

Magellan Aerospace, Llay
Proposed New Development
Geo-Environmental Report
Magellan Aerospace (UK) Ltd



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1.0 INTRODUCTION

Magellan Aerospace (UK) Ltd (MA) propose to develop an area of brownfield land adjacent to their current production facility on Llay Industrial Estate, Wrexham. This will involve the construction of a new commercial warehouse unit and associated parking.

TACP are the architects for the scheme, and JP Structural are the Civil and Structural engineers.

Prior to development MA have appointed GroundSolve Ltd (GSL) to undertake a Phase I desk study and Phase II site investigation at the site.

This report presents the findings of the desk study and site investigation. It gives firm geotechnical recommendations for the development and presents extra over normal construction costs. In addition, it presents conceptual ground models and environmental risk assessments.

2.0 THE SITE

2.1 Site Location and Description

The site is located immediately south of Miners Road on Llay Industrial Estate, at National Grid Reference SJ 329 563, see Figure 1.

It is bounded by Miners Road to the north, the existing Magellan Aerospace facility to the northeast, and several industrial units with associated car parking to the south, west and east, see Figure 2.

The northern site boundary is defined by mature sycamores along the footpath adjacent to Miners Road. Steel palisade fencing defines the west and northeastern site boundaries, with a soil slope defining the southern site boundary.

The site is currently disused scrubland, previously prepared for development, with a generally level topography, and with dense vegetation in the west and east of the site, which comprises mature oak, willow, silver birch, and fruit trees, such as apple and cherry.

It is up to 160m long and 80m wide at its widest. The site is at grade with Miners Road at an elevation of around 94.5mAOD. However, the slope on the southern site boundary falls to an elevation of 91mAOD, over a distance of 15m giving a gradient of 1 on 4.3 (13°).

Photographs of the site are presented in Appendix A.

2.2 Geology and Hydrogeology

The geology has been studied using the following sources:

- Wrexham Applied Mapping project at a scale of 1:25,000, Reference 1.
- 1:50,000 scale BGS geology plan, Sheet 121, Wrexham, with the associated geological memoirs, Reference 2.

These show the site to be underlain by made ground at the surface overlying glacial till (clay). The made ground probably comprises colliery spoil derived from the nearby Llay Main colliery, which will consist of fragments of mudstone, siltstone, sandstone and coal from the mining operations.

The thickness of the superficial deposits in this area are in the order of 40m, Reference 1. Experience of the glacial till from nearby site investigations confirmed it to have a thin weathered surface, described as firm, yellow brown clay, quickly becoming a firm to stiff, red brown clay, with a little gravel with depth.

The glacial till overlies bedrock of the Salop Formation, comprising red/ red-brown mudstone, and red-brown mostly sub litharenitic sandstone. The Pennine Lower Coal

Measures are shown outcropping some 1,500m west of the site, and will therefore underlie the Salop Formation at depth, as the dip of the strata is to the east.

Reference 1 confirms the site to have been subjected to deep underground workings for coal, where more than one seam has been worked. Reference 2 records the productive seams worked at Llay Main Colliery being the Main seam, dipping approximately 15° east at the shallowest depth of 660m, Two-Yard seam, dipping 10° east at the shallowest depth of 659m and the Quaker seam, dipping 18° south-west at the shallowest depth of 629m.

A sequence through the glacial drift and Upper Coal Measures from Llay No 1 shaft is presented in Reference 2 and summarised below:

Description	Thickness ft/m	Depth ft/m
Drift	179/54.7	179/54.7
Erbistock and		
Coed Yr Allt Beds	753/229.6	932/284
Ruabon Marl	365/111.3	1,297/395.3

The shallowest coal seam was at a depth of 651m.

A fault is shown to trending north west to south east some 250m west of the site, with another shown to trend east-west some 400m north of the site.

The superficial deposits are classified as a Secondary aquifer – undifferentiated, with the bedrock aquifer classified as a Secondary aquifer – A. Both the superficial and bedrock aquifers are classified as productive, with a low vulnerability.

The underlying water table would have been lowered by pumping for many years by the mining operations. Consequently, groundwater levels would still be anticipated to be at significant depth beneath the site. However, a perched water table on top of the low permeability glacial till would be anticipated.

2.3 Abandoned Mining

A Coal Consultants report was obtained for the site, with the main points summarised below, and the report presented in full in Appendix B.

- The site is located within an area where up to six coal seams have been worked, with the shallowest depth being 629m, last worked in 1966.
- There are no probable shallow workings.
- There are no mine entries within 100m of the site.
- There are no open cast entries within 500m of the site.
- There are no subsidence records at the site.

2.4 History

The history of the site has been studied on historical Ordnance Survey (OS) plans dating from 1873. Unless otherwise stated all plans are at a scale of 1:2,500.

The 1873 OS plan shows the site to be within open fields, with a field boundary crossing the middle of the site, see Figure 3a. Several small buildings had been constructed some 100m south of the site, with 'Llay Green' and 'Llay Place' present some 150m south of the site. Un named roads are shown to the north and south east of the site.

The 1899 OS plan shows no changes to the site or its surroundings, see Figure 3b. However, a small pond is shown to the north west of the nearby buildings.

The 1912 OS plan failed to record any changes to the site, see Figure 3c, although, the nearby buildings had been extended and the pond backfilled. Additional buildings had been constructed at 'Llay Green' and 'Llay Place'.

According to sources from the Internet, Llay Main Colliery was completed in 1921 to the north west of the site. Shaft 1 was some 905 yards deep, with Shaft 2 being 830 yards deep. Coal Production starting in earnest in 1923.

The 1938 OS plan at 1:10,560 confirms that 'Llay Main Colliery' had been opened to the north and west of the site. There had been significant development around the village of 'Llay' some 400m south east of the site, see Figure 3d. In addition, the road to the north is now called Rackery Lane.

In 1952, the No 1 shaft was extended to 1,009 yards, making it the deepest winding shaft in the country at the time.

The 1954 OS plan at a scale of 1:10,560 confirms substantial development of the colliery had taken place since 1938, with the site being used for tipping colliery spoil from railway lines trending east to west across the site. There had also been further residential development within the village of Llay, see Figure 3e.

By 1959 the colliery was becoming exhausted and was being run down.

The 1962 OS plan shows the site crossed by railway lines, with the coal loading facility immediately east of the site. A small structure, possibly a weigh bridge had been constructed adjacent to the railway lines. The main mine spoil tip is located 25m south west of the site, see Figure 3f. Slope batters are shown on both the northern and southern site boundaries.

The colliery was eventually closed in March 1966, and it took six months to fill both shafts.

The 1968 OS at a scale of 1:10,000 failed to record any changes to the site or its surroundings, see Figure 3g.

By the 1975 OS plans, the colliery is no longer in use, with the railway lines removed from the site. A road trending west to east had been constructed on the northern site boundary and the previous batter on the northern site boundary is no longer shown. Buildings had been constructed to the north of Miners Road, which comprised an 'Engineering Works', and an 'Animal Foods Factory', with numerous tanks/silos to the east of the warehouse. Two disused shafts are recorded immediately east of these buildings, see Figure 3h. A significant batter is shown on the southern site boundary.

The 1980 OS plan shows no significant changes to the site itself. A depot had been constructed to the east of the site, see Figure 3i, and there had been some regrading of the main colliery tip, with the batter line on the southern site boundary having moved. The tip regrading was probably for the recent developments to the south of the site, with industrial units surrounding West Bank Road, Pinfold Lane, and Aerial Road. In addition, a large building had been constructed to the east of the site at the location of the present-day MA buildings.

The 1984 OS plan fails to show any significant changes to the site or its surroundings, see Figure 3j.

The 1993 OS plan shows no significant changes to the site, although a new building had been constructed on the western site boundary. Further industrial buildings had been constructed to the south of the site, forming part of 'Llay Industrial Estate', see Figure 3k.

The aerial photograph dated 2003 confirms the site to be within open space surrounded by 'Llay Industrial estate', with large buildings and warehouses present, see Figure 3l.

3.0 ENVIRONMENTAL SEARCHES

An Envirocheck report has been obtained for the site, the main points are summarised below, with the report presented in full in Appendix C.

Agency and Hydrological

- The closest active discharge consent is 158m south east of the site, and is part of the sewerage network.
- The closest LAPPC is 47m east of the site and is held by Magellan Aerospace.
- There was a prosecution relating to controlled waters some 125m north west of the site, whereby vegetable oil entered a watercourse in 2005.
- The closest water feature is 55m south west of the site.
- There are no water abstractions within 500m of the site.
- The closest pollution incident to controlled waters was 6m south east of the site, and was a Category 2- significant incident, where the pollutant was mud/clay/soil.
- The closest substantiated pollution incident was 159m south east of the site, where the impact to the surrounding water was significant.

Waste

- There are no historical landfill sites within 500m of the site.
- The closest licensed waste management facility is 387m north west of the site, for disposal of household, commercial and industrial waste.
- There are no registered landfill sites within 500m of the site.
- The closest potentially infilled land is located on site (pit, quarry etc.).

Geological

The BGS have provided estimated soil chemistry for the site as follows:

- Arsenic <15 mg/kg,
- Cadmium <1.8 mg/kg,
- Chromium 60 -90 mg/kg,
- Lead <100 to 200 mg/kg,
- Nickel <15 mg/kg.

In addition, the following geological information has also been provided:

- The closest BGS recorded mineral site is 121m north west of the site and was the Llay Main colliery (No. 1 Shaft), which was for deep coal mining.
- The potential for collapsible ground is very low.
- The potential for compressible ground is very low.
- There are no ground dissolution hazards.

- The potential for landslides is very low.
- The potential to encounter running sand is very low.
- The potential to encounter shrinking or swelling clay is very low.

The site is within a lower probability radon area, where less than 1% of homes are estimated to be at or above the action level. Therefore, no radon protective measures are necessary in the construction of new dwellings or extensions.

Industrial Land Use

- The closest active contemporary trade entry is 33m south of the site, and is a commercial vehicle body-shop.

Sensitive Land Use

- The closest sensitive land use is 242m south east of the site and is ancient woodland.
- A nitrate vulnerable zone is located 130m north east of the site.

4.0 PROPOSED DEVELOPMENT

MA propose to develop a plot of land adjacent to their current facility on Miners Road, Llay Industrial Estate, Wrexham. This will involve the construction of a new commercial unit and associated parking. The current development proposals are presented in Figure 4.

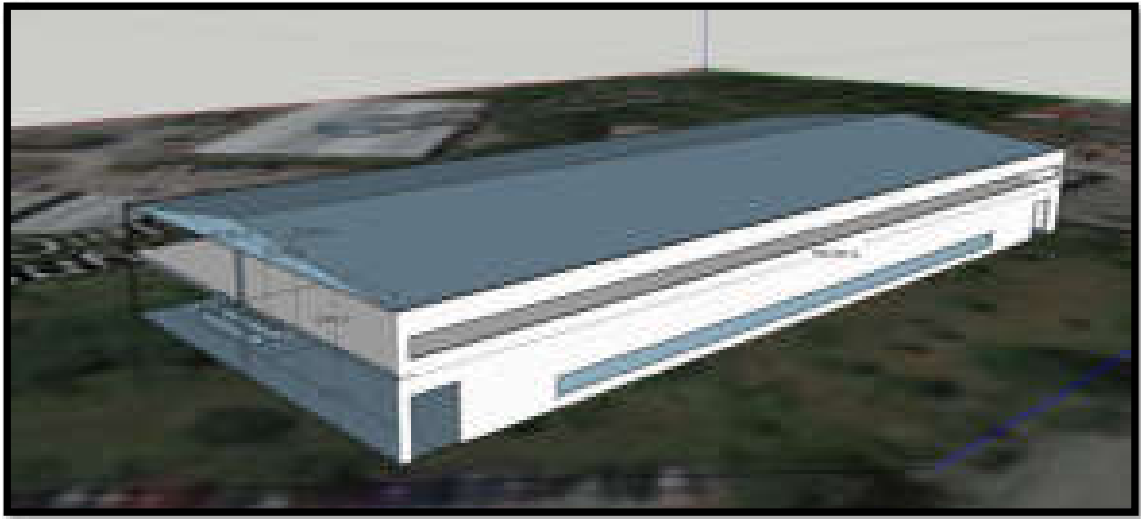
The unit will be a steel framed structure, with conventional industrial style cladding. It is 100m long and 43m wide, it will be around 10m high, with a mezzanine floor.

Likely worst-case column loads are 850kN SLS axial load, and 35kN SLS horizontal load, with typical column spacings of 6m between adjacent portal frame bays.

Whilst the worst-case ground slab load is 25kN/m² SLS, with a slab level of 93.75mAOD, which is around 0.75m below existing ground level. Apparently, the reason for the change in levels is to enable transfer of large manufactured parts between buildings.

The recommendations in this report are based on these assumptions, consequently, they should be reviewed, and if necessary revised during the detailed design.

An architect's scheme drawing of the proposed development is presented below



Architects Scheme Drawing

5.0 SITE INVESTIGATION

5.1 Fieldwork

The site investigation was undertaken between the 16th to 18th September 2020, and comprised:

- Six machine excavated trial pits to a maximum depth of 3.50m,
- Six soakaway tests within sperate trial pits,
- Five window sample boreholes drilled to a maximum depth of 5.45m,
- Standard Penetration Testing (SPT) at 1m intervals in the boreholes.

The trial pits and boreholes were supervised and logged by a GSL Engineer in general accordance with BS 5930, Reference 3. The soakaway testing was carried out by filling the trial pits quickly with water from a 1,600-gallon water bowser and monitoring the water level in accordance with BRE Digest 365, Reference 4.

The locations of the trial pits and boreholes are presented in Figure 2, with the trial pit logs, borehole logs and soakaway tests presented in the following Appendices.

- Trial pit logs – Appendix D,
- Borehole logs – Appendix E,
- Soakaway tests – Appendix F.

5.2 Laboratory Work

Samples were taken from the trial pits and boreholes for the following chemical and physical analysis:

Physical Testing

- Natural moisture content,
- Atterberg limits,
- Particle Size Distribution,
- pH & water-soluble sulphate (2:1 extract),
- SDI Suite B Brownfield site with pyrite.

The testing was carried out in accordance with BS1377, Reference 5. The results are discussed in Section 6.0, and presented in full in Appendix G.

Chemical Testing

Samples for chemical testing were taken from the made ground and glacial till, placed in appropriate containers and a cool box, and taken immediately to the laboratories of DETS in County Durham for the following testing:

Metals & Non-metals - Arsenic (As), Boron (B), Cadmium (Cd), Chromium (Trivalent), Chromium (Hexavalent), Copper (Cu), Lead (Pb), Mercury (Hg), Nickel (Ni), Phenol, Selenium (Se), and Zinc (Zn).

Petroleum Hydrocarbons - Benzene, Toluene, Ethylbenzene, o-xylene, m-xylene, p-xylene, Aliphatics >C5 – C44, Aromatics >EC5 – EC44.

Polyaromatic Hydrocarbons (PAH) – Acenaphthene, Acenaphthylene, Anthracene, Benz (a) anthracene, Benzo (a) pyrene, Benzo (b) fluoranthene, Benzo (g, h, i) perylene, Benzo (k) fluoranthene, Chrysene, Dibenzo (a, h) anthracene, Fluorene, Fluoranthene, Indeno (1,2,3-cd) pyrene, Naphthalene, Phenanthrene, Pyrene.

Other Contaminants – Sulphide (easily liberated), Water soluble Sulphate (2:1 extract), Cyanide, pH, Soil Organic Matter (SOM).

In addition, asbestos screening was carried out on all samples.

The results are summarised in Section 7.0, and the results presented in full in Appendix H.

6.0 GROUND CONDITIONS

6.1 General Stratigraphy

The general stratigraphy encountered in the trial pits and boreholes is presented in Table 6.1 below:

Table 6.1. Summary of Ground Conditions

BH/TP No	Made Ground (m)	Glacial Till (m)
TP 1	0.00 – 1.40	1.40 – 3.50
TP 2	0.00 – 3.00	n/e
TP 3	0.00 – 3.50	n/e
TP 4	0.00 – 3.00	n/e
TP 5	0.00 – 3.50	n/e
TP 6	0.00 – 3.20	3.20 – 3.50
SA1	0.00 - 0.60	n/e
SA2	0.00 - 0.60	n/e
SA3	0.00 - 0.60	n/e
SA4	0.00 – 3.00	n/e
SA5	0.00 – 1.90	1.90 – 2.50
SA6	0.00 – 0.60	n/e
WS1	0.00 – 0.50	0.50 – 5.45
WS2	0.00 – 0.15	0.15 – 5.45
WS3	0.00 – 4.60	4.60 – 5.45
WS4	0.00 – 4.50	4.50 – 5.45
WS5	0.00 – 4.70	4.70 – 5.45

6.2 Made Ground

The made ground encountered was as anticipated being colliery spoil, which was generally described as loose to medium dense, black to grey, sandy, angular to subangular, fine to coarse gravel of mudstone with coal fragments. However, a white moist silt was encountered in TP03 at 3.00m.

SPT 'N' values in the made ground ranged between 4 and 18, giving a loose to medium dense consistency, see Figure 5. However, a clear increase with depth was recorded with values generally above 10 from 2m, I.e. Medium dense.

An Atterberg limit test on a cohesive part of the colliery spoil recorded a liquid limit of 28%, plastic limit of 14%, and a plasticity index of 14%, indicating a clay of low plasticity. The natural moisture content was 16.9%.

Particle Size distribution testing recorded the following values:

TP No	Silt/clay %	Sand %	Gravel %	Cobble %
SA 1	23	38	39	0
SA 2	10	24	64	2
SA 5	11	30	56	3

The test results generally confirmed the colliery spoil to be well graded.

pH values were between 6.40 and 8.0, with sulphate values, when measured as 2:1 water extract between 24 and 1,762mg/l (0.0024 and 1.762g/l).

Sulphur values were between 0.05 and 0.17%.

6.3 Glacial Till

The glacial till was encountered in three of the trial pits and all of the boreholes, however, the depths encountered ranged between shallow at 0.15m to 4.70m depth. It was generally described as soft to firm, brown, slightly sandy, gravelly clay, with the gravel being subangular to subrounded, fine to coarse.

SPT 'N' values in the glacial till ranged between 6 and 14, confirming a soft to firm consistency, see Figure 5. However, a clear increase with depth was recorded, generally becoming firm from around 3m depth.

Atterberg limit testing on the glacial till recorded liquid limits between 26 and 30%, plastic limits of 13%, with plasticity indices between 13 and 17%, indicating clay of low plasticity. Natural moisture contents were between 14 and 16.6%, and were generally around 3% above the plasticity index.

A pH value of 5.4 was recorded, with a sulphate value, when measured as 2:1 water extract of 106mg/l (0.106g/l).

6.4 Groundwater

No groundwater was encountered in any of the boreholes or trial pits on site.

7.0 RESULTS OF CHEMICAL TESTING

The soil samples were taken from the made ground and glacial till, with the sample depths presented in Table 7.1 below.

Table 7.1 Soil samples

TP No	Depth (m)	Strata
WS01	0.30	Made ground
WS05	1.00	Glacial Till
TP01	0.50	Made ground
TP02	1.00	Made ground
TP03	3.00	Made ground
TP04	0.50	Made ground

The results of the soil analyses are presented below, where they have been compared to suitable generic assessment criteria (GACs), in order to allow a generic quantitative risk assessment (GQRA) to be carried out for the site and the proposed development.

The Category 4 Screening Levels (C4SLs) published by DEFRA (2014) have been adopted in the first instance, which have been published for six substances to date. Where a C4SL is unavailable, the “Suitable 4 Use Levels” (S4ULs) published by LQM/CIEH (2015) have been adopted.

These criteria have been derived using the CLEA model for a range of standard end-use scenarios and a range of soil organic matter (SOM) contents. It should be noted that the C4SL values are derived on the basis of a “low level of toxicological concern”, while the S4UL values are based on a “tolerable” or “minimal” level of risk. As such, the S4ULs describe a lower level of risk than the C4SLs, and are equivalent to the former Soil Guideline Values (SGVs, published by the Environment Agency) and the previous editions of the LQM/CIEH GAC values.

A “Commercial” end-use has been adopted for this analysis, based on the most-conservative SOM content of 1%.

Note: the S4UL values presented below are Copyright Land Quality Management Limited, reproduced with permission; Publication Number S4UL3668. All rights reserved.

Metals & Non-Metals	Min (mg/kg)	Max (mg/kg)	Count	Adopted Guideline (mg/kg)	Source	Exceedances
Arsenic	2.7	57	5	640	C4SL	0
Boron, Water Soluble	0.4	0.8	5	240000	S4UL	0
Cadmium	< 0.1	0.7	5	410	C4SL	0
Chromium III	11	29	5	8600	S4UL	0
Chromium, Hexavalent	< 1.0	<1	5	49	C4SL	0
Copper	21	60	5	68000	S4UL	0
Lead	17	68	5	2300	C4SL	0
Mercury	< 0.05	0.1	5	58	S4UL	0
Nickel	23	75	5	980	S4UL	0
Phenol – Monohydric	<0.30	1.8	5	440	S4UL	0
Selenium	< 0.5	3.3	5	12000	S4UL	0
Zinc	61	97	5	730000	S4UL	0

None of the above values exceeded SGV values for a commercial end use.

Petroleum Hydrocarbons	Min (mg/kg)	Max (mg/kg)	Count	Adopted Guideline (mg/kg)	Source	Exceedances
Aliphatic C5-C6	<0.01	<0.01	5	3200	S4UL	0
Aliphatic C6-C8	<0.01	<0.01	5	7800	S4UL	0
Aliphatic C8-C10	<0.01	<0.01	5	2000	S4UL	0
Aliphatic C10-C12	<1.5	<1.5	5	9700	S4UL	0
Aliphatic C12-C16	<1.2	<1.2	5	59000	S4UL	0
Aliphatic C16-C21	<1.5	<1.5	4	1600000	S4UL	0
Aliphatic C21-C35	<3.4	<3.4	5	1600000	S4UL	0
Aliphatic C35-C40	<3.4	<3.4	5	26000	S4UL	0
Aromatic C5-C7	<0.01	<0.01	5	56000	S4UL	0
Aromatic C7-C8	<0.01	<0.01	5	3500	S4UL	0
Aromatic C8-C10	<0.01	<0.01	5	16000	S4UL	0
Aromatic C10-C12	<0.9	<0.9	5	36000	S4UL	0
Aromatic C12-C16	<0.5	<0.5	5	28000	S4UL	0
Aromatic C16-C21	<0.6	<0.6	5	28000	S4UL	0
Aromatic C21-C35	<1.4	<1.4	5	28000	S4UL	0

None of the above values exceeded SGV values for a commercial end use.

Polyaromatic Hydrocarbons (PAH)	Min (mg/kg)	Max (mg/kg)	Count	Adopted Guideline (mg/kg)	Source	Exceedances
Acenaphthene	<0.03	<0.03	5	84000	S4UL	0
Acenaphthylene	<0.03	<0.03	5	83000	S4UL	0
Anthracene	<0.03	<0.03	5	520000	S4UL	0
Benzo(a)anthracene	<0.03	<0.03	5	170	S4UL	0
Benzo(a)pyrene	<0.03	<0.03	5	77	C4SL	0
Benzo(b)fluoranthene	<0.03	<0.03	5	44	S4UL	0
Benzo(g,h,i)perylene	<0.03	<0.03	5	3900	S4UL	0
Benzo(k)fluoranthene	<0.03	<0.03	5	1200	S4UL	0
Chrysene	<0.03	<0.03	5	350	S4UL	0
Dibenzo(a,h)anthracene	<0.03	<0.03	5	3.5	S4UL	0
Fluoranthene	<0.03	<0.03	5	23000	S4UL	0
Fluorene	<0.03	<0.03	5	63000	S4UL	0
Indeno(1,2,3-c,d)pyrene	<0.03	<0.03	5	500	S4UL	0
Naphthalene	<0.03	<0.03	5	190	S4UL	0
Phenanthrene	<0.03	<0.03	5	22000	S4UL	0
Pyrene	<0.03	<0.03	5	54000	S4UL	0

None of the above values exceeded SGV values for a commercial end use.

Other Contaminants / Testing	Min (mg/kg)	Max (mg/kg)	Count	Adopted Guideline (mg/kg)	Source	Exceedances
Organic matter	-	2	5	-	-	-
pH	5.4	8	9	-	-	-
Sulphide	-	52	5	-	-	-
Cyanide, Total	<0.1	<0.1	5	-	-	-
Sulphur (free)	-	17	5	-	-	-
Sulphate Aqueous Extract as SO ₄	24	1762	9	-	-	-

None of the above values give cause for concern.

In addition, no trace of any asbestos fibres was encountered in any of the samples.

8.0 CONCEPTUAL MODEL AND RISK ASSESSMENT

8.1 General

According to the Contaminated Land Regulations, to determine whether there is a significant possibility of significant harm, the following should be taken into account:

“The nature and degree of harm, the susceptibility of the receptors and the timescale within which the harm might occur”.

Current good practice therefore requires that the findings from the desk study or site investigation be evaluated for contamination on a site-specific basis using a risk-based approach. Risk assessment involves identification of the hazards and evaluation of the risks associated with these hazards. Risk assessment requires an evaluation of a conceptual “source – pathway – receptor” linkage model and can be qualitative or quantitative.

The basis of an environmental risk assessment involves identifying a ‘source’ of contamination, a ‘pathway’ along which the contamination may migrate and a ‘receptor’ at risk from the contamination.

Current legislation defines the various elements of the pollution linkage as:

- A contaminant ‘source’ is a substance, which is in or under the ground and which has the potential to cause harm or to cause pollution of controlled waters.
- A ‘pathway’ is one or more routes through which a receptor is being exposed to, or affected by, a contaminant, or could be so affected.
- A ‘receptor’ is either a living organism, an ecological system, a piece of land or property, or controlled water.

A pollutant linkage indicates that all three elements have been identified. The site can only be defined as ‘Contaminated Land’ if a pollutant linkage exists and the contamination meets the criteria above.

8.2 Hazard Identification

On Site

The site is to be developed for a commercial end use, with new buildings and hardstandings covering the site.

Therefore, the site can be considered to be a low sensitivity end use, as the site will be covered by buildings and hardstandings. This effectively provides a barrier to protect any future end users from any potential underlying contaminants.

The desk study has confirmed that the site was originally greenfield until the opening of Llay Main colliery. The site was then used for tipping colliery spoil, and as for a turning siding for trains to leave site. As such the spoil tipped would have been won from underground and

comprise inert fragments of mudstone, siltstone and sandstone with occasional coal fragments.

Therefore, the only potential source for contamination is the trains themselves, which would have belonged to the colliery and only used for tipping the colliery spoil. Therefore, the main contaminants are likely to be ash and clinker from the boilers on the trains and possibly asbestos fragments from the brakes, and even more unlikely hydrocarbon (Diesel) spills.

Whilst ash and clinker were observed there was also some traces of burnt shale, which would have originated from the train boilers. Therefore, contaminants are likely to be limited to PAH and heavy metals.

However, the trial pits and boreholes failed to reveal any visual or olfactory evidence of contamination. In addition, the chemical testing failed to reveal any contamination of concern for an industrial development, in fact, only one elevated value for arsenic was recorded above the more stringent guidance values for residential use with gardens.

The site is therefore considered suitable for its intended use.

Off Site

No nearby contaminated land uses were identified that could affect the site, despite it being in an industrial estate.

8.3 Pathways

In relation to any on site contamination reaching potential site users, the following pathways are generally considered for a commercial end-use:

- Ingestion and skin contact with soils on site,
- Inhalation of wind-blown dust, gases or vapours,
- Leaching or migration of contaminated materials that may affect controlled waters,
- Direct contact with contaminated material during construction,
- Infiltration and accumulation of ground gas.

8.4 Receptors

The potential impact of a hazard must be assessed with regard to the following target groups:

- Future site users,
- Construction workers,
- Surface and groundwater, both on and off the site,
- Nearby vegetation,
- Building materials and buried services.

8.5 Summary of Conceptual Ground Model

Potential Contamination Sources	Potential Contaminants of Concern	Potential Pathways	Receptor Group
Made Ground Fuel spills/leaks	Heavy metals & non-metals PAH Petroleum hydrocarbons	Dermal contact	Construction Workers
		Inhalation of contaminated dust and vapours	End Users
		Lateral Migration and Infiltration	End Users Groundwater & Surface Water
	Ground gases / vapours	Migration to indoor/outdoor air	End users Buildings

8.6 Future Site Users Risk Assessment

The chemical testing from this investigation has confirmed that all contaminants are below the C4SL and S4UL threshold levels for a commercial development scenario.

As the site, once developed, will largely be covered with buildings and hardstandings, the anticipated long-term risk to future site users is considered to be negligible.

However, a watching brief should be undertaken on all shallow excavations. Any contamination encountered should be excavated, stored safely on site, tested and then disposed of at a suitably licensed landfill facility.

8.7 Controlled Waters Risk Assessment

When considering the risk to controlled waters, both surface waters and the underlying aquifers need to be considered.

There is a water course to the south west of the site, which is at a lower elevation. However, the lack of contamination on site means that surface water will not be affected.

Whilst there is more protection for the underlying aquifer in the form of a covering of low permeability clay. However, the lack of site contamination and the fact that the underlying aquifer will be affected by historic mining ensures that the risk to controlled water can be considered to be negligible.

Therefore, as most of the site will be covered by buildings and hard standings following development, with associated formal drainage, reducing rainfall infiltration, the potential for leachate generation is not likely to be an issue.

Therefore, the risk to controlled waters is currently considered to be very low, reducing to negligible on development of the site.

8.8 Construction Workers Risk Assessment

The risks to construction workers are considered to be low and can be catered for by appropriate PPE and washing facilities in accordance with current good practice.

8.9 Ground Gases Risk Assessment

The desk study has failed to record any potential sources of land gas in the vicinity of the site. In addition, the made ground comprises inert material from underground, therefore no gas remedial measures are considered necessary for the development.

In addition, the site does not lie in a radon affected area, and therefore no radon protection measures will be required for the development.

8.10 Building Materials Risk Assessment

Based on the desk study and the chemical test results, chemical attack that could adversely affect building materials is unlikely to pose a risk. However, it is likely that specific testing will be required along service routes where water supply routes are proposed.

9.0 GEOTECHNICAL RECOMMENDATIONS

9.1 Foundations and Floor Slabs

When considering the recommendations for foundations and floor slabs, it is important to note that the ground levels are being reduced by some 1.25m, which means a net unloading of the formation of around 22kN/m².

Whilst the made ground in its current condition is considered unsuitable for conventional spread foundations, this could be addressed by limited ground treatment/improvement, which is discussed in detail in Section 9.2. Whilst the testing did not indicate that heave due to pyrite expansion will be a problem, the ground improvements described below will remove any air from the system and prevent any oxidation of the pyrites.

Therefore, it is recommended that following the ground improvement a reinforced concrete beam be constructed along the line of both column lines, and possibly along the gable ends if there are intermediate columns. Following this work, it is envisaged that an allowable bearing pressure of at least 100kN/m² can be used to proportion the foundations.

The floor slab can be designed to be ground bearing assuming a Modulus of sub grade reaction K of 0.054N/mm³, Reference 6.

Other foundations techniques that were considered were piling and Vibrated Concrete Columns (VCC's). However, at present they have been discounted due to the high slab loadings, as the slabs would probably have to be suspended entailing large costs in additional piling.

9.2 Excavations and Site Preparation

The site elevation is currently around 94.50mAOD and the floor slab level has been set at 93.75mAOD. Given a slab thickness of around 200mm and a layer of sub base beneath the slab, the final formation level is likely to be around 93.25mAOD, some 1.25m below current ground levels.

Firstly, it will be necessary to remove all of the vegetation covering the site including all root systems. The site levels can then be reduced to formation, with the colliery spoil being taken off site to a suitably licensed landfill facility.

Excavation will then be in made ground and glacial till and will be possible using conventional earthmoving equipment, with no obstructions anticipated within the made ground.

However, the spoil should be sorted prior to taking off site, to ensure the best fill is kept for re-use on site, i.e. keep the material with least fines.

The site investigation has proved that the made ground starts to get to a medium dense consistency at around 2m. In addition, the colliery spoil is mainly granular and suitable for recompaction in accordance with an approved earthworks specification, such as Reference 7.

It is therefore recommended that 1m of colliery spoil be excavated and recompacted to a depth of 1m below the underside of the foundations and the floor slab. The compaction should also be taken to 1m outside of the building line.

Prior to commencing refilling the formation should be proof rolled and any loose areas identified excavated typically an additional 300mm and replaced with well compacted site won material.

The colliery spoil is difficult to classify for earthworks due to the specification not approving colliery spoil, as it is an argillaceous material. However, there is abundant guidance on using colliery spoil in earthworks and GSL have abundant experience in this matter.

However, it would be prudent to carry out earthworks trials prior to commencing the work. This will enable the compaction requirements to be agreed, and also to fine tune the allowable bearing pressures.

If high spots of glacial till are encountered during the earthworks, these should be excavated and replaced with a 1m thick layer of compacted colliery spoil.

It is possible that some of the colliery spoil may be unsuitable for recompaction and it will be necessary to carefully manage the earthworks on site. During earthworks it is recommended that plate bearing tests be carried out to ensure the works are undertaken to the specification.

An alternative to excavating and recompacting would be dynamic compaction using a BSP compactor, which will compact the top 1 to 2m. An example of the BSP compactor is presented below.



BSP Compactor

Excavations deeper than 1.20m that are to be entered should be battered back or shored for safety reasons as they will become unstable.

Groundwater seepages are not anticipated, if encounter, they should be slight and easily catered for by pumping from sumps cut within the excavation.

9.3 Slope Stability

The adjacent slope on the southern site boundary will need to be taken into consideration during the development. Examination of the contours revealed that it is only 3.5m high and at a gradient of around 13°. As the site is to be lowered by 1.25m then slope stability is unlikely to be an issue. However, it will be necessary to ensure that the slope is not surcharged by the development.

9.4 Drainage

The results of the soakaway testing is presented in Table 9.1 below:

TP No	Depth (m)	Test No	Permeability m/sec
SA 1	0.5	1	1.37×10^{-5}
SA 2	0.60	1	2.96×10^{-4}
		2	3.66×10^{-4}
		3	3.34×10^{-4}
SA 4	3.0	1	3.24×10^{-5}
SA 5	2.50	1	1.69×10^{-4}
		2	1.78×10^{-4}
		3	1.60×10^{-4}
SA 6	0.60	1	1.57×10^{-4}
		2	1.45×10^{-4}
		3	1.35×10^{-4}

Whilst the testing proves the colliery spoil is suitable for soakaway drainage, any water infiltrating into the granular made ground, will stop infiltrating at the top of the underlying low permeability glacial clay.

It is therefore possible that it may issue from the base of the made ground slope on the southern boundary, which could cause flooding of the area to the south of the site.

Consequently, soakaways are not considered appropriate at this site.

9.5 Value Engineering

At present the floor slab level has been set at 93.75mAOD which will entail lowering the ground level by around 1.25m, with the spoil being taken off site to a suitably licensed landfill facility.

Consequently, consideration could be given to raising the floor slab level to reduce the amount of material that needs to be taken off site. However, we understand that this is unlikely to be possible.

Alternatively, it is known that the main colliery tip is being processed and taken to the Cement works at Padeswood. Therefore, enquiries should be made for disposing of the colliery spoil from site.

9.6 Reuse of Materials

As discussed above the colliery spoil is considered to be suitable for re-use as a structural fill beneath building and hardstandings.

The glacial till is not considered to be suitable as a structural fill, although it would be suitable for use in landscaping areas.

An area of possible landscaping has been identified in Figure 4.

9.7 Roads and Hard standings

No California Bearing Ratio Tests were undertaken as part of this investigation.

However, the road level will be the same as the floor slab meaning that around 1.25m will have to be removed from beneath access roads and car parking areas.

CBR values of around 5% are envisaged for initial costing purposes, however, given the granular nature of the fill it is envisaged that proof rolling can increase this to at least 10%, although this will need to be confirmed by in situ testing.

9.8 Protection of Buried Concrete

Chemical testing of the colliery spoil has indicated that buried concrete should be designed as the following classes in accordance with Reference 8, assuming mobile groundwater.

- DS – 3,
- AC – 3.

9.9 Landfill and Radon Gas

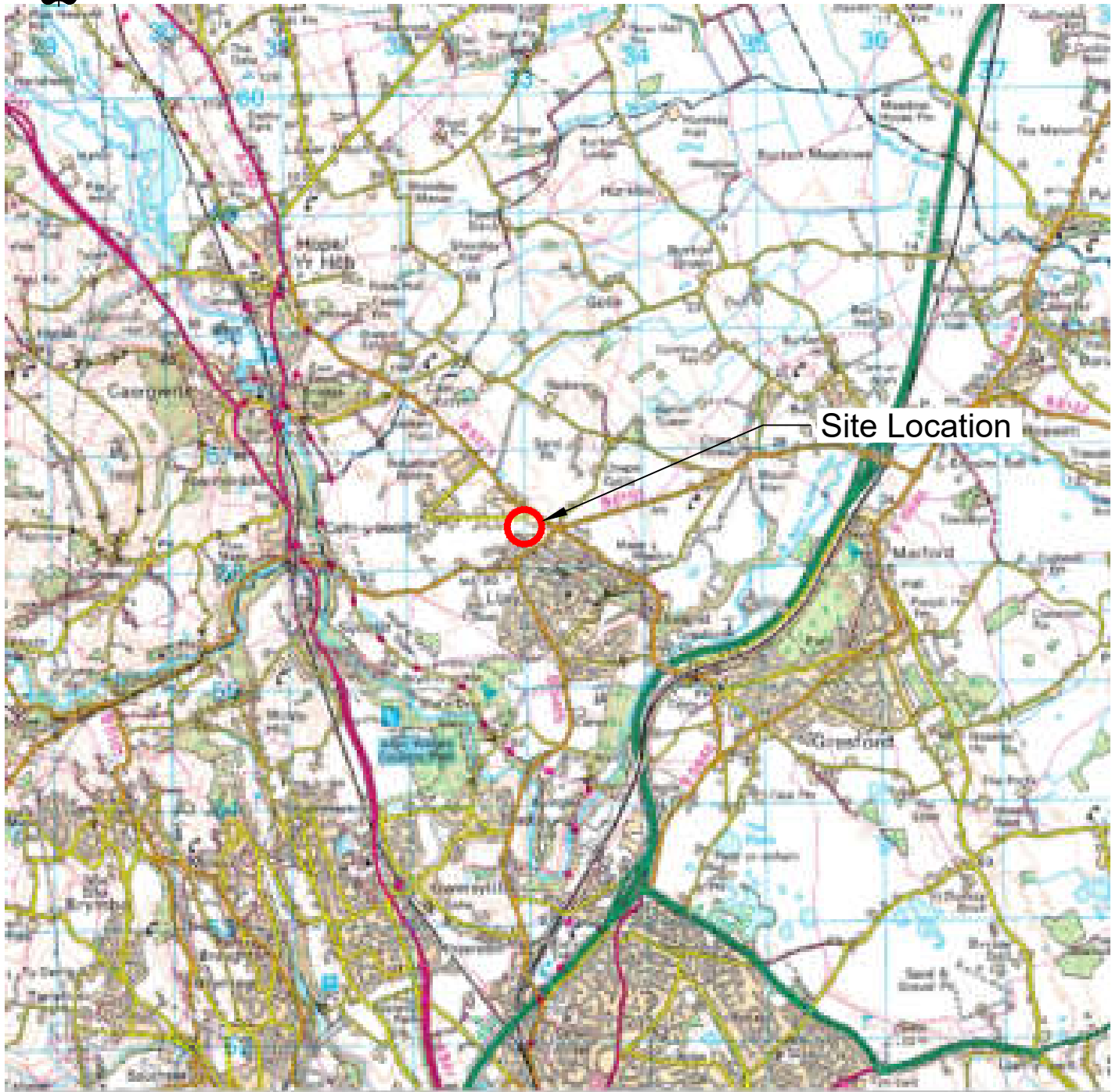
The desk study has failed to record any potential sources of land gas in the vicinity of the site. In addition, the made ground comprises inert material from underground, therefore no gas remedial measures are considered necessary for the development.

In addition, the site does not lie in a radon affected area, and therefore no radon protection measures will be required for the development.

REFERENCES

1. Applied geological mapping in the Wrexham area: geology and land use planning, Technical Report WA/91/4, British Geological Survey, 1991.
2. The Geology of the Country around Wrexham (Part II), British Geological Survey, 1928.
3. BS 5930:2015, Code of Practice for Site Investigation.
4. BRE Digest 365, Soakaway Design, 2003.
5. BS 1377:1991, British Standard Methods of Tests for Soils for Civil engineering Purposes.
6. Single pour industrial floor slabs, Specification, design, construction and behavior. Knapton J, Thomas Telford, 1999.
7. Manual of Contract Documents for Highway Works, Volume 1, Specification for Highway Works - Series 600, Department of Transport, 2016.
8. BRE Special Digest 1, 2005, Concrete in Aggressive Ground.

FIGURES



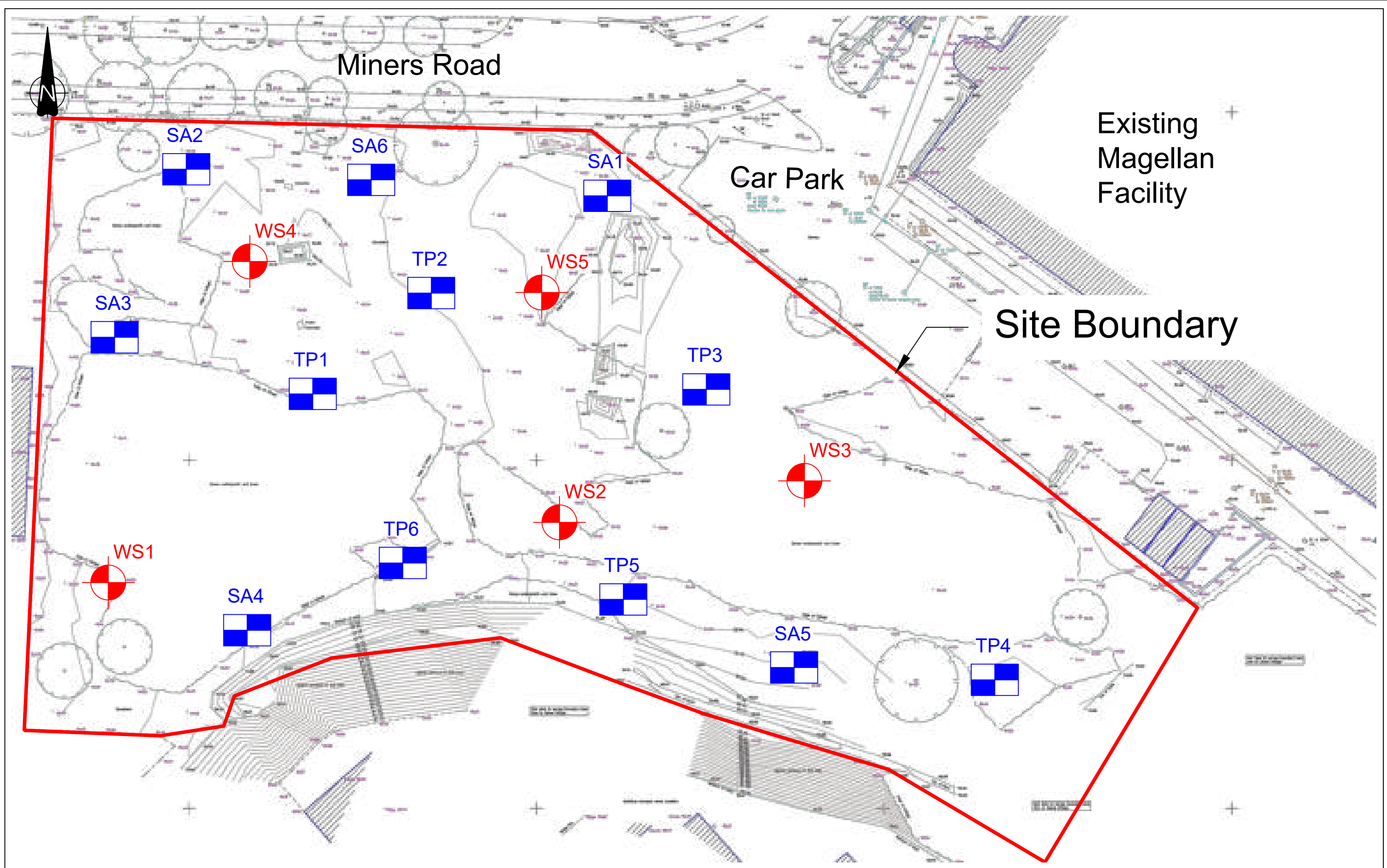
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Figure Title

SITE LOCATION

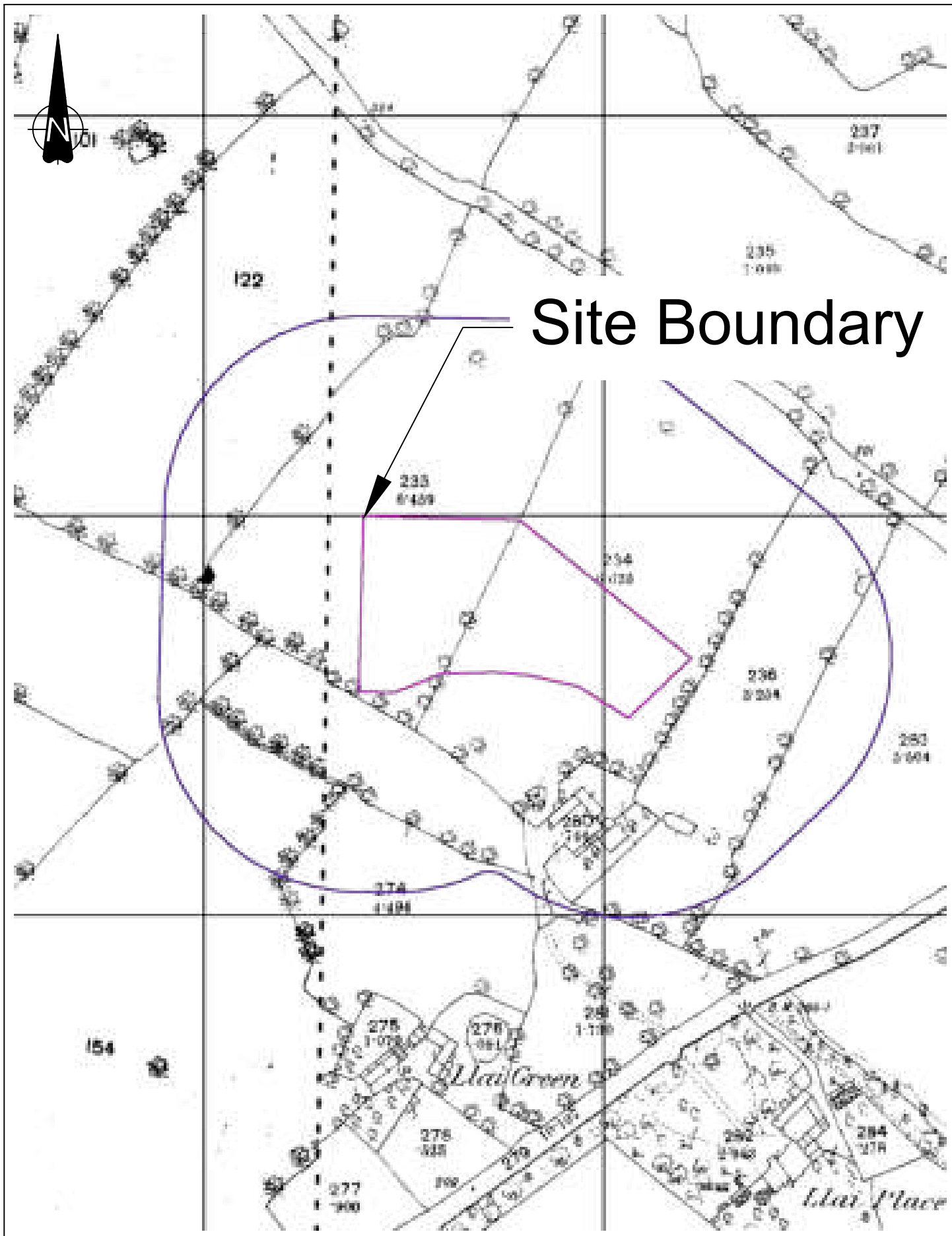
FIGURE 1



SCALE 1: 500 @ A3

Figure Title
Existing Site Layout
& Exploratory Hole
Location Plan

FIGURE 2

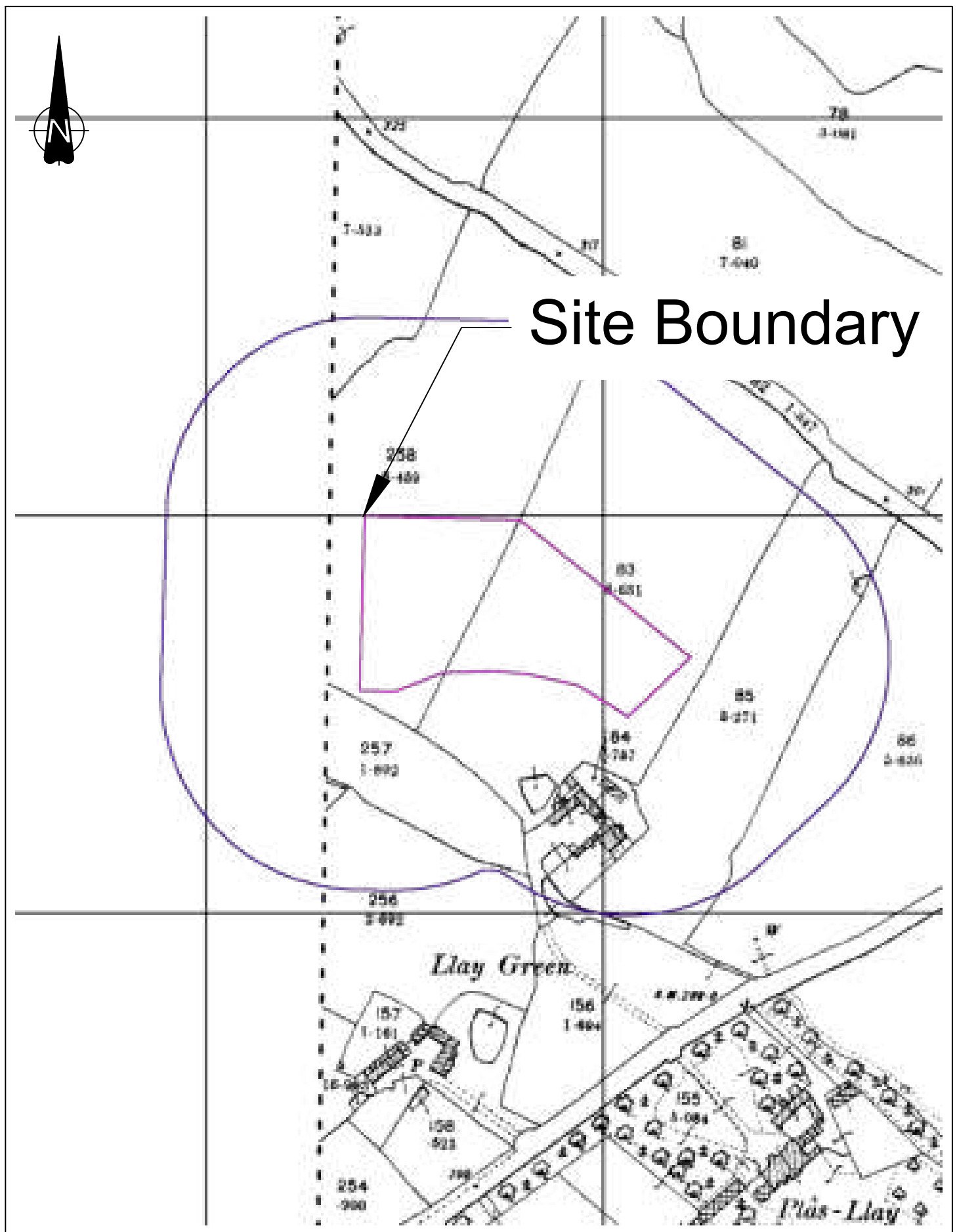


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Figure Title

Site History
1873

FIGURE 3a

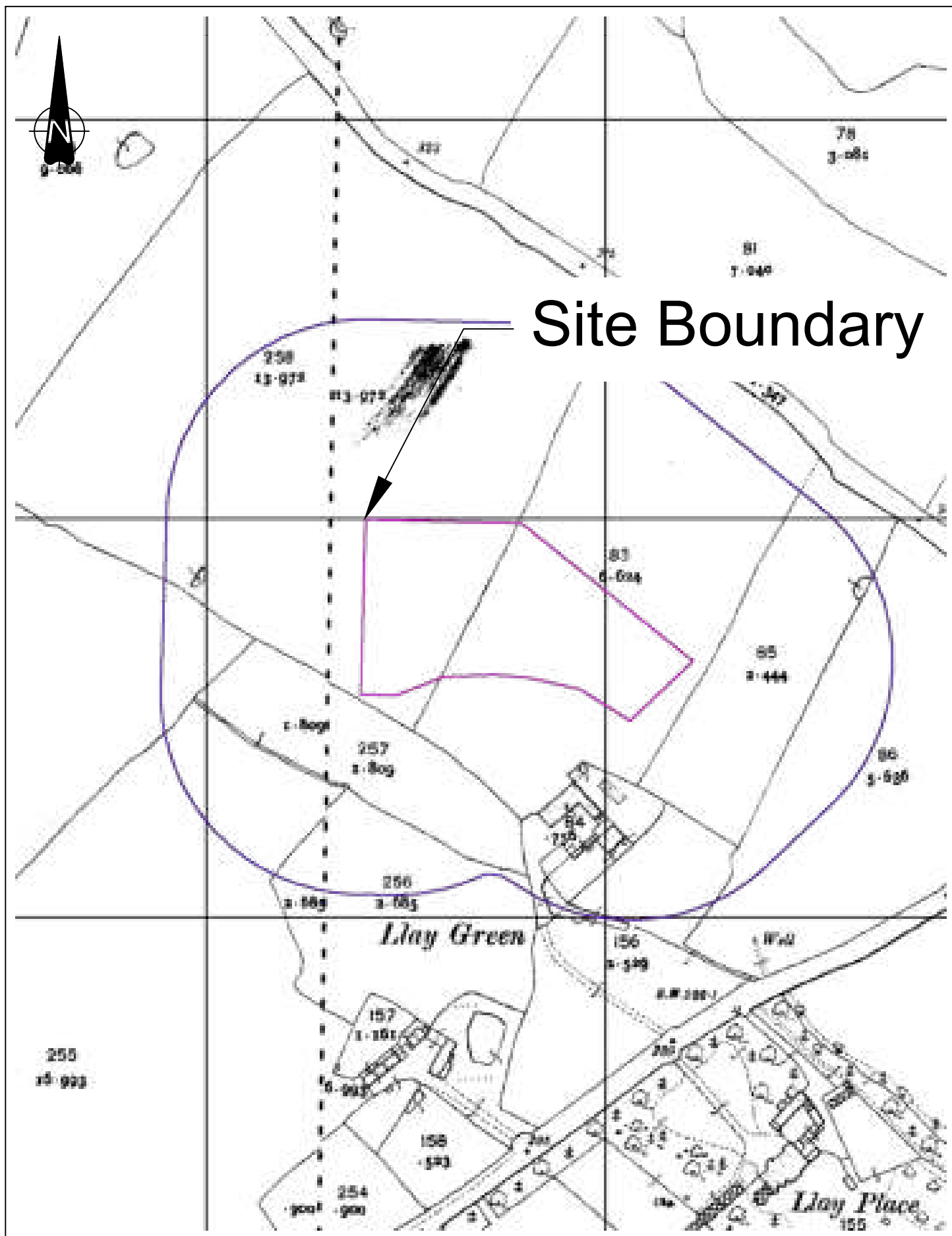


SCALE 1 : 2,500 @ A4

Figure Title

Site History
1899

FIGURE 3b

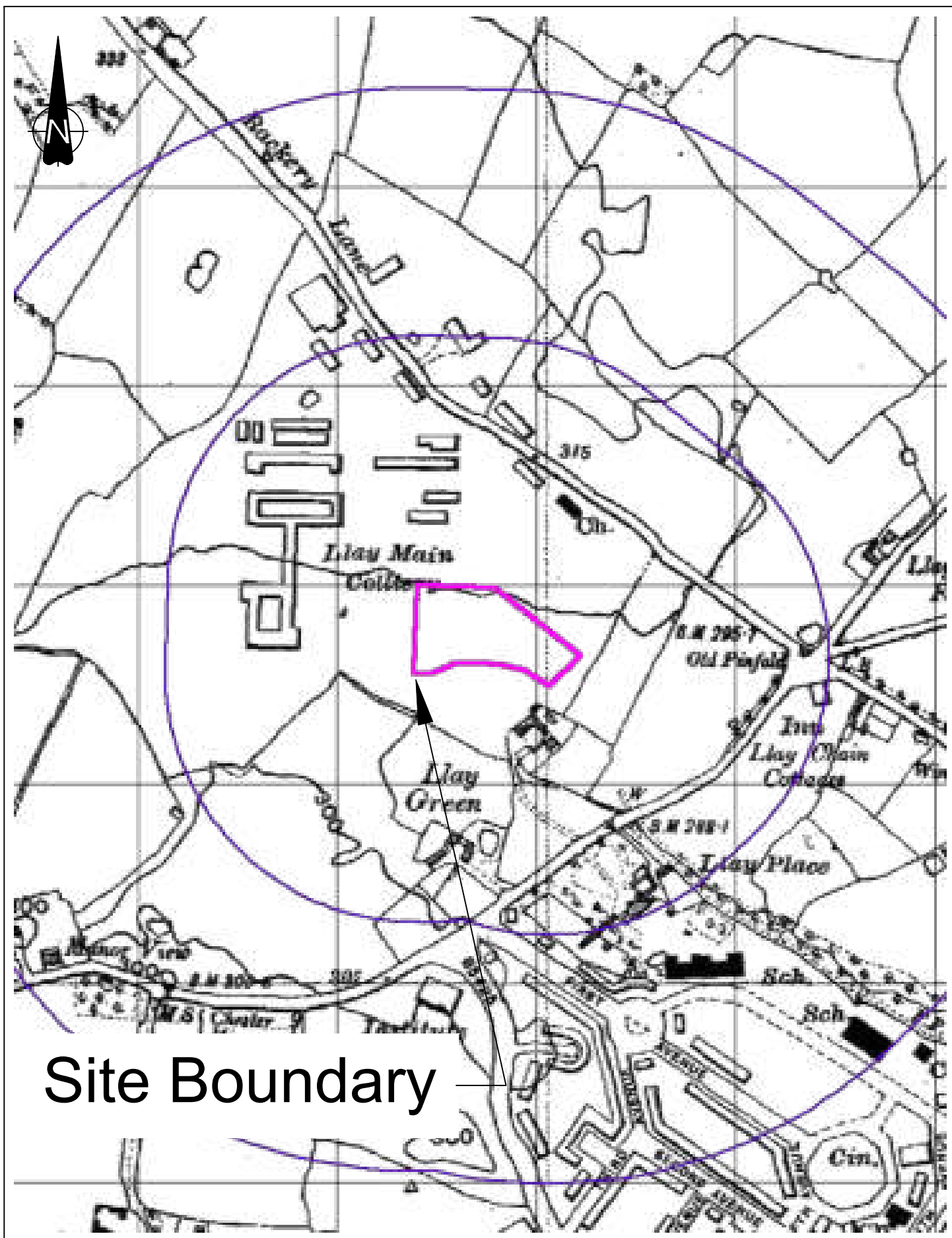


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Figure Title

Site History
1912

FIGURE 3c

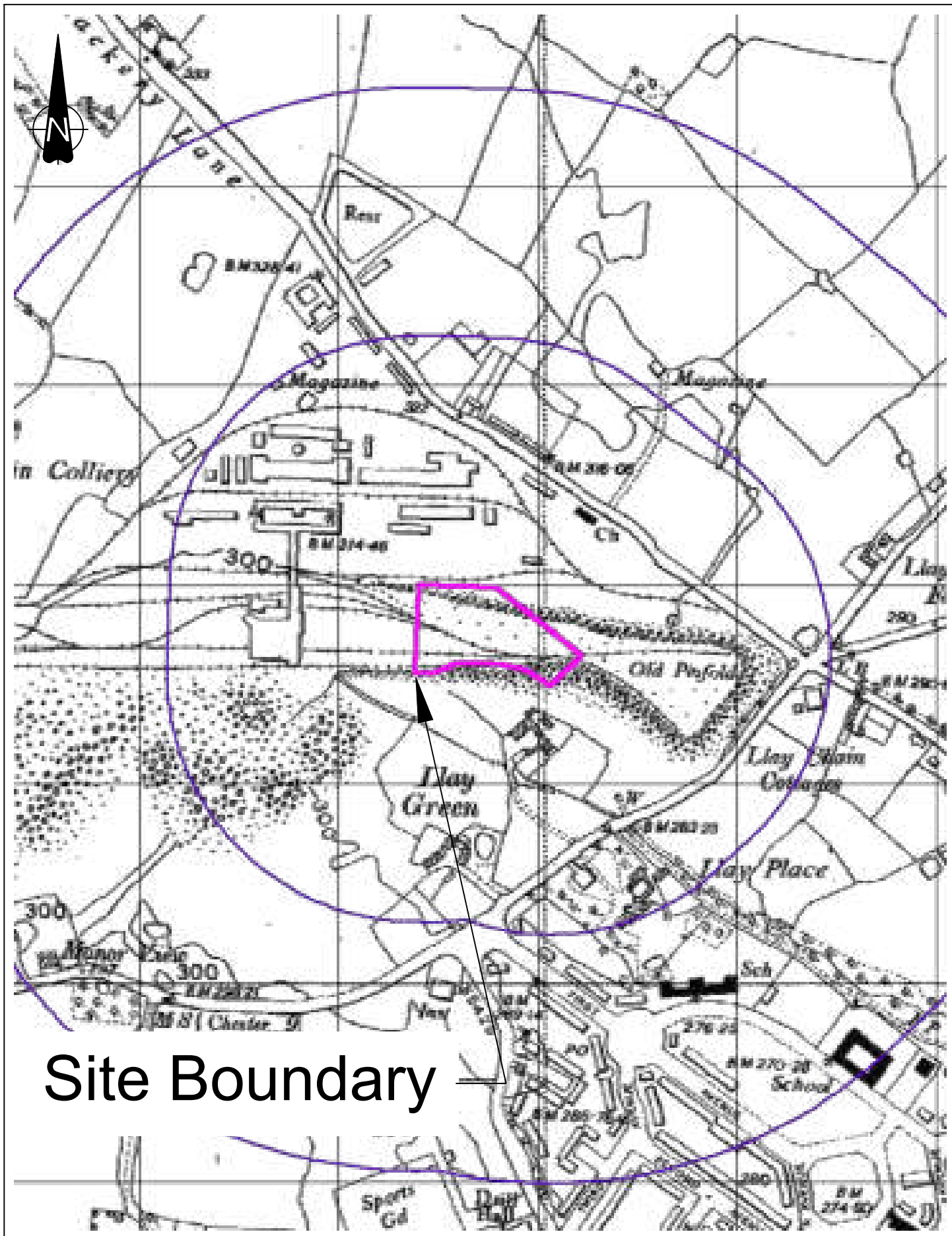


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Figure Title

Site History
1938

FIGURE 3d

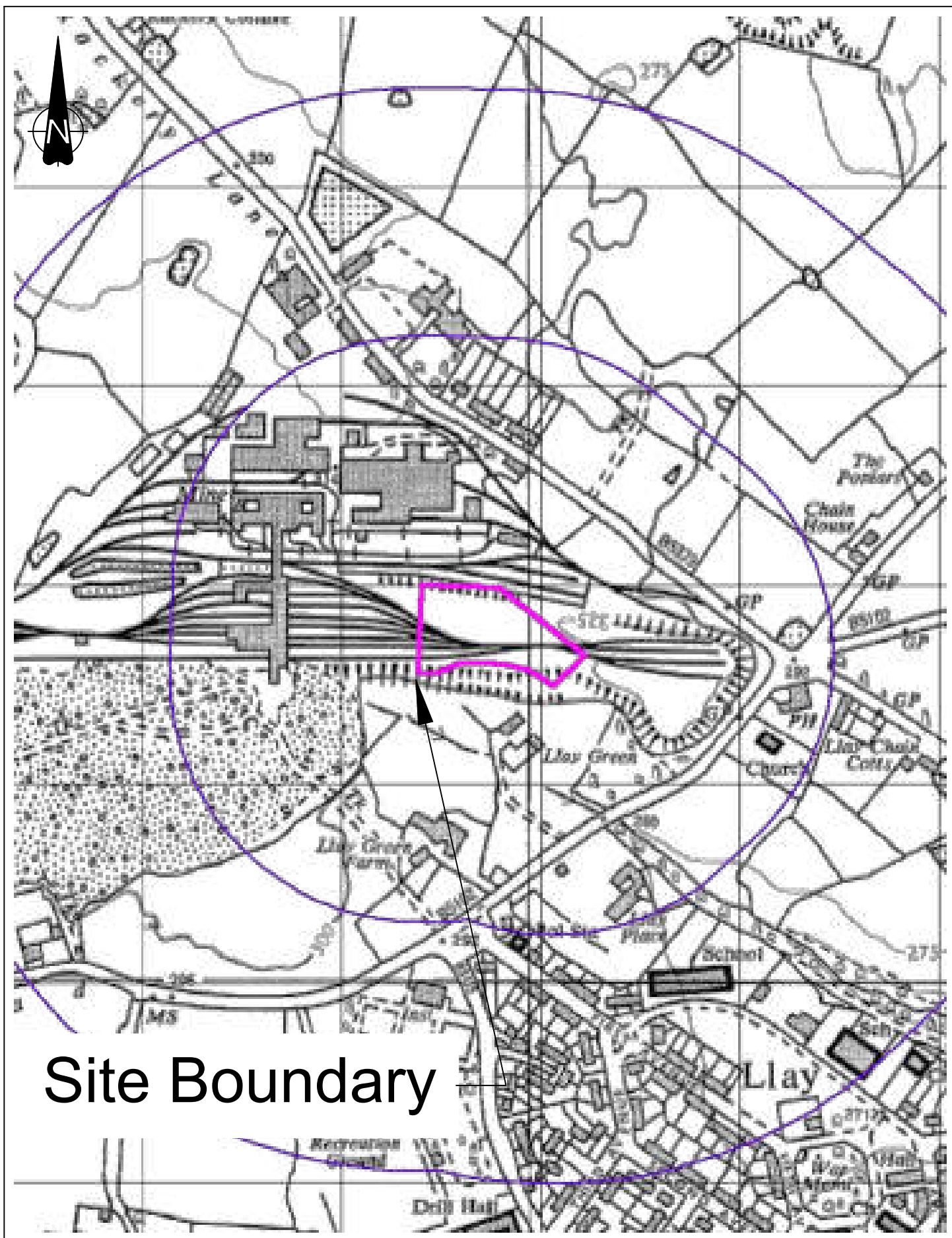


SCALE 1 : 5,000 @ A4

Figure Title

Site History
1954

FIGURE 3e

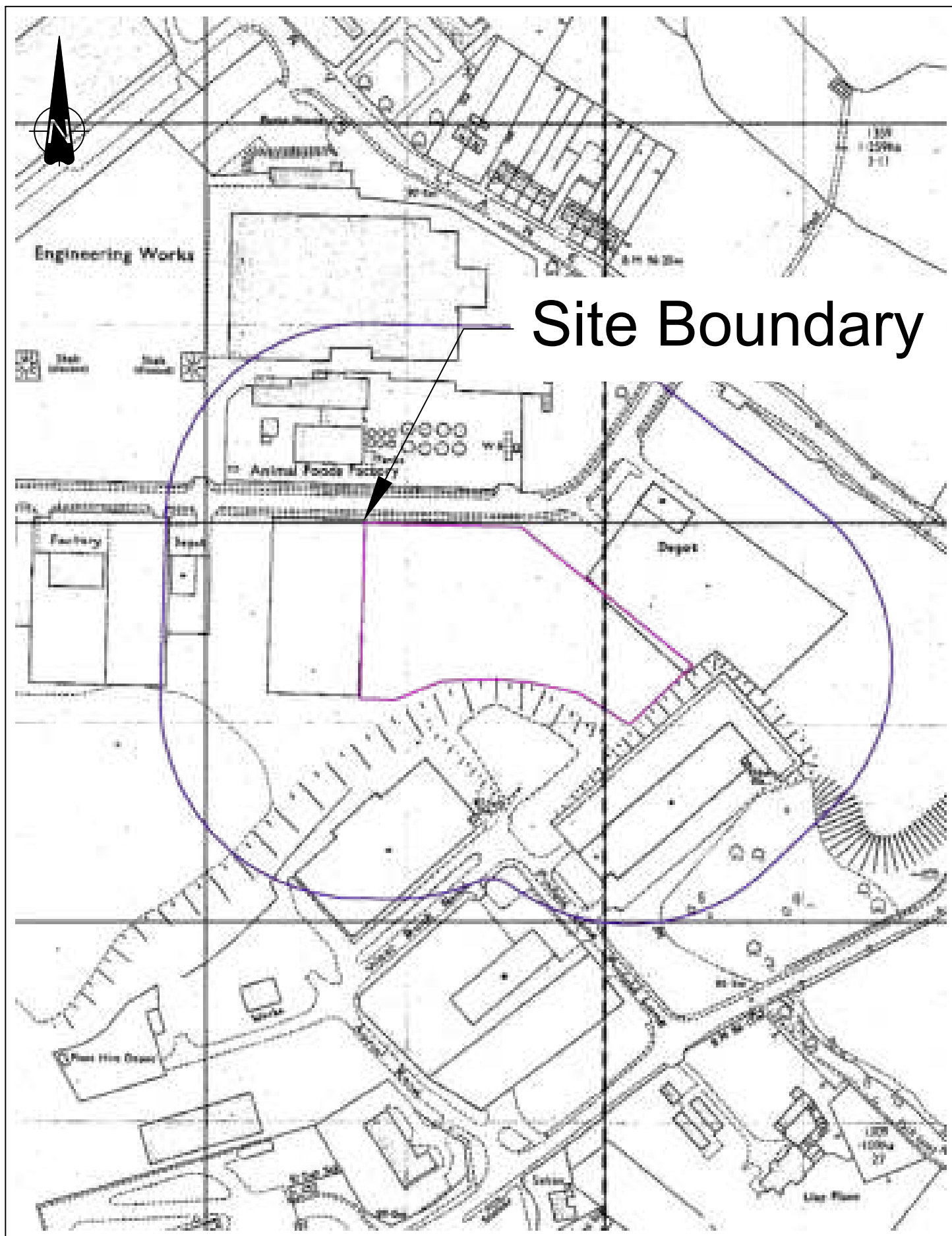


SCALE 1 : 5,000 @ A4

Figure Title

Site History
1968

FIGURE 3g



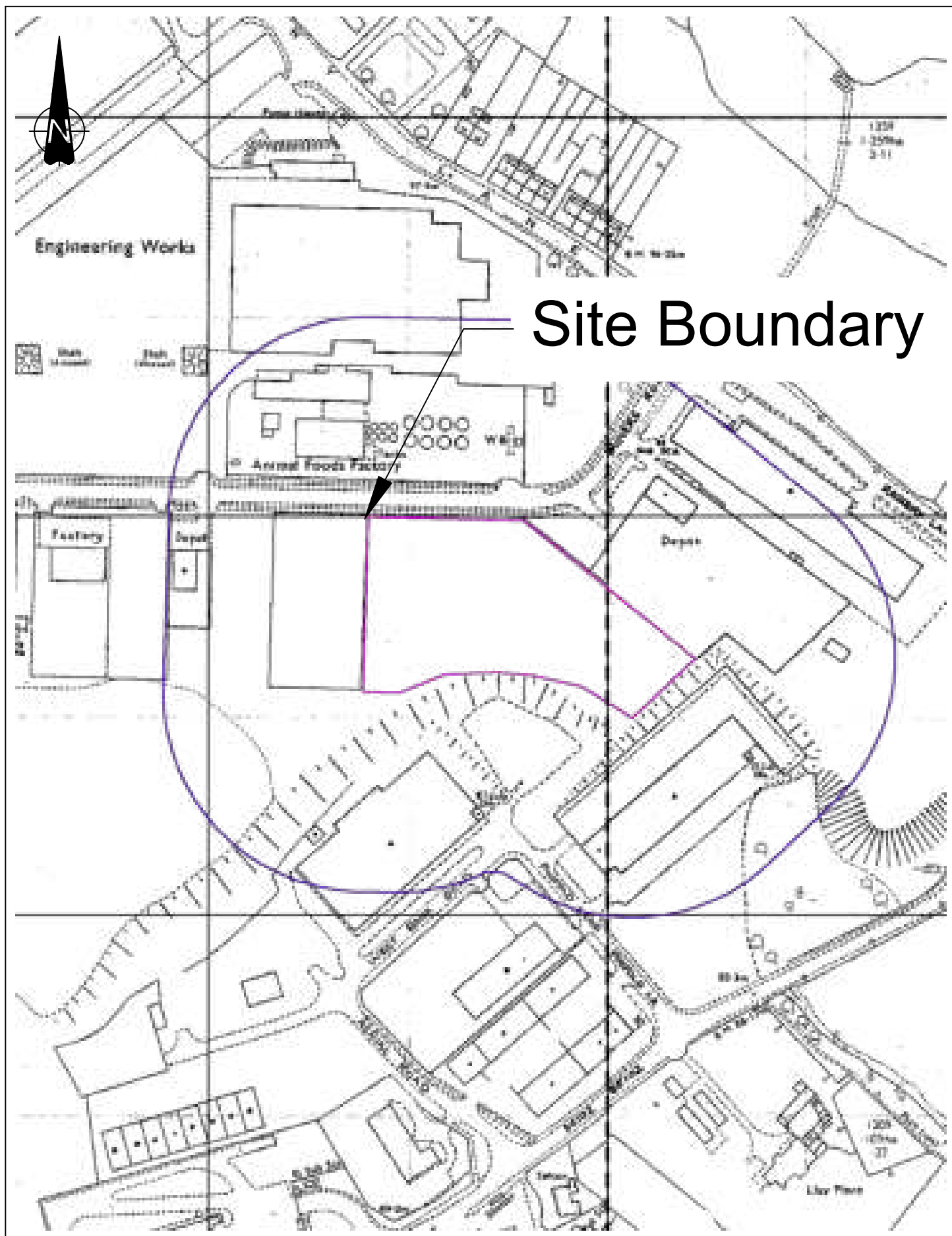
Site Boundary

SCALE 1 : 2,500 @ A4

Figure Title

Site History
1980

FIGURE 3i

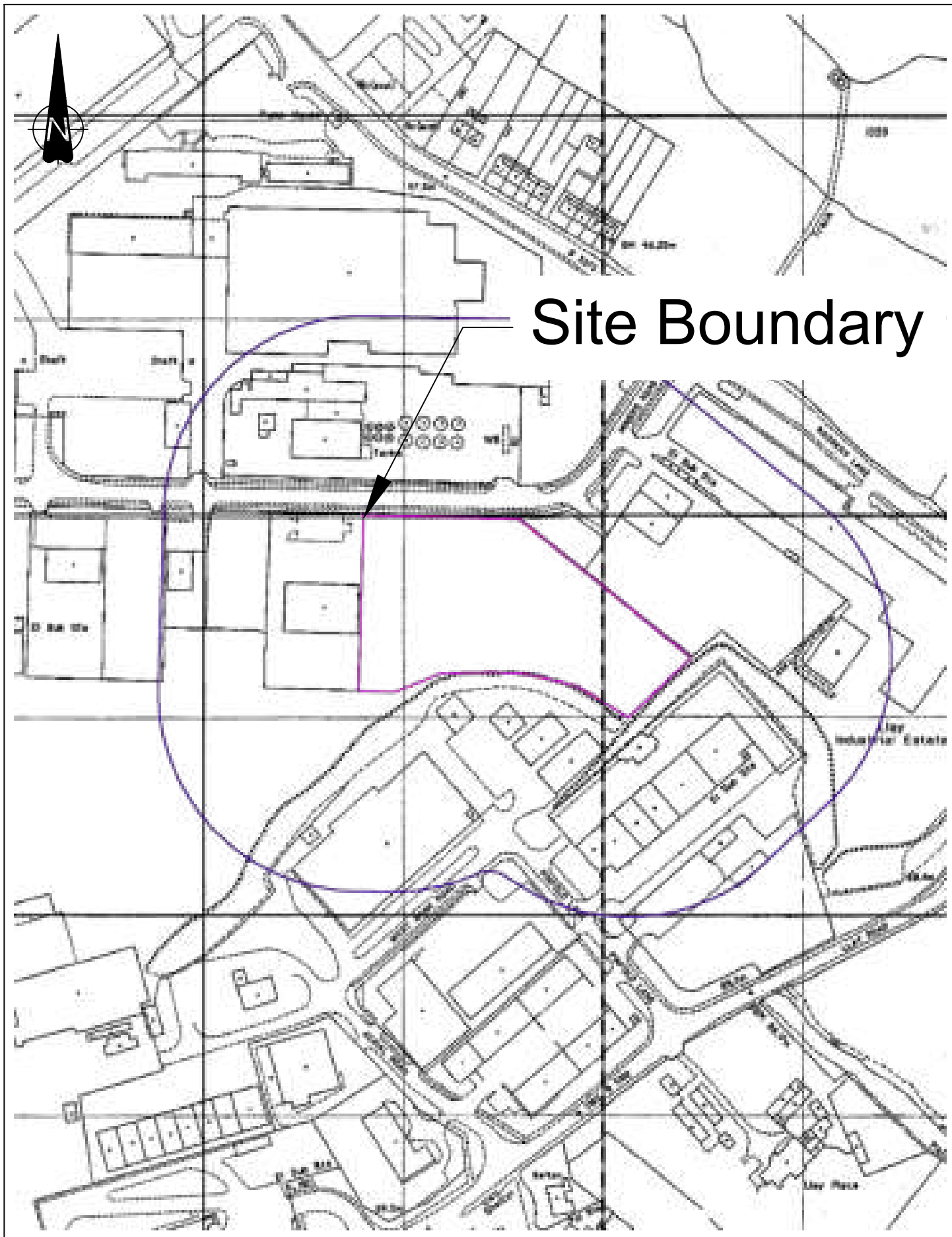


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Figure Title

Site History
1984

FIGURE 3j

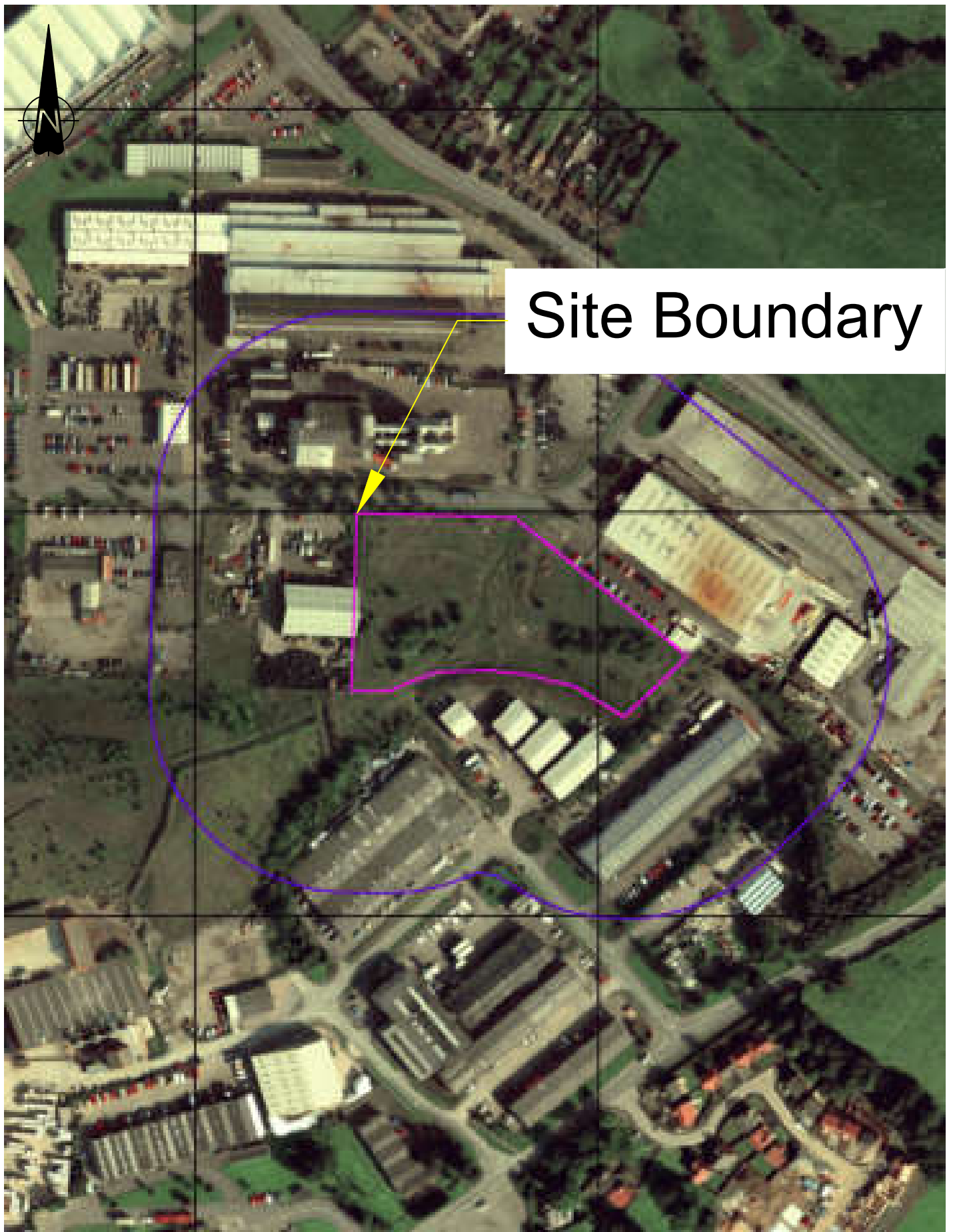


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Figure Title

Site History
1993

FIGURE 3k



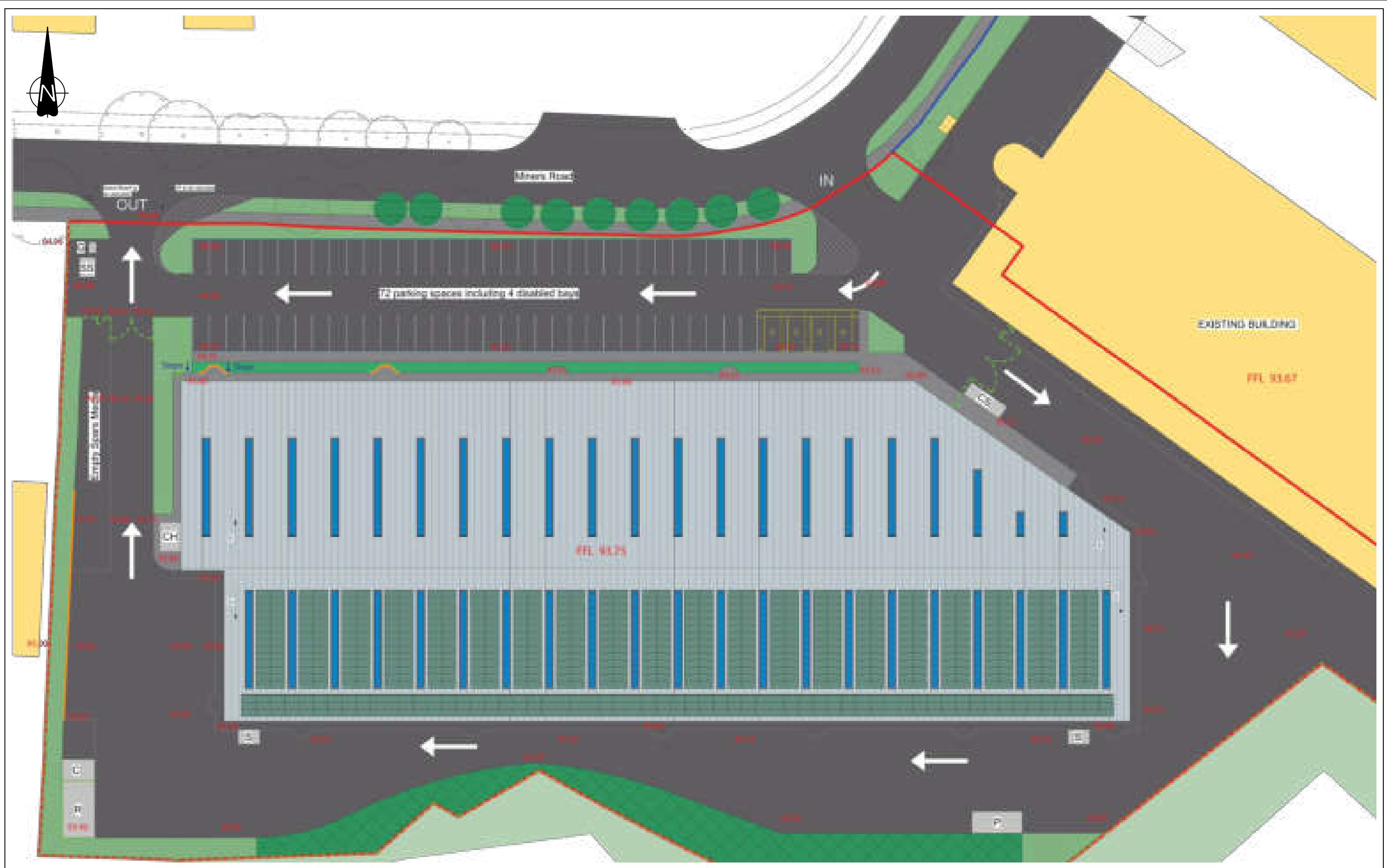
Site Boundary

SCALE 1 : 2,500 @ A4

Figure Title

Site History
2003

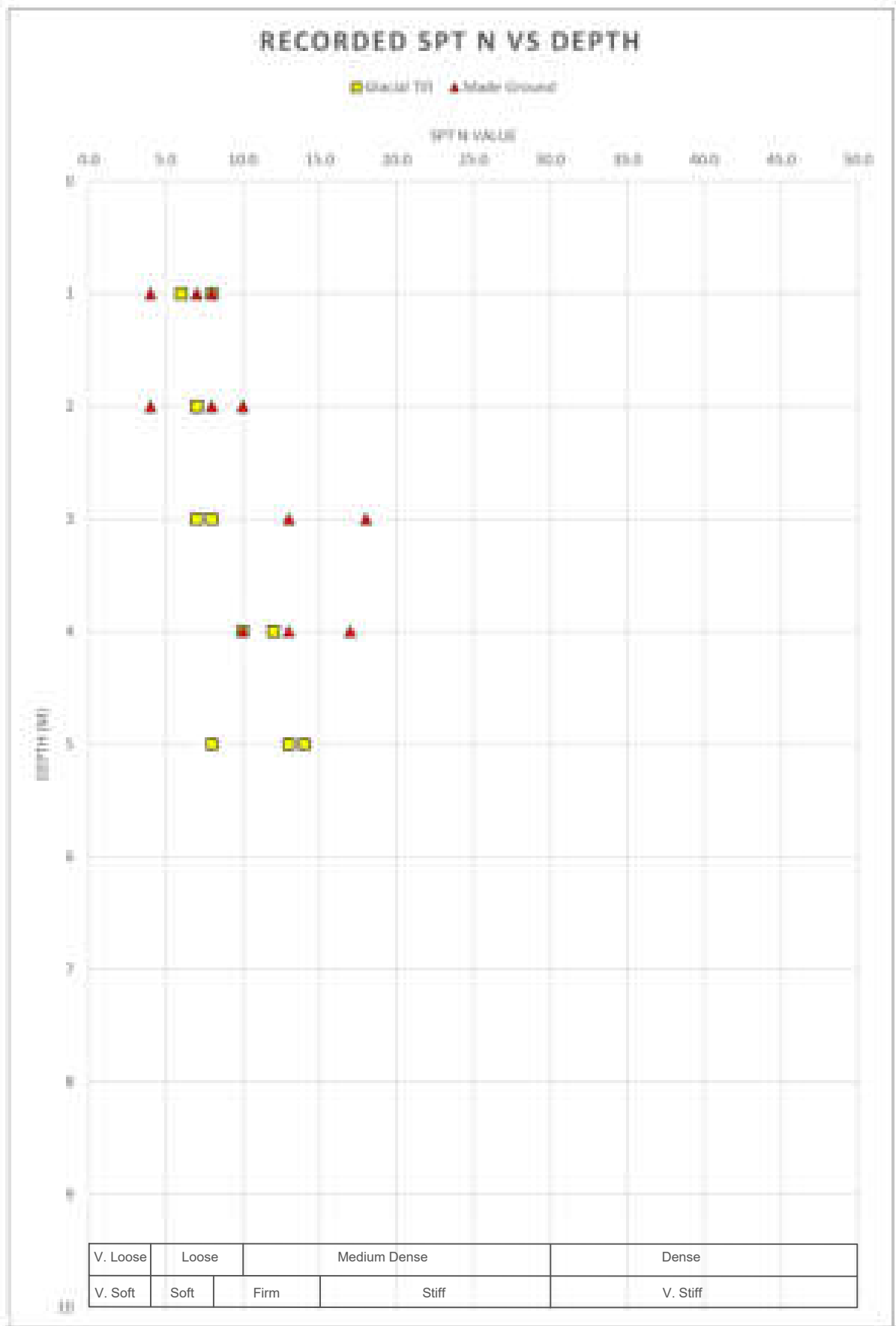
FIGURE 31



SCALE 1: 500 @ A3

Figure Title
Proposed Development

FIGURE 4



SCALE not to scale

Figure Title

SPT 'N'
vs Depth

FIGURE 5

APPENDIX A

Site Photographs



Photograph 1. Looking southwest along Miners Road.



Photograph 2. Looking south at site access from Miners Road.



Photograph 3. Looking east at existing Magellan building.



Photograph 4. Looking south across the site.



Photograph 5. Looking east at site boundary with existing Magellan building.



Photograph 6. Looking east across the site.



Photograph 7. Looking west across the site.



Photograph 8. Looking northwest across the site. Note adjacent grain silos.



Photograph 9. Looking west at mature willow and cherry trees on site.



Photograph 10. Looking northeast across site towards existing Magellan building.



Photograph 11. Looking south at a steep slope on the southern boundary.



Photograph 12. Looking northwest at adjacent building and western site boundary.



Photograph 13. Looking east at dense young woodland on site.



Photograph 14. Looking east across the site.



Photograph 15. Looking west at site boundary with adjacent carpark.



Photograph 16. Looking southeast from the northeastern corner of the site.

APPENDIX B

Coal Consultants Report



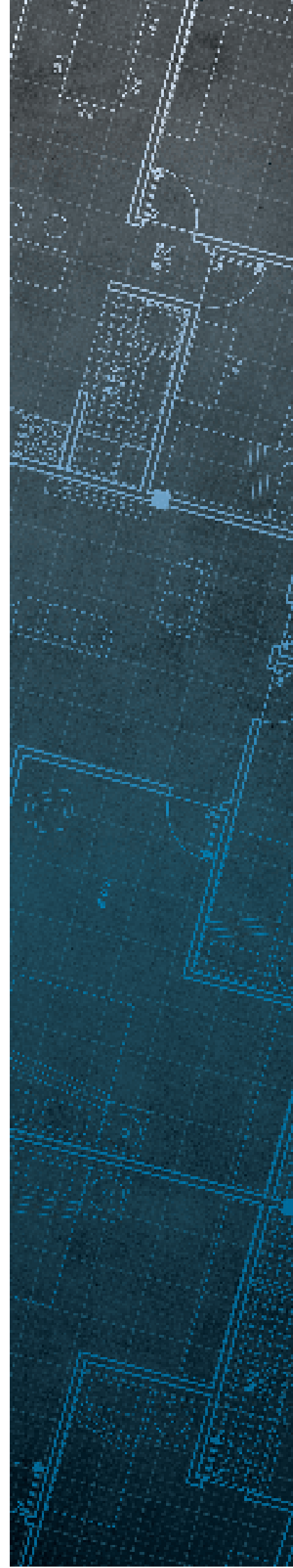
The Coal
Authority

Consultants Coal Mining Report

Magellan Aerospace Uk Ltd
Unit 4
Miners Road, Miners Road
Llay Industrial Estate
Llay
Wrexham
LL12 0PJ

Date of enquiry:	10 September 2020
Date enquiry received:	10 September 2020
Issue date:	10 September 2020

Our reference:	51002299424001
Your reference:	2405



Consultants

Coal Mining Report

This report is based on and limited to the records held by the Coal Authority at the time the report was produced.

Client name

GROUNDSOLVE LTD

Enquiry address

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Approximate position of property



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 /company/the-coal-authority
 /thecoalauthority
 /thecoalauthority

Section 1 – Mining activity and geology

Past underground mining

Colliery	Seam	Mineral	Coal Authority reference	Depth (m)	Direction to working	Dipping rate of seam worked (degrees)	Dipped direction of seam worked	Extraction thickness (cm)	Year last mined
unnamed	QUAKER	Coal	3A4M	629	South	18.0	South-West	180	1962
unnamed	TWO YARD	Coal	3A5Z	659	South	10.0	East	150	1928
unnamed	MAIN	Coal	39XY	660	South-West	15.0	East	200	1960
unnamed	TWO YARD	Coal	3A61	664	South	10.0	East	150	1923
unnamed	CROWN	Coal	3AD7	693	South-West	24.8	East	120	1959
unnamed	TWO YARD	Coal	3A5Y	697	South-West	13.8	East	150	1932
unnamed	TWO YARD	Coal	3A62	709	Beneath Property	10.0	East	150	1955
unnamed	MAIN	Coal	39XX	710	South-West	15.0	East	200	1960
unnamed	QUAKER	Coal	3A4P	714	South	6.0	North-East	180	1962
unnamed	MAIN	Coal	39Y6	727	East	8.0	North-East	230	1960
unnamed	MAIN	Coal	39XZ	737	South	15.0	East	200	1960
unnamed	MAIN	Coal	39Y0	752	West	13.4	South-East	200	1960
unnamed	MAIN	Coal	39Y7	763	Beneath Property	8.0	North-East	230	1960
unnamed	QUAKER	Coal	3A4S	776	North-East	17.0	East	180	1962
unnamed	RUABON YARD (SOFT 5 QTRS)	Coal	3A4Y	780	South	15.5	N/A	100	1966
unnamed	RUABON YARD (SOFT 5 QTRS)	Coal	3A4V	798	South	21.3	North-East	100	1966
unnamed	WALL AND BENCH	Coal	3A28	802	South	20.7	North-East	80	1941
unnamed	RUABON YARD (SOFT 5 QTRS)	Coal	3A56	828	South	9.6	North-East	100	1966
unnamed	RUABON YARD (SOFT 5 QTRS)	Coal	3A58	896	East	8.9	East	100	1966

Probable unrecorded shallow workings

None.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

None recorded within 100 metres of the enquiry boundary.

Abandoned mine plan catalogue numbers

The following abandoned mine plan catalogue numbers intersect with some, or all, of the enquiry boundary:

13239	NW530	11815
12911	NW528	NW550
NW529		

Please contact us on 0345 762 6848 to determine the exact abandoned mine plans you require based on your needs.

Outcrops

No outcrops recorded.

Geological faults, fissures and breaklines

No faults, fissures or breaklines recorded.

Opencast mines

None recorded within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

Section 2 – Investigative or remedial activity

Please refer to the 'Summary of findings' map (on separate sheet) for details of any activity within the area of the site boundary.

Site investigations

None recorded within 50 metres of the enquiry boundary.

Remediated sites

None recorded within 50 metres of the enquiry boundary.

Coal mining subsidence

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

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

The Coal 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

None recorded within 500 metres of the enquiry boundary.

Mine water treatment schemes

None recorded within 500 metres of the enquiry boundary.

Section 3 – Licensing and future mining activity

Future underground mining

None recorded.

Coal mining licensing

None recorded within 200 metres of the enquiry boundary.

Court orders

None recorded.

Section 46 notices

No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.

Withdrawal of support notices

The property is not in an area where a notice to withdraw support has been given.

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

Payments to owners of former copyhold land

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

Section 4 – Further information

The following potential risks have been identified and as part of your risk assessment should be investigated further.

Development advice

The site is within an area of historical coal mining activity. Should you require advice and/or support on understanding the mining legacy, its risks to your development or what next steps you need to take, please contact us.

For further information on specific site or ground investigations in relation to any issues raised in Section 4, please call us on 0345 762 6848 or email us at groundstability@coal.gov.uk.

Section 5 – Data definitions

The datasets used in this report have limitations and assumptions within their results. For more guidance on the data and the results specific to the enquiry boundary, please **call us on 0345 762 6848** or **email us at groundstability@coal.gov.uk**.

Past underground coal mining

Details of all recorded underground mining relative to the enquiry boundary. Only past underground workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination, will be included.

Probable unrecorded shallow workings

Areas where the Coal Authority believes there to be unrecorded coal workings that exist at or close to the surface (less than 30 metres deep).

Spine roadways at shallow depth

Connecting roadways either, working to working, or, surface to working, both in-seam and cross measures that exist at or close to the surface (less than 30 metres deep), either within or within 10 metres of the enquiry boundary.

Mine entries

Details of any shaft or adit either within, or within 100 metres of the enquiry boundary including approximate location, brief treatment details where known, the mineral worked from the mine entry and conveyance details where the mine entry has previously been sold by the Authority or its predecessors British Coal or the National Coal Board.

Abandoned mine plan catalogue numbers

Plan numbers extracted from the abandoned mines catalogue containing details of coal and other mineral abandonment plans deposited via the Mines Inspectorate in accordance with the Coal Mines Regulation Act and Metalliferous Mines Regulation Act 1872. A maximum of 9 plan extents that intersect with the enquiry boundary will be included. This does not infer that the workings and/or mine entries shown on the abandonment plan will be relevant to the site/property boundary.

Outcrops

Details of seam outcrops will be included where the enquiry boundary intersects with a conjectured or actual seam outcrop location (derived by either the British Geological Survey or the Coal Authority) or intersects with a defined 50 metres buffer on the coal (dip) side of the outcrop. An indication of whether the Coal Authority believes the seam to be of sufficient thickness and/or quality to have been worked will also be included.

Geological faults, fissures and breaklines

Geological disturbances or fractures in the bedrock. Surface fault lines (British Geological Survey derived data) and fissures and breaklines (Coal Authority derived data) intersecting with the enquiry boundary will be included. In some circumstances faults, fissures or breaklines have been known to contribute to surface subsidence damage as a consequence of underground coal mining.

Opencast mines

Opencast coal sites from which coal has been removed in the past by opencast (surface) methods and where the enquiry boundary is within 500 metres of either the licence area, site boundary, excavation area (high wall) or coaling area.

Coal Authority managed tips

Locations of disused colliery tip sites owned and managed by the Coal Authority, located within 500 metres of the enquiry boundary.

Site investigations

Details of site investigations within 50 metres of the enquiry boundary where the Coal Authority has received information relating to coal mining risk investigation and/or remediation by third parties.

Remediated sites

Sites where the Coal Authority has undertaken remedial works either within or within 50 metres of the enquiry boundary following report of a hazard relating to coal mining under the Coal Authority's Emergency Surface Hazard Call Out procedures.

Coal mining subsidence

Details of alleged coal mining subsidence claims made since 31 October 1994 either within or within 50 metres of the enquiry boundary. Where the claim relates to the enquiry boundary confirmation of whether the claim was accepted, rejected or whether liability is still being determined will be given. Where the claim has been discharged, whether this was by repair, payment of compensation or a combination of both, the value of the claim, where known, will also be given.

Details of any current 'Stop Notice' deferring remedial works or repairs affecting the property/site, and if so the date of the notice.

Details of any request made to execute preventative works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991. If yes, whether any person withheld consent or failed to comply with any request to execute preventative works.

Mine gas

Reports of alleged mine gas emissions received by the Coal Authority, either within or within 500 metres of the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission.

Mine water treatment schemes

Locations where the Coal Authority has constructed or operates assets that remove pollutants from mine water prior to the treated mine water being discharged into the receiving water body.

These schemes are part of the UK's strategy to meet the requirements of the Water Framework Directive. Schemes fall into 2 basic categories: Remedial – mitigating the impact of existing pollution or Preventative – preventing a future pollution incident.

Mine water treatment schemes generally consist of one or more primary settlement lagoons and one or more reed beds for secondary treatment. A small number are more specialised process treatment plants.

Future underground mining

Details of all planned underground mining relative to the enquiry boundary. Only those future workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination will be included.

Coal mining licensing

Details of all licenses issued by the Coal Authority either within or within 200 metres of the enquiry boundary in relation to the under taking of surface coal mining, underground coal mining or underground coal gasification.

Court orders

Orders in respect of the working of coal under the Mines (Working Facilities and Support) Acts of 1923 and 1966 or any statutory modification or amendment thereof.

Section 46 notices

Notice of proposals relating to underground coal mining operations that have been given under section 46 of the Coal Mining Subsidence Act 1991.

Withdrawal of support notices

Published notices of entitlement to withdraw support and the date of the notice. Details of any revocation notice withdrawing the entitlement to withdraw support given under Section 41 of the Coal Industry Act 1994.

Payment to owners of former copyhold land

Relevant notices which may affect the property and any subsequent notice of retained interests in coal and coal mines, acceptance or rejection notices and whether any compensation has been paid to a claimant.

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VAT receipt

Issued by	The Coal Authority 200 Lichfield Lane Mansfield Nottinghamshire NG18 4RG
Tax point date	10 September 2020
Issued to	GROUND SOLVE LTD WELL HOUSE BARNS UNIT 1 CHESTER ROAD BROUGHTON FLINTSHIRE CH4 0DH
Property search for	MAGELLAN AEROSPACE UK LTD UNIT 4 MINERS ROAD, MINERS ROAD LLAY INDUSTRIAL ESTATE LLAY WREXHAM LL12 0PJ
Reference number	51002299424001
Date of issue	10 September 2020
Cost	£112.13
VAT @ 20%	£22.43
Total received	£134.56
VAT registration	598 5850 68

0345 762 6848 (UK)
+44 (0)1623 637 000 (International)
www.groundstability.com

APPENDIX C

Envirocheck Report

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

256202350_1_1

Customer Reference:

2405-es

National Grid Reference:

332950, 356350

Slice:

A

Site Area (Ha):

1.08

Search Buffer (m):

1000

Site Details:

The Crown, Llay

WREXHAM

LL12 0NT

Client Details:

Mr M Scott

GroundSolve Ltd

Unit 1

Well House Barns

Chester Road

Bretton

Flintshire

CH4 0DH

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	26
Hazardous Substances	-
Geological	36
Industrial Land Use	41
Sensitive Land Use	60
Data Currency	61
Data Suppliers	67
Useful Contacts	68

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination.

For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client.

In this datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 2		11	3	15
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls	pg 9		2		
Integrated Pollution Prevention And Control	pg 9		1		3
Local Authority Integrated Pollution Prevention And Control	pg 10		1		
Local Authority Pollution Prevention and Controls	pg 10		7	3	4
Local Authority Pollution Prevention and Control Enforcements	pg 12		1		
Nearest Surface Water Feature	pg 12		Yes		
Pollution Incidents to Controlled Waters	pg 12		16	6	14
Prosecutions Relating to Authorised Processes	pg 18			1	
Registered Radioactive Substances					
River Quality					
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 19		1	1	2
Water Abstractions	pg 19				1 (*9)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 22	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 22	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 22	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 22		3	8	13

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 26				1
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)	pg 26			1	
Licensed Waste Management Facilities (Locations)	pg 26			3	7
Local Authority Landfill Coverage	pg 28	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 28	1			4
Potentially Infilled Land (Water)	pg 28		1	9	22
Registered Landfill Sites	pg 30				8
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites	pg 35			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					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 36	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 36	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 38		2	1	4
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas	pg 39	Yes	n/a	n/a	n/a
Mining Instability	pg 39	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 39	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 39	Yes		n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 40	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 40	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 40	Yes		n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 41		52	30	58
Fuel Station Entries	pg 53			1	1
Points of Interest - Commercial Services	pg 53		16	6	12
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 56		16	4	7
Points of Interest - Public Infrastructure	pg 58			2	2
Points of Interest - Recreational and Environmental	pg 58				2
Gas Pipelines					
Underground Electrical Cables					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 60		1		1
Areas of Adopted Green Belt					
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	pg 60		2		
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (NE)	0	1	332950 356345
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (S)	49	1	332950 356250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (S)	99	1	332950 356200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (SE)	242	1	333150 356100
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NE (W)	279	1	332600 356350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (SE)	344	1	333250 356050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (W)	378	1	332500 356345
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SW (SE)	379	1	333300 356050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (W)	379	1	332500 356350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SE (SW)	382	1	332600 356050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SW (SE)	414	1	333350 356050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SE (W)	428	1	332450 356345
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (W)	429	1	332450 356350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (W)	442	1	332450 356500
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NW (S)	449	1	332950 355850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SE (NE)	470	1	333200 356800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (W)	478	1	332400 356300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SE (N)	492	1	333150 356850

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Undefined Or Other Location: Llay Ind Estate Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0060002 Permit Version: 1 Effective Date: 14th October 1969 Issued Date: 14th October 1969 Revocation Date: 6th February 1995 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Singret Brook Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A13SW (SW)	62	2	332890 356250
2	Discharge Consents Operator: Meritor Heavy Vehicle Systems Ltd Property Type: Motor Vehicle Parts Location: Meritor Heavy Vehicle Systems Ltd, Rackery Lane, Llay, Wrexham, LI12 0pb Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Cg0392001 Permit Version: 1 Effective Date: 30th April 2001 Issued Date: 30th April 2001 Revocation Date: 23rd September 2011 Discharge Type: Trade Discharges - Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: Singret Brook Via Mains Drain Status: Surrendered under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A13NW (W)	101	2	332780 356410
3	Discharge Consents Operator: The Works Manager Property Type: Manufacture Of Other Building Materials Location: Marshalls Mono Plc Llay Works, Llay Industrial Estate, Llay Wrexham, LI12 0tl Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Cg0401501 Permit Version: 1 Effective Date: 10th January 2003 Issued Date: 10th January 2003 Revocation Date: 22nd June 2009 Discharge Type: Trade Discharges - Site Drainage Discharge: Into Land Environment: Receiving Water: To Ground Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A13SW (SW)	128	2	332853 356187
4	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Llay Chapel Lane Cso, Opposite Garden Centre, Behind 18 Birch Court, Wrexham, LI12 0tu Authority: Natural Resources Wales Catchment Area: ALYN - HOPE TO DEE Reference: Cg0358401 Permit Version: 2 Effective Date: 18th September 2019 Issued Date: 18th September 2019 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Afon Alyn Tributary Status: Effective Positional Accuracy: Located by supplier to within 10m	A13SE (SE)	158	2	333087 356160

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Chapel Lane Opposite Garden Centre, Opposite Garden Centre Llay Authority: Natural Resources Wales Catchment Area: ALYN - HOPE TO DEE Reference: CG0358401 Permit Version: 1 Effective Date: 21st July 1994 Issued Date: 21st July 1994 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Afon Alyn Tributary Status: Effective Positional Accuracy: Located by supplier to within 100m	A13SE (SE)	162	2	333110 356170
4	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Chapel Lane Opposite Garden Centre, Opposite Garden Centre Llay Authority: Natural Resources Wales Catchment Area: ALYN - HOPE TO DEE Reference: Cg0358401 Permit Version: 1 Effective Date: 21st July 1994 Issued Date: 21st July 1994 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Afon Alyn Tributary Status: Effective Positional Accuracy: Located by supplier to within 10m	A13SE (SE)	162	2	333110 356170
5	Discharge Consents Operator: Meritor Heavy Vehicle Systems Ltd Property Type: Motor Vehicle Parts Location: Meritor Heavy Vehicle Systems Ltd, Rackery Lane, Llay, Wrexham, LI12 0pb Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Cg0393001 Permit Version: 1 Effective Date: 30th April 2001 Issued Date: 30th April 2001 Revocation Date: 23rd September 2011 Discharge Type: Trade Discharges - Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: Singret Brook Via Drain Status: Surrendered under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A13NW (W)	192	2	332690 356420
6	Discharge Consents Operator: British Coal Corporation (Fao E P Watkins) Property Type: Coal Extraction, Deep Mine Location: Llay Main Colliery Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Cm0142801 Permit Version: 1 Effective Date: 23rd January 1967 Issued Date: 23rd January 1967 Revocation Date: 12th January 1996 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Alyn Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	194	2	332700 356470

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	Discharge Consents Operator: Dwr Cymru Welsh Water Property Type: Sewerage Network - Pumping Staions Location: Pumping Station On Development Land, Off Llay Road, Wrexham, Wales, United Kingdom, LI12 0tx Authority: Natural Resources Wales Catchment Area: ALYN - HOPE TO DEE Reference: Cg0413901 Permit Version: 1 Effective Date: 22nd January 2004 Issued Date: 22nd January 2004 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Singret Brook Status: Effective Positional Accuracy: Located by supplier to within 10m	A13SE (SE)	240	2	333155 356106
7	Discharge Consents Operator: Dwr Cymru Welsh Water Property Type: Sewerage Network - Pumping Staions Location: Pumping Station On Development Land, Off Llay Road, Wrexham, Wales, United Kingdom, LI12 0tx Authority: Natural Resources Wales Catchment Area: ALYN - HOPE TO DEE Reference: Cg0413901 Permit Version: 1 Effective Date: 22nd January 2004 Issued Date: 22nd January 2004 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Singret Brook Status: Effective Positional Accuracy: Located by supplier to within 10m	A13SE (SE)	240	2	333155 356106
7	Discharge Consents Operator: Dwr Cymru Welsh Water Property Type: Sewerage Network - Pumping Station - Water Company Location: Pumping Station On Development Land, Off Llay Road, Wrexham, Wales, United Kingdom, LI12 0tx Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Cg0413901 Permit Version: 1 Effective Date: 22nd January 2004 Issued Date: 22nd January 2004 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Singret 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	A13SE (SE)	240	2	333155 356106
8	Discharge Consents Operator: British Coal Corporation Property Type: Undefined Or Other Location: Llay Main Colliery Coal Washery Pla, Coal Washery Plant Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0023101 Permit Version: 1 Effective Date: 24th June 1964 Issued Date: 24th June 1964 Revocation Date: 20th February 1986 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Un-Named Trib. Of Alyn Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A12SE (SW)	390	2	332550 356100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
8	Discharge Consents Operator: The Works Manager Property Type: Manufacture Of Other Building Materials Location: Marshalls Mono Plc Llay Works, Llay Industrial Estate, Llay Wrexham, LI12 0tl Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Cg0401401 Permit Version: 1 Effective Date: 21st July 2003 Issued Date: 21st July 2003 Revocation Date: 22nd June 2009 Discharge Type: Trade Discharges - Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: Un Named Watercourse Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A12SE (SW)	430	2	332534 356054
9	Discharge Consents Operator: Mark Speed & David Evans Property Type: Domestic Property (Single) Location: Plot 2 & 3, Old Smithy Cottage, Llay, Wrexham, North Wales, LI12 0tl Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Cg0449101 Permit Version: 1 Effective Date: 8th February 2007 Issued Date: 8th February 2007 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Tributary Of River Alyn 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	A12SE (SW)	490	2	332451 356072
9	Discharge Consents Operator: Mark Speed Property Type: Domestic Property (Single) Location: Old Smithy Cottage, Cefn Y Bedd Road, Llay, Near Wrexham, North Wales, LI12 0tl Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Cg0409801 Permit Version: 1 Effective Date: 25th June 2003 Issued Date: 25th June 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Tributary Of Afon Alyn 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	A12SE (SW)	521	2	332425 356055
10	Discharge Consents Operator: Rees Jones Developments Ltd Property Type: Undefined Or Other Location: Llay Gresford Road Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0065001 Permit Version: 1 Effective Date: 24th May 1971 Issued Date: 24th May 1971 Revocation Date: 23rd February 1995 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Singret Brook Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	626	2	333500 355900

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
11	Discharge Consents Operator: The Meadow Barns (Llay) Management Company Limited Property Type: Domestic Property (Multiple) Location: Llay Hall Farm, Llay Road, Llay, Clwyd, LI12 0th Authority: Natural Resources Wales Catchment Area: ALYN - HOPE TO DEE Reference: Fp3527xf Permit Version: 1 Effective Date: 1st March 2011 Issued Date: 27th October 2010 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Unnamed Trib Of River Alyn Status: Effective Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	712	2	332569 355670
11	Discharge Consents Operator: The Meadow Barns (Llay) Management Company Limited Property Type: Domestic Property (Multiple) Location: Llay Hall Farm, Llay Road, Llay, Clwyd, LI12 0th Authority: Natural Resources Wales Catchment Area: Alyn Reference: Eprfp3527xf Permit Version: 1 Effective Date: 1st March 2011 Issued Date: 27th October 2010 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Unnamed Trib Of River Alyn Status: New issued under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	712	2	332569 355670
12	Discharge Consents Operator: Castle Cement Ltd Property Type: Undefined Or Other Location: Wrexham Llay Coal Washery Plant Lia, Llay Coal Washery Plant Llay Roa, Llay Road Llay Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0152401 Permit Version: 1 Effective Date: 1st June 1987 Issued Date: 1st June 1987 Revocation Date: 23rd December 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Ditch Trib Alyn Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A7NW (SW)	759	2	332240 355900
13	Discharge Consents Operator: Eryvn Rosenberg Property Type: Domestic Property (Single) Location: Rackery Hall, Rackery Lane, Llay, Wrexham, Wales, LI12 0pb Authority: Natural Resources Wales Catchment Area: PULFORD BROOK Reference: Cm0187201 Permit Version: 3 Effective Date: 26th November 2012 Issued Date: 26th November 2012 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Into Land Environment: Receiving Water: Groundwater Via Infiltration System Status: Effective Positional Accuracy: Located by supplier to within 100m	A17SE (NW)	769	2	332400 357000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	Discharge Consents Operator: Mr Eryvn Rosenberg Property Type: Domestic Property (Single) Location: Rackery Hall, Rackery Lane, Llay, Wrexham, Wales, LI12 0pb Authority: Natural Resources Wales Catchment Area: River Dee Reference: CM0187201 Permit Version: 2 Effective Date: 11th April 1995 Issued Date: 11th April 1995 Revocation Date: 25th November 2012 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Land Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A17SE (NW)	769	2	332400 357000
13	Discharge Consents Operator: Mr Eryvn Rosenberg Property Type: Domestic Property (Single) Location: Rackery Hall, Rackery Lane, Llay, Wrexham, Wales, LI12 0pb Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0187201 Permit Version: 1 Effective Date: 21st August 1989 Issued Date: 21st August 1989 Revocation Date: 10th April 1995 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Land Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	A17SE (NW)	769	2	332400 357000
14	Discharge Consents Operator: The Director Property Type: Domestic Property (Multiple) Location: Cherry Bank Stables & Barn, Bank Farm, Dark Lane, Burton By Rossett, Wrexham, LI12 0ae Authority: Natural Resources Wales Catchment Area: River Dee Reference: Npswqd002755 Permit Version: 2 Effective Date: 26th November 2012 Issued Date: 26th November 2012 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: To Ground Waters Via Soakaway Status: Varied under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A19NW (NE)	849	2	333510 357043
14	Discharge Consents Operator: The Director Property Type: Domestic Property (Multiple) Location: Cherry Bank Stables & Barn, Bank Farm, Dark Lane, Burton By Rossett, Wrexham, LI12 0ae Authority: Natural Resources Wales Catchment Area: PULFORD BROOK Reference: Wqd002755 Permit Version: 2 Effective Date: 26th November 2012 Issued Date: 26th November 2012 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Into Land Environment: Receiving Water: Groundwater Via Infiltration System Status: Effective Positional Accuracy: Located by supplier to within 10m	A19NW (NE)	849	2	333510 357043

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	Discharge Consents Operator: The Director Property Type: Domestic Property (Multiple) Location: Cherry Bank Stables & Barn, Bank Farm, Dark Lane, Burton By Rossett, Wrexham, LI12 0ae Authority: Natural Resources Wales Catchment Area: River Dee Reference: Npswqd002755 Permit Version: 1 Effective Date: 12th September 2008 Issued Date: 12th September 2008 Revocation Date: 25th November 2012 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Land/Soakaway Receiving Water: To Ground Waters Via Soakaway 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	A19NW (NE)	849	2	333510 357043
15	Discharge Consents Operator: Caird Environmental Ltd Property Type: Extraction Of Stone, Gravel Etc. Location: Astbury Quarry Dark Lane Burton, Dark Lane, Rossett, LI12 Oae Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0096001 Permit Version: 3 Effective Date: 12th November 1993 Issued Date: 11th November 1993 Revocation Date: 20th August 1999 Discharge Type: Trade Effluent Discharge Environment: Not Supplied Receiving Water: Un-Named Trib. Of Pulford Broo Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 10m	A19NW (NE)	927	2	333470 357170
15	Discharge Consents Operator: Caird Environmental Ltd Property Type: Extraction Of Stone, Gravel Etc. Location: Astbury Quarry Dark Lane Burton, Dark Lane, Rossett, LI12 Oae Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0096001 Permit Version: 2 Effective Date: 14th November 1985 Issued Date: 14th November 1985 Revocation Date: 10th November 1993 Discharge Type: Trade Effluent Discharge Environment: Not Supplied Receiving Water: Un-Named Trib. Of Pulford Broo Status: Authorisation revoked Positional Accuracy: Located by supplier to within 10m	A19NW (NE)	927	2	333470 357170
15	Discharge Consents Operator: Caird Environmental Ltd Property Type: Extraction Of Stone, Gravel Etc. Location: Astbury Quarry Dark Lane Burton, Dark Lane, Rossett, LI12 Oae Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0096001 Permit Version: 1 Effective Date: 18th May 1983 Issued Date: 18th May 1983 Revocation Date: 13th November 1985 Discharge Type: Trade Effluent Discharge Environment: Not Supplied Receiving Water: Un-Named Trib. Of Pulford Broo Status: Authorisation revoked Positional Accuracy: Located by supplier to within 10m	A19NW (NE)	927	2	333470 357170

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
15	Discharge Consents Operator: Wrg Property Type: Not Supplied Location: Astbury Landfill Dark Lane Burton, Dark Lane Burton, Rossett Wrexham, LL12 0ae Authority: Natural Resources Wales Catchment Area: PULFORD BROOK Reference: CM0096001 Permit Version: 4 Effective Date: 21st August 1999 Issued Date: 11th November 1993 Revocation Date: Not Supplied Discharge Type: Trade Discharges - Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: Unnamed Trib Pulford Brook Status: Effective Positional Accuracy: Located by supplier to within 100m	A19NW (NE)	930	2	333460 357180
16	Prosecutions Relating to Controlled Waters Location: Singrett Brook, Llay Industrial Estate, Llay, LL12 Prosecution Text: A technical fault lead to vegetable oil entering a nearby watercourse - three year conditional discharge served Prosecution Act: Wra91 S85(1) Hearing Date: 9th June 2005 Verdict: Guilty Fine: 0 Cost: 1586 Positional Accuracy: Manually positioned within the geographical locality	A13NW (NW)	125	3	332872 356524
17	Prosecutions Relating to Controlled Waters Location: Singret Brook, Singret Brook, Llay, Nr Wrexham, . Prosecution Text: Causing Raw Sewage To Enter The Singret Brook. Prosecution Act: Wra91 S85(1) Hearing Date: 7th February 2002 Verdict: Guilty Fine: 1500 Cost: 1078 Positional Accuracy: Manually positioned within the geographical locality	A9NW (SE)	667	3	333549 355893
18	Integrated Pollution Controls Name: Magellan Aerospace Corporation Ltd Location: Rackery Lane, WREXHAM, Clwyd, LL12 0PB Authority: Environment Agency, Welsh Region Permit Reference: BD0150 Dated: 24th November 1998 Process Type: IPC minor (non-substantial) variation to previous variation Description: 4.5 A (H) Inorganic Chemical processes within the Chemical Industry Status: Revoked - Now IPPC Positional Accuracy: Automatically positioned to the address	A13NE (E)	93	3	333114 356389
18	Integrated Pollution Controls Name: Magellan Aerospace Corporation Ltd Location: Rackery Lane, Llay Industrial Estate, Llay, WREXHAM, Clwyd, LL12 0PB Authority: Environment Agency, Welsh Region Permit Reference: AO6880 Dated: 21st April 1995 Process Type: IPC new application Description: 4.5 A (H) Inorganic Chemical processes within the Chemical Industry Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Automatically positioned to the address	A13NE (E)	96	3	333114 356394
19	Integrated Pollution Prevention And Control Name: Vion Food Group Limited Location: Miners Road, Llay Industrial Estate, Llay, WREXHAM, Clwyd, LL12 0PJ Authority: Natural Resources Wales Permit Reference: Rp3835sy Original Permit Ref: Rp3835sy Effective Date: 13th April 2006 Status: Superseded By Variation Application Type: Application App. Sub Type: New Positional Accuracy: Automatically positioned to the address Activity Code: 6.8 A(1) (D) (II) Activity Description: Animal, Vegetable & Food; Treating Etc. Vegetable Raw Materials For Food Greater Than 300T/Day Primary Activity: Y	A13NW (NW)	72	2	332851 356465

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
20	Integrated Pollution Prevention And Control Name: Llay Feed Mill Epr/Ap3337hf Location: Llay Feed Mill, Cymru Country Feeds, Miners Road, Llay, Wrexham, LL12 0PJ Authority: Natural Resources Wales Permit Reference: AP3337HF Original Permit Ref: Ap3337hf Effective Date: 8th March 2011 Status: Effective Application Type: Bespoke App. Sub Type: Not Supplied Positional Accuracy: Located by supplier to within 10m Activity Code: 6.8 PART A (1) D) (II) Activity Description: Not Supplied Primary Activity: Y	A12NE (W)	520	2	332360 356380
21	Integrated Pollution Prevention And Control Name: Wrg Environmental Ltd Location: Rossett Landfill Gas Utilisation Scheme, Astbury Landfill Site, Dark Lane, Burton, Rossett, WREXHAM, Clwyd, LL12 0AE Authority: Environment Agency, Welsh Region Permit Reference: Up3337sa Original Permit Ref: Up3337sa Effective Date: 13th December 2006 Status: Effective Application Type: Application App. Sub Type: New Positional Accuracy: Automatically positioned to the address Activity Code: 1.1 A(1) (B) (III) Activity Description: Combustion; Waste Derived Fuel Greater Or Equal To 3Mw But Less Than 50Mw Primary Activity: Y	A18NE (N)	935	3	333201 357300
21	Integrated Pollution Prevention And Control Name: Wrg Waste Services Ltd Location: Rossett Landfill Site, Astbury Landfill Site, Dark Lane, Burton, Rossett, Wrexham, Clwyd, LL12 0AE Authority: Environment Agency, Welsh Region Permit Reference: Bw0274id Original Permit Ref: Bw0274id Effective Date: Not Supplied Status: Valid Application Type: Not Supplied App. Sub Type: Not Supplied Positional Accuracy: Manually positioned to the address or location Activity Code: 5.2 A(1) (A) Activity Description: Waste Landfilling; Greater Than 10 T/D With Capacity Greater Than 25,000T Excluding Inert Waste Primary Activity: Not Supplied	A18NE (N)	939	3	333186 357308
22	Local Authority Integrated Pollution Prevention And Control Name: Magellan Aerospace (Uk Ltd) Location: Rackery Lane, Llay Industrial Estate, Wrexham, LL12 0pb Authority: Wrexham County Borough Council, Environmental Health Department Permit Reference: WCBC/IPPC/05/MA Dated: Not Supplied Process Type: Other Activities Description: SG6 Status: Permit Issued Positional Accuracy: Manually positioned to the address or location	A13NE (E)	47	4	333055 356380
23	Local Authority Pollution Prevention and Controls Name: Cymru Country Feeds Ltd Location: Llay Mill, Miners Road, Llay Industrial Estate, WREXHAM, Clwyd, LL12 0PJ Authority: Wrexham County Borough Council, Environmental Health Department Permit Reference: Wmbc/Hjb/03/025 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG6/26 Animal feed compounding Status: Authorised Positional Accuracy: Automatically positioned to the address	A13NE (NE)	57	4	333033 356410
24	Local Authority Pollution Prevention and Controls Name: Magellan Aerospace Metal Treatments Location: Rackery Lane, Llay, Wrexham, Clwyd, LL12 0pb Authority: Wrexham County Borough Council, Environmental Health Department Permit Reference: WCBC/IPPC/05/MA Dated: 3rd January 2001 Process Type: Local Authority Air Pollution Control Description: PG6/40 Coating and recoating of aircraft and aircraft components Status: Permitted Positional Accuracy: Located by supplier to within 10m	A13NE (E)	70	4	333110 356350

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
24	Local Authority Pollution Prevention and Controls Name: Magellan Aerospace Metal Treatments Location: Rackery Lane, Llay, Wrexham, Clwyd, LL12 0pb Authority: Wrexham County Borough Council, Environmental Health Department Permit Reference: WCBC/IPPC/05/MA Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG6/10 Coating manufacturing Status: Transferred to LAIPPC Positional Accuracy: Located by supplier to within 10m	A13NE (E)	70	4	333110 356350
25	Local Authority Pollution Prevention and Controls Name: Cymru Country Feeds Limited Location: Llay Mill, Miners Road, Llay Industrial Estate, WREXHAM, Clwyd, LL13 9PG Authority: Wrexham County Borough Council, Environmental Health Department Permit Reference: Wcbc/Pg6/26(96)Cymv2 Dated: 10th November 1993 Process Type: Local Authority Air Pollution Control Description: PG6/26 Animal feed compounding Status: Transferred to IPPC Positional Accuracy: Manually positioned to the address or location	A13NW (NW)	114	4	332801 356481
26	Local Authority Pollution Prevention and Controls Name: Star County Textile Services Ltd Location: Aerial Road, Llay Industrial Estate South, Llay, LL12 0tu Authority: Wrexham County Borough Council, Environmental Health Department Permit Reference: WCBC-PG6-46(5)V2 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Permitted Positional Accuracy: Manually positioned to the address or location	A13SW (S)	141	4	332949 356173
27	Local Authority Pollution Prevention and Controls Name: Marshalls Mono Ltd Location: Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0tl Authority: Wrexham County Borough Council, Environmental Health Department Permit Reference: WCBC-PG3-1-M Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG3/1Blending, packing, loading and use of bulk cement Status: Permitted Positional Accuracy: Located by supplier to within 10m	A13SW (SW)	159	4	332790 356180
28	Local Authority Pollution Prevention and Controls Name: Arvin Meritor Hvs Ltd Location: Rackery Lane, Llay, WREXHAM, Clwyd, LL12 0PB Authority: Wrexham County Borough Council, Environmental Health Department Permit Reference: Wcbc/Pg6/23/Mv2 Dated: 15th December 1993 Process Type: Local Authority Air Pollution Control Description: PG6/23 Coating of metal and plastic Status: Authorised Positional Accuracy: Manually positioned to the address or location	A13NW (NW)	187	4	332824 356577
29	Local Authority Pollution Prevention and Controls Name: Llay Mortar Plant Location: Llay Industrial Estate, WREXHAM, Clwyd, LL12 0TL Authority: Wrexham County Borough Council, Environmental Health Department Permit Reference: Wcbc/Pg3/1(1) Dated: 23rd March 1996 Process Type: Local Authority Air Pollution Control Description: PG3/1Blending, packing, loading and use of bulk cement Status: Authorised Positional Accuracy: Automatically positioned to the address	A8NW (SW)	345	4	332710 356011
29	Local Authority Pollution Prevention and Controls Name: Clwyd Concrete Products Ltd Location: Llay, Wrexham, LL12 0tl Authority: Wrexham County Borough Council, Environmental Health Department Permit Reference: WCBC/PG3/1/CCP/V1 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG3/1Blending, packing, loading and use of bulk cement Status: Permitted Positional Accuracy: Located by supplier to within 10m	A8NW (SW)	345	4	332709 356011

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
30	Local Authority Pollution Prevention and Controls Name: Marshalls Mono Ltd Location: Llay Road, WREXHAM, Clwdd, LL12 0TL Authority: Wrexham County Borough Council, Environmental Health Department Permit Reference: Wmbc/Hjb/02/011 Dated: 26th March 1996 Process Type: Local Authority Pollution Prevention and Control Description: PG3/1 Blending, packing, loading and use of bulk cement Status: Application exempt from APC Positional Accuracy: Manually positioned to the address or location	A13SW (SW)	353	4	332689 356014
31	Local Authority Pollution Prevention and Controls Name: Llay Recycling Centre Location: Miners Park, Miners Road, Llay, Wrexham, LI12 0pj Authority: Wrexham County Borough Council, Environmental Health Department Permit Reference: WCBC/PG3/16/LRC/V1 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG3/16 Mobile screening and crushing processes Status: Permitted Positional Accuracy: Located by supplier to within 10m	A12SW (W)	686	4	332193 356283
31	Local Authority Pollution Prevention and Controls Name: Llay Recycling Centre Location: Miners Park, Miners Road, Llay, Wrexham, LI12 0pj Authority: Wrexham County Borough Council, Environmental Health Department Permit Reference: WCBC/PG3/16/LRC/V1 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG3/1 Blending, packing, loading and use of bulk cement Status: Permitted Positional Accuracy: Located by supplier to within 10m	A12SW (W)	686	4	332193 356283
32	Local Authority Pollution Prevention and Controls Name: Marlin Industries Location: Davy Way, Llay Industrial Estate, Wrexham, LI12 0pg Authority: Wrexham County Borough Council, Environmental Health Department Permit Reference: WCBC/PG6/2/MI/1 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG6/2 Manufacture of timber and wood-based products Status: Permitted Positional Accuracy: Manually positioned to the address or location	A12NW (W)	776	4	332138 356624
33	Local Authority Pollution Prevention and Controls Name: Clarks Of Wrexham Location: Llay Garage, Shones Lane, Llay, WREXHAM, Clwyd, LL12 0PL Authority: Wrexham County Borough Council, Environmental Health Department Permit Reference: Wcbc/Pg1/1(1) Dated: 30th June 2003 Process Type: Local Authority Air Pollution Control Description: PG1/1 Waste oil burners, less than 0.4MW net rated thermal input Status: Authorised Positional Accuracy: Manually positioned to the address or location	A9SW (S)	951	4	333317 355398
34	Local Authority Pollution Prevention and Control Enforcements Location: Llay Mill, Miners Road, Llay Industrial Estate, Wrexham, Clwyd, LI13 9pg Type: Air Pollution Control Enforcement Notice Reference: NOT GIVEN Date Issued: 1st February 2002 Enforcement Date: Not Supplied Details: Section 13 Notice Served Positional Accuracy: Manually positioned to the address or location	A13NW (NW)	114	4	332801 356481
	Nearest Surface Water Feature	A13SW (SW)	55	-	332828 356288
35	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Foot Crossing Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Not Supplied Incident Date: 3rd March 1992 Incident Reference: 3347 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A13SE (SE)	6	3	333000 356300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
36	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Manor Transport, LLAY Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Vandalism Incident Date: 5th November 1996 Incident Reference: 30403 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Runoff Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NE (NE)	68	3	333000 356450
37	Pollution Incidents to Controlled Waters Property Type: Waste Handling Facilities Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Accidental Spillage/Leakage Incident Date: 9th December 1994 Incident Reference: 21898 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Leakage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NW (N)	101	3	332900 356500
38	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Laedwall, Opposite Garden Centre Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Blockage Incident Date: 3rd February 1997 Incident Reference: 31139 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SE (SE)	117	3	333130 356250
39	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Surface Water Outfall Location: Garden Centre, All Along Nant, CARLTON Authority: Environment Agency, Welsh Region Pollutant: Chemicals - Acid Note: Not Supplied Incident Date: 23rd January 1995 Incident Reference: 22404 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SE (SE)	132	3	333100 356200
39	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Downstream Llay Industrial Estate Authority: Environment Agency, Welsh Region Pollutant: Chlorinated Water Note: Blocked Sewer Incident Date: 21st October 1996 Incident Reference: 30261 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SE (SE)	136	3	333105 356200
39	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Surface Water Outfall Location: Industrial Estate, LLAY Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Blocked Sewer Incident Date: 11th April 1995 Incident Reference: 23409 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SE (SE)	136	3	333100 356195

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
39	Pollution Incidents to Controlled Waters Property Type: Process Location: The Headwall Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Not Supplied Incident Date: 13th March 1995 Incident Reference: 22854 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SE (SE)	139	3	333105 356195
39	Pollution Incidents to Controlled Waters Property Type: Process Location: HUNTINGTON Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Inadequate Design/Capacity Incident Date: 19th March 1992 Incident Reference: 3435 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SE (SE)	173	3	333100 356150
40	Pollution Incidents to Controlled Waters Property Type: Council Premises Location: Walnut Grove, LLAY Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Blocked Sewer Incident Date: 16th August 1991 Incident Reference: 3126 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Leakage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NE (NE)	169	3	333100 356500
41	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Behind Clay Park Junior School Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Blocked Sewer Incident Date: 10th April 1996 Incident Reference: 27869 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Spillage Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A13SE (E)	175	3	333200 356250
41	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Llay Woods Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Weather Incident Date: 15th October 1996 Incident Reference: 30278 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Natural Causes Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SE (E)	178	3	333200 356245
41	Pollution Incidents to Controlled Waters Property Type: Process Location: Down Stream Of Industrial Estate Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Not Supplied Incident Date: 10th December 1991 Incident Reference: 1643 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Bypass Of Treatment Facilities Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SE (SE)	203	3	333200 356200

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
42	Pollution Incidents to Controlled Waters Property Type: Domestic/Residential Location: Down Stream Of Llay, Industrial Estate Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Not Supplied Incident Date: 27th April 1995 Incident Reference: 23908 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SE (S)	200	3	333000 356100
43	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Sewerage Location: Infant School, LLAY Authority: Environment Agency, Welsh Region Pollutant: Oils - Diesel (Including Agricultural) Note: Blocked Sewer Incident Date: 20th May 1996 Incident Reference: 28392 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SE (SE)	242	3	333150 356100
43	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Rear Of Infant School, LLAY Authority: Environment Agency, Welsh Region Pollutant: Oils - Diesel (Including Agricultural) Note: Blocked Sewer Incident Date: 20th May 1996 Incident Reference: 28392 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SE (SE)	246	3	333150 356095
44	Pollution Incidents to Controlled Waters Property Type: Process Location: Marshalls Mono Ltd Authority: Environment Agency, Welsh Region Pollutant: Agricultural: Carcasses Note: Inadequate Design/Capacity Incident Date: 20th March 1992 Incident Reference: 3438 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Runoff Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SW (SW)	277	3	332700 356100
44	Pollution Incidents to Controlled Waters Property Type: Process Location: Marshalls Mono Ltd Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Inadequate Design/Capacity Incident Date: 20th March 1992 Incident Reference: 3438 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Runoff Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A13SW (SW)	281	3	332700 356095
45	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Chemicals - Other Inorganic Note: Poor Management; River Alyn Incident Date: 21st September 1998 Incident Reference: 36731 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Spillage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12NE (W)	394	3	332500 356500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
46	Pollution Incidents to Controlled Waters Property Type: Waste Disposal Tip Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Oils - Diesel (Including Agricultural) Note: Natural Causes Incident Date: 4th May 1995 Incident Reference: 23991 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Leachate Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SW (NW)	422	3	332750 356800
47	Pollution Incidents to Controlled Waters Property Type: Council Premises Location: Down Stream Of From, Footpath Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Blocked Sewer Incident Date: 11th April 1995 Incident Reference: 23408 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SE (NE)	470	3	333200 356800
48	Pollution Incidents to Controlled Waters Property Type: Council Premises Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Cooling Water Note: Deliberate Act Incident Date: 11th October 1994 Incident Reference: 21718 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A17SE (NW)	485	3	332500 356700
49	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Surface Water Outfall Location: Llay Industrial Estate Authority: Environment Agency, Welsh Region Pollutant: Industrial Solid Waste Note: Weather Incident Date: 8th August 1994 Incident Reference: 20750 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Runoff Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12NE (W)	540	3	332350 356500
50	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Nant-Y-Gai Wood Footbridge Authority: Environment Agency, Welsh Region Pollutant: Sewage - Septic Tank Effluent Note: Not Supplied Incident Date: 14th November 1996 Incident Reference: 30456 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	556	3	333450 355950
50	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Behind Meadow Rise Estate Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Blocked Sewer Incident Date: 18th April 1996 Incident Reference: 27995 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Leakage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	591	3	333450 355900

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
51	Pollution Incidents to Controlled Waters Property Type: Council Premises Location: Down Stream Of Public Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Blocked Sewer Incident Date: 7th February 1995 Incident Reference: 22394 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Leakage Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	563	3	333500 356000
52	Pollution Incidents to Controlled Waters Property Type: Domestic/Residential Location: Borehole On Site Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Poor Operational Practise Incident Date: 24th October 1991 Incident Reference: 3380 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A17SE (NW)	574	3	332600 356900
53	Pollution Incidents to Controlled Waters Property Type: Waste Handling Facilities Location: Llay Industrial Estate Authority: Environment Agency, Welsh Region Pollutant: Algae Note: Mechanical Failure Incident Date: 8th August 1994 Incident Reference: 20749 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Spillage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12NE (W)	583	3	332300 356450
54	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Pulford Brook Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Poor Management; Pulford Brook Incident Date: 26th August 1998 Incident Reference: 36529 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Effluent Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SE (N)	604	3	333000 357000
55	Pollution Incidents to Controlled Waters Property Type: Not Given Location: At Llay Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Not Supplied Incident Date: 12th May 1997 Incident Reference: 32226 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Leakage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	613	3	333500 355920
56	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Brook Adjacent To House Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: River Alyn; Overflow Incident Date: 6th April 1998 Incident Reference: 35451 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	698	3	333500 355800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
57	Pollution Incidents to Controlled Waters Property Type: Process Location: Up Stream, Nant Gaer Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Accidental Spillage/Leakage Incident Date: 17th February 1995 Incident Reference: 22599 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Leakage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	768	3	333600 355800
58	Pollution Incidents to Controlled Waters Property Type: Domestic/Residential Location: Dark Lane, Access Road Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Not Supplied Incident Date: 9th May 1991 Incident Reference: 39 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18NW (N)	805	3	332800 357200
59	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Adjacent To Caravan Park Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Blocked Sewer Incident Date: 8th January 1992 Incident Reference: 1787 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A9NE (SE)	874	3	333650 355700
60	Pollution Incidents to Controlled Waters Property Type: Council Premises Location: Nant Gaer Road Authority: Environment Agency, Welsh Region Pollutant: Oils - Diesel (Including Agricultural) Note: Vandalism Incident Date: 7th October 1991 Incident Reference: 2006 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Spillage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NE (SE)	875	3	333700 355750
60	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Sewerage Location: Wood Authority: Environment Agency, Welsh Region Pollutant: Chemicals - Other Inorganic Note: Blocked Sewer Incident Date: 6th April 1992 Incident Reference: 3500 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A9NE (SE)	882	3	333700 355740
61	Prosecutions Relating to Authorised Processes Location: Llay Industrial Estate, Wrexham Prosecution Text: Operating a waste transfer site outside the rules of his licence Prosecution Act: Epa90 S33 Hearing Date: 5th June 2007 Verdict: Guilty Fine: 16000 Costs: 0 Positional Accuracy: Manually positioned within the geographical locality	A12NE (W)	454	3	332427 356417

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
62	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 3rd February 2005 Incident Reference: 291092 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: Oils - Cutting Oils	A13SE (SE)	159	2	333092 356162
63	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 6th February 2005 Incident Reference: 291717 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: Oils - Cutting Oils	A9NW (SE)	451	2	333344 355992
64	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 17th May 2017 Incident Reference: 1702615 Water Impact: Category 4 - No Impact Air Impact: Category 4 - No Impact Land Impact: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 10m Pollutant: General Biodegradable : Other	A12NW (W)	715	2	332186 356569
65	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 5th August 2009 Incident Reference: 704123 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Crude Sewage	A9NE (SE)	905	2	333739 355750
66	Water Abstractions Operator: Tarmac Topmix Ltd Licence Number: 24/67/9/0159 Permit Version: Not Supplied Location: Location Description Not Available Authority: Environment Agency, Welsh Region Abstraction: Mineral Products: General Washing/Process Washing Abstraction Type: Not Supplied Source: Groundwater Daily Rate (m3): 50 Yearly Rate (m3): 12500 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)	823	3	333210 357180
	Water Abstractions Operator: Tarmac Limited Licence Number: 24/67/8/0052 Permit Version: 102 Location: River Alyn Authority: Environment Agency, Welsh Region Abstraction: Mineral Products: Mineral Washing Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st January 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10SE (SE)	1711	3	334480 355400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Tarmac Central Ltd Licence Number: 24/67/8/0052 Permit Version: 101 Location: River Alyn Authority: Environment Agency, Welsh Region Abstraction: Mineral Products: Mineral Washing Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2007 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10SE (SE)	1711	3	334480 355400
	Water Abstractions Operator: Tilcon (South) Ltd Licence Number: 24/67/8/0052 Permit Version: 100 Location: River Alyn Authority: Environment Agency, Welsh Region Abstraction: Mineral Products: Mineral Washing Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: River Alyn Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st October 1998 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A10SE (SE)	1711	3	334480 355400
	Water Abstractions Operator: Mr T Morgan Licence Number: 24/67/8/0094 Permit Version: 100 Location: River Cegidog Authority: Environment Agency, Welsh Region Abstraction: Aquaculture: Fish Farm/Cress Pond Throughflow Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: River Cegidog Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 1991 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A6SW (SW)	1758	3	331280 355580
	Water Abstractions Operator: Mr L Lister Licence Number: 24/67/9/0146 Permit Version: 100 Location: Borehole Authority: Environment Agency, Welsh Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 7th October 1974 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A25SE (NE)	1796	3	334500 357380

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Dp Williams Holdings Ltd Licence Number: Wa/067/0008/007 Permit Version: 1 Location: Lagoon At Ballswood Quarry Authority: Natural Resources Wales Abstraction: Mineral Products: Mineral Washing Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 26th June 2015 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(E)	1918	2	334961 356380
	Water Abstractions Operator: Dp Williams Holdings Ltd Licence Number: Wa/067/0008/007 Permit Version: Not Supplied Location: Abstraction From Lagoon At Ballswood Quarry Authority: Natural Resources Wales Abstraction: Mineral Products: Mineral Washing Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(E)	1918	2	334961 356380
	Water Abstractions Operator: Dp Williams Holdings Ltd Licence Number: 24/67/8/0108 Permit Version: 2 Location: Lagoon At Ballswood Quarry Wrexham Authority: Natural Resources Wales Abstraction: Mineral Products: Mineral Washing Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Lagoon At Ballswood Quarry, Wrexham Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 3rd October 2012 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(E)	1958	2	335000 356400
	Water Abstractions Operator: Cemex Uk Materials Ltd. Licence Number: 24/67/8/0108 Permit Version: 1 Location: Lagoon At Ballswood Quarry Wrexham Authority: Environment Agency, Welsh Region Abstraction: Mineral Products: Mineral Washing Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Lagoon At Ballswood Quarry, Wrexham Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 30th June 2006 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(E)	1958	3	335000 356400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Groundwater Vulnerability Map Combined Classification: Secondary Superficial Aquifer - Low Vulnerability Combined Vulnerability: Low Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Low Bedrock Flow: Well Connected Fractures Dilution: 300-550 mm/year Baseflow Index: <40% Superficial: >90% Patchiness: >10m Superficial Thickness: Medium Superficial Recharge:	A13SW (NE)	0	2	332950 356345
	Groundwater Vulnerability Map Combined Classification: Secondary Superficial Aquifer - Low Vulnerability Combined Vulnerability: Low Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Low Bedrock Flow: Well Connected Fractures Dilution: 300-550 mm/year Baseflow Index: <40% Superficial: >90% Patchiness: >10m Superficial Thickness: Medium Superficial Recharge:	A13SE (E)	0	2	333000 356345
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13SW (NE)	0	2	332950 356345
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated	A13SW (NE)	0	2	332950 356345
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
67	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 108.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A13SW (SW)	55	5	332828 356288
68	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1167.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A13SE (SE)	158	5	333088 356160
69	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 244.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A13SW (W)	203	5	332676 356346

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
70	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 281.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12NE (NW)	336	5	332605 356590
71	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 97.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12NE (W)	385	5	332498 356441
72	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 199.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12SE (SW)	429	5	332525 356069
73	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 50.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12SE (W)	432	5	332446 356310
74	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 30.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12SE (W)	432	5	332446 356310
75	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 92.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12SE (W)	463	5	332415 356311
76	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 203.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12SE (W)	480	5	332399 356292
77	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 288.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 2	A12SE (W)	480	5	332399 356292
78	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 203.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12SE (SW)	543	5	332410 356037

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
79	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 2	A12SE (SW)	543	5	332410 356037
80	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 99.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 2	A12SE (SW)	554	5	332402 356029
81	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 80.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 2	A12SE (SW)	554	5	332402 356029
82	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 35.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 2	A7NE (SW)	629	5	332352 355967
83	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 2	A7NE (SW)	647	5	332321 355982
84	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 127.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 2	A7NE (SW)	648	5	332318 355986
85	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 13.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 2	A12SW (W)	678	5	332237 356091
86	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 227.5 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A7NW (SW)	725	5	332284 355896
87	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 439.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A17SW (NW)	757	5	332210 356752

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
88	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 466.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A19NW (NE)	941	5	333466 357189
89	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 475.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A7NW (SW)	951	5	332080 355795
90	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 923.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18NW (N)	952	5	332936 357350

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
91	Historical Landfill Sites Licence Holder: Shanks Location: Dark Lane, Llay, Wrexham Name: Astbury Quarry Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD14780 First Input Date: 31st December 1983 Last Input Date: 31st December 1987 Specified Waste: Deposited Waste included Inert, Industrial, Commercial, Household and Type: Special Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 6955/0024 BGS Ref: Not Supplied Other Ref: WMBC L/13, NOW-510-L, 6955/0062	A18SE (N)	606	2	332975 357002
92	Licensed Waste Management Facilities (Landfill Boundaries) Name: Astbury Landfill (Rossett) Licence Number: 37116 Location: Astbury Landfill, Dark Lane, Burton, Wrexham, Clwyd, LL12 0AE Licence Holder: W R G Environmental Ltd Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Waste Landfills Max Input Rate: Not Supplied Licence Status: Modified Issued: 17th August 1994 Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied	A18SW (NW)	387	2	332764 356768
93	Licensed Waste Management Facilities (Locations) Licence Number: FP3894FP Location: Astbury (Rossett) Landfill, Dark Lane, Burton, Wrexham, Clwyd, Wrexham, LL12 0AE Operator Name: W R G Environmental Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Waste Landfills Licence Status: Effective Issued: 11th January 2019 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A18SW (NW)	421	2	332747 356798
94	Licensed Waste Management Facilities (Locations) Licence Number: ZP3594FN Location: W H Chaloner & Son Ltd, Llay Industrial Estate, Wrexham, Clwyd, Wrexham, LL12 0PJ Operator Name: W H Chaloner & Son Limited Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Metal Recycling Sites (Mixed) Licence Status: Effective Issued: 20th July 1995 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12NE (W)	469	2	332412 356413
94	Licensed Waste Management Facilities (Locations) Licence Number: 37135 Location: W H Chaloner & Son Ltd, Miners Road, Llay Industrial Estate, Wrexham, LL12 0PJ Operator Name: W H Chaloner & Son Limited Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Metal Recycling Sites (Mixed) Licence Status: Modified Issued: 20th July 1995 Last Modified: 23rd October 2012 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12NE (W)	469	2	332412 356413

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
95	Licensed Waste Management Facilities (Locations) Licence Number: RP3994FN Location: Miner's Road Depot, Llay Industrial Estate, Wrexham, Clwyd, Wrexham, LL12 0PJ Operator Name: Wrexham Borough Council Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Physical Treatment Facilities Licence Status: Effective Issued: 9th May 2002 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12SW (W)	715	2	332163 356296
95	Licensed Waste Management Facilities (Locations) Licence Number: 37235 Location: Wrexham Construction Services, Miners Road, Llay Industrial Estate, Wrexham, LL12 0PJ Operator Name: Wrexham Borough Council Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Physical Treatment Facilities Licence Status: Issued Issued: 9th May 2002 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12SW (W)	715	2	332163 356296
96	Licensed Waste Management Facilities (Locations) Licence Number: NB3293HV Location: Llay Depot, Llay Industrial Park, Llay, Wrexham, Wrexham, LL12 0PJ Operator Name: Roadway Civil Engineering & Surfacing Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Inert & excavation Waste TS + treatment Licence Status: Effective Issued: 12th December 2014 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12SW (W)	729	2	332152 356241
97	Licensed Waste Management Facilities (Locations) Licence Number: RP3894FC Location: P P S Skip Hire, Llay Industrial Estate, Wrexham, Clwyd, Wrexham, LL12 0PJ Operator Name: David Alan Darby Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Expired Issued: 4th September 2003 Last Modified: Not Supplied Expires: 8th May 2009 Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12SW (W)	843	2	332035 356286

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
97	Licensed Waste Management Facilities (Locations) Licence Number: 37239 Location: 12 Miners Road, Llay Industrial Estate, Wrexham, Clwyd, LL12 0PJ Operator Name: Darby David Alan Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Expired Issued: 4th September 2003 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12SW (W)	843	2	332035 356286
98	Licensed Waste Management Facilities (Locations) Licence Number: 220007 Location: Astbury Landfill Site, Dark Lane, Rossett, Wrexham, LL12 0AE Operator Name: W R G Environmental Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Landfill Gas Engine (<3 mW) Licence Status: Issued Issued: 13th December 2006 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: UP3337 Positional Accuracy: Located by supplier to within 100m	A18NE (N)	935	2	333200 357300
98	Licensed Waste Management Facilities (Locations) Licence Number: AB3096FL Location: Rossett Landfill Gas Utilisation Plant, Astbury Landfill Site, Dark Lane, Rossett, Wrexham, Wrexham, LL12 0AE Operator Name: W R G Environmental Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Landfill Gas Engine (<3 mW) Licence Status: Effective Issued: 13th December 2006 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 100m	A18NE (N)	935	2	333200 357300
	Local Authority Landfill Coverage Name: Wrexham County Borough Council - Has supplied landfill data		0	6	332950 356345
99	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A13SW (NE)	0	-	332950 356345
100	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A19SW (NE)	685	-	333355 356955
101	Potentially Infilled Land (Non-Water) Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A9SW (SE)	834	-	333349 355536
102	Potentially Infilled Land (Non-Water) Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A9NE (SE)	851	-	333712 355802
103	Potentially Infilled Land (Non-Water) Bearing Ref: E Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A14SE (E)	971	-	333962 356014
104	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A13SW (S)	183	-	332947 356128

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
105	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A13SE (SE)	304	-	333116 356013
106	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A12SE (SW)	372	-	332619 356045
107	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A14NW (NE)	381	-	333369 356526
108	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1914	A8NE (S)	388	-	333059 355914
109	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A14SW (E)	390	-	333410 356195
110	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A8NW (S)	415	-	332777 355910
111	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A14SW (SE)	421	-	333413 356126
112	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A12NE (NW)	450	-	332458 356552
113	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A14SW (E)	500	-	333525 356196
114	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A14NW (E)	502	-	333534 356435
115	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1914	A9NW (SE)	545	-	333309 355842
116	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A12SE (W)	548	-	332331 356281
117	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A18SW (NW)	593	-	332627 356935
118	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A12NW (W)	613	-	332272 356473
119	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A14SE (E)	617	-	333657 356264
120	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1914	A9NW (SE)	625	-	333405 355813
121	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A7NE (SW)	652	-	332608 355719
122	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A8SE (S)	653	-	332971 355648
123	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A8SW (S)	678	-	332804 355638
124	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A17SE (NW)	679	-	332335 356803
125	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A9NW (SE)	691	-	333624 355953

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
126	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A8SW (S)	698	-	332929 355606
127	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A12NW (W)	710	-	332171 356422
128	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1914	A8SE (S)	714	-	333204 355611
129	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A7NE (SW)	737	-	332508 355675
130	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1914	A9SW (SE)	751	-	333334 355621
131	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A17NE (NW)	803	-	332414 357053
132	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A14NE (E)	804	-	333828 356504
133	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A12SW (W)	862	-	332047 356081
134	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A14SE (E)	896	-	333897 356056
135	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A19SE (E)	910	-	333869 356713
136	Registered Landfill Sites Licence Holder: Caird Environmental Ltd Licence Reference: L84 Site Location: Astbury Quarry Landfill, Dark Lane, Burton, Rossett, Wrexham, Clwyd Licence Easting: 333000 Licence Northing: 357000 Operator Location: North Road, Ellesmere Port, Cheshire, Ch65 1ae Authority: Environment Agency Wales, North Area Site Category: Landfill Max Input Rate: Very Large (Equal to or greater than 250,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Record supersededSuperseded Dated: 1st August 1994 Preceded By: L56/A Licence: Superseded By: NOW-510-L (L84) Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste Prohibited Waste	A18SE (N)	604	3	333000 357000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
137	Registered Landfill Sites Licence Holder: Caird Environmental Ltd Licence Reference: NOW-510-L (L84) Site Location: Astbury Quarry/Dark Lane Landfill, Burton, Rossett, Wrexham, Clwyd Licence Easting: 333100 Licence Northing: 357100 Operator Location: Dunedin House, Auckland Park, Mount Farm, MILTON KEYNES, Buckinghamshire, MK1 1BU Authority: Environment Agency Wales, North Area Site Category: Landfill Max Input Rate: Very Large (Equal to or greater than 250,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Operational as far as is known Dated: 25th March 1999 Preceded By: NOW-510-L (L84) Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Animal Carcasses In Accordance With Maff By-Roducys Order '99 Asbestos Com. & Ind. Non-Haz. Waste Construction And Demolition Wastes Contaminated Rubbish Difficult Wastes (As In Wmp.26) Excavation Waste Household Waste Max.Waste Permitted By Licence Newly Spec.Waste (Epa'90:S62-1996) Paper Pulp Prohibited Waste: Animal Carcasses, Offal Clinical - As In Control.Waste Regs'92 Likely Danger From Combust/Fume/Gas Liquid Wastes Organometallic Compounds With Conc'Ns > 1000 Mg/Kg Organophosphorus Cmpds With Conc'Ns > 50 Mg/Kg Organosilicon Compounds With Conc'Ns > 1000 Mg/Kg Organosulphur Cmpds With Conc'Ns > 1000 Mg/Kg Pcbs/Pcts/Naphthalenes With Conc'Ns > 20 Mg/Kg Percussive/Explosive/Similar Waste Pressurised Gas Spec.Waste (Epa'90:S62/1996 Regs) Sub'S Control. Radioactive Subs Act'60 W.With Viable Pathogenic Organisms Waste In Drums Waste N.O.S. Waste With Halogenated Hydrocarbond With Conc'Ns > 500 Mg/Kg	A18NE (N)	717	3	333100 357100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
137	Registered Landfill Sites Licence Holder: Caird Environmental Ltd Licence Reference: NOW-510-L (L84) Site Location: Astbury Quarry/Dark Lane Landfill, Burton, Rossett, Wrexham, Clwyd Licence Easting: 333100 Licence Northing: 357100 Operator Location: North Road, Ellesmere Port, Cheshire, Ch65 1ae Authority: Environment Agency Wales, North Area Site Category: Landfill Max Input Rate: Very Large (Equal to or greater than 250,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Record supersededSuperseded Dated: 1st September 1995 Preceded By: L84 Licence: Superseded By: NOW-510-L (L84) Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste Asbestos Com. & Ind. Non-Haz. Waste Construction And Demolition Wastes Contaminated Rubbish Difficult Wastes (As In Wmp.26) Excavation Waste Household Waste Max.Waste Permitted By Licence Newly Spec.Waste (Epa'90:S62-1996) Paper Pulp Prohibited Waste Animal Carcasses, Offal Clinical - As In Control.Waste Regs'92 Likely Danger From Combust/Fume/Gas Liquid Wastes Organohalogen Compounds Organometallic Compounds Organophosphorus Cmpds Organosilicon Compounds Organosulphur Cmpds Pcbs/Pcts/Naphthalenes Percussive/Explosive/Similar Waste Pressurised Gas Spec.Waste (Epa'90:S62/1996 Regs) Sub'S Control. Radioactive Subs Act'60 W.With Viable Pathogenic Organisms Waste In Drums Waste N.O.S.	A18NE (N)	717	3	333100 357100
138	Registered Landfill Sites Licence Holder: Caird Environmental (North West) Ltd Licence Reference: L49 (L48) Site Location: Dark Lane, Burton, Rossett, Wrexham, Clwyd Licence Easting: 333100 Licence Northing: 357295 Operator Location: As Site Address Authority: Environment Agency Wales, North Area Site Category: Landfill Max Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Record supersededSuperseded Dated: 1st November 1988 Preceded By: Not Given Licence: Superseded By: L56/A Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste Asbestos - Blue/White Contaminated Rubbish Empty Used Containers House. + Com. Untreated Waste Interceptor Pit Wastes Max.Waste Permitted By Licence(Stated) Non-Toxic Ind.Effluent Treat'T Sludge Paper Pulp Wastes Trans.From L39 =60fl Sewage Sludge/Pail Closet Contents Silt And Dredgings Slag Prohibited Waste Distillation Residues Fats, Waxes And Greases Notifiable Wastes Titanium From Ceramic Waste	A18NE (N)	909	3	333100 357295

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
138	Registered Landfill Sites Licence Holder: Caird Environmental (North West) Licence Reference: L56/A Site Location: Dark Lane, Burton, Rossett, Wrexham, Clwyd Licence Easting: 333100 Licence Northing: 357300 Operator Location: As Site Address Authority: Environment Agency Wales, North Area Site Category: Landfill Max Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Record supersededSuperseded Dated: 1st October 1990 Preceded By: L49 (L48) Licence: Superseded By: L84 Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Aerosol Waste Asbestos - Blue/White Contaminated Rubbish Empty Used Containers House. + Com. Untreated Waste Interceptor Pit Wastes Max.Waste Permitted By Licence(Stated) Non-Toxic Ind.Effluent Treat'T Sludge Paper Pulp Wastes Trans.From L39 Sewage Sludge/Pail Closet Contents Silt And Dredgings Slag Prohibited Waste: Distillation Residues Fats, Waxes And Greases Notifiable Wastes Titanium From Ceramic Waste	A18NE (N)	914	3	333100 357300
138	Registered Landfill Sites Licence Holder: Astbury Quarries Ltd Licence Reference: L39 Site Location: Dark Lane (Ext), Burton, Rossett, Wrexham, Clwyd Licence Easting: 333100 Licence Northing: 357300 Operator Location: As Site Address Authority: Environment Agency Wales, North 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: 1st July 1983 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the road within the address or location Boundary Accuracy: Not Applicable Authorised Waste: Builders Rubble China Clay Paper Material	A18NE (N)	914	3	333100 357300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
139	Registered Landfill Sites Licence Holder: Clwyd Waste Disposal Ltd Licence Reference: L13(i) Site Location: Dark Lane Landfill, Astbury'S Quarry, Rossett, Wrexham, Clwyd Licence Easting: 333005 Licence Northing: 357395 Operator Location: Knutsford Way, Sealand Industrial Estate, Chester, Cheshire Authority: Environment Agency Wales, North Area Site Category: Landfill Max Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st July 1988 Preceded By: L13 Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Asbestos - Blue/White Contaminated Rubbish Empty Used Containers House. + Com. Untreated Waste Interceptor Pit Wastes Max.Waste Permitted By Licence(Stated) Non-Toxic Ind.Effluent Treat'T Sludge Sewage Sludge/Pail Closet Contents Silt And Dredgings Slag Prohibited Waste: Distillation Residues Fats, Waxes And Greases Notifiable Wastes Titanium From Ceramic Waste	A23SE (N)	999	3	333005 357395
139	Registered Landfill Sites Licence Holder: The Caird Group Plc Licence Reference: L13 Site Location: Dark Lane Landfill, Rossett, Wrexham, Clwyd Licence Easting: 333000 Licence Northing: 357395 Operator Location: 33 Sekforde Street, LONDON, Greater London, EC1R 0HH Authority: Environment Agency Wales, North Area Site Category: Landfill Max Input Rate: Undefined Waste Source: No known restriction on source of waste Restrictions: Status: Record supersededSuperseded Dated: 1st July 1983 Preceded By: L13 Licence: Superseded By: L13(i) Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Inert Or Relatively Non-Polluting Mat. Prohibited Waste: Distillation Residues Fats, Waxes And Greases Notifiable Wastes Titanium From Ceramic Waste	A23SE (N)	999	3	333000 357395

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
140	Registered Waste Treatment or Disposal Sites Licence Holder: W H Chaloner & Sons Ltd Licence Reference: NOW-520-L (L86) Site Location: Miners Road, Llay Industrial Estate, Wrexham, Clwyd Operator Location: As Site Address Authority: Environment Agency Wales, North Area Site Category: Scrapyard Max Input Rate: Small (Equal to or greater than 10,000 and less than 25,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Operational as far as is knownOperational Dated: 20th July 1995 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 Batteries Max.Stor Elect'L Equip.(Not Transformer) Mstor Engines Max.Stor Ferrous Metal Other Max.Stor Ferrous Metal Swarf Max.Stor Machinery Max.Stor Non-Ferrous Metal Other Max.Stor Non-Ferrous Metal Swarf Max.Stor Vehicles Max.Stor Prohibited Waste Ammonia Asbestos Cadmium Compounds Carcinogenic/Mutagenic/Teratogenic Was Cyanide Compounds Elemental Sodium/Potassium Fluorine Cpds Liquid Waste N.O.S. Mercury Compounds Metal In Fine Powder Form Nitrate Cpds Organohalogen Compounds Organometallic Cmpds Organophosphorus Cmpds Organosilicon Cmpds Organosulphur Cmpds Pcbs/Pcts/Naphthalenes Percussive/Explosive/Similar Waste Pressurised/Liquified Gas Spec.Waste (Epa'90:S62/1996 Regs)N.O.S Sub'S Control. Radioactive Subs Act'60 Subs Deleterious To Groundwater Sulphide Compounds Waste In Drums Waste N.O.S. Water Soluble Waste (Except Coolant)	A12NE (W)	464	3	332415 356355

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Warwickshire Group	A13SW (NE)	0	1	332950 356345
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil and Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: <15 mg/kg	A13SE (E)	0	1	333000 356345
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil and Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: <15 mg/kg	A13SW (NE)	0	1	332950 356345
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil and Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SE (SE)	206	1	333124 356126
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil and Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 300 - 600 mg/kg Nickel Concentration: <15 mg/kg	A12SE (W)	378	1	332500 356345
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil and Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 300 - 600 mg/kg Nickel Concentration: 15 - 30 mg/kg	A17SE (NW)	576	1	332488 356821
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil and Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: <15 mg/kg	A17SE (NW)	711	1	332500 357000

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 and Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 300 - 600 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12SW (W)	849	1	332040 356178
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil and Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7NW (W)	858	1	332078 356000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil and Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: >1200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12SW (W)	878	1	332000 356345
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil and Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: >1200 mg/kg Nickel <15 mg/kg Concentration:	A12NW (W)	881	1	332000 356433
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil and Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel <15 mg/kg Concentration:	A19NW (NE)	911	1	333466 357153
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil and Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7SE (SW)	922	1	332335 355567

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 and Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 300 - 600 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7NW (W)	932	1	332000 356000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil and Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel <15 mg/kg Concentration:	A7NW (SW)	949	1	332172 355677
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil and Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A17NE (NW)	974	1	332295 357179
141	BGS Recorded Mineral Sites Site Name: Llay Main Colliery, No. 1 Shaft Location: Llay, Wrexham, Clwyd Source: British Geological Survey, National Geoscience Information Service Reference: 14066 Type: Underground Status: Ceased Operator: Individual'S Name Withheld Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	121	1	332790 356479
142	BGS Recorded Mineral Sites Site Name: Llay Main Colliery, No. 2 Shaft Location: Llay, Wrexham, Clwyd Source: British Geological Survey, National Geoscience Information Service Reference: 189414 Type: Underground Status: Ceased Operator: Individual'S Name Withheld Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	188	1	332710 356479
143	BGS Recorded Mineral Sites Site Name: Llay Main Colliery Tip Location: Llay, Wrexham, Clwyd Source: British Geological Survey, National Geoscience Information Service Reference: 14051 Type: Tip Status: Ceased Operator: Hanson Cement Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Coal Measures Group Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A12SE (SW)	430	1	332480 356150

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
144	BGS Recorded Mineral Sites Site Name: Bank Farm Location: Burton Rossett, Wrexham, Denbighshire Source: British Geological Survey, National Geoscience Information Service Reference: 4747 Type: Opencast Status: Ceased Operator: Redland Aggregates/Caird Environmental Operator Location: Not Supplied Periodic Type: Quaternary Geology: Glaciofluvial Sheet Deposits, Devensian (Wrexham Gravels) Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A18NE (N)	811	1	333130 357190
145	BGS Recorded Mineral Sites Site Name: Yr Ackery Sand Pit Location: Caergwrle, Wrexham, Clwyd Source: British Geological Survey, National Geoscience Information Service Reference: 138043 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: Glaciofluvial Sheet Deposits, Devensian Commodity: Sand Positional Accuracy: Located by supplier to within 10m	A19NW (NE)	867	1	333338 357176
146	BGS Recorded Mineral Sites Site Name: Llay Main Colliery Methane Plant Location: Llay, Wrexham, Clwyd Source: British Geological Survey, National Geoscience Information Service Reference: 14052 Type: Liquid or Gas Extraction Status: Active Operator: Individual's Name Withheld Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Abandoned Mine Methane Positional Accuracy: Located by supplier to within 10m	A12SW (W)	904	1	331980 356210
147	BGS Recorded Mineral Sites Site Name: Oak Cottage Location: Gresford, Wrexham, Clwyd Source: British Geological Survey, National Geoscience Information Service Reference: 138120 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: Glaciofluvial Sheet Deposits, Devensian Commodity: Sand Positional Accuracy: Located by supplier to within 10m	A9NE (E)	976	1	333966 356011
	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.	A13SW (NE)	0	7	332950 356345
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A13SW (NE)	0	-	332950 356345
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (NE)	0	1	332950 356345
	Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (NE)	0	1	332950 356345

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	3	1	332963 356399
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (NE)	0	1	332950 356345
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (NE)	0	1	332950 356345
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	62	1	332887 356250
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (NE)	0	1	332950 356345
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (NE)	0	1	332950 356345
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	206	1	333124 356126
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13SW (NE)	0	1	332950 356345
	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	A13SW (NE)	0	1	332950 356345

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
148	Contemporary Trade Directory Entries Name: Castle Tyres Ltd Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Tyre Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (W)	19	-	332860 356355
148	Contemporary Trade Directory Entries Name: Castle Retreads Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Tyre Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (W)	19	-	332860 356355
149	Contemporary Trade Directory Entries Name: Commercial Body Repairs Location: Unit 3, Pinfold Lane, Llay Industrial Estate, Llay, Wrexham, LL12 0PX Classification: Commercial Vehicle Bodybuilders & Repairers Status: Active Positional Accuracy: Automatically positioned to the address	A13SE (S)	33	-	332967 356286
150	Contemporary Trade Directory Entries Name: Mac Cartridges Location: Unit 11, Pinfold La, Llay Ind Est, Llay, Wrexham, Clwyd, LL12 0PX Classification: Plastics - Injection Moulding Status: Inactive Positional Accuracy: Manually positioned to the address or location	A13SE (SE)	43	-	333039 356266
150	Contemporary Trade Directory Entries Name: Uk Engineering Location: Unit 10-12, Pinfold Lane, Llay Industrial Estate, Llay, Wrexham, LL12 0PX Classification: Machine Shops Status: Active Positional Accuracy: Automatically positioned to the address	A13SE (SE)	46	-	333055 356277
150	Contemporary Trade Directory Entries Name: A G M Plastics Ltd Location: Unit 8, Pinfold Lane, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PX Classification: Machine Shops Status: Active Positional Accuracy: Automatically positioned to the address	A13SE (SE)	47	-	333026 356254
150	Contemporary Trade Directory Entries Name: Clwyd Industrial Cladding (Wrexham) Ltd Location: Pinfold Lane, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PX Classification: Cladding Suppliers & Installers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (SE)	77	-	333059 356237
150	Contemporary Trade Directory Entries Name: Mac Cartridges Ltd Location: Pinfold Lane, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PX Classification: Adhesives, Glues & Sealants Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (SE)	77	-	333059 356237
150	Contemporary Trade Directory Entries Name: Jones P & Son Location: Pinfold Lane, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PX Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (SE)	77	-	333059 356237
150	Contemporary Trade Directory Entries Name: Grosvenor Location: Pinfold Lane, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PX Classification: Horse Boxes & Transporting Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (SE)	77	-	333059 356237
151	Contemporary Trade Directory Entries Name: Magellan Metal Treatments Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Metal Finishing Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (NE)	44	-	333029 356396
152	Contemporary Trade Directory Entries Name: Cherrysource Ltd Location: Unit 7, Pinfold Lane, Llay Industrial Estate, Llay, Wrexham, LL12 0PX Classification: Rubber & Plastic Products - Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A13SE (SE)	64	-	333004 356235

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
153	Contemporary Trade Directory Entries Name: 2 Agriculture Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Pet Foods & Animal Feeds Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (NW)	72	-	332851 356465
154	Contemporary Trade Directory Entries Name: Independent Twine Manufacturing Co Ltd Location: Westbank Road, Llay Industrial Estate, Llay, WREXHAM, Clwyd, LL12 0PZ Classification: Ropes & Hawsers Status: Active Positional Accuracy: Automatically positioned to the address	A13SW (SW)	75	-	332891 356237
155	Contemporary Trade Directory Entries Name: Magellan Aerospace Location: Rackery Lane, Llay, Wrexham, Clwyd, LL12 0PB Classification: Precision Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (E)	96	-	333114 356394
156	Contemporary Trade Directory Entries Name: B M Autocare Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (W)	114	-	332766 356372
156	Contemporary Trade Directory Entries Name: Manton Hire & Sales Ltd Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Fork Lift Trucks Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (W)	145	-	332735 356377
156	Contemporary Trade Directory Entries Name: Manton Hire & Sales Ltd Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Fork Lift Trucks Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (W)	145	-	332735 356377
157	Contemporary Trade Directory Entries Name: Star County Textile Services Ltd Location: Aerial Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0TU Classification: Dry Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SW (S)	141	-	332949 356173
157	Contemporary Trade Directory Entries Name: Abberleigh Pool Care Location: Pinfold La, Llay Ind Est, Llay, Wrexham, Clwyd, LL12 0PX Classification: Swimming Pool Contractors, Repairers & Service Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A13SE (S)	142	-	332971 356163
158	Contemporary Trade Directory Entries Name: Active8 Ltd Location: Unit 1, Pinfold Lane, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PX Classification: Engineers - General Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (S)	156	-	333005 356143
158	Contemporary Trade Directory Entries Name: Torzo Ltd Location: Unit 1, Pinfold Lane, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PX Classification: Sports Equipment Manufacturers & Distributors Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (S)	156	-	333005 356143
158	Contemporary Trade Directory Entries Name: Appletree Motors Location: Unit 9, Aerial Road, Llay Industrial Estate, Llay, Wrexham, LL12 0TU Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (S)	161	-	333003 356138
158	Contemporary Trade Directory Entries Name: Wrexham Motortech Location: Unit 9, Aerial Road, Llay Industrial Estate, Llay, Wrexham, LL12 0TU Classification: Mot Testing Centres Status: Active Positional Accuracy: Automatically positioned to the address	A13SE (S)	161	-	333003 356138

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
158	Contemporary Trade Directory Entries Name: Engineering Power Services Location: Unit 7, Pinfold La, Llay Ind Est, Llay, Wrexham, Clwyd, LL12 0PX Classification: Engineering Services Status: Inactive Positional Accuracy: Manually positioned to the address or location	A13SE (S)	188	-	332970 356116
159	Contemporary Trade Directory Entries Name: Tyco Plastics Ltd Location: Aerial Rd, Llay Ind Est, Llay, Wrexham, Clwyd, LL12 0TU Classification: Polythene & Plastic Sheetting Supplies Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A13SW (S)	164	-	332874 356148
160	Contemporary Trade Directory Entries Name: Vinyl Gb Ltd Location: Unit 1 Prospect Estate, Llay Industrial Estate North, Llay, Wrexham, Clwyd, LL12 0PB Classification: PVC-U Products - Manufacturers & Suppliers Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (N)	178	-	332948 356575
161	Contemporary Trade Directory Entries Name: Jmk Location: Unit 1, Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Clothing Accessory Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (W)	191	-	332689 356382
161	Contemporary Trade Directory Entries Name: Moretube Engineering Ltd Location: 1a Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Machine Shops Status: Active Positional Accuracy: Manually positioned within the geographical locality	A13NW (W)	195	-	332685 356379
161	Contemporary Trade Directory Entries Name: D M H Tyres Ltd Location: Unit 1, Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (W)	196	-	332684 356381
161	Contemporary Trade Directory Entries Name: Commercial & Industrial Handling Ltd Location: Unit 1, Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Classification: Conveyors & Conveyor Belts Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (W)	196	-	332684 356381
161	Contemporary Trade Directory Entries Name: Prime Engineering Services Ltd Location: Unit 1, Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Sheet Metal Work Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (W)	201	-	332679 356382
161	Contemporary Trade Directory Entries Name: I P G Transport Location: Unit 2, Miners Rd, Llay Ind Est, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Road Haulage Services Status: Inactive Positional Accuracy: Manually positioned to the address or location	A13NW (W)	201	-	332679 356382
161	Contemporary Trade Directory Entries Name: Cadence Engineering Ltd Location: Unit 3, Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Enamelling Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (W)	211	-	332669 356382
161	Contemporary Trade Directory Entries Name: P P Autos Location: Unit 2, Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (W)	211	-	332669 356382

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
161	Contemporary Trade Directory Entries Name: M G S Technical Services Ltd Location: Unit 3, Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Classification: Engineers - General Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (W)	223	-	332657 356381
161	Contemporary Trade Directory Entries Name: The Gas Bottle Ltd Location: Unit 4, Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Gas Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (W)	232	-	332648 356382
161	Contemporary Trade Directory Entries Name: Skytech Precision Engineering Ltd Location: Unit 4, Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Classification: Precision Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (W)	233	-	332647 356381
161	Contemporary Trade Directory Entries Name: The Bed Factory Location: Unit 6, Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Bed & Mattress Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (W)	242	-	332638 356382
162	Contemporary Trade Directory Entries Name: Second Circle Furniture Recycling Centre Ltd Location: Aerial Road, Llay Industrial Estate, Llay, Wrexham, LL12 0TU Classification: Recycling Services Status: Active Positional Accuracy: Automatically positioned to the address	A13SW (S)	192	-	332928 356123
162	Contemporary Trade Directory Entries Name: Active 8 Ltd Location: Aerial Rd,Llay Ind Est, Llay, Wrexham, Clwyd, LL12 0TU Classification: Filtration Systems & Services Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A13SW (S)	200	-	332909 356112
163	Contemporary Trade Directory Entries Name: Carter & Haines Ltd Location: Suite 31 Llay Industrial Estate,Rackery Lane, Llay, Wrexham, Clwyd, LL12 0PB Classification: Car Dealers - Used Status: Active Positional Accuracy: Manually positioned to the address or location	A13NW (NW)	197	-	332796 356578
163	Contemporary Trade Directory Entries Name: Arvin Meritor Hvs Ltd Location: Rackery Lane, Llay, Wrexham, Clwyd, LL12 0PB Classification: Axle Supplies & Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (NW)	198	-	332794 356578
164	Contemporary Trade Directory Entries Name: Minuteman Press Location: Unit 6, Aerial Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0TU Classification: Printers Status: Active Positional Accuracy: Automatically positioned to the address	A13SE (S)	197	-	332964 356108
165	Contemporary Trade Directory Entries Name: Premire Mortars Ltd Location: Westbank Road,Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PZ Classification: Builders' Merchants Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SW (SW)	201	-	332743 356163
165	Contemporary Trade Directory Entries Name: Premier Mortars Location: Concrete Batching Plant, West Bank Road, Llay, LL12 0PZ Classification: Concrete & Mortar Ready Mixed Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SW (SW)	201	-	332743 356163

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
166	Contemporary Trade Directory Entries Name: I T M Company Ltd Location: Westbank Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PZ Classification: Ropes & Hawsers Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A13SW (SW)	215	-	332823 356104
166	Contemporary Trade Directory Entries Name: A & S Location: Unit 2, Westbank Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PZ Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SW (SW)	223	-	332811 356099
166	Contemporary Trade Directory Entries Name: John Roberts Motor Services Location: Unit 6-8, Westbank Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PZ Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A13SW (SW)	246	-	332771 356090
167	Contemporary Trade Directory Entries Name: Multi Factor Europe Ltd Location: Rackery La, Llay, Wrexham, Clwyd, LL12 0PB Classification: Filter Manufacturers & Suppliers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A13NW (N)	233	-	332850 356630
168	Contemporary Trade Directory Entries Name: The Tyre Factory Location: New Office, Miners Rd, Llay Indust Est, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Tyre Dealers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A13NW (W)	249	-	332632 356416
169	Contemporary Trade Directory Entries Name: Tyson Wreham Foods Ltd Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Classification: Frozen Food Processors & Distributors Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (NW)	250	-	332647 356488
169	Contemporary Trade Directory Entries Name: Plusfood Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Frozen Food Processors & Distributors Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (NW)	259	-	332638 356489
169	Contemporary Trade Directory Entries Name: Fribo Foods Ltd Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Frozen Food Processors & Distributors Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (NW)	259	-	332638 356489
169	Contemporary Trade Directory Entries Name: Plus Food Wrexham Ltd Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Frozen Food Processors & Distributors Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (NW)	259	-	332638 356489
170	Contemporary Trade Directory Entries Name: Multi-Filter Ltd Location: Harrison House, Llay Industrial Estate, Rackery Lane, Llay, Wrexham, Clwyd, LL12 0PB Classification: Filter Manufacturers & Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	255	-	332920 356653
171	Contemporary Trade Directory Entries Name: I & S Cars Location: Rackery Lane, Llay, Wrexham, Clwyd, LL12 0PB Classification: Car Dealers - Used Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A13NW (NW)	266	-	332766 356639

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
171	Contemporary Trade Directory Entries Name: I & S Cars Location: Unit B Schappe Building, Llay Industrial Estate, Rackery Lane, Llay, Wrexham, LL12 0PB Classification: Car Dealers - Used Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (NW)	266	-	332766 356639
171	Contemporary Trade Directory Entries Name: Tycon Automation Ltd Location: Unit I Llay Industrial Units, Llay Industrial Estate, Rackery Lane, Wrexham, LL12 0PB Classification: Electrical Engineers Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (NW)	288	-	332752 356657
172	Contemporary Trade Directory Entries Name: G T Auto Repairs Location: Llay Industrial Estate, Rackery Lane, Llay, Wrexham, Clwyd, LL12 0PB Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (NW)	275	-	332707 356613
172	Contemporary Trade Directory Entries Name: Alunox Advanced Tube Engineering Ltd Location: Unit C Schappe Building, Llay Industrial Estate, Rackery Lane, Llay, Wrexham, Clwyd, LL12 0PB Classification: Exhaust System Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (NW)	275	-	332707 356613
172	Contemporary Trade Directory Entries Name: A C M E Precision Engineering Ltd Location: Llay Industrial Estate, Rackery Lane, Llay, Wrexham, Clwyd, LL12 0PB Classification: Precision Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (NW)	275	-	332707 356613
172	Contemporary Trade Directory Entries Name: Alunox Welding Systems Ltd Location: Llay Industrial Estate, Rackery Lane, Llay, Wrexham, Clwyd, LL12 0PB Classification: Exhaust System Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (NW)	275	-	332707 356613
173	Contemporary Trade Directory Entries Name: Huws Gray Llay Location: Llay Road, Llay, Wrexham, Clwyd, LL12 0TL Classification: Builders' Merchants Status: Active Positional Accuracy: Automatically positioned to the address	A13SW (SW)	277	-	332659 356142
174	Contemporary Trade Directory Entries Name: Cyroblast Deflashing Uk Ltd Location: U2, B C Estate, Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Classification: Mould Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A12NE (W)	301	-	332578 356356
175	Contemporary Trade Directory Entries Name: Ecovyn Location: Unit 1 Prospect Estate, Miners Road, Llay, Wrexham, Clwyd, LL12 0PB Classification: Plastic Products - Manufacturers Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A12NE (W)	315	-	332566 356416
176	Contemporary Trade Directory Entries Name: A 2 Z Pest & Vermin Control Services Location: 28, First Avenue, Llay, WREXHAM, Clwyd, LL12 0TW Classification: Pest & Vermin Control Status: Active Positional Accuracy: Automatically positioned to the address	A8NE (S)	343	-	333048 355958
177	Contemporary Trade Directory Entries Name: Marshalls Location: Llay Road, Llay, Wrexham, Clwyd, LL12 0TL Classification: Concrete Products Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (SW)	344	-	332710 356011

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
178	Contemporary Trade Directory Entries Name: P R Pugh Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NE (W)	363	-	332518 356407
178	Contemporary Trade Directory Entries Name: Fast Rite Industrial Services Location: Unit 5, Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Blast Cleaning Equipment Manufacturers Status: Inactive Positional Accuracy: Automatically positioned in the proximity of the address	A12NE (W)	396	-	332487 356436
178	Contemporary Trade Directory Entries Name: Industrial Capacitors Ltd Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Electrical Goods Sales, Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NE (W)	423	-	332461 356453
179	Contemporary Trade Directory Entries Name: Blackbrook Motors Location: Gresford Road, Llay, Wrexham, Clwyd, LL12 0NW Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (E)	371	-	333398 356219
180	Contemporary Trade Directory Entries Name: Advanced Carpet Care Services Ltd Location: 4, Elmanoak Grove, Llay, Wrexham, Clwyd, LL12 0LZ Classification: Carpet, Curtain & Upholstery Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (E)	400	-	333411 356170
181	Contemporary Trade Directory Entries Name: G F A Location: 3, Walnut Grove, Llay, Wrexham, Clwyd, LL12 0NX Classification: Fireplaces & Mantelpieces Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (SE)	416	-	333369 356070
182	Contemporary Trade Directory Entries Name: W H Chaloner & Son Ltd Location: Miners Road, Llay Industrial Estate, Llay, WREXHAM, Clwyd, LL12 0PJ Classification: Scrap Metal Merchants Status: Active Positional Accuracy: Automatically positioned to the address	A12NE (W)	450	-	332430 356381
182	Contemporary Trade Directory Entries Name: E Thomas Location: Miners Rd, Llay Ind Est, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Joinery Manufacturers Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A12NE (W)	450	-	332430 356381
182	Contemporary Trade Directory Entries Name: Beltek Location: Miners Rd, Llay Ind Est, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Conveyors & Conveyor Belts Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A12NE (W)	450	-	332430 356381
183	Contemporary Trade Directory Entries Name: C C P Building Products Ltd Location: Llay rd, Llay, Wrexham, Clwyd, LL12 0TL Classification: Concrete Products Status: Active Positional Accuracy: Manually positioned within the geographical locality	A12SE (SW)	452	-	332522 356034
183	Contemporary Trade Directory Entries Name: Shire Garden Machinery Location: Unit 1, Carlton Garden Centre, Pinfold Lane, Llay, Wrexham, Clwyd, LL12 0TL Classification: Lawnmowers & Garden Machinery - Sales & Service Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A12SE (SW)	452	-	332522 356034
184	Contemporary Trade Directory Entries Name: Oaks View Car Sales Location: Gresford Rd, Llay, Wrexham, Clwyd, LL12 0NW Classification: Car Dealers - Used Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A14SW (E)	464	-	333486 356190

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
185	Contemporary Trade Directory Entries Name: Wrexham Plastics Co Ltd Location: Trevor House, Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Classification: Plastic Products - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NE (W)	466	-	332420 356467
185	Contemporary Trade Directory Entries Name: Sita Uk Ltd Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Waste Disposal Services Status: Active Positional Accuracy: Automatically positioned to the address	A12NE (W)	486	-	332397 356452
186	Contemporary Trade Directory Entries Name: Mectec Location: 18 Miners Park, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Engineers - General Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A12NE (W)	516	-	332364 356387
186	Contemporary Trade Directory Entries Name: Contra-Pak Location: Miners Rd, Llay Ind Est, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Packaging & Wrapping Equipment & Supplies Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A12NE (W)	519	-	332362 356422
186	Contemporary Trade Directory Entries Name: Edge Transport Ltd Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NE (W)	554	-	332327 356397
186	Contemporary Trade Directory Entries Name: Abba Catering Engineers Location: 15-20 Miners Rd, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Catering Equipment Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A12NE (W)	580	-	332301 356424
187	Contemporary Trade Directory Entries Name: Commercial & Industrial Gauges Ltd Location: Llay New Road, Llay, WREXHAM, Clwyd, LL12 0PT Classification: Gauge Manufacturers & Distributors Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (S)	545	-	332967 355756
187	Contemporary Trade Directory Entries Name: Gauge Developments Ltd Location: Llay New Rd, Llay, Wrexham, Clwyd, LL12 0PT Classification: Gauge Manufacturers & Distributors Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A8NE (S)	549	-	333011 355750
188	Contemporary Trade Directory Entries Name: Sharp Location: Sharp House Davy Way, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PG Classification: Precision Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A17SE (NW)	569	-	332411 356721
189	Contemporary Trade Directory Entries Name: C D R Ltd Location: Davy Way, Llay Indust Est, Llay, Wrexham, Clwyd, LL12 0PG Classification: Wood Products, Except Furniture - Manufacturers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A12NE (NW)	573	-	332364 356648
190	Contemporary Trade Directory Entries Name: Sharp Manufacturing Location: Sharp House, Davy Way, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PG Classification: Electrical Goods Sales, Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address	A17SE (NW)	599	-	332468 356833

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
191	Contemporary Trade Directory Entries Name: R R C Crane Hire Ltd Location: Unit 31, Miners Road, Llay, LL12 0PJ Classification: Crane Hire, Sales & Service Status: Active Positional Accuracy: Automatically positioned to the address	A12NW (W)	605	-	332275 356395
192	Contemporary Trade Directory Entries Name: Alphawrap Location: Unit 13, Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Printers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	621	-	332263 356457
192	Contemporary Trade Directory Entries Name: Celtic Leather Crafts Location: Unit 18, Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Leather Garments & Products Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	625	-	332264 356498
192	Contemporary Trade Directory Entries Name: Hillcrest Furnishings Location: Unit 18, Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Furniture Manufacturers - Home & Office Status: Inactive Positional Accuracy: Manually positioned to the address or location	A12NW (W)	625	-	332264 356498
192	Contemporary Trade Directory Entries Name: O T S Uk Location: Unit 14, Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Classification: Catering Equipment - Servicing & Repairs Status: Active Positional Accuracy: Automatically positioned to the address	A12NW (W)	629	-	332254 356455
192	Contemporary Trade Directory Entries Name: Techlab Services Location: Unit 15, Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Laboratory Equipment, Instruments & Supplies Status: Active Positional Accuracy: Automatically positioned to the address	A12NW (W)	639	-	332244 356456
192	Contemporary Trade Directory Entries Name: Arco Scientific (Uk) Ltd Location: Unit 15, Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Laboratory Equipment, Instruments & Supplies Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	639	-	332244 356456
192	Contemporary Trade Directory Entries Name: Abba 2000 Location: Unit 15, Miners Rd, Llay Ind Est, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Catering Equipment - Servicing & Repairs Status: Inactive Positional Accuracy: Manually positioned to the address or location	A12NW (W)	639	-	332244 356456
192	Contemporary Trade Directory Entries Name: Arco Scientific (Uk) Ltd Location: Unit 15, Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Scientific Apparatus & Instruments - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	639	-	332244 356456
192	Contemporary Trade Directory Entries Name: Arco Scientific Location: Unit 15, Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Scientific Apparatus & Instruments - Manufacturers Status: Inactive Positional Accuracy: Manually positioned to the address or location	A12NW (W)	639	-	332244 356456
192	Contemporary Trade Directory Entries Name: M & P Enterprises Group Location: Unit 22, Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Car Paint & Lacquer Manufacturers & Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	651	-	332238 356503
192	Contemporary Trade Directory Entries Name: Wilson Auto Repairs Location: Llay, LL12 0PJ Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A12NW (W)	653	-	332236 356503

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
193	Contemporary Trade Directory Entries Name: N P C Commercials Ltd Location: Unit 32, Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Commercial Vehicle Servicing, Repairs, Parts & Accessories Status: Active Positional Accuracy: Automatically positioned to the address	A12NW (W)	661	-	332220 356396
194	Contemporary Trade Directory Entries Name: Willow Fresh Foods Location: Davy Way, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PG Classification: Frozen Food Processors & Distributors Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SW (W)	675	-	332204 356330
195	Contemporary Trade Directory Entries Name: Dustbusters Xtreme Cleaning Services Location: 30, Watts Dyke, Llay, Wrexham, LL12 0RA Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	684	-	332859 355628
196	Contemporary Trade Directory Entries Name: Scotair H V A C Location: Davy Way, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PG Classification: Air Conditioning & Refrigeration Contractors Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A12NW (W)	691	-	332216 356590
196	Contemporary Trade Directory Entries Name: Magellan Location: Davy Way, Llay Industrial Estate, Llay, WREXHAM, Clwyd, LL12 0PG Classification: Sheet Metal Work Status: Active Positional Accuracy: Manually positioned within the geographical locality	A12NW (W)	691	-	332216 356590
196	Contemporary Trade Directory Entries Name: D H D Engineering Ltd Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Mechanical Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	692	-	332216 356590
196	Contemporary Trade Directory Entries Name: Scottaire Location: Davy Way, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PG Classification: Air Conditioning Equipment & Systems Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	692	-	332216 356590
197	Contemporary Trade Directory Entries Name: Legacy Auto Sales Location: Gresford Rd, Llay, Wrexham, Clwyd, LL12 0NW Classification: Car Dealers - Used Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A14SE (SE)	725	-	333697 356015
198	Contemporary Trade Directory Entries Name: Hayakawa Location: Unit 5, Davy Way, Llay, LL12 0PG Classification: Cable & Wire Equipment Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A12NW (W)	728	-	332158 356487
198	Contemporary Trade Directory Entries Name: Clwyd Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Fuel Injection Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	740	-	332143 356457
199	Contemporary Trade Directory Entries Name: The Unit Location: Unit 5, 6, Davy Way, Llay Industrial Estate, Llay, Wrexham, LL12 0PG Classification: Car Customisation & Conversion Specialists Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	738	-	332160 356560
199	Contemporary Trade Directory Entries Name: A G M Plastics Ltd Location: Davy Way, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PG Classification: Plastics - Machinery & Equipment Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	738	-	332162 356564

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
199	Contemporary Trade Directory Entries Name: Cherrysource Location: Unit 2, 6, Davy Way, Llay Industrial Estate, Llay, Wrexham, LL12 0PG Classification: Rubber & Plastic Products - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	754	-	332141 356543
199	Contemporary Trade Directory Entries Name: Fry Fresh Ltd Location: 6 Davy Way, Llay Ind Est, Llay, Wrexham, Clwyd, LL12 0PG Classification: Oil Recycling & Disposal Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	757	-	332137 356539
199	Contemporary Trade Directory Entries Name: A M P Engineering Solutions Ltd Location: Unit B, Davy Way, Llay, LL12 0PG Classification: Engineers - General Status: Active Positional Accuracy: Automatically positioned to the address	A12NW (W)	767	-	332132 356566
199	Contemporary Trade Directory Entries Name: Centaur Products Ltd Location: Unit B, Davy Way, Llay, LL12 0PG Classification: Cleaning Materials & Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	767	-	332132 356566
200	Contemporary Trade Directory Entries Name: Re & Sons Sollifeul Merchants Location: Unit 1a, The Warren Workshops, Miners Park, Llay Industrial Estate, Llay, Wrexham, LL12 0PD Classification: Coal & Smokeless Fuel Merchants & Distributors Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SW (W)	770	-	332120 356173
200	Contemporary Trade Directory Entries Name: Griffiths Motors Location: Unit 5, The Warren Workshops, Miners Park, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PD Classification: Garage Services Status: Inactive Positional Accuracy: Manually positioned to the address or location	A12SW (W)	780	-	332114 356155
200	Contemporary Trade Directory Entries Name: S & D Cleaning Services Location: Unit 6, The Warren Workshops, Miners Park, Llay Industrial Estate, Llay, Wrexham, LL12 0PD Classification: Cleaning Services - Commercial Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SW (W)	786	-	332108 356150
201	Contemporary Trade Directory Entries Name: Marlin Industries Location: Davy Way, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PG Classification: Wood Products, Except Furniture - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	776	-	332138 356625
201	Contemporary Trade Directory Entries Name: Elsteel Uk Ltd Location: Davy Way, Llay Industrial Estate, Llay, WREXHAM, Clwyd, LL12 0PG Classification: Electronic Component Manufacturers & Distributors Status: Active Positional Accuracy: Automatically positioned to the address	A12NW (W)	801	-	332110 356617
201	Contemporary Trade Directory Entries Name: O & S Electronic Services Ltd Location: Davy Way, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PG Classification: Electronic Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	807	-	332100 356607
201	Contemporary Trade Directory Entries Name: Revalco Uk Location: Davy Way, Llay Industrial Estate, Llay, Wrexham, LL12 0PG Classification: Electricity Generating & Distributing Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	810	-	332103 356626

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
202	Contemporary Trade Directory Entries Name: J C Sherlock Location: 1-2, Miners Park, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PQ Classification: Road Haulage Services Status: Inactive Positional Accuracy: Manually positioned to the address or location	A12SW (W)	783	-	332102 356212
203	Contemporary Trade Directory Entries Name: Car Chemist Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SW (W)	786	-	332103 356179
203	Contemporary Trade Directory Entries Name: Merlins Resprays Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Commercial Vehicle Bodybuilders & Repairers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SW (W)	833	-	332055 356179
203	Contemporary Trade Directory Entries Name: Hydrex Location: Unit 18, Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Classification: Hydraulic Engineers Status: Active Positional Accuracy: Automatically positioned to the address	A12SW (W)	837	-	332049 356198
204	Contemporary Trade Directory Entries Name: Premier Profiling North Wales Ltd Location: Unit 9, Miners Park, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PQ Classification: Sheet Metal Work Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SW (W)	788	-	332091 356297
204	Contemporary Trade Directory Entries Name: Drive Products Location: Unit 9, Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ Classification: Precision Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SW (W)	788	-	332091 356297
204	Contemporary Trade Directory Entries Name: M A F Engineering Uk Ltd Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Classification: Mechanical Engineers Status: Active Positional Accuracy: Automatically positioned to the address	A12SW (W)	799	-	332079 356279
205	Contemporary Trade Directory Entries Name: R A & C E Platt Ltd Location: Miners Road, Llay Industrial Estate, Llay, WREXHAM, Clwyd, LL12 0PJ Classification: Wood Recycling Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	796	-	332084 356384
206	Contemporary Trade Directory Entries Name: S Hinchliffe Services Ltd Location: Housing Maintenance Department, Ninth Avenue, Llay, Wrexham, LL12 0SF Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A9SW (SE)	847	-	333465 355583
207	Contemporary Trade Directory Entries Name: Shine'N'Sparkle Domestic Cleaning Services Location: 27, Nant y Gaer Road, Llay, Wrexham, Clwyd, LL12 0SH Classification: Cleaning Services - Domestic Status: Active Positional Accuracy: Automatically positioned to the address	A9SW (SE)	886	-	333524 355575
207	Contemporary Trade Directory Entries Name: Clearol Pest Control Location: 29, Nant y Gaer Road, Llay, Wrexham, Clwyd, LL12 0SH Classification: Pest & Vermin Control Status: Active Positional Accuracy: Automatically positioned to the address	A9SW (SE)	903	-	333538 355565
208	Contemporary Trade Directory Entries Name: Cantium Location: 77, Watts Dyke, Llay, Wrexham, Clwyd, LL12 0RL Classification: Electrical Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	905	-	332954 355396

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
209	Contemporary Trade Directory Entries Name: Checkpoint Specialist Cars Location: Llay Garage, Shones Lane, Llay, Wrexham, Clwyd, LL12 0PL Classification: Car Dealers Status: Active Positional Accuracy: Manually positioned to the address or location	A9SW (S)	951	-	333316 355398
210	Contemporary Trade Directory Entries Name: Waste Recycling Group Location: Dark La, Burton/Rossett, Wrexham, Clwyd, LL12 0AE Classification: Waste Disposal Services Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A19NW (NE)	952	-	333530 357158
211	Fuel Station Entries Name: Black Brook Motors Location: B5373, Llay, Wrexham, Wrexham, LL12 0NW Brand: Obsolete Premises Type: Not Applicable Status: Obsolete Positional Accuracy: Automatically positioned to the address	A14SW (E)	371	-	333398 356219
212	Fuel Station Entries Name: Llay Garage Location: Shones Lane Tenth Avenue, Llay, Wrexham, Wrexham, LL12 0PL Brand: Texaco Premises Type: Not Applicable Status: Obsolete Positional Accuracy: Automatically positioned to the address	A8SE (S)	740	-	333139 355570
213	Points of Interest - Commercial Services Name: Magellan Aerospace Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Category: Construction Services Class Code: Metalworkers Including Blacksmiths Positional Accuracy: Positioned to address or location	A13NE (NE)	44	8	333029 356396
214	Points of Interest - Commercial Services Name: B M Autocare Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NW (W)	134	8	332745 356361
214	Points of Interest - Commercial Services Name: D M H Tyres Ltd Location: Unit 1 Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NW (W)	201	8	332679 356382
214	Points of Interest - Commercial Services Name: Prime Engineering Services Ltd Location: Unit 1 Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Category: Construction Services Class Code: Metalworkers Including Blacksmiths Positional Accuracy: Positioned to address or location	A13NW (W)	201	8	332679 356382
214	Points of Interest - Commercial Services Name: I P G Transport Location: Unit 2, Miners Rd, Llay Ind Est, Llay, Wrexham, Clwyd, LL12 0PJ Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A13NW (W)	201	8	332679 356382
214	Points of Interest - Commercial Services Name: P P Autos Location: 2 Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NW (W)	211	8	332669 356382
214	Points of Interest - Commercial Services Name: J C Sherlock Ltd Location: Unit 2 Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A13NW (W)	211	8	332669 356382

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
214	Points of Interest - Commercial Services Name: G T Auto Repairs Location: Unit 3 Llay Industrial Estate, Rackery Lane, Llay, Wrexham, LL12 0PB Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NW (W)	222	8	332658 356382
215	Points of Interest - Commercial Services Name: Wrexham Motortech Location: Unit 9 Aerial Road, Llay Industrial Estate, Llay, Wrexham, LL12 0TU Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13SE (S)	156	8	333005 356143
215	Points of Interest - Commercial Services Name: A & S Location: Unit 2 Westbank Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13SW (S)	170	8	332947 356142
215	Points of Interest - Commercial Services Name: Second Circle Furniture Recycling Centre Ltd Location: Aerial Road, Llay Industrial Estate, Llay, Wrexham, LL12 0TU Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A13SW (S)	193	8	332928 356122
216	Points of Interest - Commercial Services Name: A & S Location: 2 Westbank Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13SW (SW)	222	8	332812 356100
216	Points of Interest - Commercial Services Name: Oasis Auto Centre Location: Unit 4 Westbank Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13SW (SW)	234	8	332792 356094
216	Points of Interest - Commercial Services Name: Oasis Auto Centre Location: Unit 4 Westbank Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13SW (SW)	234	8	332792 356094
216	Points of Interest - Commercial Services Name: John Roberts Location: Unit 6/7 Westbank Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13SW (SW)	247	8	332774 356089
216	Points of Interest - Commercial Services Name: John Roberts Motor Services Location: Unit 6-8 Westbank Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13SW (SW)	247	8	332773 356088
217	Points of Interest - Commercial Services Name: A 2 Z Pest & Vermin Control Location: 28 First Avenue, Llay, Wrexham, LL12 0TW Category: Contract Services Class Code: Pest and Vermin Control Positional Accuracy: Positioned to address or location	A8NE (S)	343	8	333048 355958
217	Points of Interest - Commercial Services Name: A 2 Z Pest & Vermin Control Services Location: 28 First Avenue, Llay, Wrexham, LL12 0TW Category: Contract Services Class Code: Pest and Vermin Control Positional Accuracy: Positioned to address or location	A8NE (S)	344	8	333048 355957
218	Points of Interest - Commercial Services Name: Blackbrook Motors Location: Gresford Road, Llay, Wrexham, LL12 0NW Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14SW (E)	371	8	333398 356218

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
219	Points of Interest - Commercial Services Name: W H Challoner & Sons Ltd Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A12NE (W)	450	8	332430 356381
219	Points of Interest - Commercial Services Name: W H Chaloner & Son Ltd Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A12NE (W)	451	8	332429 356380
219	Points of Interest - Commercial Services Name: SITA UK Ltd Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A12NE (W)	486	8	332397 356451
220	Points of Interest - Commercial Services Name: Edge Transport Ltd Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A12NE (W)	554	8	332327 356397
220	Points of Interest - Commercial Services Name: Ptr Services Location: Unit 32 Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A12NW (W)	612	8	332269 356398
221	Points of Interest - Commercial Services Name: Car Wash Franchising Ltd Location: Market Square, Fifth Avenue, Llay, Wrexham, LL12 0SA Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A9NW (SE)	611	8	333370 355804
222	Points of Interest - Commercial Services Name: 1 4 U Windscreens Location: Unit 21 Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NW (W)	653	8	332235 356495
222	Points of Interest - Commercial Services Name: Wilson Auto Repairs Location: Unit 22, Miners Road, Llay, LL12 0PJ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NW (W)	654	8	332235 356502
223	Points of Interest - Commercial Services Name: N P C Commercials Ltd Location: Unit 32 Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NW (W)	661	8	332219 356396
224	Points of Interest - Commercial Services Name: The Unit Location: Unit 5 6 Davy Way, Llay Industrial Estate, Llay, Wrexham, LL12 0PG Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NW (W)	739	8	332159 356559
225	Points of Interest - Commercial Services Name: Griffiths Motors Location: Unit 5 The Warren Workshops Miners Park, Llay Industrial Estate, Llay, Wrexham, LL12 0PD Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SW (W)	780	8	332114 356155

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
225	Points of Interest - Commercial Services Name: Griffiths Motors Location: Unit 5 The Warren Workshops Miners Park, Llay Industrial Estate, Llay, Wrexham, LL12 0PD Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SW (W)	780	8	332114 356155
226	Points of Interest - Commercial Services Name: Premier Profiling North Wales Ltd Location: Unit 9 Miners Park, Llay Industrial Estate, Llay, Wrexham, LL12 0PQ Category: Construction Services Class Code: Metalworkers Including Blacksmiths Positional Accuracy: Positioned to address or location	A12SW (W)	800	8	332079 356279
227	Points of Interest - Commercial Services Name: Clearol Pest Control Location: 29 Nant y Gaer Road, Llay, Wrexham, LL12 0SH Category: Contract Services Class Code: Pest and Vermin Control Positional Accuracy: Positioned to address or location	A9SW (SE)	902	8	333537 355565
227	Points of Interest - Commercial Services Name: Clearol Pest Control Location: 29 Nant y Gaer Road, Llay, Wrexham, LL12 0SH Category: Contract Services Class Code: Pest and Vermin Control Positional Accuracy: Positioned to address or location	A9SW (SE)	903	8	333538 355565
228	Points of Interest - Manufacturing and Production Name: Tank Location: LL12 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13NW (NW)	30	8	332901 356429
228	Points of Interest - Manufacturing and Production Name: Tanks Location: LL12 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13NW (NW)	33	8	332892 356432
228	Points of Interest - Manufacturing and Production Name: Tank Location: LL12 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13NW (NW)	37	8	332911 356435
228	Points of Interest - Manufacturing and Production Name: Tank Location: LL12 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13NW (NW)	37	8	332902 356436
228	Points of Interest - Manufacturing and Production Name: Tank Location: LL12 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13NW (NW)	38	8	332888 356437
228	Points of Interest - Manufacturing and Production Name: Tank Location: LL12 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13NW (NW)	38	8	332893 356437
228	Points of Interest - Manufacturing and Production Name: Tank Location: LL12 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13NW (NW)	39	8	332883 356438
228	Points of Interest - Manufacturing and Production Name: Tank Location: LL12 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13NW (NW)	43	8	332889 356442

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
228	Points of Interest - Manufacturing and Production Name: Tank Location: LL12 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13NW (NW)	43	8	332894 356442
228	Points of Interest - Manufacturing and Production Name: Tank Location: LL12 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13NW (NW)	44	8	332883 356443
228	Points of Interest - Manufacturing and Production Name: Tank Location: LL12 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13NW (NW)	46	8	332904 356445
228	Points of Interest - Manufacturing and Production Name: Tank Location: LL12 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13NW (N)	47	8	332912 356445
229	Points of Interest - Manufacturing and Production Name: Shaft Location: LL12 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A13NW (NW)	127	8	332779 356476
229	Points of Interest - Manufacturing and Production Name: Shaft Location: LL12 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A13NW (NW)	174	8	332726 356480
230	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SW (SW)	219	8	332720 356160
230	Points of Interest - Manufacturing and Production Name: Wks Location: LL12 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SW (SW)	226	8	332715 356155
231	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SW (SW)	337	8	332632 356082
231	Points of Interest - Manufacturing and Production Name: Works Location: LL12 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12SE (SW)	347	8	332622 356078
232	Points of Interest - Manufacturing and Production Name: Llay Industrial Estate Location: LL12 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A12NE (NW)	440	8	332505 356629
233	Points of Interest - Manufacturing and Production Name: Llay Industrial Estate Location: LL12 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	474	8	332411 356229

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
234	Points of Interest - Manufacturing and Production Name: Factory Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A8NW (S)	554	8	332949 355749
235	Points of Interest - Manufacturing and Production Name: Sand Pit Location: LL12 Category: Extractive Industries Class Code: Sand, Gravel and Clay Extraction and Merchants Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	630	8	332988 357026
235	Points of Interest - Manufacturing and Production Name: Sand Pit Location: LL12 Category: Extractive Industries Class Code: Sand, Gravel and Clay Extraction and Merchants Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	641	8	333044 357032
236	Points of Interest - Manufacturing and Production Name: Sand Pit Location: LL12 Category: Extractive Industries Class Code: Sand, Gravel and Clay Extraction and Merchants Positional Accuracy: Positioned to an adjacent address or location	A18SE (NE)	653	8	333251 356981
237	Points of Interest - Manufacturing and Production Name: Tank Location: LL12 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	670	8	332589 355707
238	Points of Interest - Manufacturing and Production Name: Sand Pit Location: LL12 Category: Extractive Industries Class Code: Sand, Gravel and Clay Extraction and Merchants Positional Accuracy: Positioned to an adjacent address or location	A18NE (NE)	802	8	333283 357130
239	Points of Interest - Manufacturing and Production Name: The Warren Workshops Location: LL12 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	827	8	332065 356161
240	Points of Interest - Public Infrastructure Name: S I T A Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A12NE (W)	486	8	332397 356452
240	Points of Interest - Public Infrastructure Name: SITA UK Ltd Location: Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A12NE (W)	486	8	332397 356452
241	Points of Interest - Public Infrastructure Name: Refuse Tip Location: LL12 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	822	8	333076 357211
242	Points of Interest - Public Infrastructure Name: Sewage Pumping Station Location: LL12 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A3NE (S)	990	8	333193 355326
243	Points of Interest - Recreational and Environmental Name: Play Area Location: Shone'S Lane, LL12 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A8SE (S)	794	8	333269 355548

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
243	Points of Interest - Recreational and Environmental Name: Play Area Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8SE (S)	797	8	333259 355541

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
244	Ancient Woodland Name: Not Supplied Reference: 33503 Area(m²): 37962.8 Type: Ancient and Semi-Natural Woodland	A13SE (SE)	242	2	333159 356107
245	Ancient Woodland Name: Not Supplied Reference: 33500 Area(m²): 37892.06 Type: Ancient and Semi-Natural Woodland	A9NE (SE)	850	2	333664 355748
246	Nitrate Vulnerable Zones Name: Pulford Brook Nvz Description: Surface Water Source: Environment Agency, Head Office	A13NE (NE)	130	9	333100 356450
247	Nitrate Vulnerable Zones Name: Not Supplied Description: Surface Water Source: Natural Resources Wales	A13NE (E)	142	2	333162 356407

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Flintshire Council - Environmental Health Department Wrexham County Borough Council - Public Protection Department Chester City Council (now part of Cheshire West and Chester Council) - Environmental Health Department Natural Resources Wales Cheshire West and Chester Council - Environmental Health Department	April 2014 April 2016 August 2008 June 2020 November 2013	Annual Rolling Update Annually Not Applicable Annually Annually
Discharge Consents Environment Agency - Welsh Region Natural Resources Wales	August 2014 July 2020	Quarterly Quarterly
Enforcement and Prohibition Notices Environment Agency - North West Region Environment Agency - Welsh Region	March 2013 March 2013	Annual Rolling Update Annual Rolling Update
Integrated Pollution Controls Environment Agency - North West Region Environment Agency - Welsh Region	October 2008 October 2008	Variable Variable
Integrated Pollution Prevention And Control Environment Agency - North West Region Environment Agency - Welsh Region Natural Resources Wales	July 2020 July 2020 July 2020	Quarterly Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control Wrexham County Borough Council - Environmental Health Department Flintshire Council - Environmental Health Department Chester City Council (now part of Cheshire West and Chester Council) - Environmental Health Department Cheshire West and Chester Council - Environmental Health Department	April 2014 April 2016 December 2008 July 2015	Variable Variable Not Applicable Variable
Local Authority Pollution Prevention and Controls Wrexham County Borough Council - Environmental Health Department Flintshire Council - Environmental Health Department Chester City Council (now part of Cheshire West and Chester Council) - Environmental Health Department Cheshire West and Chester Council - Environmental Health Department	April 2014 April 2016 December 2008 July 2015	Annual Rolling Update Annual Rolling Update Not Applicable Annually
Local Authority Pollution Prevention and Control Enforcements Wrexham County Borough Council - Environmental Health Department Flintshire Council - Environmental Health Department Chester City Council (now part of Cheshire West and Chester Council) - Environmental Health Department Cheshire West and Chester Council - Environmental Health Department	April 2014 April 2016 December 2008 July 2015	Variable Variable Not Applicable Variable
Nearest Surface Water Feature Ordnance Survey	June 2020	
Pollution Incidents to Controlled Waters Environment Agency - Welsh Region	December 1998	Not Applicable
Prosecutions Relating to Authorised Processes Environment Agency - North West Region Environment Agency - Welsh Region Natural Resources Wales	March 2013 March 2013 March 2013	Annual Rolling Update Annual Rolling Update Annual Rolling Update
Prosecutions Relating to Controlled Waters Environment Agency - North West Region Environment Agency - Welsh Region Natural Resources Wales	March 2013 March 2013 March 2013	Annual Rolling Update Annual Rolling Update Annual Rolling Update
Registered Radioactive Substances Natural Resources Wales Environment Agency - North West Region Environment Agency - Welsh Region	January 2015 June 2016 June 2016	Annually

Agency & Hydrological	Version	Update Cycle
Substantiated Pollution Incident Register Environment Agency - North West Region - South Area Environment Agency Wales - North Area Natural Resources Wales	July 2020 July 2020 July 2020	Quarterly Quarterly Quarterly
Water Abstractions Environment Agency - Welsh Region Natural Resources Wales	July 2020 July 2020	Quarterly Quarterly
Water Industry Act Referrals Natural Resources Wales Environment Agency - North West Region Environment Agency - Welsh Region	July 2020 October 2017 October 2017	Quarterly Quarterly Quarterly
Groundwater Vulnerability Map Natural Resources Wales	June 2018	As notified
Bedrock Aquifer Designations Natural Resources Wales	January 2018	Annually
Superficial Aquifer Designations Natural Resources Wales	January 2018	Annually
Source Protection Zones Natural Resources Wales Environment Agency - Head Office	November 2016 October 2019	Annual Rolling Update Quarterly
Extreme Flooding from Rivers or Sea without Defences Natural Resources Wales	August 2019	Quarterly
Flooding from Rivers or Sea without Defences Natural Resources Wales	May 2020	Quarterly
Areas Benefiting from Flood Defences Natural Resources Wales	November 2019	Quarterly
Flood Water Storage Areas Natural Resources Wales	August 2019	Quarterly
Flood Defences Natural Resources Wales	November 2019	Quarterly
OS Water Network Lines Ordnance Survey	June 2020	Quarterly
Surface Water 1 in 30 year Flood Extent Natural Resources Wales	October 2013	Annually
Surface Water 1 in 100 year Flood Extent Natural Resources Wales	October 2013	Annually
Surface Water 1 in 1000 year Flood Extent Natural Resources Wales	October 2013	Annually
Surface Water Suitability Natural Resources Wales	October 2013	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	Annually

Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites Natural Resources Wales	July 2017	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - North West Region Environment Agency - Welsh Region	October 2008 October 2008	Not Applicable Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - North West Region - South Area Environment Agency Wales - North Area Natural Resources Wales	July 2020 July 2020 July 2020	Quarterly Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency - North West Region - South Area Environment Agency Wales - North Area Natural Resources Wales	July 2020 July 2020 July 2020	Quarterly Quarterly Quarterly
Local Authority Landfill Coverage Cheshire County Council (now part of Cheshire East Council) - Environmental Planning Department Chester City Council (now part of Cheshire West and Chester Council) - Environmental Health Department Flintshire Council - Environmental Health Department Wrexham County Borough Council	May 2000 May 2000 May 2000 May 2000	Not Applicable Not Applicable Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Cheshire County Council (now part of Cheshire East Council) - Environmental Planning Department Wrexham County Borough Council Chester City Council (now part of Cheshire West and Chester Council) - Environmental Health Department Flintshire Council - Environmental Health Department	February 2005 June 2003 May 2000 May 2000	Not Applicable Not Applicable Not Applicable Not Applicable
Potentially Infilled Land (Non-Water) Landmark Information Group Limited	December 1999	Not Applicable
Potentially Infilled Land (Water) Landmark Information Group Limited	December 1999	Not Applicable
Registered Landfill Sites Environment Agency - North West Region - South Area Environment Agency Wales - North Area	March 2003 March 2003	Not Applicable Not Applicable
Registered Waste Transfer Sites Environment Agency - North West Region - South Area Environment Agency Wales - North Area	March 2003 March 2003	Not Applicable Not Applicable
Registered Waste Treatment or Disposal Sites Environment Agency - North West Region - South Area Environment Agency Wales - North Area	March 2003 March 2003	Not Applicable Not Applicable

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	April 2018	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements Cheshire West and Chester Council - Planning Department Wrexham County Borough Council - Planning Department Flintshire Council Cheshire County Council (now part of Cheshire East Council) - Planning Department Chester City Council (now part of Cheshire West and Chester Council)	April 2016 February 2016 January 2016 July 2008 October 2008	Variable Variable Variable Annual Rolling Update Not Applicable
Planning Hazardous Substance Consents Cheshire West and Chester Council - Planning Department Wrexham County Borough Council - Planning Department Flintshire Council Cheshire County Council (now part of Cheshire East Council) - Planning Department Chester City Council (now part of Cheshire West and Chester Council)	April 2016 February 2016 January 2016 July 2008 October 2008	Variable Variable Variable Annual Rolling Update Not Applicable
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	October 2015	Annually
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	June 2020	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	Annual Rolling Update
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	Annually

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	July 2020	Quarterly
Fuel Station Entries Catalist Ltd - Experian	June 2020	Quarterly
Gas Pipelines National Grid	July 2014	
Points of Interest - Commercial Services PointX	September 2020	Quarterly
Points of Interest - Education and Health PointX	September 2020	Quarterly
Points of Interest - Manufacturing and Production PointX	September 2020	Quarterly
Points of Interest - Public Infrastructure PointX	September 2020	Quarterly
Points of Interest - Recreational and Environmental PointX	September 2020	Quarterly
Underground Electrical Cables National Grid	August 2020	

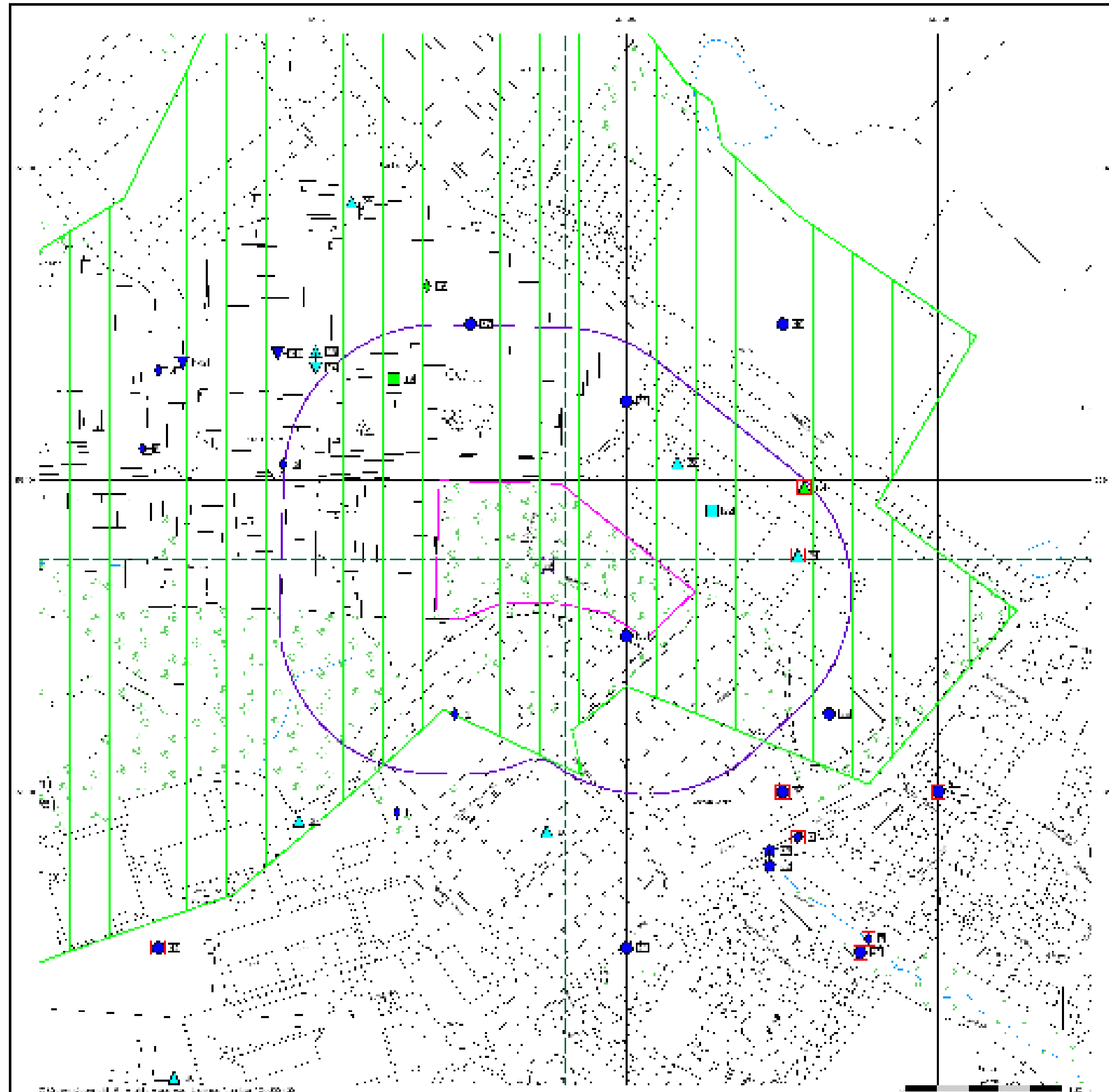
Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural Resources Wales	August 2018	Bi-Annually
Areas of Adopted Green Belt Cheshire West and Chester Council - Planning Department Chester City Council (now part of Cheshire West and Chester Council) Flintshire Council Wrexham County Borough Council	June 2020 June 2020 June 2020 June 2020	As notified As notified As notified As notified
Areas of Unadopted Green Belt Cheshire West and Chester Council - Planning Department Chester City Council (now part of Cheshire West and Chester Council) Flintshire Council Wrexham County Borough Council	June 2020 June 2020 June 2020 June 2020	As notified As notified As notified As notified
Areas of Outstanding Natural Beauty Natural England Natural Resources Wales	June 2019 June 2019	Bi-Annually Bi-Annually
Environmentally Sensitive Areas Natural England The National Assembly for Wales - GI Services (Department of Planning & Countryside)	January 2017 January 2017	
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Natural England Flintshire Council Wrexham County Borough Council	April 2020 August 2018 August 2018	Bi-Annually Bi-Annually Bi-Annually
Marine Nature Reserves Natural Resources Wales	August 2018	Bi-Annually
National Nature Reserves Natural Resources Wales	June 2019	Bi-Annually
National Parks Natural England Natural Resources Wales	April 2017 August 2018	Bi-Annually Annually
Nitrate Vulnerable Zones Environment Agency - Head Office Natural Resources Wales The National Assembly for Wales - GI Services (Department of Planning & Countryside)	December 2017 July 2019 October 2005	Bi-Annually Bi-Annually
Ramsar Sites Natural Resources Wales	July 2019	Bi-Annually
Sites of Special Scientific Interest Natural Resources Wales	March 2020	Bi-Annually
Special Areas of Conservation Natural Resources Wales	August 2020	Bi-Annually
Special Protection Areas Natural Resources Wales	August 2018	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	
Centre for Ecology and Hydrology	
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Stantec UK Ltd	

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Natural Resources Wales Ty Cambria, 29 Newport Road, Cardiff, CF24 0TP	Telephone: 0300 065 3000 Email: enquiries@naturalresourceswales.gov.uk
3	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
4	Wrexham County Borough Council - Environmental Health Department Crown Buildings, P O Box 1297, Wrexham, Clwyd, LL13 8ZE	Telephone: 01978 297038 Fax: 01978 292502 Website: www.wrexham.gov.uk
5	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
6	Wrexham County Borough Council Lampet Street, Guildhall, Wrexham, Clwyd, LL11 1WL	Telephone: 01978 292000 Fax: 01978 292502 Website: www.wrexham.gov.uk
7	The Coal Authority - Property Searches 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com
8	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
9	Environment Agency - Head Office Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
-	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.



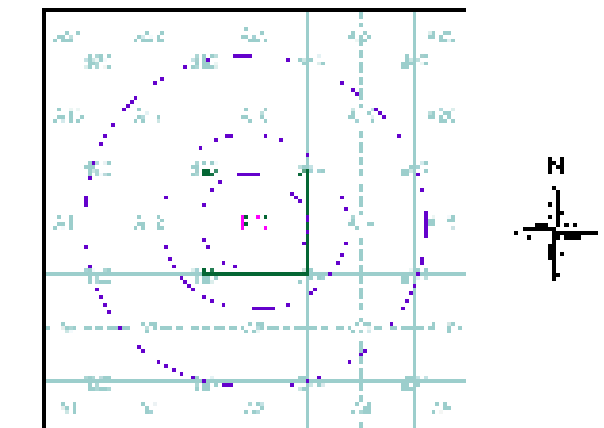
General

- Symbol File
- Symbol File
- × Symbol File

Agency and Hydrological (Ground)

- County Boundary (County Council)
- Parish Boundary (Parish Council)
- River Boundary (River)
- Flood Risk (Flood Risk)
- Flood Risk (Flood Risk)

Flood Map - Slice A



Order Details

Order Number: 256202350_1_1
 Customer Ref: 2405-es
 National Grid Reference: 332950, 356350
 Slice: A
 Site Area (Ha): 1.08
 Search Buffer (m): 1000

Site Details

The Crown, Llay, WREXHAM, LL12 0NT

General

- Hydrology
- 100m Buffer
- 500m Buffer
- 1000m Buffer
- 1000m Buffer

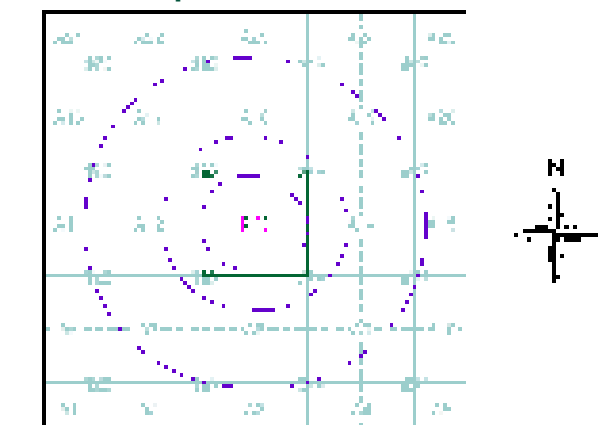
Agency and Hydrological (Boreholes)

- Borehole
- Borehole
- Borehole
- Borehole
- Borehole

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: 256202350_1_1
 Customer Ref: 2405-es
 National Grid Reference: 332950, 356350
 Slice: A
 Site Area (Ha): 1.08
 Search Buffer (m): 1000

Site Details

The Crown, Llay, WREXHAM, LL12 0NT

General

- Environmental Data
- Environmental Data only
- Existing Information Data

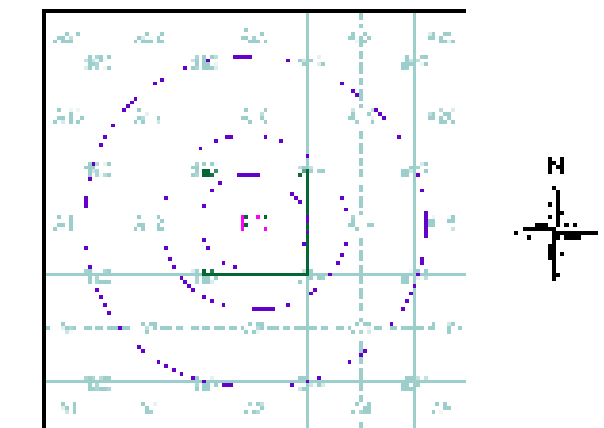
OS Water Network Data

- | | |
|---------------|----------------------------|
| ● Main | ● Minor |
| ● Interceptor | ● Sewer |
| ● Main Drain | ● Drain |
| ● Main | ● Transfer |
| ● Flood River | ● Sewerage Treatment Works |
| ● Flood River | ● Dam |

Contours (meters above sea level)

- | | | |
|------------------|----------|----------|
| ● Ground Contour | ● 1:1000 | ● 1:5000 |
| ● Water Contour | ● 1:1000 | ● 1:5000 |
| ● Spot Height | ● 1:1000 | |

OS Water Network Map - Slice A



Order Details

Order Number: 256202350_1_1
 Customer Ref: 2405-es
 National Grid Reference: 332950, 356350
 Slice: A
 Site Area (Ha): 1.08
 Search Buffer (m): 1000

Site Details

The Crown, Llay, WREXHAM, LL12 0NT

General

- Appl. 100m
- Appl. 200m
- Appl. 500m

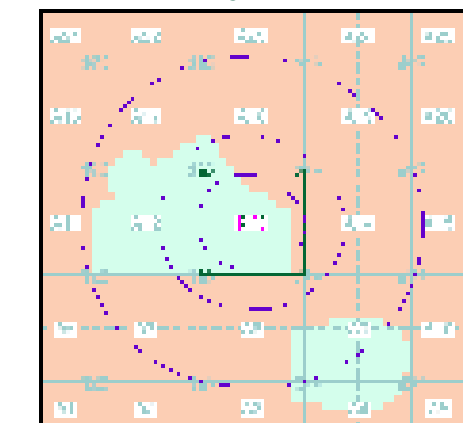
Risk of Flooding from Surface Water

- 4. Very High
- 3. High
- 2. Medium
- 1. Low
- 0. Very Low

Suitability

- 4. Very High
- 3. High
- 2. Medium
- 1. Low
- 0. Very Low
- Unassessable
- Water

EANRW Suitability Map - Slice A



Order Details

Order Number: 256202350_1_1
 Customer Ref: 2405-es
 National Grid Reference: 332950, 356350
 Slice: A
 Site Area (Ha): 1.08
 Search Buffer (m): 1000

Site Details

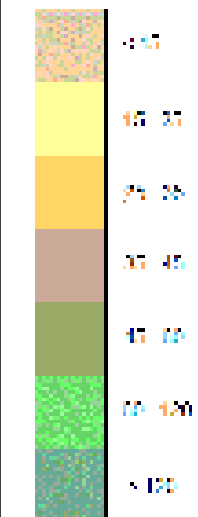
The Crown, Llay, WREXHAM, LL12 0NT

General

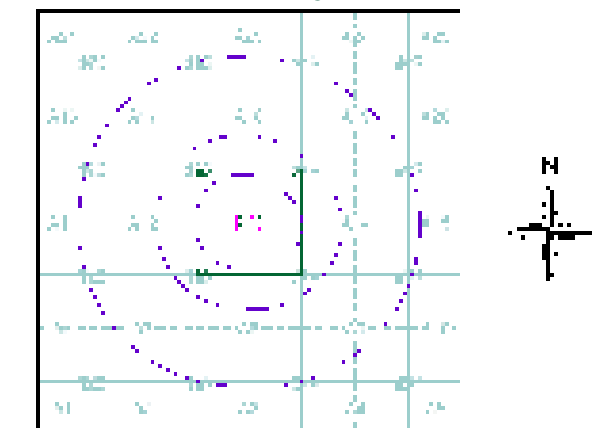
X Location X Location X Location

Estimated Soil Chemistry Arsenic

Soil Concentration



Estimated Soil Chemistry Arsenic - Slice A



Order Details

Order Details: 256202350_1_1
 Customer Ref: 2405-es
 National Grid Reference: 332950, 356350
 Slice: A
 Site Area (Ha): 1.08
 Search Buffer (m): 1000

Site Details

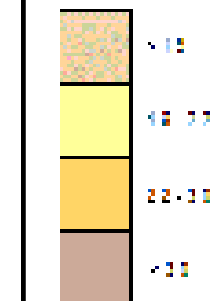
The Crown, Llay, WREXHAM, LL12 0NT

General

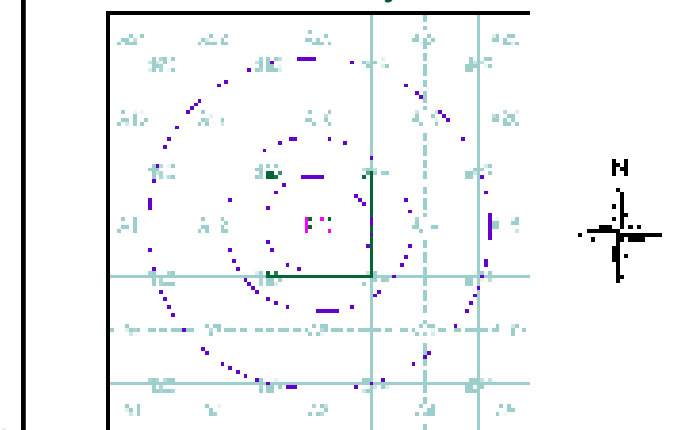
--- Boundary
 --- Point Source
 --- Point Discharge

Estimated Soil Chemistry Cadmium

Estimated Soil Chemistry Cadmium



Estimated Soil Chemistry Cadmium - Slice A



Order Details

Order Details: 256202350_1_1
 Customer Ref: 2405-es
 National Grid Reference: 332950, 356350
 Slice: A
 Site Area (Ha): 1.08
 Search Buffer (m): 1000

Site Details

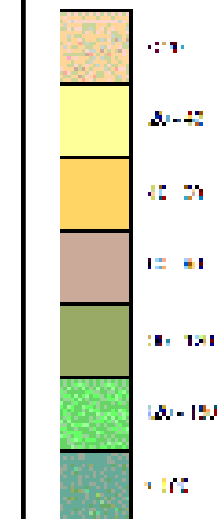
The Crown, Llay, WREXHAM, LL12 0NT

General

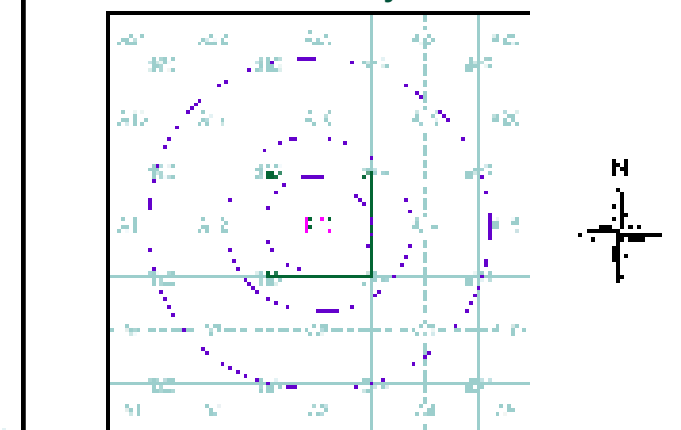
☒ General
☐ Estimated Soil Chemistry Chromium
☒ Estimated Soil Chemistry Chromium

Estimated Soil Chemistry Chromium

Estimated Soil Chemistry Chromium



Estimated Soil Chemistry Chromium - Slice A



Order Details

Order Details: 256202350_1_1
 Customer Ref: 2405-es
 National Grid Reference: 332950, 356350
 Slice: A
 Site Area (Ha): 1.08
 Search Buffer (m): 1000

Site Details

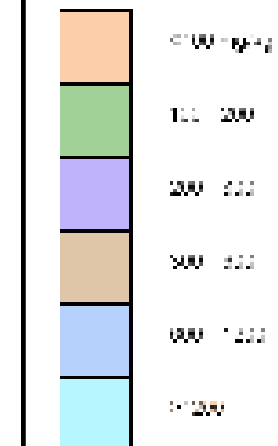
The Crown, Llay, WREXHAM, LL12 0NT

General

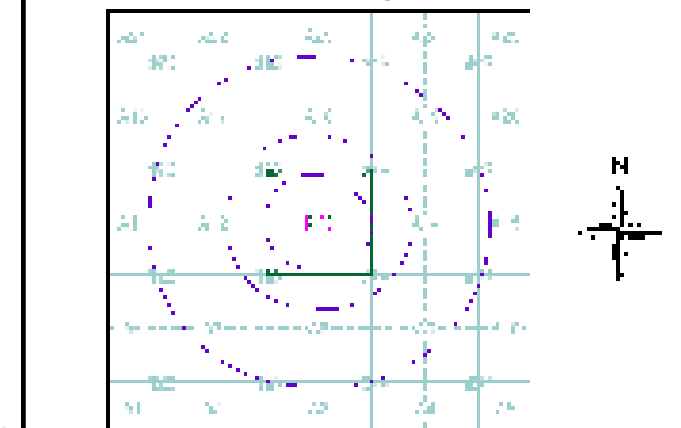
1. Project Name: 2. Site Name: 3. Project Reference:

Estimated Soil Chemistry Lead

Lead Concentration (mg/kg)



Estimated Soil Chemistry Lead - Slice A



Order Details

Order Details: 256202350_1_1
 Customer Ref: 2405-es
 National Grid Reference: 332950, 356350
 Slice: A
 Site Area (Ha): 1.08
 Search Buffer (m): 1000

Site Details

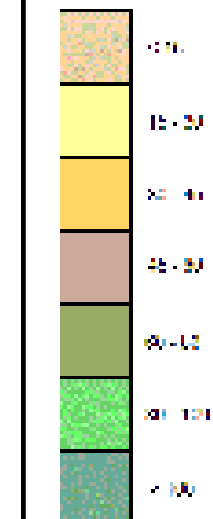
The Crown, Llay, WREXHAM, LL12 0NT

General

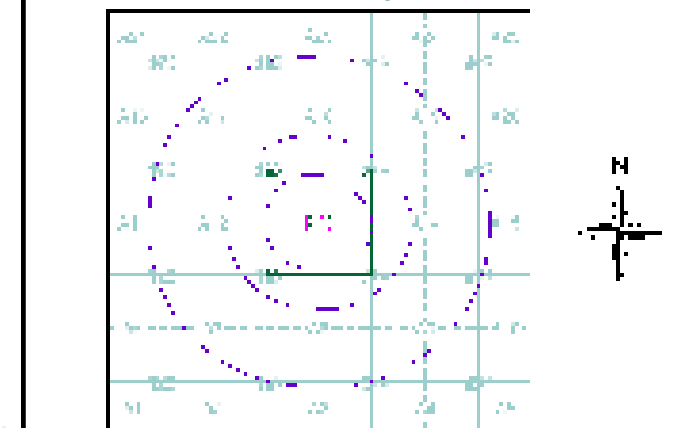
Estimated Soil Chemistry Nickel

Estimated Soil Chemistry Nickel

Estimated Soil Chemistry Nickel



Estimated Soil Chemistry Nickel - Slice A

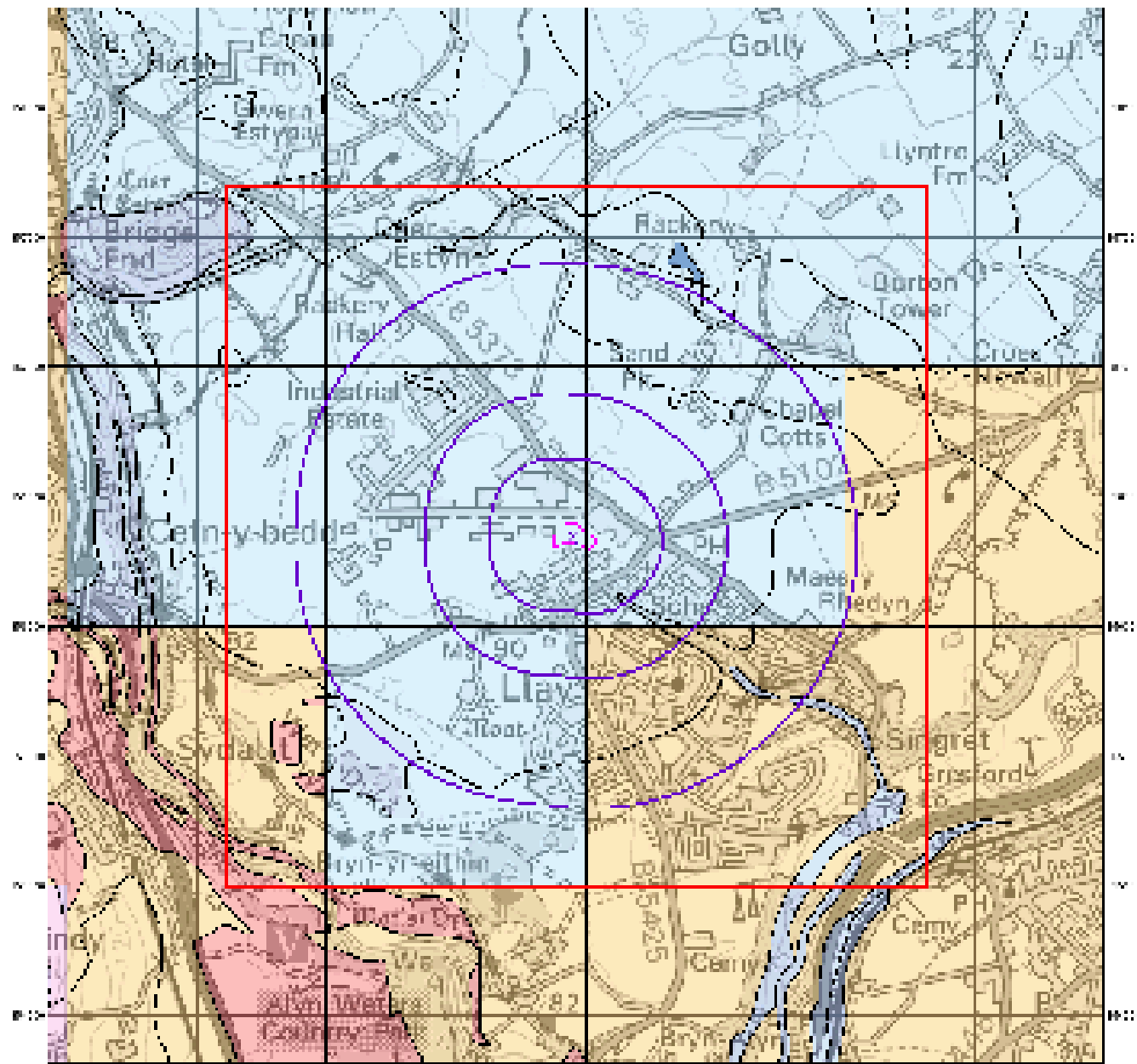


Order Details

Order Details: 256202350_1_1
 Customer Ref: 2405-es
 National Grid Reference: 332950, 356350
 Slice: A
 Site Area (Ha): 1.08
 Search Buffer (m): 1000

Site Details

The Crown, Llay, WREXHAM, LL12 0NT



Envirocheck

LANDMARK INFORMATION GROUP

Groundwater Vulnerability

General

INDENT INDENT INDENT INDENT INDENT INDENT

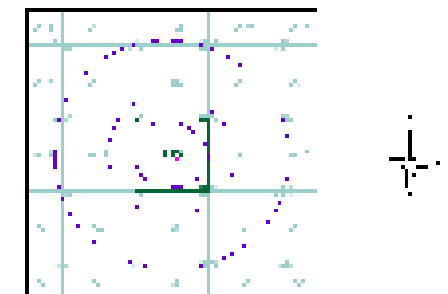
Agency and Hydrogeology

Geological Features	Geological Features
Permeable Rock (shale)	Permeable Rock (shale)
Permeable Rock (shale)	Permeable Rock (shale)
Permeable Rock (shale)	Permeable Rock (shale)
Permeable Rock (shale)	Permeable Rock (shale)
Permeable Rock (shale)	Permeable Rock (shale)
Permeable Rock (shale)	Permeable Rock (shale)

Impervious (shale)

Dotted (shale)

Site Sensitivity Context Map - Slice A



Order Details

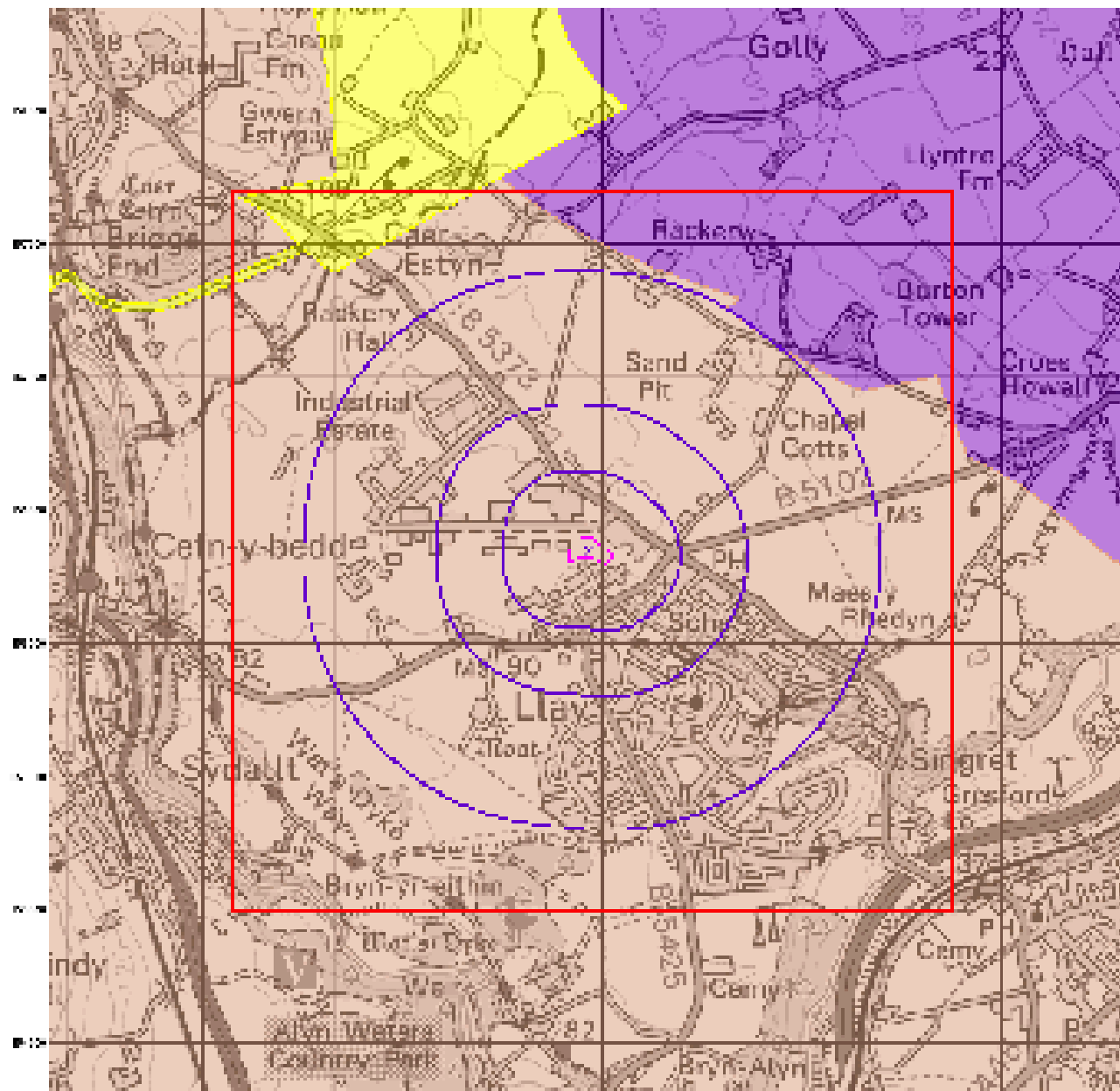
Order Number: 256202350_1_1
 Customer Ref: 2405-es
 National Grid Reference: 332950, 356350
 Slice: A
 Site Area (Ha): 1.08
 Search Buffer (m): 1000

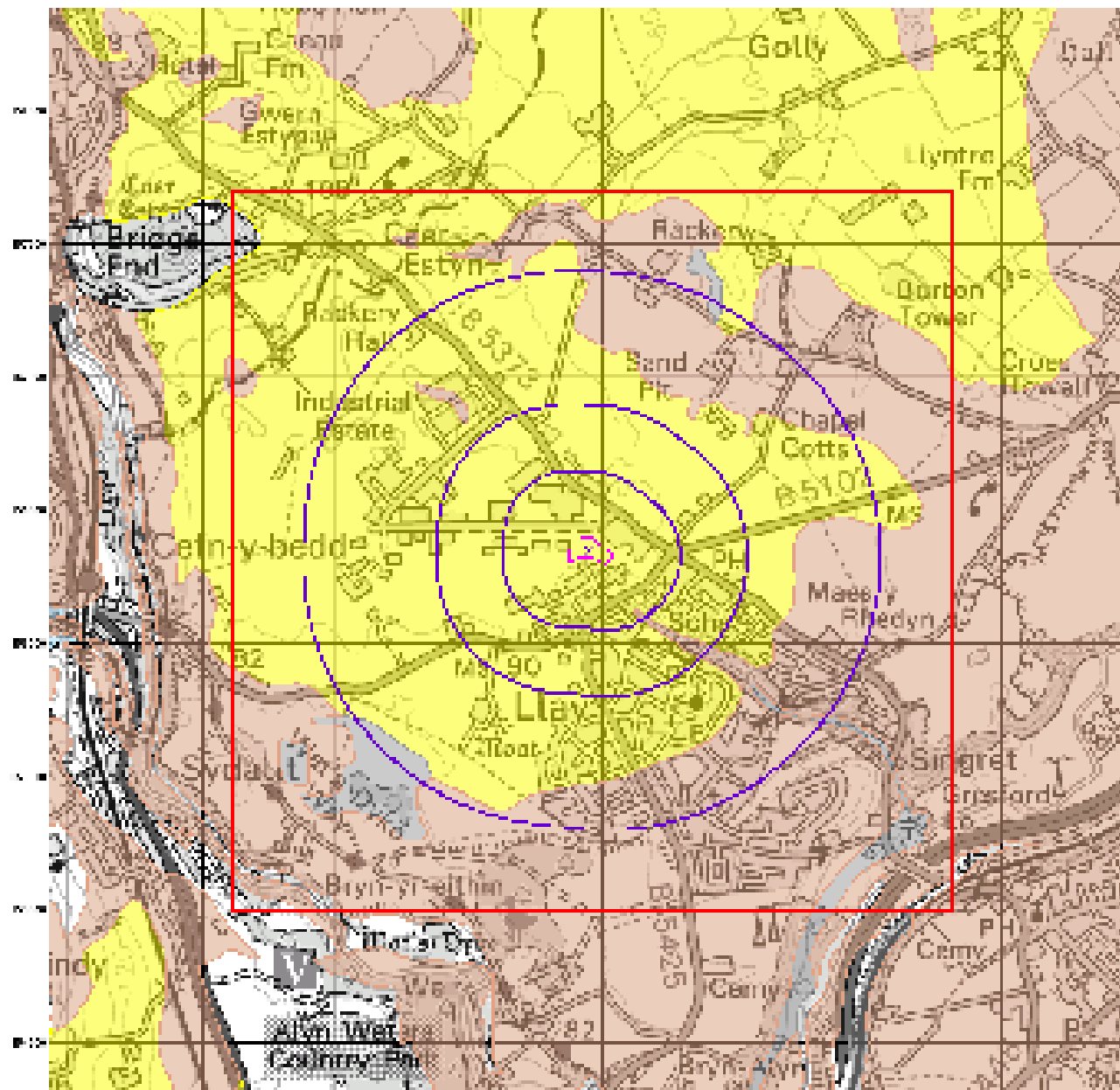
Site Details

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Superficial Aquifer Designation

General

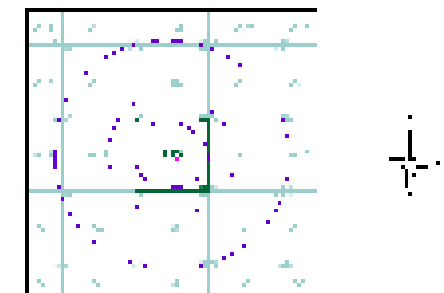
BOUNDARY OF STUDY AREA
 STUDY AREA

Agency and Hydrological

Agency and Hydrological

Flood Risk
 Flood Risk
 Flood Risk
 Flood Risk
 Flood Risk
 Flood Risk
 Flood Risk

Site Sensitivity Context Map - Slice A



Order Details

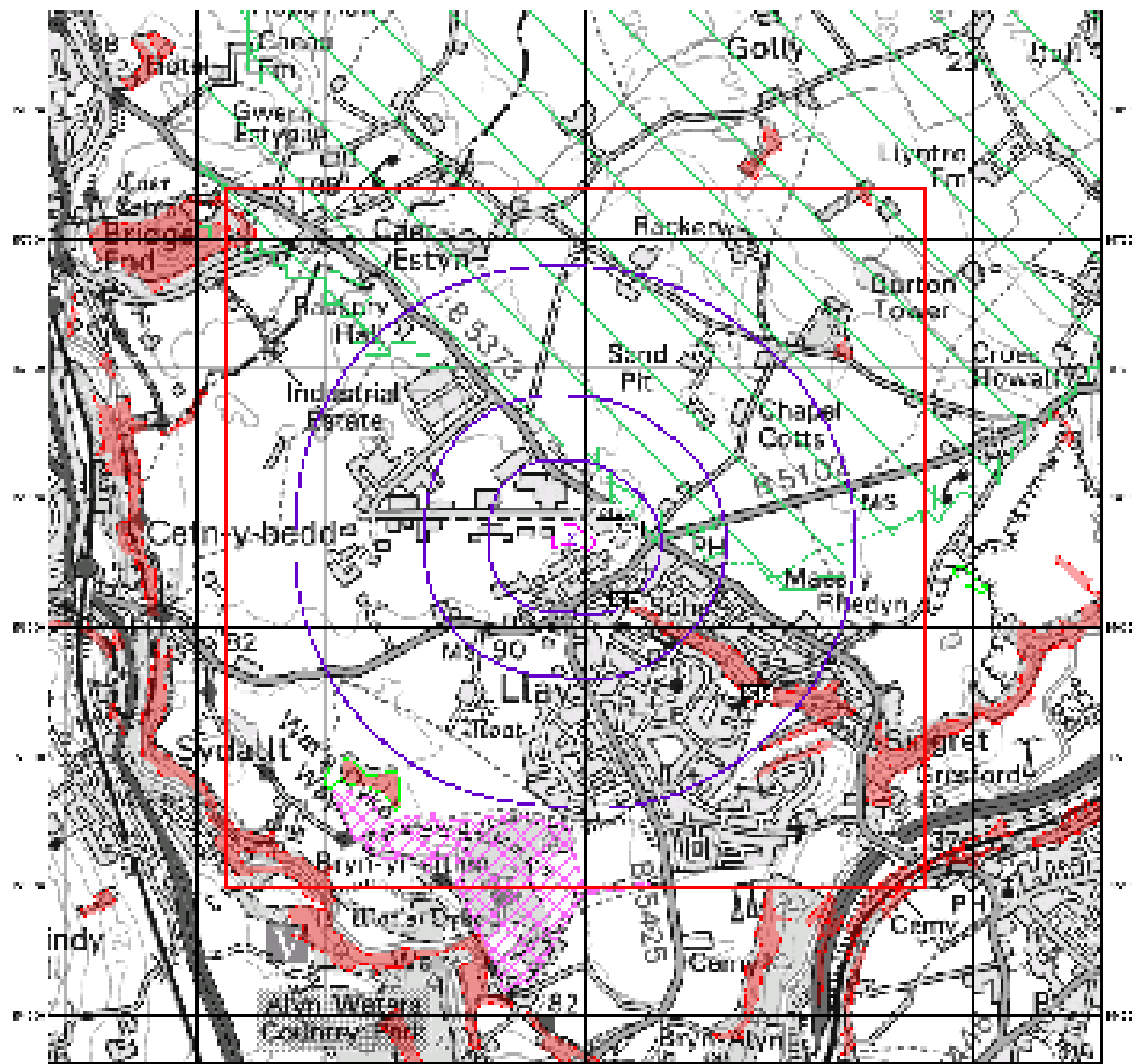
Order Number: 256202350_1_1
 Customer Ref: 2405-es
 National Grid Reference: 332950, 356350
 Slice: A
 Site Area (Ha): 1.08
 Search Buffer (m): 1000

Site Details

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Sensitive Land Uses

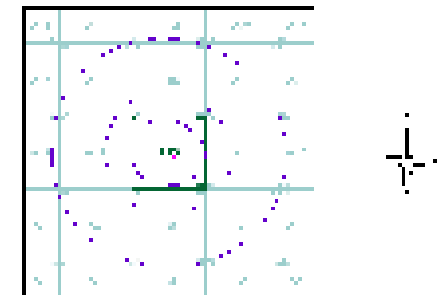
General

BUILT-UP AREA
 ROAD
 RAILWAY
 WATERWAY

Sensitive Land Uses

ANTI-AIRCRAFT	L. WETLAND
ANTI-ARTILLERY	L. WETLAND
ANTI-ROCKET	L. WETLAND
ANTI-TANK	L. WETLAND
ANTI-TANK	L. WETLAND
FLOOD	SPECIAL INTEREST
L. WETLAND	SPECIAL INTEREST
L. WETLAND	SPECIAL INTEREST
L. WETLAND	SPECIAL INTEREST

Site Sensitivity Context Map - Slice A



Order Details

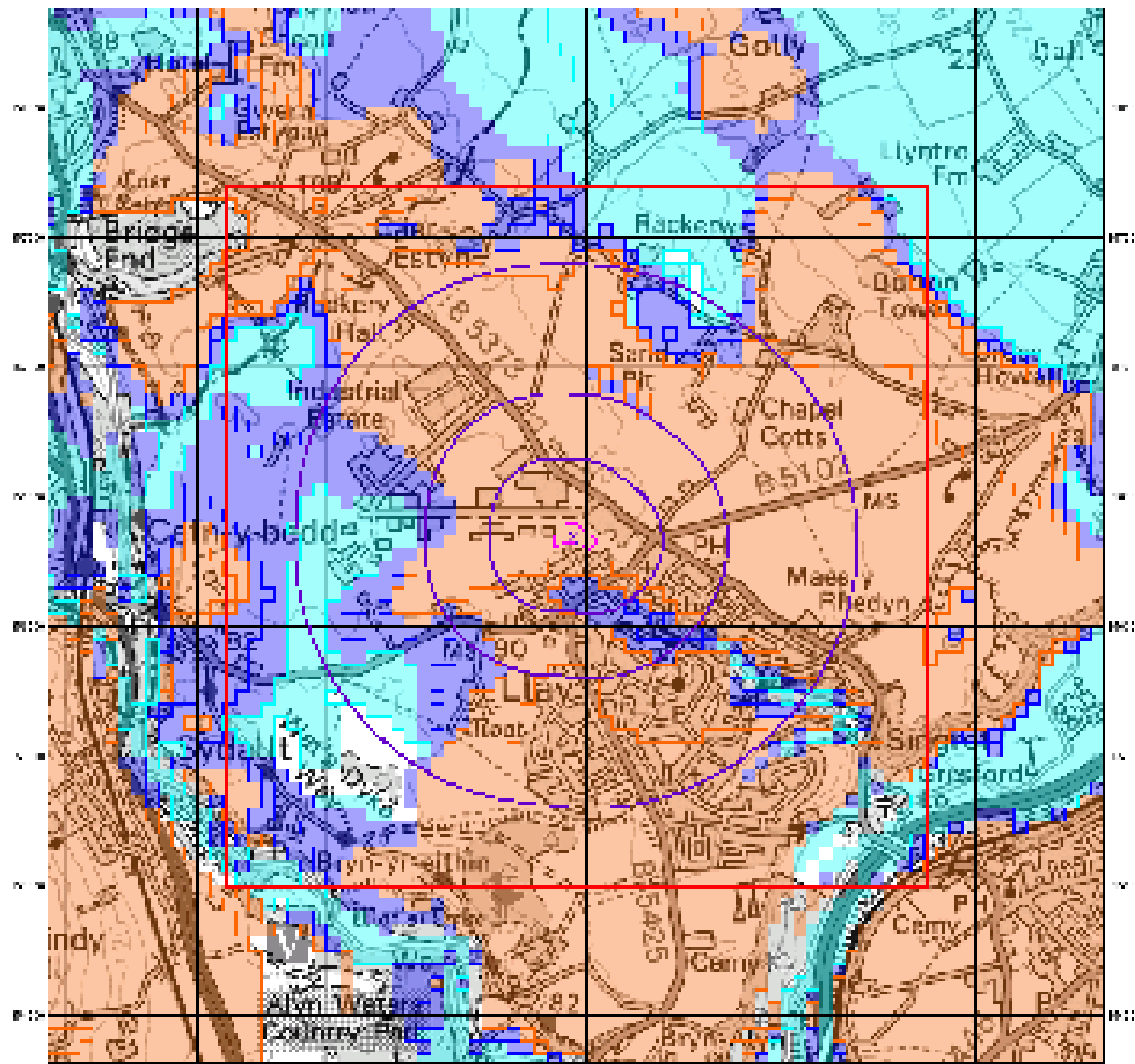
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 Customer Ref: 2405-es
 National Grid Reference: 332950, 356350
 Slice: A
 Site Area (Ha): 1.08
 Search Buffer (m): 1000

Site Details

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BGS Flood GFS Data

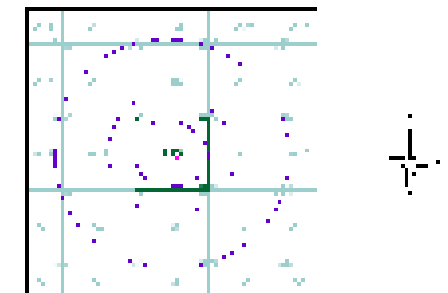
General

At Risk of Flooding from Surface Water
At Risk of Flooding from Watercourse
At Risk of Flooding from the Sea

Agency and Technological Floods

At Risk of Flooding from Agency and Technological Floods
At Risk of Flooding from Agency and Technological Floods
At Risk of Flooding from Agency and Technological Floods

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 256202350_1_1
Customer Ref: 2405-es
National Grid Reference: 332950, 356350
Slice: A
Site Area (Ha): 1.08
Search Buffer (m): 1000

Site Details

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Geology 1:50,000 Maps Legends

Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	MGR	Made Ground (Undivided)	Artificial Deposit	Not Supplied - Holocene
	WGR	Worked Ground (Undivided)	Void	Not Supplied - Holocene
	SLIP	Landslide Deposit	Unknown/Unclassified Entry	Not Supplied - Quaternary

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Not Supplied - Holocene
	TILLD	Till, Devensian	Diamicton	Not Supplied - Devensian
	GFSD	Glaciofluvial Sheet Deposits, Devensian	Sand and Gravel	Not Supplied - Devensian
	GLLD	Glaciolacustrine Deposits, Devensian	Clay and Silt	Not Supplied - Devensian
	GFDUD	Glaciofluvial Deposits, Devensian	Sand and Gravel	Not Supplied - Devensian
	PEAT	Peat	Peat	Not Supplied - Quaternary
	RTDU	River Terrace Deposits (Undifferentiated)	Sand and Gravel	Not Supplied - Quaternary
	SUPD	Superficial Deposits	Sediment	Not Supplied - Quaternary

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	AS	Arden Sandstone Formation	Mudstone	Not Supplied - Carnian
	KNSF	Kinnerton Sandstone Formation	Sandstone	Not Supplied - Early Triassic
	SAL	Salop Formation	Mudstone, Sandstone and Conglomerate	Not Supplied - Westphalian
	HA	Halesowen Formation	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian
	CF	Cefn Rock	Sandstone	Not Supplied - Westphalian
	PMCM	Pennine Middle Coal Measures Formation	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	PLMC	Pennine Lower Coal Measures Formation and Pennine Middle Coal Measures Formation (Undifferentiated)	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian
	PLCM	Pennine Lower Coal Measures Formation	Sandstone	Not Supplied - Westphalian
	PLMC	Pennine Lower Coal Measures Formation and Pennine Middle Coal Measures Formation (Undifferentiated)	Sandstone	Not Supplied - Westphalian
	ETM	Etruria Formation	Mudstone, Sandstone and Conglomerate	Not Supplied - Westphalian
	ETM	Etruria Formation	Mudstone	Not Supplied - Westphalian
	CFS	Cefn-Y-Fedw Sandstone Formation	Sandstone and [Subequal/subordinate] Argillaceous Rocks, Interbedded	Not Supplied - Viséan
	BSG	Bowland Shale Formation	Mudstone	Not Supplied - Viséan
		Faults		
		Rock Segments		

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Geology 1:50,000 Maps

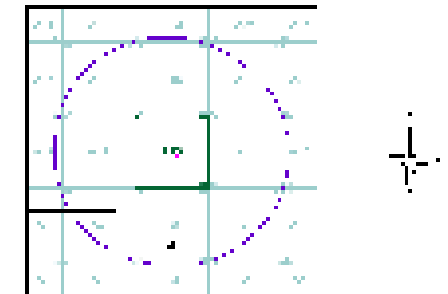
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.

The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:50,000 Maps Coverage

Map ID:	2	Map ID:	1
Map Sheet No:	121	Map Sheet No:	108
Map Name:	Wrexham	Map Name:	Flint
Map Date:	1993	Map Date:	1999
Bedrock Geology:	Available	Bedrock Geology:	Available
Superficial Geology:	Available	Superficial Geology:	Available
Artificial Geology:	Available	Artificial Geology:	Available
Faults:	Not Supplied	Faults:	Not Supplied
Landslip:	Available	Landslip:	Available
Rock Segments:	Not Supplied	Rock Segments:	Not Supplied

Geology 1:50,000 Maps - Slice A



Order Details:

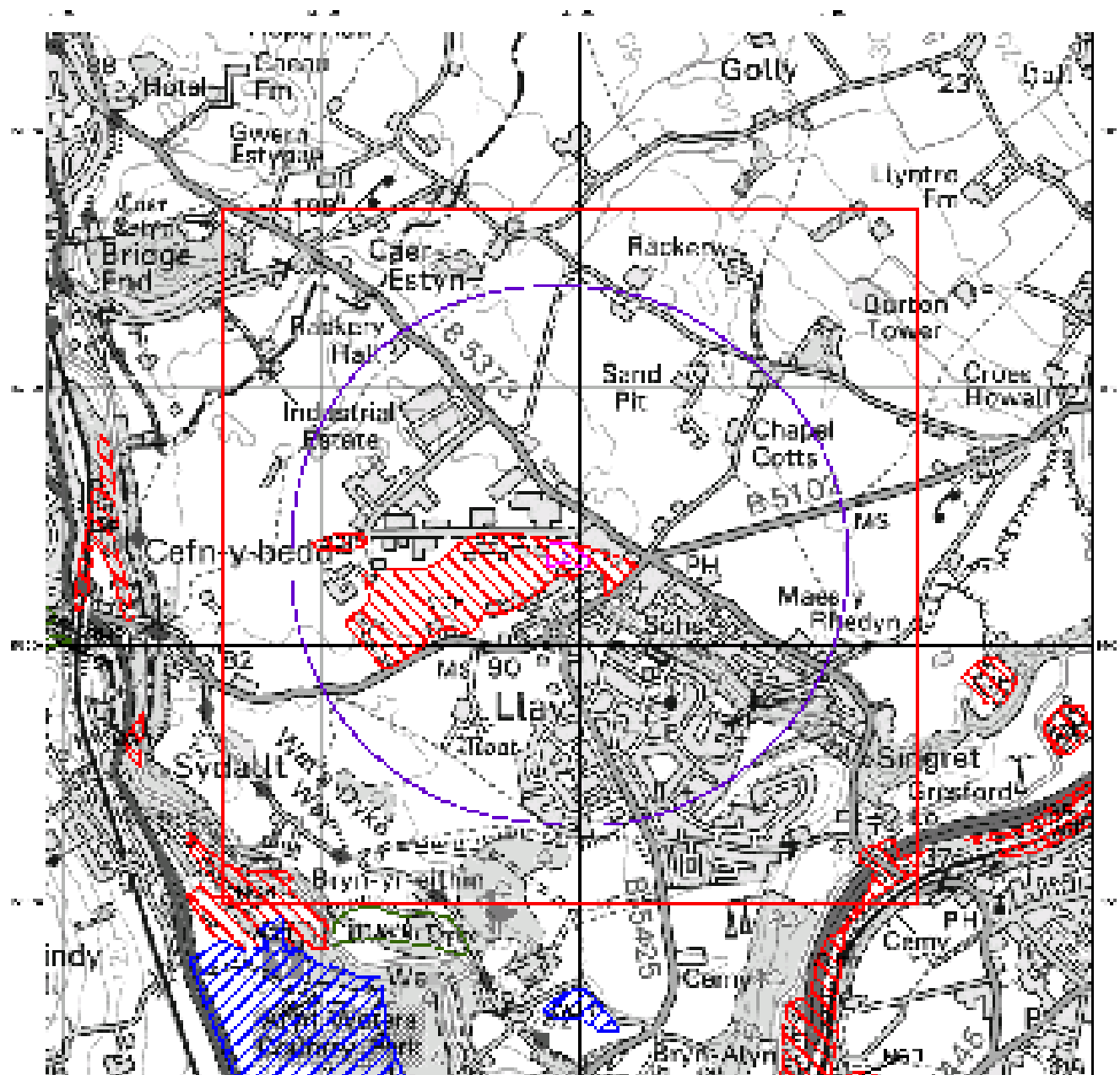
Order Number: 256202350_1_1
 Customer Reference: 2405-es
 National Grid Reference: 332950, 356350
 Slice: A
 Site Area (Ha): 1.08
 Search Buffer (m): 1000

Site Details:

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LANDMARK INTELLIGENCE & ANALYTICS

Artificial Ground and Landslip

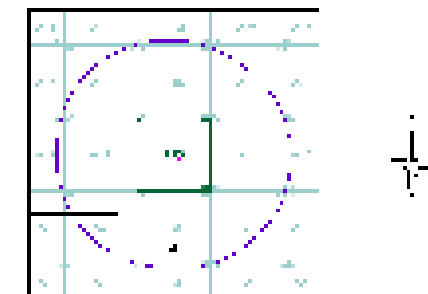
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions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

Artificial ground includes:

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

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

Artificial Ground and Landslip Map - Slice A



Order Details:

Order Number: 256202350_1_1
Customer Reference: 2405-es
National Grid Reference: 332950, 356350
Slice: A
Site Area (Ha): 1.08
Search Buffer (m): 1000

Site Details:

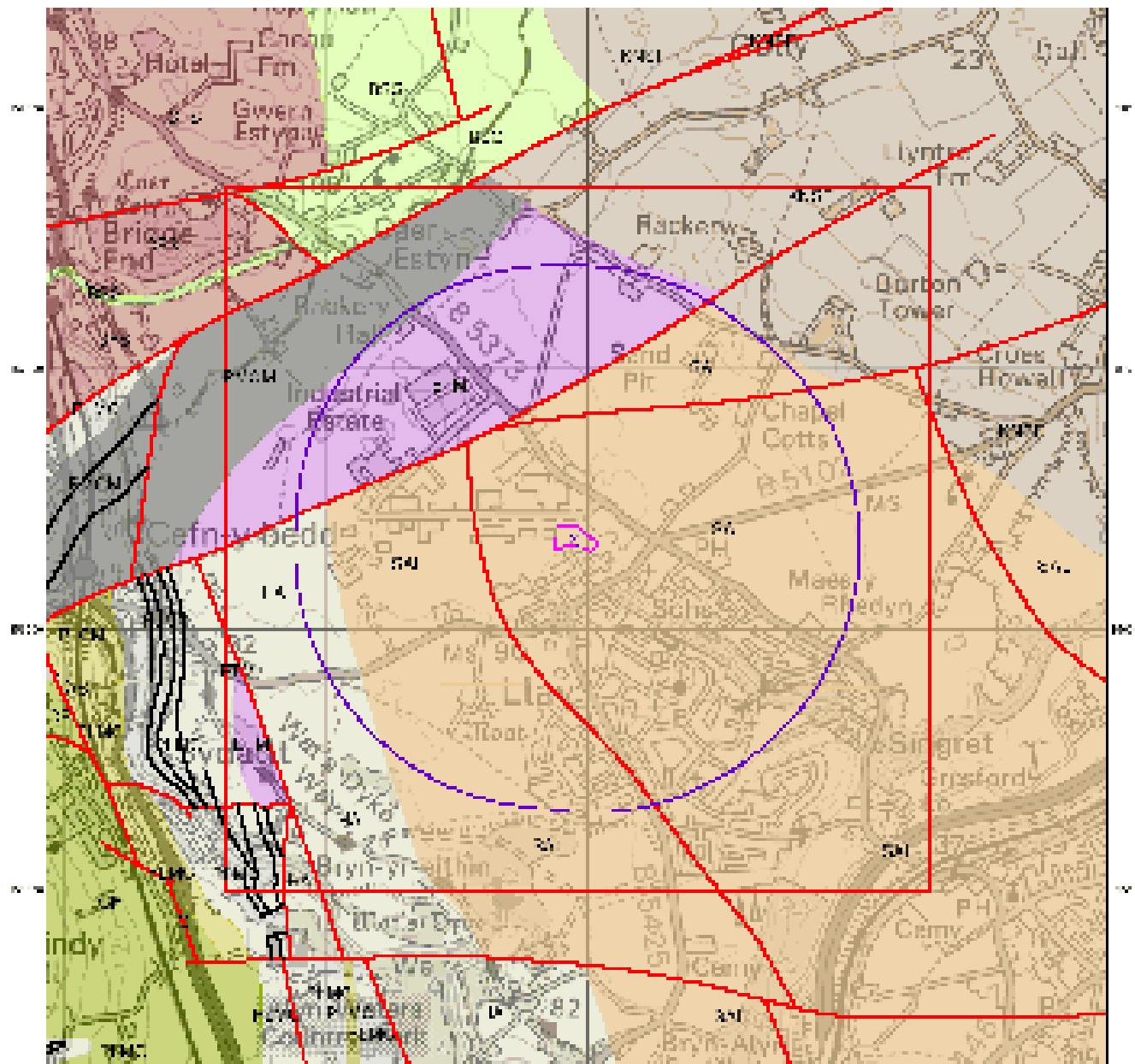
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LANDMARK INTERPRETATION & ANALYSIS

Bedrock and Faults

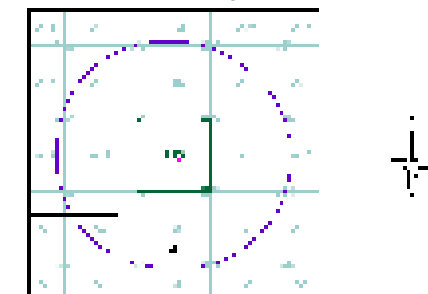
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

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

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

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.

Bedrock and Faults Map - Slice A



Order Details:

Order Number: 256202350_1_1
Customer Reference: 2405-es
National Grid Reference: 332950, 356350
Slice: A
Site Area (Ha): 1.08
Search Buffer (m): 1000

Site Details:

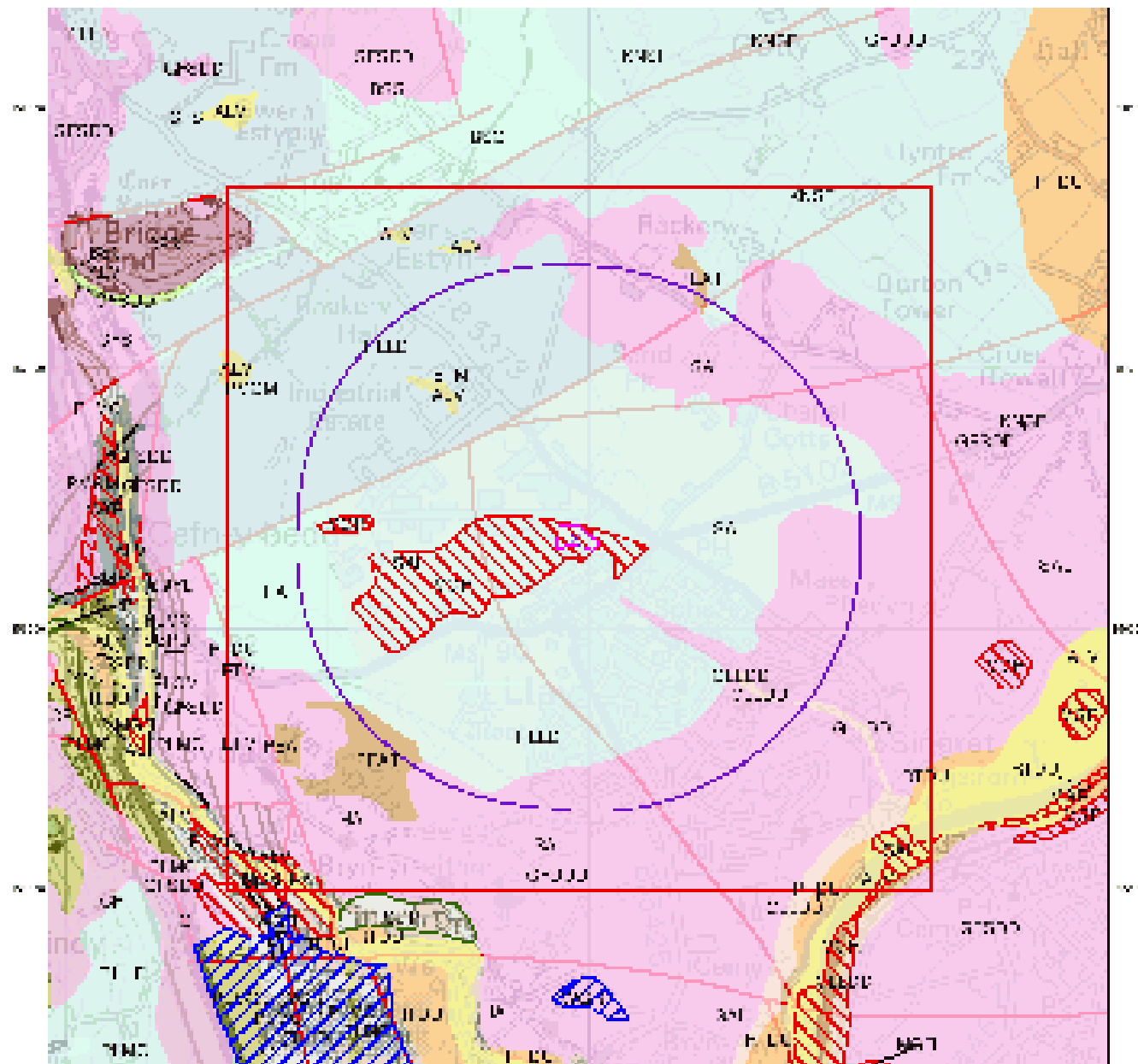
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LANDMARK INFORMATION SERVICES

Combined Surface Geology

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

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

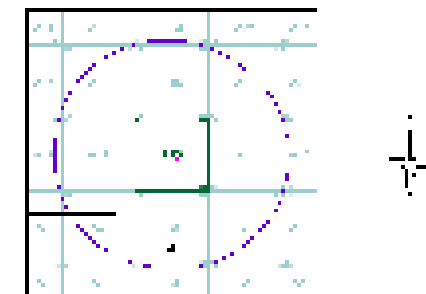
Additional Information

More information on 1:50,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

Contact

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

Combined Geology Map - Slice A



Order Details:

Order Number: 256202350_1_1
Customer Reference: 2405-es
National Grid Reference: 332950, 356350
Slice: A
Site Area (Ha): 1.08
Search Buffer (m): 1000

Site Details:

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Page 5 of 5

APPENDIX D

Trial Pit Logs

TRIAL PIT 1

Depth (m)	Strata
0.00 – 0.20m	Loose dark brown sandy gravelly SILT. Gravel is angular to subangular fine to coarse of mudstone. (COLLIERY SPOIL)
0.20 – 1.40m	Medium dense black to grey sandy angular to subangular fine to coarse GRAVEL of mudstone and coal. (COLLIERY SPOIL)
1.40 – 3.50m	Firm to stiff brown slightly sandy gravelly CLAY. Gravel is subangular to subrounded fine to coarse of mixed lithologies. (GLACIAL TILL)

Notes

1. Pit sides not stable,
2. No groundwater encountered.

TP1



Trial pit 1 - Spoil



TRIAL PIT 2

Depth (m)	Strata
0.00 – 0.70m	Scrub over loose black angular to subangular GRAVEL of mudstone and coal. (COLLIERY SPOIL)
0.70 – 3.00m	Medium dense light brown to reddish brown and black angular to subangular fine to coarse GRAVEL of mudstone and burnt shale. (COLLIERY SPOIL)

Notes

1. Pit sides stable,
2. No groundwater encountered.

Trial Pit 2



Trial Pit 2 - Spoil



TRIAL PIT 3

Depth (m)	Strata
0.00 – 3.50m	Scrub over medium dense reddish brown to black angular to subangular fine to coarse GRAVEL of mudstone and burnt shale. White silt from 3.00m (COLLIERY SPOIL)

Notes

1. Pit sides stable,
2. No groundwater encountered.

Trial Pit 3



Trial Pit 3 – Spoil



TRIAL PIT 4

Depth (m)	Strata
00.0 – 0.10m	Scrub over stiff reddish brown slightly sandy gravelly CLAY. Gravel is angular to subangular fine to coarse of mudstone and brick. (COLLIERY SPOIL)
0.10 – 3.00m	Loose grey to dark grey sandy angular to subangular fine to coarse GRAVEL of mudstone with a high cobble and medium boulder content of subangular mudstone. (COLLIERY SPOIL)

Notes

1. Pit sides unstable from 0.10m,
2. No groundwater encountered.

Trial Pit 4



Trial Pit 4 – Spoil



TRIAL PIT 5

Depth (m)	Strata
00.0 – 3.50m	Scrub over loose to medium dense grey to dark grey sandy angular to subangular fine to coarse GRAVEL of mudstone and brick with a high cobble and low boulder content of subangular mudstone. Becomes clayey from 1.80m (COLLIERY SPOIL)

Notes

1. Pit sides stable,
2. No groundwater encountered.

Trial Pit 5



Trial Pit 5 -Spoil



TRIAL PIT 6

Depth (m)	Strata
00.0 – 3.20m	Loose grey to dark grey sandy angular to subangular fine to coarse GRAVEL of mudstone with a high cobble content of subangular mudstone. (COLLIERY SPOIL)
3.20 – 3.50m	Firm brown slightly sandy gravelly CLAY. Gravel is subangular to rounded fine to coarse of mixed lithologies (GLACIAL TILL)

Notes

1. Pit sides stable,
2. No groundwater encountered,
3. Concrete pipe located adjacent to pit, buried within railway ballast.

Trial Pit 6



Trial Pit 6 – Spoil



Soakaway 1

Depth (m)	Strata
00.0 – 0.60m	Scrub over firm black sandy gravelly CLAY. Gravel is angular to subangular fine to coarse of mudstone, coal and brick. (COLLIERY SPOIL)

Notes

1. Pit sides stable,
2. No groundwater encountered,
3. Soakaway test carried out @0.60m.

Soakaway 1



Soakaway 1 – Spoil



Soakaway 2

Depth (m)	Strata
00.0 – 0.60m	Scrub over loose grey to dark grey sandy angular to subangular fine to coarse GRAVEL of mudstone with a high cobble content of subangular mudstone. (COLLIERY SPOIL)

Notes

1. Pit sides stable,
2. No groundwater encountered,
3. Soakaway test carried out @0.60m.

Soakaway 2



Soakaway 2 - Spoil



Soakaway 3

Depth (m)	Strata
00.0 – 0.60m	Scrub over loose grey to dark grey sandy angular to subangular fine to coarse GRAVEL of mudstone, burnt shale and brick. (COLLIERY SPOIL)

Notes

1. Pit sides stable,
2. No groundwater encountered,
3. Soakaway test carried out @0.60m.

Soakaway 3



Soakaway 3 – Spoil



Soakaway 4

Depth (m)	Strata
00.0 – 3.00m	Scrub over loose black to dark grey sandy angular to subangular fine to coarse GRAVEL of mudstone, burnt shale, and brick with a medium cobble content of subangular mudstone. (COLLIERY SPOIL)

Notes

1. Pit sides stable,
2. No groundwater encountered,
3. Soakaway test carried out @1.80m.

Soakaway 4



Soakaway 4 – Spoil



Soakaway 5

Depth (m)	Strata
00.0 – 1.90m	Scrub over loose black to dark grey sandy angular to subangular fine to coarse GRAVEL of mudstone with a medium cobble content of subangular mudstone. (COLLIERY SPOIL)
1.90 – 2.50m	Firm brown slightly sandy gravelly CLAY. Gravel is subangular to rounded fine to coarse of mixed lithologies (GLACIAL TILL)

Notes

1. Pit sides stable,
2. No groundwater encountered,
3. Soakaway test carried out @1.50m.

Soakaway 6

Depth (m)	Strata
00.0 – 0.60m	Scrub over loose black to dark grey sandy angular to subangular fine to coarse GRAVEL of mudstone, brick and burnt shale. (COLLIERY SPOIL)

Notes

1. Pit sides stable,
2. No groundwater encountered,
3. Soakaway test carried out @0.60m.

Soakaway 6



Soakaway 6 – Spoil



APPENDIX E

Borehole Logs

BOREHOLE LOG

Project Magellan Aerospace, Llay Industrial Estate				BOREHOLE No WS1
Job No 2405	Date 18-09-20 18-09-20	Ground Level (m)	Co-Ordinates ()	
Contractor				Sheet 1 of 1

[illegible]

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
											1.) No groundwater encountered.
All dimensions in metres Scale 1:50		Client Magellan Aerospace				Method/ Plant Used				Logged By TG	

AGS3 UK BH 2405 MAGELLAN.GPJ GINT STD AGS3 1.GDT 4/11/20

BOREHOLE LOG

Project Magellan Aerospace, Llay Industrial Estate				BOREHOLE No WS2
Job No 2405	Date 18-09-20 18-09-20	Ground Level (m)	Co-Ordinates ()	
Contractor				Sheet 1 of 1

[illegible]

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
											1.) No groundwater encountered.
All dimensions in metres Scale 1:50		Client Magellan Aerospace				Method/ Plant Used				Logged By TG	

AGS3 UK BH 2405 MAGELLAN.GPJ GINT STD AGS3_1.GDT 4/11/20

BOREHOLE LOG

Project Magellan Aerospace, Llay Industrial Estate				BOREHOLE No WS3
Job No 2405	Date 18-09-20 18-09-20	Ground Level (m)	Co-Ordinates ()	
Contractor				Sheet 1 of 1

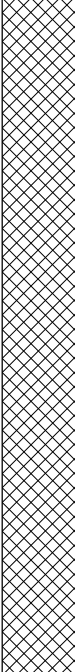
[illegible]

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
											1.) No groundwater encountered.
All dimensions in metres Scale 1:50		Client Magellan Aerospace				Method/ Plant Used				Logged By TG	

AGS3 UK BH 2405 MAGELLAN.GPJ GINT STD AGS3_1.GDT 4/11/20

BOREHOLE LOG

Project Magellan Aerospace, Llay Industrial Estate				BOREHOLE No WS4
Job No 2405	Date 18-09-20 18-09-20	Ground Level (m)	Co-Ordinates ()	
Contractor				Sheet 1 of 1

SAMPLES & TESTS			Water	STRATA			Geology	Instrument/ Backfill	
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thickness)			DESCRIPTION
1.00		N8				(4.50)	Loose becoming medium dense black gravelly fine to coarse SAND. Gravel is angular to subangular fine to coarse of mudstone and coal. (COLLIERY SPOIL)		
2.00		N4							
3.00		N18							
4.00		N10							
5.00		N8				(0.95)	Firm dark grey slightly sandy CLAY. (GLACIAL TILL)		
						5.45			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
											1.) No groundwater encountered.
All dimensions in metres Scale 1:50		Client Magellan Aerospace				Method/ Plant Used				Logged By TG	

AGS3 UK BH 2405 MAGELLAN.GPJ GINT STD AGS 3 1.GDT 4/11/20

BOREHOLE LOG

Project Magellan Aerospace, Llay Industrial Estate				BOREHOLE No WS5
Job No 2405	Date 18-09-20 18-09-20	Ground Level (m)	Co-Ordinates ()	
Contractor				Sheet 1 of 1

[illegible]

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
											1.) No groundwater encountered.
All dimensions in metres Scale 1:50		Client Magellan Aerospace				Method/ Plant Used				Logged By TG	

AGS3 UK BH 2405 MAGELLAN.GPJ GINT STD AGS 3 1.GDT 4/11/20

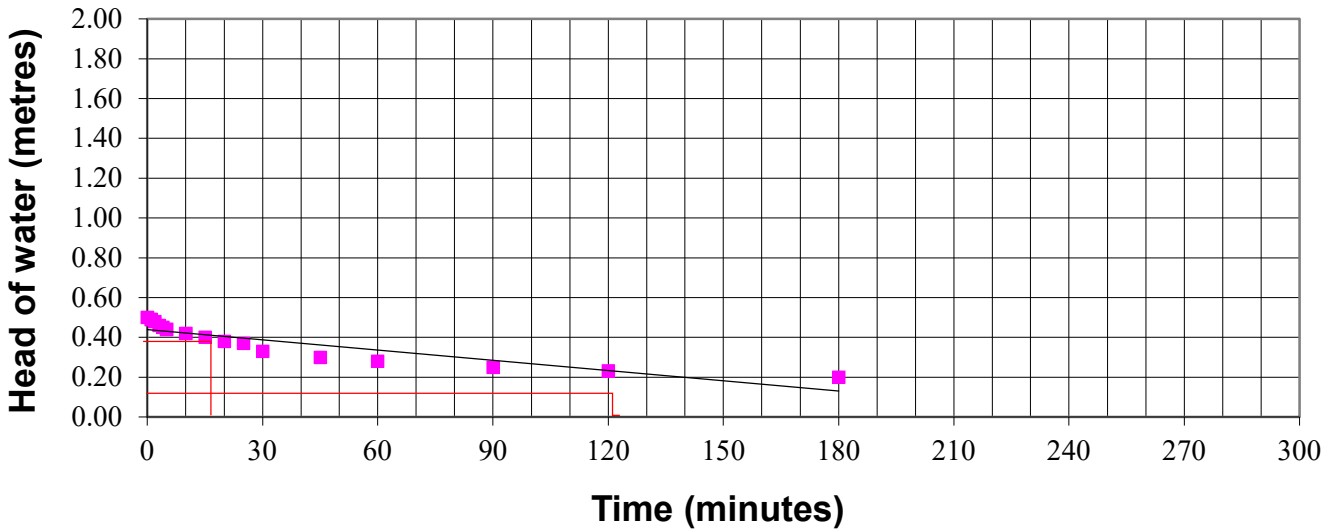
APPENDIX F

Soakaway Testing Results

[illegible]

GroundSolve Ltd

2405. Magellan, Llay
SA1 Test 1
17/09/20



Depth	Length	Width	Head at 75% Vol	Head at 25% Vol	Water depth(t=0)	Effective Area	Vp75-Vp25	Adjustment Factor *	t75	t25	Infiltration
(m)	(m)	(m)	(m)	(m)	(m)	Ap50 m2	Volume of water m3		(mins)	(mins)	rate m/s
0.50	1.00	0.60	0.375	0.13	0.50	1.400	0.150	1.00	23	180	1.137E-05

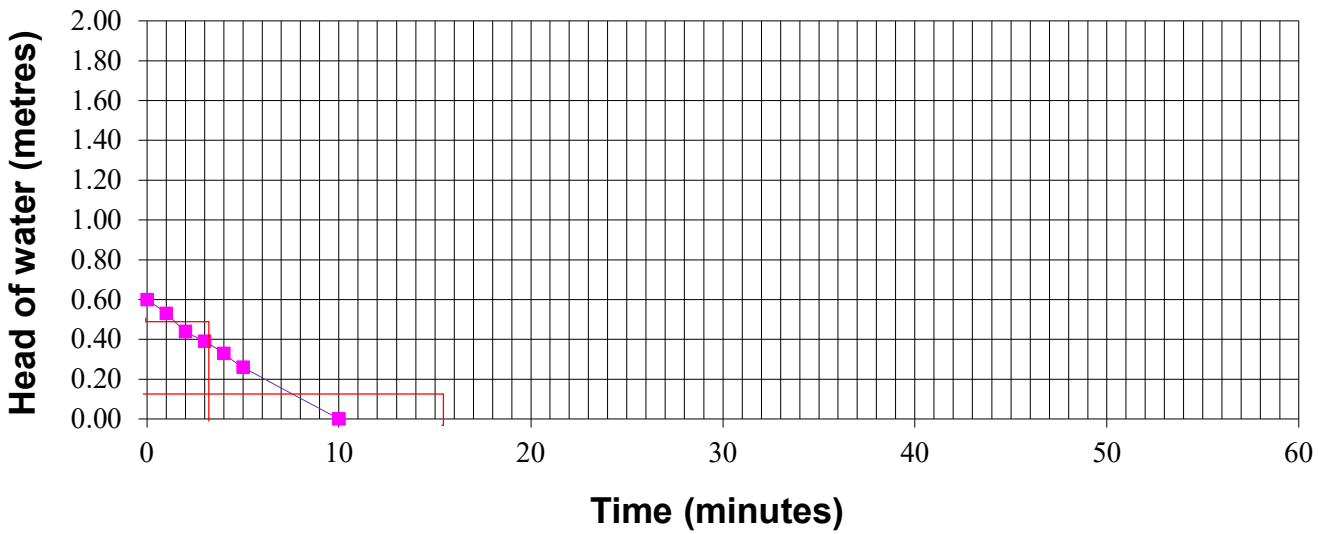
* with gravel filter adjustment factor = 0.30, with no filter = 1.0

Note: t25 calculated with line of best fit

[illegible]

GroundSolve Ltd

2405. Magellan, Llay
SA2 Test 1
17/09/20



Depth	Length	Width	Head at 75% Vol	Head at 25% Vol	Water depth(t=0)	Effective Area	Vp75-Vp25	Adjustment Factor *	t75	t25	Infiltration
(m)	(m)	(m)	(m)	(m)	(m)	Ap50 m2	Volume of water m3		(mins)	(mins)	rate m/s
0.60	1.00	0.60	0.450	0.15	0.60	1.560	0.180	1.00	1.5	8	2.959E-04

* with gravel filter adjustment factor = 0.30, with no filter = 1.0

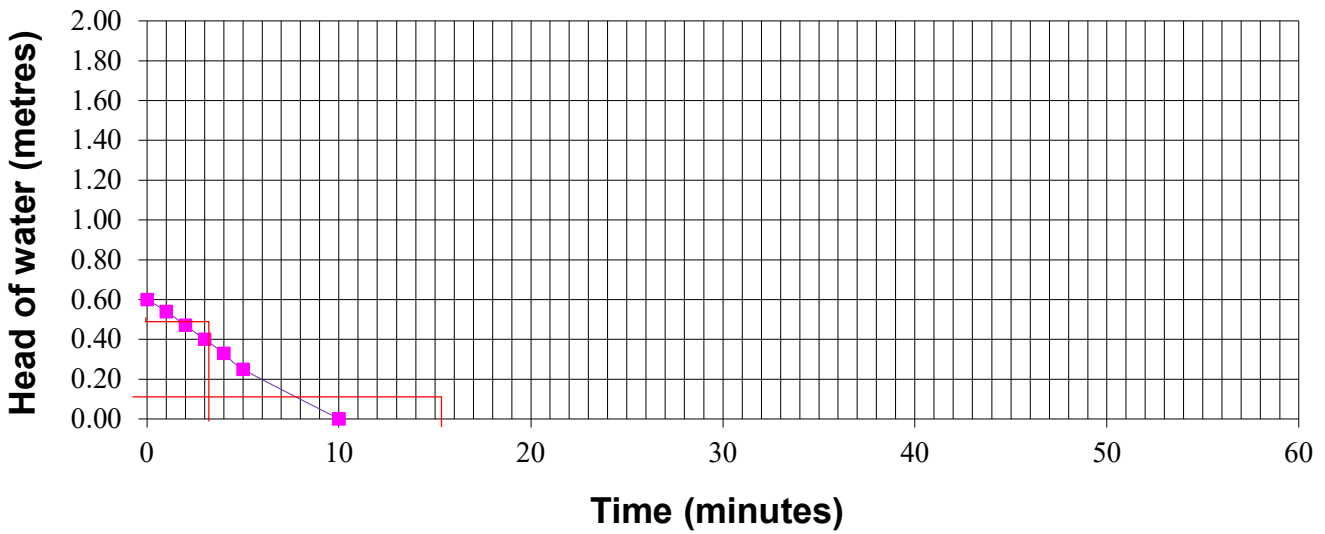
[illegible]

GroundSolve Ltd

2405. Magellan, Llay

SA2 Test 2

17/09/20



Depth	Length	Width	Head at 75% Vol	Head at 25% Vol	Water depth(t=0)	Effective Area	Vp75-Vp25	Adjustment Factor *	t75	t25	Infiltration
(m)	(m)	(m)	(m)	(m)	(m)	Ap50 m2	Volume of water m3		(mins)	(mins)	rate m/s
0.60	1.00	0.60	0.450	0.15	0.60	1.560	0.180	1.00	2.5	7.75	3.663E-04

* with gravel filter adjustment factor = 0.30, with no filter = 1.0

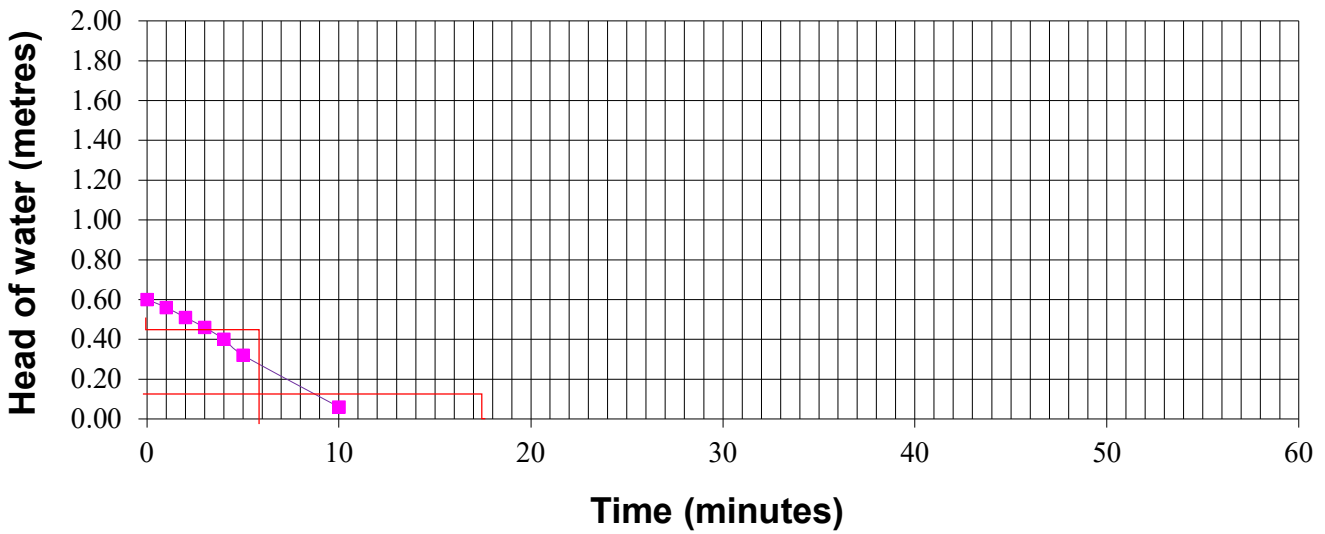
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GroundSolve Ltd

2405. Magellan, Llay

SA2 Test 3

17/09/20



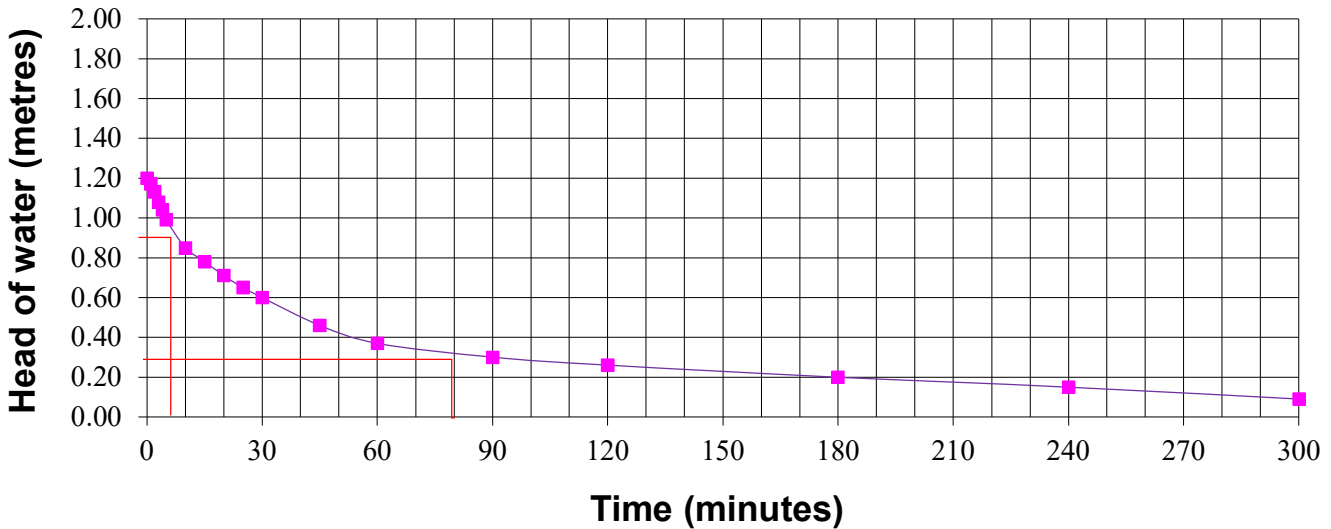
Depth	Length	Width	Head at 75% Vol	Head at 25% Vol	Water depth(t=0)	Effective Area	Vp75-Vp25	Adjustment Factor *	t75	t25	Infiltration
(m)	(m)	(m)	(m)	(m)	(m)	Ap50 m2	Volume of water m3		(mins)	(mins)	rate m/s
0.60	1.00	0.60	0.450	0.15	0.60	1.560	0.180	1.00	3	8.75	3.344E-04

* with gravel filter adjustment factor = 0.30, with no filter = 1.0

[illegible]

GroundSolve Ltd

2405. Magellan, Llay
SA4 Test 1
17/09/20



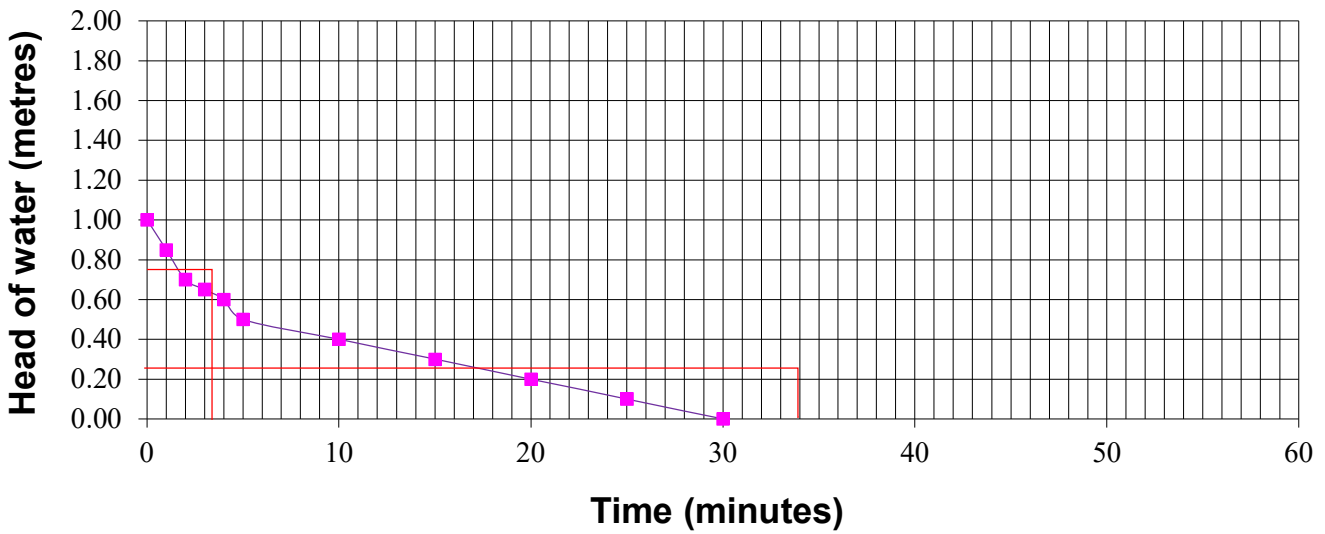
Depth	Length	Width	Head at 75% Vol	Head at 25% Vol	Water depth(t=0)	Effective Area	Vp75-Vp25	Adjustment Factor *	t75	t25	Infiltration
(m)	(m)	(m)	(m)	(m)	(m)	Ap50 m2	Volume of water m3		(mins)	(mins)	rate m/s
3.00	2.00	0.60	0.900	0.30	1.20	4.320	0.720	1.00	7.5	93	3.249E-05

* with gravel filter adjustment factor = 0.30, with no filter = 1.0

[illegible]

GroundSolve Ltd

2405. Magellan, Llay
SA5 Test 1
17/09/20



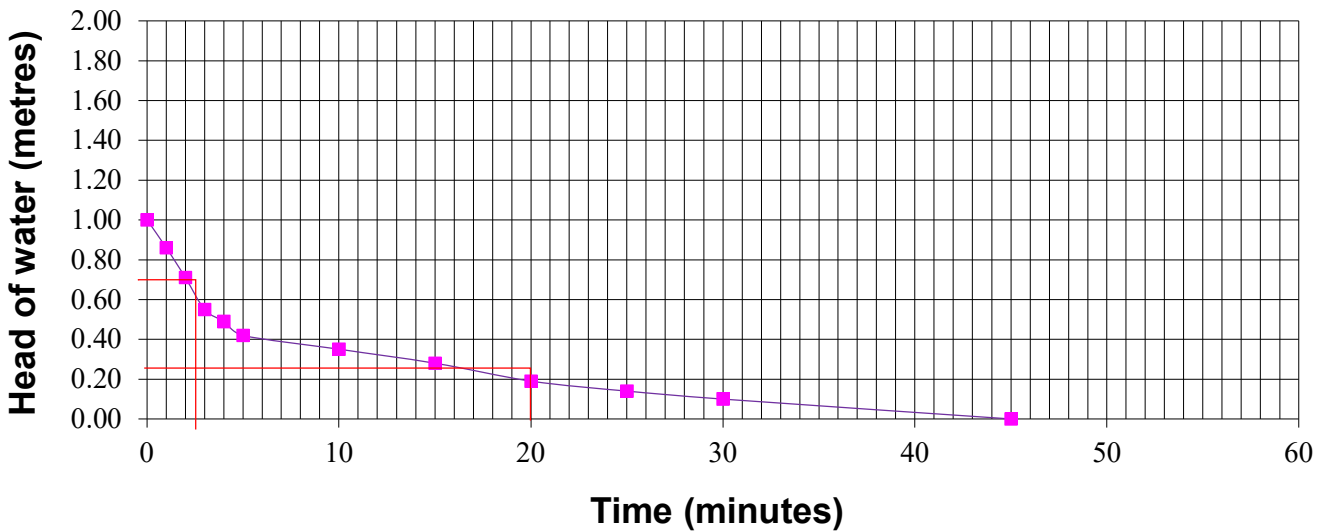
Depth	Length	Width	Head at 75% Vol	Head at 25% Vol	Water depth(t=0)	Effective Area	Vp75-Vp25	Adjustment Factor *	t75	t25	Infiltration
(m)	(m)	(m)	(m)	(m)	(m)	Ap50 m2	Volume of water m3		(mins)	(mins)	rate m/s
2.50	1.80	0.60	0.750	0.25	1.00	3.480	0.540	1.00	1.75	17	1.696E-04

* with gravel filter adjustment factor = 0.30, with no filter = 1.0

[illegible]

GroundSolve Ltd

2405. Magellan, Llay
SA5 Test 2
17/09/20



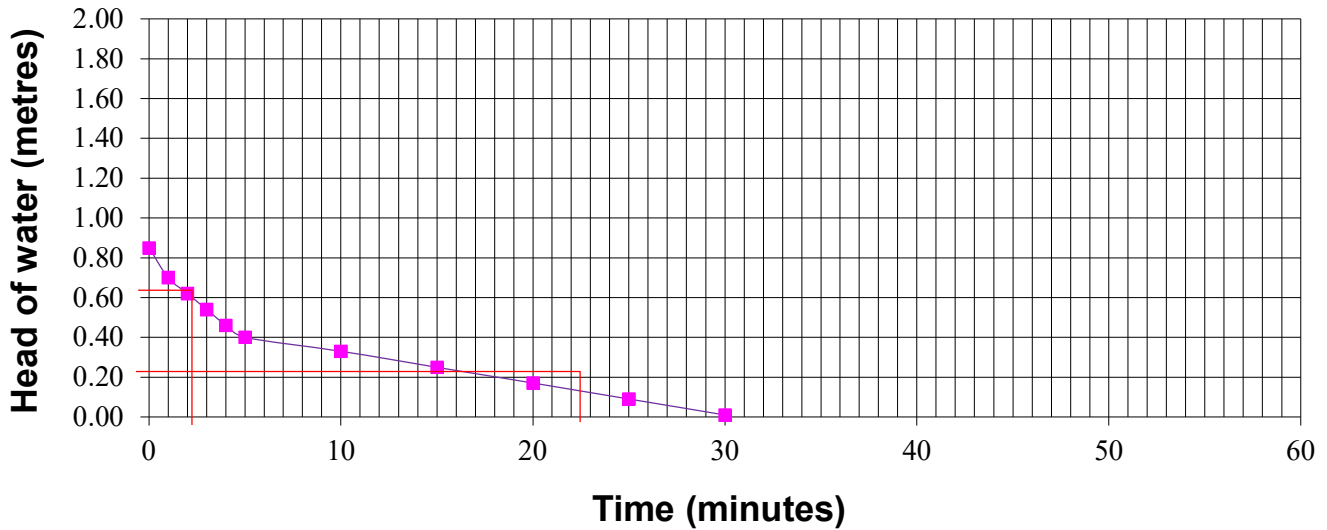
Depth	Length	Width	Head at 75% Vol	Head at 25% Vol	Water depth(t=0)	Effective Area	Vp75-Vp25	Adjustment Factor *	t75	t25	Infiltration
(m)	(m)	(m)	(m)	(m)	(m)	Ap50 m2	Volume of water m3		(mins)	(mins)	rate m/s
2.50	1.80	0.60	0.750	0.25	1.00	3.480	0.540	1.00	2	16.5	1.784E-04

* with gravel filter adjustment factor = 0.30, with no filter = 1.0

[illegible]

GroundSolve Ltd

2405. Magellan, Llay
SA5 Test 3
17/09/20



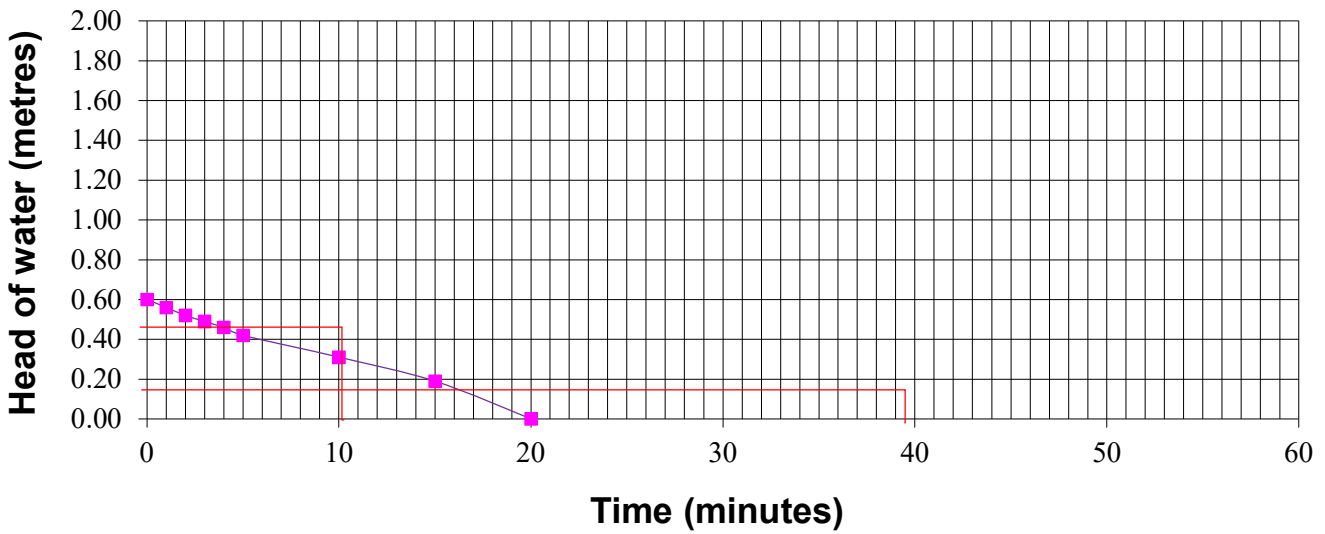
Depth	Length	Width	Head at 75% Vol	Head at 25% Vol	Water depth(t=0)	Effective Area	Vp75-Vp25	Adjustment Factor *	t75	t25	Infiltration
(m)	(m)	(m)	(m)	(m)	(m)	Ap50 m2	Volume of water m3		(mins)	(mins)	rate m/s
2.50	1.80	0.60	0.638	0.21	0.85	3.120	0.459	1.00	1.75	17	1.608E-04

* with gravel filter adjustment factor = 0.30, with no filter = 1.0

[illegible]

GroundSolve Ltd

2405. Magellan, Llay
SA6 Test 1
17/09/20



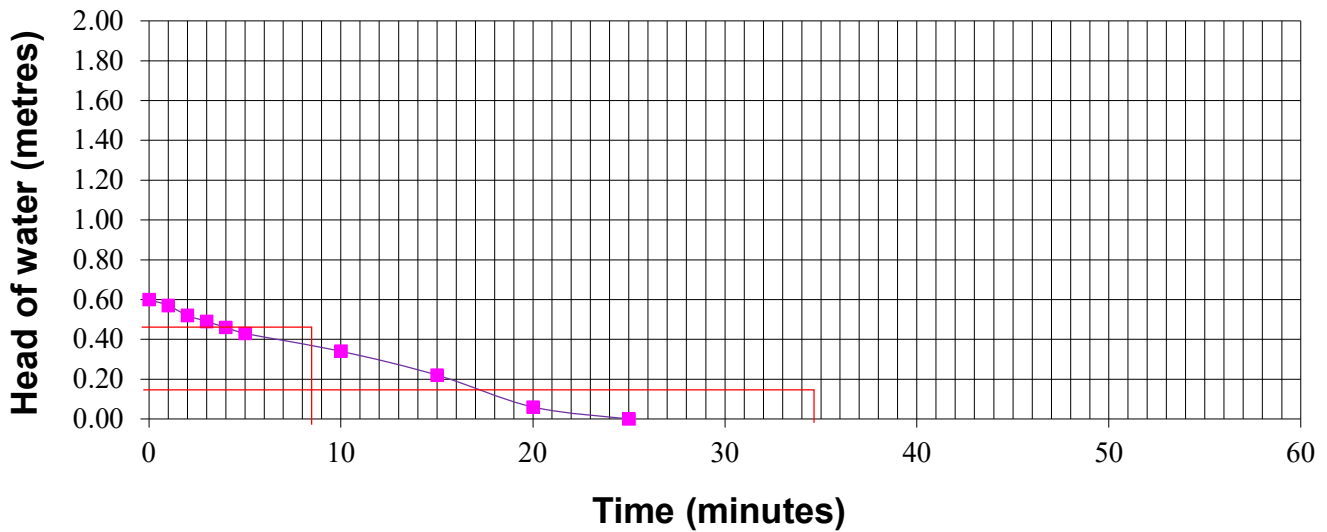
Depth	Length	Width	Head at 75% Vol	Head at 25% Vol	Water depth(t=0)	Effective Area	Vp75-Vp25	Adjustment Factor *	t75	t25	Infiltration
(m)	(m)	(m)	(m)	(m)	(m)	Ap50 m2	Volume of water m3		(mins)	(mins)	rate m/s
0.60	1.00	0.60	0.450	0.15	0.60	1.560	0.180	1.00	4.25	16.5	1.570E-04

* with gravel filter adjustment factor = 0.30, with no filter = 1.0

[illegible]

GroundSolve Ltd

2405. Magellan, Llay
SA6 Test 2
17/09/20



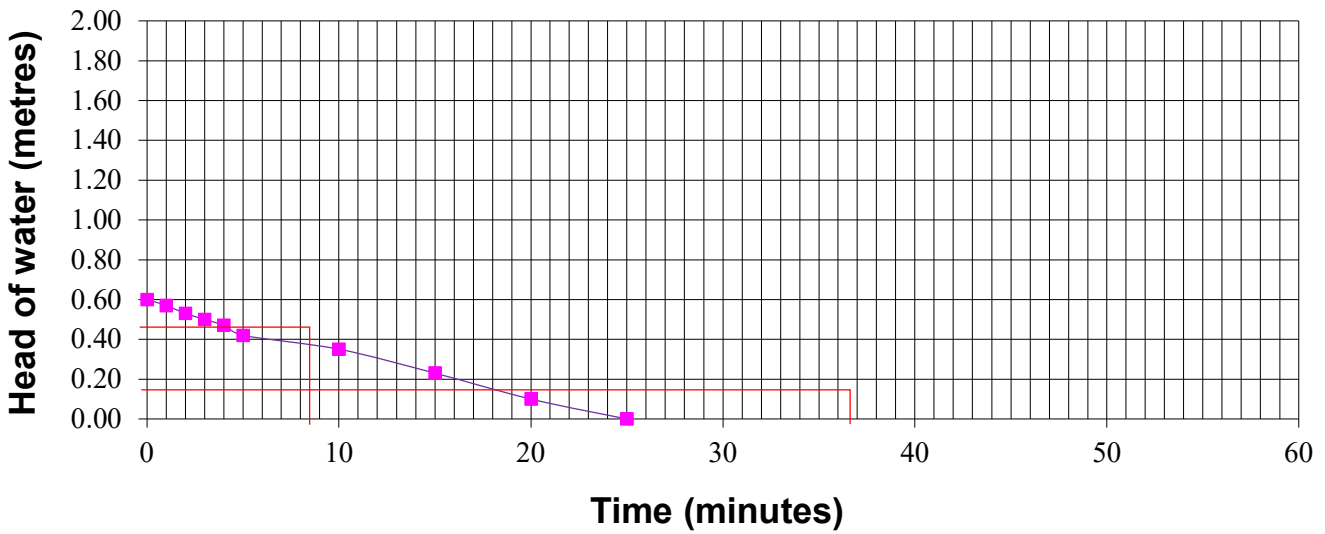
Depth	Length	Width	Head at 75% Vol	Head at 25% Vol	Water depth(t=0)	Effective Area	Vp75-Vp25	Adjustment Factor *	t75	t25	Infiltration
(m)	(m)	(m)	(m)	(m)	(m)	Ap50 m2	Volume of water m3		(mins)	(mins)	rate m/s
0.60	1.00	0.60	0.450	0.15	0.60	1.560	0.180	1.00	4.25	17.5	1.451E-04

* with gravel filter adjustment factor = 0.30, with no filter = 1.0

[illegible]

GroundSolve Ltd

2405. Magellan, Llay
SA6 Test 3
17/09/20



Depth	Length	Width	Head at 75% Vol	Head at 25% Vol	Water depth(t=0)	Effective Area	Vp75-Vp25	Adjustment Factor *	t75	t25	Infiltration
(m)	(m)	(m)	(m)	(m)	(m)	Ap50 m2	Volume of water m3		(mins)	(mins)	rate m/s
0.60	1.00	0.60	0.450	0.15	0.60	1.560	0.180	1.00	4.25	18.5	1.350E-04

* with gravel filter adjustment factor = 0.30, with no filter = 1.0

APPENDIX G

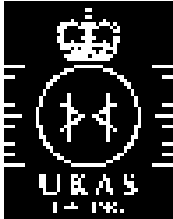
Physical Testing Results

Schedule of Accreditation

issued by

United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-Upon-Thames, Middlesex TW18 3HR

 1365 Accredited to ISO/IEC 17025:2017	Geotechnics Limited Issue No: 021 Issue date: 14 September 2020	
	The Geotechnical Centre 203 Torrington Avenue Tile Hill Coventry CV4 9AP	Contact: Mr Stephane Schiano Tel: +44 (0)24 7662 9024 E-Mail: sschiano@geotechnics.co.uk Website: www.geotechnics.co.uk
Testing performed at the above address only		

DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
AGGREGATES	Particle size distribution - sieving method	BS EN 933-1:2012
	Water content	BS EN 1097-5:2008
ROCK	Point load strength and anisotropy indices	ISRM Commission on Testing Methods. Suggested Method for Determining Point Load Strength 1985
	Water content – method 1	International Society for Rock Mechanics – suggested methods, Part 1 Test 1: 1981
GEOTECHNICAL INVESTIGATION and TESTING - Laboratory testing of soil	Water content	BS EN ISO 17892-1:2014
	Bulk density - linear measurement method	BS EN ISO 17892-2:2014
	Determination of particle density – fluid pycnometer method,	BS EN ISO 17892-3:2015
	Determination of particle size distribution - Sieving method	BS EN ISO 17892-4:2016
	Determination of particle size distribution - Pipette method	BS EN ISO 17892-4:2016
	Incremental loading odometer test	BS EN ISO 17892-5:2017
	Unconsolidated undrained triaxial test	BS EN ISO 17892-8:2018
	Direct shear (small shearbox)	BS EN ISO 17892-10:2018
	Determination of liquid limit (fall cone method)	BS EN ISO 17892-12:2018



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ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-Upon-Thames, Middlesex TW18 3HR

Geotechnics Limited

Issue No: 021 Issue date: 14 September 2020

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
GEOTECHNICAL INVESTIGATION and TESTING - Laboratory testing of soil (cont'd) SOILS for civil engineering purposes	Determination of liquid limit (one-point fall cone method)	BS EN ISO 17892-12:2018
	Determination of plastic limit	BS EN ISO 17892-12:2018
	Determination of plasticity index	BS EN ISO 17892-12:2018
	Moisture content - oven drying method	BS 1377-2:1990
	Saturation moisture content of chalk	BS 1377-2:1990
	Liquid limit - cone penetrometer	BS 1377-2:1990
	Liquid limit - cone penetrometer - one point	BS 1377-2:1990
	Plastic limit	BS 1377-2:1990
	Plasticity index	BS 1377-2:1990
	Linear shrinkage	BS 1377-2:1990
	Density - linear measurement	BS 1377-2:1990
	Particle density - gas jar	BS 1377-2:1990
	Particle density - small pyknometer	BS 1377-2:1990
	Particle density - large pyknometer	BS 1377-2:1990
	Particle size distribution - wet sieving	BS 1377-2:1990
	Particle size distribution - dry sieving	BS 1377-2:1990
	Particle size distribution - sedimentation - pipette method	BS 1377-2:1990
	Sulphate content of soil and ground water gravimetric method	BS 1377-3:1990 (withdrawn)



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2 Pine Trees, Chertsey Lane, Staines-Upon-Thames, Middlesex TW18 3HR

Geotechnics Limited

Issue No: 021 Issue date: 14 September 2020

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS for civil engineering purposes (cont'd)	pH value	BS 1377-3:1990 (withdrawn)
	California Bearing Ratio (CBR)	BS 1377-4:1990
	Dry density/moisture content relationship (vibrating hammer)	BS 1377-4:1990
	Maximum and minimum dry densities for granular soils	BS 1377-4:1990
	Moisture condition value (MCV)	BS 1377-4:1990
	MCV/moisture content relation	BS 1377-4:1990
	Chalk crushing value	BS 1377-4:1990
	One-dimensional consolidation properties	BS 1377-5:1990
	Shear strength - small shear box	BS1377-7:1990
	Residual strength - small ring shear apparatus	BS1377-7:1990
	Unconfined compressive strength - load frame method	BS 1377-7:1990
	Undrained shear strength - triaxial compression without measurement of pore pressure	BS 1377-7:1990
	Undrained shear strength - triaxial compression with multistage loading and without measurement of pore pressure	BS 1377-7:1990
Hydraulically bound and stabilized materials for civil engineering purposes	Initial consumption of lime	BS 1924-2:2018
	California Bearing Ratio / immediate bearing index	BS EN 13286-47:2012
	Moisture content - oven drying method (definitive)	BS EN 17892-1:2014
	Plastic limit	BS 1924-2:2018
	Liquid limit	BS 1924-2:2018
	Plasticity index	BS 1924-2:2018



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United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-Upon-Thames, Middlesex TW18 3HR

Geotechnics Limited

Issue No: 021 **Issue date:** 14 September 2020

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
Hydraulically bound and stabilized Materials for civil engineering purposes	Dry density/moisture content relationship (2.5 kg rammer)	BS 1924-2:2018 and BS EN 13826-2:2010
	Dry density/moisture content relationship (4.5 kg rammer)	BS 1924-2:2018 and BS EN 13826-2:2010
	Dry density/moisture content relationship (vibrating hammer - subsidiary method)	BS 1924-2:2018 and BS EN 13826-4:2003
	Moisture condition value (MCV)	BS EN 13826-46:2003
END		

DATA SHEET - Laboratory Test Symbols



Classification and Strength

Symbol	C - Clay (0 - containing organic matter) Plasticity	M - Silt L - Low I - Intermediate H - High V - Very High E - Extremely High
I_p	Plasticity Index	
%	% retained on 425 μ m sieve, shown under I_p value	
w_L	Liquid Limit	
w_p	Plastic Limit	
NP	Non-Plastic	
NAT	Sample tested in natural state	
w	Water Content	
ρ_d	Particle Density	
Test	Quick undrained triaxial tests	
	SS	Single stage - 102mm diameter.
	S3	Single stage - set of 3 38mm diameter.
	MS	Multistage - 102mm diameter.
	D	Drained Test
	HV	Hand Vane
	PP	Pocket Penetrometer (kg/cm ²)
	NST	Not suitable for test
γ_b	Bulk Density	
σ_3	Triaxial Cell Pressure	
$\sigma_1 - \sigma_3$	Deviator Stress	
##	Excessive Strain	
c_u	Undrained Cohesion	
c	Cohesion Intercept	
ϕ	Angle of Shearing Resistance	
Linear Shrink	Linear Shrinkage	
Stab add-	Stabiliser which is added	

Consolidation

m_v	Coefficient of Volume Compressibility
c_{v50}	Coefficient of Consolidation - Log t
c_{v90}	Coefficient of Consolidation - $\sqrt{t}$

Rock

UF	Unacceptable Failure
----	----------------------

Chemical Analysis

Acid Soluble	Total sulphate in specimen, expressed as SO ₃ %, value in brackets expressed as SO ₄ %
Water Soluble	Soluble sulphate in 2:1 water : soil extract, expressed as SO ₃ g/l, value in brackets expressed as SO ₄ g/l
In Water	Sulphate content of groundwater, expressed as SO ₃ g/l, value in brackets expressed as SO ₄ g/l
pH	pH value
Organic content	Organic content expressed as a percentage of dry weight
Chloride	Chloride Ion content expressed as a percentage of dry weight

MCV, Compaction, CBR

MCV	Moisture Condition Value at natural water content
MCC	Moisture Condition Calibration
CCV	Chalk Crushing Value

Compaction

Type	2.5	=	2.5 kg Rammer
	4.5	=	4.5 kg Rammer
	V	=	Vibrating Hammer
γ_b	Bulk Density		
γ_d	Dry Density		
CBR California Bearing Ratio			
Type	2.5	=	Test on Specimen Recompacted using 2.5 kg Rammer
	4.5	=	As above but using 4.5 kg Rammer
	V	=	As above but using Vibrating Hammer
	M	=	Test on open drive mould specimen cut in field
	S	=	Soaked Specimen

Top	CBR at top of mould
Bottom	CBR at bottom of mould
ND	None Detected

* In the Sample Description denotes a laboratory only description

Laboratory Test Certificate

Form REP008 Rev 3

Issued To Groundsolve Ltd Unit 1 Charter Court, Well House Barns Chester Road, Bretton Flintshire, CH4 0DH	Date of issue	02/10/2020	
	Issue No.	1	
	Client Ref. No.	2405/MLN/TG	
	Samples / Material Source		
	Samples Recv'd	25/09/2020	
Testing Start Date	25/09/2020	Sample State	As received
Testing Complete	02/10/2020	Sampled by	Groundsolve Ltd
Comments			
Project No	PC207971		
Project Name	2405 - MAGELLAN, LLAY		

Summary of Tests

Standard	Test Description	Test Quantity	UKAS
BS EN ISO 17892-1:2014	Water Content	3	Yes
BS EN ISO 17892-12:2018 Cl. 5.3 & 5.5	Liquid Limit and Plastic Limit (4 Points Method)	3	Yes
BS EN ISO 17892-4:2016 Cl. 5.2	Particle Size Distribution by Sieving Method	3	Yes

Note: Any descriptions, opinions or interpretations are outside the scope of UKAS accreditation.
 The results within this report relate only to the samples tested and received from the client.



Test Results checked and approved for issue.
 Signed for and on behalf of Geotechnics Limited

Stephane Schiano (Laboratory Testing Manager)

GEOTECHNICS
 geotechnical and geoenvironmental specialists

203 Torrington Avenue, Tile Hill,
 Coventry, CV4 9UT

LABORATORY RESULTS - Classification and Strength

Project 2405 - MAGELLAN, LLAY

Project No: PC207971

[illegible]

LABORATORY RESULTS - Atterberg Limit

Project 2405 - MAGELLAN, LLAY

Project No: PC207971

Sample					Results							
Hole	Depth (Specimen Depth) m	Type	Sample Ref	Description	Test Type	Point Data		Sym- bol	p %	>425 sieve µm	w _L %	w _p %
						Cone Pene.	Water % (Factor)					
TP5	2.00 (2.00)	D	C49239	Dark brown slightly sandy slightly gravelly CLAY.	Fall Cone 4pt with increasing water content, cone type: 80g/30, washed over 425um sieve			CL	14	19%	28	14
TP6	3.30 (3.30)	D	C49238	Reddish brown slightly sandy slightly gravelly CLAY.	Fall Cone 4pt with increasing water content, cone type: 80g/30, washed over 425um sieve			CL	13	16%	26	13
WS1	1.50 (1.50)	D	C49237	Reddish brown slightly sandy slightly gravelly CLAY.	Fall Cone 4pt with increasing water content, cone type: 80g/30, washed over 425um sieve			CL	17	17%	30	13
Remarks 												

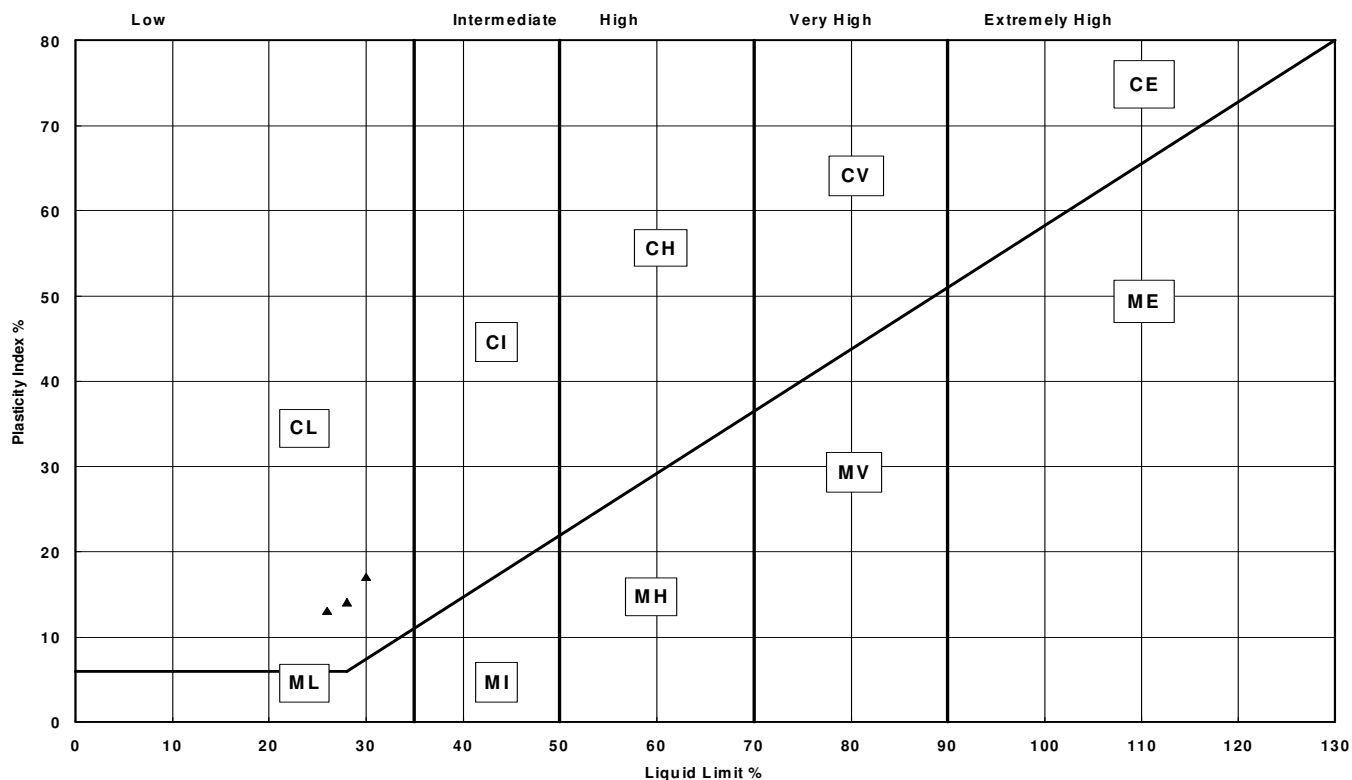


LABORATORY RESULTS - Classification Chart

Project: 2405 - MAGELLAN, LLAY

Project No: PC207971

PLOT OF PLASTICITY INDEX AGAINST LIQUID LIMIT for all items tested



Soil Type	Plasticity Characteristics
C Clay	L Low
	I Intermediate
M Silt	H High
	V Very High
	E Extremely High

Table of Soil Types and Plasticity Characteristics from BS 5930 : 1999

Remarks

02/10/2020

LABORATORY RESULTS - Particle Size Distribution

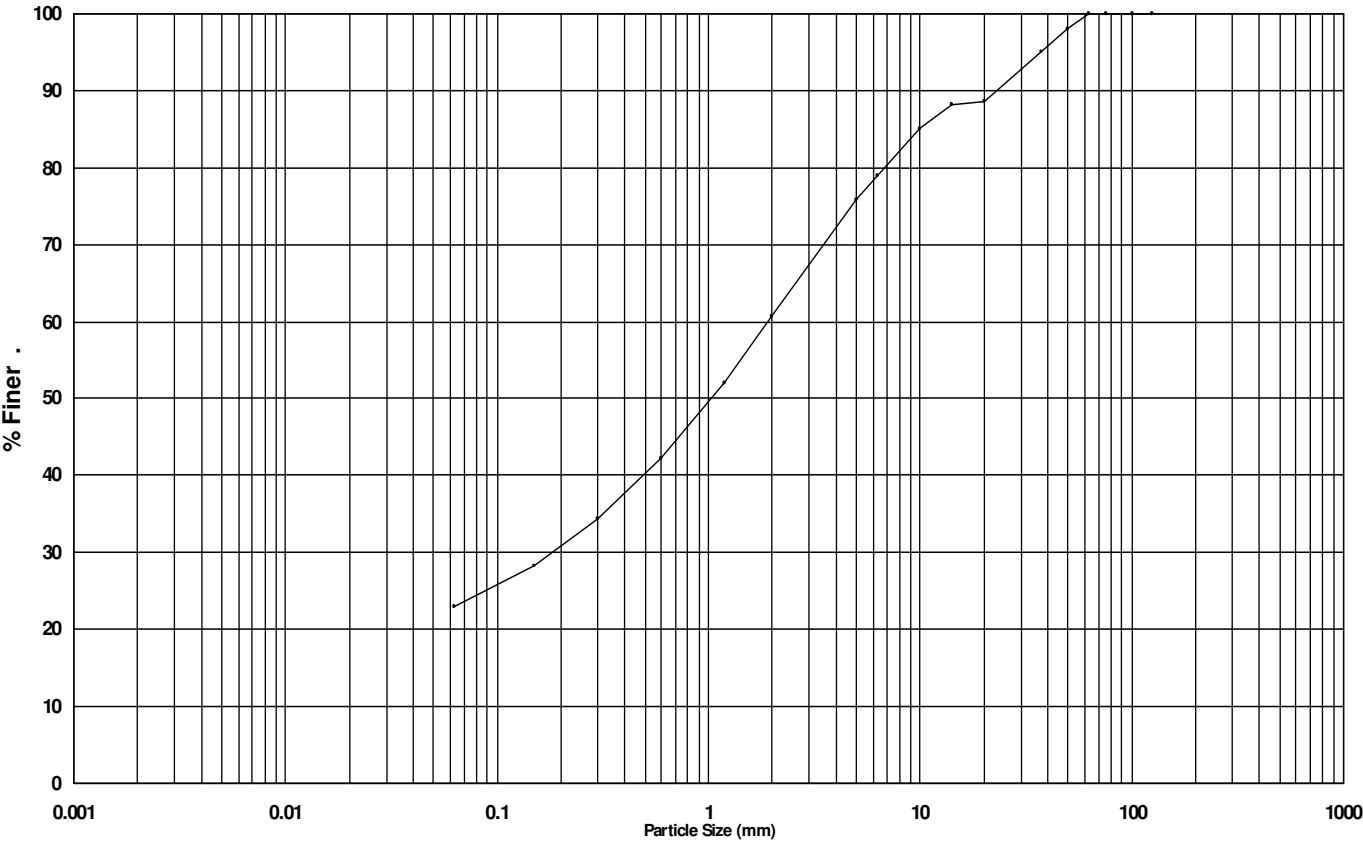
Project: 2405 - MAGELLAN, LLAY

Project No: PC207971

Hole SA1
Sample Depth 0.50m
Sample Type B
Sample Ref C49234

Sample Description

MADE GROUND: dark brown very silty SAND and GRAVEL with coal.



Classification	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	Cobbles	Boulders
CLAY	SILT			SAND			Gravel				

Classification	% of each
SILT (including CLAY)	23
SAND	38
GRAVEL	39
COBBLES	0
BOULDERS	0

Size	% Finer
125 mm	100
100 mm	100
75 mm	100
63 mm	100
50 mm	98
37.5 mm	95
20 mm	89
14 mm	88
10 mm	85
6.3 mm	79
5 mm	76
2 mm	61
1.18 mm	52
600 μ m	42
300 μ m	34
150 μ m	28

Size	% Finer
63 μ m	23

Uniformity Coefficient	
Not Available	
Sieving Method	
Wet sieve	
Fine Particle Analysis	
Method	
Pre-treated with	
% loss on Pre-treatment	
Particle Density	

Remarks Sieve:-Test performed in accordance with BS EN ISO 17892-4:2016

02/10/2020

LABORATORY RESULTS - Particle Size Distribution

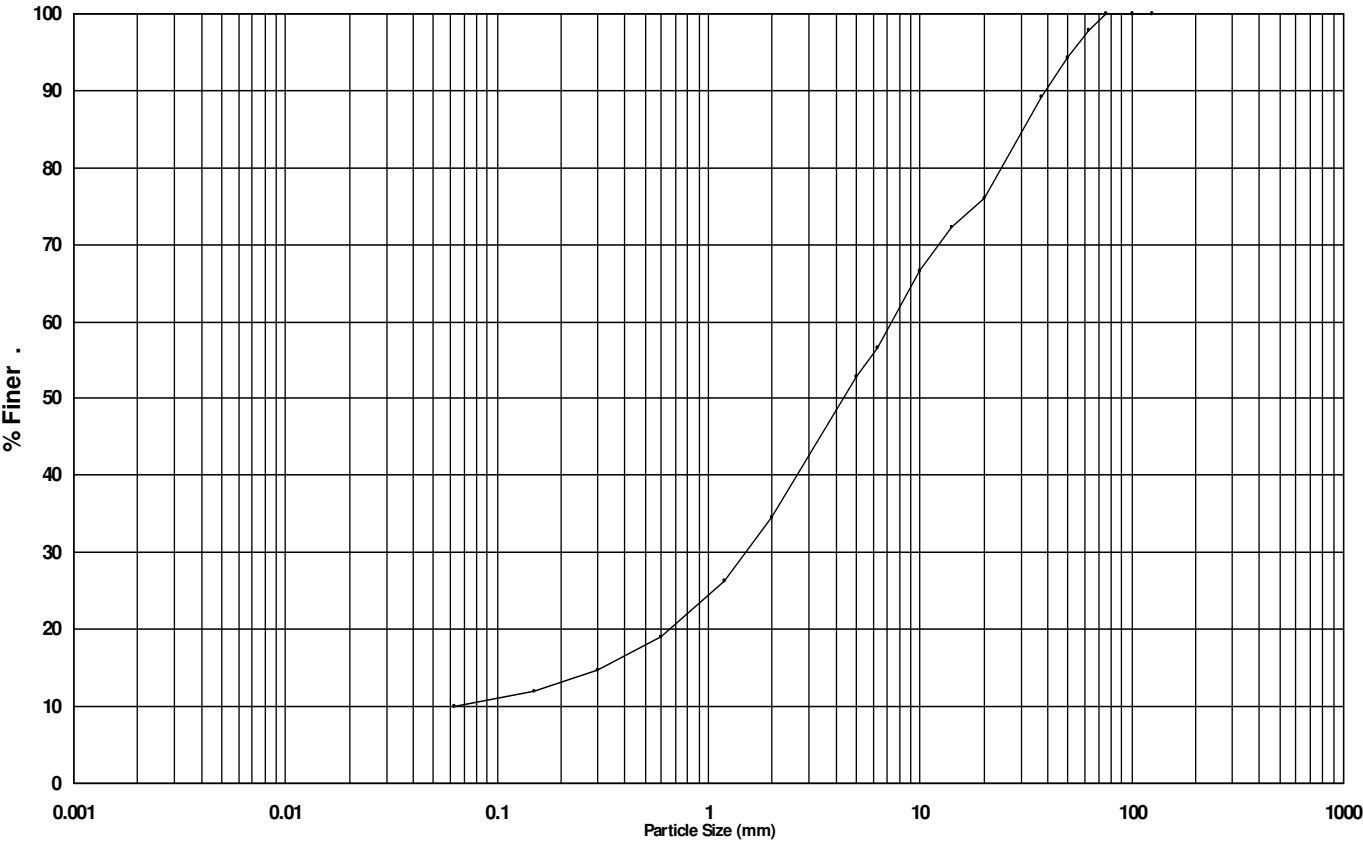
Project: 2405 - MAGELLAN, LLAY

Project No: PC207971

Hole SA2
Sample Depth 0.50m
Sample Type B
Sample Ref C49235

Sample Description

MADE GROUND: brown silty very sandy GRAVEL with brick and roots.



Classification	CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	Cobbles	Boulders
		SILT			SAND			Gravel				

Classification	% of each
SILT (including CLAY)	10
SAND	24
GRAVEL	64
COBBLES	2
BOULDERS	0

Size	% Finer
125 mm	100
100 mm	100
75 mm	100
63 mm	98
50 mm	94
37.5 mm	89
20 mm	76
14 mm	72
10 mm	67
6.3 mm	57
5 mm	53
2 mm	34
1.18 mm	26
600 μ m	19
300 μ m	15
150 μ m	12

Size	% Finer
63 μ m	10

Uniformity Coefficient	
114.93	
Sieving Method	
Wet sieve	
Fine Particle Analysis	
Method	
Pre-treated with	
% loss on Pre-treatment	
Particle Density	

Remarks Sieve:-Test performed in accordance with BS EN ISO 17892-4:2016

02/10/2020

LABORATORY RESULTS - Particle Size Distribution

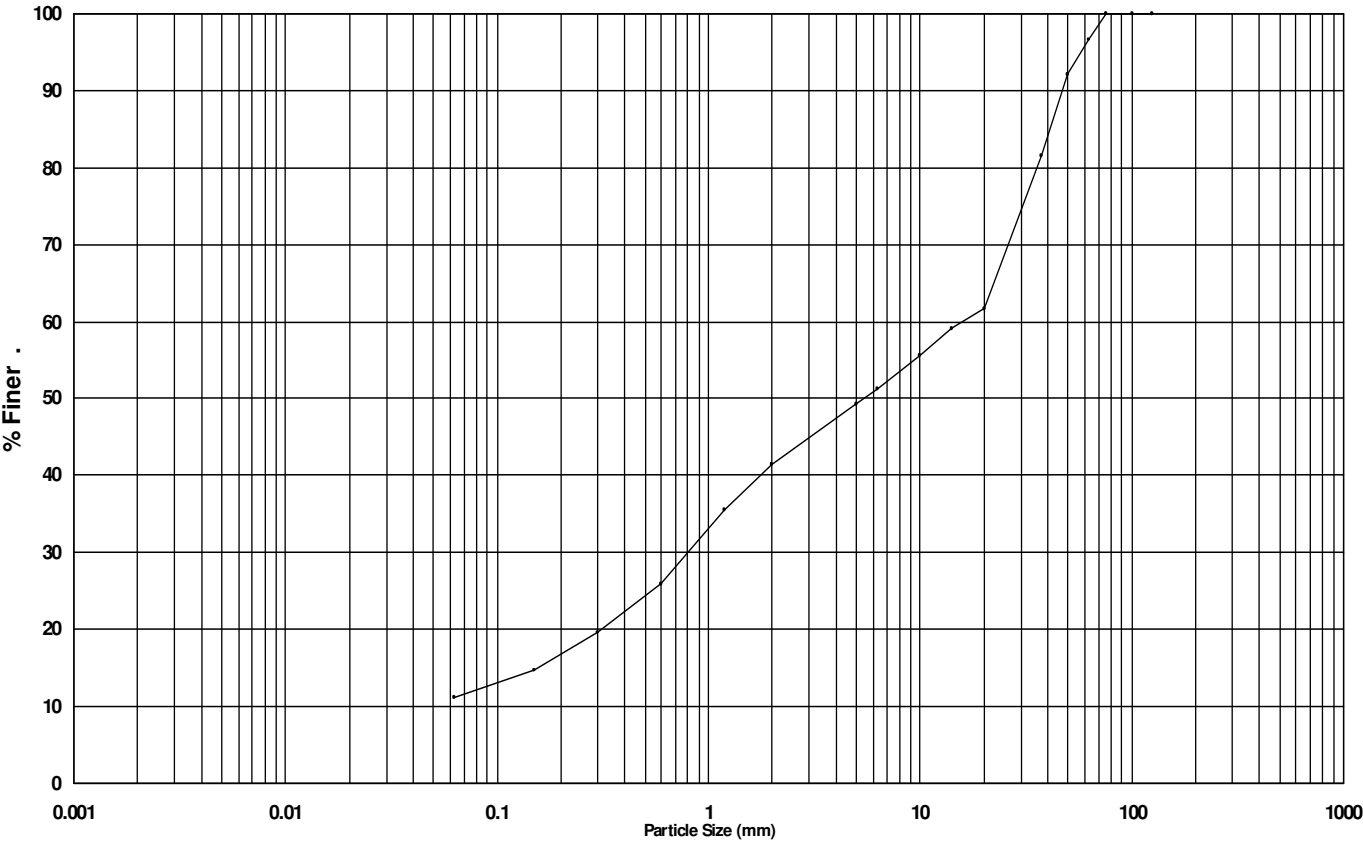
Project: 2405 - MAGELLAN, LLAY

Project No: PC207971

Hole SA5
Sample Depth 1.50m
Sample Type B
Sample Ref C49236

Sample Description

MADE GROUND: dark grey silty very sandy GRAVEL with coal.



Classification	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	Cobbles	Boulders
CLAY	SILT			SAND			Gravel				

Classification	% of each
SILT (including CLAY)	11
SAND	30
GRAVEL	56
COBBLES	3
BOULDERS	0

Size	% Finer
125 mm	100
100 mm	100
75 mm	100
63 mm	97
50 mm	92
37.5 mm	81
20 mm	62
14 mm	59
10 mm	56
6.3 mm	51
5 mm	49
2 mm	41
1.18 mm	36
600 µ m	26
300 µ m	20
150 µ m	15

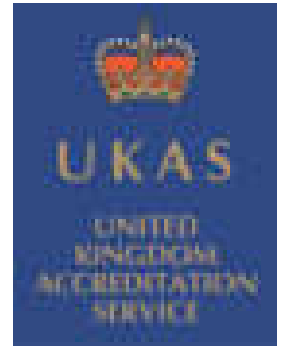
Size	% Finer
63 µ m	11

Uniformity Coefficient	
Not Available	
Sieving Method	
Wet sieve	
Fine Particle Analysis	
Method	
Pre-treated with	
% loss on Pre-treatment	
Particle Density	

Remarks Sieve:-Test performed in accordance with BS EN ISO 17892-4:2016

02/10/2020

Certificate of Accreditation



Geotechnics Limited

Testing Laboratory No. 1365

**Is accredited in accordance with International Standard ISO/IEC 17025:2017
– General Requirements for the competence of testing and calibration
laboratories.**

This accreditation demonstrates technical competence for a defined scope specified in the schedule to this certificate, and the operation of a management system (refer joint ISO-ILAC-IAF Communiqué dated April 2017). The schedule to this certificate is an essential accreditation document and from time to time may be revised and reissued.

The most recent issue of the schedule of accreditation, which bears the same accreditation number as this certificate, is available from www.ukas.com.

This accreditation is subject to continuing conformity with United Kingdom Accreditation Service requirements.

A handwritten signature in black ink, reading "Matt Gantley", is positioned above the printed name and title.

Matt Gantley, *Chief Executive Officer*
United Kingdom Accreditation Service

Initial Accreditation: 1 September 1993
Certificate Issued: 9 December 2019



Scan QR Code to
verify

APPENDIX H

Chemical Testing Results



Certificate of Analysis

Certificate Number 20-17753-1

06-Oct-20

Client GroundSolve Limited
Unit 1
Well House Barns
Bretton
Flintshire
FAO Adam Fenwick
CH4 0DH

Our Reference 20-18204

Client Reference 2405

Order No (not supplied)

Contract Title Magellan

Description 9 Soil samples.

Date Received 16-Sep-20

Date Started 16-Sep-20

Date Completed 09-Oct-20

Test Procedures Identified by prefix DETSn (details on request).

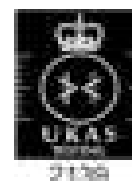
Notes

Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. 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.

Approved By



Adam Fenwick
Contracts Manager



Summary of Chemical Analysis

Soil Samples

Our Ref 20-18204
Client Ref 2405
Contract Title Magellan

				Lab No	1955478	1955479	1955480	1955481	1955482
				Sample ID	TP1	TP2	TP3	TP04	WS1
				Depth	0.50	1.00	3.00	0.50	0.30
				Other ID					
				Sample Type	ES	ES	ES	ES	ES
				Sampling Date	16/09/2020	17/09/2020	18/09/2020	19/09/2020	20/09/2020
				Sampling Time	n/s	n/s	n/s	n/s	n/s
Test	Method	LOD	Units						
Metals									
Arsenic	DETSC 2301#	0.2	mg/kg	17		2.7	17		8
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.6		0.6	0.6		0.4
Cadmium	DETSC 2301#	0.1	mg/kg	0.5		< 0.1	0.5		0.7
Chromium	DETSC 2301#	0.15	mg/kg	21		14	11		17
Chromium III	DETSC 2301*	0.15	mg/kg	12		14	11		19
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0		< 1.0	< 1.0		< 1.0
Copper	DETSC 2301#	0.2	mg/kg	48		21	37		31
Lead	DETSC 2301#	0.3	mg/kg	51		17	47		68
Magnesium Aqueous Extract	DETSC 2076*	10	mg/l	< 10		< 10	< 10		< 10
Mercury	DETSC 2325#	0.05	mg/kg	0.1		< 0.05	< 0.05		< 0.05
Nickel	DETSC 2301#	1	mg/kg	37		58	75		23
Selenium	DETSC 2301#	0.5	mg/kg	2.3		< 0.5	3.3		< 0.5
Zinc	DETSC 2301#	1	mg/kg	84		61	97		83
Inorganics									
pH	DETSC 2008#		pH	7.8	6.7	7.6	7.3		7.7
Cyanide, Total	DETSC 2130#	0.1	mg/kg		0.1	< 0.1	< 0.1		< 0.1
Organic matter	DETSC 2002#	0.1	%		1.9	2.0	1.2		0.8
Chloride Aqueous Extract	DETSC 2055	1	mg/l		< 10.00		2.2		
Nitrate Aqueous Extract as NO3	DETSC 2055	1	mg/l		5.3	< 1.0	< 1.0		
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	91	1762	137	149		91
Sulphide	DETSC 2024*	10	mg/kg		21	52	< 10		< 10
Sulphur (free)	DETSC 3049#	0.75	mg/kg		17	6.0	< 0.75		< 0.75
Sulphur as S, Total	DETSC 2320	0.01	%		0.08	0.06	0.17		
Sulphate as SO4, Total	DETSC 2321#	0.01	%		0.11	0.05	0.25		0.04
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01		< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01		< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01		< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg		< 1.5	< 1.5	< 1.5		< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg		< 1.2	< 1.2	< 1.2		< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg		< 1.5	< 1.5	< 1.5		< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg		< 3.4	< 3.4	< 3.4		< 3.4
Aliphatic C35-C40	DETSC 3072*	3.4	mg/kg		< 3.4	< 3.4	< 3.4		< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg		< 10	< 10	< 10		< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01		< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01		< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01		< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg		< 0.9	< 0.9	< 0.9		< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg		< 0.5	< 0.5	< 0.5		< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg		< 0.6	< 0.6	< 0.6		< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg		< 1.4	< 1.4	< 1.4		< 1.4



Summary of Chemical Analysis

Soil Samples

Our Ref 20-18204
 Client Ref 2405
 Contract Title Magellan

Lab No	1955478	1955479	1955480	1955481	1955482
Sample ID	TP1	TP2	TP3	TP04	WS1
Depth	0.50	1.00	3.00	0.50	0.30
Other ID					
Sample Type	ES	ES	ES	ES	ES
Sampling Date	16/09/2020	17/09/2020	18/09/2020	19/09/2020	20/09/2020
Sampling Time	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units					
Aromatic C35-C40	DETS 3072*	1.4	mg/kg		< 1.4	< 1.4	< 1.4	< 1.4
Aromatic C5-C35	DETS 3072*	10	mg/kg		< 10	< 10	< 10	< 10
TPH Ali/Aro Total	DETS 3072*	10	mg/kg		< 10	< 10	< 10	< 10

Summary of Chemical Analysis

Soil Samples

Our Ref 20-18204
Client Ref 2405
Contract Title Magellan

Lab No	1955478	1955479	1955480	1955481	1955482
Sample ID	TP1	TP2	TP3	TP04	WS1
Depth	0.50	1.00	3.00	0.50	0.30
Other ID					
Sample Type	ES	ES	ES	ES	ES
Sampling Date	16/09/2020	17/09/2020	18/09/2020	19/09/2020	20/09/2020
Sampling Time	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units					
PAHs								
Naphthalene	DETSC 3303#	0.03	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg		< 0.10	< 0.10	< 0.10	< 0.10
Phenols								
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg		1.8	< 0.3	< 0.3	< 0.3

Summary of Chemical Analysis

Soil Samples

Our Ref 20-18204
Client Ref 2405
Contract Title Magellan

				Lab No	1955483	1955484	1955485	1955486
				Sample ID	WS2	WS4	WS5	SA2
				Depth	1.00	4.00	1.00	0.50
				Other ID				
				Sample Type	ES	ES	ES	ES
				Sampling Date	21/09/2020	22/09/2020	23/09/2020	24/09/2020
				Sampling Time	n/s	n/s	n/s	n/s
Test	Method	LOD	Units					
Metals								
Arsenic	DETS 2301#	0.2	mg/kg				57	
Boron, Water Soluble	DETS 2311#	0.2	mg/kg				0.8	
Cadmium	DETS 2301#	0.1	mg/kg				< 0.1	
Chromium	DETS 2301#	0.15	mg/kg				29	
Chromium III	DETS 2301*	0.15	mg/kg				29	
Chromium, Hexavalent	DETS 2204*	1	mg/kg				< 1.0	
Copper	DETS 2301#	0.2	mg/kg				60	
Lead	DETS 2301#	0.3	mg/kg				68	
Magnesium Aqueous Extract	DETS 2076*	10	mg/l				< 10	
Mercury	DETS 2325#	0.05	mg/kg				< 0.05	
Nickel	DETS 2301#	1	mg/kg				37	
Selenium	DETS 2301#	0.5	mg/kg				< 0.5	
Zinc	DETS 2301#	1	mg/kg				71	
Inorganics								
pH	DETS 2008#		pH		7.6	5.4	8.0	6.6
Cyanide, Total	DETS 2130#	0.1	mg/kg				< 0.1	
Organic matter	DETS 2002#	0.1	%				0.6	
Chloride Aqueous Extract	DETS 2055	1	mg/l					
Nitrate Aqueous Extract as NO3	DETS 2055	1	mg/l					
Sulphate Aqueous Extract as SO4	DETS 2076#	10	mg/l		106	112	76	24
Sulphide	DETS 2024*	10	mg/kg				< 10	
Sulphur (free)	DETS 3049#	0.75	mg/kg				< 0.75	
Sulphur as S, Total	DETS 2320	0.01	%				0.06	
Sulphate as SO4, Total	DETS 2321#	0.01	%				0.12	
Petroleum Hydrocarbons								
Aliphatic C5-C6	DETS 3321*	0.01	mg/kg				< 0.01	
Aliphatic C6-C8	DETS 3321*	0.01	mg/kg				< 0.01	
Aliphatic C8-C10	DETS 3321*	0.01	mg/kg				< 0.01	
Aliphatic C10-C12	DETS 3072#	1.5	mg/kg				< 1.5	
Aliphatic C12-C16	DETS 3072#	1.2	mg/kg				< 1.2	
Aliphatic C16-C21	DETS 3072#	1.5	mg/kg				< 1.5	
Aliphatic C21-C35	DETS 3072#	3.4	mg/kg				< 3.4	
Aliphatic C35-C40	DETS 3072*	3.4	mg/kg				< 3.4	
Aliphatic C5-C35	DETS 3072*	10	mg/kg				< 10	
Aromatic C5-C7	DETS 3321*	0.01	mg/kg				< 0.01	
Aromatic C7-C8	DETS 3321*	0.01	mg/kg				< 0.01	
Aromatic C8-C10	DETS 3321*	0.01	mg/kg				< 0.01	
Aromatic C10-C12	DETS 3072#	0.9	mg/kg				< 0.9	
Aromatic C12-C16	DETS 3072#	0.5	mg/kg				< 0.5	
Aromatic C16-C21	DETS 3072#	0.6	mg/kg				< 0.6	
Aromatic C21-C35	DETS 3072#	1.4	mg/kg				< 1.4	



Summary of Chemical Analysis

Soil Samples

Our Ref 20-18204
 Client Ref 2405
 Contract Title Magellan

				Lab No	1955483	1955484	1955485	1955486
				Sample ID	WS2	WS4	WS5	SA2
				Depth	1.00	4.00	1.00	0.50
				Other ID				
				Sample Type	ES	ES	ES	ES
				Sampling Date	21/09/2020	22/09/2020	23/09/2020	24/09/2020
				Sampling Time	n/s	n/s	n/s	n/s
Test	Method	LOD	Units					
Aromatic C35-C40	DETSC 3072*	1.4	mg/kg				< 1.4	
Aromatic C5-C35	DETSC 3072*	10	mg/kg				< 10	
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg				< 10	

Summary of Chemical Analysis

Soil Samples

Our Ref 20-18204
 Client Ref 2405
 Contract Title Magellan

				Lab No	1955483	1955484	1955485	1955486
				Sample ID	WS2	WS4	WS5	SA2
				Depth	1.00	4.00	1.00	0.50
				Other ID				
				Sample Type	ES	ES	ES	ES
				Sampling Date	21/09/2020	22/09/2020	23/09/2020	24/09/2020
				Sampling Time	n/s	n/s	n/s	n/s
Test	Method	LOD	Units					
PAHs								
Naphthalene	DETSC 3303#	0.03	mg/kg				< 0.03	
Acenaphthylene	DETSC 3303#	0.03	mg/kg				< 0.03	
Acenaphthene	DETSC 3303#	0.03	mg/kg				< 0.03	
Fluorene	DETSC 3303	0.03	mg/kg				< 0.03	
Phenanthrene	DETSC 3303#	0.03	mg/kg				< 0.03	
Anthracene	DETSC 3303	0.03	mg/kg				< 0.03	
Fluoranthene	DETSC 3303#	0.03	mg/kg				< 0.03	
Pyrene	DETSC 3303#	0.03	mg/kg				< 0.03	
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg				< 0.03	
Chrysene	DETSC 3303	0.03	mg/kg				< 0.03	
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg				< 0.03	
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg				< 0.03	
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg				< 0.03	
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg				< 0.03	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg				< 0.03	
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg				< 0.03	
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg				< 0.10	
Phenols								
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg				< 0.3	

Summary of Asbestos Analysis

Soil Samples

Our Ref 20-18204

Client Ref 2405

Contract Title Magellan

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
1955478	TP1 0.50	SOIL	NAD	none	Joanne Luscombe
1955480	TP3 3.00	SOIL	NAD	none	Joanne Luscombe
1955481	TP4 0.50	SOIL	NAD	none	Joanne Luscombe
1955482	WS1 0.30	SOIL	NAD	none	Joanne Luscombe
1955485	WS5 1.00	SOIL	NAD	none	Joanne Luscombe

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. 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'. Key: * -not included in laboratory scope of accreditation.

Information in Support of the Analytical Results

Our Ref 20-18204

Client Ref 2405

Contract Magellan

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
1955478	TP02 2.10 SOIL	16/09/20	GJ 250ml, GJ 60ml x2, PT 1L		
1955479	TP04 0.50 SOIL	16/09/20	PT 1L		
1955480	TP06 1.00 SOIL	16/09/20	GJ 250ml, GJ 60ml x2, PT 1L		
1955481	TP10 0.50 SOIL	16/09/20	GJ 250ml, GJ 60ml x2, PT 1L		
1955482	WS02 3.50 SOIL	16/09/20	GJ 250ml, GJ 60ml x2, PT 1L		
1955483	WS04 2.00 SOIL	16/09/20	PT 1L		
1955484	TP01 2.00 SOIL	16/09/20	PT 1L		
1955485	TP01 0.50 SOIL	16/09/20	GJ 250ml, GJ 60ml x2, PT 1L		
1955486	TP02 0.50 SOIL	16/09/20	PT 1L		

Key: P-Plastic T-Tub G-Glass J-Jar

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report