



Contaminated Land Phase One Desk Study for Proposed Development at, 806-810 Manchester Road, Rochdale, OL11 3AW.

Prepared for

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Summary

This report consists of a phase one contaminated land desk study produced in support of planning application for a commercial and residential development on land at 806-810 Manchester Road, Rochdale, OL11 3AW.

Following the site walkover and review of the available information it has been concluded that no contamination exists which poses a significant risk of significant harm to the identified receptors either on site or in the immediate vicinity and the site is considered safe and suitable for the intended use.

The report further recommends that a watching brief is maintained throughout the construction of the new dwellings and any signs of potential contamination found are fully investigated, with appropriate remedial action taken as necessary.

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Introduction

Martin Environmental Solutions has been commissioned, to carry out a phase one contaminated land desk study report in relation to a proposed development for commercial and residential (flats) use on land at 806-810 Manchester Road, Rochdale, OL11 3AW.

Aims and Objectives of the report

The aims and objectives of this report are as follows:

- Assess the likelihood of contamination affecting the site,
- Identify any likely receptors to be affected by the potential contamination,
- Identify the pathways by which the receptors will be exposed to any potential contamination,
- Identify any areas where further investigation will be required.

Scope of works

This report has been written in line with the 'BS 10175: 2011 Investigation of potentially contaminated sites – Code of Practice' and 'The Model Procedures for the Management of Land Contamination, CLR11'.

The scope of this report covers the phase one desk study only. It will look at relevant information on: -

- the history of the site and surrounding area,
- the current use of the site and surrounding area,
- the geology and hydrogeology of the area,

A site walk-over survey has been undertaken in addition to consultations with the existing site owner, to identify any potential contamination issues.

Evaluation of the above information will be used to construct an initial conceptual model as appropriate, with the identification of any additional investigations that may be required.



The Site:

Site Address: 806-810 Manchester Road, Rochdale, OL11 3AW.

Grid reference: 388204; 410638

An aerial photograph of the site is included in Figure 1.

Current Site use:

The site is currently a disused roughly rectangular area covering approx. 0.03 ha. The site is currently an unused overgrown piece of land, fenced off at the front and back with properties to each side. Formerly forming part of a row of terrace properties the original building was demolished in the early 2000's.

To the east are commercial shops with flats above and to the west a wool shop adjacent, with above residential accommodation and then residential properties make up the rest of the terrace. To the south and rear is an asphalt back alley and residential properties and to the north and front of the site the main road with commercial properties and first flat above.

Research

Details of Research

This report has been based on information gathered from a number of reputable sources, covering details:

- on the historic and current use of the site,
- any known waste disposal activities in the area,
- any regulated industrial activities within the vicinity of the site including recorded industrial accidents,
- on the geology, hydrogeology, hydrology of the area,
- identification of any environmentally sensitive sites,
- any natural hazards.

Principle sources of this information have been:

- environmental data from Groundsure Limited
- the Local Planning Authority,
- historic maps (Groundsure Ltd),

- site walk-over survey and discussion with the current owners.

Site History

Information on the historic uses of the site has been obtained from historic mapping information (Appendix 2), and environmental data from Groundsure Limited.

Mapping Year	Changes on Site	Changes off Site
1851	The site forms part of a larger plot of land. The road runs to the north of the site.	The 'Lancashire Yorkshire Railway' runs 80m to the east and beyond the Rochdale canal 150m away. A chemical works sites between the canal and the railway to the northeast, 129m, with a cotton mill and gasometer to the east beyond the canal. Opposite the site is Cabbage Hall and to the south east the map is labelled Blue Pits, Further research has identified that this was the local name for the area due to the small local quarry extracting a blue coloured clay and changed to Castleton in 1875. It is not clear from the mapping where this clay was taken from although there are some old pits shown on some mapping over 750m to the north of the site.
1890-91	The site has been built on along with the rest of the terrace. Consisting of 3 distinct buildings with a fourth to the rear.	The area has seen substantial growth. Cabbage Hall is now a Public Hall, the railway station has been built and the chemical works is also shown as a disused tannery. A Malthouse has been built to the north of the chemical works site, and the mills on the far side of the canal have expanded including a leather works ~450m and a brick works 500m from the site. Housing has been built at the side of these (east) Further mills & Tannery have been built to the southeast of the site along the canal. The gasometer is no longer shown.
1909-10	The fourth building to the rear appears to have been joined to one at the front of the site.	More development in the area. A large textile works 'Globe Works' has been built to the north off

		Princess Street, additional mills to the north of the existing 500+m to the northeast of the site, including an iron works. More residential terrace properties have been built and a large school is shown 450m to the east. A saw mill is shown on the corner of Princess Street, 52m away, behind the houses opposite. Old sand pits are shown over 750m away to the east.
1928-29	No Change	More development in the wider area with further mills (over 750m away) and residential development.
1937-38	No Change	Chemical works are no longer shown, one of the cotton mills is now paper (Linden) and Blue pits Mill is disused. The tannery to the south of Manchester Road and east of the canal is shown as electrical engineering works.
1955-56	No Change	The tannery/chemical works to the northeast is now an engineering works and an electrical substation is shown adjacent to it. Another substation is shown adjacent to the canal on the entrance to the railway station off Manchester Road. A public house is shown next door but two from the site (east). To the south, approx. 30m is a sheet metal works (now housing) off Blomley Street.
1968	No Change	No Significant Changes
1975-77	No Change	No Significant changes St Edwards Primary School has been built 100m to the west.
1984-87	No Change	The metal works site to the south is now housing.
1990-92	No Change	No significant changes. Cobden Lodge and Tudor Hall Street development to the south has been built



2002-10	No Change	No significant changes
2014	The properties on site are no longer present.	No significant changes



Regulatory Information

Relevant information obtained from the Groundsure report (Appendix 1) is summarised below.

No permitted activities identified within 500m of the site as defined in the Environmental Permitting (England and Wales) Regulations 2016 or previous legislation.

Five pollution incidents have been identified within the area. Three of these relate to one incident in 2002, 114m northeast of the site involving the release of an organic chemical. It was reported to have a minor impact on land and no impact on air or water. The second incident was 152m southeast in Aug 2001 with a release of oil/fuel having a minor impact on water. The final report from April 2001 occurred 471m to the south involving oil/fuel and had a minor impact on land. It is not considered that any of these incidents would adversely impact on the development site.

A discharge consents has been identified, 207m south of the site at Rochdale Signal Box, involving sewage discharge. A further harmful discharge to the public sewer has been identified 356m to the southeast from Whipp & Bourne Ltd, switchgear works. This is likely to involve oil/lubricant discharge to the sewer. Again, these are unlikely o impact on the development site.

An upper tier COMAH site exists 169m north east of the site at Tetrosyl Ltd. This is unlikely to impact the site under normal operations.

Four Environment Agency landfill site has been identified, located 930m west, 1270m northeast, 1378m west and 1402m northeast these sites which have accepted a range of material are unlikely to impact on the development site.

A further three landfill records have been identified from historic mapping these are located 430m to the northeast in 1963 (mapping not available), 899m north and 1252m north in 1962. No further details of these site are available but given the distances are unlikely to impact on the development site.

A number of waste transfer/treatment sites have been identified in the area. These include a scrap yard 77m northeast of the site during the 1990's, this site has been identified as a disused building supplies company. Another scrap yard 182-190m west during the 1990's, adjacent to the primary school. This area is now housing. A final site 128m northeast of the site at the 'Railway Approach' has been identified with an



Environment Agency license for metal recycling. The above sites are unlikely to have any adverse impact on the development site.

Nine current land uses which are potentially contaminative have been identified in the area, these include:

- CCTV Empire, 47m northwest, & PC Comms 191m southeast - shops
- 'Works' 59m northeast, this is the former saw mill site and appears to be a closed MOT garage.
- The Railway Station, 68m east
- 'Works' 118m southeast this was the building services company; the site now appears disused.
- electrical substation 139m southeast, by the railway station entrance
- Gas Governor Station, 143m southeast, by the railway station entrance
- A tank 180m northeast, this is the site of the former chemical works/electrical engineers and no sign of any tank was present at the time of the visit.
- Linden Paper Mill 201m east
- Two obsolete petrol station over 300m from the site.

The above sites are not considered to pose a risk to the development site given the distances and topography of the site.

Significant historical potentially contaminative land uses have been identified within 250m of the site from the purchased information; most of these have been identified from the historical mapping and include:

- The textile works
- A pit to the southeast on the 1909 mapping – this is not shown and is the slope down to the railway line on the corner of Manchester Road and Railway Approach.
- Railway sidings
- The Warehouse to the northeast, 80m away
- Railway buildings and Station
- Chemical works and Tannery
- Canal
- Leather works
- Mills
- Gasometer
- Malshouses



Geology and Hydrogeology

Information from the British Geology Survey 1:50,000 mapping identifies the bedrock in the area as Pennine Lower Coal Measures Formation of Mudstone, Siltstone and Sandstone, overlaid with Glaciofluvial deposits, Devensian of sand and gravel. Nearby borehole data identifies a layer of peat, followed by sand/silt, clay and sand.

There is no known mining activity identified in the immediate area, although the site has been identified within a coal mining area. A review of the coal board interactive website shows no historic mining in the area although a coal outcrop, a workable coal seam has been identified to the rear of the site under the housing.

The information obtained on the hydrogeology of the area identifies the site as having a Secondary A aquifer capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers within the bedrock, and the superficial layer.

The site is not located within a Source Protection Zones.

The Groundwater vulnerability is described as HU soils which are presumed to be highly permeable because they are in an urban area.

10 groundwater and 7 surface water abstraction licenses have been identified. Only one of the groundwater sites and three of the surface water sites are active. The groundwater site is located 1774m west of the site at Green Lane Heywood and is used for general cooling. The surface water points are located 1198m, 1643 & 1831m south at Trub Brk, Manchester golf course for irrigation,

Hydrology

The only identified watercourse in the area is the Canal located 149m east of the site at the nearest point.

The risk from flooding is low.



Environmental Sensitivity

Seven records of SSSI's & SAC's have been identified all linked to the Rochdale Canal.

Two ancient woodlands have been identified the nearest 1890m & 1978m northwest of the site, and Hopwood Woodlands 1866m south has been identified as a local nature reserve.

Six areas of Greenbelt have been identified, all linked to the Liverpool, Manchester and West Yorks Greenbelt the nearest point being 443m southwest of the site.

It is unlikely that any contamination if it exists on site would impact on these sites.

The property is in an area identified as having less than 1% of properties above the action level of 200 Becquerel's per cubic metre. In line with BR211 basic radon protection measures will not be required

The site has been identified as having a low/negligible risk of compressible ground and running sand, shrink-swell, landslides and collapsible rock.



Site Walkover

A site walkover was undertaken on the 18th August 2018 and confirmed much of what had already be identified from the information obtained. The photographs in Appendix 3 provide some indication of the current layout and condition of the site.

The site faces onto Manchester Road to the north with high wooden boarding to this façade. Properties exist to the east and west of the site and evidence of where the previous building attached to these is visible. To the immediate sides of the site exist commercial shops with residential above. To the rear a back alley which is constructed of 'crush and run' hardcore. With residential properties beyond.

The alley is at a lower level than the properties to the west which form part of the original terrace, but is approximately level with the site.

The site was very over grown at the time of the visit. From the areas that could be inspected it was obvious that some rubble from the former demolished building was still present on site. This consisted of bricks and tiles. No signs of any contamination were present at the time.

Further information:

An application was submitted to Rochdale Council in 2006 to demolish the former building. From discussions with local residents it appears that this was roughly when the site was cleared and has been left vacant ever since. Suggests that the ground floor of the building was a local grocer and the building was demolished due to structural issues.



Conclusions

Potential Contaminants

Following a review of the information gathered on the history of the site and the surrounding area and following the site walk-over survey there are no contaminants identified on or off site that are likely to present a significant possibility of significant harm to any identified receptor.

Receptors and Pathways

Potential receptors which may be affected by any unknown contamination on site will include:

- Construction workers who are likely to be affected by any potential contamination as they will initially be working in the ground and are likely to be the ones who unearth any potential contaminants.
- Future users of the site, including residents, staff and visitors to the site. For the purpose of evaluating any effects from any contamination found during any intrusive investigation future users/visitors to the site should be regarded as the 0-6-year-old female child.
- Any building on site e.g. foundations which may be attacked by any contaminants in the ground or services.
- The underlying groundwater which may be contaminated by migrating pollutants present on the site. There is also the potential for further pollution of the groundwater or the watercourse from disturbing any potential contaminants on site.

The pathways by which these receptors may be exposed to any unforeseen potential contamination will include:

Construction workers

- Inhalation, of gases or vapours released during ground work or fine particles.



- Ingestion of the contaminants, principally from cross contamination with contaminated soil and inadequate hand washing before smoking and eating.
- Absorption through the skin following contact with contaminated soil.

Future users and visitors

- Inhalations of gas/vapours or fibres, particularly if these are allowed to enter the new structures through the ground and build up in an enclosed area.
- Ingestion of contaminants, through the ingestion of contaminated soil from the garden area via direct contact, e.g. playing in the garden.
- Absorption of contaminants from dermal contact with contaminated soil.

Buildings

Contaminants on site have the potential to affect the foundations to the new building or the services supplying it.

Watercourses

As discussed above, if they exist on site, there is a potential for any contaminants to migrate through the ground into the groundwater and aquifer or via run-off into the watercourse.



Conceptual Model

The table represents a basic conceptual model. It highlights the potential sources of pollutants identified from the gathered information, and potential pathways in which any contaminants could reach the identified receptors.

Pathway	Description	Identified sources	Receptor at risk	Likelihood
1	Run off and seepage into groundwater from any spillages	-	Watercourse/ Environment	V. Low
2	Migration of gases into the building.	-	Future users	V. Low
3	Inhalation of gases/ vapours outside	-	Construction workers/future users	V. Low
4	Inhalation of fine particles	-	Construction workers/future users	V. Low
5	Direct ingestion of contaminated soil	-	Construction workers/future users	V. Low
6	In-direct ingestion of contaminated soil	-	Future users	V. Low
7	Absorption via direct dermal contact with contaminated soil	-	Construction workers/future users	V. Low



Recommendations

As a result of the investigation into the historical use of the site and surrounding area no sources of contamination have been identified on or off site which present a significant possibility of significant harm to the any of the identified receptors.

It is further recommended that a watching brief is maintained throughout the construction of the new building and any signs of potential contamination found are fully investigated, with appropriate remedial action taken as necessary and the local planning authority informed of the findings.

Figure 1 – Aerial Photograph





Appendix 1 – Groundsure Data



Appendix 2 – Historical Mapping

Appendix 3 – Walkover photographs

The site from Manchester Road to the north



The rear of the site from the alley way



Inside the site from the south, the remaining brick and slate can be seen.



The southeast corner, adjacent property. The alley has sloped down to this point and depth of rubble can be seen. Again, containing brick and tile





Looking down from the fire escape next door over the site.

