fluoranthene	mg/kg	DETS 050	47	1	< 0.1	< 0.1	
Fluorene	mg/kg	DETS 050	9.1	0.3	< 0.1	< 0.1	
Indeno(1,2,3-c,d)pyrene	mg/kg	DETS 050	6.6	< 0.1	< 0.1	< 0.1	
Napthalene	mg/kg	DETS 050	1	0.7	0.2		
Phenanthrene	mg/kg	DETS 050	55	1.2	< 0.1	< 0.1	
Pyrene	mg/kg	DETS 050	35	0.6	< 0.1	< 0.1	
PAH	mg/kg	DETS 050	250	6.4	< 5.0	< 5.0	
Benzene	mg/kg	DETS 062#	< 0.01	< 0.01	0.16	0.16	
Ethylbenzene	mg/kg	DETS 062#	< 0.01	< 0.01	0.04	0.04	
Toluene	mg/kg	DETS 062#	< 0.01	< 0.01	0.24	0.24	
Xylene	mg/kg	DETS 062#	< 0.01	< 0.01	0.01	0.01	
MTBE	mg/kg	DETS 062	< 0.01		0.42	0.42	
Phenol - Monohydric	mg/kg	DETS 067#	0.9	< 0.3	< 0.3	< 0.3	
Total VOC's	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01	
Ammonia as NH4	g/l	DETS 019	< 0.01				
1,2,3-trichlorobenzene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01	
Hexachlorobutadiene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01	
1,2-dibromo-3-chloropropane	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01	
1,2-dichlorobenzene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01	
n-butylbenzene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01	
1,4-dichlorobenzene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01	
1,3-dichlorobenzene+p-isopropyltoluene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01	
sec-butylbenzene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01	
1,2,4-trimethylbenzene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01	
Tert-butylbenzene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01	
4-chlorotoluene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01	
1,3,5-trimethylbenzene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01	
2-chlorotoluene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01	
n-propylbenzene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01	
1,2,3-trichloropropane	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01	
Bromobenzene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01	
Isopropylbenzene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01	
Bromoform	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01	
Styrene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01	
Naphthalene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01	
1,1-dichloroethane	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01	
Trans-1,2-dichloroethylene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01	
o-Xylene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01	
m+p-Xylene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01	

Summary of Chemical Analysis

Soil Samples

Our Ref: 08-19406

Client Ref: 40349

Contract Title: New Mill Road, Holmfirth

			132669	132670	132671	132672
		Lab No.				
		Sample Ref	WS02	WS02	WS02	WS03
		Depth	0.50	2.30	2.70	1.00-1.45
		Other Ref	2	10	13	6
		Sample Type	J	J	J	D
Test	Units	DETSxx				
Ethylbenzene+1,1,1,2-tetrachloroethane	mg/kg	DETS 068*	< 0.01	< 0.01		
Chlorobenzene	mg/kg	DETS 068*	< 0.01	< 0.01		
1,2-dibromoethane	mg/kg	DETS 068*	< 0.01	< 0.01		
Dibromochloromethane	mg/kg	DETS 068*	< 0.01	< 0.01		
1,3-dichloropropane	mg/kg	DETS 068*	< 0.01	< 0.01		
Tetrachloroethylene	mg/kg	DETS 068*	< 0.01	< 0.01		
1,1,2-trichloroethane	mg/kg	DETS 068*	< 0.01	< 0.01		
trans-1,3-dichloropropene	mg/kg	DETS 068*	< 0.01	< 0.01		
Toluene	mg/kg	DETS 068*	< 0.01	< 0.01		
Methylene Chloride	mg/kg	DETS 068*	< 0.01	< 0.01		
cis-1,3-dichloropropene	mg/kg	DETS 068*	< 0.01	< 0.01		
Bromodichloromethane	mg/kg	DETS 068*	< 0.01	< 0.01		
Dibromomethane	mg/kg	DETS 068*	< 0.01	< 0.01		
1,2-dichloropropane	mg/kg	DETS 068*	< 0.01	< 0.01		
Trichloroethylene	mg/kg	DETS 068*	< 0.01	< 0.01		
1,2-dichloroethane	mg/kg	DETS 068*	< 0.01	< 0.01		
Benzene	mg/kg	DETS 068*	< 0.01	< 0.01		
Carbon tetrachloride + 1,1-dichloropropene	mg/kg	DETS 068*	< 0.01	< 0.01		
1,1,1-trichloroethane	mg/kg	DETS 068*	< 0.01	< 0.01		
Chloroform	mg/kg	DETS 068*	< 0.01	< 0.01		
Bromochloromethane	mg/kg	DETS 068*	< 0.01	< 0.01		
1,1 Dichloroethylene	mg/kg	DETS 068*	< 0.01	< 0.01		
1,2,4-trichlorobenzene	mg/kg	DETS 068*	< 0.01	< 0.01		
2,2-dichloropropane+1,2-dichloroethylene	mg/kg	DETS 068*	< 0.01	< 0.01		

Summary of Chemical Analysis

Soil Samples

Our Ref: 08-19406

Client Ref: 40349

Contract Title: New Mill Road, Holmfirth

			132673	132674	132675	132676
		Lab No.				
		Sample Ref	WS04	WS07	WS08	WS10
		Depth	4.50	2.50	5.00-6.00	1.50
		Other Ref	21	9	15	5
		Sample Type	J	J	J	D
Test	Units	DETSxx				
Arsenic	mg/kg	DETS 042#	1	8	36	38
Cadmium	mg/kg	DETS 042#	1	0.8	0.9	1.7
Chromium	mg/kg	DETS 042#	25	26	19	46
Copper	mg/kg	DETS 042#	41	55	17	81
Lead	mg/kg	DETS 042#	14	52	85	14000
Mercury	mg/kg	DETS 081*	< 0.1	0.2	0.2	0.4
Nickel	mg/kg	DETS 042#	31	18	2	37
Selenium	mg/kg	DETS 042#	< 0.5	< 0.5	< 0.5	< 0.5
Zinc	mg/kg	DETS 042#	75	68	51	110
Chloride Aqueous Extract	g/l	DETS 055				
Nitrate Aqueous Extract as NO3	g/l	DETS 055				
Boron (water soluble)	mg/kg	DETS 020#	0.6	1.4	1.4	0.7
Calorific Value	KJ/kg	DETS 037*				
Thiocyanate	mg/kg	DETS 025	1.4	< 1.0	5.5	1.5
Cyanide total	mg/kg	DETS 067#	0.2	0.4	33000	21
Cyanide free	mg/kg	DETS 067#	< 0.1	0.2	40	0.5
Cyanide complex	mg/kg	DETS 067	< 0.2	0.2	33000	21
Magnesium Aqueous Extract	g/l	DETS 042				
Sulphur (free)	mg/kg	DETS 049#	5.3	100	31000	39
Sulphide	mg/kg	DETS 024#	< 10	31	130	74
Total Sulphate as SO4	%	DETS 075#	0.11	0.05	0.74	0.2
Sulphate Aqueous Extract as SO4	g/l	DETS 076#	0.22	0.05	0.9	0.2
Total Sulphur as S	%	DETS 064*				
pH		DETS 008#	6.8	7.8	6.7	8.0
Aliphatic C5-C6	mg/kg	DETS 072*	< 0.01	< 0.01	0.03	< 0.01
Aliphatic C6-C8	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	mg/kg	DETS 072*	< 0.01	4.9	10	< 0.01
Aliphatic C10-C12	mg/kg	DETS 072*	0.8	5.4	1300	2.1
Aliphatic C12-C16	mg/kg	DETS 072*	1.1	36	3800	2.8
Aliphatic C16-C21	mg/kg	DETS 072*	1.5	58	2200	7.7
Aliphatic C21-C35	mg/kg	DETS 072*	7.2	85	5800	33
Aromatic C5-C7	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C7-C8	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C8-C10	mg/kg	DETS 072*	< 0.01	0.75	5.3	< 0.01
Aromatic C10-C12	mg/kg	DETS 072*	< 0.1	1.1	130	0.9
Aromatic C12-C16	mg/kg	DETS 072*	< 0.1	3.2	480	1
Aromatic C16-C21	mg/kg	DETS 072*	< 0.1	11	2300	34
Aromatic C21-C35	mg/kg	DETS 072*	< 0.1	37	2100	120
Aliphatic C5-C35	mg/kg	DETS 072*	11	190	13000	46
Aromatic C5-C35	mg/kg	DETS 072*	< 1	53	4900	150
TPH Ali/Aro	mg/kg	DETS 072*	11	240	18000	200
Acenaphthene	mg/kg	DETS 050	< 0.1	6.3	350	0.5
Acenaphthylene	mg/kg	DETS 050	< 0.1	0.4	290	1
Anthracene	mg/kg	DETS 050	< 0.1	2.7	250	4.1
Benzo(a)anthracene	mg/kg	DETS 050	< 0.1	0.3	560	10

Summary of Chemical Analysis

Soil Samples

Our Ref: 08-19406

Client Ref: 40349

Contract Title: New Mill Road, Holmfirth

		Lab No.	132673	132674	132675	132676
		Sample Ref	WS04	WS07	WS08	WS10
		Depth	4.50	2.50	5.00-6.00	1.50
		Other Ref	21	9	15	5
		Sample Type	J	J	J	D
Test	Units	DETSxx				
Benzo(a)pyrene	mg/kg	DETS 050	< 0.1	0.2	190	10
Benzo(b)fluoranthene	mg/kg	DETS 050	< 0.1	0.6	400	11
Benzo(k)fluoranthene	mg/kg	DETS 050	< 0.1	0.3	190	3.8
Benzo(g,h,i)perylene	mg/kg	DETS 050	< 0.1	0.3	360	6
Chrysene	mg/kg	DETS 050	< 0.1	0.3	420	9.2
Dibenzo(a,h)anthracene	mg/kg	DETS 050	< 0.1	< 0.1	100	1.3
Fluoranthene	mg/kg	DETS 050	< 0.1	0.5	1000	26
Fluorene	mg/kg	DETS 050	< 0.1	4.5	540	0.9
Indeno(1,2,3-c,d)pyrene	mg/kg	DETS 050	< 0.1	0.3	170	5.3
Napthalene	mg/kg	DETS 050	0.1	3.5	300	0.5
Phenanthrene	mg/kg	DETS 050	< 0.1	0.4	1300	11
Pyrene	mg/kg	DETS 050	< 0.1	0.5	870	22
PAH	mg/kg	DETS 050	< 5.0	21	7300	120
Benzene	mg/kg	DETS 062#	< 0.01	< 0.01	< 0.01	< 0.01
Ethylbenzene	mg/kg	DETS 062#	< 0.01	< 0.01	< 0.01	< 0.01
Toluene	mg/kg	DETS 062#	< 0.01	< 0.01	< 0.01	< 0.01
Xylene	mg/kg	DETS 062#	< 0.01	< 0.01	< 0.01	< 0.01
MTBE	mg/kg	DETS 062	< 0.01	< 0.01	< 0.01	< 0.01
Phenol - Monohydric	mg/kg	DETS 067#	< 0.3	< 0.3	8.3	< 0.3
Total VOC's	mg/kg	DETS 068*		< 0.01	2.8	
Ammonia as NH4	g/l	DETS 019				
1,2,3-trichlorobenzene	mg/kg	DETS 068*		< 0.01	< 0.01	
Hexachlorobutadiene	mg/kg	DETS 068*		< 0.01	< 0.01	
1,2-dibromo-3-chloropropane	mg/kg	DETS 068*		< 0.01	< 0.01	
1,2-dichlorobenzene	mg/kg	DETS 068*		< 0.01	< 0.01	
n-butylbenzene	mg/kg	DETS 068*		< 0.01	< 0.01	
1,4-dichlorobenzene	mg/kg	DETS 068*		< 0.01	< 0.01	
1,3-dichlorobenzene+p-isopropyltoluene	mg/kg	DETS 068*		< 0.01	0.04	
sec-butylbenzene	mg/kg	DETS 068*		< 0.01	< 0.01	
1,2,4-trimethylbenzene	mg/kg	DETS 068*		< 0.01	0.05	
Tert-butylbenzene	mg/kg	DETS 068*		< 0.01	< 0.01	
4-chlorotoluene	mg/kg	DETS 068*		< 0.01	< 0.01	
1,3,5-trimethylbenzene	mg/kg	DETS 068*		< 0.01	0.08	
2-chlorotoluene	mg/kg	DETS 068*		< 0.01	0.01	
n-propylbenzene	mg/kg	DETS 068*		< 0.01	< 0.01	
1,2,3-trichloropropane	mg/kg	DETS 068*		< 0.01	< 0.01	
Bromobenzene	mg/kg	DETS 068*		< 0.01	< 0.01	
Isopropylbenzene	mg/kg	DETS 068*		< 0.01	< 0.01	
Bromoform	mg/kg	DETS 068*		< 0.01	< 0.01	
Styrene	mg/kg	DETS 068*		< 0.01	< 0.01	
Napthalene	mg/kg	DETS 068*		< 0.01	2	
1,1-dichloroethane	mg/kg	DETS 068*		< 0.01	< 0.01	
Trans-1,2-dichloroethylene	mg/kg	DETS 068*		< 0.01	< 0.01	
o-Xylene	mg/kg	DETS 068*		< 0.01	< 0.01	
m+p-Xylene	mg/kg	DETS 068*		< 0.01	0.01	

Summary of Chemical Analysis

Soil Samples

Our Ref: 08-19406

Client Ref: 40349

Contract Title: New Mill Road, Holmfirth

		Lab No.	132673	132674	132675	132676
		Sample Ref	WS04	WS07	WS08	WS10
		Depth	4.50	2.50	5.00-6.00	1.50
		Other Ref	21	9	15	5
		Sample Type	J	J	J	D
Test	Units	DETSxx				
Ethylbenzene+1,1,1,2-tetrachloroethane	mg/kg	DETS 068*		< 0.01	< 0.01	
Chlorobenzene	mg/kg	DETS 068*		< 0.01	< 0.01	
1,2-dibromoethane	mg/kg	DETS 068*		< 0.01	< 0.01	
Dibromochloromethane	mg/kg	DETS 068*		< 0.01	< 0.01	
1,3-dichloropropane	mg/kg	DETS 068*		< 0.01	< 0.01	
Tetrachloroethylene	mg/kg	DETS 068*		< 0.01	< 0.01	
1,1,2-trichloroethane	mg/kg	DETS 068*		< 0.01	< 0.01	
trans-1,3-dichloropropene	mg/kg	DETS 068*		< 0.01	< 0.01	
Toluene	mg/kg	DETS 068*		< 0.01	0.08	
Methylene Chloride	mg/kg	DETS 068*		< 0.01	< 0.01	
cis-1,3-dichloropropene	mg/kg	DETS 068*		< 0.01	< 0.01	
Bromodichloromethane	mg/kg	DETS 068*		< 0.01	< 0.01	
Dibromomethane	mg/kg	DETS 068*		< 0.01	< 0.01	
1,2-dichloropropane	mg/kg	DETS 068*		< 0.01	< 0.01	
Trichloroethylene	mg/kg	DETS 068*		< 0.01	< 0.01	
1,2-dichloroethane	mg/kg	DETS 068*		< 0.01	< 0.01	
Benzene	mg/kg	DETS 068*		< 0.01	0.11	
Carbon tetrachloride + 1,1-dichloropropene	mg/kg	DETS 068*		< 0.01	< 0.01	
1,1,1-trichloroethane	mg/kg	DETS 068*		< 0.01	< 0.01	
Chloroform	mg/kg	DETS 068*		< 0.01	< 0.01	
Bromochloromethane	mg/kg	DETS 068*		< 0.01	< 0.01	
1,1 Dichloroethylene	mg/kg	DETS 068*		< 0.01	< 0.01	
1,2,4-trichlorobenzene	mg/kg	DETS 068*		< 0.01	< 0.01	
2,2-dichloropropane+1,2-dichloroethylene	mg/kg	DETS 068*		< 0.01	< 0.01	

Summary of Chemical Analysis

Soil Samples

Our Ref: 08-19406

Client Ref: 40349

Contract Title: New Mill Road, Holmfirth

			Lab No.	132677	132678	132679	132680
			Sample Ref	WS11	WS12	BH02	BH05
			Depth	2.50	1.50	4.00-4.50	2.00-2.45
			Other Ref	10	1	6	4
			Sample Type	J	D	B	B
Test	Units	DETSxx					
Arsenic	mg/kg	DETS 042#	49			7	44
Cadmium	mg/kg	DETS 042#	1			0.9	1.4
Chromium	mg/kg	DETS 042#	41			19	31
Copper	mg/kg	DETS 042#	110			50	130
Lead	mg/kg	DETS 042#	550			86	330
Mercury	mg/kg	DETS 081*	0.1			0.1	0.3
Nickel	mg/kg	DETS 042#	49			22	55
Selenium	mg/kg	DETS 042#	< 0.5			< 0.5	< 0.5
Zinc	mg/kg	DETS 042#	56			69	280
Chloride Aqueous Extract	g/l	DETS 055	< 0.01	0.02		0.03	
Nitrate Aqueous Extract as NO3	g/l	DETS 055	< 0.01	< 0.01		< 0.01	
Boron (water soluble)	mg/kg	DETS 020#	1.4			1	1.9
Calorific Value	KJ/kg	DETS 037*				< 1000	
Thiocyanate	mg/kg	DETS 025	1.6			< 1.0	< 1.0
Cyanide total	mg/kg	DETS 067#	4.2			1.1	6.8
Cyanide free	mg/kg	DETS 067#	0.2			< 0.1	0.2
Cyanide complex	mg/kg	DETS 067	4			1	6.6
Magnesium Aqueous Extract	g/l	DETS 042	< 0.01	< 0.01		0.01	
Sulphur (free)	mg/kg	DETS 049#	3.4			24	< 0.8
Sulphide	mg/kg	DETS 024#	35	55		23	59
Total Sulphate as SO4	%	DETS 075#	0.13	0.03		0.08	0.46
Sulphate Aqueous Extract as SO4	g/l	DETS 076#	0.12	0.03		0.17	0.28
Total Sulphur as S	%	DETS 064*	0.08	0.05		0.03	
pH		DETS 008#	8.0	10.7		9.0	8.4
Aliphatic C5-C6	mg/kg	DETS 072*	< 0.01			< 0.01	< 0.01
Aliphatic C6-C8	mg/kg	DETS 072*	< 0.01			< 0.01	< 0.01
Aliphatic C8-C10	mg/kg	DETS 072*	< 0.01			< 0.01	< 0.01
Aliphatic C10-C12	mg/kg	DETS 072*	0.4			0.5	0.8
Aliphatic C12-C16	mg/kg	DETS 072*	1.4			16	8.2
Aliphatic C16-C21	mg/kg	DETS 072*	14			35	18
Aliphatic C21-C35	mg/kg	DETS 072*	32			12	66
Aromatic C5-C7	mg/kg	DETS 072*	< 0.01			< 0.01	< 0.01
Aromatic C7-C8	mg/kg	DETS 072*	< 0.01			< 0.01	< 0.01
Aromatic C8-C10	mg/kg	DETS 072*	< 0.01			< 0.01	< 0.01
Aromatic C10-C12	mg/kg	DETS 072*	0.2			0.2	0.3
Aromatic C12-C16	mg/kg	DETS 072*	0.4			6.6	5.2
Aromatic C16-C21	mg/kg	DETS 072*	26			190	120
Aromatic C21-C35	mg/kg	DETS 072*	81			270	250
Aliphatic C5-C35	mg/kg	DETS 072*	48			63	93
Aromatic C5-C35	mg/kg	DETS 072*	110			470	380
TPH Ali/Aro	mg/kg	DETS 072*	160			530	470
Acenaphthene	mg/kg	DETS 050	< 0.1			0.6	4.3
Acenaphthylene	mg/kg	DETS 050	< 0.1			0.4	0.7
Anthracene	mg/kg	DETS 050	< 0.1			4.2	8.3
Benzo(a)anthracene	mg/kg	DETS 050	< 0.1			6.8	11

Summary of Chemical Analysis

Soil Samples

Our Ref: 08-19406

Client Ref: 40349

Contract Title: New Mill Road, Holmfirth

		Lab No.	132677	132678	132679	132680
		Sample Ref	WS11	WS12	BH02	BH05
		Depth	2.50	1.50	4.00-4.50	2.00-2.45
		Other Ref	10	1	6	4
		Sample Type	J	D	B	B
Test	Units	DETSxx				
Benzo(a)pyrene	mg/kg	DETS 050	< 0.1		5.7	8.8
Benzo(b)fluoranthene	mg/kg	DETS 050	< 0.1		7.3	11
Benzo(k)fluoranthene	mg/kg	DETS 050	< 0.1		2.5	3.9
Benzo(g,h,i)perylene	mg/kg	DETS 050	< 0.1		3	5.3
Chrysene	mg/kg	DETS 050	< 0.1		6	9.9
Dibenzo(a,h)anthracene	mg/kg	DETS 050	< 0.1		0.6	1.3
Fluoranthene	mg/kg	DETS 050	< 0.1		17	33
Fluorene	mg/kg	DETS 050	< 0.1		0.9	3.8
Indeno(1,2,3-c,d)pyrene	mg/kg	DETS 050	< 0.1		3.2	5.6
Napthalene	mg/kg	DETS 050	0.1		< 0.1	0.7
Phenanthrene	mg/kg	DETS 050	< 0.1		9.3	26
Pyrene	mg/kg	DETS 050	< 0.1		13	24
PAH	mg/kg	DETS 050	< 5.0		81	160
Benzene	mg/kg	DETS 062#	< 0.01		< 0.01	< 0.01
Ethylbenzene	mg/kg	DETS 062#	< 0.01		< 0.01	< 0.01
Toluene	mg/kg	DETS 062#	< 0.01		< 0.01	< 0.01
Xylene	mg/kg	DETS 062#	< 0.01		< 0.01	< 0.01
MTBE	mg/kg	DETS 062	< 0.01			
Phenol - Monohydric	mg/kg	DETS 067#	< 0.3		< 0.3	< 0.3
Total VOC's	mg/kg	DETS 068*	< 0.01		< 0.01	
Ammonia as NH4	g/l	DETS 019	< 0.01	< 0.01	< 0.01	
1,2,3-trichlorobenzene	mg/kg	DETS 068*	< 0.01		< 0.01	
Hexachlorobutadiene	mg/kg	DETS 068*	< 0.01		< 0.01	
1,2-dibromo-3-chloropropane	mg/kg	DETS 068*	< 0.01		< 0.01	
1,2-dichlorobenzene	mg/kg	DETS 068*	< 0.01		< 0.01	
n-butylbenzene	mg/kg	DETS 068*	< 0.01		< 0.01	
1,4-dichlorobenzene	mg/kg	DETS 068*	< 0.01		< 0.01	
1,3-dichlorobenzene+p-isopropyltoluene	mg/kg	DETS 068*	< 0.01		< 0.01	
sec-butylbenzene	mg/kg	DETS 068*	< 0.01		< 0.01	
1,2,4-trimethylbenzene	mg/kg	DETS 068*	< 0.01		< 0.01	
Tert-butylbenzene	mg/kg	DETS 068*	< 0.01		< 0.01	
4-chlorotoluene	mg/kg	DETS 068*	< 0.01		< 0.01	
1,3,5-trimethylbenzene	mg/kg	DETS 068*	< 0.01		< 0.01	
2-chlorotoluene	mg/kg	DETS 068*	< 0.01		< 0.01	
n-propylbenzene	mg/kg	DETS 068*	< 0.01		< 0.01	
1,2,3-trichloropropane	mg/kg	DETS 068*	< 0.01		< 0.01	
Bromobenzene	mg/kg	DETS 068*	< 0.01		< 0.01	
Isopropylbenzene	mg/kg	DETS 068*	< 0.01		< 0.01	
Bromoform	mg/kg	DETS 068*	< 0.01		< 0.01	
Styrene	mg/kg	DETS 068*	< 0.01		< 0.01	
Naphthalene	mg/kg	DETS 068*	< 0.01		< 0.01	
1,1-dichloroethane	mg/kg	DETS 068*	< 0.01		< 0.01	
Trans-1,2-dichloroethylene	mg/kg	DETS 068*	< 0.01		< 0.01	
o-Xylene	mg/kg	DETS 068*	< 0.01		< 0.01	
m+p-Xylene	mg/kg	DETS 068*	< 0.01		< 0.01	

Summary of Chemical Analysis

Soil Samples

Our Ref: 08-19406

Client Ref: 40349

Contract Title: New Mill Road, Holmfirth

			132677	132678	132679	132680
		Lab No.	132677	132678	132679	132680
		Sample Ref	WS11	WS12	BH02	BH05
		Depth	2.50	1.50	4.00-4.50	2.00-2.45
		Other Ref	10	1	6	4
		Sample Type	J	D	B	B
Test	Units	DETSxx				
Ethylbenzene+1,1,1,2-tetrachloroethane	mg/kg	DETS 068*	< 0.01		< 0.01	
Chlorobenzene	mg/kg	DETS 068*	< 0.01		< 0.01	
1,2-dibromoethane	mg/kg	DETS 068*	< 0.01		< 0.01	
Dibromochloromethane	mg/kg	DETS 068*	< 0.01		< 0.01	
1,3-dichloropropane	mg/kg	DETS 068*	< 0.01		< 0.01	
Tetrachloroethylene	mg/kg	DETS 068*	< 0.01		< 0.01	
1,1,2-trichloroethane	mg/kg	DETS 068*	< 0.01		< 0.01	
trans-1,3-dichloropropene	mg/kg	DETS 068*	< 0.01		< 0.01	
Toluene	mg/kg	DETS 068*	< 0.01		< 0.01	
Methylene Chloride	mg/kg	DETS 068*	< 0.01		< 0.01	
cis-1,3-dichloropropene	mg/kg	DETS 068*	< 0.01		< 0.01	
Bromodichloromethane	mg/kg	DETS 068*	< 0.01		< 0.01	
Dibromomethane	mg/kg	DETS 068*	< 0.01		< 0.01	
1,2-dichloropropane	mg/kg	DETS 068*	< 0.01		< 0.01	
Trichloroethylene	mg/kg	DETS 068*	< 0.01		< 0.01	
1,2-dichloroethane	mg/kg	DETS 068*	< 0.01		< 0.01	
Benzene	mg/kg	DETS 068*	< 0.01		< 0.01	
Carbon tetrachloride + 1,1-dichloropropene	mg/kg	DETS 068*	< 0.01		< 0.01	
1,1,1-trichloroethane	mg/kg	DETS 068*	< 0.01		< 0.01	
Chloroform	mg/kg	DETS 068*	< 0.01		< 0.01	
Bromochloromethane	mg/kg	DETS 068*	< 0.01		< 0.01	
1,1 Dichloroethylene	mg/kg	DETS 068*	< 0.01		< 0.01	
1,2,4-trichlorobenzene	mg/kg	DETS 068*	< 0.01		< 0.01	
2,2-dichloropropane+1,2-dichloroethylene	mg/kg	DETS 068*	< 0.01		< 0.01	

Summary of Chemical Analysis

Soil Samples

Our Ref: 08-19406

Client Ref: 40349

Contract Title: New Mill Road, Holmfirth

		Lab No.	132681	132682	132683	132684
		Sample Ref	BH06	BH07	BH09	BH11
		Depth	0.70-1.20	2.00-2.45	4.00-4.45	2.00-2.45
		Other Ref	2	3	5	4
		Sample Type	B	B	B	B
Test	Units	DETSxx				
Arsenic	mg/kg	DETS 042#		20	27	58
Cadmium	mg/kg	DETS 042#		1.9	31	34
Chromium	mg/kg	DETS 042#		29	33	35
Copper	mg/kg	DETS 042#		910	200	230
Lead	mg/kg	DETS 042#		180	180	460
Mercury	mg/kg	DETS 081*		0.3	0.4	0.7
Nickel	mg/kg	DETS 042#		23	21	62
Selenium	mg/kg	DETS 042#		< 0.5	< 0.5	< 0.5
Zinc	mg/kg	DETS 042#		490	300	530
Chloride Aqueous Extract	g/l	DETS 055	0.01	0.02	< 0.01	
Nitrate Aqueous Extract as NO3	g/l	DETS 055	< 0.01	0.1	0.03	
Boron (water soluble)	mg/kg	DETS 020#		2.8	2.8	3
Calorific Value	KJ/kg	DETS 037*	< 1000	1600	4900	2500
Thiocyanate	mg/kg	DETS 025		1.4	2.1	1.1
Cyanide total	mg/kg	DETS 067#		1.2	84	4
Cyanide free	mg/kg	DETS 067#		0.1	1	0.2
Cyanide complex	mg/kg	DETS 067		1.1	83	3.9
Magnesium Aqueous Extract	g/l	DETS 042	< 0.01	0.01	0.01	
Sulphur (free)	mg/kg	DETS 049#		< 0.8	9.3	70
Sulphide	mg/kg	DETS 024#	12	180	82	90
Total Sulphate as SO4	%	DETS 075#	0.02	0.22	0.33	0.79
Sulphate Aqueous Extract as SO4	g/l	DETS 076#	0.03	0.45	0.2	1.5
Total Sulphur as S	%	DETS 064*	0.01	0.16	0.35	
pH		DETS 008#	8.5	8.6	8.6	7.9
Aliphatic C5-C6	mg/kg	DETS 072*		< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	mg/kg	DETS 072*		< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	mg/kg	DETS 072*		< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	mg/kg	DETS 072*		1.7	3.1	1.9
Aliphatic C12-C16	mg/kg	DETS 072*		6.3	4.5	5.5
Aliphatic C16-C21	mg/kg	DETS 072*		29	31	37
Aliphatic C21-C35	mg/kg	DETS 072*		170	350	180
Aromatic C5-C7	mg/kg	DETS 072*		< 0.01	< 0.01	< 0.01
Aromatic C7-C8	mg/kg	DETS 072*		< 0.01	< 0.01	< 0.01
Aromatic C8-C10	mg/kg	DETS 072*		< 0.01	< 0.01	< 0.01
Aromatic C10-C12	mg/kg	DETS 072*		0.3	0.4	0.6
Aromatic C12-C16	mg/kg	DETS 072*		2.2	0.5	1.3
Aromatic C16-C21	mg/kg	DETS 072*		48	10	19
Aromatic C21-C35	mg/kg	DETS 072*		180	93	110
Aliphatic C5-C35	mg/kg	DETS 072*		200	380	220
Aromatic C5-C35	mg/kg	DETS 072*		230	100	130
TPH Ali/Aro	mg/kg	DETS 072*		430	490	350
Acenaphthene	mg/kg	DETS 050		2.6	< 0.1	0.4
Acenaphthylene	mg/kg	DETS 050		0.4	< 0.1	0.5
Anthracene	mg/kg	DETS 050		4.6	< 0.1	0.1
Benzo(a)anthracene	mg/kg	DETS 050		5.7	< 0.1	3.8

Summary of Chemical Analysis

Soil Samples

Our Ref: 08-19406

Client Ref: 40349

Contract Title: New Mill Road, Holmfirth

		Lab No.	132681	132682	132683	132684
		Sample Ref	BH06	BH07	BH09	BH11
		Depth	0.70-1.20	2.00-2.45	4.00-4.45	2.00-2.45
		Other Ref	2	3	5	4
		Sample Type	B	B	B	B
Test	Units	DETSxx				
Benzo(a)pyrene	mg/kg	DETS 050		3.8	< 0.1	0.3
Benzo(b)fluoranthene	mg/kg	DETS 050		6.6	11	0.8
Benzo(k)fluoranthene	mg/kg	DETS 050		5.1	< 0.1	< 0.1
Benzo(g,h,i)perylene	mg/kg	DETS 050		2.1	< 0.1	0.2
Chrysene	mg/kg	DETS 050		5.4	< 0.1	0.4
Dibenzo(a,h)anthracene	mg/kg	DETS 050		1	7.3	0.7
Fluoranthene	mg/kg	DETS 050		17	< 0.1	0.9
Fluorene	mg/kg	DETS 050		2.1	< 0.1	0.2
Indeno(1,2,3-c,d)pyrene	mg/kg	DETS 050		1.9	< 0.1	0.3
Napthalene	mg/kg	DETS 050		0.4	0.1	0.3
Phenanthrene	mg/kg	DETS 050		14	< 0.1	0.7
Pyrene	mg/kg	DETS 050		25	< 0.1	1.2
PAH	mg/kg	DETS 050		97	19	11
Benzene	mg/kg	DETS 062#		< 0.01	< 0.01	< 0.01
Ethylbenzene	mg/kg	DETS 062#		< 0.01	< 0.01	< 0.01
Toluene	mg/kg	DETS 062#		< 0.01	< 0.01	< 0.01
Xylene	mg/kg	DETS 062#		< 0.01	< 0.01	< 0.01
MTBE	mg/kg	DETS 062				
Phenol - Monohydric	mg/kg	DETS 067#		0.6	< 0.3	0.5
Total VOC's	mg/kg	DETS 068*		< 0.01	< 0.01	< 0.01
Ammonia as NH4	g/l	DETS 019	< 0.01	< 0.01	< 0.01	
1,2,3-trichlorobenzene	mg/kg	DETS 068*		< 0.01	< 0.01	< 0.01
Hexachlorobutadiene	mg/kg	DETS 068*		< 0.01	< 0.01	< 0.01
1,2-dibromo-3-chloropropane	mg/kg	DETS 068*		< 0.01	< 0.01	< 0.01
1,2-dichlorobenzene	mg/kg	DETS 068*		< 0.01	< 0.01	< 0.01
n-butylbenzene	mg/kg	DETS 068*		< 0.01	< 0.01	< 0.01
1,4-dichlorobenzene	mg/kg	DETS 068*		< 0.01	< 0.01	< 0.01
1,3-dichlorobenzene+p-isopropyltoluene	mg/kg	DETS 068*		< 0.01	< 0.01	< 0.01
sec-butylbenzene	mg/kg	DETS 068*		< 0.01	< 0.01	< 0.01
1,2,4-trimethylbenzene	mg/kg	DETS 068*		< 0.01	< 0.01	< 0.01
Tert-butylbenzene	mg/kg	DETS 068*		< 0.01	< 0.01	< 0.01
4-chlorotoluene	mg/kg	DETS 068*		< 0.01	< 0.01	< 0.01
1,3,5-trimethylbenzene	mg/kg	DETS 068*		< 0.01	< 0.01	< 0.01
2-chlorotoluene	mg/kg	DETS 068*		< 0.01	< 0.01	< 0.01
n-propylbenzene	mg/kg	DETS 068*		< 0.01	< 0.01	< 0.01
1,2,3-trichloropropane	mg/kg	DETS 068*		< 0.01	< 0.01	< 0.01
Bromobenzene	mg/kg	DETS 068*		< 0.01	< 0.01	< 0.01
Isopropylbenzene	mg/kg	DETS 068*		< 0.01	< 0.01	< 0.01
Bromoform	mg/kg	DETS 068*		< 0.01	< 0.01	< 0.01
Styrene	mg/kg	DETS 068*		< 0.01	< 0.01	< 0.01
Naphthalene	mg/kg	DETS 068*		< 0.01	< 0.01	< 0.01
1,1-dichloroethane	mg/kg	DETS 068*		< 0.01	< 0.01	< 0.01
Trans-1,2-dichloroethylene	mg/kg	DETS 068*		< 0.01	< 0.01	< 0.01
o-Xylene	mg/kg	DETS 068*		< 0.01	< 0.01	< 0.01
m+p-Xylene	mg/kg	DETS 068*		< 0.01	< 0.01	< 0.01

Summary of Chemical Analysis

Soil Samples

Our Ref: 08-19406

Client Ref: 40349

Contract Title: New Mill Road, Holmfirth

		Lab No.	132681	132682	132683	132684
		Sample Ref	BH06	BH07	BH09	BH11
		Depth	0.70-1.20	2.00-2.45	4.00-4.45	2.00-2.45
		Other Ref	2	3	5	4
		Sample Type	B	B	B	B
Test	Units	DETSxx				
Ethylbenzene+1,1,1,2-tetrachloroethane	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01
Chlorobenzene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dibromoethane	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01
Dibromochloromethane	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01
1,3-dichloropropane	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachloroethylene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01
1,1,2-trichloroethane	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01
trans-1,3-dichloropropene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01
Toluene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01
Methylene Chloride	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01
cis-1,3-dichloropropene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01
Bromodichloromethane	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01
Dibromomethane	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dichloropropane	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01
Trichloroethylene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dichloroethane	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01
Carbon tetrachloride + 1,1-dichloropropene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01
1,1,1-trichloroethane	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01
Chloroform	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01
Bromochloromethane	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01
1,1 Dichloroethylene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01
1,2,4-trichlorobenzene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01
2,2-dichloropropane+1,2-dichloroethylene	mg/kg	DETS 068*	< 0.01	< 0.01	< 0.01	< 0.01

Summary of Chemical Analysis

Soil Samples

Our Ref: 08-19406

Client Ref: 40349

Contract Title: New Mill Road, Holmfirth

		Lab No.	132685	132686	132687	132688
		Sample Ref	BH12	TP02	TP06	TP08
		Depth	1.20-1.65	2.00	2.00	1.00
		Other Ref	2	6	5	4
		Sample Type	B	D	B	D
Test	Units	DETSxx				
Arsenic	mg/kg	DETS 042#	30	140	17	42
Cadmium	mg/kg	DETS 042#	9.9	2.3	1	1.7
Chromium	mg/kg	DETS 042#	33	29	110	52
Copper	mg/kg	DETS 042#	220	290	63	150
Lead	mg/kg	DETS 042#	250	460	130	280
Mercury	mg/kg	DETS 081*	0.4	0.3	0.1	0.5
Nickel	mg/kg	DETS 042#	39	73	29	31
Selenium	mg/kg	DETS 042#	< 0.5	0.6	1.3	< 0.5
Zinc	mg/kg	DETS 042#	840	920	160	460
Chloride Aqueous Extract	g/l	DETS 055		< 0.01		
Nitrate Aqueous Extract as NO3	g/l	DETS 055		0.02		
Boron (water soluble)	mg/kg	DETS 020#	1.8	1.8	2.1	3.4
Calorific Value	KJ/kg	DETS 037*	1200			
Thiocyanate	mg/kg	DETS 025	1.6	1.3	1.7	< 1.0
Cyanide total	mg/kg	DETS 067#	0.9	0.7	0.6	1.1
Cyanide free	mg/kg	DETS 067#	< 0.1	< 0.1	< 0.1	0.1
Cyanide complex	mg/kg	DETS 067	0.8	0.7	0.6	1
Magnesium Aqueous Extract	g/l	DETS 042		< 0.01		
Sulphur (free)	mg/kg	DETS 049#	40	< 0.8	99	260
Sulphide	mg/kg	DETS 024#	190	74	610	86
Total Sulphate as SO4	%	DETS 075#	0.33	0.43	0.35	0.3
Sulphate Aqueous Extract as SO4	g/l	DETS 076#	1.1	0.17	1	0.94
Total Sulphur as S	%	DETS 064*		0.2		
pH		DETS 008#	8.0	8.1	10.6	9.0
Aliphatic C5-C6	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	mg/kg	DETS 072*	1.5	0.3	2.9	1.2
Aliphatic C12-C16	mg/kg	DETS 072*	2	1.1	6.9	6
Aliphatic C16-C21	mg/kg	DETS 072*	28	39	63	21
Aliphatic C21-C35	mg/kg	DETS 072*	250	430	410	150
Aromatic C5-C7	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C7-C8	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C8-C10	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C10-C12	mg/kg	DETS 072*	0.2	0.2	0.8	0.2
Aromatic C12-C16	mg/kg	DETS 072*	0.6	0.2	3.3	0.3
Aromatic C16-C21	mg/kg	DETS 072*	16	12	24	13
Aromatic C21-C35	mg/kg	DETS 072*	100	150	130	84
Aliphatic C5-C35	mg/kg	DETS 072*	280	470	480	170
Aromatic C5-C35	mg/kg	DETS 072*	120	170	160	98
TPH Ali/Aro	mg/kg	DETS 072*	400	640	640	270
Acenaphthene	mg/kg	DETS 050	0.6	0.6	0.7	0.5
Acenaphthylene	mg/kg	DETS 050	0.3	0.3	0.3	0.2
Anthracene	mg/kg	DETS 050	0.7	0.6	1.3	0.7
Benzo(a)anthracene	mg/kg	DETS 050	1.5	2.1	3.8	4.2

Summary of Chemical Analysis

Soil Samples

Our Ref: 08-19406

Client Ref: 40349

Contract Title: New Mill Road, Holmfirth

			Lab No.	132685	132686	132687	132688
			Sample Ref	BH12	TP02	TP06	TP08
			Depth	1.20-1.65	2.00	2.00	1.00
			Other Ref	2	6	5	4
			Sample Type	B	D	B	D
Test	Units	DETSxx					
Benzo(a)pyrene	mg/kg	DETS 050	1.1	1.7	3	2.5	
Benzo(b)fluoranthene	mg/kg	DETS 050	2	2.1	4.3	4.7	
Benzo(k)fluoranthene	mg/kg	DETS 050	0.6	0.7	1.4	1.5	
Benzo(g,h,i)perylene	mg/kg	DETS 050	0.6	0.8	1.7	1.3	
Chrysene	mg/kg	DETS 050	1.2	2.1	3.3	4.1	
Dibenzo(a,h)anthracene	mg/kg	DETS 050	< 0.1	0.1	0.5	1.2	
Fluoranthene	mg/kg	DETS 050	4	4.2	11	8.9	
Fluorene	mg/kg	DETS 050	0.3	0.2	0.4	0.3	
Indeno(1,2,3-c,d)pyrene	mg/kg	DETS 050	0.5	1	1.8	1.3	
Napthalene	mg/kg	DETS 050	0.3	0.2	0.3	0.3	
Phenanthrene	mg/kg	DETS 050	1.8	1.8	3.1	1.2	
Pyrene	mg/kg	DETS 050	3.2	3.6	7.9	6.8	
PAH	mg/kg	DETS 050	19	22	44	40	
Benzene	mg/kg	DETS 062#	< 0.01	< 0.01	< 0.01	< 0.01	
Ethylbenzene	mg/kg	DETS 062#	< 0.01	< 0.01	< 0.01	< 0.01	
Toluene	mg/kg	DETS 062#	< 0.01	< 0.01	< 0.01	< 0.01	
Xylene	mg/kg	DETS 062#	< 0.01	< 0.01	< 0.01	< 0.01	
MTBE	mg/kg	DETS 062					
Phenol - Monohydric	mg/kg	DETS 067#	0.4	< 0.3	< 0.3	< 0.3	
Total VOC's	mg/kg	DETS 068*	< 0.01				
Ammonia as NH4	g/l	DETS 019		< 0.01			
1,2,3-trichlorobenzene	mg/kg	DETS 068*	< 0.01				
Hexachlorobutadiene	mg/kg	DETS 068*	< 0.01				
1,2-dibromo-3-chloropropane	mg/kg	DETS 068*	< 0.01				
1,2-dichlorobenzene	mg/kg	DETS 068*	< 0.01				
n-butylbenzene	mg/kg	DETS 068*	< 0.01				
1,4-dichlorobenzene	mg/kg	DETS 068*	< 0.01				
1,3-dichlorobenzene+p-isopropyltoluene	mg/kg	DETS 068*	< 0.01				
sec-butylbenzene	mg/kg	DETS 068*	< 0.01				
1,2,4-trimethylbenzene	mg/kg	DETS 068*	< 0.01				
Tert-butylbenzene	mg/kg	DETS 068*	< 0.01				
4-chlorotoluene	mg/kg	DETS 068*	< 0.01				
1,3,5-trimethylbenzene	mg/kg	DETS 068*	< 0.01				
2-chlorotoluene	mg/kg	DETS 068*	< 0.01				
n-propylbenzene	mg/kg	DETS 068*	< 0.01				
1,2,3-trichloropropane	mg/kg	DETS 068*	< 0.01				
Bromobenzene	mg/kg	DETS 068*	< 0.01				
Isopropylbenzene	mg/kg	DETS 068*	< 0.01				
Bromoform	mg/kg	DETS 068*	< 0.01				
Styrene	mg/kg	DETS 068*	< 0.01				
Naphthalene	mg/kg	DETS 068*	< 0.01				
1,1-dichloroethane	mg/kg	DETS 068*	< 0.01				
Trans-1,2-dichloroethylene	mg/kg	DETS 068*	< 0.01				
o-Xylene	mg/kg	DETS 068*	< 0.01				
m+p-Xylene	mg/kg	DETS 068*	< 0.01				

Summary of Chemical Analysis

Soil Samples

Our Ref: 08-19406

Client Ref: 40349

Contract Title: New Mill Road, Holmfirth

		Lab No.	132685	132686	132687	132688
		Sample Ref	BH12	TP02	TP06	TP08
		Depth	1.20-1.65	2.00	2.00	1.00
		Other Ref	2	6	5	4
		Sample Type	B	D	B	D
Test	Units	DETSxx				
Ethylbenzene+1,1,1,2-tetrachloroethane	mg/kg	DETS 068*	< 0.01			
Chlorobenzene	mg/kg	DETS 068*	< 0.01			
1,2-dibromoethane	mg/kg	DETS 068*	< 0.01			
Dibromochloromethane	mg/kg	DETS 068*	< 0.01			
1,3-dichloropropane	mg/kg	DETS 068*	< 0.01			
Tetrachloroethylene	mg/kg	DETS 068*	< 0.01			
1,1,2-trichloroethane	mg/kg	DETS 068*	< 0.01			
trans-1,3-dichloropropene	mg/kg	DETS 068*	< 0.01			
Toluene	mg/kg	DETS 068*	< 0.01			
Methylene Chloride	mg/kg	DETS 068*	< 0.01			
cis-1,3-dichloropropene	mg/kg	DETS 068*	< 0.01			
Bromodichloromethane	mg/kg	DETS 068*	< 0.01			
Dibromomethane	mg/kg	DETS 068*	< 0.01			
1,2-dichloropropane	mg/kg	DETS 068*	< 0.01			
Trichloroethylene	mg/kg	DETS 068*	< 0.01			
1,2-dichloroethane	mg/kg	DETS 068*	< 0.01			
Benzene	mg/kg	DETS 068*	< 0.01			
Carbon tetrachloride + 1,1-dichloropropene	mg/kg	DETS 068*	< 0.01			
1,1,1-trichloroethane	mg/kg	DETS 068*	< 0.01			
Chloroform	mg/kg	DETS 068*	< 0.01			
Bromochloromethane	mg/kg	DETS 068*	< 0.01			
1,1 Dichloroethylene	mg/kg	DETS 068*	< 0.01			
1,2,4-trichlorobenzene	mg/kg	DETS 068*	< 0.01			
2,2-dichloropropane+1,2-dichloroethylene	mg/kg	DETS 068*	< 0.01			

Summary of Chemical Analysis

Soil Samples

Our Ref: 08-19406

Client Ref: 40349

Contract Title: New Mill Road, Holmfirth

			Lab No.	132689	132690	132691
			Sample Ref	TP09	TP11	TP12
			Depth	1.00	1.00	2.00
			Other Ref	3	3	6
			Sample Type	B	B	D
Test	Units	DETSxx				
Arsenic	mg/kg	DETS 042#	59	6	32	
Cadmium	mg/kg	DETS 042#	1.5	0.9	2	
Chromium	mg/kg	DETS 042#	27	23	34	
Copper	mg/kg	DETS 042#	260	34	180	
Lead	mg/kg	DETS 042#	280	34	230	
Mercury	mg/kg	DETS 081*	0.4	< 0.1	0.4	
Nickel	mg/kg	DETS 042#	34	23	31	
Selenium	mg/kg	DETS 042#	< 0.5	< 0.5	< 0.5	
Zinc	mg/kg	DETS 042#	420	84	350	
Chloride Aqueous Extract	g/l	DETS 055			< 0.01	
Nitrate Aqueous Extract as NO3	g/l	DETS 055			< 0.01	
Boron (water soluble)	mg/kg	DETS 020#	2	1	2	
Calorific Value	KJ/kg	DETS 037*				
Thiocyanate	mg/kg	DETS 025	1.3	< 1.0	< 1.0	
Cyanide total	mg/kg	DETS 067#	4.9	< 0.1	1.2	
Cyanide free	mg/kg	DETS 067#	0.3	< 0.1	0.1	
Cyanide complex	mg/kg	DETS 067	4.6	< 0.2	1	
Magnesium Aqueous Extract	g/l	DETS 042			0.02	
Sulphur (free)	mg/kg	DETS 049#	39	< 0.8	21	
Sulphide	mg/kg	DETS 024#	51	94	100	
Total Sulphate as SO4	%	DETS 075#	0.42	0.03	0.34	
Sulphate Aqueous Extract as SO4	g/l	DETS 076#	1.4	0.06	1	
Total Sulphur as S	%	DETS 064*			0.23	
pH		DETS 008#	9.2	8.9	8.1	
Aliphatic C5-C6	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	
Aliphatic C6-C8	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	
Aliphatic C8-C10	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	
Aliphatic C10-C12	mg/kg	DETS 072*	0.7	0.3	0.5	
Aliphatic C12-C16	mg/kg	DETS 072*	1.1	0.1	3.5	
Aliphatic C16-C21	mg/kg	DETS 072*	9	2.5	36	
Aliphatic C21-C35	mg/kg	DETS 072*	63	12	330	
Aromatic C5-C7	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	
Aromatic C7-C8	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	
Aromatic C8-C10	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	
Aromatic C10-C12	mg/kg	DETS 072*	0.1	0.3	0.2	
Aromatic C12-C16	mg/kg	DETS 072*	0.1	< 0.1	0.3	
Aromatic C16-C21	mg/kg	DETS 072*	18	3.1	13	
Aromatic C21-C35	mg/kg	DETS 072*	67	18	160	
Aliphatic C5-C35	mg/kg	DETS 072*	74	15	370	
Aromatic C5-C35	mg/kg	DETS 072*	85	22	170	
TPH Ali/Aro	mg/kg	DETS 072*	160	37	540	
Acenaphthene	mg/kg	DETS 050	< 0.1	< 0.1	0.3	
Acenaphthylene	mg/kg	DETS 050	< 0.1	< 0.1	0.2	
Anthracene	mg/kg	DETS 050	0.3	< 0.1	0.1	
Benzo(a)anthracene	mg/kg	DETS 050	2.3	< 0.1	0.4	

Summary of Chemical Analysis

Soil Samples

Our Ref: 08-19406

Client Ref: 40349

Contract Title: New Mill Road, Holmfirth

			Lab No.	132689	132690	132691
			Sample Ref	TP09	TP11	TP12
			Depth	1.00	1.00	2.00
			Other Ref	3	3	6
			Sample Type	B	B	D
Test	Units	DETSxx				
Benzo(a)pyrene	mg/kg	DETS 050	2.5	< 0.1	0.3	
Benzo(b)fluoranthene	mg/kg	DETS 050	3.5	< 0.1	0.5	
Benzo(k)fluoranthene	mg/kg	DETS 050	1.2	< 0.1	0.3	
Benzo(g,h,i)perylene	mg/kg	DETS 050	2.7	< 0.1	0.1	
Chrysene	mg/kg	DETS 050	2.4	< 0.1	0.4	
Dibenzo(a,h)anthracene	mg/kg	DETS 050	0.4	< 0.1	1.9	
Fluoranthene	mg/kg	DETS 050	3.6	0.3	0.9	
Fluorene	mg/kg	DETS 050	< 0.1	< 0.1	0.1	
Indeno(1,2,3-c,d)pyrene	mg/kg	DETS 050	1.8	< 0.1	0.2	
Napthalene	mg/kg	DETS 050	0.1	< 0.1	0.4	
Phenanthrene	mg/kg	DETS 050	0.5	< 0.1	0.2	
Pyrene	mg/kg	DETS 050	3.6	0.2	0.7	
PAH	mg/kg	DETS 050	25	< 5.0	7.1	
Benzene	mg/kg	DETS 062#	< 0.01	< 0.01	< 0.01	
Ethylbenzene	mg/kg	DETS 062#	< 0.01	< 0.01	< 0.01	
Toluene	mg/kg	DETS 062#	< 0.01	< 0.01	< 0.01	
Xylene	mg/kg	DETS 062#	< 0.01	< 0.01	< 0.01	
MTBE	mg/kg	DETS 062				
Phenol - Monohydric	mg/kg	DETS 067#	< 0.3	< 0.3	0.3	
Total VOC's	mg/kg	DETS 068*				
Ammonia as NH4	g/l	DETS 019			< 0.01	
1,2,3-trichlorobenzene	mg/kg	DETS 068*				
Hexachlorobutadiene	mg/kg	DETS 068*				
1,2-dibromo-3-chloropropane	mg/kg	DETS 068*				
1,2-dichlorobenzene	mg/kg	DETS 068*				
n-butylbenzene	mg/kg	DETS 068*				
1,4-dichlorobenzene	mg/kg	DETS 068*				
1,3-dichlorobenzene+p-isopropyltoluene	mg/kg	DETS 068*				
sec-butylbenzene	mg/kg	DETS 068*				
1,2,4-trimethylbenzene	mg/kg	DETS 068*				
Tert-butylbenzene	mg/kg	DETS 068*				
4-chlorotoluene	mg/kg	DETS 068*				
1,3,5-trimethylbenzene	mg/kg	DETS 068*				
2-chlorotoluene	mg/kg	DETS 068*				
n-propylbenzene	mg/kg	DETS 068*				
1,2,3-trichloropropane	mg/kg	DETS 068*				
Bromobenzene	mg/kg	DETS 068*				
Isopropylbenzene	mg/kg	DETS 068*				
Bromoform	mg/kg	DETS 068*				
Styrene	mg/kg	DETS 068*				
Naphthalene	mg/kg	DETS 068*				
1,1-dichloroethane	mg/kg	DETS 068*				
Trans-1,2-dichloroethylene	mg/kg	DETS 068*				
o-Xylene	mg/kg	DETS 068*				
m+p-Xylene	mg/kg	DETS 068*				

Summary of Chemical Analysis

Soil Samples

Our Ref: 08-19406

Client Ref: 40349

Contract Title: New Mill Road, Holmfirth

Lab No.	132689	132690	132691
Sample Ref	TP09	TP11	TP12
Depth	1.00	1.00	2.00
Other Ref	3	3	6
Sample Type	B	B	D

Test	Units	DETSxx
Ethylbenzene+1,1,1,2-tetrachloroethane	mg/kg	DETS 068*
Chlorobenzene	mg/kg	DETS 068*
1,2-dibromoethane	mg/kg	DETS 068*
Dibromochloromethane	mg/kg	DETS 068*
1,3-dichloropropane	mg/kg	DETS 068*
Tetrachloroethylene	mg/kg	DETS 068*
1,1,2-trichloroethane	mg/kg	DETS 068*
trans-1,3-dichloropropene	mg/kg	DETS 068*
Toluene	mg/kg	DETS 068*
Methylene Chloride	mg/kg	DETS 068*
cis-1,3-dichloropropene	mg/kg	DETS 068*
Bromodichloromethane	mg/kg	DETS 068*
Dibromomethane	mg/kg	DETS 068*
1,2-dichloropropane	mg/kg	DETS 068*
Trichloroethylene	mg/kg	DETS 068*
1,2-dichloroethane	mg/kg	DETS 068*
Benzene	mg/kg	DETS 068*
Carbon tetrachloride + 1,1-dichloropropene	mg/kg	DETS 068*
1,1,1-trichloroethane	mg/kg	DETS 068*
Chloroform	mg/kg	DETS 068*
Bromochloromethane	mg/kg	DETS 068*
1,1 Dichloroethylene	mg/kg	DETS 068*
1,2,4-trichlorobenzene	mg/kg	DETS 068*
2,2-dichloropropane+1,2-dichloroethylene	mg/kg	DETS 068*

SVOC's

Soil Report - 08-82640

New Mill Road, Holmfirth

08-19406

Analysis	LOD	Units	SP No	Sample type			
				Soil 1	Soil 2	Soil 3	Soil 4
				1	2	3	4
				WS02	WS02	WS07	WS08
				132669	132670	132674	132675
				0.50	2.30	2.50	5.0-6.0
Aniline ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
Bis(2-chloroethyl)ether ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
Phenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
2-Chlorophenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
Benzyl Alcohol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
2-Methylphenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
3& 4-Methylphenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
2,4-dimethylphenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
Bis-(dichloroethoxy)methane ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
2,4-Dichlorophenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
1,2,4-Trichlorobenzene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
Napthalene ^x	0.1	mg/kg	DETSM-134	0.93	<0.10	0.14	69
4-Chloro-3-methylphenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
2-Methylnapthalene ^x	0.1	mg/kg	DETSM-134	1.4	<0.10	0.19	<0.10
Hexachlorocyclpentadiene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
2,4,6 Trichlorophenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
2,4,5 Trichlorophenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
2-Chloronapthalene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
2-Nitroaniline ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
1,4-dinitrobenzene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
Dimethyl phthalate ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
1,3-dintrobenzene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
Acenaphthylene ^x	0.1	mg/kg	DETSM-134	0.22	<0.10	<0.10	3.8
2,6-Dinitrotoluene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
1,2-Dinitrobenzene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
3-Nitroaniline ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
Acenaphthene ^x	0.1	mg/kg	DETSM-134	8.3	<0.10	<0.10	<0.10
Dibenzofuran ^x	0.1	mg/kg	DETSM-134	5.6	<0.10	<0.10	<0.10
2,4-Dinitrotoluene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
4-Nitrophenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
2,3,4,6-Tetrachlorophenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
2,3,5,6-Tetrachlorophenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
Diethylphthalate ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
Fluorene ^x	0.1	mg/kg	DETSM-134	7.8	<0.10	<0.10	<0.10
4-Chlorophenyl phenyl ether ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
4-Nitroaniline ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
Diphenylamine/4,6-Dinitro-2-methylphenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
Azobenzene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
4-Bromophenyl phenyl ether ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
Hexachlorobenzene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
Pentachlorophenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
Phenanthrene ^x	0.1	mg/kg	DETSM-134	65	<0.10	<0.10	880

Key

- Not Scheduled
NR - Not Received

SVOC's

Soil Report - 08-82640

New Mill Road, Holmfirth

08-19406

Analysis	LOD	Units	SP No	Sample type			
				Soil 1	Soil 2	Soil 3	Soil 4
				Soil 1	Soil 2	Soil 3	Soil 4
				1	2	3	4
				WS02	WS02	WS07	WS08
				132669	132670	132674	132675
				0.50	2.30	2.50	5.0-6.0
Anthracene ^x	0.1	mg/kg	DETSM-134	19	<0.10	<0.10	110
Carbazole ^x	0.1	mg/kg	DETSM-134	5.2	<0.10	<0.10	<0.10
Di-n-butylphthalate ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
Benzy butyl phthalate ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
Bis(2-ethylhexyl)ester ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
Fluoranthene ^x	0.1	mg/kg	DETSM-134	53	<0.10	0.18	780
Pyrene ^x	0.1	mg/kg	DETSM-134	40	<0.10	0.15	550
Benzo(a)anthracene ^x	0.1	mg/kg	DETSM-134	14	<0.10	<0.10	200
Chrysene ^x	0.1	mg/kg	DETSM-134	18	<0.10	0.14	290
Di-n-octyl phthalate ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
Benzo(b)fluoranthene ^x	0.1	mg/kg	DETSM-134	8.1	<0.10	<0.10	130
Benzo(k)fluoranthene ^x	0.1	mg/kg	DETSM-134	11	<0.10	<0.10	110
Benzo(a)pyrene ^x	0.1	mg/kg	DETSM-134	13	0.17	<0.10	5.7
Indeno(1,2,3-cd)pyrene ^x	0.1	mg/kg	DETSM-134	2.5	0.59	<0.10	<0.10
Dibenz(a,h)anthracene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	<0.10
Benzo(ghi)perylene ^x	0.1	mg/kg	DETSM-134	1.0	0.54	<0.10	<0.10

Key

- Not Scheduled
NR - Not Received

SVOC's

Soil Report - 08-82640

New Mill Road, Holmfirth

08-19406

Analysis	LOD	Units	SP No	Sample type		
				Soil 5	Soil 6	Soil 7
				WS11	BH02	BH07
				132677	132679	132682
				2.50	4.0-4.5	2.0-2.45
Aniline ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
Bis(2-chloroethyl)ether ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
Phenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
2-Chlorophenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
Benzyl Alcohol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
2-Methylphenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
3& 4-Methylphenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
2,4-dimethylphenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
Bis-(dichloroethoxy)methane ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
2,4-Dichlorophenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
1,2,4-Trichlorobenzene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
Napthalene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	4.4
4-Chloro-3-methylphenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
2-Methylnapthalene ^x	0.1	mg/kg	DETSM-134	<0.10	0.11	4.0
Hexachlorocyclopentadiene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
2,4,6 Trichlorophenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
2,4,5 Trichlorophenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
2-Chloronapthalene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
2-Nitroaniline ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
1,4-dinitrobenzene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
Dimethyl phthalate ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
1,3-dinitrobenzene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
Acenaphthylene ^x	0.1	mg/kg	DETSM-134	<0.10	0.29	<0.10
2,6-Dinitrotoluene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
1,2-Dinitrobenzene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
3-Nitroaniline ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
Acenaphthene ^x	0.1	mg/kg	DETSM-134	<0.10	1.1	25
Dibenzofuran ^x	0.1	mg/kg	DETSM-134	<0.10	0.85	1.8
2,4-Dinitrotoluene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
4-Nitrophenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
2,3,4,6-Tetrachlorophenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
2,3,5,6-Tetrachlorophenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
Diethylphthalate ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
Fluorene ^x	0.1	mg/kg	DETSM-134	<0.10	1.4	22
4-Chlorophenyl phenyl ether ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
4-Nitroaniline ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
Diphenylamine/4,6-Dinitro-2-methylphenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
Azobenzene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
4-Bromophenyl phenyl ether ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
Hexachlorobenzene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
Pentachlorophenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10
Phenanthrene ^x	0.1	mg/kg	DETSM-134	0.41	17	130

Key

- Not Scheduled
NR - Not Received

SVOC's

Soil Report - 08-82640

New Mill Road, Holmfirth

08-19406

				Sample type	Soil	Soil	Soil
				Laboratory reference	5	6	7
				Borehole/trial pit	WS11	BH02	BH07
				DETS Ref:	132677	132679	132682
			Depth (m)	2.50	4.0-4.5	2.0-2.45	
Analysis	LOD	Units	SP No				
Anthracene ^x	0.1	mg/kg	DETSM-134	<0.10	6.5	33	
Carbazole ^x	0.1	mg/kg	DETSM-134	<0.10	0.66	6.8	
Di-n-butylphthalate ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
Benzy l butyl phthalate ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
Bis(2-ethylhexyl)ester ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
Fluoranthene ^x	0.1	mg/kg	DETSM-134	0.32	22	130	
Pyrene ^x	0.1	mg/kg	DETSM-134	0.21	18	100	
Benzo(a)anthracene ^x	0.1	mg/kg	DETSM-134	<0.10	6.3	39	
Chrysene ^x	0.1	mg/kg	DETSM-134	<0.10	8.0	44	
Di-n-octyl phthalate ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
Benzo(b)fluoranthene ^x	0.1	mg/kg	DETSM-134	<0.10	3.3	29	
Benzo(k)fluoranthene ^x	0.1	mg/kg	DETSM-134	<0.10	4.5	31	
Benzo(a)pyrene ^x	0.1	mg/kg	DETSM-134	<0.10	5.0	39	
Indeno(1,2,3-cd)pyrene ^x	0.1	mg/kg	DETSM-134	<0.10	0.88	22	
Dibenz(a,h)anthracene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
Benzo(ghi)perylene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	17	

Key

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NR - Not Received

SVOC's

Soil Report - 08-82640

New Mill Road, Holmfirth

08-19406

Analysis	LOD	Units	SP No	Sample type	Soil	Soil	Soil
				Laboratory reference	8	9	10
				Borehole/trial pit	BH09	BH11	BH12
				DETS Ref:	132683	132684	132685
Depth (m)	4.0-4.45	2.0-2.45	1.2-1.65				
Aniline ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
Bis(2-chloroethyl)ether ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
Phenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
2-Chlorophenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
Benzyl Alcohol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
2-Methylphenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
3& 4-Methylphenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
2,4-dimethylphenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
Bis-(dichloroethoxy)methane ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
2,4-Dichlorophenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
1,2,4-Trichlorobenzene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
Napthalene ^x	0.1	mg/kg	DETSM-134	<0.10	0.86	0.88	
4-Chloro-3-methylphenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
2-Methylnapthalene ^x	0.1	mg/kg	DETSM-134	<0.10	0.49	0.50	
Hexachlorocyclopentadiene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
2,4,6 Trichlorophenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
2,4,5 Trichlorophenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
2-Chloronapthalene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
2-Nitroaniline ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
1,4-dinitrobenzene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
Dimethyl phthalate ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
1,3-dinitrobenzene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
Acenaphthylene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
2,6-Dinitrotoluene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
1,2-Dinitrobenzene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
3-Nitroaniline ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
Acenaphthene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	1.0	
Dibenzofuran ^x	0.1	mg/kg	DETSM-134	<0.10	0.14	0.91	
2,4-Dinitrotoluene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
4-Nitrophenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
2,3,4,6-Tetrachlorophenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
2,3,5,6-Tetrachlorophenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
Diethylphthalate ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
Fluorene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	1.1	
4-Chlorophenyl phenyl ether ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
4-Nitroaniline ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
Diphenylamine/4,6-Dinitro-2-methylphenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
Azobenzene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
4-Bromophenyl phenyl ether ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
Hexachlorobenzene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
Pentachlorophenol ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
Phenanthrene ^x	0.1	mg/kg	DETSM-134	0.10	1.7	9.0	

Key

- Not Scheduled
NR - Not Received

SVOC's

Soil Report - 08-82640

New Mill Road, Holmfirth

08-19406

				Sample type	Soil	Soil	Soil
				Laboratory reference	8	9	10
				Borehole/trial pit	BH09	BH11	BH12
				DETS Ref:	132683	132684	132685
Analysis	LOD	Units	SP No	Depth (m)	4.0-4.45	2.0-2.45	1.2-1.65
Anthracene ^x	0.1	mg/kg	DETSM-134	<0.10	0.34	3.3	
Carbazole ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	0.57	
Di-n-butylphthalate ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
Benzy l butyl phthalate ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
Bis(2-ethylhexyl)ester ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
Fluoranthene ^x	0.1	mg/kg	DETSM-134	1.3	4.9	14	
Pyrene ^x	0.1	mg/kg	DETSM-134	1.0	4.9	12	
Benzo(a)anthracene ^x	0.1	mg/kg	DETSM-134	<0.10	3.0	5.4	
Chrysene ^x	0.1	mg/kg	DETSM-134	0.29	3.8	6.7	
Di-n-octyl phthalate ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
Benzo(b)fluoranthene ^x	0.1	mg/kg	DETSM-134	1.2	2.8	4.0	
Benzo(k)fluoranthene ^x	0.1	mg/kg	DETSM-134	0.71	3.1	4.3	
Benzo(a)pyrene ^x	0.1	mg/kg	DETSM-134	9.5	3.6	6.1	
Indeno(1,2,3-cd)pyrene ^x	0.1	mg/kg	DETSM-134	53	4.2	4.8	
Dibenz(a,h)anthracene ^x	0.1	mg/kg	DETSM-134	<0.10	<0.10	<0.10	
Benzo(ghi)perylene ^x	0.1	mg/kg	DETSM-134	49	4.8	4.8	

Key

- Not Scheduled

NR - Not Received

Summary of Asbestos Analysis Soil Samples

Our Ref: 08-19406

Client Ref: 40349

Contract Title: New Mill Road, Holmfirth

Laboratory Number	Sample Ref	Depth	Sample Type	Material	Result
132669	WS02	0.50	J	Soil	NAD
132671	WS02	2.70	J	Soil	NAD
132672	WS03	1.00-1.45	D	Soil	NAD
132678	WS12	1.50	D	Soil	NAD
132679	BH02	4.00-4.50	B	Soil	NAD
132680	BH05	2.00-2.45	B	Soil	NAD
132681	BH06	0.70-1.20	B	Soil	NAD
132682	BH07	2.00-2.45	B	Soil	NAD
132683	BH09	4.00-4.45	B	Soil	NAD
132684	BH11	2.00-2.45	B	Soil	NAD
132685	BH12	1.20-1.65	B	Soil	NAD
132686	TP02	2.00	D	Soil	Chrysotile

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos

NAD = No Asbestos Detected. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos

Samples are analysed using polarised light microscopy in accordance with HSG248 and documented in-house methods. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'.



2139

Certificate of Analysis

Date: 13/06/2008

Certificate Number: 08-19723

Client: Ian Farmer Associates
17 Rivington Court
Hardwick Grange
Woolston
Warrington
Cheshire
WA1 4RT

Our Reference: 08-19723

Client Reference: 40349

Contract Title: New Mill Road, Holmfirth

Description: 6 soil samples, 6 leachate samples


Date Received: 03/06/2008

Date Started: 03/06/2008

Date Completed: 12/06/2008

Test Procedures: Identified by prefix DETSn, details available upon request.

Notes: Observations and interpretations are outside the scope of UKAS accreditation
* denotes test not included in laboratory scope of accreditation
denotes test that holds MCERT accreditation
\$ denotes tests completed by approved subcontractors
I/S denotes insufficient sample to carry out test
N/S denotes that the sample is not suitable for testing
DETSM denotes tests carried out by DETS Midlands laboratory
Solid samples will be disposed 1 month and liquids 2 weeks
after the date of issue of this test certificate
Asbestos subsamples will be kept for 6 months
SUB denotes sub-contracted results

Approved By: 

Authorised Signatories: Rob Brown
Business Manager

This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except

Summary of Chemical Analysis

Soil Samples

Our Ref: 08-19723

Client Ref: 40349

Contract Title: New Mill Road, Holmfirth

		Lab No.	134628	134629	134630	134631	134632	134633
		Sample Ref	BH01	BH07	BH12	WS02	WS07	WS11
		Depth	3.00-3.45	5.00-5.45	5.00-5.45	1.00-1.45	2.60	2.50
		Other Ref	B4	B6	B6	D4	D11	D9
		Sample Type						
Test	Units	DETSxx						
Conductivity	uS/cm	DETS 009	400	1100	470	260	140	290

**WASTE ACCEPTANCE CRITERIA TESTING
ANALYTICAL REPORT**

Job Title: New Mill Road, Holmfirth
Client Reference: 40349
Sample ID: BH01 / 3.00-3.45

Job Number: 08-19723
Sample Number: 134628 / 134634
Date Analysed: 12/06/2008

Test Results On Waste		
Determinand and Method Reference	Units	Result
002 Total Organic Carbon	%	2.3
003 Loss On Ignition	%	5.9
062 BTEX	mg/kg	
052 PCB's (7 congeners)	mg/kg	
051 TPH (C10 - C40)	mg/kg	
050 PAH's	mg/kg	
008 pH	pH Units	8.5
073 Acid Neutralisation Capacity (pH4)*	mol/kg	<1.0
073 Acid Neutralisation Capacity (pH7)*	mol/kg	<1.0

WAC Limit Values		
Inert Waste	SNRHW	Hazardous Waste
3	5	6
n/a	n/a	10
6	n/a	n/a
1	n/a	n/a
500	n/a	n/a
100	n/a	n/a
n/a	>6	n/a
n/a	TBE	TBE
n/a	TBE	TBE

Test Results On Leachate				
Determinand and Method Reference	Conc in Eluate ug/l		Amount Leached mg/kg	
	2:1	8:1	LS2	LS10
010 Arsenic as As	<1	<1	<0.002	<0.01
042 Barium as Ba*	56	42	0.11	0.43
042 Cadmium as Cd	<2	<2	<0.004	<0.02
042 Chromium as Cr	<10	<10	<0.02	<0.1
042 Copper as Cu	2	<2	<0.004	<0.02
078 Mercury as Hg*	<0.2	<0.2	<0.0004	<0.002
042 Molybdenum as Mo*	<10	<10	<0.02	<0.1
042 Nickel as Ni	<10	<10	<0.02	<0.1
042 Lead as Pb	<5	<5	<0.01	<0.05
042 Antimony as Sb*	<5	<5	<0.01	<0.05
017 Selenium as Se	<3	<3	<0.006	<0.03
042 Zinc as Zn	15	13	0.030	0.13
055 Chloride as Cl	6700	1100	<20	<100
055 Fluoride as F	480	220	0.96	2.5
055 Sulphate as SO4	210000	29000	420	535
035 Total Dissolved Solids	430000	84000	860	1301
067 Phenol Index*	<100	<100	<0.2	<1.0
033 Dissolved Organic Carbon*	6300	6500	13	63
Additional Information				
008 pH	7.8	7.2		
009 Conductivity uS/cm	627	124		
Temperature*	19	20		
Mass of Sample Kg	0.140			
Mass of dry Sample Kg	0.115			
Stage 1				
Volume of Leachant L2	0.206			
Volume of Eluate VE1	0.160			
Stage 2				
Volume of Leachant L8	0.922			
Volume of Eluate VE2	0.850			

WAC Limit Values limit values for LS10 Leachate		
Inert Waste	SNRHW	Hazardous Waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15,000	25,000
10	150	500
1000	20,000	50,000
4000	60,000	100,000
1	n/a	n/a
500	800	1000

TBE = To Be Evaluated

SNRHW = Stable Non-Reactive Hazardous Waste

Disclaimer: The WAC limit values are provided for guidance only. DETS does not accept responsibility for errors or omissions. Values are correct at time of issue.

DERWENTSIDE ENVIRONMENTAL SERVICES TESTING LIMITED

**WASTE ACCEPTANCE CRITERIA TESTING
ANALYTICAL REPORT**

Job Title: New Mill Road, Holmfirth
Client Reference: 40349
Sample ID: BH07 / 5.00-5.45

Job Number: 08-19723
Sample Number: 134629 / 134635
Date Analysed: 12/06/2008

Test Results On Waste		
Determinand and Method Reference	Units	Result
002 Total Organic Carbon	%	6.0
003 Loss On Ignition	%	17
062 BTEX	mg/kg	
052 PCB's (7 congeners)	mg/kg	
051 TPH (C10 - C40)	mg/kg	
050 PAH's	mg/kg	
008 pH	pH Units	8.3
073 Acid Neutralisation Capacity (pH4)*	mol/kg	<1.0
073 Acid Neutralisation Capacity (pH7)*	mol/kg	<1.0

WAC Limit Values		
Inert Waste	SNRHW	Hazardous Waste
3	5	6
n/a	n/a	10
6	n/a	n/a
1	n/a	n/a
500	n/a	n/a
100	n/a	n/a
n/a	>6	n/a
n/a	TBE	TBE
n/a	TBE	TBE

Test Results On Leachate				
Determinand and Method Reference	Conc in Eluate ug/l		Amount Leached mg/kg	
	2:1	8:1	LS2	LS10
010 Arsenic as As	<1	<1	<0.002	<0.01
042 Barium as Ba*	94	110	0.19	1.0
042 Cadmium as Cd	<2	<2	<0.004	<0.02
042 Chromium as Cr	<10	<10	<0.02	<0.1
042 Copper as Cu	7	<2	0.014	<0.02
078 Mercury as Hg*	<0.2	<0.2	<0.0004	<0.002
042 Molybdenum as Mo*	11	<10	0.022	<0.1
042 Nickel as Ni	<10	<10	<0.02	<0.1
042 Lead as Pb	<5	<5	<0.01	<0.05
042 Antimony as Sb*	<5	<5	<0.01	<0.05
017 Selenium as Se	<3	<3	<0.006	<0.03
042 Zinc as Zn	49	38	0.10	0.38
055 Chloride as Cl	31000	7000	62	<100
055 Fluoride as F	170	<100	0.34	0.20
055 Sulphate as SO4	180000	27000	360	442
035 Total Dissolved Solids	850000	360000	1700	4073
067 Phenol Index*	<100	<100	<0.2	<1.0
033 Dissolved Organic Carbon*	7300	6400	15	63
Additional Information				
008 pH	7.6	7.1		
009 Conductivity uS/cm	1250	533		
Temperature*	19	20		
Mass of Sample Kg	0.140			
Mass of dry Sample Kg	0.110			
Stage 1				
Volume of Leachant L2	0.191			
Volume of Eluate VE1	0.130			
Stage 2				
Volume of Leachant L8	0.883			
Volume of Eluate VE2	0.810			

WAC Limit Values limit values for LS10 Leachate		
Inert Waste	SNRHW	Hazardous Waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15,000	25,000
10	150	500
1000	20,000	50,000
4000	60,000	100,000
1	n/a	n/a
500	800	1000

TBE = To Be Evaluated

SNRHW = Stable Non-Reactive Hazardous Waste

Disclaimer: The WAC limit values are provided for guidance only. DETS does not accept responsibility for errors or omissions. Values are correct at time of issue.

DERWENTSIDE ENVIRONMENTAL SERVICES TESTING LIMITED

**WASTE ACCEPTANCE CRITERIA TESTING
ANALYTICAL REPORT**

Job Title: New Mill Road, Holmfirth
Client Reference: 40349
Sample ID: BH12 / 5.00-5.45

Job Number: 08-19723
Sample Number: 134630 / 134636
Date Analysed: 12/06/2008

Test Results On Waste		
Determinand and Method Reference	Units	Result
002 Total Organic Carbon	%	6.1
003 Loss On Ignition	%	20
062 BTEX	mg/kg	
052 PCB's (7 congeners)	mg/kg	
051 TPH (C10 - C40)	mg/kg	
050 PAH's	mg/kg	
008 pH	pH Units	8.1
073 Acid Neutralisation Capacity (pH4)*	mol/kg	<1.0
073 Acid Neutralisation Capacity (pH7)*	mol/kg	<1.0

WAC Limit Values		
Inert Waste	SNRHW	Hazardous Waste
3	5	6
n/a	n/a	10
6	n/a	n/a
1	n/a	n/a
500	n/a	n/a
100	n/a	n/a
n/a	>6	n/a
n/a	TBE	TBE
n/a	TBE	TBE

Test Results On Leachate				
Determinand and Method Reference	Conc in Eluate ug/l		Amount Leached mg/kg	
	2:1	8:1	LS2	LS10
010 Arsenic as As	<1	<1	<0.002	<0.01
042 Barium as Ba*	69	85	0.14	0.80
042 Cadmium as Cd	<2	<2	<0.004	<0.02
042 Chromium as Cr	<10	<10	<0.02	<0.1
042 Copper as Cu	5	<2	0.010	<0.02
078 Mercury as Hg*	<0.2	<0.2	<0.0004	<0.002
042 Molybdenum as Mo*	13	<10	0.026	<0.1
042 Nickel as Ni	<10	<10	<0.02	<0.1
042 Lead as Pb	<5	<5	<0.01	<0.05
042 Antimony as Sb*	<5	<5	<0.01	<0.05
017 Selenium as Se	<3	<3	<0.006	<0.03
042 Zinc as Zn	65	43	0.13	0.44
055 Chloride as Cl	16000	7400	32	<100
055 Fluoride as F	<100	<100	<0.02	<0.1
055 Sulphate as SO4	210000	120000	420	1258
035 Total Dissolved Solids	420000	100000	840	1334
067 Phenol Index*	<100	<100	<0.2	<1.0
033 Dissolved Organic Carbon*	<5000	<5000	<10	<50
Additional Information				
008 pH	8.0	7.4		
009 Conductivity uS/cm	613	153		
Temperature*	19	20		
Mass of Sample Kg	0.140			
Mass of dry Sample Kg	0.103			
Stage 1				
Volume of Leachant L2	0.169			
Volume of Eluate VE1	0.120			
Stage 2				
Volume of Leachant L8	0.825			
Volume of Eluate VE2	0.765			

WAC Limit Values limit values for LS10 Leachate		
Inert Waste	SNRHW	Hazardous Waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15,000	25,000
10	150	500
1000	20,000	50,000
4000	60,000	100,000
1	n/a	n/a
500	800	1000

TBE = To Be Evaluated

SNRHW = Stable Non-Reactive Hazardous Waste

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DERWENTSIDE ENVIRONMENTAL SERVICES TESTING LIMITED

**WASTE ACCEPTANCE CRITERIA TESTING
ANALYTICAL REPORT**

Job Title: New Mill Road, Holmfirth
Client Reference: 40349
Sample ID: WS02 / 1.00-1.45

Job Number: 08-19723
Sample Number: 134631 / 134637
Date Analysed: 12/06/2008

Test Results On Waste	
Determinand and Method Reference	Result
002 Total Organic Carbon	2.0
003 Loss On Ignition	6.7
062 BTEX	
052 PCB's (7 congeners)	
051 TPH (C10 - C40)	
050 PAH's	
008 pH	8.3
073 Acid Neutralisation Capacity (pH4)*	<1.0
073 Acid Neutralisation Capacity (pH7)*	<1.0

WAC Limit Values		
Inert Waste	SNRHW	Hazardous Waste
3	5	6
n/a	n/a	10
6	n/a	n/a
1	n/a	n/a
500	n/a	n/a
100	n/a	n/a
n/a	>6	n/a
n/a	TBE	TBE
n/a	TBE	TBE

Test Results On Leachate		
Determinand and Method Reference	Conc in Eluate ug/l	Amount Leached mg/kg
	10:1	LS10
010 Arsenic as As	2	0.004
042 Barium as Ba*	17	0.034
042 Cadmium as Cd	<2	<0.004
042 Chromium as Cr	<10	<0.02
042 Copper as Cu	<2	<0.004
078 Mercury as Hg*	<0.2	<0.0004
042 Molybdenum as Mo*	<10	<0.02
042 Nickel as Ni	<10	<0.02
042 Lead as Pb	<5	<0.01
042 Antimony as Sb*	<5	<0.01
017 Selenium as Se	<3	<0.006
042 Zinc as Zn	<1	<0.002
055 Chloride as Cl	980	<20
055 Fluoride as F	<100	<0.02
055 Sulphate as SO4	15000	30
035 Total Dissolved Solids	48000	96
067 Phenol Index*	<100	<0.2
033 Dissolved Organic Carbon*	<5000	<10
Additional Information		
008 pH	8.3	
009 Conductivity uS/cm	70	
Temperature*	20	
Mass of Sample Kg		
Mass of dry Sample Kg		
Stage 1		
Volume of Leachant L10 l		
Volume of Eluate VE1 l		

WAC Limit Values limit values for LS10 Leachate		
Inert Waste	SNRHW	Hazardous Waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15,000	25,000
10	150	500
1000	20,000	50,000
4000	60,000	100,000
1	n/a	n/a
500	800	1000

TBE = To Be Evaluated

SNRHW = Stable Non-Reactive Hazardous Waste

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DERWENTSIDE ENVIRONMENTAL SERVICES TESTING LIMITED

**WASTE ACCEPTANCE CRITERIA TESTING
ANALYTICAL REPORT**

Job Title: New Mill Road, Holmfirth
Client Reference: 40349
Sample ID: WS07 / 2.60

Job Number: 08-19723
Sample Number: 134632 / 134638
Date Analysed: 12/06/2008

Test Results On Waste		
Determinand and Method Reference	Units	Result
002 Total Organic Carbon	%	2.7
003 Loss On Ignition	%	8.8
062 BTEX	mg/kg	
052 PCB's (7 congeners)	mg/kg	
051 TPH (C10 - C40)	mg/kg	
050 PAH's	mg/kg	
008 pH	pH Units	7.9
073 Acid Neutralisation Capacity (pH4)*	mol/kg	<1.0
073 Acid Neutralisation Capacity (pH7)*	mol/kg	<1.0

WAC Limit Values		
Inert Waste	SNRHW	Hazardous Waste
3	5	6
n/a	n/a	10
6	n/a	n/a
1	n/a	n/a
500	n/a	n/a
100	n/a	n/a
n/a	>6	n/a
n/a	TBE	TBE
n/a	TBE	TBE

Test Results On Leachate				
Determinand and Method Reference	Conc in Eluate ug/l		Amount Leached mg/kg	
	2:1	8:1	LS2	LS10
010 Arsenic as As	<1	<1	<0.002	<0.01
042 Barium as Ba*	9	13	0.018	0.12
042 Cadmium as Cd	<2	<2	<0.004	<0.02
042 Chromium as Cr	<10	<10	<0.02	<0.1
042 Copper as Cu	5	<2	0.010	<0.02
078 Mercury as Hg*	<0.2	<0.2	<0.0004	<0.002
042 Molybdenum as Mo*	12	<10	0.024	<0.1
042 Nickel as Ni	<10	<10	<0.02	<0.1
042 Lead as Pb	<5	<5	<0.01	<0.05
042 Antimony as Sb*	<5	<5	<0.01	<0.05
017 Selenium as Se	<3	<3	<0.006	<0.03
042 Zinc as Zn	18	12	0.036	0.12
055 Chloride as Cl	2300	1100	<20	<100
055 Fluoride as F	<100	<100	<0.02	<0.1
055 Sulphate as SO4	14000	4200	28	<100
035 Total Dissolved Solids	45000	17000	90	197
067 Phenol Index*	<100	<100	<0.2	<1.0
033 Dissolved Organic Carbon*	13000	8300	26	86
Additional Information				
008 pH	7.1	6.7		
009 Conductivity uS/cm	67	25		
Temperature*	19	20		
Mass of Sample Kg	0.140			
Mass of dry Sample Kg	0.108			
Stage 1				
Volume of Leachant L2	0.183			
Volume of Eluate VE1	0.125			
Stage 2				
Volume of Leachant L8	0.861			
Volume of Eluate VE2	0.805			

WAC Limit Values limit values for LS10 Leachate		
Inert Waste	SNRHW	Hazardous Waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15,000	25,000
10	150	500
1000	20,000	50,000
4000	60,000	100,000
1	n/a	n/a
500	800	1000

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DERWENTSIDE ENVIRONMENTAL SERVICES TESTING LIMITED

**WASTE ACCEPTANCE CRITERIA TESTING
ANALYTICAL REPORT**

Job Title: New Mill Road, Holmfirth
Client Reference: 40349
Sample ID: WS11 / 2.50

Job Number: 08-19723
Sample Number: 134633 / 134639
Date Analysed: 12/06/2008

Test Results On Waste		
Determinand and Method Reference	Units	Result
002 Total Organic Carbon	%	3.4
003 Loss On Ignition	%	3.7
062 BTEX	mg/kg	
052 PCB's (7 congeners)	mg/kg	
051 TPH (C10 - C40)	mg/kg	
050 PAH's	mg/kg	
008 pH	pH Units	8.2
073 Acid Neutralisation Capacity (pH4)*	mol/kg	<1.0
073 Acid Neutralisation Capacity (pH7)*	mol/kg	<1.0

WAC Limit Values		
Inert Waste	SNRHW	Hazardous Waste
3	5	6
n/a	n/a	10
6	n/a	n/a
1	n/a	n/a
500	n/a	n/a
100	n/a	n/a
n/a	>6	n/a
n/a	TBE	TBE
n/a	TBE	TBE

Test Results On Leachate				
Determinand and Method Reference	Conc in Eluate ug/l		Amount Leached mg/kg	
	2:1	8:1	LS2	LS10
010 Arsenic as As	5	4	0.010	0.040
042 Barium as Ba*	48	38	0.10	0.38
042 Cadmium as Cd	<2	<2	<0.004	<0.02
042 Chromium as Cr	<10	<10	<0.02	<0.1
042 Copper as Cu	2	<2	<0.004	<0.02
078 Mercury as Hg*	<0.2	<0.2	<0.0004	<0.002
042 Molybdenum as Mo*	<10	<10	<0.02	<0.1
042 Nickel as Ni	<10	<10	<0.02	<0.1
042 Lead as Pb	<5	<5	<0.01	<0.05
042 Antimony as Sb*	<5	<5	<0.01	<0.05
017 Selenium as Se	<3	<3	<0.006	<0.03
042 Zinc as Zn	36	<1	0.072	0.041
055 Chloride as Cl	1800	830	<20	<100
055 Fluoride as F	420	370	0.84	3.7
055 Sulphate as SO4	38000	11000	76	138
035 Total Dissolved Solids	140000	46000	280	556
067 Phenol Index*	<100	<100	<0.2	<1.0
033 Dissolved Organic Carbon*	<5000	<5000	<10	<50
Additional Information				
008 pH	7.3	6.8		
009 Conductivity uS/cm	210	68		
Temperature*	19	20		
Mass of Sample Kg	0.140			
Mass of dry Sample Kg	0.114			
Stage 1				
Volume of Leachant L2	0.203			
Volume of Eluate VE1	0.130			
Stage 2				
Volume of Leachant L8	0.916			
Volume of Eluate VE2	0.865			

WAC Limit Values limit values for LS10 Leachate		
Inert Waste	SNRHW	Hazardous Waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15,000	25,000
10	150	500
1000	20,000	50,000
4000	60,000	100,000
1	n/a	n/a
500	800	1000

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SNRHW = Stable Non-Reactive Hazardous Waste

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DERWENTSIDE ENVIRONMENTAL SERVICES TESTING LIMITED



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Certificate of Analysis

Date: 26/06/2008

Certificate Number: 08-20119

Client: Ian Farmer Associates
17 Rivington Court
Hardwick Grange
Woolston
Warrington
Cheshire
WA1 4RT

Our Reference: 08-20119

Client Reference: 40349

Contract Title: New Mill Road, Holmfirth

Description: 15 leachate samples

Date Received: 17/06/2008

Date Started: 17/06/2008

Date Completed: 26/06/2008

Test Procedures: Identified by prefix DETSn, details available upon request.

Notes: Observations and interpretations are outside the scope of UKAS accreditation
* denotes test not included in laboratory scope of accreditation
denotes test that holds MCERT accreditation
\$ denotes tests completed by approved subcontractors
I/S denotes insufficient sample to carry out test
N/S denotes that the sample is not suitable for testing
DETSM denotes tests carried out by DETS Midlands laboratory
Solid samples will be disposed 1 month and liquids 2 weeks
after the date of issue of this test certificate
Asbestos subsamples will be kept for 6 months

Approved By:



Authorised Signatories: Rob Brown
Business Manager

This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Summary of Chemical Analysis

Leachate Samples

Our Ref: 08-20119

Client Ref: 40349

Contract Title: New Mill Road, Holmfirth

		Lab No.	137586	137587	137588	137589	137590	137591
		Sample Ref	WS02	WS02	WS07	WS10	WS11	BH05
		Depth	0.50	2.70	2.50	1.50	2.50	2.00-2.45
		Other Ref	J2	J12	J9	D5	J10	B4
		Sample Type	J	J	J	D	D	B
Test	Units	DETSxx						
Arsenic Dissolved	ug/l	DETS 010			< 1	1		3
Cadmium Dissolved	ug/l	DETS 042			< 2	< 2		< 2
Chromium Dissolved	ug/l	DETS 042			< 10	< 10		< 10
Copper Dissolved	ug/l	DETS 042			< 2	< 2		< 2
Lead Dissolved	ug/l	DETS 042			< 5	< 5		< 5
Mercury Dissolved	ug/l	DETS 078*			< 0.05	< 0.05		< 0.05
Nickel Dissolved	ug/l	DETS 042			< 10	< 10		< 10
Selenium Dissolved	ug/l	DETS 017			< 3	< 3		< 3
Zinc Dissolved	ug/l	DETS 042			< 1	< 1		23
Sulphate	mg/l	DETS 055			3.6	7.4		41
Boron	ug/l	DETS 020			< 100	110		< 100
Thiocyanate	mg/l	DETS 025			< 0.4	< 0.4		< 0.4
Cyanide total	ug/l	DETS 067			< 40	< 40		< 40
Cyanide free	ug/l	DETS 067			< 20	< 20		< 20
Cyanide complex	ug/l	DETS 067			< 40	< 40		< 40
Sulphur (free)	ug/l	DETS 049			< 90	< 90		< 90
Sulphide	ug/l	DETS 024			< 250	< 250		< 250
pH		DETS 008			6.6	6.6		6.7
Aliphatic C5-C6	ug/l	DETS 072*			< 0.1	< 0.1		
Aliphatic C6-C8	ug/l	DETS 072*			< 0.1	< 0.1		
Aliphatic C8-C10	ug/l	DETS 072*			< 0.1	< 0.1		
Aliphatic C10-C12	ug/l	DETS 072*			3	< 1		
Aliphatic C12-C16	ug/l	DETS 072*			2	< 1		
Aliphatic C16-C21	ug/l	DETS 072*			2	< 1		
Aliphatic C21-C35	ug/l	DETS 072*			< 1	< 1		
Aromatic C5-C7	ug/l	DETS 072*			< 0.1	< 0.1		
Aromatic C7-C8	ug/l	DETS 072*			< 0.1	< 0.1		
Aromatic C8-C10	ug/l	DETS 072*			< 0.1	< 0.1		
Aromatic C10-C12	ug/l	DETS 072*			4	< 1		
Aromatic C12-C16	ug/l	DETS 072*			9	< 1		
Aromatic C16-C21	ug/l	DETS 072*			11	< 1		
Aromatic C21-C35	ug/l	DETS 072*			24	< 1		
Aliphatic C5-C35	ug/l	DETS 072*			< 10	< 10		
Aromatic C5-C35	ug/l	DETS 072*			48	< 10		
TPH Ali/Aro	ug/l	DETS 072*			56	< 10		
PAH	ug/l	DETS 074*	60	< 0.20	0.28	0.27		4.6
TPH (C10-C40)	ug/l	DETS 051	1600	700	200	130	36	
Phenol	ug/l	DETS 054*			< 0.50	< 0.50		< 0.50

Summary of Chemical Analysis

Leachate Samples

Our Ref: 08-20119

Client Ref: 40349

Contract Title: New Mill Road, Holmfirth

		Lab No.	137592	137593	137594	137595	137596	137597
		Sample Ref	BH02	BH07	BH09	BH12	TP02	TP06
		Depth	4.00-4.50	2.00-2.45	4.00-4.45	1.20-1.65	2.00	2.00
		Other Ref	B6	B3	B5	B2	D6	B5
		Sample Type	B	B	B	B	D	B
Test	Units	DETSxx						
Arsenic Dissolved	ug/l	DETS 010						
Cadmium Dissolved	ug/l	DETS 042						
Chromium Dissolved	ug/l	DETS 042						
Copper Dissolved	ug/l	DETS 042						
Lead Dissolved	ug/l	DETS 042						
Mercury Dissolved	ug/l	DETS 078*						
Nickel Dissolved	ug/l	DETS 042						
Selenium Dissolved	ug/l	DETS 017						
Zinc Dissolved	ug/l	DETS 042						
Sulphate	mg/l	DETS 055						
Boron	ug/l	DETS 020						
Thiocyanate	mg/l	DETS 025						
Cyanide total	ug/l	DETS 067						
Cyanide free	ug/l	DETS 067						
Cyanide complex	ug/l	DETS 067						
Sulphur (free)	ug/l	DETS 049						
Sulphide	ug/l	DETS 024						
pH		DETS 008						
Aliphatic C5-C6	ug/l	DETS 072*		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aliphatic C6-C8	ug/l	DETS 072*		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aliphatic C8-C10	ug/l	DETS 072*		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aliphatic C10-C12	ug/l	DETS 072*		3	2	4	< 1	< 1
Aliphatic C12-C16	ug/l	DETS 072*		< 1	< 1	4	2	< 1
Aliphatic C16-C21	ug/l	DETS 072*		< 1	< 1	4	16	< 1
Aliphatic C21-C35	ug/l	DETS 072*		< 1	< 1	4	340	< 1
Aromatic C5-C7	ug/l	DETS 072*		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aromatic C7-C8	ug/l	DETS 072*		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aromatic C8-C10	ug/l	DETS 072*		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aromatic C10-C12	ug/l	DETS 072*		2	3	2	2	2
Aromatic C12-C16	ug/l	DETS 072*		1	2	7	3	2
Aromatic C16-C21	ug/l	DETS 072*		< 1	< 1	10	10	4
Aromatic C21-C35	ug/l	DETS 072*		< 1	< 1	32	220	< 1
Aliphatic C5-C35	ug/l	DETS 072*		< 10	< 10	15	360	< 10
Aromatic C5-C35	ug/l	DETS 072*		< 10	< 10	51	240	< 10
TPH Ali/Aro	ug/l	DETS 072*		< 10	< 10	67	600	< 10
PAH	ug/l	DETS 074*	5.9	< 0.20	0.21	0.43	< 0.20	0.38
TPH (C10-C40)	ug/l	DETS 051						
Phenol	ug/l	DETS 054*						

Summary of Chemical Analysis

Leachate Samples

Our Ref: 08-20119

Client Ref: 40349

Contract Title: New Mill Road, Holmfirth

		Lab No.	137598	137599	137811
		Sample Ref	TP08	TP12	WS08
		Depth	2.00	2.00	5.00-6.00
		Other Ref	D4	D6	J15
		Sample Type	D	D	
Test	Units	DETSxx			
Arsenic Dissolved	ug/l	DETS 010			2
Cadmium Dissolved	ug/l	DETS 042			< 2
Chromium Dissolved	ug/l	DETS 042			< 10
Copper Dissolved	ug/l	DETS 042			< 2
Lead Dissolved	ug/l	DETS 042			< 5
Mercury Dissolved	ug/l	DETS 078*			< 0.05
Nickel Dissolved	ug/l	DETS 042			< 10
Selenium Dissolved	ug/l	DETS 017			< 3
Zinc Dissolved	ug/l	DETS 042			< 1
Sulphate	mg/l	DETS 055			3.1
Boron	ug/l	DETS 020			100
Thiocyanate	mg/l	DETS 025			< 0.4
Cyanide total	ug/l	DETS 067			< 40
Cyanide free	ug/l	DETS 067			< 20
Cyanide complex	ug/l	DETS 067			< 40
Sulphur (free)	ug/l	DETS 049			< 90
Sulphide	ug/l	DETS 024			< 250
pH		DETS 008			6.9
Aliphatic C5-C6	ug/l	DETS 072*	< 0.1	< 0.1	< 0.1
Aliphatic C6-C8	ug/l	DETS 072*	< 0.1	< 0.1	< 0.1
Aliphatic C8-C10	ug/l	DETS 072*	< 0.1	< 0.1	< 0.1
Aliphatic C10-C12	ug/l	DETS 072*	15	19	6
Aliphatic C12-C16	ug/l	DETS 072*	3	5	< 1
Aliphatic C16-C21	ug/l	DETS 072*	3	4	< 1
Aliphatic C21-C35	ug/l	DETS 072*	11	6	< 1
Aromatic C5-C7	ug/l	DETS 072*	< 0.1	< 0.1	< 0.1
Aromatic C7-C8	ug/l	DETS 072*	< 0.1	< 0.1	< 0.1
Aromatic C8-C10	ug/l	DETS 072*	< 0.1	< 0.1	< 0.1
Aromatic C10-C12	ug/l	DETS 072*	4	2	3
Aromatic C12-C16	ug/l	DETS 072*	3	4	3
Aromatic C16-C21	ug/l	DETS 072*	2	2	2
Aromatic C21-C35	ug/l	DETS 072*	3	1	2
Aliphatic C5-C35	ug/l	DETS 072*	32	35	< 10
Aromatic C5-C35	ug/l	DETS 072*	12	< 10	10
TPH Ali/Aro	ug/l	DETS 072*	44	44	17
PAH	ug/l	DETS 074*	< 0.20	1.5	0.48
TPH (C10-C40)	ug/l	DETS 051			27
Phenol	ug/l	DETS 054*			< 0.50



2139

Certificate of Analysis

Date: 26/09/2008

Certificate Number: 08-22490

Client: Ian Farmer Associates
17 Rivington Court
Hardwick Grange
Woolston
Warrington
Cheshire
WA1 4RT

Our Reference: 08-22490

Client Reference: 40349

Contract Title: Holmfirth Plume Plotting

Description: 6 soil samples, 3 leachate samples


Date Received: 17/09/2008

Date Started: 17/09/2008

Date Completed: 26/09/2008

Test Procedures: Identified by prefix DETSn, details available upon request.

Notes: Observations and interpretations are outside the scope of UKAS accreditation
* denotes test not included in laboratory scope of accreditation
denotes test that holds MCERT accreditation, however, MCERTS accreditation is only implied if the report carries the MCERTS logo
\$ denotes tests completed by an approved subcontractor
I/S denotes insufficient sample to carry out test
N/S denotes that the sample is not suitable for testing
DETSM denotes tests carried out by DETS Midlands laboratory
Solid samples will be disposed 1 month and liquids 2 weeks after the date of issue of this test certificate
Asbestos subsamples will be kept for 6 months

Approved By: 

Authorised Signatories: Rob Brown
Business Manager

This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Summary of Chemical Analysis

Soil Samples

Our Ref: 08-22490

Client Ref: 40349

Contract Title: Holmfirth Plume Plotting

		Lab No.	154684	154685	154686	154687
		Sample Ref	2WS19	2WS18	2WS16	2WS22
		Depth	6.00	6.00	3.50	6.50
		Other Ref	J8	J6	J4	J7
Test	Units	Sample Type				
Lead	mg/kg	DETS 042#	43	21	350	33
Cyanide total	mg/kg	DETS 067#	< 0.1	< 0.1	< 0.1	< 0.1
Cyanide free	mg/kg	DETS 067#	< 0.1	< 0.1	< 0.1	< 0.1
Cyanide complex	mg/kg	DETS 067	< 0.2	< 0.2	< 0.2	< 0.2
Aliphatic C5-C6	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	mg/kg	DETS 072*	16	< 0.1	< 0.1	< 0.1
Aliphatic C12-C16	mg/kg	DETS 072*	79	< 0.1	< 0.1	< 0.1
Aliphatic C16-C21	mg/kg	DETS 072*	< 0.1	< 0.1	< 0.1	< 0.1
Aliphatic C21-C35	mg/kg	DETS 072*	250	< 0.1	< 0.1	< 0.1
Aromatic C5-C7	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C7-C8	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C8-C10	mg/kg	DETS 072*	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C10-C12	mg/kg	DETS 072*	< 0.1	< 0.1	< 0.1	< 0.1
Aromatic C12-C16	mg/kg	DETS 072*	< 0.1	< 0.1	< 0.1	< 0.1
Aromatic C16-C21	mg/kg	DETS 072*	7.7	< 0.1	1.3	0.2
Aromatic C21-C35	mg/kg	DETS 072*	30	< 0.1	< 0.1	1.0
Aliphatic C5-C35	mg/kg	DETS 072*	350	< 1	< 1	< 1
Aromatic C5-C35	mg/kg	DETS 072*	38	< 1	1	1
TPH Ali/Aro	mg/kg	DETS 072*	380	<1	1	1
Acenaphthene	mg/kg	DETS 050				
Acenaphthylene	mg/kg	DETS 050				
Anthracene	mg/kg	DETS 050				
Benzo(a)anthracene	mg/kg	DETS 050				
Benzo(a)pyrene	mg/kg	DETS 050				
Benzo(b)fluoranthene	mg/kg	DETS 050				
Benzo(k)fluoranthene	mg/kg	DETS 050				
Benzo(g,h,i)perylene	mg/kg	DETS 050				
Chrysene	mg/kg	DETS 050				
Dibenzo(a,h)anthracene	mg/kg	DETS 050				
Fluoranthene	mg/kg	DETS 050				
Fluorene	mg/kg	DETS 050				
Indeno(1,2,3-c,d)pyrene	mg/kg	DETS 050				
Naphthalene	mg/kg	DETS 050				
Phenanthrene	mg/kg	DETS 050				
Pyrene	mg/kg	DETS 050				
PAH	mg/kg	DETS 050				
Benzene	mg/kg	DETS 062#	< 0.01	< 0.01	< 0.01	< 0.01
Ethylbenzene	mg/kg	DETS 062#	< 0.01	< 0.01	< 0.01	< 0.01
Toluene	mg/kg	DETS 062#	< 0.01	< 0.01	< 0.01	< 0.01
Xylene	mg/kg	DETS 062#	< 0.01	< 0.01	< 0.01	< 0.01

Summary of Chemical Analysis

Soil Samples

Our Ref: 08-22490

Client Ref: 40349

Contract Title: Holmfirth Plume Plotting

Lab No.	154688	154689
Sample Ref	2WS14	2WS14
Depth	3.00	5.00
Other Ref	J5	J5
Sample Type		

Test	Units	DETSxx		
Lead	mg/kg	DETS 042#		
Cyanide total	mg/kg	DETS 067#		
Cyanide free	mg/kg	DETS 067#		
Cyanide complex	mg/kg	DETS 067		
Aliphatic C5-C6	mg/kg	DETS 072*		
Aliphatic C6-C8	mg/kg	DETS 072*		
Aliphatic C8-C10	mg/kg	DETS 072*		
Aliphatic C10-C12	mg/kg	DETS 072*		
Aliphatic C12-C16	mg/kg	DETS 072*		
Aliphatic C16-C21	mg/kg	DETS 072*		
Aliphatic C21-C35	mg/kg	DETS 072*		
Aromatic C5-C7	mg/kg	DETS 072*		
Aromatic C7-C8	mg/kg	DETS 072*		
Aromatic C8-C10	mg/kg	DETS 072*		
Aromatic C10-C12	mg/kg	DETS 072*		
Aromatic C12-C16	mg/kg	DETS 072*		
Aromatic C16-C21	mg/kg	DETS 072*		
Aromatic C21-C35	mg/kg	DETS 072*		
Aliphatic C5-C35	mg/kg	DETS 072*		
Aromatic C5-C35	mg/kg	DETS 072*		
TPH Ali/Aro	mg/kg	DETS 072*		
Acenaphthene	mg/kg	DETS 050	< 0.1	< 0.1
Acenaphthylene	mg/kg	DETS 050	< 0.1	< 0.1
Anthracene	mg/kg	DETS 050	< 0.1	< 0.1
Benzo(a)anthracene	mg/kg	DETS 050	< 0.1	< 0.1
Benzo(a)pyrene	mg/kg	DETS 050	< 0.1	< 0.1
Benzo(b)fluoranthene	mg/kg	DETS 050	< 0.1	< 0.1
Benzo(k)fluoranthene	mg/kg	DETS 050	< 0.1	< 0.1
Benzo(g,h,i)perylene	mg/kg	DETS 050	0.3	< 0.1
Chrysene	mg/kg	DETS 050	< 0.1	< 0.1
Dibenzo(a,h)anthracene	mg/kg	DETS 050	< 0.1	< 0.1
Fluoranthene	mg/kg	DETS 050	0.2	< 0.1
Fluorene	mg/kg	DETS 050	< 0.1	< 0.1
Indeno(1,2,3-c,d)pyrene	mg/kg	DETS 050	< 0.1	< 0.1
Naphthalene	mg/kg	DETS 050	< 0.1	< 0.1
Phenanthrene	mg/kg	DETS 050	< 0.1	< 0.1
Pyrene	mg/kg	DETS 050	< 0.1	< 0.1
PAH	mg/kg	DETS 050	< 5.0	< 5.0
Benzene	mg/kg	DETS 062#		
Ethylbenzene	mg/kg	DETS 062#		
Toluene	mg/kg	DETS 062#		
Xylene	mg/kg	DETS 062#		

Summary of Chemical Analysis

Soil Samples

Our Ref: 08-22490

Client Ref: 40349

Contract Title: Holmfirth Plume Plotting

Lab No. 154684
Sample Ref 2WS19
Depth 6.00
Other Ref J8
Sample Type

Test	Units	DETSxx	
Total VOC's	mg/kg	DETS 068*	< 0.01
1,2,4-trichlorobenzene	mg/kg	DETS 068*	< 0.01
1,2-dibromo-3-chloropropane	mg/kg	DETS 068*	< 0.01
1,2-dichlorobenzene	mg/kg	DETS 068*	< 0.01
n-butylbenzene	mg/kg	DETS 068*	< 0.01
1,4-dichlorobenzene	mg/kg	DETS 068*	< 0.01
1,3-dichlorobenzene+p-isopropyltoluene	mg/kg	DETS 068*	< 0.01
sec-butylbenzene	mg/kg	DETS 068*	< 0.01
1,2,4-trimethylbenzene	mg/kg	DETS 068*	< 0.01
Tert-butylbenzene	mg/kg	DETS 068*	< 0.01
4-chlorotoluene	mg/kg	DETS 068*	< 0.01
1,3,5-trimethylbenzene	mg/kg	DETS 068*	< 0.01
2-chlorotoluene	mg/kg	DETS 068*	< 0.01
n-propylbenzene	mg/kg	DETS 068*	< 0.01
1,2,3-trichloropropane	mg/kg	DETS 068*	< 0.01
Bromobenzene	mg/kg	DETS 068*	< 0.01
Isopropylbenzene	mg/kg	DETS 068*	< 0.01
Bromoform	mg/kg	DETS 068*	< 0.01
Styrene	mg/kg	DETS 068*	< 0.01
o-Xylene	mg/kg	DETS 068*	< 0.01
m+p-Xylene	mg/kg	DETS 068*	< 0.01
Ethylbenzene+1,1,1,2-tetrachloroethane	mg/kg	DETS 068*	< 0.01
Chlorobenzene	mg/kg	DETS 068*	< 0.01
1,2-dibromoethane	mg/kg	DETS 068*	< 0.01
Dibromochloromethane	mg/kg	DETS 068*	< 0.01
1,3-dichloropropane	mg/kg	DETS 068*	< 0.01
Tetrachloroethylene	mg/kg	DETS 068*	< 0.01
1,1,2-trichloroethane	mg/kg	DETS 068*	< 0.01
trans-1,3-dichloropropene	mg/kg	DETS 068*	< 0.01
Toluene	mg/kg	DETS 068*	< 0.01
Hexachlorobutadiene	mg/kg	DETS 068*	< 0.01
Naphthalene	mg/kg	DETS 068*	< 0.01
cis-1,3-dichloropropene	mg/kg	DETS 068*	< 0.01
Bromodichloromethane	mg/kg	DETS 068*	< 0.01
Dibromomethane	mg/kg	DETS 068*	< 0.01
1,2-dichloropropane	mg/kg	DETS 068*	< 0.01
Trichloroethylene	mg/kg	DETS 068*	< 0.01
1,2-dichloroethane	mg/kg	DETS 068*	< 0.01
Benzene	mg/kg	DETS 068*	< 0.01
Carbon tetrachloride + 1,1-dichloropropene	mg/kg	DETS 068*	< 0.01
1,1,1-trichloroethane	mg/kg	DETS 068*	< 0.01
Chloroform	mg/kg	DETS 068*	< 0.01
Bromochloromethane	mg/kg	DETS 068*	< 0.01

Summary of Chemical Analysis

Soil Samples

Our Ref: 08-22490

Client Ref: 40349

Contract Title: Holmfirth Plume Plotting

Lab No. 154684
Sample Ref 2WS19
Depth 6.00
Other Ref J8

Sample Type

Test	Units	DETSxx	
2,2-dichloropropane+1,2-dichloroethylene	mg/kg	DETS 068*	< 0.01
1,1-dichloroethane	mg/kg	DETS 068*	< 0.01
Trans-1,2-dichloroethylene	mg/kg	DETS 068*	< 0.01
Methylene Chloride	mg/kg	DETS 068*	< 0.01
1,1 Dichloroethylene	mg/kg	DETS 068*	< 0.01
1,2,3-trichlorobenzene	mg/kg	DETS 068*	< 0.01

Summary of Chemical Analysis

Soil Samples

Our Ref: 08-82993
Client Ref: 08-22490
Contract Title: Holmfirm Plume Plotting

Lab No. 154684
Sample Ref 2WS19
Depth 6.00
Other Ref J8
Sample Type Soil

Test	Units	DETSxx	
Aniline	mg/kg	DETSM-134*	<0.10
Bis(2-chloroethyl)ether	mg/kg	DETSM-134*	<0.10
Phenol	mg/kg	DETSM-134*	<0.10
2-Chlorophenol	mg/kg	DETSM-134*	<0.10
Benzyl Alcohol	mg/kg	DETSM-134*	<0.10
2-Methylphenol	mg/kg	DETSM-134*	<0.10
3& 4-Methylphenol	mg/kg	DETSM-134*	<0.10
2,4-dimethylphenol	mg/kg	DETSM-134*	<0.10
Bis-(dichloroethoxy)methane	mg/kg	DETSM-134*	<0.10
2,4-Dichlorophenol	mg/kg	DETSM-134*	<0.10
1,2,4-Trichlorobenzene	mg/kg	DETSM-134*	<0.10
Napthalene	mg/kg	DETSM-134*	<0.10
4-Chloro-3-methylphenol	mg/kg	DETSM-134*	<0.10
2-Methylnapthalene	mg/kg	DETSM-134*	<0.10
Hexachlorocyclopentadiene	mg/kg	DETSM-134*	<0.10
2,4,6 Trichlorophenol	mg/kg	DETSM-134*	<0.10
2,4,5 Trichlorophenol	mg/kg	DETSM-134*	<0.10
2-Chloronapthalene	mg/kg	DETSM-134*	<0.10
2-Nitroaniline	mg/kg	DETSM-134*	<0.10
1,4-dinitrobenzene	mg/kg	DETSM-134*	<0.10
Dimethyl phthalate	mg/kg	DETSM-134*	<0.10
1,3-dinitrobenzene	mg/kg	DETSM-134*	<0.10
Acenaphthylene	mg/kg	DETSM-134*	<0.10
2,6-Dinitrotoluene	mg/kg	DETSM-134*	<0.10
1,2-Dinitrobenzene	mg/kg	DETSM-134*	<0.10
3-Nitroaniline	mg/kg	DETSM-134*	<0.10
Acenaphthene	mg/kg	DETSM-134*	<0.10
Dibenzofuran	mg/kg	DETSM-134*	<0.10
2,4-Dinitrotoluene	mg/kg	DETSM-134*	<0.10
4-Nitrophenol	mg/kg	DETSM-134*	<0.10
2,3,4,6-Tetrachlorophenol	mg/kg	DETSM-134*	<0.10
2,3,5,6-Tetrachlorophenol	mg/kg	DETSM-134*	<0.10
Diethylphthalate	mg/kg	DETSM-134*	<0.10
Fluorene	mg/kg	DETSM-134*	<0.10
4-Chlorophenyl phenyl ether	mg/kg	DETSM-134*	<0.10
4-Nitroaniline	mg/kg	DETSM-134*	<0.10
Diphenylamine/4,6-Dinitro-2-methylphenol	mg/kg	DETSM-134*	<0.10
Azobenzene	mg/kg	DETSM-134*	<0.10
4-Bromophenyl phenyl ether	mg/kg	DETSM-134*	<0.10
Hexachlorobenzene	mg/kg	DETSM-134*	<0.10
Pentachlorophenol	mg/kg	DETSM-134*	<0.10
Phenanthrene	mg/kg	DETSM-134*	0.19
Anthracene	mg/kg	DETSM-134*	<0.10
Carbazole	mg/kg	DETSM-134*	<0.10
Di-n-butylphthalate	mg/kg	DETSM-134*	<0.10
Benzyl butyl phthalate	mg/kg	DETSM-134*	<0.10
Bis(2-ethylhexyl)ester	mg/kg	DETSM-134*	<0.10
Fluoranthene	mg/kg	DETSM-134*	0.36
Pyrene	mg/kg	DETSM-134*	0.33
Benzo(a)anthracene	mg/kg	DETSM-134*	0.23
Chrysene	mg/kg	DETSM-134*	0.13

Summary of Chemical Analysis

Soil Samples

Our Ref: 08-82993
Client Ref: 08-22490
Contract Title: Holmfirm Plume Plotting

Lab No. 154684
Sample Ref 2WS19
Depth 6.00
Other Ref J8
Sample Type Soil

Test	Units	DETSxx	
Di-n-octyl phthalate	mg/kg	DETSM-134*	<0.10
Benzo(b)fluoranthene	mg/kg	DETSM-134*	0.13
Benzo(k)fluoranthene	mg/kg	DETSM-134*	0.10
Benzo(a)pyrene	mg/kg	DETSM-134*	<0.10
Indeno(1,2,3-cd)pyrene	mg/kg	DETSM-134*	<0.10
Dibenz(a,h)anthracene	mg/kg	DETSM-134*	<0.10
Benzo(ghi)perylene	mg/kg	DETSM-134*	<0.10

Summary of Chemical Analysis

Leachate Samples

Our Ref: 08-22490

Client Ref: 40349

Contract Title: Holmfirth Plume Plotting

Lab No.	154690	154691	154692
Sample Ref	2WS18	2WS16	2WS14
Depth	6.00	6.00	3.00
Other Ref	J6	J6	J3

Test	Units	Sample Type			
		DETSxx			
Aliphatic C5-C6	ug/l	DETS 072*			< 0.1
Aliphatic C6-C8	ug/l	DETS 072*			< 0.1
Aliphatic C8-C10	ug/l	DETS 072*			< 0.1
Aliphatic C10-C12	ug/l	DETS 072*			2
Aliphatic C12-C16	ug/l	DETS 072*			< 1
Aliphatic C16-C21	ug/l	DETS 072*			2
Aliphatic C21-C35	ug/l	DETS 072*			< 1
Aromatic C5-C7	ug/l	DETS 072*			< 0.1
Aromatic C7-C8	ug/l	DETS 072*			< 0.1
Aromatic C8-C10	ug/l	DETS 072*			< 0.1
Aromatic C10-C12	ug/l	DETS 072*			5
Aromatic C12-C16	ug/l	DETS 072*			< 1
Aromatic C16-C21	ug/l	DETS 072*			< 1
Aromatic C21-C35	ug/l	DETS 072*			8
Aliphatic C5-C35	ug/l	DETS 072*			< 10
Aromatic C5-C35	ug/l	DETS 072*			12
TPH Ali/Aro	ug/l	DETS 072*			18
PAH	ug/l	DETS 074*	0.24	0.54	
EPH (C10-C40)	ug/l	DETS 051	75	93	

APPENDIX 5

GAS AND GROUNDWATER MONITORING

Gas and Groundwater Monitoring Results

Contract Number:		W08 40349									
Contract Name:		New Mill Road, Holmfirth									
Date:		14th May 2008									
Background Readings:		O ₂ % v/v	21.3	CO ₂ % v/v	0.0	CH ₄ % v/v	0.0	H ₂ S ppm	0.0		
		Weather Conditions:				Cloudy					
		Ground Conditions (dry / wet etc)				Dry					
		Atmospheric Pressure (Start)				1002mb					
		Atmospheric Pressure (Finish)				999mb					
Hole No:	VOC ppm	O ₂ % v/v	CO ₂ %v/v	CH ₄ % v/v		LEL	H ₂ S ppm	Gas flow Rate (l/hr)	Depth to base of well	SWL	
		Steady	Steady	Peak	Steady	Steady	Steady	Range	mBGL	mBGL	
BH01	0.0	20.4	0.3	0.0	0.0	0.0	0.0	0.0	7.30	Dry	
BH02	7.3	19.8	0.5	0.0	0.0	0.0	0.0	-0.2	7.30	Dry	
BH04	0.0	13.3	4.3	0.0	0.0	0.0	0.0	0.0	7.40	Dry	
BH05	0.0	17.8	1.1	0.0	0.0	0.0	0.0	0.2	3.20	Dry	
BH09	*1										
BH11	0.0	4.7	13.0	0.3	0.3	2.4	0.0	-1.2	11.20	Dry	
BH12	0.0	15.6	6.0	0.0	0.0	0.0	0.0	-0.2	8.15	Dry	
WS01	4.4	21.2	0.0	0.0	0.0	0.0	0.0	-0.4	2.60	Dry	
WS03	2.8	20.7	0.0	0.0	0.0	0.0	0.0	0.0	2.10	Dry	
WS04	3.6	19.8	0.4	0.0	0.0	0.0	0.0	0.2	2.40	Dry	
WS07	2.5	9.8	2.0	0.0	0.0	0.0	0.0	-0.7	3.10	Dry	
WS08	6.3	20.5	0.1	0.0	0.0	0.0	0.0	-0.3	5.55	Dry	
WS09	*1										
WS10	0.9	20.1	0.3	0.0	0.0	0.0	0.0	0.2	4.90	Dry	
WS11	2.1	19.7	0.2	0.0	0.0	0.0	0.0	1.1	7.00	Dry	
WS12	13.4	19.5	0.5	0.0	0.0	0.0	0.0	-0.3	2.90	Dry	
WS13	3.0	15.6	1.0	0.0	0.0	0.0	0.0	-0.2	6.00	Dry	
Remarks: *1 = not located during visit. *2 = no groundwater samples recovered.											
>>>> = Flow above detection limit of 30 l/hr, <<<< = Negative flow greater than -10 l/hr.											
Readings Taken By:		CR									
Checked By:		AL									

Gas and Groundwater Monitoring Results

Contract Number:		W08 40349									
Contract Name:		New Mill Road, Holmfirth									
Date:		9th June 2008									
Background Readings:		O ₂ % v/v	21.2	CO ₂ % v/v	0.0	CH ₄ % v/v	0.0	H ₂ S ppm	0.0		
		Weather Conditions:				Sunny					
		Ground Conditions (dry / wet etc)				Dry					
		Atmospheric Pressure (Start)				1006mb					
		Atmospheric Pressure (Finish)				1021mb					
Hole No:	VOC ppm	O ₂ % v/v Steady	CO ₂ %v/v Steady	CH ₄ % v/v Peak Steady	LEL Steady	H ₂ S ppm Steady	Gas flow Rate (l/hr) Range	Depth to base of well mBGL	SWL mBGL		
BH01	5.3	20.2	0.3	0.0 0.0	0.0	0.0	0.0	7.30	Dry		
BH02	3.4	19.5	0.4	0.0 0.0	0.0	0.0	0.1	7.30	Dry		
BH04	1.1	20.6	0.0	0.0 0.0	0.0	0.0	-0.5	7.40	Dry		
BH05	2.0	12.4	4.4	0.0 0.0	0.0	0.0	-0.2	3.20	Dry		
BH09	0.0	10.4	6.9	5.3 5.3	70.2	0.0	-0.3	8.90	Dry		
BH11	2.5	2.8	16.0	1.7 1.4	13.2	0.0	-0.3	11.20	Dry		
BH12	1.2	11.0	6.2	0.0 0.0	0.0	0.0	0.0	8.20	Dry		
WS01	1.7	20.7	0.1	0.0 0.0	0.0	0.0	0.0	2.60	Dry		
WS03	0.6	20.7	0.4	0.0 0.0	0.0	0.0	0.4	2.10	Dry		
WS04	1.7	19.2	0.5	0.0 0.0	0.0	0.0	1.2	2.40	Dry		
WS07	2.7	10.3	2.7	0.0 0.0	0.0	0.0	0.1	3.10	Dry		
WS08	1.9	20.5	0.0	0.0 0.0	0.0	0.0	0.3	5.50	Dry		
WS09	*1										
WS10	0.8	14.7	1.5	0.0 0.0	0.0	0.0	0.0	4.90	Dry		
WS11	2.2	18.6	0.4	0.0 0.0	0.0	0.0	0.0	7.00	Dry		
WS12	8.9	19.4	0.5	0.0 0.0	0.0	0.0	-0.3	2.90	Dry		
WS13	0.9	20.4	0.0	0.0 0.0	0.0	0.0	-0.1	6.00	Dry		
Remarks: *1 = not located during visit. *2 = no groundwater samples recovered.											
>>>> = Flow above detection limit of 30 l/hr, <<<< = Negative flow greater than -10 l/hr.											
Readings Taken By:		CR									
Checked By:		AL									



Gas and Groundwater Monitoring Results

Contract Number:		W08 40349									
Contract Name:		New Mill Road, Holmfirth									
Date:		7th July 2008									
Background Readings:		O ₂ % v/v	21.2	CO ₂ % v/v	0.0	CH ₄ % v/v	0.0	H ₂ S ppm	0.0		
		Weather Conditions:				Raining					
		Ground Conditions (dry / wet etc)				Wet					
		Atmospheric Pressure (Start)				971mb					
		Atmospheric Pressure (Finish)				978mb					
Hole No:	VOC ppm	O ₂ % v/v	CO ₂ %v/v	CH ₄ % v/v		LEL	H ₂ S ppm	Gas flow Rate (l/hr)	Depth to base of well	SWL	
		Steady	Steady	Peak	Steady	Steady	Steady	Range	mBGL	mBGL	
BH01	4.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	7.30	Dry	
BH02	3.2	20.2	0.1	0.0	0.0	0.0	0.0	0.1	7.30	Dry	
BH04	2.0	20.8	0.0	0.0	0.0	0.0	0.0	0.2	7.40	Dry	
BH05	3.6	15.6	2.5	0.0	0.0	0.0	0.0	-0.2	3.20	Dry	
BH09	1.0	12.4	5.5	2.5	2.5	65.0	0.0	-0.3	8.90	Dry	
BH11	0.8	10.3	2.8	2.0	2.0	10.2	0.0	-0.2	11.20	Dry	
BH12	0.6	15.0	3.5	0.0	0.0	0.0	0.0	0.0	8.20	Dry	
WS01	1.0	21.2	0.0	0.0	0.0	0.0	0.0	0.0	2.60	Dry	
WS03	0.4	21.1	0.1	0.0	0.0	0.0	0.0	0.1	2.10	Dry	
WS04	3.0	20.0	0.5	0.0	0.0	0.0	0.0	0.0	2.40	Dry	
WS07	3.5	17.0	2.8	0.0	0.0	0.0	0.0	0.1	3.10	Dry	
WS08	4.6	21.0	0.0	0.0	0.0	0.0	0.0	0.0	6.50	Dry	
WS09	*1										
WS10	0.6	18.0	4.0	0.0	0.0	0.0	0.0	0.0	4.90	Dry	
WS11	3.1	19.7	1.2	0.0	0.0	0.0	0.0	0.1	7.00	Dry	
WS12	10.2	21.0	0.0	0.0	0.0	0.0	0.0	0.0	2.90	Dry	
WS13	1.9	21.1	0.0	0.0	0.0	0.0	0.0	0.1	4.90	Dry	
Remarks: *1 = not located during visit. *2 = no groundwater samples recovered.											
>>>> = Flow above detection limit of 30 l/hr, <<<< = Negative flow greater than -10 l/hr.											
Readings Taken By:		CR									
Checked By:		AL									

Gas and Groundwater Monitoring Results

Contract Number:		W08 40349										
Contract Name:		New Mill Road, Holmfirth										
Date:		2nd September 2008										
Background Readings:			O ₂ % v/v	21.2	CO ₂ % v/v	0.0	CH ₄ % v/v	0.0	H ₂ S ppm	0.0		
			Weather Conditions:				Raining					
			Ground Conditions (dry / wet etc)				Wet					
			Atmospheric Pressure (Start)				976mb					
			Atmospheric Pressure (Finish)				976mb					
Hole No:	VOC ppm	O ₂ % v/v	CO ₂ %v/v	CH ₄ % v/v		LEL	H ₂ S ppm	Gas flow Rate (l/hr)	Depth to base of well	SWL		
		Steady	Steady	Peak	Steady	Steady	Steady	Range	mBGL	mBGL		
BH01	3.0	18.3	0.6	0.0	0.0	0.0	0.0	0.1	7.30	Dry		
BH02	2.2	19.8	0.1	0.0	0.0	0.0	0.0	0.0	7.30	Dry		
BH04	3.1	20.8	0.2	0.0	0.0	0.0	0.0	0.2	7.40	Dry		
BH05	0.0	7.9	11.0	0.0	0.0	0.0	0.0	0.1	3.25	Dry		
BH09	0.0	15.0	3.2	2.6	2.6	48.0	0.0	-0.1	8.90	Dry		
BH11	0.4	1.4	22.0	12.0	12.0	>>>>	0.0	0.0	11.20	Dry		
BH12	0.0	21.0	0.2	0.0	0.0	0.0	0.0	0.1	8.25	Dry		
WS01	1.0	19.5	0.1	0.0	0.0	0.0	0.0	0.0	2.65	Dry		
WS03	0.3	20.8	0.0	0.0	0.0	0.0	0.0	0.0	2.10	Dry		
WS04	3.0	21.0	0.1	0.0	0.0	0.0	0.0	0.1	2.40	Dry		
WS07	2.0	19.3	2.3	0.0	0.0	0.0	0.0	0.2	3.10	Dry		
WS08	4.3	21.0	0.0	0.0	0.0	0.0	0.0	0.1	6.50	Dry		
WS09	2.0	21.1	0.0	0.0	0.0	0.0	0.0	0.0	4.90	Dry		
WS10	0.0	19.8	1.4	0.0	0.0	0.0	0.0	0.2	4.90	Dry		
WS11	2.0	20.5	0.3	0.0	0.0	0.0	0.0	0.1	7.00	Dry		
WS12	8.4	21.1	0.0	0.0	0.0	0.0	0.0	0.0	2.90	Dry		
WS13	0.8	21.3	0.0	0.0	0.0	0.0	0.0	0.1	4.90	Dry		
Remarks: *1 = not located during visit. *2 = no groundwater samples recovered.												
>>>> = Flow above detection limit of 30 l/hr, <<<< = Negative flow greater than -10 l/hr.												
Readings Taken By:		CR										
Checked By:		AL										

Gas and Groundwater Monitoring Results

Contract Number:		W08 40349									
Contract Name:		New Mill Road, Holmfirth									
Date:		20th October 2008									
Background Readings:		O ₂ % v/v	21.2	CO ₂ % v/v	0.0	CH ₄ % v/v	0.0	H ₂ S ppm	0.0		
		Weather Conditions:				Cloudy					
		Ground Conditions (dry / wet etc)				Dry					
		Atmospheric Pressure (Start)				976mb					
		Atmospheric Pressure (Finish)				976mb					
Hole No:	VOC ppm	O ₂ % v/v	CO ₂ %v/v	CH ₄ % v/v		LEL	H ₂ S ppm	Gas flow Rate (l/hr)	Depth to base of well	SWL	
		Steady	Steady	Peak	Steady	Steady	Steady	Range	mBGL	mBGL	
BH01	0.6	21.1	0.0	0.0	0.0	0.0	0.0	0.0	7.25	Dry	
BH02	1.3	20.6	0.2	0.0	0.0	0.0	0.0	0.1	7.30	Dry	
BH04	0.0	20.7	0.0	0.0	0.0	0.0	0.0	0.0	7.26	Dry	
BH05	0.0	17.4	3.7	0.0	0.0	0.0	0.0	-0.2	3.18	Dry	
BH09	0.0	18.5	2.5	0.0	0.0	0.0	0.0	1.2	8.82	Dry	
BH11	0.0	0.7	19.0	6.4	6.0	>>>>	0.0	0.8	11.15	Dry	
BH12	0.0	21.3	0.0	0.0	0.0	0.0	0.0	0.0	8.10	Dry	
WS01	0.4	20.7	1.0	0.0	0.0	0.0	0.0	0.0	2.58	Dry	
WS03	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.1	2.00	Dry	
WS04	2.0	21.3	0.0	0.0	0.0	0.0	0.0	0.1	2.30	Dry	
WS07	0.0	20.0	0.6	0.0	0.0	0.0	0.0	0.1	3.00	Dry	
WS08	2.6	21.2	0.0	0.0	0.0	0.0	0.0	0.1	6.42	Dry	
WS09	0.8	21.3	0.0	0.0	0.0	0.0	0.0	0.0	4.85	Dry	
WS10	0.0	20.4	1.0	0.0	0.0	0.0	0.0	0.2	4.80	Dry	
WS11	0.6	21.2	0.0	0.0	0.0	0.0	0.0	0.0	6.94	Dry	
WS12	3.5	21.3	0.0	0.0	0.0	0.0	0.0	0.0	2.85	Dry	
WS13	0.0	21.3	0.0	0.0	0.0	0.0	0.0	0.1	4.80	Dry	
Remarks: *1 = not located during visit. *2 = no groundwater samples recovered.											
>>>> = Flow above detection limit of 30 l/hr, <<<< = Negative flow greater than -10 l/hr.											
Readings Taken By:		CR									
Checked By:		AL									



KEY	
	BH : CABLE PERCUSSION BOREHOLES
	WS : WINDOW SAMPLE BOREHOLES
	TP : TRIAL PIT

Rev.	Date	Description	Drawn	Checked	Approved

Client:	
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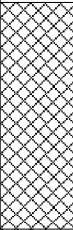

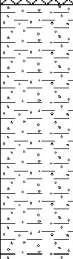
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Drawing Title: EXPLORATORY HOLE LOCATION PLAN		

Scale of At: 1:500	Status: INFORMATION	GD File Name: pe00g03-.dwg
Drawn: IN	Checked:	Approved:
Date: 09/07/08	Date:	Date:
Drawing No.:	Revision:	
69565/G03	-	

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Appendix 4
Trial Pit Logs
Borehole Logs

Project Name New Mill Road	Project No. 39141	Co-ords: - Level: -	Date 28/10/2015
Location: Holmfirth		Dimensions: -	Scale 1:20
Client: Prospect Estates		Depth 2.50m	Logged By RW

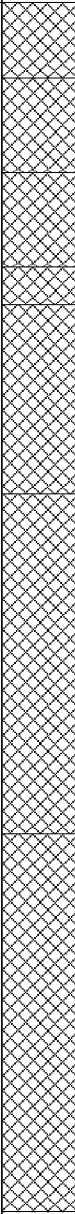
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.60 0.60	D ES		0.60			MADE GROUND : Reinforced Concrete
						MADE GROUND : Dark grey slightly silty sandy ashy GRAVEL with high cobble content. Gravel is angular to subangular of quartz, clinker, concrete, sandstone, brick, roots, metal fragments, pottery, clay pipe fragments, glass. Occasional sandstone boulders. Northern side of pit : Concrete wall extending to concrete spread footing at 1.0m depth.
2.00 2.00	D ES		1.80			Stiff dark yellow brown slightly sandy gravelly CLAY, with low cobble content. Gravel is angular to subangular of siltstone and mudstone.
			2.50			Trialpit Complete at 2.50 m

Remarks:

Groundwater: None encountered



Project Name New Mill Road	Project No. 39141	Co-ords: - Level: -	Date 29/10/2015
Location: Holmfirth		Dimensions: -	Scale 1:20
Client: Prospect Estates		Depth 3.20m	Logged By MDY

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
1.00 1.00	D ES		0.20			MADE GROUND: Reinforced concrete.	
			0.45			MADE GROUND: Limestone sub-base. At 0.2m: Blue plastic sheet.	
			0.70			MADE GROUND: Non reinforced concrete.	
			0.80			MADE GROUND: Limestone sub-base.	
			1.30			MADE GROUND: Dark grey mottled orange-brown sandy ash GRAVEL. Gravel is angular to subrounded fine to coarse of slag, brick tiles and clinker.	1
1.50 1.50	D ES		2.20		MADE GROUND: Yellow-grey/brown clayey sandy GRAVEL. Gravel is angular to subrounded fine to coarse of sandstone and mudstone. Pockets of gravelly clay.	2	
			3.20		From 3.0: Pockets of soft yellow-brown clay. Low cobble content of sandstone.	3	
Trialpit Complete at 3.20 m							

Remarks:

Groundwater: None encountered.



Project Name New Mill Road	Project No. 39141	Co-ords: - Level: -	Date 28/10/2015
Location: Holmfirth		Dimensions: -	Scale 1:20
Client: Prospect Estates		Depth 3.50m	Logged By RW

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.60 0.60	D ES		0.10			MADE GROUND : Macadam
						MADE GROUND : Limestone sub-base
			0.40			MADE GROUND : Yellow brown and grey clayey sandy GRAVEL with medium cobble content. Gravel and cobbles are angular to subangular of brick, limestone, mudstone, clinker, breezeblock, foundry brick, coal and rare polythene fragments.
1.50 1.50	D ES		1.80			MADE GROUND : Stiff locally firm grey slightly gravelly slightly organic CLAY. Gravel is subangular fine to medium of siltstone, sandstone and mudstone.
1.90 1.90	D ES		2.00			MADE GROUND : Yellow brown and grey slightly clayey sandy GRAVEL with low cobble content. Gravel and cobbles are angular to subrounded of mudstone, siltstone and sandstone. Frequent fragments of plastic, polythene, fabric, glass, pottery and ceramic tiles.
2.50 2.50	D ES		3.50			Trialpit Complete at 3.50 m

Remarks:

Groundwater: None encountered



Project Name New Mill Road	Project No. 39141	Co-ords: - Level: -	Date 28/10/2015
Location: Holmfirth		Dimensions: -	Scale 1:20
Client: Prospect Estates		Depth 3.50m	Logged By RW


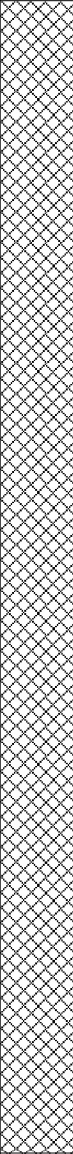
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.10			0.10			MADE GROUND : Rough grass over TOPSOIL
0.80 0.80	D ES		0.90			MADE GROUND : Yellow brown and dark grey ashy interbeds of slightly silty sandy GRAVEL with low cobble content. Gravel and cobbles are angular to subangular of slag, clinker and brick.
1.20 1.20	D ES		0.90			MADE GROUND : Dark grey slightly silty sandy ashy GRAVEL with medium cobble content. Gravel and cobbles are angular to subangular of slag, clinker, brick, coke, pottery and glass. Occasional intact bottles and ceramic tiles.
3.00 3.00	D ES		3.50			Trialpit Complete at 3.50 m

Remarks:

Groundwater: None encountered



Project Name New Mill Road	Project No. 39141	Co-ords: - Level: -	Date 29/10/2015
Location: Holmfirth		Dimensions: -	Scale 1:20
Client: Prospect Estates		Depth 3.40m	Logged By MDY

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.50 0.50	ES D		0.10			MADE GROUND: Macadam.
						MADE GROUND: Sandstone sub-base.
			0.35			MADE GROUND: Domestic refuse comprising glass bottles, plastic, metal wire, clothing / fabric, glass fragments, plastic tubs, tins, paper, timber and ceramic in a grey mottled brown slightly clayey sandy gravel matrix.
1.10 1.10	ES D					
1.70 1.70	ES D					
			3.40			From 2.7 m: Fragments of household waste become occasional.
						Trialpit Complete at 3.40 m

Remarks:

Groundwater: None encountered.



Project Name New Mill Road	Project No. 39141	Co-ords: - Level: -	Date 29/10/2015
Location: Holmfirth		Dimensions: -	Scale 1:20
Client: Prospect Estates		Depth 3.30m	Logged By MDY


Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.60 0.60	D ES		0.10			MADE GROUND: Macadam.
			0.40			MADE GROUND: Sandstone sub-base.
			0.80			MADE GROUND: Yellow-brown COBBLES with much sandy gravel. Gravel and cobbles angular and subangular of sandstone. Pockets of grey clay.
1.00 1.00	D ES		3.30			MADE GROUND: Domestic refuse comprising glass bottles, plastic, metal wire, clothing / fabric, glass fragments, plastic tubs, tins, paper, timber and ceramic in a grey mottled brown slightly clayey sandy gravel matrix.
Trialpit Complete at 3.30 m						

Remarks:

Groundwater: Minor water ingress at 1.4 m.



Project Name New Mill Road	Project No. 39141	Co-ords: - Level: -	Date 29/10/2015
Location: Holmfirth		Dimensions: -	Scale 1:20
Client: Prospect Estates		Depth 3.10m	Logged By MDY

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.50 0.50	D ES		0.10 0.45			MADE GROUND: Macadam.
				MADE GROUND: Sandstone sub-base.		
				MADE GROUND: Domestic refuse comprising glass bottles, plastic, metal wire, clothing / fabric, glass fragments, plastic tubs, tins, paper, sheet and beam metal, timber and ceramic in a dark red-brown slightly clayey sandy gravel matrix.		
1.90 1.90	D ES					At 1.4 m: Becomes dark grey mottled red-brown.
			3.10			Trialpit Complete at 3.10 m

Remarks:

Groundwater: None encountered.



Project Name New Mill Road	Project No. 39141	Co-ords: - Level: -	Date 29/10/2015
Location: Holmfirth		Dimensions: -	Scale 1:20
Client: Prospect Estates		Depth 2.95m	Logged By MDY

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
			0.10			MADE GROUND: Macadam.
			0.30			MADE GROUND: Sandstone sub-base.
0.50	IPP 1	100	0.50			MADE GROUND: Randomly orientated metre-scale pockets of: Soft grey mottled orange CLAY with a slight organic odour and black ashy sandy GRAVEL of clinker, slag and sandstone.
0.50	IPP 2	75				
0.50	IPP 3	75				
0.80	IPP 4	50	0.80			
0.80	IPP 5	75				
0.80	IPP 6	50				
0.80	ES					
0.80	D					
0.80	ES					
0.80	D		1.10			Firm orange mottled grey CLAY. Locally sandy and/or gravelly. Gravel is fine and medium angular of mudstone.
1.20	IPP 7	150	1.20			
1.20	IPP 8	175				
1.20	IPP 9	125				
1.20	ES					
1.20	D					
2.40	ES		2.40			From 1.8 m: Red-brown.
2.40	D					
						From 2.2 m: Stiff
						At 2.4 m: Approximately 300mm thick lens of fine and medium angular GRAVEL of mudstone.
			2.75			Black weathered clayey COAL.
			2.90			Probably medium strong rock. Probably MUDSTONE.
			2.95			Trialpit Complete at 2.95 m

Remarks: IPP - Pocket penetrometer results which represent unconfined compressive strength in kN/m2.

Groundwater: None encountered.



Project Name New Mill Road	Project No. 39141	Co-ords: - Level: -	Date 29/10/2015
Location: Holmfirth		Dimensions: -	Scale 1:20
Client: Prospect Estates		Depth 3.10m	Logged By MDY

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.10			0.10			MADE GROUND: Macadam.
			0.30			MADE GROUND: Black angular fine GRAVEL of macadam.
			0.60			POSSIBLE MADE GROUND: Soft light grey slightly gravelly CLAY. Gravel is fine to medium angular of mudstone.
0.50 0.50	ES D		0.60			Firm orange mottled grey slightly gravelly CLAY. Locally sandy and/or gravelly. Gravel is fine and medium angular of mudstone and quartz.
0.80 0.80 0.80	IPP 1 IPP 2 IPP 3	225 250 225				From 0.8 m: Stiff.
1.00 1.00	ES D					
			2.10			Grey clayey slightly sandy fine to coarse angular to subangular GRAVEL of weathered thinly laminated mudstone. Mudstone gravel is extremely weak and weathered to clay. Hard at base, possibly rock.
			3.10			Trialpit Complete at 3.10 m

Remarks: IPP - Pocket penetrometer results which represent unconfined compressive strength in kN/m2.

Groundwater: None encountered.



Project Name New Mill Road	Project No. 39141	Co-ords: - Level: -	Date 29/10/2015
Location: Holmfirth		Dimensions: -	Scale 1:20
Client: Prospect Estates		Depth 2.90m	Logged By MDY




Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.60 0.60	ES D		0.10			MADE GROUND: Macadam.	
			0.30			MADE GROUND: Sandstone sub-base.	
			0.80			MADE GROUND: Probably loose dark grey-brown slightly clayey locally ashy sandy fine to coarse angular to subrounded GRAVEL of sandstone. Fragments of ceramic and plastic.	
2.00 2.00	ES D					MADE GROUND: Yellow-grey sandy angular to subangular GRAVEL with medium cobble content. Gravel and cobbles of sandstone. Occasional boulder of sandstone, and rare boulders of slag. Fragments of ceramic and plastic. (Possibly quarry backfill). From 0.8m: Pit sides collapse.	1
2.50 2.50	ES D		2.50			POSSIBLE MADE GROUND: Sandy fine to coarse angular to subangular GRAVEL of mudstone, siltstone and sandstone. Pockets 150 - 300 mm in diameter of black weathered coal and pockets 50 - 200 mm in diameter of gravelly clay.	2
			2.90			Trialpit Complete at 2.90 m	3

Remarks:

Groundwater: None encountered.



Project Name New Mill Road	Project No. 39141	Co-ords: - Level: -	Date 29/10/2015
Location: Holmfirth		Dimensions: -	Scale 1:20
Client: Prospect Estates		Depth 1.15m	Logged By MDY

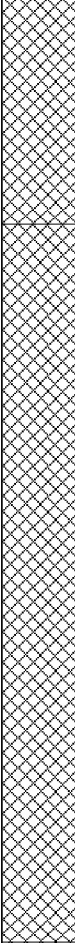
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.10						MADE GROUND: Macadam.
0.30						MADE GROUND: Limestone sub-base.
1.15						Very weak thickly laminated grey micaceous SANDSTONE. Stained brown and orange-brown on bedding surfaces. Occasional iron nodules. Weathered towards the top to a sandy gravel.
----- Trialpit Complete at 1.15 m						

Remarks: Pit moved twice due to yellow gravel (probable service).

Groundwater: None encountered.



Project Name New Mill Road	Project No. 39141	Co-ords: - Level: -	Date 28/10/2015
Location: Holmfirth		Dimensions: -	Scale 1:20
Client: Prospect Estates		Depth 2.50m	Logged By RW



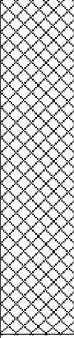
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.40 0.40	D ES		0.60			MADE GROUND : Rough grass over firm orange brown grey slightly gravelly CLAY with low cobble content. Gravel and cobbles are angular to subrounded of sandstone.
1.50 1.50	D ES					MADE GROUND : Domestic refuse comprising plastic bags, plastic bottles, metal cloth / fabric, bottles / glass, ceramic / pottery, timber and paper in a dark grey slightly silty sand matrix. Slight refuse / organic / burnt odour.
			2.50			Trialpit Complete at 2.50 m

Remarks:

Groundwater: None encountered



Project Name New Mill Road	Project No. 39141	Co-ords: - Level: -	Date 28/10/2015
Location: Holmfirth		Dimensions: -	Scale 1:20
Client: Prospect Estates		Depth 2.00m	Logged By RW


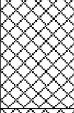
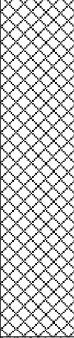
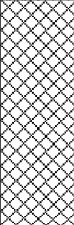
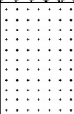
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.20			0.20			MADE GROUND : Rough grass over firm yellow brown grey slightly sandy slightly gravelly CLAY. Gravel is angular to subangular fine to coarse of sandstone, siltstone and mudstone.
0.90 0.90	D ES					MADE GROUND : Domestic refuse comprising plastic bags, plastic bottles, metal, cloth / fabric, bottles / glass, ceramic / pottery, timber and paper in a dark grey brown silty sandy sandy gravel matrix of clinker, slag, brick and concrete.
1.60 1.60	D ES					From 1.1 m to 1.4 m : Layer of macadam.
			2.00			Trialpit Complete at 2.00 m

Remarks:

Groundwater: None encountered



Project Name New Mill Road	Project No. 39141	Co-ords: - Level: -	Date 29/10/2015
Location: Holmfirth		Dimensions: -	Scale 1:20
Client: Prospect Estates		Depth 2.20m	Logged By MDY

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.50 0.50	D ES		0.10			MADE GROUND
			0.40			MADE GROUND: Sandstone sub-base.
			1.30			MADE GROUND: Domestic refuse comprising glass bottles, plastic, clothing / fabric, glass fragments, plastic tubs, tins, paper, timber and ceramic in a grey mottled brown slightly clayey sandy gravel matrix.
			1.90			MADE GROUND: Yellow-grey sandy angular to subangular GRAVEL with medium cobble content. Gravel and cobbles of sandstone. Occasional boulder of sandstone. Fragments of ceramic and plastic. (Possibly quarry backfill).
			2.20			Weak thickly laminated grey micaceous SANDSTONE. Stained brown and orange-brown on bedding surfaces.
Trialpit Complete at 2.20 m						

Remarks:

Groundwater: None encountered.



Project Name
 New Mill Road

Project No.
 39141

Co-ords: -

Hole Type
 Cable

Location: Holmfirth

Level: 174.40 m AOD

Scale
 1:75

Client: Prospect Estates

Dates: 04/11/2015

Logged By
 Driller

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.08			174.32		Macadam.		
		0.25			174.15		MADE GROUND: Sandstone hardcore.		
		0.75	D				MADE GROUND: Brown grey sandy clay/clayey sand and much landfill waste (plastics, bone, fabric, glass) and rare sandstone cobbles.	1	
		1.20	SPT	N=4					
		1.20-1.65	SPTLS	N=4 (3,2,1,1,1,1)					
		2.20	SPT	N=2	2.00	172.40	MADE GROUND: Becoming mainly sand and ash with slag, cinder and clinker with occasional sandy clay pockets and occasional plastics, polythene and rare metal fragments.	2	
		2.20-2.65	SPTLS	N=2 (0,1,0,1,0,1)					
		3.30	SPT	N=3				3	
		3.30-3.75	SPTLS	N=3 (0,1,0,1,1,1)					
		4.20	SPT	N=3				4	
		4.20-4.65	SPTLS	N=3 (0,0,1,1,0,1)					
		5.55	SPT	N=13	5.60	168.80	Firm orange brown mottled grey CLAY with occasional sandstone gravel.	6	
		5.55-6.00	SPTLS	N=13 (4,3,2,4,3,4)					
		6.50	D		6.50	167.90	Dark brown grey clayey MUDSTONE.		
		6.70	D		6.70	167.70	Yellow brown clayey SAND with sandstone gravel.	7	
		7.05	SPT	N=31			Yellow brown weathered sandy MUDSTONE with slight silty sand clay matrix.		
		7.05-7.50	SPTLS	N=31 (4,3,4,7,9,11)	7.30	167.10	Dark grey brown moderately weak weathered MUDSTONE.	8	
		8.05	SPT	50/72mm	7.80	166.60	Becomes stronger below 8.4mbgl. Becomes hard below 8.6m.		
		8.05-8.24	SPTLS	72mm (15,10,50)			End of Borehole at 8.68 m	9	
		8.60	SPT	50/39mm	8.68	165.72		10	
		8.60-8.68	SPTLS	39mm (25,50)				11	
								12	
								13	
								14	

Remarks:



Project Name New Mill Road	Project No. 39141	Co-ords: -	Hole Type Cable
Location: Holmfirth		Level: 175.00 m AOD	Scale 1:75
Client: Prospect Estates		Dates: 04/11/2015-05/11/2015	Logged By Driller

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.08			174.92		Macadam.		
		0.35			174.65		MADE GROUND: Sandstone hardcore.		
							MADE GROUND: Loose dark grey black very sandy clay and brick with coal fragments, ash and cinders.	1	
		1.20	SPT	N=3					
		1.20-1.65	SPTLS	N=3 (1,2,0,1,1,1)					
					1.60	173.40			
							MADE GROUND: Loose black dark grey sand and ash with much landfill waste (polythene, plastics, glass, timber, paper with some metals, fabrics and glass jars below 3.5m).	2	
		2.20	SPT	N=3					
		2.20-2.65	SPTLS	N=3 (1,0,1,0,1,1)					
		3.20	SPT	N=5					
		3.20-3.65	SPTLS	N=5 (1,1,2,1,1,1)					
		4.20	SPT	N=8					
		4.20-4.65	SPTLS	N=8 (2,1,2,2,2,2)					
		5.55	SPT	N=7					
		5.55-6.00	SPTLS	N=7 (0,1,1,2,2,2)	5.50	169.50			
							MADE GROUND: Loose brown grey ash and clinker with cinders and occsaional glass, and sandstone.	6	
		7.30	SPT	N=7					
		7.30-7.75	SPTLS	N=7 (3,2,1,2,2,2)					
		8.80	SPT	N=24					
		8.80-9.25	SPTLS	N=24 (7,7,6,5,5,8)	8.50	166.50			
							MADE GROUND: Loose moist/wet sand and ash with clayey pockets and some sandstone and brick.	9	
		10.20	SPT	50/32mm					
		10.20-10.27	SPTLS	32mm (25,50)					
		10.30	SPT	50/26mm					
		10.30-10.41	SPTLS	26mm (25,50)	9.10	165.90			
							Moderately strong becoming strong pale brown grey mottled orange brown weatehred SANDSTONE/SILTSTONE.	10	
					10.41	164.59			
							End of Borehole at 10.41 m	11	
								12	
								13	
								14	

Remarks:



Project Name
 New Mill Road

Project No.
 39141

Co-ords: -

Hole Type
 Cable

Location: Holmfirth

Level: 174.75 m AOD

Scale
 1:75

Client: Prospect Estates

Dates: 05/11/2015-09/11/2015

Logged By
 Driller

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.70	174.05		Grass over MADE GROUND: Pale and dark brown mixed silty sand clay with bricks, sandstone and coal fragments.	
		1.20 1.20-1.65	SPT SPTLS	N=8 N=8 (3,2,3,3,1,1)				MADE GROUND: Loose dark grey and occasionally brown clayey sand with much landfill waste (fabrics, shoes, plastics) and occasional sandstone cobbles.	1
		2.30 2.30-2.75	SPT SPTLS	N=12 N=12 (3,1,1,3,4,4)	2.00	172.75		MADE GROUND: Loose mainly dark grey and black sand with ash, clinker, cinders and occasional plastics, glass and ceramic fragments and rare sandstone cobbles.	2
		3.20 3.20-3.65	SPT SPTLS	N=3 N=3 (1,0,1,1,0,1)					3
		4.30 4.30-4.75	SPT SPTLS	N=9 N=9 (3,2,3,2,2,2)					4
		5.55 5.55-6.00	SPT SPTLS	N=4 N=4 (1,1,0,1,1,2)					5
		7.05 7.05-7.50	SPT SPTLS	N=10 N=10 (3,2,3,2,3,2)					6
		8.55 8.55-9.00	SPT SPTLS	N=10 N=10 (2,3,3,2,3,2)				Occasional thin brown pockets of clay below 8m.	7
		9.10 9.10-9.90	SPT SPTLS	N=10 N=10 (2,3,3,2,3,2)	9.10	165.65		Soft pale brown mottled orange brown sandy CLAY with sandstone and mudstone gravel.	8
		10.10 10.10-10.32	SPT SPTLS	50/74mm 74mm (10,11,50)	9.90	164.85		Stiff pale orange brown silty sandy gravelly CLAY with bands of weathered sandstone.	9
		10.40 10.40-10.45	SPT SPTLS	50/28mm 28mm (25,50)	10.30	164.45		Strong brown SANDSTONE.	10
					10.45	164.30		End of Borehole at 10.45 m	11
									12
									13
									14

Remarks:



Project Name
 New Mill Road

Project No.
 39141

Co-ords: -

Hole Type
 Cable

Location: Holmfirth

Level: 183.20 m AOD

Scale
 1:75

Client: Prospect Estates

Dates: 09/11/2015

Logged By
 Driller

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.10			183.10		Macadam.		
		0.45			182.75		MADE GROUND: Limestone hardcore.		
		1.40	SPT	N=23			MADE GROUND: Loose dark brown grey very sandy gravelly clay with cobbles and occasional boulders of sandstone. Some ash with rare glass and brick fragments.	1	
		1.40-1.85	SPTLS	N=23 (3,2,3,10,6,4)				2	
		2.55	SPT	N=8				Some plastic and ceramic fragments, fabrics and dark grey silty sand pockets below 2.3m.	3
		2.55-3.00	SPTLS	N=8 (3,2,2,1,2,3)					4
		3.50	SPT	N=8				5	
		3.50-3.95	SPTLS	N=8 (2,2,2,2,2,2)				6	
		4.60	SPT	N=5				7	
		4.60-5.05	SPTLS	N=5 (2,2,1,1,1,2)				8	
		6.05	SPT	N=5	6.00	177.20	MADE GROUND: Loose dark grey black sand with ash, cinders and abundant landfill waste (rubber, hessian, metal fragments, plastics) and occasional sandstone boulders.	9	
		6.05-6.50	SPTLS	N=5 (0,1,1,1,2,1)				10	
		7.55	SPT	N=11				11	
		7.55-8.00	SPTLS	N=11 (5,5,4,3,2,2)				12	
		8.60			8.60	174.60	Firm pale brown mottled orange brown silty CLAY with mudstone and siltstone gravels.	13	
		9.25	SPT	N=45				14	
		9.25-9.70	SPTLS	N=45 (5,7,9,10,12,14)	9.50	173.70	Moderately weak brown grey weathered MUDSTONE with occasional shale bands.	15	
		10.70	SPT	50/288mm				16	
		10.70-11.14	SPTLS	288mm (12,13,13,12,15,10)			End of Borehole at 12.45 m	17	
		12.10	SPT	50/198mm				18	
		12.10-12.45	SPTLS	198mm (9,12,17,19,14)	12.45	170.75		19	

Remarks:



Appendix 5

Geotechnical Test Results



LABORATORY REPORT



4043

Contract Number: PSL15/5476

Client's Reference:

Report Date: 06 November 2015

Client Name: Eastwood & Partners
St Andrews House
23 Kingfield Road
Sheffield
S11 9AS

For the attention of: Andrew Kerslake

Contract Title: New Mill Road, Holmfirth.

Date Received: 5/11/2015
Date Commenced: 5/11/2015
Date Completed: 6/11/2015

Notes: Opinions and Interpretations are outside the UKAS Accreditation

A copy of the Laboratory Schedule of accredited tests as issued by UKAS is attached to this report. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced in full, without the prior written approval of the laboratory.

Checked and Approved Signatories:

R Gunson
(Director)

A Watkins
(Director)

M Beall
(Laboratory Manager)

D Lambe
(Senior Technician)

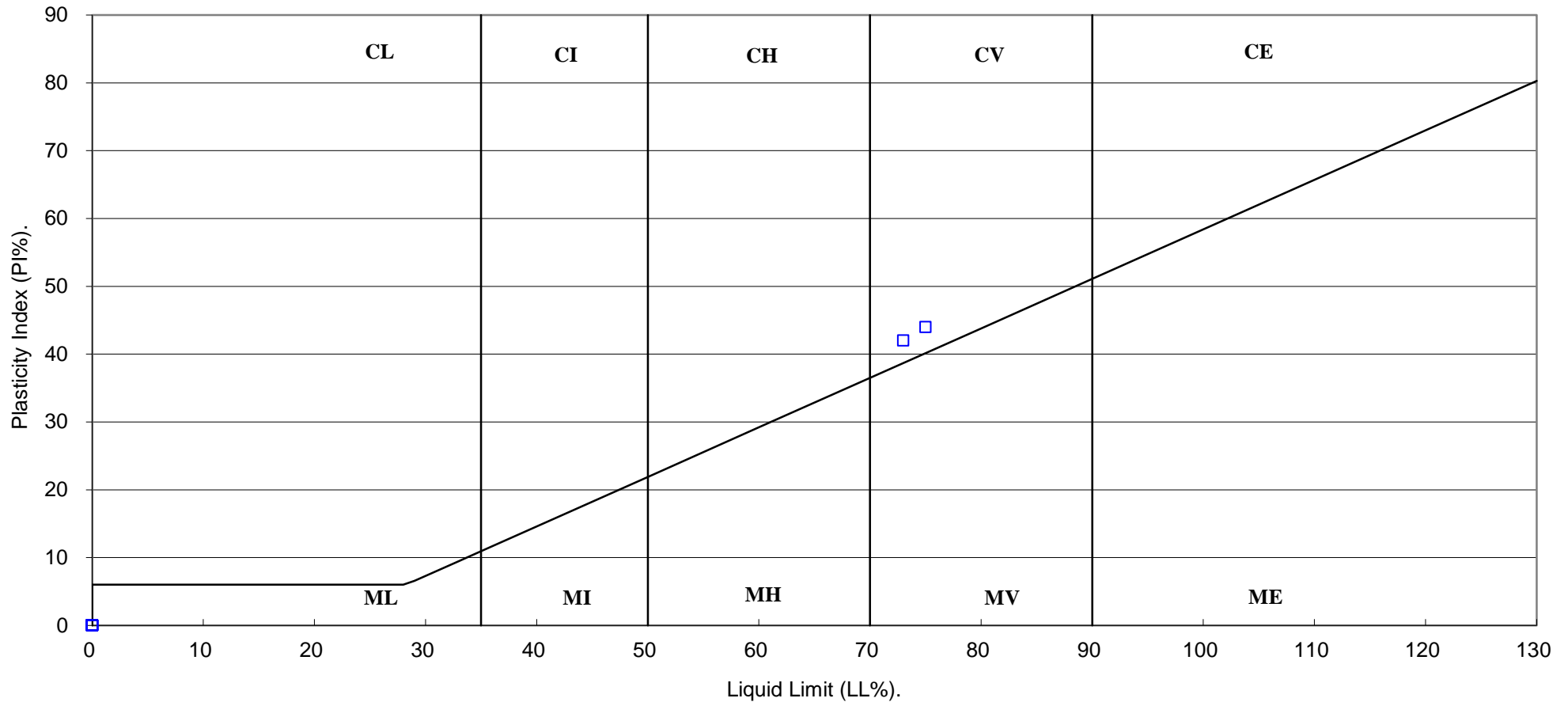
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Page 1 of

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(B.S.5930 : 1999)



Compiled by	Date	Checked by	Date	Approved by	Date
<i>[Signature]</i>	06-11-15	<i>[Signature]</i>	06-11-15	<i>[Signature]</i>	06-11-15
NEW MILL ROAD, HOLMFIRTH				Contract No: PSL15/5476	
				Client Ref: 39141	

Appendix 6
Chemical Test Results
Table of Assessment Values



Final Report

Report No.: 15-25814-1

Initial Date of Issue: 09-Nov-2015

Client: Eastwood & Partners

Client Address: St. Andrews House
23 Kingfield Road
Sheffield
South Yorkshire
S11 9AS


Contact(s): Andrew Kerlake

Project: 39141 - New Mill Road, Holmfirth

Quotation No.:		Date Received:	04-Nov-2015
Order No.:	39141	Date Instructed:	03-Nov-2015
No. of Samples:	12	Target Date:	09-Nov-2015
Turnaround (Wkdays):	5	Results Due:	09-Nov-2015

Date Approved: 09-Nov-2015

Approved By:



Details: Keith Jones, Technical Manager

Project: 39141 - New Mill Road, Holmfirth

Client: Eastwood & Partners	Chemtest Job No.:				15-25814	15-25814	15-25814	15-25814	15-25814	15-25814	15-25814	15-25814	15-25814
Quotation No.:	Chemtest Sample ID.:				214188	214189	214190	214191	214192	214193	214194	214195	214196
Order No.: 39141	Client Sample Ref.:				TP1	TP1	TP2	TP3	TP4	TP5	TP8	TP9	TP10
	Client Sample ID.:											B	
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.60	2.00	1.00	0.60	0.80	0.50	0.70	0.80	0.50
	Bottom Depth (m):												
	Date Sampled:				29-Oct-2015	29-Oct-2015	29-Oct-2015	29-Oct-2015	29-Oct-2015	29-Oct-2015	29-Oct-2015	29-Oct-2015	29-Oct-2015
Determinand	Accred.	SOP	Units	LOD									
ACM Type	U	2192		N/A	-	-	-	-	-	-	-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	16	13	13	13	20	29	21	9.8	26
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Grey
Other Material	N	2040		N/A	Stones	NONE	Stones	Stones	Stones	Stones	Stones	Stones	NONE
Soil Texture	N	2040		N/A	Sand	Clay	Sand	Sand	Sand	Sand	Loam	Sand	Clay
pH	M	2010		N/A	8.1	7.6	8.6	8.7	7.9	7.5	6.7	7.9	6.0
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	0.16	0.051	0.035	0.10	0.060	0.059	0.41	0.29	0.023
Total Sulphur	M	2175	%	0.010	0.070	< 0.010	0.13	0.11	0.050	0.32	0.16	0.27	< 0.010
Sulphate (Acid Soluble)	M	2430	%	0.010	0.13	0.025	0.059	0.20	0.12	0.15	0.13	0.11	0.015
Arsenic	M	2450	mg/kg	1.0	24	9.4	14	14	28	130	31	15	5.4
Cadmium	M	2450	mg/kg	0.10	2.6	< 0.10	0.73	< 0.10	1.1	0.43	0.66	1.0	< 0.10
Chromium	M	2450	mg/kg	1.0	37	33	29	23	38	89	24	66	35
Copper	M	2450	mg/kg	0.50	64	33	60	39	140	570	91	60	17
Mercury	M	2450	mg/kg	0.10	0.45	0.12	0.22	< 0.10	0.28	0.48	0.49	0.14	< 0.10
Nickel	M	2450	mg/kg	0.50	26	40	24	19	73	78	26	24	16
Lead	M	2450	mg/kg	0.50	240	49	98	56	230	1600	180	210	46
Selenium	M	2450	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.94	< 0.20	< 0.20	< 0.20
Zinc	M	2450	mg/kg	0.50	200	130	51	59	850	870	490	110	58
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	M	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	12	< 1.0	< 1.0	< 1.0	< 1.0	23	< 1.0
Aromatic TPH >C16-C21	M	2680	mg/kg	1.0	28	19	76	16	12	50	13	110	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	71	52	120	39	40	220	36	270	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	4.8	< 1.0	1.7	8.6	< 1.0	< 1.0	< 1.0

Project: 39141 - New Mill Road, Holmfirth

Client: Eastwood & Partners		Chemtest Job No.:		15-25814	15-25814	15-25814	15-25814	15-25814	15-25814	15-25814	15-25814	15-25814	15-25814
Quotation No.:		Chemtest Sample ID.:		214188	214189	214190	214191	214192	214193	214194	214195	214196	
Order No.: 39141		Client Sample Ref.:		TP1	TP1	TP2	TP3	TP4	TP5	TP8	TP9	TP10	
		Client Sample ID.:									B		
		Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
		Top Depth (m):		0.60	2.00	1.00	0.60	0.80	0.50	0.70	0.80	0.50	
		Bottom Depth (m):											
		Date Sampled:		29-Oct-2015	29-Oct-2015	29-Oct-2015	29-Oct-2015	29-Oct-2015	29-Oct-2015	29-Oct-2015	29-Oct-2015	29-Oct-2015	
Determinand	Accred.	SOP	Units	LOD									
Total Aromatic Hydrocarbons	M	2680	mg/kg	5.0	99	72	220	55	53	270	48	400	< 5.0
Total Petroleum Hydrocarbons	M	2680	mg/kg	10	99	72	220	55	53	280	48	400	< 10
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0					
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0					
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0					
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0					
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0					
Naphthalene	M	2800	mg/kg	0.10	1.8	0.87	0.77	0.80	0.52	1.1	0.53	0.12	0.43
Acenaphthylene	N	2800	mg/kg	0.10	0.43	0.16	0.90	0.16	< 0.10	< 0.10	< 0.10	0.13	< 0.10
Acenaphthene	M	2800	mg/kg	0.10	0.92	< 0.10	0.81	0.14	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10	0.72	< 0.10	1.3	0.12	< 0.10	< 0.10	< 0.10	0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10	7.0	0.67	14	2.6	0.93	0.94	1.2	1.8	0.16
Anthracene	M	2800	mg/kg	0.10	2.4	0.15	4.6	0.94	0.28	0.15	0.13	0.54	< 0.10
Fluoranthene	M	2800	mg/kg	0.10	16	2.1	22	5.0	2.2	3.1	2.2	7.3	0.30
Pyrene	M	2800	mg/kg	0.10	16	1.9	18	4.5	2.3	3.2	1.8	7.3	0.21
Benzo[a]anthracene	M	2800	mg/kg	0.10	11	1.5	10	2.8	1.5	2.6	1.2	4.1	< 0.10
Chrysene	M	2800	mg/kg	0.10	9.5	1.3	8.4	2.4	1.2	2.5	1.2	4.3	< 0.10
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	15	2.2	12	3.7	2.8	5.0	2.3	6.2	< 0.10
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	5.1	0.75	4.6	1.3	0.88	1.7	0.74	2.0	< 0.10
Benzo[a]pyrene	M	2800	mg/kg	0.10	15	1.5	12	3.6	3.0	4.2	1.9	5.5	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	9.3	1.2	7.4	2.2	2.1	3.1	1.4	2.9	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	1.7	0.17	0.31	0.26	0.21	0.41	0.13	0.11	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	6.6	0.74	5.8	1.7	1.6	2.5	0.91	2.4	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0	120	15	120	32	20	31	16	45	< 2.0

Project: 39141 - New Mill Road, Holmfirth

Client: Eastwood & Partners	Chemtest Job No.:				15-25814	15-25814	15-25814
Quotation No.:	Chemtest Sample ID.:				214197	214198	214199
Order No.: 39141	Client Sample Ref.:				TP11	TP14	TP16
	Client Sample ID.:						
	Sample Type:				SOIL	SOIL	SOIL
	Top Depth (m):				0.60	0.40	0.50
	Bottom Depth (m):						
	Date Sampled:				29-Oct-2015	29-Oct-2015	29-Oct-2015
Determinand	Accred.	SOP	Units	LOD			
ACM Type	U	2192		N/A	-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	15	15	25
Soil Colour	N	2040		N/A	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Clay	Sand
pH	M	2010		N/A	7.4	7.0	7.4
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	0.055	0.014	0.13
Total Sulphur	M	2175	%	0.010	0.090	< 0.010	0.23
Sulphate (Acid Soluble)	M	2430	%	0.010	0.078	0.013	0.20
Arsenic	M	2450	mg/kg	1.0	35	6.6	110
Cadmium	M	2450	mg/kg	0.10	0.17	< 0.10	< 0.10
Chromium	M	2450	mg/kg	1.0	43	23	98
Copper	M	2450	mg/kg	0.50	73	21	340
Mercury	M	2450	mg/kg	0.10	0.14	0.84	0.30
Nickel	M	2450	mg/kg	0.50	37	25	120
Lead	M	2450	mg/kg	0.50	130	34	4200
Selenium	M	2450	mg/kg	0.20	< 0.20	< 0.20	< 0.20
Zinc	M	2450	mg/kg	0.50	120	67	320
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	M	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	M	2680	mg/kg	1.0	66	3.8	23
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	210	29	84
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	15	< 1.0	3.6

Project: 39141 - New Mill Road, Holmfirth

Client: Eastwood & Partners	Chemtest Job No.:				15-25814	15-25814	15-25814
Quotation No.:	Chemtest Sample ID.:				214197	214198	214199
Order No.: 39141	Client Sample Ref.:				TP11	TP14	TP16
	Client Sample ID.:						
	Sample Type:				SOIL	SOIL	SOIL
	Top Depth (m):				0.60	0.40	0.50
	Bottom Depth (m):						
	Date Sampled:				29-Oct-2015	29-Oct-2015	29-Oct-2015
Determinand	Accred.	SOP	Units	LOD			
Total Aromatic Hydrocarbons	M	2680	mg/kg	5.0	290	33	110
Total Petroleum Hydrocarbons	M	2680	mg/kg	10	290	33	110
Benzene	M	2760	µg/kg	1.0			
Toluene	M	2760	µg/kg	1.0			
Ethylbenzene	M	2760	µg/kg	1.0			
m & p-Xylene	M	2760	µg/kg	1.0			
o-Xylene	M	2760	µg/kg	1.0			
Naphthalene	M	2800	mg/kg	0.10	0.41	0.27	0.43
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10	0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10	7.2	0.50	0.34
Anthracene	M	2800	mg/kg	0.10	0.76	< 0.10	< 0.10
Fluoranthene	M	2800	mg/kg	0.10	11	0.99	0.76
Pyrene	M	2800	mg/kg	0.10	7.6	0.64	0.53
Benzo[a]anthracene	M	2800	mg/kg	0.10	5.8	0.50	0.36
Chrysene	M	2800	mg/kg	0.10	5.5	0.53	0.37
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	9.2	1.1	0.86
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	3.5	0.29	0.21
Benzo[a]pyrene	M	2800	mg/kg	0.10	8.4	0.71	0.58
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	6.2	0.63	0.51
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	1.0	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	4.7	0.47	0.47
Total Of 16 PAH's	N	2800	mg/kg	2.0	71	6.6	5.4

Report Information

Key

- U UKAS accredited
- M MCERTS and UKAS accredited
- N Unaccredited
- S This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
- SN This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
- T This analysis has been subcontracted to an unaccredited laboratory
- I/S Insufficient Sample
- U/S Unsuitable Sample
- N/E not evaluated
- < "less than"
- > "greater than"

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVCOs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at our Coventry laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container

Sample Retention and Disposal

All soil samples will be retained for a period of 60 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.co.uk

Inorganic Compounds	Human Health - Residential with Homegrown Produce (mg/kg)
Arsenic	37
Cadmium	11
Chromium (III)	910
Chromium (VI)	6
Lead	200
Mercury	1.2
Nickel	180
Selenium	250
Copper	2400
Zinc	3700

Organic Compounds	Human Health - Residential with Homegrown Produce (mg/kg)		
	1% SOM	2.5% SOM	6% SOM
Naphthalene	2.3	5.6	13
Acenaphthene	210	510	1100
Acenaphthylene	170	420	920
Fluorene	170	400	860
Phenanthrene	95	220	440
Anthracene	2400	5400	11000
Fluoranthene	280	560	890
Pyrene	620	1200	2000
Benzo(a)anthracene	7.2	11	13
Chrysene	15	22	27
Benzo(b)fluoranthene	2.6	3.3	3.7
Benzo(k)fluoranthene	77	93	10
Benzo(a)pyrene	2.2	2.7	3.0
Dibenz(a,h)anthracene	0.24	0.28	0.3
Indeno(1,2,3-cd)pyrene	27	36	41
Benzo(g,h,i)perylene	320	340	350
Benzene	0.087	0.17	0.37
Toluene	130	290	660
Ethylbenzene	47	110	260
o-Xylene	60	140	330
m-Xylene	59	140	320
p-Xylene	56	130	310

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Prepared	KDL	Checked	CAT	Date	01.12.15	Job No	39141
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 Eastwood & Partners <small>CONSULTING ENGINEERS</small> St Andrew's House 23 Kingfield Road Sheffield S11 9AS Tel: (0114) 255 4554 Fax: (0114) 255 4330	PROSPECT ESTATES NEW MILL ROAD, HOLMFIRTH ASSESSMENT CRITERIA – RESIDENTIAL WITH HOMEGROWN PRODUCE
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Contaminant	Phytotoxicity			
	pH 5.0 to 5.5	pH 5.5 to 6.0	pH 6.0 to 6.5	pH >7.0
Arsenic	50			
Cadmium	3			
Chromium	400			
Lead	300			
Mercury	1			
Nickel	50	60	75	110
Copper	80	100	135	200
Zinc	200	200	200	300


The assessment concentration for lead is the Category 4 Screening Level produced by Contaminated Land: Applications in Real Environments (CL:AIRE) and outlined in Appendix H of their report SP1010. The others have been taken from Nathanail, C. P., McCaffrey, C., Gillett, A., Ogden, R., and Nathanail, J., 2015, 'The LQM/CIEH S4ULs for Human Health Risk Assessment', Land Quality Press, Nottingham. The metals/metalloids are based on a sandy loam soil and 6% soil organic matter. The assessment values are not intended to be applied to individual sample results where materials are similar, as the levels of contaminants will have a natural variability across the site. Instead, the modified mean value should be compared with the assessment concentration.

The assessment values for phytotoxicity are the levels at which plant growth is thought to be affected. They are taken from the maximum permissible and advisable concentrations in soil after application of soil sludge given in the 'The Code of Good Agricultural Practice for the Protection of Soil', MAFF, 1998.

The assessment of sulphate, water soluble sulphate, elemental sulphur and sulphide is to determine the aggressive nature of the ground with respect to concrete and consequently the results are compared with BRE Special Digest 1:2005 'Concrete in Aggressive Ground'.

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Prepared	KDL	Checked	CAT	Date	01.12.15	Job No	39141
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TPH Fraction	Intended Land Use Residential (mg/kg)		
	1% SOM	2.5% SOM	6% SOM
Aliphatic EC 5-6	42	78	160
Aliphatic EC >6-8	100	230	530
Aliphatic EC >8-10	27	65	150
Aliphatic EC >10-12	130 (48) ^{vap}	330 (118) ^{vap}	760 (283) ^{vap}
Aliphatic EC >12-16	1100 (24) ^{sol}	2400 (59) ^{sol}	4,300 (142) ^{sol}
Aliphatic EC >16-35	65,000 (8.48) ^{f, sol}	92,000 (21) ^{f, sol}	110,000 ^f
Aliphatic EC >35-44	65,000 (8.48) ^{f, sol}	92,000 (21) ^{f, sol}	110,000 ^f
Aromatic EC 5-7	70	140	300
Aromatic EC >7-8	130	290	660
Aromatic EC >8-10	34	83	190
Aromatic EC >10-12	74	180	380
Aromatic EC >12-16	140	330	660
Aromatic EC >16-21	260 ^f	540 ^f	930 ^f
Aromatic EC >21-35	1,100 ^f	1,500 ^f	1,700 ^f
Aromatic EC >35-44	1,100 ^f	1,500 ^f	1,700 ^f

^f oral, dermal, and inhalation exposure compared with oral HCV

^{sol} S4UL presented exceeds the solubility saturation limit, which is presented in brackets


^{vap} S4UL presented exceed the vapour saturation limit, which is presented in brackets

The assessment criteria for each of the petroleum hydrocarbon fractions have been taken from Nathanail, C. P., McCaffrey, C., Gillett, A., Ogden, R., and Nathanail, J., 2015, *The LQM/CIEH S4ULs for Human Health Risk Assessment*, Land Quality Press, Nottingham. These are also all based on a sandy loam soil.

Within the Environment Agency Science Report P5-080/TR3, Askari, K. & Pollard, S., 2005 *The UK Approach for Evaluating Human Health Risks from Petroleum Hydrocarbons in Soils* it is stated that the assessment values should not be considered individually; instead the potential additive effects should be calculated. This is achieved by calculating an individual Hazard Quotient (HQ) for each fraction. The HQ is the proportion of the assessment concentration represented by the recorded concentration. The HQs are then added together to form a Hazard Index (HI) and where this exceeds unity a potential significant risk to human health may exist.

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 <p>Eastwood & Partners CONSULTING ENGINEERS St Andrew's House 23 Kingfield Road Sheffield S11 9AS Tel: (0114) 255 4554 Fax: (0114) 255 4330</p>	<p>PROSPECT ESTATES</p> <p>NEW MILL ROAD, HOLMFIRTH</p> <p>ASSESSMENT CRITERIA – RESIDENTIAL WITH HOMEGROWN PRODUCE</p>
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