

Walters Land Limited

**FORMER HOOVER CANDY SITE, MERTHYR
TYDFIL**

Remediation Verification Plan

14275/RB/26/RVP

CLIENT: Walters Land Limited

PROJECT: Former Hoover Candy Site, Merthyr Tydfil

TITLE: Remediation Verification Plan

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1.0 INTRODUCTION

1.1 GENERAL

Intégral Géotechnique (Wales) Limited have been appointed as Geotechnical and Geoenvironmental Consultants by Walters Land Limited to prepare a remediation verification plan for the redevelopment of the former Hoover Candy site in Merthyr Tydfil to a standard suitable for a proposed residential end use.

The following reports have been produced by Integral Geotechnique (Wales Limited and used as part of this report:

- Geoenvironmental and Geotechnical Site Investigation and Outline Remediation Strategy Report Ref: 14275/JJ/25/DS, dated February 2025.
- Groundwater and Surface Water Scheme of Monitoring ref: 14275/RH/26/WSM, dated May 2026.

The above reports should be read in conjunction with this report to gain a full understanding of the site.

The purpose of this report is to provide a remediation strategy and verification plan for the delivery of the site to a standard suitable for the proposed residential end use and to provide details how the remediation works will be supervised and validated.

Outline Planning Permission has been granted for the site (Ref. P/25/0165). Condition 24 states the following:

No phase of the development shall commence until the following components of a scheme to deal with the risks associated with contamination at the site, has been submitted to and approved in writing by the Local Planning Authority.

- 1. A preliminary risk assessment which has identified all previous uses potential contaminants associated with those uses a conceptual model of the site indicating sources, pathways and receptors potentially unacceptable risks arising from contamination at the site.*
- 2. A site investigation scheme, based on (1) to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off site.*
- 3. The results of the site investigation and the detailed risk assessment referred to in (2) and, based on these, an options appraisal and remediation strategy giving full details of the remediation measures required and how they are to be undertaken.*

1.1 GENERAL (CONTINUED)

4. A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in the remediation strategy in (3) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action.

The remediation strategy and its relevant components shall be carried out in accordance with the approved details.

It is considered that Geoenvironmental and Geotechnical Site Investigation and Outline Remediation Strategy Report Ref: 14275/JJ/25/DS, dated February 2025 satisfies the requirements for Condition 24 parts 1, 2 and 3. This was discussed in a meeting held on the 8th July 2026 with NRW and the Council's planning officers and their acceptance confirmed by NRW officers.

This report has been produced to satisfy the requirements of Condition 24 part 4.

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1.2 PROPOSED DEVELOPMENT

The site comprises three separate land parcels as follows: (1) the main former Hoover Candy factory area – to the west of Merthyr Road, (2) former car park area – to the east of Merthyr Road, and (3) former pumping station area – to the east of Merthyr Road.

The vast majority of the site comprises the former Hoover Candy factory site area. The redevelopment proposals across this area of the site include the demolition of existing structures, site reclamation earthworks and the construction of residential housing with associated infrastructure such as access roads and car parking areas.

It is understood that future employment/commercial development is proposed on the smaller land parcels to the east of Merthyr Road.

1.2 PROPOSED DEVELOPMENT (CONTINUED)

A Development Framework Parameter Plan has been prepared by Hammond Architectural Limited, in Drawing No. DFP 01, Revision B, dated March 2025, and a copy presented in Appendix A.

2.0 BACKGROUND

2.1 SITE LOCATION AND DESCRIPTION

The site is located on the southern edge of Merthyr Tydfil at a National Grid Reference of 305737, 204199, see Figure 1.

The site comprises three separate land parcels as follows: (1) the main former Hoover Candy factory area – to the west of Merthyr Road, (2) former car park – to the east of Merthyr Road, and (3) former pumping station – to the east of the Merthyr Road. A site plan is presented in Figure 2.

The site is situated on ground which typically rises to the north from an approximate minimum elevation of 151m AOD in the south to an approximate maximum elevation of 162m AOD in the north.

The main site area comprises the former Hoover Candy manufacturing plant including the manufacturing plant to the south and the assembly plant to the north with an access road to separate the two plant buildings.

The southern area of the site is developed for use as a bowling green, pavilion and cricket pitch. In between the bowling green and Pentrebach station is an area of rough ground which is used for storage. Another storage area is located to the north of the bowling green at the location of former tennis courts. A burning area is located to the rear of the pavilion, and a helipad is located on the northern edge of the cricket pitch.

A car park, former social club and gatehouse is located in between the cricket pitch and the Hoover manufacturing plant area. A new storage building which was formerly a polystyrene plant lies to the west of the car park and the social club.

There are access roads from the site entrance via Merthyr Road to east. The access roads follow the external areas of the plant and are typically of concrete construction and in a poor state of repair with many cracks and areas of settlement. The subsurface drainage was also considered to be potentially blocked.

To the west of the main manufacturing plant there are a number of disused buildings and tanks where chemical processes were undertaken. The plant buildings have significant asbestos sheet content such as roofing and cladding, but it is understood that most of the loose fibre material has been removed. Within the manufacturing plant several of the pits where presses and sumps were formerly present have been infilled with concrete.

2.1 SITE LOCATION AND DESCRIPTION (CONTINUED)

A Western Power Distribution (WPD) transformer station and fixed gas cylinder storage area is located to the west of the assembly plant area.

Two bridges exit the manufacturing plant to cross the River Taff. One bridge has been demolished to the east bank and the other is proposed to be removed at a later date. The bridge which joins the manufacturing and assembly plants is still in place.

The ground level increases in the southern part of the assembly plant with the southern part of the plant split level with an internal access ramp to access the plant floor.

Due to the rising ground levels, as discussed previously, a short retaining wall is present along much of the eastern boundary which increases in height to the north. A disused second exit with associated gatehouse and weighbridge is located within the north western corner of the site.

Additional smaller areas adjacent to the main site area also fall within the development boundary. A water pumping station is located to the east of the site and to the east of Merthyr Road and is linked to the former manufacturing plant by a tunnel. The ground level to the east is lower than the level along Merthyr Road. The former plant car park is located to the east of Merthyr Road and to the northeast of the site. The car park follows the gradient of Merthyr Road and rises to the north. The asphalt surfacing of the car park is deteriorated and has shrubs breaking through. An electricity pylon is located on the eastern edge of the car park, and a gas pipeline marker was observed to the west of the site in line with the electricity pylon.

2.2 AVAILABLE SITE INVESTIGATION DATA

The following report has been reviewed as part of these works.

- Geoenvironmental and Geotechnical Site Investigation and Outline Remediation Strategy, Ref: 14275/JJ/25/Ds, dated February 2025.

With the above report, reference has been made to (and extracts taken from) the following available reports which have all been novated to our client (Walters Land Limited). For completeness, this document should also be read in conjunction with the existing previous reports, which are listed below.

2.2 AVAILABLE SITE INVESTIGATION DATA (CONTINUED)

- Preliminary Sources (desk) Study Report prepared by Redstart / WSP of behalf of Merthyr Tydfil County Borough Council, Doc Ref: GC-4004-RED-75-XX-RP-L-001, dated March 2022,
- Ground Investigation Factual Report prepared by Quantum Geotechnic Limited on behalf of Merthyr Tydfil County Borough Council, Report Ref: Q0838/FR (version 02), dated January 2023,
- Ground Investigation Report (Draft) prepared by Redstart / WSP on behalf of Merthyr Tydfill Conty Borough Council, Doc Ref: GC-4005-RED-75-XX-RP-0002, Revision P01, dated November 2022,
- Ground Investigation Report (Final) prepared by Redstart / WSP on behalf of Merthyr Tydfill Conty Borough Council, Doc Ref: GC-4005-RED-75-XX-RP-0002, Revision P02, dated February 2024.

The above reports should be reviewed in conjunction with this report to gain a detailed appraisal of the site and the works completed to date.

2.3 SITE HISTORY

The recent history of the site has been traced with the aid of a Groundsure Report, which was obtained previously as part of the Redstart Preliminary Sources (desk) Study Report, which contained historical maps of the area dated between 1875 and 2022. The full range of historical maps and discussion is presented within the Preliminary Sources (desk) Study Report Doc Ref: GC4005-RED-75-XX-RP-L-001, dated March 2022. Features such as shafts and levels, water features and buildings, and their approximate locations are discussed in the following commentary, but the maps and original desk study should be viewed to observe their more accurate locations and for more detailed context.

The earliest edition of the map dated 1875 indicated that the main site area was largely undeveloped with areas of rough grass and spoil mounds. A number of tramways crossed the site particularly within the southern area which were used to deposits the spoil. A surface water feature also flowed approximately through the centre of the main site and across the southern area which separated the worked area of the site from an open green space with some trees. A sluice from an adjacent weir which flowed into Pentre-bach Dock Feeder flowed across the northern corner of the main site and then turns south to continue through the northeast additional site area. A road also crossed the additional northeast area.

2.3 SITE HISTORY (CONTINUED)

The tramways that cross the site connect Pentre-bach Iron Works to the southeast to Upper Abercanaid Pit to the west. They also link into the Taff Vale Railway which formed the west and southwest boundary of the site. The River Taff flows parallel to the railway. The tramways crossed the river via an existing bridge to the southwest of the main site area. Plymouth Iron Works is located approximately 250m to the north and Clyn-mil Pit is operational approximately 300m to the northeast. Residential development in the form of terraced properties are indicated to the east of the site within Upper Pentre Bach. Pentre-bach School is also located to the east. The properties are also present within the area of the additional eastern land parcel which is included as part of the site. Old shafts and levels were indicated to the north and northeast of the site. Abercanaid was well-established beyond the river to the south of the site.

The 1900 edition of the map indicated that the spoil mounds remained within the site but that some of the associated tramways had been removed. The surface water features remained within the site. Pentre-bach Iron Works was no longer present to the southeast but Upper Abercanaid Pit was still operation to the west. The tramways that remained across the site linked Upper Abercanaid Pit to a new Brick Works located in the vicinity of the former ironworks. A station had now been constructed at the southern corner of the main site adjacent to the railway line. Plymouth Iron Works to the north was no longer present and Clyn-mil Pit to the northeast was now disused.

The 1919 edition of the map indicated some reprofiling of the spoil mounds within the site. There was evidence that the surface water feature which flowed through the site had been partially culverted. The two additional parcels of land to the northeast and east remained relatively unchanged. Upper Abercanaid Pit was disused by this time.

It is understood that the first buildings were constructed with the main site area circa 1948. The 1964 edition of the map indicated two large factory buildings within the main site area and with some smaller buildings present around the main buildings. Access to the buildings was gained via Merthyr Road to the northeast. The northern area of the main site was indicated to be a slag heap. The northeast land parcel had been slightly reprofiled but remained undeveloped and the eastern land parcel was also undeveloped. The southern area of the site had been redeveloped as a sports ground which included a bowling green, a putting green and a pavilion. The former surface water features had been removed or diverted from beneath the site area. The road infrastructure had been improved as part of the redevelopment of the area which included a new roundabout adjacent to the southeast corner of the site. Development continued in the vicinity of the site including a factory beyond the road to the east. A pump house had been constructed to the northeast of the site in the area of the old shafts.

2.3 SITE HISTORY (CONTINUED)

By the 1972 edition of the map the northern assembly plant building had been constructed. New access had also been constructed into the site from the north, and an improved road crossed the northeast additional site area. An overhead electricity line was indicated to cross the northern area of the site, and an electricity substation was located on the western edge. An additional small factory building had been constructed within the southern area of the site in between the sports ground and the main factory building.

The 1986 edition of the map indicated that the two original factory buildings had been joined to create one large building. There were two main buildings now within the main site area (the manufacturing and assembly plants) configured as they are in the present day. More factory units had been constructed beyond the river to the west of the site with a footbridge access across the river from the main site area. A new roundabout had been constructed adjacent to the northern boundary of the site. By this stage a pumping station which included a tank had been constructed within the eastern land parcel.

The site has remained relatively unchanged between the late 1980's and the present day with the northeast land parcel utilised as a car park by the 1990's. development continued with new factory buildings constructed to the east of the site. The large factory located beyond the river to the west was demolished to slab level by 2016 and was fully cleared by 2019 in preparation for future redevelopment. The footbridge which connected into the main site area was no longer evident by the 2021 aerial photo.

2.4 SUMMARY GROUND CONDITIONS

The ground conditions have been summarised using the existing intrusive site investigation data which includes shallow trial pits excavated to a maximum depth of 4.0m, windowless sample boreholes drilled to a maximum depth of 6.2m, cable percussion boreholes drilled to a maximum depth of 13.8m, dynamic sampling and rotary openhole boreholes drilled to a maximum depth of 33.0m, cable percussion with follow on rotary openhole or cored boreholes drilled to a maximum depth of 49.0m.

A summary of the ground sequence and thicknesses encountered across the site is presented below in Table 1.

2.4 SUMMARY GROUND CONDITIONS (CONTINUED)

Table 1: Summary of Ground Sequence and Thicknesses	
<i>Strata</i>	<i>Stratum Thickness (m)</i> <i>Average thickness in brackets (m)</i>
Hard surfacing and internal floor slabs	0.05 - 0.30
Topsoil	0.10 - 0.30
Made Ground	1.35 - 9.9 (3.65)
Superficial Deposits-fine grained (silt or clay)	0.05 - 1.5 (0.85)
Superficial Deposits-granular	2.6 – 24.0 (17.6)
Sandstone, Mudstone, Siltstone with coals	3.0 – 31.3 (only proven to base of borehole)

Hardstanding and Floor Slabs, Topsoil and Made Ground

Hardstanding was encountered at the majority of the exploration locations. Asphalt surfacing was typically 0.08m thick with the concrete pavements generally thicker at 0.25m thick. The internal floor slab within the production building ranged from 0.2m to 0.3m thick.

Turf and topsoil was present within one third of the exploratory holes within the southern former sports ground area. The topsoil material typically comprised black slightly gravelly silt.

Variable made ground was present across the site. However, beneath approximately two thirds of the production building footprint the made ground comprised a consistent layer of gravel comprising slag between 3.3m and 5.3m thick.

Away from the production building the made ground was found to be granular and ranging from black silty sandy gravel (in areas very silty and containing cobbles) to a silty gravelly sand (locally very silty). Several holes also encountered reworked alluvial clay at the base of the made ground. Most of the material comprised a mix of shale and mudstone clasts and in areas with a horizon of coal dust or material rich in coal clasts which would suggest that the material is colliery spoil. The location of coal rich materials was found to be random across the site.

2.4 SUMMARY GROUND CONDITIONS (CONTINUED)

Thinner than average made ground was encountered within the pumping station area and intermittently outside the central parts of the production building where the made ground was as thin as 1.45m to 2.0m. Thicker made ground was encountered within the former car park area with a thickness range of between approximately 6.0m and 9.9m. The thicker material was often grey or greyish brown with fragments of mudstone and siltstone, resembling colliery spoil.

Obstructions were encountered within the top 4.0m of the made ground. Obstructions included a rubber tyre, a concrete pipe, unknown obstructions and gas pipes.

The reworked fine alluvium was found to have a low plasticity although the ash fill at some locations was found to be cohesive and of an intermediate plasticity.

Samples were also tested for organic matter content with the results indicating elevated levels reflecting the heterogeneity in the material and suggested that the material comprised colliery spoil with fragments of coal.

Follow up calorific value tests were undertaken, and all the samples could have potential to smoulder if exposed to a heat source. The samples taken from the cricket pitch area indicated lower results and are of less concern.

Slag expansion tests were undertaken, and the volume increase was found to be reasonably low.

Fine-Grained Alluvium

Where present fine-grained alluvium lies at the top of an alluvial sequence, with a coarse-grained component beneath.

Fine-grained alluvium was present in approximately half the exploratory holes drilled or excavated across the main Hoover site area to the west of Merthyr Road, and also beneath the former car park site area.

The material varies from black to brown, soft silty clayey silt (occasionally containing wood fragments) to sandy clay (which can be gravelly).

The fine-grained alluvium deposits were noted to be absent within the exploratory holes positioned across the former pumping station site area.

2.4 SUMMARY GROUND CONDITIONS (CONTINUED)

Atterberg Limits classify the cohesive alluvium as having a low plasticity (gravelly sandy clay), intermediate plasticity (silts) and high plasticity (sandy clays). The SPT N values gave a range of extremely low strength to high strength within the cohesive alluvium.

Coarse-Grained Alluvium

Coarse-grained alluvium is present across the site, and it has a substantial variation in thickness, which reflects variable depths bedrock.

The deepest areas of coarse-grained alluvium (around 21 to 24m thickness) are associated with a depression in rockhead. The depression sits beneath most of the Hoover warehouse building and passes through the centre line of the Hoover production building and out through the centre/eastern parts of the cricket pitch.

Thinner coarse alluvium is associated with the disused car park (where it is around 2.60m to 3.10m thick).

The coarse alluvium had SPT N values which ranged from dense to very dense. The strength was found to vary within bands and not necessarily increase with depth.

Coal Measures Bedrock

South Wales Middle Coal Measures Formation are known to be present beneath the site underlying the superficial Alluvium deposits. The boreholes found the strata to comprise competent layers of dark grey to grey siltstones, mudstones, seatearth and coal. Occasional thin to thick beds of pale grey sandstone were also encountered. The depths to bedrock vary across the site between 9.6m and 30.0m.

A number of intact coal seams were also encountered within the drilled depths of the rotary boreholes. In addition to the encountered coal seams a 3.8m high void was recorded during the drilling of rotary borehole RBH111 between depths of approximately 39.1m and 42.9m bgl. This void could be associated with historical underground mine workings, possibly targeting the Nine Feet seam.

The intact rock compressive strength would be about 15MPa based on the test results. The results show a scatter and no trend in increase with depth.

Groundwater

Given the proximity to the river and the local geology, shallow groundwater was anticipated.

2.4 SUMMARY GROUND CONDITIONS (CONTINUED)

Relatively shallow groundwater was encountered in cable percussive boreholes at a variety of depths ranging between approximately 6.60m and 7.80m bgl. Groundwater strikes recorded in the rotary boreholes were encountered at generally similar depths, although some were deeper.

In general, water strikes were not encountered in the 5.0m to 6.0m deep windowless sample boreholes with the exception of WS128, where a strike was recorded at a depth of approximately 4.0m bgl.

Groundwater strikes were not encountered in the 4.0 m deep trial pits, except for TP106 and TP108, where inflows were recorded at depths of approximately 3.20m bgl and 2.70m bgl respectively. Both these trial pits were located in the cricket pitch area.

Where double standpipes/piezometers were installed with one pipe in the alluvium and one pipe in the Coal Measures, such as RBH109, groundwater was slightly elevated in the Coal Measures standpipe, e.g. RBH109 had an 18cm difference in levels. In other dual pipe installations, the difference was less, around 10cm. This suggests that the Coal Measures may be fed by slightly elevated heads in the hills surrounding the site.

2.5 IDENTIFIED CONTAMINATION

A total of 136 No. soil samples were tested during the intrusive site investigation works. This was followed by leachate testing of 29 No. samples and the testing of groundwater from two rounds of groundwater monitoring. The full detailed results are presented within the Ground Investigation Factual Report prepared by Quantum Geotechnic Limited on behalf of Merthyr Tydfil County Borough Council, Report Ref: Q0838/FR, dated January 2023 and a detailed discussion is provided within Ground Investigation Report prepared by Redstart on behalf of Merthyr Tydfil Conty Borough Council, Doc Ref: GC-4005-RED-75-XX-RP-0002, dated February 2024.

The findings of the laboratory chemical testing have also been summarised below.

The Suitable 4 Use Levels (S4ULs) published by LQM have been adopted as critical concentrations against which soil contaminant concentrations can be compared. In the absence of additional published S4ULs, the Category 4 Screening Levels (C4SLs) derived by DEFRA and Soil Screening Values (SSVs) derived by Atkins ATRISK^{soil} for a residential with homegrown produce end use have been adopted, where considered appropriate.

2.5 IDENTIFIED CONTAMINATION (CONTINUED)

For any results which fail the residential within homegrown produce a second screen was undertaken for commercial land use areas.

The results of the laboratory testing indicate that some of the analysed chemical elements or compounds are present at concentrations above the appropriate thresholds. The initial screening indicates exceedances of arsenic, barium, beryllium, nickel, speciated PAH compounds (Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(a)pyrene, Chrysene and Dibenzo(ah)anthracene) and aromatic petroleum hydrocarbon (>EC16-12 and >EC21-35). Asbestos was detected within two samples.

Soil Leachate

A number of elevated readings were recorded when compared to the UK EQS values. Elevations of zinc, copper, vanadium, nickel and lead were recorded. It should be noted that the testing suite did not include barium, aluminium or manganese. When WAC style leaching testing is reviewed it was noted that barium leaches at low levels. Despite high aluminium concentrations in the soils, dissolved aluminium in groundwater are lower than the chosen EQS suggesting that leaching of this metal would not be a concern. However, manganese is present in groundwater above EQS values and would require consideration.

Groundwater

The groundwater samples were screened against the relevant Environmental Quality Standards (EQS) or Drinking Water Standards (DWS), whichever was lower, during two rounds of groundwater monitoring.

Levels of dissolved vanadium and lead were not found in the groundwater samples despite elevations within the leachate tests. It should also be noted that the groundwater and the river water did not record detectable levels of TPH suggesting that the elevations within the made ground has not mobilised to the groundwater.

During round 1 there were marginal exceedances of beryllium, cadmium, selenium and lead.

A single elevated concentration of ammonia was recorded in an up-gradient borehole and therefore the detected concentration of ammonia could be from an off-site source.

Exceedances of copper, zinc, nickel, barium, manganese and ammoniacal nitrogen were recorded during round 2.

2.5 IDENTIFIED CONTAMINATION (CONTINUED)

It was concluded that the main elevations were with regards to zinc and manganese. The elevated zinc (using round 2 which was considered more representative) was where an acid spill had previously occurred, but the concentrations reduce down the flow path. This suggests that the dilution is lowering the dissolved metal value in the downgradient area and that the source is relatively small in magnitude. The elevated manganese concentrations were from installations in a deep coal bed.

Therefore, based on the above, the overall risk to controlled waters is considered to be low.

Whilst boreholes and groundwater samples have not been obtained from beneath the existing buildings, it is considered that comprehensive site investigation works, including site wide up and down hydraulic gradient groundwater sampling and testing, have been completed and the ground and groundwater conditions beneath the site have been well characterised.

Ground and Mine Gas

Ground gas monitoring was undertaken as part of the intrusive works. During the monitoring visits, methane remained at undetectable levels and carbon dioxide remained below 5%. Gas flow rates were often recorded below the limit of detection of the equipment. The ground gas risk is therefore considered to be low and gas protection measures would not be required.

A mine gas risk assessment has been undertaken which concluded that the mine gas risk is also low.

3.0 REMEDIATION AND RECLAMATION STRATEGY

Based upon our review of the existing site investigation data, it is envisaged that the required works will be split into two parts. Firstly, remediation, reclamation and enabling works will be required to prepare a suitably remediated surface for hand over to the developers. Secondly, upon completion of the development works, an imported clean capping layer is envisaged in all gardens and areas of soft landscaping, to be placed by the developer.

The reclamation and remediation works would be required in order to prepare the site to a standard that would be suitable for the proposed residential development. These works would typically comprise the following:

- Demolition and removal of the existing buildings,
- Excavation of the existing factory and other building slabs, removal of buried foundations and disused services including the out of use drainage manholes and conduits,
- Post demolition supplementary site investigation works to confirm the previous findings and investigate previously inaccessible areas of the site,
- Derive Site Specific Target Levels (SSTLs) for soils,
- Excavation of made ground,
- Processing the excavated materials by removing visually unacceptable materials such as former pipework, tanks and vessels which may contain hazardous substances,
- Placing back the acceptable excavated materials and compacting these in layers in accordance with the specification for Highway Works.

Following demolition of the remaining above ground structures, and breaking out of floor slabs, supplementary site investigation works would be carried out to investigate previously inaccessible areas of the site, and supplement/confirm the previous site investigation works.

The supplementary site investigation works will comprise additional trial pitting, drilling of boreholes, sampling and testing of soil and groundwater and gas monitoring.

Specific soil and groundwater testing will be required in the areas of the site where heavy industrial activities have previously been undertaken. This will include up and down gradient and boundary monitoring.

3.0 REMEDIATION AND RECLAMATION STRATEGY (CONTINUED)

The resulting data gained from the supplementary works, together with the existing information will be used to update the human health and controlled waters risk assessments and, where required, derive Site Specific Target Levels (SSTLs) for soils to inform the remedial works.

The supplemental site investigation works will also supplement the geotechnical and ground engineering considerations and constraints within the site.

The supplementary post demolition site investigation works will further define the shallow mining risk areas (as discussed in more detail within Coal Mining Risk Assessment report Ref: 14275/JJ/25/CMRA, dated February 2025).

Prior to the supplemental site investigation works being carried out, liaison with both Natural Resources Wales and Local Authority Environment Health Department will be established in order that regulatory feedback for the proposals may be obtained at an early stage.

During the execution of the proposed reclamation and remediation strategy, the processed fill materials would be sampled and tested for the various relevant contaminants, during the works and during the validation process at the completion of the works.

The reclamation and remediation works shall be monitored, and a verification report prepared on completion. The verification report should include the results of all sampling and testing undertaken during the works and issued upon completion.

In conjunction with the remediation works additional enabling works will be required. These enabling works will include:

- Site clearance works
- Potential ecological works
- Site wide geotechnical and geo-environmental works including earthworks
- Temporary boundary fencing to secure site
- Works adjacent to public highway and access (kerb realignment, footpath, crossing)
- Relocation or protection (including exclusion zone) of any underground services which cross the site.

3.0 REMEDIATION AND RECLAMATION STRATEGY (CONTINUED)

To minimise risks to controlled waters, infiltration in (or hydraulically above) previously developed/contaminated areas of the site should be minimised.

Accordingly, the site's hard surfaced areas should be positively drained (and contained) via a piped drainage system to a suitable outfall.

Following completion of the site reclamation, remediation and enabling works to the remediated surface, the following final remedial mitigation measures are likely to be required:

- Incorporation of appropriate foundations applicable to the remediated and reclaimed plateau specification. In parts of the site where there is high to medium risk of ground subsidence from old shallow mine workings, the affected ground needs to be stabilised by drilling and grouting.
- Provision of a minimum of 600mm of clean subsoil and topsoil in the proposed garden and landscaping areas.
- Allowances must be made for the provision of additional structural make up to highway, driveway and hard finished areas based on a CBR value in the range of 3 to 4%.
- Allowances should also be made to use TPH/PAH/VOC resistant foil lined domestic drinking water supply pipes throughout.

4.0 REMEDIATION IMPLEMENTATION

4.1 OBJECTIVES

The objective of the remediation implementation phase is to undertake the approved remediation, and reclamation works in accordance with this Remediation Verification Plan whilst protecting human health, controlled waters and the wider environment. The works shall be monitored by a suitably qualified geo-environmental engineer who shall monitor compliance with the agreed remediation strategy.

4.2 METHODOLOGY

The sequence of the works is anticipated to comprise the following principal stages:

- Completion of all demolition works and removal of above-ground structures.
- Removal of existing hardstanding, foundations, buried structures and redundant services.
- Completion of supplementary intrusive site investigation works within previously inaccessible areas.
- Review of the supplementary investigation findings and refinement of the Conceptual Site Model, Human Health Risk Assessment and Controlled Waters Risk Assessment where necessary.
- Derivation of Site-Specific Target Levels (SSTLs) for soils, where appropriate, to define the remediation criteria.
- Completion of site-wide earthworks, including excavation, processing and placement of suitable engineered fill.
- Sampling and testing during the remediation works.
- Completion of the development plateau to the approved formation levels.
- Validation sampling and testing of the final completed remediated surface.
- Preparation of the Remediation Verification Report.

Following demolition, all accessible areas of the site shall be inspected by the supervising geo-environmental engineer to identify any evidence of previously unidentified contamination, buried structures, tanks, pits or other features that may require additional investigation or remediation.

Supplementary intrusive investigations shall then be undertaken within areas that were previously inaccessible due to existing buildings and infrastructure. The scope of these works is anticipated to include trial pits, boreholes, groundwater monitoring installations and targeted soil, groundwater and, where necessary, ground gas sampling.

4.2 METHODOLOGY (CONTINUED)

Key stages of the remediation works, including completion of the supplementary site investigation, agreement of the Site-Specific Target Levels and completion of the development platform, shall constitute verification hold points where appropriate to allow review by the supervising geo-environmental engineer and, where required, consultation with the Local Planning Authority and Natural Resources Wales.

Particular attention shall be given to areas formerly occupied by former boilers and associated oil storage facility, drainage infrastructure and other potentially contaminative uses identified within the historical site assessment.

The supplementary investigation data shall be reviewed alongside the existing site investigation information to confirm the nature and extent of contamination and to refine the remediation requirements where appropriate. Where additional information indicates that revisions to the remediation strategy are necessary, these shall be agreed with the Local Planning Authority and Natural Resources Wales prior to implementation.

Site reclamation works shall principally comprise excavation of the existing made ground and demolition arisings to achieve the approved development formation levels. Excavated materials shall be visually inspected and segregated according to their engineering and environmental suitability. Oversized materials, reinforced concrete, foundations, buried services, tanks, timber, plastics, asbestos containing materials and other deleterious materials shall be removed from the reusable fill.

Suitable excavated materials shall be processed, where necessary, by crushing and screening before being reused within the development plateau as engineered fill. Placement of processed materials shall be undertaken in controlled layers and compacted in accordance with the Specification for Highway Works or other approved earthworks specification. Earthworks quality control testing, including density and compaction testing where appropriate, shall be undertaken throughout the works to demonstrate compliance with the required engineering standards.

Materials considered unsuitable for reuse due to contamination, excessive organic content, physical composition or engineering characteristics shall either be treated where practicable under the appropriate environmental permit or mobile treatment deployment or removed from site by appropriately licensed waste carriers to suitably authorised disposal or treatment facilities. Waste classification shall be undertaken in accordance with current waste management guidance, and all waste transfer documentation shall be retained for inclusion within the verification records.

4.2 METHODOLOGY (CONTINUED)

During the remediation works, processed fill materials shall be subject to a programme of validation sampling and laboratory testing. Sampling frequencies shall be sufficient to demonstrate that the reused materials comply with the agreed remedial criteria and any approved Site-Specific Target Levels, and earthworks specification. Chemical testing shall be undertaken by a UKAS-accredited laboratory using appropriate analytical suites based upon the contaminants of concern identified during the site investigation.

Groundwater protection measures shall be implemented throughout the works. Surface water runoff shall be controlled to prevent the migration of suspended solids or contaminants from the site, and any water requiring disposal shall be managed in accordance with the relevant environmental permits or discharge consents. The infiltration of surface water into previously contaminated areas shall be minimised wherever practicable, and temporary drainage arrangements shall be maintained throughout the construction period.

Appropriate environmental control measures shall be implemented throughout the remediation works to minimise the generation of dust, noise, vibration and odours. Dust suppression measures, including water spraying and damping down of stockpiles and haul roads, shall be employed where necessary. Stockpiles shall be managed to minimise erosion and runoff, and vehicle wheel cleaning facilities shall be provided where required to prevent the transfer of mud or contaminated materials onto the public highway.

Throughout the works, the supervising geo-environmental engineer shall undertake regular site inspections to verify compliance with the approved remediation strategy, record the progress of the works and identify any unforeseen ground conditions. Should previously unidentified contamination, asbestos containing materials, buried tanks, significant hydrocarbon staining, or other unexpected environmental hazards be encountered, works within the affected area shall cease immediately. The material shall be assessed, additional sampling undertaken where necessary and appropriate remedial measures agreed with the Local Planning Authority before works recommence.

On completion of the reclamation works, the development platform shall be inspected and verified to confirm that the approved formation levels have been achieved and that the site is suitable for subsequent development works. Areas proposed for gardens and soft landscaping shall subsequently receive a minimum thickness of 600 mm of validated clean subsoil and topsoil placed during the construction phase by the developer, in accordance with the approved remediation strategy.

4.3 OPERATIONS

The works are to be undertaken by a specialist contractor experienced in brownfield reclamation/remediation. The remediation works will be monitored by Intégral Géotechnique (Wales) Limited.

Site preparation and operational constraints will be covered in the contractor's method statements. These should include the contractor's proposals for controls and monitoring of dust, noise, vibrations and odour.

Site procedures for managing the remedial works in a manner that will not cause pollution to controlled waters will be covered in the contractor's method statements which will be submitted in discharge of the Conditions of Planning.

The proposed remediation works will be controlled by the appropriate mobile treatment license to be held by the remediation contractor, if such works become necessary. The conditions imposed under the planning process will be considered adequate to control the works.

Additionally, a system should be established by which any 'unusual' materials that may be encountered are reported rapidly to the site management, so that the appropriate action may be taken, following specialist advice if necessary. An unusual material may be identified on site by colour, odour or physical nature.

5.0 REMEDIATION VERIFICATION

5.1 OBJECTIVES

A remediation verification report is required in order to record the data gathering necessary to demonstrate that the works have been carried out in accordance with the agreed strategy, confirm that the works satisfy the site remediation criteria and that the site is suitable for the proposed development.

For the purposes of this report, the terms "*verification*" and "*validation*" are considered synonymous and refer to the process of collecting, reviewing and reporting evidence to demonstrate that the approved remediation strategy has been successfully implemented and that the site has been rendered suitable for its intended end use. Throughout this report, the term "*verification*" has generally been adopted in accordance with current Land Contamination Risk Management (LCRM) guidance.

5.2 REMEDIATION VERIFICATION METHODOLOGY AND DATA GATHERING REQUIREMENTS

Verification of the remediation works shall be undertaken throughout the duration of the remediation and reclamation programme in order to demonstrate that the approved remediation strategy has been implemented and that the site has been rendered suitable for the proposed residential end use. Verification shall comprise a combination of site supervision, visual inspections, environmental monitoring, validation sampling and laboratory testing together with the collection of documentary evidence.

The remediation works shall be monitored by Intégral Géotechnique (Wales) Limited, acting as the geo-environmental consultant. Regular site inspections shall be undertaken throughout the works to confirm that the remediation activities are being carried out in accordance with this Remediation Verification Plan, the contractor's approved method statements and any subsequent regulatory agreements.

The verification process shall include the preparation of detailed site records documenting the sequence of the works, including daily site diaries, photographic records, excavation records and engineering observations. The extent of excavations, stockpile locations, processed fill areas and areas of imported materials shall be recorded on marked-up site drawings or digital survey plans as appropriate.

5.2 REMEDIATION VERIFICATION METHODOLOGY AND DATA GATHERING REQUIREMENTS

(CONTINUED)

During the excavation and processing of made ground, all materials shall be subject to visual inspection by the geo-environmental engineer. Materials identified as unsuitable for reuse, including deleterious materials, asbestos containing materials, contaminated soils, buried tanks, pipework, significant hydrocarbon staining or other unexpected contamination, shall be segregated and appropriately managed. Details of any such materials, together with the remedial actions undertaken, shall be recorded within the verification records.

Validation sampling of soils shall be undertaken throughout the remediation works to confirm compliance with the agreed remediation criteria and any approved Site-Specific Target Levels (SSTLs). Sampling locations and frequencies shall be determined by the geo-environmental engineer based upon the nature of the materials being processed, the variability of the site conditions and current industry guidance. Samples shall be collected from processed fill materials, excavation bases and sidewalls where appropriate, together with any imported soils intended for use within landscaped areas.

Laboratory analysis shall be undertaken by a UKAS-accredited laboratory using analytical suites appropriate to the contaminants of concern identified during the site investigation. The analytical schedule is anticipated to include, where appropriate, metals, speciated polycyclic aromatic hydrocarbons (PAHs), total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), asbestos and any additional contaminants identified during the supplementary site investigation works. The analytical results shall be compared against the approved remediation criteria and documented within the final verification report.

Where groundwater monitoring forms part of the approved remediation strategy, groundwater sampling shall continue in accordance with the Groundwater and Surface Water Monitoring Scheme presented in Appendix B. Monitoring results shall be reviewed to confirm that the remediation works have not resulted in deterioration of groundwater quality and that contaminant concentrations remain consistent with the approved remediation objectives.

Earthworks quality assurance records shall also form part of the verification process. These records shall include details of fill placement, compaction testing, earthworks testing, formation level surveys and any geotechnical testing undertaken during the construction of the development plateau. Such information shall demonstrate that the reclaimed ground satisfies both the environmental and engineering requirements of the proposed development.

5.2 REMEDIATION VERIFICATION METHODOLOGY AND DATA GATHERING REQUIREMENTS

(CONTINUED)

Documentary evidence relating to waste management shall be retained throughout the remediation works. This shall include waste classification records, hazardous waste consignment notes, waste transfer notes, materials management documentation (where applicable) and records demonstrating that excavated materials have been reused or disposed of in accordance with the relevant environmental legislation.

Comprehensive photographic records shall be maintained throughout the remediation works. Photographs shall document the condition of the site before remediation, the progress of demolition and earthworks, excavation of contaminated materials, material processing operations, installation of clean cover systems, groundwater monitoring works and the completed development platform. Photographs shall be referenced to plans where appropriate and incorporated within the final verification report.

Should unexpected contamination or previously unidentified pollutant linkages be encountered during the works, remediation activities within the affected area shall cease pending further investigation. The geo-environmental engineer shall inspect the affected area, undertake additional sampling where necessary and agree any revised remediation measures with the Local Planning Authority and Natural Resources Wales prior to recommencement of works. Full details of the unexpected contamination, together with the remedial actions undertaken and associated validation data, shall be included within the final verification report.

The information gathered throughout the remediation programme shall be collated into a comprehensive Remediation Verification Report. The report shall provide documentary evidence demonstrating that the approved remediation strategy has been successfully implemented and that the site is suitable for the proposed end use. The report shall include, as a minimum, site supervision records, validation sampling results, laboratory certificates, waste documentation, earthworks quality assurance records, groundwater monitoring data, photographic records, as-built drawings and a statement confirming compliance with the approved remediation objectives.

6.0 VERIFICATION REPORT

The remediation and reclamation works shall be subject to engineering and geo-environmental monitoring throughout the duration of the works. Environmental validation and geotechnical quality assurance testing shall be undertaken during the reclamation works to demonstrate that the completed development platform satisfies both the environmental and engineering requirements of the proposed development.

Upon completion of the remediation works, Intégral Géotechnique (Wales) Limited shall prepare a comprehensive Remediation Verification Report for submission to the Local Planning Authority and other relevant stakeholders. The purpose of the report shall be to demonstrate that the approved remediation strategy has been implemented in accordance with this Remediation Verification Plan and that the site has been rendered suitable for its proposed end use.

The verification report shall present the factual evidence collected during the remediation works together with an assessment of the effectiveness of the remediation undertaken. The report shall include sufficient documentary evidence to demonstrate that any unacceptable risks to human health, controlled waters, property and the wider environment have been satisfactorily mitigated.

The report shall include, where applicable:

- A summary of the remediation objectives and approved remediation strategy,
- A description of the remediation works undertaken, including the sequence of operations,
- Details of any departures from the approved remediation strategy together with the justification for those changes,
- Validation sampling locations and laboratory analytical results,
- Earthworks quality assurance records, including compaction and geotechnical testing,
- Records of excavated material processing and reuse,
- Waste classification records, waste transfer notes and hazardous waste consignment documentation,
- Groundwater and surface water monitoring results,
- As-built drawings illustrating excavation extents, remediation areas and clean cover placement,
- Photographic records documenting the remediation process,
- Copies of relevant laboratory certificates and testing schedules.

6.0 VERIFICATION REPORT (CONTINUED)

The validation data shall be reviewed against the agreed remediation criteria, including any approved Site-Specific Target Levels (SSTLs), to demonstrate that the remediation objectives have been achieved. Where verification data identifies any areas that do not satisfy the agreed acceptance criteria, further assessment or additional remedial works shall be undertaken, followed by additional validation, until compliance has been demonstrated.

Following completion of the verification process, Intégral Géotechnique (Wales) Limited shall provide a professional statement confirming whether, based upon the available evidence, the remediation works have been completed in accordance with the approved remediation strategy and whether the site is considered suitable for the proposed residential development.

Reference should also be made to the Groundwater and Surface Water Monitoring Scheme Report (Ref. 14275/RH/26/WSM), presented in Appendix B, which details the proposed post-remediation groundwater and surface water monitoring programme.

In our meeting of the 8th July with NRW and Council's planning officers, the requirements for groundwater monitoring post completion of remediation works were discussed and agreed. It was considered that three sets of monthly rounds of sampling and testing from the on-going monitoring boreholes should suffice, provided the results were in line with the current status and they did not indicate any added risk to controlled waters.

Following acceptance of the Remediation Verification Report by the Local Planning Authority, the remediation and verification requirements for the site shall be considered complete unless further monitoring or additional works are required by condition or agreement with the regulators.

7.0 FINAL REMEDIATION VALIDATION

The development will not be complete, in accordance with the remediation strategy for the site, until the placement of the final 600mm (minimum thickness) of clean imported capping soils within gardens and soft finished areas has been completed, in accordance with the approved remediation strategy. Depending on the results of the post reclamation verification testing, a high visibility geotextile separation membrane may be required at the base of the capping soils.

Following completion of the remediation works, a Remediation Verification Report shall be prepared. The report will need to present the findings of the verification inspections, and any required sampling and laboratory testing and needs to confirm that the remediation has been completed in accordance with this Remediation Strategy and that the site does not present an unacceptable risk to human health.

A series of hand dug pits will be excavated within the gardens and soft finished areas in order to confirm the thickness of the placed capping soils and presence of the underlying hi-vis geotextile separation/marker membrane in accordance with publication 'Requirements for the Chemical Testing of Imported Materials for Various End Uses and Validation of Cover Systems'. A photographic record will be kept

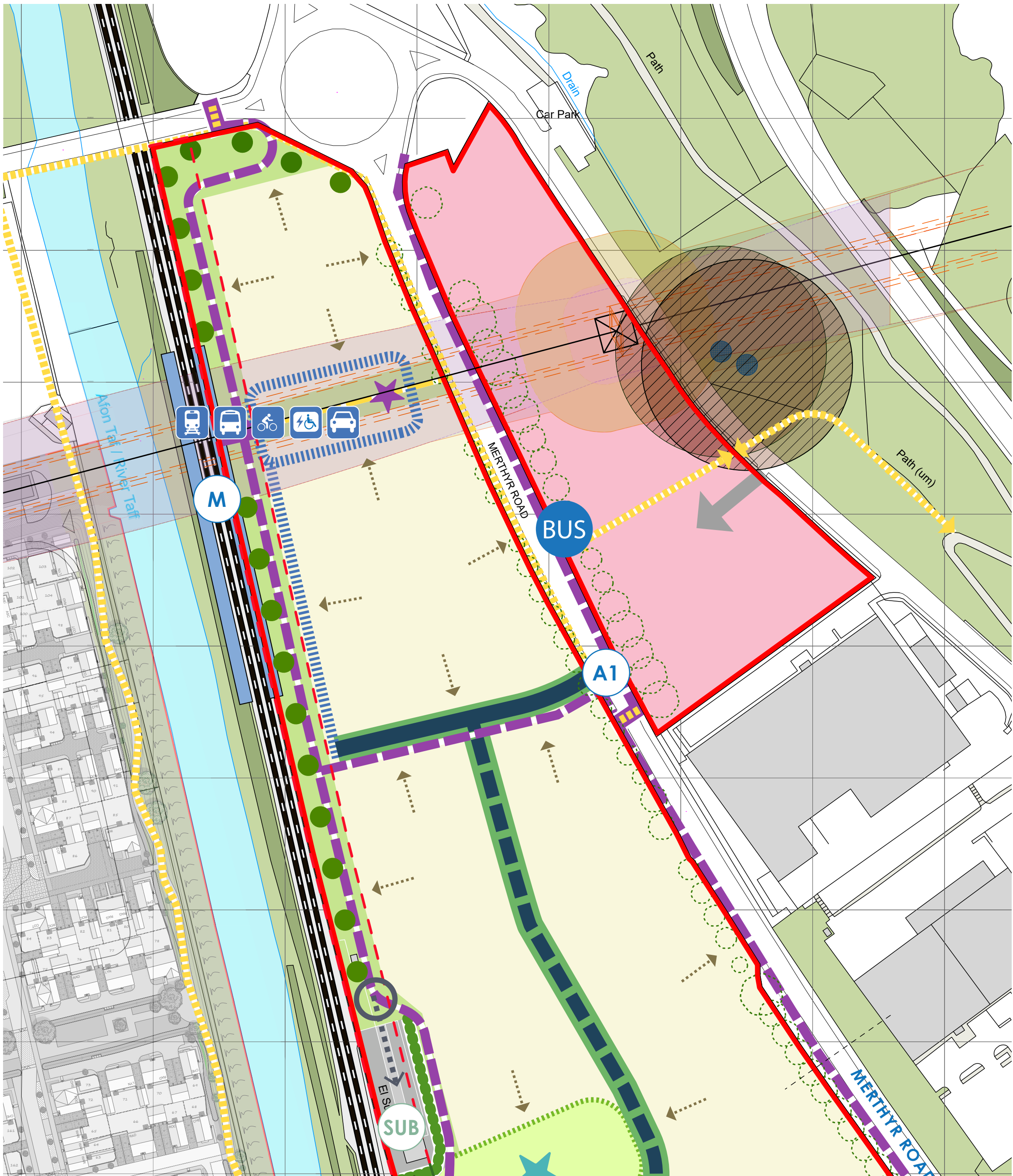
All imported capping soils should be validated as suitable for use in accordance with the publication 'Requirements for the Chemical Testing of Imported Materials for Various End Uses and Validation of Cover Systems' prepared by Welsh Land Contamination Working Group. This document details the necessary soil chemical screening and sampling frequency requirements. Typically, samples should be tested at a rate of 4 per 250m³, per source. Soil screening results should be compared to appropriate soil guideline values for residential development (with home grown produce).

Placement of the required capping to garden and soft landscaped areas will be the responsibility of the developer and is usually undertaken late in the development programme, as the development/plots are completed.

Reporting of the clean capping to garden areas should be submitted independently of the remediation works.

APPENDIX A

CONCEPT FRAMEWORK OPTION PLAN



DESIGN PRINCIPLES

- Site Boundary
- Extent of 15m safeguarded area for POS / GI / ATR / Metro Station
- Variable 10-15m safeguarded area for POS / GI / ATR

STRATEGIC LAND USE REQUIREMENTS

- Residential
- Community Hub
- Employment development (1.5ha)
- Potential location for Community Heat Hub
- Future Metro Station / Platform (indicative)
- Green Infrastructure / Open Space (1.79 ha minimum)
- Location of POS / SUDS attenuation feature (indicative)
- Existing Boundary Trees (retain where site remediation permits)
- Indicative strategic tree planting
- Play / Heritage Opportunities

ACCESS & MOVEMENT

- A1 New northerly access onto Merthyr Road
- A2 New southerly access onto Merthyr Road (south of existing access)
- PB Pentrebach Station (Existing)
- M New/Relocated Metro/Rail Station
- Future Metro Transport Hub area (Interchange & Parking)

- Existing Footbridge
- Potential location for future ATR bridge over rail line & river
- Primary Street (Site access)
- Primary Street (indicative alignment)
- Indicative Access/Replacement bus turning area for Metro Station & Transport Hub indicative)
- Existing access to Employment area / Community Heat Hub
- Access to Community Hub
- Active Travel Route (Foot / Cycle - indicative)
- Toucan Crossing
- ATR connectivity (wider area)
- Existing / Proposed Bus Stop(s)

FOCAL POINT / GATEWAY BUILDING

- Built form outward facing
- Gateway Focal Building

KEY SITE FEATURES / CONSTRAINTS

- Overhead Pylon + Easement
- Mineshaft
- Existing Sub Station, access & screening
- Existing surface water outfall (6m easement - refer to CCTV)
- Existing water main (12m easement - refer to CCTV)



APPENDIX B

GROUNDWATER AND SURFACE MONITORING REPORT

Walters Land Limited

**FORMER HOOVER CANDY SITE, MERTHYR
TYDFIL**

**Groundwater and Surface Water Scheme of
Monitoring**

Job No.14275/RH/26/WSM

CLIENT: Walters Land Limited

PROJECT: Former Hoover Candy Site, Merthyr Tydfil

TITLE: Groundwater and Surface Water Scheme of Monitoring

JOB NO: 14275

DOCUMENT REF: 14275/RH/26/WSM

Revision	Purpose Description	Originated	Reviewed	Authorised	Date
0	Final	RH	RB	JJ	May 2026

Geotechnical Engineers:

Intégral Géotechnique (Wales) Limited
Integral House
7 Beddau Way
Castlegate Business Park
Caerphilly
CF83 2AX

Tel: 029 2080 7991

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2.0 SITE SUMMARY

- 2.1 Hydrology and Hydrogeology
- 2.2 Potential Contaminants

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- 3.1 Groundwater Sampling
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- 3.3 Laboratory Testing
- 3.4 Mitigation and Contingency Measures

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- Figure 1 Proposed Water Sampling Locations

1.0 INTRODUCTION

Walters Land Limited are proposing the redevelopment the former Hoover Candy factory site in Merthyr Tydfil for residential end use.

Ahead of the site enabling works comprising demolition, remediation, earthworks and infrastructure works a Construction Environmental Management Plan (CEMP) has been prepared by Walters Land Limited. The CEMP outlines the intended procedures that are to be followed to ensure on-going protection of the environment during the works and includes a Surface Water Management Plan and Environmental Monitoring Method Statement.

This Groundwater and Surface Water Scheme of Monitoring is intended to be included within Appendix J of the CEMP.

The Surface Water Management Plan identifies the two following hazards posed to surface water environment by the works:

- Pollution from fuels, oils and other chemicals that are being used and/ or stored on site entering the stream following spills, leaks or accidental releases.
- Impact from sediment/silt created by exposed soils being eroded by rainfall, flowing into the streams. Mitigation measures are to include the creation of 'a combination of ditches, berms and sediment traps will be employed in order to control the direction of and to slow the flow of rainwater runoff. In this way, runoff from all earthworks areas will be intercepted prior to it reaching watercourses. Watercourses in this context includes field drains, ditches and other watercourses that only flow under certain weather conditions, as these watercourses drain into the main river system.

The Environmental Monitoring Method Statement advises that environmental monitoring will comprise the following:

- Boundary Monitoring,
- Monitoring associated with general excavation,
- Monitoring of excavation of known contaminated areas.

The CEMP has been reviewed by Natural Resources Wales (NRW) in relation to Planning Condition 10 (CEMP) of Planning Permission P/25/0165. NRW provided the following response in correspondence dated 31st March 2026 (NRW Ref: CAS-302232-Z9W8):

1.0 INTRODUCTION (CONTINUED)*Condition 10*

We do not recommend your Authority discharges condition 10 (CEMP) as there is no plan or mention of any environmental monitoring of the water quality leaving site within the Appendix J (Environmental Monitoring Method Statement). There should be a robust monitoring plan in place to ensure the mitigation used on site is effective and suitable for the task.

A copy of NRW's correspondence is provided in Appendix A.

Intégral Géotechnique (Wales) Limited have been appointed as the geoenvironmental engineers to provide an accompanying specification for monitoring of water quality during the enabling works.

This report (including all appendices to it and any subsequent addendums or correspondence) has been prepared for the sole benefit, use and information of Walters Land Limited and no third party is entitled or permitted to rely on it. This report may not be used, reproduced or circulated (in whole or part) for any purpose without the written consent of Intégral Géotechnique (Wales) Limited. Intégral Géotechnique (Wales) Limited shall not be liable to any third party who does not have such express written permission to rely on the report for any losses they may suffer.

2.0 SITE SUMMARY

A previous desk study and preliminary site investigation works were undertaken at the site by Redstart / WSP and Quantum Geotechnic Limited, on behalf of Merthyr Tydfil County Borough Council. Intégral Géotechnique subsequently prepared the following report for the site based on the above studies:

- Geo-environmental and Geotechnical Site Investigation Report and Outline Remediation Strategy, Ref. 14275/JJ/25/DS dated February 2025.

The following sections summarises the hydrological and hydrogeological setting of the site and potential sources of contamination that could have the potential to impact controlled waters.

2.1 HYDROLOGY AND HYDROGEOLOGY

The River Taff is the primary surface water feature in the area, flowing in a southerly direction approximately 20-50m to the west and southwest of the site. The River Taff discharges into Cardiff Bay.

The underlying Lower and Middle Coal Measures strata, as well as superficial Alluvium deposits, are classed as Secondary 'A' Aquifers.

Previous site investigative works identified the presence of groundwater beneath the site in exploratory cable percussive and rotary boreholes between depths of approximately 4.5m and 13.9m below existing ground level, within the superficial granular alluvial deposits.

Groundwater within the alluvial deposits may be expected to be in hydraulic continuity with the River Taff.

It is understood that several drains, acting as catchment for either watercourses or surface waters in the northern and eastern areas of the site, connect at a manhole in the south of the site before onward flow and discharge into the River Taff. The approximate location of the manhole is illustrated on Figure 1.

During the enabling works, as stated above, surface run-off will be captured in specifically formed ditches, berms and sediment traps.

2.2 POTENTIAL CONTAMINANTS

The quality of both surface and groundwater receptors may be impacted during the works by contaminants originating from accidental spillage or leaks of fuels/oils/chemicals and leaching of contaminants within exposed or excavated soils, via surface water run-off, mobilisation through the ground within percolating rainwaters and direct groundwater migration.

The site has been subject of to a number of historical potentially contaminative uses. Spoil heaps were present across the site from pre-1880 with the spoil generated from the nearby collieries and ironworks. Construction of the Hoover factories commenced in the 1940s and continued until the late 1980s. The factory buildings were utilised for a number of processes which would have potential to cause contamination.

The results of laboratory testing of site soils indicated a number of chemical elements or compounds to be present at concentrations above the appropriate thresholds. Exceedances of arsenic, barium, beryllium, nickel, and several speciated PAH compounds and aromatic petroleum hydrocarbon were detected.

Subsequent leachate analysis recorded elevations of zinc, copper, vanadium, nickel and lead when compared to the UK EQS values.

Groundwater samples screened against the relevant Environmental Quality Standards (EQS) or Drinking Water Standards (DWS) during two rounds of groundwater monitoring recorded exceedances of ammonia, beryllium, cadmium, selenium and lead, copper, zinc, nickel, barium, manganese and ammoniacal nitrogen. It was noted that the groundwater and the river water did not record detectable levels of TPH suggesting that the elevations within the made ground had not mobilised to the groundwater.

3.0 PROPOSED GROUNDWATER AND SURFACE WATER MONITORING

3.1 GROUNDWATER SAMPLING

It is proposed that 5 No. monitoring wells are installed across the site to facilitate sampling of the groundwater.

Proposed approximate locations for the wells are illustrated in Figure 1.

Groundwater is not generally anticipated to be present in the made ground, but within the underlying granular Alluvium deposits. It is recommended that the wells are installed to a depth of 10 – 15m, with the response zones within the granular Alluvium.

The enabling works are scheduled to take 40 weeks, or approximately 9 months.

Groundwaters will be sampled at the following intervals:

- 1 No. round within the month prior to commencement of the enabling works (following demolition, but prior to any groundworks) to establish current baseline groundwater quality,
- 1No. round, 1 month following commencement of the enabling works,
- Subsequent rounds at 1 monthly intervals during the enabling works,
- A final 3 rounds 1 month apart, following completion of the enabling works.

It should be noted that if fluctuations in groundwater quality are recorded during the enabling works, closer spaced sampling may be undertaken.

3.2 SURFACE WATER SAMPLING

Surface water will be sampled from the manhole located in the south of the site, see Figure 1.

The surface water will be sampled at the following intervals:

- 1 No. round within the month prior to commencement of the enabling works to establish current baseline surface water quality,
- 1No. round, 1 month following commencement of the enabling works,
- Subsequent rounds at 1 monthly intervals during the enabling works,
- A final round 1 month following completion of the enabling works.

3.3 LABORATORY TESTING

All retrieved groundwater and surface samples will be tested for the following potential contaminants:

- Metals and semi-metals (including beryllium, barium and manganese)
- Inorganics
- Ammonia and ammoniacal nitrogen,
- Polyaromatic hydrocarbons (PAH),
- Petroleum Hydrocarbons (VPH/EPH) and BTEX,
- Biological Oxygen Demand (BOD)
- Chemical Oxygen demand (COD)

Test results will be assessed with reference to Annual Average Environmental Quality Standards (AA-EQS) derived for a freshwater environment in the first instance. Where no AA-EQS values are available, reference may be made to Maximum Allowable Concentration Environmental Quality Standards (MAC-EQS) for freshwater. Where no EQS values are available UK and WHO drinking water standards will be employed.

3.4 MITIGATION AND CONTINGENCY MEASURES

Specific site practices to be followed during the enabling works to manage the risks from potential contaminative hazards is outlined in the CEMP Surface Water Management Plan.

The results of the ground and surface water testing will be assessed and reviewed throughout the enabling works.

The sampling frequency may be amended accordingly in response to any areas and contaminants of concern.

Additional or alternative control measures will be employed by the site where necessary if the water testing indicates that the site works have had an adverse affect on in the surface and groundwater quality.

APPENDIX A

NRW CORRESPONDENCE

Ein cyf/Our ref: CAS-302232-Z9W8
Eich cyf/Your ref: P/26/0039

Merthyr Tydfil County Borough Council
Unit 5 Triangle Business Park
Pentrebach
CF48 4TQ

Dyddiad/Date: 31 March 2026

Annwyl Syr/Madam/Dear Sir/Madam,

BWRIAD/PROPOSAL: DISCHARGE OF CONDITIONS 10 (CEMP), 18 (INVASIVE SPECIES), 21 (CEMP-B), 24 (CONTAMINATION PARTS 1-3) AND 30 (HISTORIC BUILDING RECORDING) OF PLANNING PERMISSION P/25/0165.

LLEOLIAD/LOCATION: FORMER HOOVERS SITE MERTHYR TYDFIL, CF48 4TU.

Thank you for consulting Cyfoeth Naturiol Cymru (CNC)/Natural Resources Wales (NRW) about the above, which we received on 03 March 2026.

We have concerns with the application as submitted. We do not recommend your Authority discharges 10 (CEMP) and 24 (contamination parts 1-3) for the following reasons.

Condition 10

We do not recommend your Authority discharges condition 10 (CEMP) as there is no plan or mention of any environmental monitoring of the water quality leaving site within the Appendix J (Environmental Monitoring Method Statement). There should be a robust monitoring plan in place to ensure the mitigation used on site is effective and suitable for the task.

Condition 24

We have reviewed the submitted information in support of the application and advise a partial discharge of condition 24 (contamination parts 1-3). We advise a discharge of part 1 only as part 2 and 3 have not been undertaken to date.

Parts 2 and 3 of Condition 24 require the removal of buildings on site before the additional site investigation and subsequent controlled waters risk assessment can be completed. (As stated in section 9.2 of the report referenced above under the Part 1 remediation works.)

We note the works on site will be phased; however, it is unclear if the demolition works be undertaken with a phased approach. If demolition works are to be phased, we advise that each phase is clearly stated within the discharge of condition applications.

Conditions 18, 21 and 30

We have no comments in regards to the discharged of conditions 18 (Invasive Species), 21 (CEMP-B) and 30 (Historic Building Recording) as these were not conditions, we requested.

Other Matters

The advice in this letter relates to matters which are included on our [consultation topics list](#). We do not rule out the potential for the proposed development to affect other environmental interests that are not included on this list.

We advise the applicant that, in addition to planning permission, it is their responsibility to ensure they secure all other permits/consents/licences relevant to their development. Please refer to our [website](#) for further details.

If you have any queries about the above, please do not hesitate to contact us.

Yn gywir / Yours faithfully,

K Murphy

Cynghorydd - Cynllunio Datblygu/Advisor - Development Planning
Cyfoeth Naturiol Cymru/Natural Resources Wales

E-bost/E-mail: southeastplanning@cyfoethnaturiolcymru.gov.uk

Croesewir gohebiaeth yn Gymraeg a byddwn yn ymateb yn Gymraeg, heb i hynny arwain at oedi./Correspondence in Welsh is welcomed, and we will respond in Welsh without it leading to a delay.

FIGURES

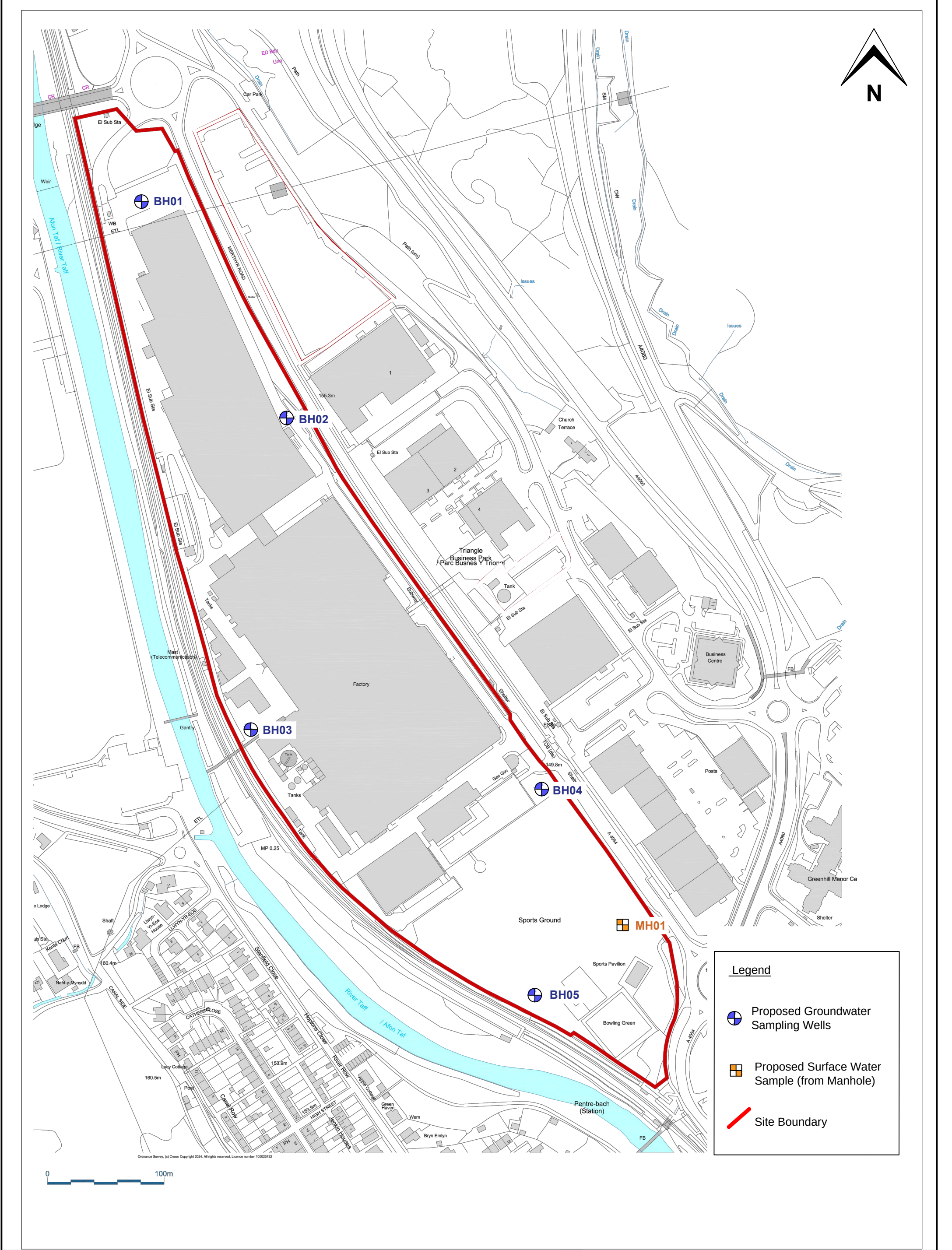


Figure 1: Proposed Water Sampling Locations

Project: Former Hoover Candy Site, Merthyr Tydfil	Job No.: 14275	Integral Géotechnique	Integral House, 7 Beddau Way, Castlegate Business Park, Caerphilly, CF83 2AX. Tel: 029 2080 7991
Client: Walters Land Limited	Scale: As shown		

FIGURES

Site Location

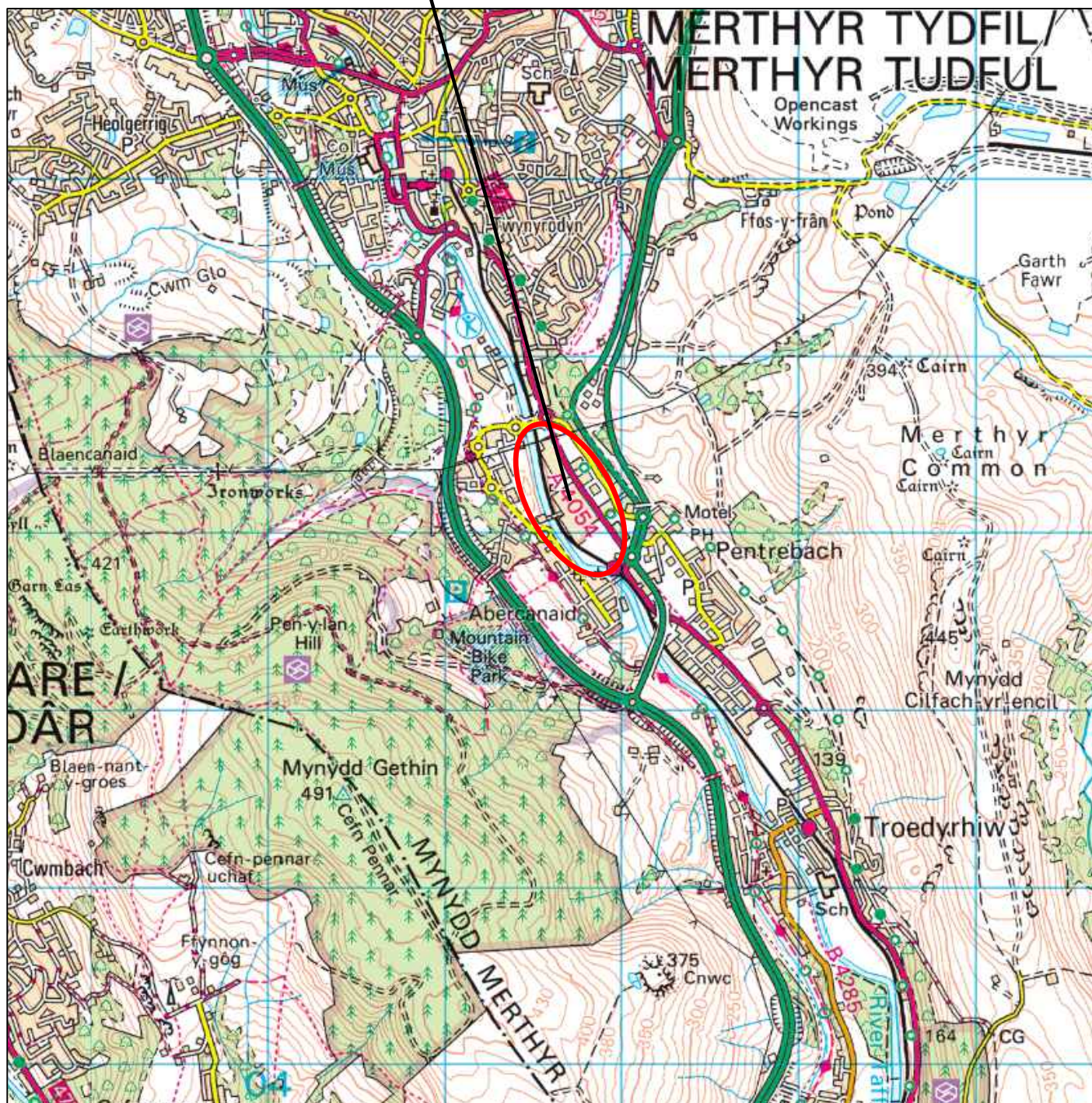


Figure 1: Site Location

Project: Former Hoover Candy Site, Merthyr Tydfil

Job no.: 14275

Client: Walters Land Limited

Scale: 1:50,000

Intégral
Géotechnique

Integral House,
7 Beddau Way,
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Tel: 029 2080 7991

