

20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m

8

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km². In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km²; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	No data	No data	No data	No data	No data	No data	No data
On site	No data	No data	No data	No data	No data	No data	No data
On site	No data	No data	No data	No data	No data	No data	No data
24m N	No data	No data	No data	No data	No data	No data	No data
29m NW	No data	No data	No data	No data	No data	No data	No data
33m W	No data	No data	No data	No data	No data	No data	No data
34m W	No data	No data	No data	No data	No data	No data	No data
41m E	No data	No data	No data	No data	No data	No data	No data

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m

28

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km²).

Location	Arsenic (mg/kg)	Bioaccessible Arsenic (mg/kg)	Lead (mg/kg)	Bioaccessible Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Tin (mg/kg)
On site	19	3.3	138	95	0.7	53	47	23	18



Location	Arsenic (mg/kg)	Bioaccessible Arsenic (mg/kg)	Lead (mg/kg)	Bioaccessible Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Tin (mg/kg)
On site	20	3.5	138	95	0.7	52	50	24	21
On site	21	3.7	150	103	0.7	53	57	26	25
On site	21	3.7	181	124	0.8	56	63	28	30
On site	25	4.4	258	177	1	66	103	35	60
On site	28	4.9	436	300	1.3	79	164	45	114
On site	28	4.9	413	284	1.2	76	146	42	105
On site	29	5.1	344	236	1.1	73	143	42	93
On site	30	5.3	468	322	1.2	80	174	47	120
On site	30	5.3	374	257	1	74	147	45	88
On site	31	5.4	358	246	1.1	72	153	45	95
On site	34	5.9	424	291	1.1	78	189	51	123
On site	36	6.3	547	376	1.4	87	242	58	174
On site	38	6.7	514	353	1.3	83	239	57	171
On site	41	7.2	592	407	1.3	89	284	64	207
On site	42	7.3	633	435	1.4	92	314	67	238
On site	46	8.1	692	475	1.5	95	376	74	303
14m N	22	3.8	234	161	0.8	64	76	31	38
16m NW	26	4.6	382	262	1	73	114	37	76
20m NW	27	4.7	381	262	1	75	119	38	76
21m N	23	4	262	180	1	67	93	33	53
26m W	30	5.3	454	312	1.3	82	176	48	115
31m NE	20	3.5	208	143	0.8	59	64	29	30
33m W	24	4.2	387	266	1.2	73	132	39	100
40m SW	37	6.5	573	394	1.2	86	240	59	167
41m SE	12	2.1	51	35	0.5	36	17	13	5
43m E	12	2.1	46	32	0.5	33	15	12	5
47m W	25	4.4	389	267	1.1	72	129	38	100



This data is sourced from the British Geological Survey.

20.3 BGS Measured Urban Soil Chemistry

Records within 50m

1

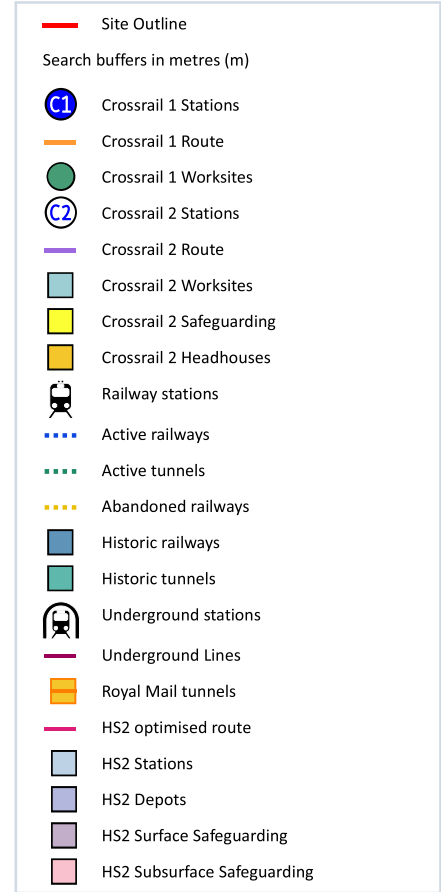
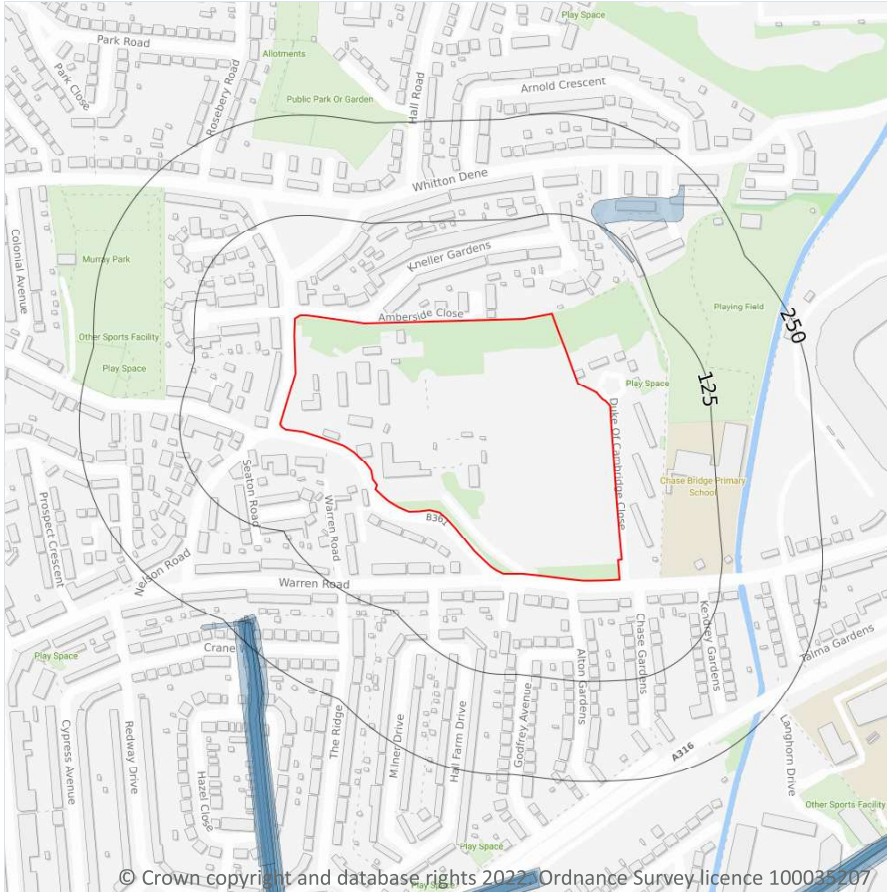
The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km².

Location	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Lead (mg/kg)	Tin (mg/kg)	Sample Type
17m S	47.8	1.5	96.4	398.8	76.4	718.2	327.5	Topsoil

This data is sourced from the British Geological Survey.



21 Railway infrastructure and projects



21.1 Underground railways (London)

Records within 250m

0

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

Records within 250m

0

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.

This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m

0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m

11

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

Features are displayed on the Railway infrastructure and projects map on **page 112**

Location	Land Use	Year of mapping	Mapping scale
116m NE	Railway Sidings	1935	2500
218m SW	Tramway Sidings	1912	10560
218m SW	Tramway Sidings	1933	10560
223m SW	Tramway Sidings	1894	10560
225m SW	Tramway Sidings	1896	2500
227m SW	Tramway Sidings	1912	10560
228m SW	Tramway Sidings	1894	10560
228m SW	Tramway Sidings	1915	2500
228m SW	Tramway Sidings	1896	10560
230m SW	Tramway Sidings	1898	10560
232m SW	Tramway Sidings	1912	10560

This data is sourced from Ordnance Survey/Groundsure.



21.5 Royal Mail tunnels

Records within 250m

0

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.

This data is sourced from Groundsure/the Postal Museum.

21.6 Historical railways

Records within 250m

0

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m

0

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m

0

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m

0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.



21.10 HS2

Records within 500m

0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

This data is sourced from HS2 Ltd.



Data providers

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APPENDIX 3 – OS HISTORICAL MAPS

Site Details:

FLAT, KNELLER HALL ROYAL
MILITARY SCHOOL OF MUSIC,
KNELLER ROAD,
TWICKENHAM, TW2 7DU

Client Ref: P4134J12485-1
Report Ref: JOMAS-8446055
Grid Ref: 514746, 174220

Map Name: County Series

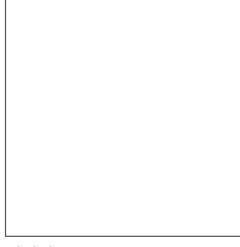
Map date: 1865

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1865
Revised 1865
Edition N/A
Copyright N/A
Levelled N/A



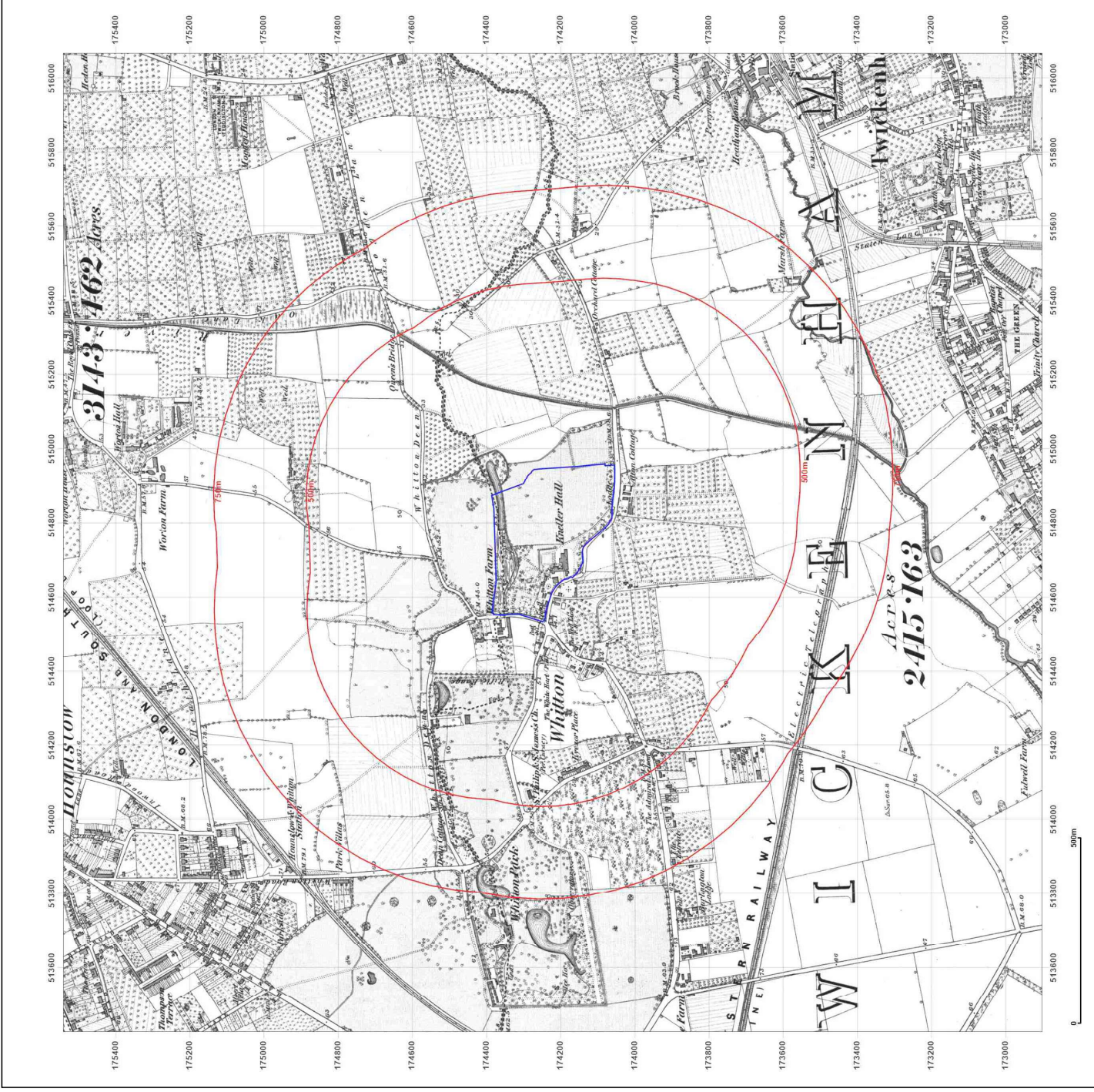
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Production date: 13 January 2022

Map legend available at:
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Site Details:

FLAT, KNELLER HALL ROYAL MILITARY SCHOOL OF MUSIC, KNELLER ROAD, TWICKENHAM, TW2 7DU

Client Ref: P4134J12485-1
Report Ref: JOMAS-8446055
Grid Ref: 514746, 174220

Map Name: County Series

Map date: 1894

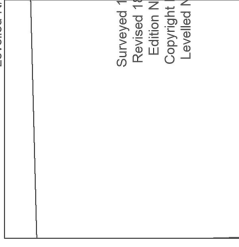
Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1865
 Revised 1894
 Edition N/A
 Copyright N/A
 Levelled N/A

Surveyed 1894
 Revised 1894
 Edition N/A
 Copyright N/A
 Levelled N/A



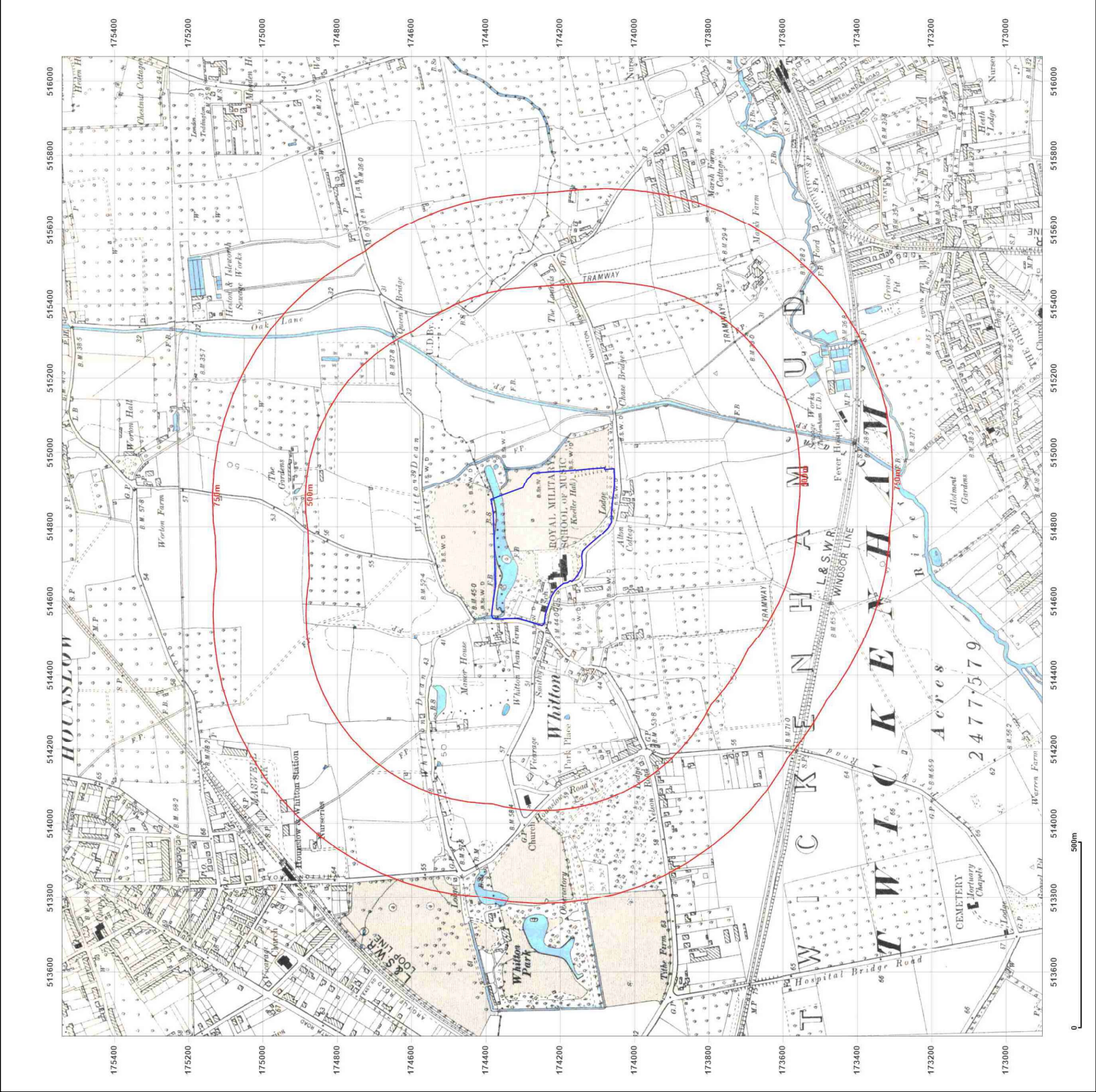
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Site Details:

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Client Ref: P4134J12485-1
Report Ref: JOMAS-8446055
Grid Ref: 514746, 174220

Map Name: County Series

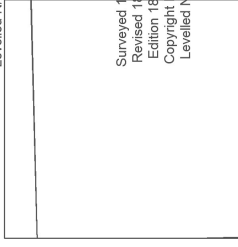
Map date: 1896

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1865
 Revised 1896
 Edition 1896
 Copyright N/A
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Surveyed 1866
 Revised 1894
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